



**648941 IT-EN-NL (04/10/2016)**

MRT-X 2150 Privilege Plus ST3A S2

MRT 2150 Privilege Plus ST4 S2

MRT-X 2550 Privilege Plus ST3A S2

MRT 2550 Privilege Plus ST4 S2

MRT-X 3255 Privilege Plus ST3A S1

MRT 3255 Privilege Plus ST4 S1

**MANUALE D'UTILIZZO GRU**

*(ISTRUZIONI ORIGINALI)*

**CRANE USER MANUAL**

*(ORIGINAL INSTRUCTIONS)*

**HANDLEIDING VOOR HET GEBRUIK VAN DE KRAAN**

*(ORIGINELE GEBRUIKSAANWIJZING)*

## PREMESSA

QUESTO MANUALE FORNISCE ISTRUZIONI SUPPLEMENTARI CHE INTEGRANO QUELLE GIÀ FORNITE NEL MANUALE DI USO E MANUTENZIONE DELLA MACCHINA.

### IMPORTANTE

*Leggere attentamente e comprendere il presente manuale d'istruzioni prima di utilizzare il carrello elevatore.*

*Contiene tutte le informazioni relative alla guida, alla manipolazione e alle dotazioni del carrello elevatore, oltre alle raccomandazioni importanti da seguire.*

*Il presente documento contiene inoltre le precauzioni d'uso, le informazioni sulla manutenzione ordinaria per garantire la sicurezza nell'uso e l'affidabilità del carrello elevatore.*

IL SIMBOLO CHE VEDETE SIGNIFICA:



**ATTENZIONE ! SIATE PRUDENTI ! E' IN GIOCO LA VOSTRA SICUREZZA E QUELLA DEL CARRELLO ELEVATORE.**

- Il presente manuale è stato redatto in base all'elenco delle dotazioni e delle caratteristiche tecniche fornite in fase di progettazione.
- Il livello di dotazioni del carrello elevatore dipende dagli optional scelti e dal paese in cui viene immesso sul mercato.
- A seconda degli optional e della data di commercializzazione del carrello elevatore, alcune dotazioni/funzioni descritte nel presente manuale non sono presenti sul carrello elevatore.
- Descrizioni e figure sono fornite a titolo esemplificativo e non hanno carattere vincolante.
- MANITOU si riserva il diritto di modificare i propri modelli e le relative dotazioni senza essere tenuta ad aggiornare il presente manuale.
- La rete MANITOU, composta esclusivamente da professionisti qualificati è a vostra disposizione per rispondere a tutte le domande.
- Il presente manuale è parte integrante del carrello elevatore.
- Deve essere conservato costantemente nella propria ubicazione per ritrovarlo facilmente.
- In caso di rivendita del carrello elevatore, fornire il presente manuale al nuovo proprietario

## INTRODUCTION

THIS MANUAL PROVIDES SUPPLEMENTARY INSTRUCTIONS WHICH ARE IN ADDITION TO THOSE PROVIDED IN THE VEHICLE'S USE AND MAINTENANCE MANUAL.

### IMPORTANT

*Carefully read and understand this instruction manual before using the lift truck.*

*It contains all information relating to operation, handling and lift truck equipment, as well as important recommendations to be followed.*

*This document also contains precautions for use, as well as information on the servicing and routine maintenance required to ensure the lift truck's continued safety of use and reliability.*

WHENEVER YOU SEE THIS SYMBOL IT MEANS:



**WARNING ! BE CAREFUL ! YOUR SAFETY OR THE SAFETY OF THE LIFT TRUCK IS AT RISK.**

- This manual has been produced on the basis of the equipment list and the technical characteristics given at the time of its design.
- The level of equipment of the lift truck depends on the options chosen and the country of sale.
- According to the lift truck options and the date of sale, certain items of equipment/functions described herein may not be available.
- Descriptions and figures are non binding.
- MANITOU reserves the right to change its models and their equipment without being required to update this manual.
- The MANITOU network, consisting exclusively of qualified professionals, is at your disposal to answer all your questions.
- This manual is an integral part of the lift truck.
- It is to be kept in its storage space at all times for ease of reference.
- Hand this manual to the new owner if the lift truck is resold.

## VOORWOORD

DEZE HANDLEIDING VERSTREKT BIJKOMENDE INSTRUCTIES TEN OPZICHTE VAN DE INSTRUCTIES IN DE GEBRUIKS- EN ONDERHOUDSHANDLEIDING VAN DE MACHINE.

### BELANGRIJK

*Lees en begrijp deze handleiding voordat u deze heftruck gaat gebruiken.*

*Deze bevat alle nodige informatie over de besturing, de behandeling en de uitrusting van de heftruck, evenals belangrijke aanbevelingen die moeten worden opgevolgd.*

*U vindt ook in dit document voorzorgsmaatregelen bij het gebruik, informatie over onderhoud en de meest voorkomende servicewerkzaamheden, om het veilig gebruik en de betrouwbaarheid van de heftruck te handhaven.*

ALS U DIT SYMBOOL ZIET WIL DAT ZEGGEN:



**LET OP! WEES VOORZICHTIG! UW VEILIGHEID EN DE VEILIGHEID VAN ANDEREN EN VAN DE HEFTRUCK LOPEN GEVAAR.**

- Deze handleiding is ontwikkeld op basis van de lijst van uitrustingen en technische specificaties bij ontwerp.
- Het uitrustingsniveau van de heftruck is afhankelijk van de gekozen opties en het land van verkoop.
- Afhankelijk van de opties en de verkoopdatum van de heftruck, zijn sommige uitrustingen/functies die in deze handleiding worden beschreven niet aanwezig op deze heftruck.
- De beschrijvingen en illustraties zijn niet bindend.
- MANITOU behoudt zich het recht voor haar modellen en uitrusting te wijzigen zonder daarvoor deze handleiding bij te werken.
- Het MANITOU-netwerk bestaat uitsluitend uit gekwalificeerde professionals die ter beschikking staan om al uw vragen te beantwoorden.
- Deze handleiding maakt integraal deel uit van de heftruck.
- Deze moet permanent worden bewaard op de toegewezen plaats zodat u deze gemakkelijk kunt vinden.
- In geval van doorverkoop van de heftruck, moet deze handleiding worden doorgegeven aan de nieuwe eigenaar.

**PRIMA EDIZIONE**  
1st ISSUE  
EERSTE VAN UITGAVE

26/04/2016

**AGGIORNAMENTO**  
UPDATED  
ACTUALISERING

04/10/2016

1-1 @ 0-5  
1-5, 1-11, 1-12,  
2-4, 2-5.

*MANITOU BF S.A Società per azioni con Consiglio di Amministrazione.*

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*Capitale sociale: 39.548.949 euro*

*857 802 508 RCS Nantes.*

*Tel.: +33 (0)2 40 09 10 11*

*www.manitou.com*

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**1 - SICUREZZA****1 - SAFETY****1 - VEILIGHEID****2 - DIMENSIONI - USO E  
MANUTENZIONE****2 - DIMENSIONS -  
USE AND MAINTENANCE****2 - AFMETINGEN - GEBRUIK EN  
ONDERHOUD****3 - DIAGRAMMI DI CARICO  
PER ATTREZZATURE  
INTERCAMBIABILI****3 - LOAD CHARTS FOR  
INTERCHANGEABLE  
EQUIPMENT****3 - LAADDIAGRAMMEN VOOR  
VERWISSELBARE UITRUSTINGEN**

MRT-X 2150 PRIVILEGE PLUS ST3A S2  
 MRT 2150 PRIVILEGE PLUS ST4 S2  
 MRT-X 2550 PRIVILEGE PLUS ST3A S2  
 MRT 2550 PRIVILEGE PLUS ST4 S2  
 MRT-X 3255 PRIVILEGE PLUS ST3A S1  
 MRT 3255 PRIVILEGE PLUS ST4 S1

MRT-X 2150 PRIVILEGE PLUS ST3A S2  
 MRT 2150 PRIVILEGE PLUS ST4 S2  
 MRT-X 2550 PRIVILEGE PLUS ST3A S2  
 MRT 2550 PRIVILEGE PLUS ST4 S2  
 MRT-X 3255 PRIVILEGE PLUS ST3A S1  
 MRT 3255 PRIVILEGE PLUS ST4 S1

MRT-X 2150 PRIVILEGE PLUS ST3A S2  
 MRT 2150 PRIVILEGE PLUS ST4 S2  
 MRT-X 2550 PRIVILEGE PLUS ST3A S2  
 MRT 2550 PRIVILEGE PLUS ST4 S2  
 MRT-X 3255 PRIVILEGE PLUS ST3A S1  
 MRT 3255 PRIVILEGE PLUS ST4 S1



## DATI DI IDENTIFICAZIONE DEL COSTRUTTORE

Costruttore: **MANITOU ITALIA S.r.l**  
Via C. Colombo, 2  
41013 Castelfranco Emilia  
(MO) Italia  
Telefono +39 059 959811

**Dati identificativi, targhe e pittogrammi.**  
Ogni accessorio è identificato da una targa CE sulla quale sono indicati in modo indelebile i dati relativi ad esso. Per tutte le comunicazioni con il Costruttore e / o Rivenditore, citare sempre questi riferimenti.

### Targa Costruttore accessorio:

- 1 - MODELLO
- 2 - CODICE
- ANNO DI FABBRICAZIONE
- 4 - MASSA A VUOTO
- 5 - CENTRO DI GRAVITÀ
- 6 - CAPACITÀ NOMINALE
- 7 - PRESSIONE DI SERVIZIO

(Vedere Fig. 1)

## MANUFACTURER'S IDENTIFICATION

Manufacturer: **MANITOU ITALIA S.r.l**  
Via C. Colombo, 2  
41013 Castelfranco  
Emilia (MO) Italia  
Telefono +39 059  
959811

### Identification data, plates and pictograms.

Each attachment is identified by a CE plate which clearly shows the relative data in an indelible manner. For all communication with the Manufacturer and/or Dealer, always mention these references.

### Attachment Manufacturer's Plate:

- 1 - MODEL
- 2 - CODE
- 3 - YEAR OF MANUFACTURE
- 4 - MASS WITHOUT LOAD
- 5 - CENTRE OF GRAVITY
- 6 - NOMINAL CAPACITY
- 7 - OPERATING PRESSURE

(See Fig. 1)

## IDENTIFICATIEGEGEVENS VAN DE FABRIKANT

Fabrikant: **MANITOU ITALIA S.r.l**  
Via C. Colombo, 2  
41013 Castelfranco Emilia  
(MO) Italië  
Telefoon +39 059 959811

### Identificatiegegevens, platen en pictogrammen.

Elk werktuig wordt geïdentificeerd met een CE-plaat waarop de gegevens met betrekking tot de bak onuitwisbaar zijn vermeld. Deze gegevens dienen altijd vermeld te worden bij alle communicatie met de fabrikant en/of de verkoper.

### Plaat fabrikant werktuig:

- 1 - MODEL
- 2 - CODE
- 3 - BOUWJAAR
- 4 - LEDIGE MASSA
- 5 - ZWAARTEPUNT
- 6 - NOMINALE CAPACITEIT
- 7 - BEDRIJFSDRUK

(Zie Fig. 1)








Fig. 1





## GAMMA BRACCETTI E ARGANI

DESCRIZIONE MODELLO		CAPACITÀ MASSIMA DI CARICO [kg] (lb)	CODICE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	ARGANO IDRAULICO ARGANO 3T	3000 (6613)	921337	✓	✓	✗
	ARGANO IDRAULICO ARGANO 4T	4000 (8818)	921338	✓	✓	✗
	ARGANO IDRAULICO ARGANO 5T	5000 (11023)	921341	✓	✓	✗
			939109	✗	✗	✓
	ARGANO IDRAULICO SU BRACCIO ARGANO 5,5T	5500 (12125)	53014115	✓	✗	✗
			53014116	✗	✓	✗
	BRACCETTO TRALICCIATO P 600	600 (1322)	921316	✓	✓	✓
	BRACCETTO TRALICCIATO P 1000	1000 (2204)	921317	✓	✓	✗

DESCRIZIONE MODELLO		CAPACITÀ MASSIMA DI CARICO [kg] (lb)	CODICE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	<b>BRACCETTO TRALICCIATO</b> <b>P 1200</b>	1200 (2645)	921318	✓	✓	✓
	<b>BRACCETTO TRALICCIATO</b> <b>P 1500</b>	1500 (3306)	921319	✓	✓	✓
	<b>BRACCETTO TRALICCIATO</b> <b>P 2000</b>	2000 (4409)	921320	✓	✓	✓
	<b>BRACCETTO A 2 GANCI FISSI</b> <b>P 4000</b>	4000 (8818) \ 1200 (2645)	921321	✓	✓	✓
	<b>BRACCETTO A 2 GANCI FISSI</b> <b>P 6000</b>	6000 (13228) \ 2000 (4409)	921322	✓	✓	✓
	<b>BRACCETTO TRALICCIATO CON ARGANO</b> <b>PT 600</b>	600 (1322)	921325	✓	✓	✓

DESCRIZIONE MODELLO		CAPACITÀ MASSIMA DI CARICO [kg] (lb)	CODICE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	<b>BRACCETTO TRALICCIATO CON ARGANO</b> <b>PT 1000</b>	<b>1000 (2204)</b>	921326	✓	✓	✓
	<b>BRACCETTO TRALICCIATO CON ARGANO</b> <b>PT 1200</b>	<b>1200 (2645)</b>	921328	✓	✓	✓
	<b>BRACCETTO TRALICCIATO CON ARGANO</b> <b>PT 1500</b>	<b>1500 (3306)</b>	921330	✓	✓	✓
	<b>BRACCETTO TRALICCIATO CON ARGANO</b> <b>PT 1500</b>	<b>1500 (3306)</b>	923350	✓	✓	✓
	<b>BRACCETTO TRALICCIATO CON ARGANO</b> <b>PT 2000</b>	<b>2000 (4409)</b>	921331	✓	✓	✗
			939392	✗	✗	✓
	<b>BRACCETTO TRALICCIATO ESTENSIBILE CON ARGANO</b> <b>PT 800</b>	<b>800 (1763)</b> \ <b>1000 (2204)</b>	921323	✓	✓	✓



DESCRIZIONE MODELLO		CAPACITÀ MASSIMA DI CARICO [kg] (lb)	CODICE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	<b>BRACCETTO CON GANCIO FISSO</b>  PC 30	3000 (6614)	921332	✓	✓	✗
	<b>BRACCETTO CON GANCIO FISSO</b>  PC 40	4000 (8818)	921333 (☺ = 5t)	✓	✓	✗
			921334 (☺ = 4t)	✓	✓	✗
	<b>BRACCETTO CON GANCIO FISSO</b>  PC 50	5000 (11023)	921335	✓	✓	✓
	<b>BRACCETTO CON GANCIO FISSO</b>  PC 60	6000 (13228)	939050	✗	✗	✓







✗ : non disponibile





✓ : disponibile

**JIB & CRANE AND WINCHES  
RANGE**

DESCRIPTION / MODEL		LOAD MAXIMUM CAPACITY [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	HYDRAULIC WINCH WINCH 3T	3000 (6614)	921337	✓	✓	✓
	HYDRAULIC WINCH WINCH 4T	4000 (8818)	921338	✓	✓	✓
	HYDRAULIC WINCH WINCH 5T	5000 (11023)	921341	✓	✓	✗
			939109	✗	✗	✓
	HYDRAULIC WINCH ON THE BOOM WINCH 5,5T	5500 (12125)	53014115	✓	✗	✗
			53014116	✗	✓	✗
	EXTENSION JIB P 600	600 (1322)	921316	✓	✓	✓
	EXTENSION JIB P 1000	1000 (2204)	921317	✓	✓	✗

DESCRIPTION / MODEL		LOAD MAXIMUM CAPACITY [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	<b>EXTENSION JIB P 1200</b>	<b>1200 (2645)</b>	921318	✓	✓	✓
	<b>EXTENSION JIB P 1500</b>	<b>1500 (3306)</b>	921319	✓	✓	✓
	<b>EXTENSION JIB P 2000</b>	<b>2000 (4409)</b>	921320	✓	✓	✓
	<b>CRANE P 4000</b>	<b>4000 (8818) 1200 (2645)</b>	921321	✓	✓	✓
	<b>CRANE P 6000</b>	<b>6000 (13228) 2000 (4409)</b>	921322	✓	✓	✓
	<b>EXTENSION JIB WITH WINCH PT 600</b>	<b>600 (1322)</b>	921325	✓	✓	✓

DESCRIPTION / MODEL		LOAD MAXIMUM CAPACITY [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	<b>EXTENSION JIB WITH WINCH</b> <b>PT 1000</b>	<b>1000 (2204)</b>	921326	✓	✓	✓
	<b>EXTENSION JIB WITH WINCH</b> <b>PT 1200</b>	<b>1200 (2645)</b>	921328	✓	✓	✓
	<b>EXTENSION JIB WITH WINCH</b> <b>PT 1500</b>	<b>1500 (3306)</b>	921330	✓	✓	✓
	<b>EXTENSION JIB WITH WINCH</b> <b>PT 1500</b>	<b>1500 (3306)</b>	923350	✓	✓	✓
	<b>EXTENSION JIB WITH WINCH</b> <b>PT 2000</b>	<b>2000 (4409)</b>	921331	✓	✓	✗
			939392	✗	✗	✓
	<b>EXPANDABLE JIB WITH WINCH</b> <b>PT 800</b>	<b>800 (1763)</b> \ <b>1000 (2204)</b>	921323	✓	✓	✓

DESCRIPTION / MODEL		LOAD MAXIMUM CAPACITY [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	FRAME MOUNTED HOOK PC 30	3000 (6614)	921332	✓	✓	✗
	FRAME MOUNTED HOOK PC 40	4000 (8818)	921333 (5 = 5t)	✓	✓	✗
			921334 (5 = 4t)	✓	✓	✗
	FRAME MOUNTED HOOK PC 50	5000 (11023)	921335	✓	✓	✓
	BRACCETTO CON GANCIO FISSO PC 60	6000 (13228)	939050	✗	✗	✓







✗ : not available

✓ : available





**ASSORTIMENT ARMEN EN  
LIEREN**

BESCHRIJVING / MODEL		MAXIMALE BELASTING [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	HYDRAULISCHE LIER WINCH 3T	3000 (6613)	921337	✓	✓	✗
	HYDRAULISCHE LIER WINCH 4T	4000 (8818)	921338	✓	✓	✗
	HYDRAULISCHE LIER WINCH 5T	5000 (11023)	921341	✓	✓	✗
			939109	✗	✗	✓
	HYDRAULISCHE LIER OP ARM WINCH 5,5T	5500 (12125)	53014115	✓	✗	✗
			53014116	✗	✓	✗
	VERLENGDE ARM P 600	600 (1322)	921316	✓	✓	✓
	VERLENGDE ARM P 1000	1000 (2204)	921317	✓	✓	✗

BESCHRIJVING / MODEL		MAXIMALE BELASTING [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	<b>VERLENGDE ARM P 1200</b>	1200 (2645)	921318	✓	✓	✓
	<b>VERLENGDE ARM P 1500</b>	1500 (3306)	921319	✓	✓	✓
	<b>VERLENGDE ARM P 2000</b>	2000 (4409)	921320	✓	✓	✓
	<b>ARM MET 2 VASTE HAKEN P 4000</b>	4000 (8818) 1200 (2645)	921321	✓	✓	✓
	<b>ARM MET 2 VASTE HAKEN P 6000</b>	6000 (13228) 2000 (4409)	921322	✓	✓	✓
	<b>VERLENGDE ARM MET LIER PT 600</b>	600 (1322)	921325	✓	✓	✓

BESCHRIJVING / MODEL		MAXIMALE BELASTING [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	<b>VERLENGDE ARM MET LIER  PT 1000</b>	<b>1000 (2204)</b>	921326	✓	✓	✓
	<b>VERLENGDE ARM MET LIER  PT 1200</b>	<b>1200 (2645)</b>	921328	✓	✓	✓
	<b>VERLENGDE ARM MET LIER  PT 1500</b>	<b>1500 (3306)</b>	921330	✓	✓	✓
	<b>VERLENGDE ARM MET LIER  PT 1500</b>	<b>1500 (3306)</b>	923350	✓	✓	✓
	<b>VERLENGDE ARM MET LIER  PT 2000</b>	<b>2000 (4409)</b>	921331	✓	✓	✗
			939392	✗	✗	✓
	<b>VERLENGDE ARM UITBREIDBAAR MET LIER  PT 800</b>	<b>800 (1763) \ 1000 (2204)</b>	921323	✓	✓	✓



BESCHRIJVING / MODEL		MAXIMALE BELASTING [kg] (lb)	CODE	MRT/MRT-X PRIVILEGE PLUS		
				2150	2550	3255
	ARM MET VASTE HAAK PC 30	3000 (6614)	921332	✓	✓	✗
	ARM MET VASTE HAAK PC 40	4000 (8818)	921333 (5 = 5t)	✓	✓	✗
			921334 (5 = 4t)	✓	✓	✗
	ARM MET VASTE HAAK PC 50	5000 (11023)	921335	✓	✓	✓
	ARM MET VASTE HAAK PC 60	6000 (13228)	939050	✗	✗	✓

✗ : niet beschikbaar

✓ : beschikbaar



## LEGENDA SEGNI E SIMBOLI

### PANORAMICA (Esempio):

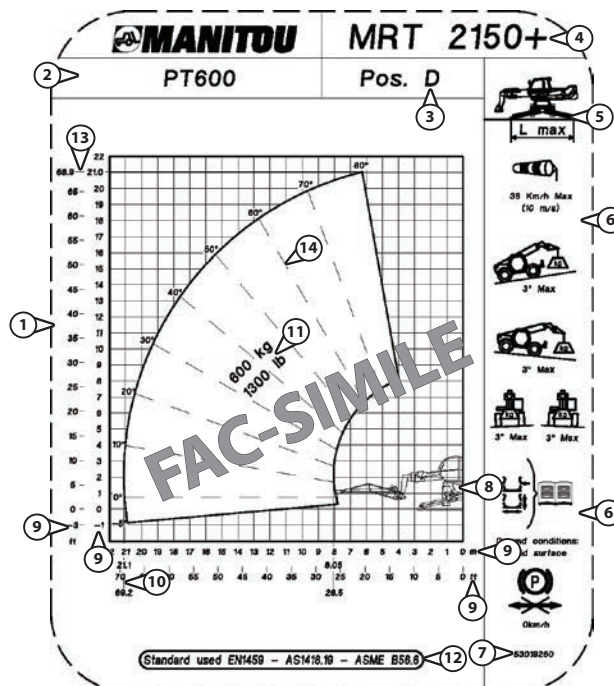
	Attenzione! Siate prudenti! E' in gioco la vostra sicurezza e quella del carrello elevatore.
--	--

### DATI TECNICI DELL'ACCESSORIO GRU

8	[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)						[kg] (lb)
					P max							
	1200 (2204)	5 (5)	Ø 10 (0,4) x 30 (98)	46 (150)	200 (2900)	A	B	C	D	E	F	360 (793)
					750 (29)	117 (4)	734 (29)	2692 (106)	2980 (117)	586 (23)		

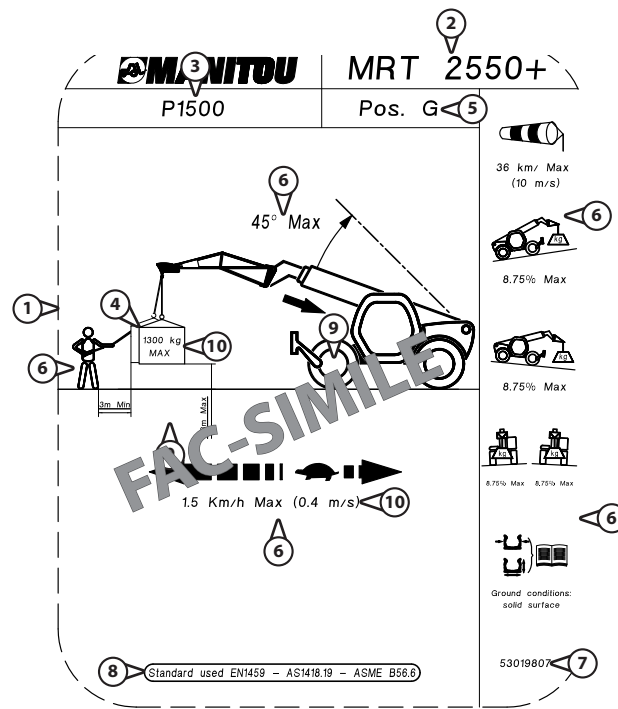
Riferimento	Indicazione (esempio)
1	Carico massimo dell'accessorio gru [1200] (2204)
2	Portata massima del gancio dell'accessorio gru [5] (5)
3	Diametro fune Ø [10] (0,4) x lunghezza [30] (98) della fune dell'accessorio gru
4	Velocità massima di salita/discesa fune dell'accessorio gru [46] (150)
5	Pressione massima di esercizio dell'accessorio gru [200] (2900)
6	Dimensioni dell'accessorio gru [mm] (in) (riferite al disegno dimensionale)
7	Massa dell'accessorio gru [360] (793)
8	Sistema metrico [unità di lunghezza (mm, m), unità di velocità (m/min) unità di pressione (bar) e unità di peso (kg, t)] o Sistema imperiale [unità di lunghezza (in, ft), unità di velocità (ft/min), unità di pressione (psi) e unità di peso (lb, t)]

### TABELLA DI PORTATA DELL'ACCESSORIO GRU



Riferimento	Indicazione (esempio)	Esempio
1	Tabella di portata	
2	Tipo di accessorio gru	PT 600
3	Codice alfanumerico che identifica il tipo di cestello in uso	Pos. D
4	Modello macchina	MHT 2150+
5	Configurazione di lavoro della macchina: su gomme frontali, su gomme e torretta ruotata, su stabilizzatori	
6	Condizioni d'uso	
7	Codice tabella di portata	53019260
8	Disegno identificativo della macchina	
9	Sistema metrico [unità di lunghezza (m) e unità di peso (kg)] o sistema imperiale [unità di lunghezza (ft) e unità di peso (lb)]	
10	Lunghezza massima di sfilo del braccio telescopico	21.1 m / 69.2 ft
11	Capacità massima di carico dell'accessorio gru in uso	600 kg / 1300 lb
12	Tabella di portata in base alle norme vigenti nel Paese di destinazione	EN1459 - AS1418.19 - ASME B56.6
13	Altezza massima di sollevamento del braccio	21 m / 68.9 ft
14	Angolo del braccio	-5°, 0°, 10°, 20°, 30°, 40°, 50°, 60°, 70°, 80°

TABELLA ACCESSORIO GRU "pick and carry"



Riferimento	Indicazione (esempio)	Esempio
1	Tabella di portata (pick and carry)	
2	Tipo di macchina	MRT 2550+
3	Tipo di accessorio	P 1500
4	Capacità massima di carico dell'accessorio gru in uso	1300 kg
5	Codice alfabetico che identifica il tipo di accessorio gru in uso	Pos. G
6	Condizioni di uso	-
7	Codice tabella di portata	53019807
8	Tabella di portata secondo norma	EN1459 - AS1418.19 - ASME B56.6
9	Configurazione di lavoro della macchina: su gomme	-
10	Sistema metrico [unità di lunghezza (m) e unità di peso (kg)] o sistema imperiale [unità di lunghezza (ft) e unità di peso (lb)]	-

# LEGEND OF SIGNS AND SYMBOLS

## OVERVIEW (Example):

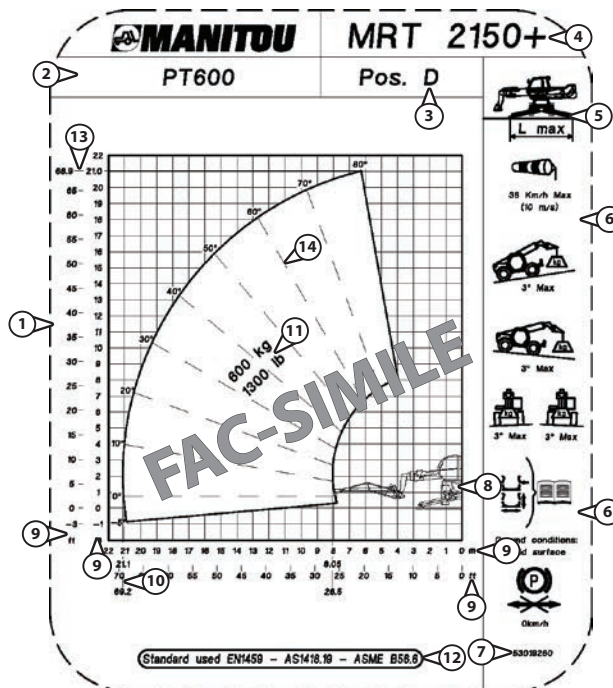
	Warning ! be careful ! your safety or the safety of the lift truck is at risk.
--	--

## CRANE ATTACHMENT TECHNICAL DATA

[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)						[kg] (lb)
					A	B	C	D	E	F	
				P max							
1 1200 (2204)	2 5 (5)	3 Ø 10 (0,4) x 30 (98)	4 46 (150)	5 200 (2900)	750 (29)	117 (4)	734 (29)	2692 (106)	2980 (117)	586 (23)	7 360 (793)

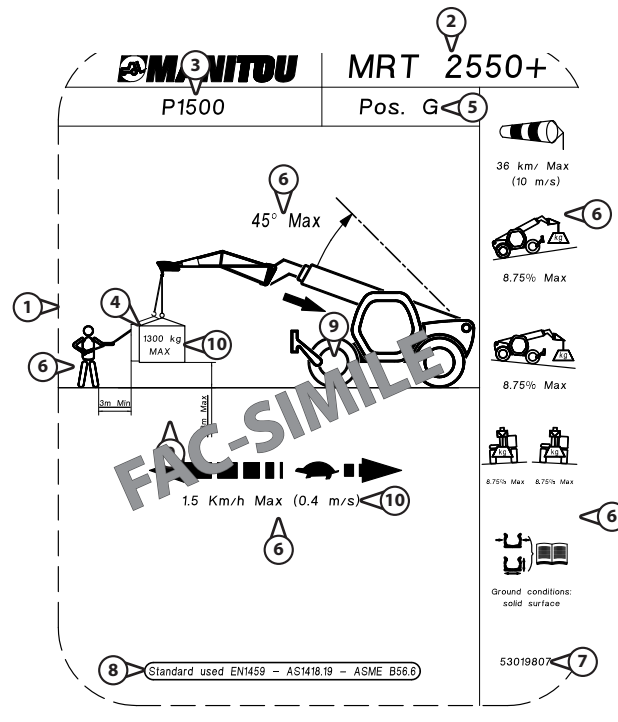
Reference	Indication (example)
1	Maximum load of crane attachment [1200] (2204)
2	Maximum capacity of crane attachment hook [5] (5)
3	Rope diameter Ø [10] (0.4) X length [30] (98) of the rope of the crane attachment
4	Crane attachment rope ascent/descent maximum speed [46] (150)
5	Maximum operating pressure of crane attachment [200] (2900)
6	Dimensions of crane attachment [mm] (in) (referred to dimensional drawing)
7	Weight of crane attachment [360] (793)
8	Metric system [unit of length (mm, m), unit of speed (m/min) unit of pressure (bar) and unit of weight (kg, t)] or imperial system [unit of length (in, ft), unit of speed (ft/min), unit of pressure (psi) and unit of weight (lb, t)]

## CRANE ATTACHMENT CAPACITY TABLE



Reference	Indication (example)	Example
1	Capacity table	
2	Crane attachment type	PT 600
3	Alphanumeric code which identifies the type of crane attachment in use	Pos. D
4	Machine model	MHT 2150+
5	Machine in working configuration: on front tyres, on tyres and turret rotated, on stabilisers	
6	Working conditions	
7	Load table code	53019260
8	Indicative drawing of the machine	
9	Metric system [unit of length (m) and unit of weight (kg)] or imperial system [unit of length (ft) and unit of weight (lb)]	
10	Maximum length extension of the telescopic boom	13,6 m / 44.5 ft
11	Load capacity range of the machine	600 kg / 1300 lb
12	Capacity table according to standards in force in the destination country	EN1459 - AS1418.19 - ASME B56.6
13	Maximum lift height of the telescopic boom	21 m / 68.9 ft
14	Angle of the boom	-5°, 0°, 10°, 20°, 30°, 40°, 50°, 60°, 70°, 80°

**CRANE ATTACHMENT PICK AND CARRY TABLE**



Reference	Indication (example)	Example
1	Load table (pick and carry)	
2	Machine type	MRT 2550+
3	Crane type	P 1500
4	Maximum load capacity of the crane	1300 kg
5	Alphabetic code that identifies the crane	Pos. G
6	Conditions of use	-
7	Load table code	53019807
8	Load table according to standard	EN1459 - AS1418.19 - ASME B56.6
9	Machine sketch in working configuration: on tires	-
10	Metric unit [length unit (m) and weight unit (kg)] or imperial unit [length unit (ft) and weight unit (lb)]	-

## LEGENDE TEKENS EN SYMBOLEN

### OVERZICHT (Voorbeeld):

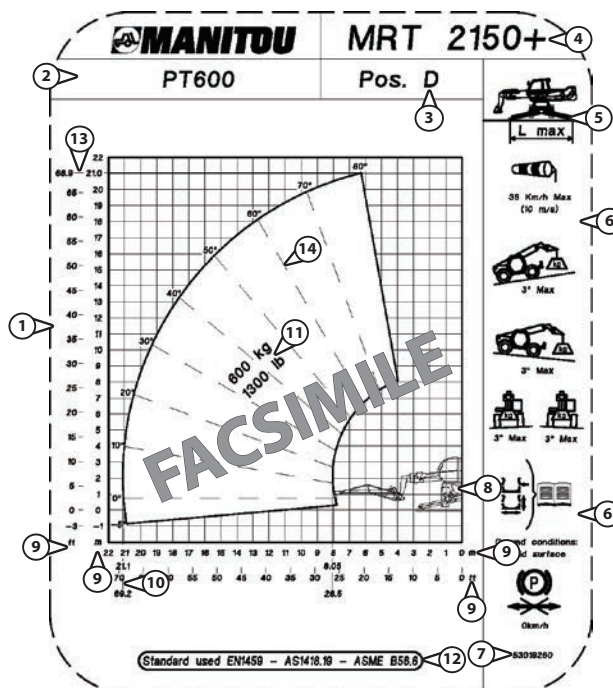
	Let op! Wees voorzichtig! Uw veiligheid en de veiligheid van anderen en van de heftruck lopen gevaar.
--	---

### TECHNISCHE GEGEVENS VAN HET KRAANWERKTUIG

8	[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)						[kg] (lb)
	1	2	3	4	5	A	B	C	D	E	F	7
					P max							
	1200 (2204)	5 (5)	Ø 10 (0,4) x 30 (98)	46 (150)	200 (2900)	750 (29)	117 (4)	734 (29)	2692 (106)	2980 (117)	586 (23)	360 (793)

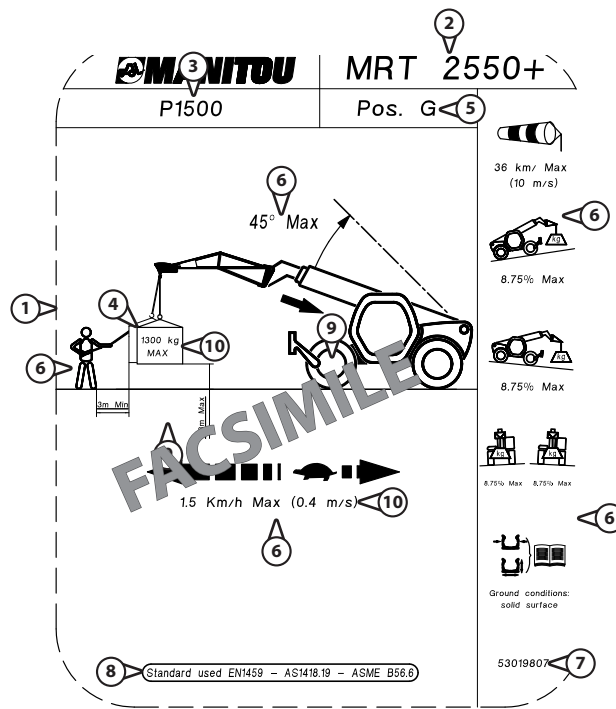
Referentie	Aanwijzing (voorbeeld)
1	Max. belasting van het kraanwerktuig [1200] (2204)
2	Max. draagvermogen van de haak van het kraanwerktuig [5] (5)
3	Diameter kabel Ø [10] (0,4) x lengte [30] (98) van de kabel van het kraanwerktuig
4	Max. snelheid stijgen/dalen van het kraanwerktuig [46] (150)
5	Max. bedrijfsdruk van het kraanwerktuig [200] (2900)
6	Afmetingen van het kraanwerktuig [mm] (in) (met betrekking tot de tekening met de afmetingen)
7	Massa van het kraanwerktuig [360] (793)
8	Metrisch stelsel [lengte-eenheid (mm, m), snelheidseenheid (m/min), drukeenheid (bar) en gewichtseenheid (kg, t)] of imperiaal stelsel [lengte-eenheid (in, ft), snelheidseenheid (ft/min), drukeenheid (psi) en gewichtseenheid (lb, t)]

### DRAAGVERMOGENTABEL VAN HET KRAANWERKTUIG



Referentie	Aanwijzing (voorbeeld)	Voorbeeld
1	Draagvermogen tabel	
2	Type kraanwerktuig	PT 600
3	Alfanumerieke code die het type gebruikte werkkooi identificeert	Pos. D
4	Model machine	MHT 2150+
5	Werkconfiguratie van de machine: op banden vooraan, op banden en gedraaide zwenkpop, op stabilisatoren	
6	Gebruiksvoorwaarden	
7	Code draagvermogen tabel	53019260
8	Identificatietekening van de machine	
9	Metrisch stelsel [lengte-eenheid (m) en gewichtseenheid (kg)] of imperiaal stelsel [lengte-eenheid (in) en gewichtseenheid (lb)]	
10	Max. lengte uitschuiven telescopische arm	21,1 m / 69.2 ft
11	Max. belasting van het gebruikte kraanwerktuig	800 kg / 1300 lb
12	Draagvermogen tabel volgens de van kracht zijnde wetgeving in het land van bestemming	EN1459 - AS1418.19 - ASME B56.6
13	Max. hijs hoogte van de arm	21 m / 68.9 ft
14	Hoek van de arm	-5°, 0°, 10°, 20°, 30°, 40°, 50°, 60°, 70°, 80°

TABEL KRAANWERKTUIG "PICK AND CARRY"



Referentie	Aanwijzing (voorbeeld)	Voorbeeld
1	Draagvermogen tabel (pick and carry)	
2	Type machine	MRT 2550+
3	Type werktuig	P 1500
4	Max. belasting van het gebruikte kraanwerktuig	1300 kg
5	Alfanumerieke code die het type gebruikte kraanwerktuig identificeert	Pos. G
6	Gebruiksvoorwaarden	-
7	Code draagvermogen tabel	53019807
8	Draagvermogen tabel volgens de norm	EN1459 - AS1418.19 - ASME B56.6
9	Werkconfiguratie van de machine: op banden	-
10	Metrisch stelsel [lengte-eenheid (m) en gewichtseenheid (kg)] of imperiaal stelsel [lengte-eenheid (in) en gewichtseenheid (lb)]	-



**1 - SICUREZZA**  
**SAFETY**  
**VEILIGHEID**



**INTRODUZIONE**

Il costruttore mette a vostra disposizione (con garanzia) una vasta gamma di accessori per il vostro carrello elevatore e ad esso perfettamente adattati.

Gli accessori sono consegnati con un diagramma di carico relativo al vostro carrello elevatore. Il libretto d'istruzioni e il diagramma di carico dovranno rimanere nel carrello elevatore. L'uso dei possibili accessori è regolato dalle istruzioni contenute nel presente manuale.

Quando l'accessorio montato prevede il sollevamento di carichi sospesi (es. jib con gancio, argano etc...) il vostro carico elevatore viene classificato automaticamente come gru mobile



**Solo gli accessori omologati e certificati "CE" dal costruttore sono utilizzabili sui nostri carrelli elevatori. La responsabilità del costruttore non sarà coinvolta in caso di modifica o utilizzazione di accessori effettuata a sua insaputa.**



**È vietato l'uso di accessori intercambiabili non previsti in origine in dotazione sulla macchina.**

**Nel caso di successive richieste di implementazione delle funzioni della macchina con altri accessori, l'utente prima della messa in servizio ha l'obbligo di richiedere il controllo d'idoneità all'impiego da parte di un tecnico autorizzato MANITOU, che provvederà a verificare il corretto funzionamento e l'aggiornamento della documentazione necessaria all'uso del nuovo accessorio.**

**Solamente dopo tale controllo verrà rilasciato un nuovo certificato di conformità "CE" della macchina riportante unicamente i nuovi accessori installati.**



**Tutti gli accessori con braccio gru devono essere utilizzati in posizione orizzontale (vedi diagrammi di portata); per gli argani verificare la perfetta verticalità tramite l'indicatore a pendolo posto sul telaio dell'accessorio.**



**La macchina equipaggiata di accessorio con carico sospeso è conforme alle seguenti norme:**

- DIN 15018-1, gruppo di sollevamento H1, gruppo di sollecitazione B3
- DIN 15019-2
- EN 13000/2004, velocità del vento inferiore a 50Km/h.

**Gli argani sono progettati secondo la norma ISO 4301, con condizioni di impiego e classe dell'apparecchiatura: T4, L2, M4.**

**INTRODUCTION**

The Manufacturer provides a large range of attachments (with guarantee) perfectly suitable for your forklift truck.

The attachments are delivered together with a load chart relative to your forklift truck. The instructions handbook and the load chart must remain inside the forklift truck. The use of possible attachments depends on the instructions given in this Manual.

When the attachment mounted involves lifting of suspended loads (for example, arm with hook, winch, etc...) your forklift truck is classified automatically as a mobile crane



**Only type-approved attachments "CE" certified by the manufacturer can be used on our forklift trucks. The Manufacturer shall not accept responsibility in case of modifications or use of attachments without authorization.**



**Use of interchangeable attachments not originally included in the machine supply is forbidden.**

**In case of subsequent requests for implementation of machine functions with other attachments, before starting up the machine, the user must contact an authorized MANITOU technician to check the suitability for use, to check the correct working and update the documentation necessary for using the new attachment. It is only after this check that a new CE certificate of conformity of the vehicle will be issued indicating only the new attachments installed.**



**All the attachments with crane arm must be used in the horizontal position (see load diagrams); for the winches, check to ensure perfect verticality by means of a pendulum indicator placed on the attachment frame.**



**The machine fitted with attachment with suspended load conforms to the following standards:**

- DIN 15018-1, H1 lifting unit, B3 stress unit
- DIN 15019-2
- EN 13000/2004, wind speed less than 50km/h.

**The winches are designed in accordance with standard ISO 4301, with use condition and equipment class: T4, L2, M4.**

**INLEIDING**

De fabrikant stelt een breed assortiment werktuigen (onder garantie) tot uw beschikking welke speciaal zijn ontworpen voor uw heftruck.

De werktuigen worden geleverd met een laaddiagram aangepast aan uw heftruck. De handleiding en het laaddiagram moeten in de heftruck blijven. Het gebruik van de mogelijke werktuigen wordt geregeld door de voorschriften van deze handleiding.

Als het gemonteerde werktuig hangende lasten optilt (bijv. arm met haak, lier enz...) dan wordt uw heftruck automatisch als mobiele kraan geïdentificeerd



**Uitsluitend de door de fabrikant goedgekeurde en "EG" gecertificeerde werktuigen mogen op onze heftrucks worden gebruikt. De fabrikant wijst iedere aansprakelijkheid van de hand in geval van zonder zijn medeweten uitgevoerde wijzigingen of gebruik van de werktuigen.**



**Het gebruik van verwisselbare werktuigen die oorspronkelijk niet bij de machine voorzien zijn is verboden.**

**In geval van verdere verzoeken om andere werktuigen aan de machine te koppelen om de functies ervan uit te breiden, dient de gebruiker voor de eerste ingebruikname aan een technicus van MANITOU te vragen of deze controleert of de machine geschikt is om gebruikt te worden. Deze technicus zal controleren of de machine correct werkt en of de nodige documentatie voor het gebruik van het nieuwe werktuig bijgewerkt is.**

**Pas na deze controle wordt een nieuwe "EG" verklaring van overeenstemming van de machine afgegeven met alleen de nieuw gemonteerde werktuigen.**



**Alle werktuigen met kraanarm moeten in horizontale stand gebruikt worden (zie laaddiagrammen); controleer bij de lieren de perfecte verticale stand met behulp van de slinger op het frame van het werktuig.**



**De machine met werktuig en hangende lading is in overeenstemming met de volgende normen:**

- DIN 15018-1, optelgroep H1, belastingsgroep B3
- DIN 15019-2
- EN 13000/2004, windsnelheid lager dan 50 km/h.

**De lieren zijn ontworpen volgens de norm ISO 4301, met gebruiksomstandigheden en klasse van de apparatuur: T4, L2, M4.**

## CONSIGLI GENERALI RELATIVI ALL'UTILIZZO DELLA GRU

Quando vedete questo simbolo significa che:



**Attenzione! Siate prudenti! È in gioco la vostra sicurezza o quella della gru.**



**Prima di operare con la gru su pneumatici o su stabilizzatori verificare sempre la consistenza del suolo (controllare i dati sugli appoggi nel manuale di uso e manutenzione del "carrello elevatore"), nel caso in cui il suolo non sia adatto a sopportare il peso della gru, consultare il vostro agente o concessionario per prendere le opportune precauzioni.**

Attenersi ai dati indicati sui diagrammi di carico. In nessun caso tentare di sollevare carichi superiori a quelli ammessi sui diagrammi di carico allegati alla macchina.

Trasportare il carico a pochi centimetri dal suolo (30 cm max) con la minima estensione del braccio.

Guidare la gru ad una velocità adeguata alle condizioni e allo stato del terreno.

La velocità di spostamento del carrello elevatore non deve superare 0,4 m/s (1,5 km/h, ovvero un quarto della velocità di un pedone).

Durante lo spostamento, farsi aiutare da una persona a terra (posizionata almeno a 3 m dal carico) che, con l'aiuto di una barra di mantenimento o di una corda, limiti le oscillazioni del carico.

Senza carico applicato viaggiare con braccio telescopico abbassato e rientrato al massimo.

Non andare mai troppo forte né frenare bruscamente con un carico.

Quando il carico viene sollevato, fare attenzione che nessuno possa intralciare l'operazione e non compiere manovre errate.

Non tentare di compiere operazioni che superino le capacità della gru.

Fare attenzione ai cavi elettrici.

Non utilizzare la gru durante forti temporali ed in presenza di rischio caduta fulmini.

Non lasciare in nessun caso il carrello in parcheggio con un carico sollevato.

Non avvicinarsi ed entrare nel raggio di azione della gru.

Pensare sempre alla sicurezza e trasportare solamente dei carichi ben equilibrati.

## GENERAL RECOMMENDATIONS REGARDING THE USE OF THE CRANE

Whenever you see this symbol it means:



**Warning! Be careful! Your safety and that of the crane is at stake.**



**Before working with the crane on wheels or stabilizers, always check the consistency of the ground (check the data regarding supports in the forklift truck Operation and Maintenance Manual); if the ground is unsuitable for the weight of the crane, consult your agent or dealer to adopt appropriate precautionary measures.**

Strictly follow the data indicated on the load charts. Never attempt to lift loads greater than those permitted as indicated in the load diagrams attached to the machine.

Carry the load a few centimetres above the ground (max. 30 cm) the shortest possible jib length.

Drive the crane at a speed suitable for the conditions and state of the ground.

The lift truck must not travel at more than 0.4 m/s (1.5 km/h, i.e., one quarter walking speed).

During transport, the lift truck operator must be assisted by a person on the ground (standing a minimum of 3 m from the load), who will limit swinging of the load using a bar or a rope.

Without load, travel with the telescopic boom lowered and retracted to the maximum possible extent.

Never travel too fast or brake suddenly when travelling with load.

When the load is being lifted, make sure no one can obstruct the operation or make incorrect manoeuvres. Do not try to carry out operations which exceed the crane capacity.

Pay attention to the electric cables.

Do not use the crane during heavy thunderstorms and when there is risk of lightning.

Never leave the forklift truck parked with a load raised.

Never approach or go within the range of action of the crane.

Always bear safety in mind and only transport loads that are balanced properly.

## ALGEMENE RAADGEVINGEN MET BETREKKING TOT DE KRAAN

Als u dit symbool ziet, wil dat zeggen:



**Let op! Wees voorzichtig! Uw eigen veiligheid of die van de kraan staat op het spel.**



**Voor de kraan op banden of op stabilisatoren te gebruiken moet altijd de gesteldheid van de grond nagekeken worden (controleer de gegevens over de steun in de handleiding voor gebruik en onderhoud van de "heftruck"), als de grond niet geschikt mocht zijn om het gewicht van de kraan te dragen, raadpleeg dan uw agent of dealer voor de nodige maatregelen.**

Neem de gegevens in de laaddiagrammen in acht. Probeer in geen geval lasten op te tillen die zwaarder zijn dan het toegestane gewicht dat vermeld is op het laaddiagram dat bij de machine is gevoegd.

Verplaats de last op een paar centimeter van de grond (max. 30 cm) met een minimaal uitgestrekte arm.

Rijd met een snelheid die geschikt is voor de toestand en de staat van het terrein.

De heftruck mag niet sneller rijden dan 0,4 m/s (1,5 km/h, dit is vier keer trager dan een voetganger).

Laat u tijdens het verplaatsen bijstaan door een persoon op de grond (die zich op ten minste 3 m van de last bevindt) die, met behulp van een staaf of een touw het schommelen van de last beperkt.

Zonder lading, rijden met de telescopische arm naar beneden en zo ver mogelijk ingetrokken.

Nooit te hard rijden of plotseling remmen als men een lading vervoert.

Als de last wordt opgetild, opletten dat niemand de werkzaamheden kan belemmeren en geen verkeerde bewegingen maken.

Niet proberen handelingen te verrichten die het vermogen van de kraan te boven gaan.

Opletten in de buurt van elektriciteitskabels.

Gebruik de kraan niet tijdens heftig onweer en als er gevaar voor bliksem heerst.

Parkeer nooit de heftruck met opgeheven lading.

Kom niet in de buurt van de kraan, binnen de werkstraal.

Altijd de veiligheid in gedachten houden en uitsluitend goed uitgebalanceerde ladingen vervoeren.

Non lasciare la gru carica con il freno di stazionamento inserito su una pendenza superiore al 15%.

La gru ammette queste inclinazioni di lavoro:

*MRT 2150 Privilege Plus ST4 S2*  
*MRT-X 2150 Privilege Plus ST3A S2*  
*MRT-X 2550 Privilege Plus ST3A S2*  
*MRT 2550 Privilege Plus ST4 S2*

- Macchina stabilizzata:
  - 3° Max in senso longitudinale e trasversale.
- Macchina su gomme:
  - 3° Max in senso longitudinale
  - 3° Max in senso trasversale.

*MRT-X 3255 Privilege Plus ST3A S1*  
*MRT 3255 Privilege Plus ST4 S1*

- Macchina stabilizzata:
  - 1° Max in senso longitudinale e trasversale.
- Macchina su gomme:
  - 2° Max in senso longitudinale
  - 1° Max in senso trasversale.

Con argano o attrezzature con carico appeso al gancio è necessario:

- posizionare l'argano perpendicolarmente al carico da sollevare,
- la discesa del gancio a vuoto, deve essere avviata lentamente (dolcemente) poiché se azionata velocemente può allentare la fune attorcigliata sul tamburo, con gravi guai per la fune stessa, il fine corsa, etc..
- Se la fune, sul bozzello tende ad avvitarci, sganciare il gancio capocorda fisso, tirare la fune e ruotarla nel senso opposto fino ad annullare l'avvitamento, quindi riagganciare il capocorda.
- Manovrare con dolcezza la leva di comando per evitare sobbalzi del carico ed eventuali difettosi avvolgimenti della fune sul tamburo.
- Sollevare il carico verticalmente, evitando oscillazioni e sollevamenti obliqui.
- Verificare giornalmente lo stato della fune, se usurata, rovinata o anche solamente con un filo rotto (vedi ISO 4309), provvedere immediatamente alla sostituzione (consultare il vostro concessionario).
- Verificare giornalmente l'efficienza del fine corsa idraulico salita e discesa gancio e la tenuta del freno con carico applicato.
- Prestare attenzione agli accessori usati per sollevare il carico: in particolare controllare la capacità in relazione alla portata massima della gru e verificarne periodicamente l'integrità.
- Lubrificare periodicamente con olio la parte rotante del gancio.
- Verificare periodicamente il buon avvolgimento della fune sul tamburo.

Gli accessori seguenti non sono destinati ad impianti per il sollevamento o lo spostamento di persone.

Prima della prima messa in servizio dell'argano, o di qualsiasi altra attrezzatura che appenda il carico con un gancio, denunciarlo alla autorità preposta per il controllo (ISPEL) della vostra zona (solo per Italia). Ricordarsi ogni anno seguente di richiedere la visita di controllo alla USL della vostra zona (solo per Italia).

Do not leave the crane loaded with the parking brake engaged on a slope exceeding 15%.

The following operating inclinations are allowed for the crane:

*MRT 2150 Privilege Plus ST4 S2*  
*MRT-X 2150 Privilege Plus ST3A S2*  
*MRT-X 2550 Privilege Plus ST3A S2*  
*MRT 2550 Privilege Plus ST4 S2*

- Vehicle stabilised:
  - 3° Max longitudinally and transversely.
- Vehicle on wheels
  - 3° Max longitudinally
  - 3° Max transversely.

*MRT-X 3255 Privilege Plus ST3A S1*  
*MRT 3255 Privilege Plus ST4 S1*

- Vehicle stabilised
  - 1° Max longitudinally and transversely.
- Vehicle on wheels
  - 2° Max longitudinally
  - 1° Max transversely.

With the winch or with the attachment with load hanging from the hook:

- position the winch perpendicular to the load to be lifted,
- the hook without load must be lowered gently because if it moves too fast, it could slacken the rope wound around the drum, causing damage to the rope, limit switch, etc..
- If the rope tends to start twisting on the pulley block, release the fixed rope connector hook, pull the rope and turn it in the opposite direction to undo the twist, then re-hook the connector.
- Operate the control lever gently to avoid jerking at the load and defective winding of the rope on the drum.
- Lift the load vertically, avoiding oscillations and oblique lifting.
- Check the condition of the rope everyday, and if worn, damaged or even one of the strands is broken (see ISO4309), replace it immediately (consult your dealer).
- Check the working efficiency of the hook ascent/descent hydraulic limit switch and the brake hold with the load applied, on a daily basis.
- Pay attention to the attachments used for lifting the load: in particular, check the capacity in relation to the maximum crane capacity and check its condition periodically.
- Lubricate the rotating part of the hook periodically with oil.
- Check periodically to make sure the rope is wound properly on the drum.

The following attachments are not meant for systems used for lifting or transporting persons.

Before starting operation with the winch, or any other equipment on which the load is hung by a hook, notify the relevant authorities in your area (ISPEL) (for Italy only). Remember to contact the LHU of your area for an inspection every year (for Italy only).

Nooit een geladen kraan met aangetrokken handrem laten staan op een helling van meer dan 15%.

Voor de kraan zijn de volgende hellingshoeken toegestaan:

*MRT 2150 Privilege Plus ST4 S2*  
*MRT-X 2150 Privilege Plus ST3A S2*  
*MRT-X 2550 Privilege Plus ST3A S2*  
*MRT 2550 Privilege Plus ST4 S2*

- Stabiele machine:
  - 3° Max in de lengte en de breedte.
- Machine op banden:
  - 3° Max in de lengte
  - 3° Max in de breedte.

*MRT-X 3255 Privilege Plus ST3A S1*  
*MRT 3255 Privilege Plus ST4 S1*

- Stabiele machine:
  - 1° Max in de lengte en de breedte.
- Machine op banden:
  - 2° Max in de lengte
  - 1° Max in de breedte.

Met de lier of werktuigen met een lading aan de haak moet u:

- de lier loodrecht op de op te tillen last plaatsen,
- de lege haak moet langzaam beginnen te dalen (soepel) want als dit snel wordt gedaan kan de op de trommel gewikkelde kabel verslappen, met ernstige gevolgen voor de kabel zelf, de eindaanslag, enz.
- Als de kabel op de takel neigt vast te draaien, de haak van het vaste uiteinde losmaken, aan de kabel trekken en hem in tegengestelde richting draaien totdat hij losgedraaid is, dan het kabeluiteinde weer vastmaken.
- Bedien de bedieningshendel voorzichtig om de lading niet te laten opspringen en te vermijden de kabel niet goed op de trommel te winden.
- Til de lading verticaal op, zonder oscillaties en niet scheef opheffen.
- Controleer dagelijks de staat van de kabel, als hij versleten of beschadigd is of zelfs maar een kapotte draad mocht hebben (zie ISO 4309), hem onmiddellijk vervangen (raadpleeg uw dealer).
- Controleer dagelijks de doeltreffendheid van de hydraulische eindaanslag voor het stijgen en dalen van de haak en de remwerking met toegepaste lading.
- Let op de werktuigen die gebruikt worden om de lading op te tillen: controleer in het bijzonder het vermogen in verhouding tot het maximale hefvermogen van de kraan en kijk ze regelmatig na.
- Smeer regelmatig het draaiende deel van de haak met olie.
- Controleer regelmatig de opwikkeling van de kabel op de trommel.

- De volgende werktuigen zijn niet bestemd voor het optillen of het vervoer van personen.

Voor de lier, of een ander werktuig dat de last met een haak optilt, in gebruik wordt genomen, gelieve dit te melden aan de plaatselijke instantie die belast is met de controle (alleen voor Italië).  
 - Niet vergeten ieder jaar de bevoegde ASL te verzoeken een controle te verrichten (uitsluitend in Italië).



**Prima della messa in servizio della gru accertarsi della compatibilità della macchina e della taratura del suo sistema di sicurezza al tipo di accessorio montato.**



**Una taratura non conforme del sistema di sicurezza può risultare molto pericolosa per la vostra sicurezza, se avete dubbi non esitate, consultate immediatamente il vostro concessionario.**



**Alcuni accessori, tenuto conto delle loro dimensioni, e con il braccio abbassato e rientrato, rischiano di interferire con i pneumatici anteriori e di provocare il loro deterioramento se l'inclinazione dell'attrezzatura è rivolta in basso.**

**Per eliminare tale rischio, far uscire il braccio telescopico di una lunghezza sufficiente in funzione dell'accessorio, in modo tale che non avvengano interferenze.**



**I carichi massimi sono definiti dalla capacità della gru, tenuto conto del peso e del centro di gravità dell'accessorio. Qualora l'accessorio avesse una capacità inferiore a quella della gru, non superare mai questo limite.**



**Per la vostra sicurezza, considerato che i carichi da sollevare nella maggior parte dei casi non possono essere collegati direttamente al gancio della macchina, è consigliato l'uso di sistemi di imbracatura, come funi di acciaio, catene, fasce di fibre sintetiche o naturali conformemente alle normative vigenti.**



**Before starting up the crane ensure the compatibility of the machine and the calibration of its safety system to the type of attachment fitted.**



**Non conforming calibration of the safety system can be very hazardous for your safety; contact your dealer immediately in case of doubt.**



**Given their dimensions, certain attachments, with the boom lowered and retracted, risk interfering with the front tyres and causing their deterioration if the equipment is inclined downwards.**

**To eliminate this risk, extend the telescopic boom to a sufficient length depending on the function of the attachment, in such a way as to avoid interference.**



**The maximum loads are defined by the capacity of the crane, taking into account the weight and centre of gravity of the attachment. If the capacity of the attachment is less than that of the crane, never exceed this limit.**



**Considering that in most cases the loads to be lifted cannot be connected directly to the machine hook, for your safety we recommend the use of harnessing systems such as steel ropes, chains, straps made of synthetic or natural fibres conforming to the regulatory standards in force.**



**Alvorens de kraan te gebruiken, controleren of de machine en de afstelling van zijn veiligheidssysteem en het type gemonteerde werktuig goed op elkaar zijn afgestemd.**



**Een afstelling die niet conform het veiligheidssysteem is kan uw veiligheid in het gedrang brengen. Neem in geval van twijfel onmiddellijk contact op met uw dealer.**



**Bepaalde werktuigen kunnen, gezien hun afmetingen, in aanraking komen met de banden als de arm naar beneden gehaald en ingetrokken is en deze beschadigen als het werktuig naar beneden overhelt.**

**Om dit risico te voorkomen, de telescopische arm zo ver uitschuiven als nodig is, afhankelijk van het werktuig, om ervoor te zorgen dat er geen aanraking mogelijk is.**



**De maximale belastingen worden bepaald door het draagvermogen van de kraan, rekening houdend met het gewicht en het zwaartepunt van het werktuig. In het geval het werktuig een kleiner draagvermogen heeft dan de kraan, deze limiet nooit overschrijden.**



**Voor uw eigen veiligheid, gezien het feit dat de op te tillen lading in de meeste gevallen niet direct aan de haak van de machine bevestigd kan worden, wordt het gebruik van vasbindsystemen aanbevolen, zoals bijvoorbeeld staalkabels, kettingen, riemen van synthetische of natuurlijke vezels in overeenstemming met de geldende normen.**



**Assicurarsi che la velocità del vento non superi i 36 km/h.**

Per riconoscere visivamente questa velocità consultare la scala di valutazione empirica dei venti riportate di seguito:

Scala BEAUFORT (velocità del vento ad un'altezza di 10 m su un terreno pianeggiante)						
Grado	Tipo di vento	Velocità (nodi)	Velocità (km/h)	Velocità (m/s)	Effetti a terra	Stato del mare
0	Calma	0 - 1	0 - 1	< 0,3	Il fumo sale verticalmente.	Mare piatto.
1	Bava di vento	1 - 3	1 - 5	0,3 - 1,5	Il fumo indica la direzione del vento.	Leggere increspature sulla superficie somiglianti a squame di pesce.
2	Brezza leggera	4 - 6	6 - 11	1,6 - 3,3	Si sente il vento sulla faccia, le foglie si muovono.	Onde minute, ancora molto corte ma ben evidenziate.
3	Brezza tesa	7 - 10	12 - 19	3,4 - 5,4	Foglie e rami più piccoli in movimento costante.	Onde con creste che cominciano a rompersi.
4	Vento moderato	11 - 16	20 - 28	5,5 - 7,9	Il vento solleva polvere e carta. I rami sono agitati.	Onde con tendenza ad allungarsi. Le "pecorelle" sono più frequenti.
5	Vento teso	17 - 21	29 - 38	8 - 10,7	Oscillano gli arbusti con foglie.	Onde moderate dalla forma che si allunga.
6	Vento fresco	22 - 27	39 - 49	10,8 - 13,8	Movimento di grossi rami, i fili metallici fischiano. Difficoltà ad usare l'ombrello.	Onde grosse (cavalloni) dalle creste imbiancate di schiuma e spruzzi.
7	Vento forte	28 - 33	50 - 61	13,9 - 17,1	Interi alberi agitati. Difficoltà a camminare contro vento.	I cavalloni si ingrossano. La schiuma formata dal rompersi delle onde viene "soffiata" in strisce nella direzione del vento.
8	Burrasca	34 - 40	62 - 74	17,2 - 20,7	Ramoscelli strappati dagli alberi. È molto difficile camminare contro vento.	Onde alte e di maggiore lunghezza, le creste si rompono e formano spruzzi vorticosi.
9	Burrasca forte	41 - 47	75 - 88	20,8 - 24,4	Il vento causa danni alle strutture (camini e tegole asportati, ecc.).	Onde alte con le creste che iniziano ad arrotolarsi, strisce di schiuma, visibilità ridotta.
10	Tempesta	48 - 55	89 - 102	24,5 - 28,4	Rara in terraferma. Sradicamento di alberi. Considerevoli danni strutturali.	Onde molto alte, le strisce di schiuma tendono a compattarsi e la visibilità è ridotta.
11	Tempesta violenta o fortunale	56 - 63	103 - 117	28,5 - 32,6	Molto rara, vasti danni strutturali.	Onde enormi che potrebbero anche nascondere alla vista navi di media stazza, visibilità ridotta.
12	Uragano	64 +	118 +	32,7 +	Onde altissime.	Mare completamente bianco, aria piena di schiuma e di spruzzi, visibilità estremamente ridotta.



**Ensure that the wind speed is not higher than 36 km/h - 10 m/s (22.3 mph - 32.8 ft/s).**

To visually recognise this wind speed, refer to the empirical wind evaluation scale below:

BEAUFORT scale (wind speed at a height of 10 m on a flat site)						
Force	Type of wind	Speed (knots)	Speed (km/h)	Speed (m/s)	Effects on Land	Sea conditions
0	Calm	0 - 1	0 - 1	< 0,3	Smoke rises vertically.	Sea is like a mirror.
1	Light air	1 - 3	1 - 5	0,3 - 1,5	Smoke indicates direction of wind.	Ripples with appearance of scale, no foam crests.
2	Light breeze	4 - 6	6 - 11	1,6 - 3,3	Wind felt on face, leaves rustle.	Short wavelets, but pronounced.
3	Gentle breeze	7 - 10	12 - 19	3,4 - 5,4	Leaves and small twigs in constant motion.	Very small waves, crests begin to break.
4	Moderate breeze	11 - 16	20 - 28	5,5 - 7,9	Wind raises dust and loose pieces of paper; small branches are moved.	Small waves, becoming longer, numerous whitecaps.
5	Fresh breeze	17 - 21	29 - 38	8 - 10,7	Small trees in leaf begin to sway.	Wavelets form on inland waters; moderate waves, taking longer form.
6	Strong breeze	22 - 27	39 - 49	10,8 - 13,8	Large branches in motion, whistling heard in overhead wires, umbrella use becomes difficult.	Larger waves forming, whitecaps everywhere, some spray.
7	Near gale	28 - 33	50 - 61	13,9 - 17,1	Whole trees in motion, inconvenience felt when walking against the wind.	Sea heaps up; white foam from breaking waves begins to be blown in streaks along the direction of the wind.
8	Gale	34 - 40	62 - 74	17,2 - 20,7	Wind breaks twigs off trees; impedes progress.	Moderately high waves of greater length; edges of crests begin to break into spindrift.
9	Strong gale	41 - 47	75 - 88	20,8 - 24,4	Wind damages roofs (chimneys, slates, etc.).	High waves, crests of waves begin to topple, streaks of foam; reduced visibility.
10	Storm	48 - 55	89 - 102	24,5 - 28,4	Seldom experienced inland; trees uprooted; considerable structural damage occurs.	Very high waves; white streaks of foam; reduced visibility.
11	Violent storm	56 - 63	103 - 117	28,5 - 32,6	Very rare, widespread damage.	Exceptionally high waves able to hide medium sized ships from view, reduced visibility.
12	Hurricane	64 +	118 +	32,7 +	Devastating damage.	Sea completely white; air filled with foam and spray, very reduced visibility.





**Controleer tijdens de werken voortdurend of de windsnelheid niet hoger is dan 36 km/u.**

Om deze snelheid met het oog te herkennen, raadpleeg de onderstaande empirische inschattingsschaal:

Schaal van BEAUFORT (windsnelheid op 10 m boven een vlakke ondergrond)						
Kracht	Benaming	Snelheid (knopen)	Snelheid (km/h)	Snelheid (m/s)	Uitwerking boven land	Uitwerking boven zee
0	Stil	0 - 1	0 - 1	< 0,3	Rook stijgt recht omhoog.	Gladde zee.
1	Zeer zwak	1 - 3	1 - 5	0,3 - 1,5	De rook geeft de windrichting aan.	Kleine golfjes op het wateroppervlak die eruitzien als visschubben.
2	Zwakke wind	4 - 6	6 - 11	1,6 - 3,3	De wind is voelbaar in het gezicht, de bladeren bewegen.	Klein, korte golven die duidelijk waarneembaar zijn.
3	Vrij matige wind	7 - 10	12 - 19	3,4 - 5,4	Bladeren en kleine takken bewegen voortdurend.	Golven met schuimkoppen die beginnen te breken.
4	Matige wind	11 - 16	20 - 28	5,5 - 7,9	Papier en stof waaien op. Takken bewegen heen en weer.	De golven worden iets langer. Er zijn veel schuimkoppen.
5	Vrij krachtige wind	17 - 21	29 - 38	8 - 10,7	Struiken met bladeren ruisen.	Matige golven met langer wordende vorm.
6	Krachtige wind	22 - 27	39 - 49	10,8 - 13,8	Dikke takken bewegen, metalen draden maken lawaai. Een paraplu gebruiken wordt problematisch.	Grote golven met witte schuimkoppen.
7	Harde wind	28 - 33	50 - 61	13,9 - 17,1	Hele bomen bewegen. Tegen de wind inlopen is lastig.	De golven worden hoger. Het schuim dat gevormd wordt door het breken van de golven wordt in strepen in de richting van de wind "geblazen".
8	Stormachtige wind	34 - 40	62 - 74	17,2 - 20,7	Twijgen breken af. Tegen de wind inlopen wordt zeer moeilijk.	Hoge en langere golven, de koppen breken en vormen schuimvlagen.
9	Storm	41 - 47	75 - 88	20,8 - 24,4	De wind veroorzaakt schade aan gebouwen (schoorstenen en dakpannen waaien weg enz.).	Hoge golven met koppen die beginnen te rollen, schuimstrepen, beperkte zichtbaarheid.
10	Zware storm	48 - 55	89 - 102	24,5 - 28,4	Zeldzaam op het vasteland. Bomen worden ontworteld. Aanzienlijke schade aan gebouwen.	Heel hoge golven, de schuimstrepen vormen een schuimvlakte, beperkte zichtbaarheid.
11	Zeer zware storm of orkaanachtige wind	56 - 63	103 - 117	28,5 - 32,6	Zeer zeldzaam. grote schaden aan gebouwen.	Enorme golven die schepen van middelgrote afmetingen aan het oog kunnen onttrekken, beperkte zichtbaarheid.
12	Orkaan	64 +	118 +	32,7 +	Heel hoge golven.	De zee is volkomen wit, de lucht is vol met verwaaid schuim en water, sterk verminderd zicht.

## RICONOSCIMENTO AUTOMATICO DELL'ACCESSORIO "E-RECO"

La macchina è equipaggiata con un sistema elettronico di riconoscimento accessorio che identifica al momento dell'aggancio il tipo di accessorio installato.

Questo sistema facilita e velocizza le operazioni di cambio accessorio.

Il sistema è caratterizzato da 2 dispositivi situati uno sul braccio della macchina (rif.1a Fig. A) e uno sull'accessorio. (rif.1b Fig. A).

Il sistema di riconoscimento, dopo l'identificazione del tipo di accessorio e la conferma dell'operatore, imposta la macchina per operare con l'accessorio agganciato. Questa modalità è definita automatica.

Tuttavia la macchina può operare con un accessorio privo di dispositivo di identificazione ma in questo caso è responsabilità dell'operatore identificare e confermare il tipo di accessorio agganciato. Questa modalità è definita manuale.

## AUTOMATIC IDENTIFICATION OF THE ATTACHMENT "E-RECO"

The vehicle is equipped with an electronic attachment identification system which identifies the type of attachment connected.

This system makes the attachment change operations easier and faster.

The system is characterised by 2 devices, one on the (Ref.1a Fig. A) vehicle boom and the other on the attachment. (Ref.1b Fig. A).

After identification of the type of attachment and confirmation by the operator, the identification system sets the vehicle to operate with the attachment connected. This mode is defined as automatic.

However, the vehicle can operate with an attachment devoid of the identification device, but in this case it is the operator's responsibility to identify and confirm the type of attachment connected. This mode is defined as manual.

## AUTOMATISCHE HERKENNING VAN HET WERKTUIG "E-RECO"

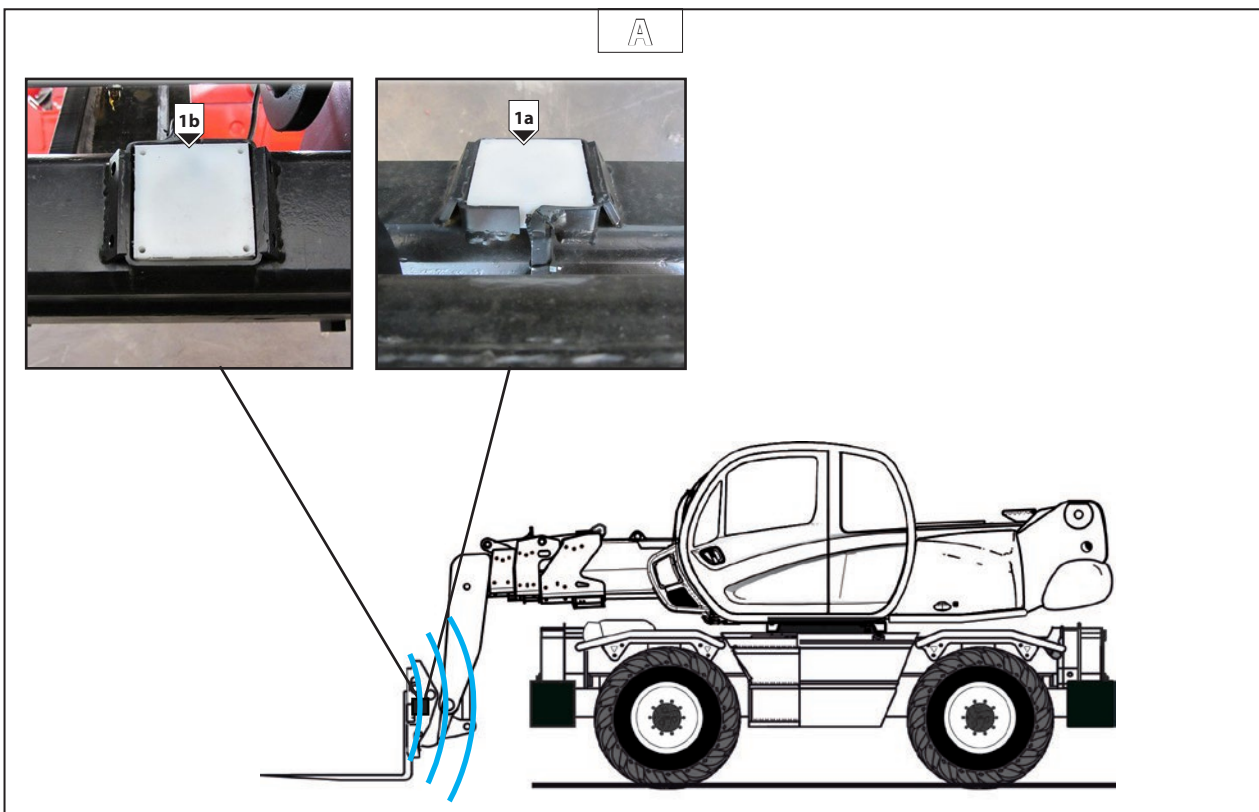
De machine is uitgerust met een elektronisch herkenningssysteem dat het type werktuig herkent wanneer het aangekoppeld wordt.

Dit systeem vergemakkelijkt en versnelt de procedure voor het verwisselen van het werktuig.

Het systeem wordt gekenmerkt door 2 elementen, één op de arm van de machine (ref. 1a Fig. A) en één op het werktuig. (ref. 1b Fig. A).

Na de herkenning van het type werktuig en de bevestiging van de bestuurder, stelt het herkenningssysteem de machine in om met het aangekoppelde werktuig te werken. Dit is de automatische modaliteit.

De machine kan evenwel ook met een werktuig zonder het herkenningssysteem werken. In dit geval is de bestuurder verantwoordelijk voor het identificeren van het aangekoppelde werktuig en de bevestiging ervan. Dit is de handmatige modaliteit.



MRT-X 2150 Privilege Plus ST3A S2  
MRT 2150 Privilege Plus ST4 S2  
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MRT 2550 Privilege Plus ST4 S2

### Modalità automatica

Immediatamente dopo aver agganciato un accessorio il sistema di riconoscimento:

- identifica il tipo di accessorio rif.1 Fig. B,
- richiede all'Operatore di confermare rif.2 Fig. B che l'accessorio riconosciuto sia quello realmente agganciato sulla macchina,
- premere invio rif.3 Fig. B per confermare il tipo di accessorio.

### Modalità manuale

Immediatamente dopo aver agganciato un accessorio privo del dispositivo di identificazione, il sistema di riconoscimento:

- non riconosce l'accessorio agganciato,
  - l'operatore deve selezionare il tipo di accessorio agganciato sulla macchina.
- L'operatore deve selezionare manualmente il tipo di accessorio installato, come segue:
- premere ESC rif.1 Fig. C per uscire dalla modalità "empty"rif.2 Fig. C [nessun accessorio agganciato],
  - premere le frecce su/giu rif.3 Fig. C per selezionare l'accessorio che si è agganciato rif.4 Fig. D,
  - confermare l'accessorio rif.5 Fig. D, premere invio rif.6 Fig. D.

Nota: in modalità "empty" la macchina può muovere il braccio ma con una portata massima di sollevamento fissata a 500kg.

#### In entrambe le modalità:

**è responsabilità dell'operatore assicurarsi che l'accessorio agganciato e visualizzato sul display sia quello identificato dal sistema di riconoscimento o selezionato manualmente.**

**Sono in gioco la vostra sicurezza e quella del carrello elevatore.**

**L'inosservanza potrebbe provocare malfunzionamenti al vostro carrello elevatore e danni a cose e persone vicine all'area di lavoro della macchina.**

**Rispettare le procedure sopra descritte.**

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### Automatic mode

Immediately after connecting the attachment, the identification system:

- identifies the type of attachment Ref. 1 Fig. B,
- requests the Operator to confirm Ref. 2 Fig. B that the attachment identified is that actually connected on the vehicle,
- press Enter Ref. 3 Fig. B to confirm the type of attachment.

### Manual mode

Immediately after an attachment devoid of identification device is hooked up, the identification system:

- does not recognise the attachment connected,
- the Operator must select the type of attachment hooked on the vehicle. The operator must manually select the type of attachment installed, as follows:
- press ESC Ref. 1 Fig. C to exit the "empty" mode Ref. 2 Fig. C [no attachment connected],
- press the up/down arrows Ref. 3 Fig. C to select the attachment that is connected Ref. 3 Fig. D,
- confirm the attachment Ref. 5 Fig. D, press Enter Ref. 6 Fig. D.

Note: in "empty" mode the vehicle can move the boom but with a maximum lifting capacity fixed at 500 kg.

#### In both modes:

**it is the operator's responsibility to make sure the attachment is connected and that the display shows the attachment identified by the identification system or selected manually.**

**Your safety and that of the forklift truck is at stake.**

**Failure to observe these indications can cause an operating fault in your forklift truck and harm to persons or damage to objects near the machine's operating area.**

**Follow the procedures described above.**

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MRT 2550 Privilege Plus ST4 S2

### Automatische modaliteit

Onmiddellijk nadat u een werktuig heeft aangekoppeld, gaat het herkenningssysteem als volgt te werk:

- herkenning van het type werktuig ref. 1 Fig. B,
- het verzoekt te bestuurder om te bevestigen ref. 2 Fig. B dat het herkende werktuig daadwerkelijk aan de machine gekoppeld is,
- druk op enter ref. 3 Fig. B om het type werktuig te bevestigen.

### Handmatige modaliteit

Onmiddellijk nadat u een werktuig zonder identificatiesysteem heeft aangekoppeld, gaat het herkenningssysteem als volgt te werk:

- het herkent het aangekoppelde werktuig niet,
  - de bestuurder moet het type aan de machine gekoppelde werktuig selecteren.
- De bestuurder moet het type werktuig dat aan de machine gekoppeld is handmatig selecteren:
- druk op ESC ref. 1 Fig. C om de modaliteit "empty" ref. 2 Fig. C te verlaten [geen werktuig aangekoppeld],
  - druk op de pijlen omhoog/omlaag ref. 3 Fig. C om het werktuig dat is aangekoppeld te selecteren ref. 4 Fig. D,
  - bevestig het werktuig ref. 5 Fig. D, druk op enter ref. 6 Fig. D.

Opmerking; in de modaliteit "empty" kan de machine de arm bewegen, doch met een maximaal hefvermogen van 500 kg.

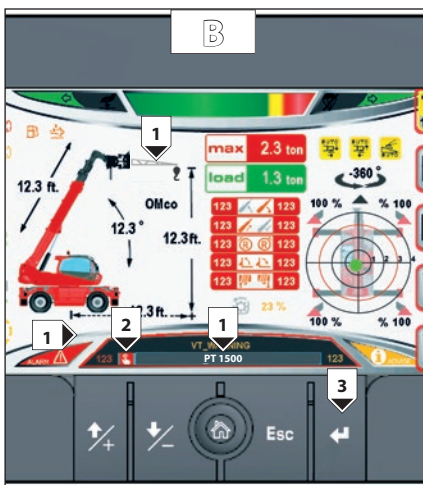
#### Voor beide modaliteiten:

**is de bestuurder er verantwoordelijk voor te controleren of het aangekoppelde werktuig dat op het display wordt weergegeven hetzelfde is als datgene wat door het herkenningssysteem herkend wordt of met de hand geselecteerd is.**

**Uw eigen veiligheid en die van de heftruck staan op het spel.**

**Het niet in acht nemen kan storingen aan de heftruck veroorzaken, schade aan voorwerpen en letsels aan personen die zich in de buurt van het werkgebied van de machine bevinden.**

**Volg de bovenstaande procedures.**



**Modalità automatica**

Immediatamente dopo aver agganciato un accessorio il sistema di riconoscimento:

- identifica il tipo di accessorio rif.1 Fig. B,
- richiede all'Operatore di confermare rif.2 Fig. B che l'accessorio riconosciuto sia quello realmente agganciato sulla macchina,
- premere il selettore a manopola rif.3 Fig. B per confermare il tipo di accessorio.

**Modalità manuale**

Immediatamente dopo aver agganciato un accessorio privo del dispositivo di identificazione, il sistema di riconoscimento:

- non riconosce l'accessorio agganciato,
- l'Operatore deve selezionare il tipo di accessorio agganciato sulla macchina. L'operatore deve selezionare manualmente il tipo di accessorio installato, come segue:
- premere BACK rif.1 Fig. C per uscire dalla modalità "empty" rif.2 Fig. C [nessun accessorio agganciato],
- ruotare la manopola rif.3 Fig. C per selezionare l'accessorio che si è agganciato rif.4 Fig. D,
- confermare l'accessorio rif.5 Fig. D, premere invio rif.6 Fig. D.

Nota: in modalità "empty" la macchina può muovere il braccio ma con una portata massima di sollevamento fissata a 500kg.

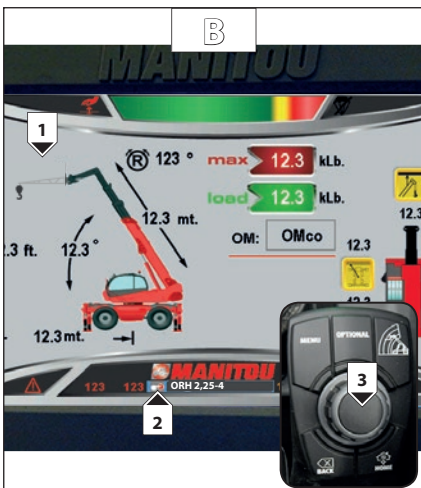
**In entrambe le modalità:**

**è responsabilità dell'operatore assicurarsi che l'accessorio agganciato e visualizzato sul display sia quello identificato dal sistema di riconoscimento o selezionato manualmente.**

**Sono in gioco la vostra sicurezza e quella del carrello elevatore.**

**L'inosservanza potrebbe provocare malfunzionamenti al vostro carrello elevatore e danni a cose e persone vicine all'area di lavoro della macchina.**

**Rispettare le procedure sopra descritte.**

**Automatic mode**

Immediately after connecting the attachment, the identification system:

- identifies the type of attachment Ref. 1 Fig. B,
- requests the Operator to confirm Ref. 2 Fig. B that the attachment identified is that actually connected on the vehicle,
- Press the knob encoder Ref. 3 Fig. B to confirm the type of attachment.

**Manual mode**

Immediately after an attachment devoid of identification device is hooked up, the identification system:

- does not recognise the attachment connected,
- the Operator must select the type of attachment hooked on the vehicle. The operator must manually select the type of attachment installed, as follows:
- press BACK Ref. 1 Fig. C to exit the "empty" mode Ref. 2 Fig. C [no attachment connected],
- turn the knob Ref. 3 Fig. C to select the attachment that is connected Ref. 3 Fig. D,
- confirm the attachment Ref.5 Fig. D, press Enter Ref. 6 Fig. D.

Note: in "empty" mode the vehicle can move the boom but with a maximum lifting capacity fixed at 500 kg.

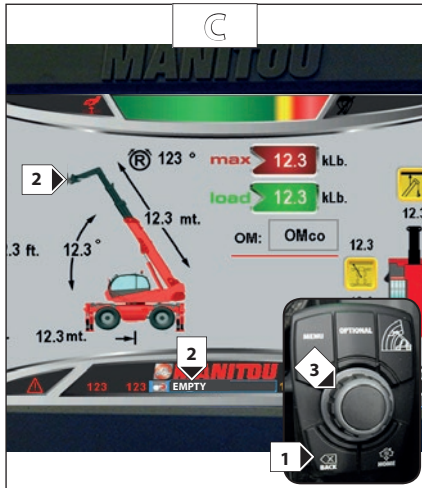
**In both modes:**

**it is the operator's responsibility to make sure the attachment is connected and that the display shows the attachment identified by the identification system or selected manually.**

**Your safety and that of the forklift truck is at stake.**

**Failure to observe these indications can cause an operating fault in your forklift truck and harm to persons or damage to objects near the machine's operating area.**

**Follow the procedures described above.**

**Automatische modaliteit**

Onmiddellijk nadat u een werktuig heeft aangekoppeld, gaat het herkenningssysteem als volgt te werk:

- herkenning van het type werktuig ref. 1 Fig. B,
- het verzoekt de bestuurder om te bevestigen ref. 2 Fig. B dat het herkende werktuig daadwerkelijk aan de machine gekoppeld is,
- druk op de keuzeschakelaar met knop ref. 3 Fig. B om het type werktuig te bevestigen.

**Handmatige modaliteit**

Onmiddellijk nadat u een werktuig zonder identificatiesysteem heeft aangekoppeld, gaat het herkenningssysteem als volgt te werk:

- het herkent het aangekoppelde werktuig niet,
- de bestuurder moet het type werktuig dat aan de machine gekoppeld is selecteren. De bestuurder moet het type werktuig dat aan de machine gekoppeld is handmatig selecteren:
- druk op BACK ref. 1 Fig. C om de modaliteit "empty" ref. 2 Fig. C te verlaten [geen werktuig aangekoppeld],
- draai aan de knop ref. 3 Fig. C om het werktuig dat is aangekoppeld te selecteren ref. 4 Fig. D,
- bevestig het werktuig ref. 5 Fig. D, druk op enter ref. 6 Fig. D.

Opmerking; in de modaliteit "empty" kan de machine de arm bewegen, doch met een maximaal hefvermogen van 500 kg.

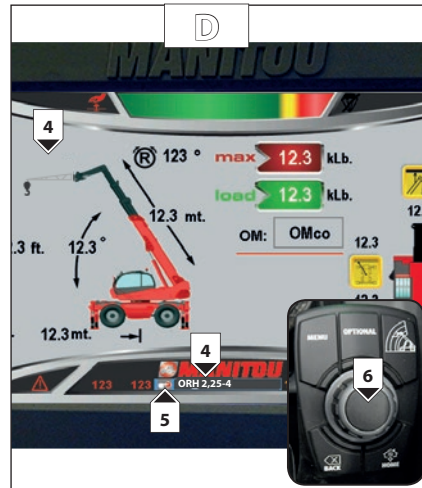
**Voor beide modaliteiten:**

**is de bestuurder er verantwoordelijk voor te controleren of het aangekoppelde werktuig dat op het display wordt weergegeven hetzelfde is als datgene wat door het herkenningssysteem herkend wordt of met de hand geselecteerd is.**

**Uw eigen veiligheid en die van de heftruck staan op het spel.**

**Het niet in acht nemen kan storingen aan de heftruck veroorzaken, schade aan voorwerpen en letsels aan personen die zich in de buurt van het werkgebied van de machine bevinden.**

**Volg de bovenstaande procedures.**



## MONTAGGIO DELL'ACCESSORIO CON BLOCCO MANUALE

### Presa dell'accessorio

- Verificare che l'accessorio sia in una posizione che faciliti l'aggancio dell'attacco rapido. Nel caso in cui fosse male orientato, prendete le precauzioni necessarie per spostarlo in condizioni di massima sicurezza.
- Verificare che il perno di bloccaggio sia inserito nell'apposito supporto sul telaio.
- Posizionare il carrello elevatore con il braccio abbassato ben di fronte e parallelo all'accessorio e inclinare l'attacco rapido in avanti (Fig. A).
- Portare l'attacco rapido sotto il tubo d'aggancio dell'accessorio, alzare leggermente il braccio e inclinare l'attacco stesso all'indietro per posizionare l'accessorio (Fig. B).
- Disimpegnare l'accessorio dal suolo per agevolare il bloccaggio.
- Confermare il riconoscimento dell'accessorio\* a display (Fig. D).

### Bloccaggio manuale

Prendere il perno di bloccaggio sul supporto e infilarlo nel foro dell'attacco rapido per bloccare l'accessorio (Fig. C). Non dimenticare di mettere la copiglia.

### Sbloccaggio manuale

Procedere in senso inverso a quello del BLOCCAGGIO MANUALE facendo attenzione a rimettere il perno di bloccaggio nel supporto sul telaio.

### Rimozione (e posa) dell'accessorio

Procedere in senso inverso a quello della PRESA DELL'ACCESSORIO facendo attenzione a posare il medesimo in posizione sicura su suolo compatto e piano. Se l'accessorio è dotato di sistema idraulico, innestare gli attacchi rapidi o viceversa disinnestarli in caso di smontaggio accessorio previa decompressione del circuito.



**Mantenete puliti gli innesti rapidi e proteggete gli orifizi non utilizzati con gli appositi tappi.**

\*: Vedere capitolo: RICONOSCIMENTO AUTOMATICO DELL'ACCESSORIO "E-RECO".

## ASSEMBLING THE ATTACHMENT WITH MANUAL BLOCK

### Fitting the attachment

- Check to make sure the attachment is in a position which makes it easier to fit the quick-release coupling. If it is not oriented properly, take the necessary precautions to shift it to the conditions of maximum safety.
- Check to make sure the locking pin is inserted in the support provided on the chassis.
- Position the forklift truck with the boom lowered completely in front and parallel to the attachment and tilt the quick-release coupling forwards (Fig. A).
- Bring the quick-release coupling under the connecting hose of the attachment, raise the boom slightly and tilt the coupling backwards to position the attachment (Fig. B).
- Disengage the attachment from the ground to facilitate blocking.
- Confirm the identification of the attachment\* shown on the display (Fig. D).

### Manual blocking

Take the locking pin on the support and insert it in the hole provided in the quick-release coupling to block the attachment (Fig. C). Remember to fit the split pin.

### Manual release

Repeat the MANUAL BLOCKING procedure in reverse order taking care to refit the locking pin in the support on the chassis.

### Removing (and placing) the attachment

Repeat the FITTING THE ATTACHMENT procedure in reverse order, taking care to place it in a safe position on compact, level ground. If the attachment is provided with a hydraulic system, fit the quick-release couplings or disconnect these for dismantling the attachment after decompression of the circuit.



**Keep the quick-release couplings clean and protect the unused holes by means of plugs.**

\*: See chapter: AUTOMATIC IDENTIFICATION OF THE ATTACHMENT "E-RECO".

## MONTAGE VAN HET WERKTUIG MET HANDMATIGE BLOKKERING

### Werktuig aankoppelen

- Controleer of het werktuig in een positie staat voor een makkelijke aankoppeling van de snelkoppeling. Als het niet goed staat, tref dan alle nodige voorzorgsmaatregelen om het veilig te verplaatsen.
- Controleer of de blokkeerpen in zijn steun op het chassis gestoken is.
- Zet de heftruck met de arm naar beneden gehaald tegenover en parallel ten opzichte van het werktuig plaatsen en zet de snelkoppeling voren (Fig. A).
- Breng de snelkoppeling onder de koppelstang van het werktuig, til de arm iets op en hel de snelkoppeling zelf achterover om het werktuig te plaatsen (Fig. B).
- Haal het werktuig van de grond af om de vergrendeling te vergemakkelijken.
- Bevestig de herkenning van het werktuig\* op het display (Fig. D).

### Handmatige vergrendeling

Neem de blokkeerpen op de steun en steek hem in het gat van de snelkoppeling om het werktuig te blokkeren (Fig. C). Vergeet niet de splitpen aan te brengen.

### Handmatige ontgrendeling

De handelingen van de HANDMATIGE VERGRENDELING in omgekeerde volgorde uitvoeren en er hierbij op letten de blokkeerpen weer in de steun op het chassis te plaatsen.

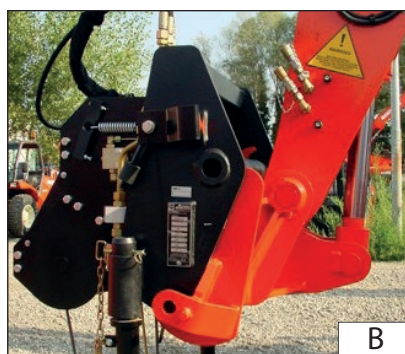
### Verwijderen (en neerzetten) van het werktuig

De handelingen van WERKTUIG AANKOPPELEN in omgekeerde volgorde uitvoeren en er hierbij op letten het werktuig in een veilige positie op een compact en vlak stuk grond neer te zetten. Als het werktuig voorzien is van hydraulisch systeem, de snelkoppelingen aan- of loskoppelen na de druk van het circuit gehaald te hebben.



**Houd de snelkoppelingen schoon en bescherm de niet gebruikte openingen met de speciale doppen.**

\*: Zie hoofdstuk: AUTOMATISCHE HERKENNING VAN HET WERKTUIG "E-RECO".



## MONTAGGIO DELL'ACCESSORIO CON BLOCCO IDRAULICO (opzionale).

### Presca dell'accessorio

- Verificare che l'accessorio sia in una posizione che faciliti l'aggancio dell'attacco rapido. Nel caso in cui fosse male orientato, prendete le precauzioni necessarie per spostarlo in condizioni di massima sicurezza.
- Verificare che le aste del martinetto di bloccaggio siano rientrate.
- Posizionare il carrello elevatore con il braccio abbassato ben di fronte e parallelo all'accessorio e inclinare l'attacco rapido in avanti (Fig. A).
- Portare l'attacco rapido sotto il tubo d'aggancio dell'accessorio, alzare leggermente il braccio e inclinare l'attacco stesso all'indietro per posizionare l'accessorio (Fig. B).
- Disimpegnare l'accessorio dal suolo per agevolare il bloccaggio.
- Azionare il comando optional per bloccare l'accessorio.
- Confermare il riconoscimento dell'accessorio\* a display (Fig. D).

### Bloccaggio e sbloccaggio idraulico (opzionale) (Fig. E).

Il bloccaggio e lo sbloccaggio di un eventuale accessorio avviene tramite l'utilizzo del comando optional (comando che può essere azionato da un apposito pulsante o dal manipolatore stesso a seconda del tipo di carrello elevatore che si possiede) tramite i perni che debbano fuoriuscire dai fori dell'attacco rapido (Fig. C).

### Rimozione (e posa) dell'accessorio

Procedere in senso inverso a quello della PRESA DELL'ACCESSORIO facendo attenzione a posare il medesimo in posizione sicura su suolo compatto e piano.



## ASSEMBLING THE ATTACHMENT WITH HYDRAULIC BLOCK (OPTIONAL).

### Fitting the attachment

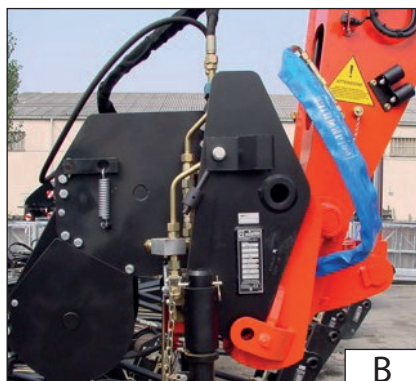
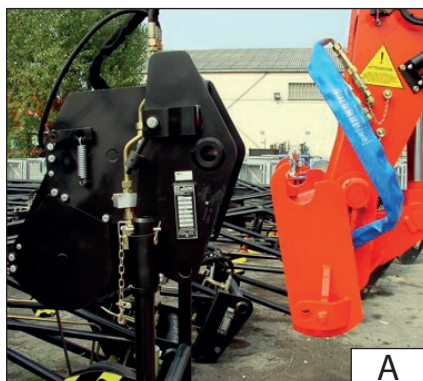
- Check to make sure the attachment is in a position which makes it easier to fit the quick-release coupling. If it is not oriented properly, take the necessary precautions to shift it to the conditions of maximum safety.
- Check to make sure the locking cylinder rods are retracted.
- Position the forklift truck with the boom lowered completely in front and parallel to the attachment and tilt the quick-release coupling forwards (Fig. A).
- Bring the quick-release coupling under the connecting hose of the attachment, raise the boom slightly and tilt the coupling backwards to position the attachment (Fig. B).
- Disengage the attachment from the ground to facilitate blocking.
- Activate the optional command to block the attachment.
- Confirm the identification of the attachment\* shown on the display (Fig. D).

### Hydraulic block and release (optional) (Fig. E).

Blocking and release of an attachment, if present, is done by means of the optional command (which may be activated by means of a pushbutton provided for the purpose or by the manipulator itself, depending on the type of forklift truck in your possession) by means of the pins which must project out through the holes in the quick-release coupling (Fig. C).

### Removing (and placing) the attachment

Repeat the FITTING THE ATTACHMENT procedure in reverse order, taking care to place the attachment in a safe position on compact, level ground.



## MONTAGE VAN HET WERKTUIG MET HYDRAULISCHE BLOKKERING (optioneel).

### Werktuig aankoppelen

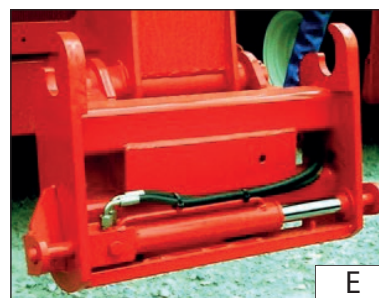
- Controleer of het werktuig in een positie staat voor een makkelijke aankoppeling van de snelkoppeling. Als het niet goed staat, tref dan alle nodige voorzorgsmaatregelen om het veilig te verplaatsen.
- Controleer of de stangen van de aankoppelcilinder ingeschoven zijn.
- Zet de heftruck met de arm naar beneden gehaald tegenover en parallel ten opzichte van het werktuig plaats en zet de snelkoppeling voren (Fig. A).
- Breng de snelkoppeling onder de koppelstang van het werktuig, til de arm iets op en hel de snelkoppeling zelf achterover om het werktuig te plaatsen (Fig. B).
- Haal het werktuig van de grond af om de vergrendeling te vergemakkelijken.
- Gebruik de optionele bediening om het werktuig te blokkeren.
- Bevestig de herkenning van het werktuig\* op het display (Fig. D).

### Hydraulisch vergrendelen en ontgrendelen (optioneel) (Fig. E).

Een eventueel werktuig wordt vast- en losgemaakt met behulp van de optionele bediening (aansturing die met een speciale knop of de stuurknuppel zelf bediend kan worden naar gelang het type heftruck in uw bezit) door middel van de pennen die door de gaten van de snelkoppeling naar buiten moeten komen (Fig. C).

### Verwijderen (en neerzetten) van het werktuig

De handelingen van WERKTUIG AANKOPPELEN in omgekeerde volgorde uitvoeren en er hierbij op letten het werktuig in een veilige positie op een compact en vlak stuk grond neer te zetten.



## INATTIVITÀ PROLUNGATA DELLA MACCHINA

Se la macchina deve rimanere per lungo tempo inoperosa è necessario adottare alcune precauzioni importanti per il mantenimento della stessa.

- Scegliere un luogo con superficie il più possibile orizzontale e compatta, possibilmente protetta dagli agenti atmosferici e dall'accesso di persone non autorizzate, sulla quale parcheggiare la vostra macchina.
- Portare la leva dell'invertitore di marcia in posizione neutra.
- Azionare il freno di stazionamento.
- Abbassare gli stabilizzatori per alleggerire il carico gravante sui pneumatici.
- Arrestare il motore termico e togliere la chiave di avviamento dal cruscotto.
- Chiudere sempre a chiave le porte della cabina e tutti gli sportelli.
- Procedere alla pulizia generale della macchina.
- Sostituire completamente tutti i lubrificanti e lubrificare la macchina.
- Sostituire le parti danneggiate o eccessivamente usurate con ricambi originali e ritoccare la verniciatura, ove necessari, per prevenire formazioni di ruggine.
- Ingrassare tutti gli organi provvisti di ingrassatori.
- Spruzzare o cospargere un leggero velo di grasso protettivo neutro sulle aste dei cilindri idraulici e su tutte le parti sverniciate della macchina.
- Riempire completamente il serbatoio carburante per evitare formazioni di ruggine.
- Lubrificare le guarnizioni esterne della carrozzeria con appositi lubrificanti, per evitare il degrado.
- Scollegare i morsetti della batteria, pulirli e coprirli con un velo di grasso neutro.
- Togliere la batteria e conservarla in un luogo temperato ed asciutto.

## LONG SHUTDOWNS OF THE VEHICLE

If the vehicle is to remain unused for long periods, important precautions must be taken to ensure it remains in good condition.

- Choose a place with the most compact, level floor available, protected against the weather and access by unauthorised persons if possible, to park your truck.
- Place the reverse gear lever in the neutral position.
- Apply the parking brake.
- Lower the stabilisers to lighten the load on the tyres.
- Stop the I.C. engine and remove the ignition key from the dashboard.
- Always lock all cab doors and all machine access hatches.
- Carry out general cleaning of the vehicle.
- Change all the lubricants completely and lubricate the vehicle.
- Replace damaged or excessively worn parts with original spare parts and touch up the paintwork, where necessary, to prevent rusting.
- Grease all components fitted with grease nipples.
- Spray or spread a thin film of neutral protective grease on the rods of the hydraulic cylinders and on all parts of the machine which are not painted.
- Fill the fuel tank to capacity to prevent rusting.
- Lubricate the outer gaskets of the body using special lubricants, to prevent deterioration.
- Disconnect the battery terminals, clean them and coat them with neutral grease.
- Remove the battery and store it in a cool, dry place.

## ALS DE MACHINE EEN LANGE PERIODE NIET GEBRUIKT WORDT

Als de machine een lange tijd niet gebruikt wordt moeten er enkele voorzorgsmaatregelen getroffen worden.

- Kies voor het parkeren van uw heftruck een plaats met een zo vlak en compact mogelijk oppervlak, mogelijkerwijs beschermd tegen de weersomstandigheden en de toegang van onbevoegde personen.
- Zet de hendel van de omkeerinrichting in zijn vrij.
- Trek de handrem aan.
- Zet de stabilisatoren naar beneden om de belasting op de banden te verlichten.
- Zet de verbrandingsmotor af en haal de contactsleutel van het dashboard.
- Draai altijd het cabineportier en de andere deuren op slot.
- Maak de hele heftruck schoon.
- Vervang alle smeermiddelen volledig en smeer de machine.
- Vervang de beschadigde of te erg versleten onderdelen door originele reserveonderdelen en tip de lak aan waar nodig om roestvorming te voorkomen.
- Vet alle onderdelen in die voorzien zijn van smeernippels.
- Smit of smeer een dun laagje neutraal beschermvet op de stangen van de hydraulische cilinders en op alle ongeverfde delen van de heftruck.
- Vul de brandstoftank volledig om roestvorming te voorkomen.
- Smeer de externe afdichtingen van de carrosserie met speciale smeermiddelen om verslechtering te voorkomen.
- Schakel de accuklemmen los, maak ze schoon en bedek ze met een laagje neutraal vet.
- Verwijder de accu en berg hem op een gematigde en droge plaats op.

## RIMESSA IN SERVIZIO DELLA MACCHINA

Prima di riprendere il lavoro dopo una lunga inattività è necessario:

- Rimontare la batteria, dopo averla ricaricata.
- Controllare la pressione dei pneumatici.
- Pulire la macchina dal grasso di protezione.
- Controllare tutti i livelli dei lubrificanti ed eventualmente rabboccare.
- Sostituire il filtro dell'aria di combustione.
- Ingrassare tutti gli organi provvisti di ingrassatori.
- Avviare il motore della macchina e farlo funzionare a vuoto per una decina di minuti.
- Far funzionare la macchina a vuoto e verificare tutti i movimenti.

## PUTTING THE VEHICLE BACK INTO OPERATION

Before resuming work after a long shutdown:

- Refit the battery, after recharging it.
- Check the tyre pressure.
- Clean the machine to remove the protective grease.
- Check all the lubricant levels and top up, if necessary.
- Change the combustion air filter.
- Grease all components fitted with grease nipples.
- Start up the engine and run it idle for about ten minutes.
- Operate the machine without load and check all movements.

## DE HEFTRUCK WEER IN BEDRIJF STELLEN

Voor het werk te hervatten na een lange periode dat de heftruck niet gebruikt is:

- Monteer de accu weer na hem opgeladen te hebben.
- Controleer de bandenspanning.
- Verwijder het beschermvet van de heftruck.
- Kijk alle smeermiddelniveaus na en vul ze eventueel bij.
- Vervang het verbrandingsluchtfilter.
- Vet alle onderdelen in die voorzien zijn van smeernippels.
- Start de motor van de heftruck en laat hem onbelast gedurende ongeveer tien minuten draaien.
- Laat de machine onbelast werken en controleer alle bewegingen.



**2-    *DIMENSIONI -  
USO e MANUTENZIONE***

***DIMENSIONS -  
USE and MAINTENANCE***

***AFMETINGEN -  
GEBRUIK en ONDERHOUD***



## FUNZIONI COMANDI IN CABINA

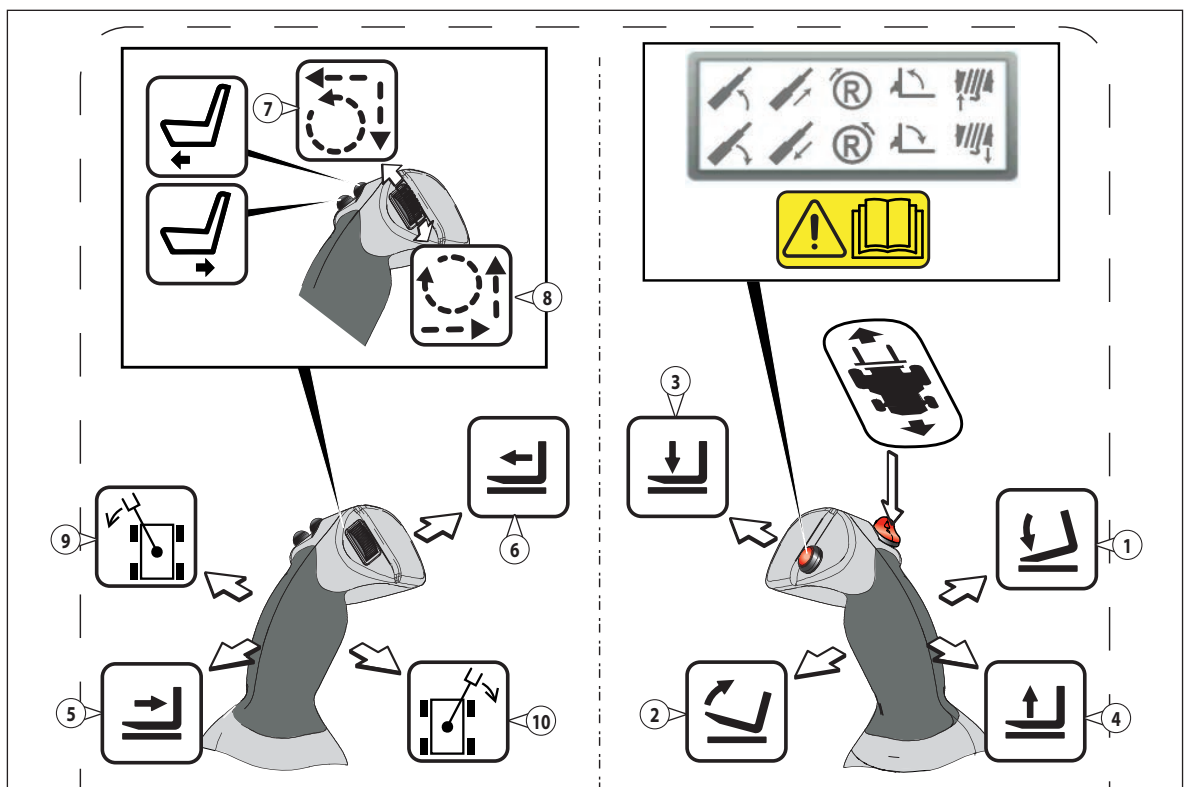
1. Inclinazione in avanti dell'accessorio gru
2. Inclinazione all'indietro dell'accessorio gru
3. Discesa del braccio telescopico con accessorio gru.
4. Salita del braccio telescopico con accessorio gru.
5. Rientro sfilì del braccio telescopico con accessorio gru.
6. Uscita sfilì del braccio telescopico con accessorio gru.
7. Salita fune dell'accessorio gru.
8. Discesa fune dell'accessorio gru
9. Rotazione in senso antiorario della torretta.
10. Rotazione in senso orario della torretta.

## CONTROL FUNCTIONS IN CAB

1. Crane attachment tilted forwards
2. Crane attachment tilted backwards
3. Telescopic boom descent with crane attachment
4. Telescopic boom ascent with crane attachment
5. Telescopic boom extensions retracted with crane attachment
6. Telescopic boom extensions out with crane attachment
7. Crane attachment rope ascent.
8. Crane attachment rope descent.
9. Anticlockwise rotation of the turret.
10. Clockwise rotation of the turret.

## FUNCTIES VAN DE BEDIENINGEN IN DE CABINE

1. Kraanwerktuig voorover hellen
2. Kraanwerktuig achterover hellen
3. Telescopische arm met kraanwerktuig omlaag.
4. Telescopische arm met kraanwerktuig omhoog.
5. Telescopische arm met kraanwerktuig intrekken.
6. Telescopische arm met kraanwerktuig uitschuiven.
7. Kabel van het kraanwerktuig omhoog.
8. Kabel van het kraanwerktuig omlaag.
9. Draaiing van de zwenkknop tegen de richting van de klok in.
10. Draaiing van de zwenkknop in de richting van de klok.



**INTERRUTTORI**

MRT-X 2150 Privilege Plus ST3A S2  
 MRT 2150 Privilege Plus ST4 S2  
 MRT-X 2550 Privilege Plus ST3A S2  
 MRT 2550 Privilege Plus ST4 S2

11. Interruttore radiocomando
12. Interruttore frenostazionamento
13. Selettore stabilizzatore anteriore sinistro
14. Selettore stabilizzatore anteriore destro
15. Selettore filo-riento/discesa-salita stabilizzatori
16. Selettore stabilizzatore posteriore sinistro
17. Selettore stabilizzatore posteriore destro
18. Comando filo-riento/discesa-salita stabilizzatori
19. Leva comando livellamento
20. Interruttore chiave per l'esclusione del sistema di sicurezza
21. Pulsante di "arresto di emergenza"

**SWITCHES**

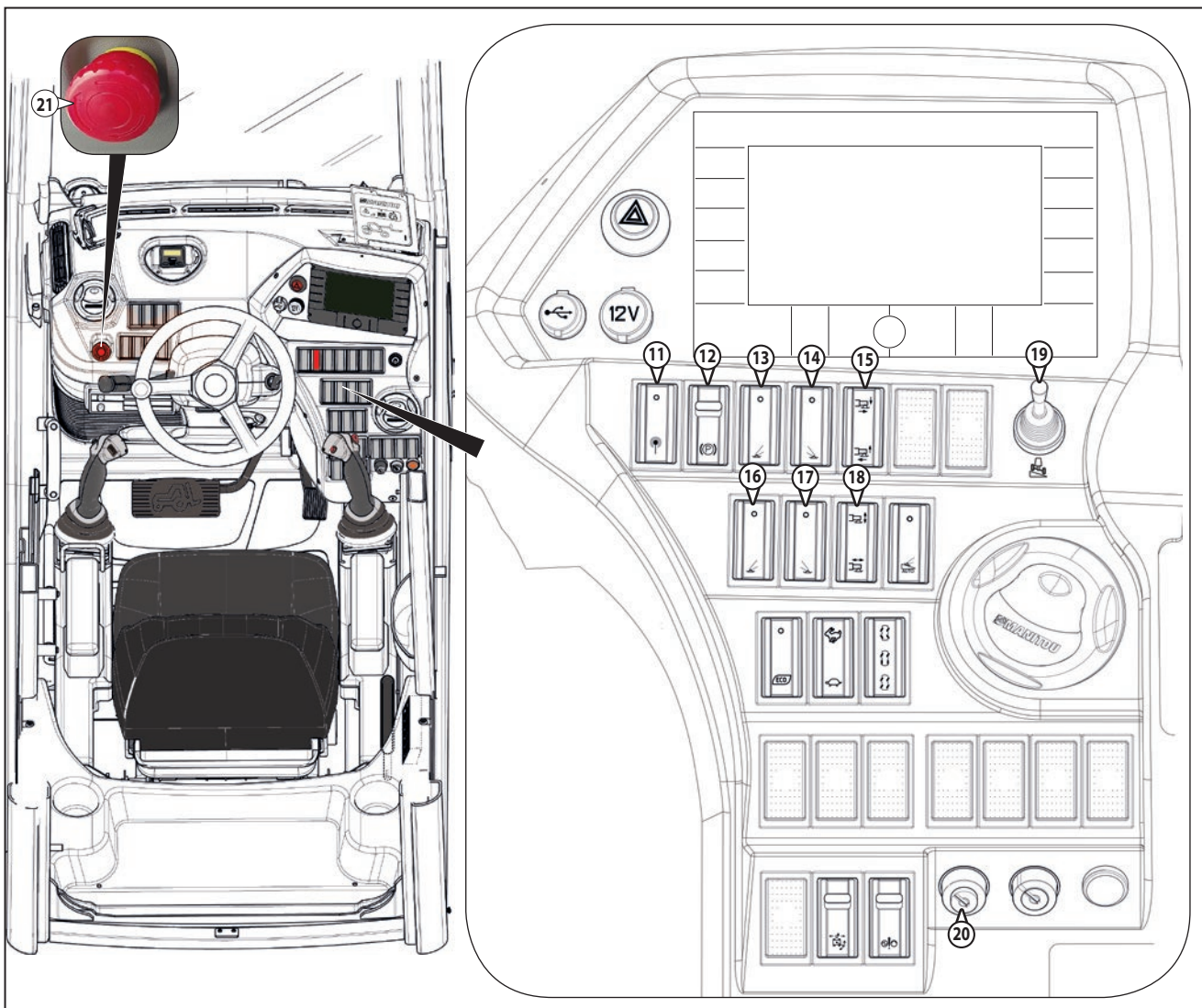
MRT-X 2150 Privilege Plus ST3A S2  
 MRT 2150 Privilege Plus ST4 S2  
 MRT-X 2550 Privilege Plus ST3A S2  
 MRT 2550 Privilege Plus ST4 S2

11. Radio-Control Switch
12. Parking Brake Switch
13. Selects The Front Left Outrigger
14. Selects The Front Right Outrigger
15. Outrigger Up-Down/Extension-Retractor Selector
16. Selects The Rear Left Outrigger
17. Selects The Rear Right Outrigger
18. Outrigger up/down extension-retraction control
19. Levelling Device
20. Key Selector For Exclusion Of Safety System
21. "Emergency stop" button

**SCHAKELAARS**

MRT-X 2150 Privilege Plus ST3A S2  
 MRT 2150 Privilege Plus ST4 S2  
 MRT-X 2550 Privilege Plus ST3A S2  
 MRT 2550 Privilege Plus ST4 S2

11. Schakelaar afstandsbediening
12. Schakelaar parkeerrem
13. Keuzeschakelaar stabilisator links vooraan
14. Keuzeschakelaar stabilisator rechts vooraan
15. Keuzeschakelaar intrekken-uitschuiven/dalen-stijgen stabilisatoren
16. Keuzeschakelaar stabilisator links achteraan
17. Keuzeschakelaar stabilisator rechts achteraan
18. Bediening intrekken-uitschuiven/dalen-stijgen stabilisatoren
19. Bedieningshendel nivellering
20. Sleutelschakelaar voor het uitsluiten van het veiligheidssysteem
21. "Noodstop"-knop



**INTERRUTTORI**

MRT-X 3255 Privilege Plus ST3A S1  
MRT 3255 Privilege Plus ST4 S1

11. Interruttore radiocomando
12. Interruttore freno stazionamento
13. Selettore stabilizzatore anteriore sinistro
14. Selettore stabilizzatore anteriore destro
15. Selettore filo-rientro/discesa-salita stabilizzatori
16. Selettore stabilizzatore posteriore sinistro
17. Selettore stabilizzatore posteriore destro
18. Comandos filo-rientro/discesa-salita stabilizzatori
19. Leva comando livellamento
20. Interruttore chiave per l'esclusione del sistema di sicurezza
21. Pulsante di "arresto di emergenza"

**SWITCHES**

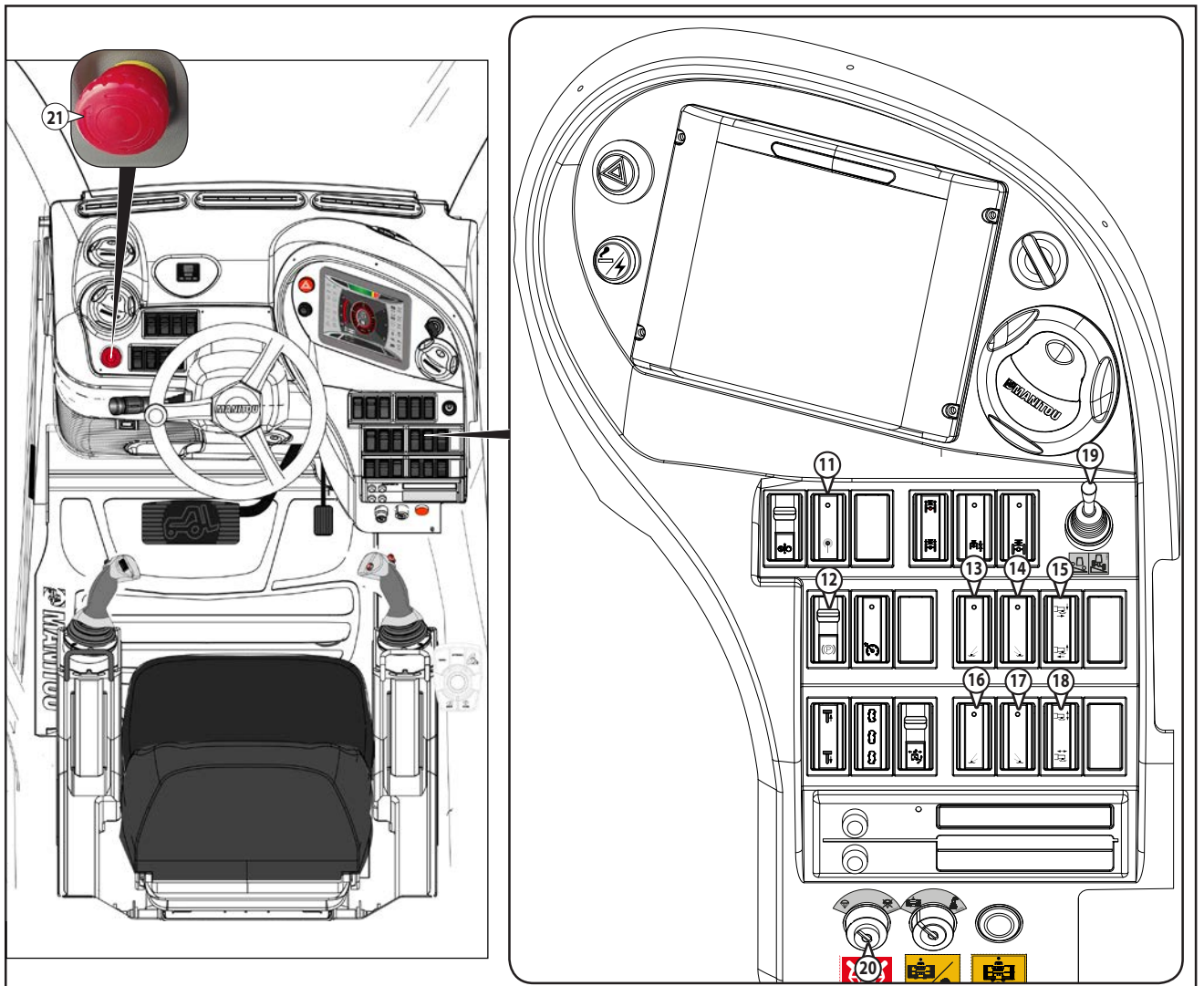
MRT-X 3255 Privilege Plus ST3A S1  
MRT 3255 Privilege Plus ST4 S1

11. Radio-Control Switch
12. Parking Brake Switch
13. Selects The Front Left Outrigger
14. Selects The Front Right Outrigger
15. Outrigger Up-Down/Extension-Retracton-Selector
16. Selects The Rear Left Outrigger
17. Selects The Rear Right Outrigger
18. Outrigger up/down extension-retraction control
19. Levelling Device
20. Key Selector For Exclusion Of Safety System
21. "Emergency stop" button

**SCHAKELAARS**

MRT-X 3255 Privilege Plus ST3A S1  
MRT 3255 Privilege Plus ST4 S1

11. Schakelaar afstandsbediening
12. Schakelaar parkeerrem
13. Keuzeschakelaar stabilisator links vooraan
14. Keuzeschakelaar stabilisator rechts vooraan
15. Keuzeschakelaar intrekken-uitschuiven/dalen-stijgen stabilisatoren
16. Keuzeschakelaar stabilisator links achteraan
17. Keuzeschakelaar stabilisator rechts achteraan
18. Bediening intrekken-uitschuiven/dalen-stijgen stabilisatoren
19. Bedieningshendel nivellering
20. Sleutelschakelaar voor het uitsluiten van het veiligheids-systeem
21. "Noodstop"-knop



**FUNZIONI COMANDI DA  
RADIOCOMANDO**

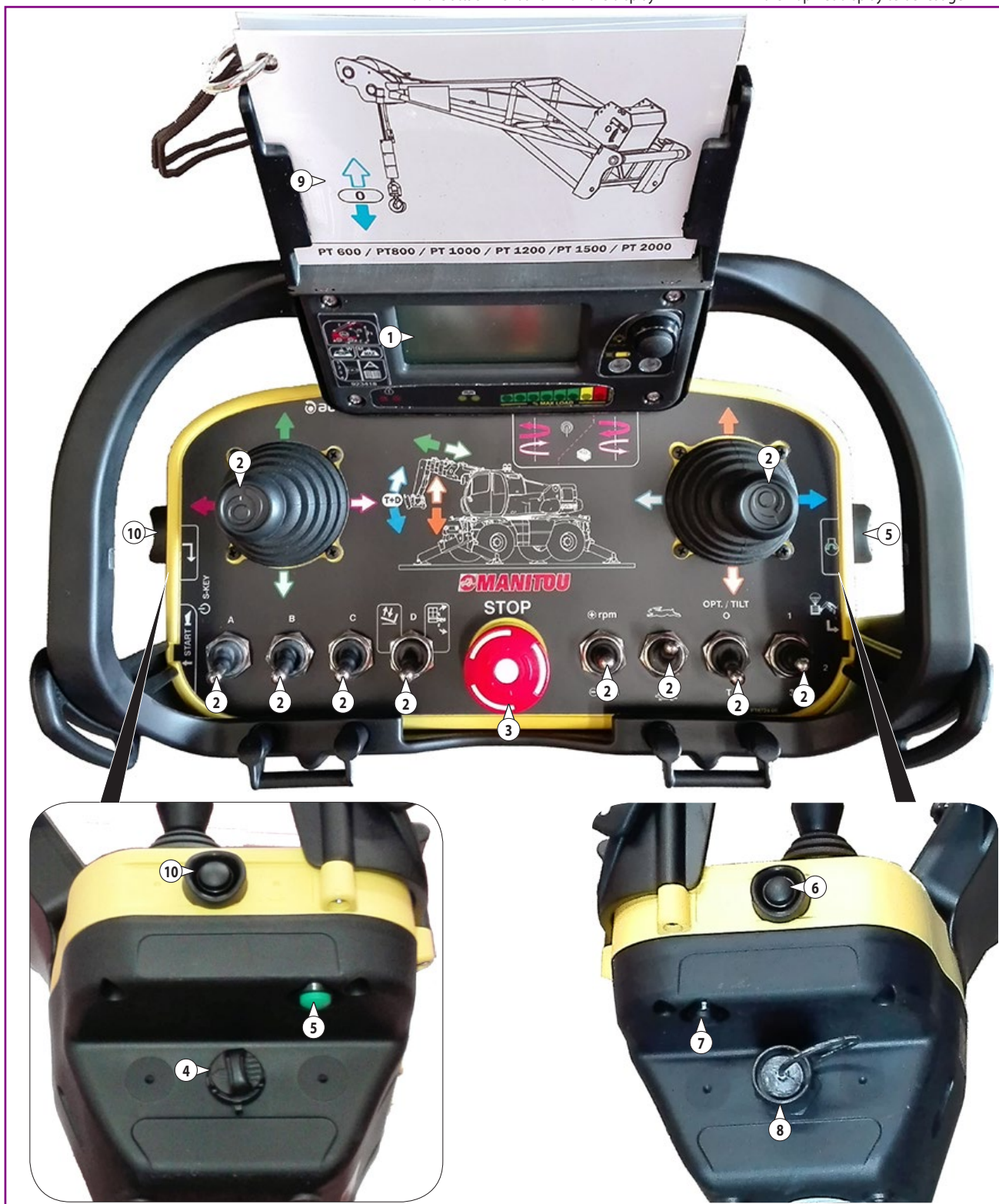
1. Display funzioni macchina e stato del carico
2. Joystick, selettori, pulsanti funzioni macchina
3. Pulsante arresto d'emergenza
4. S-KEY accensione radiocomando
5. Consenso avviamento motore e Clacson
6. Avviamento motore
7. Pulsante elettropompa d'emergenza per il salvataggio cestello
8. Presa per filo comando
9. Schede movimenti cestello
10. Pulsante per confermare il riconoscimento del accessorio a display

**CONTROLS FUNCTIONS FROM  
RADIO CONTROL**

1. Display machine functions and status of load
2. Joystick, selectors, machine functions buttons
3. Emergency stop pushbutton
4. S-KEY switching on radio control
5. Engine start-up enable and Horn pushbutton
6. Engine start-up pushbutton
7. Emergency motor pump pushbutton for platform rescue
8. Socket for control wire
9. Platform movements charts
10. Pushbutton to confirm the identification of the attachment shown on the display

**BEDIENINGEN RADIOBESTURING**

1. Display en functie- en batterijstatus-lampjes
2. Joysticks, keuzeschakelaars, knoppen voor machinefuncties
3. Noodstopknop
4. S-KEY inschakelen afstandsbediening
5. Toestemming starten motor en claxon
6. Motor starten
7. Knop elektrische noodpomp voor de reddingsprocedure van de kooi
8. Contact voor draadbediening
9. Kaarten bewegingen werkkooi
10. Knop om de herkenning van het toebehoren op het display te bevestigen



1. Displayfunzionimacchinaestato del carico (vedere MANUALE D'ISTRUZIONI)
2. Joystick,selettori,pulsantifunzioni macchina
  - 2.1 - Pulsante rosso "arresto d'emergenza".  
Funzioni:
    - Permette di arrestare il motore termico.
    - In caso di pericolo, permette all'utilizzatore del cestello di tagliare i movimenti comandati dal carrello.
    - Per ripristinare i movimenti ruotare il pulsante rosso in senso orario.
  - 2.2 - Joystick.  
Azionare il manipolatore per effettuare i movimenti desiderati seguendo le frecce colorate.
  - 2.3 - Commutatore movimenti "A-B-C-D" (solo per accessorio cestello)
  - 2.4 - Acceleratore RPM motore
  - 2.5 - Velocità movimenti idraulici solo con accessorio gru
  - 2.6 - Selettore movimento brandeggio TS (T) o livellamento cesto (O)



**Il brandeggio del cesto o l'inclinazione della piattaforma sono consentiti solo sotto i 3 m di altezza.**

- 2.7 - Movimenti multipli 1-2-3 solo con accessorio gru

3. Pulsanterosso "arrestod'emergenza".  
Funzioni:
  - Permette di arrestare il motore termico.
  - In caso di pericolo, permette all'utilizzatore del cestello di tagliare i movimenti comandati dal carrello.
  - Per ripristinare i movimenti ruotare il pulsante rosso in senso orario.

1. Displaymachinefunctionsandstatus of load (See INSTRUCTIONS MANUAL)
2. Joystick,selectors,machinefunctions buttons macchina
  - 2.1 - Red "emergency stop" push-button.  
Functions:
    - Makes it possible to stop the I.C. engine.
    - In case of danger, makes it possible for the person using the platform to disconnect the movements controlled from the forklift truck.
    - To restore the movements, turn the red pushbutton clockwise.
  - 2.2 - Joystick.  
Operate the manipulator to make the required movements by following the coloured arrows.
  - 2.3 - Movements switch "A-B-C-D" (only for basket attachment).
  - 2.4 - Engine RPM accelerator
  - 2.5 - Hydraulic movements speed with only crane attachment
  - 2.6 - TS (T) slewing movement or basket levelling (O) selector



**The slewing or inclination of the platform are allowed only below 3 m height.**

- 2.7 - Multiple movements 1-2-3 with only crane attachment

3. Red "Emergency stop" pushbutton  
Functions:
  - Makes it possible to stop the I.C. engine.
  - In case of danger, makes it possible for the person using the platform to disconnect the movements controlled from the forklift truck.
  - To restore the movements, turn the red pushbutton clockwise.

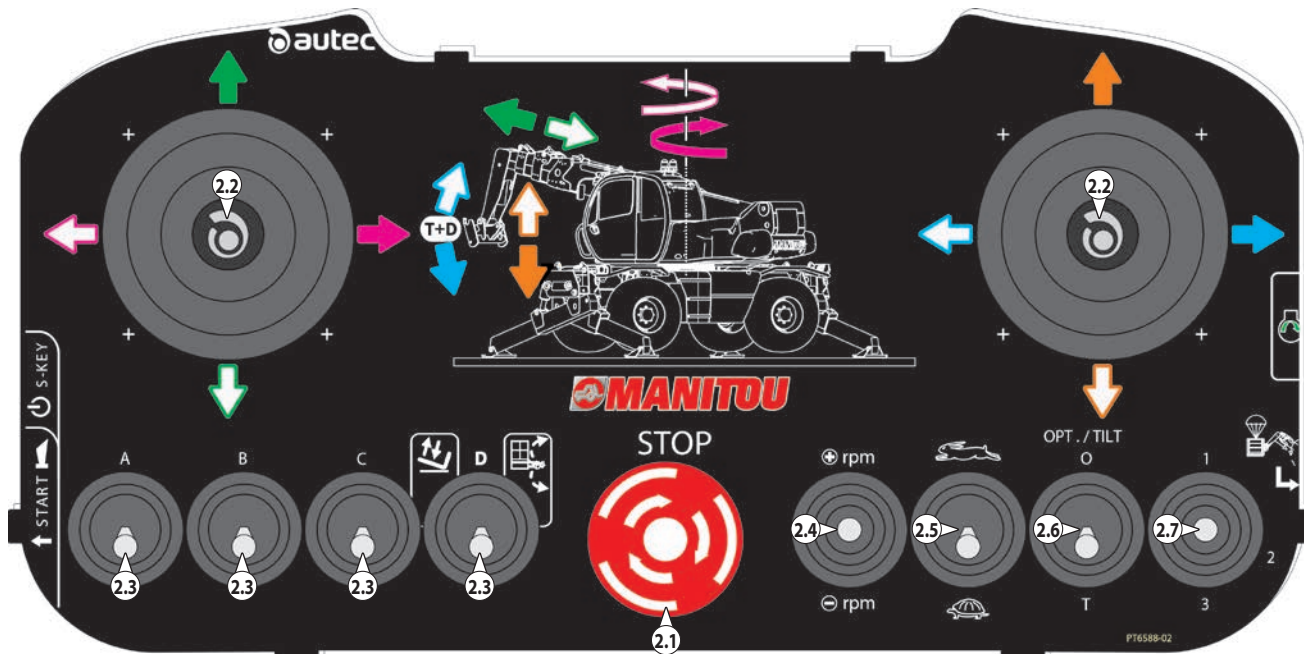
1. Display en functie- en batterijstatuslampjes (zie de HANDLEIDING)
2. Joysticks, keuzeschakelaars, knoppen voor machinefuncties
  - 2.1 - Rode "noodstop"-knop.  
Functies:
    - Maakt het mogelijk de verbrandingsmotor te stoppen.
    - Als er gevaar heerst, kan de gebruiker van de kooi hiermee de vanaf de heftruck bestuurd bewegingen stopzetten.
    - Om de bewegingen weer te herstellen, draai de rode knop rechtsom.
  - 2.2 - Joystick.  
Gebruik de stuurknuppel om de gewenste bewegingen te maken volgens de gekleurde pijlen.
  - 2.3 - Bewegingsschakelaar "A-B-C-D" (alleen voor platform).
  - 2.4 - Motortoerental versneller
  - 2.5 - Snelheid hydraulische bewegingen, alleen met kraanwerk-tuig
  - 2.6 - Keuzeschakelaar kantelbeweging TS (T) of kooivelling (O)



**De kantelbewegingen van de kooi of het platform zijn alleen toegestaan onder 3 meter hoogte.**

- 2.7 - Meervoudige bewegingen 1-2-3 alleen met kraanaccessoire

3. Rode "noodstop"-knop.  
Functies:
  - Maakt het mogelijk de verbrandingsmotor te stoppen.
  - Als er gevaar heerst, kan de gebruiker van de kooi hiermee de vanaf de heftruck bestuurd bewegingen stopzetten.
  - Om de bewegingen weer te herstellen, draai de rode knop rechtsom.



**4 - S-KEY accensione radiocomando**

Ruotare la chiave per accendere il radiocomando. Quando non si utilizza il radiocomando per sicurezza estrarre la S-KEY (4.1).

**5 - Consenso avviamento motore e Clacson****6 - Pulsante avviamento motore**

- Prima dell'accensione, occorre far risalire il pulsante di ARRESTO D'URGENZA "3".
- Premere il pulsante "5" poi premere sul pulsante "6" per accendere il motore.

**7 - Pulsante elettropompa d'emergenza per il salvataggio cestello**

Vedere ISTRUZIONI PER IL SALVATAGGIO.

**8 - Presa per filocomando**

Consenso manovre dal cestello

**9 - Schede movimenti cestello**

Cambiare scheda movimenti in base al cestello installato

**10 - Pulsante per confermare il riconoscimento del accessorio a display**

Premere invio per confermare il tipo di accessorio.

**4 - S-KEY switching on radio control**

Turn the key to switch on the radio control. When the radio control is not being used, remove the S-KEY for safety (4.1).

**5 - Engine start-up enable and Horn****6 - Engine start-up pushbutton**

- Before switching on, reset the EMERGENCY STOP button "3".
- Press the "5" button then press "6" to switch on the engine.

**7 - Emergency motor pump pushbutton for platform rescue**

See INSTRUCTIONS FOR RESCUE.

**8 - Socket for control wire**

Consent for manoeuvre from basket

**9 - Platform movements charts**

Change the movements chart depending on the platform installed

**10 - Pushbutton to confirm the identification of the attachment shown on the display**

Press enter to confirm the type of attachment.

**4 - S-KEY inschakelen afstandsbediening**

Draai aan de sleutel om de afstandsbediening aan te zetten. Als de afstandsbediening niet gebruikt wordt, is het raadzaam om de S-KEY te verwijderen (4.1).

**5 - Toestemming starten motor en claxon****6 - Startknop motor**

- Voordat u de motor start, dient u de NOODSTOP-knop omhoog te zetten "3".
- Druk op de knop "5" en vervolgens op de knop "6" om de motor te starten.

**7 - Knop elektrische noodpomp voor de reddingsprocedure van de kooi**

Zie de REDDINGSINSTRUCTIES.

**8 - Contact voor draadbediening**

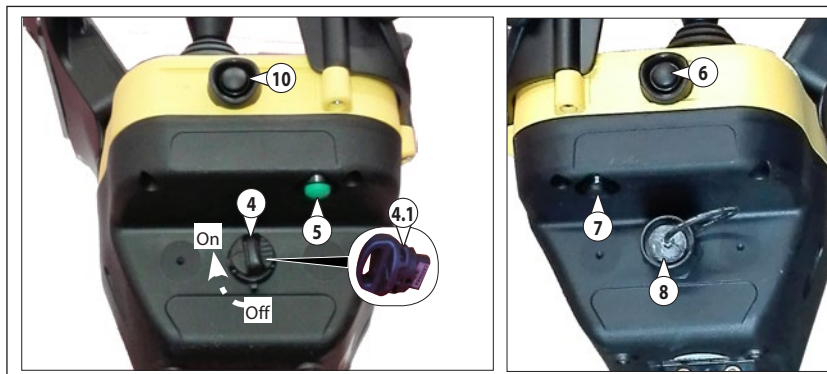
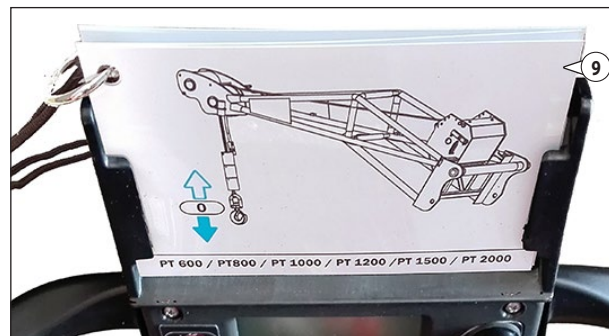
Toestemming manoeuvres kooi

**9 - Kaarten bewegingen werkkooi**

Bewegingenkaart verwisselen op basis van de gemonteerde werkkooi.

**10 - Knop om de herkenning van het toebehoren op het display te bevestigen**

Druk op enter om het type toebehoren te bevestigen.





**CARATTERISTICHE BRACCETTI E ARGANI****GAMMA BRACCETTI E ARGANI**

## ARGANO IDRAULICO

- ARGANO 3T
- ARGANO 3T TD
- ARGANO 4T
- ARGANO 5T
- ARGANO 7,2T

## ARGANO IDRAULICO SU BRACCIO

- ARGANO 5,5T

## BRACCETTO TRALICCIATO

- P 600
- P 1000
- P 1200
- P 1500
- P 2000

## BRACCETTO A 2 GANCI FISSI

- P 4000
- P 6000

## BRACCETTO TRALICCIATO CON ARGANO

- PT 600
- PT 1000
- PT 1200
- PT 1500
- PT 2000

## BRACCETTO TRALICCIATO ESTENSIBILE CON ARGANO

- PT 800

## BRACCETTO CON GANCIO FISSO

- PC 30
- PC 40
- PC 50
- PC 60

**CHARACTERISTICS OF JIB & CRANE AND WINCHES****RANGE JIB & CRANE AND WINCHES**

## HYDRAULIC WINCH

- WINCH 3T
- WINCH 3T TD
- WINCH 4T
- WINCH 5T
- WINCH 7,2T

## HYDRAULIC WINCH ON THE BOOM

- WINCH 5,5T

## EXTENSION JIB

- P 600
- P 1000
- P 1200
- P 1500
- P 2000

## CRANE

- P 4000
- P 6000

## EXTENSION JIB WITH WINCH

- PT 600
- PT 1000
- PT 1200
- PT 1500
- PT 2000

## EXPANDABLE JIB WITH WINCH

- PT 800

## FRAME MOUNTED HOOK

- PC 30
- PC 40
- PC 50
- PC 60

**KENMERKEN ARMEN EN LIEREN****ASSORTIMENT ARMEN EN LIEREN**

## HYDRAULISCHE LIER

- WINCH 3T
- WINCH 3T TD
- WINCH 4T
- WINCH 5T
- WINCH 7,2T

## HYDRAULISCHE LIER OP ARM

- WINCH 5,5T

## VERLENGDE ARM

- P 600
- P 1000
- P 1200
- P 1500
- P 2000

## ARM MET 2 VASTE HAKEN

- P 4000
- P 6000

## VERLENGDE ARM MET LIER

- PT 600
- PT 1000
- PT 1200
- PT 1500
- PT 2000

## VERLENGDE ARM UITBREIDBAAR MET LIER

- PT 800

## ARM MET VASTE HAAK

- PC 30
- PC 40
- PC 50
- PC 60

# ***WINCH 3T***

**ARGANO 3 T****Descrizione:**

Argano idraulico 3t

**Caratteristiche:**

- Tiro al 3° strato di 3000Kg.
- Velocità massima al 3° strato 23mt/min
- Il tiro è in due taglie.
- La fune è di 49mt, diametro 10mm disposta su tre strati.
- Motore orbitale Sauer-Danfoss OMSU
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Presenza di un guida fune che migliora ulteriormente l'avvolgimento della fune sul tamburo.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezza:**

- Fine corsa discesa idraulico positivo.
- Fine corsa salita idraulico positivo.

**WINCH 3 T****Description:**

3t Hydraulic winch

**Features:**

- Pull at 3<sup>rd</sup> layer 3000kg.
- Maximum speed at 3<sup>rd</sup> layer 23 m/min
- The pull is in two sheaves.
- The rope is 49 m long, 10mm diameter arranged in three layers.
- Sauer-Danfoss OMSU orbital motor
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- Presence of a rope guide which further improves the winding of the rope on the drum.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch.
- Positive hydraulic ascent limit switch.

**WINCH 3 T****Beschrijving:**

Hydraulische lier 3t







**Kenmerken:**

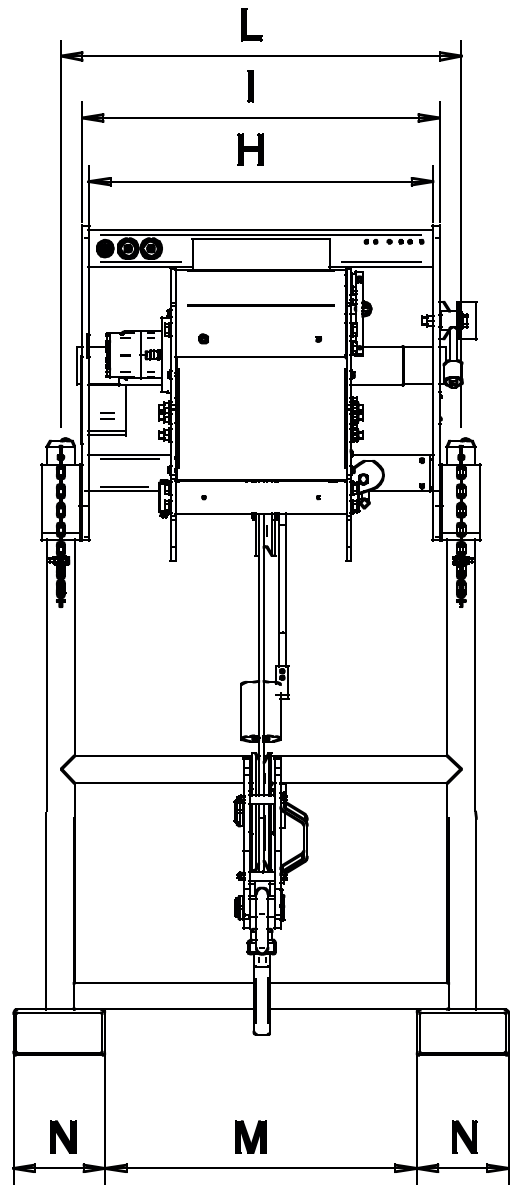
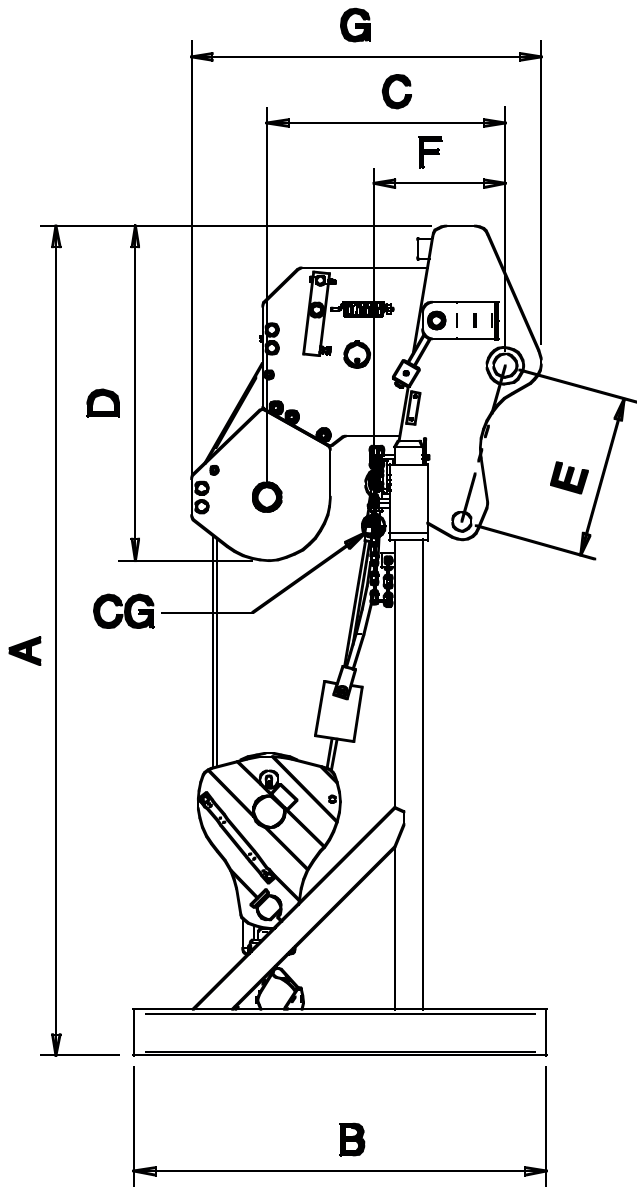
- Trekkracht 3de laag 3000 kg.
- Maximumsnelheid 3de laag 23 m/min.
- Kabel dubbel gebruikt.
- De kabel is 49 m, diameter 10 mm in drie lagen.
- Sauer-Danfoss OMSU orbitmotor
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelandrukrol voor een altijd correcte opwikkeling van de kabel.
- Aanwezigheid van een kabelgeleider voor een nog betere opwikkeling van de kabel op de trommel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling.
- Positieve hydraulische eindaanslag stijging.



[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] [ft/min]	[bar] (psi)	[mm] (in)												[kg] (lb)
				P max													
3000 (6614)	5 (5)	∅ 10 (0,4) x 49 (160)	23 (75)	210 (3045)	A	B	C	D	E	F	G	H	I	L	M	N	395 (870)
					1810 (71)	900 (35)	506 (20)	730 (29)	353 (14)	270 (11)	750 (29)	750 (29)	780 (31)	873 (35)	680 (27)	200 (8)	



## MESSA IN SERVIZIO E UTILIZZO

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle **Istruzioni obbligatorie di verifica e controllo**:

- verificare l'integrità della struttura esterna dell'argano.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune H (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune L (Fig.2);
- controllare lo stato della fune e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento laterale e di rotazione della puleggia di guida fune B (Fig.3);
- controllare lo stato dei capocorda C (Fig.4) e E (Fig.5);

## STARTING UP AND USE

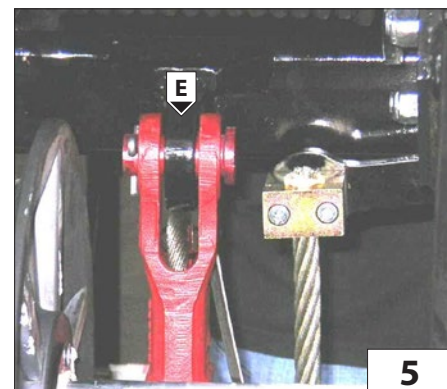
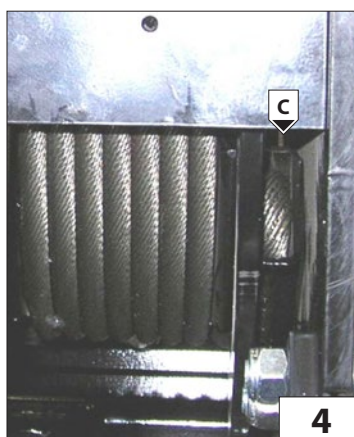
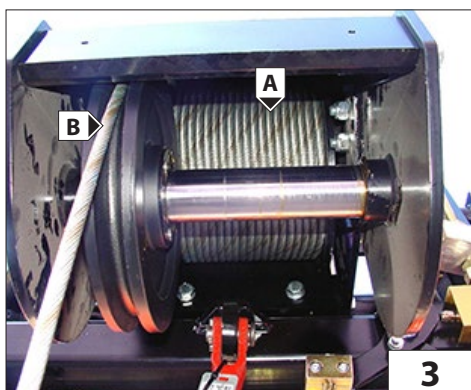
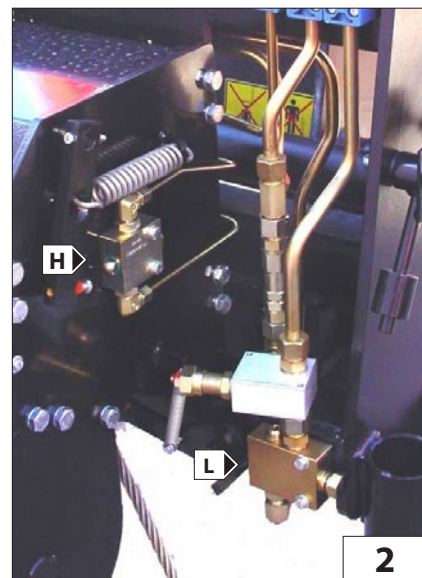
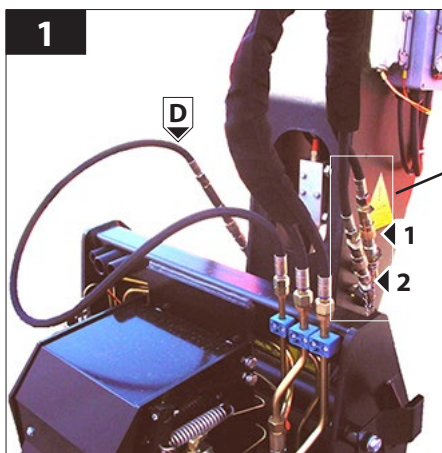
For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

- check to make sure the external structure of the winch is intact.
- Check to ensure the correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check to ensure correct working of the rope descent limit switch H (Fig.2);
- check to ensure correct working of the rope ascent limit switch L (Fig.2);
- check the condition of the rope and that it is wound correctly on the drum A (Fig.3);
- check the correct lateral movement and rotation of the rope guide pulley B (Fig.3);
- check the condition of cable terminals C (Fig.4) and E (Fig.5);

## INBEDRIJFSTELLING EN GEBRUIK

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de **verplichte controle-instructies**:

- controleer of de buitenste structuur van de lier intact is.
- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindslag kabel omlaag H (Fig.2);
- controleer de werking van de eindslag kabel omhoog L (Fig.2);
- controleer de staat van de kabel en de opwikkeling op de trommel A (Fig.3);
- controleer de zijdelingse beweging en draai beweging van het kabelgeleidewiel B (Fig.3);
- controleer de staat van het kabeluiteinde C (Fig.4) en E (Fig.5);



- verificare l'integrità del bozzello e la rotazione della sua puleggia F (Fig.6);
- verificare lo stato del gancio: che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente G (Fig.6);
- controllare l'aggancio dell'organo alla macchina operatrice J (Fig.7).

Per l'utilizzo, dalla posizione di parcheggio, sganciare l'organo dal suo piedistallo, sfilando i fermi di sicurezza. K (Fig.7)

- check the condition of the pulley block and rotation of the pulley F (Fig.6);
- check the condition of the hook: to make sure it is not deformed, that it rotates freely and that the safety tab G (Fig. 6) is in working order;
- check the hook-up of the winch to the operating machine J (Fig. 7).

To use, from the parking position, unhook the winch from its frame, removing the safety catches. K (Fig.7)

- controleer de takel en de draaiing van zijn kabelschijf F (Fig.6);
- controleer de staat van de haak: of deze niet vervormd is, of hij vrij draait en of zijn veiligheidssluiting efficiënt is G (Fig.6);
- controleer de aankoppeling van de lier aan de machine J (Fig.7).

Voor het gebruik de lier, vanuit zijn parkeerstand, van zijn staander haken door de beveiligingen eruit te trekken. K (Fig.7)



6



7

**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

## RIDUTTORE

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio almeno una volta al mese B (Fig.8) e all'occorrenza rabboccare A (Fig.8) con olio dello stesso tipo di quello presente all'interno del riduttore (ISO VG 150).

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità ISO VG, dipendente dalla temperatura di esercizio.

La prima sostituzione dell'olio deve essere effettuata dopo 100 ore di funzionamento, successivamente ogni 12 mesi o ogni 2000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.8a) verso il basso. Svitare il tappo A (Fig.8a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico verso l'alto A (Fig.8).

Svitare il tappo di livello olio B (Fig.8); Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello B (Fig.8). (0,25 lt)

Riavvitare i tappi e riavvolgere la fune.

## REDUCTION GEAR

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least once a month B (Fig.8) and if required, top up A (Fig.8) with oil of the same type as that present inside the reduction gear (ISO VG 150).

It is advisable to use oil for gears to which EP is added with viscosity ISO VG, depending on the operating temperature.

The first oil change must be after 100 hours of operation, then subsequently every 12 months or every 2000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 8a) is facing downwards.

Unscrew cap A (Fig.8a) and drain out the oil completely.

Turn the drum to bring the topping up/drainage hole facing upwards A (Fig.8).

Unscrew the oil level cap B (Fig.8).

Top up with fresh oil of the correct type until the oil flows out through the level hole B (Fig.8). (0.25 l).

Screw the cap back on and rewind the rope.

## REDUCTOR

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijkvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil minstens eens per maand B (Fig.8) en indien nodig bijvullen A (Fig.8) met olie van hetzelfde soort als dat aanwezig is in de reductor (ISO VG 150).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit ISO VG, afhankelijk van de bedrijfstemperatuur.

De eerste olieverversing moet na 100 werkuren plaatsvinden, daarna om de 12 maanden of om de 2000 werkuren.

Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.8a) naar beneden staat.

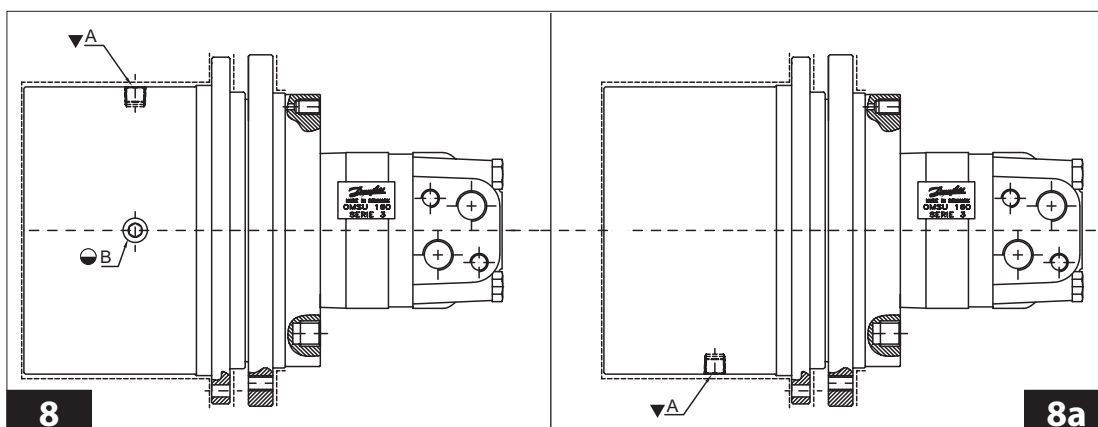
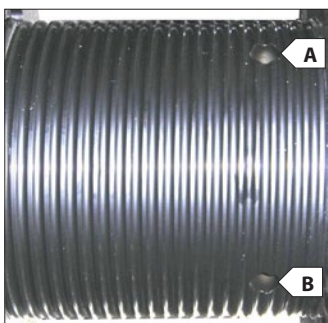
Draai de dop A (Fig.8a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul-/aftapopening naar boven staat A (Fig.8).

Draai de oliepeildop los B (Fig.8);

Bijvullen met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt B (Fig.8) (0,25 l)

Draai de doppen weer vast en wikkel de kabel weer op.





**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.9) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.9a) e che sia ben arrotolata sul tamburo B (Fig.9).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare giornalmente e mantenere lubrificato il perno C (Fig.9) su cui ruota la puleggia di guida D (Fig.9), che dovrà avere sempre un buono movimento di rotazione e di traslazione laterale. Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.10) e dei suoi morsetti fermafune F (Fig.10).

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.9) is always in excellent condition, that it is not frayed (Fig.9a) and that it is wound perfectly around the drum B (Fig.9).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check the pin C (Fig. 9) on which the guide pulley D (Fig.9) rotates daily and keep it lubricated, it must always rotate and move transversely freely. If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.10) and the rope retainer clamps F (Fig.10).

**KABEL, KABELSCHIJF en KABELUITEINDEN**

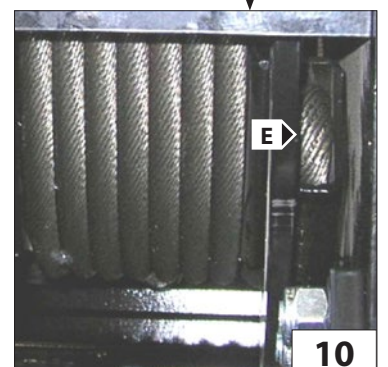
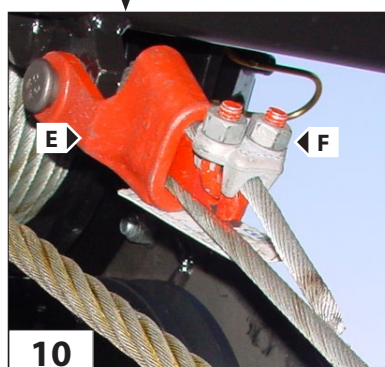
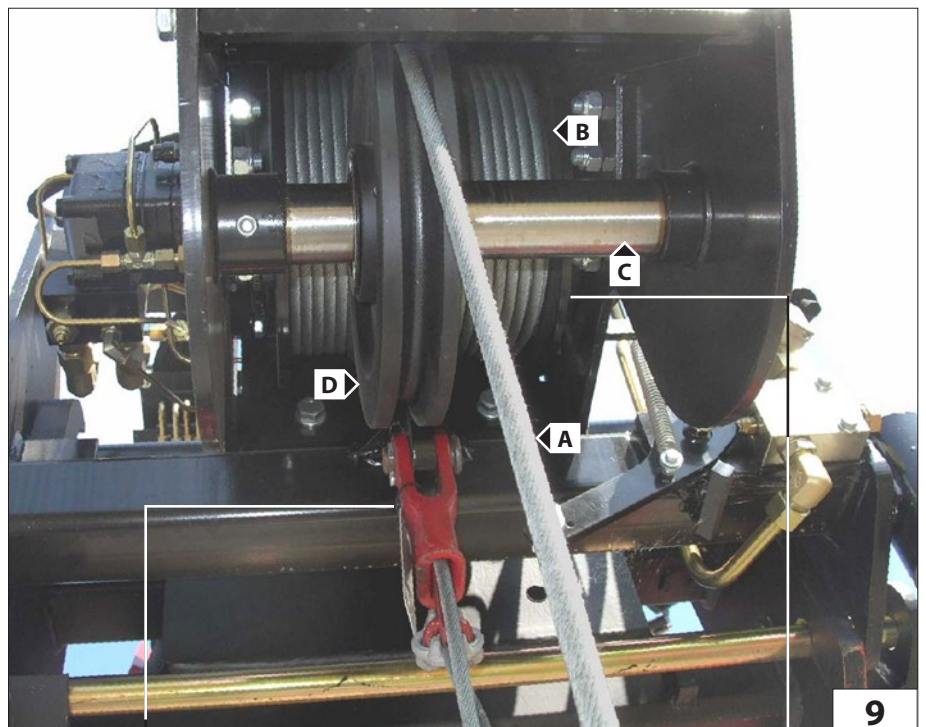
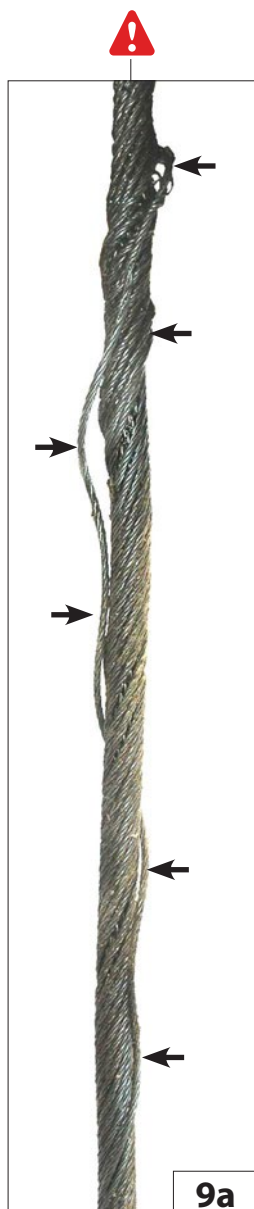
Controleer dagelijks of de kabel A (Fig.9) in optimale staat verkeert, of er geen draden stuk zijn (Fig.9a) en of hij goed op de trommel gewonden is B (Fig.9).

Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer dagelijks de pen C (Fig.9) waarop de geleideschijven D (Fig.9) draait en houd ze gesmeerd. Deze moet altijd een goede draaibeweging en zijwaartse schuifbeweging behouden. Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.10) en de kabelklemmen F (Fig.10).



**BOZZELLO**

Per una massima efficienza e sicurezza, mantenere intatta la struttura esterna H (Fig.11) e controllare che la puleggia L (Fig.12) ruoti correttamente sul suo perno M (Fig.12).

Se necessità, lubrificare con grasso al sapone di litio il perno M (Fig.11).

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.12).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.12).

Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.12).

**PULLEY BLOCK**

For maximum efficiency and safety, keep the external structure H (Fig.11) intact and check to make sure the pulley L (Fig.12) rotates correctly on its pin M (Fig.12).

If necessary, lubricate the pin M (Fig. 11) with lithium soap grease

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 12) lubricated.

Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 12)..

Check the condition and efficiency of safety tab O (Fig. 12).

**TAKEL**

Voor een maximale efficiëntie en veiligheid, de buitenste structuur intact houden H (Fig.11) en controleren of de kabelschijf L (Fig.12) goed op zijn pen draait M (Fig.12).

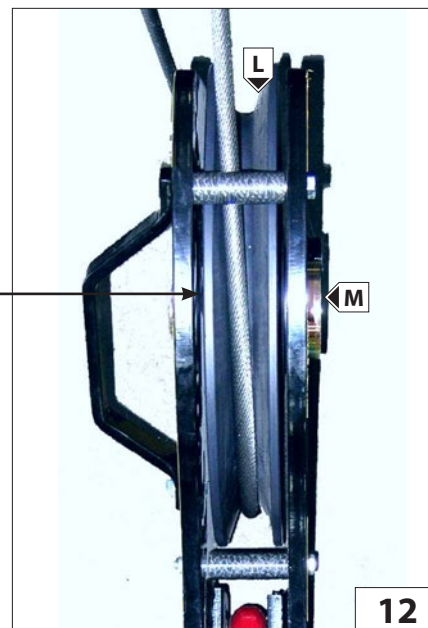
Indien nodig, de pen M (Fig.11) invetten met lithiumzeepvet.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.12) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.12).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.12).



**FINE CORSA DISCESA FUNE (Fig.13)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

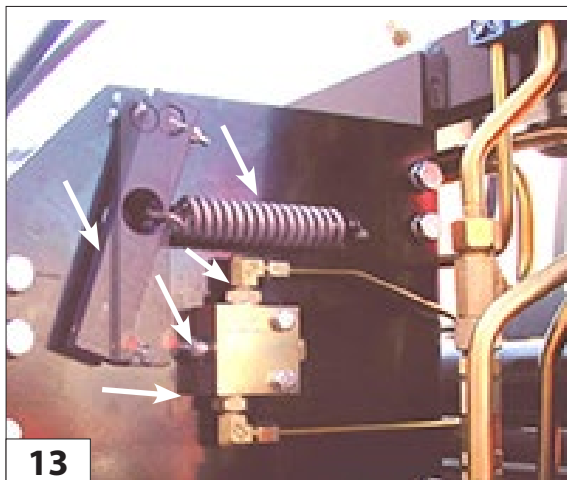
**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.14)

**IMPIANTO IDRAULICO (Fig.15)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 13)**

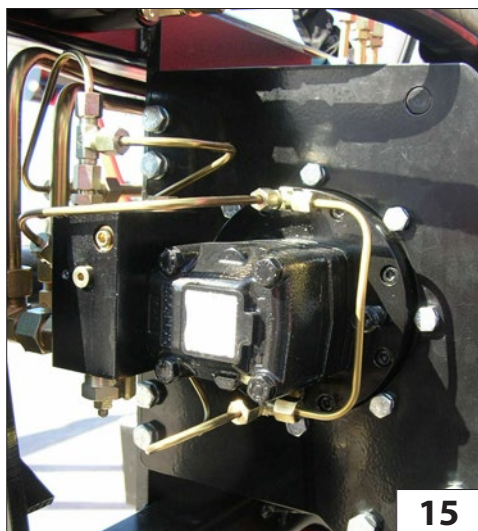
For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.14)

**HYDRAULIC SYSTEM (Fig.15)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.13)**

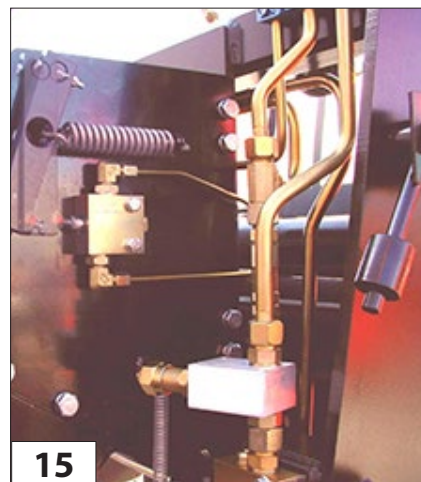
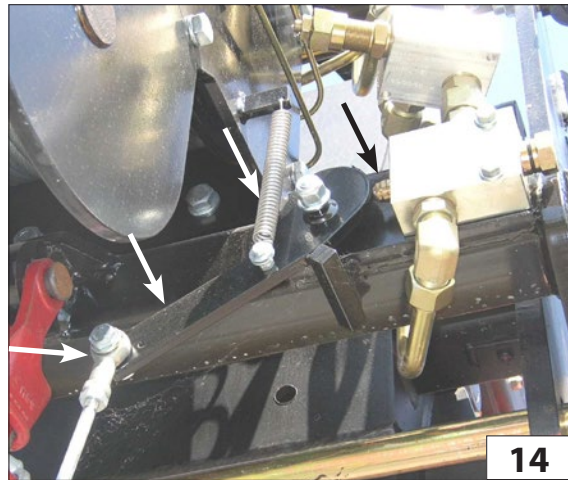
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het stijgen en zijn veer. (Fig.14)

**HYDRAULISCHE INSTALLATIE (Fig.15)**

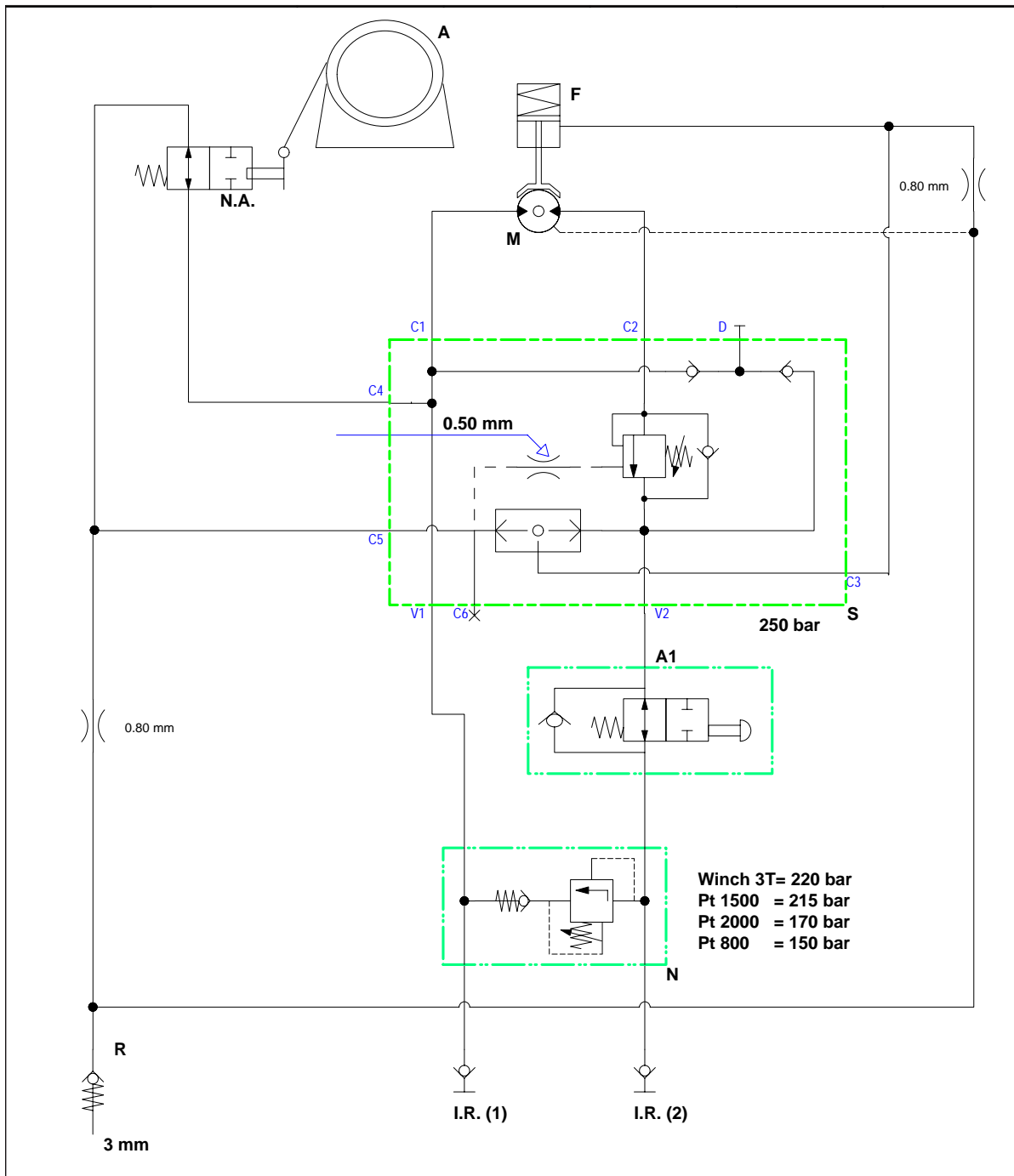
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olieklekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLIE TANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJGING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM

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# ***WINCH 4T***

**ARGANO 4 T****Descrizione:**

Argano idraulico 4t.

**Caratteristiche:**

- Tiro al 3° strato di 4000Kg.
- Velocità massima al 3° strato 21,5mt/min.
- Il tiro è in due taglie.
- La fune è di 53mt, diametro 12mm disposta su tre strati.
- Motore orbitale Sauer-Danfoss OMSU 80
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Presenza di un guida fune che migliora ulteriormente l'avvolgimento della fune sul tamburo.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezze:**

- Fine corsa discesa idraulico positivo.
- Fine corsa salita idraulico positivo.

**WINCH 4 T****Description:**

4t Hydraulic winch

**Features:**

- Pull at 3<sup>rd</sup> layer 4000 kg.
- Maximum speed at 3<sup>rd</sup> layer 21.5m/min.
- The pull is in two sheaves.
- The rope is 53 m long, 12mm diameter arranged in three layers.
- Sauer-Danfoss OMSU 80 orbital motor
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- Presence of a rope guide which further improves the winding of the rope on the drum.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch.
- Positive hydraulic ascent limit switch.

**WINCH 4 T****Beschrijving:**

Hydraulische lier 4t







**Kenmerken:**

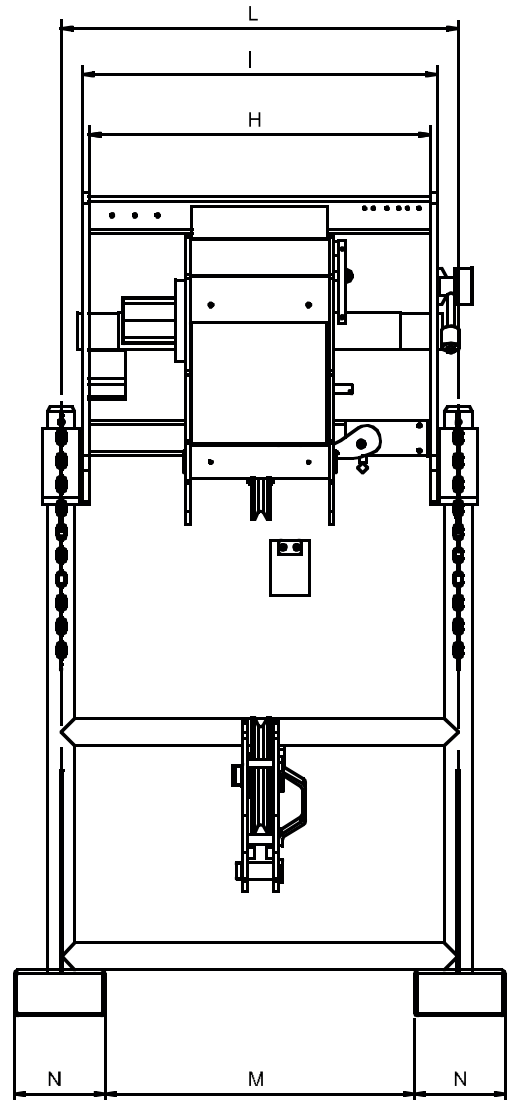
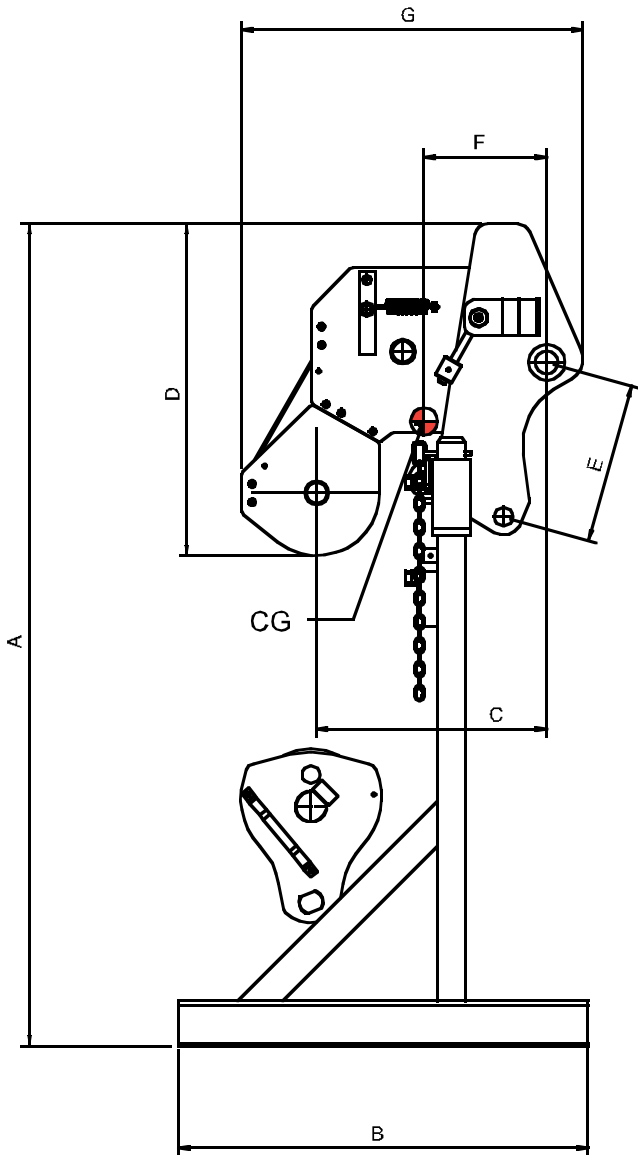
- Trekkracht 3de laag 4000 kg.
- Maximumsnelheid 3de laag 21,5 m/min.
- Kabel dubbel gebruikt.
- De kabel is 53 m, diameter 12 mm in drie lagen.
- Sauer-Danfoss OMSU 80 orbitmotor
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gelegeuld en voorzien van een kabelaandrukrol voor een altijd correcte opwikkeling van de kabel.
- Aanwezigheid van een kabelgeleider voor een nog betere opwikkeling van de kabel op de trommel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling.
- Positieve hydraulische eindaanslag stijging.



[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)												[kg] (lb)
				P max													
4000 (8818)	5 (5)	∅ 12 (0,5) x 53 (174)	21,5 (70)	275 (3988)	A	B	C	D	E	F	G	H	I	L	M	N	510 (1124)
					1810 (71)	900 (35)	557 (22)	814 (32)	353 (14)	320 (12)	838 (33)	126 (5)	750 (29)	15 (0,6)	680 (27)	200 (8)	

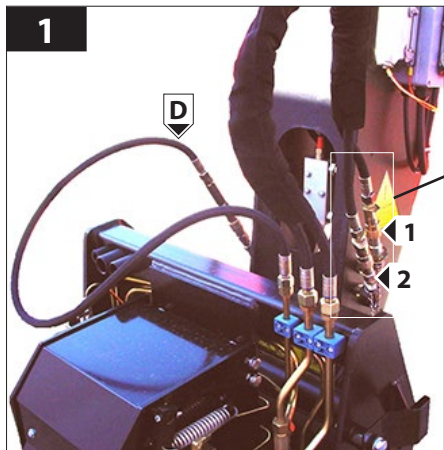




## MESSA IN SERVIZIO E UTILIZZO

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle **Istruzioni obbligatorie di verifica e controllo:**

- verificare l'integrità della struttura esterna dell'argano.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune H (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune L (Fig.2);
- controllare lo stato della fune e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento laterale e di rotazione della puleggia di guida fune B (Fig.3);
- controllare lo stato dei capocorda C (Fig.4) e E (Fig.5);



## STARTING UP AND USE

For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

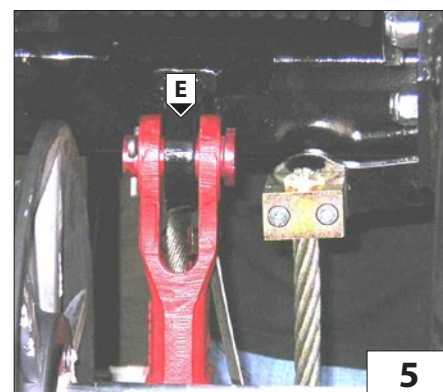
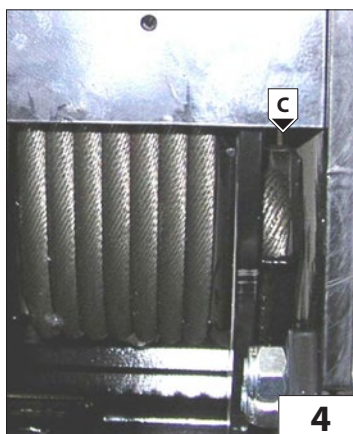
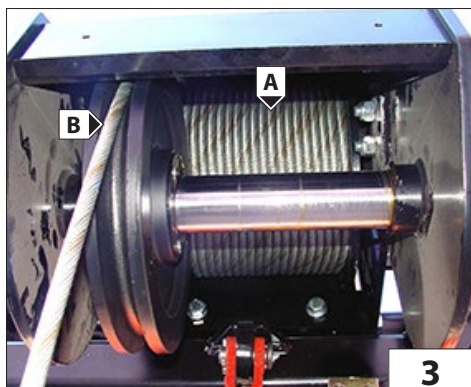
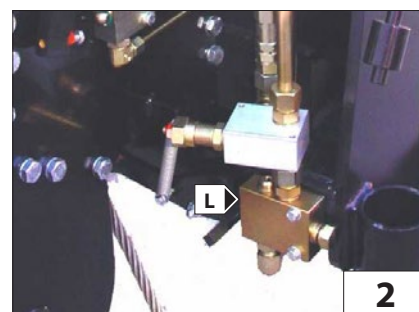
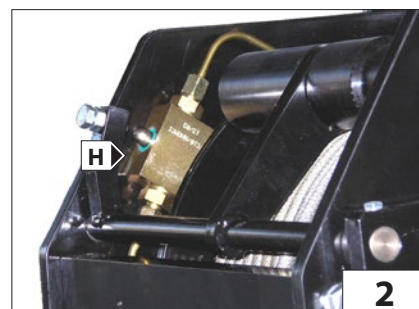
- check to make sure the external structure of the winch is intact.
- Check to ensure the correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check to ensure correct working of the rope descent limit switch H (Fig.2);
- check to ensure correct working of the rope ascent limit switch L (Fig.2);
- check the condition of the rope and that it is wound correctly on the drum A (Fig.3);
- check the correct lateral movement and rotation of the rope guide pulley B (Fig.3);
- check the condition of cable terminals C (Fig.4) and E (Fig.5);



## INBEDRIJFSTELLING EN GEBRUIK

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de **verplichte controle-instructies:**

- controleer of de buitenste structuur van de lier intact is.
- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindaanslag kabel omlaag H (Fig.2);
- controleer de werking van de eindaanslag kabel omhoog L (Fig.2);
- controleer de staat van de kabel en de opwikkeling op de trommel A (Fig.3);
- controleer de zijdelingse beweging en draai beweging van het kabelgeleidewiel B (Fig.3);
- controleer de staat van het kabeluiteinde C (Fig.4) en E (Fig.5);



- verificare l'integrità del bozzello e la rotazione della sua puleggia F (Fig.6);
- verificare lo stato del gancio: che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente G (Fig.6);
- controllare l'aggancio dell'organo alla macchina operatrice J (Fig.7).

Per l'utilizzo, dalla posizione di parcheggio, sganciare l'organo dal suo piedistallo, sfilando i fermi di sicurezza. K (Fig.7)

- check the condition of the pulley block and rotation of the pulley F (Fig.6);
- check the condition of the hook: to make sure it is not deformed, that it rotates freely and that the safety tab G (Fig. 6) is in working order;
- check the hook-up of the winch to the operating machine J (Fig. 7).

To use, from the parking position, unhook the winch from its frame, removing the safety catches. K (Fig.7)

- controleer de takel en de draaiing van zijn kabelschijf F (Fig.6);
- controleer de staat van de haak: of deze niet vervormd is, of hij vrij draait en of zijn veiligheidssluiting efficiënt is G (Fig.6);
- controleer de aankoppeling van de lier aan de machine J (Fig.7).

Voor het gebruik de lier, vanuit zijn parkeerstand, van zijn staander haken door de beveiligingen eruit te trekken. K (Fig.7)



6



7

**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

**RIDUTTORE**

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio ogni 100 ore A (Fig.8b) e all'occorrenza rabboccare A (Fig.8b) con olio dello stesso tipo di quello presente all'interno del riduttore (SHELL SPIRAX HD80 W90).

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità SAE 80W/90 oppure SAE 85W/140 .

La prima sostituzione dell' olio deve essere effettuata dopo 150 ore di funzionamento, successivamente ogni 1000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig 8a) verso il basso. Svitare il tappo A (Fig.8a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico sull'asse orizzontale A (Fig.8b).

Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello A (Fig.8b) (1,3 lt).

Riavvitare i tappi e riavvolgere la fune.

**REDUCTION GEAR**

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least every 100 hours A (Fig.8b) and if required, top up A (Fig.8b) with oil of the same type as that present inside the reduction gear (SHELL SPIRAX HD80 W90) .

Use gear oil with additive EP with viscosity SAE 80W/90 or SAE 85W/140 .

The first oil change must be after 150 hours of operation, then subsequently every 1000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 8a) is facing downwards.

Unscrew cap A (Fig.8a) and drain out the oil completely.

Turn the drum to bring the topping up/drainage hole horizontal A (Fig.8b).

Top up with fresh oil of the correct type until the oil flows out through the level hole A (Fig.8b) (1.3 l).

Screw the cap back on and rewind the rope.

**REDUCTOR**

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil om de 100 uren A (Fig.8b) en indien nodig bijvullen A (Fig.8b) met olie van hetzelfde soort als dat aanwezig is in de reductor (SHELL SPIRAX HD80 W90) .

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit SAE 80W/90 of SAE 85W/140.

De eerste olieverversing moet na 150 werkuren plaatsvinden, daarna om de 1000 werkuren.

Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

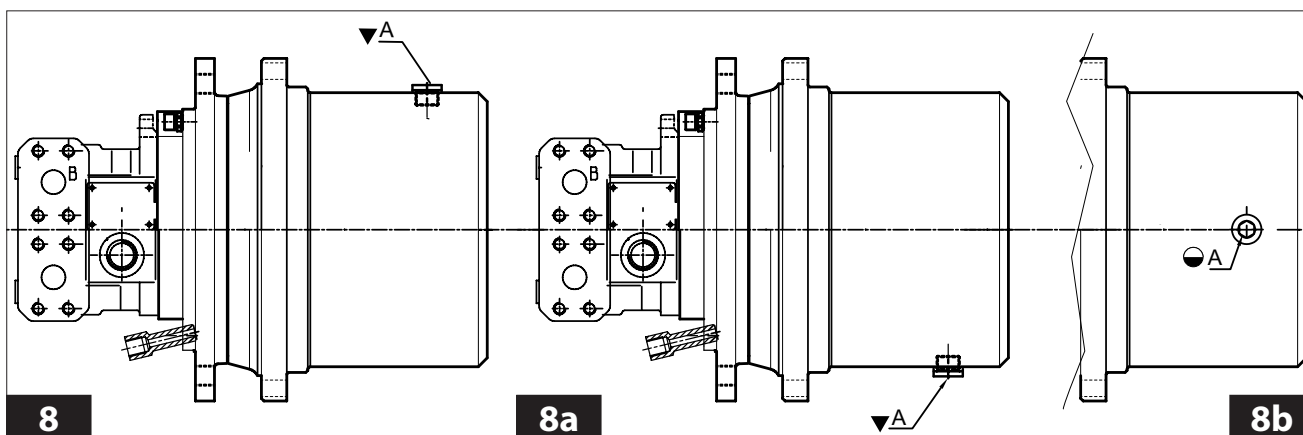
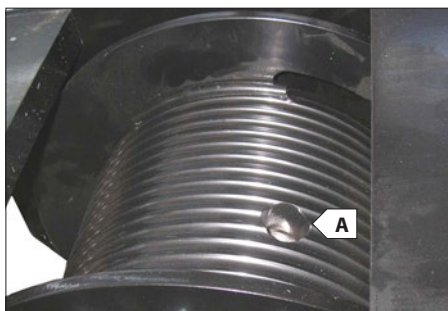
Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.8a) naar beneden staat.

Draai de dop A (Fig.8a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul-/aftapopening op de horizontale staat A (Fig.8b).

Bijvullen met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt A (Fig.8b) (1,3 l)

Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.9) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.9a) e che sia ben arrotolata sul tamburo B (Fig.9).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare giornalmente e mantenere lubrificato il perno C (Fig.9) su cui ruota la puleggia di guida D (Fig.9), che dovrà avere sempre un buono movimento di rotazione e di traslazione laterale. Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.10) e dei suoi morsetti fermafune F (Fig.10).

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.9) is always in excellent condition, that it is not frayed (Fig.9a) and that it is wound perfectly around the drum B (Fig.9).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check the pin C (Fig. 9) on which the guide pulley D (Fig.9) rotates daily and keep it lubricated, it must always rotate and move transversely freely.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.10) and the rope retainer clamps F (Fig.10).

**KABEL, KABELSCHIJF en KABELUITEINDEN**

Controleer dagelijks of de kabel A (Fig.9) in optimale staat verkeert, of er geen draden stuk zijn (Fig.9a) en of hij goed op de trommel gewonden is B (Fig.9).

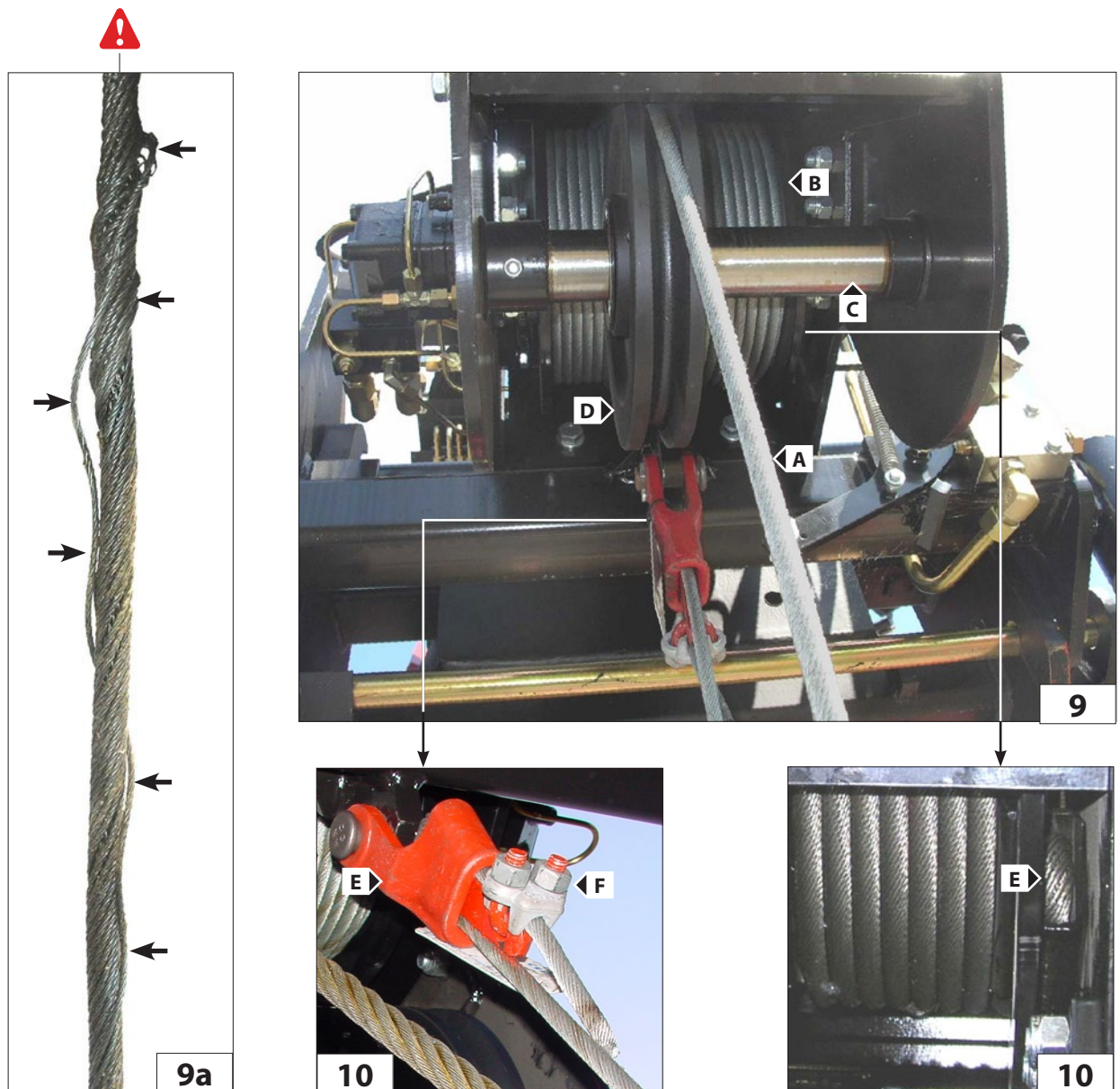
Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer dagelijks de pen C (Fig.9) waarop de geleideschijven D (Fig.9) draait en houd ze gesmeerd. Deze moet altijd een goede draibeweging en zijwaartse schuifbeweging behouden.

Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.10) en de kabelklemmen F (Fig.10).



**BOZZELLO**

Per una massima efficienza e sicurezza, mantenere intatta la struttura esterna H (Fig.11) e controllare che la puleggia L (Fig.12) ruoti correttamente sul suo perno M (Fig.12).

Se necessario, lubrificare con grasso al sapone di litio il perno M (Fig.11).

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.12).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.12).

Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.12).

**PULLEY BLOCK**

For maximum efficiency and safety, keep the external structure H (Fig.11) intact and check to make sure the pulley L (Fig.12) rotates correctly on its pin M (Fig.12).

If necessary, lubricate the pin M (Fig. 11) with lithium soap grease

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 12) lubricated.

Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 12)..

Check the condition and efficiency of safety tab O (Fig. 12).

**TAKEL**

Voor een maximale efficiëntie en veiligheid, de buitenste structuur intact houden H (Fig.11) en controleren of de kabelschiif L (Fig.12) goed op zijn pen draait M (Fig.12).

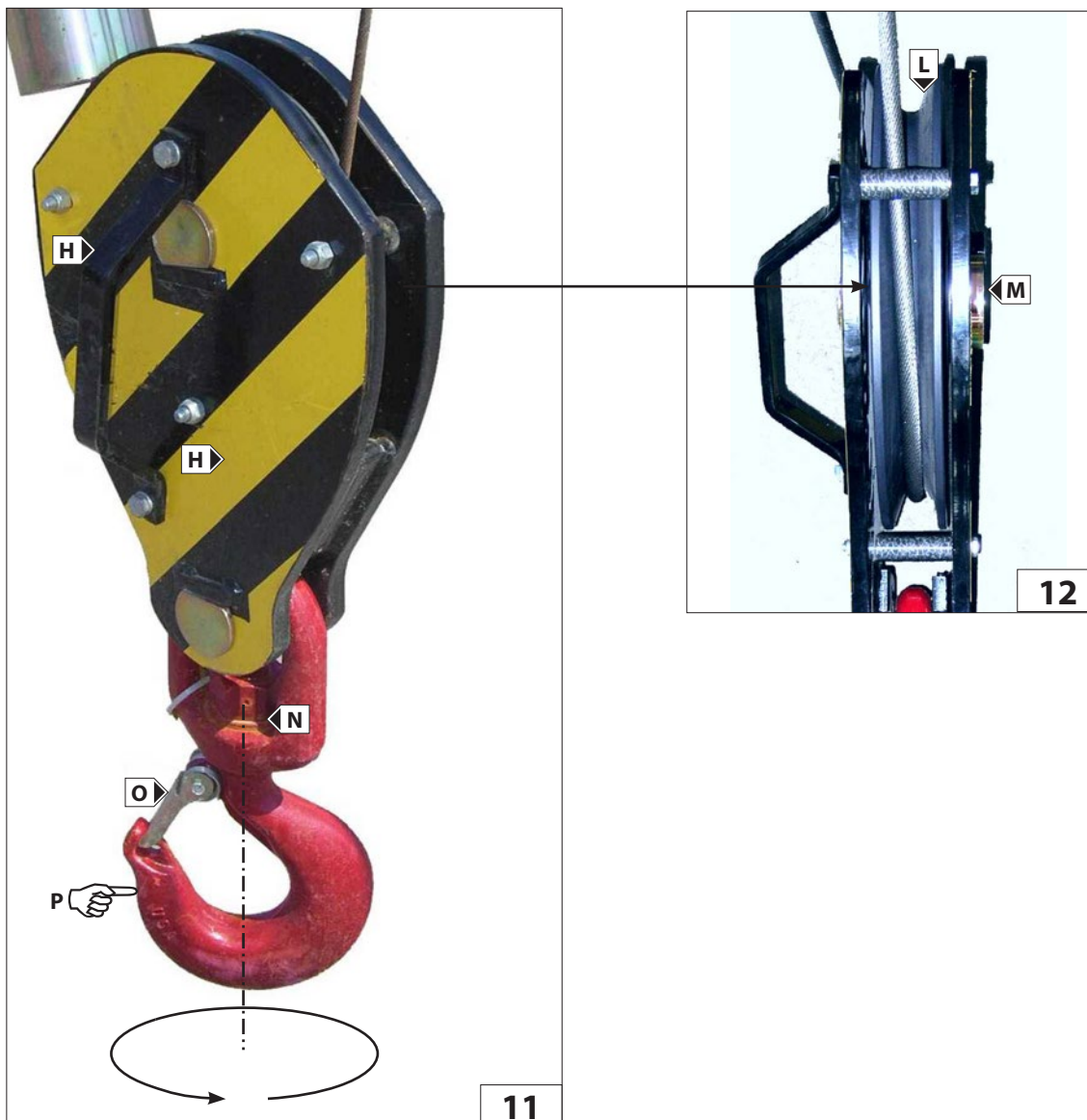
Indien nodig, de pen M (Fig.11) invetten met lithiumzeepvet.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.12) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.12).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.12).



**FINE CORSA DISCESA FUNE (Fig.13)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.14)

**IMPIANTO IDRAULICO (Fig.15)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 13)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.14)

**HYDRAULIC SYSTEM (Fig.15)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.13)**

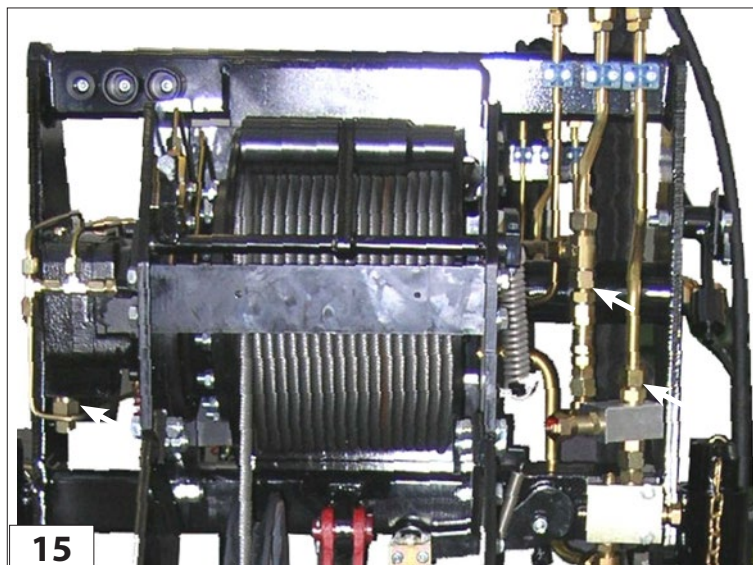
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

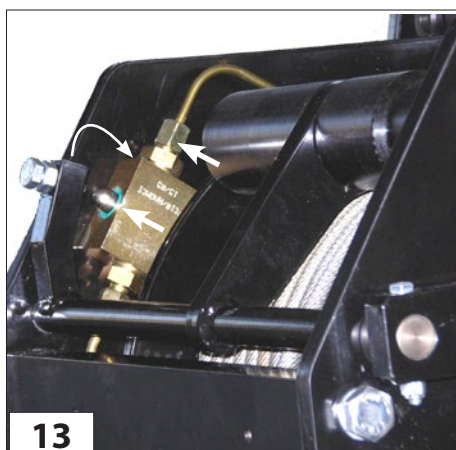
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het stijgen en zijn veer. (Fig.14)

**HYDRAULISCHE INSTALLATIE (Fig.15)**

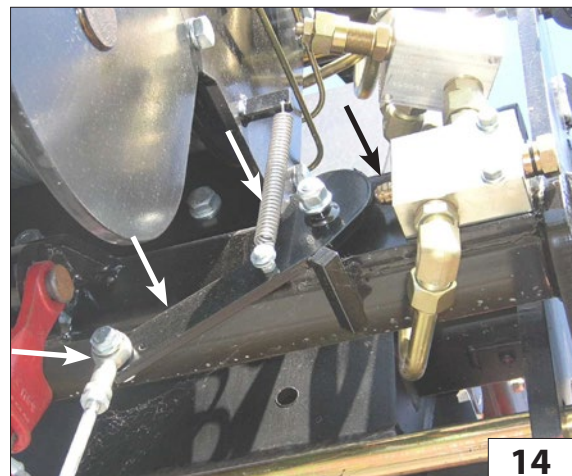
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olieklekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



15



13

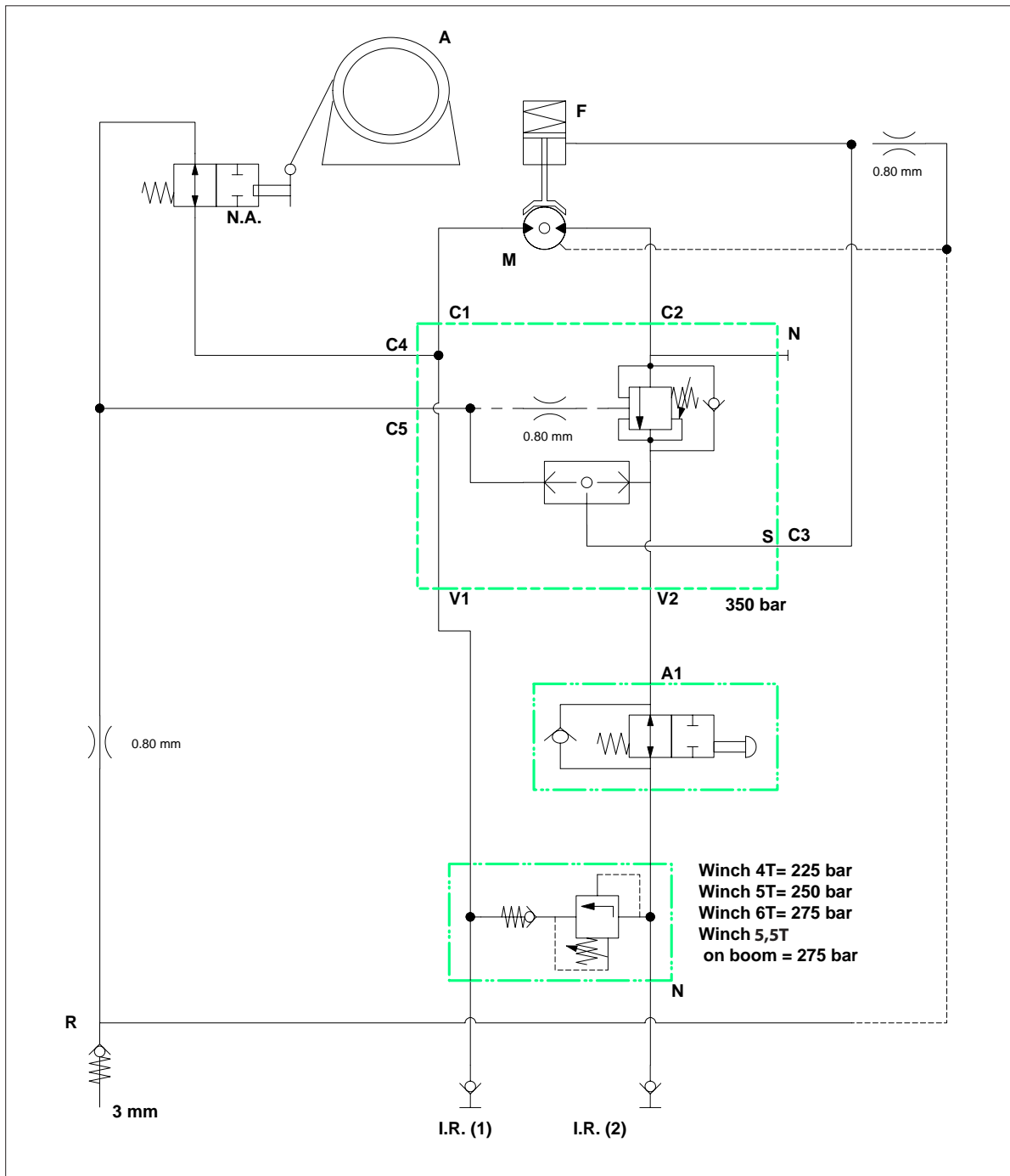


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## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLJETANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJGING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM



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# ***WINCH 5T***

**ARGANO 5 T****Descrizione:**

Argano idraulico 5t.

**Caratteristiche:**

- Tiro al 3° strato di 5000Kg.
- Velocità massima al 3° strato 21,5mt/min.
- Il tiro è in due taglie.
- La fune è di 53mt, diametro 12mm disposta su tre strati.
- Motore orbitale Sauer-Danfoss OMSU 80
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Presenza di un guida fune che migliora ulteriormente l'avvolgimento della fune sul tamburo.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezza:**

- Fine corsa discesa idraulico positivo.
- Fine corsa salita idraulico positivo.

**WINCH 5 T****Description:**

5t Hydraulic winch

**Features:**

- Pull at 3<sup>rd</sup> layer 5000 kg.
- Maximum speed at 3<sup>rd</sup> layer 21.5m/min.
- The pull is in two sheaves.
- The rope is 53 m long, 12mm diameter arranged in three layers.
- Sauer-Danfoss OMSU 80 orbital motor
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- Presence of a rope guide which further improves the winding of the rope on the drum.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch.
- Positive hydraulic ascent limit switch.

**WINCH 5 T****Beschrijving:**

Hydraulische lier 5t

**Kenmerken:**

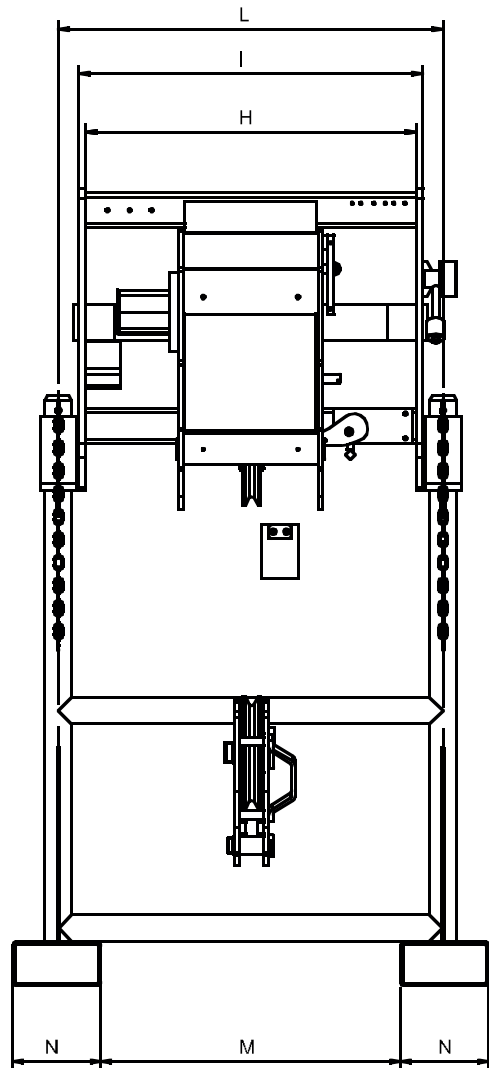
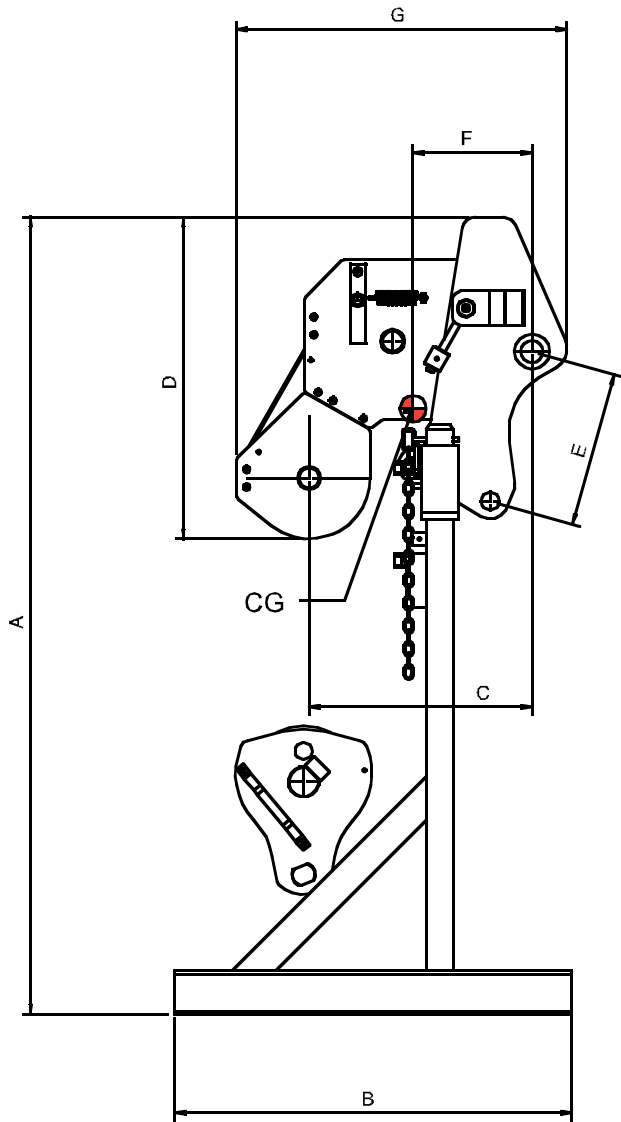
- Trekkracht 3de laag 5000 kg.
- Maximumsnelheid 3de laag 21,5 m/min.
- Kabel dubbel gebruikt.
- De kabel is 53 m, diameter 12 mm in drie lagen.
- Sauer-Danfoss OMSU 80 orbitmotor
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelandrukrol voor een altijd correcte opwikkeling van de kabel.
- Aanwezigheid van een kabelgeleider voor een nog betere opwikkeling van de kabel op de trommel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling.
- Positieve hydraulische eindaanslag stijging.



[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)												[kg] (lb)
				P max													
5000 (11023)	5 (5)	Ø 12 (0,5) x 53 (174)	21,5 (70)	275 (3988)	A	B	C	D	E	F	G	H	I	L	M	N	510 (1124)
					1810 (71)	900 (35)	557 (22)	814 (32)	353 (14)	320 (12)	838 (33)	126 (5)	750 (29)	15 (0,6)	680 (27)	200 (8)	



## MESSA IN SERVIZIO E UTILIZZO

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle **Istruzioni obbligatorie di verifica e controllo**:

- verificare l'integrità della struttura esterna dell'argano.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune H (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune L (Fig.2);
- controllare lo stato della fune e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento laterale e di rotazione della puleggia di guida fune B (Fig.3);
- controllare lo stato dei capocorda C (Fig.4) e E (Fig.5);

## STARTING UP AND USE

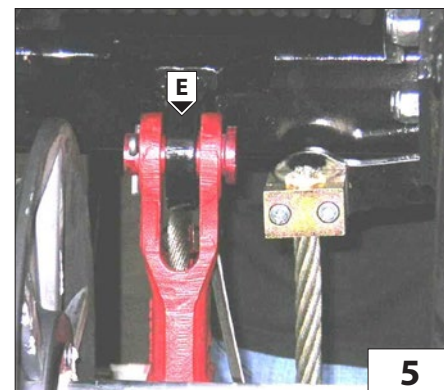
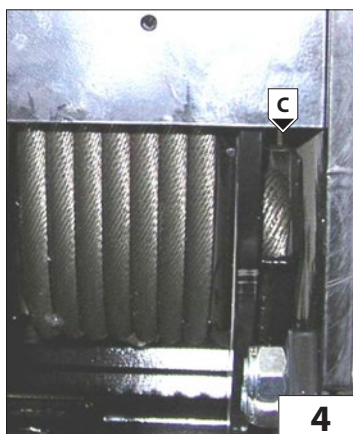
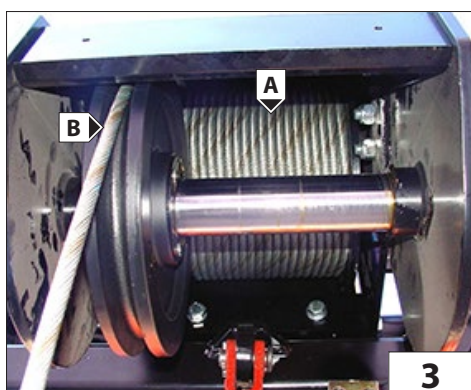
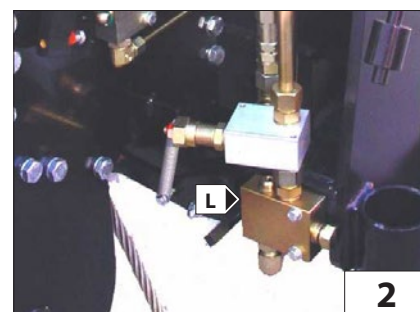
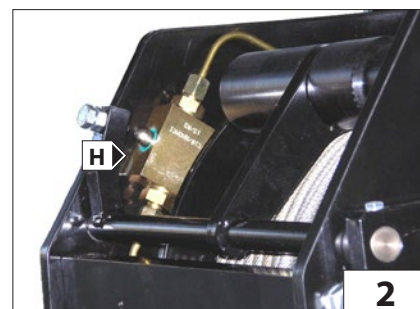
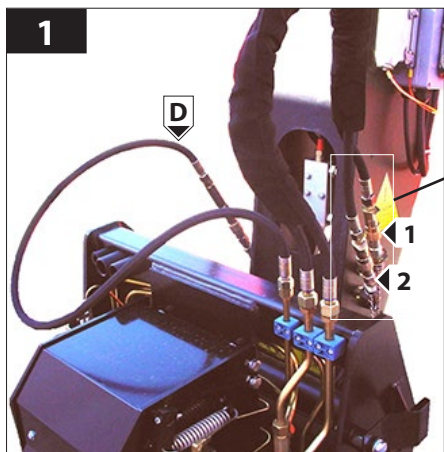
For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

- check to make sure the external structure of the winch is intact.
- Check to ensure the correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check to ensure correct working of the rope descent limit switch H (Fig.2);
- check to ensure correct working of the rope ascent limit switch L (Fig.2);
- check the condition of the rope and that it is wound correctly on the drum A (Fig.3);
- check the correct lateral movement and rotation of the rope guide pulley B (Fig.3);
- check the condition of cable terminals C (Fig.4) and E (Fig.5);

## INBEDRIJFSTELLING EN GEBRUIK

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de **verplichte controle-instructies**:

- controleer of de buitenste structuur van de lier intact is.
- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindaanslag kabel omlaag H (Fig.2);
- controleer de werking van de eindaanslag kabel omhoog L (Fig.2);
- controleer de staat van de kabel en de opwikkeling op de trommel A (Fig.3);
- controleer de zijdelingse beweging en draai beweging van het kabelgeleidewiel B (Fig.3);
- controleer de staat van het kabeluiteinde C (Fig.4) en E (Fig.5);



IT

- verificare l'integrità del bozzello e la rotazione della sua puleggia F (Fig.6);
- verificare lo stato del gancio: che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente G (Fig.6);
- controllare l'aggancio dell'organo alla macchina operatrice J (Fig.7).

Per l'utilizzo, dalla posizione di parcheggio, sganciare l'organo dal suo piedistallo, sfilando i fermi di sicurezza. K (Fig.7)

EN

- check the condition of the pulley block and rotation of the pulley F (Fig.6);
- check the condition of the hook: to make sure it is not deformed, that it rotates freely and that the safety tab G (Fig. 6) is in working order;
- check the hook-up of the winch to the operating machine J (Fig. 7).

To use, from the parking position, unhook the winch from its frame, removing the safety catches. K (Fig.7)

NL

- controleer de takel en de draaiing van zijn kabelschijf F (Fig.6);
- controleer de staat van de haak: of deze niet vervormd is, of hij vrij draait en of zijn veiligheidssluiting efficiënt is G (Fig.6);
- controleer de aankoppeling van de lier aan de machine J (Fig.7).

Voor het gebruik de lier, vanuit zijn parkeerstand, van zijn staander haken door de beveiligingen eruit te trekken. K (Fig.7)



**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

**RIDUTTORE**

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio ogni 100 ore A (Fig.8b) e all'occorrenza rabboccare A (Fig.8b) con olio dello stesso tipo di quello presente all'interno del riduttore (SHELL SPIRAX HD80 W90).

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità SAE 80W/90 oppure SAE 85W/140 .

La prima sostituzione dell' olio deve essere effettuata dopo 150 ore di funzionamento, successivamente ogni 1000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig 8a) verso il basso. Svitare il tappo A (Fig.8a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico sull'asse orizzontale A (Fig.8b).

Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello A (Fig.8b) (1,3 lt).

Riavvitare i tappi e riavvolgere la fune.

**REDUCTION GEAR**

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least every 100 hours A (Fig.8b) and if required, top up A (Fig.8b) with oil of the same type as that present inside the reduction gear (SHELL SPIRAX HD80 W90) .

Use gear oil with additive EP with viscosity SAE 80W/90 or SAE 85W/140 .

The first oil change must be after 150 hours of operation, then subsequently every 1000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 8a) is facing downwards.

Unscrew cap A (Fig.8a) and drain out the oil completely.

Turn the drum to bring the topping up/drainage hole horizontal A (Fig.8b).

Top up with fresh oil of the correct type until the oil flows out through the level hole A (Fig.8b) (1.3 l).

Screw the cap back on and rewind the rope.

**REDUCTOR**

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil om de 100 uren A (Fig.8b) en indien nodig bijvullen A (Fig.8b) met olie van hetzelfde soort als dat aanwezig is in de reductor (SHELL SPIRAX HD80 W90) .

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit SAE 80W/90 of SAE 85W/140.

De eerste olieverversing moet na 150 werkuren plaatsvinden, daarna om de 1000 werkuren.

Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

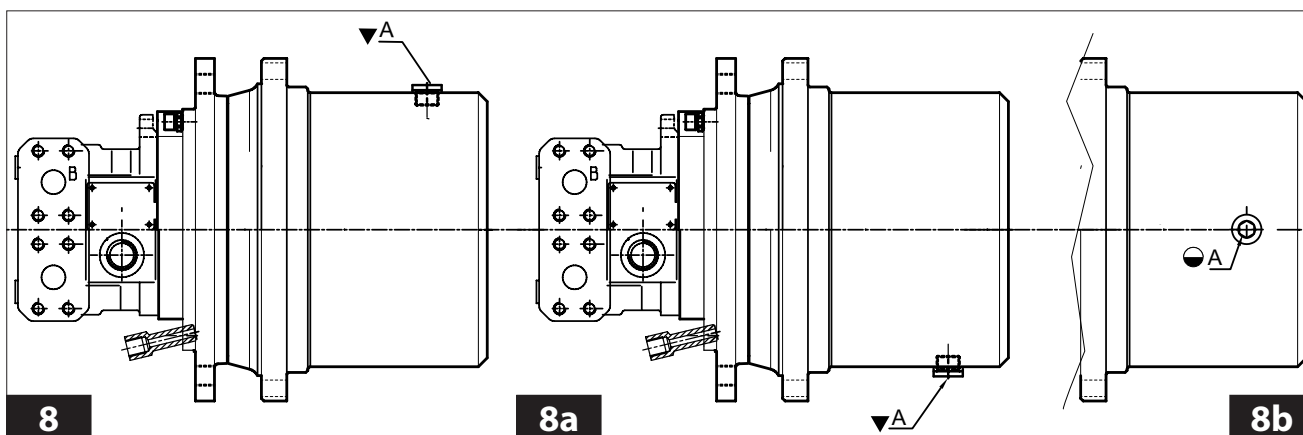
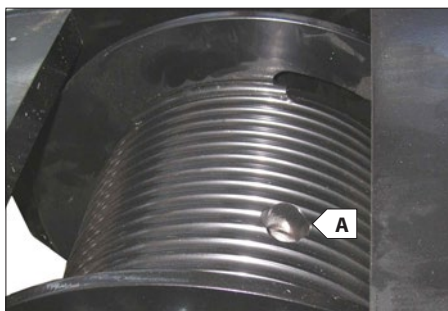
Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.8a) naar beneden staat.

Draai de dop A (Fig.8a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul-/aftapopening op de horizontale as staat A (Fig.8b).

Bijvullen met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt A (Fig.8b) (1,3 l)

Draai de doppen weer vast en wikkel de kabel weer op.





**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.9) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.9a) e che sia ben arrotolata sul tamburo B (Fig.9).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare giornalmente e mantenere lubrificato il perno C (Fig.9) su cui ruota la puleggia di guida D (Fig.9), che dovrà avere sempre un buono movimento di rotazione e di traslazione laterale. Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.10) e dei suoi morsetti fermafune F (Fig.10).

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.9) is always in excellent condition, that it is not frayed (Fig.9a) and that it is wound perfectly around the drum B (Fig.9).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check the pin C (Fig. 9) on which the guide pulley D (Fig.9) rotates daily and keep it lubricated, it must always rotate and move transversely freely.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.10) and the rope retainer clamps F (Fig.10).

**KABEL, KABELSCHIJF en KABELUITEINDEN**

Controleer dagelijks of de kabel A (Fig.9) in optimale staat verkeert, of er geen draden stuk zijn (Fig.9a) en of hij goed op de trommel gewonden is B (Fig.9).

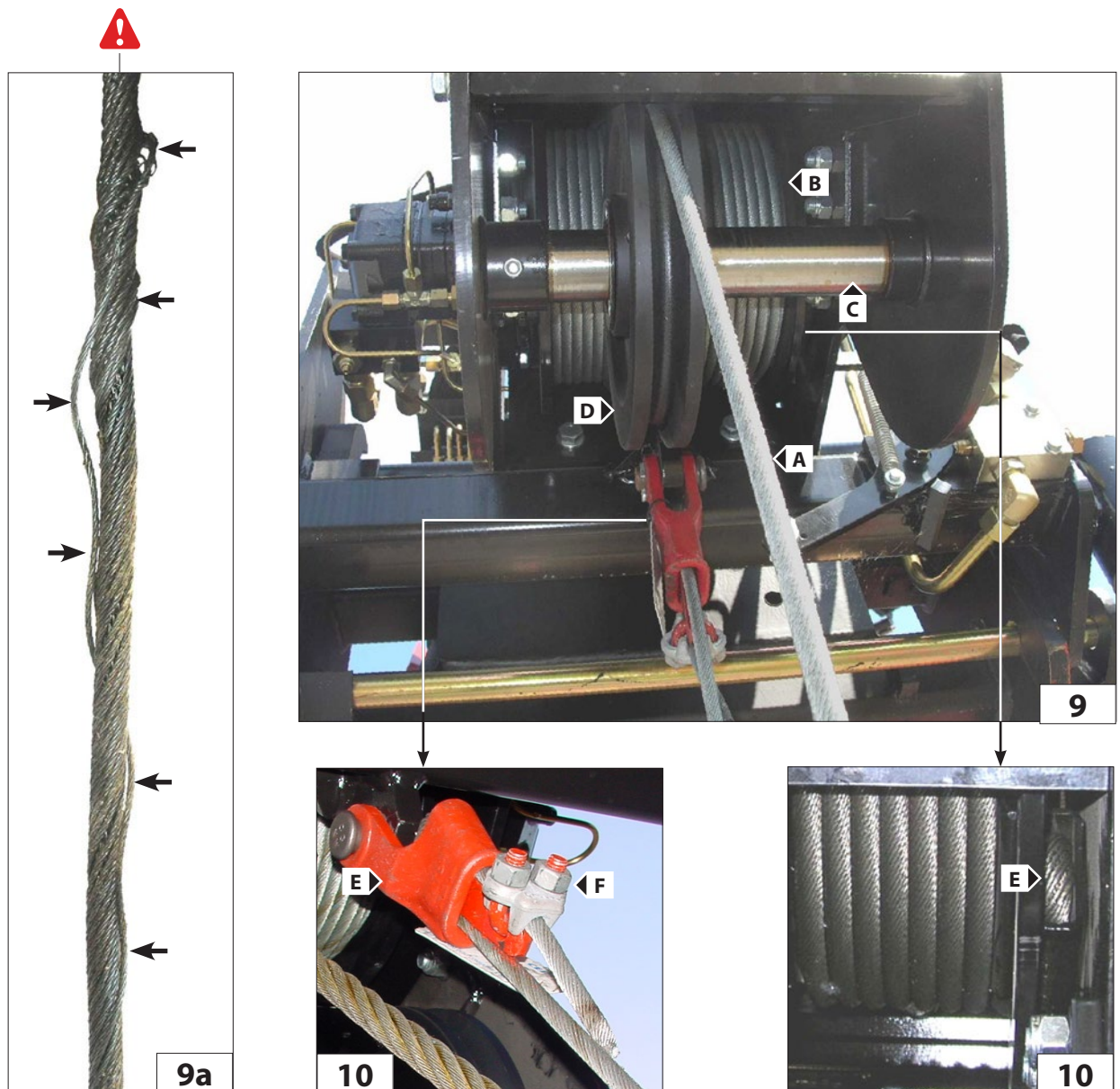
Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer dagelijks de pen C (Fig.9) waarop de geleideschijven D (Fig.9) draait en houd ze gesmeerd. Deze moet altijd een goede draai beweging en zijwaartse schuif beweging behouden.

Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.10) en de kabelklemmen F (Fig.10).



**BOZZELLO**

Per una massima efficienza e sicurezza, mantenere intatta la struttura esterna H (Fig.11) e controllare che la puleggia L (Fig.12) ruoti correttamente sul suo perno M (Fig.12).

Se necessario, lubrificare con grasso al sapone di litio il perno M (Fig.11).

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.12).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.12).

Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.12).

**PULLEY BLOCK**

For maximum efficiency and safety, keep the external structure H (Fig.11) intact and check to make sure the pulley L (Fig.12) rotates correctly on its pin M (Fig.12).

If necessary, lubricate the pin M (Fig. 11) with lithium soap grease

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 12) lubricated.

Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 12).. Check the condition and efficiency of safety tab O (Fig. 12).

**TAKEL**

Voor een maximale efficiëntie en veiligheid, de buitenste structuur intact houden H (Fig.11) en controleren of de kabelschijf L (Fig.12) goed op zijn pen draait M (Fig.12).

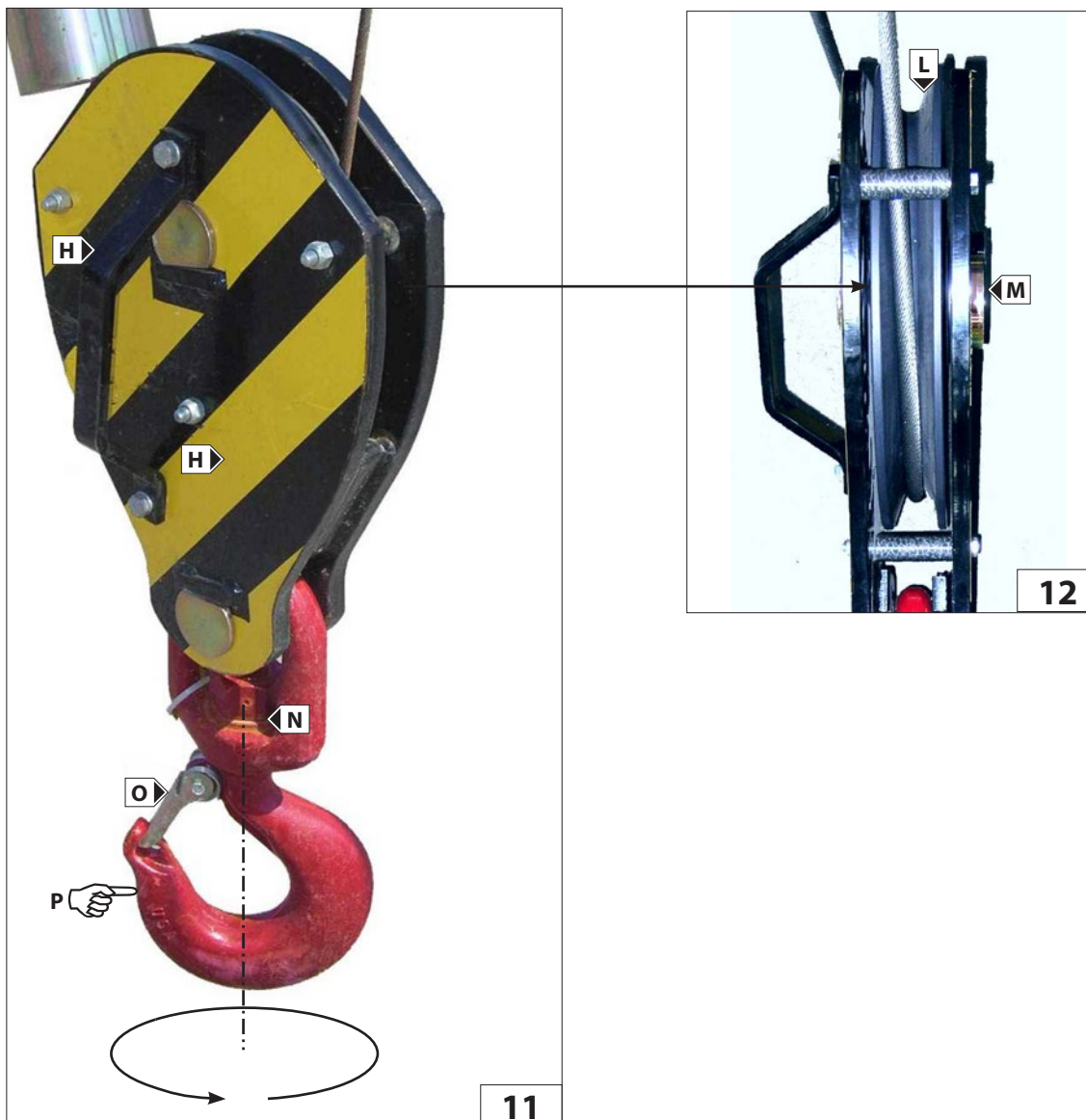
Indien nodig, de pen M (Fig.11) invetten met lithiumzeepvet.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.12) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.12).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.12).



**FINE CORSA DISCESA FUNE (Fig.13)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.14)

**IMPIANTO IDRAULICO (Fig.15)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'organo.

**ROPE DESCENT LIMIT SWITCH (Fig. 13)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.14)

**HYDRAULIC SYSTEM (Fig.15)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.13)**

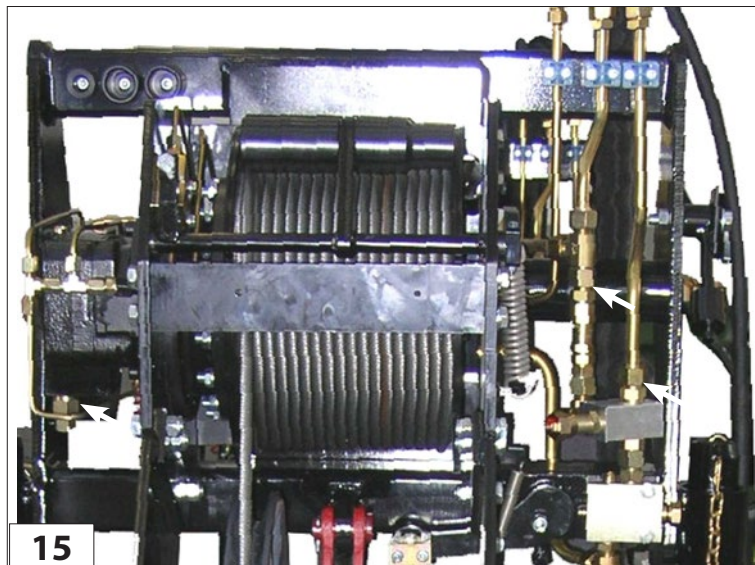
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

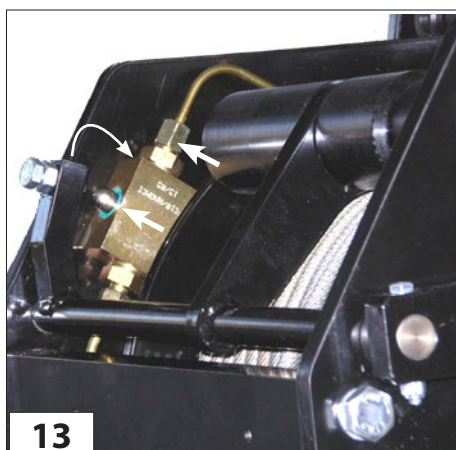
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het stijgen en zijn veer. (Fig.14)

**HYDRAULISCHE INSTALLATIE (Fig.15)**

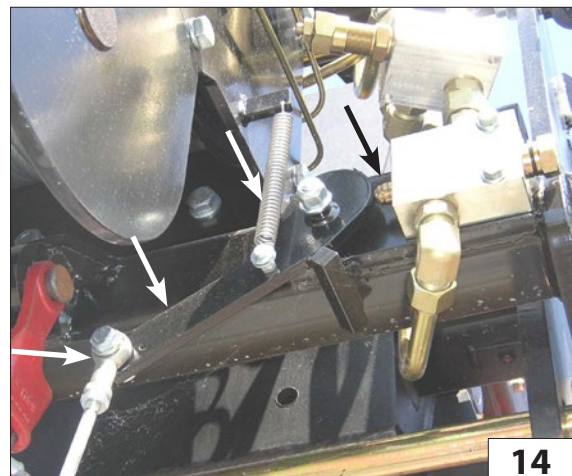
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olieklekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



15



13

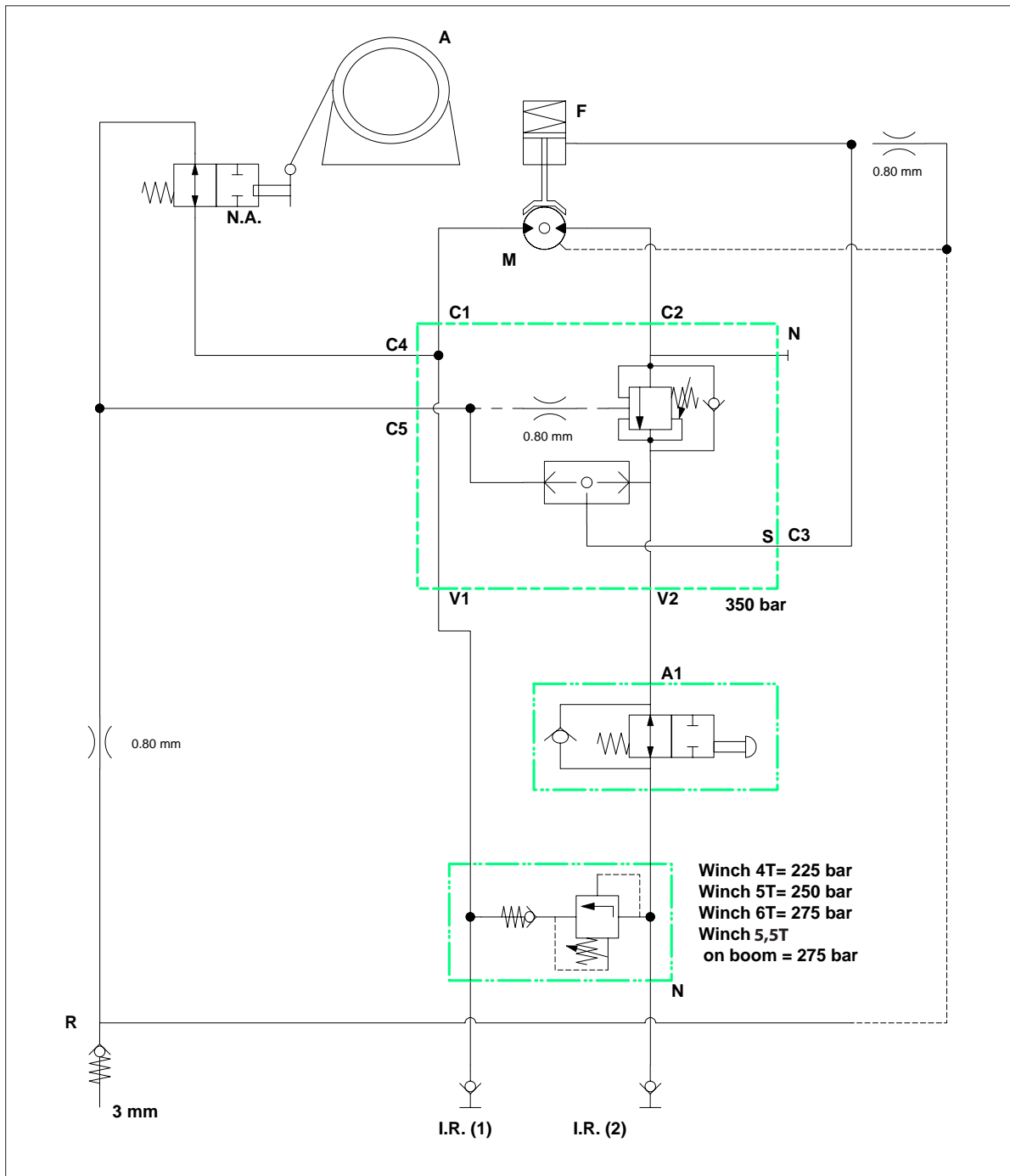


14

## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLJETANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM

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# ***WINCH 5,5T***

**ARGANO 5,5 T****Descrizione:**

Argano idraulico 5,5t.

**Caratteristiche:**

- Tiro al 3° strato di 5500Kg.
- Velocità massima al 3° strato 21m/min.
- Il tiro è in due taglie.
- La fune è di 65 m (MRT2150) - 72 m (MRT2550), diametro 12 mm disposta su tre strati.
- Motore orbitale Sauer-Danfoss OMSU 80
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Presenza di un guida fune che migliora ulteriormente l'avvolgimento della fune sul tamburo.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezza:**

- Fine corsa discesa idraulico positivo.
- Fine corsa salita idraulico positivo.

**WINCH 5,5 T****Description:**

5,5t Hydraulic winch

**Features:**

- Pull at 3rd layer 5500 kg.
- Maximum speed at 3° layer 21 m/min.
- The pull is in two sheaves.
- The rope is 65 m (MRT 2150) - 72 m (MRT 2550) long, 12 mm diameter arranged in three layers.
- Sauer-Danfoss OMSU 80 orbital motor
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- Presence of a rope guide which further improves the winding of the rope on the drum.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch.
- Positive hydraulic ascent limit switch.

**WINCH 5,5 T****Beschrijving:**

Hydraulische lier 5,5t

**Kenmerken:**

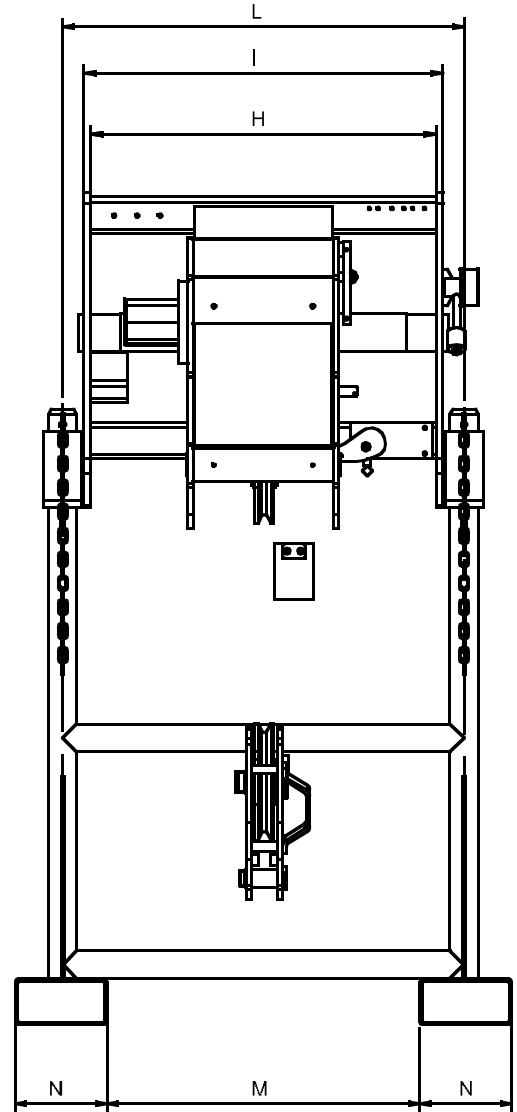
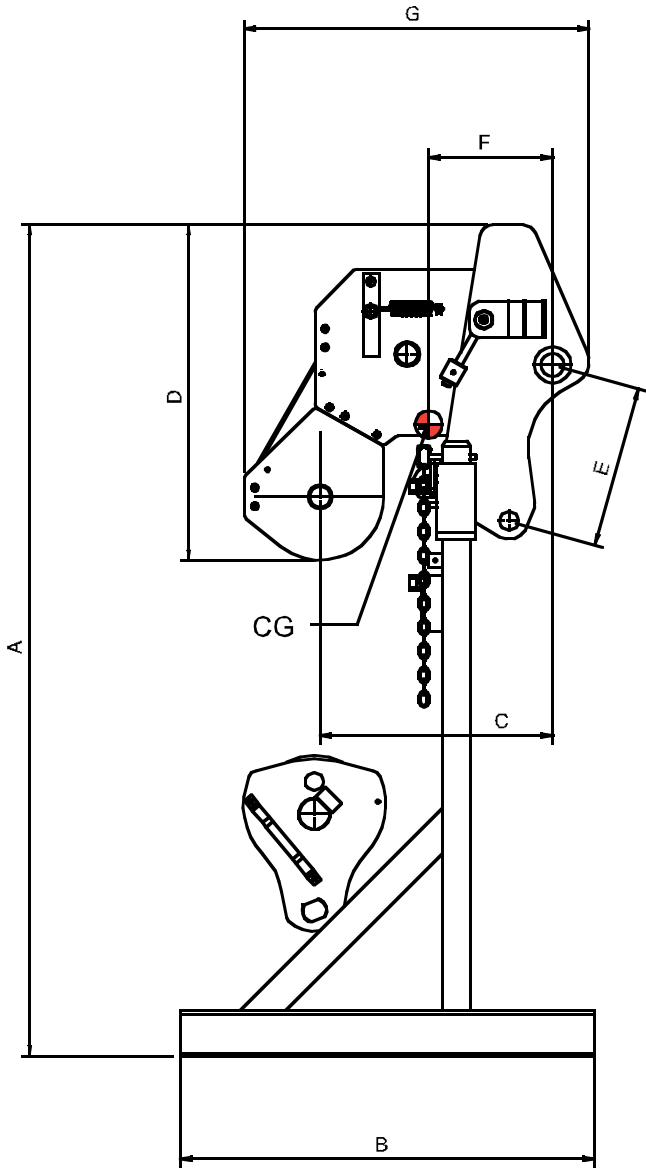
- Trekkracht 3de laag 5500 kg.
- Maximumsnelheid 3de laag 21 m/min.
- Kabel dubbel gebruikt.
- De kabel is 65 m (MRT2150) - 72 m (MRT2550), diameter 12 mm in drie lagen.
- Sauer-Danfoss OMSU 80 orbitmotor
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelaandrukrol voor een altijd correcte opwikkeling van de kabel.
- Aanwezigheid van een kabelgeleider voor een nog betere opwikkeling van de kabel op de trommel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling.
- Positieve hydraulische eindaanslag stijging.



[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)													[kg] (lb)
				P max														
5500 (12125)	8 (8)	MRT 2150+	MRT 2550+	21 (69)	275 (3988)	A	B	C	D	E	F	G	H	I	L	M	N	510 (1124)
		Ø 12 (0,5) x 65 (213)	Ø 12 (0,5) x 72 (236)			1810 (71)	900 (35)	557 (22)	814 (32)	353 (14)	320 (12)	838 (33)	126 (5)	750 (29)	15 (0,6)	680 (27)	200 (8)	

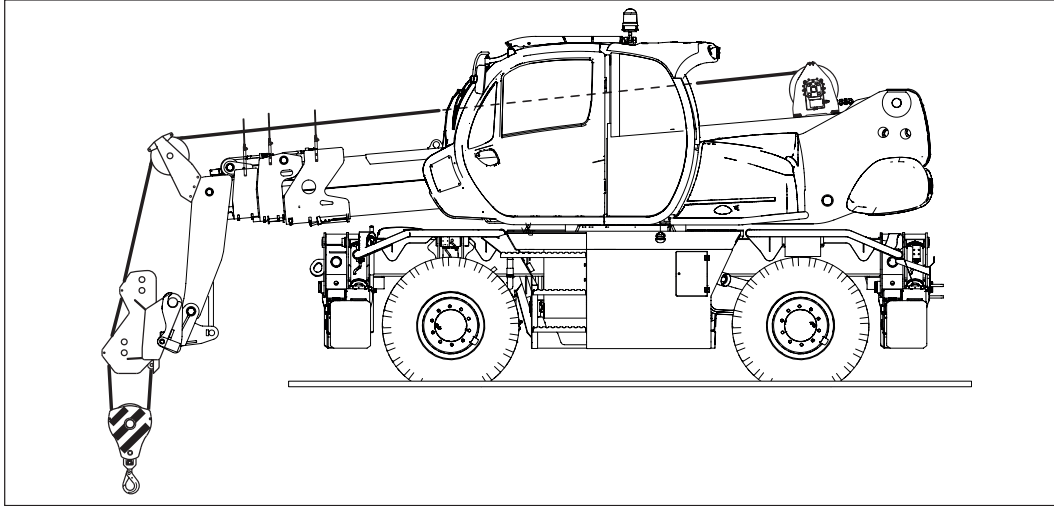




## UTILIZZO DELL'ARGANO SUL BRACCIO

## USING THE WINCH ON THE BOOM

## GEBRUIK VAN DE LIER OP DE ARM



### ATTIVAZIONE ARGANO

- Collegare i raccordi idraulici all'argano (Fig. 1 - Rif. A).
- Togliere la coppiglia (Fig. 2 - Rif. B) e sfilare il perno dalla staffa di riposo sul braccio esterno (Fig. 2 - Rif. C).
- Comandare la discesa della fune per permettere il passaggio attraverso i tre guida fune (Fig. 3 - Rif. D).
- Inserire la fune nella puleggia togliendo il perno (Fig. 4 - Rif. E).
- Liberare la fune dal ferma cavo (Fig. 5 - Rif. F) togliendo il morsetto di sicurezza.
- Inserire la fune nelle pulegge guida fune (Fig. 6 - Rif. G).

### ACTIVATING THE WINCH

- Connect the hydraulic fittings to the winch (Fig. 1 - Ref. A).
- Remove the cotter pin (Fig. 2 - Ref. B) and extract the pin from clevis on the outside boom (Fig. 2 - Ref. C).
- Lower the rope to let it pass through the three rope guides (Fig. 3 - Ref. D).
- Insert the rope in the pulley, removing the pin (Fig. 4 - Ref. E).
- Free the rope from the cable clamp (Fig. 5 - Ref. F) after removing the safety clamp.
- Insert the rope in the rope guide pulley (Fig. 6 - Ref. G).

### ACTIVERING LIER

- Sluit de hydraulische leidingen aan op de lier (Fig.1 - Ref.A).
- Verwijder de pin (Fig.2 - Ref.B) en schuif de pen uit de staaf op de externe arm (Fig.2 - Ref.C).
- Laat de kabel dalen en zorg ervoor dat hij door de drie kabelgeleiders gaat (Fig.3 - Ref.D).
- Steek de kabel in de schijf en verwijder de pin (Fig.4 - Ref.E).
- Bevrijd de kabel uit de kabelblokkering (Fig.5 - Ref.F) door de veiligheidsklem te verwijderen.
- Steek de kabel in de kabelgeleideschijf (Fig.6 - Ref.G).

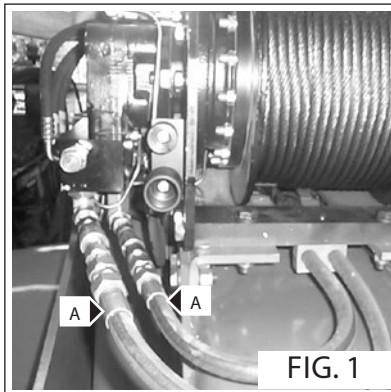


FIG. 1

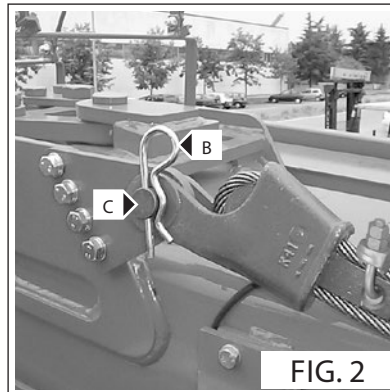


FIG. 2

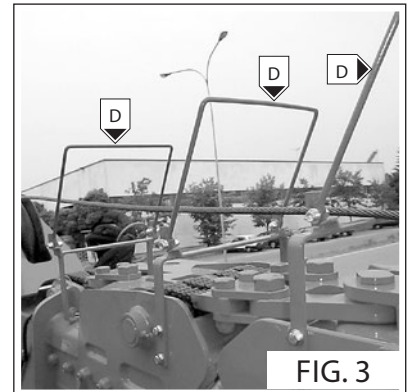


FIG. 3



FIG. 4

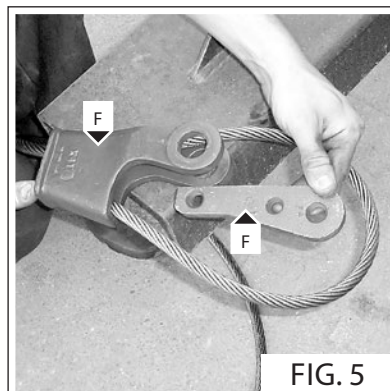


FIG. 5

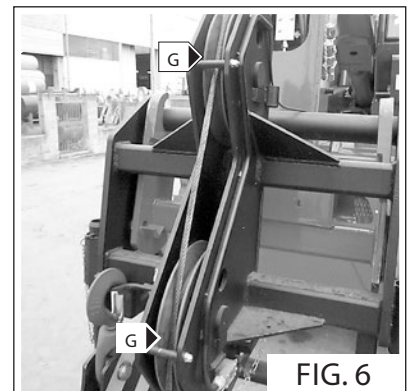


FIG. 6

- Inserire la fune nel bozzello (Fig. 7/8 - Rif. A) (la fune deve passare fra la puleggia ed i due perni (Fig. 7/8 - Rif. B).
- Inserire la fune nel peso di fine corsa salita fune (Fig. 9 - Rif. C).
- Inserire la fune nel ferma cavo (Fig. 10 - Rif. D) e bloccarla correttamente dando alcuni colpi di martello in entrambi i lati dell'insieme (Fig. 11 - Rif. E).
- Avvitare il morsetto di sicurezza fune al ferma cavo (Fig. 12 - Rif. F).
- Montare il ferma cavo nell'apposito alloggiamento sotto le pulegge guida fune (Fig. 12 - Rif. G).

- Insert the rope in the block (Fig. 7/8 - Ref. A) (the rope must pass through the pulley and the two pins (Fig. 7/8 - Ref. B).
- Insert the rope in the rope lift stop weight (Fig. 9 - Ref. C).
- Insert the rope in the cable clamp (Fig. 10 - Ref. D) and block it properly by tapping with a hammer on both sides of the assembly (Fig. 11 - Ref. E).
- Screw the safety clamp back on the cable clamp (Fig. 12 - Ref. F).
- Fit the cable clamp in its housing under the rope guide pulley (Fig. 12 - Ref. G).

- Steek de kabel in de takel (Fig.7/8 - Ref.A) (de kabel moet tussen de schijf en de twee pinnen schuiven (Fig.7/8 - Ref.B).
- Steek de kabel in het gewicht van de eindaanslag kabel omhoog (Fig.9 - Ref.C).
- Steek de kabel in de kabelblokkering (Fig.10 - Ref.D) en blokkeer hem op correcte wijze door een paar keer met een hamer op beide kanten van het geheel te kloppen (Fig.11 - Ref.E).
- Draai de veiligheidsklem van de kabel vast op de kabelblokkering (Fig.12 - Ref.F).
- Monteer de kabelblokkering in de desbetreffende houder onder de kabelgeleideschijven (Fig.12 - Ref.G).

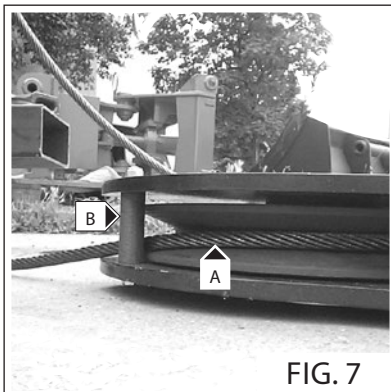


FIG. 7

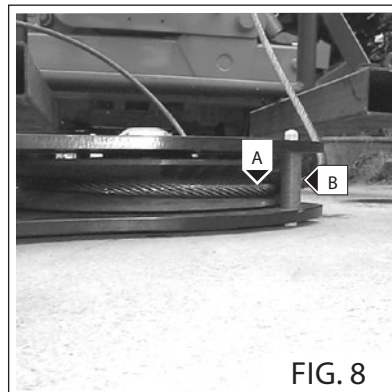


FIG. 8

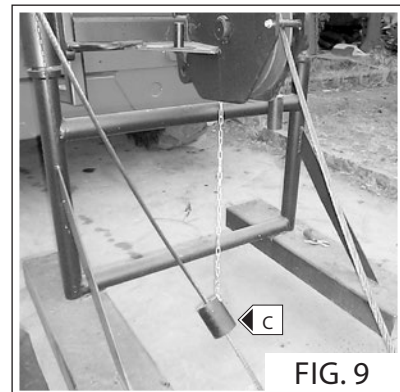


FIG. 9

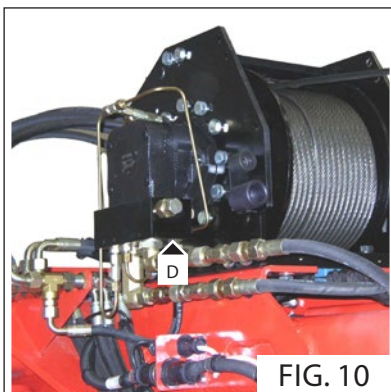


FIG. 10

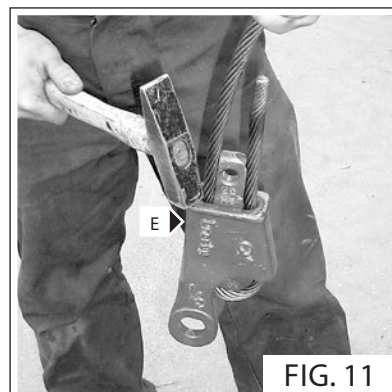


FIG. 11

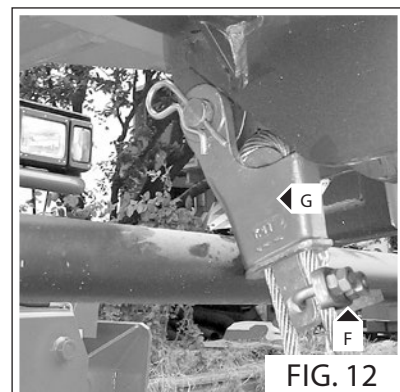


FIG. 12

- Posizionare la presa a riposo (Fig. 13 - Rif. A) e inserire il cavo per il fine corsa salita fune (Fig. 13 - Rif. B).
- Da questo momento si attivano i seguenti blocchi di movimento dovuti al fine corsa salita fune :
  - blocco salita fune
  - blocco sfilo braccio
  - blocco salita/discesa braccio



Attenzione :

Se non viene attivato il fine corsa salita fune é in grave pericolo :

- l'incolumità delle persone circostanti
  - l'incolumità delle cose circostanti
  - l'integrità strutturale della macchina
  - il materiale sollevato
- Selezionare sul sistema di sicurezza la corretta posizione di lavoro per l'argano sul braccio della macchina e togliere il supporto delle pulegge guida fune (Fig. 14 - Rif. C).

- Position the gripper on hold (Fig. 13 - Ref. A) and insert the cable for the rope lift stop (Fig. 13 - Ref. B).
- From this moment onwards, the following movement blocks are activated due to the rope lift limit switch :
  - rope lift block
  - boom extension block
  - boom ascent/descent block



Attention :

If the rope lift stop is not activated there is serious risk for the safety of:

- bystanders
  - objects in the surrounding area
  - the machine structure
  - the material lifted
- Select on the safety system the correct operating position for the winch on the machine boom and remove the rope guide pulley support (Fig. 14 - Ref. C).

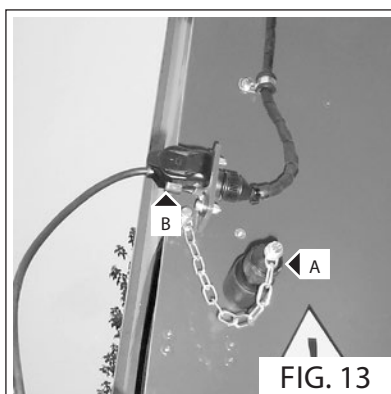
- Zet de stekker in de ruststand (Fig.13 - Ref.A) en plaats de kabel voor de eindaanslag kabel omhoog (Fig.13 - Ref.B).
- Vanaf dit moment worden de volgende blokken geactiveerd door de eindaanslag kabel omhoog:
  - blok kabel omhoog
  - blok uitschuiven arm
  - blok stijgen/dalen arm



Let op:

Als de eindaanslag kabel omhoog niet geactiveerd wordt, bestaat er groot gevaar voor:

- personen die zich in de nabije omgeving bevinden
  - voorwerpen die zich in de nabije omgeving bevinden
  - de structurele integriteit van de machine
  - het opgetilde materiaal
- Selecteer op het veiligheidssysteem de correcte werkpositie voor de lier op de arm van de machine en verwijder de steun van de kabelgeleideschijven (Fig.14 - Ref.C).



## INATTIVITÀ DELL'ARGANO

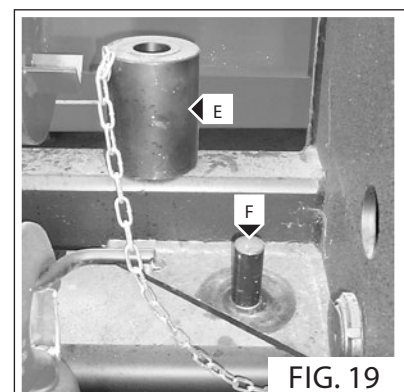
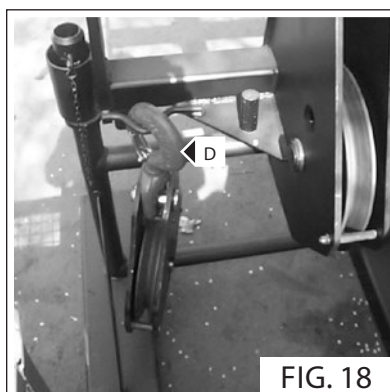
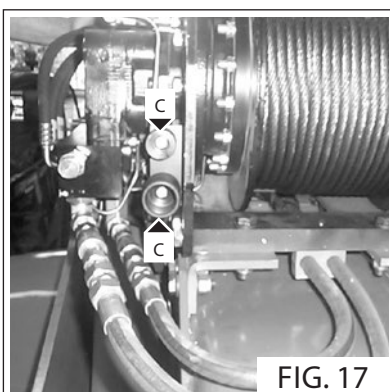
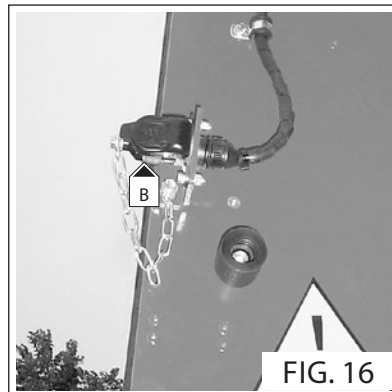
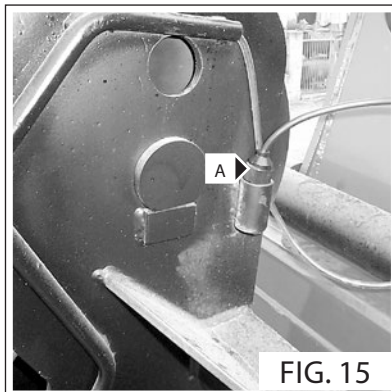
- Per utilizzare altri accessori, ripetere le operazioni in ordine inverso ricordandosi di :
  - mettere il cavo per il fine corsa salita fune a riposo (Fig. 15 - Rif. A)
  - inserire la presa nella spina (Fig. 16 - Rif. B)
  - scollegare i raccordi idraulici dall'argano e riporli negli appositi supporti (Fig. 17 - Rif. C)
  - riporre il bozzello nell'apposito alloggiamento (Fig. 18 - Rif. D)
  - riporre il peso di fine corsa salita fune (Fig. 19 - Rif. E) nell'apposito perno (Fig. 19 - Rif. F)

## PUTTING AWAY THE WINCH

- To use other accessories, repeat the operations described above in reverse order, and remember to :
  - put the rope lift limitswitch cable lying flat (Fig. 15 - Ref. A)
  - insert the plug into the socket (Fig. 16 - Ref. B)
  - disconnect the hydraulic fittings from the winch and replace them in their supports (Fig. 17 - Ref. C)
  - set the block back in its seating (Fig. 18 - Ref. D)
  - set the rope lift stop weight (Fig. 19 - Ref. E) back in its pin (Fig. 19 - Ref. F)

## ALS DE LIER NIET GEBRUIKT WORDT

- Om andere werktuigen te gebruiken, herhaal de handelingen in omgekeerde volgorde. Gelieve het volgende niet te vergeten:
  - breng de kabel voor de eindaanslag kabel omhoog in rustpositie (Fig.15 - Ref.A)
  - steek de stekker in het contact (Fig.16 - Ref.B)
  - koppel de hydraulische verbindingen van de lier los en plaats ze in de desbetreffende steunen (Fig.17 - Ref.C)
  - plaats de takel in de desbetreffende houder (Fig.18 - Ref.D)
  - plaats het gewicht van de eindaanslag kabel omhoog (Fig.19 - Ref.E) in de desbetreffende stift (Fig.19 - Ref.F)



**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

## RIDUTTORE

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio ogni 100 ore A (Fig.20b) e all'occorrenza rabboccare A (Fig.20b) con olio dello stesso tipo di quello presente all'interno del riduttore (SHELL SPIRAX HD80 W90). Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità SAE 80W/90 oppure SAE 85W/140.

La prima sostituzione dell'olio deve essere effettuata dopo 150 ore di funzionamento, successivamente ogni 1000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.20a) verso il basso.

Svitare il tappo A (Fig.20a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico sull'asse orizzontale A (Fig.20b).

Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello A (Fig.20b) (1,3 lt).

Riavvitare i tappi e riavvolgere la fune.

## GEAR REDUCER

Correct lubrication will allow efficient working and long life of the gear reducer.

The rope must be unwound completely from the drum to access the level indicator or oil filler plug.

Check the oil level every 100 hours A (Fig.20b) and top up if necessary A (Fig.20b) with the same type of oil as that present in the gear reducer (SHELL SPIRAX HD80 W90).

Use of gear oil with EP additives with viscosity SAE 80W/90 or SAE 85W/140 is recommended.

Oil must be changed the first time after 150 hours of operation, and subsequently every 1000 hours of operation.

Change the oil with the gear reducer still hot so that the oil drains out completely.

To drain out the oil, turn the motor drum so that the filler/drain plug A (Fig.20a) is downwards.

Unscrew plug A (Fig.20a) and drain out the oil completely.

Turn the drum so that the filler/drain plug is on the horizontal axis A (Fig.20b).

Fill with the right type of oil until it starts flowing out through the levelhole A (Fig.20b). (1,3 lt)

Refit the plugs and rewind the rope.

## REDUCTOR

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil om de 100 uren A (Fig.20b) en indien nodig bijvullen A (Fig.20b) met olie van hetzelfde soort als dat aanwezig is in de reductor (SHELL SPIRAX HD80 W90).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit SAE 80W/90 of SAE 85W/140.

De eerste olieversing moet na 150 werkuren plaatsvinden, daarna om de 1000 werkuren.

Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

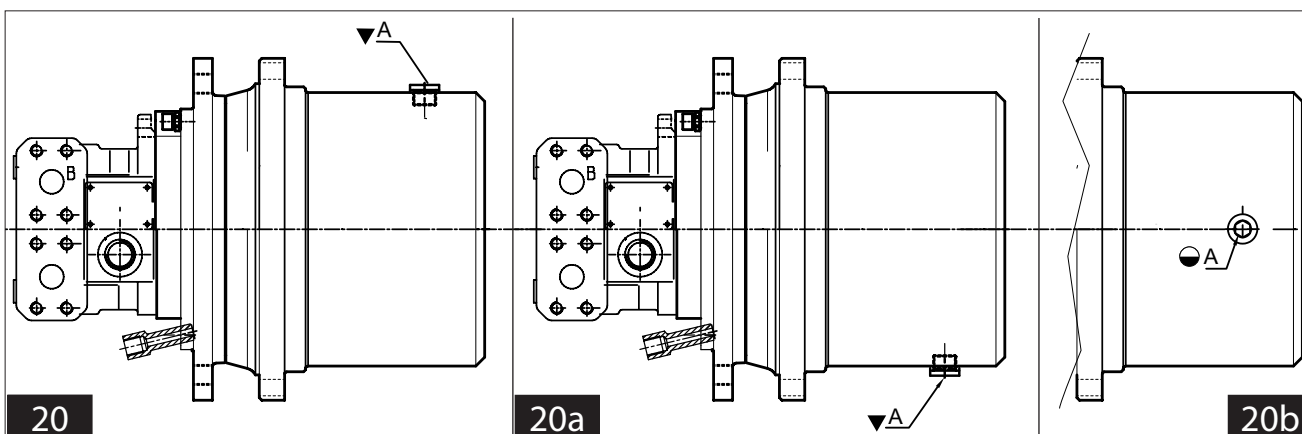
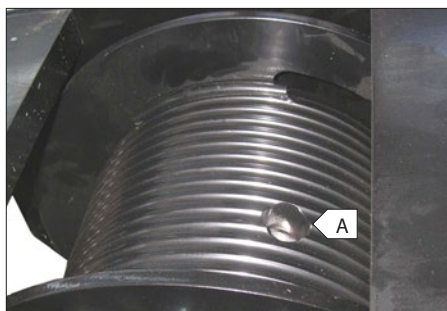
Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.20a) naar beneden staat.

Draai de dop A (Fig.20a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul-/aftapopening op de horizontale as staat A (Fig.20b).

Bijvullen met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt A (Fig.20b) (1,3 l)

Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.21) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.21a) e che sia ben arrotolata sul tamburo B (Fig.21).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare giornalmente e mantenere lubrificato il perno C (Fig.21) su cui ruota la puleggia di guida D (Fig.21), che dovrà avere sempre un buono movimento di rotazione e di traslazione laterale.

Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.22) e dei suoi morsetti fermafune F (Fig.22).

**ROPE, PULLEY and TERMINAL**

Check rope A daily (Fig.21) to make sure it is in perfect condition, that there are no broken filaments (Fig.21a) and that it is wound correctly around drum B (Fig.21).

If this is not the case, replace it with a new one having the same diameter and features.

Check the lubrication of the rope, and apply industrial grease or dust-proof synthetic oil, if necessary.

Check and lubricate pin C (Fig.21) on which guide pulley D (Fig.21) rotates, on a daily basis, making sure its rotation and transverse movements are smooth.

Lubricate the pin with lithium soap grease, if necessary.

Check the condition of terminal E (Fig.22) and its rope-holder clamps F (Fig.22).

**KABEL, KABELSCHIJF en KABELUITEINDEN**

Controleer dagelijks of de kabel A (Fig.21) in optimale staat verkeert, of er geen draden stuk zijn (Fig.21a) en of hij goed op de trommel gewonden is B (Fig.21).

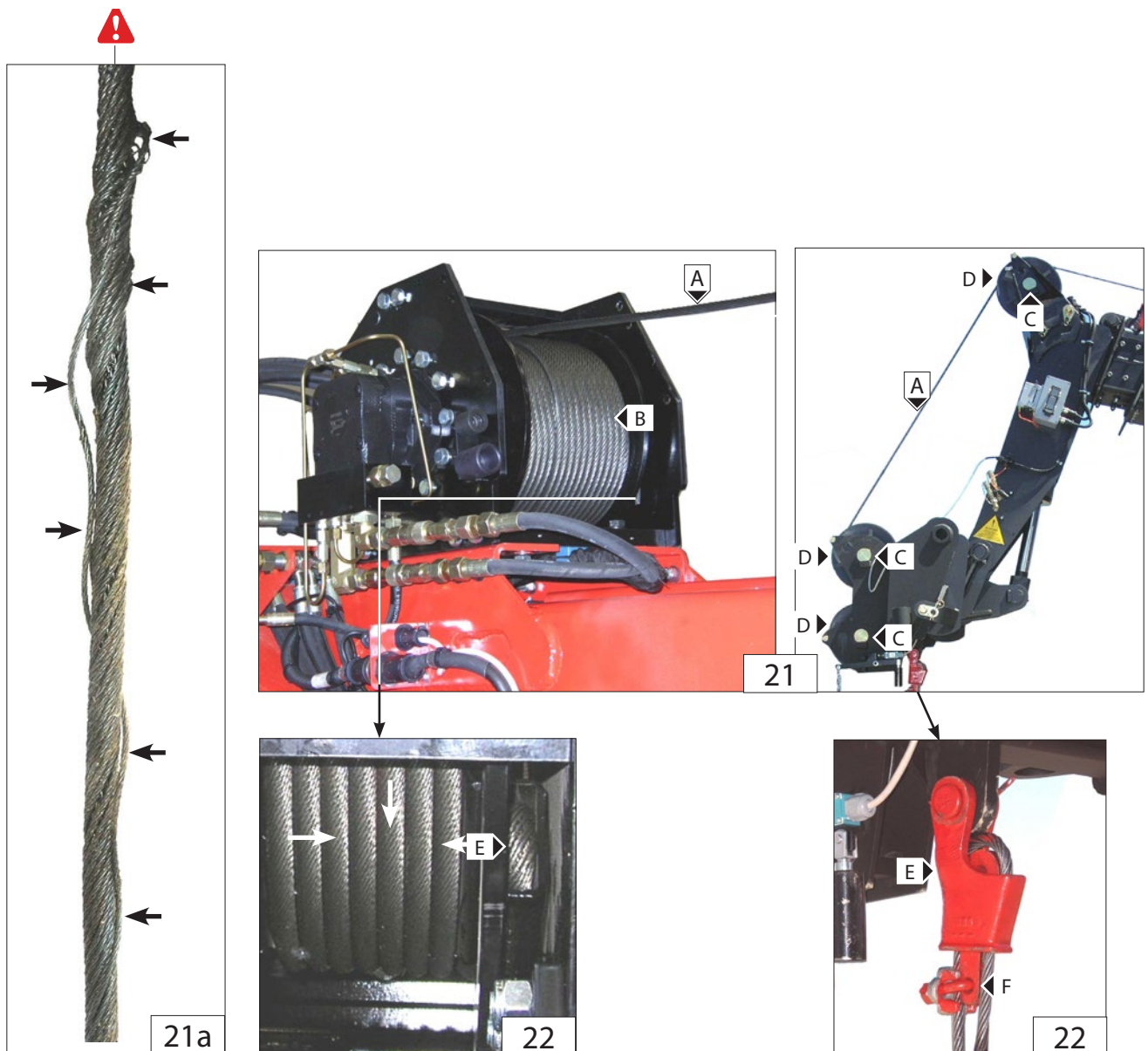
Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer dagelijks de pen C (Fig.21) waarop de geleideschijven D (Fig.21) draait en houd ze gesmeerd. Deze moet altijd een goede draai beweging en zijwaartse schuif beweging behouden.

Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.22) en de kabelklemmen F (Fig.22).



**BOZZELLO**

Per una massima efficienza e sicurezza, mantenere intatta la struttura esterna H (Fig.23) e controllare che la puleggia L (Fig.24) ruoti correttamente sul suo perno M (Fig.24).

Se necessità, lubrificare con grasso al sapone di litio il perno M (Fig.23).

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.24).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.24).

Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.24).

**BLOCK**

For maximum efficiency and safety, make sure the outer frame H (Fig.23) is intact and check pulley L (Fig.24) to make sure it rotates properly around its pin M (Fig.24).

Lubricate pin M with lithium soap grease, if necessary (Fig.23).

**HOOK**

For maximum efficiency, keep the hook rotation screw N lubricated (Fig.24).

Without load suspended, the hook must rotate freely, merely by pressing with the hand P (Fig.24).

Check the condition and working of safety tab O (Fig.24).

**TAKEL**

Voor een maximale efficiëntie en veiligheid, de buitenste structuur intact houden H (Fig.23) en controleren of de kabelschijf L (Fig.24) goed op zijn pen draait M (Fig.24).

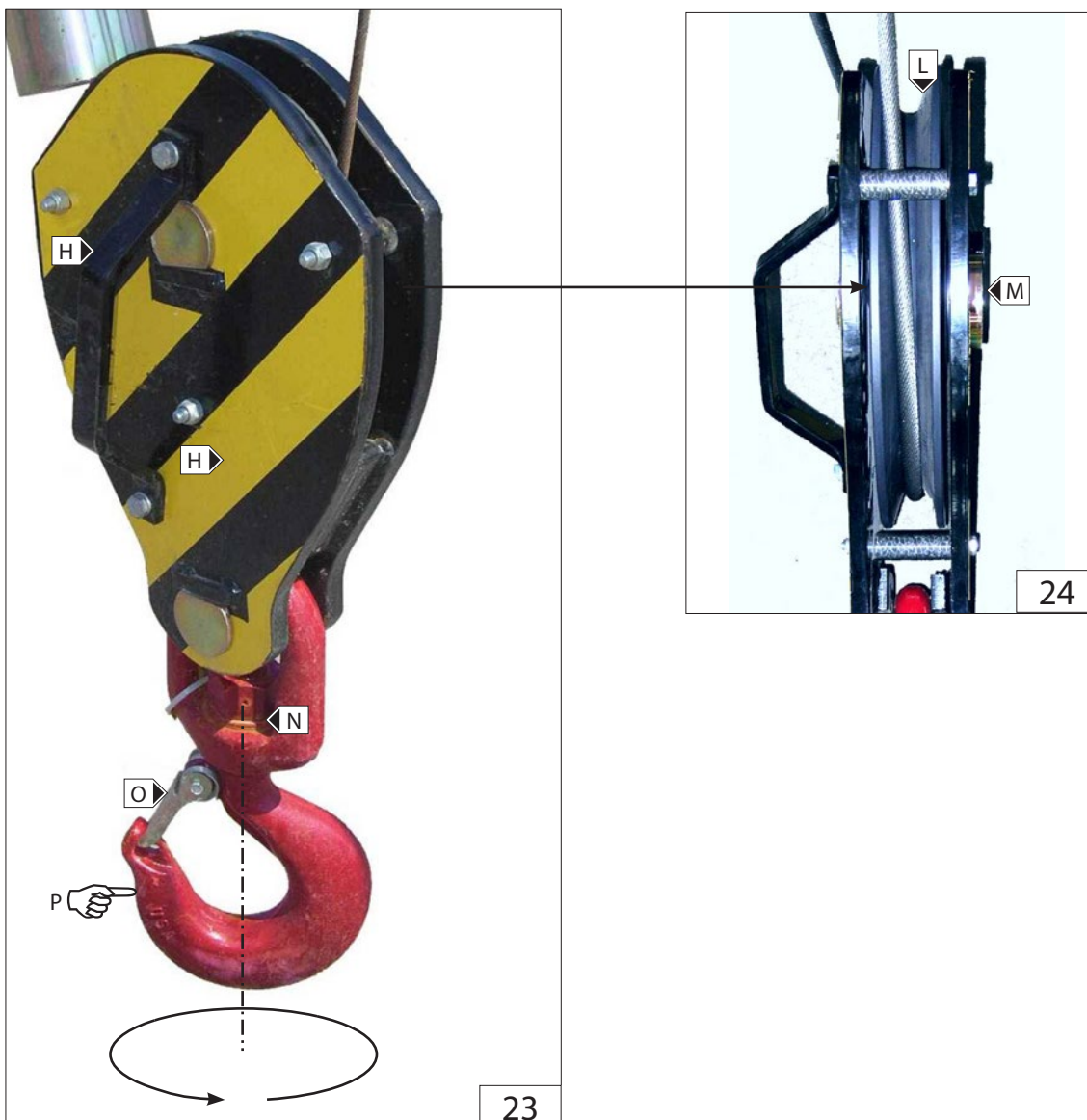
Indien nodig, de pen M (Fig.23) invetten met lithiumzeepvet.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.24) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.24).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.24).





**FINE CORSA DISCESA FUNE (Fig.25)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi .

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e il microinterruttore; controllare il collegamento elettrico.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.26)

**IMPIANTO IDRAULICO (Fig.27)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT STOP (Fig.25)**

Keep the piston and hydraulic safety valve cleaned daily for maximum efficiency; check the unions and pipes to make sure they are tightened properly. Check the condition of the descent limit stop contact leverage and the seal on its spring.

**ROPE LIFT LIMIT STOP**

Keep the piston and safety microswitch cleaned daily for maximum efficiency; check the connection electrical.

Also check the condition of the lift limit stop contact leverage and the seal on its spring. (Fig.26)

**HYDRAULIC SYSTEM (Fig.27)**

Inspect the unions, valves, pipes daily to prevent oil leakage which will affect the working and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.25)**

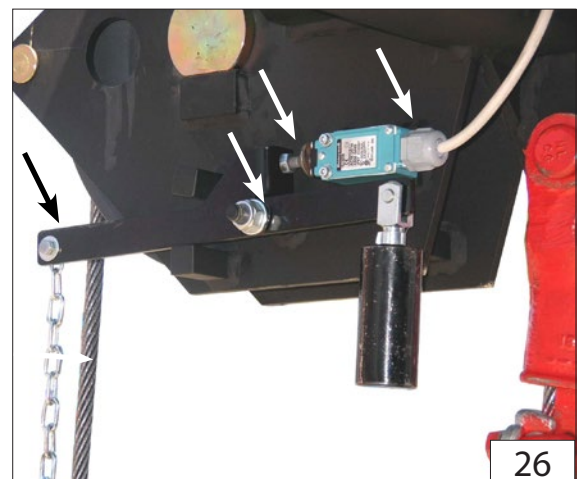
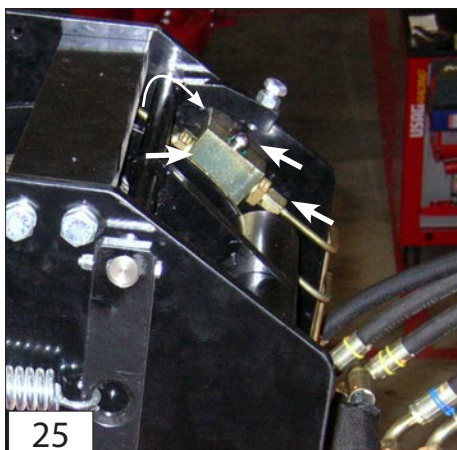
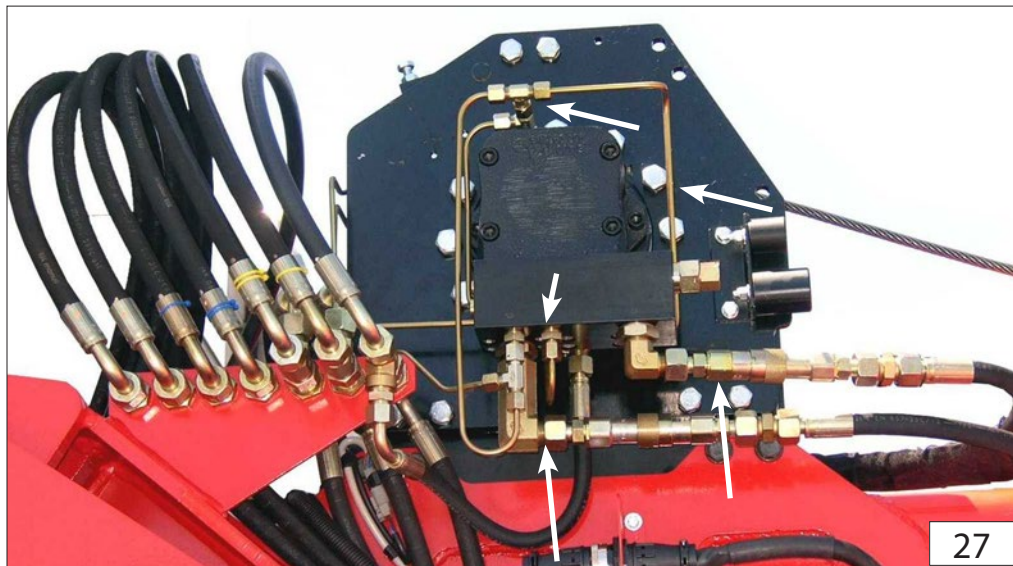
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een optimale efficiëntie dient u dagelijks het zuigertje en de microschakelaar schoon te maken en de elektrische aansluiting te controleren. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het stijgen en zijn veer. (Fig.26)

**HYDRAULISCHE INSTALLATIE (Fig.27)**

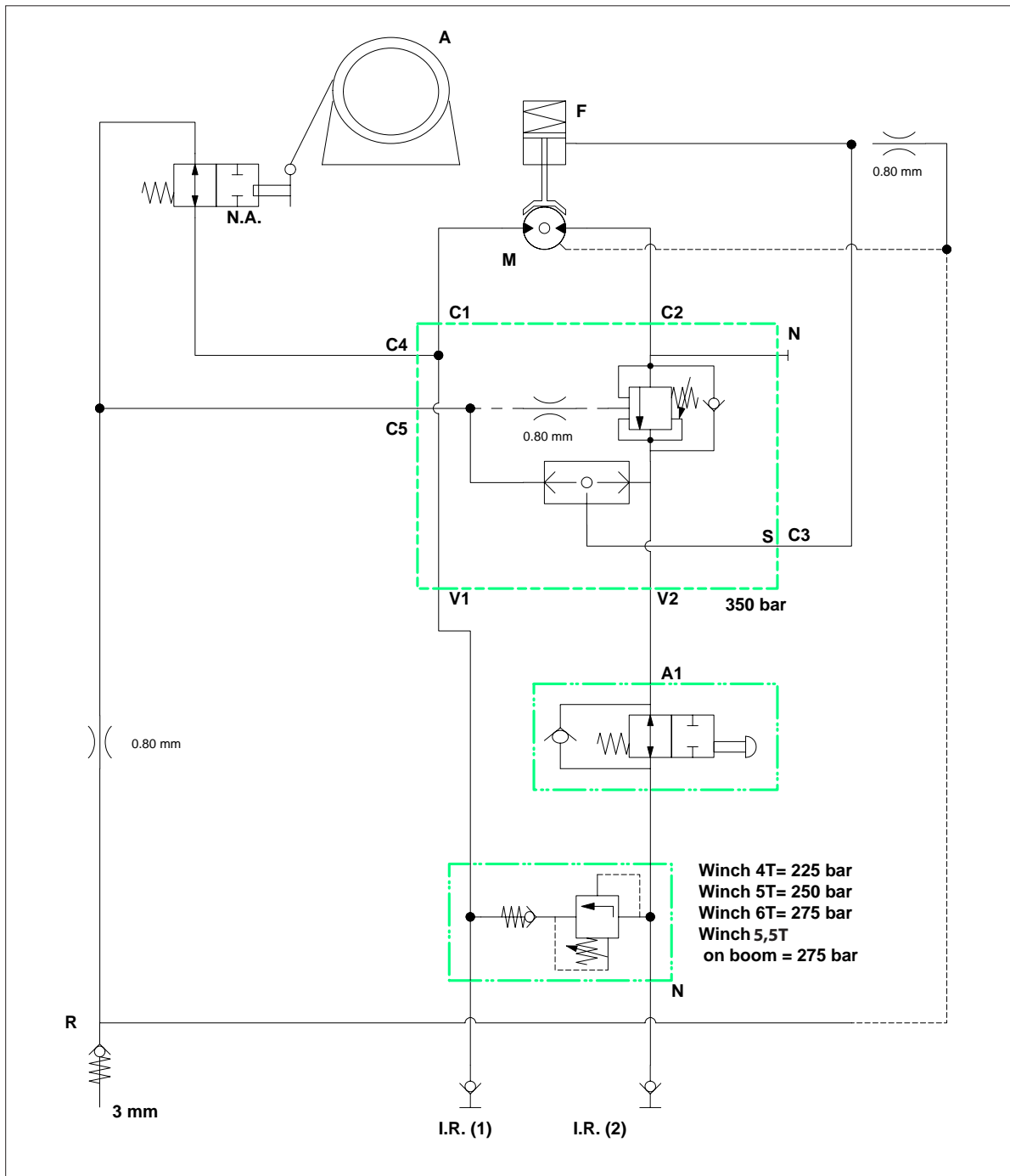
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olielekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLJETANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM

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***P 600***

IT

**Descrizione:**

Braccetto lungo 4mt con una portata di 600Kg.

EN

**Description:**





4m long arm with carrying capacity of 600 kg.

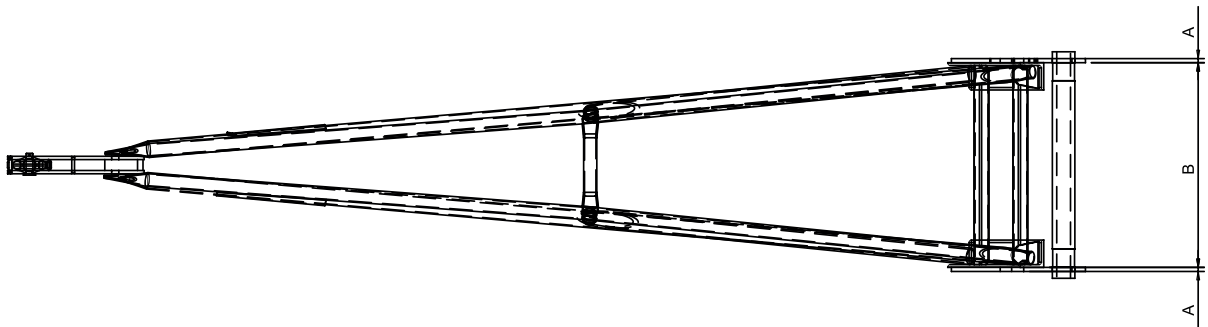
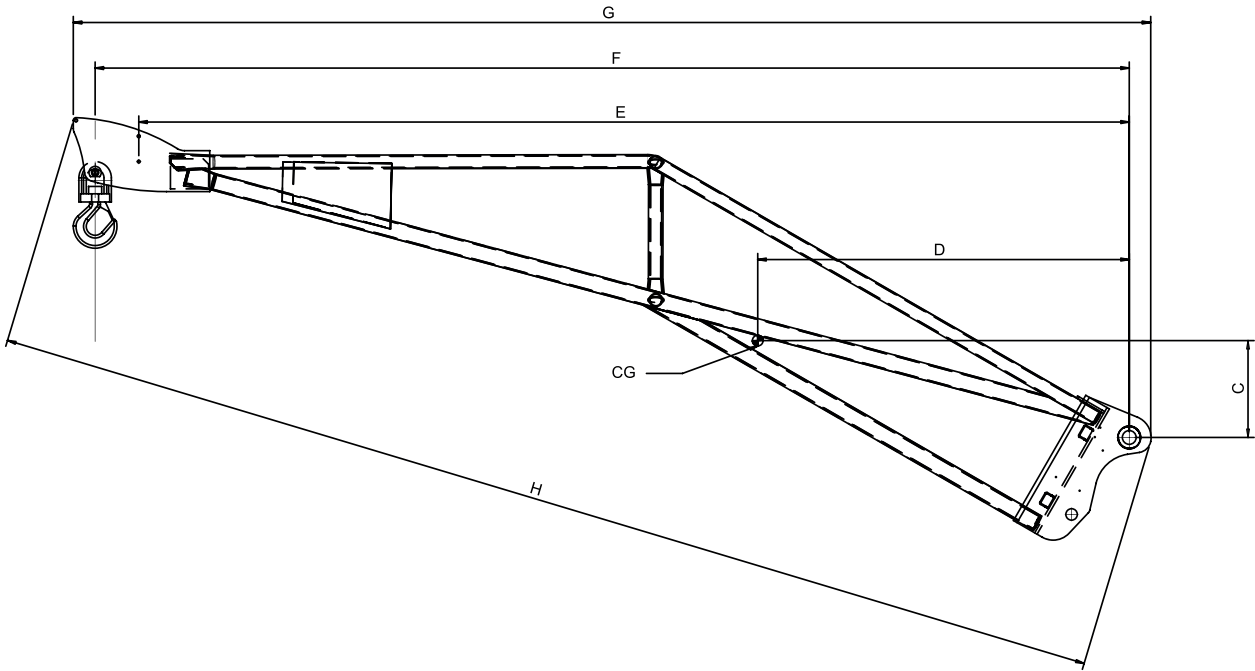
NL

**Beschrijving:**

4 m lange arm met een draagvermogen van 600 kg.



[kg] (lb)	[t] (t)	[mm] (in)								[kg] (lb)
										
600 (1322)	5 (5)	A	B	C	D	E	F	G	H	395 (870)
		1810 (71)	900 (35)	506 (20)	730 (29)	353 (14)	270 (11)	750 (29)	750 (29)	



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***P 1000***



IT

**Descrizione:**

Braccetto lungo 4mt con una portata di 1000Kg.

EN

**Description:**





4m long arm with carrying capacity of 1000 kg.

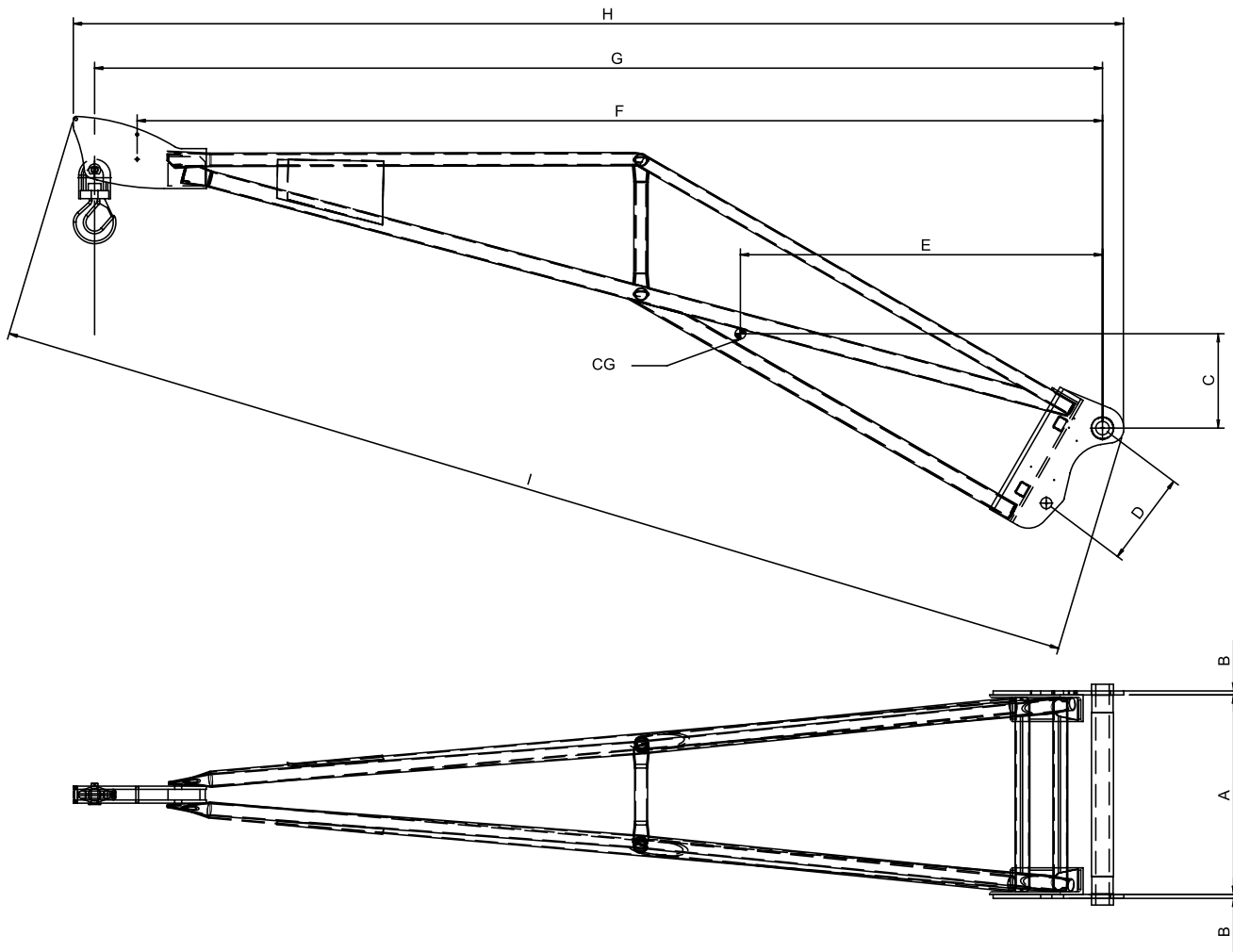
NL

**Beschrijving:**

4 m lange arm met een draagvermogen van 1000 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
1000 (2204)	5 (5)	A	B	C	D	E	F	G	H	I	210 (463)
		750 (29)	15 (0,5)	355 (13,9)	353 (13,8)	1361 (53)	3630 (143)	3790 (149)	3948 (155)	4119 (162)	



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***P 1200***

IT

**Descrizione:**

Braccetto lungo 3mt con una portata di 1200Kg.

EN

**Description:**





3m long arm with carrying capacity of 1200 kg.

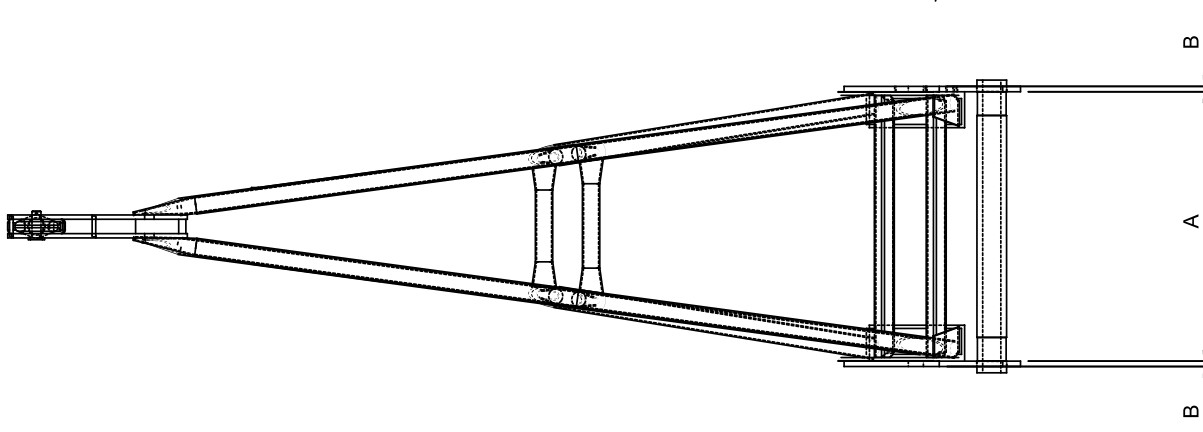
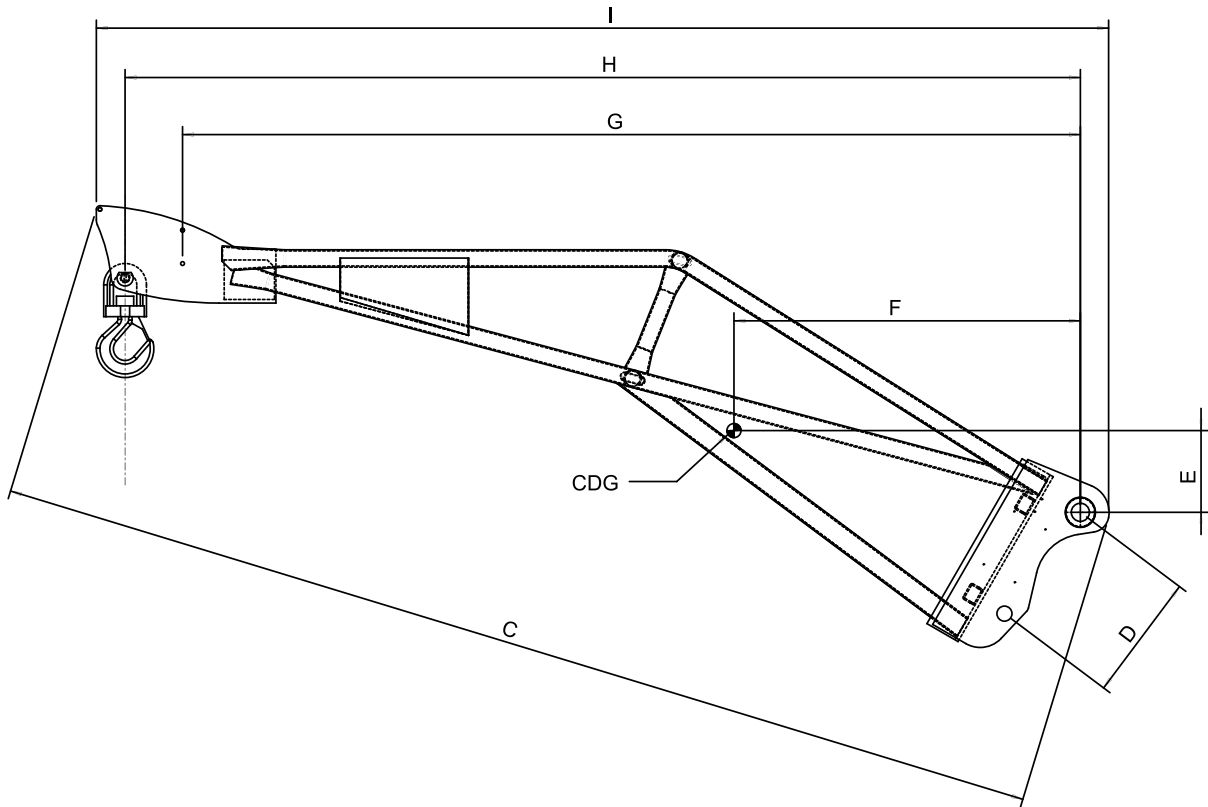
NL

**Beschrijving:**

3 m lange arm met een draagvermogen van 1200 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
1200 (2645)	5 (5)	A	B	C	D	E	F	G	H	I	150 (330)
		750 (29)	15 (0,5)	2950 (116)	353 (13,8)	228 (9)	965 (38)	2500 (98)	2660 (105)	2819 (111)	



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***P 1500***



IT

**Descrizione:**

Braccetto lungo 3mt con una portata di 1500Kg.

EN

**Description:**





3m long arm with carrying capacity of 1500 kg.

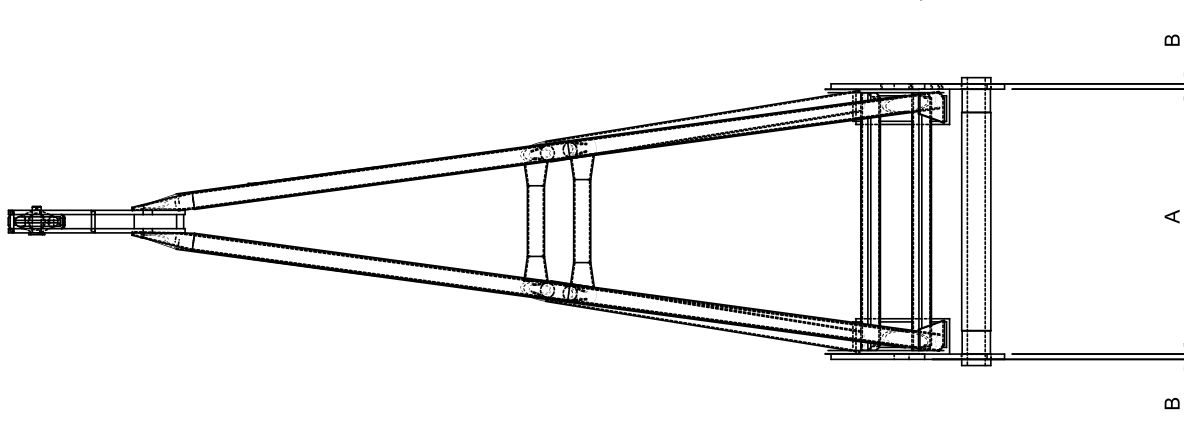
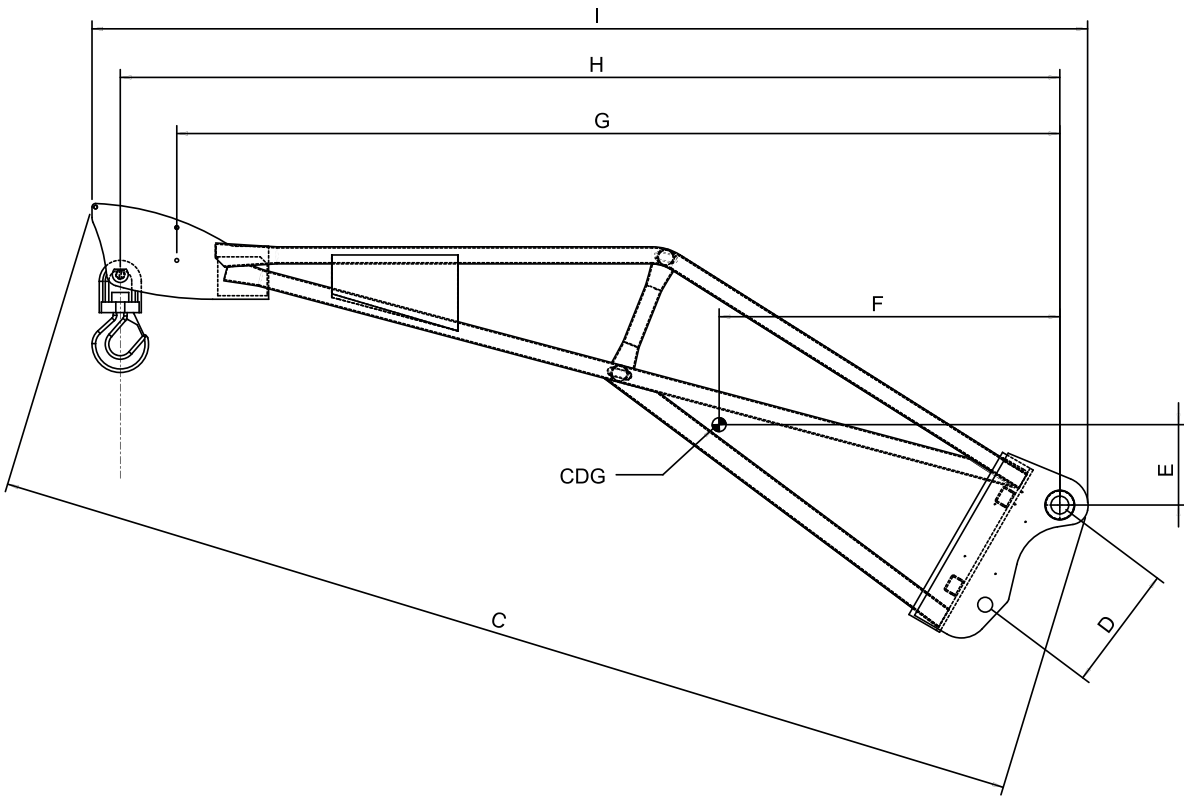
NL

**Beschrijving:**

3 m lange arm met een draagvermogen van 1500 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
1500 (3306)	5 (5)	A	B	C	D	E	F	G	H	I	186 (410)
		750 (29)	15 (0,5)	2950 (116)	353 (13,8)	228 (9)	965 (38)	2500 (98)	2660 (105)	2819 (111)	



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***P 2000***

IT

**Descrizione:**

Braccetto lungo 2,5mt con una portata di 2000Kg.

EN

**Description:**





2.5m long arm with carrying capacity of 2000 kg.

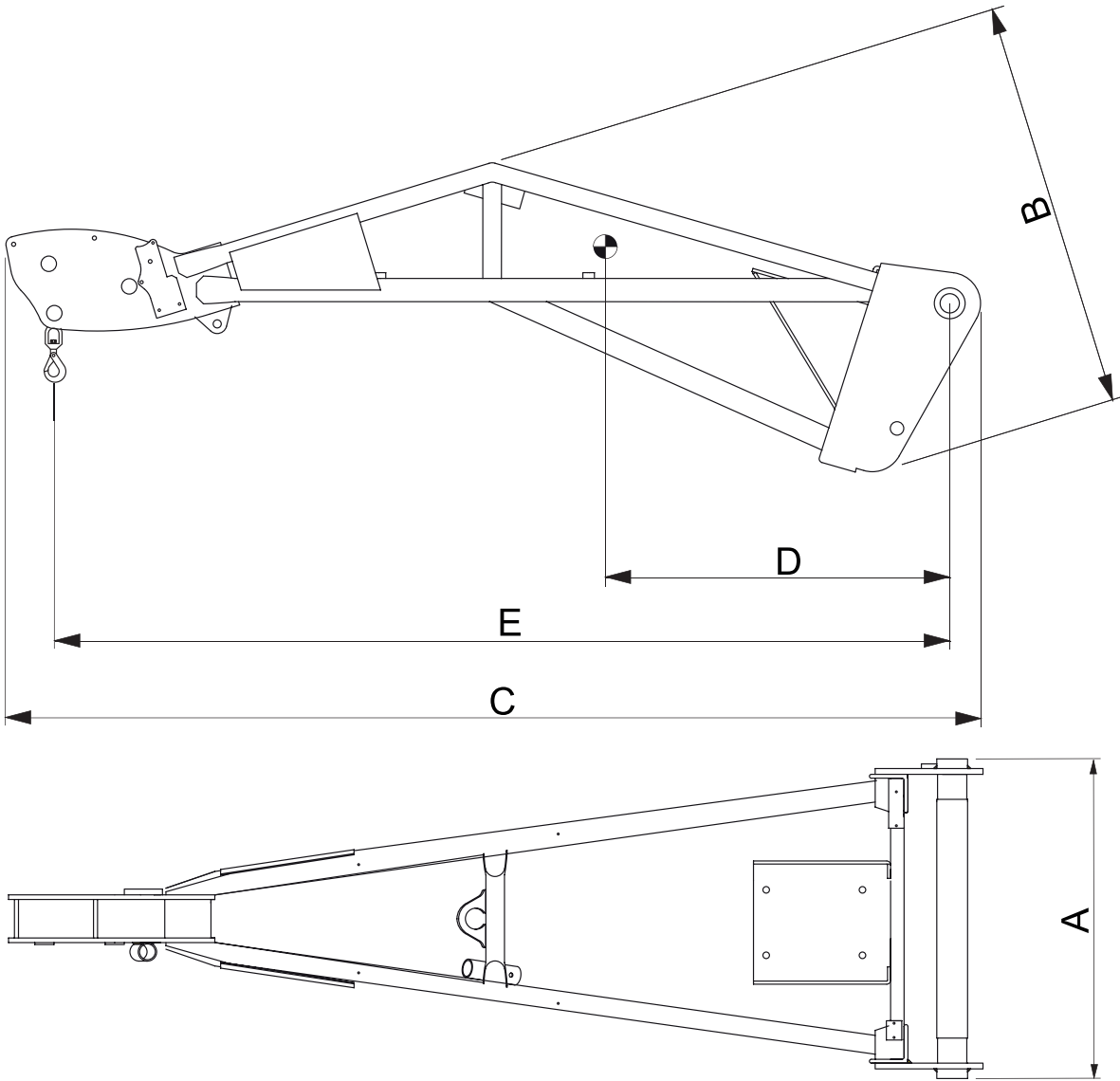
NL

**Beschrijving:**

2,5 m lange arm met een draagvermogen van 2000 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
1500 (3306)	5 (5)	A	B	C	D	E	F	G	H	I	186 (410)
		750 (29)	15 (0,5)	2950 (116)	353 (13,8)	228 (9)	965 (38)	2500 (98)	2660 (105)	2819 (111)	



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***P 4000***



IT

**Descrizione:**

Braccetto lungo 2,7 m con due portate:  
4000 kg a 0.70 m e 1200 kg a 2,7 m.

EN

**Description:**

2.7 m long arm with two carrying  
capacities:  
4000 kg at 0.70 m and 1200 kg at 2.7 m

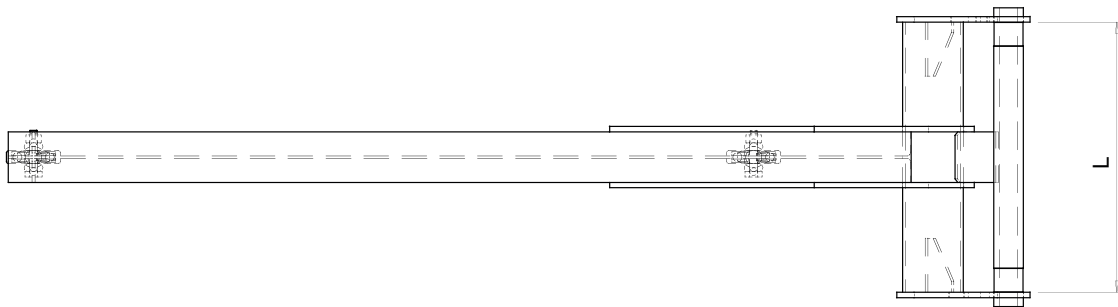
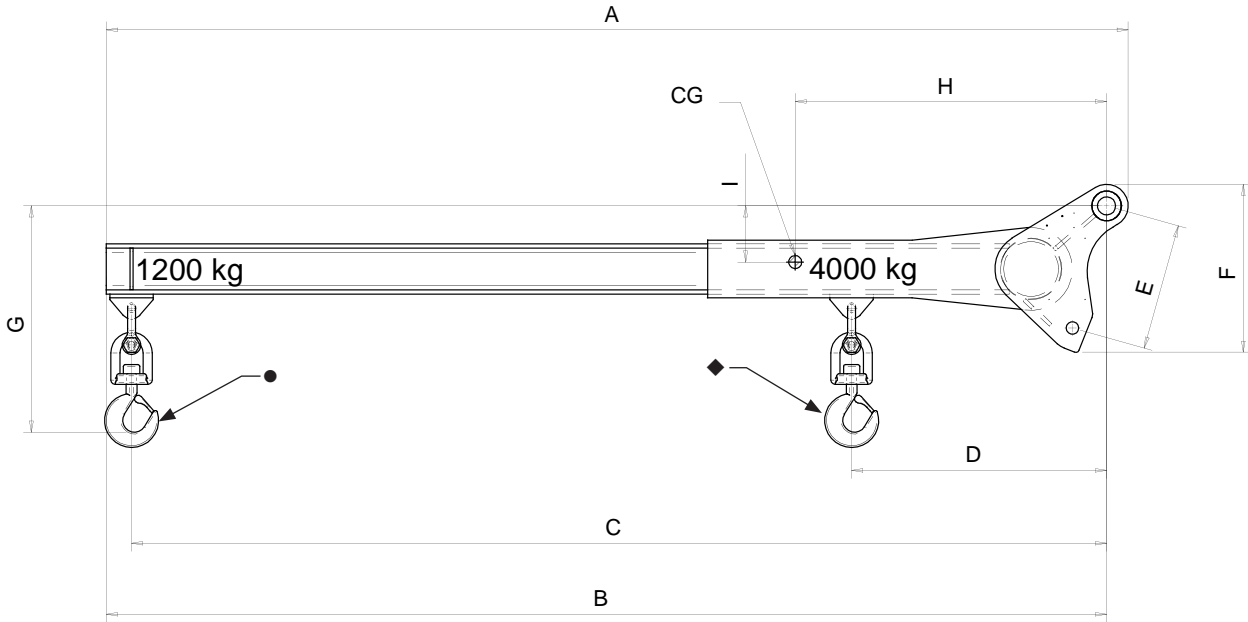
NL

**Beschrijving:**

2,7 m lange arm met twee  
draagvermogens: 4000 kg op 0.70 m en  
1200 kg op 2,7 m.



[kg] (lb)	[t] (t)	[kg] (lb)	[t] (t)	[mm] (in)										[kg] (lb)
●	◆			A	B	C	D	E	F	G	H	I	L	210 (463)
1200 (2645)	3 (3)	4000 (8818)	4 (4)	2838 (112)	2778 (109)	2708 (107)	708 (28)	352 (13,8)	466 (18)	629 (25)	865 (34)	156 (6)	750 (29)	



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***P 6000***

IT

**Descrizione:**

Braccetto lungo 2,7 m con due portate:  
6000 kg a 0.80 m e 2000 kg a 2,7 m.

EN

**Description:**

2.7 m long arm with two carrying  
capacities:  
6000 kg at 0.80 m and 2000 kg at 2.7 m

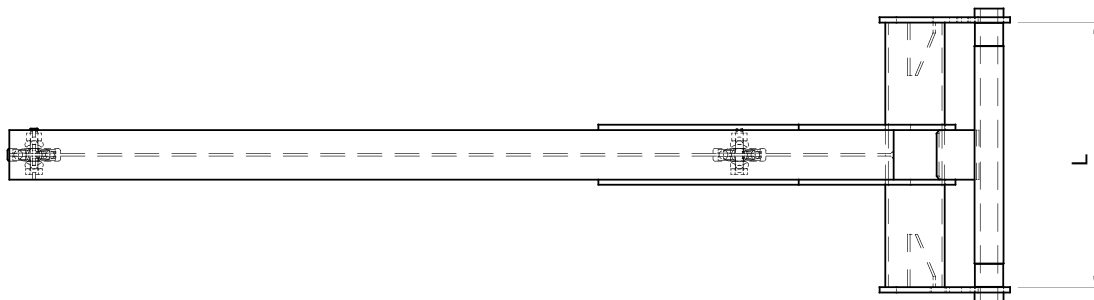
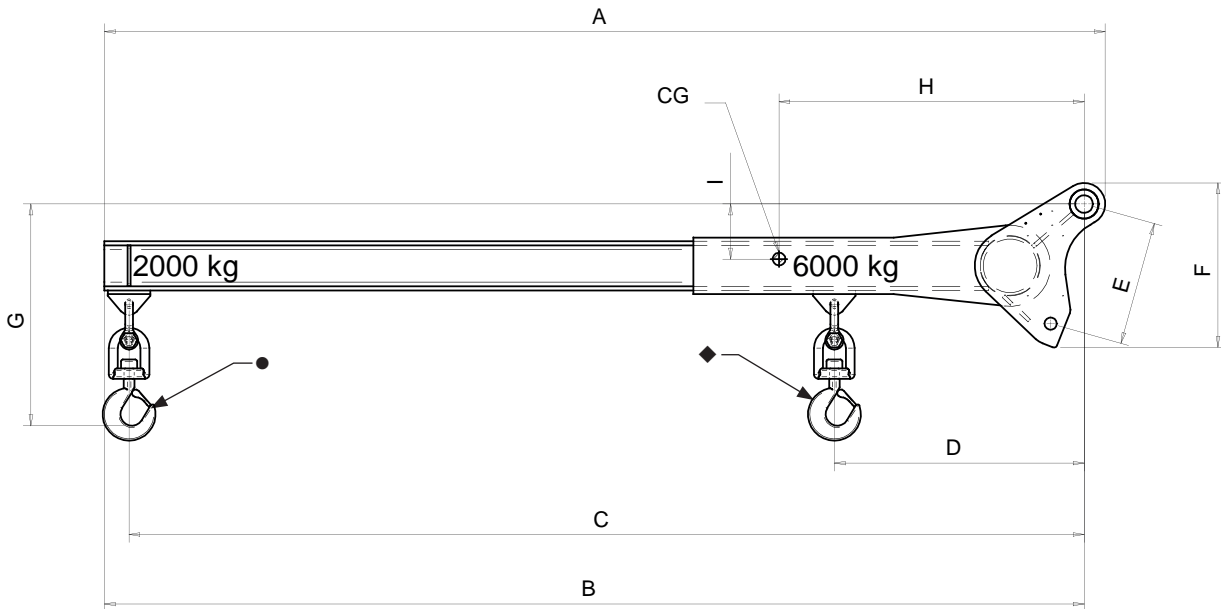
NL

**Beschrijving:**

2,7 m lange arm met twee  
draagvermogens: 6000 kg op 0.80 m en  
2000 kg op 2,7 m.



[kg] (lb)	[t] (t)	[kg] (lb)	[t] (t)	[mm] (in)										[kg] (lb)
●	◆			A	B	C	D	E	F	G	H	I	L	210 (463)
3000 (6614)	3 (3)	6000 (13227)	6 (6)	2838 (112)	2778 (109)	2708 (107)	808 (32)	352 (13,8)	466 (18)	649 (25)	950 (37)	156 (6)	750 (29)	



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# ***PT 600***



**Descrizione:**

Braccetto lungo 4mt con argano portata 600Kg.

**Caratteristiche:**

- Tiro al 2° strato di 600Kg.
- Velocità massima al 2° strato 89mt/min
- Il tiro è diretto
- La fune è di 40mt, diametro 6mm disposta su due strati.
- Motore orbitale Sauer-Danfoss OMRS80.
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezze:**

- Fine corsa discesa idraulico positivo.
- Fine corsa salita idraulico positivo.

**Description:**

4m long arm with carrying capacity of 600 kg.

**Features:**

- Pull at 2<sup>nd</sup> layer 600kg.
- Maximum speed at 2<sup>nd</sup> layer 89 m/min
- The pull is direct
- The rope is 40 m long, 6mm diameter arranged in two layers.
- Sauer-Danfoss OMRS80 orbital motor
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch.
- Positive hydraulic ascent limit switch.

**Beschrijving:**

4 m lange arm met lier met draagvermogen van 600 kg.

**Kenmerken:**

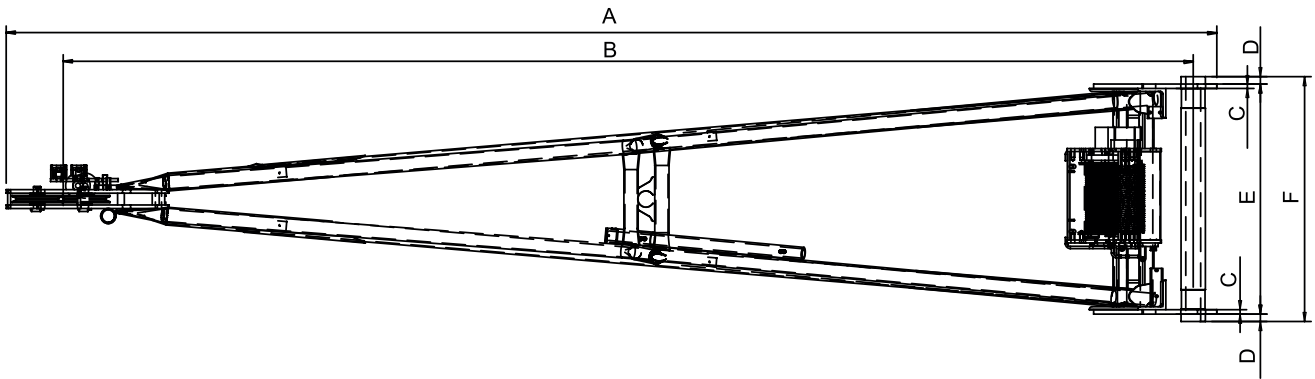
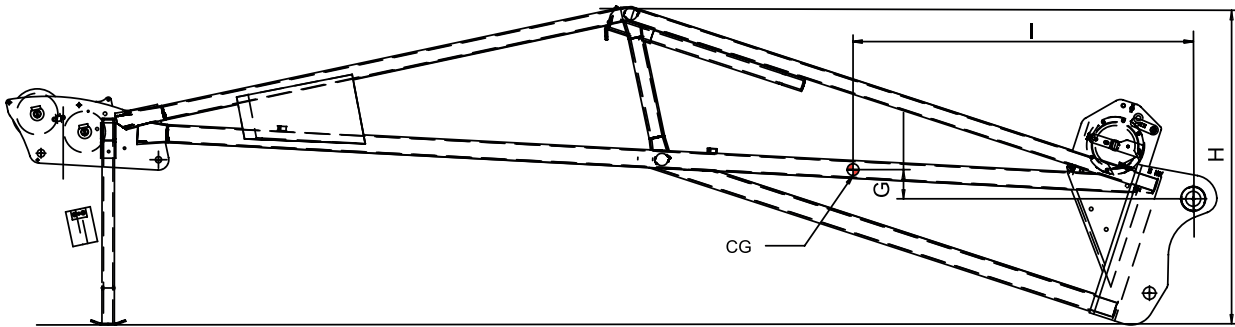
- Trekkracht 2de laag 600 kg.
- Maximumsnelheid 2de laag 89 m/min.
- Kabel enkel gebruikt.
- De kabel is 40 m, diameter 6 mm in twee lagen.
- Sauer-Danfoss OMRS80 orbitmotor.
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelandrukrol voor een altijd correcte opwikkeling van de kabel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling.
- Positieve hydraulische eindaanslag stijging.



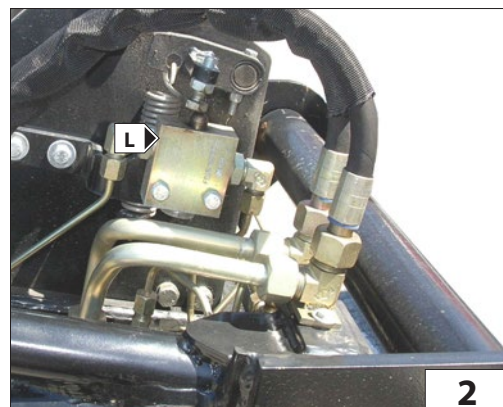
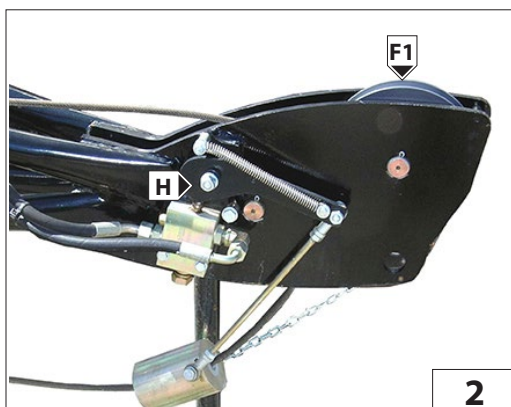
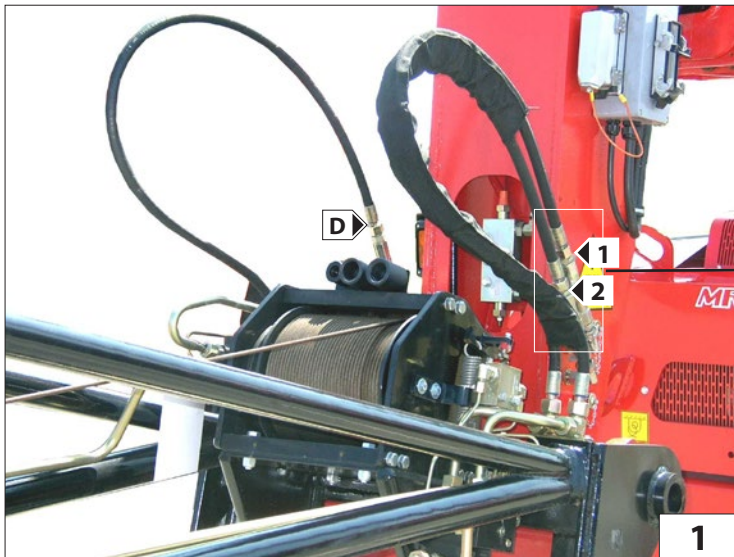
[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)									[kg] (lb)
				P max										
600 (1322)	5 (5)	∅ 6 (0,2) x 40 (131)	89 (292)	200 (2900)	A	B	C	D	E	F	G	H	I	278 (613)
					4104 (161)	3831 (151)	15 (0,5)	25 (0,9)	780 (31)	830 (33)	100 (4)	1079 (42)	1153 (45)	



## MESSA IN SERVIZIO E UTILIZZO

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle **Istruzioni obbligatorie di verifica e controllo:**

- verificare l'integrità della struttura esterna dell'argano e del braccetto tralicciato.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune L (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune H (Fig.2);



## STARTING UP AND USE

For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

- check to make sure the external structure of the winch and latticed boom is intact.
- Check to ensure the correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check to ensure correct working of the rope ascent limit switch L (Fig.2);
- check to ensure correct working of the rope descent limit switch H (Fig.2);

## INBEDRIJFSTELLING EN GEBRUIK

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de **verplichte controle-instructies:**

- controleer of de buitenste structuur van de lier en van de vakwerkarm intact is.
- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindaanslag kabel omlaag L (Fig.2);
- controleer de werking van de eindaanslag kabel omhoog H (Fig.2);

- controllare lo stato della fune B (Fig.3) e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento rotazione delle puleggie di guida fune F1 (Fig.2);
- controllare lo stato del capocorda C (Fig.3);
- controllare che il grillo di collegamento fune e gancio sia ben avvitato K (Fig.4) e che i morsetti K1 (Fig.4) blocchino la fune.
- verificare lo stato del gancio: che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente G (Fig.4);
- controllare l'aggancio del braccetto alla macchina operatrice J (Fig.5).

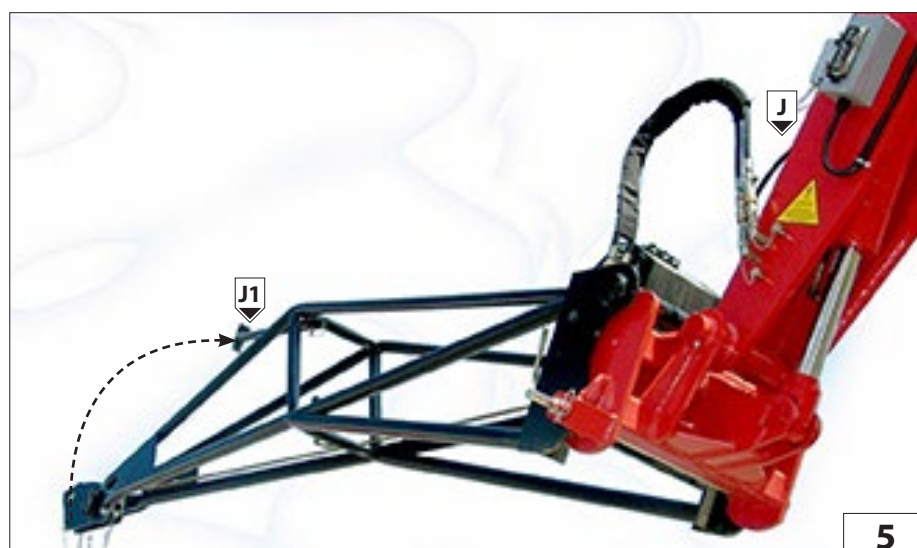
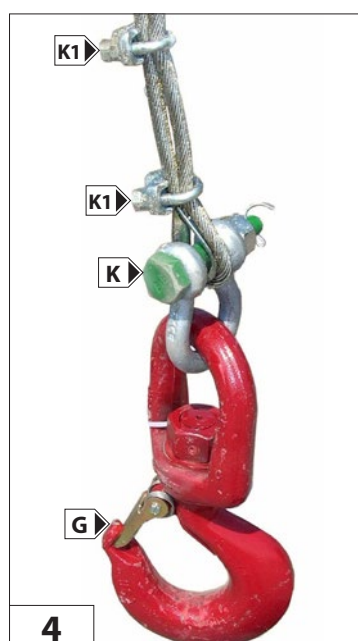
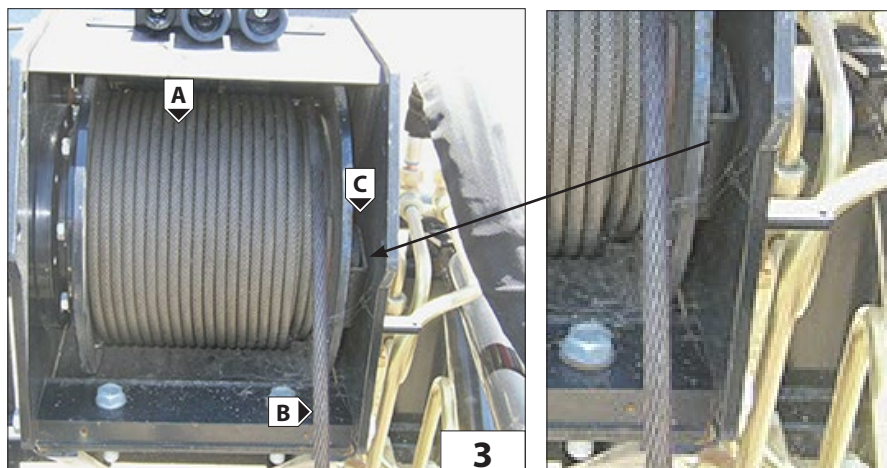
Dalla posizione di parcheggio è possibile sganciare il piede di appoggio e posizionarlo all'interno del braccetto per operare senza ulteriori ingombri J1 (Fig.5).

- check the condition of the rope B (Fig. 3) and that it is wound correctly on the drum A (Fig.3);
- check to ensure correct rotation movement of the rope guide pulley F1 (Fig. 2);
- check the condition of cable terminal C (Fig. 3);
- check to make sure the rope and hook connecting shackle is screwed in properly K (Fig.4) and that the terminals K1 (Fig.4) block the rope;
- check the condition of the hook: to make sure it is not deformed, that it rotates freely and that the safety tab G (Fig. 4) is in working order;
- check the hook-up of the boom to the operating machine J (Fig. 5).

From the parking position it is possible to unhook the foot and position it inside the boom to operate without increasing the dimensions J1 (Fig.5).

- controleer de staat van de kabel B (Fig.3) en de opwikkeling op de trommel A (Fig.3);
- controleer de draaibeweging van de kabelgeleidewielen F1 (Fig.2);
- controleer de staat van het kabeluiteinde C (Fig.3);
- controleer of de harpsluiting tussen de kabel en de haak K (Fig.4) goed vastgedraaid is en of de klemmen K1 (Fig.4) de kabel blokkeren.
- controleer de staat van de haak: of deze niet vervormd is, of hij vrij draait en of zijn veiligheidssluiting efficiënt is G (Fig.4);
- controleer de aankoppeling van de arm aan de machine J (Fig.5).

Vanuit de parkeerstand kan de steunpoot losgemaakt worden en binnenin de arm geplaatst worden om zonder onnodige ruimte innemende structuren te kunnen werken J1 (Fig.5).



**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

**RIDUTTORE**

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio ogni 100 ore A (Fig.6b) e all'occorrenza rabboccare A (Fig.6b) con olio dello stesso tipo di quello presente all'interno del riduttore (SHELL SPIRAX HD80 W90). Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità SAE 80W/90 oppure SAE 85W/140.

La prima sostituzione dell'olio deve essere effettuata dopo 150 ore di funzionamento, successivamente ogni 1000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.6a) verso il basso. Svitare il tappo A (Fig.6a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico sull'asse orizzontale A (Fig.6b).

Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello A (Fig.6b). (0,6 lt) Riavvitare i tappi e riavvolgere la fune.

**REDUCTION GEAR**

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least every 100 hours A (Fig.6b) and if required, top up A (Fig.6b) with oil of the same type as that present inside the reduction gear (SHELL SPIRAX HD80 W90). Use gear oil with additive EP with viscosity SAE 80W/90 or SAE 85W/140.

The first oil change must be after 150 hours of operation, then subsequently every 1000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage. To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 6a) is facing downwards.

Unscrew cap A (Fig.6a) and drain out the oil completely.

Turn the drum to bring the topping up/drainage hole horizontal A (Fig.6b).

Top up with fresh oil of the correct type until the oil flows out through the level hole A (Fig.6b). (0.6 l).

Screw the cap back on and rewind the rope.

**REDUCTOR**

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil om de 100 uren A (Fig.6b) en indien nodig bijvullen A (Fig.6b) met olie van hetzelfde soort als dat aanwezig is in de reductor (SHELL SPIRAX HD80 W90).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit SAE 80W/90 of SAE 85W/140.

De eerste olieverversing moet na 150 werkuren plaatsvinden, daarna om de 1000 werkuren.

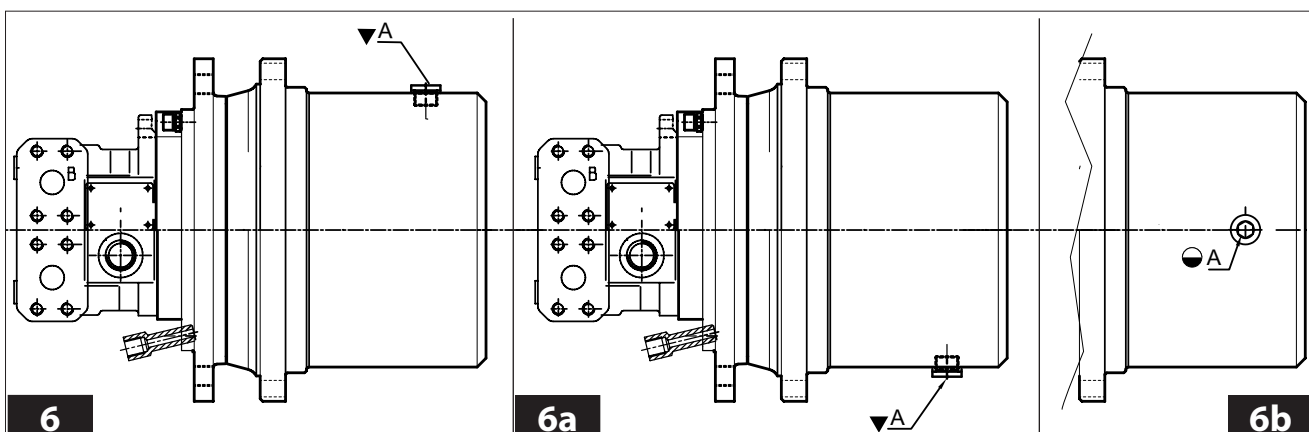
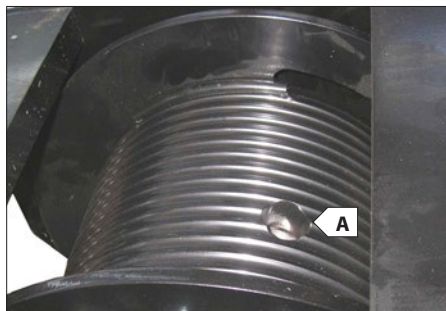
Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.6a) naar beneden staat.

Draai de dop A (Fig.6a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul-/aftapopening op de horizontale as staat A (Fig.6b).

Vul bij met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt A (Fig.6b). (0,6 l) Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.7) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.7a) e che sia ben arrotolata sul tamburo B (Fig.7).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare e mantenere lubrificato i perni C (Fig.8) su cui ruotano le pulegge di guida D (Fig.8), che dovranno avere sempre un buono movimento di rotazione.

Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.9) e dei suoi morsetti fermafune.

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.7) is always in excellent condition, that it is not frayed (Fig.7a) and that it is wound perfectly around the drum B (Fig.7).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check and lubricate the pins C (Fig. 8) on which the guide pulleys D (Fig. 8) rotate and these must always rotate perfectly.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.9) and the rope retainer clamps F.

**KABEL, KABELSCHIJF en KABELUITEINDEN**

Controleer dagelijks of de kabel A (Fig.7) in optimale staat verkeert, of er geen draden stuk zijn (Fig.7a) en of hij goed op de trommel gewonden is B (Fig.7).

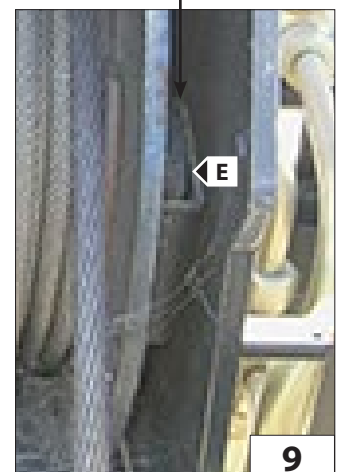
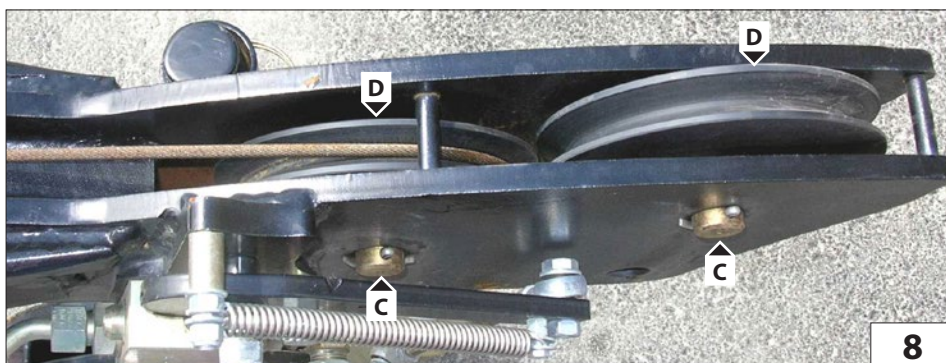
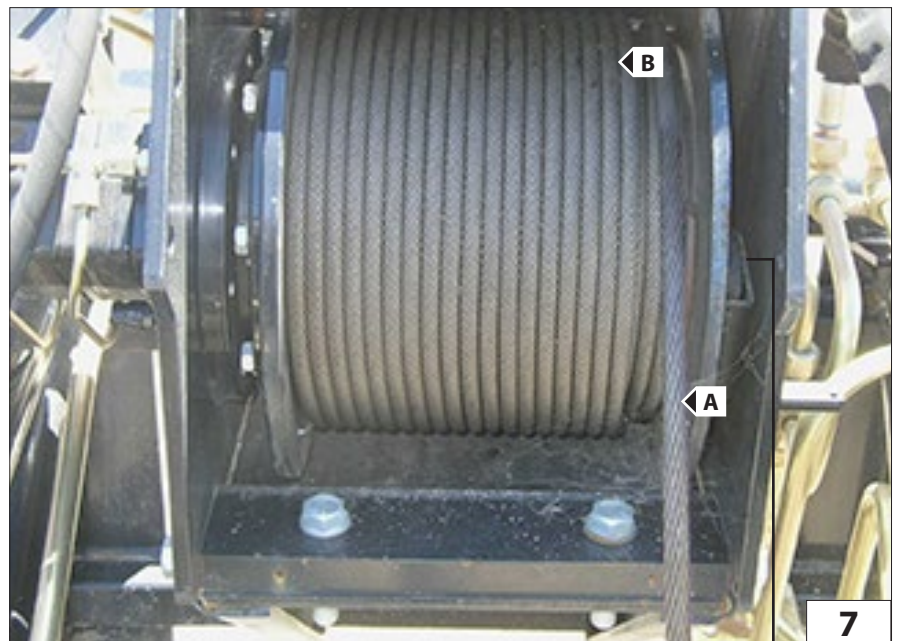
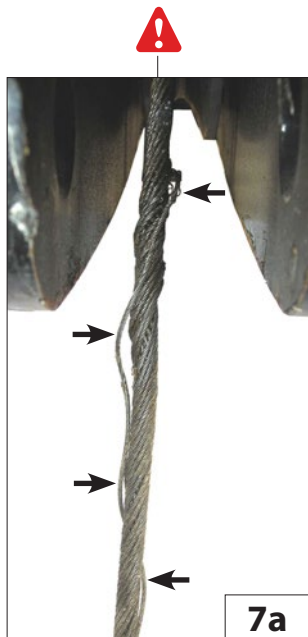
Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer de pennen C (Fig.8) waarop de geleideschijven D (Fig.8) draaien en houd ze gesmeerd. Deze moet altijd een goede draaibeweging behouden.

Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.9) en de kabelklemmen.



**GRILLO E MORSETTI**

è importante verificare l'integrità e il serraggio delle viti dei morsetti F (Fig.10) e del bullone del grillo G (Fig.10) una volta alla settimana.

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.10).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.10). Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.10).

**SHACKLE AND TERMINALS**

Check the condition and tightening of the screws of terminals F (Fig. 10) and the bolt of shackle G (Fig. 10) once a week.

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 10) lubricated. Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 10).. Check the condition and efficiency of safety tab O (Fig. 10).

**HARPSLUITING EN KLEMMEN**

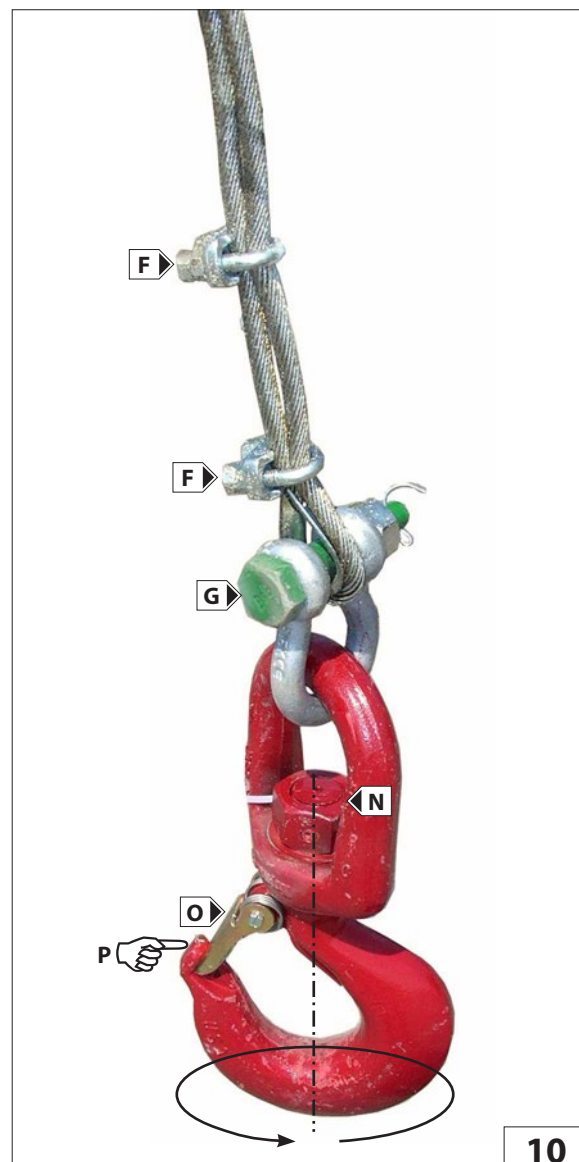
Het is van belang de staat en de aan-draaiing van de schroeven van de klemmen F (Fig.10) en van de bout van de harpsluiting G (Fig.10) eens in de week na te kijken.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.10) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.10).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.10).





**FINE CORSA DISCESA FUNE (Fig.11)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.12)

**IMPIANTO IDRAULICO (Fig.13)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 11)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.12)

**HYDRAULIC SYSTEM (Fig.13)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.11)**

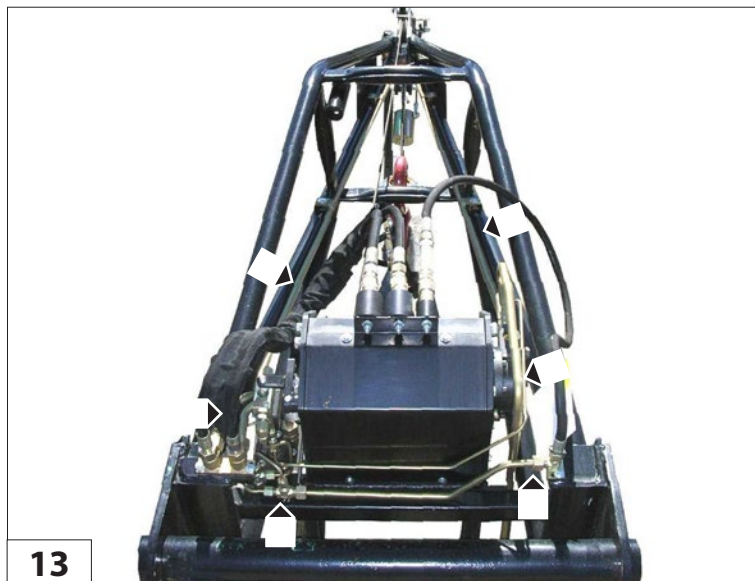
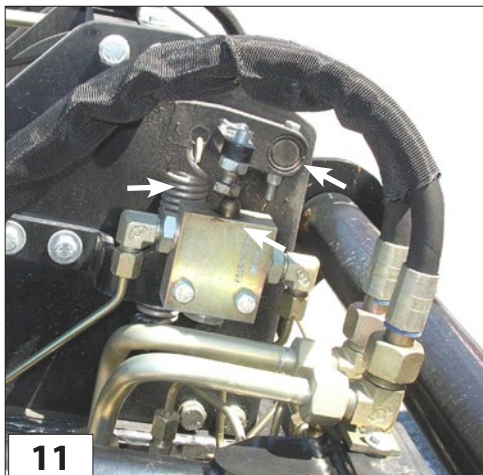
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het stijgen en zijn veer. (Fig.12)

**HYDRAULISCHE INSTALLATIE (Fig.13)**

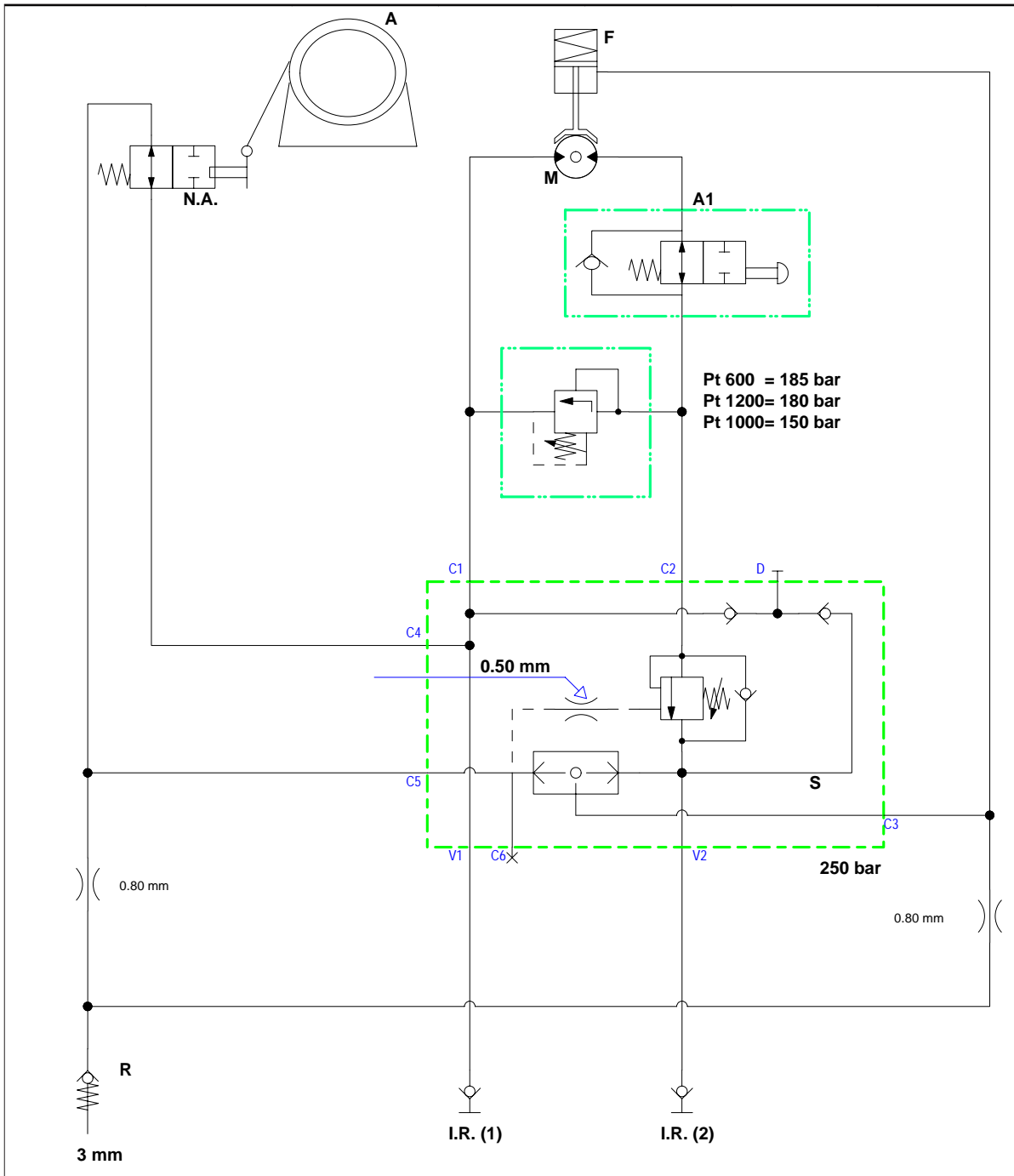
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olielekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.

**13****11****12**

## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



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***PT 1000***

**Descrizione:**

Braccetto lungo 4mt con argano portata 1000Kg.

**Caratteristiche:**

- Tiro al 2° strato di 1000Kg.
- Velocità massima al 2° strato 44mt/min.
- Il tiro è in due taglie.
- La fune è di 56mt, diametro 6mm disposta su due strati.
- Motore orbitale Sauer-Danfoss OMRS80.
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezze:**

- Fine corsa discesa idraulico positivo
- Fine corsa salita idraulico positivo

**Description:**

4m long arm with carrying capacity of 1000 kg.

**Features:**

- Pull at 2<sup>nd</sup> layer 1000kg.
- Maximum speed at 2<sup>nd</sup> layer 44 m/min
- The pull is in two sheaves.
- The rope is 56 m long, 6mm diameter arranged in two layers.
- Sauer-Danfoss OMRS80 orbital motor
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch
- Positive hydraulic ascent limit switch

**Beschrijving:**

4 m lange arm met lier met draagvermogen van 1000 kg.

**Kenmerken:**

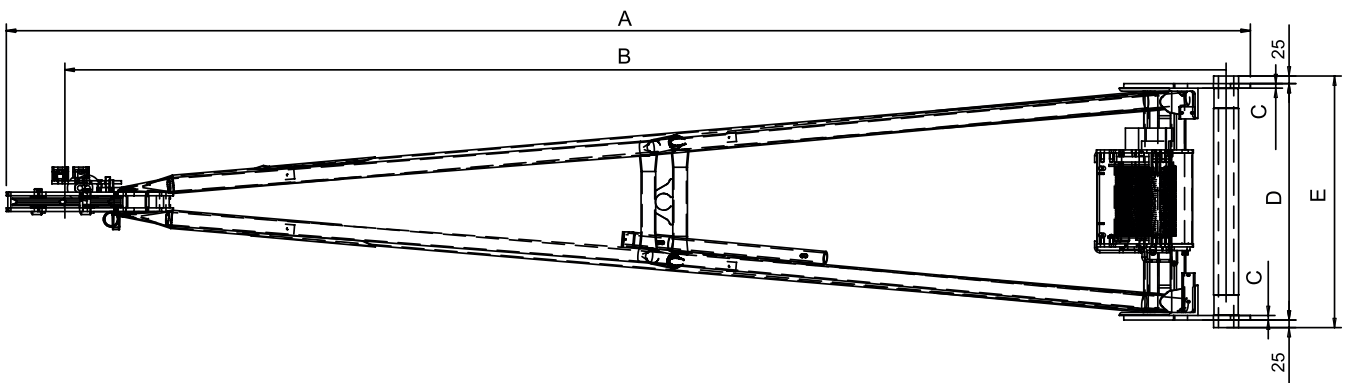
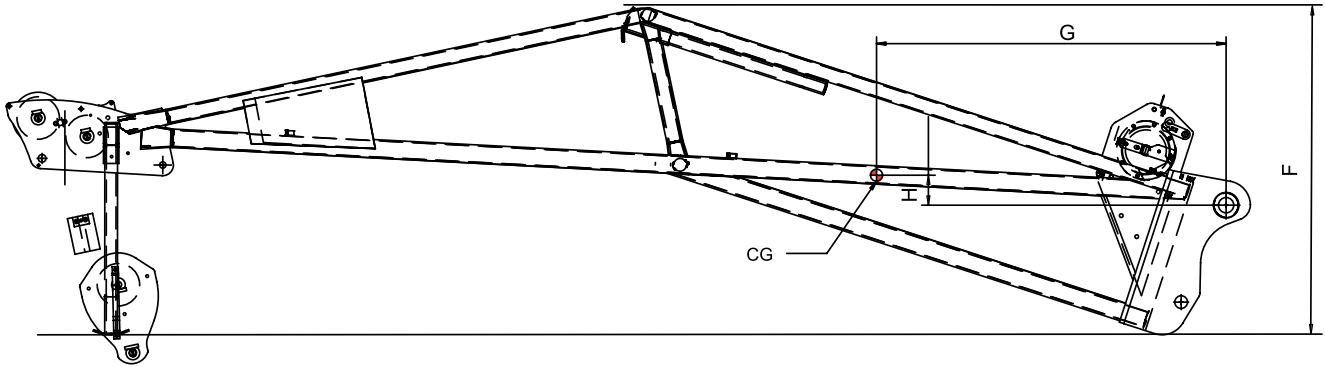
- Trekkracht 2de laag 1000 kg.
- Maximumsnelheid 2de laag 44 m/min.
- Kabel dubbel gebruikt.
- De kabel is 56 m, diameter 6 mm in twee lagen.
- Sauer-Danfoss OMRS80 orbitmotor.
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelandrukrol voor een altijd correcte opwikkeling van de kabel.
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**Beschermingen:**

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- Positieve hydraulische eindaanslag stijging



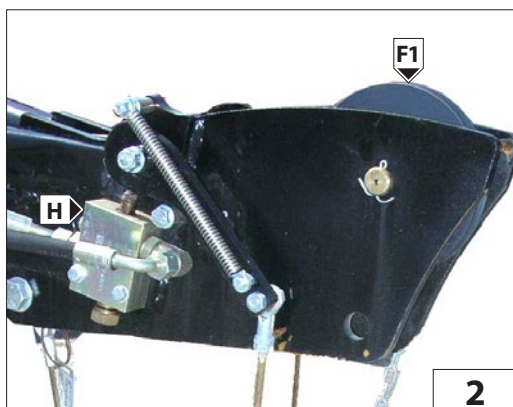
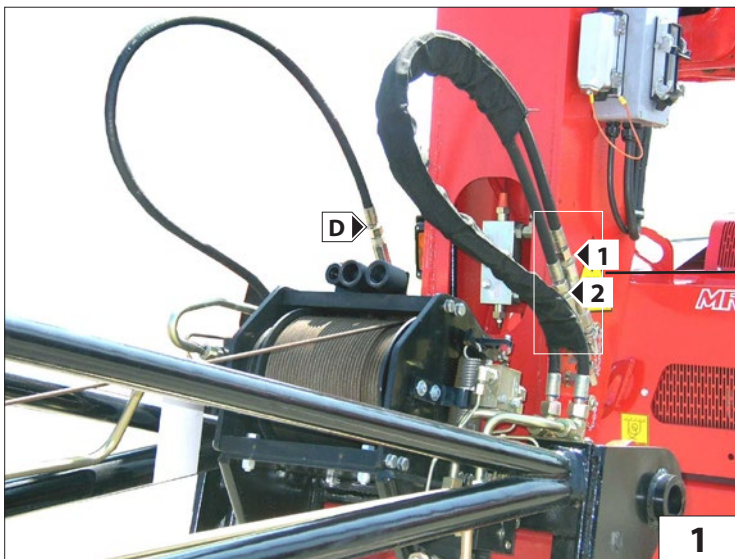
[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)										[kg] (lb)
				P max											
1000 (2204)	5 (5)	∅ 6 (0,2) x 56 (183)	44 (144)	200 (2900)	A	B	C	D	E	F	G	H	I	L	299 (659)
					7290 (287)	4630 (182)	7170 (282)	4510 (177)	2580 (101)	1690 (66)	900 (35)	50 (1,9)	136 (5)	870 (34)	



## MESSA IN SERVIZIO E UTILIZZO

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle Istruzioni obbligatorie di verifica e controllo:

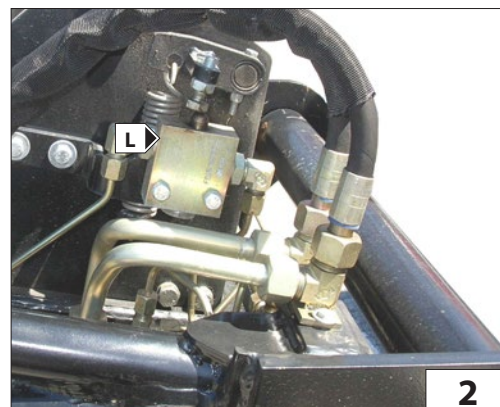
- verificare l'integrità della struttura esterna dell'argano e del braccetto tralicciato.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
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## STARTING UP AND USE

For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

- check to make sure the external structure of the winch and latticed boom is intact.
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- check to ensure correct working of the rope descent limit switch H (Fig.2);



## INBEDRIJFSTELLING EN GEBRUIK

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- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindslag kabel omlaag L (Fig.2);
- controleer de werking van de eindslag kabel omhoog H (Fig.2);

- controllare lo stato della fune B (Fig.3) e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento rotazione delle pulegge di guida fune F1 (Fig.2 e 4);
- controllare lo stato del capocorda C (Fig.3);
- verificare l'integrità del bozzello F (Fig.4)
- verificare lo stato del gancio K (Fig.4): che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente K1 (Fig.4);
- controllare l'aggancio del braccetto alla macchina operatrice J (Fig.5).

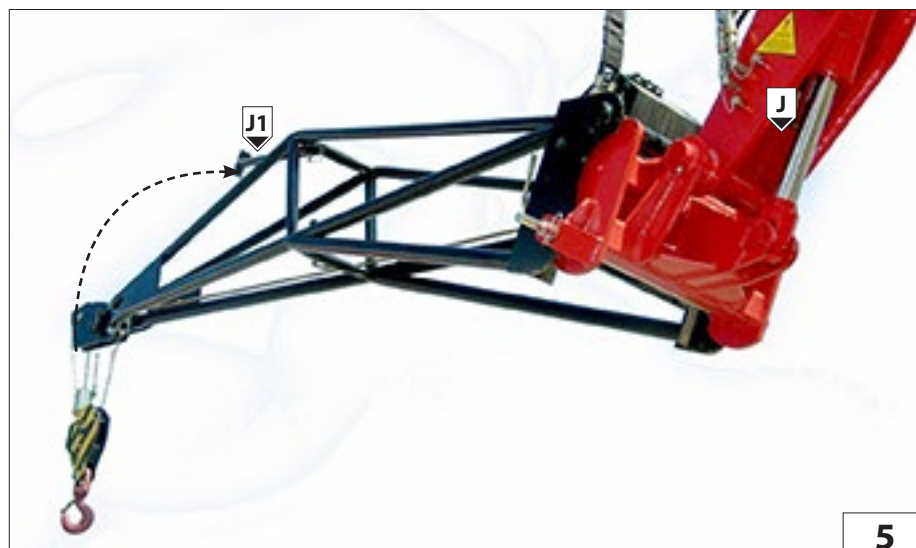
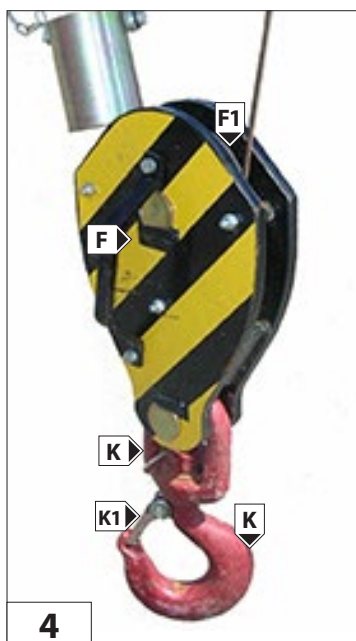
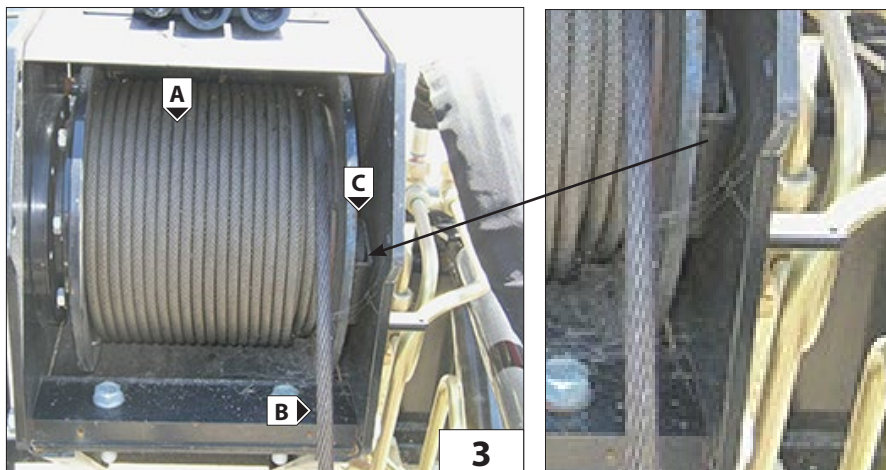
Dalla posizione di parcheggio è possibile sganciare il piede di appoggio e posizionarlo all'interno del braccetto per operare senza ulteriori ingombri J1 (Fig.5).

- check the condition of the rope B (Fig. 3) and that it is wound correctly on the drum A (Fig.3);
- check to ensure correct rotation movement of the rope guide pulley F1 (Fig. 2 and 4);
- check the condition of cable terminal C (Fig. 3);
- check the integrity of the block F (Fig.4)
- check the condition of the hook K (Fig. 4): to make sure it is not deformed, that it rotates freely and that the safety tab K1 (Fig. 4) is in working order;
- check the hook-up of the boom to the operating machine J (Fig. 5).

From the parking position it is possible to unhook the foot and position it inside the boom to operate without increasing the dimensions J1 (Fig.5).

- controleer de staat van de kabel B (Fig.3) en de opwikkeling op de trommel A (Fig.3);
- controleer de draaibeweging van de kabelgeleidewielen F1 (Fig.2 en 4);
- controleer de staat van het kabeluiteinde C (Fig.3);
- controleer de staat van de takel F (Fig.4);
- controleer de staat van de haak K (Fig.4): of deze niet vervormd is, of hij vrij draait en of zijn veiligheidssluiting efficiënt is K1 (Fig.4);
- controleer de aankoppeling van de arm aan de machine J (Fig.5).

Vanuit de parkeerstand kan de steunpoot losgemaakt worden en binnenin de arm geplaatst worden om zonder onnodige ruimte innemende structuren te kunnen werken J1 (Fig.5).





**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

**RIDUTTORE**

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio ogni 100 ore A (Fig.6b) e all'occorrenza rabboccare A (Fig.6b) con olio dello stesso tipo di quello presente all'interno del riduttore (SHELL SPIRAX HD80 W90).

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità SAE 80W/90 oppure SAE 85W/140.

La prima sostituzione dell'olio deve essere effettuata dopo 150 ore di funzionamento, successivamente ogni 1000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.6a) verso il basso. Svitare il tappo A (Fig.6a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico sull'asse orizzontale A (Fig.6b).

Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello A (Fig.6b). (0,6 lt)

Riavvitare i tappi e riavvolgere la fune.

**REDUCTION GEAR**

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least every 100 hours A (Fig.6b) and if required, top up A (Fig.6b) with oil of the same type as that present inside the reduction gear (SHELL SPIRAX HD80 W90).

Use gear oil with additive EP with viscosity SAE 80W/90 or SAE 85W/140.

The first oil change must be after 150 hours of operation, then subsequently every 1000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 6a) is facing downwards.

Unscrew cap A (Fig.6a) and drain out the oil completely.

Turn the drum to bring the topping up/drainage hole horizontal A (Fig.6b).

Top up with fresh oil of the correct type until the oil flows out through the level hole A (Fig.6b).(0.6 l).

Screw the cap back on and rewind the rope.

**REDUCTOR**

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil om de 100 uren A (Fig.6b) en indien nodig bijvullen A (Fig.6b) met olie van hetzelfde soort als dat aanwezig is in de reductor (SHELL SPIRAX HD80 W90).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit SAE 80W/90 of SAE 85W/140.

De eerste olieversing moet na 150 werkuren plaatsvinden, daarna om de 1000 werkuren.

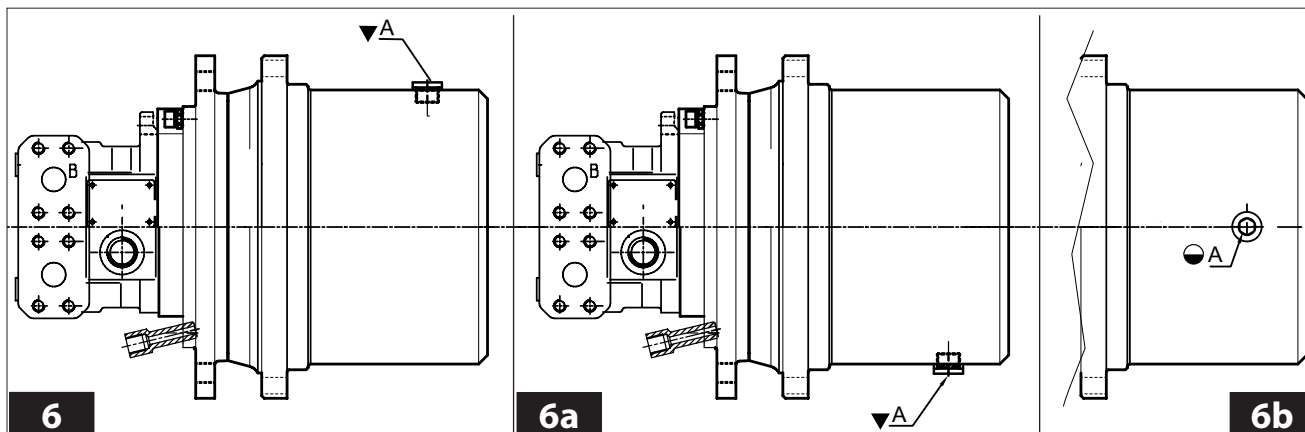
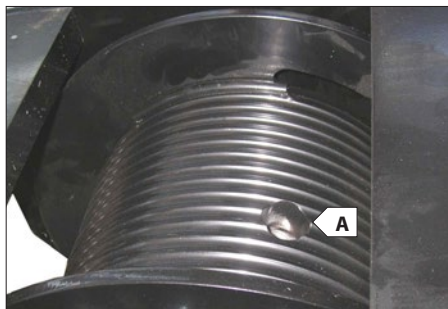
Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.6a) naar beneden staat.

Draai de dop A (Fig.6a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul-/aftapopening op de horizontale as staat A (Fig.6b).

Vul bij met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt A (Fig.6b). (0,6 l) Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.7) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.7a) e che sia ben arrotolata sul tamburo B (Fig.7).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare e mantenere lubrificato i perni C (Fig.8) su cui ruotano le puleggie di guida D (Fig.8), che dovranno avere sempre un buono movimento di rotazione.

Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.9) e dei suoi morsetti fermafune.

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.7) is always in excellent condition, that it is not frayed (Fig.7a) and that it is wound perfectly around the drum B (Fig.7).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check and lubricate the pins C (Fig. 8) on which the guide pulleys D (Fig. 8) rotate and these must always rotate perfectly.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.9) and the rope retainer clamps F.

**KABEL, KABELSCHIJF en KABELUIT-EINDEN**

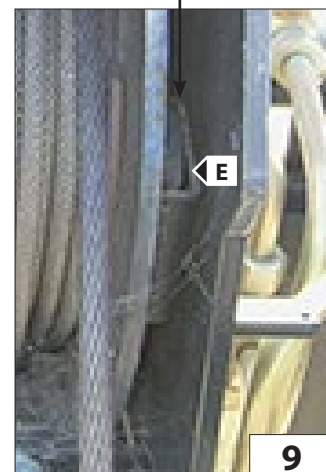
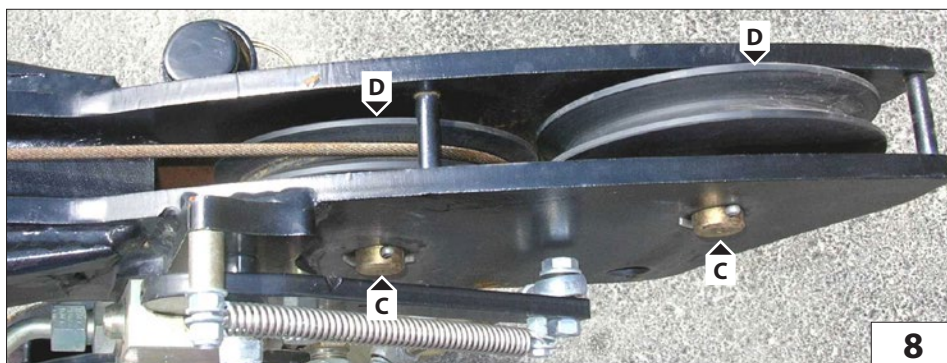
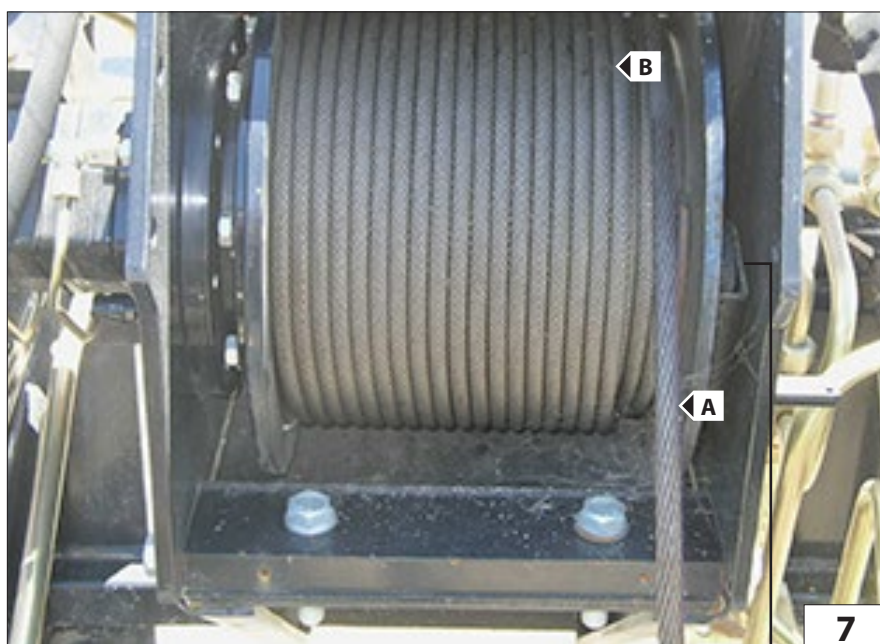
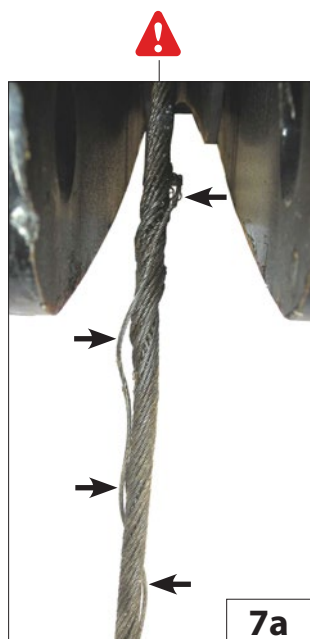
Controleer dagelijks of de kabel A (Fig.7) in optimale staat verkeert, of er geen draden stuk zijn (Fig.7a) en of hij goed op de trommel gewonden is B (Fig.7).

Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer de pennen C (Fig.8) waarop de geleideschijven D (Fig.8) draaien en houd ze gesmeerd. Deze moet altijd een goede draaibeweging behouden. Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.9) en de kabelklemmen.



**BOZZELLO**

Per una massima efficienza e sicurezza, mantenere intatta la struttura esterna F (Fig.10) e controllare che la puleggia G (Fig.10) ruoti correttamente sul suo perno G1 (Fig.10).

Se necessità, lubrificare con grasso al sapone di litio il perno G1 (Fig.10).

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.10).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.10).

Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.10).

**PULLEY BLOCK**

For maximum efficiency and safety, keep the external structure F (Fig.10) intact and check to make sure the pulley G (Fig.10) rotates correctly on its pin G1 (Fig.10).

If necessary, lubricate the pin G1 (Fig. 10) with lithium soap grease.

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 10) lubricated.

Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 10).

Check the condition and efficiency of safety tab O (Fig. 10).

**TAKEL**

Voor een maximale efficiëntie en veiligheid,

houd de buitenste structuur intact F (Fig.10) en controleer of de kabelschijf G (Fig.10) goed op zijn pen draait G1 (Fig.10).

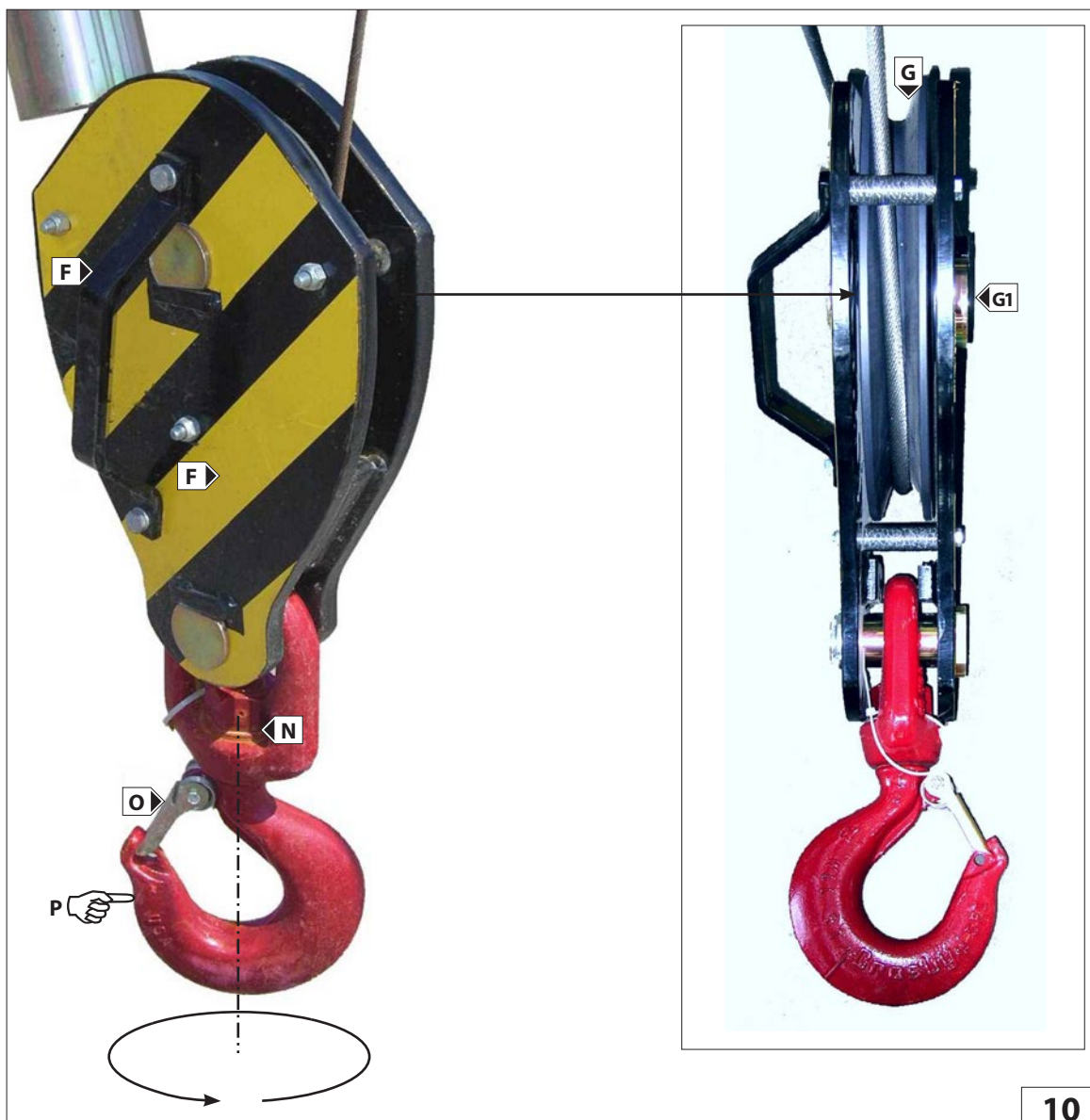
Indien nodig, de pen G1 (Fig.10) invetten met lithiumzeepvet.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.10) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.10).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.10).



**FINE CORSA DISCESA FUNE (Fig.11)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.12)

**IMPIANTO IDRAULICO (Fig.13)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 11)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.12)

**HYDRAULIC SYSTEM (Fig.13)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.11)**

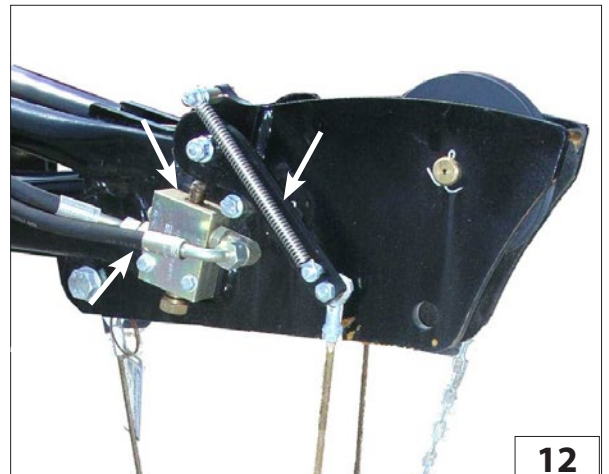
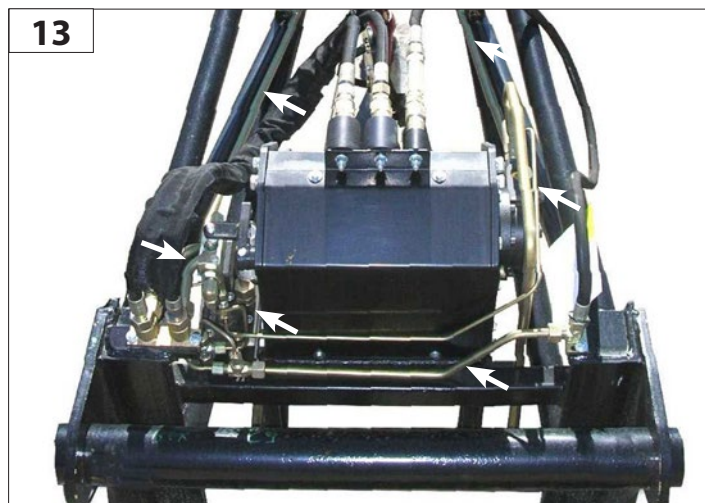
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het stijgen en zijn veer. (Fig.12)

**HYDRAULISCHE INSTALLATIE (Fig.13)**

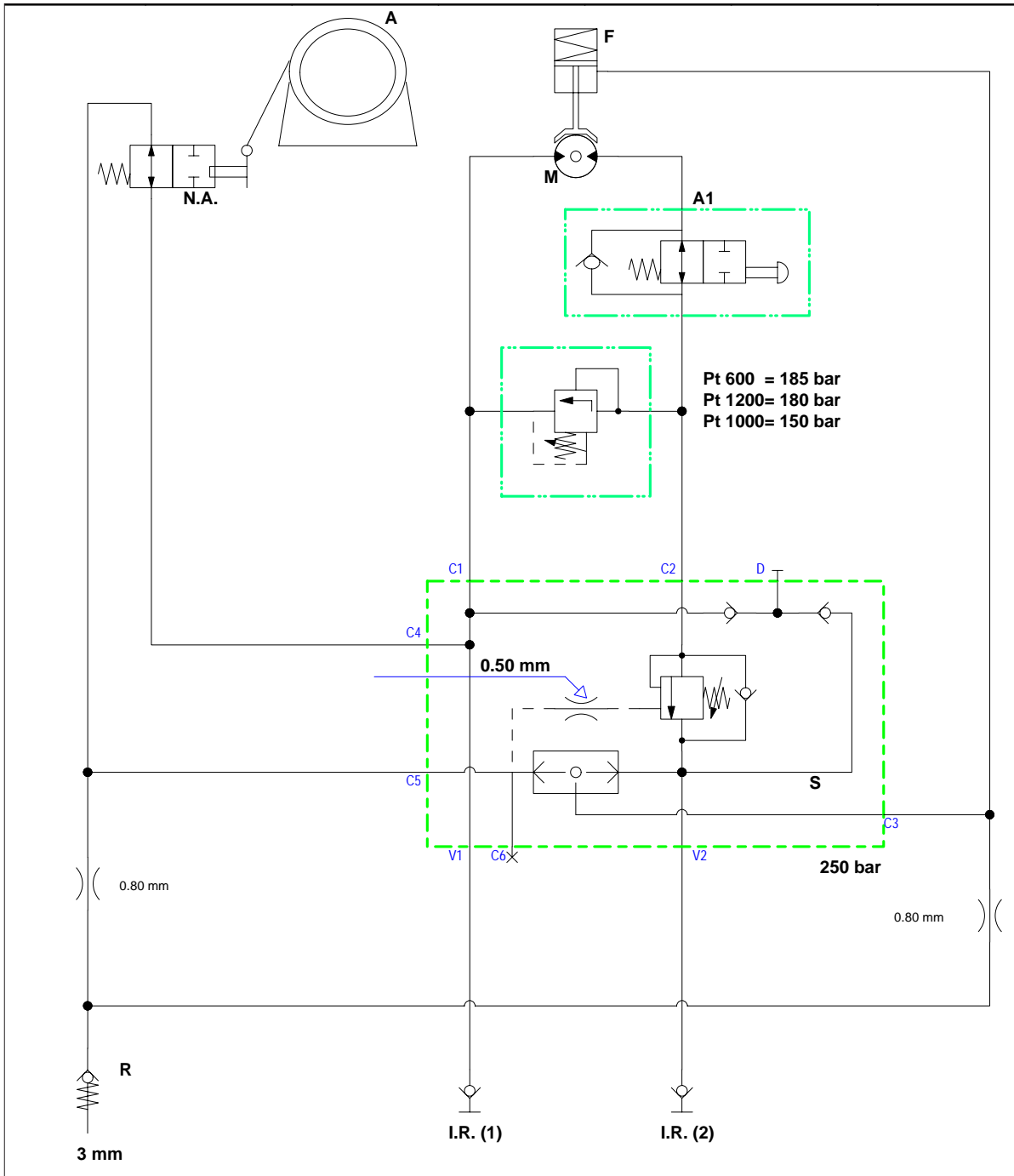
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olielekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLJETANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJGING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM

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***PT 1200***



**Descrizione:**

Braccetto lungo 3mt con argano portata 1200Kg.

**Caratteristiche:**

- Tiro al 2° strato di 1200Kg.
- Velocità massima al 2° strato 44mt/min.
- Il tiro è in due taglie.
- La fune è di 46mt, diametro 6mm disposta su due strati.
- Motore orbitale Sauer-Danfoss OMRS80.
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezze:**

- Fine corsa discesa idraulico positivo.
- Fine corsa salita idraulico positivo.

**Description:**

3m long arm with carrying capacity of 1200 kg.

**Features:**

- Pull at 2<sup>nd</sup> layer 1200kg.
- Maximum speed at 2<sup>nd</sup> layer 44 m/min
- The pull is in two sheaves.
- The rope is 46 m long, 6mm diameter arranged in two layers.
- Sauer-Danfoss OMRS80 orbital motor
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch.
- Positive hydraulic ascent limit switch.

**Beschrijving:**

3 m lange arm met lier met draagvermogen van 1200 kg.







**Kenmerken:**

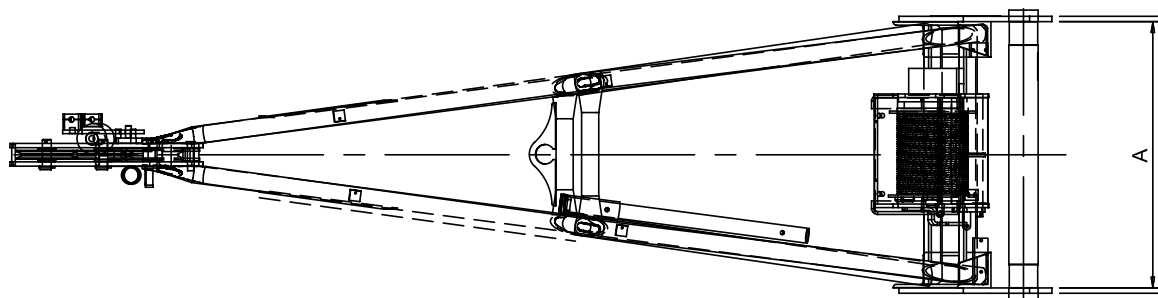
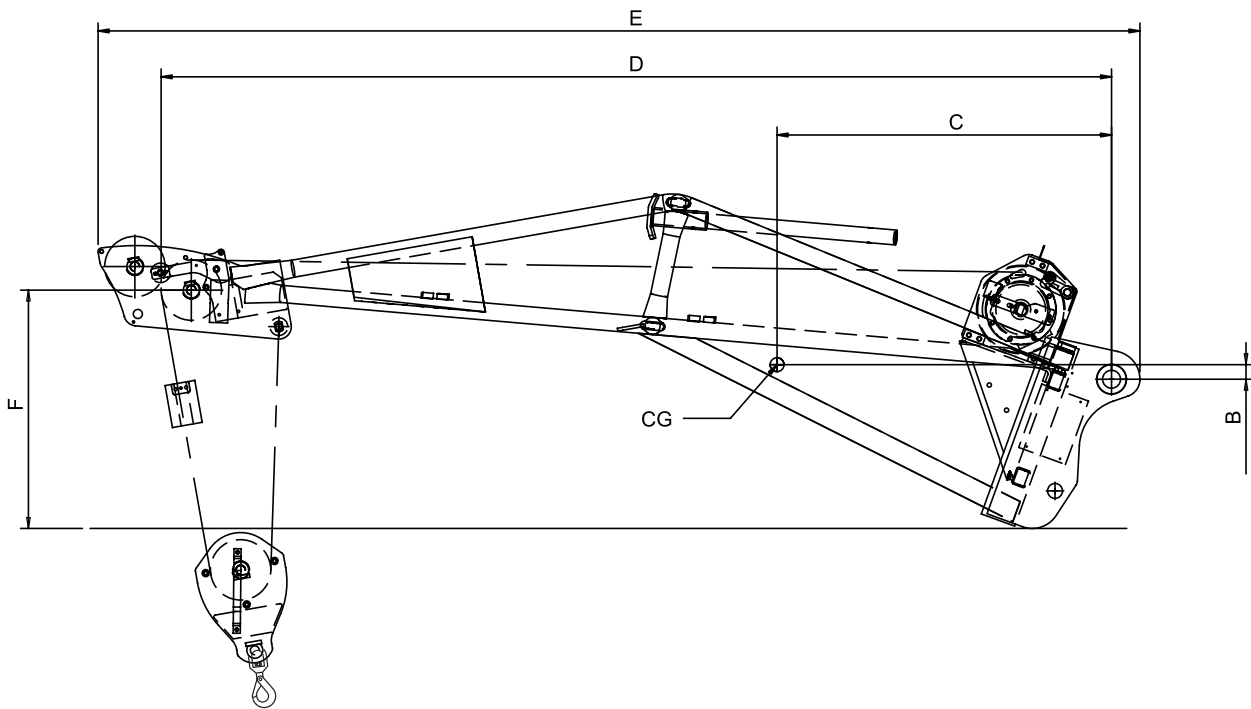
- Trekkracht 2de laag 1200 kg.
- Maximumsnelheid 2de laag 44 m/min.
- Kabel dubbel gebruikt.
- De kabel is 46 m, diameter 6 mm in twee lagen.
- Sauer-Danfoss OMRS80 orbitmotor.
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelandrukrol voor een altijd correcte opwikkeling van de kabel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling.
- Positieve hydraulische eindaanslag stijging.



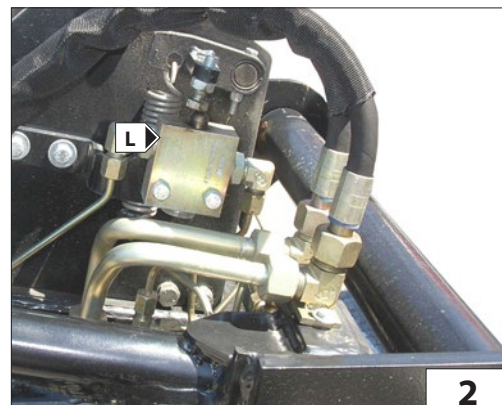
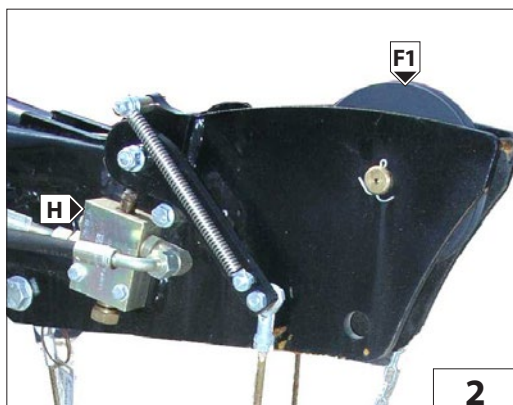
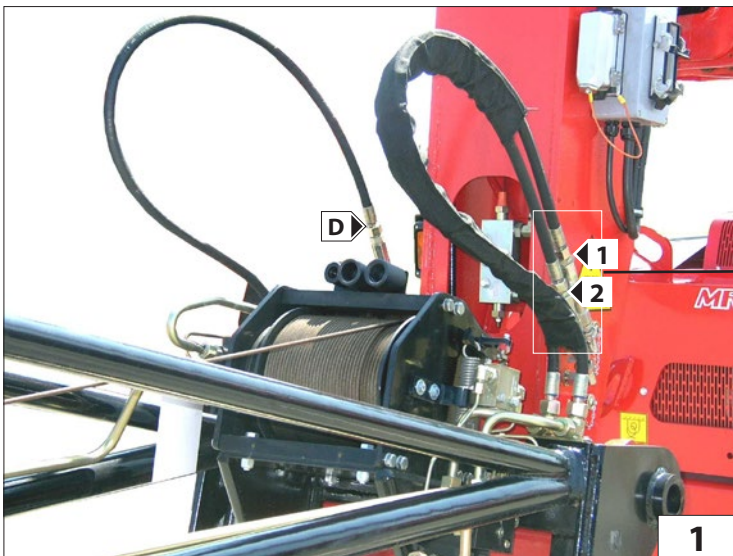
[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)						[kg] (lb)
				<b>P max</b>							
1200 (2204)	5 (5)	Ø 6 (0,2) x 46 (150)	44 (144)	200 (2900)	<b>A</b> 750 (29)	<b>B</b> 41 (1,6)	<b>C</b> 942 (37)	<b>D</b> 2680 (105)	<b>E</b> 2934 (115)	<b>F</b> 671 (26)	360 (793)



## MESSA IN SERVIZIO E UTILIZZO

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle Istruzioni obbligatorie di verifica e controllo:

- verificare l'integrità della struttura esterna dell'argano e del braccetto tralicciato.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune L (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune H (Fig.2);



## STARTING UP AND USE

For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

- check to make sure the external structure of the winch and latticed boom is intact.
- Check to ensure the correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check to ensure correct working of the rope ascent limit switch L (Fig.2);
- check to ensure correct working of the rope descent limit switch H (Fig.2);

## INBEDRIJFSTELLING EN GEBRUIK

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de verplichte controle-instructies:

- controleer of de buitenste structuur van de lier en van de vakwerkarm intact is.
- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindaanslag kabel omlaag L (Fig.2);
- controleer de werking van de eindaanslag kabel omhoog H (Fig.2);

- controllare lo stato della fune B (Fig.3) e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento rotazione delle pulegge di guida fune F1 (Fig.2 e 4);
- controllare lo stato del capocorda C (Fig.3);
- verificare l'integrità del bozzello F (Fig.4)
- verificare lo stato del gancio K (Fig.4): che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente K1 (Fig.4);
- controllare l'aggancio del braccetto alla macchina operatrice J (Fig.5).

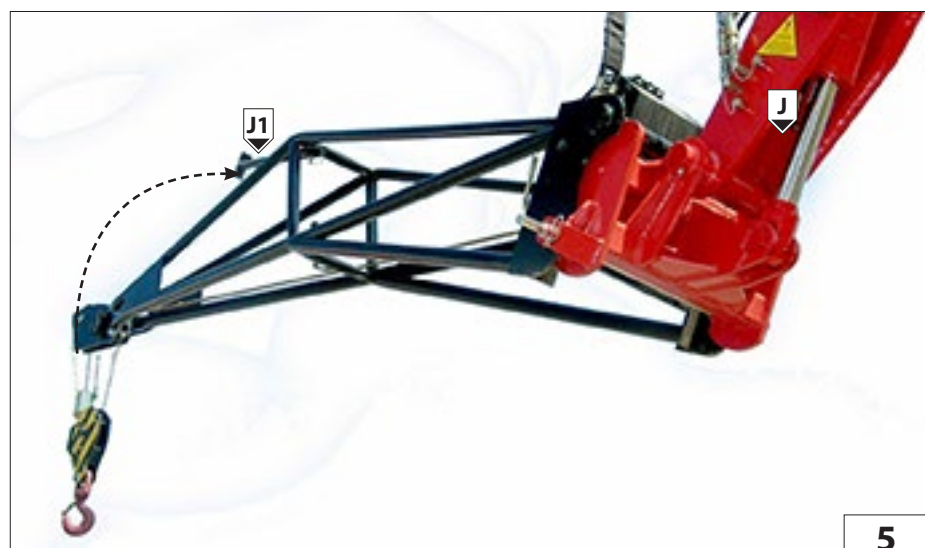
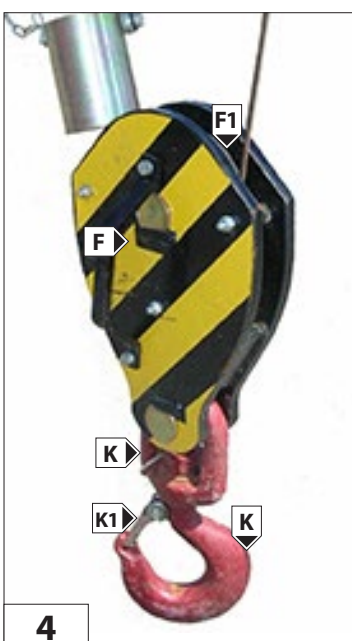
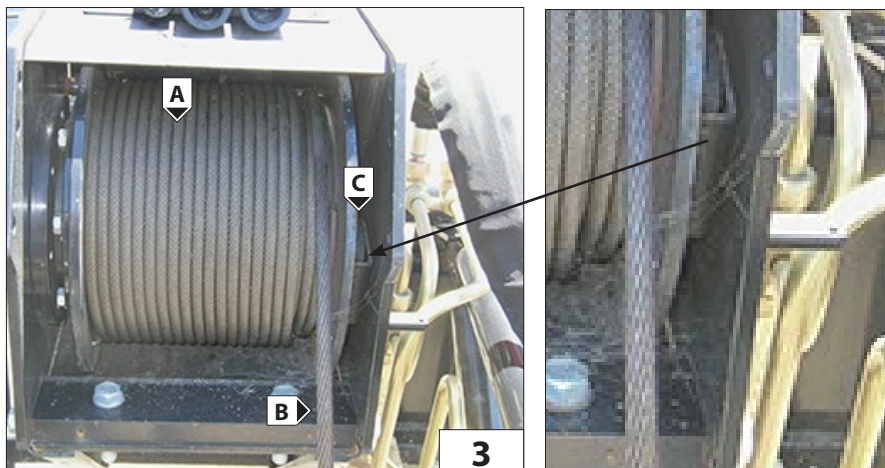
Dalla posizione di parcheggio è possibile sganciare il piede di appoggio e posizionarlo all'interno del braccetto per operare senza ulteriori ingombri J1 (Fig.5).

- check the condition of the rope B (Fig. 3) and that it is wound correctly on the drum A (Fig.3);
- check to ensure correct rotation movement of the rope guide pulley F1 (Fig. 2 and 4);
- check the condition of cable terminal C (Fig. 3);
- check the integrity of the block F (Fig.4)
- check the condition of the hook K (Fig. 4): to make sure it is not deformed, that it rotates freely and that the safety tab K1 (Fig. 4) is in working order;
- check the hook-up of the boom to the operating machine J (Fig. 5).

From the parking position it is possible to unhook the foot and position it inside the boom to operate without increasing the dimensions J1 (Fig.5).

- controleer de staat van de kabel B (Fig.3) en de opwikkeling op de trommel A (Fig.3);
- controleer de draaibeweging van de kabelgeleidewielen F1 (Fig.2 en 4);
- controleer de staat van het kabeluiteinde C (Fig.3);
- controleer de staat van de takel F (Fig.4);
- controleer de staat van de haak K (Fig.4): of deze niet vervormd is, of hij vrij draait en of zijn veiligheidsluiting efficiënt is K1 (Fig.4);
- controleer de aankoppeling van de arm aan de machine J (Fig.5).

Vanuit de parkeerstand kan de steunpoot losgemaakt worden en binnenin de arm geplaatst worden om zonder onnodige ruimte innemende structuren te kunnen werken J1 (Fig.5).



**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

**RIDUTTORE**

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio ogni 100 ore A (Fig.6b) e all'occorrenza rabboccare A (Fig.6b) con olio dello stesso tipo di quello presente all'interno del riduttore (SHELL SPIRAX HD80 W90).

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità SAE 80W/90 oppure SAE 85W/140.

La prima sostituzione dell'olio deve essere effettuata dopo 150 ore di funzionamento, successivamente ogni 1000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.6a) verso il basso. Svitare il tappo A (Fig.6a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico sull'asse orizzontale A (Fig.6b).

Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello A (Fig.6b). (0,6 lt)

Riavvitare i tappi e riavvolgere la fune.

**REDUCTION GEAR**

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least every 100 hours A (Fig.6b) and if required, top up A (Fig.6b) with oil of the same type as that present inside the reduction gear (SHELL SPIRAX HD80 W90).

Use gear oil with additive EP with viscosity SAE 80W/90 or SAE 85W/140.

The first oil change must be after 150 hours of operation, then subsequently every 1000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 6a) is facing downwards.

Unscrew cap A (Fig.6a) and drain out the oil completely.

Turn the drum to bring the topping up/drainage hole horizontal A (Fig.6b).

Top up with fresh oil of the correct type until the oil flows out through the level hole A (Fig.6b). (0.6 l).

Screw the cap back on and rewind the rope.

**REDUCTOR**

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil om de 100 uren A (Fig.6b) en indien nodig bijvullen A (Fig.6b) met olie van hetzelfde soort als dat aanwezig is in de reductor (SHELL SPIRAX HD80 W90).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit SAE 80W/90 of SAE 85W/140.

De eerste olierversing moet na 150 werkuren plaatsvinden, daarna om de 1000 werkuren.

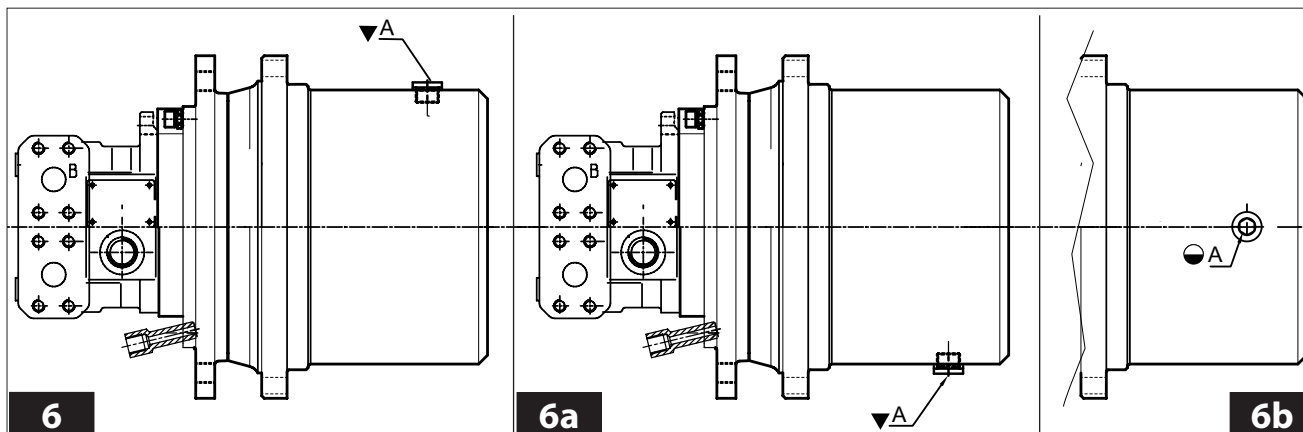
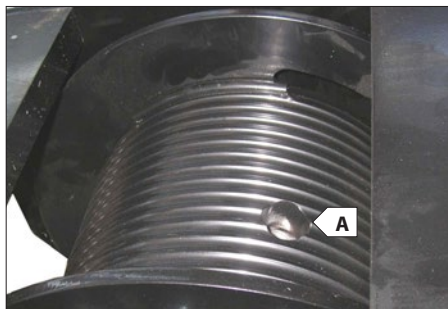
Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.6a) naar beneden staat.

Draai de dop A (Fig.6a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul-/aftapopening op de horizontale staat A (Fig.6b).

Vul bij met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt A (Fig.6b). (0,6 l) Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.7) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.7a) e che sia ben arrotolata sul tamburo B (Fig.7).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare e mantenere lubrificato i perni C (Fig.8) su cui ruotano le puleggie di guida D (Fig.8), che dovranno avere sempre un buono movimento di rotazione.

Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.9) e dei suoi morsetti fermafune.

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.7) is always in excellent condition, that it is not frayed (Fig.7a) and that it is wound perfectly around the drum B (Fig.7).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check and lubricate the pins C (Fig. 8) on which the guide pulleys D (Fig. 8) rotate and these must always rotate perfectly.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.9) and the rope retainer clamps F.

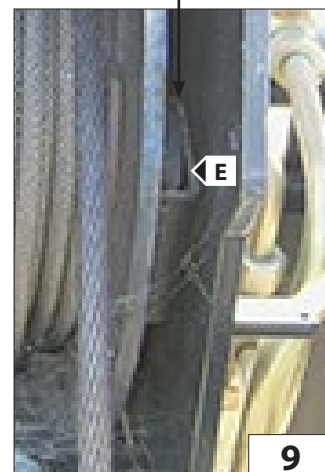
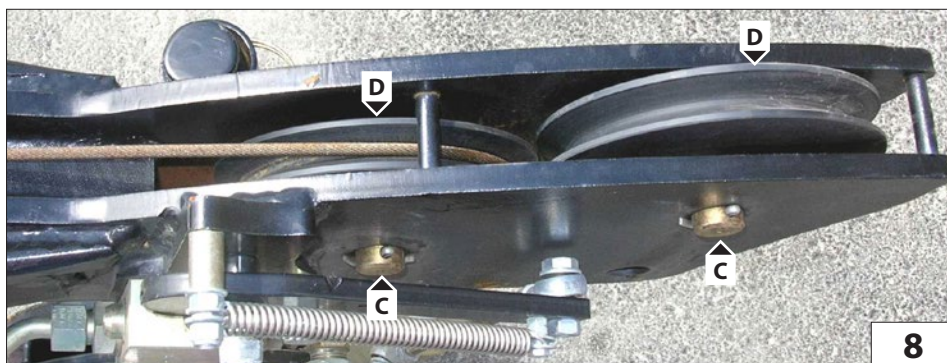
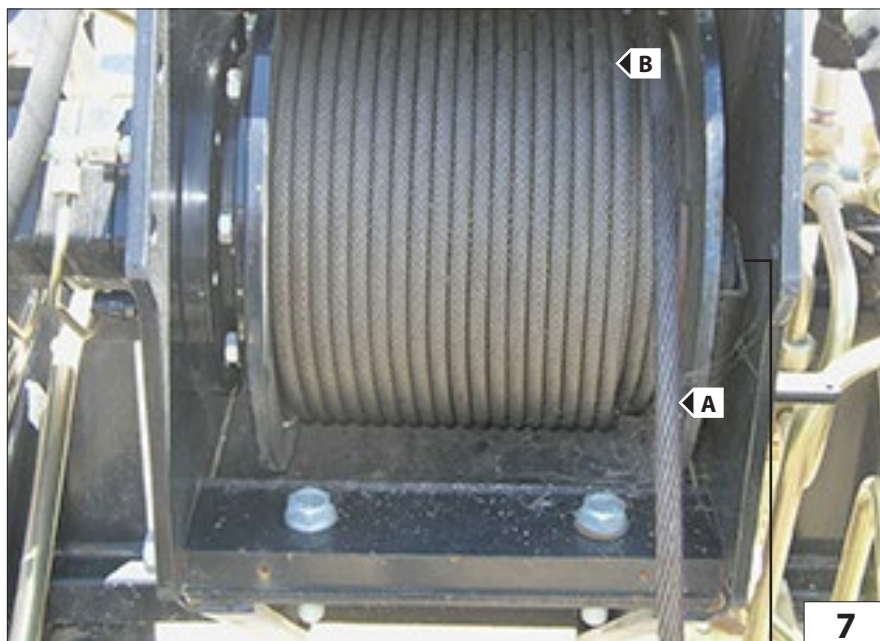
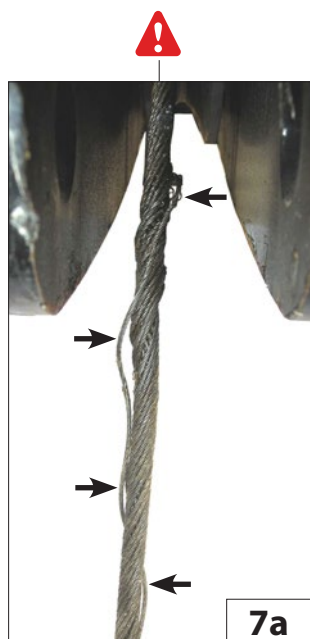
**KABEL, KABELSCHIJF en KABELUITEINDEN**

Controleer dagelijks of de kabel A (Fig.7) in optimale staat verkeert, of er geen draden stuk zijn (Fig.7a) en of hij goed op de trommel gewonden is B (Fig.7).

Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen. Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer de pennen C (Fig.8) waarop de geleideschijven D (Fig.8) draaien en houd ze gesmeerd. Deze moet altijd een goede draai beweging behouden. Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.9) en de kabelklemmen.



**BOZZELLO**

Per una massima efficienza e sicurezza, mantenere intatta la struttura esterna F (Fig.10) e controllare che la puleggia G (Fig.10) ruoti correttamente sul suo perno G1 (Fig.10).

Se necessità, lubrificare con grasso al sapone di litio il perno G1 (Fig.10).

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.10).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.10).

Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.10).

**PULLEY BLOCK**

For maximum efficiency and safety, keep the external structure F (Fig.10) intact and check to make sure the pulley G (Fig.10) rotates correctly on its pin G1 (Fig.10).

If necessary, lubricate the pin G1 (Fig. 10) with lithium soap grease.

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 10) lubricated.

Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 10).

Check the condition and efficiency of safety tab O (Fig. 10).

**TAKEL**

Voor een maximale efficiëntie en veiligheid, de buitenste structuur intact houden F (Fig.10) en controleren of de kabelschijf G (Fig.10) goed op zijn pen draait G1 (Fig.10).

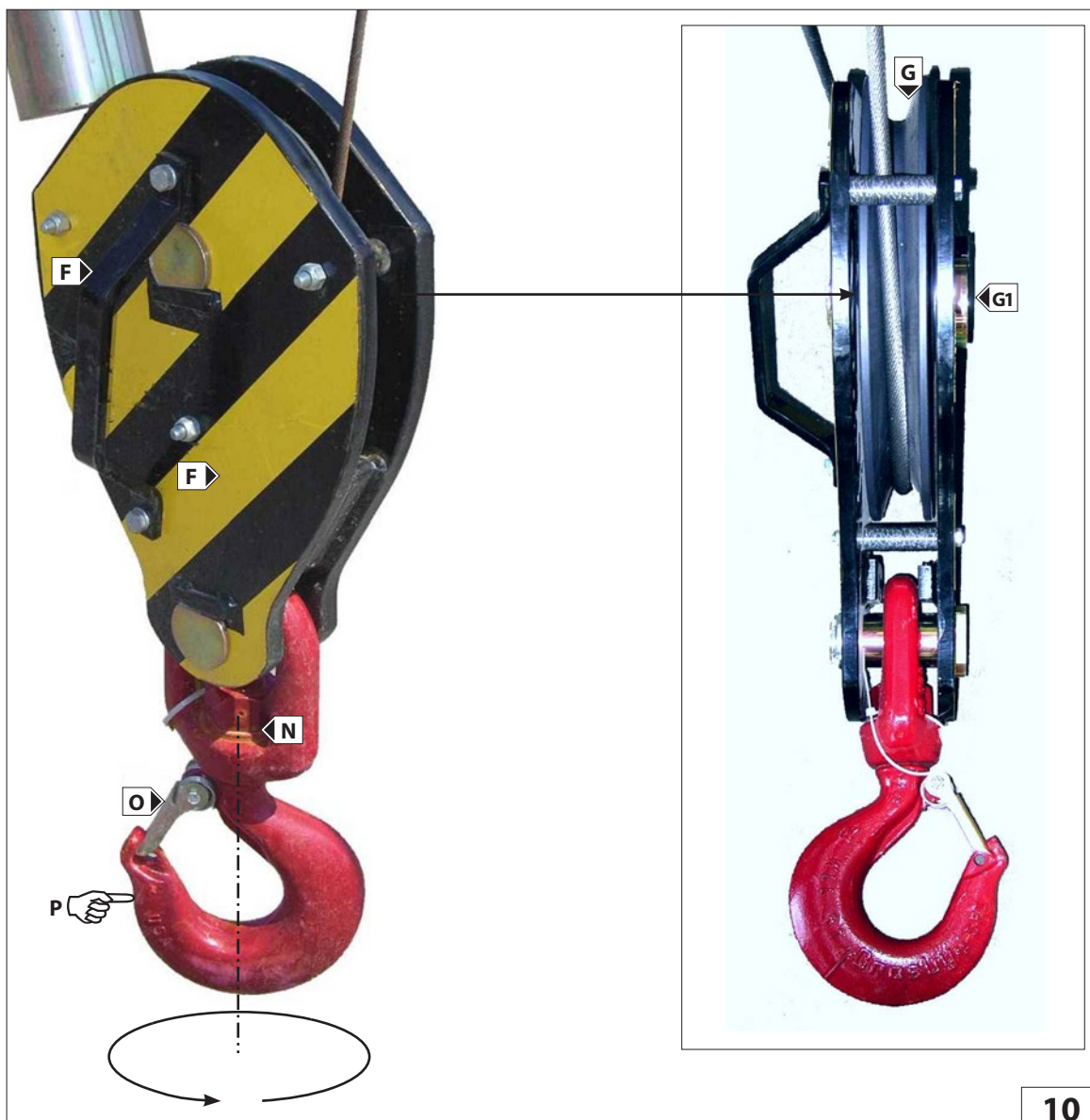
Indien nodig, de pen G1 (Fig.10) invetten met lithiumzeepvet.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.10) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.10).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.10).

**10**



**FINE CORSA DISCESA FUNE (Fig.11)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.12)

**IMPIANTO IDRAULICO (Fig.13)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 11)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.12)

**HYDRAULIC SYSTEM (Fig.13)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.11)**

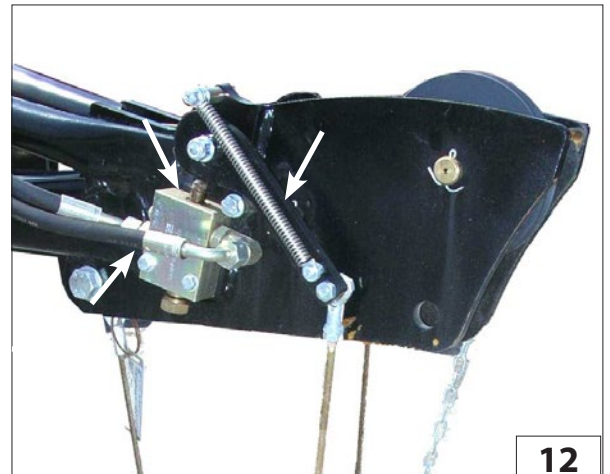
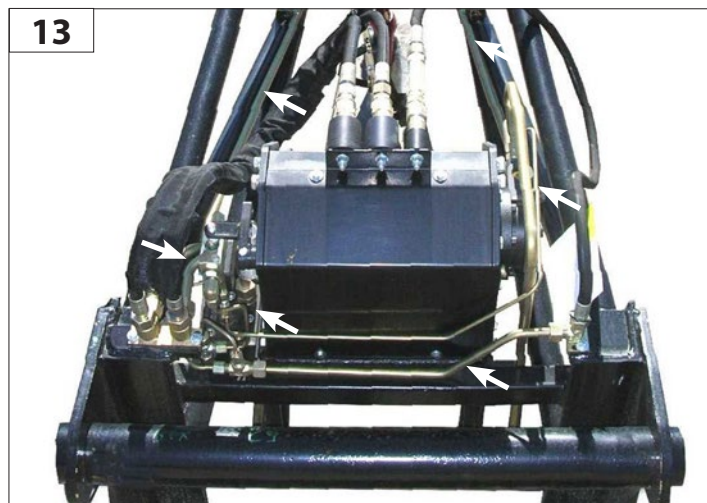
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het stijgen en zijn veer. (Fig.12)

**HYDRAULISCHE INSTALLATIE (Fig.13)**

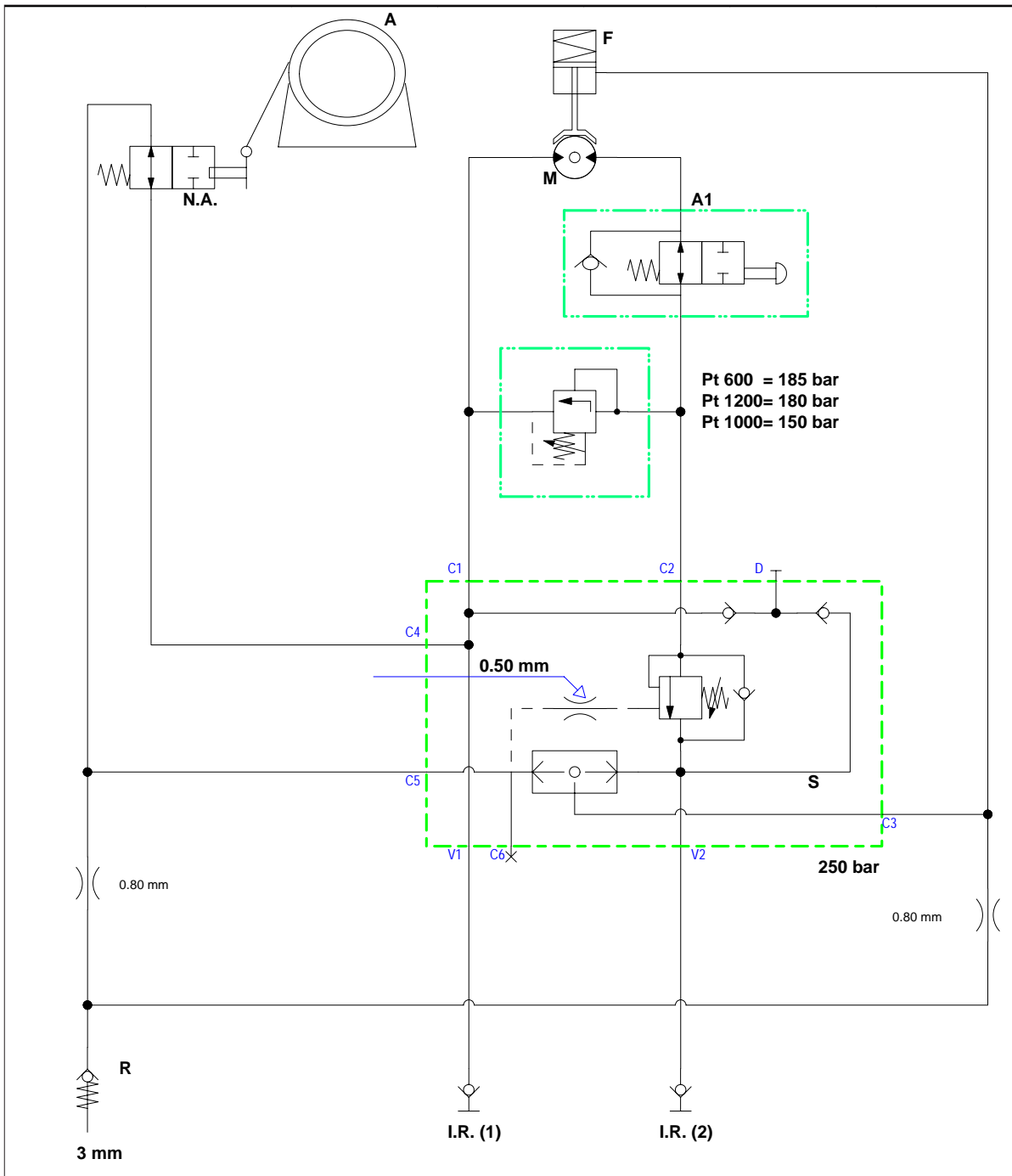
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olielekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLJETANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM

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***PT 1500***

**Descrizione:**

Braccetto lungo 3mt con argano portata 1500Kg.

**Caratteristiche:**

- Tiro al 3° strato di 1500Kg.
- Velocità massima al 3° strato 46mt/min.
- Il tiro è diretto.
- La fune è di 30mt, diametro 10mm disposta su tre strati.
- Motore orbitale Sauer-Danfoss OMSU.
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezze:**

- Fine corsa discesa idraulico positivo
- Fine corsa salita idraulico positivo

**Description:**

3m long arm with carrying capacity of 1500 kg.

**Features:**

- Pull at 3<sup>rd</sup> layer 1500kg.
- Maximum speed at 3<sup>rd</sup> layer 46 m/min
- The pull is direct
- The rope is 30 m long, 10mm diameter arranged in three layers.
- Sauer-Danfoss OMSU orbital motor.
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch
- Positive hydraulic ascent limit switch

**Beschrijving:**

3 m lange arm met lier met draagvermogen van 1500 kg.







**Kenmerken:**

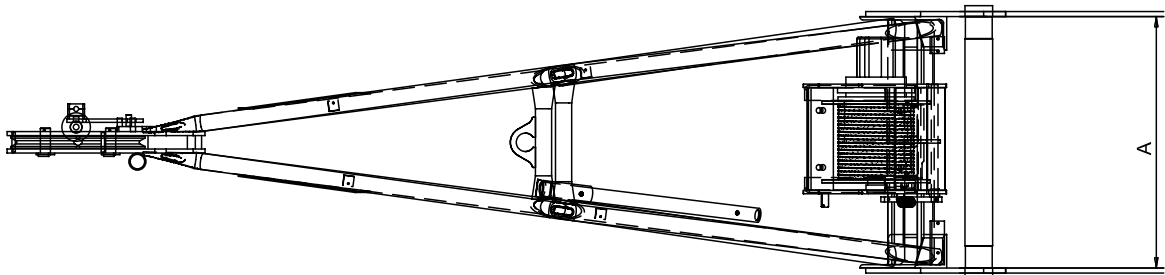
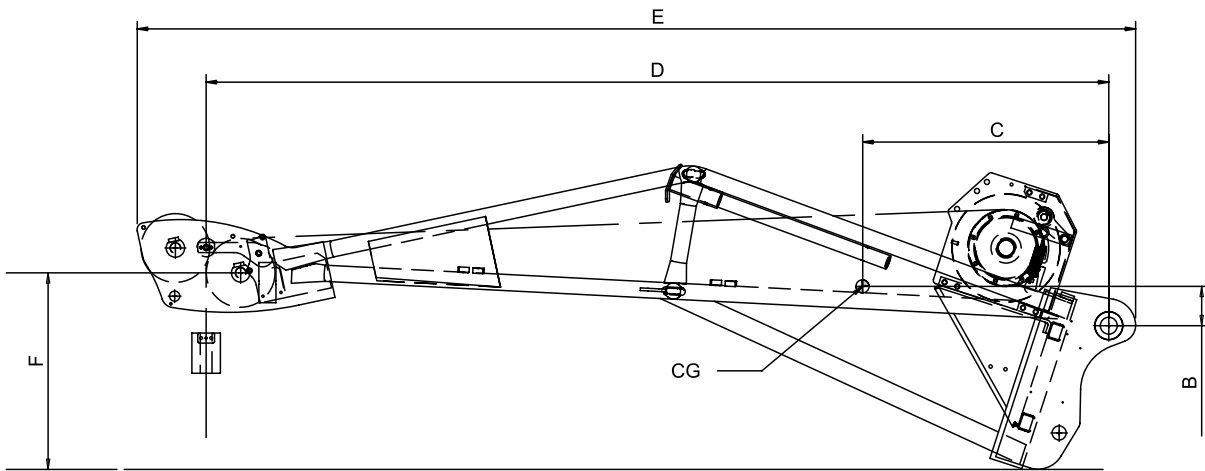
- Trekkracht 3de laag 1500 kg.
- Maximumsnelheid 3de laag 46 m/min.
- Kabel enkel gebruikt.
- De kabel is 30 m, diameter 10 mm in drie lagen.
- Sauer-Danfoss OMSU orbitmotor.
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelandrukrol voor een altijd correcte opwikkeling van de kabel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling
- Positieve hydraulische eindaanslag stijging



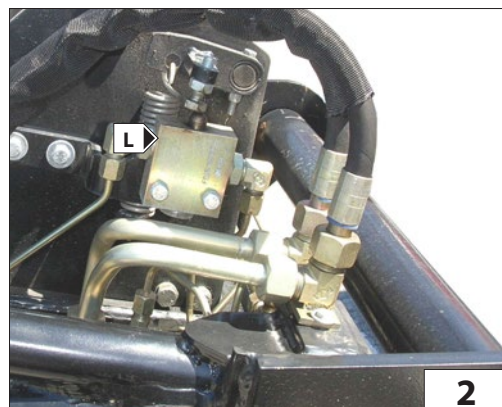
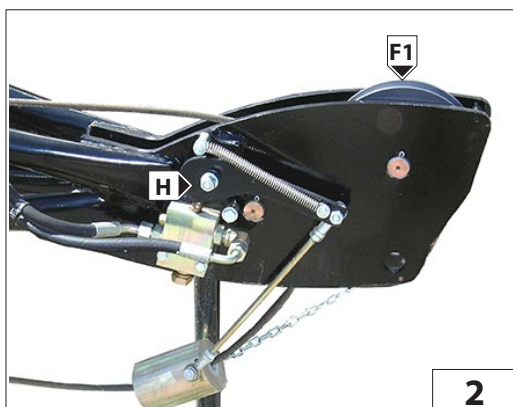
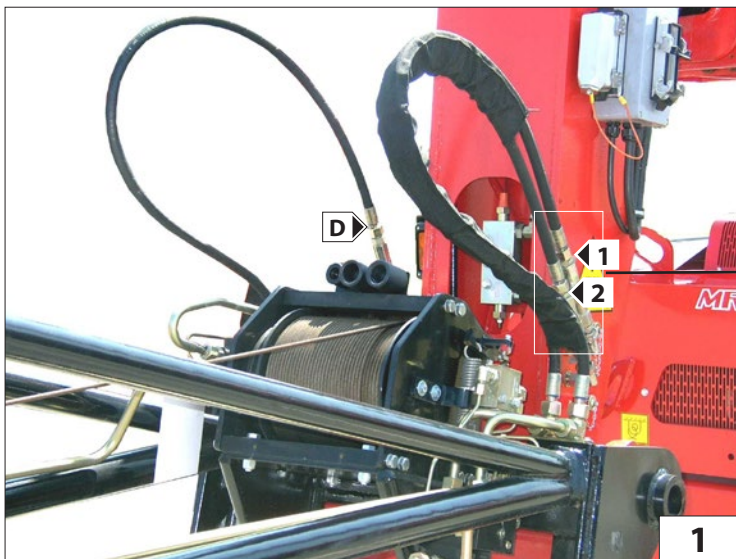
[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)						[kg] (lb)
				P max							
1200 (2204)	5 (5)	∅ 10 (0,4) x 30 (98)	46 (150)	200 (2900)	A	B	C	D	E	F	360 (793)
					750 (29)	117 (4)	734 (29)	2692 (106)	2980 (117)	586 (23)	



**MESSA IN SERVIZIO E UTILIZZO**

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle **Istruzioni obbligatorie di verifica e controllo:**

- verificare l'integrità della struttura esterna dell'argano e del braccetto tralicciato.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune L (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune H (Fig.2);

**STARTING UP AND USE**

For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

- check to make sure the external structure of the winch and latticed boom is intact.
- Check to ensure the correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check to ensure correct working of the rope ascent limit switch L (Fig.2);
- check to ensure correct working of the rope descent limit switch H (Fig.2);

**INBEDRIJFSTELLING EN GEBRUIK**

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de **verplichte controle-instructies:**

- controleer of de buitenste structuur van de lier en van de vakwerkarm intact is.
- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindanslag kabel omlaag L (Fig.2);
- controleer de werking van de eindanslag kabel omhoog H (Fig.2);

- controllare lo stato della fune B (Fig.3) e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento rotazione delle puleggie di guida fune F1 (Fig.2);
- controllare lo stato del capocorda C (Fig.3);
- controllare che il grillo di collegamento fune e gancio sia ben avvitato K (Fig.4) e che i morsetti K1 (Fig.4) blocchino la fune.
- verificare lo stato del gancio: che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente G (Fig.4);
- controllare l'aggancio del braccetto alla macchina operatrice J (Fig.5).

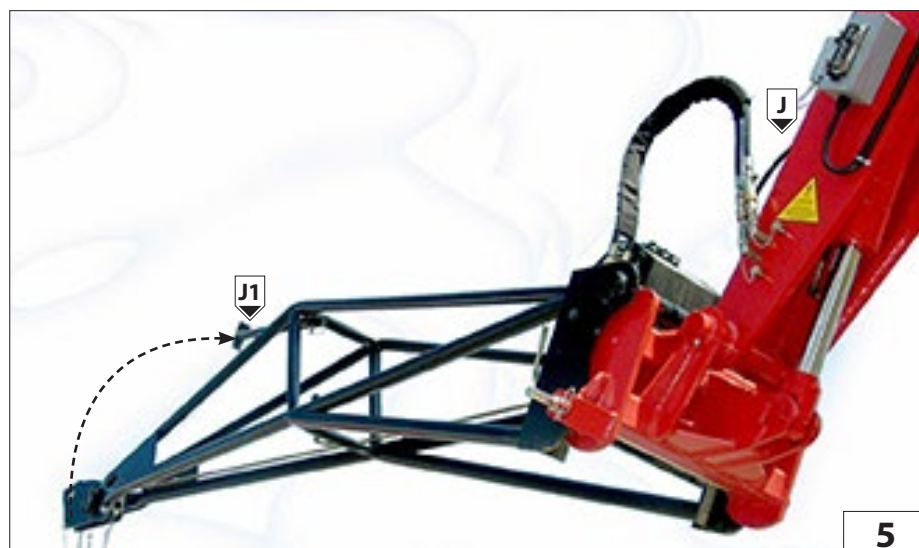
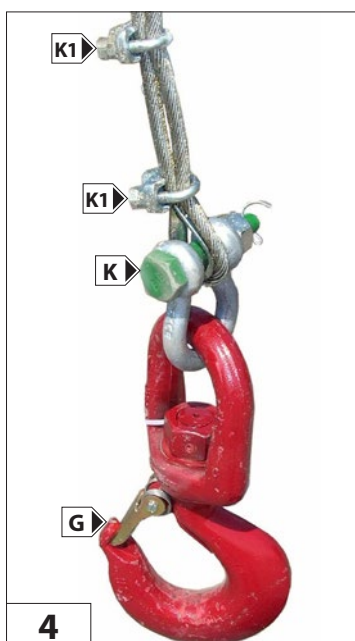
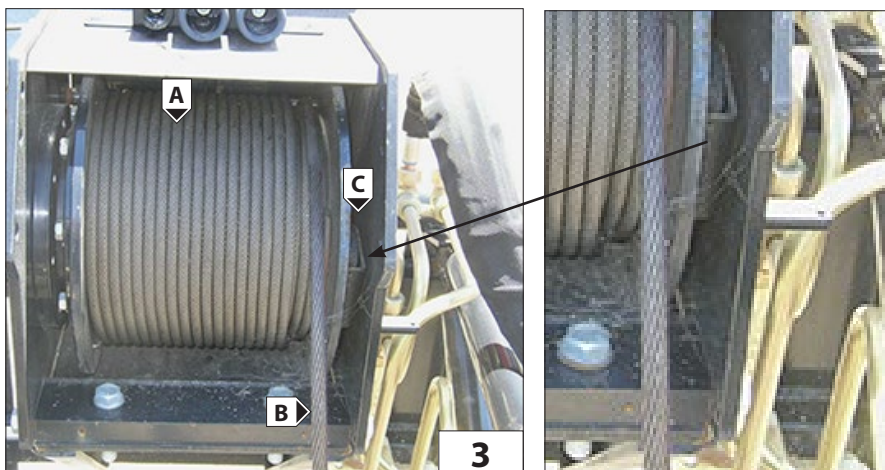
Dalla posizione di parcheggio è possibile sganciare il piede di appoggio e posizionarlo all'interno del braccetto per operare senza ulteriori ingombri J1 (Fig.5).

- check the condition of the rope B (Fig. 3) and that it is wound correctly on the drum A (Fig.3);
- check to ensure correct rotation movement of the rope guide pulley F1 (Fig. 2);
- check the condition of cable terminal C (Fig. 3);
- check to make sure the rope and hook connecting shackle is screwed in properly K (Fig.4) and that the terminals K1 (Fig.4) block the rope;
- check the condition of the hook: to make sure it is not deformed, that it rotates freely and that the safety tab G (Fig. 4) is in working order;
- check the hook-up of the boom to the operating machine J (Fig. 5).

From the parking position it is possible to unhook the foot and position it inside the boom to operate without increasing the dimensions J1 (Fig.5).

- controleer de staat van de kabel B (Fig.3) en de opwikkeling op de trommel A (Fig.3);
- controleer de draaibeweging van de kabelgeleidewielen F1 (Fig.2);
- controleer de staat van het kabeluiteinde C (Fig.3);
- controleer of de harpsluiting tussen de kabel en de haak K (Fig.4) goed vastgedraaid is en of de klemmen K1 (Fig.4) de kabel blokkeren.
- controleer de staat van de haak: of deze niet vervormd is, of hij vrij draait en of zijn veiligheidssluiting efficiënt is G (Fig.4);
- controleer de aankoppeling van de arm aan de machine J (Fig.5).

Vanuit de parkeerstand kan de steunpoot losgemaakt worden en binnenin de arm geplaatst worden om zonder onnodige ruimte innemende structuren te kunnen werken J1 (Fig.5).





**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

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- ROPE ASCENT LIMIT SWITCH
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- TAKEL
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## RIDUTTORE

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio ogni 100 ore A (Fig.6b) e all'occorrenza rabboccare A (Fig.6b) con olio dello stesso tipo di quello presente all'interno del riduttore (SHELL SPIRAX HD80 W90).

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità SAE 80W/90 oppure SAE 85W/140.

La prima sostituzione dell'olio deve essere effettuata dopo 150 ore di funzionamento, successivamente ogni 1000 ore di funzionamento.

Eeguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.6a) verso il basso. Svitare il tappo A (Fig.6a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico sull'asse orizzontale A (Fig.6b).

Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello A (Fig.6b). (0,6 lt) Riavvitare i tappi e riavvolgere la fune.

## REDUCTION GEAR

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least every 100 hours A (Fig.6b) and if required, top up A (Fig.6b) with oil of the same type as that present inside the reduction gear (SHELL SPIRAX HD80 W90).

Use gear oil with additive EP with viscosity SAE 80W/90 or SAE 85W/140.

The first oil change must be after 150 hours of operation, then subsequently every 1000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 6a) is facing downwards.

Unscrew cap A (Fig.6a) and drain out the oil completely.

Turn the drum to bring the topping up/drainage hole horizontal A (Fig.6b).

Top up with fresh oil of the correct type until the oil flows out through the level hole A (Fig.6b). (0.6 l).

Screw the cap back on and rewind the rope.

## REDUCTOR

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijkuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil om de 100 uren A (Fig.6b) en indien nodig bijvullen A (Fig.6b) met olie van hetzelfde soort als dat aanwezig is in de reductor (SHELL SPIRAX HD80 W90).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit SAE 80W/90 of SAE 85W/140.

De eerste olieversing moet na 150 werkuren plaatsvinden, daarna om de 1000 werkuren.

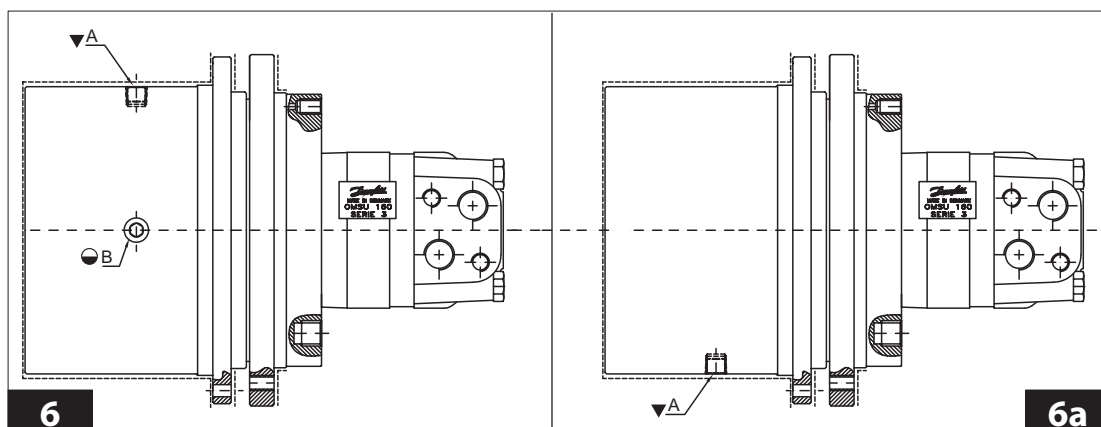
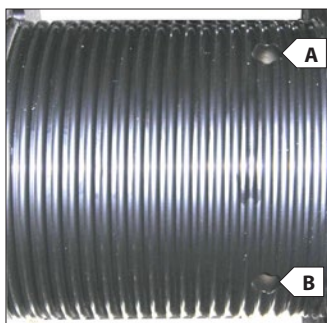
Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.6a) naar beneden staat.

Draai de dop A (Fig.6a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul/aftapopening op de horizontale as staat A (Fig.6b).

Vul bij met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt A (Fig.6b). (0,6 l) Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.7) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.7a) e che sia ben arrotolata sul tamburo B (Fig.7).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare e mantenere lubrificato i perni C (Fig.8) su cui ruotano le pulegge di guida D (Fig.8), che dovranno avere sempre un buono movimento di rotazione.

Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.9) e dei suoi morsetti fermafune.

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.7) is always in excellent condition, that it is not frayed (Fig.7a) and that it is wound perfectly around the drum B (Fig.7).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check and lubricate the pins C (Fig. 8) on which the guide pulleys D (Fig. 8) rotate and these must always rotate perfectly.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.9) and the rope retainer clamps F.

**KABEL, KABELSCHIJF en KABELUITEINDEN**

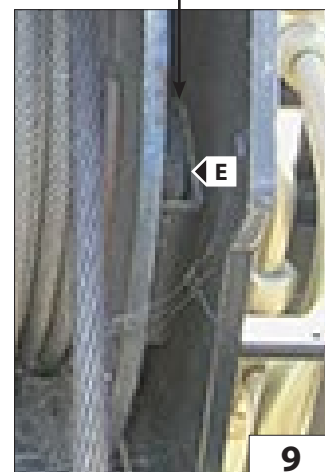
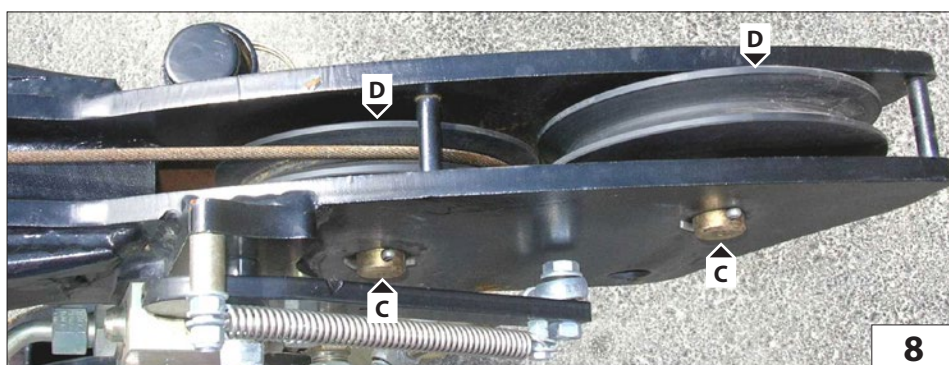
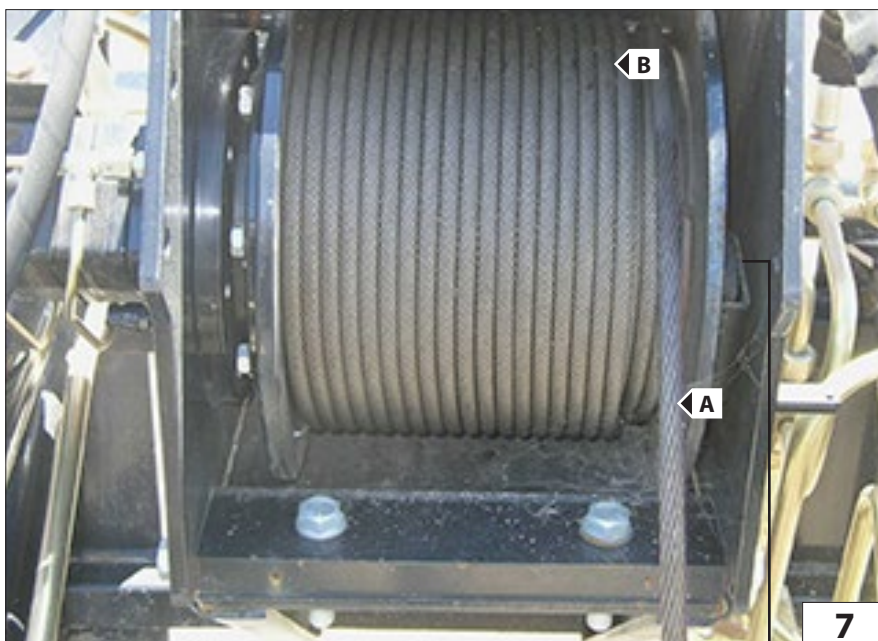
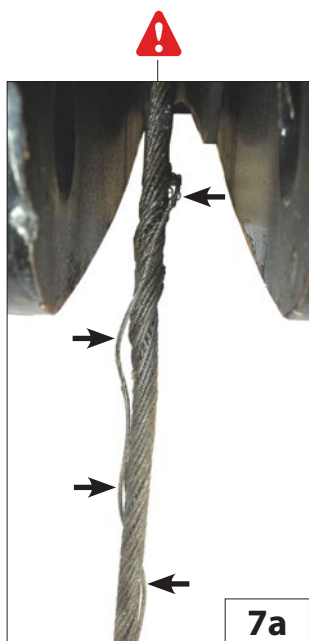
Controleer dagelijks of de kabel A (Fig.7) in optimale staat verkeert, of er geen draden stuk zijn (Fig.7a) en of hij goed op de trommel gewonden is B (Fig.7).

Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer de pennen C (Fig.8) waarop de geleideschijven D (Fig.8) draaien en houd ze gesmeerd. Deze moet altijd een goede draaibeweging behouden. Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.9) en de kabelklemmen.



**GRILLO E MORSETTI**

È importante verificare l'integrità e il serraggio delle viti dei morsetti F (Fig.10) e del bullone del grillo G (Fig.10) una volta alla settimana.

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.10).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.10). Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.10).

**SHACKLE AND TERMINALS**

Check the condition and tightening of the screws of terminals F (Fig. 10) and the bolt of shackle G (Fig. 10) once a week.

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 10) lubricated. Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 10).. Check the condition and efficiency of safety tab O (Fig. 10).

**HARPSLUITING EN KLEMMEN**

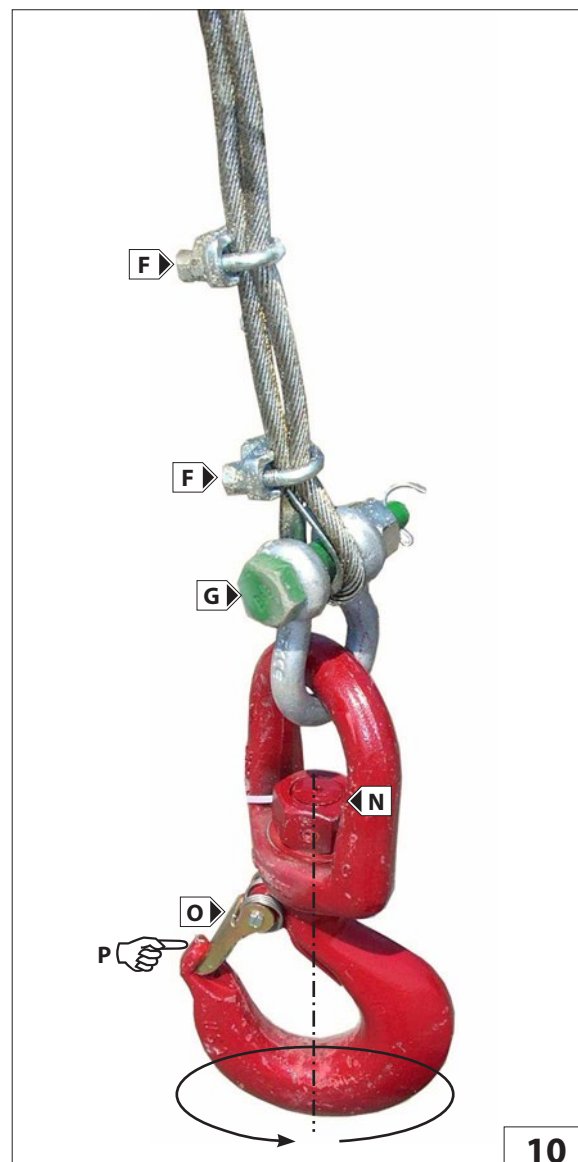
Het is van belang de staat en de aandrijving van de schroeven van de klemmen F (Fig.10) en van de bout van de harpsluiting G (Fig.10) eens in de week na te kijken.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.10) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.10).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.10).



**FINE CORSA DISCESA FUNE (Fig.11)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.12)

**IMPIANTO IDRAULICO (Fig.13)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 11)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.12)

**HYDRAULIC SYSTEM (Fig.13)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.11)**

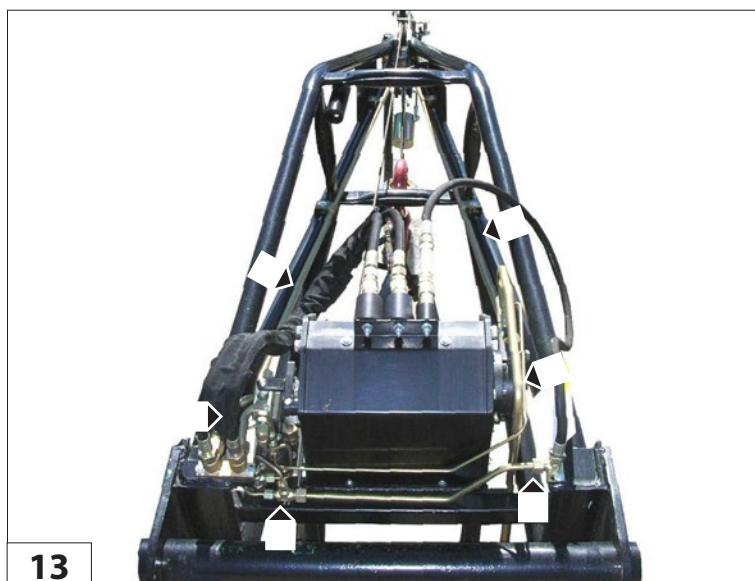
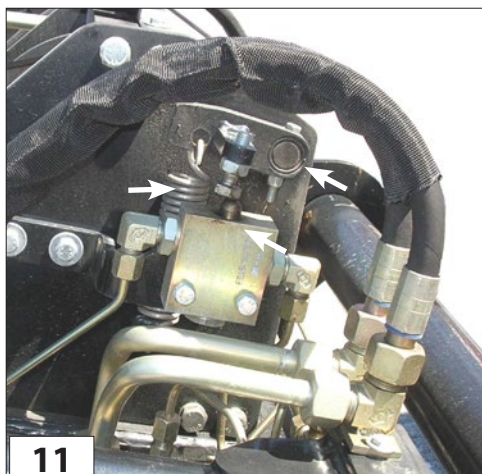
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het stijgen en zijn veer. (Fig.12)

**HYDRAULISCHE INSTALLATIE (Fig.13)**

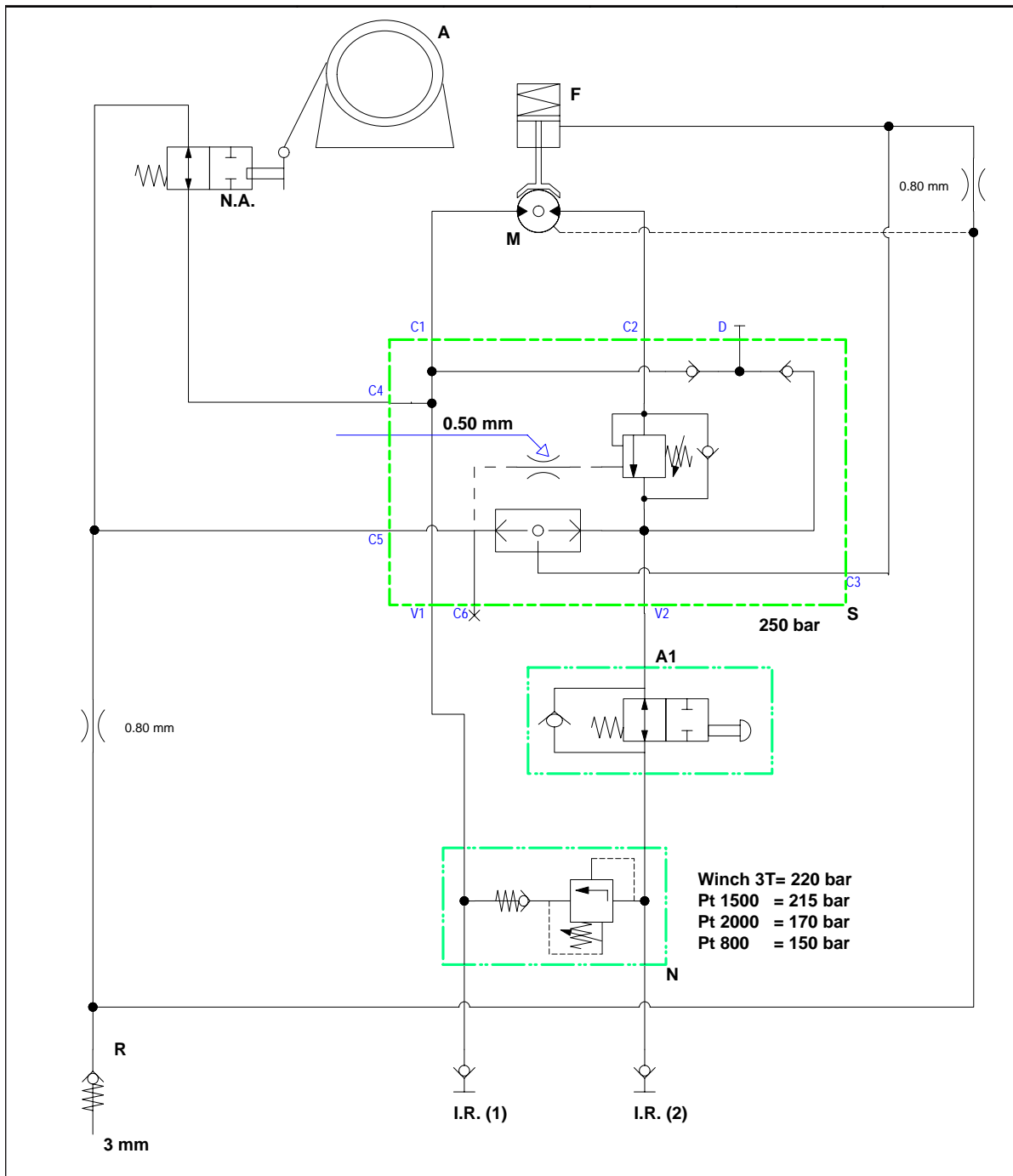
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olielekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.

**13****11****12**

## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



A = ARGANO  
 N.A. = MICRO MASSIMA DISCESA  
 R = SERBATOIO OLIO  
 I.R.1 = INNESTO RAPIDO  
 I.R.2 = INNESTO RAPIDO  
 A1 = MICRO MASSIMA SALITA  
 S = VALVOLA  
 N = VALVOLA MASSIMA PRESSIONE  
 M = MOTORE  
 F = FRENO

A = WINCH  
 N.A. = MAX. DESCENT MICRO SWITCH  
 R = OIL TANK  
 I.R.1 = QUICK-RELEASE COUPLING  
 I.R.2 = QUICK-RELEASE COUPLING  
 A1 = MAX. ASCENT MICRO SWITCH  
 S = VALVE  
 N = PRESSURE RELIEF VALVE  
 M = MOTOR  
 F = BRAKE

A = LIER  
 N.A. = MICRO MAXIMALE DALING  
 R = OLJETANK  
 I.R.1 = SNELKOPPELING  
 I.R.2 = SNELKOPPELING  
 A1 = MICRO MAXIMALE STIJING  
 S = VENTIEL  
 N = MAXIMUMDRUKVENTIEL  
 M = MOTOR  
 F = REM

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***PT 2000***



**Descrizione:**

Falcone lungo 2,5 mt con argano portata 2000Kg.

**Caratteristiche:**

- Tiro al 3° strato di 2000Kg.
- Velocità massima al 3° strato 23mt/min
- Il tiro è in due taglie.
- La fune è di 46mt, diametro 10mm disposta su tre strati.
- Motore orbitale Sauer-Danfoss OMSU.
- Riduttore epicicloidale con freno negativo a dischi in bagno d'olio.
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune.
- Presenza di un guida fune che migliora ulteriormente l'avvolgimento della fune sul tamburo.
- Classificazione ISO 4301/1: T4,L2,M4.

**Sicurezze:**

- Fine corsa discesa idraulico positivo.
- Fine corsa salita idraulico positivo.

**Description:**

2.5m long derrick with winch having capacity of 2000 kg.

**Features:**

- Pull at 3<sup>rd</sup> layer 2000 kg.
- Max. speed at 3<sup>rd</sup> layer 23m/min
- The pull is in two sheaves.
- The rope is 46 m long, 10mm diameter arranged in three layers.
- Sauer-Danfoss OMSU orbital motor.
- Planetary drive with negative oil bath disk brake
- The drum is threaded and provided with a rope press roller in order to always ensure correct winding of the rope.
- Presence of a rope guide which further improves the winding of the rope on the drum.
- ISO 4301/1 Classification: T4, L2, M4.

**Safety devices:**

- Positive hydraulic descent limit switch.
- Positive hydraulic ascent limit switch.

**Beschrijving:**

2,5 m lange arm met lier met vermogen van 2000 kg.







**Kenmerken:**

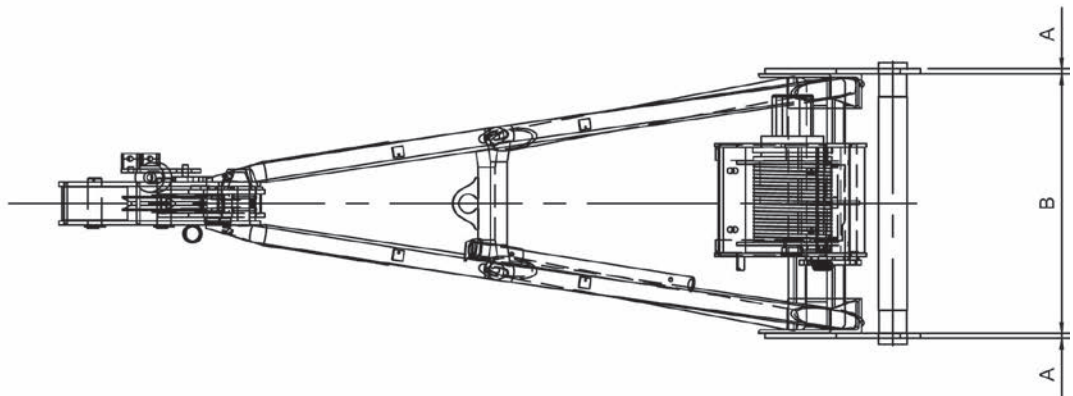
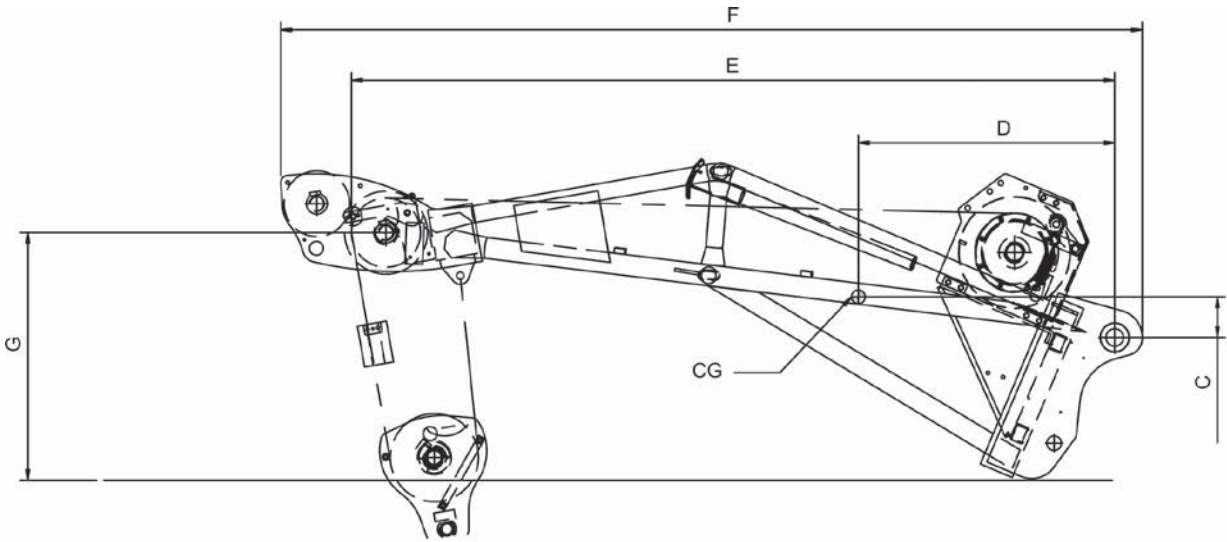
- Trekkracht 3de laag 2000 kg.
- Maximumsnelheid 3de laag 23 m/min.
- Kabel dubbel gebruikt.
- De kabel is 46 m, diameter 10 mm in drie lagen.
- Sauer-Danfoss OMSU orbitmotor.
- Planetaire reductor met negatieve schijvenrem in oliebad.
- De trommel is gegleufd en voorzien van een kabelandruckrol voor een altijd correcte opwikkeling van de kabel.
- Aanwezigheid van een kabelgeleider voor een nog betere opwikkeling van de kabel op de trommel.
- Classificatie ISO 4301/1: T4,L2,M4.

**Beschermingen:**

- Positieve hydraulische eindaanslag daling.
- Positieve hydraulische eindaanslag stijging.



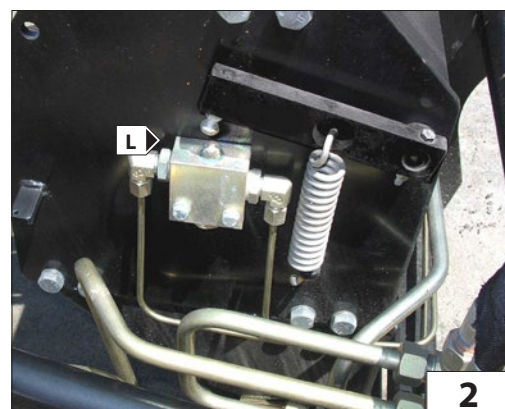
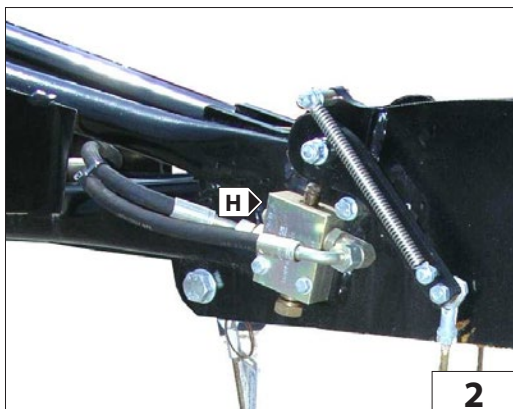
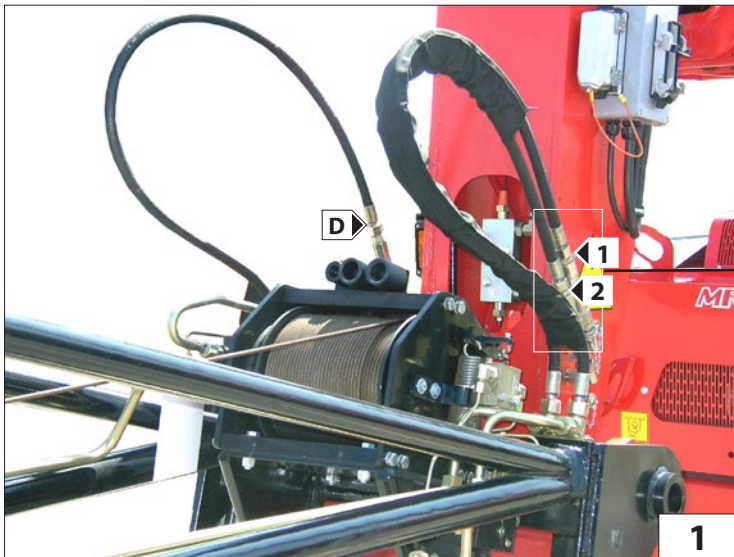
[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)							[kg] (lb)
				P max								
2000 (4409)	5 (5)	∅ 10 (0,4) x 46 (150)	23 (75)	170 (2465)	A 15 (0,5)	B 750 (29)	C 62 (2)	D 841 (33)	E 2226 (88)	F 2517 (99)	G 657 (26)	354 (780)



**MESSA IN SERVIZIO E UTILIZZO**

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle **Istruzioni obbligatorie di verifica e controllo:**

- verificare l'integrità della struttura esterna dell'argano e del braccetto tralicciato.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune L (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune H (Fig.2);

**STARTING UP AND USE**

For your safety, before starting a work cycle, follow the Compulsory instructions for inspection and control:

- check to make sure the external structure of the winch and latticed boom is intact.
- Check to ensure the correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check to ensure correct working of the rope ascent limit switch L (Fig.2);
- check to ensure correct working of the rope descent limit switch H (Fig.2);

**INBEDRIJFSTELLING EN GEBRUIK**

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de **verplichte controle-instructies:**

- controleer of de buitenste structuur van de lier en van de vakwerkarm intact is.
- controleer of de hydraulische verbinding van de snelkoppelingen 1, 2, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindanslag kabel omlaag L (Fig.2);
- controleer de werking van de eindanslag kabel omhoog H (Fig.2);

- controllare lo stato della fune B (Fig.3) e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento rotazione delle pulegge di guida fune F1 (Fig.2 e 4);
- controllare lo stato del capocorda C (Fig.3);
- verificare l'integrità del bozzello F (Fig.4)
- verificare lo stato del gancio K (Fig.4): che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente K1 (Fig.4);
- controllare l'aggancio del braccetto alla macchina operatrice J (Fig.5).

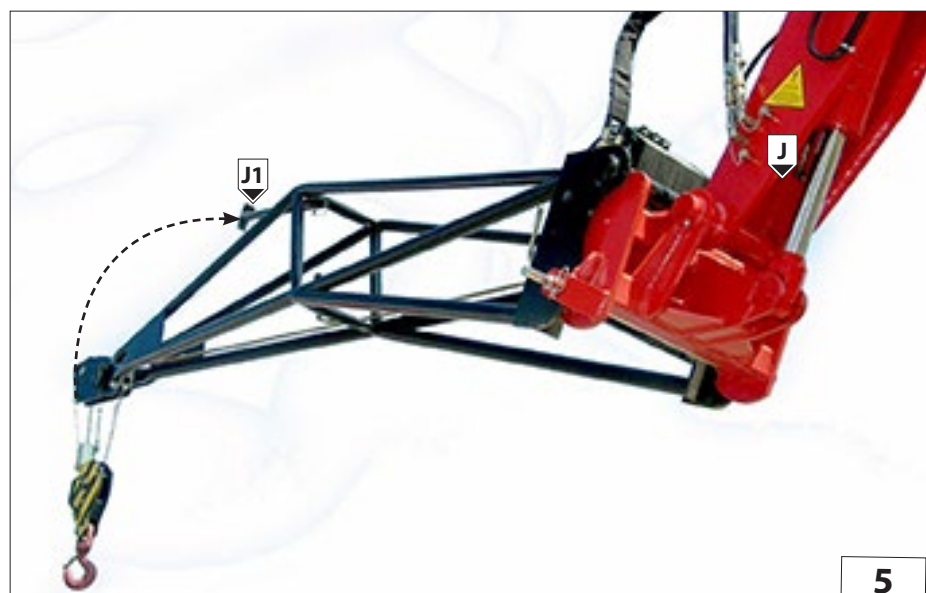
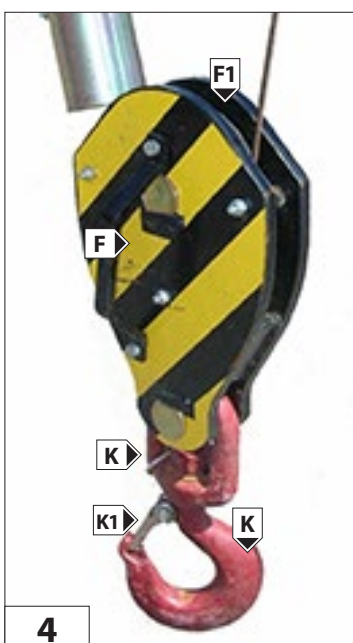
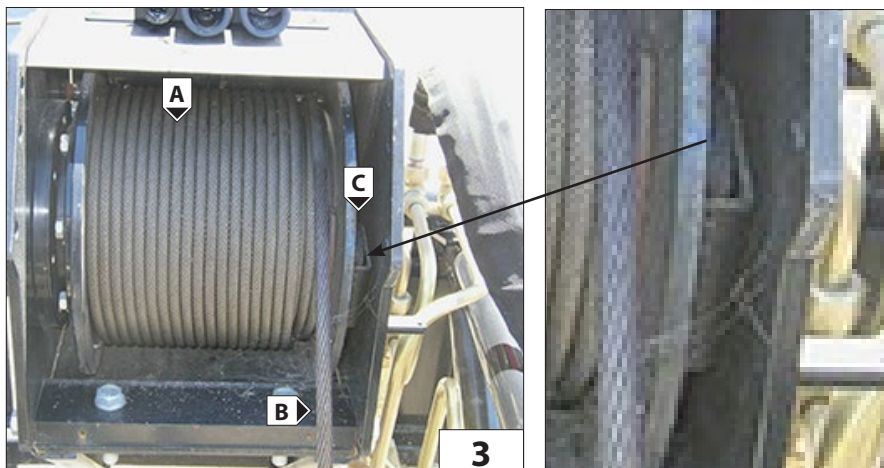
Dalla posizione di parcheggio è possibile sganciare il piede di appoggio e posizionarlo all'interno del braccetto per operare senza ulteriori ingombri J1 (Fig.5).

- check the condition of the rope B (Fig. 3) and that it is wound correctly on the drum A (Fig.3);
- check to ensure correct rotation movement of the rope guide pulley F1 (Fig. 2 and 4);
- check the condition of cable terminal C (Fig. 3);
- check the integrity of the block F (Fig.4)
- check the condition of the hook K (Fig. 4): to make sure it is not deformed, that it rotates freely and that the safety tab K1 (Fig. 4) is in working order;
- check the hook-up of the boom to the operating machine J (Fig. 5).

From the parking position it is possible to unhook the foot and position it inside the boom to operate without increasing the dimensions J1 (Fig. 5).

- controleer de staat van de kabel B (Fig.3) en de opwikkeling op de trommel A (Fig.3);
- controleer de draaibeweging van de kabelgeleidewielen F1 (Fig.2 en 4);
- controleer de staat van het kabeluiteinde C (Fig.3);
- controleer de staat van de takel F (Fig.4);
- controleer de staat van de haak K (Fig.4): of deze niet vervormd is, of hij vrij draait en of zijn veiligheidssluiting efficiënt is K1 (Fig.4);
- controleer de aankoppeling van de arm aan de machine J (Fig.5).

Vanuit de parkeerstand kan de steunpoot losgemaakt worden en binnenin de arm geplaatst worden om zonder onnodige ruimte innemende structuren te kunnen werken J1 (Fig.5).



**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

**RIDUTTORE**

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio almeno una volta al mese B (Fig.6) e all'occorrenza rabboccare A (Fig.6) con olio dello stesso tipo di quello presente all'interno del riduttore ( ISO VG 150) .

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità ISO VG, dipendente dalla temperatura di esercizio.

La prima sostituzione dell'olio deve essere effettuata dopo 100 ore di funzionamento, successivamente ogni 12 mesi o ogni 2000 ore di funzionamento.

Eseguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.6a) verso il basso. Svitare il tappo A (Fig.6a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico verso l'alto A (Fig.6). Svitare il tappo di livello olio B (Fig.6); Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello B (Fig.6). (0,25 lt) Riavvitare i tappi e riavvolgere la fune.

**REDUCTION GEAR**

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least once a month B (Fig.6) and if required, top up A (Fig.6) with oil of the same type as that present inside the reduction gear ( ISO VG 150) .

It is advisable to use oil for gears to which EP is added with viscosity ISO VG, depending on the operating temperature.

The first oil change must be after 100 hours of operation, then subsequently every 12 months or every 2000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 6a) is facing downwards.

Unscrew cap A (Fig.6a) and drain out the oil completely.

Turn the drum to being the topping up/drainage hole facing upwards A (Fig.6).

Unscrew the oil level cap B (Fig.6).

Top up with fresh oil of the correct type until the oil flows out through the level hole B (Fig.6). (0.25 l).

Screw the cap back on and rewind the rope.

**REDUCTOR**

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijkvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil minstens eens per maand B (Fig.6) en indien nodig bijvullen A (Fig.6) met olie van hetzelfde soort als dat aanwezig is in de reductor (ISO VG 150).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit ISO VG, afhankelijk van de bedrijfstemperatuur.

De eerste olieverversing moet na 100 werkuren plaatsvinden, daarna om de 12 maanden of om de 2000 werkuren.

Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

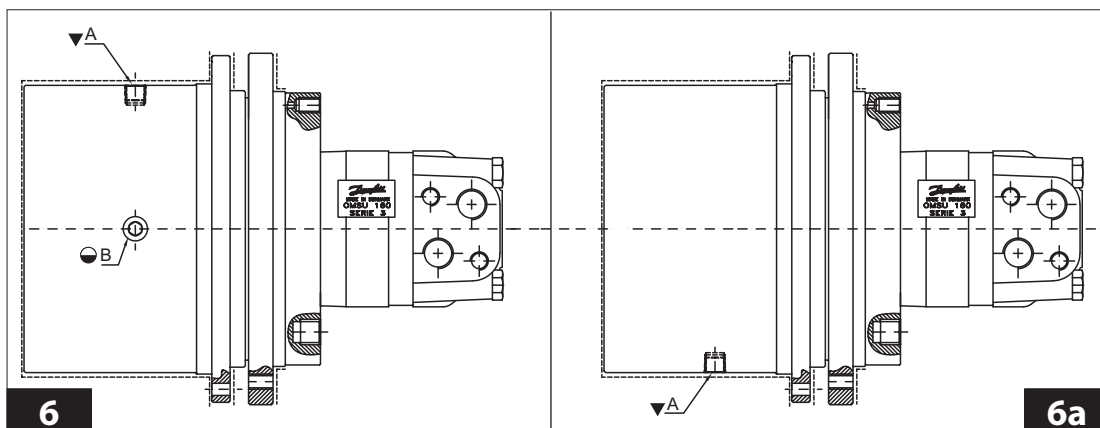
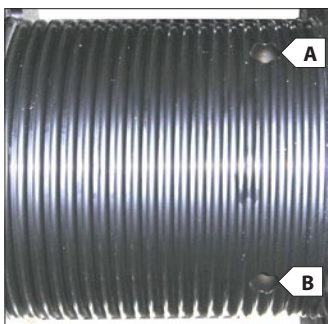
Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.6a) naar beneden staat.

Draai de dop A (Fig.6a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul/aftapopening naar boven staat A (Fig.6).

Draai de oliepeildop los B (Fig.6);

Vul bij met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt B (Fig.6). (0,25 l) Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.7) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.7a) e che sia ben arrotolata sul tamburo B (Fig.7).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare e mantenere lubrificato i perni C (Fig.8) su cui ruotano le puleggie di guida D (Fig.8), che dovranno avere sempre un buono movimento di rotazione.

Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.9) e dei suoi morsetti fermafune.

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.7) is always in excellent condition, that it is not frayed (Fig.7a) and that it is wound perfectly around the drum B (Fig.7).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check and lubricate the pins C (Fig. 8) on which the guide pulleys D (Fig. 8) rotate and these must always rotate perfectly.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.9) and the rope retainer clamps F.

**KABEL, KABELSCHIJF en KABELUITEINDEN**

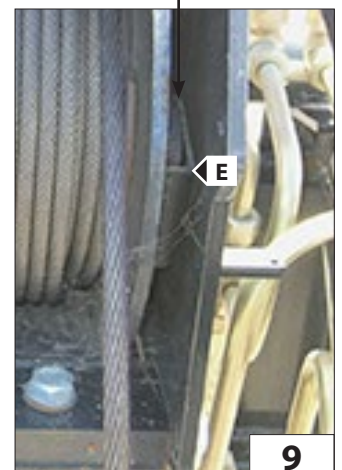
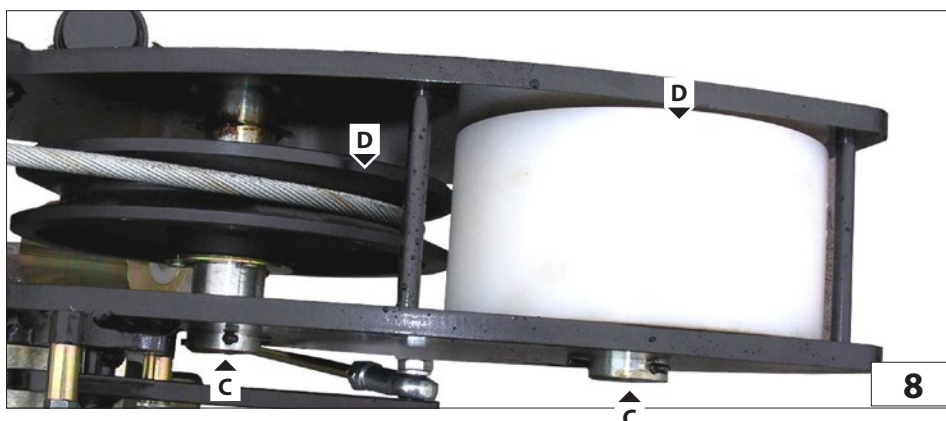
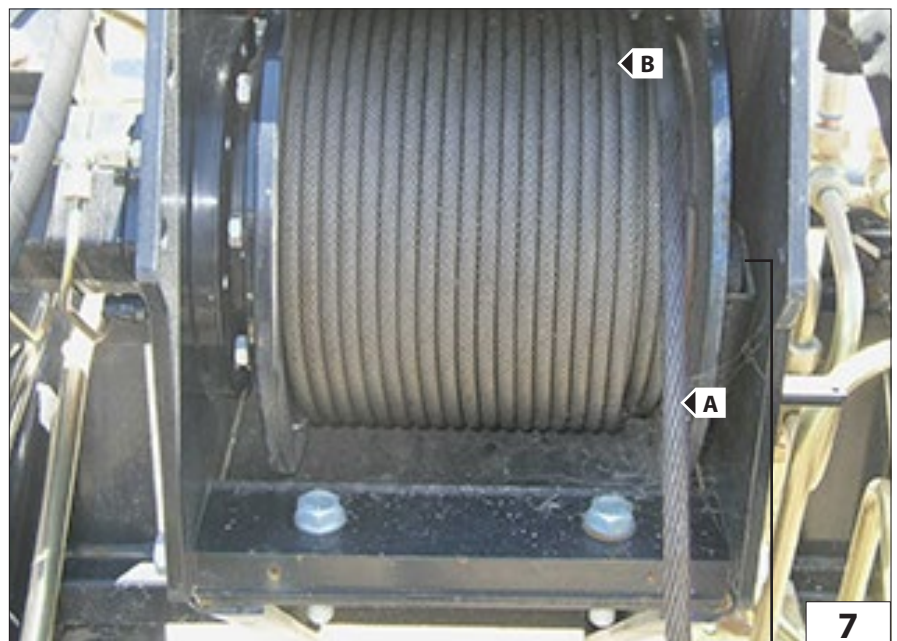
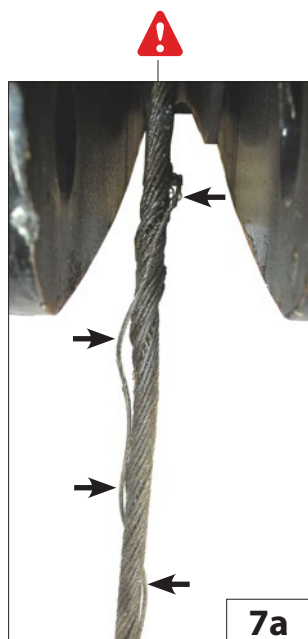
Controleer dagelijks of de kabel A (Fig.7) in optimale staat verkeert, of er geen draden stuk zijn (Fig.7a) en of hij goed op de trommel gewonden is B (Fig.7).

Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer de pennen C (Fig.8) waarop de geleideschijven D (Fig.8) draaien en houd ze gesmeerd. Deze moet altijd een goede draibeweging behouden. Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.9) en de kabelklemmen.



**BOZZELLO**

Per una massima efficienza e sicurezza, mantenere intatta la struttura esterna F (Fig.10) e controllare che la puleggia G (Fig.10) ruoti correttamente sul suo perno G1 (Fig.10).

Se necessità, lubrificare con grasso al sapone di litio il perno G1 (Fig.10).

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.10).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.10).

Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.10).

**PULLEY BLOCK**

For maximum efficiency and safety, keep the external structure F (Fig.10) intact and check to make sure the pulley G (Fig.10) rotates correctly on its pin G1 (Fig.10).

If necessary, lubricate the pin G1 (Fig. 10) with lithium soap grease.

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 10) lubricated.

Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 10).

Check the condition and efficiency of safety tab O (Fig. 10).

**TAKEL**

Voor een maximale efficiëntie en veiligheid, de buitenste structuur intact houden F (Fig.10) en controleren of de kabelschijf G (Fig.10) goed op zijn pen draait G1 (Fig.10).

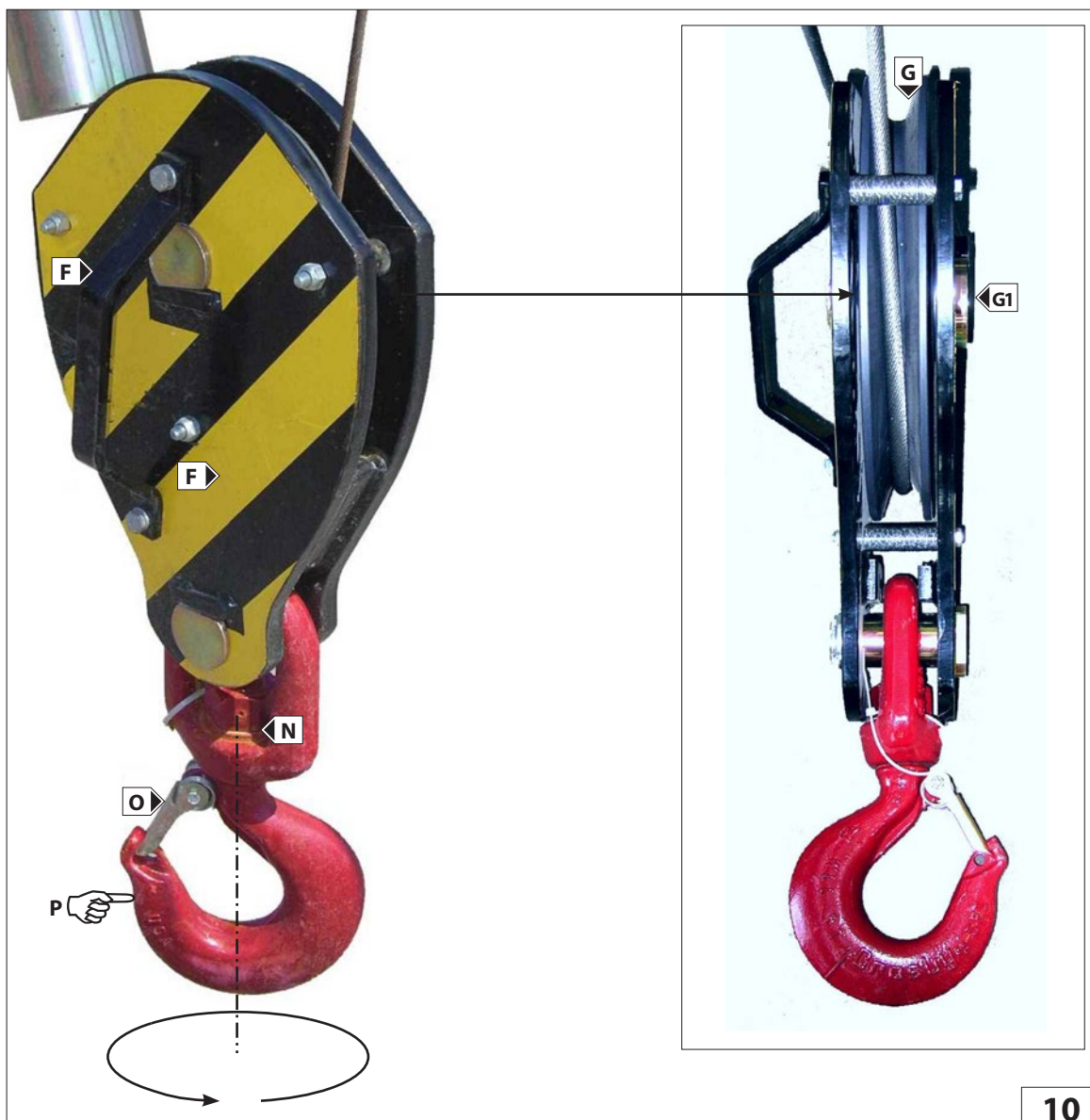
Indien nodig, de pen G1 (Fig.10) invetten met lithiumzeepvet.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.10) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.10).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.10).





**FINE CORSA DISCESA FUNE (Fig.11)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi.

Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.12)

**IMPIANTO IDRAULICO (Fig.13)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 11)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.12)

**HYDRAULIC SYSTEM (Fig.13)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.11)**

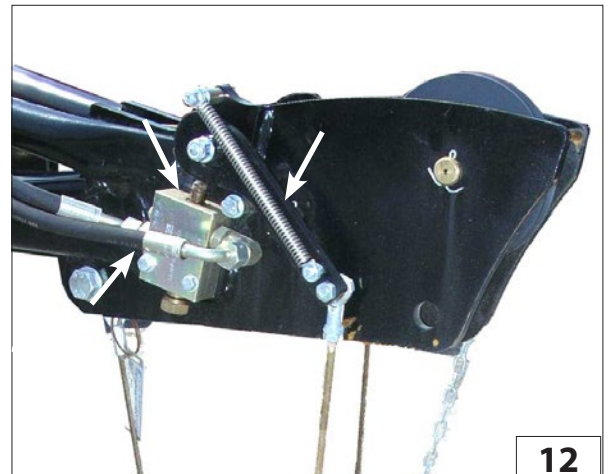
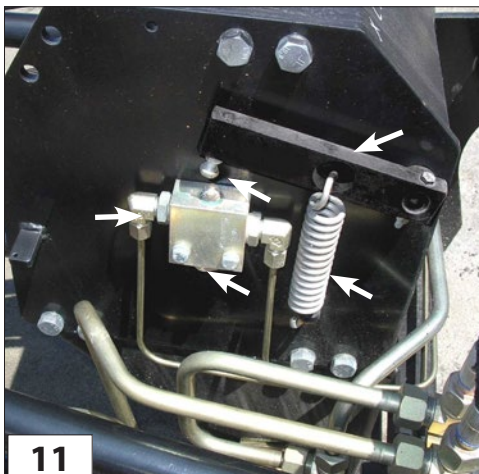
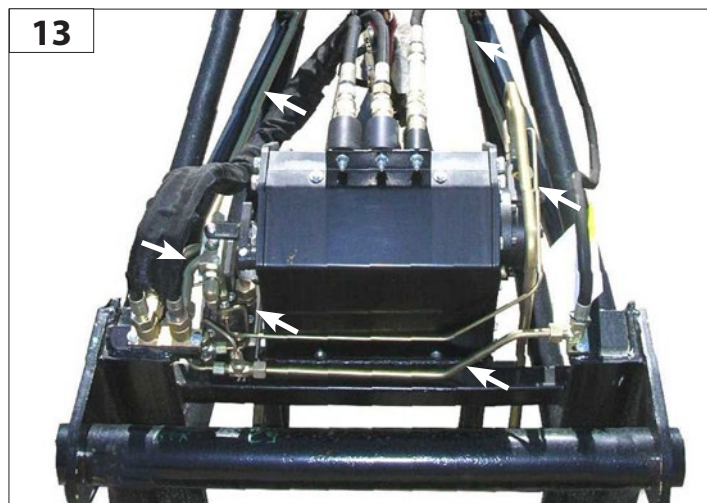
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefbomen van de eindaanslag voor het stijgen en zijn veer. (Fig.12)

**HYDRAULISCHE INSTALLATIE (Fig.13)**

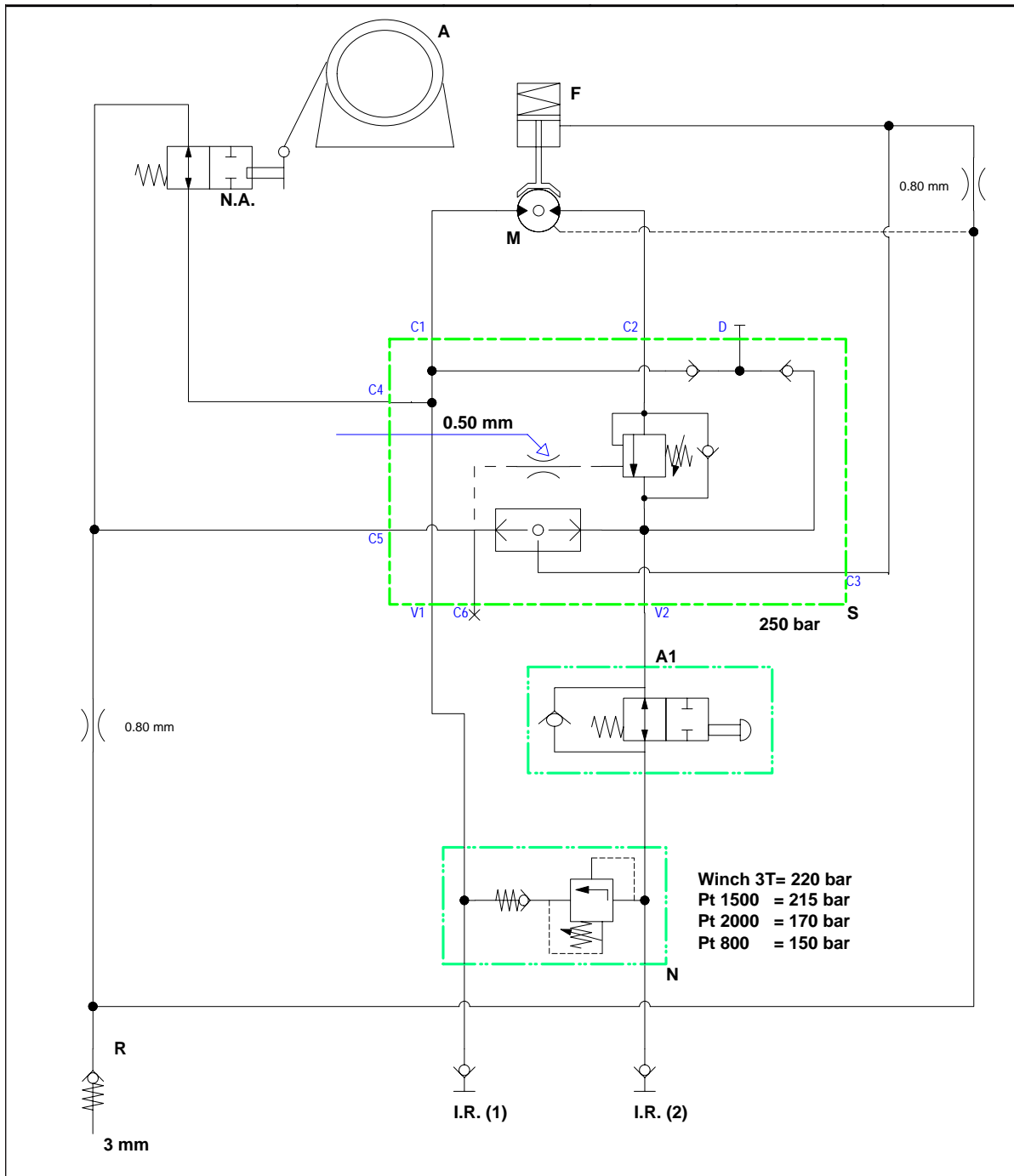
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olielekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLJETANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM

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***PT 800***

**Descrizione:**

Traliccio sfilabile con argano: In posizione chiusa ha una lunghezza di 4mt e una portata di 1000Kg, in posizione sfilata ha una lunghezza di 7mt e una portata di 800Kg.

**Caratteristiche:**

- Tiro al 3° strato di 1000Kg.
- Velocità massima al 3° strato 46mt/min
- Il tiro è diretto
- La fune è di 37mt, diametro 10mm disposta su tre strati.
- Motore orbitale Sauer-Danfoss OMSU
- Riduttore epicicloidale con freno negativo a dischi in bagnod'olio
- Il tamburo è filettato e dotato di un rullo pressa fune in modo da assicurare sempre un corretto avvolgimento della fune
- Classificazione ISO 4301/1: T4, L2, M4

**Sicurezze:**

- Fine corsa discesa idraulico positivo
- Fine corsa salita idraulico positivo

**Description:**

Telescopic jib with winch. Closed: 4 m long and 1000 kg load.  
Extended: 7 m long and 800 kg load.

**Specifications:**

- Line pull (3rdlayer): 1000 kg.
- Maximum speed (3rdlayer): 46 m/min
- Singleline pull
- 37 m long and 10 mm diameter cable arranged in three layers.
- Sauer-Danfoss OMSU orbital motor
- Planetary reduction gear featuring negative disk brake and oil bath
- The threaded drum is equipped with a cable-pressing roller to ensure the cable is always wound correctly
- ISO 4301/1 classification: T4, L2, M4

**Safety features:**

- Positive hydraulic descent limit stop
- Positive hydraulic ascent limit stop

**Beschrijving:**

Uitschuifbaar rooster met lier: In gesloten positie bedraagt de lengte 4 m en het draagvermogen 1000 kg, in uitgeschoven positie bedraagt de lengte 7 m en het draagvermogen 800 kg.

**Kenmerken:**

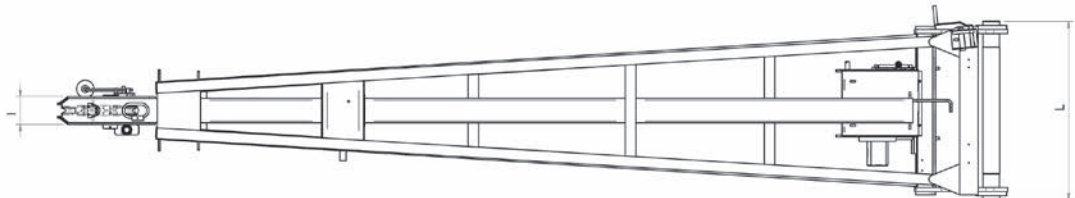
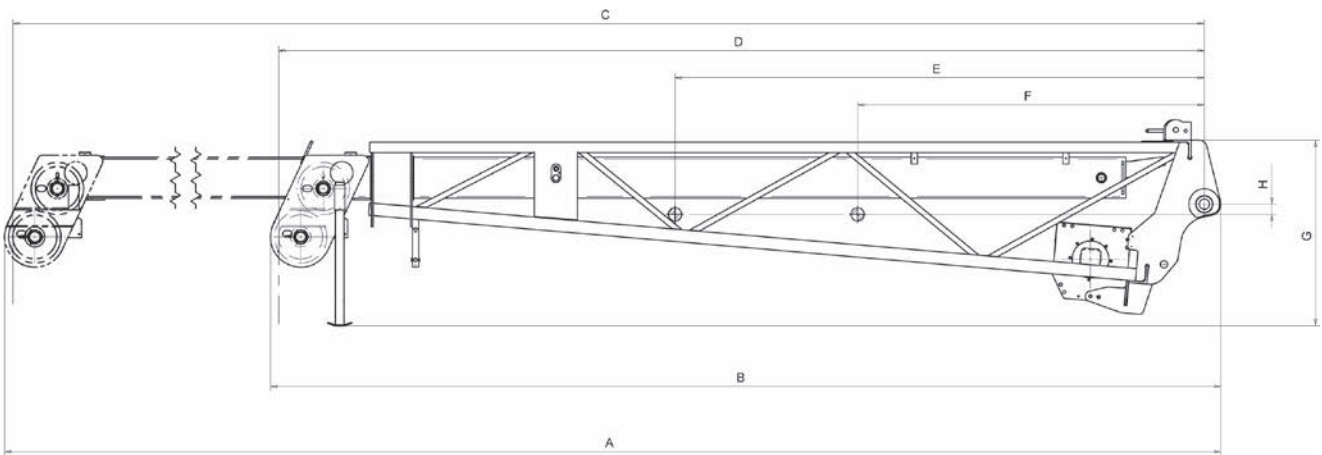
- Trekkracht 3de laag 1000 kg.
- Maximumsnelheid 3de laag 46 m/min.
- Kabel enkel gebruikt.
- De kabel is 37 m, diameter 10 mm in drie lagen.
- Sauer-Danfoss OMSU orbitmotor
- Planetaire reductor met negatieve schijvenrem in oliebad
- De trommel is gegleufd en voorzien van een kabelandrukrol voor een altijd correcte opwikkeling van de kabel
- Classificatie ISO 4301/1: T4, L2, M4

**Beschermingen:**

- Positieve hydraulische eindaanslag daling
- Positieve hydraulische eindaanslag stijging



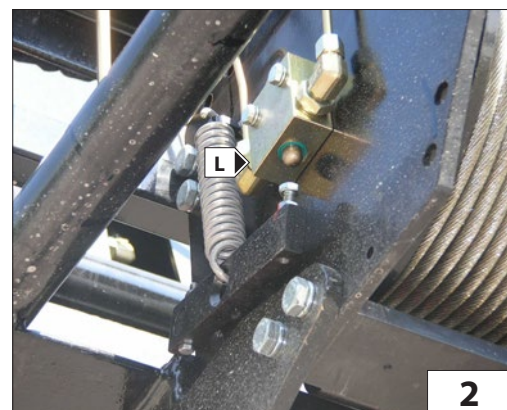
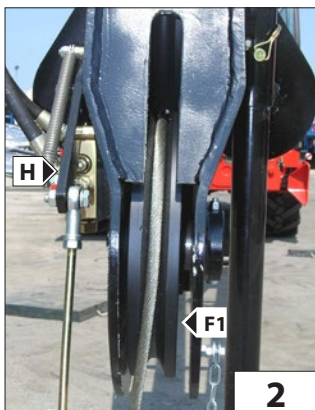
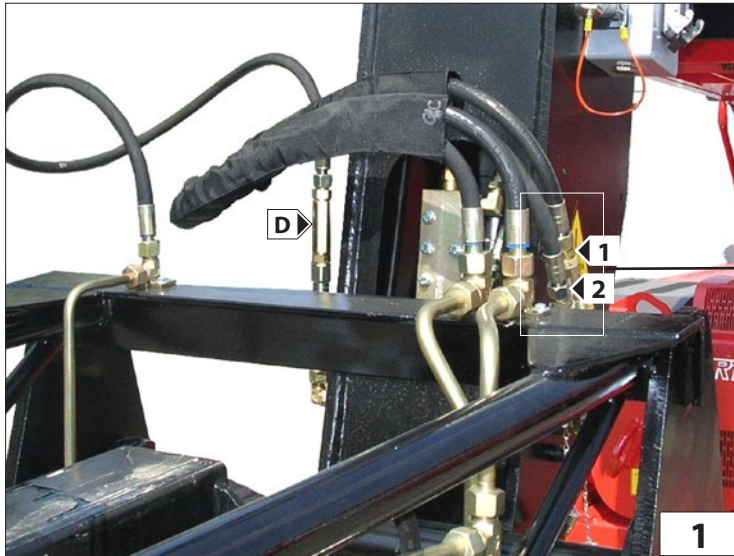
[kg] (lb)	[t] (t)	[kg] (lb)	[t] (t)	[mm] (in) x [m] (ft)	[m/min] (ft/min)	[bar] (psi)	[mm] (in)										[kg] (lb)
						<b>P max</b>											
•	◆			∅ 10 (0,3) x 37 (121)	46 (150)	150 (2175)	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>L</b>	
800 (2204)	5 (5)	1000 (2204)	5 (5)				7290 (287)	4630 (182)	7170 (282)	4510 (177)	2580 (101)	1690 (66)	900 (35)	50 (1,9)	136 (5)	870 (34)	299 (659)



## MESSA IN SERVIZIO E UTILIZZO

Per la vostra sicurezza, prima di iniziare un ciclo di lavoro, attenersi alle Istruzioni obbligatorie di verifica e controllo:

- verificare l'integrità della struttura esterna dell'argano e del braccetto tralicciato.
- verificare il corretto collegamento idraulico degli innesti rapidi 1, 2, Drenaggio e lo stato dei tubi flessibili (Fig.1);
- controllare il corretto funzionamento del fine corsa discesa fune H (Fig.2);
- controllare il corretto funzionamento del fine corsa salita fune L (Fig.2);



## COMMISSIONING AND USE

For your safety, before starting a work cycle, follow the compulsory instructions for inspection and checking:

- check the outer frame of the winch and the trestle arm.
- ensure correct hydraulic connection of quick-release couplings 1, 2, drainage and the condition of the hose pipes (Fig.1);
- check the correct working of the rope descent limit stop H (Fig.2);
- check the correct working of the rope lift limit stop L (Fig.2);

## INBEDRIJFSTELLING EN GEBRUIK

Houd u, voor uw eigen veiligheid, voor met een werkcyclus aan te vangen, aan de verplichte controle-instructies:

- controleer of de buitenste structuur van de lier en van de vakwerkarm intact is.
- controleer of de hydraulische aansluiting van de snelkoppelingen 1, 2 correct is, Afvoer en de staat van de slangen in orde zijn (Fig.1);
- controleer de werking van de eindanslag kabel omlaag H (Fig.2);
- controleer de werking van de eindanslag kabel omhoog L (Fig.2);

- controllare lo stato della fune B (Fig.3) e il corretto avvolgimento sul tamburo A (Fig.3);
- controllare il corretto movimento rotazione delle puleggie di guida fune F1 (Fig.2);
- controllare lo stato del capocorda C (Fig.3);
- controllare che il grillo di collegamento fune e gancio sia ben avvitato K (Fig.4) e che i morsetti K1 (Fig.4) blocchino la fune.
- verificare lo stato del gancio: che non sia deformato, che ruoti liberamente e che la linguetta di sicurezza sia efficiente G (Fig.4);
- controllare l'aggancio del braccetto alla macchina operatrice J (Fig.5).

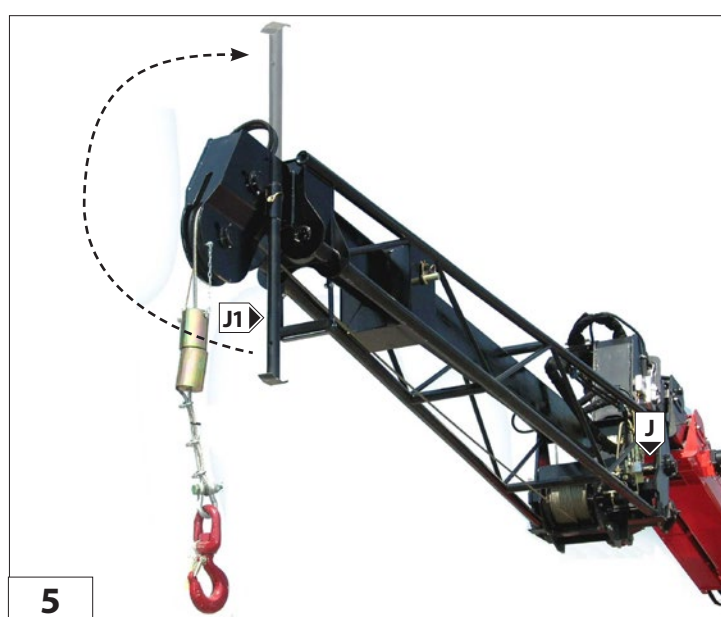
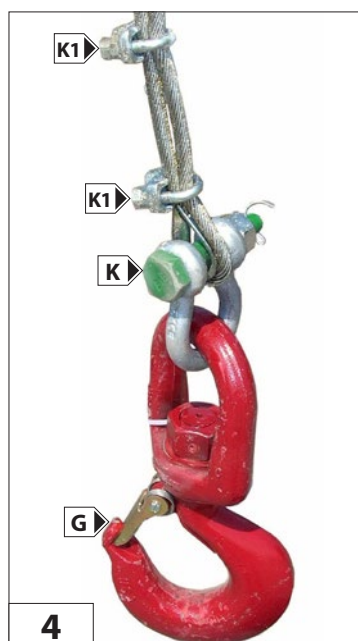
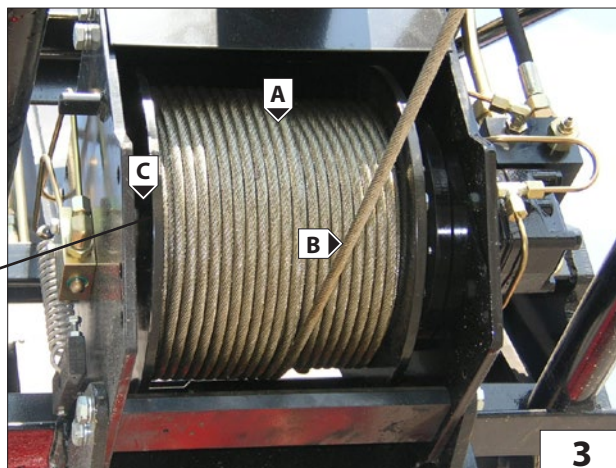
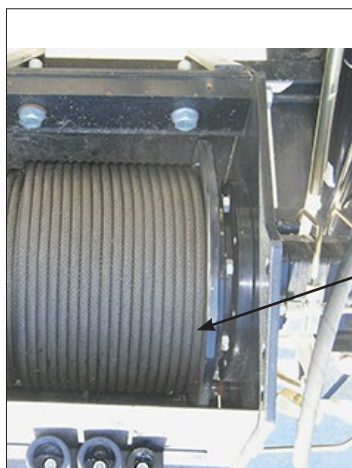
Dalla posizione di parcheggio è possibile sganciare il piede di appoggio e posizionarlo all'interno del braccetto per operare senza ulteriori ingombri J1 (Fig.5).

- check the condition of the rope B (Fig. 3) and that it is wound correctly on the drum A (Fig.3);
- check to ensure correct rotation movement of the rope guide pulley F1 (Fig. 2);
- check the condition of cable terminal C (Fig. 3);
- check to make sure the rope and hook connecting shackle is screwed in properly K (Fig.4) and that the terminals K1 (Fig.4) block the rope;
- check the condition of the hook: to make sure it is not deformed, that it rotates freely and that the safety tab G (Fig. 4) is in working order;
- check the hook-up of the boom to the operating machine J (Fig. 5).

From the parking position it is possible to unhook the foot and position it inside the boom to operate without increasing the dimensions J1 (Fig.5).

- controleer de staat van de kabel B (Fig.3) en de opwikkeling op de trommel A (Fig.3);
- controleer de draaibeweging van de kabelgeleidewielen F1 (Fig.2);
- controleer de staat van het kabeluiteinde C (Fig.3);
- controleer of de harpsluiting tussen de kabel en de haak K (Fig.4) goed vastgedraaid is en of de klemmen K1 (Fig.4) de kabel blokkeren.
- controleer de staat van de haak: of deze niet vervormd is, of hij vrij draait en of zijn veiligheidsluiting efficiënt is G (Fig.4);
- controleer de aankoppeling van de arm aan de machine J (Fig.5).

Vanuit de parkeerstand kan de steunpoot losgemaakt worden en binnenin de arm geplaatst worden om zonder onnodige ruimte innemende structuren te kunnen werken J1 (Fig.5).





**MANUTENZIONE**

- RIDUTTORE
- FUNE, PULEGGIA E CAPOCORDA
- BOZZELLO
- GANCIO
- FINE CORSA DISCESA FUNE
- FINE CORSA SALITA FUNE
- IMPIANTO IDRAULICO

**MAINTENANCE**

- REDUCTION GEAR
- ROPE, PULLEY AND CABLE TERMINAL
- PULLEY BLOCK
- HOOK
- ROPE DESCENT LIMIT SWITCH
- ROPE ASCENT LIMIT SWITCH
- HYDRAULIC SYSTEM

**ONDERHOUD**

- REDUCTOR
- KABEL, KABELSCHIJF en KABELUI-  
TEINDEN
- TAKEL
- HAAK
- EINDAANSLAG KABEL OMLAAG
- EINDAANSLAG KABEL OMHOOG
- HYDRAULISCH CIRCUIT

**RIDUTTORE**

Una corretta lubrificazione consente un buon funzionamento e una lunga durata del riduttore.

Per accedere all'indicatore di livello o al tappo di rabbocco olio, occorre srotolare completamente la fune dal tamburo.

Controllare il livello dell'olio almeno una volta al mese B (Fig.6) e all'occorrenza rabboccare A (Fig.6) con olio dello stesso tipo di quello presente all'interno del riduttore (ISO VG 150).

Si consiglia l'utilizzo di olio per ingranaggi con additivazione EP con viscosità ISO VG, dipendente dalla temperatura di esercizio.

La prima sostituzione dell'olio deve essere effettuata dopo 100 ore di funzionamento, successivamente ogni 12 mesi o ogni 2000 ore di funzionamento.

Eeguire il cambio dell'olio con riduttore ancora caldo per facilitare un completo svuotamento.

Per scaricare l'olio, ruotare il tamburo del motore portando il tappo di rabbocco / scarico A (Fig.6a) verso il basso. Svitare il tappo A (Fig.6a) e scaricare completamente l'olio.

Ruotare il tamburo portando il foro di rabbocco/scarico verso l'alto A (Fig.6). Svitare il tappo di livello olio B (Fig.6); Rabboccare con olio nuovo e di tipo corretto fino a quando l'olio non fuoriesce da foro di livello B (Fig.6). (0,25 lt) Riavvitare i tappi e riavvolgere la fune.

**REDUCTION GEAR**

Correct lubrication allows proper working and longer life of the reduction gear.

To access the level indicator or oil topping up cap, the rope must be unwound completely from the drum.

Check the oil level at least once a month B (Fig.6) and if required, top up A (Fig.6) with oil of the same type as that present inside the reduction gear (ISO VG 150).

It is advisable to use oil for gears to which EP is added with viscosity ISO VG, depending on the operating temperature.

The first oil change must be after 100 hours of operation, then subsequently every 12 months or every 2000 hours of operation.

Change the oil with the reduction gear still hot to allow complete drainage.

To drain the oil, turn the engine drum so that the filler/drainage cap A (Fig. 6a) is facing downwards.

Unscrew cap A (Fig.6a) and drain out the oil completely.

Turn the drum to being the topping up/drainage hole facing upwards A (Fig.6).

Unscrew the oil level cap B (Fig.6).

Top up with fresh oil of the correct type until the oil flows out through the level hole B (Fig.6). (0.25 l).

Screw the cap back on and rewind the rope.

**REDUCTOR**

Een correcte smering maakt een goede werking en een lange levensduur van de reductor mogelijk.

Om toegang te verkrijgen tot de oliepeilindicator of de oliebijvuldop, moet de kabel helemaal van de trommel gerold worden.

Controleer het oliepeil minstens eens per maand B (Fig.6) en indien nodig bijvullen A (Fig.6) met olie van hetzelfde soort als dat aanwezig is in de reductor (ISO VG 150).

Er wordt aangeraden olie voor tandwielen te gebruiken met additievering van EP met viscositeit ISO VG, afhankelijk van de bedrijfstemperatuur.

De eerste olieverversing moet na 100 werkuren plaatsvinden, daarna om de 12 maanden of om de 2000 werkuren.

Ververs de olie met nog warme reductor om een complete leging te vergemakkelijken.

Om de olie af te voeren, de trommel van de motor zodanig draaien dat de bijvul/aftapdop A (Fig.6a) naar beneden staat.

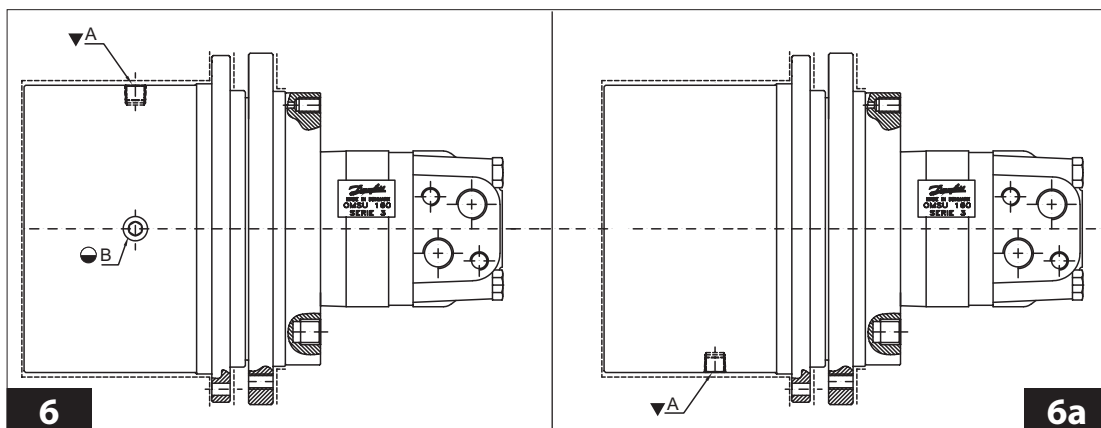
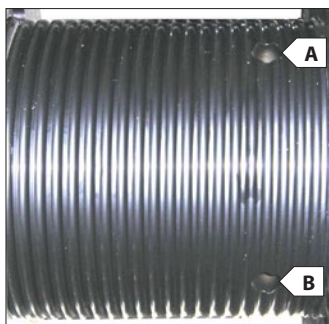
Draai de dop A (Fig.6a) los en laat alle olie weglopen.

Draai de trommel zodanig dat de bijvul/aftapopening naar boven staat A (Fig.6).

Draai de oliepeildop los B (Fig.6);

Vul bij met nieuwe olie van het juiste type totdat de olie door de oliepeilopening naar buiten komt B (Fig.6). (0,25 l)

Draai de doppen weer vast en wikkel de kabel weer op.



**FUNE, PULEGGIA e CAPOCORDA**

Controllare giornalmente che la fune A (Fig.7) sia sempre in ottimo stato, che non ci siano filamenti rotti (Fig.7a) e che sia ben arrotolata sul tamburo B (Fig.7).

Altrimenti sostituirla con una nuova e dello stesso diametro e caratteristiche. Controllare la lubrificazione della fune, se necessita lubrificare con grasso industriale oppure olio sintetico antipolvere.

Controllare e mantenere lubrificato i perni C (Fig.8) su cui ruotano le puleggie di guida D (Fig.8), che dovranno avere sempre un buono movimento di rotazione.

Se necessita, lubrificare con grasso al sapone di litio il perno.

Assicurarsi dell'integrità dei capocorda E (Fig.9) e dei suoi morsetti fermafune.

**ROPE, PULLEY AND CABLE TERMINAL**

Check daily to make sure the rope A (Fig.7) is always in excellent condition, that it is not frayed (Fig.7a) and that it is wound perfectly around the drum B (Fig.7).

If necessary replace with a new rope having the same diameter and features. Check the lubrication of the rope, if necessary, lubricate with industrial grease or dust-proof synthetic oil.

Check and lubricate the pins C (Fig. 8) on which the guide pulleys D (Fig. 8) rotate and these must always rotate perfectly.

If necessary, lubricate the pin with lithium soap grease.

Ensure the integrity of the cable terminals E (Fig.9) and the rope retainer clamps F.

**KABEL, KABELSCHIJF en KABELUITEINDEN**

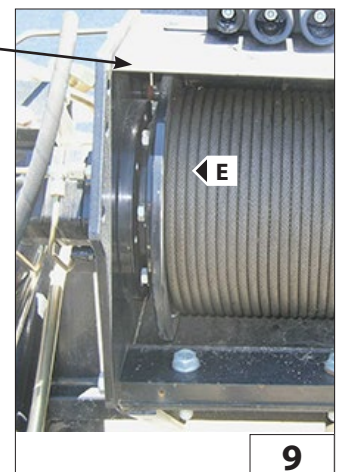
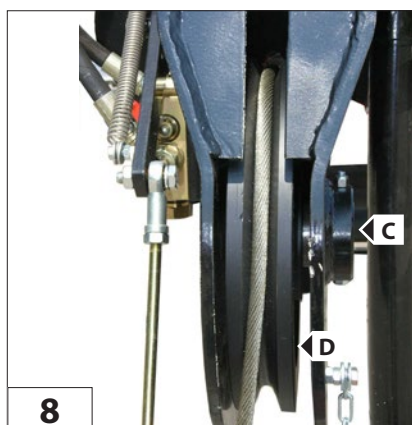
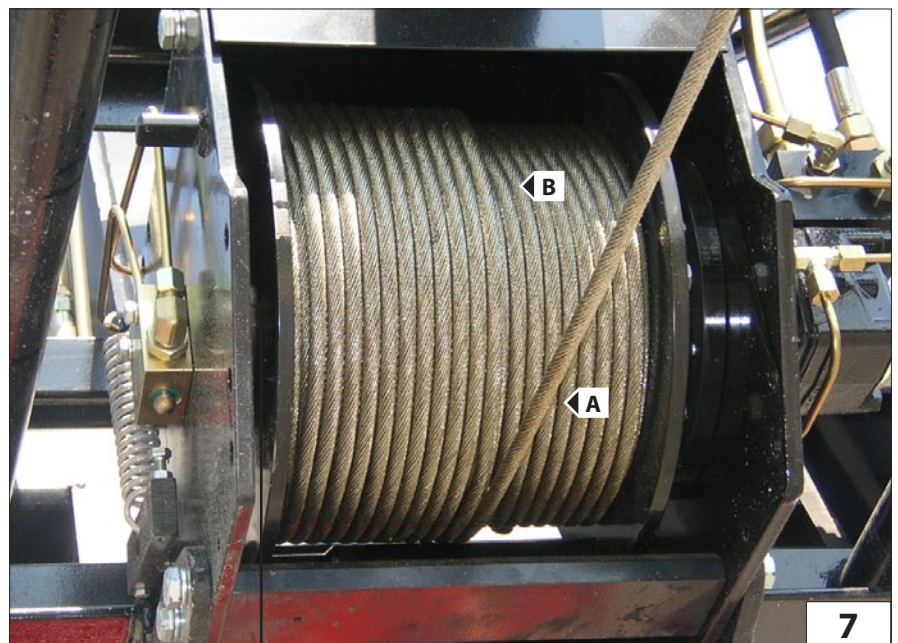
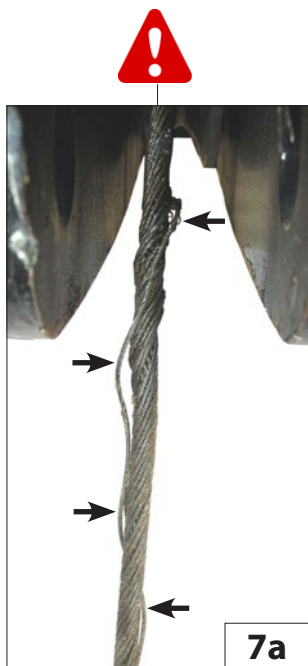
Controleer dagelijks of de kabel A (Fig.7) in optimale staat verkeert, of er geen draden stuk zijn (Fig.7a) en of hij goed op de trommel gewonden is B (Fig.7).

Vervang hem anders door een nieuwe met dezelfde diameter en eigenschappen.

Controleer de smering van de kabel, indien nodig smeren met industrieel vet of synthetische olie tegen stof.

Controleer de pennen C (Fig.8) waarop de geleideschijven D (Fig.8) draaien en houd ze gesmeerd. Deze moet altijd een goede draibeweging behouden. Indien nodig, de pen invetten met lithiumzeepvet.

Controleer de staat van de kabeluiteinden E (Fig.9) en de kabelklemmen.



**GRILLO E MORSETTI**

È importante verificare l'integrità e il serraggio delle viti dei morsetti F (Fig.10) e del bullone del grillo G (Fig.10) una volta alla settimana.

**GANCIO**

Per una massima efficienza mantenere lubrificata la vite di rotazione del gancio N (Fig.10).

Senza carico sospeso, il gancio deve sempre ruotare liberamente e con la sola pressione della mano P (Fig.10). Controllare lo stato e l'efficienza della linguetta di sicurezza O (Fig.10).

**SHACKLE AND TERMINALS**

Check the condition and tightening of the screws of terminals F (Fig. 10) and the bolt of shackle G (Fig. 10) once a week.

**HOOK**

For maximum efficiency keep the hook rotation screw N (Fig. 10) lubricated. Without a load hanging from it, the hook must always rotate freely when pushed slightly by hand P (Fig. 10).. Check the condition and efficiency of safety tab O (Fig. 10).

**HARPSLUITING EN KLEMMEN**

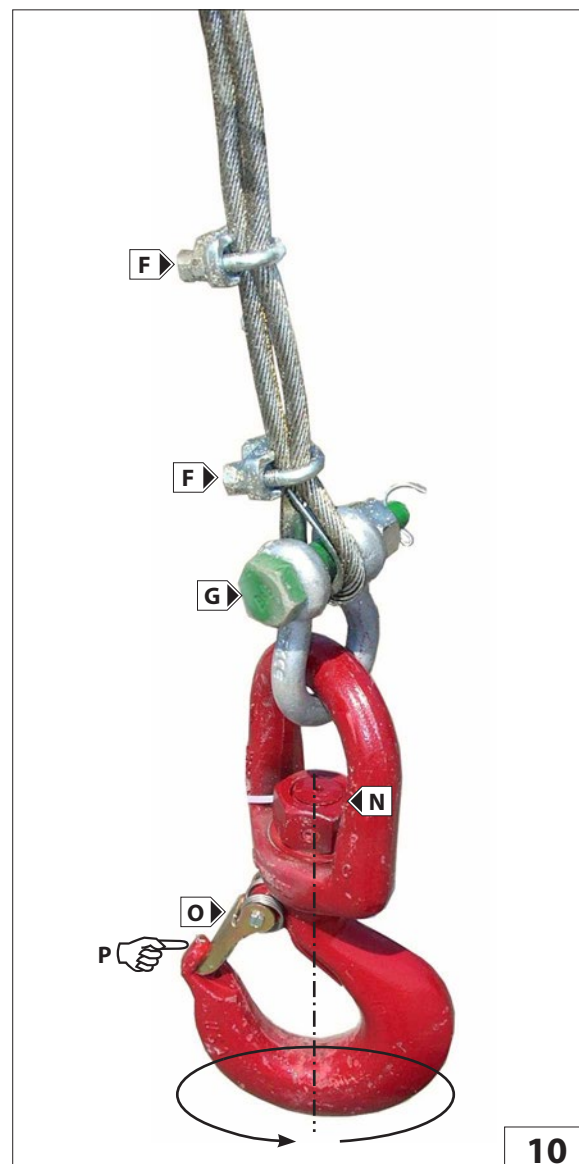
Het is van belang de staat en de aandrijving van de schroeven van de klemmen F (Fig.10) en van de bout van de harpsluiting G (Fig.10) eens in de week na te kijken.

**HAAK**

Voor een maximale efficiëntie de draaischroef van de haak N (Fig.10) gesmeerd houden.

Zonder hangende lading moet de haak altijd vrij kunnen draaien door er met de hand tegenaan te drukken P (Fig.10).

Controleer de staat en de efficiëntie van de veiligheidssluiting O (Fig.10).



**FINE CORSA DISCESA FUNE (Fig.11)**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi .  
Inoltre verificare l'integrità del leveraggio di contatto finecorsa discesa e la tenuta della sua molla.

**FINE CORSA SALITA FUNE**

Giornalmente per una massima efficienza mantenere sempre pulito il pistoncino e la valvola idraulica di sicurezza; controllare il serraggio dei raccordi e lo stato dei tubi .  
Inoltre verificare l'integrità del leveraggio di contatto finecorsa salita e la tenuta della sua molla. (Fig.12)

**IMPIANTO IDRAULICO (Fig.13)**

Ispezionare giornalmente raccordi, valvole, tubi, per evitare eventuali perdite di olio che compromettano il rendimento e la durata dell'argano.

**ROPE DESCENT LIMIT SWITCH (Fig. 11)**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the descent limit switch contact linkages and hold of its spring.

**ROPE ASCENT LIMIT SWITCH**

For maximum efficiency, check daily and keep the piston and hydraulic safety valve clean, check to make sure the connections are tightened properly and check the condition of the pipes. Also check the condition of the ascent limit switch contact linkages and hold of its spring. (Fig.12)

**HYDRAULIC SYSTEM (Fig.13)**

Check the connectors, valves, tubes daily to prevent oil leaks which could affect the performance and life of the winch.

**EINDAANSLAG KABEL OMLAAG (Fig.11)**

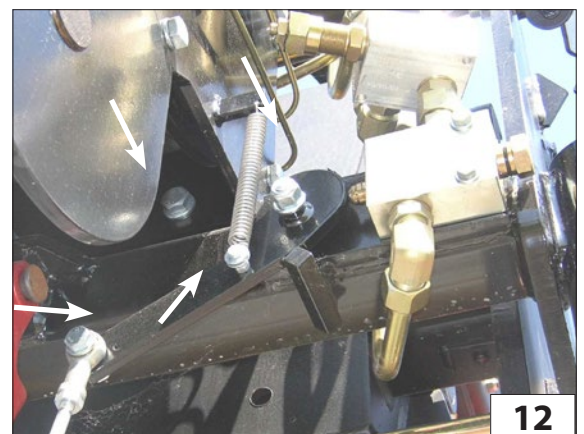
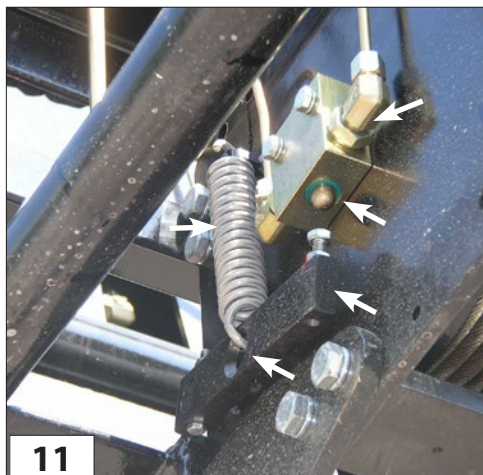
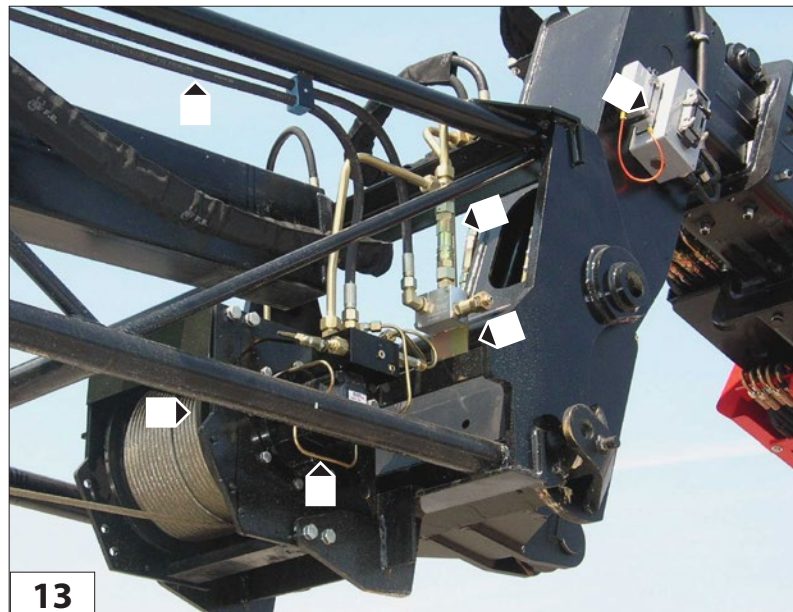
Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het dalen en zijn veer.

**EINDAANSLAG KABEL OMHOOG**

Voor een maximale efficiëntie dagelijks altijd het zuigertje en het hydraulische veiligheidsventiel schoon houden; controleer of de verbindingen goed vast zitten en de staat van de leidingen. Controleer eveneens de staat van de hefboomen van de eindaanslag voor het stijgen en zijn veer. (Fig.12)

**HYDRAULISCHE INSTALLATIE (Fig.13)**

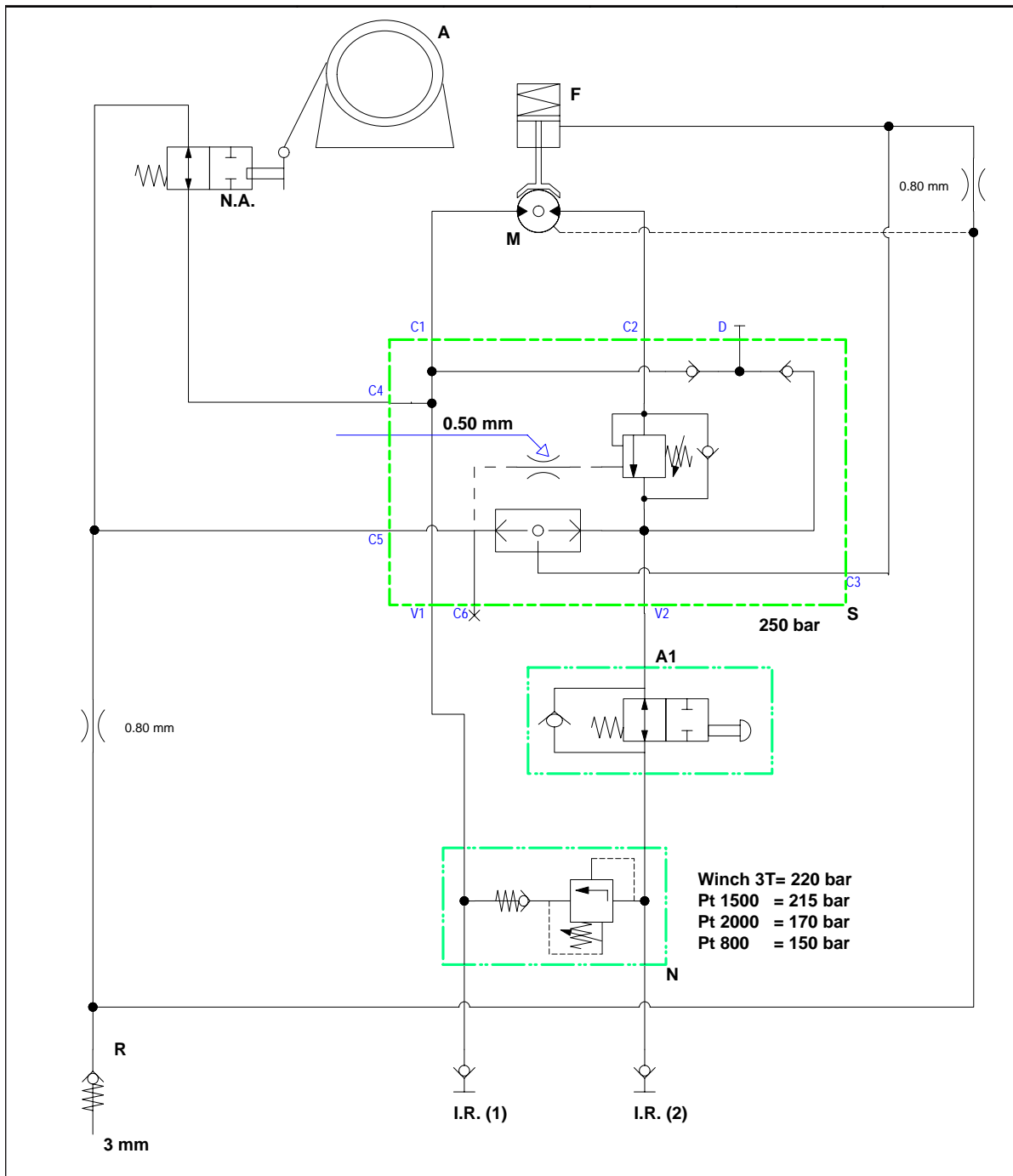
Controleer dagelijks de verbindingstukken, kleppen en leidingen om eventuele olielekken te voorkomen die het rendement en de levensduur van de lier zouden kunnen beïnvloeden.



## SCHEMA IDRAULICO

## HYDRAULIC DIAGRAM

## HYDRAULISCH SCHEMA



**A** = ARGANO  
**N.A.** = MICRO MASSIMA DISCESA  
**R** = SERBATOIO OLIO  
**I.R.1** = INNESTO RAPIDO  
**I.R.2** = INNESTO RAPIDO  
**A1** = MICRO MASSIMA SALITA  
**S** = VALVOLA  
**N** = VALVOLA MASSIMA PRESSIONE  
**M** = MOTORE  
**F** = FRENO

**A** = WINCH  
**N.A.** = MAX. DESCENT MICRO SWITCH  
**R** = OIL TANK  
**I.R.1** = QUICK-RELEASE COUPLING  
**I.R.2** = QUICK-RELEASE COUPLING  
**A1** = MAX. ASCENT MICRO SWITCH  
**S** = VALVE  
**N** = PRESSURE RELIEF VALVE  
**M** = MOTOR  
**F** = BRAKE

**A** = LIER  
**N.A.** = MICRO MAXIMALE DALING  
**R** = OLJETANK  
**I.R.1** = SNELKOPPELING  
**I.R.2** = SNELKOPPELING  
**A1** = MICRO MAXIMALE STIJGING  
**S** = VENTIEL  
**N** = MAXIMUMDRUKVENTIEL  
**M** = MOTOR  
**F** = REM

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***PC 30***



IT

**Descrizione:**

Braccetto lungo 0,50 m con una portata di 3000Kg.

EN

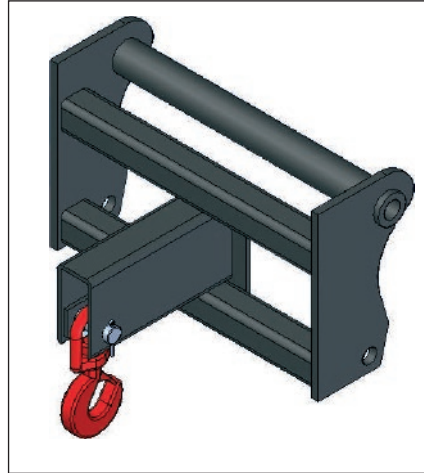
**Description:**





0.50 m long arm with a capacity of 3000 kg.

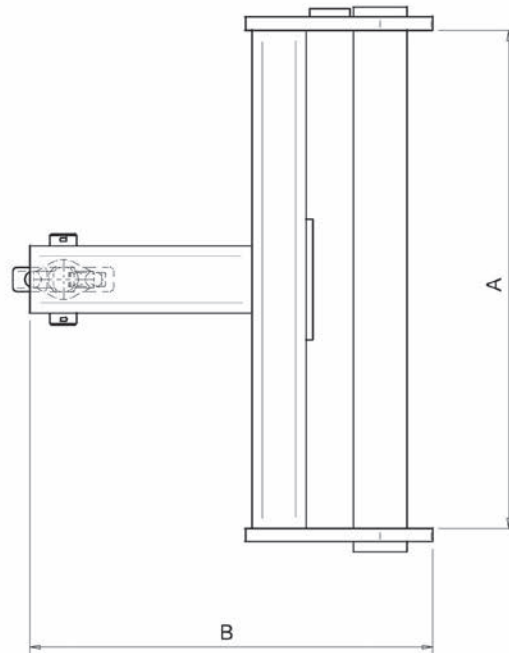
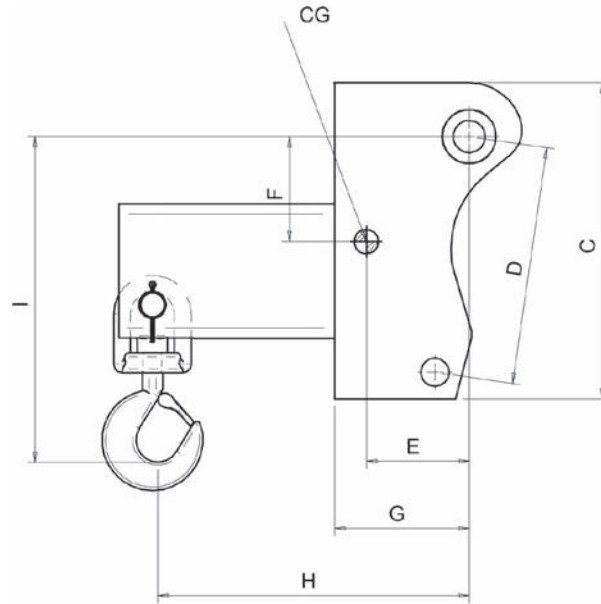
NL

**Beschrijving:**

0,50 m lange arm met een draagvermogen van 3000 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
3000 (6614)	5 (5)	A	B	C	D	E	F	G	H	I	120 (265)
		740 (29)	598 (23)	470 (18)	354 (14)	153 (6)	156 (6,1)	200 (7,8)	462 (18)	484 (19)	



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***PC 40***

IT

**Descrizione:**

Braccetto lungo 0,50 m con una portata di 4000Kg.

EN

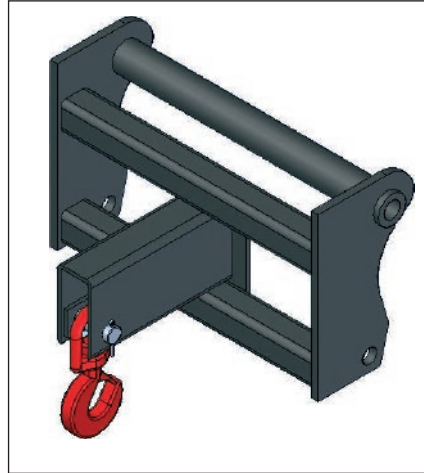
**Description:**





0.50 m long arm with a capacity of 4000 kg.

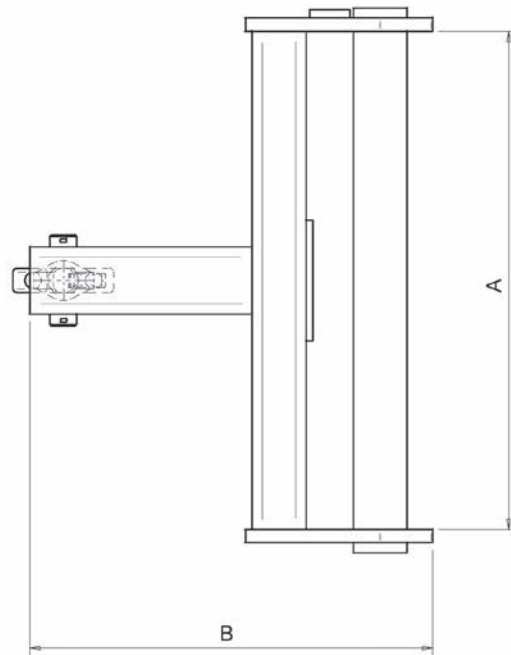
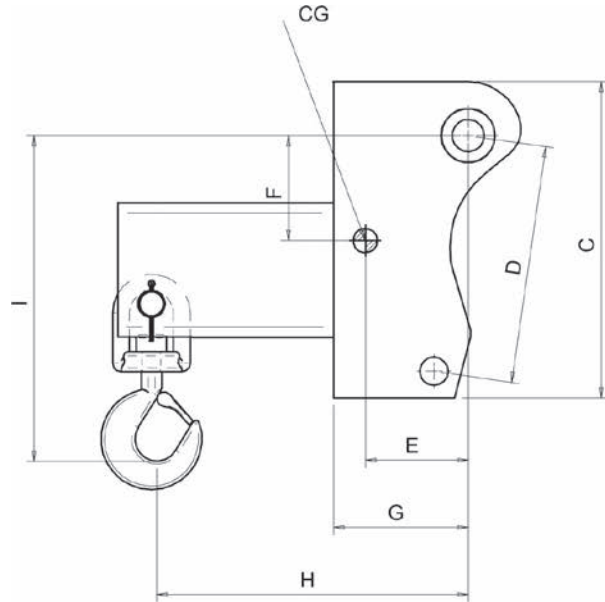
NL

**Beschrijving:**

0,50 m lange arm met een draagvermogen van 4000 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
4000 (8818)	5 (5)	A	B	C	D	E	F	G	H	I	120 (265)
		740 (29)	598 (23)	470 (18)	354 (14)	153 (6)	156 (6,1)	200 (7,8)	462 (18)	484 (19)	



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***PC 40***



IT

**Descrizione:**

Braccetto lungo 0,50 m con una portata di 4000Kg.

EN

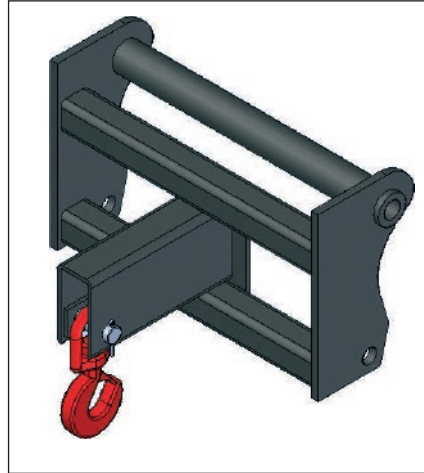
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
0.50 m long arm with a capacity of 4000 kg.

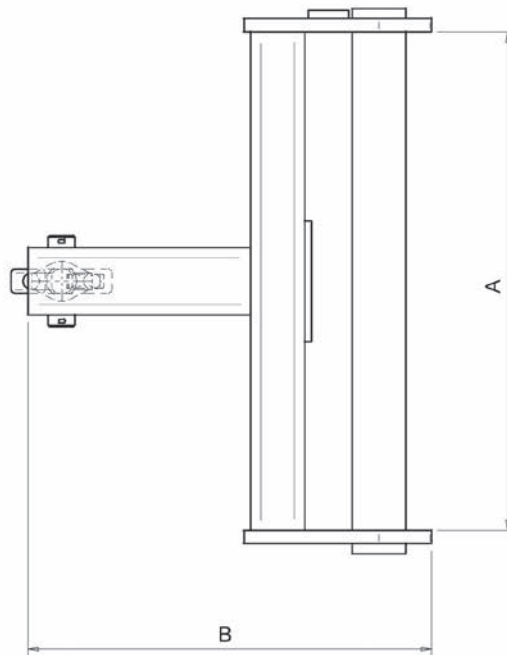
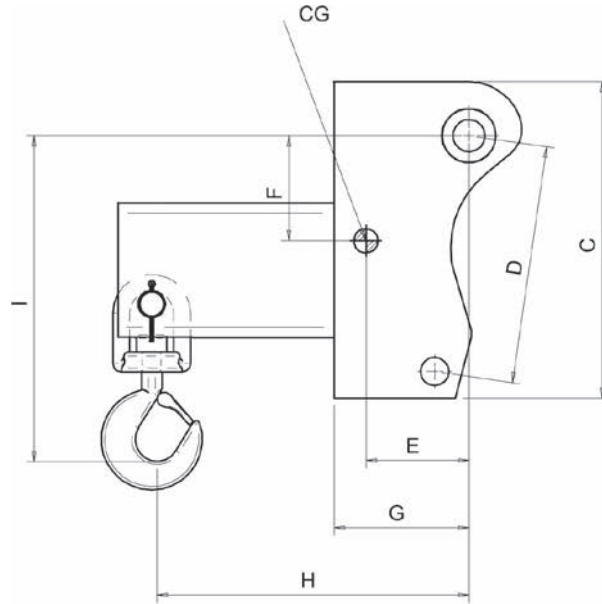
NL

**Beschrijving:**

0,50 m lange arm met een draagvermogen van 4000 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
4000 (8818)	4 (4)	A 740 (29)	B 598 (23)	C 470 (18)	D 354 (14)	E 153 (6)	F 156 (6,1)	G 200 (7,8)	H 462 (18)	I 484 (19)	120 (265)



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***PC 50***

IT

**Descrizione:**

Braccetto lungo 0,50 m con una portata di 5000Kg.

EN

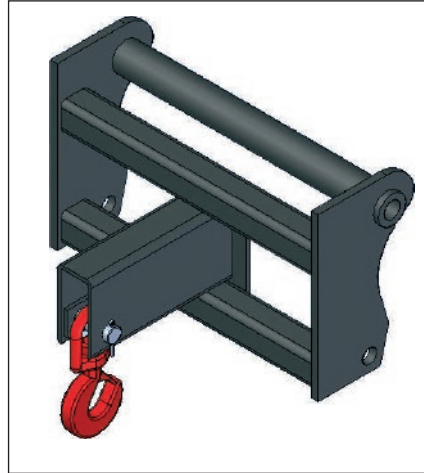
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

0.50 m long arm with a capacity of 5000 kg.

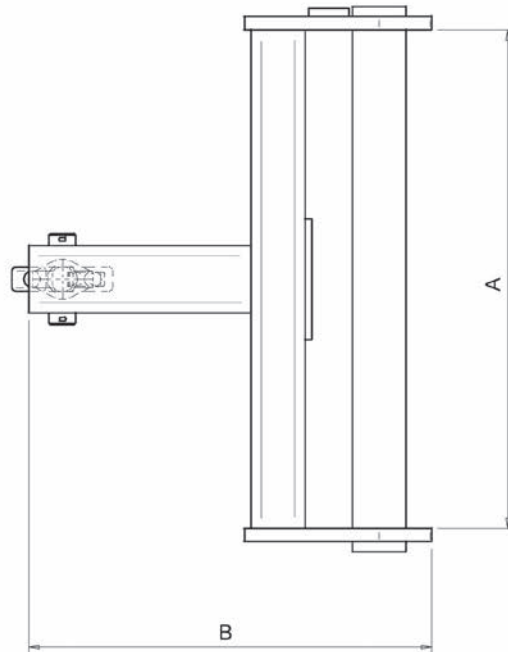
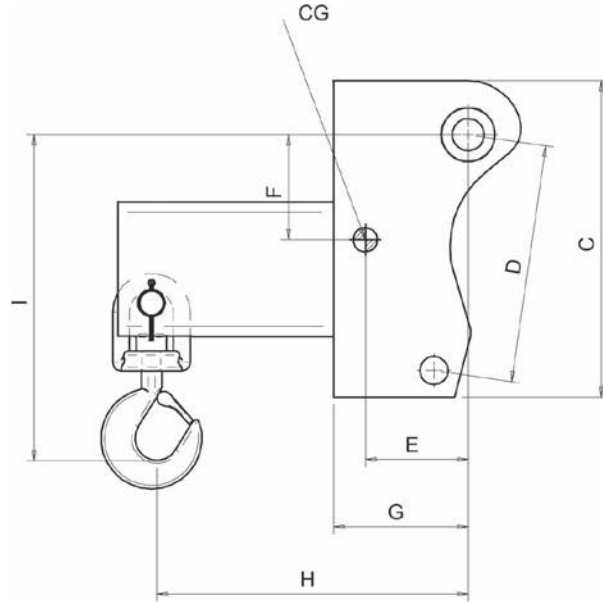
NL

**Beschrijving:**

0,50 m lange arm met een draagvermogen van 5000 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
5000 (11023)	5 (5)	A	B	C	D	E	F	G	H	I	120 (265)
		740 (29)	598 (23)	470 (18)	354 (14)	153 (6)	156 (6,1)	200 (7,8)	462 (18)	484 (19)	



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***PC 60***



IT

**Descrizione:**

Braccetto lungo 0,50 m con una portata di 6000Kg.

EN

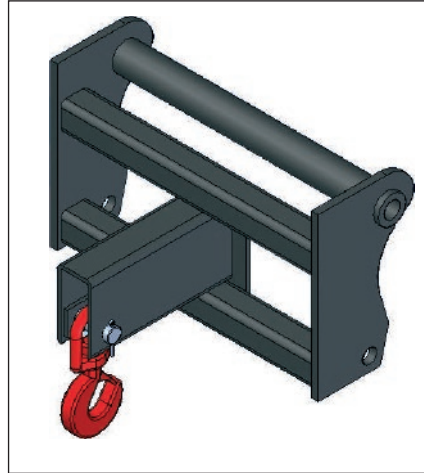
**Description:**





0.50 m long arm with a capacity of 6000 kg.

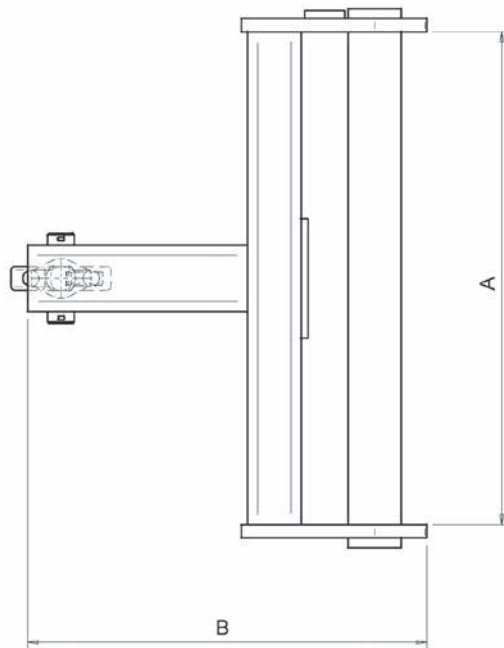
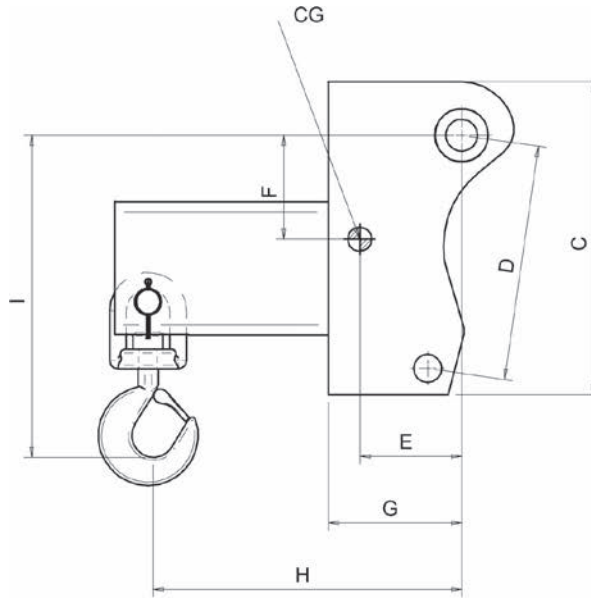
NL

**Beschrijving:**

0,50 m lange arm met een draagvermogen van 6000 kg.



[kg] (lb)	[t] (t)	[mm] (in)									[kg] (lb)
											
6000 (13228)	6 (6)	A	B	C	D	E	F	G	H	I	120 (265)
		740 (29)	598 (23)	470 (18)	354 (14)	153 (6)	156 (6,1)	200 (7,8)	462 (18)	484 (19)	



**3 - DIAGRAMMI DI CARICO  
PER ATTREZZATURE  
INTERCAMBIABILI  
LOAD CHARTS FOR  
INTERCHANGEABLE  
EQUIPMENT  
LAADDIAGRAMMEN  
VOOR VERWISSELBARE  
UITRUSTINGEN**



***MRT-X 2150 Privilege Plus ST3A S2***  
***MRT 2150 Privilege Plus ST4 S2***



**MANITOU** MRT 2150+

P600 Pos. D



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

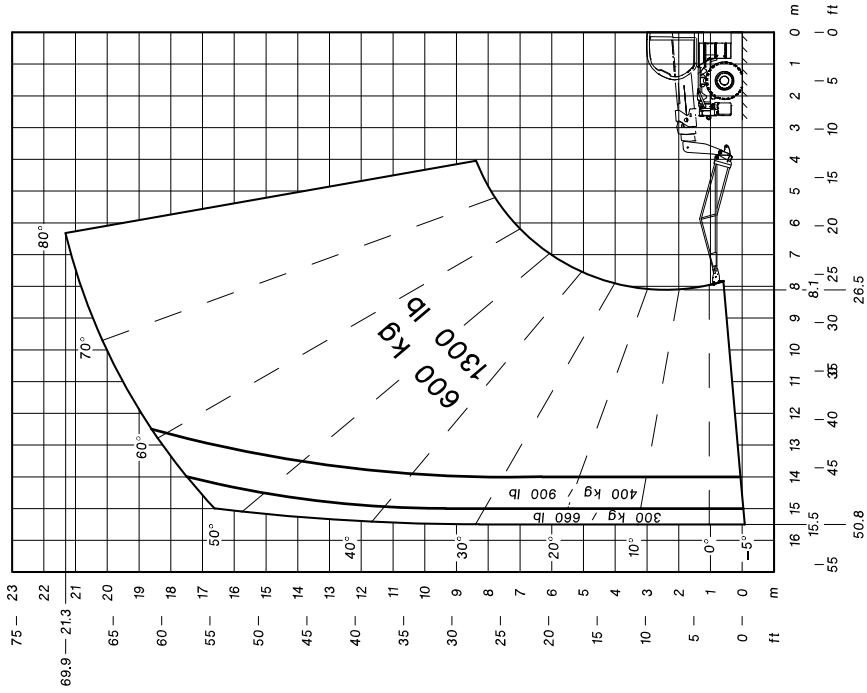


Ground conditions:  
solid surface



0km/h

53019222



**MANITOU** MRT 2150+

P600 Pos. D



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

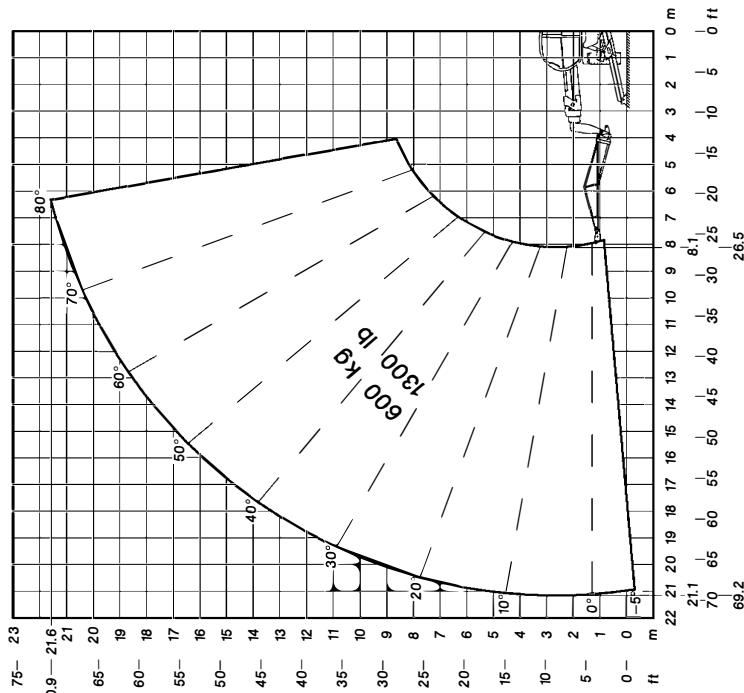


Ground conditions:  
solid surface



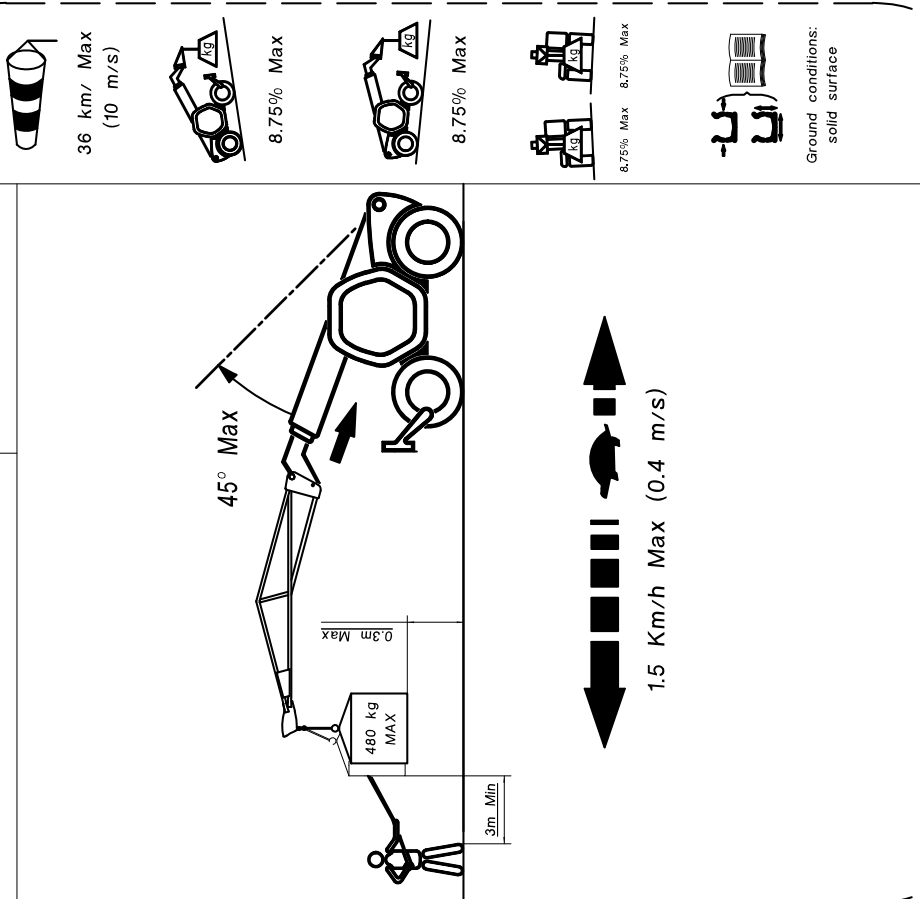
0km/h

53019221



**MANITOU** MRT 2150+

P600 Pos. D

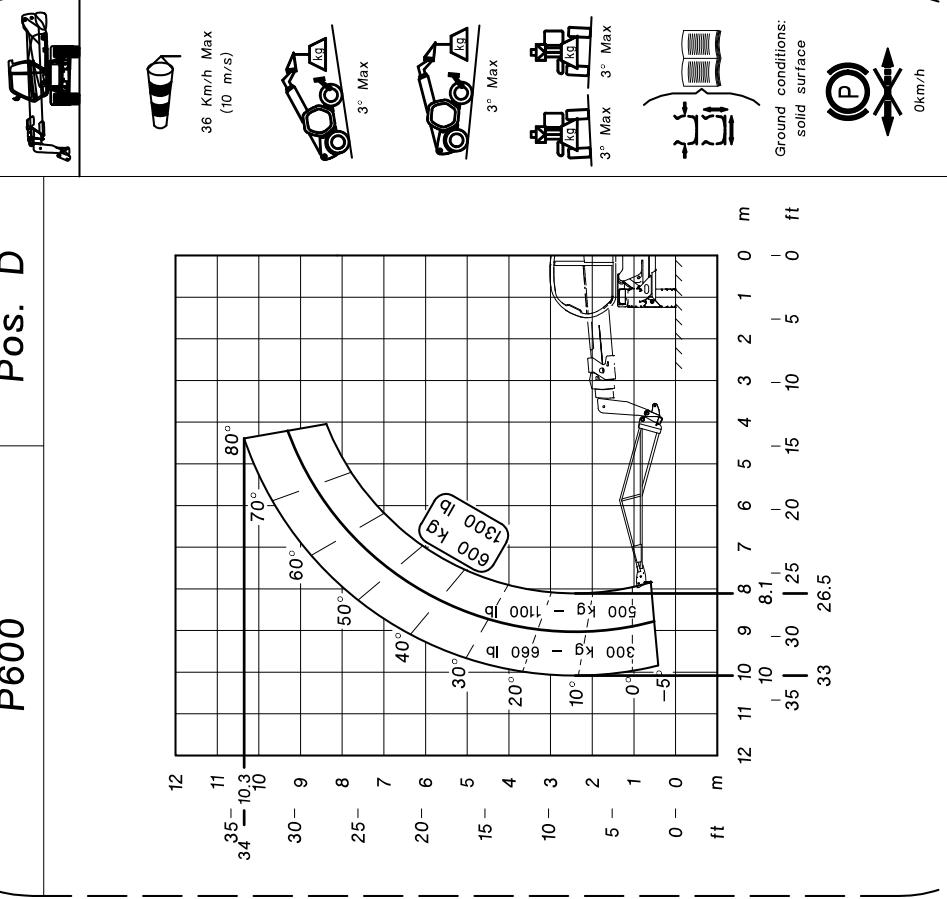


Standard used EN1459 – AS1418.19 – ASME B56.6

53019227

**MANITOU** MRT 2150+

P600 Pos. D



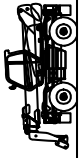
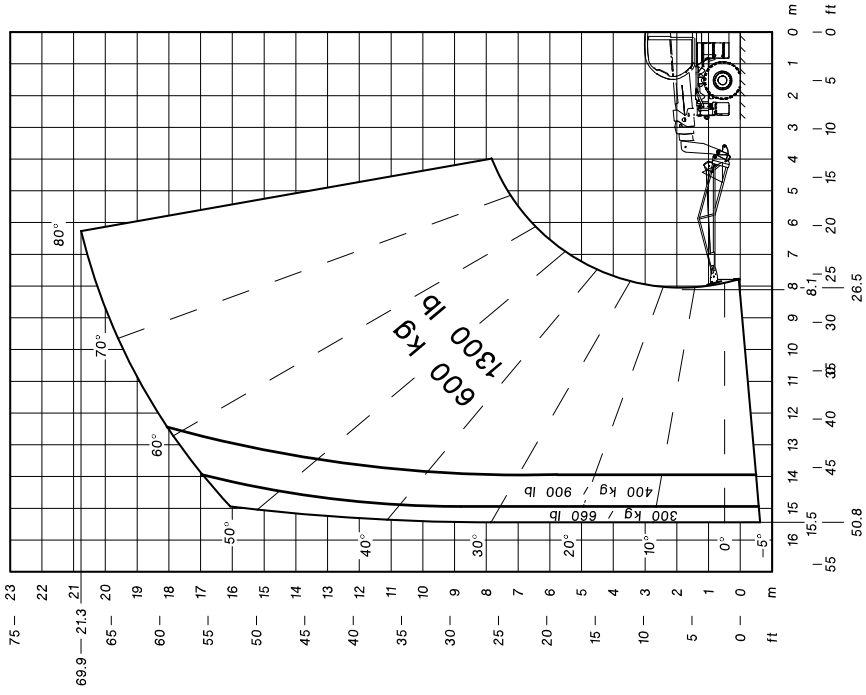
Standard used EN1459 – AS1418.19 – ASME B56.6

53019223

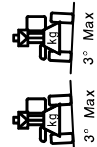
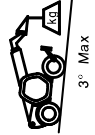
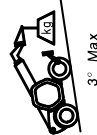


**MANITOU** MRT 2150+

PT600 Pos. D



36 Km/h Max  
(10 m/s)



Ground conditions:  
solid surface

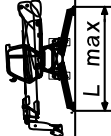
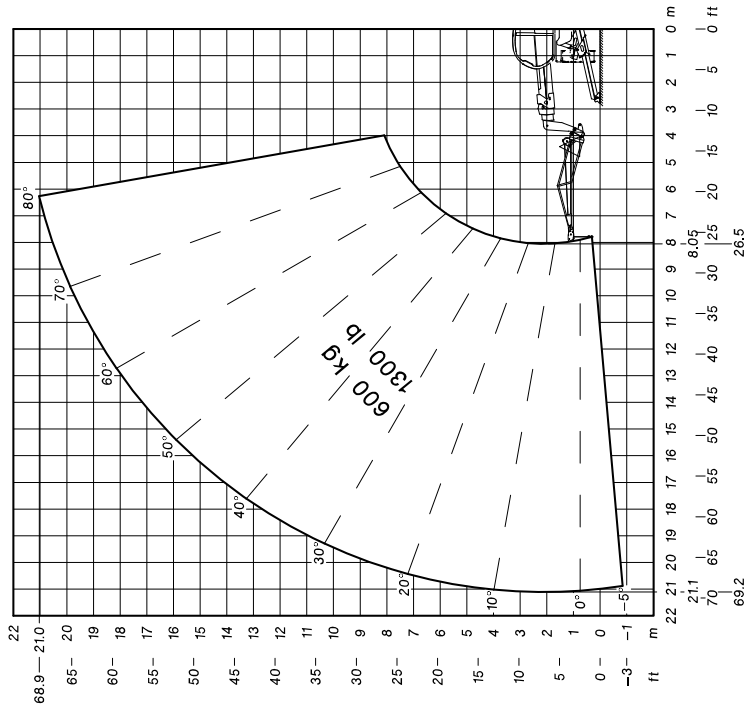


53019261

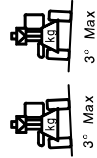
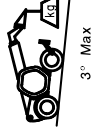
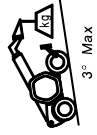
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

PT600 Pos. D



36 Km/h Max  
(10 m/s)



Ground conditions:  
solid surface



53019260

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

PT600 Pos. D



36 km/h Max  
(10 m/s)



8.75% Max



8.75% Max

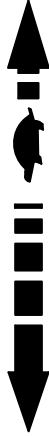
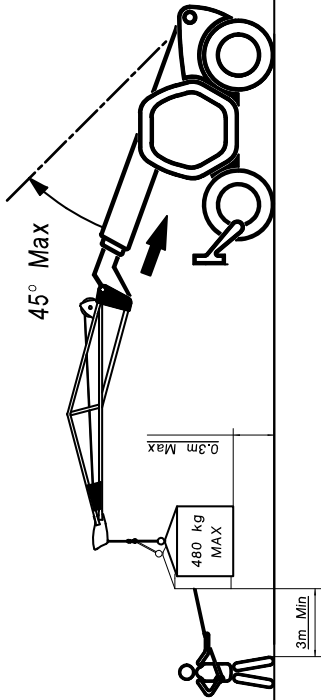


8.75% Max 8.75% Max



Ground conditions:  
solid surface

53019267



1.5 Km/h Max (0.4 m/s)

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

PT600 Pos. D



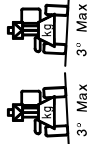
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

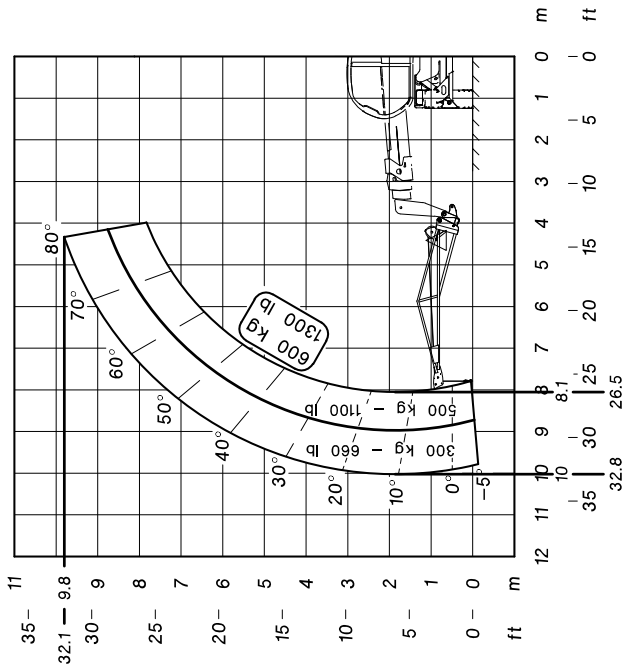


Ground conditions:  
solid surface

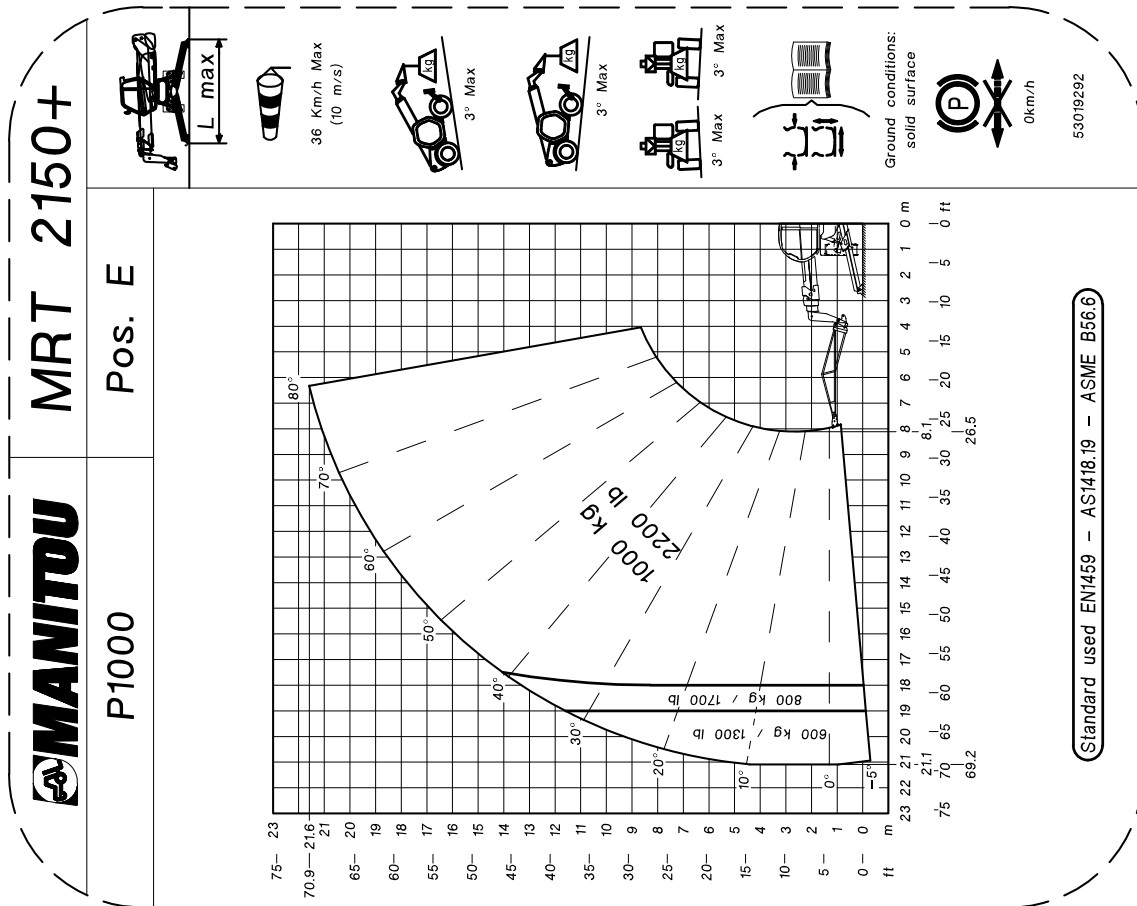
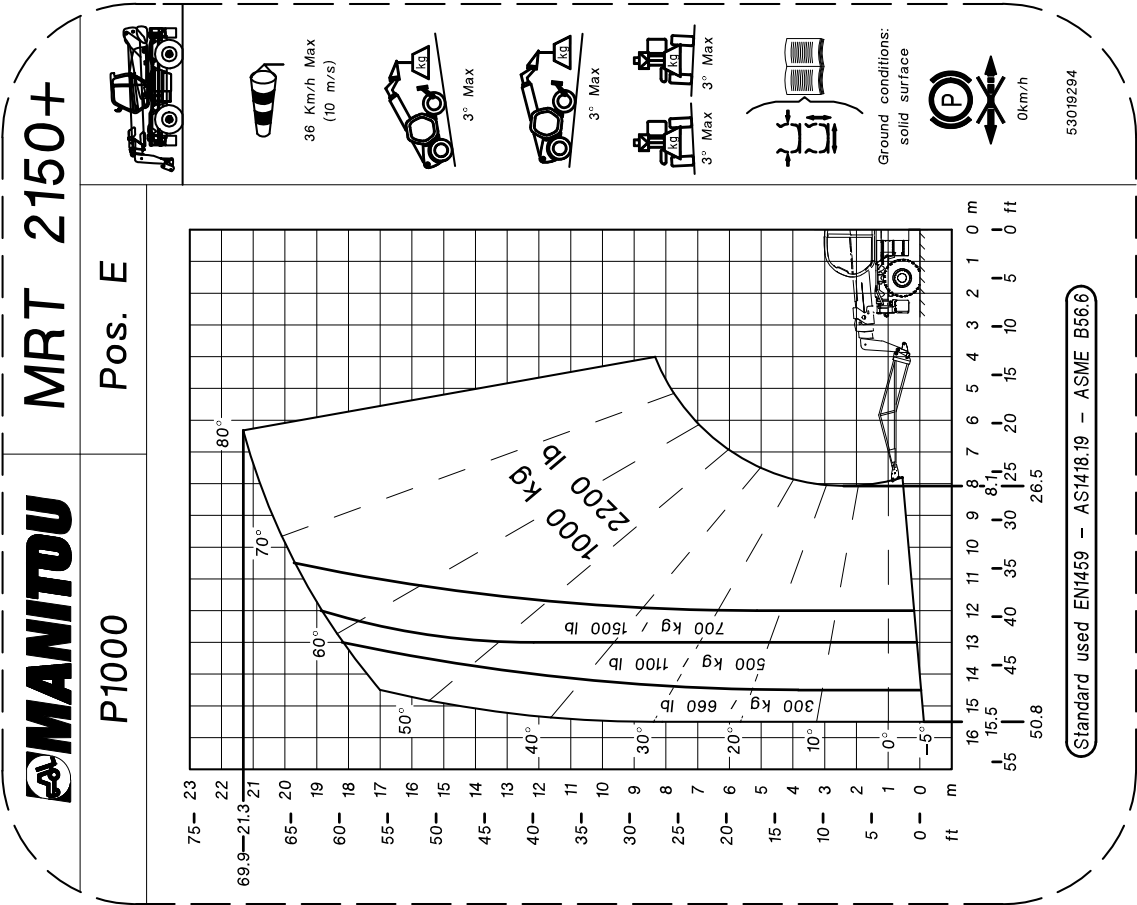


0km/h

53019262



Standard used EN1459 – AS1418.19 – ASME B56.6



<b>MANITOU</b>	<b>MRT 2150+</b>
P1000	Pos. E
<p>36 km/ Max (10 m/s)</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p>	
<p>Ground conditions: solid surface</p>	
53019296	

Standard used EN1459 – AS1418.19 – ASME B56.6

<b>MANITOU</b>	<b>MRT 2150+</b>
P1000	Pos. E
<p>36 Km/h Max (10 m/s)</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p>	
<p>Ground conditions: solid surface</p>	
53019296	

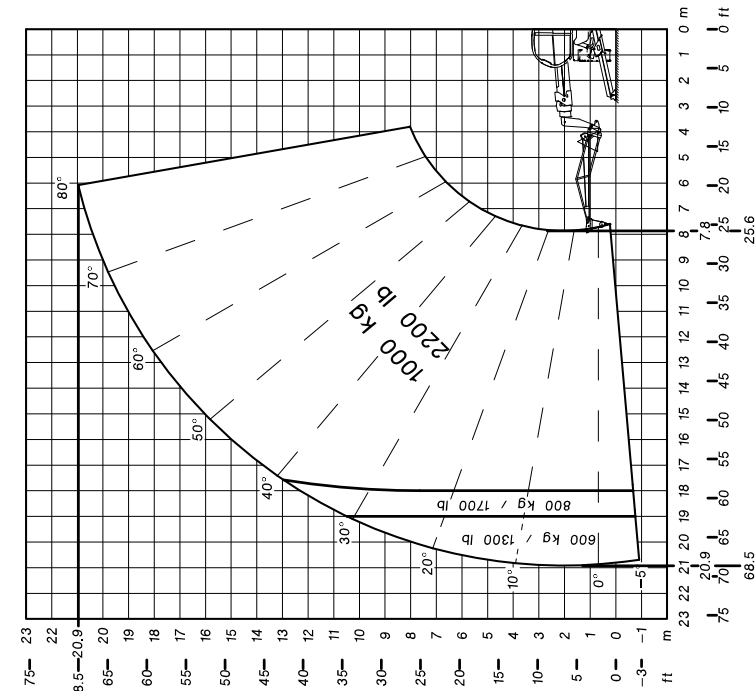
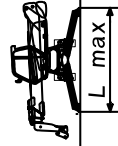
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2150+

PT1000

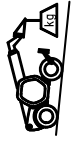
Pos. E



36 Km/h Max (10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions: solid surface



0km/h

53019319

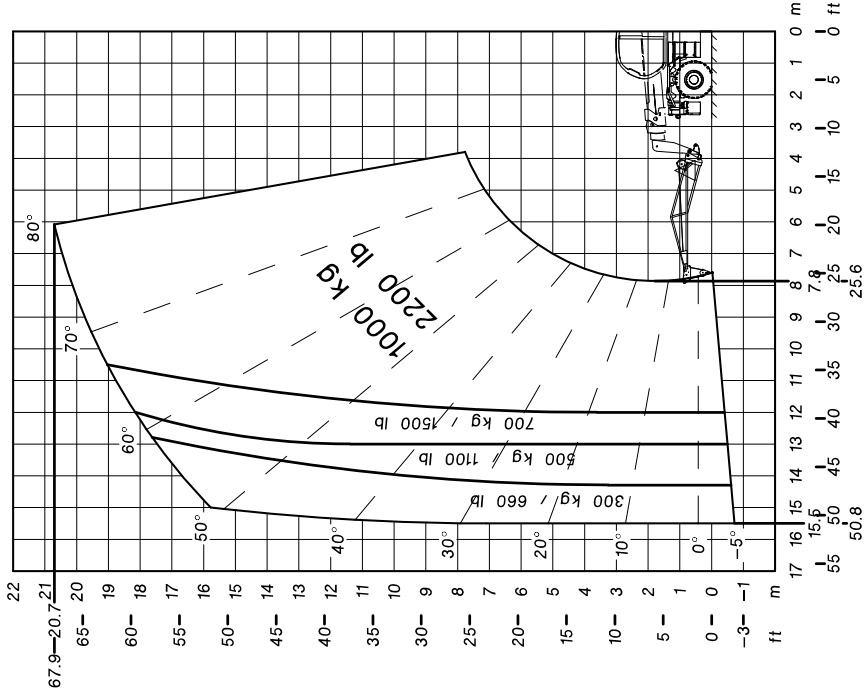
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2150+

PT1000

Pos. E



36 Km/h Max (10 m/s)



3° Max



3° Max



3° Max 3° Max




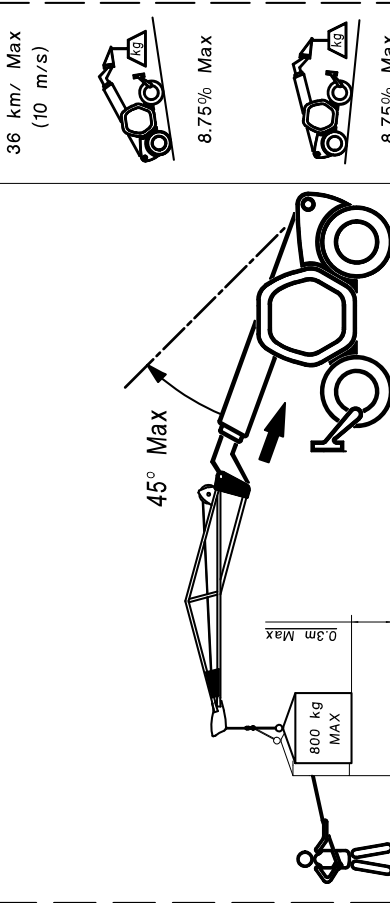
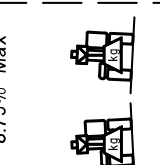


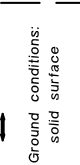
Ground conditions: solid surface

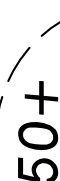
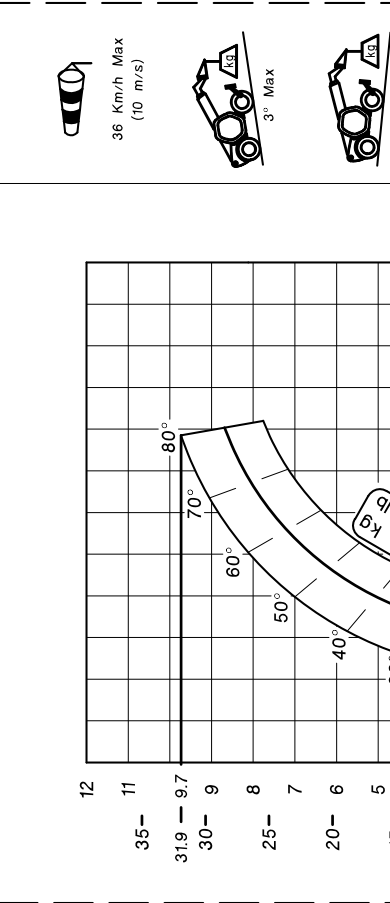
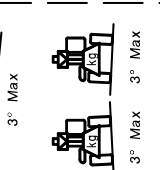

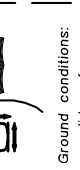


0km/h

53019320

Standard used EN1459 – AS1418.19 – ASME B56.6

	<p>MRT 2150+</p>
<p>PT1000</p>	<p>Pos. E</p>
	
	
	
	
	
<p>36 Km/h Max (10 m/s)</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>Ground conditions: solid surface</p> <p>53019322</p>	

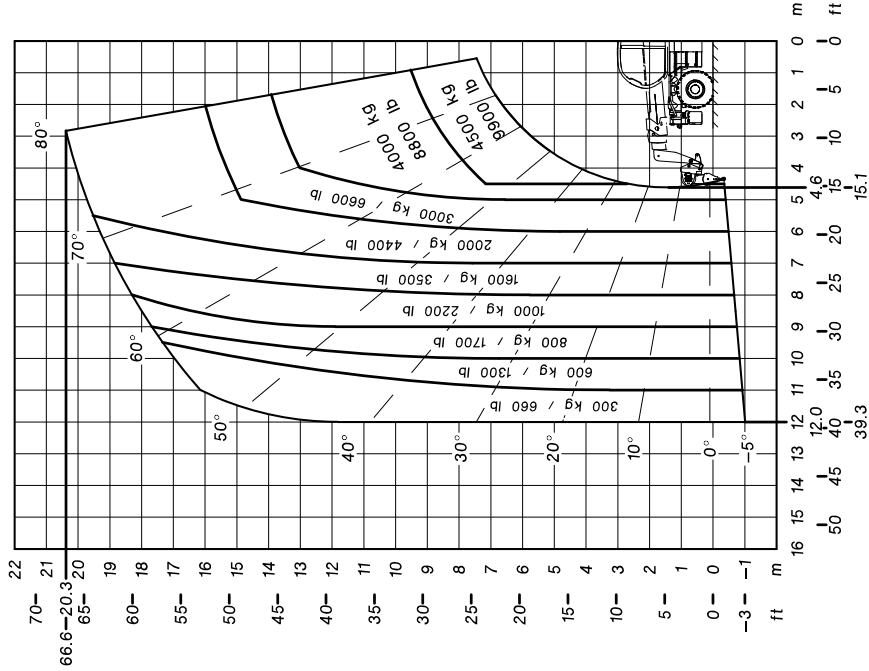
	<p>MRT 2150+</p>
<p>PT1000</p>	<p>Pos. E</p>
	
	
	
	
<p>36 Km/h Max (10 m/s)</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p> <p>Ground conditions: solid surface</p> <p>0km/h</p> <p>53019321</p>	

Standard used EN1459 – AS1418.19 – ASME B56.6

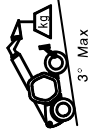
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

Winch 5T Pos. J



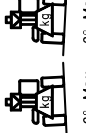
36 Km/h Max (10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions: solid surface



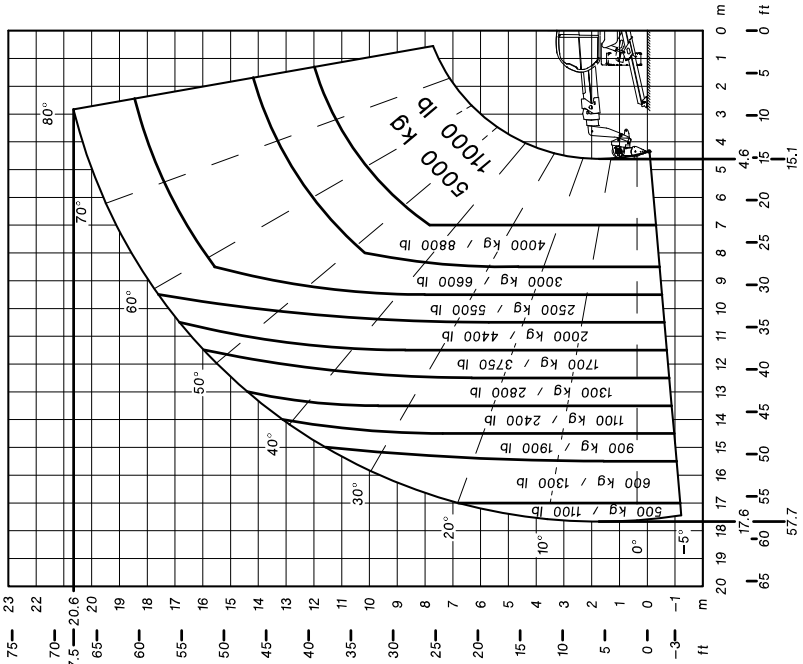
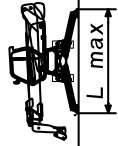
0km/h

53019366

Standard used EN1459 - AS1418.19 - ASME B56.6

**MANITOU** MRT 2150+

Winch 5T Pos. J



36 Km/h Max (10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions: solid surface



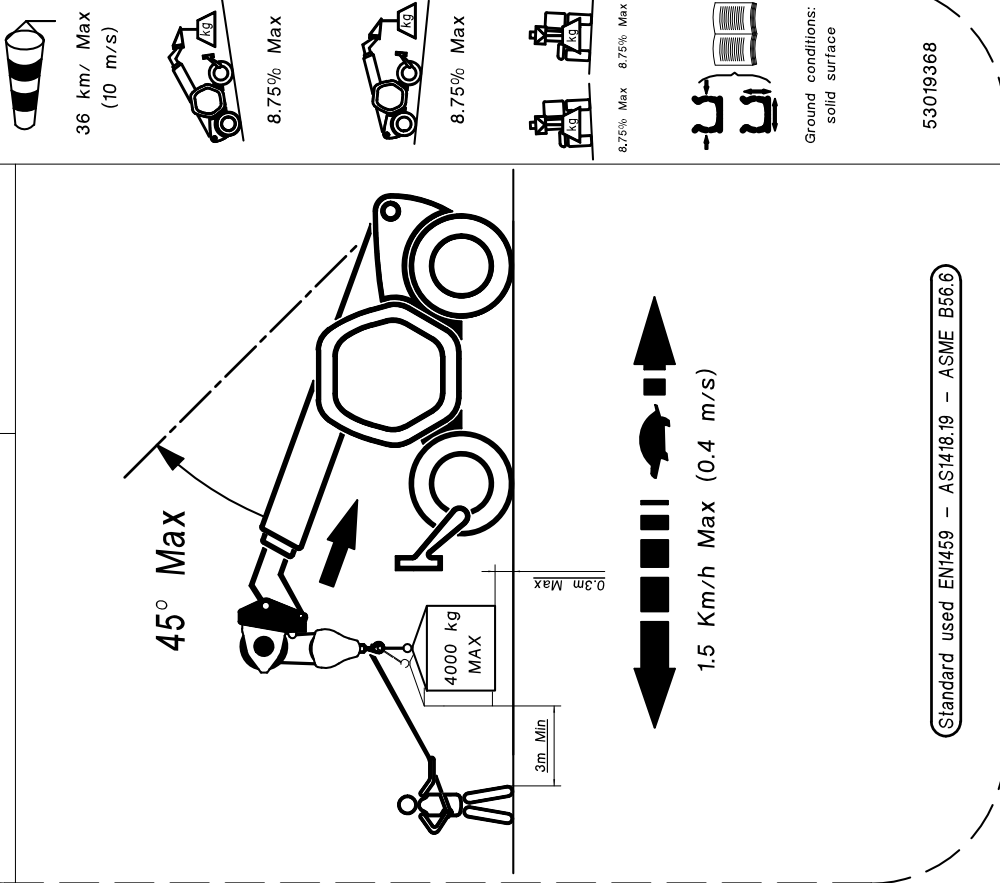
0km/h

53019366

Standard used EN1459 - AS1418.19 - ASME B56.6

**MANITOU** MRT 2150+

Winch 5T Pos. J

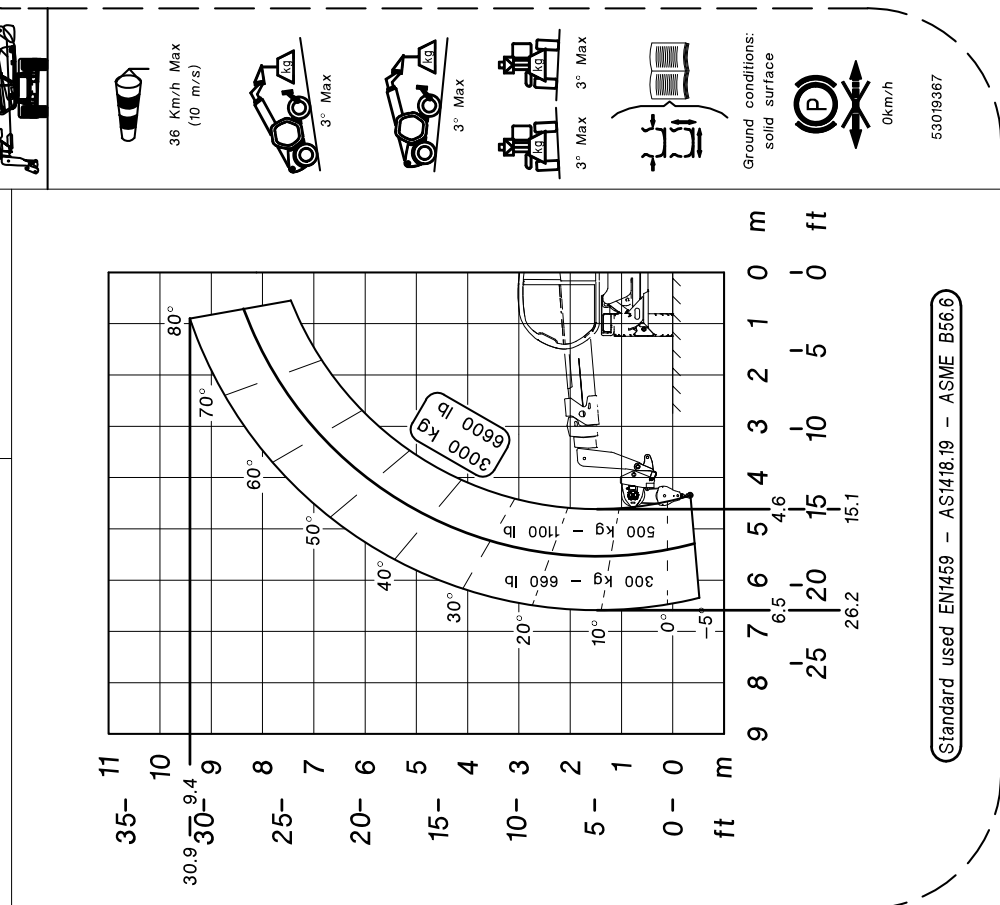


Standard used EN1459 – AS1418.19 – ASME B56.6

53019368

**MANITOU** MRT 2150+

Winch 5T Pos. J



Standard used EN1459 – AS1418.19 – ASME B56.6

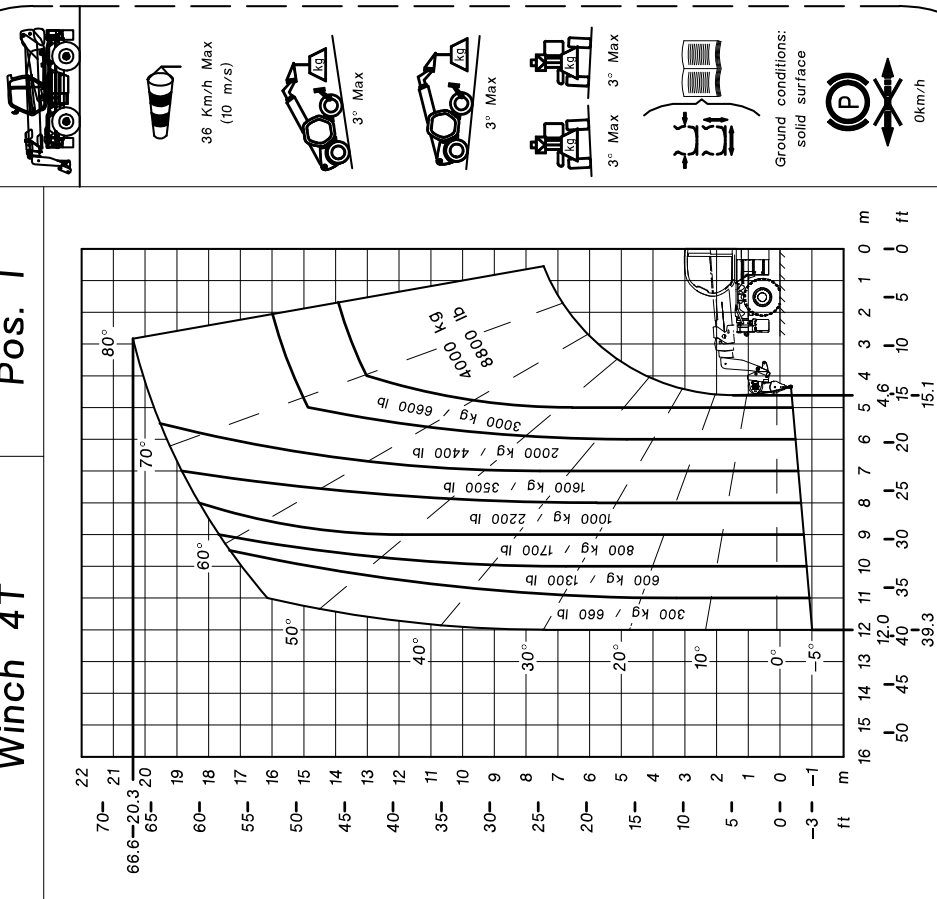
53019367



**MANITOU** MRT 2150+

Winch 4T

Pos. I



36 Km/h Max (10 m/s)

3° Max

3° Max

3° Max 3° Max

Ground conditions: solid surface

0 km/h

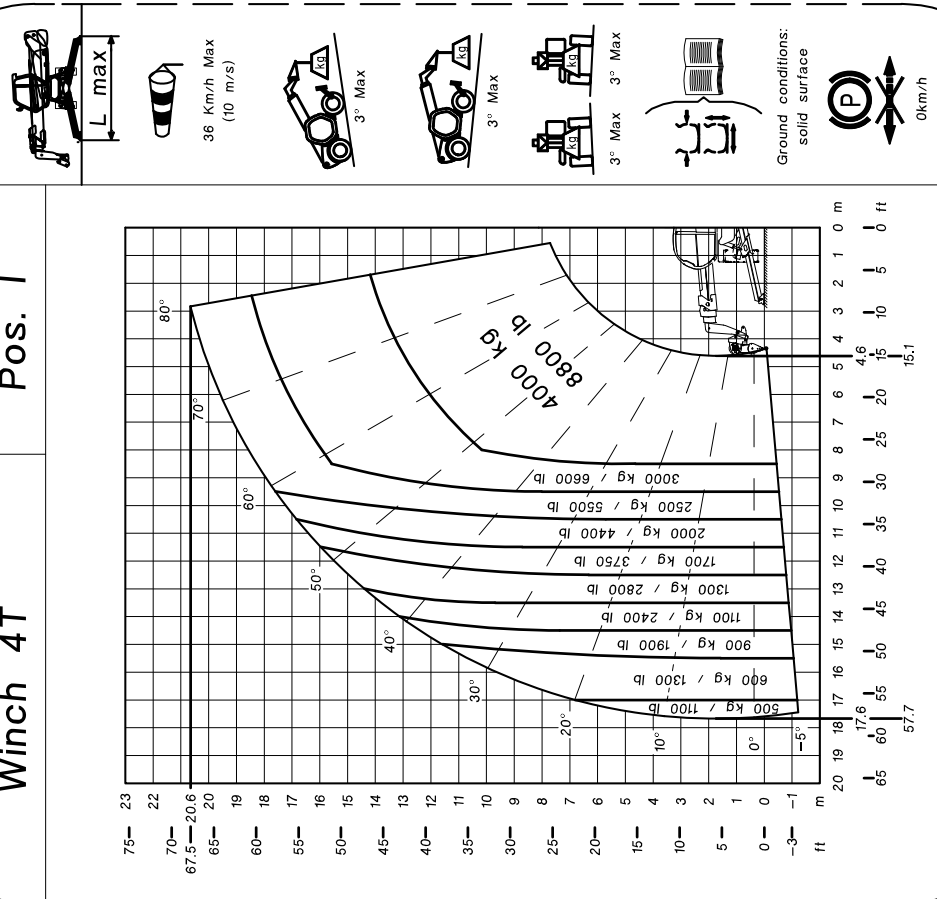
Standard used EN1459 - AS1418.19 - ASME B56.6

53019373

**MANITOU** MRT 2150+

Winch 4T

Pos. I



36 Km/h Max (10 m/s)

3° Max

3° Max


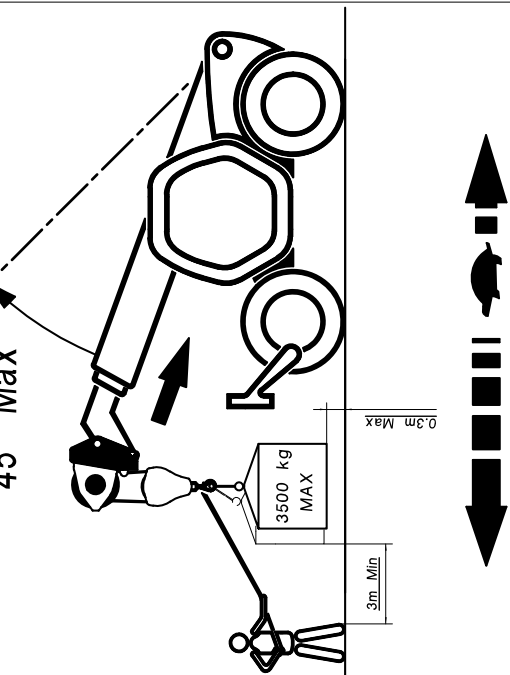






3° Max 3° Max


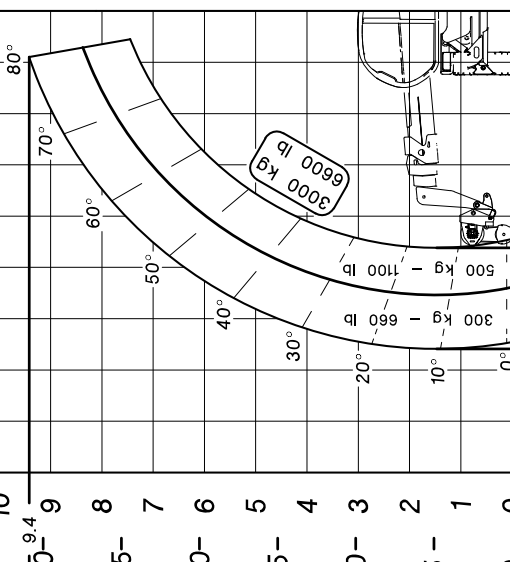







Ground conditions: solid surface

0 km/h

Standard used EN1459 - AS1418.19 - ASME B56.6

53019372

	<p><b>MRT 2150+</b></p>					
<p>Winch 4T</p>	<p>Pos. I</p>					
						
 <p>36 km/h Max (10 m/s)</p>	 <p>8.75% Max</p>	 <p>8.75% Max</p>	 <p>8.75% Max</p>	 <p>8.75% Max</p>	 <p>Ground conditions: solid surface</p>	<p>53019375</p>
<p>Standard used EN1459 – AS1418.19 – ASME B56.6</p>						

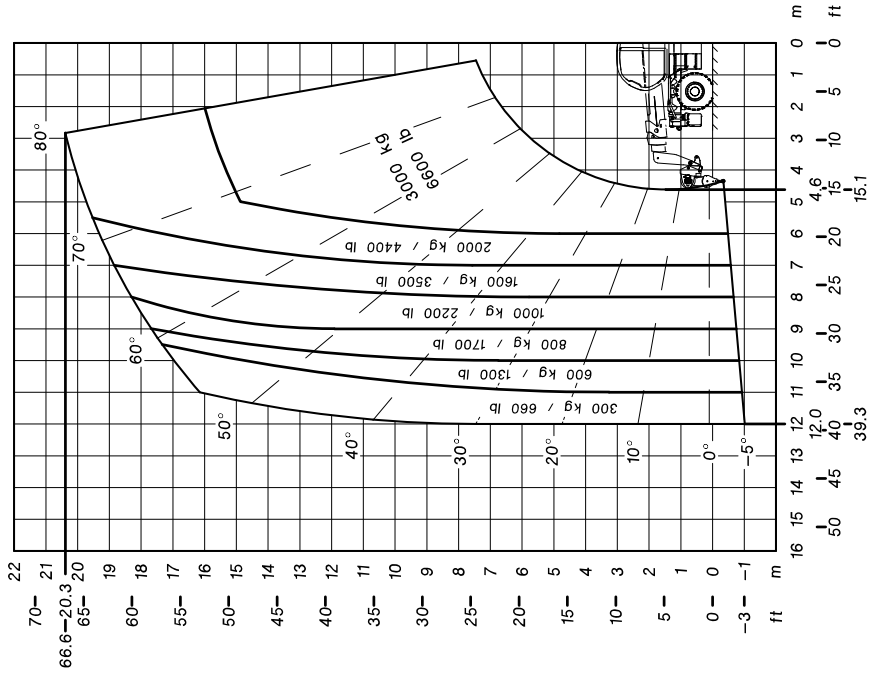
	<p><b>MRT 2150+</b></p>						
<p>Winch 4T</p>	<p>Pos. I</p>						
							
 <p>36 Km/h Max (10 m/s)</p>	 <p>3° Max</p>	 <p>3° Max</p>	 <p>3° Max</p>	 <p>3° Max</p>	 <p>Ground conditions: solid surface</p>	 <p>0km/h</p>	<p>53019374</p>
<p>Standard used EN1459 – AS1418.19 – ASME B56.6</p>							

**MANITOU**

MRT 2150+

Winch 3T

Pos. C



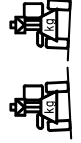
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max



3° Max

Ground conditions:  
solid surface



0km/h

53019377

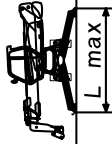
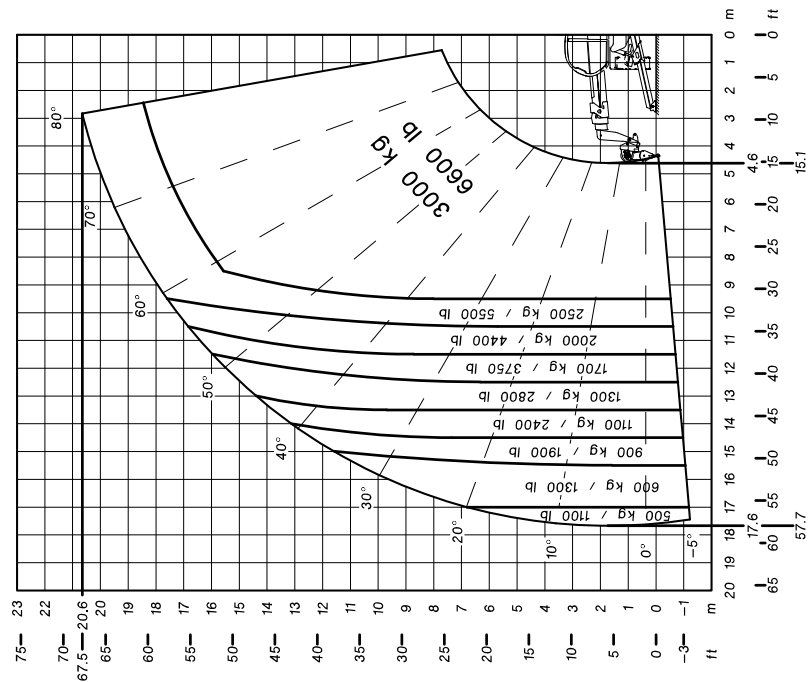
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2150+

Winch 3T

Pos. C



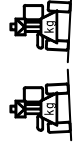
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max



3° Max

Ground conditions:  
solid surface



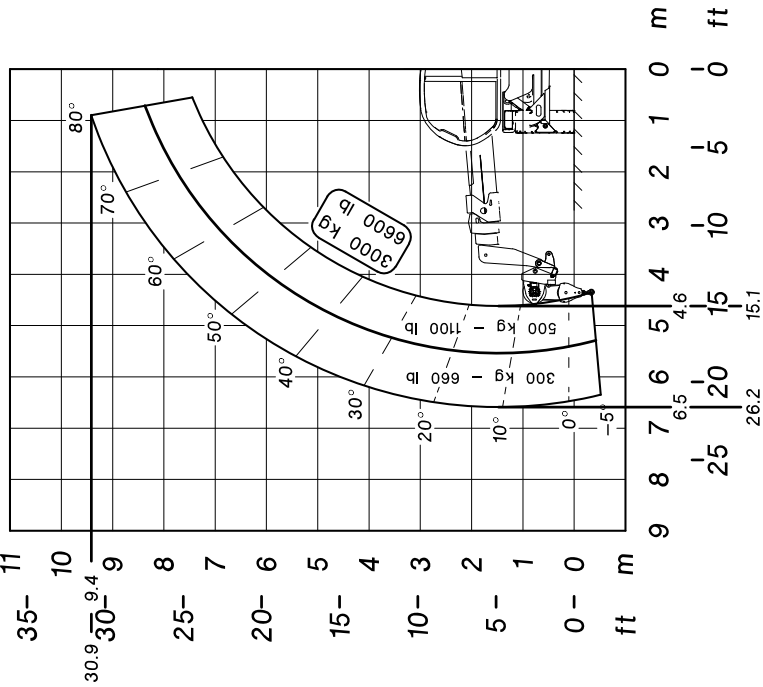
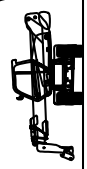
0km/h

53019376

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

Winch 3T Pos. C



- 36 Km/h Max (10 m/s)
- 3° Max
- 3° Max
- 3° Max
- 3° Max
- Ground conditions: solid surface
- 0 km/h

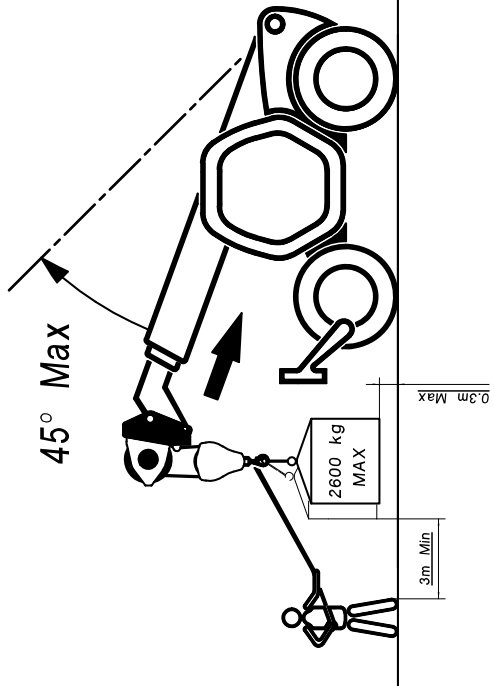
53019378

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

Winch 3T Pos. C

- 36 km/ Max (10 m/s)
- 8.75% Max
- 8.75% Max
- 8.75% Max
- Ground conditions: solid surface



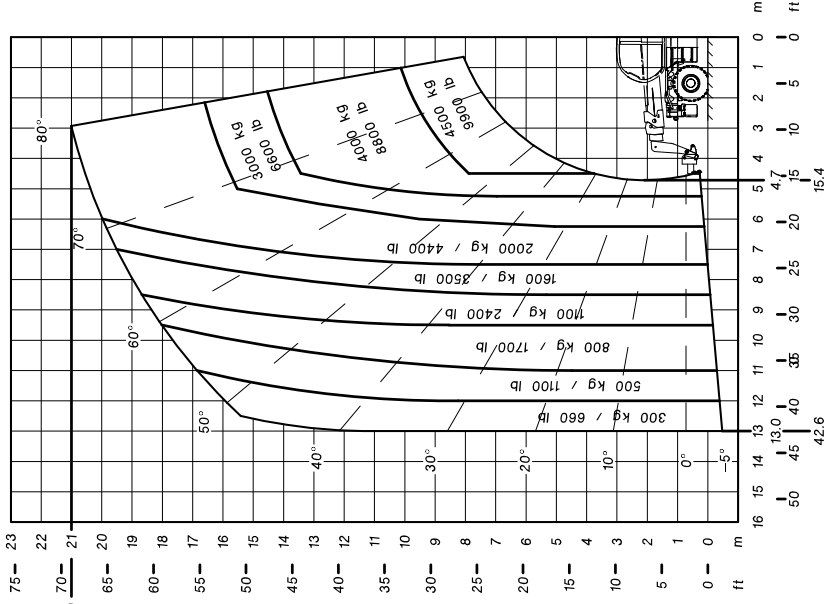
- 8.75% Max
- 8.75% Max
- Ground conditions: solid surface

Standard used EN1459 – AS1418.19 – ASME B56.6

53019379

**MANITOU** MRT 2150+

PC 50 Pos. S



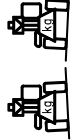
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



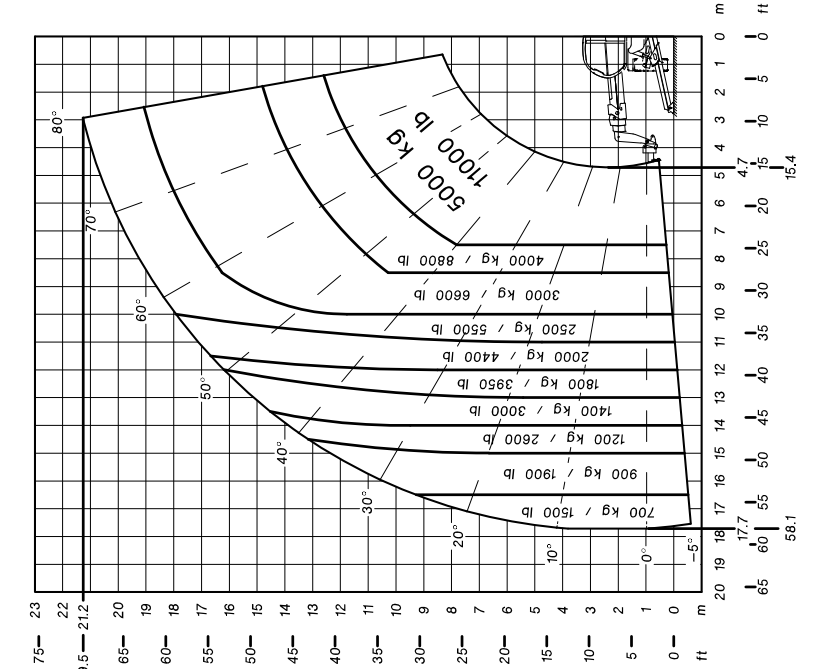
0km/h

5309402

Standard used EN1459 - AS1418.19 - ASME B56.6

**MANITOU** MRT 2150+

PC 50 Pos. S



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



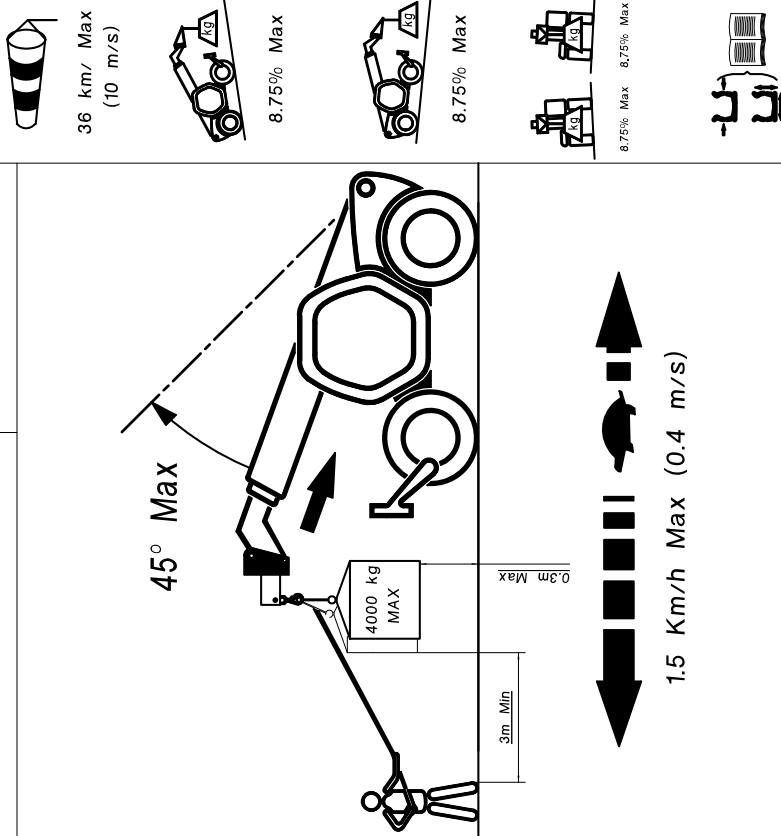
0km/h

53019401

Standard used EN1459 - AS1418.19 - ASME B56.6

**MANITOU** MRT 2150+

PC 50 Pos. S



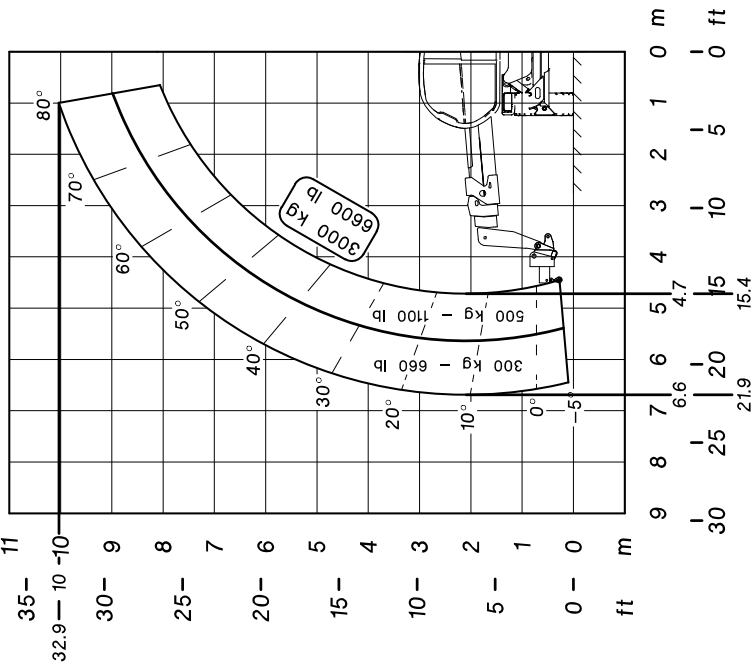
Ground conditions:  
solid surface

53019405

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

PC 50 Pos. S



Ground conditions:  
solid surface

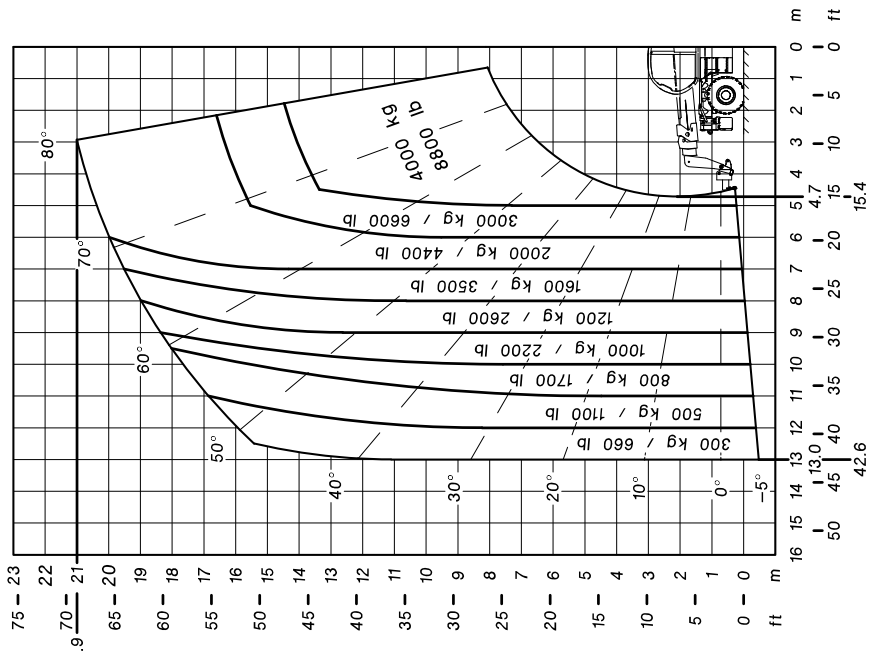
0km/h

53019403

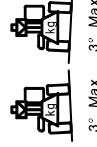
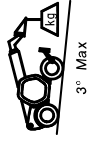
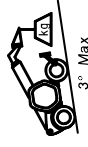
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

PC 40 Pos. R



36 Km/h Max  
(10 m/s)



Ground conditions:  
solid surface



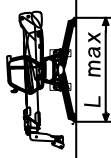
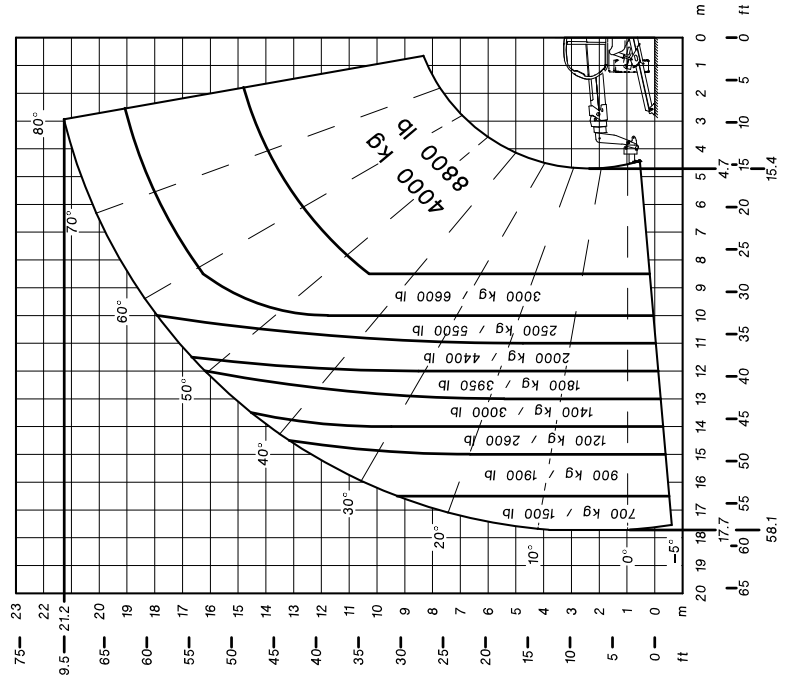
0km/h

53019408

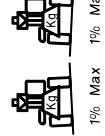
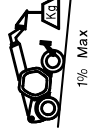
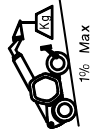
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

PC 40 Pos. R



36 Km/h Max  
(10 m/s)



Ground conditions:  
solid surface



0km/h

53019407

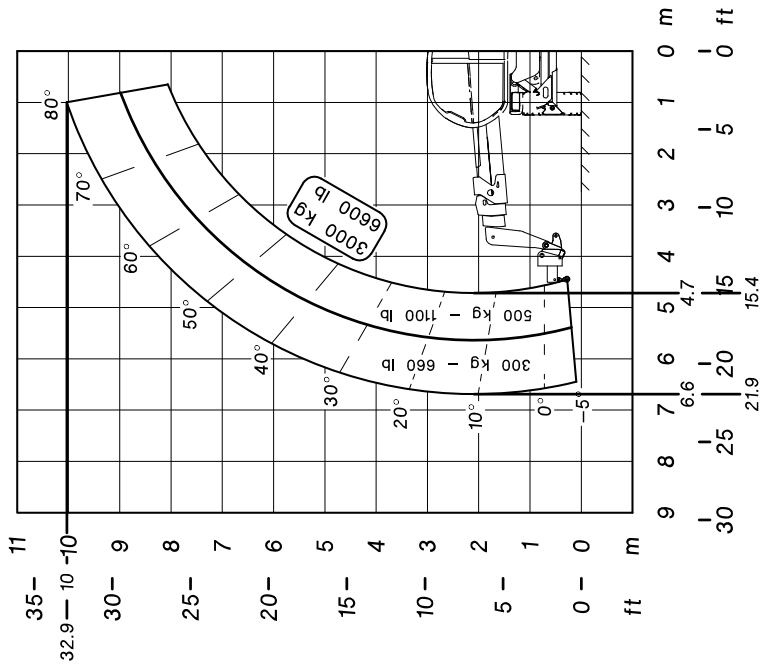
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2150+

PC 40

Pos. R



36 Km/h Max  
(10 m/s)

3° Max

3° Max

3° Max 3° Max



Ground conditions:  
solid surface



0km/h

53019409

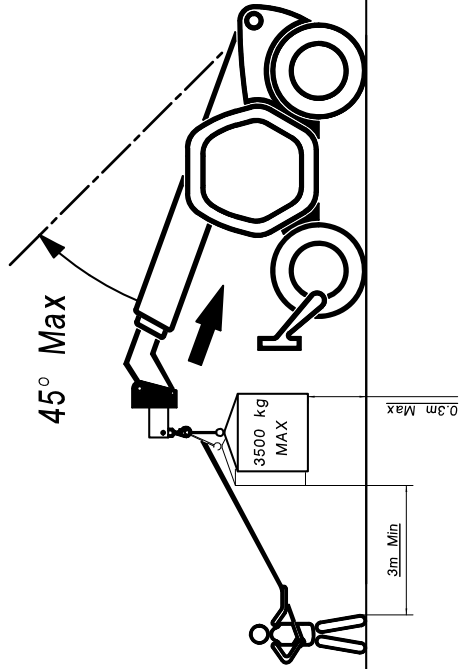
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2150+

PC 40

Pos. R



1.5 Km/h Max (0.4 m/s)

36 km/ Max  
(10 m/s)

8.75% Max

8.75% Max

8.75% Max 8.75% Max



Ground conditions:  
solid surface

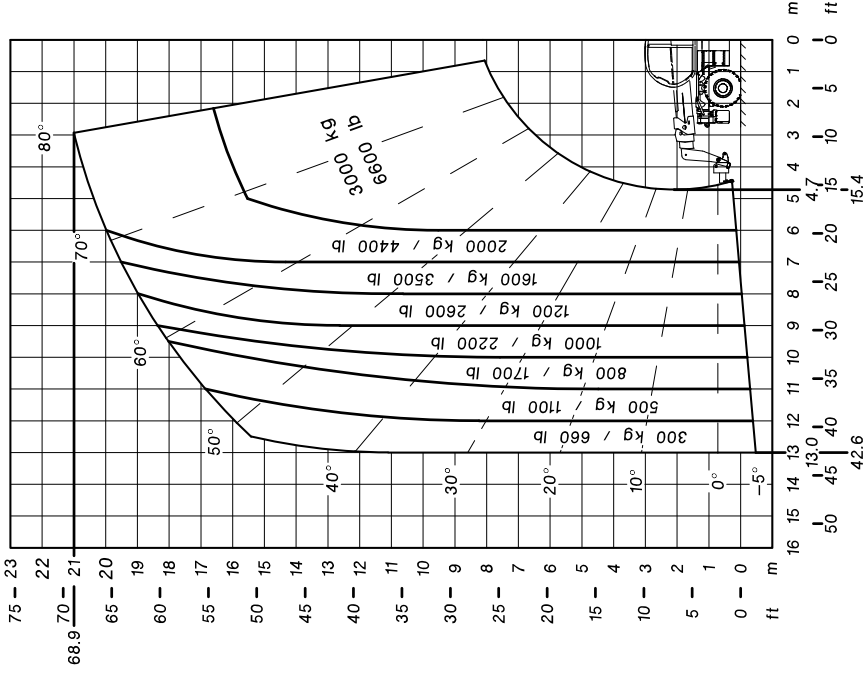
53019410

Standard used EN1459 – AS1418.19 – ASME B56.6



**MANITOU** MRT 2150+

PC 30 Pos. Q



36 Km/h Max  
(10 m/s)



3° Max 3° Max



Ground conditions:  
solid surface



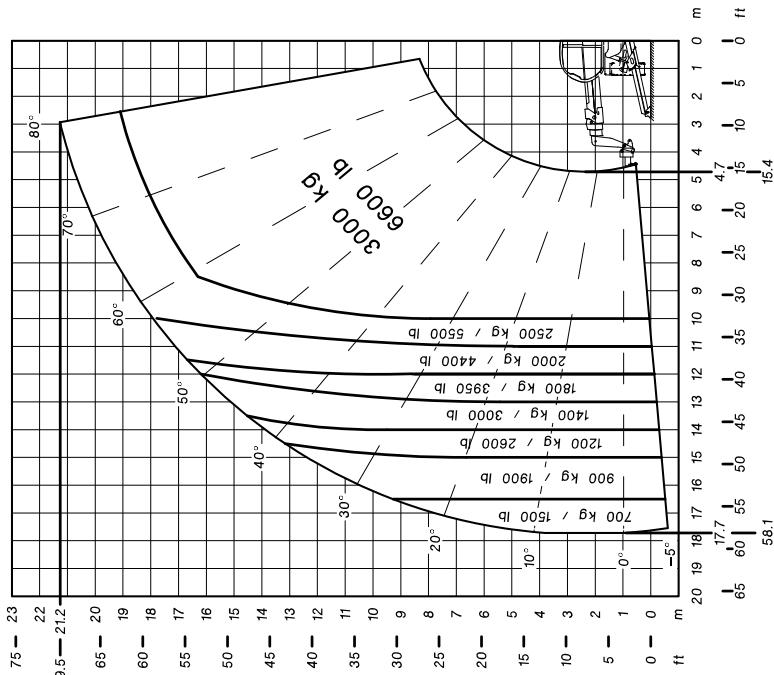
0km/h

53019412

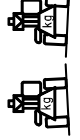
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

PC 30 Pos. Q



36 Km/h Max  
(10 m/s)



3° Max 3° Max



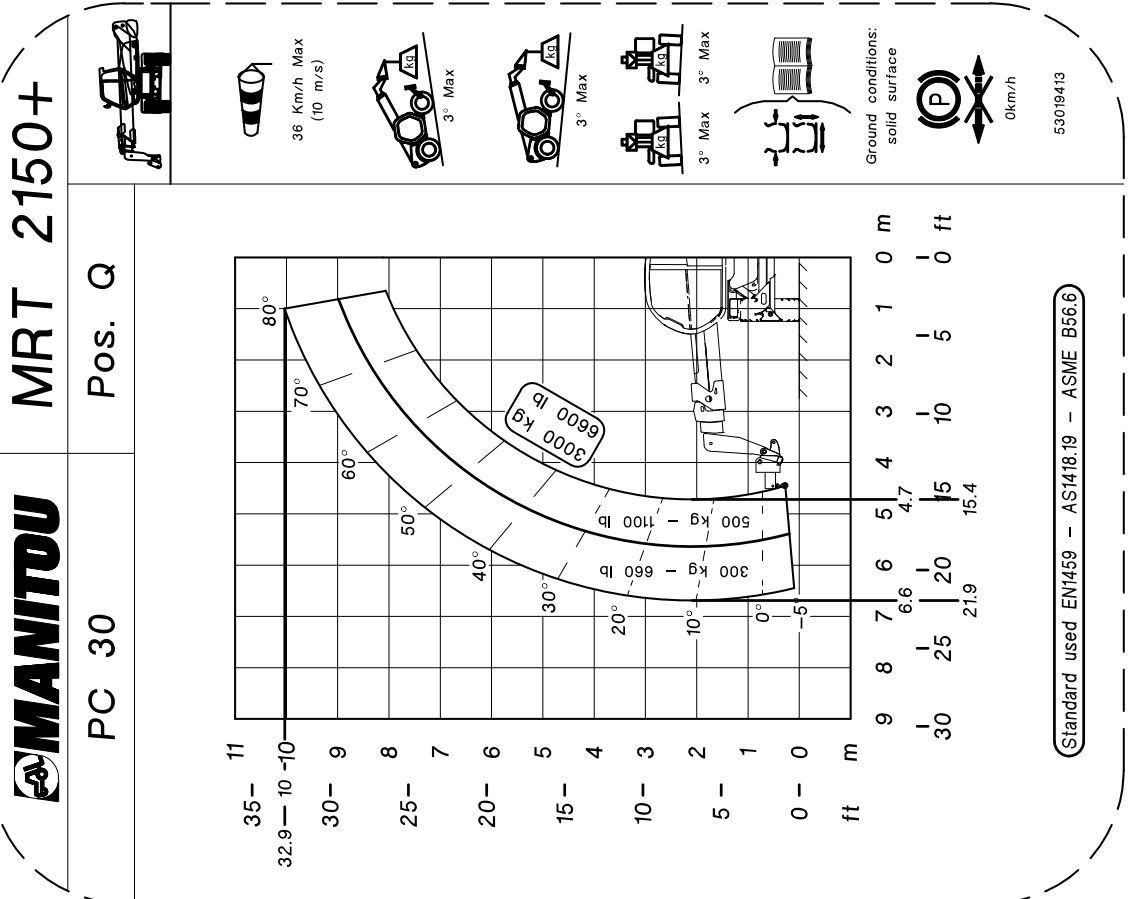
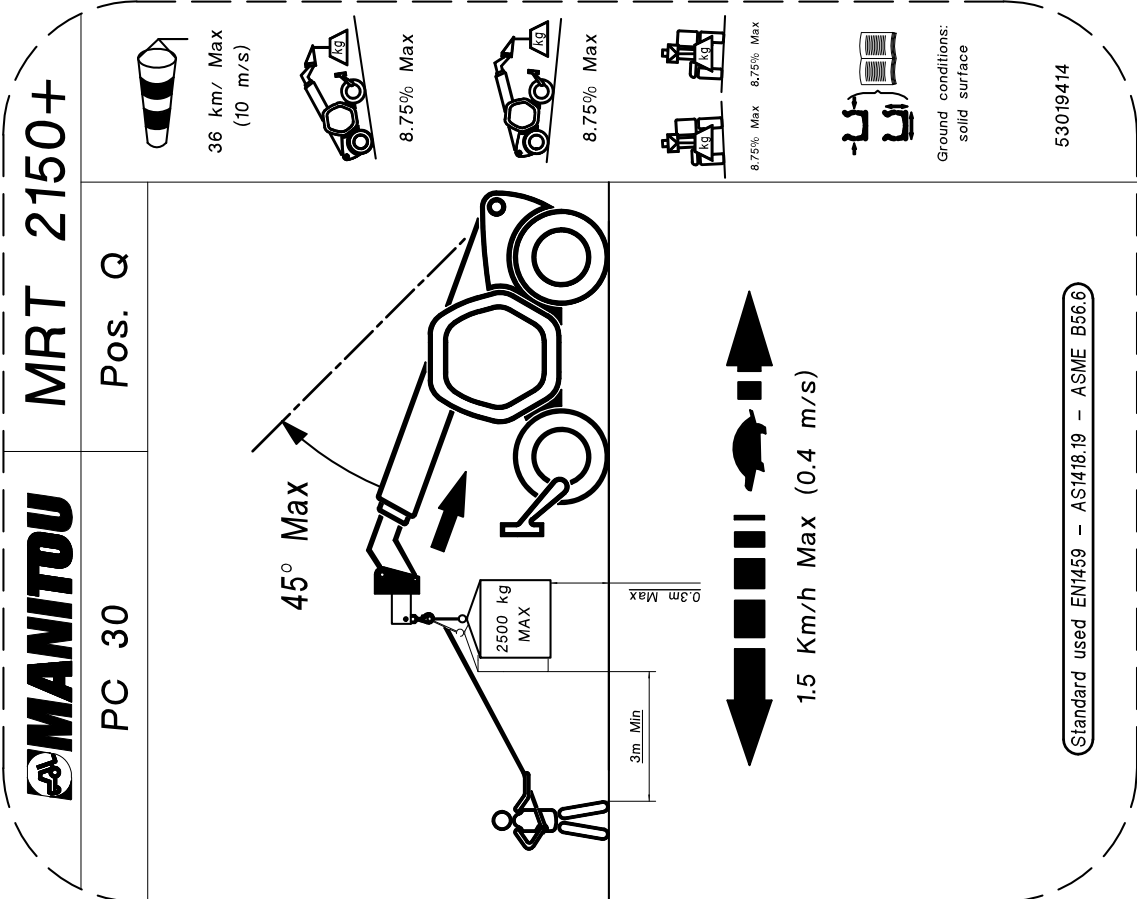
Ground conditions:  
solid surface

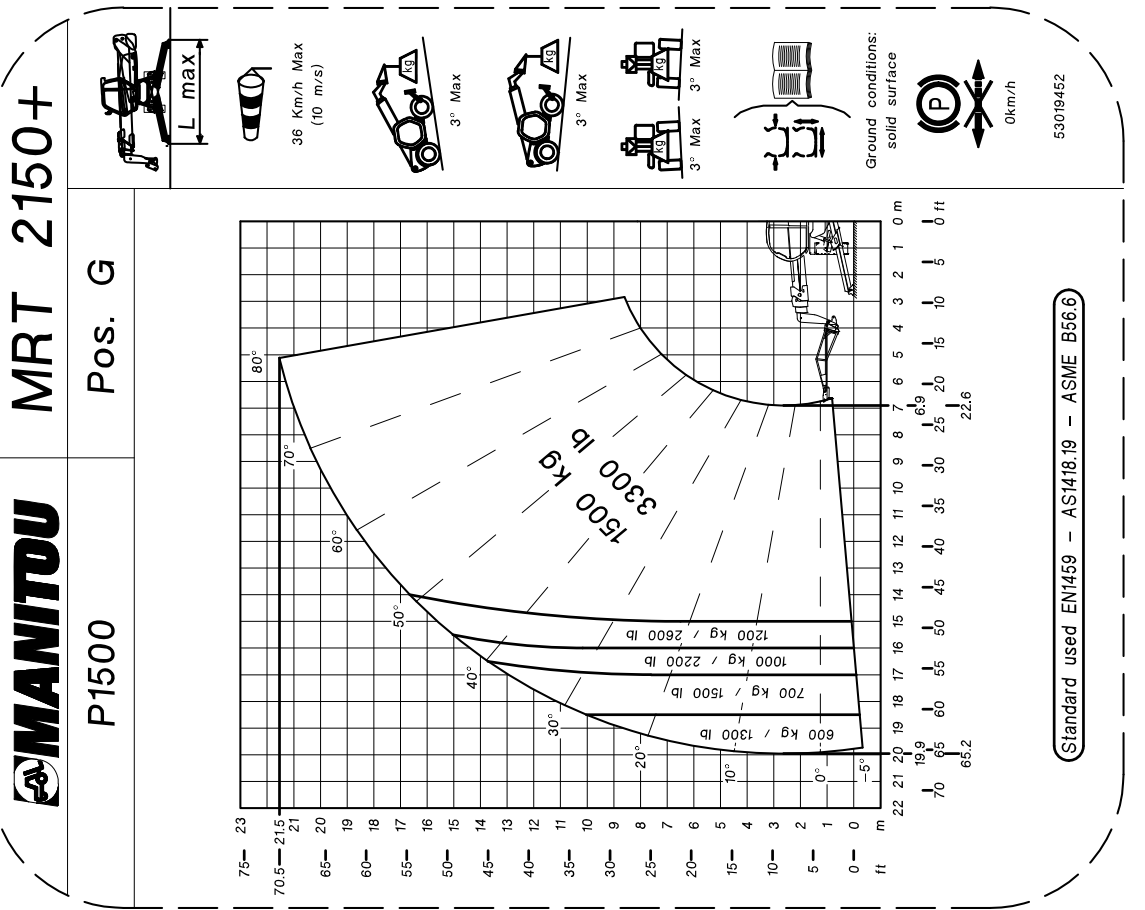
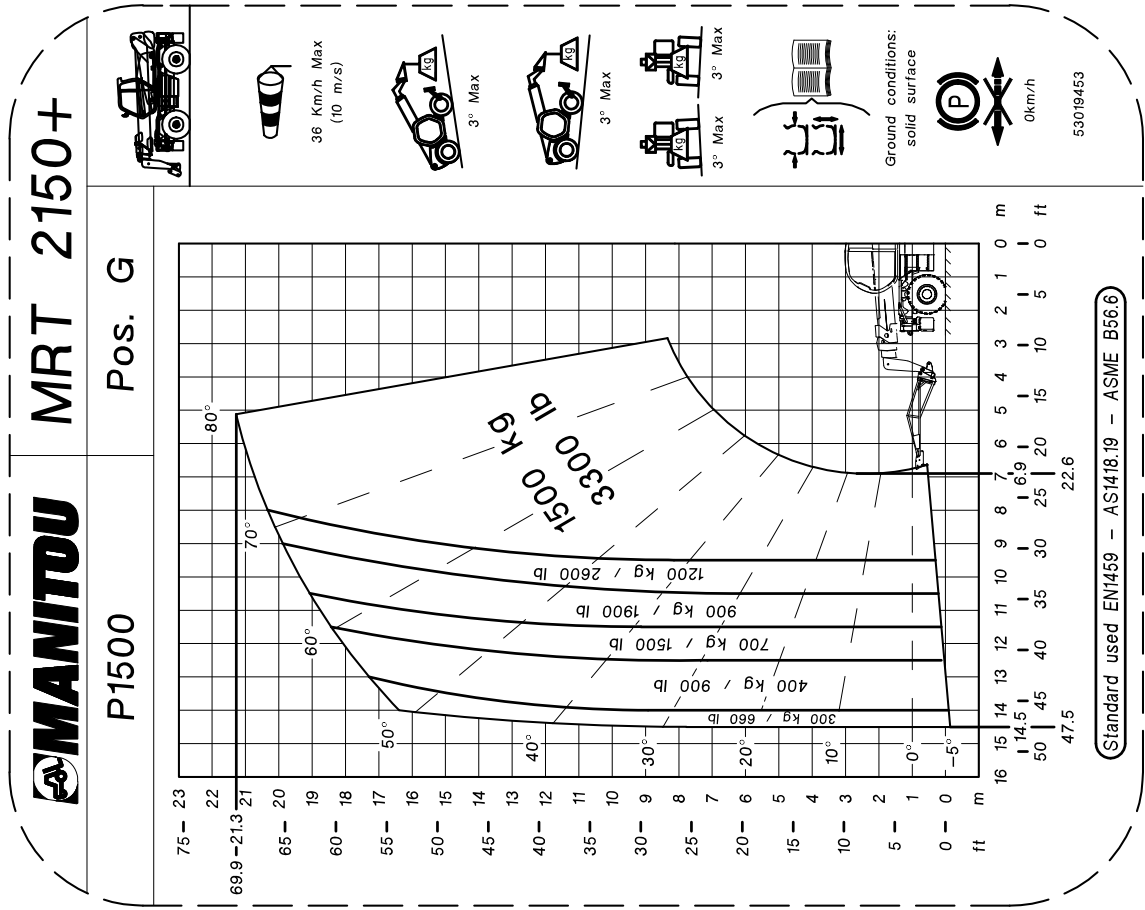


0km/h

53019411

Standard used EN1459 – AS1418.19 – ASME B56.6





**MANITOU**

MRT 2150+

P1500

Pos. G



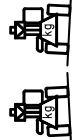
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



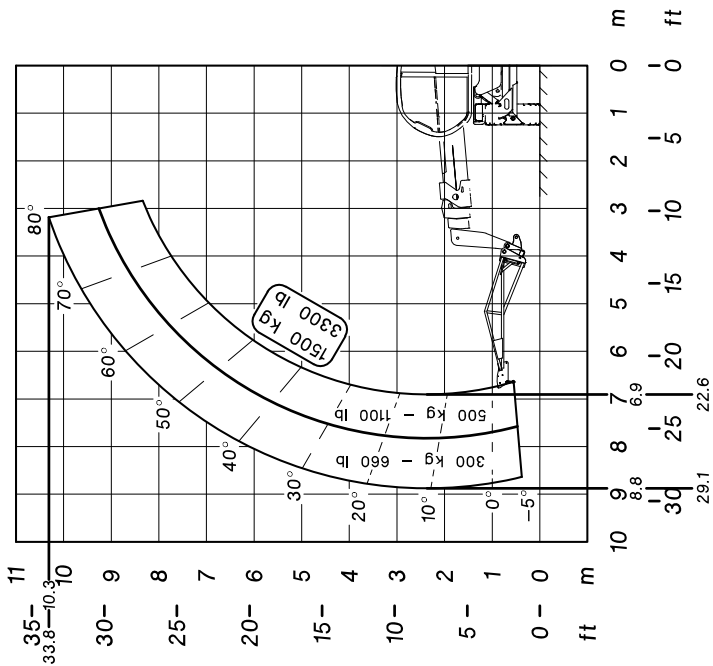
Ground conditions:  
solid surface



0km/h

53019454

Standard used EN1459 – AS1418.19 – ASME B56.6



**MANITOU**

MRT 2150+

P1500

Pos. G



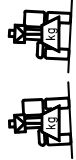
36 km/ Max  
(10 m/s)



8.75% Max



8.75% Max



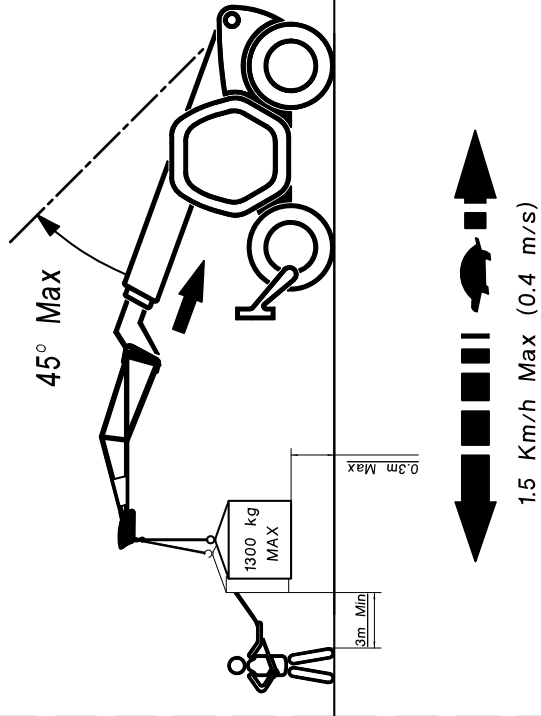
8.75% Max 8.75% Max



Ground conditions:  
solid surface

53019455

Standard used EN1459 – AS1418.19 – ASME B56.6

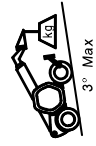


**MANITOU** MRT 2150+

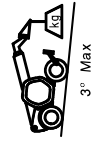
PT1500 Pos. G



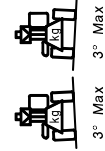
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

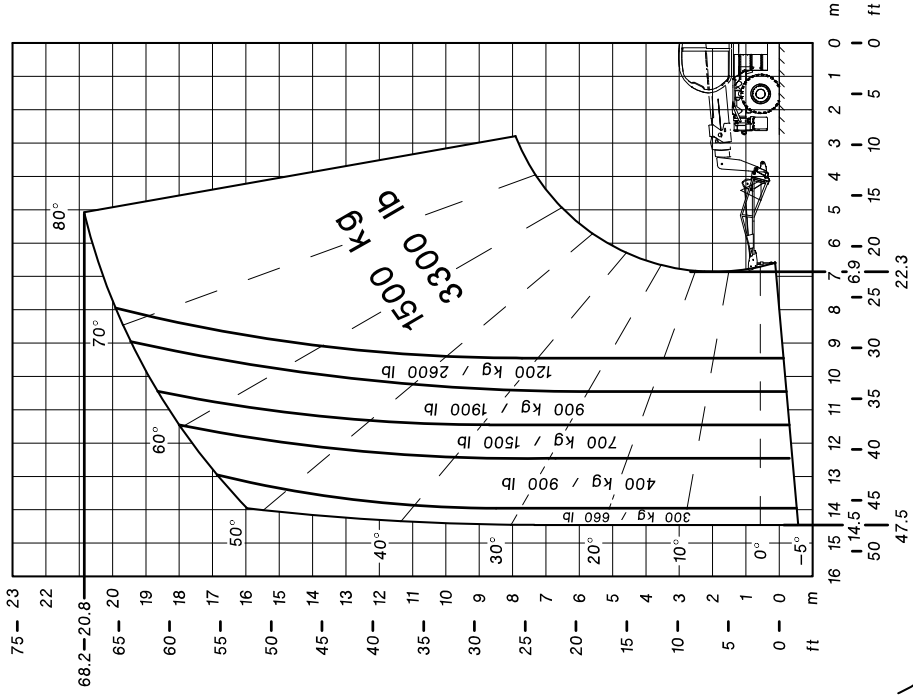


Ground conditions:  
solid surface



0km/h

53019457



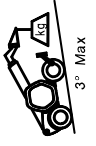
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2150+

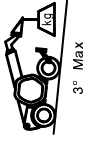
PT1500 Pos. G



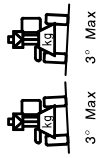
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

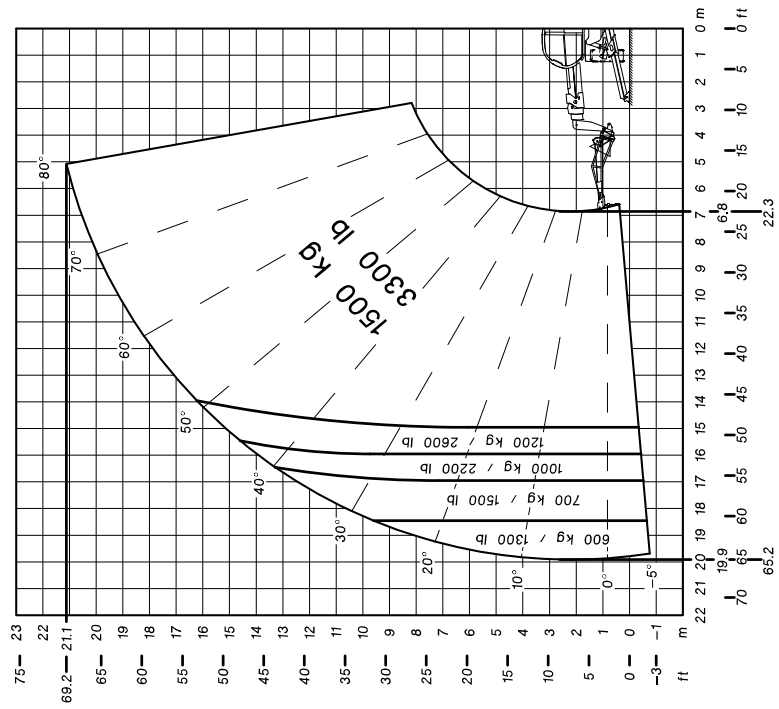


Ground conditions:  
solid surface



0km/h

53019456



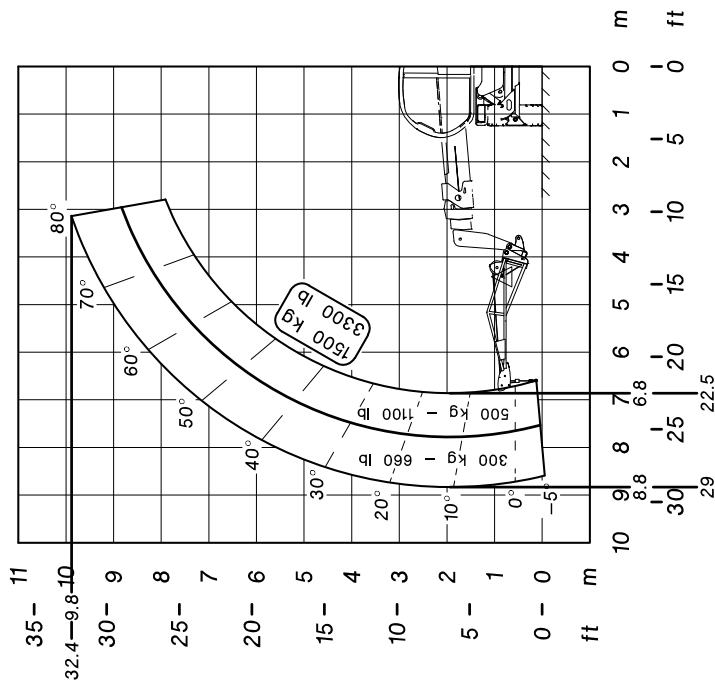
Standard used EN1459 – AS1418.19 – ASME B56.6



MRT 2150+

PT1500

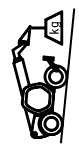
Pos. G



36 Km/h Max (10 m/s)



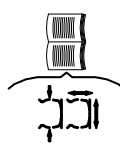
3° Max



3° Max



3° Max 3° Max



Ground conditions: solid surface



0km/h

53019458

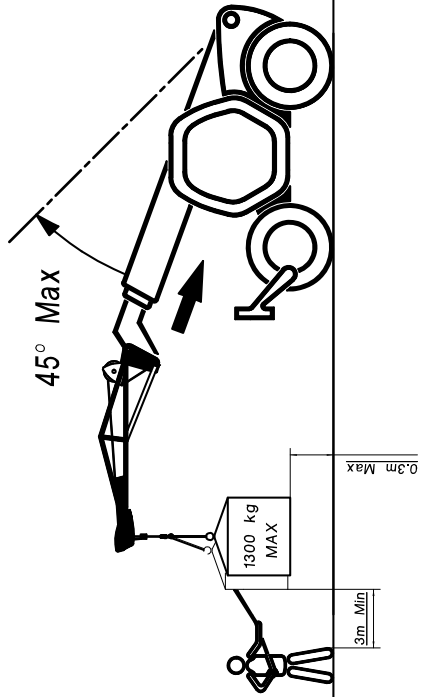
Standard used EN1459 – AS1418.19 – ASME B56.6



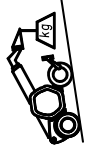
MRT 2150+

PT1500

Pos. G



36 km/ Max (10 m/s)



8.75% Max



8.75% Max



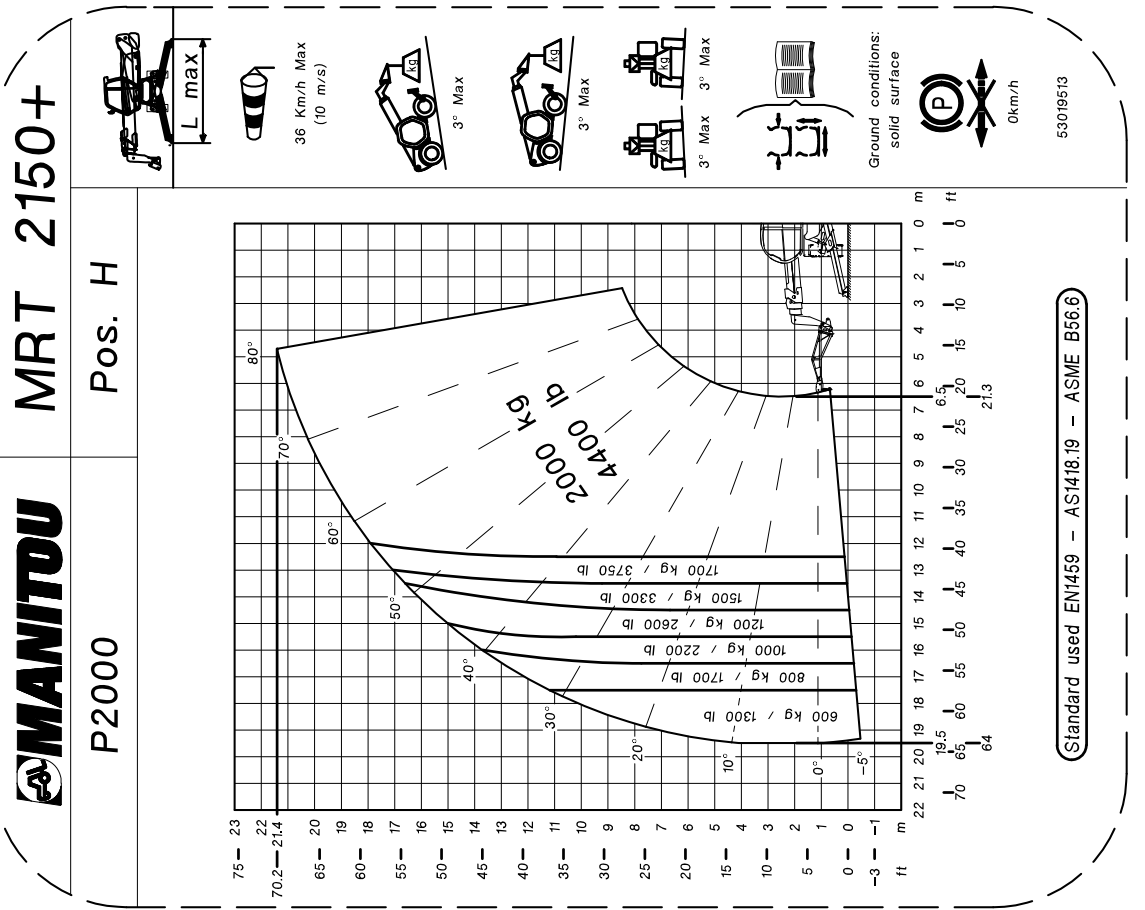
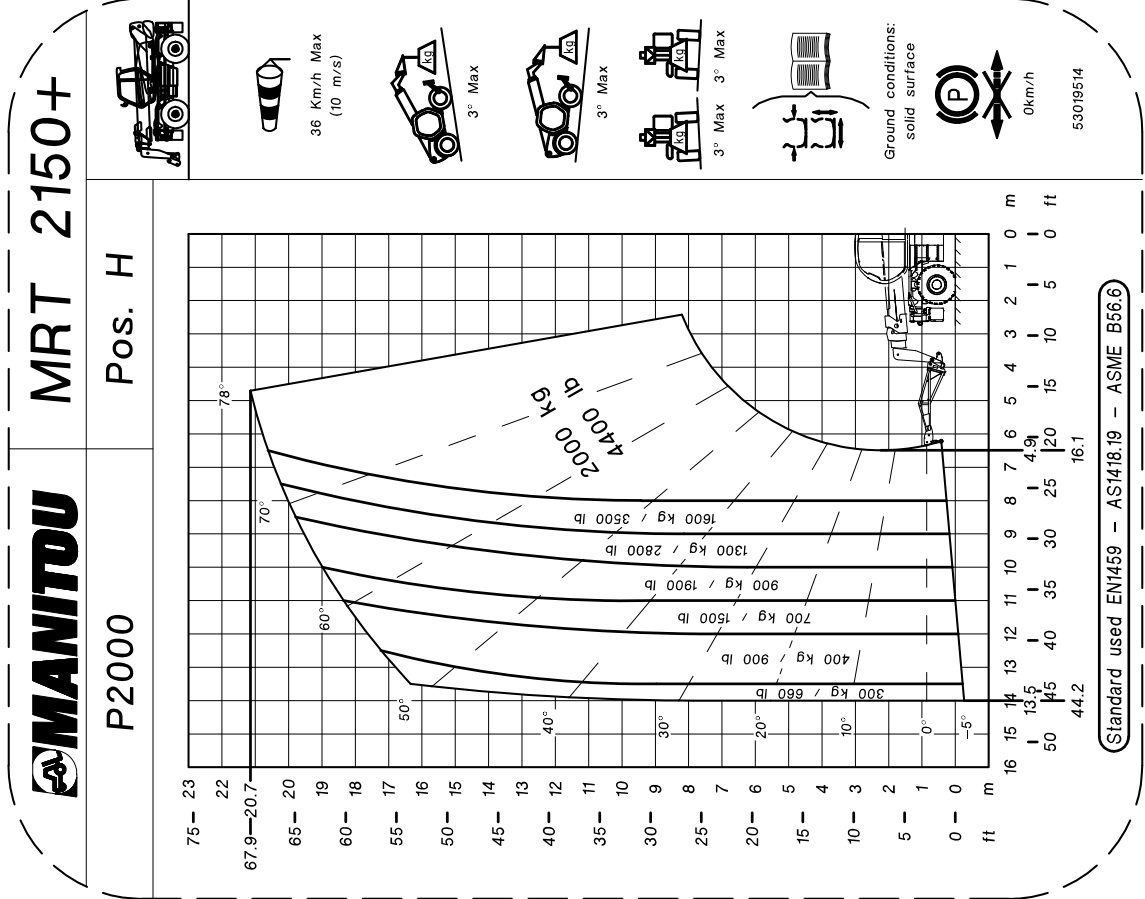
8.75% Max 8.75% Max

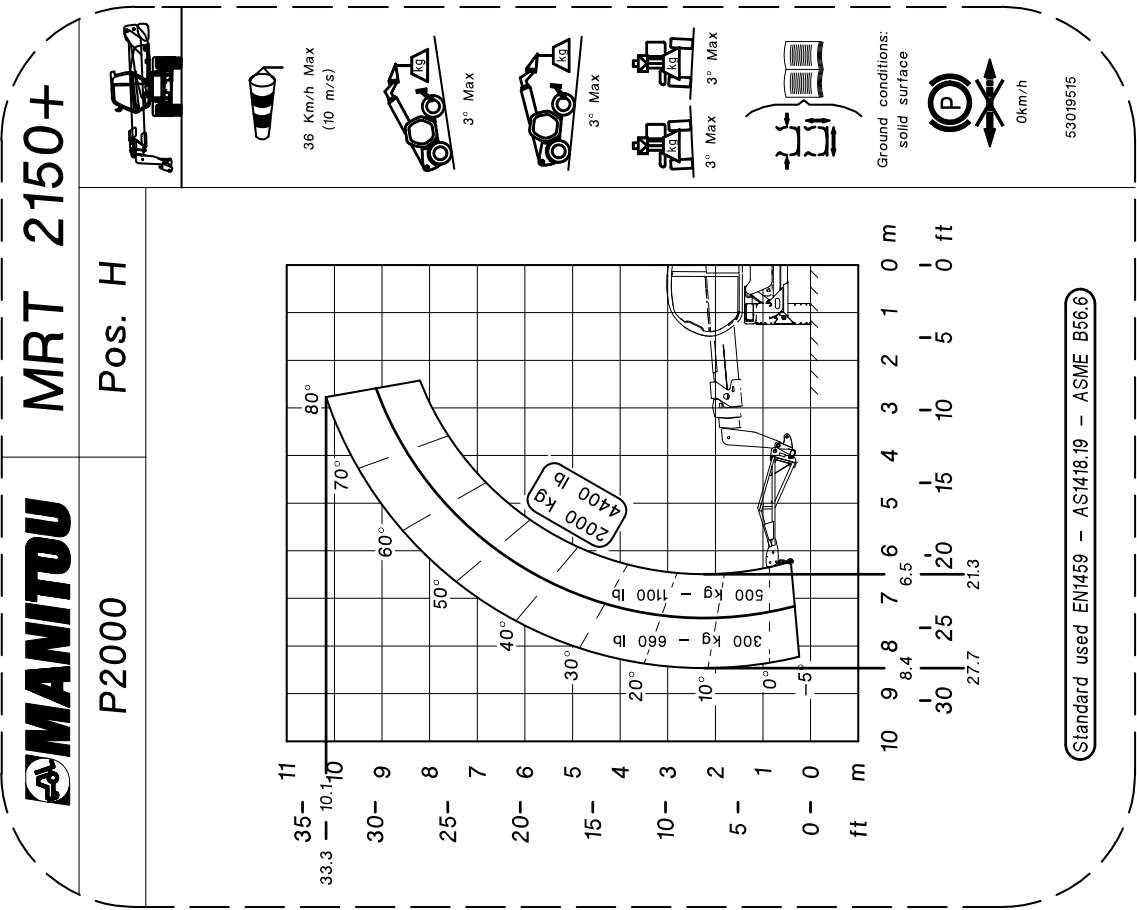
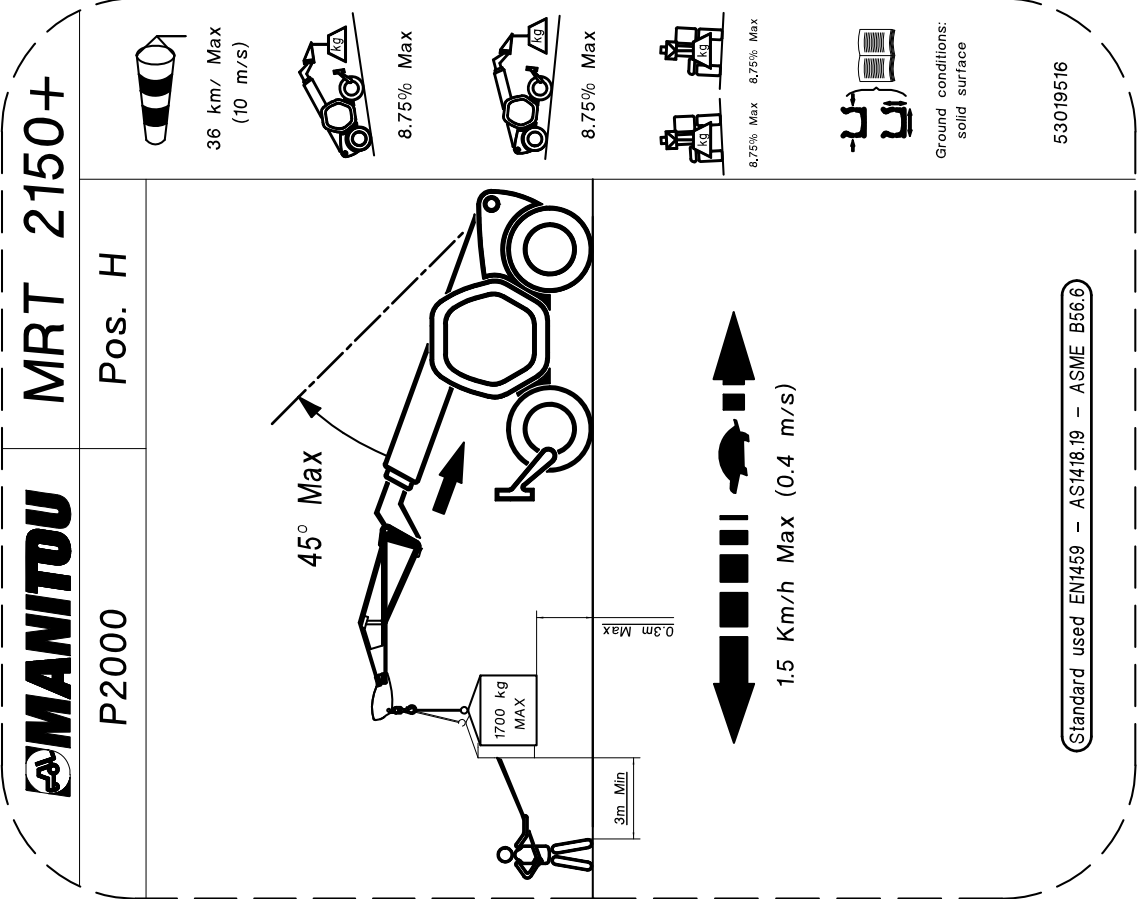


Ground conditions: solid surface

53019459

Standard used EN1459 – AS1418.19 – ASME B56.6





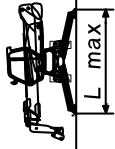




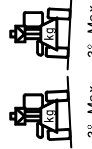
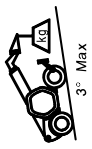
MRT 2150+

PT2000

Pos. H



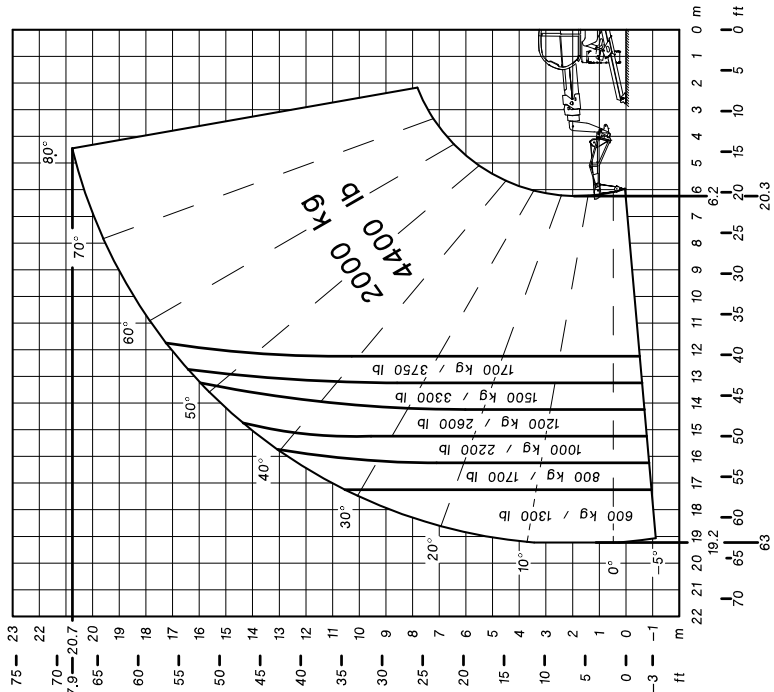
36 Km/h Max  
(10 m/s)



Ground conditions:  
solid surface



53019517



Standard used EN1459 – AS1418:19 – ASME B56.6



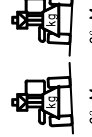
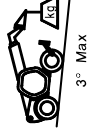
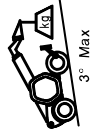
MRT 2150+

PT2000

Pos. H



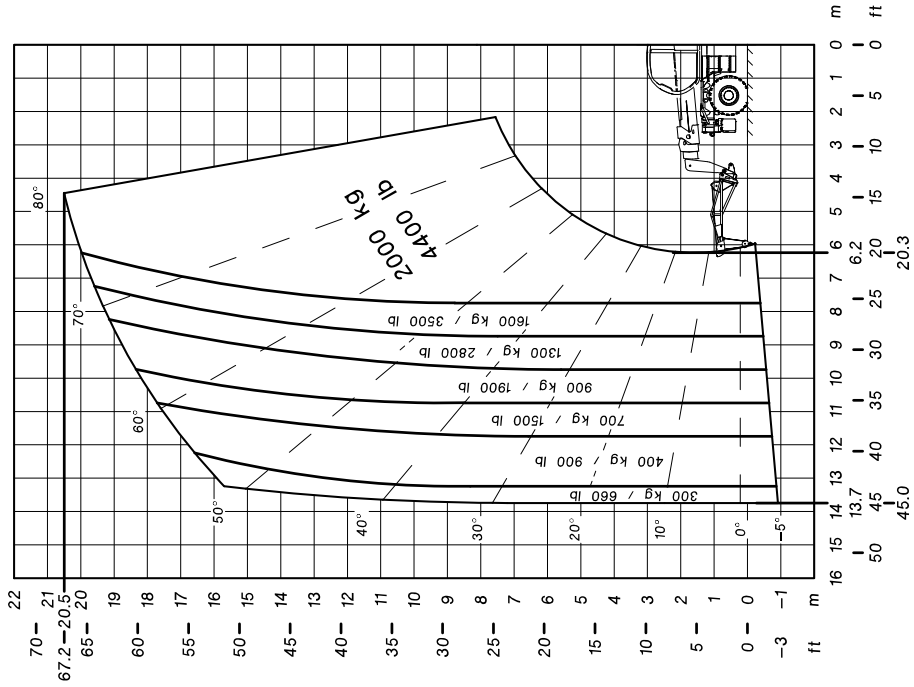
36 Km/h Max  
(10 m/s)



Ground conditions:  
solid surface



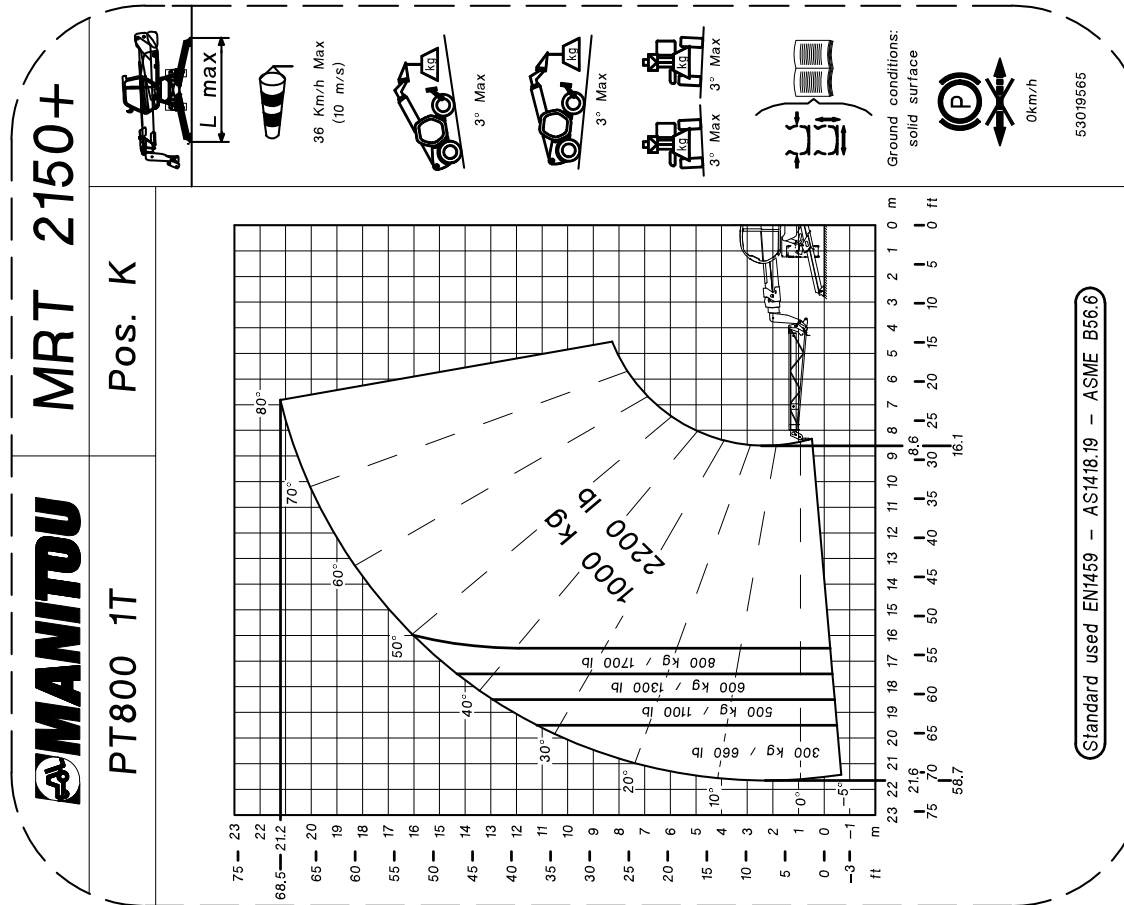
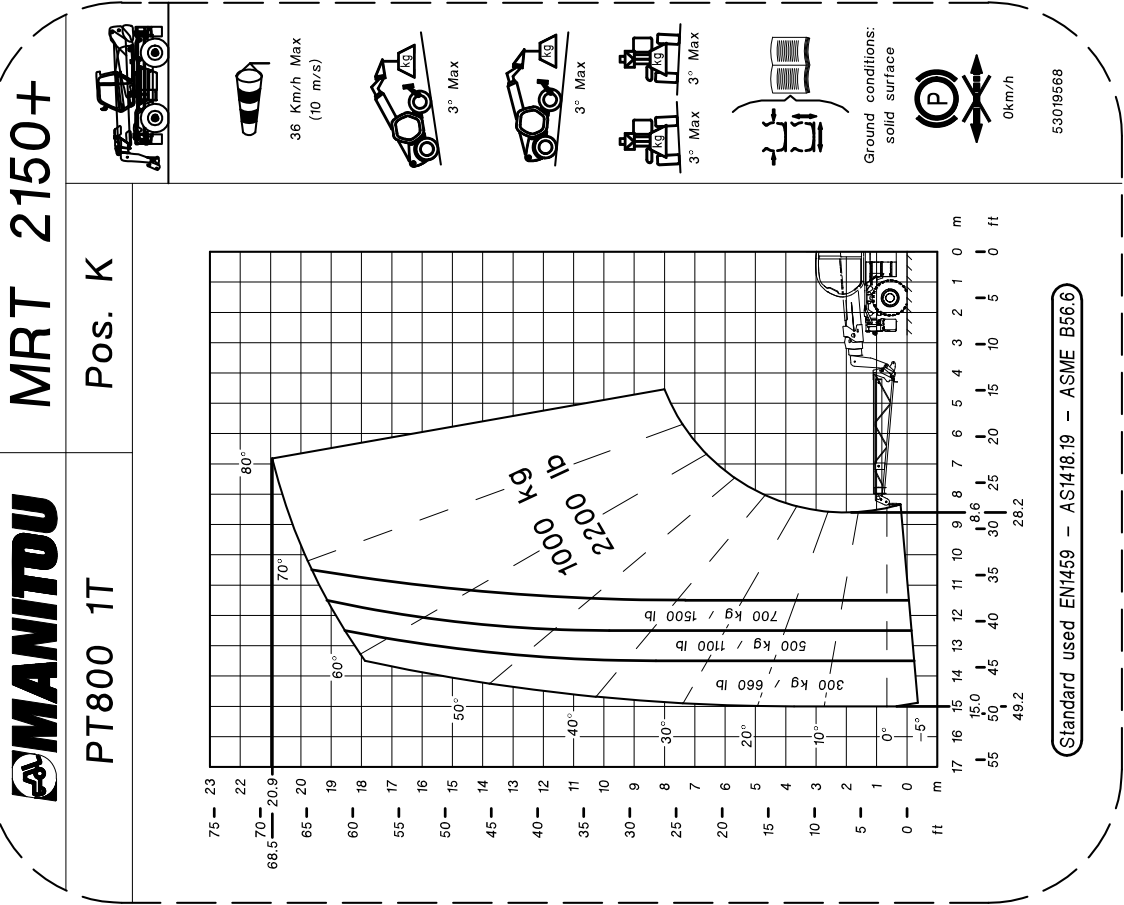
53019518


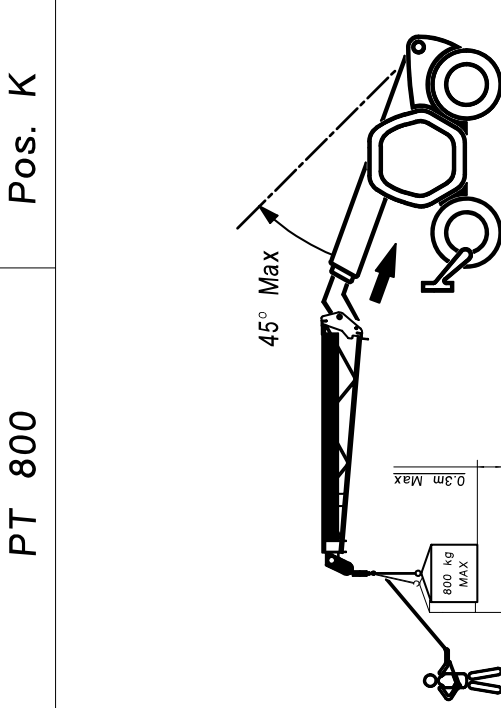
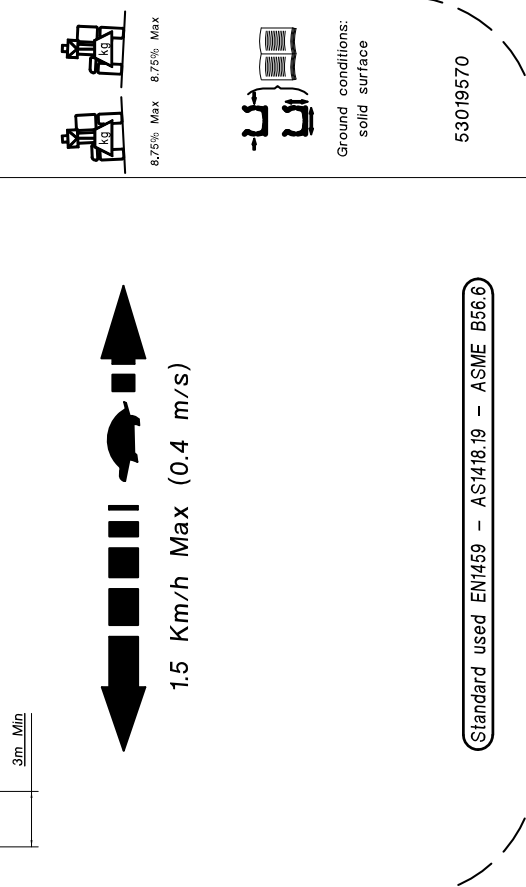
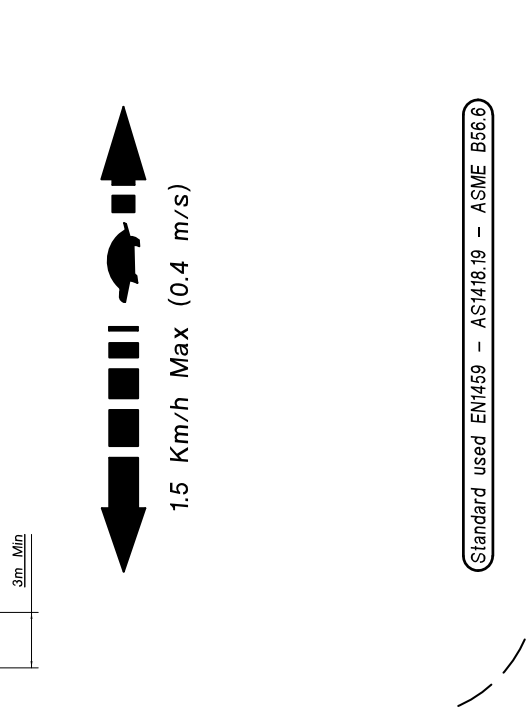



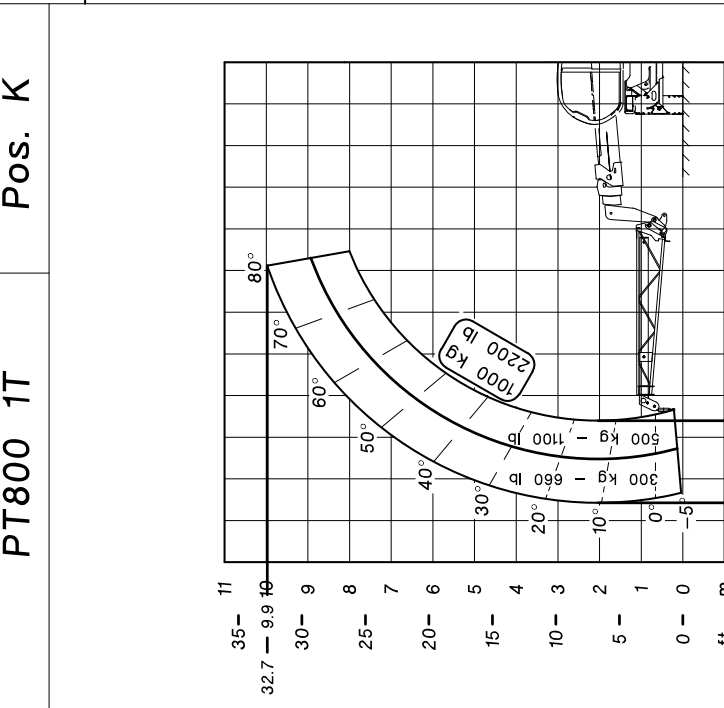
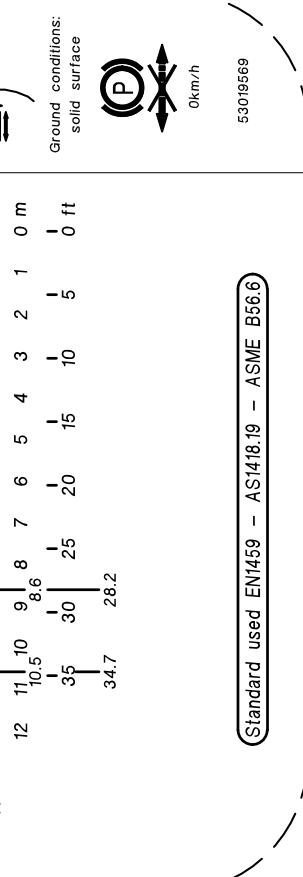
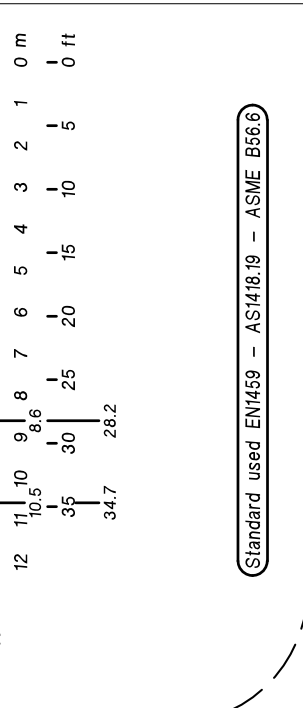
Standard used EN1459 – AS1418:19 – ASME B56.6

	<b>MRT 2150+</b>	<b>Pos. H</b>		 36 km/h Max (10 m/s)	 8.75% Max	 8.75% Max	 8.75% Max	 8.75% Max	 8.75% Max	 Ground conditions: solid surface	53019520

	<b>MRT 2150+</b>	<b>Pos. H</b>		 36 Km/h Max (10 m/s)	 3° Max	 3° Max	 3° Max	 3° Max	 3° Max	 Ground conditions: solid surface	 0km/h	53019519



	<b>MRT 2150+</b>	<b>PT 800</b>	<b>Pos. K</b>
			
			
			<b>53019570</b>
Standard used EN1459 – AS1418.19 – ASME B56.6			

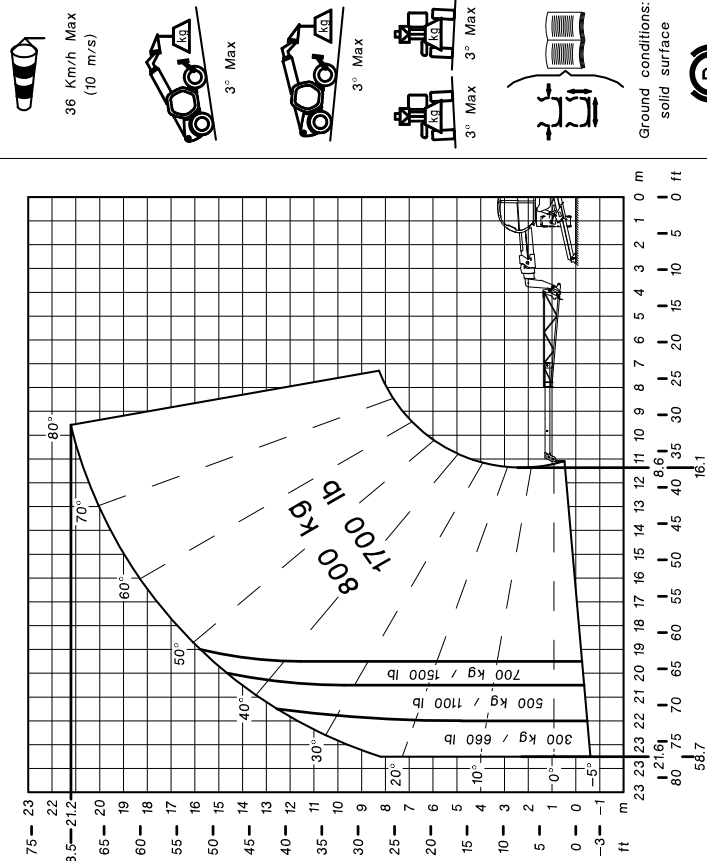
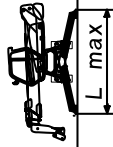
	<b>MRT 2150+</b>	<b>PT800 1T</b>	<b>Pos. K</b>
			
			
			<b>53019569</b>
Standard used EN1459 – AS1418.19 – ASME B56.6			

**MANITOU**

**MRT 2150+**

PT800 0.8T

Pos. 2



Standard used EN1459 – AS1418.19 – ASME B56.6

53019572

Ground conditions:  
solid surface



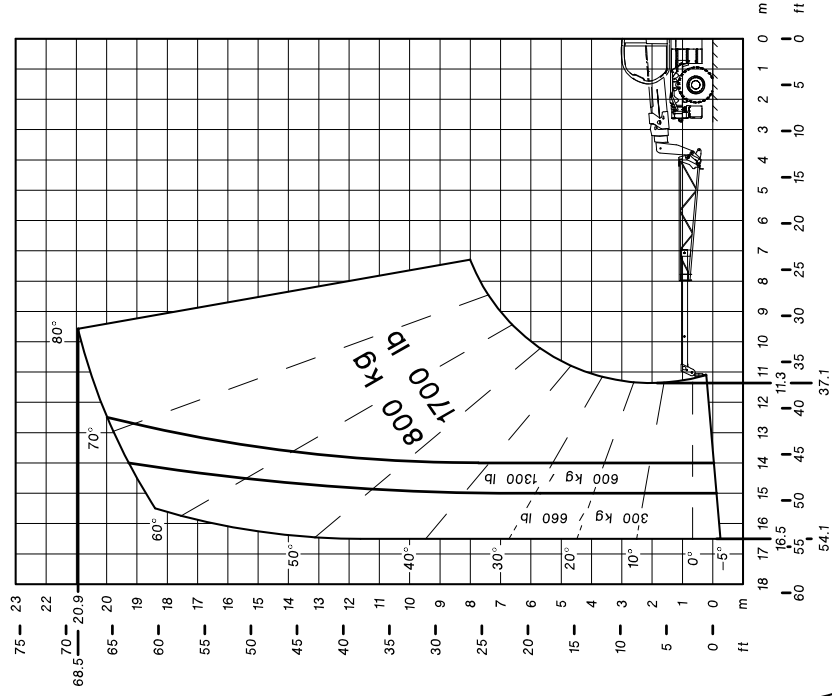
0km/h

**MANITOU**

**MRT 2150+**

PT800 0.8T

Pos. 2



Standard used EN1459 – AS1418.19 – ASME B56.6

53019573

Ground conditions:  
solid surface



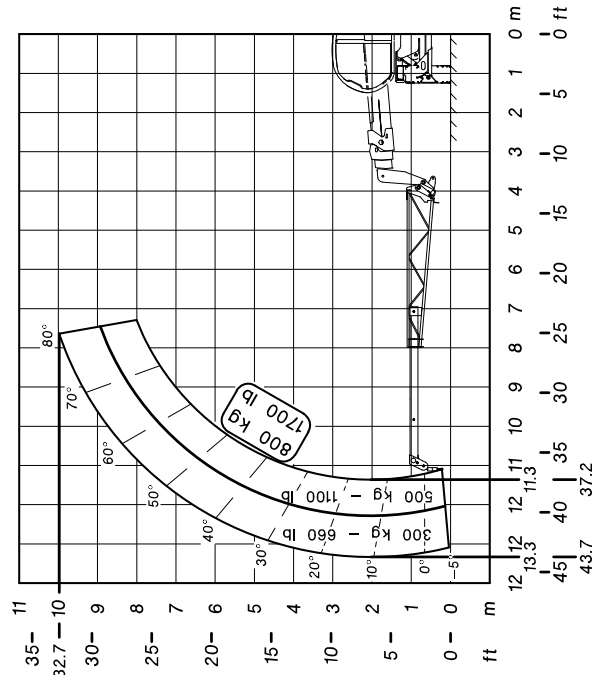
0km/h

<b>MANITOU</b>	<b>MRT 2150+</b>
PT800 0.8T	Pos. 2
36 km/h Max (10 m/s)	8.75% Max
8.75% Max	8.75% Max
8.75% Max	8.75% Max
Ground conditions: solid surface	
53019575	

Standard used EN1459 – AS1418.19 – ASME B56.6

<b>MANITOU</b>	<b>MRT 2150+</b>
PT800 0.8T	Pos. 2
36 Km/h Max (10 m/s)	3° Max
3° Max	3° Max
3° Max	3° Max
Ground conditions: solid surface	
53019574	

Standard used EN1459 – AS1418.19 – ASME B56.6



***MRT-X 2550 Privilege Plus ST3A S2***  
***MRT 2550 Privilege Plus ST4 S2***

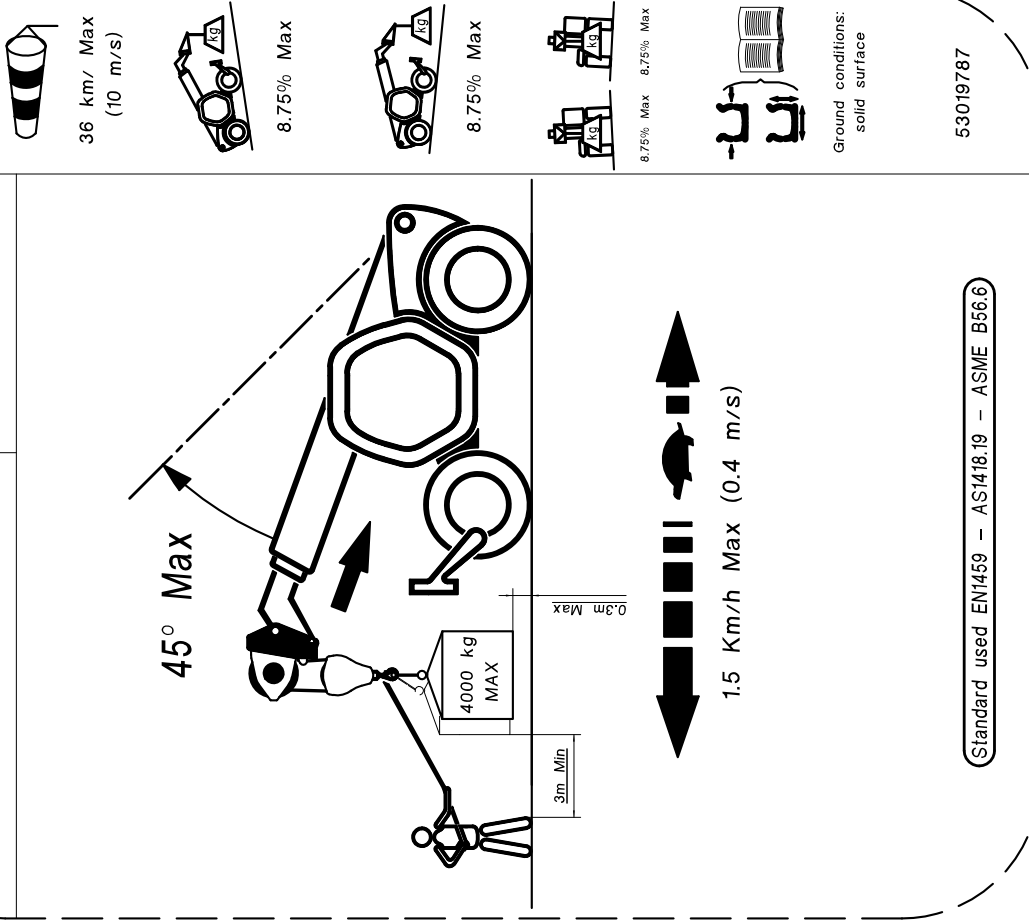






**MANITOU** MRT 2550+

Winch 5T Pos. J

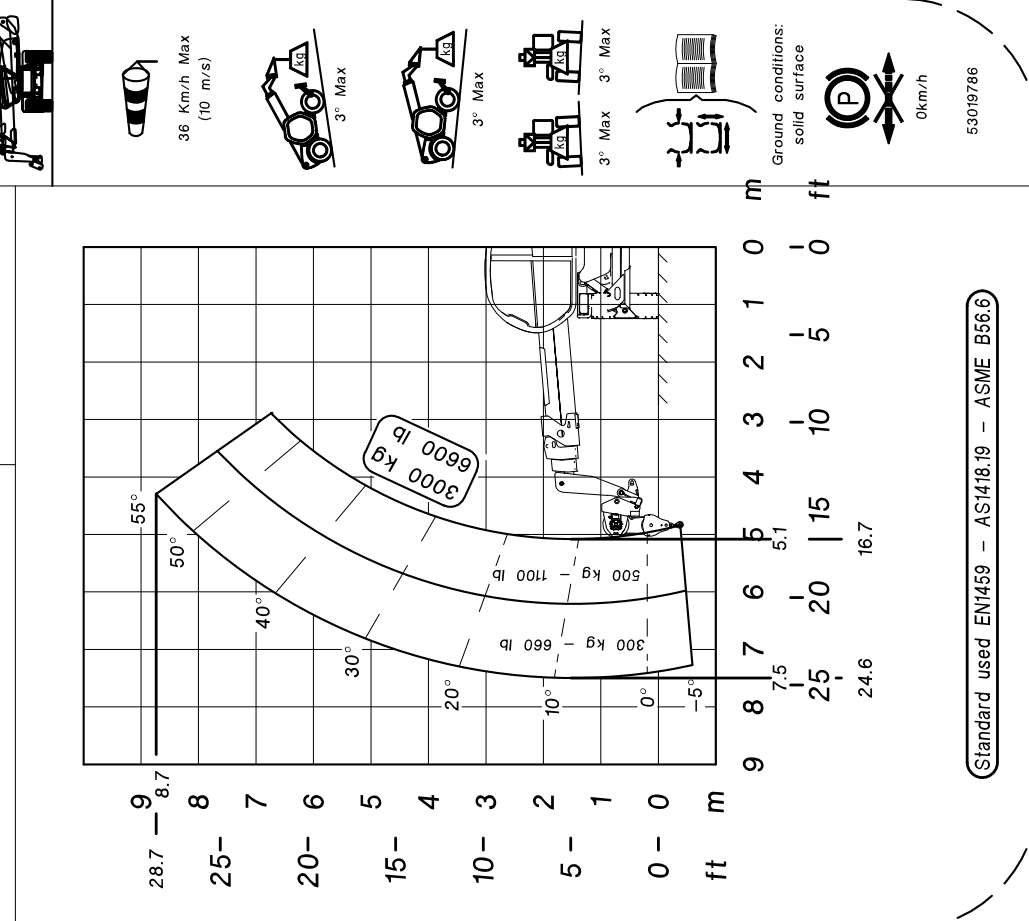


53019787

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

Winch 5T Pos. J



53019786

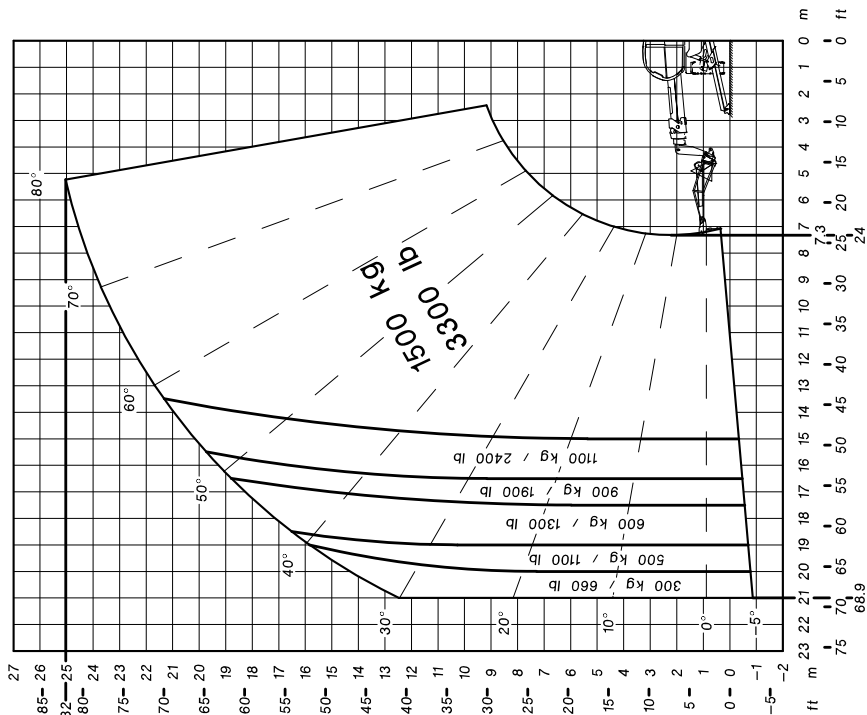
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2550+

PT 1500

Pos. G



Standard used EN1459 – AS1418.19 – ASME B56.6

53019789



L max



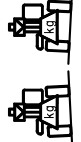
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



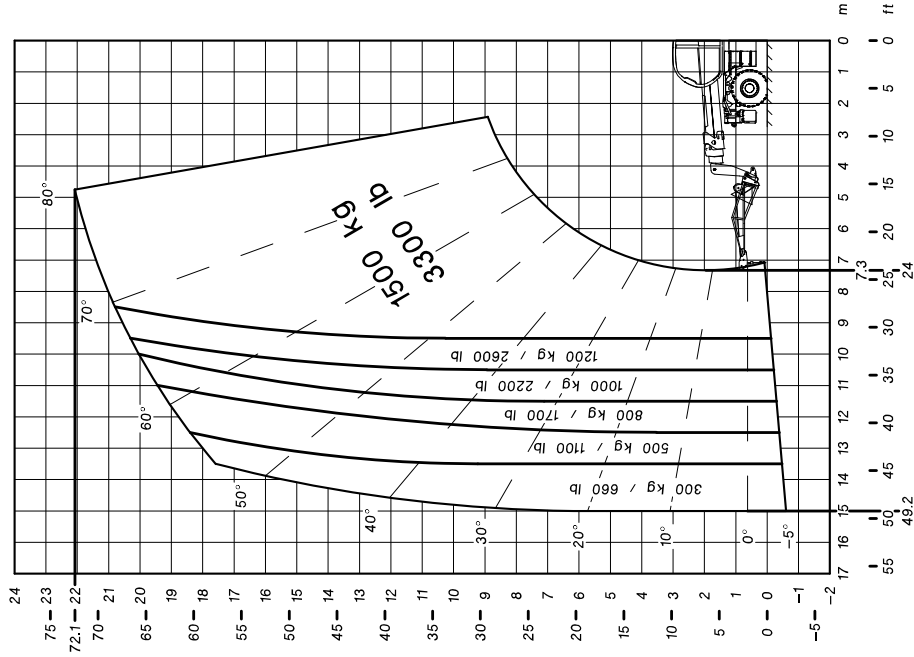
0km/h

**MANITOU**

MRT 2550+

PT 1500

Pos. G

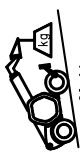


Standard used EN1459 – AS1418.19 – ASME B56.6

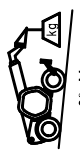
53019790



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



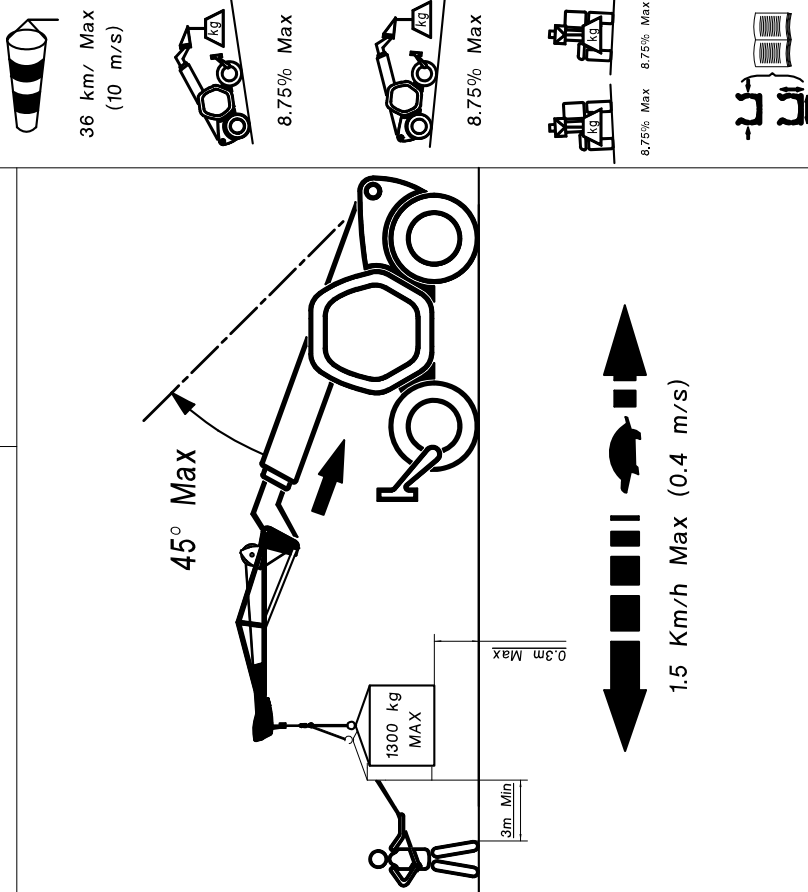
Ground conditions:  
solid surface



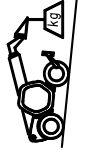
0km/h

**MANITOU** MRT 2550+

PT1500 Pos. G



36 km/ Max  
(10 m/s)



53019792

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

PT 1500 Pos. G

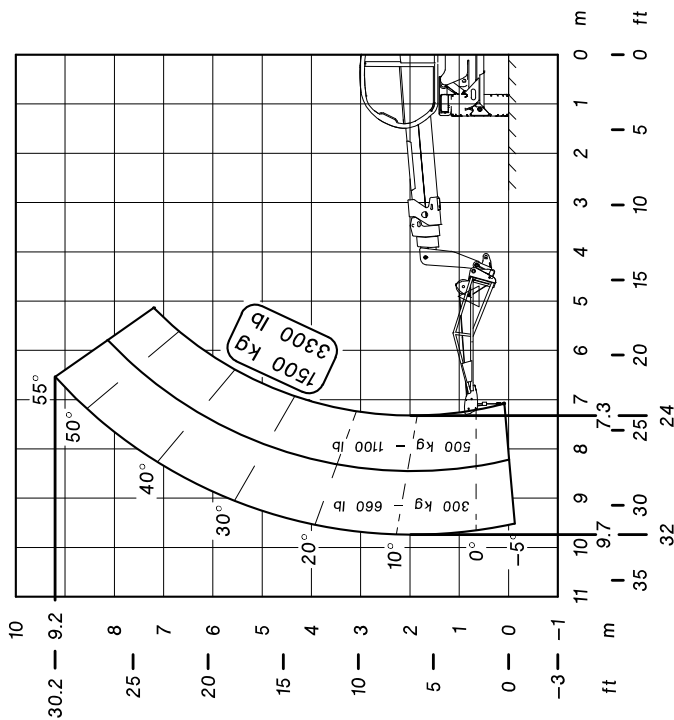


0km/h



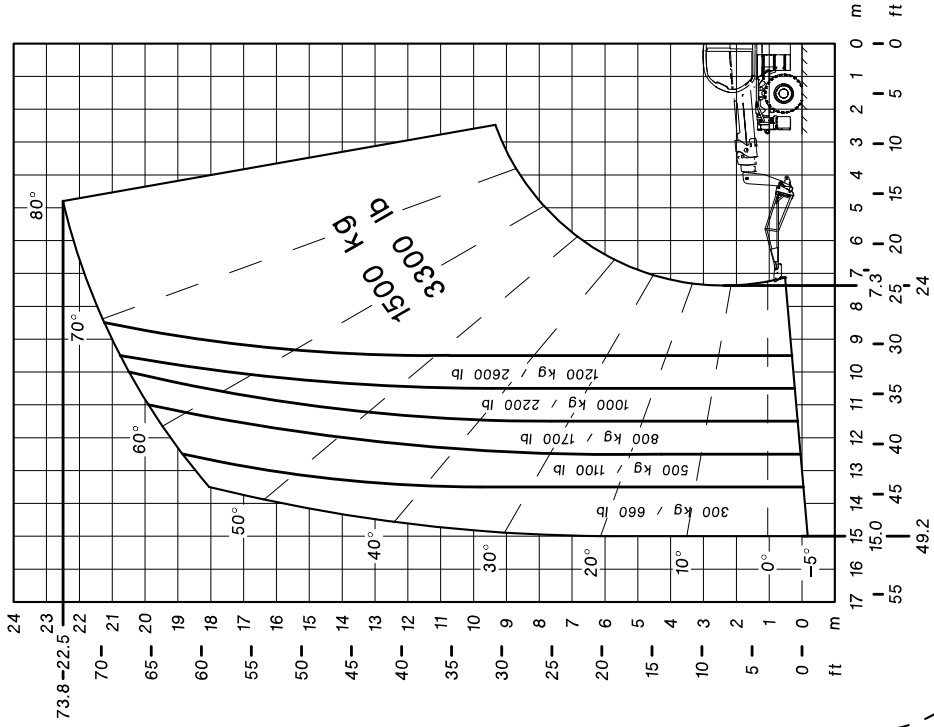
53019791

Standard used EN1459 – AS1418.19 – ASME B56.6



**MANITOU** MRT 2550+

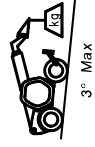
P1500 Pos. G



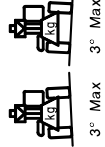
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



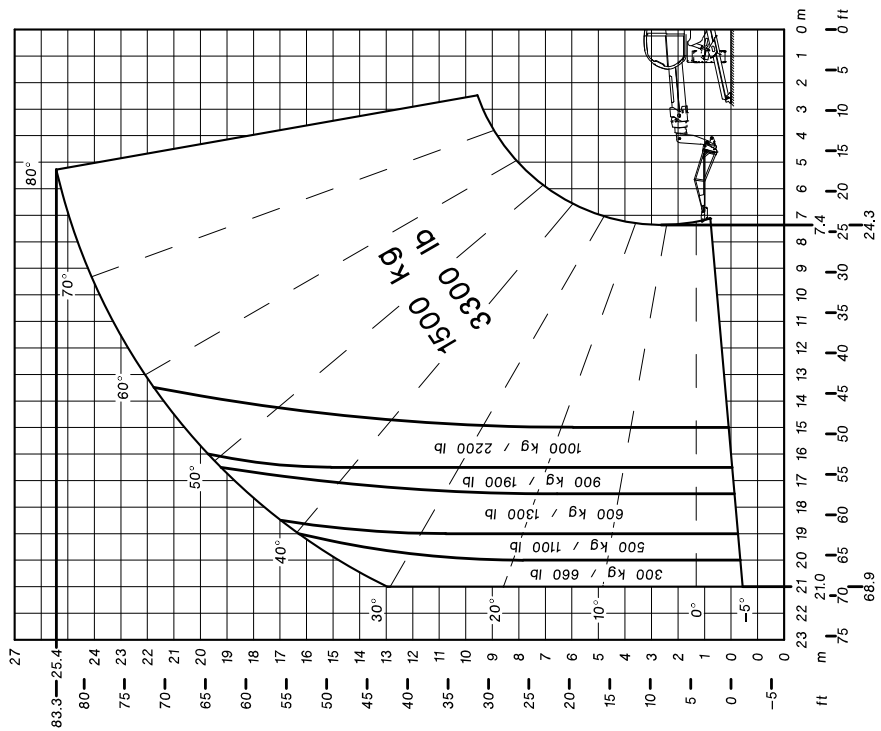
0km/h

53019804

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

P1500 Pos. G



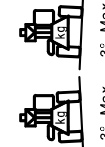
36 Km/h Max  
(10 m/s)



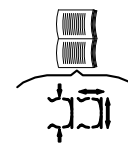
3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



0km/h

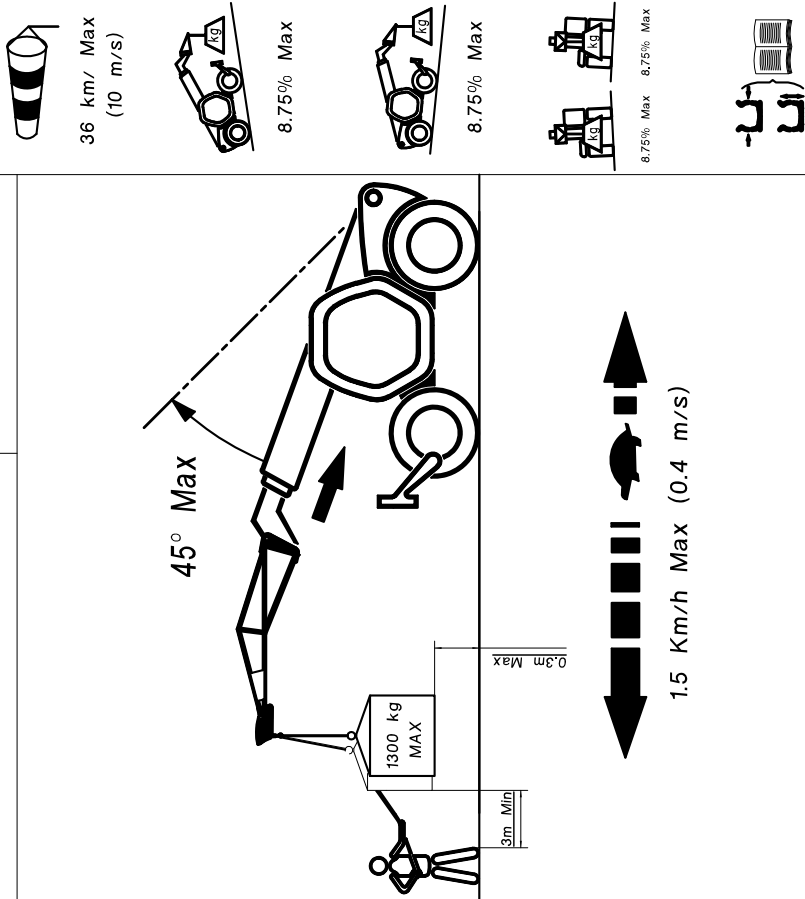
53019802

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

P1500

Pos. G



Ground conditions:  
solid surface

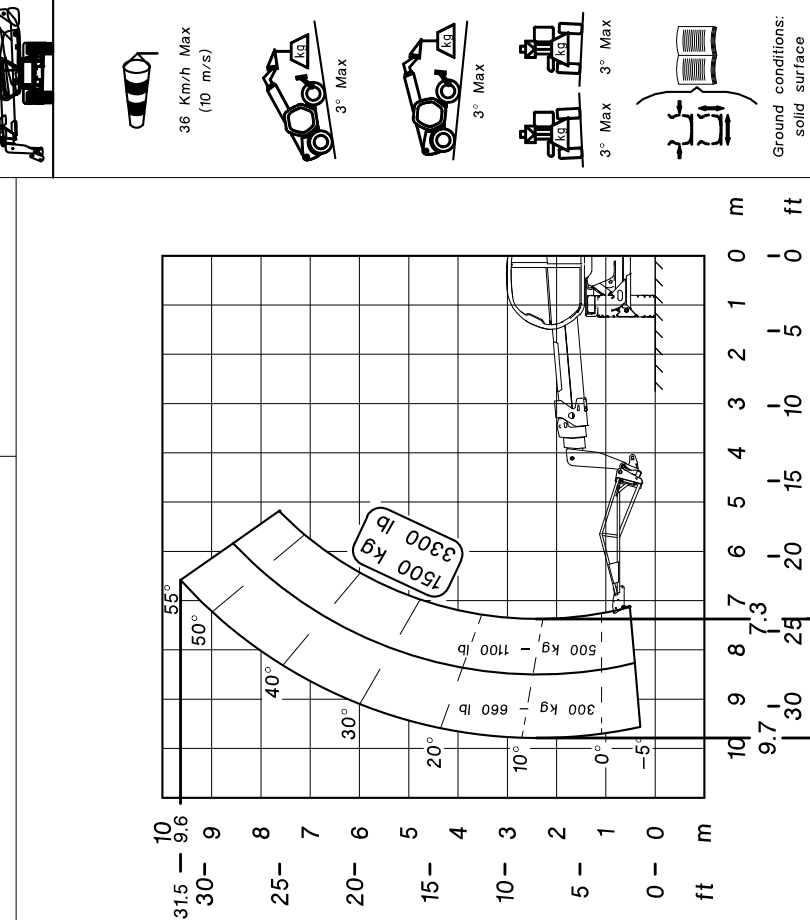
53019807

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

P1500

Pos. G



Ground conditions:  
solid surface

**P**  
0km/h

53019806

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

Winch 4T Pos. I



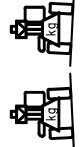
36 Km/h Max  
(10 m/s)



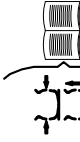
3° Max



3° Max



3° Max 3° Max

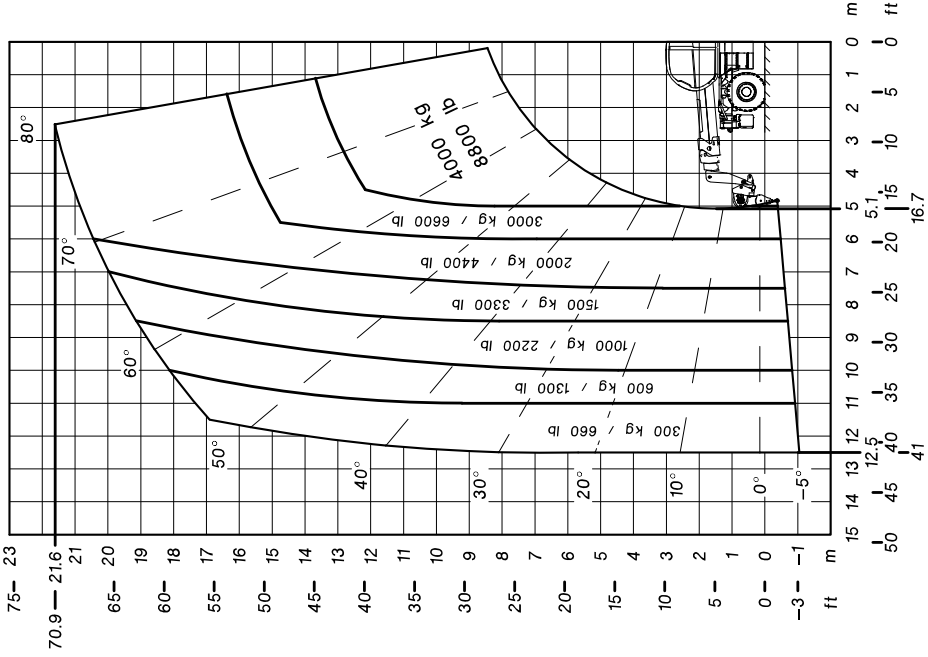


Ground conditions:  
solid surface



0km/h

53019820



Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

Winch 4T Pos. I



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

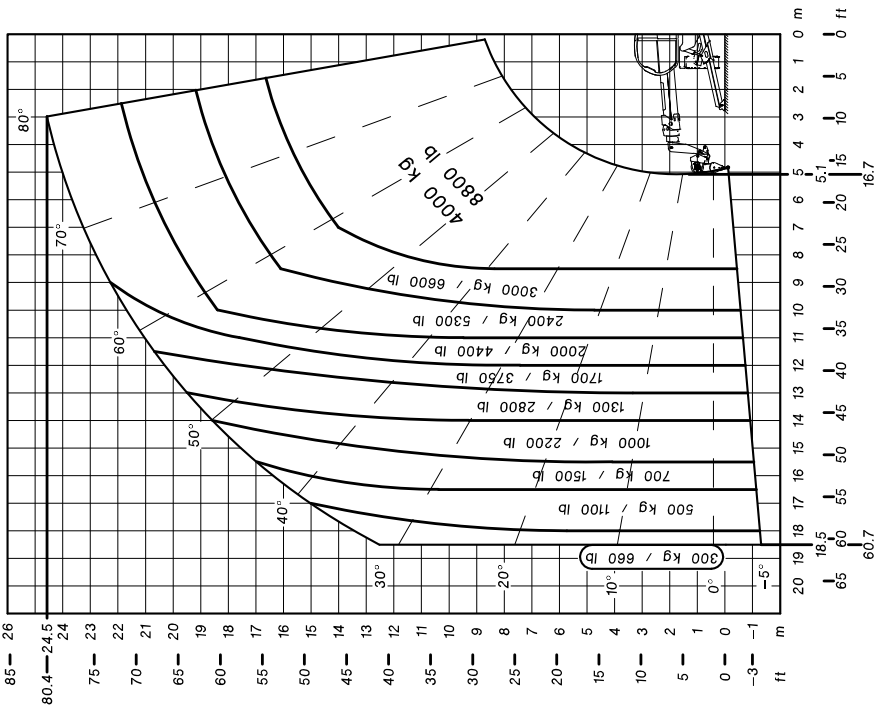


Ground conditions:  
solid surface

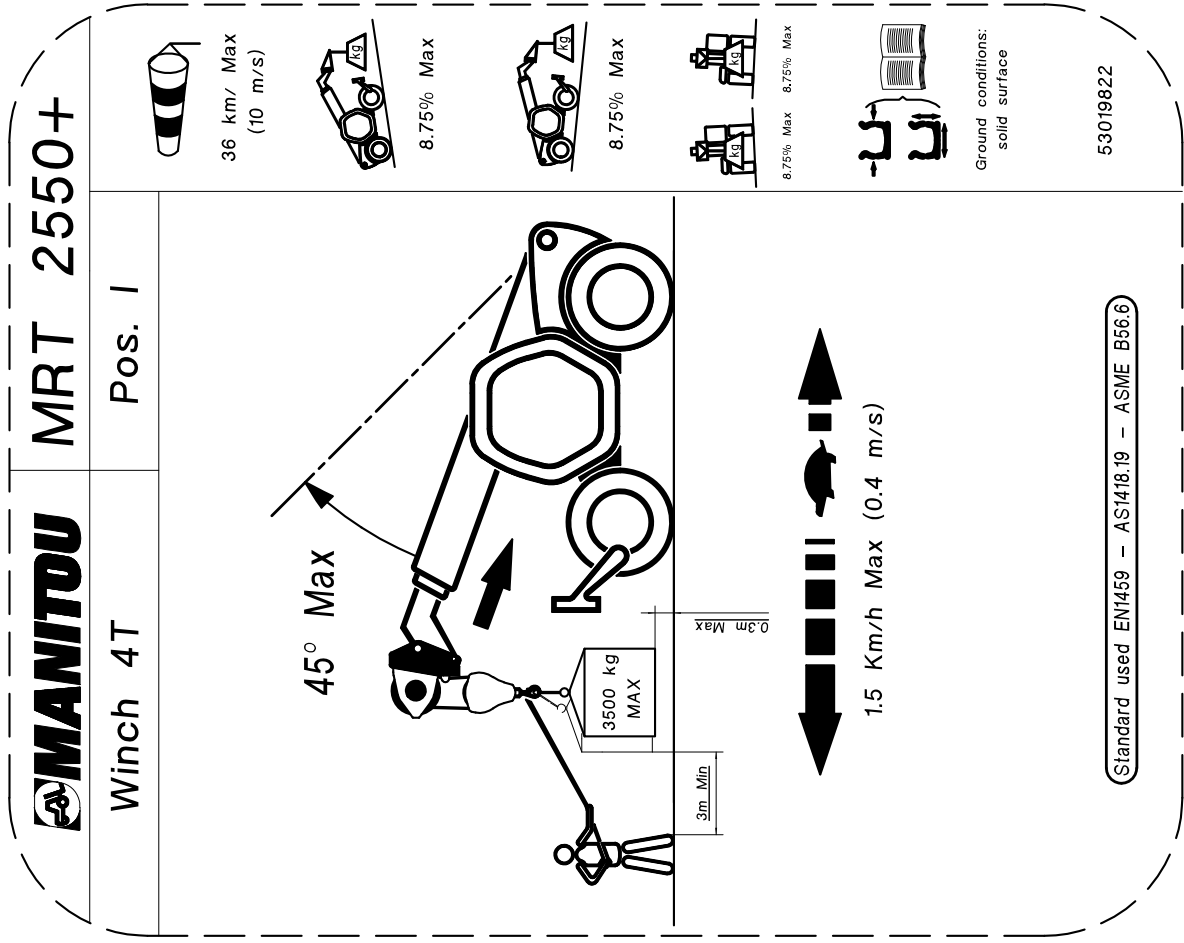


0km/h

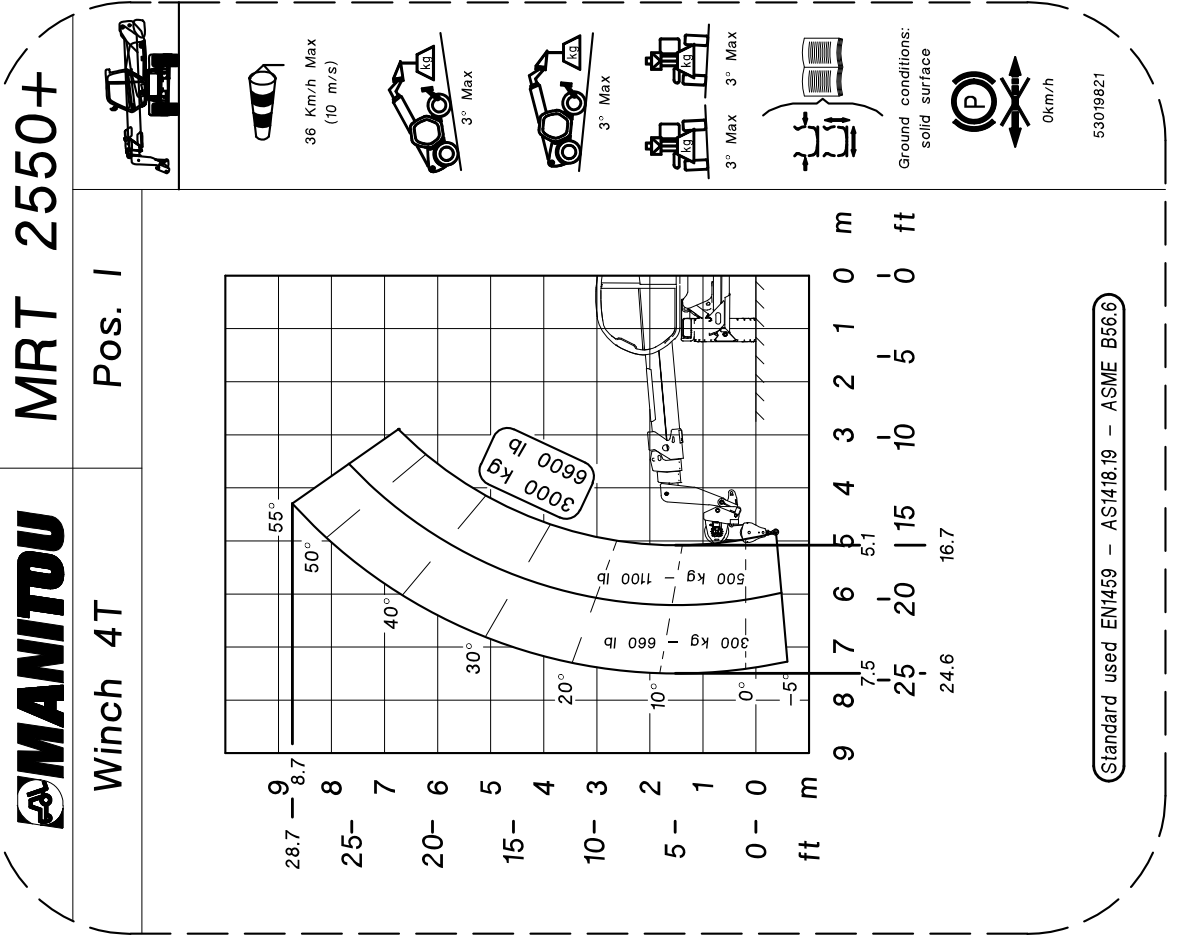
53019819



Standard used EN1459 – AS1418.19 – ASME B56.6



Standard used EN1459 – AS1418.19 – ASME B56.6



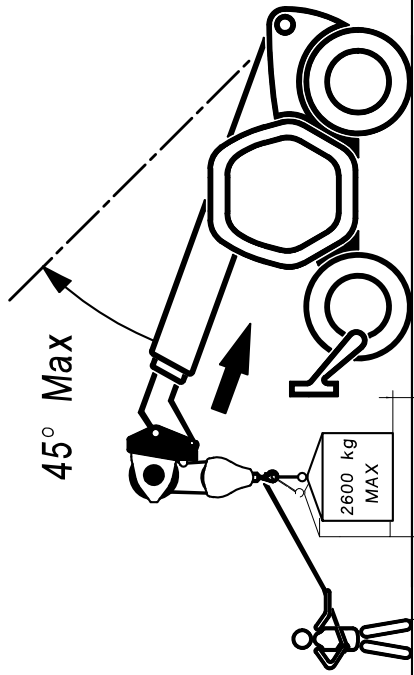
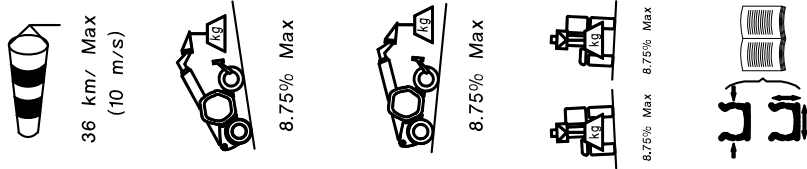
Standard used EN1459 – AS1418.19 – ASME B56.6





**MANITOU** MRT 2550+

Winch 3T Pos. C



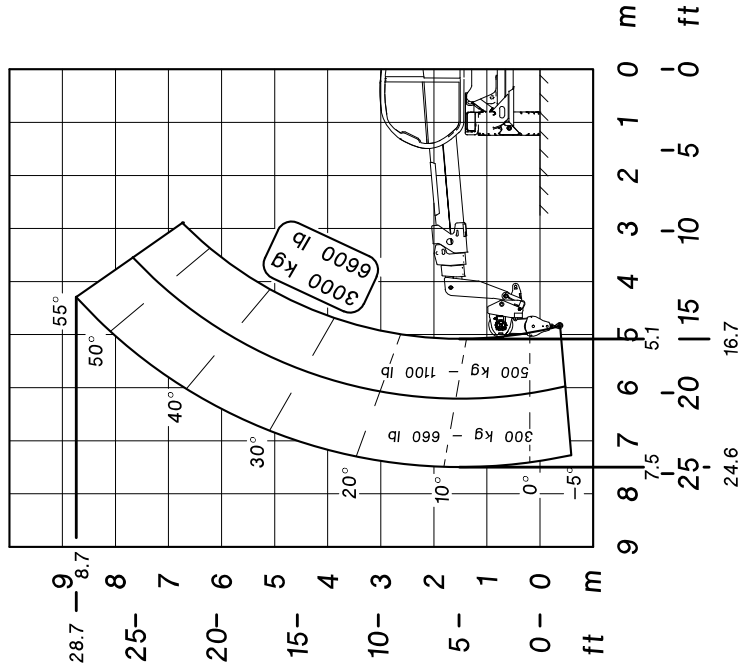
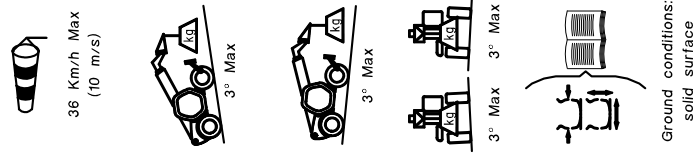
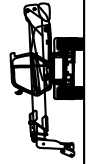
Ground conditions:  
solid surface

53019838

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

Winch 3T Pos. C



Ground conditions:  
solid surface



53019837

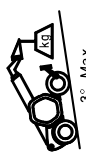
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

PC 50 Pos. S



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

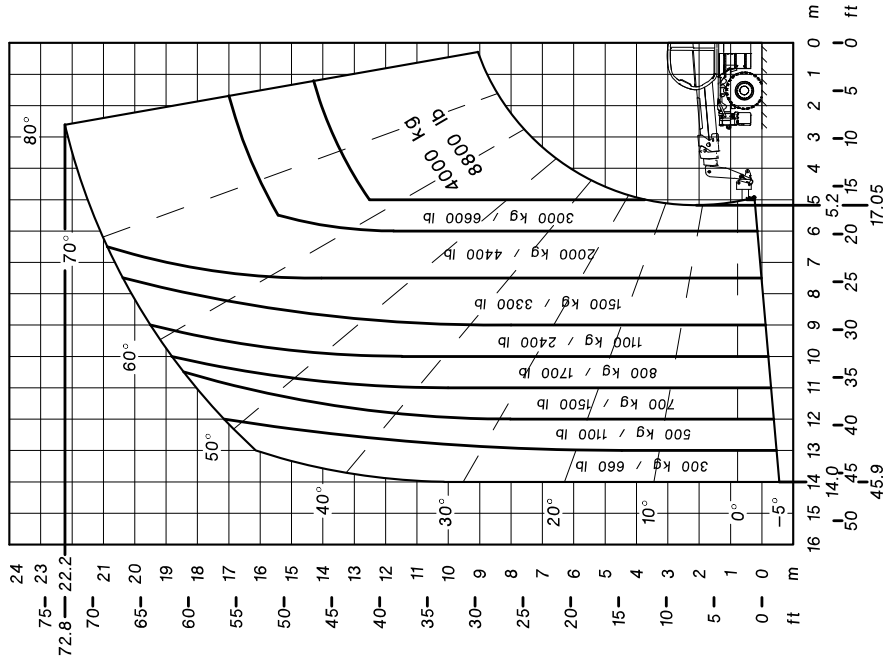


Ground conditions:  
solid surface



0km/h

53019858



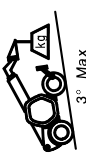
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

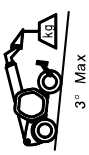
PC 50 Pos. S



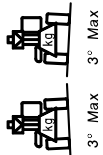
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

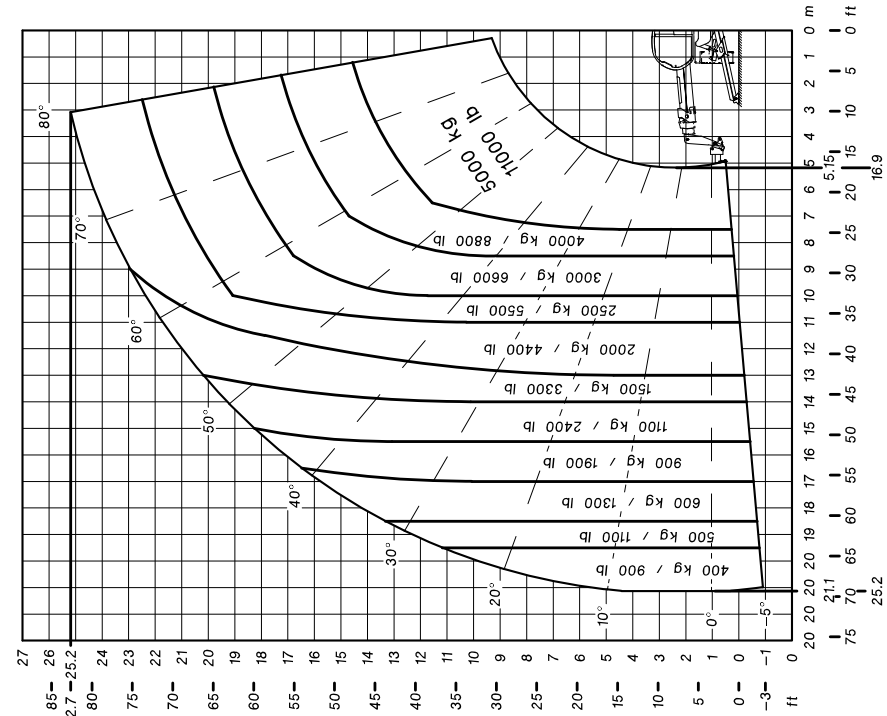


Ground conditions:  
solid surface


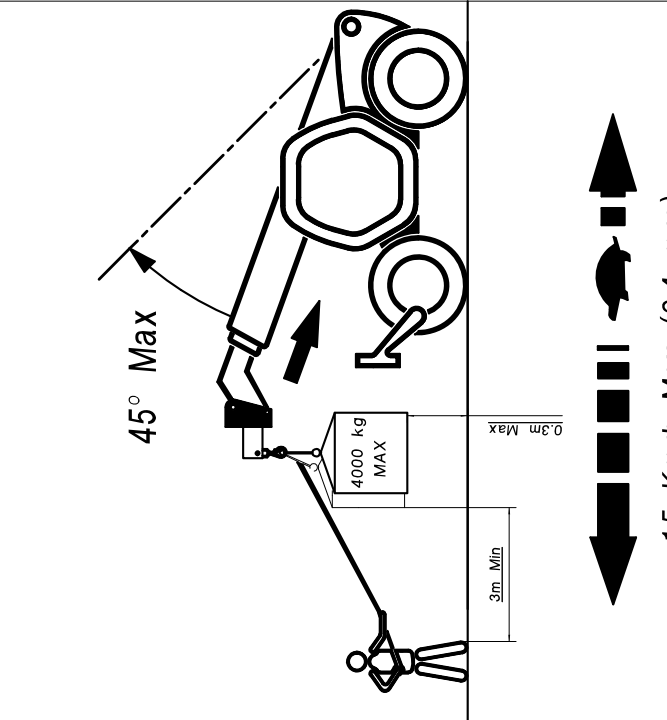
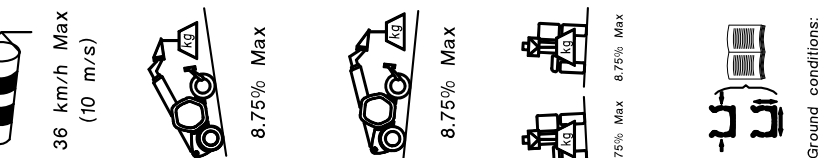


0km/h


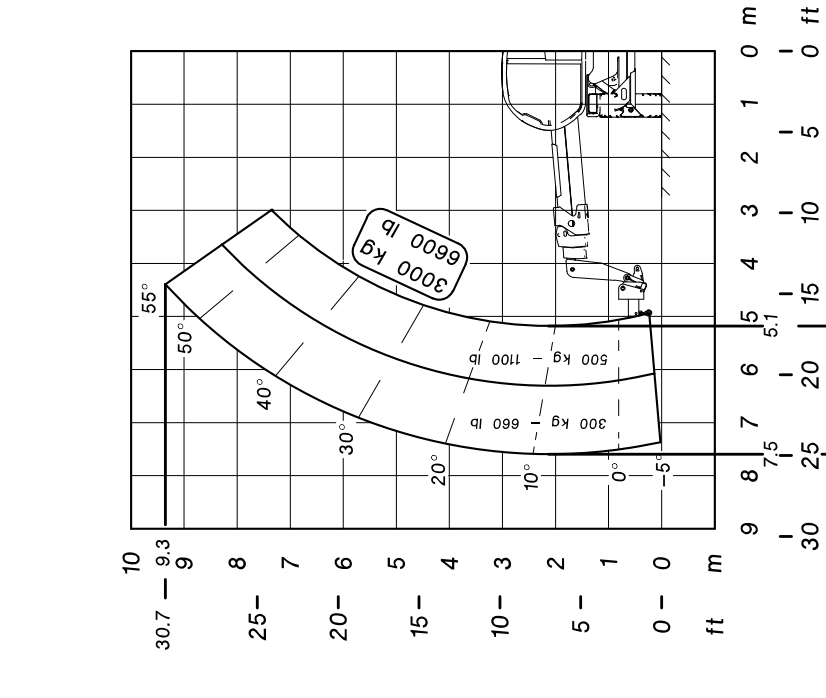
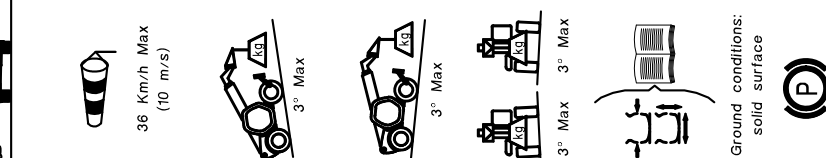
53019856



Standard used EN1459 – AS1418.19 – ASME B56.6

	<p>MRT 2550+</p>
<p>PC 50</p>	<p>Pos. S</p>
 <p>45° Max</p> <p>4000 kg MAX</p> <p>0.3m Max</p> <p>1.5 Km/h Max (0.4 m/s)</p>	
 <p>36 km/h Max (10 m/s)</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>Ground conditions: solid surface</p>	
<p>53019860</p>	

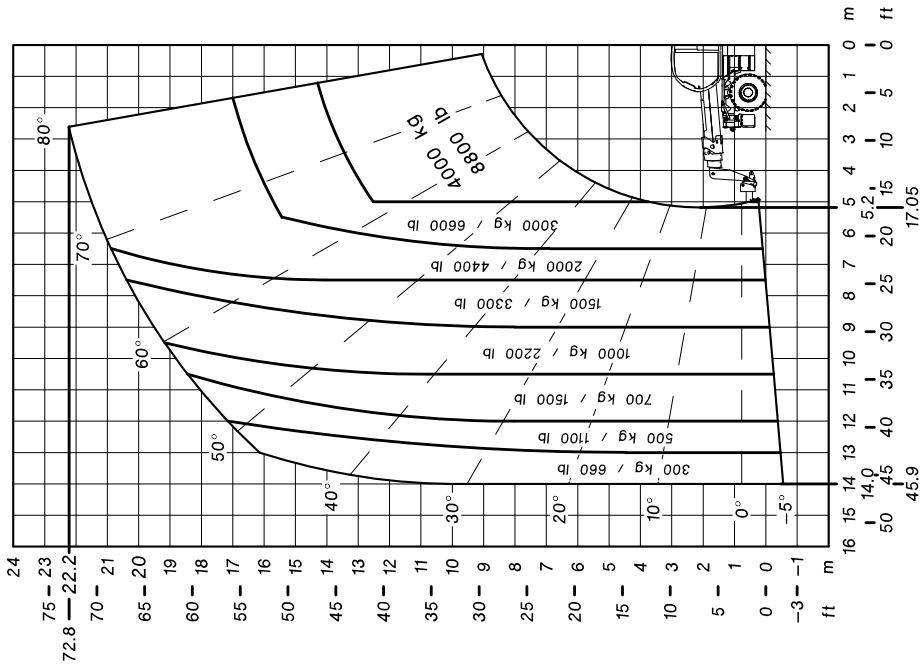
Standard used EN1459 – AS1418.19 – ASME B56.6

	<p>MRT 2550+</p>
<p>PC 50</p>	<p>Pos. S</p>
 <p>3000 kg (6600 lb)</p> <p>500 kg (1100 lb)</p> <p>300 kg (660 lb)</p> <p>55°</p> <p>50°</p> <p>40°</p> <p>30°</p> <p>20°</p> <p>10°</p> <p>0°</p> <p>10 9.3 9 8 7 6 5 4 3 2 1 0 0 ft</p> <p>30.7 25 20 15 10 5 0 m</p> <p>7.5 5.1 24.9 17</p>	
 <p>36 Km/h Max (10 m/s)</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max</p> <p>Ground conditions: solid surface</p> <p>0 km/h</p>	
<p>53019859</p>	

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

PC 40 Pos. R

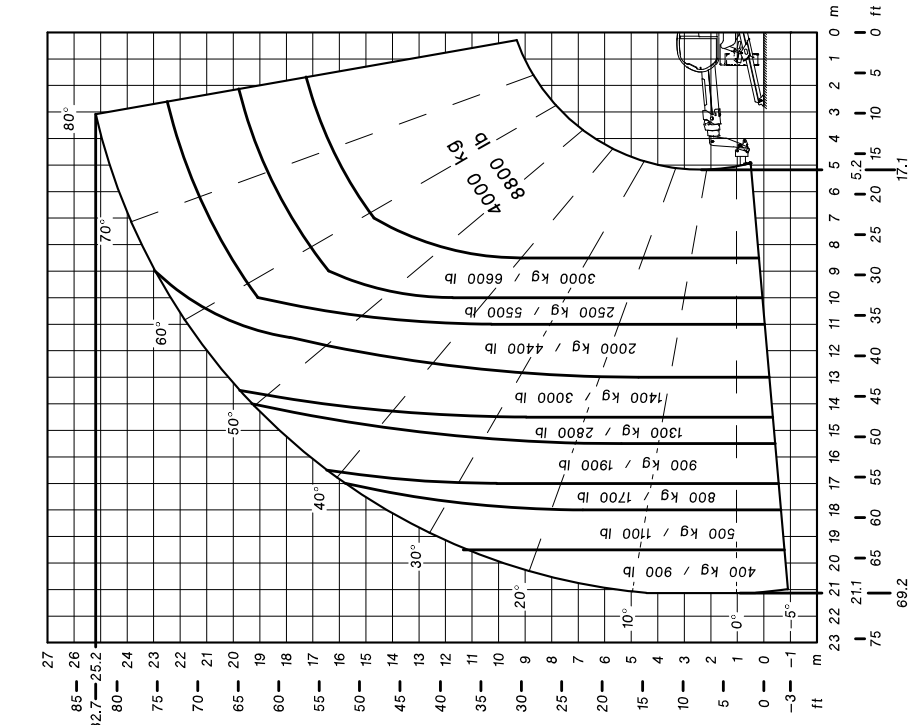


Standard used EN1459 - AS1418.19 - ASME B56.6

53019897

**MANITOU** MRT 2550+

PC 40 Pos. R

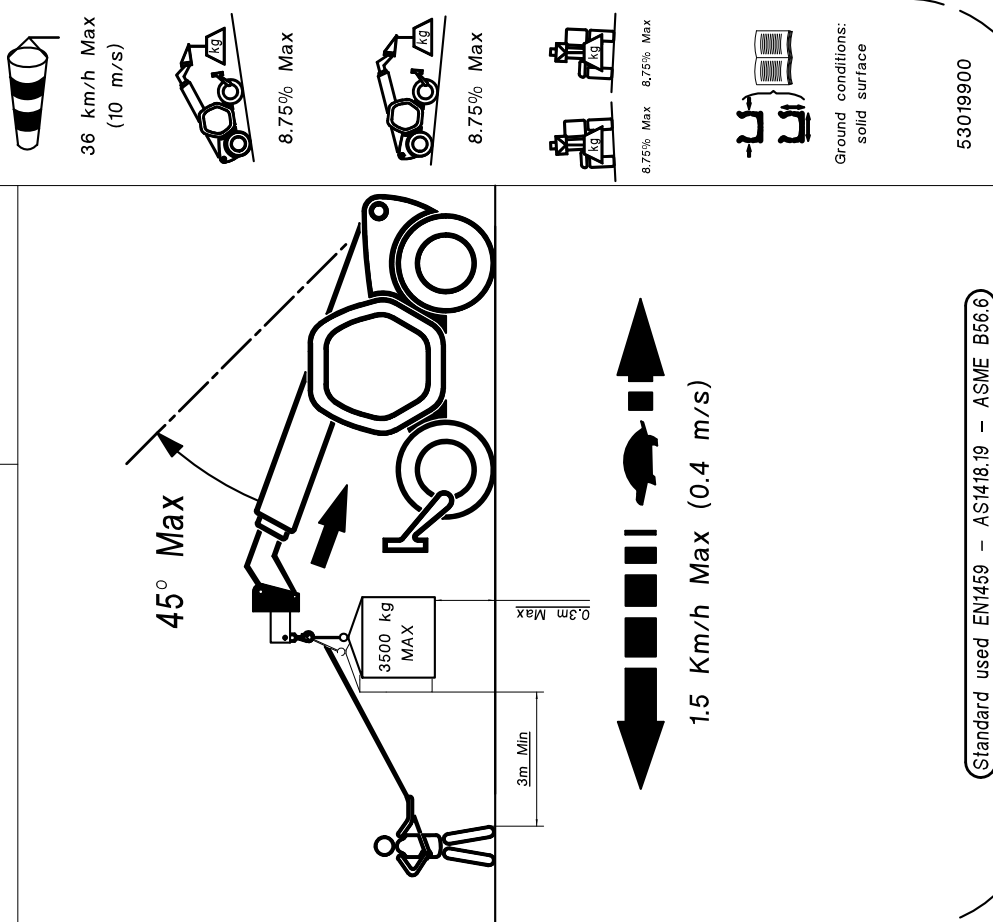


Standard used EN1459 - AS1418.19 - ASME B56.6

53019896

**MANITOU** MRT 2550+

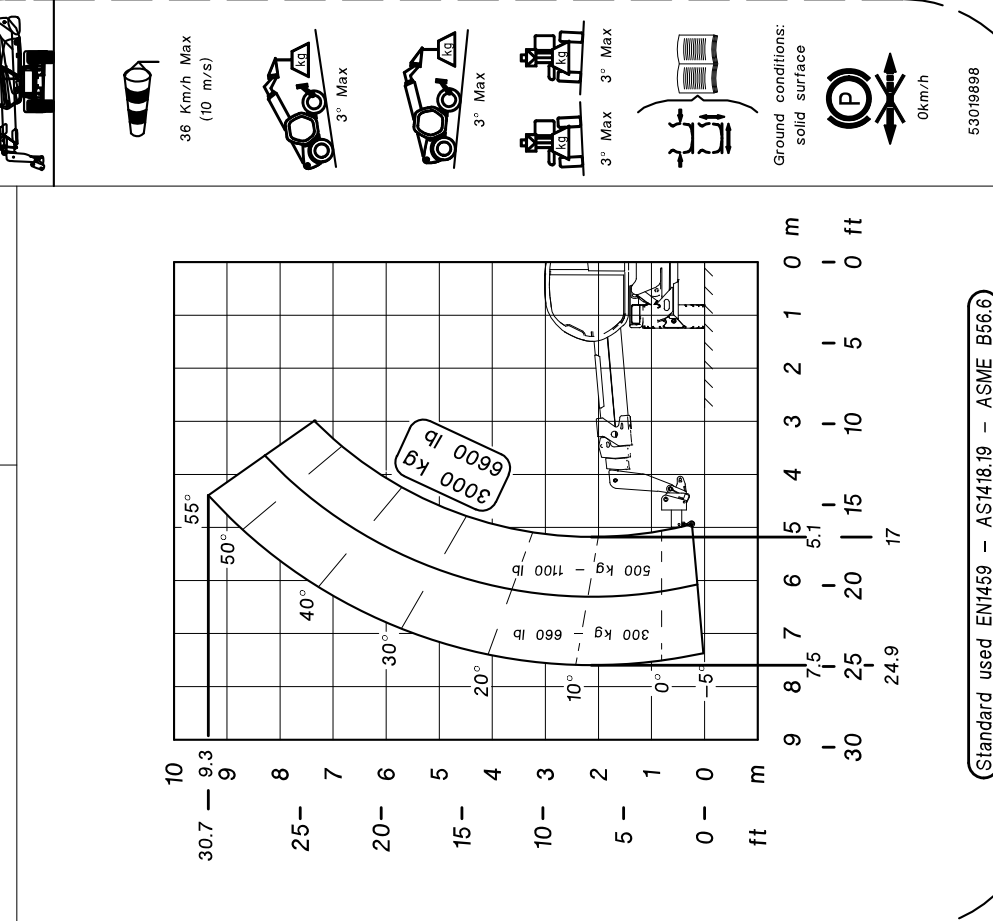
PC 40 Pos. R



Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

PC 40 Pos. R



Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

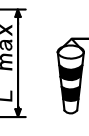
MRT 2550+

PC 30

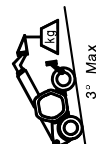
Pos. Q



L max



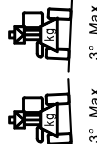
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max

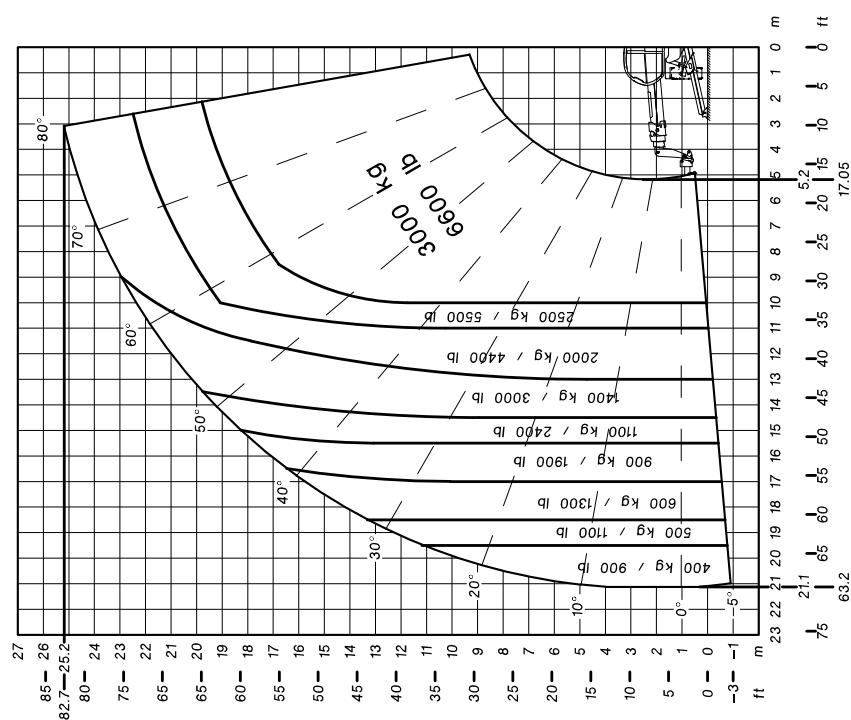


Ground conditions:  
solid surface



0km/h

53020011



Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

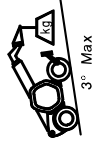
MRT 2550+

PC 30

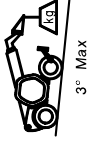
Pos. Q



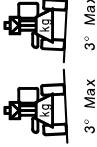
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max

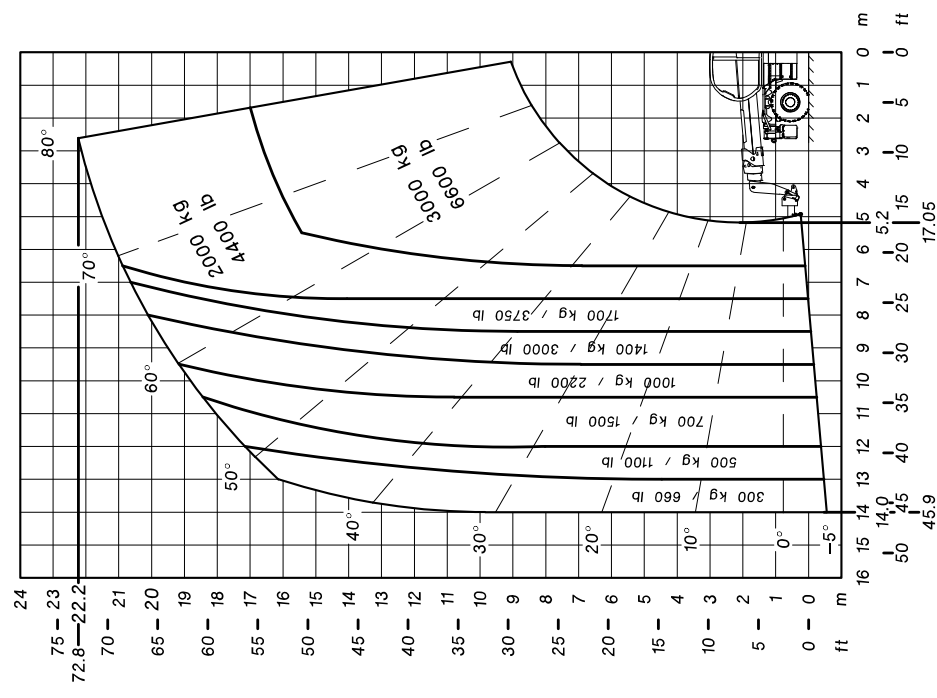


Ground conditions:  
solid surface

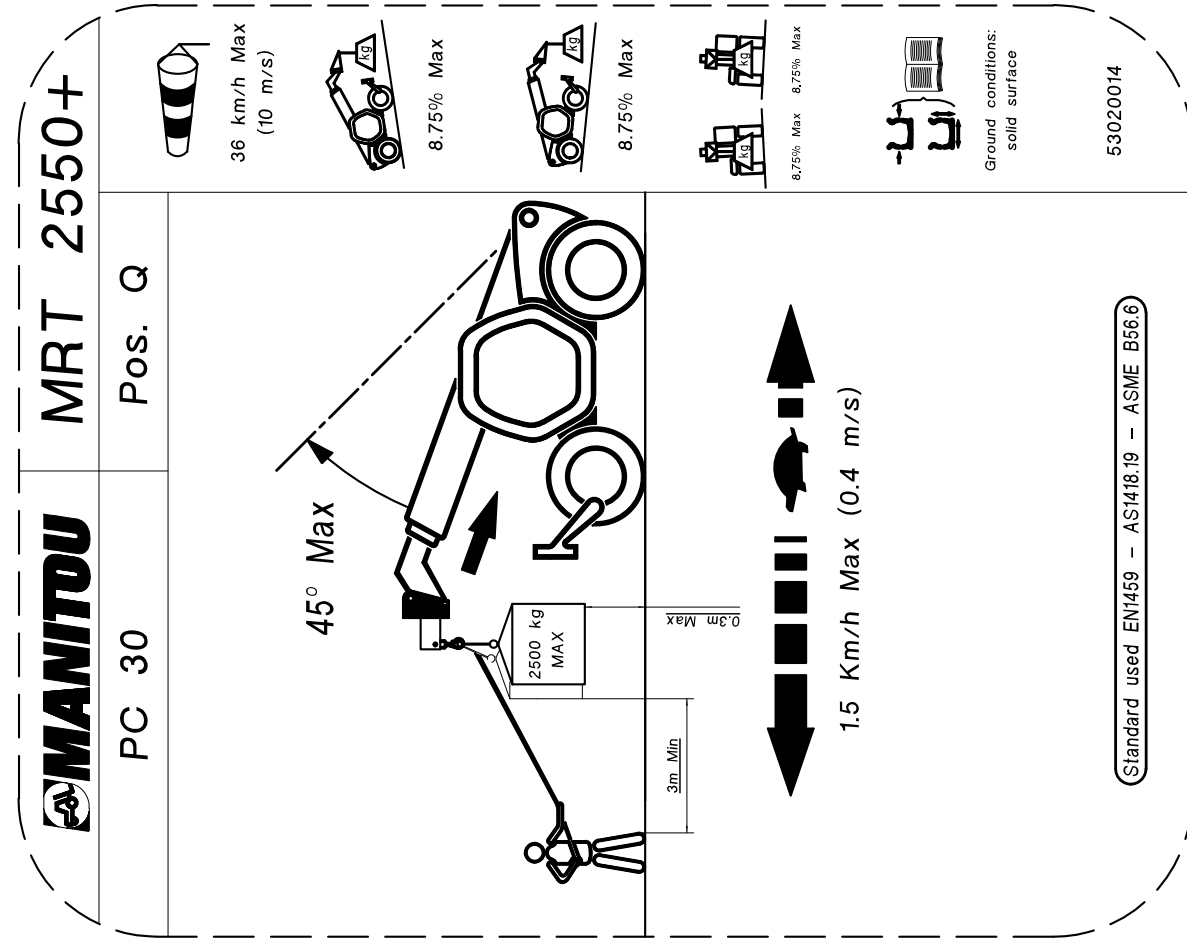
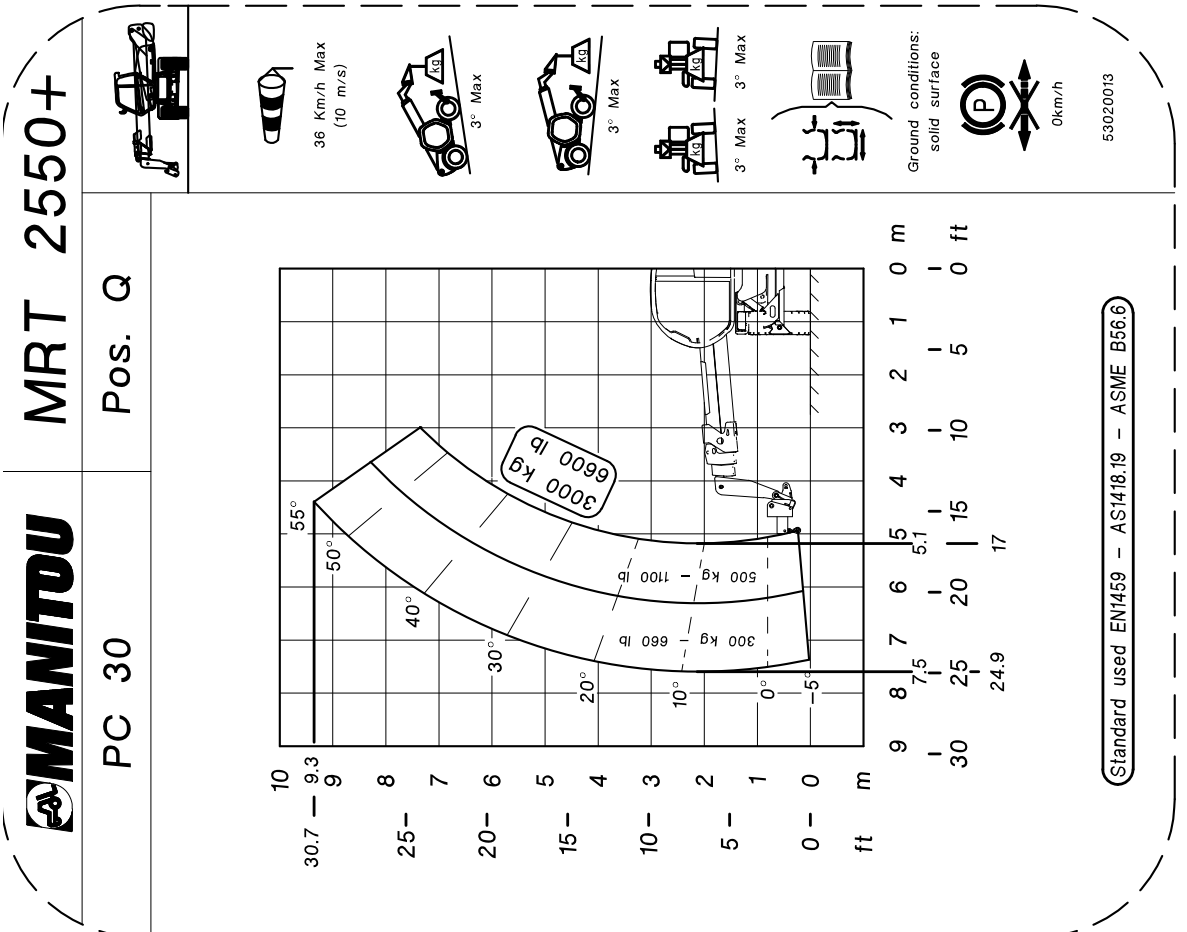


0km/h

53020012



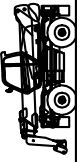
Standard used EN1459 – AS1418.19 – ASME B56.6





**MANITOU** MRT 2550+

PT600 Pos. D



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max

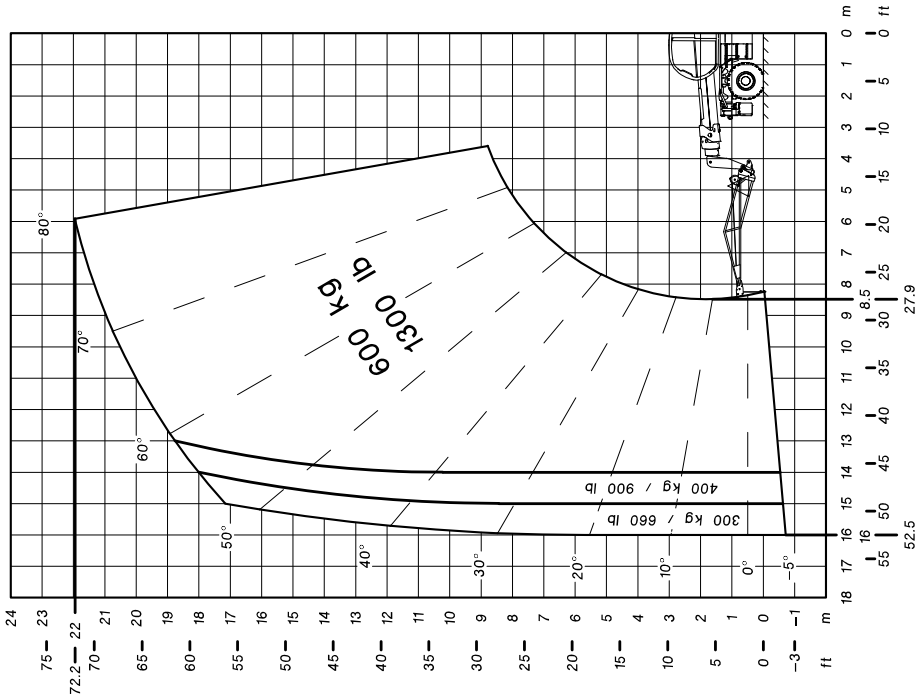


Ground conditions:  
solid surface



0 km/h

53010016



Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

PT600 Pos. D



36 Km/h Max  
(10 m/s)



1% Max



1% Max



1% Max

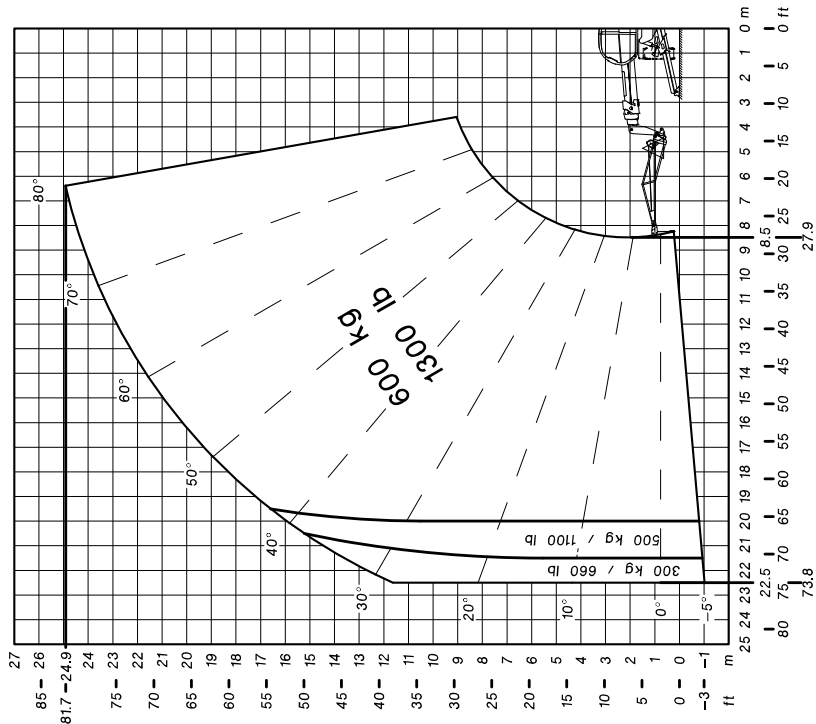


Ground conditions:  
solid surface



0 km/h

53020015



Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2550+

PT600

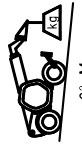
Pos. D



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max



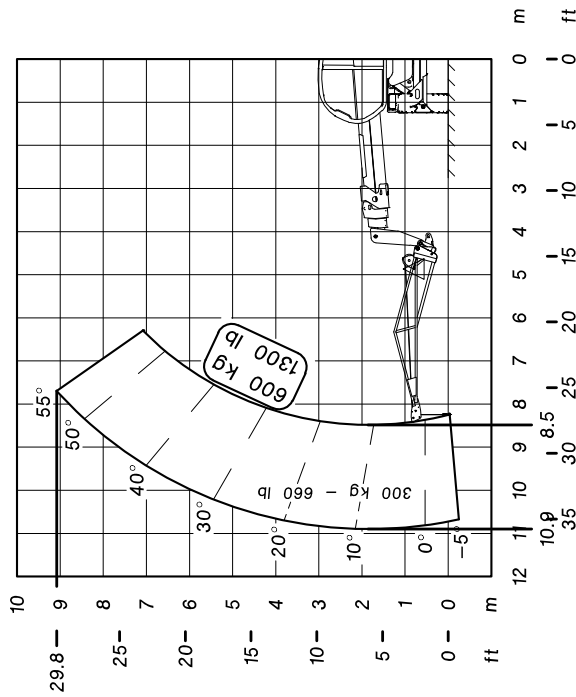
Ground conditions:  
solid surface



0km/h

53020017

Standard used EN1459 – AS1418.19 – ASME B56.6



**MANITOU**

MRT 2550+

PT600

Pos. D



36 km/ Max  
(10 m/s)



8.75% Max



8.75% Max

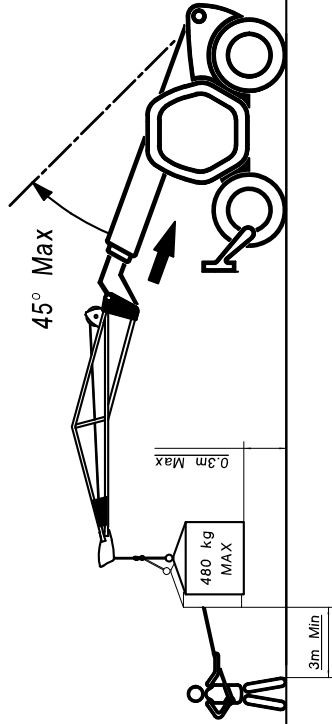


8.75% Max 8.75% Max



Ground conditions:  
solid surface

53020018



1.5 Km/h Max (0.4 m/s)

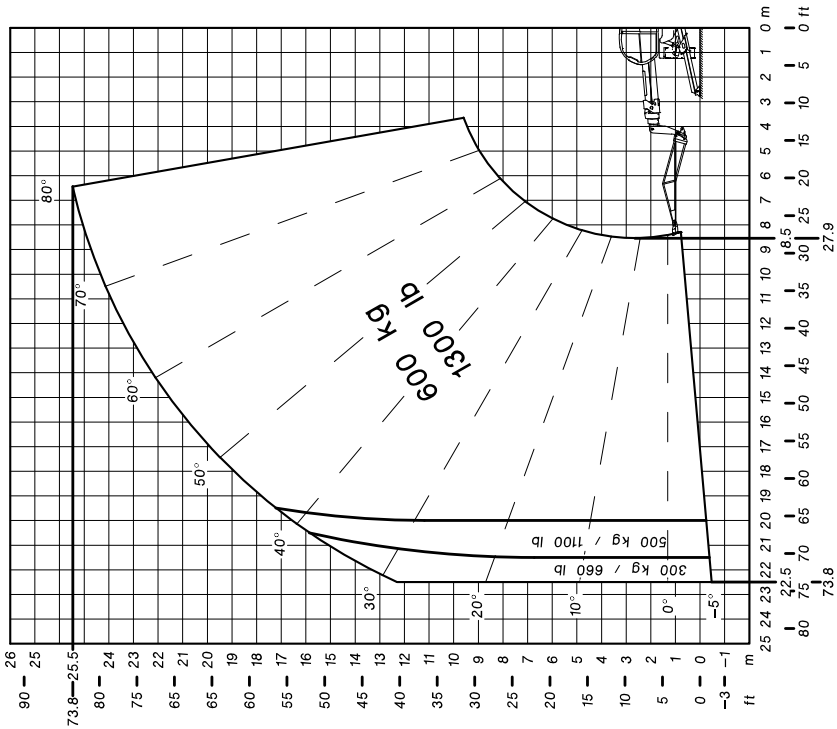
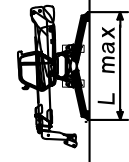
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2550+

P600

Pos. D



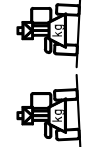
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



0km/h

53020025

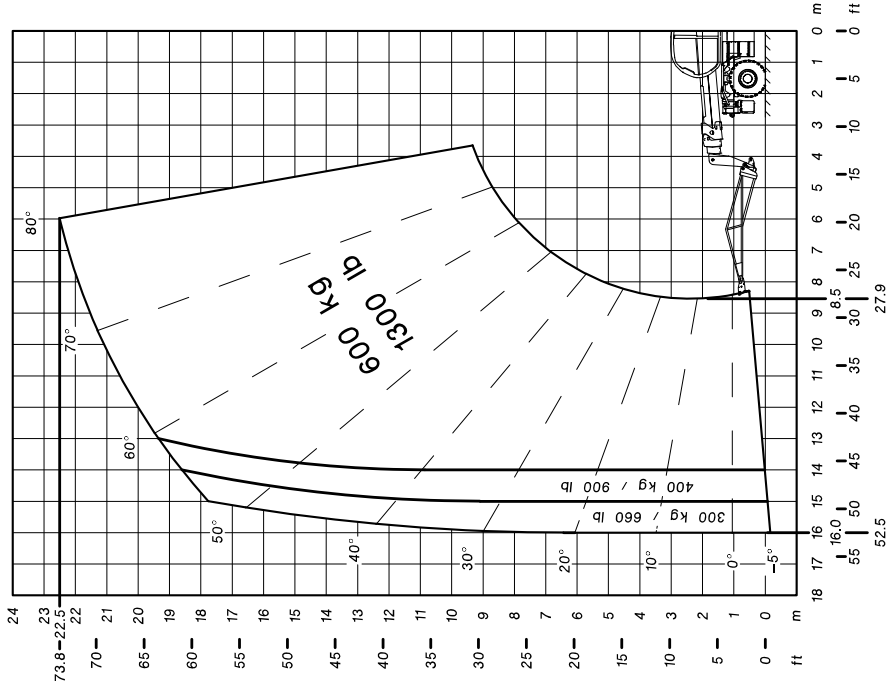
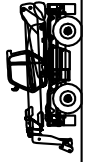
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

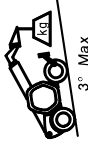
MRT 2550+

P600

Pos. D



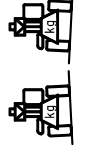
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



0km/h

53020026

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

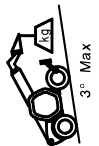
MRT 2550+

P600

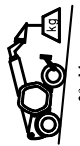
Pos. D



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



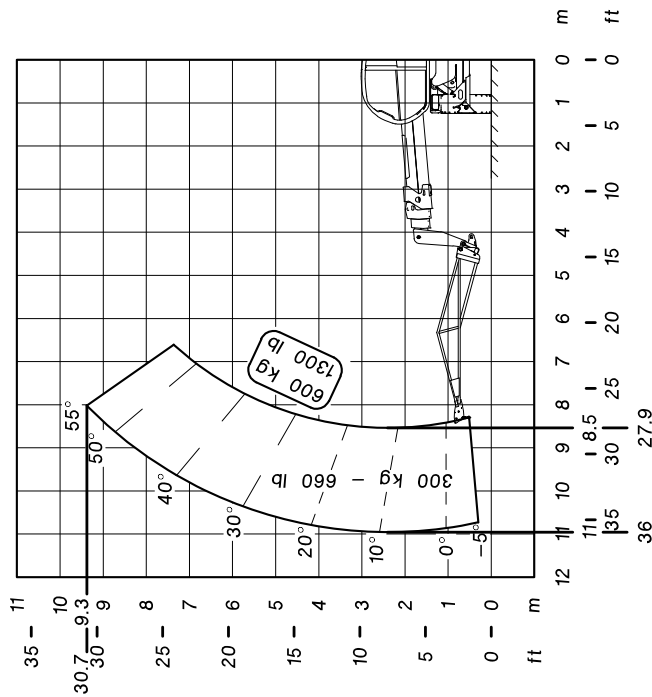
Ground conditions:  
solid surface



0km/h

53020028

Standard used EN1459 – AS1418.19 – ASME B56.6



**MANITOU**

MRT 2550+

P600

Pos. D



36 km/ Max  
(10 m/s)



8.75% Max



8.75% Max

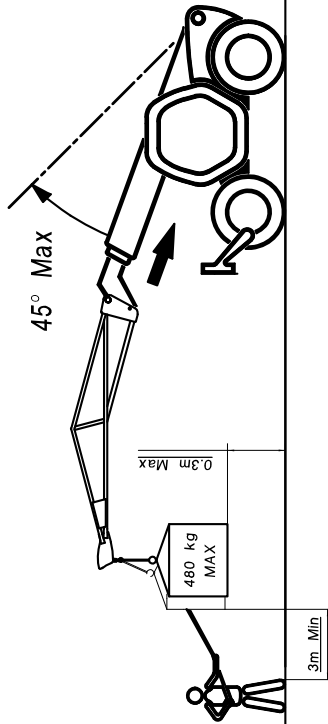


8.75% Max 8.75% Max



Ground conditions:  
solid surface

53020029



1.5 Km/h Max (0.4 m/s)

Standard used EN1459 – AS1418.19 – ASME B56.6



**MANITOU**

MRT 2550+

PT1000

Pos. E



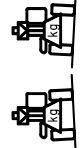
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



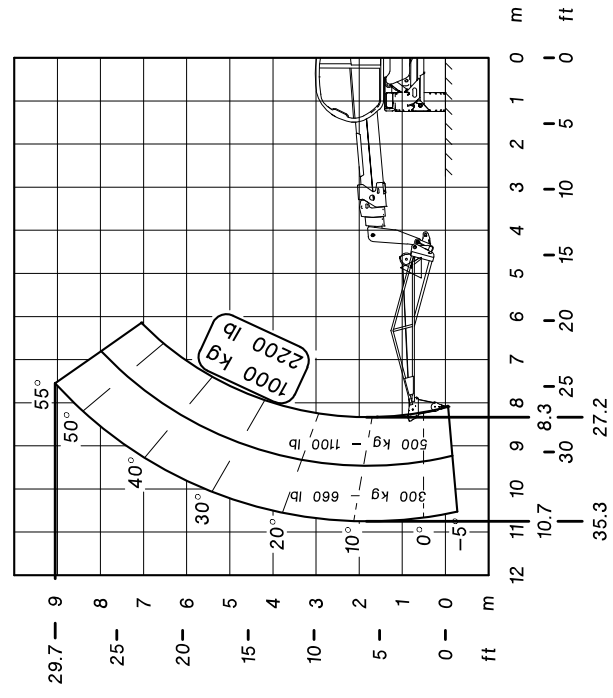
Ground conditions:  
solid surface



0km/h

53004679

Standard used EN1459 – AS1418.19 – ASME B56.6



**MANITOU**

MRT 2550+

PT1000

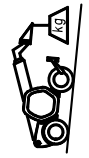
Pos. E



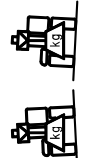
36 km/h Max  
(10 m/s)



8.75% Max



8.75% Max

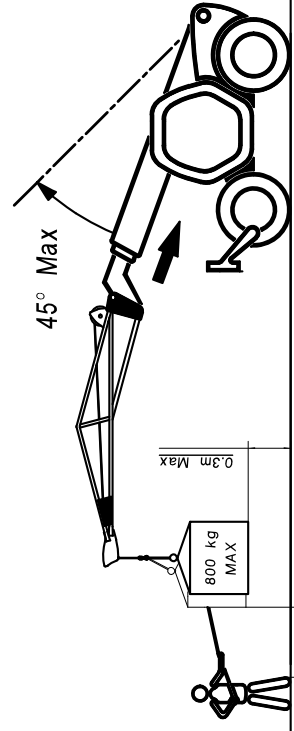


8.75% Max 8.75% Max



Ground conditions:  
solid surface

53020081



1.5 Km/h Max (0.4 m/s)

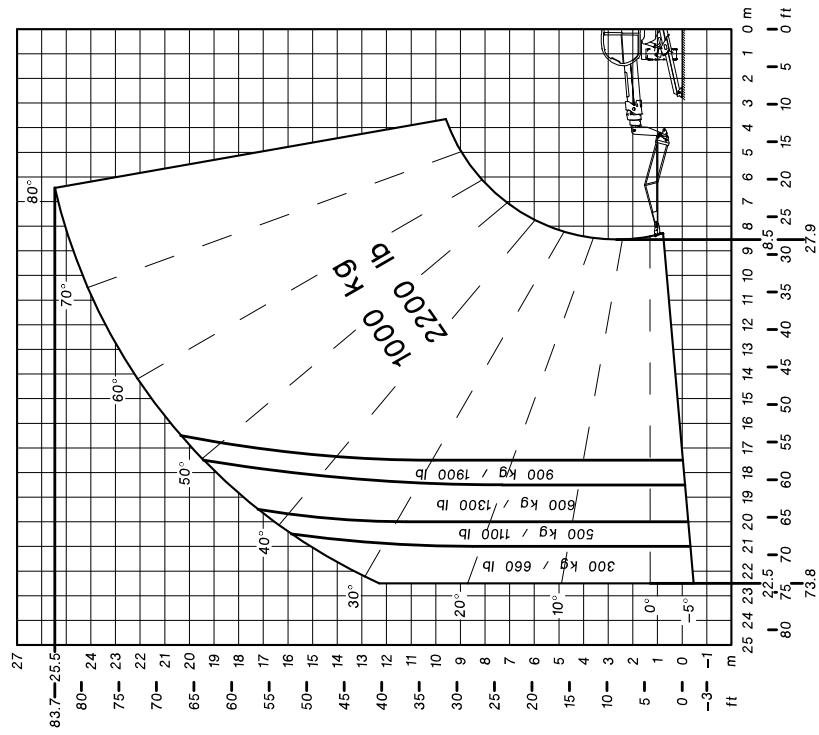
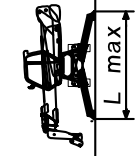
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

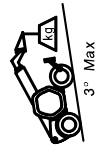
MRT 2550+

P1000

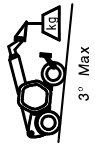
Pos. E



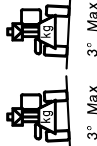
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



53020083

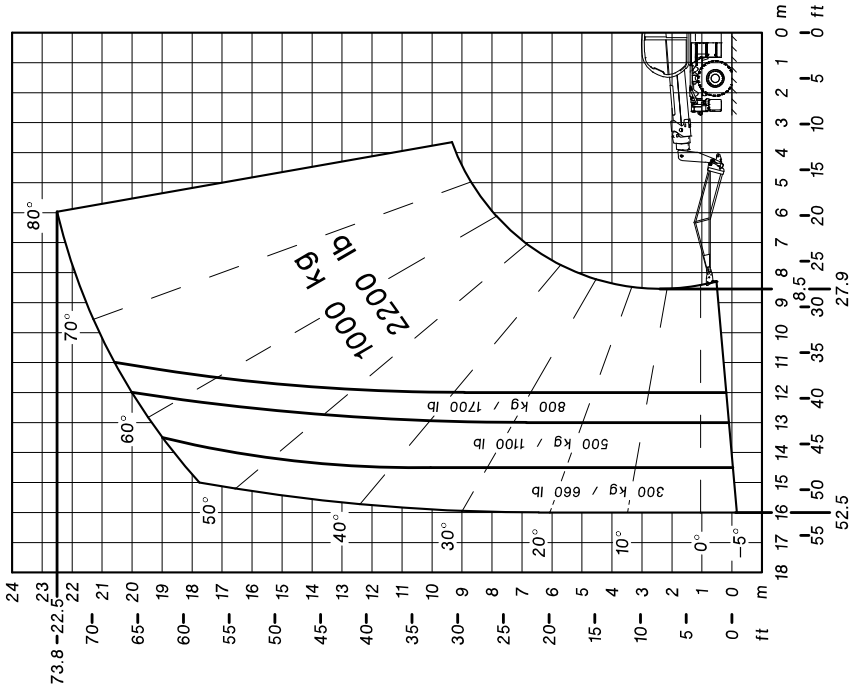
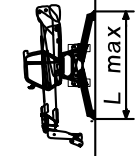
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

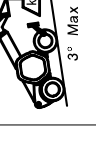
MRT 2550+

P1000

Pos. E



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max


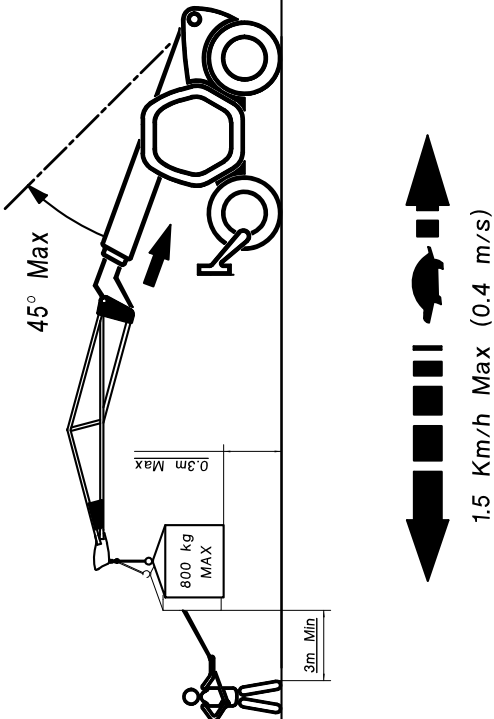


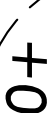
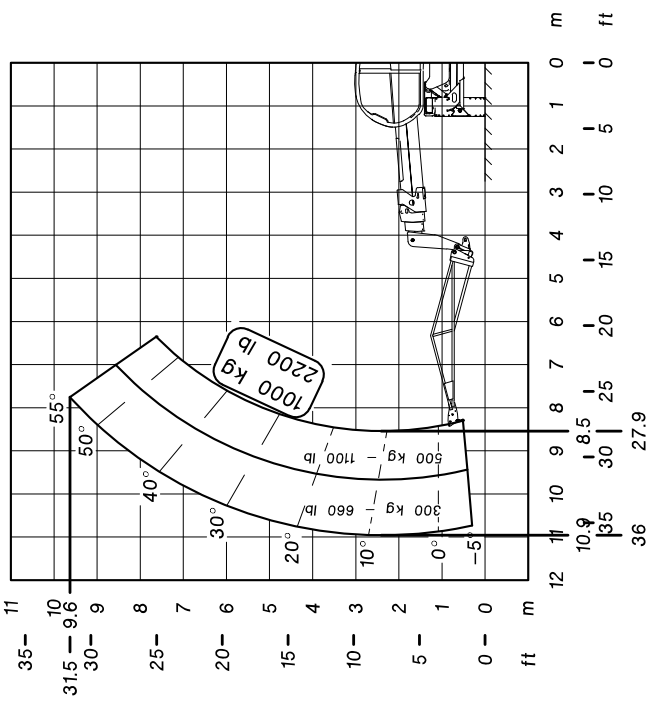
Ground conditions:  
solid surface



53020084

Standard used EN1459 – AS1418.19 – ASME B56.6

	<b>P1000</b>	<b>MRT 2550+</b>	<b>Pos. E</b>	 <p>45° Max</p> <p>800 kg MAX</p> <p>0.3m Max</p> <p>3m Min</p> <p>1.5 Km/h Max (0.4 m/s)</p> <p>36 km/h Max (10 m/s)</p> <p>8.75% Max</p> <p>8.75% Max</p> <p>8.75% Max 8.75% Max</p> <p>Ground conditions: solid surface</p> <p>53020087</p> <p>Standard used EN1459 – AS1418.19 – ASME B56.6</p>
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	<b>P1000</b>	<b>MRT 2550+</b>	<b>Pos. E</b>	 <p>36 Km/h Max (10 m/s)</p> <p>3° Max</p> <p>3° Max</p> <p>3° Max 3° Max</p> <p>Ground conditions: solid surface</p> <p>0km/h</p> <p>53020085</p> <p>Standard used EN1459 – AS1418.19 – ASME B56.6</p>
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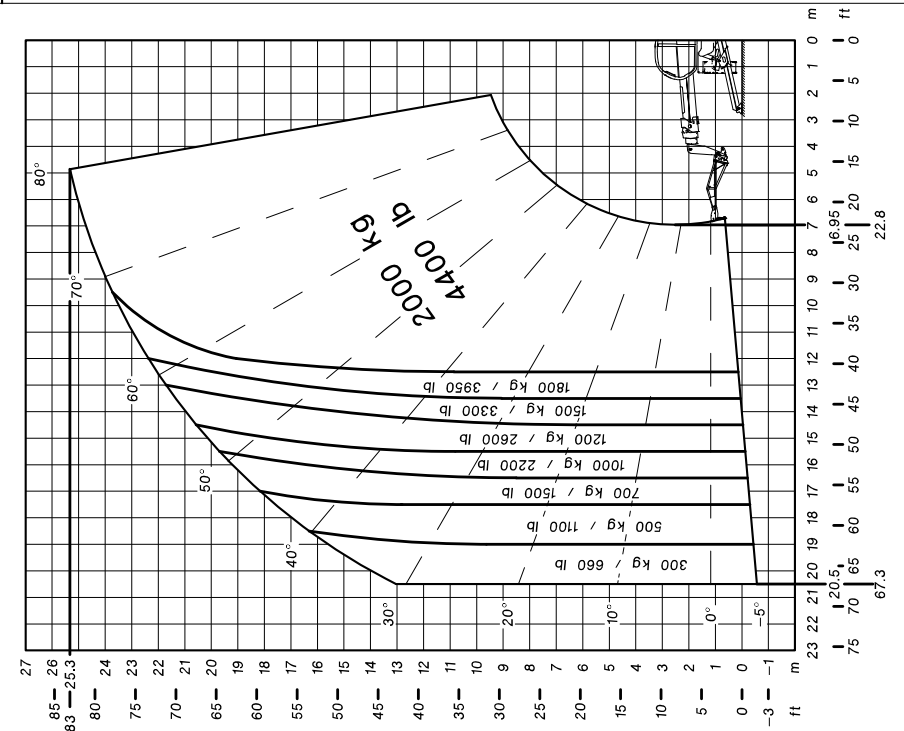
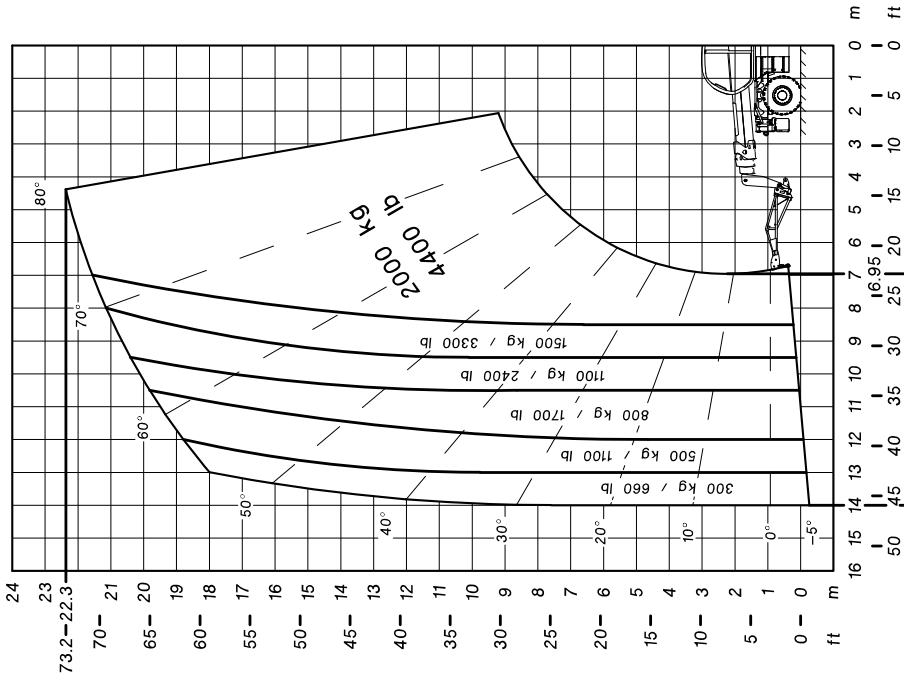
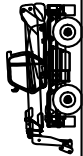


**MANITOU**

**MRT 2550+**

P2000 Pos. H

P2000 Pos. H



36 Km/h Max  
(10 m/s)

36 Km/h Max  
(10 m/s)

3° Max

3° Max

3° Max

3° Max

3° Max 3° Max

3° Max 3° Max

Ground conditions:  
solid surface

Ground conditions:  
solid surface

0km/h

0km/h

53020140

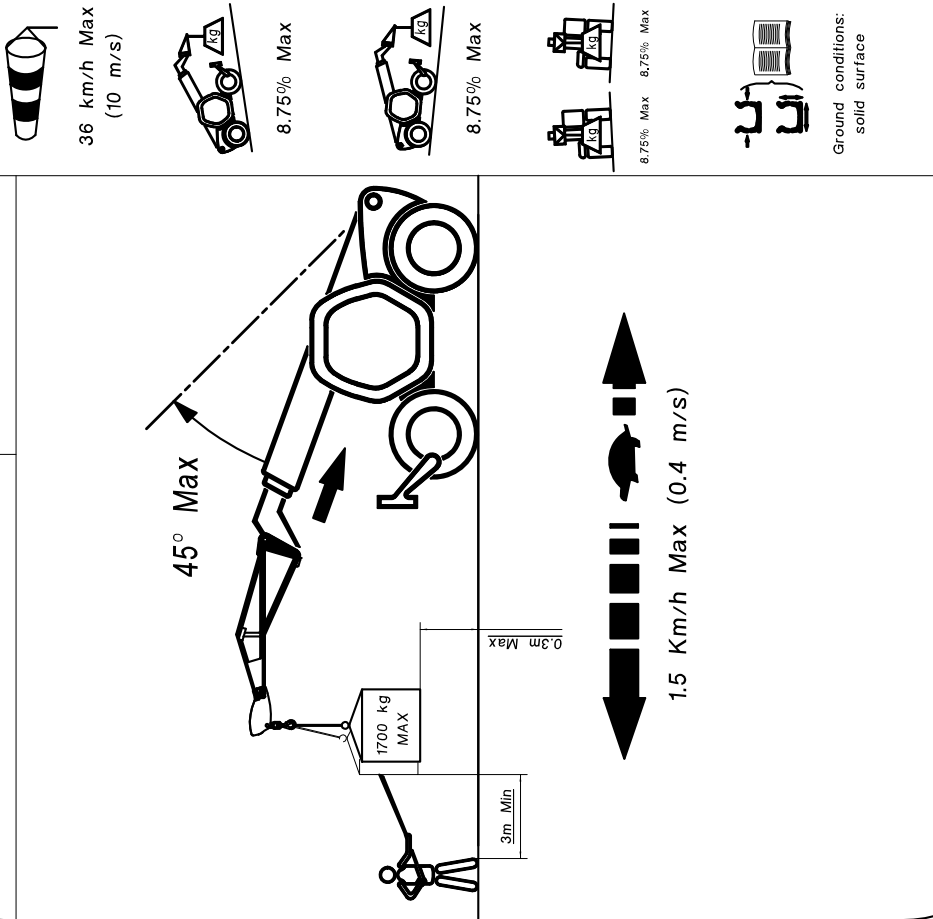
53020199

Standard used EN1459 – AS1418.19 – ASME B56.6

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

P2000 Pos. H

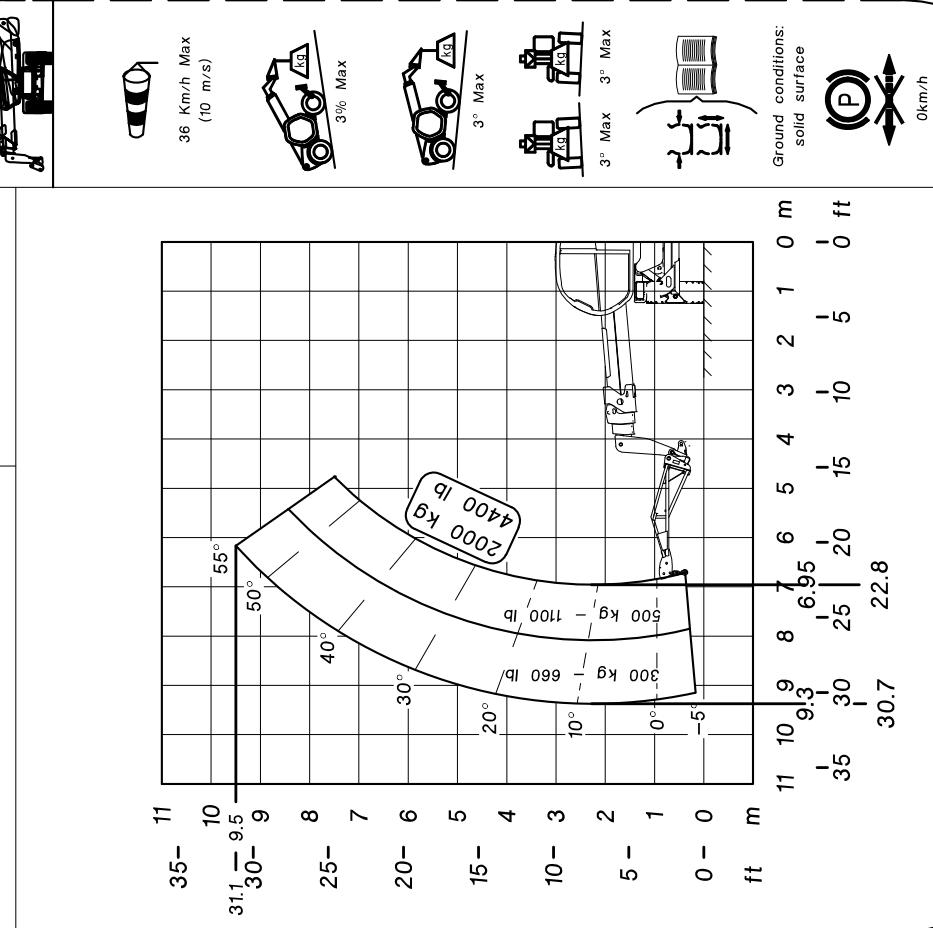


Standard used EN1459 – AS1418.19 – ASME B56.6

53020142

**MANITOU** MRT 2550+

P2000 Pos. H



Standard used EN1459 – AS1418.19 – ASME B56.6

53020141

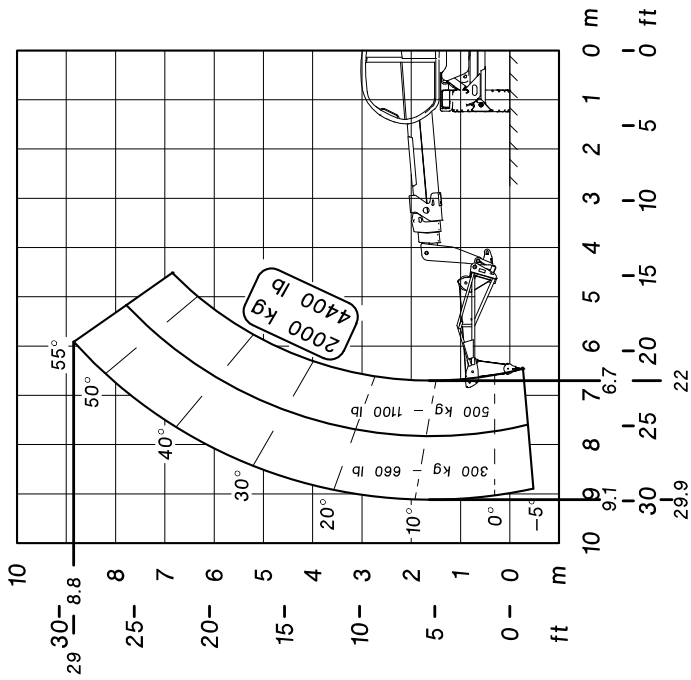


**MANITOU**

MRT 2550+

PT2000

Pos. H



36 Km/h Max (10 m/s)



3° Max



3° Max



3° Max



Ground conditions: solid surface



0km/h

53020186

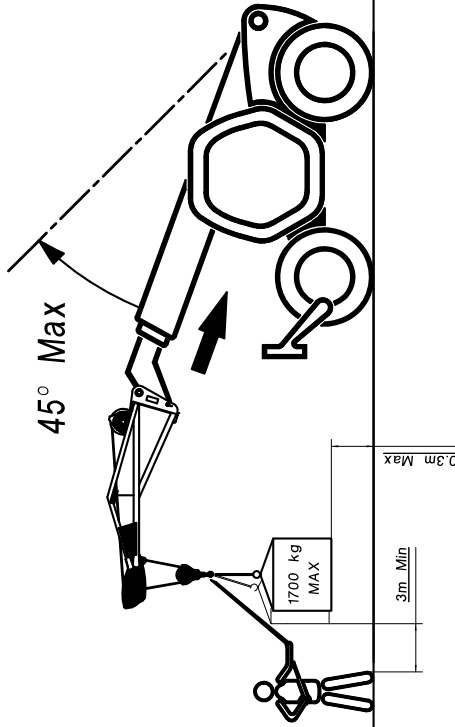
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2550+

PT2000

Pos. H



1.5 Km/h Max (0.4 m/s)



36 km/h Max (10 m/s)



8.75% Max



8.75% Max



8.75% Max 8.75% Max



Ground conditions: solid surface

53020187

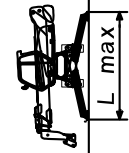
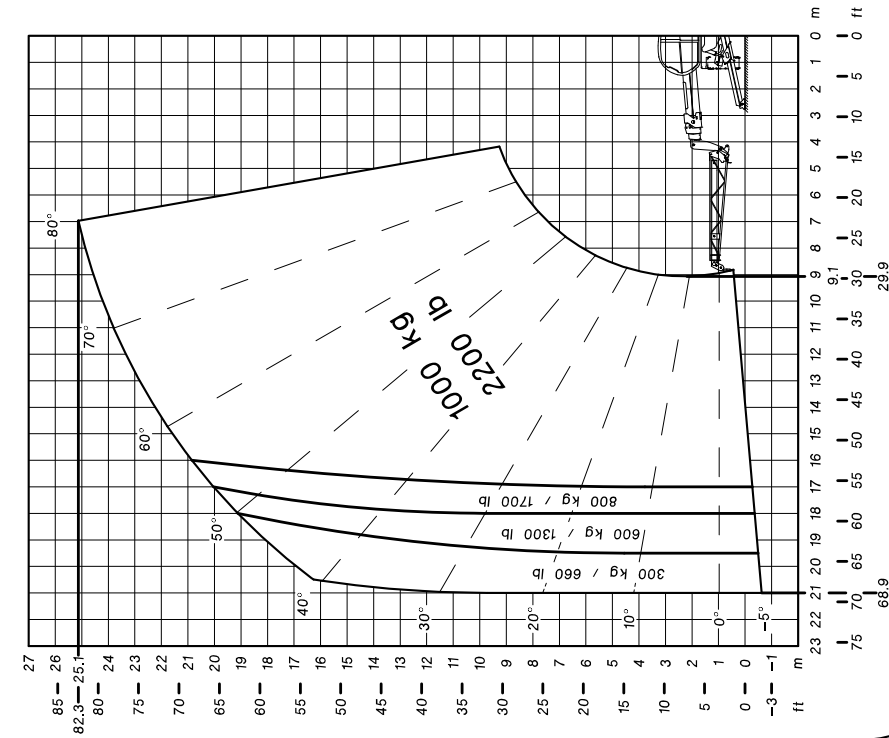
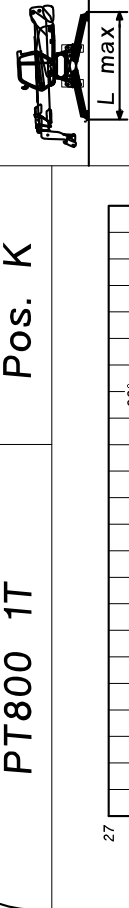
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2550+

PT800 1T

Pos. K



36 Km/h Max  
(10 m/s)

3° Max

3° Max

3° Max 3° Max

Ground conditions:  
solid surface

0km/h

53020189

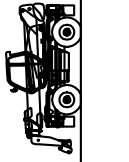
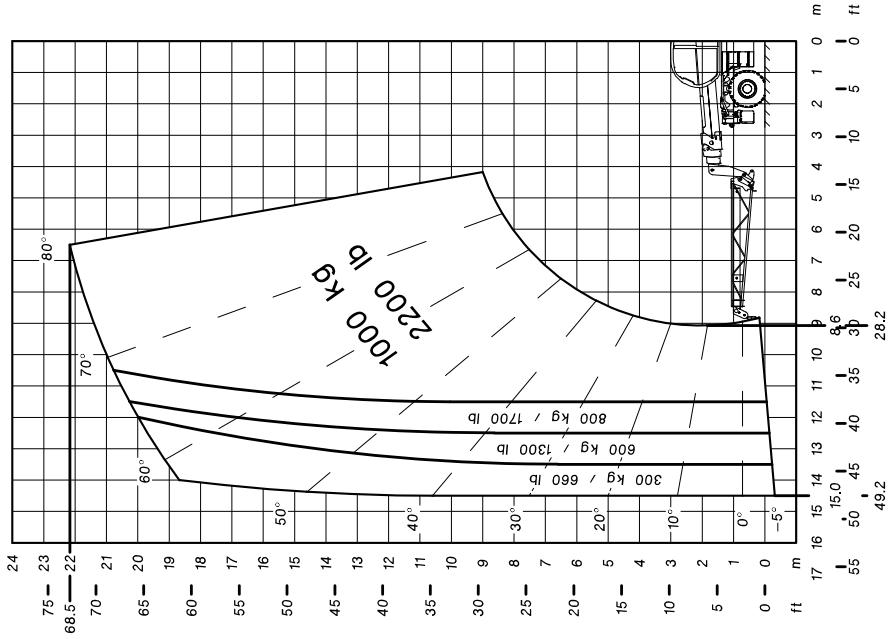
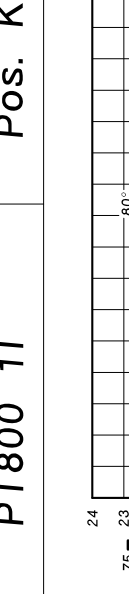
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

MRT 2550+

PT800 1T

Pos. K



36 Km/h Max  
(10 m/s)

3° Max

3° Max

3° Max 3° Max

Ground conditions:  
solid surface

0km/h

53020180

Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

**MRT 2550+**

PT800 1T

Pos. K



36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



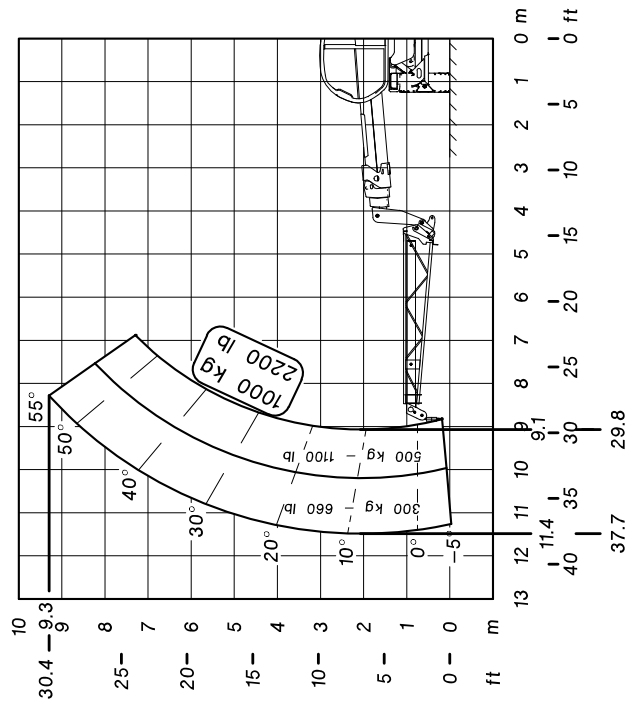
Ground conditions:  
solid surface



0km/h

53020191

Standard used EN1459 – AS1418.19 – ASME B56.6

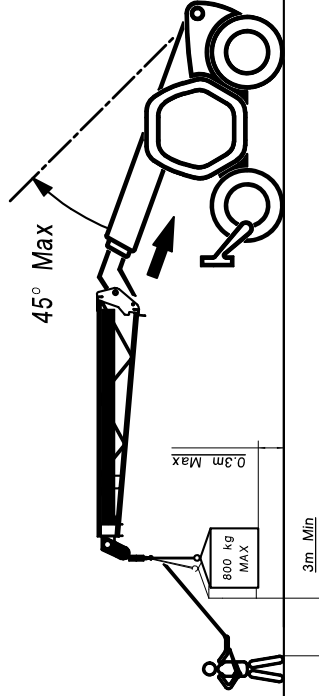


**MANITOU**

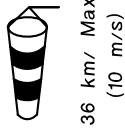
**MRT 2550+**

PT 800 1T

Pos. K



1.5 Km/h Max (0.4 m/s)



36 km/ Max  
(10 m/s)



8.75% Max



8.75% Max



8.75% Max 8.75% Max



Ground conditions:  
solid surface

53020192

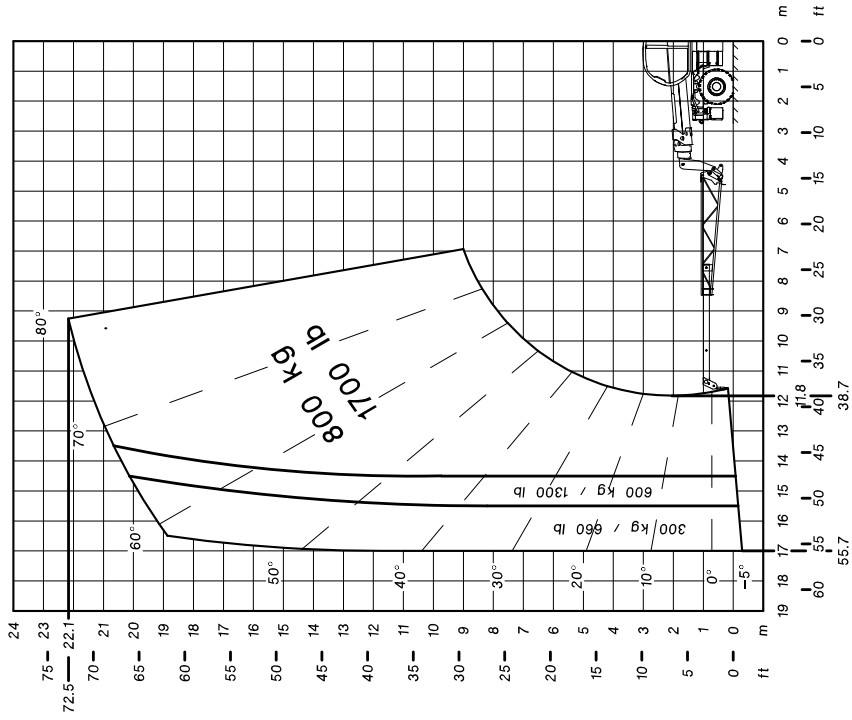
Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU**

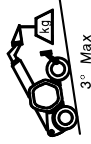
MRT 2550+

PT800 0.8T

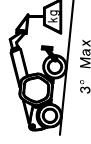
Pos. 2



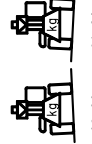
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



0km/h

53020199

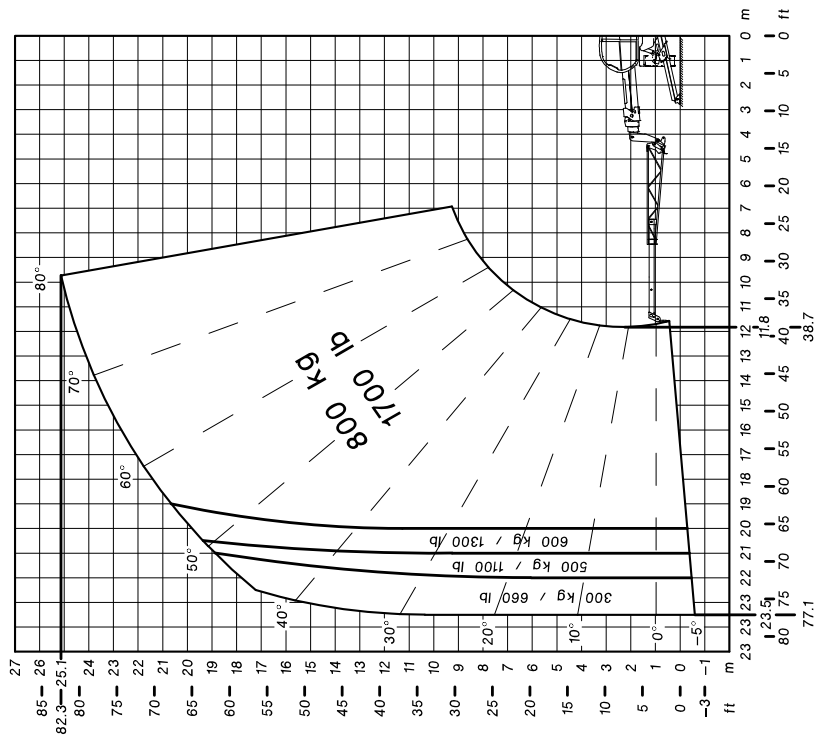
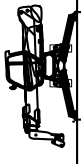
Standard used EN1459 - AS1418.19 - ASME B56.6

**MANITOU**

MRT 2550+

PT800 0.8T

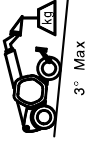
Pos. 2



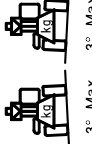
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max



Ground conditions:  
solid surface



0km/h

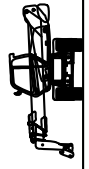
53020198

Standard used EN1459 - AS1418.19 - ASME B56.6

**MANITOU** MRT 2550+

PT800 0.8T

Pos. 2



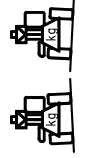
36 Km/h Max  
(10 m/s)



3° Max



3° Max



3° Max 3° Max

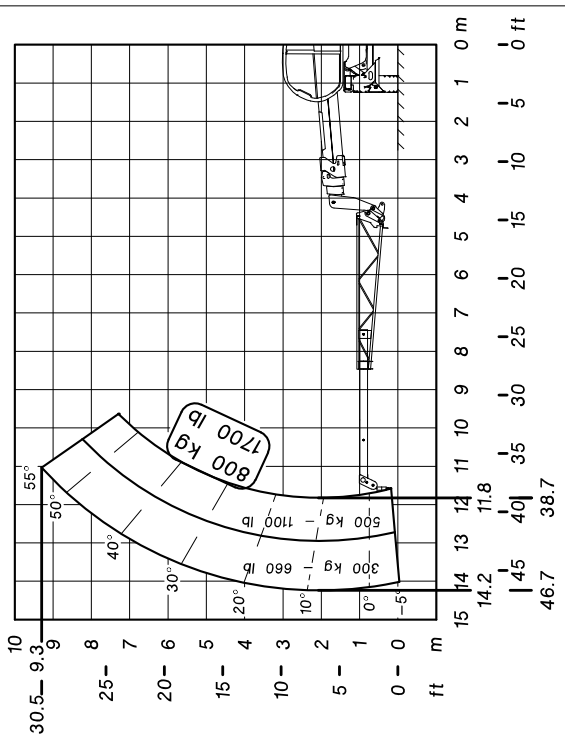


Ground conditions:  
solid surface



0km/h

53020200



Standard used EN1459 – AS1418.19 – ASME B56.6

**MANITOU** MRT 2550+

PT800 0.8T

Pos. 2



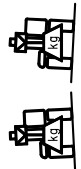
36 km/h Max  
(10 m/s)



8.75% Max



8.75% Max

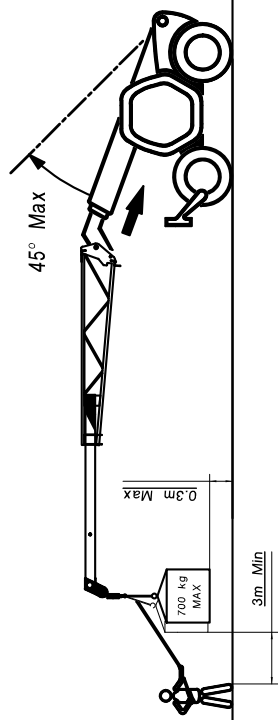


8.75% Max 8.75% Max



Ground conditions:  
solid surface

53020201



1.5 Km/h Max (0.4 m/s)

Standard used EN1459 – AS1418.19 – ASME B56.6



***MRT-X 3255 Privilege Plus ST3A S1***  
***MRT 3255 Privilege Plus ST4 S1***

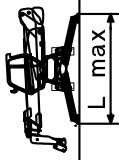
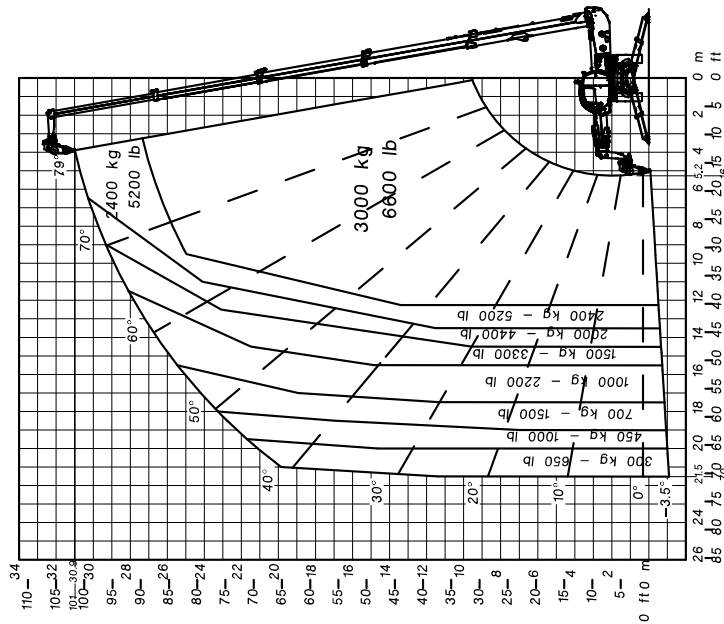




MRT 3255

WINCH 3T

POS. C



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

1.75% Max 1.75% Max



Ground conditions:  
solid surface



53005056

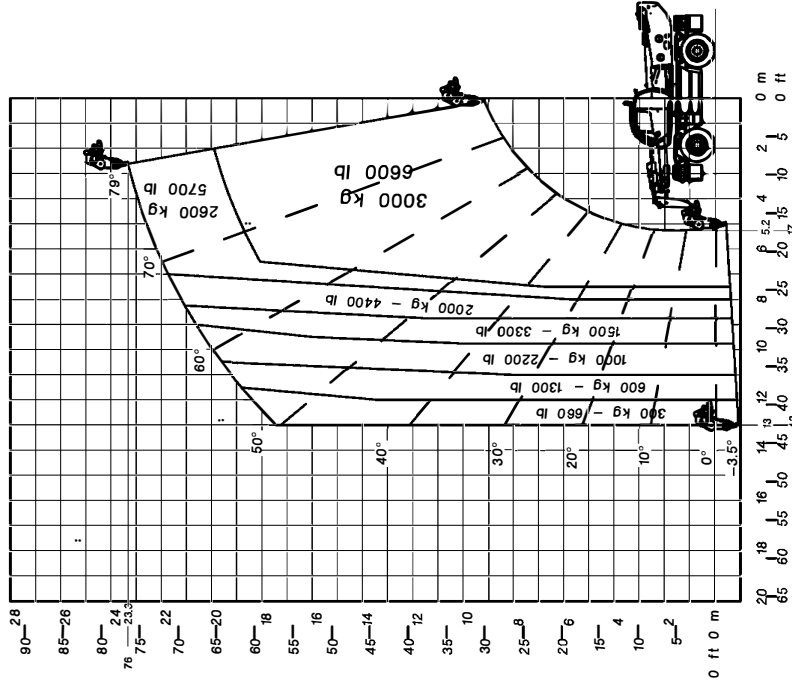
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

WINCH 3T

POS. C



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

1.75% Max 1.75% Max



Ground conditions:  
solid surface



53004679

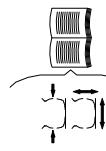
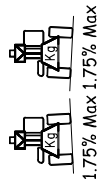
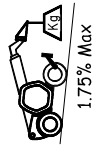
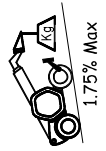
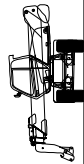
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

WINCH 3T

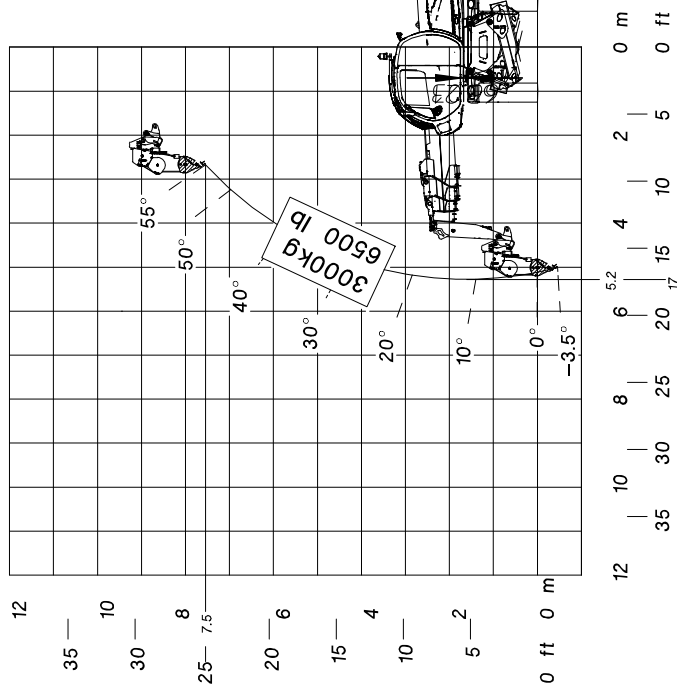
POS. C



Ground conditions:  
solid surface



53005058



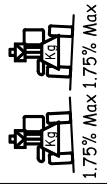
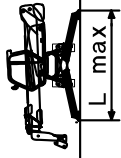
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

WINCH 5T

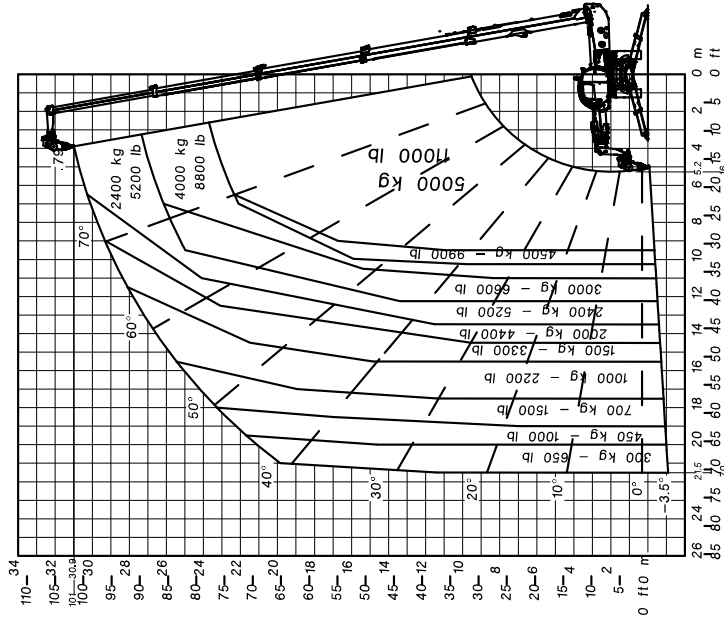
POS. J



Ground conditions:  
solid surface



53005067



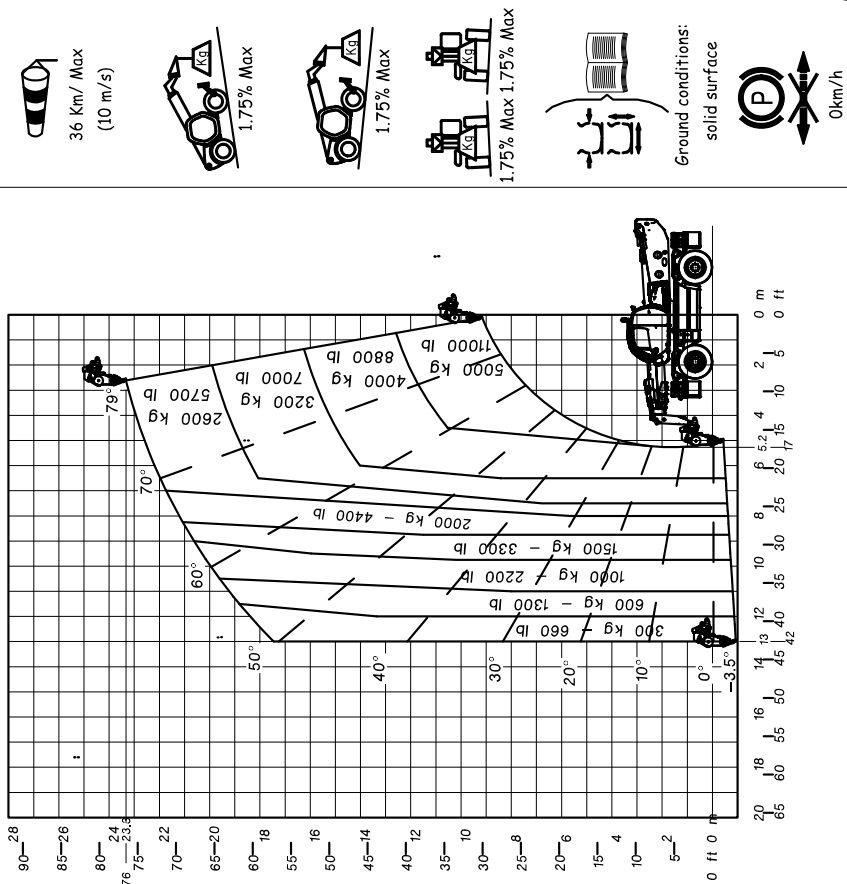
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

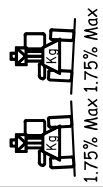
WINCH 5T

POS. J



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

53005068



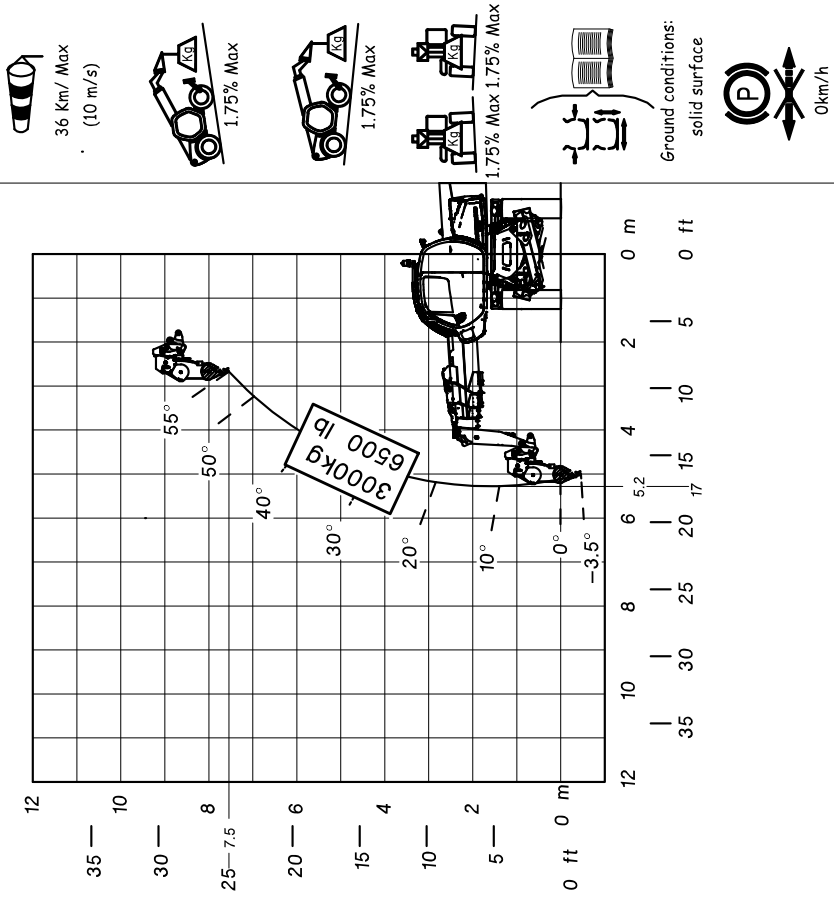
Ground conditions:  
solid surface



MRT 3255

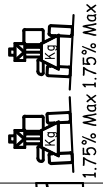
WINCH 5T

POS. J



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

53005069



Ground conditions:  
solid surface

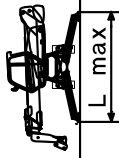
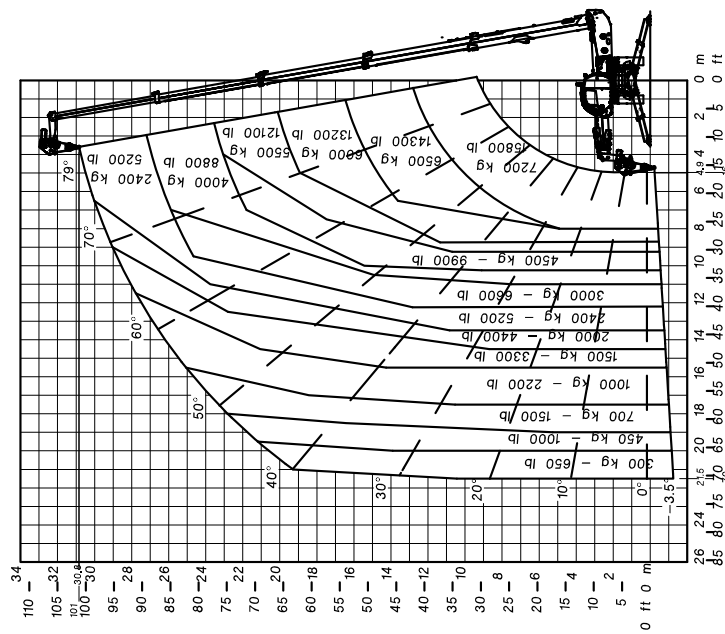




MRT 3255

WINCH 7.2T

POS. JJ



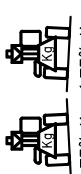
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



Ground conditions:  
solid surface



0km/h

53005070

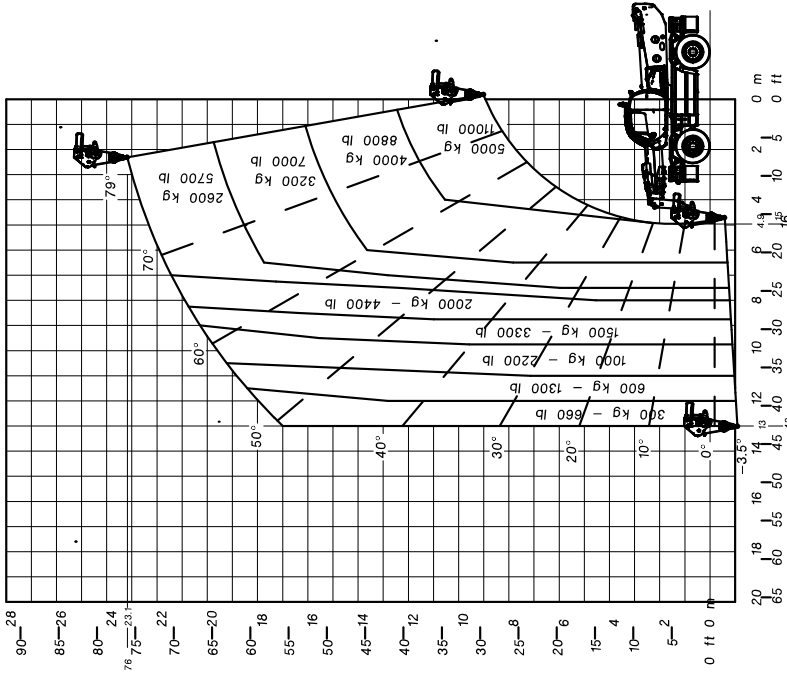
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

WINCH 7.2T

POS. JJ



36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



Ground conditions:  
solid surface



0km/h

53005071

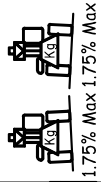
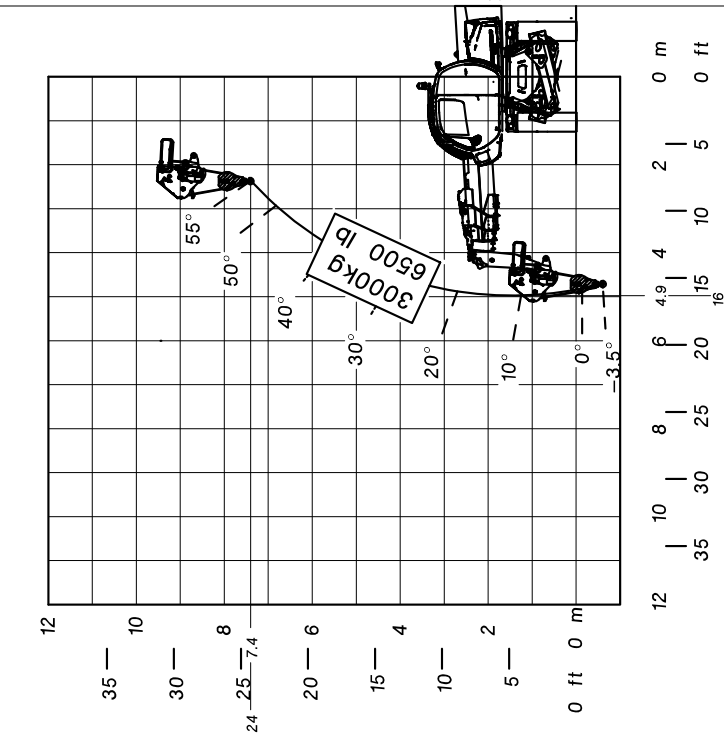
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

WINCH 7.2T

POS. JJ



Ground conditions:  
solid surface



Standard used EN1459-Annexe B – AS1418.19 – ASME B56.6

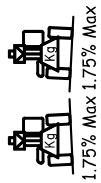
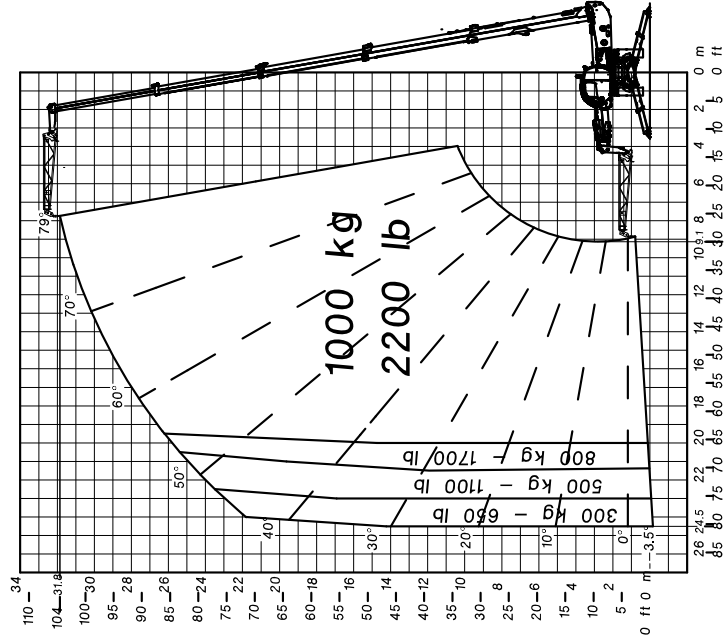
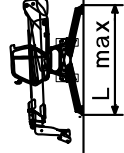
53005072

**MANITOU**

MRT 3255

PT800 1T

POS. K



Ground conditions:  
solid surface



Standard used EN1459-Annexe B – AS1418.19 – ASME B56.6

53005079

**MANITOU**

MRT 3255

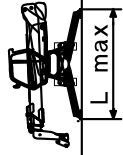
PT800 1T

POS. K

PT800 0.8T

POS. 2

MRT 3255



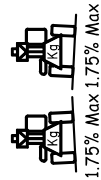
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



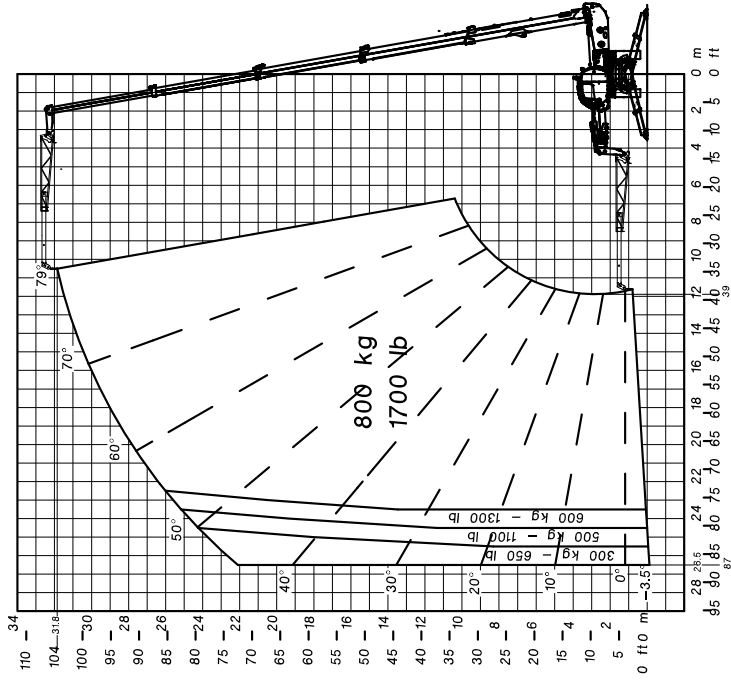
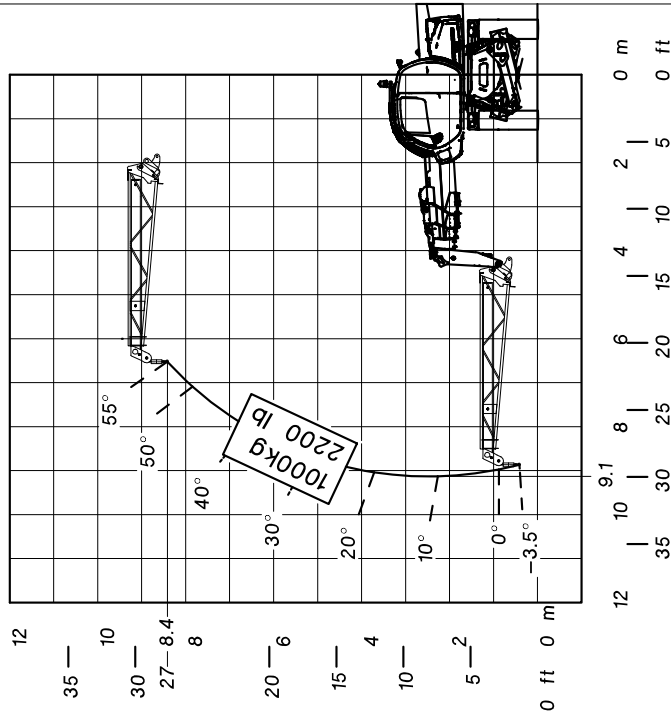
Ground conditions:  
solid surface



0km/h

53005082

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



Ground conditions:  
solid surface



0km/h

53005084

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

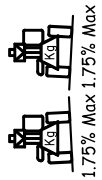
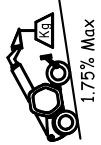


**MANITOU**

MRT 3255

PT800 0.8T

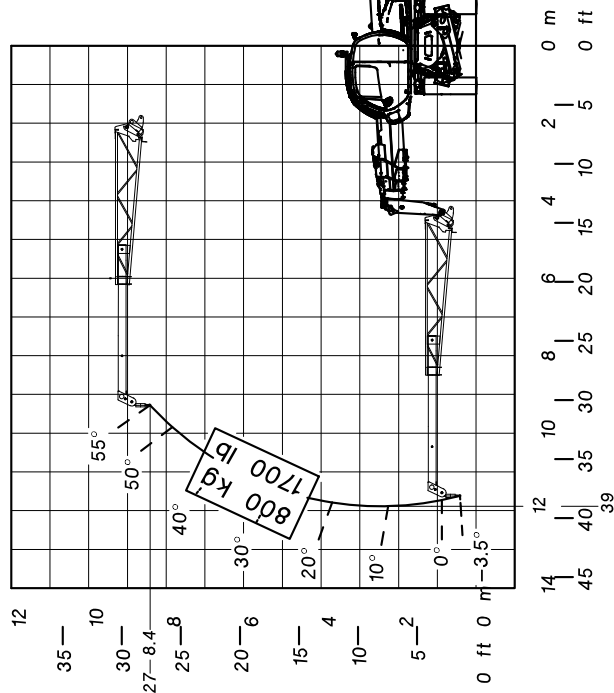
POS. 2



Ground conditions:  
solid surface



53005087



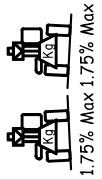
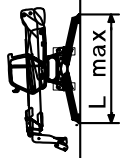
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

PT1500

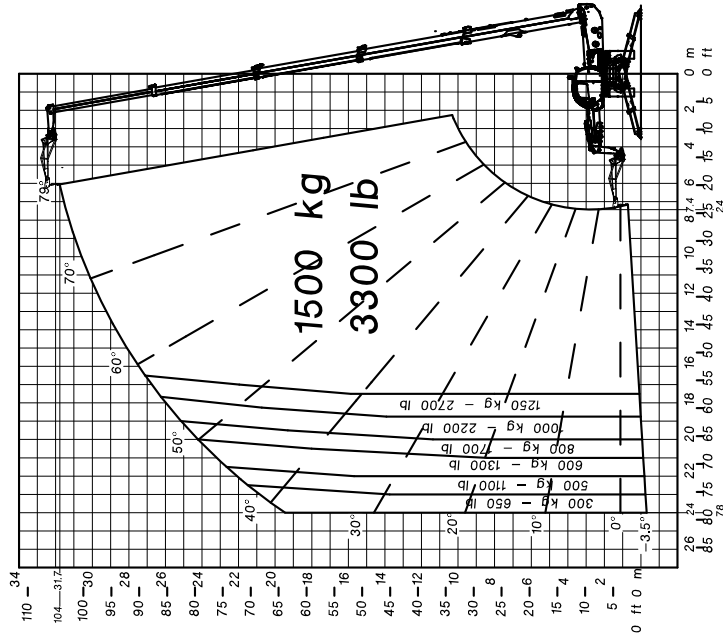
POS. G



Ground conditions:  
solid surface



53005088



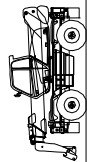
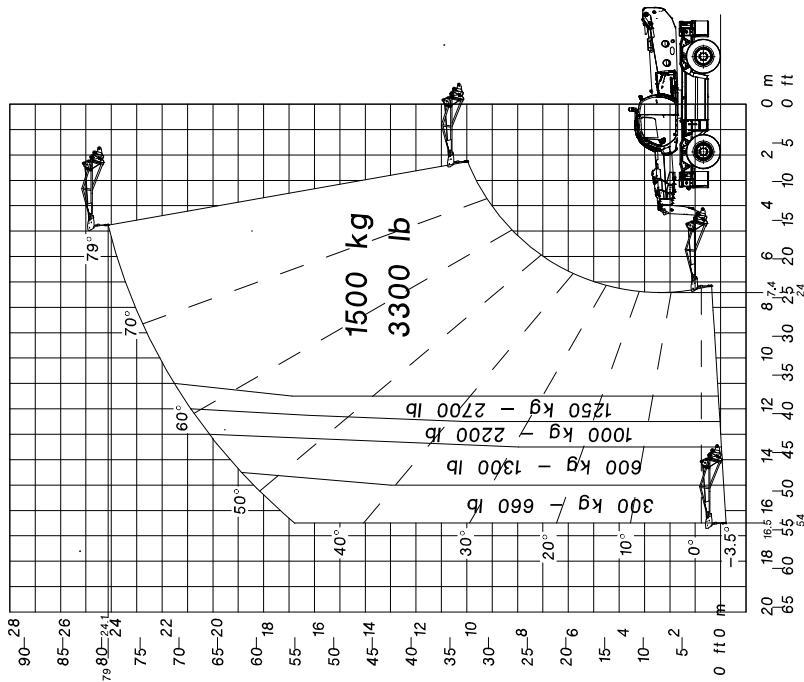
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

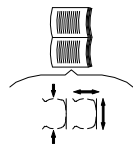
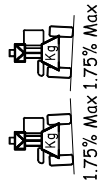
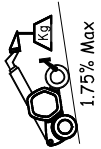
MRT 3255

PT1500

POS. G



36 Km/ Max  
(10 m/s)



Ground conditions:  
solid surface



53005089

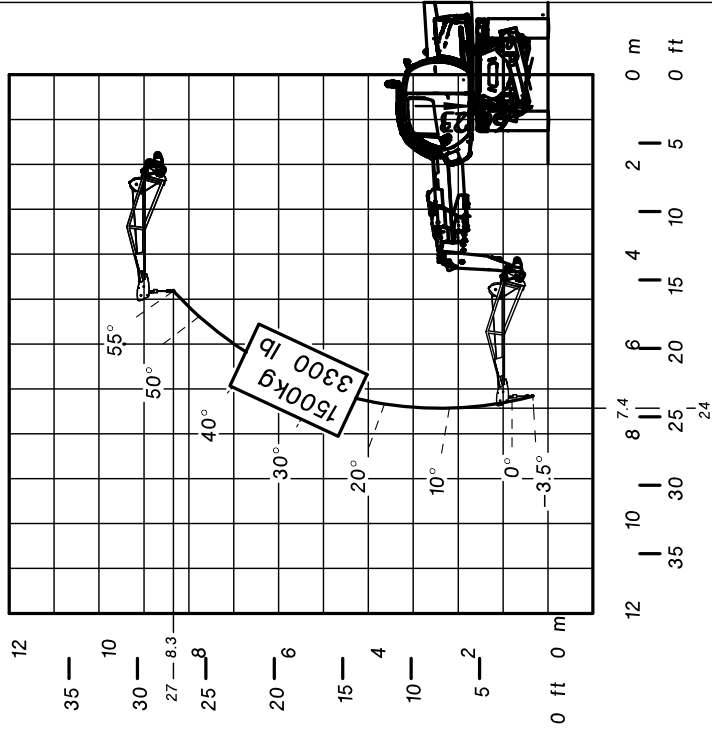
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

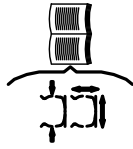
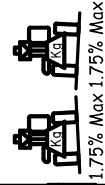
MRT 3255

PT1500

POS. G



36 Km/ Max  
(10 m/s)



Ground conditions:  
solid surface



53005090

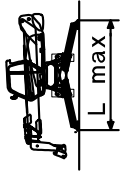
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

PT600

POS. D



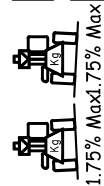
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



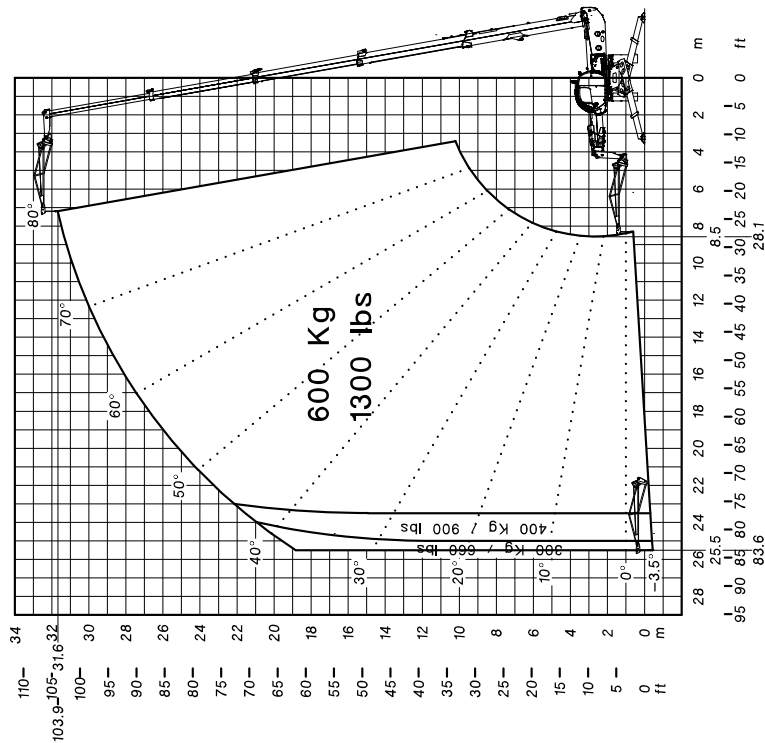
1.75% Max



Ground conditions:  
solid surface



53006881



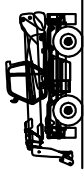
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

PT600

POS. D



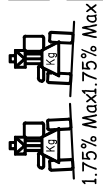
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



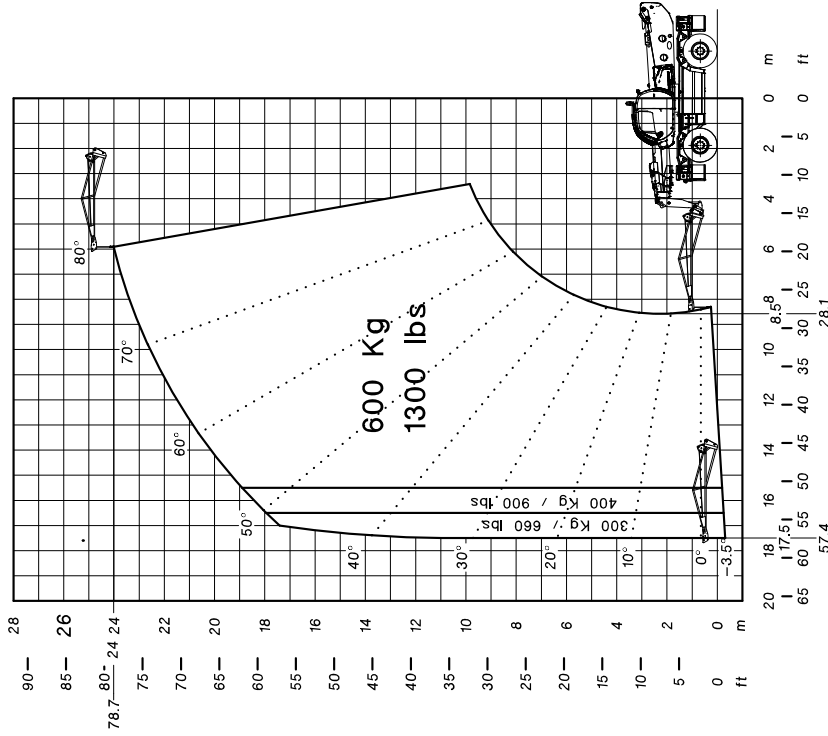
1.75% Max



Ground conditions:  
solid surface



53006882



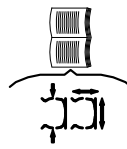
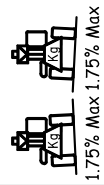
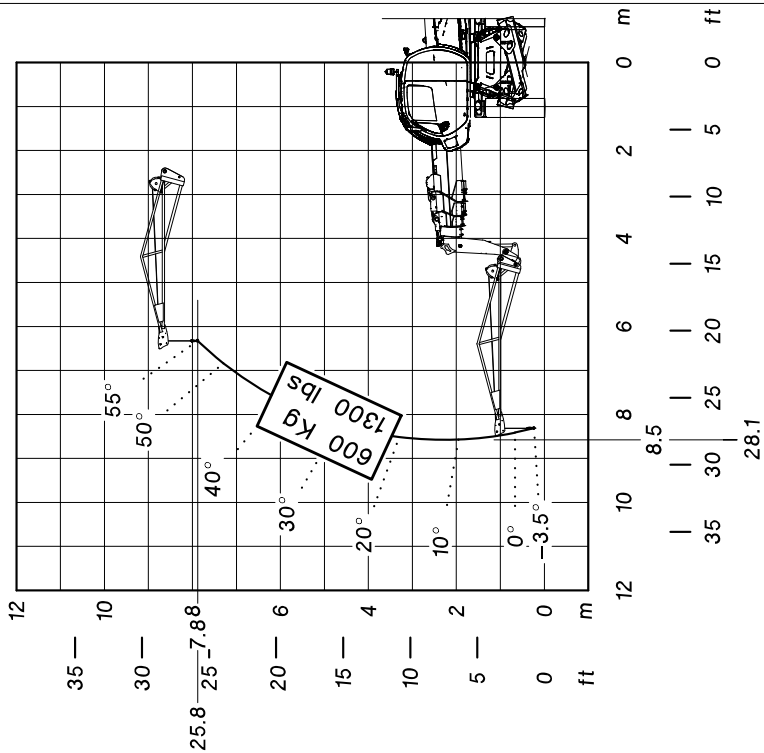
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

PT600

POS. D



Ground conditions:  
solid surface



53006883

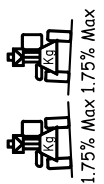
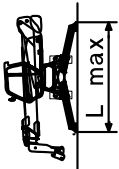
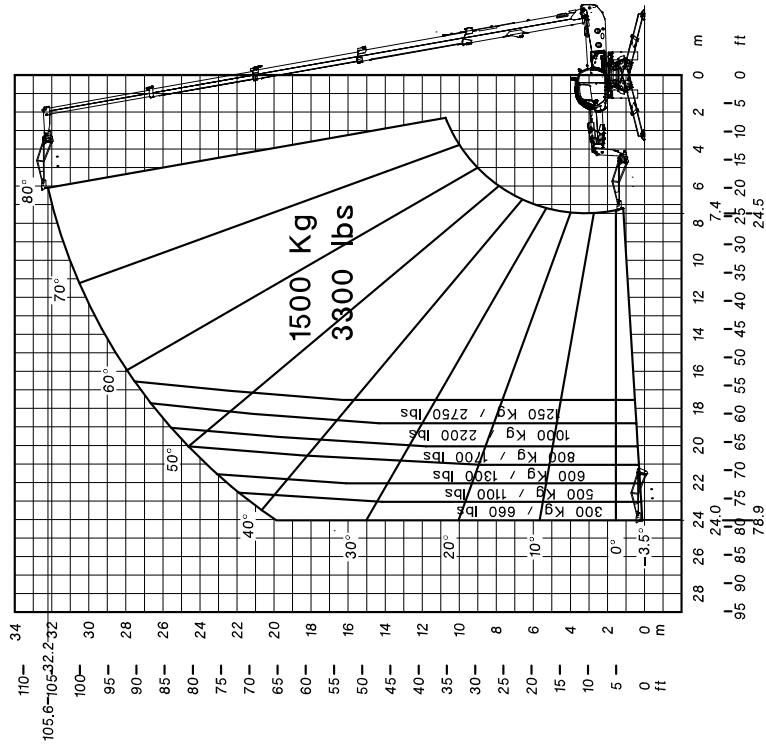
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

P1500

POS. G

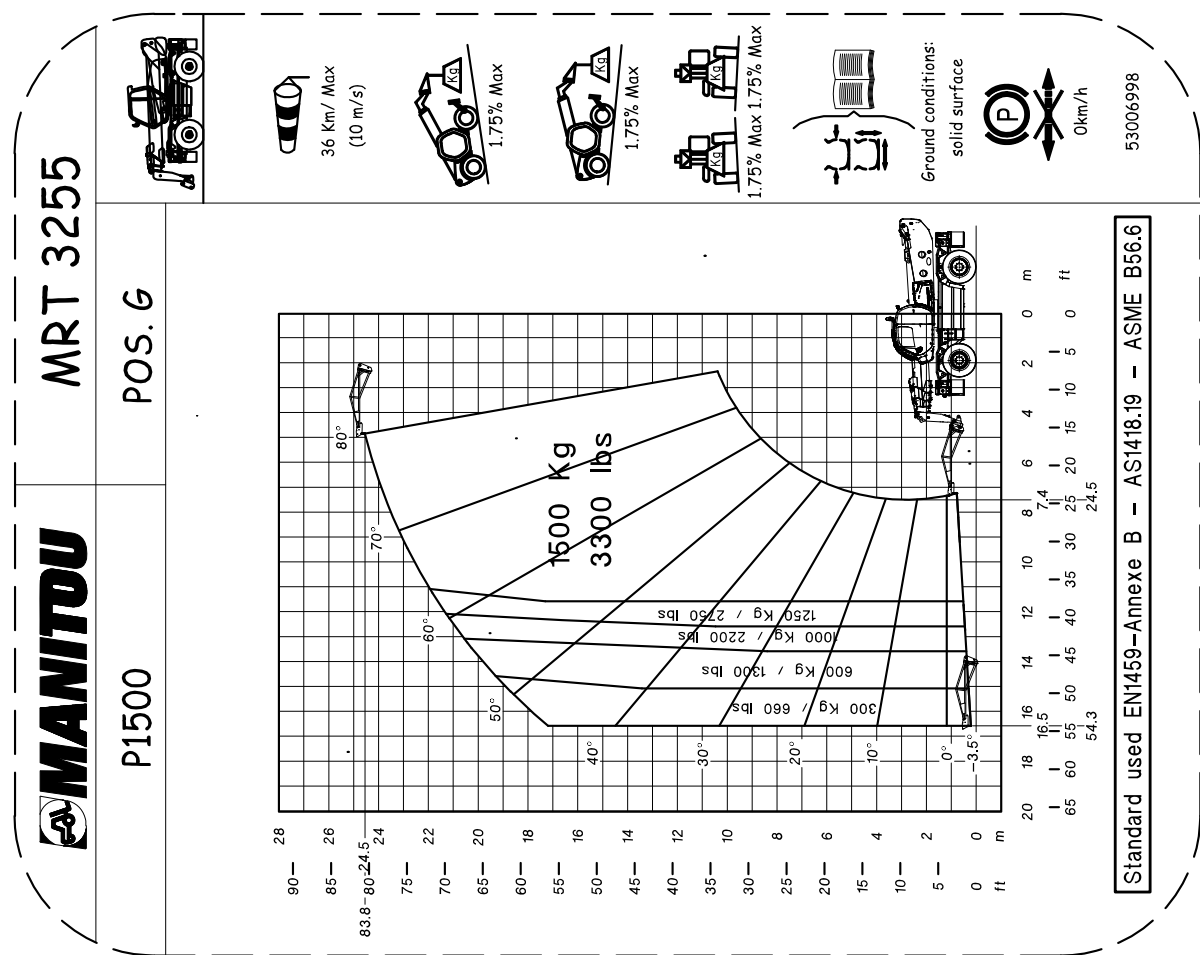
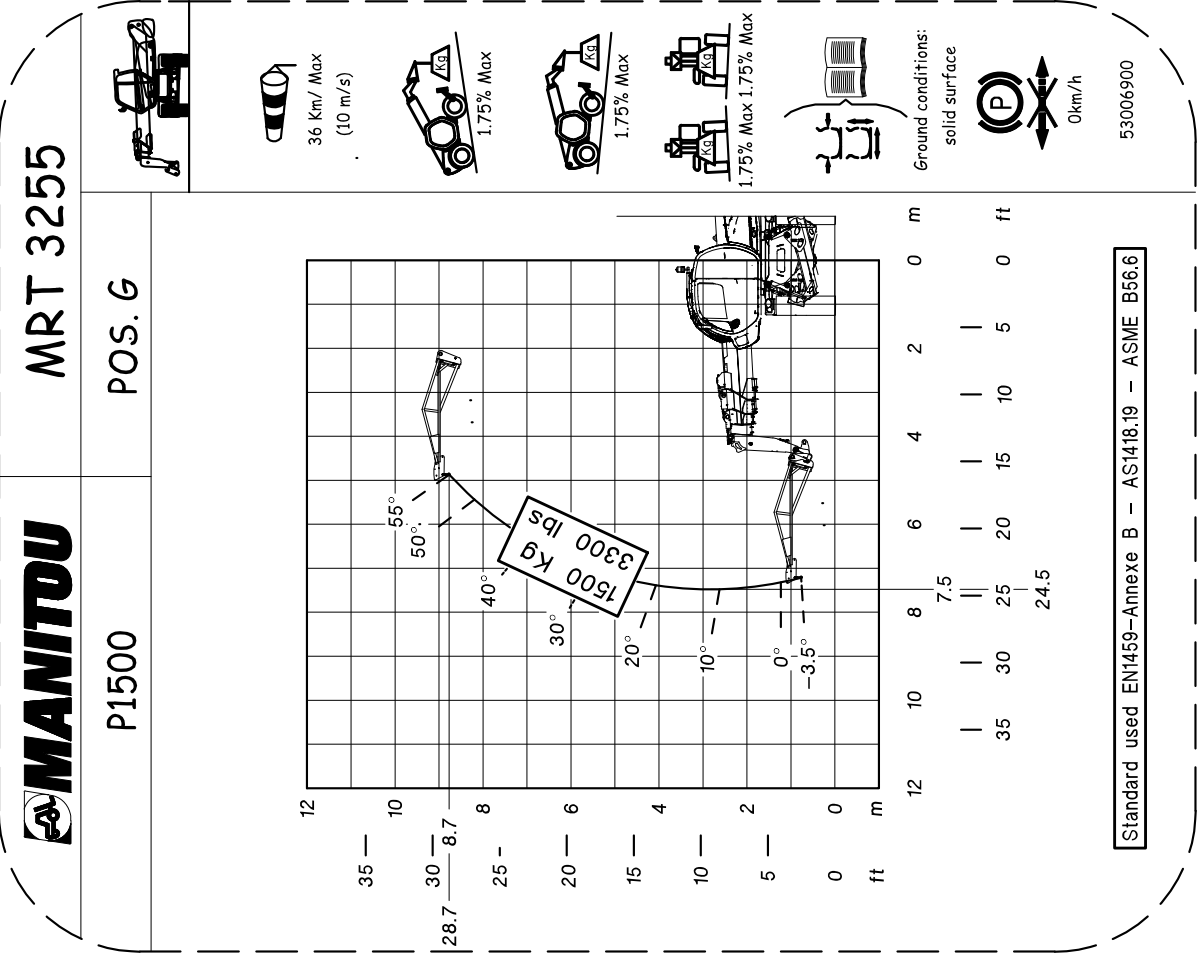


Ground conditions:  
solid surface



53006897

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



**MANITOU** MRT 3255

P6000 2T POS. P



36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max

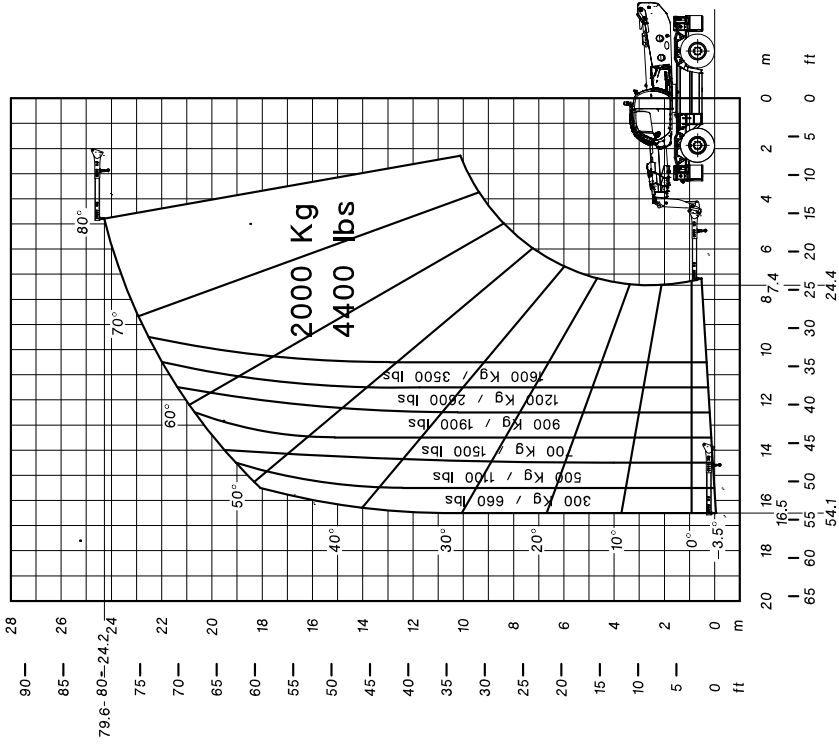


Ground conditions:  
solid surface



0km/h

53006943



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU** MRT 3255

P6000 2T POS. P



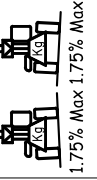
36 Km/ Max  
(10 m/s)



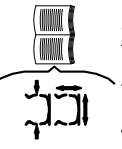
1.75% Max



1.75% Max



1.75% Max 1.75% Max

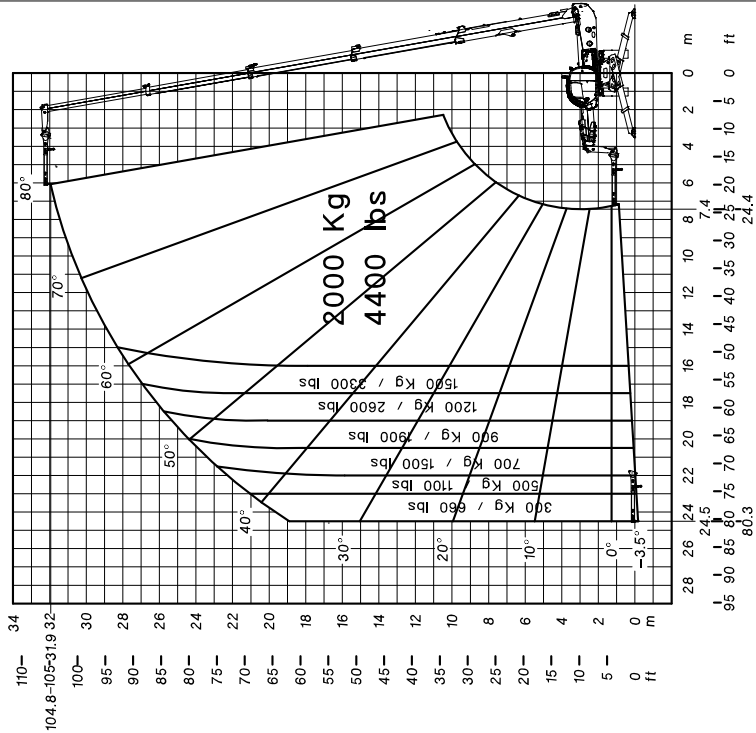


Ground conditions:  
solid surface



0km/h

53006942



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

P6000 2T

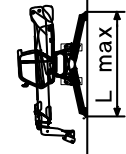
POS. P

P6000 6T

**MANITOU**

MRT 3255

POS. O



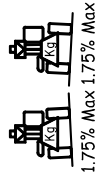
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max

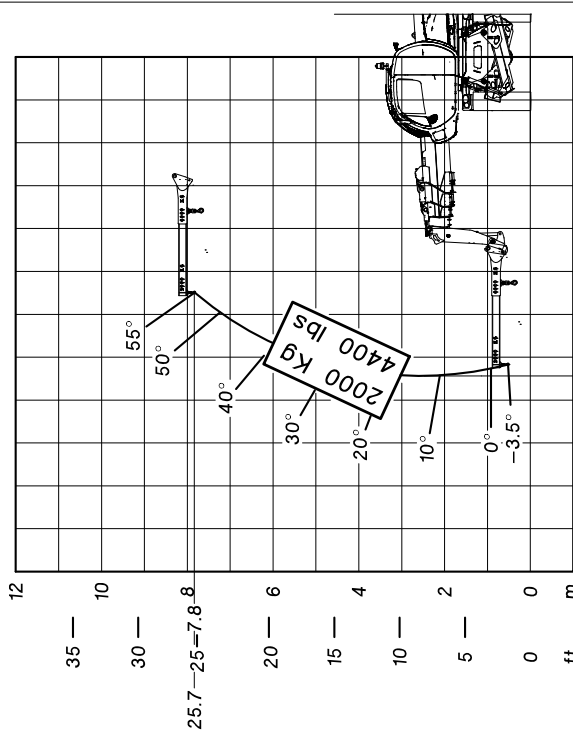


Ground conditions:  
solid surface

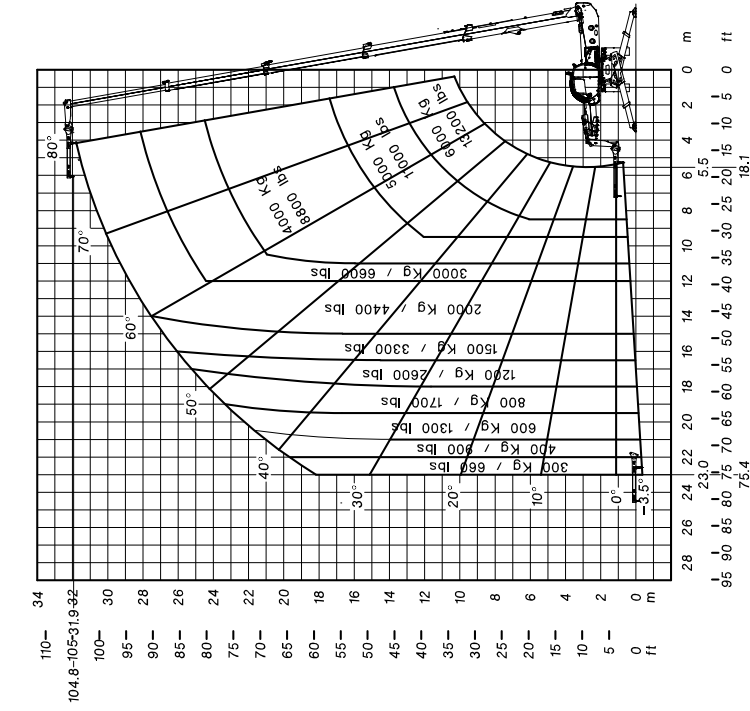


0km/h

53006944



Standard used EN1459-Annexe B – AS1418.19 – ASME B56.6



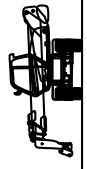
Standard used EN1459-Annexe B – AS1418.19 – ASME B56.6



MRT 3255

PT6000 6T

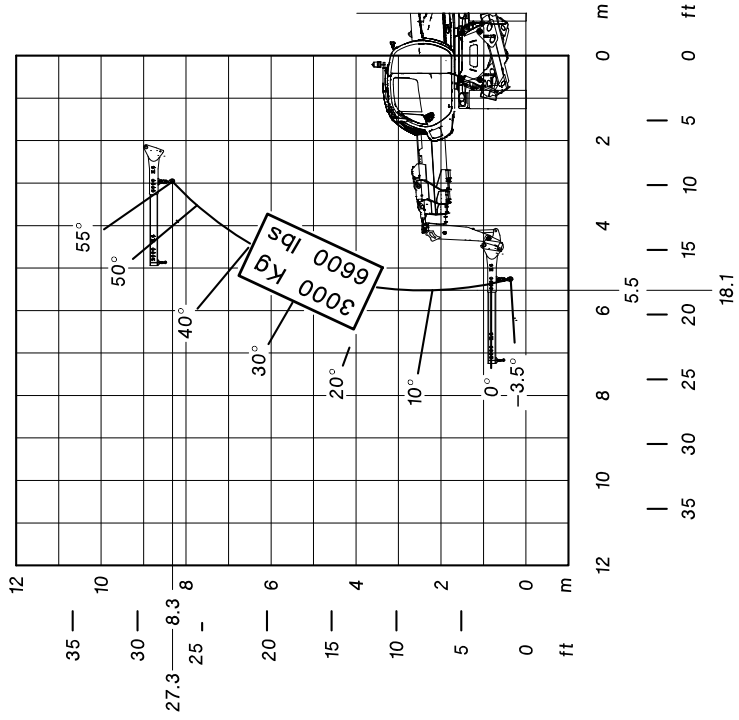
POS. O



- 36 Km/ Max (10 m/s)
- 1.75% Max
- 1.75% Max
- 1.75% Max
- 1.75% Max

- 1.75% Max
- 1.75% Max
- Ground conditions: solid surface
- 0km/h

53006967



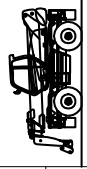
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

P6000 6T

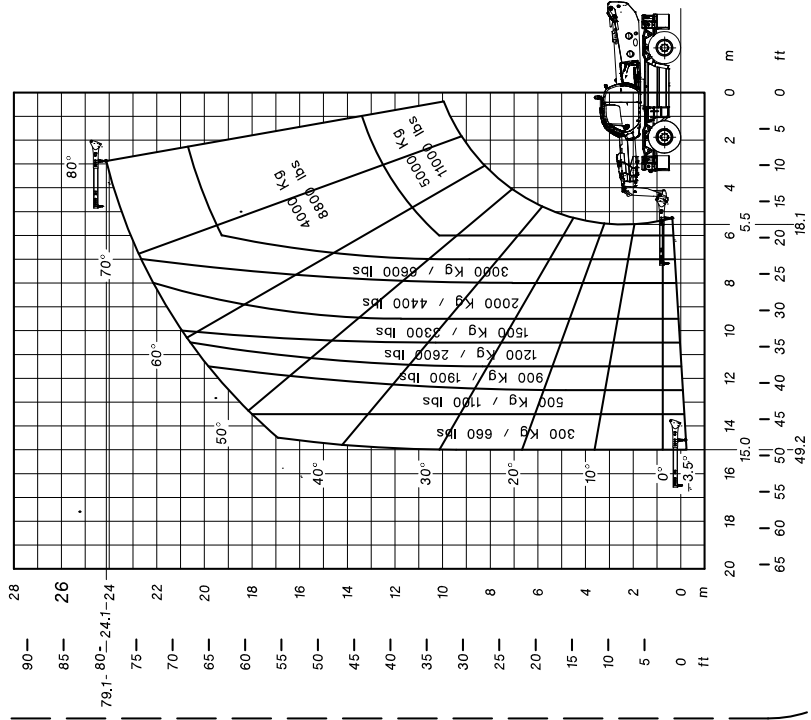
POS. O



- 36 Km/ Max (10 m/s)
- 1.75% Max
- 1.75% Max
- 1.75% Max
- 1.75% Max

- 1.75% Max
- 1.75% Max
- Ground conditions: solid surface
- 0km/h

53006966



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



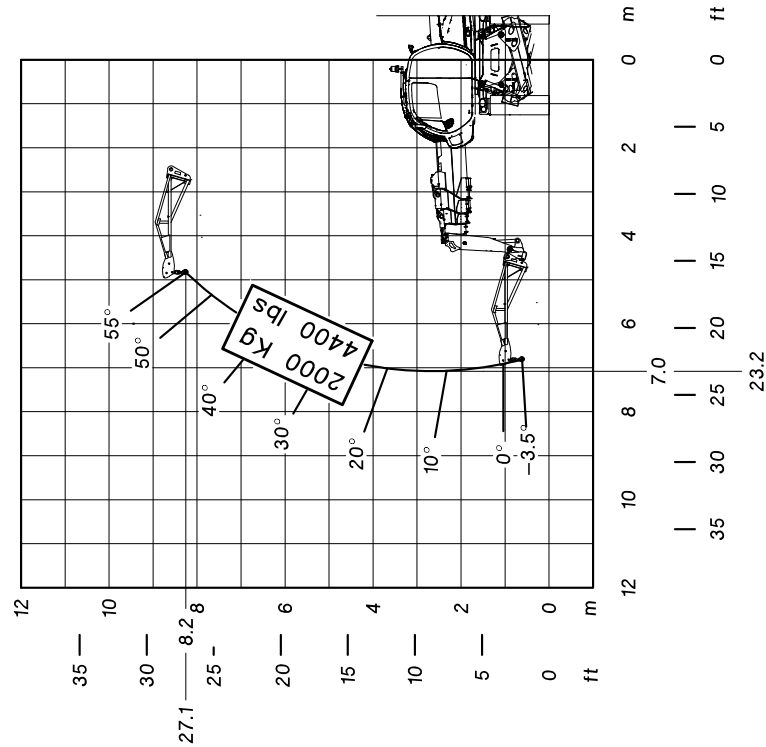


**MANITOU**

MRT 3255

P2000

POS. H



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

1.75% Max 1.75% Max



Ground conditions:  
solid surface



53006991

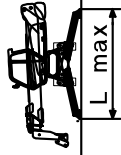
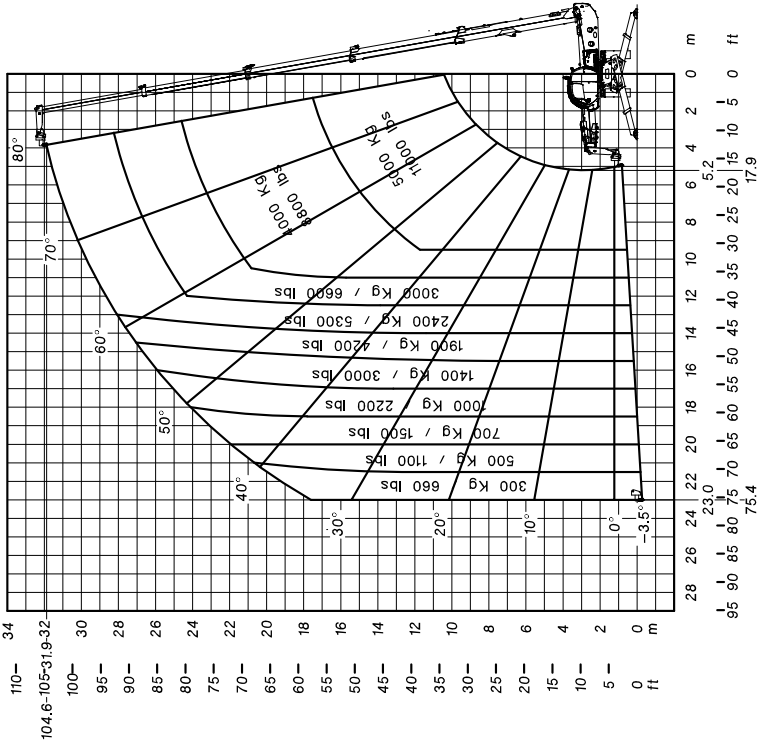
Standard used EN1459—Annexe B — AS1418.19 — ASME B56.6

**MANITOU**

MRT 3255

PC50

POS. S



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

1.75% Max 1.75% Max



Ground conditions:  
solid surface



53007059

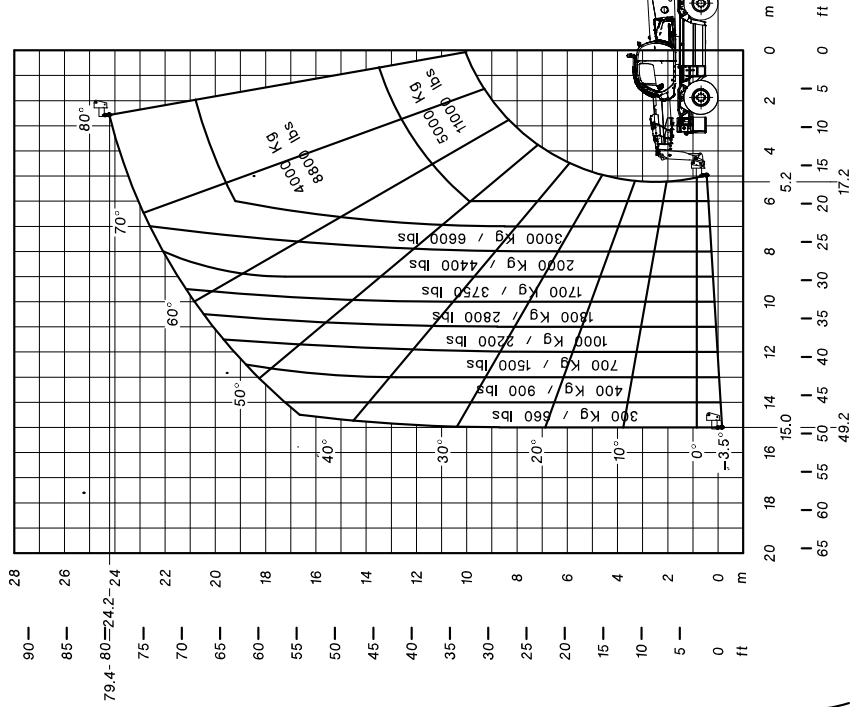
Standard used EN1459—Annexe B — AS1418.19 — ASME B56.6



MRT 3255

PC50

POS. S



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

1.75% Max 1.75% Max



Ground conditions:  
solid surface



53007064

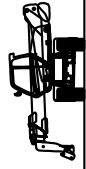
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

PC50

POS. S



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

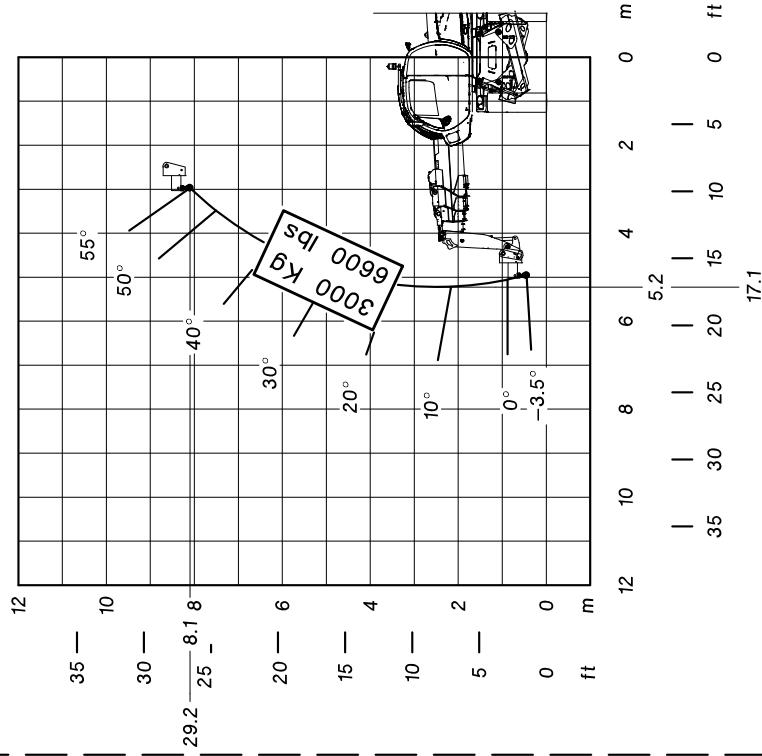
1.75% Max 1.75% Max



Ground conditions:  
solid surface



53007065



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

PC60

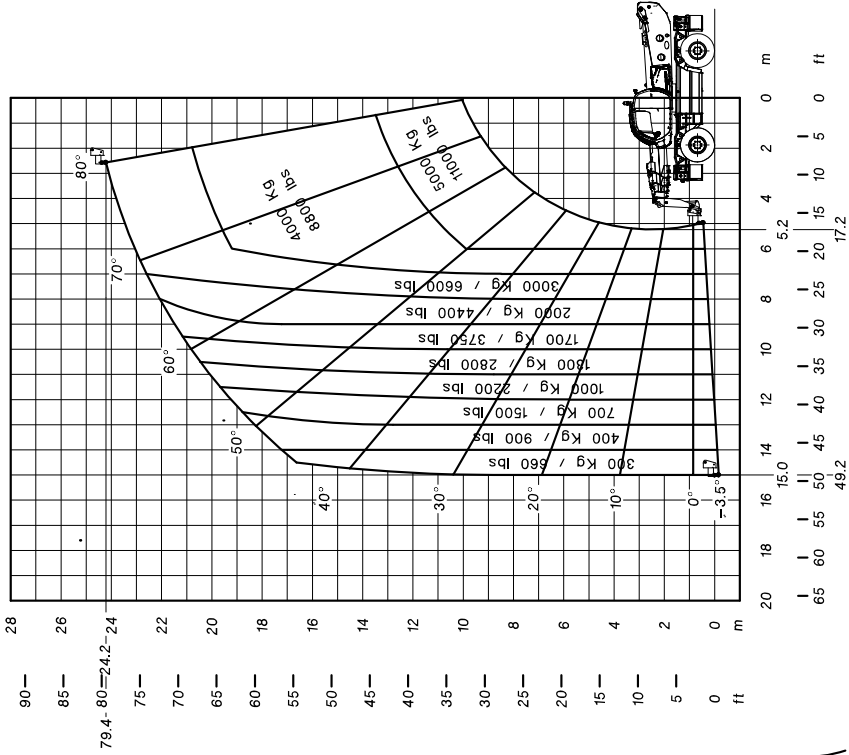
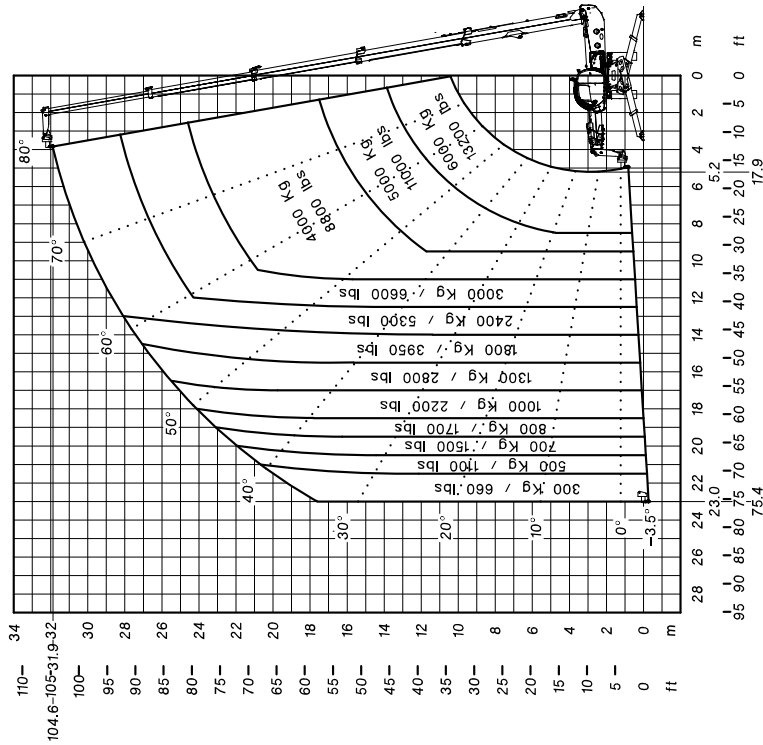
POS. QR

PC60



MRT 3255

POS. QR



- 36 Km/ Max (10 m/s)
- 1.75% Max
- 1.75% Max
- 1.75% Max
- 1.75% Max

Ground conditions: solid surface

0km/h

53007151

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

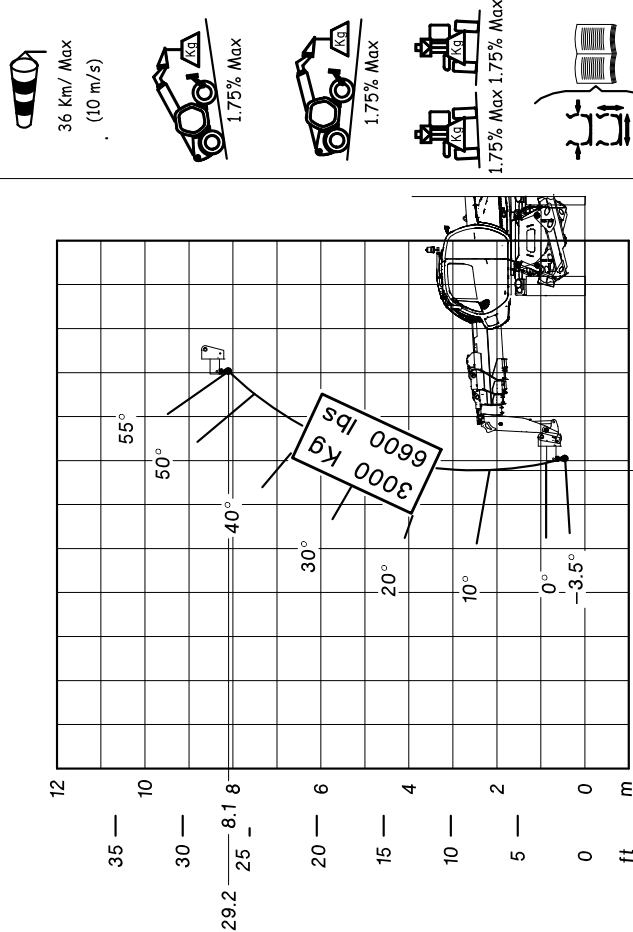
53007157

**MANITOU**

MRT 3255

PC60

POS. QR



36 Km/ Max (10 m/s)  
1.75% Max  
1.75% Max  
1.75% Max  
1.75% Max  
Ground conditions: solid surface  
0km/h

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

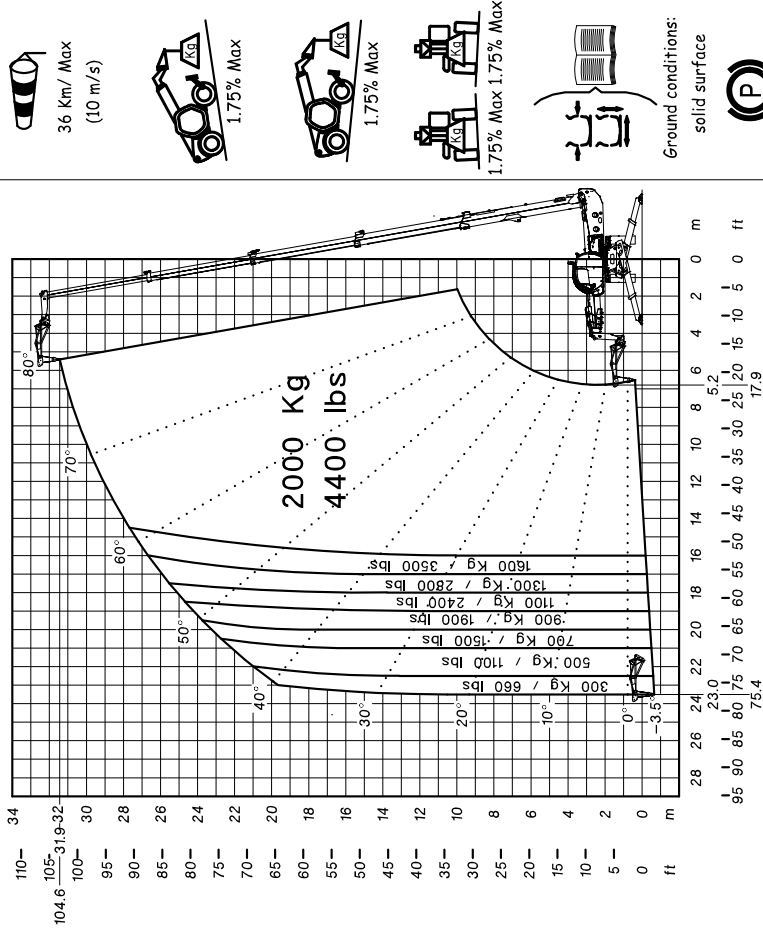
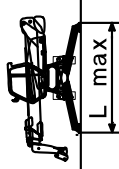
53007159

**MANITOU**

MRT 3255

PT2000

POS. H



36 Km/ Max (10 m/s)  
1.75% Max  
1.75% Max  
1.75% Max  
1.75% Max  
Ground conditions: solid surface  
0km/h

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

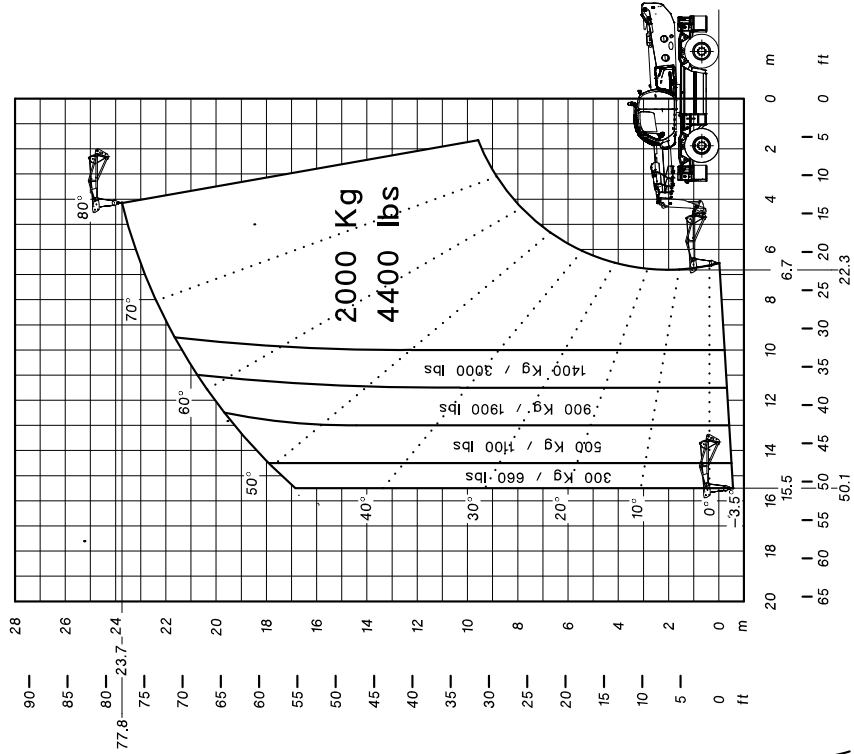
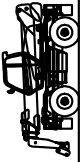
53007200

**MANITOU**

MRT 3255

PT2000

POS. H



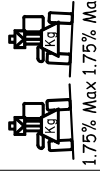
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



Ground conditions:  
solid surface



0km/h

53007202

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

PT2000

POS. H



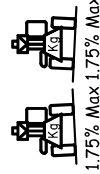
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max

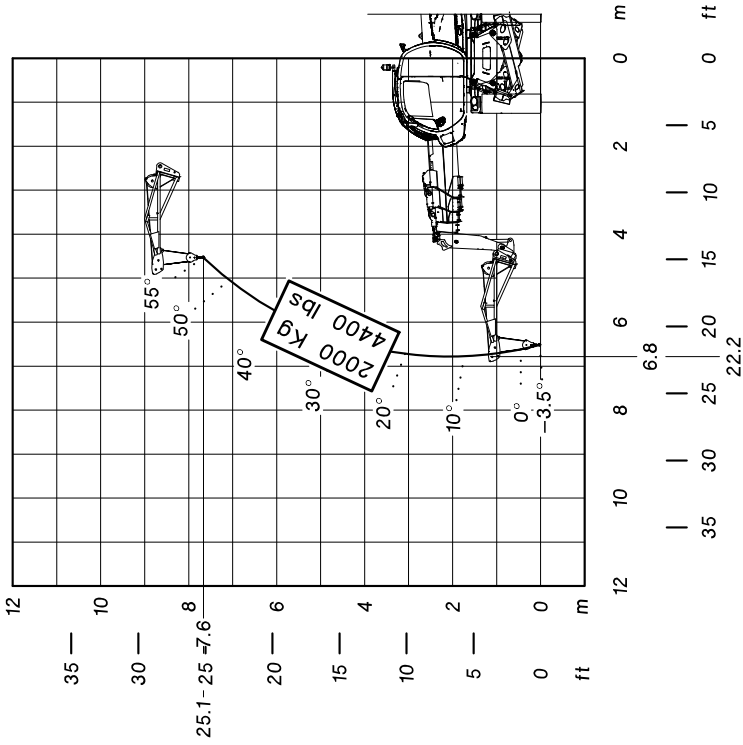


Ground conditions:  
solid surface



0km/h

53007203



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

P600

POS. D

P600

**MANITOU**

MRT 3255

POS. D



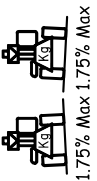
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



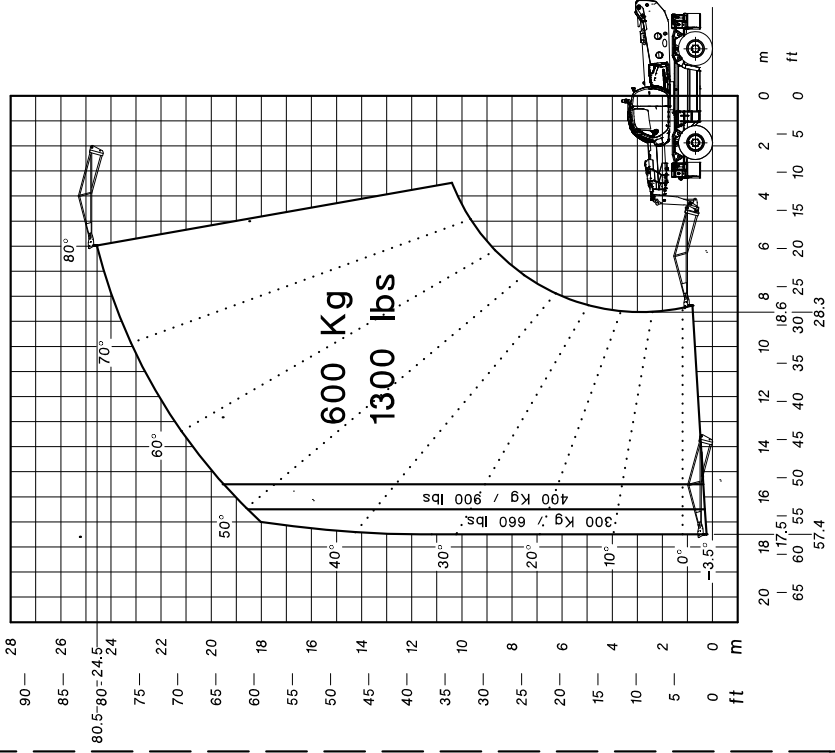
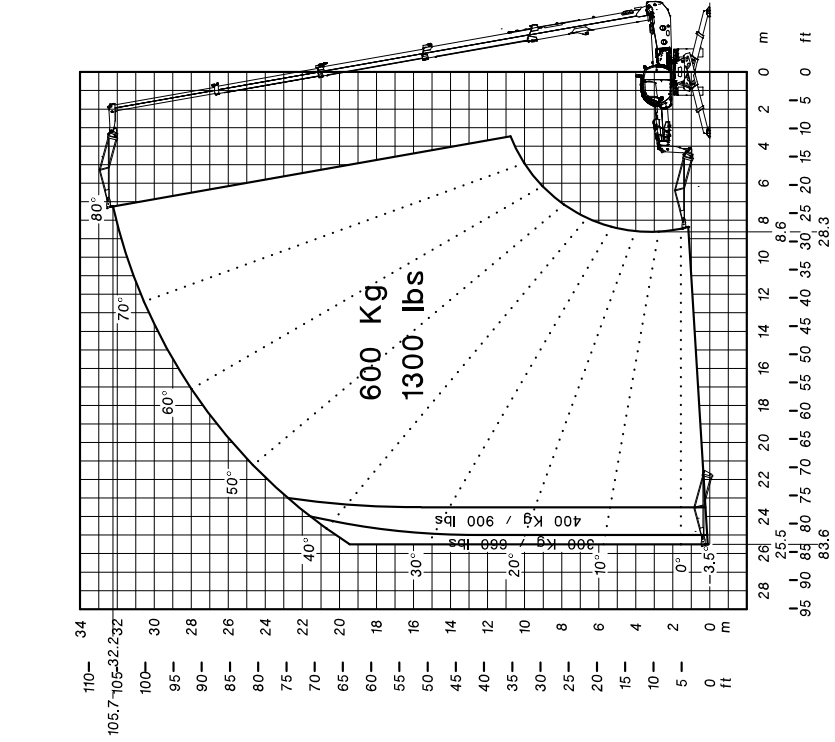
Ground conditions:  
solid surface



0km/h

53007339

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



**MANITOU**

MRT 3255

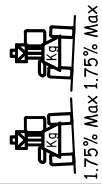
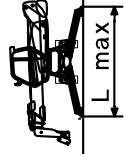
P600

POS. D

JE6000 600Kg/1300 lbs

POS. DA

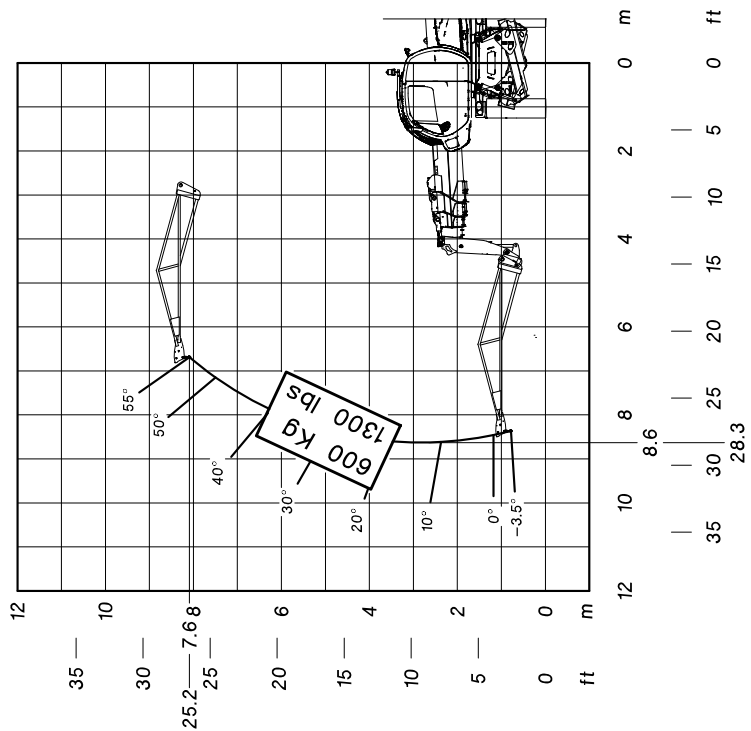
MRT 3255



Ground conditions:  
solid surface



53007341



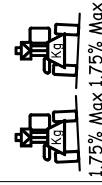
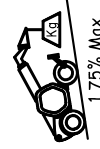
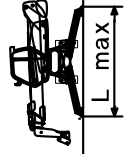
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

JE6000 600Kg/1300 lbs

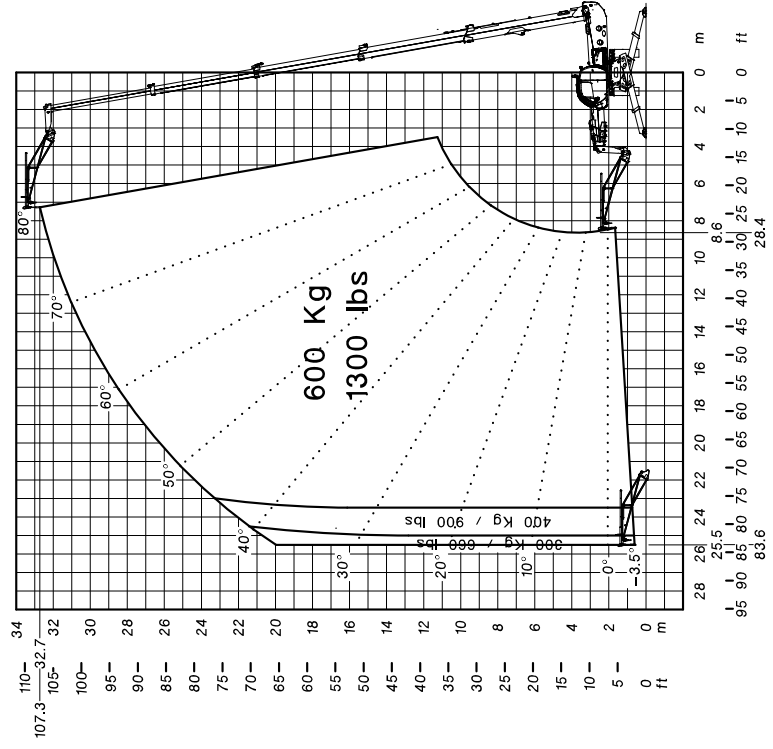
POS. DA



Ground conditions:  
solid surface



53007353

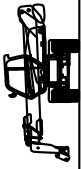


Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



**MANITOU** MRT 3255

JE6000 600 Kg/1300 lbs POS. DA



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

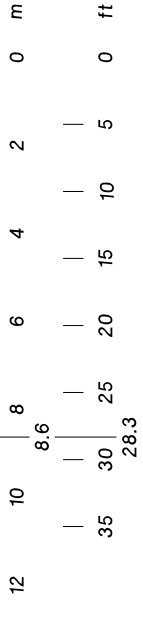
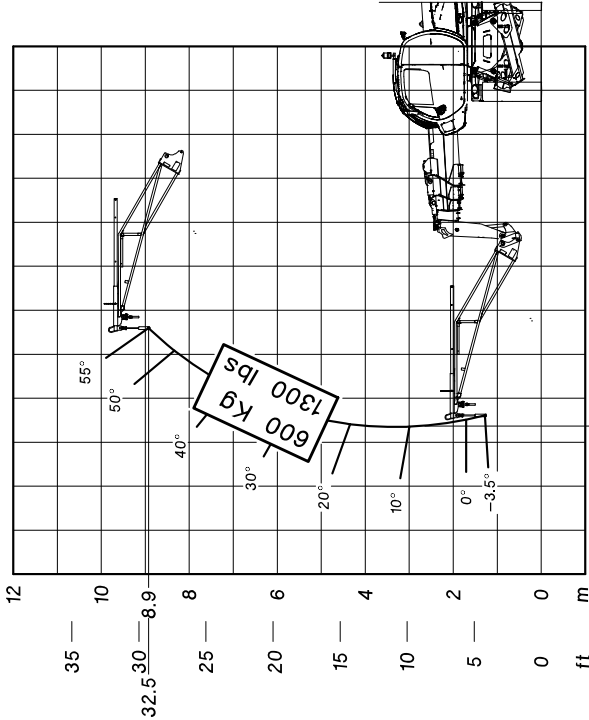
1.75% Max 1.75% Max



Ground conditions:  
solid surface



0km/h



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU** MRT 3255

JE6000 600 Kg/1300 lbs POS. DA



36 Km/ Max  
(10 m/s)

1.75% Max

1.75% Max

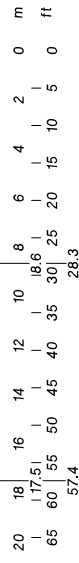
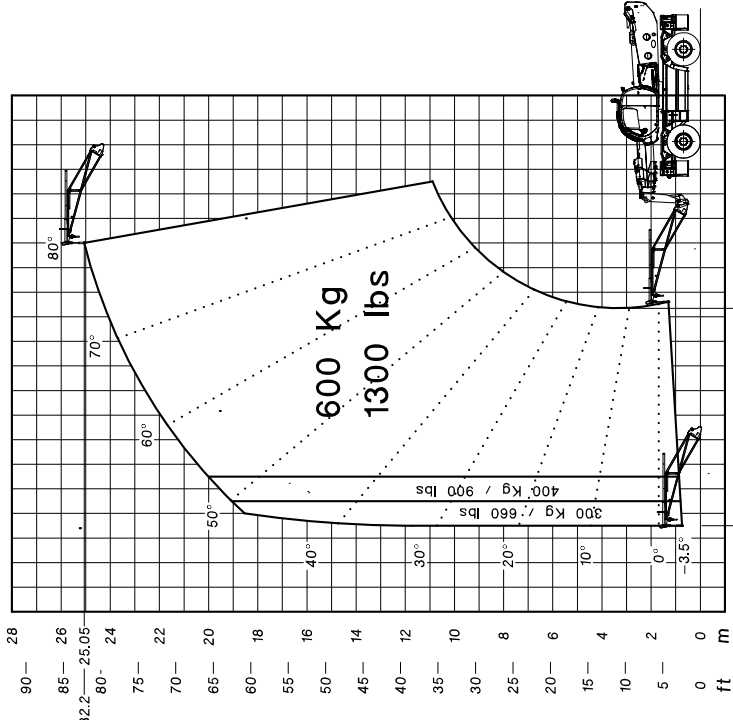
1.75% Max 1.75% Max



Ground conditions:  
solid surface



0km/h



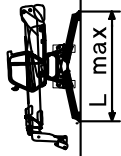
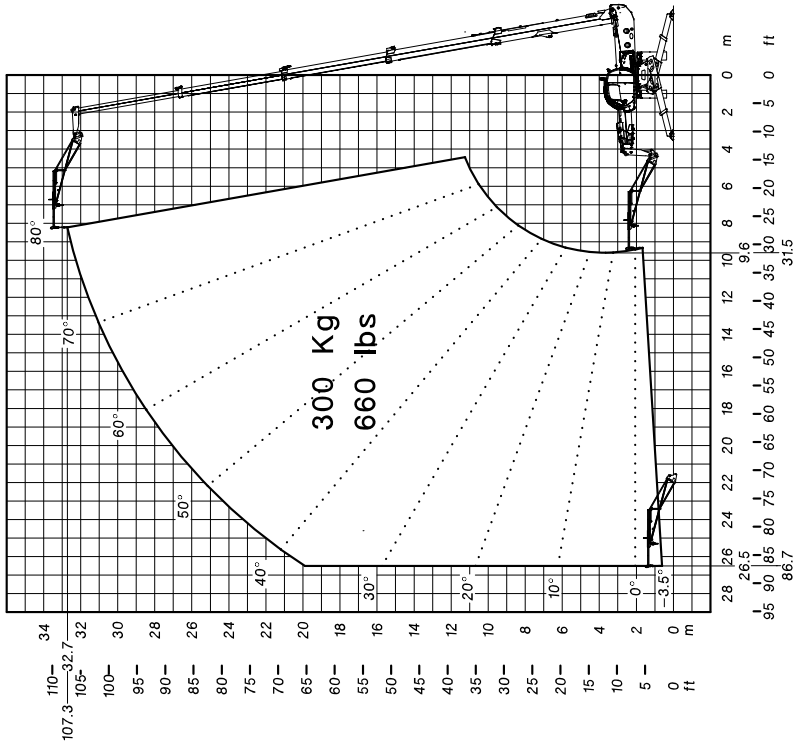
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



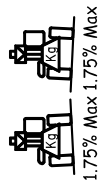
MRT 3255

JE6000 300Kg/660 lbs

POS. DB



36 Km/ Max  
(10 m/s)



Ground conditions:  
solid surface



53007381

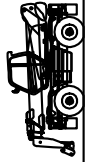
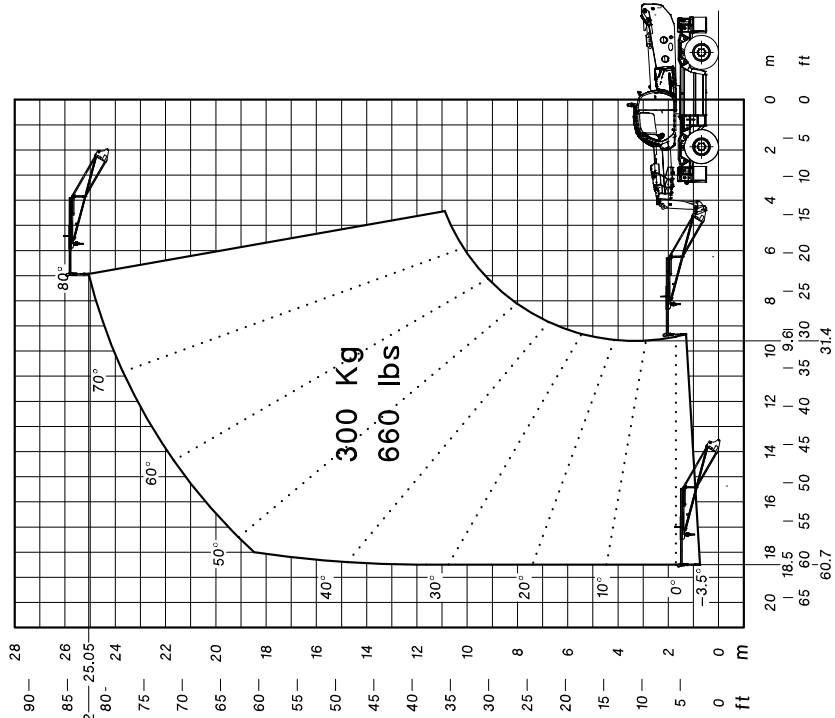
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



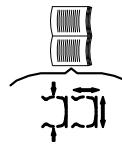
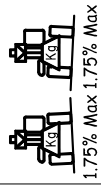
MRT 3255

JE6000 300 Kg/660 lbs

POS. DB



36 Km/ Max  
(10 m/s)



Ground conditions:  
solid surface



53007382

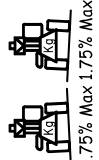
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

JE6000 300 Kg/660 lbs

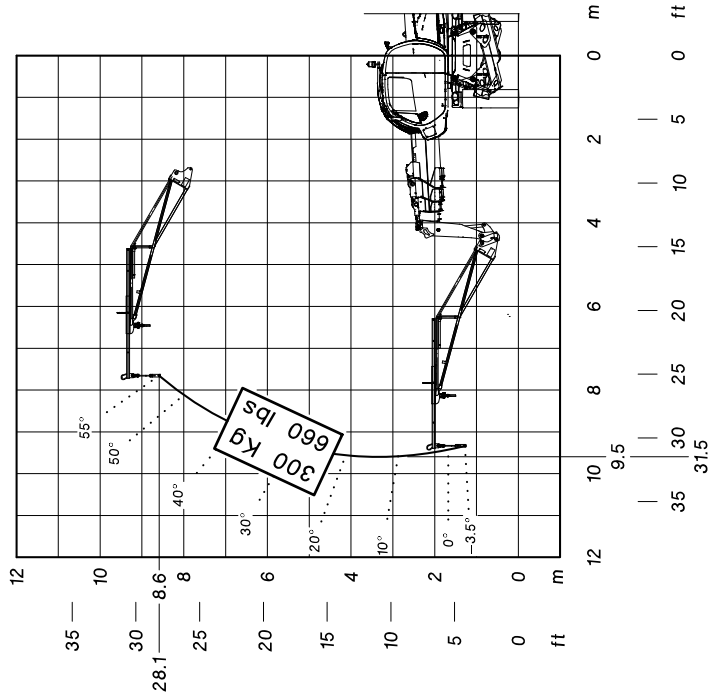
POS. DB



Ground conditions:  
solid surface



53007383



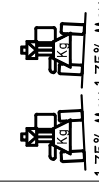
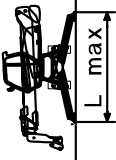
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

MRT 3255

JE6000 100Kg/220 lbs

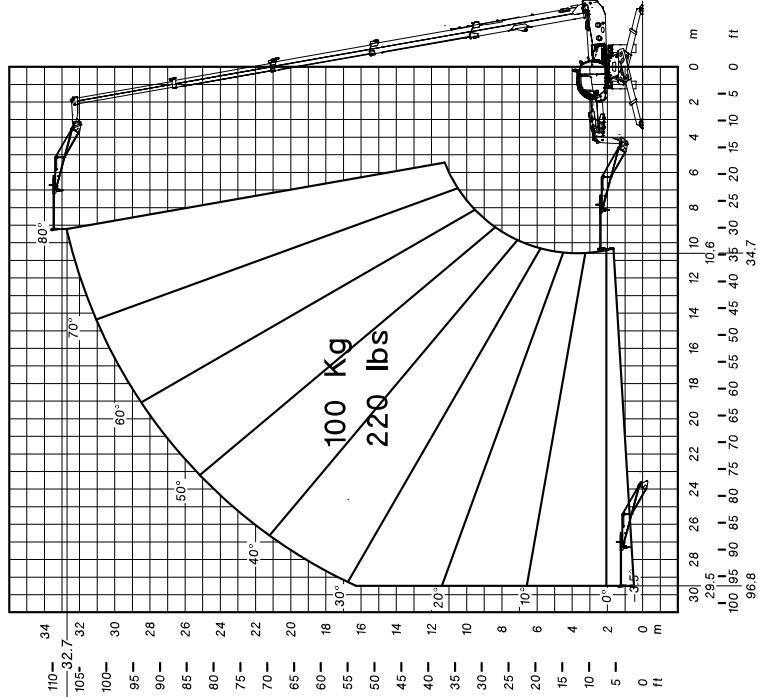
POS. DC



Ground conditions:  
solid surface



53007385



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

JE6000 100 Kg/220 lbs

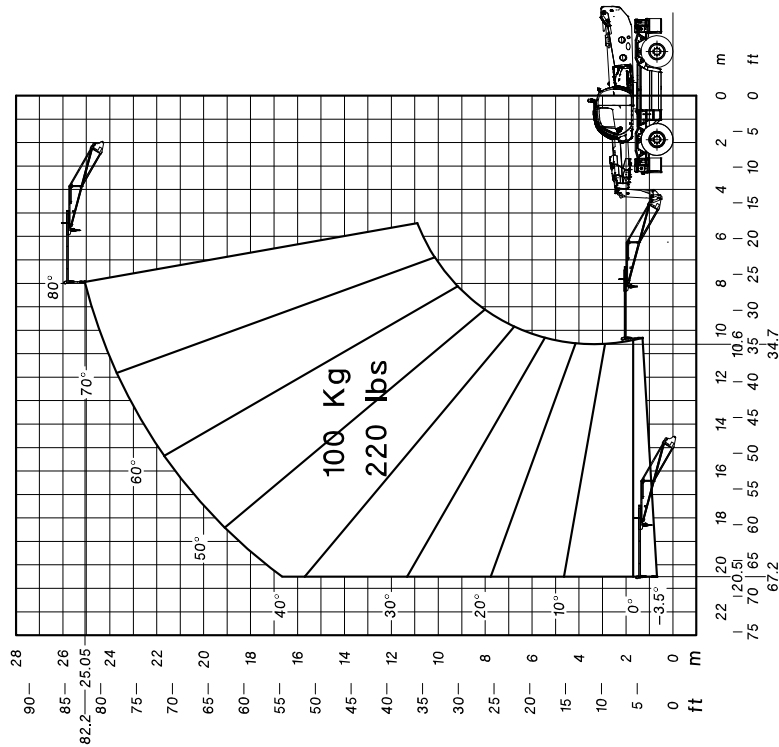
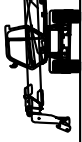
POS. DC

100 Kg/220 lbs



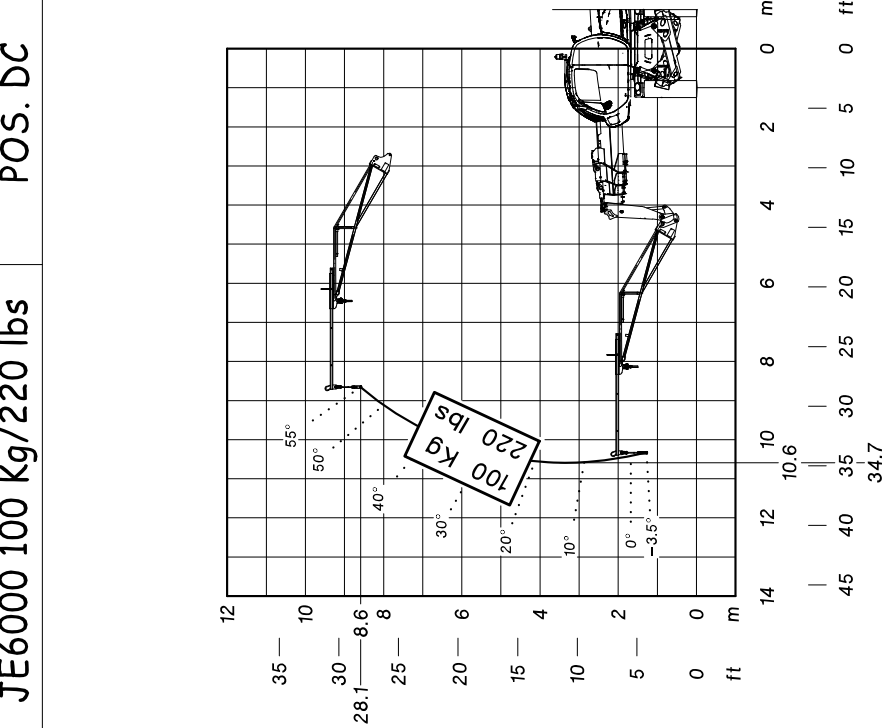
MRT 3255

POS. DC



Standard used EN1459-Annexe B – AS1418.19 – ASME B56.6

53007386



Standard used EN1459-Annexe B – AS1418.19 – ASME B56.6

53007387

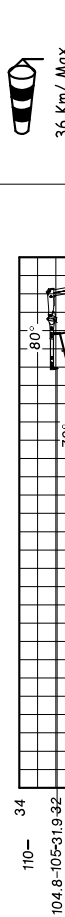
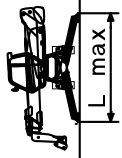
36 Km/ Max (10 m/s)  
 1.75% Max  
 1.75% Max  
 1.75% Max  
 1.75% Max  
 Ground conditions: solid surface  
 0km/h

**MANITOU**

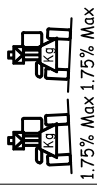
MRT 3255

P4000 4T

POS. M



36 Km/ Max  
(10 m/s)



Ground conditions:  
solid surface



53007394

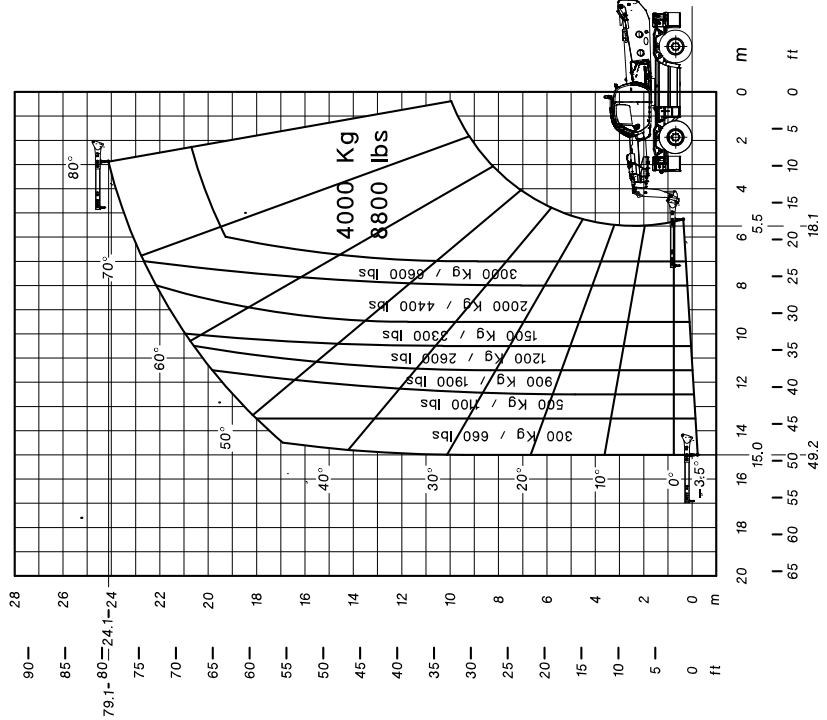
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU**

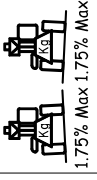
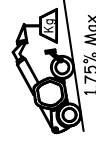
MRT 3255

PT4000 4T

POS. M



36 Km/ Max  
(10 m/s)



Ground conditions:  
solid surface

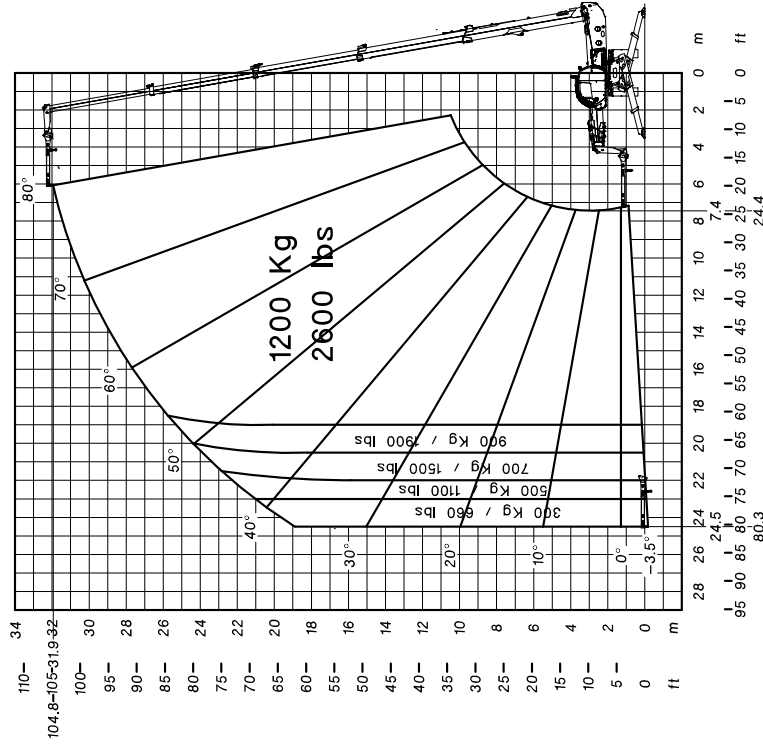


53007395

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU** MRT 3255

P4000 1.2T POS. N

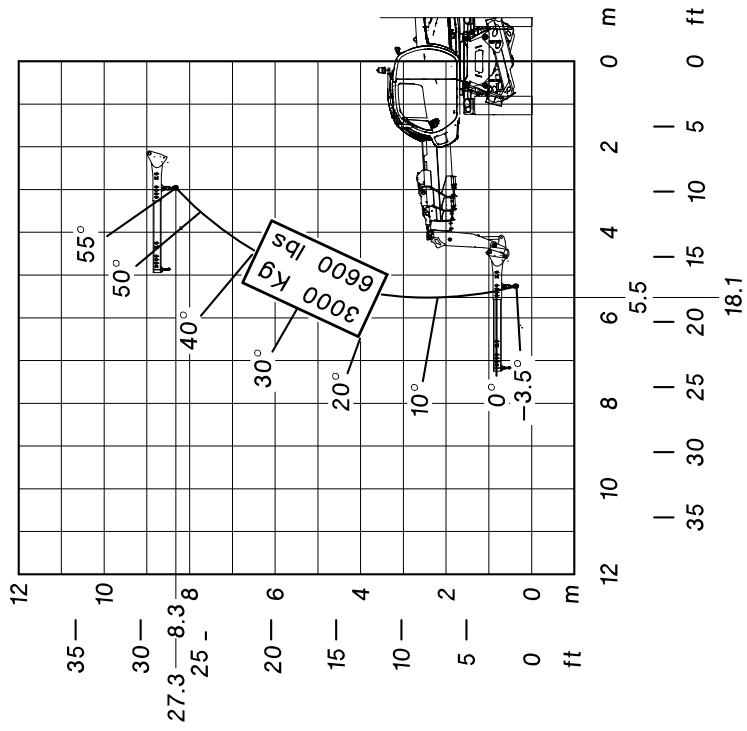


L max.  
 36 Km/ Max (10 m/s)  
 1.75% Max  
 1.75% Max  
 1.75% Max  
 1.75% Max  
 Ground conditions: solid surface  
 0km/h  
 53007402

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU** MRT 3255

PT4000 4T POS. M



L max.  
 36 Km/ Max (10 m/s)  
 1.75% Max  
 1.75% Max  
 1.75% Max  
 1.75% Max  
 Ground conditions: solid surface  
 0km/h  
 53007396

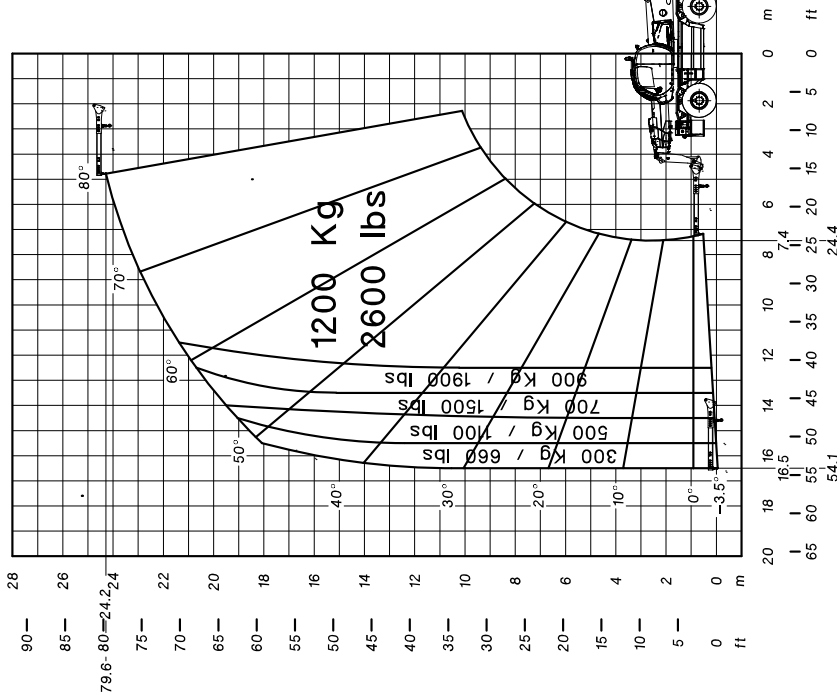
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

P4000 1.2T

POS. N



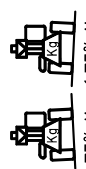
36 Km/ Max (10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



Ground conditions: solid surface



0km/h

53007403

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

P4000 1.2T

POS. N



36 Km/ Max (10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max

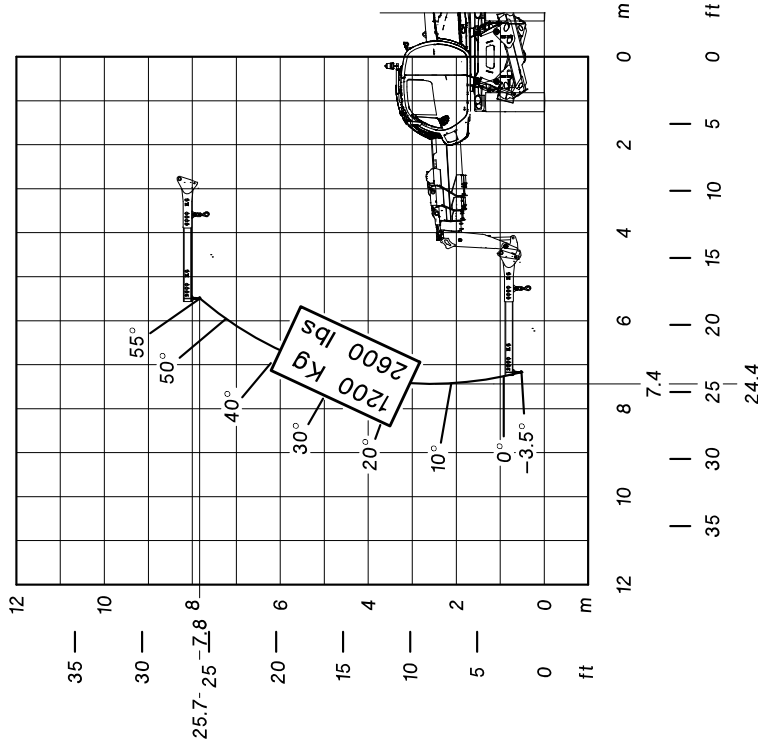


Ground conditions: solid surface



0km/h

53007404



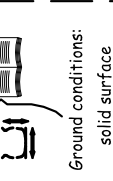
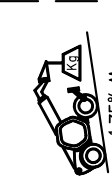
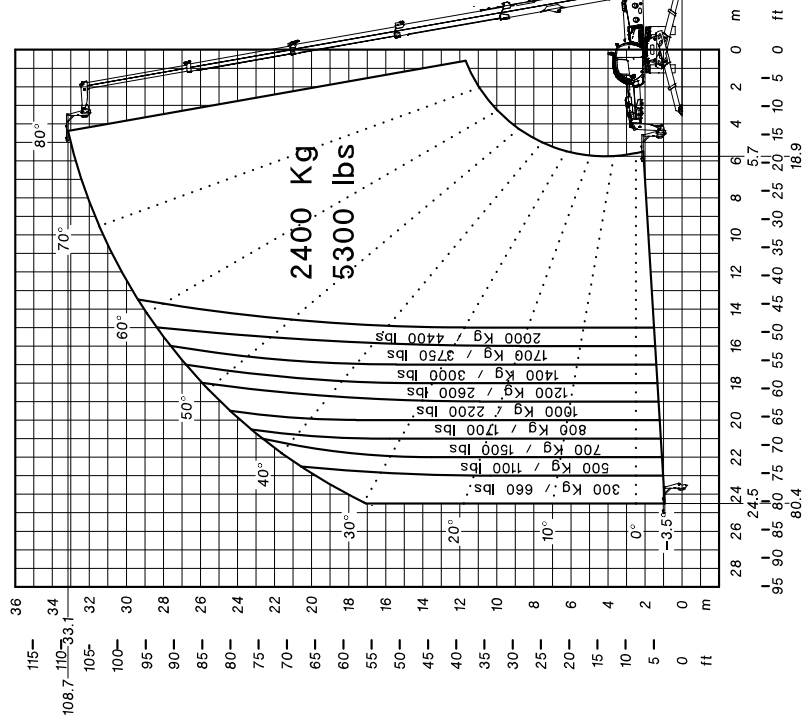
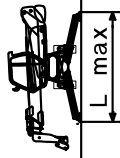
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

Big Bag Handler

POS. HB



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

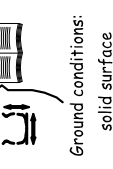
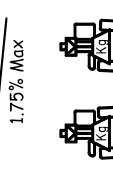
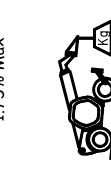
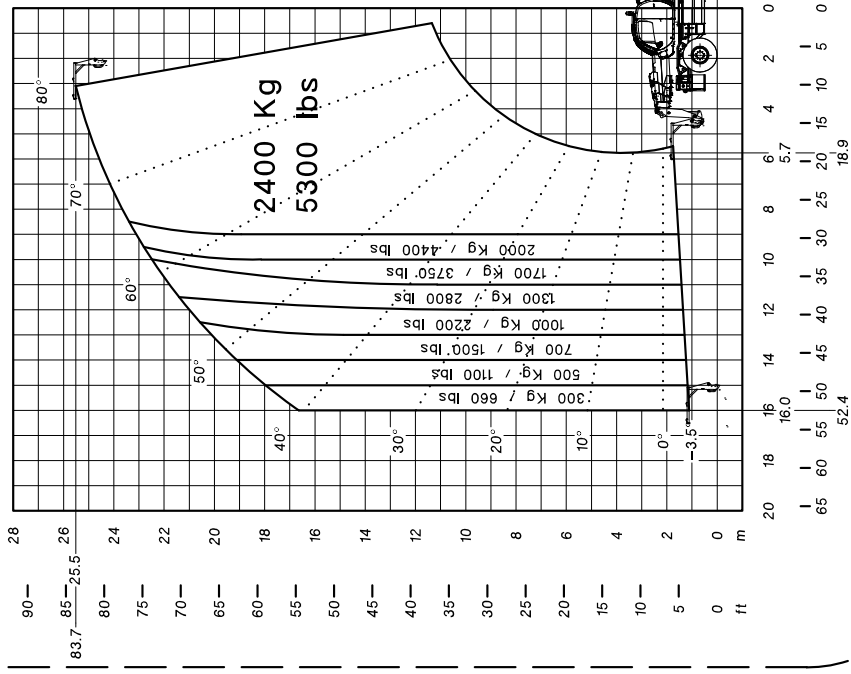
53007547



MRT 3255

Big Bag Handler

POS. HB



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

53007548

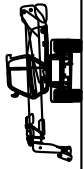
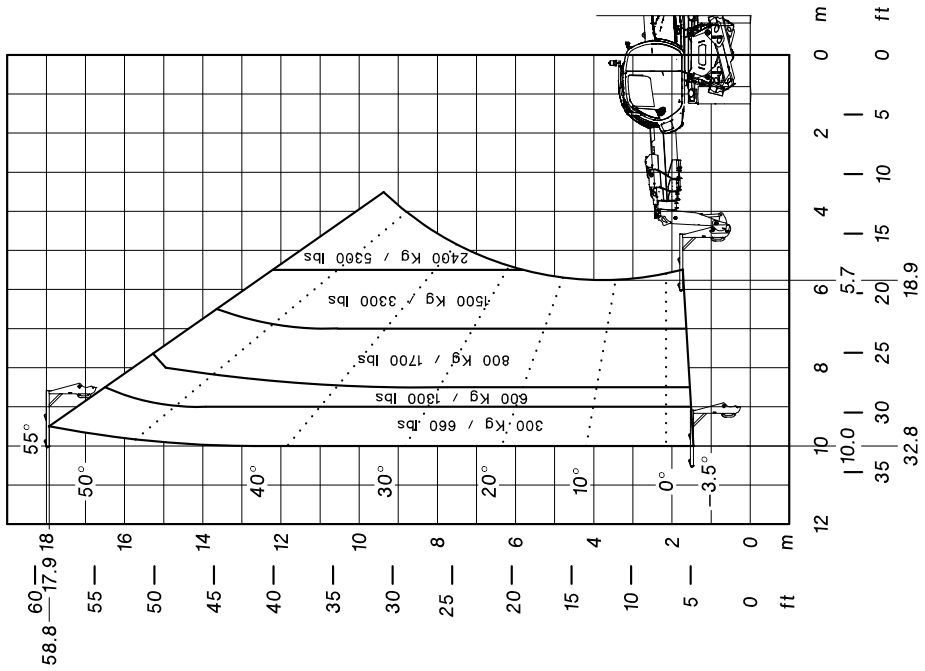




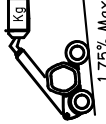
MRT 3255

Big Bag Handler

POS. HB



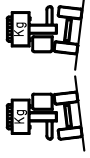
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



Ground conditions:  
solid surface



0km/h

53007549

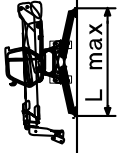
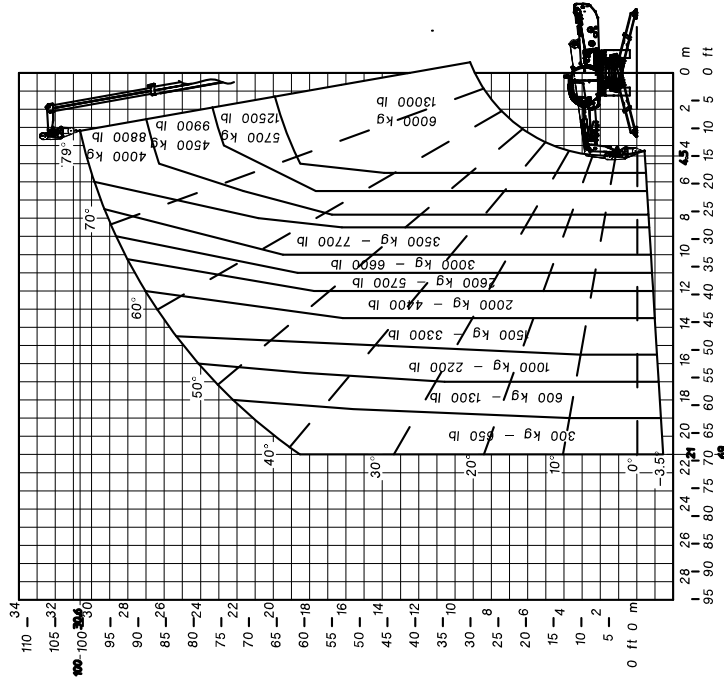
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

WINCH 6T

POS. JD



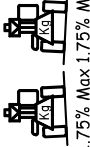
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max



Ground conditions:  
solid surface



0km/h

53015920

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

WINCH 6T

POS. JD

WINCH 6T



MRT 3255

POS. JD



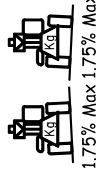
36 Km/ Max  
(10 m/s)



1.75% Max



1.75% Max



1.75% Max 1.75% Max

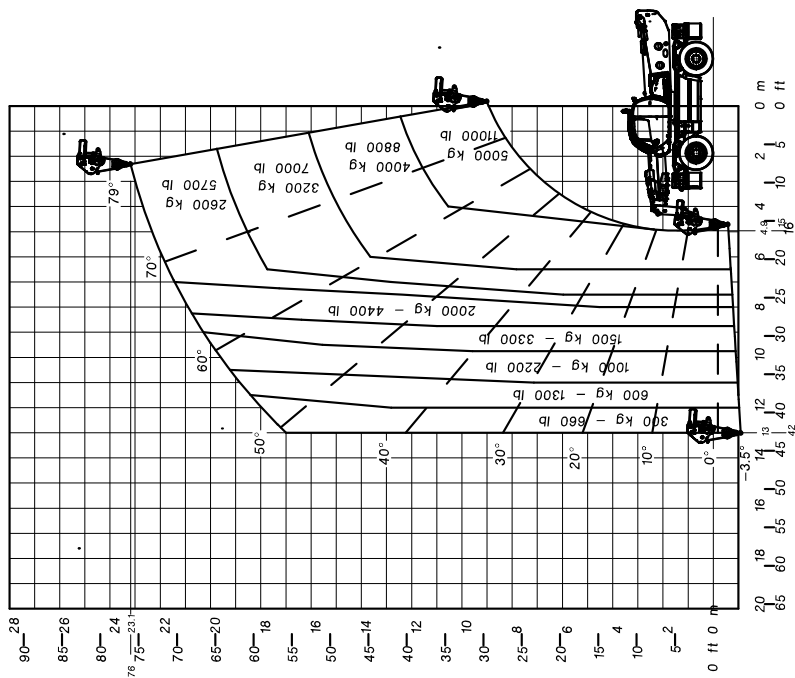


Ground conditions:  
solid surface

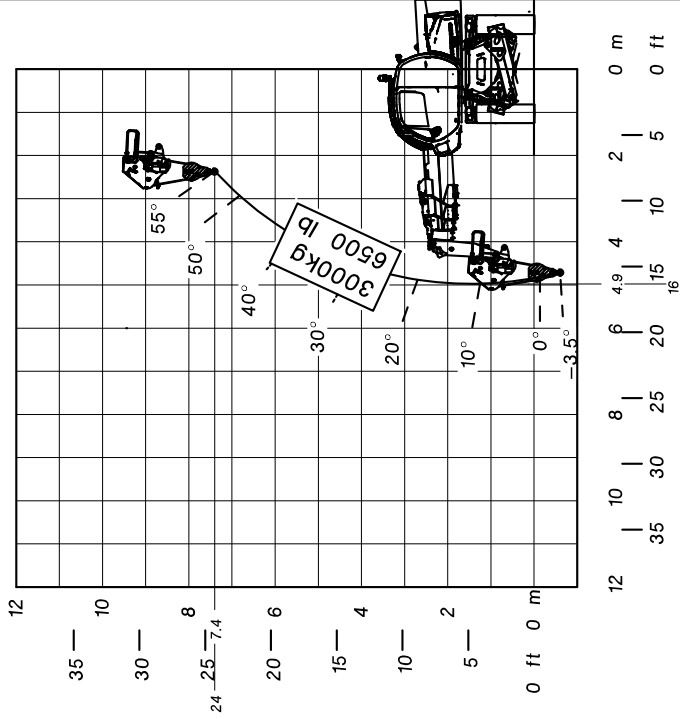


0km/h

53015921



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6

**MANITOU** MRT 3255

WINCH 12T POS. JC

WINCH 12T POS. JC

WINCH 12T POS. JC

WINCH 12T POS. JC

WINCH 12T POS. JC

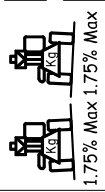
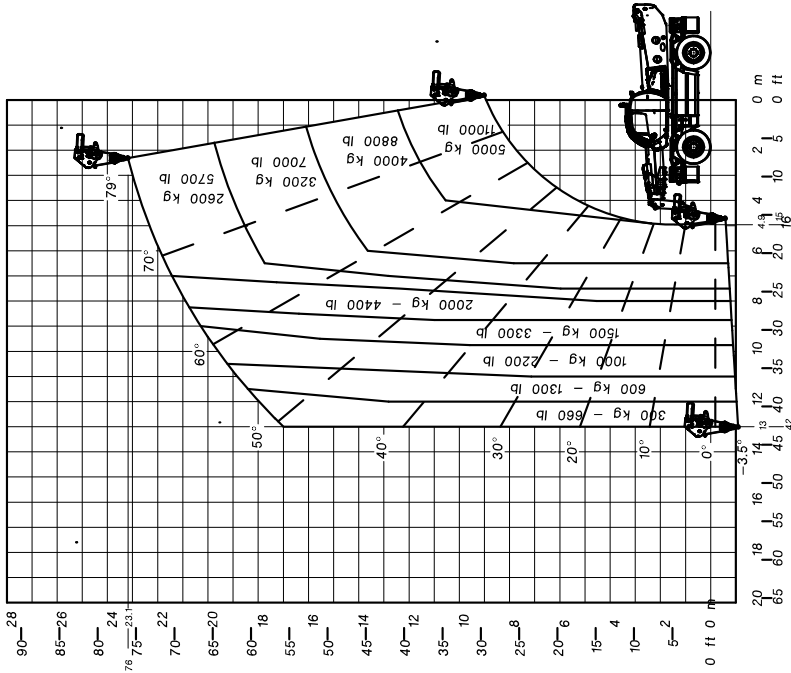
WINCH 12T POS. JC

WINCH 12T POS. JC

WINCH 12T POS. JC

WINCH 12T POS. JC

WINCH 12T POS. JC

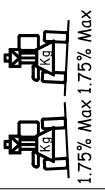
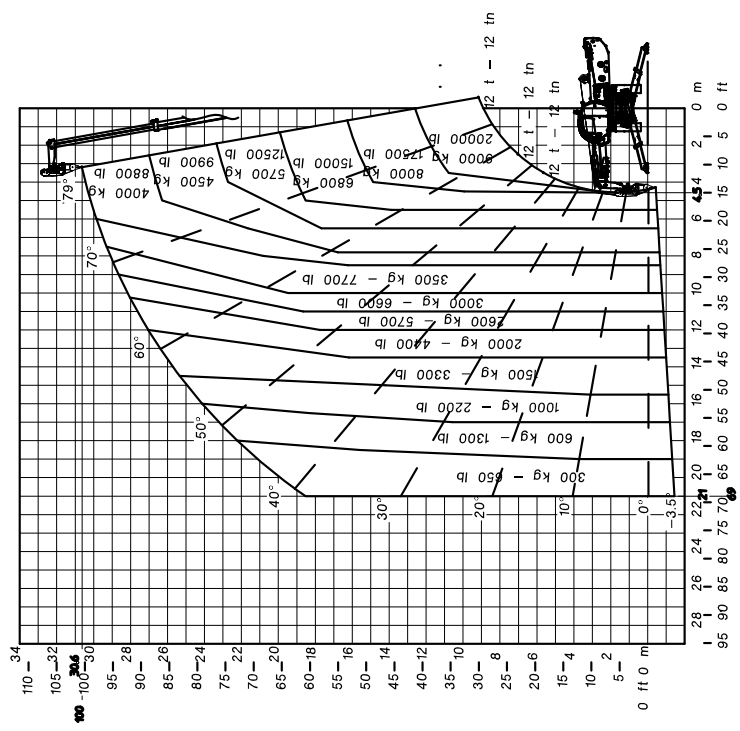


Ground conditions:  
solid surface



53015924

Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



Ground conditions:  
solid surface



53015923

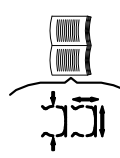
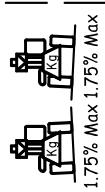
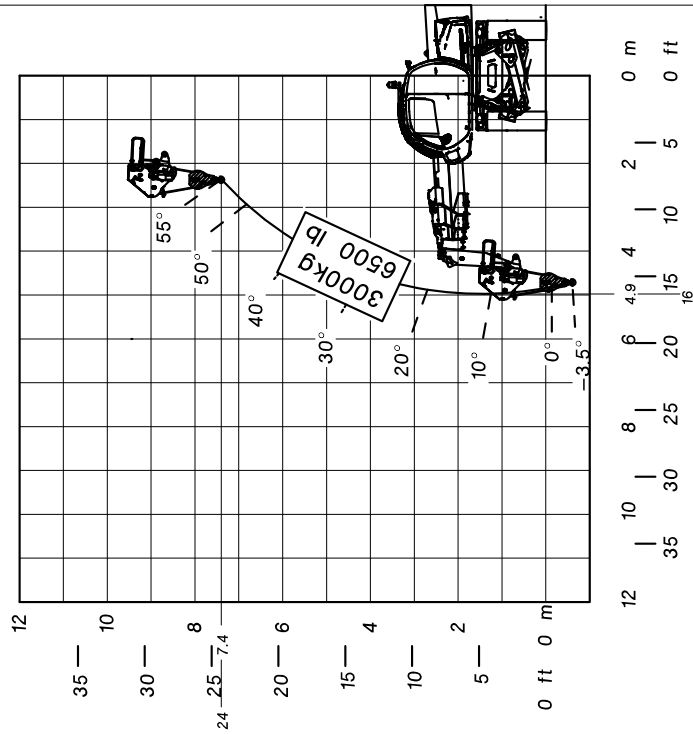
Standard used EN1459-Annexe B - AS1418.19 - ASME B56.6



MRT 3255

WINCH 12T

POS. JC



Ground conditions:  
solid surface



Standard used EN1459—Annexe B — AS1418.19 — ASME B56.6

53015925