Valid for models:

**PM 44024 S - PM 44024 S LC**
**PM 44025 S - PM 44025 S LC**
**PM 44026 S - PM 44026 S LC**
**PM 44028 S - PM 44028 S LC**

**PM 48024 SP - PM 48024 SP LC**
**PM 48025 SP - PM 48025 SP LC**
**PM 48026 SP - PM 48026 SP LC**
**PM 48028 SP - PM 48028 SP LC**

# SERIE 44 - 48

**- GA55 -**

## INSTRUCTION AND WARNINGS

Valid with the serial number

**G.A55.0001**

Code number: **4.150.458**
Edition: **10/2006**

Realised by **Unistudio** - Modena

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# 1 General information

## 1.1 - Purpose of the manual

The instructions manual contains information which is essential for the correct use of the crane (1) (hereinafter also referred to as the machine).

Its purpose is to inform the operator (2) of the instructions to follow and the fundamental criteria to apply in all machine use or maintenance operations.

Before starting up the machine for the first time, the operator must have read and understood the instructions contained in this manual, in particular those highlighted with the various symbols.

The manual is an integral part of the machine and must always be kept with it for future reference until it is scrapped.

If the machine is resold, the seller is bound to provide the new owner with the manual.

The information contained herein is arranged in chapters, in a sequential order according to subject matter.

The indexes, both alphabetic or analytic, allow the user to refer to the different subjects quickly and easily.

The original information is supplied by the manufacturer in Italian language.

In order to comply with legal and commercial requirements, original information can be translated into other languages.

It is strictly forbidden to use the manual for anything other than the machine's use and maintenance.

## 1.2 - Manufacturer's details and machine identification data

**- Manufacturer's details**

**Autogru PM S.p.A.**
Via Verdi, 22
41018 S. Cesario s/P - Modena (Italy)
tel. +39 059 936811
fax. +39 059 936800
e-mail: sparepartsdept@autogrupm.com
servicedept@autogrupm.com

**(1)** The term "crane" refers to the trade name given to the machine (from the crane series) stated on the title page.

**(2)** The term "operator(s)" refers to the person(s) possessing the necessary expertise to use, inspect and carry out routine maintenance on the machine.

- **Machine identification data**

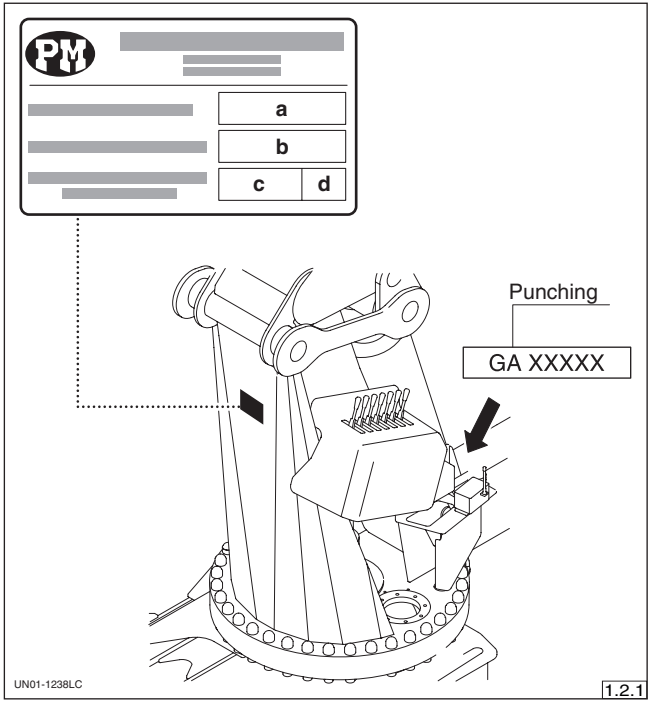



**Plate details**

a = Crane model
b = Serial number
c = Year of manufacture
d = CE stamp

## 1.3 - Symbology

The symbols used in this manual are intended to highlight potentially hazardous operations.

To guarantee safe working conditions, the instructions highlighted by these symbols must always be followed.

**HAZARD !**

This indicates information or procedures which, if not complied with exactly, causes death or serious injuries.

**WARNING !**

This indicates information or procedures which, if not complied with exactly, could cause death or serious injuries.

**CAUTION !**

This indicates information or procedures which, if not complied with exactly, could cause slight injuries or damage to the machine.

**Information**

This indicates useful and important information or procedures.

**WARNING !**

***For the sake of clarity when outlining procedures to carry out, some illustrations show the machine with the guards, casings or panels removed.***
***Never use the machine without all the casings and guards in place.***

## 1.4 - Technical service

Technical service requests must be addressed to the manufacturer's Technical Assistance Service (T.A.S.) or to the nearest Authorised Workshop.

## 1.5 - Enclosed documentation

- EC conformity declaration
- Warranty booklet
- Machine certificate of origin (only for markets requiring it).

# 2 Technical information

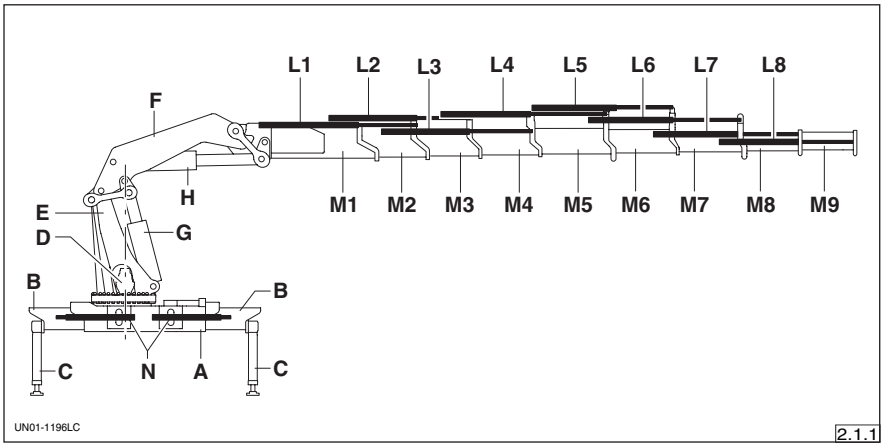
## 2.1 - Description of the crane

The crane is composed of a base inside which there is a rotating column with a system of articulated arms at its end.

The crane is driven by hydraulic energy generated by a motor and a pump.

This crane series is available in various models and versions, which differ mostly in the number of extendable arms.

### 2.1.1 - Basic crane main parts

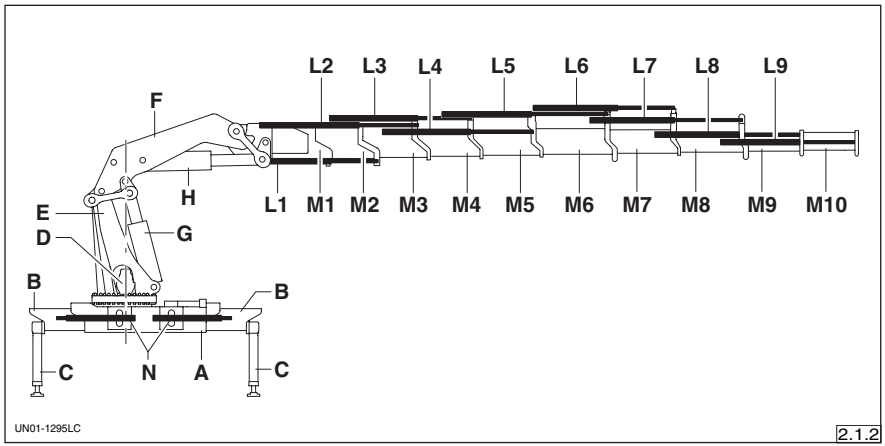



*- Legend to main parts of basic crane*

| Ref. | Part | 44024 S | 44025 S | 44026 S | 44028 S | 48024 SP | 48025 SP | 48026 SP | 48028 SP |
|---|---|---|---|---|---|---|---|---|---|
| A | Base | • | • | • | • | • | • | • | • |
| B | Stabiliser arm | • | • | • | • | • | • | • | • |
| C | Stabiliser jack | • | • | • | • | • | • | • | • |
| D | Rotation reduction gear | • | • | • | • | • | • | • | • |
| E | Column | • | • | • | • | • | • | • | • |

| Ref. | Part | 44024 S | 44025 S | 44026 S | 44028 S | 48024 SP | 48025 SP | 48026 SP | 48028 SP |
|---|---|---|---|---|---|---|---|---|---|
| F | Main arm | • | • | • | • | • | • | • | • |
| G | Main jack | • | • | • | • | • | • | • | • |
| H | Secondary jack | • | • | • | • | • | • | • | • |
| L1 | 1st arm extension jack | • | • | • | • | • | • | • | • |
| L2 | 2nd arm extension jack | • | • | • | • | • | • | • | • |
| L3 | 3rd arm extension jack | • | • | • | • | • | • | • | • |
| L4 | 4th arm extension jack | • | • | • | • | • | • | • | • |
| L5 | 5th arm extension jack | | • | • | • | | • | • | • |
| L6 | 6th arm extension jack | | • | • | • | | • | • | • |
| L7 | 7th arm extension jack | | | • | • | | | • | • |
| L8 | 8th arm extension jack | | | | • | | | | • |
| M1 | Secondary arm | • | • | • | • | • | • | • | • |
| M2 | 1st hydraulic extension arm | • | • | • | • | • | • | • | • |
| M3 | 2nd hydraulic extension arm | • | • | • | • | • | • | • | • |
| M4 | 3rd hydraulic extension arm | • | • | • | • | • | • | • | • |
| M5 | 4th hydraulic extension arm | • | • | • | • | • | • | • | • |
| M6 | 5th hydraulic extension arm | | • | • | • | | • | • | • |
| M7 | 6th hydraulic extension arm | | • | • | • | | • | • | • |
| M8 | 7th hydraulic extension arm | | | • | • | | | • | • |
| M9 | 8th hydraulic extension arm | | | | • | | | | • |
| N | Stabiliser arm extension jack | • | • | • | • | • | • | • | • |

### 2.1.2 - Basic LC crane, main parts




- *Legend to main parts of basic LC crane*

| Ref. | Part | 44024 S LC | 44025 S LC | 44026 S LC | 44028 S LC | 48024 SP LC | 48025 SP LC | 48026 SP LC | 48028 SP LC |
|---|---|---|---|---|---|---|---|---|---|
| A | Base | • | • | • | • | • | • | • | • |
| B | Stabiliser arm | • | • | • | • | • | • | • | • |
| C | Stabiliser jack | • | • | • | • | • | • | • | • |
| D | Rotation reduction gear | • | • | • | • | • | • | • | • |
| E | Column | • | • | • | • | • | • | • | • |
| F | Main arm | • | • | • | • | • | • | • | • |
| G | Main jack | • | • | • | • | • | • | • | • |
| H | Secondary jack | • | • | • | • | • | • | • | • |

| Ref. | Part | 44024 S LC | 44025 S LC | 44026 S LC | 44028 S LC | 48024 SP LC | 48025 SP LC | 48026 SP LC | 48028 SP LC |
|---|---|---|---|---|---|---|---|---|---|
| L1 | Secondary arm extension jack | • | • | • | • | • | • | • | • |
| L2 | 1st arm extension jack | • | • | • | • | • | • | • | • |
| L3 | 2nd arm extension jack | • | • | • | • | • | • | • | • |
| L4 | 3rd arm extension jack | • | • | • | • | • | • | • | • |
| L5 | 4th arm extension jack | • | • | • | • | • | • | • | • |
| L6 | 5th arm extension jack | | • | • | • | | • | • | • |
| L7 | 6th arm extension jack | | • | • | • | | • | • | • |
| L8 | 7th arm extension jack | | | • | • | | | • | • |
| L9 | 8th arm extension jack | | | | • | | | | • |
| M1 | Cover | • | • | • | • | • | • | • | • |
| M2 | Secondary arm | • | • | • | • | • | • | • | • |
| M3 | 1st hydraulic extension arm | • | • | • | • | • | • | • | • |
| M4 | 2nd hydraulic extension arm | • | • | • | • | • | • | • | • |
| M5 | 3rd hydraulic extension arm | • | • | • | • | • | • | • | • |
| M6 | 4th hydraulic extension arm | • | • | • | • | • | • | • | • |
| M7 | 5th hydraulic extension arm | | • | • | • | | • | • | • |
| M8 | 6th hydraulic extension arm | | • | • | • | | • | • | • |
| M9 | 7th hydraulic extension arm | | | • | • | | | • | • |
| M10 | 8th hydraulic extension arm | | | | • | | | | • |
| N | Stabiliser arm extension jack | • | • | • | • | • | • | • | • |

### 2.2.1 - Designated use

The crane is designed for the vertical lifting, handling and positioning of free loads (3), in compliance with the values given in the capacities diagram and handling speeds not exceeding the maximum prescribed limits (see specifications).
The cranes are designed in compliance with harmonised standard EN 12999, class H1-B3, which provides for non-continuous use, with a hook, for a maximum of 400 lifting cycles per week and a load equalling 3/4 of the load indicated in the relative diagram.
To use the machine with loads other than those for which it is designed, it is the user's responsibility to first contact an authorised workshop to check whether a downgrade is necessary.

**(3)** The term "free load" means loads whose movement is not limited.

### 2.2.2 - Inadmissible uses

**It is forbidden** to use the machine in areas where there is a risk of fires or explosions.
**It is forbidden** to use the crane to pull out poles, uproot trees and lift fixed loads.
**It is forbidden** to use the machine to lift people, with the exception of cases in which the crane is fitted with a specially designed operator's platform approved by the manufacturer.
**It is forbidden** to use the crane with fixed load-hoisting accessories such as hooks, bucket, grabs etc unless the accessories are authorised by the manufacturer.
**It is forbidden** to use the machine as a recovery means for towing broken-down vehicles.
**It is forbidden** to drag or push loads.
Before performing a rotation manoeuvre, the load must be lifted off the ground.
**It is forbidden** to lift the base truck with the stabilisers to change the tyres.
**It is forbidden** to lift the base truck with the stabilisers in order to move the vehicle if stuck in areas of loose ground.
**It is forbidden** to fit removable clamping accessories such as jibs, manual extensions etc if:

- they are not approved by the manufacturer;
- they are not designed specifically for the model in question.

## 2.3 - Safety devices

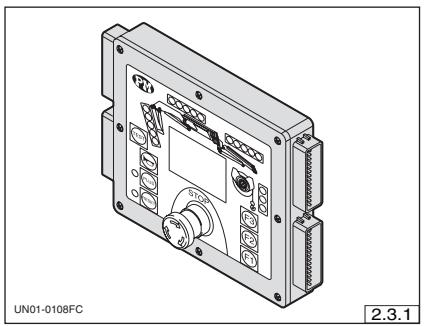
**HAZARD !**

***Never tamper with any of the safety devices.***

**Information**

*The safety devices on the accessories are outlined in the paragraph describing each accessory.*

### 2.3.1 - Functional control unit




This includes:
- the crane's load limiting device;
- the articulated extension's load limiting device;
- the winch's load limiting device;
- the rotation limiting device.

It controls:
- the thrusting pressure of the main and secondary jack;
- the oil temperature;
- the safety devices' operation;
- it advises the operator of the machine's operation status and any malfunctions.

**Information**

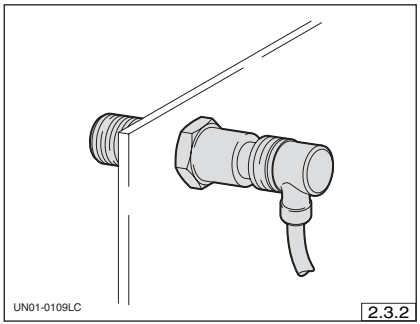
*The presence of the load limiting device does not relieve the operator of the responsibility for ensuring the maximum loads are not intentionally exceeded.*

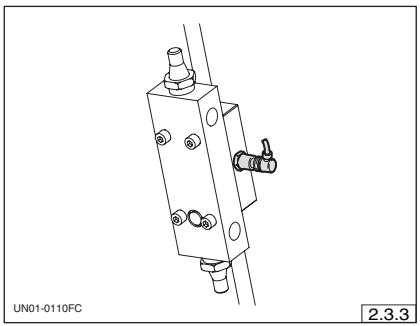
**2.3.2 - Rotation sensor** (fig. 2.3.2)

This informs the functional control unit to stop the crane when in the area in which the crane's stability, with that particular load, is jeopardised. Work may only be carried out in that area if the load is reduced (in relation to the nominal capacity).

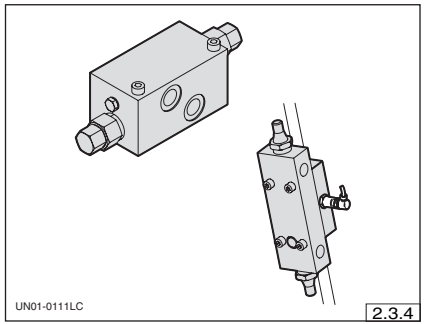
**2.3.3 - Pressure sensor** (fig. 2.3.3)

These are located on the load support valves on the secondary jack and the main jack. They signal to the functional control unit to inhibit the handling of loads exceeding the nominal loads to safeguard the machine and maintain the stability of the crane/base truck unit.



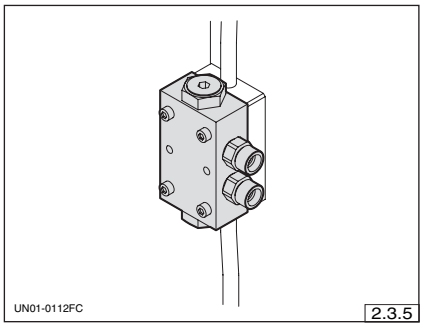
### 2.3.4 - Load support valves



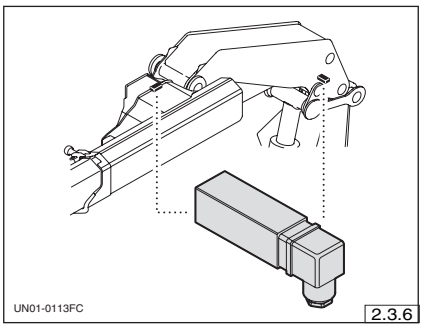

These prevent the loads dropping unexpectedly to the ground as a result of a broken line or a sudden pump failure.

### 2.3.5 - Stabiliser valve (fig. 2.3.5)

It locks the stabiliser jack (in the position it is in at that precise moment) in the event of a broken line or that the oil delivered to the jack is suddenly cut off.

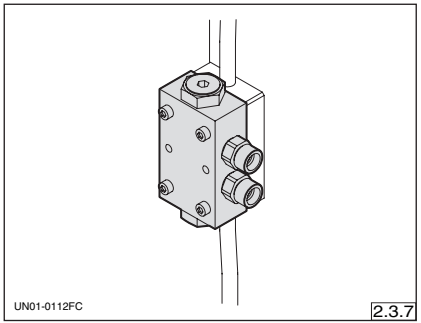



### 2.3.6 - Sensor




This informs the functional control unit of the angle of the main arm and of the secondary arm in relation to the horizontal axis so that the controls used to move the crane safely can be enabled.

### 2.3.7 - Emergency stop device

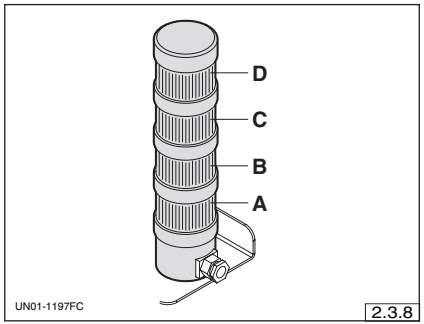



Use the device to stop all the crane's movements in the event of an emergency.
Release the button to activate the crane.

**WARNING !**

***Ensure the hazardous conditions cannot persist before releasing the button.***

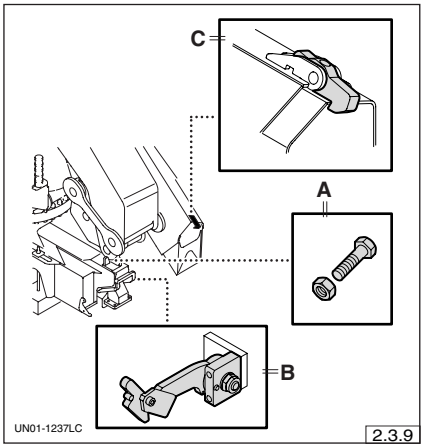
### 2.3.8 - Signal lamp and buzzer




A - buzzer
B - white light
C - yellow light
D - orange light

This signals:
- with the buzzer: the lock state as a result of an overload;
- with white light: remote control activation;
- with orange light: 90% of the admissible load limit has been reached;
- with yellow light: “PLUS” device activation.

### 2.3.9 - Safety devices for travelling on public roads

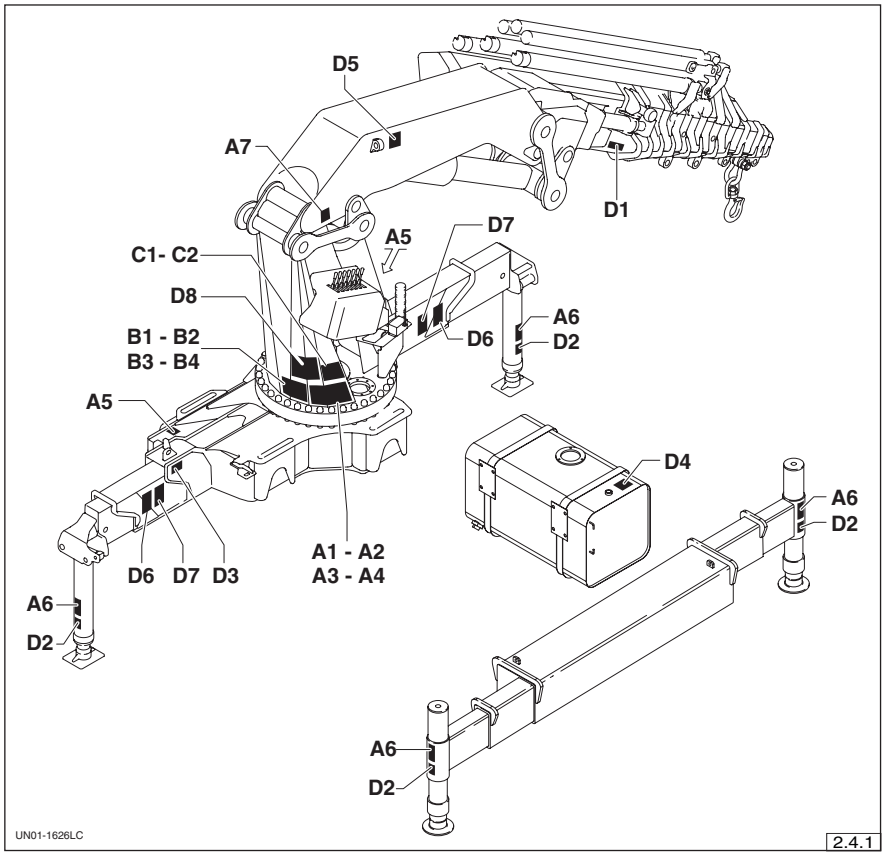



A - anti-rotation device for crane
B - mechanical device to prevent accidental extension of the stabiliser arms
C - anti-extension device for arm pack (LC version only).

The devices keep the crane within the vehicle’s profile when travelling on public roads.

**WARNING !**

***Always comply with the safety recommendations on the plates. Check that the plates are always present and legible; if not replace them with new ones in the same position.***



## - Hazards signs



**A1 = Risk of electric shocks (*).**
Always keep a safe distance from electricity lines.



**A2 = Risk from overhanging loads (*).**
Take care not to walk or stand under overhanging loads.



**A3 = Dangerous manoeuvre signal (*).**
Operate the crane so that it opens and closes on the opposite side to the trajectory travelled by the main arm.



**A4 = Obstacle risk signal (*).**
Watch out for max. admitted heights when travelling on public roads.



**A5 = Risk of falls.**
Slippery surface, take care.



**A6 = Risk of crushing.**
Lower limbs could be crushed by stabiliser jacks when in use, take care.



**A7 = Risk of lacerations signal.**
This indicates a risk of lacerations to the hands caused by moving parts.

**(*)** Signals grouped together on one plate.

## - Prohibition signs



**B1 = No entry (**).**
It is forbidden to both move around and stop in the crane's operating range.



**B2 = Prohibited use (**).**
It is forbidden for unauthorised persons to use the machine.



**B3 = No water jets (**).**
It is forbidden to use pressurised water on the electrical components.



**B4 = Prohibited use (**).**
Use of the machine is prohibited if the stabilisers have not been positioned correctly.

**(**)** Signals grouped together on one plate.

## - Obligation signs



**C1 = Instruction Manual plate (***).**
This indicates that the operator must read the instruction manual carefully before using the machine.



**C2 = Individual safety gear plate (***).**
This indicates that the user is under obligation to wear the safety helmet when operating the machine.

**(***)** Signals grouped together on one plate.

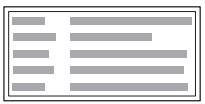
## - Information signs




**D1= Max. capacity plate.**
States the max. capacity at the fixed hook.



**D2 = Max. stabiliser pressure signal.**
Shows the maximum force that the crane exerts on the ground



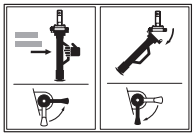
**D3 = Power takeoff plate.**
Reminds the operator to switch off the power takeoff during transfers.



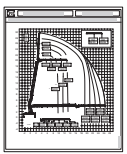

**D4 = Oil tank plate.**
Indicates the hydraulic oil tank.



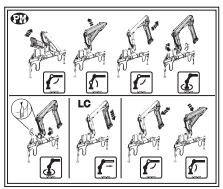
**D5 = Hoisting points plate.**
Indicates the hoisting hooks attachment points.



**D6 = Rotary stabilisers plate.**
Indicates the position of the stabiliser lock/ unlock levers.



**D7 = Capacities diagram plate.**
Indicates the performance limits of the machine and any accessories fitted.

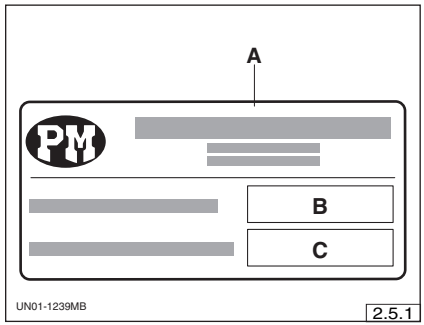



**D8 = Crane opening/closing plate.**
Indicates the order of the actions to set the crane in the working or resting positions.

## 2.5 - Accessories

### 2.5.1 - Additional crossmember

**- Identification details**




A) manufacturer
B) serial number
C) weight

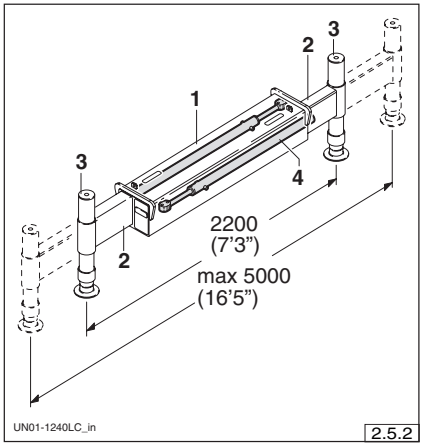
**- General description**

The additional crossmember is only fitted when the crane's stabiliser jacks alone cannot guarantee the crane/ truck unit's stability.

**- Main parts**

1 - Crossmember
2 - Extendable stabiliser arm
3 - Stabiliser jack
4 - Stabiliser arm extension jack

**- Installable crossbeam**



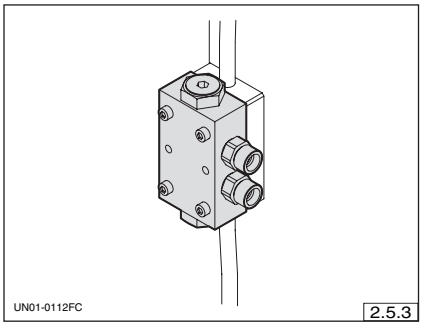

Crossbeam with hydraulically extended outriggers

| Type | Code | Weight kg (lbs) |
|---|---|---|
| 14.00T - S15.0 | 470213 | 515 (1135) |

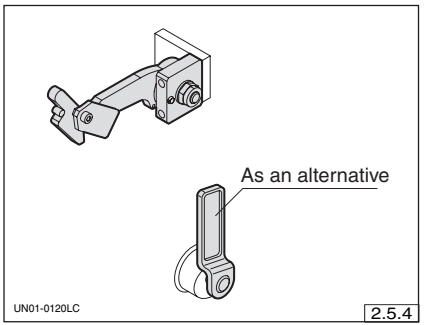
**- Safety devices**

**Stabiliser valve** (fig. 2.5.3)

It locks the stabiliser jack (in the position it is in at that precise moment) in the event of a broken line or that the oil delivered to the jack is suddenly cut off.

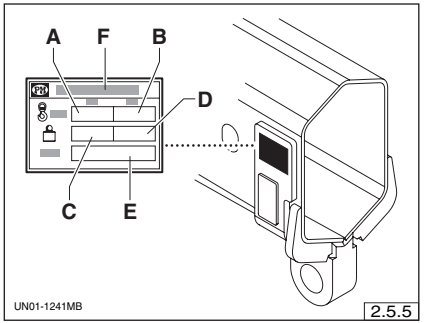



**Safety devices for travelling on public roads**




These prevent the supplementary arms extending accidentally when the vehicle is in transit.

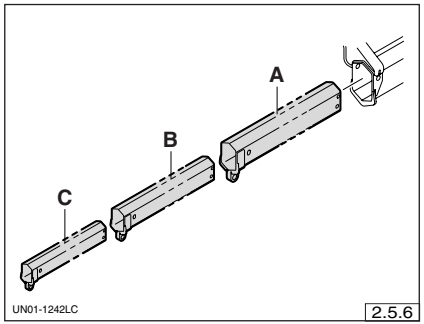
**2.5.2 - Manual extensions**




**- Identification details**

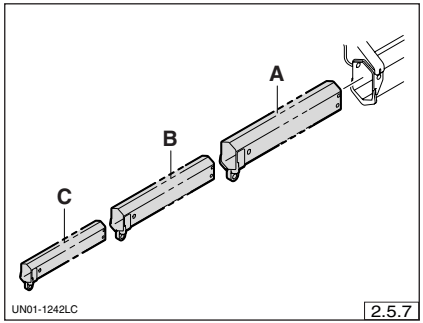
A) Max. admissible design capacity (kg)
B) Max. admissible design capacity (lbs)
C) Extension weight (kg)
D) Extension weight (lbs)
E) Identification code
F) Manufacturer

*On basic machine*




| Pos. | Code | Weight kg (lbs) | Crane model | |
|---|---|---|---|---|
| | | | 44026 S<br>44026 S LC<br>48026 SP<br>48026 SP LC | 44028 S<br>44028 S LC<br>48028 SP<br>48028 SP LC |
| A | 370645 | 100 (220) | • | |
| B | 370646 | 85 (187) | • | |
| C | 370647 | 65 (143) | • | • |

*On jib*

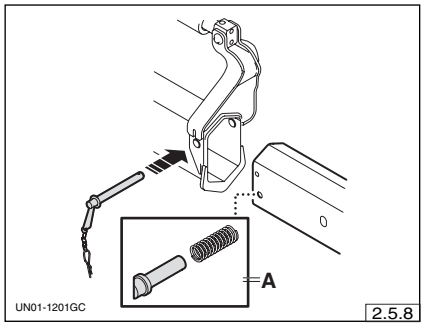



| Pos. | Code | Weight kg (lbs) | Model of the jib | | |
|---|---|---|---|---|---|
| | | | J 703.20 | J 903.20 | J 904.20 |
| A | 370745 | 35 (77) | | • | |
| B | 370746 | 30 (66) | • | • | • |
| C | 370747 | 22 (49) | • | • | • |

**- Safety devices**

**Safety pin**

Device “A” prevents the extension dropping to the ground accidentally during its extension.

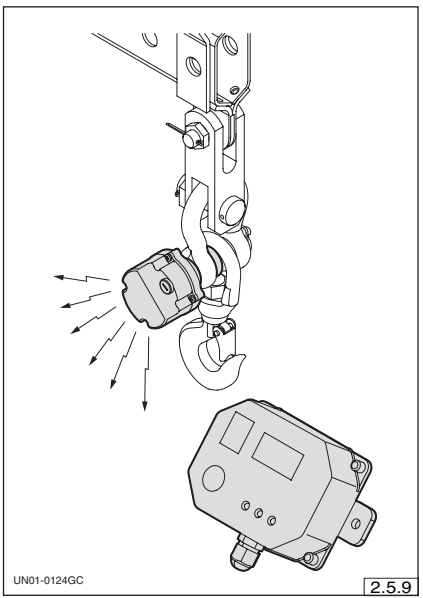



**WARNING !**

***The device is not scaled to withstand hoisting loads, therefore each extension must be locked in position (extended or retracted) with the relative safety pin.***

**Manual extension load limiting device (available on request)**

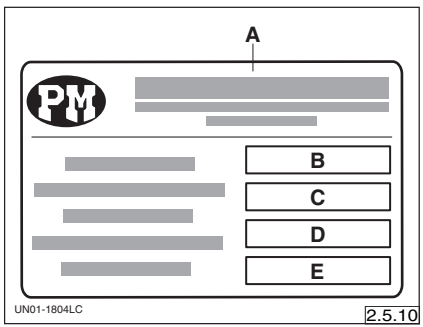
This prevents manual extension overloading (see para. “Use of the load limiter for manual extensions”).




## 2.5.3 - Jibs

**- Identification details**

A) Manufacturer code
B) Jib model
C) Serial number
D) Weight
E) Year of manufacture




**- General description**

The jib is fitted on the crane’s last hydraulic extension arm for the purposes of placing loads whose positioning requires both depth and height.

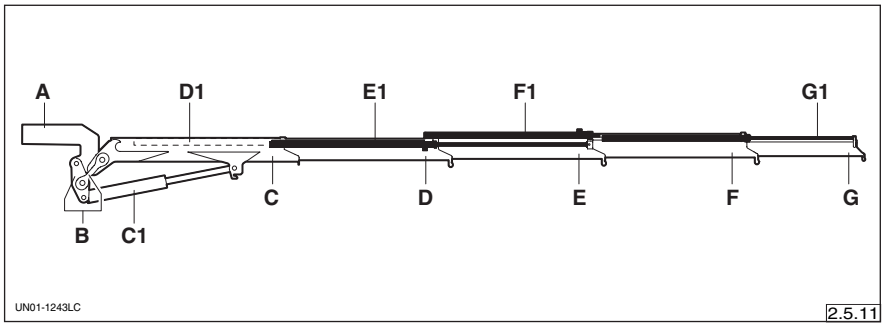
**- Jibs that can be fitted**

| Crane model | J 703.20 | J 903.20 | J 904.20 |
|---|---|---|---|
| 44024 S - 44024 S LC | | | |
| 44025 S - 44025 S LC | | • | • |
| 44026 S - 44026 S LC | • | | |
| 44028 S - 44028 S LC | | | |
| 48024 SP - 48024 SP LC | | | |
| 48025 SP - 48025 SP LC | | • | • |
| 48026 SP - 48026 SP LC | • | | |
| 48028 SP - 48028 SP LC | | | |

**- Weights**

| Jib model | Weight kg (lbs) |
|---|---|
| J 703.20 | 575 (1268) |
| J 903.20 | 670 (1477) |
| J 904.20 | 750 (1653) |

**- Main parts**



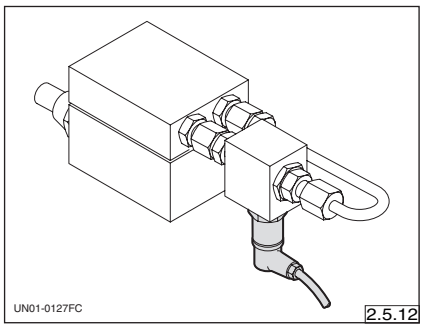

- Key to main parts

| Pos. | Part | J 703.20 | J 903.20 | J 904.20 |
|---|---|---|---|---|
| A | Tooth | • | • | • |
| B | Connecting rods | • | • | • |
| C | Articulated arm | • | • | • |
| C1 | Articulation jack | • | • | • |
| D | First arm hydraulic extension | • | • | • |
| D1 | First arm extension jack | • | • | • |
| E | Second arm hydraulic extension | • | • | • |
| E1 | Second arm extension jack | • | • | • |
| F | Third arm hydraulic extension | • | • | • |
| F1 | Third arm extension jack | • | • | • |
| G | Forth arm hydraulic extension | | | • |
| G1 | Forth arm extension jack | | | • |

**- Safety devices**

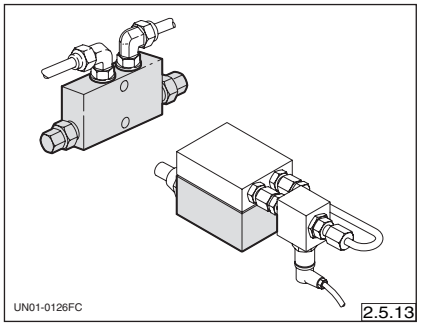
**Pressure sensor**

These signal to the functional control unit to inhibit the handling of loads exceeding the nominal loads.

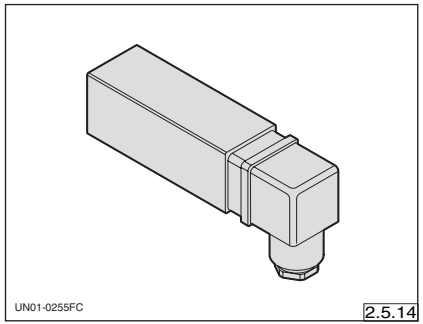


**Load support valves** (fig. 2.5.13)

These prevent the loads dropping to the ground unexpectedly as a result of a broken line or a sudden pump failure.

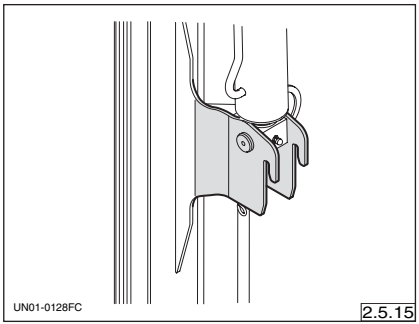



**Sensor** (fig. 2.5.14)




This informs the functional control unit of the angle of the jib in relation to the horizontal axis so that the controls used to move the crane safely can be enabled.

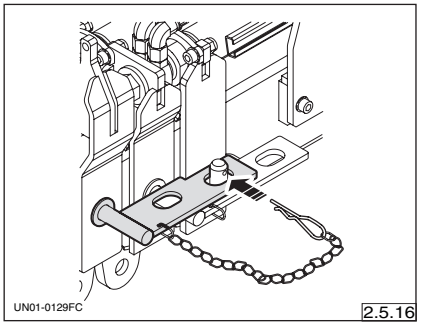
**Clamping device for jib in the resting position**



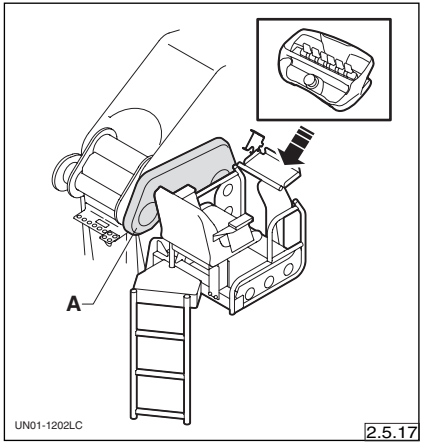

This prevents the jib arm pack swinging dangerously when the vehicle is moving.

**Anti-extension device for jib arms**

This prevents the arms extending accidentally when the vehicle is in transit.




## 2.5.4 - Overhead manoeuvring post




**- Guards**

A - Anti-cutting guard

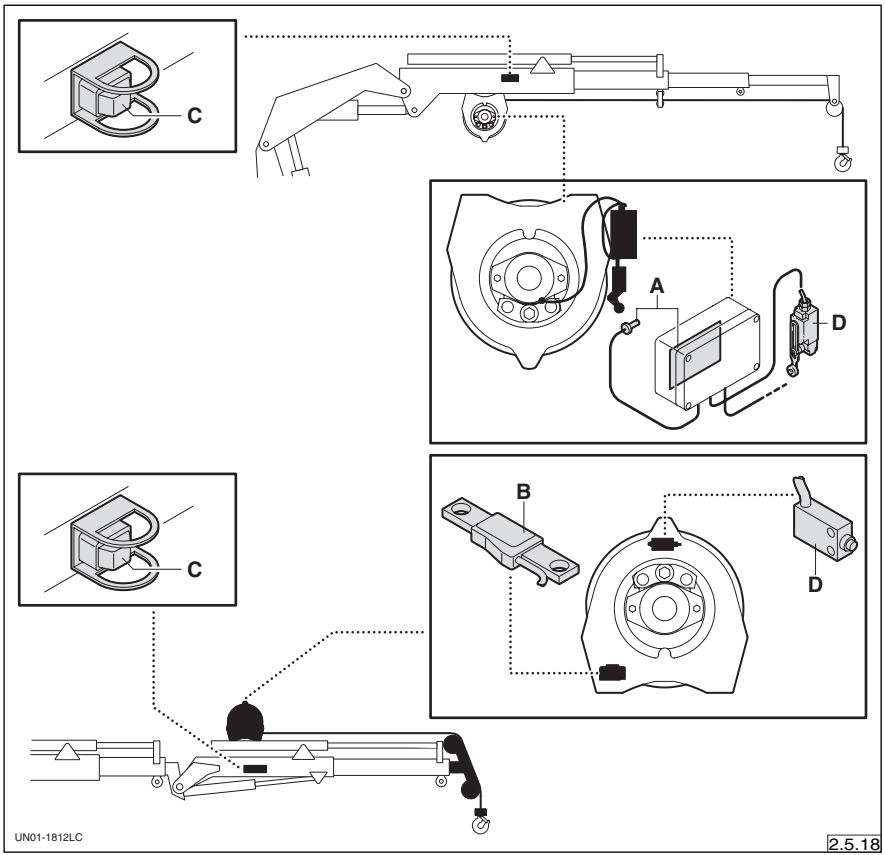
**- Safety regulations**

Access to the seat in the overhead manoeuvring post is only permitted via the ladder provided for the purpose.

Place the radio control on its stand.

### 2.5.5 - Winch

The winch is composed of a drum, driven by a hydraulic motor, around which the load lifting cable is wound. At the end of the last extendable arm there is a lifting tackle fitted.




**- Safety devices**

**A** - Load limiter.
This is comprised of a pressure sensor and a circuit board.

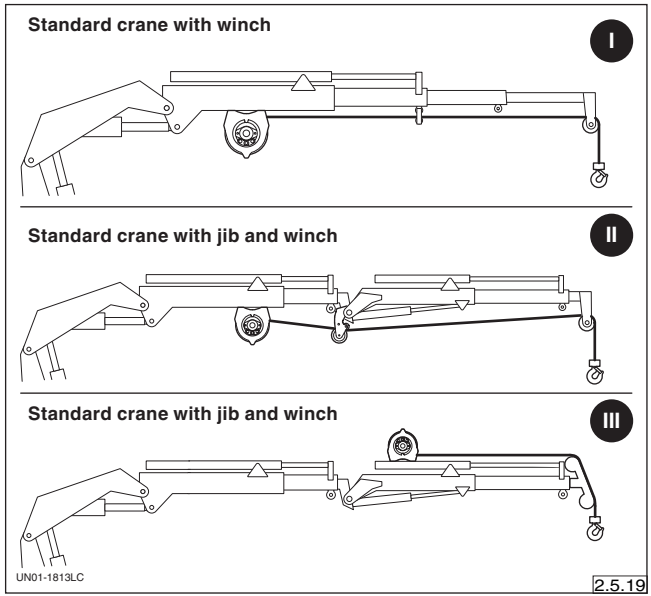
It stops the machine when:
the load exceeds the permitted maximum;
the lower block reaches the upper stroke limit.

**B** - Overload sensor
This causes the machine to stop when:
the load lifted exceeds the maximum load permitted for the cable;
the lower block reaches the upper stroke limit.

**C** - Signal light
This lights up to alert the operator that 90% of the permitted load has been reached.

**D** - Downwards stroke limit
This stops the load's downwards stroke to prevent the cable around the drum being completely unwound.

**- Assembly type**




**Winches installable on the standard machine and on the standard machine with the jib**

| Crane model | Winch model |
|---|---|
| | TC2 - **(I)** |
| 44 S - 44 S LC | • |
| 48 SP - 48 SP LC | • |

| Jib model | Winch model | |
|---|---|---|
| | TC2 - **(II)** | P6/E - **(III)** |
| J 703.20 | • | • |
| J 903.20 | • | • |
| J 904.20 | • | • |

**- Specifications**

**Winch TC2**

Cable diameter = ..... ø mm 10... in. 0,39”
Minimum cable breaking load =..... kN 95,4 .... lbs 21447
Maximum cable length =..... m 61..... ft 200’
Maximum cable pull
load (last layer) = ..... kN 18 ..... lbs 4047
Maximum cable speed =..... m/min 52 .. ft/min. 170
Weight = ..... kg 70..... lbs 154
Mechanism class according to
UNI ISO 4301/1 ..... M3

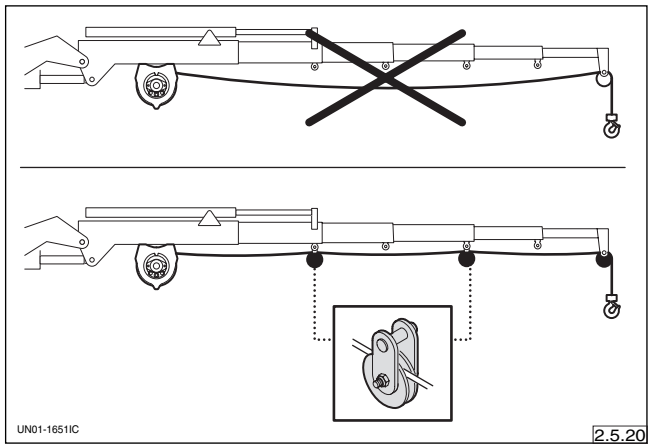
**Winch P6/E**

Cable diameter = ..... ø mm 7..... in. 0,3”
Minimum cable breaking load =... kN 48,8..... lbs 10971
Maximum cable length =..... m 27 ..... ft 88’7”
Maximum cable pull
load (last layer) = ..... kN 7..... lbs 1574
Maximum cable speed =..... m/min 27,5 .. ft/min. 90
Weight = ..... kg 40 ..... lbs 88
Mechanism class according to
UNI ISO 4301/1 ..... M3

**- Use of the winch**

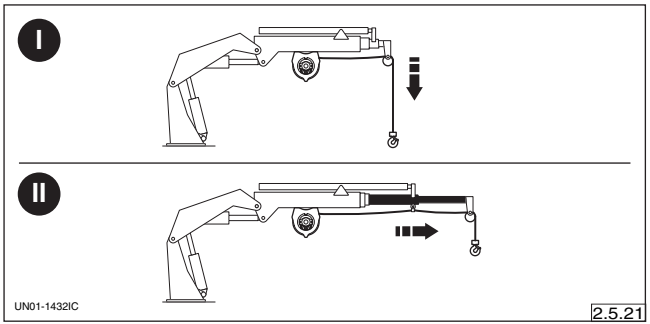
**CAUTION !**

***The section of cable between the winch and the block must remain in contact with the arms. If this is not the case, fit the driving pulley (see ”Tackle installation”).***




**HAZARD !**

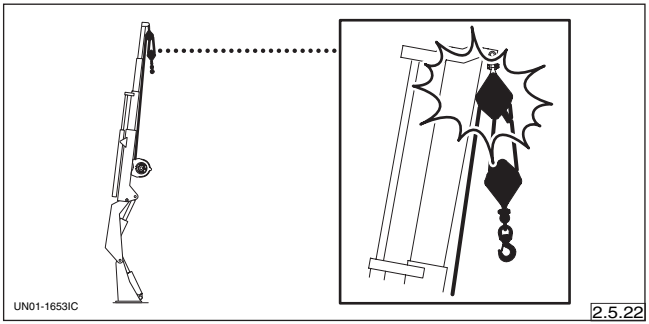
***It is forbidden to lift objects at an angle.***




To prevent further damage to the cable, the hook must be lowered before the arm is extended.

**CAUTION !**

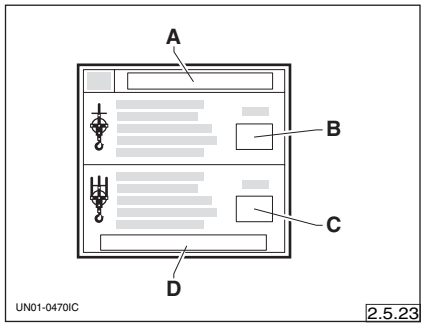
***Do not use the winch when the crane arms are fully closed. To wind the cable around the winch drum properly, extend at least two arms.***




In order not to damage the machine, avoid contact between upper block and the arms when the latter are vertically tilted.

### 2.5.6 - Lifting tackle

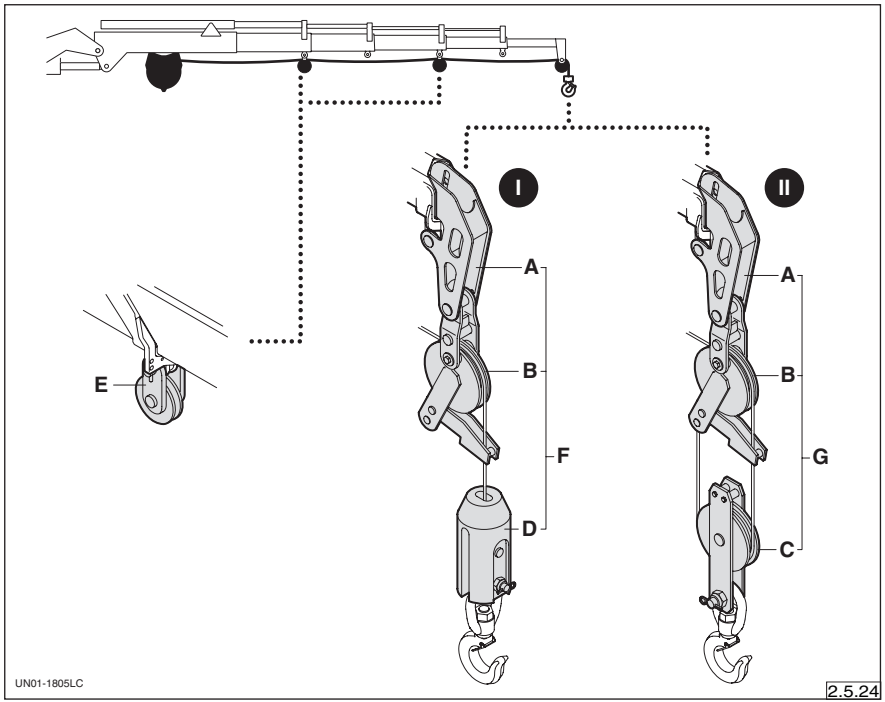
**- Identification details**




The tackle is composed of a system of pulleys located at the end of the last arm.

A - Builder
B - Tackle capacity with direct pull (kg/lb)
C - Tackle capacity with double pull (kg/lb)
D - Cable diameter

**- Tackle types for each crane**




**I) Tackle with double pull for crane**
**II) Tackle with direct pull for crane**

A - Arm
B - Upper block
C - Lower block
D - Counterweight
E - Driving pulley
F - Complete tackle for single pull on crane
G - Complete tackle for double pull on crane

## Crane tackles weights

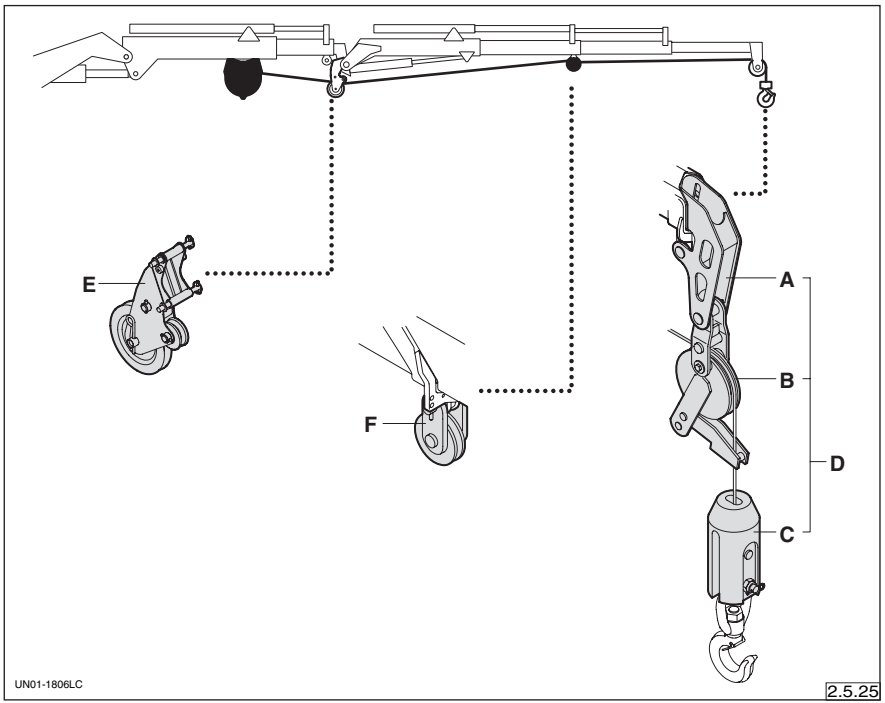
| Crane model | Part - kg (lbs) | | | | | | |
|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G |
| 44024 S<br>44024 S LC<br>48024 SP<br>48024 SP LC | 20<br>(44) | 40<br>(88) | 30<br>(66) | 25<br>(55) | 3<br>(7) | 85<br>(187) | 90<br>(198) |
| 44025 S<br>44025 S LC<br>48025 SP<br>48025 SP LC | 20<br>(44) | 40<br>(88) | 30<br>(66) | 25<br>(55) | 3<br>(7) | 85<br>(187) | 90<br>(198) |
| 44026 S<br>44026 S LC<br>48026 SP<br>48026 SP LC | 20<br>(44) | 40<br>(88) | 30<br>(66) | 25<br>(55) | 3<br>(7) | 85<br>(187) | 90<br>(198) |
| 44028 S<br>44028 S LC<br>48028 SP<br>48028 SP LC | 20<br>(44) | 40<br>(88) | 30<br>(66) | 25<br>(55) | 3<br>(7) | 85<br>(187) | 90<br>(198) |

## Jib tackles weights

| Jib model | Part - kg (lbs) | | | | | |
|---|---|---|---|---|---|---|
| | A | B | C | D | E | F |
| J 703.20<br>J 903.20<br>J 904.20 | 15<br>(33) | 40<br>(88) | 25<br>(55) | 80<br>(176) | 15<br>(33) | 3<br>(7) |

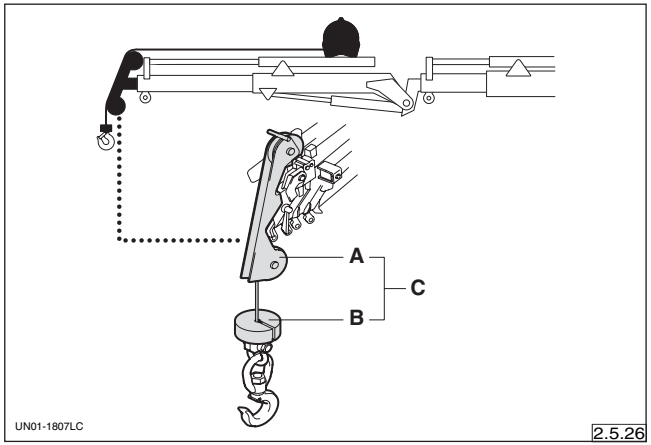
## - Tackle types on jib

**Winch fitted on standard machine**




A - Arm
B - Upper block
C - Counterweight
D - Complete tackle for direct pull
E - Joint driving pulley
F - Driving pulley on jib

**Winch fitted on jib**




A - Arm / Block
B - Counterweight
C - Complete tackle for direct pull on jib

**Tackles weights on jib**

| Jib model | Part - kg (lbs) | | |
|---|---|---|---|
| | A | B | C |
| J 703.20<br>J 903.20<br>J 904.20 | 25<br>(55) | 16<br>(35) | 41<br>(90) |

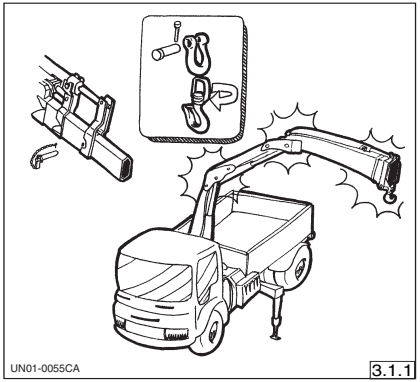
## 2.6 - Noise level

The noise generated by the machine is not significant as the power source (truck's engine) is not part of the supply.

The installer should ask the truck's manufacturer for information about the noise level and transfer the said information to the operator.

## 2.7 - Vibrations

Vibration effects on the operator are considered not significant as the machine is used for short periods of time.







## 3.1 - Safety regulations

**WARNING !**

***Read the instructions contained in this manual carefully, in particular those concerning safety and the signs affixed to the machine.***

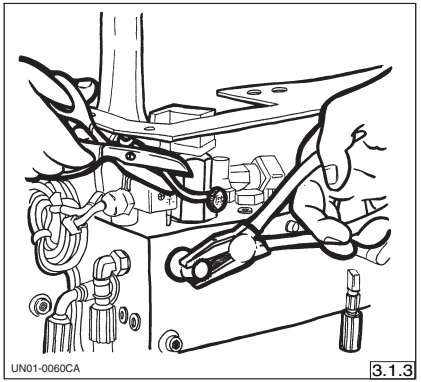
**Before operating the crane**

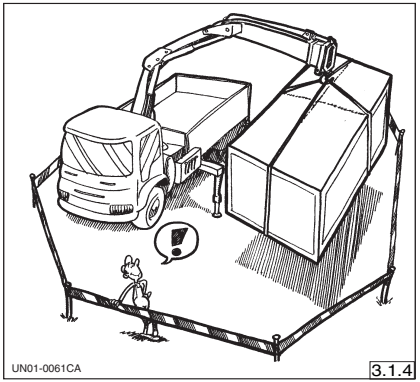
- Check the degree of wear of the accessories' lock pins;
- make sure the hook is fitted with a nut and that it rotates freely without excess play;
- make sure the hook is fitted with the safety device to prevent cables being released accidentally and that the said safety device is intact;
- carefully check the load harnesses and the chains, cables and straps are in good condition and that they are suitable for the load to be lifted;
- make sure the hoses are in good condition and that no oil leaks are present.

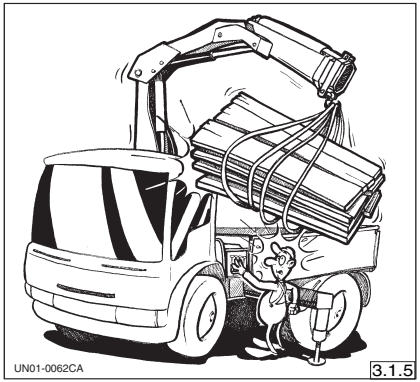
**HAZARD !**

***Do not operate the machine in the vicinity of power lines.***

To operate the crane in the vicinity of power lines, always refer to your superiors or the competent authority for special instructions.
Obtain clear instructions regarding the way in which the work must be carried out. Said procedures must be studied for each particular situation and complied with exactly.
When carrying out maintenance work on power lines, you are advised to connect the metal parts on the vehicle to the earth, observing the relative regulations in force.




**WARNING !**

***Do not remove the lead seals on the valves.***

Cordon off the work area to prevent access by unauthorised persons.

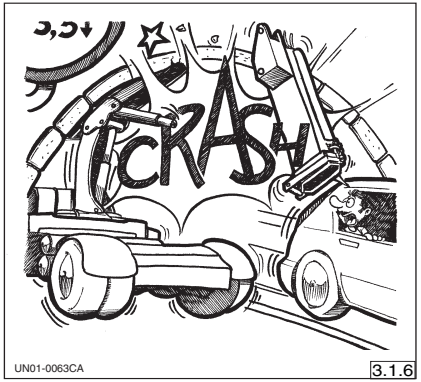
The operator must ensure no-one stops or moves around in the work area.

**HAZARD !**

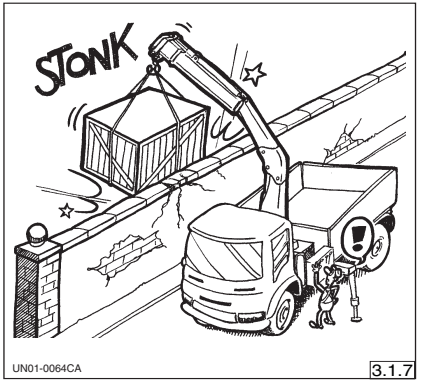
***It is strictly forbidden to move the load over the vehicle's manoeuvring area.***

When this is unavoidable, operate the machine using the controls on the opposite side, assisted by other personnel on the ground to perform the necessary manoeuvres, or use suitable accessories provided for this purpose, such as:

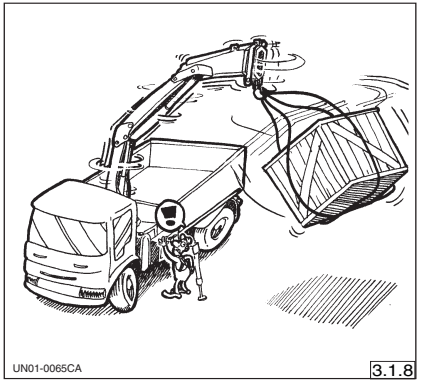
- remote controls
- raised seat
- raised control station.



UN01-0063CA 3.1.6



UN01-0064CA 3.1.7

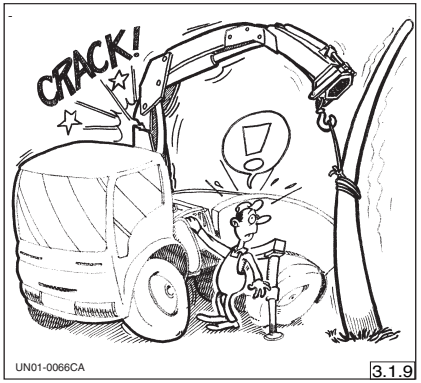

UN01-0065CA 3.1.8

**WARNING !**

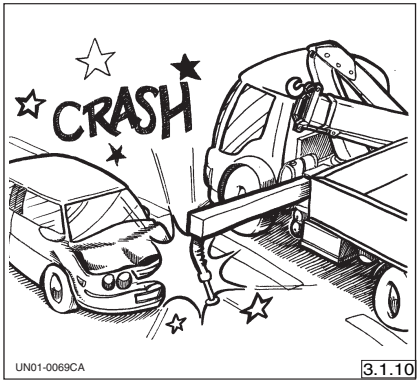
***Always follow the Highway Code, in particular with regards to height limit signs.***

Do not operate the crane in poor visibility conditions. The operator must always have a perfect view of the work area.

Use short harnesses and operate the levers smoothly and gently to prevent the load swinging dangerously.

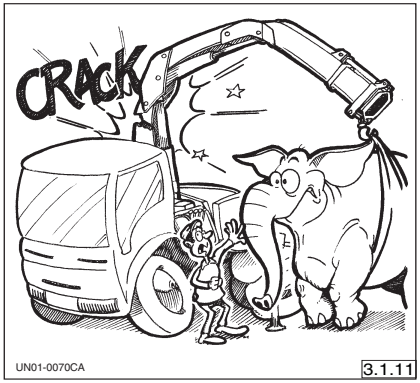



Do not use the crane to remove poles, uproot trees or lift fixed loads.




**WARNING !**

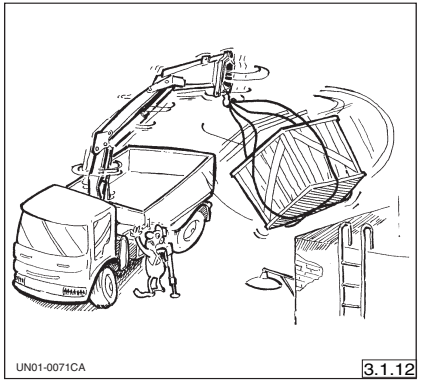
***Before driving the vehicle, ensure all the lock devices are engaged.***




**WARNING !**

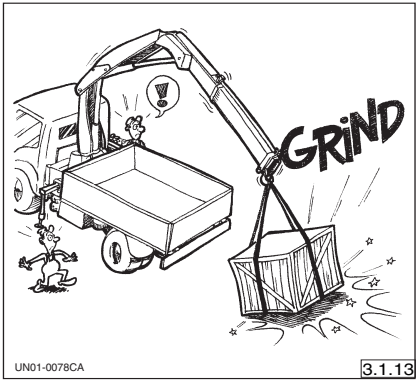
***Never lift loads exceeding the limits stipulated in the loads diagrams.***

Make sure the loads are less than those indicated on the diagrams in relation to the outreach.



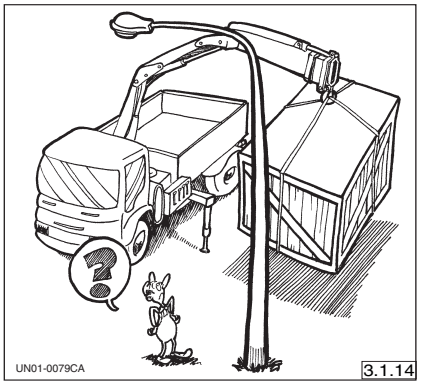

**HAZARD !**

***Never swing the load to place it beyond the permitted outreach indicated in the load diagram.***



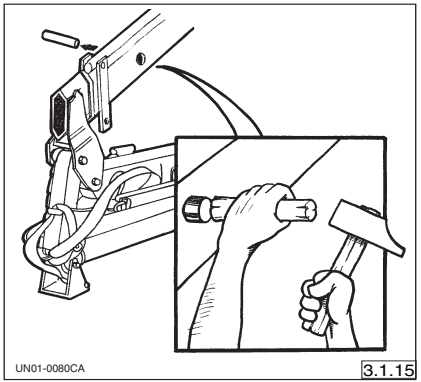

**WARNING !**

***Never drag loads, lift them upwards.***



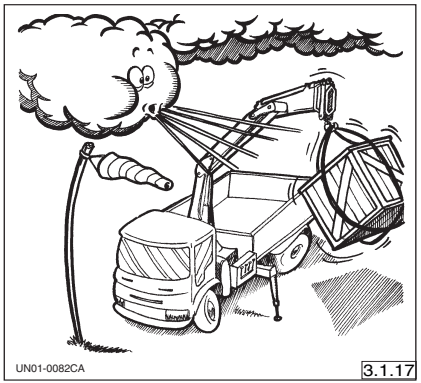

**WARNING !**

***In the presence of objects obstructing the crane's range of action, take precautions to prevent collisions.***










**WARNING !**

***When fitting and removing the accessories' lock pins, use equipment made of soft materials to prevent the risk of being hit by flying splinters caused by the striking of the tool.***

**WARNING !**

***Never use the crane during a storm.***

**HAZARD !**

***It is forbidden to operate the crane when the wind reaches a speed of 10.8 m/s (grade 6 on the Beaufort scale).***

To calculate the wind speed, please refer to the table below.

## - Beaufort scale -

| Wind force | | Wind speed | | Effect of the wind on land |
|---|---|---|---|---|
| Beaufort number | Description of the wind | m/s | Km/h (Mp/h) | |
| **0** | Calm | from 0 to 0,2 | 1 (0) | Calm, smoke rises straight up |
| **1** | Light air | from 0,3 to 1,5 | from 1 to 5 (from 1 to 3) | Wind direction indicated by the movement of smoke only, not by the weathervane |
| **2** | Light breeze | from 1,6 to 3,3 | from 6 to 11 (from 4 to 7) | Wind can be felt on the face, leaves rustle, weathervane moves |
| **3** | Gentle breeze | from 3,4 to 5,4 | from 12 to 19 (from 8 to 12) | Leaves and small branches move, pennants unfold |
| **4** | Moderate breeze | from 5,5 to 7,9 | from 20 to 28 (from 13 to 18) | Wind lifts dust and loose paper, moves branches and thin poles |
| **5** | Fresh breeze | from 8,0 to 10,7 | from 29 to 38 (from 19 to 25) | Small broadleaves begin to wave, slight foam appears on lakes |
| **6** | Strong breeze | from 10,8 to 13,8 | from 39 to 49 (from 25 to 31) | Poles move greatly, whistling along telephone lines, use of umbrellas is difficult |
| **7** | Near gale | from 13,9 to 17,1 | from 50 to 61 (from 32 to 38) | All the trees move, it is very difficult to move against the wind |
| **8** | Gale | from 17,2 to 20,7 | from 62 to 74 (from 39 to 46) | Tree branches are broken, walking in the open air is particularly difficult |
| **9** | Strong gale | from 20,8 to 24,4 | from 75 to 88 (from 47 to 55) | Slight damage to houses (chimney pots and roof tiles are blown off) |
| **10** | Storm | from 24,5 to 28,4 | from 89 to 102 (from 56 to 64) | Trees are uprooted, considerable damage to houses |

DANGER !

## 3.2 - Operator's qualifications and behaviour

The use of the crane is restricted solely to personnel meeting the following minimum requirements:

- specifically employed personnel;
- apprentices under direct supervision of the specifically employed personnel;
- staff members employed for the machine's maintenance and testing (when their skills are required);
- crane inspectors.

Only the persons listed above may access the crane's work area, and only for the purpose of fulfilling their functions. In any case, they must always advise the operator or person in charge of their presence.

**- Operator's qualifications**

To operate the crane, the following requirements must be met:

- possession of the necessary psychophysical qualities to ensure the operator is neither a risk to himself or to others;
- ability to understand the descriptions and illustrations in the instructions manual (including the figures and diagrams contained therein) and the symbols and instructions on the plates affixed to the machine;
- familiarity with and ability to implement the emergency procedures;
- ability to operate the machine as a whole, together with any accessories applied;
- experience of the applicable safety regulations.

**- Operator's behaviour**

The operator must not:

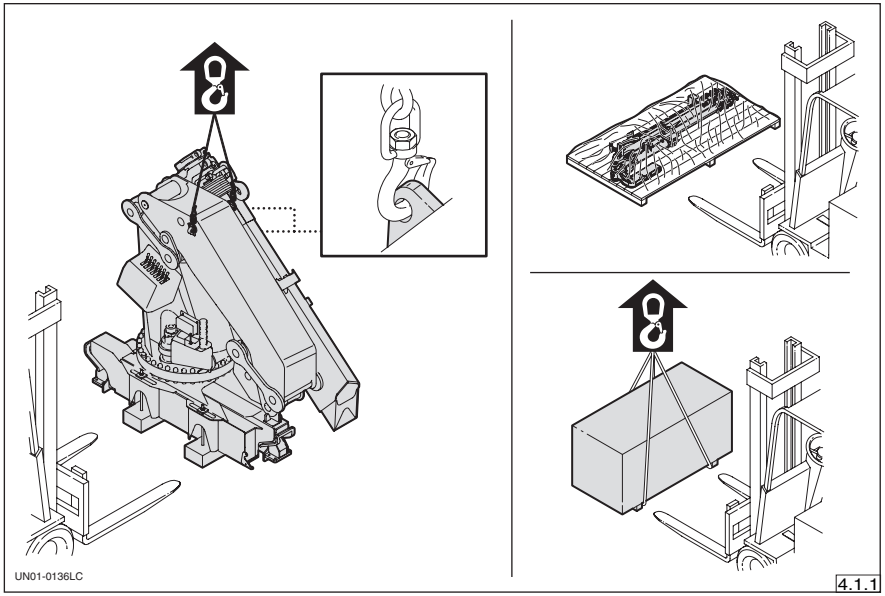
- engage in any other activity which may distract him while operating the crane;
- operate the machine in a state of drunkenness or when under the influence of drugs which may reduce either physical or mental abilities;
- leave the crane unattended with the load hanging;
- use the machine in the event of malfunctions.

# 4 Handling, lifting and fitting

## 4.1 - Handling and lifting

**HAZARD !**

***Always use lifting means which are suitable for the load to be lifted and handled.***
***When lifting from above be careful as, since the lifting point is never perfectly baricentric, the crane may swing.***




They type of packing must be chosen according to the means of transport and the destination of the goods.

The crane is normally dispatched placed on two wooden beams with the stabilisers facing upwards or disassembled and placed in a box with the equipment used to fit the crane on the base truck.

For packaging which differs from that shown in the manual, follow the instructions and the symbols applied to the packing itself.

Before lifting the packed unit, check the weight of the crane in the “Enclosures” section.

## 4.2 - Storage

Normally, the crane accessories and other equipment supplied are dispatched wrapped in a protective sheet which must be removed before they are fitted.
However, in the event of long periods during which the unit will be not be used, provide a suitable cover and store it indoors to protect it from the weather.
The storage area must not be excessively damp or dusty. The room temperature must be between -20 °C (-4 °F) and +70 °C (+158 °F) with a maximum humidity level of 90%, with no condensation.

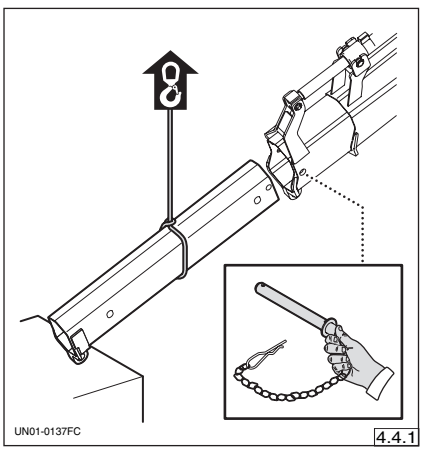
## 4.3 - Fitting

The crane must be fitted on the base truck and the checks established by the regulations in force in each country must be carried out afterwards solely by the authorised PM workshops.
The fitting and any alterations to the vehicle required must comply with the regulations issued by the vehicle's manufacturer.

## 4.4 - Fitting the manual extension

**WARNING !**

***The manual extensions must be fitted and removed one at a time in a sequential order.***
***After fitting, ensure the safety devices prevent the extension sliding out uncontrolled.***



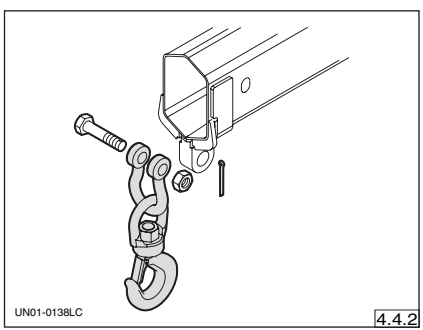

1 - Harness a lifting means to the extension; the said means must be suitable in relation to the extension's weight.
Rest the extension on a steady surface.
2 - Slide out the crane arms and insert the extension and so the pin holes are aligned.
3 - Lock the extension in position (either open or closed) with the relative safety pin.

To disassemble the extension, proceed as described for the assembly but in the reverse order. Whenever possible, keep the arm pack angled towards the ground.

### 4.4.1 - Fitting the hook

**WARNING!**

***The hook can only be fitted on the last extension extended.***



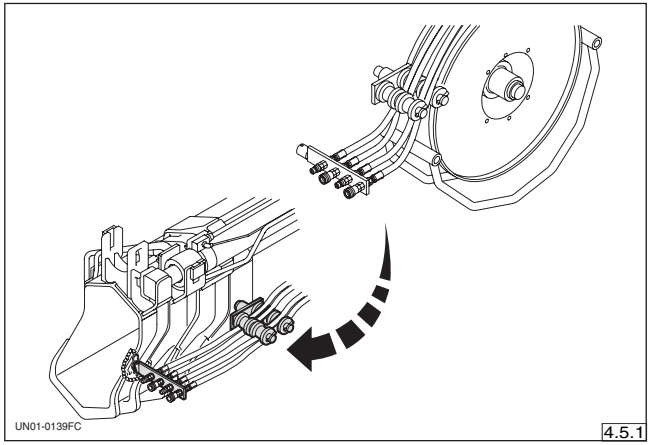
## 4.5 - Fitting the jib

**WARNING !**

***To prevent the risk of the unit overturning, ensure the extension is always stable, resting on the ground or on suitable supports.***

For the cranes equipped with a hose reel, fit the quick coupling mount at the end of the last arm and the pipe track on the main arm (fig. 4.5.1).

1 - Place the jib on the ground; if the crane is equipped with a winch, place it safely on suitable supports.



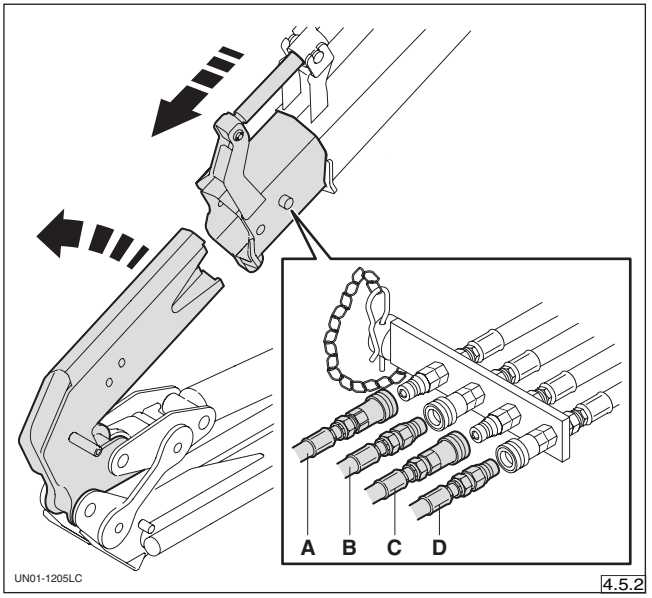

4.5.1

2 - Extend the arms until they are near the tooth.

3 - Connect the hoses to the unions in the following order:

A - jib opening
B - jib closing
C - arm jack extension
D - arm jack retraction

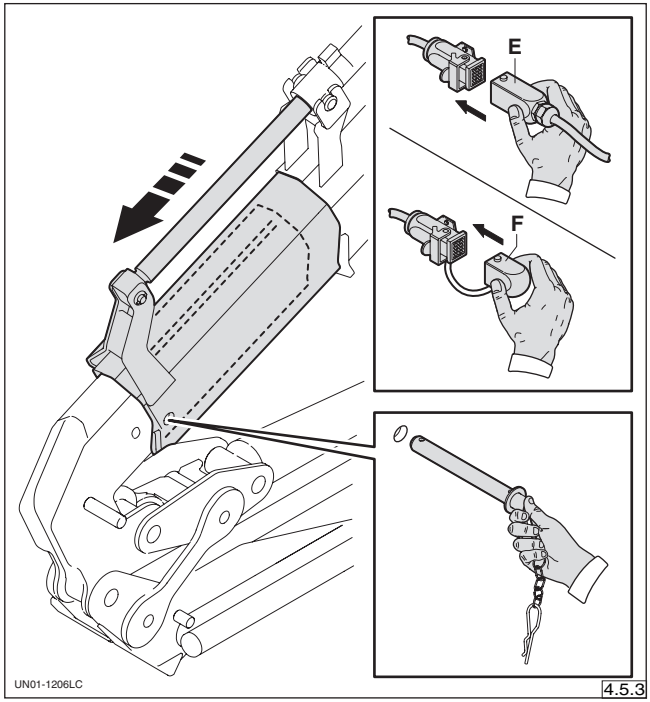
4 - Open the articulated joint jack to align the tooth with the crane.




4.5.2

5 - Extend the crane arms to insert the tooth and secure it with the safety pin.

If the extension is fitted with a load limiting device, connect the electrical pin “E”.




For the disassembly, proceed as for the assembly but in the reverse order.

Connect the pin to terminal “F” to be able to use the crane without the jib.

**Information**

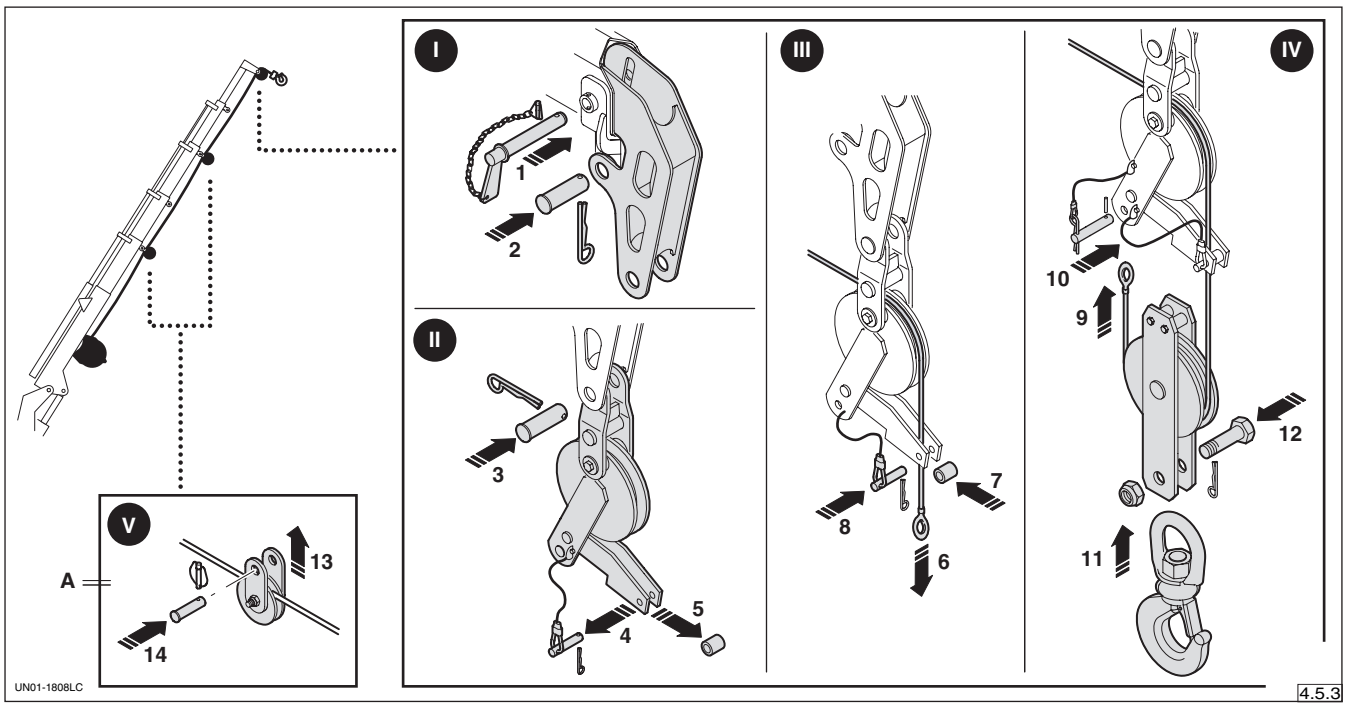
*In the crane with the pipe track, connect the hoses from the jib in the same order as the crane with the hose reel (see fig. 4.5.2).*

## 4.6 - Tackle installation

### 4.6.1 - Fitting the crane tackle

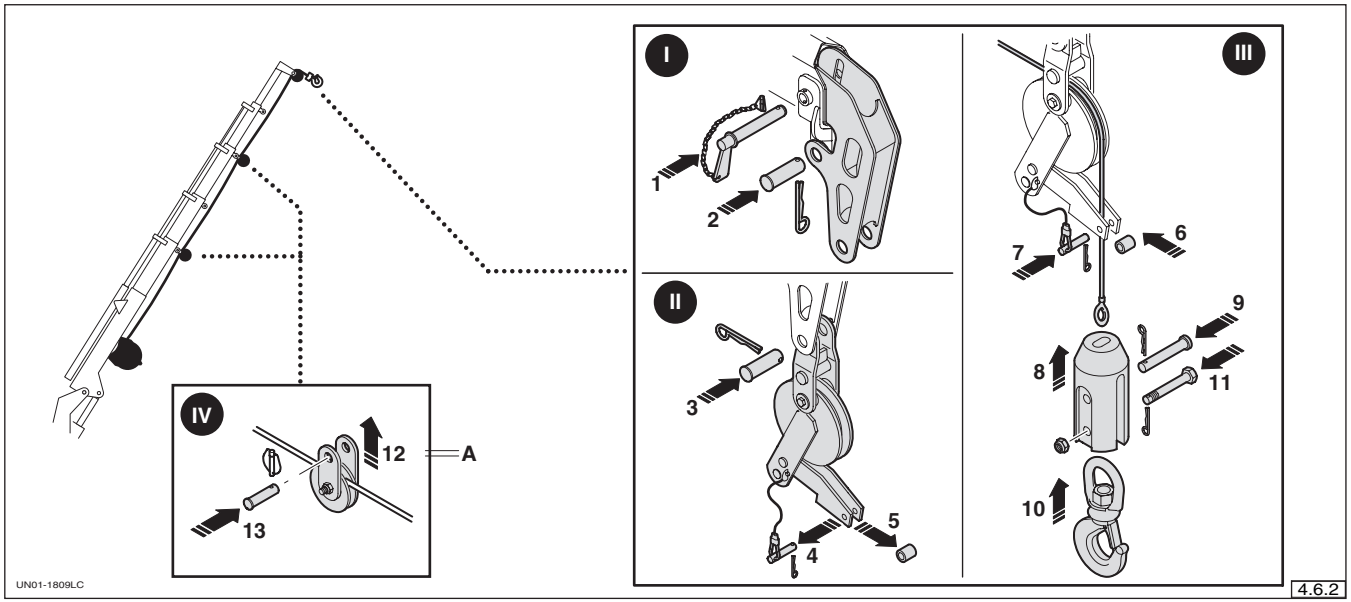
Fit the pulley “A” to support the cable if there are long sections between the winch and the block.

**- Assembly sequence for tackle with double pull**




**A = driving pulley**

- **Assembly sequence for tackle with direct pull**



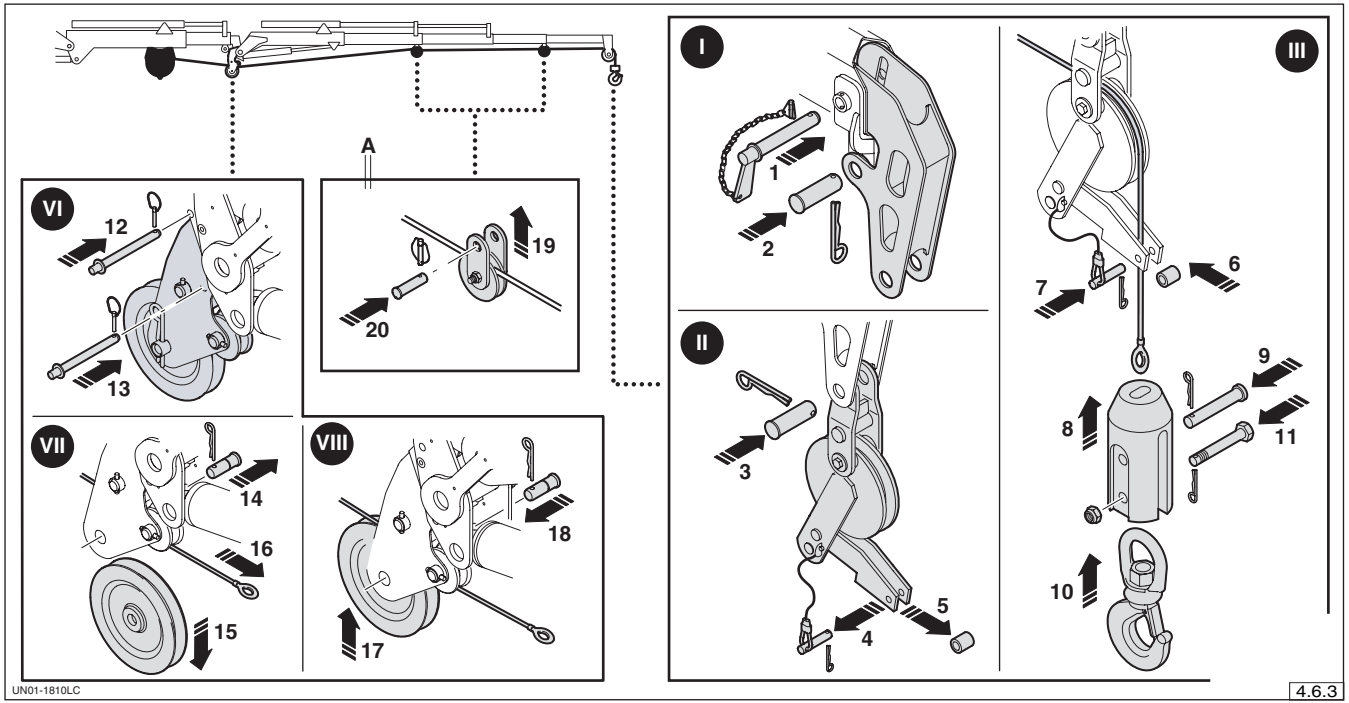

**Criteria for fitting driving pulley "A"**

| Model | Hydraulic extension arm | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° |
| 44024 S - 44024 S LC - 48024 SP - 48024 SP LC | | • | | • | | | | |
| 44025 S - 44025 S LC - 48025 SP - 48025 SP LC | | • | | • | | | | |
| 44026 S - 44026 S LC - 48026 SP - 48026 SP LC | | • | | • | | • | | |
| 44028 S - 44028 S LC - 48028 SP - 48028 SP LC | | • | | • | | • | | • |

**A = driving pulley**

### 4.6.2 - Fitting the tackle on jib

**- Assembly sequence for tackle with direct pull (winch on standard crane)**

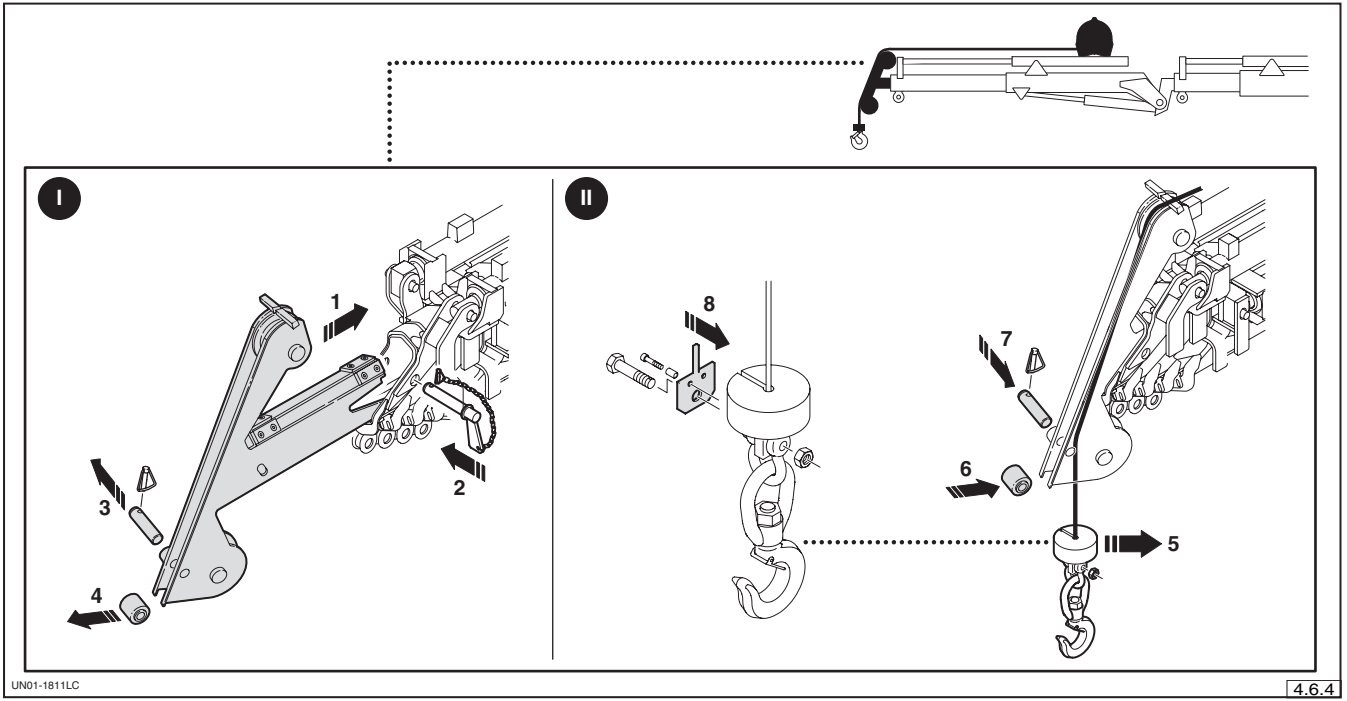



**Criteria for fitting driving pulley "A"**

| Hydraulic extension arm | Jib model | | |
|---|---|---|---|
| | J 703.20 | J 903.20 | J 904.20 |
| 1° | | | |
| 2° | • | • | • |
| 3° | | | |
| 4° | | | • |

**A = driving pulley**

- **Assembly sequence for tackle with direct pull (winch on jib)**



# 5 Information about adjustments

All adjustments must be performed by an authorised workshop.

# 6 Usage instructions

## 6.1 - Controls

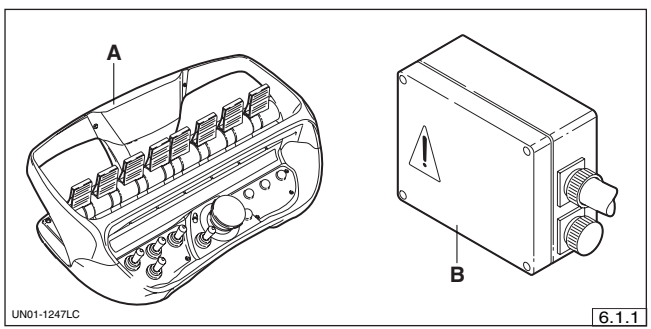
### 6.1.1 - Symbols

| | | |
|---|---|---|
| **Crane stabilisers** |  | Stabiliser activation |
| |  | Crane activation |
| **Stabilisers** |  | Stabiliser arm extension |
| |  | Stabiliser arm retraction |
| |  | Stabiliser jack extension |
| |  | Stabiliser jack retraction |
| **Column** |  | Clockwise rotation |
| |  | Anti-clockwise rotation |

| | | |
|---|---|---|
| **Main arm** |  | Lowering |
| |  | Lifting |
| **Secondary arm** |  | Lowering |
| |  | Lifting |
| **Arms** |  | Extension |
| |  | Retraction |
| **Jib** |  | Lowering |
| |  | Lifting |
| |  | Extension |
| |  | Retraction |

| | | |
|---|---|---|
| **Rotator** |  | Clockwise rotation |
| |  | Anti-clockwise rotation |
| **Grab** |  | Grab opening |
| |  | Grab closing |
| **Jib arms/winch** (with multiple activate device) |  | - Jib lifting<br>- Winch lowering |
| |  | - Jib lowering<br>- Winch lifting |

### 6.1.2 - Radio control




The radio control is composed of a portable transmitter unit “A” for the operator and a receiver unit “B” installed on-board the machine.

**- Safety precautions**

Do not operate the radio control if it is damaged or malfunctioning.
Before using the radio control, check that the batteries are charged.
Do not position the load manually.
Do not leave the remote control unattended; otherwise the crane may be used by unauthorised persons.
Keep under constant control:
- work area;
- load trajectory;
- indicator light on-board the machine or the incremental bar on the radio control, which show the lifting of 90% or 100% of the load.

Do not clean the remote control with a pressurised water jet or immerse it in water or any other type of liquid.

**- Technical data**

- Power voltage: 7,2 Volts.
- Battery:
  - Rechargeable Scanreco.
- Working range including obstacles: 100 m (328 ft).
- Protection grade: IP65.

**- Battery**

The effective duration of a battery is approx. 8 hours.
The intermittent switching on three times of a buzzer and the intermittent switching on of the indicator light “M”, see fig. 6.1.2, indicate that the battery is nearly flat.

**i Information**

*Only replace the battery when the flashing “M” indicator light switches off.*

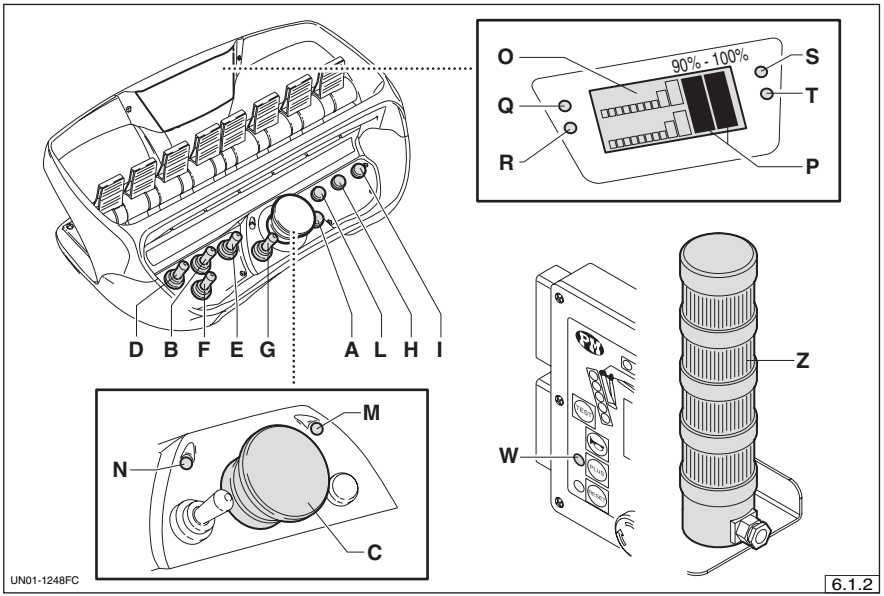
**- Battery charger**

Charge voltage of the battery charger supplied: 11 Vcc - 30 Vcc.

The recharging time of a completely flat battery varies from 12 to 14 hours.

**- Battery charger indicator lights**

- The red indicator light signals the presence of electricity supply to the charger.
- When the green indicator light is on, the battery is being recharged.




**A - Switching on the transmitter unit**

The button has two functions:
I) radio control ON;
II) buzzer.

**B - Start-up/stop**

Flick the switch to start up or stop the vehicle engine.

**C - Emergency stop button**

See para. 2.3 “Safety devices”.

**D - “RPM” activation**

Flick the switch to place the engine rpm in automatic or manual mode.

**E - Accelerator**

Flick the switch to vary the engine rpm of the vehicle. It only works with switch “D” in manual.

**F - Control commutation switch**

This enables the stabilisation controls or those used for load handling.

**G - Speed switch**

The switch activates and deactivates the functioning speed of the crane.
Press repeatedly.
Each time it is pressed corresponds to a different crane speed.
Up to five different speeds are possible.
The speed chosen is indicated by the number of flashes of the indicator light “N”.
Flick the switch once only (in the “OFF” direction) to reset the normal functioning speed.

**H - “Reset” button**

The button, used in combination with each single load lowering control command, moves the crane from a blocked situation in which all the controls are inhibited (see function reset with “3-30”).

**I - “Plus” reset button**

- Push on starting up the machine to select the operation mode with the hydraulic tools attached (bucket, claw, etc.).
- Push and keep pushed throughout machine operation to activate and deactivate the “regenerative” function (speed increase without load applied), when featured.

The “PLUS” device (only supplied as standard with the 48 series crane) automatically reduces the working speed and increases the lifting capacity when, due to the effect of the load in relation to the arm, the pressure reaches the calibration value of the device.
Push briefly to deactivate the “PLUS” device and put the crane back into the normal functioning mode.
It is only possible to carry out the operation when

- indicator “S”
- indicator “Z”
- indicator “W” of the functioning control unit

are illuminated with a fixed light.

**L - Function button (F1)**

- Push on starting up the machine to select the operation mode with the hook attached.
- Push when machine is in use to select alternately and exclusively (with the same control lever) the functioning of the following accessories:
- from the jib arms extension with winch to the base crane and vice versa (“multiple activation” function).

**M - Indicator light**

Red.
When on, it indicates that the transmitter unit is switched on.

**N - Indicator light**

Green.
When on, it indicates the different functioning speeds of the crane (see speed switch).

**O - Incremental bars**

Incremental bars for the load percentage on the main or secondary jack and jib joint.

**P - Information and alarm message display**

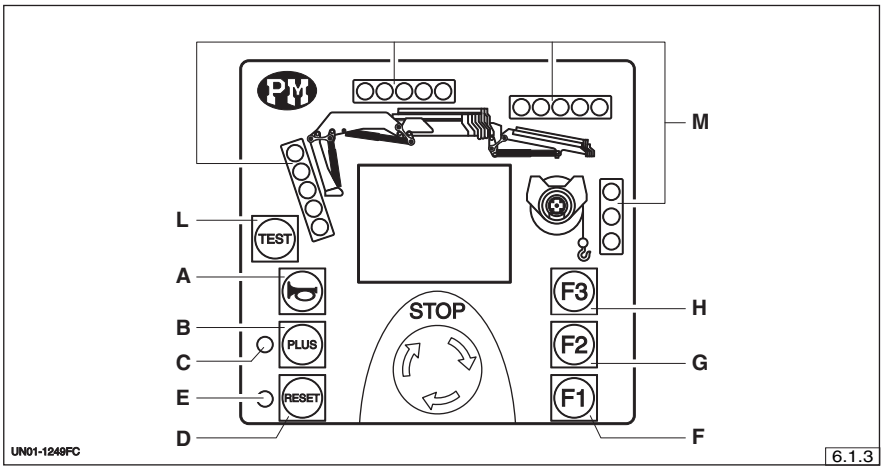
**Q - Indicator light**
Red.
When on, it indicates that 100% of the load that can be lifted with the winch has been reached.

**R - Indicator light**
Yellow.
When on, it indicates that 90% of the load that can be lifted with the winch has been reached.

**S - Indicator light**
Yellow.
When on:
- with an intermittent light, it indicates that the crane functioning is in the “PLUS” mode;
- with a fixed light, it indicates that the crane functioning is in the “PLUS” mode, but with the possibility of deactivating it and returning to the normal mode.

**T - Indicator light**
Yellow.
When on, it indicates that the “3-30” system is functioning to lower the load to the ground.

**6.1.3 - Functioning control unit controls and indicators**




**A - Buzzer**

**B - “PLUS” button**
This has the same function as the “PLUS” button on the transmitter unit.

**C - Indicator light**
Yellow.
When on:
- with an intermittent light, it indicates that the crane functioning is in the “PLUS” mode;
- with a fixed light, it indicates that the crane functioning is in the “PLUS” mode, but with the possibility of deactivating it and returning to the normal mode.

**D - Reset button**
This has the same function as the reset button on the transmitter unit.

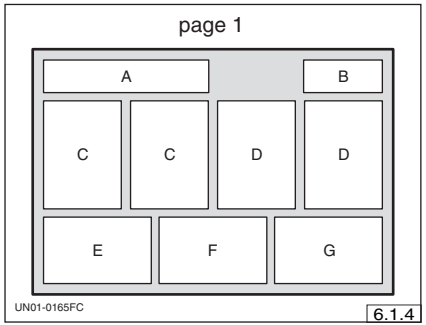
**E - Indicator light**
When on, it indicates that the movement of the load in the “3-30” mode is in progress (see function reset with “3-30”).

**F - “F1” function button**
This performs the same function as the “F1” button on the transmitter unit.

**G - "F2" function button**
This performs the same function as the "PLUS" switch when pushed at machine start-up.

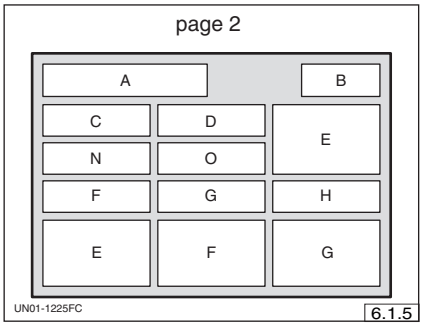
**H - "F3" function button**
Optional function.

**I - Display**
On the display, the following information pages are shown in succession.



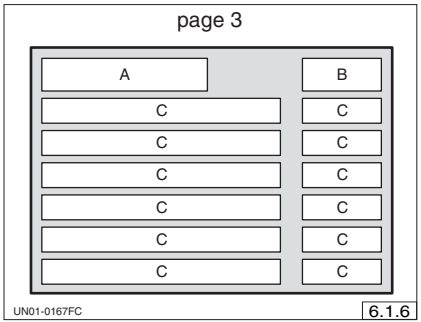

**Key to page 1**

| | |
|---|---|
| A | Crane model |
| B | Effective time-counter |
| C | Alarm icon with code (see alarm messages) |
| D | Signal icon (see information messages) |
| E | Main jack pressure |
| F | Secondary jack pressure |
| G | Jib joint jack pressure |



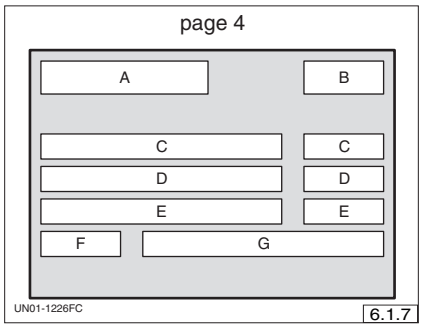

**Key to page 2**

| | |
|---|---|
| A | Crane model |
| B | Effective time-counter |
| C | Transversal tilt |
| D | Longitudinal tilt |
| E | Oil temperature |
| F | Necessary maintenance (0 = no 1 = yes) |
| G | DV from radio (0 = no 1 = yes) |
| H | Active solenoid valve (0 = no 1 = yes) |
| I | Speed reduction percentage |
| L | Antenna angle (when present) |
| M | Winch use time-counter |
| N | Main arm angle |
| O | Arm pack angle |




**Key to page 3**

| | |
|---|---|
| A | Crane model |
| B | Effective time-counter |
| C | Last 6 alarms (see alarm messages) |




**Key to page 4**

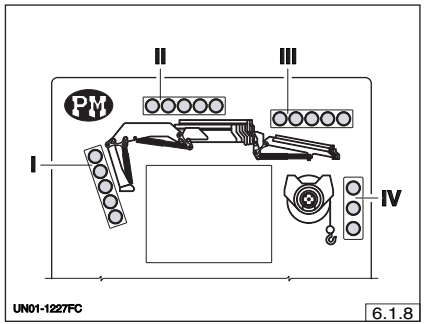
| | |
|---|---|
| A | Crane model |
| B | Effective time-counter |
| C | Hardware version |
| D | Loader version |
| E | Software version |
| F | Series number |

**L - "Test" button**

Press the button repeatedly to display the information pages in succession.

**M - Indicator lights**

These indicate the lifting capacity in use.




I - Main jack indicator
II - Secondary jack indicator
III - Jib junction jack indicator
IV - Winch indicator

- *Green LEDs on:* normal working values.
- *Orange LEDs on:* limiter working with 90% of the load that can be lifted.
- *Red LEDs on:* blocked condition.

**6.1.4 - Information and alarm messages**

**- Information messages**

| *Icon* | *Description* |
|---|---|
| AM | Multiple activation functioning |
| | Use of the grab |
| | Rotation block |
| | Emergency button pressed |
| | Active limited area |
| | Jib not connected to the electrical system |
| (*) | Carry out maintenance |
| | Heat exchanger fan in use |
| | Reset: operates for 3 seconds |
| | Reset: does not operate for 30 seconds |
| | Set for the use of the crane |
| STAB MODE | Facility for use with outriggers |
| RIG | Active "regenerative" function |
| | Actived PLE speed |

| *Icon* | *Description* |
|---|---|
| | Stabilized crane |
| STOP | Crane thrust control |
| STOP | Crane maximum lifting |
| JIB STOP | Jib thrust control |
| JIB STOP | Jib maximum lifting |
| | MOD: translation mode<br>OK: winch in work position<br>NOK: winch not in work position |
| | Block lower limit |
| | Block upper limit |

(*) **Icon**

- Icon not associated with numerical code; perform maintenance available to operator
- Icon associated with numerical code; have machine serviced at authorised centre
- Numerical codes:
  - 60 - carry out maintenance every 500 hours
  - 61 - carry out maintenance every 1000 hours

## - Alarm messages

| *Icon (1)* | *Code* | *Description* |
|---|---|---|
|  | 01 | Filter blocked |
|  | 34 | Winch lifting end stroke |
|  | 33 | Winch lowering end stroke |
|  | 22 | Manual extension overload |
|  | 02 | Hydraulic oil high temperature |
|  | 03 | Hydraulic oil low temperature |
|  | 21 | Crane not stabilised |
|  | 45 | Control unit malfunction |
|  | 46 | Central remote control unit malfunction |
|  | 47 | LG / I0 card failure |
|  | 48 | Satellite unit malfunction |
|  | 49A | MCS card failure (MASTER) |
|  | 49B | MCS card failure (SLAVE) |

| *Icon (1)* | *Code* | *Description* |
|---|---|---|
|  | 23A<br>23B | Main jack angular sensor<br>*23A - sensor disconnected*<br>*23B - sensor short circuited* |
|  | 24A<br>24B | Secondary jack angular sensor<br>*24A - sensor disconnected*<br>*24B - sensor short circuited* |
|  | 25A<br>25B | Jib angular sensor<br>*25A - sensor disconnected*<br>*25B - sensor short circuited* |
|  | 26 | Temperature sensor<br>*sensor failure* |
|  | 27A<br>27B | Main jack pressure sensor<br>*27A - sensor disconnected*<br>*27B - sensor short circuited* |
|  | 28A<br>28B | Secondary jack pressure sensor<br>*28A - sensor disconnected*<br>*28B - sensor short circuited* |
|  | 29A<br>29B | Jib joint jack pressure sensor<br>*29A - sensor disconnected*<br>*29B - sensor short circuited* |
|  | 30A<br>30B<br>30C<br>30D<br>30E<br>30F<br>30G<br>30H<br>30I | Emergency solenoid valve<br>*30A - emergency disconnected*<br>*30B - emergency short circuited*<br>*30C, 30D, 30E, 30F, 30G, 30H, 30I - generic alarm* |

**(1)** The icon appears together with the active control lever code.

| *Icon (1)* | *Code* | *Description* |
|---|---|---|
| ⚠ | 31A<br>31B | Regenerative solenoid valve<br>*31A - solenoid valve disconnected*<br>*31B - solenoid valve short circuited* |
| ⚠ | 32A<br>32B | Multiple activation solenoid valve<br>*32A - solenoid valve disconnected*<br>*32B - solenoid valve short circuited* |
| ⚠ | 37A<br>37B | Rotation solenoid valve<br>*37A - Solenoid valve disconnected*<br>*37B - Solenoid valve short circuited* |
| ⚠ | 38A<br>38B | Capacity reduction solenoid valve<br>*38A - solenoid valve disconnected*<br>*38B - solenoid valve short circuited* |
| ⚠ | 39A<br>39B | Spare solenoid valve 1<br>*39A - solenoid valve disconnected*<br>*39B - solenoid valve short circuited* |
| ⚠ | 41A<br>41B | Spare solenoid valve 2<br>*41A - solenoid valve disconnected*<br>*41B - solenoid valve short circuited* |
| ⚠ | 42A<br>42B | Analogue winch sensor<br>*42A - sensor disconnected*<br>*42B - sensor short circuited* |
| ⚠ | 44A<br>44B | Spare solenoid valve 3<br>*44A - solenoid valve disconnected*<br>*44B - sensor short circuited* |
| ⚠ | 51A<br>51B | Spare solenoid valve 4<br>*51A - solenoid valve disconnected*<br>*51B - sensor short circuited* |
| ⚠ | 64A<br>64B | *64A - satellite not found*<br>*64B - satellite detected but not configured* |

| *Icon (1)* | *Code* | *Description* | |
|---|---|---|---|
| | from 7 to 13 | Distributor electrical module malfunction | |
| | 7 | Rotation control | 1st module |
| | 8 | Main jack control | 2nd module |
| | 9 | Secondary jack control | 3rd module |
| | 10 | Arm jack control | 4th module |
| | 11 | Accessory control | 5th module |
| | 12 | Accessory control | 6th module |
| | 13 | Accessory control | 7th module |

**(1)** The icon appears together with the active control lever code.

| *Icon (1)* | *Code* | *Description* | |
|---|---|---|---|
|  | from 14A to 20B | Distributor lever active position | |
| | 14 A | Rotation control lever (clockwise) | 1st component |
| | 14 B | Rotation control lever (anti-clockwise) | |
| | 15 A | Main jack control lever (lowering) | 2nd component |
| | 15 B | Main jack control lever (lifting) | |
| | 16 A | Secondary jack control lever (lowering) | 3rd component |
| | 16 B | Secondary jack control lever (lifting) | |
| | 17 A | Arm jack control lever (extension) | 4th component |
| | 17 B | Arm jack control lever (retraction) | |
| | 18 A | Accessory control lever (2) | 5th component |
| | 18 B | | |
| | 19 A | Accessory control lever (2) | 6th component |
| | 19 B | | |
| | 20 A | Accessory control lever (2) | 7th component |
| | 20 B | | |

**(1)** The icon appears together with the active control lever code.
**(2)** The code is associated with the distributor component and as a result the function of the lever varies in relation to the accessory assembled on that component (see accessory connection table).

## - Accessory connection table

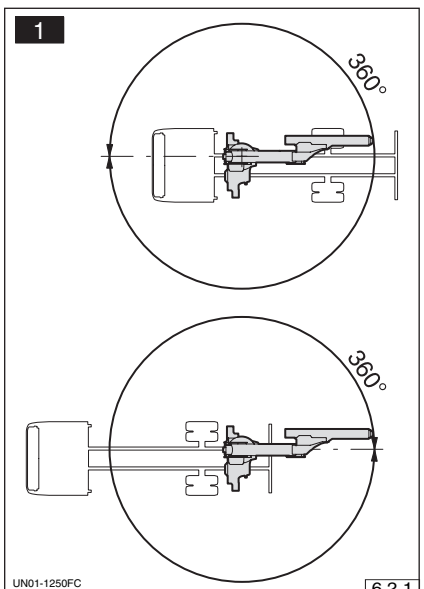
| *Accessory* | *Code* | *Lever function* |
|---|---|---|
| Jib | ..A | Junction jack control (lowering) |
| | ..B | Junction jack control (lifting) |
| | ..A | Arm jack control (extension) |
| | ..B | Arm jack control (retraction) |
| Winch | ..A | Winch control (lowering) |
| | ..B | Winch control (lifting) |
| Rotator | ..A | Rotation control (clockwise) |
| | ..B | Rotation control (anti-clockwise) |
| Grab | ..A | Grab control (closing) |
| | ..B | Grab control (opening) |

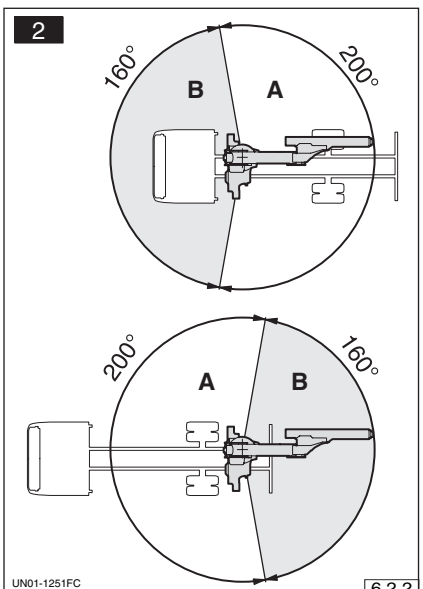
To ensure the stability of the assembly, the work sectors can be:

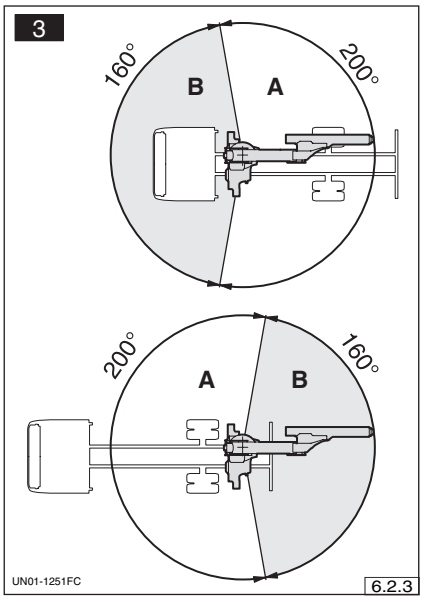
**1**) at 360° with a nominal capacity **(4)** (fig. 6.2.1).

**2**) With a nominal capacity in sector “A” (200°) and a reduction in capacity in sector “B” (160°) (fig. 6.2.2).

**3**) With a nominal capacity in sector “A” (200°) but without the possibility of rotation in sector “B” (160°) (fig. 6.2.3).



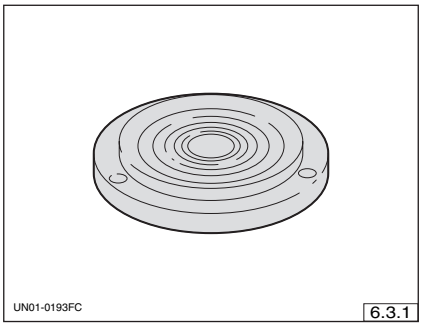




**(4)** Nominal capacity = load permitted in relation to a certain configuration (see capacity diagram).

### 6.3.1 - Warnings

**DANGER !**

***The operator must know the maximum load that the stabiliser will apply to the ground (see enclosed documents) and must ensure that the ground consistency can guarantee the stability of the vehicle.***
***On ground that is not very solid, place the raised support plates or a hard wooden board of a suitable size between the stabiliser and the ground.***
***Stabilise the machine by unloading the weight of the vehicle from the suspension without lifting the wheels off the ground, as this would cancel out the elastic effect of the suspension, causing it to tip over.***
***Check the correct levelling using the spirit level (fig. 6.3.1), which must be flat (0°) with a maximum tolerance of +/-1°.***


UN01-0193FC 6.3.1

**CAUTION !**

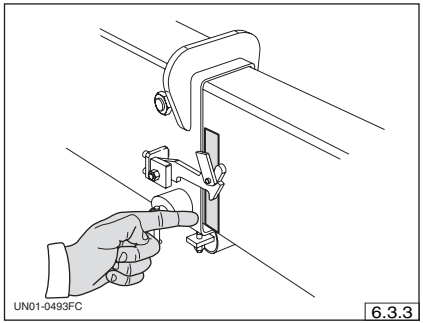
***Before using the controls for the stabilisation, deactivate all the locking devices.***

1 - Block the vehicle with the parking brake and place the chocks behind the wheels.
2 - Start the motor at minimum rpm and engage the power takeoff.
3 - Select the machine operation mode:
- operation with load hoisting hook attached;
- operation with hydraulic tool control (grabt, claw, etc.) attached.

**Information**

*The crane cannot be used until the operation mode is selected.*

4 - Extend the stabiliser arms to the maximum open position signalled by the yellow indicator light (fig. 6.3.3).


UN01-0493FC 6.3.3

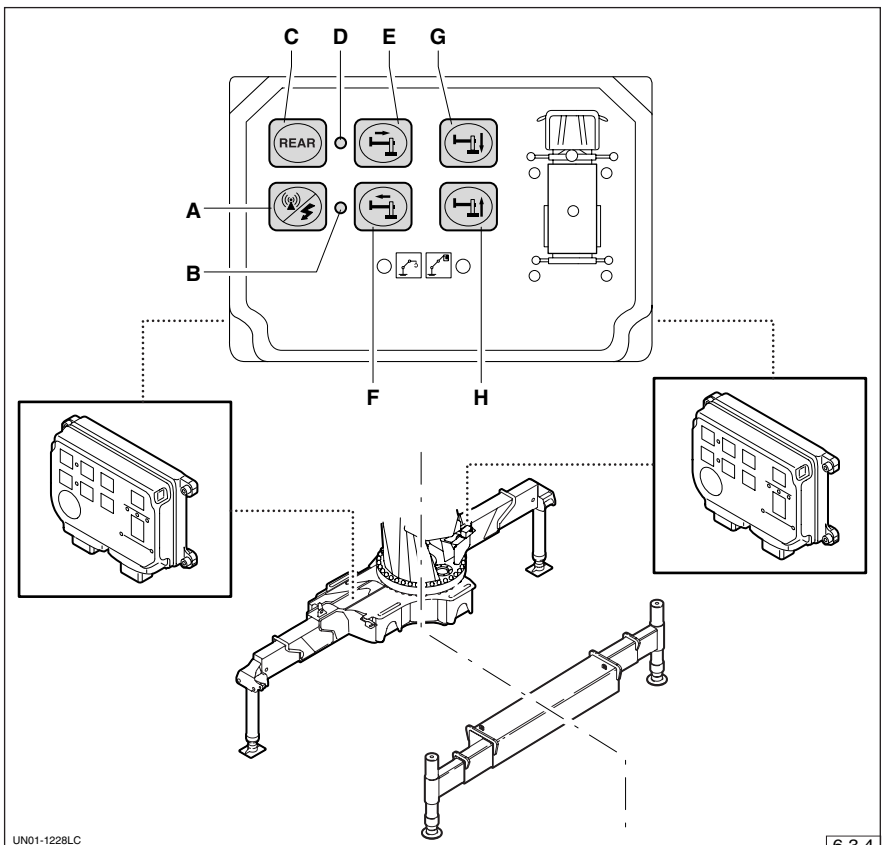
**Information**

*It is only possible to use the crane when the oil temperature is higher than the preset minimum.*
*In cold climates, allow the pump to run for a few minutes before manoeuvring the crane to ensure the hydraulic oil reaches the operating temperature.*

Check the oil temperature in the functional control unit.

### 6.3.2 - Stabilisation controls

Stabilisation can be controlled with the “MCS” keyboard (fig. 6.3.4) or using the transmitter unit (fig. 6.3.5).



**- Controls and signals on the “MCS” keyboard (fig. 6.3.4)**

The keyboard is used to control the outrigger and the outrigger jack on the side of the upper keyboard.

**A** - activation button for transmitter unit controls

The stabilisation must be performed using the transmitter unit within three seconds, otherwise the keyboard controls are re-enabled.

**B** - Signal light

ON = transmitter unit controls active;
OFF = keyboard controls active.

**C** - Supplementary crossbeam/crane selection button

**D** - Signal light

ON = outrigger crossbeam selected.

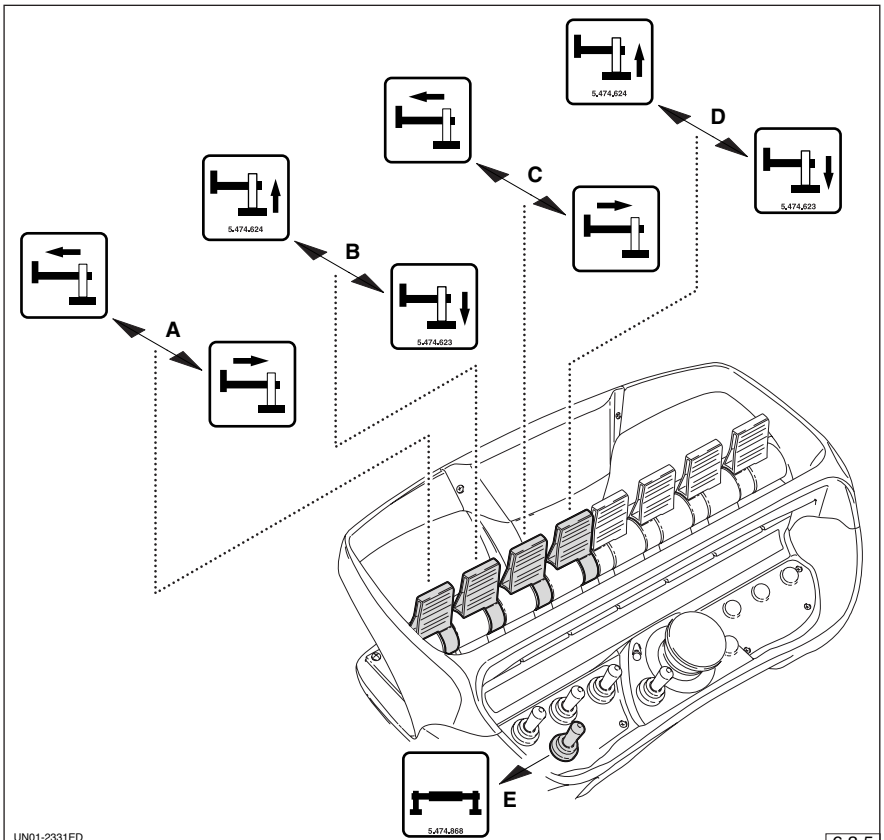
**E** - Outrigger arm extension

**F** - Outrigger arm retraction

**G** - Outrigger jack extension

**H** - Outrigger jack retraction

**- Transmitter unit controls (fig. 6.3.5)**




**A** - extension-retraction (crane outriggers arms)
**B** - extension-retraction (crane outrigger jacks)

**C** - extension-retraction (supplementary crossbeam outriggers arms)

**D** - extension-retraction (supplementary crossbeam outrigger jacks

**E** - control commutation switch
This enables the stabilisation controls.

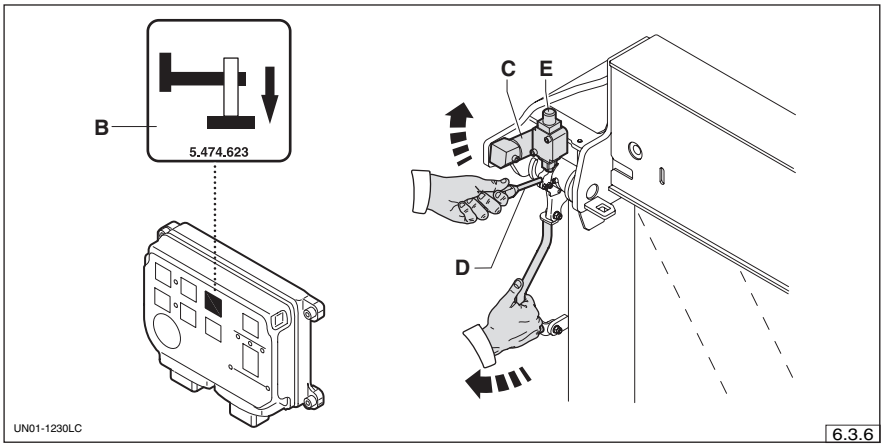
#### 6.3.3 - Revolving stabilisers (fig.6.3.6)

**CAUTION !**

***Extend the stabiliser arms until allowing the free rotation of the stabiliser jack into the vertical position.***

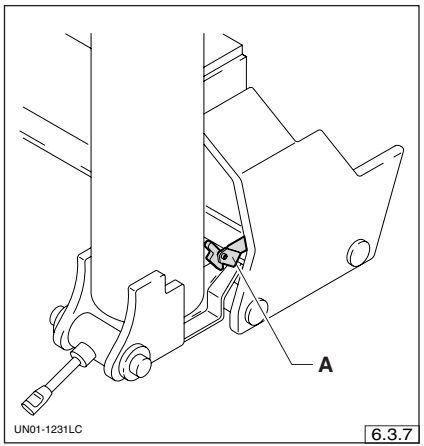
1 - Deactivate the safety device “A” that prevents the uncontrolled rotation of the stabiliser jack.
2 - Push button “B” until rotation jack “C” reaches its stroke limit
3 - Manually complete the vertical positioning of the stabiliser and at the same time lock it into position using the lever “D”.
Check that the lever engages the switch “E”, in order to activate the lowering of the stabiliser jack.

To place the stabiliser in the resting position, carry out the start-up operations in reverse order.




**CAUTION !**

***Check that the safety device “A” is activated.***



## 6.4 - Working position of the crane

**CAUTION !**

***Before starting the manoeuvres remove the safety devices that hold the crane in position during road travel.***

Before moving the crane, carefully read chapter “Safety” and the stabilisation instructions.
Check that the battery is charged and the remote control functions properly.

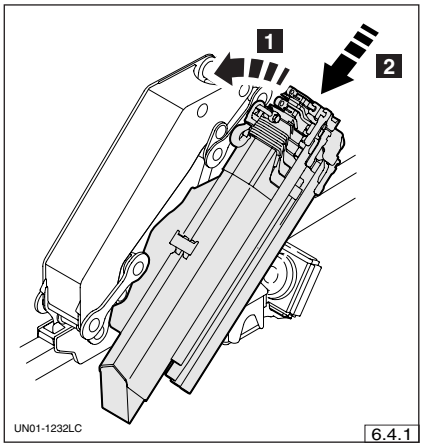
To place the crane into the working position, carry out the following manoeuvres:

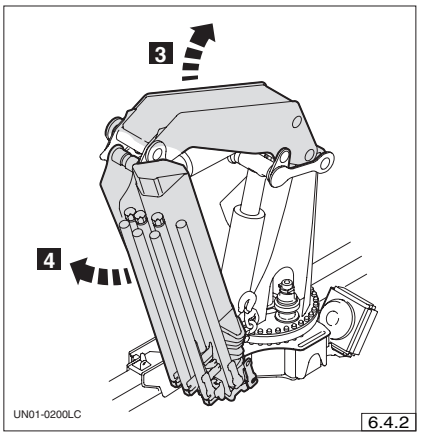
1 - close the secondary jack to the end stroke;
2 - close the jack or the arm extension jacks to the end strokes;
3 - open the main jack;
4 - open the secondary jack

The main and secondary jacks must be open enough to allow the free rotation of the crane.

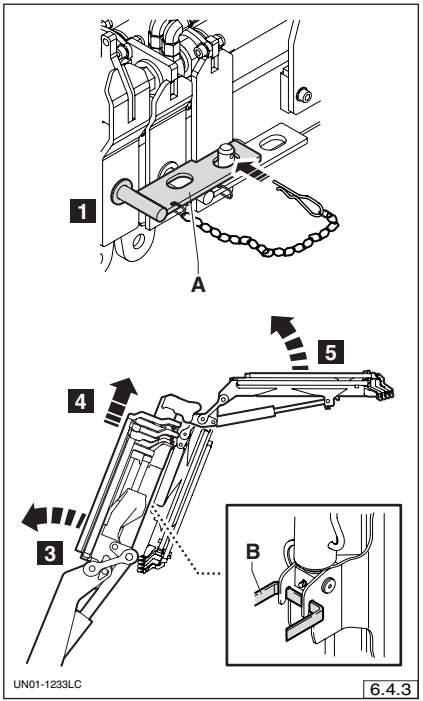
**- For the LC models**

Check that the arm pack extension lock device is off before extending the arms.




### 6.4.1 - Working position of the jib




To place the jib into the working position, carry out the following manoeuvres:

1 - remove the arm anti-extension device “A”;

2 - carry out the crane opening manoeuvre described in § “Working position of the crane”;
3 - open the secondary jack to allow the rotation of the jib;
4 - extend the crane arms enough to free the extension from the lock “B”;
5 - open the articulation jack.

## 6.5 - Safety device efficiency check

On start-up, the function control device carries out a self-diagnosis (of the existing crane configuration) to check for any malfunctions.
Any anomalies are shown on the remote control and function control unit displays (see “information and alarm messages”).

### 6.5.1 - Checking the emergency stop button

**WARNING !**

***Check all the emergency stop buttons individually.***

With the crane open and without a load:

1) press the button;
2) move the control levers in both directions and check that it is not possible to move the crane.
3) Turn the button to reset the crane functioning.

### 6.5.2 - Checking the rotation limiter (fig. 6.5.1)

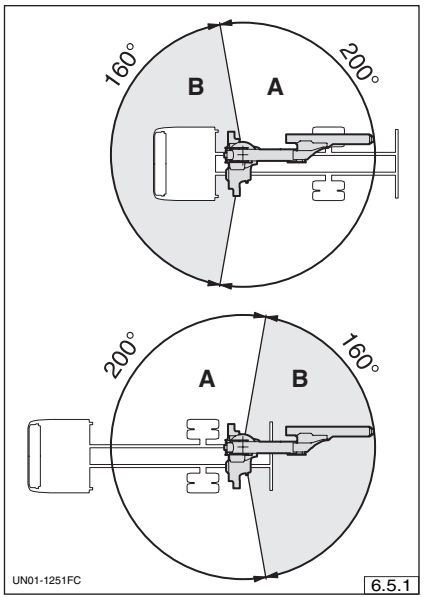
Carry out the check with a load that is higher than what is permitted for that certain sector.
The permitted load value is provided by the authorised service centre that performed the installation and checked the stability of the assembly.

1) Turn the crane clockwise and anticlockwise to check that the device prevents the rotation of the crane into sector “B”.

### 6.5.3 - Checking the rotation block (fig. 6.5.1)

Carry out the check with the crane open and without a load.

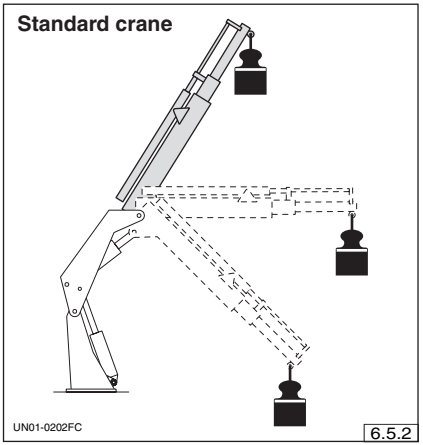
1) Turn the crane clockwise and anticlockwise to check that the device prevents the rotation of the crane into sector “B”.

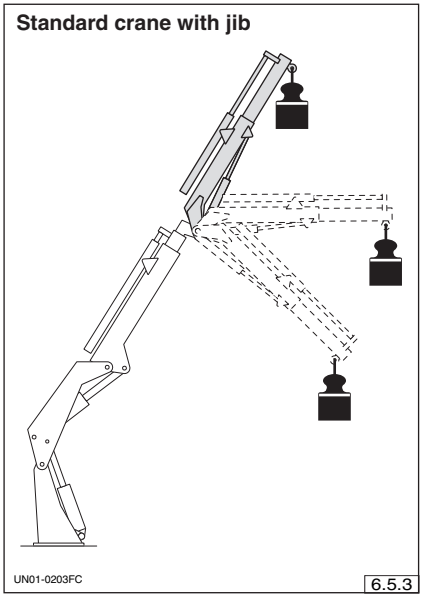


**6.5.4 - Checking the load maintenance valve** (fig. 6.5.2 - 6.5.3)

Carry out the check with a medium load.

1) Position the crane as shown in fig. 6.5.2 or fig. 6.5.3;
2) deactivate the power takeoff;
3) remove the pressure from the system by moving the distributor lever a few times;
4) wait for a short time to check that the load does not lower.




## 6.6 - Lifting and moving the load

**- Lifting the load**

To lift large loads that require the full power of the crane, work as follows.

**Zone "A":**

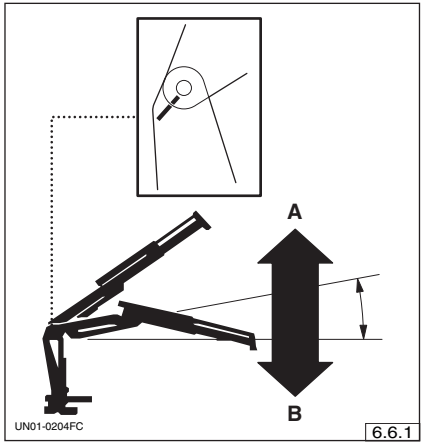
- move mainly the main jack.

**Zone "B":**

- use mainly the secondary jack and the arm extension jacks.

The maximum lifting capacity is determined by fitting together the two reference points on the column and main arm.

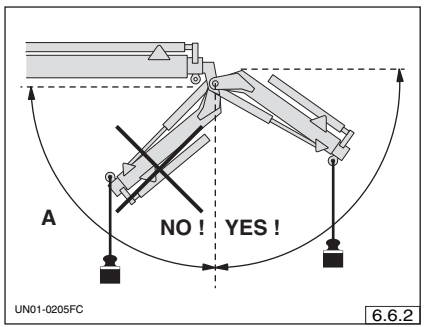
To speed up the loading/unloading operations, it is preferable to use the main and secondary jacks, rather than the arm extension jacks.



- **Moving the load with the jib**

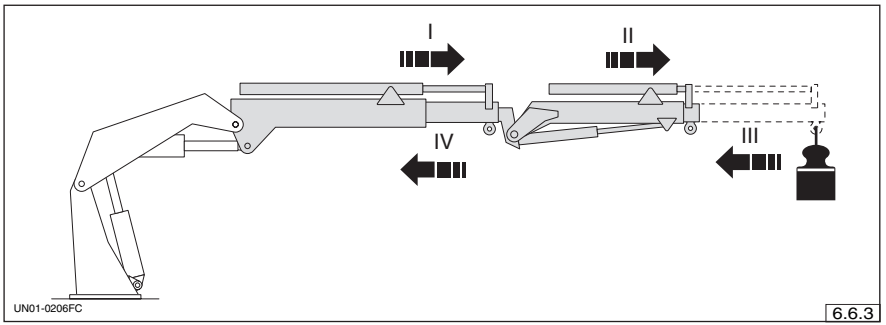
**WARNING !**

***It is prohibited to move loads in the negative sector "A" (see fig. 6.6.2).***

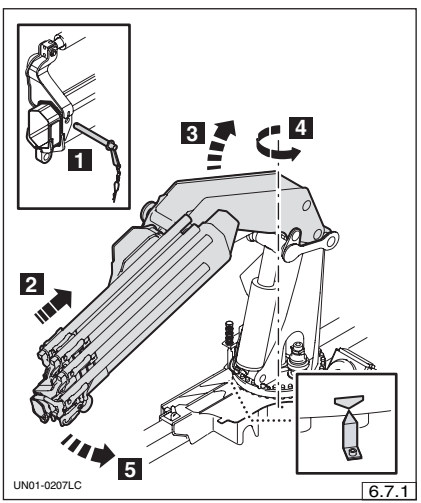


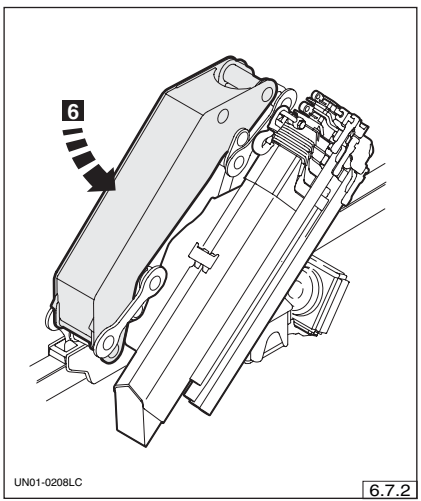

The appropriate manoeuvres to transfer the load (crane and jib arms horizontally) - fig. 6.6.3 - are:

1 - first extend the crane arms and then the jib arms;
2 - retract the jib arms and then the crane arms.




## 6.7 - Crane resting position (fig. 6.7.1 - 6.7.2)



**DANGER !**

***To avoid the risk of accidents, manoeuvre the crane from the opposite side to the main arm closing.***

To place the crane in the resting position, carry out the following manoeuvres (fig. 6.7.1 - 6.7.2):

1 - retract the manual extensions and lock them with the pin and safety plug in the minimum outreach position.

2 - Retract the crane arms.

**WARNING !**

***For the LC models.***
***Check that the arm pack extension lock device is in place.***

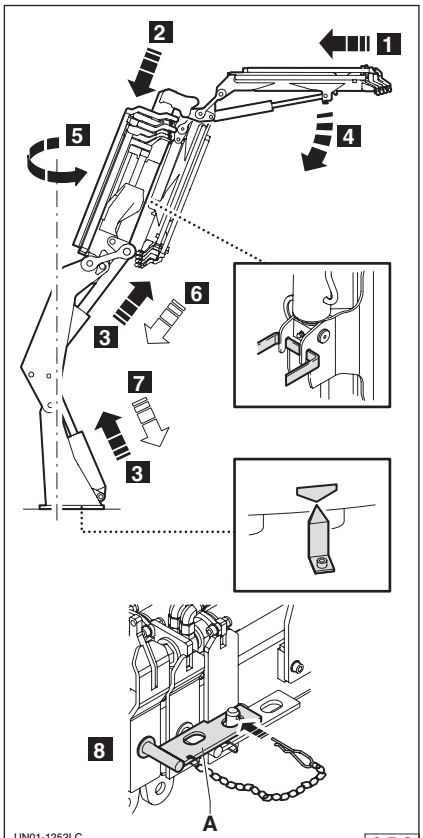
3 - Open the main jack;

4 - turn the crane until it fits the reference points located on the column and base;

5 - close the secondary jack;

6 - close the main jack making sure that the main arm of the crane fits into the special anti-rotation supports.

**6.7.1 - Crane resting position with jib** (fig. 6.7.3)




To place the crane in the resting position, carry out the following manoeuvres:

1 - retract the jib arms;

2 - retract the crane arms;

3 - open the main and secondary jacks, in order to be able to work without obstacles;

4 - close the jib joint jack by attaching it to the support located on the secondary arm (extending and/or retracting with the crane extensions if necessary);

5 - turn the crane until it fits into the reference points located on the column and base;

6 - close the secondary jack;

7 - close the main jack, making sure that the main crane arm fits into the special anti-rotation supports;

8 - activate the safety device “A”.

## 6.8 - Crane destabilisation and circulation on the roads

**- Crane destabilisation**

Close up the machine into the resting position.

1 - Retract all the stabiliser jacks completely;
2 - retract all the stabiliser arms completely;
3 - check that the safety devices for road travel are activated;
4 - deactivate the power takeoff;
5 - check that the crane is within the maximum outreach limits foreseen by the Highway Code.

**- Circulation on the roads**

**WARNING !**

***Before setting off, make sure the power takeoff is switched off to prevent serious damage to the vehicle.***

Driving the vehicle and crane outfitting requires particular skill and training, in addition to a extreme awareness of the responsibility it entails, which is why only suitably trained and authorised persons may drive the machine.
Circulation on the road network is only permitted to approved machines and drivers meeting the requirements of the current highway code.
In any case, before setting off, ensure:

- the safety pins for circulation on the roads are fitted properly;
- any mobile parts which could move suddenly and unexpectedly are locked securely;
- all protruding parts are clearly marked with the relative warning plates.

## 6.9 - Locking the crane

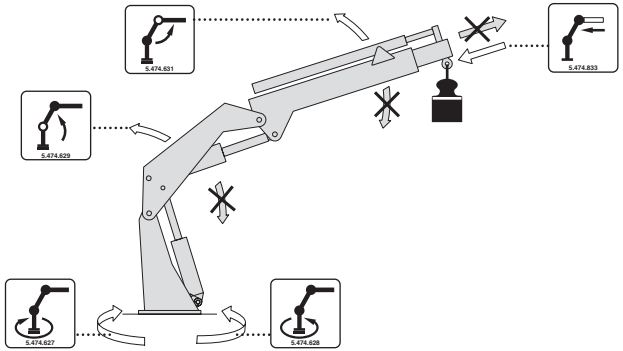
### 6.9.1 - Lock situations and manoeuvres permitted

It is impossible to explain every lock situation; however, the following are illustrations of some situations in which they can occur.
As a general rule, manoeuvres that move the load towards the column are permitted.

**Information**

*The retraction of the arms is always allowed, with the exception of the particular situations in which the manoeuvre overloads the column jack. In these cases, the arm retraction locks and it is possible to move the load with the remaining manoeuvres permitted.*
*If all the controls are inhibited, carry out the unlocking manoeuvres using the "3-30" system.*

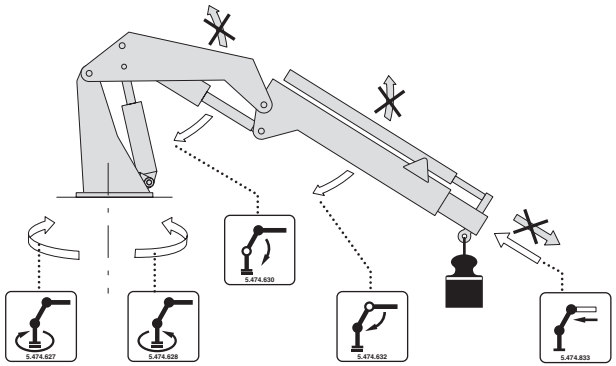
## I Standard crane




UN01-0210FC

6.9.1

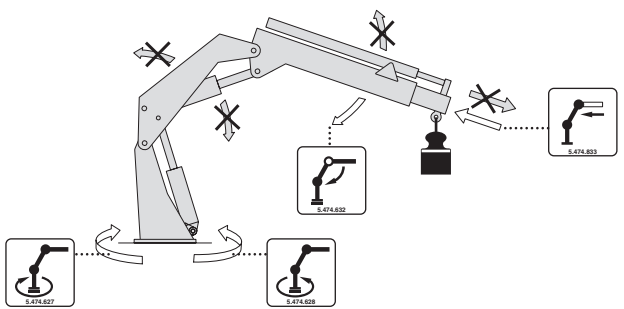
## III Standard crane




UN01-0212FC

6.9.3

## II Standard crane

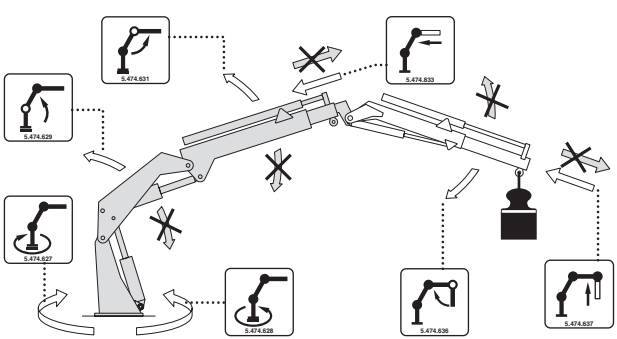



UN01-0211FC

6.9.2

## IV Standard crane and jib

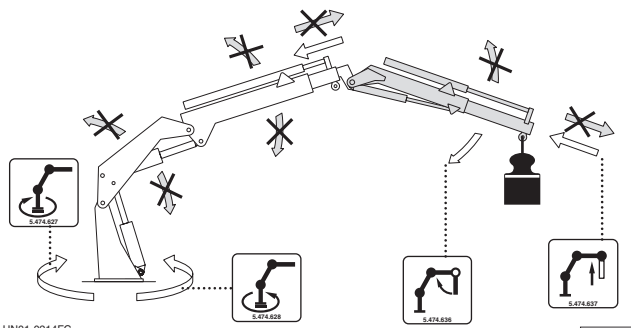
Intervention of the crane load limiter




UN01-0213FC

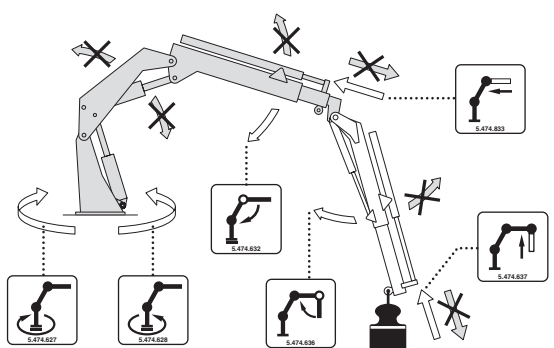
6.9.4

V **Standard crane and jib**
Intervention of the jib load limiter



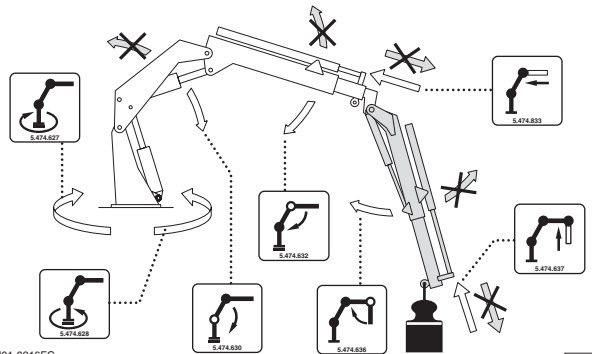

UN01-0214FC 6.9.5

VI **Standard crane and jib**
Intervention of the crane load limiter



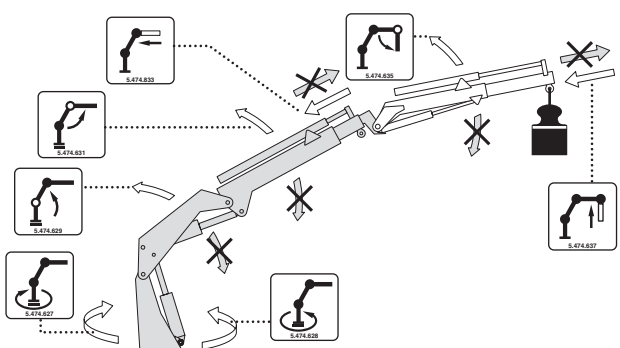

UN01-0215FC 6.9.6

VII **Standard crane and jib**
Intervention of the jib load limiter



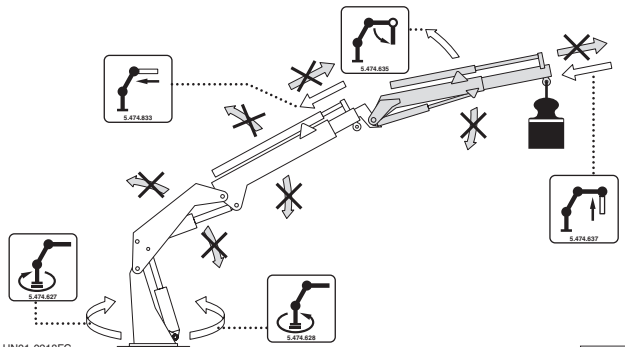

UN01-0216FC 6.9.7

VIII **Standard crane and jib**
Intervention of the crane load limiter




UN01-0217FC 6.9.8

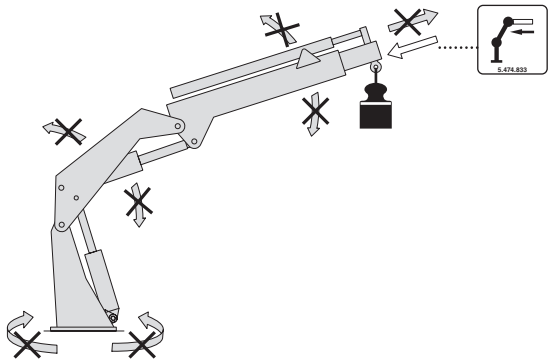
## IX Standard crane and jib
Intervention of the jib load limiter




UN01-0218FC

6.9.9

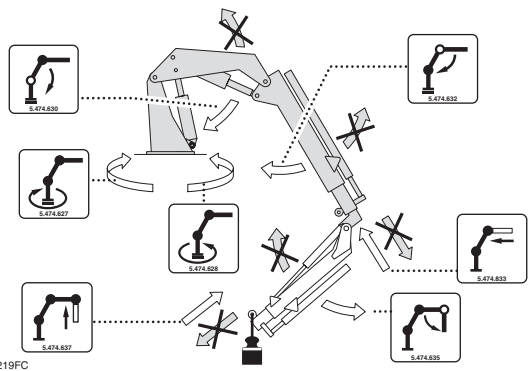
## XI Standard crane - limited area




UN01-0220FC

6.9.11

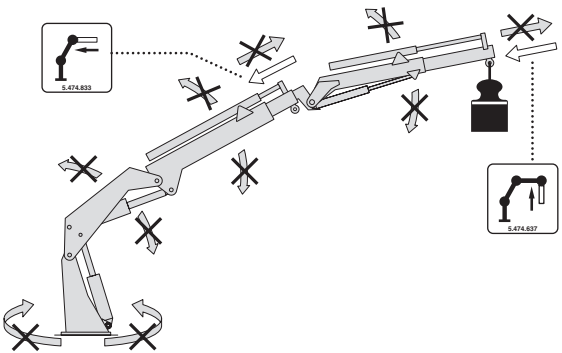
## X Standard crane and jib




UN01-0219FC

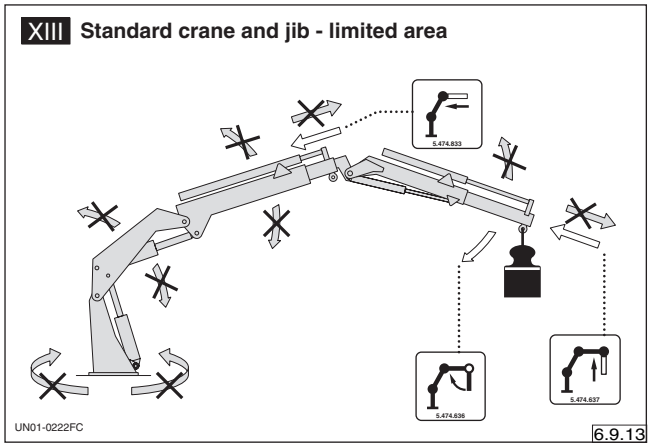
6.9.10

## XII Standard crane and jib - limited area




UN01-0221FC

6.9.12



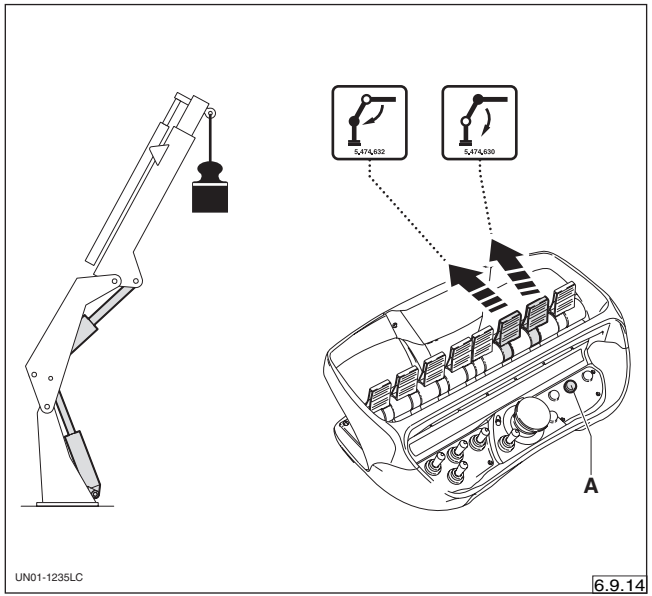

**6.9.2 - Resetting the functioning using the "3-30" system** (fig. 6.9.14)

**Information**

*It is only possible to carry out the lowering of the load with the arms completely retracted.*

Use the system when all the controls are inhibited and the machine is blocked.
"3-30" means that the system imposes 3 seconds of manoeuvre for lowering the load and 30 seconds for stopping the machine.
Carry the operations out repeatedly until the load is placed onto the ground.

- Press the reset button "A" and use the controls of the blocked jack to lower the load.



## 6.10 - Emergency situation

### 6.10.1 - Crane resting position

**DANGER !**

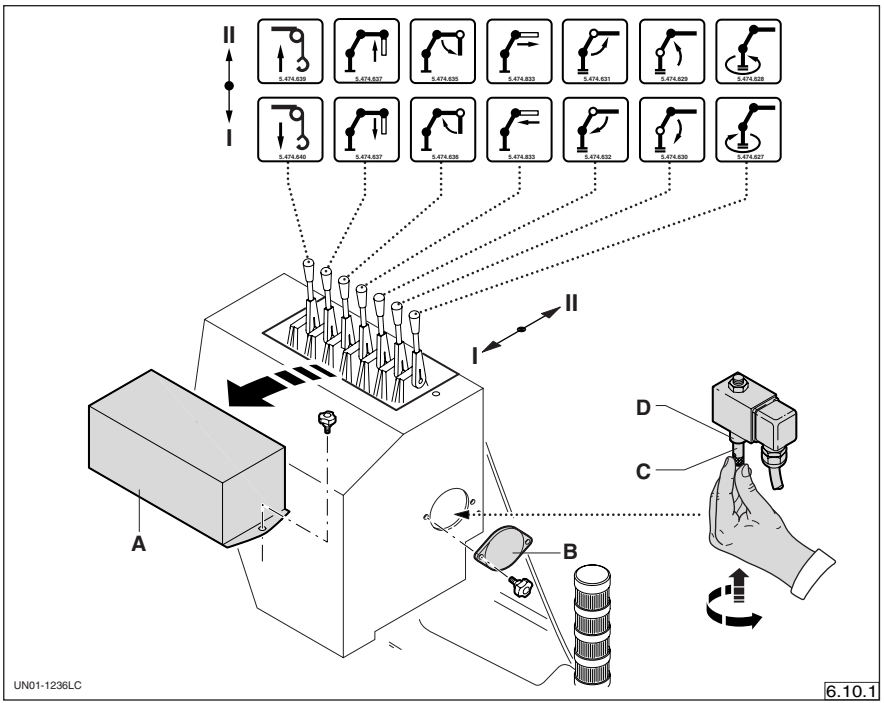
***The exclusion of the function control unit makes it possible to tip the machine over, therefore operate with maximum care.***
***Only carry out the manoeuvres that move the load towards the column, in order to place the load on the ground.***

As result, the electric/electronic or radio control malfunction causes the exclusion of the function control unit and it is possible to move the crane from the distributor.

**Information**

*Distributor manoeuvres are only permitted in an emergency.*
*Moving the crane from the distributor with the functioning radio control causes the crane to lock.*
*To restart the machine restart the vehicle engine and reengage the power takeoff.*

1 - Open the hatches “A” and “B”;
2 - remove the seals from the exclusion device “D”;
3 - press and turn the ratchet “C” until the end stroke;
4 - manoeuvre the crane from the distributor in order to place the load on the ground and close the crane in the resting position.



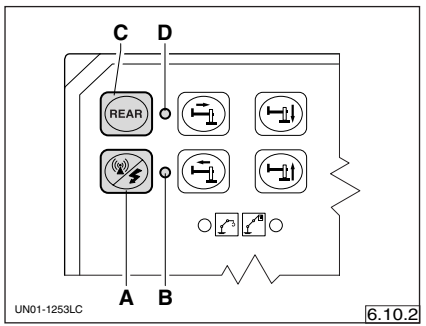

### 6.10.2 - Destabilisation

#### I° - Network failure situation

In the event of a failure involving the communication network between the con-

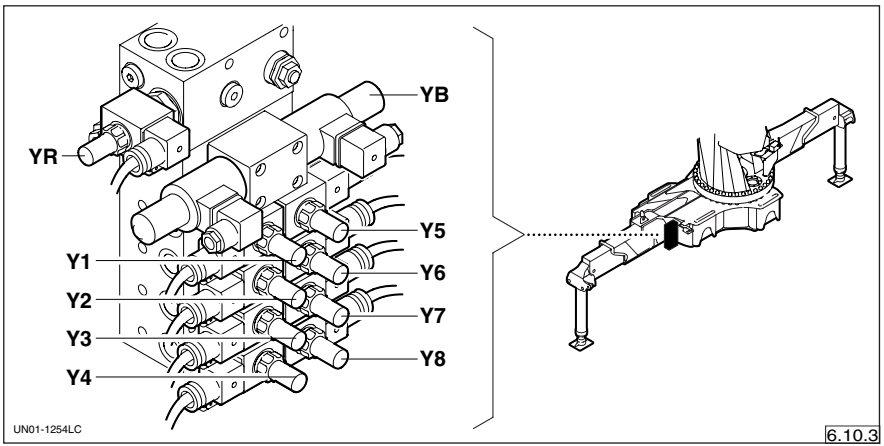
trol unit and the stabilisation controls, destabilise the machine as outlined below:

1 - push button “A” and keep it pushed throughout the operations (signal light “B” = ON).
2 - Use the “MCS” keyboard controls to retract first the outrigger jacks and then the crane outriggers.
3 - Push button “C” (signal light “D” = ON ).
4 - Use the controls to retract first the outrigger jacks and then the outriggers on the supplementary crossbeam.




**II° - Power failure situation**

In case of electric trouble, operate on the stabilising solenoid valves (fig. 6.10.3).

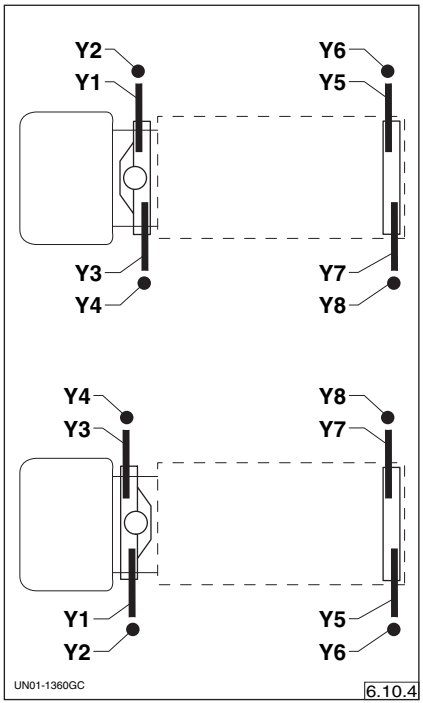


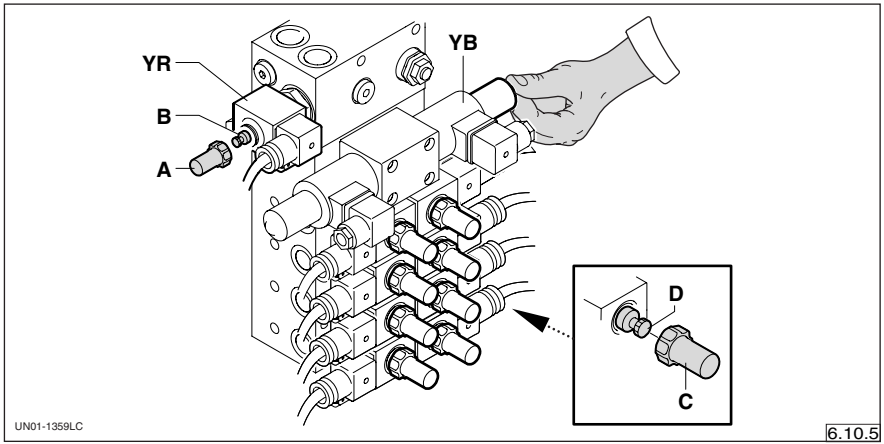

**Solenoid valve legend**

YR: hydraulic power supply
YB: jack retraction
Y1: crane outrigger arm
Y2: crane outrigger jack
Y3: crane outrigger arm
Y4: crane outrigger jack
Y5: outrigger arm on supplementary crossbeam
Y6: outrigger jack on supplementary crossbeam
Y7: outrigger arm on supplementary crossbeam
Y8: outrigger jack on supplementary crossbeam

The solenoid valves are associated with the outrigger jacks (fig. 6.10.4) differently depending on the type of installation:

- crane outriggers arms facing cabin;
- crane outriggers arms facing body.




1 - Unscrew cover “A” on the solenoid valve “YR” and unscrew pawl “B” fully.

2 - Unscrew cover “C” on the solenoid associated with the manoeuvre to perform separately, then unscrew pawl “D” fully.

3 - Push the slider on the solenoid valve “YB” to the stroke limit from the retraction manoeuvre.

4 - Unscrew the pawl at the stroke limit and fit the cover.

Repeat the operations for every single outrigger jack.

**WARNING !**

***Retract first the outrigger jacks and then the outrigger arms.***
***Do not operate several jacks at once.***

#### 6.10.3 - Sensor exclusion during malfunction

If a malfunction occurs in one or more sensors, (with the exception of the pressure sensors), it is possible to exclude them and operate temporarily to complete the operation in progress and re-close the crane.
The exclusion of the sensors causes an automatic reduction of the lifting capacity by 10%.

1) Press and keep pressed the “Reset” button on the transmitter unit of the remote control or on the control panel of the function control unit.
   The intermittent buzzer informs the operator that the reset function is active.
2) Move the crane.
   If a block situation occurs, repeat the operation in point 1).
   It is possible to use the reset function three times, then only movements that bring the load closer to the column are permitted.
   If a block is caused, it is necessary to carry out the procedures described in section “Emergency situation” to activate the crane.

## 6.11 - Access to the manoeuvring positions

**WARNING !**

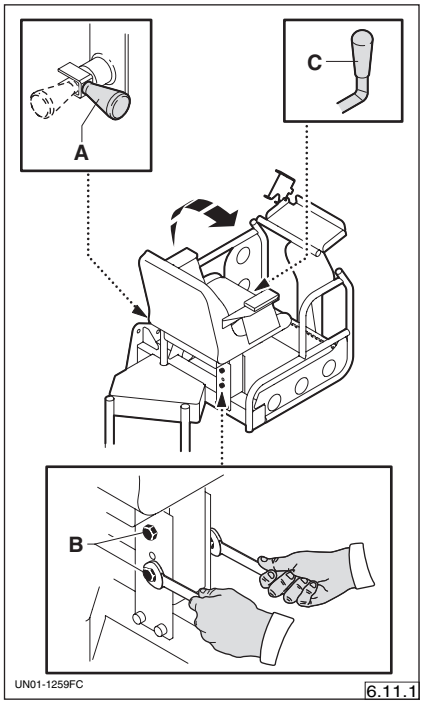
***Climb up to the manoeuvring positions using the special ladder.***
***Do not use the controls or the hoses as footholds, but use the specially designed handles and handrails.***
***Always keep the manoeuvring position and access ladder clean and free from oil, mud, grease, snow and ice.***

#### 6.11.1 - Access to the high manoeuvring position

1 - Climb up to the manoeuvring position from the back of the seat. Unblock the lever “A” and turn the seat (fig. 6.11.1).
2 - Turn the seat into the working position and lock it with the lever “A”.

Before operating with the machine, adjust the seat to the most comfortable individual position and for better control of the crane.

- Adjust the seat up or down by moving the screws “B” in the special holes to different heights, at the same time moving the seat.
- Adjust the seat horizontally using the lever “C”, ensuring that it stays locked into the chosen position.

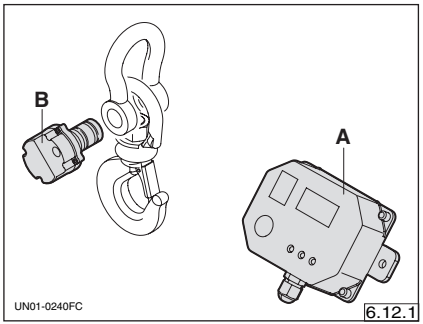


## 6.12 - Use of the load limiter for manual extensions

**WARNING!**

***Before moving the load with the extensions, check that the transmitter pin is working and that it is mounted onto the extension that you wish to use.***
***Always select the number relating to the extension in use.***
***During movement of the load, do not for any reason change the number of the extension in use.***
***It is prohibited to lift loads larger than those indicated on the capacity diagrams (whatever the geometric configuration of the crane is).***
***In any case, never exceed the load value indicated on the plate attached to the extension.***

The limiter informs the operator of the weight lifted by the extension in use. On reaching the preset value (depending on the extension in use), all the load lifting manoeuvres stop immediately and so the overloading of the extension is avoided.




**- Main parts**

A - Receiver unit
B - Transmitter pin

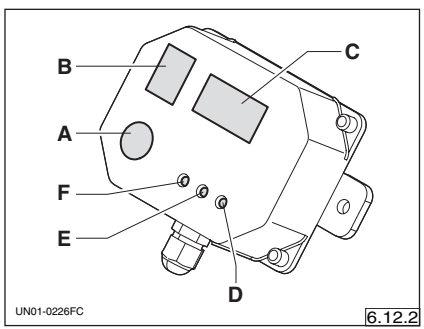
**- Technical data**

| | |
|---|---|
| Power voltage | from 12 to 24 V dc |
| Absorption | 100 mA max. |
| Protection | IP 67 |
| Emission frequency | FM 868,3 Mhz (CEPT SRD 1FI) |
| Battery | Ni-Mh 3,6V |
| Indicative battery duration | 30 hours |

**- Controls and indicator**

A - selection key for the extension in use;
B - display for the extension selected;
C - display for the weight in kg lifted by the extension in use;
D - indicator light:
when on, it indicates that
- the preset weight for the extension in use has been exceeded;
- there is no transmitter unit radio signal (in this case the message “ERR” appears on the display “C”).

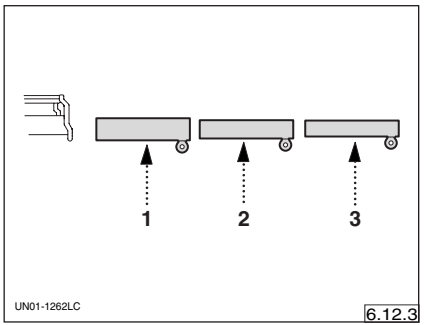
E - Indicator light.
When on, it indicates that the limiter is switched on.
F - Indicator light.
When on it indicates that the transmitter unit battery is nearly flat.
When the battery is totally flat, the “ERR” message appears on the display “C”.



**- Functioning**

1 - Using button “A”, select the manual extension that you wish to use, in accordance with the diagram in fig. 6.12.3 (max. 3 extensions). The number of the extension appears on the display “B”.

2 - Install the hook/transmitter onto the selected extension.




3 - Lift the load.
On reaching the maximum load that can be lifted by the extension in use, the crane buzzer is activated, the indicator light “D” switches on and the corresponding icon appears on the remote control and the control unit displays.
All the lifting manoeuvres by the crane are blocked and only lowering movements to place the load on the ground are permitted.
With the load on the ground, the alarm stops and it is possible to start work again.

**WARNING !**

***If all the controls are inhibited, press the button “A” until a flashing cursor that indicates the deactivation of the load limiter appears on the display “B”. The operator has to manoeuvre with maximum care and place the load on the ground in order to avoid any accidents.***

**- Displaying the maximum preset values**

1 - Using button “A”, select the number of the extension for which you wish to know the maximum preset load; the number of the extension appears on the display “B”;

2 - keep button “A” pressed for at least 5 seconds; the load value flashes on the display “C”;

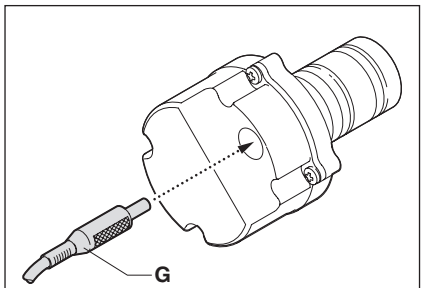
3 - release the button to return to normal functioning.

**WARNING !**

***The values for the maximum loads of the manual extensions were originally preset by PM Autogru or at an authorised service centre. Any re-calibrations may only be carried out at an authorised service centre.***
***The maximum preset values are slightly higher than those indicated in the load diagrams, due to the tolerance of the device.***

**- Charging the battery**

Connect the cable “G” of the battery charger to the transmitter unit and the 12 - 24 V dc vehicle socket.



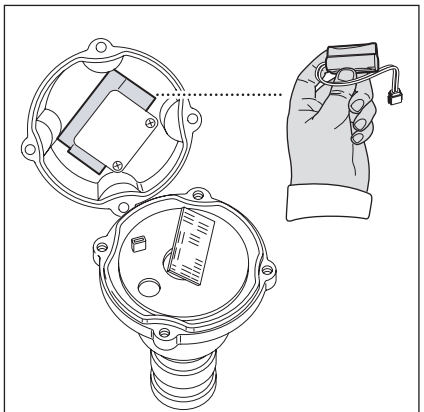

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**- Replacing the battery**

1 - Unscrew the four screws and open the case;

2 - tip the case up and unscrew the two battery fixing screws;

3 - extend the connector to the card and replace the batteries.



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**i Information**

*Do not use lithium batteries, as they are not suitable.*
*Only use batteries of the type indicated by the manufacturer.*

# 7 Maintenance

## 7.1 - Regular checks

All the maintenance operations that are not provided for in this chapter must be carried out at an authorised PM service centre.

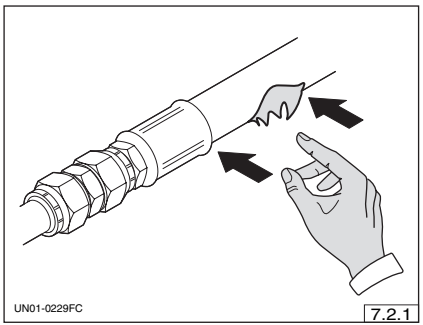
| **Regular checks**<br>Checks to be carried out by the operator | | | | | | |
|---|---|---|---|---|---|---|
| **Component** | **Operation** | Every 10 hours | Every 100 hours | Every 500 hours | Every 1000 hours | Manual reference number |
| Pipes and hoses | Check | • | | | | 7.2 |
| Connections | Check for leaks | • | | | | 7.3 |
| Plates | Check integrity | • | | | | 2.4 |
| Hook | Check | • | | | | 3.1 |
| Hydraulic oil | Check | • | | | | 7.4 |
| Safety devices | Check | • | | | | 2.3 |
| Structure | Inspection | • | | | | 7.6 |
| Winch cable | Check | • | | | | 7.8 |
| | Lubrication | | • | | | 7.9 |
| Pulleys | Check integrity | • | | | | 7.8 |
| | Running check | • | | | | 7.8 |
| | Lubrication | | • | | | 7.20 |
| Pin lock | Check | | • | | | 7.10 |
| Crane stay rod | Check | | • | | | 7.11 |
| Crane | Cleaning | | • | | | 7.13 |
| Pins | Lubrication | | • | | | 7.20 |
| Arms | Lubrication | | • | | | 7.14 |
| Sliding blocks | Lubrication | | • | | | 7.20 |
| Fifth wheel | Lubrication | | • | | | 7.20 |
| Jack sliding blocks | Check | | • | | | 7.12 |
| Reduction gear oil | Check | | • | | | 7.5 |
| Filters | Check | • | | | | 9.3 |
| | Replacement | | | • | | 9.3 |
| Radio control batteries | Replacement | | | | • | 6.1 |
| Manual extension limiter batteries | Replacement | | | | • | 6.12 |

| Regular checks<br>Checks that must be carried out at an authorised service centre | | | | | | |
|---|---|---|---|---|---|---|
| **Component** | **Operation** | Every 200 hours | Every 500 hours | Every 1000 hours | Every 2000 hours | Every 4000 hours |
| Hydraulic oil | Check, replacement | | | • | | |
| | Check contamination | | • | | | |
| Reduction gear oil | Replacement | | | | • | |
| Safety devices | Check | | | • | | |
| Structure | Inspection | | • | | | |
| Sliding blocks | Replacement | | | | | • |
| Valves | Calibration | | • | | | |
| Manual extensions | Adjustment | | • | | | |
| Winch | Lubrication check | • | | | | |
| | Lubricant replacement (*) | | • | | | |
| | Check brake | | | • | | |
| Hydraulic system | Washing | | | | | • |

(*) For oil bath lubricated winches

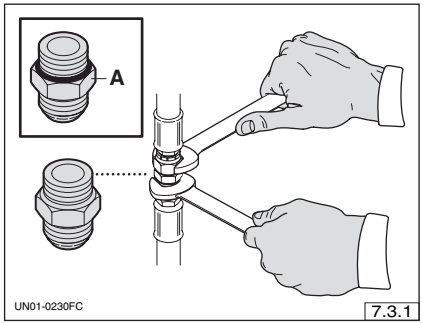
## 7.2 - Checking the condition of the hoses

Check the fastening of the pipe connection and the condition of the hose. If the pipe shows any signs of ageing, breakage, bulging, abrasion, etc., it must be replaced.




## 7.3 - Checking for oil leaks from the hydraulic system

Oil leaks from the connections can normally be eliminated by tightening the connections correctly.
Oil leaks from connection “A”, which is supplied with an airtight washer, can only eliminated by replacing the connection.



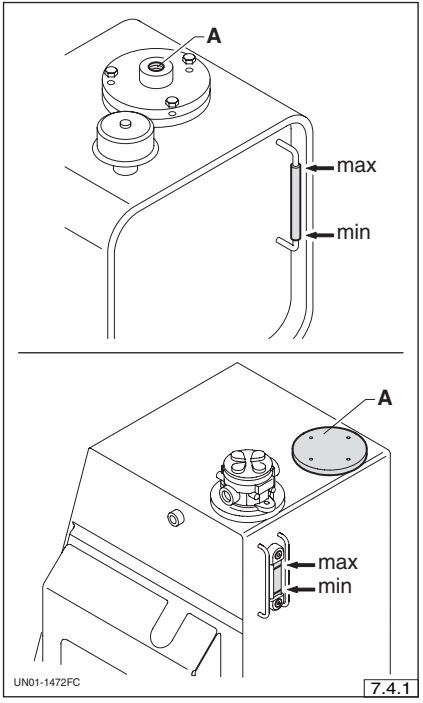

## 7.4 - Checking the hydraulic oil level (fig. 7.4.1)

Check the oil level daily, which must be between the minimum and maximum marks.
If necessary, top up from mouth “A”.

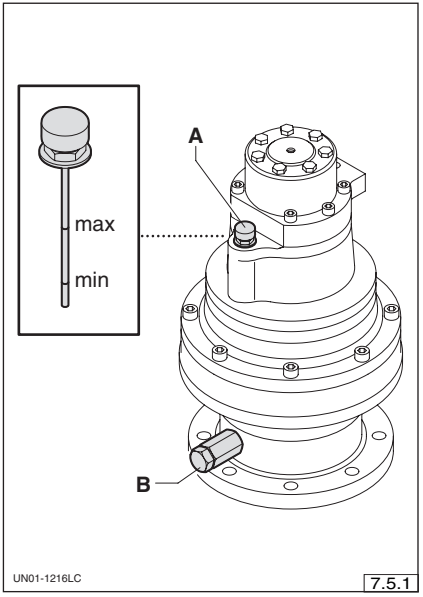
For the oil characteristics see § “Oils and lubricants”.

**i** **Information**

*Carry out the check with the crane in the resting position, with all the jacks retracted and the vehicle on a flat surface.*




## 7.5 - Checking the oil level in the rotation reduction gear




A - Air vent stopper
B - Exhaust stopper

To check the level, clean and insert the dipstick.
Top up until the level is between the minimum and maximum marks on the dipstick.

For the oil characteristics see § “Oils and lubricants”.

## 7.6 - Structure inspection

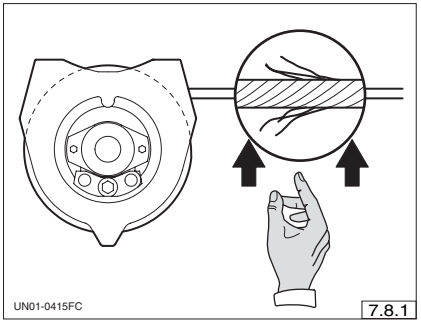
Wash the crane carefully before carrying out the checks.
Visually inspect the integrity of the structure in general and in particular the welding.
If any weakening or small cracks are noticed, immediately contact an authorised PM service centre. As stated in the regular check schedule (§ “Regular checks”) have the structure checks carried out at an authorised PM service centre.

## 7.7 - Pulley check

- Check that the pulley races and flaps are in good condition; if they are worn or broken, they must be replaced.
- Check that they run smoothly when rotating and if they do not, contact an authorised PM workshop.

## 7.8 - Cable check

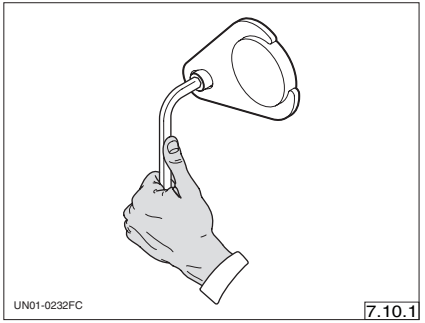
The cable must be carefully examined for any wear which could alter its technical features.
The cable must be replaced when:
- the quantity of the broken wires (in a section whose length is equal to four times the screw pitch of the elementary wire in the strand) is over 10% of the total wires making up the cable;
- the wire wear is extremely visible (10% reduction in the diameter of the elementary wire);
- the cable is permanently warped with slackening of the trefoil;
- the cable has considerable dents or permanent twisting, has been crushed, its core is coming out or has any other significant signs of wear;
- the sealing on the cable ends is damaged.




## 7.9 - Cable lubrication

The lubrication must be carried out with particular care to protect the cable from corrosive external elements and to reduce the friction with the pulleys.
For lubricant specifications, see para. “Oils and lubricants”.

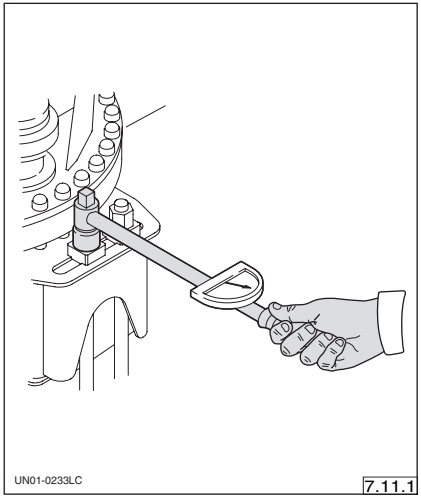
## 7.10 - Checking the pin locks




Check the fixing screws of the pin locks. If they have loosened, tighten the screws to the tightening torque of 18 daNm (133 lbf - ft).

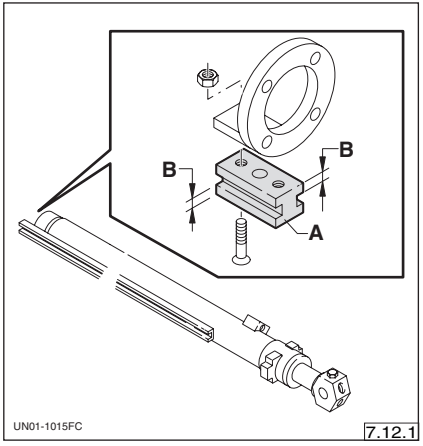
## 7.11 - Checking the anchorage stay rods

Check that the anchorage stay rods are tightened; if not, tighten the nuts to the tightening torque of 160 daNm (1180 lbf - ft).




## 7.12 - Checking the jack sliding blocks

Check the wear of sliding blocks “A”. At an authorised service centre, have the sliding blocks replaced when the wings “B” are less than 4 mm (0.157” in.).




## 7.13 - Cleaning the machine

Clean the jack shafts to avoid dirt building up.
Clean the machine with a jet of pressurised water, using detergents that are authorised by the standards in force.
Do not orient a jet of pressurised water to electrical equipment to avoid damaging it.

## 7.14 - Lubrication of the crane arms and stabilisers

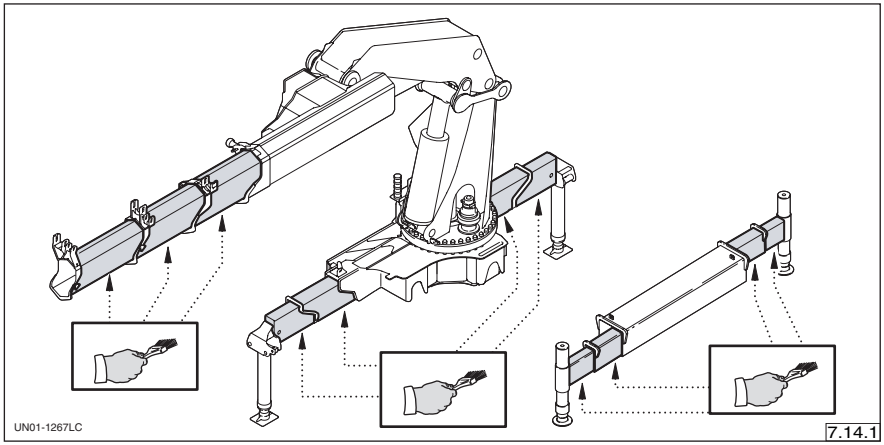
After having carried out the lubrication, carry out some arm extension manoeuvres without a load, in order to distribute the lubricant.
For the lubricant characteristics see § “Oils and lubricants”.

**- Crane arms**

Extend the arms completely and grease the upper and lower surfaces. Grease the sides of the arms when the lateral sliding blocks are assembled.

**- Stabiliser arms**

Extend the arms completely and grease the lateral surfaces.




## 7.15 - Filters

**i** **Information**

*After the first 20 hours of work and in general after every maintenance operation on the hydraulic system, replace the filter cartridges to ensure the efficiency of the filtering system.*
*If there are any solid deposits inside the filtering unit, contact an authorised service centre.*

## 7.16 - Long periods of machine inactivity

If the crane has to remain inactive for a long period of time, it is necessary to:

1) wash it and fold it back into the resting position with all the jacks closed. If this is not possible, clean and lubricate the part of the jackshafts that remains exposed to the atmospheric agents.
2) Park the machine in a sheltered area, which can only be accessed by authorised personnel;
3) check and replace the damaged and worn components;
4) check and remove any fluid leaks;
5) check and top up all the fluid levels if necessary.

## 7.17 - Starting the machine up again

Before starting the machine up again after a long period of inactivity, carry out the following checks and operations:

1) wash the machine completely;
2) grease all the components that are subject to lubrication;
3) check and top up all the fluid levels if necessary;
4) check and remove any fluid leaks;
5) check the integrity of the pipes and hoses;
6) check and replace any damaged components;

7) check the correct functioning of the controls and visual indicators;
8) check the correct functioning of all the safety devices;
9) carry out the maintenance operations in accordance with the planned maintenance schedule (see § “Regular checks”).

## 7.18 - Scrapping

The scrapping of the machine must be entrusted to personnel that are specialised in such work and have the necessary hydraulic and mechanical skills.
The components must be separated, depending on the nature of the material they are composed of, and sent to authorised collection centres.

## 7.19 - Oils and lubricants

Never mix oils of different types together, in order to avoid machine malfunctions.
For top ups, only use preventively filtered oils (maximum filtration grade, class 9, in accordance with Nas 1638-18/14 ISO 4406).

**i Information**

*Do not dispose of the oil in the environment, as it causes pollution.*

**- Environmental temperature 0 ÷ 50 °C (32 ÷ 122 °F)**

| Lubricant | ESSO | MOBIL | SHELL | TOTAL | AGIP |
|---|---|---|---|---|---|
| Hydraulic oil | NUTO H46 | DTE OIL 25 | TELLUS OIL 46 | AZOLLA ZS 46 | OSO 46 |
| Grease | GP grease | MOBILFLEX 47 | SUPER GREASE EP 2 | MULTIS 2 | GR CC2 |

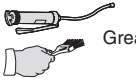
**- Environmental temperature -15 ÷ 20 °C (-5 ÷ 68 °F)**

| Lubricant | ESSO | MOBIL | SHELL | TOTAL | AGIP |
|---|---|---|---|---|---|
| Hydraulic oil | NUTO H 32 | DTE OIL 24 | TELLUS OIL 32 | AZOLLA ZS 32 | OSO 32 |
| Grease | GP grease | MOBILFLEX 47 | SUPER GREASE EP 2 | MULTIS 2 | GR CC2 |

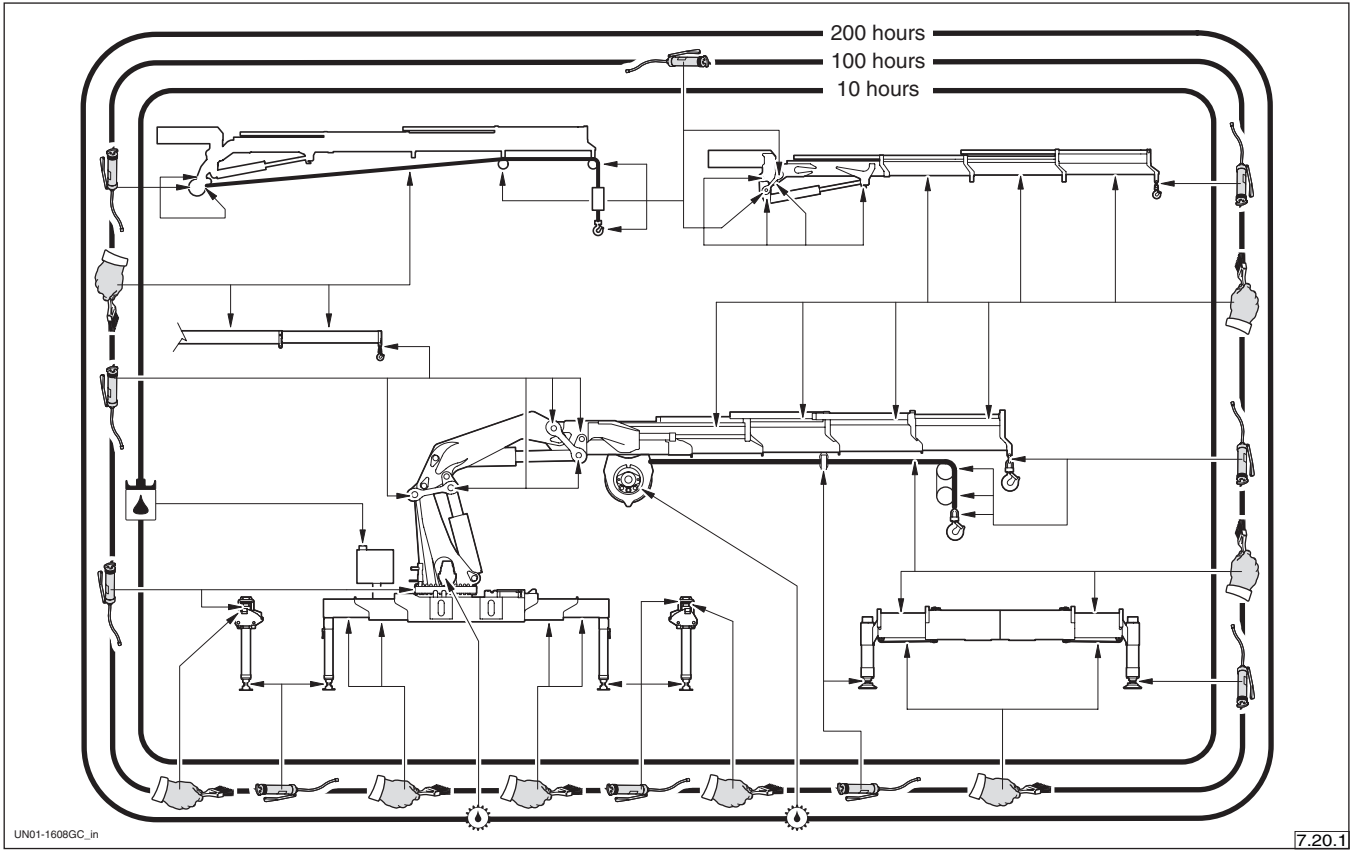
**- For lower temperatures**

| Lubricant | ESSO | MOBIL | SHELL | TOTAL | AGIP |
|---|---|---|---|---|---|
| Hydraulic oil | NUTO H 22 | DTE OIL 22 | TELLUS OIL 22 | AZOLLA ZS 22 | OSO 32 |
| Grease | BEACON EP 0 | MOBILFLEX EP 0 | SUPER GREASE EP 0 | MULTIS EP0 | GR LP 0 |

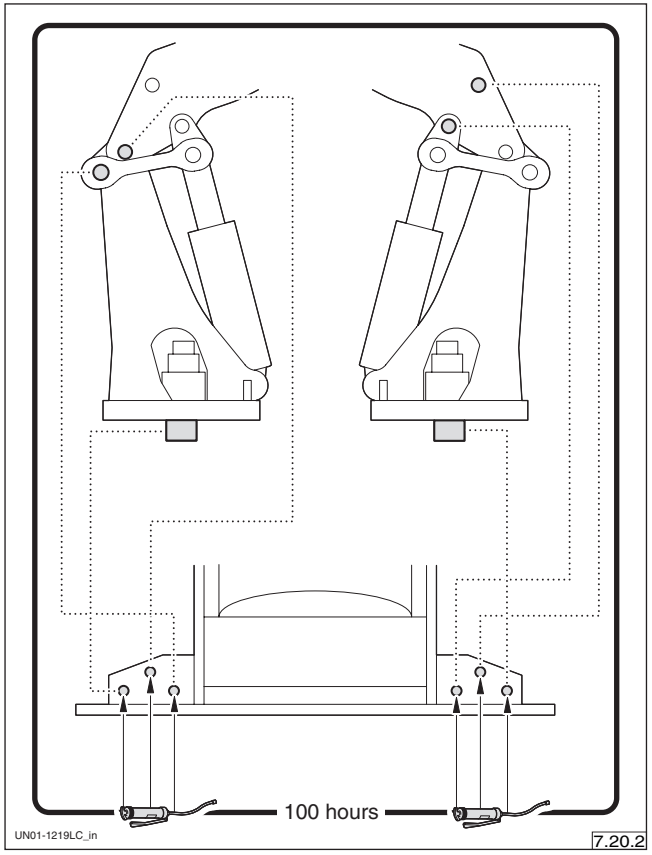
### 7.19.1 - Lubricant comparison table

| Lubricant | | Environmental conditions | | |
|---|---|---|---|---|
| | | 0÷40 °C (32÷104 °F) | 20÷50 °C (68÷122 °F) | -10÷20 °C (14÷68 °F) |
| Hydraulic oil | ISO 3348 | ISO VG 32 | ISO VG 46 | ISO VG 22 |
|  Grease | | NLGI 2 calcium/ lithium | NLGI 2 calcium/ lithium | NLGI 0 calcium/ lithium |

## 7.20 - Greasing and lubrication diagram




**Symbols =** Hydraulic oil Grease Grease Hydraulic oil




**Symbols =** Grease

# 8 Fault, cause, remedy

| Fault | Cause possible | Remedy |
|---|---|---|
| The crane is completely stopped | Emergency buttons pressed | Release the emergency stop buttons |
| | The moment control device has come into operation | See “Block situation and manoeuvres allowed” |
| | The P.T.O. is not engaged correctly | Engage the P.T.O. |
| | P.T.O. engagement malfunctioning | Repair the P.T.O. engagement |
| | Electrical system malfunctioning | Check signals on push-button panel or electronic control unit displays |
| | Low temperature of hydraulic oil | Let the oil flow through the system until the working temperature is reached |
| | There may be a lever switch for a dump body located on the latter | Position the switch on crane |
| | Radio control malfunctioning | Check radio control devices |

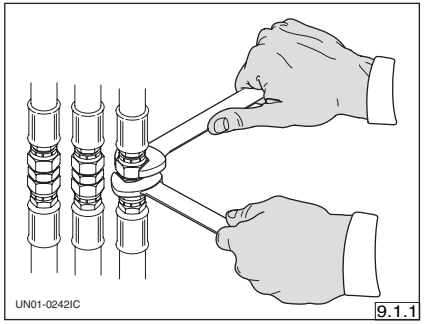
| Fault | Cause possible | Remedy |
|---|---|---|
| The crane boom cannot hold the load and kreep down considerably | The pilot operated check valve fitted on the lift cylinder in question leaks | Have the valve checked and/or replaced by an authorized repair workshop |
| | Oil leakage inside the cylinder concerned | Have the seals inside the cylinder replaced by an authorised repair workshop |
| Permanent vibrations while operating on all the movements | Insufficient hydraulic oil | Add hydraulic oil to the tank (see § “Checking the hydraulic oil level”) |
| | Clogging of hydraulic oil filter | Replace the filter cartridge (see § “Filters replacement”) |
| | Suction hose obstructed | Locate the cause of the obstruction and remove it |
| | Inefficient pump | Check the pump flow; if it is not regular replace the pump |
| Considerable reduction in the speed of the movements | Low speed of the engine | Check the exact speed of the vehicle’s engine on the basis of the hydraulic boom extension time |
| | Radio and/or distributor system malfunctioning | Check signals on push-button panel or electronic control unit displays |
| | Inefficient pump | Check the pump flow; if it has decreased, replace the pump |

| Fault | Cause possible | Remedy |
|---|---|---|
| It is hard to engage the P.T.O. | If pneumatic: the air into the appropriate vehicle system is insufficient<br><br>If mechanical: the control cable is obstructed | Check the pressure of the air in the vehicle's pneumatic system; stop any leaks<br><br>Free the control cable |
| Vibrations in the arm unit during load translation | Sliding pads insufficiently lubricated<br><br>Sliding pads too worn<br><br>Insufficient hydraulic oil | Lubricate the sliding pads according to the relative instructions<br><br>Consult an authorised workshop<br><br>Check the level of the hydraulic oil |
| Lack of tension on the whole crane | Interrupted fuses<br><br>P.T.O. relay malfunctioning | Replace the fuses<br><br>Replace the relais |
| Electronic control unit off and crane not working | Control unit malfunctioning | Consult an authorised workshop |

| Fault | Cause possible | Remedy |
|---|---|---|
| Radio control off or not working | Interrupted radio fuse | Replace the fuse (see § “Fuse replacement”) |
| | Radio unit malfunctioning | Consult an authorised workshop |
| | Push-button panel battery exhausted | Recharge the battery |
| | Interferenced radio transmission | Connect via cable the push-button panel to the receiver on the crane |
| | Receiver antenna malfunctioning | Consult an authorised workshop |
| | Emergency stop push-button pressed | Release the emergency stop push-button |
| Heat exchanger not working | Exchanger activation device malfunctioning | Have the device replaced by an authorized repair workshop |
| | Exchanger electrical connections cut-off | Check all electrical contacts |
| | Fan motor not working | Have the device replaced by an authorized repair workshop |
| | Satellite electronic control unit malfunctioning | Have the device replaced by an authorized repair workshop |

# 9 Spare part replacement

## 9.1 - Hose replacement




**DANGER !**

***Hose replacement must be performed with the hydraulic system depressurised.***

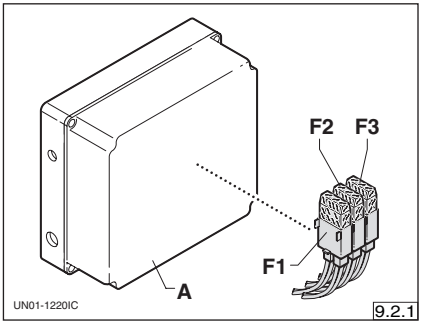
To depressurise the system, disconnect the power take off, stop the truck engine and move the control levers back and forwards.
Unscrew the joints and collect oil into a suitable tank.

Replace the hose and tighten the joints.

## 9.2 - Fuse replacement

Before replacing the interrupted fuse, remove the cause of its blowing up.
Replace the blown fuse with a new one having the same characteristics.

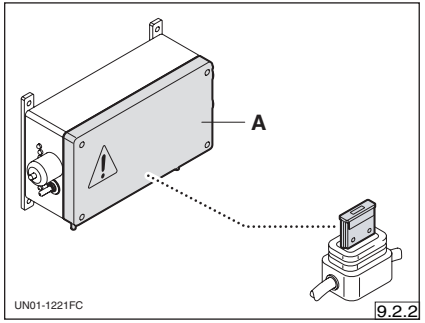
### 9.2.1 - Connector block fuse replacement




Remove the cap “A” and replace the interrupted fuse.

| Pos. | Protected circuit | Ampére |
|---|---|---|
| F1 | Main circuit (electronic control units, radio) | 15 |
| F2 | Secondary circuit (operating control unit) | 5 |
| F3 | Heat exchanger circuit | 20 |

### 9.2.2 - Radio receiver fuse replacement




Remove the cap “A” and replace the interrupted fuse with a 10 A new one.

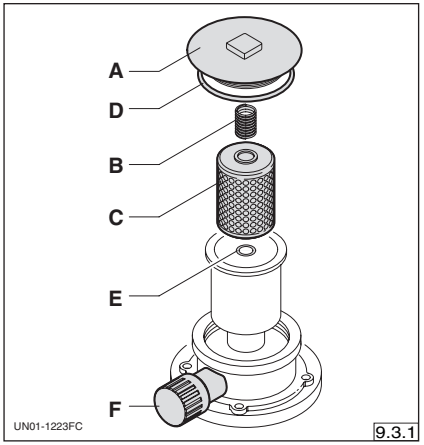
## 9.3 - Filters replacement

When the filter cartridge is replaced, the exhaust plug “F”, equipped with a 3 micron filtering grade air filter, must also be replaced.

### 9.3.1 - Replacing the exhaust filter

Replace the filtering cartridge, as it is made of non-washable material, by the expiry date provided for in the planned maintenance schedule (see § “Regular checks”).

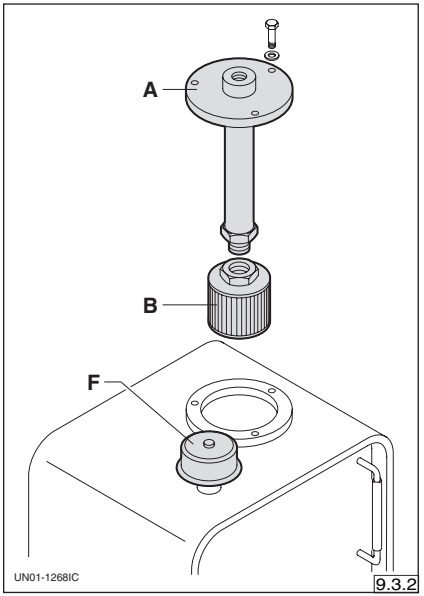
**- On-board tank filter**




1 - Carefully clean the external surfaces of the filter;
2 - unscrew the cap “A”;
3 - remove the spring “B” and the filtering cartridge “C”;
4 - check the condition of the washers “D” and “E”; if they are damaged replace them.

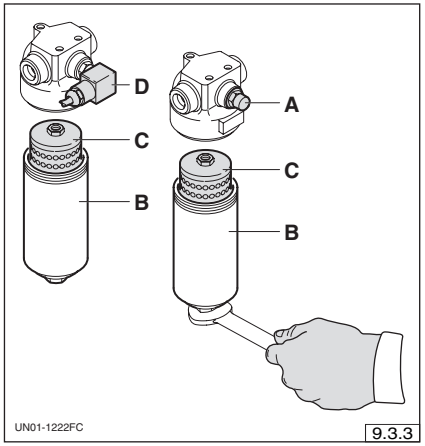
To reassemble the filter, carry out the disassembly operations in reverse.

**- Separate tank filter**




1 - Remove the cover “A” and take out filter unit;
2 - unscrew the cartridge “B” from its support.
3 - Replace the filter cartridge with a new;
4 - reassemble the cover.

### 9.3.2 - Delivery filter replacement




Replace the filter cartridge when the blockage indicator “A” turns red or when the “filtered clogged” alarm message is displayed (for filter with sensor “D”).
In any case, carry out the replacement by the expiry date provided for in the planned maintenance schedule (§ “Regular checks”).
For the replacement proceed as follows:

1 - carefully clean the external surfaces of the filter;
2 - turn off the tank tap;
3 - unscrew the filter unit “B” and drain the oil inside it;
4 - replace the filter cartridge “C”.

To reassemble the filter, carry out the disassembly operations in reverse.
Tighten the filter unit to a tightening torque of 10 daNm (74 lbf - ft).
Turn on the tank tap.

**- Specifications and performances**

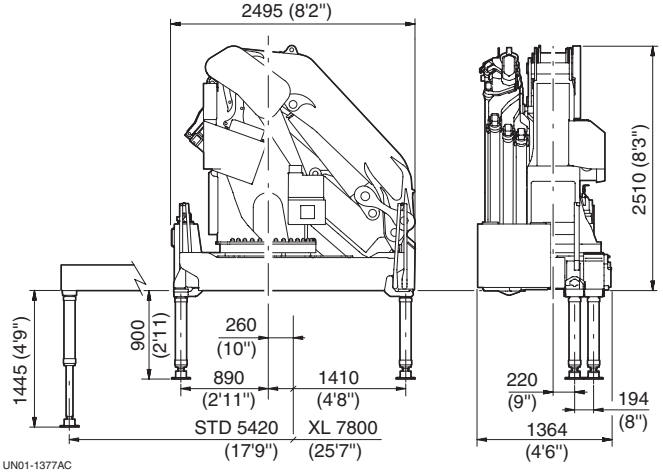
## PM 44024 S - 44024 S LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 384 | ft lbs | 283240 |
| | tm | 39,2 | / | / |
| **Hydraulic outreach:** | | | | | |
| Horizontal | m | 12,15 | ft | 39’10” |
| Vertical | m | 16,30 | ft | 53’6” |
| **Outreach with manual extensions:** | | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 28 | psi | 4060 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 4870 | lbs | 10740 |
| Weight of LC crane with tank empty | kg | 5030 | lbs | 11090 |
| Maximum power absorbed by the hydraulic pump | kW | 41 | HP | 55 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 45 | sec. | 45 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 50 | sec. | 50 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |

## - Overall dimensions

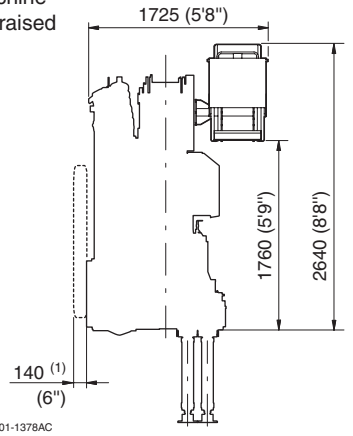
# PM 44024 S - 44024 S LC

Basic machine

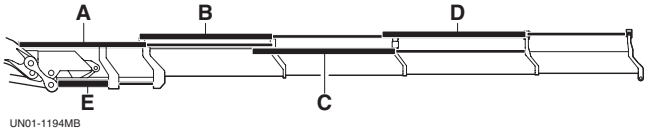



STD = Standard stabilisers XL = Extra large stabilisers

Basic machine with seat raised

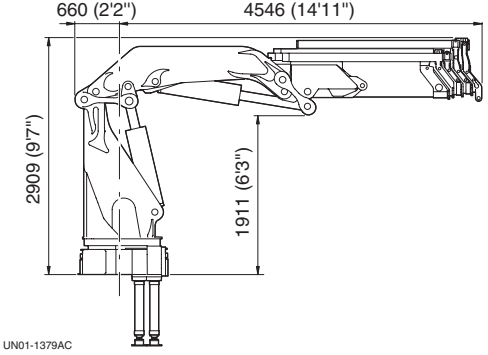



(1) Dimensions of drives



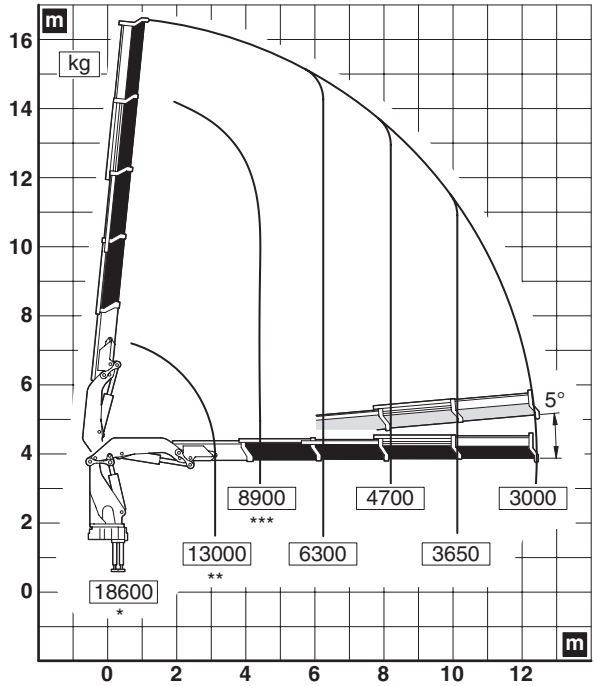

| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |
| E * | Secondary arm extension jack | 750 (2'6") |

* For LC models



## - Capacities diagram

Basic machine

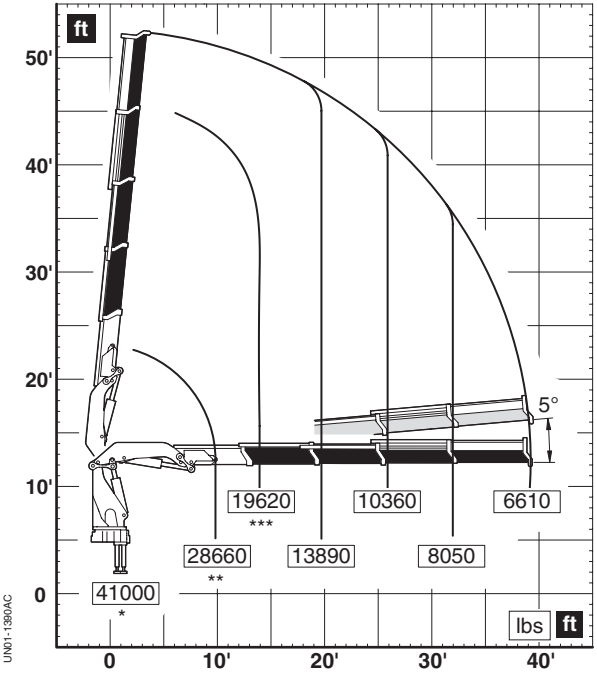



UN01-1272MB

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine (USA)



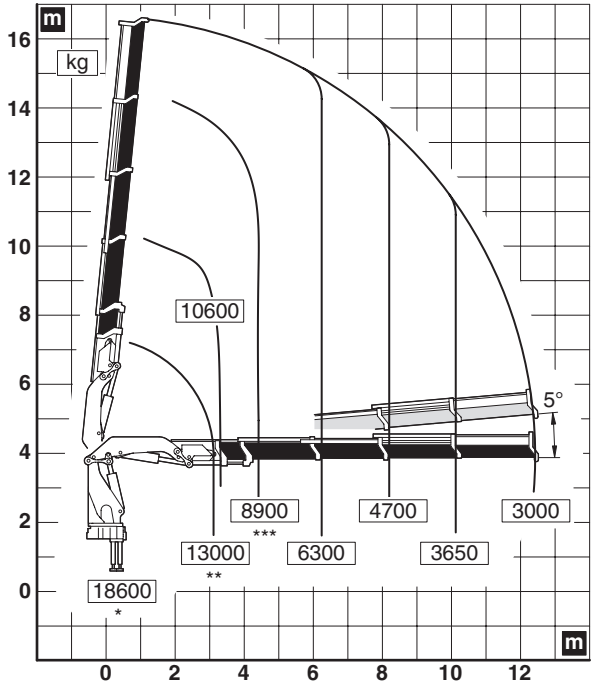

UN01-1360AC

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44024 S - 44024 S LC

LC Basic machine

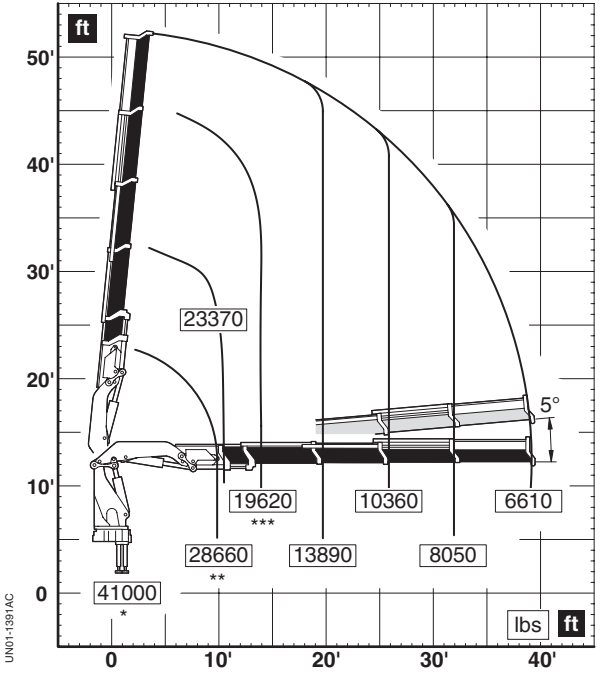



UN01-1273MB

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine (USA)

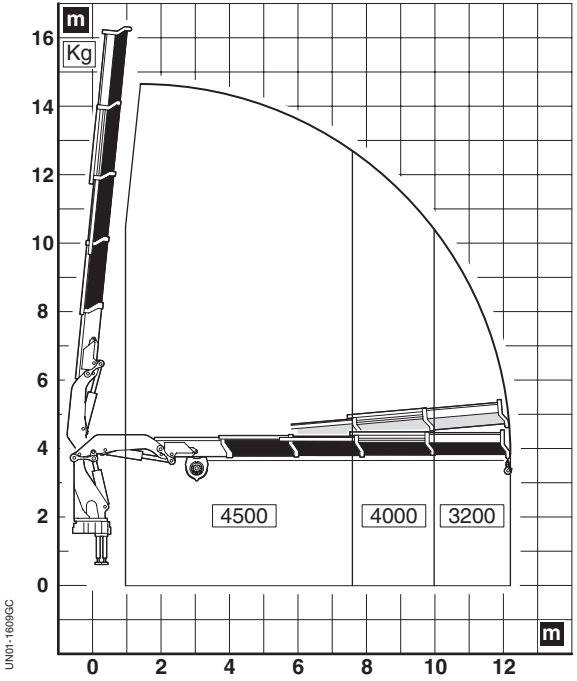


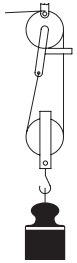
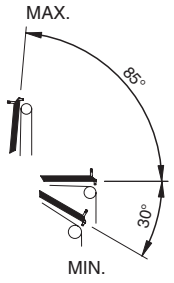

UN01-1391AC

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with winch



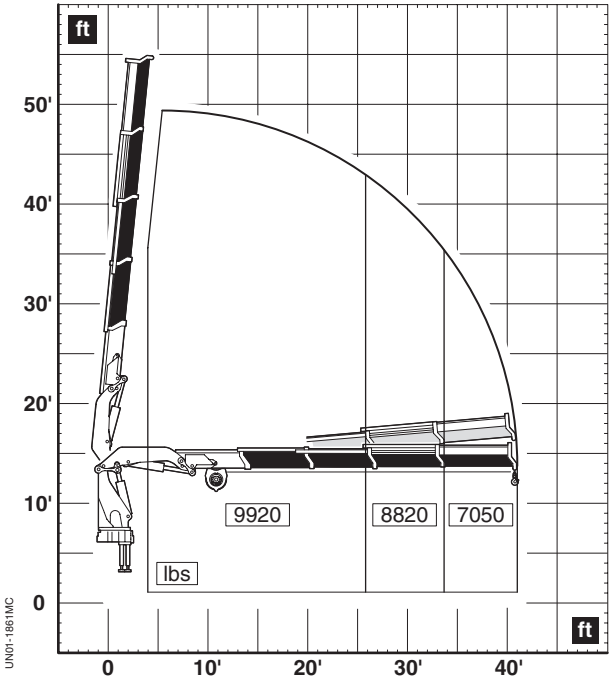

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 2  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

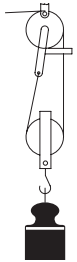
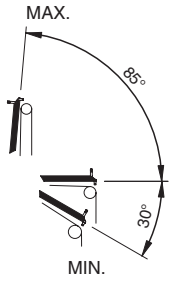
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 44024 S - 44024 S LC

Basic machine with winch (USA)




| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 2  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

**- Specifications and performances**

## PM 44025 S - 44025 S LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 377 | ft lbs | 278150 |
| | tm | 38,5 | / | / |
| **Hydraulic outreach:** | | | | |
| Horizontal | m | 14,50 | ft | 47'7" |
| Vertical | m | 18,50 | ft | 60'8" |
| **Outreach with manual extensions:** | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 28 | psi | 4060 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 5100 | lbs | 11240 |
| Weight of LC crane with tank empty | kg | 5260 | lbs | 11600 |
| Maximum power absorbed by the hydraulic pump | kW | 41 | HP | 55 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7") disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 55 | sec. | 55 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 60 | sec. | 60 |
| "Fixed" hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| "Mobile" hook - Capacity | kg | 16000 | lbs | 35270 |

## PM 44025 S - 44025 S LC - with jib J 903.20

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 377 | ft lbs | 278150 |
| | tm | 38,5 | / | / |
| **Hydraulic outreach:** | | | | | |
| Horizontal | m | 22,50 | ft | 73’10” |
| Vertical | m | 25,40 | ft | 83’4” |
| **Outreach with manual extensions:** | | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 25,5 | psi | 3700 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 6080 | lbs | 13400 |
| Weight of LC crane with tank empty | kg | 6240 | lbs | 13760 |
| Maximum power absorbed by the hydraulic pump | kW | 38 | HP | 51 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 80 | sec. | 80 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 85 | sec. | 85 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |
| Jib hook - Capacity | kg | 5000 | lbs | 11020 |

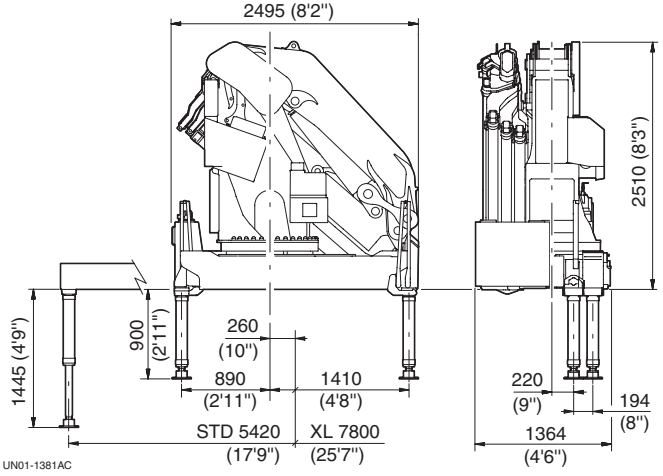
## PM 44025 S - 44025 S LC - with jib J 904.20

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 377 | ft lbs | 278150 |
| | tm | 38,5 | / | / |
| **Hydraulic outreach:** | | | | |
| Horizontal | m | 24,25 | ft | 79'7" |
| Vertical | m | 27,15 | ft | 89'1" |
| **Outreach with manual extensions:** | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 25,5 | psi | 3700 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 6160 | lbs | 13580 |
| Weight of LC crane with tank empty | kg | 6320 | lbs | 13930 |
| Maximum power absorbed by the hydraulic pump | kW | 38 | HP | 51 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7") disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 85 | sec. | 85 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 90 | sec. | 90 |
| "Fixed" hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| "Mobile" hook - Capacity | kg | 16000 | lbs | 35270 |
| Jib hook - Capacity | kg | 5000 | lbs | 11020 |

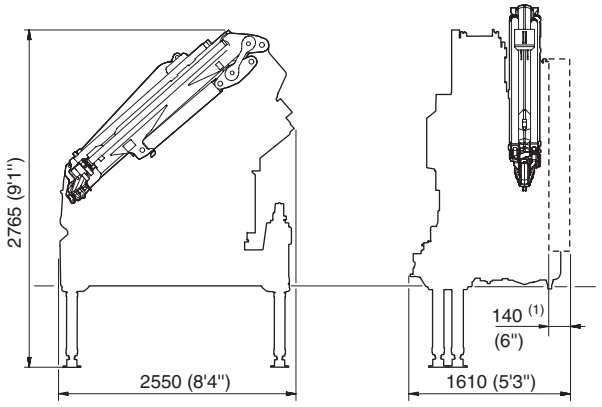
## - Overall dimensions

# PM 44025 S - 44025 S LC

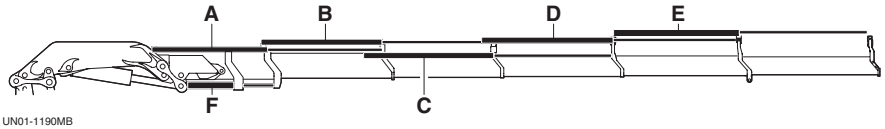
Basic machine




Basic machine with jib

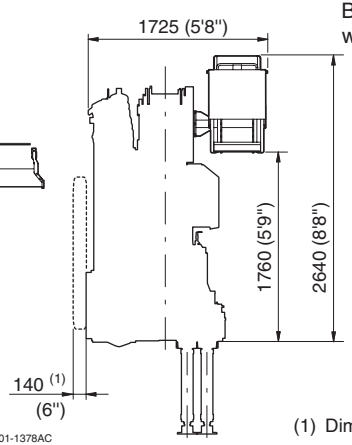



STD = Standard stabilisers XL = Extra large stabilisers




| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |
| E | 5th arm extension jack | 2200 (7'3") |
| F * | Secondary arm extension jack | 750 (2'6") |

Basic machine with seat raised

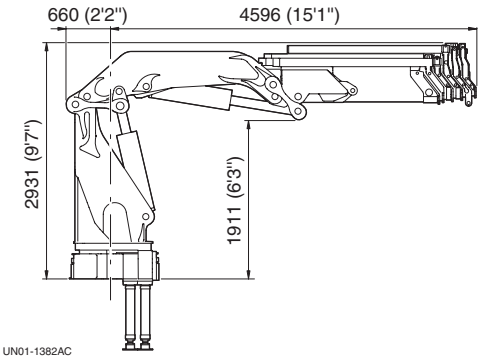



* For LC models

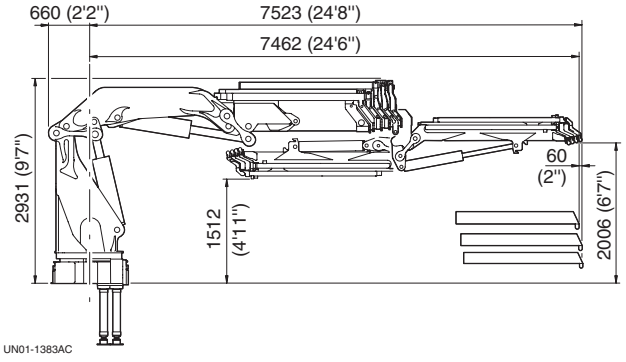
(1) Dimensions of drives

# PM 44025 S - 44025 S LC

Basic machine

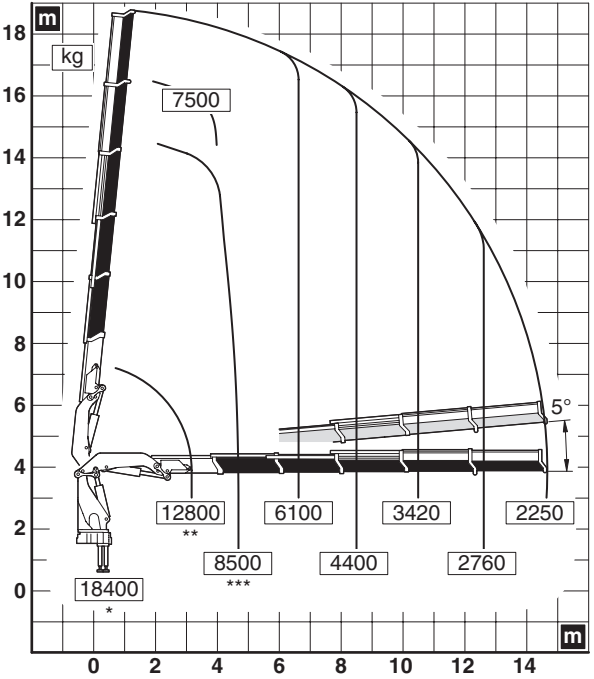



Basic machine with jib J 903.20 - J 904.20




## - Capacities diagram

Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

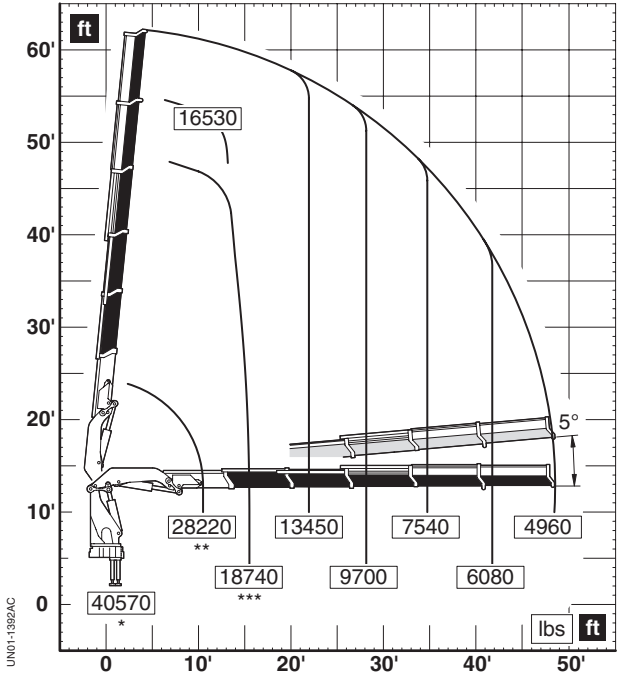
* Maximum capacity at fixed hook

** Maximum capacity at mobile hook

*** Maximum capacity from horizontal to vertical

N.B.: the performances stated are obtained with the main arm inclined to 15°

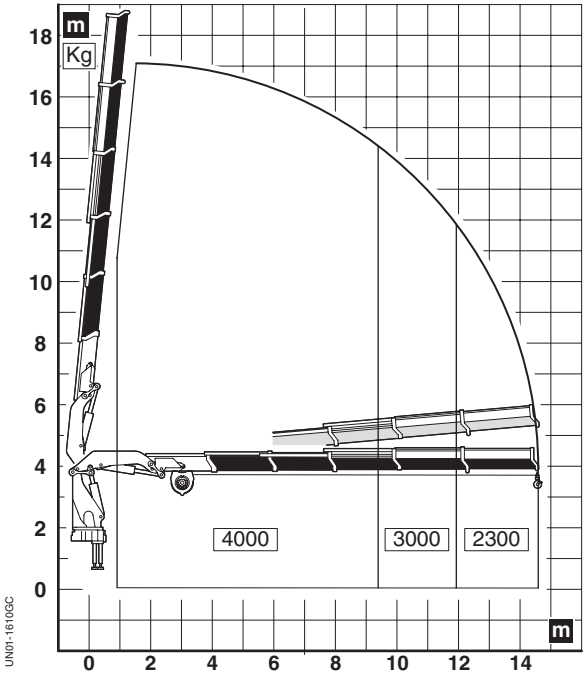
Basic machine (USA)

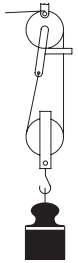
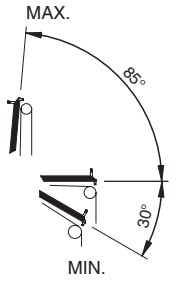



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with winch



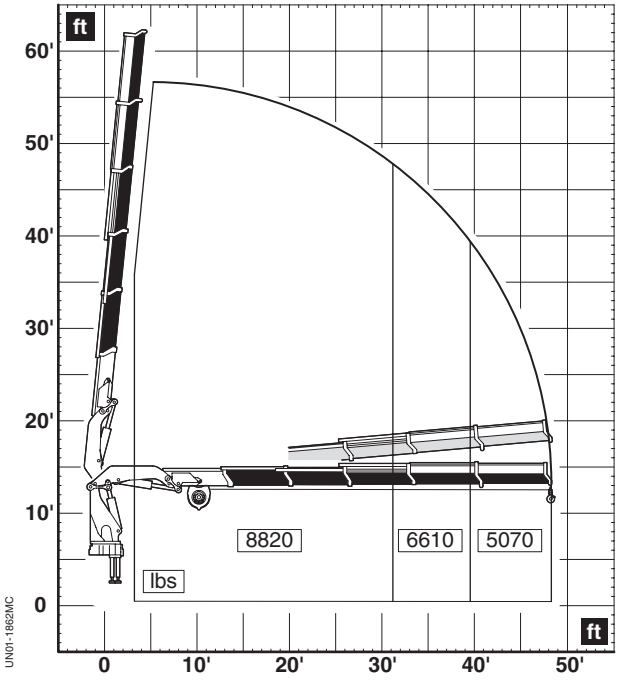

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 2  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

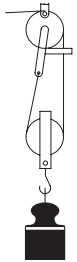
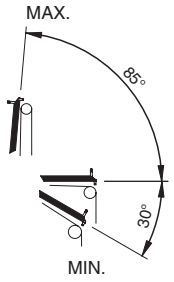
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 44025 S - 44025 S LC

Basic machine with winch (USA)

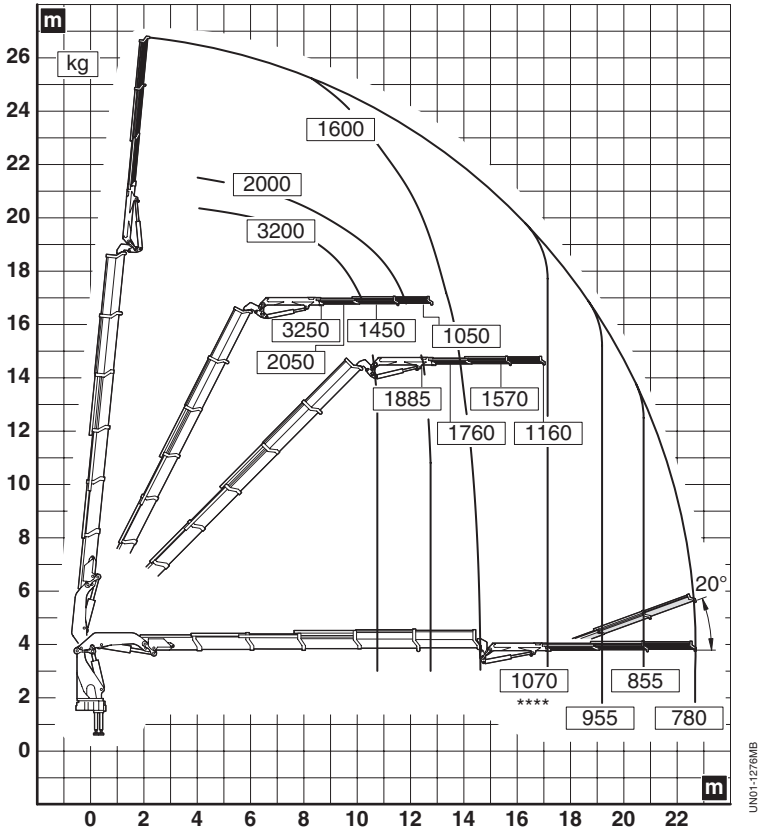



| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 2  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

Basic machine with jib J 903.20



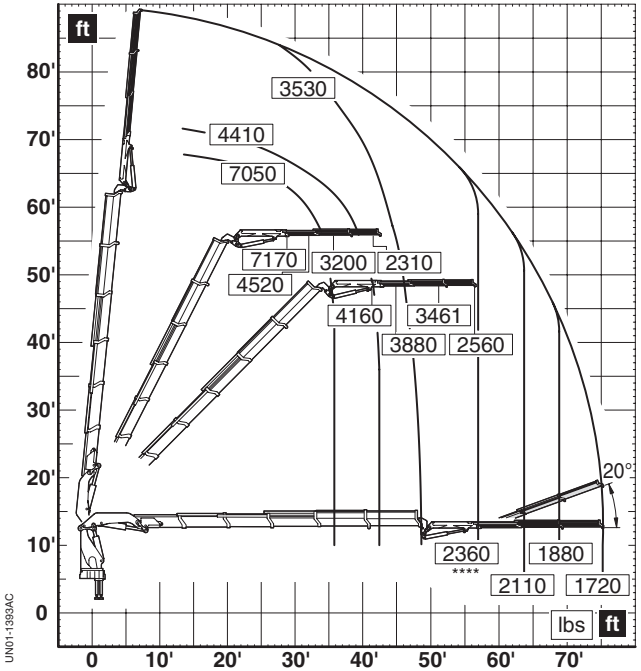

**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44025 S - 44025 S LC

Basic machine with jib J 903.20 (USA)

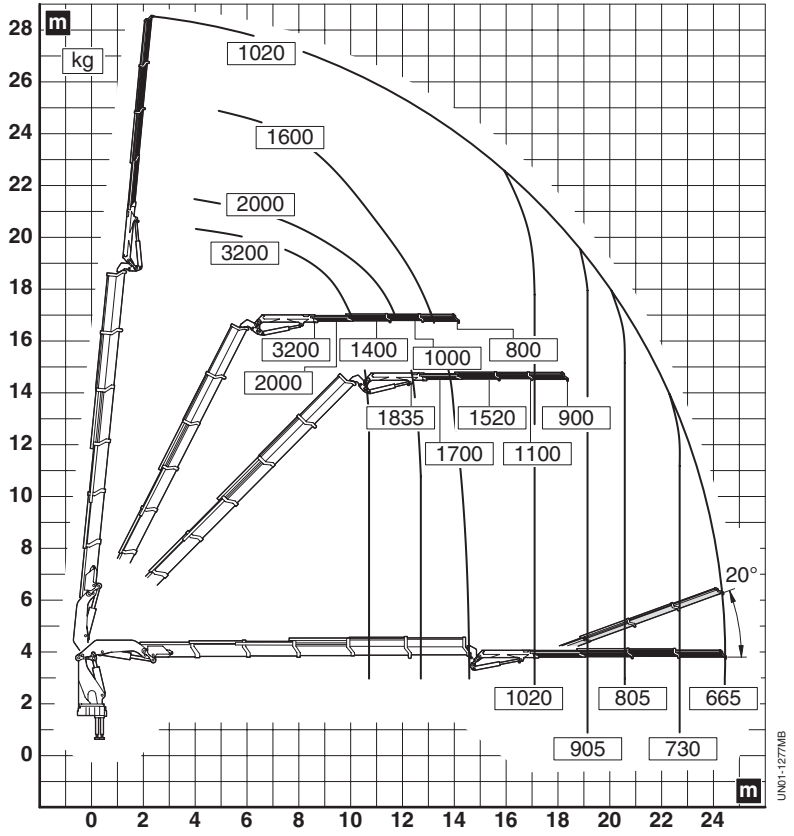



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with jib J 904.20



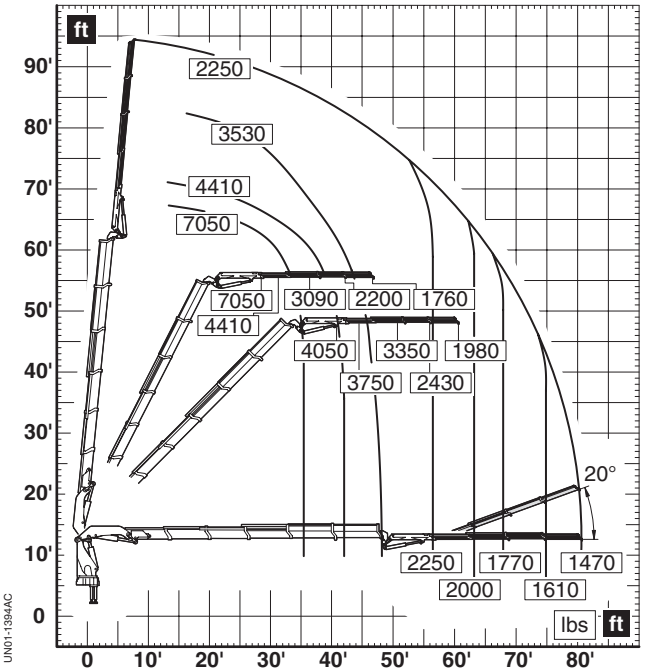

**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44025 S - 44025 S LC

Basic machine with jib J 904.20 (USA)



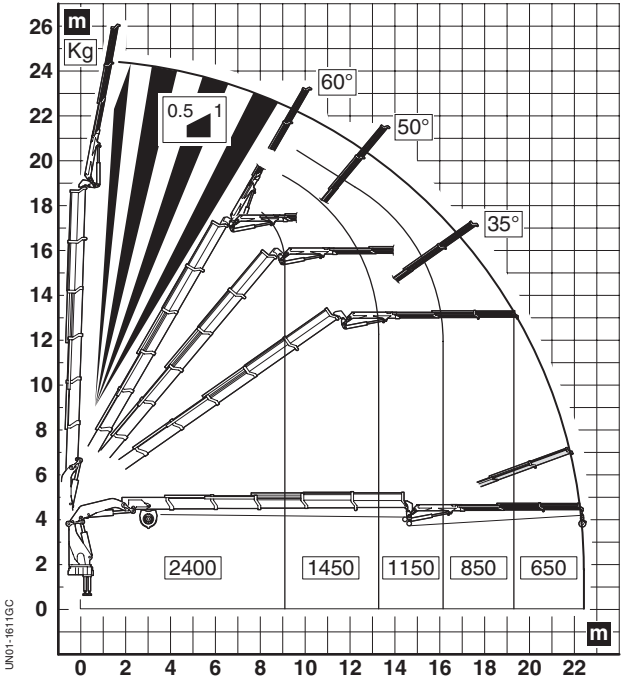

**Note: assemble a lifting hook suitable to the load to lift.**

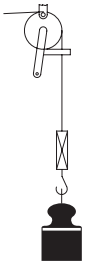
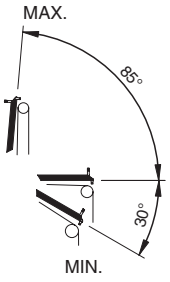
**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44025 S - 44025 S LC

Basic machine with jib J 903.20 and winch



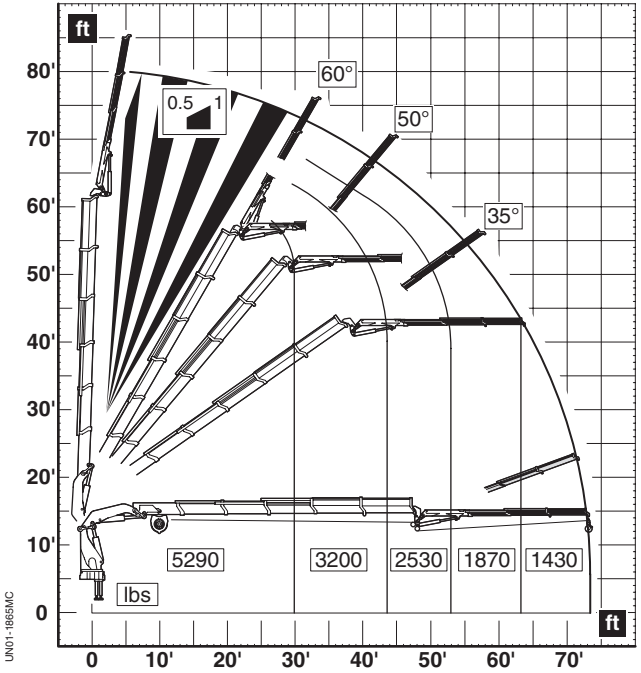

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

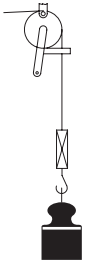
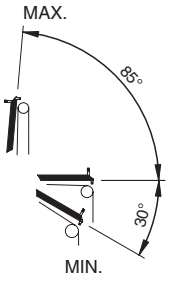
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 44025 S - 44025 S LC

Basic machine with jib J 903.20 and winch (USA)



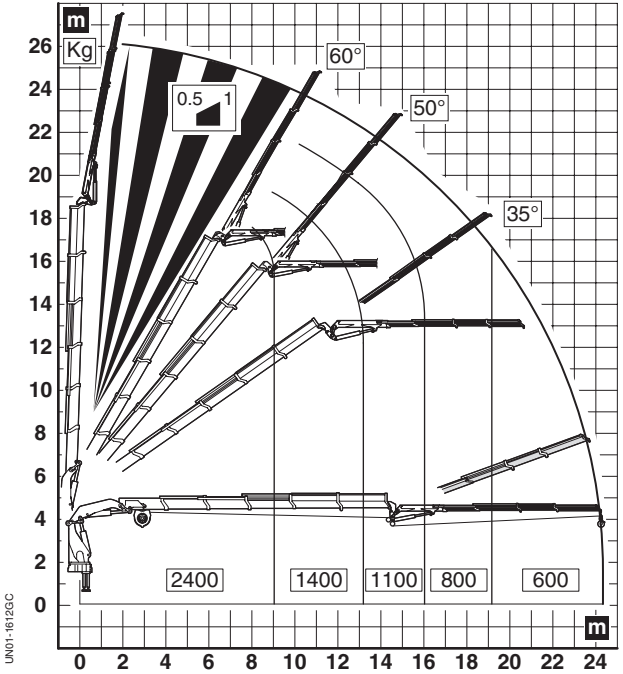

| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

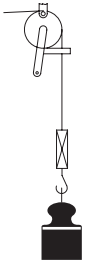
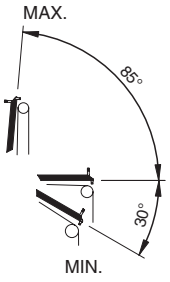
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 44025 S - 44025 S LC

Basic machine with jib J 904.20 and winch



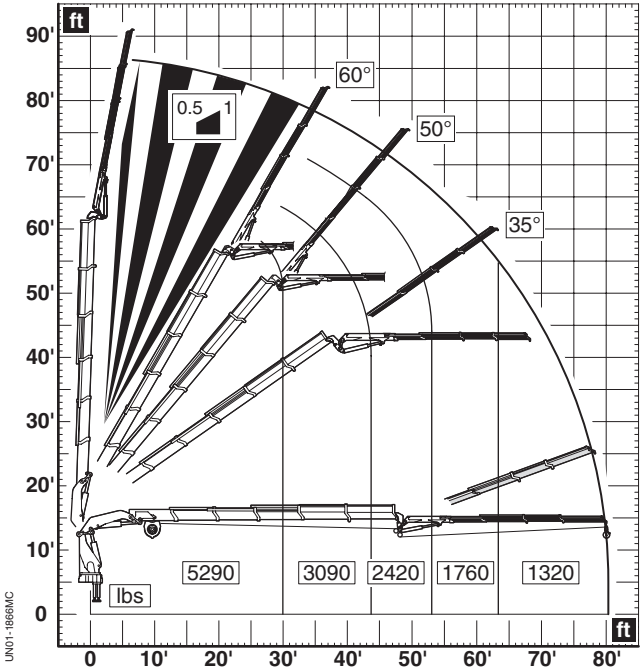

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

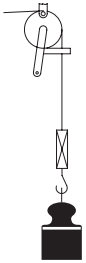
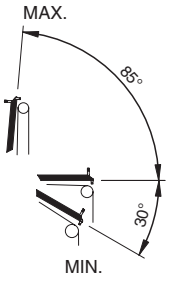
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 44025 S - 44025 S LC

Basic machine with jib J 904.20 and winch (USA)



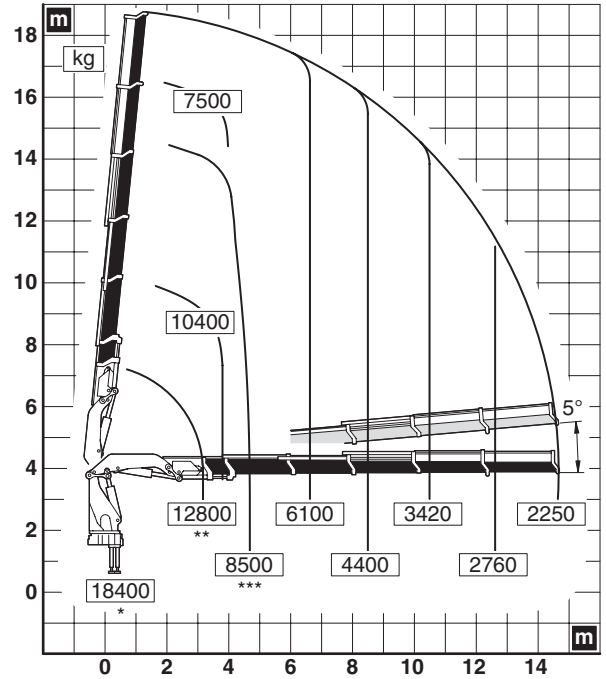

| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 44025 S - 44025 S LC

LC Basic machine

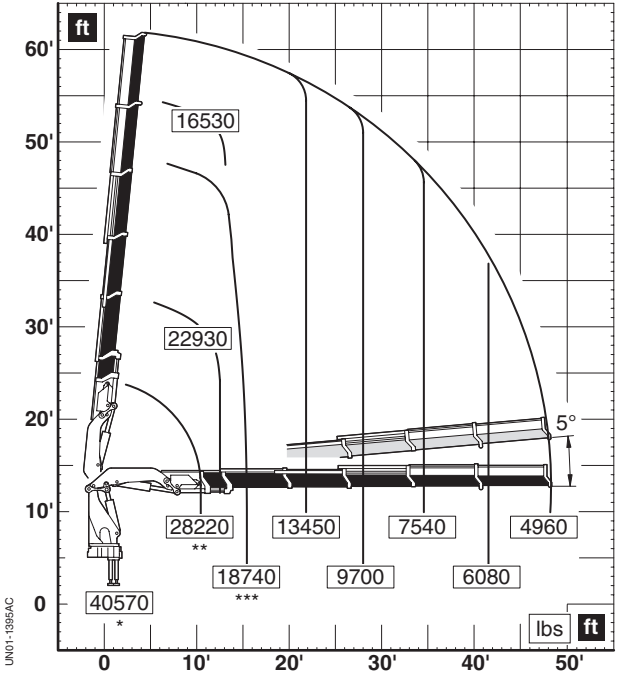



UN01-1275MB

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine (USA)

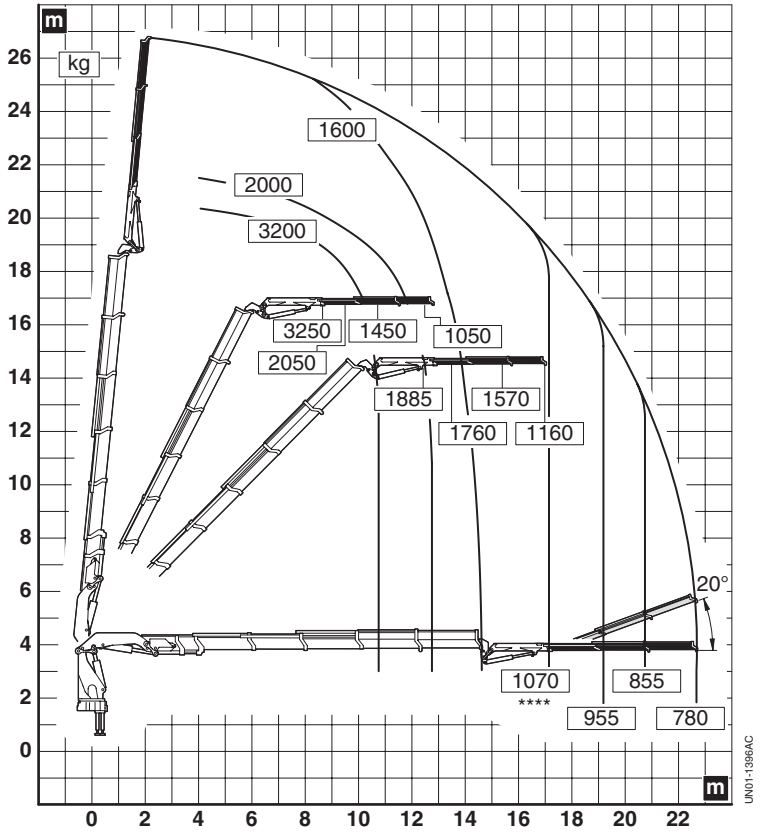



UN01-1395AC

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 903.20

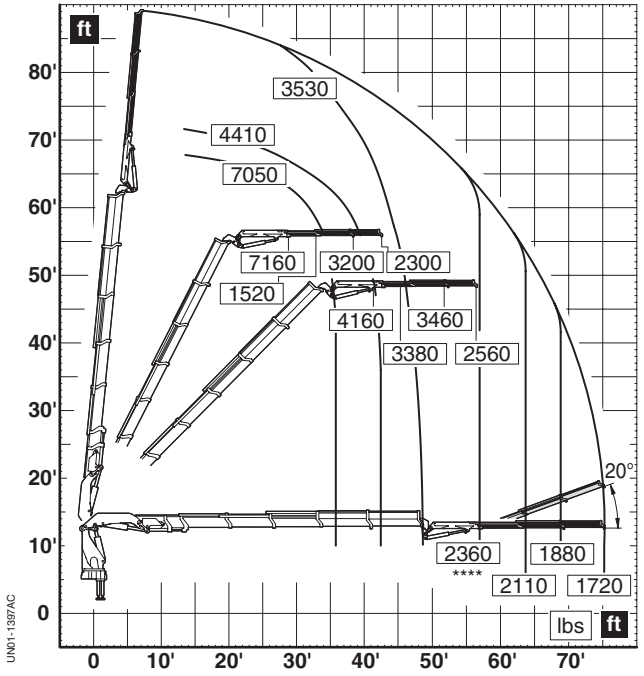



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 903.20 (USA)



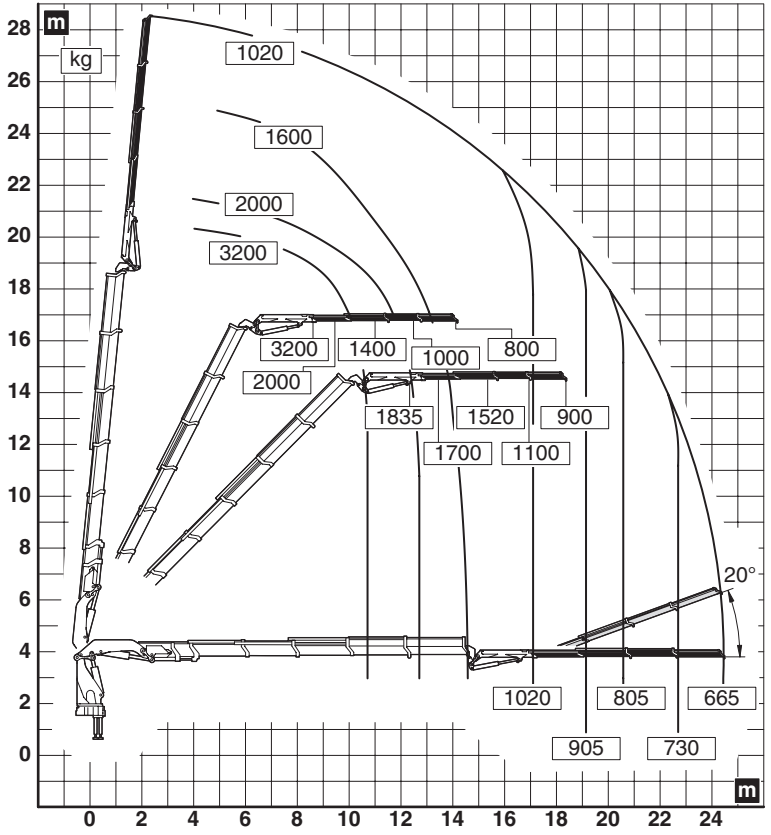

**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44025 S - 44025 S LC

LC Basic machine with jib J 904.20

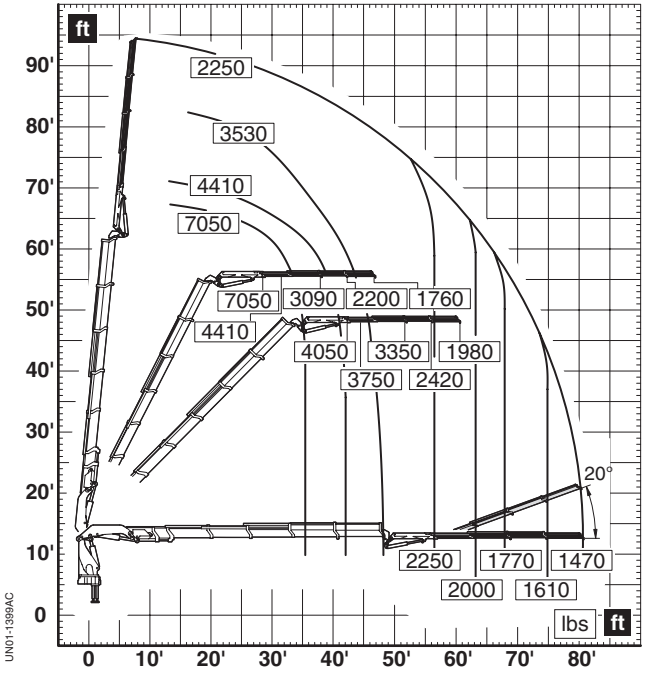



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 904.20 (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

**- Specifications and performances**

## PM 44026 S - 44026 S LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 377 | ft lbs | 278040 |
| | tm | 38,4 | / | / |
| **Hydraulic outreach:** | | | | | |
| Horizontal | m | 16,60 | ft | 54’6” |
| Vertical | m | 20,80 | ft | 68’3” |
| **Outreach with manual extensions:** | | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 28 | psi | 4060 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 5300 | lbs | 11680 |
| Weight of LC crane with tank empty | kg | 5460 | lbs | 12040 |
| Maximum power absorbed by the hydraulic pump | kW | 41 | HP | 56 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 65 | sec. | 65 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 70 | sec. | 70 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |

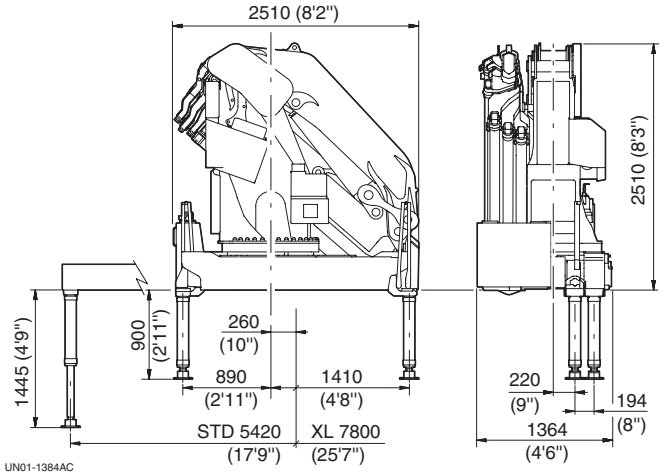
## PM 44026 S - 44026 S LC - with jib J 703.20

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 377 | ft lbs | 278040 |
| | tm | 38,4 | / | / |
| **Hydraulic outreach:** | | | | | |
| Horizontal | m | 24,95 | ft | 81'10" |
| Vertical | m | 29,00 | ft | 95'2" |
| **Outreach with manual extensions:** | | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 25,5 | psi | 3700 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 6060 | lbs | 13360 |
| Weight of LC crane with tank empty | kg | 6220 | lbs | 13710 |
| Maximum power absorbed by the hydraulic pump | kW | 38 | HP | 51 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7") disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 90 | sec. | 90 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 95 | sec. | 95 |
| "Fixed" hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| "Mobile" hook - Capacity | kg | 16000 | lbs | 35270 |
| Jib hook - Capacity | kg | 5000 | lbs | 11020 |

## - Overall dimensions

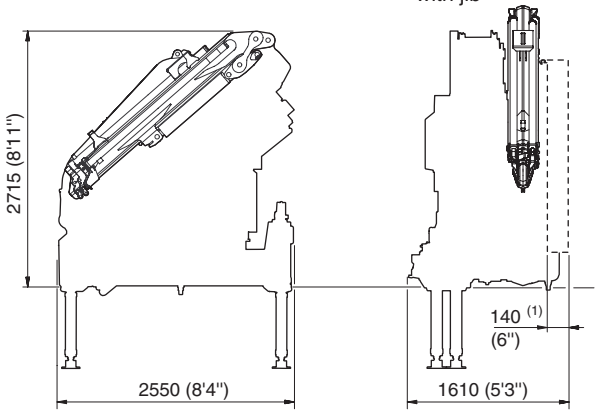
# PM 44026 S - 44026 S LC

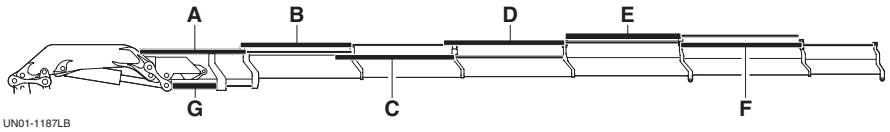
Basic machine




STD = Standard stabilisers XL = Extra large stabilisers

Basic machine with jib

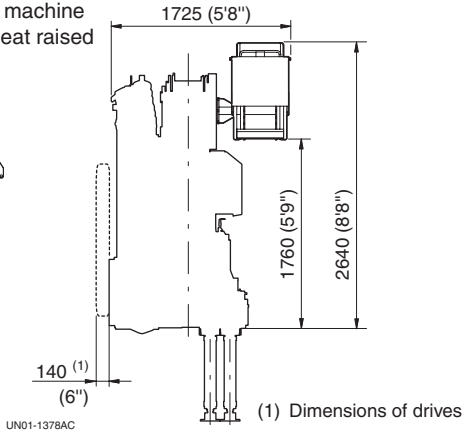



| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |
| E | 5th arm extension jack | 2200 (7'3") |
| F | 6th arm extension jack | 2200 (7'3") |
| G * | Secondary arm extension jack | 750 (2'6") |

* For LC models

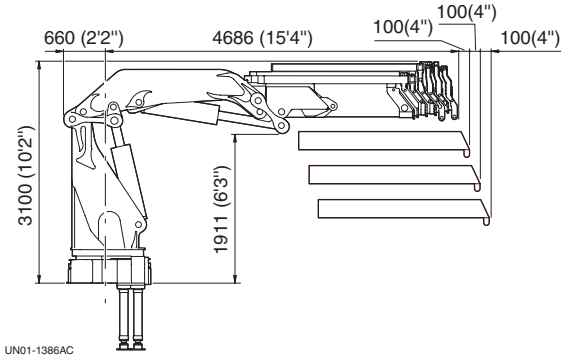
Basic machine with seat raised



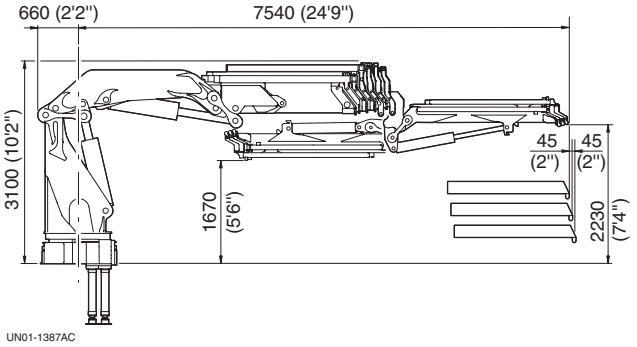

(1) Dimensions of drives

# PM 44026 S - 44026 S LC

Basic machine

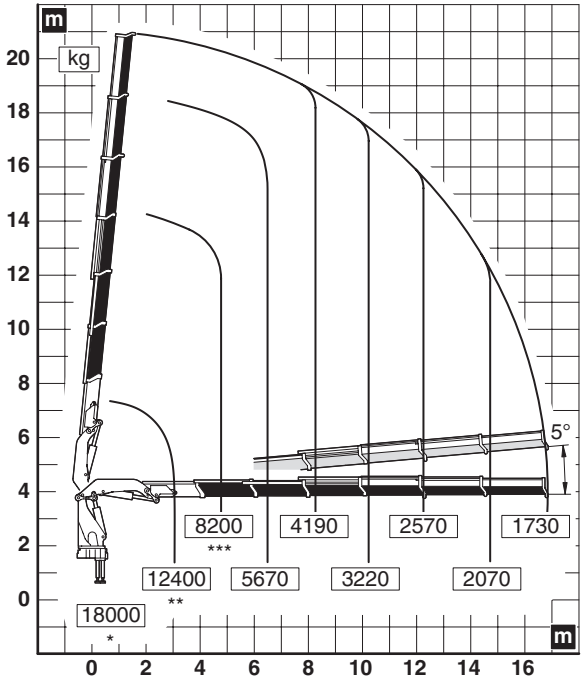



Basic machine with jib J 703.20




## - Capacities diagram

Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

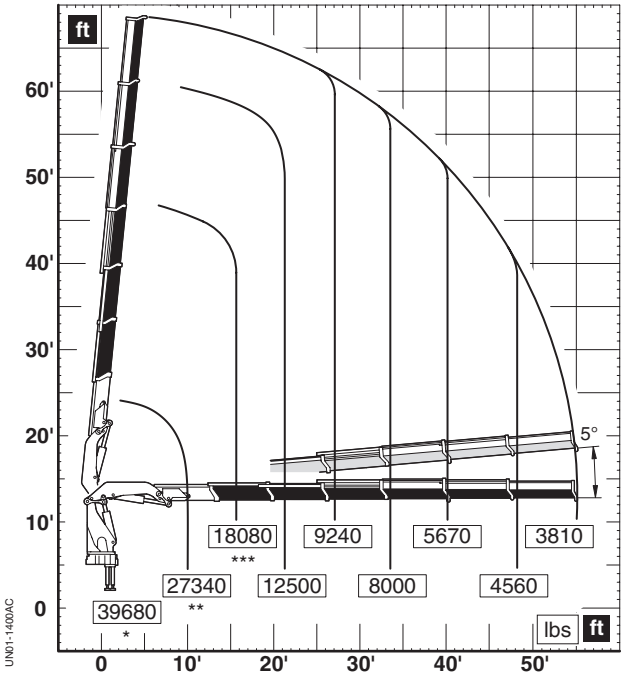
* Maximum capacity at fixed hook

** Maximum capacity at mobile hook

*** Maximum capacity from horizontal to vertical

N.B.: the performances stated are obtained with the main arm inclined to 15°

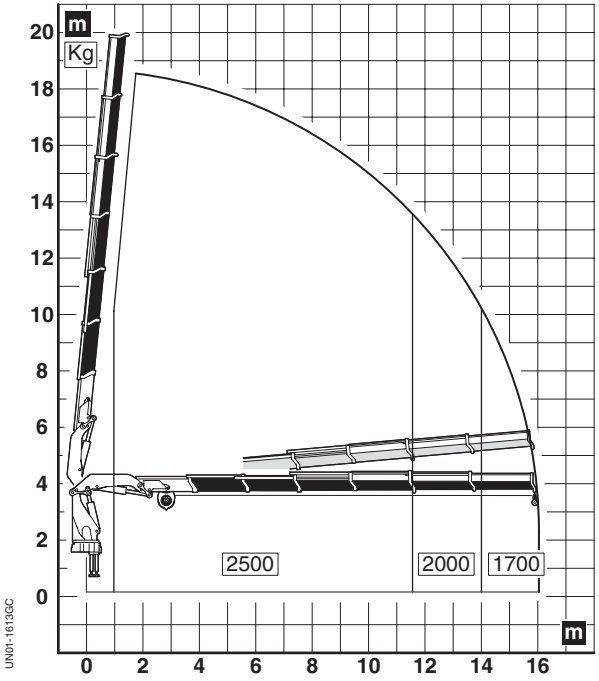
Basic machine (USA)

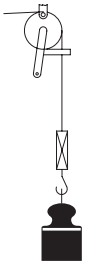
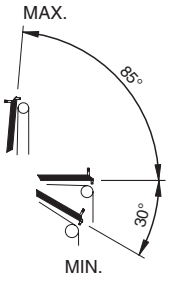



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with winch



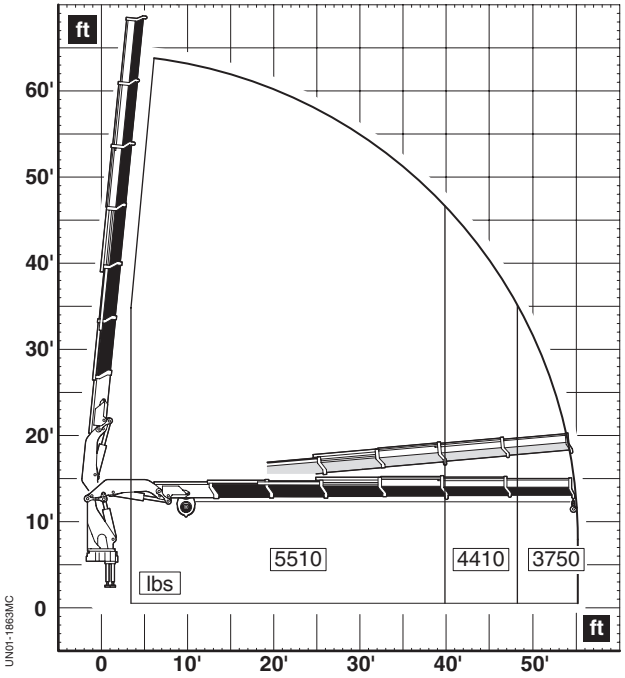

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

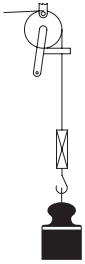
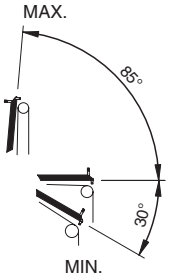
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 44026 S - 44026 S LC

Basic machine with winch (USA)

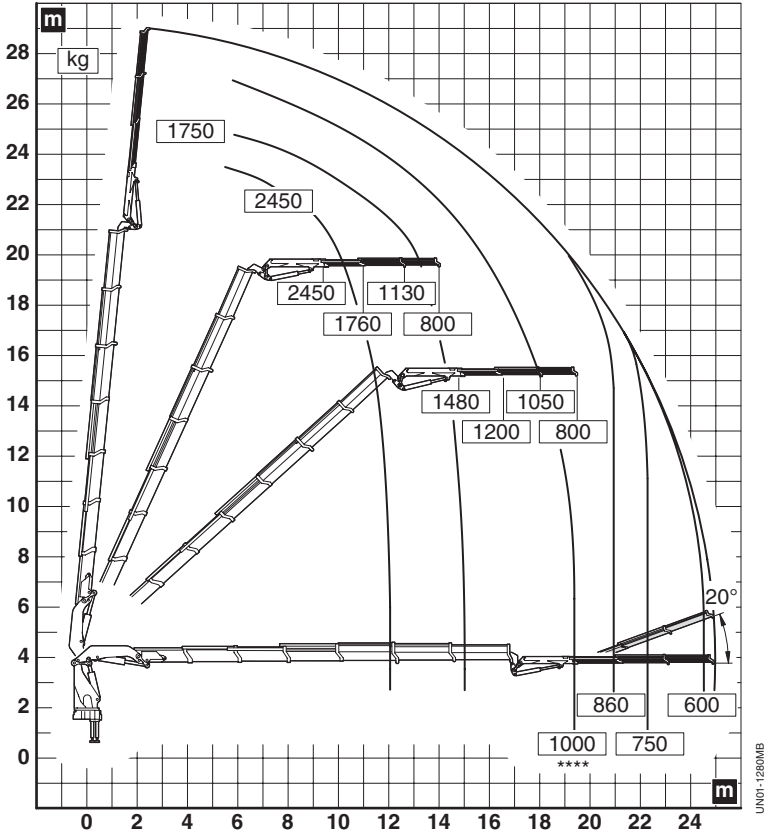



| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

Basic machine with jib J 703.20

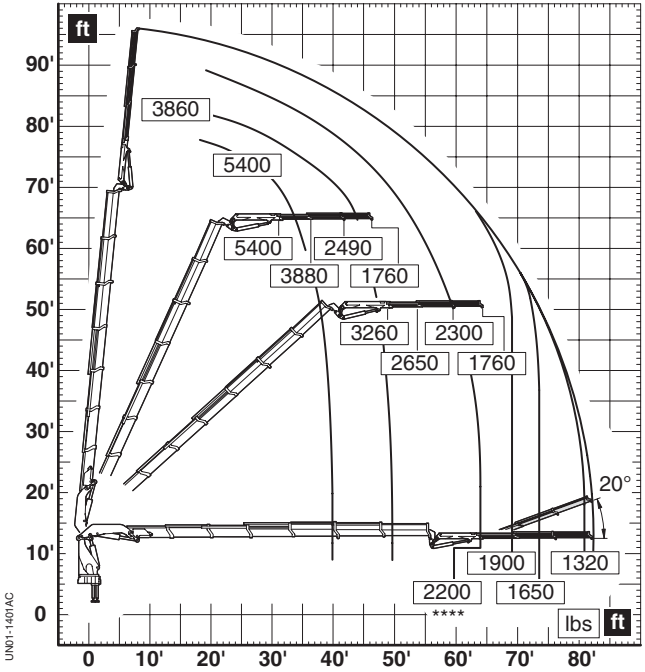



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with jib J 703.20 (USA)



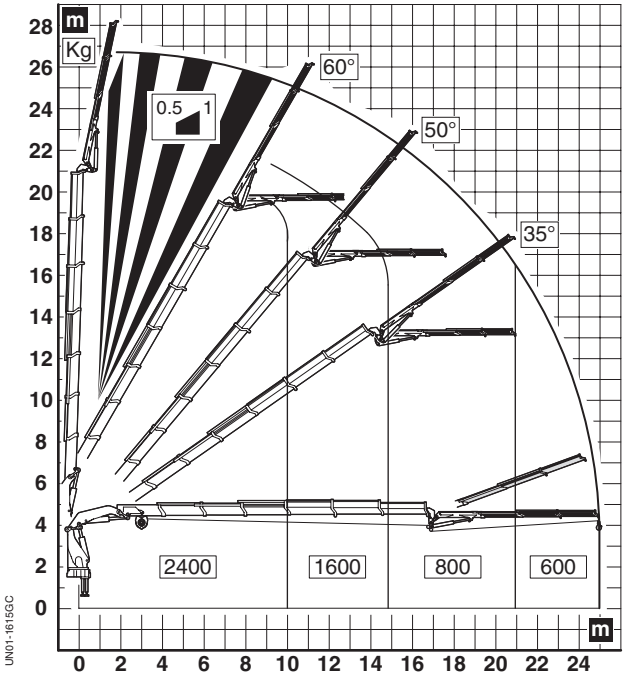

**Note: assemble a lifting hook suitable to the load to lift.**

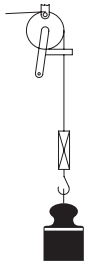
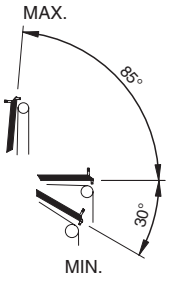
**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44026 S - 44026 S LC

Basic machine with jib J 703.20 and winch



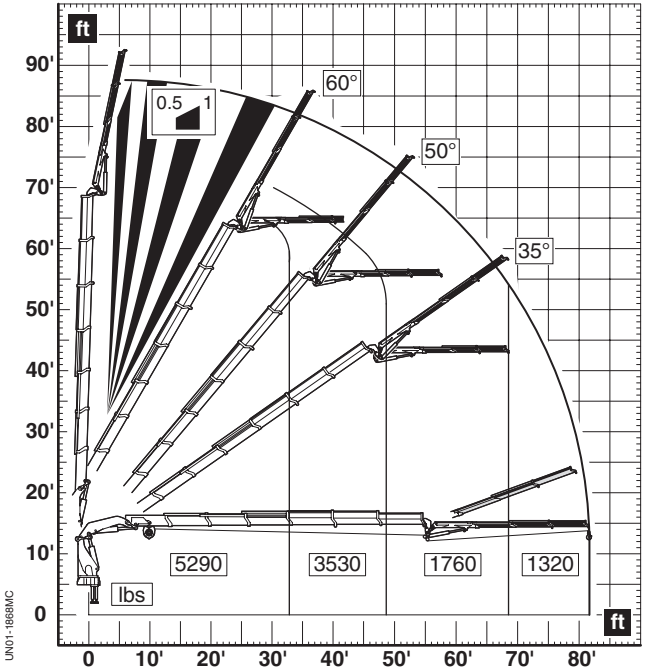

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

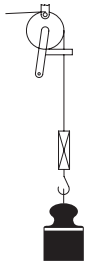
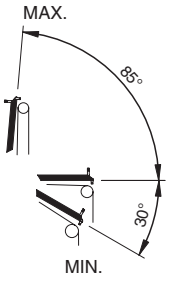
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 44026 S - 44026 S LC

Basic machine with jib J 703.20 and winch (USA)



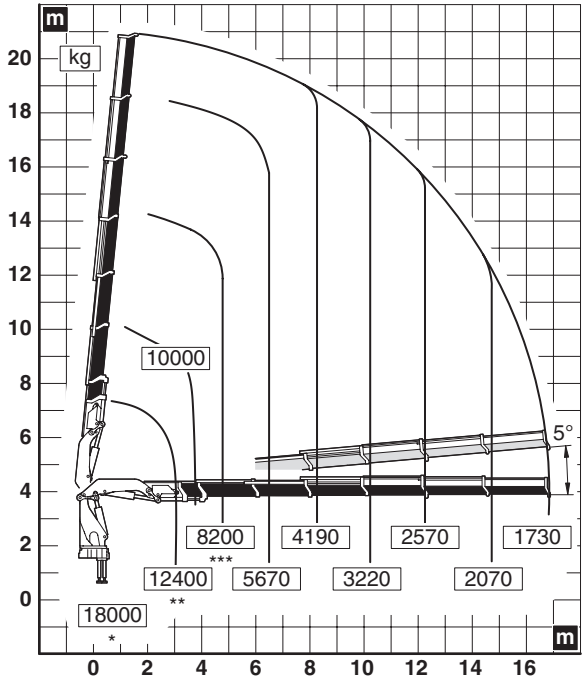

| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 44026 S - 44026 S LC

LC Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

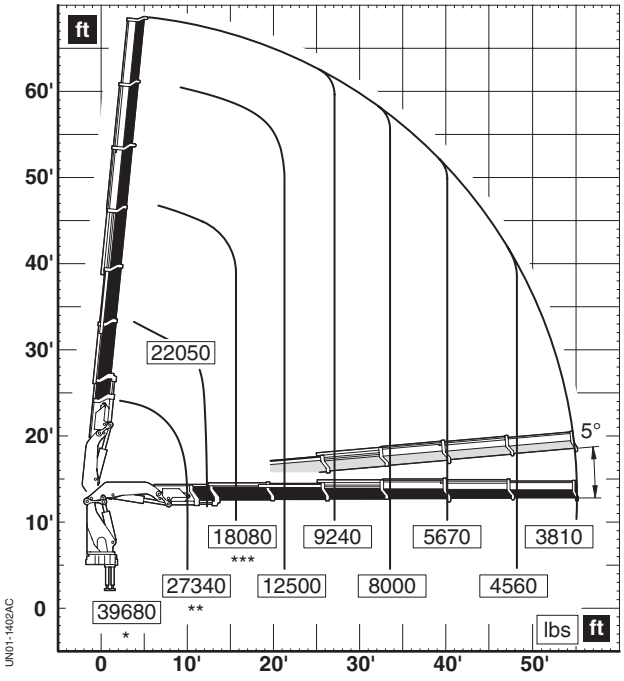
* Maximum capacity at fixed hook

** Maximum capacity at mobile hook

*** Maximum capacity from horizontal to vertical

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

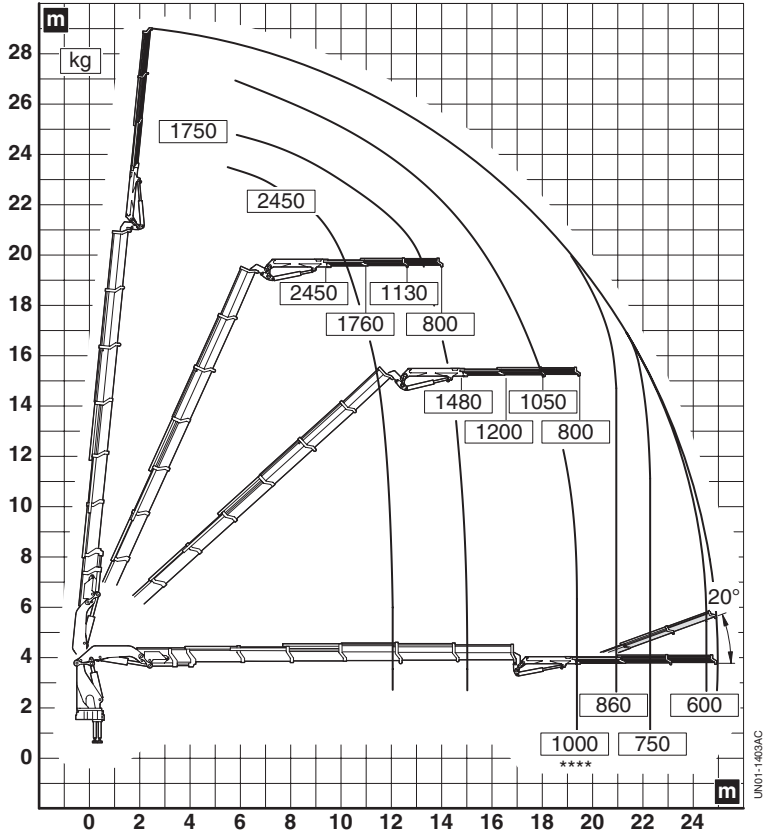
* Maximum capacity at fixed hook

** Maximum capacity at mobile hook

*** Maximum capacity from horizontal to vertical

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 703.20

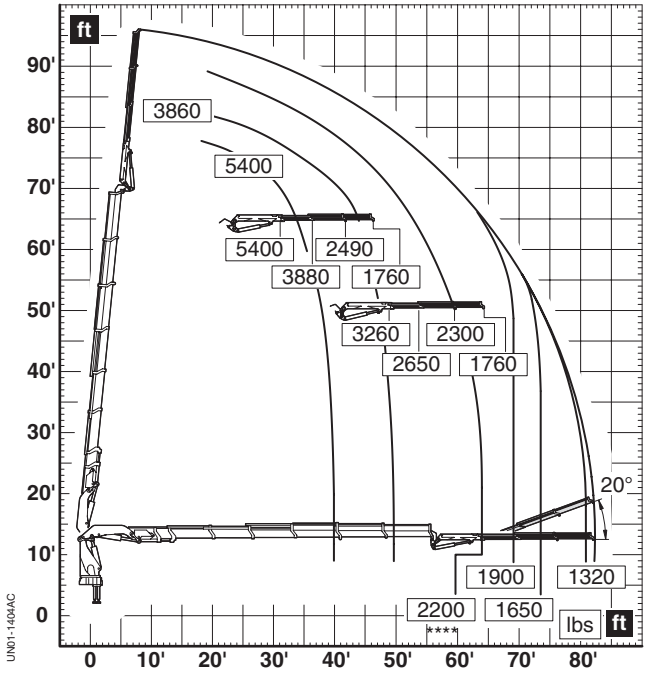



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 703.20 (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

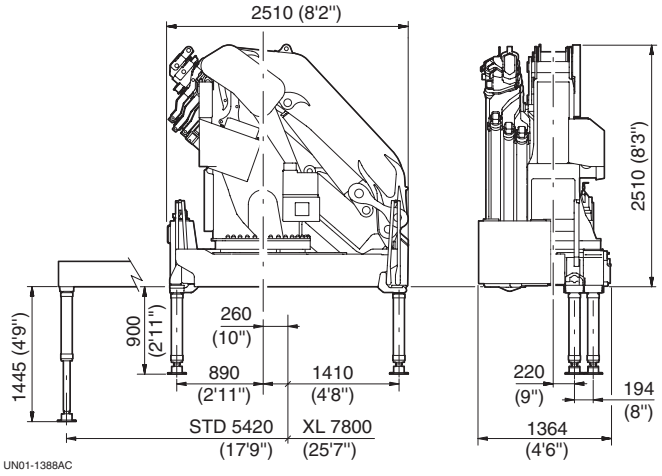
**- Specifications and performances**

## PM 44028 S - 44028 S LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 358 | ft lbs | 264050 |
| | tm | 36,5 | / | / |
| **Hydraulic outreach:** | | | | |
| Horizontal | m | 21,50 | ft | 70’6” |
| Vertical | m | 25,60 | ft | 83’12” |
| **Outreach with manual extensions:** | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 28 | psi | 4060 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 5630 | lbs | 12410 |
| Weight of LC crane with tank empty | kg | 5790 | lbs | 12760 |
| Maximum power absorbed by the hydraulic pump | kW | 41 | HP | 55 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 85 | sec. | 85 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 90 | sec. | 90 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |

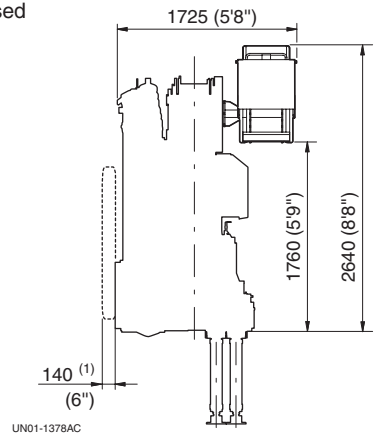
## - Overall dimensions

Basic machine

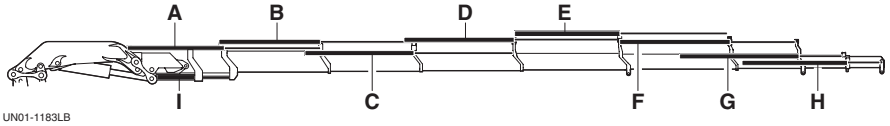



STD = Standard stabilisers XL = Extra large stabilisers

Basic machine with seat raised




(1) Dimensions of drives



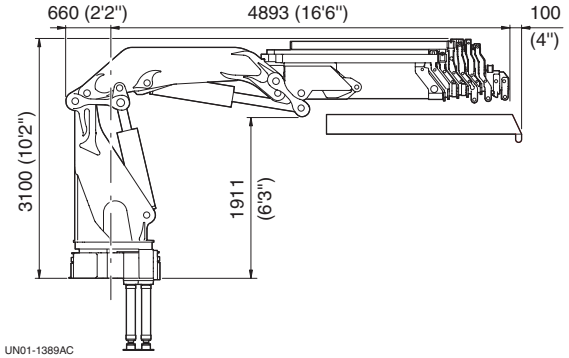

| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |

| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| E | 5th arm extension jack | 2200 (7'3") |
| F | 6th arm extension jack | 2200 (7'3") |
| G | 7th arm extension jack | 2300 (7'6") |
| H | 8th arm extension jack | 2300 (7'6") |
| I * | Secondary arm extension jack | 750 (2'6") |

* For LC models

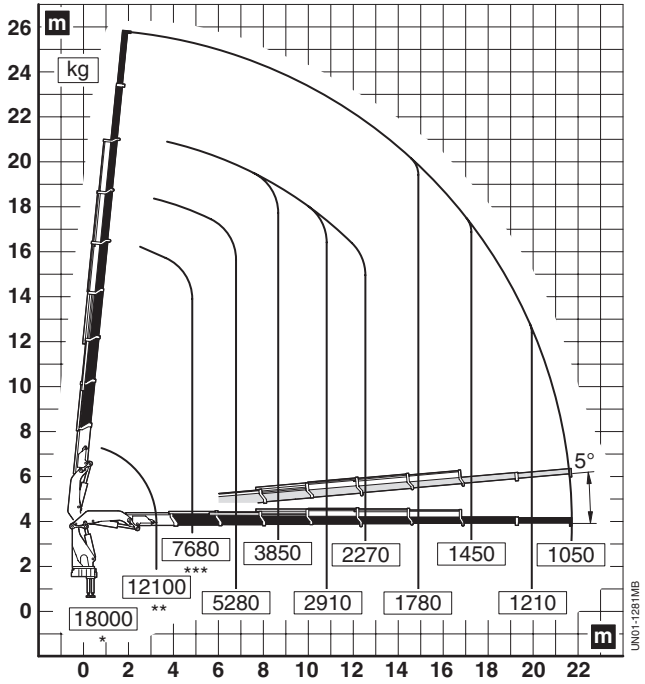
# PM 44028 S - 44028 S LC

Basic machine




## - Capacities diagram

Basic machine

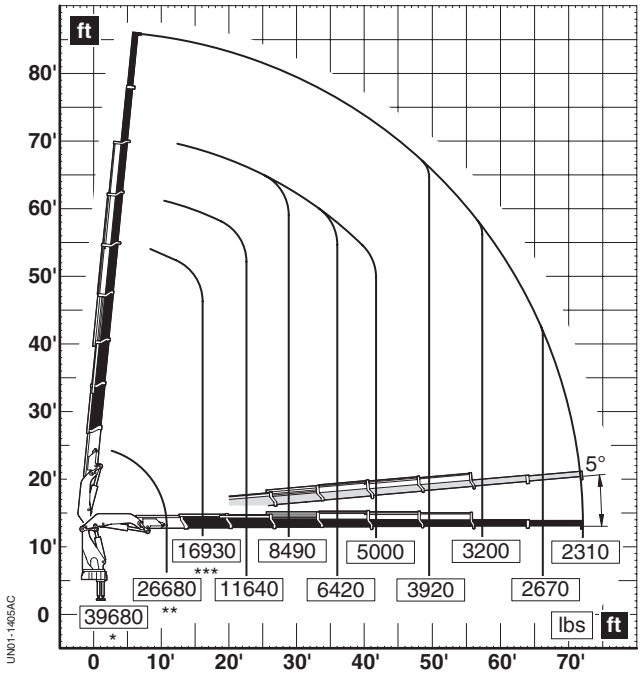



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44028 S - 44028 S LC

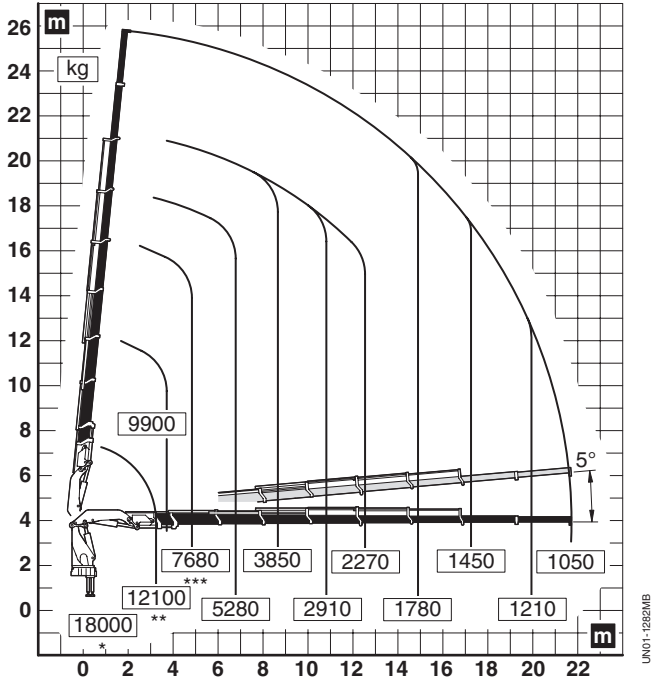
Basic machine (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine

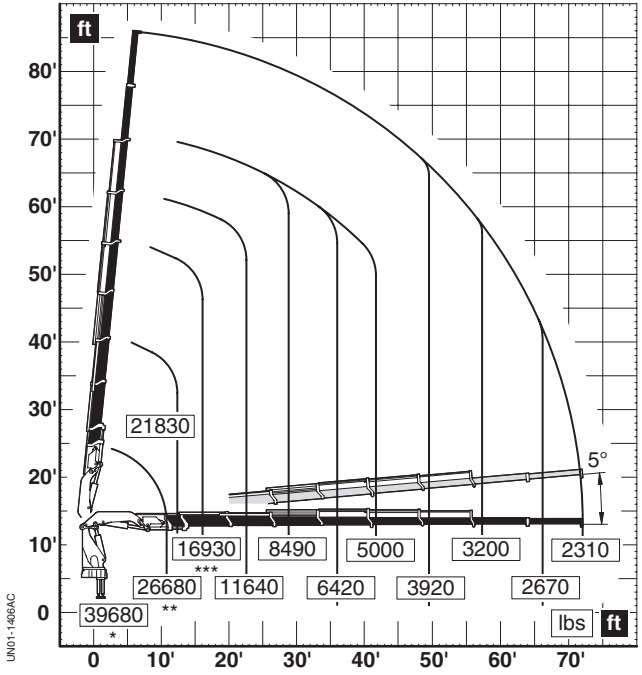



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44028 S - 44028 S LC

LC Basic machine (USA)

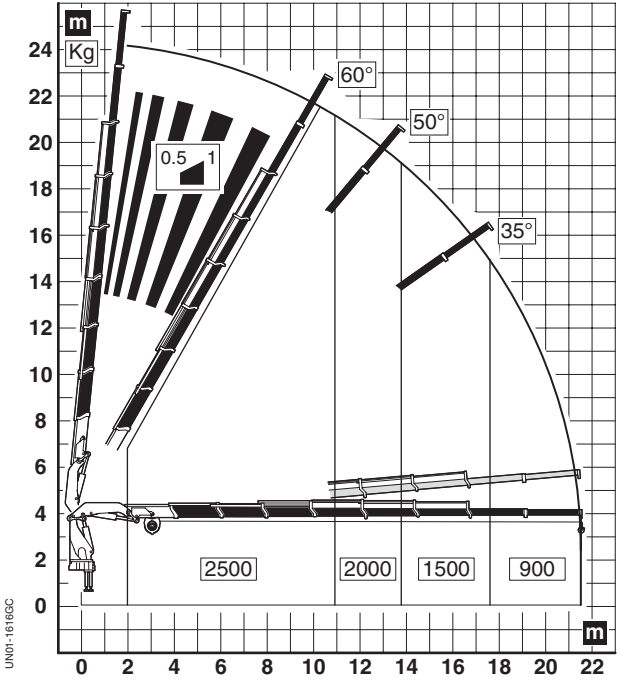


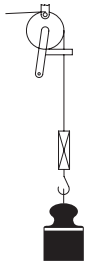
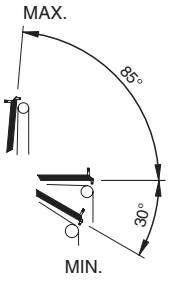

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 44028 S - 44028 S LC

Basic machine with winch



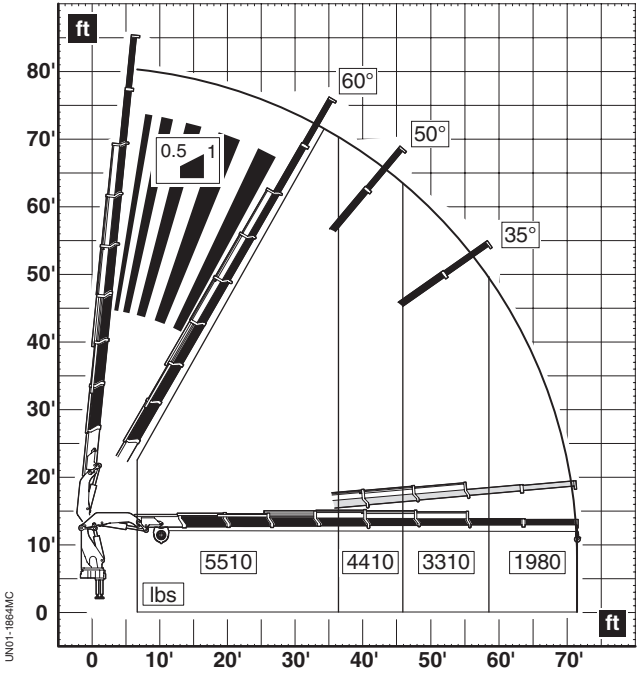

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

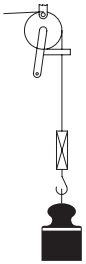
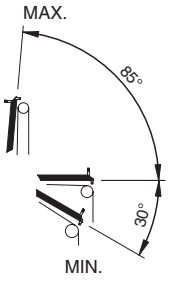
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 44028 S - 44028 S LC

Basic machine with winch (USA)




| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

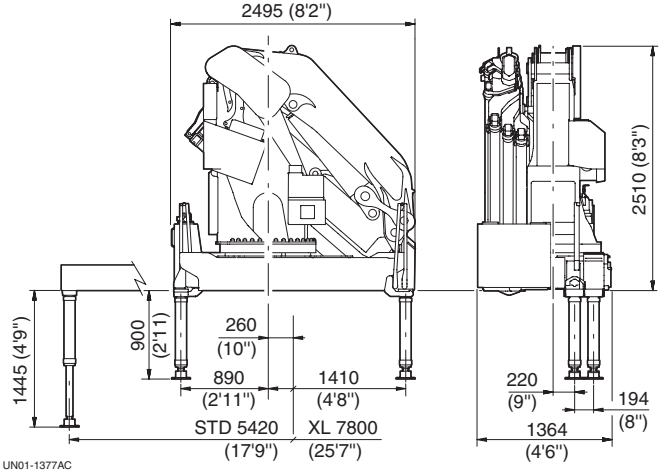
## PM 48024 SP - 48024 SP LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 415 | ft lbs | 306090 |
| | tm | 42,3 | / | / |
| **Hydraulic outreach:** | | | | | |
| Horizontal | m | 12,15 | ft | 39’10” |
| Vertical | m | 16,30 | ft | 53’6” |
| **Outreach with manual extensions:** | | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 29,5 | psi | 4280 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 4870 | lbs | 10740 |
| Weight of LC crane with tank empty | kg | 5030 | lbs | 11090 |
| Maximum power absorbed by the hydraulic pump | kW | 44 | HP | 59 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 45 | sec. | 45 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 50 | sec. | 50 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |

## - Overall dimensions

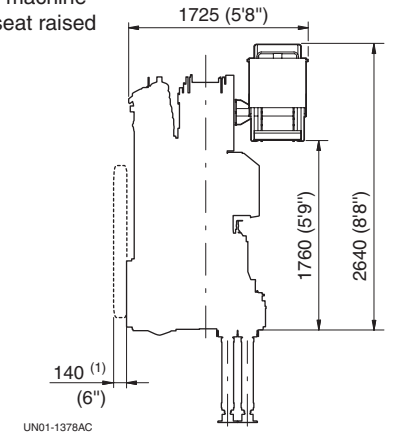
# PM 48024 SP - 48024 SP LC

Basic machine

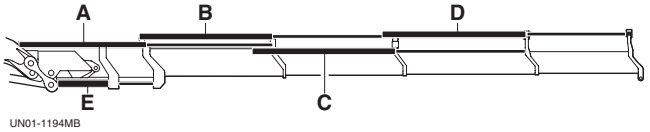



STD = Standard stabilisers XL = Extra large stabilisers

Basic machine with seat raised

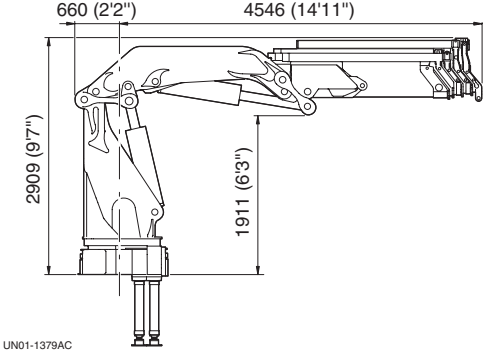



(1) Dimensions of drives




| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |
| E * | Secondary arm extension jack | 750 (2'6") |

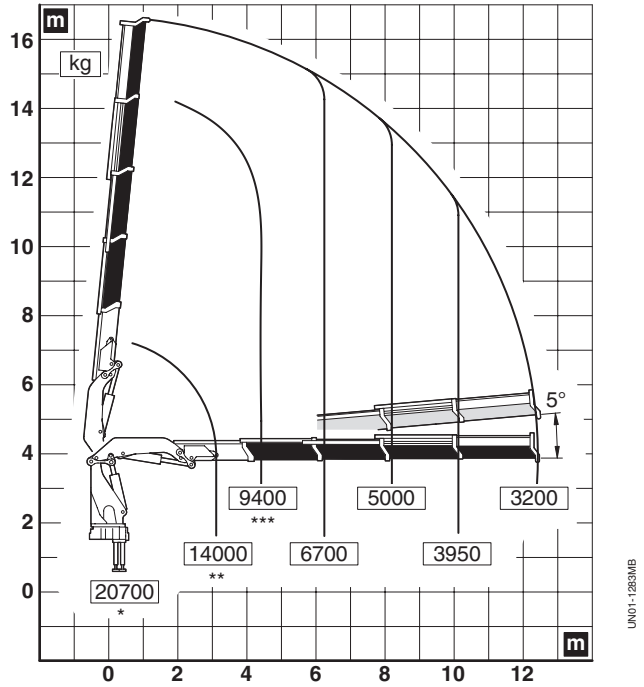
* For LC models



# PM 48024 SP - 48024 SP LC

## - Capacities diagram

Basic machine

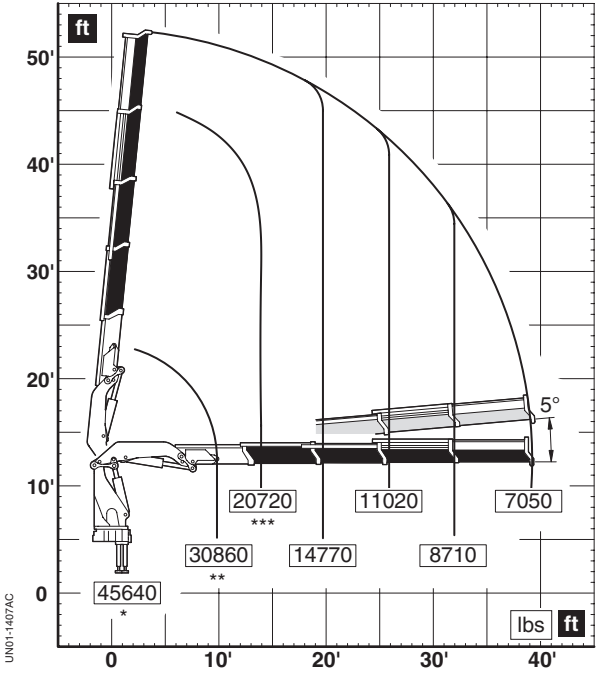



UN01-1283MB

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine (USA)



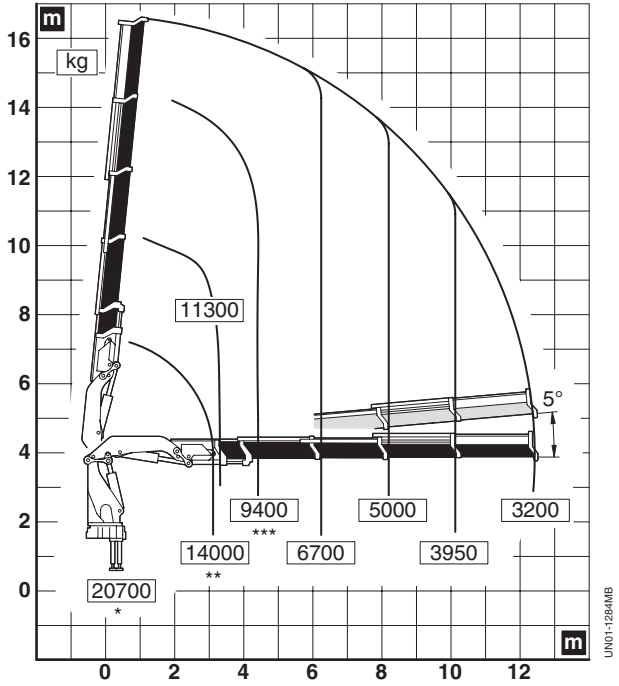

UN01-1407AC

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48024 SP - 48024 SP LC

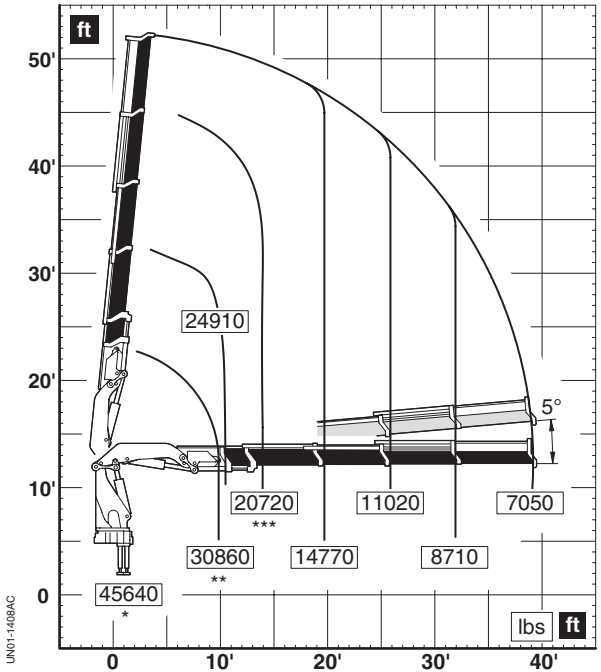
LC Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

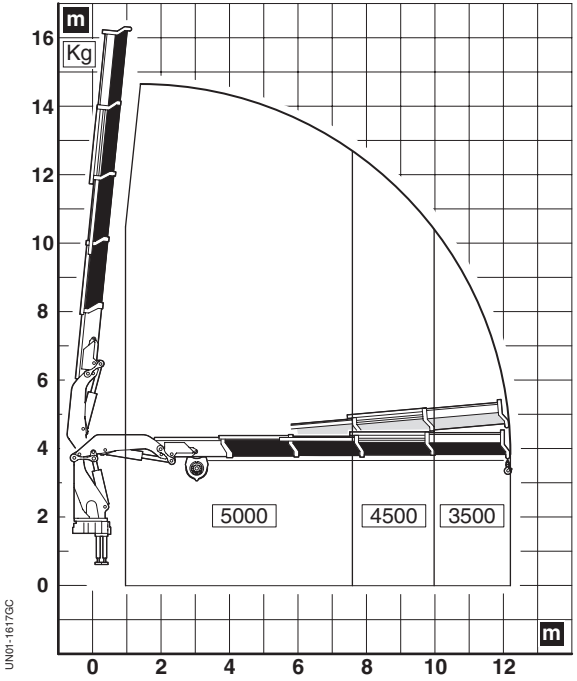
LC Basic machine (USA)

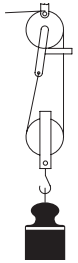
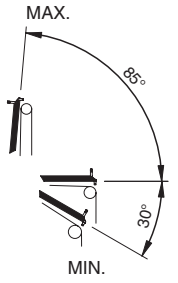



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with winch



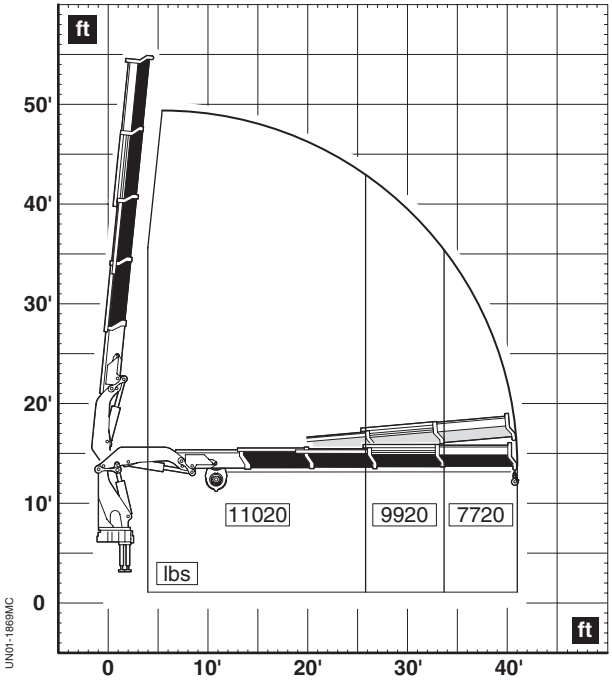

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 2  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

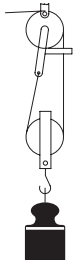
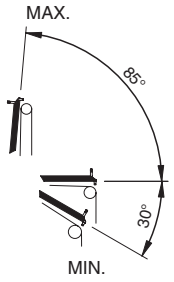
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 48024 SP - 48024 SP LC

Basic machine with winch (USA)




| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 2  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

## PM 48025 SP - 48025 SP LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 406 | ft lbs | 299450 |
| | tm | 41,4 | / | / |
| **Hydraulic outreach:** | | | | | |
| Horizontal | m | 14,50 | ft | 47'7" |
| Vertical | m | 18,50 | ft | 60'8" |
| **Outreach with manual extensions:** | | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 29,5 | psi | 4280 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 5100 | lbs | 11240 |
| Weight of LC crane with tank empty | kg | 5260 | lbs | 11600 |
| Maximum power absorbed by the hydraulic pump | kW | 44 | HP | 59 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7") disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 55 | sec. | 55 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 60 | sec. | 60 |
| "Fixed" hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| "Mobile" hook - Capacity | kg | 16000 | lbs | 35270 |

**- Specifications and performances** **PM 48025 SP - 48025 SP LC - with jib J 903.20**

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 406 | ft lbs | 299450 |
| | tm | 41,4 | / | / |
| **Hydraulic outreach:** | | | | | |
| Horizontal | m | 22,50 | ft | 73’10” |
| Vertical | m | 25,40 | ft | 83’4” |
| **Outreach with manual extensions:** | | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 25,5 | psi | 3700 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 6080 | lbs | 13400 |
| Weight of LC crane with tank empty | kg | 6240 | lbs | 13760 |
| Maximum power absorbed by the hydraulic pump | kW | 38 | HP | 51 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 80 | sec. | 80 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 85 | sec. | 85 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |
| Jib hook - Capacity | kg | 5000 | lbs | 11020 |

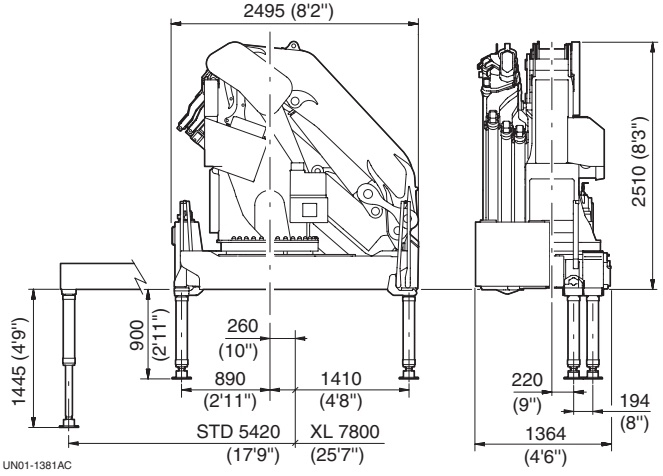
## PM 48025 SP - 48025 SP LC - with jib J 904.20

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 406 | ft lbs | 299450 |
| | tm | 41,4 | / | / |
| **Hydraulic outreach:** | | | | |
| Horizontal | m | 24,25 | ft | 79'7" |
| Vertical | m | 27,15 | ft | 89'1" |
| **Outreach with manual extensions:** | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 25,5 | psi | 3700 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 6160 | lbs | 13580 |
| Weight of LC crane with tank empty | kg | 6320 | lbs | 13930 |
| Maximum power absorbed by the hydraulic pump | kW | 38 | HP | 51 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7") disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 85 | sec. | 85 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 90 | sec. | 90 |
| "Fixed" hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| "Mobile" hook - Capacity | kg | 16000 | lbs | 35270 |
| Jib hook - Capacity | kg | 5000 | lbs | 11020 |

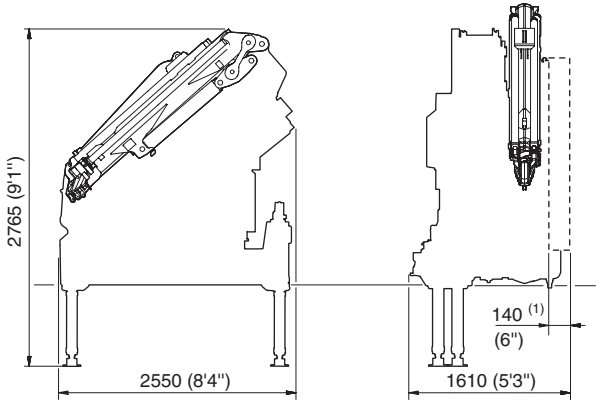
## - Overall dimensions

# PM 48025 SP - 48025 SP LC

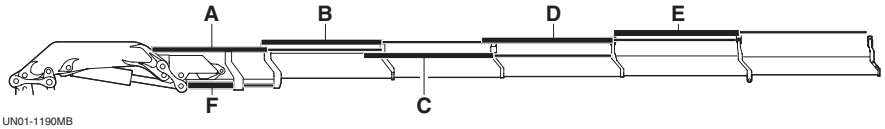
Basic machine




Basic machine with jib

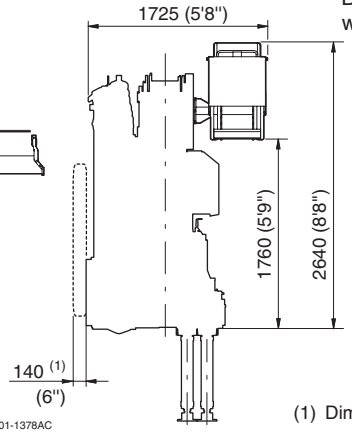



STD = Standard stabilisers XL = Extra large stabilisers




| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |
| E | 5th arm extension jack | 2200 (7'3") |
| F * | Secondary arm extension jack | 750 (2'6") |

Basic machine with seat raised

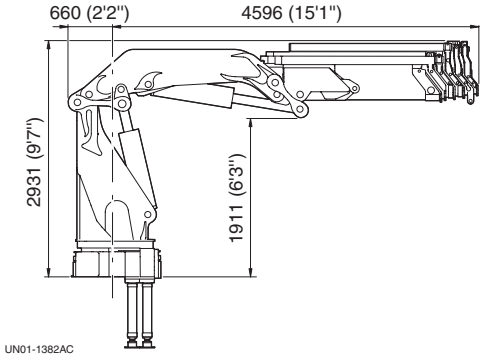



* For LC models

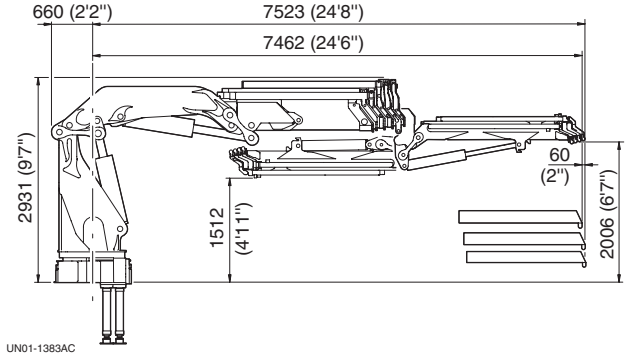
(1) Dimensions of drives

# PM 48025 SP - 48025 SP LC

Basic machine

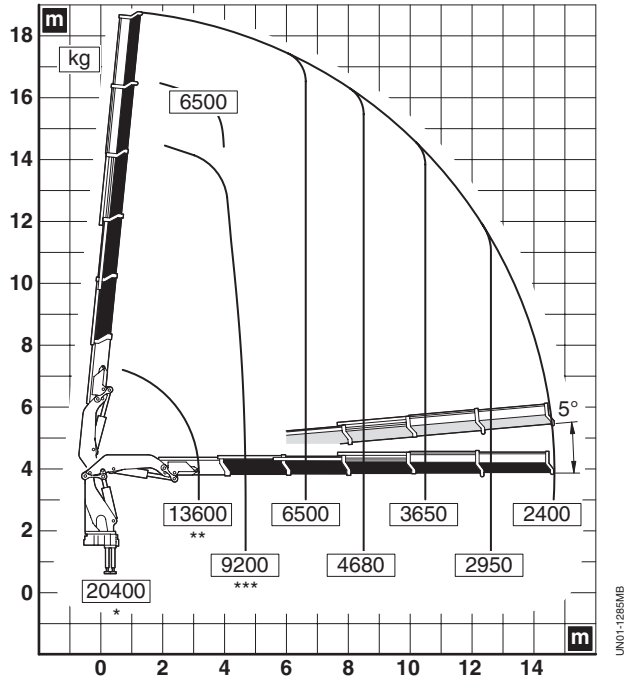



Basic machine with jib J 903.20 - J 904.20




## - Capacities diagram

Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook

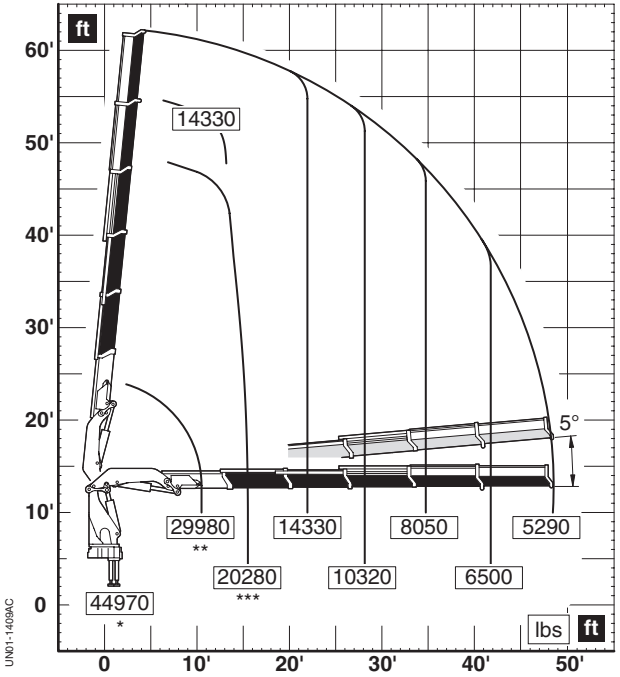
** Maximum capacity at mobile hook

*** Maximum capacity from horizontal to vertical

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48025 SP - 48025 SP LC

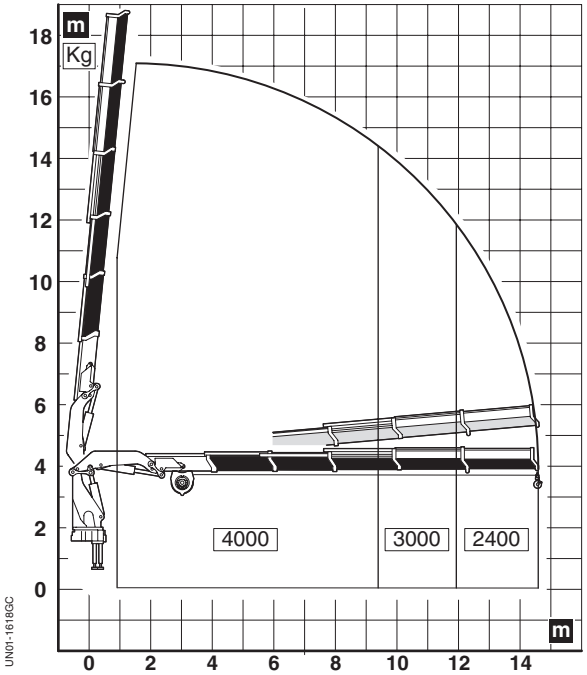
Basic machine (USA)

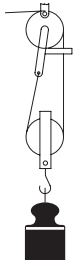
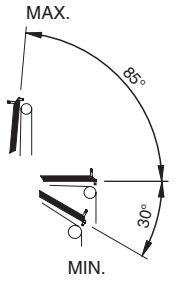



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with winch



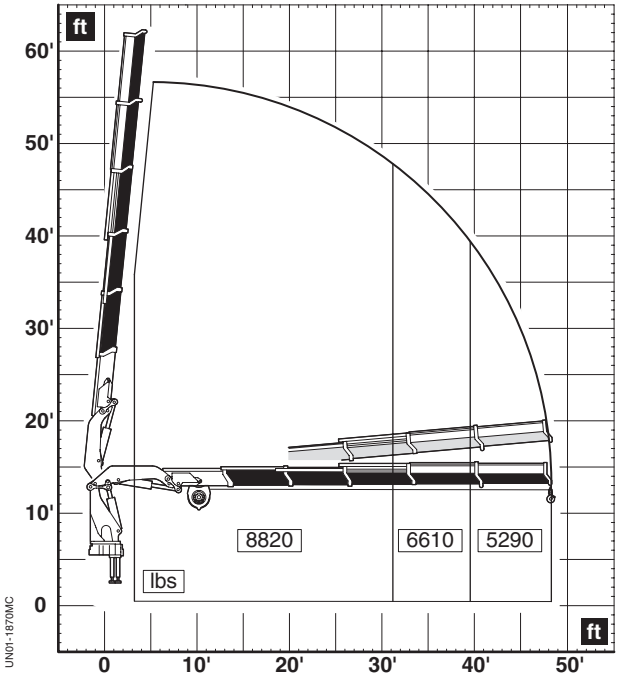

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 2  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

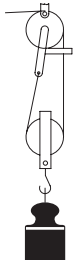
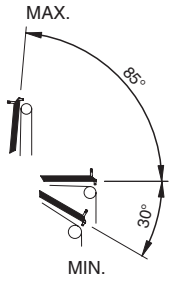
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 48025 SP - 48025 SP LC

Basic machine with winch (USA)

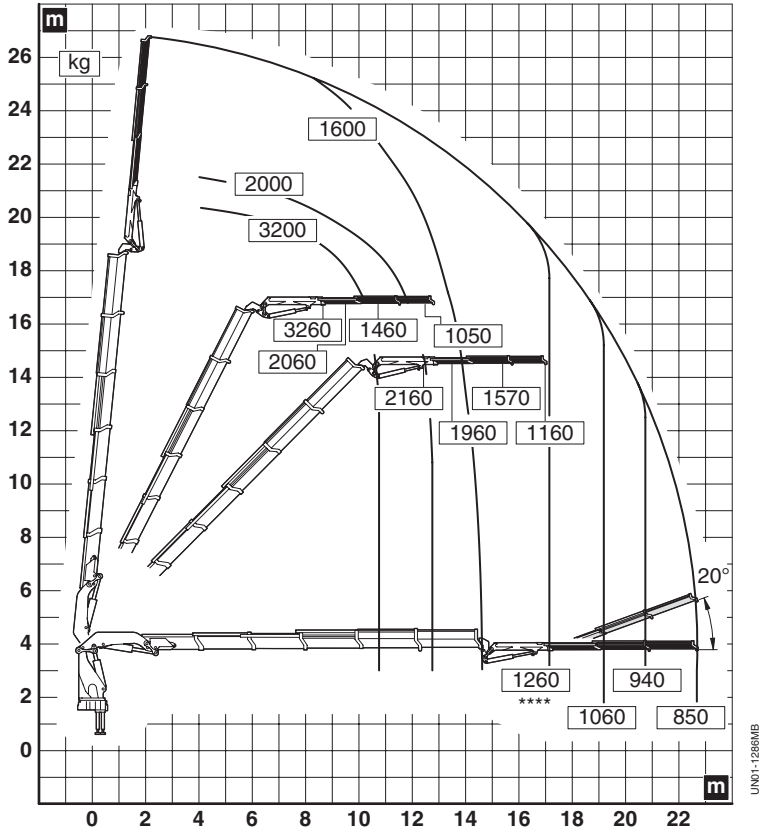



| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 2  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

Basic machine with jib J 903.20



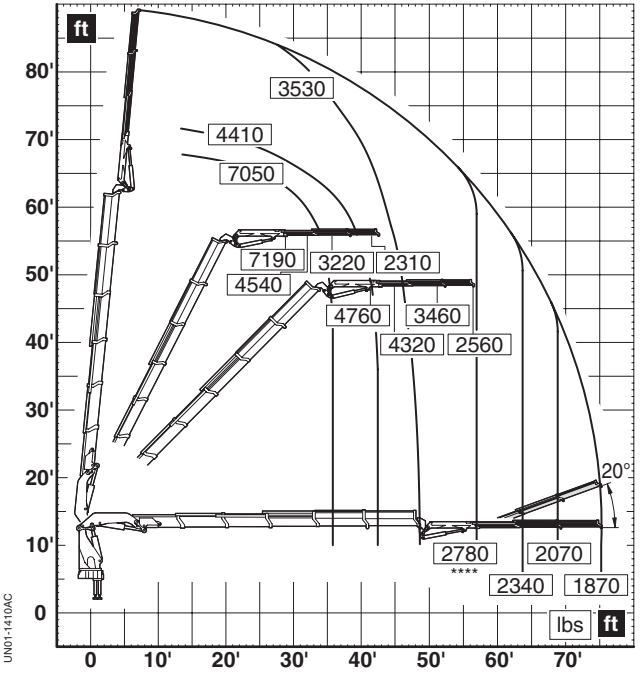

**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48025 SP - 48025 SP LC

Basic machine with jib J 903.20 (USA)

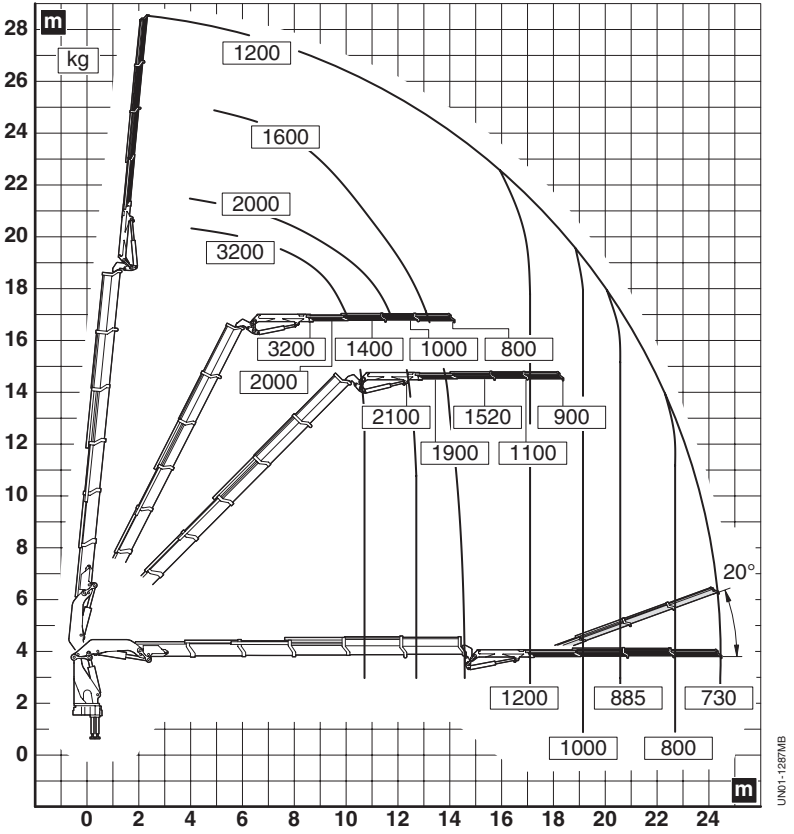



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

Basic machine with jib J 904.20



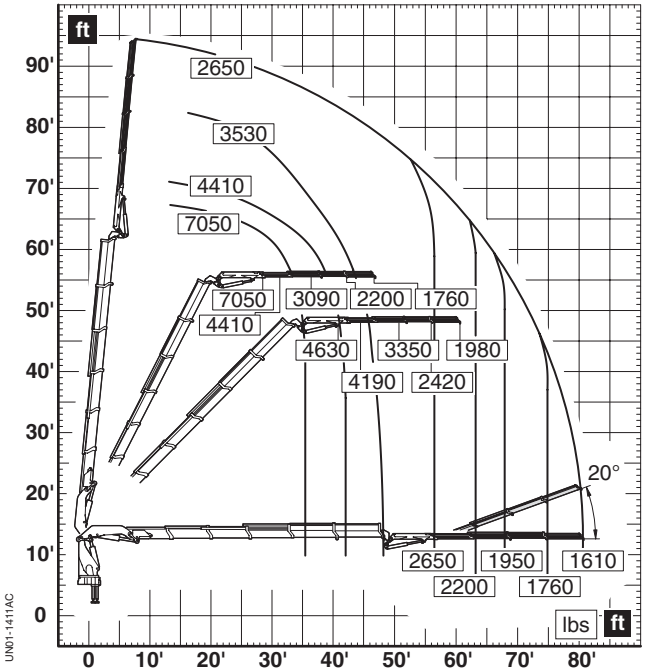

**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48025 SP - 48025 SP LC

Basic machine with jib J 904.20 (USA)



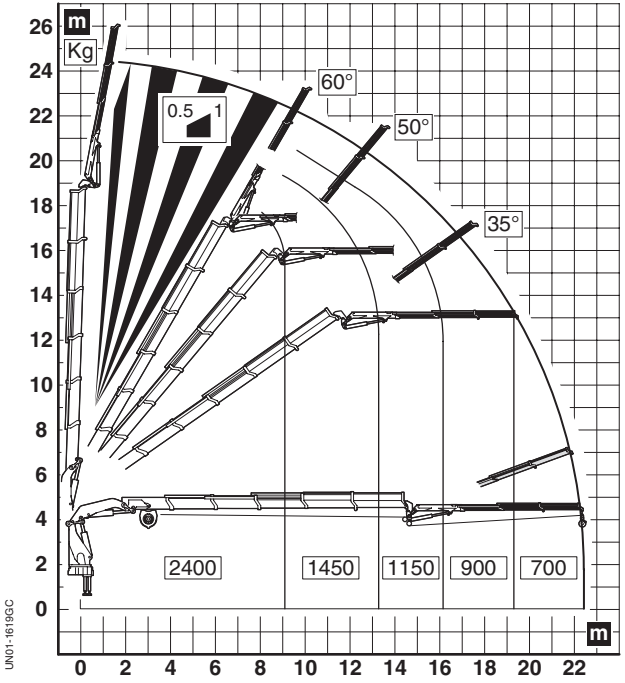

**Note: assemble a lifting hook suitable to the load to lift.**

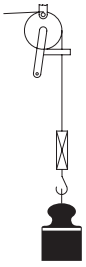
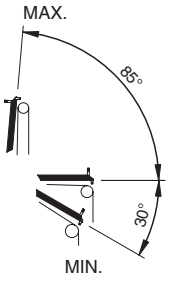
**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48025 SP - 48025 SP LC

Basic machine with jib J 903.20 and winch



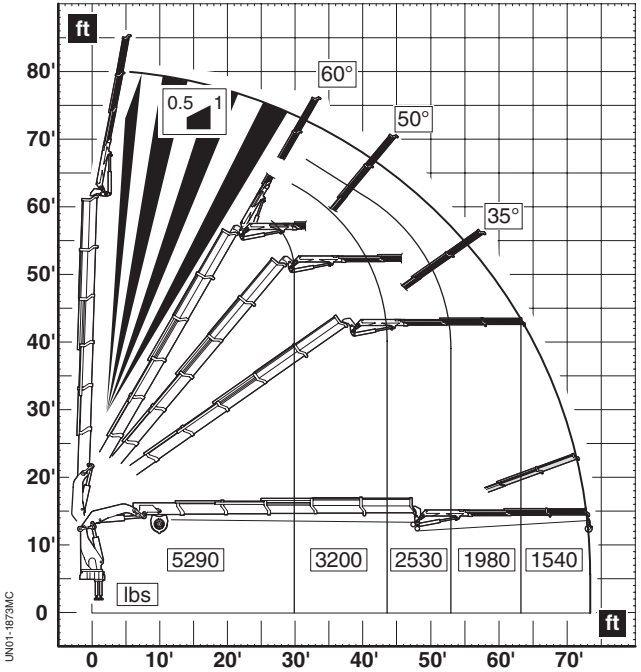

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

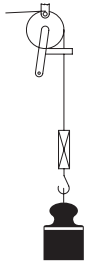
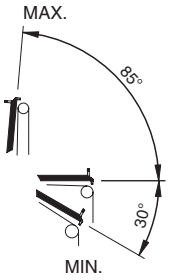
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 48025 SP - 48025 SP LC

Basic machine with jib J 903.20 and winch (USA)

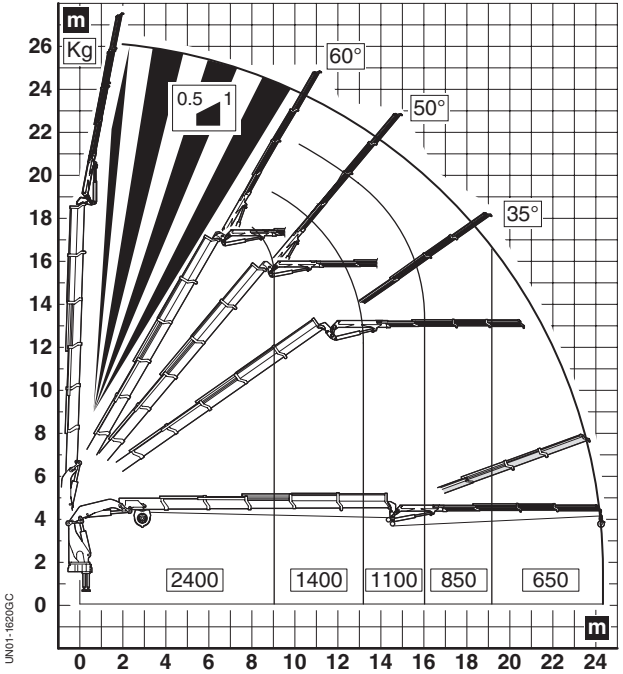


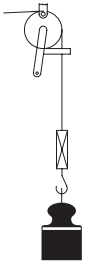
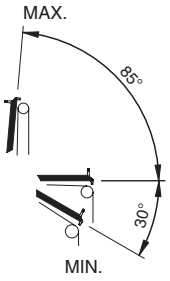

| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

Basic machine with jib J 904.20 and winch



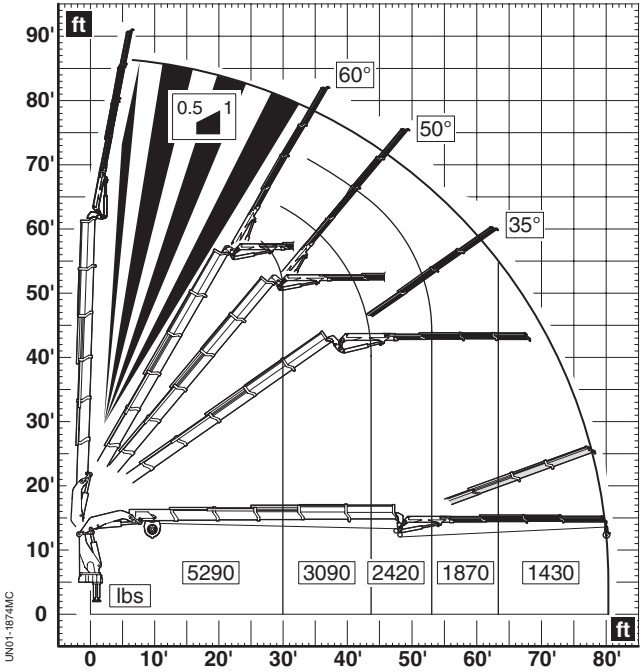

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

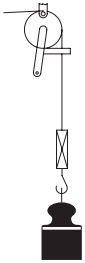
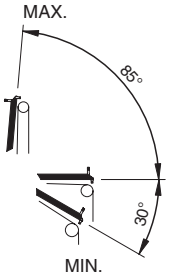
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 48025 SP - 48025 SP LC

Basic machine with jib J 904.20 and winch (USA)



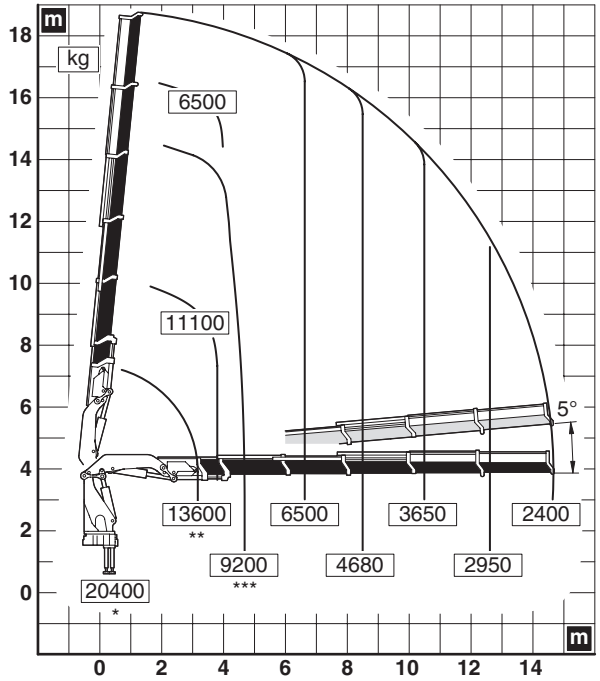

| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 48025 SP - 48025 SP LC

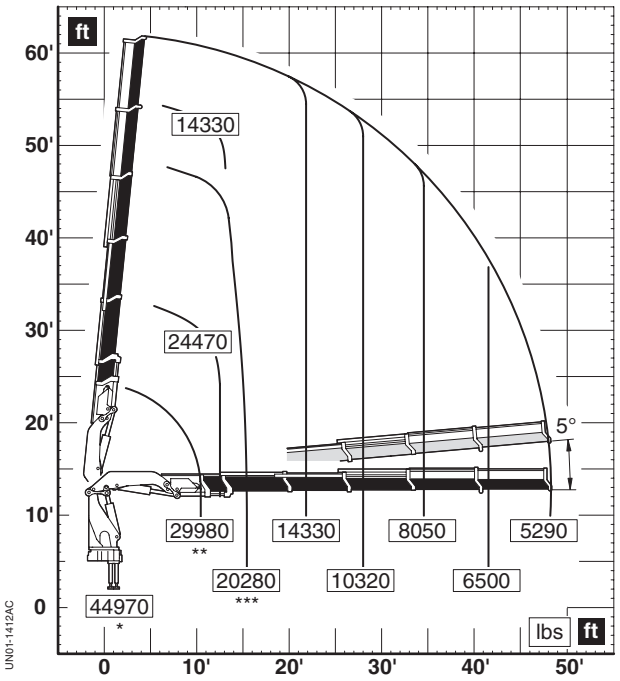
LC Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

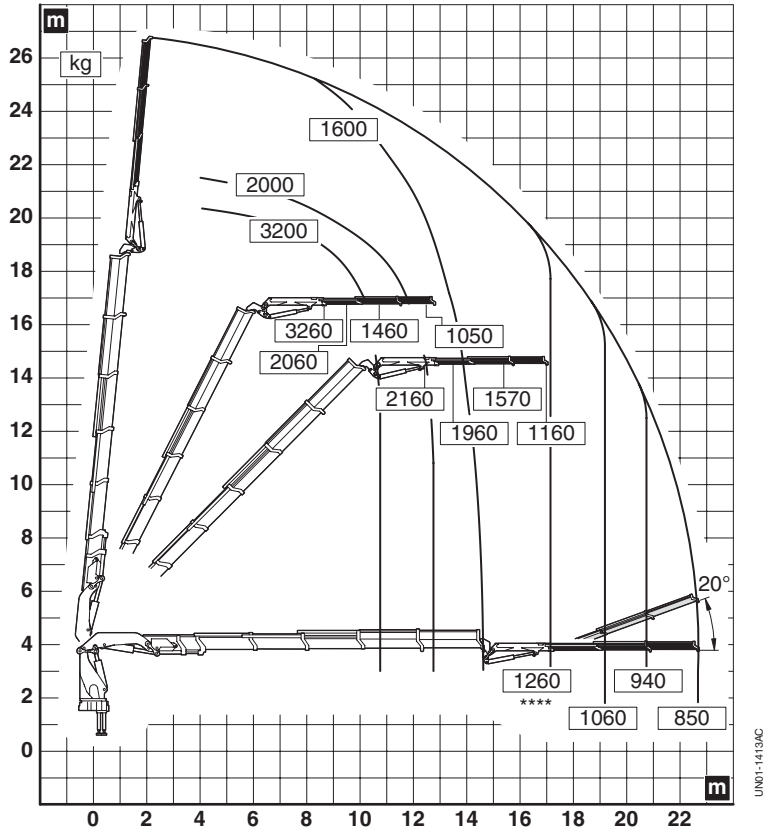
LC Basic machine (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 903.20

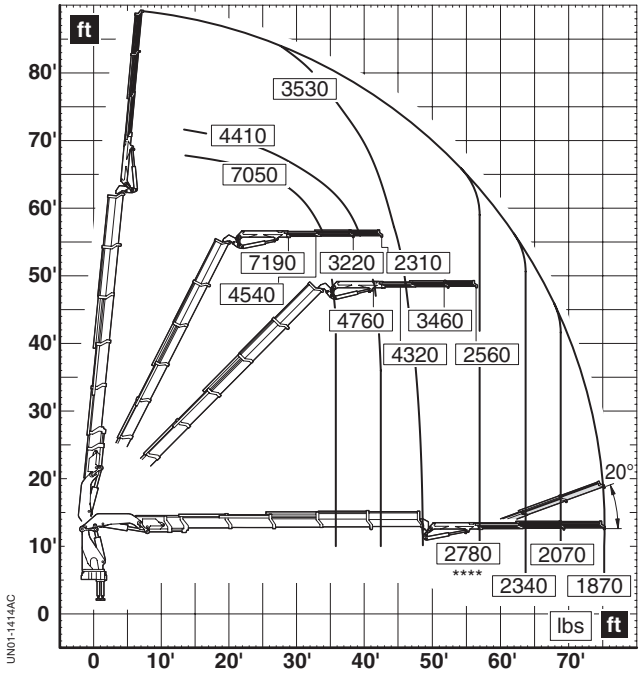



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 903.20 (USA)



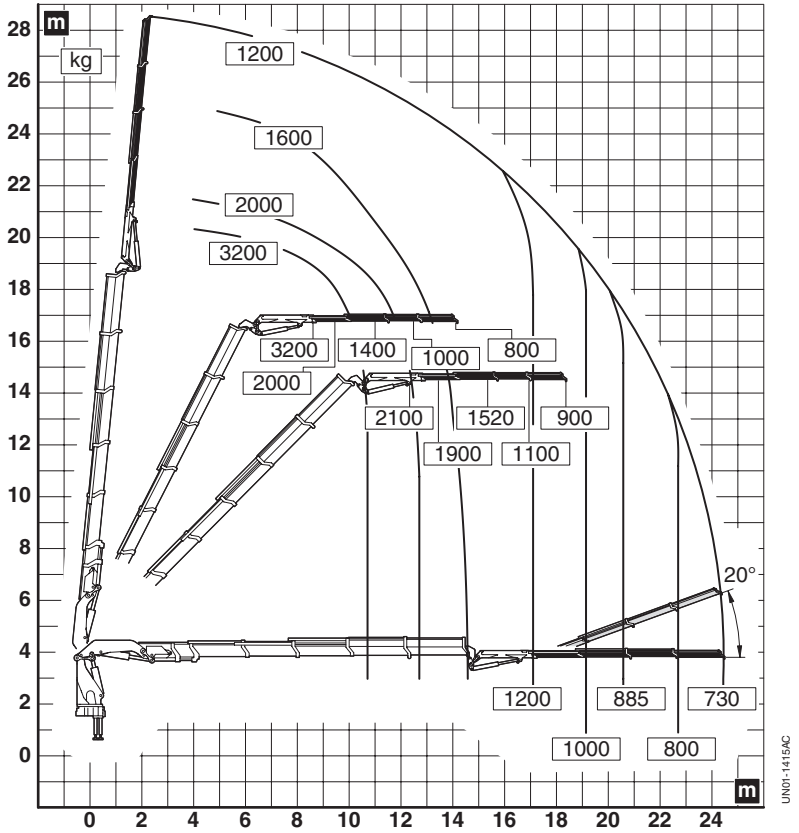

**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48025 SP - 48025 SP LC

LC Basic machine with jib J 904.20

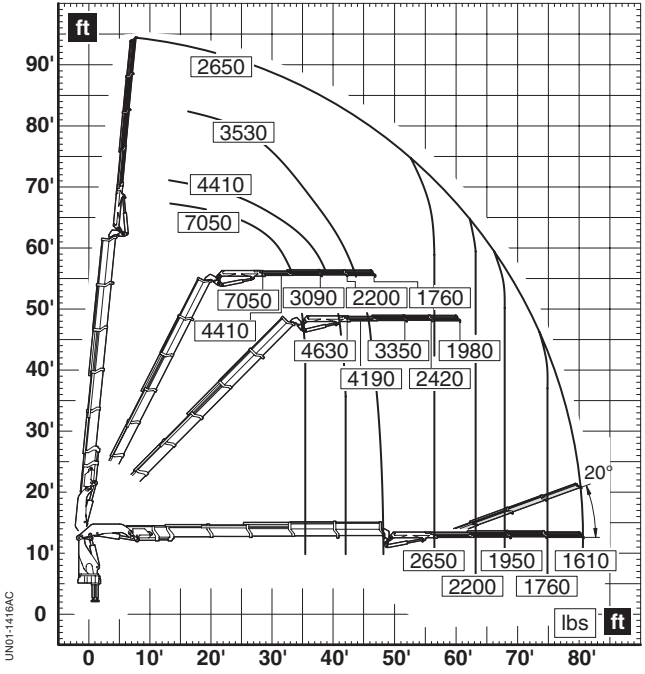



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 904.20 (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

## PM 48026 SP - 48026 SP LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 388 | ft lbs | 286170 |
| | tm | 39,6 | / | / |
| **Hydraulic outreach:** | | | | |
| Horizontal | m | 16,60 | ft | 54’6” |
| Vertical | m | 20,80 | ft | 68’3” |
| **Outreach with manual extensions:** | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 29,5 | psi | 4280 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 5300 | lbs | 11680 |
| Weight of LC crane with tank empty | kg | 5460 | lbs | 12040 |
| Maximum power absorbed by the hydraulic pump | kW | 44 | HP | 59 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 65 | sec. | 65 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 70 | sec. | 70 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |

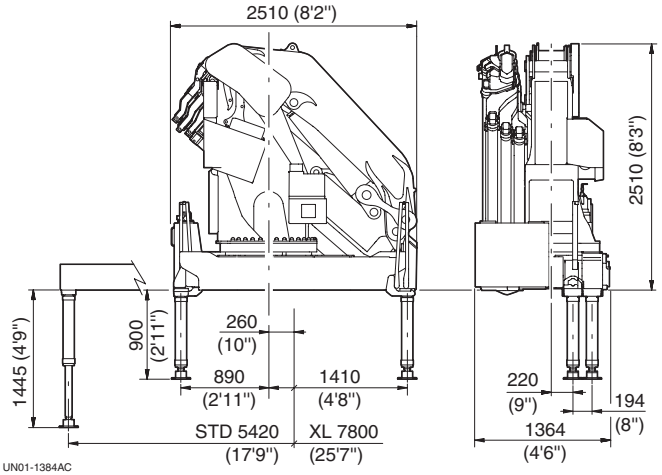
## PM 48026 SP - 48026 SP LC - with jib J 703.20

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 388 | ft lbs | 286170 |
| | tm | 39,6 | / | / |
| **Hydraulic outreach:** | | | | |
| Horizontal | m | 24,95 | ft | 81’10” |
| Vertical | m | 29,00 | ft | 95’2” |
| **Outreach with manual extensions:** | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 25,5 | psi | 3700 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 6060 | lbs | 13360 |
| Weight of LC crane with tank empty | kg | 6220 | lbs | 13710 |
| Maximum power absorbed by the hydraulic pump | kW | 38 | HP | 51 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7”) disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 90 | sec. | 90 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 95 | sec. | 95 |
| “Fixed” hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| “Mobile” hook - Capacity | kg | 16000 | lbs | 35270 |
| Jib hook - Capacity | kg | 5000 | lbs | 11020 |

## - Overall dimensions

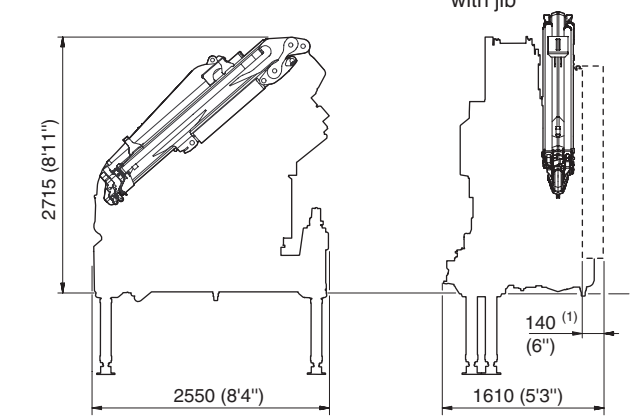
# PM 48026 SP - 48026 SP LC

Basic machine

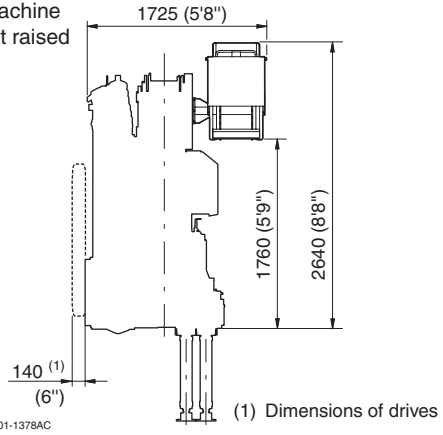



STD = Standard stabilisers XL = Extra large stabilisers

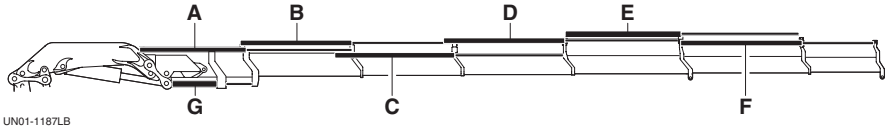
Basic machine with jib




Basic machine with seat raised




(1) Dimensions of drives

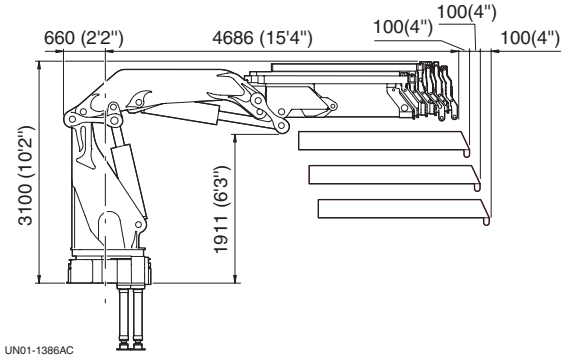



| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |
| E | 5th arm extension jack | 2200 (7'3") |
| F | 6th arm extension jack | 2200 (7'3") |
| G * | Secondary arm extension jack | 750 (2'6") |

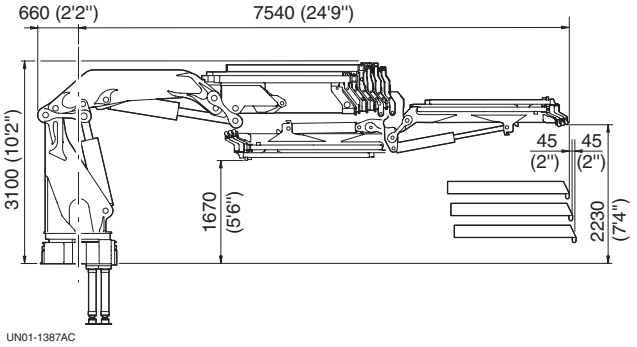
* For LC models

# PM 48026 SP - 48026 SP LC

Basic machine

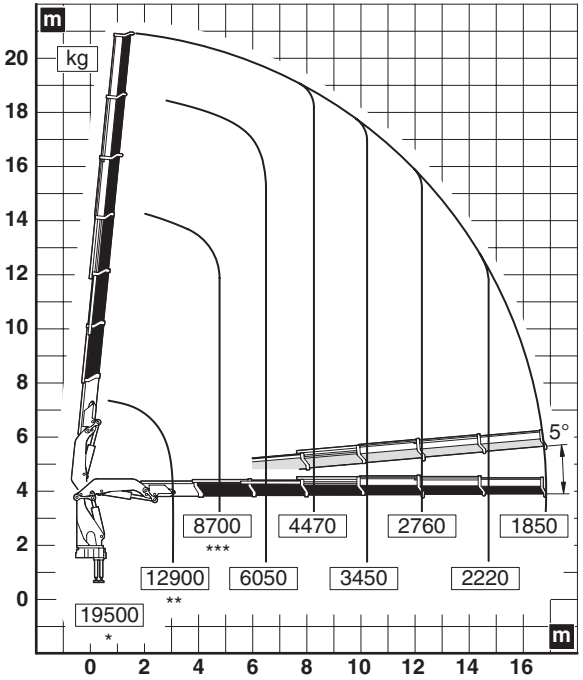



Basic machine with jib J 703.20




## - Capacities diagram

Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook

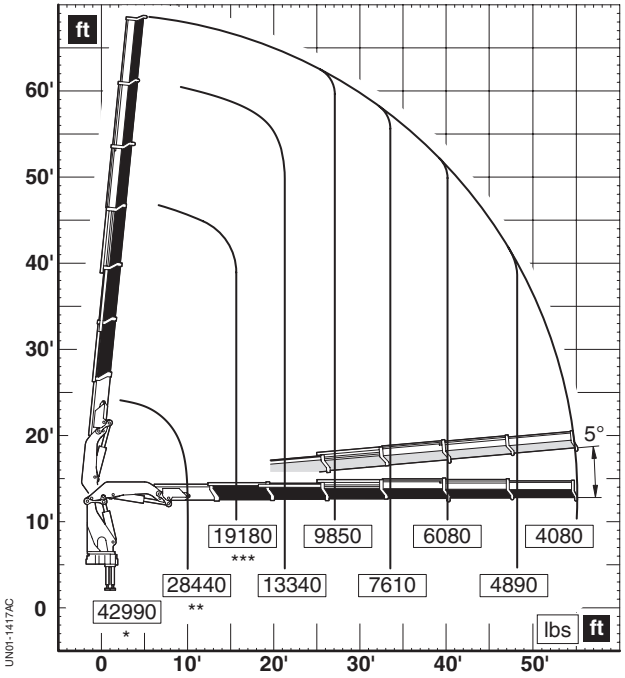
** Maximum capacity at mobile hook

*** Maximum capacity from horizontal to vertical

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48026 SP - 48026 SP LC

Basic machine (USA)

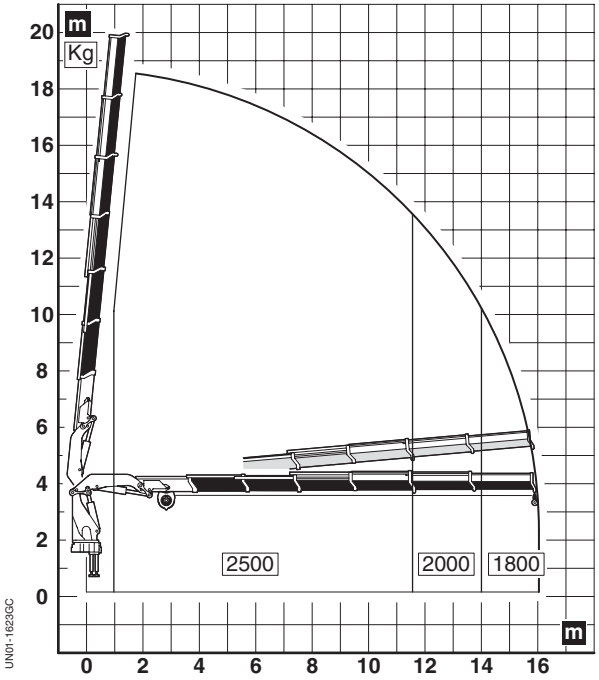


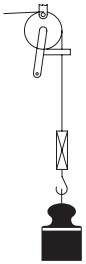
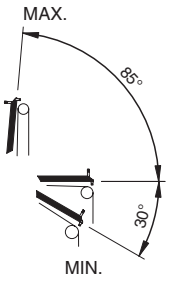

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48026 SP - 48026 SP LC

Basic machine with winch



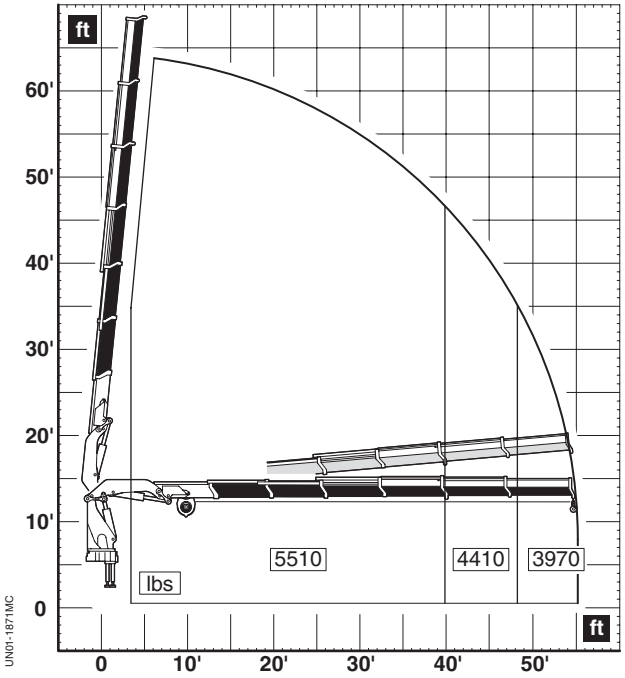

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

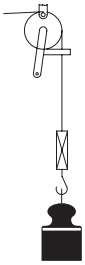
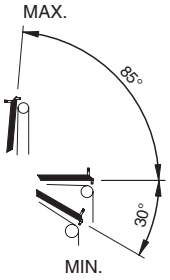
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 48026 SP - 48026 SP LC

Basic machine with winch (USA)



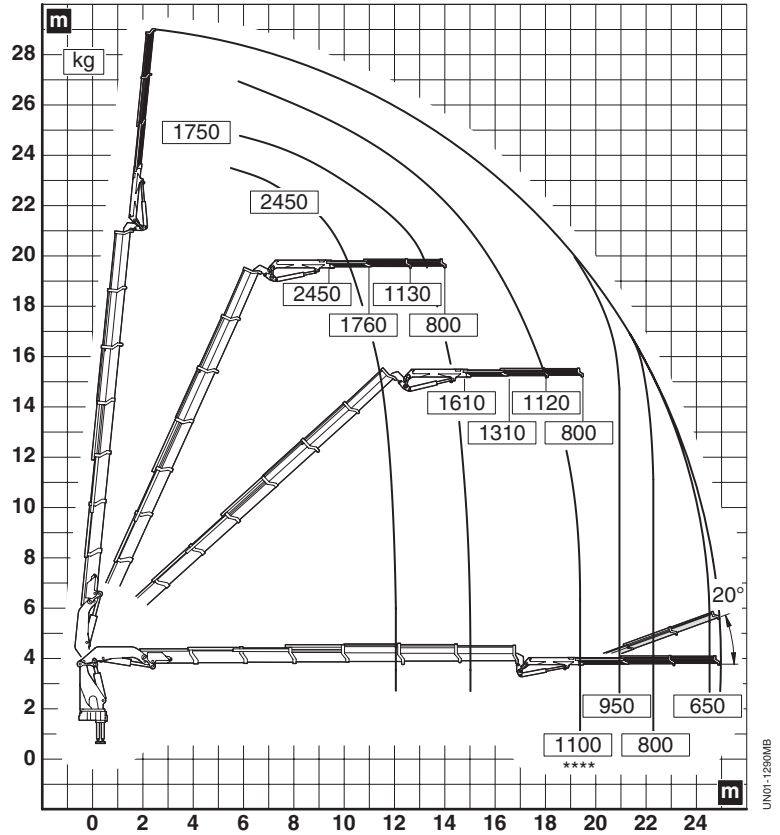

| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 48026 SP - 48026 SP LC

Basic machine with jib J 703.20



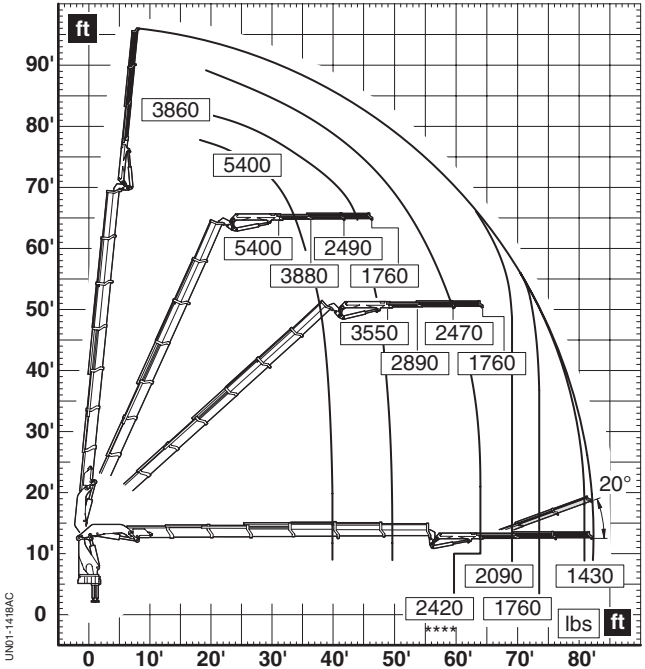

**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48026 SP - 48026 SP LC

Basic machine with jib J 703.20 (USA)



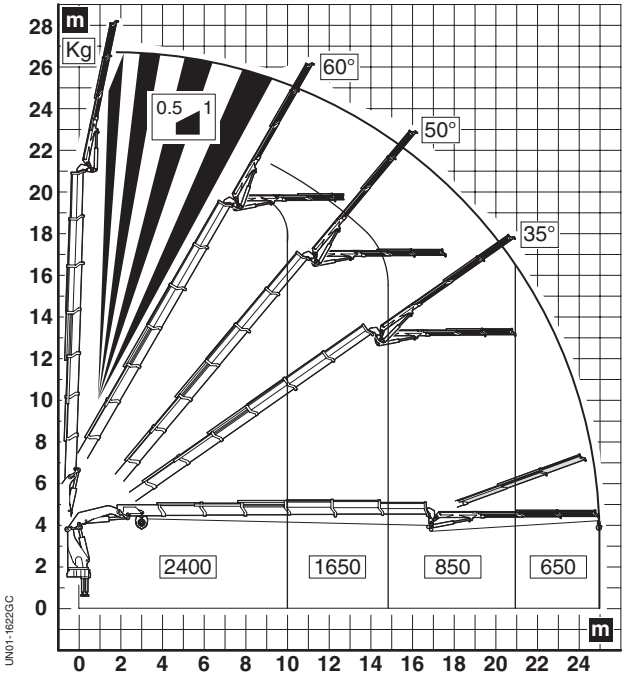

**Note: assemble a lifting hook suitable to the load to lift.**

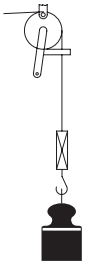
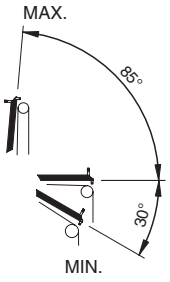
**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48026 SP - 48026 SP LC

Basic machine with jib J 703.20 and winch



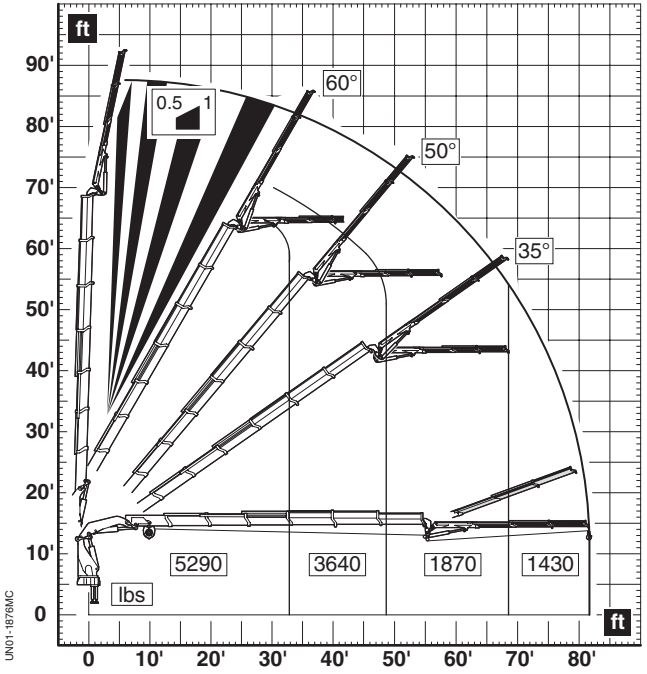

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

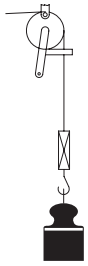
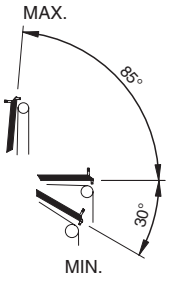
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 48026 SP - 48026 SP LC

Basic machine with jib J 703.20 and winch (USA)



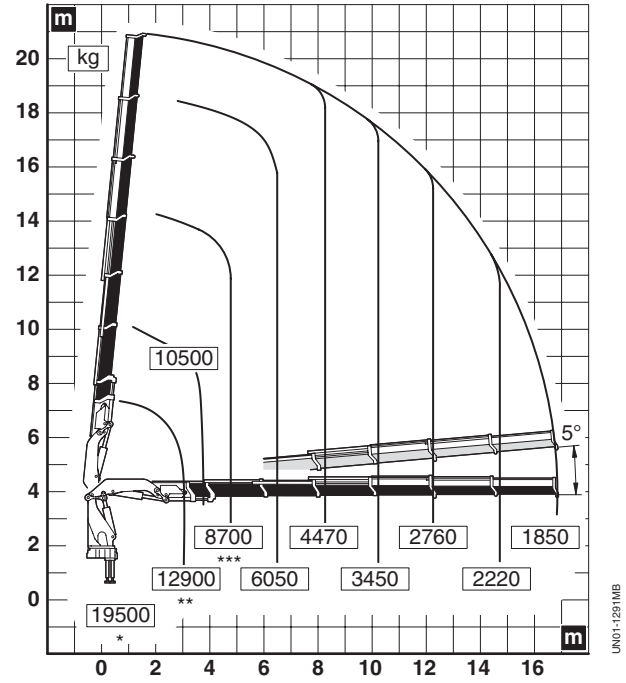

| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm and the jib tilted at 60° and gradually reducing the angle by 50%, keeping the arm and the jib raised as high as possible.

# PM 48026 SP - 48026 SP LC

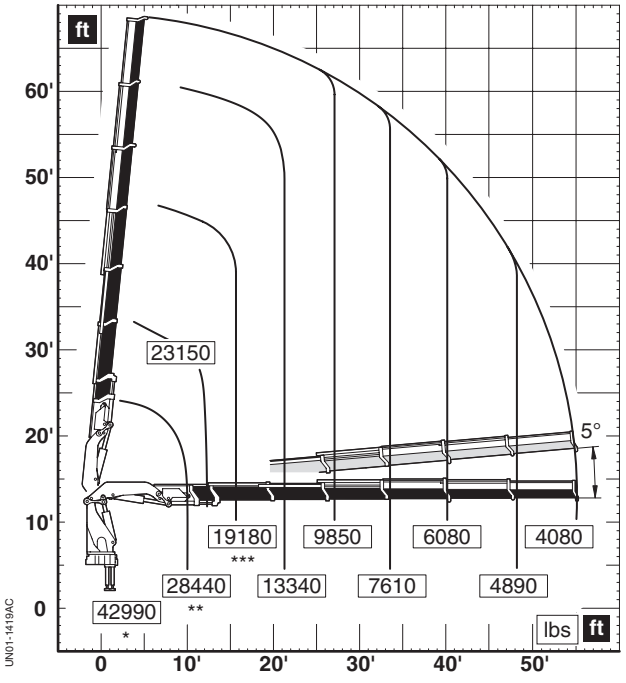
LC Basic machine




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine (USA)

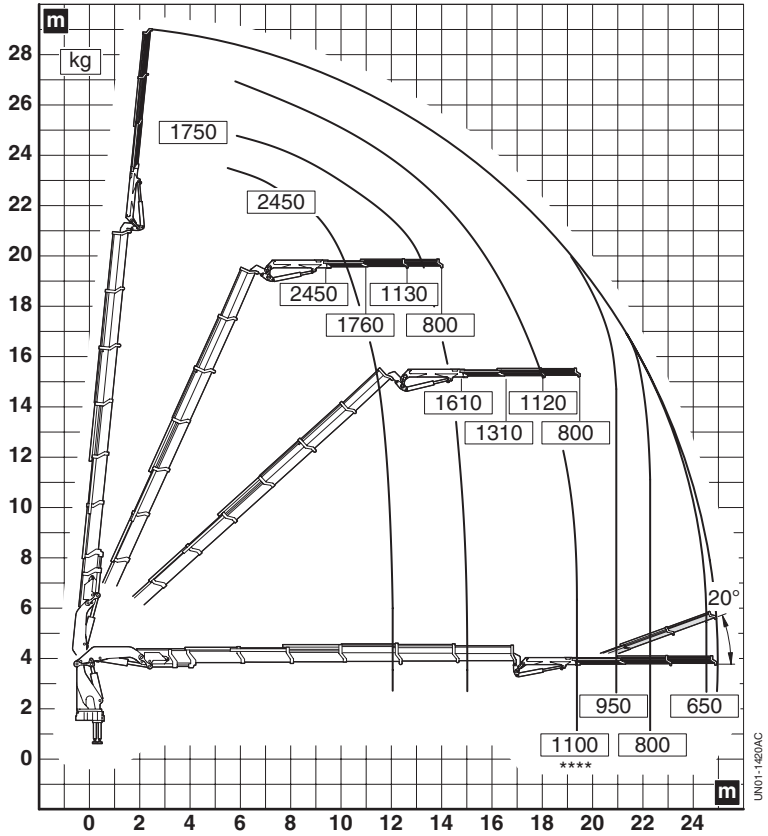



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48026 SP - 48026 SP LC

LC Basic machine with jib J 703.20

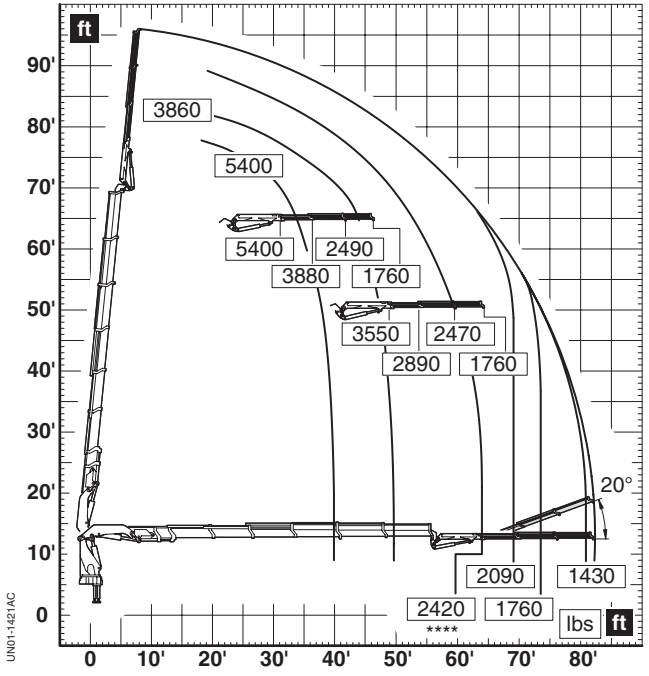



**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine with jib J 703.20 (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

**** Maximum jib capacities when extended horizontally

N.B.: the performances stated are obtained with the main arm inclined to 15°

**- Specifications and performances**

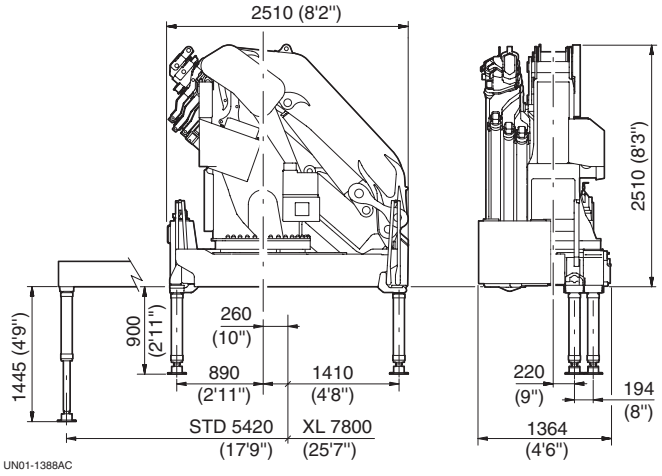
## PM 48028 SP - 48028 SP LC

| | | | | | |
|---|---|---|---|---|---|
| **Max. lifting momentum** | kNm | 380 | ft lbs | 280270 |
| | tm | 38,7 | / | / |
| **Hydraulic outreach:** | | | | |
| Horizontal | m | 21,50 | ft | 70'6" |
| Vertical | m | 25,60 | ft | 83'12" |
| **Outreach with manual extensions:** | | | | |
| Horizontal | m | / | ft | / |
| Vertical | m | / | ft | / |
| **Hydraulic system:** | | | | |
| Recommended capacity | l/min | 80 | gals/min | 21 |
| Maximum pressure | Mpa | 29,5 | psi | 4280 |
| Oil tank capacity | l | 200 | gals | 53 |
| **Rotation unit:** | | | | |
| Rotation angle | ° | cont. | ° | cont. |
| Rotation torque | kNm | 54 | ft lbs | 39830 |
| Weight of standard crane with tank empty | kg | 5630 | lbs | 12410 |
| Weight of LC crane with tank empty | kg | 5790 | lbs | 12760 |
| Maximum power absorbed by the hydraulic pump | kW | 44 | HP | 59 |
| Maximum force exerted on ground by stabilisers | kN | 235 | lbs | 52830 |
| Specific operating pressure of each stabiliser with Ø 185 mm (7") disk | Mpa | 8,9 | psi | 1290 |
| Arm pack extension time for standard unit (with plus disabled) | sec. | 85 | sec. | 85 |
| Arm pack extension time for LC unit (with plus disabled) | sec. | 90 | sec. | 90 |
| "Fixed" hook (optional) - Capacity | kg | 22000 | lbs | 48500 |
| "Mobile" hook - Capacity | kg | 16000 | lbs | 35270 |

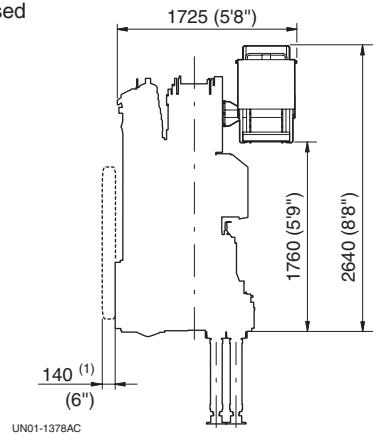
# PM 48028 SP - 48028 SP LC

## - Overall dimensions

Basic machine

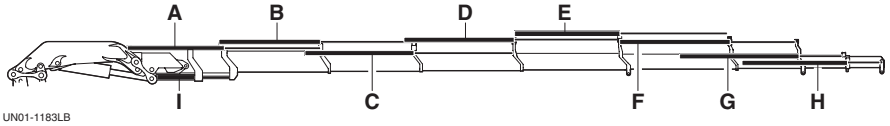



Basic machine with seat raised




(1) Dimensions of drives

STD = Standard stabilisers XL = Extra large stabilisers



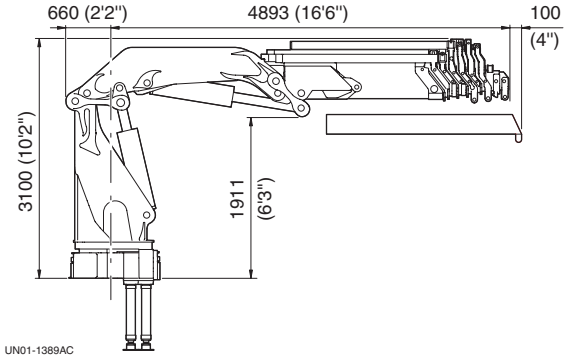

| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| A | 1st arm extension jack | 1750 (5'9") |
| B | 2nd arm extension jack | 1850 (6'1") |
| C | 3rd arm extension jack | 2000 (6'7") |
| D | 4th arm extension jack | 2100 (6'11") |

| Pos. | Description | Stroke mm (ft) |
|---|---|---|
| E | 5th arm extension jack | 2200 (7'3") |
| F | 6th arm extension jack | 2200 (7'3") |
| G | 7th arm extension jack | 2300 (7'6") |
| H | 8th arm extension jack | 2300 (7'6") |
| I * | Secondary arm extension jack | 750 (2'6") |

* For LC models

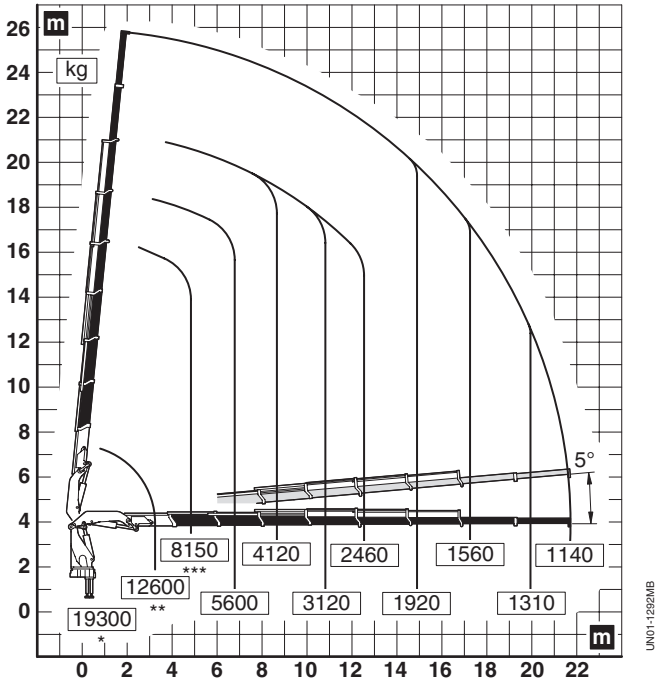
# PM 48028 SP - 48028 SP LC

Basic machine




## - Capacities diagram

Basic machine

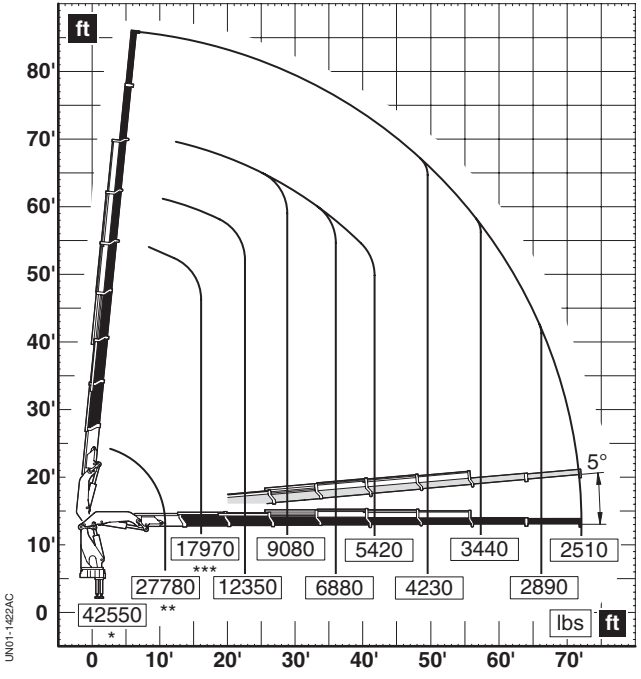



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48028 SP - 48028 SP LC

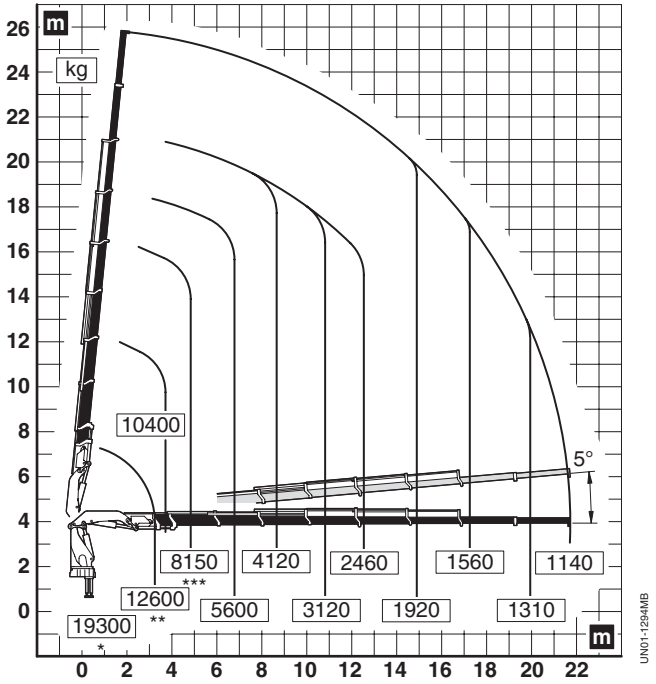
Basic machine (USA)




**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

LC Basic machine

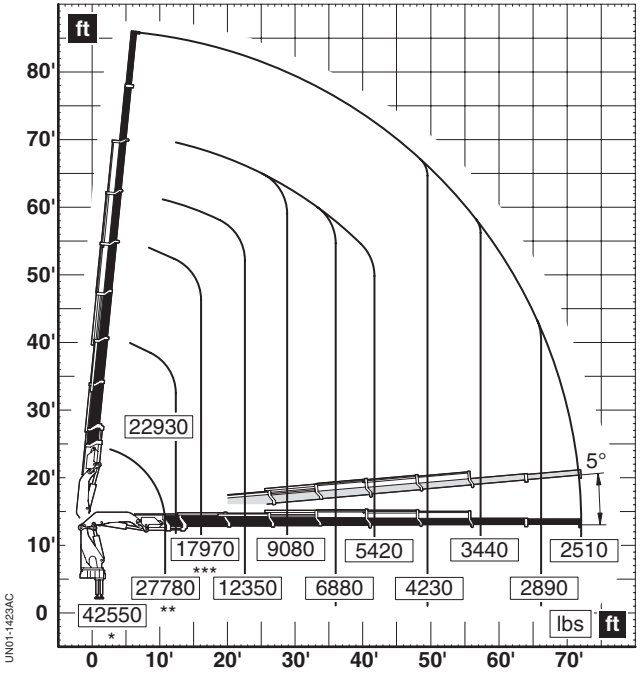



**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48028 SP - 48028 SP LC

LC Basic machine (USA)

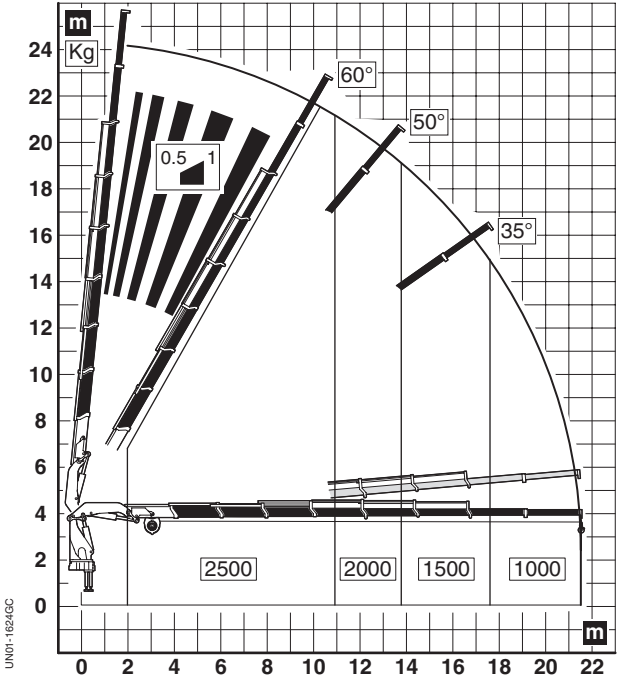


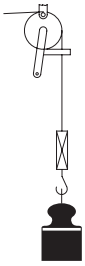
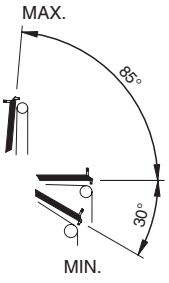

**Note: assemble a lifting hook suitable to the load to lift.**

* Maximum capacity at fixed hook
** Maximum capacity at mobile hook
*** Maximum capacity from horizontal to vertical
N.B.: the performances stated are obtained with the main arm inclined to 15°

# PM 48028 SP - 48028 SP LC

Basic machine with winch



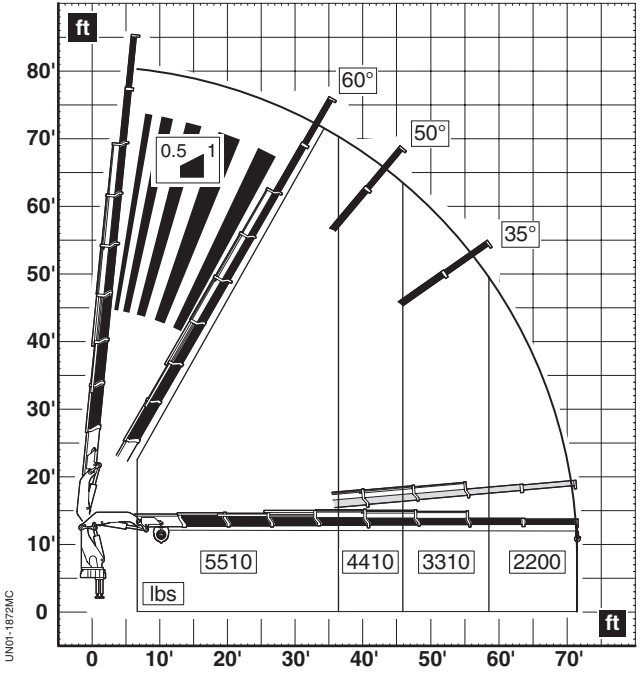

| Cable layer | Capacity kg | Pull | Winch work range |
|---|---|---|---|
| 1° | 2500 | n = 1  |   |
| 2° | 2200 | | |
| 3° | 2100 | | |
| 4° | 1900 | | |
| 5° | 1800 | | |

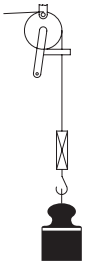
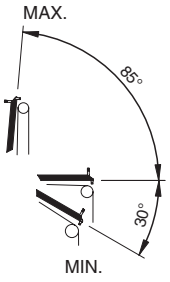
**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

# PM 48028 SP - 48028 SP LC

Basic machine with winch (USA)




| Cable layer | Capacity lbs | Pull | Winch work range |
|---|---|---|---|
| 1° | 5510 | n = 1  |   |
| 2° | 4850 | | |
| 3° | 4630 | | |
| 4° | 4190 | | |
| 5° | 3970 | | |

**Note: assemble a lifting hook suitable to the load to lift.**

Note: maximum performance is obtained by starting with the secondary arm tilted at 60° and gradually reducing the angle by 50%, keeping the arm raised as high as possible.

## - Record of the periodical technical inspections of the safety devices

| | | | |
|---|---|---|---|
| Crane model | | Year of manufacture | |
| Serial number | | Year of installation | |

| Safety device inspected | Kind of inspection performed | Inspection result | Date | Date of next inspection | Name, businnes name and signature of the person responsible for inspection |
|---|---|---|---|---|---|
| | | | | | |

| Safety device inspected | Kind of inspection performed | Inspection result | Date | Date of next inspection | Name, businnes name and signature of the person responsible for inspection |
|---|---|---|---|---|---|
| | | | | | |

| Safety device inspected | Kind of inspection performed | Inspection result | Date | Date of next inspection | Name, businnes name and signature of the person responsible for inspection |
|---|---|---|---|---|---|
| | | | | | |

| Safety device inspected | Kind of inspection performed | Inspection result | Date | Date of next inspection | Name, businnes name and signature of the person responsible for inspection |
|---|---|---|---|---|---|
| | | | | | |

| Safety device inspected | Kind of inspection performed | Inspection result | Date | Date of next inspection | Name, businnes name and signature of the person responsible for inspection |
|---|---|---|---|---|---|
| | | | | | |

NOTES

## - Maintenance intervention confirmation

The service interventions must be carried out in series respecting the schedule.
Interventions must be marked with a cross.

At 500 hours

. Hydraulic oil pollution check ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐

stamp signature

At 1500 hours

. Hydraulic oil pollution check ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐

stamp signature

At 1000 hours

. Hydraulic oil replacement ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐
. Reduction gears oil replacement ☐
. Safety devices check ☐

stamp signature

At 2000 hours

. Hydraulic oil replacement ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐
. Reduction gears oil replacement ☐
. Safety devices check ☐

stamp signature

At 2500 hours

. Hydraulic oil pollution check ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐

stamp signature

At 3500 hours

. Hydraulic oil pollution check ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐

stamp signature

At 3000 hours

. Hydraulic oil replacement ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐
. Reduction gears oil replacement ☐
. Safety devices check ☐

stamp signature

At 4000 hours

. Hydraulic oil replacement ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐
. Reduction gears oil replacement ☐
. Safety devices check ☐
. Runner replacement ☐
. Hydraulic system washing ☐

stamp signature

At 4500 hours

. Hydraulic oil pollution check ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐

stamp signature

At 6500 hours

. Hydraulic oil pollution check ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐

stamp signature

At 6000 hours

. Hydraulic oil replacement ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐
. Reduction gears oil replacement ☐
. Safety devices check ☐

stamp signature

At 7000 hours

. Hydraulic oil replacement ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐
. Reduction gears oil replacement ☐
. Safety devices check ☐

stamp signature

At 7500 hours

. Hydraulic oil pollution check ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustment ☐

stamp signature

At ..... hours

.....
.....
.....
.....
.....
.....
.....

stamp signature

At 8000 hours

. Hydraulic oil replacement ☐
. Structural inspection ☐
. Valves calibration ☐
. Manual extension adjustments ☐
. Reduction gears oil replacement ☐
. Safety devices check ☐
. Runner replacement ☐
. Hydraulic system washing ☐

stamp signature

At ..... hours

.....
.....
.....
.....
.....
.....
.....

stamp signature

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