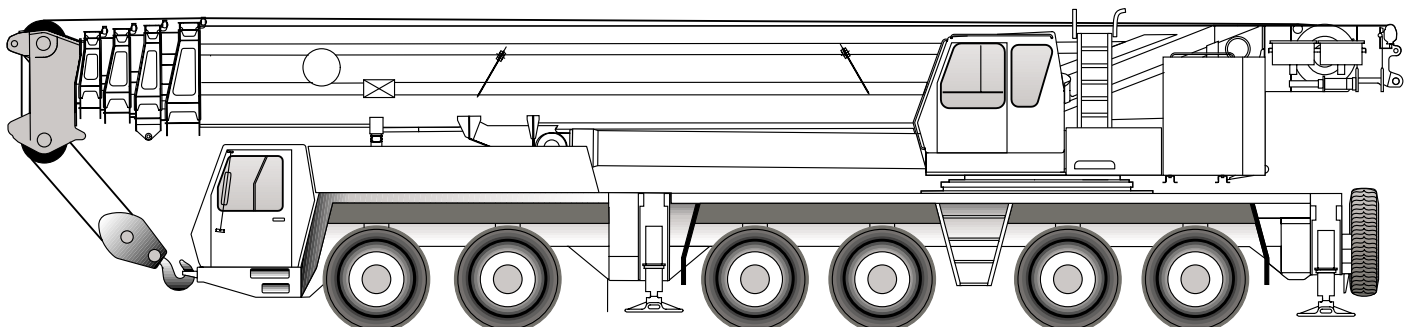


GROVE

GMK6300



Operating instructions for lattice extension

Serial number:

2 084 555 en
26.06.2000
(18.02.2000)

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1.4

Organisational measures

The operating instructions and the lifting capacity table should be kept in the truck crane for immediate access and should not be removed from the truck crane. You need to have read and understood the operation and safety instructions in these operating instructions and to comply with them when working.

In addition to the operating instructions and the lifting capacity table, observe all general, statutory and otherwise applicable regulations concerning accident prevention and environmental protection. You need to have read and understood these and to work accordingly.

This includes:

- the use of hazardous materials,
- wearing protective clothing and equipment,
- traffic regulations or
- all regulations applying to the operation of the crane.

Ensure that those appointed to work on the truck crane are given the information required to carry out the work before starting operations. Give your employees (e.g. banksmen, slingers, rigging personnel) appropriate instruction.

Ensure that the maintenance personnel possess the necessary know-how to safely operate the crane. Ensure that the maintenance personnel have access to the operating instructions.

Only properly trained or instructed personnel may carry out work on the truck crane.

Responsibilities related to crane operation, rigging, maintenance and repair work must be clearly defined.

Ensure that only the appointed employees operate the truck crane.

Do not leave long hair down or wear loose clothing or jewellery (including rings) when working with the crane. These could get caught or pulled into the unit and result in injury.

Use your personal protective equipment whenever necessary or prescribed.

Observe all safety and warning signs on the truck crane.

Ensure that all safety and warning signs on the truck crane remain legible.



2

Dimensions, weights and assignment of the parts to luffing jibs

2.1

Dimensions and weights in metric units

This section contains information on the transportation measurements and weights of lattice extensions in metric units.

2.1.1

Telescopic swing-away lattice extension

Description	Length x width x height (m)	Weight (kg)
Telescopic swing-away lattice extension (complete, retracted)	11.60 x 1.00 x 1.50	2 100
Adapter	1.40 x 1.00 x 0.45	220

2.1.2

Auxiliary single-sheave boom top

Description	Length x width x height (m)	Weight (kg)
Auxiliary single-sheave boom top, complete	0.70 x 1.20 x 0.60	300

2.1.3

Boom extension

Description	Length x width x height (m)	Weight (kg)
Head	3.18 x 1.47 x 2.01	850
Foot section	12.20 x 1.47 x 2.35	3 400
Intermediate section, each	8.12 x 1.47 x 1.57	850
Angle piece	3.62 x 1.47 x 2.18	950

3.2**Additional operating and display elements in the driver's cab**

If the GMK 6300 is fitted with a telescopic swing-away lattice extension, additional operating and display elements will be built into the driver's cab and crane cab, in addition to the operating and display elements described in the *GMK 6300 operating instructions*.

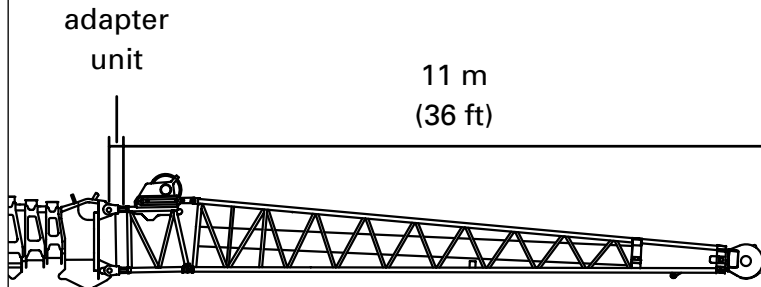
In this chapter, all additional operating and display elements which are re-fitted when a telescopic swing-away lattice extension is installed.

Furthermore, this chapter describes the operating elements located directly on the telescopic swing-away lattice extension.

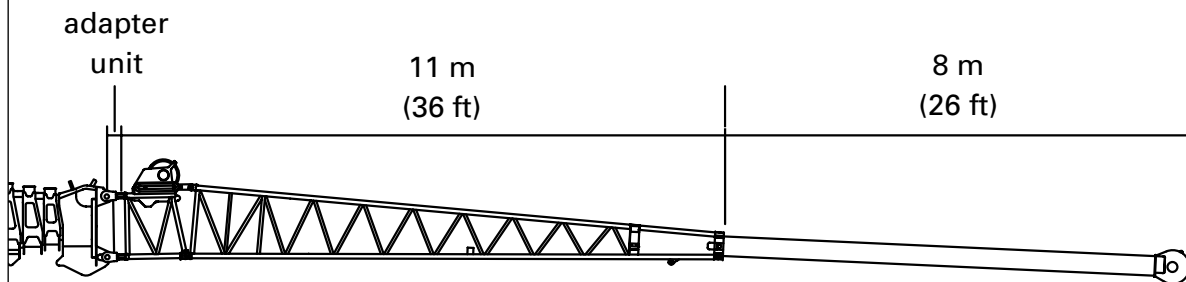
3.6

Assembly of lattice extensions

11 m telescopic swing-away lattice extension (fully retracted) (36 ft telescopic swing-away lattice extension)



19 m telescopic swing-away lattice extension (extended) (62 ft telescopic swing-away lattice extension)

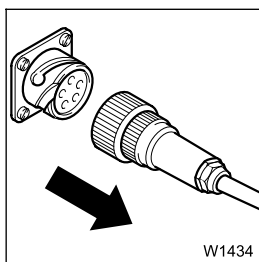



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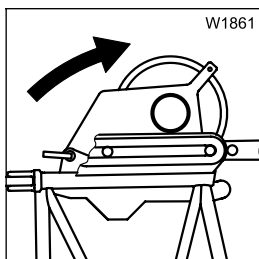



The adapter unit is not considered with the length data of the telescopic swing-away lattice extension.

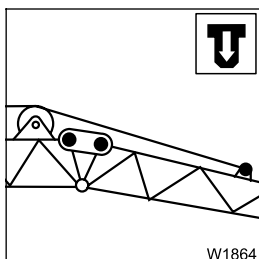
The information about length has been adapted to the lifting capacity tables; the overall lengths of the individual parts are longer.




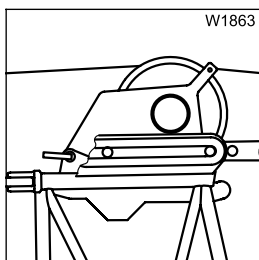
- 18.** Disconnect electrical connection between lattice extension and main boom;  *Establishing/disconnecting electrical connection for rigging work*, p. 3-48.




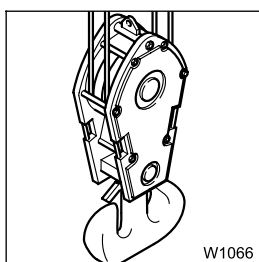
- 19.** Fold out deflection sheave in foot section;  *Folding deflection sheave out/in*, p. 3-54.




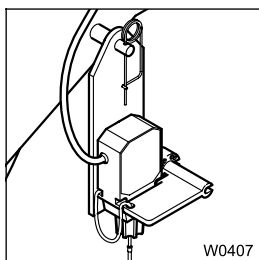
- 20.** Sling lattice extension on hoist rope and set required angle;  *Setting angle on lattice extension*, p. 3-50.




- 21.** Guide the hoist rope over the deflection sheave and the head sheave;  *Placing and reeving hoist rope*, p. 3-55.

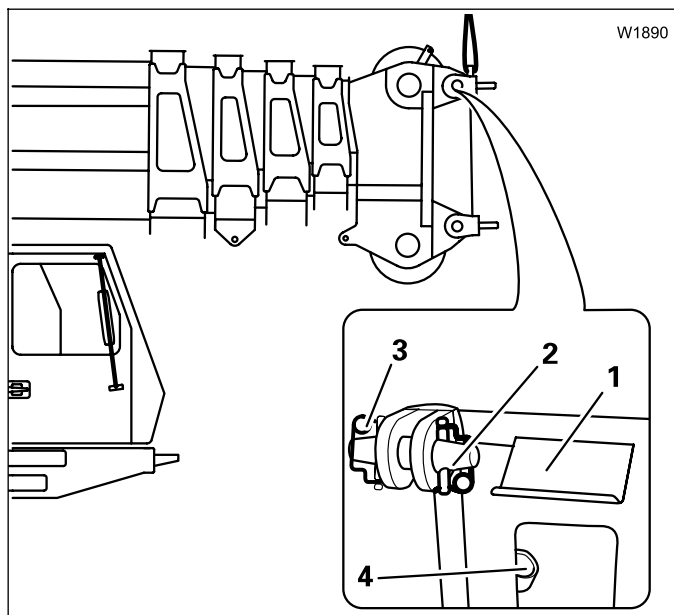


- 22.** Reeve the hoist rope on the hook block;  *Placing and reeving hoist rope*, p. 3-55.



- 23.** Move lifting limit switch from the head of the main boom to the head section of the lattice extension and then connect;  *Lifting limit switch on lattice extension*, p. 3-57.



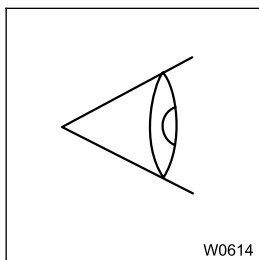


Removing adapter unit

- Sling the adapter unit onto an auxiliary crane; ►► *Slings points*, p. 3-15.
- Remove the safety needles (3) on each retaining pin (2) on the outside.
- Strike the retaining pin inwards through the bearing points.
The pins fall into the pin catch boards (1).
- Insert all retaining pins in the holdings (4) on the adapter unit and secure them each with two retaining needles.

3.9.3

Checking driving / working with the main boom rigging modes



Depending on whether the truck crane needs to be moved

- with a lattice extension folded at the side (axle load greater than 12 t)
- or you are working with the main boom, certain rigging modes must be fulfilled.



Be careful not to damage the lattice extension and the main boom!

Always create the corresponding rigging mode for driving or working with the main boom before you move the truck crane with the lattice extension folded at the side or work with the main boom.

Only then is the lattice extension secured against slipping and the given vehicle width is observed.

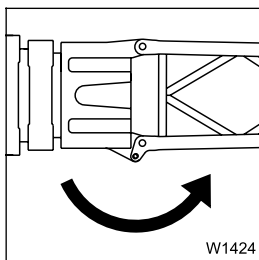
You must check transport condition:

- After unrigging the lattice extension before you move the truck crane with the lattice extension folded at the side.
- After unrigging the lattice extension before you operate the truck crane whilst working with the main boom with the lattice extension folded at the side.

The following paragraphs and the diagram show the required rigging modes for the mode in question.

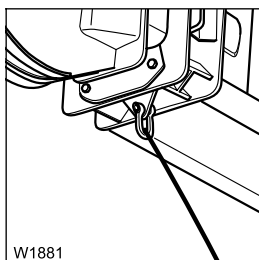
3.9.6

Swinging the lattice extension when rigging



When rigging you must swing the lattice extension from the run-up rail in front of the main boom head.

When unrigging you must swing the lattice extension up to the run-up rail. Pulling up onto the run-up rail is done via the tilt cylinder.



- Use a shackle to fix a guide rope to the connection eye on the lattice extension towards the front.



Risk of accidents from swinging lattice extension!

Always secure the lattice extension with a guide rope and make sure there are no people or objects in the slewing range of the lattice extension.

Requirements for swinging

- The connection between the foot section and the adapter unit is disconnected; *Pin connections for working with the lattice extension, p. 3-44.*
- The tilt cylinder is released on the lattice extension; *Connections in the middle area, p. 3-38.*
- A guide rope is attached to the head section.

When rigging

- Pull the lattice extension on the guide rope from the run-up rail. Here you must overcome the spring force with which the spring pins are pushed into the recesses of the run-up rail; *Pressing the lattice extension from the run-up rail, p. 3-39.*
- Swing the lattice extension in front of the main boom head.

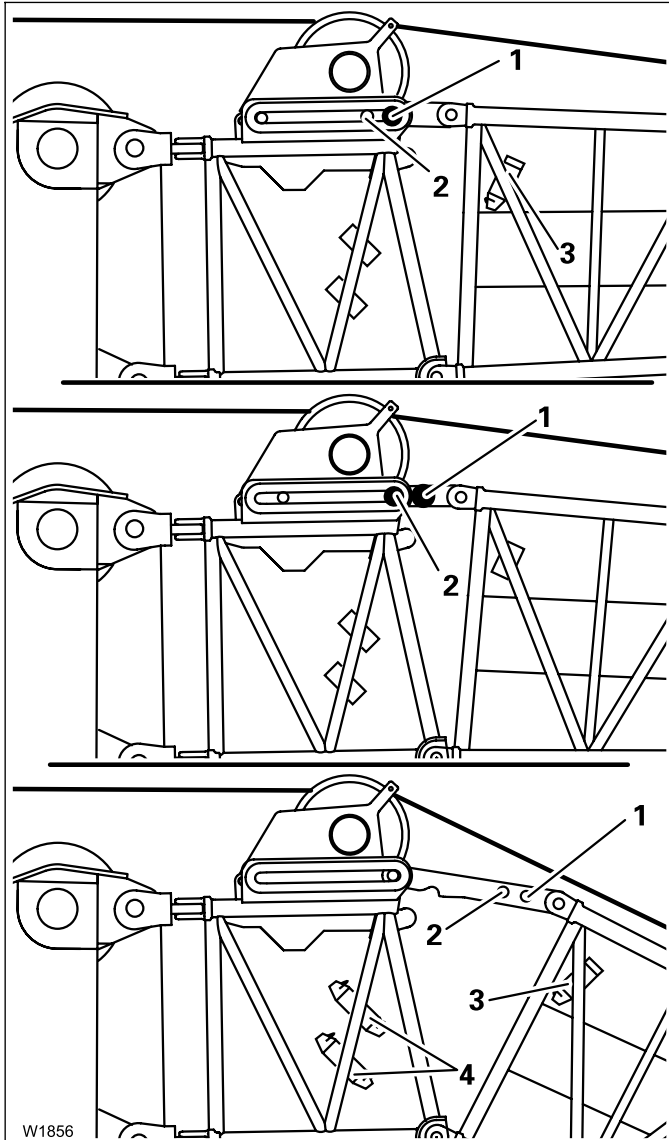
When unrigging

- Swing the lattice extension only up to the run-up rail. Pulling up onto the run-up rail is done via the tilt cylinder; *Pulling lattice extension onto the run-up rail, p. 3-39.*



Risk of accidents from lattice extension folding down!

Always secure the lattice extension with the hoist rope before you knock out pins for the angle. In this way you prevent the lattice extension suddenly folding down unchecked and injuring yourself or other people.



0° angle

On both sides the securing pins are inserted in the bores (1) and the locking pins in the holders (3).

All pins are secured with retaining needles.

The bore (2) remains free.

5° angle

On both sides the securing pins are inserted in the bores (2).

As a fall-back guard both locking pins are inserted in the bores (1).

All pins are secured with retaining needles.

30° angle

Locking pins are inserted on both sides in the holders (3) and secured with retaining pins.

The bores (1) and (2) remain free.

- Insert the securing pin into the holdings (4) and secure them with retaining pins.



Risk of accidents from non-secured securing pin!

Always secure the securing pins in the holders (4) with retaining pins.

During the raising of the main boom, non-secured securing pins slip out of the holders, fall down, and can injure people.

3.10.2

Telescoping with rigged lattice extension



The main boom may become overloaded!

With a rigged lattice extension the main boom must not be telescoped in fast speed and you must not slew the superstructure at the same time. This prevents the main boom becoming subject to additional side forces and increased vibration and becoming overloaded.

The telescoping will only be electrically released when:



– the lattice extension is engaged on the run-up rail in the Main boom operation position (*Lattice extension in driving mode* indicator lamp is not lit).



– **and** when the connecting cable plug on the right side of the main boom is plugged (*Main boom telescoping blocked* warning lamp is not lit).

Telescoping with a rigged lattice extension is released by the SLI only if the main boom is raised to an angle of approx. 75° - 78° (the exact angle depends on the length of the lattice extension (►► *Rigging programs in the lifting capacity table*)).

If the main boom angle is too small for telescoping with the rigged lattice extension angle, the SLI shows the corresponding error message.

- Put down the load.
- Raise the main boom to an angle necessary according to the rigging program (►► *Rigging programs in the lifting capacity table*).
- Telescope the main boom to the required length and observe the hook block when doing so; lower and raise it using the hoist.

Do not actuate the slewing gear when telescoping.



Telescoping with a load is released by the SLI only for loads which are below the values of the rigging programs.

11 m telescopic swing-away lattice extension

The following table is for a rigged 11 m telescopic swing-away lattice extension. There is an extra table for the 19 m telescopic lattice extension in this section.



All of the axle loads in the following table refer to a driving mode with the basic unit and a **32 t hook block** (weight 620 Kg) reeved on the lattice extension; larger hook blocks must be unreeved.

Counter-weight in t (lbs)	Telescoping Tele. I/II/III/IV	Angle of the main boom in	Lattice extension angle in °	Main boom position ¹⁾	Axle load ²⁾ in t		Axle load ²⁾ x 1000 lbs	
					front	rear	front	rear
8,0 (17 600)	0 / 0 / 0 / 0	10	5	front	13,5	14,5	29.8	32.0
	0 / 0 / 0 / 0	82	5	rear	7,5	17,5	16.5	38.6
22,0 (48 500)	0.5 / 0 / 0 / 0	10	5	front	17,0	16,5	37.4	36.4
	0 / 0 / 0 / 0	82	5	rear	11,5	19,0	25.3	41.9
36,0 (79 400)	1.0 / 0 / 0 / 0	10	5	front	20,5	18,0	45.2	39.7
	0 / 0 / 0 / 0	82	5	rear	15,0	21,0	33.1	46.3
50,0 (110 200)	1.0 / 0.5 / 0 / 0	10	5	front	21,0	21,5	46.3	47.4
	0 / 0 / 0 / 0	82	5	rear	18,5	22,5	40.8	49.6
80,0 (176 400)	1.0 / 1.0 / 1.0 / 0	10	5	front	23,0	28,0	50.7	61.7
	0 / 0 / 0 / 0	82	5	rear	26,0	26,5	57.3	58.4
100,0 (220 500)	not permissible							

- 1) Boom position at rear = 0° position, boom over truck crane rear edge
 Boom position at front = 180° position, boom over driver's cab
- 2) Axle load front: each on the 1st and 2nd axle lines
 rear: each on the 3rd, 4th, 5th and 6th axle lines



If the front outrigger cylinders cannot be extended after driving the truck crane; *Extending the outrigger*, p. 3-77.



3.15

Table of lubricants



The lubricants listed in the following table are to be used in the maintenance of the telescopic swing-away lattice extension. If the table of lubricants in the *Maintenance manual* of the GMK 6300 contains other lubricants under the same designation use only those lubricants in this table for the telescopic swing-away lattice extension.

Designation	Lubricating point	Type of lubrication	Designation in acc. with DIN 51502	Specification Classification	Lubricant type Viscosity range
J	Lubricating points (grease)	Grease gun and manually	K - L2K	DIN 51825	
K	Bearings	Use for repairs with grease	KP - L2K	DIN 51825	
L2	Slideways	Manually with brush or spatula	GROVE part no. 1373 458 ¹⁾		

¹⁾ Available from your local GROVE Product Support

3.16.6

Lubricating the telescope slide faces

M 6

For lubricating telescope slide faces the main boom with the telescopic swing-away lattice extension must be lowered into horizontal position. The telescope section must be extended.



Risk of falling when climbing the telescopic swing-away lattice extension and the main boom!


Do not climb the main boom or the telescopic swing-away lattice extension for lubrication. Danger of slipping due to grease residue, you may fall!

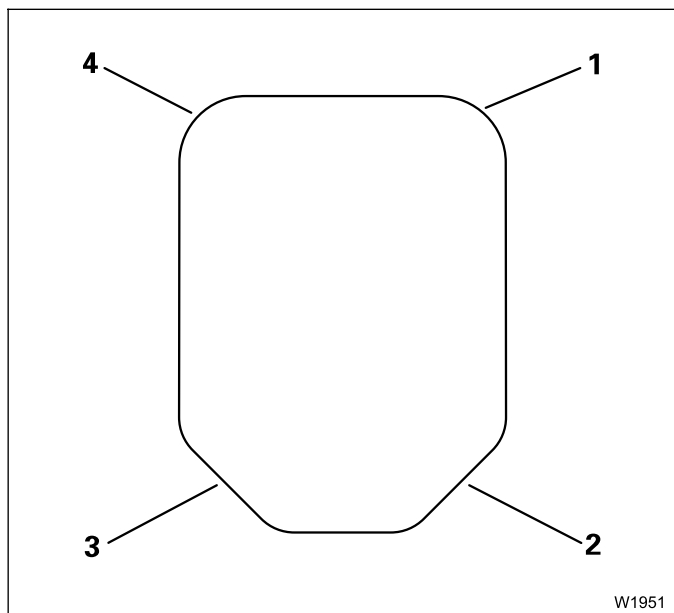
Use a ladder to lubricate.



Risk of accidents from unauthorized use of the truck crane!

During lubrication the telescopic swing-away lattice extension must not be derricked. You could fall off the ladder. Hang a warning sign in the crane cab and lock the door.

- To lubricate the chains use only lubricating grease in accordance with the *Maintenance plan*,  p. 3-81.
- Fully extend the telescopic swing-away lattice extension.



There are four slide faces on the edges of the telescope section.

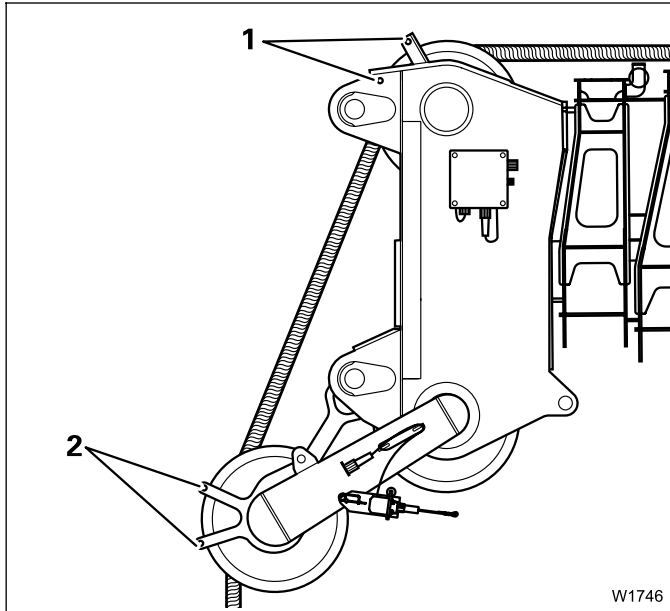
- Use a spatula to apply a thin layer of grease to the whole of the slide faces.
- Fully retract the telescopic swing-away lattice extension.



The lubricating effect is improved by extending and retracting the telescope section once again.

4.3 Reeving the hoist rope

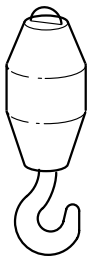




Positioning the hoist rope



- Remove the rope holding rods on the main boom head (1) and auxiliary single-sheave boom top (2).
- When reeving, guide the hoist rope over the left head sheave of the main jib.
- Insert the rope holding rod into the appropriate bore holes and secure them with the corresponding retaining pins.
- Fasten the rope end clamp on the hook tackle or hook block.

Possible reeving methods on the auxiliary single-sheave boom top

The hoist rope can be reeved no more than once when operating with the auxiliary single-sheave boom top.

	<p>Hook tackle max. load bearing capacity of the hook tackle 12 t (26 456 lbs) max. load bearing capacity with the GMK 6300: 11 t (24 251 lbs)</p>	
 	<p>1-pulley hook block max. load bearing capacity of the hook block 35 t (77 160 lbs) max. load bearing capacity with the GMK 6300: 11 t (24 251 lbs)</p>	

5 Boom extension

5.1 Components and Identification

Components

When delivered, the boom extension has the following components (see diagram on next page):

- one foot section,
- four intermediate sections,
- one angle section,
- one head section.

These components can be put together in five different length combinations. To find out which parts need to be installed in which positions;

▣► *Combination possibilities*, p. 5-5.

Identification

The boom extension is designed for the truck crane with which it was delivered. The parts of the boom extension belonging to the truck crane have the same serial number as the truck crane. All components are identified by serial number.



Operate the truck crane only with those parts of the boom extension which have the same serial number as the crane. The SLI is set only for this boom extension. This means that you can prevent malfunctions and damage.



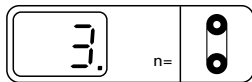
For technical reasons the truck crane may be adjusted only with one boom extension.

If you wish to use the boom extension on several GROVE truck cranes, the parts of the boom extension must be adjusted for these cranes and labelled with all of the respective serial numbers.



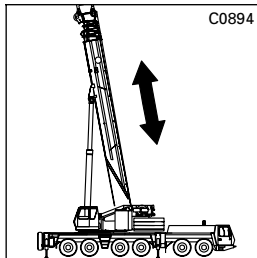
Have the matching of the boom extension carried out only by GROVE Product Support at the particular location!



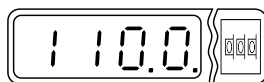


- 12.** Enter the current reeving in the SLI;
 ■■■► *GMK 6300 Operating instructions - Operation of the SLI.*

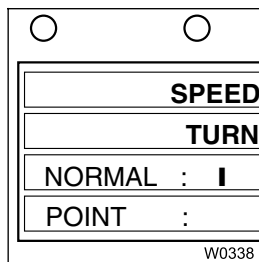
- 13.** Raise the main boom with the boom extension;
 ■■■► *Crane movements, p. 5-42.*



- 14.** If necessary telescope out the main boom to a position permissible according to the *Lifting capacity table* and lock the telescope sections;
 ■■■► *Telescoping with the boom extension, p. 5-44.*



- 15.** Select the actual rigging mode for operation with boom extension rigged on the SLI or set the respective SLI code according to the *Lifting capacity table*; ■■■► *GMK 6300 operating manual - Safe load indicator - SLI.*



- 16** The maximum permitted slewing speed for the current rigging mode is set; ■■■► *GMK 6300 Operating instructions - Maximal permitted slewing speed.*

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5.5.6

Angle section

The boom extension can be operated at angles of 3° or 25° to the main boom. For this the pins on both sides of the boom extension must be removed from the bores.

The 3° angle comes from the shape of the foot section. The angle section must be folded up completely for the 3° angle.

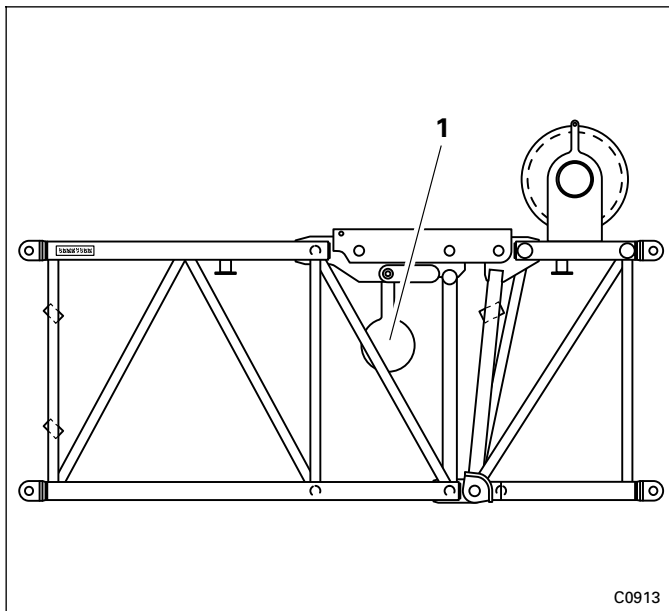


Risk of accidents from defective backstops!

The pendulum of the backstops on both sides of the boom extension must swing freely over the whole slewing range!

If it does not swing over the whole slewing range, the boom extension will not be supported at the rear.

Furthermore, the backstop can be damaged when the boom extension is set down.



- Check if the pendulum (1) of the backstops on both sides of the boom extension can swing freely.



5.6

Driving with rigged crane and boom extension

This section describes moving the truck crane with an installed counterweight and rigged boom extension.



If the truck crane is equipped with separate steering, Deutsche GROVE GmbH recommends switching to separate steering when driving on the construction site at low speeds or when steering at a standstill on the construction site.



Risk of accidents!

It is forbidden to move the truck crane with a suspended load.
Put the load down before you move the truck crane.
Secure the hook block so that it cannot swing.



Risk of overturning!

Before a rigged crane can be driven the superstructure must be locked and the slewing gear permanent brake must be engaged.



Risk of accident if the truck crane is not completely visible!

While driving the equipped truck crane, always stay in visual or radio contact with a banksman who additionally observes the parts which you cannot see (e.g. the raised boom when the superstructure is rotated to the rear).

In this way you prevent accidents resulting from collisions with persons, other construction equipment, ledges of buildings, cables or other objects.

5.6.1

Driving route

The route must be a flat, even surface. The level adjustment system cannot compensate for uneven surfaces. If the surface pressure of the tires exceeds the permissible load on the ground, the surface pressure must be increased using packing made of durable material (e.g. wooden planks).



Risk of damage to tyres!

Release no air from the tyres. Do not reduce tyre pressure!



5.7

Operation with the boom extension



Risk of overturning with too high wind speeds!

If the maximum permissible wind speed according to the *Lifting capacity table* is reached you must put down the load.

Observe the information in section *Effect of wind when operating the boom extension* (further on in this chapter) and, if necessary, lower the boom extension.



The main boom may buckle!

Accelerate and brake the crane movements in such a way that the load does not sway.



Risk of accidents from overloading!

A hook block may not be reeved on the main boom during operation with the boom extension. This hook block or load is not detected by the SLI and the truck crane can become overloaded.



Risk of accidents from overturning

During operation with the boom extension, the telescopic swing-away lattice may not be folded onto the side of the main boom. The weight is not allowed for by the SLI, so there is a danger of overturning.



Single reeving may cause danger of slack rope formation!

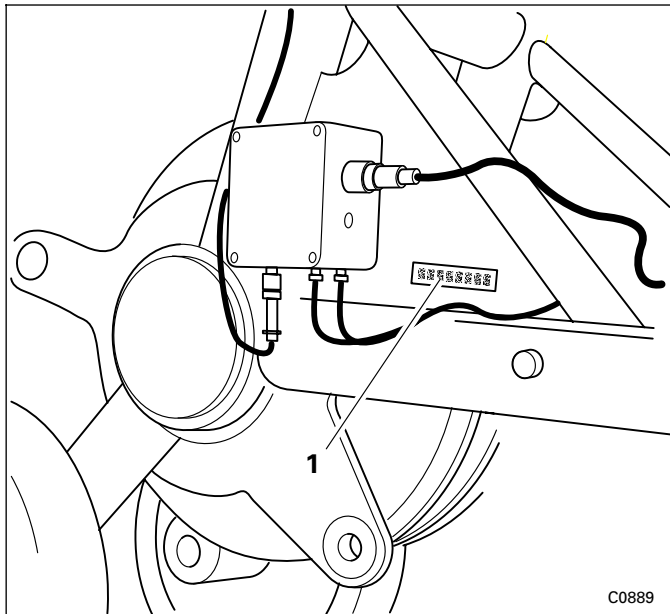
When working with system lengths of ^{*)} more than 80 m (262 ft) with single reeving, always reeve the 35 t hook block or heavier hook blocks. When using the lighter 12 t hook tackle with these system lengths, the weight of the rear hoist cable will not be compensated and the rope will go slack.

*) System length = main boom length + length of lattice extension



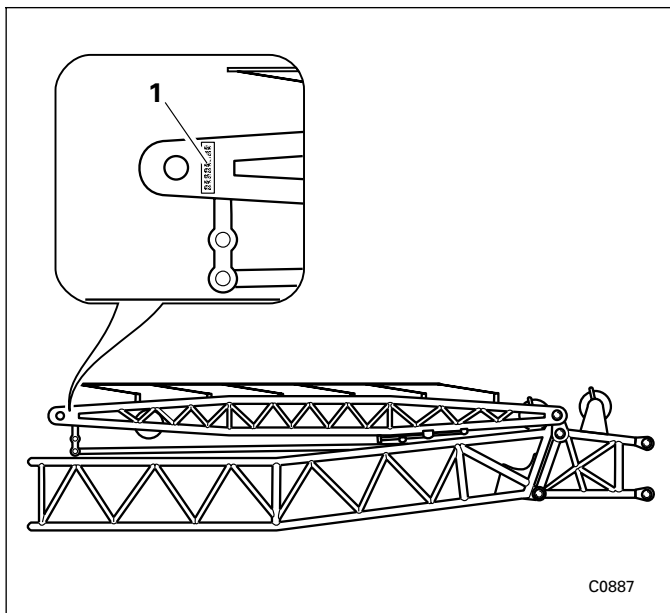
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Head section

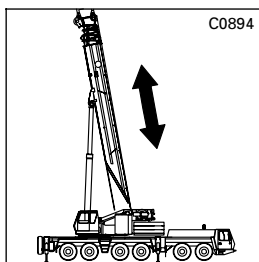


The serial number (1) of the head section is on the right-hand side next to the distributing box.

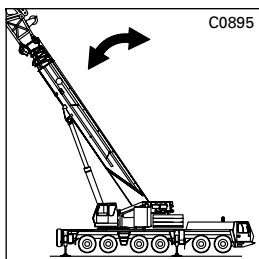
Luffing control arm



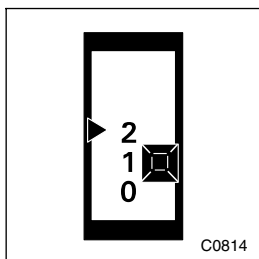
The serial number (1) of the luffing control arm is located at the end of the luffing control arm on the left-hand side.



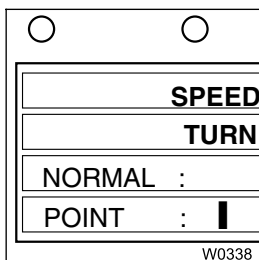
26. If necessary telescope out the main boom to a permissible position according to the *Lifting capacity table* and lock the telescope sections;
 ■■■► *Derricking the luffing jib when rigging*, p. 6-59.



27. If necessary lower the main boom to the 70° position;
 ■■■► *Derricking main boom with installed luffing jib*, p. 6-61.

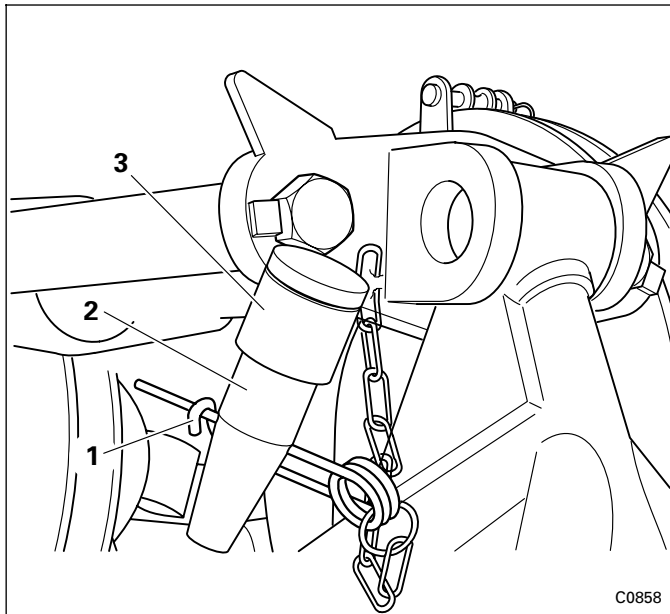


28. Put operating mode selector switch in Pos. 2: Switch *Operation*;
 ■■■► *Operating mode selector switch*, p. 6-4.

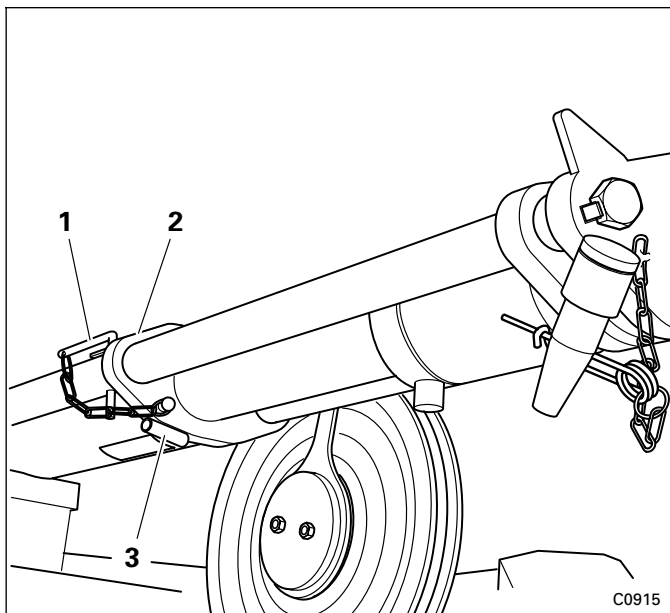


29. The maximum permitted slewing speed for the current rigging mode is set;
 ■■■► *GMK 6300 Operating instructions - Maximal permitted slewing speed*.

When unrigging




- Remove the fuse plug (1) and pull the pin (2) out of bore and eye.
- Insert the pin into the holder (3) and secure it with the fuse plug.



- Push the backstop together until the bore on the bar is behind the crown plate (2).
- Withdraw the pin (1) from the holder (3) and insert it into the bore in the bar.
- Secure the pin with a retaining pin.

The backstop is now secured for transportation.

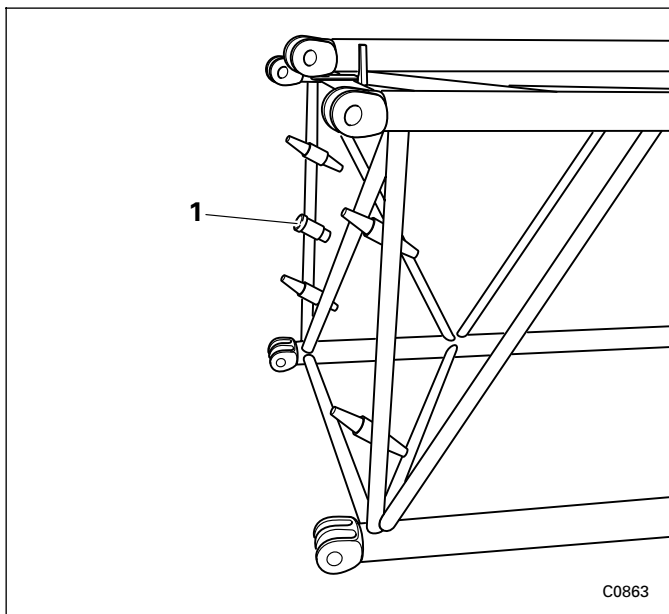
- Secure the upper hook block;  *GMK 6300 Operating manual - Fixing and reeving the guy unit - Reeving upper / bottom sheave.*
- Reel the main hoist rope up to the main boom head.

6.6.10


Installing/disassembling boom sections and suspension bars

Connecting pins

The attach pins fit into the holdings on the rear of all boom parts.



The small pins (1) are required for connecting the suspension bars.

The other pins are handled the same as the pins on the foot section;  *Handling the pins*, p. 6-30.



There is no holder for the small pins on the suspension section as no more suspension bars are rigged in front of this section.

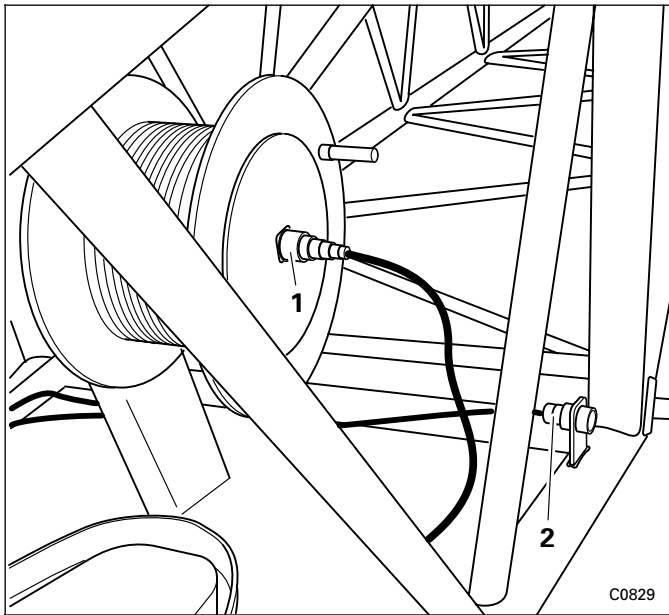
Installing

All requisite luffing jib sections are attached and locked after each other. To do this, the section rigged at the end must be placed on a support and the upper bearing points must be locked. So that the lower bearing points are aligned for locking, the luffing jib must, if necessary, be raised.



With longer luffing jibs it is better (especially when installing the head section) to first raise the luffing jib and then attach the next section with an auxiliary crane. This will give you better control over the bearing point as a long luffing jib in particular will swing considerably when being raised on account of its tare weight.





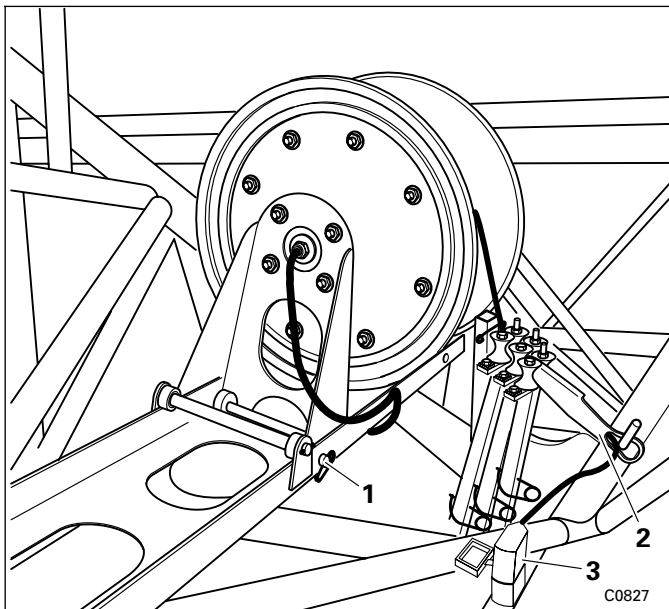
- Remove the plug (1) from the socket on the cable drum.
- Unlock the cable drum.
- Wind the connecting cable.
- Insert the plug (2) of the connecting cable into the dummy socket.
- Re-insert the contamination protection plug (1) into the cable drum socket.
- Secure the cable drum.

6.6.14

Electric connection

Spring cable drum for electric connection

The electric cable is wound onto a spring cable drum in the foot section. Before you make the electric connection, you must first put the spring cable drum in operating mode. After disconnecting the electric connection you must put the spring cable drum in operating mode again.



Transport condition:

- The spring cable drum is folded in and secured into place with pins (1);
- The strain relief (2) is attached to the hook;
- The plug (3) is inserted in the dummy socket.



- Hoist the load up only a little above the ground.
- Extend the main boom to the required length and put down the load.
- Take up the load again before retracting.



Danger from slack when telescoping with the 21 m luffing jib!

Always hoist a load of about 1800 kg before you telescope the main boom when using the 21 meter luffing jib.

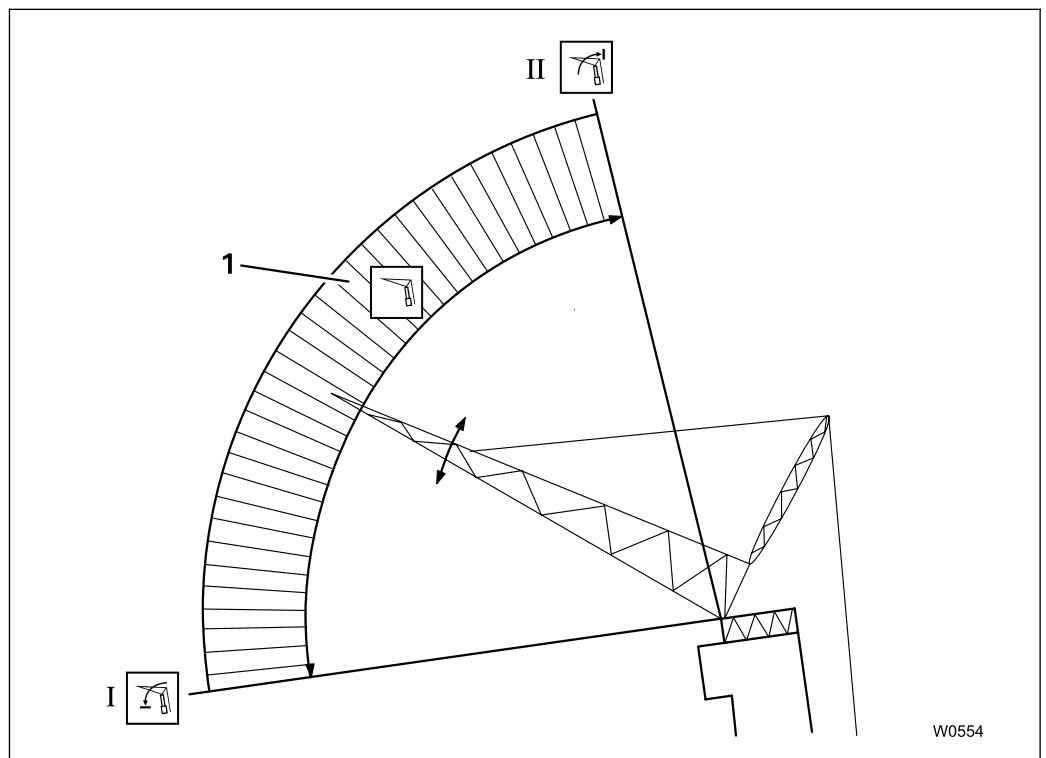
Doing this will prevent backwards torque arising because of steep positioning during telescoping.

Telescope very slowly and watch to assure that no slack forms on the auxiliary hoist rope drum.

6.6.17

Derricking luffing jib when rigging

The derricking of the luffing jib is released only when there is no load on the luffing jib.

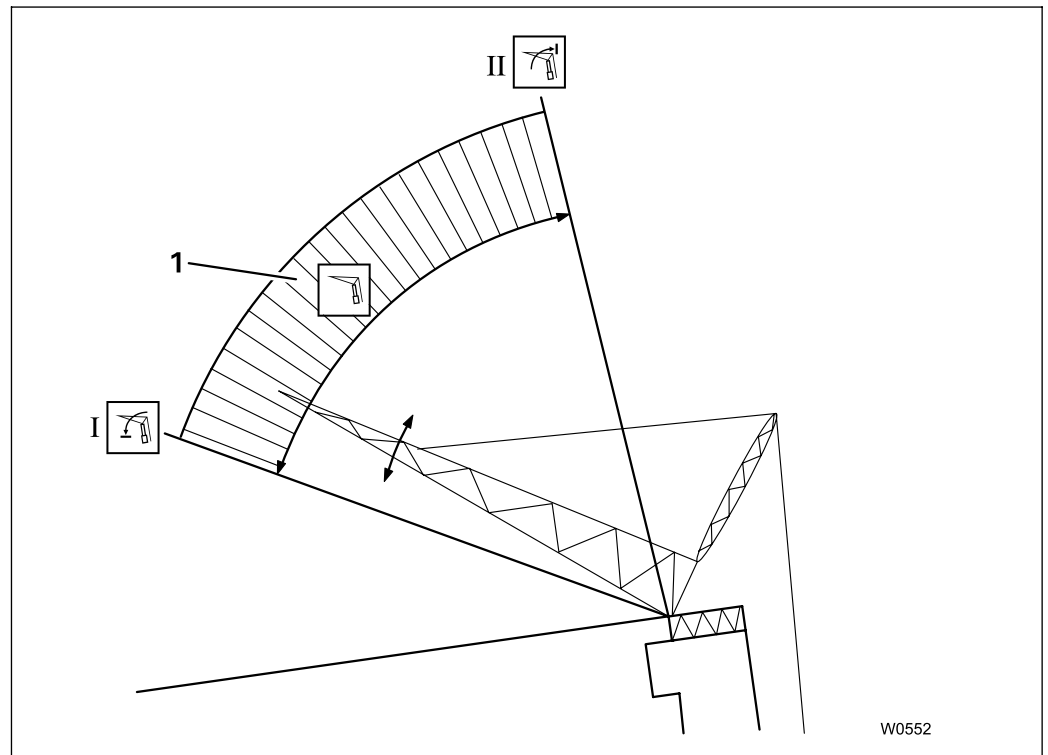


As long as the *Operating mode selector switch* is in position **1** for rigging, the indicator lamp *Rigging range* lights up and you can derrick the luffing jib within the rigging range (**1**) with the auxiliary hoist. The auxiliary hoist is operated in the same way as the main boom; *GMK 6300 Operating manual - Auxiliary hoist*.



Working range and shutdowns

Operation with the luffing jib is released only for a certain working area.



As long as the *Operating mode selector switch* is in position **2** for *Operation* the indicator lamp *Operating area* lights up and you can derrick the luffing jib within the operating area (**1**) with the auxiliary hoist.

The auxiliary hoist is operated in the same way as the main boom;
 ■■■► *GMK 6300 Operating manual - Auxiliary hoist.*



When the luffing jib is being operated the fast speed for the auxiliary hoist is blocked.

If you leave the operating area range during derricking, a warning light will also light up and crane functions become blocked. There are two shutdowns:

- Shutdown flattest position (**I**)
- Shutdown steepest position (**II**)



The following shutdowns concern only the **Operating condition** of the luffing jib (*Operating mode selector switch* in position **2**). In rigging mode (*Operating mode selector switch* in position **1**) the indicator lamps monitor other areas; ■■■► *Derricking the luffing jib when rigging*, p. 6-59 and *Telescoping with the luffing jib*, p. 6-63.



53 m luffing jib

The following table is only valid for a 53 m luffing jib. There are extra tables for other boom extension lengths in this section.

Counter-weight in t (lbs)	Telescoping Tele. I/II/III/IV	Angle of the main boom in °	Angle of the luffing jib in °	Main boom position ¹⁾	Axle load ²⁾ in t		Axle load ²⁾ x 1000 lbs	
					front	rear	front	rear
36 (79 400)	0 / 0 / 0 / 0	40	40	front	21,0	20,5	46.3	45.2
	0 / 0 / 0 / 0	82	10	rear	8,5	27,0	18.7	59.5
50 (110 200)	0.5 / 0 / 0 / 0	45	45	front	23,0	23,5	50.7	51.8
	0 / 0 / 0 / 0	82	10	rear	12,5	28,0	27.6	61.7
80 (176 400)	1.0 / 0.5 / 0 / 0	45	45	front	27,5	28,0	60.6	61.7
	–	–	–	rear	not permissible			
100 (220 500)	not permissible							

- 1) Rearward boom position = 0° position, boom over truck crane rear edge
Forward boom position = 180° position, boom over driver's cab
- 2) Axle load front: on the first and second axle lines, respectively
rear: on the third, fourth, fifth and sixth axle lines, respectively.



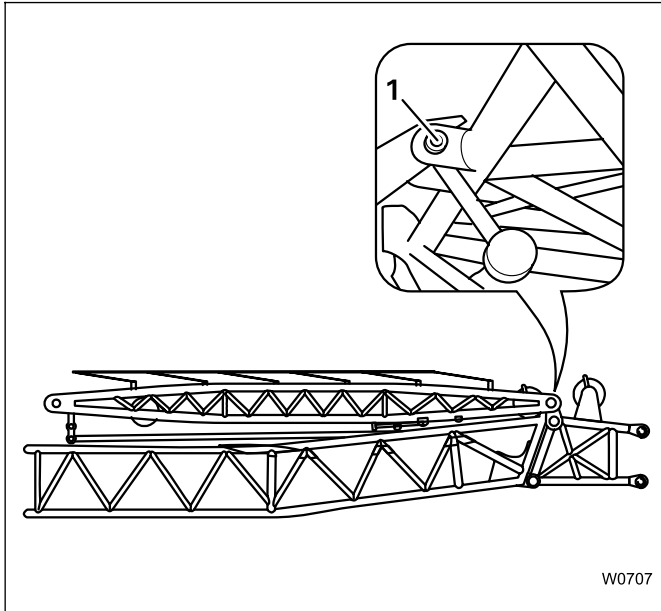
The axle loads specified refer to a driving mode with the basic unit including the **35 t** hook block.



6.11 Maintenance work

6.11.1 Lubricating the fall-back guard

M 1



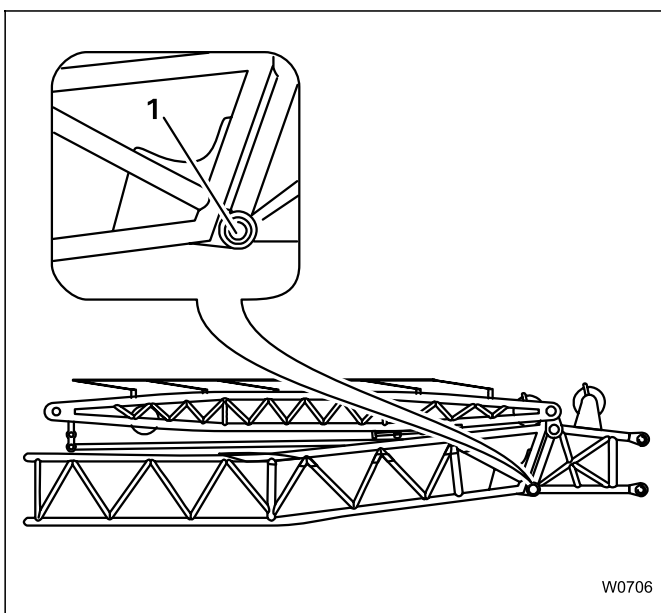
On the foot section, a lubricating nipple in the pivot point of the fall-back guard is to be lubricated.

- Clean the lubricating nipple (1) and lubricate it with a grease gun.
- Use lubricating grease as indicated in the *Maintenance plan*, p. 6-85.
- Move the fall-back guard so that the grease is evenly distributed.

6.11.2 Lubricating connecting pins

M 1

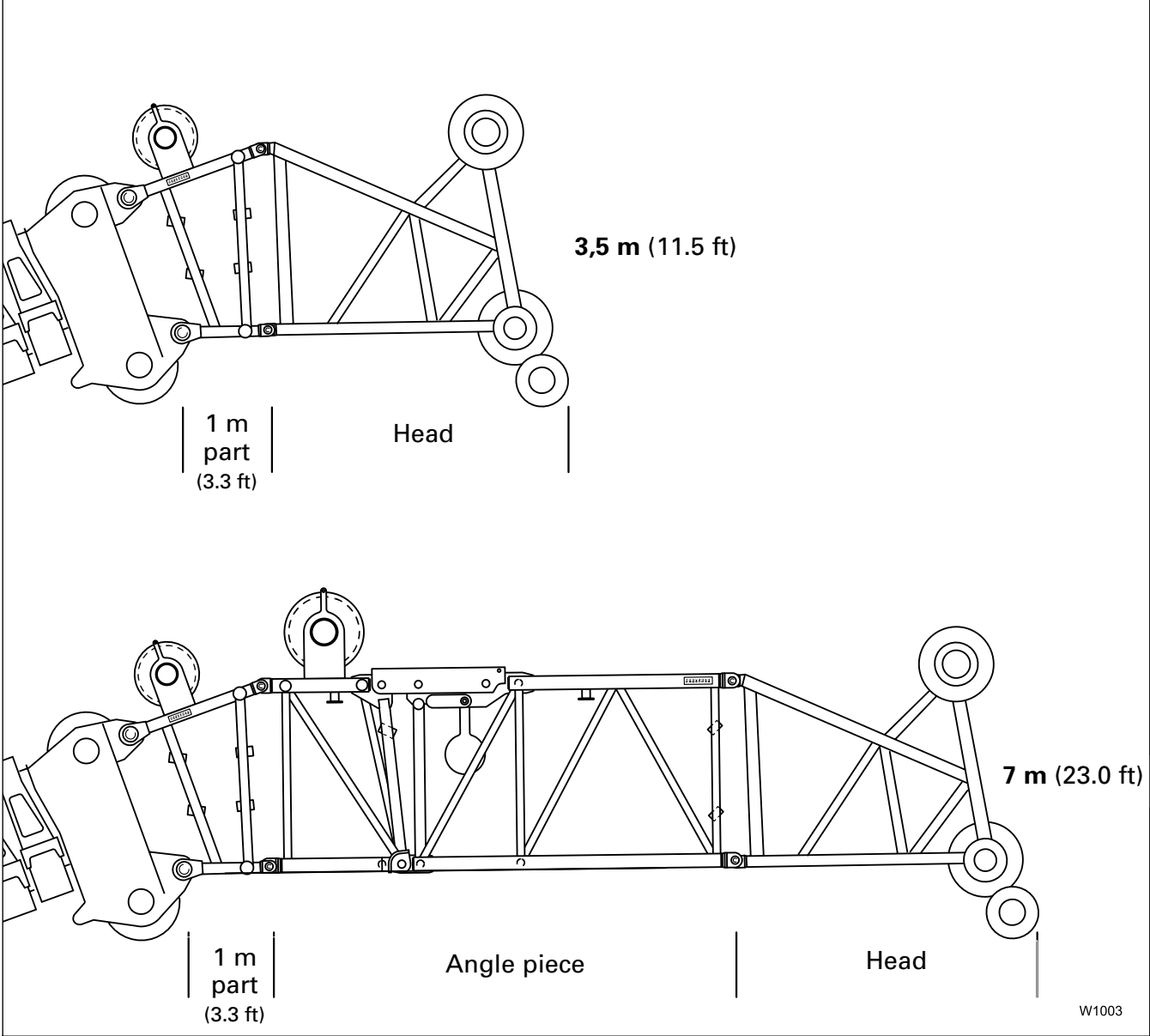
One lubricating nipple on the connecting pins on the left and right sides of the foot section is to be lubricated.



- Clean the lubricating nipple (1) and lubricate it with a grease gun.
- Use lubricating grease as indicated in the *Maintenance plan*, p. 6-85.

7.2 Combination possibilities

The separate components of the heavy load lattice extension can be assembled in two different versions.



W1003

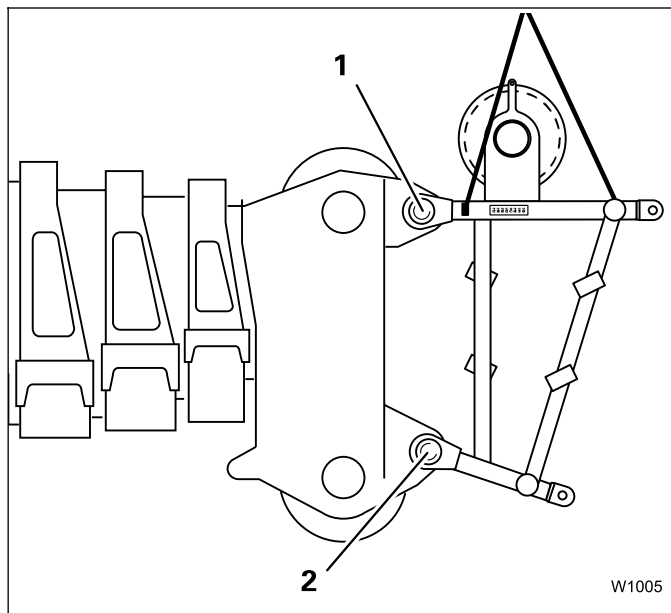
18.02.2000

Installation

Using an auxiliary crane, sections of the heavy load lattice extension are lifted up and locked into place during installation, one after the other.

▣▣▣▣ *Slings points*, p. 7-5;

▣▣▣▣ *Handling the pins*, p. 7-12.



- Using an auxiliary crane, lift the 1 m section in front of the pulley head in such a way that the lower bearing point is aligned between the main boom head and the 1 m section and inset the bolts (2).
- Now lift the 1 m section until the upper eyes in the 1 m section are aligned with the upper bearing points on the main boom head.
- Insert the bolts (1) and secure them all four bolts with the retaining pins.




The other sections are installed in the same way as the 1 m section:

- For the **3,5 m** heavy load lattice extension, install the head in front of the 1 m section.
- For the **7 m** heavy load lattice extension, first install the angle piece in front of the 1 m section and then the head in front of the angle piece.



Possible reeving methods on the heavy load lattice extension

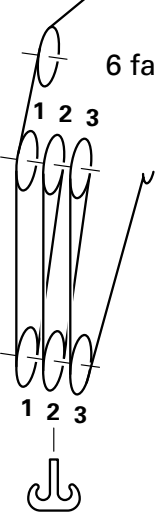
The illustration shows all reeving methods which are possible with the available rollers. Because of the maximum load bearing capacity of the heavy load lattice extension, a greater reeving than 4 falls is not necessary.

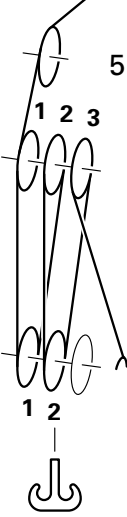
3-pulley hook block
max. Load bearing capacity of the hook block: 80 t (176 370 lbs)

max. Lifting capacity with the GMK 6300:


for reeving	6 fall	66 t	(145 505 lbs)
for reeving	5 fall	55 t	(121 254 lbs)
for reeving	4 fall	44 t	(97 003 lbs)



6 fall



5 fall



4 fall

C0875



7.8**Driving with rigged crane and heavy load lattice extension installed**

This section describes how you can move the truck crane with an installed counterweight and rigged heavy load lattice extension.

**Risk of accidents!**

It is forbidden to move the truck crane with a load on the hook.
Put the load down before you move the truck crane.
Secure the hook block so that it cannot swing.


**Risk of overturning!**

Before a rigged crane can be driven the superstructure must be locked and the slewing gear permanent brake must be engaged.

7.8.1**Driving route**

The route must be a flat, even surface. The level adjustment system cannot compensate for uneven surfaces. If the surface pressure of the tyres exceeds the permissible load on the ground, the surface pressure must be increased using packing made of durable material (e.g. wooden planks).

**Risk of tyre damage!**

Check the pressure in the tyres before the rigged truck crane is moved!
The truck crane may be moved only if tyre pressures are at the prescribed levels;  *Operating instructions GMK 6300 – Technical Data.*
Do not reduce the tyre pressure!

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