Operating instructions

KMK 7250

Crane identification number:

11. 09. 90

2 085 930

Foreword

These operating instructions with lifting capacity tables and outrigger pressure tables belong to the scope of supplies of truck crane KMK 7250. They are intended first and foremost for the crane operator and contain all information required to operate truck crane KMK 7250 safely for the permitted applications, which are listed.

These operating instructions are not intended to be used as a training manual for trainee crane operators. The descriptions given have been written on the assumption that they will be read by crane operators who are fully trained for working with truck cranes.

Plan each job carefully. Make sure that you obtain all the information you need concerning the route to the site (distance, route to be followed, headroom, maximum loads permitted to cross bridges, etc.). Find out details of the work to be performed by the crane (load bearing capacity of the ground, weight and dimensions of the loads to be lifted, required lifting heights and working radius, and buildings, etc., which will restrict movement). Assemble the equipment which will be needed (lifting tackle, counterweight, packing material for the outriggers, etc.). Organize the journey and procure any permits needed for it.

If you do not plan things properly you will be forced to improvise - and improvisation often leads to accidents!

A word of advice to all crane operators:

As you know, as the crane operator you are responsible for the crane and for all work connected with it.

For the safety of those around you - and of course your own safety - please follow the advice given below:

Before you use the crane for the first time, familiarize yourself with its operation in all permitted operating modes. Read these operating instructions through and compare all of the illustrations with your crane. Go through the described procedures step by step with your crane.

Always carry these operating instructions and the lifting capacity and outrigger pressure tables with you in the crane.

Pay particular attention to the crane's safety devices. Check continually that these devices are working. If you notice that a safety device is not working or is not working properly, stop work immediately.

1.5.2 Superstructure

Turntable

The crane engine, the pumps and tanks of the crane's hydraulic system, the telescopic boom, the hoists, slewing gear, derricking cylinder, crane operator's cab and counterweights are installed on the turntable.

Crane operator's cab

All controls for operating the crane are in the crane operator's cab on the left-hand side of the turntable.

The cab is fully glazed with safety glass. The sliding door has a sliding window. The roof window is made of tinted, bullet-proof glass and can be raised to ventilate the cab.

The cab is heated by a heat exchanger with the heat from the crane engine's coolant. As part of the optional equipment for preheating the engine and for heating the cab the coolant can be heated by an additional water heating system.

Crane engine and crane's hydraulic system

The crane engine is a water-cooled Mercedes-Benz diesel engine. Via a pump distributor gear it drives four axial-piston variable displacement pumps and the double fixed displacement gear pump in the crane's hydraulic system.

The tank for the crane's hydraulic system is on the turntable behind the crane operator's cab. A filter is installed in the return line. At the tank there is a stop cock in the suction line to the hydraulic pumps to allow repairs to be carried out without having to drain the oil.

Main boom

The telescopic boom comprises a non-telescoping boom section and 4 telescope sections. The main boom can be telescoped under partial load.

The main boom can be equipped with a boom extension (tubular lattice design of staggered length) at a fixed angle to the main boom (optional equipment). The radius is altered by derricking the main boom.

The main boom can also be equipped with a luffing fly jib (tubular lattice design of staggered length) (optional equipment). The radius is altered by luffing the fly jib. Luffing is effected with the auxiliary hoist.

The required surface area for supporting the crane can now be calculated:

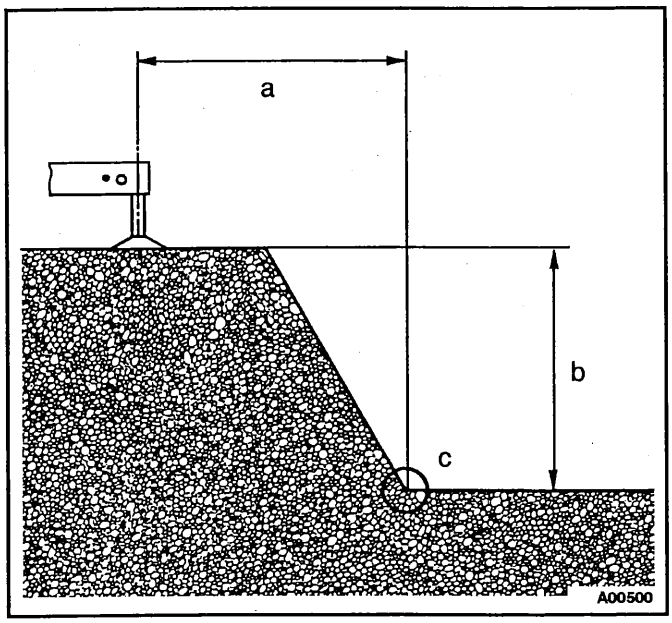
Surface area of support = outrigger pressure : load bearing capacity of ground

Always ensure that the packing material is level horizontally, and always align the truck crane horizontally with the outrigger cylinders.

Danger: If the truck crane is inclined to one side the crane may overturn.

2.4.5 Safe distance from slopes and pits

Set up the crane at a safe distance from slopes or pits. In the case of unsupported slopes and pits this distance also depends on the type of ground.



Rule of thumb:

- for *loose or backfilled* ground the distance (**a**) must be twice the depth of the pit (**b**).

  a = 2 x b

- for *grown, cohesive ground* the distance (**a**) must be equal to the depth of the pit (**b**).

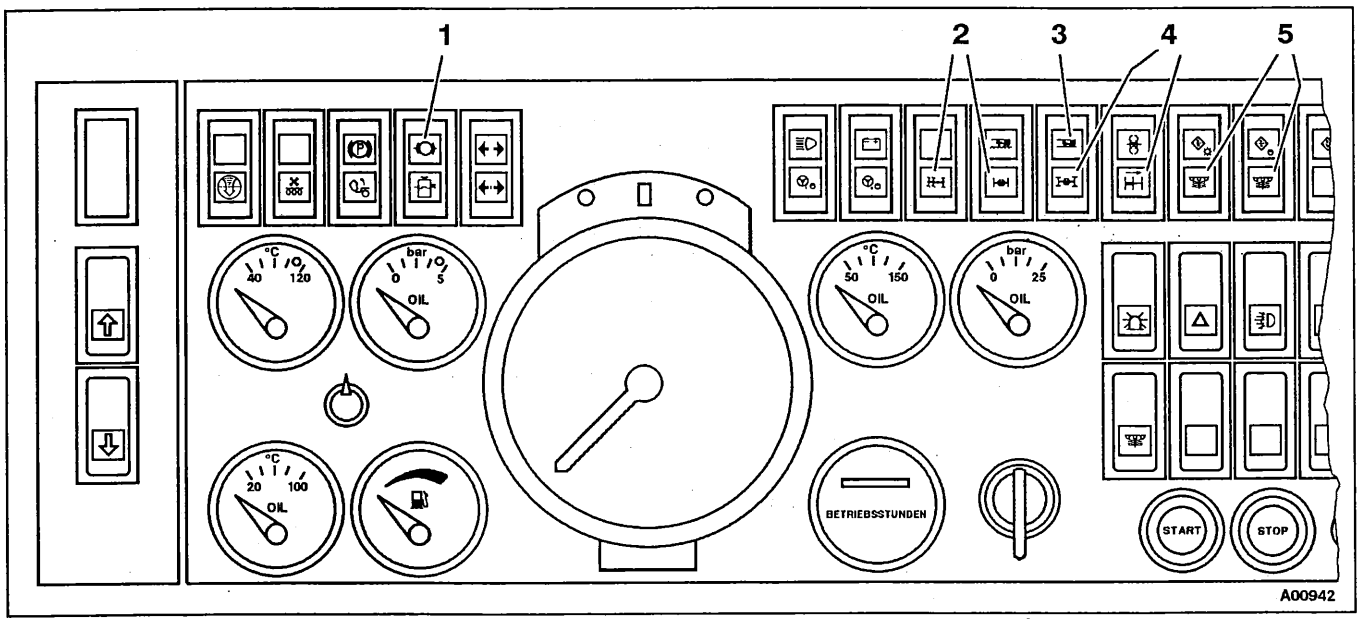
  a = 1 x b

The distance is measured from the base of the pit (**c**).

3. Driving

The truck crane may only be driven on public roads if it is in the prescribed transport condition. Details applying specifically to the transport condition of truck crane KMK 7250 are given below. In addition all laws, stipulations and regulations applying to the road safety of motor vehicles and to the use of public roads must of course be complied with.

3.1 Prescribed condition for driving the truck crane on roads



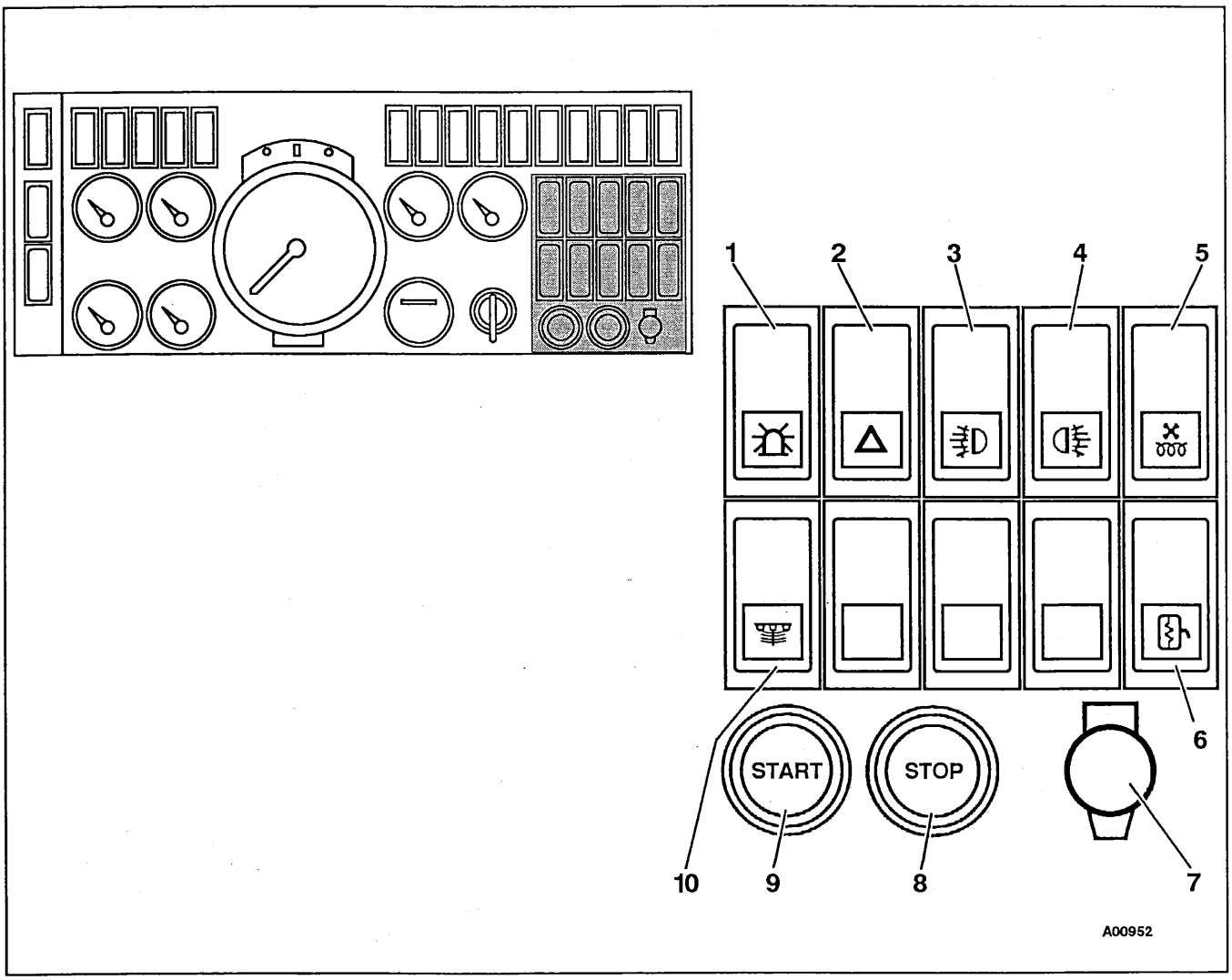
The compressed-air and brake system must be filled; warning light (**1**) must be off (please see Section 3.4.19 "Checking the compressed air system and brake system").

The transfer case is switched to the on-the-road mode; indicator lamp (**3**) must be on (please see Section 3.4.12 "Changing the transfer case to the on-the-road gear").

All differential locks and driving of the second axle line must be disengaged; indicator lamps (**2**) and (**4**) must be off (please see Section 3.4.14 "Checking that the level of the carrier is correct for driving on roads").

The suspension must be unlocked, indicator lamps (**5**) must be off (please see Section 3.4.13 "Checking the suspension system").

The first axle line must be lowered (see Section 4.7.4 "Lowering the first axle line").



1 Rocker switch "rotating warning lights" with indicator lamp

2 Rocker switch "hazard warning lights" with indicator lamp

3 Rocker switch "fog lamps" with indicator lamp

4 Rocker switch "rear fog lamp" with indicator lamp

5 Rocker switch "additional heating system" (optional equipment)

6 Rocker switch "mirror heating" with indicator lamp

7 24-V socket

8 Push button "stop engine, driving engine"

9 Push button "driving engine starter button"

10 Rocker switch "suspension locking system 1st to 7th axle lines" with indicator lamp

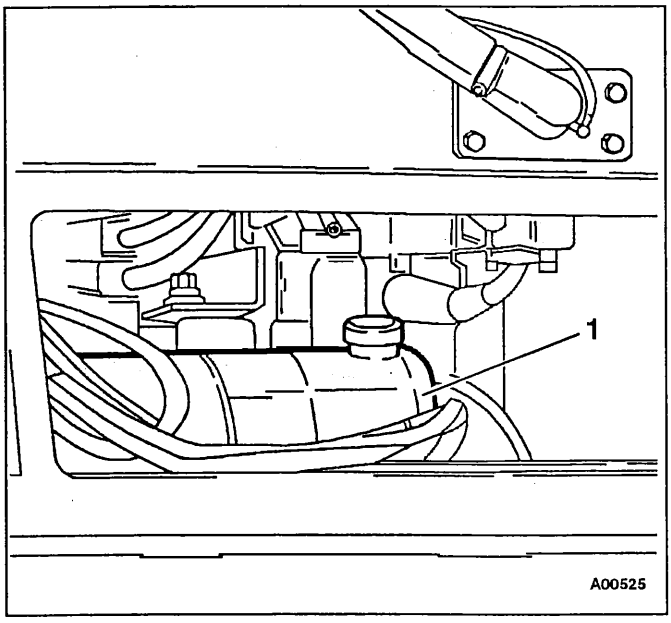
3.4.6 Checking the tyres

Check the condition of the tyres and the air pressure while the tyres are cold. If the air pressure is higher because the tyres are hot after driving, do not release air.

Tyres:	Air pressure (bar)
14.00 R 25	10.0
16.00 R 25 (optional equipment)	9.0
17.50 R 25 (optional equipment)	7.0

3.4.7 Checking the windscreen washing system reservoir

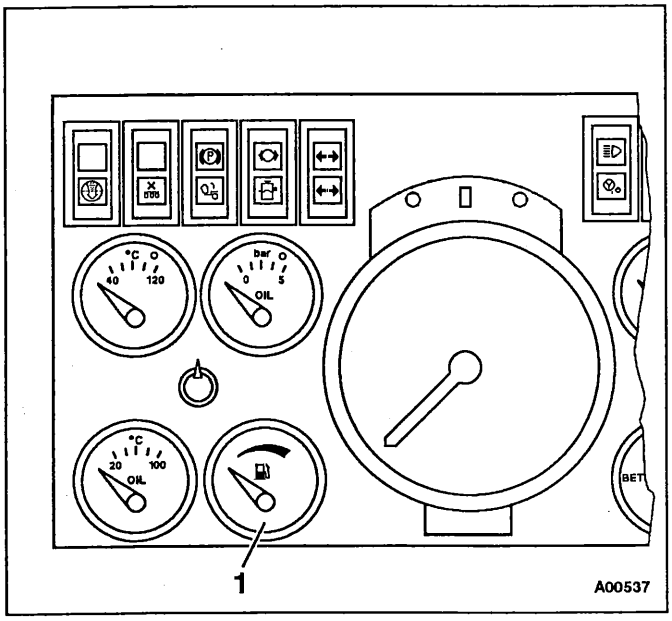
Ensure that the reservoir is always filled and add a cleaning agent and antifreeze to the water.



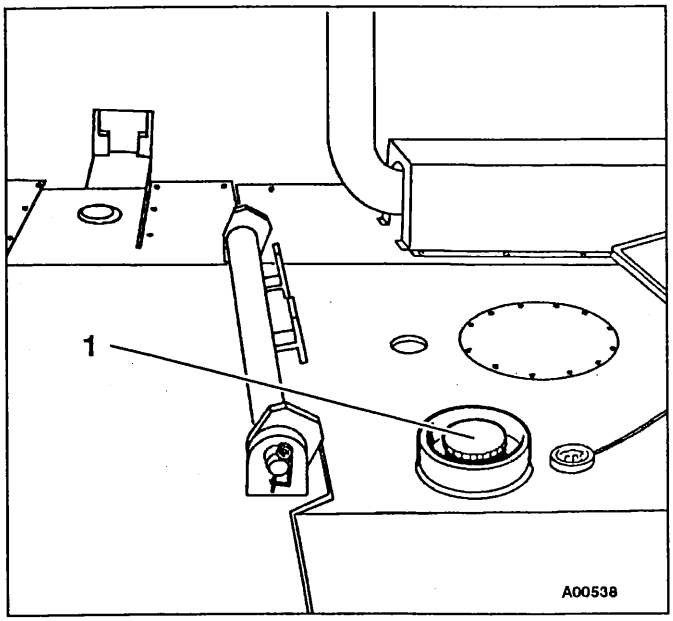
The reservoir (**1**) for the windscreen washing system is behind the front grille.

Unlock the front grille (turn the seven locking pins at the edge of the grille to the left) and fold the grill upwards.

3.4.20 Refuelling



Check the fuel gauge (**1**) at regular intervals and refuel with diesel in good time.

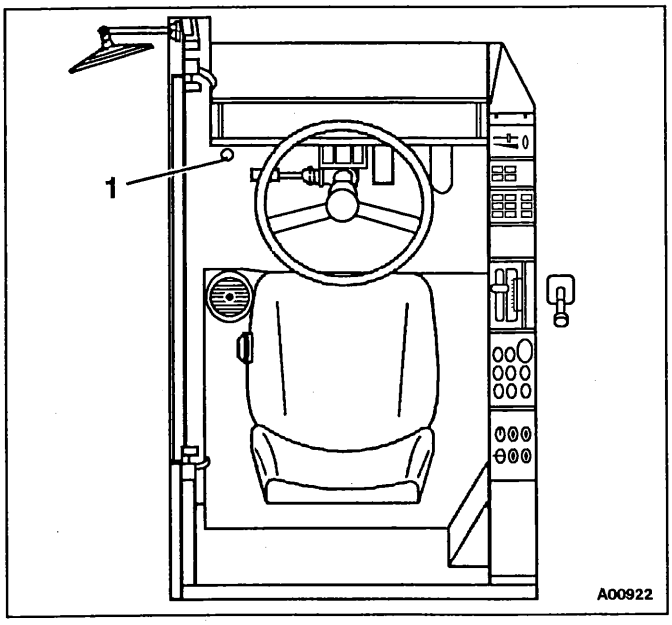


The filler neck for the fuel tank for the driving engine (**1**) is in the middle of the carrier behind the boom support.

Note: The fuel tank for the crane engine must also be filled up (please see Section 4.3.16). When filling the tank always use a funnel with a filter.

Caution: The fuel specification for the driving engine is given in Mercedes Benz's operating instructions, supplied with these operating instructions.

3.5.7 Driving downhill



When driving downhill the retarder of the automatic gearbox can be used within any gear range.

To engage the retarder the accelerator should be released and the retarder switch (**1**) pressed.

To increase the braking force you can change into a lower gear and select gear mode **P** (hill) (please see Section 3.5.3 "Automatic gearbox - alternative modes").

As long as the retarder is engaged the gearbox can not change into a higher gear.

Note: If you press the accelerator while the retarder switch is pressed the retarder will be switched off and the gearbox can change into a higher gear. When driving downhill you should therefore select a lower gear range to ensure that the gearbox does not change into a higher gear when this is not desirable.

Caution: When driving downhill for long stretches with the retarder on pay particular attention to the gear oil temperature (please refer to Section 3.5.6 "Gear oil temperature gauge").

3.7.6 Carrier level adjustment

To improve the off-the-road handling of the truck crane its ground clearance and the angle of its chassis can be altered with the carrier level adjustment system.

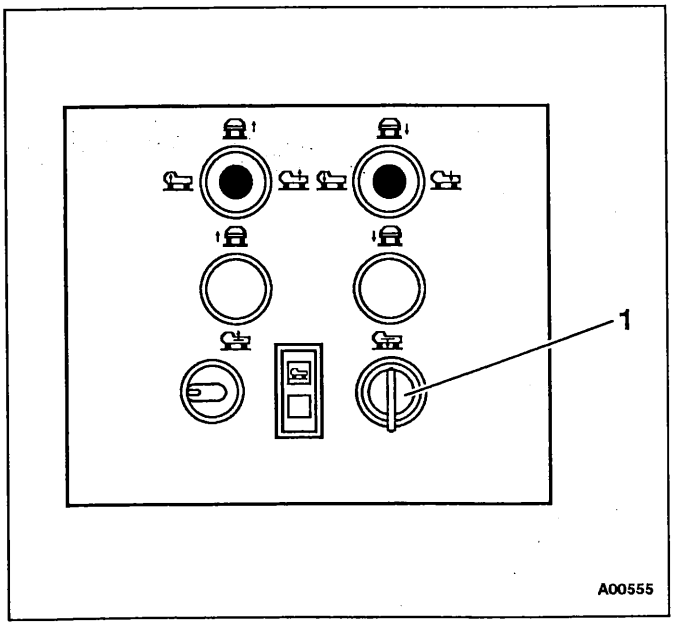
Activation of the carrier level adjustment system is blocked with a key switch. When this key switch is turned on, the following functions can also be activated:

- Driving of the second axle line
- Longitudinal differential lock in the transfer case
- Longitudinal differential lock on the transfer drive axle, fifh axle line
- Transverse differential locks in the driven axle lines
- Blocking of gears 3, 4 and 5 of the automatic gearbox (the truck crane can then only be driven in gears 1, 2 and R)

Switching on the carrier level adjustment system

The vehicle is stationary, the parking brake is on, the gear lever is in the neutral position **N**.

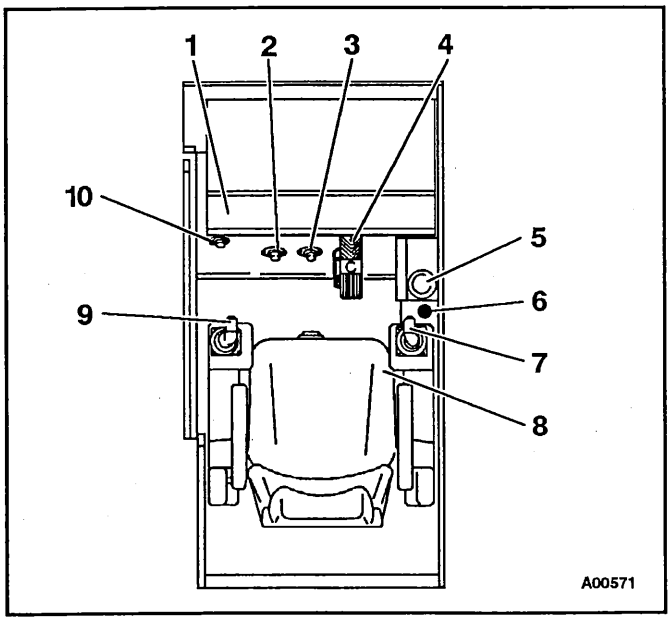
Caution: Whenever the level of the carrier is adjusted the suspension locking system must be switched off on all axle lines. All differential locks and the second axle line drive must also be disengaged.



- Insert the key into the key switch (**1**) in the driver's cab, and turn it to the right.
  Push the key in in this position and with it still pushed in turn it back to the left.
- For changing the level of the carrier keep the engine speed at 1000 to 1300 min^{-1} by pressing the accelerator .

4. Crane Operation

4.1 Crane operator's cab on superstructure



1 Front instrument panel

2 Foot-operated switch for fast speed for derricking gear and telescope gear

3 Foot-operated switch for fast speed for main hoist and auxiliary hoist

4 Accelerator

5 Circular spirit level

6 Throttle

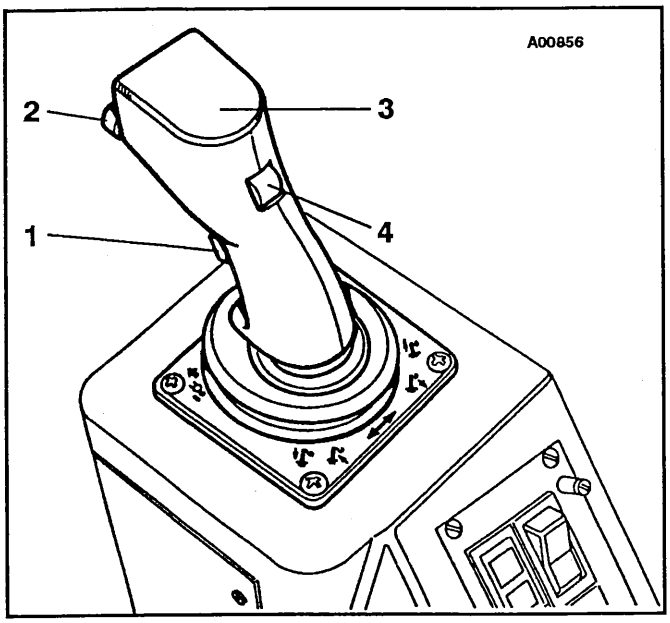
7 Control lever for main hoist, telescope gear and derricking gear with horn button and dead man's button

8 Crane operator's seat with dead man's switch for seat and instrument panels on the right and left-hand sides under the arm rests

9 Control lever for auxiliary hoist and slewing gear with horn button and dead man's button

10 Foot-operated switch "free movement position for slewing gear"

4.1.3 Right-hand control lever



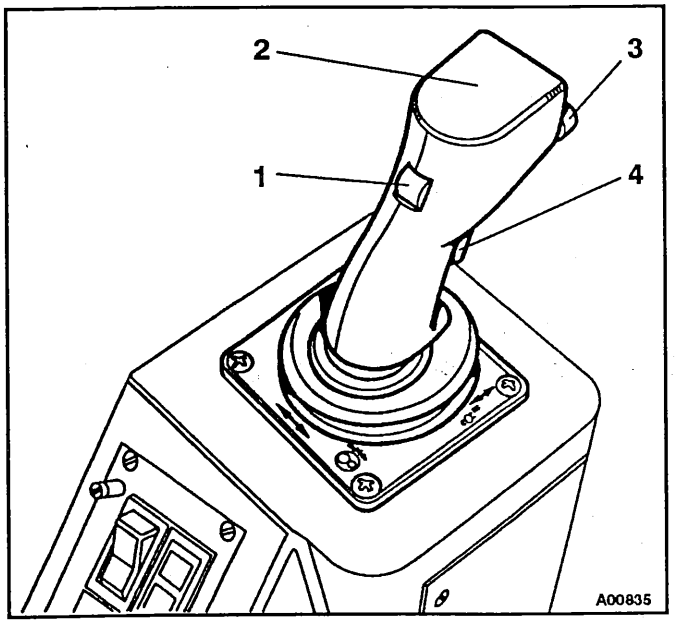
1 Dead man's switch

2 Horn button

3 Control lever for:
- main hoist - lifting / lowering
- main boom - raising / lowering
- main boom - extending (telescoping out)/ retracting (telescoping in)

4 Synchro in rope drum - main hoist

4.1.4 Left-hand control lever



1 Synchro for rope drum - auxiliary hoist

2 Control lever for:
- auxiliary hoist - lifting / lowering
- turning the superstructure to the right / left

3 Horn button

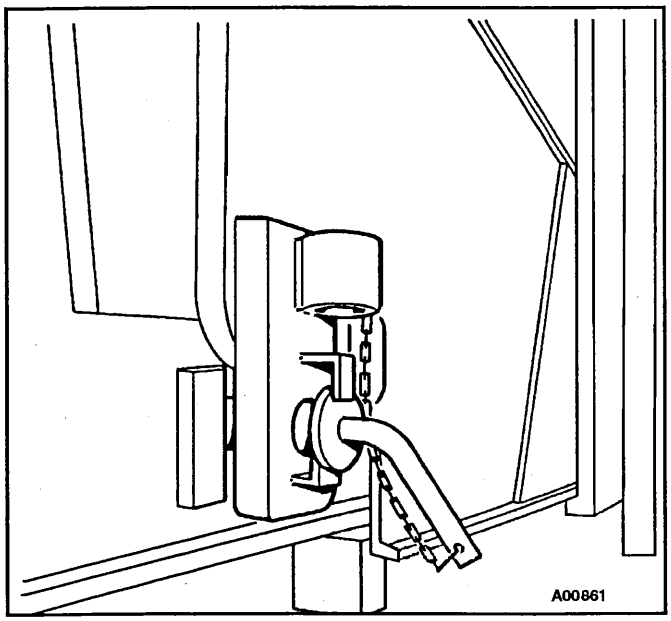
4 Dead man's button

Pin position

The outrigger beams can be extended to two spans (6.3 m or 8.6 m).
So that the outrigger beams can be extended to the required span stop plates are welded to them. The pins on the side of the outrigger beam and outrigger frame are inserted so that the stop plates strike them when the outrigger beam is extended. During this process the pins are in the **stop position**.
The outrigger beam is extended to the span when the stop plates are against the pins.

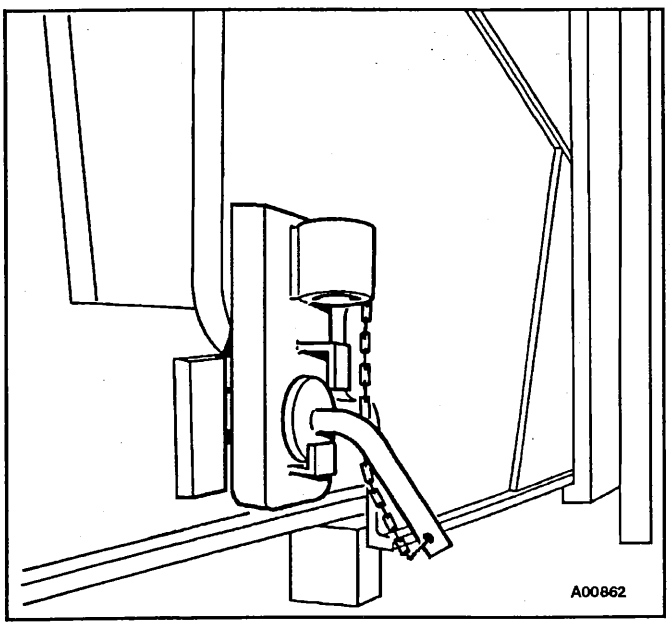
The pins are then inserted completely to lock the outrigger beam. The pins are then in the **locked position**.

Note: The pins can only be inserted completely if the stop plates are against the pins.



Stop position:

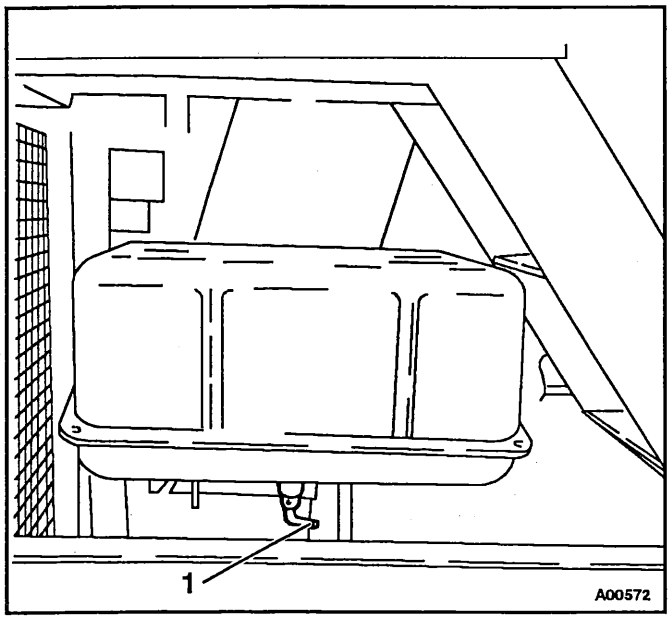
When the pins are in this position the outrigger beams can be extended until the pins strike the stop plates.



Locked position:

When the pins are in this position the outrigger beam is locked.

4.3.10 Switching on the battery master switch



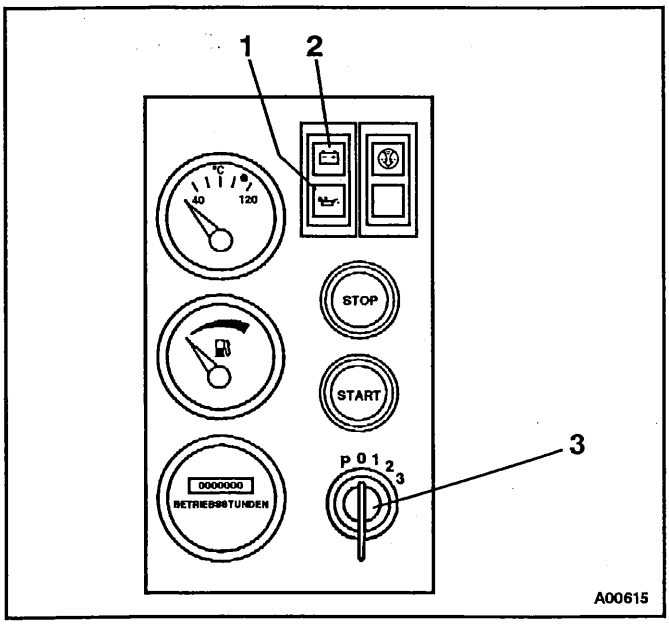
The battery master switch (**1**) for the superstructure's electric power supply is under the battery box. The battery box is on the right-hand side of the superstructure under the steps.

4.3.11 Adjusting the crane operator's seat

Adjust the hydraulic suspension of the driver's seat to suit your height and weight. The height of the seat, the angle of both seat and back rest and the stiffness of the suspension are all adjustable. The height and angle of the headrest are also adjustable.

4.3.12 Switching on the ignition

Push the ignition key (**3**) into the combined lighting and ignition switch as far as it will go and turn it to position **1**.



The following indicator lamps must be on: charge indicator lamp (**2**) and engine oil pressure (**1**).

Note: The crane controls are not activated by just switching on the ignition, i.e. they cannot be operated until the engine is running.

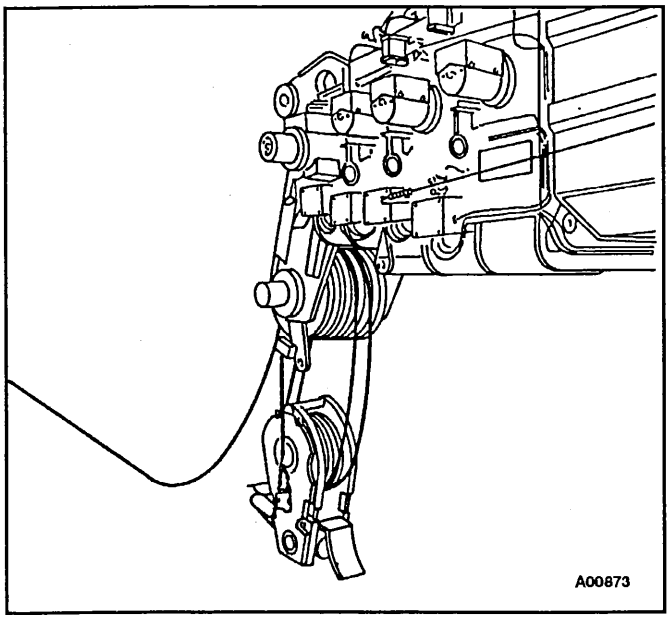
4.6 Operating the crane

4.6.1 Picking up the hook block

If the truck crane is equipped with 14.00 R 25 tyres the 30-t hook block can be left on the carrier when the crane is driven.
If the truck crane is equipped with 16.00 R 25 tyres the hook blocks have to be transported on a separate transport vehicle.

Picking up the hook block from the separate transport vehicle

Caution: The truck crane has to be supported with the outriggers before it is turned **otherwise it may overturn.**
(Please see Section 4.3.2 "Outriggers").



- Turn the superstructure so that the boom head is exactly vertical above the hook block.
- Reel off the hoist rope.
- Reeve the hoist rope (please see Section 4.6.2 "Reeving the hoist rope").

Caution: Do not let the hoist rope out too much when picking up the hook block or it will form slack. Loops are formed on the hoist drum if the hoist rope is too slack which leads to slipping of the load during operation and to destruction of the hoist rope.

Placing the 30 t hook block in the hook block holder and securing the hoist rope for driving on roads

- Raise the main boom and turn the superstructure until the hook block is hanging above the holder.

Danger: **To avoid accidents**, check that nobody is on the carrier before you raise the boom and turn the superstructure.

Caution: Be careful not to damage the truck crane with the hook block when raising the boom and turning the superstructure.
Ensure that the hook does not swing.

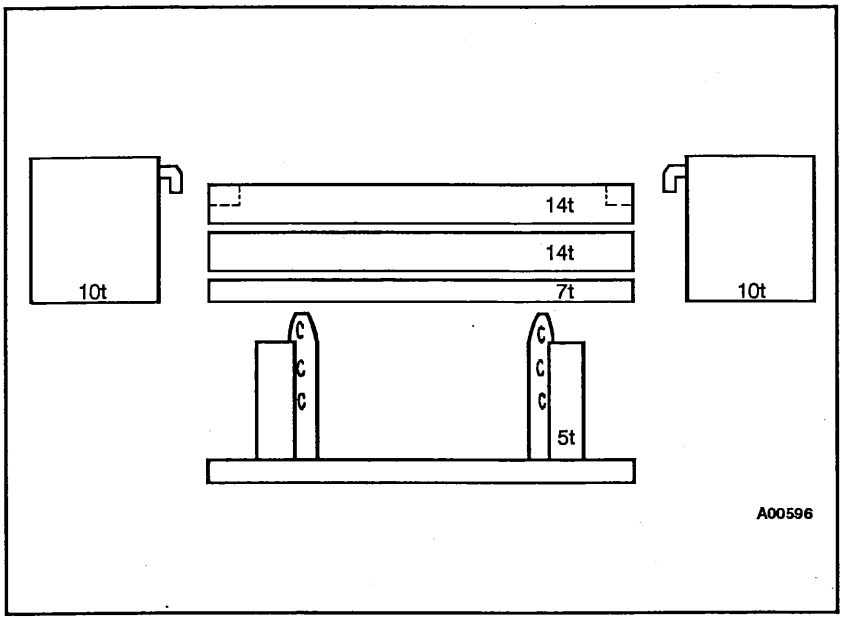
- Fold the hook block holder up and pull the holding rod out of the bore.
- Place the hook block in the holder.
- Push the holding rod through the bores in the holder and into the slots in the hook block so that the hook block cannot slip or fall over. The hook block is now secured for driving on roads.

Caution: Hook blocks which are not as wide as the holder have to be held in place with wedges or suitable material. Ensure that the hook block is firmly secured in the holder, **otherwise accidents may occur**.

- Place the main boom on the boom support.
- Place all hoist rope falls in the rope holder on the boom support.

Hook block and hoist rope are now secured for driving on roads.

60-t counterweight



The following sections are stacked on the 5-t counterweight section:

1st the 7-t counterweight section

2nd the 14-t counterweight section (with no attachment points at the side)

3rd the 14-t counterweight section (with attachment points at the side).

4th the two 10-t counterweight sections are inserted at the attachment points on the right and left-hand side of the counterweight.

Note: So that the two 10-t counterweight sections can be attached to the counterweight the 14-t section with the attachment points at the side must be on top.

- Set the SLI code for a 0-t counterweight and the corresponding span.
- Lift the counterweight sections off the carrier one by one.

Danger: Only use lifting tackle with a sufficient lifting capacity.

The lifting tackle may only be attached at the attachment points. The counterweight section will only be suspended in the right position if it is attached at the attachment points.

Danger: The counterweight sections may only be lifted one at a time. If more than one counterweight section is lifted at once **accidents may occur.**

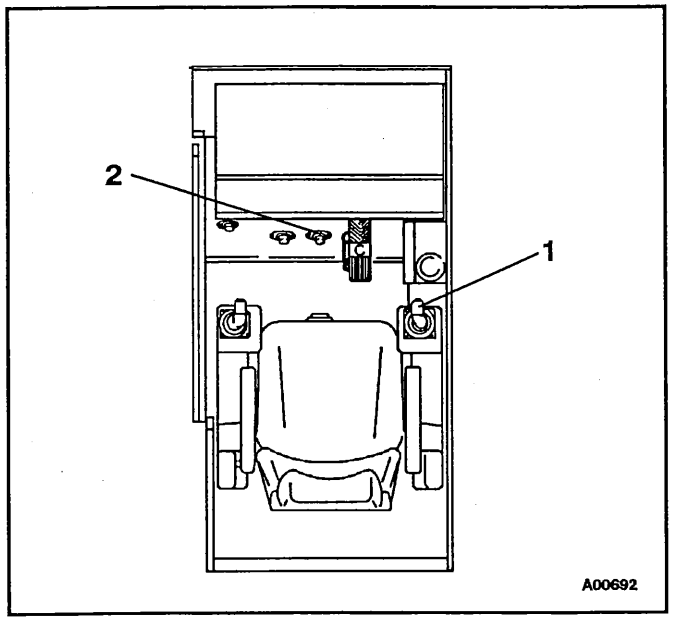
Caution: Take care that the counterweight sections do not knock against the lifting cylinders at the side and damage them.

- Retract the outriggers completely (please see Section 4.3.2 "Outriggers").

Caution: When the truck crane is driven on roads no part of the counterweight may be transported on it.

4.6.11 Main hoist

The hoist rope of the main hoist can be used with the main boom or boom extension or luffing fly jib.



Lifting:
Move the right-hand lever (**1**) backwards

Lowering:
Move the right-hand lever (**1**) forwards

The speed of the main hoist can be regulated with the lever and by altering the engine speed.

Note: Maximum speed can only be reached at an engine speed of approx. 1200 min^{-1}. Below 1200 min^{-1} the maximum speed of the main hoist corresponds to the engine speed.

Fast speed (for raising and lowering)

Fast speed is switched on with foot-operated switch (**2**). Fast speed should only be used for raising and lowering without a load. Fast speed can only be switched on when the left-hand lever (auxiliary hoist) is in the centre position.

Caution: Reduce the engine speed before switching on fast speed.
The engine speed can be increased again after fast speed has been switched on.

When lowering take care that the rope does not slacken as this leads to loops being formed on the hoist drum and thus to slipping of the load and destruction of the hoist rope.

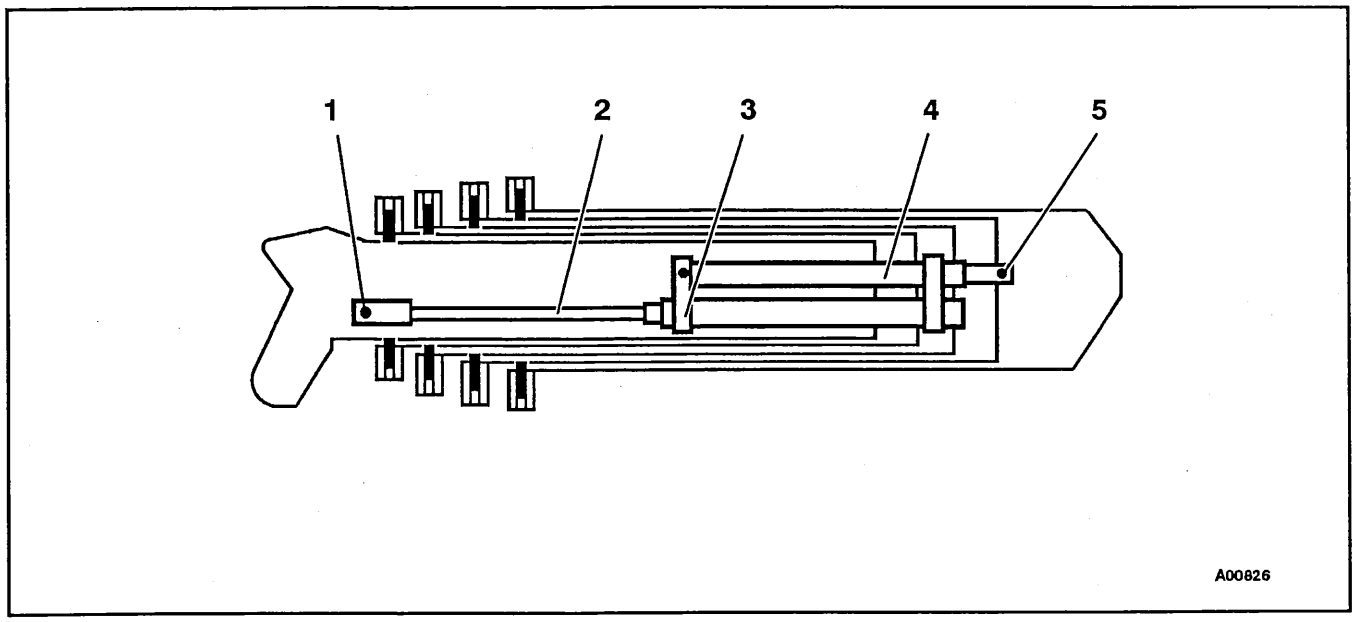
Danger: When work is stopped, even for a short period, always lower the load onto the ground.
Never leave the cab with a load still on the hook.
Suspended loads can cause accidents.

The hoist rope is stiff at low temperatures. If the reeved hook block cannot be lowered, hang a weight on it.
When reeling the rope onto the drum the hoist must be run slowly, as the rope is difficult to reel up when it is stiff.

The rope running onto the drum can be monitored with the mirror over the hoist.

The principle behind telescoping

The telescope sections are telescoped with the aid of two telescope cylinders (**2**) and (**4**) inside the main boom.



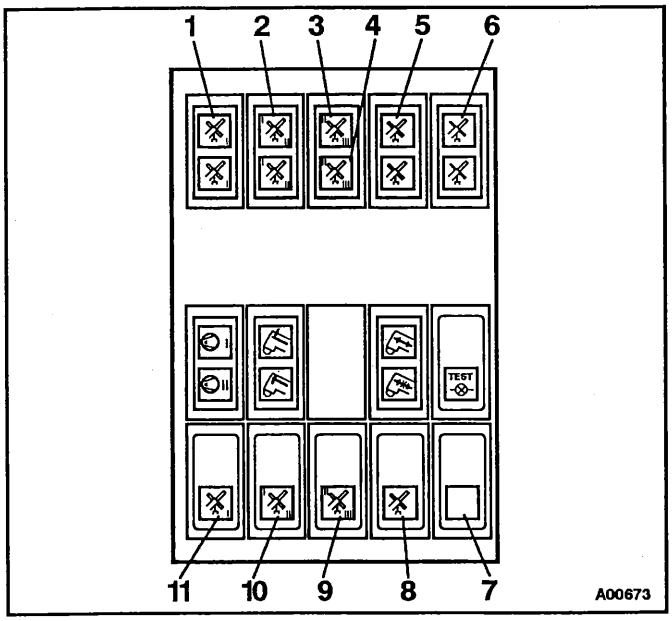
Telescope cylinder 1 (**2**): double telescoping (can be telescoped out to three times its original length)

Telescope cylinder 2 (**4**): single telescoping (can be telescoped out to twice its original length)

Both telescope cylinders are joined together permanently at one end (**3**).
The other end of telescope cylinder 2 is permanently fixed to the non-telescoping section of the boom (**5**).
The other end of telescope cylinder 1 is at the head end of telescope section IV (**1**).

Extending/retracting telescope section III

Before telescoping telescope section III all other telescope sections must be locked. Rocker switches (**7**), (**8**), (**10**) and (**11**) must be switched off and the green indicator lamps (**1**), (**2**), (**5**) and (**6**) must be on.



Telescope section III is extended/retracted in exactly the same way as telescope section I.

The green indicator lamp (**3**) is on when telescope section III is locked to telescope section II.

The pins are operated with rocker switch (**9**).

The red indicator lamp (**4**) flashes as soon as the pins start to move.

The red indicator lamp (**4**) is on when telescope section III is unlocked from telescope section II.

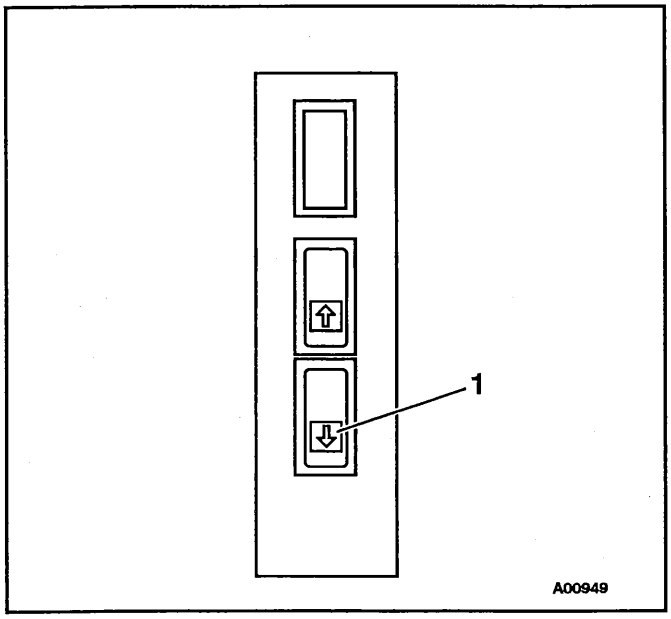
The green indicator lamp in rocker switch (**9**) is on when a position is reached in which telescope section III can be locked to telescope section II.

Telescope section III can be locked to telescope section II in the following positions:
– Telescope section III fully retracted (telescope status 0)
– Telescope section III extended 0.7 times (telescope status 0.7)
– Telescope section III fully extended (telescope status 1)

Caution: Telescope section III is not locked to telescope section II until the green indicator lamp (**3**) lights up.

4.7.4 Lowering the first axle line

Before the truck crane is driven on roads the first axle line must be lowered onto the ground again.



- Press rocker switch (1) and hold it down. Lower the first axle line fully.

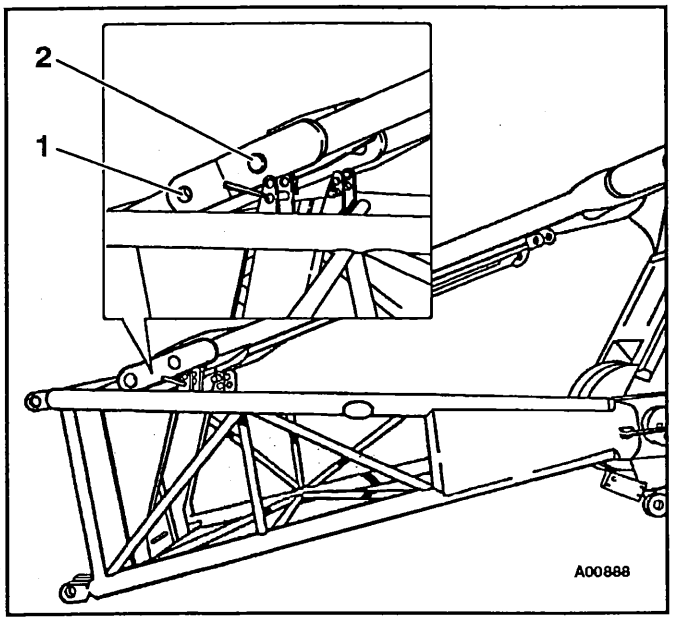
When the first axle line has been lowered the axle loads have to be equalized. This is carried out by setting the carrier level adjustment system to the correct position for driving on roads. This must be carried out even if the truck crane is already at the correct level for driving on roads.

- Operate the carrier level adjustment system to return the carrier to the correct position for driving on roads (see Section 3.7.6 "Carrier level adjustment system").

Caution: When the first axle line has been lowered the axle loads must always be equalized. This ensures that all tyres are loaded equally. If this is not carried out individual tyres will wear faster.

Adjusting the angle of the boom extension

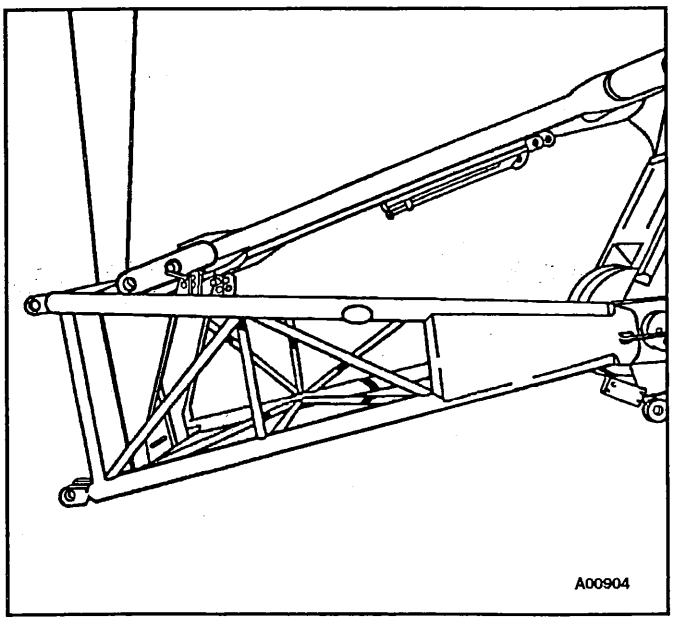
The boom extension can be installed at an angle of 10° or 25° (optional equipment). The different angles are listed in the respective **lifting capacity table**.



The angle of the boom extension depends on which bore the pins are inserted into:

- 25° angle = bore (1)
- 10° angle = bore (2).

To move the pins to the new position the foot section has to be held with the second crane.



- Attach the lifting tackle to the front crossbar on the foot section.
- Hold the foot section in this position with the second crane.

- Install all further intermediate sections in the correct order.
- Attach the lifting tackle at both attachment points on the head section.
- Lift the head section. The roller at the end of the head section stays on the ground.
- Bolt the head section to the last intermediate section.

Danger:

Check that the intermediate sections and head section are bolted correctly:
– intermediate section and foot section
– two intermediate sections
– intermediate section and head section
must be bolted together with four bolts. Each bolt must be secured with a retaining pin.

Caution:

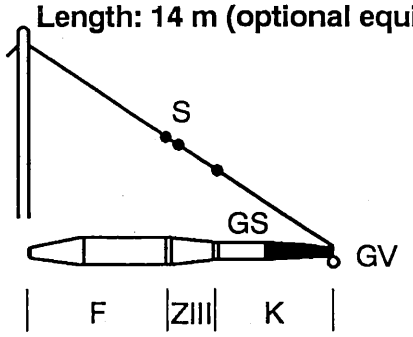
Do not damage the lead from the terminal box to the boom when the intermediate sections and head section are installed. Do not damage the hoist rope.
Move the intermediate sections and head section slowly.

Caution:

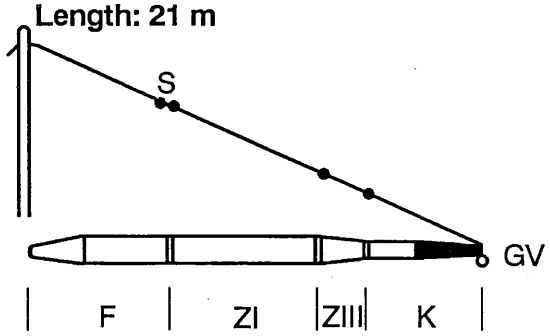
When the intermediate sections and head section are installed, check continually that the lug on the lead is still attached to the tee on the foot section (please see Section "Connecting up the terminal box for the anemometer and load measuring strip to the electrical system")!
Check continually that the lead is not under tension, otherwise the lead or plug and socket connections may be damaged.

The individual parts of the luffing fly jib can be put together to form eight different versions (14-m and 63-m versions as optional equipment).

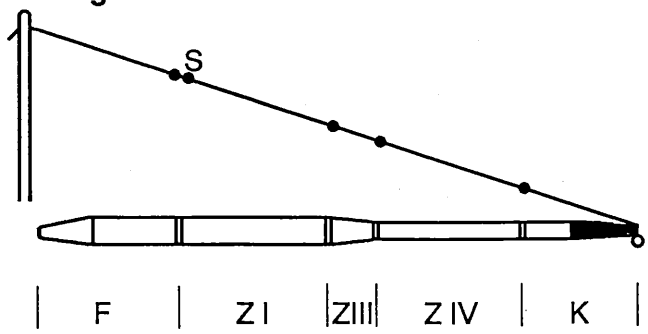
Length: 14 m (optional equipment)



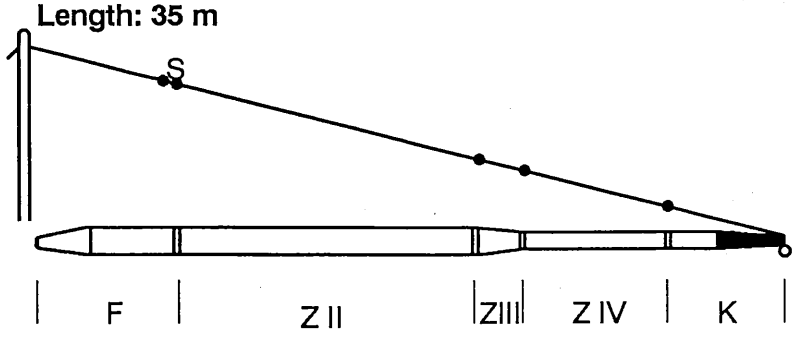
Length: 21 m



Length: 28 m



Length: 35 m



F	=	foot section
ZI	=	intermediate section I
ZII	=	intermediate section II
ZIII	=	intermediate section III
ZIV	=	intermediate section IV
ZV	=	intermediate section V
K	=	head section
A	=	with guy ropes
GV	=	with 350-kg head weight at the front
GS	=	with two 810-kg weights at the side

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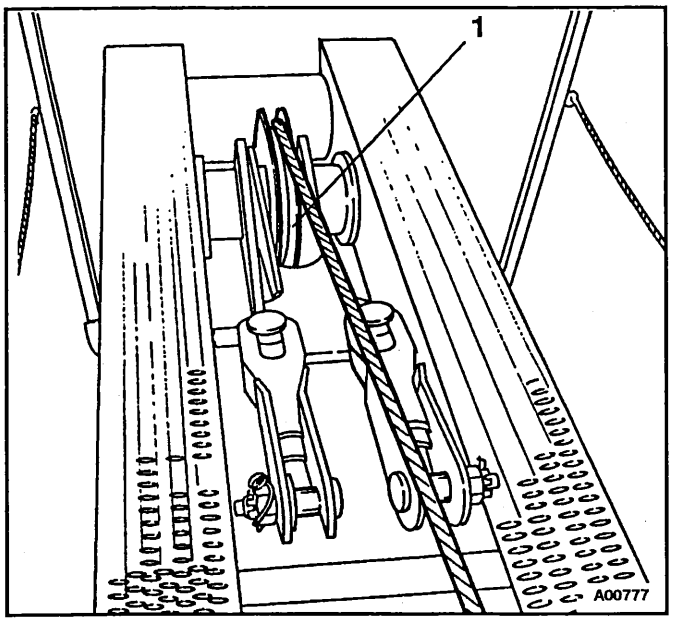
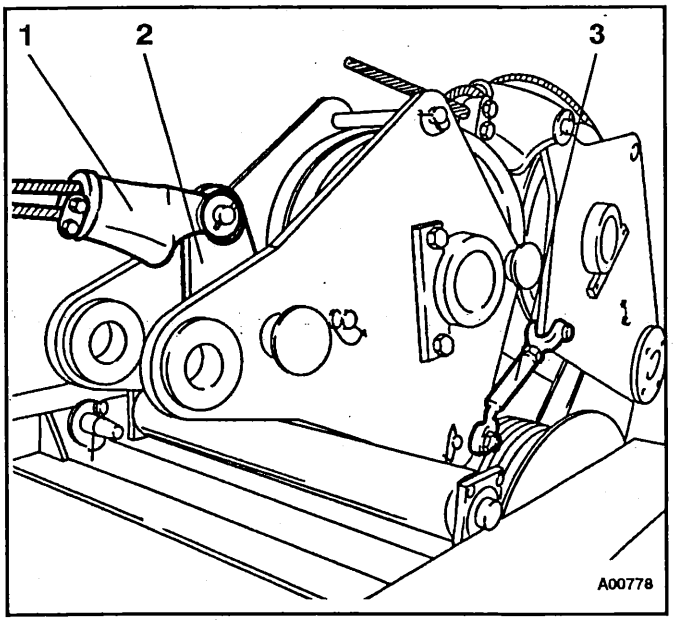


- Unreel the main hoist rope from the drum.
- Raise the guard on the strut member and secure it by changing the position of the levers on the guard.
- Pass the rope from below over the deflection sheave (**1**) on the strut member.

Danger: Always raise the guard on the strut member before any installation work is started or **accidents may occur.**



- Pass the rope to the upper sheave block.
- Connect the hoist rope to the sheave block. Fix the rope end clamp (**1**) on the main hoist rope to the mounting piece (**2**) with the pin.
- Secure the pin with the retaining pin.
- Pull the ropes of the auxiliary and main hoists tight.
  This is done by carrying out the function "auxiliary hoist - raising" for the auxiliary hoist rope and "main hoist - lifting" for the main hoist rope.
- Release all tensioning bolts (**3**) between the upper and lower sheave block.

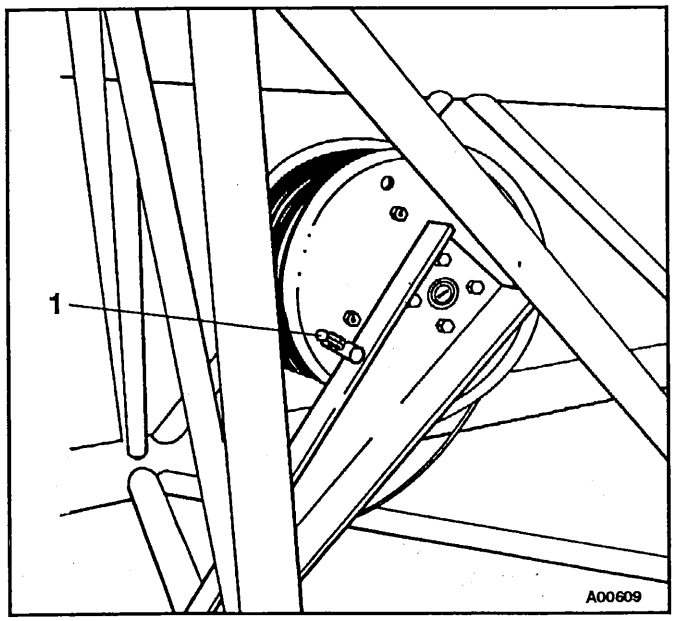
Danger: Do not raise the strut member while the ropes are being pulled taut. If the strut member is raised beyond a certain angle it will tip backwards and **accidents may occur.**

5.3.9 Installing the head section

- Attach the lifting tackle to the tees on the head section.
- Lift the head section with the second crane.
- Bolt the head section. Insert the pins on both sides of the head section. Secure the pins with the retaining pins.

Danger: Always insert the pins from the outside towards the inside. The pins must not project from the bores otherwise ropes, etc., may catch on them and **accidents** may occur.

Connecting the luffing fly jib up to the electrical system



- Disengage the turning lock (**1**) on the cable drum on the head section.

- Check that the load measuring strip is working. The SLI must indicate an actual load value of between **0.0** and **0.2**.

- Check that the anemometer is working. When the anemometer turns on the head section a value must be indicated on the indicator in the crane operator's cab (please see Section 4.5.3 "Wind").

- Check that the lifting limit switch is working. The warning light "lifting limit switch" in the crane operator's cab must go out when the chain for the lifting limit switch weight on the head section is pulled (please see Section 4.6.8 "Limit switches").

- Set the correct SLI code on the SLI for rigging the luffing fly jib (please see Section 4.6.7 "Safe load indicator (SLI)").

– SLI code **360** with 26-t counterweight
– SLI code **460** with 40-t counterweight

5.3.13 Raising the boom to an angle of 84°

Danger: The luffing fly jib may only be raised if the wind speed is below 9 m/s.

Turn the boom into the wind before the luffing fly jib is raised.

- Before raising the jib check that the correct SLI code for rigging the luffing fly jib is set on the SLI (please see Section 4.6.7 "Safe load indicator (SLI)").

– SLI code **360** with 26-t counterweight
– SLI code **460** with 40-t counterweight

- Set the reeving mode (number of hoist rope falls) on the SLI (please see Section 4.6.7 "Safe load indicator (SLI)").

- Turn the information selection switch on the SLI to position **h.** The angle of the luffing fly jib (the angle between the main boom and the luffing fly jib) is then indicated in degrees on the SLI.

- Check that the additional switch for the operating mode is in position **B** "rigging the luffing fly jib" (please see Section 4.6.5 "Setting the additional switch for the operating mode").

Shutdowns of crane movements due to overloads

During overloads the crane movement is shut down by the SLI (please see Section 4.6.7 "Safe load indicator (SLI)").

Note: When the luffing fly jib is used the movement "auxiliary hoist - lowering" increases the load moment.

When a shutdown occurs due to overloading the following movements only are possible:

Stopped movements	Permitted movements
Main hoist - lifting	Main hoist - lowering
Auxiliary hoist - lowering (lowering luffing fly jib)	Auxiliary hoist - raising (raising luffing fly jib)
Telescoping out main boom	—
Raising boom	—
	Slewing

5.3.18 Unrigging the luffing fly jib

Danger: Avoid shutdowns by checking the angle between the main boom and luffing fly jib continually on the SLI. When movements are stopped suddenly due to shutdowns oscillation is produced which can lead to overloading of the crane and **accidents**.

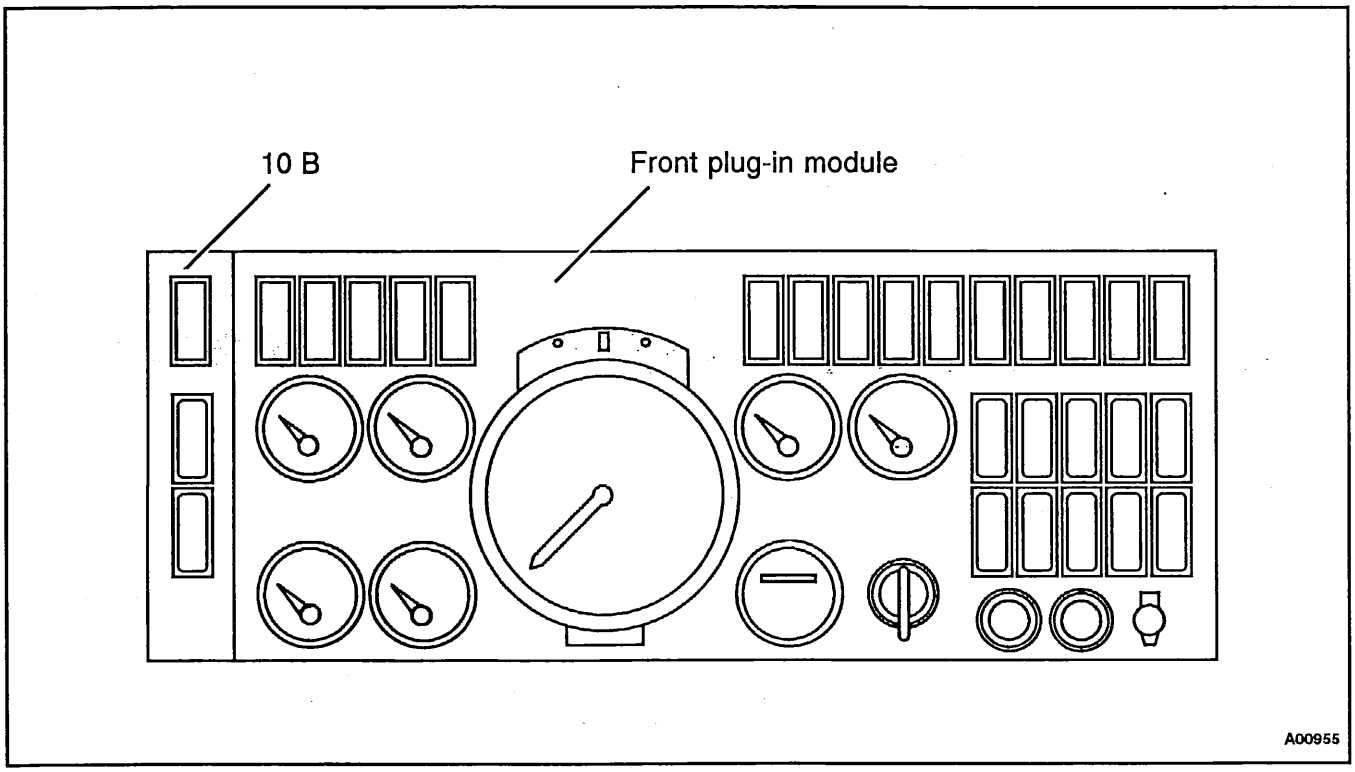
Retracting (telescoping in) the main boom

- Set the SLI code **450** on the SLI
- Lower the main boom until it is 84° from the horizontal.
- Set the correct SLI code on the SLI for rigging the luffing fly jib (please see Section 4.6.7 "Safe load indicator (SLI)").
  - SLI code **360** with 26-t counterweight
  - SLI code **460** with 40-t counterweight
- Retract (telescope in) the main boom completely. Lock the telescope sections.
  The main boom can only be telescoped when the luffing fly jib is at an angle of between 10° and 20° to it.
- The movement "retracting" (telescoping in) is shut down at an angle of 20°. In the event of a shutdown raise the luffing fly jib to leave the end position.
- The movement "auxiliary hoist - raising" is shut down at an angle of 10°. In the event of a shutdown, lower the luffing fly jib to leave the end position.

6. Procedure in case of malfunctions

6.1 Malfunctions on the carrier

6.1.1 Electrical equipment



Designation of plug-in module in electric circuit diagram	Function
Front plug-in module	Monitoring of engine and gear units, Start/stop engine, Locking of suspension, Display
10 B	Raising the 1st axle line

7. Servicing and maintenance

Please refer to the enclosed servicing and maintenance instructions for parts manufactured by our suppliers (engines, gear units), as these are not included in the instructions below.

7.1 Cleaning your truck crane

During the first few months the paint of your truck crane will still be fairly soft. Do not use high-pressure or steam cleaning equipment during this time.
When the paint has hardened, you should still avoid using water hotter than 60°C. Do not use aggressive cleaning agents. Never direct the jet of your cleaning equipment at right angles to the surface being cleaned, and never apply it too close to the surface.

Do not forget that you should wear a safety mask while you are cleaning the crane.

7.7 Laying-up and conservation

The following must be carried out if the truck crane is not going be used for a long period.

7.7.1 Work before laying-up

- Clean the crane thoroughly inside and outside.
- Remove rust.
- Touch up the paintwork.
- Parts which are not painted must be greased with an acid-free grease or oiled.
- Fill up the fuel tank.
- Seal all air filters so that they are airtight.

7.7.2 Work during stoppages

- Carry out the checks stipulated in Sections 7.3.3 to 7.3.7.
- Keep the fuel tank full.
- Check the battery regularly and recharge it if necessary using another current source or battery charger.
- Increase the tyre pressure by about 10 %; check the tyre pressures regularly.
- Run through all driving and crane movements a few times every two weeks (road test and operating test).

Ensure that the carrier is parked so that a different part of the tyres is in contact with the ground each time to prevent permanent deformation of the tyres.

Instead of carrying out a road test it is also possible to jack the vehicle up to run through the functions.

Run the hydraulic system until it is warm (+50 °C) during the operating test.

Caution: All air filters must be opened for the test runs and sealed again after the systems have cooled down.

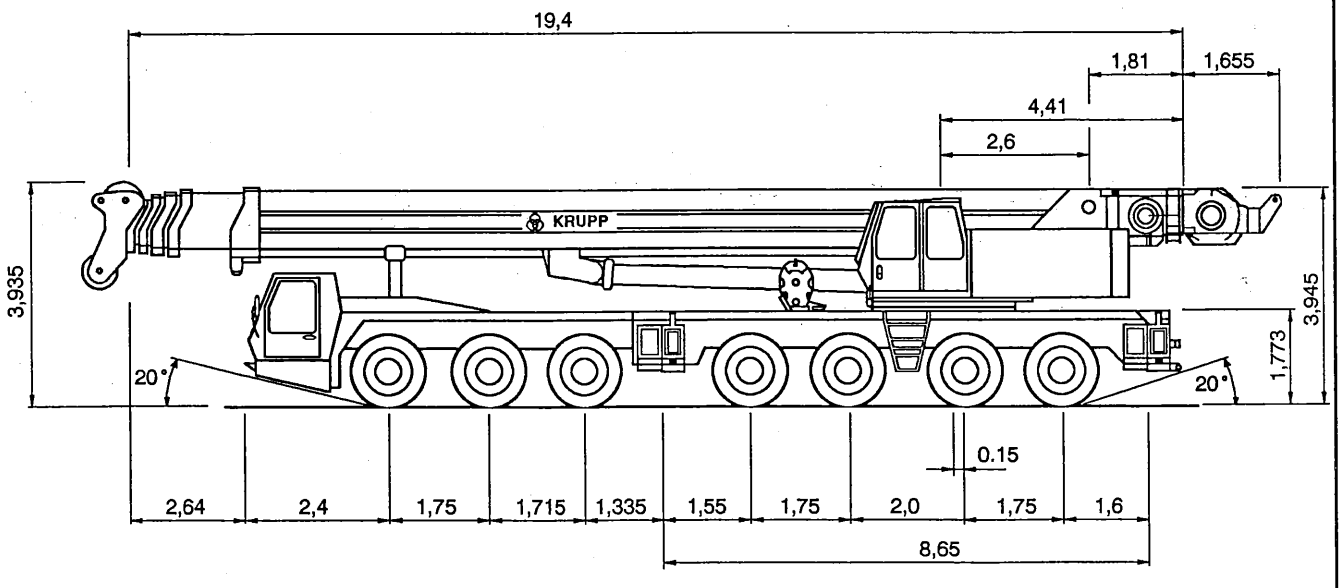
8. Technical data

KRUPP TRUCK CRANE KMK 7250

Max. lifting capacity:	250 t according to DIN 15019.2
Permitted temperature range:	- 25°C to + 40°C

8.1 Dimensions

Length:	19.40 m
Width:	3.00 m
Height:	4.00 m with -130/+170 mm suspension range (on-the-road level)
Max. angle of banks:	20° (on-the-road level)



All dimensions in m

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8.2.16 Climbing ability

Climbing ability with 14.00 R 25 tyres:

approx 40.5% at a transport weight of 84 t in stall ratio torque converter and in off-the-road gear

8.2.17 Turning circle radii

External turning circle radius (normal steering):	16.0 m
External turning circle radius at boom head:	16.5 m
Internal turning circle radius (normal steering):	9.1 m