



**GLOBAL CRANE TRAINING**

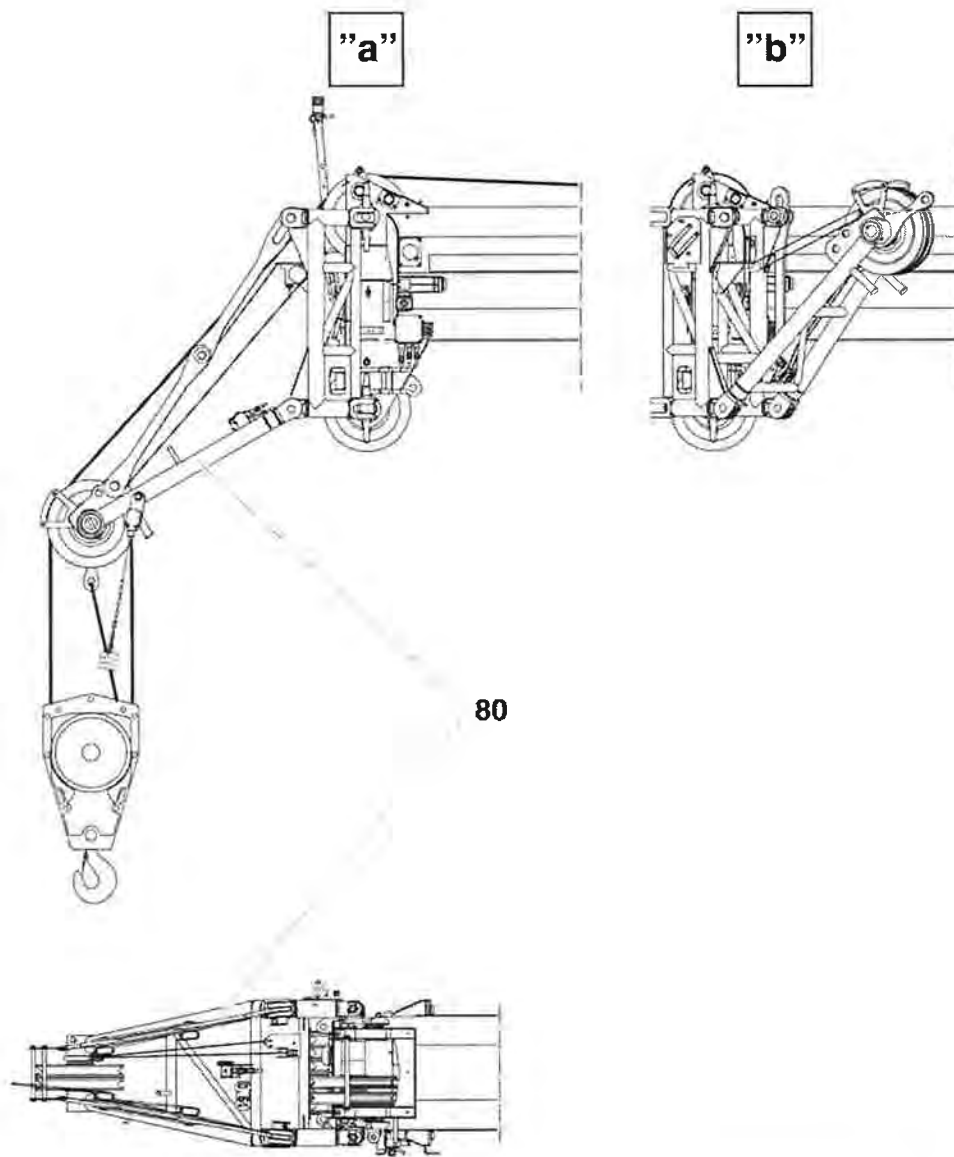
**AC200-1 OPERATION**  
Runner (Optional)



# Superstructure Electric Content



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## Runner (Optional)

### General

The hoist rope can be reeved up to four times using the runner (80). Figure (Z 200 492, "a") shows the runner (80) in the load raising position.

The hook block can remain reeved on the main boom head.

The runner can be folded and it can be folded away to the side of the main boom head in accordance with the permitted axle loads ("b").

*Main boom operation with the runner fitted in the transport position results in a reduced load capacity of the crane.*

The optional "head sheave" (see section 21) can be folded to the side of the main boom head in the transport position in the same place.

*However, only the runner or the head sheave can be folded to the left of the main boom head at the same time.*

If the runner is fitted to the main boom head in the transport position, the main boom extension cannot be fitted in the load raising position.

### Important Notes

**The runner is marked with the construction number of the crane. It can only be fitted onto a crane with this construction number.**

**Exceptions are only permitted if this is clearly indicated in the crane documents (e.g. the crane passport).**

**Only trained and instructed personnel may fit and remove the runner!**

**Check that there is no damage to the tubes on the runner components. If you find damaged tubes during a visual check, it is prohibited to continue working with the runner.**

### **Risk of accidents!**

**When fitting or removing the runner, there is risk of crushing between the main boom head and the runner. Especially take the notes on risks in section "Assembling and dismantling crane components" into consideration as well as the procedure described in the following.**

**All assembly work is to be carried out with the help of suitable equipment (ladders, lifting platforms, frames, auxiliary cranes).**

**It is prohibited to walk on the boom!**

### **Risk of breaking!**

**The runner's draw bars must be checked at least once a year by a specialist (in accordance with the accident prevention regulations "Load receptacle devices in hoist operation (VBG 9a / BGV D6)". In addition, depending on the operating conditions and environment, they should be checked between these intervals by an expert.**

**The inspection intervals are generally determined by the operating and site conditions. This means that the more the equipment is used, the shorter the inspection intervals should be.**

**This inspection must be documented once it has been carried out (e.g. in the examination log book for the crane).**

**The following checks should be carried out:**

- Check for cracks**
- Check the length**
- Check for wear**
- Check the paintwork**
- Check for plastic deformation.**



Supplied folding / sliding ladder (72):

**Risk of falling!**

**In order to carry out all assembly work with as little risk as possible, a ladder is supplied with the machine.**

**If the supplied ladder is not used, the assembly work must**

**be carried out using other suitable aids (ladders, hoist platforms, scaffolding, auxiliary crane).**

**It is not permitted to climb or walk on the main boom.**

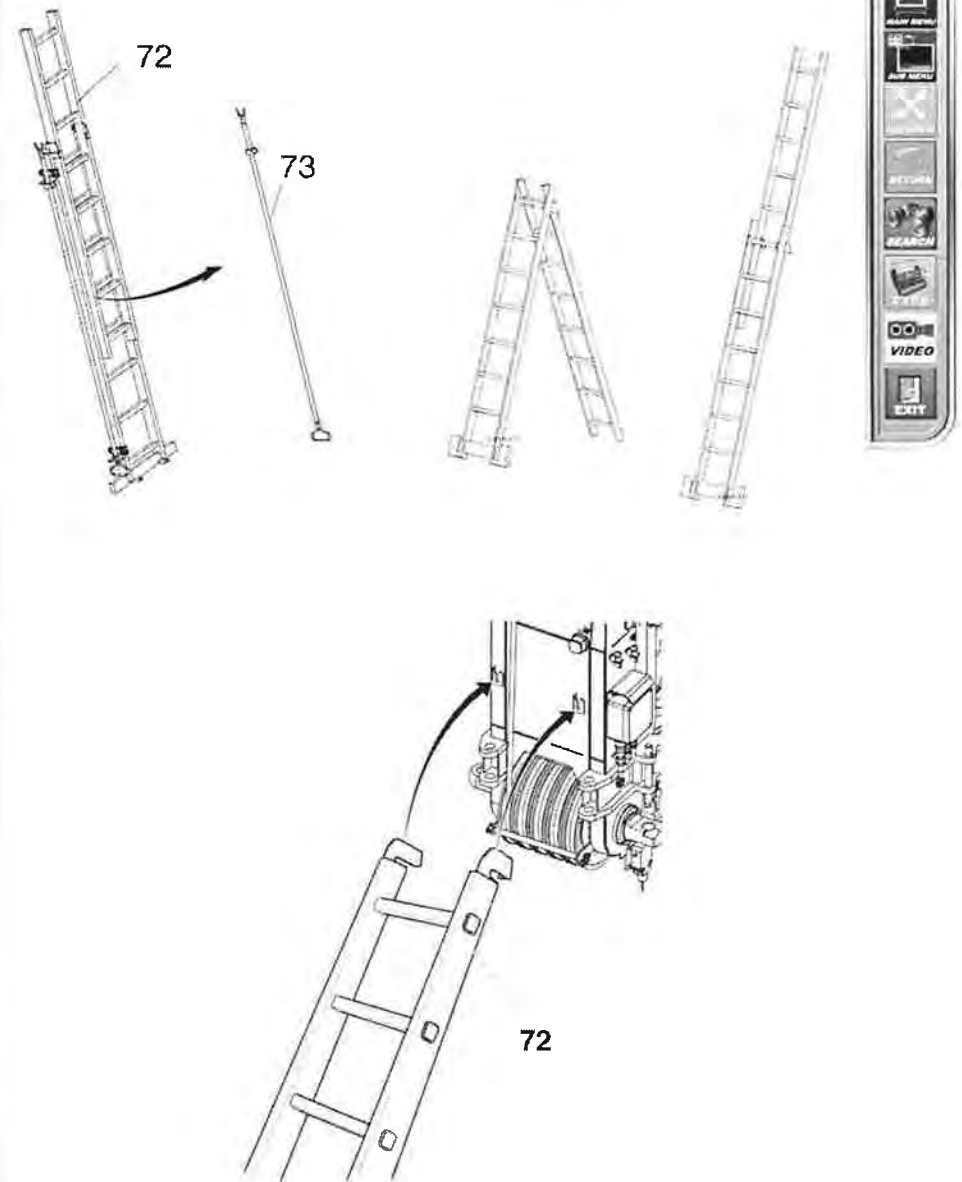
*The supplied folding / sliding ladder (72) can be fastened to the main boom extension for transportation, for example.*

There are brackets on the folding / sliding ladder (72) for fastening the actuating rod (73). This actuating rod (73) can be used as an aid when fitting the hoist rope.

There are metal plates on the main boom for attaching the ladders (72) safely during the corresponding working procedures.

**Risk of unchecked runner movement!**

**Generally, the main boom must be aligned horizontally when fitting or folding the runner. Any exceptions to this rule are clearly listed.**



The runner is always connected to the main boom head using 4 bolts (31).

Each bolt must be secured against falling out with two functioning locking springs (32).

**Risk of accidents!**

**Only the supplied bolts may be used for fitting the runner. (They have a cylindrical design at one end (see detail A).)**

**Each bolt must be secured against falling out using 2 functioning locking elements (32).**

**Only the locking elements may be used which are fitted on**

**the crane in the first delivery.**

The runner can be folded and it can be folded away to the side of the main boom head in accordance with the permitted axle loads ("c").

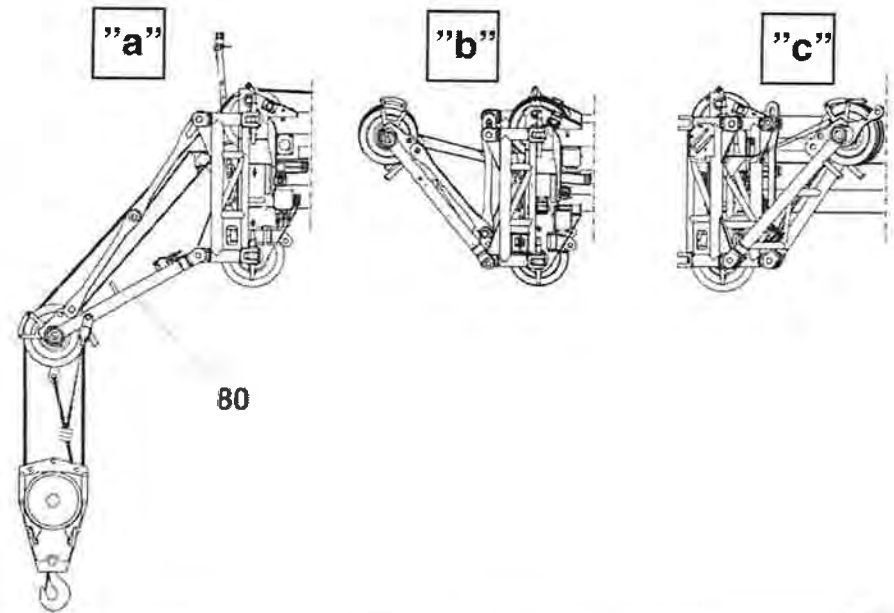
In this case, the runner must be converted from the operating position ("a") into the "folded position" ("b").

Only then may the runner be folded into the transport position ("c").

*The conversion from the transport position ("c") into the operating position ("a") is similar, but in the opposite sequence.*

If the runner is transported separately, the runner is fitted and removed in the folded position ("b") on the main boom head. Then the runner must be converted into the transport position ("c") or into the operating position ("a").

Depending on the initial situation, carry the working procedures described in the following.



### Separate Transport

#### Attachment Points

Use the 4 attachment points (E) as they can be seen in figure ("a", "b").

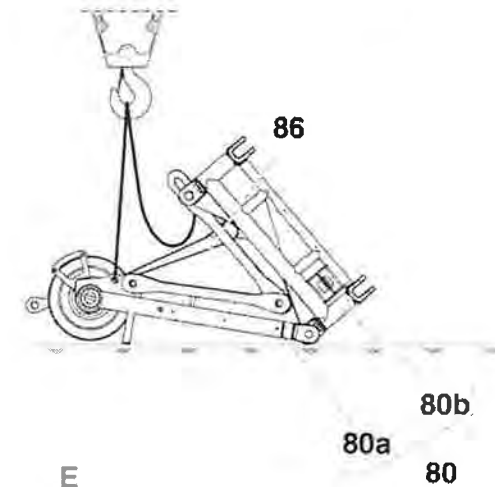
#### RISK OF ACCIDENTS!

When being raised, the runner may not swing out or hang crookedly. If necessary, lifting chains fitted with shortening claws must be used.

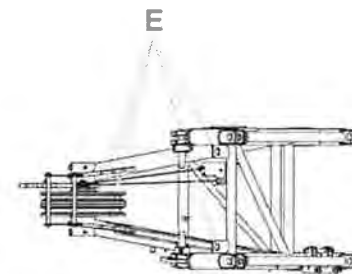
The securing equipment must be supplied by the customer.

#### Transport Dimensions / Weights

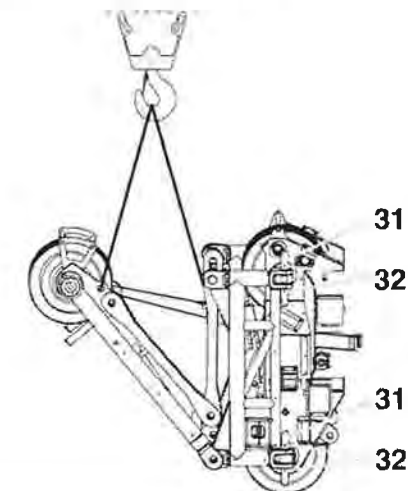
Transport dimensions			Approx. weight
Length	Width	Height	
mm (in)	mm (in)	mm (in)	kg (lbs)
1650 mm (65.0 in)	1450 mm (57.1 in)	980 mm (38.6 in)	500 kg (1102 lbs)



"a"



"b"



"c"



### Fitting and Removing the Runner for Separate Transportation (in the Folded Position)

The runner is in the folded position for fitting, i.e. the runner frame (80a) is pulled up to the adapter (80b) using the adjustment rope (86) of the auxiliary winch. The entire component group is on the ground on the fork ends and the standing pipes of the runner frame (80a).

1. Attach the runner (80) to the prescribed attachment points "E" (x 4) in the fitting position on the main boom head using the auxiliary crane.

To do so, each drilled hole in the fork ends of the runner adapter (80b) must correspond with the ones on the right- and left-hand head axle, top and bottom.

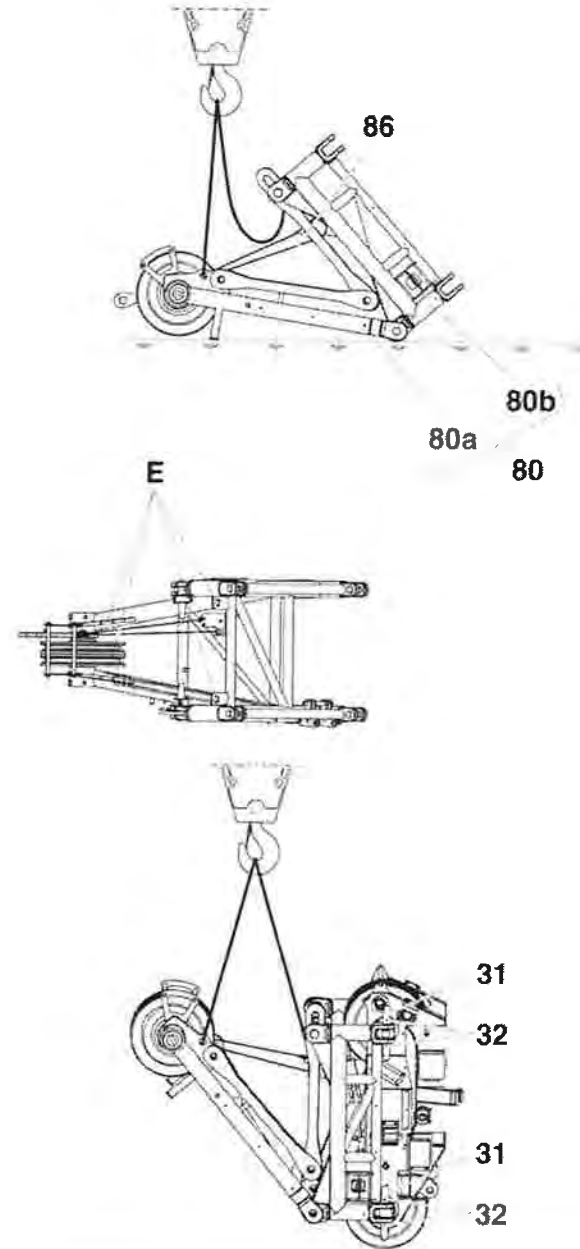
**No-one may be in the area at risk of falling equipment, etc. as long as the runner is attached to the auxiliary crane or has not yet been completely pinned!**

2. Knock in the bolts (31) at the pinning points (4 times). Secure the bolts (31) against falling out using 2 locking springs (32).

The then achieved "folded" fitting position ("c") only serves as an intermediate state when fitting and removing or folding in and out of the transport position.

#### Risk of accidents!

**This "folded" fitting position may NEVER be used for raising loads. To do so, the runner must first be brought in the operating position.**



"a"

"b"

"c"





## Converting from the Folded Position to the Load Raising Position (and Vice Versa)

### Converting to Load Raising Position

The condition for this procedure is that the runner (80) is fitted to the main boom head in the folded position.

Figure (top view) shows this state.

Procedure:

1. Lower runner frame (80a).

To do so:

1.1 ("c"): Fit the crank (84) to the attachment eyelet (85.1) of the auxiliary winch (85) and unreel the adjustment rope (86) of the auxiliary winch, until the bracing rods (81, 82) are straight on both sides ("a").

1.2 With the runner in the operating position (bracing rods straight), loosen the adjustment rope (86) by slightly unreeling it, so that it is never under load during runner operation.

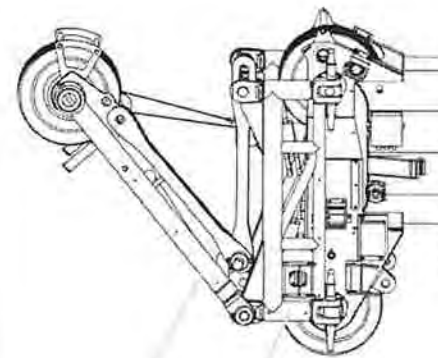
2. For even reevings ("b"):

Bring the rope attachment point (88) into the operating position. To do so, loosen the trigger snab (83) of the fastening chain of the rope attachment point: rope attachment point (88) swings down.

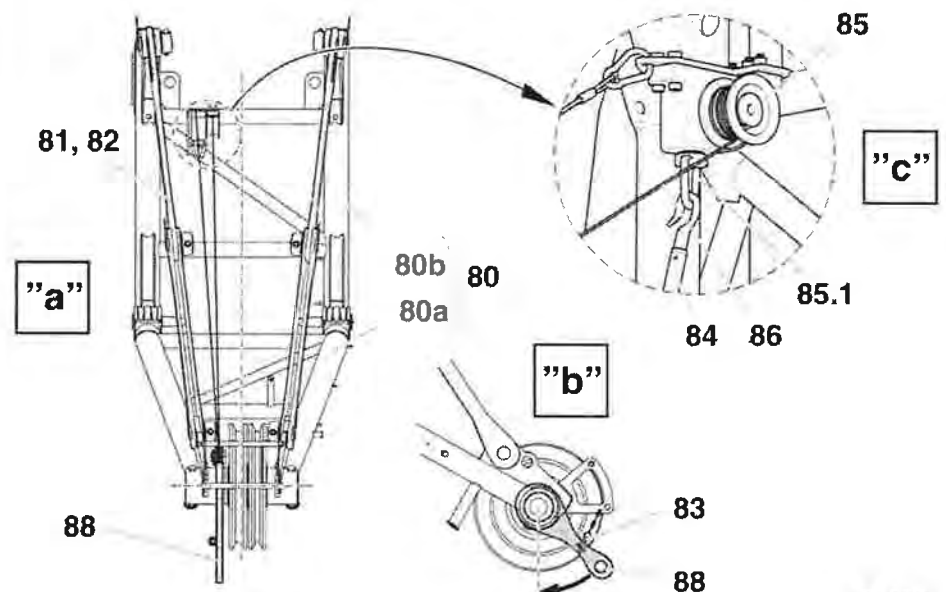
**During reeving, there is a risk that all involved sheaves become wrapped and wound up.**

**Proceed with appropriate caution!**

3. Feed the hoist rope from the hoist drum to the intake sheaves on the main boom head.



80a 80b  
80



4. Feed hoist rope to the sheave (R1) of the runner via intake sheave (E2).

**Risk of damage to the rope!**

**The rope may not be fed via intake sheave (E1) as this would make the deviation angle of the hoist rope too large.**

5. Reeve the hoist rope in accordance with the desired reeving.

Reeving of the hoist rope can be up to 4-fold over the runner.

E – Intake sheaves on the main boom head

R – Sheaves on the runner

U – Hook block pulleys

FR – Fixing point on the runner

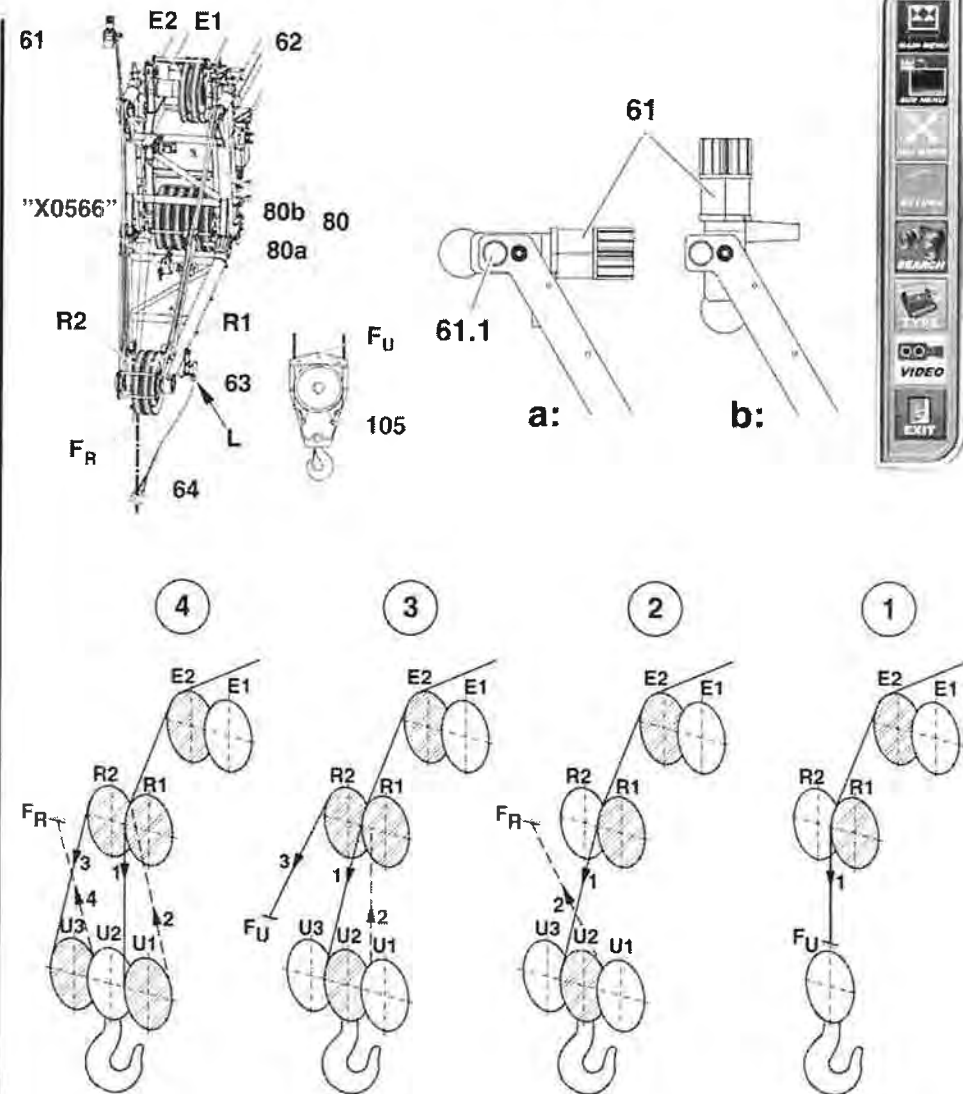
FU – Fixing point on the hook block

6. Fit the hazard light (61) to the runner frame (80b) as well as the rotor of the anemometer (62) to the head of the main boom.

*The hazard light (61) must be in the swinging position ("b") during crane operation.*

*The locking pin (61.1) may not be locked in place.*

*Figure ("a") shows the locking pin (61.1) locked in place for the transport condition.*



7. Fit the hoist limit switch (63) with attached shift weight (64) in point "L" and secure against falling out.

*If a second hoist limit switch is not used and the hoist limit switch from the main boom head is used: connect the bridging plug ("B2") on the right-hand side of the main boom head to the usual connection for the hoist limit switch (HR).*

*The bridging plug "B2" is marked with the letter "W".*

**Risk of malfunctions!**

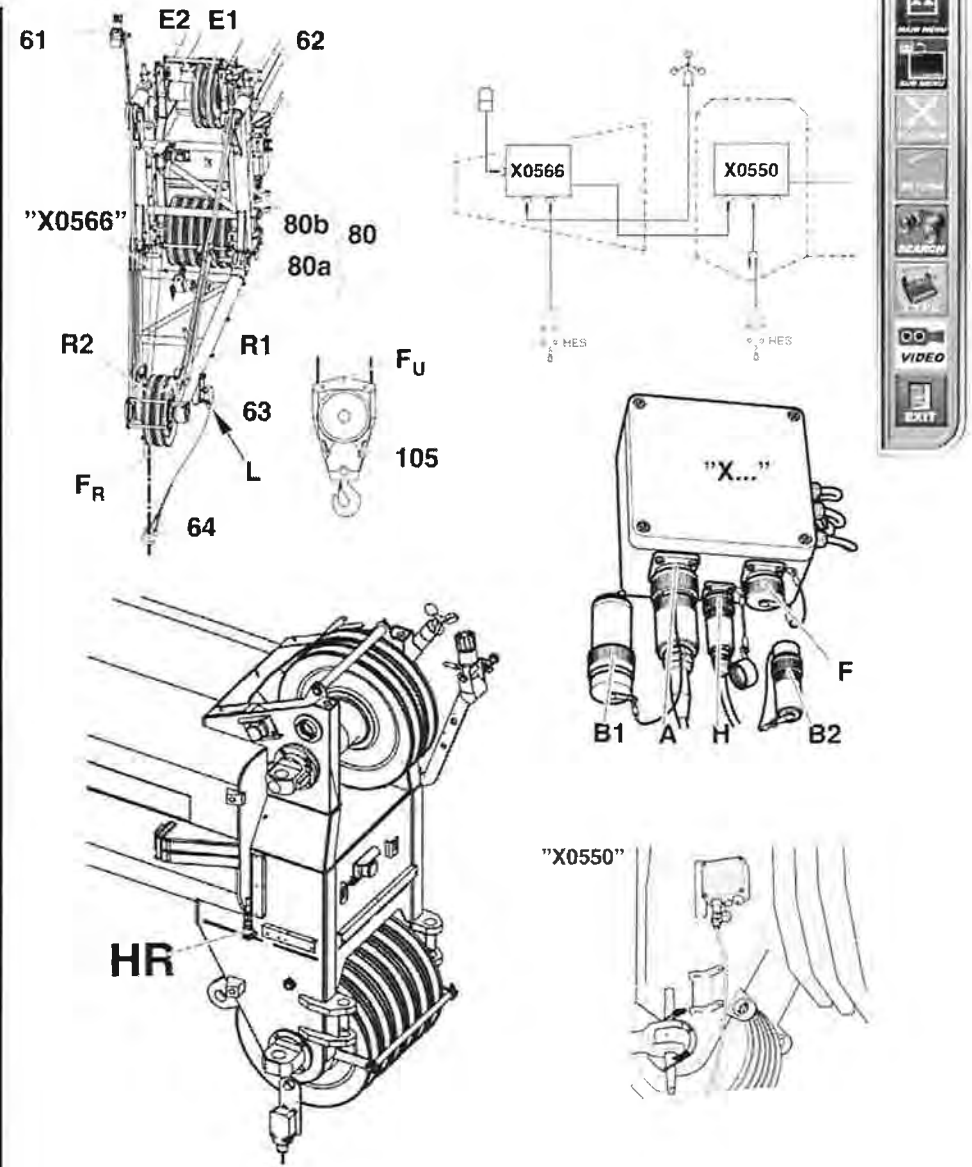
**The bridging plug (B2) supplied with the crane must be used.**

**You must make sure that the shift weight is fitted over the hoist rope and is hanging freely.**

**Only then is it guaranteed to function properly.**

**Observe the details in section 17 "Reevings".**

8. Connect the plug of the runner cable harness to the junction box "X0550" on the main boom head (connection 'A').



9. If a second hoist limit switch is used:

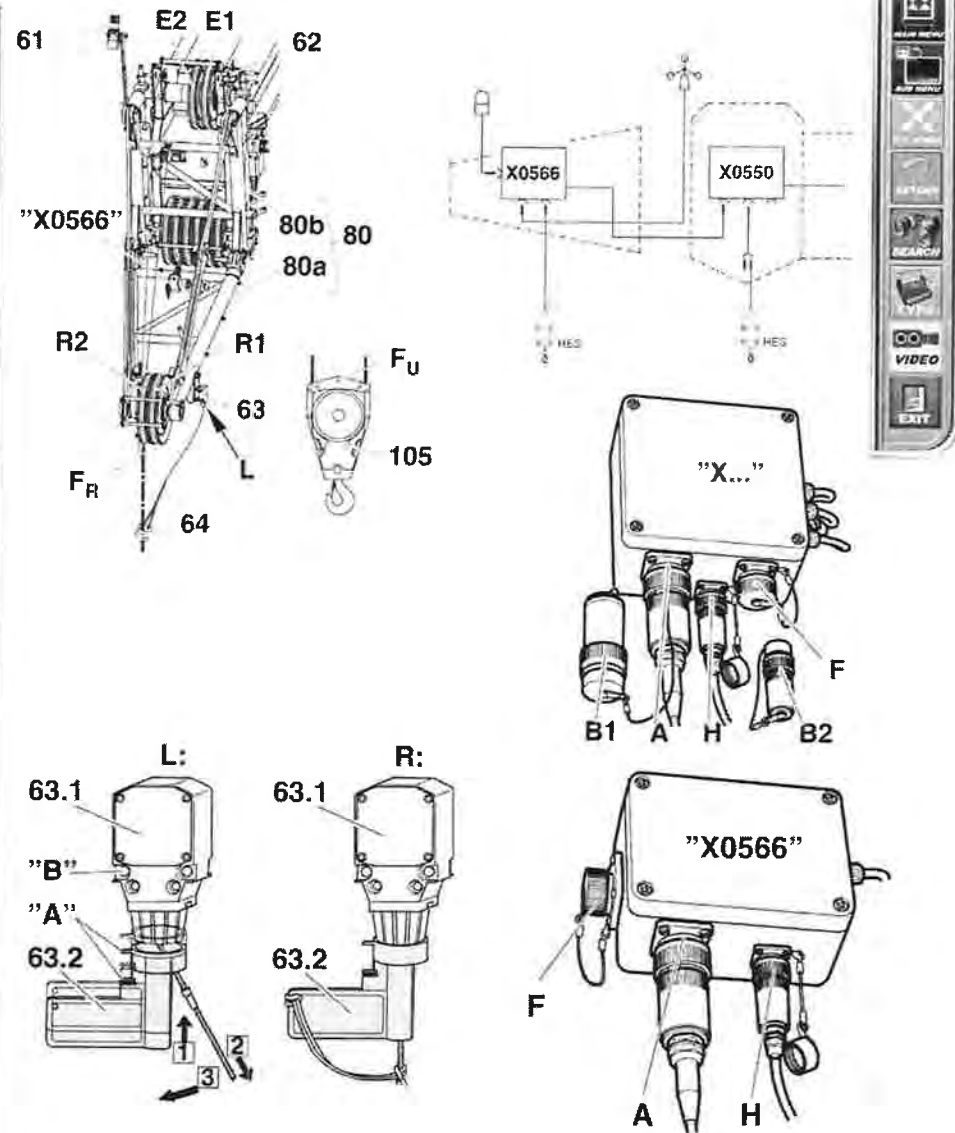
To prevent risk to persons or damage to equipment, attach the shift weight or the hoist limit switch, which is fitted to the head of the main boom, in the transport position (left-hand side of the main boom head) and secure against falling out.

*If a second hoist limit switch is fitted and the hoist limit switch shift weight of the hoist limit switch of the main boom head is fitted in the transport position (on the left-hand side of the main boom head), the switch must be locked mechanically in the open position (bridged). Figure (figure 'R') shows the hoist limit switch in the bridged state. In order to bridge the hoist limit switch, the restrainer (63.2) must first be fitted onto the actual hoist limit switch (63.1) 1. Then the jumper wire is pulled away to the side 2, then rotated in the longitudinal direction of the restrainer (63.2), 3 and finally relaxed. This procedure jams the restrainer (63.2) by the jumper wire's spring resistance.*

10. Connect the plug of the hoist limit switch (63) to connection "H", connect the plug of the hazard light (61) to the connection "F" and connect rotor plug of the anemometer (62) to connection "A" of the junction box "X0566" on the runner.

**Risk of accidents!**

**If the rotor of the anemometer is not fitted or not connected, the wind speed is not displayed on the IC-1. A prohibited high wind speed might not be recognized.**



### Converting to the Folded Position

“Conversion from the load raising position to the folded position” is done in the same manner as “Conversion from the folded position to the load raising position”, just in the opposite sequence.

If a second hoist limit switch was used:

After removing the runner from the load raising position, the hoist limit switch (63) on the main boom head must be reset to a functioning state. The restrainer (63.2) of the hoist limit switch (63) must be removed again.

Figure (“R”) shows the hoist limit switch in a functioning state.

If only one hoist limit switch is used:

After removing the runner from the load raising position, the hoist limit switch (63) must be fitted to the main boom head again and connected.

### Risk of collision!

**If the hoist limit switch is not put back into a functioning state, there is risk of collision between the hook block and the head of the main boom during main boom operation.**

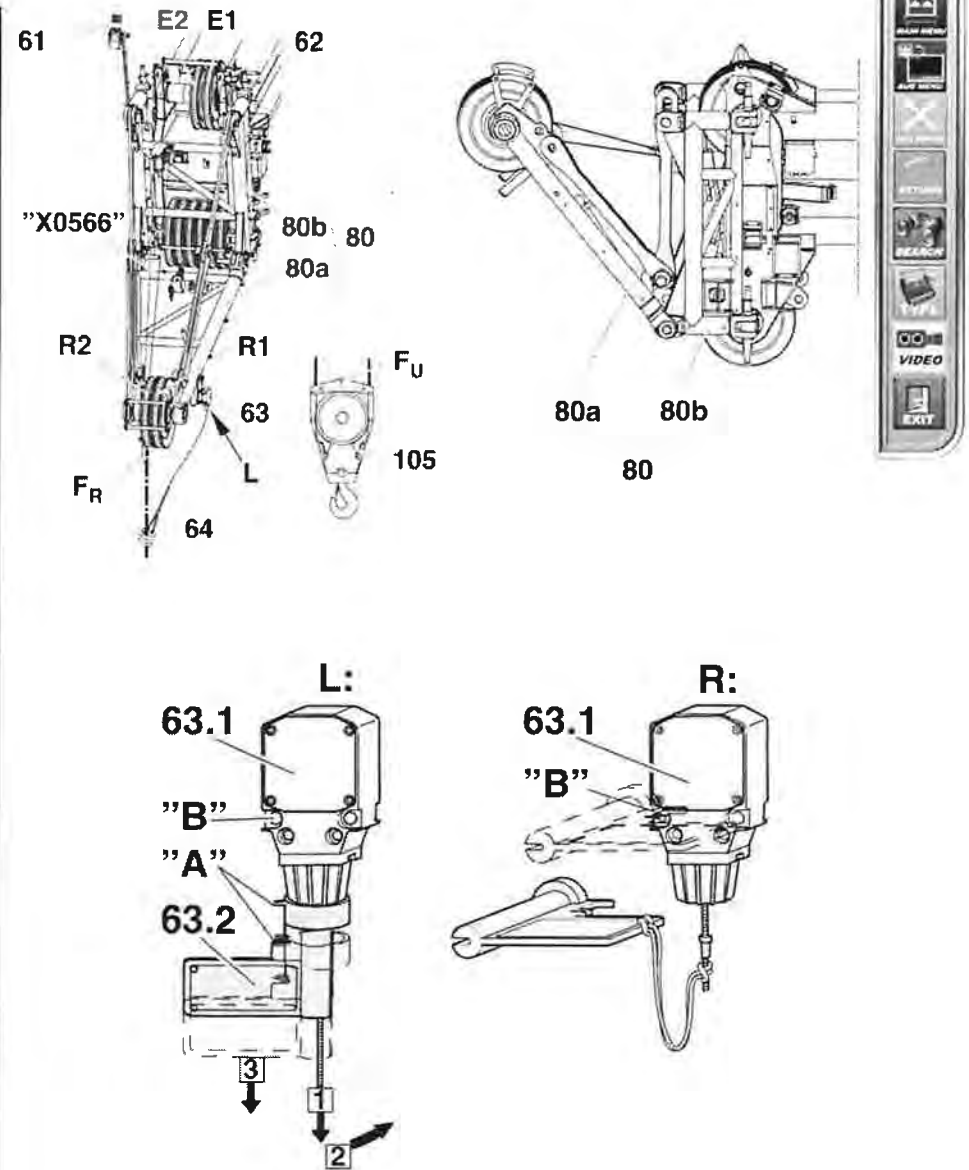
For the further procedure for

\* Converting to transport position:

see “Folding from the folded position to the transport position (and vice versa)”

\* Removing the runner for separate transport:

see “Fitting and removing the runner for separate transport (in the folded position)”.



## Folding from the Folded Position to the Transport Position (and Vice Versa)

### General

If the runner is not needed, it can be folded onto the side of the main boom head while in the folded position ("b").

**When folding the runner, there is risk of crushing between the main boom head and the runner. Proceed with appropriate caution!**

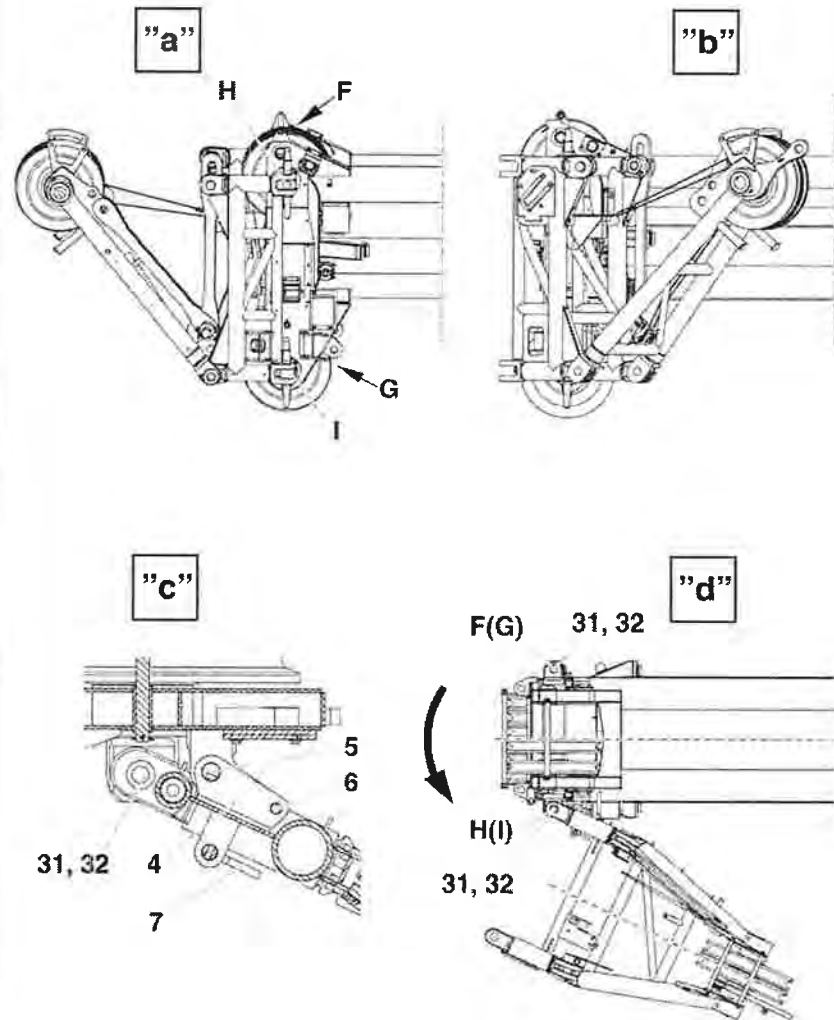
**No-one may be in the area at risk of falling equipment during the folding procedure!**

**Before folding on the main boom side, the runner has to be folded out of the working position into the transport position ("a") !**

**If the runner is fitted in the transport position on the left-hand head side, the head sheave cannot be fitted in the operating position or in the transport position.**

If the runner is then fitted to the left-hand side of the head in the transport position, neither the main boom extension in the load-raising position nor the head in the transport position can be fitted.

You need a pulling and guidance rope for the actual slewing. The pulling and guidance rope for slewing the main boom extension can be used.





## Folding into the Transport Position

Conditions for the procedure:

\* The runner is fitted to the front of the main boom head in the folded position ("a").

\* The mounting adapter (4) is fitted to the left-hand side of the main boom head, using the drilled holes (5) and (6) in the prescribed welding components ("c").

Procedure:

### Risk of falling

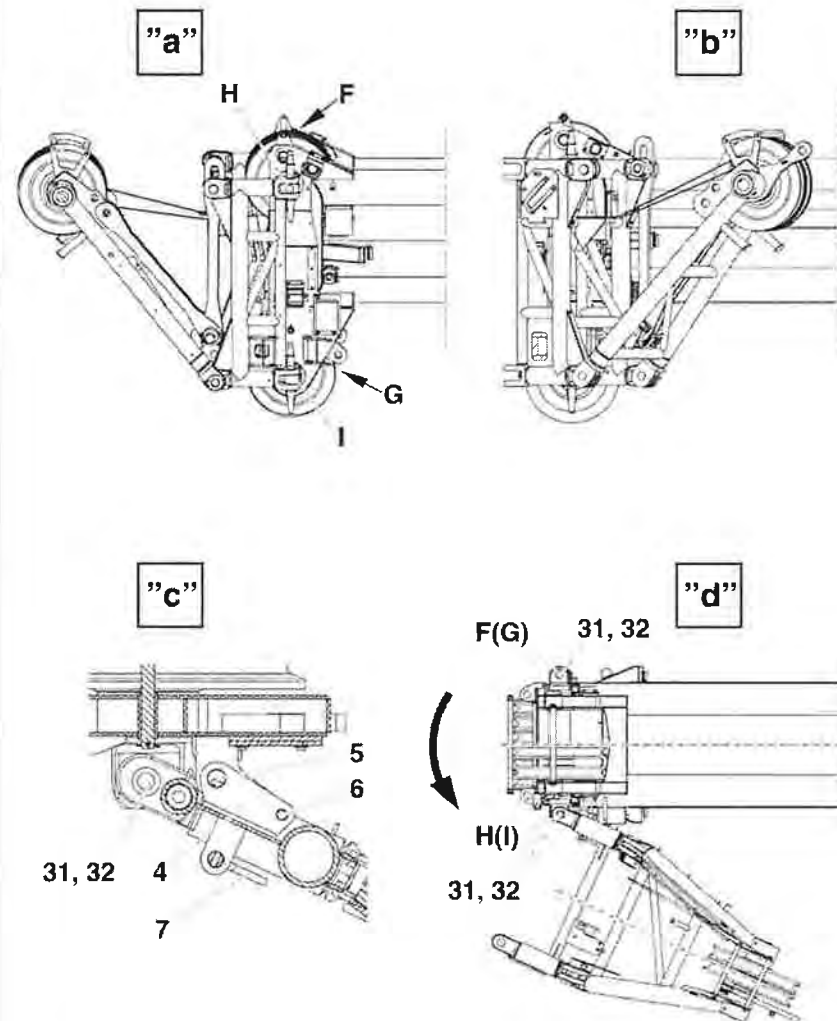
**For the following removal of the bolts (31) from points (F) and (G): do not lean the ladder onto the runner.**

**If the runner is not held by the pulling and guidance rope, it can swing away to the side when unpinning the pins (31).**

1. Attach the pulling and guiding rope to the attachment eyelet on the runner frame.
2. Remove bolts (31 "a") from points (F) and (G).
3. Slew the runner on the pulling and guidance rope until the runner dips into the mounting adapter.
4. Insert pins (7 "c") and secure.

**Bolts (31) incl. each of both locking springs (32) remain pinned in points (H) and (I).**

*Bolts (31) incl. each of both locking springs (32) remain pinned in points (H) and (I).*



### Folding into the Folded Position

Folding from the transport position into the folded position is done in the same manner as folding from the folded position into the transport position.

### Risk of accidents! Risk of falling!

**For pinning and unpinning procedures: do not lean the ladder onto the runner.**

For the further procedure for

\* raising loads:

see "Converting from the folded position to the load raising position (and vice versa)"

### Operation

1. Fit the runner in the operating position (load-raising position and reeve hoist rope).
2. Setting the crane configuration in the operating mode pre-selection mask

Operating mode: "MS" "Boom point / runner" other settings in accordance with the fitting state.

The load capacity tables also have the designation "MS".

