

PARTS & SERVICE NEWS

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This PARTS & SERVICE NEWS supersedes the previous issue No. AH01616 which should be discarded.

SUBJECT: Lift off the superstructure platform from the undercarriage for instance to changing the swing circle (slew ring)

PURPOSE: Description of the method for preparing the repair works

APPLICATION: H 485; H 685; H655; S/N 12001 and up
PC8000-1 S/N 12016 and up

FAILURE CODE: 2500CA

DESCRIPTION:**1. Preparation**

1.1 Park the excavator at a smooth, solid and big enough mounting place.

1.2 Make available the following tools and aids (see Fig. Z 21169):

- Two cranes 40t for disassembly and assembly with various rigging materials (for a time)
- Forklift
- Four hydraulic jacks (200t)
- 4 chain hoists for the cylinder assembly and cylinder securing respective
- 1 hydraulic torque wrench
- Lifting brackets (3)* for lifting up the superstructure at the front lever arms
- 2 concrete blocks (1) - 150/400/200 cm - and 4 concrete blocks (2) - 100/150/50 cm - all blocks with reinforcing and pull eyes; the upper sides and the undersides have to be even.
For the statics of the concrete blocks contact our Department Service Information (0151.30).
- 2 wedges(5) for the compensation of the slope of the girder at the back of the superstructure
- 2 metal sheets(6) 300/300/30 for power allocation
- Dummy flanges for closing of the pipes and hoses (part of the excavator delivery).

* Excavators with serial numbers 12001 to 12011: You can borrow 2 lever arms from the Komatsu Mining Germany Service.

* Excavators with serial numbers from 12012 up Special device must be prepared according the attached drawing.

2. Weights (bullclam attachment)

| | |
|----------------------------------|--|
| Boom with 4 cylinders | approx. 55.000 kg |
| Stick with cylinders | approx. 32.000 kg |
| Counterweight | approx. 2 x 30.000 kg or 1 x 50.000 kg |
| Swing circle with mounting cross | approx. 18.000 kg |

3. Working sequence (see illustration Z 21169)

- **Removal of the bullclam bucket;** close all pipes and hoses.
- **Removal of the stick**
Loosen the stick cylinders at the stick and secure by means of a chain hoist.
Retract the cylinder and secure against extending.
Remove the stick.
- **Removal of the boom**
Remove and close the hoses at the boom.
Loosen the boom cylinder at the superstructure and secure it by means of a chain hoist.
Remove the boom.
- **Remove the Counter weights**
(only at excavators with serial numbers 12001 to 12511)
- **Preparation for the excavator disassembly**
Put the 2 big concrete blocks (1) in the middle beside the crawlers.
Put on every big concrete block 2 little concrete blocks (2) with a distance of about 1 m.
Turn the superstructure for about 90°.
Mount the lifting brackets (3) with the boom cylinder pins to the superstructure.
Line up 2 little concrete blocks, 2 hydraulic jacks and 2 metal sheets under the lifting brackets (the lifting height has to be approx. 80 mm).
Line up the other 2 little concrete blocks, 2 hydraulic jacks and 2 metal sheets at the back site of the excavator under the longitudinal girders of the superstructure.
Put the metal wedges for compensating of the slope between metal sheets and carrier;
tack weld the wedges with longitudinal welding seams.
- **Remove the collector ring**
- **Remove the swivel joint; close the pipes**
- **Disconnect the swing circle (slew ring) from the undercarriage by removing the outer bolts of the swing circle.**
Before removing the lube lines from the swing circle number line and respective injector with the same number.
Extend the 4 hydraulic jacks so far that they touch the lever arms and superstructure.
Disconnect the high pressure hoses from the ports (manifold) at the travel motors of the excavator.
Temporarily reconnect the flow and return line hoses to prevent unnecessary loss of system hydraulic oil.
Connect the supply and return lines of the foreign hydraulic system to the excavator travel motors by means of long hoses.
Use small diameter hoses e.g. inner dia. 16 or 20 mm, because even under pressure these ones are easier to handle (more flexible).



- **Check these hoses for suitability for pressure up to 350 bar.**

- To connect these hoses to the travel motors make use of the plug flanges that are used to plug the ports when the excavator is shipped from factory. Drill a hole into these and weld on a welding - flange.
- Release the parking brakes by means of manual pump (pressure among 26 and 50 bar). Connect both brake pressure lines by a T-union and connect this to the manual pump. Release pressure: 26 bar.
Connect the leakage lines of the excavator travel motors to the hydraulic tank of the foreign hydraulic system. It is vital to check the hydraulic oil level of the foreign hydraulic continuously.
- Lift up the superstructure for about 80 mm and secure it against lowering.
Travel out the undercarriage backwards.
Install a mounting cross and remove the slew ring downwards by using of a crane.
- Assembly of the new swing circle
Carry out the preparation and the assembly corresponding to the Service Bulletin AH00511.

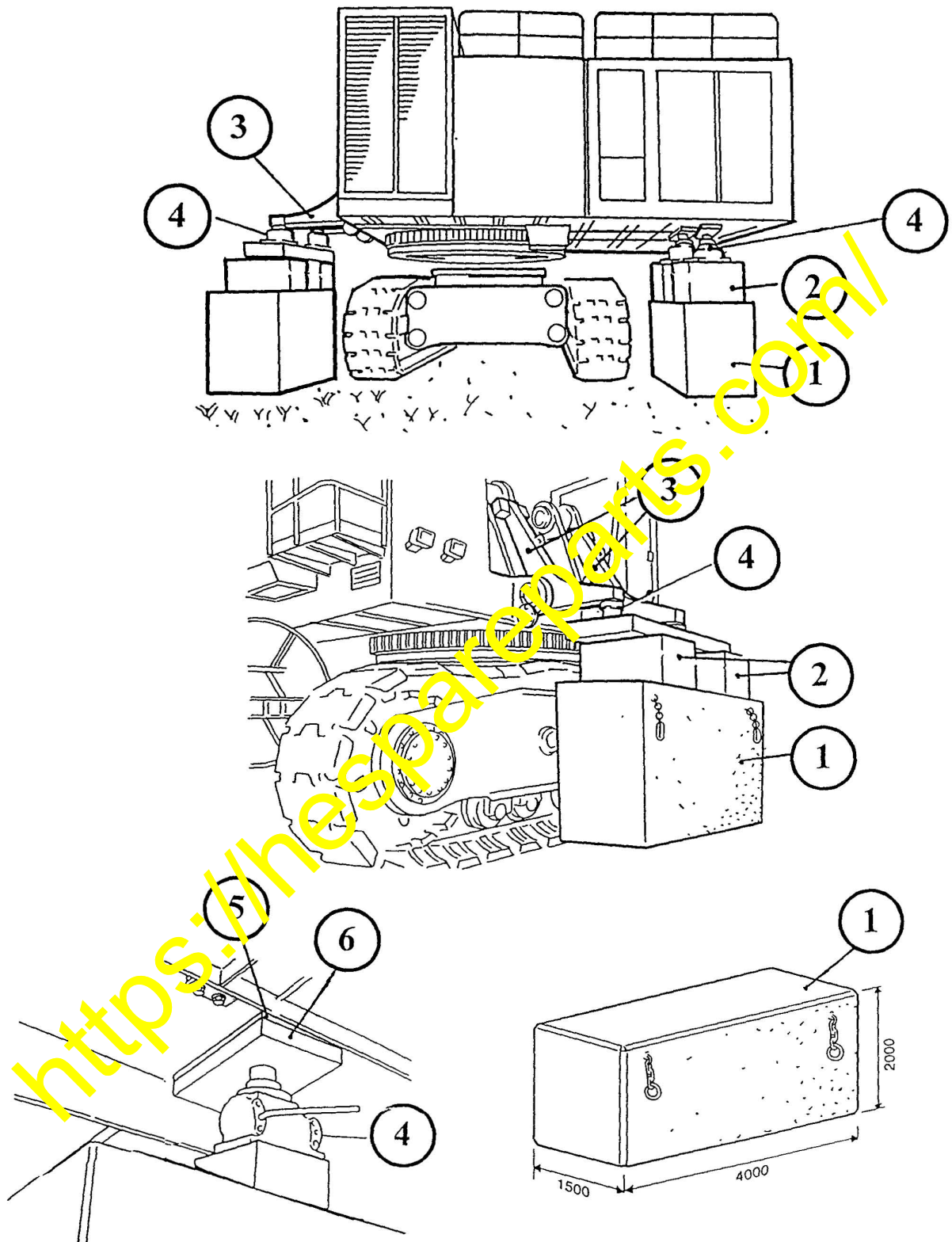


- **Note that the superstructure is turned for 90°!
Therefore the unhardened spot "S" of the inner and the outer ring of the swing circle have to be turned in an angle of 90° to each other for installation (Z22137).
After finishing of replacement of the swing circle both punchmarked unhardened spots "S" are at the same place.**

- Assembly of the removed components.
- After removing of the wedges at the back of the superstructure smooth the girder.

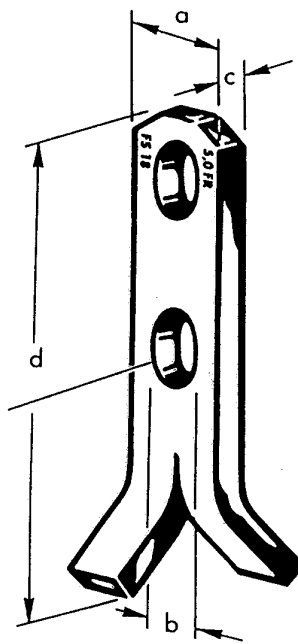


- **Bleed all hydraulic cylinders carefully after the assembly, otherwise serious damages are possible (see service bulletin 21-531).**

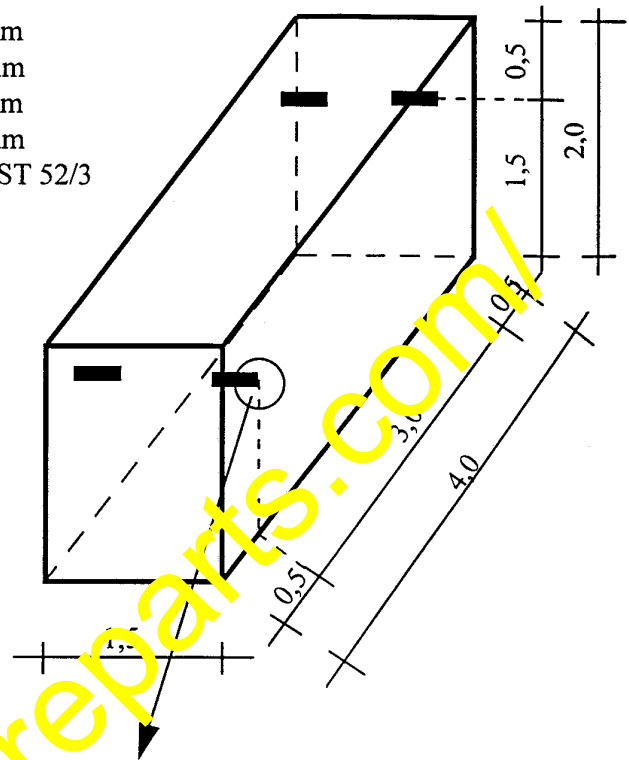


(Z 21169)

Hints for the spread anchors

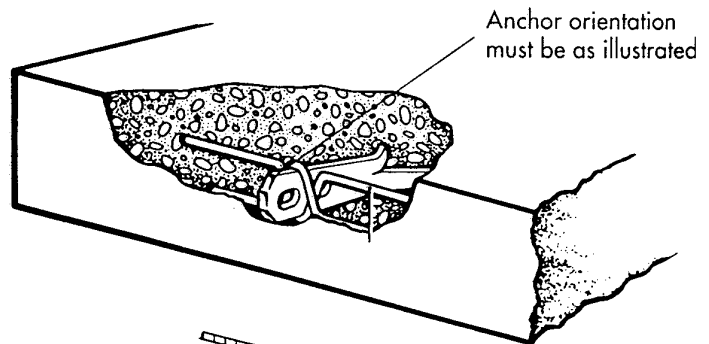


$a = 80 \text{ mm}$
 $b = 35 \text{ mm}$
 $c = 26 \text{ mm}$
 $d = 500 \text{ mm}$
Material: ST 52/3



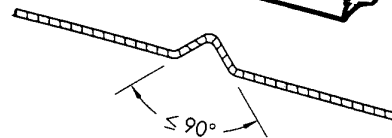
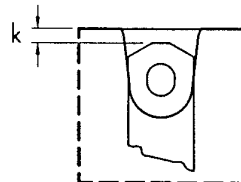
Concrete strength $\beta_w \geq 15 \text{ N/mm}^2$

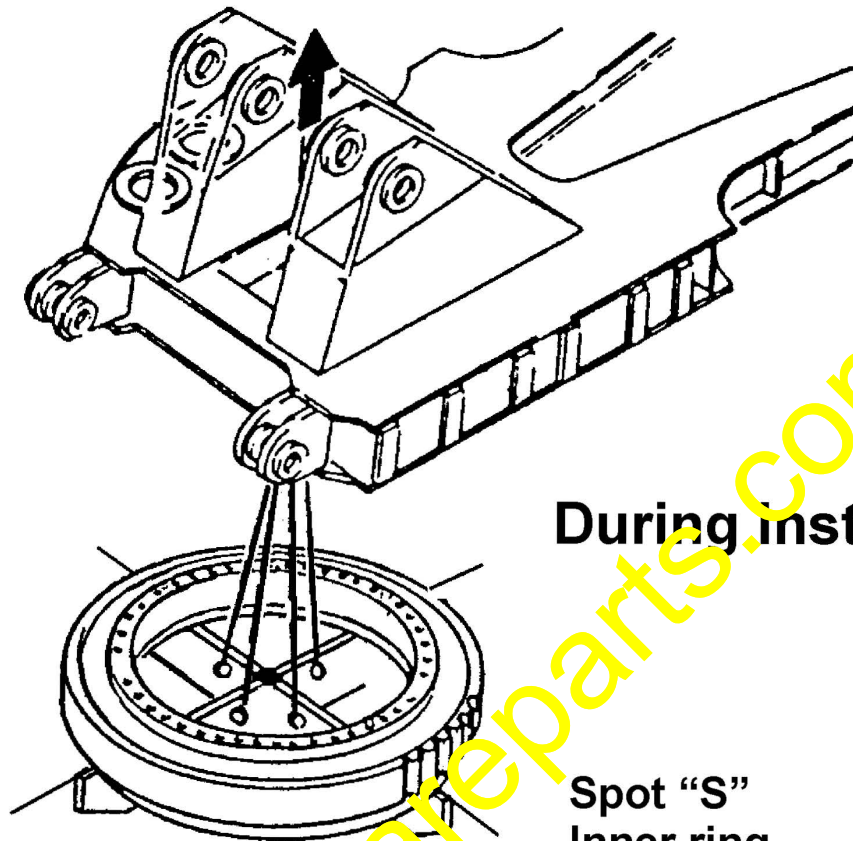
For the statics of the concrete blocks please contact our Department Service Information (8151.30).



Cover to anchor head

$k = 15 \text{ mm}$



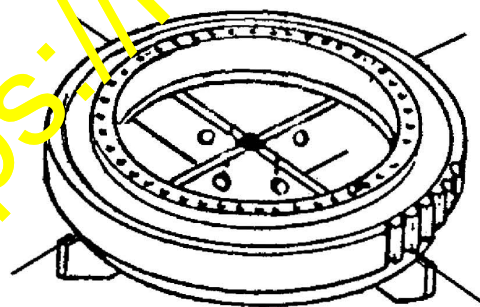


During installation

Spot "S"
Outer ring
Undercarriage

Spot "S"
Inner ring
Superstructure

<https://thespareparts.com/>



After replacement

Main load area

Spot "S"
Inner and outer ring

Z22137

