

Foreword

Part 3: Lubrication and Maintenance Instructions for the Superstructure

For you,

This instruction manual is provided for the benefit of personnel carrying out maintenance work, and includes information required for maintenance and lubrication of the machine and all special equipment.



The information contained in this manual is correct with regard to the equipment at the time of publication. Data, diagrams and dimensions are subject to change as a result of technical development.

No liability can be accepted for damage resulting from incorrect maintenance.

In these lubrication and maintenance instructions you will find the titles or the respective symbols "Danger", "Caution" and "Note" used as follows:



DANGER!

"Danger" is used if a maintenance procedure, NOT performed according to the prescriptions given, may cause death or injury to persons.



CAUTION !

"Caution" is used if a maintenance procedure, NOT performed according to the instructions given, may cause damage to the crane or the crane equipment.



NOTE:

"Note" is used for identifying an important maintenance procedure as well as for additional information.

The electrical equipment of the crane must be regularly inspected and checked. Defects such as loose connections or scorched cables must be eliminated immediately.



Work on the electrical system or fuels must only be undertaken by a qualified electrician or by instructed persons under the management and supervision of a qualified electrician in accordance with the electro-technical regulations.

Only use original fuses of the prescribed strength. Switch off the crane immediately if the electrical power supply malfunctions.

Regularly check all the lines, hoses and unions of the hydraulic and pneumatic system for leaks and externally visible damage. Eliminate or have eliminated any damage immediately.

With regard to the crane chassis, additionally observe the detailed specifications regarding steering, suspension and the brakes in particular given in Part 4, the lubrication and maintenance instructions for the chassis.



Work on the hydraulic equipment must only be undertaken by persons with specialist knowledge and experience in hydraulics (the system must be de-pressurized).

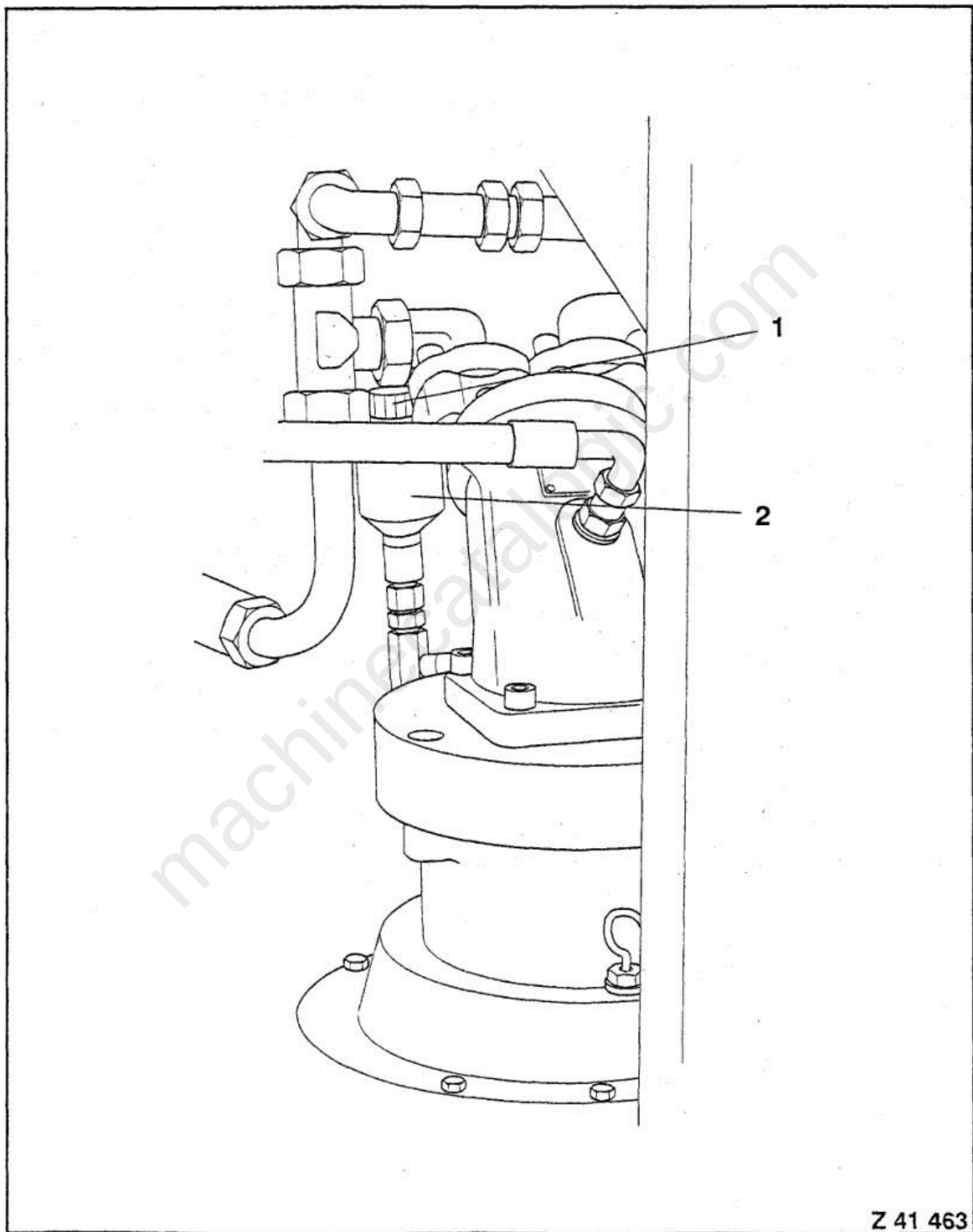
Spurred oil may lead to injury and fires.

When using oil, grease and other chemical substances, observe the safety instructions applicable for that product.



Be careful when using hot fuels and lubricants (burning and scalding may occur).

Ensure that no tools are left behind once work has been completed. Tools which fall or are flung from the crane may result in DANGER TO LIFE AND LIMB.



10.3 Locking and Bolting Unit - Carrying Out a Visual Check

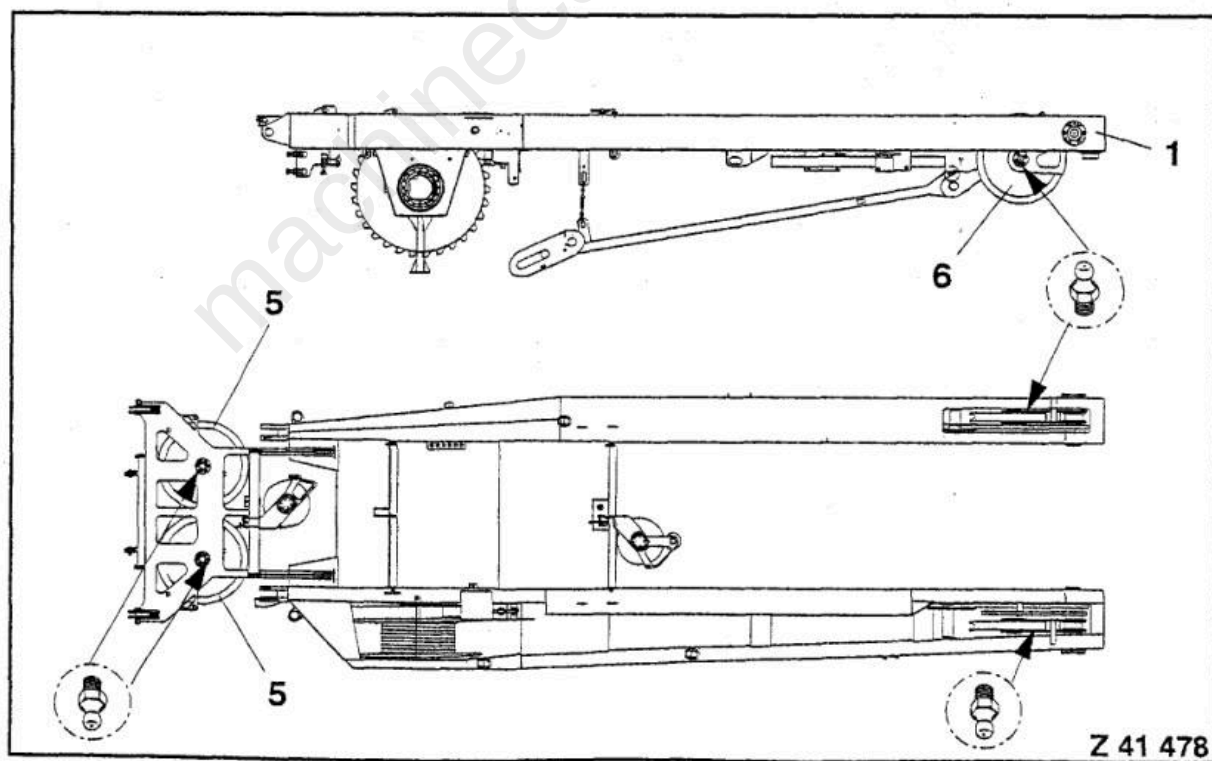
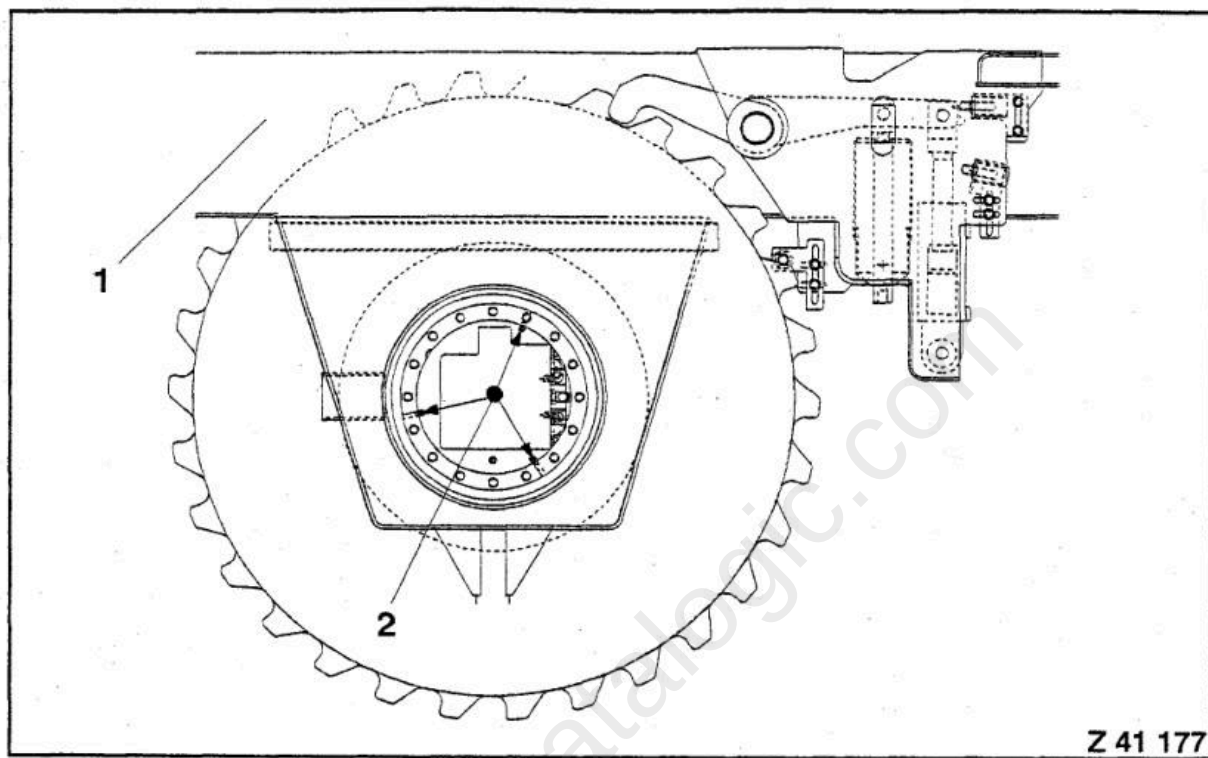
Check the following components to make sure that they are seated properly and check for damage and leaks.

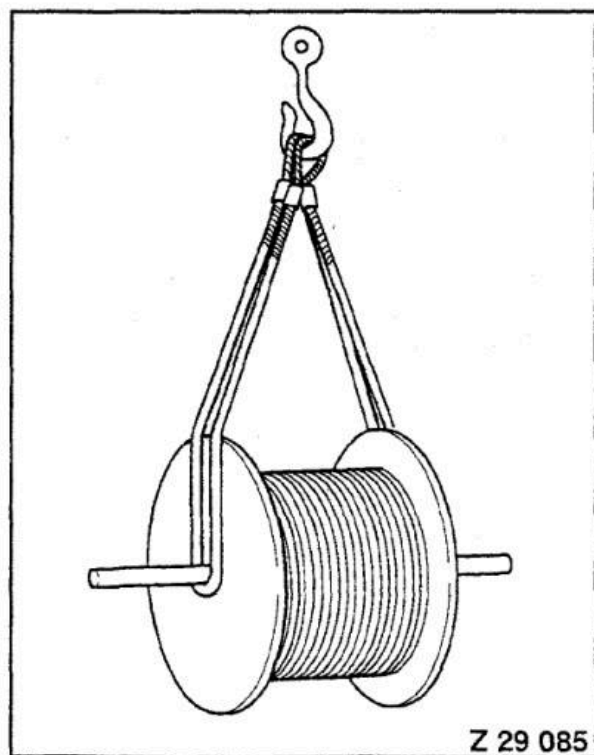
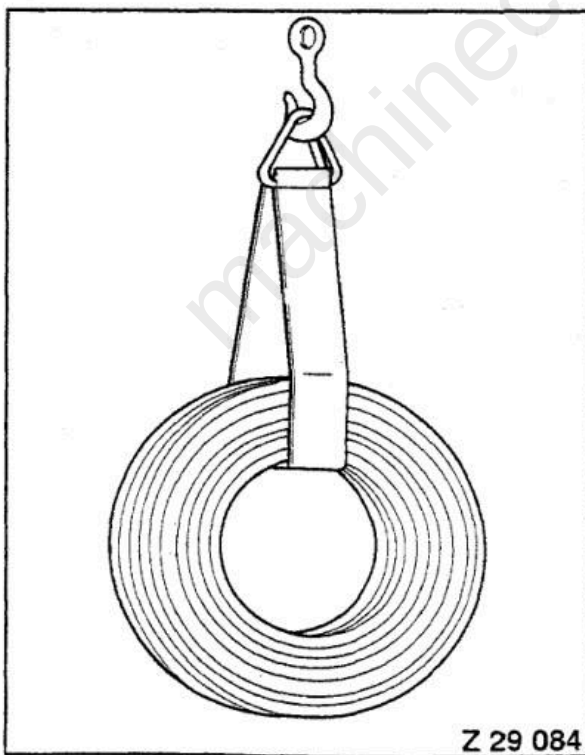
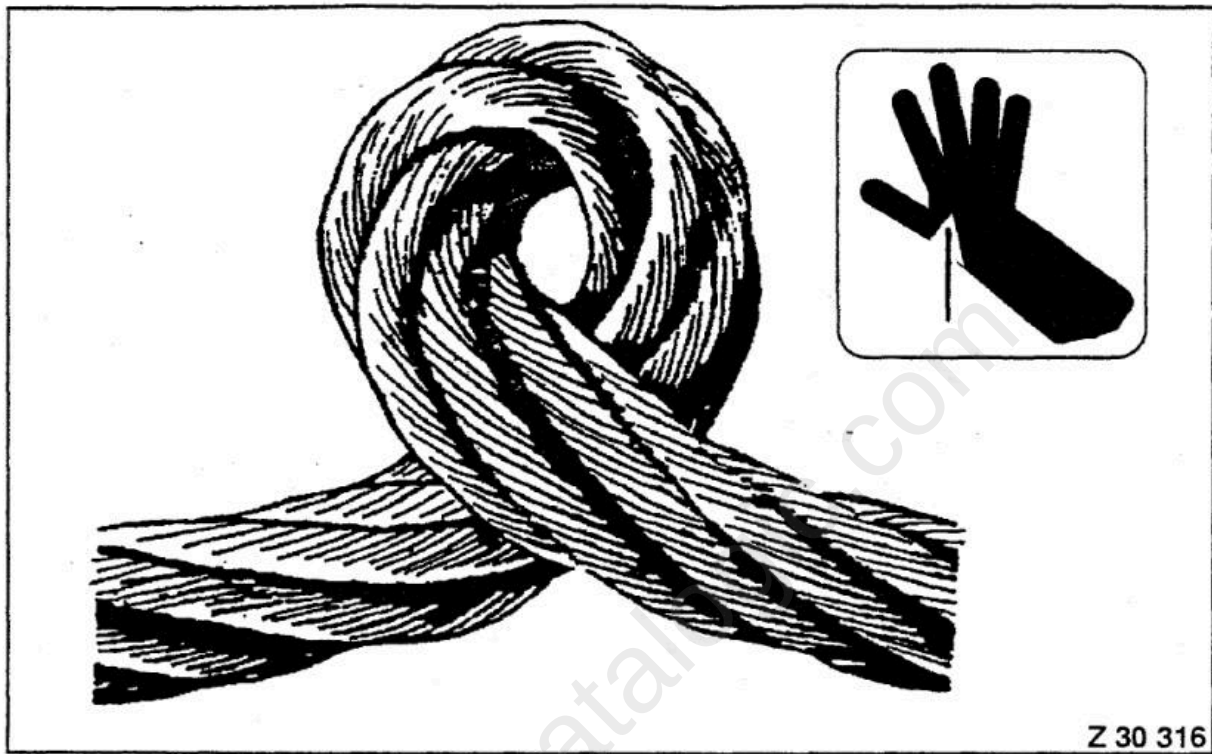
- Plugs (in particular on the solenoid valves)
- Solenoid valves
- Hoses and cables

10.4 Locking and Bolting Unit - Checking the Proximity Switches and Sliding Contacts (Z 41 471)

Check the proximity switches and sliding contacts

- to make sure they are properly seated; they must not be loose or be able to move around in their housing;
- to make sure that they are undamaged;
- to make sure that they move freely, ie that the spring return is working correctly.





12.5 Hydraulic Tank - Checking the Oil Level and Topping and Topping Up as Necessary

(Z 41 492)

1. Fully extend all hydraulic cylinders.
2. Position the crane on level, flat ground.
3. Switch off the engine.
4. Check the oil level on the level indicator.



The oil level in the stand pipe must come up to the "max" marker on the hydraulic tank.

5. The oil should be topped up if it is below this marker.
6. Investigate the cause of the oil loss and rectify immediately.



If oil must be added, the return oil filters must subsequently be checked or replaced at the prescribed intervals. See Section 4 "Lubrication and Maintenance Schedule".

12.11 Checking the Hose Lines

(Z 35 446)

Check all hose lines regularly for damage.

If this visual inspection of the hose lines reveals even the slightest damage, the defective hose must be replaced immediately.

Examples of possible defects on the hose lines:

1. Damage to the outer layer (1) (areas of abrasion, cuts, cracks, etc.).
2. Ageing of the material of the outer layer (1) (formation of cracks).
3. Deformations which do not correspond to the natural form of the hose line (layers coming away, blistering, crushed points, kinks, torsioning).
4. Leakage points.
5. Requirements regarding installation and positioning not observed (see DIN 20 066 Part 4 "Installation of Hose Lines).
6. Fixture on the hose fitting (2) is damaged.
7. Hose fitting (2) corroded, deformed or damaged.
8. Storage time or duration of use exceeded (see point 12.11).

12.12 Replacing the Hose Lines

Even if no damage is detected, the hose lines must be replaced **at the latest** after 6 years, including a storage time of, at most, 2 years.

Identification of hydraulic hoses

(Z 30 193)

- (1) Manufacturer
- (2) Hose type (classification)
- (3) Rated width
- (4) DIN standard designation
- (5) Date of manufacture (quarter and year of production)

For the **operating or storage life** go by the **date of manufacture** on the **hydraulic hose**.

15.3 Cleaning the Strainer on the Fuel Tank

If necessary, clean the strainer (2, Z 32 085) on the fuel tank with petrol and pass compressed air through it from the outside inwards.

15.4 Draining Off Water and Sediment from the Fuel Tank

To drain water from the tank, unscrew drain plug (3, Z 42 105) and drain off at least 1 l of fuel.

Shut-off cock (4, Z 42 105) must be in position "open" if the additional heater is to be used.

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