Service instruction Tail lift

Measure and adjusting pressure





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Measurement and adjusting main pressure: Z/ZL/ZS/ZD/ZSS/ZT/ZTS/ZHD/ZHDL/ZHDN- models



Warning!! On tail lifts with folded platform: Never have the platform unfolded during this operation as shown below. The platform can slam like a mousetrap that could cause material damage or personal injury. Even make sure that the platform tip doesn't conflict with body work or similar.

To avoid this problem, connect the measure equipment on the left lift cylinder instead and follow alt. 2 bellow.



Raise lift and press towards body or end position at tilt cylinders. Continue to press while the pressure is measured.



Raise lift and press towards arm stop or end position of the lift cylinders. Continue to press while the pressure is measured.

The pressure should be:

200 bar Z/ZL/ZS/ZD/ZSS - 150/200/250 200 bar ZS/ZSS - 20/25 200 bar ZHD/ZHDL - 1500/2000/2500 160 bar ZT/ZTS -25/250 160 bar ZS/ZSS - 15 130 bar ZT/ZTS - 15/20/150/200



Remove cap for adjusting screw at adapterblock. Rotate adjustingscrew, clockwise to increase pressure, anticlockwise to decrease.

Note! Before measuring equipment be removed: make the lift depressurised in the same manner as before the measuring equipment was connected.

Measurement and adjusting pressure slide system / tilt down: Z/ZL/ZS/ZD/ZSS/ZT/ZTS/ZHD/ZHDL/ZHDN- models



Connecting messure equipment.



For all Tail lifts with tilt cylinder with oil filled piston rod side.



Raise lift and tilt down the platform as much as possible. Continue to tilt down while the pressure is measured.

For Slide lifts without tilt cylinder with oil filled piston rod side.



Run the slide system either to in or out position (as shown on image to the left) and keep press the button while the pressure is measured.

Measure pressure.

 55 ± 5 bar. For lift models that have a main pressure of 200 bar. See table on page 2.

 90 ± 5 bar. For lift models that have a main pressure less than 200 bar. See table on page 2.



Note. For ZT/ZTS 15/20 models should the pressure be the same as the main pressure if the hydraulic motor block are like the the one on image to the right. If the hydraulic motor block are like the the one shown on the image below, the pressure should be 90 ± 5 bar.





If the pressure needs to be adjusted:

For allTail lift models (incl. Slide lifts) with an hydraulic alu-rail on the support frame: Remove cap (1) for adjusting screw at the valvesystem. Rotate adjustingscrew, clockwise to increase pressure, anticlockwise to decrease.

For slide lift without alu-rail on the support frame, with a block shown on image to the right: Loosen the locking screw with a key sizs 19 mm. Adjust with an Allen wrench size 5 mm. Clockwise to increase pressure, anticlockwise to decrease.

Note. Both pressure relief valve may need to be adjusted

For ZT/ZTS 15/20 models with a block shown on image to the right:

Remove cap (1) for adjusting screw at the valvesystem. Rotate adjustingscrew, see arrow, with a screwdriver; clockwise to increase pressure, anticlockwise to decrease. Note. In most case, the relief valve on this model should be screw to the bottom (clockwise).

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Measurement and adjusting main pressure: Z/ZL/ZN/ZU/ZLU/ZNU - 45/75 and Z-100 models







Tilt down the platform max 10° below the horizontal plane at the upper horizontal.

Then lower the lift entirely against ground in order to make the system pressurless.



Connect measure equipment. Note. The picture shows a different lift model, but the procedure is similar: on the connector block on the right tilt cylinder.



Note! Before measuring equipment be removed: make the lift depressurized in the same manner as before the measuring equipment was connected.

Measurement and adjusting main pressure: ZV50 and ZHZ-500/600 - models

1. Preparation: It is an advantage to have the tail lift in transport position throughout the operation. See picture 1.

Note! Step 2 and 3 is only for ZHZ Models. For ZV50 continue with step 4. **2.** In order to access to measure and adjust the pressure, there must be a pit, vehicle lift or otherwise hoist and secure the rear of the vehicle, so that you can access to lower the hydraulic unit. Can be done in conjunction with an oil change.



 Loosen the bolts to the bracket for the hydraulic unit, see picture 2. Remove the bolt at arrow 1, let the bolt at arrow 2 remain to get the hinge effect: see picture to the right.
Remove the plastic cover from the hydraulic unit.

5. Before connecting of measuring equipment, depressurise the system:

To make the system depressurised, follow the steps below. Start by unscrewing the cap on the valve, see picture 4. Remove the magnet (coil). then screw back the cap, picture 5, (without the coil) so that the valve activates and the oil passes through the valve into the tank so that the existing pressure is lost. Unscrew the cap again.



6. After the system has been made pressureless:

Unscrew the plug next to the valve. See arrow at picture 5. Mount the measuring equipment where the plug was. See picture 6.

> 7. Measure the pressure by raising the tail lift until the lift arm press against the armstop Hold in the button for lifting during the check of main pressure. The pressure should be: ZHZ 500 - 140Bar ZHZ 600 - 190Bar ZV 50 - 190Bar

Pic.1







- 8. If adjustment of the pressure is required:
- 1. Remove the rubber seal.
- 2. Loosen the lock nut.
- 3. Rotate adjustingscrew, clockwise to increase pressure, anticlockwise to decrease.



9. When measurement and possibly adjusting the pressure is clear:

Repeat the procedure to make the system pressureless, before removing the measuring equipment. Then mount everything back in its place.

Measurement and adjusting main pressure: ZA/ZAE/ZAHD/ZAEHD- models









Tilt down lift entirely at the upper horizontal. Lower lift entire against ground in order to do the system pressure loose.



Connect the measuring equipment on the connector adapter on the right tilt cylinder.



Raise lift and press towards bodywork or end position at tilt cylinders. Continue to press while the pressure is measured.



Measure pressure.

The pressure should be 200 Bar

If the pressure must be adjusted:



Remove cap for adjusting screw at adapterblock, se fig. to the left.Rotate adjustingscrew, clockwise to increase pressure, anticlockwise to decrease.

Rotate adjustingscrew, clockwise to increase pressure, anticlockwise to decrease..



Note! Before measuring equipment be removed: make the lift depressurised in the same manner as before the measuring equipment was connected.

Measurement and adjusting main pressure: ZKZ 1500

Pull the spring-loaded locking rod, and lock the rod in approved holder, see picture to the right: Arrow 1 (pulling direction) arrow 2 (holder)









Tilt down lift entirely at the upper horizontal. Lower lift entire against ground in order to do the system pressure loose.



Connect the measuring equipment on the connector adapter on the right tilt cylinder.



Raise lift and press towards bodywork or end position at tilt cylinders. Continue to press while the pressure is measured.



Measure pressure.

The pressure should be 175 Bar

If the pressure must be adjusted: see page 10.

Measurement and adjusting main pressure: Z3N/Z3NU 75

Note! On this model the system doesn't need to be depressurized before installation of the measuring equipment.

Unscrew the cap on the adapter that is placed at the top on the connection block for the hoses.



Connect the manometer directly to the adapter.

Note! Some of the earliest lift of this model was without the adapter that you connect the manometer to. In this case unscrew the plug and mount an adapter between the block and the manometer.



Measure the pressure when the motor of the tail lift is activated. The pressure should be 160 Bar

If the pressure must be adjusted:

1. Remove the rubber seal.on the assembling plate for the hydraulic unit.

2. Loosen the locking nut.

3. Rotate the adjustingscrew: clockwise to increase pressure, anticlockwise to decrease.

Fasten the locking nut after the pressure is adjusted and put back the rubber seal.





Measurement and adjusting the main- and the slide system pressure SZFT/SZFTN/SZFTS 200-160

Preparation







Operate the lift into working position. Lowering it to the ground, this to make the system depressurized.

Unscrew the plug between the two valves. se arrow. Unscrew the plug between the two valves, see arrow. Connect the manometer with an appropriate adapter where the plug was sitting.

Measuring the main pressure

Raise the lift towards the end position and read off the manometer while still pressing against the end position. The pressure shall be 200 Bar

Measuring the pressure on the slide system.

Make sure the lift is not on the ground. Operate the sleds so they press against the end position while the pressure is measured The pressure should be around 90 Bar It should never exceed 130 bar when it will damages the hydraulic motor for the slide system.





If the main pressure needs to be adjusted: See page 10.

If the pressure on the slide system needs to be adjusted:

Depending on which valve system it is: See Alt 1. resp. Alt. 2 below.

Alt 1. Loosen the lock nut with a wrench size. 19mm. Adjust with an Allen key size. 5mm. Clockwise to increase pressure and counterclockwise to decrease pressure. Note! Both pressure relief valves can be adjusted.

Alt 2. Remove the dome nut (1) Turn the adjustment screw with a screwdriver, clockwise to increase pressure, counterclockwise to decrease.

Do not operate the lift up or down when the pressure of the slilde system is measured when this will give an error value.



Note! Before measuring equipment be removed: make the lift depressurized in the same manner as before the measuring equipment was connected.

Measurement and adjusting main pressure ZR 15/20 - 140/157

Preparation:

Lowering the lift to the ground in order to make the hydraulic system depressurized.

Remove the cover on the hydraulic unit. Unscrew the plug to the left off the valve, see arrow.

Connect the manometer there the plug was connected. if necessary, use an adapter between the adapterblock and the manometer.

Measuring the main pressure

Raise the lift towards the end position and read off the manometer while still pressing against the end position.

The pressure shall be: 170 Bar for ZR 15 210 Bar for ZR 20



If the main pressure needs to be adjusted:

Remove cap for adjusting screw at adapterblock, se fig. to the left.Rotate adjustingscrew, clockwise to increase pressure, anticlockwise to decrease.

Rotate adjustingscrew, clockwise to increase pressure, anticlockwise to decrease..



Note! Before measuring equipment be removed: make the lift depressurized in the same manner as before the measuring equipment was connected.

