

COMPACTTILT™

SERVICE AND MAINTENANCE TASKS

Service and maintenance tasks CTR2 and CTR3

| Add | Task | Reason |
|-----|--|---|
| 1 | Replacement of lock paddles and leaks in the quick change and top of the rotator ↗ | Damage to rotor gasket. Damage to lock cylinder. |
| 2 | Leaks around end caps and valve blocks ↗ | Collision. Damage to fittings. |
| 3 | Opsims of tilt lash / End lash ↗ | High bucket lash / tilt lash |
| 4 | Loose oil engine and / or lash in gearbox ↗ | Collision oil engine. Lack of lubrication. |
| 5 | Leaking at the valve block ↗ | Collision. |

1. Replacement of lock paddles and leaks in the quick change and top of the rotator

- ⦿ Check damage to quick couplings and whether they are clamped.
- ⦿ Check for damage to the lock cylinder and whether it is clamped.
- ⦿ Note: Leaks from the quick change can be seen as leaks from the top of the rotator.

For replacement applicable to CTR2 (1-2,2T diggers):

Replacement of locking cylinder, locking paddles and swivel shafts as well as main axle.

- ⦿ Depressurize the system.
- ⦿ Lighten bolts in the lock cylinder.
- ⦿ Fit a small impact trigger on the lock cylinder and the lock cylinder is pulled out of its guide pins.
- ⦿ Remove the swivel block.
- ⦿ Check for damage to O rings in the joint between the lock cylinder and the swivel block.
- ⦿ Check for impact marks, notches or sharp edges on the swivel shaft.
- ⦿ Remove the swivel block and swivel shaft. Swivel block and swivel shaft separate - O rings in between are checked for damage and defect. (if found - swivel shaft, rotor seals in main shaft must be replaced).
- ⦿ Remove the quick change and main shaft (housing for swivel) and check the O rings between the body of the tiltrotator and the main shaft for damage and defects.
- ⦿ Check for damage to rotor gaskets located in the main shaft (if so, they must be replaced). After the defect is found, the tiltrotator can be re-assembled.

REMEMBER all bolts must be tightened TORQUE, cf. table.

All O-rings must always be replaced after they have been opened.

For replacement applicable for CTR3 (2-3T diggers):

- ⊗ Replacement of locking cylinder, locking paddles and swivel shafts as well as main axle.
- ⊗ Depressurize the system.
- ⊗ Removal of bottom screen. Note springs included with bottom screen.
- ⊗ Remove nut at end of locking cylinder.
- ⊗ Remove hoses on cylinder.
- ⊗ Push the lock cylinder forward and tilt it down.
- ⊗ Lock paddles are pushed back.
- ⊗ Lock cylinder, lock paddles and crossbar can now be removed.

NOTE that there are no burrs and damage to the lock paddles. If it is found, they must be sanded off so that they are smooth and round in order to be dismantled.

- ⊗ Check lock cylinder hoses for breakage and damage.
- ⊗ Quick couplings are removed and checked for defects and damage and impact marks.
- ⊗ Remove the swivel block.

- ⊗ Check for damage to O-rings in the joint between the lock cylinder and the swivel block.
- ⊗ Check for impact marks, notches or sharp edges on the swivel shaft.
- ⊗ Remove the swivel block and swivel shaft. Swivel block and swivel shaft separate - O rings in between are checked for damage and defect. (if found - swivel shaft, rotor seals in main shaft must be replaced).
- ⊗ Remove the quick change and main shaft (housing for swivel) and check the o-rings between the body of the tiltrotator and the main shaft for damage and defects.
- ⊗ Check for damage to rotor gaskets located in the main shaft (if so, they must be replaced).

After the defect is found, the tiltrotator can be reassembled.

- ◊ REMEMBER all bolts must be tightened TORQUE, cf. table
- ◊ All O-rings must always be replaced after they have been opened.
- ◊ NOTE When mounting the bottom screen with springs, the front end of the bottom screen must be tilted down and the rear end of the bottom screen tilted up. **Otherwise, it cannot be collected!**

2. Leaks around end caps and valve blocks

- ⊗ Check damage to fittings.
- ⊗ Thoroughly check blind plugs in the valve block.
- ⊗ Check that the valve block and valve system are not loose (common cause is shortened hydraulic hoses or poor relief of hydraulic hoses from machine to rotator).
- ⊗ Important: valve block / reversing block is thoroughly tightened with its mounting bolts.
- ⊗

If the leak comes from the tilt motor: The motor is dismantled and sent for renovation at Compacttilt.dk.

3. Opsims of tilt lash

- ⊗ Tilt the tilt fully to one side. Then, 2-3 degrees return. At the pressure end of the tilt, a dial gauge is placed on the stand and reset. The tilt is now fully tilted and held in pressure.
- ⊗ The same procedures are carried out for the other end.
- ⊗ Record data for sales on dial gauge for both ends.
- ⊗ Result must be between 0.05 and 0.15 (new production).
- ⊗ Remove the motor (point 2) and at one end 4 sims are placed on top. The 4 sims are taken out and measured.
- ⊗ New sims are installed so that the lash/clearance is in the range of 0.05 and 0.15.
- ⊗ Leave the engine sideways on the bracket so that it is only just pulled down so that it is possible to get to and replace the Sims.

Final assembly according to section 2 is followed

4. Loose hydraulic engine or/and lash gearbox

Separation of quick change see pkt. 1: Replacement of locking cylinder, locking paddles and swivel shafts as well as main shafts:

Hereafter:

- ⊗ Remove bottom plate on tiltrotator. (NOTE some models have bolts on the top of the gearbox).
- ⊗ Then peel off the hoses for the oil motor.
- ⊗ Bearing blocks for worm are removed and blind plate.
- ⊗ All parts are cleaned.
- ⊗ Worm wheels are checked for damage and wear (partial wear on worm wheels is accepted before replacement, but no tears in teeth).
- ⊗ Check the worm. The worm is more critical for wear than the worm wheel, and it is therefore advisable to replace it with less wear and tear.
- ⊗ End bearings for worm are always replaced by disassembly.

The bearing housing and worm are then sampled. A length veil of approx. 0.01mm clearance.

- ⊗ To achieve the desired clearance, the end bearing is mounted in the correct thickness.
- ⊗ After this, mount bearing blocks, blind plate again - with liquid gasket.
- ⊗ It is advisable to replace the packing cord at bearing blocks and blind plate.
- ⊗ NOTE worm wheels must be loosely loaded when mounting bearing blocks. Then mount the main shaft and test the gearbox. The back pressure on the oil engine must be between 5-20 bar.
- ⊗ Mount bottom plate in liquid gasket.

Final assembly according to pkt. 2 followed

Do thoroughly check all functions and leaks

5. Leaking at the valve block

- ⊗ Check if bolts are loose. If found loose, unscrew them, and apply North Lock washers.