

BULLETIN NUMBER: SB-0005

DATE: 24/08/2022

SUBJECT: Bosch Rexroth Pump Installation (Current PTO Power Pack)

INFORMATION ONLY

This bulletin explains how to replace / install the Bosch Rexroth PTO driven pump predominately used on XE-Series Trailing Bredal Spreaders. Follow the below instructions and if you have any questions, speak to your local Bredal Representative.

Bosch Rexroth pumps

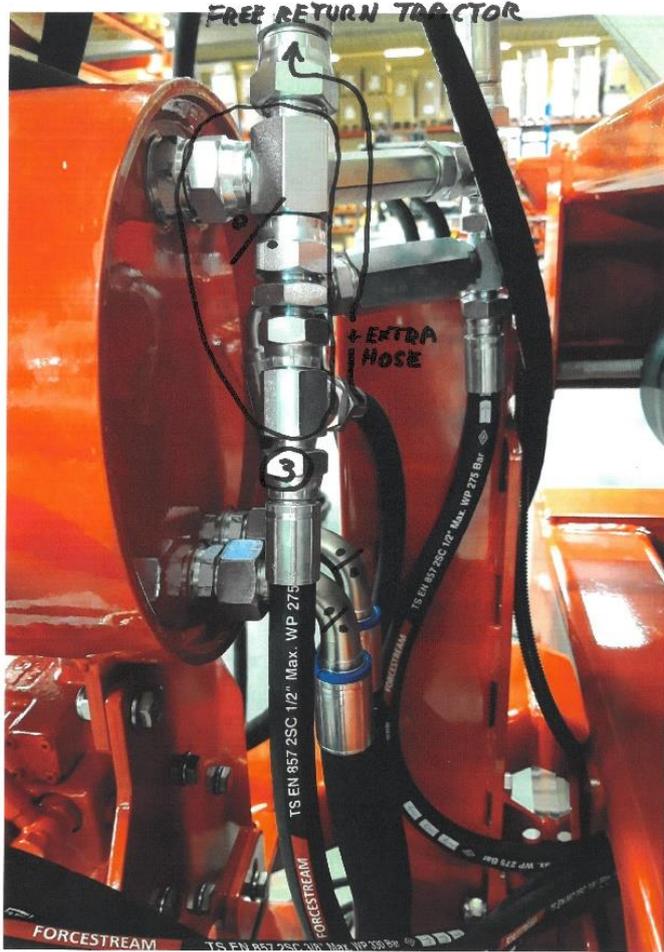
Replace instruction.

1. Remove this valve, and connect the 2 ends. There will now be one return from gearmotor and hydraulic functions directly to tractor.



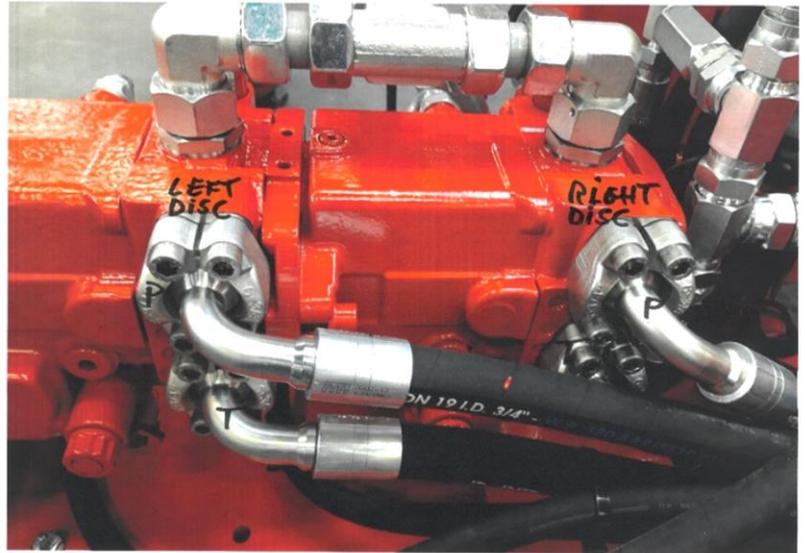
2. Remove 2 hoses from bottom of tank to pumps.
Remove 2 T-pieces, and connect the 2 hoses with a new extra hose as shown on the photo.
This hose goes to free return on the tractor.

The hose marked **3** is drain from oilmotors, and goes to new tank.

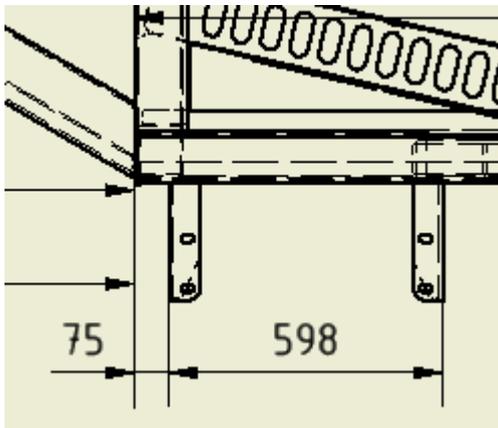


3. Remove existing pumps and tank.
4. Move existing gearbox to new pumps.
5. Mount new pumps and gearbox on new socket.
6. **Very important:** Flush the oil system to the motors with an external pump unit with filter until you make sure there are no particles left from the broken pump.

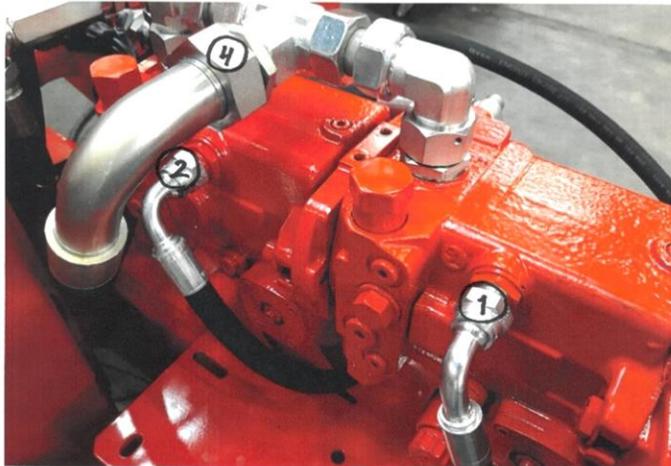
7. Mount new fittings on hoses to/from oil motors and mount on pumps.



8. Mount new tank with filter on side of the machine

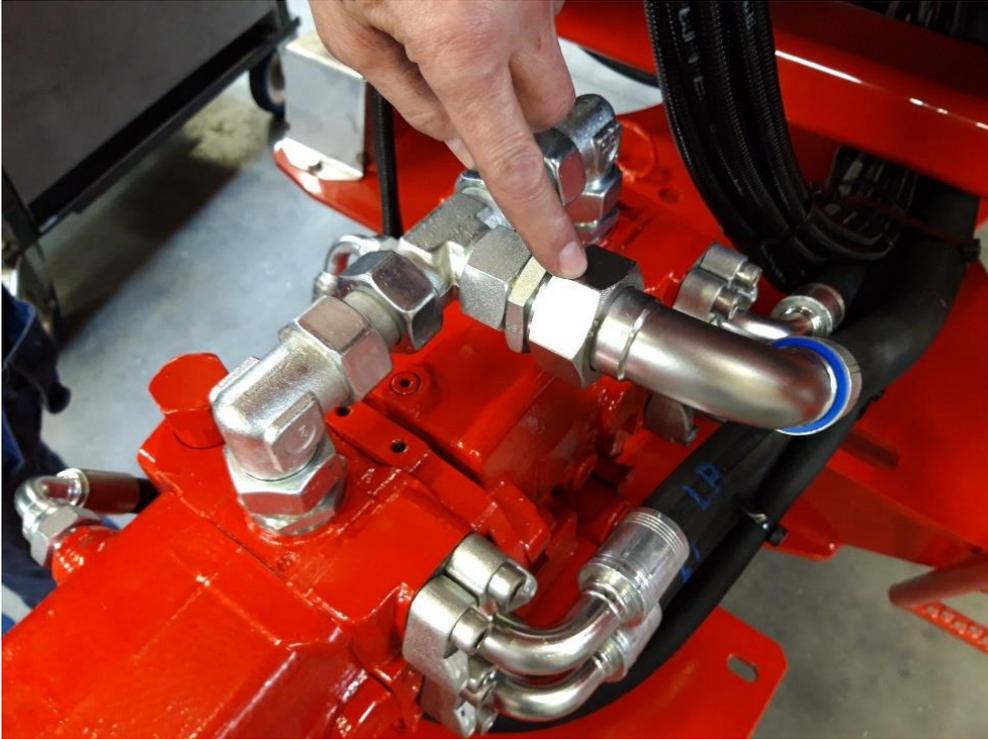


9. Connect hoses to tank



10. Fill up the tank with hydraulic oil (Q8 Haydn 46 or other similar hydraulic oil).

11. Loosen the big hose over the pump until oil is coming out, and tighten it again. This will ensure there is oil in the pumps.



12. Loosen the 2 plugs as shown until oil comes out. It will probably take minimum 10 minutes or more. Tighten them again.



13. Start up.

Do not connect the electric wires to the pumps during start up.

With manometer:

It's recommended to use a manometer for start-up, but in case there is none available it is possible to do without it. If you have manometers, connect to the shown points:



Let the PTO run at low revolutions (as low as possible) for a couple of seconds and stop again.

Keep an eye on pressure data at the manometer.

Each time the pressure falls and gets stabilized, the PTO starts shortly up again. Alternate running the PTO for approx. 2 seconds at a time and holding pause for approx. 5 seconds.

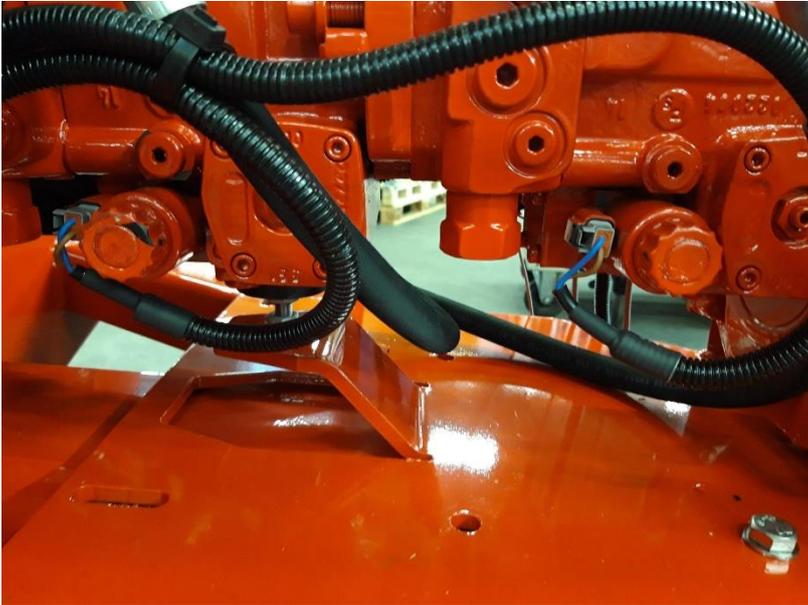
After some repetitions the pressure will gradually start increasing, and when the pressure gets stabilized at over 15 bar, it is possible to run the PTO continually until the pressure gets stabilized at approx. 20 – 25 bar.

Without manometer:

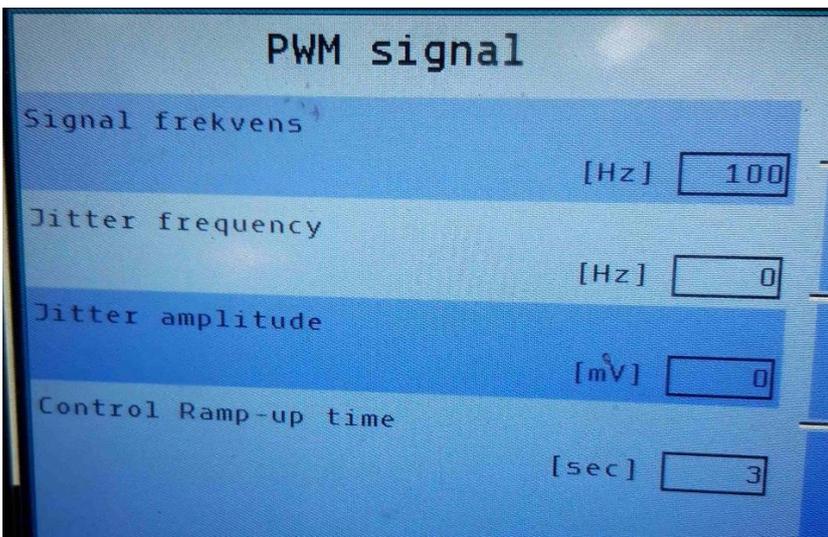
In case there is no manometer available, let the PTO run at low revolutions (as low as possible) for 2 seconds and stop for 5 seconds. Repeat the process with 2 seconds run + 5 seconds pause minimum 30 times.

After this start/stop procedure, let the PTO run constantly for a minute.

14. Connect the new wires from jobcomputer to solenoids on the pumps (on the right side of the machine).



15. Change settings for pumps in computer as shown: (Main/machine/OEM(code 1234)/Control channels/Regulator configuration Disc/PWM signal)



16. Start the discs in the ISOBUS-program and let them run with 200 RPM for 30 minutes. Check if there are leakages, vibrations, abnormal sounds or other irregularities. Start-up is now completed.

17. Mount protection plates around the pumps, and the spreader is ready for operation.

HYBRID POWER UNIT



Spreaders with hydraulic spread units are available with a PTO-driven hydraulic pump unit.

The pump unit is a separate system whose sole purpose is to drive the discs.

OPERATION

PTO working range: 800–1000 rpm, depending on the disc rpm preferred.

Check the following daily:

- The oil must be visible in the sight glass. If it is not, top up with oil and check the system for leaks.
- The oil temperature should not exceed 70°C.
- The manometer indicator should be in the green field when the discs rotate at operating speed. If the indicator is in the red field, this indicates that the suction filter, filler cap and oil must be replaced/changed.



MAINTENANCE

The following service should be done after six months of operation and every two years after this.

- Change the oil.
- Replace the suction filter.
- Replace the filler cap (with built-in air filter).

Unscrew the filler cap, unscrew the drain plug to drain the oil and replace the suction filter. Reinsert the drain plug, fill up with fresh oil, and replace the filler cap.

The spreader is filled with Q8 Haydn 46 hydraulic oil ex works, but it is also possible to use a similar hydraulic oil of a different make. Volume: approx. 60 liters.

Start-up procedure after the oil change:

- Start the PTO at idling speed and let the pumps run for one minute WITHOUT starting the discs. Then take a one-minute break.
- Repeat the above procedure.
- Repeat the procedure once more, but now let it run for five minutes.
- Start the discs and allow them to run at 200 rpm with the PTO at idling speed for five minutes.
- The spreader is now ready for operation.

Any further support, please contact your Bredal Representative.