

**BULLETIN NUMBER:** B0016

**DATE:** 08/05/2023

## REXROTH PTO PUMP – START UP INSTRUCTIONS

---

This is an information ONLY Bulletin detailing instructions to start up a new Rexroth PTO Pump system onto your Bredal Spreader. Please follow the instructions carefully, any additional support please contact your Bredal Territory Manager.

### Start up instruction, Rexroth pump system.

1. Remove oil filter cap and empty the system for all oil.

2. Remove pumps and oil motors.

3. Remove the whole lid with 8 bolts on top of the oil tank, and clean the bottom of the tank inside with paper or similar.



4. Blow out the 4 hydraulic hoses from the pumps to motors with compressed air. Note, if there seems to be less flow through any of them. If this is the case, the hose might be blocked inside by debris, and must be replaced with a new hose.

5. Mount new pumps, hydraulic motors and oil filter.

Connect the hydraulic hoses, but do **NOT** mount the electric wires to the solenoids.

6. Fill up the tank with new hydraulic oil (Q8 Haydn 46 or other similar hydraulic oil. App. 60 liters).

7. Loosen the large hydraulic pipe screw over the pumps until oil is coming out, and tighten it again. This will ensure there is oil in the pumps.



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

9. 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:



Operate the PTO run at low revolutions (as low as possible) for 2 seconds and stop again.

Keep an eye on pressure data at the manometer.

Each time the pressure falls and gets stabilized, start the PTO for 2 seconds again. Continue to run the PTO for 2 second bursts and pause between each run time for 5 seconds to gently pump oil pressure into the system.

After several repetitions the pressure will gradually start increasing, and when the pressure stabilizes over 15 bar, it is possible to run the PTO continually until the pressure reaches 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 second pauses for 30 repetitions. This will ensure adequate pressure is pumped into the motors.

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

**10.** Connect the wires to solenoids on the pumps (always on the right side of the machine).



**11.** 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, heat, or other irregularities. Start-up is now completed.

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

NOTE: Refer to the next page for the Hydraulic settings for the Discs.



# INSTALL BULLETIN

## ISO Monitor Settings

There are four (4) sets of settings in the ISO Terminal that you need to setup before spreading with your new Roxroth PTO Pump.

The 4 x settings are in the Regulator Configuration "Discs" settings:

*Main Menu > Machine > OEM > Control Channels > Regulator Configuration Disc*

- 1. PWM Signal "Left Disc"**
  - a. Max Duty Cycle = 60%
  - b. Duty Cycle Offset = 20%
  
- 2. PWM Signal "Right Disc"**
  - a. Max Duty Cycle = 60%
  - b. Duty Cycle Offset = 20%
  
- 3. PWM Signal**
  - a. Signal Frequency = 100Hz
  - b. Jitter Frequency = 0 Hz
  - c. Jitter Amplitude = 0 Hz
  - d. Control Ramp-up time = 3 sec
  
- 4. PID parameters**
  - a. P Factory = 0.005
  - b. I Factory = 0.010
  - c. D Factory = 0.001

Any further support, please contact your Bredal Representative.