Introduction

This procedure tells you how to replace the motor and the filter on a Bijur mechanical oil pump.
1

Disconnect the oil hoses from the lubrication tank assembly. Plug the hoses.

Loosen the locknut [1] on the motor cable at the motor cover. Remove the motor cover [2] and the motor-cover standoffs [3]. This makes it easier to install the new motor.

Mark the wires that are connected to the used motor leads. Cut the leads from the used motor at the crimp connectors [4].

Remove the used motor.

Install the BIJUR OIL PUMP REPLACEMENT MOTOR [A]. Connect the ground wire [5]. Install the motor-cover standoffs.

2

Strip the motor leads [1] to approximately 1/2" (13 mm).

Strip the leads [2] on the power cable to approximately 1/2" (13 mm)

Use crimp connectors to connect the motor leads and the power cable leads together.

Install the motor cover. Tighten the locknut on the power cable onto the motor cover.
3
Remove the reservoir [6] from the tank lid assembly.

Discard the used oil and clean the reservoir.

Scrape the used gasket from the bottom of the tank lid and from the top of the reservoir.

Remove and discard the used discharge tube [2].


Install the new discharge tube [2].

Install the new reservoir gasket [1] and the reservoir [6].

Reconnect the oil hoses to the tank assembly.

4
Fill the reservoir to the MAX fill line [1].

Note: To prevent build up of contamination, use Mobil SHC 625, Mobil 1 5W-20, or Mobil 1 10W-30. Do not use Mobil Vactra #2.

When you use Vactra #2, contamination ("sludge") collects in the reservoir. This causes the pump assembly to become clogged.

You must fill the reservoir tank to the MAX fill line [1] each time you fill the tank. This makes sure the dip trough [2] is full of oil. This lubricates the drive and worm gears [3] of the pump.
1

Lift the plunger to hand-prime the pump until the pressure reads approximately 20 psi (1.38 bar).

Note: If the lever arm [1] pushes up on the plunger, you cannot hand-prime the pump. Operate the spindle up to 30 minutes for the next pump cycle to complete.

In MDI mode, command the spindle to run at low speed, for example, 5 RPM.

This turns on the oil pump motor.

Stop the spindle when the lever arm drops.

2


Pull up on the plunger [2].

Oil comes out of the fitting [3] when the pump operates correctly.

Connect the oil feed tube.

If no oil comes out of the fitting, refer to MECHANICAL BIJUR LUBE PUMP TROUBLESHOOTING GUIDE.

3

In MDI mode, command the spindle to run at a low speed, for example, 5 RPM.

Note: The Bijur mechanical pump takes approximately 30 minutes to complete a cycle.

Look at the oil pressure gauge when the plunger drops.

The oil pressure gauge shows 20 to 40 psi (1.38 - 2.75 bar). The pressure gradually decreases to 0 psi (0.0 bar) in 3-10 minutes.