Eaton/Baldor Pump and Motor Rework

Follow all safety warning in the Gillig Service Manual

- To upgrade the pump shaft and motor coupler the hydraulic pump must be separated from the electric motor. These instructions will help that process and also provide some direction in changing the pump shaft and motor coupler.
- There are a few special tools and skills required.
- Snap Ring Pliers
- Hydraulic or Arbor press
- Bearing plate and puller
- Claw Puller
- Bearing Driver
- Induction heater

This upgrade will do the following

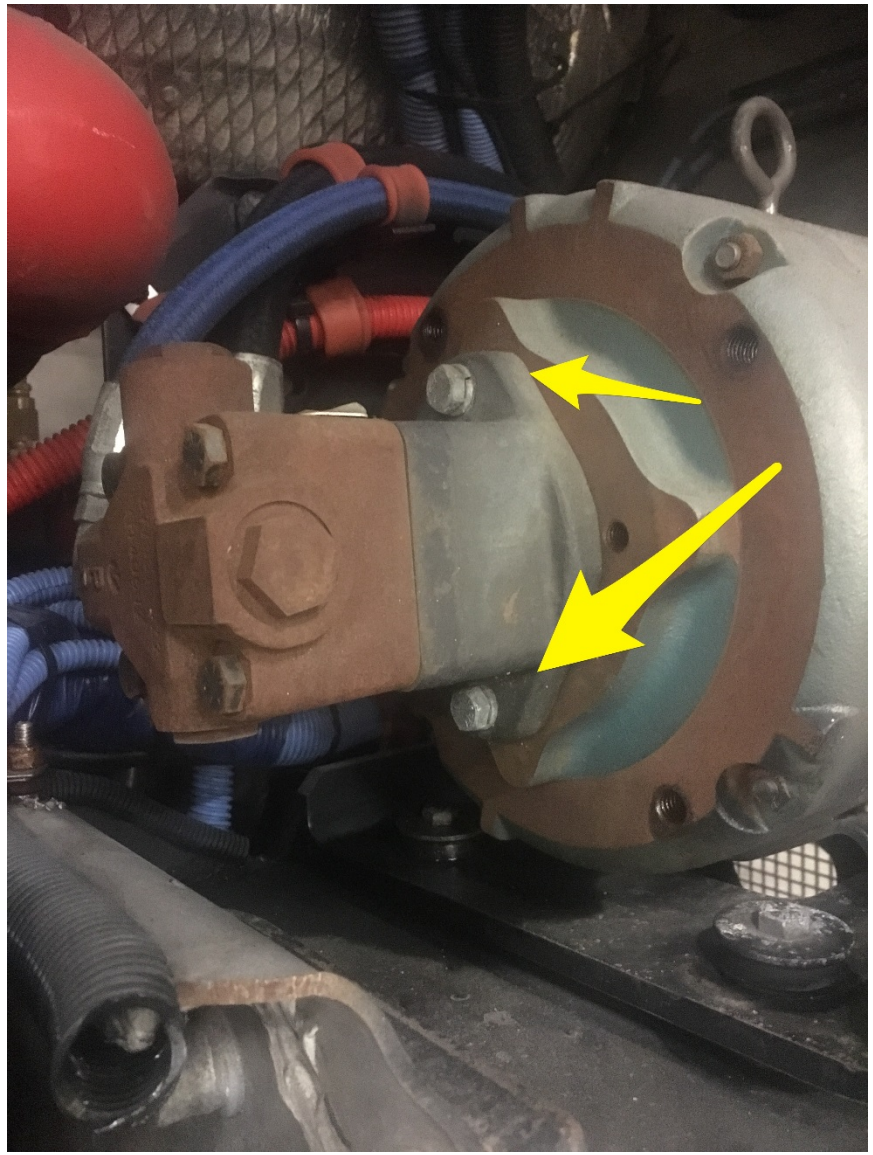
1. Replace the pump input shaft bearing
2. Replace the pump input shaft
3. Replace the electric motor spline drive coupling
4. Add a gasket between the motor pump mounting flange and the hydraulic pump.
5. Regrease the pump drive splines

Upgrade Part Numbers

Qty/bus	Part Number	Description
1	82-80228-010	Shaft Pump
1	82-80228-006	Gasket Pump Mounting
1	82-80228-002	Coupling Motor
1	82-09335-000	Bearing Pump

Separating the Pump from the Motor

Locate and remove the 2 mounting bolts on the pump.

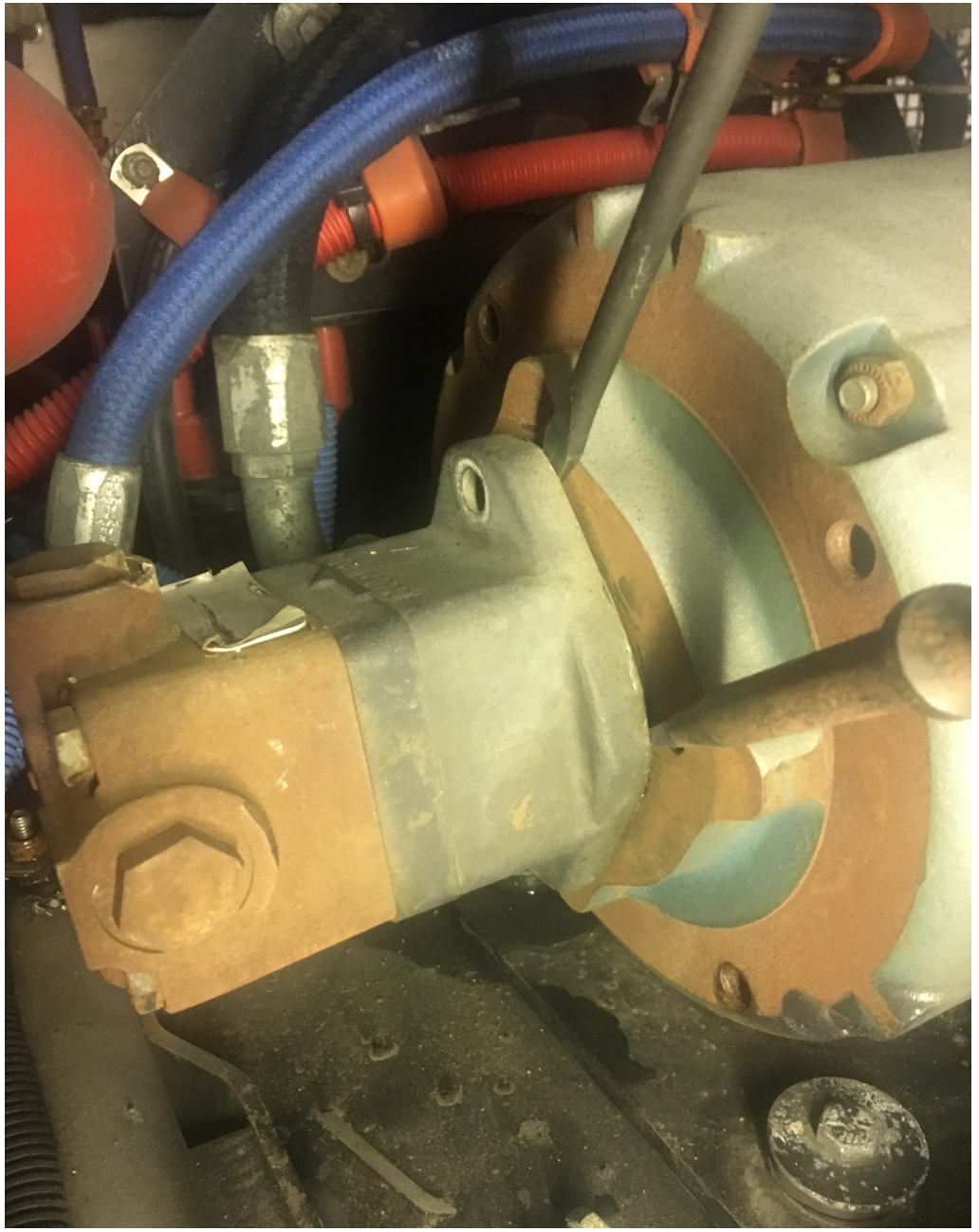


Separating the Pump from the Motor

Tap the motor with a rubber mallet. Make sure the pump will rotate side to side. With a block of hardwood, tap the pump away from the motor. Once there is enough space between the pump and motor, tap in a couple of small chisels at approx. 180 degrees from one another. Tap these chisels down slowly and evenly. Graduate the small chisels to larger ones as more clearance becomes available.

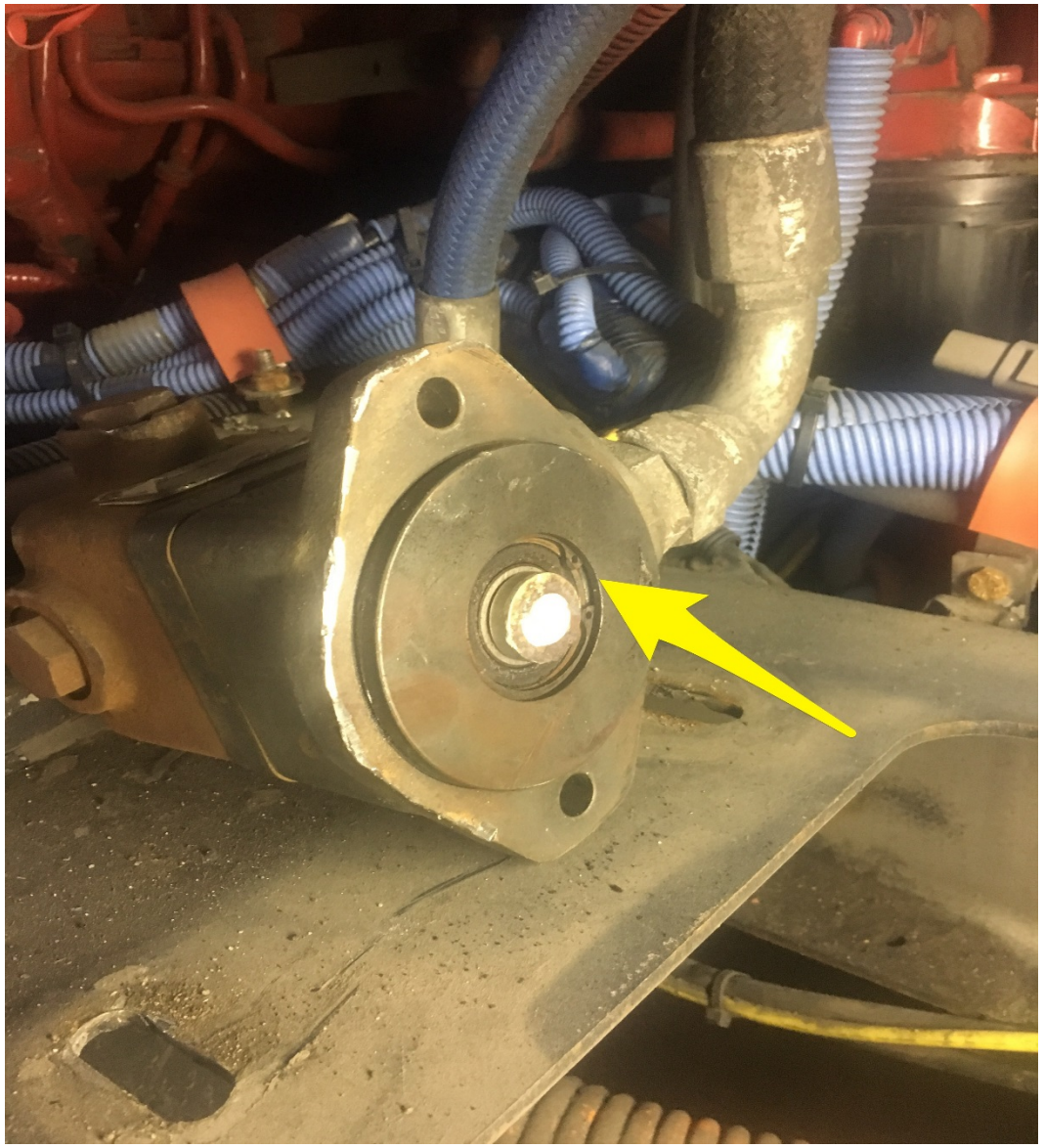
Even pressure is the most effective method.

Shown in the picture, you might have to start with screwdrivers until there is enough clearance for a chisel.



PUMP SHAFT REPLACEMENT

- Clean the area around the shaft. Blow this area out with compressed air
- Place a oil drain pan beneath the pump
- Remove the snap ring that hold the shaft in the pump



Pull the shaft out of the pump.
A vise grips works well.

Once the shaft is out, there is a small snap ring that holds the bearing on the shaft. With a small snap ring pliers remove the snap ring. If the snap ring is tight, it may be necessary to push the bearing away from the snap ring. This can be done in a hydraulic press or an arbor press.

- Once the snap ring is removed, push the bearing off the shaft in a hydraulic press or an arbor press.

- Clean new pump shaft and install the new pump input shaft bearing the same way it was removed. Install bearing retaining snap ring.

- Coat the new shaft with engine oil. Install in the pump and lightly tap into place.

- Install shaft retaining snap ring.

- Set the pump out of the way so the motor can be reworked.

Removing the Motor Coupler

Place the motor on a sturdy bench.
The motor weighs approx. 125 lbs.

Removing the Motor Coupler

Remove the fan shroud on the motor

There are 3 screws that secure the fan shroud

Removing the Motor Coupler

Mark end plates with a marker to ensure they re-installed in the proper place

Remove the 4 through bolts that hold the end cover on

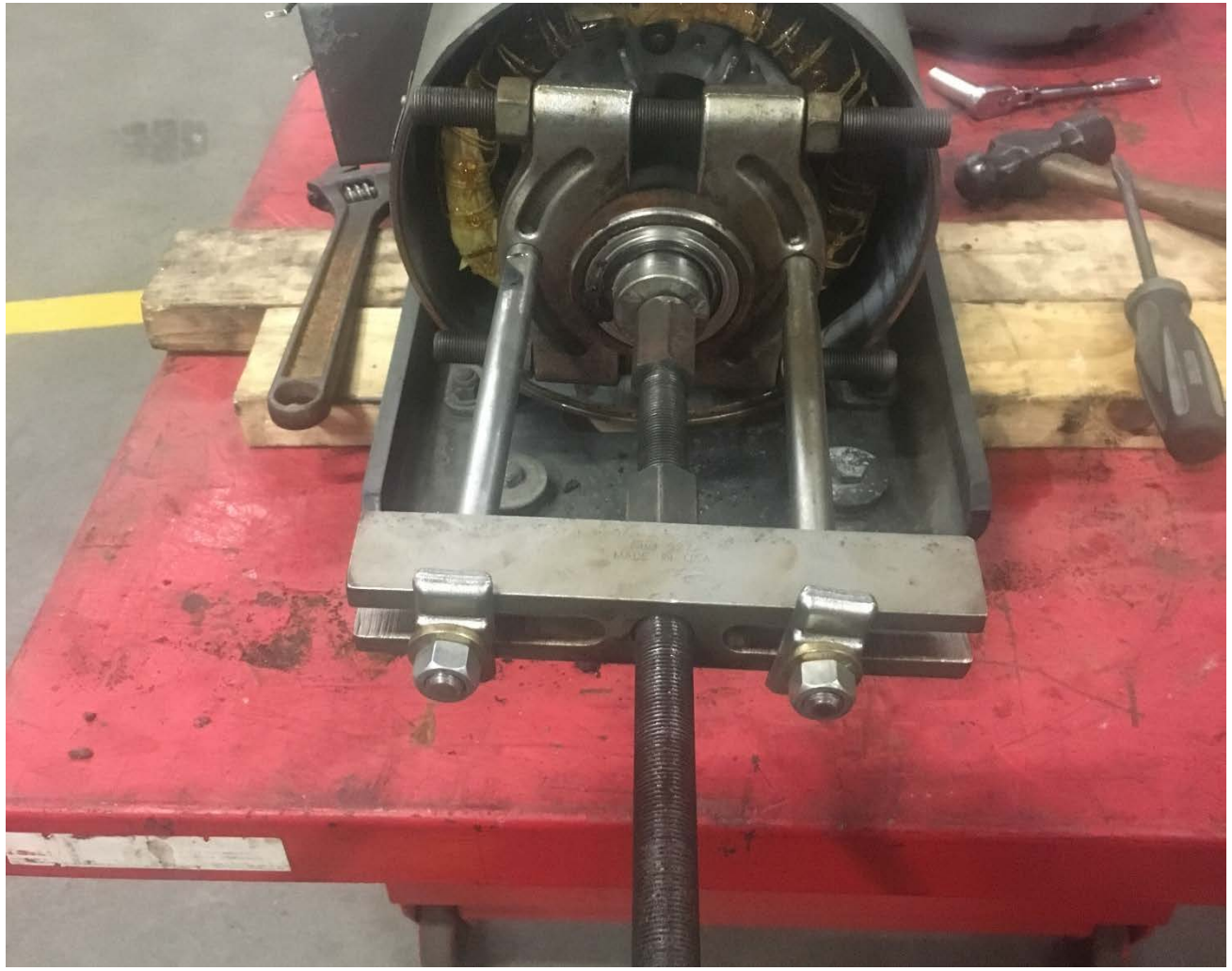
Removing the Motor Coupler

Tap the coupler end plate to loosen and then remove

Removing the Motor Coupler

The bearing has to be removed from the coupler

Using a bearing plate and puller, remove the bearing from the coupler



Removing the Motor Coupler

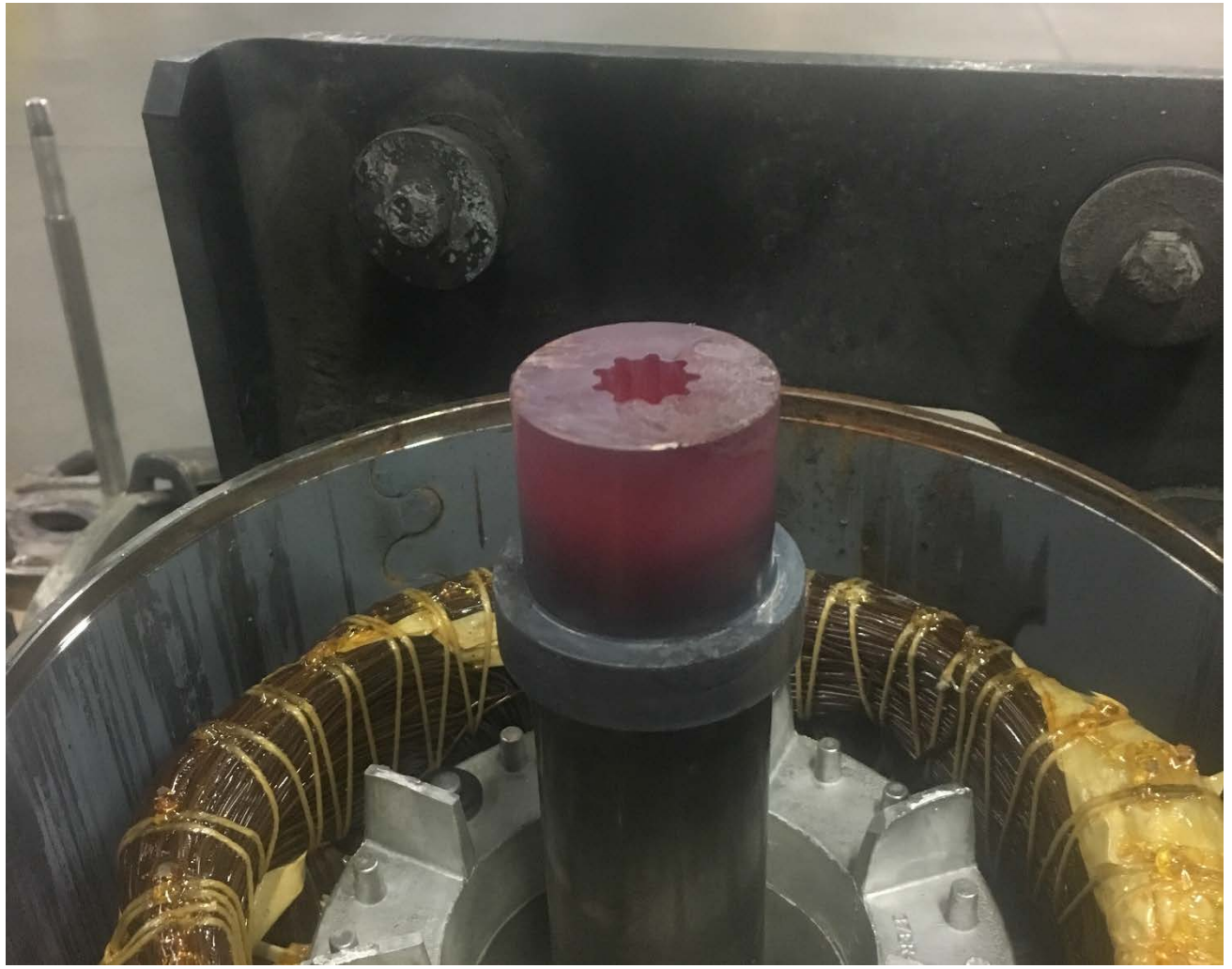
Removing the coupler requires the coupler to be heated to 1200 degrees. You can use a heat stick that melts at this temp. The picture below shows approx. 1200 degrees. After achieving 1200 degrees use a claw puller and put a grade 8 bolt in the center spline to pull the coupler off. Set the puller up for the proper depth before heat is applied to the coupler.

Installing replacement coupler

Using a fine Emery Cloth clean the end of the motor shaft.

Heat the new coupler to 1200 degrees and push it on the motor shaft.

Let the coupler and motor cool naturally



Install bearing on coupler

Using a bearing driver or a piece of 1 ½ I.D. pipe, drive the motor bearing onto the coupler

Install the end cover

Align the housing marks previously made

Install the motor through bolts. Bringing them up equally

Install the fan shroud

Attaching Pump to Motor

Fill the spline in the coupler with the ***AMSOIL Synthetic Water-Resistant Grease*** shown or equivalent.

Coat the shaft of the pump with grease

Install the supplied gasket

Install the pump into the motor spline

Attach the 2 pump to motor mounting bolts

Torque both pump mounting bolts to **33 ft-lbs dry** (no lubricant) Use lock washers. Do not use a thread locking compound.

NLGI #2

https://www.amsoil.com/shop/by-product/grease/synthetic-water-resistant-grease/