TECH TIPS

Service Call:

M46 pump shaft seal leaking

Tools Needed:

3/4 open end wrench
Snap ring pliers
Shaft seal 27067
Seal puller
oil absorbent rags

Model:

All M46 pumps

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TECH TIPS

Tech Tips Safety Rules

Danger

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

Do Not Perform Maintenance Unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

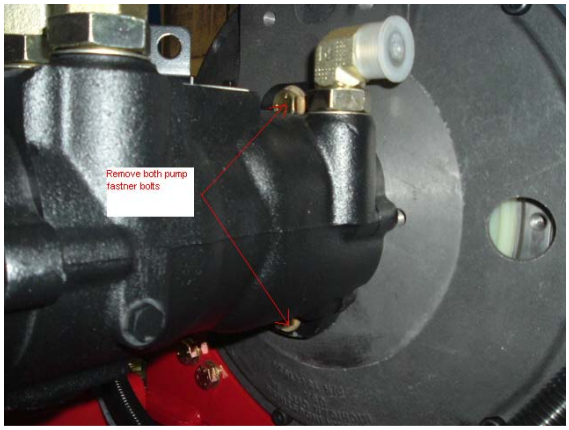
Step 1

In preparation for pump shaft seal removal, close tank valves if installed and loosen tank return filter.
If your unit is not equipped with shut off valves, apply vacuum to the tank fill port while removing the tank hose from the drive pump. Ensure not to pull too much vacuum causing tank to collapse.

Step 2

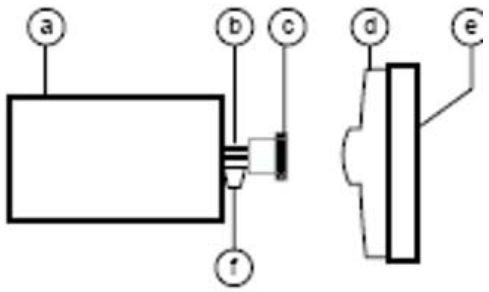
Support the pump using a lifting device and remove the two pump mounting fasteners using 3/4 open end wrench.
Use the buddy system to carefully slide the pump back until it separates from the flex plate and clears the bell housing. This should leave you enough room to remove pump coupler if equipped.

Caution: the pump is heavy. Do not attempt this by yourself.



Step 3

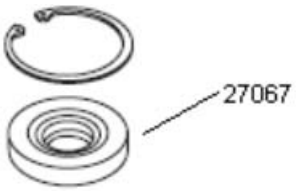
Remove pump coupler if equipped. Item "C" take note of the original distance from the coupler to the pump face.
Yours may or may not be the same as stated on "F"

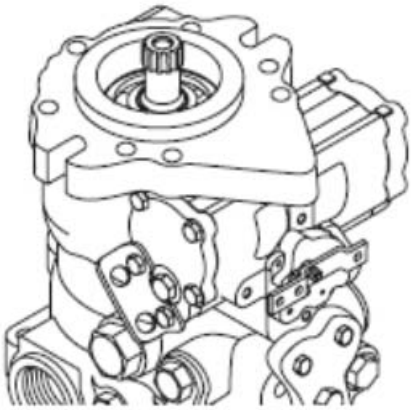


a pump
b pump shaft
c coupler
d flex plate with raised spline
e flywheel
f ½ inch gap

Step 4

Use snap ring pliers to remove the snap ring.
Use a seal puller to remove the pump shaft seal part number 27067.
You may also remove the seal by drilling a small hole in the face, then insert a wood screw to assist with removal.

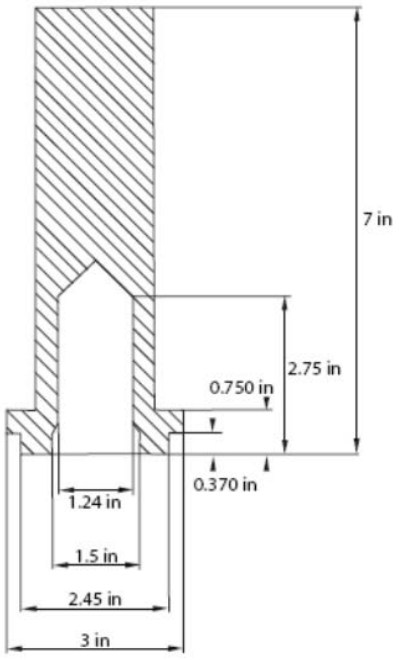




Step 5

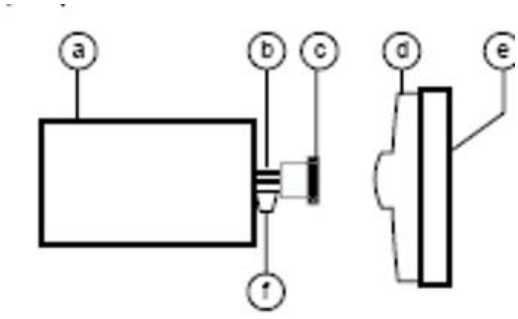
Before installing the new seal inspect shaft and bearing for damage or wear.
Install the new seal using a seal driver to avoid damage.
Install the snap ring ensuring the snap ring seats fully into groove.

If you don't have the proper seal installer you can have one made using the dimensions on drawing to the right.



Step 6

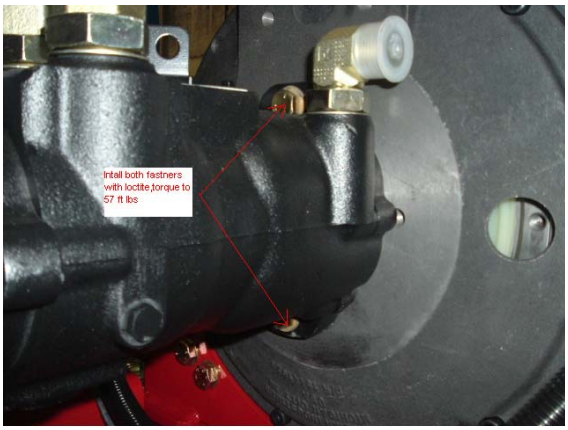
If your pump had a coupler installed, install the coupler to the original distance from the pump face.
Apply lock-tite to the coupler fastener and torque to 34 ft-lbs
Note: Item "f" may be different on your unit



a pump
b pump shaft
c coupler
d flex plate with raised spline
e flywheel
f ½ inch gap

Step 7

Using the buddy system re-install the pump to the bell housing.
Apply lock-tite to pump fasteners and torque to 57 ft-lbs



Step 8

Reconnect hoses and tighten return filter.
Prime pump before starting engine.
To prime the pump connect a 0-600 psi gauge to test port located on drive pump.
Gas: disconnect connector located at coil to prevent engine from starting.
Diesel: hold manual fuel shutoff lever closed.
Crank engine with starter for 15 seconds then rest for 15 seconds continual until the pressure reaches 200 psi.
For further assistant contact Genie Industries Service department at 1-800-536-1800