DEUBLIN	Installation and Removal Instructions	Model: 7100 Series Number: 040-724 Revision: E

Installation and Removal Kits:

1) Unions are supplied with the following kits.
   a) Installation Kit
   b) Removal Kit

Customer Shaft Preparation (See Fig. 1):

1) Ensure that the shaft surface is free from burrs.
2) Confirm shaft diameter is within OEM specification.
   i) 159.957mm to 159.917mm
   b) Apply and lubricate shaft surface with silicone grease.
2) Install (4x) O-Rings into their respective shaft grooves.
   a) Apply and lubricate each O-Ring with silicone grease

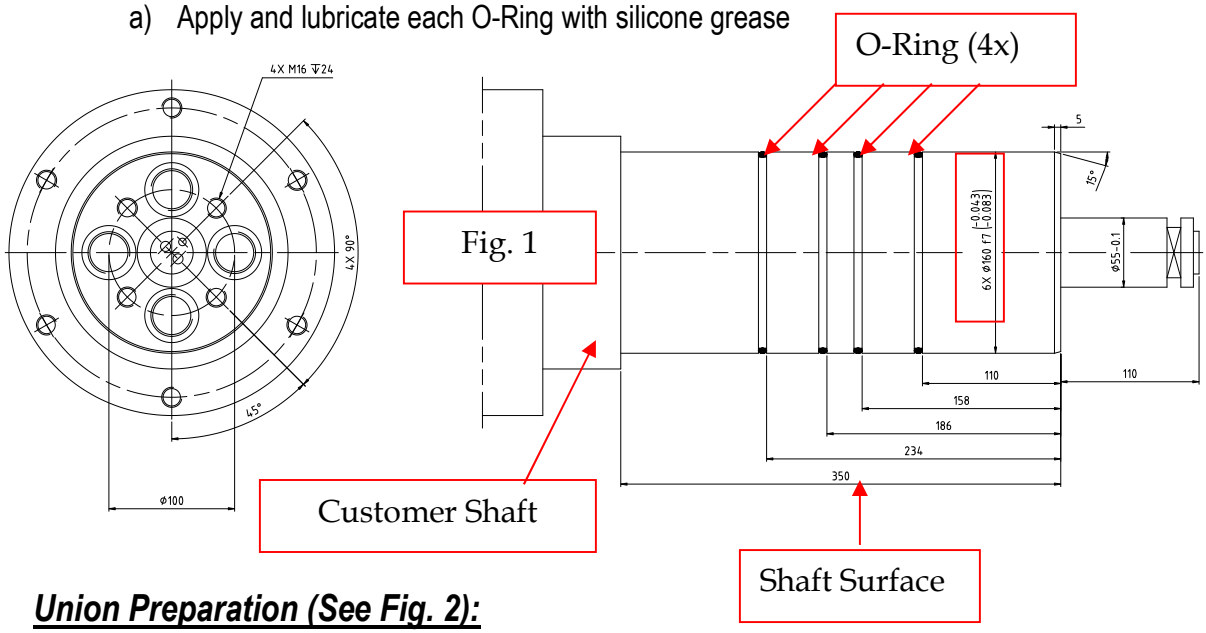


Fig. 1

Union Preparation (See Fig. 2):

1) Remove Inlet / Outlet Port cover plates.
2) Remove plug from desired Drain Port to which drain connection will be made.
3) Apply silicone grease to completely lubricate union internal diameter surfaces as shown.
4) Ensure all ports are covered to prevent debris from entering union.

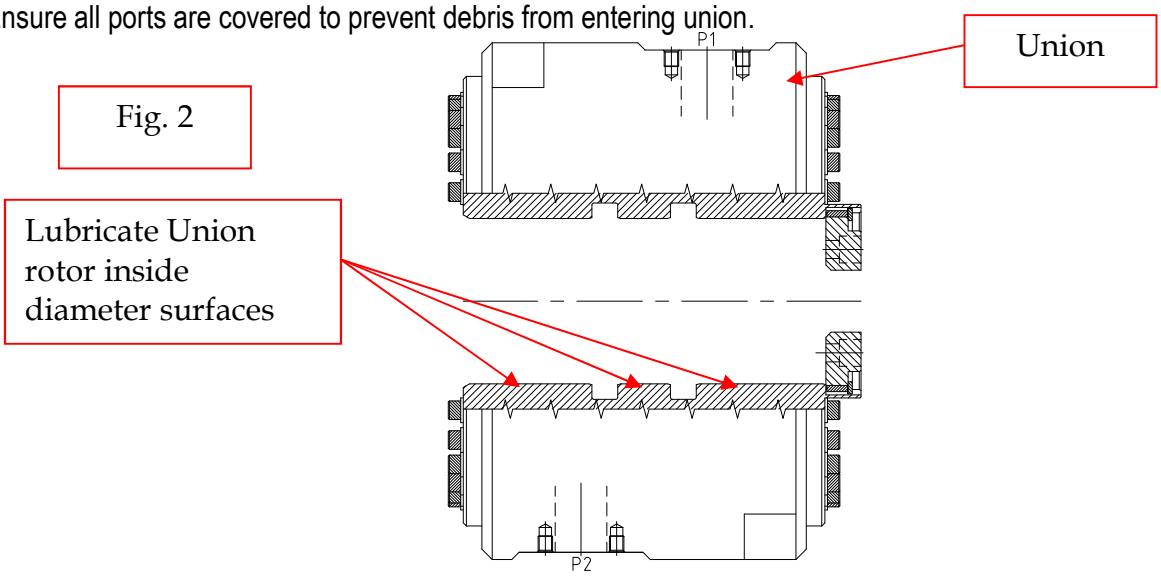


Fig. 2

Union Installation (See Fig. 3):

1) Install (2x) Threaded Rods with washers and nuts into the shaft.
   a) 180 degrees apart
   b) These will assist in the centering of the union over the shaft.

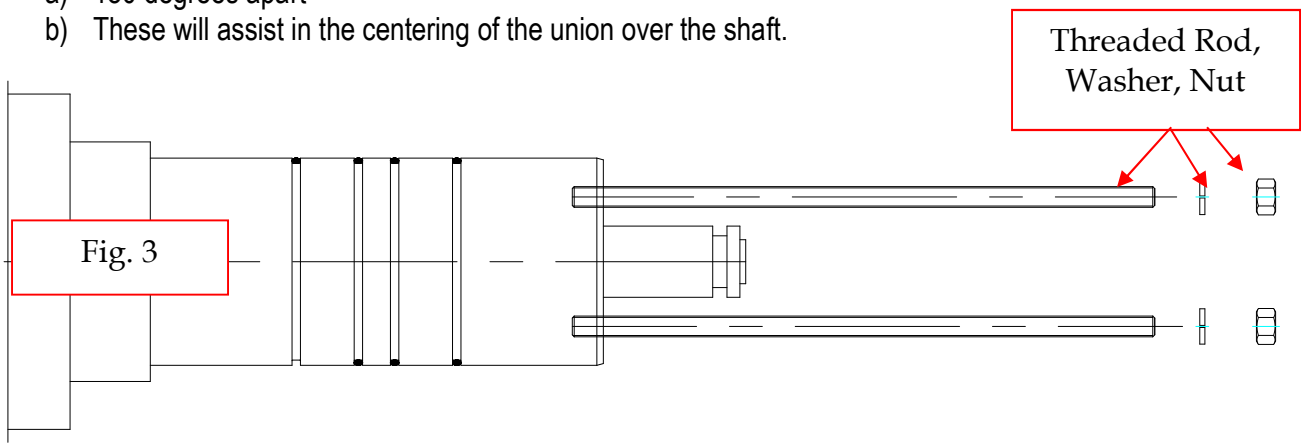


Fig. 3

Union Installation (See Fig. 4):

2) Support Union with lifting straps attached to Housing (2x) Eye Bolts.
   a) Union must be centered to customer shaft
3) Move union toward customer shaft.
   a) Align holes in End Plate with threaded rods.
4) Install washer and nut on each rod.
5) Move Union over customer shaft and begin to push
   a) Use a wrench on each nut.
   b) Turn each nut at the same time and same amount (example 1/4 turn)
      i) Purpose is to apply uniform load on union
   c) Union must be centered to shaft
   d) Union must be supported for the first 250mm of the 350mm shaft length
      i) To prevent damage to union or shaft
      ii) Support can be removed after reaching this amount
   e) **DO NOT INSTALL UNION BY PUSHING ON THE UNION HOUSING**
      i) Failure to follow this requirement could lead to significant internal union or shaft damage
   f) DO NOT USE HYDRAULIC JACKS TO APPLY PRESSURE ON UNION FOR INSTALLATION
6) Remove threaded rods, after union is completely seated.

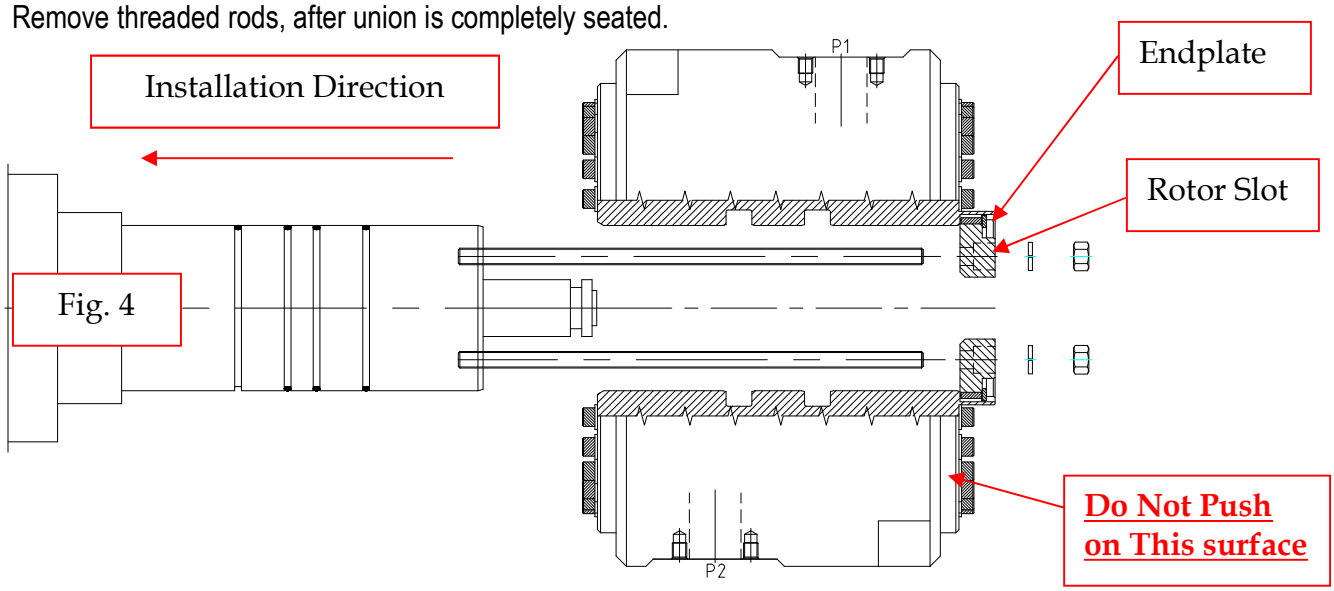


Fig. 4

Union Installation Continued (See Fig. 5):

7) Secure union to shaft with (4x) cap screws.
   a) Tighten screws in a star pattern to a torque of 35 ft-lbs. (47 N-m)

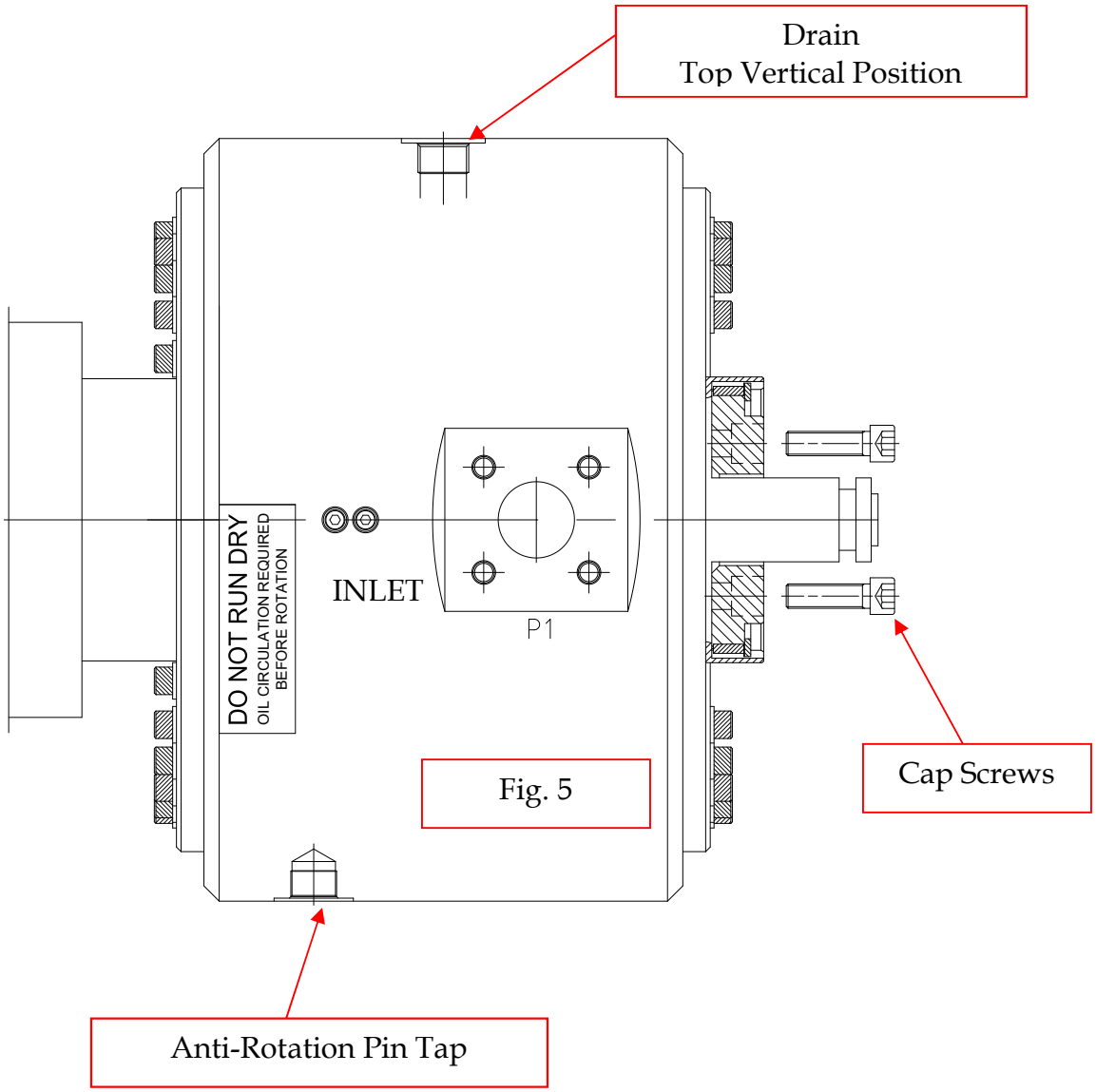


Fig. 5

Union Installation Continued (See Fig. 6):

8) Orientation of attachments as shown (See Fig. 6)
   a) Position as viewed from Drive End
      i) Release Port – Outlet Port (P2) – 3 O'Clock
         (1) Must maintain 0.5 bar Minimum Pressure at all times on both hose connection ports
      ii) Clamp Port – Inlet Port (P1) – 9 O'Clock
      iii) Drain Port – 12 O'Clock
         (1) Vertical Up Position

WARNING:
Pressure above .5 bar will result in Lip Seal Failure

Drain Port Connect to Drain
0.5 bar (Max.) Pressure

Direction of View AA

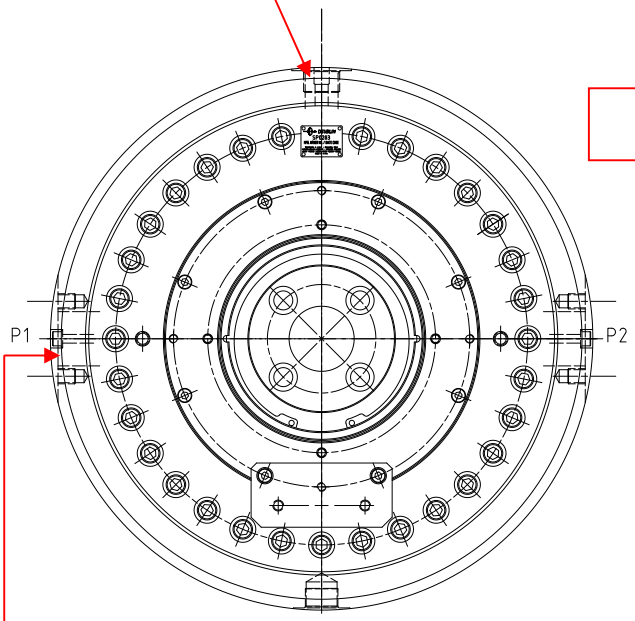
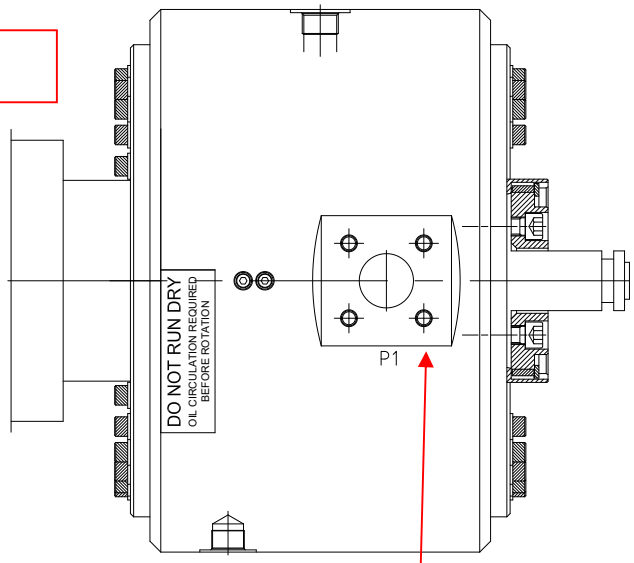


Fig. 6



Clamp Port
Inlet (P1):
180 bar (Max.)
Oil must be present when union is rotating.

View AA

Release Port
Outlet (P2):
18 bar (Max.)
0.5 bar (Min.)
Oil must be present when union is rotating.

Clamp Port
Inlet (P1)

WARNING:
Failure to follow this requirement can lead to significant damage

WARNING:
Failure to follow this requirement can lead to significant damage

Union Installation Continued (See Fig. 7):

9) Orientation of attachments as shown (See Fig. 7)
   a) Anti-Rotation Pin – 6 O'Clock
   b) Anti-Rotation Bracket – 6 O'Clock
10) Flexible hoses must be used to minimize side loading on Union

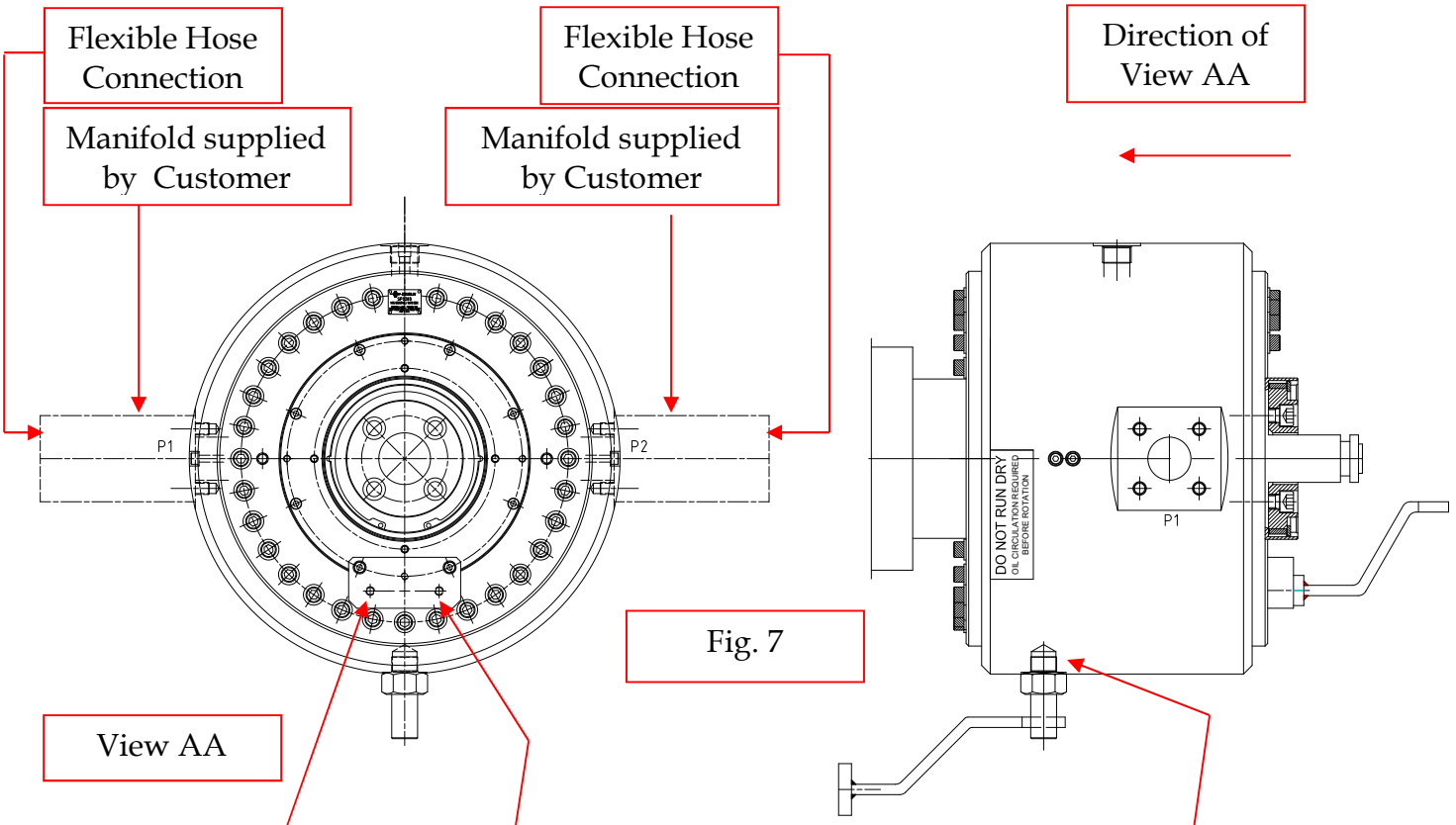


Fig. 7

WARNING:
Failure to follow this requirement can lead to significant damage

Union Removal (See Fig. 8):

1) Begin by removing all attachments, including hoses.
2) Remove cap screws securing endplate to shaft.

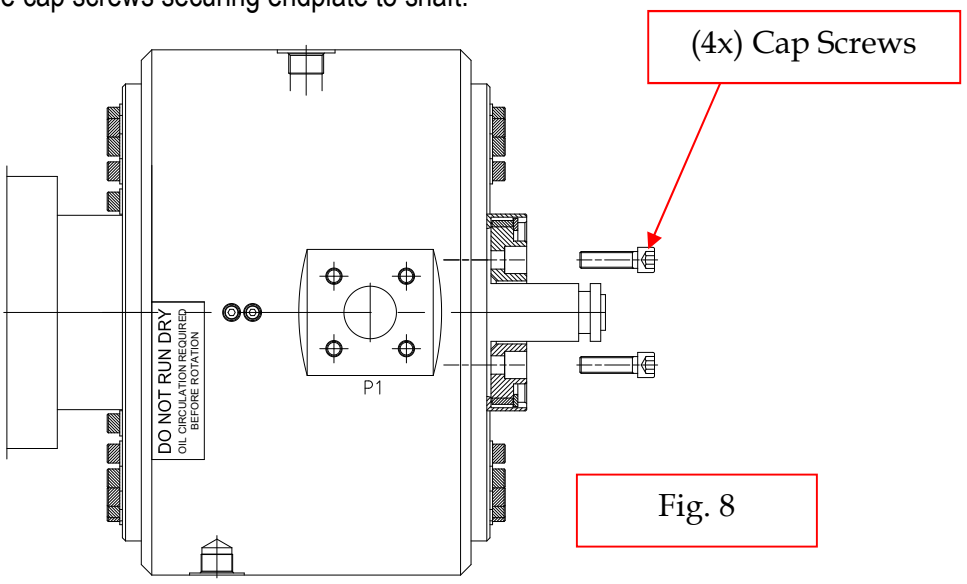


Fig. 8

Union Removal Continued (See Fig. 9):

3) Install (2x) Threaded Rods into housing
4) Install Removal Fixture
   a) Position Hub over shaft as shown
   b) Install (2x) Spacers over the Threaded Rods as shown
   c) Install Plate by aligning the holes in Plate with the Threaded Rods
   d) Install washer and nuts as onto the threaded rods and secure tightly
   e) Install the Threaded Rod/Nut into Plate as shown
   f) Install (2x) Eye bolts to support union.
   g) Begin to move the union off the shaft by turning the nut at the end of the Threaded Rod/Nut.
      i) **DO NOT USE A HYDRAULIC JACK TO REMOVE THE UNION**

WARNING

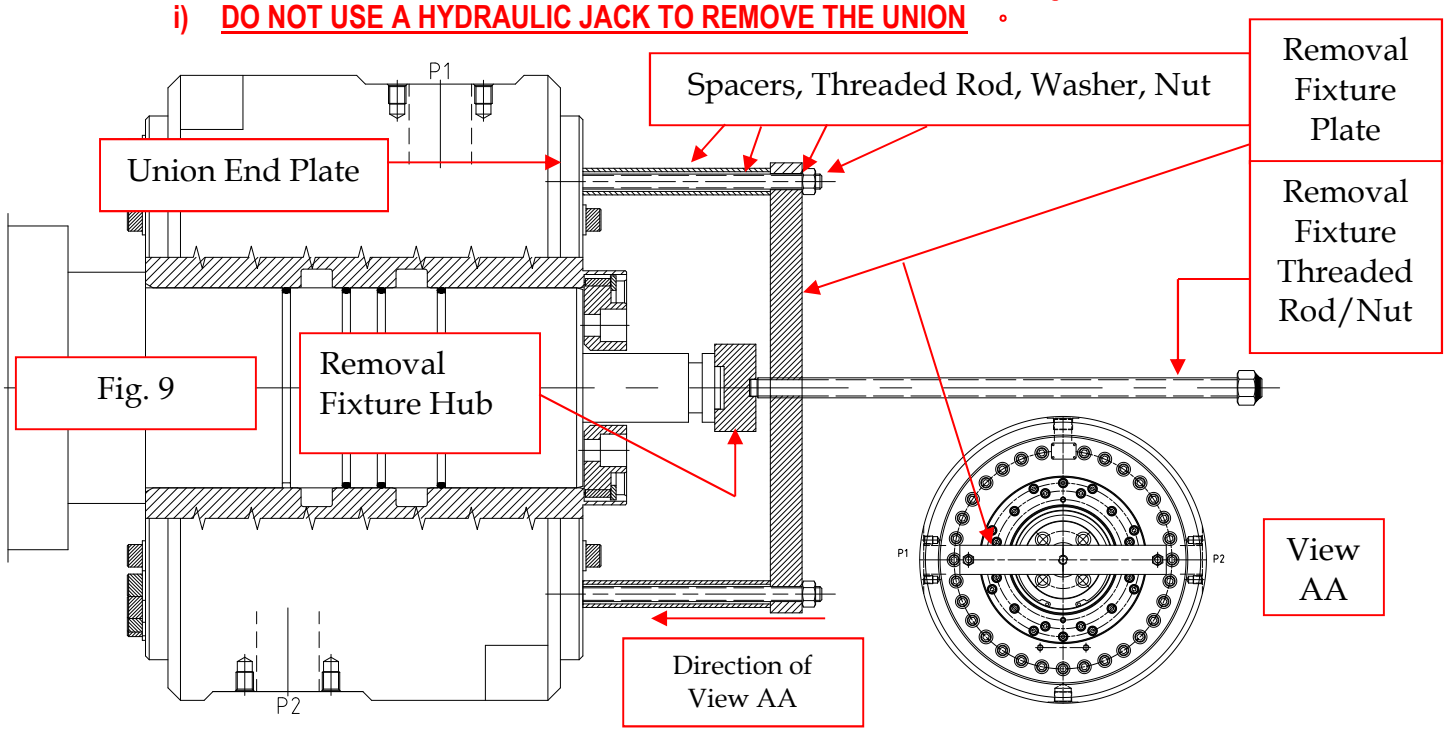


Fig. 9