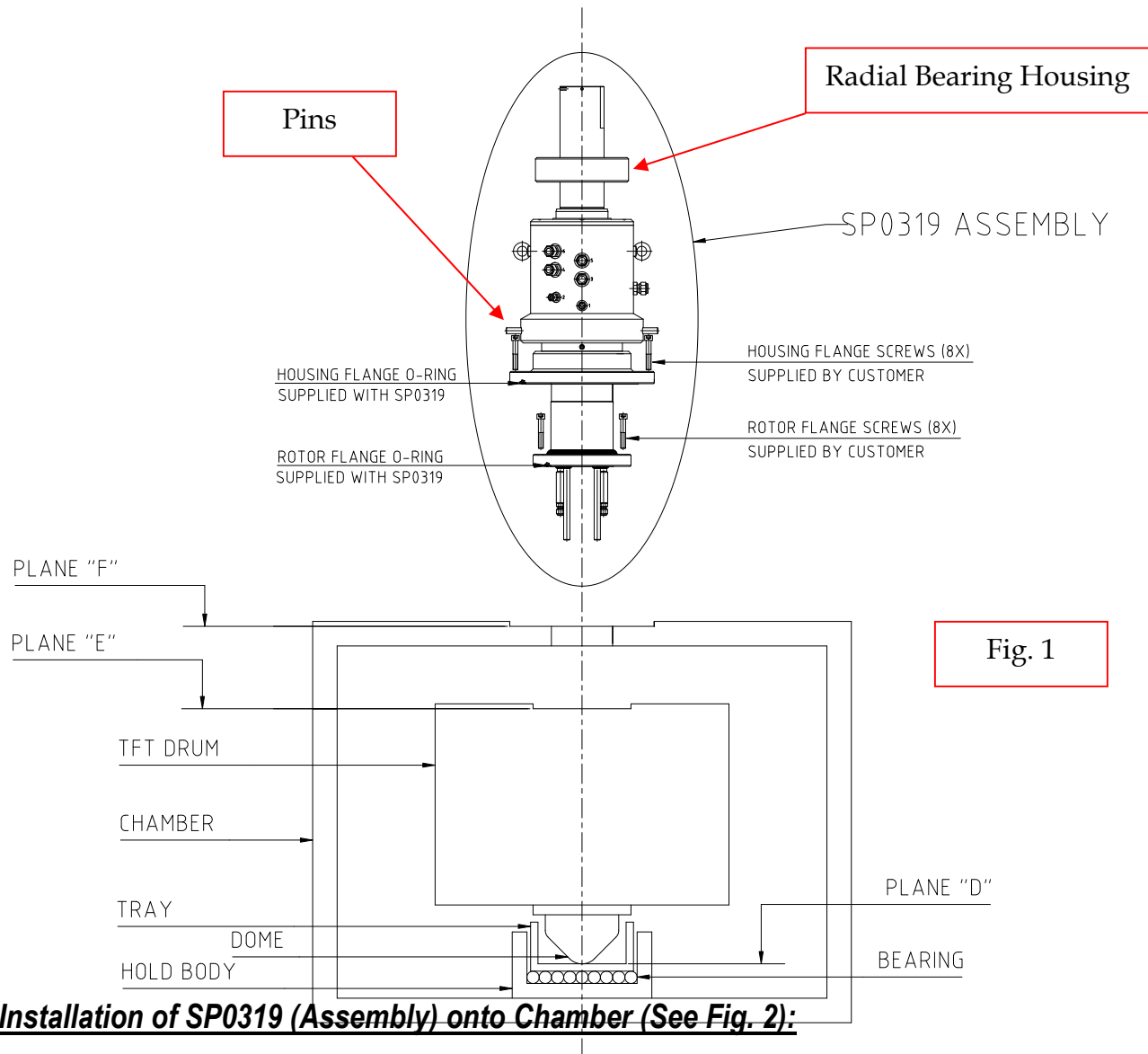


Customer Preparation (See Fig. 1):

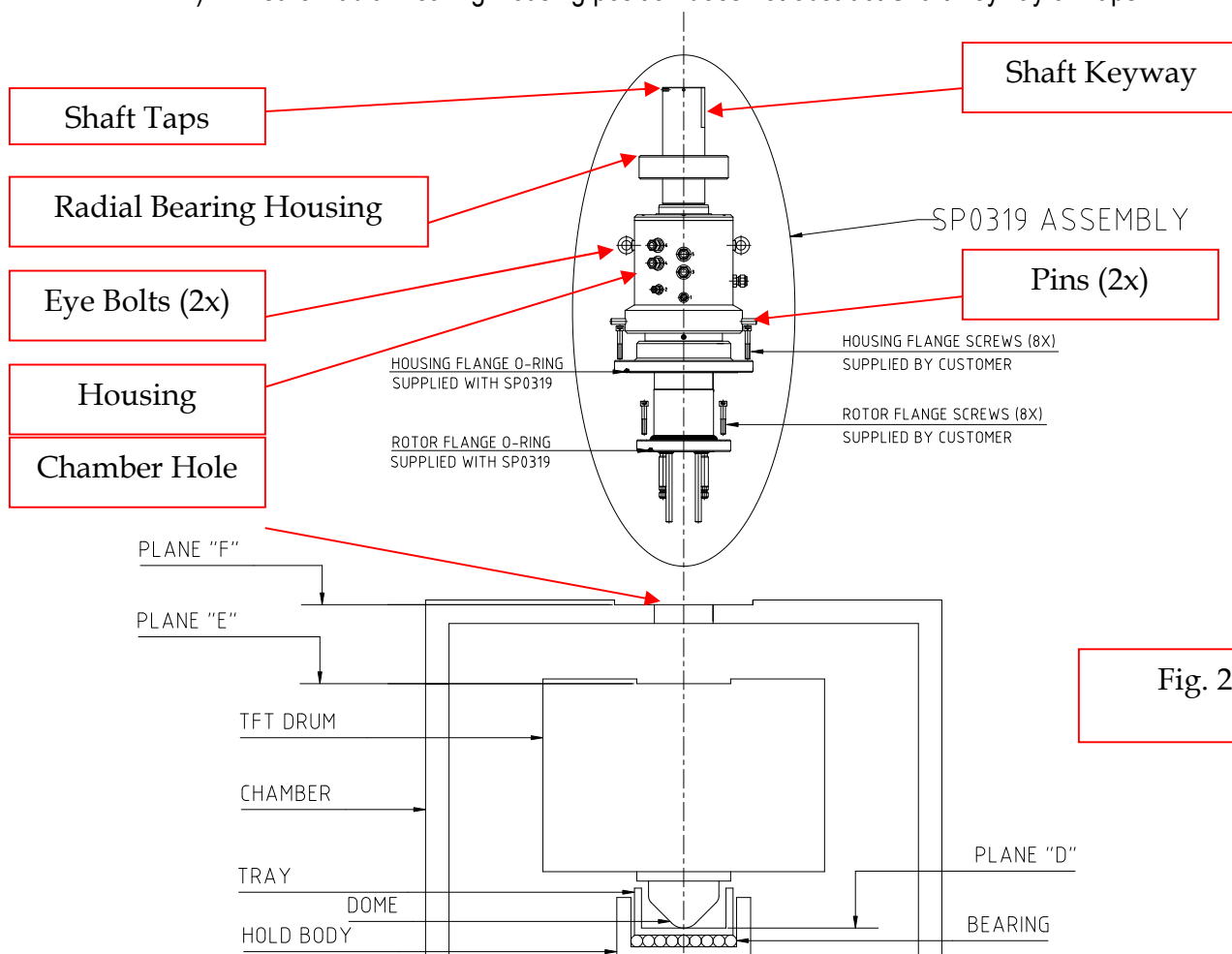
- 1) Ensure Chamber and TFT Drum Surfaces, Planes "E" & "F", are clean and free from damage.
- 2) Ensure TFT Drum is in the Chamber and Positioned Vertically.
 - a) If TFT Drum is leaning to one side, it could cause DAMAGE to the Assembly SP0319.
- 3) Provide Screws required to secure Assembly SP0319 to Chamber and TFT Drum.
- 4) Prepare Bracket to secure Radial Bearing Housing of Assembly SP0319.
- 5) Prepare Anti-Rotation Bracket to engage with Pins of Assembly SP0319.
- 6) Provide Lifting Equipment and Straps for Assembly SP0319.

SP0319 (Assembly) Preparation (See Fig. 1):

- 1) Carefully remove SP0319 Assembly from Container.
- 2) Remove all Port Covers.
- 3) Ensure O-Rings for Housing and Rotor Flanges of Assembly SP0319 are in position as shown.


Fig. 1
Installation of SP0319 (Assembly) onto Chamber (See Fig. 2):

- 1) Hoist Assembly (SP0319) above the Chamber utilizing "STRAPS" fastened to the (2x) Eye Bolts.
 - a) The Housing and Rotor Flanges of Assembly SP0319 should be in the 6 o'clock position.
 - i) Ensure O-Rings installed in these two flanges remain in position during this process.
- 2) Center the Assembly (SP0319) to the Chamber Hole.
 - a) Ensure the TFT Drum is in the chamber and positioned vertically.
- 3) Lower the Assembly (SP0319) until the Housing Flange of Assembly SP0319 is resting on the Chamber Surface Plane "F".
 - a) At this point, the TFT Drum Surface should not be in contact with the Rotor Flange of Assembly SP0319.
- 4) Secure the Housing Flange of Assembly SP0319 to the Chamfer Surface Plane "F" with (8x) Screws.
- 5) Secure the Rotor Flange of Assembly SP0319 to the TFT Drum Surface Plane "E" with (8x) Screws.
 - a) During the screw tightening process the TFT Drum will be raised off the TRAY such that a GAP will be created between the DOME and Surface Plane "D".
- 6) Align Pin Set with Anti-rotation Bracket.
 - a) Two Sets of Pins are located on the outside diameter of the Housing of Assembly SP0319.
 - b) The angular position of these sets of Pins can be adjusted by rotating the Housing.
- 7) Secure a Bracket to The Radial Bearing Housing of Assembly SP0319.
 - a) The axial position of the Radial Bearing Housing can be adjusted by Pulling or Pushing on the Radial Bearing Housing
 - i) Avoid Radial Bearing Housing seizure onto Shaft by applying an evenly distributed force.
 - ii) Ensure Radial Bearing Housing position does not obstruct Shaft Keyway or Taps.



Installation of SP0319 (Assembly) onto Chamber (See Fig. 3):

- 1) Installation is complete when Assembly SP0319 has been installed as shown.

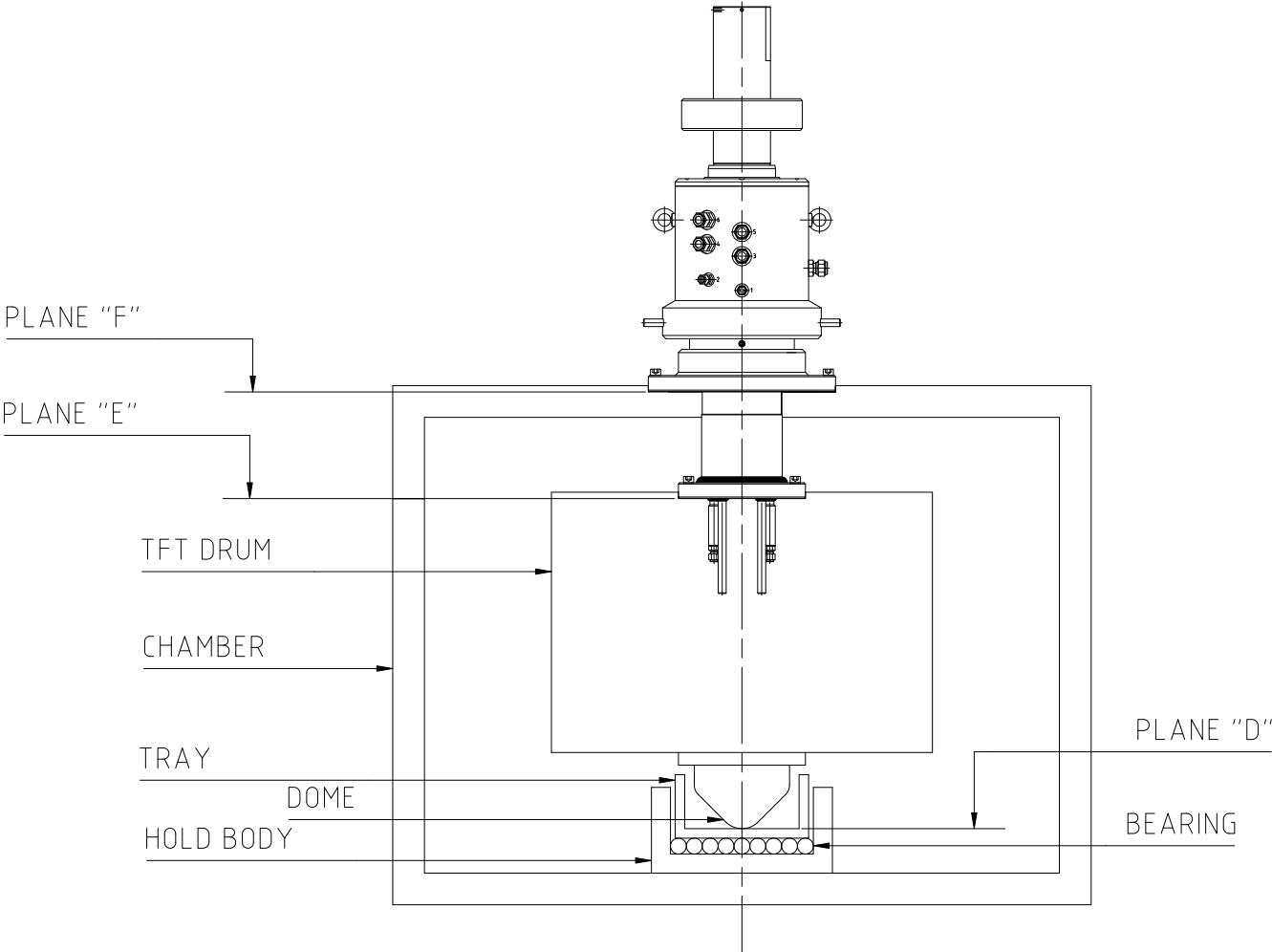


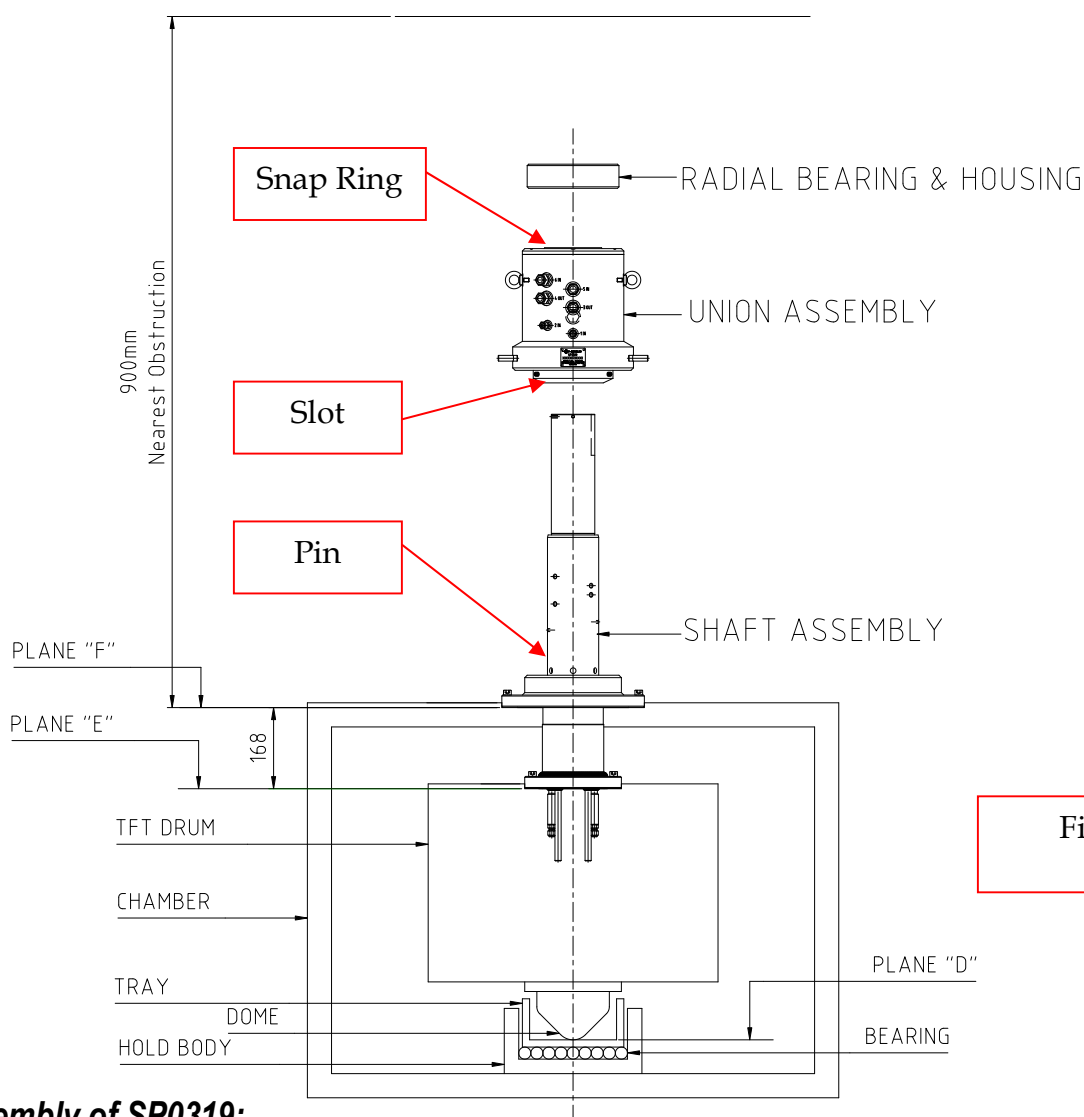
Fig. 3

Removal of SP0319 (Assembly) from Chamber:

- 1) Reverse the procedure as described in the "Installation" section.

Removal of SP0339 (Union) from Chamber:

- 1) Assembly SP0319 includes (3) Sub-Assemblies
 - a) Shaft Assembly: P006711
 - b) Radial Brg. & Hsg.: P006745
 - c) Union Assembly: SP0339
- 2) Union Assembly SP0339 contains the sealing elements required to seal each port.
 - a) SPARE Union Assembly SP0339 should be on hand to minimize Repair down Time.
- 3) Union Assembly SP0339 can be removed from the chamber without removal of the Shaft Assembly.
 - a) This can only be done if 900mm of clearance exists between Chamber Surface Plane "F" and nearest obstruction. If 900mm clearance does not exist, Union Assembly SP0339 must be removed as part of Assembly SP0319.
 - b) Remove Radial Bearing & Housing from Shaft Assembly
 - c) Remove Snap Ring from Shaft Assembly
 - d) Lift Union Assembly SP0339 with Straps secured to Eye Bolts.
 - i) When installing Union Assembly onto the Shaft Assembly, Slot and Pin must be aligned.



Assembly of SP0319:

- 1) Assembly SP0319 includes (3) Sub-Assemblies
 - a) Shaft Assembly: P006711
 - b) Radial Brg. & Hsg.: P006745

- c) Union Assembly: SP0339
- 2) Fig. #5
 - a) Position Shaft Assembly vertically onto hollow tube for support.
 - b) Take care not to damage tubing
 - c) Take Note of Pin
- 3) Fig. #6
 - a) Install Seal onto Union Rotor
 - b) Take note of slot
- 4) Fig. #7
 - a) Lift Union with Strap secured to the (2x) Eye Bolts.
- 5) Fig. #8
 - a) Apply Silicon Grease to Shaft Diameter
 - b) Lower union onto shaft assembly. Make sure Pin & Slot are Aligned.
- 6) Fig. #9 & #10
 - a) Install Snap Ring onto Rotor
- 7) Fig. #11 & #12
 - a) Install Radial Brg. & Hsg. Assembly
- 8) Fig. #13, #14 & #15
 - a) Install Fittings, plugs and package for shipment

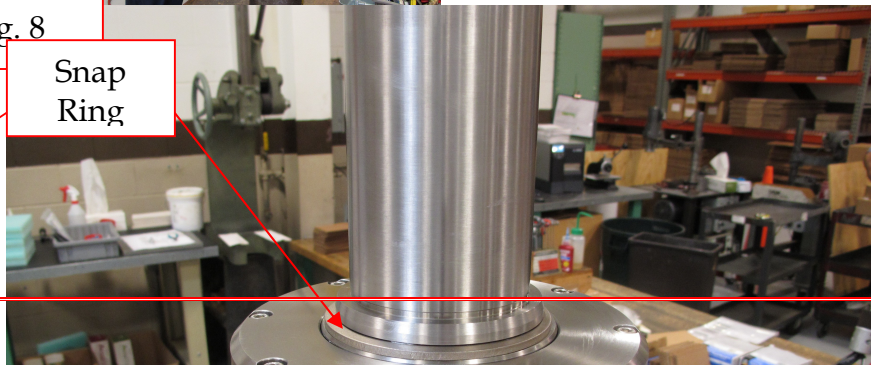
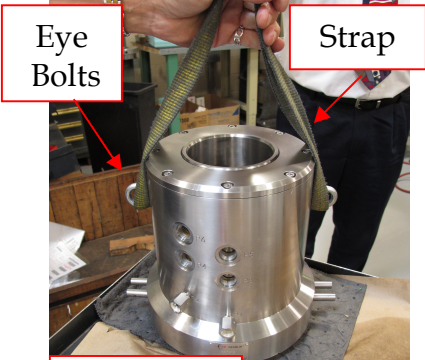
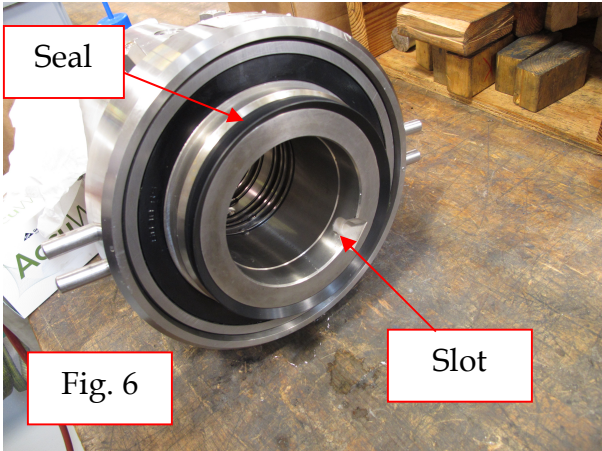
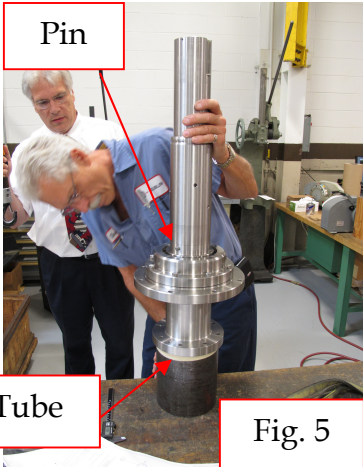


Fig. 9

Fig. 10



Fig. 11

Bearing

Fig. 12

Fig. 13

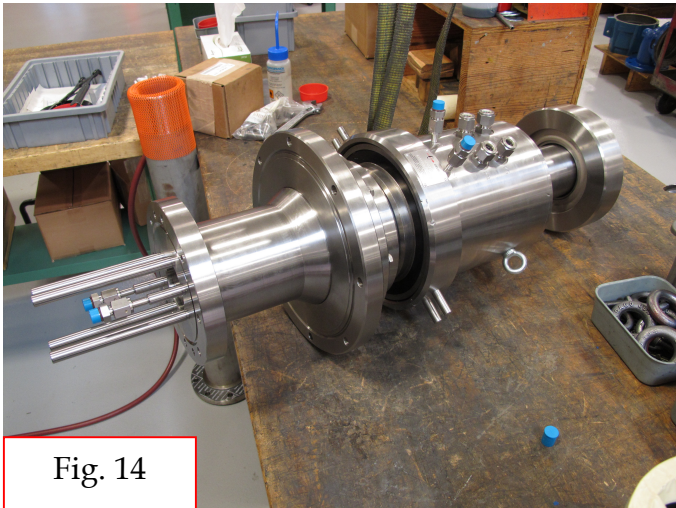


Fig. 14

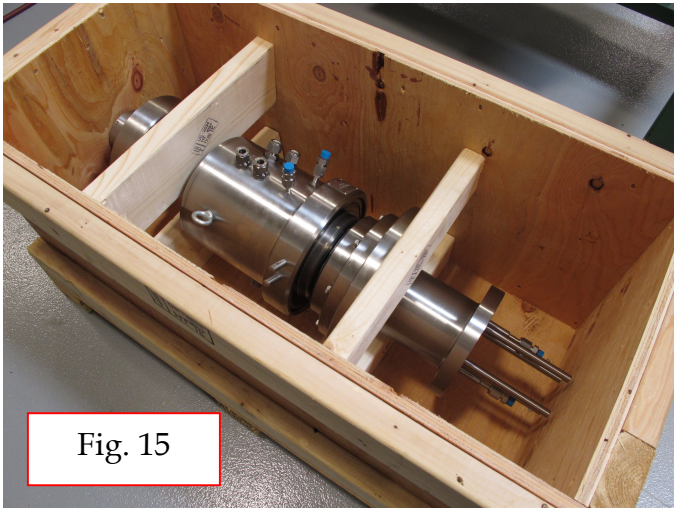


Fig. 15