

**PIONEER**  
**OIL TOOLS LIMITED**

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***PACK-OFF SUB  
ASSEMBLY PROCEDURE***

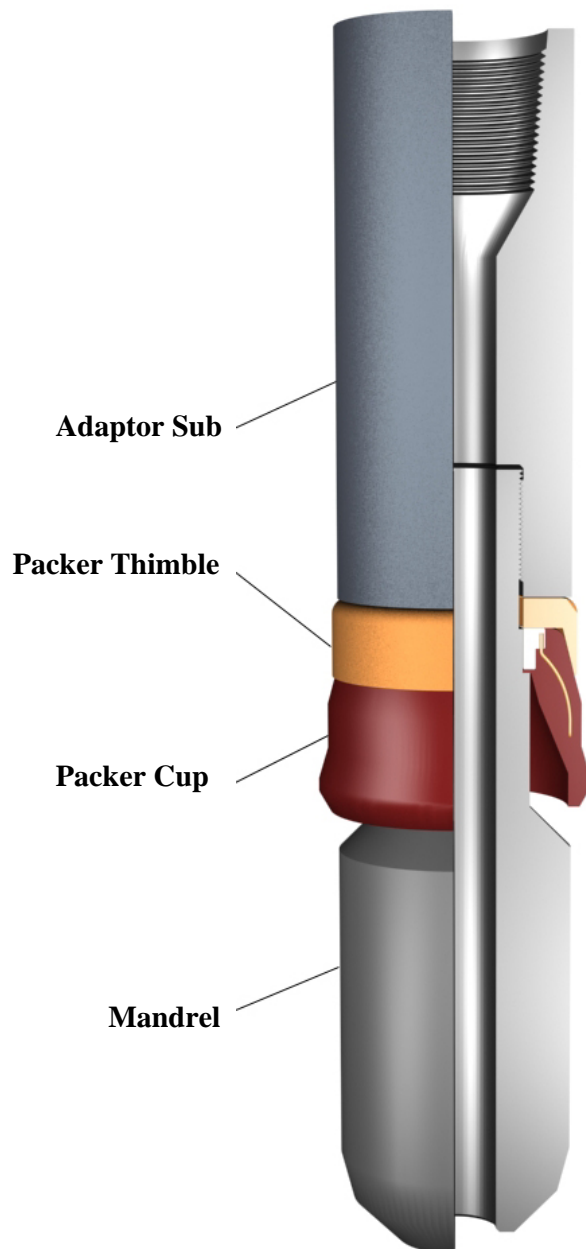


## INTRODUCTION

The Pioneer Pack-Off Sub permits the packing-off of a fish to facilitate full circulation. A Pack-Off Sub consists of an Adaptor Sub, Packer Thimble, Packer Cup and Mandrel.

The Mandrel of the spear pack-off may be ordered bull-nosed or with a pin connection for further tools attachments. The Adaptor Sub can be ordered with a customer-specified connection, as needs require.

Wire-energised Packer/Swab cups are supplied as standard. Solid nitrile cups can be supplied on request. Both options have integral steel clamping bushes.



## ASSEMBLY PROCEDURE



Figure 1

- Secure the Mandrel to a suitable chain vice clamping close to the bull nose end. Liberally grease the entire Mandrel spigot diameter. See figure 1.



Figure 2

- Slide the Packer Cup over the greased Mandrel spigot diameter until it abuts against the Mandrel top shoulder. See figures 2 & 3.



Figure 3

## ASSEMBLY PROCEDURE Cont.



Figure 4

- Grease the inner profile of the Packer Thimble. See figure 4.
- Once greased, slide the Thimble (conical side facing the Packer Cup) over the Mandrel spigot diameter until it abuts against the tapered bottom of the Packer Cup. See figures 5 & 6.



Figure 5



Figure 6



Figure 7

- Liberally grease the Mandrel pin thread using a suitable thread compound (i.e. Kopr-Kote) See figure 7.

## ASSEMBLY PROCEDURE Cont.



Figure 8

- Place the Adaptor Sub on a suitable support as shown in figure 8 and align with the Mandrel pin thread.



Figure 9

- Screw the Adaptor Sub onto the Mandrel by hand, making sure that the threads are properly aligned. See figure 9.

## ASSEMBLY PROCEDURE Cont.



Figure 10

- Using a torque strap, or suitable chain wrench, rotate the Adaptor Sub clockwise to fully engage the threads and the connection “shoulders off” at the nose.
- Fit suitable thread protectors to box and pin connections.
- Transfer the complete assembly to a suitable torque machine gripping between the Mandrel outside diameter and the Adaptor Sub outside diameter.
- Torque tighten the service break connection to the value stated in table below.
- Once torqued together move the assembly from the torque machine and safely set aside. See figures 10 & 11.

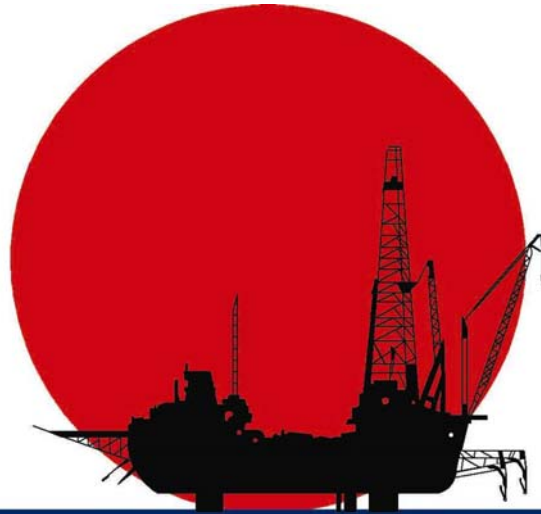


Figure 11

‘POS’ ASSEMBLY NUMBER	<b>POS 0700</b>
SERVICE BREAK CONNECTION TORQUE	<b>8,000 lbs.ft</b>



**NOTES:**



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