

TUBING DRAIN

The Tubing Drain is designed to allow for the emptying of tubing fluid in order to pull the tubing dry from the well. The assembly is comprised of a mandrel which is assembled above the tubing pump barrel. A sleeve is installed inside the mandrel and affixed to the mandrel ID with set screws. The sleeve has upper and lower seals which covers the mandrel slots that will drain the tubing once the sleeve slides into the open position. There are 10 screw holes so it is optional to run between 1 and 10 screws to adjust the shearing load required to open the drain. Each screw will add 1,600 lbf to the shearing load of the tool and is predetermined in the shop before installation. The bumper is assembled below the polished rod, above the plunger adapter, and installed with the traveling assembly in the barrel at the time of tubing install. Therefore, an OnOff tool will be required on the assembly and must be placed above the Tubing Drain.

APPLICATIONS:

- Bottle neck tubing pumps
- Hi-Pro Pump

FEATURES:

- Adjustable shear settings.

BENEFITS:

- Ease of pulling tubing dry
- Eliminate time and costs associated with wireline operations
- Eliminate environmental concerns related to pulling wet tubing

FIELD INSTALLATION INSTRUCTIONS:

1. The Tubing Drain will be delivered with the internal sleeve installed with shear screws in the closed position.
2. Assemble the polished rod to the top of the bumper and place the travel assembly into the barrel assembly.
3. Assemble the Mandrel to the top end of the tubing pump barrel with the travel assembly already inside.
 - a. Avoid placing wrenches or tongs at the drainage ports or shear screws to prevent damage to the shearing mechanism.
4. Ensure the On-Off tool is assembled above the tubing drain before RIH.



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DRAINING INSTRUCTIONS:

1. Pull up on the rod string until the top of the bumper makes contact with the sleeve inside of the mandrel.
2. Apply the necessary tension to shear the screws. The number of screws and shear rating is determined pre-install.
3. The fluid in the tubing string will begin to drain. Equalization of tubing and casing pressure will indicate drain has stopped.
4. Unlatch the On-Off tool. POOH procedures may begin.

SPECIFICATIONS

	ASSEMBLY PN	TD03-#	TD04-#	
	DESCRIPTION	2-1/4" X 2-7/8", TBG DRAIN	2-3/4" X 2-7/8", TBG DRAIN	
ITEM #	DESCRIPTION	BOM		QTY
1	MANDREL	TD13-#	TD14-#	1
2	PISTON	TD23-#		1
3	COUPLING	TD33-#		1
4	SHEAR SCREWS	TD43		1 - 10
5	O-RINGS	TD53		4