



PUMP-OUT PLUG

7" BTC

Manual No:
DL-597-7000-1708

Revision: **A**

Revision Date:
10/09/2023

Authored by: *J.Anderson*

Approved by: *K.Plunkett*

A) DESCRIPTION

The Pump-Out Plug provides a means to temporarily plug the tubing string. The Pump-Out Plug can be set up to either be run in as a solid plug or with a ball seat that allows the string to fill on the trip in. The pressure required to shear the pins and pump the plug out of the pump out plug housing is adjustable.

When run as a solid plug, pressure from below does not load the shear pins. When an expendable ball seat is used the string is pressure balanced.

NOTE₁: Any hydrostatic pressure below the plug must be overcome before the shear pins are loaded and must be considered when calculating pump out pressure.

B) SPECIFICATION GUIDE

TUBING SIZE (INCHES)	GAGE OD (INCHES)	NOMINAL ID (INCHES)	THREAD CONNECTION BOX UP	PART NUMBER
7	7.65	6.69	7" BUTTRESS	59770BTC 59770BTCH ¹ 59770BTCV ²

Elastomer Trim Options: ¹HSN, ²Viton

C) PRE-INSTALLATION INSPECTION PROCEDURES

CAUTION₁: D&L ships tool connections made-up **HAND TIGHT**—labeled with hand-tight tape on the tool (Fig. 1)—unless stated otherwise. Tighten/torque all connections properly before operating tool.



Fig. 1

GENERAL THREAD CONNECTION TORQUE RECOMMENDATIONS			
STUB ACME / ACME THREADS	INTERNAL TAPERED TUBING THREADS		PREMIUM THREADS
	UP TO 2-3/8"	GREATER THAN 2-3/8"	
600 – 800 FT-LBS	600 – 800 FT-LBS	800 – 1,200 FT-LBS	Consult thread manufacturer's recommendations.

Before first use, D&L recommends disassembly and inspection of the tool unless stated otherwise. Ensure parts have not been damaged during shipping. Replace damaged parts with D&L replacement parts. Contact D&L sales for replacement part information.

Re-assemble the tool after inspection. Install parts in the correct order and orientation. Properly tighten connections.

D) RUNNING PROCEDURES

Make up pump-out plug on work string and run downhole. Apply pressure to shear screws (282 psi/screw) and expel plug. The number of shear screws is adjustable for desired shear out pressure.

D & L OIL TOOLS
P.O. BOX 52220 TULSA, OK 74152
PHONE: (800) 441-3504 www.dloiltools.com



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E) STORAGE RECOMMENDATIONS

When preparing the tool for storage, follow the Pre-Installation Inspection Procedures. Re-assemble the tool with connections hand-tight only and in running position if applicable.

Store the tool, if possible, in an enclosed, temperature and humidity controlled environment. Avoid excessively high temperatures over long periods of time. Shield elastomeric parts from ultraviolet light sources. Keep tool dry and protected from condensation. Do not store in contact with or near volatile or corrosive chemicals. Do not store near ozone generating equipment or operations such as welding.

F) ELASTOMER TRIM TEMPERATURE GUIDE

RUBBER TYPE	TEMPERATURE RANGE
NITRILE	40° - 250°F
HSN (HNBR)	70° - 300°F
VITON	100° - 350°F

G) RECOMMENDED HAND TOOLS

- VISE
- GLOVES
- ALLEN WRENCHES
- TAPE MEASURE
- O-RING PICK
- BAR
 - 1/2-INCH
 - 3/4-INCH
- PAINT BRUSH, 2-INCH
- PIPE WRENCH, 3-FT (2 EA)
- “CHEATER” PIPE, 4-FT LONG
- ADJUSTABLE WRENCH, 12-INCH
- STRAP WRENCH
- CORDLESS DRILL, 18V
- SNAP RING SPREADER PLIERS
- ALIGNING PUNCH
- SCREWDRIVER SET, FLAT-TIPPED
- SOCKET SETS
 - 3/8-INCH DRIVE
 - 1/2-INCH DRIVE
- HAMMERS
 - SLEDGE
 - BALL PEEN
 - DEAD BLOW

H) DISASSEMBLY

H-1) Clamp body (1) in vise.

H-1.1) Unscrew and remove shear screws (3) from body (1).

H-1.2) Remove plug (2) from body (1).

H-1.2.1) Remove o-ring (4) from plug (2).

H-2) Unclamp body (1) and remove from vise.

I) ASSEMBLY

NOTE₂: Clean and inspect all parts. Replace all worn and damaged parts. Install parts in proper order and orientation.

I-1) Clamp body (1) in vise.

I-1.1) Install o-ring (4) in groove in plug (2).

I-1.2) Install plug (2) into body (1).

CAUTION₂: Do not rip or tear o-ring during installation.

I-1.3) Screw shear screws (3) into body (1). Tighten until shear screws (3) contact plug (2). Back shear screws (3) out 1/4 turn.

I-2) Unclamp body (1) and remove assembled tool from vise.



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J) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 59770BTC
1	1	BODY	DLMS80	59770BTC001
2	1	PLUG	DLM6061T6	59770BTC002
3	15	SHEAR SCREW (10000#)	DLMS80	32045910-10
4	1	362 O-RING	90 DURO NITRILE	90362

ASSEMBLED WEIGHT	31 LBS
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J-1) ELASTOMER TRIM OPTIONS

NOTE₃: For temperature range, refer to Elastomer Trim Temperature Guide.

J-1.1) HSN

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 59770BTCH
4	1	362 O-RING	90 DURO HSN	90362H

J-1.2) VITON

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 59770BTCV
4	1	362 O-RING	90 DURO VITON	90362V



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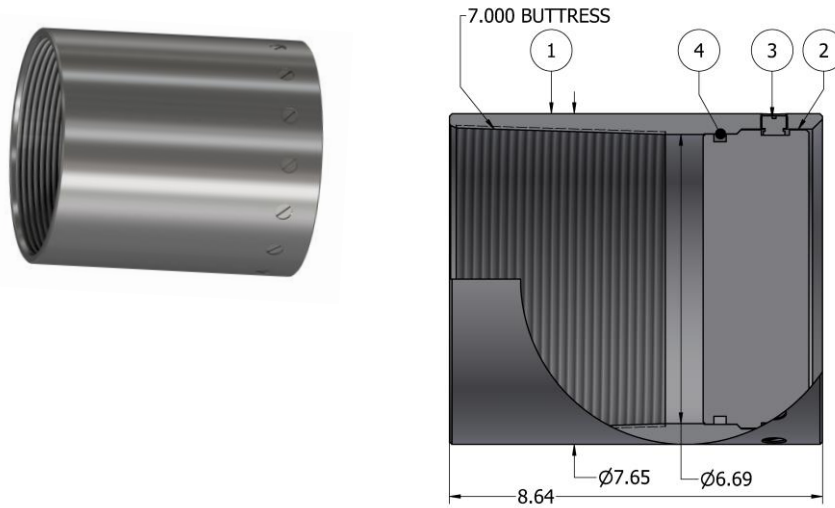
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K) TECHNICAL ILLUSTRATION



L) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
10/09/2023	A	Created manual	-	-