



RETRIEVING TOOL FOR LARGE BORE RSB PACKER 5-1/2" X 3.000"

Manual No:
DL-266-5500-753

Revision: **A**

Revision Date:
09/18/2014

Authored by: *J.Anderson*

Approved by: *R.Dyer*

A) DESCRIPTION

The RSB Retrieving Tool is used to retrieve RSB Packers. This retrieving tool latches into the top sub with a standard anchor latch to allow the RSB Packer to be retrieved with a straight pull. A spring-loaded collet locates below the support ring that keeps the packer locked in a set position. Latch fingers latch into the packer. A pull shears the support ring and releases the packer. If the packer cannot be retrieved normally, this retrieving tool has a safety release that allows it to be disconnected from the packer with right-hand rotation.

B) RELATED TOOLS (sold separately)

B-1) 5-1/2" X 3.000" and 5-1/2" X 4.000" X 3.000" Large and Dual Bore RSB Packers (P/N varies)—refer to applicable technical manual.

C) SPECIFICATION GUIDE

CASING SIZE (INCHES)	TOOL OD (INCHES)	TOOL ID (INCHES)	THREAD CONNECTION BOX UP	PART NUMBER
5-1/2	3.688	1.25	2-7/8 EUE	26655

TENSILE LOAD THRU TOOL (MAX)
80,000 LBS

D) PRE-INSTALLATION INSPECTION PROCEDURES

CAUTION: 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.

Before re-using the tool, D&L recommends disassembly and inspection of the tool. Clean parts and ensure parts are in good working condition. Replace worn or damaged parts with D&L replacement parts.

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



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E) OPERATING PROCEDURES

CAUTION₂: Do not run the tool without properly tightening connections. Running the tool with loose connections may damage the tool and cause malfunction.

Run the Retrieving Tool to depth and stab into the RSB packer.

The shear screws below the threaded latch that will shear at 4,000 lbs (2,000 lbs per screw) to allow the threaded latch to fully engage the top sub of the RSB Packer before the release collet moves downward and latches into the profile below the support ring of the RSB Packer.

F) RELEASING PROCEDURES

Apply tension to shear the shear screws in the support ring in the RSB Packer.

If the packer fails to release, apply additional tension of 18,000 lbs to shear the shear screws to release the shear ring on the Retrieving Tool. Apply right-hand rotation to disengage the Retrieving Tool from the packer.

G) STORAGE PROCEDURES

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. 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.

H) 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
- 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

I) DISASSEMBLY

I-1) Clamp upper mandrel (2) in vise between striker nut (6) and central coupling (10).

I-1.1) Unscrew and remove set screws (13) from bottom sub (7).

I-1.2) Unscrew and remove bottom sub (7) from lower mandrel (11).

I-1.3) Unscrew and remove shear screws (15) from shear ring (12).

CAUTION₃: Compression spring (4) is compressed with spring tension against shear ring (12).

I-1.4) Remove shear ring (12) from lower mandrel (11).

I-1.5) Unscrew and remove set screws (13) from central coupling (10).

I-1.6) Unscrew and remove lower mandrel (11) from central coupling (10).

CAUTION₄: Compression spring (4) is compressed with spring tension against collet (9).

I-1.6.1) Remove collet (9) and compression spring (4) from lower mandrel (11).

I-1.7) Unscrew and remove central coupling (10) from upper mandrel (2).

I-1.8) Moving to upper end of tool, unscrew and remove set screws (13) from top sub (1).



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I) DISASSEMBLY (cont'd)

- I-1.9) Unscrew and remove top sub (1) from upper mandrel (2).
- I-1.10) Unscrew and remove upper sleeve (5) from lower sleeve (3).
- I-1.11) Remove anchor latch collet (8) from lower sleeve (3).
- I-1.12) Unscrew and remove shear screws (16) from lower sleeve (3).
- I-1.13) Remove lower sleeve (3) from upper mandrel (2).
- I-1.14) Unscrew and remove striker nut (6) from upper mandrel (2).
- I-2) Unclamp and remove upper mandrel (2) from vise.

J) ASSEMBLY

NOTE₁: Clean and inspect all parts. Replace all worn and damaged parts. Install parts in proper order, and orientation and tighten/torque all connections properly.

- J-1) Clamp upper mandrel (2) in vise between striker nut (6) and central coupling (10).
 - J-1.1) Screw striker nut (6) onto upper mandrel (2)
 - J-1.2) Install lower sleeve (3) onto upper mandrel (2)
 - J-1.3) Screw shear screws (16) into lower sleeve (3). Tighten until shear screws (16) make contact with upper mandrel (2). Back shear screws (16) out 1/4 turn.
 - J-1.4) Install anchor latch collet (8) onto lower sleeve (3).
 - J-1.5) Screw upper sleeve (5) onto lower sleeve (3).
 - J-1.6) Screw top sub (1) onto upper mandrel (2).
 - J-1.7) Screw set screws (13) into top sub (1).
 - J-1.8) Moving to lower end of tool, screw central coupling (10) onto upper mandrel (2).
 - J-1.9) Install collet (9) and compression spring (4) onto lower mandrel (11).
 - J-1.10) Screw lower mandrel (11) into central coupling (10).

CAUTION₄: Compression spring (4) is compressed with spring tension against collet (9).
 - J-1.11) Screw set screws (13) into central coupling (10).
 - J-1.12) Install shear ring (12) onto lower mandrel (11).
 - J-1.13) Align threaded holes in shear ring (12) with groove in lower mandrel (11). Screw shear screws (15) into shear ring (12). Tighten until shear screws (15) make contact with lower mandrel (11). Back shear screws (15) out 1/4 turn.

CAUTION₃: Compression spring (4) is compressed with spring tension against shear ring (12).
 - J-1.14) Screw bottom sub (7) onto lower mandrel (11).
 - J-1.15) Screw set screws (13) into bottom sub (7).
- J-2) Unclamp upper mandrel (2) from vise and remove assembled tool.



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K) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	PART NUMBER
1	1	TOP SUB	P-110	26655611
2	1	UPPER MANDREL	P-110	26655210
3	1	LOWER SLEEVE	P-110	26655861
4	1	COMPRESSION SPRING	CHROME VANADIUM	26655921
5	1	UPPER SLEEVE	P-110	26655850
6	1	STRIKER NUT	P-110	26655851
7	1	BOTTOM SUB	P-110	26655621
8	1	ANCHOR LATCH COLLET	P-110	58230003
9	1	RETRIEVING COLLET	P-110	26655660
10	1	CENTER COUPLING	P-110	26655670
11	1	LOWER MANDREL	P-110	26655220
12	1	SHEAR RING	P-110	26655107
13	6	SET SCREW 3/8-16 UNC X 3/8	STEEL	SSS037C037
14	2	SET SCREW 5/16-18 UNC X 7/16	STEEL	SSS031C043
15	6	SHEAR SCREW (3000#) 3/8-16 UNC X 1/2	BRASS	BSSSLT037C050
16	2	SHEAR SCREW (2000#) 5/16-18 UNC X 1/2	BRASS	BSSSLT031C050

ASSEMBLED WEIGHT	68 LBS
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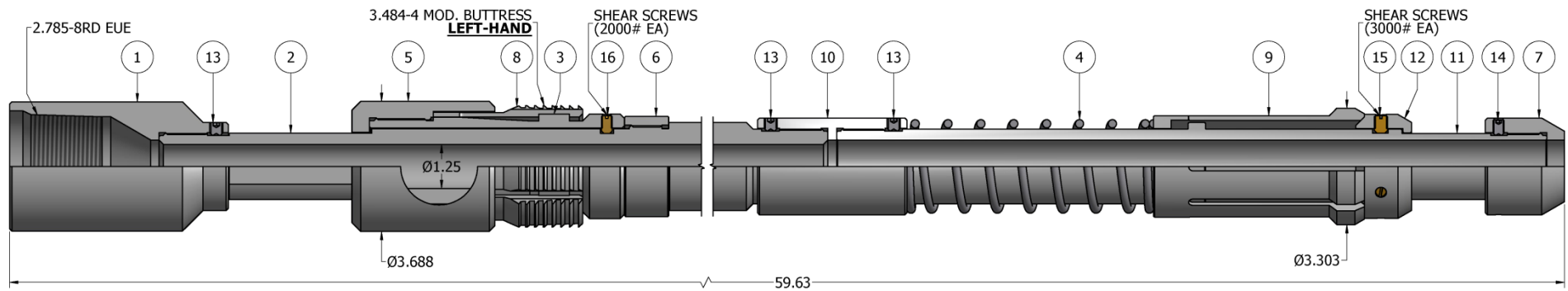
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L) TECHNICAL ILLUSTRATION



M) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
09/18/14	A	Created new manual	-	-