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) 9-5/8" X 4.750" RSB Packer (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
9-5/8	5.81	1.75	4-1/2" EUE	26194-2

D) PRE-INSTALLATION INSPECTION PROCEDURES

CAUTION[1]: 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.

GENERAL SCREW TORQUE RECOMMENDATIONS									
SCREW SIZE (INCHES)	#6	#8	#10	1/4	5/16	3/8	7/16	1/2	5/8 and larger
TORQUE RANGE (INCH-POUNDS)	5 – 8	10 – 15	18 – 25	25 – 40	50 – 80	90 – 135	160 – 210	250 – 330	450 - 650

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.

When redressing the tool, D&L recommends replacement of all seals, elements, o-rings, shear screws, etc. Contact D&L sales for redress kit and/or other replacement part information.

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 Retrieving Tool has two (2 qty) shear screws below the threaded latch that will shear at 4,000 lbs (2,000 lbs/screw). This allows 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

Tension is applied to shear the 12 shear screws in the support ring in the RSB Packer.

If the packer fails to release, applying 24,000 lbs of tension will shear the shear screws to release the shear ring on the retrieving tool and allow the tool to disengage from the packer with right-hand rotation.

G) 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. 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 (1) in vise between striker nut (2) and mandrel coupling (9).

I-1.1) Unscrew and remove set screws (7) from bottom sub (15).

I-1.2) Unscrew and remove bottom sub (15) from lower mandrel (11).

I-1.3) Unscrew and remove shear screws (14) from shear ring (12).

CAUTION3: Compression spring (16) 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 (10) from mandrel coupling (9).

I-1.6) Unscrew and remove lower mandrel (11) from mandrel coupling (9) and disassemble lower mandrel assembly:

CAUTION3: Compression spring (16) is compressed with spring tension against mandrel coupling (9).

I-1.6.1) Remove collet stop rings (17), compression spring (16), and collet (13) from lower mandrel (11).

I-1.7) Unscrew and remove mandrel coupling (9) from upper mandrel (1).

I) DISASSEMBLY (cont'd)

I-1.8) Moving to upper end of tool, unscrew and remove set screws (7) from top sub (6).

I-1.9) Unscrew and remove top sub (6) from upper mandrel (1).

I-1.10) Unscrew and remove upper sleeve (5) from lower sleeve (3).

I-1.11) Remove anchor latch collet (4) from lower sleeve (3).

I-1.12) Unscrew and remove shear screws (8) from lower sleeve (3).

I-1.13) Remove lower sleeve (3) from upper mandrel (2).

I-1.14) Unscrew and remove striker nut (2) from upper mandrel (1).

I-2) Unclamp and remove upper mandrel (1) 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 (1) in vise between striker nut (2) and mandrel coupling (9).

J-1.1) Screw striker nut (2) onto upper mandrel (1)

J-1.2) Install lower sleeve (3) onto upper mandrel (2). Align threaded holes in lower sleeve (3) with groove in upper mandrel (2)

J-1.3) Screw shear screws (8) into lower sleeve (3). Tighten until shear screws (8) contact upper mandrel (1). Back shear screws (8) out 1/4 turn.

J-1.4) Install anchor latch collet (4) onto lower sleeve (3).

J-1.5) Screw upper sleeve (5) onto lower sleeve (3).

J-1.6) Screw top sub (6) onto upper mandrel (1).

J-1.7) Screw set screws (7) into top sub (6).

J-1.8) Moving to lower end of tool, screw mandrel coupling (9) onto upper mandrel (1).

J-1.9) Assemble lower mandrel assembly and install:

J-1.9.1) Install collet (13), collet stop rings (17), and compression spring (16).

J-1.9.2) Screw lower mandrel (11) into mandrel coupling (9).

CAUTION3: Compression spring (16) is compressed with spring tension against mandrel coupling (9).

J-1.10) Screw set screws (10) into mandrel coupling (9).

J-1.11) Install shear ring (12) onto lower mandrel (11). Align threaded holes in shear ring (12) with groove in lower mandrel (11).

CAUTION3: Compression spring (16) will be compressed with spring tension against mandrel coupling (9).

J-1.12) Screw shear screws (14) into shear ring (12). Tighten until shear screws (14) make contact with lower mandrel (11). Back shear screws (14) out 1/4 turn.

J-1.13) Screw bottom sub (15) onto lower mandrel (11).

J-1.14) Screw set screws (7) into bottom sub (15).

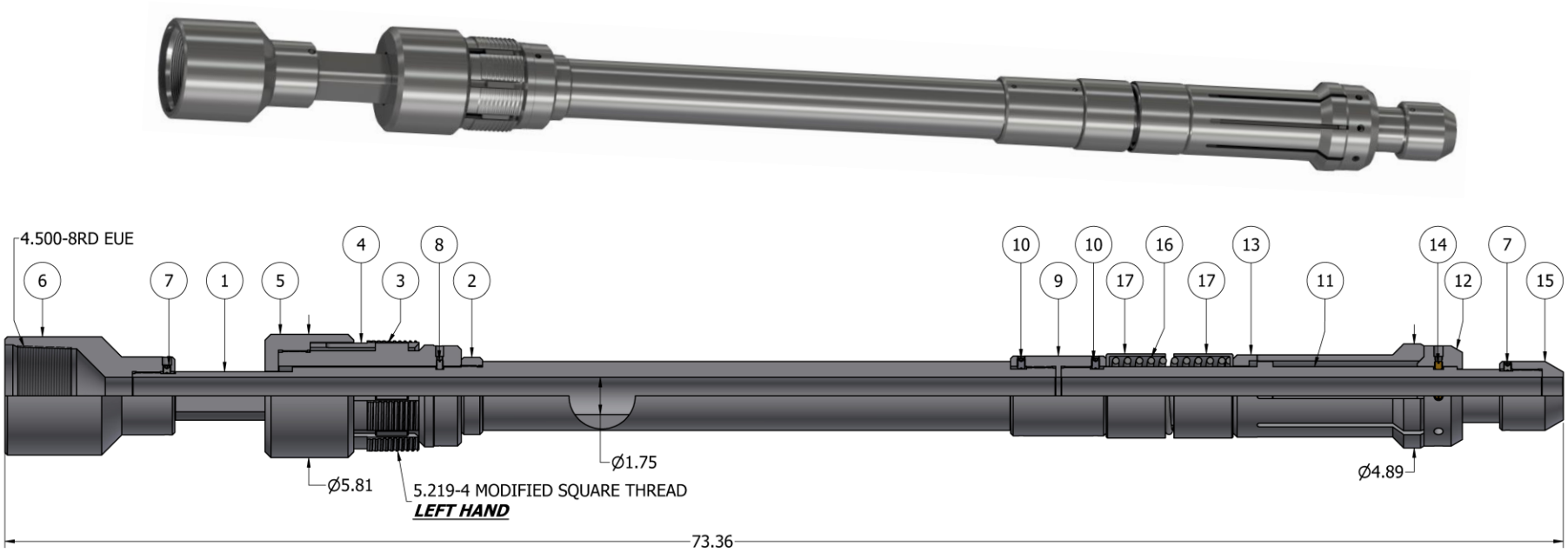
J-2) Unclamp upper mandrel (1) and remove assembled tool from vise.

K) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	PART NUMBER
1	1	UPPER MANDREL	DLMS110	26194211
2	1	STRIKER NUT	DLMS110	26670851
3	1	LOWER SLEEVE	DLMS110	26194861
4	1	ANCHOR LATCH COLLET	DLMS110	58247003
5	1	UPPER SLEEVE	DLMS110	26194850
6	1	TOP SUB	DLMS110	26674611-YBAG
7	4	3/8-16 UNC X 3/8 SOCKET SET SCREW	STEEL	SSS037C037
8	2	5/16-18 UNC X 7/16 SLOTTED SHEAR SCREW (2000#)	DLM360BRS	BSSSLT031C043
9	1	CENTRAL COUPLING	DLMS110	26674670
10	4	3/8-16 UNC X 1/2 SOCKET SET SCREW	STEEL	SSS037C050
11	1	LOWER MANDREL	DLMS110	26674221
12	1	SHEAR RING	DLMS110	26194106
13	1	COLLET	DLMS110	26194660
14	8	3/8-16 UNC X 3/8 SLOTTED SHEAR SCREW (3000#)	DLM360BRS	BSSSLT037C037
15	1	BOTTOM SUB	DLMS110	26674620
16	1	COMPRESSION SPRING	DLMCRSP	26670920
17	2	COLLET STOP RING	DLMS110	26674665

REDRESS KIT (RDK)		26194050
ASSEMBLED WEIGHT		170 LBS

L) TECHNICAL ILLUSTRATION



M) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
11/30/2023	A	Created manual	-	-