



SET DOWN ISOLATION PACKER

4-1/2" X 2-3/8" (9.5 – 13.5#)

Manual No:
DL-641-4500-1630

Revision: **A**

Revision Date:
11/14/2022

Authored by: *J.Anderson*

Approved by: *E.Visaez*

A) DESCRIPTION

The Set Down Isolation Packer is an economical, compact compression set tool used to isolate casing or perforations. It can also be used in multi-zone injection applications. This packer runs above a compression set packer (such as the AS-II Packer or AS-III Packer). Applied compression will shear the shear screws and allow pack-off. Straight pick-up releases the packer.

B) SPECIFICATION GUIDE

CASING			TOOL		THREAD CONNECTION BOX UP / PIN DOWN	PART NUMBER
SIZE (INCHES)	WEIGHT (LBS/FT)	RECOMMENDED HOLE SIZE (INCHES)	GAGE OD (INCHES)	NOMINAL ID (INCHES)		
4-1/2	9.5 – 13.5	3.920 – 4.090	3.750	1.94	2-3/8 EUE	64145 64145H ¹ 64145V ²

Elastomer Trim Options: ¹HSN, ²Viton

DIFFERENTIAL PRESSURE (MAX)	TENSILE LOAD THRU TOOL (MAX)
7,000 PSI	71,900 LBS

C) 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.

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

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

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D) SETTING PROCEDURES

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

Run the packer to desire depth and set the lower packer. Slack off enough weight to shear the isolation packer setting shear screws (2,375 lbs/screw). Maintain a minimum of 10,000 lbs set down weight at the tool to keep the element packed off.

E) RELEASING PROCEDURES

Pick up on work string to release and retrieve packer.

F) 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. Elements should be in a relaxed state—free from tension, compression, and other stresses that could cause deformation.

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.

G) ELASTOMER TRIM TEMPERATURE GUIDE

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

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
- 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



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I) DISASSEMBLY

I-1) Clamp top sub (1) in vise.

I-1.1) Unscrew and remove pipe plug (7) from mandrel (2).

I-1.2) Unscrew and remove shear screws (6) from body (3).

I-1.3) Unscrew and remove body (3) from rubber retainer (4).

I-1.4) Unscrew and remove mandrel (2) from top sub (1).

I-1.4.1) Remove o-ring (8) from mandrel (2).

I-1.4.2) Remove element (5) and rubber retainer (4) from mandrel (2).

I-2) Unclamp and remove top sub (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 top sub (1) in vise.

J-1.1) Install rubber retainer (4) and element (5) onto mandrel (2).

J-1.2) Install o-ring (8) in o-ring groove in mandrel (2).

J-1.3) Screw mandrel (2) into top sub (1).

J-1.4) Install body (3) onto mandrel (2) and screw onto rubber retainer (4). Align threaded holes in body (3) with counterbores in mandrel (2). Align slot in body (3) with threaded hole for pressure plug (7) in mandrel (2).

CAUTION₃: Do NOT rip or tear o-rings while installing.

J-1.5) Screw shear screws (6) into body (3). Tighten until shear screws contact mandrel (2). Back out 1/4 turn.

J-1.6) Screw pipe plug (7) into mandrel (2).

J-2) Unclamp and remove top sub (1) from vise.



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K) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 64145
1	1	TOP SUB	DLMS80	40045640
2	1	MANDREL	DLMS80	64145210
3	1	BODY	1026	64145310
4	1	RUBBER RETAINER	DLMS60	64145850
5	1	ELEMENT	80 DURO NITRILE	40545512
6	7	SHEAR SCREW .3125-24 X .31 WITH .25 DOG (2375#)	DLM464BRS	WBP45911
7	1	3/4" PIPE PLUG	STEEL	SPP075
8	1	228 O-RING	90 DURO NITRILE	90228

REDRESS KIT (RDK)	64145050
ASSEMBLED WEIGHT	30 LBS

K-1) ELASTOMER TRIM OPTIONS

NOTE₂: For temperature range, refer to Elastomer Trim Temperature Guide.

K-1.1) HSN

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 64145H
5	1	ELEMENT	80 DURO HSN	40545512H
8	1	228 O-RING	90 DURO HSN	90228H

REDRESS KIT (RDK)	64145050H
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K-1.2) VITON

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 64145V
5	1	ELEMENT	80 DURO VITON	40545512V
8	1	228 O-RING	90 DURO VITON	90228V

REDRESS KIT (RDK)	64145050V
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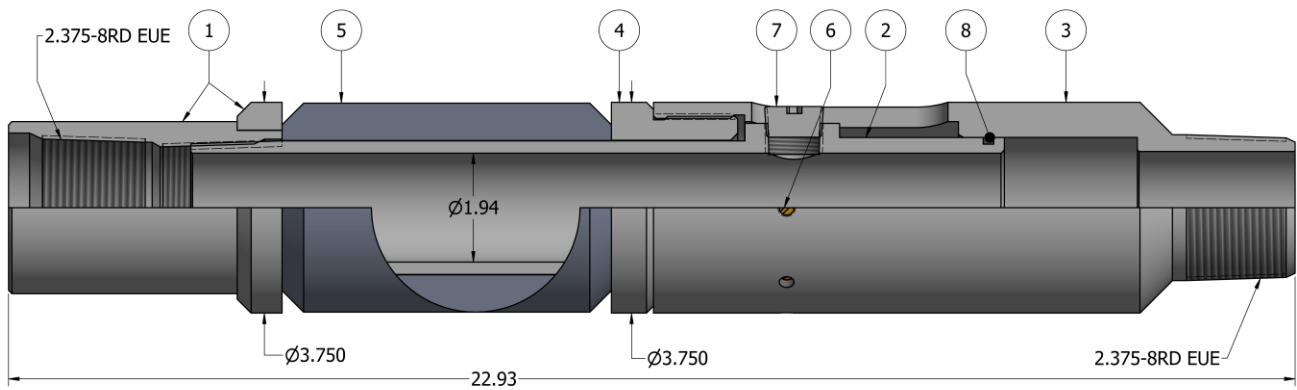
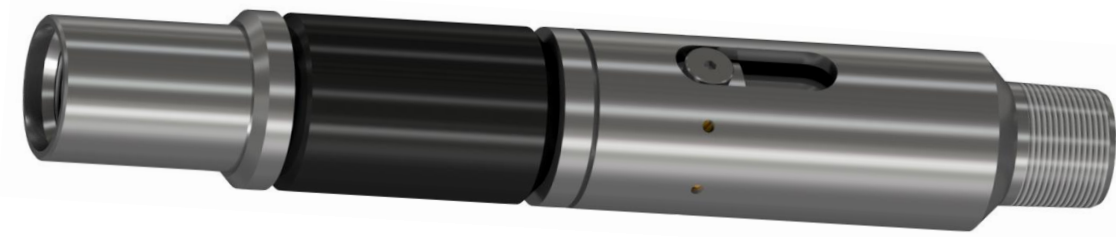
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L) TECHNICAL ILLUSTRATION



M) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
11/14/2022	A	Created manual.	-	-