



# AS-III PACKER, RIGHT HAND AUTO 9-5/8" X 4-1/2"

Manual No:  
**DL-631-9625-474**

Revision: **C**

Revision Date:  
**11/01/2023**

Authored by: J.Anderson

Approved by: D.Hushbeck

## A) DESCRIPTION

The AS-III Packer is a single-grip packer with no upper hold-down for use where no differential pressure from below is present. From the packing elements down, this packer operates identically to the AS-II Packer. This packer also features a large by-pass area to prevent swabbing when running or retrieving. This packer is ideal for isolating casing holes or perforations when used as the lower packer in conjunction with the Snapset Packer as the upper 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)	ID (INCHES)		
9-5/8	43.5 – 53.5	8.535 - 8.755	8.250	4.00	4-1/2 EUE	63195RS 63195RSH <sup>1</sup> 63195RSV <sup>2</sup> 63195RSC <sup>3</sup> 63195RSHC <sup>4</sup> 63195RSVC <sup>5</sup>

Tool Options: <sup>1</sup>HSN, <sup>2</sup>Viton, <sup>3</sup>Nitrile, Carbide, <sup>4</sup>HSN, Carbide, <sup>5</sup>Viton, Carbide

DIFFERENTIAL PRESSURE (MAX)	TENSILE LOAD THRU TOOL (MAX)
7,000 PSI	130,000 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.

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.

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



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## C) PRE-INSTALLATION INSPECTION PROCEDURES (cont'd)

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.

## 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 to setting depth. The unloader remains open while running in. Pick up the tubing and rotate 1/4 turn at the packer. Hold right-hand torque and slack off weight and set down and minimum of 20,000 lbs on the packer, while holding right-hand torque, to set the slips, close the unloader and compress the packing elements.

## E) RELEASING PROCEDURES

Pick up on the tubing to open the unloader, allowing time for the tubing and casing pressure to equalize. Continue picking up on the tubing to unset the top slips. Further upward movement relaxes the packing elements, releases the bottom slips, and re-jays the packer. The tool may now be moved and reset, or pulled from the well.

## 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

NITRILE (STD)			
TEMPERATURE RANGE (F°)	DUROMETER		
	END	MIDDLE	END
40° - 125°	80	70	80
125° - 250°	90	70	90
150° - 250°	90	80	90
250° +	Contact D&L Sales		

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



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## H) RECOMMENDED TOOLS

### H-1) 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-2) OPTIONAL SPECIAL TOOLS

ITEM	QTY	DESCRIPTION	PART NUMBER
T1	1	DRAG BLOCK ASSEMBLY TOOL	AT095110

## I) DISASSEMBLY

**NOTE<sub>8</sub>:** Ensure vise is capable of handling weight of tool.

**NOTE<sub>9</sub>:** Support tool during disassembly and assembly with jack stands as necessary.

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

I-1.1) Unscrew and remove bottom nipple (4) from J-pin bottom sub (10).

I-1.2) Unscrew and remove set screws (27) from J-pin bottom sub (10). Move J-body (20) and drag block body assembly as needed.

I-1.3) Unscrew and remove J-pin bottom sub (10) from inner mandrel (2).

**NOTE<sub>1</sub>:** Drag block body assembly must be free to rotate.

I-1.3.1) Remove o-ring (31) from J-pin bottom sub (10).

I-1.4) Compress drag blocks (7) using drag block body assembly tool (T1).

I-1.5) Unscrew and remove set screws (28) from drag block body (18). Rotate drag block retainer (6) as needed.

I-1.6) Unscrew and remove J-body (20) from drag block body (18) (**NOTE<sub>2</sub>:** Left-hand threads).

I-1.6.1) Remove retaining ring (22) from J-body (20).

I-1.7) Unscrew and remove rubber mandrel cap (19) from rubber mandrel (11).

**NOTE<sub>3</sub>:** For added leverage, insert a rod through lower cone (16) and rubber mandrel (11) as needed.

I-1.8) Remove drag block retainer (6) from drag block body (18).

I-1.9) Release drag blocks (7). Remove drag blocks (7) and drag block springs (3) from drag block body (18).

I-1.10) Remove drag block body assembly and disassemble:

I-1.10.1) Unscrew and remove socket cap screw (26) from drag block body (18).

I-1.10.2) Wedge lower slips (17) outward (if needed). Remove lower slip support (25) from drag block body (18).

I-1.10.3) Remove wedges (if needed). Remove lower slips (17) and lower slip springs (9) from drag block body (18).

I-1.11) Unscrew and remove lower cone (16) from rubber retainer (15).

I-1.12) Back up on valve body (5) with wrench. Unscrew rubber mandrel (11) from valve body (5).



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## I) DISASSEMBLY (cont'd)

I-1.13) Remove rubber mandrel assembly and disassemble:

I-1.13.1) Remove elements (13, 14), rubber spacers (12), and rubber retainer (15) from secondary rubber mandrel (24).

I-1.13.2) Remove secondary rubber mandrel (24) from rubber mandrel (11).

I-1.13.3) Remove o-ring (30) from rubber mandrel (11).

I-1.14) Unscrew and remove gage ring (21) from valve body (5).

I-1.15) Remove valve body (5) from inner mandrel (2).

I-1.15.1) Remove o-ring (29) from valve body (5).

I-1.16) Unscrew and remove inner mandrel (2) from top sub (1).

I-1.17) Unscrew and remove seal retainer (23) from top sub (1).

I-1.17.1) Remove seal (8) from seal retainer (23).

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

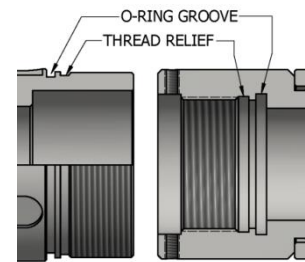


Fig. 2

## J) ASSEMBLY

**NOTE<sub>8</sub>**: Ensure vise is capable of handling weight of tool.

**NOTE<sub>9</sub>**: Support tool during disassembly and assembly with jack stands as necessary.

**NOTE<sub>4</sub>**: Clean and inspect all parts. Replace all worn and damaged parts. Install parts in proper order, and orientation and tighten/torque all connections properly.

**CAUTION<sub>3</sub>**: To ensure tool operates properly, install o-rings in o-ring grooves **NOT** thread reliefs (Fig. 2).

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

J-1.1) Install seal (8) in groove in seal retainer (23).

J-1.2) Screw seal retainer (23) onto top sub (1).

**CAUTION<sub>4</sub>**: Do not damage seal while installing.

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

J-1.4) Install o-ring (29) in groove in valve body (5).

J-1.5) From lower end of mandrel, install valve body (5) onto inner mandrel (2).

J-1.6) Screw gage ring (21) onto valve body (5).

J-1.7) Assemble rubber mandrel assembly and install:

J-1.7.1) Install o-ring (30) in groove in rubber mandrel (11).

J-1.7.2) Install secondary rubber mandrel (24) onto rubber mandrel (11).

**CAUTION<sub>5</sub>**: Do not rip or tear o-ring during installation.

J-1.7.3) Install rubber retainer (15), elements (13, 14), and rubber spacers (12) onto secondary rubber mandrel (24).

J-1.7.4) Install rubber mandrel assembly onto inner mandrel (2).

J-1.7.5) Screw rubber mandrel (11) into valve body (5).

**CAUTION<sub>5</sub>**: Do not rip or tear o-ring during installation.

J-1.8) Screw lower cone (16) into rubber retainer (15).

J-1.9) Assemble drag block body assembly and install:

J-1.9.1) Install lower slips (17) and lower slip springs (9) in drag block body (18). Wedge slips (17) outward.

**NOTE<sub>6</sub>**: Install two (2ea) springs per slip (Fig. 3).

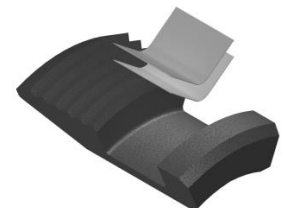


Fig. 3



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## J) ASSEMBLY (cont'd)

J-1.9.2) Install lower slip support (25) into drag block body (18). Align threaded holes in drag block body (18) with holes in lower slip support (25).

J-1.9.3) Screw socket cap screw (26) into drag block body (18). Remove wedges.

J-1.9.4) Install drag block body assembly onto rubber mandrel (11).

J-1.10) Screw rubber mandrel cap (19) onto rubber mandrel (11).

**NOTE3:** For added leverage, insert a rod through lower cone (16) and rubber mandrel (11) as needed.

J-1.11) Install drag blocks (7) and drag block springs (3) in place in drag block body (18). Compress drag blocks (7) using drag block body assembly tool (T1).

**NOTE6:** Install six (6ea) springs per drag block (Fig. 4).

J-1.12) Install drag block retainer (6) onto drag block body (18) capturing ends of drag blocks (7).

**NOTE7:** Align holes in drag block retainer (6) to access threaded holes in drag block body (18).

J-1.13) Install retaining ring (22) onto J-body (20).

J-1.14) Screw J-body (20) onto drag block body (18) (**NOTE2:** Left-hand threads).

J-1.15) Screw set screws (28) into drag block body (18). Release drag blocks (7).

J-1.16) Install o-ring (31) in groove in J-pin bottom sub (10).

J-1.17) Screw J-pin bottom sub (10) onto inner mandrel (2).

**NOTE1:** Drag block body assembly must be free to rotate.

**CAUTION5:** Do not rip or tear o-ring during installation.

J-1.18) Screw set screws (27) into J-pin bottom sub (10). Move J-body (20) and drag block body assembly as needed.

J-1.19) Screw bottom nipple (4) into J-pin bottom sub (10).

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



Fig. 4



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## K) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 63195RS
1	1	TOP SUB	DLMS80	63195610
2	1	INNER MANDREL	DLMS80	63195210
3	36	DRAG BLOCK SPRING	-	9101900
4	1	BOTTOM NIPPLE	DLMS110	60395636
5	1	VALVE BODY	DLMS35	63195350
6	1	DRAG BLOCK RETAINER	DLMS60	60395910
7	6	DRAG BLOCK	DLMSDB8	9080900
8	1	SEAL	90 DURO NITRILE	61395520
9	8	LOWER SLIP SPRING	-	7170901
10	1	J-PIN BOTTOM SUB	DLMS80	63195630
11	1	RUBBER MANDREL	DLMS60	60313220
12	2	RUBBER SPACER	DLMS35	60295840S
13	1	ELEMENT	70 DURO NITRILE	60295511S
14	2	ELEMENT	90 DURO NITRILE	60295513S
15	1	RUBBER RETAINER	DLMS35	60295850S
16	1	LOWER CONE	DLMS35	60395420S
17	4	LOWER SLIP	DLMS35	60095135
18	1	DRAG BLOCK BODY	DLMS35	60395335
19	1	RUBBER MANDREL CAP	DLMS80	60095230
20	1	J-BODY	DLMS110	61395340
21	1	GAGE RING	DLMS35	60295830
22	1	RETAINING RING	DLMS35	60095911
23	1	SEAL RETAINER	DLMS35	63195530
24	1	SECONDARY RUBBER MANDREL	DLMS80	60095221
25	1	LOWER SLIP SUPPORT	DLMS35	60395912
26	1	SOCKET CAP SCREW 1/2-13 UNC X 3/4	STEEL	SCS050C075
27	2	SET SCREW 3/8-16 UNC X 3/8	STEEL	SSS037C037
28	3	SET SCREW 3/8-16 UNC X 1/2	STEEL	SSS037C050
29	1	160 O-RING	90 DURO NITRILE	90160
30	1	254 O-RING	90 DURO NITRILE	90254
31	1	349 O-RING	90 DURO NITRILE	90349

REDRESS KIT (RDK)	63195050
ASSEMBLED WEIGHT	352 LBS



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## K) PARTS LIST (cont'd)

### K-1) ELASTOMER TRIM OPTIONS

**NOTE<sub>10</sub>**: For temperature range, refer to Elastomer Trim Temperature Guide.

#### K-1.1) HSN

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 63195RSH
13	1	ELEMENT	70 DURO HSN	60295511SH
14	2	ELEMENT	90 DURO HSN	60295513SH
8	1	SEAL	90 DURO HSN	61395520H
29	1	160 O-RING	90 DURO HSN	90160H
30	1	254 O-RING	90 DURO HSN	90254H
31	1	349 O-RING	90 DURO HSN	90349H

REDRESS KIT (RDK)		63195050H
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#### K-1.2) VITON

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 63195RSV
13	1	ELEMENT	70 DURO VITON	60295511SV
14	2	ELEMENT	90 DURO VITON	60295513SV
8	1	SEAL	90 DURO VITON	61395520V
29	1	160 O-RING	90 DURO VITON	90160V
30	1	254 O-RING	90 DURO VITON	90254V
31	1	349 O-RING	90 DURO VITON	90349V

REDRESS KIT (RDK)		63195050V
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### K-2) CARBIDE OPTIONS

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 63195RSC
7	6	CARBIDE DRAG BLOCK	DLMSDB4	9080900C
17	4	CARBIDE LOWER SLIP	DLMS110	60095135C



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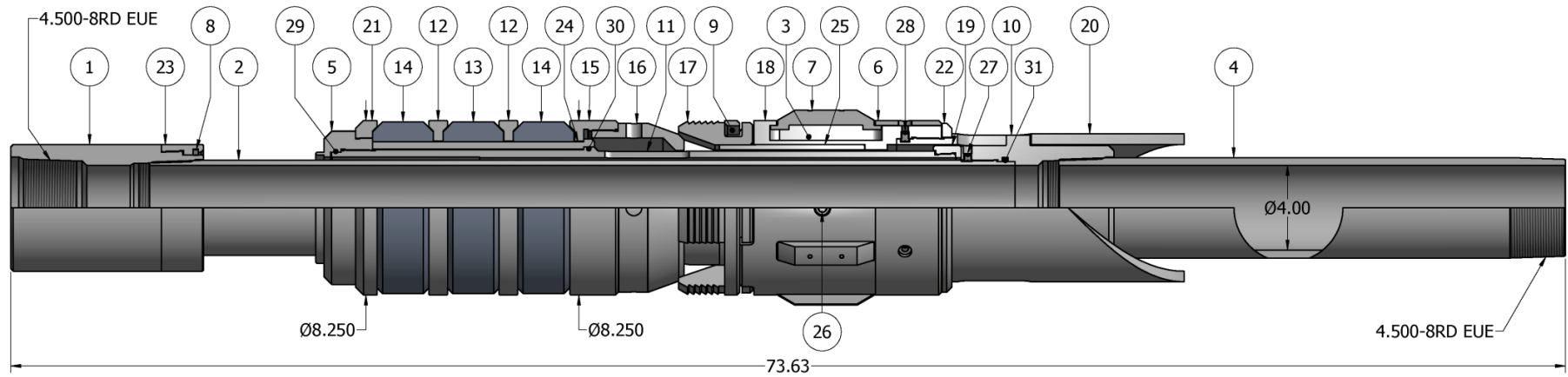
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## L) TECHNICAL ILLUSTRATION





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### M) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
11/01/2023	C	Added "RS" to P/Ns, added carbide option, pre-installation inspection procedures, storage recommendations; revised temperature guide	J.Anderson	E.Visaez
09/09/13	B	Revised Assembly Tool P/N AT095110 was AT010110, P/N 60395335 material was P-110/1026, P/N 60095911 was 60395911; Added HSN and Viton options (P/N 63195H, 63195V), differential pressure and max tensile load, Recommended Hand Tools, Redress Kit P/N 63195050, Assembled Weight 352 LBS, Options Parts List, Revision History; Removed Aflas from Element Selection Guide, Item T2 from Special Tools.	S. McEntire	D. Hushbeck