



# SWIVEL TYPE SAFETY SHEAR JOINT

## 2-3/8"

Manual No:  
**DL-563-2375-1270**

Revision: **A**

Revision Date:  
**09/11/2019**

Authored by: *J.Anderson*

Approved by: *D.Hushbeck*

### A) DESCRIPTION

The Swivel Type Safety Shear Joint allows positive release of the tubing string in completions where retrieval problems are anticipated.

The Swivel Type Safety Shear Joint is non-keyed to allow tubing rotation above the shear joint. It is designed to release with a straight pull. Screws may be removed to reduce the shear release force.

### B) SPECIFICATION GUIDE

SIZE (INCHES)	TOOL OD (INCHES)	TOOL ID (INCHES)	THREAD CONNECTION BOX UP / PIN DOWN	PART NUMBER
2-3/8	3.060	2.00	2-3/8 EUE	56320 56320H <sup>1</sup> 56320V <sup>2</sup>

Elastomer Trim Options: <sup>1</sup>HSN, <sup>2</sup>Viton

### C) PRE-INSTALLATION INSPECTION PROCEDURES

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.

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 o-rings, shear screws, etc. Contact D&L sales for redress kit and/or other replacement part information.

### D) RELEASING PROCEDURES

A straight pull shears the shear screws and releases the top sub and work string above it. The releasing force is calculated by multiplying the number of screws by the shear value per screw.

**Example:** 8 screws X 5,000 lbs/screw = 40,000 lbs

### E) STORAGE RECOMMENDATIONS

When preparing the tool for storage, follow the Pre-Installation Inspection Procedures.

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.



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## 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
- 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 top sub (1) in vise.
- H-1.1) Unscrew and remove shear screws (3) from bottom sub (2).
- H-1.2) Remove bottom sub (2) from top sub (1).
- H-1.3) Remove o-rings (4) from bottom sub (2).
- H-2) Unclamp and remove top sub (1) from vise.

## I) ASSEMBLY

- I-1) Clamp top sub (1) in vise.
- I-1.1) Install o-rings (4) in o-ring groove(s) of bottom sub (2).
- I-1.2) Install bottom sub (2) onto top sub (1).
- CAUTION:** Do not rip or tear o-ring(s) during install.
- I-1.3) Align threaded holes in bottom sub (2) with shear screw grooves in top sub (1).
- I-1.4) Screw shear screws (3) into bottom sub (2). Tighten until shear screws contact top sub (1). Back shear screws (3) out 1/4 turn.
- I-2) Unclamp top sub (1) from vise and remove assembled tool.



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### J) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 56320
1	1	TOP SUB	P-110	56320610
2	1	BOTTOM SUB	1026	56320630
3	12	SLOTTED SHEAR SCREW (5000#) 7/16-20 UNF X 7/16	DLM360BRS	BSSSLT043F043
4	2	229 O-RING	90 DURO NITRILE	90229

REDRESS KIT (RDK)	56320050
ASSEMBLED WEIGHT	10 LBS

#### J-1) ELASTOMER TRIM OPTIONS

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

##### J-1.1) HSN

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 56320H
4	2	229 O-RING	90 DURO HSN	90229H

REDRESS KIT (RDK)	56320050H
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##### J-1.2) VITON

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 56320V
4	2	229 O-RING	90 DURO VITON	90229V

REDRESS KIT (RDK)	56320050V
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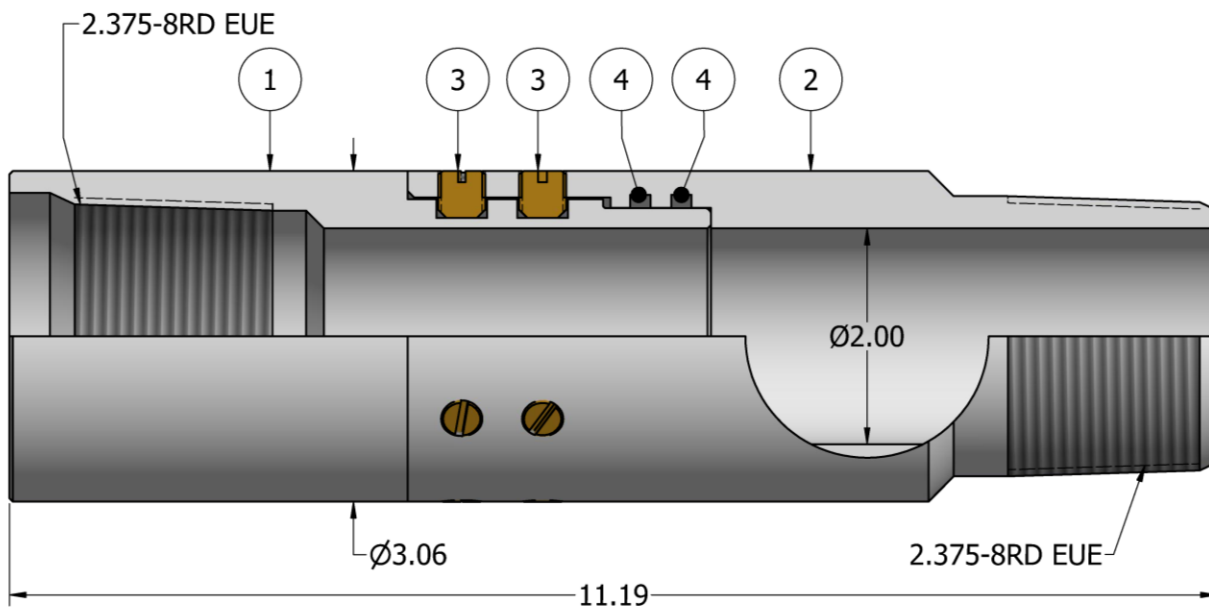
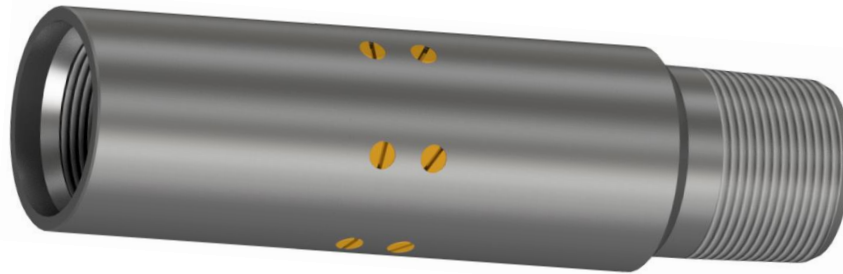
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## K) TECHNICAL ILLUSTRATION



## L) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
09/11/2019	A	Created new manual	-	-