

Authored by: B.Mathis

## CONVERT ASI-X PACKER TO VSI-X PACKER

5-1/2" X 2-3/8"

Manual No: **DL-603-5500-969** 

Revision: A

Revision Date: **01/11/2016** 

Approved by: F.Johnson

### A) DESCRIPTION

The ASI-X Packer and VSI-X Packer use many of the same components. This describes how to convert an ASI-X to a VSI-X.

It is not necessary to completely disassemble the ASI-X unless the tool has been in service. If the tool has been in service, please follow D&L's recommendation for redressing.

**NOTE<sub>1</sub>**: To redress tool assembly, follow disassembly instructions. It is recommended by D&L Oil Tools to replace all seals, elements, o-rings, shear screws, etc. when redressing tool.

### **B) CONVERSION NOTES**

- B-1) Compared to ASI-X Packer VSI-X Packer does not use drag blocks or drag block springs.
- B-2) VSI-X Packer requires installation of shear screws in J-body, spring cage, and for stinger to WLAK.

### C) LOWER END OF TOOL

### C-1) **DISASSEMBLY**

- C-1.1) Clamp top sub (1) in vise.
  - C-1.1.1) Compress drag blocks (22) with drag block assembly tool (T1).
  - C-1.1.2) Unscrew and remove set screws (28) from J-body (20).
  - C-1.1.3) Unscrew drag block body (18) and assembly from J-body (20) (NOTE<sub>2</sub>: Left-hand threads).
  - C-1.1.4) Move drag block body (18) and assembly upwards on rubber mandrel (11).
  - C-1.1.5) Release drag blocks (22).
  - C-1.1.6) Remove drag blocks (22) and drag block springs (3) from drag block body (18).

### C-2) ASSEMBLY

- C-2.1) Move drag block body (18) and assembly downwards on rubber mandrel (11). Screw drag block body (18) and assembly into J-body (20) (**NOTE**<sub>2</sub>: Left-hand threads).
  - C-2.1.1) Screw set screws (28) into J-body (20).



Fig. 1

- C-2.1.2) Position J-pin of J-pin bottom sub (23) against tension shoulder in J-slot of J-body (20) (Fig. 1).
- C-2.1.3) Align threaded holes in J-body (20) with pocket holes in rubber mandrel cap (19). Wrench on rubber retainer (15) as needed to properly align threaded holes.
- C-2.1.4) Screw shear screws (3) into J-body (20). Tighten until shear screws (3) make contact with rubber mandrel cap (19). Back shear screws (3) out 1/4 turn.
- C-2.1.5) Unclamp top sub (1) in vise.

D & L OIL TOOLS

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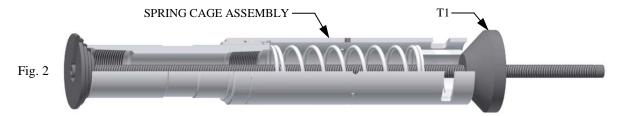
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## D) UPPER END OF TOOL

#### D-1) **DISASSEMBLY**

- D-1.1) Clamp J-pin bottom sub (23) in vise.
  - D-1.1.1) Unscrew top sub (1) from inner mandrel (2). Remove top sub (1) and spring cage assembly from inner mandrel (2). Wedge releasing slip (7) and upper slips (8) outwards (if needed).
  - D-1.1.2) Remove wedges (if needed). Remove releasing slip (7), upper slips (8) and upper slip springs (26) from upper slip body (6).

### D-2) ASSEMBLY



- D-2.1.1) Compress compression spring (4) with assembly tool (T1) (Fig. 2).
- D-2.1.2) Align threaded holes in spring cage (5) with recessed holes in top sub (1). Screw shear screws (3) into spring cage (5). Tighten until shear screws (3) make contact with top sub (1). Back shear screws (3) out 1/4 turn.
- D-2.1.3) Remove assembly tool (T1) from spring cage assembly.
  - **CAUTION:** Compression spring (4) is compressed with tension against spring cage assembly.
- D-2.1.4) Install upper slips (8), releasing slip (7) and upper slip springs (26) into upper slip body (6). Wedge releasing slip (7) and upper slips (8) outwards.
  - **NOTE<sub>3</sub>:** Refer to tech manual for quantity of slip springs.
- D-2.1.5) Install spring cage assembly onto inner mandrel (2). Screw top sub (1) onto inner mandrel (2). Remove wedges.
- D-2.2) Unclamp J-pin bottom sub (23) from vise and removed assembled tool.

### E) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
01/11/2016	A	Created new tech manual;	-	-

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