

Authored by: D.Barlow

WIRELINE ADAPTER KIT

FOR VSI-X AND VSI-X HT PACKER

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

Manual No: **DL-971-5500-754**

Revision: C

Revision Date: **02/06/2020**

Approved by: J.McArthur

Printed: Thu - Feb 06, 2020

A) DESCRIPTION

The Wireline Adapter Kit (WLAK) for VSI-X Packers and VSI-X HT Packers is used with a stinger to set VSI-X Packers and VSI-X HT Packers on electric wireline or with a hydraulic setting assembly on tubing. The WLAK is designed to be used on a Baker E-4 wireline powder charge or hydraulic setting assembly or any setting assembly with the same configuration.

When used with a profile stinger, the plug-in-place design allows the running of a profile blanking plug to be run in place to convert the packer to a temporary bridge plug. Use of a profile blanking plug also reduces debris build-up and eliminates the need to run profile nipples or pump-out plugs below the packer. The WLAK automatically disconnects from the packer during packer setting to be easily retrieved and prepared to run again.

NOTE₁: Stinger must be purchased separately.

NOTE₂: Refer to applicable VSI-X Packer and VSI-X HT Packer technical manuals for packer specific technical information including operating procedures and packer disassembly and assembly.

B) RELATED TOOLS (sold separately)

- B-1) 5-1/2" X 2-3/8" VSI-X and VSI-X HT Packers—actual P/N varies depending on customer requirements.
- B-2) 2-3/8" Stinger—actual P/N varies depending on customer requirements.

C) SPECIFICATION GUIDE

| CASING SIZE | TUBING OD | TOOL OD | PRESSURE | PART |
|-------------|-----------|----------|---------------|--------|
| (INCHES) | (INCHES) | (INCHES) | SETTING TOOL | NUMBER |
| 5-1/2 | 2.375 | 4.500 | #20 BAKER E-4 | 97155 |

D) PRE-INSTALLATION INSPECTION PROCEDURES

CAUTION₁: 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 / | INTERNAL TAPI | ERED TUBING THREADS | PREMIUM THREADS | | | |
| ACME THREADS | UP TO 2-3/8" | GREATER THAN 2-3/8" | 1102.110.11 | | | |
| 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 tools 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.

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.

D & L OIL TOOLS

P.O. BOX 52220 TULSA, OK 74152

PHONE: (800) 441-3504 <u>www.dloiltools.com</u>



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D) PRE-INSTALLATION INSPECTION PROCEDURES (cont'd)

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 part information.

E) 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.

F) OPERATING PROCEDURES

Assemble WLAK to packer and pressure setting assembly. Run assembly to the desired depth. Follow pressure setting assembly manufacturer's procedures for setting equipment. The WLAK disconnects from the packer as part of the setting procedure. After setting packer, retrieve setting assembly and disassemble.

NOTE₃: Ensure J-pin on packer is positioned on tension shoulder of J-slot on packer prior to running tool.

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) ASSEMBLY ONTO PRESSURE SETTING ASSEMBLY AND VSI-X AND VSI-X HT PACKER

NOTE4: Clean and inspect all parts. Replace all worn and damaged parts. Install parts in proper order, and orientation and tighten/torque all connections properly.

H-1) Install setting sleeve (2) over lower end of pressure setting assembly.

NOTE₅: Pressure setting assembly is not part of WLAK and is not shown.

- H-2) With setting sleeve (2) slid up out-of-way, screw outer adapter (1) into pressure setting assembly.
- H-3) Screw set screws (4) into outer adapter (1).
- H-4) Screw inner adapter (3) onto pressure setting assembly.
- H-5) Screw set screw (5) into inner adapter (3).
- H-6) Screw stinger (ST) into top sub of packer.
- H-7) With stinger (ST) installed in packer, stab stinger (ST) into bottom of inner adapter (3) with pins on stinger (ST) sliding into slots in lower part of inner adapter (3).
- H-8) Align threaded holes of inner adaptor (1) with groove in stinger (ST). Screw shear screws (6) into inner adapter (3). Tighten until shear screws (6) contact stinger (ST). Back shear screws (6) out 1/4 turn.

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H) ASSEMBLY (cont'd)

- H-9) Slide setting sleeve (2) down over outer adapter (1). Screw setting sleeve (2) onto outer adapter (1) until bottom of setting sleeve contacts spring cage of packer.
- H-10) Screw set screws (5) into setting sleeve (2).

NOTE3: Ensure J-pin on packer is positioned on tension shoulder of J-slot on packer prior to running tool.

I) DISASSEMBLY

NOTE₅: Pressure setting assembly is not part of WLAK and is not shown.

- I-1) Unscrew and remove set screws (5) from setting sleeve (2).
- I-2) Unscrew and remove set screw (5) from inner adapter (3).
- I-3) Unscrew and remove shear screws (6) from inner adapter (3).
- I-4) Unscrew and remove inner adapter (3) from pressure setting assembly.
- I-5) Unscrew and remove set screws (4) from outer adapter (1).
- I-6) Unscrew and remove outer adapter (1) from pressure setting assembly.
- I-7) Remove setting sleeve (2) from pressure setting assembly.

J) PARTS LIST

| ITEM | QTY | DESCRIPTION | MATERIAL | P/N 97155 | |
|------|-----|--|------------|---------------|--|
| 1 | 1 | OUTER ADAPTER | DLMS110 | 97120102 | |
| 2 | 1 | SETTING SLEEVE | P-110/1026 | 60155470 | |
| 3 | 1 | INNER ADAPTER | P-110/L-80 | 60155460 | |
| 4 | 2 | SET SCREW 1/4-20 UNC X 3/16 | STEEL | SSS025C018 | |
| 5 | 4 | SET SCREW 5/16-18 UNC X 3/8 | STEEL | SSS031C037 | |
| 6 | 8 | SHEAR SCREW (5000#) 7/16-20 UNF X 7/16 | DLM360BRS | BSSSLT043F043 | |
| ST | 1 | 2-3/8" STINGER | - | 51020XXX* | |

*Stinger sold separately. Actual P/N varies depending on customer requirements.

| ASSEMBLED WEIGHT | 86 LBS† |
|------------------|---------|
| ASSEMBLED WEIGHT | 86 LBS |

[†]Assembled weight does not include stinger.

NOTE₆: Wireline pressure setting assembly sold separately by other manufacturer.

NOTE7: Shear screws sold with Packer and Packer Redress Kit.



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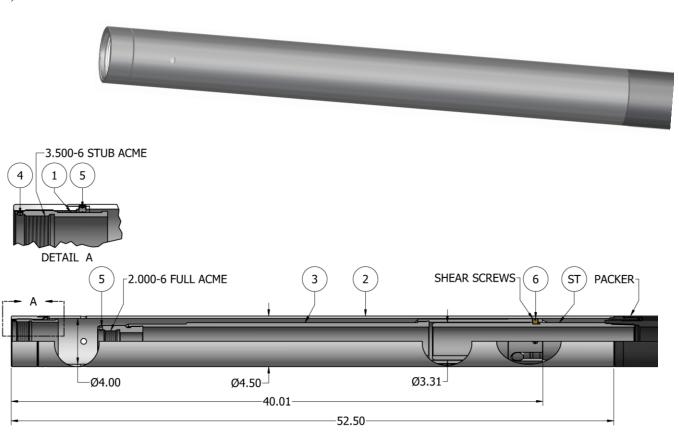
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K) TECHNICAL ILLUSTRATION



L) REVISION HISTORY

| DATE | REVISION | DECRIPTION OF CHANGES | REVISED BY | APPROVED BY |
|------------|----------|---|------------|-------------|
| 02/06/2020 | С | Revised P/N BSSSLT043F043 shear value was 4,600#, P/N SSS031C037 qty was 3; Added Gen. Screw Torque Recommendations | J.Anderson | N.Banker |
| 11/17/2015 | В | Added P/N BSSSLT043F043 | J.Anderson | B.Bishop |
| 10/13/14 | A | Created new manual | - | - |

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