

# RSB SETTING ADAPTER KIT

FOR #20 LC HST

9-5/8" X 6.000"

Manual No: **DL-267-9625-233** 

Revision: B

Revision Date:

04/13/2015

Approved by: F.Johnson

#### A) DESCRIPTION

Authored by: B.Mathis

The LC Hydraulic Setting Tool Adapter Kit for Retrievable Seal Bore (RSB) Packers is used to tie the packer to a hydraulic setting tool so that the packer can be set. The setting sleeve is used to push the external components of the packer to their set position. The inner adapter makes up with the packer with left-hand threads so after completing the set, turning the setting assembly to the right will release it from the packer. The self-draining ball seat allows fluid to drain from the tubing string during retrieval of the adapter kit.

**NOTE**<sub>1</sub>: Refer to applicable RSB Packer technical manual(s) for packer specific technical information including operating procedures and packer disassembly.

### **B) RELATED TOOLS** (sold separately)

B-1) 9-5/8" X 6.000" RSB Packer (P/N varies)—refer to applicable technical manual.

### C) SPECIFICATION GUIDE

| CASING SIZE | TOOL OD  | PRESSURE      | PART   |  |
|-------------|----------|---------------|--------|--|
| (INCHES)    | (INCHES) | SETTING TOOL  | NUMBER |  |
| 9-5/8       | 8.012    | #20 BAKER E-4 |        |  |

#### D) PRE-INSTALLATION INSPECTION PROCEDURES

**CAUTION**<sub>1</sub>: 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.



|   | GENERAL THREAD CONNECTION TORQUE RECOMMENDATIONS |                                 |                     |  |
|---|--|---------------------------------|---------------------|--|
|   | STUB ACME /                                      | INTERNAL TAPERED TUBING THREADS |                     | PREMIUM THREADS                                |
|   | ACME 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 seals, elements, o-rings, shear screws, etc. Contact D&L sales for redress kit and/or other replacement part information.

#### E) OPERATING PROCEDURES

Assemble the Setting Adapter Kit to the packer and the setting tool. Run the RSB packer to the desired depth and drop the steel ball. Follow the setting tool procedures for setting the packer. After setting packer, turn setting assembly to the right until assembly releases from the packer. Pull the assembly out of the hole and disassemble.

D & L OIL TOOLS

P.O. BOX 52220 TULSA, OK 74152

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



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#### F) STORAGE PROCEDURES

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.

Store the tool, if possible, in an enclosed, temperature and humidity controlled environment. Avoid excessively high temperatures over long periods of time. 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) RECOMMENDED HAND TOOLS

- VISE
- GLOVES
- ALLEN WRENCHES
- TAPE MEASURE
- O-RING PICK
- BAR
  - 1/2-INCH
  - 1/2-INCH - 3/4-INCH

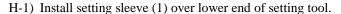
- PAINT BRUSH, 2-INCH
- PIPE WRENCH, 3-FT (2 EA)
- "CHEATER" PIPE, 4-FT LONG
- ADJUSTABLE WRENCH, 12-INCH
- CORDLESS DRILL, 18V
- SNAP RING SPREADER PLIERS
- ALIGNING PUNCH

- 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 RSB PACKER

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



**NOTE<sub>3</sub>**: Setting tool is not part of setting adapter kit and is not shown.

- H-2) With setting sleeve (1) slid up and out-of-way, screw outer adapter (3) onto setting tool. Make up wrench tight.
- H-3) Screw set screws (6) into outer adapter (3).
- H-4) Install o-rings (9, 10) in o-ring grooves in inner adapter (2).
- H-5) Screw inner adapter (2) onto setting tool.
- H-6) Screw set screws (8) into inner adapter (2).
- H-7) Install o-rings (10) in o-ring grooves in draining ball seat (4).
- H-8) Screw ball seat (4) onto inner adapter (2).
- H-9) Install and attach RSB Packer to pressure setting assembly:
  - H-9-.1) Grease seal bore of RSB Packer.
  - H-9-.2) Install RSB Packer onto ball seat (4) and screw onto inner adapter (2).

**CAUTION**<sub>3</sub>: Do not rip or tear o-rings during installation.

- H-9-.3) Slide setting sleeve (1) down and screw onto outer adapter (3). Make up until setting sleeve (1) of adapter contacts setting sleeve of RSB Packer (**NOTE**<sub>4</sub>: Make up hand tight only).
- H-9-.4) Screw set screws (7) into setting sleeve (1).

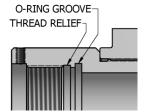


Fig. 2



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# I) PARTS LIST

| ITEM | QTY                | DESCRIPTION                | MATERIAL        | PART NUMBER |  |
|------|--------------------|----------------------------|-----------------|-------------|--|
| 1    | 1 1 SETTING SLEEVE |                            | P-110           | 26796470    |  |
| 2    | 1                  | ADAPTER NUT                | P-110           | 26796460    |  |
| 3    | 1                  | OUTER ADAPTER              | P-110           | 26796102    |  |
| 4    | 1                  | DRAINING BALL SEAT         | P-110           | 26796615    |  |
| 5    | 1                  | BRASS BALL 1-3/8"          | BRASS           | BB1375      |  |
| 6    | 2                  | SET SCREW 1/4-20 UNC X 1/2 | STEEL           | SSS025C050  |  |
| 7    | 3                  | SET SCREW 1/4-20 UNC X 3/4 | STEEL           | SSS025C075  |  |
| 8    | 2                  | SET SCREW 1/4-20 UNC X 3/8 | STEEL           | SSS025C037  |  |
| 9    | 9 1 230 O-RING     |                            | 90 DURO NITRILE | 90230       |  |
| 10   | 4                  | 358 O-RING                 | 90 DURO NITRILE | 90358       |  |

| ASSEMBLED WEIGHT |  | 150 LBS |
|------------------|--|---------|
|------------------|--|---------|

**NOTE**<sub>5</sub>: Hydraulic setting tool sold separately.



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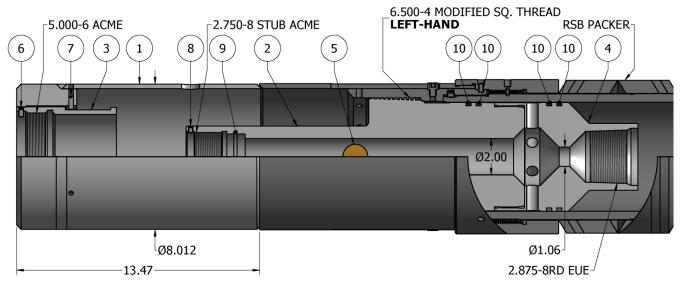
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## J) TECHNICAL ILLUSTRATION





## K) REVISION HISTORY

| DATE     | REVISION | DECRIPTION OF CHANGES | REVISED BY | APPROVED BY |
|----------|----------|-----------------------|------------|-------------|
| 04/13/15 | В        | Rewrote manual        | J.Anderson | J.McArthur  |

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