

# STYLE 85 INSTALLATION INSTRUCTIONS U.S. PATENT NO. 5,662,340

## I. CONTENTS OF BOX

BEFORE STARTING: REVIEW ASSEMBLY DRAWING FOR ANY SPECIAL ASSEMBLY NOTES.  
MAKE SURE YOU HAVE THE FOLLOWING PARTS. (SEE FIGURE 1)

CARTRIDGE HALF ASSEMBLY	2	SMALL SHOULDER SCREWS	4
ALLEN WRENCH(S)	SEE NOTE	LARGE SHOULDER SCREWS	4

NOTE: ONLY (1) 1/8" ALLEN WRENCH IS REQUIRED FOR SIZES 1 3/4" TO 3".  
1/8" AND 3/16" ALLEN WRENCHES ARE REQUIRED FOR SIZES 3 1/8" TO 4 3/4"  
1/8" AND 1/4" ALLEN WRENCHES ARE REQUIRED FOR SIZES 5" TO 6 1/2" (ABOVE 6 1/2" MAY REQUIRE ADDITIONAL 3/16" WRENCH)

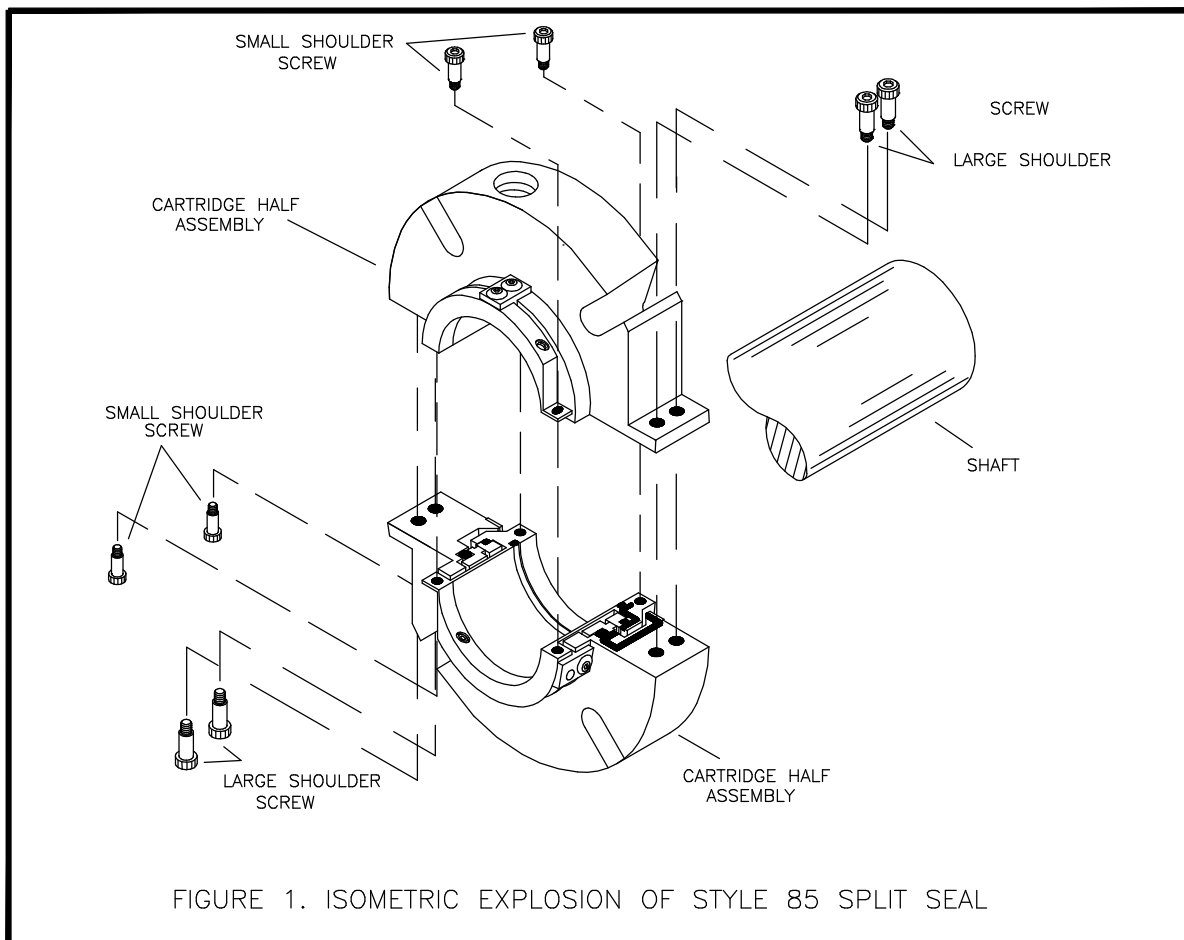


FIGURE 1. ISOMETRIC EXPLOSION OF STYLE 85 SPLIT SEAL

## II. PREPARATION OF EQUIPMENT FOR SEAL INSTALLATION

- A. REMOVE OLD SEAL/PACKING METHOD. CLEAN SHAFT AND STUFFING BOX FACE. THESE SURFACES MUST BE FREE OF PAINT, RUST AND BURRS TO PROVIDE A SUITABLE SEALING SURFACE.
- B. CHECK SHAFT FOR EXCESSIVE WEAR AND RUNOUT. FOR BEST SEALING RESULTS, THE RUNNOUT BETWEEN THE SHAFT AND BOX FACE SHOULD NOT EXCEED .005".

## III. INSTALLATION OF STYLE 85 SPLIT CARTRIDGE SEAL.

### A. PREPARING SEAL FOR INSTALLATION.

1. LUBE SLEEVE O'RING - *BE VERY CAREFUL NOT TO GET ANY LUBE ON ENDS OF O'RINGS WHERE THEY ARE SPLIT.*
2. PLACE ALLEN WRENCH(S), GLAND STUDS, CARTRIDGE HALF ASSEMBLIES, SMALL AND LARGE SHOULDER SCREWS NEXT TO WORK AREA.

OVER →

IV. ACTUAL ASSEMBLY OF SEAL (COUNT THE STEPS)!!

1. HOLD BOTTOM HALF UP AGAINST SHAFT. CAREFULLY ALIGN TOP HALF USING PINS MAKING SURE NEVER TO RELEASE PRESSURE OF BOTTOM HALF AGAINST THE SHAFT. START THE (4) LARGE SHOULDER SCREWS IN GLAND HOLES AND THE (4) SMALL SHOULDER SCREWS IN SLEEVE AND TIGHTEN ALL FINGER TIGHT.
2. USING ALLEN WRENCH(S), TIGHTEN ALL (8) SHOULDER SCREWS ALTERNATELY SO HALVES COME TOGETHER PARALLEL (SEE TABLE 1 FOR TORQUE SETTINGS).
3. PUSH SEAL FORWARD UNTIL IT CONTACTS THE STUFFING BOX FACE. PUT GLAND STUDS BACK IN AND TIGHTEN ALTERNATELY UNTIL 80-100 in-lbs OF TORQUE IS ACHIEVED. **DO NOT OVER TIGHTEN** (SEE FIGURE 2).
4. TIGHTEN CUP POINT SET SCREWS ALTERNATELY UNTIL SECURE.
5. REMOVE SETTING CLIPS AND TURN SHAFT TO CHECK FOR FREE ROTATION TO MAKE SURE NOTHING IS BINDING. IF BINDING, RECHECK INSTALLATION. (*HINT: SAVE SETTING CLIPS FOR POSSIBLE REALIGNMENT REQUIREMENTS IN THE FUTURE*).
6. PROPERLY CONNECT REQUIRED PIPING.
7. VENT ALL AIR FROM STUFFING BOX TO ENSURE PROPER LUBRICATION OF THE SEAL FACES. START EQUIPMENT USING THE MANUFACTURERS RECOMMENDED PROCEDURE.

SHOULDER BOLT PART NO.	RECOMMENDED TORQUE
FS11680	50 in-lbs
FS10050-03	50 in-lbs
FS10050-08	80 in-lbs
FS10050-09	100 in-lbs

Table 1. Reference Assembly Drawing for Shoulder Bolt Part NO.

