

**INSTRUCTION – REPLACING BENDER SHIMS**

1. REMOVE QUIK-LOK ASSEMBLY (IF INSTALLED)
2. REMOVE NOSE HOLDER ASSEMBLY FROM THE HANDLE. (SEE MANUAL TO IDENTIFY PARTS)
3. CAREFULLY SLIDE MACHINE OVER THE EDGE OF YOUR WORK SURFACE AND PUSH OUT THE TWO (2) MOUNTING PINS FROM THE UNDERSIDE OF THE MACHINE.
4. SLIDE BACK ONTO WORK SURFACE. ASK SOMEONE TO HOLD THE LONG HANDLE AND THEN REMOVE THE THREE (3) SOCKET HD CAP SCREWS THROUGH THE MOUNTING PLATE. (\*\*\*)PLEASE NOTE: IF THE HANDLE IS NOT HELD THE WELDMENT WILL QUICKLY MOVE OR SLIDE WHEN THE SCREWS ARE REMOVED. *THIS ACTION MAY CAUSE INJURY*(\*\*\*)
5. KEEP THE MOUNTING PLATE, RING AND HANDLE ARM WELDMENT FIRMLY HELD TOGETHER. CAREFULLY SLIDE THIS 'GROUP' OF PARTS OFF THE BASE, MAINTAINING IT'S HORIZONTAL POSITION *SO THE NEEDLE BEARINGS DO NOT SPILL OUT*. IF ANY BEARINGS ESCAPE FROM THE UNDERSIDE OF THE MOUNTING PLATE **THEY MUST BE REPLACED**. (SEE NOTE BELOW ON HOW TO DO THIS)
6. TURN THE 'GROUP' OVER AND LAY THE PART STACK UPSIDE-DOWN ON THE WORK SURFACE BESIDE THE BENDER BASE. YOU WILL NOW BE ABLE TO SEE THE OLD SHIMS. REMOVE THE OLD SHIMS AND CAREFULLY CLEAN THE SURFACE OF THE BASE.
7. APPLY A THIN LAYER OF GREASE TO THE SURFACE OF THE BASE (USE AN AUTOMOTIVE GRADE GREASE – SIMILAR TO VALVOLINE MULTI-PURPOSE EXTREME PRESSURE HIGH TEMP PRODUCT.)
8. LAY DOWN 1 SHIM AT A TIME – APPLYING A **VERY THIN LAYER** OF GREASE IN-BETWEEN EACH SHIM.
9. THERE IS NOT A SET NUMBER OF SHIMS USED ON ALL BENDERS. START WITH 4 OR 5 SHIMS ON THE SURFACE. PARTIALLY REASSEMBLE THE COMPONENTS TO DETERMINE IF YOU HAVE THE PROPER CLEARANCE FOR THE HANDLE ARM WELDMENT.
10. TO DO THIS, TIGHTLY GRIP THE 'GROUP' OF PARTS TOGETHER AND CAREFULLY FLIP RIGHT-SIDE-UP AND BACK ONTO THE BASE. ONLY PLACE THE SOCKET HD CAP SCREWS IN PLACE. TEST THE HANDLE TO CHECK THE SHIM STACK.
11. IF THE ROTATING HANDLE IS TOO TIGHT (OR BINDING) OR TOO LOOSE (WABBLES) YOU WILL NEED TO ADD OR SUBTRACT SHIMS TO THE STACK BY REPEATING THE STEPS 5 THRU 10.
12. ONCE THE SHIM STACK IS RIGHT FOR YOUR MACHINE, AND THE HANDLE MOVES FREELY FROM SIDE-TO-SIDE, REASSEMBLE THE BENDER BY REVERSING THE STEPS ABOVE.

**NEEDLE BEARINGS:** WHEN REPLACING NEEDLE BNEARINGS – LEAVE THE 'GROUP' OF PARTS TURNED UPSIDE DOWN. LIFT THE HANDLE ARM AND RING WELDMENT OFF OF THE MOUNTING PLATE. GREASE AROUND THE MOUNTING PLATE

GROOVE AND REALIGN THE BEASRINGS ALONG THE INSIDE EDGE OF THE FOUNTING PLATE. FIT THE WELDMENT BACK ONTO THE PLATE AND PROCEED WITH THE REMAINING STEPS.