# UNIPUNCH

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# HOLES IN PARTS. FAST.

#### AH-2 1/2 Unit (For Round Holes)

#### **Assembly and Punch and Die Replacement**

#### **Lower Arm Assembly**

<u>Pilot Pin Removal</u>: To remove the pilot pin, thread the ¼-20 x ½ set screw into the holder to back the pilot pin out of its hole.

Pilot Pin Installation: Use a brass or aluminum hammer to install the pilot pin assembly (P/N 1001) into the hole on the bottom of the holder under the die. Ensure the pilot pin is perpendicular to the bottom and extends 3/32" from the bottom surface. Thread the 1/4-20 x 1/2 set screw (P/N 91332), supplied with pilot



pin, until it touches the bottom of the hole, being careful not to push the pilot pin back out.

**Block Die Removal:** To remove the block die (P/N 2621), turn the unit on its side and unscrew the two S.H.C.S (P/N 91029) from the lower arm. Then lift the block die up out of the unit.

<u>Die and Die Holder Removal:</u> To remove the round die (P/N 2620) from the die holder, loosen the S.S.S. (P/N 91330) from the front of the die holder and lift the round die up and out. To remove the die holder (P/N 2674), turn the unit on its side and unscrew the two S.H.C.S (P/N 91029) from the lower arm. Then lift the die holder up out of the unit.

**Block Die Installation:** First make sure the die and die seat are free of debris. Then insert the block die (P/N 2621) with the cutting edge on the top, being sure the die is fully seated in the lower arm of the holder. Insert the two S.H.C.S (P/N 91029) up thru the lower arm of the holder and into the bottom of the block die and tighten.

**Die Holder Installation:** First make sure the die holder and die seat are free of debris. Then insert the round die holder (P/N 2674) being sure the die holder is fully seated in the lower arm of the holder. Insert the two S.H.C.S (P/N 91029) up thru the lower arm of the holder and into the bottom of the die holder and tighten. Then making sure the die and die seat are free of debris and insert the round die (P/N 2620) into the die holder and tighten the S.S.S. (P/N 91330) on the front of the die holder.



### **Upper Arm Assembly**

First check punch and die alignment. Assemble the punch head (P/N 2671) and the S.H.C.S. (P/N 91025) onto the round punch body (P/N 2611) until tight. Externally lubricate punch body with a thin even coat of lubricant (e.g. P/N 8007 Molykote® type G-N metal assembly paste). Drop the punch through the guide bore of the holder, gradually lowering the punch into the die. Visually look to see that the die clearance is even all the way around. If the die clearance is uneven, contact UniPunch.

Assemble the (2) lifter springs (P/N 2673) into the two small pockets on the upper arm of the holder. Then assemble the stripper plate (P/N 2676) on the underside of the upper arm by inserting the two stripper bolts (P/N 2683) down thru the center of the lifter springs and tighten into the stripper plate.

Assemble the (2) stripping springs (P/N 2540) into the two larger pockets on the top of the upper arm. Then put the punch plate (P/N 2677) on top of the springs and drop the (2) spring retainers (P/N 2681) down thru the center of the holes on the punch plate and down thru the center of the stripping springs. Then insert the (2) stripper bolts (P/N 2682) down thru the spring retainers and tighten into the stripper plate.

Drop the round punch and head assembly (P/N 2610) down thru the center hole of the punch plate and the guide bore. Then assemble the punch retainer on the punch plate. While holding the punch retainer (P/N 2680) on the bottom side of the punch plate in the groove, screw the F.H.S.C.S. (P/N 91201) and lock washer (P/N 91604) into the punch retainer from the top of the punch plate. Please note that the flat on the punch head must line up with the flat on the punch retainer.

## **Converting a Round Unit to a Shaped Unit**

Purchase a shaped hole conversion kit (P/N 7130) and the appropriate shaped punch and die.