McCULLOCH SERVICE BULLETIN #1020

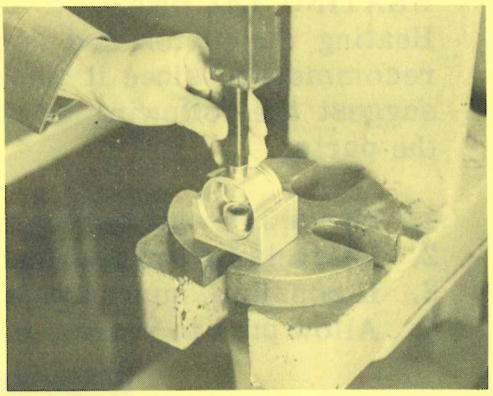
SUBJECT Piston Pin and Bearing Installation Tool Set.

MODEL S44 & S55 DATE 4-16-58

The easiest and most efficient way to assemble bearings, connecting rod and piston assembly, is to use the Piston Pin and Bearing Installation Tool Set, part number 104119. The set consists of a holding block, part number 104120, a bearing driver, part number 104146, a piston pin pilot, part number 104121, and a piston pin driver, part number 104122.

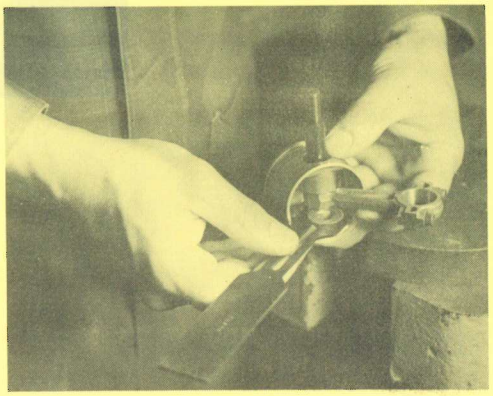
Since the needle bearings are held in position by tightness of fit, the following procedure will assure correct assembly:

1. Heat piston under heat lamp.
2. While piston is heating, place needle bearing, part number 101206, on boss of bearing driver, part number 104146.
3. Place heated piston in recess of holding block with one bearing opening facing up.
4. Put holding block in arbor press.
5. Hold bearing driver over piston and press in bearing.
6. Turn still-hot piston over and repeat procedure with second needle bearing.



The fit of the connecting rod eye on the piston pin depends upon the expansion and contraction of the steel from which the connecting rod is forged. The assembly procedure which takes into consideration this fact is as follows:

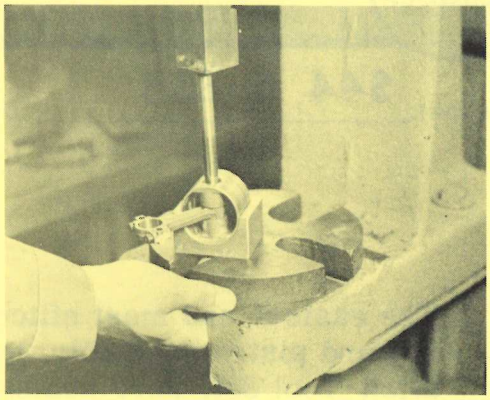
1. Heat connecting rod to expand eye.
2. While connecting rod is heating, lubricate piston pin, part number 51213, with heavy lubricant.
3. Push tapered end of piston pin pilot through one needle bearing



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and assemble thrust washer, part number 51209, heated connecting rod, and second thrust washer on pin end.

4. Fit piston pin on pilot boss.
5. Fit pin driver on free end of pin.
6. Push pilot, pin, and driver through piston until pin engages eye of connecting rod.
7. Place piston in holding block in arbor press.
8. Press pin into position in piston.



Caution: Take care that pilot is not damaged by falling when pushed out of piston through bottom of holding block.

Note: If above procedure is followed correctly, piston pin should be centered in piston with opposite ends just flush with piston bearings.

HEATING TECHNIQUE:
Heating the piston and connecting rod with an acetylene torch is not recommended since it can seriously damage the metal structure. We suggest the following as a simple and efficient procedure for heating the parts:

1. Use a 375 watt heat lamp.
2. Place lamp two and one half inches above part being heated.
3. If possible, surround lamp and part with bricks to retain heat.
4. Allow part to remain under lamp for ten minutes.

