

# Instructions for use of

## "SADDLE FIX" MAIN BEARING SADDLE REPAIR KITS

### READ CAREFULLY BEFORE USING

It's called "SADDLE FIX", and consists of a chrome alloy cast iron half bushing that is easily installed in the saddle after you have used your "PT-1000", "PT-1050" or "PT-1200" LINE BORING TOOL to bore out the damaged saddle. Using this method, absolutely no heat is applied to the block — so no distortion is encountered...resulting in a block that is good-as-new! This is a very profitable and fast repair for you — and just think how happy your customers will be.

1. Clean block especially around the Main Saddle Bore Area being repaired.
2. Remove cap on saddle to be repaired; set up "PT-1000", "PT-1050" or "PT-1200" Line Bore Bar to bore saddle.
3. Bore saddle 0.100" oversized, taking 3 or 4 cuts (Bore size  $+0.100" \pm 0.005$ ). See Fig. 1.
4. Clean bolt hole area and install special washer or special bolt.

PT-1800, PT-1803, PT-1807, PT-1808, PT-1809, PT-1811, PT-1817 & PT-1821: Place the washer with the step marked "L" on the side with centering tang and install and tighten bolt.

PT-1802: Place the washer marked "L" on the lock ring side. Install and tighten bolt.  
PT-1804: Install and tighten special bolt (the one with the collar) in the lock ring side.

PT-1806: Install and tighten either bolt (PT-1800-004).

5. Slip repair bushing into saddle so lock ring side or the side of the bushing with cut-out is on the centering tang side and make sure the repair bushing fits into the collar of the bolt or the step on the special washer marked "L".

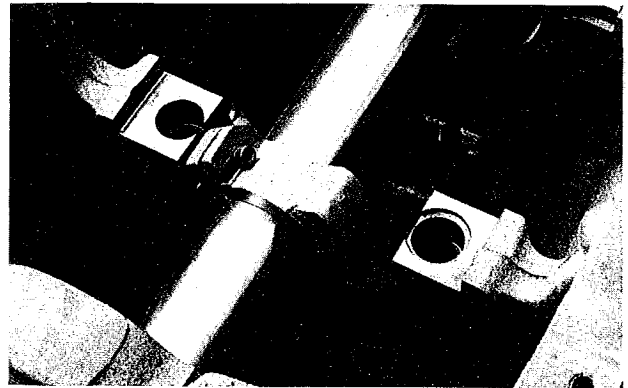


FIG. 1 BORING SADDLE 0.100" OVERSIZE

6. Install hold-down bolt in the other bolt hole (also use washer if provided in kit) and torque to approximately 20 ft. lbs. See Fig. 2.

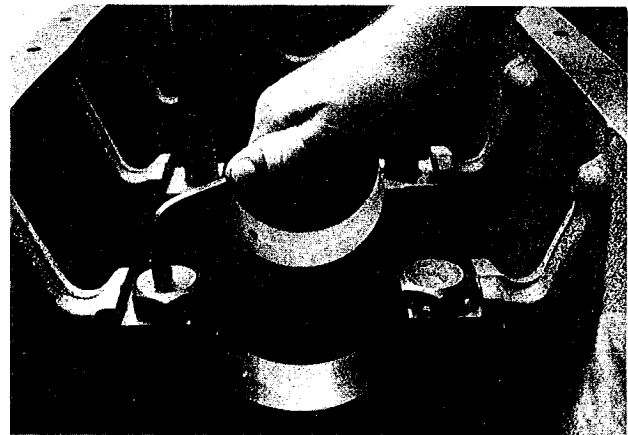


FIG. 2 TORQUE BOLTS



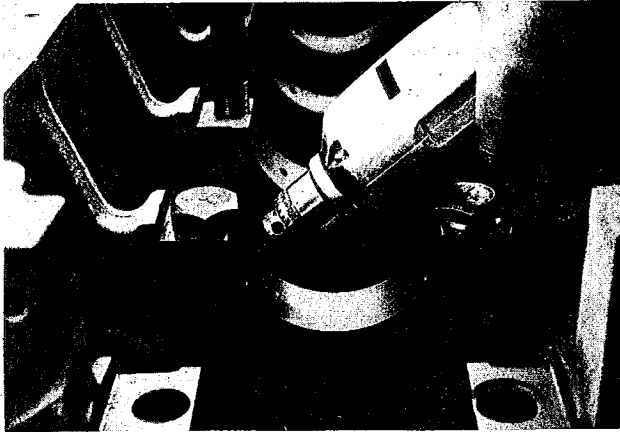
Kent-Moore  
TOOL DIVISION

P.O. BOX 647 ■ 827 JEFFERSON AVE.  
CLOVIS, CALIFORNIA 93613  
Telephone: 209/299-4351



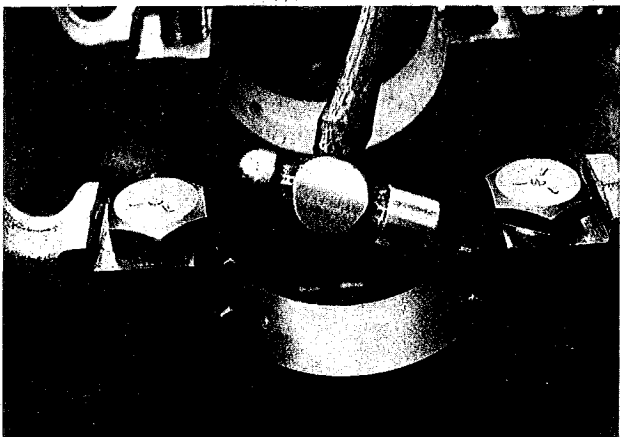
PORTA-TOOL  
PRODUCTS

7. Tap the four corners of the bushing to be sure the repair bushing is snug to the saddle seat.
8. Using the 1/4" drill motor, install the 1/8" drill bit to extend 1/4" out of the chuck jaws.
9. Drill the saddle seat through the predrilled hole in the repair bushing until chuck jaws make contact on the bushing. See Fig. 3.



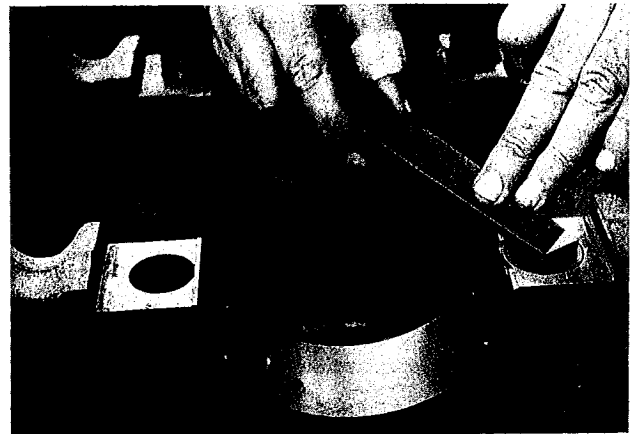
**FIG. 3 DRILLING RIVET HOLES**

10. Clean drilled hole with air, and install rivets in all four holes.
11. Peen rivets down flush. See Fig. 4.



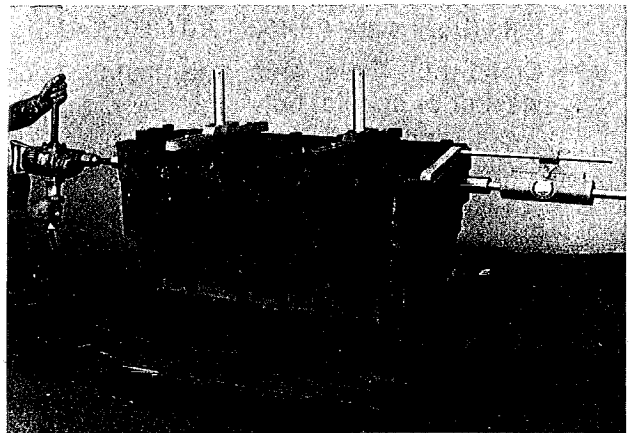
**FIG. 4 PEENING RIVETS**

12. Remove both hold-down bolts and file excess material on the repair bushing, flush with the parting surface. Fig. 5.



**FIG. 5 FILING FLUSH**

13. Install the torque caps (semi-finished or used caps that have been ground down about 0.010" on the parting surface) to specifications. See Engine Shop Manuals.
14. Line bore repaired main journal as per "PT-1000", "PT-1050" or "PT-1200" Line Boring Tool instructions, taking 3 or 4 cuts to finished size. Fig. 6.



**FIG. 6 LINE BORE SADDLES**

15. If the thrust bearing saddle is being repaired, follow above instructions; but now excess material on side of repair bushing must be removed. This can be done by using the "PT-1600" Thrust Cutter. This operation must be done after the line boring is completed.



## AVAILABLE IN KITS FOR REPAIRING ONE ENGINE BLOCK

### PT-1800 FOR V-12 PH II & PH III ENGINE HARDWARE PKG.

PT-8520 Bushing #1	(1)
PT-8521 Bushing #'s 2, 3, 5 & 6	(4)
PT-8522 Bushing #4	(1)
PT-8523 Bushing #7 (thrust)	(1)
PT-8524 Bushing Set V12 Phase II	(1)

PT-8525 Bushing #1	(1)
PT-8526 Bushing #'s 2, 3, 5 & 6	(4)
PT-8527 Bushing #4	(1)
PT-8528 Bushing #7 (thrust)	(1)
PT-8529 Bushing Set V12 Phase III	(1)

### PT-1802 FOR V504/V555 ENGINES HARDWARE PKG.

PT-8514 Bushing #1	(1)
PT-8515 Bushing #2	(1)
PT-8516 Bushing #3	(1)
PT-8517 Bushing #4	(1)
PT-8518 Bushing #5 (thrust)	(1)
PT-8519 Bushing Set	(1)

### PT-1803 FOR DETROIT DIESEL 6 71' ENGINE HARD. PKG.

PT-8533 Bushing #1 & #7 (thrust)	(2)
PT-8534 Bushing #'s 2, 3, 4, 5 & 6	(5)
PT-8535 Bushing Set	(1)

### PT-1804 FOR CUM NH 220/250 ENGINES HARDWARE PKG.

PT-8504 Bushing #'s 2, 4 & 6	(3)
PT-8505 Bushing #'s 1, 3, & 5	(3)
PT-8506 Bushing #7 (thrust)	(1)
PT-8507 Bushing Set	(1)

### PT-1806 FOR CUM V-903 ENGINE HARDWARE PKG.

PT-8508 Bushing #1	(1)
PT-8509 Bushing #2	(1)
PT-8510 Bushing #3	(1)
PT-8511 Bushing #4	(1)
PT-8512 Bushing #5 (thrust)	(1)
PT-8513 Bushing Set	(1)

### PT-1807 FOR DETROIT DIESEL V8-71 & V8-92 ENG. HARD PKG.

PT-8530 Bushing #'s 1, 2, 3 & 4	(4)
PT-8531 Bushing #5 (thrust)	(1)
PT-8532 Bushing Set	(1)



**PT-1809 FOR KOMATSU 155mm ENGINE HARDWARE PACKAGE**  
 PT-8563 Bushing #'s 1, 2, 4, 6, 8 (5)  
 PT-8564 Bushing #'s 3, 5 (thrust) (2)  
 PT-8556 Bushing Set (1)

**PT-1811 FOR CUM K6 ENGINE HARDWARE PACKAGE**  
 PT-8541 Bushing #1 (1)  
 PT-8542 Bushing #'s 2, 3, 4, 5 & 6 (5)  
 PT-8543 Bushing #7 (1)  
 PT-8540 Bushing Set (1)

**PT-1817 FOR MACK 675/676 ENGINE HARDWARE PACKAGE**  
 PT-8549 Bushing Set (1)  
 PT-8550 Bushing #1 (1)  
 PT-8551 Bushing #2, 3, 5, & 6 (4)  
 PT-8552 Bushing #4 (1)  
 PT-8553 Bushing #7 (1)

**PT-1821 FOR CUM KV ENGINES HARDWARE PACKAGE**  
 PT-8536 Bushing Set KV12 (1)  
 PT-8537 Bushing #1 (1)  
 PT-8538 Bushing #'s 2, 3, 4, 5 & 6 (5)  
 PT-8539 Bushing #7 (1)

PT-8537 Bushing #1 (1)  
 PT-8538 Bushing #'s 2, 3, 4, 5, 6, 7 & 8 (7)  
 PT-8539 Bushing #9 (1)  
 PT-8544 Bushing Set KV16 (1)

---

**\*\*NOTES\*\***

---

