

# KENT-MOORE

*Heavy Duty Division*

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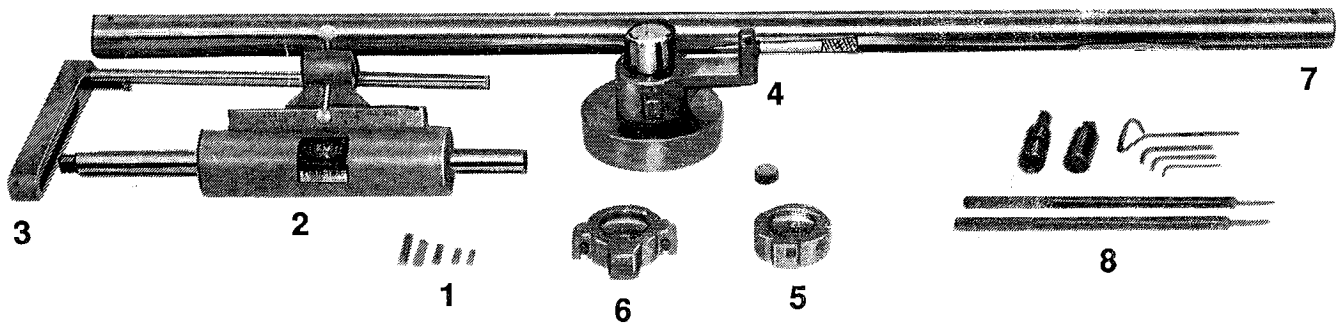
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# INSTRUCTIONS FOR PT 1050-A UNIVERSAL LINE BORING TOOL

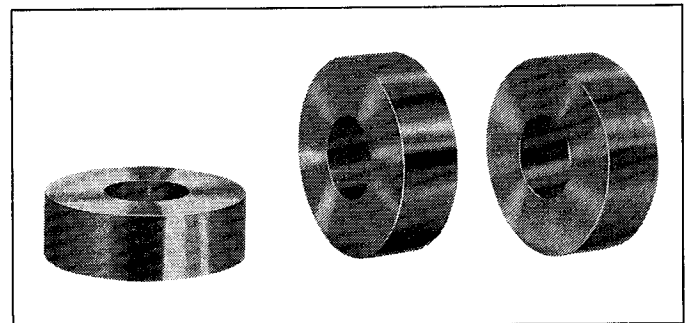
## READ CAREFULLY BEFORE USING

**Tool Function:** PT 1050-A Universal Line Boring Tool is designed to be completely portable for quick set-up, allowing you to do main bearing alignment checking, line boring and saddle repair of Cummins, Caterpillar, Detroit Diesel, Mack, Navistar and Komatsu engines.

PT 1050-A is used in conjunction with; ring groups, hardware kits and saddle repair bushing kits which are not included with this tool. Refer to Engine Application Chart for your engine application.

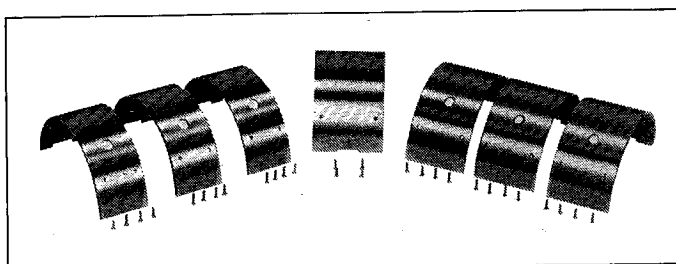


DET #	PART #	DESCRIPTION
1	PT 1000-1	Cutter (5/8")
1	PT 1000-2	Cutter (7/8")
1	PT 1000-3	Cutter (1-1/4")
1	PT 1000-4	Cutter (1-1/2")
1	PT 1000-5	Cutter (2")
**	PT 1000-14	Steel Box Assy
2	PT 1000-16	Feed Unit
3	PT 1000-49	Torsion Bar/Bracket
4	PT 1000-50	Micrometer Base Assy
5	PT 1000-54	Small Cutter Holder
6	PT 1000-55	Large Cutter Holder
7	PT 1000-57	Line Bore Bar 56" lg.
8	PT 1000-120	Service Package

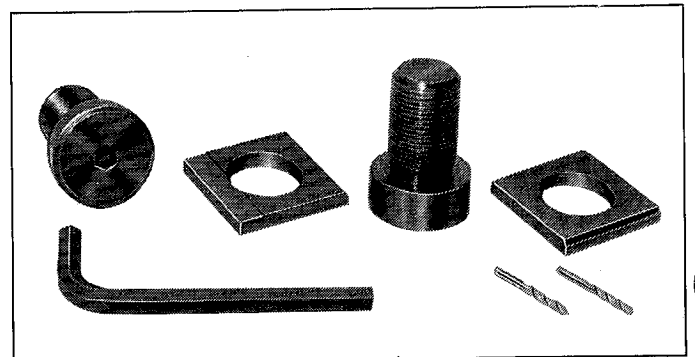


TYPICAL RING GROUP

\*\* NOT SHOWN



TYPICAL REPAIR BUSHING SET



TYPICAL BUSHING HOLD DOWN  
HARDWARE KIT

## PREPARATION OF ENGINE BLOCK

1. The engine block should be cleaned and the block and the "PT 1050-A" Line Boring Tool allowed to stabilize to room temperature. Cylinder block must be resting flat on cylinder head surface. Do not mount on engine stand.
2. Remove all burrs and irregularities from the engine oil pan ledge and each side of the main bearing bores.
3. Install main bearing cap screws and torque to required factory specs; refer to engine shop manuals.
4. Check each bore diameter with a dial bore gauge. A damaged cap can be replaced with a semi-finished cap; see engine shop manuals.
5. Plug all oil passages with thick grease to prevent metal shavings from entering oil passages.

### CHECKING ALIGNMENT OF THE MAIN BEARING BORES

A unique feature of the "PT 1050-A" LINE BORING TOOL is its ability to quickly check the alignment of the main bearing journals before the actual line boring operation. If a journal is out of alignment, line boring is necessary to correct the alignment in relationship to the other bearing journals.

1. Follow the instructions for "PREPARATION OF THE ENGINE BLOCK".
2. Install appropriate centering rings in each end saddle of the block (Fig. 2). You may have to tap on the centering ring with a plastic hammer to seat it. Reinstall the main bearing caps, and torque to required specifications. (See Engine Shop Manuals).

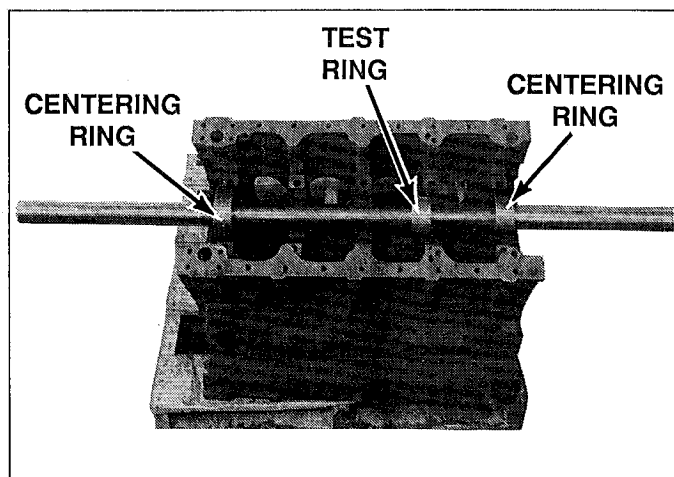


FIG. 2 INSTALLATION OF THE CENTERING RINGS

3. Apply a coat of oil in the centering ring bores, on both diameters of the test ring, and on the entire length of the boring bar.
4. Slide the boring bar through one of the centering rings and slip on the test ring, rotating the bar slowly as you slide, and pass through the entire block and the other centering ring.

5. Now rotating the test ring back and forth, use light finger pressure against the test ring on both sides of the bar and push the test ring through each bore. (See Fig. 3).

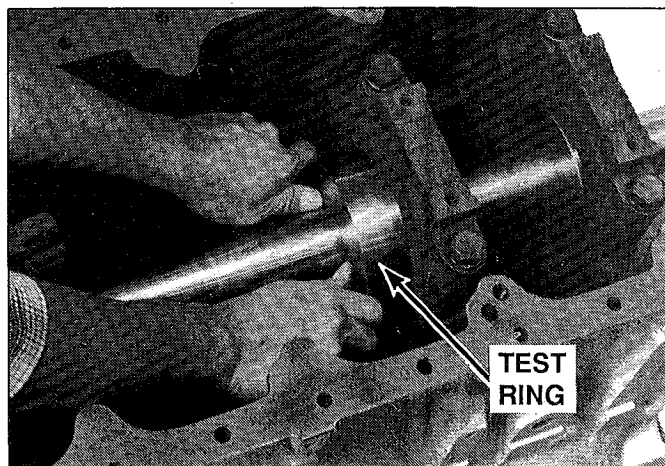


FIG. 3 MAIN BEARING BORE ALIGNMENT TEST

6. If the test ring will not pass through a bore, check for burrs. But if the test ring will not pass through a majority of the bores, move the centering rings to adjacent saddles and repeat procedure.
7. If the test ring still refuses to go through the saddle or an audible "click" is heard as the ring exits the bore, then that saddle is out of alignment. Be sure to mark the bores to be salvaged.

### CHECKING THE MICROMETER SETTING

1. The Micrometer Assembly is preset at the factory, but should be checked before setting the cutter.
2. To check the micrometer reading. Align the micrometer with scribed line on micrometer shaft. Install the setting standard between the Micrometer Shaft and the Micrometer. The Micrometer reading must be 3.000 inches. (See Fig. 4)

3. If adjustment is necessary, loosen the socket head cap screw and move the micrometer until the 3.000 reading is lined up, tighten socket head cap screw.
4. Recheck by backing off on the micrometer and again turning it against the setting standard.

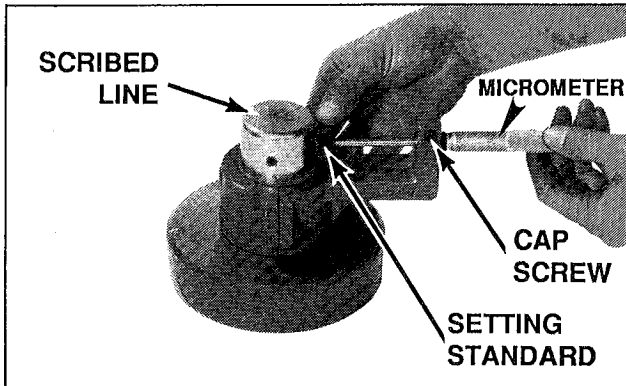


FIG. 4 CHECKING MICROMETER READING

### SETTING CUTTER TO REQUIRED BORE SIZE

1. On the micrometer assembly, install the appropriate cutter holder (see Application Chart) over the micrometer shaft and align the cutter hole in the cutter holder with the hole through the micrometer shaft. The scribed lines on the micrometer shaft and the cutter holder will easily identify the positions of the holes. Tighten the cutter holder on the micrometer shaft, using knurl handle hex wrench. Do Not use tee handle wrench. Keep even gaps between the two halves of the cutter holder when tightening on the micrometer shaft. (See Fig. 5).

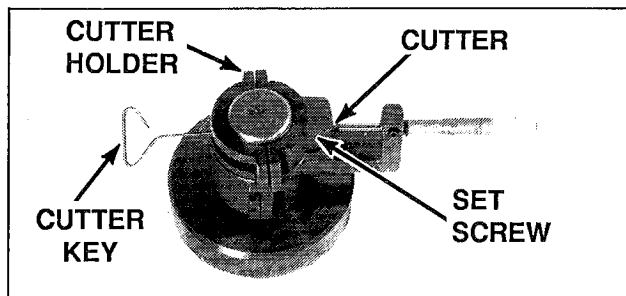


FIG. 5 CUTTER HOLDER ON MICROMETER ASSY.

2. Insert the appropriate cutter (see Application Chart) in the cutter holder. Be sure the cutter is short enough so it does not extend into the bore of the cutter holder.
3. Refer to Application Chart for "Bore To Dimension" for repair bushing. This bore to saddle diameter is .100" oversize. Take (3) .030" rough cuts and (1) .010" final cut to achieve this oversize dimension. For example, if standard size 4.750", bore to 4.850 in (4) cuts.

**NOTE:** (Bore size + .100" diameter  $\pm$  .0005" oversize)

Adjust the micrometer to specifications. Using the cutter key, push the cutter against the micrometer spindle and tighten set screws to lock cutter in position. **(NOTE:** When adjusting cutter, be careful to just lightly touch the Micrometer Spindle or the Carbide Tip may be damaged).

4. Back-off micrometer and recheck the cutter setting. Do not tighten or sweep the micrometer spindle against the cutter point or the carbide may be chipped.

### MOUNTING LINE BORING COMPONENTS TO THE ENGINE BLOCK

1. After following procedures for "Preparation for the Engine Block" remove two undamaged main bearing caps, preferably one from each end of the block (i.e. #1 and #7 on NH) or as far apart as possible and one adjacent to journal being bored.
2. Insert the proper centering rings in the two bearing journals and tap the top of each centering ring with a plastic hammer to seat in the journal. Install test ring into adjacent bearing journal to be bored. Install a unserviceable main bearing cap for the bore to be repaired. **NOTE:** This main bearing cap can be reused for other saddle repair. Install the remaining main bearing caps and tighten them to the manufacturer's torque specifications. Reinstall the main bearing caps on the three respective bearing journals and torque to the required specifications. (See Engine Shop Manuals)

**CAUTION:** If the centering rings must be installed in journals which have had the caps replaced by semi-finished caps, limit torque to 10 ft. lbs.

3. Oil the centering ring and test ring bores and entire length of the boring bar.
4. Slowly rotating the bar, slide the boring bar through the centering and test rings and the saddle bores of the block. **NOTE:** To extend the life of your centering rings and test ring, rotate rings front to back from one engine use to another. Use ring number as reference.
5. Bolt torsion bracket assembly loosely to cylinder block opposite end from which the boring bar will be driven. Install feed unit onto torsion bar and into boring bar. **NOTE:** Flat on feed unit drive bar aligns with set screw. Also hand tighten bolt holding torsion bracket to block. (See Fig. 6)

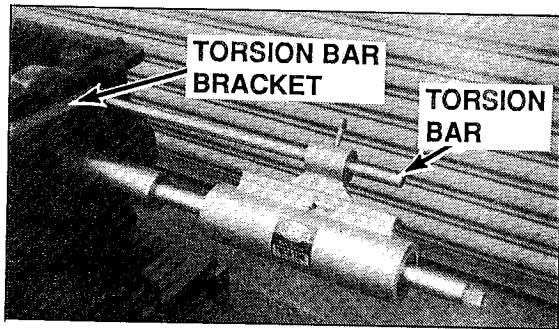


FIG. 6 FEED UNIT INSTALLED ON THE TORSION BAR

### CUTTING MAIN BEARING JOURNALS

1. Turn the valve on feed unit to "Open" position. Move the boring bar/drive bar away from engine block until approximately 1/2" of the boring bar protrudes from the last centering ring. With the feed valve in the "Open" position, move feed unit toward the engine block until feed unit is within 1" of the boring bar (See Fig. 7). Tighten the thumb screw onto the torsion bar securely. Tighten the square head set screw on the torsion bar bracket snugly against the cylinder block to stabilize the torsion bar assembly (See Fig. 7). Now continue to move boring bar/drive bar towards engine block until feed units end its travel. Turn feed valve to "Close" position.

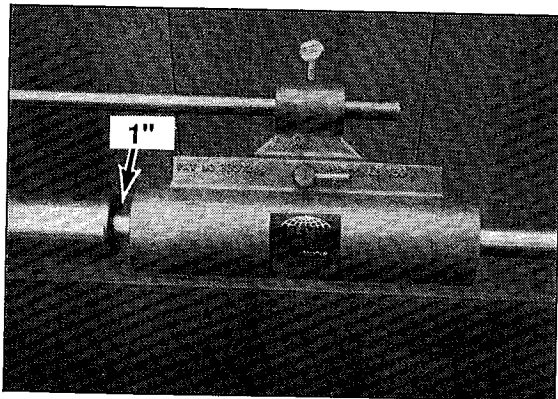


FIG. 7 FEED UNIT

2. Install the drive adapter in the other end of the boring bar with the 1/2 inch end out and lock in position with the socket set screw. Lock the universal drive in with a 1/2 inch heavy duty right hand rotation hand drill chuck. (450-500 rpm)
3. Wipe the boring bar and the cutter holder clean, and place the cutter holder on the boring bar next to the journal to be cut. (Note the direction of feed travel). To assemble the small cutter holder, place the lower half of the cutter holder under the socket head cap screw then slide sideways into the slot and tighten socket head cap screws. To assemble the large cutter holder, slip the halves together and tighten socket head cap screws.

Compare the cutter tip with the bore while turning the boring bar by hand to insure the cutter setting is correct. **CAUTION:** Always double check cutter specifications before boring. (See Fig. 8)

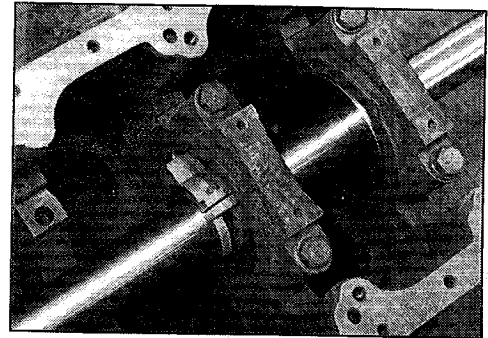


FIG. 8 CUTTER HOLDER ATTACHED TO BORING BAR

4. Oil the centering ring, test ring and make sure that the boring bar is well lubricated during all boring operations. Do not use lubricant on the cutter.
5. Attach drill and universal drive on the drive adapter and bore the bearing journal, again making sure that all parts are well lubricated. **DO NOT PUSH ON THE DRILL!** Allow the feed unit to regulate the amount of cut.
6. Check the size of the bore with a dial bore gauge.
7. To cut the next journal, remove the cutter holder from the boring bar. Turn the feed valve to the "Open" position and push in on the feed shaft until it stops. Turn the feed valve to the "Closed" position and repeat steps #3, 4, 5, 6 and 7.

**NOTE:** Main journal to be bored must have centering ring or test ring in adjacent bore to support boring bar. If all bores are bad, correct two intermediate bores complete with repair bushing and final machining by working outward.

8. After the boring operation is complete, clean the engine block thoroughly.
9. Proceed to repair bushing installation instructions.

### CARE AND MAINTENANCE OF YOUR NEW TOOL

1. The line bore feed unit must always be completely filled with oil to prevent chatter or erratic feed. To fill reservoir, place feed unit in a level position and pull the feed shaft all-the-way back. Remove the furthest pipe plug and fill with clean 30W Non-detergent oil, replace pipe plug. Push the feed shaft all-the-way in and remove nearest pipe plug, fill with oil and replace pipe plug.

Continue repeating procedure until all air bubbles in the oil disappear

2. Keep the cutters honed to keep the tool from chattering.
3. The PT 1050-A Line Boring Tool requires cleaning and lubrication to obtain precision performance. Wipe all parts clean after use and coat with a thin layer of lightweight oil to prevent rust or corrosion during storage. Do not drop or damage any part of the tool as this may cause difficulty in obtaining true finish bores.
4. Remove snap ring and bracket from the Micrometer Base Assembly. Clean preservative from all parts and oil lightly with clean oil. Install bracket and snap ring. Adjust socket head cap screw until the bracket becomes tight on the micrometer shaft, then loosen the screw until the bracket moves with a slight drag.

### REPAIR BUSHING INSTALLATION

1. Clean block thoroughly. Remove all burrs and debris especially around area to be repaired. Also clean both bolt holes.
2. Install on one side, Special Washer or Special Bolt from hardware kit for your application, see chart. Place the washer with the step marked "L" on the side where the centering tang locates. Install and tighten bolt.
3. Clean the outside diameter of repair bushing. Use PT 7270 Loctite<sup>®</sup>, Primer T or Equiv. to remove oil protective coating. Slip repair bushing into saddle so lock ring side or cutout side of bushing is on the centering tang side of the saddle. Make sure the repair bushing fits into the collar of the bolt or the step on the Special Washer marked "L" and oil supply holes line up.
4. Install hold-down bolt in the other bolt hole (also use washer if provided in kit) and torque to approximately 20 ft. lbs. (Fig. 1).

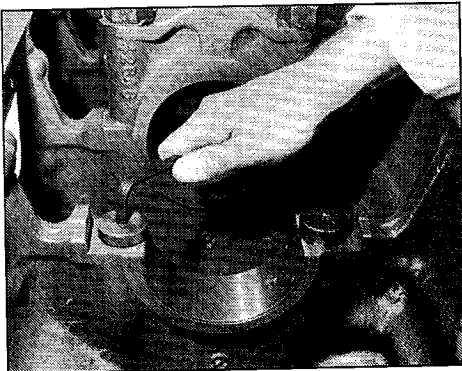


FIG. 1 TORQUE BOLTS

5. Tap the four corners of the repair bushing to ensure the snugness to the saddle seat.
6. Using a 1/4" drill motor, install the 1/8" drill bit to extend 1/4" beyond the end of the chuck jaws.
7. Drill the saddle seat through the predrilled holes in the repair bushing until chuck jaws make contact on the bushing. (Fig. 2).

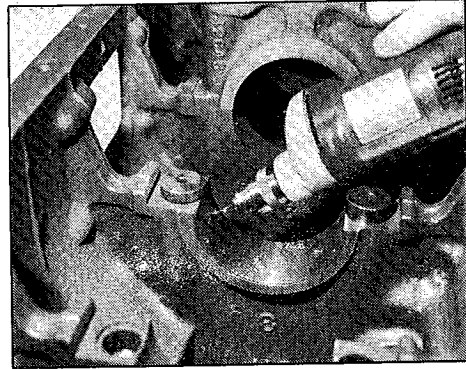


FIG. 2 DRILLING RIVET HOLES

8. Clean drilled hole of chips and install rivets (supplied with bushing PT 16012 (4) req'd) in all four holes. **NOTE:** Rivets will protrude approximately .100".
9. Peen rivets down flush. (Fig. 3).

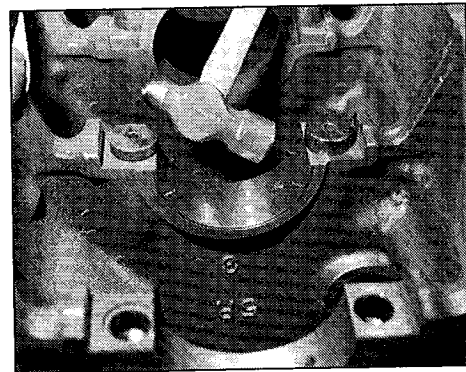


FIG. 3 PEENING RIVETS

10. Remove hold-down bolts and file excess material on the repair bushing flush with the parting surface. (Fig. 4).
11. Install and torque main bearing caps (semi-finished or used caps that have been ground down about 0.010" on the parting surface) to specifications.

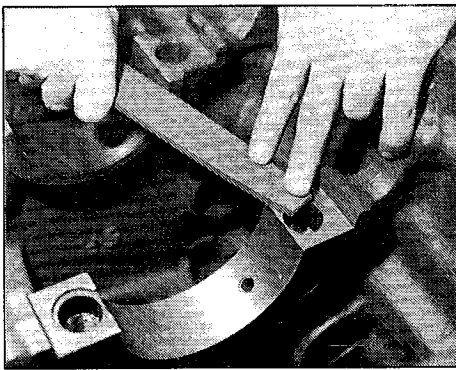


FIG. 4 FILING FLUSH

12. The new unmachined repair bushing saddle bore is approximately .100 undersize from the original main bearing bore diameter. Take first cut .010", 2nd and 3rd .03", 4th .02" then final cut, manufacture specification for main bearing bore. For example standard size 4.750", first cut would be 4.660".

13. Follow procedure outlined in "Setting Cutter and Cutting Journals" to obtain final main bearing bore. **NOTE:** It is recommended to follow all procedures outline by engine manufacture to repair main saddles.

14. 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. Proceed to thrust cutting instructions

15. Upon completion of all saddles repairs, remove all tooling, deburr all machined area and remove all shavings and debris.

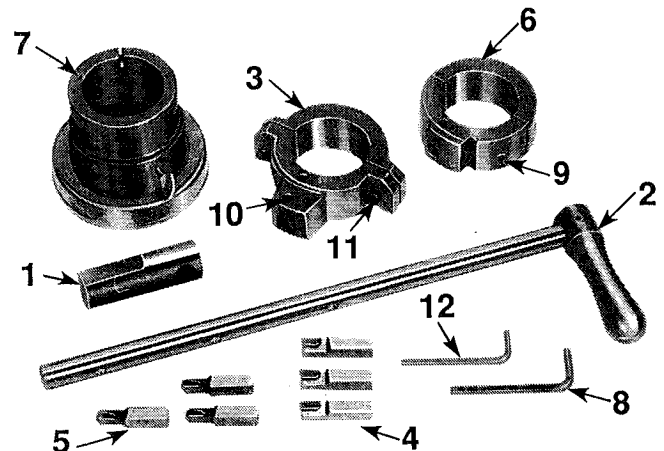
## INSTRUCTIONS FOR PT 1600 THRUST CUTTING TOOL ATTACHMENT KIT

### READ CAREFULLY BEFORE USING

**Tool Function:** The PT 1600 Thrust Cutter Attachment is used with any of our line bore tools to accurately cut the thrust surface of an engine block, thus completing the line bore operation.

#### PARTS LIST

DET #	PART #	DESCRIPTION	QTY
1	PT 1600-3	Crank Handle Pin	1
2	PT 1600-5	Crank Handle	1
3	PT 1600-6	Large Cutter Holder	1
4	PT 1600-8	Cutter (AL) 1.75 lg.	3
5	PT 1600-9	Cutter (AR) 1.75 lg.	3
6	PT 1600-13	Small Cutter Holder	1
7	PT 1600-17	Feed Collar Group	1
8	RS 15100-100	Hex Key (3/16")	1
9	RS 9100-650	Soc. Hd. Screw (10-24 x 3/4)	2
10	PT 1300-13	Set Screw (1/4" - 20 x 1/2)	1
11	RS 9101-360	Soc. Hd. Screw (1/4" - 20 x 7/8)	2
12	RS 15100-175	Hex Key (1/8")	1



**Available accessories, but not included in kit.**

- PT 1600-19 Cutter (AL) 2.25 lg. Cum. K Series
- PT 1600-20 Cutter (AR) 2.25 lg. Cum. K Series
- PT 1600-21 Cutter (AL) 1.50 lg. Cum. 903
- PT 1600-22 Cutter (AR) 1.50 lg. Cum. 903

## CUTTING THE THRUST

1. Install the appropriate centering ring (from your Line Bore Bar) in the #1 main bearing and the thrust bearing saddle. The centering ring in the thrust saddle should be centered in the saddle such that it will clear the cutter holder when cutting the thrust bearing surface. (See Fig. 2.)

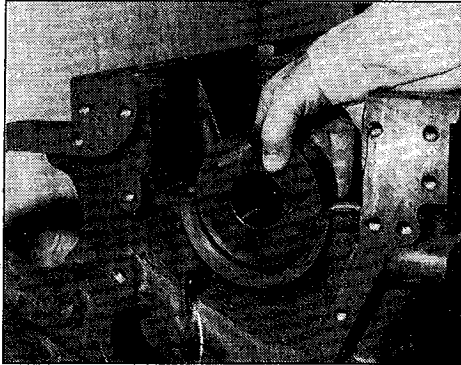


FIG. 2 INSTALLING CENTERING RING

2. Reinstall the main bearing caps over the centering rings and torque to specifications. (Refer to Engine Shop Manuals.)
3. Lubricate the bores of the centering rings and the working area of the line boring bar.
4. Install the Feed Collar on the boring bar on the opposite side of the thrust surface to be cut. (See Fig. 3.)

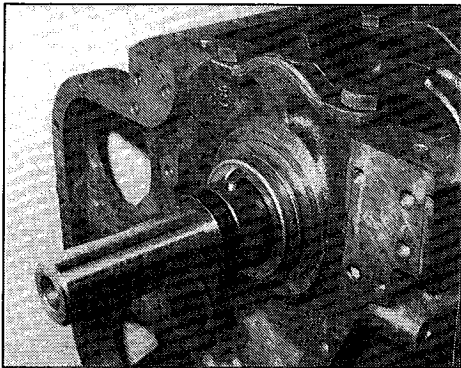


FIG. 3 FEED COLLAR INSTALLED

5. Install the crank handle pin in the end of the boring bar and secure in place with the socket set screw.

6. Install appropriate cutter holder and adjust the cutter to cut the full thrust bearing surface. The cutter should be inserted so it cuts when the boring bar is turned in a clockwise rotation. (Note: Left-hand and right-hand cutters). ( See Fig. 4.)

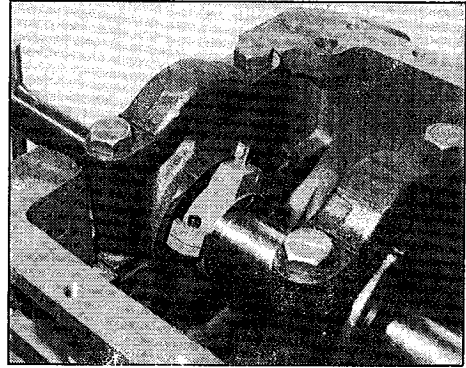


FIG. 4 CUTTER HOLDER INSTALLED

7. Adjust the Feed Collar so the cutter is just making light contact with the thrust bearing surface to be cut and tighten the socket head cap screw securely.
8. Now turn the boring bar clockwise a few revolutions to check the cutter's cutting pattern.
9. Adjust the cutter cutting depth by loosening the thumb screw and rotating the feed collar clockwise (each line represents 0.001"). ( See Fig. 5.)

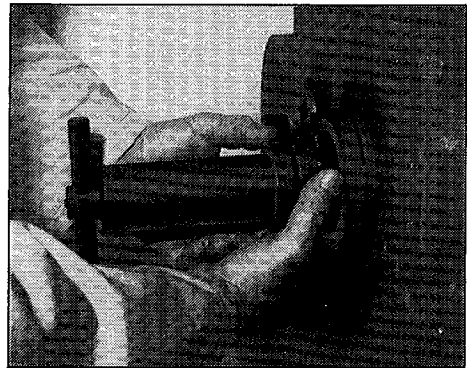


FIG. 5 ADJUSTING CUTTING DEPTH

10. Proceed to cut thrust bearing surface until proper finish is obtained. Cut only .001" at a time.

**CAUTION:** The boring bar should be rotated very slowly during the cutting operation to avoid chatter!



## ENGINE BLOCK LINE BORING WITH UPRIGHT BEARING SUPPORTS

If you elected to custom build your own line boring equipment from our accessories and are using our Upright Bearing Supports, the following instructions apply to mounting the boring bar with upright bearing supports. Refer to PT 1050-A instruction for Line Bore Procedure.

1. Lightly coat the entire length of the boring bar and the bores of the upright bearings with oil. Slide the boring bar through the saddle bores of the engine block while positioning the upright bearing assemblies. (Fig. 1)
2. To insert the upright bearings, slip over boring bar in proper location in the engine block and adjust the socket head cap screw in the upright bearing to where the boring bar just turns freely. (Fig. 2)
3. Now insert one of the line bore bridges over the upright bearing bar and secure loosely to the oil pan rails. (Fig. 1) If the distance between the oil pan rails is too large for the bridges. The bridge extensions may now be put loosely on the bridges.

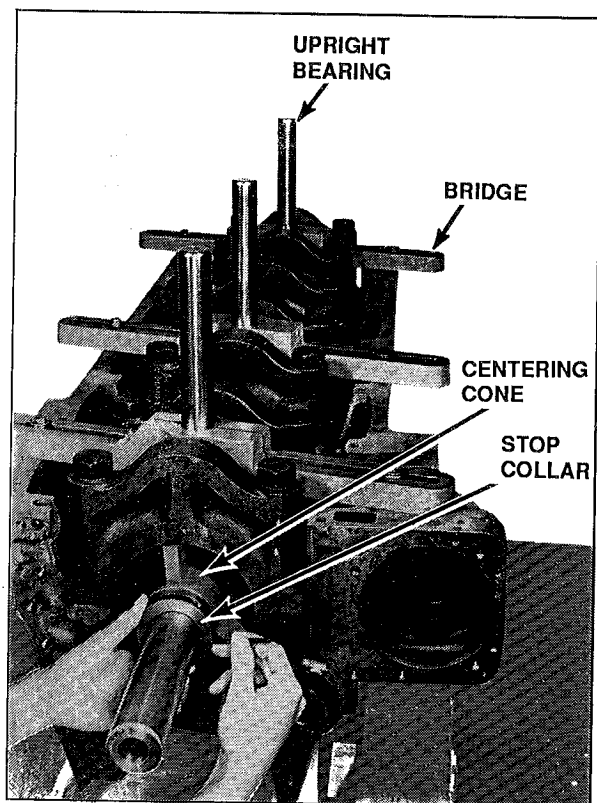


FIG. 1

4. Insert one centering cone over the boring bar, pushing the centering cone into the saddle until snug. Slide a stop collar behind the centering cone and tighten socket head cap screw to hold

in place. (Fig. 1) Now insert the other centering cone over the other end of the boring bar, pushing it into the saddle bore until it is also snug. Slide a stop collar behind the centering cone and lock in place.

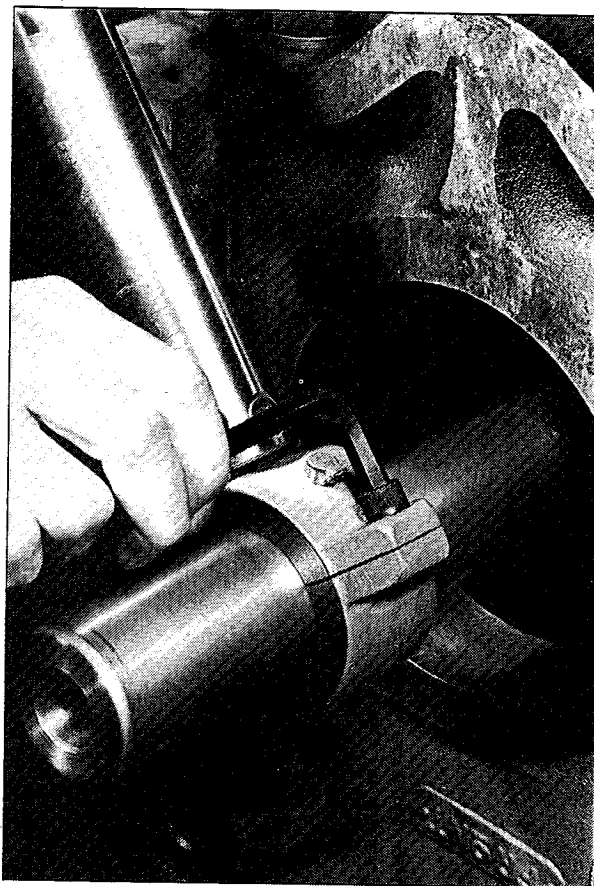
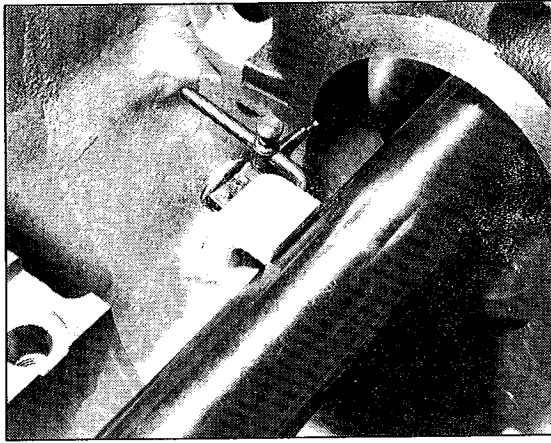


FIG. 2 UPRIGHT BEARING ASSEMBLY

5. Making sure the Upright Bar is perpendicular to the bridge, tighten the bridge to the oil pan rails; also tighten the bridge extensions if being used. Now tighten the socket head cap screw locking the Upright Assembly to the bridge. Finally tighten the socket head cap screw locking the bearing in position to the upright bar.
6. Check the boring bar to see that it rotates freely. If adjustment is necessary because of a frozen boring bar, loosen cap screws on the oil pan rails and the Bridge Extensions to make adjustments. Oil Upright Bearing Assemblies.
7. Remove stop collars and centering cones and install the "Final Centering Indicator Unit" on one end of the boring bar. (Fig. 3) Rotate up to the parting line of the block on one side.



**FIG. 3 CENTERING INDICATOR**

8. Set the dial indicator to "0" and sweep block bore to parting line on opposite side and adjust dial. For example: If dial reads plus 0.004, set back to plus 0.002 and now you should have on one side plus 0.002 and the other side minus 0.002.

Now tap the closest bridge to the indicator unit on the plus side to get a "0" reading. At this time, you will notice approximately a 0.001 to 0.002 plus reading on the bottom of the saddle, which is desirable so that the block saddles will clean-up during the line boring operation.

Repeat above procedure on the other end of the engine block. If a large correction is necessary on this end, it will be necessary to repeat this procedure again on the other end of the engine block.

9. Follow instructions for "Cutting Main Bearing Journals" as outlined in previous section.

ENGINE APPLICATION	RING GROUP	BASIC KIT	BUSHING	CUTTER	HOLDER	REPAIR BUSHING BORE TO DIM. ± .0005
<b>CUMMINS</b>						
5 1/8 & 5 1/2 NH/NT	PT 1000-60	PT 1804 (1" - 14 Bolts) PT 1823 (3/4" - 16 Bolts)	PT 8507 Set PT 8504 #2, 4, 6 PT 8505 #1, 3, 5 PT 8506 #7	PT 1000-3 1 1/4"	PT 1000-55 Large	4.8500
Vim-Vine V/VT 504/555	PT 1000-63	PT 1802	PT 8519 Set PT 8514 #1 PT 8515 #2 PT 8516 #3 PT 8517 #4 PT 8518 #5 Thrust	PT 1000-2 7/8"	PT 1000-54 Small	3.8500
903	PT 1000-64	PT 1806 (1" - 14 Bolts) PT 1823 (3/4" - 16 Bolts)	PT 8513 Set PT 8508 #1 PT 8509 # PT 8510 #3 PT 8511 #4 PT 8512 #5 Thrust	PT 1000-2 7/8"	PT 1000-54 Small	4.1620
K-6 Series KT/KTA 19	PT 1000-65	PT 1811	PT 8540 Set PT 8541 #1 PT 8542 #2 Thru 6 PT 8543 #7	PT 1000-4 1 1/2"	PT 1000-55 Large	5.9460
V-12 Phase I & II	PT 1000-87	PT 1800	PT 8524 Set PT 8520 #1 PT 8521 #2, 3, 5, 6 PT 8522 #4 PT 8523 #7 Thrust	PT 1000-4 1 1/2"	PT 1000-55 Large	5.4400
V-12 Phase III	PT 1000-88	PT 1801	PT 8529 Set PT 8525 #1 PT 8526 #2, 3, 5, 6 PT 8527 #4 PT 8528 #7 Thrust	PT 1000-5 2"	PT 1000-55 Large	6.1950
L-10	PT 1000-136	PT 1842	PT 8575 Set PT 8574 #1 thru 7	PT 1000-3 1 1/4"	PT 1000-55 Large	4.9030
V-12 (KT/KTA 2300) V-16 (KT/KTA 3067)	See PT 1300 Conversion Kit	PT 1821	PT 8536 V-12 Set PT 8544 V-16 Set PT 8537 Front PT 8538 Intermediate PT 8539 Rear	PT 1000-5 2"	PT 1300-6 X-large	6.9460 6.9460
<b>DETROIT DIESEL</b>						
6-71	PT 1000-61	PT 1803	PT 8535 Set PT 8533 #1, 7 Thrust PT 8534 #2 thru 6	PT 1000-2 7/8"	PT 1000-54 Small	3.9120
8V-71 8V-92	PT 1000-62	PT 1807	PT 8532 Set PT 8530 #1 thru 4 PT 8531 #5 Thrust	PT 1000-3 1 1/4"	PT 1000-55 Large	4.9125
4-53	PT 1000-67		Oversize Bearings	PT 1000-1 5/8"	PT 1000-9 X-small	See Mfg. Spec.
6V-53	PT 1000-68		Oversize Bearings	PT 1000-2 7/8"	PT 1000-54 Small	See Mfg. Spec.
<b>MACK</b>						
6-673, 675, 676	PT 1000-69	PT 1817	PT 8549 Set PT 8550 #1 PT 8551 #2, 3, 5, 6 PT 8552 #4 PT 8553 #7	PT 1000-133 1 1/16"	PT 1000-54 Small	4.3520

ENGINE APPLICATION	RING GROUP	BASIC KIT	BUSHING	CUTTER	HOLDER	REPAIR BUSHING BORE TO DIM ± .005
<b>MACK (con't)</b>						
8V 864	PT 1000-70		Oversize Bearing	PT 1000-133 1 1/16"	PT 1000-54 Small	See Mfg. Spec.
<b>NAVISTAR</b>						
DT 466	PT 1000-86		Oversize Bearings	PT 1000-2 7/8"	PT 1000-54 Small	See Mfg. Spec.
<b>CATERPILLAR</b>						
V8 1673 4.5 1100 & 1300, 3200	PT 1400-34 Standard PT 1400-43 +.010 oversize		Oversize Bearings	PT 1000-2 7/8"	PT 1000-54 Small	See Mfg. Spec.
4 & 6 4.75 1674 Series, 3306	PT 1400-35 Standard PT 1400-61 +.020 oversize		Oversize Bearings	PT 1000-2 7/8"	PT 1000-54 Small	See Mfg. Spec.
V8 90° 5.48	PT 1400-36 Standard PT 1400-66 +.025 oversize		Oversize Bearings	PT 1000-3 1 1/4"	PT 1000-55 Large	See Mfg. Spec.
V8, V12, V16 5.40 60°	PT 1400-37 Standard / PT 1400-67 +.025 oversize		Oversize Bearings	PT 1000-4 1 1/2"	PT 1000-55 Large	See Mfg. Spec.
4.5 V8 5.4 V6 1693	PT 1400-39 Standard PT 1400-63 +.025 oversize		Oversize Bearings	PT 1000-4 1 1/2"	PT 1000-55 Large	See Mfg. Spec.
5.4 V8/V12 3406, 3408	PT 1400-41 Standard PT 1400-65 +.025 oversize		Oversize Bearings	PT 1000-4 1 1/2"	PT 1000-55 Large	See Mfg. Spec.
<b>KOMATSU</b>						
5 1/8 & 5 1/2 NH	PT 1000-60	PT 1804 1" - 14 Bolts PT 1823 3/4" - 16 Bolts	PT 8507 Set PT 8504 #2, 4, 6 PT 8505 #1, 3, 5 PT 8506 #7	PT 1000-3 1 1/4"	PT 1000-55 Large	4.8500
105mm	PT 1100-1	PT 1838	PT 8569 Set	PT 1000-1 5/8"	PT 1000-54 Small	3.5650
110mm	PT 1100-25	PT 1837	PT 8565 Set	PT 1000-1 5/8"	PT 1000-54 Small	3.6870
120mm	PT 1100-4	PT 1839	PT 8568 Set	PT 1000-4 1 1/2"	PT 1000-54 Large	5.4740
125mm	PT 1100-15	PT 1835	PT 8554 Set	PT 1000-3 1 1/4"	PT 1000-54 Small	4.6664
130mm	PT 1100-7	PT 1840	PT 8576 Set	PT 1000-2 7/8"	PT 1000-54 Small	4.1153
140mm	PT 1100-28	PT 1841	PT 8567 Set	PT 1000-3 1 1/4"	PT 1000-55 Large	5.1000
155mm	PT 1100-10	PT 1809	PT 8556 Set PT 8563 #1, 2, 4, 6, 7 PT 8564 #3, 5T	PT 1000-3 1 1/4"	PT 1000-55 Large	5.2969
170mm	PT 1100-20	PT 1836	PT 8545 Set #1 thru 7	PT 1000-4 1 1/2"	PT 1000-55 Large	5.9273