

## TECHNICAL BULLETIN

**TB NO. 1040**

**Rev. 0**

**SUBJECT:**            **Revision of Main Bearing Cap on VEE Engines**

**PROBLEM:**            Some reconditioned bedplates and pre-1972 models do not have the center main cap drilled for oil circulation

**SOLUTION:**            Modify center main cap for oil vent

Due to the large number of Superior VEE engine bedplates being reworked, it has become necessary to revisit the oil vent hole in the center main bearing cap. During the rework process, it may be necessary to replace the old worn or out of tolerance main caps with new parts. It is very important that the repair facility be aware that the center main cap has a 3/16" hole drilled into the oil supply channel (this hole is located on the side opposite of the oil header). This hole provides circulation through the center main bearing to improve cooling and lubrication. The remaining bearing caps do not need this modification because the crankshaft mains for the remaining journals are cross drilled to the rod journals and allow the oil to feed into the piston crown for cooling.

It is EnDyn's recommendation that all VEE engine bedplates be checked during a rebuild to ensure the vent hole is present. It is possible that at some point during the bedplates operational life a re-builder was not aware of the vent hole and did not modify the center main cap. The vent modification takes approximately 3 hours to complete.

Please refer to EnDyn drawing **P-033-558-C** for the proper size and location of the vent hole.

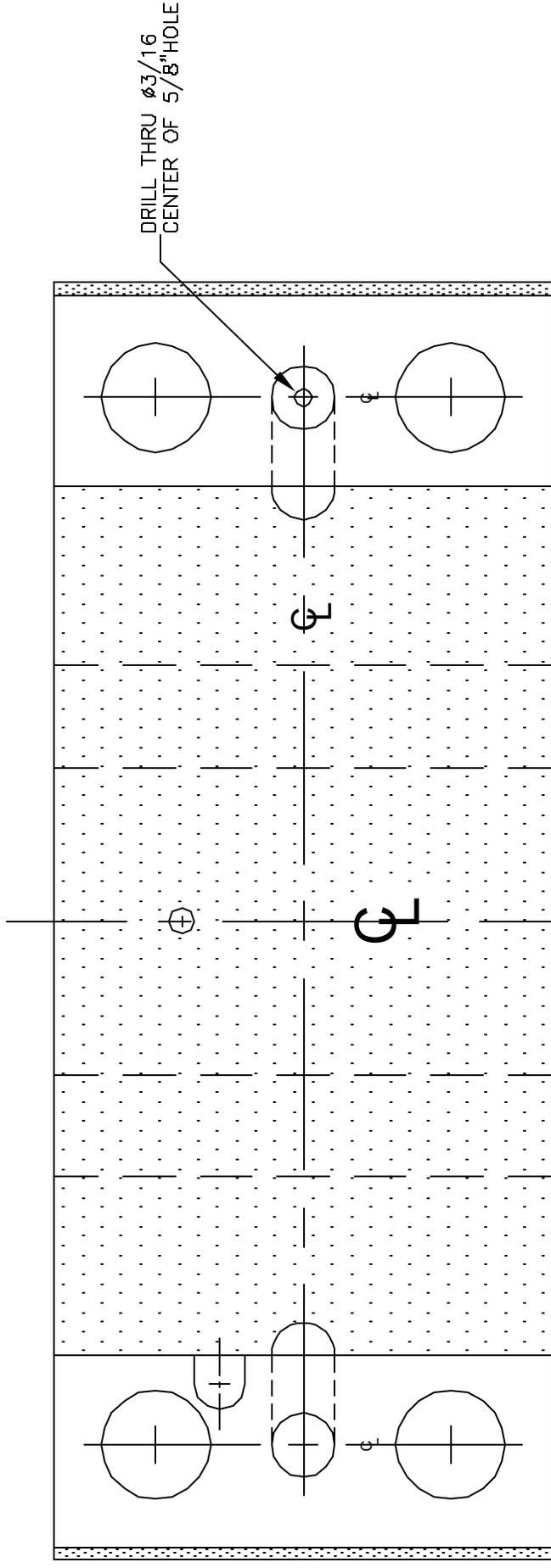
For further information concerning the reconditioning of Superior engine bedplates, please contact **EnDyn's** Technical Service Department or your local authorized **PowerParts®** Distributor.

**TECHNICAL SERVICE DEPT.**  
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**SPECIAL NOTE:**

- DRILL 3/16" VENT HOLE IN THE CENTER MAIN BEARING CAP AS SHOWN.
- VENT HOLE IS TO PROVIDE OIL CIRCULATION THROUGH THE MAIN BEARING TO IMPROVE COOLING & LUBRICATION AT THIS LOCATION. THIS IS NOT NECESSARY ON THE OTHER MAIN BEARING CAPS SINCE THESE BEARINGS HAVE A THROUGH FLOW IN FEEDING COOLING OIL TO THE PISTONS.
- STAMP TOP OF CAP "CENTER MAIN ONLY"

P-033-558-C



DATE	REV.	NEW DRAWING	REVISION RECORD
10/04	0	JC	DR

		TITLE	CAP CENTER MAIN BEARING
300 WEST 100TH AVENUE, DENVER, COLORADO 80231 USA		MATERIAL	P-033-558
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS, NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF ENDYN.		APPROVED BY	JC
		DRAWN BY	JC
		DATE	10/18/04
		DRAWING NUMBER	P-033-558-C

**NOTES:**  
 (UNLESS OTHERWISE SPECIFIED)  
 1) DIMENSIONS MARKED  $\phi$  ARE IN MILLIMETERS  
 2) ALL DIMENSIONS ARE IN INCHES  
 3) DIMENSIONS BE CENTERING AND PERPENDICULARITY PLACES WITHIN .001 T.I.R.  
 4) BREAK EDGES .002 TO .015  
 5) FINISH 125 RMS  
 6) PRESERVE WITH ASHLAND 502C OR EQUIVALENT

**NOTE:**  
 BORE TO BE FINISHED DURING LINE BORE  $\phi 8.537/8.536$  (BEARING # P-027-996)

TOLERANCES (EXCEPT AS NOTED)

DECIMAL	$\pm .005$
.XX	$\pm .001$
.XXX	$\pm .0005$
FRACTIONAL	$\pm 1/64"$
ANGULAR	$\pm 1'$