

# TECHNICAL BULLETIN

Number 1035

Rev. 0

**Subject: Reworking VEE Engine Bedplates**

**PROBLEM:** Excessive material removal during machining can lead to thrust bearing clearance problems.

**SOLUTION:** Care should be taken when inspecting bedplate to determine all areas that must be machined to return the bedplate to a like new condition.

As the Superior VEE engine bedplates continue to be reworked over the years, it is possible for the thrust bearing recess to become so shallow that it will distort the thrust bearing when the cap is torqued down. When the crank saddles are line bored to correct any distortion that may be present, the centerline of the crankshaft is lowered relative to the foot rails of the bedplate. If the thrust bearing recess is not trued up on this new crankshaft centerline, it is possible for the thrust bearing to interfere with the crankshaft main bearing. This condition could cause serious crankshaft damage if not caught before startup.

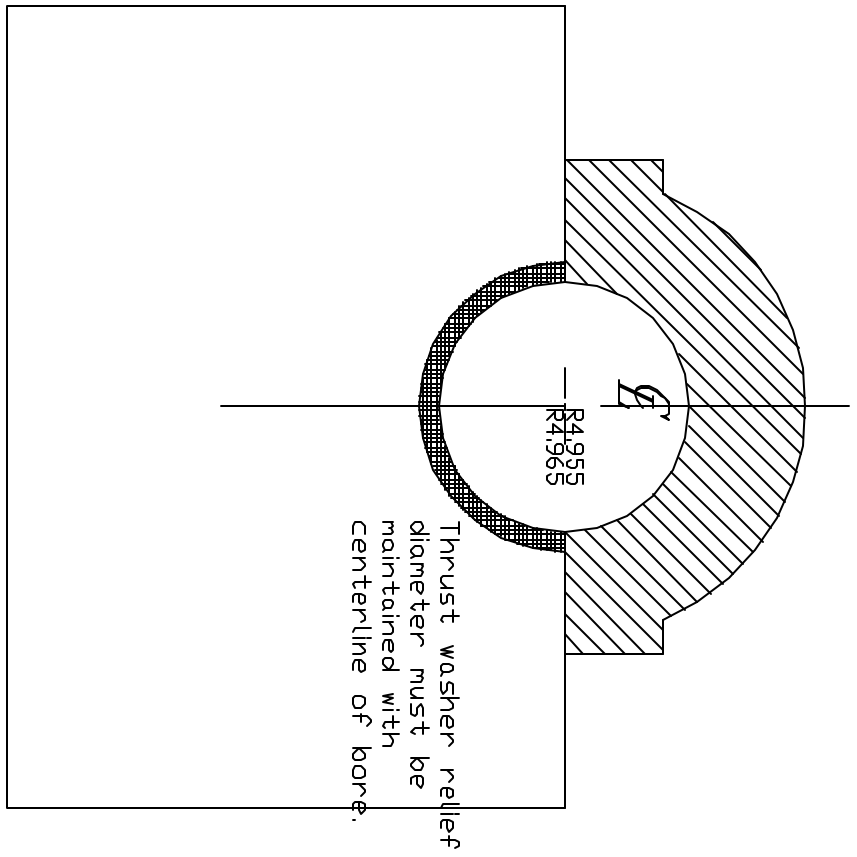
EnDyn recommends that the following items be checked during the bedplate inspection:

- 1) Check bottom hold down rails for flatness.
- 2) Check bedplate to block gasket surfaces for flatness (no sagging, waves, distortion, etc.)
- 3) Check bearing caps to assure they are tight in block (Maximum .002" clearance)
- 4) Check crankshaft bore alignment.
- 5) Check thrust bearing recess area for proper depth from crank centerline (See attached drawing).
- 6) It is also recommended that the bedplate be converted to the through bolt design during the restoration process. (Refer to EnDyn TB#1016)

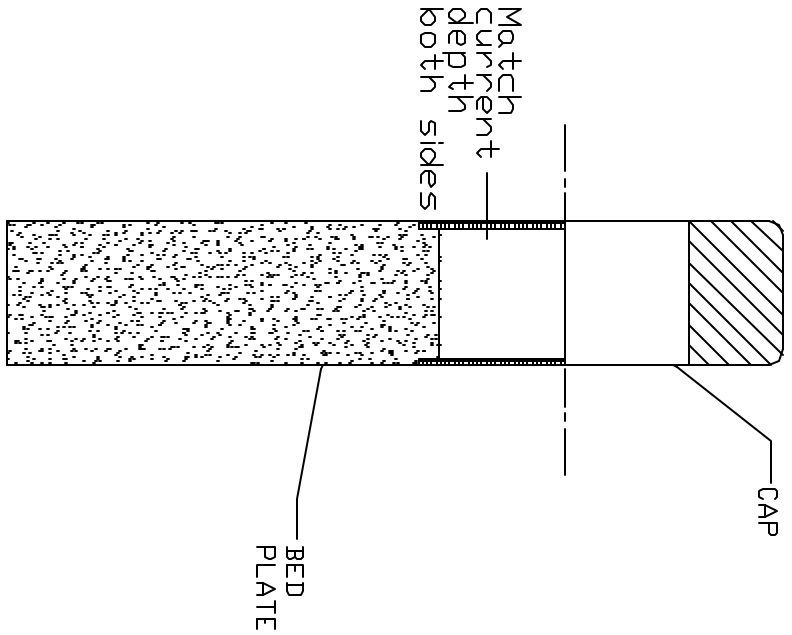
With the proper care, the bedplate can be restored to a condition that is equal to when it was new.

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

# BACK VIEW



REAR | FRONT



<b>NOTES:</b> (UNLESS OTHERWISE SPECIFIED)	<b>TOLERANCES</b> (EXCEPT AS NOTED)
1) DIMENSIONS MARKED Ø ARE DIAMETERS	DECIMAL ± .005"
2) ALL DIMENSIONS ARE IN INCHES	.XX ± .005"
3) ØS TO BE CONCENTRIC AND PERPENDICULAR TO FACES WITHIN .005" T.I.R.	.XXX ± .001"
4) BREAK EDGES .002" TO .015"	.XXXX ± .0005"
5) FINISH 125 RMS	FRACTIONAL ± 1/64"
6) PRESERVE WITH ASHLAND 502C OR EQUIVALENT	ANGULAR ± 1°

DATE	REV.	REVISION RECORD	DR.
8/20	0	NEW DRAWING	DS

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380 WEST FIRST • ALICE, TEXAS 78022 USA

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<b>TITLE</b>	
VEE Thrust Bearing Modification	
<b>MATERIAL</b>	
<b>APPROVED BY</b>	<b>DATE</b>
DRAWN BY DS	08/20/02
<b>DRAWING NUMBER</b>	
V-16 Bedplate	