

Checking Cylinder Crankcase for Leaks and, if necessary, Surface Grinding the Crankcase

Types 220 and 220a

Procedure:

1. After reboring and honing, the thickness of the cylinder walls must not be less than 3 mm (0.12"). To ensure that this value is adhered to when reconditioning the cylinder bore, check the walls with a suitable instrument (Fig. M 4a/1).

This check should by all means be made if the cylinder bores have previously been reconditioned to 1st or 2nd oversize.

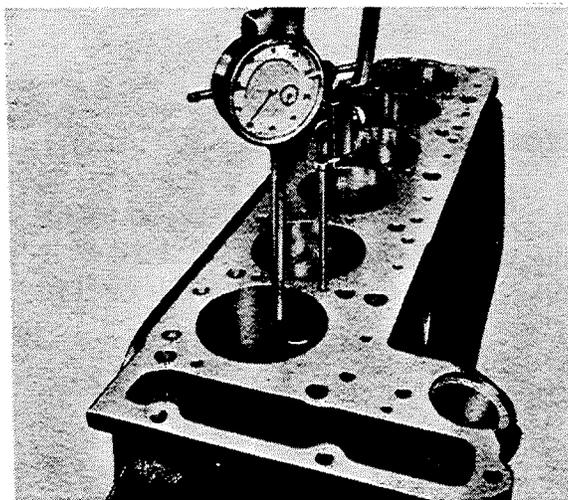


Fig. M 4a/1

2. Clean water passages and ports from scale and other deposits. After a longer period of service dirt and the like may collect between crankcase wall and cylinder cover. If this is suspected, unscrew both cylinder covers and remove the dirt that has accumulated between crankcase and cover. When returning the covers, use new gaskets that have been coated with a sealing compound.
3. Check cylinder crankcase for leaks with hot water of 70° C (160° F), applying a pressure of 2 atü (28.5 p.s.i.). Allow the sealing com-

4. pound to dry for 2 hours at least before attempting to test the crankcase for leaks.
4. Check upper mating surface of cylinder crankcase for planeness. The maximum unevenness should not be more than 0.03 mm (0.0012") in longitudinal direction and must be 0 in transverse direction. If the unevenness exceeds this value, grind or mill the mating surface.

The maximum permissible total amount of material removed is 0.3 mm (0.012").

Max. deviation of parallelity of mating surface as to crankshaft center = 0.1 mm (0.004") in relation to entire length.

The normal height H of the cylinder crankcase is 213.6–213.7 mm (8.409–8.411"), checked from mating surface of oil pan (center of crankshaft bearing) to mating surface of cylinder head (Fig. M 4a/4).

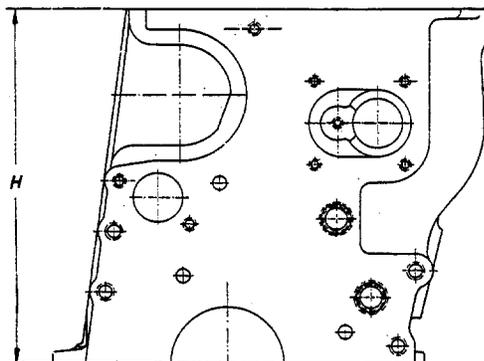


Fig. M 4a/4

5. To clean the oil passages, remove screw plugs M 16 × 1.5 and M 20 × 1.5 in front and rear end of crankcase. Clean oil passages with brushes and wires, then blow out. Furthermore clean passages to bearing of vertical and horizontal distributor drive shaft (for system of oil passages see page M 48/1). After the passages have been cleaned, screw in new plugs. Coat the last three turns of thread with a sealing compound.