

Reconditioning of Oil Pump

Types 220 and 220a

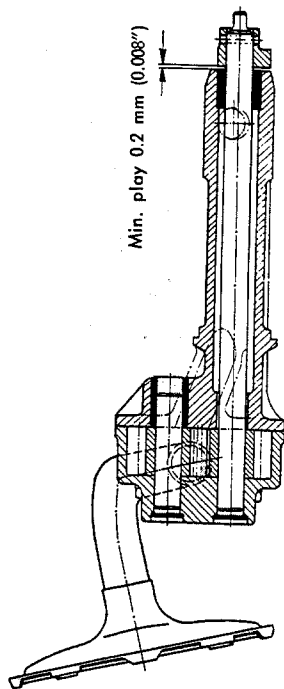


Fig. M 49/00

Special Tools:

Feeler gauge 000 581 01 30

Procedure:

Note: The only difference between the pump for Types 220 and 220a is with regard to the length and shape of the suction pipe (see Figs. M 3/56 and 56a).

1. Unscrew suction basket with strainer.
2. Unscrew lower part of oil pump housing and take out oil pump shaft with gear.
3. Drive out pin for cam on oil pump drive shaft and take shaft with gear out.
4. Clean all parts, check them for wear and replace, if necessary.
If uppermost bearing bushing in upper part of housing is worn, press the bushing out and install a new one. If cast-in bushing in upper part of housing has shrunk, the entire housing must be replaced. If bores in lower part of housing are worn out, exchange this part. Exchange shrunk shafts together with pressed-on gear.
Replace worn fuel pump cams as well.

Table 24 Dimensions in mm (in.)

	Diameter and bore
Drive shaft	$\frac{11.984}{11.973}$ (0.47181) (0.47137)
Oil pump shaft	$\frac{11.973}{11.964}$ (0.47137) (0.47102)
Bores	$\frac{12.000}{12.018}$ (0.47244) (0.47315)

5. The pump is assembled in reverse order of disassembly. When assembling the pump, check the gear play (Figs. M 49/5 and 5a).

Table 25 Dimensions in mm (in.)

Gear play specifications	
Side play	0.025–0.057 (0.001 –0.0022)
End play	0.020–0.062 (0.0008–0.0024)
Tooth backlash	0.05 –0.10 (0.002 –0.004)

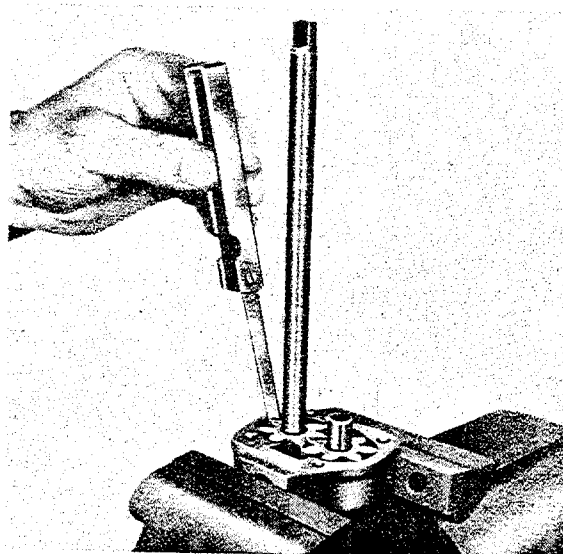


Fig. M 49/5

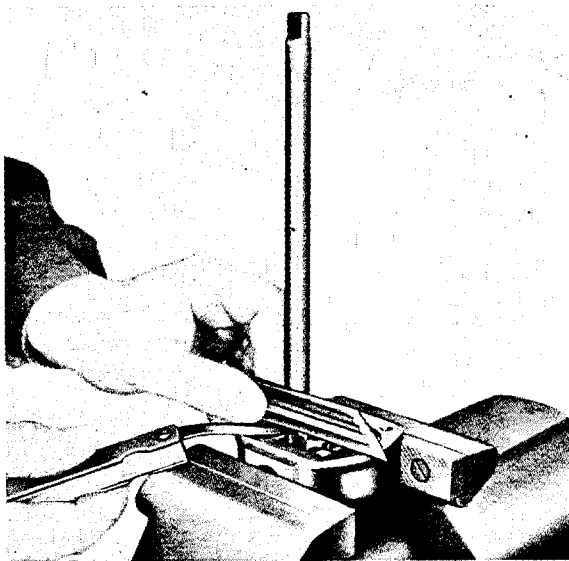


Fig. M 49/5a

Note: No gasket is placed between upper and lower part of housing. The surfaces must be finished and, if necessary, slightly dressed.

When mounting the cam on the driveshaft, the minimum distance from upper part of housing ($0.2 \text{ mm} = 0.008''$) must be strictly adhered to (see Fig. M 49/00).

6. After the oil pump has been mounted, check its capacity and test for leaks (see Table 26).

Table 26

Revolutions per minute	2,500
Capacity: kg (lb.) delivered per minute	min. 24.75 (54.6 lb.)
Vacuum on suction side, in mm (in.) mercury	400 (15.75)
Pressure on pressure side, in atü (p.s.i.)	5 (71)
Oil temperature	90° C (195° F)
Type of oil	SAE 20