A. OM 636

If a ground and/or realigned crankshaft is equipped with a new flywheel, the crankshaft with the installed flywheel must be balanced on a dynamic balancing machine.

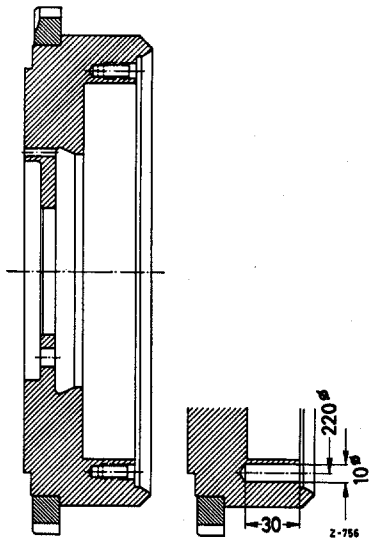

Figure 03–7/1

The determined unbalance should only be corrected at the flywheel by drilling holes into the front end in an axial direction (see Figure 03–7/1).

The permissible max. unbalance is 15 cmg. The balancing holes are drilled with a drill 10 mm in diameter. The max. drilling depth is 30 mm (see Figure 03–7/1).

B. OM 621

The crankshaft for the OM 621 has three counterweights: one at front, one at the centre and one at the rear on the flywheel. With these three counterweights, each of which having a definite unbalance, the crankshaft is dynamically balanced (see Figure 03–7/2). If the crankshaft is assembled, i.e., with counterweight (1) and flywheel (6), these three unbalances are annulled, or, should some unbalance still exist, this is compensated for by making balancing bores on the counterweight (1) and on the flywheel (6) (see Figure 03–7/2).

An unbalance of up to 15 cmg is permissible.

Use a 14 mm dia. drill to drill the balancing bores in the counterweight (1) at the circumference in radial direction. Keep to a maximum depth of 30 mm (see Figure 03–7/2). On the flywheel (6), the balancing bores (B) are drilled in axial direction with a dia. of 12 mm and a max. depth of 30 mm at a flywheel diameter of 223 mm (see Figure 03–7/2). If 2 holes must be drilled one beside the other, the distance from hole centre to hole centre should amount to 22 mm.

Note: For manufacturing reasons, there are humps on the flywheel (6) (engine side), into which the balancing bores (A) are drilled at an inclination of 30 deg. (Bore dia. 16.5 mm; max. depth 11 mm; distance from hole to hole 29 mm). This, however, can only be done on a special drilling machine, so that for repairs only the previously described machining of balancing bores (B) applies.

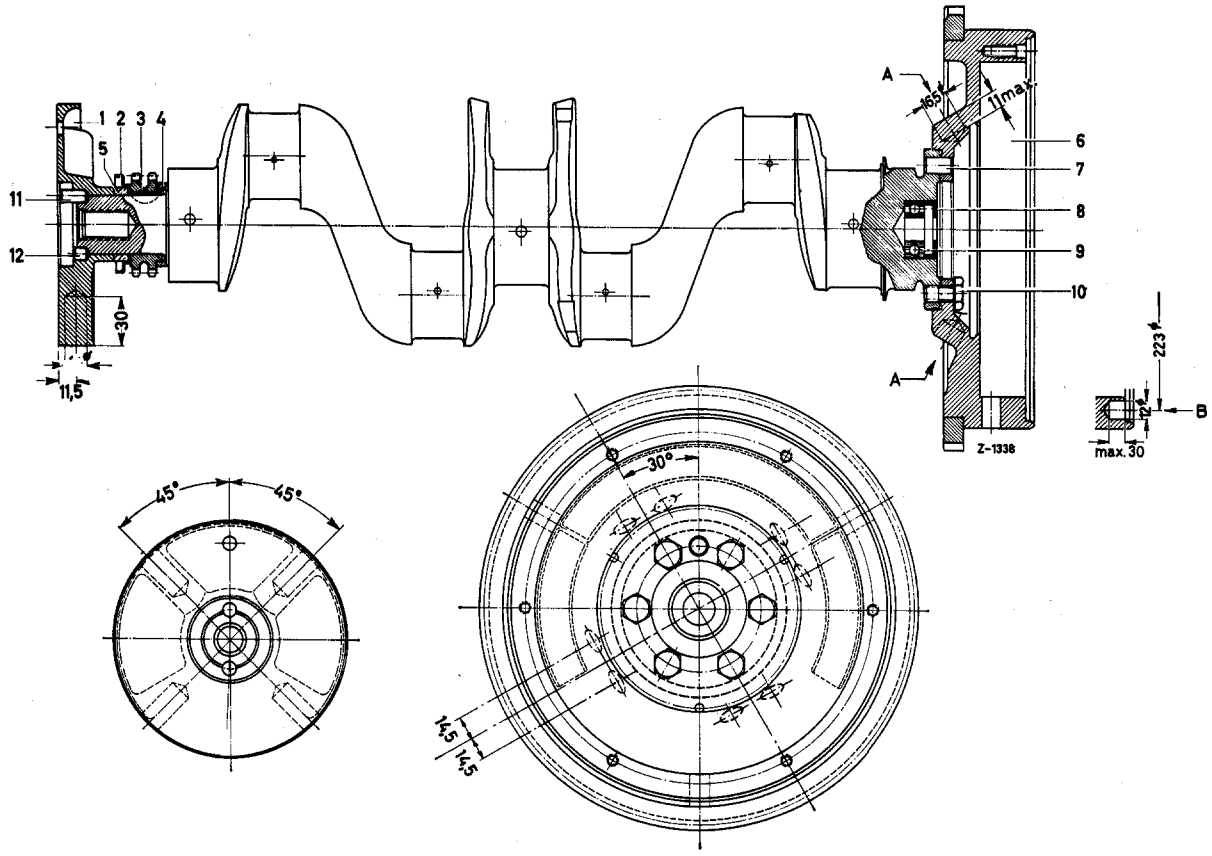

Figure 03–7/2

1 Front counterweight
2 Oil thrower ring
3 Crankshaft sprocket
4 Shim
5 Spacer ring (on which the seal ring runs)
6 Flywheel
7 Cylindr. pin 10h 8X18 DIN 7
8 Locking ring
9 Annular grooved bearing
10 Necked-down bolt
11 Cylindr. pin 8h 8X16 DIN 7
12 Cylindr. pin 8h 8X8 DIN 7
A Balancing bore 16.5 mm dia.
B Balancing bore 12 mm dia.