

G. Balancing Crankshaft with Counterweight and Flywheel Installed

The crankshaft has three counterweights: one at the front, on the actual counterweight, one at the middle on the crankshaft and one at the rear on the flywheel. With these three counterweights, each of which has a pre-determined degree of unbalance, the crankshaft is dynamically balanced (Fig. 03—5/18). When the crankshaft is fitted with the counterweight and the flywheel, these three unbalance quantities cancel each other out.

An overall maximum unbalance of 15 cmg is permissible.

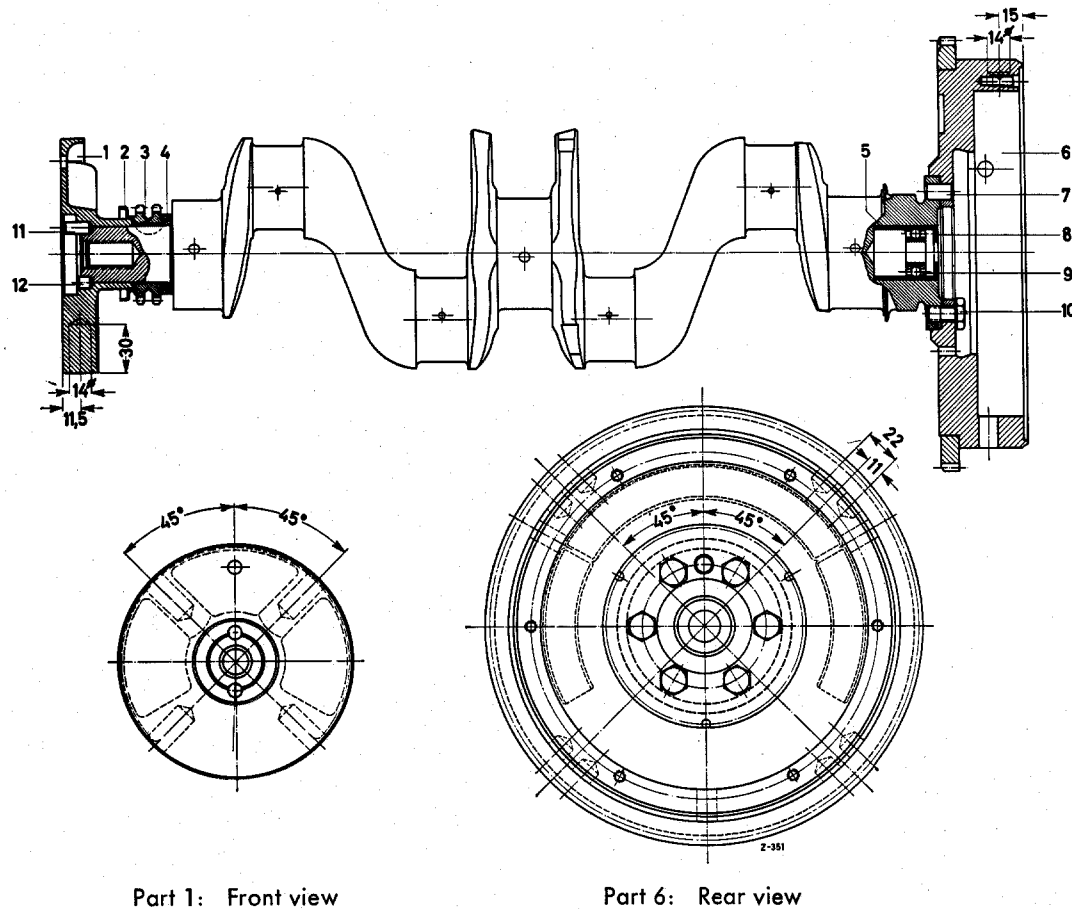


Fig. 03—5/18

- 1 Front counterweight
- 2 Oil ring
- 3 Crankshaft
- 4 Compensating ring
- 5 Spacer sleeve
- 6 Flywheel

- 7 Dowel pin 10 h8×18 DIN 7
- 8 Cover plate
- 9 Annular grooved bearing
- 10 Stretch screw
- 11 Dowel pin 8 h8×16 DIN 7
- 12 Dowel pin 8 h8× 8 DIN 7

The balancing holes in the counterweight are bored with a 14 mm \varnothing drill at the circumference in a radial direction. The maximum bore depth of these holes is 30 mm.

On the flywheel, two balancing holes, 22 mm apart and with a diameter of 14 mm and a maximum depth of 8 mm are bored at the circumference in a radial direction. The correct distance from the face side of the flywheel to the bore centers (15 mm) must also be borne in mind.