

General description

The steel flywheel is fitted with a hardened starter ring. Generally the starter rings have 126 teeth, but certain starter rings have 132 teeth.

The flywheel housing is normally made of cast iron, but certain flywheel housings are made of aluminium alloy.

Flywheel

To remove and to fit

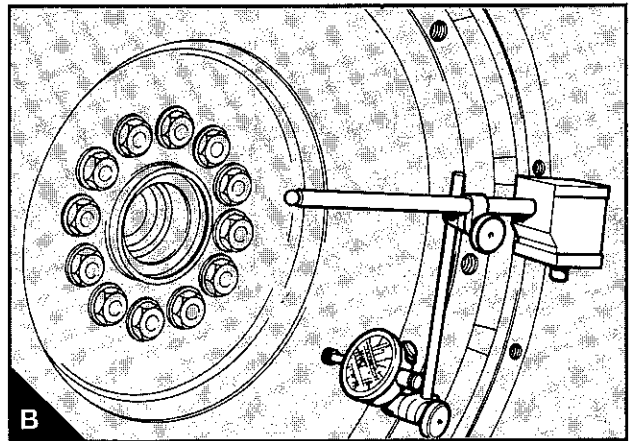
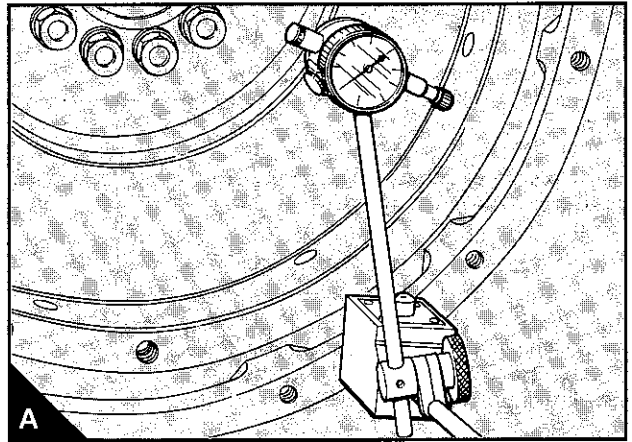
22A-01

To remove

- 1 Remove two opposite setscrews from the flywheel and fit temporarily two guide studs to ensure safety when the flywheel is removed and fitted.
- 2 Remove the remainder of the setscrews and washers and remove the flywheel.
- 3 Check the flywheel and ring gear for damage and renew, if necessary.

To fit

- 1 Ensure that the location faces of the crankshaft and the flywheel are clean and free from damage.
- 2 Fit the flywheel over the guide studs. Fit four setscrews and their washers. Remove the guide studs and fit the remainder of the setscrews and the washers. Tighten the setscrews to 105 Nm (77 lbf ft) 10,7 kgf m.
- 3 Check the flywheel run-out with a dial test indicator (A). This must be less than 0,30 mm (0.012 in) total indicator reading.
- 4 Check the alignment of the flywheel face (B). This must be not more than the tolerance of 0,03 mm (0.001 in) total indicator reading for every 25 mm (1.0 in) of the flywheel radius from the crankshaft axis to the indicator plunger. During this check, keep the crankshaft pressed toward the front to remove the effect of crankshaft end-float.



Ring gear

To remove and to fit

22A-02

To remove



For this operation eye protection must be used.

Before the ring gear is removed, check the position of the chamfer on the teeth.

To remove the ring gear use a hammer and a chisel to break the ring. Ensure that the flywheel is not damaged during this operation.

To fit

The ring gear is heated onto the flywheel. When a new gear is to be fitted, ensure that it is not heated to more than 25°C (48°F). Ensure that the chamfer on the teeth of the gear is in the correct direction.

Flywheel housing

To remove and to fit

22A-03

To remove

- 1 Remove the starter, operation 23B-01, and the flywheel, operation 22A-01.
- 2 Release the housing setscrews and with a soft face hammer, hit carefully the housing to remove it from the dowels.

To fit

- 1 Ensure that the rear face of the cylinder block and the faces of the housing are clean and free from damage. Ensure that the location dowels are fitted correctly.
- 2 Fit the housing onto the dowels and tighten lightly the setscrews.
- 3 Check the housing concentricity with a dial test indicator (A). The maximum tolerance is given in section 11C. If any adjustment is necessary, it must be made on the housing and the concentricity checked again.
- 4 Tighten the setscrews to the torque recommended in section 11B.
- 5 Check the housing alignment (B). The maximum tolerance is given in section 11C. Any necessary adjustment must be made on the housing and not on the cylinder block.
- 6 Fit the flywheel, operation 22A-01 and the starter motor, operation 23B-01.

