When installing the cylinders on the pistons, turn the compression rings so that their locks are set apart in order to reduce the gas leakage.

The piston is linked with the connecting rod through floating pin *16,* which is prevented from axial displacement by two circlips *17* (Fig. 7), inserted into the ring grooves of the piston bosses.

Crankcase

Crankcase *3* (Fig. 5), cast from aluminium alloy, is the basic structural component of the engine.

Installed on and secured to the crankcase are the cylinders with the heads and auxiliary mechanisms. In addition, the crankcase serves as an oil reservoir. Rotating inside the crankcase are the crankshaft and camshaft, at the front of it is a timing gear box, the generator is located at the top.

The bottom of the crankcase is closed with a stamped sump *10*. Inserted between the crankcase and the sump is sealing gasket *11*.

During engine operation, part of the gas mixture and of exhaust gases burst into the crankcase through the clearances of piston rings; also, as the pistons move to the bottom dead centre, the volume of the crankcase decreases, the gases filling the crank chamber become compressed and force the oil outwards through the packing glands and crankcase-and-cover joints. To avoid this, the crankcase is provided with a forced air supply. To open the crank chamber to the atmosphere, when the pistons move down, or to shut it off, when the pistons move up, breather *15* (Fig. 6) is provided in the central hole of the distribution box cover *40*.

The gases escaping from the crankcase through the breather always contain some water vapour. Therefore, during operation in the winter time, an ice lock may form in the rubber tube of the breather, thus obstructing the gas outlet and causing oil leakage through the packing glands.

To prevent this from happening, it is advisable to remove the rubber tube when operating the vehicle in winter time at a temperature 0 °C and below.

Cylinders

Engine cylinders *6* (Fig. 7) are similar in design, interchangeable, (bimetallic aluminium jacket with a cast iron liner). The lower part of the cylinder has a flange with holes passing through all the fins. These holes are intended for anchor studs to secure the cylinders and the cylinder heads to the crankcase. The upper part of the cylinder is fitted with a collar which enters the groove of the head. Placed between the cylinder and the head is sealing gasket *4*.

Downloaded from www.Manualslib.com manuals search engine