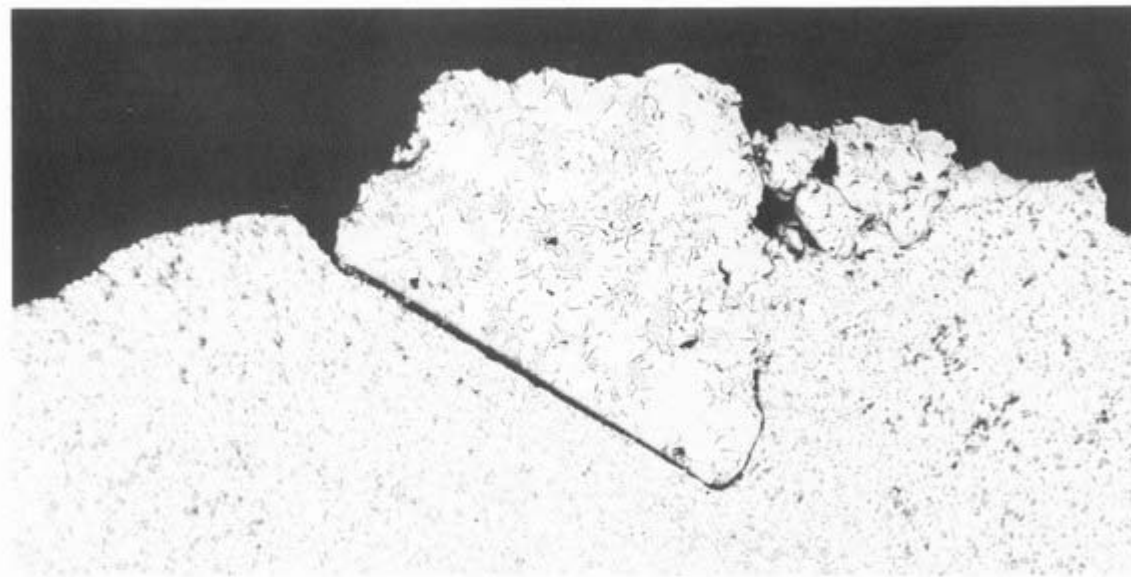
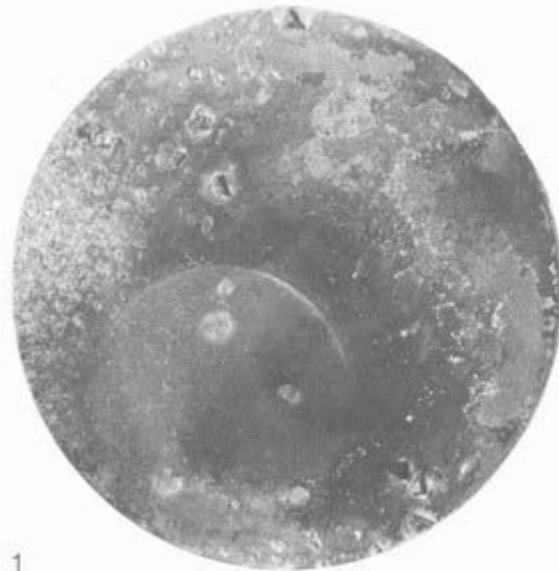


3.4



3 Piston crown

3.4 Foreign particles

Symptoms Impacts against the cylinder head have caused particles to be embedded the piston crown (Figure 1).

Cause and Effect The cross-section and the enlarged view (Figure 2) illustrate that the material embedded is heat-treated grey cast-iron, which has apparently entered the combustion chamber from outside or has come from the valve seats, since the piston rings are undamaged. If, in such a case, only the free movement of the rings is impeded, or the cylinder wall damaged, without the particles penetrating the piston crown, damage of this kind does not immediately become apparent. Often, it is only when subsequent damage occurs that the engine breaks down.

Remedy When assembling the engine or when carrying out repair work on an open engine, take the greatest care to ensure that no foreign particles enter the driving gear or combustion chambers.