



FAILURE INFORMATION

BRIGHTLY POLISHED AREAS IN THE UPPER PART OF THE CYLINDER LINERS

Description of the Failure

Polishing occurs in the area that remains above the piston top ring land (Figure 1). Honing lines are completely lost in the section with a mirror-like appearance. Excessive oil consumption occurs in the engine. There is no sign of wearing or seizure in the pistons.



Figure 1

Causes of the Failure

- Poor quality and inappropriate engine oil is used.
- Burnt oil and remainders accumulate and form a layer above the piston top ring land. Friction of this layer to the cylinder liner surface causes the surface to wear away.
- The form of the piston skirt contacting and seating on the cylinder liner surface is changed.
- Cylinder measurements are corrupted.
- Inlet valves are worn away or faulty.
- Since the crankcase ventilation system cannot fulfill its function, too much engine oil enters the combustion chamber.

Recommendations

- The oil recommended by the engine's manufacturer should be used.
- The cylinder liners should be subject to honing as recommended.
- The cylinder surface quality and the piston rings should be checked.
- The inlet valves should be checked. They should be replaced if worn away or faulty.

