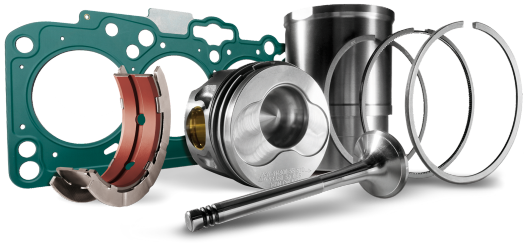

SERVICE ENGINEERING BULLETIN

SB2115.1

Piston Crown Contact

The effects of piston and cylinder head contact can range from a slight tapping sound to a shattered piston and possibly permanent damage to the cylinder block or head.

There will always be noise if the piston crown hits the head in operation, when the two parts make contact. There may also be a noticeable loss of power loss.

Stop the engine immediately if the symptoms occur when first starting the engine after a rebuild. Check the piston projection above the cylinder block face as there may have been remachining of block face without considering the height of the pistons. Or there may be inadvertent altering of the connecting rod centres during re-conditioning. Alternatively, there may be excessive crank journal throw.

If replacing engine components with performance parts, it is possible that oversized valves; alternate heads; and high lift and/or duration cams or rocker arms may also cause contact. Check these clearances with clay prior to running a freshly rebuilt engine.

If the symptoms occur after using the engine for some time, a condition inside the engine must have changed to permit extra piston travel. Examples of this are:

- Premature wear between piston pin and small end bush, and/ or piston.
- Damage to the lower half of the crankshaft journal bearing.
- Stretching, damage or fracturing of the bearing cap retaining bolts.

After finding the cause, take corrective action - this must include the replacement of affected pistons and connecting rods. Thoroughly inspect all related parts, especially the valves; repair and replace if necessary.