

5478C Engine Teardown.pages

N5478C Teardown Report

Preliminary inspection: Engine had damage to the LH case half above the number two cylinder. five of the six cylinders had evidence of heat on the fins adjacent to the exhaust ports. There was no drive train continuity to the number 2 piston. The engine had oil, about 6 qts.

Cylinder number 2 was removed from the engine. The rod had damaged the bottom side of the cylinder skirt requiring the cylinder to be pried off the engine. The piston was not seized in the cylinder bore and moved freely. The wrist pin was not seized and could be removed easily. No obvious damage to the wrist pin bearing surface was noted. Both intake and exhaust valves showed no signs of damage, and appeared to be normal for time on engine.

Number two crank journal is heavily damaged with signs of heat damage (very dark, and scored) The number two crank bearing was in pieces and found in the oil sump. The engine was rotated, no oil flow was observed through the crank journals and lifters. The suction screen was removed and found with what appeared to be copper, steel, and aluminum on most of the screen surface. The screen was collapsed inwards. The oil sump was then drained.

The number two rod cap was found in two pieces with bolts still intact. The cap was separated 90 degrees from the bolt holes, and the rod bearing ears were separated from the rod body. Both connecting rod cap bolts were recovered still in the cap, only one nut was found installed. The nut had a cotter pin in the cotter pin bore. The bolt with no nut showed no damage to the threads or cotter pin bore. The missing castle nut was unable to be recovered in the time allotted. No cotter pin was recovered.

Inspection of the rod cap reveled no defects to the oil journal, it appeared to be clear and open. No part number or markings were visible on the connecting rod cap. The connecting rod bore the marking "Atlas 14 5551"