

Continental IO520BA

s/n 249667-R

DISASSEMBLY REPORT

The engine was received with both magnetos broken from their respective mounts.

There was a large hole in the top of the crankcase (approx. 10" X 10")

The connecting rod caps appeared to have been forcibly removed from the connecting rods which were still attached to their respective pistons.

Both of the counterweights were missing from the crankshaft aft counterweight attaching blades at (cylinders #1 & #2).

Each one of the two blades had one counterweight attaching hole torn out of the blade and each blade had one undamaged counter weight attaching hole.

There was also considerable damage to the base of #1-cylinder, #2-cylinder base was badly damaged.

Without metallurgical analyses it appears that one or more of the counter weight retaining snap rings along with the retaining plate and counterweight pin came loose, allowing the counterweight to impact the cylinder bases of #1 & #2 cylinders. Because of the damage to the cylinder bases the pistons could no longer reach the bottom of their stroke which allowed the momentum of the engine to forcibly remove the connecting rod caps from their respective connecting rods.

After further disassembly it was also found that one snap ring, one retainer plate and the counterweight pin were missing from the counterweight attaching blade located at cylinders #3 & #4, although the counter weight had not caused further damage.

After a very careful inspection only pieces of the aft two aft counterweights could be found.

The two forward counterweights were removed from the crankshaft and the snap rings, retaining plates, and pins were carefully reassembled in the counterweights exactly as they were when they were installed on the crankshaft.

The remains of the aft counterweights along with the two full counterweights and the remains of the connecting rod caps were boxed and shipped.

Brian N Cox

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