

From: Soderlund, Henry [REDACTED]
Sent: Wednesday, April 15, 2015 8:24 PM
To: Scott Arnold
Subject: N774TA - CEN15LA172

It does not appear to be an oil starvation issue. We drained over 4 quarts from the engine. More importantly, we only drained about a cup or 2 of water from the engine. David Hall and I both think that if the dipstick had been out the engine, the engine would have been full of water. I'm not sure what happened to the dipstick. The engine was not entirely seized; we were able to rotate it a little.

What we did find is this – the third bearing aft (the bearing between the two banks of cylinders) had spun. The bearing for the number 3 connecting rod was also spun and had started squeezing out the sides of the connect rod end. Lastly, but probably most importantly, one of the cylinder 4 piston pin plugs was deformed. This damaged the side of the piston. We found aluminum pieces/shavings throughout the engine. We don't know why the piston pin plug went bad. The thought is that as the plug wore down, its shavings got into the oil system and started clogging passages.

The parts in the engine appeared to be made by Superior.

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From: Soderlund, Henry [REDACTED]
Sent: Thursday, April 16, 2015 12:18 PM
To: Scott Arnold
Subject: N774TA

I failed to mention a couple of items in my email last night. I looked the airplane over and did not see any signs of oil running back over the airframe. The engine cowlings did not have any oil on them either. Also, there was a human head-size hole in the windshield in front of the passenger seat. Do you know if the occupants were using their seat belts? The front seats had shoulder harnesses.

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