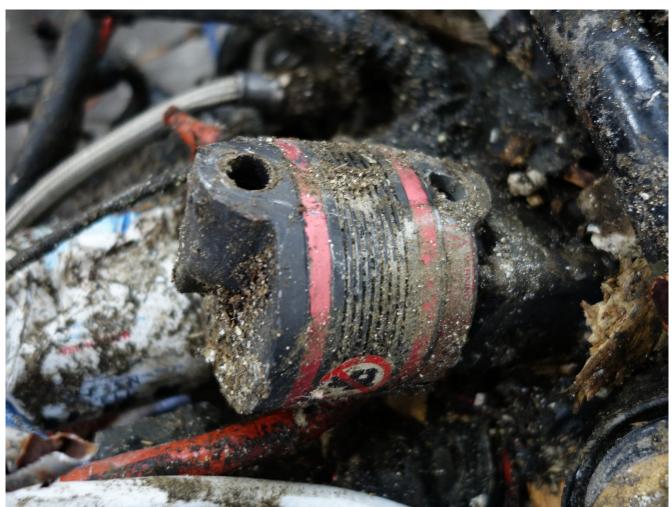


MEMORANDUM FOR RECORD

Vacuum Pump

Peter Wentz Air Safety Investigator Eastern Region Aviation

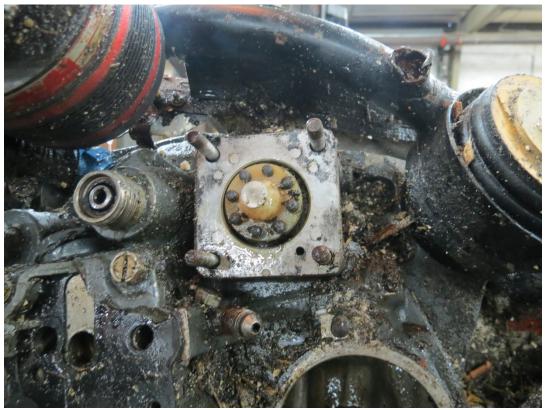
Date: November 1, 2019 NTSB Accident Number: ERA20FA021



Photograph 1 – Vacuum pump attached to engine.



Photograph 2 – Aft side of vacuum pump with fragmented drive coupling.



Photograph 3 – Vacuum pump drive coupling.



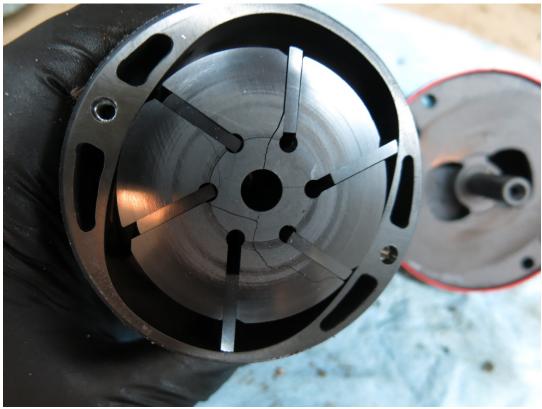
Photograph 4 – Vacuum pump - partial drive coupling.



Photograph 5 – Vacuum pump drive coupling.



Photograph 6 – Vacuum pump - partial drive coupling.



Photograph 7 – Disassembled vacuum pump housing showing rotor and vanes



Photograph 8 – Disassembled vacuum pump.