



Memorandum For Record

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Eastern Region

Date: March 29, 2022
NTSB Accident Number: ERA21LA388

As part of the investigation, a Facetime call was held with the owner/operator of the airplane (Jose Leyva), via his cell phone of [REDACTED]. The call was made on November 5, 2021, at 1225 EDT.

As part of the engine examination the upper spark plugs and rocker box covers were removed from each cylinder. During rotation of the propeller in the direction of rotation, no movement of the intake or exhaust valves of any cylinder were noted. The owner/operator was advised that the engine needed to be removed from the engine in order to remove the accessory case. He advised he would get access to an engine hoist and would contact NTSB.

On March 8, 2022, at 1311 EST, a Facetime call was made with Jose Leyva at [REDACTED]. During that call the engine was out of the airframe. The oil sump and accessory case were removed. As first viewed the left crankshaft idler gear assembly was not engaged with the camshaft gear, but was minimally engaged with the crankshaft gear. The upper stud part number (PN) LW-13793 was not broken but the threads were damaged. There was no nut PN STD-2168 attached to the stud; the nut was recovered but no cotter pin was located. The lower bolt, PN LW-31HQ.88 was fractured. Further examination of the rear portion of the crankcase revealed extensive damage to the left crankcase that supported the crankshaft idler gear shaft (Figure 1). No debris was noted inside the oil suction screen.

He was asked the following question-

At each 100-Hour engine inspection do you cut open the oil filter?
No.

He was asked to contact NTSB so the oil filter could be cut open to inspect the filter element.

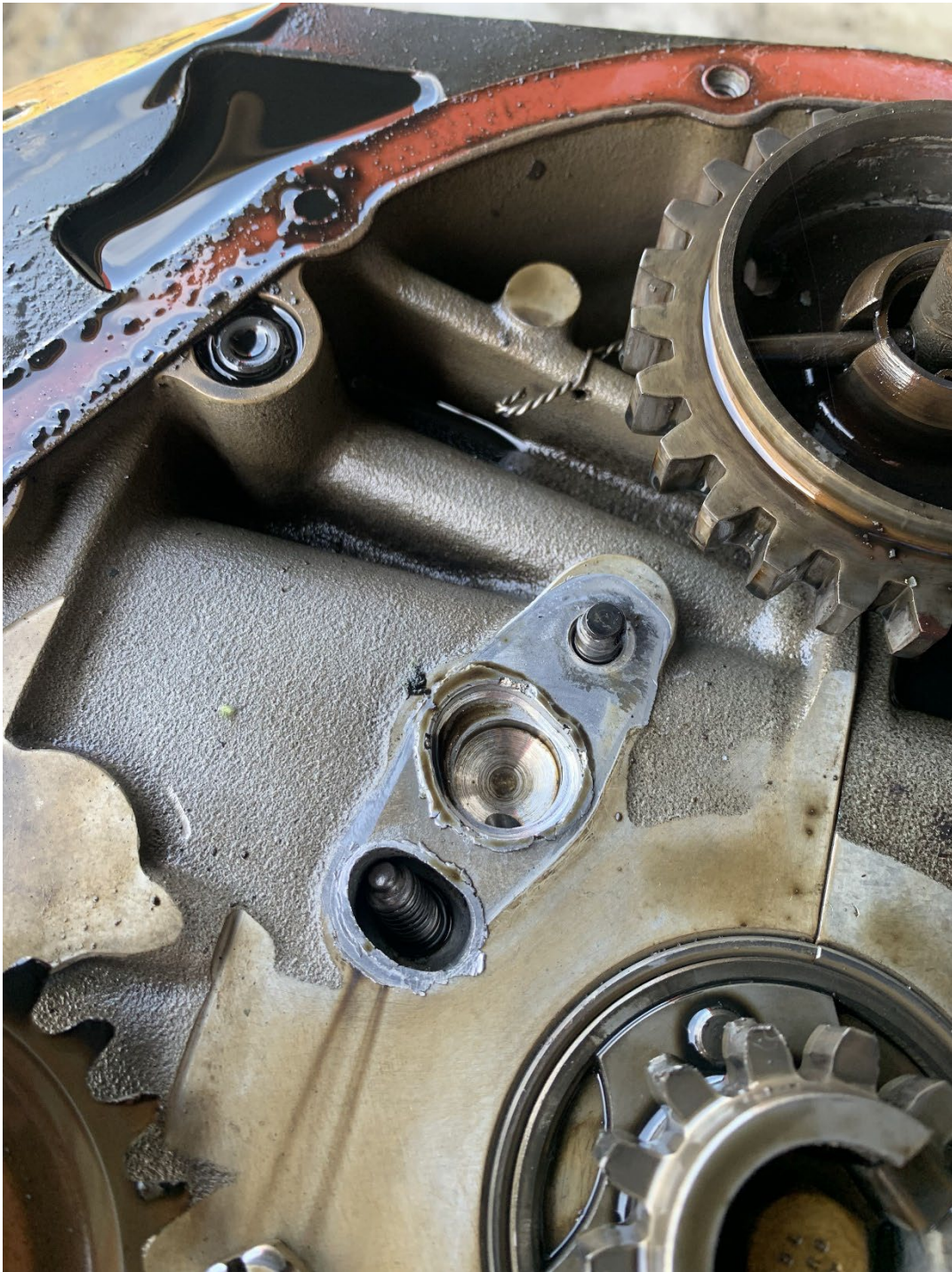


Figure 1: Digital Picture From Owner/Operator. View of the Rear Portion of the engine Crankcase depicting the damage to the left crankcase half associated with the crankshaft idler Gear shaft support and attach. Note the fractured bolt inside the lower hole.