

From: [REDACTED]
To: [REDACTED]
Subject: ERA19LA269
Date: Friday, August 23, 2019 4:06:08 PM

Mr. Rainer,

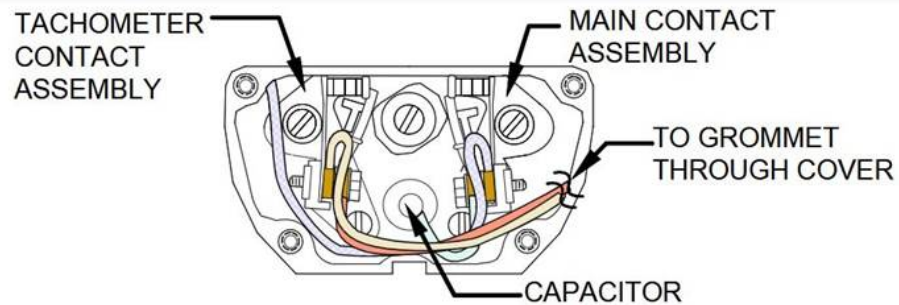
After reviewing the information you supplied (Logbook entries, videos and photographs), I would like to point out several issues.

This magneto had 0 hours since overhaul when installed on the accident helicopter. It had approximately 20 hours in service since overhaul. There is no logbook entry indicating that any maintenance was performed on the magneto since installation.

Below is a snapshot of the video, recording the opening of the points cover on the right magneto after the accident. It shows both tach wires were improperly routed. It also shows one wire making contact with the rotating cam screw head.



Below is a snapshot from the Continental Ignition Systems Service Support Manual for the S-200 series magnetos showing the proper wire routing. Note that it is viewed upside down when compared with the video snapshot.



Counterclockwise Magneto with Tachometer Contacts

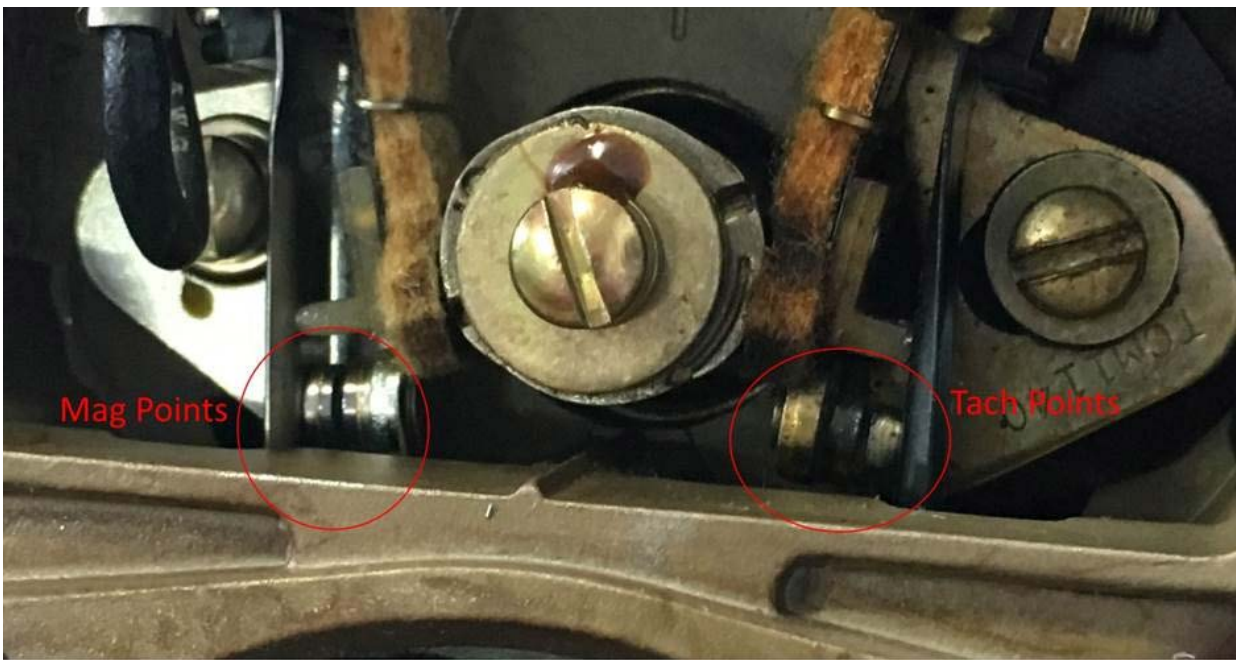
Figure 9-11. Lead Routing with Tachometer Contacts

Below is a snapshot of the damaged insulation on the wire that was contacting the screw head.



The damage to the wire insulation will allow contact between the wire and the rotating screw head creating an intermittent short to ground. This will send an errant signal to the governor control unit which in turn will manipulate the throttle accordingly.

Below is a snapshot of the magneto and tach points. The contact pads on the tach points appear to be misaligned and contaminated when compared to the magneto points. I would not expect to see this in a magneto with only 20 hours in service.



Please feel free to contact me if you need further assistance.

Best regards,
Thom Webster
Technical Investigator
Robinson Helicopter Company

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