



MEMORANDUM

Arnold W. Scott
Senior Air Safety Investigator
Central Region

Narrative:

FAA Inspector Michael W. Matthews, Grand Rapids, Michigan. Flight Standards District Office, reported the following:

- May 20, 2020, 0933, Bell OH-58A, N153SA, substantial damage, 2 SOBs, no injuries
- Near West Branch, MI, felt vibration of unknown origin, 500 ft AGL
- Did not observe any caution or warning lights, or horns associated with the vibration
- Elected to perform an autorotation to an open field
- Pilot turned the helicopter approximately 200 degrees to the left
- After clearing trees, pilot heard the low rotor RPM horn activate
- Pilot reduced collective and made a hard run-on landing
- Helicopter before stopping
- One main rotor blade drooped and struck the tail boom, severing tail rotor driveshaft
- Crush damage to underside of the tail boom
- Pilot's mechanic could find no other damage during his inspection
- Pilot could not describe the location nor the frequency of the vibration
- He was in a low rotor RPM condition during the autorotation
- Passenger stated he felt no vibration prior to the autorotation
- Follow-up inspection by the mechanic found no outward cause for the vibration