



INTERVIEW SUMMARY

Elliott Simpson
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Western Pacific Region

Person Contacted: Neil Hintz, Autoflight
NTSB Accident Number: WPR17LA121

Narrative:

During a series of email messages, Mr. Hintz stated the following:

- Gears are EN39B case hardened to 58 / 60 Rockwell.
- Recommended oil is Castrol Syntrex 75W 90
- He has seen a similar failure before in New Zealand, but in that case a non-standard heavy propeller was fitted, which caused a resonance problem. This gearbox will only run with the light weight prop recommended.
- When the gearbox gets hot, possibly due to a lack of oil, the surface color of the gears turns blue and all hardness is lost.
- There are many Suzuki powered Titans that have operated hundreds of hours without any similar problems.
- The propeller governor uses the same oil from the gearbox (extra tank fitted to the side of the gearbox). Surmises that if not filled properly may compromise the gearbox lubrication.
- The SKF input drive bearing has a plastic molded cage, heat will destroy the cage.
- The gearbox to engine connection is via a Centaflex coupling, able to withstand misalignment if needed. Autoflight gearboxes are not manufactured misaligned.
- Autoflight gearboxes are designed to have non-divisible teeth numbers, what is sometimes called hunting tooth, which puts the blade to engine position in a different place every cycle.