



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Central Region

June 21, 2022

NOSE GEAR EXAMINATION

CEN22LA191

This document contains 5 embedded photos.

A. ACCIDENT

Location: Mankato, MN
Date: May 3, 2022
Aircraft: Vans RV-6A, N5060
NTSB IIC: Samantha Link

B. EXAMINATION PARTICIPANTS:

Samantha Link
National Transportation Safety Board
Denver, CO

Greg Thurston
Federal Aviation Administration
Minneapolis, MN

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Federal Aviation Administration
Minneapolis, MN

C. SUMMARY

Examination of the airframe and flight controls was conducted on June 21, 2022, at Wentworth Aircraft, Inc. Lakeville, Minnesota. No anomalies were noted during the examination.

D. DETAILS OF THE INVESTIGATION

1.0 Nose Gear Examination

- Flight control continuity was established throughout.
 - The elevator control within the cockpit was manipulated, and corresponding motion was observed on the elevator control surface.
 - The rudder was manipulated, and the cables were observed to be moving at the rudder pedals.
 - The aileron control within the cockpit was manipulated and the aileron control tubes moved accordingly at the wing root.
 - The wings had been previously removed to facilitate recovery.
- The bolt securing the nose gear strut to the engine mount was fractured. The nose gear strut was wedged in place but was able to rotate.
 - The strut was unable to be removed.
- The nose wheel tire pressure was 32 PSI which was within specifications.
- The nosewheel axle bolt was removed and the tire was removed.

- The tension was consistent with normal.
- The nosewheel fork height was 2.8 inches.
- The nose stop flange was installed correctly per Van's Aircraft service bulletin 14-12-22.
 - The nose stop flange appeared trimmed to avoid interference with nose wheel pant.
- Breakaway tension from neutral to the left was 24-26 pounds.
- Breakaway tension from neutral to the right was 22-25 pounds.
- The spring washers were removed:
 - Grease was noted on the washers.
 - Some rust was noted in the internal space between the two washers but was otherwise unremarkable.
- The nosewheel fork was removed and was unremarkable.
- The underside of the nose stop flange exhibited wear.

1.1 Photos



Figure 1: Right side of Nose Gear



Figure 2: Left side of Nose Gear



Figure 3: Nose Stop Flange



Figure 4: Front of Nose Gear



Figure 5: Nose Gear Fork

END.

Submitted by: Samantha Link