

On 10/30/2024, I drove to Lakefront Airport (KNEW) to assist Inspector Jose Areizaga and Inspector Janet Gonzales with the investigation of a General Aviation Accident/Incident involving N7967Y that occurred on 10/16/2024.

1. Upon arrival at KNEW, N7967Y was positioned on the ramp area outside of Signature and was set up on jacks ready for us to witness a gear swing attempt to be performed by A&P Mechanic Matthew Tally. John Angel owner/operator of N7967Y was also there.
2. Review of the aircraft maintenance logs for N7967Y.
 - a) Found a maintenance entry dated 8/14/24 for replacement of Left Main gear door link rod and gear leg attach bracket. I inspected the items referenced in the maintenance entry and did not notice anything abnormal.
 - b) Found a maintenance entry dated 11/14/2019 for replacement of Nose gear upper torque link and torque link bolt. I inspected the items referenced in the maintenance entry. Bolt appears to be installed backwards as per Piper PA-30 Parts Manual but does not appear to have caused any issues regarding the collapse of the landing gear.
 - c) Noticed there was no maintenance entry for a transponder certification within the last 24 months. Owner John Angel provided an invoice showing that one was done recently and said he would get the maintenance entry to place in the logbook.
3. Visual inspection of Left Main Landing gear, Right Main Landing gear, and Nose gear.
 - a) Visually inspected Right Main landing gear assembly. Noticed some slack between the Side Brace support bracket and the Pivot bolt as well as between the Lower drag link and drag link rod end when moving the right hand gear assembly side to side by hand. Found heavy corrosion (rust) on Right Main gear push-pull cable. Did not notice anything else to be abnormal.
 - b) Visually inspected Left Main landing gear assembly. Did not notice anything abnormal.
 - c) Visually inspected Nose gear assembly. As mentioned above, upper torque link bolt was installed backwards. Did not notice anything else to be abnormal.
4. At this time, Aircraft owner John Angel disclosed that the Left and Right Main landing gear bungee cords were not replaced during the last annual by the IA. He was completely aware of the time and calendar limitations of AD 77-13-21 as he filled me in on those time and calendar limitations. The requirement to replace the Left and Right Main landing gear bungee cords exceeded the calendar limitation (36 months) of AD 77-13-21 after the "Next Due" date of 1/31/2024 and should have been replaced at that time prior to any other flights. Annual inspection was completed 7 months later on 8/14/24.
 - a) Visually inspected Left and Right Main landing gear bungee cords. No visual defects noted.
5. Attempt to perform a landing gear swing.
 - a) Matthew Tally applied power to the aircraft.
 - b) Left and Right Main landing gear and Nose gear was in the down and locked position, gear switch was in the gear down position, and the green gear down light was illuminated.
 - c) Matthew Tally attempted to perform a gear swing by moving the gear switch from the gear down position to the gear up position. Left Main landing gear retracted as normal. Right Main landing gear and Nose gear would not retract when gear switch was placed in the gear up position. Yellow gear up light was illuminated. Green gear down light was not illuminated.

- d) Matthew Tally returned the gear switch to the gear down position. Left gear extended as normal. Right main gear and Nose gear remained in the down and locked position. Green gear down light was illuminated. Yellow gear up light was not illuminated.
 - e) I then looked under the floor panel between the Pilot and Copilot seats to observe the Retraction Transmission Assembly while Matthew Tally cycled the gear switch again.
 - f) ***See Piper Airplane Service Manual #753 645, dated 10/01/1998, fig. 7-14 for the items mentioned below: Noticed the Left Torque Arm (for Right Gear and Nose gear), Item # 9, was broken. The Nose gear push pull rod, Item # 11, and the Rod end, Item # 7, for the Right Main gear push pull cab cable rod Item # 1 was detached from the Left Torque Arm, Item #9. Rod ends had full range of motion (not frozen) when moved by hand. Right Torque Arm (for Left Main gear only), Item # 10, was not broken. Rod end, Item # 8, for Left gear push pull cable, Item # 2, was still attached and functioning as normal.
 - g) We did not disconnect any of the landing gear linkage to check for binding. That will have to be done later by NTSB or a representative.
6. On 10/31/2024, a further review of the aircraft maintenance logs for information on the Left and Right Main landing gear bungee cords for N7967Y revealed the following:
- a) 1/12/2021, Hobbs time 312.7 hrs, IA complied with part (b) of AD 77-13-21 Visual Inspection of bungees. *NEXT DUE: 812.7 hrs or 1/31/2022 (one year).* IA complied with part (b) of AD 77-13-21 Replacement of the bungees. *NEXT DUE: 812.7 hrs or 1/31/2024 (three year).*
 - b) 1/17/2022, Hobbs time 464.4 hrs, IA complied with part (b) of AD 77-13-21 Visual Inspection of bungees. *NEXT DUE: 964.4 hrs or 2/28/2023.*
 - c) 5/5/2023, Hobbs time 545.0, IA complied with part (b) of AD 77-13-21 Visual Inspection of bungees. *NEXT DUE: 1045.0 hrs or 5/31/2024.*
 - Note: Any flights between AD 77-13-21 Visual Inspection due date of 2/28/2023 and AD 77-13-21 Visual Inspection signed off on 5/5/2023 would not meet AD 77-13-21 requirements with respect to AD 77-13-21 Visual Inspection of bungees.
 - d) 8/14/2024, Hobbs time 575.5, IA complied with part (b) of AD 77-13-21 Visual Inspection of bungees. *NEXT DUE: SHOULD BE 1075.5 hrs, but IA put 625.5 hrs (50 hr calculation error instead of 500 hr calculation) or 8/31/2024.*
 - Note: Any flights between AD 77-13-21 Visual Inspection due date of 5/31/24 and AD 77-13-21 Visual Inspection signed off on 8/14/2024 would not meet the AD requirements with respect to AD 77-13-21 Visual Inspection of bungees.
 - Note: IA did not perform part (b) of the AD 77-13-21 with respect to the REPLACEMENT of the bungee cords which was due @ 812.7 hrs or 1/31/2024. Last bungee replacement was done on 1/12/2021.
 - Note: Any flights between 1/31/2024 and 10/16/2024 (date of accident) would not meet AD 77-13-21 requirements with respect to AD 77-13-21 Replacement of bungees.
7. Hobbs meter time is 580.7 hours.

Respectfully,

[REDACTED]

Aviation Safety Inspector