



MEMORANDUM OF RECORD

Eric Alleyne
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety - Eastern
Region

NTSB Case Number: ERA19LA125

Email correspondence: Robert
Melcher (FAA inspector)

Email date: 4/11/2019

Subject: Accident examination
findings

In an email correspondence with inspector Robert Melcher he wrote.

Post-accident extension and retraction test were performed at the Sunair Aviation hangar facility in Leesburg Florida on April 4 ,2019. In attendance was FAA Inspector Gerald Lietzke, Pat Hardy (A&P/IA) and myself. The test was performed using a hydraulic test unit supplied by Sunair Aviation. Both normal and emergency (hand pump) Landing gear extension and retraction test were performed. During normal extension it was noted the landing gear locking time was approximately 25 seconds. This exceeds the Piper limit, however the hydraulic test fixture used did not have flow control which could account for this anomaly. It was discovered when checking the actuator rigging that both left and right main landing gear actuators did not drive the main gears into a locked position. Slight hand pressure on the gear door (inboard force) would keep the main landing gears from locking as actuator piston travel was bottomed out. When the force was removed the weight of the gear would lock the gear. This appears contrary to the Piper service manual instructions attached (refer to paragraph o.). This test was videoed. If you want me to transfer the file you will have to send me a new link in order to upload. On April 8, 2019 Mr. Damian Galbraith (Air Safety Investigator) at Piper was consulted ([REDACTED]) to confirm the Service manual procedures for actuator rigging. He confirmed that when rigged properly, as stated in the manual, the actuators should drive the landing gears into a locked position. According to the pilot the aircraft made multiple

maintenance operational check flights on 1/25/2019, 1/31/2019, 2/25/2019, 2/28/2019 and the accident flight on 3/8/2019. Review of logbook records for N45MJ revealed that on January 17, 2019 STC SA0055DE was installed and on February 12, 2019 both the left and right landing gear actuators were installed and re-rigged.