

National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



ERA24FA001

MATERIALS LABORATORY

Factual Report 24-013

April 17, 2024

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A. ACCIDENT INFORMATION

Location: Lake Placid, NY
Date: October 1, 2023
Vehicle: Cessna 177RG, N545PZ
Investigator: Todd Gunther

B. COMPONENTS EXAMINED

Fuel servo throttle arm and attachment hardware (Figure 1)

C. EXAMINATION PARTICIPANTS

Group Chair	Joseph Panagiotou National Transportation Safety Board Washington, DC
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D. DETAILS OF THE EXAMINATION

A fuel servo throttle arm was submitted for examination. The throttle arm operated similarly to a turnbuckle with a threaded section joining the two end blocks (Figure 2). The threaded section of the throttle arm was fractured. The threaded section exhibited plastic deformation as illustrated in figure 3. The fracture surface did not exhibit any evidence of preexisting cracks (Figures 4, 5).

The fracture to the fuel servo throttle arm is consistent with bending overstress.

Submitted by:

Joseph Panagiotou
Engineer

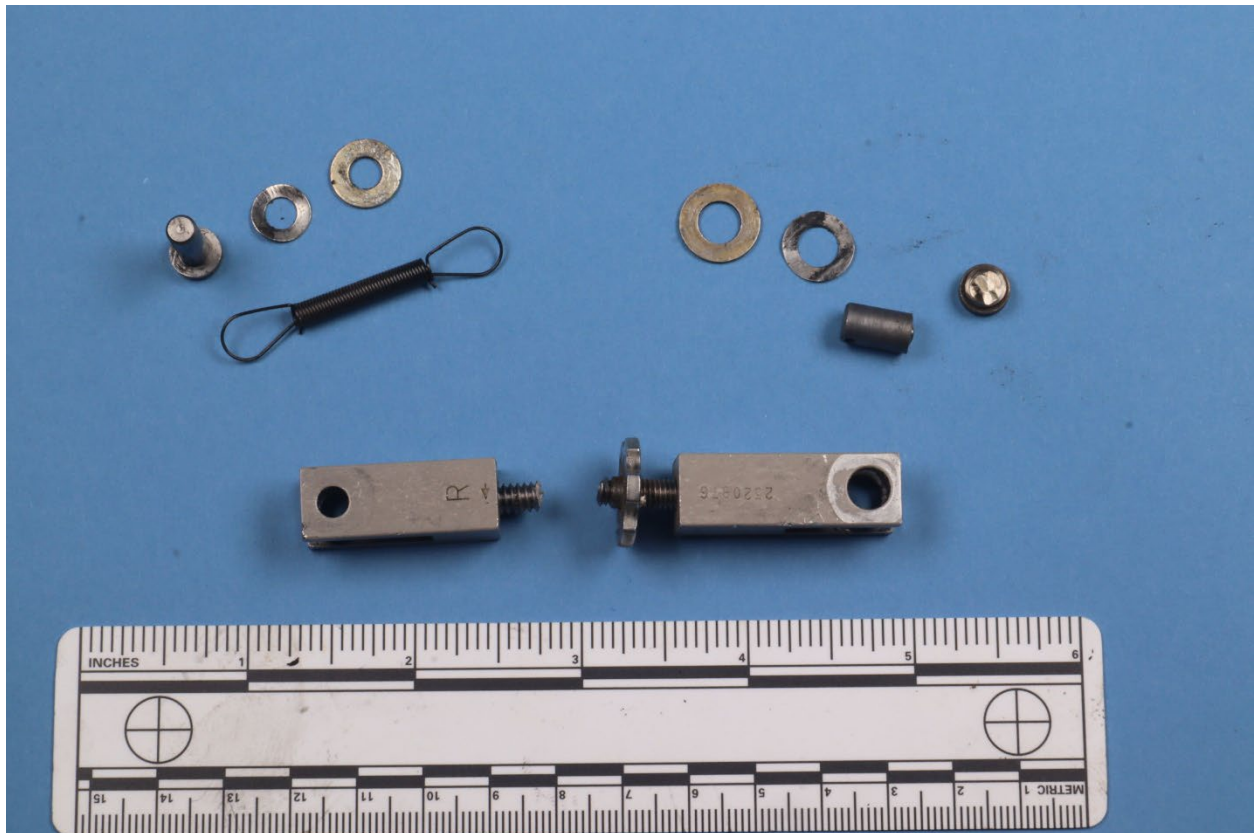


Figure 1. Portions of the fuel servo throttle arm and associated hardware as received.

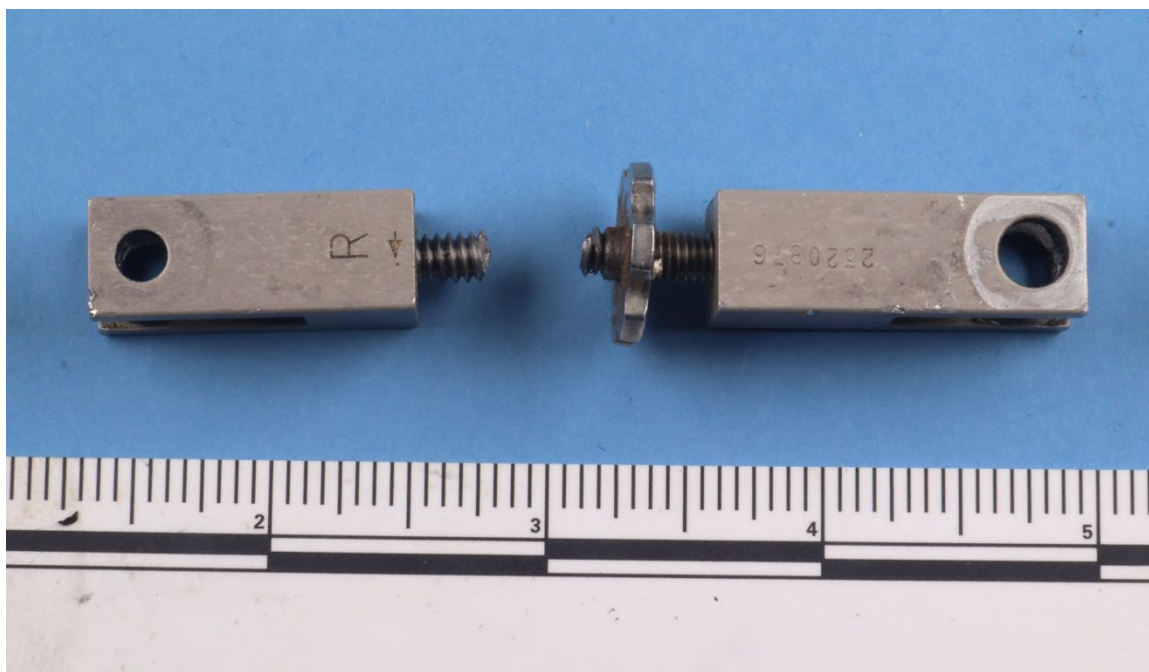


Figure 2. Two portions of the throttle arm with a fractured threaded section.

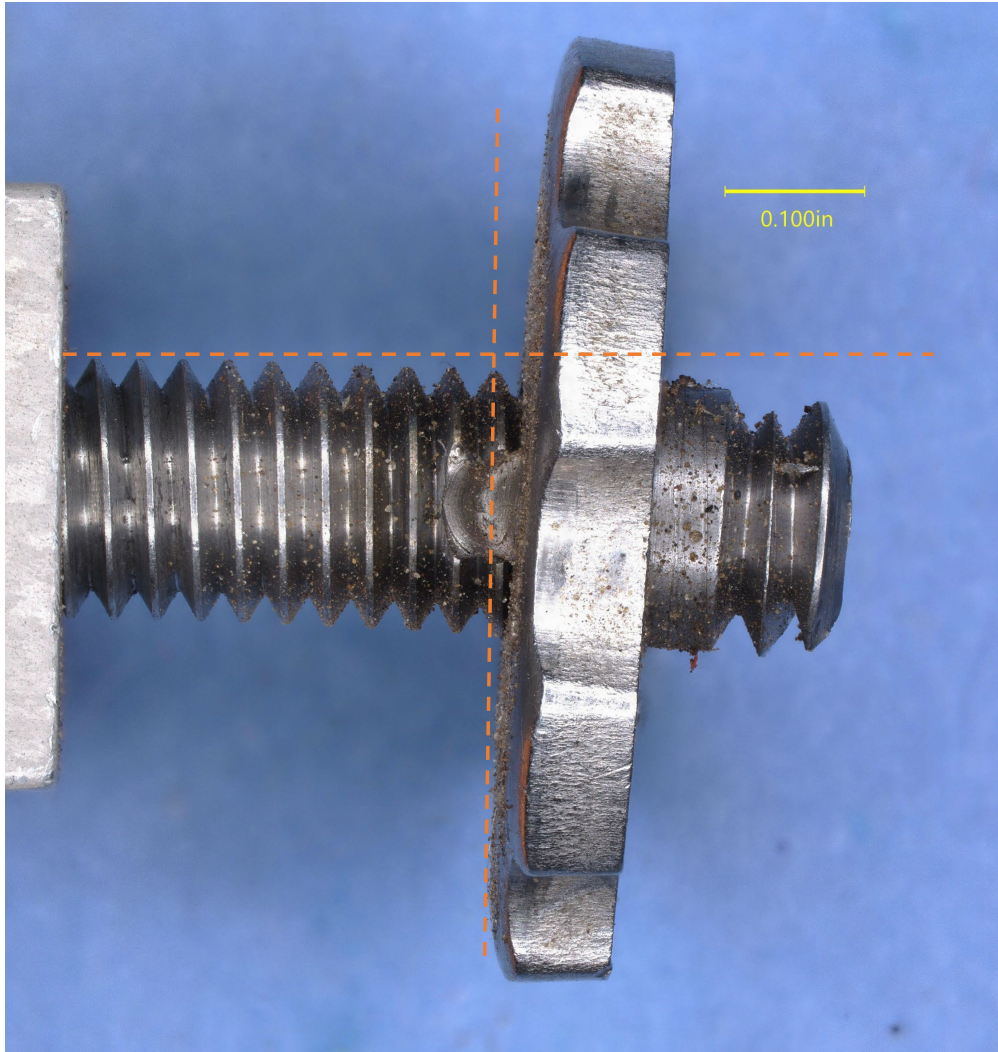


Figure 3. Threaded section of the throttle arm exhibiting plastic deformation.

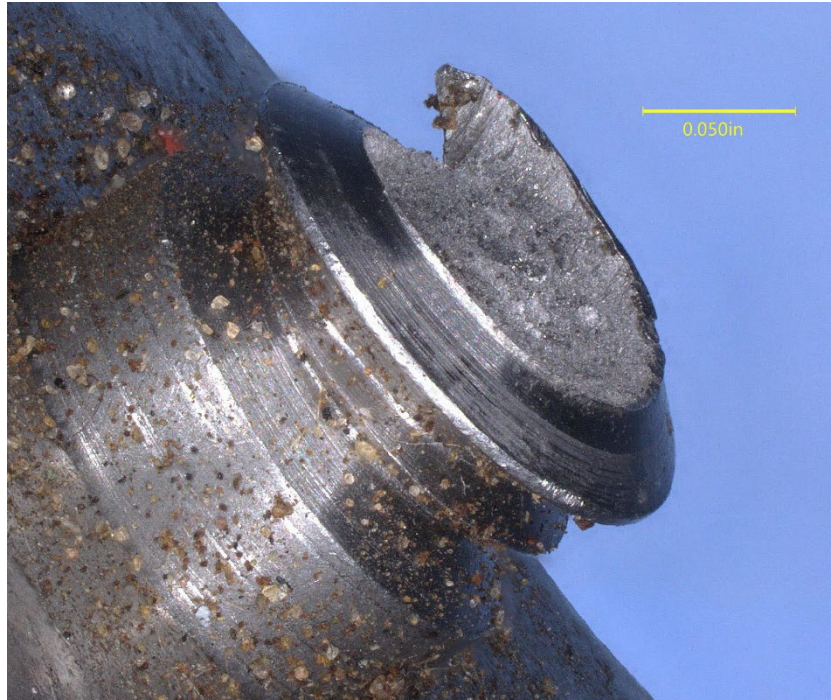


Figure 4. Fracture surface on the threaded section of throttle arm.



Figure 5. Fracture surface on the threaded section of the throttle arm.