



National Transportation Safety Board Aviation Accident Preliminary Report

Location:	Burns Flat, OK	Accident Number:	CEN20LA292
Date & Time:	07/18/2020, 2245 CDT	Registration:	N3412C
Aircraft:	Beech A23-24	Injuries:	4 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

On July 18, 2020, about 2245 central daylight time, a Beech A23-24 airplane, N3412V, was substantially damaged when it was involved in an accident near Burns Flat, Oklahoma. The pilot and his 3 passengers were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that while established in cruise flight the airplane experienced a gradual loss of engine power. He was unable to restore engine power by switching fuel tanks, turning on the fuel boost pump, and advancing the throttle, mixture, and propeller controls full forward. The pilot stated that he turned on the landing light and made a forced landing in a grass field. The pilot reported that after touchdown the airplane traversed over 3 large terraces, and that the main landing gear collapsed when he tried to swerve the airplane to avoid a tree. The horizontal stabilizer and both wings were substantially damaged during the forced landing.

The airplane was examined at the accident site by a Federal Aviation Administration airworthiness inspector. Both wing fuel tanks contained about 25 gallons of 100 low-lead aviation fuel. The throttle control was very loose when moved by hand in the cockpit. A visual inspection of the fuel servo revealed that the throttle linkage was not connected to the throttle control rod-end. The retaining bolt, washer, and self-locking nut were not located during the investigation.



Figure 1. Throttle control rod-end found disconnected from the fuel servo throttle linkage.

The airplane had accumulated 8.72 hours since the last annual inspection that was completed on October 22, 2019. The inspection authorized (IA) mechanic who had completed the annual inspection stated that the fuel servo had been removed from the engine and overhauled in conjunction with the annual inspection. The IA mechanic stated that he personally reinstalled the overhauled fuel servo on the engine, while another individual moved the throttle and mixture controls in the cockpit. The IA mechanic stated that it is his standard practice to connect both the throttle and mixture controls to the fuel servo at the same time. The IA mechanic stated that he likely reused the bolt and washer to connect the throttle control rod-end to the fuel servo throttle linkage, and that it is possible that he also reused the self-locking steel nut. However, he would not have reused the self-locking nut if it had fully engaged the bolt threads by hand. The IA mechanic stated that he used two wrenches to secure the self-locking nut and that he did not use a torque wrench. A review of the Beech A23-24 Maintenance Manual revealed no specific assembly instructions on how to physically connect the throttle control rod-end to the fuel servo throttle linkage. The Beech A23-24 Illustrated Parts Catalog specified that the throttle control rod-end be attached to the fuel servo throttle linkage with a 169-910021 bolt, AN960-10 washer, and MS20365-1032 self-locking nut.

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N3412C
Model/Series:	A23-24	Aircraft Category:	Airplane
Amateur Built:	No		
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:		Condition of Light:	
Observation Facility, Elevation:		Observation Time:	
Distance from Accident Site:		Temperature/Dew Point:	
Lowest Cloud Condition:		Wind Speed/Gusts, Direction:	/ ,
Lowest Ceiling:		Visibility:	
Altimeter Setting:		Type of Flight Plan Filed:	None
Departure Point:	Elk City, OK (ELK)	Destination:	Elk City, OK (ELK)

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	35.381667, -99.201111

Administrative Information

Investigator In Charge (IIC):	Andrew T Fox
Additional Participating Persons:	James L Wirt; Federal Aviation Administration, Oklahoma City; Oklahoma City, OK
Note:	The NTSB did not travel to the scene of this accident.