



# Aviation Investigation Preliminary Report

<b>Location:</b>	Coldspring, TX	<b>Accident Number:</b>	CEN23LA172
<b>Date &amp; Time:</b>	May 3, 2023, 13:29 Local	<b>Registration:</b>	N28HE
<b>Aircraft:</b>	Piper PA-34-200	<b>Injuries:</b>	2 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

On May 3, 2023, about 1329 central daylight time, a Piper PA-34-200 airplane, N28HE, sustained substantial damage when it was involved in an accident near Coldspring, Texas. The pilot examiner and applicant pilot sustained serious injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 pilot certification flight.

According to the pilot examiner, following steep turn maneuvers, he felt a “pop” and the airplane pitched up about 50°. He took control from the student and reduced power, which reduced the pitch oscillations. When power was increased, the oscillations returned. Unable to maintain full control of the airplane, he elected for an emergency, off airport landing. While on final, the instructor shutdown and secured both engines. Upon touchdown, the airplane slid through a rough, muddy field, which resulted in substantial damage to both wings, the fuselage, and empennage.

A postaccident examination revealed that the bolt (item 49 in figure 1) which connects the stabilator trim rod assembly (item 12) to the stabilator link assembly (item 13) was missing. (Figure 2)

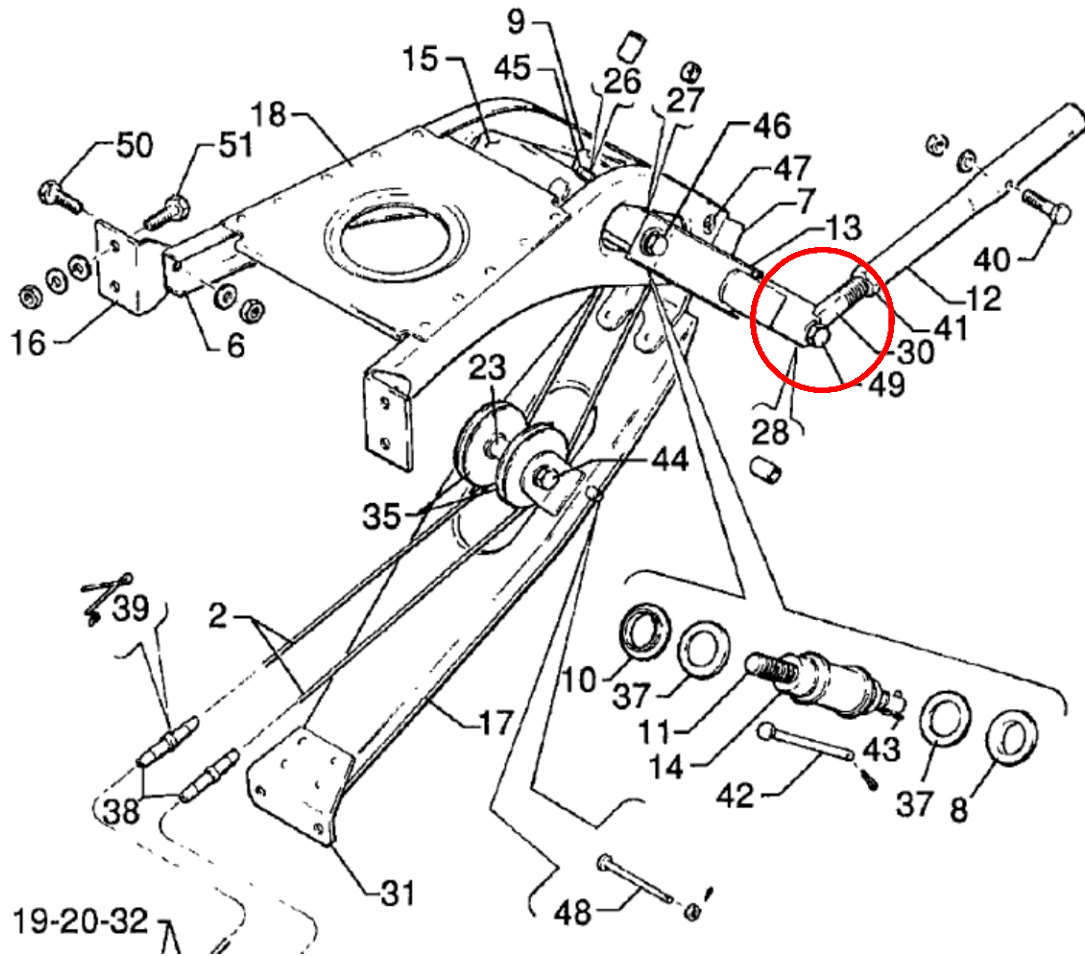


Figure 1: Illustrated Parts Catalog (Part Nos. 753-816)



*Figure 2: Photo of the stabilator trim assembly (Photo courtesy of the FAA)*

A review of applicable maintenance records revealed two maintenance logbook entries for the elevator trim wheel cable becoming unspooled, the first on March 14, 2023, and the second on March 23, 2023. After each repair, a functional check flight was accomplished with no discrepancies noted.

In an interview with the mechanic from the March 23 repair, he stated that he did not disconnect or otherwise perform maintenance on the affected control rod or linkage.

The examiner stated that during the preflight inspection, no anomalies were noted with the trim linkage assembly.

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N28HE
<b>Model/Series:</b>	PA-34-200	<b>Aircraft Category:</b>	Airplane
<b>Amateur Built:</b>			
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Designator Code:</b>			

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	VMC	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KCXO,228 ft msl	<b>Observation Time:</b>	12:53 Local
<b>Distance from Accident Site:</b>	5 Nautical Miles	<b>Temperature/Dew Point:</b>	28°C /18°C
<b>Lowest Cloud Condition:</b>	Few / 4000 ft AGL	<b>Wind Speed/Gusts, Direction:</b>	8 knots / , 100°
<b>Lowest Ceiling:</b>		<b>Visibility:</b>	10 miles
<b>Altimeter Setting:</b>	29.96 inches Hg	<b>Type of Flight Plan Filed:</b>	
<b>Departure Point:</b>		<b>Destination:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Serious	<b>Latitude, Longitude:</b>	30.578177,-95.177608 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Williams, David
<b>Additional Participating Persons:</b>	Robert McGee; FAA; Houston, TX
<b>Note:</b>	The NTSB did not travel to the scene of this accident.