

**Beechcraft**

BY TEXTRON AVIATION

Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1985	Make: Cessna	Model: T210R
	Serial number: 21064922		Registration: N6209U
Location: Grove City, PA		Date: 11-24-21	Time: 1744 EST
Aircraft Owner		Aircraft Operator	
Centurion 85 LLC 3511 Silverside Rd Ste 105 Wilmington, DE 19810-4902		Rick Eugene Briggs 1620 Shelburne Ln Sarasota, FL 34231-3026	
Report Information			
Chief Air Safety Investigator: Henry J. Soderlund		Report #: ASI-21-DL-T	Report date: 04-26-22

Airframe

Impact Sequence and Airframe Structure

During the descent, the left wing impacted trees and partially separated. The left wing tip was found approximately 180' before the main wreckage. The remainder of the aircraft was found at the impact site. The post-impact fire consumed the majority of the fuselage and a portion of the left wing. Oil was observed on the belly of the aircraft and the bottom of the left horizontal stabilizer.



TAI On Site ASI-21-DL-005.jpg



TAI On Site ASI-21-DL-013.jpg

Airframe Systems

Flight Control System Information		
Control lock: Undetermined		
Flight Control Cable Continuity		
Ailerons: Undetermined	Elevators: Undetermined	Rudder: Not established
Aileron tab: Not applicable	Elevator tab: Undetermined	Rudder tab: Not applicable
Flap and Trim Positions		
Flap indicator: Undetermined	Flap handle: Undetermined	Flap actuator: Retracted
Elevator trim: Indicator: Unknown due to damage	Actuator: Undetermined	

Remarks:

Flight control cable continuity could not be confirmed due to wreckage and terrain conditions.

Airframe Fuel System Condition, Controls, and Read Outs			
Fuel strainer screen: Undetermined		Fuel strainer bowl: Undetermined	
Main fuel tank gauge:	Left: Undetermined		Right: Undetermined
Fuel selector handle: Undetermined	Fuel selector valve: Undetermined		Fuel boost pump: Undetermined

Remarks:

The fuel system was consumed by the post-impact fire.

Landing Gear System Condition and Controls			
Gear position:	Nose: Retracted	Left: Retracted	Right: Retracted
Actuator position:	Nose: Retracted	Left: Retracted	Right: Retracted
Landing gear selector: Undetermined		Emer gear handle: Undetermined	
Environmental System Controls and Read Outs			
Cabin heater: Undetermined		Cabin vent: Undetermined	Defrost: Undetermined
Air conditioner: Not applicable		Oxygen system: Undetermined	Oxygen quantity: Undetermined
Icing System Information and Switches			
Certified into known icing? No		De-icing boots installed? No	
Pitot heat: Undetermined		Stall heat: Not applicable	
De-ice:	Surface: Not applicable	Propeller: Not applicable	Windshield: Not applicable
Anti-ice:	Surface: Not applicable	Propeller: Undetermined	Windshield: Not applicable
ELT Information			
Installed? Undt	Manufacturer: Undetermined		Model: Undetermined Type: Undetermined
Serial number: Undt	Battery due date: Undetermined	Armed: Undetermined	Activated: Undetermined

Remarks:

None.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	2nd seat stop
1	Yes	Undetermined	See below	Consumed by fire	Undetermined	Undetermined
2	Yes	Undetermined	See below	Consumed by fire	Undetermined	Undetermined
3	No	Undetermined	N/A	Consumed by fire	Undetermined	Undetermined
4	No	Undetermined	N/A	Consumed by fire	Undetermined	Undetermined
5	No	Undetermined	N/A	Consumed by fire	Undetermined	Not applicable
6	No	Undetermined	N/A	Consumed by fire	Undetermined	Not applicable

Seat Condition Information					
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact
1	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined
2	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined
3	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined
4	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined
5	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined
6	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined

Remarks:

One latched seat belt was found in the wreckage. The passenger was ejected from the wreckage and found away from the main wreckage.

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: Undetermined			
Suction gage: Undetermined		Magnetic compass: Undetermined		Clock: Undetermined			
	Left side				Left side		
Airspeed:	Undt			Turn coordinator (airplane):	Undt		
Attitude (pitch):	Undt			Turn coordinator (ball):	Undt		
Attitude (roll):	Undt			Heading indicator:	Undt		
Altimeter:	Undt			Heading "bug":	Undt		
Altimeter setting:	Undt			Vertical speed indicator:	Undt		
Communication and Navigation Radios							
Radio	Control	Active frequency	Stand-by frequency	Radio	Control	Active frequency	Stand-by frequency
Com 1:	Undt	Undetermined	Undetermined	Com 2:	Undt	Undetermined	Undetermined
Nav 1:	Undt	Undetermined	Undetermined	Nav 2:	Undt	Undetermined	Undetermined
Obs 1:	Undetermined			Obs 2:	Undetermined		
Transponder:	Mode: Undetermined		Active code: Undetermined		Stand-by code: Undetermined		
Electrical Switch Positions							
Master battery: Undetermined		Master alternator: Undetermined		Avionics 1: Undetermined			
Lighting Switch Positions							
Navigation: Undetermined		Rotating Beacon: Undetermined		Landing: Undetermined			
Taxi: Undetermined		Strobe: Undetermined		Instrument: Undetermined			
Wing Ice: Undetermined							
Ignition Switch Position							
Key: Undetermined							

Remarks:

The post impact fire consumed the majority of the cockpit and cabin.

Powerplant Description

Engine Instruments						
Hour meter: Undt		Tach RPM: Undt		Tach hours: Undt		
Oil press: Undt		Oil temp: Undt		EGT: Undt		
Fuel press: Undt		Fuel flow: Undt		Ammeter: Undt		
				Manifold press: Undt		
				CHT: Undt		
				Voltmeter: Undt		
Engine Control Positions						
	Cockpit	Engine		Cockpit	Engine	
Throttle:	Undetermined	Undetermined	Cowl flaps:	Undetermined	Undetermined	
Mixture:	Undetermined	Undetermined	Alternate air:	Undetermined	Undetermined	
Propeller:	Undetermined	Undetermined	Primer:	Not applicable		
Engine Condition						
Engine attached to airframe: Yes			Propeller attached to engine: Yes			
Engine compression: No			Valve train continuity: No			
Vacuum pump drive shaft: Undetermined						
Engine Fuel System Condition						
Fuel pump drive shaft: Undetermined			Carburetor inlet screen: Undetermined			
Fuel distribution valve screen: Undetermined			Fuel injectors: Undetermined			
Magnetos Condition						
Left magneto attached: Undetermined			Right magneto attached: Undetermined			
Left magneto spark: Undetermined			Right magneto spark: Undetermined			
Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	See below	Normal	See below	Normal	See below	Normal
Bottom	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined

Remarks:

The post-impact fire consumed the engine instruments. The dip stick was installed correctly.

The engine was partially examined with a borescope at the accident site and the following was found:

Cylinder 1 – Not examined

Cylinder 2 – Some deposits on piston

Cylinder 3 – Connecting rod intact

Cylinder 4 – Connecting rod separated at crankshaft, piston end intact, broken at crankshaft, piston top clean

Cylinder 5 – Piston fractured into multiple small pieces, piston pin still in connecting rod

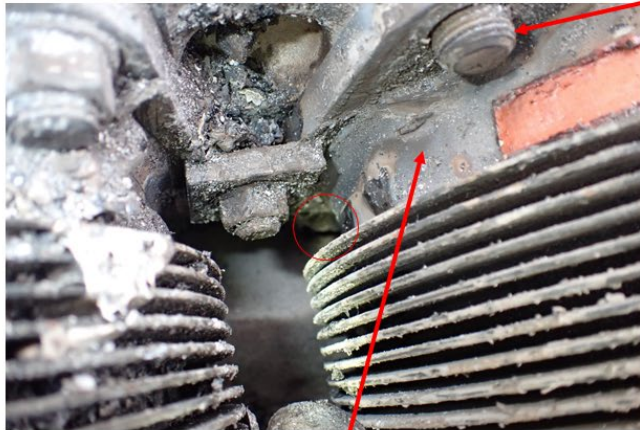
Cylinder 6 – Clean piston, metal on air side of intake valve

The four thru bolts connecting cylinders 5 and 4 and cylinders 3 and 2 were each missing a nut. The thru bolts on the aft side of cylinder 1 were loose.



Cylinder 1 - top, aft, rear

Cylinder 1 - bottom, aft, rear



Cylinder 2

Aft →

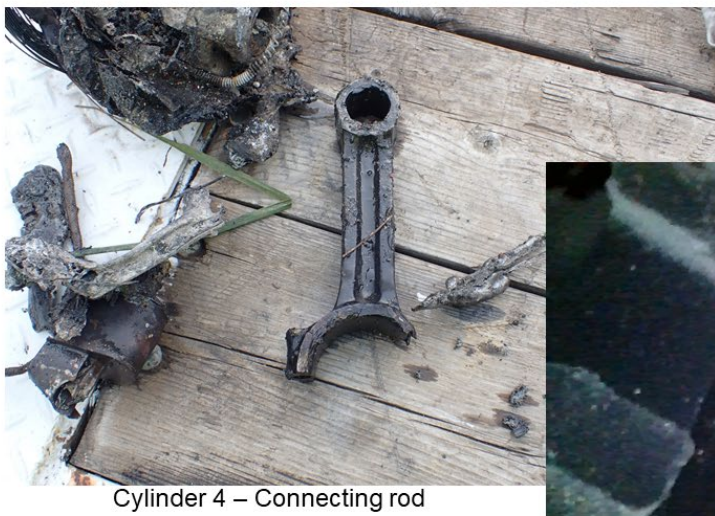
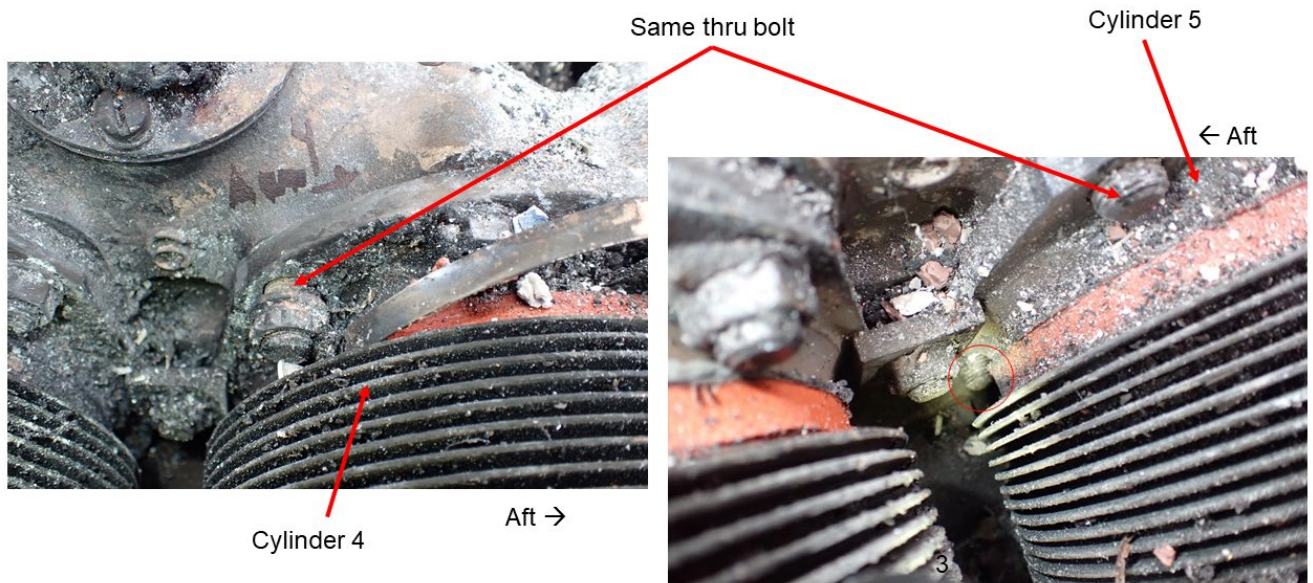
Same thru bolt

Cylinder 3

← Aft



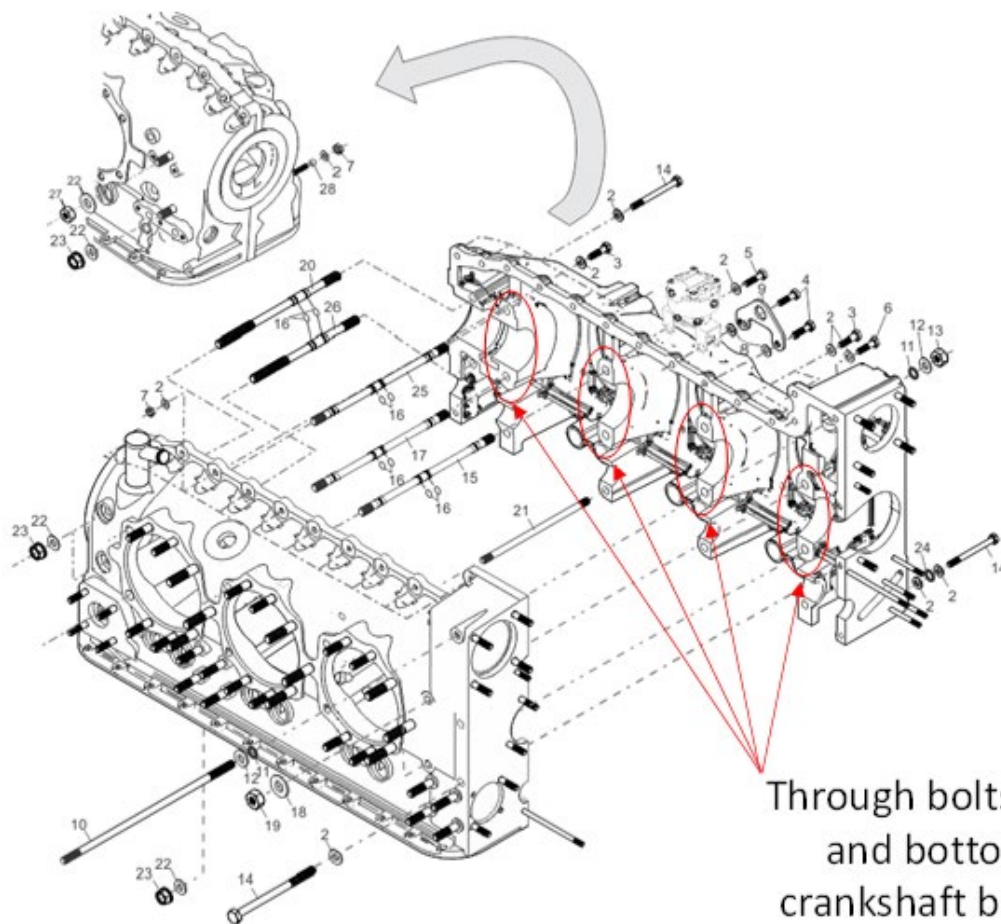
2

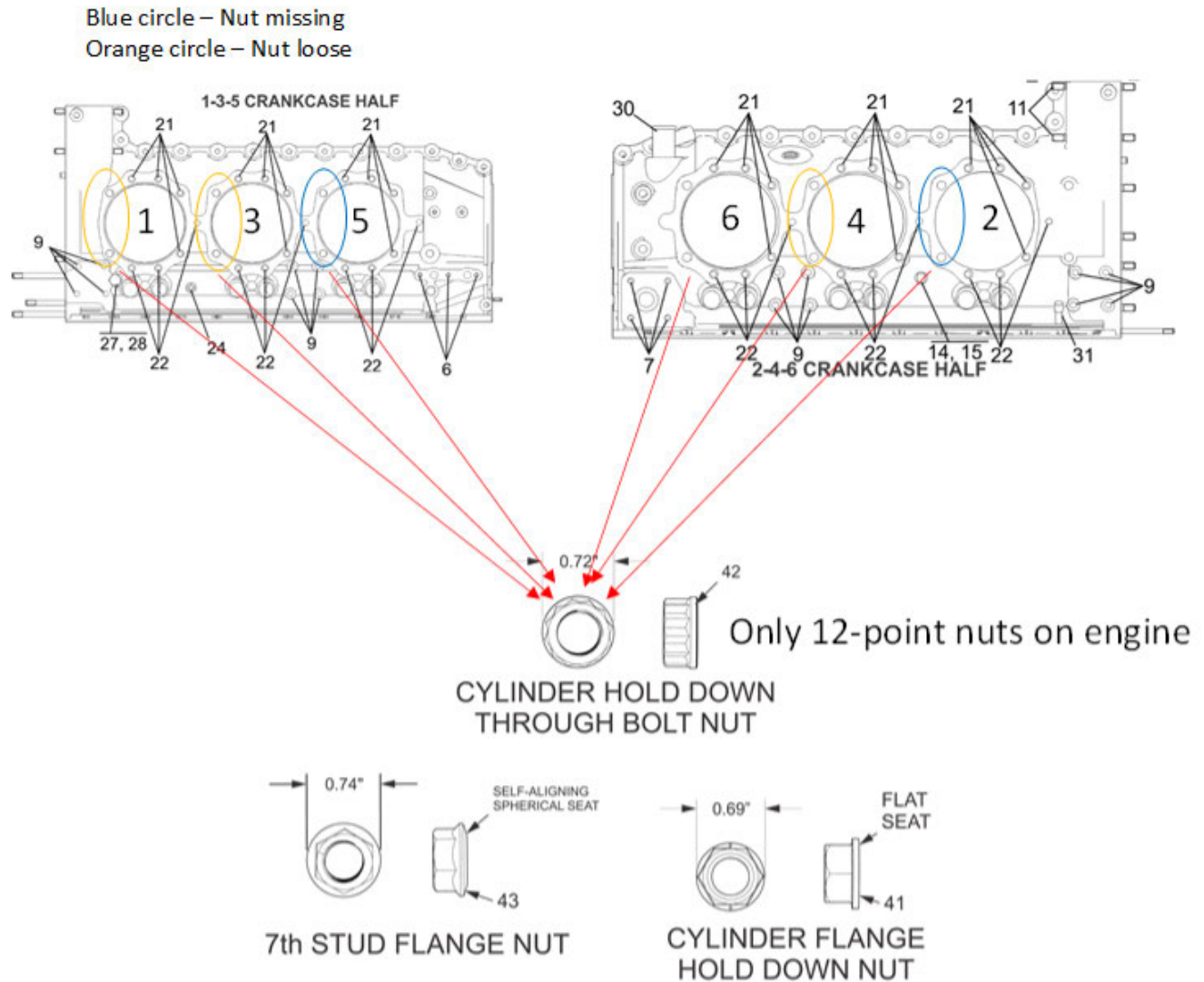


Cylinder 4 – Borescope
Piston



Cylinder 5 top spark plug

Cylinder 5 borescope -
Looking from base of cylinder towards headCylinder 5 borescope -
Piston pin and connecting rodThrough bolts on top
and bottom of
crankshaft bearings



Propeller

The propeller spinner did not exhibit any signs of rotational deformation. Two of the three blades were bent slightly aft.

Research & Testing

None.