

Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1975	Make: Cessna	Model: 172M
	Serial number: 17265650		Registration: N6929H
Location: Alpine, UT		Date: 07-03-20	Time: 0729 MDT
Aircraft Owner		Aircraft Operator	
6929H Aircraft Leasing LLC [REDACTED] Spanish Fork, UT 84660-2533		Tyson Colby Brummett Salt Lake City, UT	
Report Information			
Air Safety Investigator: Jennifer D. Barclay		Report #: ASI-20-CO-T	Report date: 01-04-21

Airframe

Impact Sequence and Airframe Structure

The aircraft impacted terrain in a wings level, nose-down attitude. The engine was forced aft but did not penetrate the firewall. The cockpit volume was reduced in an accordion type fashion. The leading edge of both wings exhibited fore-aft compression particularly to the outboard sections. The empennage appeared undamaged. First responder photographs show the wreckage site was contained to the footprint of the aircraft.



Photo retrieved from Kathryn's Report

Airframe Systems

Flight Control System Information		
Control lock: Undetermined		
Flight Control Cable Continuity		
Ailerons: Established	Elevators: Established	Rudder: Established
Aileron tab: Not applicable	Elevator tab: Established	Rudder tab: Not applicable
Flap and Trim Positions		
Flap indicator: Undt	Flap handle: Undt	Flap actuator: 0.3" = 0°
Elevator trim: Indicator: Unknown due to damage	Actuator: 0.6" ~ outside normal limits	

Remarks:

Control cable continuity was established from the cockpit to all flight control surfaces. The elevator trim tab actuator was outside normal limits in the tab down position.

Airframe Fuel System Condition, Controls, and Read Outs		
Fuel strainer screen: Clean	Fuel strainer bowl: Clean	
Main fuel tank gauge: Left: Undt	Right: Undt	
Fuel selector handle: Both	Fuel selector valve: Undetermined	Fuel boost pump: Not applicable

Remarks:

Both wing tanks exhibited evidence of hydraulic deformation.



Left wing fuel tank area, ASI-20-CO-055



Right wing fuel tank, ASI-20-CO-063

Landing Gear System Condition and Controls			
Gear position:	Nose: Fixed	Left: Fixed	Right: Fixed
Environmental System Controls and Read Outs			
Cabin heater: Undt	Cabin vent: Undt	Defrost: Undt	
Air conditioner: Not applicable	Oxygen system: Not applicable	Oxygen quantity: Not applicable	
Icing System Information and Switches			
Certified into known icing? No		De-icing boots installed? No	
Pitot heat: Not applicable		Stall heat: Not applicable	
Anti-ice:	Surface: Not applicable	Propeller: Not applicable	Windshield: Not applicable
ELT Information			
Installed? Yes	Manufacturer: Ameri-King	Model: AK-450	Type: AF AP
Serial number: 492048	Battery due date: 03-29	Armed: Undetermined	Activated: Undetermined

Remarks:

None.



Nose landing gear forced aft through cabin floor, ASI-20-CO-012

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	2nd seat stop
1	Yes	3-Point	Yes	Cut by first responders	Cessna	No
2	Yes	3-Point	Yes	Cut by first responders	Cessna	No
3	Yes	2-Point	Yes	Cut by first responders	Cessna	Not applicable
4	Yes	2-Point	Yes	Cut by first responders	Cessna	Not applicable

Seat Condition Information					
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact
1	Forward facing	No	No	No	No
2	Forward facing	No	No	No	No
3	Forward facing	No	No	Yes	Not applicable
4	Forward facing	No	No	Yes	Not applicable

Remarks:

Cockpit seats, ASI-20-CO-083

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: None			
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			
Ignition Switch Position							
Key: Undetermined							

Remarks:

The instrument panel was destroyed during the impact sequence.



Instrument panel, ASI-20-CO-013

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:	See below	Undetermined	Cowl flaps:	Not applicable	Not applicable
Mixture:	See below	Undetermined	Carburetor heat:	Undetermined	Undetermined
Propeller:	Not applicable	Not applicable	Primer:	Closed & locked	
Engine Condition					
Engine attached to airframe: Yes			Propeller attached to engine: No		
Engine compression: Yes			Valve train continuity: Yes		
Vacuum pump drive shaft: Intact					
Engine Fuel System Condition					
Fuel pump drive shaft: Not applicable			Carburetor inlet screen: Clean		
Magnetos Condition					
Left magneto attached: Yes			Right magneto attached: No		
Left magneto spark: All leads			Right magneto spark: No		
Spark Plug Condition (per Champion Check-A-Plug Card)					
	1	2	3	4	
Top	Normal	Normal	Normal	Normal	
Bottom	Not examined	Not examined	Not examined	Not examined	

Remarks:

The carburetor float exhibited hydraulic deformation.



Carburetor float, ASI-20-CO-096

Propeller

The propeller separated from the engine. Blade A was twisted with significant chordwise scratches along the length of the blade and gouges at the tip. Blade B was bent aft midspan with chordwise scratches from the root to midspan. The spinner was crushed aft around the propeller hub.



Propeller, ASI-20-CO-034

Research & Testing

No additional research is planned at the time of this writing.