

Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1979	Make: Cessna	Model: 421C
	Serial number: 421C0601		Registration: N421TK
Location: Huntsville, TX		Date: 04-25-17	Time: 1035 CDT
Aircraft Owner		Aircraft Operator	
Klass Enterprises, LLC [REDACTED] Conroe, TX 77302-3146		Kermit Greer Faulkner, Jr. [REDACTED] Conroe, TX 77203-3146	
Report Information			
Senior Air Safety Investigator: Henry J. Soderlund		Report #: ASI-17-BF-T	Report date: 11-07-17

Airframe

Impact Sequence and Airframe Structure

The aircraft impacted trees and terrain before coming to rest inverted and half submerged in a farm pond. A tree along the wreckage path exhibited leaf damage consistent with fuel spray.



On Site ASI-17-BF-025



News photograph

Airframe Systems

Flight Control System Information		
Control lock: Undetermined		
Flight Control Cable Continuity		
Ailerons: Established	Elevators: Established	Rudder: Established
Aileron tab: Established	Elevator tab: Established	Rudder tab: Established
Flap and Trim Positions		
Flap indicator: 15°	Flap handle: Full up	Flap actuator: Full up
Elevator trim: Indicator: Takeoff range	Actuator: 2.6" - Out of normal travel range	
Rudder trim: Indicator: Neutral	Actuator: 3" - ~12° tab right	
Aileron trim: Indicator: Between neutral and full right	Actuator: 0.22" - ~21° tab down	

Remarks:

None.

Airframe Fuel System Condition, Controls, and Read Outs					
Fuel strainer screen:		Left: Clean		Right: Clean	
Fuel strainer bowl:		Left: Clean		Right: Clean	
Main fuel tank gauge:		Left: Off scale		Right: Off scale	
Auxiliary fuel gauge:		Left: Not applicable		Right: Not applicable	
Locker fuel gauge:		Left: Undetermined		Right: Not applicable	
Locker transfer:		Left: Off		Right: Not applicable	
Fuel selector handle:	Left: See below	Fuel selector valve:	Left: Off	Fuel boost pump:	Left: Off
	Right: See below		Right: Right		Right: Off
Crossfeed shutoff: Down (open)					

Remarks:

Both fuel selector handles were positioned straight ahead between the MAIN and X-FEED positions.

Landing Gear System Condition and Controls			
Gear position:	Nose: Extended	Left: Extended	Right: Extended
Actuator position:	Nose: Extended	Left: Extended	Right: Extended
Landing gear selector:	Extended	Aux gear control:	Stowed
Environmental System Controls and Read Outs			
Cabin heater:	Off	Cabin vent:	Open
		Defrost:	Closed
Air conditioner:	Undetermined	Oxygen system:	Off
		Oxygen quantity:	1650
Pressurization System Controls and Read Outs			
Cabin pressurization:	Pressurize	Cabin VSI:	-1000
Differential pressure:	Undetermined	Cabin altitude:	Undetermined
Cabin altitude selector:	2900	Ram air control:	Pulled out (dump)
Left air control:	Pushed in	Source selector knob:	Not applicable
Icing System Information and Switches			
Certified into known icing?	Yes	De-ice boots installed?	Yes
Pitot heat:	Off	Stall heat:	Not applicable
De-ice:	Surface: Off	Propeller:	Off
		Windshield:	Off
Anti-ice:	Surface: Not applicable	Propeller:	Not applicable
		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:

The ELT was not examined during the wreckage review.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	
1	Yes	3-Point	Yes	Undetermined	Undetermined	
2	No	3-Point	N/A	Undetermined	Undetermined	
3	No	2-Point	N/A	Undetermined	Undetermined	
4	No	2-Point	N/A	Undetermined	Undetermined	
5	No	2-Point	N/A	Undetermined	Undetermined	
6	No	2-Point	N/A	Undetermined	Undetermined	
7	No	2-Point	N/A	Undetermined	Undetermined	
8	No	2-Point	N/A	Undetermined	Undetermined	

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

Remarks:

None.

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: ARC			
Suction gage: 0		Magnetic compass: Undetermined			Clock: Undetermined		
	Left side	Right side		Left side	Right side		
Airspeed:	0	82	Turn coordinator (airplane):	Level	Not applicable		
Attitude (pitch):	Rolled	D 25	Turn coordinator (ball):	Right	Not applicable		
Attitude (roll):	Left 55	R 55	Heading indicator:	Digital	Digital		
Altimeter:	800	600	Heading "bug":	Digital	Digital		
Altimeter setting:	29.62	29.72	Vertical speed indicator:	-100	0		
Communication and Navigation Radios							
Radio	Control	Active frequency	Stand-by frequency	Radio	Control	Active frequency	Stand-by frequency
Com 1:	On	Digital	Digital	Com 2:	On	Digital	Digital
Nav 1:	On	Digital	Digital	Nav 2:	On	Digital	Digital
Obs 1:	Digital			Obs 2:	170		
Transponder:	Mode: Digital		Active code: Digital		Stand-by code: Digital		
Electrical Switch Positions							
Master battery: On				Stand-by battery: Not applicable			
Left alternator: On				Right alternator: On			
Avionics 1: Off				Avionics 2: Not applicable			
Lighting Switch Positions							
Navigation: Off		Rotating beacon: Off			Landing: Off		
Taxi: Off		Strobe: Off			Instrument: Undetermined		
Wing Ice: Off							
Ignition Switch Positions							
Left engine:	Left magneto: On			Right magneto: On			
Right engine:	Left magneto: On			Right magneto: On			

Remarks:

None.

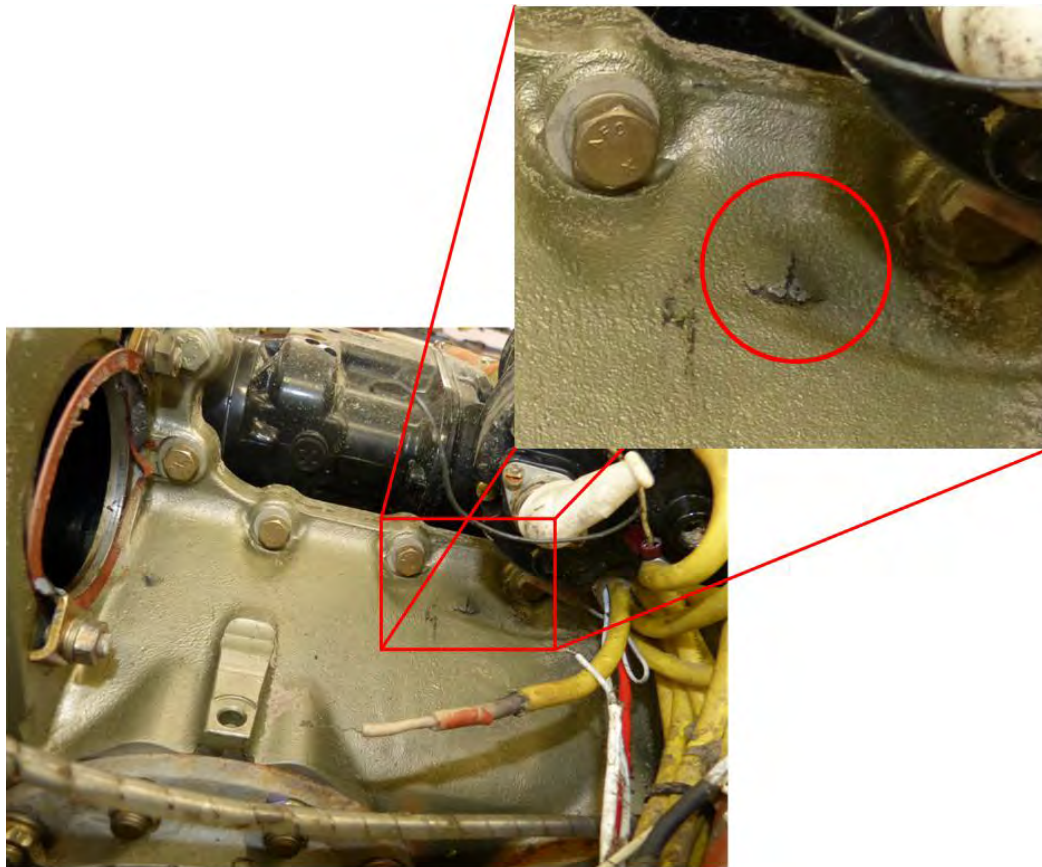
Powerplant Description

Engine Instruments					
Hour meter: Not readable					
	Left engine	Right engine		Left engine	Right engine
Tach RPM:	0	0	CHT:	0	0
Manifold press:	30	30	Fuel press:	Not applicable	Not applicable
Oil press:	0	0	Fuel flow:	Digital	Digital
Oil temp:	0	0	Ammeter:	Not in use	0
EGT:	Digital	Digital	Voltmeter:	Not applicable	Not applicable
Left Engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	Full forward	Undetermined	Cowl flaps:	Not applicable	Not applicable
Mixture:	Feathered	Undetermined	Alt air:	Closed	Undetermined
Propeller:	Feathered	Feathered	Primer:	Not applicable	
Right Engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	Full forward	Full forward	Cowl flaps:	Not applicable	Not applicable
Mixture:	Full forward	Full forward	Alt air:	Closed	Undetermined
Propeller:	Full forward	Full forward	Primer:	Not applicable	
Engine Condition					
	Left engine		Right engine		
Engine attached to airframe:	No		No		
Propeller attached to engine:	Yes		Yes		
Engine compression:	See below		See below		
Vacuum pump drive shaft:	See below		See below		
Valve train continuity:	See below		See below		
Engine Fuel System Condition					
	Left engine		Right engine		
Fuel pump drive shaft:	See below		See below		
Fuel injectors:	See below		See below		
Fuel control inlet screen:	See below		See below		
Distribution valve screen:	See below		See below		

Engine Magneto Condition						
	Left engine			Right engine		
Left magneto attached:	Yes			Yes		
Left magneto spark:	See below			See below		
Right magneto attached:	Partially			Yes		
Right magneto spark:	See below			See below		
Left Engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	See below	See below	See below	See below	See below	See below
Bottom	See below	See below	See below	See below	See below	See below
Right Engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	See below	See below	See below	See below	See below	See below
Bottom	See below	See below	See below	See below	See below	See below

Remarks:

An external examination of the engines was conducted during the wreckage exam and an inside to outside "dent" was observed on the left engine. No further examination was done during the wreckage review.



CMI Photograph P1090246.JPG

Propellers

All three propeller blades of the left propeller remained in their hub.

Two of the right propeller blades remained in their hub; one blade was detached from the hub with portions of the hub still attached to the blade. One attached blade and the separated blade appeared undamaged. The other attached blade was bent chordwise in the direction of rotation.

Research & Testing

During the examination of the engines at the manufacturer's facility it was found that the #2 connecting rod on the left engine had separated from the crankshaft. All of the connecting rod attachment hardware was installed. All of the cylinder base nut torques were within limits. The #1 and #3 connecting rods exhibited heat distress at their crankshaft ends. The #1 connecting rod bearings exhibited heat discoloration and one half had extruded to the side. The #3 connecting rod bearing exhibited heat discoloration, and both halves had extruded.