



National Transportation Safety Board Aviation Accident Final Report

Location:	McKinney, Texas	Accident Number:	CEN22LA068
Date & Time:	December 9, 2021, 17:00 Local	Registration:	N666JS
Aircraft:	CHR International Safari 400	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he drove from his home to the airport not expecting to fly the helicopter due to high winds, however, after arrival at the hangar the winds were lighter than the forecast winds, so he conducted a preflight for a local flight. As the pilot raised the collective for takeoff and the helicopter climbed into an initial hover, the helicopter rolled to the left. The pilot tried to counter the roll but was unable because the cyclic control lock was still in place. The helicopter continued to roll left and impacted the ramp and a post impact fire ensued. The pilot successfully egressed the helicopter but suffered serious burn injuries. The helicopter sustained substantial damage to the main rotor system and the cabin. The pilot reported that there were no preaccident mechanical malfunctions or failures that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot did not remove the cyclic control lock during preflight, which resulted in a loss of control during the initial hover.

Findings

Personnel issues	Preflight inspection - Pilot
Aircraft	(general) - Inadequate inspection
Aircraft	Lateral/bank control - Attain/maintain not possible

Factual Information

History of Flight

Prior to flight	Preflight or dispatch event
Takeoff	Loss of control in flight (Defining event)

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	59, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	3-point
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	July 12, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 1, 2021
Flight Time:	16568 hours (Total, all aircraft), 10 hours (Total, this make and model), 9200 hours (Pilot In Command, all aircraft), 118 hours (Last 90 days, all aircraft), 44 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CHR International	Registration:	N666JS
Model/Series:	Safari 400	Aircraft Category:	Helicopter
Year of Manufacture:	2014	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	CH406
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	November 21, 2021 Annual	Certified Max Gross Wt.:	1650 lbs
Time Since Last Inspection:	5 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	75 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	Y10-360-EXP
Registered Owner:		Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KTKI, 586 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	16:53 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.77 inches Hg	Temperature/Dew Point:	24° C / 11° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	McKinney, TX (TKI)	Type of Flight Plan Filed:	None
Destination:	McKinney, TX (TKI)	Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	MCKINNEY NTL TKI	Runway Surface Type:	
Airport Elevation:	588 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	Unknown
Total Injuries:	1 Serious	Latitude, Longitude:	33.177391, -96.591032(est)

Administrative Information

Investigator In Charge (IIC):	Folkerts, Michael		
Additional Participating Persons:	Matthew Spawn; Flight Standards District Office; Irving, TX		
Original Publish Date:	June 9, 2022	Investigation Class:	4
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=104380		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).