



National Transportation Safety Board Aviation Accident Data Summary

Location:	Corpus Christi, TX	Accident Number:	CEN12LA228
Date & Time:	04/03/2012, 1555 CDT	Registration:	N3042D
Aircraft:	ENSTROM 280FX	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General Aviation - Other Work Use		

Analysis

After an uneventful flight, the pilot slowed the helicopter into a stable hover about 15 feet above the landing point. Although the engine continued to operate, the main rotor rpm suddenly decayed and the helicopter landed hard. The pilot, who had over 5,600 flight hours in helicopters, stated that there was no warning before the loss of main rotor drive. The helicopter was in a position whereby power to the rotor system was essential to conducting a safe landing. Examination of the helicopter revealed that the bolt that retains the clutch drive rod end in the clutch pivot fork had sheared, resulting in the clutch disengaging. Once the clutch disengaged, there was no drive to the rotor system, and the helicopter's descent could not be arrested. With the exception of the failed bolt, examination of the entire drive system did not show any preexisting mechanical malfunction or abnormalities that would have precluded normal operation. The helicopter had operated about 1,350 hours since it was new, and the retaining bolt was the original installation. The reason for the failure of the bolt could not be determined.

Flight Events

Approach - Sys/Comp malf/fail (non-power)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the bolt that retained the clutch drive rod end, which resulted in a loss of main rotor drive and a subsequent hard landing.

Findings

Aircraft-Aircraft propeller/rotor-Main rotor drive-Engine/transmission coupling-Failure - C

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	68
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Helicopter; Instrument Airplane
Flight Time:	18000 hours (Total, all aircraft), 200 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 14 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	ENSTROM	Registration:	N3042D
Model/Series:	280FX	Engines:	1 Reciprocating
Operator:	TRAVLAND HELICOPTERS INTL INC	Engine Manufacturer:	LYCOMING
Air Carrier Operating Certificate:	None	Engine Model/Series:	HIO-360-F1AD
Flight Conducted Under:	Part 91: General Aviation - Other Work Use		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	CRP, 44 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Broken / 3600 ft agl
Condition of Light:	Day	Wind Speed/Gusts, Direction:	7 knots, 160°
Temperature:	29° C / 22° C	Visibility	7 Miles
Precipitation and Obscuration:			
Departure Point:	Edinburg, TX (EBG)	Destination:	Corpus Christi, TX (CRP)

Airport Information

Airport:	Corpus Christie (CRP)	Runway Surface Type:	
Runway Used:	N/A	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Alexander Lemishko	Adopted Date:	09/12/2013
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=83305		

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