



Aviation Investigation Final Report

Location:	Danbury, Texas	Accident Number:	CEN13LA360
Date & Time:	June 19, 2013, 10:00 Local	Registration:	N485PM
Aircraft:	Enstrom F-28A	Aircraft Damage:	Destroyed
Defining Event:	Loss of engine power (total)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot had just taken off in the helicopter when the pilot and the flight instructor heard a loud “bang,” and the engine lost total power. The flight instructor took control of the helicopter and initiated an autorotation to available terrain from a low altitude; however, when the helicopter touched down, it encountered a rut and rolled over on its right side. The main rotor blades were destroyed, and the tail boom was severed. Postaccident examination of the engine revealed that a connecting rod had failed. The reason the connecting rod failed could not be determined during postaccident examination.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The total loss of engine power due to the failure of a connecting rod for reasons that could not be determined during postaccident examination.

Findings

Aircraft	Recip eng cyl section - Failure
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Factual Information

History of Flight

Approach-VFR pattern downwind	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing
Autorotation	Collision with terr/obj (non-CFIT)

On June 19, 2013, at 1013 central daylight time, an Enstrom F-28A, N485PM, landed hard after the engine lost power at Salaika Aviation Airport (07TA), Danbury, Texas. The instructor and student pilot were not injured. The helicopter was destroyed. The helicopter was registered to and operated by Salaika Air Services, Danbury, Texas, under the provisions of 14 Code of Federal Regulations Part 91 as an instructional flight. Visual meteorological conditions prevailed at the time of the accident, and no flight plan had been filed. The local flight originated from 07TA approximately 1000.

The helicopter had just taken off and was turning downwind in the airport's traffic pattern when the pilots heard a loud "bang" and the engine lost power. The instructor initiated an auto rotation. The helicopter touched down and slid, striking a ground rut that broke the right skid. The helicopter rolled over on its right side. The main rotor blades were destroyed and the tail boom was severed.

Post-accident examination revealed a connecting rod had ventilated the engine crankcase. The reason the connecting rod failed was not determined.

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	52, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Unknown	Last FAA Medical Exam:	January 9, 2012
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	December 1, 2011
Flight Time:	(Estimated) 5000 hours (Total, all aircraft), 5000 hours (Total, this make and model)		

Student pilot Information

Certificate:	Student	Age:	41, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	July 27, 2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Enstrom	Registration:	N485PM
Model/Series:	F-28A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	259
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:		Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	H10-360-C1B
Registered Owner:	SALAIKA TIMOTHY A	Rated Power:	205 Horsepower
Operator:	SALAIKA TIMOTHY A	Operating Certificate(s) Held:	None
Operator Does Business As:	SALAIKA AIR SERVICES	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Danbury, TX (07TA)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	
Departure Time:	09:50 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	29.237777,-95.340278(est)

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	Mark C Hopp; FAA Flight Standards District Office; Houston, TX
Original Publish Date:	December 2, 2013
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=87234

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).