



National Transportation Safety Board Aviation Accident Data Summary

Location:	Stockton, CA	Accident Number:	WPR11LA423
Date & Time:	09/01/2011, 1840 PDT	Registration:	N205PJ
Aircraft:	ARROW FALCON EXPORTERS INC UH-1H	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Analysis

During cruise flight, the pilot noted a fluctuation in the engine oil pressure followed by the illumination of the red warning light indicating low oil pressure. He performed a precautionary landing, and at 10 feet above ground level, the engine lost total power. The helicopter subsequently landed hard on uneven terrain and rolled onto its left side. Postaccident examination of the engine revealed that a gear tooth on the starter-generator drive gear had separated. The separated tooth jammed the accessory gear drive train, which resulted in the failure of the engine oil pump and subsequent catastrophic engine failure due to oil starvation. The reason for the failure of the gear tooth could not be determined.

Flight Events

Enroute-cruise - Powerplant sys/comp malf/fail
Emergency descent - Loss of engine power (total)
Landing-flare/touchdown - Roll over

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A total loss of engine power due to the separation of a tooth from the starter-generator drive gear, which resulted in failure of the engine oil pump and subsequent oil starvation.

Findings

Aircraft-Aircraft power plant-Engine (turbine/turboprop)-Accessory drives-Failure - C
Aircraft-Fluids/misc hardware-Fluids-Oil-Fluid level - C

Pilot Information

Certificate:	Airline Transport	Age:	55
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Helicopter
Flight Time:	13200 hours (Total, all aircraft), 13050 hours (Pilot In Command, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	ARROW FALCON EXPORTERS INC	Registration:	N205PJ
Model/Series:	UH-1H	Engines:	1 Turbo Shaft
Operator:	P J HELICOPTERS INC	Engine Manufacturer:	LYCOMING
Air Carrier Operating Certificate:		Engine Model/Series:	T-53
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	SCK, 27 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	8 knots, 320°
Temperature:	33°C / 11°C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Tracy, CA (TCY)	Destination:	Red Bluff, CA (RBL)

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	James F Struhsaker	Adopted Date:	11/26/2012
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=81680		

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