



National Transportation Safety Board Aviation Accident Data Summary

Location:	ARROYO GRANDE, CA	Accident Number:	LAX85LA336
Date & Time:	08/01/1985, 1015 PDT	Registration:	N90328
Aircraft:	BELL 206 B3	Injuries:	1 None
Flight Conducted Under:	Part 133: Rotorcraft Ext. Load		

Analysis

WHILE HOVERING AND SLINGING AN EXTERNAL LOAD OVER ROUGH TERRAIN THE ENG CHIP LIGHT ILLUMINATED. THE PLT IMMEDIATELY POSITIONED THE ACFT TO RELEASE THE LOAD AND THE ENG BEGAN MAKING A 'WHINING' NOISE. SEVERAL SECONDS LATER ALL ENG POWER WAS LOST. THE PLT AUTOROTATED TO A FIRM LANDING AND UPON TOUCHDOWN THE MAIN ROTOR BLADES FLEXED DOWNWARD AND SEVERED THE TAIL BOOM. EXAM OF THE ENG'S TURBINE COMPONENTS REVEALED THE PRESENCE OF A 'SLUDGE' MATERIAL IN THE SCAVENGE OIL LINE FROM THE NO. 8 BEARING AND ALSO THE PRESENCE OF A HEAVY BUILD UP OF CARBON ON THE ENGINE ROTOR 'PEASHOOTER' DRIVE SHAFT. THE ACCUMULATED MATERIAL CAUSED SHAFT RUB AND FAILURE OF THE POWER TURBINE'S INNER SHAFT. THE OPERATOR REPORTED THAT AN EARLY INSPECTION OF THE N1/N2 DRIVE SHAFT AREA COULD HAVE DETECTED THE PROBLEM AND PREVENTED THE ACCIDENT.

Probable Cause

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: HOVER

Findings

1. (F) LUBRICATING SYSTEM,OIL TUBING - BLOCKED(PARTIAL)
2. (C) MAINTENANCE,SERVICE OF AIRCRAFT/EQUIPMENT - INADEQUATE - COMPANY MAINTENANCE PERSONNEL
3. (F) TURBINE ASSEMBLY,SHAFT BEARING - BLOCKED(PARTIAL)
4. (F) TURBINE ASSEMBLY,SHAFT - FAILURE,PARTIAL

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT

Findings

5. (C) EMERGENCY PROCEDURE - PERFORMED - PILOT IN COMMAND
6. (C) AUTOROTATION - PERFORMED - PILOT IN COMMAND

Occurrence #3: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

7. AIRPORT FACILITIES,RUNWAY/LANDING AREA CONDITION - NONE SUITABLE

Pilot Information

Certificate:	Commercial	Age:	33
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	5959 hours (Total, all aircraft), 1600 hours (Total, this make and model), 170 hours (Last 90 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N90328
Model/Series:	206 B3 206 B3	Engines:	1 Turbo Shaft
Operator:	WESTERN HELICOPTERS	Engine Manufacturer:	ALLISON
Operating Certificate(s) Held:		Engine Model/Series:	250 SER 400HP
Flight Conducted Under:	Part 133: Rotorcraft Ext. Load		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Weather Information Source:	Pilot
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	15 knots / , 225°
Temperature:	18° C	Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:		Destination:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): WAYNE R POLLACK

Adopted Date:

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.