



National Transportation Safety Board Aviation Incident Factual Report

Location:	SPANISH FORK, UT	Incident Number:	DEN00IA133
Date & Time:	07/01/2000, 1300 MDT	Registration:	N991CT
Aircraft:	Diamond Aircraft Industries 20C-1	Aircraft Damage:	Minor
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

On July 1, 2000, at 1300 mountain daylight time, a Diamond Aircraft Industries 20C-1, N991CT, sustained minor damage when the propeller separated from the airplane near Spanish Fork, Utah. The private pilot and his passenger were not injured. The airplane was being operated by Smith and Barlow Enterprises, Inc., Provo, Utah, under Title 14 CFR Part 91. Visual meteorological conditions prevailed for the local flight that originated from Provo, Utah, approximately 15 minutes before the incident. No flight plan had been filed.

The pilot said that he had just departed on a cross-country flight, and had climbed to 9,500 feet. He said that he began to feel a "heavy vibration" in the aircraft, and immediately turned the airplane back towards the closest runway at Spanish Fork Airport. Soon thereafter the propeller separated from the airplane. The pilot performed a forced landing to runway 30 without further incident.

The wooden propeller was not recovered. The propeller extension assembly was removed from the engine and forwarded to the National Transportation Safety Board's (NTSB) Material's Laboratory. Examination revealed that all six propeller attachment bolts showed signs of fatigue failure. There was also fretting damage on the propeller extension flange and bushing shanks.

Postincident examination of the maintenance records indicated that the attachment bolts for the propeller were last torqued on April 26, 2000, 110 hours before the incident. Sensenich Propeller Manufacturing Co., Inc., the manufacturer of the propeller, recommends that their wooden propellers be torque checked every 50 hours of flight.

Pilot Information

Certificate:	Private	Age:	, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Unknown Unknown	Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Diamond Aircraft Industries	Registration:	N991CT
Model/Series:	20C-1 20C-1	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	C0091
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	Continuous Airworthiness	Certified Max Gross Wt.:	1720 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-240
Registered Owner:	SMITH AND BARLOW ENTERPRISES	Rated Power:	125 hp
Operator:	SMITH AND BARLOW ENTERPRISES	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	29° C / 4° C
Precipitation and Obscuration:			
Departure Point:	PROVO, UT (PVU)	Type of Flight Plan Filed:	None
Destination:	EPHRAIM, UT (41U)	Type of Clearance:	VFR
Departure Time:	1245 MDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	JAMES F STRUHSAKER
Additional Participating Persons:	MAX T MCARTHUR; SALT LAKE CITY, UT
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/ .