



National Transportation Safety Board Aviation Accident Factual Report

Location:	FALL RIVER, MA	Accident Number:	BF093LA149
Date & Time:	09/02/1993, 0830 EDT	Registration:	N8447
Aircraft:	LACH BENSEN B-8M	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious

Flight Conducted Under: Part 91: General Aviation - Personal

On Thursday, September 2, 1993, at about 0830 EDT, a Lach Bensen B-8M, N8447, owned and operated by Walter Lach of Fall River, Massachusetts, rolled over and crashed during a landing at the Fall River Municipal Airport. The gyrocopter was substantially damaged. The pilot, who was the sole occupant, was seriously injured. Visual meteorological conditions prevailed, and no flight plan had been filed. The flight was conducted in accordance with 14 CFR 91.

The pilot reported that as he was flaring to land, the rotor control arm (control stick) failed. The gyrocopter then went out of control, the engine RPM began increasing, and the gyrocopter rolled over and crashed. A post-accident examination of the gyrocopter revealed the control arm had failed in an area above the pilot's head. The fracture was 90 degrees to the longitudinal axis of the control arm.

An examination of the rotor control arm revealed that it had been manufactured from unalloyed aluminum tubing. The tubing was about one inch in diameter with a wall thickness of about 1/16 inch. Hardness of the tubing averaged 84.2 HRF, which was consistent with unalloyed aluminum.

Metallurgical examination of the rotor control arm revealed that it had failed from fatigue. Fatigue had originated in two areas on the outer diameter of the control arm, where it had been chafed by a loose clamp. Fatigue had progressed through the wall thickness of the control arm, then it continued circumferentially in both directions. The fatigue crack had progress about half way around the tube before final overstress failure occurred.

Pilot Information

Certificate:	Private	Age:	76, Male
Airplane Rating(s):	None	Seat Occupied:	Center
Other Aircraft Rating(s):	Gyroplane	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	03/17/1992
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	617 hours (Total, all aircraft), 617 hours (Total, this make and model), 14 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	LACH	Registration:	N8447
Model/Series:	BENSEN B-8M BENSEN B-8	Aircraft Category:	Gyroplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	1122
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	03/09/1993, Annual	Certified Max Gross Wt.:	580 lbs
Time Since Last Inspection:	5 Hours	Engines:	1 Reciprocating
Airframe Total Time:	617 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Not installed	Engine Model/Series:	C-65
Registered Owner:	WALTER LACH	Rated Power:	65 hp
Operator:	WALTER LACH	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	100 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21 °C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	Class G

Airport Information

Airport:	FALL RIVER MUNI (FLR)	Runway Surface Type:	Asphalt
Airport Elevation:	193 ft	Runway Surface Condition:	Dry
Runway Used:	6	IFR Approach:	None
Runway Length/Width:	3950 ft / 150 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	JERRY JAMISON
Additional Participating Persons:	ROBERT S LEE; BEDFORD, MA
Investigation Docket:	NTSB accident and incident docket 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/ .