



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Ontario, OR	<b>Accident Number:</b>	SEA02LA010
<b>Date &amp; Time:</b>	11/02/2001, 1400 MST	<b>Registration:</b>	N26WF
<b>Aircraft:</b>	Fetherolf Hatz CB-1	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

The experimental-category amateur-built airplane suffered a broken weld in the right main landing gear during landing, resulting in a separation of the right main gear tire. The pilot reported that he landed to the north (runway 32) on a 4,529- by 100-foot hard-surface runway. He reported that he touched down with a light bounce. He stated that while rolling, there was suddenly a violent pull to the right after hearing a "crunch." The pilot reported that he applied left brake but that the plane left the runway to the right, went into the dirt and up onto its nose and upper left wingtip. He reported that the aircraft, including the failed part, had 17.4 hours total time. The pilot, who had built the aircraft, listed "better construction [technique] by builder" as an owner/operator safety recommendation on his NTSB accident report.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: An improper weld in the landing gear, resulting in separation of the right main landing gear wheel during a normal landing.

## Findings

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Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: LANDING

### Findings

1. (C) LANDING GEAR - IMPROPER/POOR WELD
2. LANDING GEAR, WHEEL - SEPARATION

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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: LANDING

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Occurrence #3: NOSE DOWN  
Phase of Operation: LANDING

## Factual Information

On November 2, 2001, approximately 1400 mountain standard time, a Fetherolf Hatz CB-1 experimental-category amateur-built airplane, N26WF, suffered a broken weld in the right main landing gear during landing at Ontario, Oregon, resulting in a separation of the right main gear tire. The airplane subsequently departed the side of the landing runway and nosed down, receiving substantial damage. The private pilot-in-command of the aircraft, who owned and had built the airplane and was its sole occupant, was not injured in the accident. Visual meteorological conditions with light and variable winds prevailed and no flight plan had been filed for the 14 CFR 91 personal flight from Nampa, Idaho.

The pilot reported that he landed to the north (runway 32) on a 4,529- by 100-foot hard-surface runway. He reported that he touched down with a light bounce. He stated that while rolling, there was suddenly a violent pull to the right after hearing a "crunch." The pilot reported that he applied left brake but that the plane left the runway to the right, went into the dirt and up onto its nose and upper left wingtip. He reported that the airplane, including the part that suffered the broken weld, had 17.4 hours total time. The pilot listed "better construction [technique] by builder" as an owner/operator safety recommendation on his NTSB accident report.

The pilot, who also held a repairman/experimental aircraft builder certificate for the accident aircraft, indicated on his NTSB accident report that the aircraft's last inspection was a continuous airworthiness inspection performed on August 3, 1995, 17.4 flight hours before the accident. A copy of the aircraft's engine log furnished by the pilot contained an entry dated September 15, 2001, for a "conditional inspection" signed by the pilot. The pilot did not furnish a copy of the aircraft log. According to the FAA aircraft registry, the accident aircraft received an experimental/amateur-built airworthiness certificate on April 22, 1999.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	60, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	02/22/2000
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	09/05/2000
<b>Flight Time:</b>	132 hours (Total, all aircraft), 20 hours (Total, this make and model), 132 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Fetherolf	Registration:	N26WF
Model/Series:	Hatz CB-1	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	CB-1 222
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:	17.4 Hours	Engines:	1 Reciprocating
Airframe Total Time:	17.4 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-290-D
Registered Owner:	On file	Rated Power:	125 hp
Operator:	On file	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	ONO, 2193 ft msl	Distance from Accident Site:	
Observation Time:	1353 MST	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.19 inches Hg	Temperature/Dew Point:	17° C / 6° C
Precipitation and Obscuration:			
Departure Point:	Nampa, ID (S67)	Type of Flight Plan Filed:	None
Destination:	Ontario, OR (ONO)	Type of Clearance:	None
Departure Time:	1254 MST	Type of Airspace:	Class G

## Airport Information

Airport:	Ontario Muni (ONO)	Runway Surface Type:	Asphalt
Airport Elevation:	2193 ft	Runway Surface Condition:	Unknown
Runway Used:	32	IFR Approach:	None
Runway Length/Width:	4529 ft / 100 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

## Wreckage and Impact Information

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

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gregg Nesemeier	<b>Report Date:</b>	06/18/2002
<b>Additional Participating Persons:</b>	Lewis Sanders; FAA - Boise FSDO; Boise, ID		
<b>Publish Date:</b>			
<b>Investigation Docket:</b>	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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.ntsbt.gov/pubdms/">http://dms.ntsbt.gov/pubdms/</a> .		

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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).