



Aviation Investigation Final Report

Location:	HEBER CITY, Utah	Accident Number:	DEN01LA006
Date & Time:	September 25, 2000, 10:15 Local	Registration:	N28YF
Aircraft:	North American T-28D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot said that during the landing roll, the nose wheel began to shimmy. As the airplane slowed down, the shimmying became worse. As the airplane approached 40 knots, the nose landing gear collapsed, and the propeller began striking the runway. Postaccident examination by Engineering Systems, Inc., Aurora, Illinois, determined that the nose wheel shimmy damper had malfunctioned. They determined that there was grit behind both cylinder end caps, and there was evidence of a slow hydraulic leak from the damper.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the nose wheel landing gear shimmy damper, which resulted in failure and collapse of the nose wheel landing gear during landing roll.

Findings

Occurrence #1: NOSE GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

1. (C) LANDING GEAR, NOSE GEAR - FAILURE, TOTAL

Factual Information

On September 25, 2000, at approximately 1015 mountain daylight time, a North American T-28D, N28YF, was substantially damaged when the nose gear collapsed during landing roll at Russ McDonald Airfield, Heber City, Utah. The airline transport pilot, the sole occupant aboard the airplane, was not injured. The pilot was operating the airplane under Title 14 CFR Part 91. Visual meteorological conditions prevailed for the local flight that originated approximately 20 minutes prior to the accident. No flight plan had been filed.

The pilot said that during the landing roll the nose wheel began to shimmy. As the airplane slowed down, the shimmying became worse. He said that as the airplane approached 40 knots, the nose landing gear collapsed, and the propeller began striking the runway. The airplane sustained structural damage to the firewall and its bulkhead.

Postaccident examination by Engineering Systems, Inc., Aurora, Illinois, determined that the nose wheel shimmy damper had malfunctioned. They determined that there was grit behind both cylinder end caps, and there was evidence of a slow hydraulic leak from the damper.

Pilot Information

Certificate:	Airline transport; Flight engineer; Military	Age:	63, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	November 19, 1999
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	21049 hours (Total, all aircraft), 130 hours (Total, this make and model), 19528 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	North American	Registration:	N28YF
Model/Series:	T-28D T-28D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	137799W
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	April 13, 2000 Annual	Certified Max Gross Wt.:	9097 lbs
Time Since Last Inspection:	17 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6915 Hrs	Engine Manufacturer:	Wright
ELT:	Installed, not activated	Engine Model/Series:	1820-86B
Registered Owner:	LYNN S OSWALD	Rated Power:	1425 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	60°C / 50°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(36U)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:55 Local	Type of Airspace:	Class G

Airport Information

Airport:	HEBER CITY MUNICIPAL 36U	Runway Surface Type:	Asphalt
Airport Elevation:	5637 ft msl	Runway Surface Condition:	Dry
Runway Used:	21	IFR Approach:	None
Runway Length/Width:	6900 ft / 75 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	40.430641,-111.190597(est)

Administrative Information

Investigator In Charge (IIC):	Struhsaker, James
Additional Participating Persons:	STAN A RITTER; SALT LAKE CITY , UT
Original Publish Date:	November 1, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=50539

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).