Aviation Investigation Final Report

Location:	Houston, Texas	**Accident Number:**	FTW03LA170
Date & Time:	May 30, 2003, 14:00 Local	**Registration:**	N14124
Aircraft:	North American T-28A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During landing, the airplane touched down at approximately 75 knots. When the nose wheel came down and touched, there was a "minor high frequency shimmy and the pilot immediately pulled the stick back and the shimmy stopped." As the airspeed bled off, the nose wheel came back in contact with the runway and "tracked straight down the runway." At approximately 15 - 18 knots, the airplane suddenly started to shimmy and was "so bad, the pilot couldn't even see." Examination of the airplane logbooks revealed the nose wheel shimmy damper was repacked prior to the last departure.

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 for undetermined reasons.

Findings

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

Findings
1. (C) LANDING GEAR,NOSE GEAR ASSEMBLY - MALFUNCTION
2. REASON FOR OCCURRENCE UNDETERMINED

Factual Information

On May 30, 2003, at 1400 central daylight time, a North American T-28A single-engine airplane, N14124, registered to and operated by a private individual, sustained substantial damage during landing roll at the West Houston Airport (IWS), near Houston, Texas. The private pilot, sole occupant of the airplane, was not injured. Visual meteorological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight. The cross-country flight departed from the Richard Lloyd James Jr. Airport (RVS), near Tulsa, Oklahoma at 1200 and was destined for IWS.

The 1,224-hour pilot reported in the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) that while landing on runway 15, a 3,900-foot long asphalt runway, the airplane touched down at approximately 75 knots. When the nose wheel touched down, there was a "minor high frequency shimmy and he immediately pulled the stick back and the shimmy stopped." As the airspeed bled off, the nose wheel came back in contact with the runway and "tracked straight down the runway." At approximately 15 to 18 knots, the airplane suddenly started to shimmy "so bad, he couldn't even see." He stopped the airplane, and then taxied to the ramp to inspect the airplane.

Examination of the aircraft by an FAA investigator, who responded to the site of the accident, revealed the nose gearbox, lower engine cowlings, and nose gear doors were damaged. Further inspection revealed the forward engine firewall was structurally damaged. Examination of the runway by the pilot revealed 9 1/2 nose wheel tire oscillation marks within a distance of 74 feet long..

Examination of the aircraft logbooks revealed the nose wheel shimmy damper was repacked prior to departing RVS.

Pilot Information

Certificate:	Private	**Age:**	72,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
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:**	September 4, 2002
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	November 23, 2002
Flight Time:	1224 hours (Total, all aircraft), 269 hours (Total, this make and model), 1224 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	North American	**Registration:**	N14124
Model/Series:	T-28A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	51-3693
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	May 1, 2002 Annual	**Certified Max Gross Wt.:**	8350 lbs
Time Since Last Inspection:	27.2 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5664 Hrs	**Engine Manufacturer:**	Wright
ELT:	Installed, not activated	**Engine Model/Series:**	R-1820-56S
Registered Owner:	On file	**Rated Power:**	1300 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

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**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	180°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	28°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	TULSA, OK (RVS)	**Type of Flight Plan Filed:**	None
Destination:	HOUSTON, TX (IWS)	**Type of Clearance:**	None
Departure Time:	12:00 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	West Houston Airport IWS	**Runway Surface Type:**	Asphalt
Airport Elevation:	111 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	15	**IFR Approach:**	None
Runway Length/Width:	3953 ft / 75 ft	**VFR Approach/Landing:**	Straight-in

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:**	29.818056,-95.6725

Administrative Information

Investigator In Charge (IIC):	Lemishko, Alexander
Additional Participating Persons:	Robert J Loomis; FAA FSDO; Houston, TX
Original Publish Date:	December 30, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=57195