



National Transportation Safety Board Aviation Accident Final Report

Location:	Mansfield, OH	Accident Number:	CEN16LA157
Date & Time:	04/14/2016, 0822 EDT	Registration:	N197PS
Aircraft:	CZECH SPORT AIRCRAFT AS PIPER SPORT	Aircraft Damage:	Substantial
Defining Event:	Part(s) separation from AC	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airline transport pilot/owner was conducting a personal cross-country flight. The pilot stated that, after the main landing gear touched down, he eased the backpressure on the control stick and that the nose landing gear (NLG) then separated from the airplane. The airplane slid on the runway surface.

Postaccident examination of the airplane revealed that the NLG had fractured at a weld area. An airplane manufacturer service bulletin (SB) called for periodic inspection of the NLG for cracks in the weld area every 25 hours. The pilot reported that the NLG had accumulated a total time in service of 371 hours at the time of the accident and that it was last inspected 31 flight hours before the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to inspect the nose landing gear (NLG), which resulted in a crack going undetected and the subsequent separation of the NLG at the weld area during landing.

Findings

Aircraft	Nose/tail landing gear - Failure (Cause)
Personnel issues	Scheduled/routine inspection - Pilot (Cause)

Factual Information

On April 14, 2016, at 0822 eastern daylight time, a Czech Sport Aircraft AS Piper Sport, N197PS, impacted runway 32 during landing at Mansfield Lahm Regional Airport (MFD), Mansfield, Ohio. The nose landing gear separated at a weld, which resulted in the airplane nose impacting the runway. The airplane sustained substantial damage to the engine firewall. The pilot was uninjured. The airplane was registered to and operated by the pilot under 14 Code of Federal Regulations Part 91 as a personal flight that was not operating on a flight plan. The flight departed from Columbia Airport, Columbia Station, Ohio at 0745 and was destined to MFD.

The pilot stated that after the main landing gear touch down at an airspeed of about 55 knots, he began to ease backpressure on the control stick. As the backpressure eased, the nosewheel landing gear strut separated from the airplane. The airplane slid on the runway for about 150 feet and the nosewheel/strut remained about 30 feet behind the airplane and along the runway centerline.

Postaccident examination of the nose landing gear, part number SGO270N, by a Federal Aviation Administration Aviation Safety Inspector revealed that it had fractured at a weld.

According to a logbook entry dated August 18, 2014, at an engine total time since new of 196.6 hours, the nose landing gear was inspected in accordance with a Czech Sport Aircraft AS service bulletin, SB-CR-016. There were no subsequent logbook entries citing compliance with SB-CR-016.

The pilot reported that the nose landing gear accumulated a total time in service of 371 hours at the time of the accident and was last inspected 31 hours in service before the time of the accident. The airplane and engine total times in service at the time of the accident were 371 hours.

Czech Sport Aircraft AS service bulletin, SB-CR-016, dated October 9, 2013, Inspection of the Landing Gear Leg for all SportCruiser aircraft with the [nose landing gear] (NLG) SGO270N, all Piper Sport aircraft with the NLG SGO270N installed, and all PS-28 Cruiser aircraft with the NLG SGO270N installed, stated:

"Some Sport Cruiser / Piper Sport / PS-28 Cruiser aircraft have developed cracks in the bottom side of the lower section of the nose landing gear. The cracks develop on the nose landing gear assembly along the weld of the tube and the bracket. Furthermore, on several aircraft bending of the pivot connecting the fork with leg was discovered and cracks from holes of bolts on the fork. To address this potentially unsafe condition, a repetitive inspection is required of the bottom side of the lower section, in the area of the weld of the tube, the bracket and the pivot and the fork in the place of the bolts mounting the fork to the landing gear."

The compliance with SB-CR-016 was cited as:

A. Before next flight after issue of this bulletin.

B. Periodically at each 25 FH or 50 cycles whatever occurs first check as described in documents [1] for PS-28 Cruiser and [2] for Sport Cruiser (see REFERENCES).

C. During pre-flight check (see POH, Section 4, 4.1 Pre-flight check, Inspection Check List, Point 4 - Nose gear) visually inspect pivot (see the picture on the Page 3 of 4 of this Service Bulletin) and verify that there is no evidence of cracks or bending.

History of Flight

Landing-flare/touchdown	Part(s) separation from AC (Defining event) Loss of control on ground Collision with terr/obj (non-CFIT)
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Pilot Information

Certificate:	Airline Transport	Age:	59, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport Pilot	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	08/14/2014
Flight Time:	20020 hours (Total, all aircraft), 152 hours (Total, this make and model), 10414 hours (Pilot In Command, all aircraft), 11.8 hours (Last 90 days, all aircraft), 4.3 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CZECH SPORT AIRCRAFT AS	Registration:	N197PS
Model/Series:	PIPER SPORT	Aircraft Category:	Airplane
Year of Manufacture:	2010	Amateur Built:	No
Airworthiness Certificate:	Special Light-Sport	Serial Number:	P1001062
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	10/26/2015, Annual	Certified Max Gross Wt.:	1320 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	371 Hours at time of accident	Engine Manufacturer:	Rotax
ELT:	Installed, not activated	Engine Model/Series:	912ULS
Registered Owner:	Pilot	Rated Power:	100 hp
Operator:	Pilot	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MFD, 1297 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0752 EDT	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:	/ None
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.29 inches Hg	Temperature/Dew Point:	1°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Columbia Statio, OH (4G8)	Type of Flight Plan Filed:	None
Destination:	Mansfield, OH (MFD)	Type of Clearance:	None
Departure Time:	0745 EDT	Type of Airspace:	Class D

Airport Information

Airport:	Mansfield Lahm Regional Airpor (MFD)	Runway Surface Type:	Concrete
Airport Elevation:	1296 ft	Runway Surface Condition:	Dry
Runway Used:	32	IFR Approach:	None
Runway Length/Width:	9001 ft / 150 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	40.821389, -82.516667 (est)

Administrative Information

Investigator In Charge (IIC):	Mitchell F Gallo	Report Date:	05/01/2017
Additional Participating Persons:	Julio Galarza; Federal Aviation Administration; CLE FSDO; Cleveland, OH		
Publish Date:	05/01/2017		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=93037		

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