



Aviation Investigation Final Report

Location:	Castroville, Texas	Accident Number:	CEN10LA503
Date & Time:	August 26, 2010, 10:35 Local	Registration:	N4530L
Aircraft:	AIR TRACTOR INC AT-401	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

According to the pilot, he was maneuvering the airplane to reverse direction when the engine experienced a loss of power. The pilot leveled the airplane and attempted to restart the engine without success. During the forced landing, the airplane impacted several trees and bushes and was substantially damaged. A postaccident engine examination revealed that the torque sensor bearing failed resulting in the shutdown of the fuel system.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power due to the failure of the torque sensor bearing.

Findings

Aircraft	(general) - Failure
Aircraft	(general) - Damaged/degraded

Factual Information

History of Flight

Maneuvering	Loss of engine power (partial) (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)

On August 26, 2010, approximately 1035 central daylight time, an Air Tractor AT-401, N4530L, was substantially damaged during a forced landing to a field near Castroville, Texas. Visual meteorological conditions prevailed at the time of the accident. The aerial applications flight was being conducted under the provisions of 14 Code of Federal Regulations Part 137 without a flight plan. The commercial pilot was not injured. The local flight departed D'Hanis, Texas, approximately 1000.

According to the written statement received from the pilot, he was pitching the airplane up to reverse direction when the "engine spooled down." The pilot leveled the airplane and attempted to restart the engine without success. During the forced landing, the airplane impacted several trees and bushes. Several ribs in the right wing were crushed aft and bent and the right wing spar was bent aft.

According to the Federal Aviation Administration inspector who traveled to the scene, and was present during the engine examination, the torque sensor bearing failed resulting in the shutdown of the fuel system.

Pilot Information

Certificate:	Commercial	Age:	36, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
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 2 Without waivers/limitations	Last FAA Medical Exam:	February 11, 2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 13, 2009
Flight Time:	304 hours (Total, all aircraft), 1250 hours (Total, this make and model), 3004 hours (Pilot In Command, all aircraft), 365 hours (Last 90 days, all aircraft), 120 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AIR TRACTOR INC	Registration:	N4530L
Model/Series:	AT-401	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	401-0761
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	February 16, 2010 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Turbo prop
Airframe Total Time:		Engine Manufacturer:	Garrett
ELT:	Not installed	Engine Model/Series:	TFE331
Registered Owner:	RUSTYS FLYING SERVICE	Rated Power:	665 Horsepower
Operator:	RUSTYS FLYING SERVICE	Operating Certificate(s) Held:	

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:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	45°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	D'Hanis, TX	Type of Flight Plan Filed:	None
Destination:	D'Hanis, TX	Type of Clearance:	None
Departure Time:	10:00 Local	Type of Airspace:	

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:	29.339622,-98.870697(est)

Administrative Information

Investigator In Charge (IIC):	Rodi, Jennifer
Additional Participating Persons:	Jesus Cavazos; FAA FSDO; San Antonio, TX
Original Publish Date:	May 11, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=77103

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