National Transportation Safety Board
Aviation Accident Final Report

Location:	San Antonio, TX	**Accident Number:**	CEN14LA354
Date & Time:	07/01/2014, 1455 CDT	**Registration:**	N136EL
Aircraft:	BEECH A36	**Aircraft Damage:**	Substantial
Defining Event:	Sys/Comp malf/fail (non-power)	**Injuries:**	4 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The commercial pilot reported that, after conducting a personal flight and during the approach for landing, he attempted to lower the landing gear but that the left main landing gear did not extend. The pilot repeatedly attempted to lower the landing gear without success. He then chose to land the airplane with the landing gear retracted.

Examination of the airplane revealed that the left main landing gear retract rod was fractured and buckled. Examination of the remaining landing gear components revealed no anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the landing gear retract rod.

Findings

Aircraft	Landing gear actuator - Failure (Cause)

Factual Information

On July 1, 2014, about 1455 central daylight time, a Beech A36 airplane, N136EL, sustained substantial damage during and intentional wheels-up landing to runway 12L at the San Antonio International Airport (SAT). The pilot and 3 passengers were not injured. The airplane sustained substantial damage to the fuselage. The aircraft was registered to Angel Brothers Aviation Ltd., and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as personal flight. Visual meteorological conditions prevailed for the flight, which operated on a visual flight rules flight plan. The flight originated from Baytown Airport (HPY), Baytown, Texas, at an unconfirmed time.

In a telephone interview with the pilot, he stated that upon extending the landing gear he did not get a gear-down indication for the left main landing gear. He stated that the right and nose landing gear lights indicated extended. The pilot made several unsuccessful attempts to extend the landing gear. He had advised the SAT air traffic controller of the problem and elected to land the airplane with the landing gear in the retracted position.

Examination of the airplane revealed that the left main landing gear retract rod had fractured and buckled near the landing gear extension motor. Examination of the retract rod confirmed that the rod eye at the end that attached to the gear motor had fractured. The bearing remained attached to the gear motor arm. The retract rod was constructed from a steel tube with a link fabricated at the end that attached to the motor. The link was composed of two formed steel plates riveted together and welded to the end of the tube. The fabricated link was bent about 90 degrees in two places. The first bend was through the eye that held the bearing, and the second bend was about five inches farther outboard. The bends were in opposite directions forming a "Z" shape. Two of the three rivets that connected the link plates together were not found. The third rivet, the farthest outboard, was intact. The steel tube was bent about 5 degrees, 20 inches from the inboard end. Examination of the remainder of the landing gear components revealed no anomalies. The only preimpact damage that was evident was the damage to the landing gear retract rod.

History of Flight

Approach	Sys/Comp malf/fail (non-power) (Defining event)
Landing-flare/touchdown	Landing gear not configured

Pilot Information

Certificate:	Flight Instructor; Commercial	**Age:**	31
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane Single-engine; Instrument Airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 With Waivers/Limitations	**Last Medical Exam:**	01/31/2014
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BEECH	**Registration:**	N136EL
Model/Series:	A36	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	E-561
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	3651 lbs
Time Since Last Inspection:		**Engines:**	
Airframe Total Time:		**Engine Manufacturer:**	
ELT:	Installed, not activated	**Engine Model/Series:**	
Registered Owner:	ANGEL BROTHERS AVIATION LTD	**Rated Power:**	
Operator:	ANGEL BROTHERS AVIATION LTD	**Air Carrier Operating Certificate:**	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KSAT, 809 ft msl	**Observation Time:**	1951 UTC
Distance from Accident Site:	0 Nautical Miles	**Condition of Light:**	Day
Direction from Accident Site:	0°	**Conditions at Accident Site:**	Visual Conditions
Lowest Cloud Condition:	Few / 6000 ft agl	**Temperature/Dew Point:**	34°C / 19°C
Lowest Ceiling:	None	**Visibility**	10 Miles
Wind Speed/Gusts, Direction:	14 knots, 140°	**Visibility (RVR):**	
Altimeter Setting:	29.94 inches Hg	**Visibility (RVV):**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BAYTOWN, TX (HPY)	**Type of Flight Plan Filed:**	VFR
Destination:	San Antonio, TX (SAT)	**Type of Clearance:**	VFR
Departure Time:	CDT	**Type of Airspace:**	Class C

Airport Information

Airport:	SAN ANTONIO INTL (SAT)	**Runway Surface Type:**	Asphalt
Airport Elevation:	809 ft	**Runway Surface Condition:**	Dry
Runway Used:	12L	**IFR Approach:**	None
Runway Length/Width:	5519 ft / 100 ft	**VFR Approach/Landing:**	Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	3 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 None		

Administrative Information

Investigator In Charge (IIC):	John M Brannen	**Adopted Date:**	04/04/2016
Additional Participating Persons:	Victor Lopez; FAA - San Antonio FSDO; San Antonio, TX		
Publish Date:	04/04/2016		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=89642		