Aviation Investigation Final Report

Location:	Lakeview, Oregon	**Accident Number:**	WPR10LA424
Date & Time:	August 22, 2010, 11:50 Local	**Registration:**	N26118
Aircraft:	GRUMMAN AMERICAN AVN. CORP. AA-5A	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (partial)	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that the preflight run-up was uneventful. Shortly after takeoff, at approximately 150 feet above ground level, the engine suddenly dropped rpm; the pilot verified fuel quantity, and attempted to lean the engine. Despite the pilot's efforts, the problem persisted, and he initiated a forced landing into a nearby field. During the landing roll, the airplane's left wing struck a fence post, and its empennage collided with high sage brush. Examination of the engine by a certificated airframe and powerplant (A&P) mechanic revealed low compression within the number three cylinder. Further examination revealed that the exhaust valve was stuck in the full open position. The examination revealed no further anomalies with the cylinder assembly or engine.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A partial loss of engine power during the initial climb due to a stuck exhaust valve.

Findings

Aircraft	Recip eng cyl section - Failure
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Initial climb	Loss of engine power (partial) (Defining event)
Initial climb	Off-field or emergency landing

On August 22, 2010, about 1150 Pacific daylight time, a Grumman AA-5A airplane, N26118, sustained substantial damage during a forced landing, about 1 mile north of the Lake County Airport, Lakeview, Oregon (LKV). The private pilot and passenger were not injured. The airplane was operated by the pilot as a personal cross-country flight under the provisions of 14 Code of Federal Regulations (CFR) Part 91, when the accident occurred. Visual meteorological conditions prevailed, and no flight plan was filed. The flight originated at Lakeview, and was en route to Burns, Oregon.

The pilot reported that during the preflight and preflight run-up he did not detect any anomalies with the airplane's engine. Shortly after takeoff, at approximately 150 feet above ground level (agl), the engine revolutions per minute (rpm) dropped from 2,500 to 1,500 rpm. The pilot immediately checked fuel quantities, and attempted to lean the engine. Despite the pilot's efforts, the problem persisted, and the pilot initiated an off-airport landing to an open field about 1 mile north of LKV. The pilot stated that during the landing roll, the airplane's left wing struck a fence post and the empennage collided with tall sage brush, both of which resulted in substantial damage to the airplane.

Postaccident examination of the airplane by a certificated airframe and powerplant (A&P) mechanic revealed that the airplane's left wing and empennage sustained substantial damage. When an engine compression test was conducted, no compression was found in the number three cylinder. Further examination revealed that the exhaust valve was stuck in the full open position. The examination revealed no further anomalies with the cylinder assembly or engine.

Pilot Information

Certificate:	Private	**Age:**	46,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
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 Without waivers/limitations	**Last FAA Medical Exam:**	March 23, 2010
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	500 hours (Total, all aircraft), 400 hours (Total, this make and model), 500 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRUMMAN AMERICAN AVN. CORP.	**Registration:**	N26118
Model/Series:	AA-5A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	AA5A0440
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	January 1, 2010 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	LYCOMING
ELT:	Installed, not activated	**Engine Model/Series:**	O-320 SERIES
Registered Owner:	NICHOLLS TONY	**Rated Power:**	180 Horsepower
Operator:	NICHOLLS TONY	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KLKV,4733 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	18:35 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	160°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.18 inches Hg	**Temperature/Dew Point:**	15°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lakeview, OR (KLKV)	**Type of Flight Plan Filed:**	Unknown
Destination:	Burns, OR (KBNO)	**Type of Clearance:**	None
Departure Time:	11:50 Local	**Type of Airspace:**	

Airport Information

Airport:	Lake County Airport KLKV	**Runway Surface Type:**	Asphalt
Airport Elevation:	4733 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	34	**IFR Approach:**	None
Runway Length/Width:	5306 ft / 100 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	42.161109,-120.398887(est)

Administrative Information

Investigator In Charge (IIC):	Hogenson, Dennis
Additional Participating Persons:	Thom Holden; FAA FSDO; Hillsboro, OR
Original Publish Date:	December 20, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=77054