



Aviation Investigation Final Report

Location:	KENNETT SQUARE, Pennsylvania	Accident Number:	NYC95LA173
Date & Time:	July 21, 1995, 18:00 Local	Registration:	N47082
Aircraft:	RYAN ST3-KR	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was returning to the departure airport after a 2 1/2 hour flight. Several miles from the airport, the engine began to run rough, followed by complete loss of power. The pilot performed a forced landing to a private sod strip. On final, after the aircraft cleared trees, the pilot was not able to arrest the descent rate, and the landing gear collapsed during touchdown. The engine was a Kinner R-56 manufactured in 1946, and had accumulated about 120 hours since overhaul. Examination of the engine revealed that the number three cylinder connecting rod failed at the knuckle pin.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the no. 3 cylinder connecting rod.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD - FAILURE

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: HARD LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings
2. TERRAIN CONDITION - GRASS

Factual Information

On July 21, 1995, at 1800 eastern daylight time, a Ryan ST3- KR, N47082, was substantially damaged during a forced landing to the Whittle Airport, Kennett Square, Pennsylvania. The commercial pilot was not injured. Visual meteorological conditions prevailed, for the personal flight that departed the New Garden Airport, Toughkenamon, Pennsylvania, about 1630. No flight plan had been filed for the flight conducted under 14 CFR Part 91.

In the NTSB Form 6120.1/2, the pilot stated that he was returning to the departure airport after a 2 1/2 hour local flight. He further stated that while still several miles from the New Garden Airport, the "engine began to run rough and almost immediately seized."

The pilot stated he attempted a forced landing to a private sod strip; however, after clearing trees at the end of the runway, he could not arrest the rate of descent, and the landing gear collapsed during touchdown. The pilot stated that the engine was a Kinner R-56, manufactured in 1946. The engine had accumulated about 120 hours since overhaul.

According to a Federal Aviation Administration (FAA) Inspector, examination of the engine revealed that the number three cylinder rod failed at the knuckle pin.

Pilot Information

Certificate:	Commercial	Age:	67, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Glider; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	January 9, 1995
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	4500 hours (Total, all aircraft), 100 hours (Total, this make and model), 4000 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	RYAN	Registration:	N47082
Model/Series:	ST3-KR ST3-KR	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1443
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	July 9, 1995 Annual	Certified Max Gross Wt.:	1885 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	KINNER
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	R-56
Registered Owner:	ALEXIS I. DUPONT	Rated Power:	160 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

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	5 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	32°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	TOUGHKENAMON , PA (N57)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	15:30 Local	Type of Airspace:	Class E

Airport Information

Airport:	WHITTLE 1PA6	Runway Surface Type:	Grass/turf
Airport Elevation:	400 ft msl	Runway Surface Condition:	Dry
Runway Used:	6	IFR Approach:	
Runway Length/Width:	2000 ft / 100 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	39.840476,-75.709709(est)

Administrative Information

Investigator In Charge (IIC):	Pearce, Robert
Additional Participating Persons:	JOSEPH RADOSKY; PHILADELPHIA , PA
Original Publish Date:	February 27, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=39014

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).