



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	MAYBROOK, NY	<b>Accident Number:</b>	NYC88LA100
<b>Date &amp; Time:</b>	03/01/1988, 1017 EST	<b>Registration:</b>	N16255
<b>Aircraft:</b>	PIPER PA-28-180	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

THE PIPER PA-28 TOOK OFF FOR A LOCAL PLEASURE FLIGHT. AFTER TAKEOFF THE PILOT NOTICED THAT THE ENGINE WAS RUNNING ROUGH AND HE HAD LOST HIS OIL PRESSURE. THE ENGINE SEIZED AND AN OFF-AIRPORT LANDING WAS MADE IN A SNOW COVERED FIELD. POST-CRASH EXAMINATION OF THE AIRCRAFT SHOWED THE VACUUM PUMP PHYSICALLY MISSING FROM THE AIRCRAFT. THE REASON FOR ITS BEING MISSING WAS NOT DETERMINED.

## Probable Cause and Findings

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

## Findings

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

### Findings

1. (C) ENGINE ACCESSORIES,VACUUM PUMP - MISSING
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. (C) FLUID,OIL - LOSS,TOTAL
4. POWERPLANT - SEIZED

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

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Occurrence #3: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

5. (F) TERRAIN CONDITION - SNOW COVERED
6. (F) TERRAIN CONDITION - ROUGH/UNEVEN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	38, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	02/28/1988
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2010 hours (Total, all aircraft), 456 hours (Total, this make and model), 1768 hours (Pilot In Command, all aircraft), 104 hours (Last 90 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N16255
<b>Model/Series:</b>	PA-28-180 PA-28-180	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	28-7305214
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	02/02/1988, Annual	<b>Certified Max Gross Wt.:</b>	2450 lbs
<b>Time Since Last Inspection:</b>	3 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4137 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360-A4A
<b>Registered Owner:</b>	QUADE FLIGHT SCHOOL, INC	<b>Rated Power:</b>	180 hp
<b>Operator:</b>	QUADE'S FLIGHT SCHOOL	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	6 Miles
Lowest Ceiling:	Unknown / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	ROBERT L HANCOCK	Report Date:	11/07/1989
Additional Participating Persons:	; TETERBORO, NJ		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).