



# Aviation Investigation Final Report

<b>Location:</b>	Lake Katrine, New York	<b>Accident Number:</b>	ERA23LA140
<b>Date &amp; Time:</b>	February 6, 2023, 16:30 Local	<b>Registration:</b>	N871LA
<b>Aircraft:</b>	DIAMOND AIRCRAFT IND INC DA 40 NG	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Hard landing	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The flight instructor and the pilot receiving instruction were practicing short field landings. After an initial unsuccessful approach, the pilot conducted a go-around and set up for another landing approach. The flight instructor described that after passing over obstacles while on short final approach to the runway, the flight instructor told the pilot to reduce engine power to idle so that they would not overshoot the touchdown point again. The pilot complied, and as they descend the pilot continued to increase the airplane's pitch attitude as if engine power had not been reduced. The flight instructor noted this, directed the pilot to decrease the airplane's pitch, and then "nudged" the control stick forward to reduce the airplane's angle of attack. As the flight instructor released his forward pressure on the control stick, the airplane's pitch again increased along with its descent rate, as the pilot continued to pull back on the control stick. The airplane subsequently touched down "hard" on the runway, resulting in substantial damage to the right wing. The operator reported no preimpact mechanical malfunctions or failures with the airplane that would have precluded normal operation, nor did the pilot or flight instructor report any.

## Probable Cause and Findings

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

The pilot's failure to maintain an appropriate pitch attitude and descent rate during landing, which resulted in a hard landing. Contributing to the accident was the flight instructor's inadequate remedial action.

## Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Descent rate - Not attained/maintained
Personnel issues	Lack of action - Instructor/check pilot

## Factual Information

### History of Flight

<b>Landing-flare/touchdown</b>	Hard landing (Defining event)
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### Flight instructor Information

<b>Certificate:</b>	Commercial; Flight instructor; Private	<b>Age:</b>	38, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	January 23, 2023
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	March 20, 2022
<b>Flight Time:</b>	640 hours (Total, all aircraft), 416 hours (Total, this make and model), 560 hours (Pilot In Command, all aircraft), 113 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	57
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	October 6, 2021
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	May 19, 2021
<b>Flight Time:</b>	300.5 hours (Total, all aircraft), 8 hours (Total, this make and model), 117.8 hours (Pilot In Command, all aircraft), 4.9 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	DIAMOND AIRCRAFT IND INC	<b>Registration:</b>	N871LA
<b>Model/Series:</b>	DA 40 NG	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2020	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	40.NC107
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	November 21, 2022 100 hour	<b>Certified Max Gross Wt.:</b>	2883 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1715 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Austro
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	E4-A
<b>Registered Owner:</b>	SANTIHOY II LLC	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>	Take Flight Aviation	<b>Operating Certificate(s) Held:</b>	Pilot school (141)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	POU,153 ft msl	<b>Distance from Accident Site:</b>	22 Nautical Miles
<b>Observation Time:</b>	16:53 Local	<b>Direction from Accident Site:</b>	170°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Overcast / 3900 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	20°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.1 inches Hg	<b>Temperature/Dew Point:</b>	4°C / -1°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Montgomery, NY (MGJ)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Lake Katrine, NY	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	15:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	KINGSTON-ULSTER 20N	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	147 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	33	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3100 ft / 60 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	41.983527,-73.962383(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Freeze, Christopher
<b>Additional Participating Persons:</b>	Travis Costello; FAA/FSDO; Albany, NY
<b>Original Publish Date:</b>	June 15, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=106837">https://data.nts.gov/Docket?ProjectID=106837</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).