



# National Transportation Safety Board

## Aviation Accident Data Summary

<b>Location:</b>	Palo Alto, CA	<b>Accident Number:</b>	LAX08LA055
<b>Date &amp; Time:</b>	02/01/2008, 0830 PST	<b>Registration:</b>	N49811
<b>Aircraft:</b>	CESSNA 152	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Positioning		

### Analysis

Prior to the accident flight, a maintenance inspection was performed. A piece of the baffling was found in the throat of the carburetor venturi. The carburetor was inspected and reinstalled on the airplane. On the accident flight, the pilot/mechanic performed a post maintenance run-up with no mechanical problems noted. She taxied the airplane to the runway for takeoff and performed another run-up. Again there were no mechanical problems noted, and all the gages showed normal indications. On the takeoff roll the engine developed 2,300 rpm's. About 500 feet mean sea level (msl), she noticed a hesitation in the engine and decided to make a 180-degree turn back to the runway. The airplane was still high on the approach, so the pilot reduced the airspeed, performed S-turns, and then slipped the airplane to lose altitude. She was still high, and about halfway down the runway, she further reduced the airspeed, which increased the sink rate. She lowered the nose to slow the sink rate, and was in the process of raising the nose again to flare for landing when the nose struck the runway. An inspection of the engine revealed zero compression of the number 1 cylinder with blow-by past the piston rings and exhaust valve. Maintenance personnel also noted that the bottom number 1 cylinder spark plug was "excessively" fouled with carbon deposits. There were no problems noted with the carburetor.

### Flight Events

Prior to flight - Aircraft maintenance event  
 Takeoff - Loss of engine power (total)  
 Landing-flare/touchdown - Hard landing

### Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:  
 Loss of engine power during the takeoff initial climb due to lack of compression to a cylinder.

### Findings

Aircraft-Aircraft power plant-Engine (reciprocating)-Recip eng cyl section-Damaged/degraded - C  
 Personnel issues-Task performance-Maintenance-Repair-Maintenance personnel

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	37
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	1000 hours (Total, all aircraft), 300 hours (Total, this make and model), 905 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	CESSNA	<b>Registration:</b>	N49811
<b>Model/Series:</b>	152	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	West Valley Flying Club	<b>Engine Manufacturer:</b>	Lycoming
<b>Air Carrier Operating Certificate:</b>	None	<b>Engine Model/Series:</b>	O-235-L2C
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Positioning		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	PAO, 4 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	Broken / 20000 ft agl
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	4 knots, Variable
<b>Temperature:</b>	7°C / 6°C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Palo Alto, CA (PAO)	<b>Destination:</b>	SAN CARLOS, CA (SQL)

## Airport Information

<b>Airport:</b>	Palo Alto Airport (PAO)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	13	<b>Runway Surface Condition:</b>	Dry
<b>Runway Length/Width:</b>	2443 ft / 70 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 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

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Tealeye Cornejo	<b>Adopted Date:</b>	12/24/2008
<b>Investigation Docket:</b>	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:pubinq@ntsb.gov">pubinq@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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