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Air Safety Investigator
OAS-WPR

Date: 10/3/2022
Subject: WPR22LA355
Contact: Bob Hartunian
Pilot-in-command (N204BH)

The following is a synopsis of the communication as relayed by the pilot-in-command (PIC) to the Investigator-in-charge regarding the airplane accident involving N204BH that occurred in Big Bear, California (L35) 9/25/2022@0930pdt.

The PIC reported:

I have been trying to figure out why the nose wheel on my plane shimmied so violently last Sunday and I think I have the answer.

Had breakfast today with the same group of pilots as last weekend. One of the guys said that his Mooney Ovation has a Garmin 1000 unit in it that can show actual outside wind speed/direction.

Last Sunday, he landed about 5 min before me, and he also heard the AWOS show calm winds which favor runway 26 at Big Bear. However, his Garmin showed a 9 kt tailwind down to 100' above the ground.

He didn't say anything to me, otherwise I would have landed opposite direction on Rwy 08 and avoided the whole situation.

Because we land at the airport at 7000', we naturally have the wheel touchdown speed increase to ~14% over indicated airspeed. (2%/1000' elevation) I am very careful about stabilized approaches and always come in at 80 mph over the fence.

That makes my normal wheel speed around 90 mph on touchdown and I have made 2000 landings at Big Bear with those parameters and no problems. Now add the tailwind of 9 kts and my wheel speed is now at 104 mph and that higher wheel speed initiated the severe shimmy which broke the wheel pant and cut the brake line and lost my steering. This makes total sense to me now. As an engineer who likes rational answers to problems, I feel much better.

I removed the engine today and it appears ok. Will run a prop flange indicator check tomorrow to look for any abnormal runout. Engine was shutoff prior to impact.

The lower cowling on the Pulsar supports the engine and it appears to be structurally sound at the attachment to fuselage. Inside surface is rough and damaged where the engine mounts were broken off.

I have pics if you want. Will begin disassembly of wings soon to look at the attach points and spar bolt holes.

Roy and Jeff; Found logbooks for plane and my flying time. Can take pics of whatever recent pages you want and send them.

NOTHING FOLLOWS