



Safety Brief #107 When you have a flat tire....STOP (11/13/2024)

Subject: When you detect a flat tire while moving on the ground.....just stop where you are.

Pilots/Renters/Students,

Flat spots on tires ... can lead to exposed cord spots on tires ... can lead to “a **flat tire** on landing or while taxiing or on the rollout”. Although a flat tire is most associated with a worn spot that punctures the internal tube during heavy braking (skidding), a flat tire can also occur from a heavy side load or a heavy impact with the ground (any of the 3 tires).

This PSA is not focused on how to avoid a flat tire, but “**what to do when you have a flat tire**”.

- You can sense a tire may be flat:
 - o When it takes significant pedal work to keep moving in a straight line.
 - o When it takes a significant amount of power to keep moving. And increasing amount of power as the tire continues to deflate.
 - o Taxiing is not as smooth as it was a moment ago and it feels lumpy.
 - o The front nose feels like it is digging into mud.
- Obviously visual inspection is the best way to confirm a flat tire, but if you cannot see the tire while moving, you should immediately come to a complete stop (power to idle, no need for heavy braking or any braking at all (if it is flat, oh it will stop nicely for you)).
 - o If the airplane stops unusually or immediately or steers to one side or the other aggressively, most likely you have a flat tire.
 - o *You could add a touch of normal (I said normal) taxi power and see if the airplane moves. **DO NOT** try hard. This is just to confirm that yes you are stuck and tire is flat. **DO NOT CONTINUE**. Do not attempt to add significant power to ‘move further’.

What to do next if you have a suspected flat tire (unable to move easily/normally):

- **DO NOT ATTEMPT TO** continue taxiing or moving. If you are on the runway, do not attempt to continue. If you are on an active taxiway, do not attempt to continue. It just wont work....and will cause additional damage.
- Tower/Ground are very familiar with these types of events, they know what to do and how to help.
 - o **Immediately** call tower/ground and let them know “Tower, Cessna 1234 on taxiway alpha 4, suspect flat tire, unable to move”.
 - Let ATC know which tire is flat, airport operations will bring the proper equipment.
 - o Remain in the airplane, shut down the engine, remain on frequency until tower/ground explains what is next and wait for operations to show up and they will assist.
 - You should acknowledge tower/ground with “shutting down the airplane, will wait for ops” so they know communications will stop.

Here is an example of a tire with a flat spot showing cord that led to a flat tire when exiting the runway.



- Leads to →
- You can see how close the wheel is to the pavement, Damage may occur if continuing.

DO NOT ATTEMPT TO TAXI OR CONTINUE MOVING..... doing so will lead to a damaged wheel like this:



Thanks,

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