

Remain Clear of the Prop: 9 Rules for Propeller Safety

Although accidents from spinning propellers are rare, when they do happen they are usually serious and very often fatal. The good news is that these kinds of accidents are easily avoidable. Follow these 9 rules to keep yourself, your passengers and ground personal safe.

1. Never put the keys in the ignition until you are sitting in the pilot seat and ready to start the engine. During your preflight inspection, place the keys on top of the instrument panel where they are visible from the front of the airplane.
2. Always treat the propeller as if the ignition is “hot” and the engine could start at any moment. When preflighting the front of the airplane, remain outside the range of the prop. While you are checking the tension/wear of the alternator or generator belt, do it quickly and don’t linger.
3. Before you check the propeller for damage, verify the keys are not in the ignition. To check the propeller, keep your hands flat and in front of the blades and only use your fingertips. Don’t grab it with your whole hand.
4. Before you start the engine, visually check to make sure no one is in the vicinity of the aircraft, open the door or window and yell (in your loudest outdoor voice) “clear,” or “clear prop.”
5. If anyone, including other pilots, ground personnel, passengers or bystanders, begins to walk in the direction of a spinning prop, kill the engine immediately.
6. Make sure your passengers understand the dangers of a spinning prop and instruct them to avoid the front of any airplane on the ramp.
7. Never load or unload passengers or cargo while the engine is running.
8. If it hasn't happened to you already, there will come a time when you realize the chocks are still in place after you have fired up the engine. ALWAYS SHUT DOWN the engine before you, a passenger or line staff attempt to remove the chocks.
9. Periodically check that your magneto’s p-leads have not broken or come loose before you shut the engine down. Set the power to idle, but leave the mixture alone. Turn the key from “Both” to “Left,” “Right,” and then the “Off” position. Allow the prop to stop and then move the mixture to idle-cutoff. The engine rpm should drop slightly at Left and Right and shut down completely in the off position. If the engine does not stop when the key is set to “Off,” shut it down with the mixture. You must then mark the prop as “hot” to alert other pilots, and notify maintenance immediately.

For an example of why it’s a good idea to follow these rules watch this video, AOPA Air Safety Institute Real Pilot Story: Propping Accident. <https://youtu.be/66KhR3uEof8>

Beth Rehm, CFI