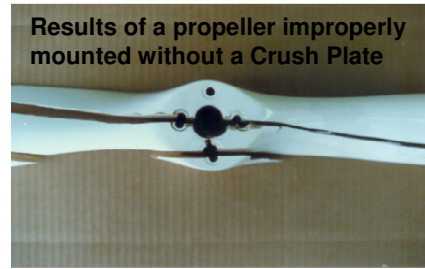




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Installation Procedure

An Average Torque label has been applied to the hub of your propeller and lists the average torque of your Prince Aircraft Propeller. Your installation may require a different torque value or installation procedure. **All propeller mounting surfaces must be clean.**

1. Mounting holes in propeller must allow bolts to be pressed easily into holes by hand. Ream holes to proper clearance if necessary. Add any residual torque to the listed amount for your bolt size. For example: When bolt is inserted to mounting holes of the propeller and it requires 2 pounds of torque to turn, then add this value to the average torque specification.
2. A **crush plate** is a metal disk that is placed under the head of the bolts and is no less than 90% of the propeller hub diameter and **is required**. The thickness of the crush plate shall be adequate to eliminate crush plate dimpling under the bolt head when proper torque is applied.
3. Insert **non-lubricated** bolts with a washer under bolt head. Pass this assembly thru **crush plate**, spinner bulkheads, starter rings, propeller and other assemblies.
4. Attach assembled parts in #3 to propeller flange or extension, snug mounting bolts finger tight.
5. Torque mounting bolts using a criss-cross pattern, example: using clock numeral placement. 10 o'clock, then 4 o'clock, then 2 o'clock, then 8 o'clock etc. **A torque wrench is mandatory.**
6. Check propeller tracking. Measure at the trailing edge side of the propeller blade 4"- 6" from the propeller tip. Place an indicator against Trailing Edge of one blade. Rotate the propeller until the next blade aligns with the indicator. The trailing edge should be within 1/8" between all propeller blades. If the propeller is out of track loosen the bolts and first, tighten the high side then tighten the low side and measure track. If necessary place a paper or metal shim under hub, re-torque and measure track. Repeat until track is within limits.
7. Run engine with attached propeller until engine is at operating temperature. Stop engine and torque to specifications.
8. After first Flight tighten torque to original values.
9. The propeller hub substrate is wood and will contract and expand with daily humidity changes. It is **mandatory** the propeller torque be checked at **every oil change**.
10. Alignment of propeller to engine firing sequence can be at any position. You may position the propeller in a location that allows hand propping. In a pusher position the propeller should be aligned so engine exhaust will not strike the propeller and degrade, overheat, or cause vibration from the propeller.

Average Torque Values For Bolt Diameter

1/4" - 100 in. lbs.
5/16" - 140 in. lbs.
3/8" - 210 in. lbs.
7/16" - 260 in. lbs.
1/2" - 310 in. lbs.

**A Crush Plate
is Mandatory
on all
installations.**



WARNING: 180HP and Larger Engines must have a 7" or larger mounting flange.
WARNING: Never use oil or grease during installation of propeller.