

SECTION 13

PROPELLER

TABLE OF CONTENTS

Page

PROPELLER	13-1
Description	13-1
Repair	13-1
Removal (Lycoming Engines)	13-1

Installation (Lycoming Engines)	13-1
Removal (Continental Engines)	13-3
Installation (Continental Engines)	13-3

13-1. PROPELLER.

13-2. DESCRIPTION. An all-metal, fixed-pitch propeller, equipped with a spinner, is used on the aircraft. Refer to figures 13-1 and 13-2 for the different installations of the propeller and spinners.

13-3. REPAIR. Repair of a metal propeller first involves evaluating the damage and determining whether the repair is to be a major or minor one. Federal Aviation Regulations, Part 43 (FAR 43) and Federal Aviation Agency Advisory Circular No. 43.13 (FAA AC No. 43.13), define major and minor repairs, alterations and who may accomplish them. When making alterations or repairs to a propeller, FAR 43, FAA AC 43.13 and the propeller manufacturer's instructions must be observed. The propeller manufacturer's Service Manual may be obtained from the Cessna Service Parts Center.

13-4. REMOVAL (LYCOMING ENGINES). (Refer to figure 13-1.)

WARNING

Be sure magneto switch is in OFF position before turning propeller.

- a. Remove spinner (1).
- b. Remove mounting bolts (2) and remove forward spinner bulkhead (3), propeller (4), rear spinner bulkhead (9) and spacer (8).

- c. If removal of the ring gear support assembly (7) is necessary, loosen the alternator adjusting arm and disengage the drive pulley belt from pulley on the aft face of the starter ring gear support assembly.

13-5. INSTALLATION (LYCOMING ENGINES). (Refer to figure 13-1.)

WARNING

Be sure magneto switch is in OFF position before turning propeller.

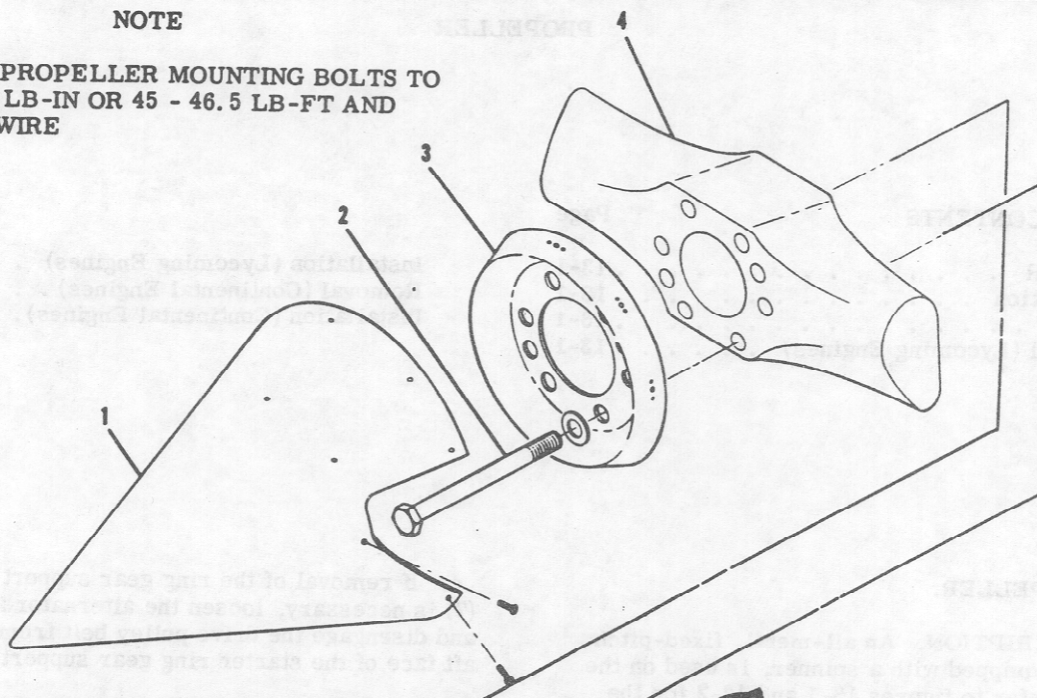
- a. If the starter ring gear support assembly (7) was removed, clean the mating surface of support assembly and engine crankshaft.
- b. Place alternator drive belt in the pulley groove of the starter ring gear support. Fit support assembly over propeller flange bushing of the crankshaft.

NOTE

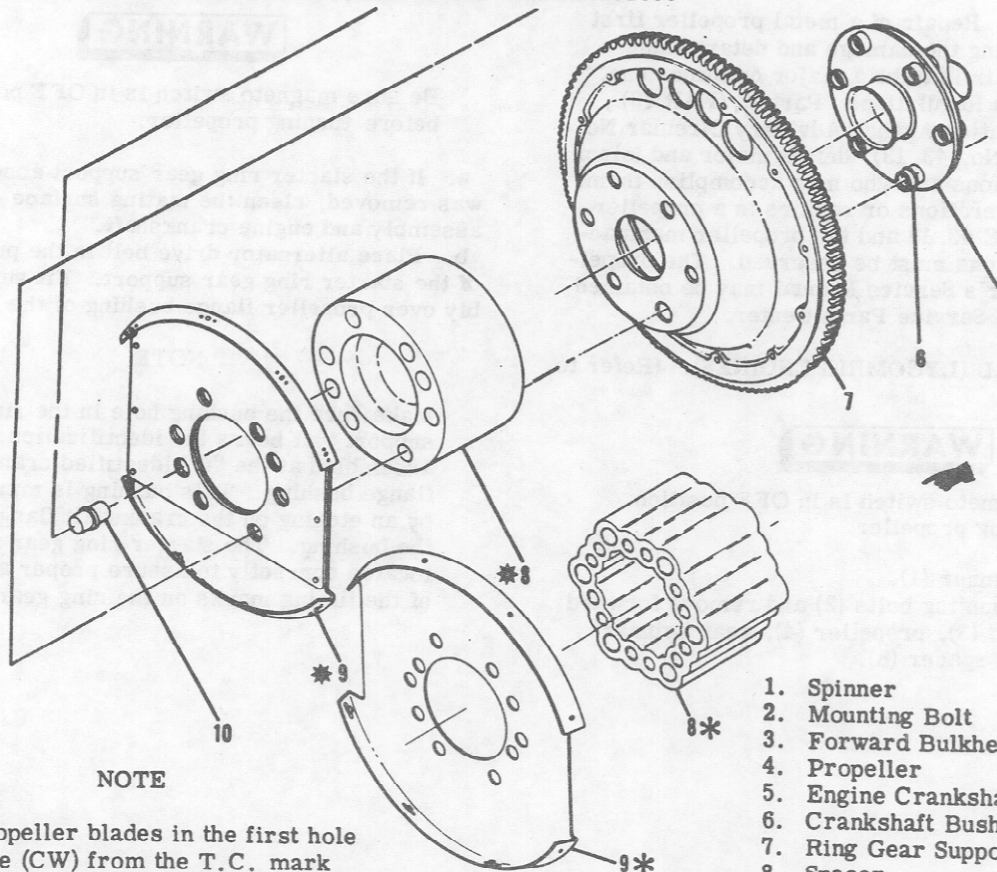
Make sure the bushing hole in the ring gear support that bears the identification "O," is assembled at the "O" identified crankshaft flange bushing. This bushing is marked "O" by an etching on the crankshaft flange next to the bushing. The starter ring gear must be located correctly to assure proper alignment of the timing marks on the ring gear.

NOTE

**TORQUE PROPELLER MOUNTING BOLTS TO
540 - 560 LB-IN OR 45 - 46.5 LB-FT AND
SAFETY WIRE**



- * STANDARD BEGINNING WITH 17261899 & F17201035
- * ALTERNATE BEGINNING WITH 17261899 & F17201035



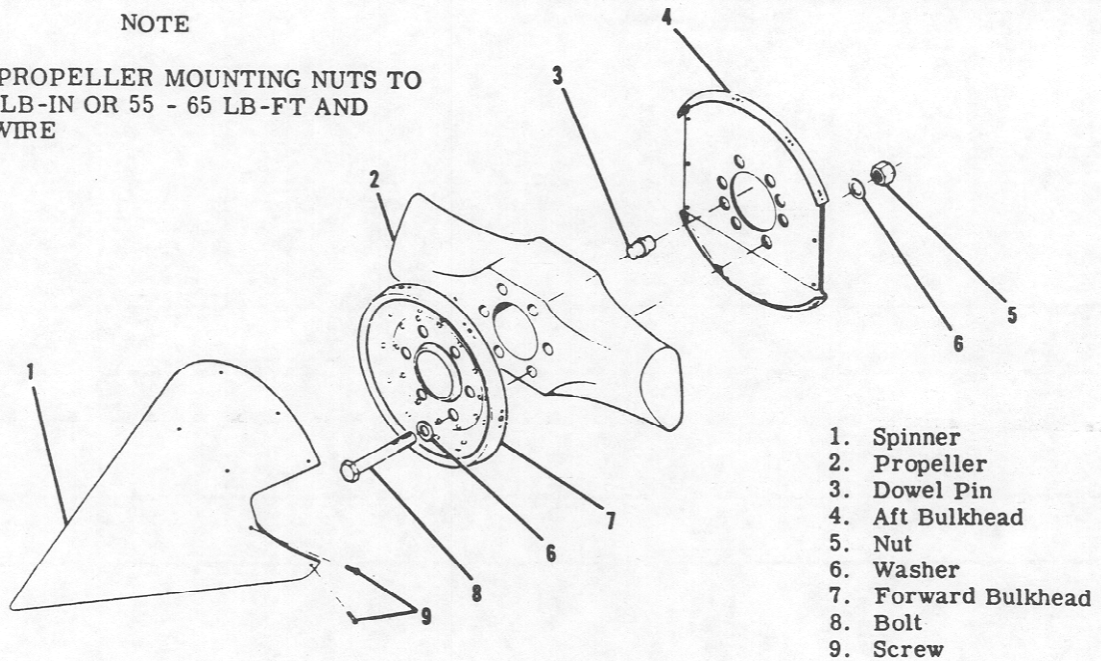
NOTE

Index propeller blades in the first hole clockwise (CW) from the T.C. mark located on the aft side of the ring gear as viewed from the front of the engine.

1. Spinner
2. Mounting Bolt
3. Forward Bulkhead
4. Propeller
5. Engine Crankshaft
6. Crankshaft Bushing
7. Ring Gear Support Assembly
8. Spacer
9. Aft Bulkhead
10. Dowel Pin

NOTE

TORQUE PROPELLER MOUNTING NUTS TO
660 - 780 LB-IN OR 55 - 65 LB-FT AND
SAFETY WIRE



13-2. Propeller Installation (Continental Engines)

c. Clean mating surfaces of the propeller, bulkheads and spacer and assemble as illustrated in figure 13-1.

d. Find the top center (TC) mark on the aft face of the starter ring gear support. Locate one of the propeller blades over the TC mark, rotate the propeller clockwise (as viewed from front of engine) to the first bushing and install propeller.

e. Tighten propeller mounting bolts evenly and torque bolts to 45 lb-ft.

f. Install spinner.

g. Adjust alternator drive belt tension as outlined in Section 16.

13-6. REMOVAL (CONTINENTAL ENGINES).
(Refer to figure 13-2.)

WARNING

Be sure magneto switch is in OFF position before turning propeller.

- a. Remove spinner (1).
- b. Remove propeller mounting nuts, washers and

bolts. Pull propeller forward to remove.

c. The spinner bulkheads (4 and 7) will be freed by removal of the mounting bolts as the propeller is removed.

13-7. INSTALLATION (CONTINENTAL ENGINES)
(Refer to figure 13-2.)

WARNING

Be sure magneto switch is in OFF position before turning propeller.

a. Clean mating surfaces of crankshaft flange, bulkheads and propeller.

b. Position propeller and bulkheads as illustrated in figure 13-2 and install mounting bolts, washers and nuts.

c. Tighten nuts evenly, torque to 55-65 lb-ft and install safety wire.

d. Install spinner. The spinner bulkheads must be positioned so that propeller blades emerge from spinner with ample clearance.