

August 5, 1986



VENDOR SERVICE PUBLICATION

TO: All Piper Cheyenne Sales Centers, Cheyenne Service Distributors,
Factory Direct Dealers and All Cheyenne Field Service Facilities

SUBJECT: Hartzell Propeller Product Division, Service Instructions No. 140A
(Issue 5), dated January 28, 1986

MODELS AFFECTED:

PA-31T Cheyenne
PA-31T Cheyenne II
PA-31T1 Cheyenne I
PA-31T1 Cheyenne IA
PA-31T2 Cheyenne IIXL
PA-31T3 T-1040

PA-42 Cheyenne III

PA-42-720 Cheyenne IIIA

SERIAL NUMBERS AFFECTED:

31T-7400002 through 31T-7720069
31T-7820001 through 31T-8120104
31T-7804001 through 31T-8104101
31T-8304001 through 31T-1104017
31T-8166001 through 31T-1166006
31T-8275001 through 31T-8375005,
31T08475001 and 31T-5575001
42-7800001, 42-7800002, 42-7801003,
42-7801004, and 42-8001001 through
42-8001106
42-8301001 and up

PURPOSE: To distribute Hartzell Propeller Products Division
Service Instructions No. 140A (Issue 5), dated January 28, 1986 to all Piper
Cheyenne Sales Centers, Cheyenne Service Distributors, Factory Direct Dealers
and All Cheyenne Field Service Facilities.

The attached Hartzell Propeller Service Instructions affects Hartzell Propeller
equipment installed on the above listed Piper Airplanes. Refer to the publication
for specific details.



**Hartzell Propeller
Products Division**
TRW Aircraft
Components Group

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SERVICE INSTRUCTIONS

SERVICE INSTRUCTIONS NO. 140A (ISSUE 5)

January 28, 1986

SUBJECT:

**Recommended Procedures for Installation of Propellers
with the B-3339 Attaching Bolt.**

EFFECTIVITY:

**All propellers, i.e., HC-B3TN, HC-B4TN, HC-B5TN,
HC-B4MN, are eligible for installation with the new
design bolt.**

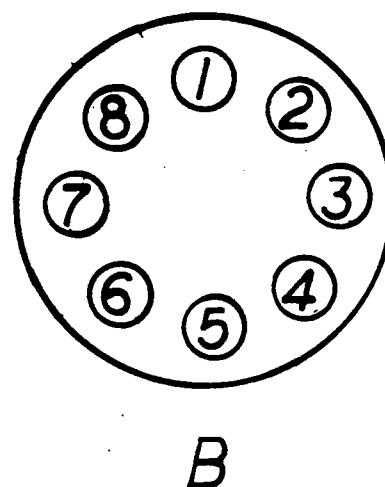
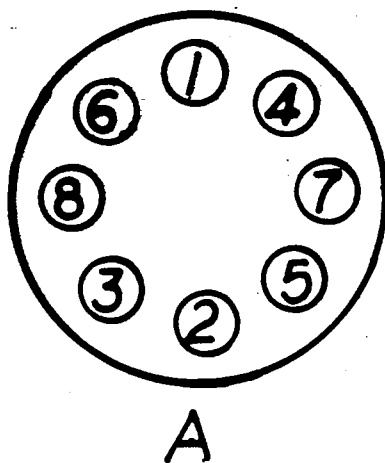
DISCUSSION:

**This information is issued to establish the
installation procedures of the B-3339 bolt.**

**It must be noted that the instructions to follow are
based on a lubricated thread condition applicable to
the incorporation of the B-3339 attaching bolt.**

PROCEDURE:

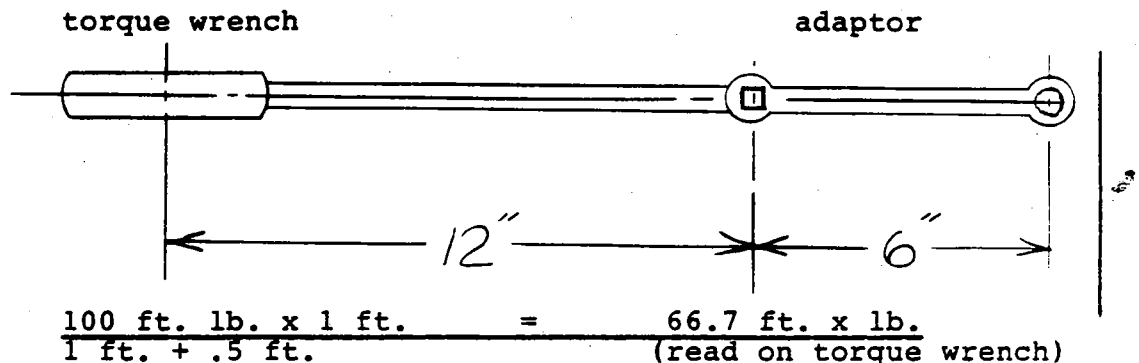
After assuring that the engine and propeller flanges are clean, install the proper oil seal to the engine flange. Carefully install propeller on the engine flange assuring that complete and true surface contact is established. Apply MIL-T-5544 or MIL-T-83483 Petrolated Graphite (or Hartzell P/N A-3338-() to bolt threads and bolt washer surface, (and remainder of bolt if desired). Install eight B-3339 bolts and eight A-2048-2 washers through engine flange into propeller flange. Torque all bolts to 40 ft. lbs. and then to 80 ft. lbs. following torque sequence "A". Final torque all bolts using sequence "B" to 100 to 105 ft. lbs. Safety wire all bolts in an airworthy manner.



Shown below is the equation to be used to determine the torque value that should be observed on the calibrated torque wrench when an adaptor is used with the wrench.

$$\frac{(\text{Actual torque desired}) \times (\text{torque wrench length})}{(\text{Torque wrench length}) + (\text{Length of adaptor})} = \text{New reading on torque wrench to achieve actual torque desired.}$$

All lengths are in feet, all torques are in ft.x lbs.



Actual torque = 100 ft. x lb.

Install decal P/N TOR-WT following bolt installation.

**PUBLICATIONS
AFFECTED:**

This instruction is now part of Owner's Manual No. 106.

Instruction No. 140A dated November 15, 1984 is now void.

**SPECIAL
TOOLING:**

As indicated in the torque procedures, it will be necessary to have calibrated torque wrenches and adaptors which will provide for proper and effective work conditions. The B-3339 attaching bolt has a wrench size of 5/8 inches.