



SERVICE LETTER

No. 753

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

July 16, 1976 M

Subject:

Propeller Feather Assist Spring Assembly Installation, reference attached Hartzell Service Letter No. 101 dated April 15, 1976.

Models Affected:

PA-31-300, PA-31-310 and
PA-31-325 "C/R" Navajo]

PA-31-350 Navajo Chieftain

Serial Numbers Affected:

31-2 to 31-7612085 Incl., 31-7612088,
31-7612096, 31-7612097, 31-7612102 and
31-7612104.

31-5001 to 31-7652136 Inclusive

Compliance Time:

Refer to attached Hartzell Service Letter No. 101, Required Action section.

Purpose:

To provide supplemental distribution of Hartzell Service Letter No. 101 dated April 15, 1976 which announces availability of Propeller Feather Assist Spring Assembly Installation Kits for the above referenced aircraft. The benefits and advantages of this installation are specified in the Discussion section of the attached Hartzell Service Letter No. 101.

Instructions:

1. Hartzell Propeller Feather Assist Spring Assembly installation instructions are contained in Hartzell Service Instructions No. 105 dated April 15, 1976, copies of which have been provided to all Piper Field Service Facilities.
2. Pilot's Operating Manual/Airplane Flight Manual is to be revised concurrent with above propeller modification (ref. Material Required No. 2, below).

NOTE:

The propeller modification described herein must be accomplished by an FAA qualified propeller repair station; a listing of Hartzell Field facilities is attached to this release to assist Navajo and Navajo Chieftain owners/operators in locating the nearest propeller repair facility.

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Material Required:

1. Two (2) each per aircraft (i.e., one per propeller) Propeller Feather Assist Spring Assembly Installation, Kit No. A-1587 (Hartzell's suggested unit list price \$33.35) or Kit No. A-1587-1 (Hartzell's suggested unit list price \$93.80).

NOTE:

Practically all affected aircraft will require the A-1587 Kit; only a few aircraft (earliest propeller models) will require the A-1587-1 Kit, which includes a new Pitch Change Rod (previously incorporated in later propeller configurations). Since this is an internal propeller change, it cannot be absolutely ascertained which kit is required until the propeller is disassembled for overhaul/installation of Spring Kit by the prop repair shop.

2. One (1) each per aircraft Pilots Operating Manual/Airplane Flight Manual Revision Kit, as follows:

<u>Aircraft Model</u>	<u>Serial Number Application</u>	<u>Required Kit</u>
a. PA-31-300/310 Navajo,	31-2 to 31-659 incl., 31-661 to 31-711 incl.	761 069
b. PA-31-310 Navajo	31-660, 31-712 to 31-751 incl.	761 070
c. PA-31-310 Navajo	31-752 to 31-7612085 incl.	761 071
d. PA-31-325 Navajo "C/R"	31-7400990, 31-7512006 to 31-7612085 incl.	761 072
e. PA-31-350 Navajo Chieftain	31-5001 to 31-7652136 incl.	761 073

Availability of Parts:

Your Piper Field Service Facility.

Effectivity Date:

This service release is effective upon receipt.

Summary:

Please contact your Piper Field Service Facility to make arrangements for procurement of this propeller refinement program. It is recommended that this installation be accomplished at -- and not exceed -- the next scheduled propeller overhaul period, which will assist in minimizing down time and labor expense. Spring installation involves approximately one to two man-hours per propeller.



AREA CODE 513
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TELEX 288039



Manufacturers of Airplane Propellers
350 WASHINGTON AVE.

PIQUA, OHIO 45356

April 15, 1976

SERVICE LETTER NO. 101

Subject: Availability of a Feather Assist Spring Assembly Kit, Part No. A-1587 or A-1587-1

Effectivity: All Hartzell Model ()HC-E()Y()-2() counter-weighted propellers installed on all model aircraft.

Discussion: These propellers have a system in which blade counterweights and air pressure in the cylinder are utilized to increase pitch and feather the propeller, opposed by governor regulated oil pressure to reduce pitch.

To avoid the possibility of being unable to feather the propeller when the propeller air charge is at zero, a spring is now being incorporated in the propeller hub extension. This spring will produce sufficient force to operate the propeller in normal flight conditions, and also produce sufficient force to feather the propeller. The air charge will be reduced by the equivalent amount of spring force.

Required Action: Instructions for emergency operation with zero air charge in the propeller are given in Hartzell Service Instructions No. 99 and Hartzell Propeller Owner's Manual 115G and Overhaul Manual 117D.

It is recommended that the feather assist spring assembly kit be installed at the next most convenient time, no later than the 1000 hour overhaul time period. The feather assist spring must be installed in both propellers by a qualified propeller repair station to assure proper assembly. See Hartzell Service Instructions No. 105 for the installation procedure.

Following the installation of the Feather assist spring assembly, the propeller model will change to HC-E()Y()-2()T. The letter "T" designates the installation of this assembly, and it is considered a minor change not affecting propeller certification.

April 15, 1976

Required
Action
(Cont'd):

An entry of this change in model and the compliance of the service letter shall be made in the propeller log book or aircraft log book.

Publications
Affected:

This service letter will become part of Hartzell Overhaul Manual 117D and must be considered part of the overhaul procedures.

HARTZELL DISTRIBUTORS
(Domestic)

July 22, 1976

Acro Propeller, Inc.
120th at Kipling
Jefferson County Airport
Broomfield, Colorado 80020

Attn: Sue Houston
Phone: AC 303 469-1749

Aircraft Propeller, Inc.
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Tampa, Florida 33614

Attn: H. K. Simmon
Phone: AC 813 872-0473

Aircraft Propeller Service, Inc.
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Attn: Ernst J. Pultz
Phone: AC 312 541-1133

Alaska Propeller Specialists, Inc.
3038 International Airport Road
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Phone: AC 907 279-8454

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Opa Locka, Florida 33054

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Phone: AC 305 688-9439

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Warren, Michigan 48091

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Minneapolis, Minnesota 55429

Attn: K. E. Maxwell
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Metropolitan Propeller Repair,
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Memphis, Tennessee 38116

Attn: George Harris
Phone: AC 901 332-6662

Ottosen Propeller Service, Inc.
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Phone: AC 602 275-8514
AC 602 955-3385 (After 5)

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Piedmont Aviation
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AC 919 767-5100

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Piqua, Ohio 45356

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Sun Valley, California 91352

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Phone: AC 213 875-0785
AC 213 768-4866

Santa Monica Propeller Service
3025 Airport Avenue
Municipal Airport
Santa Monica, California 90405

Attn: Ray D. Fulton
Phone: AC 213 397-9711
AC 213 870-8976

Western Airmotive Company, Inc.
Oakland International Airport
Hangar 7
P. O. Box 2445
Oakland, California 94614

Attn: Lynn Zackowitz
Phone: AC 415 635-2829

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Lancaster Airport
Lancaster, Pennsylvania 17604

Attn: Don Strickler
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Phone: AC 303 364-7661

HARTZELL DISTRIBUTORS
(Canadian)

February 18, 1976

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Attn: Fred Sebus
Phone: AC 604 273-4561
AC 604 273-4562

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2555 Derry Road East
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Phone: AC 416 678-1234

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CSE (Aircraft Services) Limited
Oxford Airport
Kidlington, Oxford OX5 1RA
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Kuepferlingstrabe 9
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Hamilton, New Zealand
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Prestwick Airport
Prestwick, Scotland KA9 2RW
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