



Piper Aircraft Corporation  
Vero Beach, Florida, U.S.A.

# SERVICE No. 845A BULLETIN

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\* PIPER CONSIDERS \*  
\* COMPLIANCE MANDATORY \*  
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Date October 9, 1987 M

(Service Bulletin No. 845A supersedes and voids Service Bulletin No. 845, dated August 18, 1986)

This Service Bulletin is divided into TWO (2) PARTS. Check each PART for specific instructions, Serial Numbers Affected and Compliance Time.

SUBJECT: Main Landing Gear, Forward Side  
Brace Inspection/Replacement

REASON FOR REVISION: Add PART II, Revise Serial Numbers  
Affected, Revise Material Required,  
and Revise Sketch

APPROVAL: The modification to the affected aircraft  
described in this publication has been approved by the F.A.A.

## PART I

### MODELS AFFECTED:

PA-31-300/310/325 Navajo  
PA-31-350 Navajo Chieftain  
PA-31-350 T-1020  
PA-31P Pressurized Navajo  
PA-31P-350 Mojave  
PA-31T Cheyenne/Cheyenne II  
PA-31T1 Cheyenne I/Cheyenne IA  
PA-31T2 Cheyenne IIXL

### SERIAL NUMBERS AFFECTED:

31-2 through 31-8312019  
31-5001 through 31-8452021  
31-8253001 through 31-8553002  
31P-2 through 31P-7730012  
31P-8414001 through 31P-8414050  
31T-7400002 through 31T-8120104  
31T-7804001 through 31T-1104017  
31T-8166001 through 31T-1166008

### COMPLIANCE TIME:

In accordance with Inspection/Replacement times  
below:

#### INITIAL INSPECTION

1000 Hrs. T.T.

#### REPETITIVE INSPECTION

Each 100 Hrs.

#### REPLACEMENT

On Condition

NOTE: This inspection is also required whenever the landing gear is operated at speeds above maximum landing gear operating speed ( $V_{LO}$ ) as indicated in the applicable P.O.H./A.F.M.

(over)  
ATA: 3218

PURPOSE:

Field reports have been received of main landing gear forward side braces cracking during the landing gear cycle. A failed side brace would prevent landing gear retraction and could cause landing gear collapse under high side load conditions. It has also been determined that any operation of the landing gear above maximum landing gear operating speed ( $V_{LO}$ ) greatly increases stress and could cause side brace failure.

CAUTION: Maximum Gear Operating Speed outlined in the appropriate section of the Pilot's Operating Handbook or Aircraft Flight Manual should never be exceeded.

PART I of this Service Bulletin provides an illustration and instructions for the inspection of the main landing gear forward side braces.

INSTRUCTIONS:

1. Remove paint in area indicated on Sketch "A" on both Main Landing Gear Forward Side Braces, Piper Part Number 40279-16 left and 40279-17 right for PA-31T2; Piper Part Number 40279-08 left and 40279-09 right for PA-31, PA-31P, PA-31T, and PA-31T1 Models.

NOTE: If alodine is undamaged, repainting will not be necessary between repetitive inspection intervals.

2. Inspect area for cracks using dye penetrant or zyglo procedures.
3. If cracking is indicated, replace the affected part prior to further flight, per the appropriate aircraft maintenance manual.
4. Make the appropriate logbook entry of compliance with PART I of this Service Bulletin.

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PART II

MODELS AFFECTED:

PA-31-300/310/325 Navajo  
PA-31-350 Navajo Chieftain  
PA-31-350 T-1020  
PA-31P Pressurized Navajo  
PA-31P-350 Mojave  
PA-31T Cheyenne II  
PA-31T1 Cheyenne I/Cheyenne IA  
PA-31T2 Cheyenne IIXL

SERIAL NUMBERS AFFECTED:

31-2 through 31-8312019  
31-5001 through 31-8452021  
31-8253001 through 31-8553002  
31P-2 through 31P-7730012  
31P-8414001 through 31P-8414050  
31T-7400002 through 31T-8120104  
31T-7804001 through 31T-1104017  
31T-8166001 through 31T-1166008

COMPLIANCE TIME:

As required in accordance with the inspection/-Replacement times detailed in PART I of this Service Bulletin.

PURPOSE:

PART II of this Service Bulletin announces the availability of new improved main landing gear forward side braces which, when installed, will relieve the repetitive one-hundred (100) hour inspection required by PART I of this Service Bulletin.

INSTRUCTIONS:

1. Refer to the appropriate maintenance manual for specific instructions.
2. Remove main landing gear forward side brace on left and right main landing gear.
3. Install new main landing gear forward side braces. (See Material Required for specific part number).

NOTE: Installation of new improved main landing gear forward sidebraces will require the use of longer bolts at the main gear retraction arm to sidebrace attach points, see Material Required. Refer to Sketch 'A'.

4. Inspect the main landing gear attach points and bracketry for security and integrity, particularly the actuator reinforcement brackets.
5. Perform a gear retraction check.
6. Make a logbook entry of compliance with PART II of this Service Bulletin.

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MATERIAL REQUIRED:

- A. One (1) each Left Side Brace, Piper Part Number 85165-02 for PA-31T2, per aircraft.
- B. One (1) each Right Side Brace, Piper Part Number 85165-03 for PA-31T2, per aircraft.
- C. One (1) each Left Side Brace, Piper Part Number 85166-02 for PA-31, PA-31P, PA-31T and PA-31T1 Models, per aircraft.
- D. One (1) each Right Side Brace, Piper Part Number 85166-03 for PA-31, PA-31P, PA-31T and PA-31T1 Models, per aircraft.
- E. Four (4) each AN6-16 Bolts, Piper Part Number 400-211 per aircraft.

AVAILABILITY OF PARTS:

Your Piper Field Service Facility.

EFFECTIVITY DATE:

This Service Bulletin is effective upon receipt.

(Over)

SUMMARY: Any applicable factory participation will remain in effect for a period of time not to exceed 180 days from the date of this Service Bulletin.

Please contact your Factory Authorized Piper Field Service Facility to make arrangements for compliance with this Service Bulletin in accordance with the Compliance Time Indicated, and to obtain information concerning any applicable factory participation.

NOTE: If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify the Factory of address/ownership corrections. Changes should include aircraft model, serial number, current owner's name and address.

Corrections/Changes should be directed to:

Piper Aircraft Corporation  
Attn: Product Support  
P.O. Box 1328  
Vero Beach, FL 32961-1328

SKETCH "A"

