



# SERVICE BULLETIN

No. 320A

Piper Aircraft Corporation  
"FAA DOA EA-1 Approved"

Lock Haven, Pennsylvania, U.S.A.  
July 6, 1972 S/M

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(Voids and supersedes Service Bulletin No. 320 dated August 11, 1970)

Reason For Revision:

Bridle Cable strand damage has been detected in a few cases at the Bridle Cable pin where Bridle Cable attaches to capstan. If strand damage exists, bridle cable must be replaced. Aircraft which previously complied with Service Bulletin No. 320 dated August 11, 1970 must be reinspected in accordance with this current Bulletin No. 320A, Instructions, Item No. A-2. Aircraft which have not complied with Service Bulletin No. 320 must comply with this Service Bulletin in full.

Subject:

Inspection of AutoControl III and AltiMatic III, AltiMatic IIIB and AltiMatic IIIB-1 Servo Bridle Cable Installations.

Models and Serial Numbers Affected:

All the following aircraft with a III, IIIB and IIIB-1 Series Automated Flight Control System Installation:

Models Affected

PA-23-250 (Six Place) and PA-E23-250  
(Six Place) Aztec  
PA-24-260 Comanche  
PA-30 Twin Comanche  
PA-31 and PA-31-300 Navajo  
PA-31P Navajo  
PA-39 Twin Comanche C/R

Serial Numbers Affected

27-3457 and up.  
24-4567 and up.  
30-1255 to 30-2000 incl.  
31-2 and up.  
31P-1 and up.  
39-1 and up.

CAUTION

This Service Bulletin does not apply to Edo-Aire Mitchell S.T.C. approval installations as denoted on FAA Airworthiness Directive No. 70-15-18, effective August 31, 1970.

Airworthiness Directive No. 70-15-18, effective August 31, 1970 does not apply to Piper III Series Automated Flight Control System equipment (factory installed or field installed in accordance with the applicable Piper instructions) inasmuch as the Piper servo bridle cable clamp installation is not the same as the Edo-Aire Mitchell design.

Compliance Time:

Within the next 120 days from Effectivity Date of this bulletin or at the next 100 hour inspection, whichever occurs first, and to occur thereafter in accordance with the

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Compliance Time: (continued)

standard periodic inspection or programmed maintenance (progressive inspection) procedure.

Purpose:

To inspect for integrity of the above referenced autopilot servo installations and related bridle cables.

Instructions:

Referring to a current copy of the following appropriate automated flight control systems service manual;

<u>Part Number</u>	<u>A.F.C.S. System</u>	<u>Revision</u>
753 720	AutoFlite	Feb. 1971 or later
761 481	AutoFlite II	July 1971 or later
753 723	AutoControl & AltiMatic III	Sept. 1971 or later
761 502	AltiMatic IIIB-1	Aug. 1971 issue or later revision

## A. Inspect for the following:

1. Loose bridle cables.
2. Damaged bridle cables or frayed bridle cable strands particularly at the bridle cable pin where bridle cable attaches to capstan.
3. Bridle cable clamp screw torque requirements
4. Safety sleeves replaced (if required), according to the above referenced A.F.C.S. Service Manuals.
5. Cable guard positioning and clearance.
6. Primary control system cables and bridle cable tension settings as specified by above appropriate A.F.C.S. Service Manuals.

## B. Perform clutch override test as called out in appropriate A.F.C.S. Service Manuals.

Material Required:

Refer to appropriate aircraft model parts catalog for material replacement ordering data.

Availability of Parts:

Your Piper Dealer.

Effectivity Date:

This Service Bulletin is effective July 14, 1972.

Summary:

Please make arrangements with your Piper Dealer to comply with this Service Bulletin, which is submitted to insure proper inspection/maintenance procedures are applied to your automated flight control system.