



The New Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, Florida, U.S.A. 32960

SERVICE No. 1007 BULLETIN

PIPER CONSIDERS COMPLIANCE MANDATORY

Date: September 30, 1997 (M)

(Service Bulletin No. 1007 supersedes and voids Service Bulletin No. 687, dated March 20, 1981.)

SUBJECT:

**Horizontal Stabilizer Spar and Outboard
Hinge Inspection and Modification**

MODELS AFFECTED:

PA-31, 31-300, 31-325 Navajo
PA-31-350 Navajo Chieftain
PA-31-350 T1020
PA-31P-350 Mojave

SERIAL NUMBERS AFFECTED:

31-2 through 31-8312019
31-5001 through 31-8452021
31-8253001 through 31-8553002
31P-8414001 through 31P-8414050

COMPLIANCE TIME: At the next regularly scheduled inspection not to exceed the next fifty (50) hours time in service and at intervals not to exceed every fifty (50) hours time in service until an accumulation of 500 hours time in service is reached.

APPROVAL: The technical contents of this Service Bulletin have been approved by the Federal Aviation Administration (F.A.A.).

PURPOSE: Field reports continue to indicate that cracks are being discovered in the horizontal stabilizer rear spar at the elevator outboard hinge attachment point. This occurrence continues even when compliance with Service Bulletin 687 has been achieved through installation of the recommended kits. Left uncorrected, such cracks could propagate and eventually result in impairment of elevator control. In order to effect a better repair, Piper has developed an improved stabilizer modification kit.

This Service Bulletin requires the installation of a Stabilizer Rear Spar Modification and Outboard Hinge Replacement Kit which, when installed, will remedy the condition described above.

INSTRUCTIONS:

NOTE:

Check the aircraft for previous compliance with Service Bulletin 687. (Installation of the Stabilizer Rear Spar Modification and Outboard Hinge Replacement Kit, Part Number 764-054 or 764-055.) If either of the above kits have **not** been installed, the Stabilizer Rear Spar Modification and Outboard Hinge Replacement Kit, Part Number 766-646 must be installed prior to returning the aircraft to service. (*Repetitive inspection is not approved.*)

1. If either of the Stabilizer Rear Spar Modification and Outboard Hinge Replacement Kits, Piper Part Number 764-054 or 764-055 have previously been installed or if SB 687 did not apply to your aircraft, repetitively inspect the stabilizer outboard hinge for cracks each fifty (50) hours time in service per the instructions below until accumulating 500 hours. (*Repetitive inspection may be relieved by installation of the Stabilizer Rear Spar Modification and Outboard Hinge Replacement Kit, Piper Part Number 766-646.*)
2. Fully deflect the elevator up and down to gain access to the stabilizer outboard hinge at its point of attachment to the stabilizer rear spar.

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INSTRUCTIONS: (Cont'd)

3. With a 10x magnifier, inspect the spar and hinge attach bracket at the hinge attachment area and the spar radius forward of the hinge attachment for cracks.
4. If no cracks are found, make an appropriate logbook entry of compliance with this Service Bulletin and observe the repetitive inspection requirements of the Compliance Time above.
5. If cracks are found install the Stabilizer Rear Spar Modification and Outboard Hinge Replacement Kit, Part Number 766-646, before further flight. *(All of the necessary instructions and materials for modification of both the left and right stabilizers are contained in the Kit.)*
6. Make an appropriate logbook entry of compliance with this Service Bulletin.

MATERIAL REQUIRED: One (1) each Stabilizer Rear Spar Modification and Outboard Hinge Replacement Kit, Part Number 766-646, per aircraft.

AVAILABILITY OF PARTS: Your Piper Field Service Facility.

SUMMARY: There is no applicable factory participation for 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.

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:

The New Piper Aircraft, Inc.
ATTN: Customer Services
2926 Piper Drive
Vero Beach, FL 32960