



**SERVICE LETTER NUMBER 121**

**TITLE: Fuselage modification, Sta. 228, empennage/tail wheel attach bulkhead fastener replacement to facilitate inspection for AD 99-15-07 compliance**

BY: K. Taylor	ACFT MAKE/MODEL(S):	FLOAT MODEL(S):	NOTE(S):
APP: R. Adler	Viking DHC-2 Mk. I with	6100, sea plane and	Optional compliance
DATE: 3-Aug-11	“Boss Beaver” conversion	amphibian, or	to support inspection
REV: A	per STC SA01186CH	wheel/ski plane	of Sta. 228 bulkhead

**FAA APPROVAL HAS BEEN OBTAINED FOR TECHNICAL DATA IN THIS PUBLICATION THAT AFFECTS STC OR TSO DESIGN COMPLIANCE**

**EFFECTIVITY:**

All Manufacturers Serial Number (MSN) Viking DHC-2 Mk. I aircraft equipped with the Wipaire, Inc. “Boss Beaver” STC SA01186CH conversion. This letter applies to all configurations including sea plane, amphibian, land plane, and ski plane.

SERVICE LETTER P/N: 1005428 for ECN 10081

COMPLIANCE: Optional, for inspection purposes when executing the inspection required by Airworthiness Directive (AD) 99-15-07

**BACKGROUND:**

Viking DHC-2 Mk. I aircraft equipped with the Wipaire, Inc. Boss Beaver turbine conversion and gross weight increase STC SA01186CH have doublers installed on the Sta. 228 bulkhead (Wipaire Dwg. No. 11D1-8015). These doublers sandwich the lower portion of the 228 bulkhead such that the lower bulkhead cannot be inspected visually without removing one of the additional doublers. This service letter provides a means to replace the lower doubler rivets with structural screws. Once modified, the lower doubler may be removed without drilling, facilitating a visual inspection of the lower Sta. 228 bulkhead in accordance with the AD instructions.

**COMPLIANCE METHOD:**

Compliance is achieved through completion of the instructions in the Technical Data section of this service letter.

#### APPROX. SHOP HOURS:

The functions outlined by this service bulletin will take approximately 40 hr. to accomplish.

#### WARRANTY INFORMATION:

This service letter does not include any warranty parts or labor. This service letter is intended to support operators' modification activity only, in support of a means to provide visual inspection access for AD compliance.

#### NOTES:

1. Maintenance instructions in the Technical Data section of this service letter should be accomplished in accordance with the Viking Aircraft, Ltd. Aircraft Maintenance Manual P/N PSM-1-1-2, latest revision.

#### TECHNICAL DATA AND INSTRUCTIONS:

1. Gather necessary technical data:
  - a. Installation drawing number 11D1-8015, revision C, available from Wipaire, Inc.
  - b. Latest copy of this SL 121, available on website [www.wipaire.com](http://www.wipaire.com).
  - c. Service manual for DHC-2 Mk. I aircraft, available from Viking Aircraft, Ltd. P/N PSM-1-1-2, latest revision.
  - d. Latest revision of FAA AD No. 99-15-07, available on website [rgl.faa.gov](http://rgl.faa.gov).
2. Prepare aircraft for access to doubler:
  - a. Remove tail cone
  - b. Remove horizontal tail
3. Drill rivets connecting the forward lower doubler, Wipaire P/N 11D3-8620, to the Sta. 228 bulkhead and aft doubler P/N 11C3-8261. See figure 1 and drawing 11D1-8015
  - a. Note: the aft doubler stays in place for this modification – drill only the rivets attaching the forward lower doubler.
4. While the forward lower doubler is removed, accomplish inspection tasks in AD 99-15-07. The Sta. 228 bulkhead is completely visible from the front with the forward lower doubler removed, to allow for inspections operations required by the AD.
  - a. Note: the Wipaire doubler modifications, both the Sta. 228 forward lower and aft doubler do not act as reinforcements for any cracks in the original 228 bulkhead. If any cracks or other damage are detected on the 228 bulkhead during the course of any such inspection, please contact Wipaire, Inc. for additional data and instructions supporting a repair.
5. With the visual inspection of the 228 bulkhead complete, and all AD inspection requirements met, the forward lower bulkhead may be reinstalled.

6. Reinstall doubler P/N 11D3-8260 with the following hardware; install all hardware wet with epoxy or zinc chromate primer, or Mastinox.. ensure that washers do not interfere with the radius of the bulkhead or aft doubler.
  - a. Screws P/N AN525-832R6 to R8 length
  - b. Washers P/N NAS1148DN832N or K
  - c. Nut, nylon locking, P/N MS21044N08

7. Reinstall tailcone and horizontal tail

Note: before reinstalling these components, it is recommended to complete all AD inspections applicable to the horizontal tail. This service bulletin does not address the horizontal tail. These ADs include, and may not be limited to, numbers 53-07-01, 81-13-01, 90-02-22, 92-24-02, and 2008-11-11.

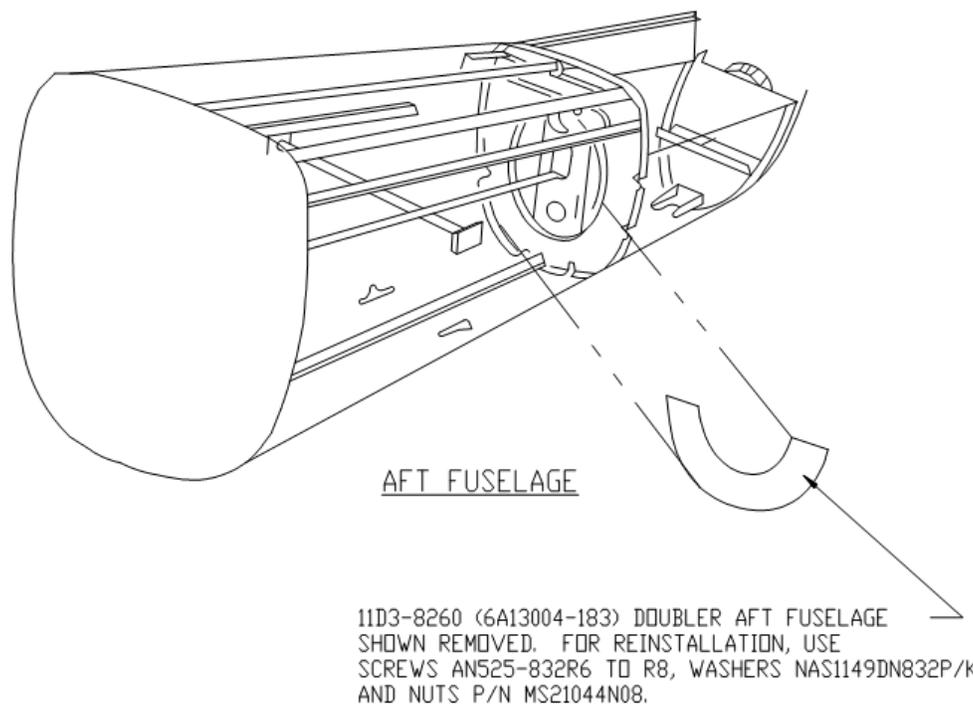


Fig. 1 – Doubler shown removed



FOLLOW UP ACTIONS:

After completion of procedures in the Technical Data section:

1. Make an aircraft logbook entry in accordance with 14 CFR Part 43, or in accordance with your local Civil Aviation regulations, referencing accomplishment of the modification procedures in this service letter.
2. Make any logbook entries specific to compliance with AD 99-15-07.
  - a. Note: this service letter *is not* a means for compliance with the AD instructions. All requirements for AD compliance are listed in the AD text and are *not* superseded or modified by this service letter. This service letter is *not* an Alternate Means of Compliance for the AD.

### END ###