UNITED STATES

F.A.A.

AIRWORTHINESS DIRECTIVES
75-16-19 FLUG-UND FAHRZEUGWERKE A. G.: Amendment 39-2293. Applies to Diamant HBV gliders, all serial numbers, and Diamant 16.5 gliders, S/N 011 through 069, except 030, 031, 036, 058, 067, and 068, certificated in all categories. Compliance is required within 25 hours' time in service after the effective date of this AD, unless already accomplished.

To prevent jamming of the rudder, accomplish the following:
(a) Visually inspect and measure the fin fairing overlap of the rudder nose for right full rudder to assure an overlap of more than 0.4 in. (10 mm) in accordance with FLUG-UND FAHRZEUGWERKE A.G. Service Bulletin No.2, dated May 15, 1970, or an FAA-approved equivalent.
(b) If fin fairing overlap measured in accordance with paragraph (a) of this AD is less than 0.4 in. (10 mm), modify (lengthen) the rudder nose by bonding fiberglass strips to the nose in accordance with FLUG-UND FAHRZEUGWERKE A.G. Service Bulletin No.2, dated May 15, 1970, or an FAA-approved equivalent.

This amendment becomes effective August 12, 1975.

75-17-09 FLUG-UND FAHRZEUGWERKE AG: Amendment 39-2311. Applies to HBV "Diamant" and Diamant 16.5 gliders, all serial numbers, certificated in all categories. Compliance is required within the next 10 hours' time in service after the effective date of this AD, unless already accomplished.

To prevent structural failure of the lower harness attachments D1.201-0710, reinforce the attachments in accordance with the "REQUIRED ACTION" specified in FLUG-UND FAHRZEUGWERKE AG Service Bulletin No. 5, dated February 4, 1974, or an FAA-approved equivalent.

This amendment becomes effective August 18, 1975.

81-12-51 FLUG UND FAHRZEUGWERKE AG: Amendment 39-4239. Applies to AG Model Diamant HBV and 16.5 gliders, certificated in all categories. Compliance required as indicated, unless already accomplished.

To prevent loss of the rudder lower close tolerance bolt, which could result in loss of the rudder, accomplish the following:
(a) Before further flight, unless already accomplished within the last 25 flight hours, and thereafter at intervals not to exceed 25 flight hours until replacement per paragraph (b) is accomplished, inspect the rudder close tolerance bolt for tightness in accordance with FLUG UND FAHRZEUGWERKE AG Service Bulletin Number 10, dated April 1981, or in accordance with applicable criteria of FAA Advisory Circular 43.13-1A. If the bolt is loose (free to rotate), before further flight, replace the bolt in accordance with the above noted Service Bulletin, or an FAA-approved equivalent.
(b) Unless already accomplished, prior to January 1, 1982, replace the rudder lower close tolerance bolt in accordance with FLUG UND FAHRZEUGWERKE AG Service Bulletin Number 10, dated April 1981, or an FAA-approved equivalent, as follows:
   (1) Remove rudder as follows:
       (i) Push rudder to the right deflection limit so that the bolt is visible through the opening on the left side of the rudder.
       (ii) Remove connecting bolt at the end of the push rod.
       (iii) Remove close tolerance bolt.
       (iv) Remove rudder from the bearing block by pulling the rudder backwards. As soon as the rudder is off the bearing block, pull the rudder ownwards to remove it from the upper bearing.
   (2) Modification procedure:
(c) Upon accomplishment of the inspection, repair and wing reinforcement required by paragraph (b) of this AD, the flight limitations placard required by paragraph (a) of this AD is no longer required.

(d) If an equivalent means of compliance is used in complying with paragraph (b) of this AD, that equivalent means must be approved by the Chief, Aircraft Certification Staff, AEU-100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, Brussels, Belgium.

This amendment supersedes Amendment 39-3905, AD 80-18-09. This amendment becomes effective August 6, 1981.

FOR FURTHER INFORMATION CONTACT:

Airworthiness Directives

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
14 CFR Part 39
Amendment 39-2293; AD 75-16-19

Airworthiness Directives, Flug-und Fahrzeugwerke A.G. Model Diamant HBV and Diamant 16.5 Gliders

Probable Information

Regulatory Information


Compliance is required within 25 hours' time in service after the effective date of this AD, unless already accomplished.

To prevent jamming of the rudder, accomplish the following:

(a) Visually inspect and measure the fin fairing overlap of the rudder nose for right full rudder to assure an overlap of more than 0.4 in. (10 mm) in accordance with Flug-und Fahrzeugwerke A.G. Service Bulletin No.2, dated May 15, 1970, or an FAA-approved equivalent.

(b) If fin fairing overlap measured in accordance with paragraph (a) of this AD is less than 0.4 in. (10 mm), modify (lengthen) the rudder nose by bonding fiberglass strips to the nose in accordance with Flug-und Fahrzeugwerke A.G. Service Bulletin No.2, dated May 15, 1970, or an FAA-approved equivalent.

This amendment becomes effective August 12, 1975.
Airworthiness Directives; Flug-und Fahrzeugwerke AG Model HBV "Diamant" and Diamant 16.5 Gliders

75-17-09 FLUG-UND FAHRZEUGWERKE AG: Amendment 39-2311. Applies to HBV "Diamant" and Diamant 16.5 gliders, all serial numbers, certificated in all categories.

Compliance is required within the next 10 hours' time in service after the effective date of this AD, unless already accomplished.

To prevent structural failure of the lower harness attachments D1.201-0710, reinforce the attachments in accordance with the "REQUIRED ACTION" specified in Flug-und Fahrzeugwerke AG Service Bulletin No. 5, dated February 4, 1974, or an FAA-approved equivalent.

This amendment becomes effective August 18, 1975.
Airworthiness Directives

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
14 CFR Part 39
Amendment 39-4239; AD 81-12-51

Airworthiness Directives; FLUG UND FAHRZEUGWERKE Model Diamant HBV and 16.5 Gliders

81-12-51 FLUG UND FAHRZEUGWERKE AG: Amendment 39-4239. Applies to AG Model Diamant HBV and 16.5 gliders, certificated in all categories.

Compliance required as indicated, unless already accomplished.

To prevent loss of the rudder lower close tolerance bolt, which could result in loss of the rudder, accomplish the following:

(a) Before further flight, unless already accomplished within the last 25 flight hours, and thereafter at intervals not to exceed 25 flight hours until replacement per paragraph (b) is accomplished, inspect the rudder close tolerance bolt for tightness in accordance with Flug Und Fahrzeugwerke AG Service Bulletin Number 10, dated April 1981, or in accordance with applicable criteria of FAA Advisory Circular 43.13-1A. If the bolt is loose (free to rotate), before further flight, replace the bolt in accordance with the above noted Service Bulletin, or an FAA-approved equivalent.

(b) Unless already accomplished, prior to January 1, 1982, replace the rudder close tolerance bolt in accordance with Flug Und Fahrzeugwerke AG Service Bulletin Number 10, dated April 1981, or an FAA-approved equivalent, as follows:

(1) Remove rudder as follows:

(i) Push rudder to the right deflection limit so that the bolt is visible through the opening on the left side of the rudder.

(ii) Remove connecting bolt at the end of the push rod.

(iii) Remove close tolerance bolt.

(iv) Remove rudder from the bearing block by pulling the rudder backwards. As soon as the rudder is off the bearing block, pull the rudder downwards to remove it from the upper bearing.
(2) Modification procedure.

(i) On the lower bearing block, remove both rivets from the anchor nut. Then rivet bracket and sheet together again (without anchor nut).

(ii) Mount rudder in reverse order to Item 1.

(iii) Check deflections according to the flight manual, Item 5.2. (plus or minus 30 degrees, -3 degrees, 0 degrees).

(iv) Check rudder and elevator controls for free movement.

(3) Material:

<table>
<thead>
<tr>
<th>Materials</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 connecting bolt</td>
<td>D1 206-0303</td>
</tr>
<tr>
<td>1 spacer</td>
<td>R20002 AN 960-C10L</td>
</tr>
<tr>
<td>2 castle nuts</td>
<td>M6 VSM 13780</td>
</tr>
<tr>
<td>2 cotter pins</td>
<td>1.6 x 16 VSM 12760</td>
</tr>
<tr>
<td>1 close tolerance bolt</td>
<td>D1 201-1228.1</td>
</tr>
<tr>
<td>2 rivets</td>
<td>MS 20470-AD2-10</td>
</tr>
</tbody>
</table>

(c) For the purpose of compliance with this AD, an equivalent procedure may be approved by the Chief of the FAA Engineering and Manufacturing Branch of any FAA region.

The manufacturer’s specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Flug Und Fahrzeugwerke AG, CH-9422 Staad SG, Switzerland. These documents may be examined at FAA Headquarters, Room 916, 800 Independence Avenue, SW., Washington, D.C. 20591.

This amendment becomes effective October 22, 1981, as to all persons except those persons to whom it was made immediately effective by telegraphic AD T81-12-51, issued June 10, 1981, which contained this amendment.
Airworthiness Directives; FLUG UND FAHRZEUGWERKE AG Model Diamant 16.5 and 18 Gliders

81-16-01 FLUG UND FAHRZEUGWERKE AG: Amendment 39-4174. Applies to Model Diamant 16.5 and 18 gliders, serial numbers 11 through 80, certificated in all categories.

Compliance required as indicated, unless already accomplished.

To reduce the possibility of wing failure due to possible inadequate bonding of the wing spar cap to the wing shear web, accomplish the following:

(a) Before further flight, install a legible operating limitations placard in full view of the pilot that reads:

"VNE - NEVER EXCEED SPEED 103 MPH 90 KTS
VA - CAUTION SPEED RANGE 74 to 103 MPH 64 to 90 KTS
NO ABRUPT CONTROL MOVEMENTS - AVOID TURBULENCE
MAXIMUM MANEUVER LOAD FACTOR: +2.8 TO -1.4
MAXIMUM GUST LOAD FACTOR: +3.5 to -1.75,"

or install an equivalent placard approved by the Chief, Aircraft Certification Staff, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, Brussels, Belgium.

(b) Prior to the accumulation of 1500 hours time in service or 50 hours after the effective date of this AD, whichever comes later, for gliders with serial numbers 26 through 80, and 1000 hours time in service or 50 hours after the effective date of this AD, whichever comes later, for gliders with serial numbers 11 through 25:

(1) Inspect, and repair as necessary, wing bonding in accordance with paragraphs 2 and 3, "Inspection Instructions," of Flug Und Fahrzeugwerke AG Service Bulletin No. 07, dated December 1978, or an FAA-approved equivalent; and
(2) For gliders with serial numbers 26 to 80, reinforce right hand wing stub spar in accordance with paragraph 2, "Accomplishment Instructions," of Flug Und Fahrzeugwerke AG Service Bulletin 08, dated December 1978, or an FAA-approved equivalent.

(3) For gliders with serial numbers 11 through 15, reinforce right hand wing stub spar in accordance with paragraph 2, "Accomplishment Instructions," of Flug Und Fahrzeugwerke AG Service Bulletin 08A, dated February 1979, or an FAA-approved equivalent.

(e) Upon accomplishment of the inspection, repair and wing reinforcement required by paragraph (b) of this AD, the flight limitations placard required by paragraph (a) of this AD is no longer required.

(d) If an equivalent means of compliance is used in complying with paragraph (b) of this AD, that equivalent means must be approved by the Chief, Aircraft Certification Staff, AEU- 100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, Brussels, Belgium.

This amendment supersedes Amendment 39-3905, AD 80-18-09. This amendment becomes effective August 6, 1981.