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| <b>HPH spol.s r.o.</b><br>Čáslavská 126<br>CZ284 01 Kutná Hora<br>Czech Republic<br>Tel/Fax 00420-327 513441<br>e-mail : hph@hph.cz | <b>Service bulletin</b> | No.: G304CZ - 06 a)_R01<br>G304C - 06 a)_R01<br>G304CZ17 – 06 a)_R01 |
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| <b>Type :</b>    | Type Certificate No.: EASA.A.030<br>Model: Glasflügel 304 CZ, Glasflügel 304 CZ-17, Glasflügel 304 C<br>Serial No.: all                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Subject :</b> | Elevator control rod in vertical stabilizer P/N: 205-46-9.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Urgency:</b>  | <p><b>Action 1</b>, all aircraft : Inspection of elevator control rod<br/>First inspection: Until 30 days after publication.<br/>“Inspection 2” repetitive every 12 months if no drainage hole present.</p> <p><b>Action 2</b>, all aircraft: Replacement of elevator control rod<br/>If action 1 with negative result, before next flight.</p> <p><b>Action 3</b>, all aircraft which have installed a rubber bellows on top of vertical stabilizer and have no drainage hole:<br/>Replacement of elevator control rod not later than December 31st, 2012.</p> <p><b>Action 4</b>, aircraft which have no rubber bellows installed or have never been equipped with this bellows and have no drainage hole:<br/>Replacement of elevator control rod not later than December 31st , 2013.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Reason:</b>   | Based on information published at EASA AD 2011-0213. Possible corrosion of control rod, possible breakage of elevator control rod. Under unfavourable circumstances water could soak in the elevator control rod and cause corrosion. This could lead to breakage of the control rod.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Action 1:</b> | <p><b>1. “Inspection 1” of elevator control rod drainage hole:</b><br/>Remove tail wheel. Made inspection hole of diameter 12mm through the fender at position 105 mm from the front edge of the fender (see Fig 1). Check presence of the drainage hole at the bottom of the elevator control rod through the control hole (see Fig 2) and check throughput of the drainage hole using steel bar of diameter 1.5 mm. Repair the inspection hole using 3 layers of 92125 glass fabric according to sailplane repair manual. If no drainage hole is present continue with inspection according to point 2.</p> <p><b>2. “Inspection 2” of elevator control rod:</b></p> <p>a) Install horizontal stabilizer, check elevator deflection in accordance with Table1. Note readings. Remove horizontal stabilizer.</p> <p>b) With horizontal stabilizer removed, lock elevator control lever on top of vertical stabilizer by using a steel rod or tube (Ø12 to 16 mm – 0.47 to 0.63 in.) in the „lever-up“-position (control stick fwd.) ( see Fig 3)<br/> <b>CAUTION: Extreme care should be used that the rod is correctly installed on both top edges of the vertical stabilizer to avoid damage to stabilizer structure.</b></p> <p>c) By using a spring scale, apply a force of 150 N for minimum 10 seconds to the stick in aft direction. Position the scale above of the trim knob. (see Fig 4)</p> <p>d) After removal of locking rod, install horizontal stabilizer. Check elevator deflection i.e. Table 1. In case of different readings between measurements before and after the pull-test, Action 2 must be carried out before next flight.</p> |

Fig. 1 Inspection hole position.

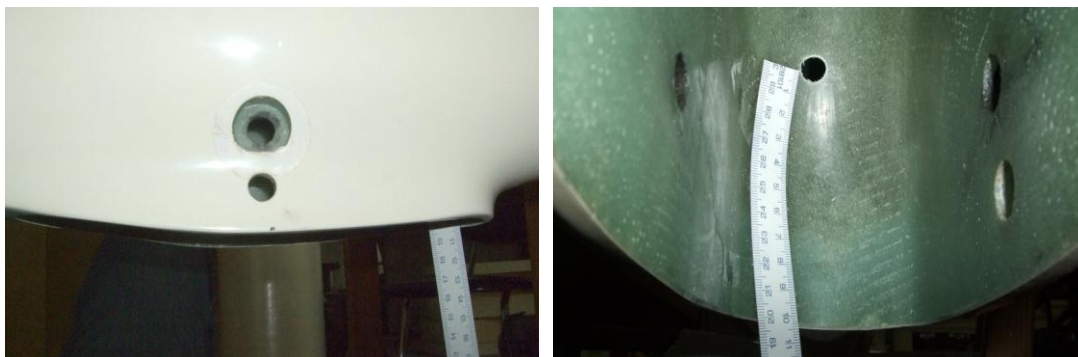


Fig. 2 Inspection of drainage hole

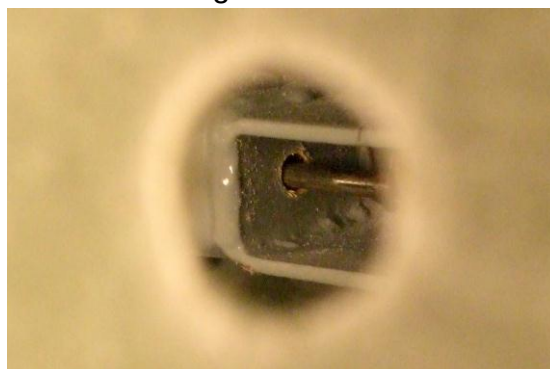


Fig. 3 Inspection of elevator control rod - lock elevator control lever



Fig. 4 Inspection of elevator control rod - apply a force to the stick



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| <b>Action 2,3,4</b>    | Replacement of elevator control rod.<br>Note: Replacement of control rod (Action 2 to 4) must be carried out by an authorised service facility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |           |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| <b>Material :</b>      | All materials and instructions for replacement of control rod must be obtained exclusively through:<br>HPH spol.s r.o.<br>Čáslavská 126<br>CZ284 01 Kutná Hora<br>Czech Republic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |           |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| <b>Weight :</b>        | Not changed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |           |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| <b>C.G. Position :</b> | Not changed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |           |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| <b>Remarks :</b>       | <p>Installation of new elevator control rod with drainage hole terminates repetitive 12 month inspection.</p> <p>All maintenance work must be carried out and certified by qualified and authorized personal.<br/>Exemptions are:</p> <ul style="list-style-type: none"><li>- Inspections and maintenance tasks, which are described in the Flight and Service Manual</li><li>- Works to be carried out by pilot/owner, in accordance with the approved -individual maintenance program. (Pilot/Owner Maintenance)</li><li>- Maintenance tasks, out of the maintenance documentation, if clearly designated „to be carried out by pilot/owner“.</li></ul> <p>Certification of maintenance:<br/>All maintenance has to be certified in the aircraft log book before next flight by an authorized „release to service“. This also applies to inspections or single inspection tasks based on TN/AD etc.</p> <p>Note: Possible existing national regulations of the state of registry of the sailplane have always to be applied accordingly.</p> <p>Owner covers expenses of the action.</p> |                       |           |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| Table 1:               | <table><tr><td colspan="4">Elevator deflections:</td></tr><tr><td>Type</td><td>Deflection „up“</td><td>Deflection „down“</td><td>Tolerance</td></tr><tr><td>Glasflügel 304 CZ</td><td>17°</td><td>17°</td><td>±2°</td></tr><tr><td>Glasflügel 304 CZ-17</td><td>17°</td><td>17°</td><td>±2°</td></tr><tr><td>Glasflügel 304 C</td><td>17°</td><td>17°</td><td>±2°</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Elevator deflections: |           |  |  | Type | Deflection „up“ | Deflection „down“ | Tolerance | Glasflügel 304 CZ | 17° | 17° | ±2° | Glasflügel 304 CZ-17 | 17° | 17° | ±2° | Glasflügel 304 C | 17° | 17° | ±2° |
| Elevator deflections:  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |           |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| Type                   | Deflection „up“                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Deflection „down“     | Tolerance |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| Glasflügel 304 CZ      | 17°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 17°                   | ±2°       |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| Glasflügel 304 CZ-17   | 17°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 17°                   | ±2°       |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |
| Glasflügel 304 C       | 17°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 17°                   | ±2°       |  |  |      |                 |                   |           |                   |     |     |     |                      |     |     |     |                  |     |     |     |

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