




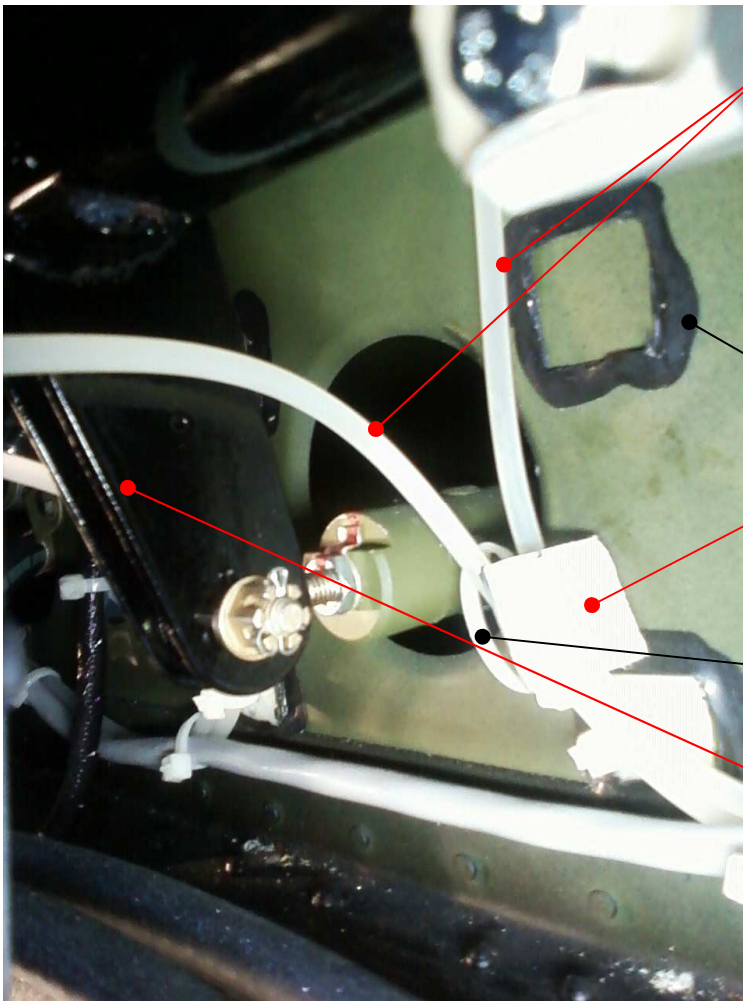
Issues

**MANDATORY BULLETIN No. EV 97 – 015 a
SPORTSTAR – 014 a**

1. **CONCERNING TO:** All **EV-97 Eurostar** and **SportStar** airplanes manufactured until June, 2010.
2. **REASON:** A loosening of brake hoses in the area of hand control system was found on one of the airplanes in operation. Loosening was caused due to a plastic square anchor, which become detached from the airframe. The hoses are fixed to these plastic anchors by means of zip ties. See the picture in Appendix 1.
In certain circumstances the loose hoses may restrict movement of the hand control system.
3. **ACTION:** Inspection and change of hoses attachment in the area of hand control system.
4. **ACTION LATEST DATE:** Prior to next flight perform an inspection of the hoses attachment to the airframe in accordance with procedure in Appendix 3.
If loose hoses are found, then immediately improve attachment of the hoses in accordance with procedure in Appendix 3.
If plastic anchors are found firmly attached and hoses not loose, then improvement of attachment may be done at the next periodical inspection.
5. **ACTION TO BE DONE BY:** Airplane owner or qualified mechanic.
6. **COSTS COVERED BY:** Airplane owner
7. **NECESSARY MATERIAL:** see Appendix 3 Procedure to Improve Hoses Attachment
8. **WORK PROCEDURE:** see Appendix 3 Procedure to Improve Hoses Attachment
9. **APPENDICES:** Appendix 1 Loose hoses found in service
Appendix 2 Current Design Hose Attachment
Appendix 3 Procedure to Improve Hoses Attachment
10. **ELABORATED BY:**
Petr Javorsky, LSA Project Manager  23.6.2010



APPENDIX 1 Loose hoses found in service



Brake hoses

Original anchor location

Plastic anchor

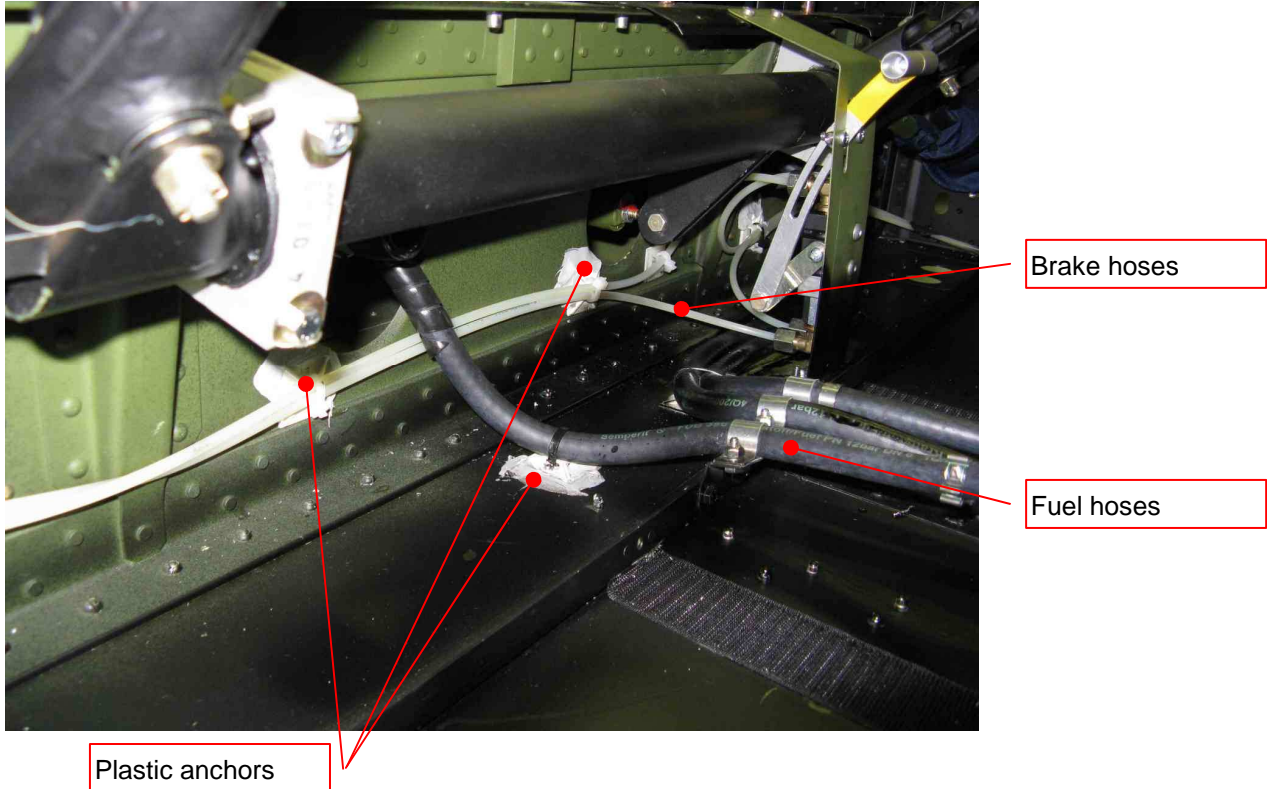
Zip tie

Hand Control Elevator rod control arm



Appendix 2 Current Design Hose Attachment

The picture below shows one of the methods used on currently produced airplanes to attach the hoses and wiring. There are square plastic anchors attached to the airframe, either by glue or by the adhesive patch on the rear of the anchors. The zip ties are inserted through the anchors and hoses (fuel, brake) or wires are fixed in place by these zip ties. Some of the anchors may become detached under certain circumstances and thus hoses may become loose. Loose hose may subsequently restrict hand control system movement.





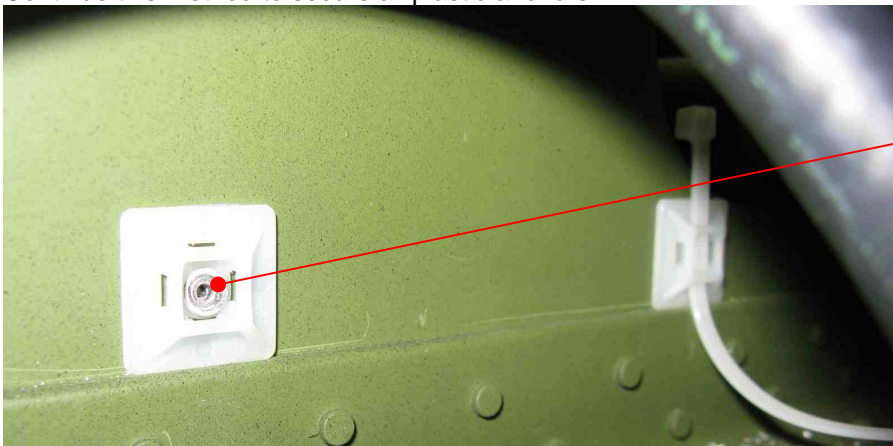
Appendix 3 Procedure to Improve Hoses Attachment

Necessary Material:

- Cutting pliers
- Hand drill
- Drill bit 3.4 mm diam.
- AVEX 3.2x9.5 1604-0412 flush pop rivets. Number of pieces according to plastic anchors.
- Riveting pliers
- Zip ties. Number of pieces according to plastic anchors.

Procedure:

1. Remove upholstery from both seats
2. Remove left and right hand control covers in front of the seats.
3. Visually and by hand check attachment of the hoses in the area of hand control system. The hoses may not be loose and/or come into contact with either part of hand control system. All plastic anchors must be firmly fixed to the construction.
4. Perform improvement of the hose attachments as follows:
 1. Use cutting pliers to cut a zip tie, remove cut zip tie, move the hose slightly away of the plastic anchor, drill hole through the anchor center by means of a hand drill and 3.4 mm diam.drill bit (be careful to not drill through any installation which might be on opposite side of drilled part; use of a small mirror and light source is recommended), pull new zip tie through the plastic anchor, place hose back into position and tighten the zip tie to fix the hose. Cut loose end of the zip tie. Be careful so that the cut sharp end of the zip tie does not damage any of surrounding hoses or wires. Continue this method to secure all plastic anchors.



Flush pop rivet
AVEX 3.2x9.5
1604-0412

2. Alternatively, it is acceptable to leave the hose attachment as they are and install additional suitable hose clamps of appropriate size. They can be attached mechanically (either by rivets or bolts and nuts) to the airframe in suitable places close to the original plastic anchors. Attach the hoses to these additional clamps.
5. Record performance of the bulletin into the Airplane Log Book.