



A/To: All ASNs, FIA Technical Departments, FIA Sporting Departments

De/From: Nuno COSTA
Safety Department

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HANS installation best practices

Dear Sir or Madam,

The FIA Safety Department has been informed that several drivers in various championships have complained that the shoulder straps tend to come off of the HANS-yoke. There are a number of reasons why this could be occurring. The table below lists some of the reasons and solutions.

Reason	Solution
Safety harness installation not optimal	<ul style="list-style-type: none">• Teams need to pay particular attention to the installation of the shoulder straps and the position of the buckle.• Make sure that the shoulder strap attachments cannot slide laterally. <p><i>Follow, as strictly as possible, the HANS installation guidelines (http://www.fia.com/regulations/regulation/drivers-equipment-98/regulation/head-restraint-213).</i></p> <p><i>The buckle position is regulated by Article 253.6.2 of Appendix J to the ISC. See below extract:</i> <i>Article 253.6.2 Safety Belts</i> <i>(...)</i> <i>The lap straps must fit tightly in the bend between the pelvic crest and the upper thigh. Under no conditions must they be worn over the region of the abdomen.</i> <i>(...)</i></p> <ul style="list-style-type: none">• The FIA authorizes the HANS device manufacturer to add brackets to the bottom part of the HANS-yoke in order to prevent the shoulder straps from coming out (see <i>Figure 1</i>).



Reason	Solution
Safety harness not properly tightened	<ul style="list-style-type: none">• Drivers must ensure that their safety harness remains properly tightened at all times.
HANS collar angle	<ul style="list-style-type: none">• The minimum reclined HANS collar angle is 60° from the horizontal. Recommended angle is 90° (i.e. vertical). <p><i>Regulation set out in Article 3.1, "Frontal Head Restraint (FHR)", of CHAPTER III "DRIVERS' EQUIPMENT", of Appendix L to the International Sporting Code</i> <i>(http://www.fia.com/regulations/regulation/appendix-international-sporting-code-96/regulation/appendix-l-international-sporting-code-662).</i></p>
Choice of HANS device	<ul style="list-style-type: none">• Drivers must ensure that they use an appropriate HANS device. Specifically, the HANS collar angle and HANS width should be appropriate for the seat angle and the driver's size.• If the top of the HANS collar is too far forwards, the angle needs to be decreased (from 30° HANS to 20° HANS).• If the top of the HANS collar is too far backwards, by more than 20°, the angle needs to be increased (from 20° HANS to 30° HANS). <p><i>Follow, as strictly as possible, the HANS installation guidelines + the manufacturer's recommendations.</i></p>
HANS model	<ul style="list-style-type: none">• Some HANS models have small tabs on the side of the upper part of the HANS-yoke, in order to reduce the lateral movement of the shoulder straps (see <i>Figure 2</i>).
Friction material of the upper surface of the HANS-yoke worn	<ul style="list-style-type: none">• Drivers should not remove the friction material;• Replace the friction material with new friction material when it is worn (no breakage, ripping, tears or other damage should be visible). Preferably the replacement material should be installed by the device's manufacturer.

Reason	Solution
Padding between driver's body and HANS-yoke not appropriate	<ul style="list-style-type: none"> Any padding used between the driver and the HANS-yoke must not be more than 15 mm thick when the driver is seated in the car fully equipped with the harness tightened. The padding must be covered by flameproof material and not be wider than 8 mm on each side of the HANS-yoke. <p><i>Regulation defined in Article 3.1 "Frontal Head Restraint (FHR)" of CHAPTER III "DRIVERS' EQUIPMENT" in Appendix L to the International Sporting Code.</i></p>
Seat model	<ul style="list-style-type: none"> Make sure that the shoulder straps move freely between the seat shoulder slots. <i>Follow, as strictly as possible, the HANS installation guidelines.</i>
Use of bungee cords on the shoulder straps	<ul style="list-style-type: none"> Teams tend to put bungee cords on the shoulder belts in order to move them to the side of the seat. However, this also moves the shoulder belt sideways so that the belt comes out of the HANS-yoke. Do NOT use bungee cords.



Figure 1 – HANS device with additional small brackets at the bottom of the HANS-yoke



Figure 2 – HANS device with small tabs on the side of the upper part of the HANS-yoke.

We remain at your disposal for any further information you may require.

Yours faithfully,

A handwritten signature in black ink, appearing to be 'Nuno Costa'.

Nuno Costa

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