

Comments to document GRSP-47-06

(Draft new Regulation: enhanced child restraint systems used onboard of motor vehicles)

A. Proposal

Paragraph 6.3.4.3., amend to read:

"6.3.4.3. Support foot dimension

The dimension of the support foot must meet the following requirements:

- Minimal support leg contact surface should be [~~2100 mm²~~ S_{\min} mm²], measured as a min. projected surface, including a 10 mm intrusion compensation (see sketch below). This surface should show structural integrity when subjected to the dynamic test according 3.1.1
- Maximum outside dimension is [X is 100 mm] and [Y=150 mm]
- Minimum radii on corners of the contact surface should have a radius of 3,2 mm or more in section over any Y-plane and X-plane to avoid stress concentrations. Comment: 3,2 mm instead of 3 mm, to be in line with interior regulations (ECE R17 and R21)
- Support legs with multiple load bearing support feet contact surfaces are allowed, as long as the requirements are met for support leg contact surface and maximum outside dimensions.
- The complete support foot contact surface should be load bearing, to prevent deformation of the foot itself. "

B. Justification

It is premature to define the minimum contact surface between the support leg and the car floor as long as the load to be transmitted to the car floor has not yet been defined. Some tests are being made in order to define these two parameters which are linked together:

- the minimum contact surface between the support leg and the car floor
- the maximum load to be applied by the Child Restraint System on the car floor

As the second parameter (maximum load) is defined as F_{\max} , it is more consistent to define the minimum contact surface as S_{\min} .
