

Supplemental Material for JAPAN's proposal to amend ECE R16

(Safety Belt Retraction Force Requirement)

Transmitted by the Expert from JAPAN

1. Comparison of current Belt Retraction Force Requirement

	Before the Durability Test (Initial)	After the Durability Test
Europe (ECE R16)	0.2daN	0.2daN
Japan US Canada	0.1daN (Japan's initial proposal to amend ECE R16)	0.05daN: more than 50% of initial force (Japan's initial proposal to amend ECE R16)

Note: Approval test of belt retraction force is done on the condition that safety belt is buckled.

2. Japan's proposal of yesterday after compromise to amend belt retracting force requirement of ECE R16

		Before the Durability Test (Initial)	After the Durability Test
Safety belt Without tension-reducing device (Normal belt)		0. daN	0. daN
Safety belt With tension-reducing device (Special belt)	TR on	not stipulated	not stipulated
	TR off	0.1daN	0.1daN

3. The present Japan's Proposal to Amend Belt Retraction Force Requirement of ECE R16

		Before the Durability Test (Initial)	After the Durability Test
Safety belt Without tension-reducing device (Normal belt)		0. daN	0. daN
Safety belt With tension-reducing device (Special belt)	TR on	0.05daN*	0.05daN*
	TR off	0.1daN	0.1daN

*Newly proposed to respond to some expert's concerns

Note: As to safety belt with tension-reducing device;

Durability test should be conducted with both conditions that tension-reducing device is operated and not operated (that means both "spring" conditions).

Draft Text of Japan's Proposal

*Paragraph 6.2.5.3.4, amend to read:

If the retractor is part of a lap belt,.....

If the retractor is part of an upper torso restraint, the retracting force of the strap shall be not less than 0.1daN and not more than 0.7daN when similarly measured, for a belt equipped with the below tension-reducing device, the minimum retracting force may be reduced to 0.05 daN only when tension-reducing device is operated. If the strap passes through a guide or pulley, the retracting force shall be measured in the free length between the dummy and the guide or pulley.

If the assembly incorporates a device that upon manual or automatic operation prevents the strap from being completely retracted, such a device shall not be operated when these requirements are assessed.

If the assembly incorporates tension-reducing device that upon automatic operation reduces the tension of the strap, when the belt is buckled, such a tension-reducing device shall be both operated and not operated when these requirements are assessed before and after durability tests according to 6.2.5.3.5..

*Paragraph 6.2.5.3.5, amend to read:

The strap shall be..... (making 45000 in all).

When tension reducing device is equipped with the belt, the above tests shall be conducted on conditions that tension-reducing device is operated and not operated.

After the above tests,.....

*: These are not new proposal. Yesterday when Japan compromised and declared to accept 0.1daN as retraction force limit after the durability test Japan put a condition that in case of safety belt with tension-reducing device the test should be done with tension-reducing device off. This condition implied that retraction force limit of safety belt with tension-reducing device should be set at 0.05daN before and after the durability test.