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12 July 2005

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF THESE PRESCRIPTIONS */

(Revision 2, including the amendments which entered into force on 16 October 1995)

Addendum 43: Regulation No. 44

Revision 1 - Amendment 7

04 series of amendments - Date of entry into force: 23 June 2005

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF RESTRAINING DEVICES FOR CHILD OCCUPANTS OF POWER-DRIVEN VEHICLES ("CHILD RESTRAINT SYSTEM")

UNITED NATIONS

*/ Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

List of contents,

Insert a new item 11, to read:

"11. Production qualification ...."

Item 11 (former), renumber as item 12 and rename:

"12. Conformity of production and routine tests ....."

Items 12 to 16 (former), renumber as items 13 to 17.

List of annexes,

Annex 14, amend to read:

"Annex 14 – Type approval scheme (flow chart ISO 9002:2000)"

Text of the Regulation,

Insert new paragraphs 2.38. to 2.40., to read:

"2.38. "type approval test", means a test to determine the extent to which a child restraint system type submitted for approval is capable of satisfying the requirements.

2.39. "production qualification test", means a test to determine whether the manufacturer is able to produce a child restraint system in conformity with the child restraint systems submitted for type approval.

2.40. "Routine testing", means the testing of a number of restraint systems selected from a single batch to verify the extent to which they satisfy the requirements."

Paragraph 3.1., amend to read:

"3.1. … duly accredited representative, and follow the type approval scheme described in annex 14."

Paragraph 3.4., amend to read:

"3.4. The approval authority of a Contracting Party must verify, before granting type approval the existence of satisfactory arrangements and procedures for ensuring effective control so that child restraint systems, equipment or parts when in production conform to the approved type."

Paragraph 5.2., replace "03" by "04" (twice).

Paragraph 5.4.1., footnote 1/, amend to read:

"1/ 1 for Germany, ..., 43 for Japan, 44 (vacant), 45 for Australia, 46 for Ukraine, 47 for South Africa, 48 for New Zealand, 49 for Cyprus, 50 for Malta and 51 for the Republic of Korea. Subsequent ..... "

Insert new paragraphs 6.4. to 6.5.1., to read:

"6.4. Control of Markings

6.4.1. The technical service conducting the approval tests shall verify that the markings conform to the requirements of paragraph 4.

6.5. Control of Instructions on Installation and the Instructions for Use

6.5.1. The technical service conducting the approval tests shall verify that the instructions on installation and the instructions for use conform to paragraph 15."

Paragraph 9., amend to read:

"9. TEST REPORTS OF TYPE APPROVAL AND OF PRODUCTION QUALIFICATION"

Add a new paragraph 9.4., to read:

"9.4 The test reports of type approval and of production qualification shall record the verification of markings and of instructions on installation and use."

Insert new paragraphs 11. to 11.2.3.1., to read:

"11. PRODUCTION QUALIFICATION

11.1. In order to make sure that the manufacturer's production system is satisfactory, the technical service, which conducted the type approval tests, must carry out tests to qualify production in accordance with paragraph 11.2.

11.2. Qualifying the production of child restraint systems

The production of each new approved type of child restraint system of categories "universal", "semi-universal", and "restricted" must be subjected to production qualification tests.

For this purpose, a random sample of 5 child restraint systems will be taken from the first production batch.

The first production batch is considered to be the production of the first block containing a minimum of 50 child restraint systems and a maximum of 5.000 child restraint systems.

11.2.1. Dynamic tests

11.2.1.1. Five child restraint systems must be subjected to the dynamic test described in paragraph 8.1.3. The technical service that conducted the type approval tests shall choose the conditions that produced the maximum horizontal head excursion during the type approval dynamic tests, excluding the conditions described in paragraph 7.1.4.1.10.1.2. above. All the five child restraint systems shall be tested under the same conditions.

11.2.1.2. For each test described in 11.2.1.1. the horizontal head excursion and chest accelerations shall be measured.

11.2.1.3. a) The maximum horizontal head excursion results shall comply with the following two conditions:

No value shall exceed 1.05 L, and

X + S shall not exceed L,

Where: L = the limit value prescribed

X = the mean of the values

S = the standard deviation of the values

b) The chest acceleration results shall comply with the requirements of paragraph 7.1.4.2.1. and, in addition, the X + S condition in 11.2.1.3 a) shall be applied to the 3 ms clipped resultant chest acceleration results (as defined in paragraph 7.1.4.2.1.) and recorded for information only.

11.2.2. Control of Markings

11.2.2.1 The technical service that conducted the approval tests shall verify that the markings conform to the requirements of paragraph 4.

11.2.3. Control of Instructions on Installation and the Instructions for Use.

11.2.3.1. The technical service that conducted the approval tests shall verify that the instructions on installation and the instructions for use conform to paragraph 15."

Paragraph 11. (former), renumber as paragraph 12. and rename:

"12. CONFORMITY OF PRODUCTION AND ROUTINE TESTS."

Paragraphs 12. to 15. (former), renumber as paragraphs 13. to 16.

Paragraph 16. (former), renumber as paragraph 17. and amend to read:

"17. TRANSITIONAL PROVISIONS

17.1. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approval under this Regulation as amended by the 03 series of amendments.

17.2. As from 12 months after the date of entry into force, Contracting Parties applying this Regulation shall grant ECE approvals only if the child restraint system type to be approved meets the requirements of this Regulation as amended by the 03 series of amendments.

17.3. During the 12-month period which follows the date of entry into force of the 03 series of amendments, Contracting Parties applying this Regulation can continue to grant type approvals to those child restraint systems which comply with the requirements of this Regulation as amended by the 02 series of amendments.

17.4. In the same period of 12 months, Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.

17.5. As from the date of entry into force of the 03 series of amendments, the provisions of annex 16 to this Regulation shall apply also to child restraint devices already type approved to the 02 series of amendments.

17.6. Starting from the date of entry into force of the 03 series of amendments, Contracting Parties applying this Regulation may refuse the sale of a type of child restraint which does not meet the requirements of paragraph 6.2.2. and 6.2.14. of the 03 series of amendments.

17.7. Starting 36 months after the entry into force of the 03 series of amendments, Contracting Parties applying this Regulation may refuse the sale of child restraint systems which do not meet the requirements of the 03 series of amendments to this Regulation.

17.8. As from the date of entry into force of supplement 2 to the 03 series of amendments, the label required by paragraph 4.5. of this Regulation shall be affixed to all new child restraints manufactured in conformity with this Regulation.

17.9. As from the official date of entry into force of the 04 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approval under this Regulation as amended by the 04 series of amendments.

17.10. As from 12-months after the date of entry into force of the 04 series of amendments, Contracting Parties applying this Regulation shall grant ECE approvals only if the child restraint system type to be approved meets the requirements of this Regulation as amended by the 04 series of amendments.

17.11. During the 12-month period which follows the date of entry into force of the 04 series of amendments, Contracting Parties applying this Regulation can continue to grant type approvals to those child restraint systems which comply with the requirements of this Regulation as amended by the 03 series of amendments.

17.12. During the 36-month period which follows the date of entry into force of the 04 series of amendments, Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.

17.13. Starting 48-months after the entry into force of the 04 series of amendments, Contracting Parties applying this Regulation may refuse the sale of child restraint systems which do not meet the requirements of the 04 series of amendments to this Regulation."

Annex 2

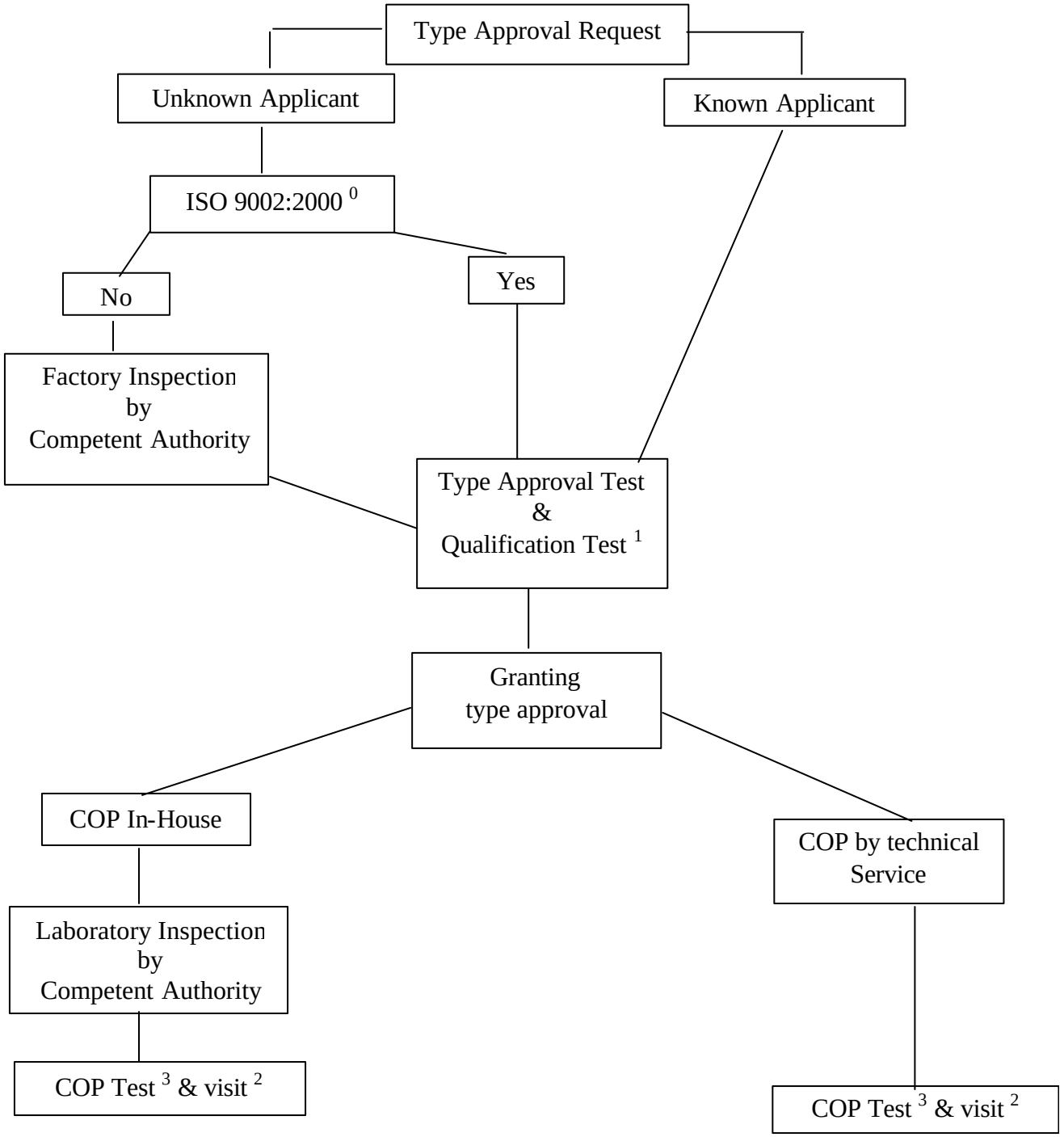
Figures of the approval mark, replace "032439" by "042439" and "032450" by "042450".

Text under the approval marks, replace "032439" by "042439", "032450" by "042450 and "03 series of amendments" by "04 series of amendments" (twice).

Annex 14, amend to read:

"Annex 14

TYPE APPROVAL SCHEME (FLOW CHART ISO 9002:2000)



Notes:

0) or an equivalent standard to this one with the permissible exclusion of the requirements related to the concepts of design and development, point 7.3 "Customer satisfaction and continual improvement"
1) these tests shall be done by technical service
2) visit to the manufacturer for inspection and random sampling by the Authority or technical service
   a) if there is no ISO 9002:2000: 2 times a year
   b) if there is an ISO 9002:2000: 1 times a year
3) tests in accordance with annex 16
   a) if there is no ISO 9002:2000:
   i. of the Authority or technical service during the visit of footnote 2a
   ii. of the manufacturer between the visits of footnote 2b
   b) if there is an ISO 9002:2000: taken by the manufacturer, procedure checked during visit of footnote 2b."

Annex 16,

Paragraphs 2.1. to 2.2.2.6., amend to read:

"2.1. The frequency of testing to the requirements of paragraphs 1.1. to 1.5. and 1.7. shall be on a statistically controlled and random basis in accordance with one of the regular quality assurance procedure, and must be conducted at least once per year.

2.2. Minimum conditions for the control of conformity of child restraint systems of categories "Universal", "Semi Universal" and "Restricted", in relation to the dynamic tests according to paragraph 1.6.

In accordance with the relevant authorities, the holder of an approval will supervise the control of conformity following the method of batch control (paragraph 2.2.1.) or following the method of continuous control (paragraph 2.2.2.).

2.2.1. Batch control for the child restraint systems

2.2.1.1. The holder of an approval must divide the child restraint systems into batches which are as uniform as possible in regard to raw material or intermediate products involved in their manufacture (different colour of shell, different manufacture of harness) and in regard to production conditions. The numbers in a batch must not exceed 5000 units.

In agreement with the relevant authorities the tests can be carried out by the technical service authorities or under the responsibility of the holder of an approval.

2.2.1.2. A sample must be taken in each batch in accordance with the provisions of paragraph 2.2.1.4. from a minimum of 20 per cent of the batch quantity, which has to be produced of the actual batch.

2.2.1.3. The characteristics of the child restraint systems and the number of dynamic tests to be conducted are given in paragraph 2.2.1.4.

2.2.1.4. In order to be accepted, a batch of child restraint systems must satisfy the following conditions:

Number in the batch	Number of samples/child restraint systems characteristics	Combined number of samples	Acceptance criteria	Rejection criteria	Degree of control rigour
N<500	1st = 1MH 2nd = 1MH	1 2	0 1	- 2	Normal
500<N<5000	1st = 1MH+1LH 2nd = 1MH+1LH	2 4	0 1	2 2	Normal
N<500	1st = 2MH 2nd = 2MH	2 4	0 1	2 2	Strengthened
500<N<5000	1st = 2MH+2LH 2nd = 2MH+2LH	4 8	0 1	2 2	Strengthened

Note :

MH signifies harder configuration (the least good results obtained in approval or extension of approval)

LH signifies less hard configuration (the best results obtained in approval or extension of approval)

This dual sampling plan functions as follows:

For a normal control, if the first sample does not contain any defective units the batch is accepted without testing a second sample. If it contains two defective units the batch is rejected. Finally, if it contains one defective unit a second sample is extracted and it is the cumulative number, which must satisfy the condition of column 5 of the table above.

There is a change from normal control to strengthened control if, out of 5 consecutive batches, two are rejected. Normal control is resumed if 5 consecutive batches are accepted.

If any batch is rejected, the production is considered to be non-conforming and the batch shall not be released.

If two consecutive batches subjected to the strengthened control are rejected, the provisions of paragraph 13. are applied.

2.2.1.5. The control of child restraint systems conformity is undertaken starting with the batch manufactured after the first batch which was subjected to production qualification.

2.2.1.6. The test results described in paragraph 2.2.1.4. shall not exceed L, where L is the limit value prescribed for each approval test.

2.2.2. Continuous control

2.2.2.1. The holder of an approval shall be obliged to carry out continuous quality control of his manufacturing process on a statistical basis and by sampling. In agreement with the relevant authorities, the tests can be carried out by the technical service authorities or under the responsibility of the holder of an approval which is responsible for the traceability of the product.

2.2.2.2. The samples must be taken in accordance with the provisions of paragraph 2.2.2.4.

2.2.2.3. The characteristic of the child restraint systems is taken at random and the tests to be carried out are described in paragraph 2.2.2.4.

2.2.2.4. control shall meet the following requirements.

Child restraint systems taken	Degree of control rigour
0.02 % means one child restraint system taken from every 5000 manufactured	Normal
0.05 % means one child restraint system taken from every 2000 manufactured	Strengthened

This dual sampling plan functions as follows:

If the child restraint system is considered to conform, the production conforms.

If the child restraint system does not meet the requirements, a second child restraint system shall be taken,

If the second child restraint system meet the requirements, the production conforms,

If both (the first and the second) child restraint systems do not meet the requirements, the production does not conform and child restraint systems that are likely to present the same failure shall be withdrawn and necessary steps shall be taken to re-establish the conformity of the production.

Strengthened control will replace normal control if, out of 10,000 child restraint systems manufactured consecutively, the production has to be withdrawn twice.

Normal control is resumed if 10,000 child restraint systems manufactured consecutively are considered to conform.

If production subjected to the strengthened control has been withdrawn on two consecutive occasions, the provisions of paragraph 13. are applied.

2.2.2.5. The continuous control of child restraint systems is undertaken starting after the production qualification.

2.2.2.6. The test results described in paragraph 2.2.2.4. shall not exceed L, where L is the limit value prescribed for each approval test."

Add a new paragraph 2.3.2., to read:

"2.3.2. Where a test sample fails a particular test to which it has been subjected, a further test to the same requirement shall be carried out on at least three other samples. In the case of dynamic tests if one of the latter fails, the production is considered to be non-conforming and the frequency shall be raised to the higher one if the lower one was used according to paragraph 2.3. and necessary steps shall be taken to re-establish the conformity of the production."

Paragraph 2.4., amend to read:

"2. 4. When production is found to be non-conforming according to paragraphs 2.2.1.4., 2.2.2.4. or 2.3.2. , the holder of the approval or his duly accredited representative shall:"

Paragraph 2.4.2., should be deleted.