

No. 4789. 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 1958¹

ENTRY INTO FORCE of Amendments to Regulation No. 16² (uniform provisions concerning the approval of safety belts and restraint systems for adult occupants of power-driven vehicles) annexed to the above-mentioned Agreement

The amendments were proposed by the Government of Italy and circulated by the Secretary-General to the Contracting Parties on 26 October 1988. They came into force on 26 March 1989, in accordance with article 12 (1) of the Agreement.

The text of the amendments (Supplement 2 to the 04 series of amendments) reads as follows:

Add the following new paragraph 2.8.6.:

"2.8.6. Belt adjustment device for height: a device enabling the position in height of the upper pillar loop of a belt to be adjusted according to the requirements of the individual wearer and the position of the seat. Such a device may be considered as a part of the belt or a part of the anchorage of the belt."

Paragraph 3.2.1. add:

"... of seats and seat belts. If the belt is designed to be fixed to the vehicle structure through a belt adjustment device for height, the technical description shall specify whether or not this device is considered as a part of the belt."

Modify paragraph 6.2.4. as follows:

"6.2.4. Attachments and belt adjustment devices for height

The attachments shall be tested for strength as prescribed in paragraphs 7.5.1. and 7.5.2. The actual belt adjustment devices for height shall be tested for strength as prescribed in paragraph 7.5.2. of the present Regulation where they have not been tested on the vehicle in application of Regulation No. 14 (in its last version of amendments) relative to anchorages of safety belts. These parts must not break or become detached under the tension set up by the prescribed load."

¹ United Nations, *Treaty Series*, vol. 335, p. 211; vol. 516, p. 378 (rectification of the authentic English and French texts of article 1 (8)); vol. 609, p. 290 (amendment to article 1 (1)); vol. 1059, p. 404 (rectification of the authentic French text of article 12 (2)); for subsequent actions, see references in Cumulative Indexes Nos. 4 to 17, as well as annex A in volumes 1051, 1055, 1060, 1065, 1066, 1073, 1078, 1079, 1088, 1092, 1095, 1097, 1098, 1106, 1110, 1111, 1112, 1122, 1126, 1130, 1135, 1136, 1138, 1139, 1143, 1144, 1145, 1146, 1147, 1150, 1153, 1156, 1157, 1162, 1177, 1181, 1196, 1197, 1198, 1199, 1205, 1211, 1213, 1214, 1216, 1218, 1222, 1223, 1224, 1225, 1235, 1237, 1240, 1242, 1247, 1248, 1249, 1252, 1253, 1254, 1255, 1256, 1259, 1261, 1271, 1273, 1275, 1276, 1277, 1279, 1284, 1286, 1287, 1291, 1293, 1294, 1295, 1299, 1300, 1301, 1302, 1308, 1310, 1312, 1314, 1316, 1317, 1321, 1323, 1324, 1327, 1328, 1330, 1331, 1333, 1335, 1336, 1342, 1347, 1348, 1349, 1350, 1352, 1355, 1358, 1361, 1363, 1364, 1367, 1374, 1379, 1389, 1390, 1392, 1394, 1398, 1401, 1402, 1404, 1405, 1406, 1408, 1409, 1410, 1412, 1413, 1417, 1419, 1421, 1422, 1423, 1425, 1428, 1429, 1434, 1436, 1438, 1443, 1444, 1458, 1462, 1463, 1464, 1465, 1466, 1474, 1477, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1492, 1494, 1495, 1499, 1500, 1502, 1504, 1505, 1506, 1507, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1518, 1519, 1520, 1522, 1523, 1524, 1525 and 1526.

² *Ibid.*, vol. 756, p. 232; vol. 820, p. 420; vol. 893, p. 330; vol. 1153, p. 435; vol. 1413, No. A-4789; and vol. 1506, No. A-4789.

Add the following new paragraph 6.4.1.2.3.:

"6.4.1.2.3. In the case of a belt intended for use with a belt adjustment device for height, as defined in paragraph 2.8.6 above, the test shall be carried out with the device adjusted in the most unfavourable position(s) chosen by the technical service responsible for testing."

Paragraph 7.5.2., add:

"7.5.2. The attachments and any belt adjustment devices for height shall be tested in the manner ... with the strap completely unwound from the reel."

Paragraph 7.6.2.2., amend the second sentence as follows:

"The design of any such test apparatus shall ensure that the required acceleration is given before the webbing is withdrawn out of the retractor by more than 5 mm and that the withdrawal takes place at an average rate of increase of acceleration of at least 25 g/s and not more than 150 g/s."

Add to paragraph 7.7.1.:

"... by the manufacturer of the vehicle. If the belt is equipped with a belt adjustment device for height such as defined in paragraph 2.8.6. above, the position of the device and the means of securing it shall be the same as those of the vehicle design."

Amend Paragraph 9 to read:

- "9. CONFORMITY OF PRODUCTION
- 9.1. Any safety belt or restraint system approved under this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements set forth in paragraphs 6 and 7 above.
- 9.2. In order to verify that the requirements of paragraph 9.1. are met, suitable controls of the production shall be carried out.
- 9.3. The holder of the approval shall in particular:
- 9.3.1. Ensure existence of procedures for the effective control of the quality of products;
- 9.3.2. Have access to the control equipment necessary for checking the conformity of each approved type;
- 9.3.3. Ensure that data of test results are recorded and that annexed documents remain available for a period to be determined in accordance with the administrative service;
- 9.3.4. Analyse the results of each type of test, in order to verify and ensure the stability of the safety belt or restraint system characteristics, making allowance for variation of an industrial production;

- 9.3.5. Ensure that, for each type of safety belt or restraint system, at least the tests prescribed in annex 14 to this Regulation are carried out;
- 9.3.6. Ensure that any samples or test pieces giving evidence of non-conformity with the type of test considered shall give rise to another sampling and another test. All the necessary steps shall be taken to re-establish the conformity of the corresponding production.
- 9.4. The competent authority which has granted type-approval may at any time verify the conformity control methods applicable to each production unit.
- 9.4.1. In every inspection, the test books and production survey records shall be presented to the visiting inspector.
- 9.4.2. The inspector may take samples at random which will be tested in the manufacturer's laboratory. The minimum number of samples may be determined according to the results of the manufacturer's own verification.
- 9.4.3. When the quality level appears unsatisfactory, or when it seems necessary to verify the validity of the tests carried out in application of paragraph 9.4.2., the inspector shall select samples to be sent to the technical service which has conducted the type-approval tests.
- 9.4.4. The competent authority may carry out any test prescribed in this Regulation.
- 9.4.5. The normal frequency of inspections authorized by the competent authority shall be two per year. In the case where negative results are recorded during one of these inspections, the competent authority shall ensure that all necessary steps are taken to re-establish the conformity of production as rapidly as possible."

Annex 1, item 1, add:

".../device for height adjustment of the upper pillar loop */"

Annex 6 : Add the following paragraph 3.1.:

- "3.1. In the case of a belt equipped with a belt adjustment device for height as defined in paragraph 2.8.6. of the present Regulation, this device shall be secured either to a rigid frame, or to a part of the vehicle on which it is normally mounted which shall be securely fixed on the test trolley."

Add the following new annex 14

"Annex 14

CONTROL OF CONFORMITY OF PRODUCTION

1. TESTS

Safety belts shall be required to demonstrate compliance with the requirements on which the following tests are based:

1.1. Verification of the locking threshold and durability of emergency locking retractors

According to the provisions of paragraph 7.6.2. in the most unfavourable direction as appropriate after having undergone the durability testing detailed in paragraphs 7.6.1., 7.2., and 7.6.3. as a requirement of paragraph 6.2.5.3.5.

1.2. Verification of the durability of automatically locking retractors

According to the provisions of paragraph 7.6.1. supplemented by the tests in paragraphs 7.2. and 7.6.3. as a requirement of paragraph 6.2.5.2.3.

1.3. Test for strength of straps after conditioning

According to the procedure described in paragraph 7.4.2. after conditioning according to the requirements of paragraph 7.4.1.1. to 7.4.1.5.

1.3.1. Test for strength of straps after abrasion

According to the procedure described in paragraph 7.4.2. after conditioning according to the requirements described in paragraph 7.4.1.6.

1.4. Microslip test

According to the procedure described in paragraph 7.3. of this Regulation.

1.5. Test of the rigid parts

According to the procedure described in paragraph 7.5 of this Regulation.

1.6. Verification of the performance requirements of the safety belt or restraint system when subjected to the dynamic test

1.6.1. Tests with conditioning

1.6.1.1. Belts or restraint systems fitted with an emergency locking retractor according to the provisions set out in paragraphs 7.7. and 7.8 of this Regulation, using a belt which has previously been subjected to 45,000 cycles of the endurance test of the retractor prescribed in paragraph 7.6.1. of this Regulation and to the tests defined in paragraphs 6.2.2.4., 7.2. and 7.6.3. of this Regulation.

- 1.6.1.2. Belts or restraint systems fitted with an automatically-locking retractor: according to the provisions set out in paragraphs 7.7. and 7.8. of this Regulation, using a belt which has previously been subjected to 10,000 cycles of the endurance test of the retractor prescribed in paragraph 7.6.1. and also to the tests prescribed in paragraphs 6.2.2.4., 7.2. and 7.6.3. of this Regulation.
- 1.6.1.3. Static belts: according to the provisions set out in paragraphs 7.7. and 7.8. of this Regulation, on a safety belt which has been subjected to the test prescribed in paragraphs 6.2.2.4 and 7.2. of this Regulation.
- 1.6.2. Test without any conditioning
- According to the provisions set out in paragraphs 7.7. and 7.8. of this Regulation.
2. TEST FREQUENCY AND RESULTS
- 2.1. The frequency of testing to the requirements of paragraphs 1.1. to 1.5. shall be on a statistically controlled and random basis in accordance with one of the regular quality assurance procedures.
- 2.1.1. Furthermore, in the case of emergency locking retractors, all assemblies shall be checked:
- 2.1.1.1. Either according to the provisions set out in paragraphs 7.6.2.1. and 7.6.2.2. of this Regulation, in the most unfavourable direction as specified in paragraph 7.6.2.1.2. Test results shall meet the requirements of paragraphs 6.2.5.3.1.1. and 6.2.5.3.3. of this Regulation.
- 2.1.1.2. Or according to the provisions set out in paragraph 7.6.2.3. of this Regulation, in the most unfavourable direction. Nevertheless, the speed of inclination can be more than the prescribed speed in so far as it does not affect the test results. Test results shall meet the requirements of paragraph 6.2.5.3.1.4. of this Regulation.
- 2.2. In the case of compliance with the dynamic test according to paragraph 1.6., this shall be carried out with a minimum frequency of:
- 2.2.1. Tests with conditioning
- 2.2.1.1. In the case of belts fitted with an emergency locking retractor, one in 100,000 belts produced or one every two weeks whichever is the greater, with a minimum frequency of one per year if the annual production does not exceed 5,000 samples, per sort of locking mechanism, 1/ shall be subjected to the test prescribed in paragraph 1.6.1.1. of this annex.
- 2.2.1.2. In the case of belts fitted with an automatically-locking retractor and of static belts, one in 100,000 belts produced or one per week whichever is the greater, with a minimum frequency of one per year if the annual production does not exceed 5,000 samples, per approved type, shall be subjected to the test prescribed in paragraphs 1.6.1.2. or 1.6.1.3. of this annex respectively.

2.2.2. Tests without conditioning

2.2.2.1. In the case of belts fitted with an emergency locking retractor, the following number of samples shall be subjected to the test prescribed in paragraph 1.6.2. above:

2.2.2.1.1. for a production of not less than 5,000 belts per day, two belts per 25,000 produced with a minimum frequency of one per day, per sort of locking mechanism;

2.2.2.1.2. for a production of less than 5,000 belts per day, one belt per 5,000 produced with a minimum frequency of one per year, per sort of locking mechanism;

2.2.2.2. In the case of belts fitted with an automatically locking retractor and of static belts, the following number of samples shall be subjected to the test prescribed in paragraph 1.6.2. above:

2.2.2.2.1. for a production of not less than 5,000 belts per day, two belts per 25,000 produced with a minimum of one per day, per approved type,

2.2.2.2.2. for a production of less than 5,000 belts per day, one belt per 5,000 produced with a minimum frequency of one per year, per approved type;

2.2.3. Results

Test results shall meet the requirements set out in paragraph 6.4.1.3.1. of this Regulation.

The forward displacement of the manikin may be controlled with regard to paragraph 6.4.1.3.2. of this Regulation (or 6.4.1.4. where applicable) during a test performed with conditioning according to paragraph 1.6.1. of this annex by means of a simplified adapted method.

2.3. Where a test sample fails a particular test to which it has been subjected, a further test to the same requirements shall be carried out on at least three other samples. In the case of dynamic tests if one of the latter fails the test, the holder of the approval or his duly accredited representative shall notify the competent authority which has granted type approval indicating what steps have been taken to re-establish the conformity of production."

Note

1/ For the purposes of this annex "sort of locking mechanism" means all emergency locking retractors whose mechanisms differ only in the lead angle(s) of the sensing device to the vehicle's reference axis system.

Authentic text of the amendments: French.

Registered ex officio on 26 March 1989.

APPLICATION of Regulation No. 68¹ annexed to the Agreement of 20 March 1958 concerning the adoption of uniform conditions of approval and reciprocal recognition of approval for motor vehicle equipment and parts.

Notification received on:

18 April 1989

FEDERAL REPUBLIC OF GERMANY

(With effect from 17 June 1989.)

Registered ex officio on 18 April 1989.

¹ United Nations, *Treaty Series*, vol. 1462, No. A-4789.

PROCÈS-VERBAUX concerning modifications to Regulations Nos. 40¹, 72², and 56³ annexed to the Agreement of 20 March 1958 concerning the adoption of uniform conditions of approval and reciprocal recognition of approval for motor vehicle equipment and parts⁴

The text of the modifications reads as follows:

CORRIGENDUM TO REGULATION NO. 40

Uniform Provisions concerning the Approval of Motor Cycles Equipped with a Positive-ignition Engine with regard to the Emission of Gaseous Pollutants by the Engine

Annex 4

1. Paragraph 2.3, amend to read:

"2.3. Use of the gear box

2.3.1. The use of the gear box shall be determined as follows:

- 2.3.1.1. At constant speed, the rotating speed of the engine shall be, if possible, within 50 and 90 per cent of the speed corresponding to the maximum power of the engine. When this speed can be reached in two or more gears, the motor cycle shall be tested with the highest gear engaged.
- 2.3.1.2. During acceleration, the motor cycle shall be tested in whichever gear is appropriate to the acceleration imposed by the cycle. A higher gear shall be engaged at the latest when the rotating speed is equal to 110 per cent of the speed corresponding to the maximum power of the engine. If a motor cycle reaches the speed of 20 km/h in 1st gear, or 35 km/h in 2nd gear, the next (higher) gear shall be engaged at these speeds. In these cases no further gear shifts into higher gears shall be allowed. If, during the acceleration phase, the gear shifts have taken place at these fixed vehicle speeds, the following constant speed phase shall be performed in the gear which is engaged when the motor cycle enters that constant speed phase, regardless of the engine speed.
- 2.3.1.3. During deceleration, a lower gear shall be engaged either before the engine starts to idle roughly or when the engine revolutions are equal to 30 per cent of the speed corresponding to the maximum power of the engine, whichever of these conditions is reached first. No change down to first gear shall be effected during deceleration.
- 2.3.2. Motor cycles equipped with automatic-shift gear-boxes shall be tested with the highest gear (Drive) engaged. The accelerator shall be used in such a way as to obtain the steadiest possible acceleration at which the various gears can be engaged in the normal order. The tolerances prescribed in paragraph 2.4 shall apply."

2. Table entitled "OPERATING CYCLE ON THE DYNAMOMETER BENCH"

The last column of the table entitled "Operating cycle on the dynamometer bench" should be amended as follows:

Replace "According to manufacturer's instructions" with "In accordance with paragraph 2.3".

¹ United Nations, *Treaty Series*, vol. 1144, p. 308, and vol. 1505, No. A-4789.

² *Ibid.*, vol. 1492, p. 282.

³ *Ibid.*, vol. 1317, p. 286; vol. 1483, No. A-4789.

⁴ The Group of Experts on the Construction of Vehicles of the Inland Transport Committee of the Economic Commission for Europe, at its eighty-sixth session from 11 to 14 October 1988, found it necessary to make modifications to Regulations Nos. 40, as revised, 72 and 56. The Secretary-General of the United Nations, acting in his capacity as depositary, has established the corresponding procès-verbaux, which apply to the copies of the final texts of the Regulations, as revised, which were transmitted to the Contracting Parties to the Agreement, and has caused the modifications to be effected in the English and French texts of the Agreement. The texts of the modifications are published for information by the Secretariat.

CORRIGENDUM TO REGULATION No. 72

Uniform Provisions concerning the Approval of Motor Cycle Headlamps Emitting an Asymmetrical Passing Beam and a Driving Beam and Equipped with Halogen Lamps (HS1 Lamps)

Amend the seventh line in the table in paragraph 7.2.5 to read:

“Any point in zone IV ≥ 2 ”

Amend the diagram in annex 4 so that the notations “H₃” et “H₄” are exchanged.

CORRIGENDUM TO REGULATION No. 56

*Uniform Provisions concerning the Approval of Headlamps
for Mopeds and Vehicles Treated as Such*

Replace all references to “annex 3 and annex 4” by “annex 4 and annex 5”, respectively.
