Type : CHR-16

Manufacturer :

# Test Report

Agreement

concerning the adoption of uniform technical prescriptions for the 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

## Uniform provisions concerning the approval of rear-view mirrors and of two-wheeled power-driven vehicles with or without side car, with regard to the installation of rear-view mirrors on handlebars

ECE-Regulation 81

including all amendments until

series of Amendments: 00
Supplement 2 dated: June 18, 2007

| | Approval status |
|---|---|
| ECE | Number of approval |
| | E4-81R-00 0520 |

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| | | |
|---|---|---|
| Type | : | CHR-16 |
| Manufacturer | : | |

0. General information

| | | | |
|---|---|---|---|
| 0.1. | Make (trade name of the manufacturer) | : | |
| 0.2. | Class | : | L |
| 0.3. | Worst case | : | Not applicable |
| 0.4. | Name and address of the manufacturer | | |
| 0.5. | Name and address of the manufacturer's authorised representative | : | not applicable |
| 0.6. | No. of information folder | : | CHR-16-00 |

1. Test object(s)

| | | | |
|---|---|---|---|
| 1.1. | Description | : | Exterior rear-view mirrors with spherically convex reflecting surface.<br><br>The adjustment of the ~~reflecting surface relatively to the~~ mirror housing is performed manually.<br><br>Models of vehicle to be fitted:<br>All modes that all installation conditions are the same |
| 1.2. | Remark | : | --- |

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2. Test minutes

| | | |
|---|---|---|
| 2.1. | Test facilities | : The test equipment used was in compliance with the requirements of the regulation. |
| 2.2. | Temperature/Relative Humidity of laboratory | : 22.4°C / 60.5% |
| 2.3. | Test results | : see Appendix 1. ~~The mirror type has been tested according to the amendments mentioned in Appendix 0. An actual test of the type was not required. The results of the previous tests are still valid.delete if unnecessary.~~ |
| 2.3.1. | General regulations | : The rear-view mirror complies with the general requirements of the Paragraph 6 in this regulation. |
| 2.3.2. | Special regulations | : The rear-view mirror complies with the special requirements of the Paragraph 7 in this regulation. |
| 2.3.3. | Tests | : The rear-view mirror fulfils requirements of the Paragraph 8 in this regulation regarding impact and bending test. |
| 2.4. | General test information | |
| 2.4.1. | Test object received on | : April 06, 2016 |
| 2.4.2. | Test date | : April 07 ~ 18, 2016 |
| 2.4.3. | Test site | : TUV Asia Pacific Ltd. Taiwan Branch<br>4F., No. 8, Huasin St., North District, Taichung 404, Taiwan R.O.C.<br><br>Zhifu Science Technologies Co., Ltd<br>No.243, Hejian Rd., Hemei Township,<br>Changhua County 508, Taiwan R.O.C. |
| 2.4.4. | Remark | : The results of the test refer exclusively to the object(s) mentioned under point 1.1 of this report. |

3. Remark concerning tested object(s) : All versions of the mirror type as stated in the information document are covered with the tested test object(s) respectively.

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4. Appendices

| | | |
|---|---|---|
| 0 | List of modifications | : --- |
| 1 | Test minutes for the mirror type | : attached |
| 2 | Information folder | : CHR-16-00 |

5. Statement of conformity

The information folder and the type described there comply with the requirements of ~~directive/~~ ECE Regulation No.81.

The samples / test vehicles used were representative in terms of the type to be approved.

The test laboratory is accredited for the above mentioned tests by the RDW, Vehicle Technology and Information Centre, the Netherlands:

Certification Number: RDWT-T04

The technical report comprises the pages 1 to 6 (including appendix 1) and shall not be reproduced except in full without the written approval of the test laboratory.

Taipei, May 10, 2016
IFM/#

Cronus Huang
Engineer

Type : CHR-16

Manufacturer :

Test minutes for the mirror type — Appendix 1

Convex mirror
(Class L)

## Dimension of reflecting surface

| | | |
|---|---|---|
| Its area shall not be less than 6900 mm² | : | 8122.5 mm² |
| The diameter of circular mirrors shall not be less than 94 mm | : | Not applicable |
| Where rear view mirrors are not circular, their dimensions shall enable a 78 mm-diameter circle to be prescribed on their reflecting surface | : | The rear view mirrors can enable a 78 mm-diameter circle to be prescribed on their reflecting surface |
| The maximum diameter of reflecting surface of any circular rear view mirror shall not be greater than 150 mm | : | Not applicable |
| The reflecting surface of any non-circular rear view mirror shall lie within a rectangle measuring 120mm x 200mm | : | Main dimensions of the reflecting surface : 137.96 x 82.92 mm |

Decision : ■ Pass or □ Failed

## Reflecting surface and coefficient of reflection

**Radius of curvature**

| | | |
|---|---|---|
| rp1 = ( ri + r'i ) / 2 | : | RH : 1301 mm<br>LH : 1276 mm |
| rp2 = ( ri + r'i ) / 2 | : | RH : 1288 mm<br>LH : 1253 mm |
| rp3 = ( ri + r'i ) / 2 | : | RH : 1380 mm<br>LH : 1234 mm |
| r = ( rp1 + rp2 + rp3 ) / 3 | : | RH : 1323 mm<br>LH : 1254 mm |
| Design value of r | : | 1300 mm |
| Required value of r | : | 1000 mm ≦ r ≦1500 mm |

Decision : ■ Pass or □ Failed

Type : CHR-16

Manufacturer :

| | | |
|---|---|---|
| Maximum difference between any of the radii (rp1, rp2, rp3) and r must not exceed 0.15 r | : | RH : 57.0 mm<br>LH : 22.0 mm |
| Allowable maximum difference between any of the radii of curvature (rp1, rp2, rp3) and r | : | RH : 198.45 mm<br>LH : 188.10 mm |

Decision : ■ Pass or □ Failed

| | | |
|---|---|---|
| **Coefficient of reflection** | : | RH : 62.60 %<br>LH : 63.60 % |
| Required minimum coefficient | : | ≥ 40.0 % |

Decision : ■ Pass or □ Failed

**Impact point according to test 1 (from front) & 2 (from rear)**

| | | |
|---|---|---|
| Pendulum angle of return to the vertical<br>Requirement Minimum : 20° | : | Forward : 43° (RH) ; 26° (LH)<br>Backward : 31° (RH) ; 42° (LH) |
| Breaking of reflecting surface | : | no |

Decision : ■ Pass or □ Failed

| | | |
|---|---|---|
| ***Bending test*** | : | the required load (25 kg) has been applied for one minute |
| Breaking of reflecting surface and housing | : | no |
| Radius of curvature "c" at of the edge of the projection | : | ≥ 2.5 mm |

Decision : ■ Pass or □Failed

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# DECLARATION

Name of manufacturer :

Address of manufacturer :

Declares the following:

The manufacturer with , we declare the reflecting surface of glass of rear view mirror that could prolong exposure to adverse weather conditions, in normal conditions of use for the customers.

And the reflecting surface of glass of rear view mirror could retain the requirement of the ECE R81 characteristics specified in paragraph 7.2.4.

Thank you.

Signed for the manufacturer; Company Stamp;

Name: Joseph Liang

Date: 12 Mar. 2014

Place: Changhua, TAIWAN

Signature: (and stamped, if applicable)

Position: General Manager






1. Specification Data April 07, 2016

| | | |
|---|---|---|
| Type | | CHR-16 |
| Function | | Rear-View Mirror |
| Class | | L |
| Mounting Instruction | | Fixed the Rear-view Mirror on vehicle by screw |
| Applicable Vehicle | | General |
| Application Regulation (ECE) | | ECE R81 |
| Location of marking | Trade mark | |
| | | On the housing |
| | Approval mark | On the housing |

2. Construction and Material :

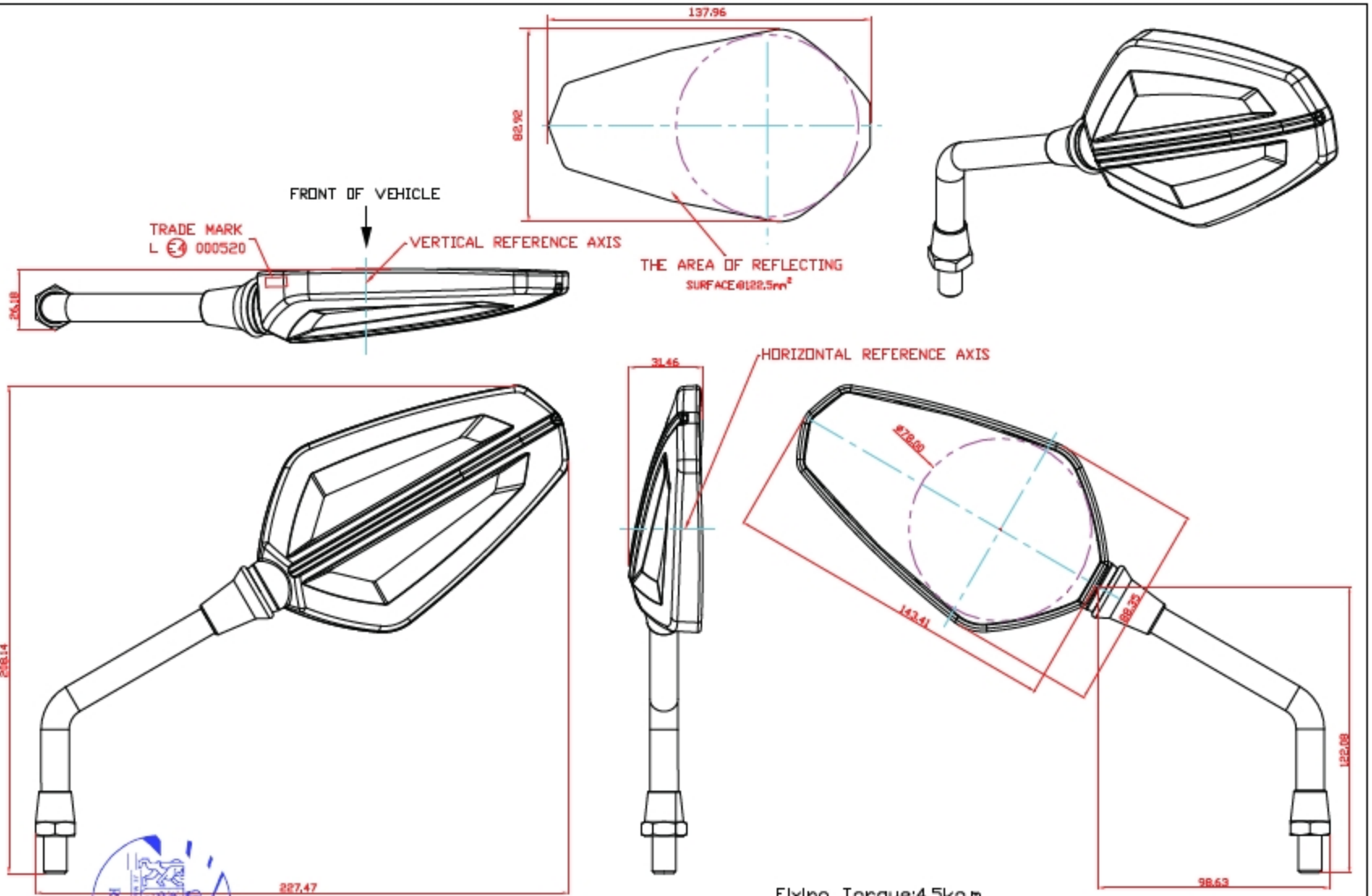
| Construction | Material | Remarks |
|---|---|---|
| Reflecting Surface | Glass | Chrome plating |
| Housing | ABS | -- |
| Fixed support (Rod) | Steel | -- |

3. Name and Address of Manufactory :

4. Name and address of representative of manufacturer: Not applicable

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This document (including drawing) consists of 2 pages




Fixing Torque:4.5kg.m

Note:The drawing shall be applied for Left and Right hand shall be symmetric.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TOLERANCE | | | DATE | | UNIT | MM | STYLE CHR-16 |
| | | | | DIMENSION | TOL. | DESIGN | Craig | DATE 04.19.2016 | SCALE | 1/1 | DESCRIPTION L E4 000520 |
| | | | | 1~4 | ±0.05 | DRAWER | | DATE | MATERIAL | | |
| | | | | 4~25 | ±0.07 | | | | PCS. | | |
| | | | | 25~63 | ±0.1 | | | | SURFACE | | DRAWING NO. |
| | | | | 63~250 | ±0.2 | | | | | | |
| | | | | 250~1000 | ±0.3 | | | | | | |
| | REVISED CONTENTS | SIGN | DATE | 1000~2500 | ±0.5 | | | | TOOL | | |

RDW

Vehicle Technology Division

THE NETHERLANDS
(NEDERLAND)

E4

COMMUNICATION

Concerning [1]:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitely discontinued~~

of a type of rear-view mirror pursuant to Regulation number 81.

**Approval number: E4-81R-00 0520** **Extension number: 00**

| | | |
|---|---|---|
| 1. | Trade name of mark of device | : |
| 2. | Equipment type | : CHR-16 |
| 3. | Brief description including in particular the following information: | |
| 3.1. | Main dimensions (of the reflecting surface) | : 137.96 x 82.92 mm |
| 3.2. | Nominal radius of curvature (of the reflecting surface) | : 1300 mm |
| 4. | Manufacturer's name and address | : |
| 5. | If applicable, name and address of manufacturer's representative | : not applicable |
| 6. | Equipment submitted for approval on | : April 06, 2016 |
| 7. | Technical service responsible for conducting approval tests | : TÜV NORD Mobilität GmbH & Co. KG<br>Institut für Fahrzeugtechnik und Mobilität<br>Adlerstrasse 7, D-45307 Essen |
| 8. | Date of report issued by that service | : May 10, 2016 |

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*Vehicle Admission & Surveillance*

| | | |
|---|---|---|
| 9. | Number of report issued by that service | : TW081-A0-160013 |
| 10. | Vehicles for which the equipment is designed | : General |
| 11. | Approval | : granted/~~refused/extended/withdrawn~~ (1) |
| 12. | Reason(s) for extension (if applicable) | : not applicable |
| 13. | Place | : Zoetermeer |
| 14. | Date | : 19-MAY-2016 |
| 15. | Signature | : |

Uwe Löbig

16. A list of documents contained in the approval file transmitted to the administrative service which has granted approval is annexed to communication.

(1) Strike out what does not apply.