Type

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 0518

Type

Manufacturer

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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	

1. Test object(s)

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

Type

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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 4F., No. 8, Huasin St., North District, Taichung 404, Taiwan R.O.C. Zhifu Science Technologies Co., Ltd No.243, Hejian Rd., Hemei Township, 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.

Type :

Manufacturer :

4. Appendices

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

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 09, 2016
IFM/#

Cronus Huang
Engineer

Type

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 mm^2	:	7088.0 mm^2
The diameter of circular mirrors shall not be less than 94 mm	:	95.0 mm
Where rear view mirrors are not circular, their dimensions shall enable a 78 mm-diameter circle to be prescribed on their reflecting surface	:	Not applicable
The maximum diameter of reflecting surface of any circular rear view mirror shall not be greater than 150 mm	:	Yes
The reflecting surface of any non-circular rear view mirror shall lie within a rectangle measuring 120mm x 200mm	:	Not applicable

Decision : ■ Pass or □ Failed

Reflecting surface and coefficient of reflection

Radius of curvature

rp1 = (ri + r'i) / 2	:	RH : 1029 mm LH : 1037 mm
rp2 = (ri + r'i) / 2	:	RH : 1066 mm LH : 1053 mm
rp3 = (ri + r'i) / 2	:	RH : 1122 mm LH : 1042 mm
r = (rp1 + rp2 + rp3) / 3	:	RH : 1072 mm LH : 1044 mm
Design value of r	:	1050 mm
Required value of r	:	1000 mm ≦ r ≦ 1500 mm

Decision : ■ Pass or □ Failed

Maximum difference between any of the radii (rp1, rp2, rp3) and r must not exceed 0.15 r	:	RH : 50.0 mm LH : 9.0 mm
Allowable maximum difference between any of the radii of curvature (rp1, rp2, rp3) and r	:	RH : 160.80 mm LH : 156.60 mm

Decision : ■ Pass or □ Failed

Coefficient of reflection	:	RH : 64.11 % LH : 64.01 %
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 Requirement Minimum : 20°	:	Forward : 41° (RH) ; 25° (LH) Backward : 23° (RH) ; 38° (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

RDW

DECLARATION

Name of manufacturer :
Address of manufacturer :

Declares the following:

The manufacturer 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		
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：

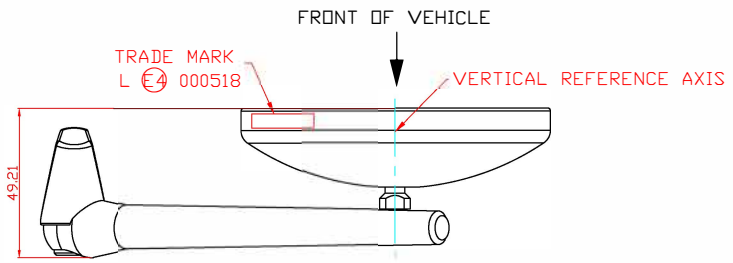
Construction	Material	Remarks
Reflecting Surface	Glass	Chrome plating
Housing	ABS	--
Fixed support (Rod)	Steel	--

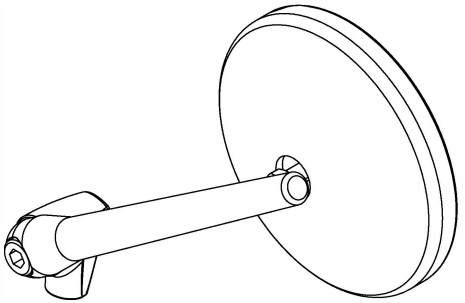
3. Name and Address of Manufactory：

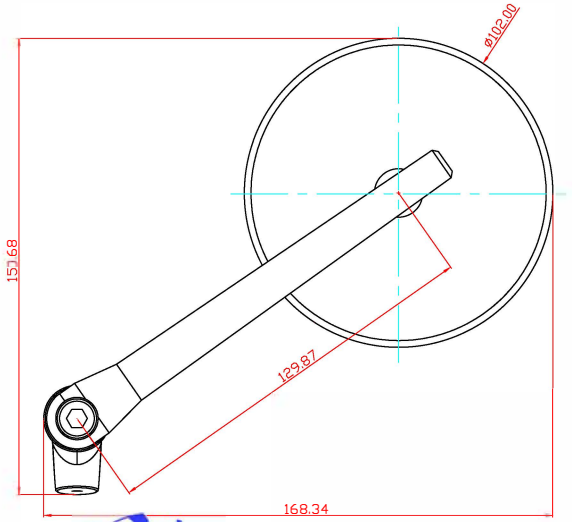
4. Name and address of representative of manufacturer: Not applicable

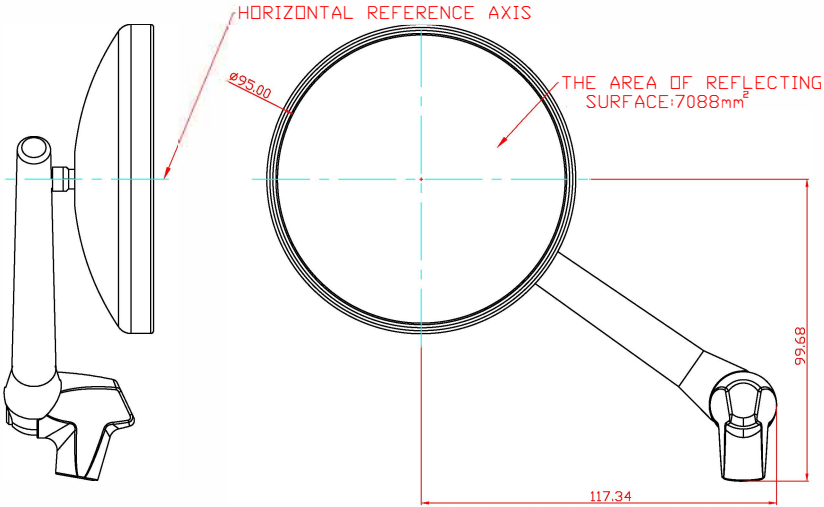
RDW

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		APPROVED		DATE		UNIT	MM
				DIMENSION	TOL.	DESIGN	Craig	DATE	04.19.2016	SCALE	1/1
				1-4	± 0.05	DRAWER		DATE		MATERIAL	
				4-16	± 0.07						
				16-63	± 0.1					PCS.	
				63-250	± 0.2						
	REVISED CONTENTS	SIGN	DATE	250-1000							
				1000-250							

THE NETHERLANDS
(N E D E R L A N D)

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 0518 **Extension number: 00**

1.	Trade name of mark of device	
2.	Equipment type	
3.	Brief description including in particular the following information:	
3.1.	Main dimensions (of the reflecting surface)	: Φ 95.0 mm
3.2.	Nominal radius of curvature (of the reflecting surface)	: 1050 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 Institut für Fahrzeugtechnik und Mobilität Adlerstrasse 7, D-45307 Essen
8.	Date of report issued by that service	: May 09, 2016

RDW

P.O. Box 777
2700 AT Zoetermeer
The Netherlands

Tel. + 31 (0)79 345 83 02
E-mail ttv@rdw.nl
www.rdw.nl

Vehicle Admission & Surveillance

9.	Number of report issued by that service	:	TW081-A0-160011
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	:	18-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.