帝寶工業股份有限公司 DEPO AUTO PARTS INDUSTRIAL CO., LTD. No. 20-3, Nanshi Ln., Tounan Vil., 505 – Lugang Township, Changhua County, Taiwan, R.O.C. TEL: 886-4-771-1578 FAX: 886-4-771-3891

APPLICATION FOR APPROV ACCORDING TO ECE REGULATION NO.			AL OF A TYPE OF HEADLAMP 112-00 SERIES OF AMENDMENTS 06-01 SERIES OF AMENDMENTS 07-02 SERIES OF AMENDMENTS		
1.	Trade name or mark of the device	:	DEPO		
2.	Manufacturer's name of the device	:	444-1160R/LPMLDEM2		
3.	Manufacturer's name and address	:	DEPO AUTO PARTS INDUSTRIAL CO., LTD. No. 20-3, Nanshi Ln., Tounan Vil., 505 – Lugang Township, Changhua County, Taiwan, R.O.C.		
4.	If applicable, name and address of manufacturer's representative	:	Not applicable		
5.	Category as described by the relevant markings	:	HCR PL, A, 1a		
6.	Submitted for approval on(date)	:	March 14, 2014		

SIGNATURE:

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Name: Chung-Neng Yang Homologation Team Leader

We herewith confirm that above mentioned application has not been submitted to any other EC/ECE-Member State nor has Member State granted a corresponding type approval. This application is accompanied by: The test report





THE NETHERLANDS

(NEDERLAND)

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COMMUNICATION



Concerning (1)

- approval granted -approval extended -approval refused - approval withdrawn -production definitely discontinued

RDW

of a type of headlamp pursuant to Regulation number 112.

Approval number: E4-112R-0018225

Extension number: 00

1.	Trade name or mark of the device	: DEPO
2.	Manufacturer's name for the type of device	: 444-1160R/LPMLDEM2
3.	Manufacturer's name and address	: DEPO AUTO PARTS INDUSTRIAL CO., LTD. No. 20-3, Nanshi Ln., Tounan Vil., 505 – Lugang Township, Changhua County, Taiwan, R.O.C.
4.	If applicable, name and address of the manufacturer's representative	: Not applicable
5.	Submitted for approval on	: February 24 to March 14, 2014
б.	Technical service responsible for conducting approval tests	 TÜV Rheinland Kraftfahrt GmbH Technologiezentrum Verkehrssicherheit Typprüfstelle Fahrzeuge/Fahrzeugteile Postfach 91 09 51 D-51101 Köln / Germany
7.	Date of report issued by that service	: March 31, 2014
8.	Number of report issued by that service	: 84-R112-00250/14
9.	Brief description:	
	Category as described by the relevant marking $^{(2)}$: HCR PL

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

Approval number: E4-112R-0018225

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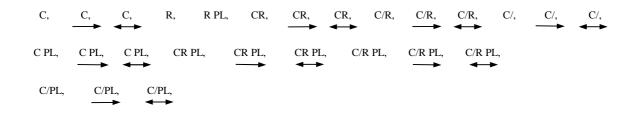
L.Vellekoop

RDW

	Number and category(s) of filament lamp(s)	: Passing lamp: One H7 Driving lamp: One H7
	Measures according to paragraph 5.8 of this Regulation	: Not required
	Number and specific identification code(s) of LED module(s)	: Not applicable
	Number and specific identification code(s) of electronic light source control gear(s)	: Not applicable
	Total objective luminous flux as described in paragraph 5.9. exceeds 2,000 lumen	: Yes/no/does not apply ⁽¹⁾
	The adjustment of the cut-off has been determined at	: 10m /25m/does not apply ⁽¹⁾
	The determination of the minimum sharpness of the "cut-off" has been carried out at	: 10m/25m /does not apply ⁽¹⁾
10.	Approval mark position	: On the housing of the lamp
11.	Reason(s) for extension of approval	: Not applicable
12.	Approval	: Granted/extended/refused/withdrawn ⁽¹⁾
13.	Place	: Zoetermeer
14.	Date	[:] 07-APR-2014
15.	Signature	Aller

The list of documents deposited with the Administrative Service which has granted 16. approval is annexed to this communication and may be obtained on request.

⁽²⁾ Indicate the appropriate marking selected from the list below:



⁽¹⁾ Strike out what does not apply.

Approval i	Approval number: E4-112R-0018225 Extension number: 00							number: 00	
HC,	HC,	HC, ◀━►	HR, HF	R PL, HCF	R, HCR,	HCR,	HC/R,	HC/R,	HC/R,
HC/,	HC/,	HC/, ◀ ●							
HC PL,	HC PL, →	HC PL, ◀━►	HCR PL,	HCR PL,	HCR PL, ◀━►	HC/R PL,	HC/R PL,	HC/R PL, ◀━►	
HC/PL,	HC/PL,	HC/PL	9						





TEST REPORT

according to ECE-Regulation

Uniform provisions concerning the approval of motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or light-emitting diode (LED) modules

No.: ECE-R112

including all amendments until

No.: 00 series of amendments, suppl. 12

Previously granted	
ECE - approval	:

Structure of report:

- 0. General information
- 1. Test object(s) and general test information
- 2. Test minutes
- 3. Remark concerning tested object(s)
- 4. Appendices
- 5. Statement of conformity

The Test Report shall be reproduced and published in full by the client only. It shall however be reproduced partially with the written permission of the Testing Laboratory only.



0. General information

0.1.	Trade mark or trade name of the lamp	: DEPO
0.2.	Manufacturer's name for the type of the lamp	: 444-1160R/LPMLDEM2
0.3.	Name and address of the manufacturer	: DEPO AUTO PARTS INDUSTRIAL CO., LTD. No. 20-3, Nanshi Ln., Tounan Vil., 505 – Lugang Township, Changhua County, Taiwan, R.O.C.
0.4.	Name and address of the manufacturer's authorised representative	: Not applicable
0.5.	No. of information document date of issue date of last amendment	: 444-1160 R/LPMLDEM2 : March 14, 2014 :



1. Test object(s) and general test information

1.1.	Test object(s)	
	- Identification no.	: Not applicable
	- Model	: 444-1160R/LPMLDEM2
	- Remark	: Class B headlamp with/without principal passing lamp for right hand side traffic only, incorporating a lens made of plastic.
1.2.	General test information	
1.2.1	Order issued by (if different from manufacturer)	:
1.2.2	Test object received on	:
1.2.3	Test date	: February 24 to March 14, 2014
1.2.4	Test site	: Hsin-Ying and He-Mei / Taiwan
1.2.5	Remark	: The results of the test refer exclusively to the object(s) mentioned under point 1.1. of this report.



2. Test minutes

2.1.	Test facilities	: The measurement equipment used was in compliance with the test requirements.
2.2.	Test results	: The lamp type has been tested according to the amendments mentioned in appendix 0.
2.2.1	Temperature	: 25 °C
2.2.2	Markings	: The trade mark is marked clearly legible and indelible on the housing of the lamp.
		Space for the approval mark and for the additional symbols is provided on the housing of the lamp. The outer lens can not be separated from the housing.
2.3.	General specifications	: The headlamp is designed and made that, under normal use, their satisfactory operation is ensured and they retain the required characteristics.
		The filament lamp(s) of the headlamp complies with the requirements as described in paragraph 5.3.1.
		The filament lamp(s) can be fixed in no position but the correct one. The filament lamp holder(s) conform to the characteristics given in IEC publication No. 60061.
		The headlamp is not fitted with a device enabling the correct adjustment on the lamp as to comply with the requirements applicable to them. The adjustment system is provided by a device the lamp is fitted to.
		The headlamp is designed to provide alternately a driving beam and a passing beam. The construction of the electromechanical device for switching one beam to the other complies with the requirements as described in paragraph 5.7.

Test Report No.: 84-R112-00250/14



Type:444-1160R/LPMLDEM2Manufacturer:DEPO AUTO PARTS INDUSTRIAL CO., LTD.

The headlamp is designed to meet the requirements of traffic moving on right side of the road only. The appropriate measures (refer to the information folder) are taken to prevent discomfort to users in a country where traffic moves on the side of the road opposite to that of the country for which the headlamp was designed.

Under the application of the measures, the following illuminations were measured and fulfilled.

designed for right-hand side traffic	designed for left hand side traffic	sample No. 1 (left)	sample No. 2 (right)	illumination required
0.86D-1.72L	0.86D-1.72R	13.7	5.6	≥ 3.0
0.57U-3.43R	0.57U-3.43L	0.85	0.48	≤ 1.0

2.4. Photometric tests

2.4.1 Passing beam

: Prior to the measurement, the headlamp has been adjusted according to paragraph 6.2.2. of the Regulation.

: The instrumental method of Annex 9, paragraphs 2. and 3. of the Regulation was not applied.

The passing beam produces an adequate illumination without dazzle.

No lateral variations detrimental to good visibility in any of the zones I, II, III and IV have been observed.

Illumination measured on the screen (refer to Annex 3 of the Regulation) by the passing beam by means of an uncoloured standard lamp producing the required light flux. r

Type: 444-1160R/LPMLDEM2Manufacturer: DEPO AUTO PARTS INDUSTRIAL CO., LTD.



Results of photometric tests of the passing beam, class B

illumination produced on the screen in lux							
right-hand side	left-hand side	sample No.	sample No.	illumination			
traffic	traffic	1 (left)	2 (right)	required			
B50L	B50R	0.13	0.14	≤ 0.4			
75R	75L	13.7	12.8	≥12.0			
75L	75R	2.7	2.5	≤ 12.0			
50L	50R	9.0	4.5	$15.0 \ge x \ge 3.0$			
50R	50L	13.3	13.2	≥ 12.0			
50V	50V	15.8	11.1	≥ 6.0			
25L	25R	3.2	2.8	≥ 2.0			
25R	25L	3.3	2.8	≥ 2.0			
P-8 (H-4L)	P-8 (H-4R)	0.23	0.24	$0.7 \ge x \ge 0.2$			
P-7 (H-8L)	P-7 (H-8R)	0.12	0.15	$0.7 \ge x \ge 0.1$			
P-6 (2U-4R)	P-6 (2U-4R)	0.19	0.23	$0.7 \ge x_6$			
P-5 (2U-V)	P-5 (2U-V)	0.18	0.22	$0.7 \ge x_5$			
P-4 (2U-4L)	P-4 (2U-4L)	0.27	0.23	$0.7 \ge x_4$			
P-3 (4U-8R)	P-3 (4U-8R)	0.20	0.10	$0.7 \ge x_3$			
P-2 (4U-V)	P-2 (4U-V)	0.16	0.10	$0.7 \ge x_2$			
P-1 (4U-8L)	P-1 (4U-8L)	0.17	0.13	$0.7 \ge x_1$			
any point	in zone III	0.38	0.64	≤ 0.7			
	in zone IV	6.2	3.4	≥ 3			
any point	in zone I	13.5	5.9	$\leq 2 E50R$			

The photometric values of the points in zones A and B $(x_1 + x_2 + x_3 \ge 0.3 \text{ lux}) (x_4 + x_5 + x_6 \ge 0.6 \text{ lux})$ are within the required limits of paragraph 6.2.6. of the Regulation.





2.4.2 Driving beam : The driving beam is provided by one/two light source(s) (filament).

The illumination measurements have been taken with the same alignment as for the passing beam. The driving beam is adjusted that the area of maximum illumination is centred on the point HV. Point HV was situated within the isolux 80% of E_M .

Illumination (in lux) obtained on the screen (refer to Annex 3 of the Regulation) by the driving beam by means of an uncoloured standard lamp producing the required light flux:

illumination produced on the screen in lux						
	sample No.	sample No.	illumination			
	1 (left)	2 (right)	required			
maximum illumination E_M	101.6	96.5	$48 \le E_M \le 240$			
illumination at point of intersection (HV) of lines hh and vv	87.4	82.0	$\geq 0.8 \times E_{M}$			
$I'_{M} = 0.208 \times E_{M}$	21.1	20.1				
rounded off to the reference mark of	2	0				
minimum illumination of any point on hh at a distance from HV						
1.125m	40.2	26.3	≥ 24			
2.250m	9.1	6.3	≥6			

Results of photometric tests of the driving beam, class B



2.5. Stability of photometric performance of headlamps in operation

- 2.5.1. Stability of photometric performance
- 2.5.1.1 Clean headlamp
- : The lamp was operated 12 hours according to the applicable cycle as described in Annex 4 paragraph 1.1.1. of the Regulation.

The visual inspection after this test did not show any distortion, deformation, cracking or change in color of the headlamp lens.

photometric test results (in lux)						
points on screen	initial	end of test	difference in %	allowable difference in %		
driving beam E _M	93.670	96.530	3.05	10		
passing beam 50R	12.630	13.015	3.05	10		
passing beam B50L	0.1194	0.1231	3.10	10		
passing beam HV	0.3074	0.3169	3.09	10		

2.5.1.2 Dirty headlamp

: After preparation as prescribed in Annex 4 paragraph 1.2.1. of the Regulation, and confirmation that the illumination values have dropped to 15% to 20 % of the prior values, the headlamp was operated for 1 hour according to the applicable cycle as described in Annex 4 paragraph 1.1.1.

The visual inspection after this test did not show any distortion, deformation, cracking or change in color of the headlamp lens.

Photometric test results (in lux)					
points on screen	initial	end of test	difference in %	allowable difference in %	
driving beam E _M	93.670	99.998	6.76	10	
passing beam 50R	12.630	13.489	6.80	10	
passing beam B50L	0.1194	0.1275	6.78	10	
passing beam HV	0.3074	0.3282	6.77	10	

TÜV Rheinland Kraftfahrt GmbH



2.5.2 Change in vertical position of the cut-off line under the influence of heat

: Test result in accordance with paragraph 2 of Annex 4 of the Regulation in milliradians (mrad) (maximum deviation measurement):

points on screen	sample no. 1	sample no. 2	maximum permissible
r ₃	-10.12		
r ₆₀	-10.30		
$\Delta \mathbf{r}_1 = \mathbf{r}_3 - \mathbf{r}_{60} $	0.18		1.0

2.6. Coloured lenses, filters and filament lamps

	The colouring beam is obtained through	: Not applicable			
		The CIE trichromatic co-ordinate the headlamp are within the limit the Regulation.	6		
2.7.	Explanatory note	: This report describes the examination of the headlamp as a part of a lamp device.			
		For the examination of the other lamp of the device refer to the following report:			
		Type of lamp	Test Report No.		
		Front direction indicator Front position lamp	84-R6-00251/14 84-R7-00252/14		
2.8.	Variants and components	: Not applicable			



2.9. Additional tests for adjustable : Not applicable reflectors

photometric test results (in lux)					
points on screen	vertically $+ 2^{\circ}$	vertically - 2°	required value		
driving beam E _M	84.3	89.0	$48 \le E_M \le 240$		
driving beam HV	80.5	86.1	$\geq 0.8 \times E_{M}$		
passing beam 75R / 75L	12.8	12.2	≥ 12		
passing beam HV	0.57	0.50	≤ 0.7		

2.10. Lamps incorporating lenses of plastic material

: The lamp manufacturer proved that the product had already passed the tests prescribed in paragraphs 2.1.-2.5 of Annex 6 to this ECE-Regulation , or the equivalent tests pursuant to another Regulation.

 With references to:

 Approval No.
 : E4-112R-0011317

 Test report No.
 : 84-R112-01779/07

Those tests need not to be repeated. Only the tests prescribed in appendix 1, table B were conducted.

2.10.1 Tests according to paragraph 2.6 of: The lens of sample No. 1 was conditioned in the complete lamp incorporating a accordance with the test described in paragraph 2.4.1. lens of plastic material

photometric test results after conditioning (in lux)							
point illumination measured illumination required							
B50L	0.15	≤ 0.52					
HV	0.70	≤ 0.91					
75R	12.7	≥ 10.8					

Test of adherence of coatings

: The sample No. 2 complies with the requirements mentioned paragraph 2.5.





3. Remark concerning tested object(s)

All versions of the lamp type as stated in the information document are covered with the tested lamp version(s) and test object(s) respectively.

4. Appendices

- 0 List of modifications
- 1 Information folder No. : 444-1160 R/LPMLDEM2 (1 page) (excluding drawings)

5. Statement of conformity

The above mentioned information folder and the type described in that comply with the requirements mentioned on page 1.

Engineering Center Guangdong, March 31, 2014 KWU/JYW

Covin Wu

M.S.M.E. K. Wu

Туре	:	444-1160R/LPMLDEM2
Manufacturer	:	DEPO AUTO PARTS INDUSTRIAL CO., LTD.



List of modifications		Appendix 0
Correction of	:	
Modification of	:	
Addition of	:	
Deletion of	:	

Application Type: 444-1160R/LPMLDEM2

First Application Date: March 14, 2014

Application regulation:	ECE-R112-00 (class B for right hand side traffic), ECE-R7-02, ECE-R6-01
	(category 1a)

1. Light Sources

Function	Light Color	Rated Voltage	Rated Wattage	Category (ECE-R37)
Passing lamp	White	12V	55W	H7
Driving lamp	White	12V	55W	H7
Front direction indicator	Amber	12V	21W	PY21W
Function	Light Color	Rated Voltage	Rated Wattage	Non Replaceable Light Source
Front position lamp	White	13.5V	2.4W	LED x 2

2. Construction and Material

Construction	Material	Remark
Outer lens	PC: GE LS2-111	Coating: UV HC-3000, colourless
Inner lens (Passing lamp)	Glass	Colourless
Inner lens C, B (Front position lamp)	PC	Colourless
Inner lens (Front direction indicator)	PC	Colourless
Housing	Plastic	
Reflector (Passing lamp)	Metal	Aluminum vacuum coated
Reflector (Driving lamp)	Plastic	Aluminum vacuum coated
Reflector (Front direction indicator)	Plastic	Aluminum vacuum coated
Frame 1, 2, 3, 4	Plastic	

- **3.** Measures according to paragraph **5.8.1**. of **R112**: the principal passing lamp fulfills the requirements of the paragraph **5.8.2**. of the Regulation without taking any measure.
- 4. The locations of the trade mark(s), the lamp designation mark(s) and the approval mark(s) are indicated in the following drawing(s) attached:

 $00 \ 444 - 1160 \ L1, \ 00 \ 444 - 1160 \ L2, \ 00 \ 444 - 1160 \ L3, \ 00 \ 444 - 1160 \ L4$

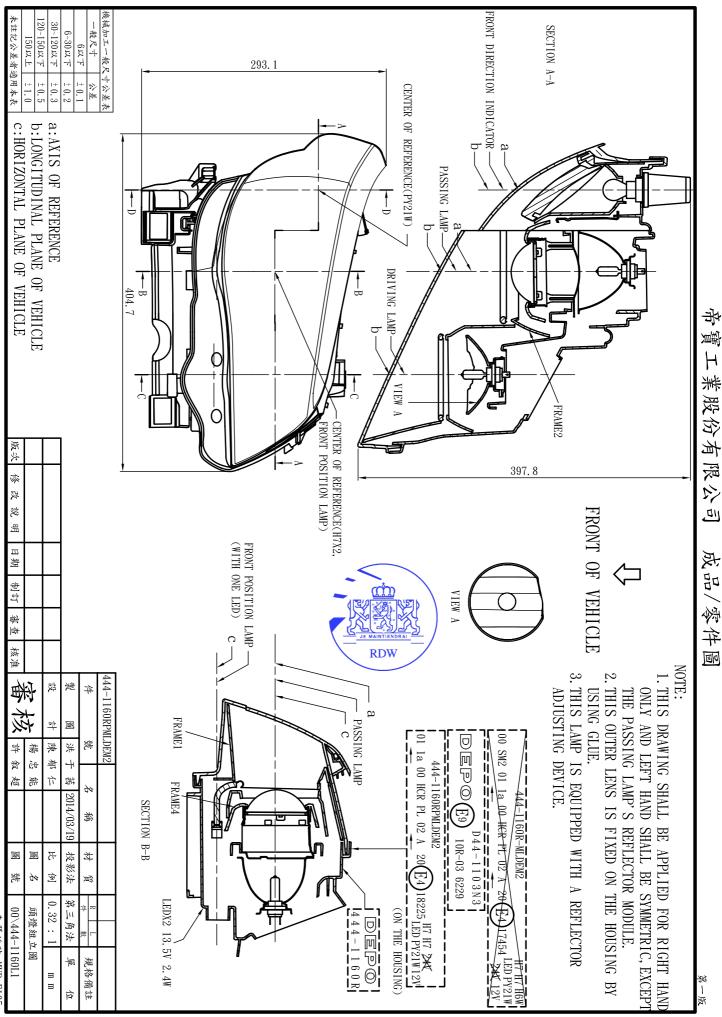
5. The drawing number of the electrical related information: 00\444-1160L5

- 6. Name and address of manufacturer: DEPO AUTO PARTS INDUSTRIAL CO., LTD. No. 20-3, Nanshi Ln., Tounan Vil., 505 – Lugang Township, Changhua County, Taiwan, R.O.C.
- **7. Name and address of representative of manufacturer:** Not applicable

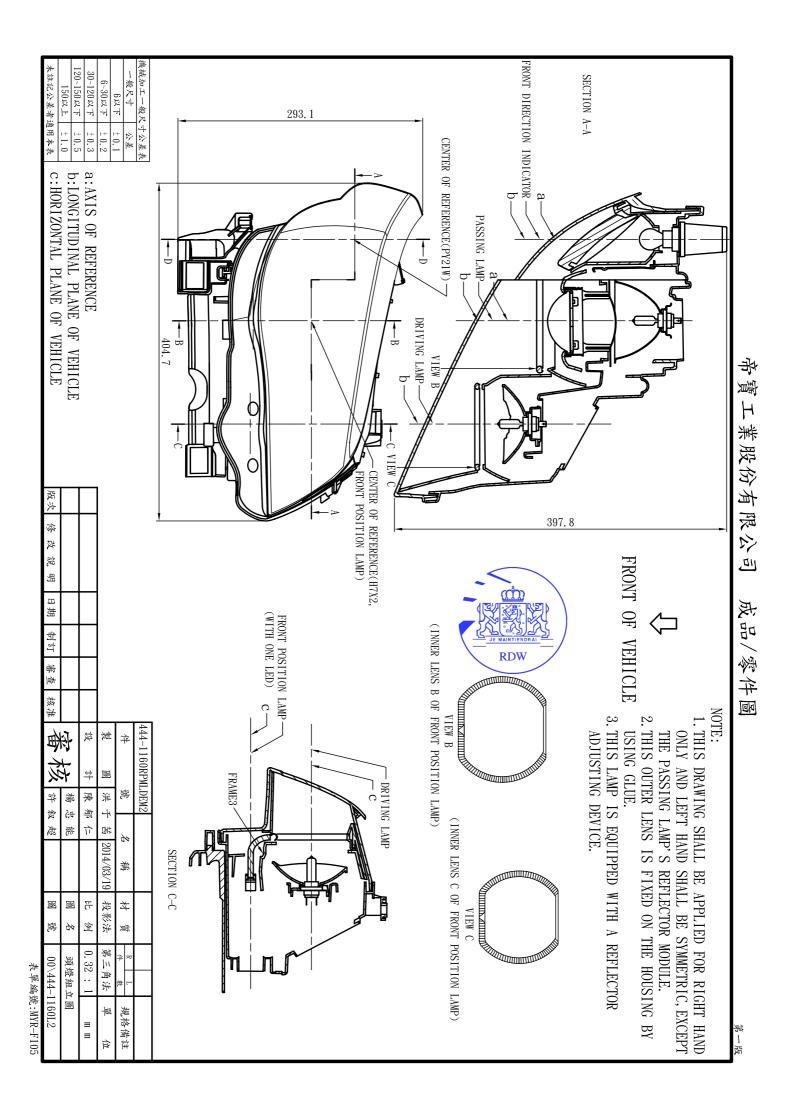
8. Remarks

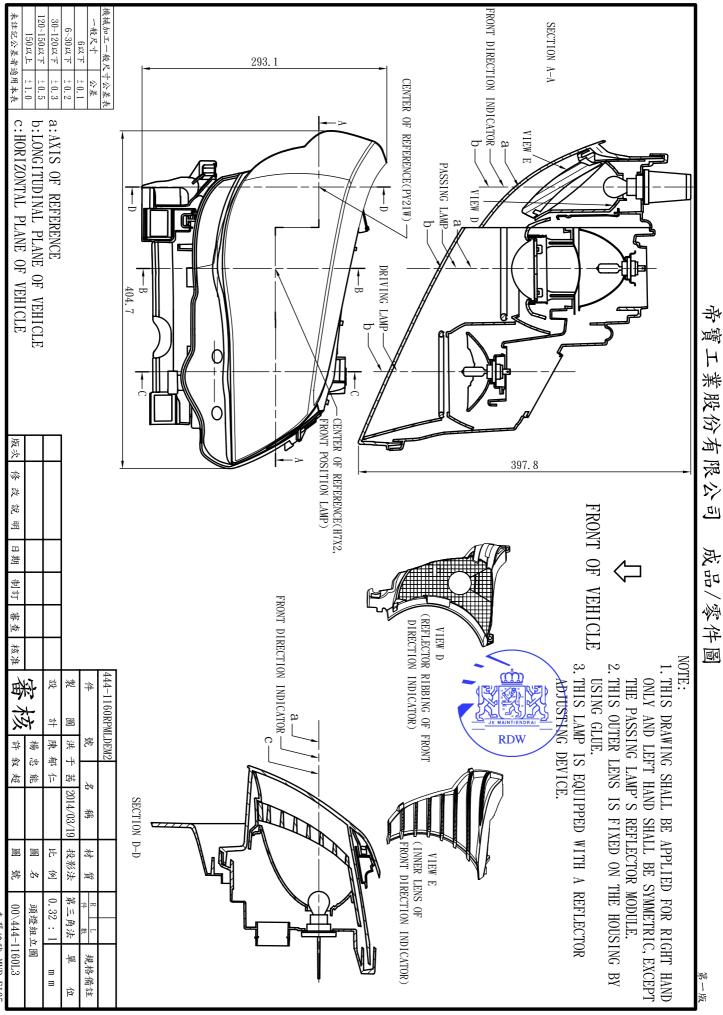
Date: March 14, 2014 Place: Chang Hua Person in charge: Chung-Neng Yang



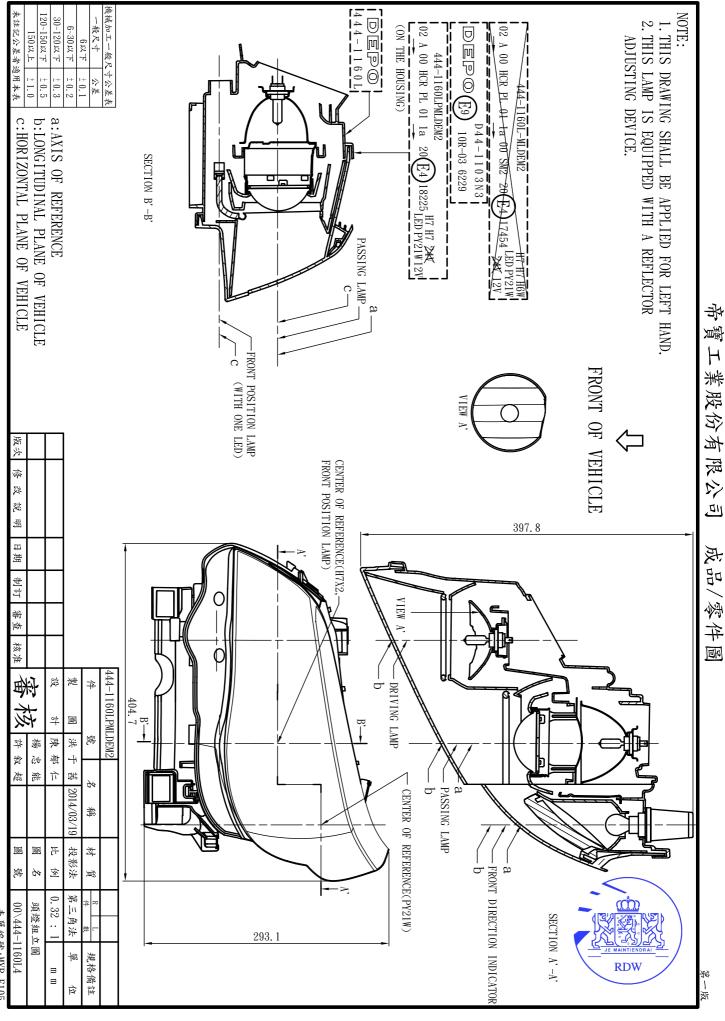


表單編號:MYR-F105





表單編號:MYR-F105



表單編號:MYR-F105

未註記公差者適用本表	120~130以上 ± 1.0 150以上 ± 1.0		+	一般尺寸 公差 6以下 +0 1	機械加工一般尺寸公差表	SZ D	2 B340(SMB) 78.6K/06033 R3 C R3 C	
版文修改說明						4 4 4	 FUNCTION: FRONT SNO124CA $\begin{cases} RB \\ 1.1K/1206 \\ 1.1K/1206 \\ 220n/0603 \\ 220n/06$	帝寶工業股份有限公司
日期 制訂 審查 核准 117 173 許 敘 超	家はな	設計陳郁仁	製 圖 洪 于 茜 2014	件 號 名	444-1160R/LPMLDEM2		N (0	成品/零件圖
圖 號 00\444-1160L5 表單編號:MYR-F105	24	比例 1:1 mm	2014/03/19 投影法 第三角法 單 位	稱 材 質 <u>R L</u> 規格備註			OTE: 1. THIS DRAWING SHALL BE APPLIED FOR RHGHT HAND AND LEFT HAND. $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow 222/7206$ $\downarrow _2.22/7206$ $\downarrow _2.22/7206$ $\downarrow _2.22/7206$	路一 被