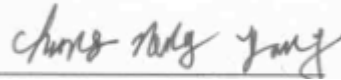


帝寶工業股份有限公司
DEPO AUTO PARTS IND. CO., LTD.
No. 20-3, Nan-Shih Lane, Lu-Kang Chen, Chang-Hua Hsien, Taiwan, R.O.C.
TEL: 886-4-771-1578 FAX: 886-4-771-3891

APPLICATION FOR APPROVAL OF A TYPE OF HEADLAMP
ACCORDING TO ECE REGULATION NO. 112-00 SERIES OF AMENDMENTS
07-02 SERIES OF AMENDMENTS
06-01 SERIES OF AMENDMENTS

1. Trade name or mark of the device : DEPO
2. Manufacturer's name of the device : DEPO 442-1144R/L-NHD
FK 442-1144R/L-NHD
3. Manufacturer's name and address : DEPO AUTO PARTS IND. CO., LTD.
No. 20-3, Nan-Shih Lane, Lu-Kang Chen,
Chang-Hua Hsien, 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) : July 19, 2007

SIGNATURE:



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
(N E D E R L A N D)**



COMMUNICATION

Concerning ⁽¹⁾


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- ~~- approval withdrawn~~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

of a type of headlamp pursuant to Regulation number 112.

Approval number: E4-112R-0012576

Extension number: 00

Approval mark:

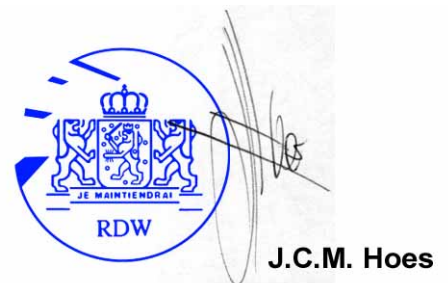
01 1a 00 HCR PL 02 A 12.5  12576
 ← ↔ ←

*Indication of the approval mark for the device on the right side.
The left side shall be symmetrical.*

1. Trade name or mark of the device : DEPO
2. Manufacturer's name for the type of device : DEPO 442-1144R/L-NHD
FK 442-1144R/L-NHD
3. Manufacturer's name and address : DEPO AUTO PARTS IND. CO., LTD.
No. 20-3, Nan-Shih Lane, Lu-Kang Chen,
Chang-Hua Hsien, Taiwan, R.O.C.
4. If applicable, name and address of the manufacturer's representative : Not applicable
5. Submitted for approval on : July 19 to September 3, 2007
6. 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 or report issued by that service : September 6, 2007



8. Number of report issued by that service : 84-R112-01000/07
9. Brief description:
 Category as described by the relevant marking ⁽²⁾ : HCR PL
 ↔
 Number and category(ies) of filament lamp(s) : Passing lamp: One H7
 Driving lamp: One H7
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 : 13-Sept-2007
15. Signature :



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

⁽¹⁾ Strike out what does not apply.

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

C, C, C, R, R PL, CR, CR, CR, C/R, C/R, C/R, C/, C/, C/,

→ ↔ → ↔ → ↔ → ↔ → ↔ → ↔ → ↔

C PL, C PL, C PL, CR PL, CR PL, CR PL, C/R PL, C/R PL, C/R PL,

→ ↔ → ↔ → ↔ → ↔ → ↔

C/PL, C/PL, C/PL,

→ ↔

HC, HC, HC, HR, HR PL, HCR, 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,

→ ↔

Type : 442-1144R/L-NHD
Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

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

No.: **ECE-R112**

including all amendments until

No.: **00 series of amendments, suppl. 7**

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.

Type : **442-1144R/L-NHD**
Manufacturer: : **DEPO AUTO PARTS IND. CO., LTD.**

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 : DEPO 442-1144R/L-NHD
FK 442-1144R/L-NHD
- 0.3. Name and address of the manufacturer : DEPO AUTO PARTS IND. CO., LTD.
No. 20-3, Nan-Shih Lane, Lu-Kang Chen,
Chang-Hua Hsien, Taiwan, R.O.C.
- 0.4. Name and address of the manufacturer's authorised representative : Not applicable
- 0.5. No. of information document : 442-1144 R/L-NHD
date of issue : July 19, 2007
date of last amendment : --

Type : 442-1144R/L-NHD
Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

1. Test object(s) and general test information

1.1. Test object(s)

- Identification no. : Not applicable
- Model : 442-1144R/L-NHD
- Remark : Class B headlamp for both traffic systems,
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 : July 19 to September 3, 2007
- 1.2.4 Test site : Hsin-Ying and Lu-Kang / Taiwan
- 1.2.5 Remark : The results of the test refer exclusively to the object(s)
mentioned under point 1.1. of this report.

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

2. Test minutes

- 2.1. Test facilities** : The measurement equipment used was in compliance with the test requirements.
- 2.2. Test results** : ~~The lamp has been tested according to the amendments mentioned in Appendix 0. The photometric values were carried over from the basic report.~~
- 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 holders conform to the characteristics stated in the IEC publication 61-2, third edition, 1969.
- The headlamp is ~~not~~ fitted with a device enabling the correct adjustment on the lamps as to comply with the requirements applicable to them. ~~The adjustment system is provided by a device the lamp is fitted to.~~
- 2.4. Photometric tests** : The headlamp has been adjusted according to paragraph 6.2. of the Regulation.
- 2.4.1 Passing beam : The passing beam produces a sharp "cut-off" line of the elbow type, the upper limit of which is a horizontal straight line on the side opposite to the direction of the traffic for which the headlamp is intended and on the other side a straight line below HH3, with an inclination angle of 15° above the horizontal.
- 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.

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

Results of photometric tests of the passing beam, class B (adjusted to right hand side traffic)

illumination produced on the screen in lux				
right-hand side traffic	left hand side traffic	sample No. 1 (left)	sample No. 2 (right)	illumination required
B50L	B50R	0.31	0.29	≤ 0.4
75R	75L	13.6	22.4	≥ 12.0
75L	75R	1.5	1.4	≤ 12.0
50L	50R	11.9	10.0	$15.0 \geq x \geq 3.0$
50R	50L	14.2	25.1	≥ 12.0
50V	50V	16.3	25.3	≥ 6.0
25L	25R	3.4	4.0	≥ 2.0
25R	25L	3.5	5.1	≥ 2.0
P-8 (H-4L)	P-8 (H-4R)	0.36	0.33	$0.7 \geq x \geq 0.2$
P-7 (H-8L)	P-7 (H-8R)	0.20	0.19	$0.7 \geq x \geq 0.1$
P-6 (2U-4R)	P-6 (2U-4R)	0.25	0.21	$0.7 \geq x_6$
P-5 (2U-V)	P-5 (2U-V)	0.23	0.24	$0.7 \geq x_5$
P-4 (2U-4L)	P-4 (2U-4L)	0.18	0.19	$0.7 \geq x_4$
P-3 (4U-8R)	P-3 (4U-8R)	0.13	0.11	$0.7 \geq x_3$
P-2 (4U-V)	P-2 (4U-V)	0.14	0.17	$0.7 \geq x_2$
P-1 (4U-8L)	P-1 (4U-8L)	0.07	0.08	$0.7 \geq x_1$
any point in zone III		0.53	0.57	≤ 0.7
any point in zone IV		7.3	7.5	≥ 3
any point in zone I		16.4	30.1	$\leq 2E50R$

The photometric values of the points in zone A and B ($x_1 + x_2 + x_3 \geq 0.3$ lux) ($x_4 + x_5 + x_6 \geq 0.6$ lux) are within the required limits of § 6.2.7. of the Regulation.

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

Results of photometric tests of the passing beam, class B (adjusted to left hand side traffic)

illumination produced on the screen in lux				
right hand side traffic	left-hand side traffic	sample No. 1 (left)	sample No. 2 (right)	illumination required
B50L	B50R	0.28	0.30	≤ 0.4
75R	75L	12.1	20.5	≥ 12.0
75L	75R	3.4	1.3	≤ 12.0
50L	50R	8.1	10.2	$15.0 \geq x \geq 3.0$
50R	50L	18.0	22.9	≥ 12.0
50V	50V	12.3	23.7	≥ 6.0
25L	25R	3.2	5.2	≥ 2.0
25R	25L	3.2	4.6	≥ 2.0
P-8 (H-4L)	P-8 (H-4R)	0.35	0.33	$0.7 \geq x \geq 0.2$
P-7 (H-8L)	P-7 (H-8R)	0.26	0.20	$0.7 \geq x \geq 0.1$
P-6 (2U-4R)	P-6 (2U-4R)	0.17	0.21	$0.7 \geq x_6$
P-5 (2U-V)	P-5 (2U-V)	0.22	0.29	$0.7 \geq x_5$
P-4 (2U-4L)	P-4 (2U-4L)	0.26	0.25	$0.7 \geq x_4$
P-3 (4U-8R)	P-3 (4U-8R)	0.08	0.11	$0.7 \geq x_3$
P-2 (4U-V)	P-2 (4U-V)	0.14	0.20	$0.7 \geq x_2$
P-1 (4U-8L)	P-1 (4U-8L)	0.11	0.11	$0.7 \geq x_1$
any point in zone III		0.56	0.58	≤ 0.7
any point in zone IV		6.6	7.6	≥ 3
any point in zone I		15.3	28.5	$\leq 2 \text{ E50L}$

The photometric values of the points in zone A and B ($x_1 + x_2 + x_3 \geq 0.3 \text{ lux}$) ($x_4 + x_5 + x_6 \geq 0.6 \text{ lux}$) are within the required limits of § 6.2.7. of the Regulation.

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

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 EM.

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:

Results of photometric tests of the driving beam, class B

illumination produced on the screen in lux			
	sample No. 1 (left)	sample No. 2 (right)	illumination required
maximum illumination E_M	68.0	63.5	$48 \leq E_M \leq 240$
illumination at point of intersection (HV) of lines hh and vv	66.8	61.7	$\geq 0.8 \times E_M$
$I'_M = 0.208 \times E_M$	14.1	13.2	
rounded off to the reference mark of	12.5		
minimum illumination of any point on hh at a distance from HV			
1.125m	29.4	28.6	≥ 24
2.250m	10.9	10.0	≥ 6

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

2.5. Stability of photometric performance of head lamps 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.

Results of stability tests (adjusted to right hand side traffic)

photometric test results (in lux)				
points on screen	initial	end of test	difference in %	allowable difference in %
driving beam E _M	68.153	68.548	0.58	10
passing beam 50R	14.257	14.851	4.17	10
passing beam B50L	0.307	0.308	0.33	10
passing beam HV	0.523	0.526	0.57	10

Results of stability tests (adjusted to left hand side traffic)

photometric test results (in lux)				
points on screen	initial	end of test	difference in %	allowable difference in %
driving beam E _M	68.527	68.879	0.51	10
passing beam 50L	18.125	18.546	2.32	10
passing beam B50R	0.278	0.281	1.08	10
passing beam HV	0.559	0.561	0.36	10

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

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.

Results of stability tests (adjusted to right hand side traffic)

Photometric test results (in lux)				
points on screen	initial	end of test	difference in %	allowable difference in %
driving beam E _M	68.153	68.861	1.04	10
passing beam 50R	14.257	14.973	5.02	10
passing beam B50L	0.307	0.311	1.30	10
passing beam HV	0.523	0.529	1.15	10

Results of stability tests (adjusted to left hand side traffic)

Photometric test results (in lux)				
points on screen	initial	end of test	difference in %	allowable difference in %
driving beam E _M	68.527	69.214	1.00	10
passing beam 50L	18.125	18.882	4.18	10
passing beam B50R	0.278	0.283	1.80	10
passing beam HV	0.559	0.564	0.89	10

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

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):

Results of stability tests (adjusted to right hand side traffic)

points on screen	sample no. 1	sample no. 2	maximum permissible
r_3	-14.31	--	
r_{60}	-13.96	--	
$\Delta r_1 = r_3 - r_{60} $	0.35	--	1.0

Results of stability tests (adjusted to left hand side traffic)

points on screen	sample no. 1	sample no. 2	maximum permissible
r_3	-13.96	--	
r_{60}	-13.96	--	
$\Delta r_1 = r_3 - r_{60} $	0.00	--	1.0

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

2.6. Coloured lenses, filters and filament lamps

The colouring beam is obtained through : Not applicable

~~The CIE trichromatic co ordinates of the light emitted by the headlamp are within the limits in the paragraph 7. of the Regulation.~~

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 position lamp	84-R7-01001/07
Front direction indicator	84-R6-01002/07

2.8. Variants and components : Not applicable

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

2.9. Additional tests for adjustable reflectors : Not applicable

Adjusted to right hand side traffic

photometric test results (in lux)			
points on screen	vertically + 2°	vertically - 2°	required value
driving beam E _M	67.5	68.6	48 ≤ E _M ≤ 240
driving beam HV	66.1	65.1	≥ 0.8 × E _M
passing beam 75R / 75L	13.9	14.4	≥ 12
passing beam HV	0.49	0.54	≤ 0.7

Adjusted to left hand side traffic

photometric test results (in lux)			
points on screen	vertically + 2°	vertically - 2°	required value
driving beam E _M	67.6	68.5	48 ≤ E _M ≤ 240
driving beam HV	67.4	66.4	≥ 0.8 × E _M
passing beam 75R / 75L	13.2	13.0	≥ 12
passing beam HV	0.52	0.57	≤ 0.7

Type : 442-1144R/L-NHD
 Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

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:

(for right hand side traffic)

Approval No. : E4-20R-0220580

Test report No. : 84-R20-134/98

(for left hand side traffic)

Approval No. : E4-20R-0220579

Test report No. : 84-R20-133/98

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

Adjusted to right hand side traffic

photometric test results after conditioning (in lux)		
point	illumination measured	illumination required
B50L	0.25	≤ 0.52
HV	0.54	≤ 0.91
75R	11.2	≥ 10.8

Adjusted to left hand side traffic

photometric test results after conditioning (in lux)		
point	illumination measured	illumination required
B50R	0.22	≤ 0.52
HV	0.56	≤ 0.91
75L	13.5	≥ 10.8

Test of adherence of coatings : The sample No. 2 complies with the requirements mentioned paragraph 2.5.

Type : 442-1144R/L-NHD
Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.

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

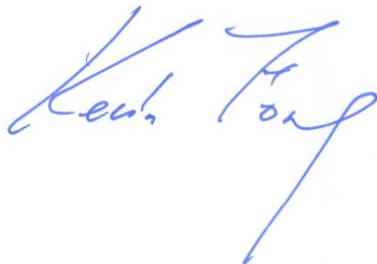
0 List of modifications

1 Information folder No. : 442-1144 R/L-NHD (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.

Cologne, September 6, 2007
BL/KFO



M.S.M.E. K. Fong

Type : 442-1144R/L-NHD
Manufacturer: : DEPO AUTO PARTS IND. CO., LTD.



List of modifications

Appendix 0

Correction of : --

Modification of : --

Addition of : --

Deletion of : --

Application Type: 442-1144R/L-NHD**First Application Date: July 19, 2007**

Application regulation:	ECE-R112-00 (class B for both traffic systems), 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 position lamp	White	12V	18.4W	8 x W2.3W
Front direction indicator	Amber	12V	21W	H21W

2. Construction and Material

Construction	Material	Remark
Outer lens	PC: LEXAN/LS2-112	Coating: HH9986U-N3, colourless
Inner lens (Passing lamp)	Glass	Colourless
Inner lens D and E (Front position lamp)	PC	Colourless
Inner lens C (Front direction indicator)	PC	Amber
Housing	Plastic	
Reflector (Passing lamp)	Metal	Aluminum vacuum coated
Reflector (Driving lamp, Front position lamp, Front direction indicator)	Plastic	Aluminum vacuum coated
Frame	Plastic	Black
Frame (Headlamp, Front direction indicator)	Plastic	Aluminum vacuum coated

3. 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\442-1144N1, 00\442-1144N2, 00\442-1144N3

4. Name and address of manufacturer:

DEPO AUTO PARTS IND. CO., LTD.
No. 20-3, Nan-Shih Lane, Lu-Kang Chen,
Chang-Hua Hsien, Taiwan, R.O.C.

5. Name and address of representative of manufacturer:

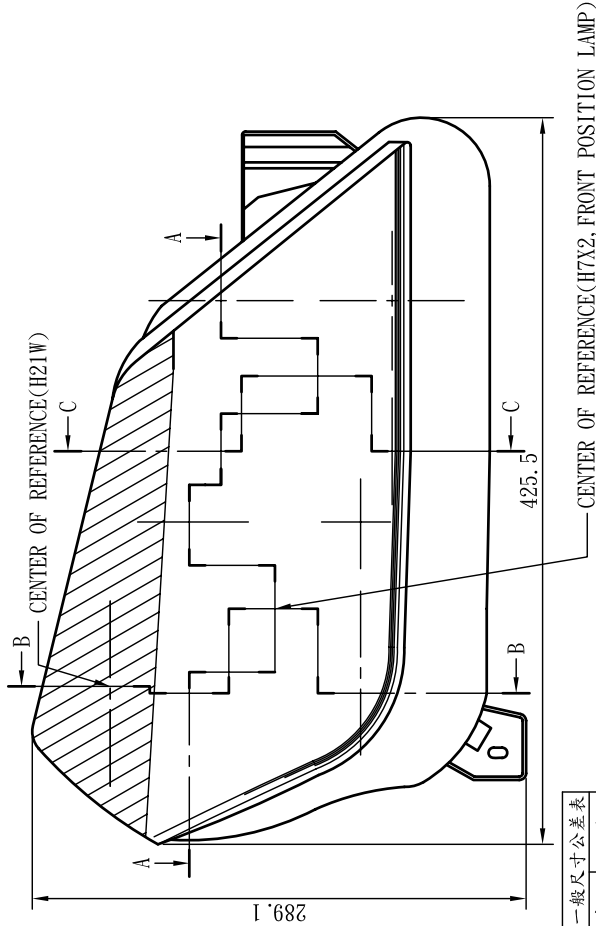
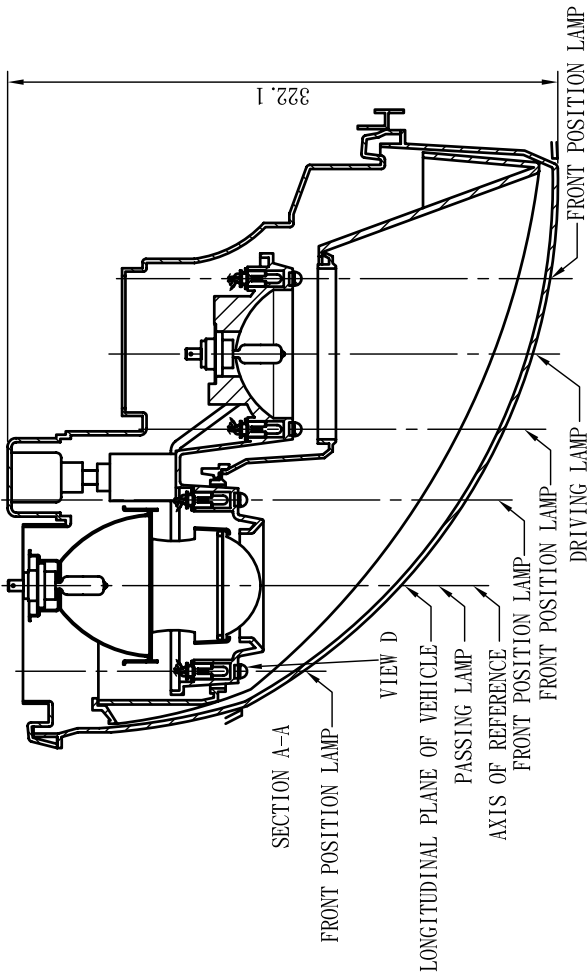
Not applicable

6. Remarks

Date: July 19, 2007
Place: Chang Hua
Person in charge: Chung-Neng Yang



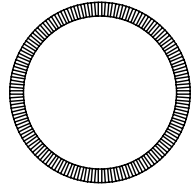
INFORMATION FOLDER NO:442-1144 R/L-NHD



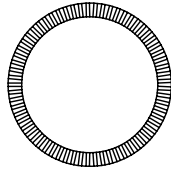
NOTE:

1. THIS DRAWING SHALL BE APPLIED FOR RIGHT HAND ONLY AND LEFT HAND SHALL BE SYMMETRICAL, EXCEPT THE PASSING LAMP'S REFLECTOR MODULE.
2. THIS OUTER LENS IS FIXED ON THE HOUSING BY USING GLUE AND SNAP-IN CONNECTORS.
3. THIS LAMP IS EQUIPPED WITH A REFLECTOR ADJUSTING DEVICE.

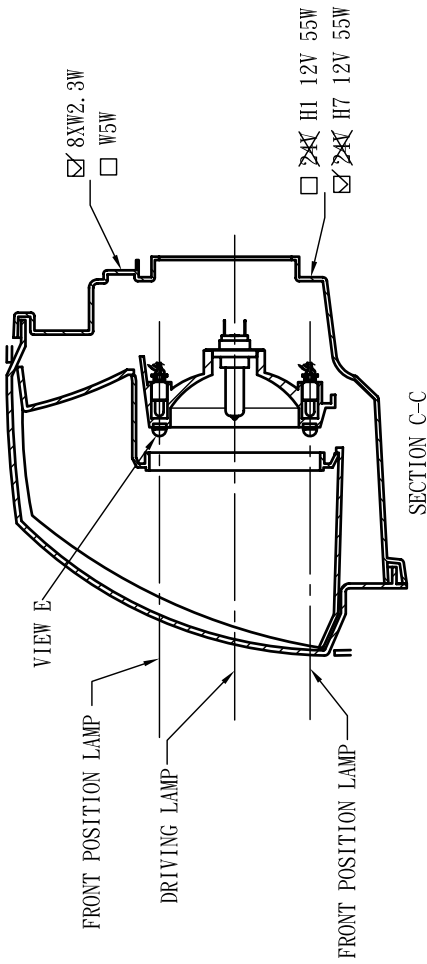
FRONT OF VEHICLE



VIEW D
(INNER LENS D)



VIEW E
(INNER LENS E)



SECTION C-C

機械加工一般尺寸公差表	
一般尺寸	公差
6以下	±0.1
6-30以下	±0.2
30-120以下	±0.3
120-150以下	±0.5
150以上	±1.0

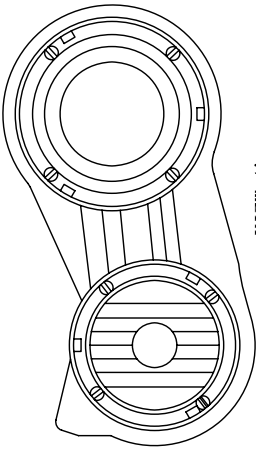
未註記公差者適用本表

版次	修改說明	日期	制訂	審查	核准

442-1144R-NHD		件	號	名稱	材質	規格備註
製圖	貴慧中	96/08/02	第三角法	投影法	比例	單位
設計	吳佳霖		0.32 : 1	圖名		mm
審核		楊忠能	圖號			
		許敏超	圖號	00\442-1144N2		

INFORMATION FOLDER NO:442-1144 R/L-NHD

NOTE:
1. THIS DRAWING SHALL BE APPLIED FOR LEFT HAND.



VIEW A'

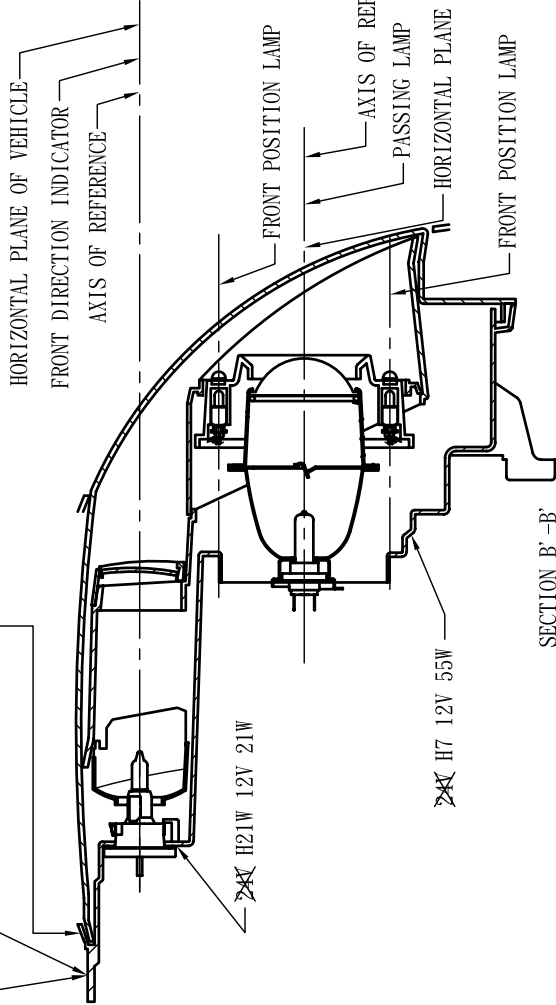
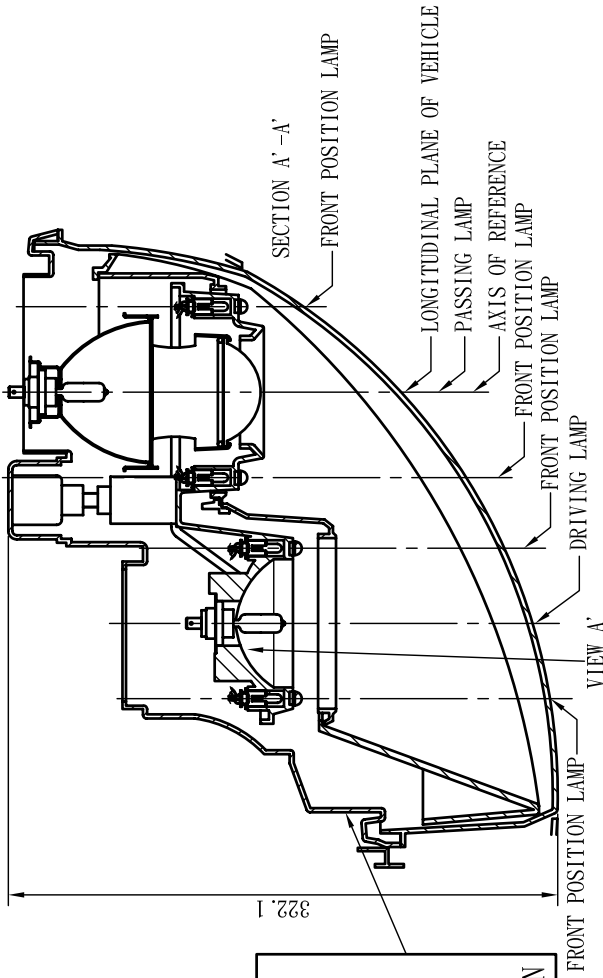
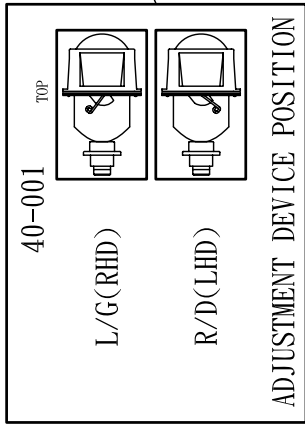
(OPTIONAL) FK 442-1144L

DEPO 442-1140L

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FRONT OF VEHICLE



機械加工一般尺寸公差表	
一般尺寸	公差
6以下	±0.1
6-30以下	±0.2
30-120以下	±0.3
120-150以下	±0.5
150以上	±1.0

未註記公差者適用本表

CENTER OF REFERENCE(H7X2, FRONT POSITION LAMP)

件號	名稱	材質	規格備註
442-1144R-NHD			
製圖	黃慧中	投影法	第三角法
設計	吳佳霖	比例	0.32 : 1
審核	楊忠能	圖名	頭燈組立圖
圖號	00\442-1144N3	單位	m m



版次	修改說明	日期	制訂	審查	核准