



LME:009C

LOCOMOTIVE ENGINEERING DEPTT.

PURCHASE SPECIFICATION

LME/ PUR/239

ISSUE DT 16.12.2010

REV.NO.: 00

REV. DT.:

SHEET 1 OF 5

SPECIFICATION

FORHead Light

FOR DIESEL ELECTRIC LOCOMOTIVES

Enclosures : 1. Drg. No. - 37183501307 Rev.02
2. Drg. No. - 37183501306 Rev.03

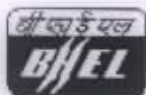
Rev	Date	Prepared	Rev	Date	Prepared	Rev	Date	Prepared
					Approved			Approved
Rev	Date	Prepared	Rev	Date	Prepared	Rev	Date	Prepared
		Approved			Approved			Approved

Santosh Sharma
16/12/10
Prepared by :

Checked by :

Approved by :

Distribution : Loco Prodn.
(001)Loco PPC
(002)Loco QC
(003)Tech.
(004)CQX
(005)



LME:012: B

LOCOMOTIVE ENGINEERING DEPTT.

CONTINUATION SHEET

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1. GENERAL

- 1.1. This specification covers the manufacture and supply of Ambassador car Type head light for fitment on Diesel Electric Shunting Locomotive. The purpose of headlight is to illuminate the track at night for the driver to look for any abnormality or unsafe condition on the track.
- 1.2. Two headlight shall be provided in the front of driver's cab at each end of the locomotive.
- 1.3. The headlight unit shall be of focusing type with total enclosed construction complete with reflector, halogen lamp, lamp holder etc.
- 1.4. The Headlight shall be a compact design, easy in maintenance and of a robust construction so as to withstand severe environmental condition of high temperature, dust, rains and heavy vibrations of the locomotive.

2. Service Condition**2.1. Ambient Temperature**

-10° C to +85° C with maximum relative humidity of 100% (Saturation). The locomotive will be working in altitude up to maximum of 1000meters above sea level.

2.2. Shocks and Vibrations

During normal working of the locomotive the equipment will be subjected to vibration and buffing shocks as indicated below:

Vertical acceleration	-	1.0g	Maximum
Lateral Acceleration	-	2.0g	Maximum
Longitudinal Acceleration	-	3.0g	Maximum

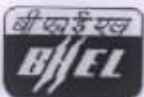
3. Dimension and Tolerances

Housing arrangement for head light shall be within the frame as per drg. No. - 37183501307 Rev.02 and holding arrangement with the frame shall be as per drg. No. 37183501306 Rev.03.

Prepared By Sharan
14/12/10

Checked By Cashy

Approved By [Signature]



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4. Deviation

Any deviation from the standard laid down with a view to improve the performance, utility, efficiency and reliability may be given due consideration provided full particulars and justifications there of are furnished along with the offer.

5. Scope of Supply

Scope of supply for the headlight against this specification shall consists of the following:-

(I). Beam assembly complete with reflector -	1 No./set
(II). 12V, 60W Halogen Lamp-	1 No./set
(III). Lamp Holder-	1 No./set
(IV). Rim outer-	1 No./set
(V). Rim Inner-	1 No./set
(VI). Dome-	1 No./set
(VII). Rubber Gasket Set -	1 No./set

Each loco shall be equipped with total 4nos. of headlight , two (connected in series) Nos. will be at each end.

6. Technical Details

6.1. Technical details of the Headlight are as under :-

1	Headlight working voltage	24V DC
2	Halogen Lamp rating	P45T, 12V, 60W
3	Connections	2 Nos. in series to work across 24V DC
4	Beam Assembly	Each Beam assembly will consists of following:- (a) Reflector with heat-treated lens. (b) One halogen lamp P45T of 12V, having one filament of 60W for normal operation. (c) Lamp holder and fixing arrangement.

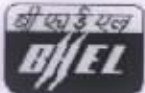
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Santosh Sharma
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Cankar

Approved By



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LOCOMOTIVE ENGINEERING DEPTT.

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5	Details of Beam	The beam to be used shall be of maximum diameter and suitable to fit in the housing with parabolic design. The beam shall be type with lamp replacement facility.
6	Input Cable	The input of the twin headlight shall be suitable to receive 2 wires to each lamp. The clearance of the live part of the connector shall not be less than 10mm from the housing of the headlight.
7	Mounting on Locomotive	a) Refer Clause No. 04. b) Mounting arrangement for locos shall be of ring type suitable for face mounting. The diameter and PCD of the fixing holes shall be as following:- P.C.D. - 182 mm Hole Diameter - 10 mm, 3 Nos. Spacing - as per drg. enclosed. Hole Diameter - 4mm, 4Nos Spacing - as per drg. enclosed.
8	Creepage distance	The Creepage distance between live parts and non current carrying metal parts shall be not less than 15mm over the surface of insulation.

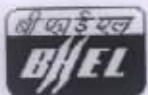
Prepared By

Santam sharan
16/12/10

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Chaudhary

Approved By



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7. **Application :** 1. This head light shall be used with 350HP / 700HP(TPP) having 24V Control System.
2. This can also be used with 700HP(SPP)/1400HP loco having 72V Control System with suitable resistors.

8. Drawings

The supplier should submit the following drawing along with the offer: -

- I) Clause wise comments on our purchase specification.
- II) Conformance to the mounting dimension & rating of lamp.

9. Guarantee

The supplier shall guarantee all the equipments as a whole against any manufacturing, material and workmanship for a period of 18 months from date of dispatch or 12 months from date of commissioning whichever is earlier. In case any damage or defect noticed during this period due to defective material or workmanship, the equipment shall be replaced/Repaired free of cost by supplier. If any modification in the system is required to be done for improving the performance of the system shall be carried out free of cost by manufacturer.

Prepared By

Sauran sharma
16/12/10

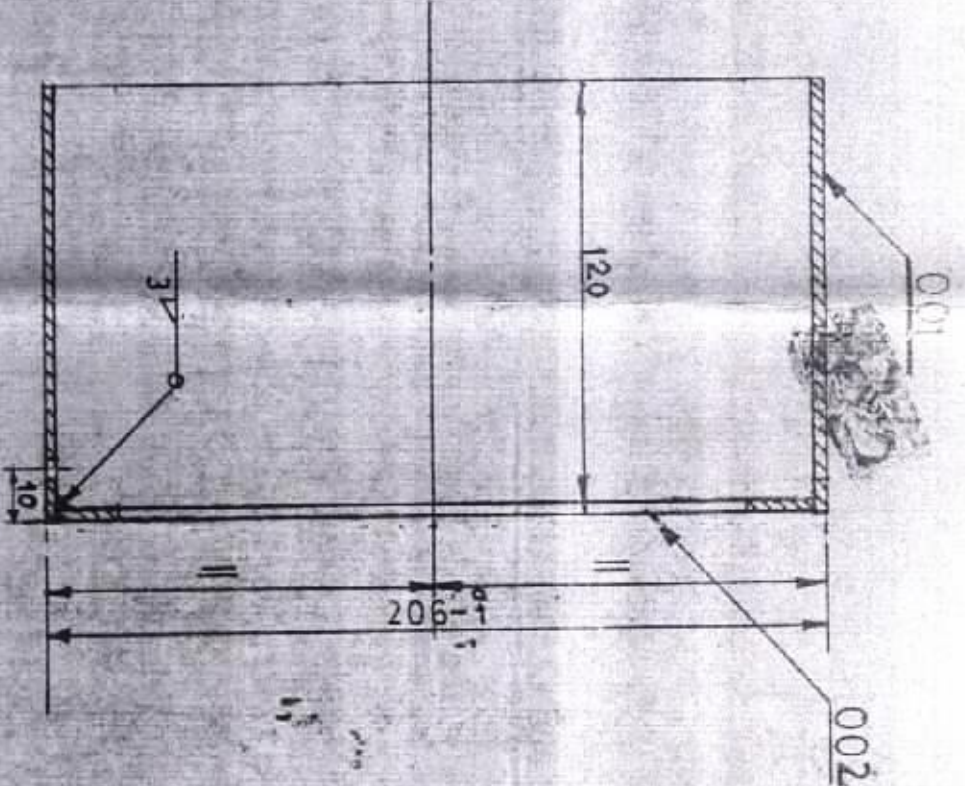
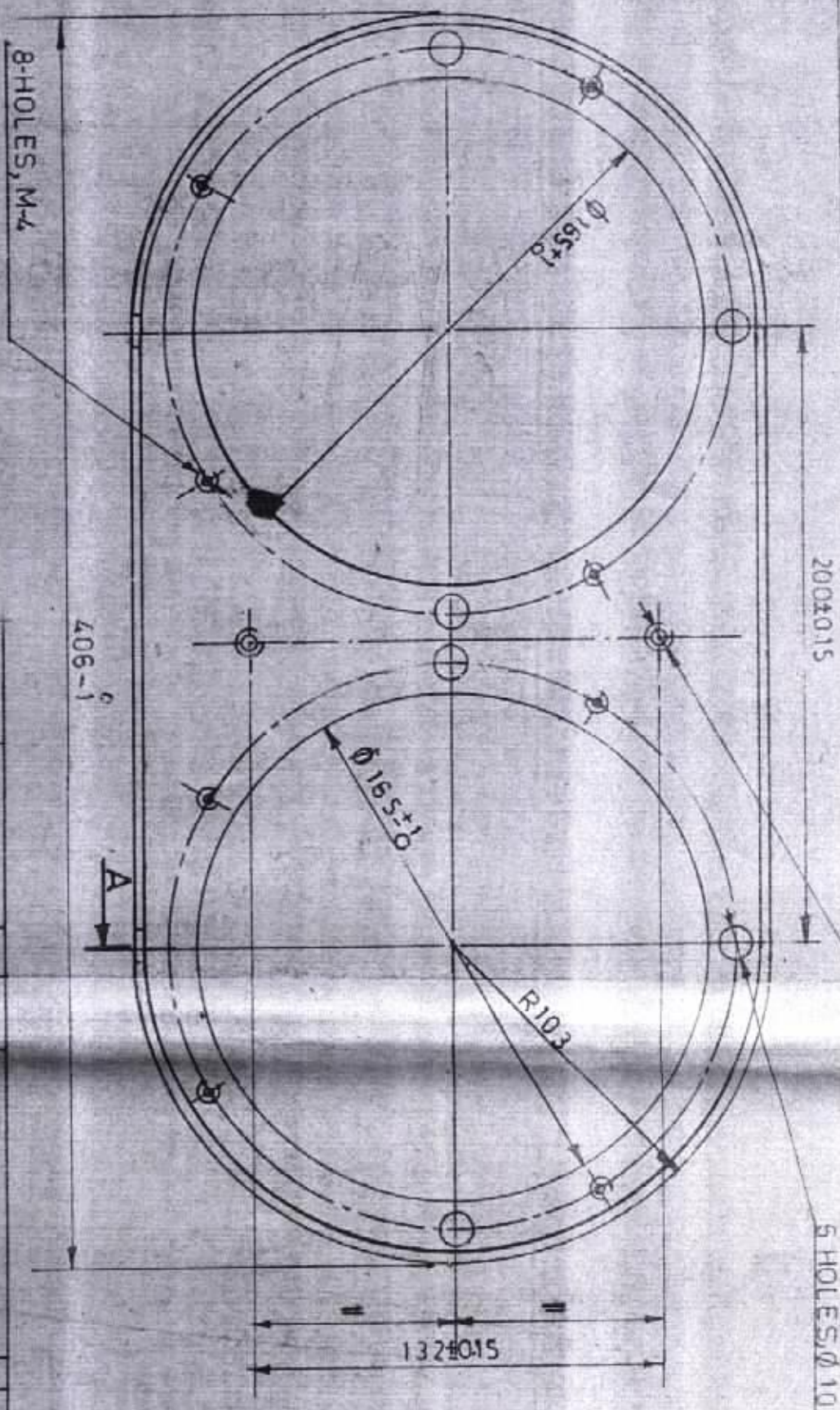
Checked By

[Signature]

Approved By

[Signature]

LOC 1053 8173 ON DRG



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308.21.01

REF DRG No.

SIGN. & DATE

INVENTORY No.

REV	DATE	ALTERED	CHECKED
01	13-1-06	OK'S	Rev
02	13-1-06	CHECKED	Rev

WEIGHT & DRG UPDATED

REV	DATE	ALTERED	CHECKED
01	9-2-90	CHECKED	Rev
02	9-2-90	CHECKED	Rev

DIMN, TOL, & DIM-10 ADDED.

DEPT	LOC	GRADE OF UN TOL	SCALE	WEIGHT (Kg)
CODE/01	DIM/01	1:2	3-7/8	



BHARAT HEAVY ELECTRICALS LIMITED
JHANSI

TYPE OF PRODUCT
OR
NAME OF CUSTOMER/PROJECT

350/700 HP DESL LOCO

DRN	NAME	SIGN.	DATE
01	O.P.J.H.A.	Rev	23-3-88
02	O.P.J.H.A.	Rev	23-3-88

REF. TO ASSY. DRG	REF. TO SPECN.	REF. TO QTY
0 718 35 01 301	0 718 35 01 301	0 101 002
0 718 35 04 301		

VAR	OO	REMARKS	ITEM No.
001	BOT		001
001	BOT		001

DESCRIPTION	DRAWING No.
001 FACE PLATE	3 718 35 01 306
001 SHELL	4 718 35 01 201

ITEM No.	DESCRIPTION	DRAWING No.
001	FACE PLATE	3 718 35 01 306
001	SHELL	4 718 35 01 201

ITEM No.	MATL. CODE	UNIT WT.	QTY
001		0.668	
001		3.050	

DRAWING No. 3 718 35 01 307

02

903 10 52 817 3 ON GRD

2 HOLES, Ø M 6

DIMNL. TOL. - AS PER CORR. STD.

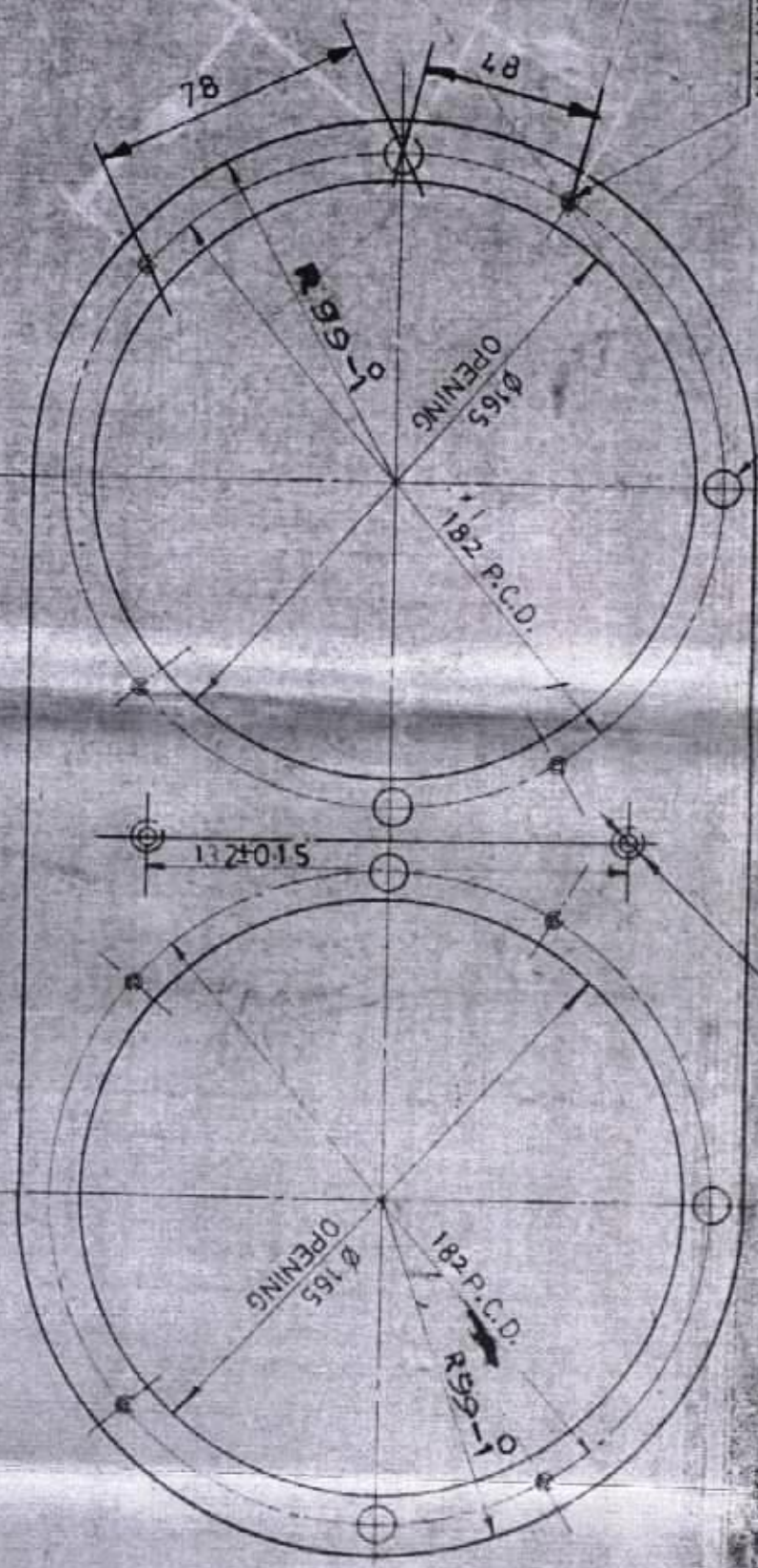
AA 023 02 08 FINE GRADE

UNLESS OTHERWISE STATED

8 HOLES, DRILL & TAP M 4

6 HOLES Ø 10

200 ± 0.15



001

NOTES:-

1 REMOVE ALL SHARP EDGES & BURRS.

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308 21 01

SIGN & DATE

REF. DRG. NO.

INVENTORY NO.

REV.	DATE	ALTERED	CHECKED
05	13/9/06	PKS	
02	12/10/06	PKS	

WEIGHT & DRG. UPDATED

REV.	DATE	ALTERED	CHECKED
01	9-2-90	PKS	

DIMN. TOL. 0.05 ADDED

DISTRIBUTION OF PRINTS
LME-1
LMP-1
LMM-3

STATUS OF DRAWING
STD

ADDITIONAL INFORMATION

VAR. NO.	REMARKS	ITEM NO.	DESCRIPTION	STD.	DRAWING NO.	VAR.	DATE	NAME	SIGN.	DATE
001	B.O.	001	FACE PLATE 315 TKX 98							

CARD TYPE 1

CARD TYPE 2

TYPE OF PRODUCT OR
NAME OF CUSTOMER/PROJECT
700 HP DIESEL LOCO



BHARAT HEAVY ELECTRICALS LIMITED
JHANSI

DRN.	NAME	SIGN.	DATE
001	PKS		30/3/08

DEPT.	GRADE OF UN TOL.	SCALE	WEIGHT (KIL)	REL. TO ASSY DRG.	ITEM NO.
LME	Ø 10	1:2	0.668	3/718 35 01 307	001

CARD CODE	DRAWING NO.	REV.
001	3 718 35 01 306	01

TITLE	01
FACE PLATE	