

Telex : 0535 - 2424 RDSO -IN
Fax : 91-0522-458500
Telephone : 454657 & 451200
Telegram: 'RAILMANAK', Lucknow
e-mail: edse@lw1.vsnl.net.in
e-mail: edse@rdso.railnet.gov.in



भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226011
Government of India - Ministry of
Railways
Research, Designs & Standards
Organization, LUCKNOW - 226011

No. EL/3.1.3

Date: 14.09.2000

Modification Sheet No. ELRS/MS/0293-2000 (Rev 'o')

Chief Electrical Engineer,

Central Railway, Mumbai CST-400001.
Eastern Railway, Fairlie Place, Calcutta-700001.
East Central Railway, Chandrashekharapur, Bhubaneswar-751001.
Northern Railway, Baroda House, New Delhi-110001.
North Central Railway, Hasting Road, Allahabad-211001.
Southern Railway, Park Town, Chennai-600003.
South Central Railway, Rail Nilayam, Secunderabad-500371
South Eastern Railway, Garden Reach, Calcutta-700043.
South Western Railway, Bangalore-560046.
Western Railway, Churchgate, Mumbai-400020.
West Central Railway, Jabalpur.
New Zone Railway, Bilaspur.
Chittaranjan Locomotive Works, Chittaranjan-713331.
Chief Electrical Traction Engineer, Central Railway, Mumbai CST-400001.

1.0 TITLE:

Modification to the head light voltage stabilizer for use with Twin Beam Head Light of WAP1/WAP4/WAM4/WAG5/WAG7 and AC-DC class WCAM3/WCAG1 locomotive.

2.0 OBJECT:

Railways have reported the malfunctioning of DC-DC converter used in the circuit of twin beam headlight. This makes the headlight non-functional and locomotive have to be detached being safety item. Twin beam headlights are provided with halogen bulbs whose halogen cycle is in the range of 24-26 V for optimum performance. The existing RTPR with output voltage (32 ± 0.5) V is not suitable for feeding directly to halogen bulbs. Therefore, to improve reliability of twin beam headlight it is decided to use either modified RTPR with output voltage of (24 ± 0.5) V at 11 amp or existing RTPR with suitable dropping resistance is provided in series till the reliability of DC-DC converter establishes.

3.0 WORK TO BE CARRIED OUT:

a) By CLW:

Provide RTPR of rating (24 ± 0.5) V (output), current 11 amp instead of (32 ± 0.5) V 11 amp and headlight circuit for working during neutral section from locomotive batteries as per modification sheet no. RDSO/WAM4/193 issued vide letter no. EL/3.1.3 dt 27-5-96.. The value of resistance vide item 4B shall remain 10 Ω , 1000 W.

b) By Electric Loco shed, POH workshops:

Use existing RTPR with suitable dropping resistance of rating 1 ohm, 100watt for achieving output voltage of (24 ± 0.5) V.

4.0 APPLICATION TO CLASS OF LOCOMOTIVES:

WAM4, WAG5, WAG7, WCAM3, WAP1/3/4, WCAG1.

5.0 MATERIAL REQUIRED:

a) For CLW:

New RTPR of rating (24 ± 0.5) V, 11 amps along with item mentioned in modification sheet no. RDSO/WAM4/193.

b) For Electric loco shed, POH workshops:

i) 1 ohm, 100watt dropping resistance in series with 32V, RTPR

or

i) Item as mentioned in 5a wherever RTPR is to be condemned and new RTPR is to be provided.

6.0 MATERIAL RENDERED SURPLUS: Nil

7.0 REFERENCE:

a. Railway Board's letter no. 2000/Elec(TRS)/138/8 dt 25/31-8-2000.


b. Discussion held during CEE's conference on 27th & 28th Aug'2000 at New Delhi.

8.0 MODIFICATION DRAWING: Nil

9.0 AGENCY OF IMPLEMENTATION:

CLW, All electric loco sheds, POH workshops.

Encl: Nil


(A.K. Gupta)

for Director General/Elect

Copy to: As per Standard Mailing List No. EL/M/0028 Ver'0'

1. Secretary (Electric Traction), Railway Board, Rail Bhavan, New Delhi-110 001

(Kind Attn: EDEE (RS)/ Railway Board)

2. Secy.(Elect.), Railway Board, New Delhi-110 001.(Kind Attn: DEE(RS)/ Railway Board)

3. Chief Electrical Loco Engineer,

- -Central Railway, Mumbai CST- 400 001.
- -Eastern Railway, Fairlie Place, Calcutta- 700 001
- -East Central Railway, Chandrashekharapur, Bhubaneshwar- 751 001.
- -Northern Railway, Baroda House, New Delhi-110 001
- -North Central Railway, Hasting Road, Allahabad-211 001.
- -Southern Railway, Park Town, Chennai-600 003
- -South Central Railway, Rail Nilayam, Secunderabad -500 371
- -South Eastern Railway, Garden Reach, Calcutta-700 043
- -South Western Railway, Bangalore - 560 046
- -Western Railway, Churchgate, Mumbai -400 020
- -West Central Railway, Jabalpur
- -New Zone Railway, Bilaspur