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450115 (DID)



भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226011
Government of India-Ministry of Railways
Research Designs & Standards Organisation
LUCKNOW - 226 011

TECHNICAL CIRCULAR NO. 40

No. EI/3.2.13/6

Dated 14/18.5.99

CHIEF ELECTRICAL ENGINEER,

- Central Railway, Mumbai CST-400 001
- Eastern Railway, Fairlie Place, Calcutta-700 001
- Northern Railway, Baroda House, New Delhi-110 001
- North Central Railway, Hasting Road, Allahabad-21100
- Southern Railway, Park Town, Chennai-600 003
- South Central Railway, Rail Nilayam, Secunderabad-500071
- South-Eastern Railway, Garden Reach, Calcutta-700 043
- South Western Railway, Bangalore
- Western Railway, Churchgate, Mumbai-400 020
- West Central Railway, Jabalpur (M.P.)

Sub. : Floating of wheel set during jamming of axle of locomotives type WAG7, CAM3 and WCAG1

Some of Railways/sheds are experiencing difficulties in floating wheel axle set in case of its jamming on line due to failure of axle bearing, TM bearing or any other failure. To bring the loco to the maintenance shed, it is required to lift the affected wheel set to allow movement of loco. This technical circular is being issued to state procedure for floating a wheel of WAG7, WCAM3 and WCAG1 Loco, in the event of locked axle in the section.

1.0 ITEMS REQUIRED :

1. Two numbers hydraulic jacks with capacity of 50t or more.
2. Steel blocks 4 nos. as per sketch III
3. Locking plate 8 nos as per sketch II
4. Tapped pin 4 nos as per sketch II
5. Bolts M-14, 8 nos as per sketch II.

2.0 PROCEDURE :

- 2.1 Lift the affected wheel set with the help of hydraulic jacks
- 2.2 Insert two cylindrical pin over the cap pedestal (stay plate) at the bottom of the axle box housing on both sides(Sketch I) of the axle box. The dimension of the pins are shown in sketch II.
- 2.3 To avoid lateral movement of the pin, fix the locking plate with hex. bolt on the both ends of the pin(Sketch II).
- 2.4 Keeping the jack in loaded condition vide item No.1, insert a steel block(Sketch III) in between bogie frame and top of axle box on the two other wheels of the same bogie. These steel blocks are given a recess at the top and bottom to suit the projected portion of the bogie frame and at the top of the axle box. This will prevent the slipping of blocks on run. Jamming of axle box on the other wheels with steel blocks is required to prevent the upward lift of these wheels when the affected wheel is jammed by the pins.
- 2.5 Release the jack from affected wheel set.
- 2.6 Lifting and blocking should be done on the both side axle boxes of the affected wheel set and the other two wheel set.
- 2.7 Sizes of the pins and the blocks are given to have a lift of 1.5" to 2" from the rail level. By virtue of design itself, larger lift is not possible.
- 2.8 Isolate the traction motor, mounted on the lifted wheel by HMCS and respective line contactor.
- 2.9 The speed for movement of locomotive with floated wheel set should be decided by the competent supervisor at site, but should be restricted to 30 Kmphs and it should be brought as light engine to the maintenance shed.

DA : Sketch I,II,III



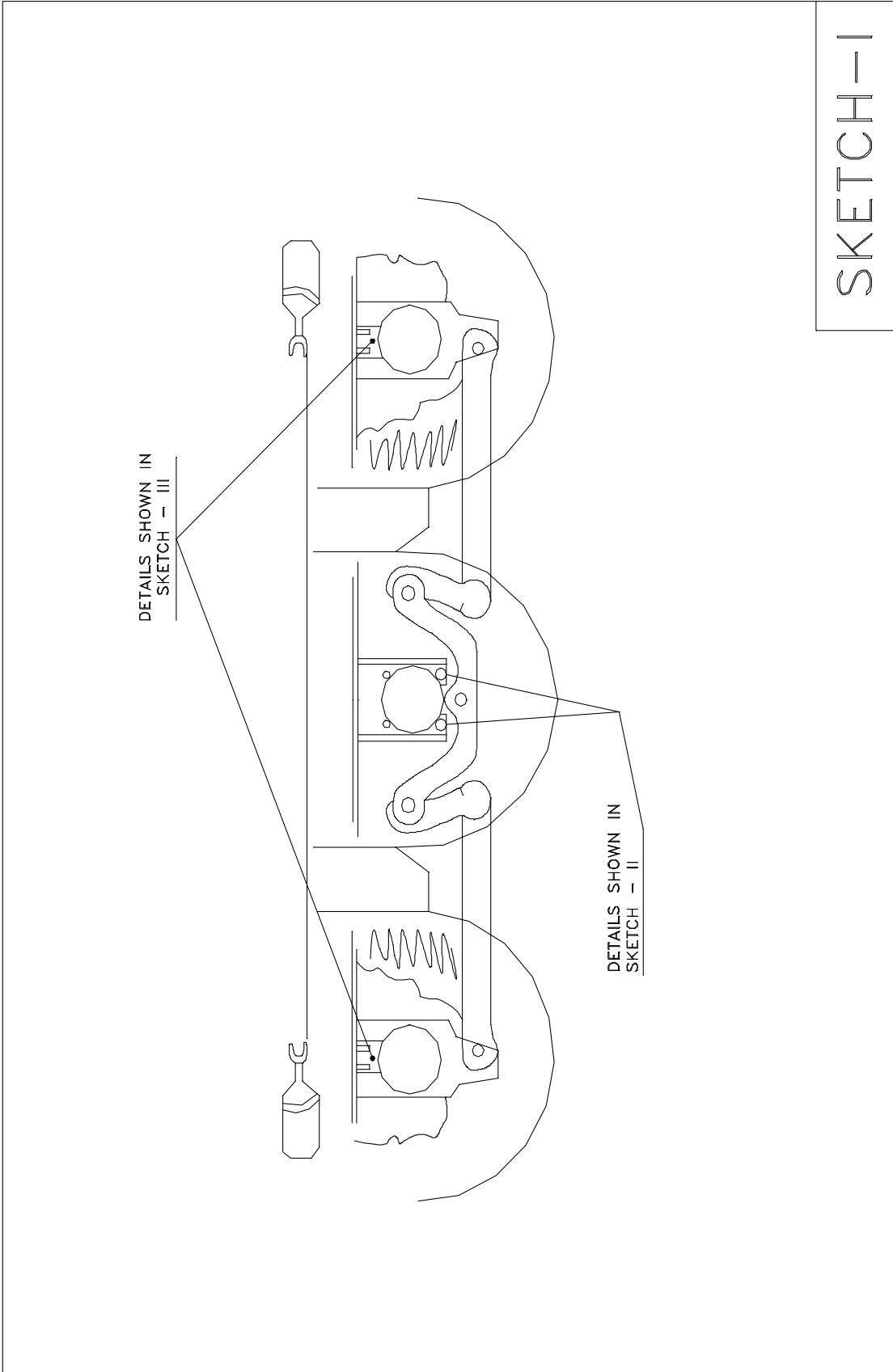
(A.K.Gupta)

For Director General/Elect.

Copy to :

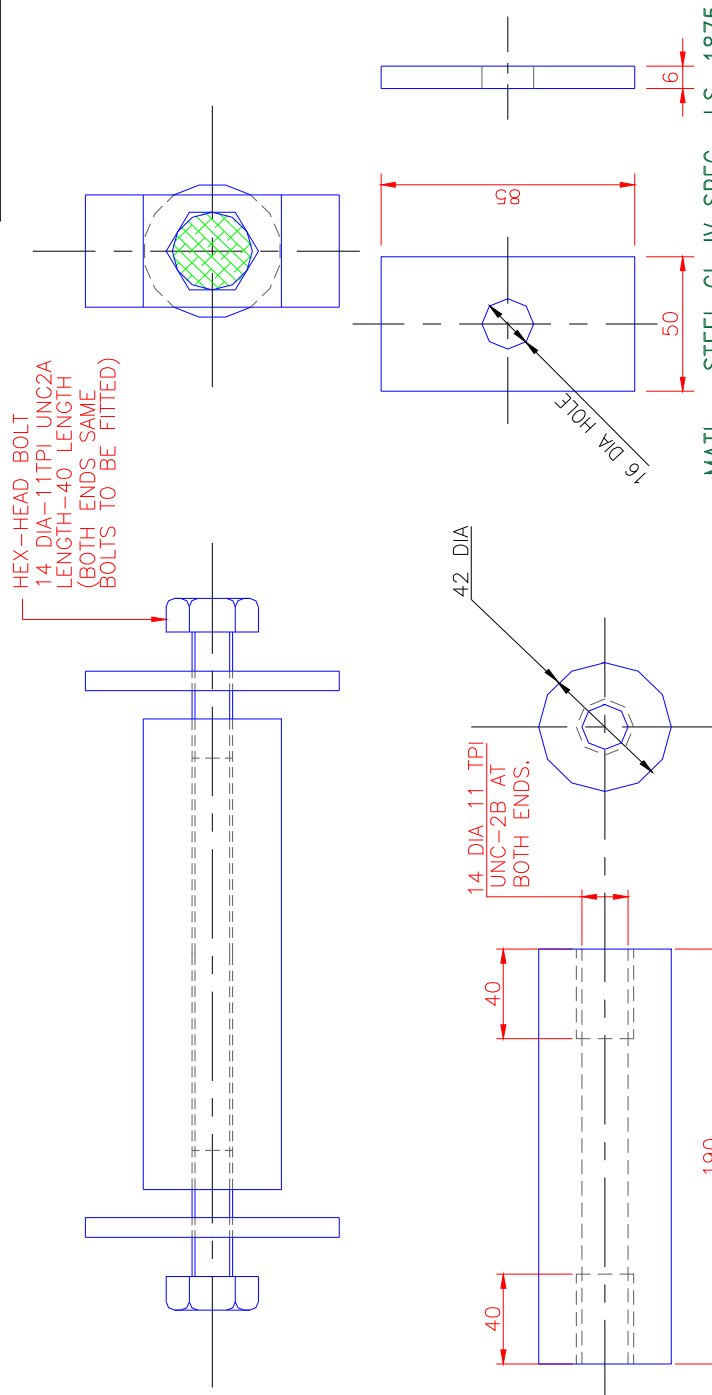
Secy. (Elect.), Railway Board, Rail Bhavan, New Delhi-110 001
GM/Chittaranjan Locomotive Works, Chittaranjan-717 331
Director, IRIEEN, Post Box No. 233, Nasik Road - 400 020

Jt.Director (Electrical),
Indian Railway Centre or Advanced Maintenance Technology
(IRCAMTECH), Gwalior (M.P.)



SKETCH-I

SKETCH - II



MATERIAL - STEEL CL-IV SPEC- I.S. 1875

REF. NO.	PART NO.	DESCRIPTION	DETAIL DRG. NO.	NO/EMU	MATL. SPEC.	IS:1875
REF. :		SCALE:		APPD. BY	(FOR DG)	

FIRST ISSUED	
SUPERSEDES	
SUPERSEDED BY	

SKETCH - II

STATUS	ALT.	REF. NO.	DESCRIPTION	APPD. BY	DATE

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लखनऊ - 226011
Government of India-Ministry of Railways
Research Designs & Standards Organisation
LUCKNOW - 226 011

No. SL/L/BD/11

Dated 20. 1.1983

The General Manager (Mech.) & (Elec.) ,

1. Central Railway, Mumbai VT-400 001
2. Eastern Railway, Fairlie Place, Calcutta-700 001
3. Northern Railway, Baroda House, New Delhi-110 001
4. Railway, Maligaon, Gauhati - 781 011
5. Southern Railway, NGO Annexe, Madras-600 003
6. South Central Railway, Rail Nilayam, Secunderabad-500 025
7. South-Eastern Railway, Garden Reach, Calcutta-700 043
8. North Eastern Railway, Gorakhpur-273 001
9. Western Railway, Churchgate, Mumbai-400 020

Sub : Maintenance instructions of locomotive side buffers.

There have been no detailed maintenance instructions for the loco side buffers and some Railways expressed difficulties in the maintenance of these buffers in the absence of M.Is. Accordingly, a detailed M.I. has been prepared by RDSO, taking into account the experience of various railways in this regard.

Details of maintenance practices with regard to dismantling/examination and repairs/assembly of buffer components are given in maintenance instructions No. MP. MI-116/82. Details of circumstances under which the attention to buffer assembly is to be given for examination and repair are also contained in the M.I. Two copies of MP.MI-116/82 are sent herewith for compliance.

- Sd -

(S.K. Sinha)

DA: Two copies of
MP.MI-116/82.

for Director General/Motive Power

Copy to :-

Sr. Divl. Mech.Engineer (DSL),

Central Railway., Itarsi - 461 111

Central Railway., New Katni -483 501

Eastern Railway., Howrah -711 101

South-Eastern Railway., Bondabunda (Orissa).

South-Eastern Railway., Waltair (AP).

Western Railway., Ratlam - 457 001

Northern Railway., Tuglakabad, New Delhi - 700 043

Western Railway., Abu Road (Rajasthan).

S.C. Railway., Guntakal (AP) .

N.F. Railway., Siliguri Jn. (WB)-734401

Divl. Mech. Engineer (DSL),,

Central Railway., Kurla, Bombay - 400 070.

Central Railway., Jhansi (UP).
Central Railway., Pune
Eastern Railway., Patratu (Bihar).
S.C. Railway., Gooty (AP).
S.C. Railway., Kazipet (AP) - 400 603
S. Railway., Erode - 638002 (TN).
Southern Railway., Golden Rock, Trichirapally (TN).
Northern Railway., Bhagat-ki-Kothi., Jodhpur.
Northern Railway., Ludhiana.
N.E. Railway., Gauhati (Assam).
S.E.Railway., Garden Reach, Calcutta-43.

The Works Manager (DSL),

Central Rly., Parel Workshops, Bombay .
Northern Railway., Charbagh Lucknow.
S.E. Rly., Golden Rock, Trichirapally (TN).
S.E. Rly., Kharagpur.

The Sr. Divl. Elec. Engr. (TRS)

C. Rly., Klyan, Bombay 421 301 .
C. Rly., Bhusaval- 435 5201.
S.E. Rly., Bhilai - 25.
S.E. Rly., Waltair - 01.
S.E. Rly., Tatanagar - 02.
E. Rly., Asansole - 01.
E. Rly., Mughalsarai - 01.
Northern Rly., Kanpur - 01.
S. C. Rly., Vijaywada - 01.
W. Rly., Vadodara - 02.
Western. Rly., Ghaziyabad -01.

The Supdt. (Mech. Workshop) / E. Rly., Jamalpur.

The Asstt. Mech. Engr. (Diesel) E. Rly., Burdwan (WB)
The General Manager (Diesel) D.L.W. Varansi.
The General Manager (Design) C.L.W. Chittaranjan.

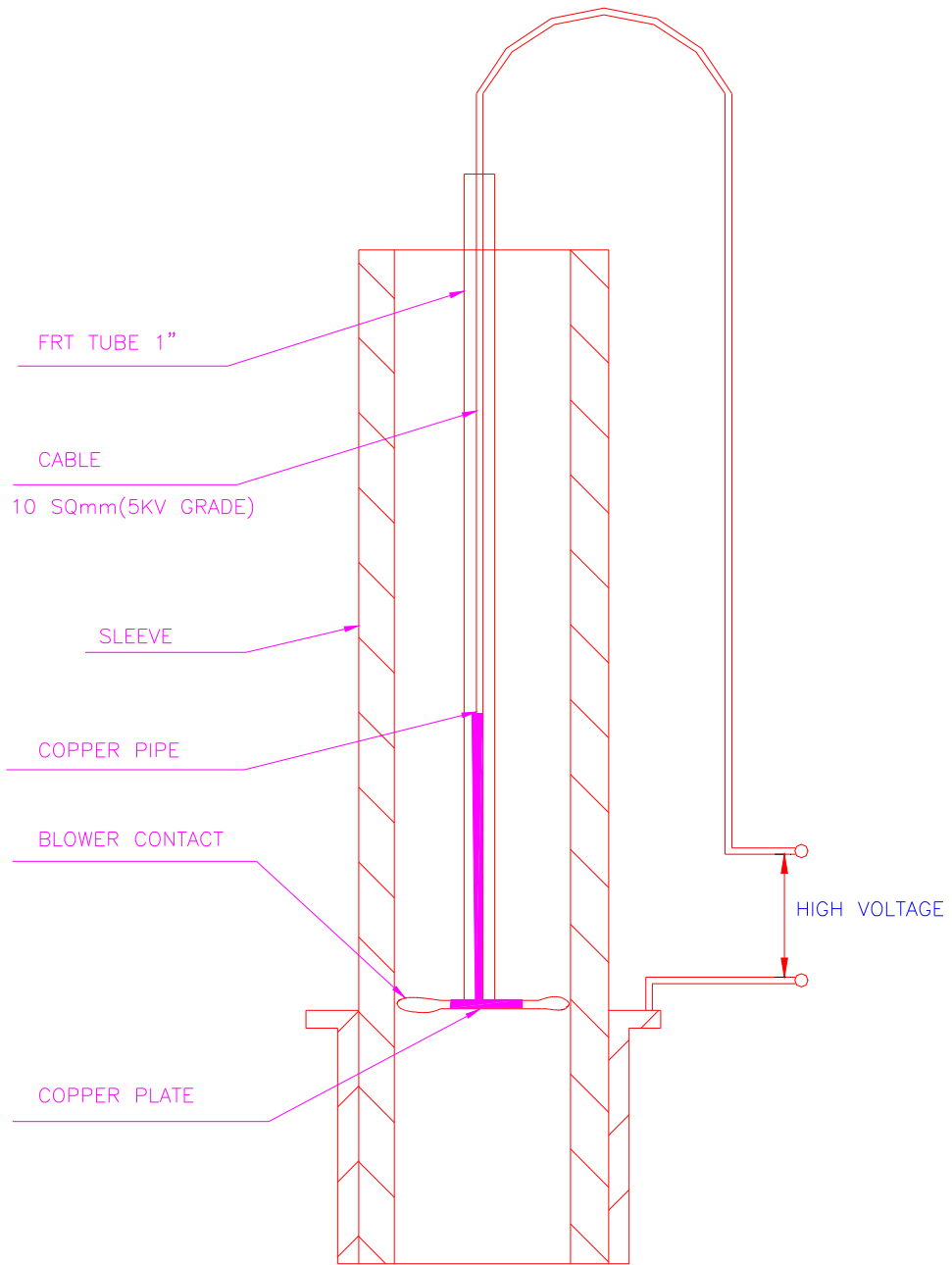
For information and necessary action. Two copies of MP MT-116/82 regarding Maintenance Instructions of locomotive side-buffer are sent herewith for compliance.

- Sd -

(S.K. Shinha)

Dt. :2 copies of MP.MT-116/82

for Director General/Motive Power



SCHEMATIC ARRANGEMENT FOR
MEASURING TAN δ VALUE OF SLEEVE

Dt.	
D	
C	
T	