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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/3.2.119 (CBC)

Dated 29/04/2016

**MODIFICATION SHEET No. RDSO/2016/EL/MS/0454 Rev.'0',**  
**Dated 29/04/2016**

**1.0 TITLE:**

Provision of Top operated handle for CBC in place of bottom operated.

**2.0 OBJECTIVE:**

To avoid damage of operating rod due to cattle run-over and to prevent detention of locomotives on account of difficulty in operation from platform side.

**3.0 BACKGROUND:**

Railways have reported damage to operating rods of CBC coupler of locomotives during cattle run-over. Problems in shunting and difficulty in operation of handle at the time of locomotives waiting at platform have also been reported by Railways from time to time. Motive Power Dte. of RDSO had issued instructions vide Modification sheet No. MP-MOD-LD-05-10-11 (REV-00) dated 18.07.2011 for Conversion of the CBC Coupler operating arrangement from bottom operated to top operated in Diesel/Electric Locomotives. This has been modified to MP-MOD-LD-05-10-11 (REV-01) dated 08.02.2016 to add details and assembly of lock lifter and hook arrangement. The same is being adapted for conventional as well as three-phase Electric locomotives. The matter has also been discussed in 37<sup>th</sup> MSG meeting and it was decided to adopt this modification for Electric locomotives.

**4.0 INVESTIGATION:**

It has been observed that in most of the cases, coupler operating rod gets bent or damaged during cattle run over and sometimes even results in breakage of levers and rotary lock lifter and it takes a lot of time to rectify this problem in sheds. Many a times, the locomotive becomes inoperable from the damaged side. The problem in operation from platform side due to downward projection of operating handle is also reported by operating personnel from time to time and needs to be addressed.

**5.0 APPLICATION TO CLASS OF LOCOMOTIVE:**

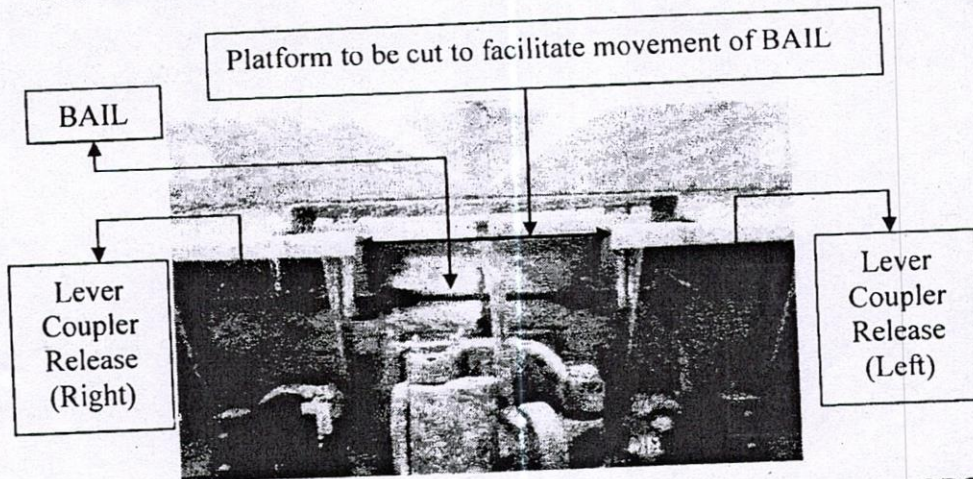
All Electric locomotives including 3-phase Electric locomotives fitted with conventional E/F type center buffer couplers.

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**6.0 MODIFICATION REQUIRED:**

Following procedure may be followed for Conversion of the CBC Coupler operating handle from bottom operated to top operated:-

- (i) Removal of existing uncoupling arrangement.
- (ii) Removal of top opening cover by grinding the tag weld on coupler head top to make way for the lock lifter.
- (iii) In stallation of top operating mechanism levers and locks lifter as per enclosed sketch.
- (iv) In 3-phase locomotives, the platform obstructs movement of the Bail and needs to be cut as shown below in Fig 1.



**Fig-1:** Photograph of Top-operated uncoupling arrangement for CBC in 3-phase Electric locomotives

**7.0 MATERIAL REQUIRED AND SOURCE OF SUPPLY:**

Railways may develop/procure the components as per enclosed sketch/drawings from suitable sources.

ITEM	DESCRIPTION	No/Loco	EMD No./Drawing No.	Part No.
1	Lever coupler release	02	10632263	
2	Lever coupler release	02	10632261	
3	BAIL	02	40057907	
4	Bracket	08	8520074	
5	Nut-1/2-13 SLFLKG	16	8032781	
6	Uncoupling Clevis	02	8024774	
7	Lock Lifter & Hook Assembly	02	SKDL-4778	

8. **ADDITIONAL INFORMATION:** NIL

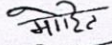
9. **AGENCY AND SCHEDULE OF IMPLEMENTATION:**  
CLW, POH Shops and Electric Loco Sheds.

*Handwritten signature*

10. **DISTRIBUTION:**  
As per enclosed mailing list.
11. **DELIVERABLES:** NIL
12. **REFERENCES:** (i) MF Dte. RDSO Modification sheet No.  
MP-MOD-LD-05-10-11 (REV-01) dated 08.02.2016  
(ii) 37<sup>th</sup> MSG meeting item no. 5.

**Enclosures:**

Sketch & Drawings of components of Modified uncoupling arrangement.

  
for Director General/Elect.

NOTE:- ITEM NO- 1, 2, 3, MAY BE MODIFIED SUITABLY AS PER REQUIREMENT.

NO.	DESCRIPTION	QTY	UNIT	REMARKS
1	LEVER COUPLER RELEASE	2	10000000	
2	LEVER EXTENSION RELEASE	2	10000000	
3	SPRING	2	10000000	
4	DRIVER	5	10000000	
5	PIVOT	2	10000000	
6	UNCLIPPING DEVICES	2	10000000	

SCALE	TOP OPERATED COUPLING IN ALCO
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NO.	DESCRIPTION	QTY	UNIT	REMARKS
1	LEVER COUPLER RELEASE	2	10000000	
2	LEVER EXTENSION RELEASE	2	10000000	
3	SPRING	2	10000000	
4	DRIVER	5	10000000	
5	PIVOT	2	10000000	
6	UNCLIPPING DEVICES	2	10000000	

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3	SPRING	2	10000000	
4	DRIVER	5	10000000	
5	PIVOT	2	10000000	
6	UNCLIPPING DEVICES	2	10000000	

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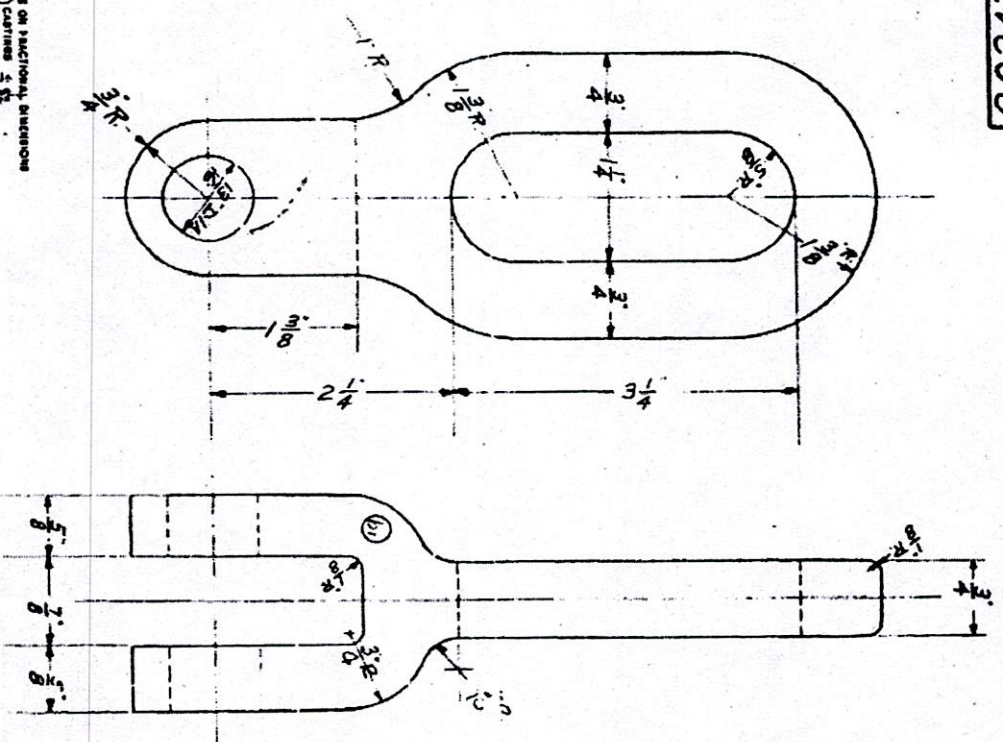
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6	UNCLIPPING DEVICES	2	10000000	

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3	SPRING	2	10000000	
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6	UNCLIPPING DEVICES	2	10000000	

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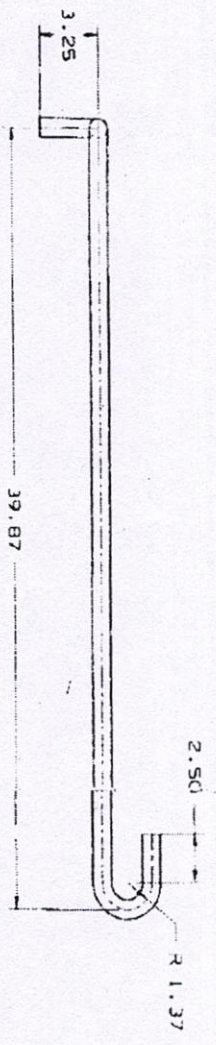
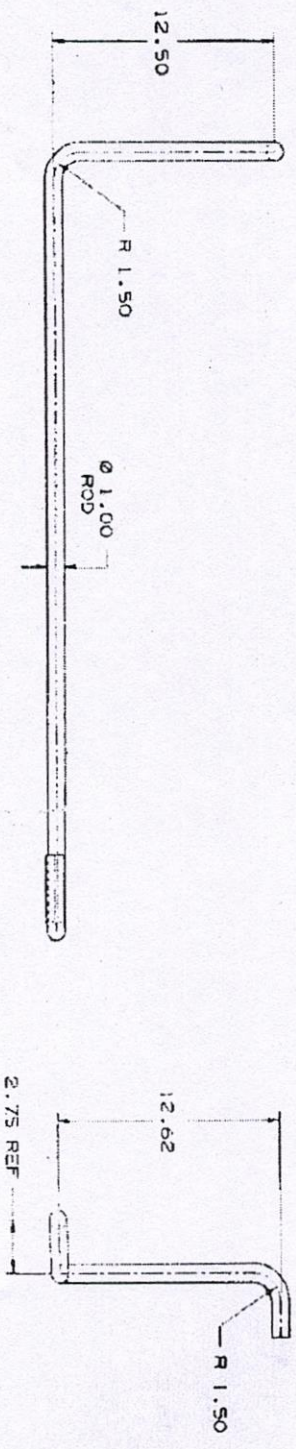
TO BE MADE ON MACHINE, PRECISION  
 CHAMFER 1/8" R  
 RACHINING 2.010

REV.	REVISION	DATE	BY	CHECKED
A	WAS 2 1/2 X 7" 800-4361	12-29-57	W. J. WILSON	W. J. WILSON
B	THICKNESS INCREASED	1-17-60	L. A. RAY	L. A. RAY
C	MAT. WAS ENL. SPEC. M. 201 GR. 8" MANUFACT.	9-20-64	E. ROBERT	E. ROBERT
D	MAT. 2" OLD D, WAS T. 005	7-2-58	W. J. WILSON	W. J. WILSON

EHS 15 CAST STEEL		1		UNCOUPLING CLEVIS
MATERIAL	PART NUMBER	DRAWING NUMBER	ITEM	NAME OF PART
ELECTRO-MOTIVE CORPORATION LA GRANGE, ILLINOIS				
UNCOUPLING CLEVIS				
FIRST USED ON 600 SWITCHER				
DR. F. HILLIS	2-8-58	APPROVED	DRAWING NO. 8024774	
TR.				
CH. H. ELL	3-15-58			
DATE OF PRINT		REVISION		

10632261

REV. NO. 1.1 DIVISION DATE BY AND



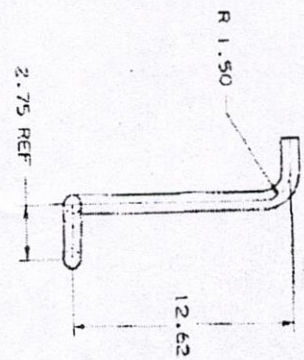
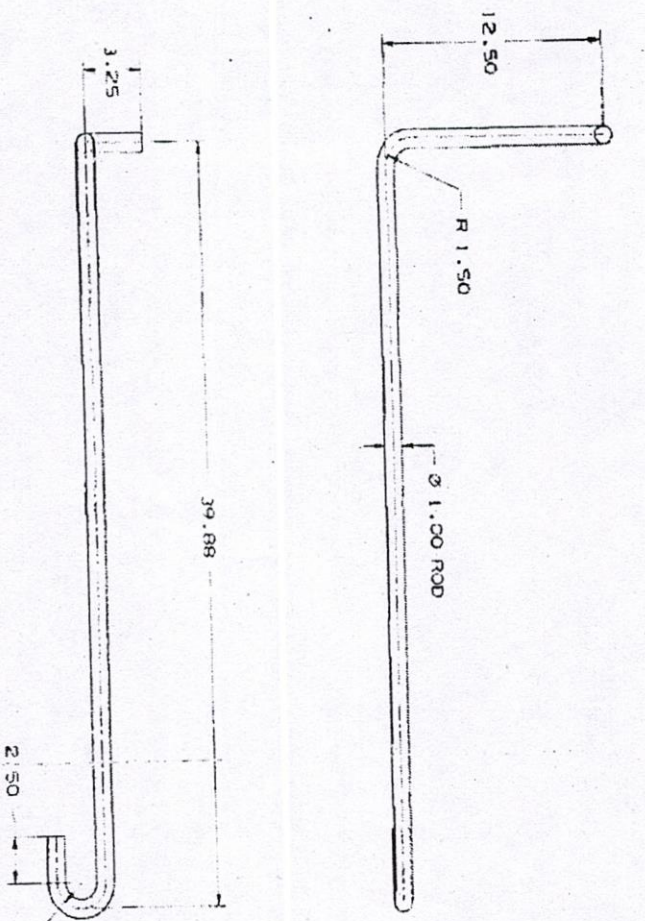
OPER HAND 10632263

THE FOLLOWING INFORMATION IS TO BE FURNISHED TO THE USER OF THIS DRAWING: 1. TITLE: LEVER-COUPLER RELEASE 2. PART OR IDENTIFYING NUMBER: 10632261 3. QUANTITY: 1000 4. DATE: 01/29/17 5. DRAWN BY: [Signature] 6. CHECKED BY: [Signature] 7. APPROVED BY: [Signature]	
MATERIAL: STEEL FINISH: [Blank]	QUANTITY: 1000 DATE: 01/29/17
APPROXIMATE WEIGHT (LBS): 13.3	SHEET 1 OF 1 10632261

PLATE

23116

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OFF HAND 10632261

APPROXIMATE WEIGHT (LBS.) 13.3		APPROXIMATE WEIGHT (LBS.) 13.3	
LEVER-COUPLER RELEASE 5372 OF 5372 10632263		SHEET 1 OF 1 US SOLID	





