

REVISION OF SPECIFICATION / STR

Ref: Current Spec. No. – RDSO/2012/CG-03, Rev. 2 - Specification for Scotch Block for use on Indian Railways BG Rolling Stocks.

1. RDSO is reviewing the specification/STR to cater to the latest technological developments in the field, modify clauses not relevant in the present context and making them more enabling with focus on functional requirements.
2. It is requested that your comments / suggestions with regard to improvements / modifications in specification / STR of this item may be submitted in the following format along with the justification for the changes required.

Part A: Basic Information

SN	Particulars	Information
1	Name	
2	Designation	
3	Professional Qualification	
4	Organization / Firm's Name	
5	Address for Correspondence	
6	Contact No.	
7	Email ID	
8	<u>In case of Firm / Individual:</u> Manufacturing experience of item (or similar Item) on which comments are offered	
9	<u>Where relevant:</u> Whether any technical document to support suggested changes is available / enclosed for better appreciation	

Part B: Comments / suggestions on the specification

SN	Clause No. of RDSO STR / Spec	Clause, as exists in RDSO STR / Spec	Clause , as it should read after incorporation of comments / suggestions in the RDSO Spec / STR	Justification for changes

Comments may be sent to:

Director/CD/Carriage
Research Designs and Standards Organization
Manak Nagar, Lucknow – 226011

Email: edcar.rdso@gmail.com Or jdircd@gmail.com

INDIAN RAILWAYS



MASTER COPY

Controlling Officer *R. Rawat*
 Signature _____
 Designation _____
19-09-2012
RDS/Carr

SPECIFICATION FOR SCOTCH BLOCK FOR USE ON INDIAN RAILWAYS BG ROLLING STOCKS

S No.	Month/Year of issue	Revision/ amendment	Page No.	Reason for amendment
1	Sept-2012	First Issue	-	-
2.	Sept-2012	Revision-1	Clause 5.3& 6.2	M&C Directorate comments
3.	Sept-2012	Revision-2	Clause 6.2	M&C Directorate comments

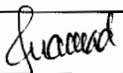
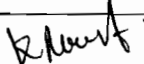
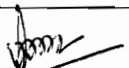
Issued by
Research Designs and Standards Organization
Ministry of Railways
Manak Nagar, Lucknow - 226011

Signature	<i>Waseem</i>	<i>K. Rawat</i>	<i>Deependra</i>
Name And Designation	Prepared By: Waseem Ahmad JE/Std./Carriage	Checked By: K. K. Rawat Dy. Director/Std./Carriage	Approved By: Deependra Kumar Director/Std./Carriage

Reference:CGW0001(Rev.4)	Page 2 of 5	Month of issue Sept-2012	STR No. RDSO/2012/CG-03 (Rev-2)
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Signature			
Name And Designation	Prepared By: Waseem Ahmad JE/Std./Carriage	Checked By: K. K. Rawat Dy. Director/Std./Carriage	Approved By: Deependra Kumar Director/Std./Carriage

SPECIFICATION FOR SCOTCH BLOCK FOR USE ON INDIAN RAILWAYS BG ROLLING STOCKS

1.0 Foreword

1.1 This specification covers the general and technical requirements of scotch block to be used in sick line, yard, loco sheds, workshops, production units and other places or as and when required by railway officials of Indian Railways to protect the BG railway line temporarily.

2.0 Scope

2.1 This specification covers general and technical requirements of scotch block to RDSO drawing No.CG– 12026.

3.0 Scope of Supply

3.1 Option-A

3.1.1 Complete assembly of scotch block to RDSO drawing No. CG– 12026.

3.2 Option-B

3.2.1 Complete assembly of scotch block to RDSO drawing No. CG– 12026 except the following items.

Item No. 8	-	Key
Item No. 9	-	Brake Block
Item No. 10	-	Split Pin
Item No. 11	-	Washer

3.2.2 If Railways procure scotch block as per option-B (clause 3.2), the item no. 8, 9, 10 & 11 of drawing No. CG – 12026 shall be indented through their respective store department separately by the indenting authority.

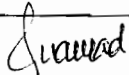
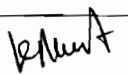
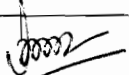
4.0 Material Requirements

4.1 The schedule of materials for scotch block is given in material specification in the RDSO drawing No.CG– 12026 (Annexure -I) of this specification.

5.0 Technical /Manufacturing Requirements

5.1 The plates/rods should be cut by cold cutting process i.e. with the help of shear/cutting machine as per schedule of material specified in the relevant drawing No CG - 12026.

5.2 All the sharp edges and corners should be rounded off and burs shall be removed before welding. Edge preparation shall be done prior to welding.

Signature			
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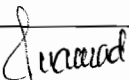
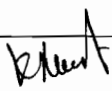

- 5.3 Continuous welding as per IS: 9595-1996 on steel plates joints shall be done with weld thickness as given in RDSO drawing No. CG - 12026 by electrode A3/B1 to RDSO specification No. IRS-M /28. (latest version and revision)
- 5.4 The key item No.8 of RDSO drawing No CG-12026 shall be manufactured as per RDSO sketch No. 94027 (Annexure-III). The material of key shall conform to IS: 3885 (Part-I), Gr-4 or IS: 3195-1975, 55 St 7, oil hardening quality. The brinnel hardness of key shall be BHN 321 – 400.
- 5.5 The brake block item No. 9 of RDSO Drawing No CG-12026 shall be supplied as per RDSO Sketch No. K0010 (Annexure-II). The brake block shall be of RDSO approved source as per latest vendor directory.
- 5.6 The mating threads of item No. 6 and item No. 7 of RDSO drawing No. CG-12026 shall be of same standards.

6. Inspection and Testing

- 6.1 The dimensions shall be checked as given in the drawings. For the linear dimensions on which no tolerances have been indicated shall be taken as per IS: 2102 Part-I.
- 6.2 The welding of the scotch block plate shall be checked by Dye Penetrant (DP) test conforming to IS: 3658. The weld shall be free from pin holes, blow holes and cracks of any size and shape. In case pin holes, blow holes and cracks are found during DP test the same shall be removed by grinding of defective weld and examined by DP test in order to confirm that defect has been removed fully. Then weld is rectified as per clause 32.2 of IS: 9595-1996 followed by DP test to ensure that rectified weld is free from any defect. The material of Dye Penetrant (DP) shall conform to IS: 12889. The welding joints shall be continuous and throat thickness of weld shall be as per RDSO drawing No CG - 12026.
- 6.3 The threads of item No. 6 and 7 of RDSO drawing No. CG- 12026 shall be checked for free movement in full stroke. Threads shall be checked for any physical damage also.
- 6.4 In case of scope of supply as mentioned in option-B (clause 3.2), the complete scotch block assembly shall be checked for fitment of item no 8, 9, 10 & 11 of drawing No. CG – 12026 also.

7 Painting

- 7.1 Before fitment of brake block, the scotch block assembly shall be painted as laid down in RDSO drawing NO. CG- 12026.

Signature			
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8 Marking

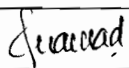
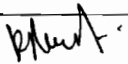

- 8.1 On one side plate (item 1 of drawing No CG - 12026) of scotch block shall be legibly marked by 10 mm height letter by punching/ engraving to indicate the followings:
- Name /code of the manufacturer
 - Month and year with batch No. of manufacture.

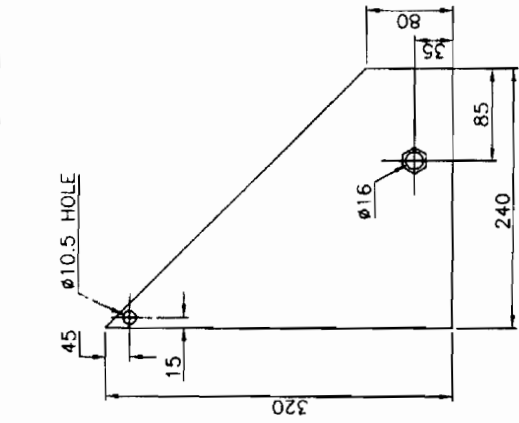
9 PACKING

- 9.1 The supplier/vendor shall ensure proper and adequate packing of scotch block before dispatch to prevent damage in transporting, handling and storage.
- 9.2 Before packing unpainted surface like threads shall be greased.

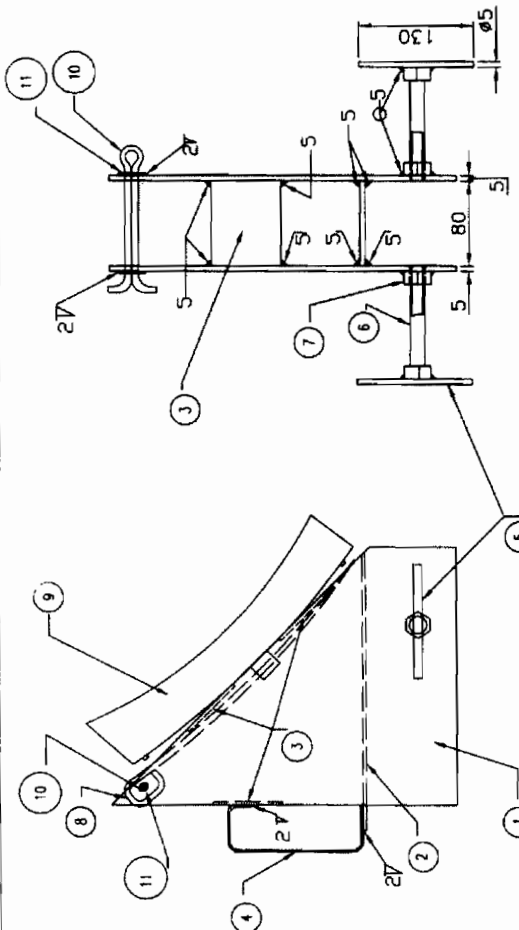
10 Warranty

- 10.1 The warranty period for scotch block excluding brake block shall be 36 months from the date of receipt of supply against defective manufacturing, material or workmanship.

Signature			
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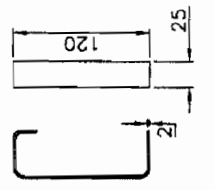
ITEM-1



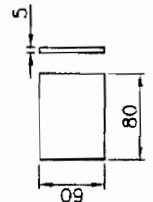
ITEM	DESCRIPTION & DIMENSION	No. OFF	REF	DWG	WT OF ONE UNIT	SPEC. REMARKS
11	WASHER #10.50621X2	2				IS:2016
10	SPLIT PIN #10X150	1				
9	BRAKE BLOCK	1	SK-K0010			
8	KEY	1	SK-94027			
7	HEXAGONAL HEAD NUT M16	2				IS:1364
6	HEXAGONAL HEAD BOLT M16X95	2				IS:1364
5	ROD #5X130	2				IS 2062:2011 E 250 BR
4	HANDLE	1				IS 2062:2011 E 250 BR
3	CONNECTING PLAT 80X60X5	3				IS 2062:2011 E 250 BR
2	MIDDLE PLATE 255X80X5	1				IS 2062:2011 E 250 BR
1	SIDE PLATE	2				IS 2062:2011 E 250 BR

ASSEMBLY DRAWG SUPERSEDED BY : INDIAN RAILWAY STANDARDS

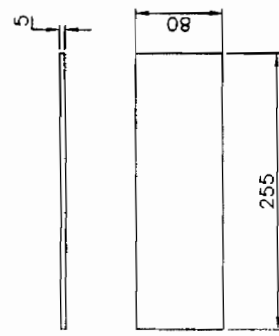
SCALE	1:4
J.S.	STD/17/12
R.D.S.O.	[CG]
BG	CG-12026



ITEM-4



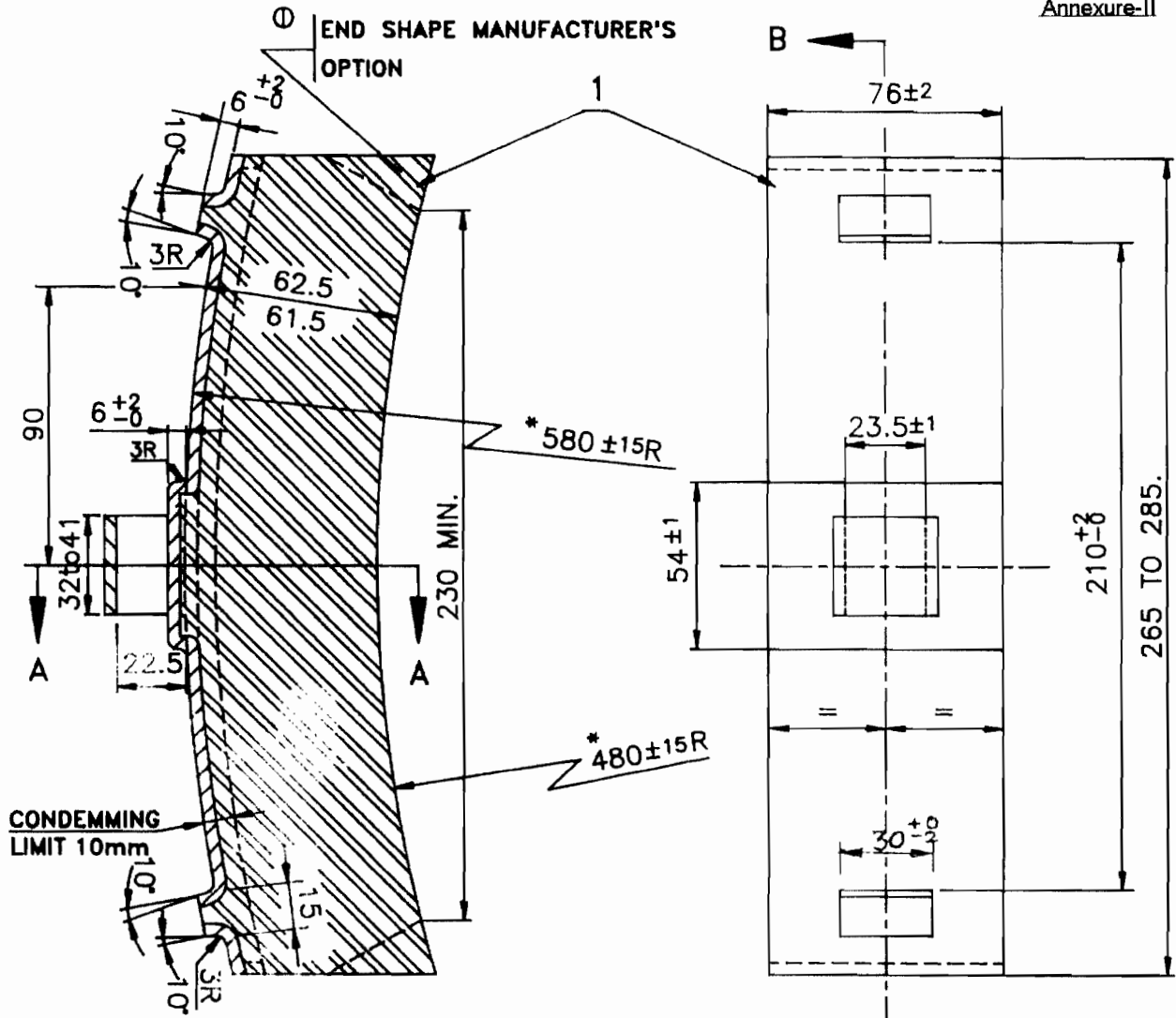
ITEM-3



ITEM-2

NOTE:-
 1. ALL THE SHARP CORNERS AND EDGES TO BE ROUNDED OFF AND BURRS TO BE REMOVED.
 2. ALL ASSEMBLY BEFORE BRAKE BLOCK FITTINGS OF THE SCOTCH BLOCK SHOULD BE PAINTED WITH TWO COATS OF PRIMER TO IS:2074 TO A MINIMUM DRY FILM THICKNESS (DFT) 50 MICRONS FOLLOWED BY ONE COAT OF SIGNAL RED SHADE No. 537.
 3. CONTINUOUS WELDING SHALL BE DONE BY A3/B1 ELECTRODES TO SPECIFICATION IRSM-28 2002 (LATEST AMENDMENT)

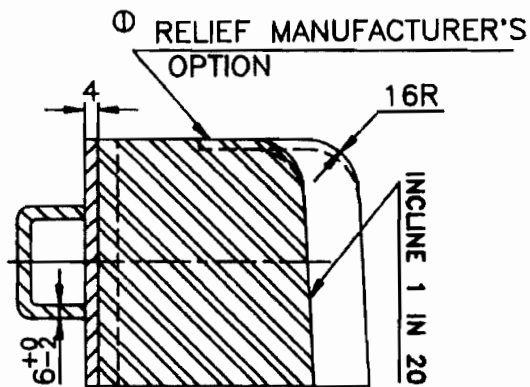
1,2,3	STD/22/12	IS 2062:2006	CHANGED TO		
4&5		IS 2062:2011			
ALT. ITEM	AUTH.	DESCRIPTION	CKD.	DATE	



SECTION-BB

NOTE:-

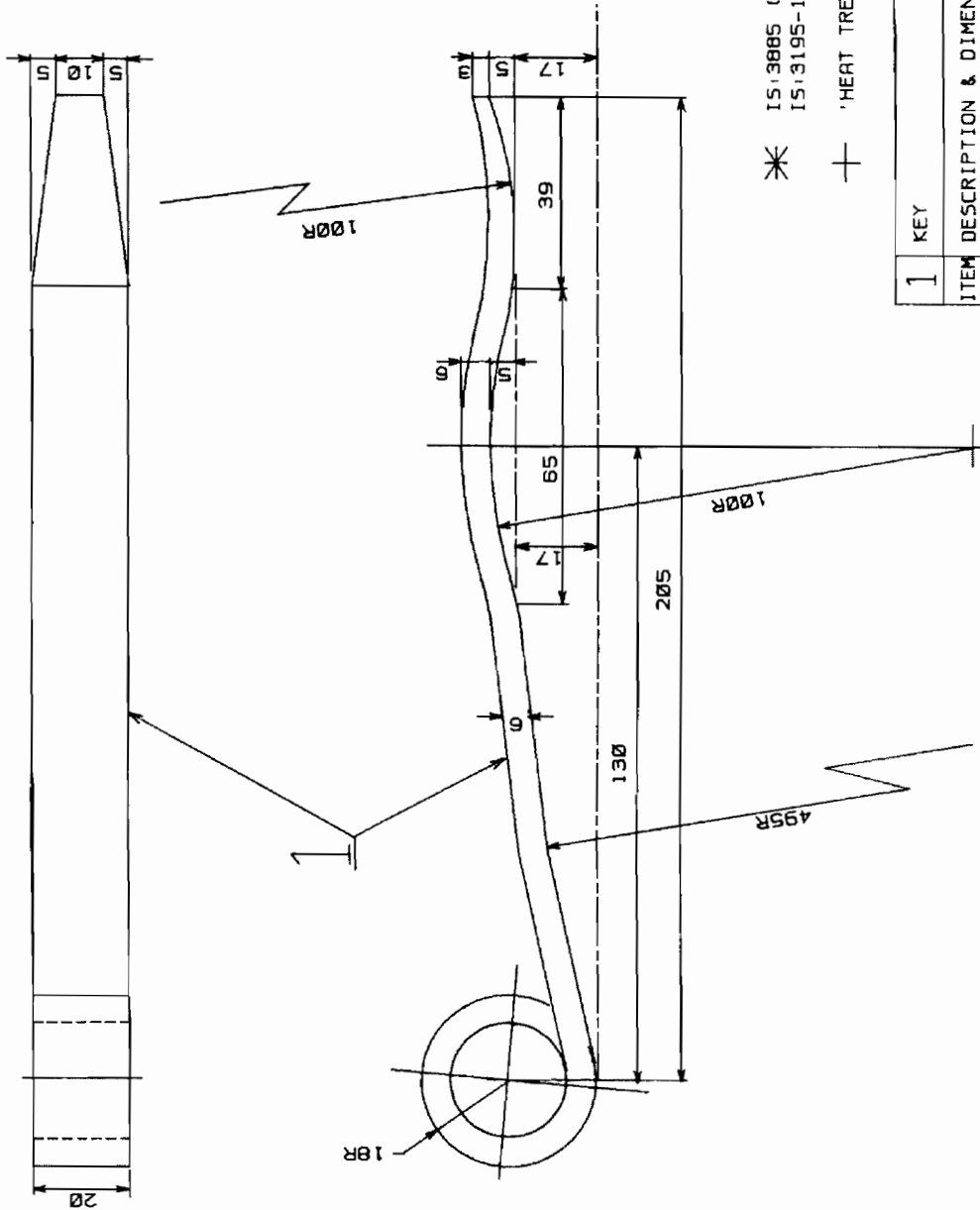
- 1 THE CENTRE'S OF RADII MARKED THUS * SHALL LIE APPROX. 62^{+0}_{-2} mm APART ON THE HORIZONTAL CENTRE LINE OF THE BRAKE BLOCK
- 2 UNDEFINED TOLERANCES ± 1 mm
- 3 RDSO'S APPROVAL REQUIRED FOR NOTES MARKED THUS $\text{\textcircled{D}}$



SECTION-AA

1	K-TYPE COMPOSITION BRAKE BLOCK	8		C-K007	
ITEM DESCRIPTION & DIMENSIONS	No. OFF PER BOGIE	REF. DRG.	WT. OF ONE kg		REMARKS
SUPERSEDED BY:		INDIAN RAILWAY STANDARDS			
ASSEMBLY DRAWINGS REFERENCE:-		MAIN LINE COACHING STOCK			
SCALE P		K -TYPE COMPOSITION BRAKE BLOCK			
C		D			
Y		U.S. 5/20			
FLOPPY No.: OD/MV-1		B.G.	R.D.S.O (C)	GROUP	SKETCH-K0010

ALT. ITEM	AUTHY.	DESCRIPTION	DATE
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* IS:3885 (PART-1)1971, GR.-4 OR
IS:3195-1975, 55 St 7, OIL HARDENING QUALITY.

+ 'HEAT TREATED' BRINELL HARDNESS BHN 321-400

1	KEY				*	+
ITEM DESCRIPTION & DIMENSION		NO. OF PARTS	REF. DRG.	NO. OF PAGE	MAT. SPEC.	REMARKS
SUPERSEDED BY:-						
SUPERSEDES:-						
SCALE	P					
1:1	D	SUSHIL				
	T					
	J.S.					

REFERENCE:-	
CHECK SHEET NO.	B.G.

ALT. ITEM AUTHY.	DESCRIPTION	DATE

KEY
FOR BRAKE SHOE

R.D.S.O GROUP
(C)

SKETCH - 94027