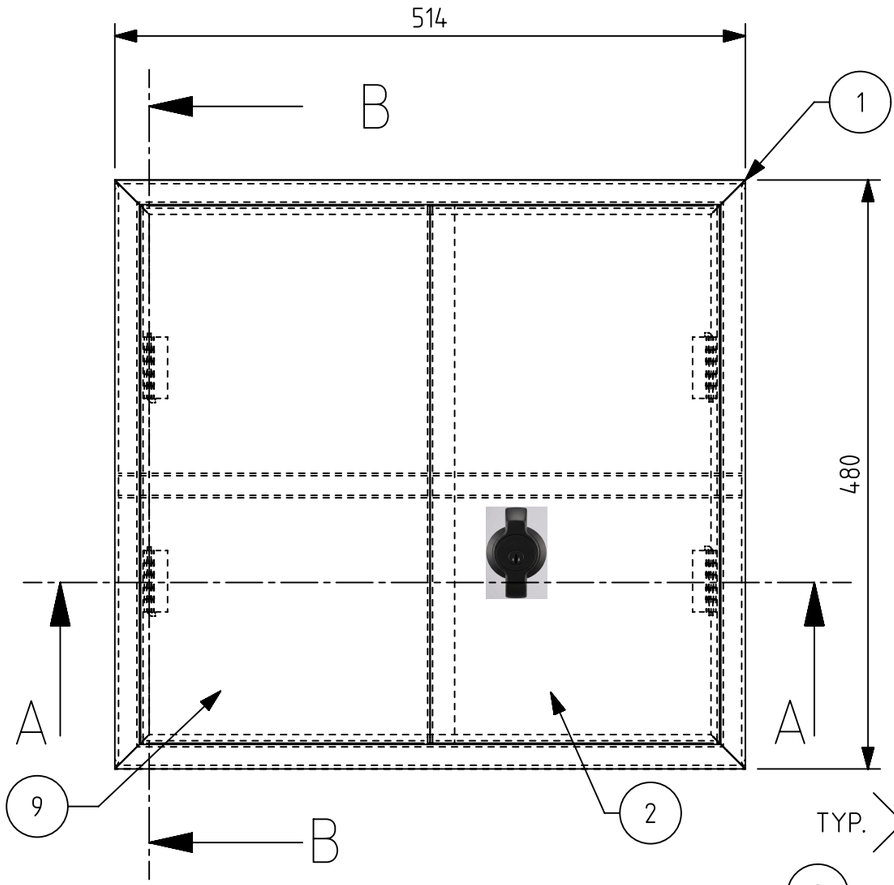
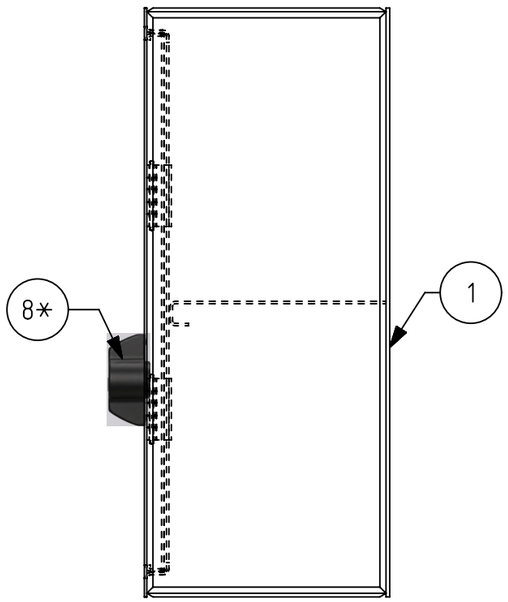
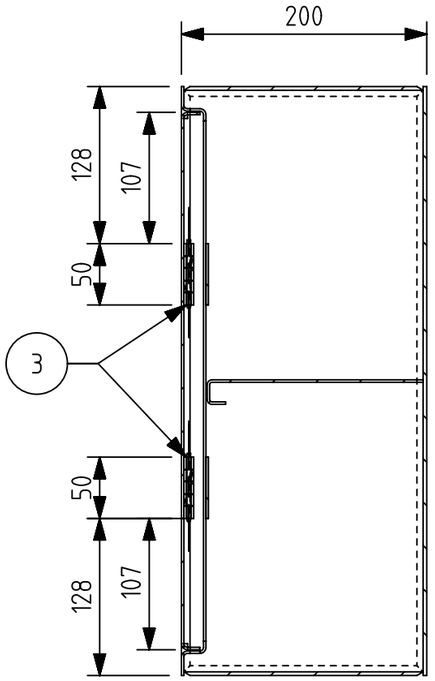
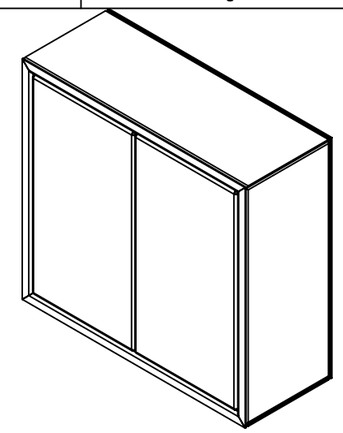
SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES





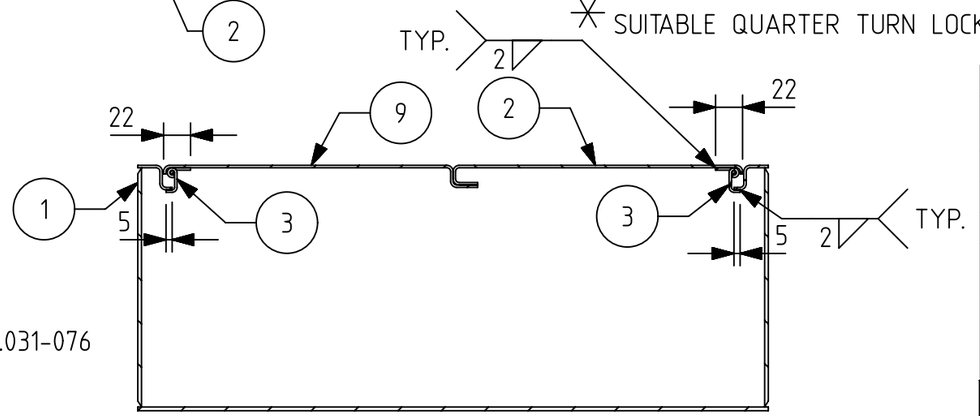


SECTION B-B



NOTE:
1) COLOUR INSIDE BOX AND DOOR TO BE DONE BY PU PAINTS- PEBBLE GRAY- RAL 7032 & OUTSIDE BOX STONE GREY RAL-7030 AFTER TWO COATS OF PRIMER. DFT 150 MICRON

✳ SUITABLE QUARTER TURN LOCK WITH INBUILT HANDLE TO BE PROVIDED.



SECTION A-A
SCALE 1:5

1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-1209-08.031-076
3. C&D NO-T306/489
4. QTY./LOCO-01 NO.
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

REF. NO.	C&D NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN	WT. EACH IN K.G.
निर्देश संख्या	लागत एवं वितरण संख्या	अंग आरेखण संख्या	वर्णन	मात्रा	पदार्थ	विशिष्टि	प्रति भार कि. ग्रा.
9	/	1209-08.431-373	DOOR SHEET LH	1	STEEL	IRS: M-41 Gr.I HR	1.88
8	/		QUARTER TURN LOCK ASSLY.	1			
3	/	1209-08.431-375	HINGE ASSEMBLY	4			
2	/	1209-08.431-352	DOOR SHEET R.H	1	STEEL	IRS:M-41 Gr.I HR	1.88
1	/	1209-08.331-291	BOX ASSLY FOR TOOL	1			12.50

धातु–वेल्डन चिन्ह	अनिर्दिष्ट सद्य – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768												TOL. CLS.	
भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12	
सतह – रुक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250	
	Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50	
	चिन्ह SYMBOL													

परिवर्तन संख्या ALT. NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित आधार DATED INITIAL
2	DY.CEE/D-III	REF. NO. 4,5,6,10 &11 DELETED AND REF. NO. 8 DRG. NO. CHANGED. NOTE-2 & 3 DELETED.	
1	DY.CEE/D-III	REF. NO. 7 DELETED AND REF.NO. 8,9,10 & 11 ADDED. DESCRIPTION CHANGED OF REF.2.	

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:1
संदर्भ / REF. ALT.-	

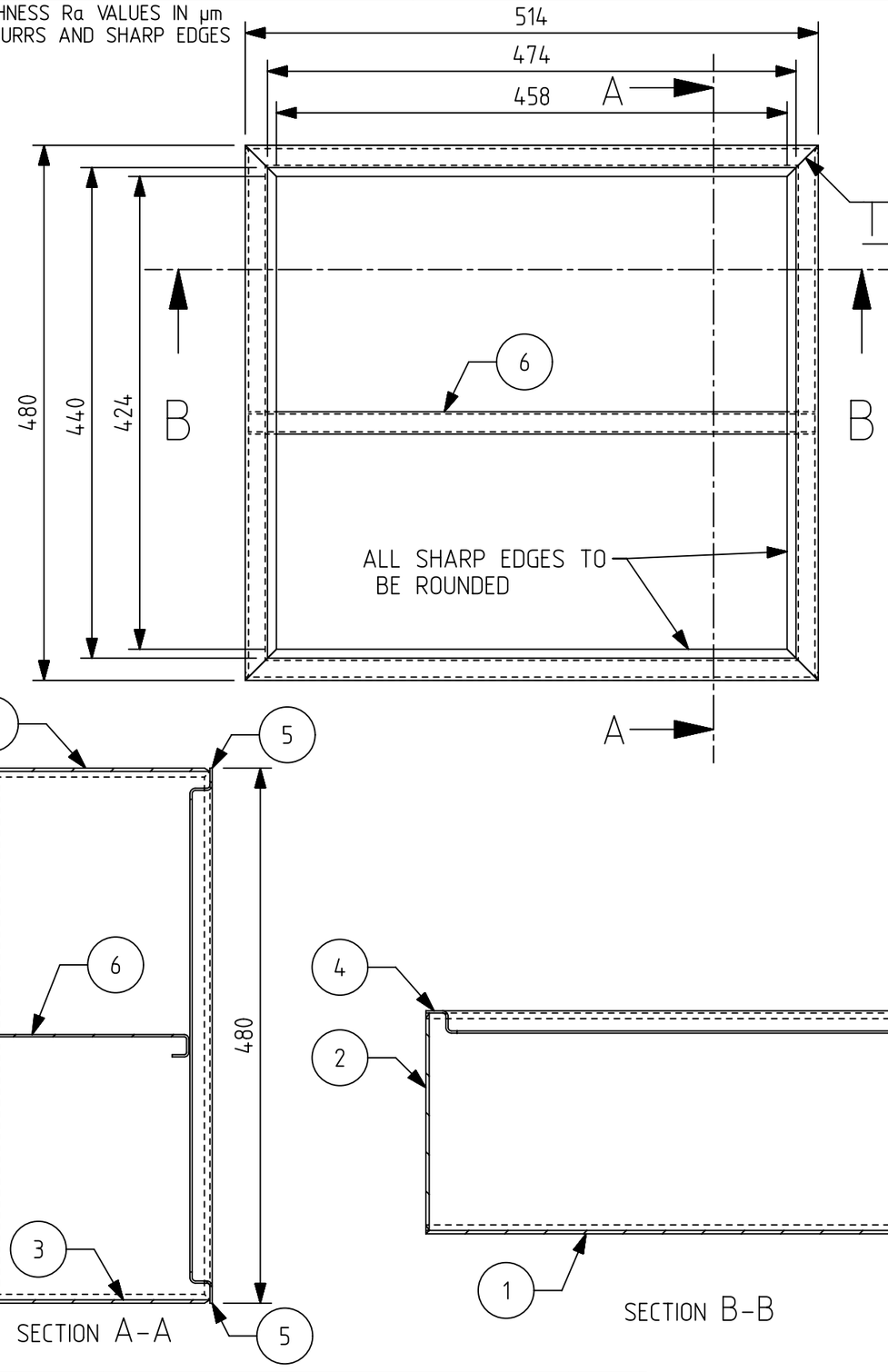
चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

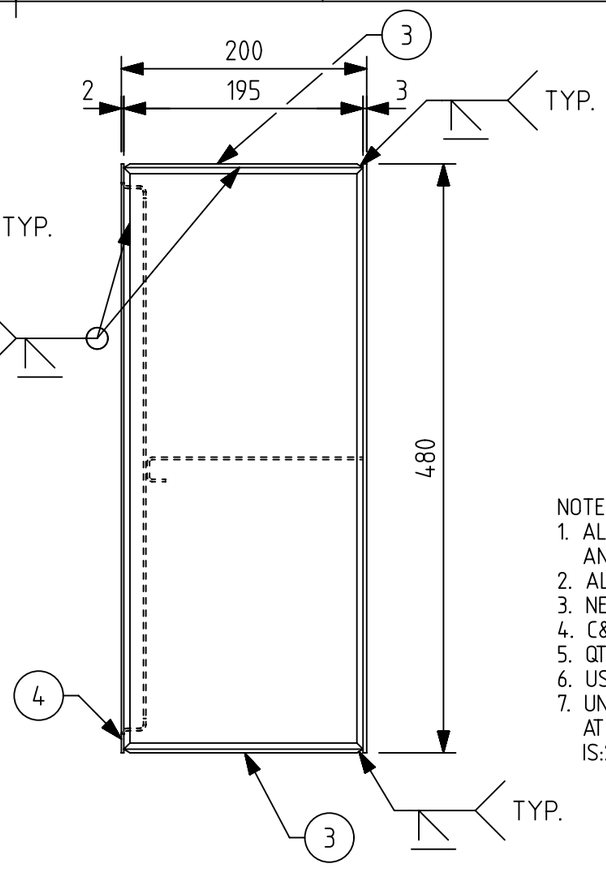
पदार्थ MATL	प्रति भार कि. ग्रा. WT. EACH IN KG 17.02
विशिष्टि SPECN	
वर्णन DESCRIPTION	TOOL BOX ASSEMBLY FOR 3 PH. ELECTRIC LOCOMOTIVES
आरेखण संख्या DRAWING NO.	1209-08.331-351
परिवर्तन संख्या ALTERATION NO. 1	पृष्ठ SHEET 1 OF 1 A3

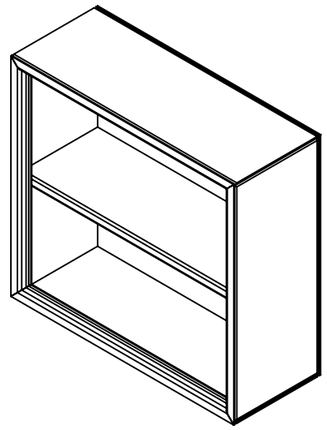
This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

1209-08.331-291

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES







NOTE:
1. ALL SURFACE AND WELD SURFACE SHOULD BE FLAT AND CLEAN. WELDING TO BE AS PER IS-812,814 & IS 822
2. ALL DIMENSIONS ARE IN mm
3. NEXT ASSLY. DRG. NO-1209-08.331-351
4. C&D NO-/
5. QTY./LOCO-01 NOS.
6. USED FOR LOCO: WAG-9HC,WAP-7
7. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

SECTION A-A

SECTION B-B

6	/	1209-08.431-379	RACK SHEET	1			
5	/	1209-08.431-296	Z-BRACKET HORIZONTAL	2		IRS:M41-Gr.I	0.14
4	/	1209-08.431-295	Z-BRACKET VERTICAL	2	STEEL	IRS:M41-Gr.I	0.25
3	/	1209-08.431-294	SHEET	2	STEEL	IRS:M41-Gr.I	1.78
2	/	1209-08.431-293	SIDE COVER	2	STEEL	IRS:M41-Gr.I	1.95
1	/	1209-08.431-292	BACK COVER	1	STEEL	IRS:M41-Gr.I	4.23
निर्देश संख्या REF. NO.	लागत एवं वितरण संख्या C&D NO.	अंग आरेखण संख्या PART DRG. NO.	वर्णन DESCRIPTION	मात्रा QTY.	पदार्थ MATL	विशिष्टि SPECN	प्रति भार कि. ग्रा. WT. EACH IN K.G.

धातु–वेल्डन चिन्ह
भा. मा. : 813 / अ. मा. सं. :2553
WELDING SYMBOLS TO IS:813 / ISO:2553

सतह – रुक्षता का मान
भा. मा. 3073 / अ. मा. सं. 1302
SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302

अनिर्दिष्ट सद्य – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768
UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	TOL. CLS. सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

परिवर्तन संख्या ALT. NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित आद्याक्षर DATED INITIAL
1	DY.CEE/D-III	DESIGN MODIFIED. ITEM NO. 6 ADDED AND REF. NO. 4 & 5 MODIFIED.	

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:5
संदर्भ / REF.	ALT.-

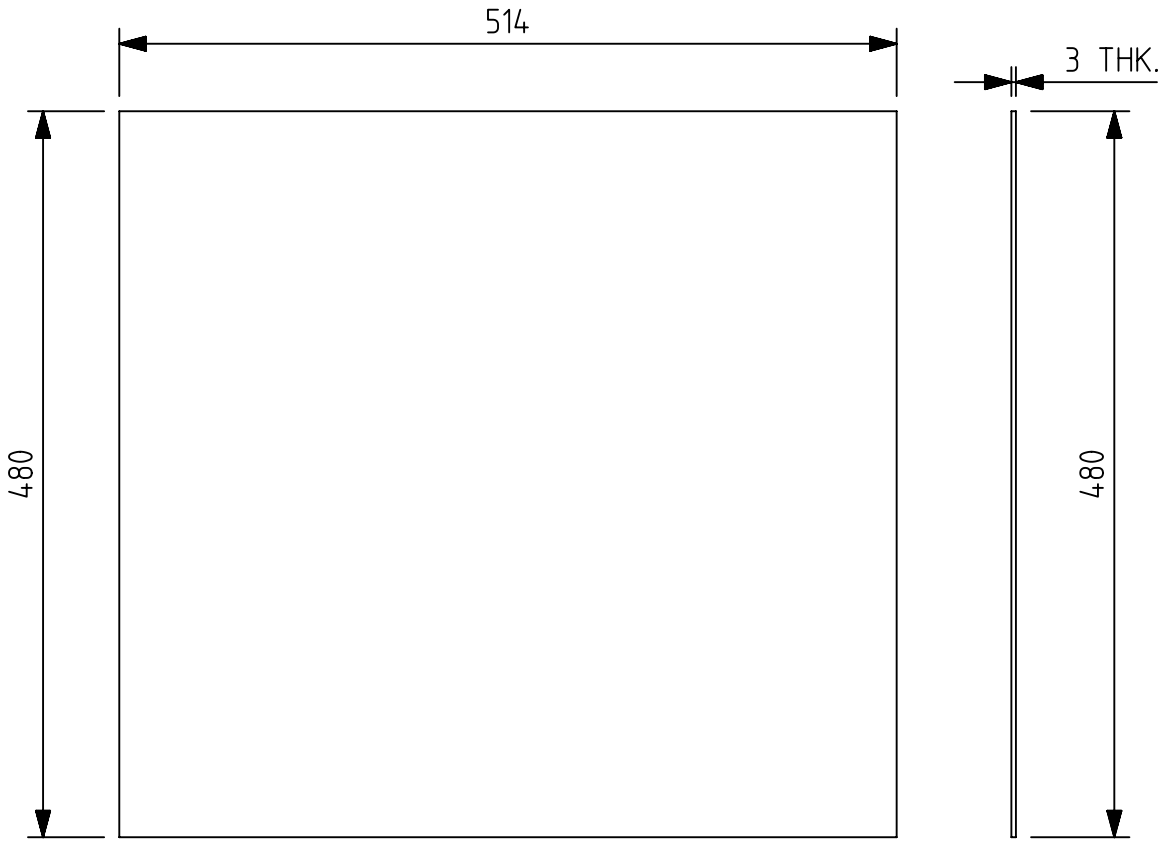
चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ MATL	प्रति भार कि. ग्रा. WT. EACH IN KG 12.5
विशिष्टि SPECN	
वर्णन DESCRIPTION	BOX ASSLY FOR TOOL
आरेखण संख्या DRAWING NO.	1209-08.331-291
परिवर्तन संख्या ALTERATION NO. 1	पर्ण SHEET 1 OF 1 — A3

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-1209-08.331-291
3. C&D NO-/
4. QTY./LOCO-01 NOS.
5. USED FOR LOCO: WAP-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

1	DY.CEE/D-III	SHEET SIZE MODIFIED.	
परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:5
संदर्भ / REF.	ALT.-

चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

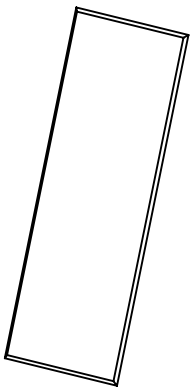
पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	4.23
विशिष्टि SPECN	IRS:M41-Gr.I HR.		
वर्णन DESCRIPTION	BACK COVER		
आरेखण संख्या DRAWING NO.	1209-08.431-292		
परिवर्तन संख्या ALTERATION. NO.	1	पर्ण SHEET 1 OF 1	A4

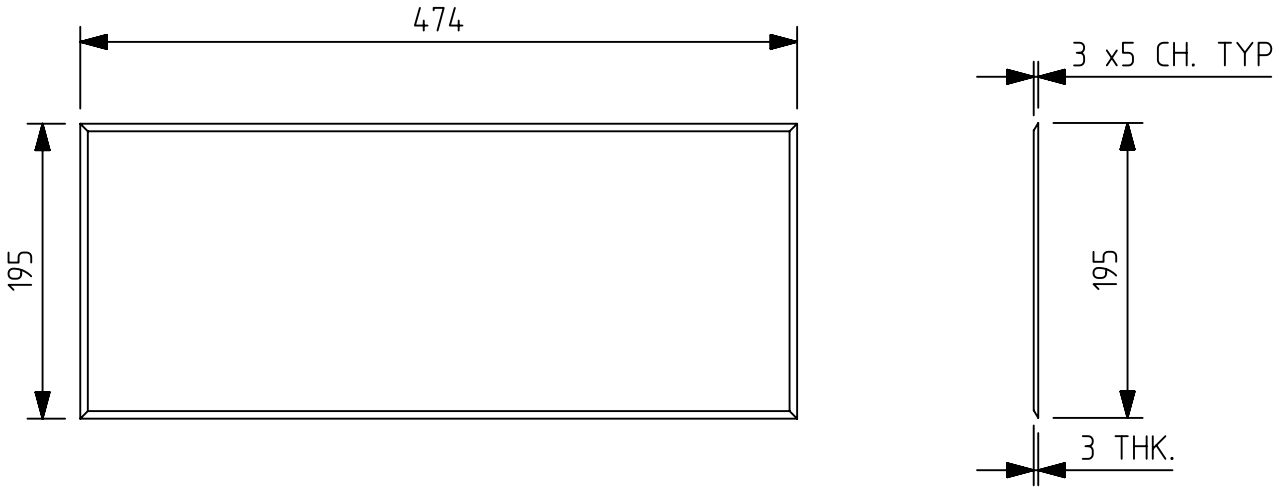
This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE

1209-08.431-293

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES





1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-1209-08.331-291
3. C&D NO-/
4. QTY./LOCO-02 NOS.
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित पावाफ DATED INITIAL
1	DY.CEE/ID-III	SHEET SIZE MODIFIED.	

सतह – रुक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु-वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

ग्रेडांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अभिकल्पित DGN	.
जाँचा व.अ.अ. CHD SSE	.
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	.
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	.
दिनांक DATE	.
रैखिक अनुपात SCALE	1:5
संदर्भ / REF.	. ALT.-

चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

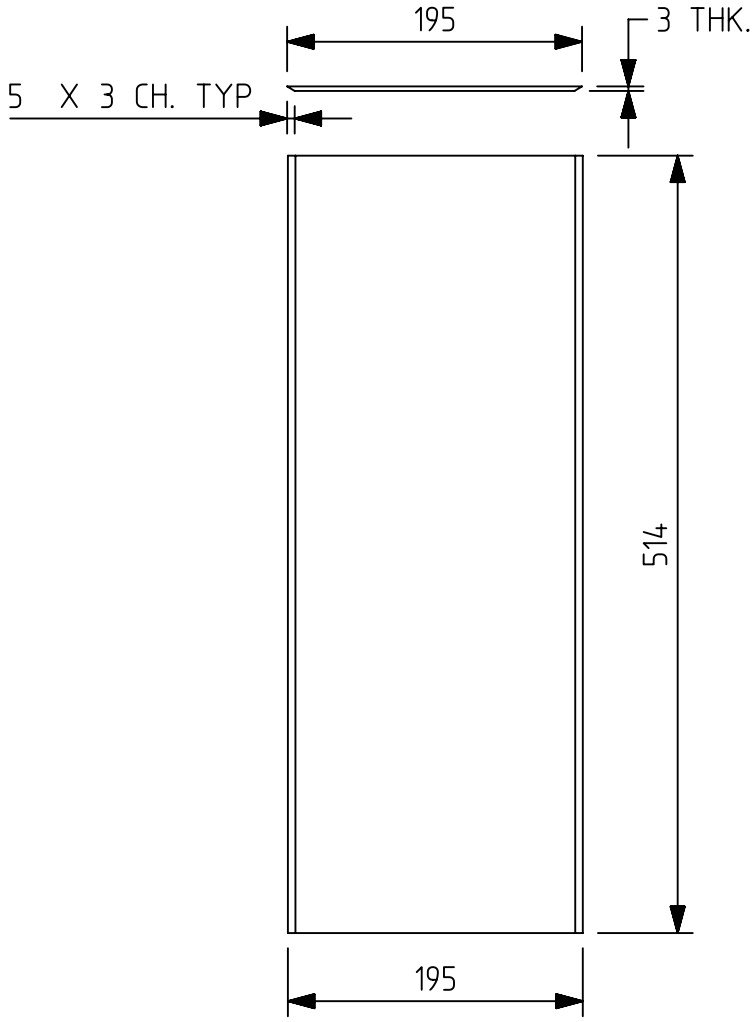
पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	1.95
विशिष्टि SPECN	IRS:M41-Gr.I HR		
वर्णन DESCRIPTION	SIDE COVER		
आरेखण संख्या DRAWING NO.	1209-08.431-293		

परिवर्तन संख्या ALTERATION. NO. 1 | पर्ण SHEET 1 OF 1 | A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-1209-08.331-291
3. C&D NO-/
4. QTY./LOCO-02 NOS.
5. USED FOR LOCO WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

1	DY.CEE/D-III	SHEET SIZE MODIFIED.	
परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह्य – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:5
संदर्भ / REF.	ALT.-

चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

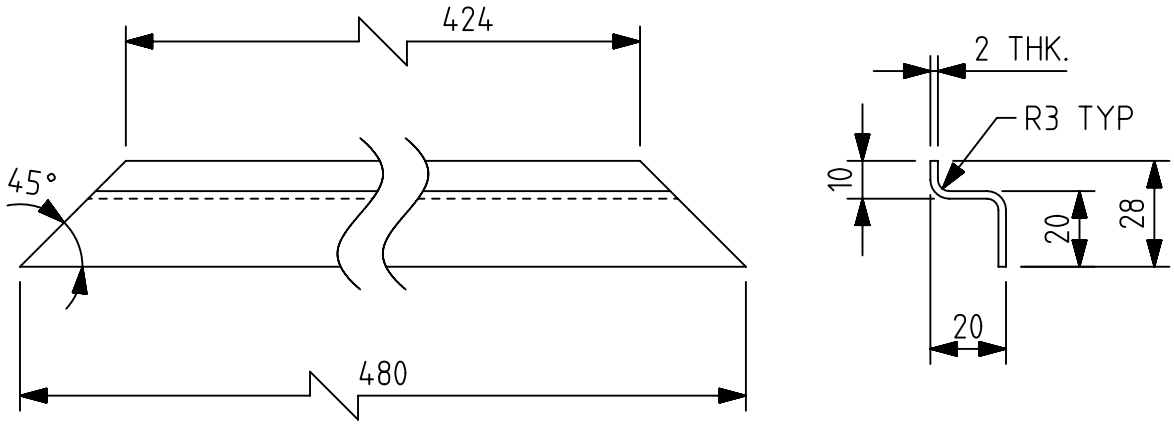
पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	1.78
विशिष्टि SPECN	IRS:M41-Gr.I HR.		
वर्णन DESCRIPTION	SHEET		
आरेखण संख्या DRAWING NO.	1209-08.431-294		
परिवर्तन संख्या ALTERATION. NO.	1	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE

1209-08.431-295

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-1209-08.331-291
3. C&D NO-/
4. QTY./LOCO-02 NOS.
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

ALT.NO.	AUTHY	DESCRIPTION	DATED INITIAL
1	DY.CEE/D-III	DESIGN MODIFIED.	

सतह – खाता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु-वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

ग्रेडांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.0	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:2
संदर्भ / REF. ALT.-	

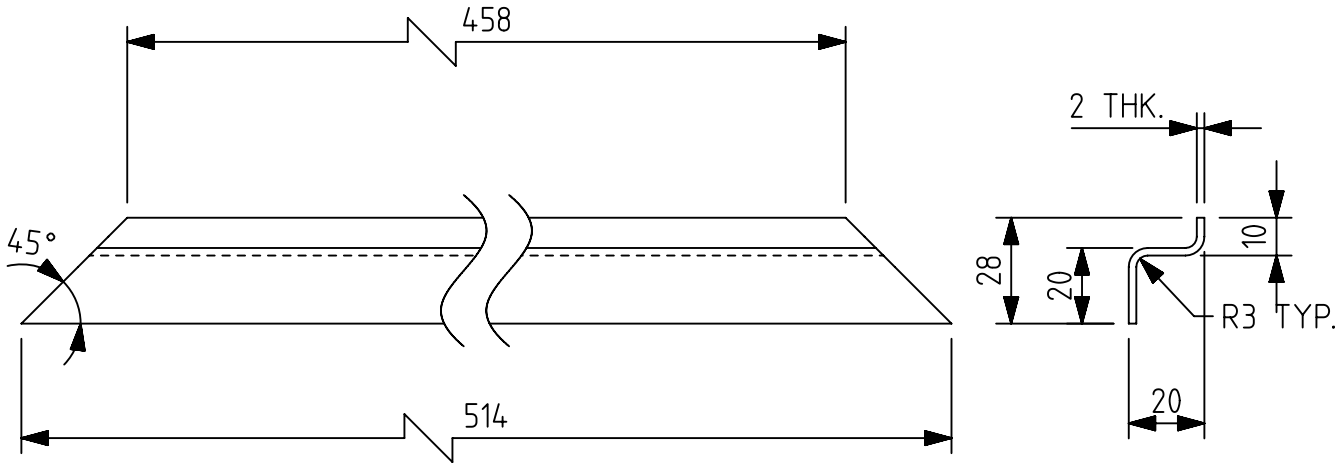
चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	0.25
विशिष्टि SPECN	IRS:M41-Gr.I HR.		
वर्णन DESCRIPTION	Z-BRACKET VERTICAL		
आरेखण संख्या DRAWING NO.	1209-08.431-295		
परिवर्तन संख्या ALTERATION. NO.	1	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-1209-08.331-291
3. C&D NO-/
4. QTY./LOCO-02 NOS.
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL
1	DY.CEE/D-III	DESIGN MODIFIED.	

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:2
संदर्भ / REF. ALT.-	

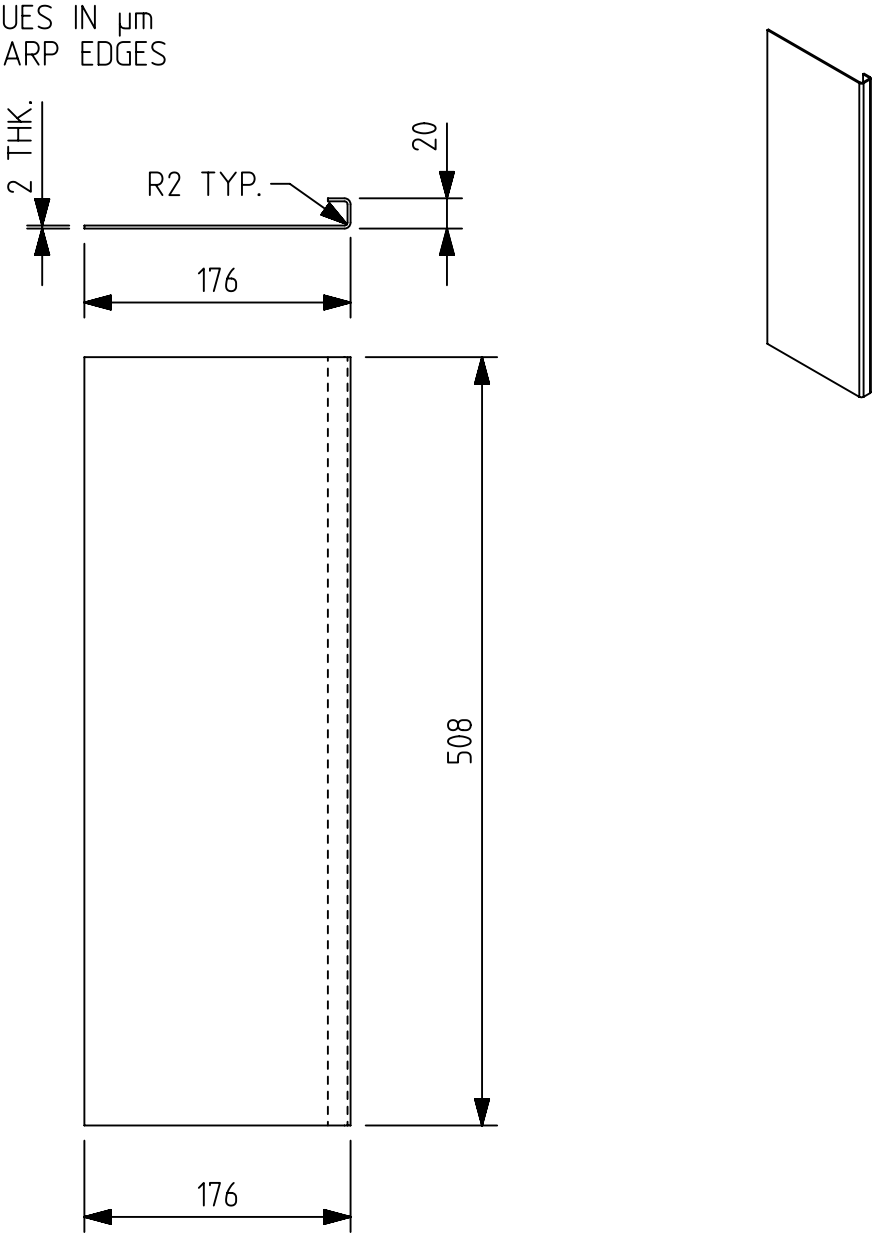
चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	0.14
विशिष्टि SPECN	IRS:M41-Gr.I HR.		
वर्णन DESCRIPTION	Z-BRACKET HORIZONTAL		
आरेखण संख्या DRAWING NO.	1209-08.431-296		
परिवर्तन संख्या ALTERATION. NO.	1	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-
3. C&D NO-
4. QTY./LOCO-
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह्य – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

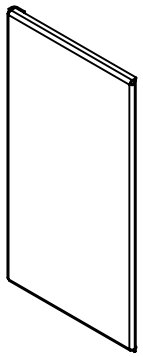
अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:5
संदर्भ / REF. ALT.-	

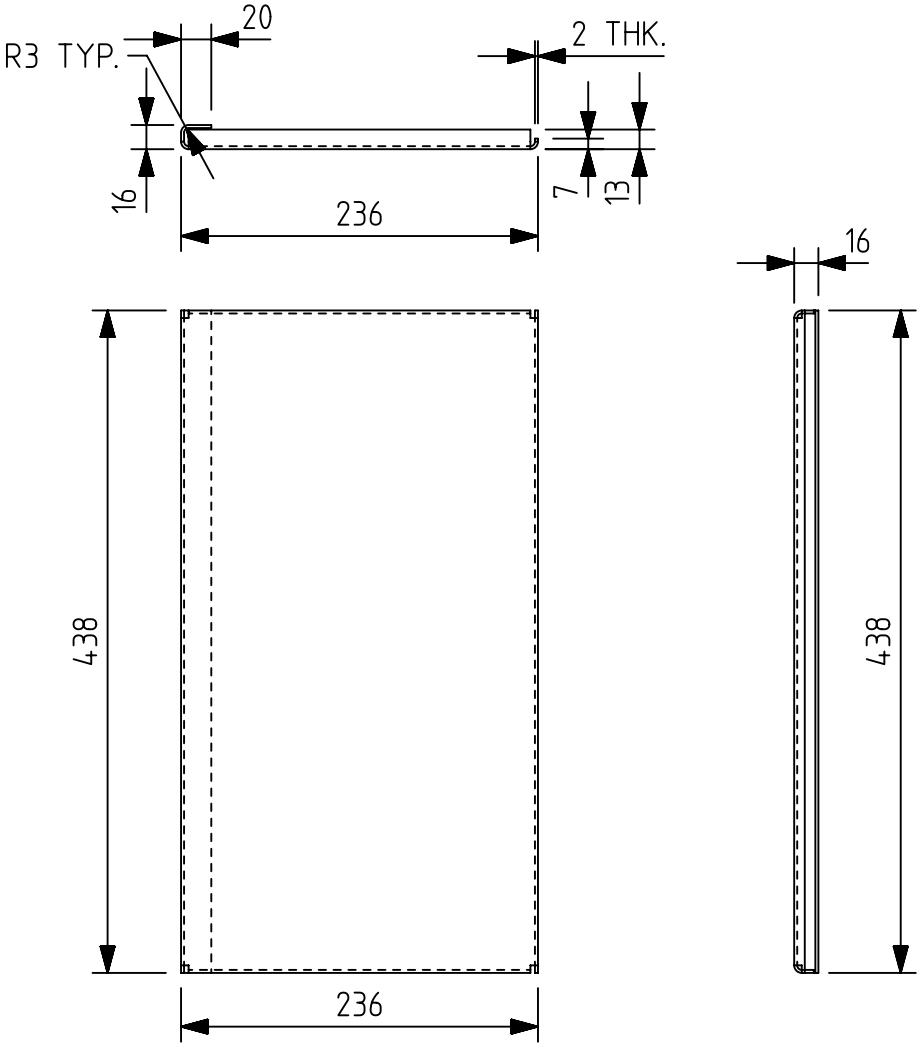
चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	
विशिष्टि SPECN	IRS:M41-Gr.I HR.		
वर्णन DESCRIPTION	RACK SHEET		
आरेखण संख्या DRAWING NO.	1209-08.431-379		
परिवर्तन संख्या ALTERATION. NO.		पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES





1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-1209-08.331-351
3. C&D NO-/
4. QTY./LOCO-01 NO.
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

2	DY.CEE/D-III	DESIGN MODIFIED.	
परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	03-11-25
रैखिक अनुपात SCALE	1:5
संदर्भ / REF. ALT.-	

चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

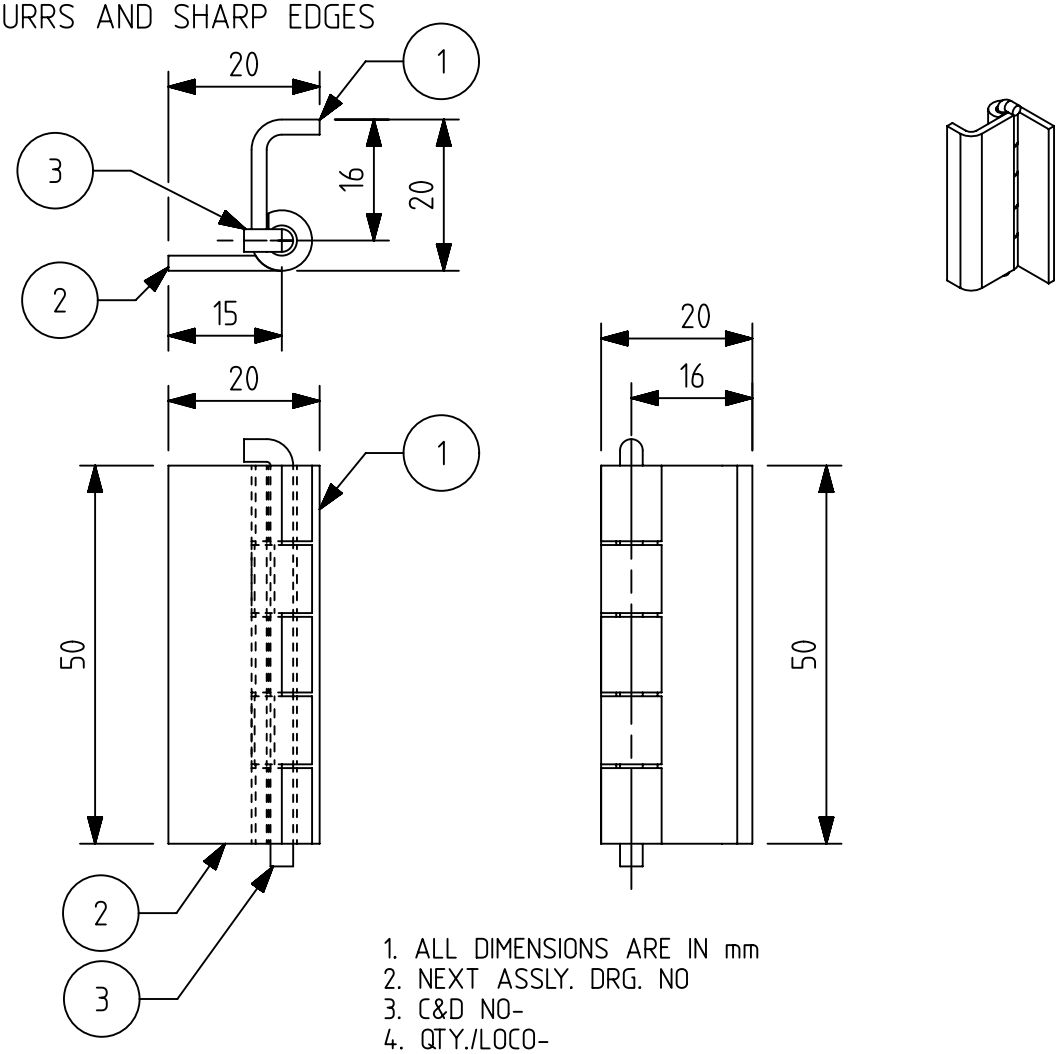
पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	1.88
विशिष्टि SPECN	IRS:M-41 Gr.I HR		
वर्णन DESCRIPTION	DOOR SHEET R.H		
आरेखण संख्या DRAWING NO.	1209-08.431-352		
परिवर्तन संख्या ALTERATION. NO.	2	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE

1209-08.431-375

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO
3. C&D NO-
4. QTY./LOCO-
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

REF. NO.	C&D NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN	WT. EACH IN K.G.
3	/	1209-08.431-378	HINGE PIN	1	STAINLESS STEEL	ASTM A276 Gr. 304	
2	/	1209-08.431-377	HINGE PART-II	1	STEEL	IRS:M-41 Gr.I HR	
1	/	1209-08.431-376	HINGE PART-I	1	STEEL	IRS:M-41 Gr.I HR	
निर्देश संख्या	**लागत एवं विवरण संख्या**	**अंग आरेखण संख्या**	**वर्णन**	**मात्रा**	**पदार्थ**	**विशिष्टि**	**प्रति भार कि. ग्रा.**

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित आद्याक्षर DATED INITIAL

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302

अनिर्दिष्ट सह्य – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768
UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768

धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553
WELDING SYMBOLS TO IS:813 / ISO:2553

TOL. CLS.

ग्रेडांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

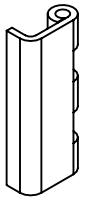
अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:1
संदर्भ / REF. ALT.-	

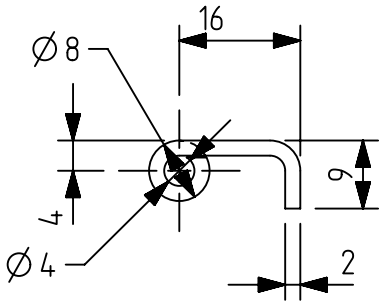
चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

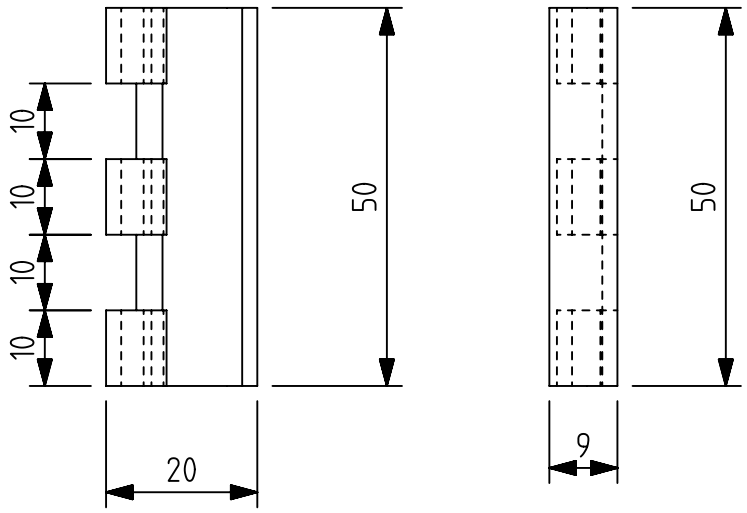
पदार्थ MATL	प्रति भार कि. ग्रा. WT. EACH IN KG
विशिष्टि SPECN	
वर्णन DESCRIPTION	HINGE ASSEMBLY
आरेखण संख्या DRAWING NO.	1209-08.431-375
परिवर्तन संख्या ALTERATION. NO.	पर्ण SHEET 1 OF 1 — A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

SURFACE ROUGHNESS Ra VALUES IN μm
REMOVE ALL BURRS AND SHARP EDGES







1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO
3. C&D NO-
4. QTY./LOCO-
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL
0			

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra μm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

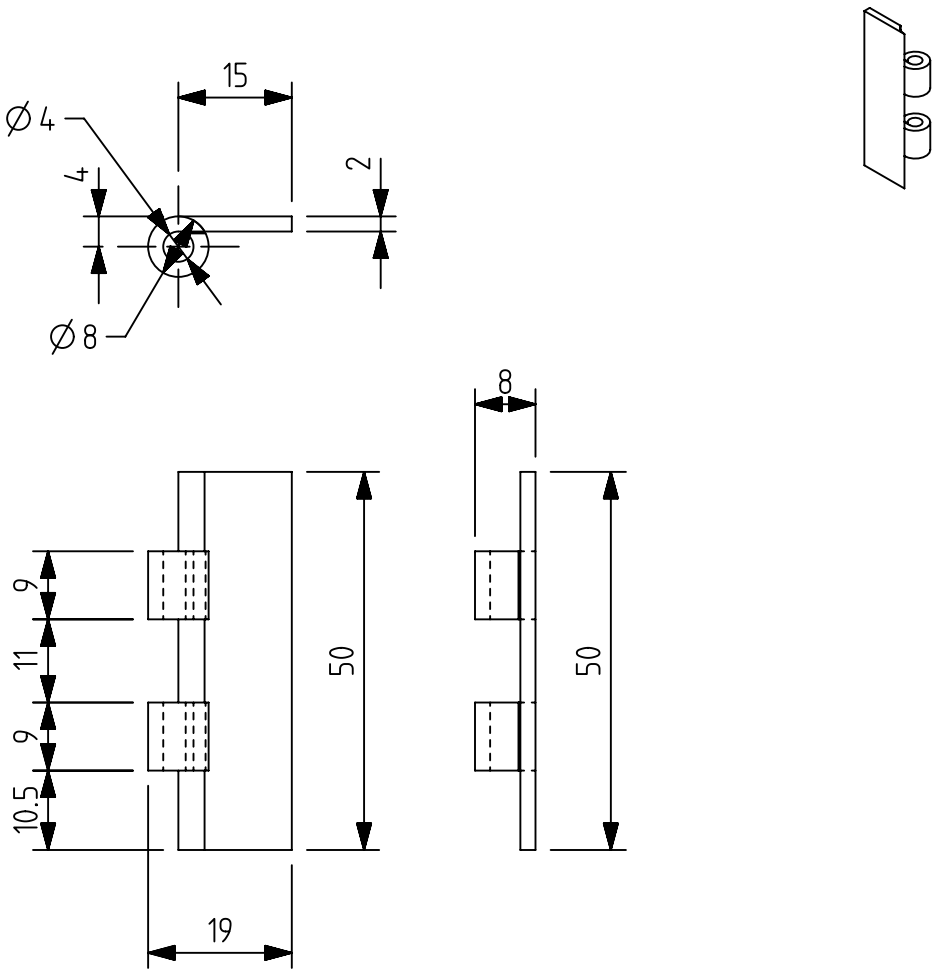
अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:1
संदर्भ / REF. ALT.-	

चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	
विशिष्टि SPECN	IRS:M-41 Gr.I HR		
वर्णन DESCRIPTION	HINGE PART-I		
आरेखण संख्या DRAWING NO.	1209-08.431-376		
परिवर्तन संख्या ALTERATION. NO.	0	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO-
3. C&D NO-
4. QTY./LOCO-
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL
0			

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

ग्रेडांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

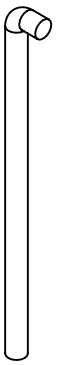
अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:1
संदर्भ / REF. ALT.-	

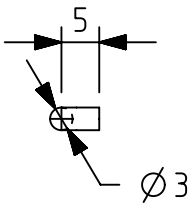
चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

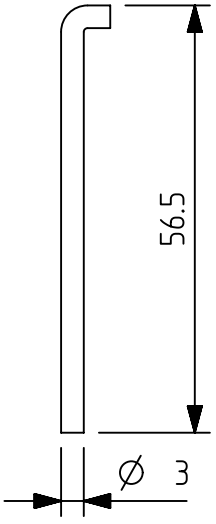
पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	
विशिष्टि SPECN	IRS:M-41 Gr.I HR		
वर्णन DESCRIPTION	HINGE PART-II		
आरेखण संख्या DRAWING NO.	1209-08.431-377		
परिवर्तन संख्या ALTERATION. NO.	0	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS AND SHARP EDGES







1. ALL DIMENSIONS ARE IN mm
2. NEXT ASSLY. DRG. NO
3. C&D NO-
4. QTY./LOCO-
5. USED FOR LOCO: WAG-9HC, WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102 (PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित बाबबार DATED INITIAL
0			

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह्य – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

ग्रेडांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

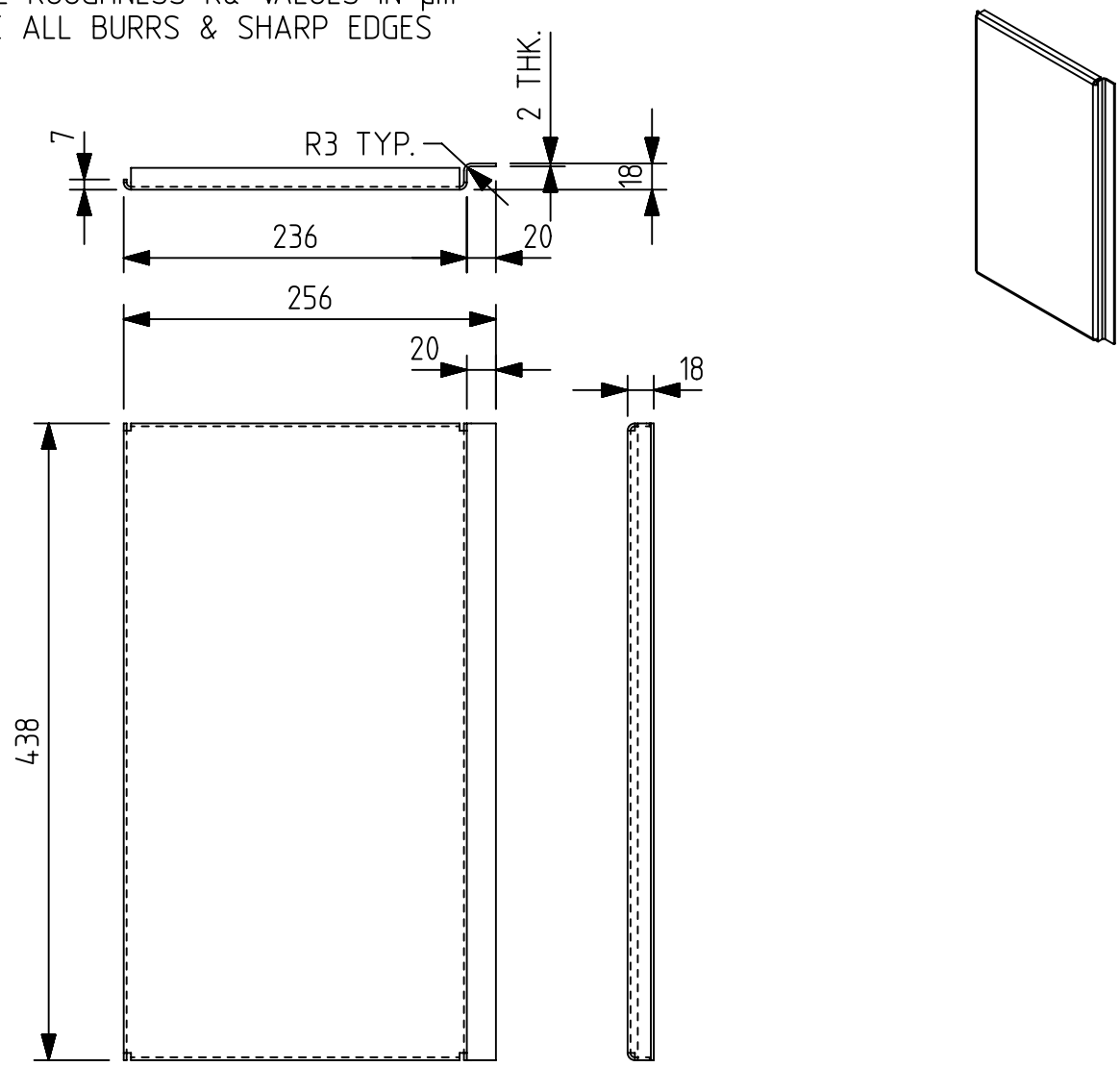
अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	
रैखिक अनुपात SCALE	1:1
संदर्भ / REF.	ALT.-

चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ MATL	STAINLESS STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	
विशिष्टि SPECN	ASTM A276 Gr. 304		
वर्णन DESCRIPTION	HINGE PIN		
आरेखण संख्या DRAWING NO.	1209-08.431-378		
परिवर्तन संख्या ALTERATION. NO.	0	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

SURFACE ROUGHNESS Ra VALUES IN µm
REMOVE ALL BURRS & SHARP EDGES



1. ALL DIMENSIONS ARE IN mm
2. C&D NO.:- /
3. QTY./LOCO: 01
4. NEXT LEVEL ASSEMBLY DRG. NO. 1209-08.331-351
5. USED FOR LOCO- WAG-9HC,WAP-7
6. UNSPECIFIED TOLERANCE IN THE DIMENSIONS MENTIONED AT DRAWINGS TO BE FOLLOWED AS PER IS:2102(PART 1):1993-TOLERANCE CLASS-MEDIUM OF TABLE-1

परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित पावती DATED INITIAL
1	DY.CEE/D-III	DESIGN MODIFIED.	

सतह – रूक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLEARANCE TO IS : 2102 / ISO : 2768	TOL. CLS.
	धातु–वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	

पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
Ra µm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
चिन्ह SYMBOL												

अभिकल्पित DGN	
जाँचा व.अ.अ. CHD SSE	
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	
अनुमोदित उ.मु.वि.अ. APPROVED DYCEE	
दिनांक DATE	04-11-25
रैखिक अनुपात SCALE	1:5
संदर्भ / REF. ALT.-	

चित्तरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	1.88
विशिष्टि SPECN	IRS: M-41 Gr.I HR		
वर्णन DESCRIPTION	DOOR SHEET LH		
आरेखण संख्या DRAWING NO.	1209-08.431-373		
परिवर्तन संख्या ALTERATION. NO.	1	पर्ण SHEET 1 OF 1	A4

This document/drawing was prepared by or on behalf of CLW and the copyright belongs to CLW. Reproduction in whole or in part requires prior written consent of CLW. As the drawing incorporates confidential information of CLW its disclosure to third parties also requires CLW's prior written consent.

REDRAWN BY COE