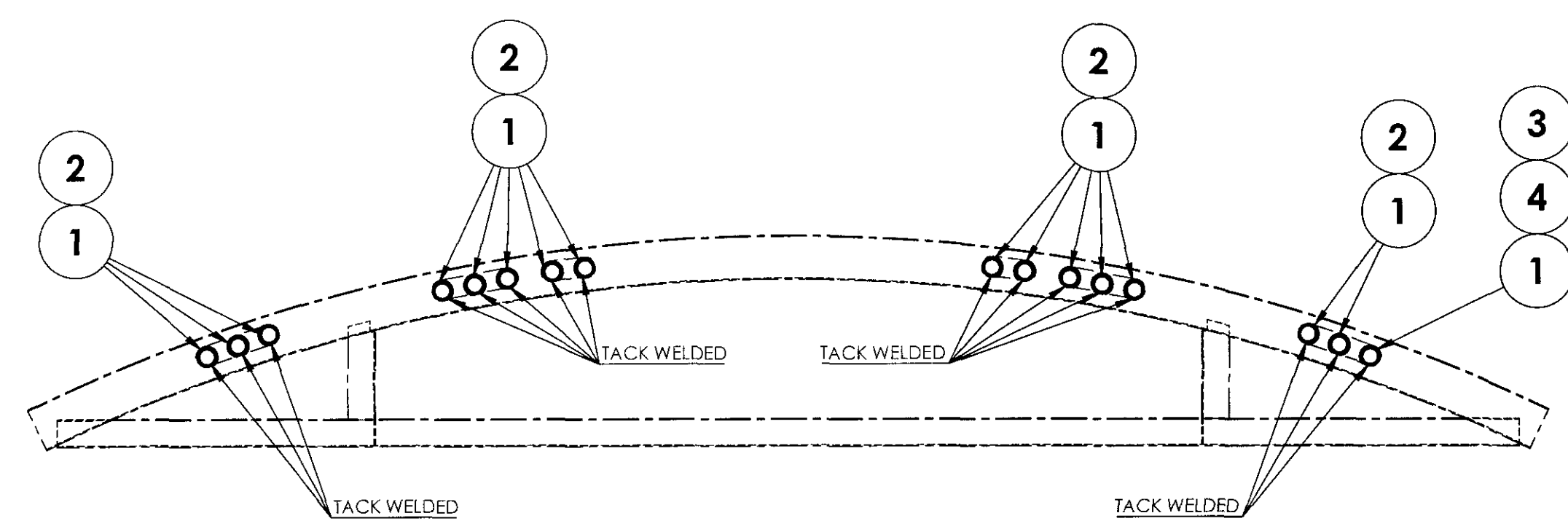
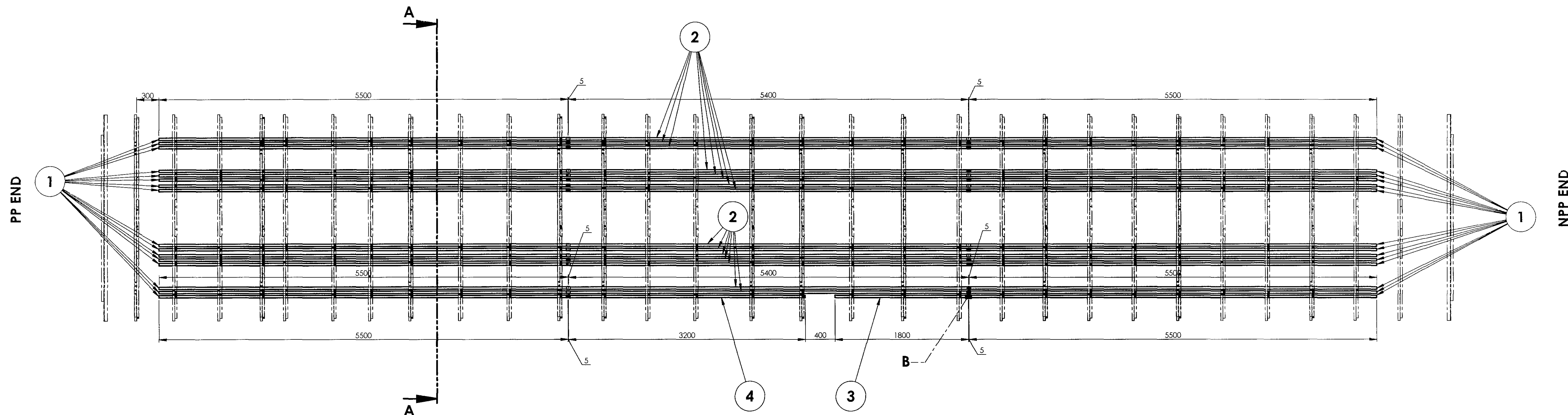


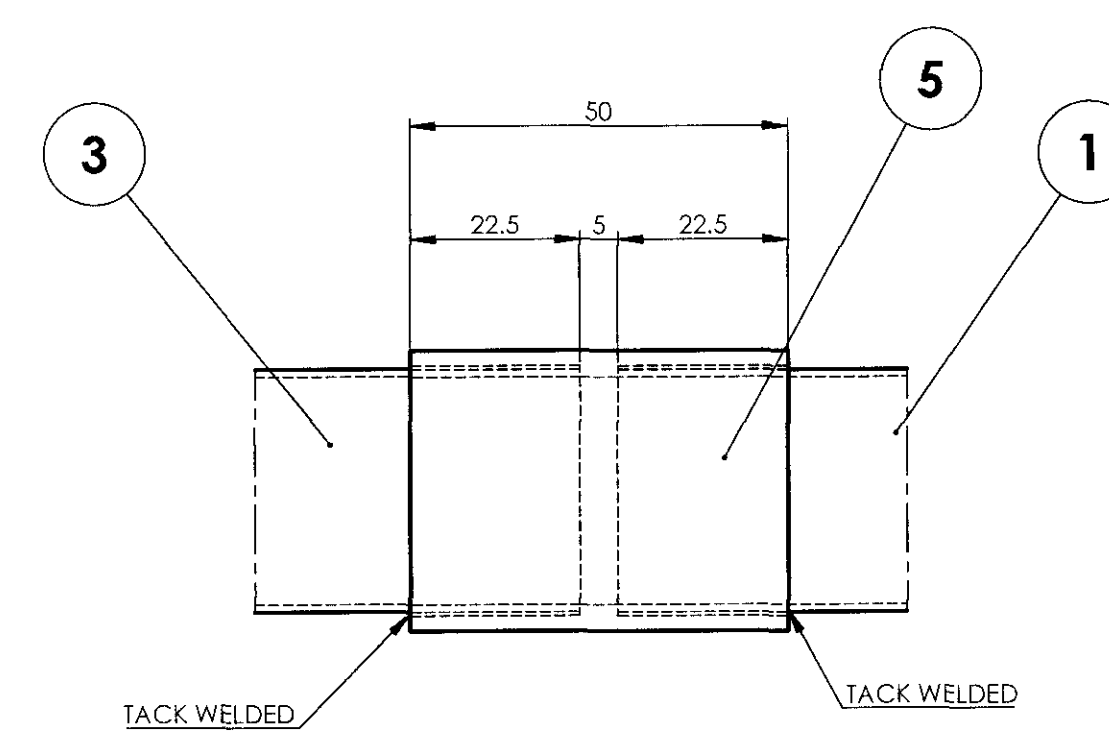
83016013

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		



SECTION A-A
SCALE 1 : 10



DETAIL B
SCALE 1 : 1

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE **CP C2** UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. ALL SHARP EDGES AND BURRS TO BE REMOVED IN CONDUITS TO AVOID DAMAGE TO ELECTRICAL CABLES.

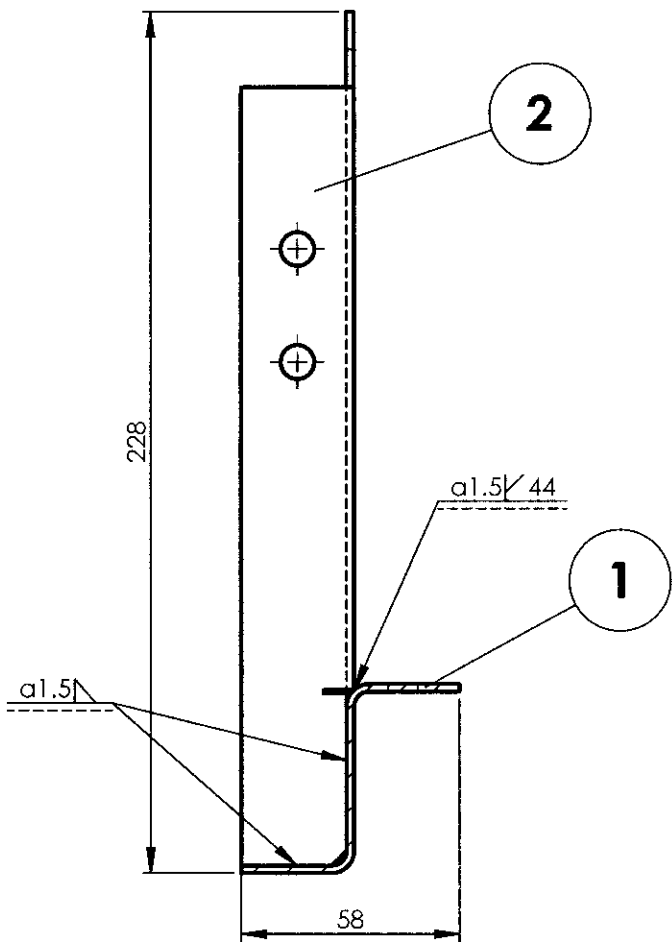
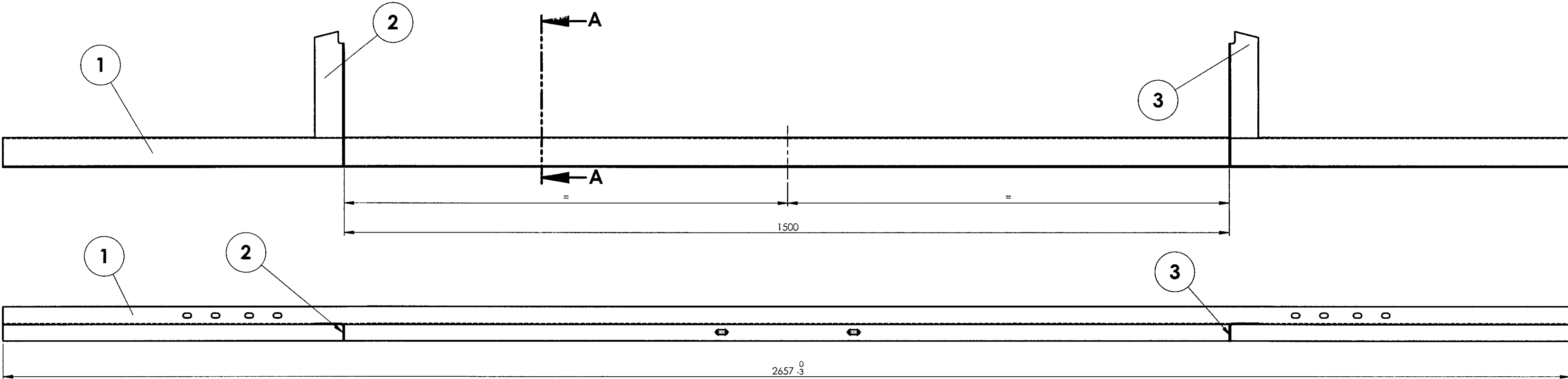
32	COUPLER FOR CONDUITS		5	AAE16744		0.09	
1	CONDUIT	1 x OD 32 x 3200	4		SS-304	2.46	
1	CONDUIT	1 x OD 32 x 1800	3		SS-304	1.38	
15	CONDUIT	1 x OD 32 x 5400	2		SS-304	4.15	
32	CONDUIT	1 x OD 32 x 5500	1		SS-304	4.23	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 83.37		WT/ASSY IN Kgs:	
SCALE 1:30		3SE-D		CHD	
ALT		ALTD		DRN	
-		-		Amal George	
INDIAN RAILWAY STANDARDS		SHEET 1 OF 1		LWCBAC/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038		83016013		A1	

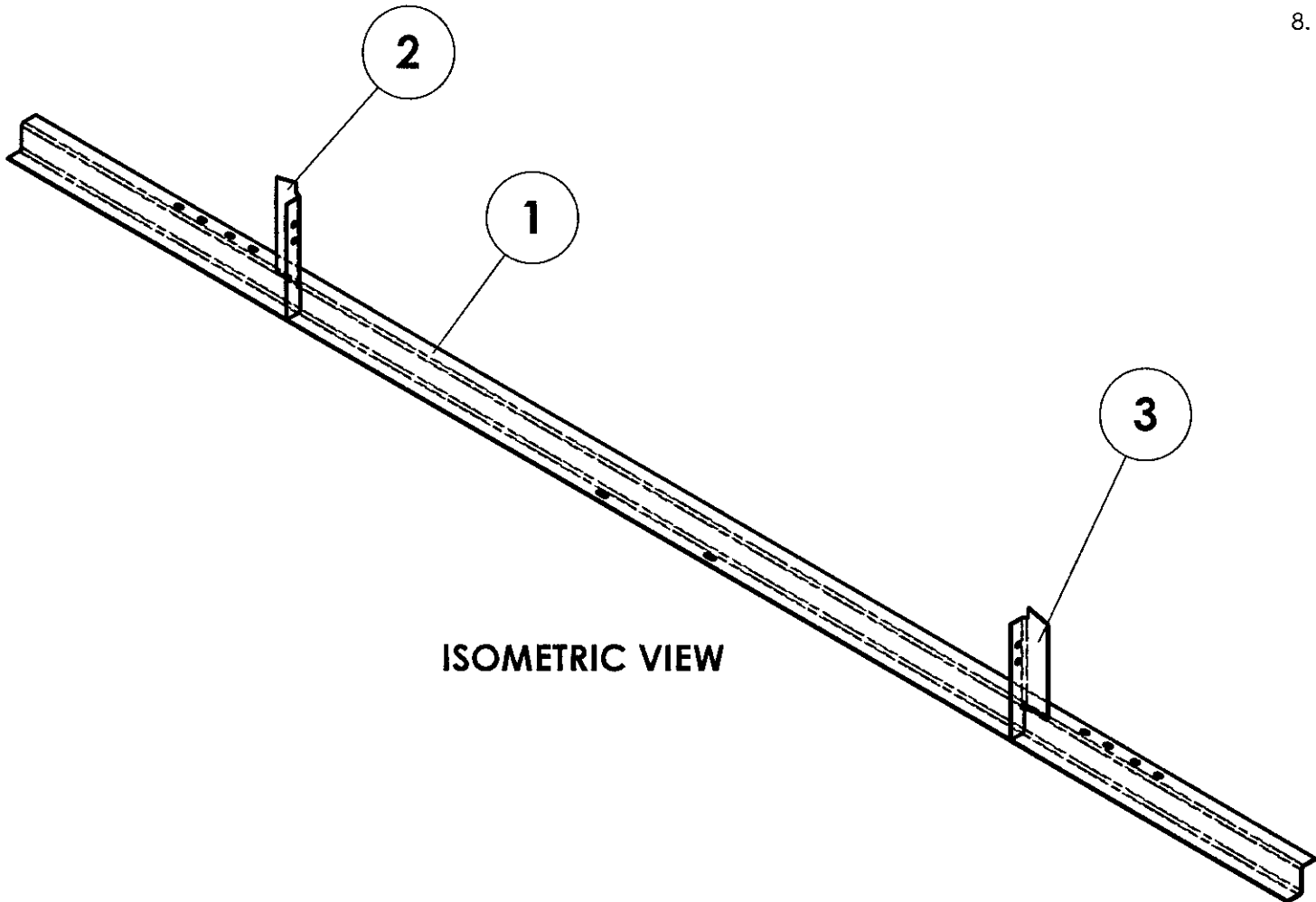
83016014

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	01b CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1 : 2



ISOMETRIC VIEW

NOTE:

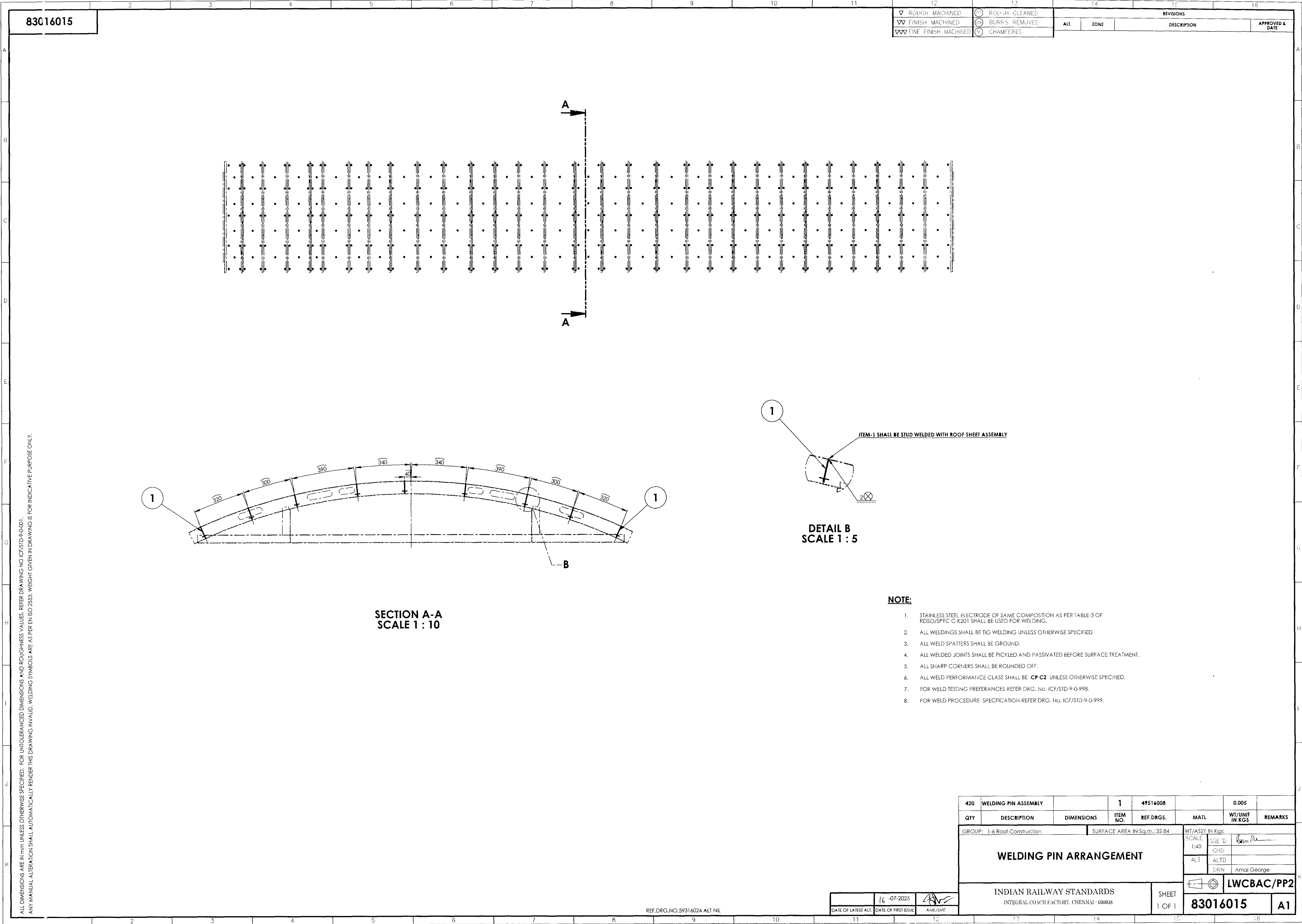
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE **CP C2** UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.

1	BRACE		3	AAA16413		0.221	
1	BRACE		2	AAA16412		0.221	
1	ROOF CROSS BRACE		1	AAF16200		4.306	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.61		WT/ASSY IN Kgs:	
CROSS BRACE COMPLETE					SCALE 1:5	SSE/D	Amal George
					ALT	CHD	
					DRN	ALTD	
INDIAN RAILWAY STANDARDS					LWCBAC/PP2		
INTEGRAL COACH FACTORY, CHENNAI - 600038					83016014		
SHEET 1 OF 1					A2		

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

REF.DRG.NO.-

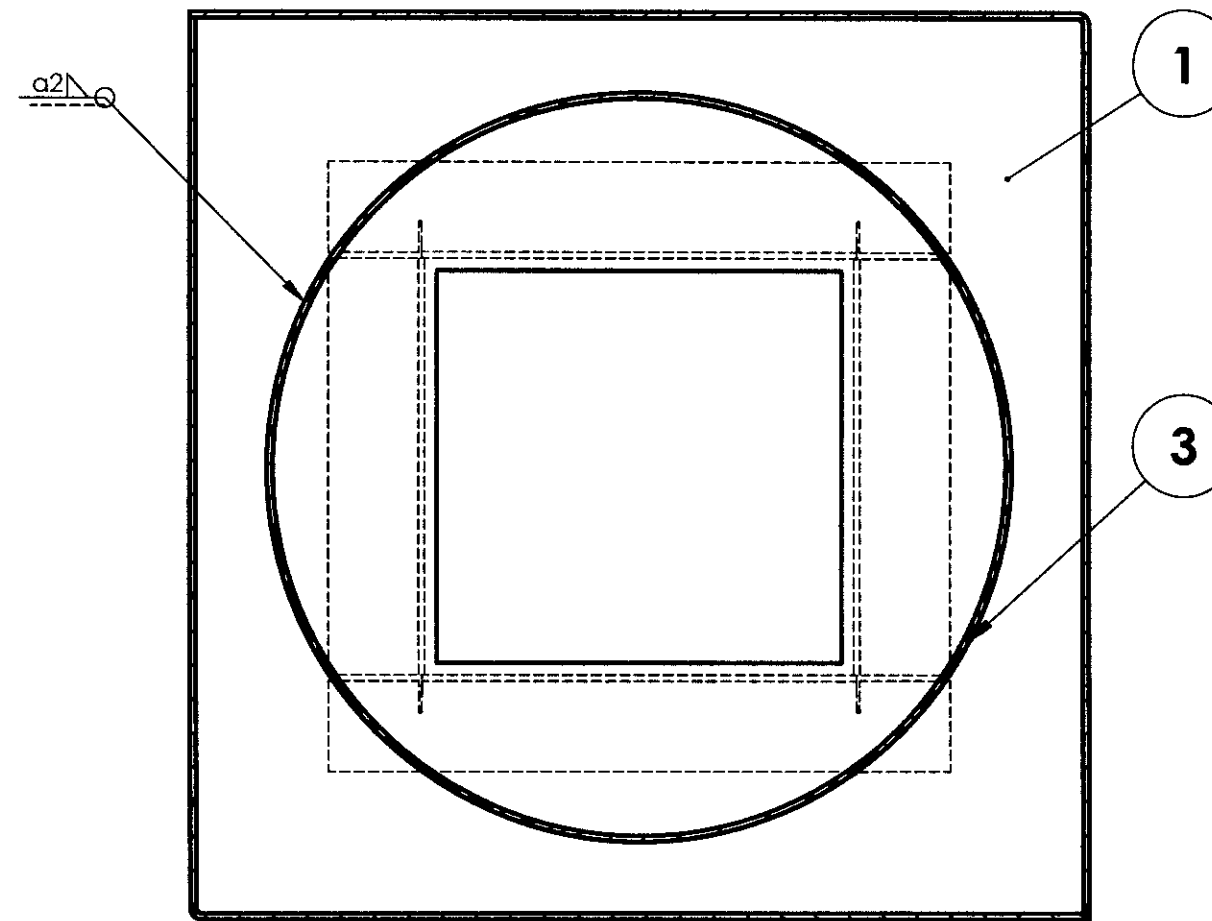
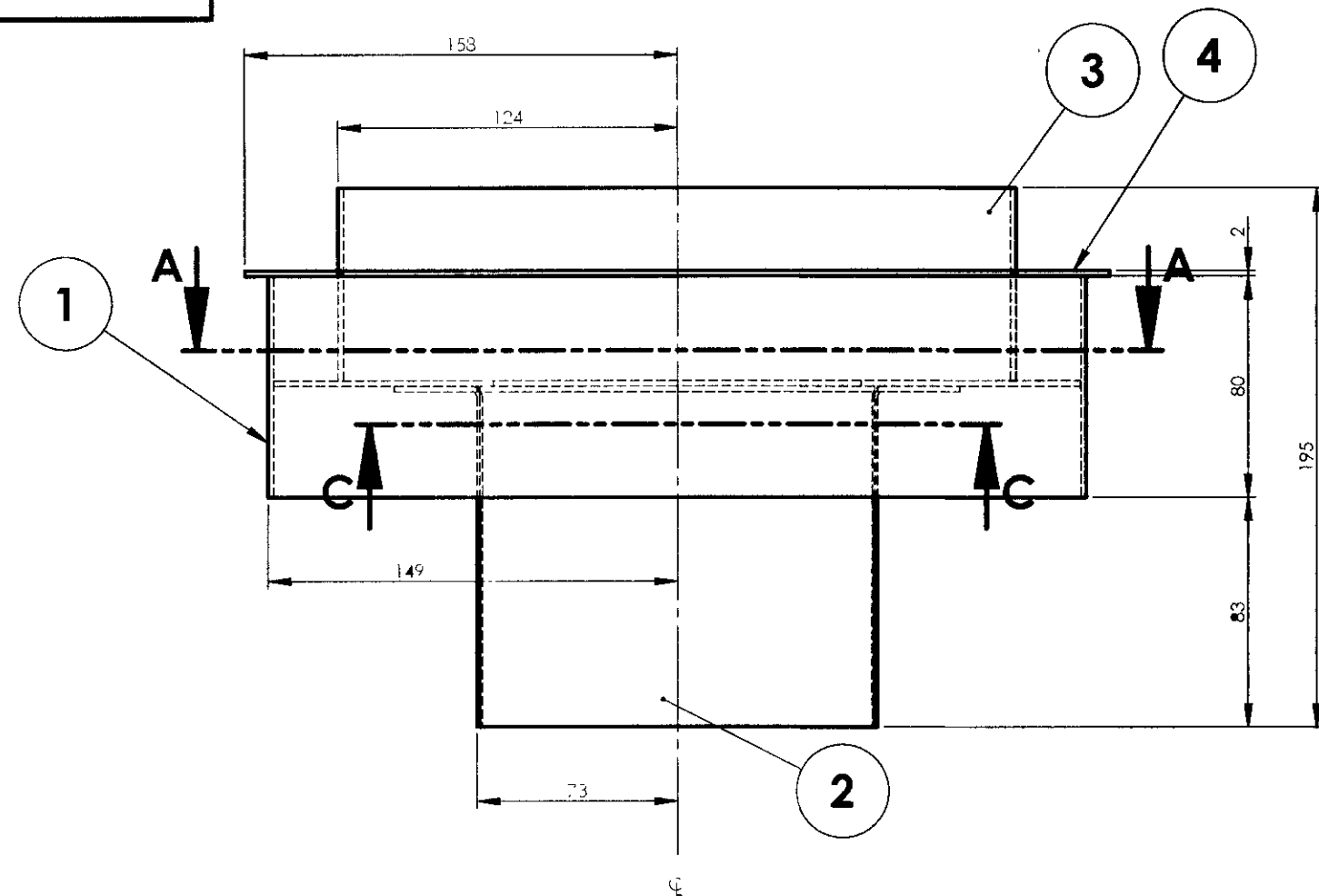
DATE OF LATEST ALT.	16-07-2025	AME/SME
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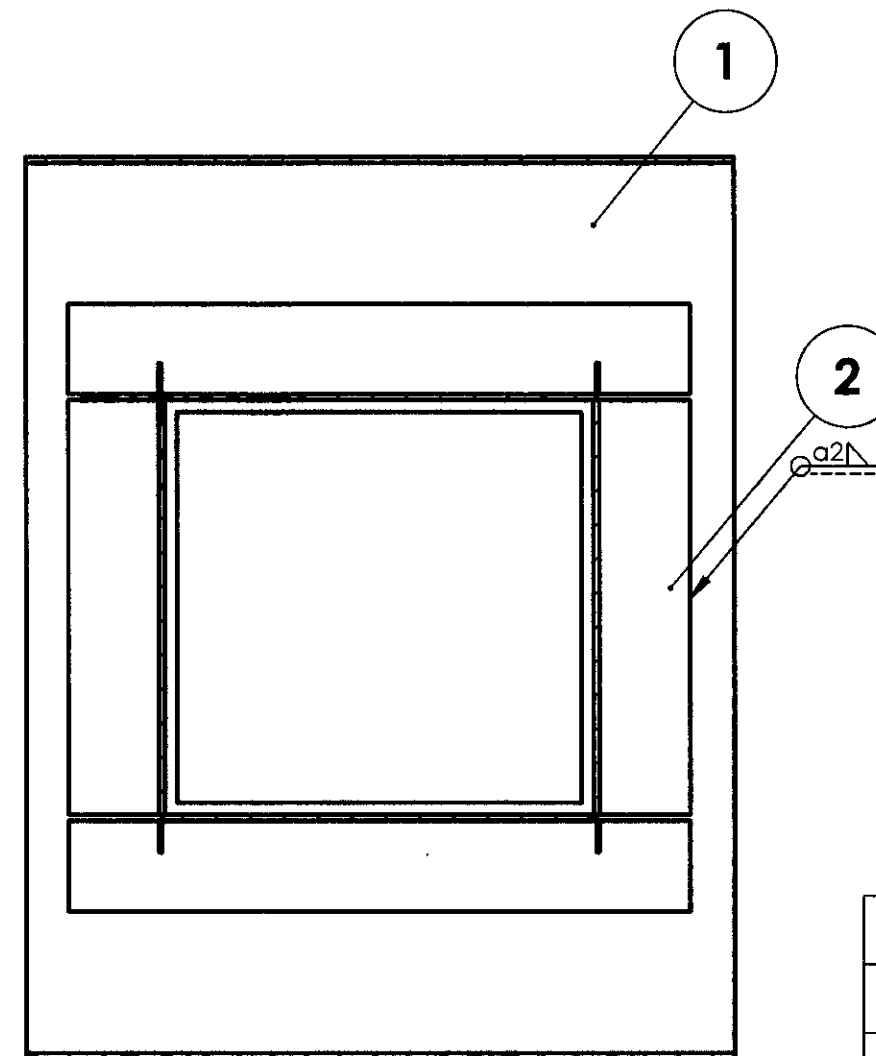
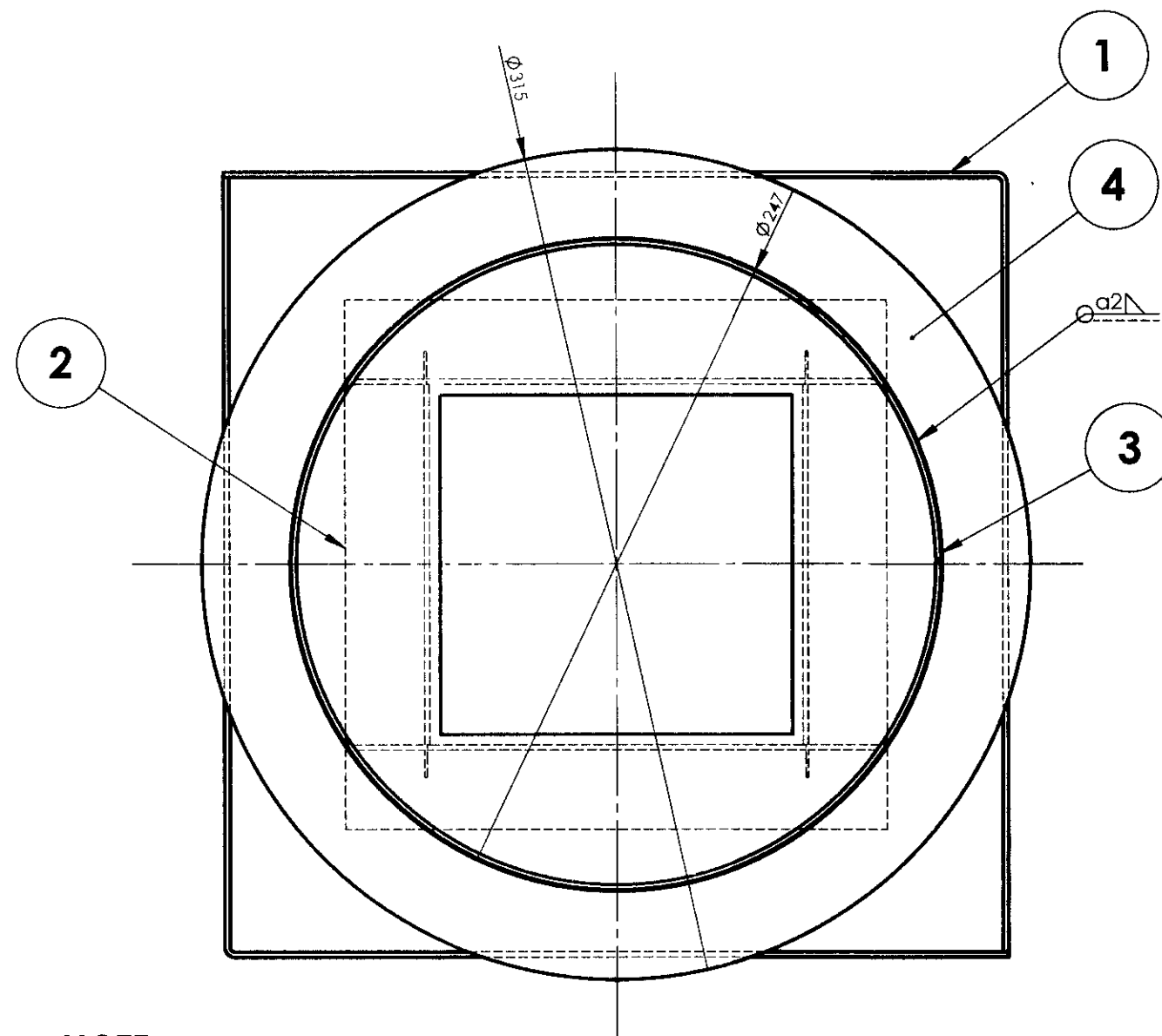
85616006

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	01c CHAMFERED

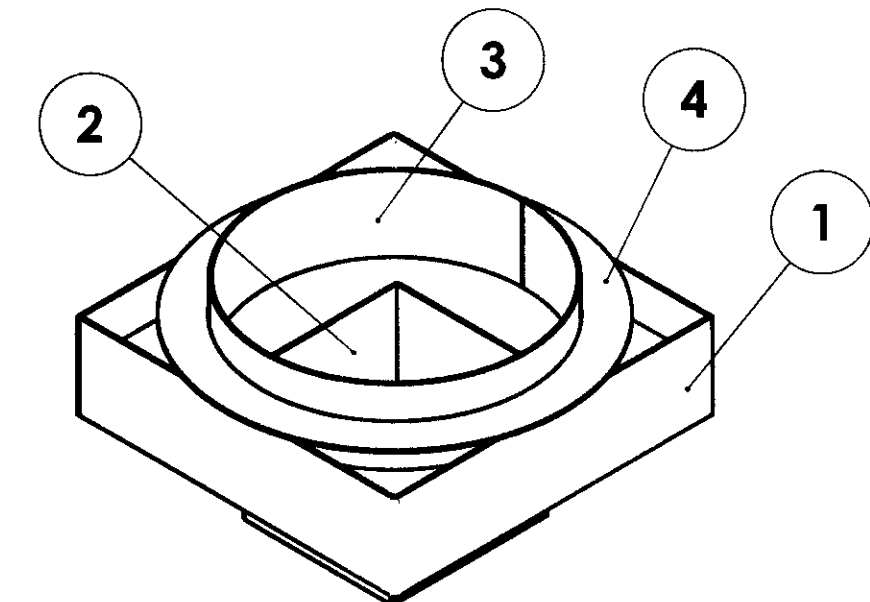
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A



SECTION C-C

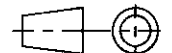


ISOMETRIC VIEW

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.

1	RING		4	AAA16842		0.47	
1	TUBE FOR VENTILLATOR		3	AAE16272		0.86	
1	EXHAUST DUCT ASSEMBLY		2	85616008		1.42	
1	HOUSING FOR ADAPTER		1	85616007		2.62	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

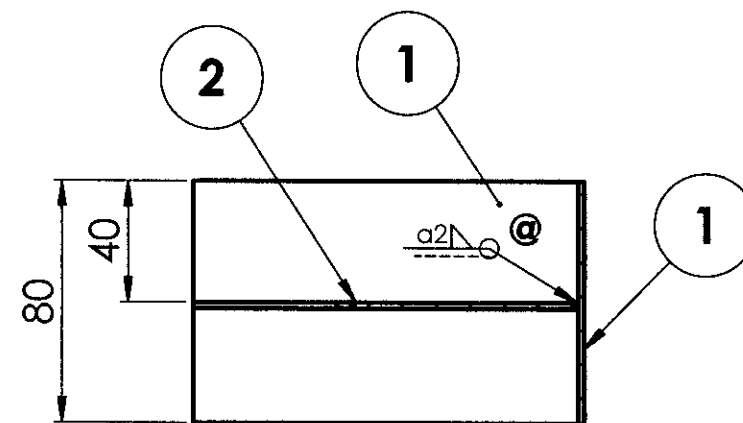
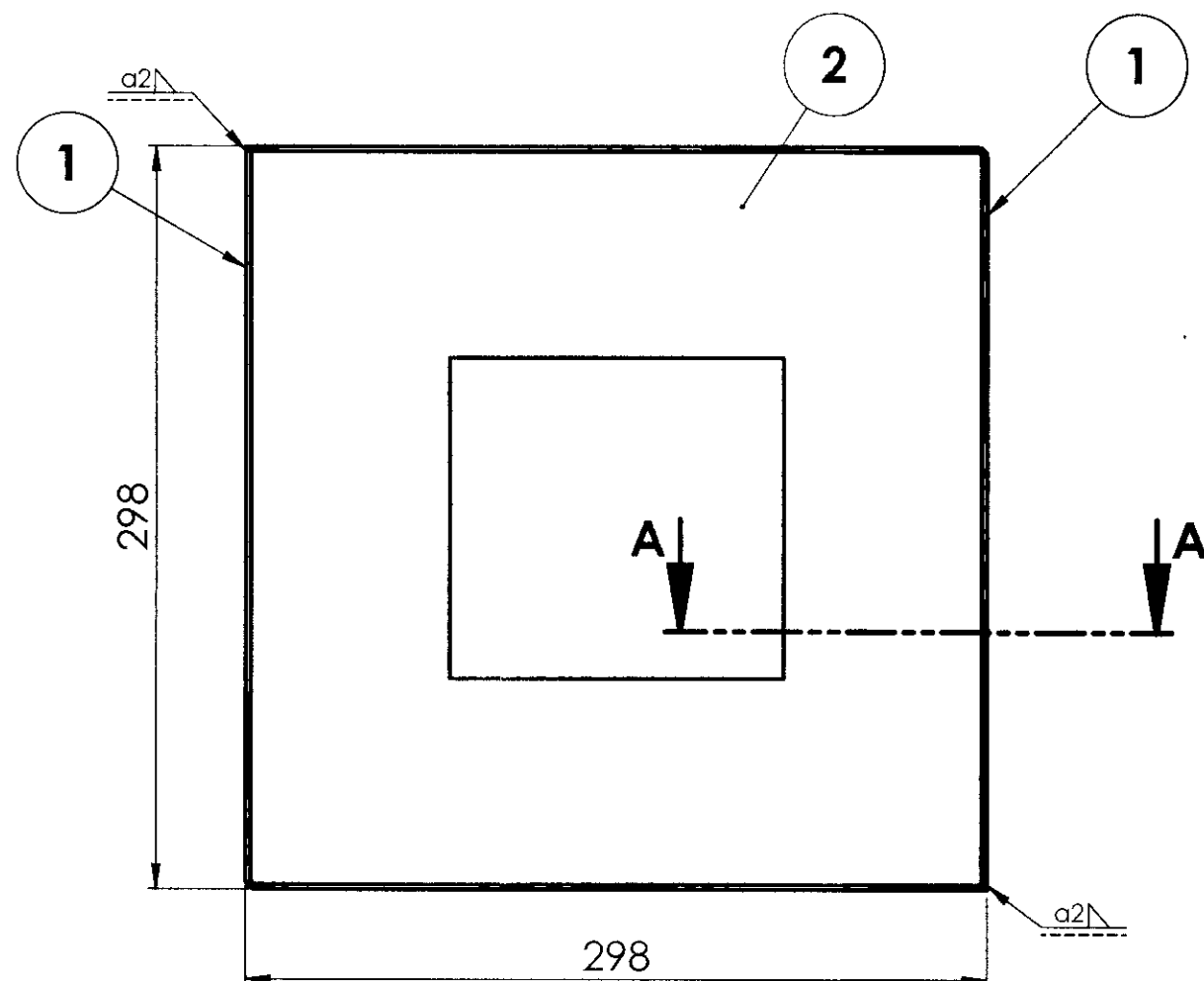
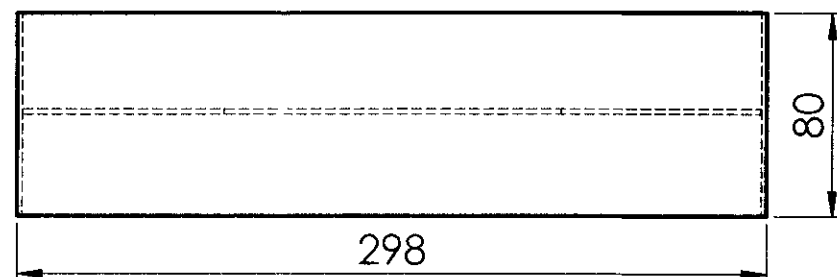
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq. m.: 0.69		WT/ASSY IN Kgs:		
ADAPTER ASSEMBLY FOR VENTILATOR				SCALE 2:5	SSE/D	Amal George
					CHD	
				ALT	ALTD	
					DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		 LWCBAC/ASR
						85616006

DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME
	30-09-2022	

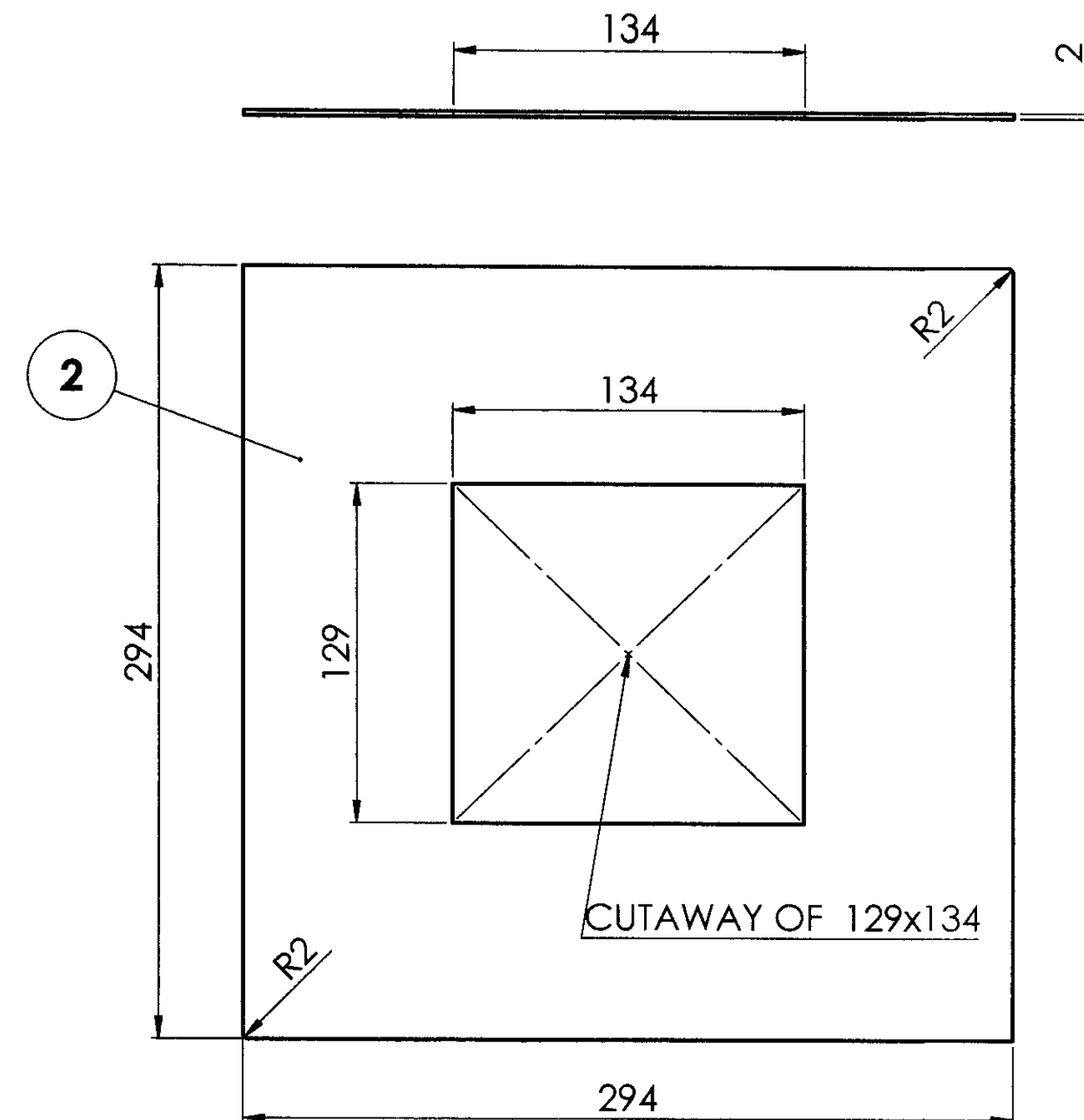
85616007

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	01B CHAMFERED

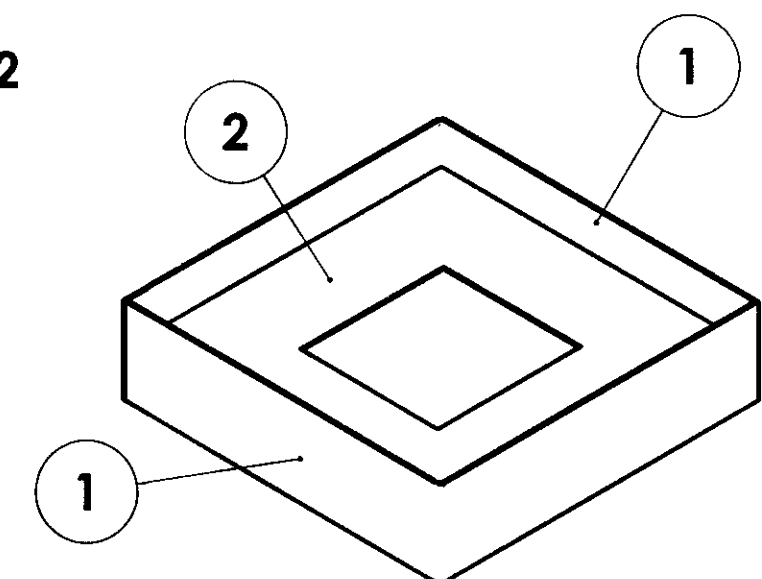
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



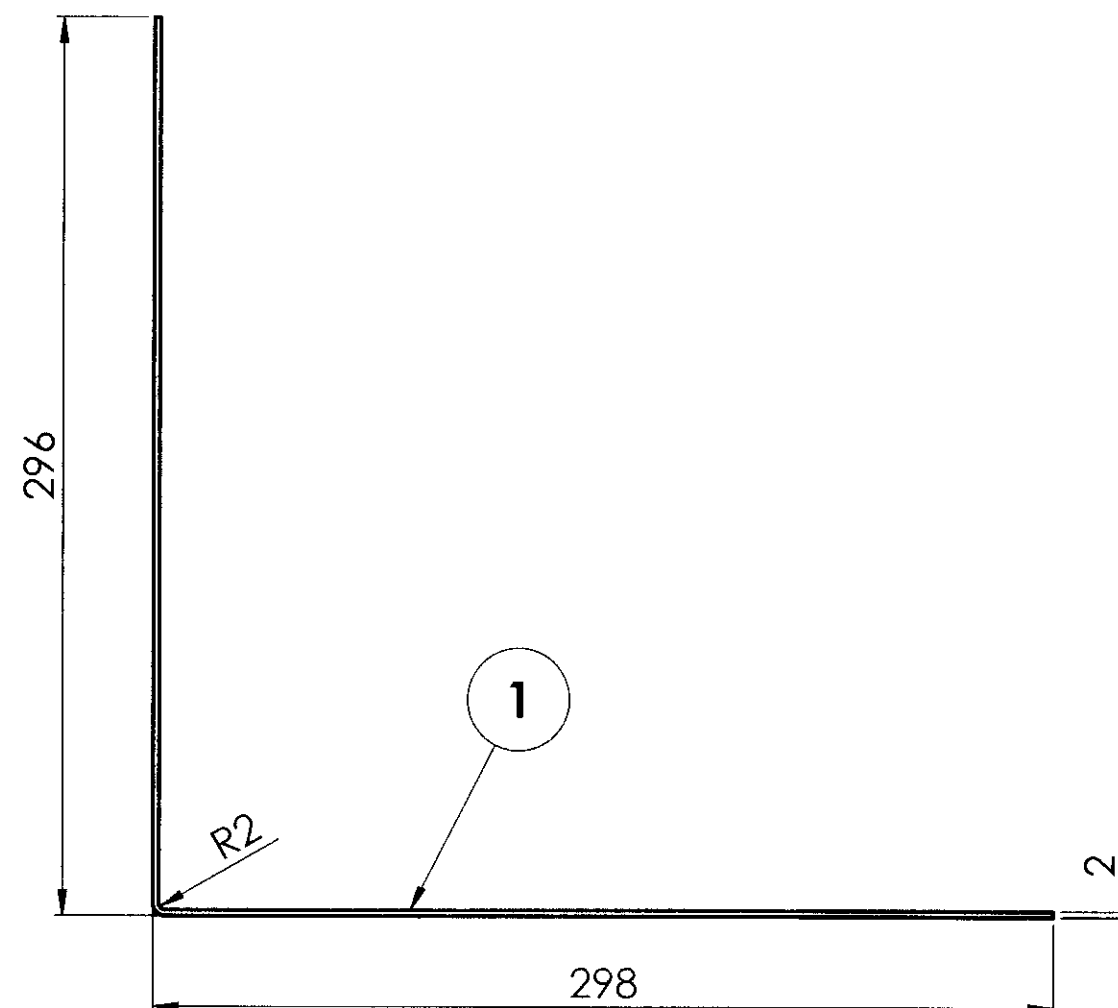
SECTION A-A
SCALE 2 : 5



DETAIL FOR ITEM-2
SCALE 2 : 5



ISOMETRIC VIEW



DETAIL FOR ITEM-1
SCALE 2 : 5

NOTE:

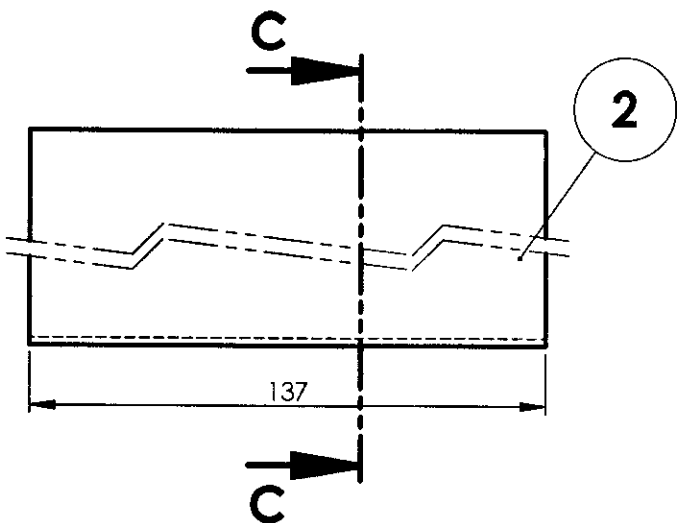
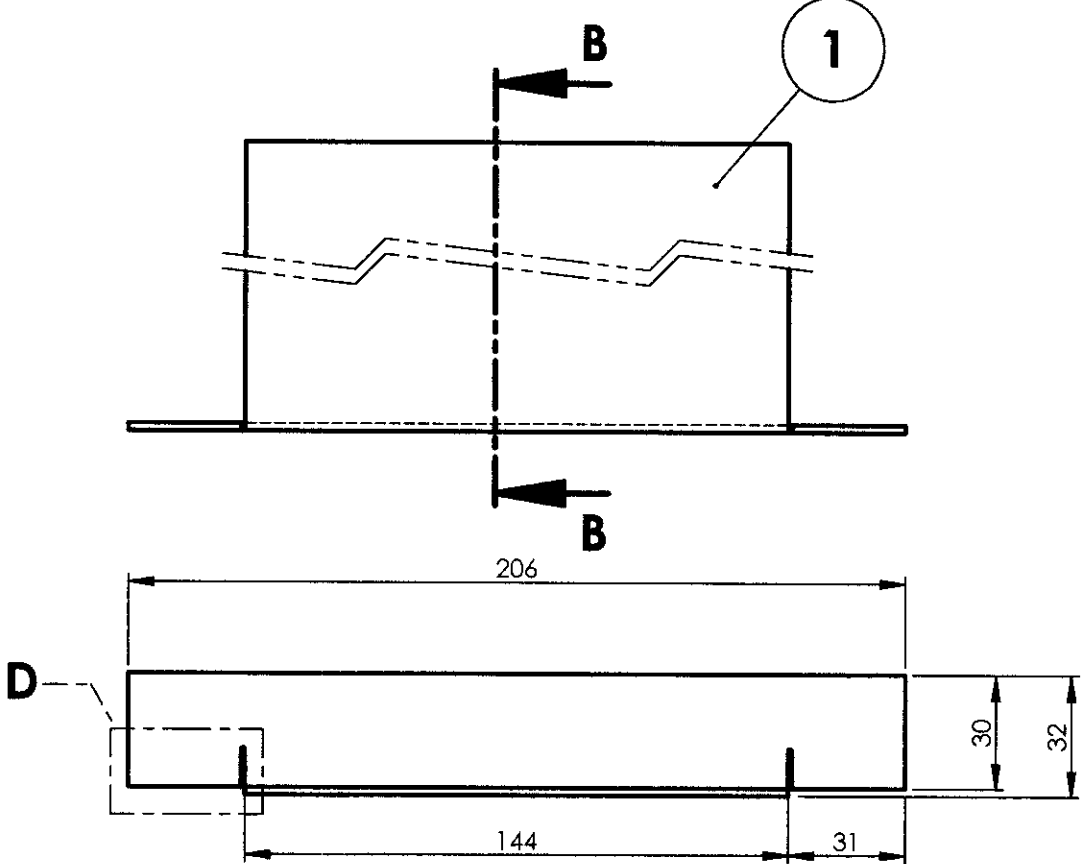
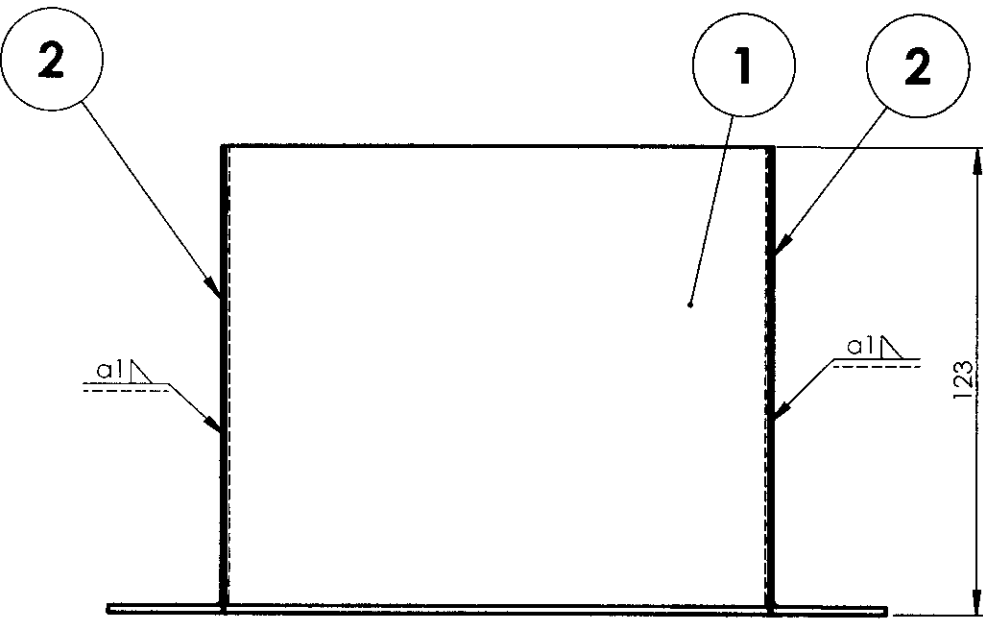
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE **CP C2** UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.
- @ 10. LEAK PROOF WELDING SHALL BE ENSURED.

1	PLATE	2x294x294	2		RDSO SPEC C-K201 X5 Cr Ni 18 10		
2	ANGLE	2x80x590	1		RDSO SPEC C-K201 X5 Cr Ni 18 10		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATERIAL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.34		WT/ASSY IN Kgs:	
HOUSING FOR ADAPTER					SCALE 1:3	SSE/D	CHD
					ALT	ALTD	DRN
					Amal George		
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		
					LWCBAC/ASR		
					85616007		A2

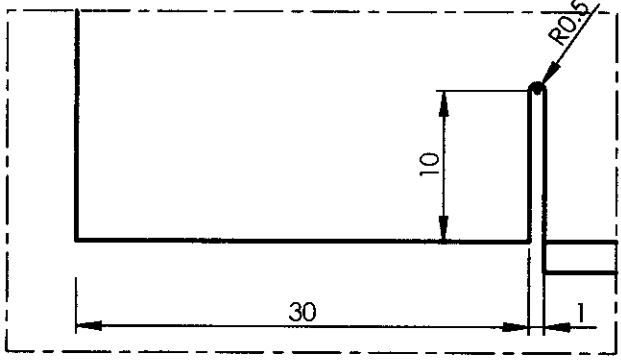
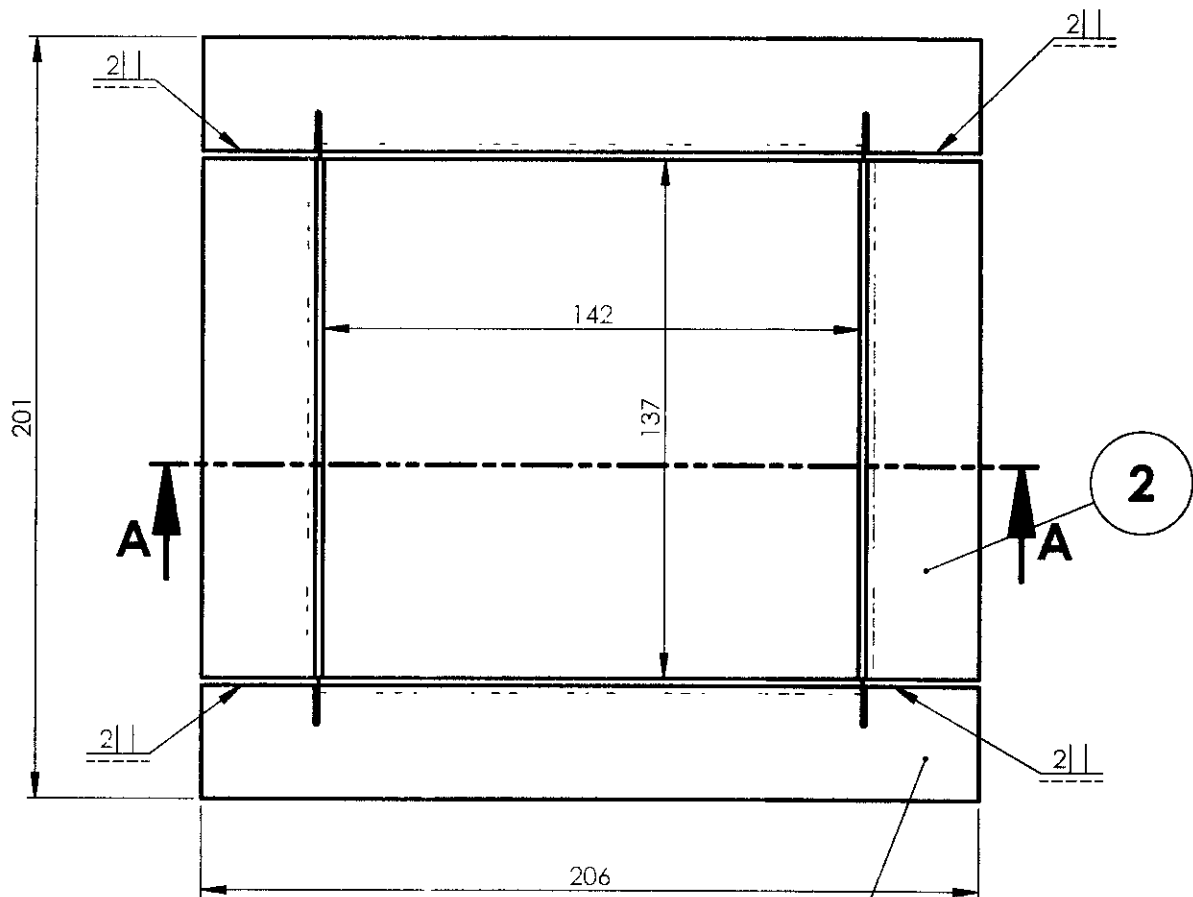
85616008

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①c CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

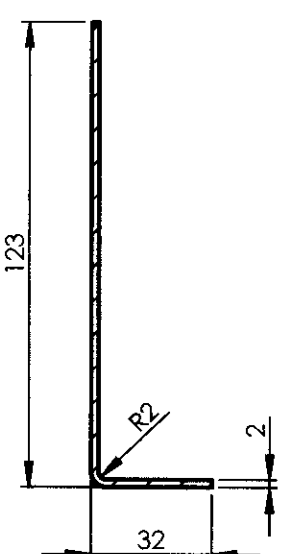


DETAIL FOR ITEM-2

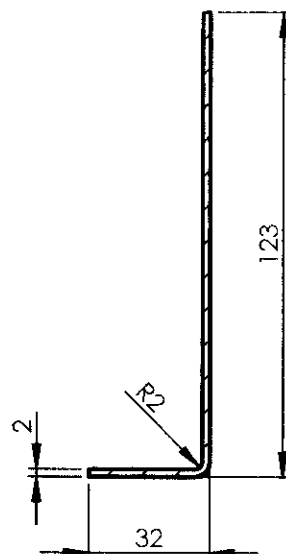


DETAIL FOR ITEM-1

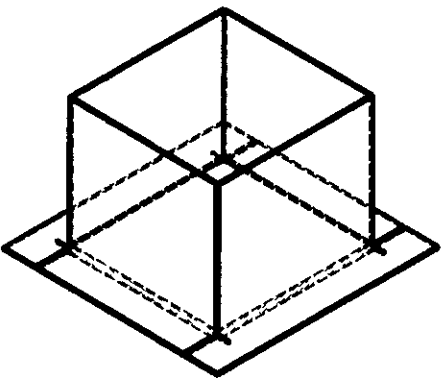
DETAIL D
SCALE 2 : 1



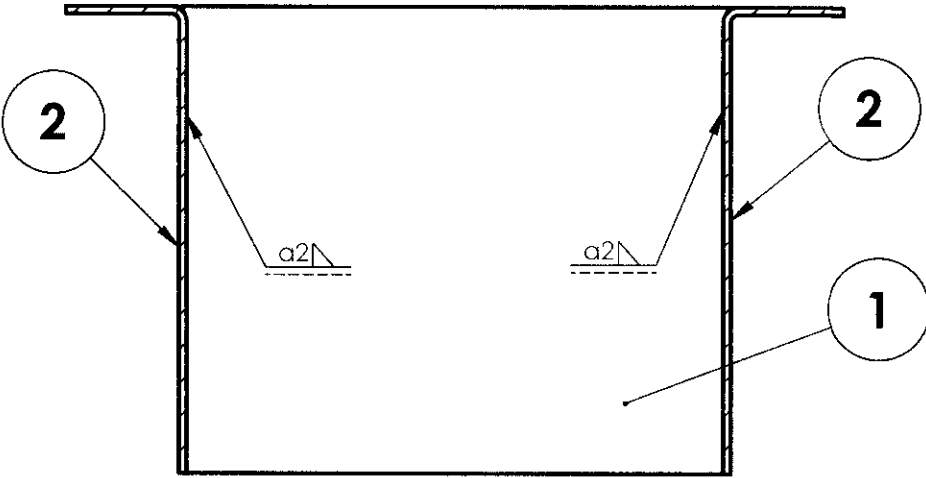
SECTION B-B



SECTION C-C



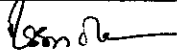
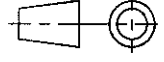
ISOMETRIC VIEW



SECTION A-A

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE **CP C2** UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY)ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.

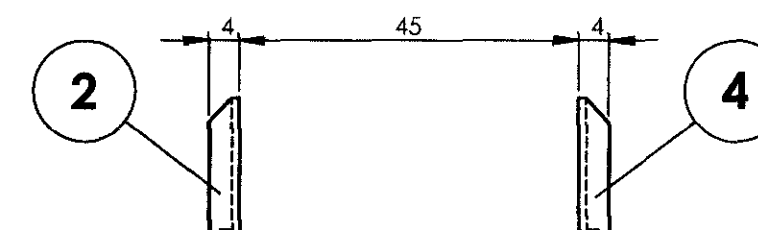
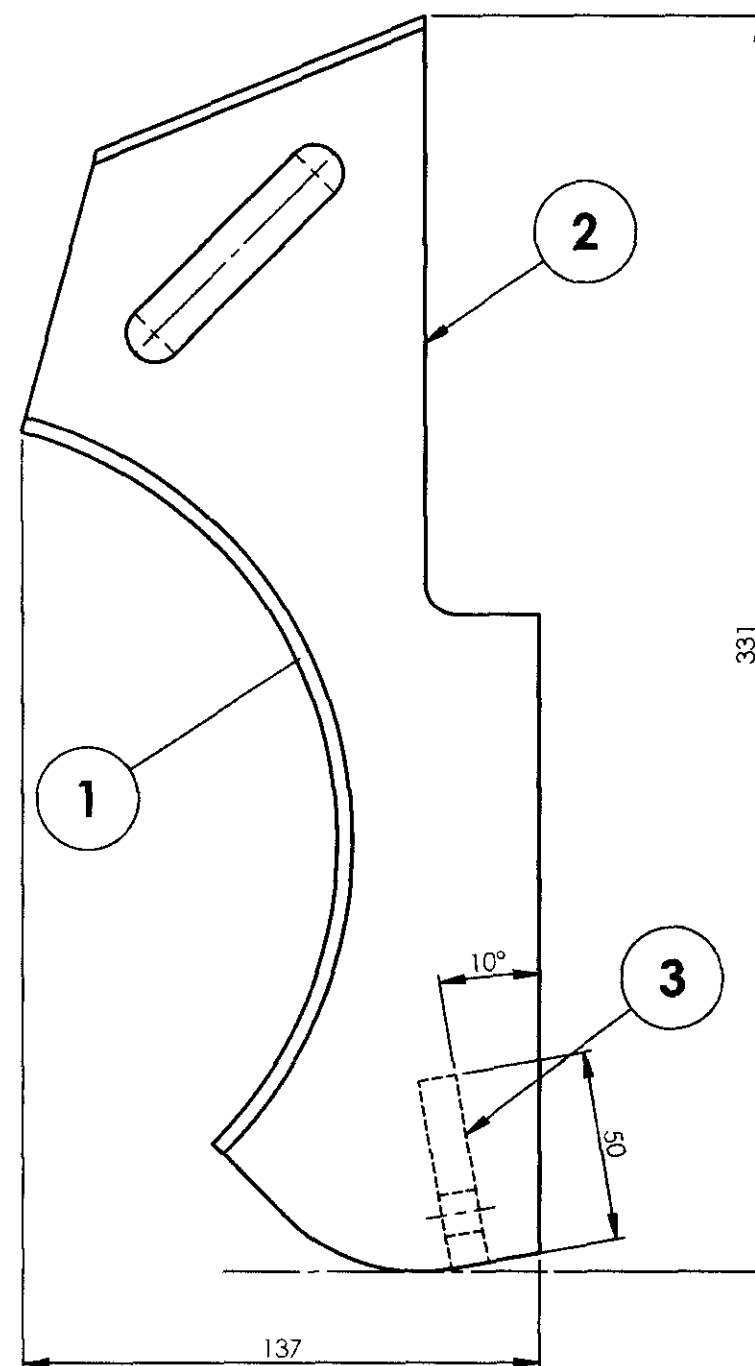
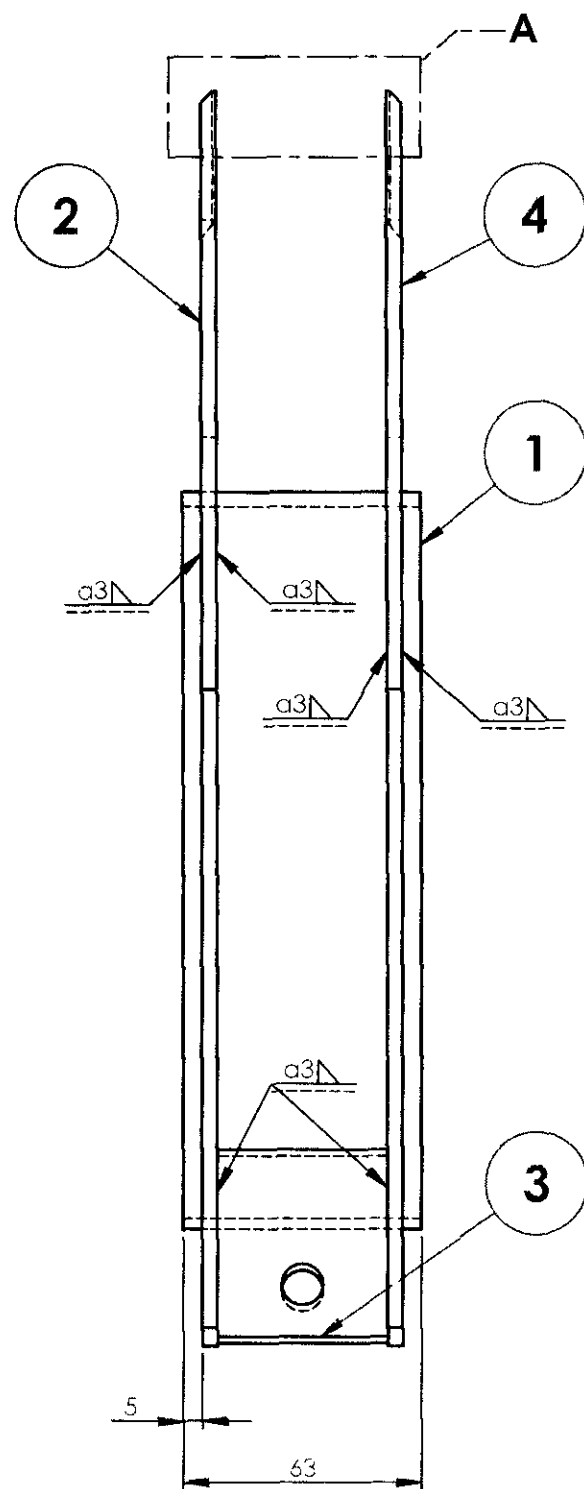
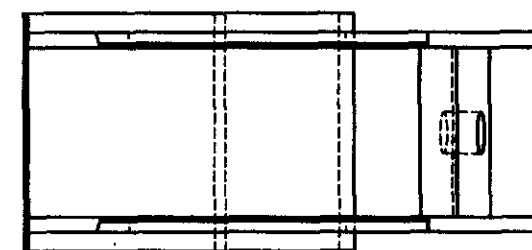
2	ANGLE	2x137x151	2		RDSO SPEC C-K201 X5 Cr Ni 18 10		
2	ANGLE	2x151x206	1		RDSO SPEC C-K201 X5 Cr Ni 18 10		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATERIAL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.: 0.18		WT/ASSY IN Kgs:		
EXHAUST DUCT ASSEMBLY					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						LWCBAC/ASR	
						85616008	
					SHEET 1 OF 1	A2	

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS 813:1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

85616009

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	18 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

DETAIL A
SCALE 1 : 1

1	PLATE		4	AAE16299		0.66	
1	PLATE		3	AAB10073		0.172	
1	PLATE		2	AAE16298		0.659	
1	RING		1	AAB10008		0.483	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.130		WT/ASSY IN Kgs: 2.159	
AUX. WATER TANK FIXING BRACKET				SCALE 1:2	SSE/D	CHD	
				ALT	ALTD	DRN	Amal George
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		85616009	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A2	

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES REFER DRAWING NO ICF/STD-9-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS813-1986.

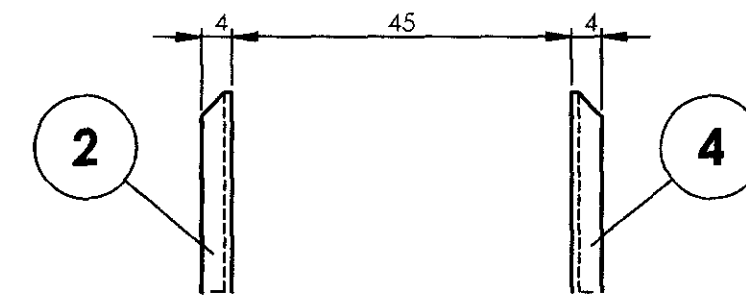
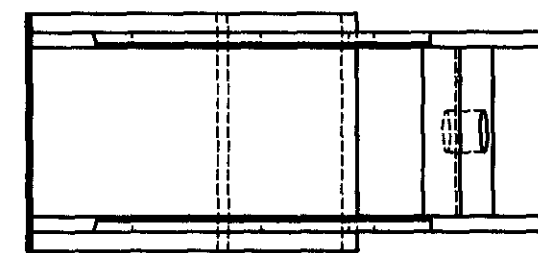
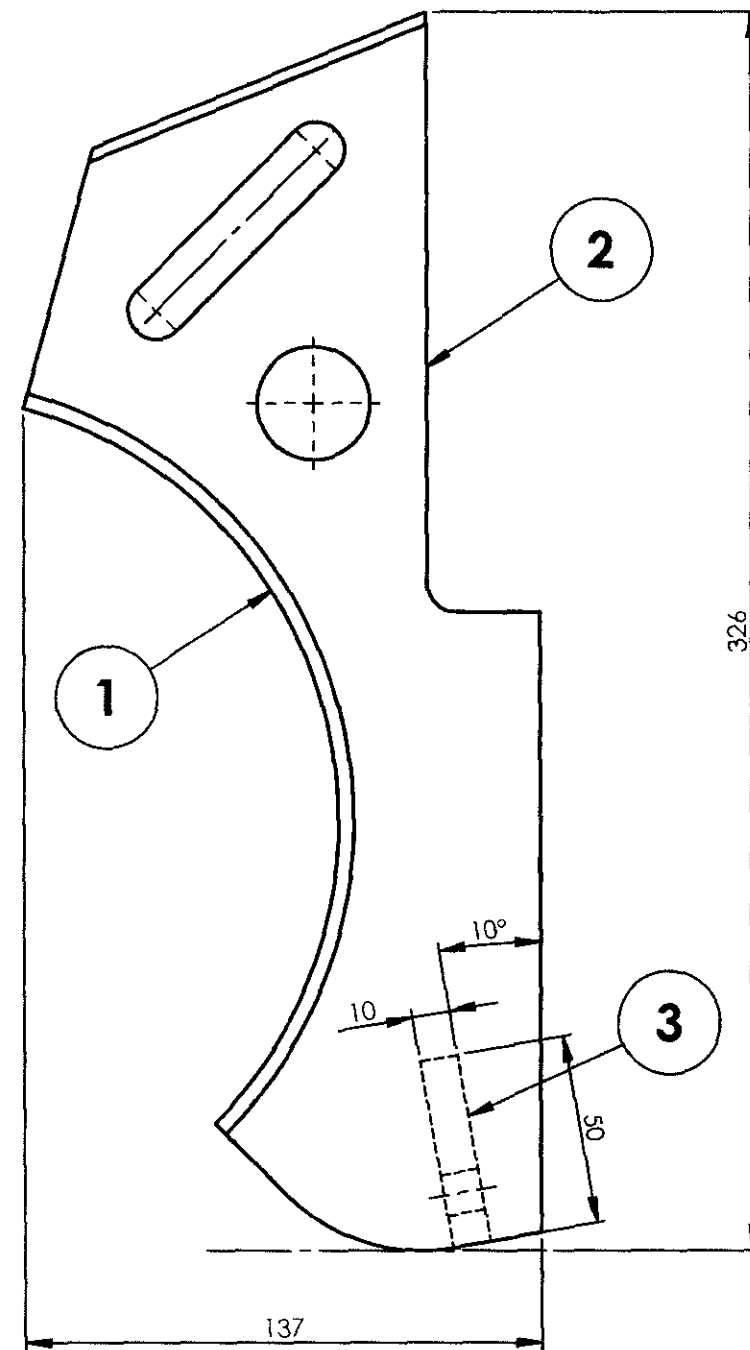
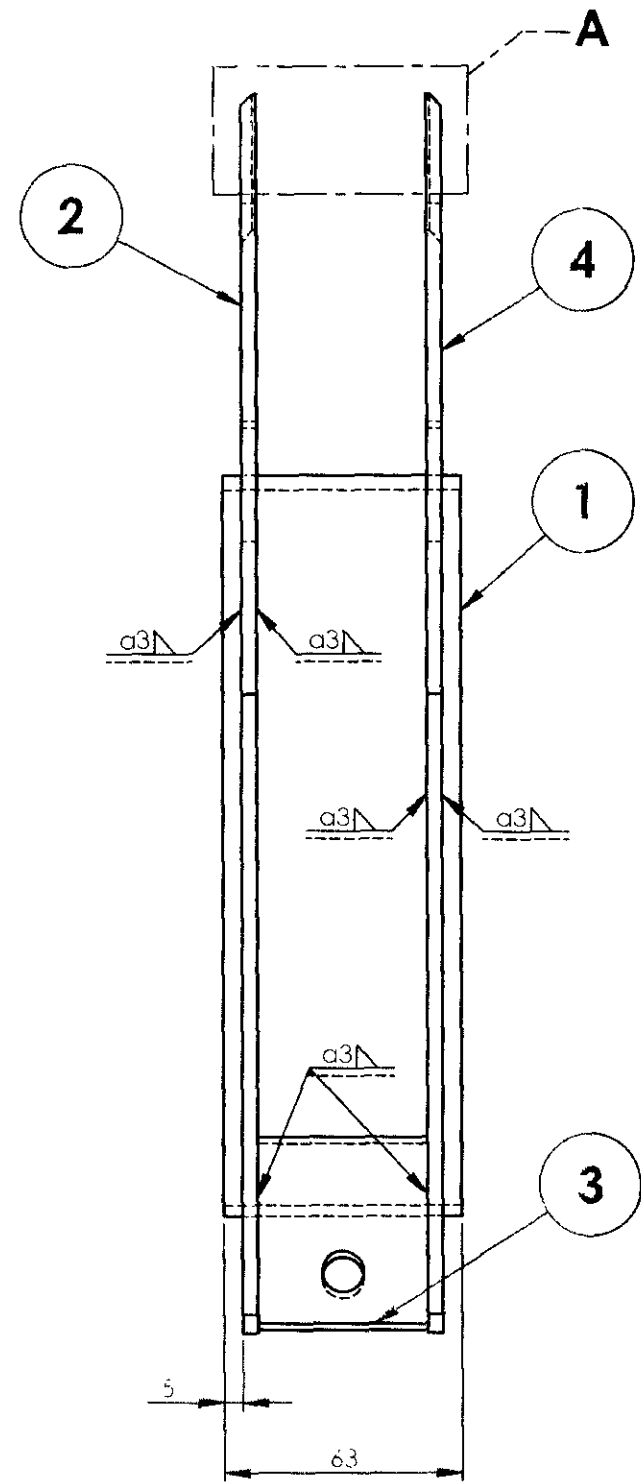
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DATE OF LATEST ALT.	30-09-2022	AME/SME
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85616010

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



DETAIL A
SCALE 1 : 1

1	PLATE		4	AAE14301		0.62	
1	PLATE		3	AAE10073		0.172	
1	PLATE		2	AAE14300		0.618	
1	RING		1	AAE10008		0.483	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 Roof Construction SURFACE AREA IN Sq.m.: 0.125 WT/ASSY IN Kgs:

AUX. WATER TANK FIXING BRACKET

SCALE 1:2	SSE/D	CHD
ALT	ALTD	DRN
		Amal George

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET 1 OF 1
85616010 A2

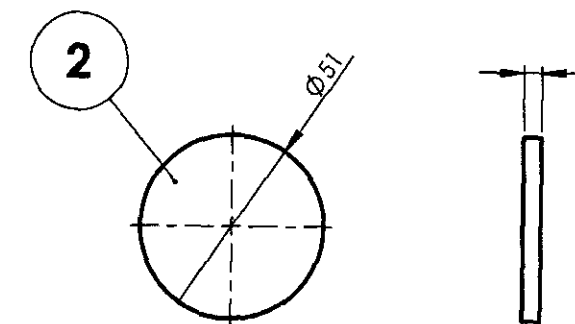
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DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME
	30-09-2022	

ALL DIMENSIONS ARE IN mm: UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①c CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE **CP C2** UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERANCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY)ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.



2	BASE PLATE	5 x Ø51	2		SS-304	0.08	
1	HANDLE ROD	Ø16 x 501	1		SS-304	0.80	
QTY.	Description	DIMENSIONS	ITEM NO.	REF. DRGS	MATERIAL	Weight/Unit In Kgs	REMARKS

GROUP: 1-6 Roof Construction

SURFACE AREA IN Sq.m.:0.04

WT/ASSY IN Kgs:

HANDLE COMPLETE

SCALE
1:2

SSE/D
CHD

ALT.

ALTD

DRN	Amai George
-----	-------------

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

LWACCN/EOG/GR

87416034

A3

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

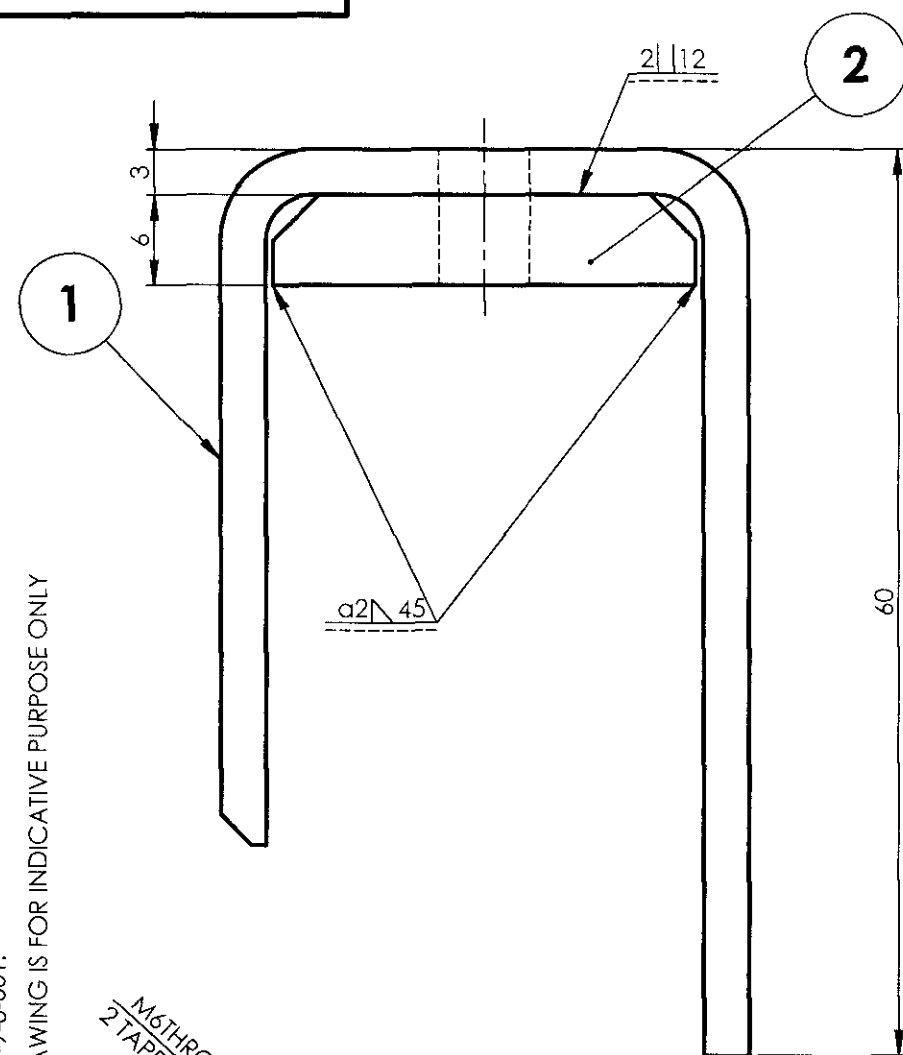
REF.DRG.NO.-

-	24-04-2023	✓ - 26/4
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

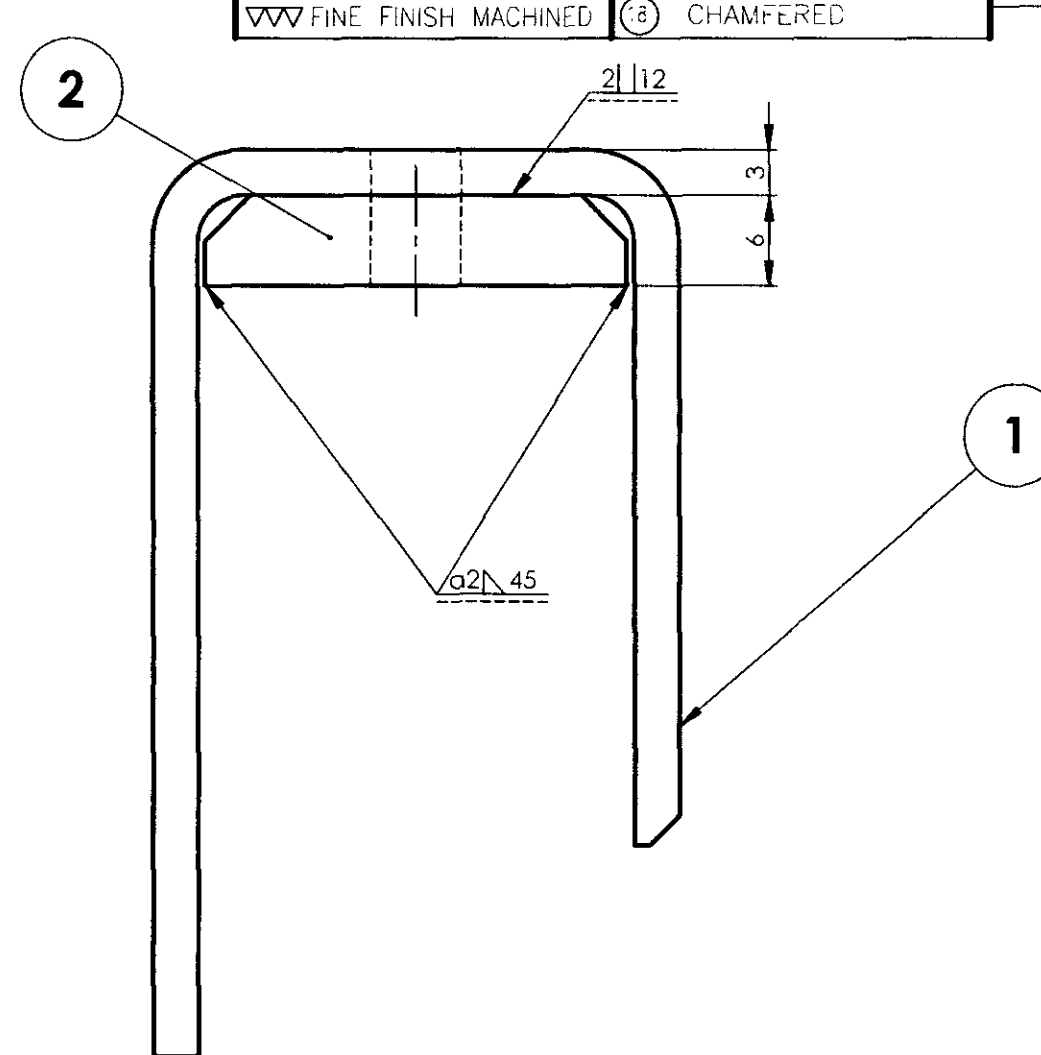
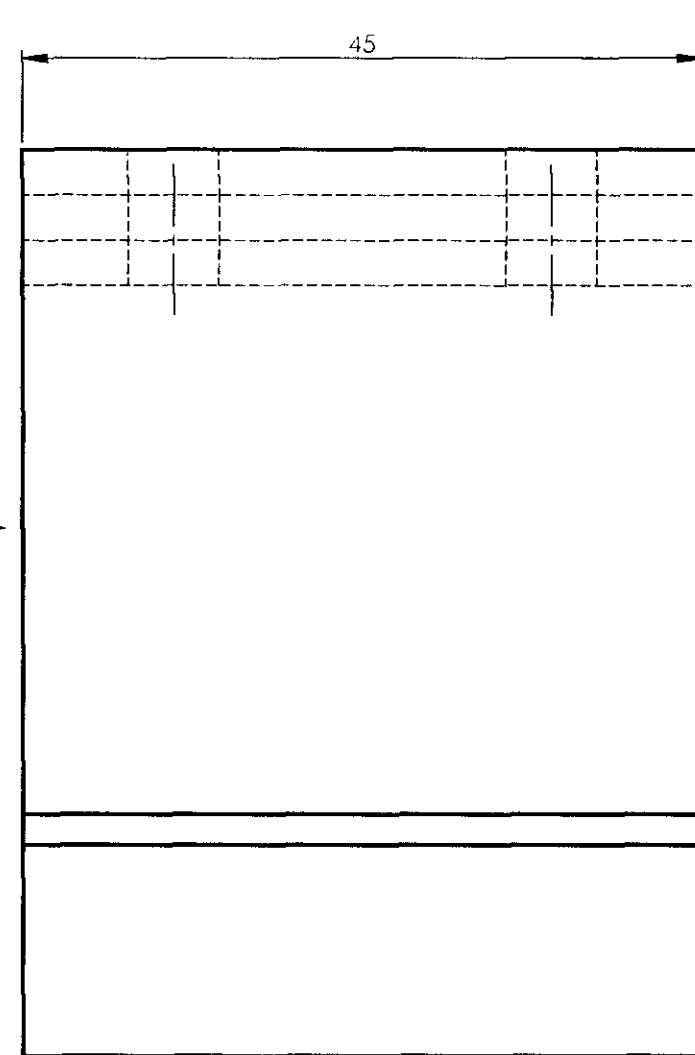
98116026

▽ ROUGH MACHINED	○ ROUGH CLEANED
▽▽ FINISH MACHINED	○ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	○ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



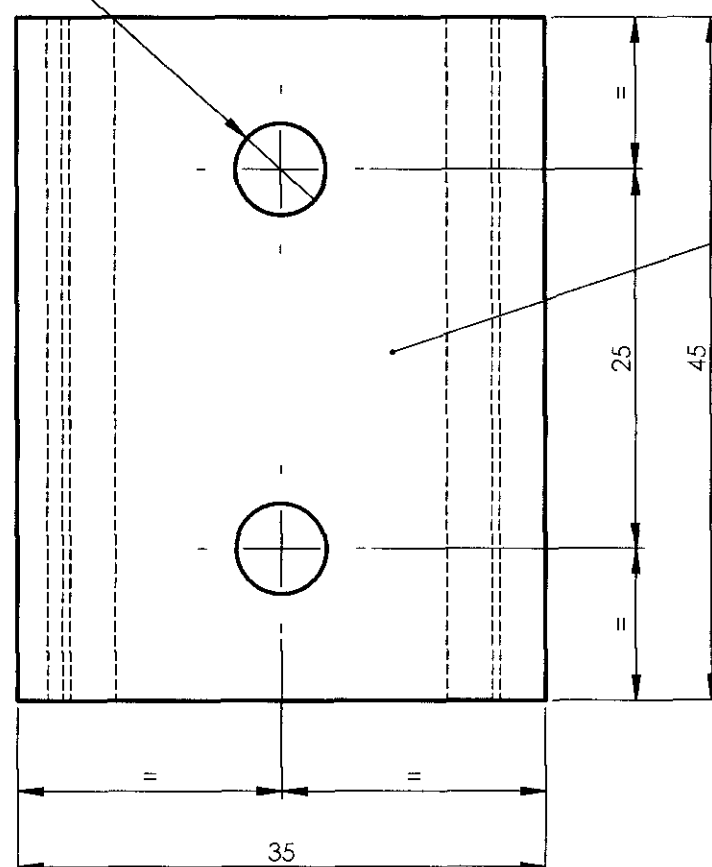
X →



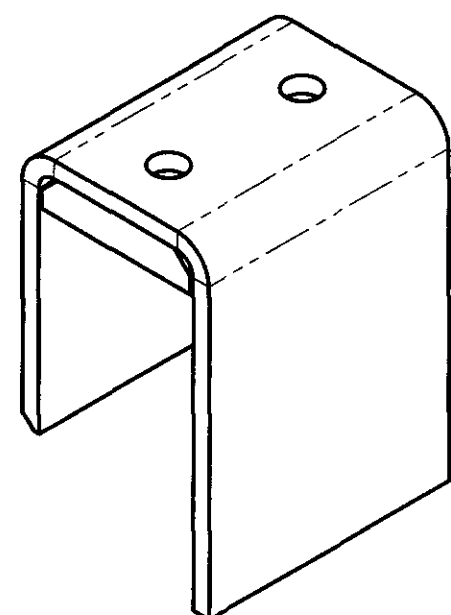
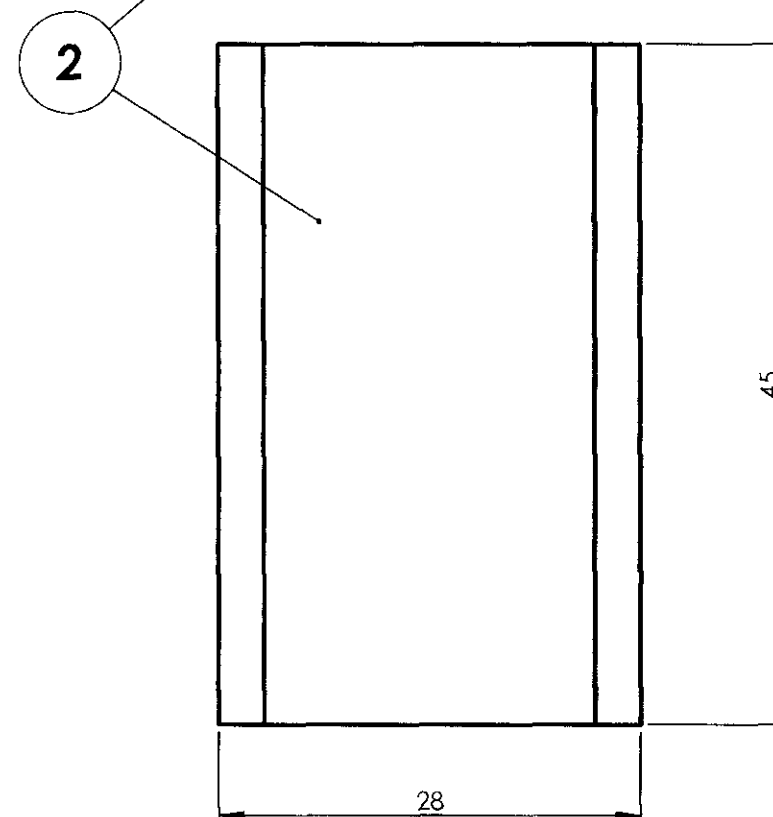
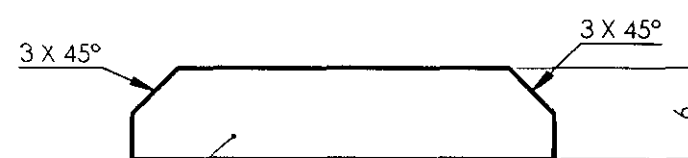
VIEW FROM X

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELD PERFORMANCE CLASS SHALL BE **CP C2** UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
8. ALTERNATIVELY AISI 304 / SS304 (X02Cr19Ni10) / IS 6911 (X04Cr19Ni9) ARE ALSO ACCEPTABLE.

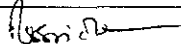
MOTHTROUGH
TAPPED HOLES

DETAIL FOR ITEM-2




ISOMETRIC VIEW

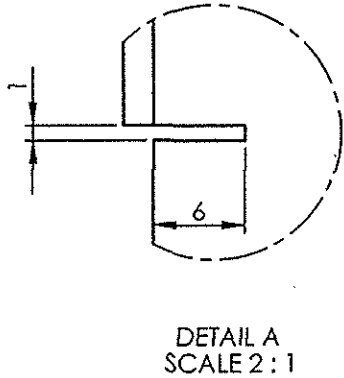
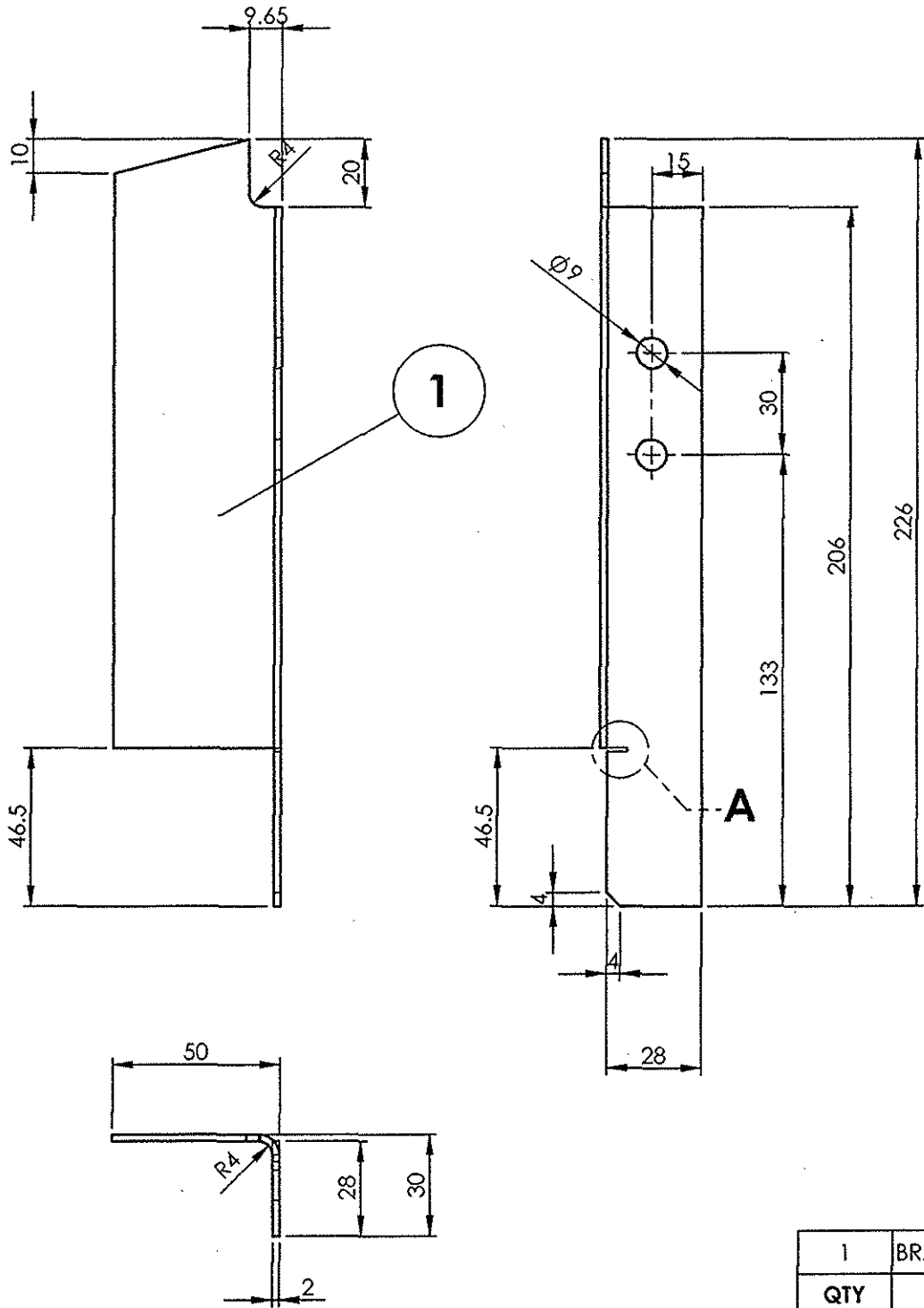
REF.DRG.NO.LR16123 ALT a

1	SCREWING PIECE	3 x 28 x 45	2		RDSO SPEC C- K201 X5 Cr Ni 18 10	0.04	@
1	CHANNEL		1	AAF14083		0.141	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 0.02			WT/ASSY IN Kgs:		
BRACKET FOR FIXING ROOF VENTILATOR					SCALE	SSE/B	
					2:1	CHD	
					ALT	ALTD	Amal George
						DIRN	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	LWCB/PP		
					98116026		A2

AAA16412

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		METERIAL SPEC. REVISED	 1/9/2



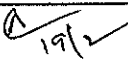
1	BRACE	2x75.5x226	1		RDSO/SPEC C-K201 X2CrNi12	0.221	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: ROOF CONSTRUCTION				SURFACE AREA IN Sq.m.:28504.337796WT/ASSY IN Kgs:0.221			
BRACE					SCALE 1:2	SSE/D CHD	Signature
					ALT. a	ALTD DRN	RAMANUJA RAO.P.V
					3D-B.SURESH 2D-A.PALANICHAMY		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA16412	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A3	

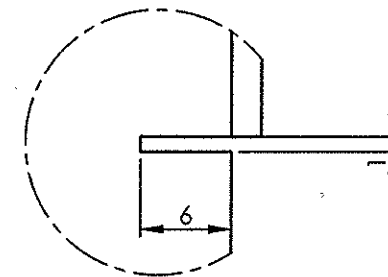
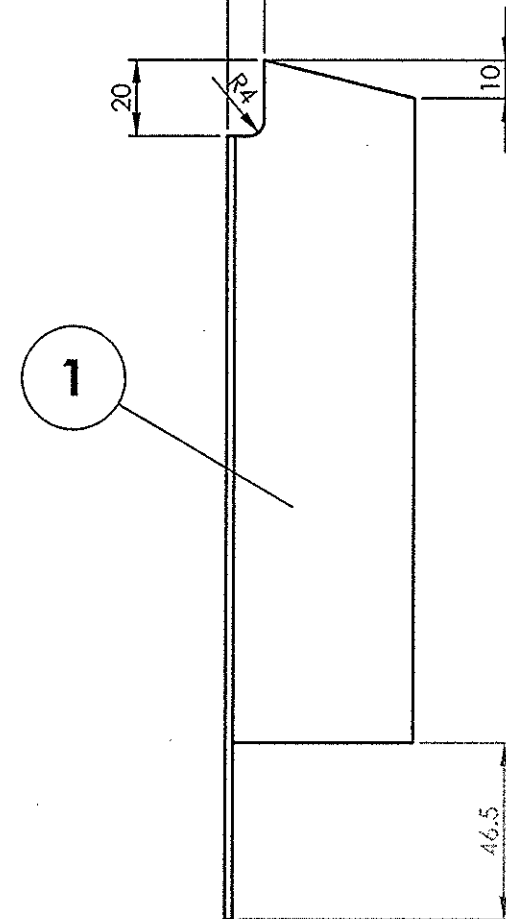
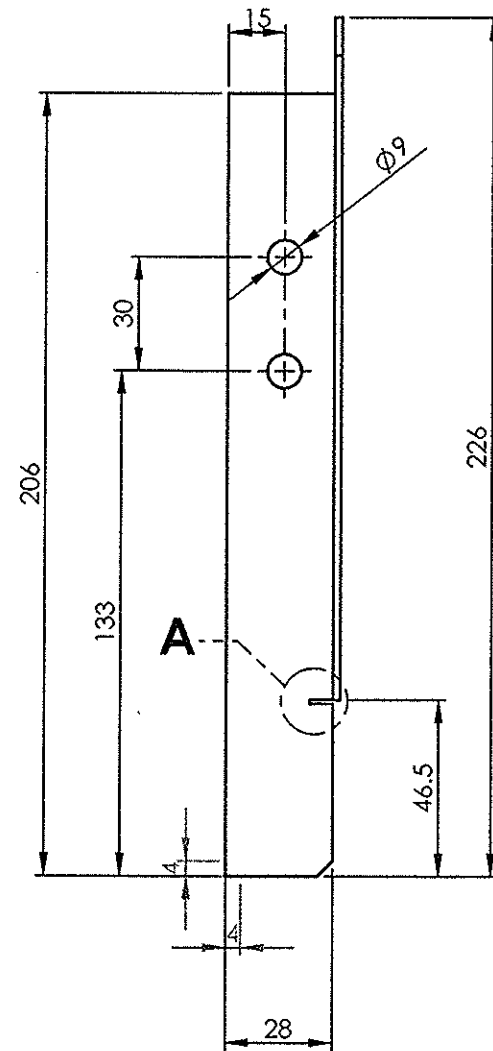
19-02-2016	24-12-2009	R. N.
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	SME/AME

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

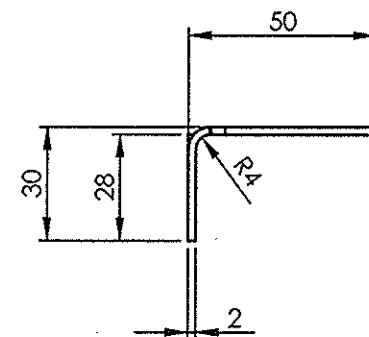
AAA16413

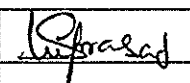

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED


REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. REVISED	 19/12



DETAIL A
SCALE 2:1



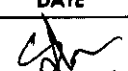
1	BRACE	2x75.5x226	1		RDSO/SPEC C-K201 X2CrNi12	0.221	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: ROOF CONSTRUCTION				SURFACE AREA IN Sq.m.:28504.337798WT/ASSY IN Kgs:0.221			
BRACE					SCALE 1:2	SSE/D CHD	
					ALT. a	ALTD DRN	RAMANUJA RAO.P V N
					3D-B.SURESH 2D-A.PALANICHAMY		
							
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA16413	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A3	

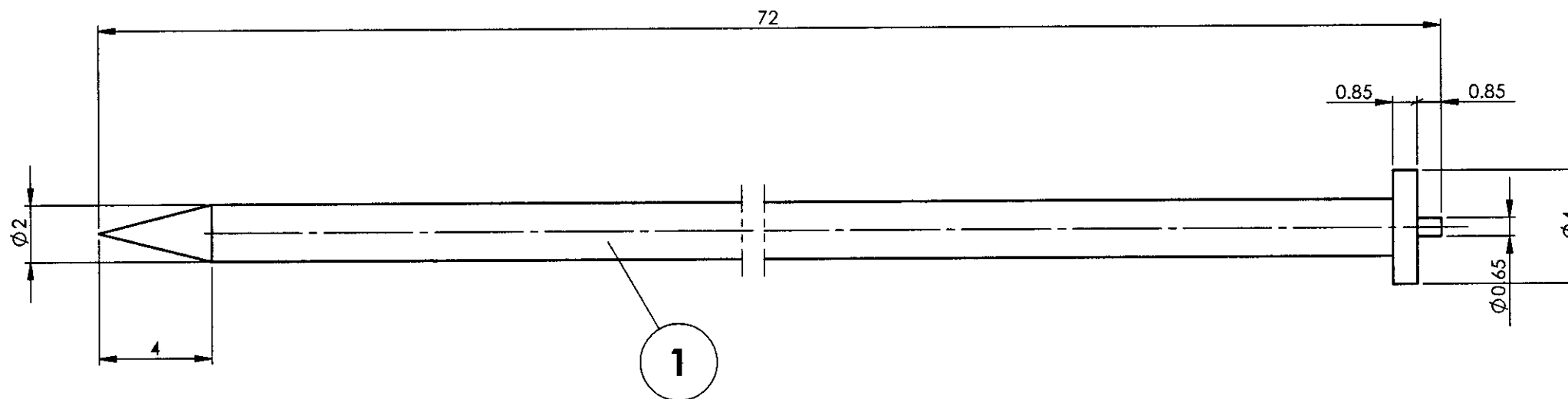
19-02-2016	24-12-2009	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	SME/AME

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

AAA16493

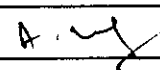
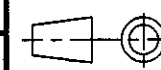
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DRAWING REVISED.	



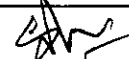
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

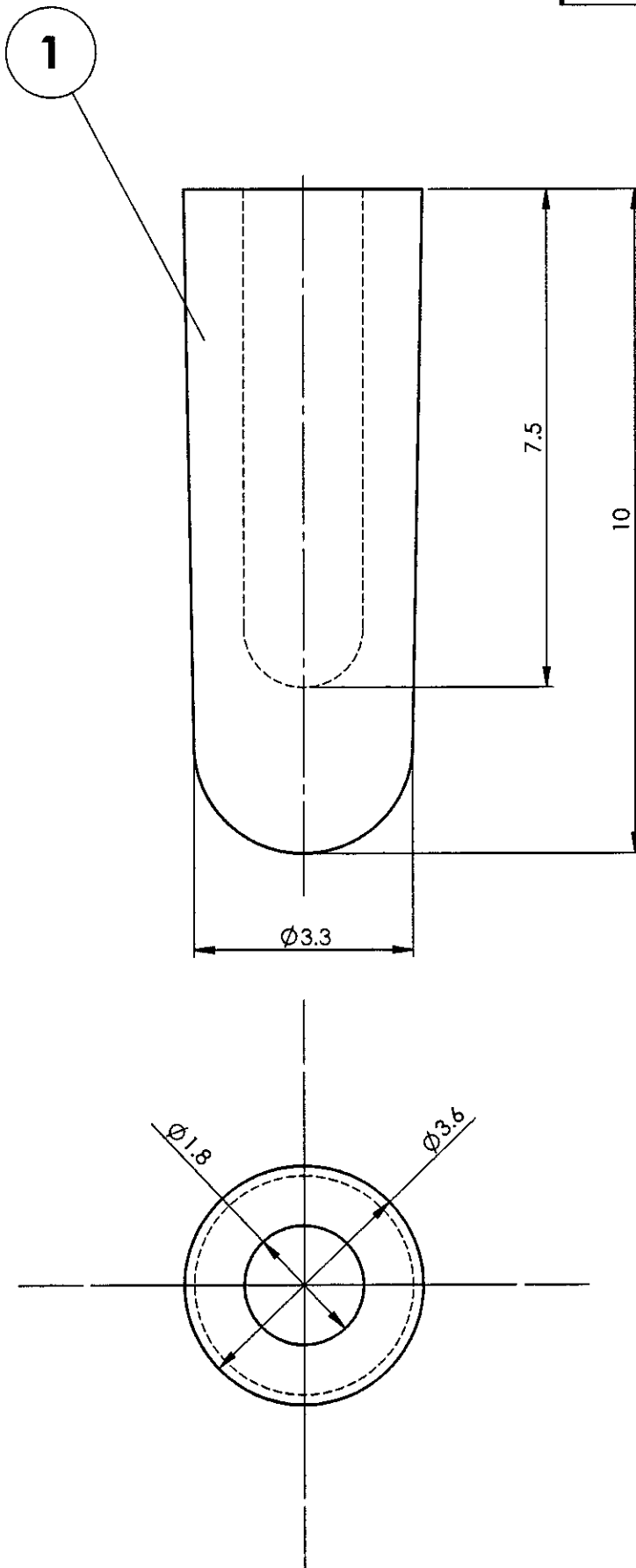
REF.DRG.NO.mi001576, ITEM-1


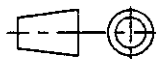
1	WELDING PIN	Ø 4 x 72	1		IS:6528 X04Cr18Ni10	0.002	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF CONSTRUCTION		SURFACE AREA IN Sq.m.: 0.000			WT/ASSY IN Kgs:		
WELDING PIN					SCALE	SSE/D	
					5:1	CHD	
					ALT. a	ALTD	A.Palanichamy
						DRN	3D:A.Palanichamy 2D:P.Murugan
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	AAA16493		A3


AAA16494

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		
a		DRAWING REVISED.		



1	CAP	Ø3.6x10	1		IS:5831	0.000	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF CONSTRUCTION		SURFACE AREA IN Sq.m.:0.000			WT/ASSY IN Kgs:		
CAP					SCALE	SSE/D	
					10:1	CHD	
					ALT.	ALTD	A.Palanichamy
					a	DRN	3D:A.Palanichamy 2D:P.Murugan
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600036				SHEET 1 OF 1			
					AAA16494		A3

06-02-2024	19-07-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME


REF.DRG.NO.mi001576, ITEM-2

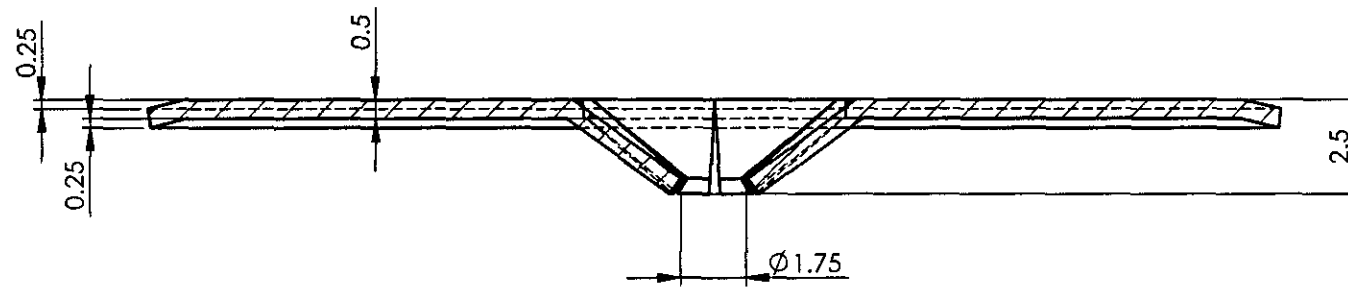
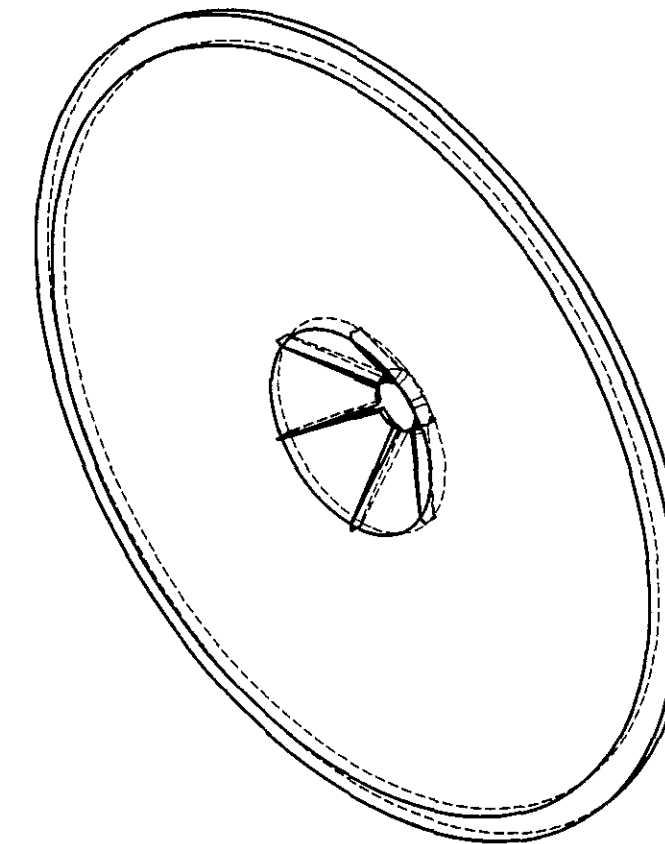
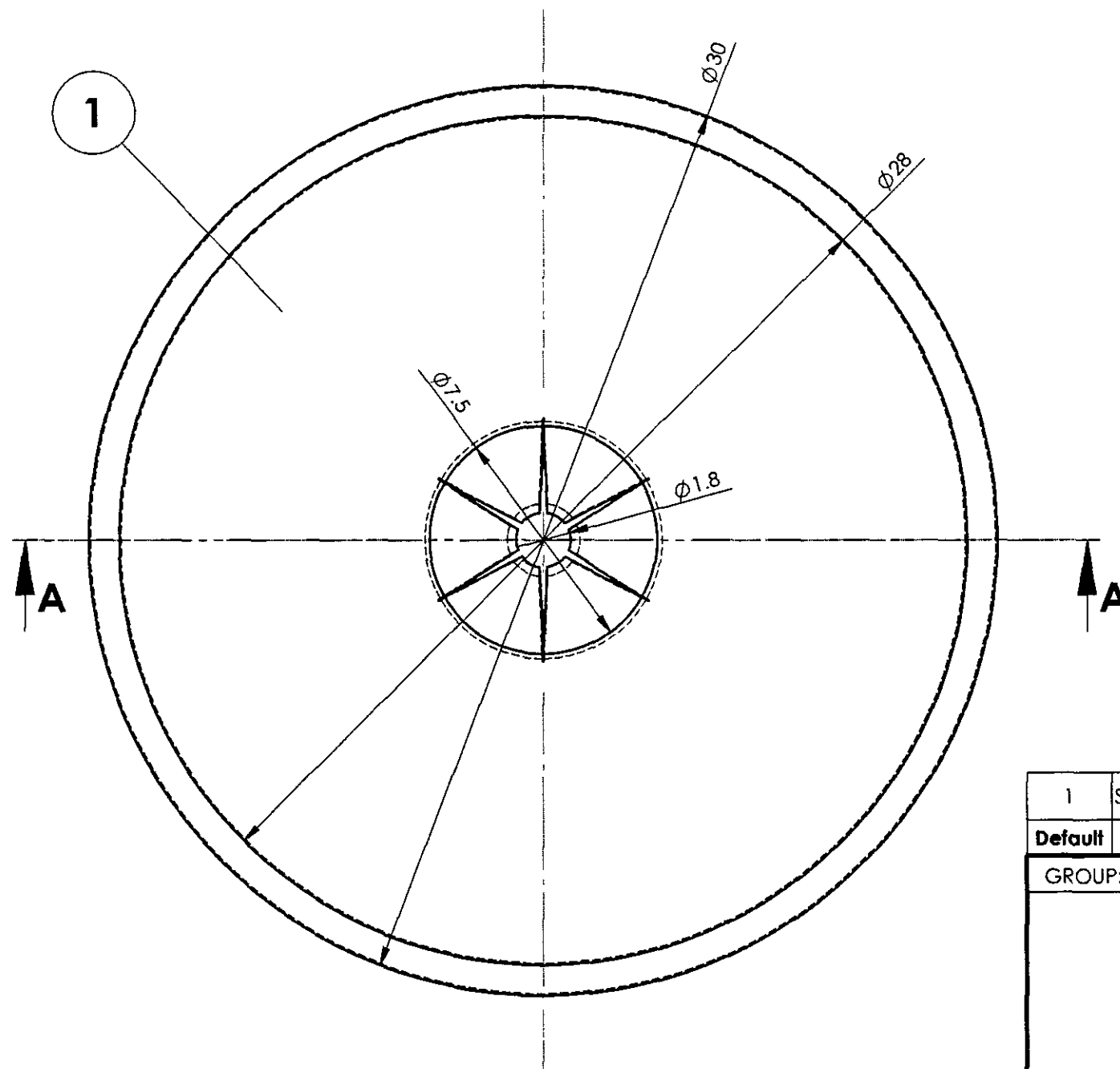
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

AAA16495


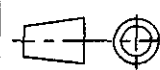
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①B CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DRAWING REVISED.	


SECTION A-A
SCALE 5 : 1

ISOMETRIC VIEW

1	SERRATED SPRING WASHER	DIA 30 x 0.5 THICK	1		IS:4072 Gr.65C6	0.003	COATING TO MDT5057
Default	DESCRIPTION	DIMENSIONS	ITEM NO	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF CONSTRUCTION				SURFACE AREA IN Sq.m.:0.001		WT/ASSY IN Kgs:	
SERRATED SPRING WASHER					SCALE 2:1	SSE/D CHD	
					ALT. a	ALTD DRN	A.Palanichamy 3D:A.Palanichamy 2D:P.Murugan
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
SHEET 1 OF 1					AAA16495		A3

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.mi001576, ITEM-3

06-02-2024	19-07-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1		2		3		4		5		6		7		8	
AAA16842				▽ ROUGH MACHINED		②1 ROUGH CLEANED		REVISIONS							
				▽▽ FINISH MACHINED		①1b BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE	
				▽▽▽ FINE FINISH MACHINED		①8 CHAMFERED		a				MATERIAL SPEC. ATERED AND NOTE-1 ADDED.			

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986

1

NOTE:

1. ALTERNATIVELY AISI 304 / SS304 (X02Cr19Ni10) / IS 6911(X04Cr19Ni9) ARE ALSO ACCEPTABLE.

1	RING	2x315x315	1		RDSO SPEC C-K201 X5 Cr Ni 18 10	0.47	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs: 0.47			
RING				SCALE 1:2.5	SSE/D CHD		
				ALT. a	ALTD D/RN	Kunti Thakur S.Bala V.Subramani	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA16842 A3	
INTEGRAL COACH FACTORY CHENNAI 600018							

23-04-2025	31-07-2013	
DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME

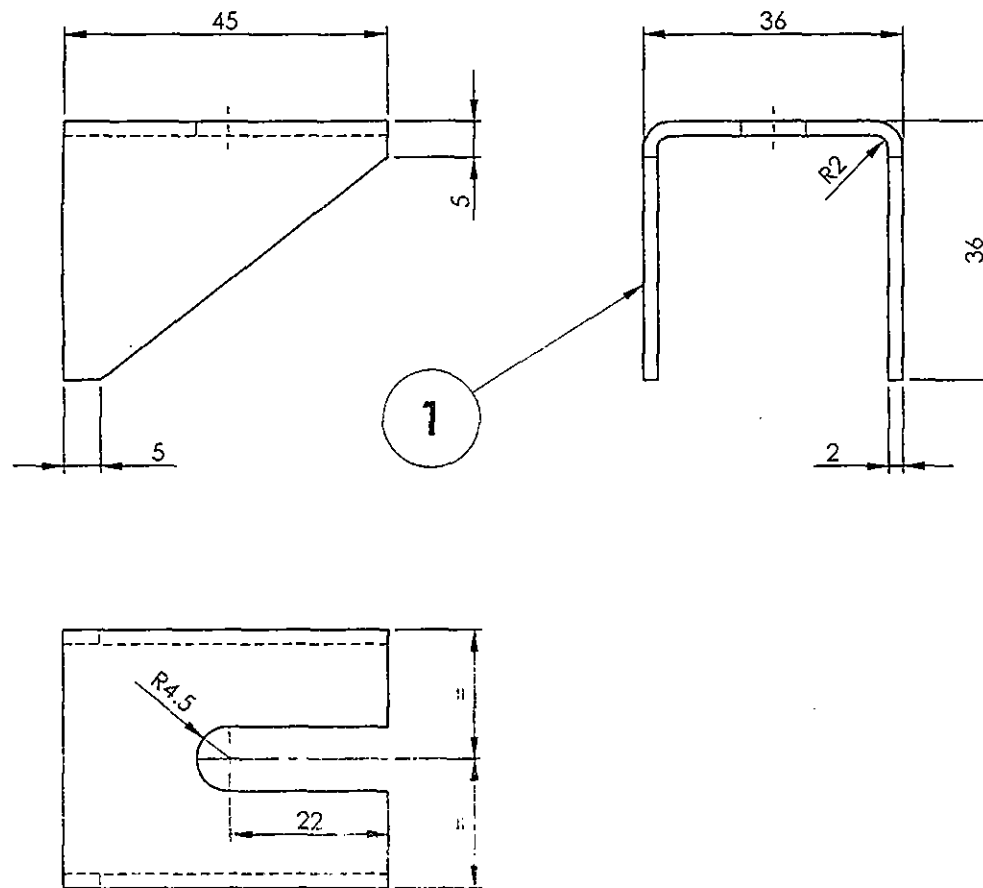
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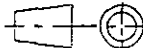
1		2		3		4		5		6		7		8																																																																	
AAA16895				▽ ROUGH MACHINED		⊖ ROUGH CLEANED		REVISIONS																																																																							
				▽▽ FINISH MACHINED		⊖⊖ BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE																																																																	
				▽▽▽ FINE FINISH MACHINED		⊖⊖⊖ CHAMFERED																																																																									
<div>ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND TOLERANCE VALUES, REFER DRAWING NO ICE/STD 9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.</div> <div></div>																																																																															
<table><tr><td>1</td><td>FLANGE</td><td>4 x 50 x 2859</td><td>1</td><td></td><td>RDSO/SPEC C- K201 X2 Cr Ni 12</td><td>4.561</td><td></td></tr><tr><td>QTY.</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO.</td><td>REF. DRGS</td><td>MATL.SPEC.</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></tr><tr><td colspan="2">GROUP: 1-6 ROOF ASSEMBLY</td><td colspan="2">SURFACE AREA IN Sq.m.:0.308</td><td colspan="4">WT/ASSY IN Kgs: 4.561</td></tr><tr><td colspan="5" rowspan="4">FLANGE</td><td>SCALE</td><td>SSE/D</td><td rowspan="2">K.Srirom</td></tr><tr><td>1:10</td><td>CHD</td></tr><tr><td>ALT.</td><td>ALTD</td><td></td></tr><tr><td></td><td>DRN</td><td></td></tr><tr><td colspan="5">INDIAN RAILWAY STANDARDS</td><td colspan="2">SHEET 1 OF 1</td><td></td></tr><tr><td colspan="5">INTEGRAL COACH FACTORY, CHENNAI - 600038</td><td colspan="2">AAA16895</td><td>A3</td></tr><tr><td colspan="2">DATE OF LATEST ALT.</td><td>21-03-2013</td><td colspan="2">DATE OF FIRST ISSUE</td><td colspan="3">AME/SME</td></tr></table>																1	FLANGE	4 x 50 x 2859	1		RDSO/SPEC C- K201 X2 Cr Ni 12	4.561		QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.308		WT/ASSY IN Kgs: 4.561				FLANGE					SCALE	SSE/D	K.Srirom	1:10	CHD	ALT.	ALTD			DRN		INDIAN RAILWAY STANDARDS					SHEET 1 OF 1			INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA16895		A3	DATE OF LATEST ALT.		21-03-2013	DATE OF FIRST ISSUE		AME/SME		
1	FLANGE	4 x 50 x 2859	1		RDSO/SPEC C- K201 X2 Cr Ni 12	4.561																																																																									
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS																																																																								
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.308		WT/ASSY IN Kgs: 4.561																																																																											
FLANGE					SCALE	SSE/D	K.Srirom																																																																								
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					ALT.	ALTD																																																																									
						DRN																																																																									
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1																																																																										
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA16895		A3																																																																								
DATE OF LATEST ALT.		21-03-2013	DATE OF FIRST ISSUE		AME/SME																																																																										
1		2		3		4		5		6		7		8																																																																	

AAA16896

▽ ROUGH MACHINED	③ ROUGH CLEANED
▽▽ FINISH MACHINED	④ BURRS REMOVED
▽▽▽ FINE FINISH VACUUMED	⑤ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	BRACKET	2 x 45 x 101	1		RDSO/SPEC C- K201 X2 Cr Ni 12	0.050	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.007			WT/ASSY IN Kgs:0.050		
BRACKET					SCALE	SSE/D	K.Sriram
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAA16896

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUNDOFF VALUES, REFER DRAWING NO ICF/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

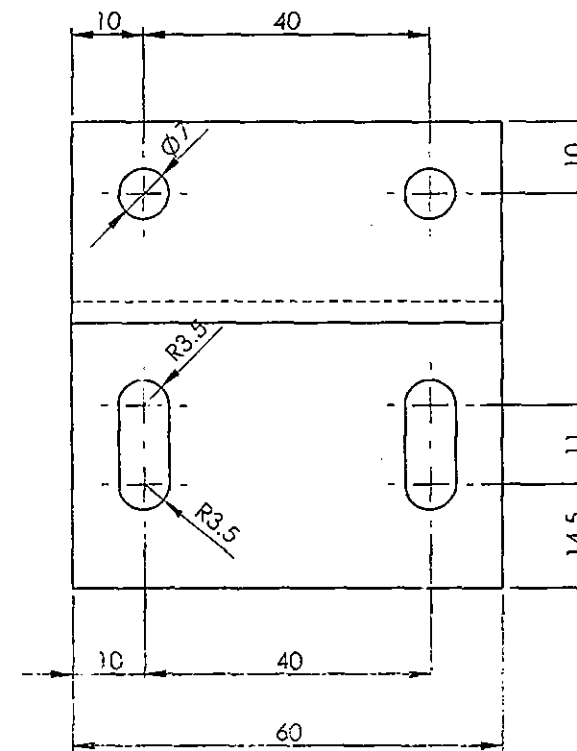
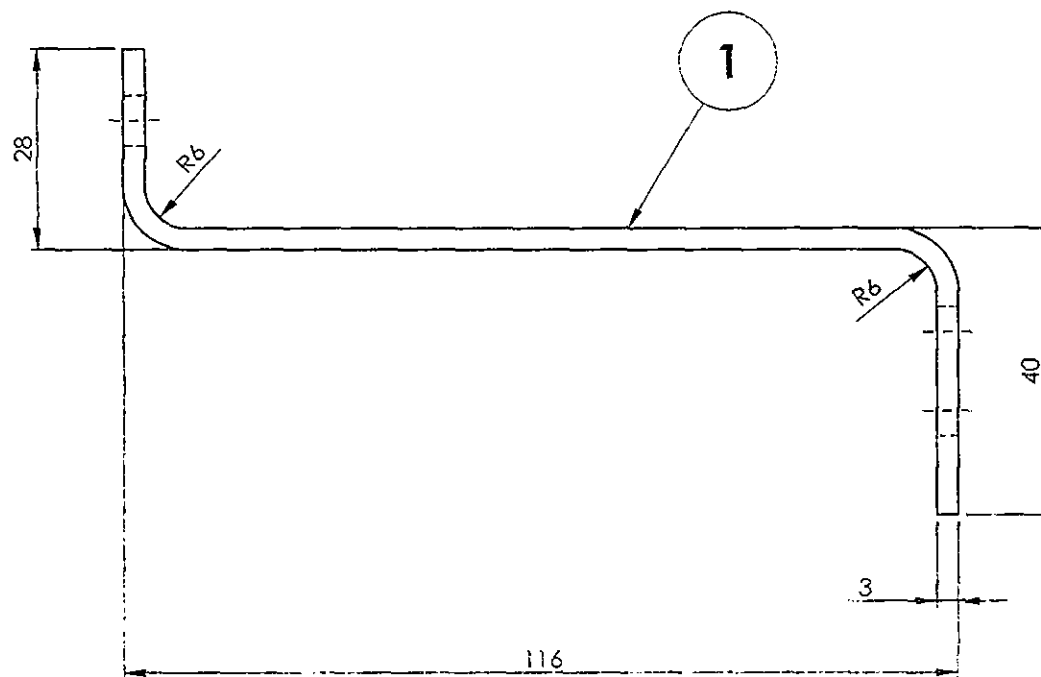
REF.DRG.NO.3.10113.0.20.095.120

	21-03-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA16898

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED


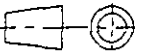
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO IC/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.LW16127

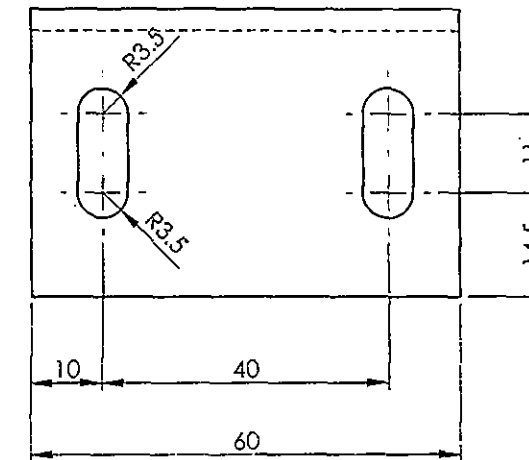
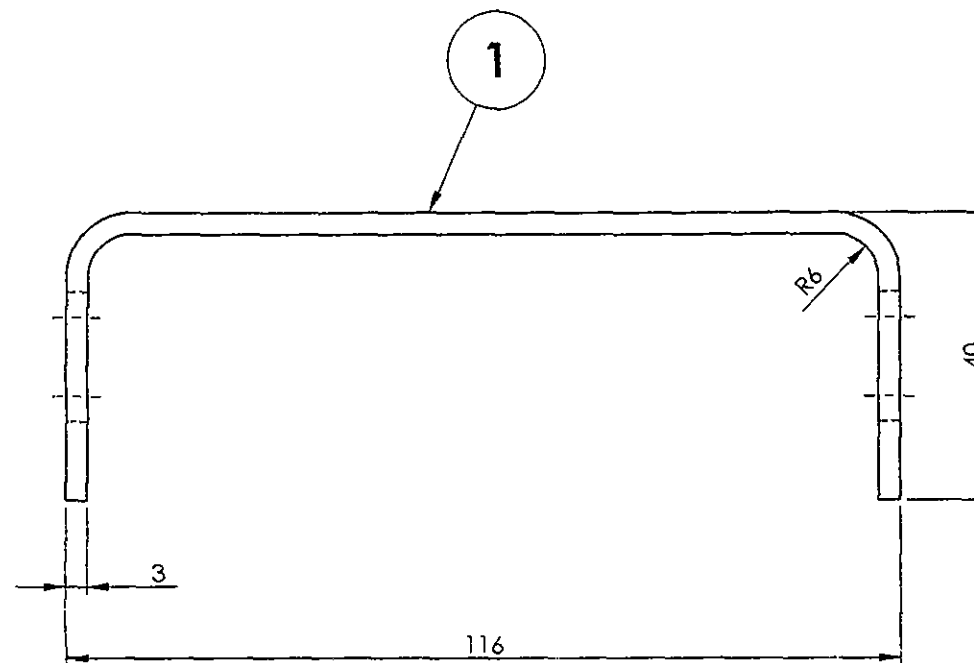
DATE OF LATEST ALT.	21-03-2013	AME/SME
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1	BRACKET	3 x 60 x 172	1		RDSO/SPEC C- K201 X2 Cr Ni 12	0.240	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.022			WT/ASSY IN Kgs:0.240		
BRACKET					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16898		A3

AAA16899

▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊖⊖⊖ CHAMFERED


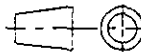
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICI/SID 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

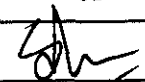
REF.DRG.NO.LW16128

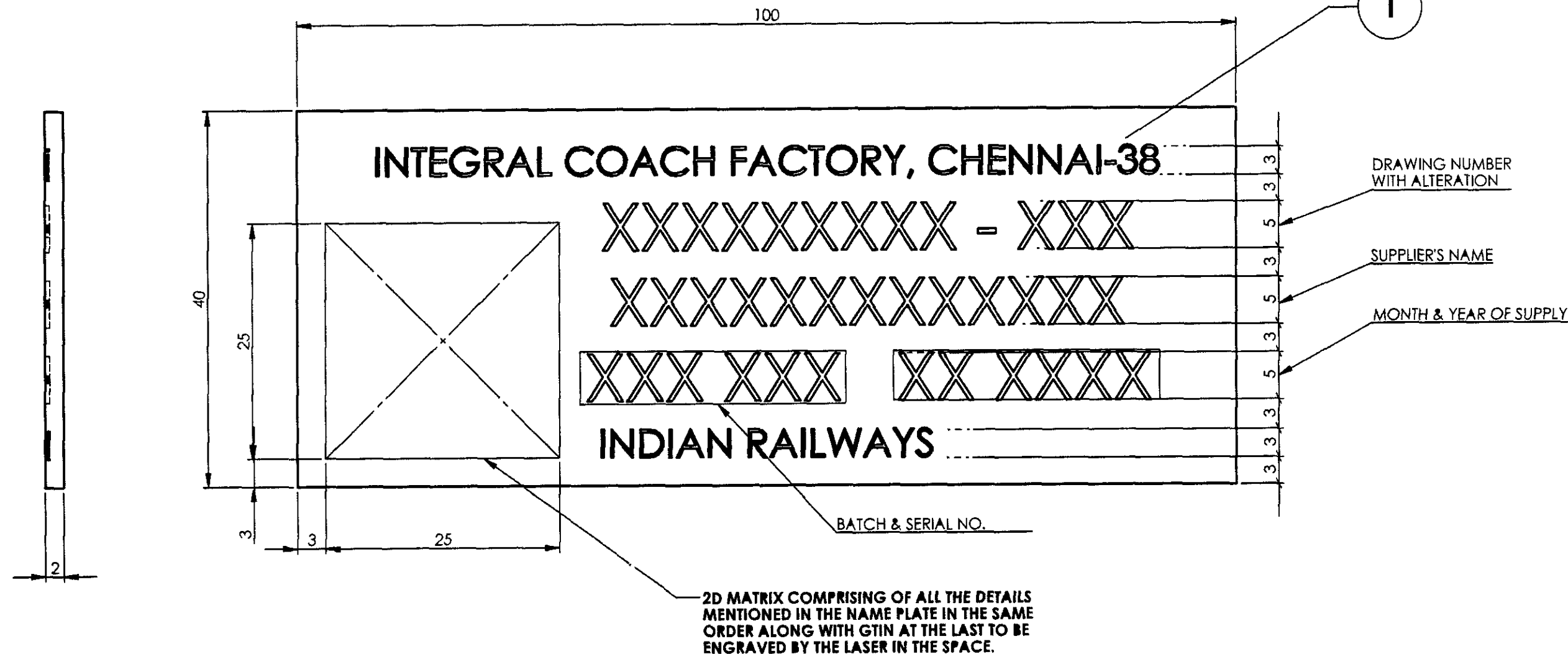
	21-03-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	A.M.E./S.M.E.

1	CHANNEL	3 x 60 x 184	1		RDSO/SPEC C- K201 X2 Cr Ni 12	0.253	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.023			WT/ASSY IN Kgs:0.253		
CHANNEL					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16899		A3

AAA51072

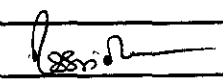
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①① BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①①① CHAMFERED


REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		NAME PLATE REVISED.	-sd-
b		DESIGN REVISED.	-sd-
c		BATCH & SERIAL NO. ADDED	-sd-
d		NOTE-2 ADDED.	



NOTE:

1. LETTERS TO BE PUNCHED OR ENGRAVED.
2. ALTERNATIVELY AISI-304/SS-304 (X02Cr19Ni10)/IS:6911(X04Cr19Ni9) ALSO ACCEPTABLE.

1	NAME PLATE FOR SUPPLIER IDENTIFICATION	2x40x100	1		RDSO/SPEC C-K201 X2 Cr Ni 12	0.063	\$
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 5-1 Body Side Doors				SURFACE AREA IN Sq.m.:0.009		WT/ASSY IN Kgs:	
NAME PLATE FOR SUPPLIER IDENTIFICATION					SCALE 2:1	SSE/D	
					ALT. d	CHD	
						ALTD	KUNTI THAKUR
INDIAN RAILWAY STANDARDS						DRN	G. NAGESWARAN
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA51072	
						A3	

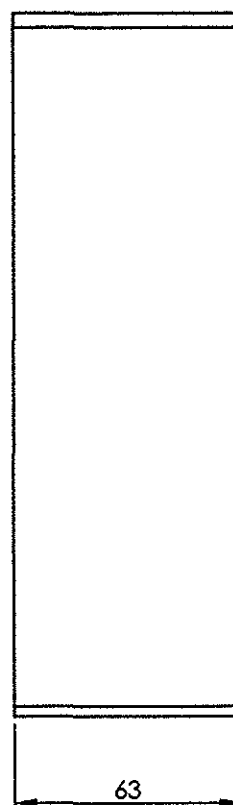
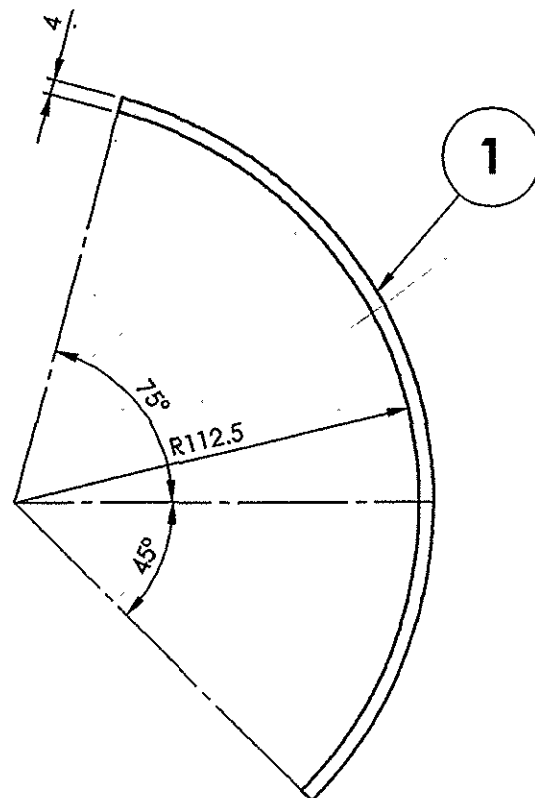
06-07-2024	02.06.2010	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.

AAB10008

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	RING	4 x 63 x 240	1		RDSO/SPEC C-K201 X2CrNi12	0.483	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.033			WT/ASSY IN Kgs:0.483		
RING					SCALE	SSE/D	W. S. Prasad
					1:2	CHD	
					ALT.	ALTD	
					DRN	K.Sriram	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1	AAB10008		A3
INTEGRAL COACH FACTORY, CHENNAI - 600038							

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS, VALUES, REFER DRAWING NO IC/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.-

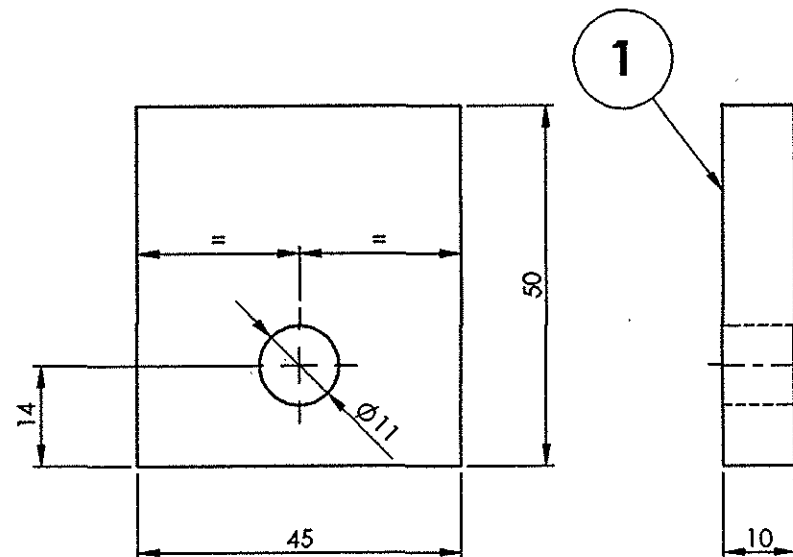
	12-06-20/3	<i>W. S. Prasad</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAB10073

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.

	12-06-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	PLATE	10 x 45 x 50	1		RDSO/SPEC C-K201 X2CrNi12	0.172		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.007			WT/ASSY IN Kgs:0.172			
PLATE					SCALE	SSE/D	<i>K.Sriram</i>	
					1:1	CHD		
					ALT.	ALTD		
						DRN	K.Sriram	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		AAB10073	A3

1		2		3		4		5		6		7		8	
AAB16026				▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS							
				▽▽ FINISH MACHINED		①b BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE	
				▽▽▽ FINE FINISH MACHINED		①8 CHAMFERED		a				Ø7 mm ELONGATED HOLE INTRODUCED TO REPLACE THE Ø7 mm HOLES. RM SIZE OF ITEM-1 REVISED. VIEWS UPDATED.		[Signature]	
A															
B															
C															
D															
E															
F															

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

ISOMETRIC VIEW

1	BRACKET FOR CONDUIT FIXING	2 x 20 x 121	1		RDSO/SPEC C-K201 X2CrNi12	0.034	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.005		WT/ASSY IN Kgs:			
BRACKET FOR CONDUIT FIXING				SCALE	SSE/D	[Signature]	
				2:1	CHD		
				ALT. a	ALTD	AMAL GEORGE	
				DRN	S.Bala V.Subramani.		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAB16026 A3	
INTEGRAL COACH FACTORY, CHENNAI - 600034							
22-05-2023	30-08-2013	[Signature]					
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME					

REF.DRG.NO.lg16127

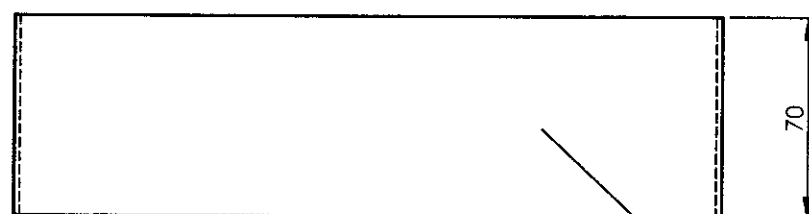
1		2		3		4		5		6		7		8	
AAB16354				▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS							
				▽▽ FINISH MACHINED		①b BURRS REMOVED		ALT.		ZONE		DESCRIPTION			
				▽▽▽ FINE FINISH MACHINED		①8 CHAMFERED						APPROVED & DATE			
<div>ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY</div> <div><div><div>66</div><div>11</div><div>11</div></div><div>1</div></div> <div><div>85</div><div>70</div><div>3</div><div>38</div><div>20.1</div><div>30</div><div>23.25</div><div>RA</div><div>6.4°</div><div>RA</div><div>Ø 10</div></div> <div>ISOMETRIC VIEW</div>															

AAE16272

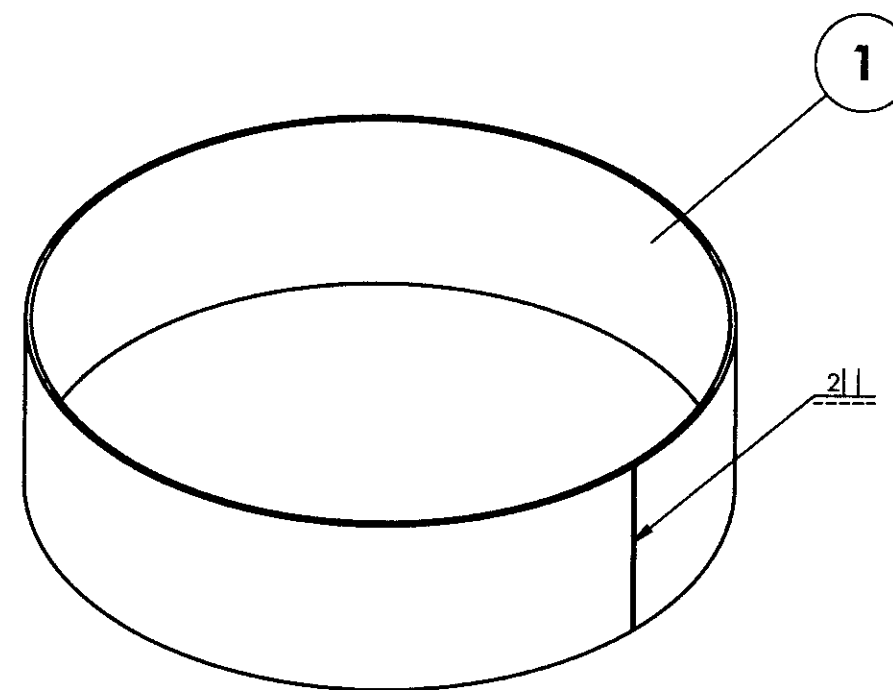
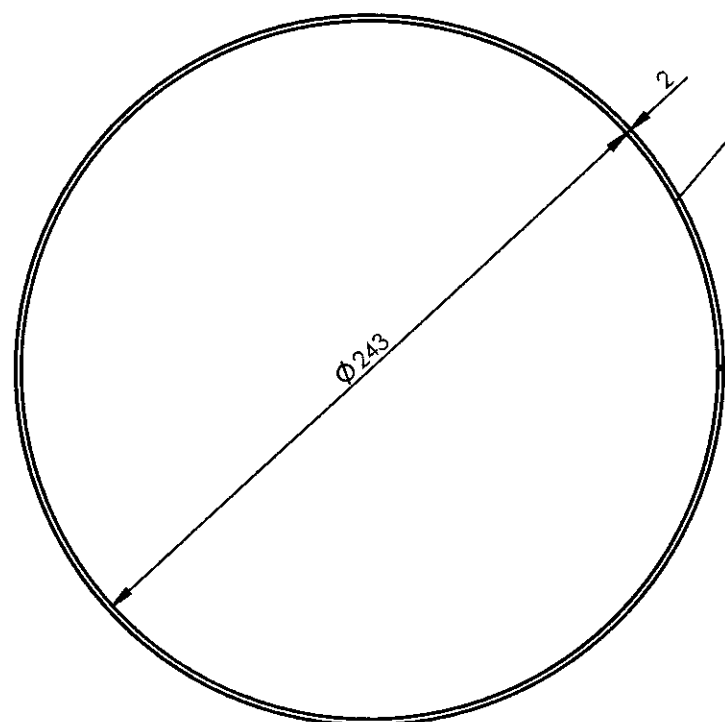
▽ ROUGH MACHINED	① ROUGH CLEANED
▽ FINISH MACHINED	② BURRS REMOVED
▽ FINISH MACHINED	③ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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1



2/1

ISOMETRIC VIEW

1	TUBE FOR VENTILLATOR	2x70x769	1		RDSO/SPEC C- K201 X5 Cr Ni 18 10	0.86	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:0.11		WT/ASSY IN Kgs:0.86	
TUBE FOR VENTILLATOR					SCALE	SSE/D	
					1:2.5	CHD	
					ALT.	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAE16272		
					A3		

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.

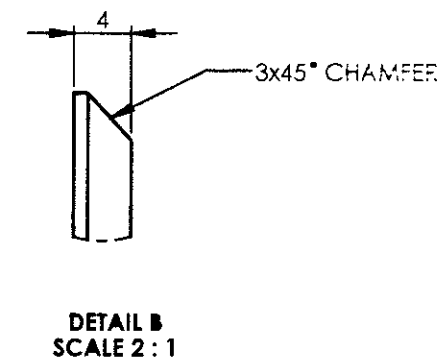
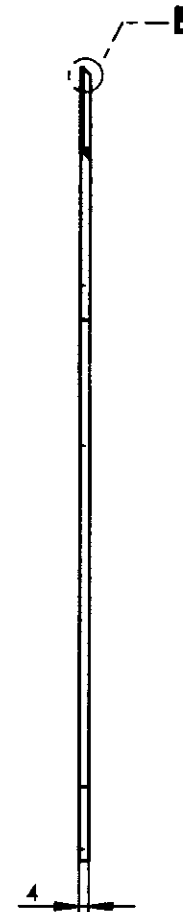
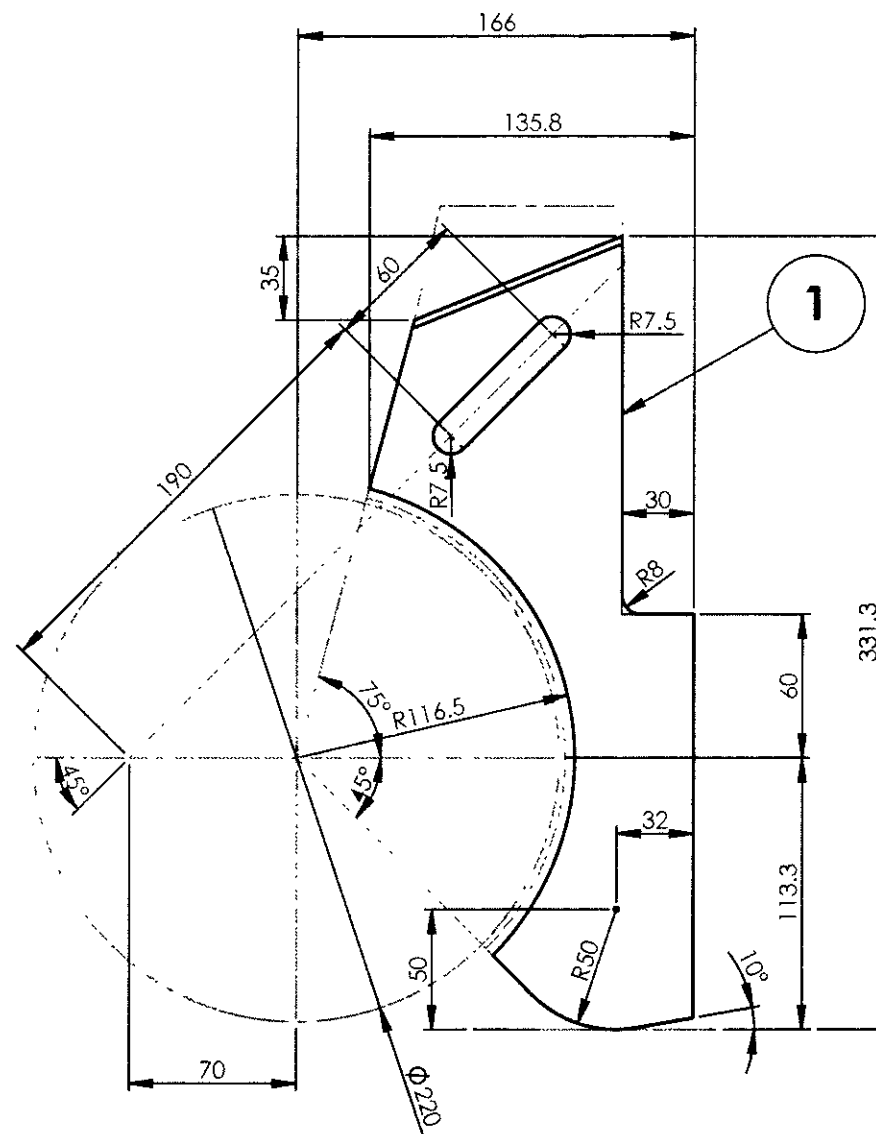
	30-09-2022	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAE16298

▽ ROUGH MACHINED	⑧1 ROUGH CLEANED
▽▽ FINISH MACHINED	⑧2 BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑧3 CHAMFERED

REVISIONS

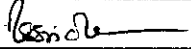
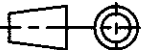
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICE/STD-9-0-001
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS 813-1986.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.-

	30-09-2022	11/02/22
DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME

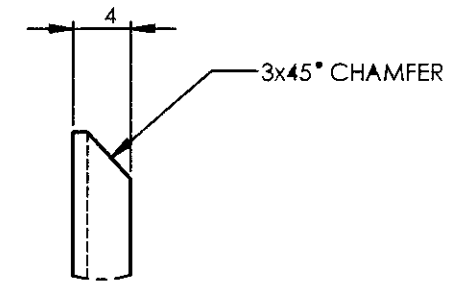
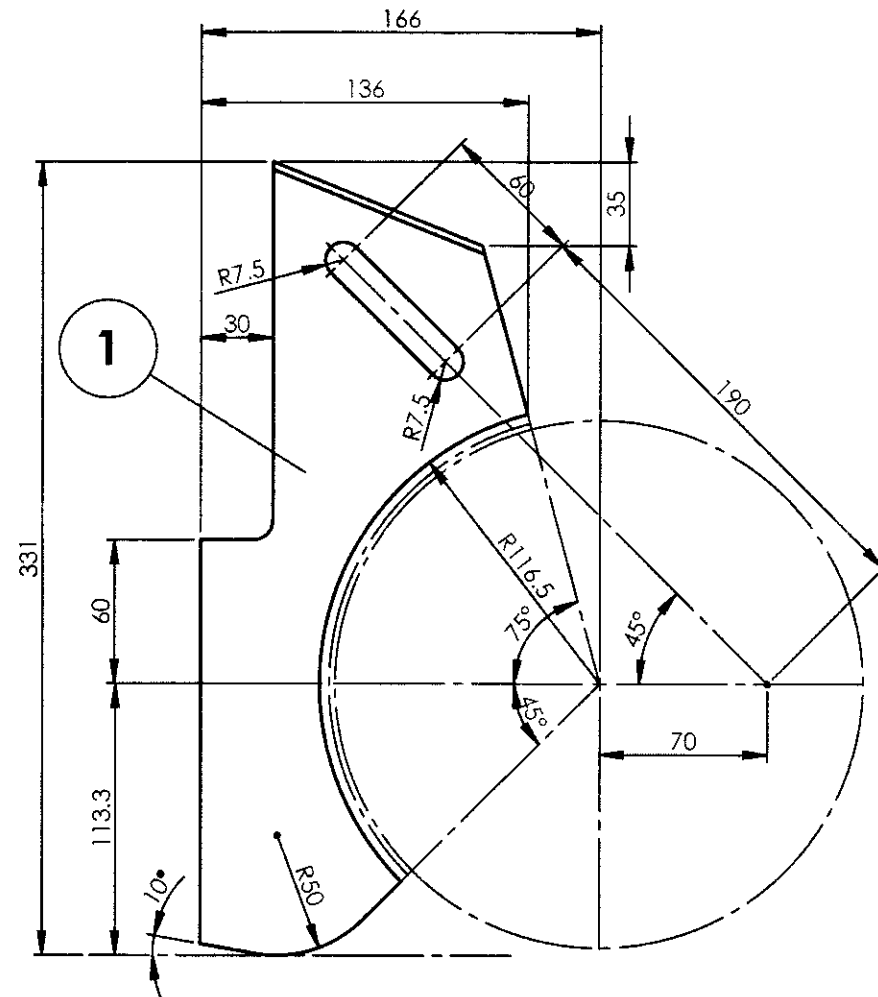
1	PLATE	4x136x331	1		RDSO/SPEC C- K201 X2CrNi12	0.659		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 Roof Construction		SURFACE AREA in Sq.m.:0.045			WT/ASSY IN Kgs:			
PLATE					SCALE	SSE/D		
					1:3	CHD		
					ALT.	ALTD		
					-	DRN	Amal George	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
					SHEET 1 OF 1		AAE16298	A3

AAE16299

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS

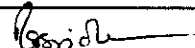
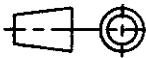
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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DETAIL B
SCALE 2:1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.:-

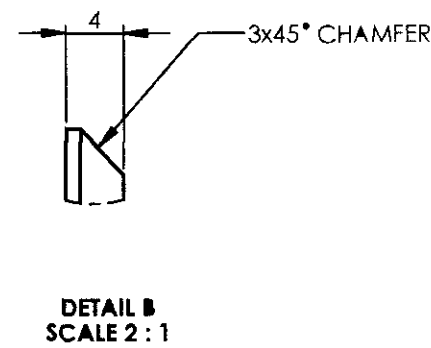
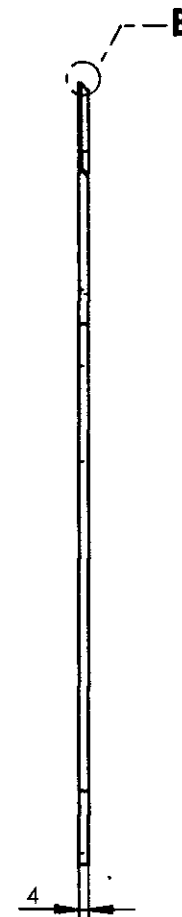
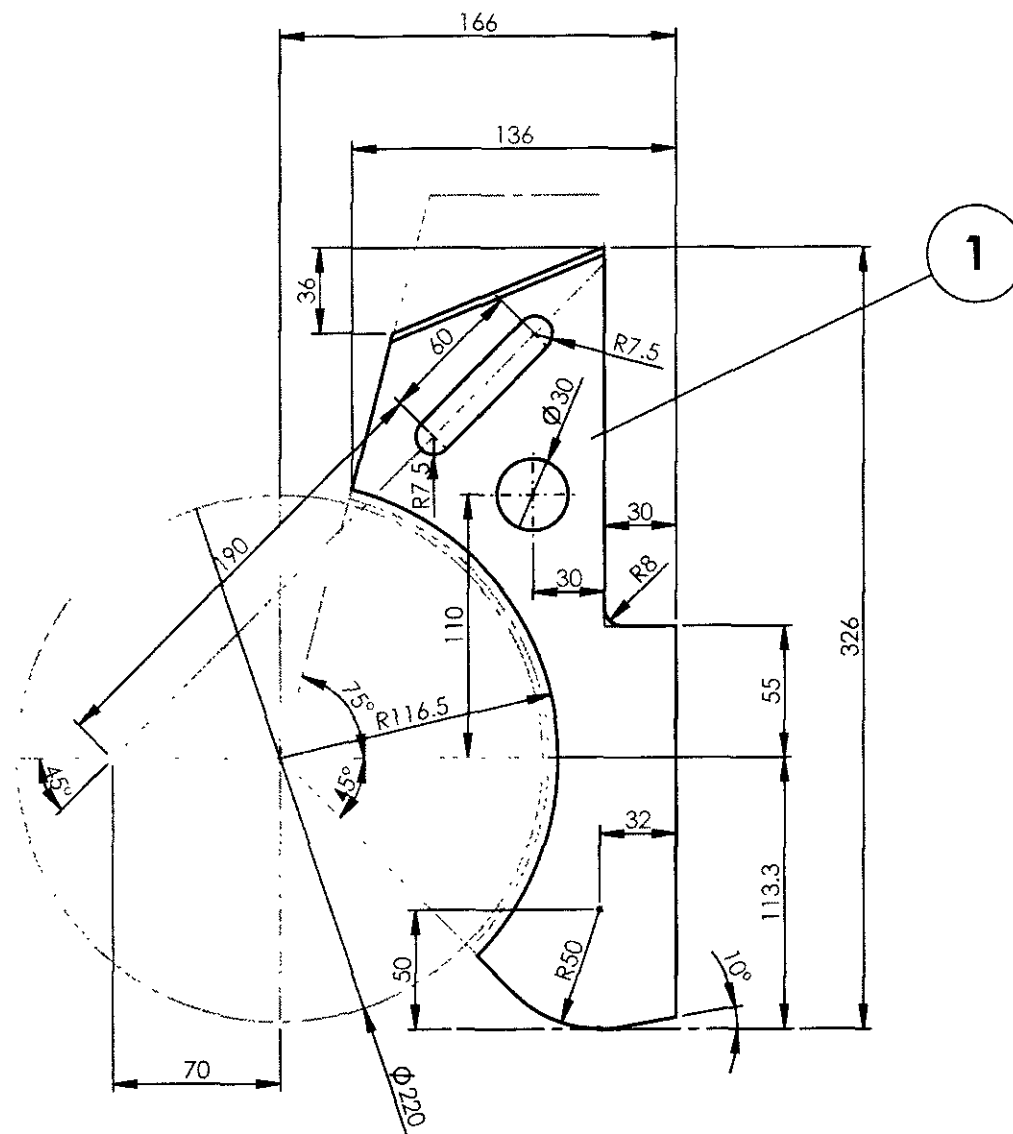
-	30-09-2022	V. 11/10/22
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	PLATE	4x136x331	1		RDSO SPEC C-K201 X2 Cr Ni 12	0.66	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.05			WT/ASSY IN Kgs:		
PLATE					SCALE	SSE/D	
					1:3	CHD	
					ALT.	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAE16299	
							A3

AAE16300

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

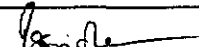
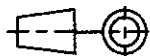
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
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WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.-

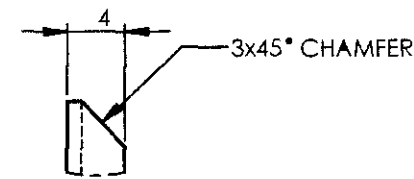
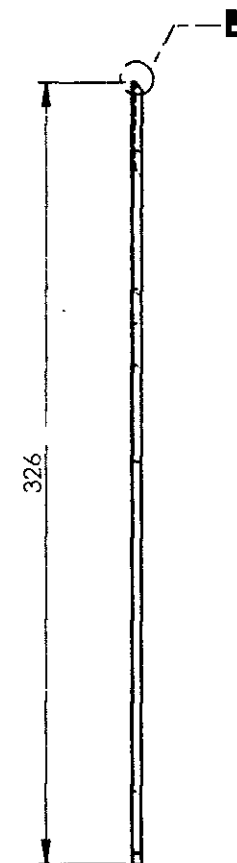
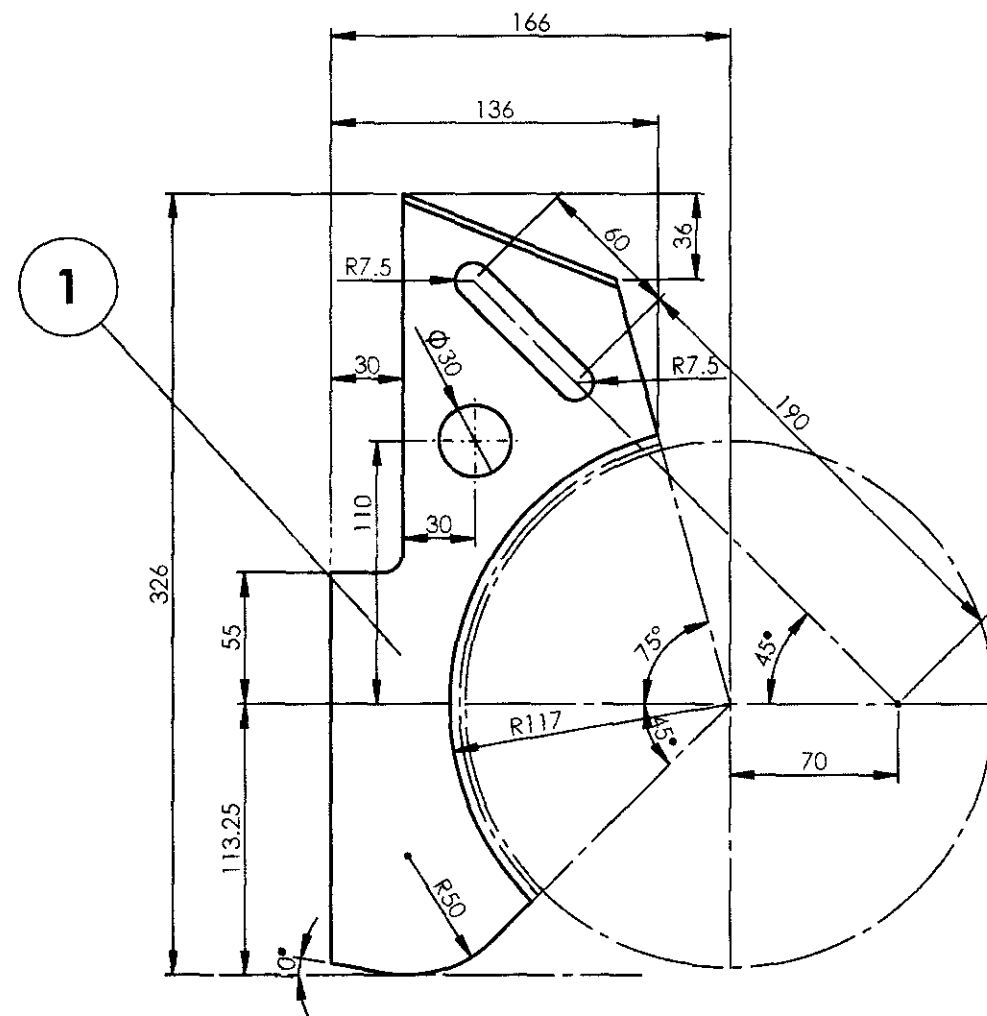
30-09-2022	1/11/22	AME/SME
DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME

1	PLATE	4x136 x 326	1		RDSO/SPEC C-K201 X2CrNi12	0.618	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.043			WT/ASSY IN Kgs:		
PLATE					SCALE	SSE/D	
					1:3	CHD	
					ALT.	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAE16300

AAE16301

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

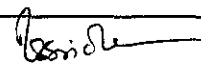

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

DETAIL B
SCALE 2:1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS-813-1986.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.-

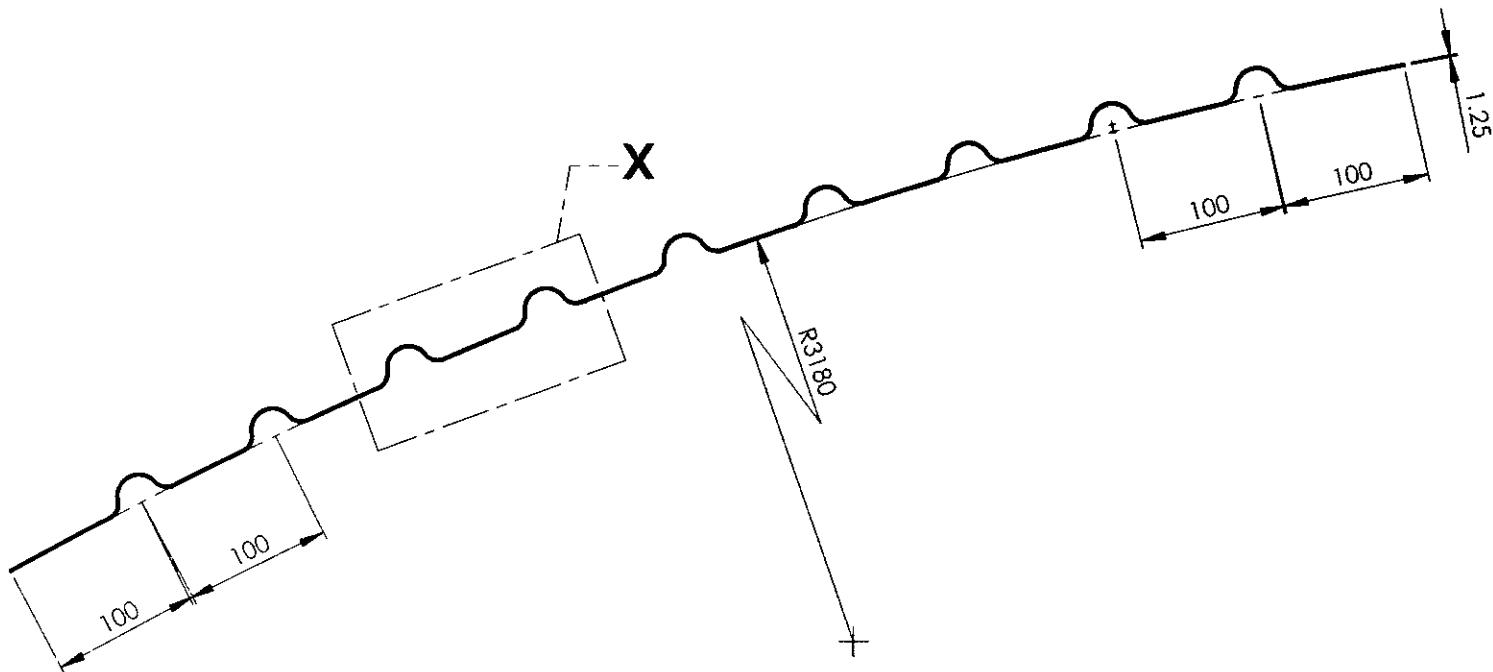
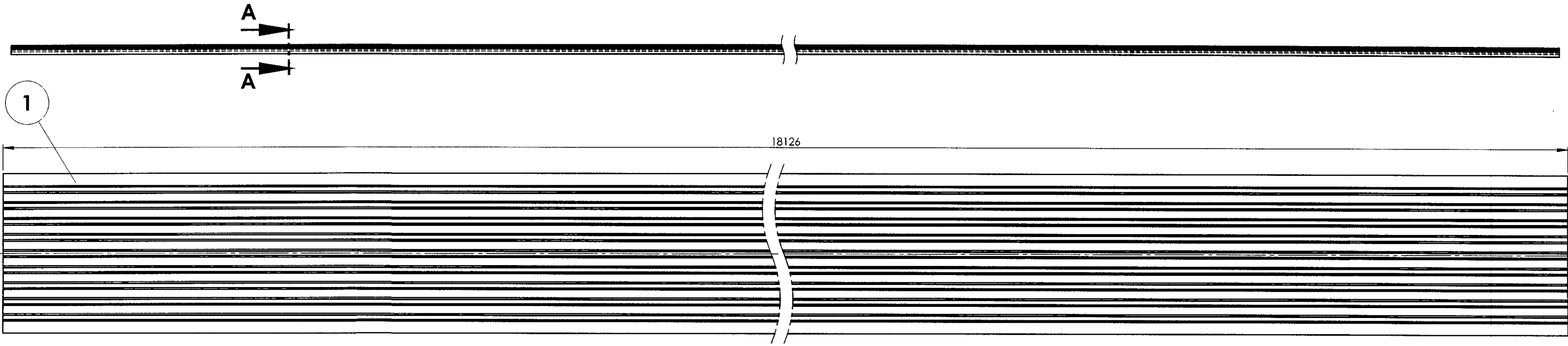
-	30-09-2022	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	PLATE	4x136x326	1		RDSO SPEC C- K201 X2 Cr Ni 12	0.62	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.:0.04		WT/ASSY IN Kgs:		
PLATE					SCALE	SSE/D	
					1:3	CHD	
					ALT.	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600034							
					SHEET 1 OF 1	AAE16301	
							A3

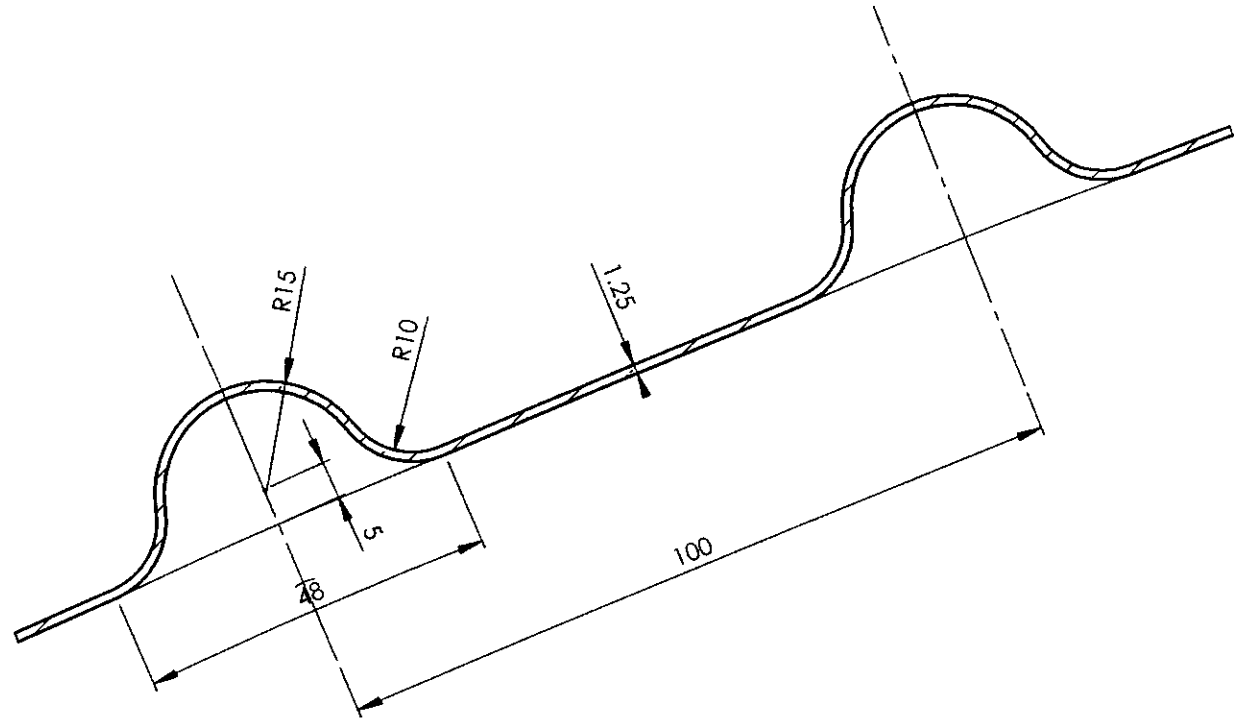
AAE16430

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	⑩ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑪ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1 : 5



DETAIL X
SCALE 1 : 1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS 813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

REF.DRG.NO.

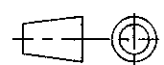
DATE OF LATEST ALT.	09-11-22	AME/SME
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1	ROOF SHEET (CORRUGATED)	1.25x1155x18126	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	209.45	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:	
ROOF SHEET (CORRUGATED)					SCALE 1:20	SSE/D	L. Panduranga Rao
					ALT	CHD	
						ALTD	
						DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAE16430	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A2	

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. IC/STD-9-0001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

▽ ROUGH MACHINED	(01) ROUGH CLEANED
▽▽ FINISH MACHINED	(02) BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	(03) CHAMFERED

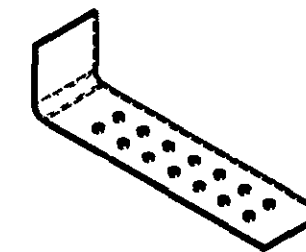
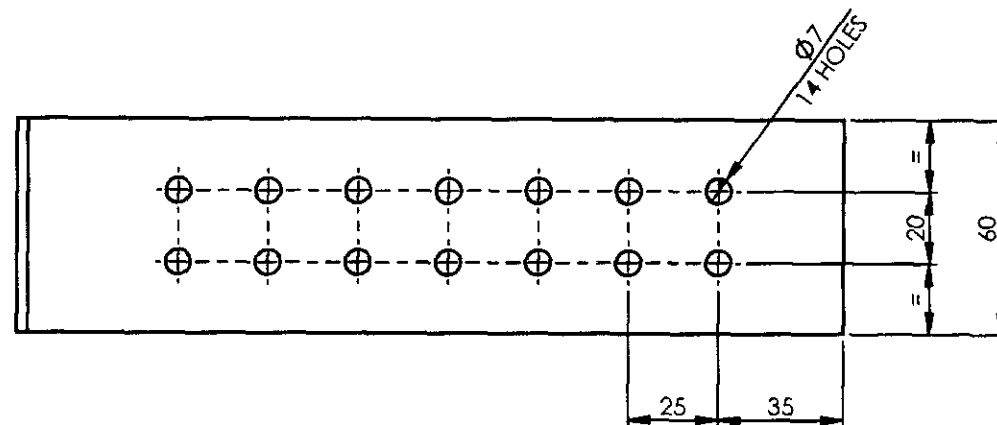
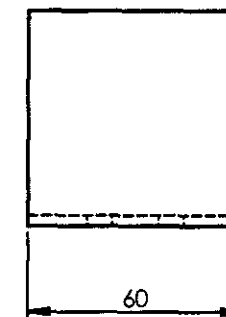
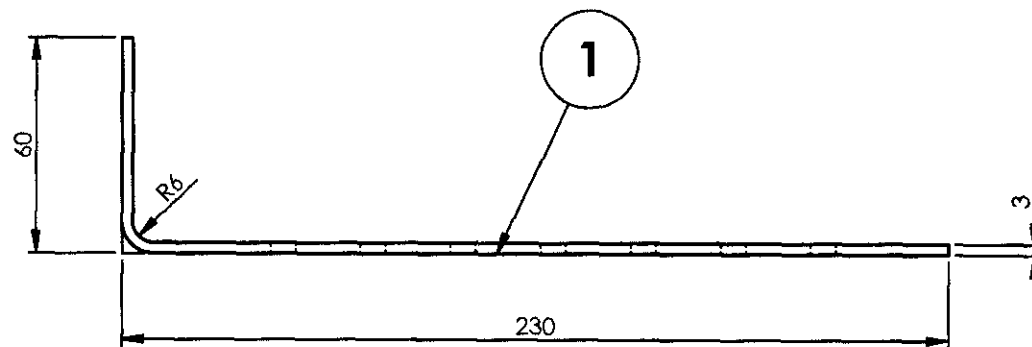


1	ROOF SHEET (CORRUGATED)	1.7x1155x18126	1		DSDO/SPEC C- K201 X5 Cr Ni 18 10	284.83	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF		SURFACE AREA IN Sq.m.:			WT/ASSY IN Kgs:		
ROOF SHEET (CORRUGATED)					SCALE 1:20	SSE/D CHD	L. Pinduranga Rao
					ALT	ALTD	
					DRN	E.SATHISH KUMAR	
							
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600035				SHEET 1 OF 1	AAE16431		A2


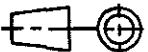
AAE16518

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



ISOMETRIC VIEW


1	ANGLE	3 x 60 x 284	1		RDSO/SPEC C- K201 X2 Cr Ni 12	0.396	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.036			WT/ASSY IN Kgs:0.396		
ANGLE					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAE16518		A3

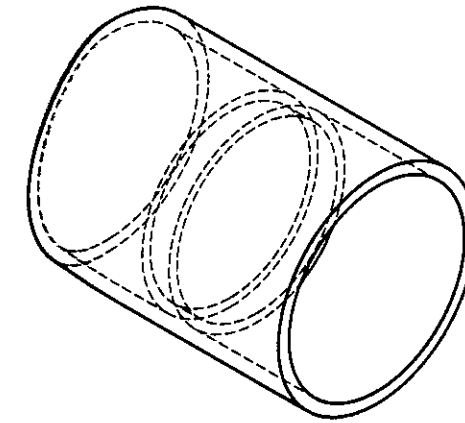
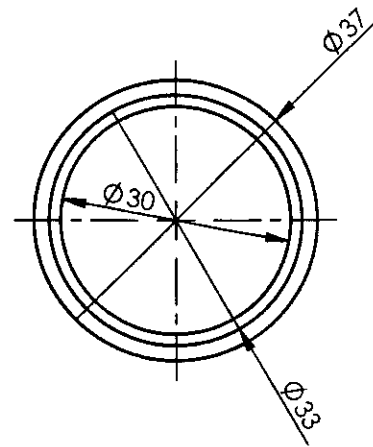
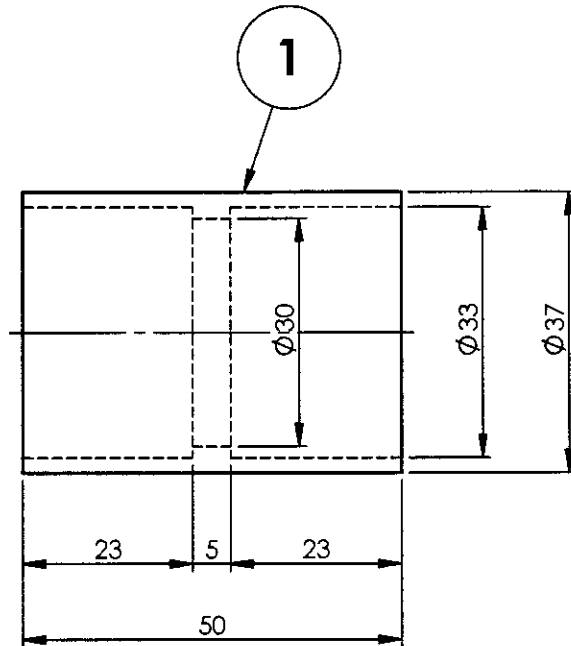
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.3.10113.0.20.095.130

AAE16764

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIAMETER ALTD FROM Ø27 TO Ø30. VIEWS UPDATED.	



ISOMETRIC VIEW

1	COUPLER FOR CONDUITS	50 x 50	1		AISI-304	0.09	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:0.01		WT/ASSY IN Kgs:	
COUPLER FOR CONDUITS					SCALE 1:1	SSE/D CHD	
					ALT. a	ALTD DRN	AMAL GEORGE 3D: Amal George 2D: Kunti Thakur
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAE16764	
INTEGRAL COACH FACTORY CHENNAI - 600038						A3	

15-10-2024	18-07-2023	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.-

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

AA16083

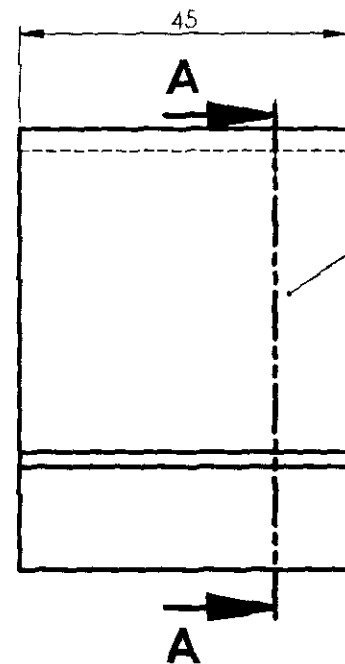
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS

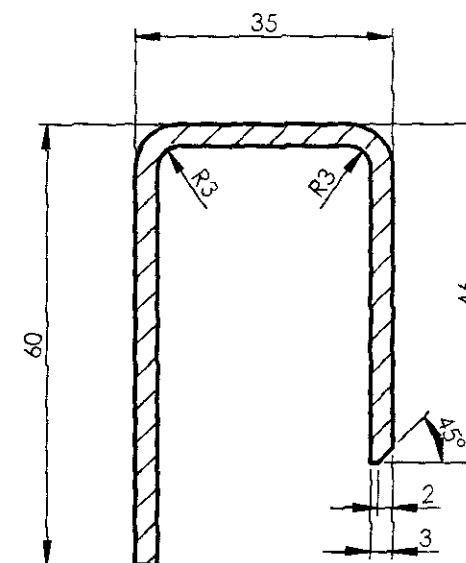
ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

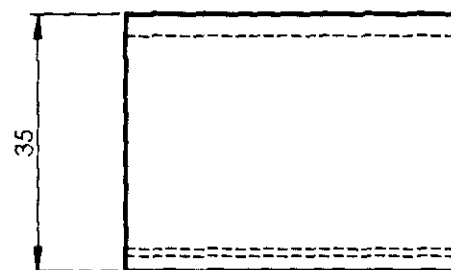
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SECTION A-A

NOTE:

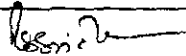

ALTERNATIVELY AISI 304 / SS304 (X02Cr19Ni10) / IS 6911 (X04Cr19Ni9) ARE ALSO ACCEPTABLE.



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.LR16123 ALT a/ ITEM-1

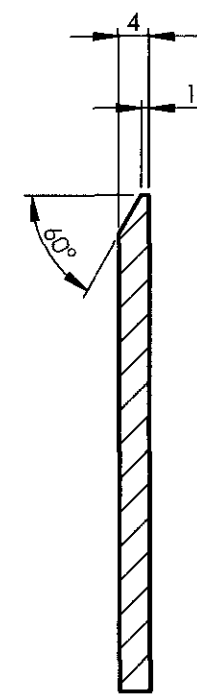
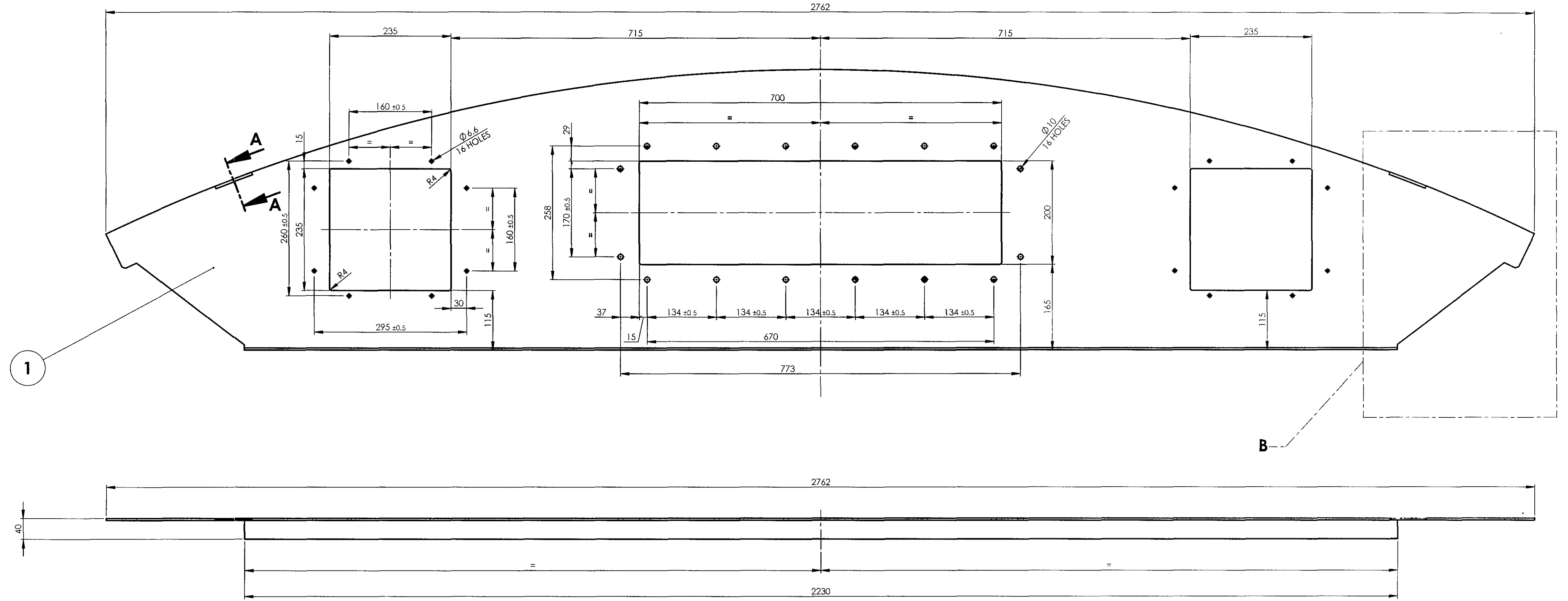
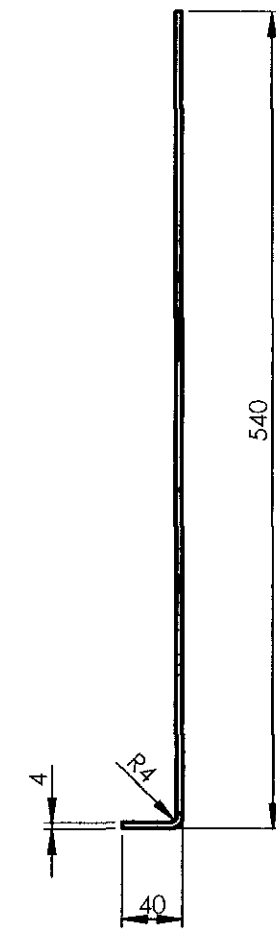
23-04-2025	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE

1	CHANNEL	3x45x129	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	0.141	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.013			WT/ASSY IN Kgs:		
CHANNEL					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	
					—	DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY CHENNAI - 600038							
					SHEET 1 OF 1		AAF16083

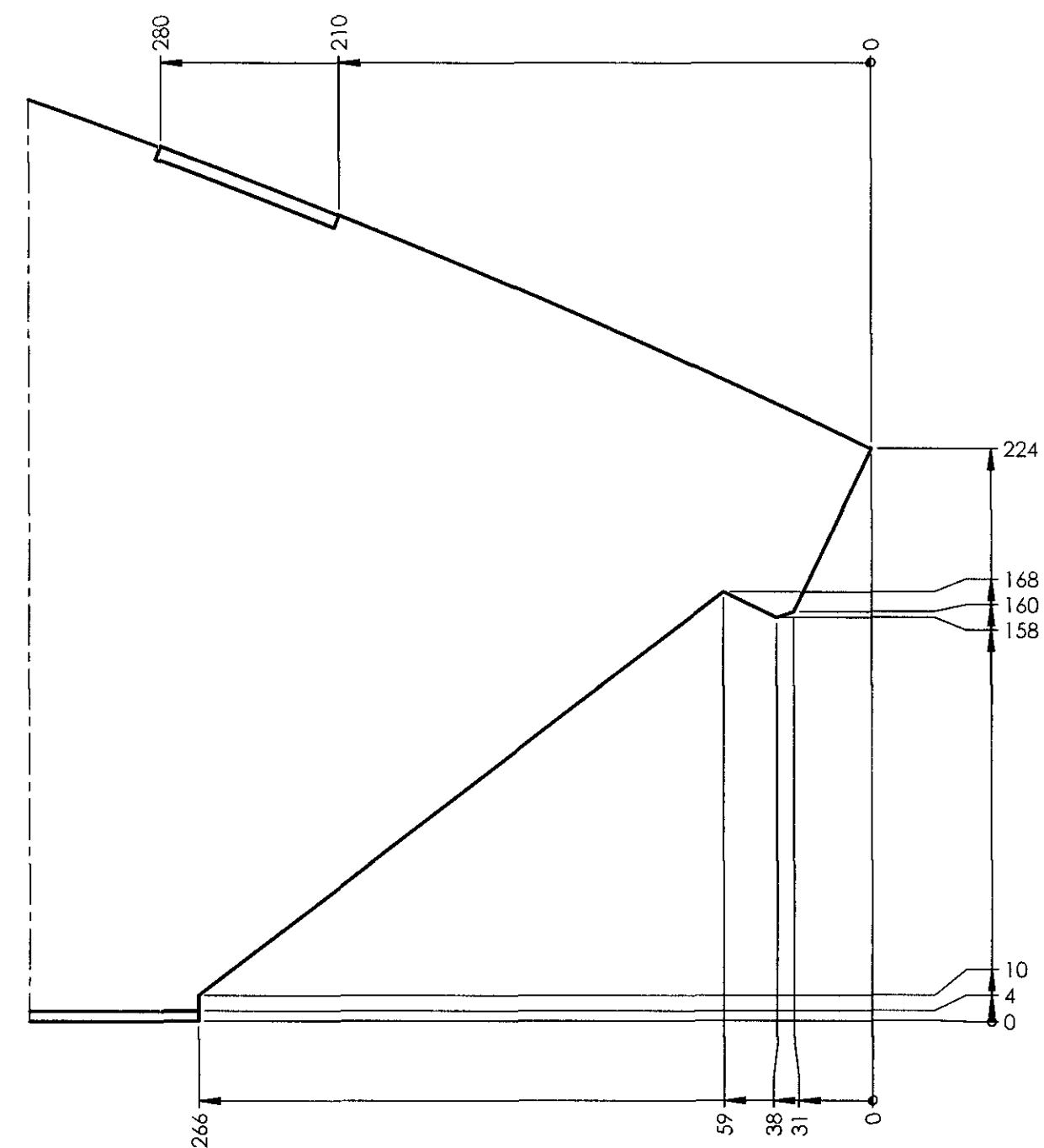
AAF16125

▽ ROUGH MACHINED	(11) ROUGH CLEANED
▽▽ FINISH MACHINED	(12) BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	(13) CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE




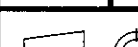
SECTION A-A
SCALE 1 : 1



DETAIL B
SCALE 2 : 5

REF.DRG.NO.

	16-07-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	FRONT SHEET	4 x 572 x 2742	4			RDSO/SPEC. C- K201 1/2 Cr Ni 12	31.045	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS		MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 1.983				WT/ASSY IN Kgs:		
FRONT SHEET						SCALE	CSE/D	Seen
						1:20	CHE	
						ALT	ALTD	
						DRN	Amal George	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1			
						AAF16125		
						A1		

AA16136

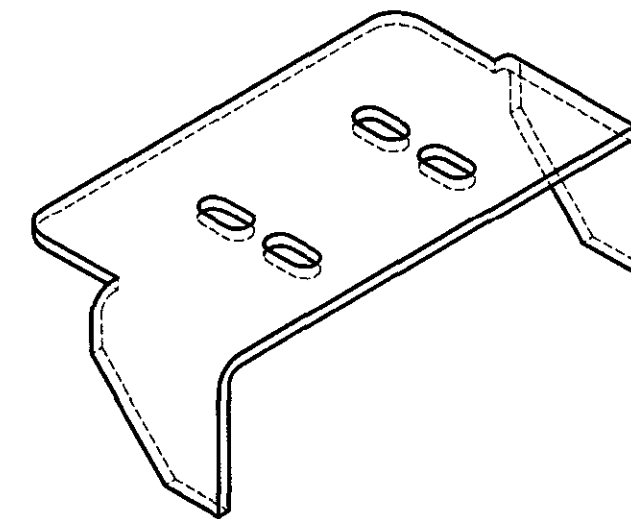
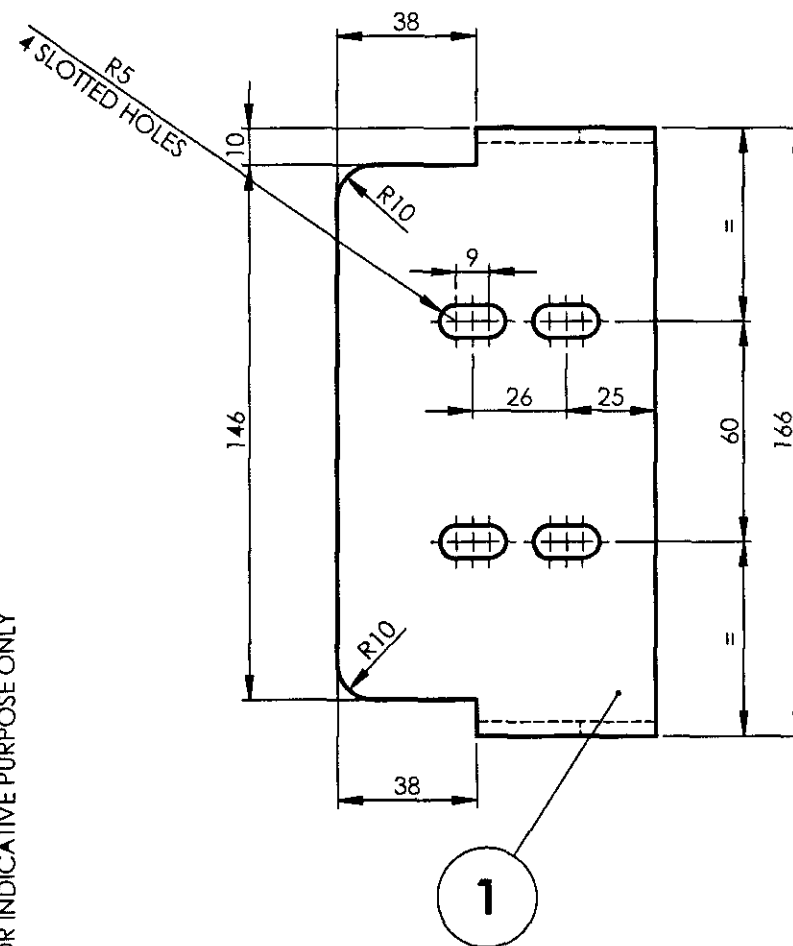
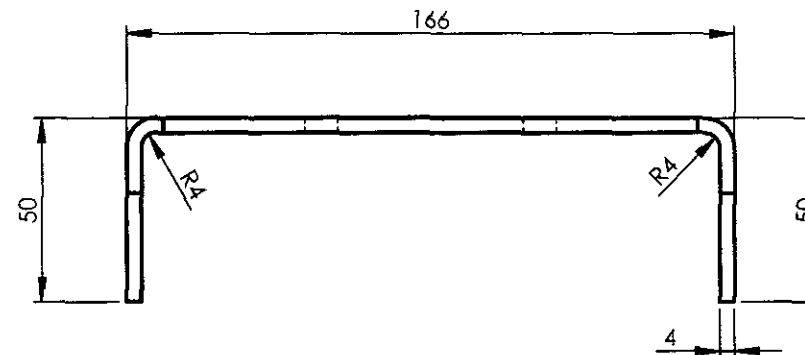
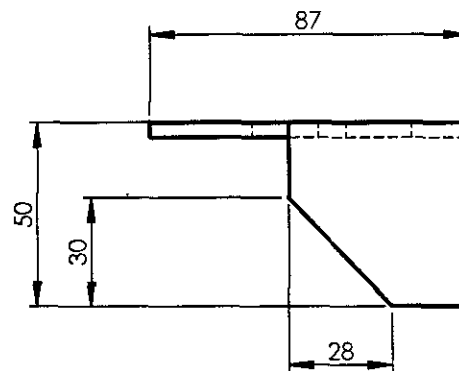
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①s CHAMFERED

REVISIONS

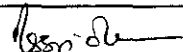
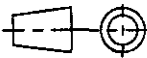
ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

ISOMETRIC VIEW

1	BRACKET FOR PARTITION PILLAR	4 x 87 x 250	1		RDSO SPEC C-K201 X2 Cr Ni 12	0.53	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.04			WT/ASSY IN Kgs:		
BRACKET FOR PARTITION PILLAR					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	3D: AMAL GEORGE 2D: KUNTI THAKUR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAF16136		A3

1		2		3		4		5		6		7		8		
AAF16137				▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS								
				▽▽ FINISH MACHINED		①b BURRS REMOVED		ALT.		ZONE		DESCRIPTION			APPROVED & DATE	
				▽▽▽ FINE FINISH MACHINED		② CHAMFERED										
<div><div><div>1</div><div>5</div><div>160</div></div><div><div>120</div><div>60</div><div>60</div></div><div><div>100</div><div>60</div><div>9</div><div>R4.5</div><div>R15</div></div></div> <div><div>ISOMETRIC VIEW</div></div>																
<div><div><div>1</div><div>FLAT</div><div>5x100x140</div><div>1</div><div></div><div>RDSO SPEC C-K201 X2 Cr Ni 12</div><div>0.62</div><div></div></div><div><div>QTY</div><div>DESCRIPTION</div><div>DIMENSIONS</div><div>ITEM NO.</div><div>REF. DRGS</div><div>MATL.SPEC.</div><div>WT/UNIT IN KGS</div><div>REMARKS</div></div><div><div>GROUP: 1-6 Roof Construction</div><div>SURFACE AREA IN Sq.m.:</div><div>WT/ASSY IN Kgs:</div></div><div><div>FLAT</div><div>SCALE 1:1</div><div>SSE/D</div><div>CHD</div><div>ALT.</div><div>ALTD</div><div>DRN</div><div>3D: AMAL GEORGE</div><div>2D: KUNTI THAKUR</div></div><div><div>INDIAN RAILWAY STANDARDS</div><div>INTEGRAL COACH FACTORY, CHENNAI - 600038</div><div>SHEET 1 OF 1</div><div>AAAF16137</div><div>A3</div></div><div><div>REF.DRG.NO.LH16196 ALT NIL / ITEM-1</div><div>16-07-2025</div><div>AME/SME</div></div></div>																
1		2		3		4		5		6		7		8		

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

AAAF16138

▽. ROUGH MACHINED
▽▽ FINISH MACHINED
▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED
①⑤ BURRS REMOVED
①⑧ CHAMFERED

REVISIONS

ALT.

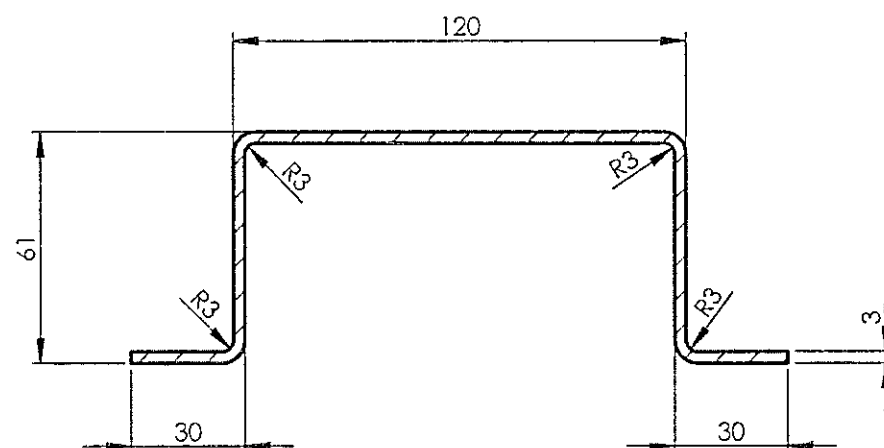
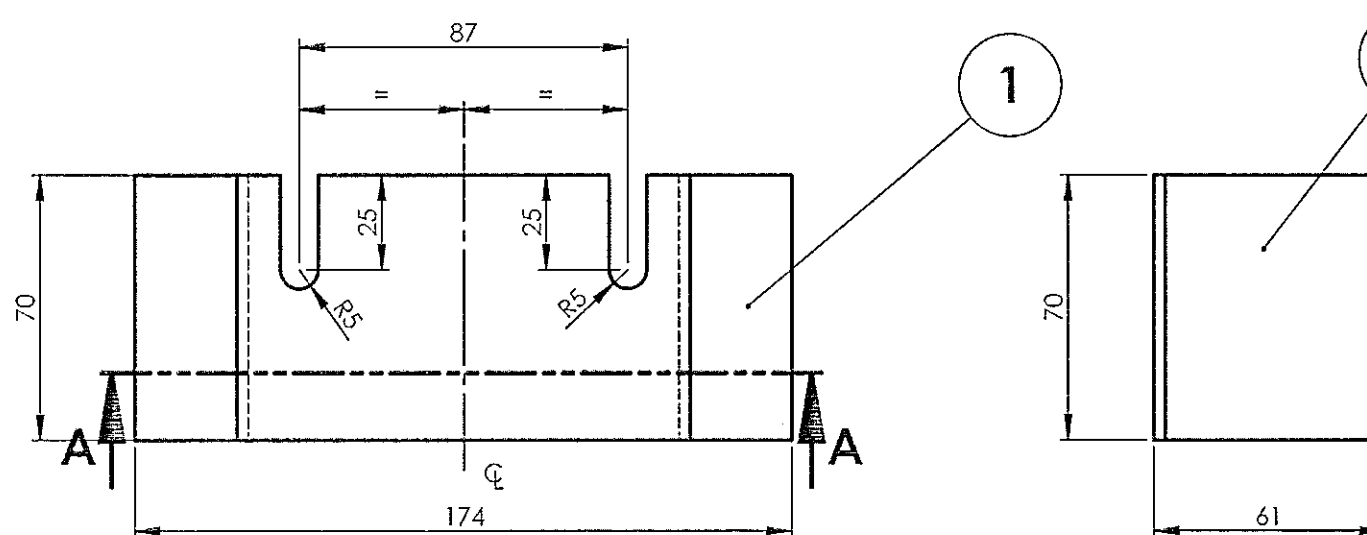
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DESCRIPTION

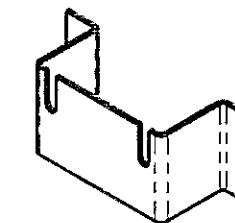
APPROVED &
DATE

a

MATERIAL SPECIFICATION OF ITEM-1 REVISED.



SECTION A-A



ISOMETRIC VIEW

1	BRACKET FOR FIXING PARTITION PILLAR	3x70x278	1		RDSO SPEC C-K201 X2 Cr Ni 12	0.46	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:0.04		WT/ASSY IN Kgs:	
BRACKET FOR FIXING PARTITION PILLAR					SCALE 1:2	SSE/D CHD	
					ALT. a	ALTD DRN	
							3D: AMAL GEORGE 2D: KUNTI THAKUR
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600038							
30-09-2025	16-07-2025					AAAF16138	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME				A3	

REF.DRG.NO.-

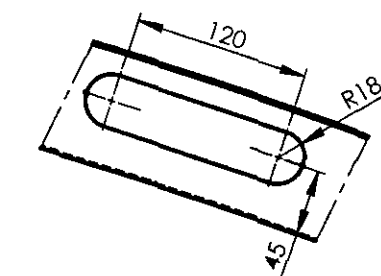
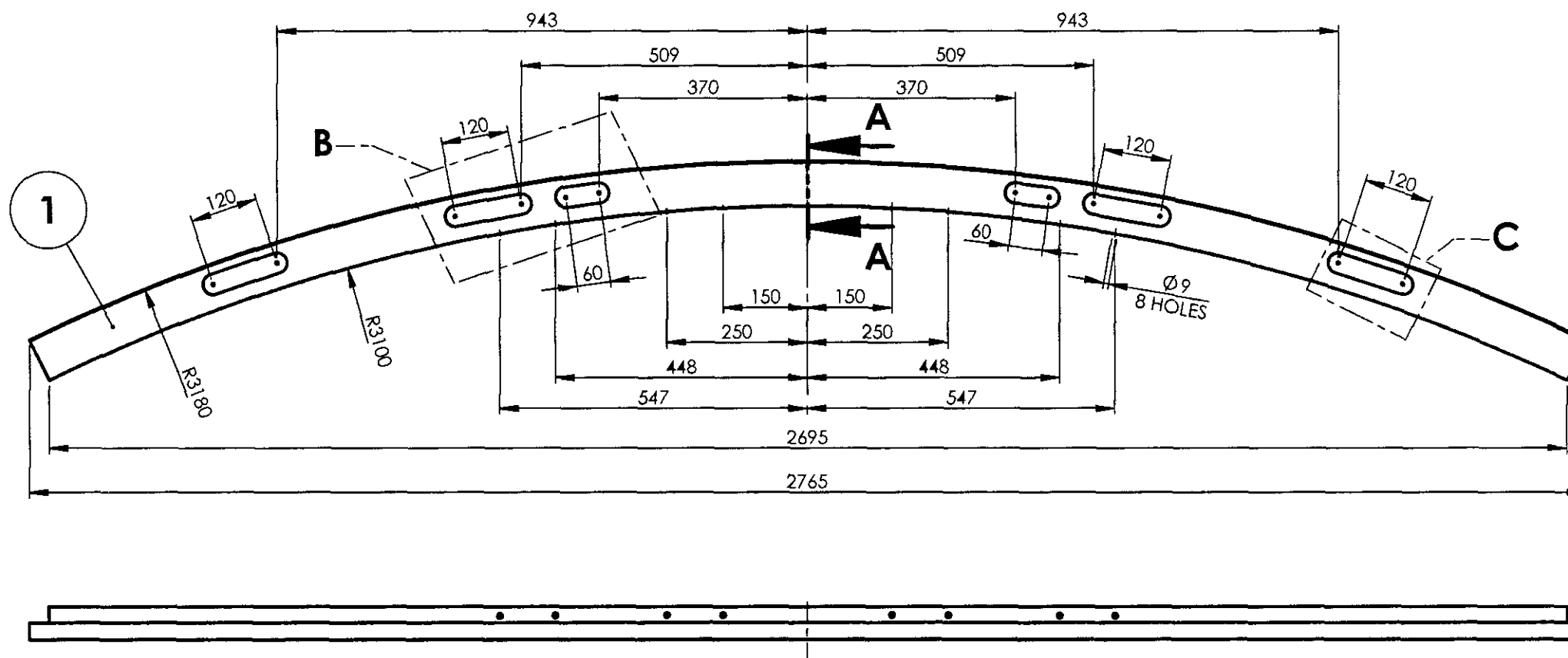
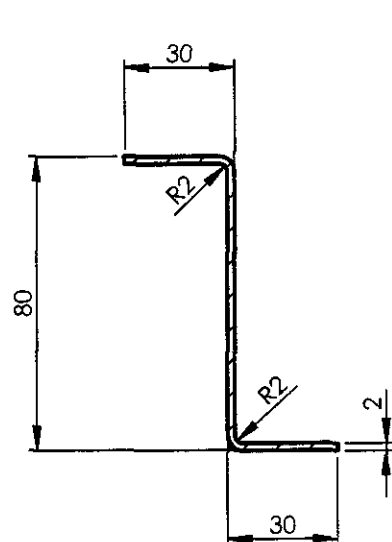
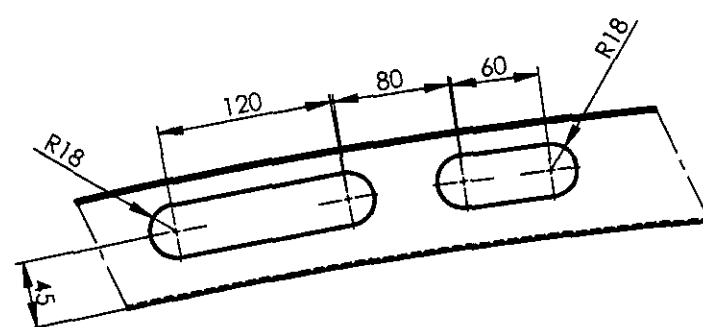
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY


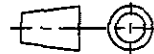
AA16146

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①③ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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DETAIL C
SCALE 1 : 5SECTION A-A
SCALE 1 : 2DETAIL B
SCALE 1 : 5

1	ROOF ARCH	2x132x2823	1		RDSO/SPEC C-K201 X2 Cr Ni 12	5.58	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.71			WT/ASSY IN Kgs:		
ROOF ARCH					SCALE	SSE/D	
					1:10	CHD	
					ALT.	ALTD	
						DRN	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600035					3D: AMAL GEORGE 2D: KUNTI THAKUR		
SHEET 1 OF 1						A3	
				AA16146			

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.

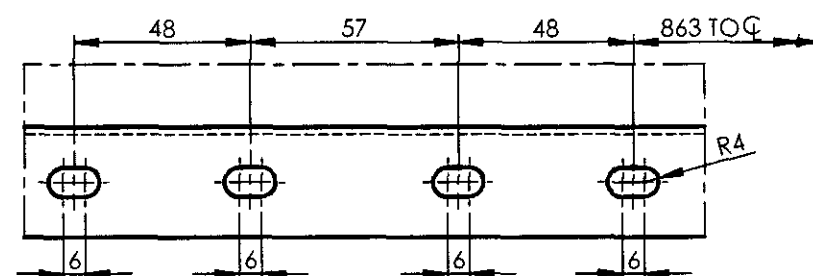
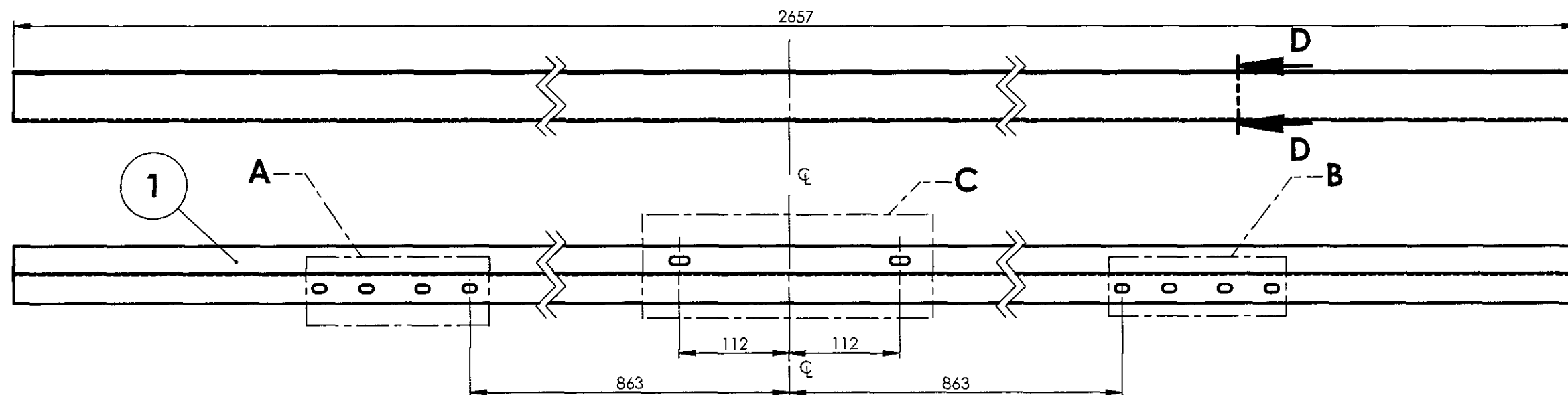
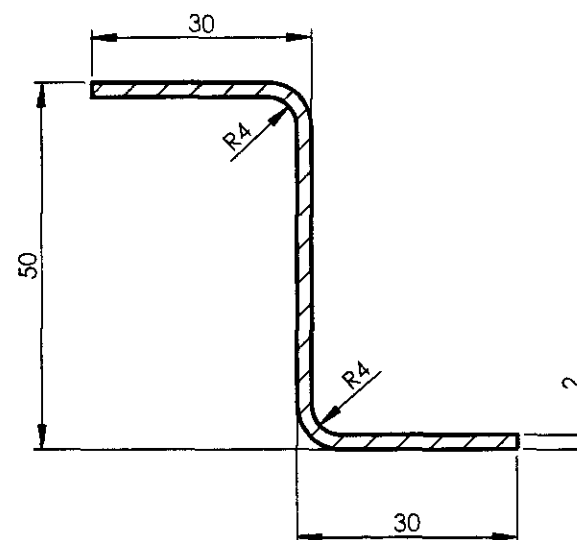
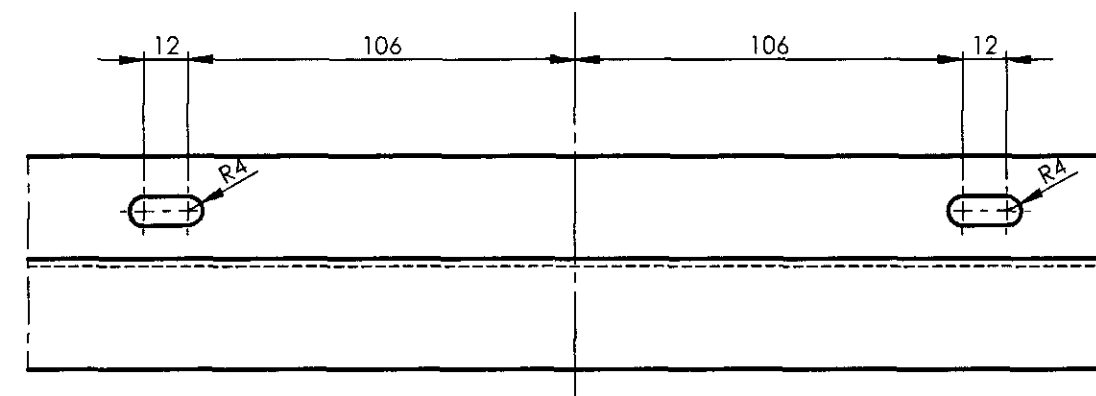
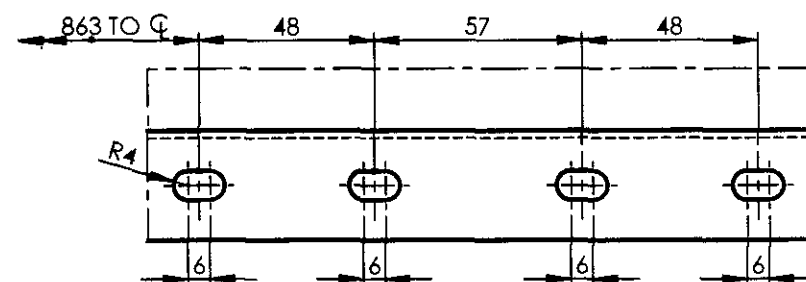
	16-07-2025	
DATE OF LATEST ALT	DATE OF FIRST ISSUE	A.M.E./S.M.E.

AA16200

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①c CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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DETAIL A
SCALE 1 : 2SECTION D-D
SCALE 1 : 1DETAIL C
SCALE 1 : 2DETAIL B
SCALE 1 : 2

1	ROOF CROSS BRACE	2x102x2657	1		RDSO/SPEC C-K201 X2CrNi12	4.306	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:0.550		WT/ASSY IN Kgs:	
ROOF CROSS BRACE					SCALE 1:5	SSE/D CHD	
					ALT.	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AA16200	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A3	


ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

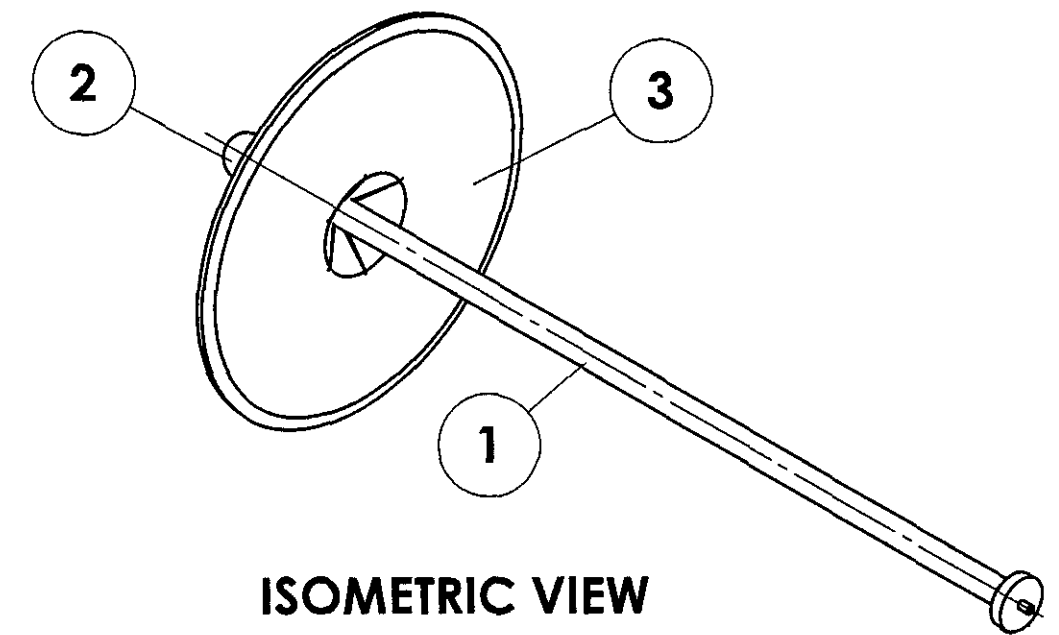
REF.DRG.NO.

	16-07-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

49516008

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	18 CHAMFERED

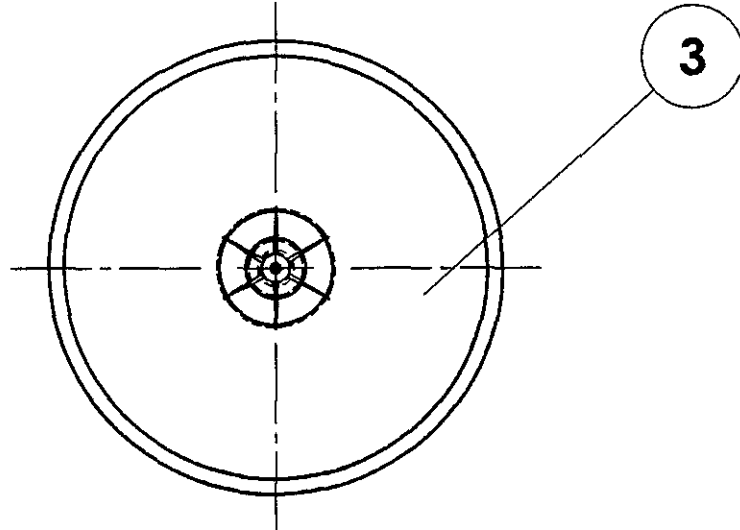
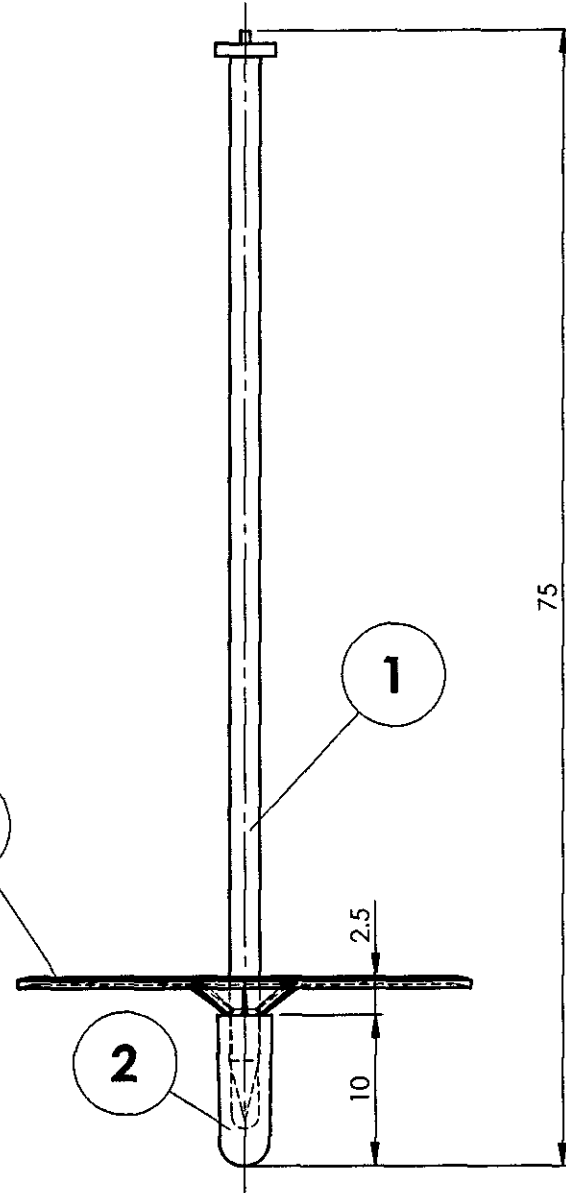
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		NOTE REVISED. VIEWS UPDATED AS PER DETAIL.	



ISOMETRIC VIEW

NOTE:

- ITEM-1 TO BE RESISTANCE WELDED AS SHOWN IN THE RESPECTIVE DRAWING AND ITEMS-2&3 TO BE SUPPLIED IN LOOSE (TO BE ASSEMBLED IN FURNISHING AFTER INSERTING THERMAL INSULATION).
- 5% EXCESS QTY OF ITEMS-2&3 TO BE SUPPLIED AGAINST THE QTY CALLED FOR IN THE RESPECTIVE ASSEMBLY DRAWINGS.



1	SERRATED SPRING WASHER		3	AAA16495		0.003	
1	CAP		2	AAA16494		0.000	
1	WELDING PIN		1	AAA16493		0.002	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 ROOF CONSTRUCTION

SURFACE AREA IN Sq.m.:0.002

WT/ASSY IN Kgs:

WELDING PIN ASSEMBLY

SCALE 1:1

SSE/D CHD

ALT. a

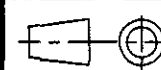
ALTD DRN

A.Palanichamy
3D:A.Palanichamy
2D:P.Murugan

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET 1 OF 1



LWGSCWAC2

49516008

A3

06-02-2024	19-07-2013	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	

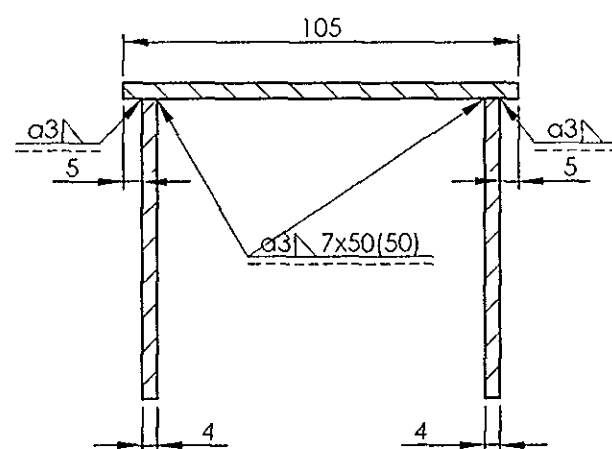
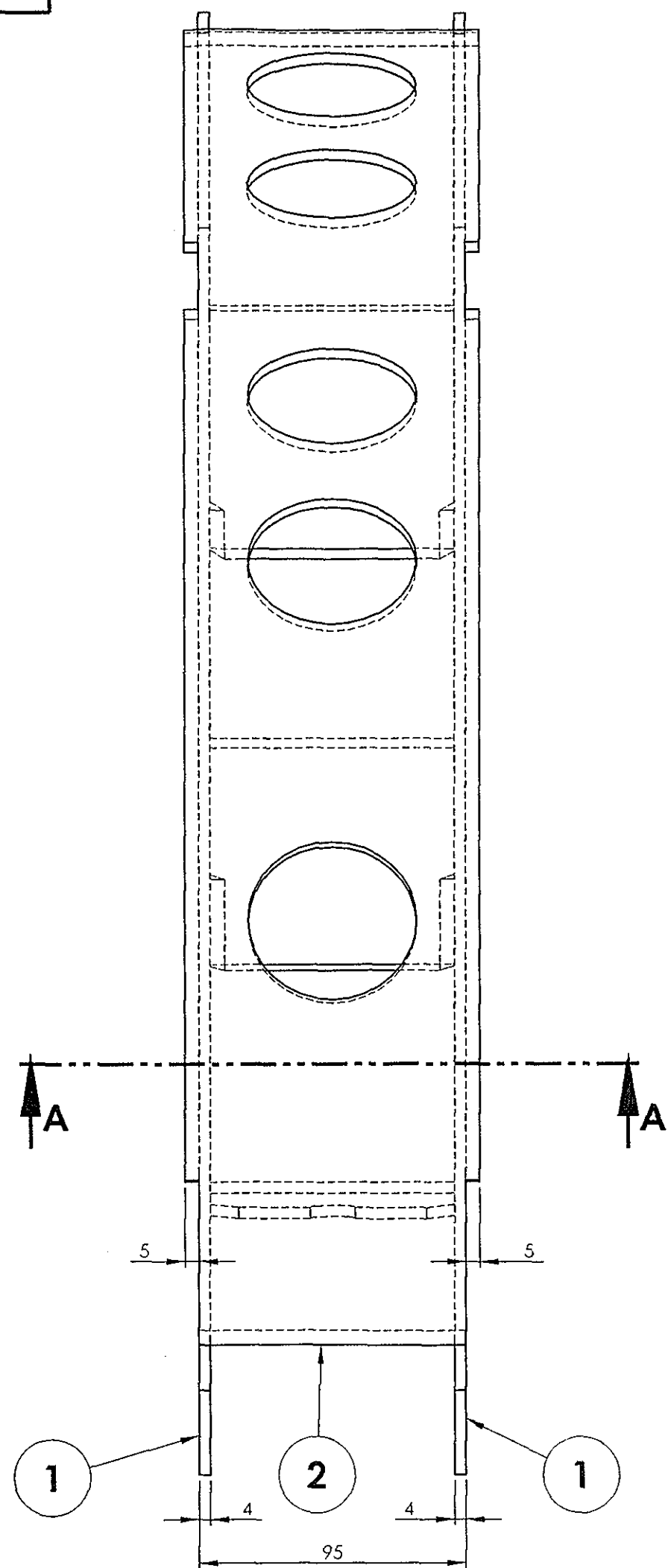
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

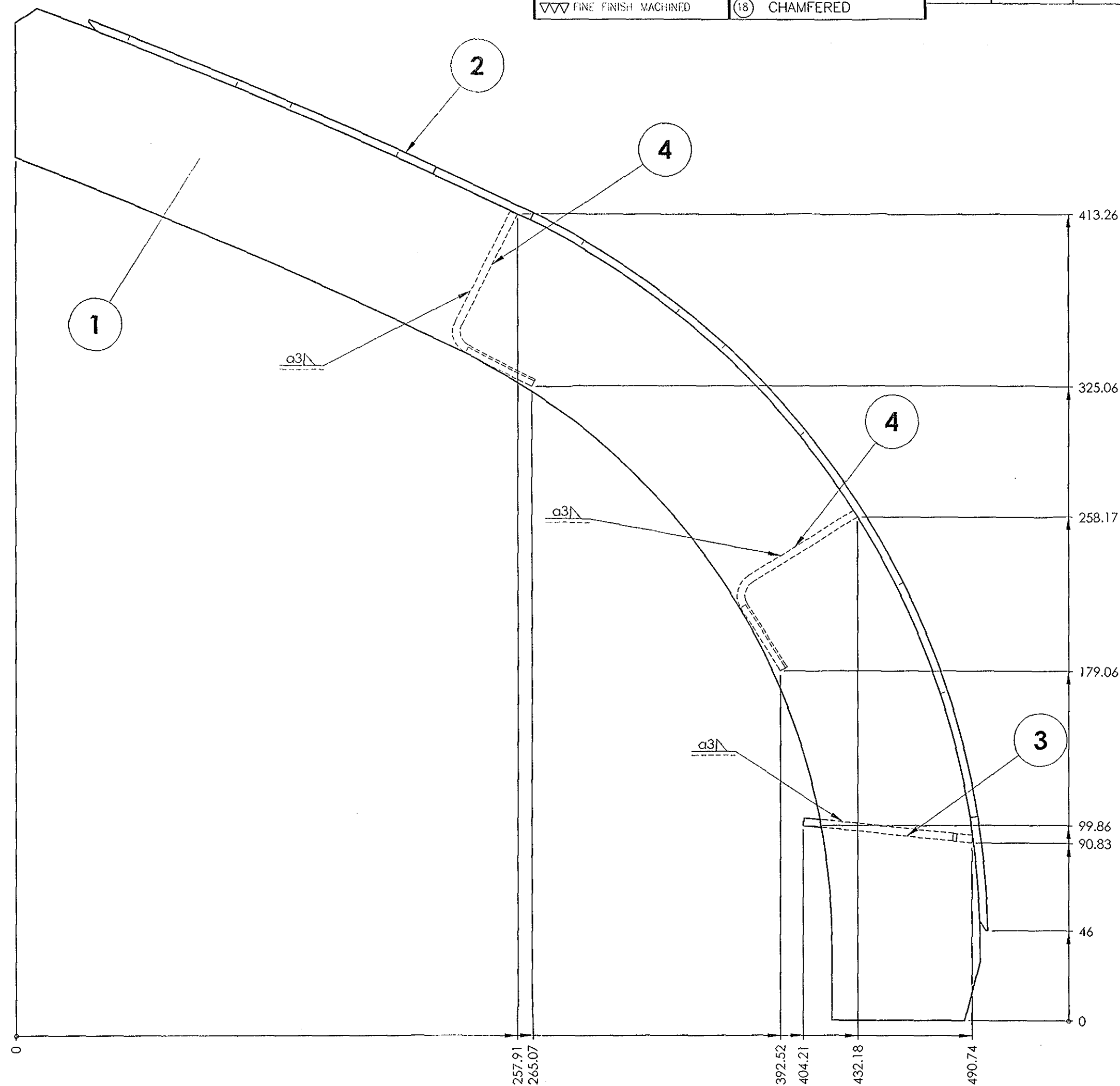
59316018

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	18 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1:2



NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

2	STIFFENING ANGLE		4	AAA16940		0.322	
1	WEB		3	AAA16939		0.236	
1	FLANGE		2	AAA16938		1.864	
2	ROOF ARCH		1	AAA16937		1.758	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.420		WT/ASSY IN Kgs: 6.260		
ROOF ARCH COMPLETE				SCALE 1:5	SSE/D	
					CHD	
				ALT	ALTD	
					DRN	K. Sriram

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

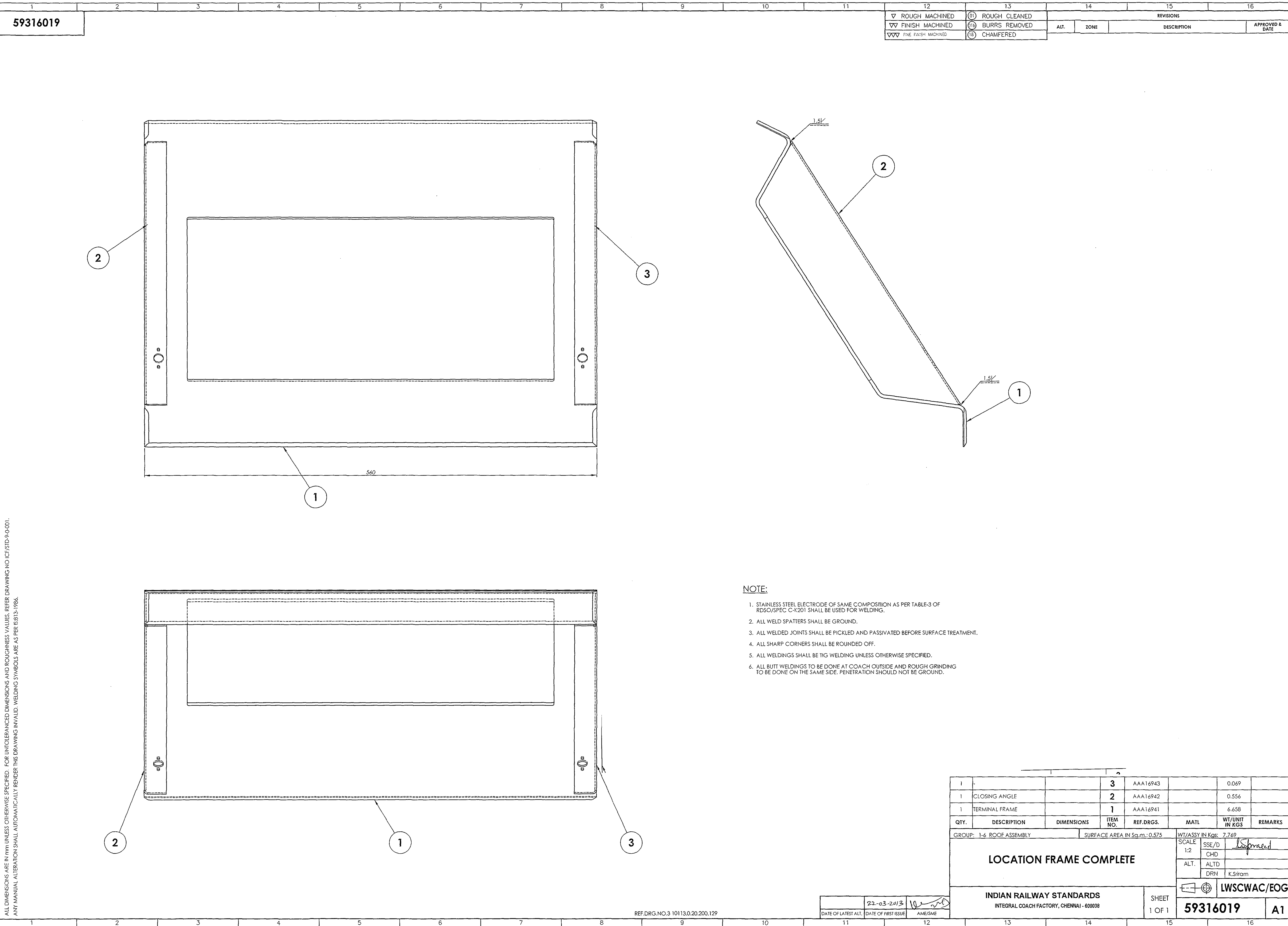
SHEET
1 OF 1

LWSCWAC/EOG	
59316018	A2

DATE OF LATEST ALT.	22-03-2013	DATE OF FIRST ISSUE	10-03-2013	AMU/SME
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REF.DRG.NO.2 10113.0.20.210.006

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986.



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-Q-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS813:1986.

12		13		14		15		16	
▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS					
▽▽ FINISH MACHINED		①① BURRS REMOVED		ALT.	ZONE	DESCRIPTION	APPROVED & DATE		
▽▽▽ FINE FINISH MACHINED		①① CHAMFERED							

- NOTE:
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
 2. ALL WELD SPATTERS SHALL BE GROUND.
 3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
 4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
 5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
 6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

1			3	AAA16943		0.069	
1	CLOSING ANGLE		2	AAA16942		0.556	
1	TERMINAL FRAME		1	AAA16941		6.658	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.575		WT/ASSY IN Kgs: 7.769	
LOCATION FRAME COMPLETE				SCALE 1:2	SSE/D	<i>K. Srinam</i>	
				CHD	CHD		
				ALT.	ALT.D		
				DRN	DRN		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		59316019	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A1	

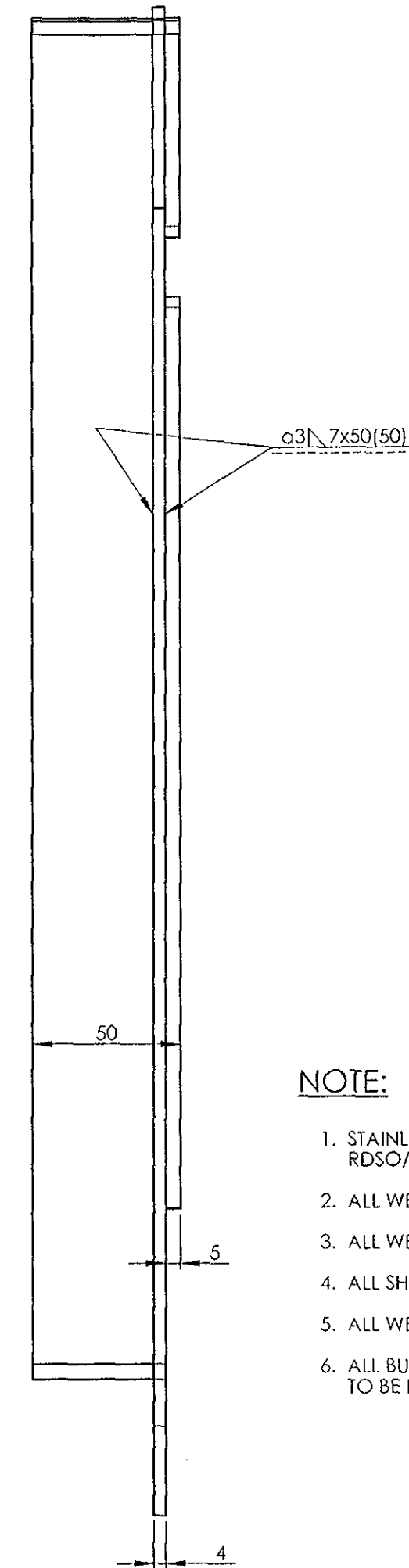
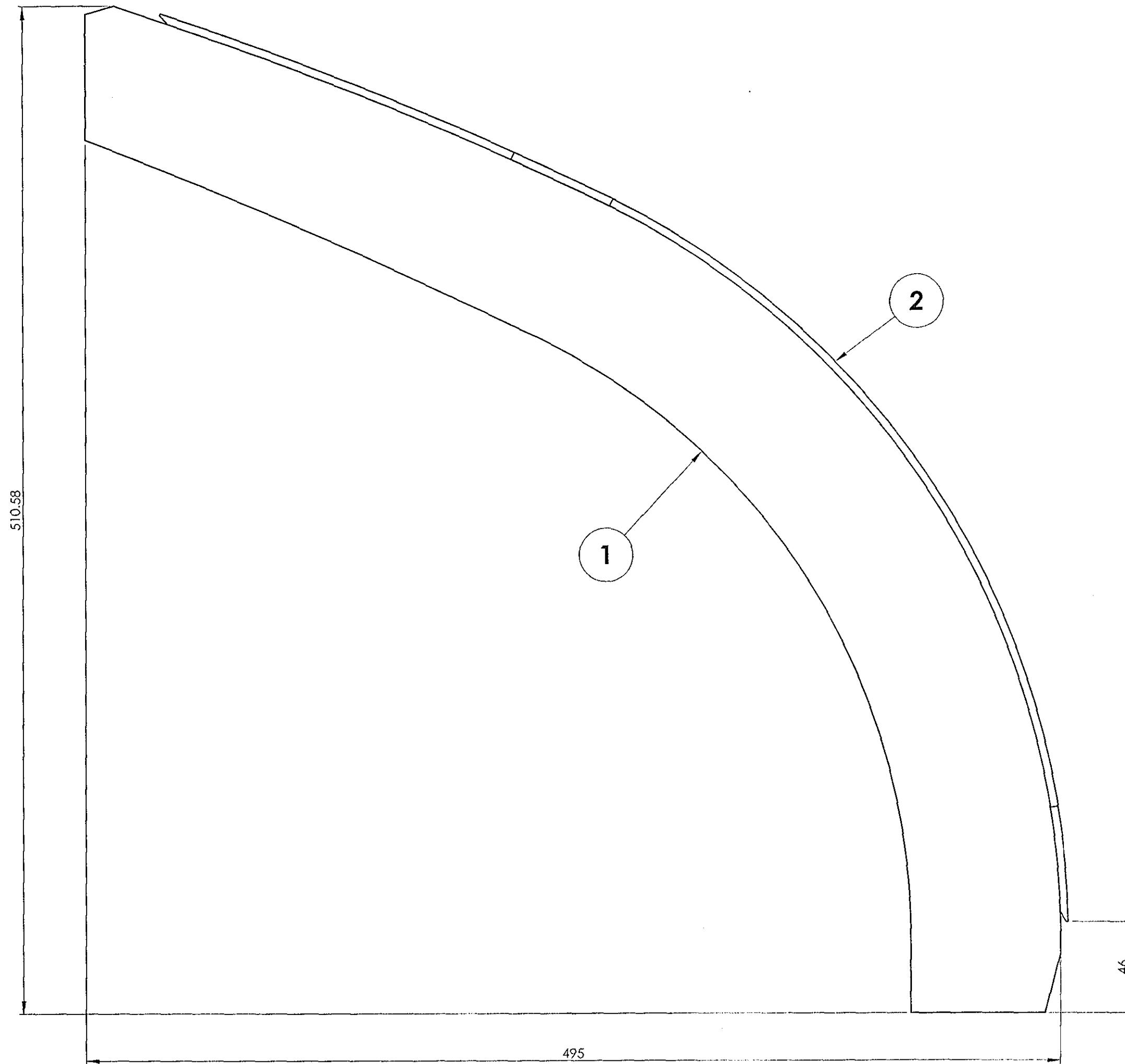
22-03-2013	22-03-2013	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.3 10113.0.20.200.129

59316022

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①c CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

1	FLANGE		2	AAA16957		1.10	
1	ROOF ARCH		1	AAA16935		1.737	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.19		WT/ASSY IN Kgs: 2.83	
ROOF ARCH COMPLETE					SCALE 1:5	SSE/D	K. Sriram
					ALT	CHD	
					ALT	ALTD	
					DRN	DRN	K. Sriram
INDIAN RAILWAY STANDARDS					LWSCWAC/EOG		
INTEGRAL COACH FACTORY, CHENNAI - 600038					59316022		
SHEET 1 OF 1					A2		

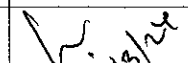
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS813-1986.

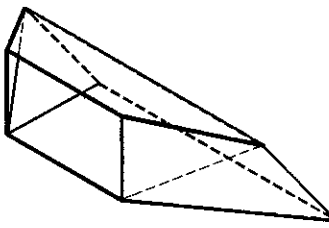
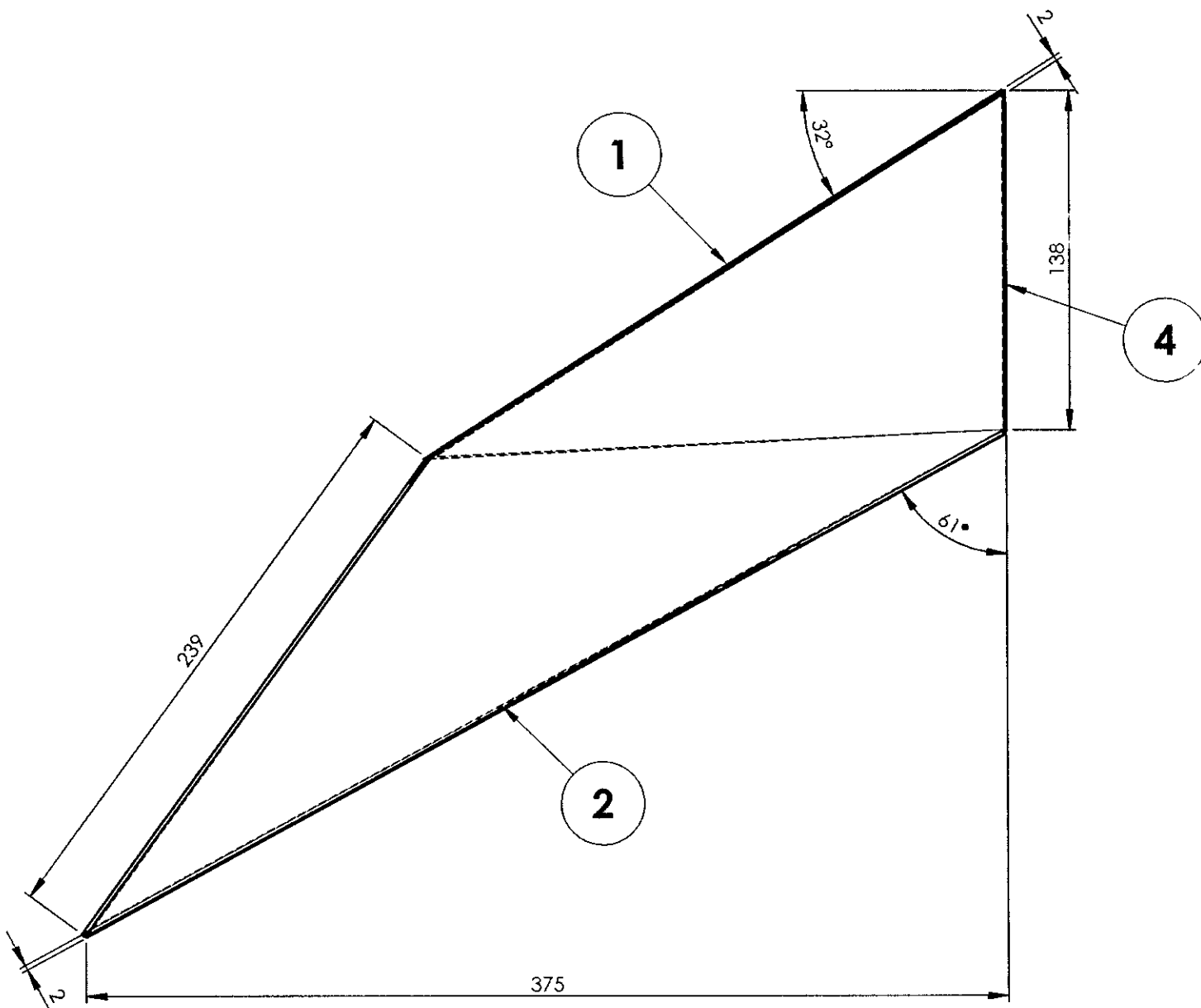
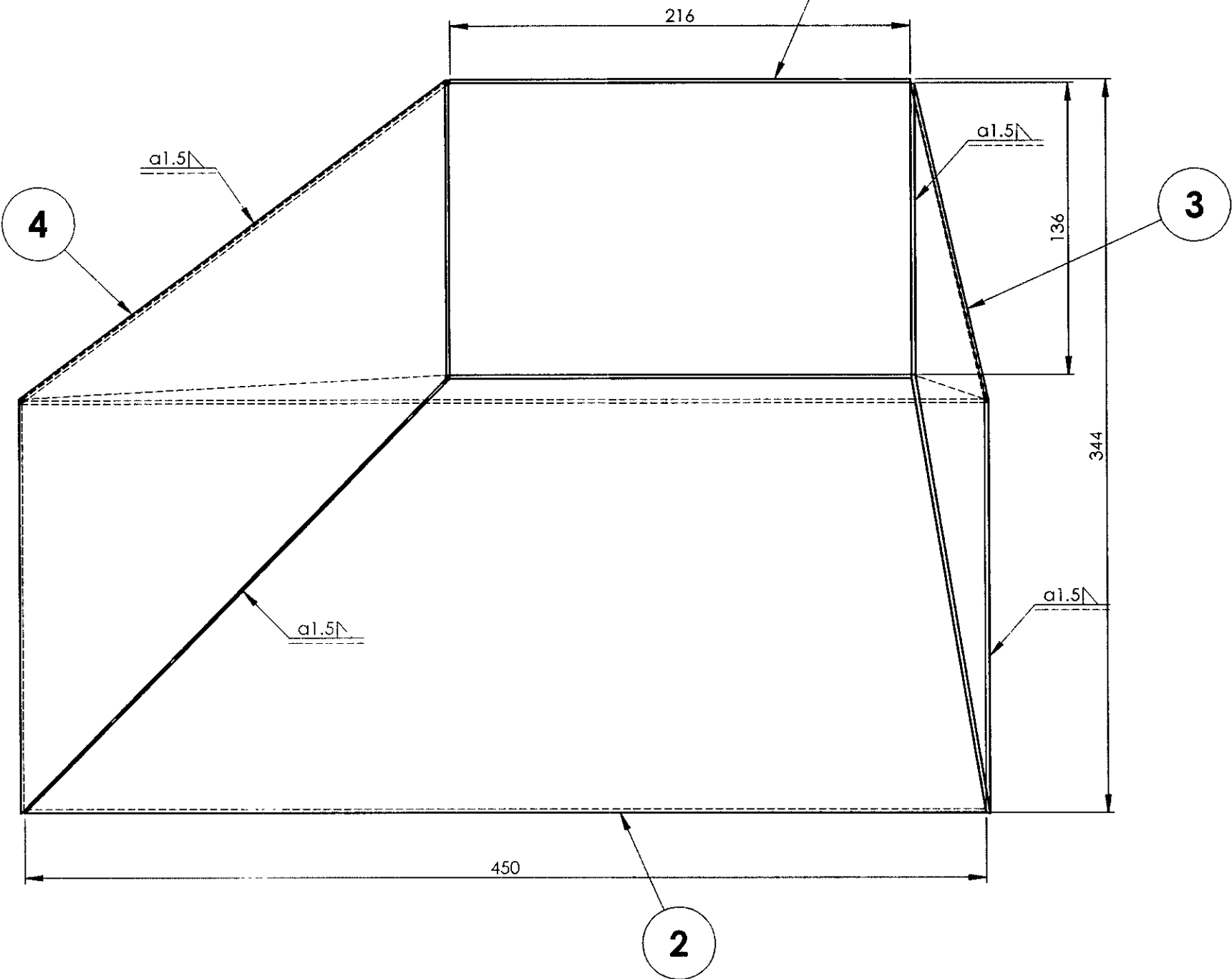
REF.DRG.NO.2 10113.0.20.210.008

DATE OF LATEST A.C.	22-03-2013	DATE OF FIRST ISSUE	AMF/SME
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59316057

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①c CHAMFERED

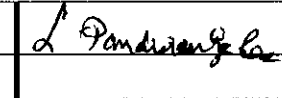
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		SUCTION PIPE MODIFIED AND VIEWS UPDATED.	

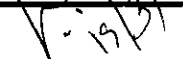


ISOMETRIC VIEW

NOTE:-

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC. CK-201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL WELDING SHALL BE OF TIG UNLESS OTHERWISE SPECIFIED.
6. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.

1	SIDE SHEET		4	AAE16690		0.865	
1	SIDE SHEET		3	AAE16691		0.613	
1	BOTTOM SHEET		2	AAE16692		2.269	
1	TOP SHEET		1	AAE16693		1.49	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.665		WT/ASSY IN Kgs: 5.239	
SUCTION PIPE COMPLETE					SCALE 1:2.5	SSE/D CHD	
					ALT a	ALTD DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					LWSCWAC/EOG		
					SHEET 1 OF 1		
59316057							A2

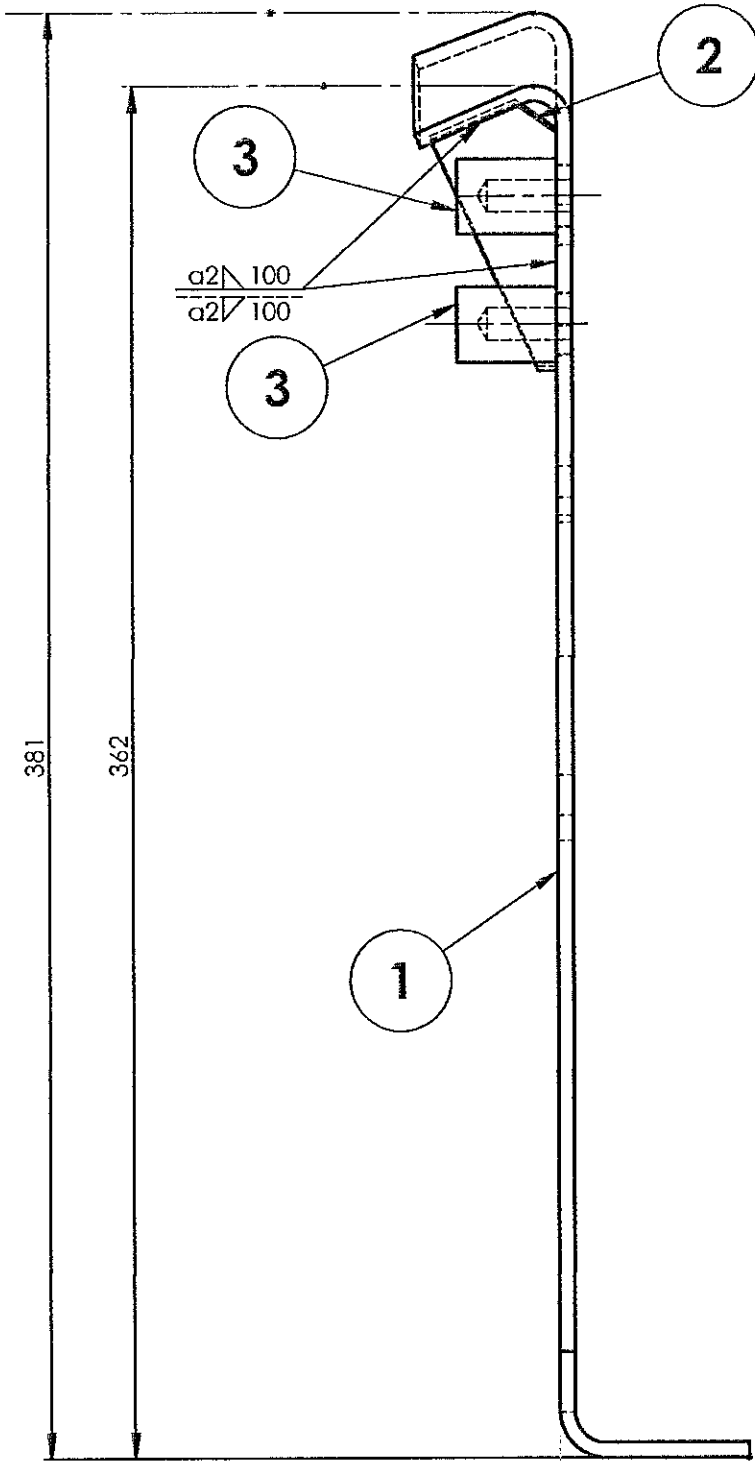
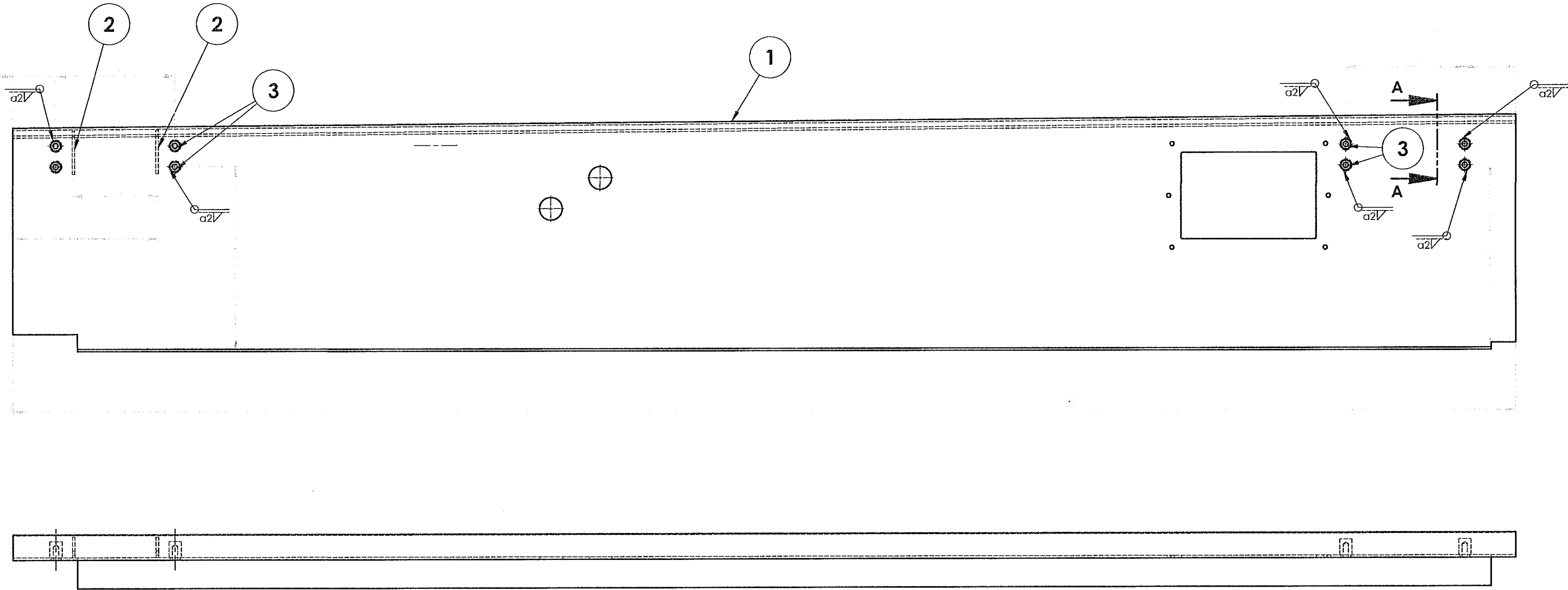
15-03-24	07-06-23	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.2 10113.0.20.200.007

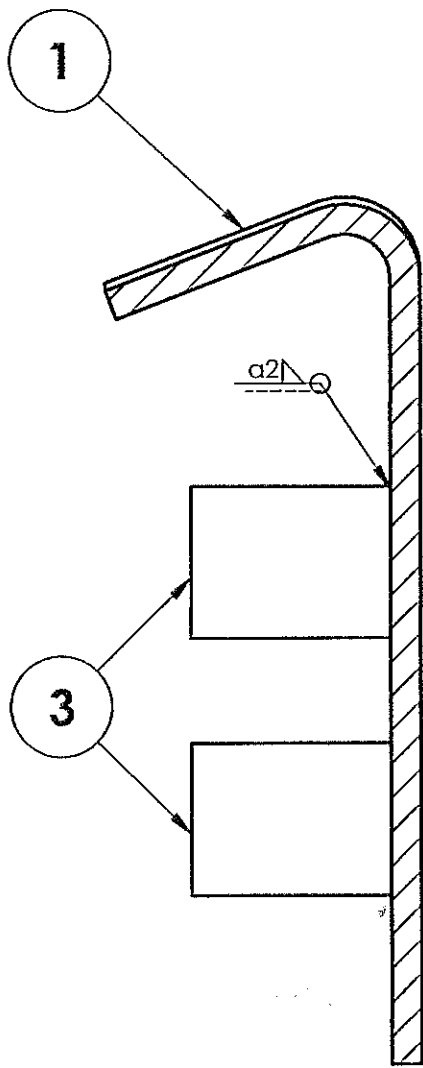
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986.

82716012

12		13	14	15	16
▽ ROUGH MACHINED		① ROUGH CLEANED	REVISIONS		
▽▽ FINISH MACHINED		② BURRS REMOVED	ALT.	ZONE	DESCRIPTION
▽▽▽ FINE FINISH MACHINED		③ CHAMFERED	α		ITEM-1 REVISED VIEWS UPDATED.
					APPROVED & DATE



DETAIL X
SCALE 1 : 2



SECTION A-A
SCALE 1 : 1

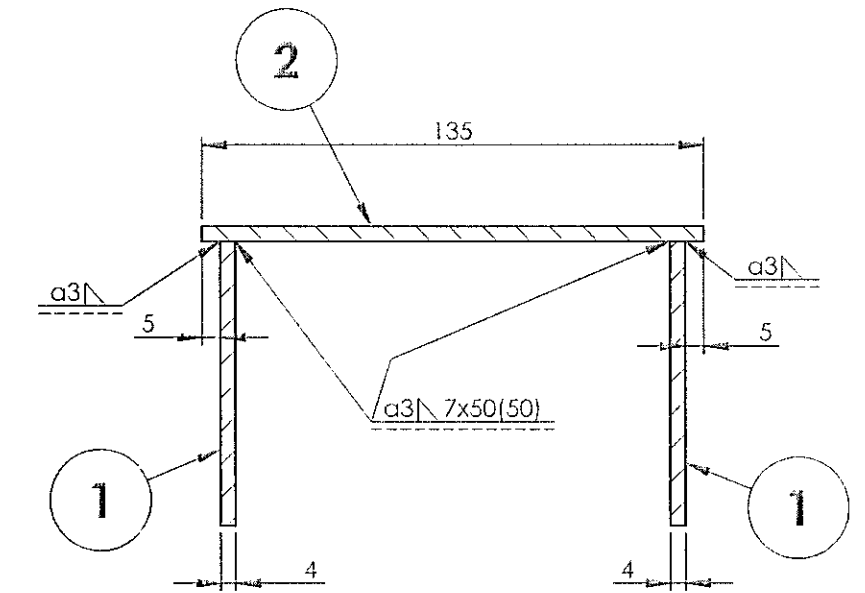
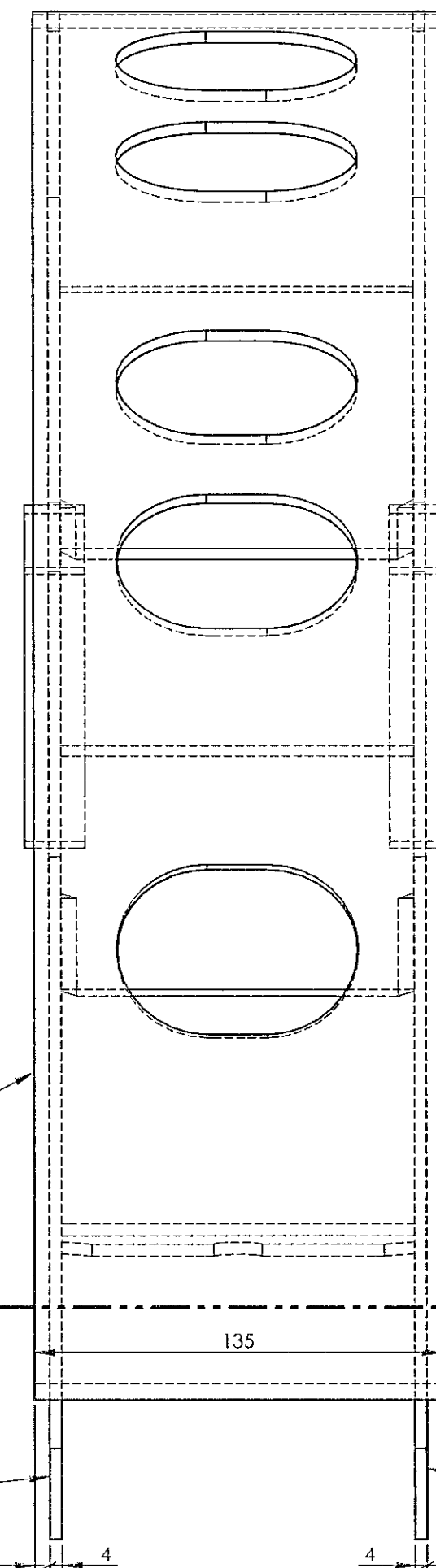
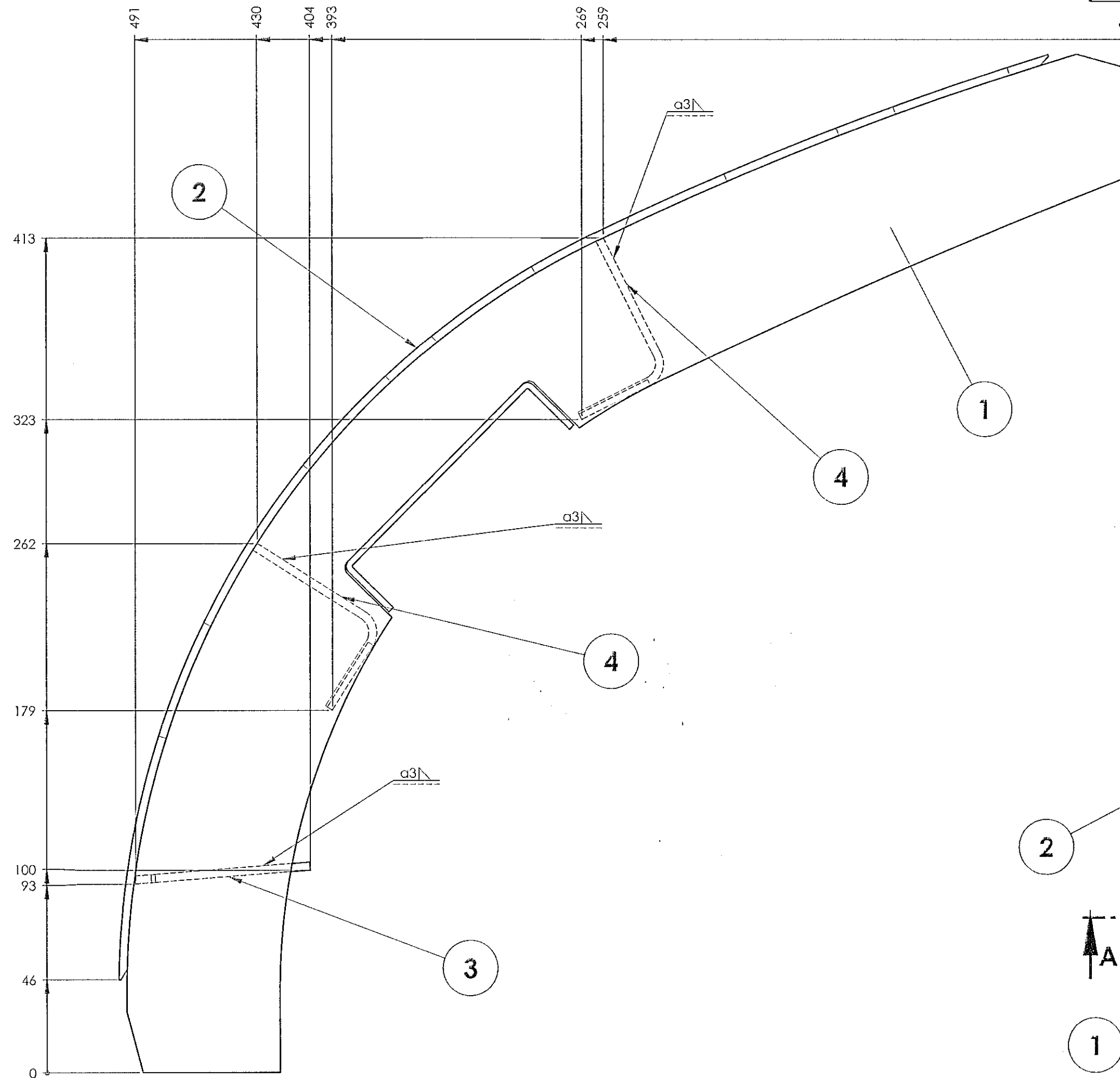
- NOTE:**
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
 2. ALL WELD SPATTERS SHALL BE GROUND.
 3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
 4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
 5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
 6. FOR WELD TESTING PREFERANCES REFER DRG. No. ICF/STD-9-0-998.
 7. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
 8. ITEM - 3 SHOULD BE WELDED WITH ITEM - 1 USING SUITABLE FIXTURE

8	SCREWING PIECE		3	AAD16884		0.06	
2	RIB		2	AAA16929		0.043	
1	MEMBER		1	AAF16121		33.764	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.: 2.70		WT/ASSY IN Kgs:		
MEMBER COMPLETE			SCALE 1:5	SSE/D CHD	E.SATHISH KUMAR		
			ALT. α	ALTD DRN	E.SATHISH KUMAR		
			INDIAN RAILWAY STANDARDS		LWFAC/PP2		
			INTEGRAL COACH FACTORY, CHENNAI - 600038		SHEET 1 OF 1		
32/10/26 04/09/25			DATE OF LATEST ALT. DATE OF FIRST ISSUE		AME/SME		
					82716012		
					A1		

82716015

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

SECTION A-A
SCALE 1 : 2

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

2	STIFFENING ANGLE		4	AAA16934		0.434	
1	WEB		3	AAA16933		0.319	
1	FLANGE		2	AAA16932		2.367	
2	ROOF ARCH COMPLETE		1	82716018		1681.75	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 Roof Construction

SURFACE AREA IN Sq.m.: 0.469

WT/ASSY IN Kgs: 6.918

ROOF ARCH COMPLETE

SCALE
1:5SSE/D
CHDALT
DRN

ALTD

E.SATHISH KUMAR

LWFAC/PP2

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

82716015

A2

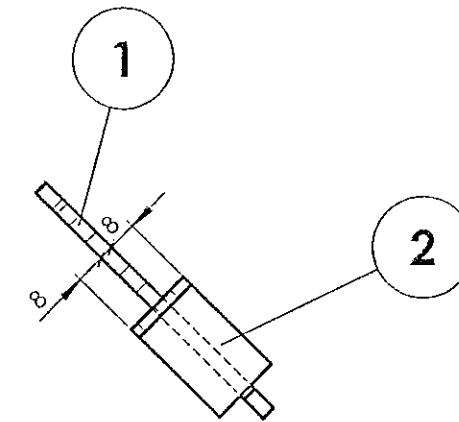
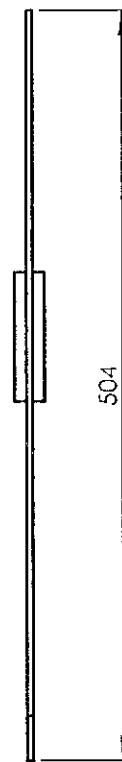
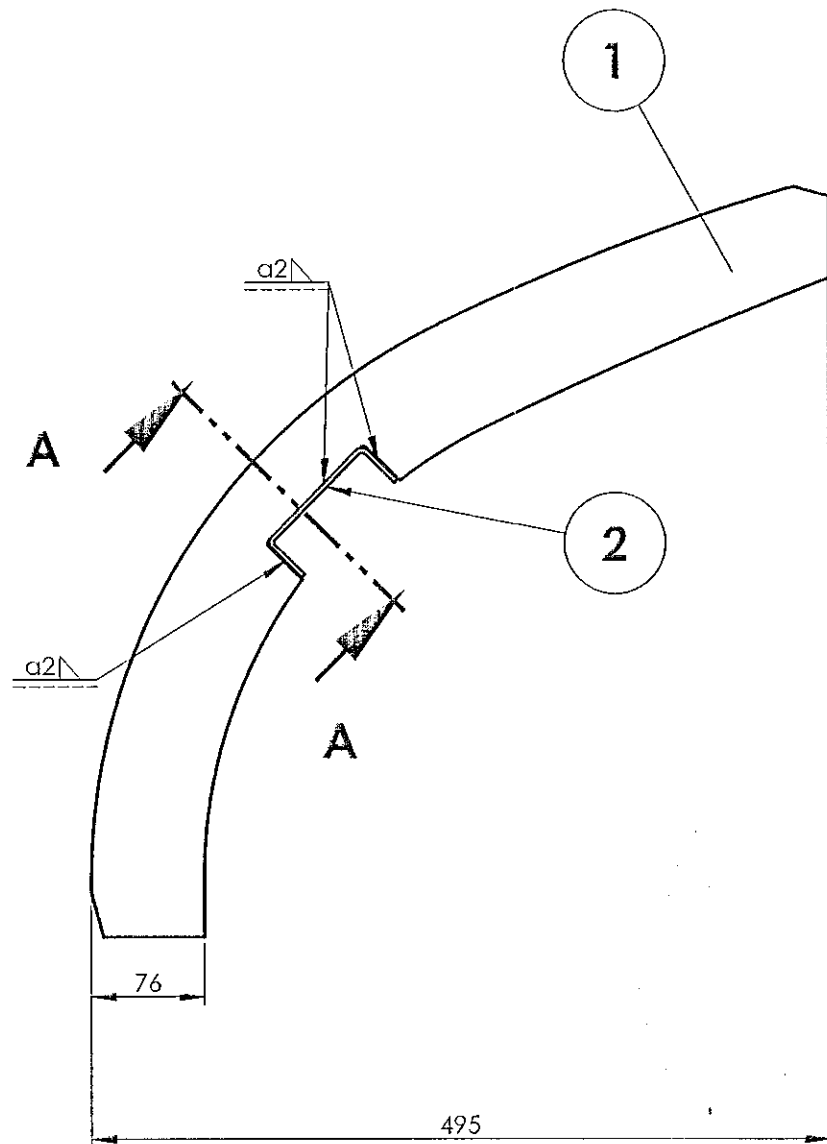
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DATE OF LATEST ALT.	04/09/25	AME/SME
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82716018

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	018 CHAMFERED

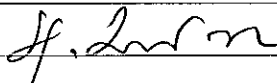
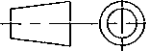
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1 : 2

NOTE:

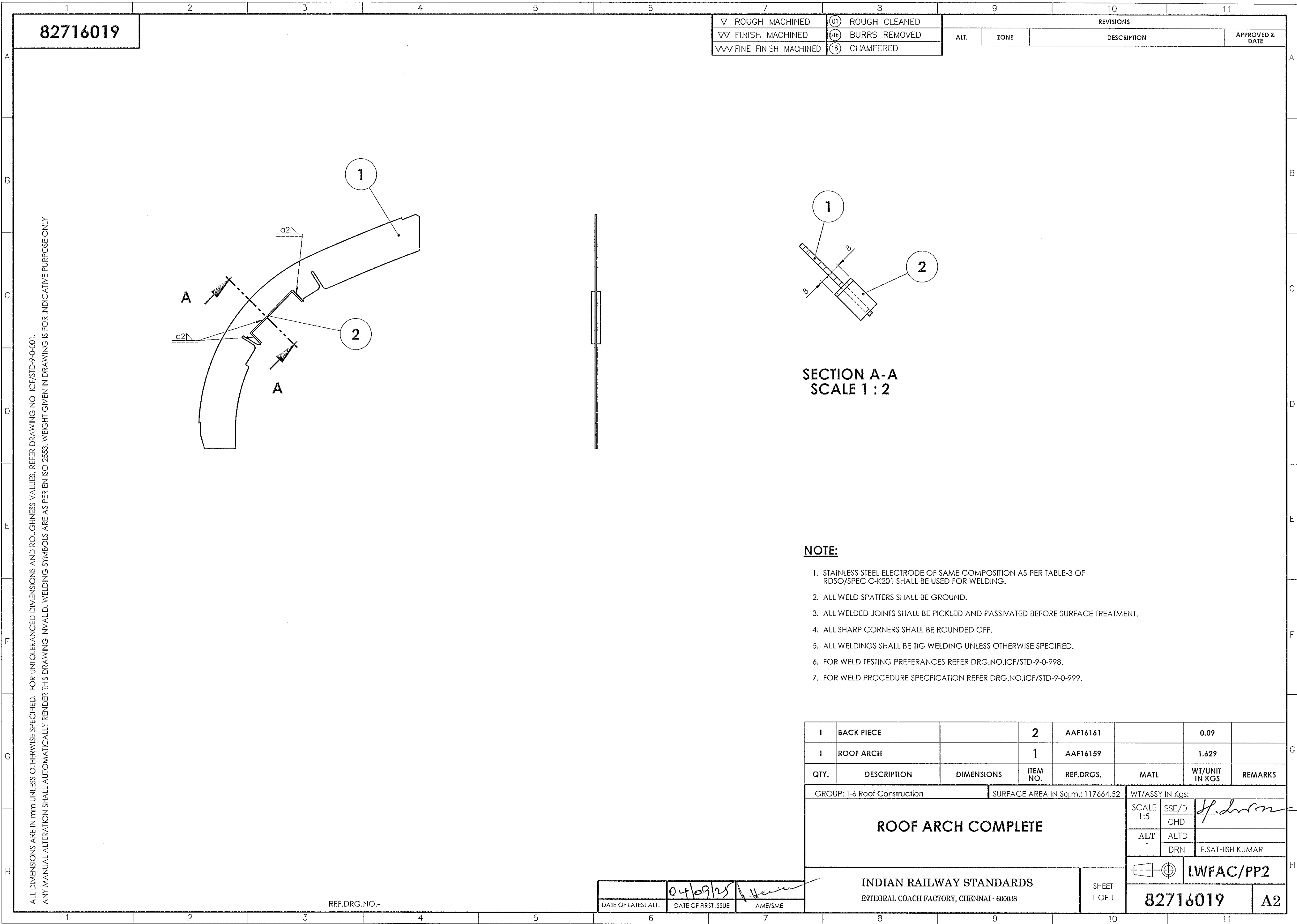
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERENCES REFER DRG.NO.ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.ICF/STD-9-0-999.

1	BACK PIECE		2	AAF16161		0.07	
1	ROOF ARCH		1	AAF16158		1.623	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: -			SURFACE AREA IN Sq.m.: 114996.21		WT/ASSY IN Kgs:		
ROOF ARCH COMPLETE					SCALE 1:5	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							LWFAC/PP2
							82716018
					SHEET 1 OF 1		

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

REF.DRG.NO.-

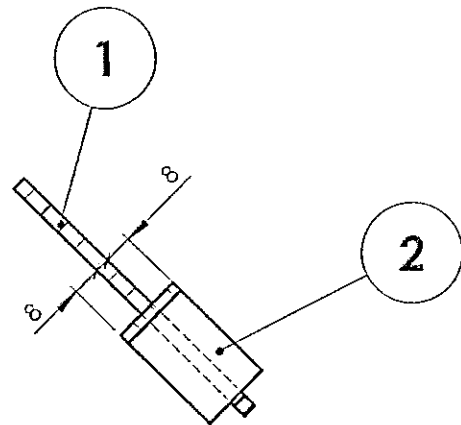
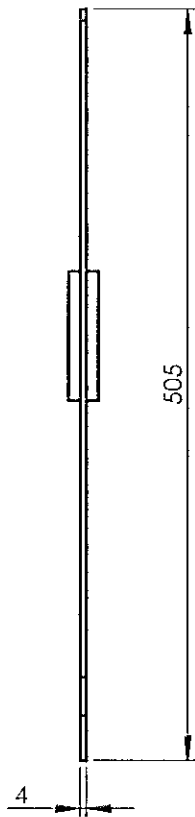
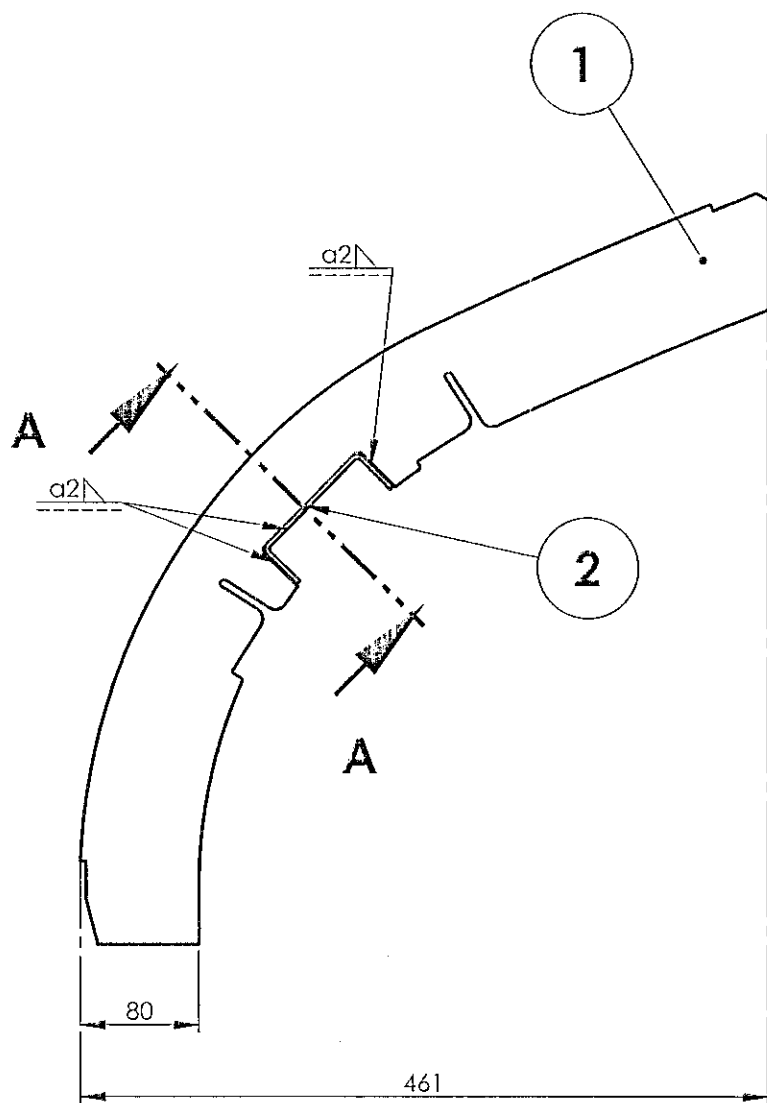
DATE OF LATEST ALT.	04/09/25	AME/SME
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82716020

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①b CHAMFERED

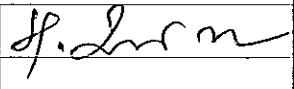
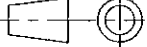
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1 : 2

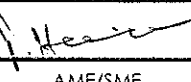
NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERANCES REFER DRG.NO.ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.ICF/STD-9-0-999.

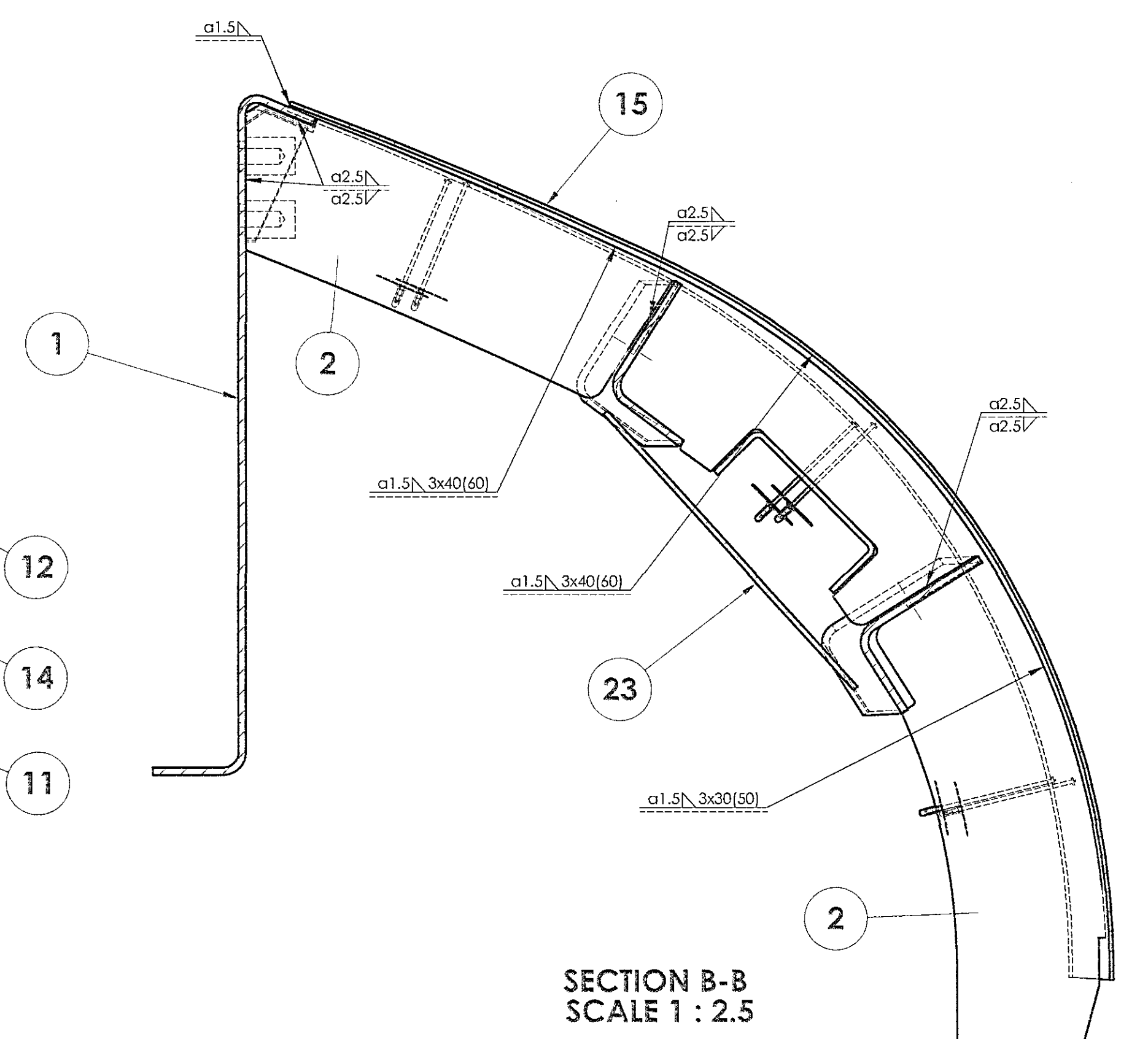
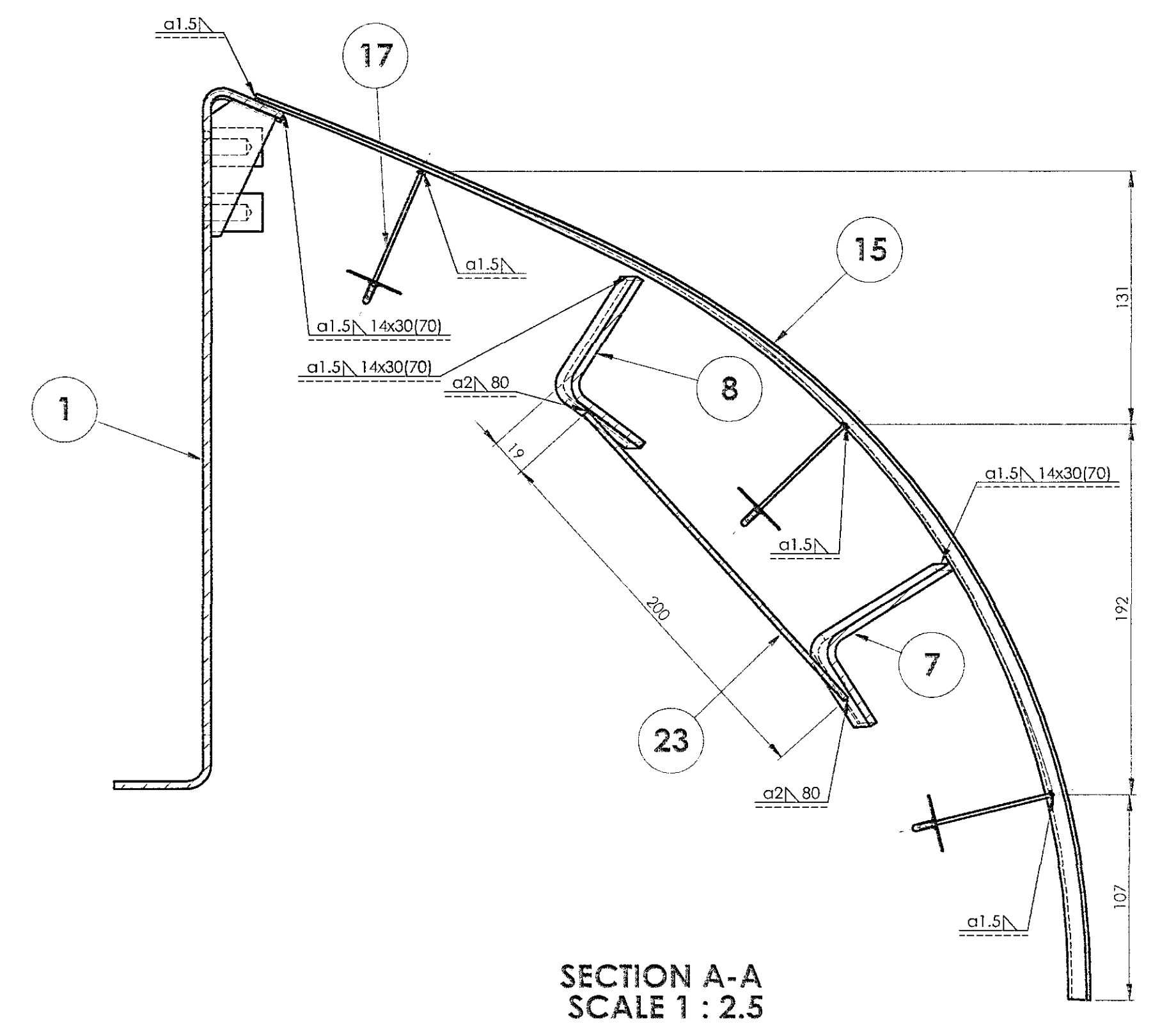
1	BACK PIECE		2	AAF16161		0.07		
1	ROOF ARCH		1	AAF16160		1.614		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 114918.25			WT/ASSY IN Kgs:			
ROOF ARCH COMPLETE					SCALE 1:5	SSE/D		
						CHD		
					ALT	ALTD		
						DRN		E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						LWFAC/PP2		
						82716020		
					SHEET 1 OF 1			A2

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REF.DRG.NO.-


	04/09/25	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME



▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED



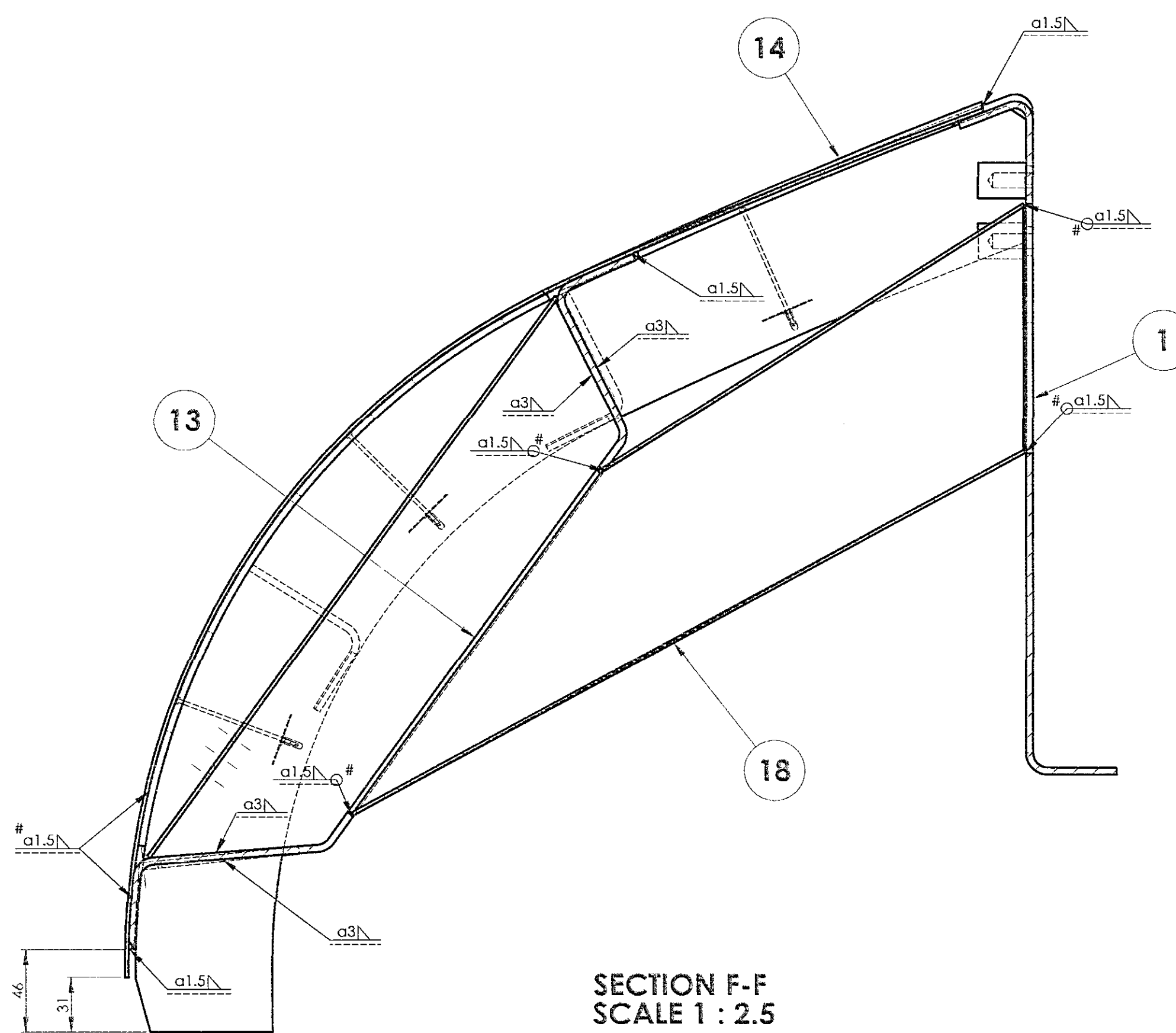
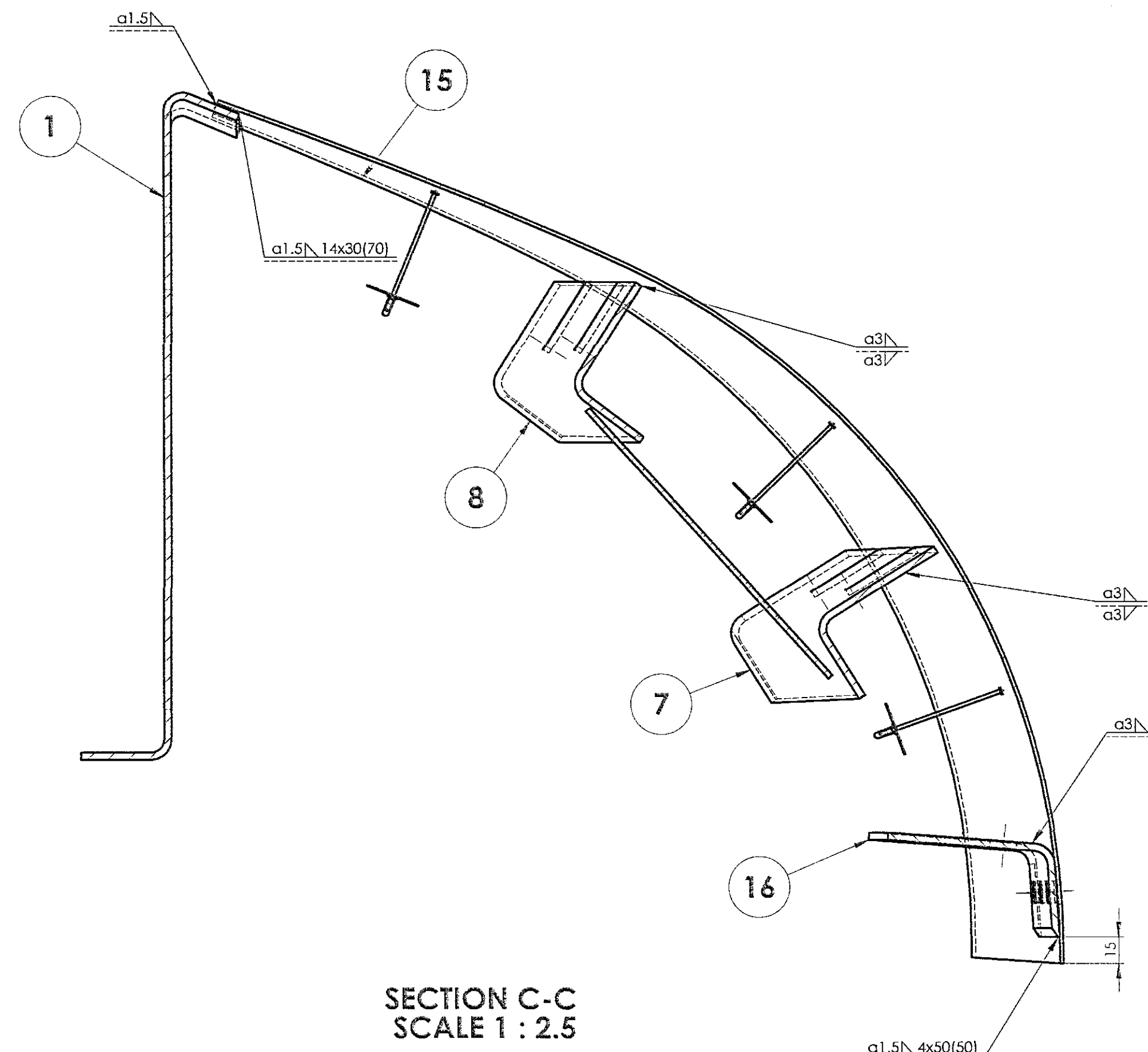
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REF.DRG.NO.85616015 ALT NIL


20-02-2026	16-07-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 9.20		WT/ASSY IN Kgs:	
FINAL ROOF ELEMENT COMPLETE (LH)FOR AC PANTRY CAR(AMRIT BHARAT RAKE)		SCALE 1:5	SSE/D CHD		
		ALT. b	ALTD DRN	AMAL GEORGE	
					Amal George
INDIAN RAILWAY STANDARDS		SHEET		 LWCBAC/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600088		1 OF 3		83016006	
				A1	

▽ ROUGH MACHINED	(01) ROUGH CLEANED
▽▽ FINISH MACHINED	(01b) BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	(18) CHAMFERED



REF.DRG.NO.85616015 ALT NIL

20-02-2026	16-07-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

**FINAL ROOF ELEMENT COMPLETE
(LH)FOR AC PANTRY CAR(AMRIT
BHARAT RAKE)**

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

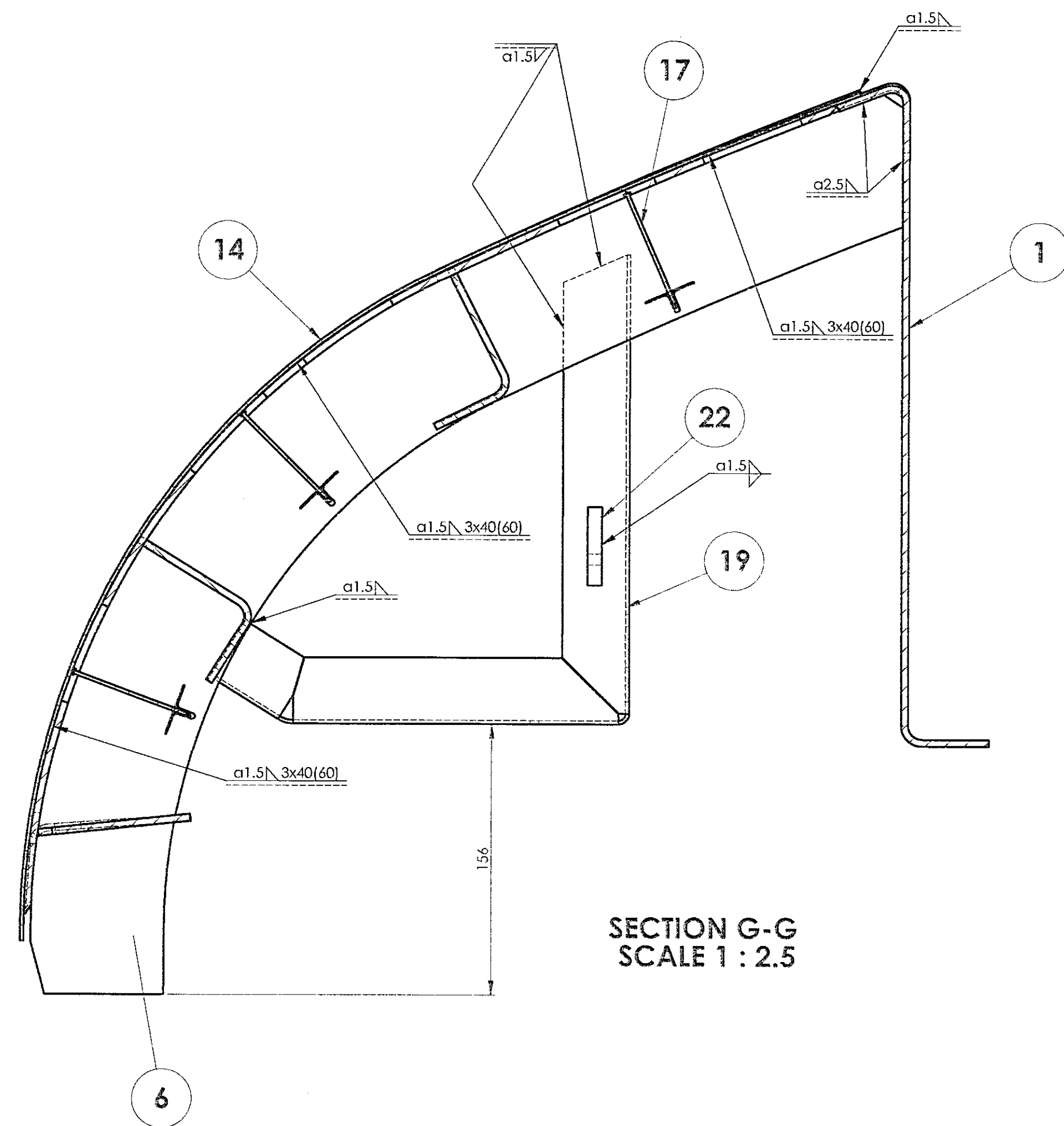
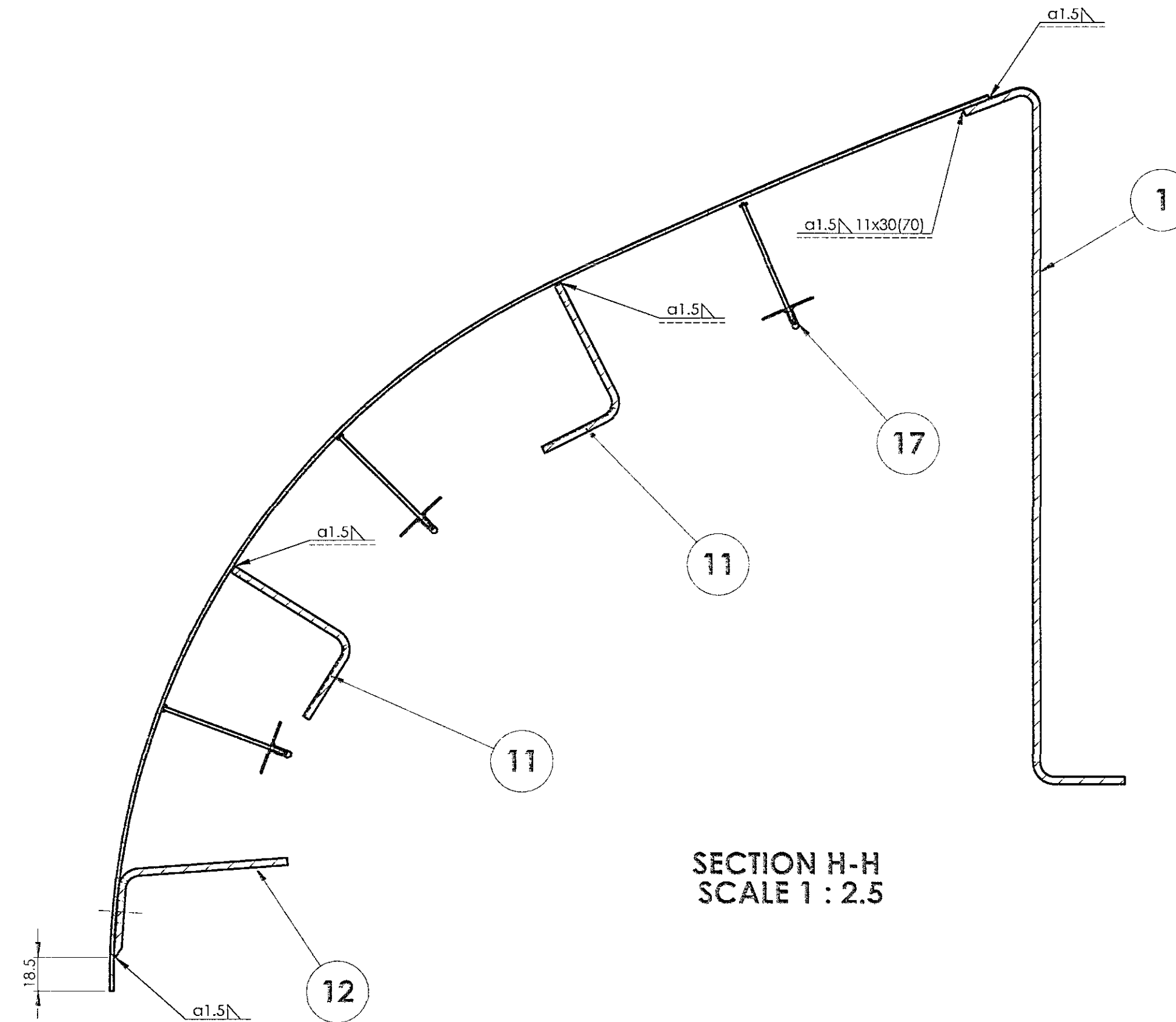
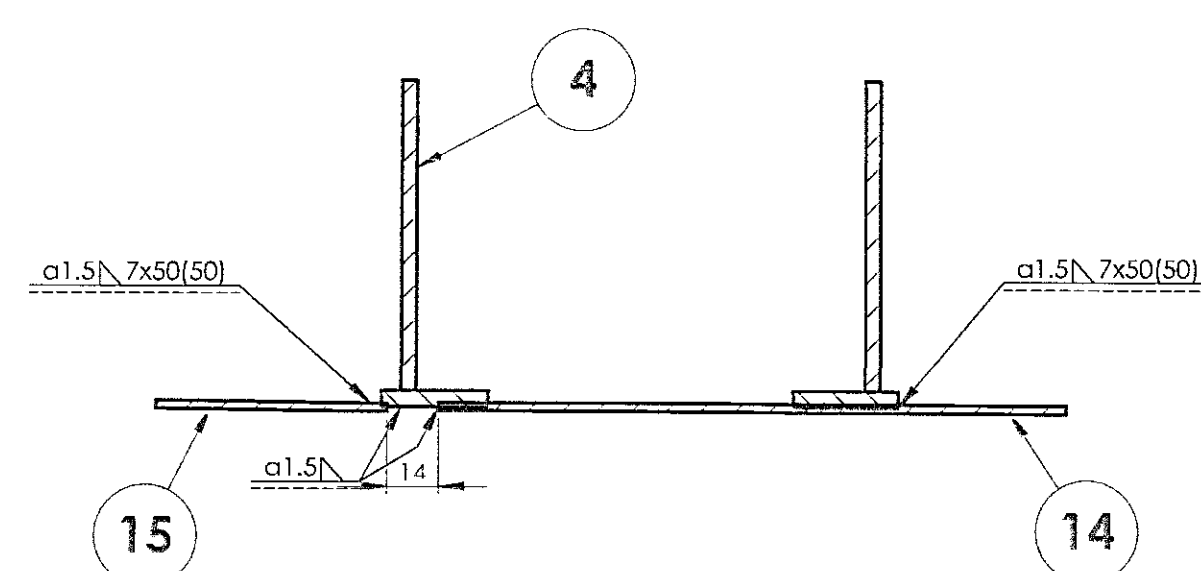
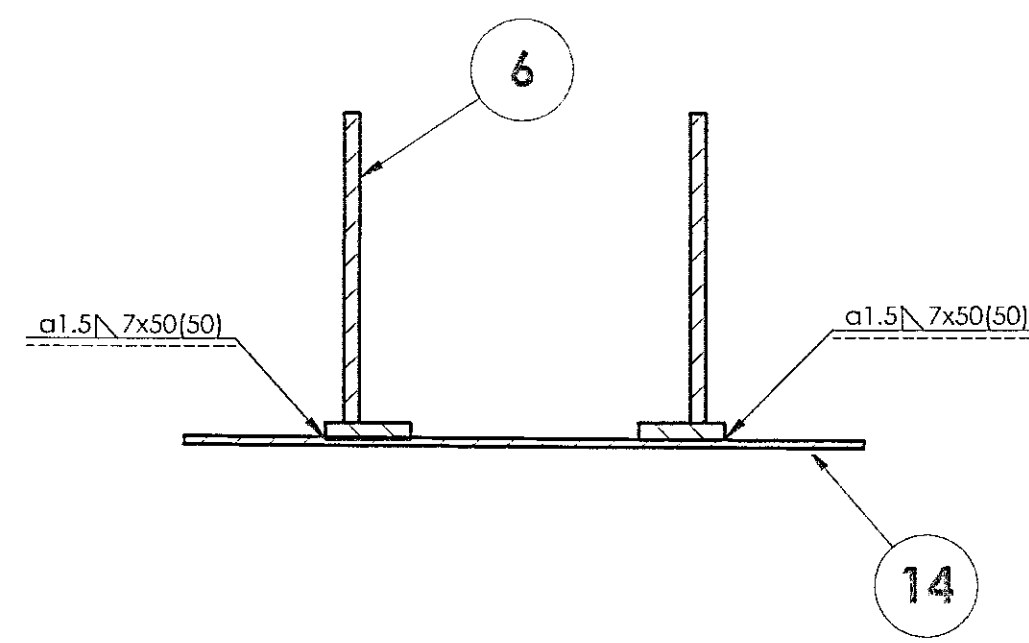
SHEET
2 OF 3

83016006

A1

83016006

12		13		14		15		16	
▽ ROUGH MACHINED		⑪ ROUGH CLEANED		REVISIONS		APPROVED & DATE			
▽▽ FINISH MACHINED		⑫ BURRS REMOVED		ALT.	ZONE	DESCRIPTION			
▽▽▽ FINE FINISH MACHINED		⑬ CHAMFERED		a		VIEWS UPDATED AS PER CHANGE IN THE DESIGN OF ITEM-1.		Sd-	
				b		VIEWS UPDATED AS PER CHANGE IN THE DESIGN OF ITEM-14.			

SECTION G-G
SCALE 1 : 2.5SECTION H-H
SCALE 1 : 2.5SECTION J-J
SCALE 1 : 2SECTION K-K
SCALE 1 : 2

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RD50/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. FINISHED ASSEMBLY SHALL BE SUPPLIED WITHOUT PAINTING. THE SAME SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED/MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231 AFTER BODY SHELL ASSEMBLY STAGE AT ICF.
10. ITEM-18 (NAME PLATE) SHALL BE WELDED OR RIVETED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.
11. ALL THE THREADED HOLES SHALL BE PROVIDED WITH SUITABLE DUMMY BOLTS TO SAFEGUARD THE THREADS.
12. SCHEDULE OF REQUIREMENTS OF MANUFACTURE OF SIDEWALL/ ROOF ASSEMBLY SHALL COMPLY TO ICF/MD/SPEC-200 LATEST REVISION.
- # 13. LEAK PROOF WELDING SHALL BE ENSURED.

1	NAME PLATE FOR SUPPLIER IDENTIFICATION	24	AAA51072		0.063	
3	FLAT	23	AAB16550		0.33	
2	GROUNDING FLAP	22	AAA16900		0.084	
1	BRACKET	21	AAA10968		0.615	
1	BRACKET	20	AAB10005		0.547	
1	BRACKET	19	AAB10006		0.547	
1	SUCTION PIPE COMPLETE	18	59316057		5.239	
30	WELDING PIN ASSEMBLY	17	49516008		0.005	
1	STIFFENING ANGLE	16	AAA16950		1.84	
1	ROOF SHEET	15	AAA16949		15.18	
1	ROOF SHEET	14	AAA16948		8.88	
1	LOCATION FRAME COMPLETE	13	59316019		7.283	
1	STIFFENING ANGLE	12	AAA16955		0.57	
2	STIFFENING ANGLE	11	AAA16926		0.544	
2	STIFFENING ANGLE	10	AAA16954		0.64	
1	STIFFENING ANGLE	9	AAA16953		0.63	
1	STIFFENING ANGLE	8	AAA16952		4.84	
1	STIFFENING ANGLE	7	AAA16951		5.22	
1	ROOF ARCH COMPLETE	6	59316018		6.260	
1	ROOF ARCH COMPLETE	5	59316022		2.83	
1	ROOF ARCH COMPLETE	4	82716015		6.945	
1	ROOF ARCH COMPLETE	3	82716019		1.73	
1	ROOF ARCH COMPLETE	2	82716020		1.69	
1	MEMBER COMPLETE	1	82716012		34.344	
DESCRIPTION		DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	Weight/Unit in Kgs

GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 9.20		WT/ASSY IN Kgs:	
FINAL ROOF ELEMENT COMPLETE (LH) FOR AC PANTRY CAR(AMRIT BHARAT RAKE)		SCALE 1:5		SSE/D CHD	
		ALT. b		ALTD DRN	
INDIAN RAILWAY STANDARDS		SHEET 3 OF 3		LWCBAC/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038		83016006		A1	

REF.DRG.NO.85616015 ALT NIL

20-02-2026	16-07-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

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