

53816019

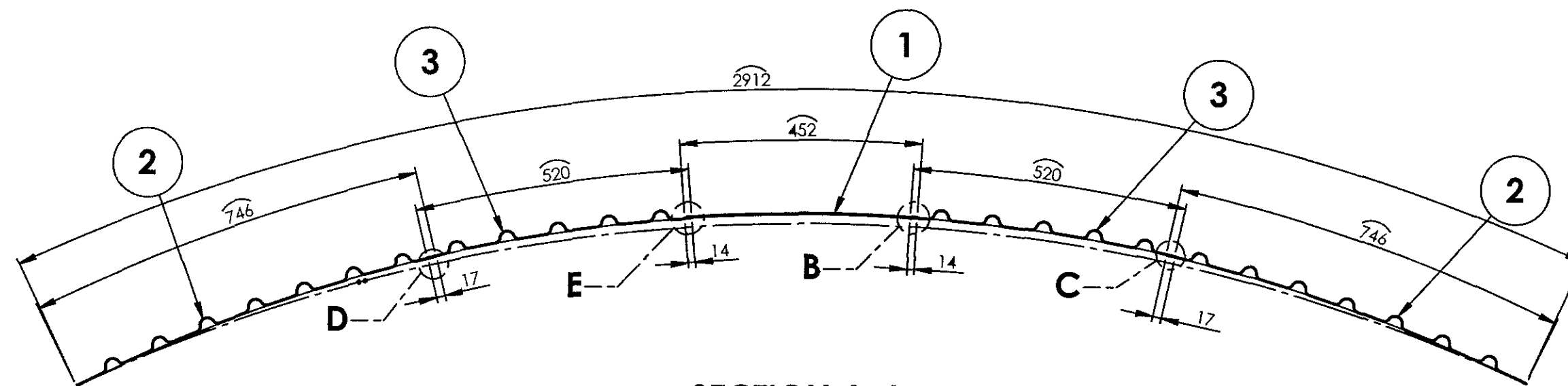
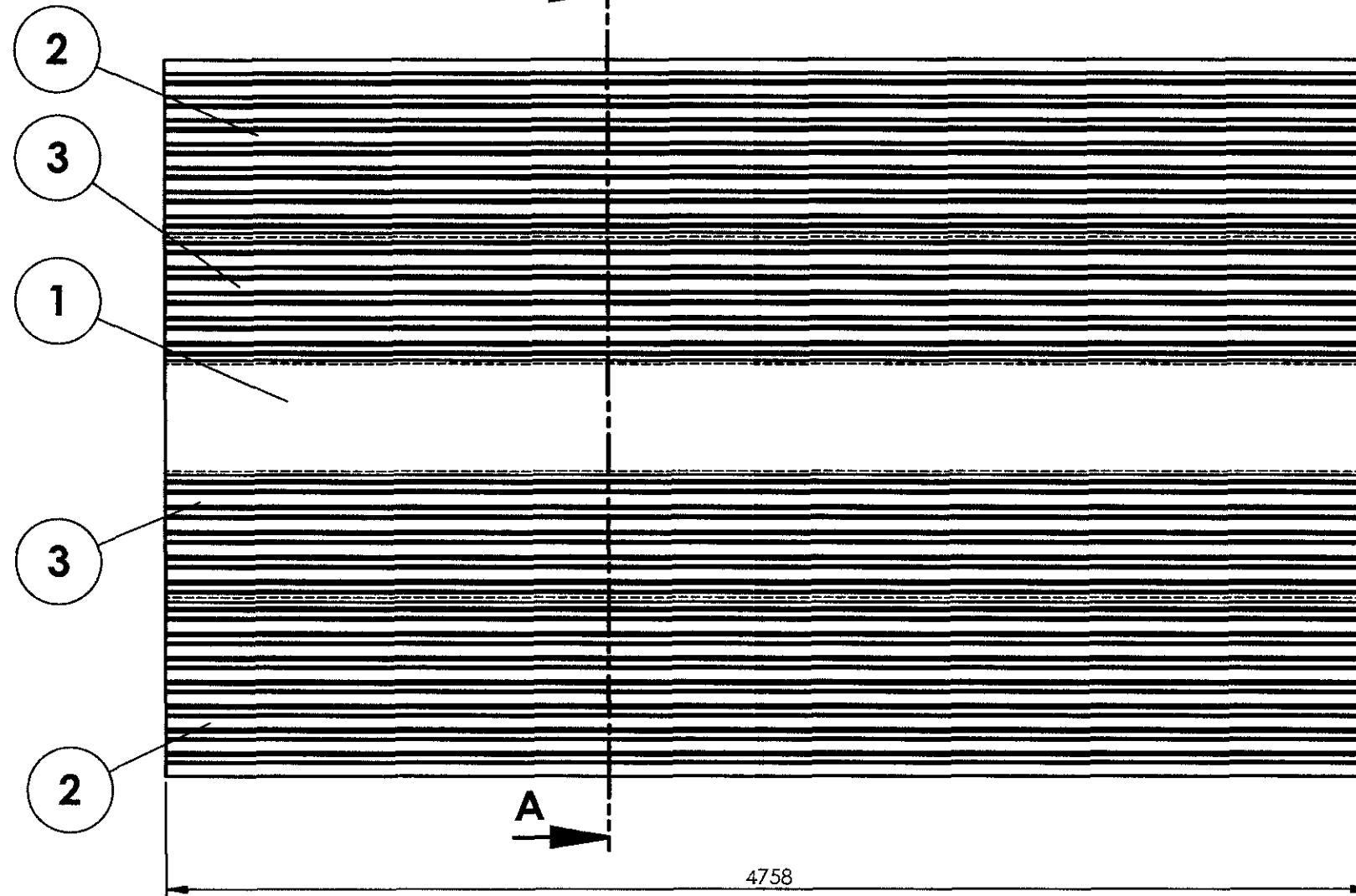
▽ ROUGH MACHINED
▽▽ FINISH MACHINED
▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED
② BURRS REMOVED
③ CHAMFERED

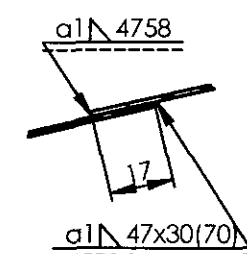
REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		VIEWS UPDATED AS PER CHANGE IN DESIGN OF ITEM-2. NOTES 6 TO 8 ADDED.	

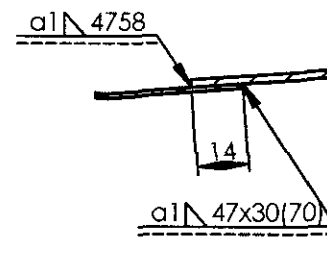
APPROVED & DATE
[Signature]



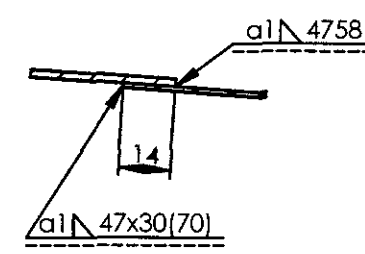
SECTION A-A
SCALE 1 : 10



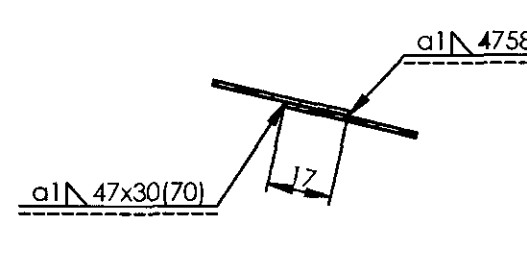
DETAIL D
SCALE 1 : 2



DETAIL E
SCALE 1 : 2



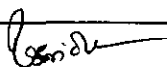
DETAIL B
SCALE 1 : 2



DETAIL C
SCALE 1 : 2

NOTE:

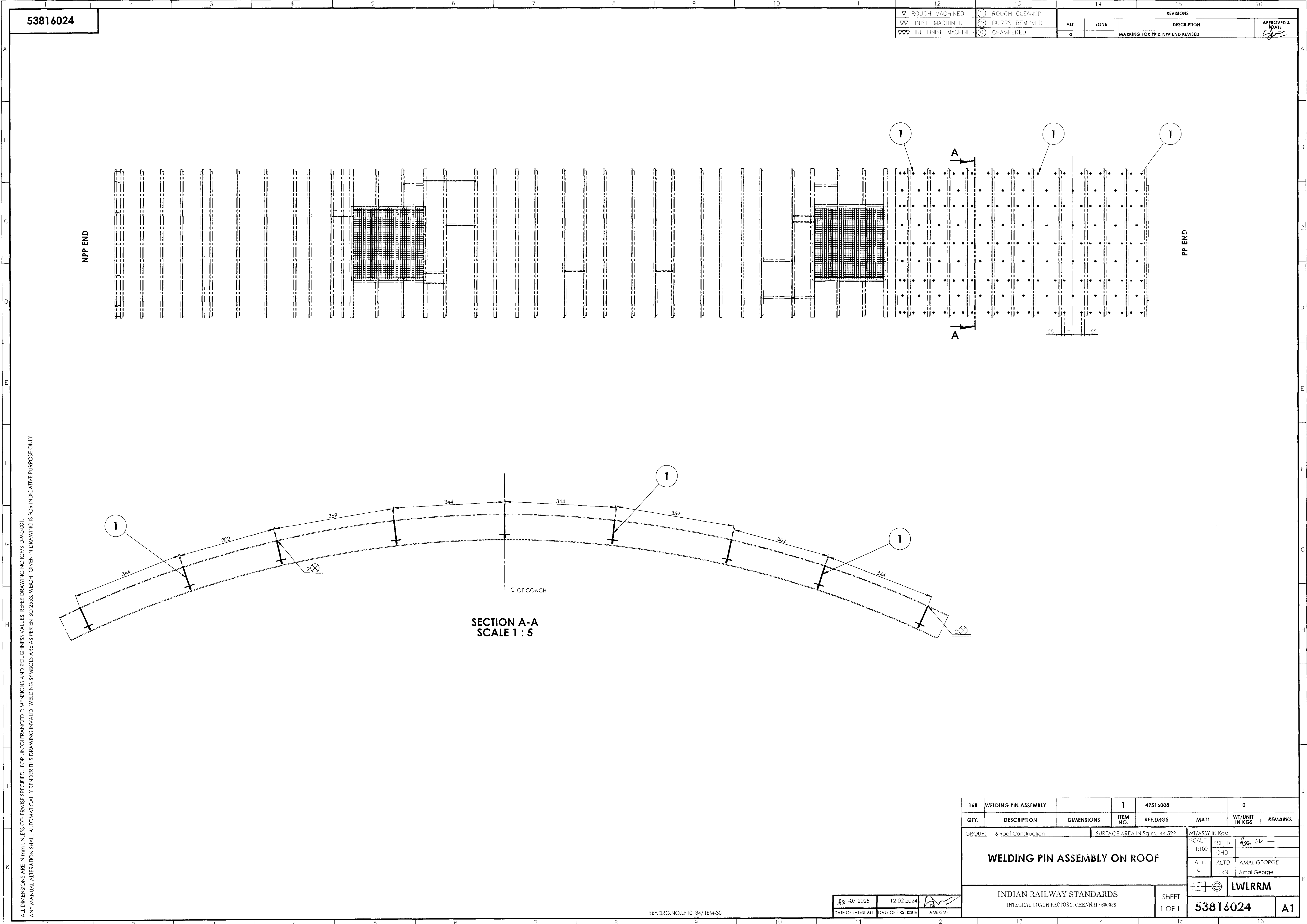
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP 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.

2	ROOF SHEET PART		3	AAC16839		28.919	
2	ROOF SHEET PART		2	AAC16824		41.377	
1	ROOF SHEET PART		1	AAC16823		34.421	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: I-6			SURFACE AREA IN Sq.m.: 32.497		WT/ASSY IN Kgs:		
ROOF SHEET ASSEMBLY					SCALE 1:50	SSE/D	
						CHD	
					ALT a	ALTD	AMAL GEORGE
						DRN	S.Bala V.Subramani.
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
53816019							

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.MI001644 Alt-a

22-02-2024	24-10-2018	[Signature]
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME



53816024

12		13		14		15		16	
▽ ROUGH MACHINED		① ROUGH CLEANED		ALT.		ZONE		REVISIONS	
▽▽ FINISH MACHINED		② BURRS REMOVED		a				DESCRIPTION	
▽▽▽ FINE FINISH MACHINED		③ CHAMFERED						MARKING FOR PP & NPP END REVISED.	
								APPROVED & DATE	

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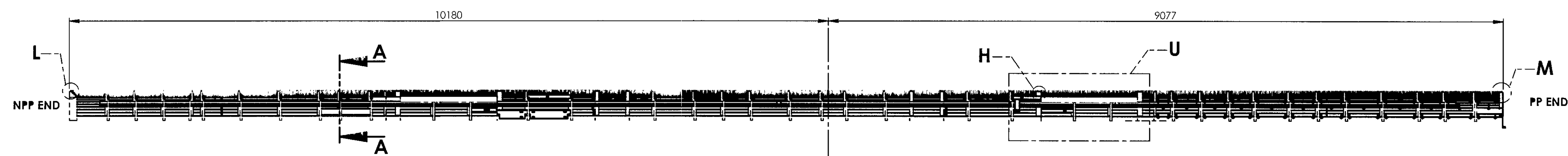
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07-2025	12-02-2024	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	A/E/S/M/E

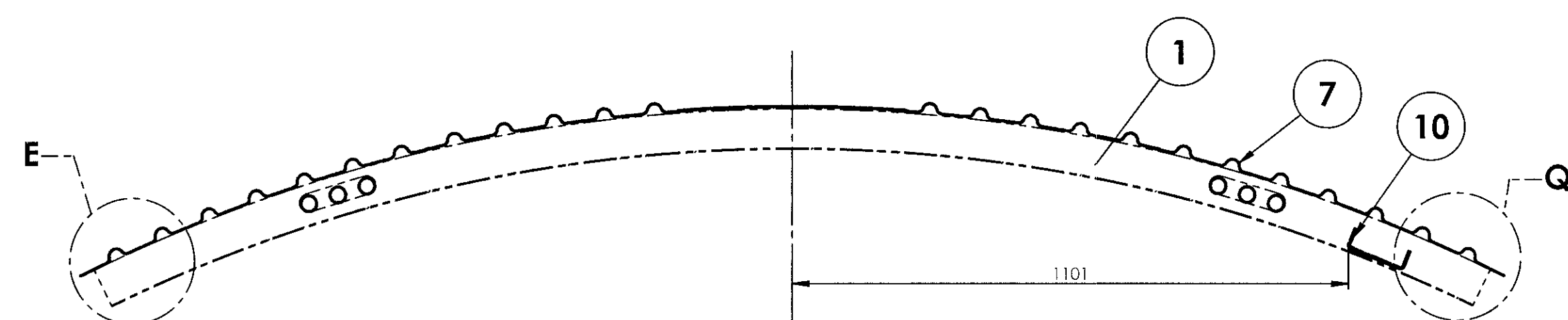
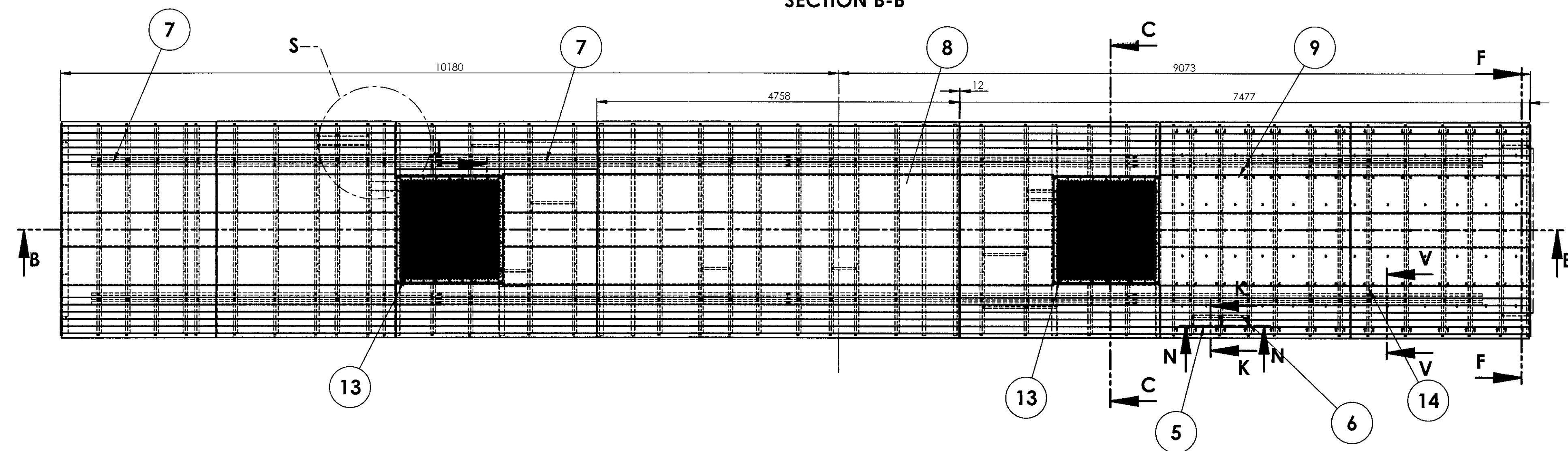
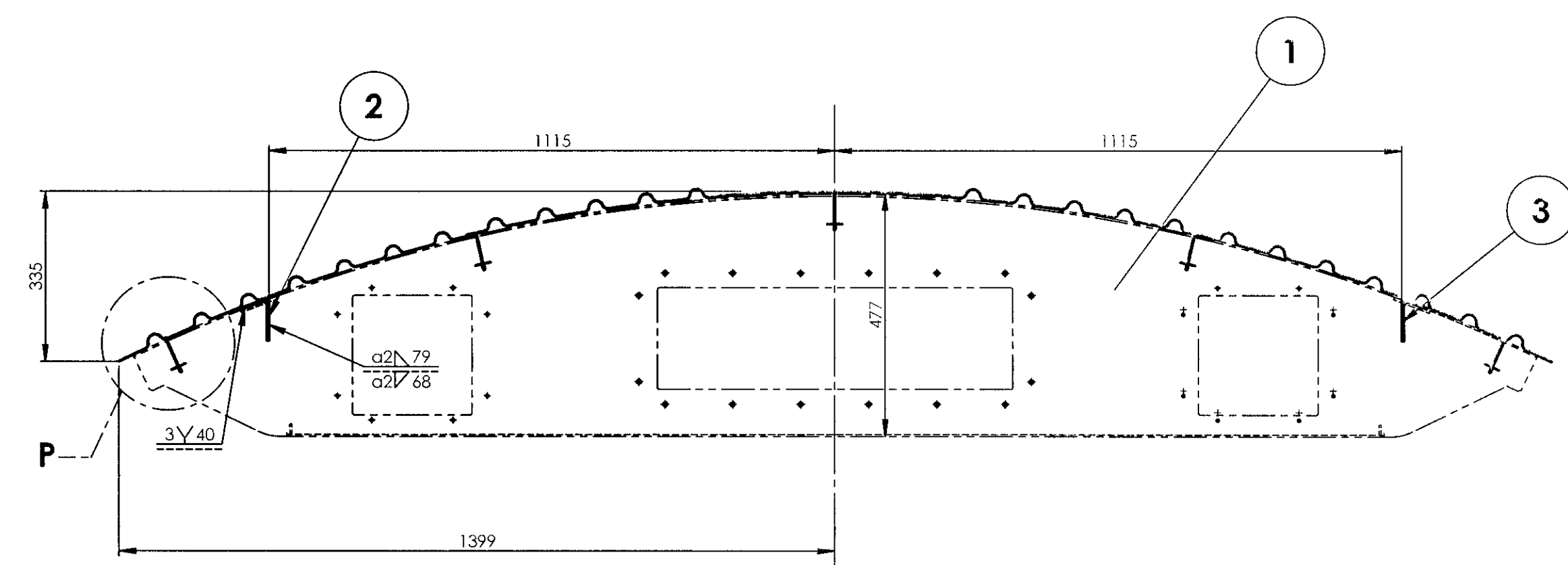
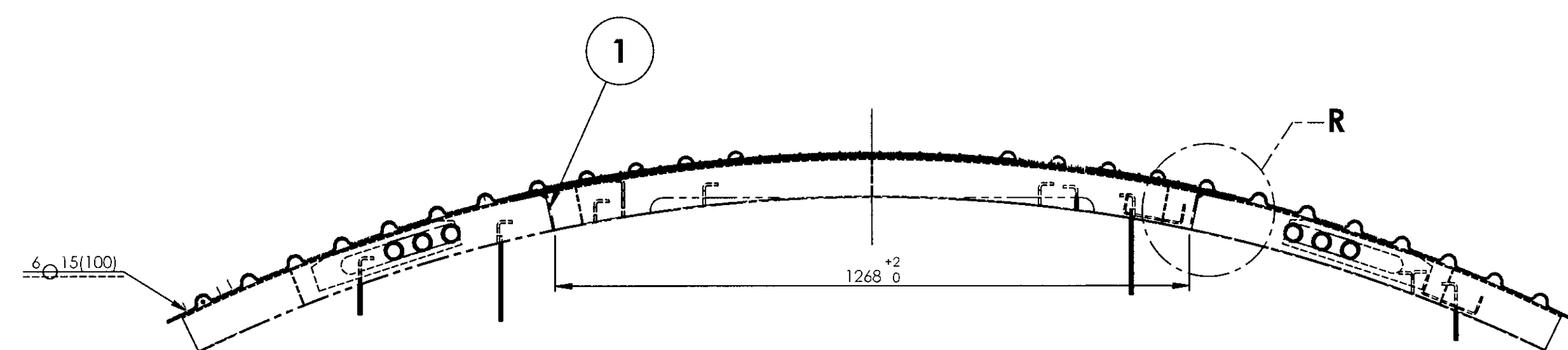
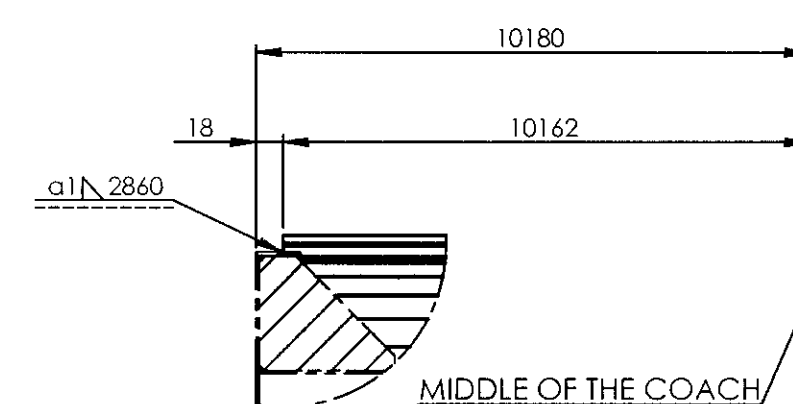
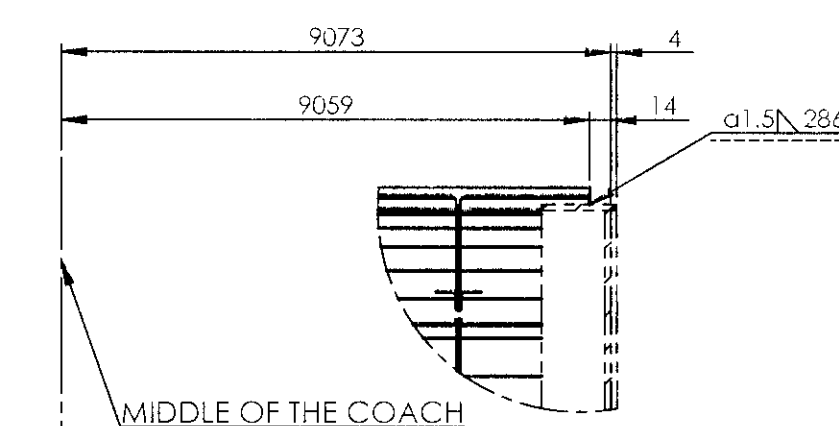
148	WELDING PIN ASSEMBLY	1	49516008		0	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 44.522		WT/ASSY IN Kgs:		
WELDING PIN ASSEMBLY ON ROOF		SCALE 1:100	SCE: D	CHD		
		ALT: a	ALTD	AMAL GEORGE		
			DRN	Amal George		
				LWLRRM		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038				53816024		A1

83116001

▽ ROUGH MACHINED	⑦ ROUGH CLEANED
▽▽ FINISH MACHINED	⑧ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑨ CHAMFERED



SECTION B-B

SECTION A-A
SCALE 1 : 10SECTION F-F
SCALE 1 : 10SECTION C-C
SCALE 1 : 10DETAIL L
SCALE 1 : 5DETAIL M
SCALE 1 : 5

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-001.
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REF.DRG.NO.1 11012.0.20.200.001 alt "-c"

DATE OF LATEST ALT.	28-07-2025	AME/SME
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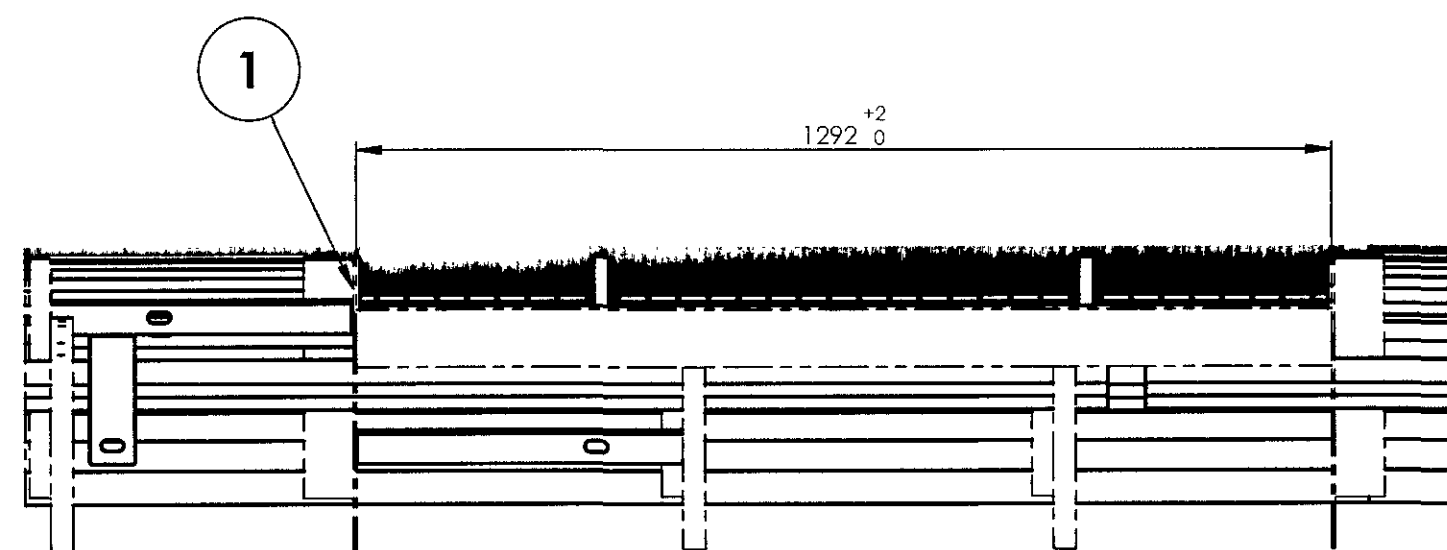
GROUP: 1-6 Roof Construction	SURFACE AREA IN Sq.m : 187.45	WT/ASSY IN Kgs:
ROOF COMPLETE		SCALE: 1:40
INDIAN RAILWAY STANDARDS		CODE: CHD
INTEGRAL COACH FACTORY, CHENNAI - 600038		ALT: ALTD
SHEET 1 OF 3		DRN: Amal George
83116001		LWLRRM/PP2
A1		

83116001

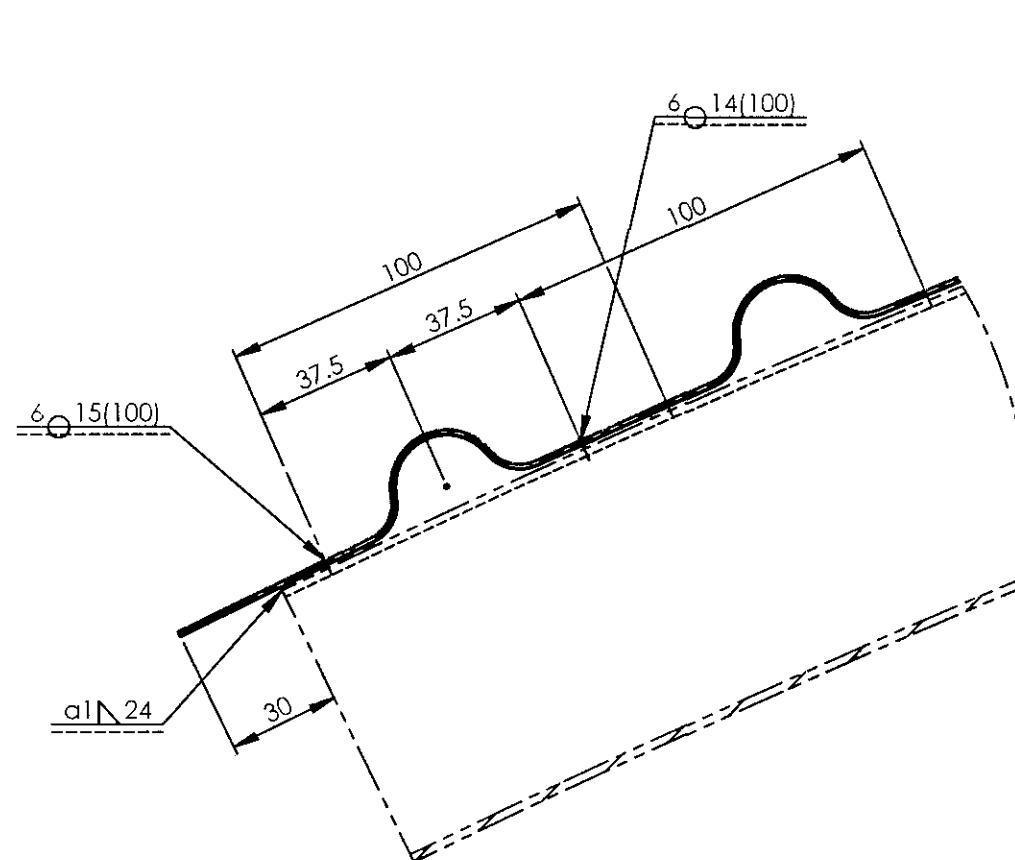
ROUGH MACHINED
FINISH MACHINED
FINE FINISH MACHINED

ROUGH CLEANED
BUMPS REMOVED
CHAMFERED

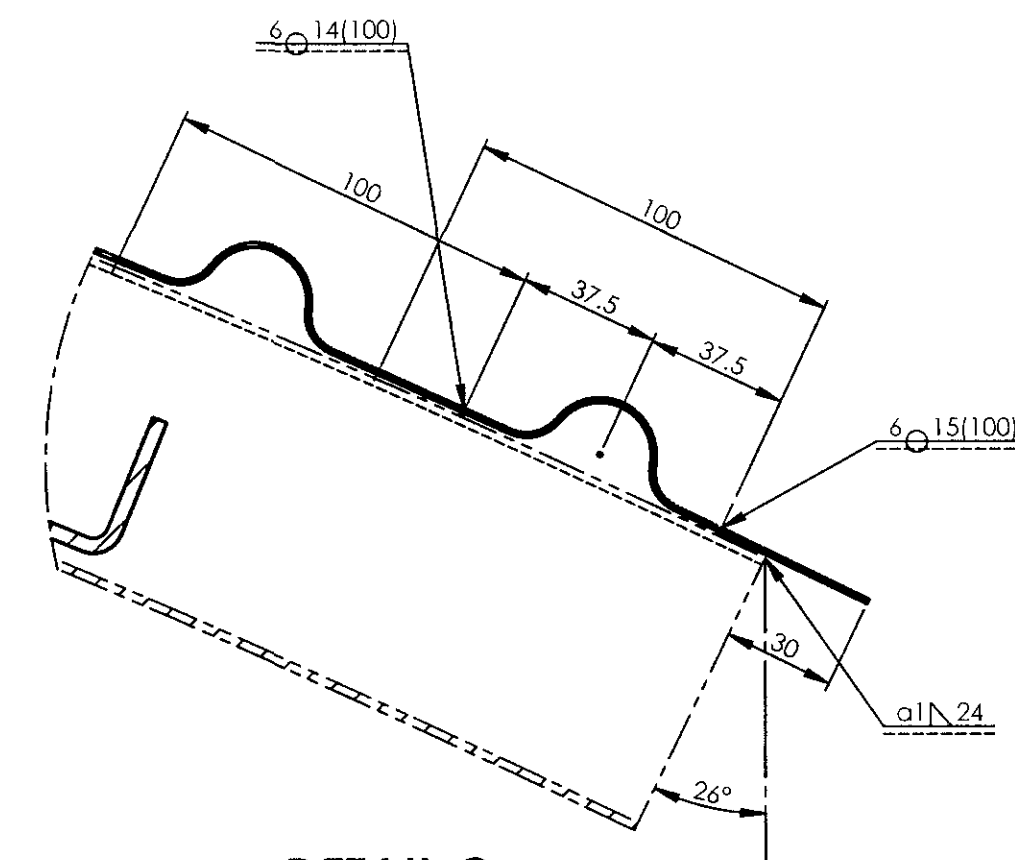
REVISIONS		APPROVED & DATE	
ALT.	ZONE	DESCRIPTION	



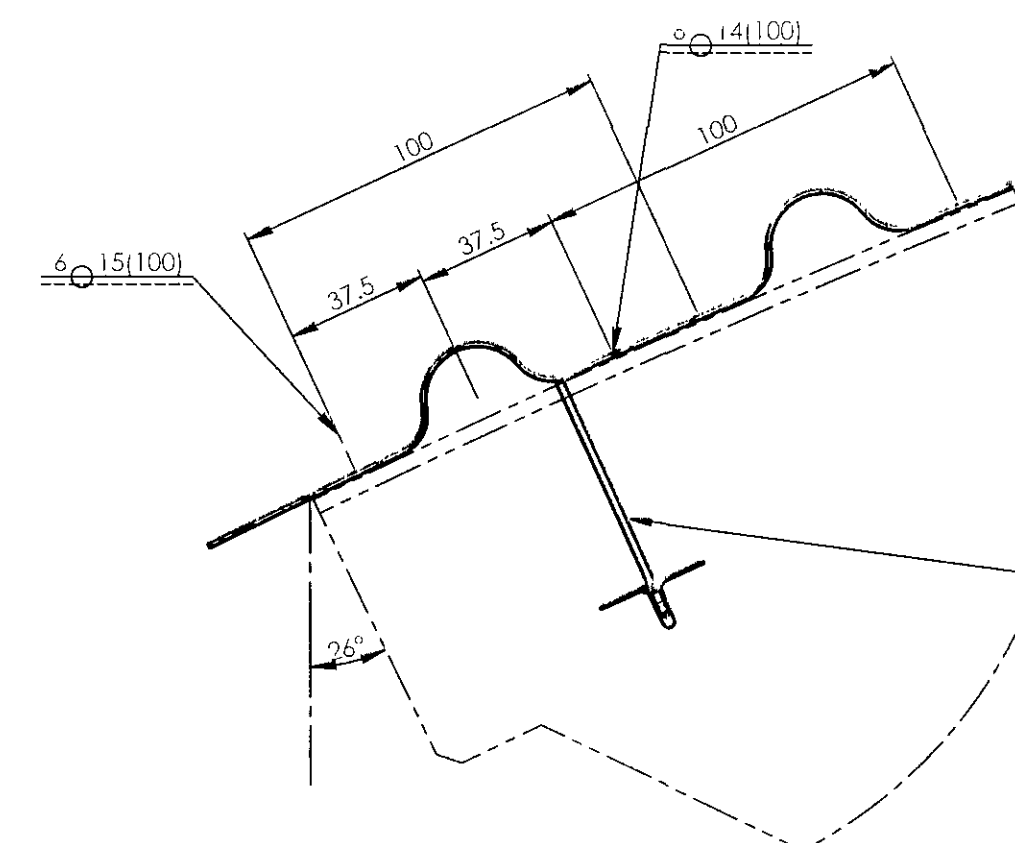
DETAIL U
SCALE 1 : 10



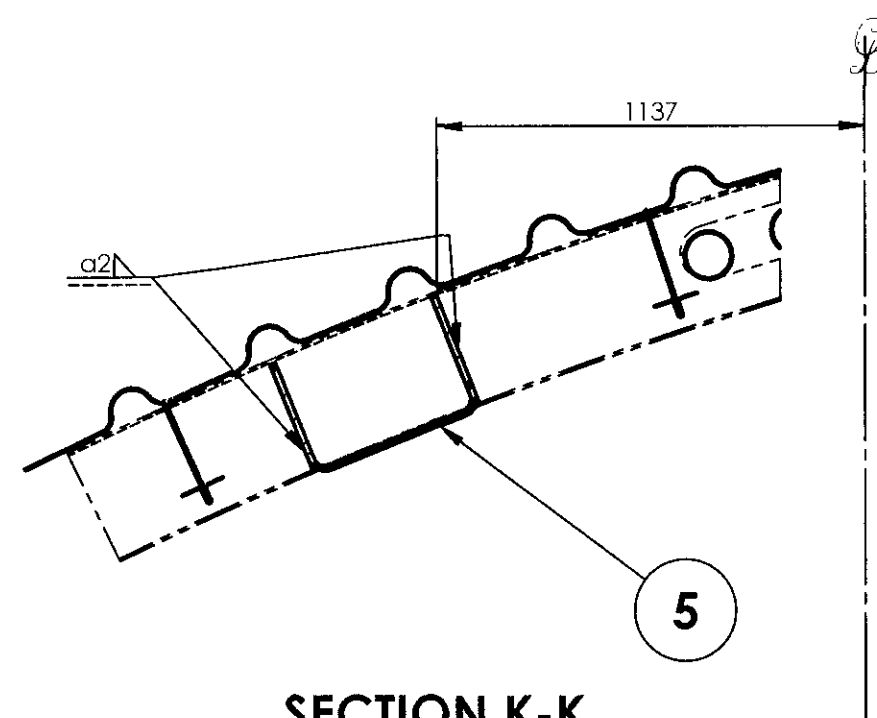
DETAIL E
SCALE 1 : 2



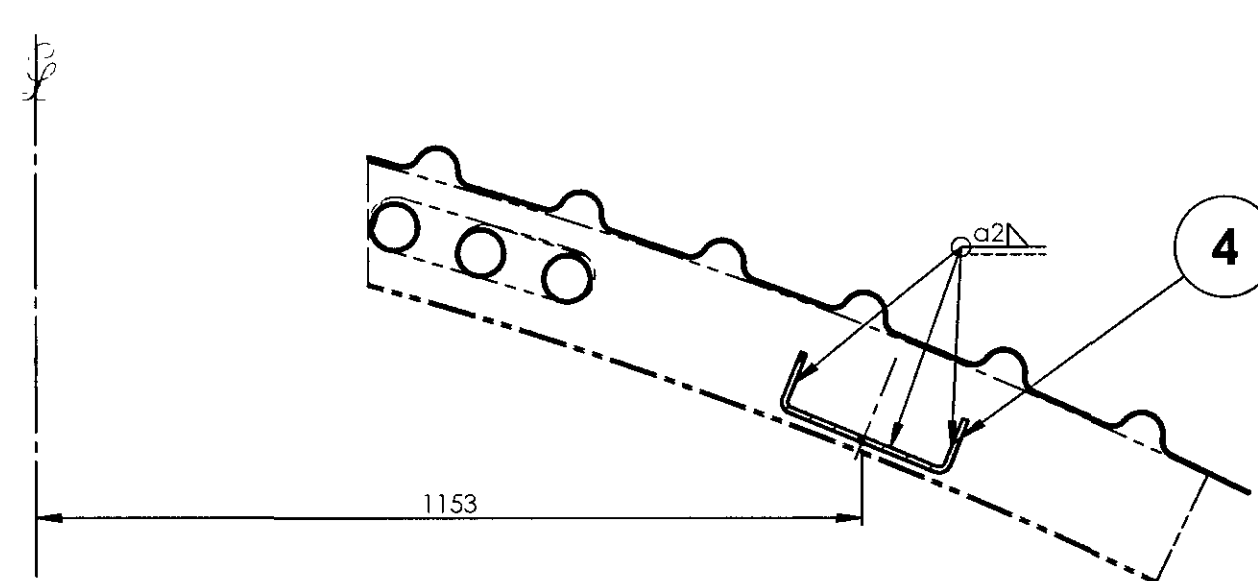
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SCALE 1 : 2



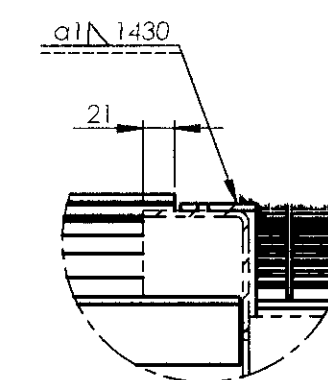
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SCALE 1 : 2



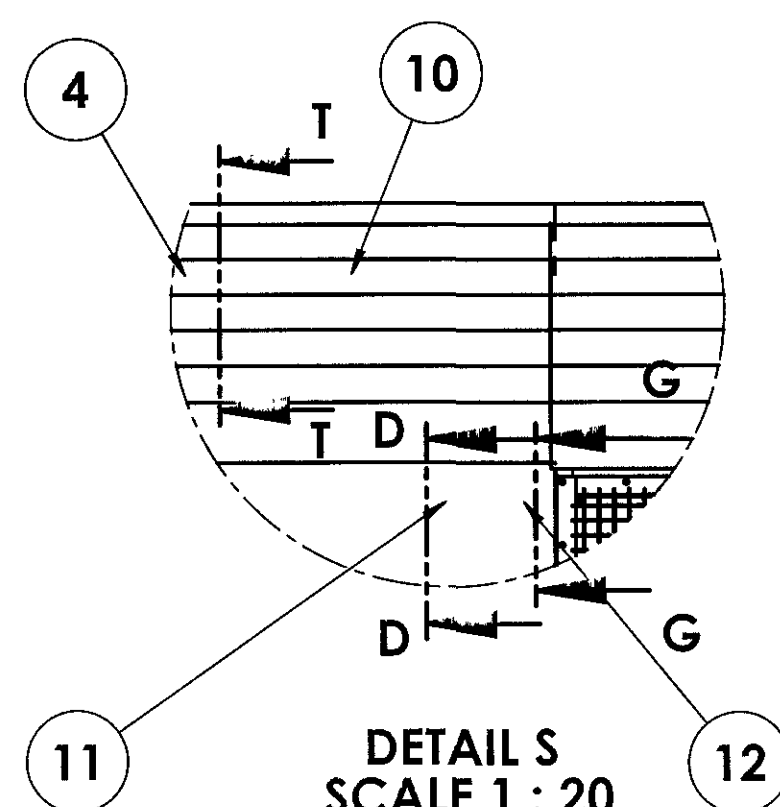
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SCALE 1 : 5



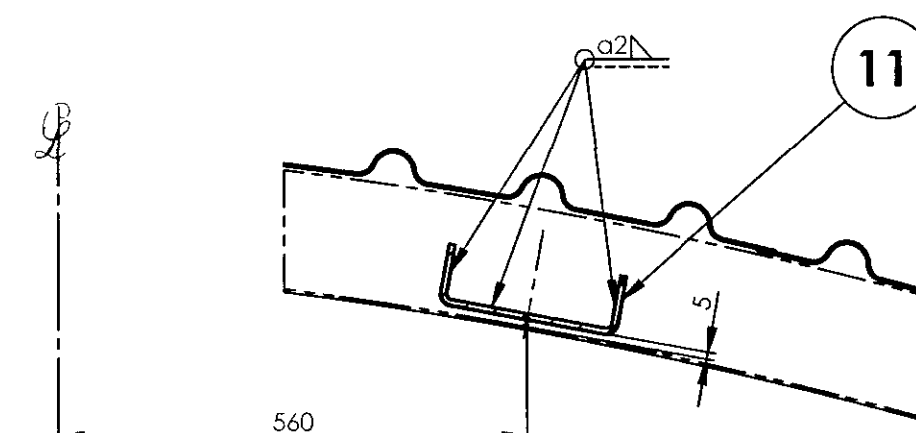
SECTION T-T
SCALE 1 : 5



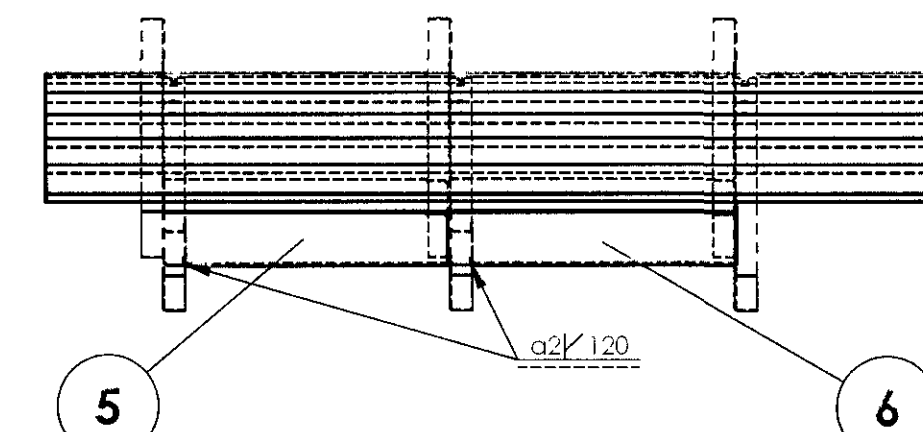
DETAIL H
SCALE 1 : 5



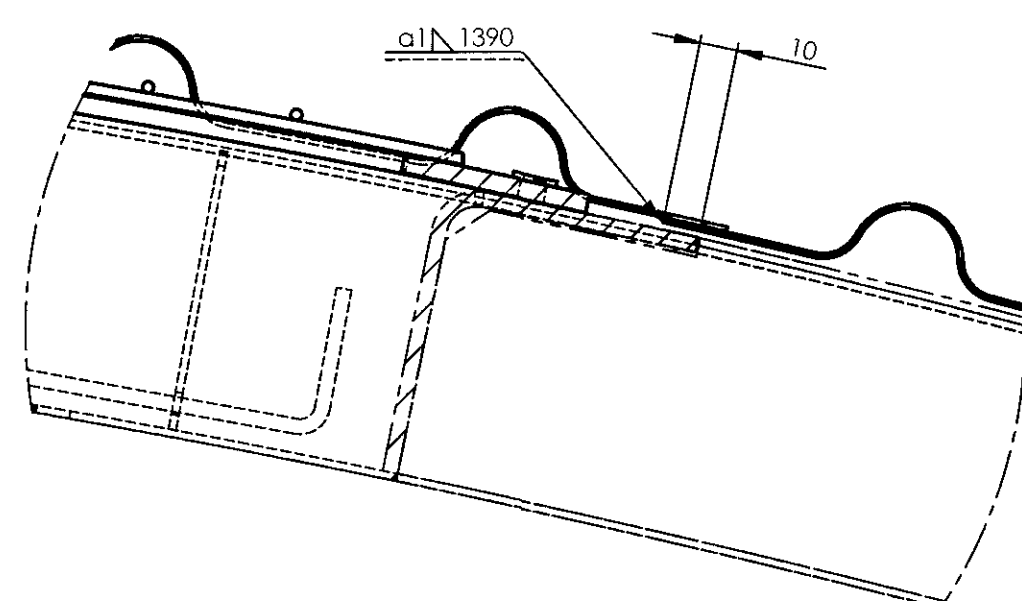
DETAIL S
SCALE 1 : 20



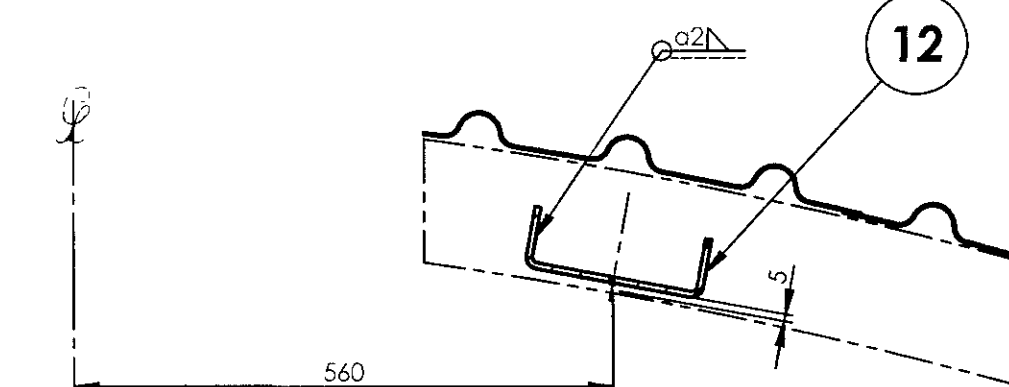
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SCALE 1 : 5



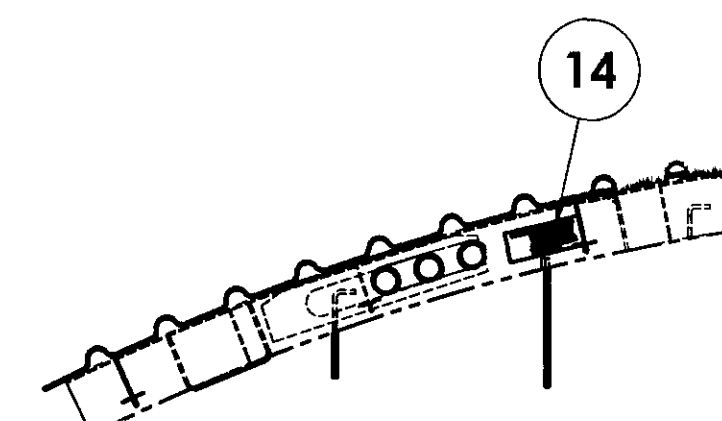
SECTION N-N
SCALE 1 : 10



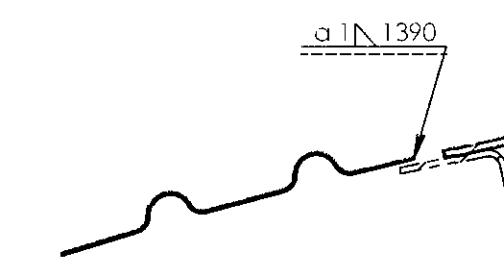
DETAIL R
SCALE 1 : 2



SECTION G-G
SCALE 1 : 5



SECTION V-V
SCALE 1 : 10



SECTION J-J
SCALE 1 : 5

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REF.DRG.NO.1 11012.0.20.200.001 alt "-c"

28-07-2025
DATE OF LATEST ALT. DATE OF FIRST ISSUE
NAME/SME

GROUP: 1-6 Roof Construction
SURFACE AREA IN Sq.m.: 187.45
WT/ASSY IN Kgs:
SCALE: 1:40
33E D
C.H.D.
ALT
ALTD
D.F.N
Amal George
INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038
SHEET
2 OF 3
83116001
A1

83116001

▽ ROUGH MACHINED
▽ FINISH MACHINED
▽ FINE FINISH MACHINED

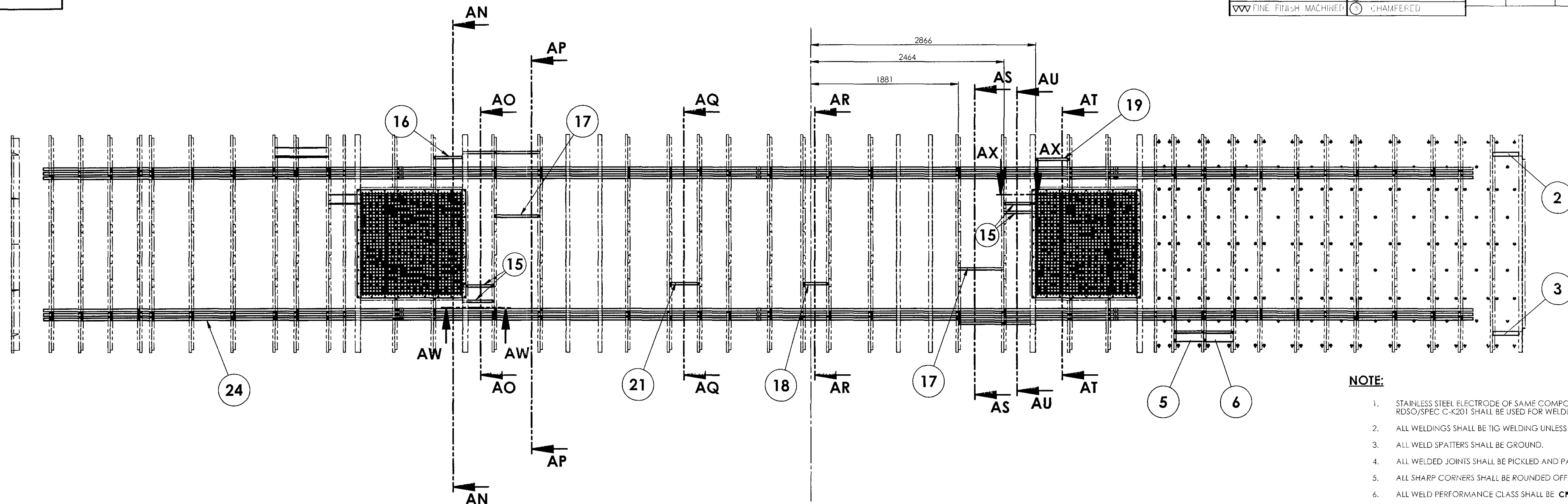
① ROUGH CLEANED
② BURRS REMOVED
③ CHAMFERED

REVISIONS

ZONE

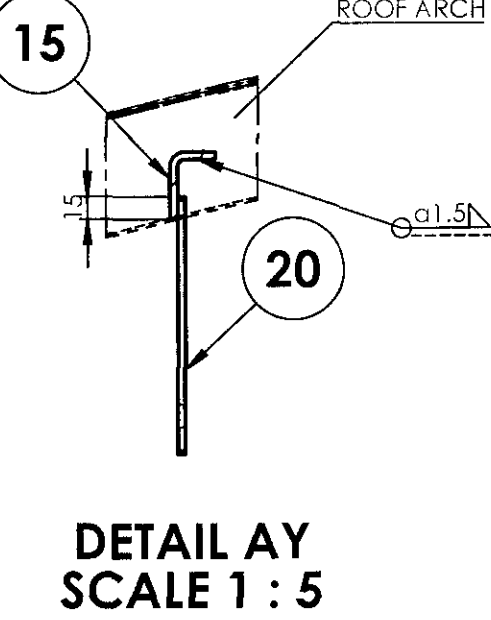
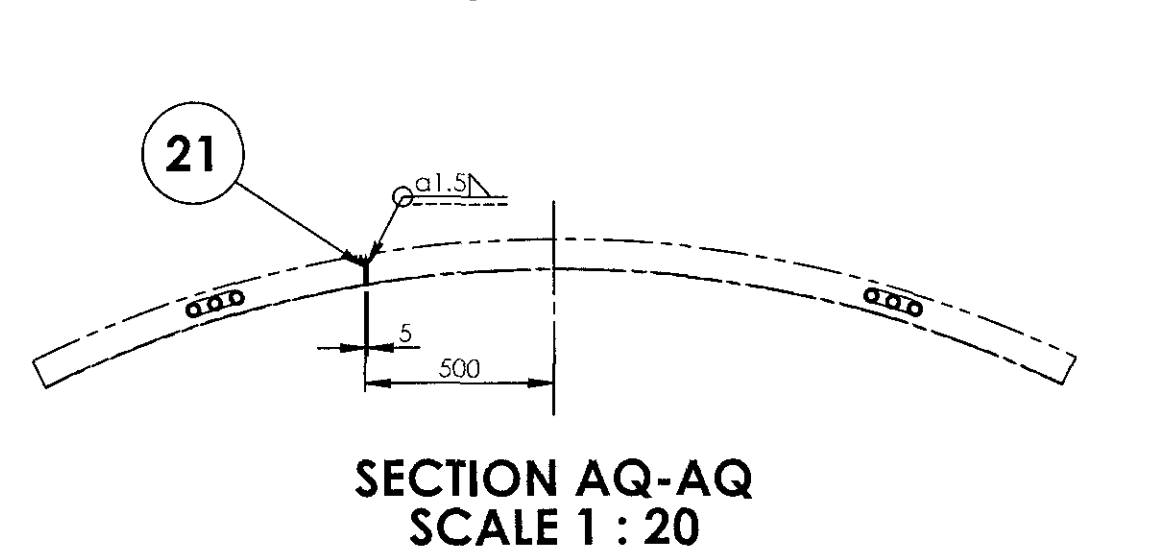
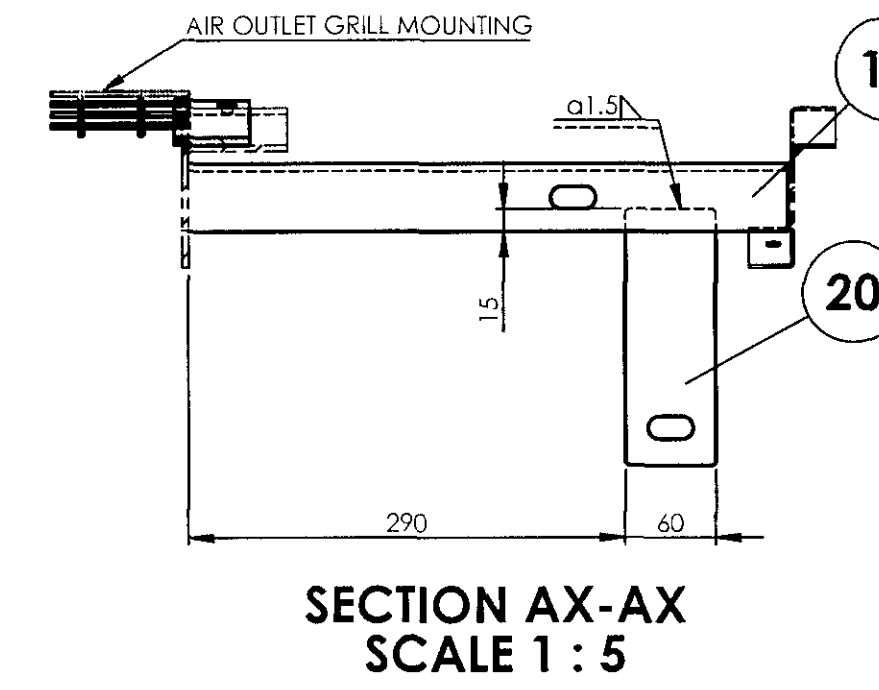
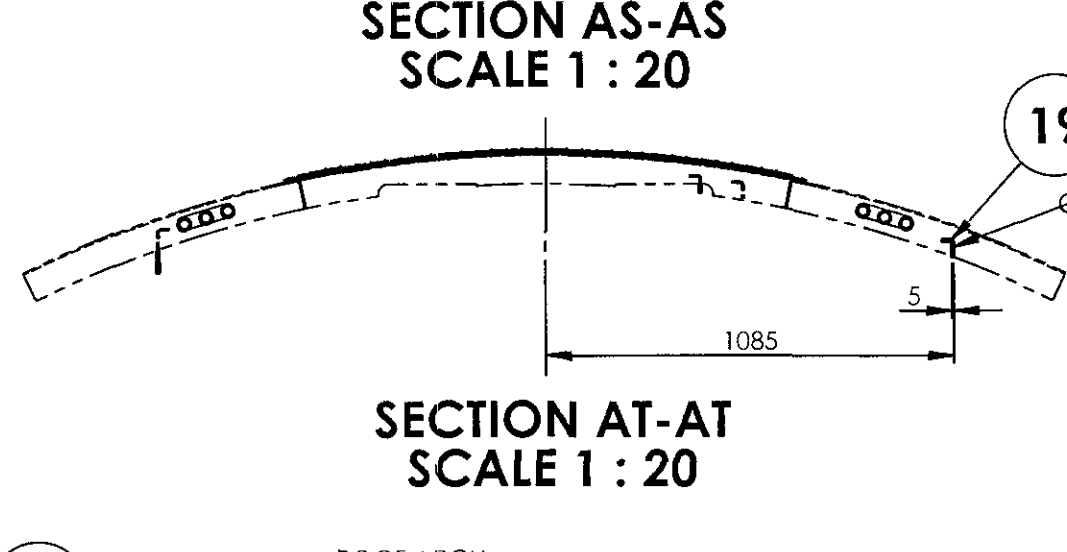
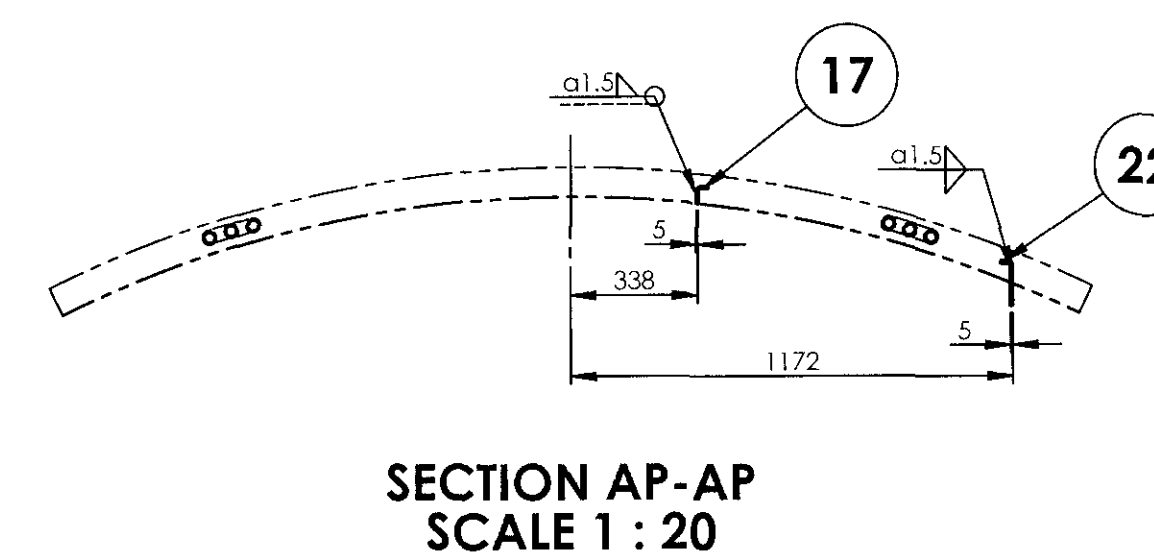
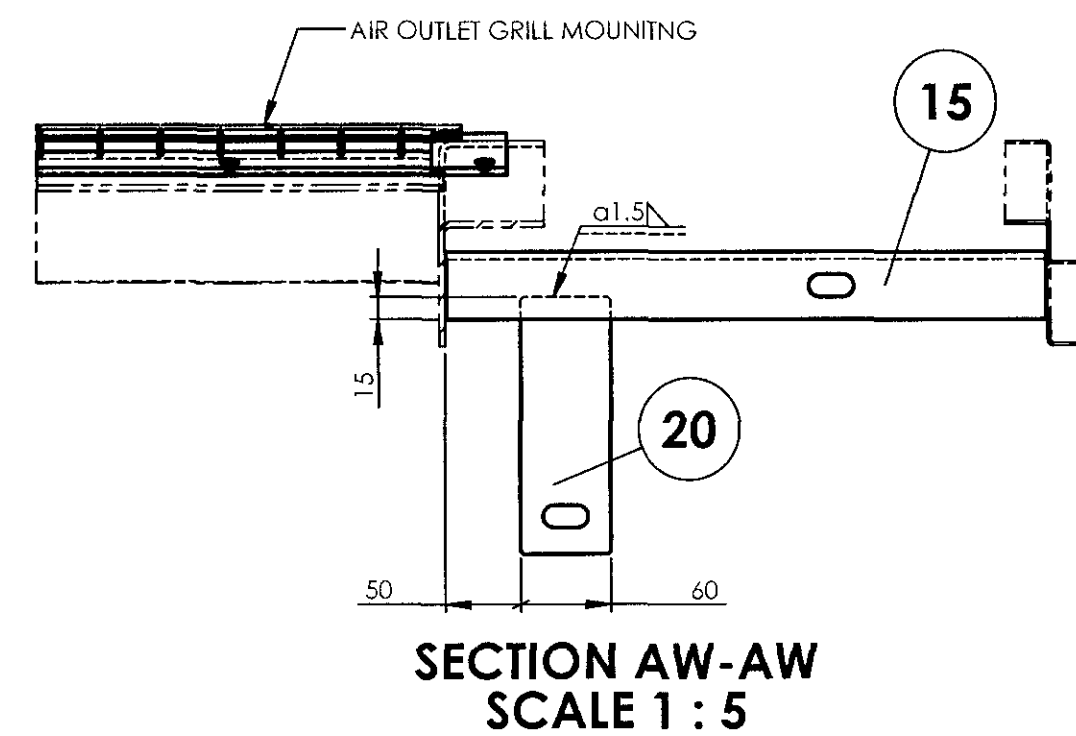
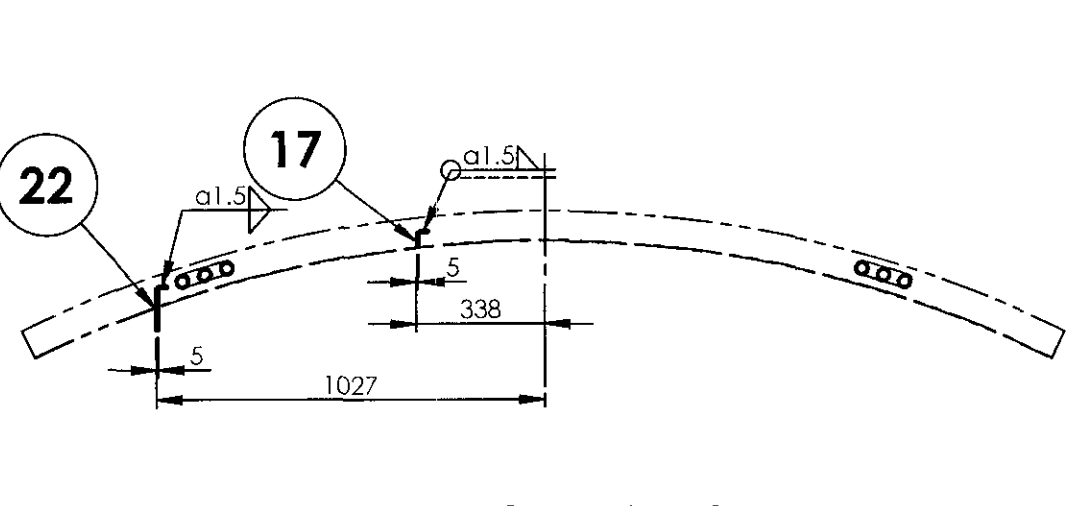
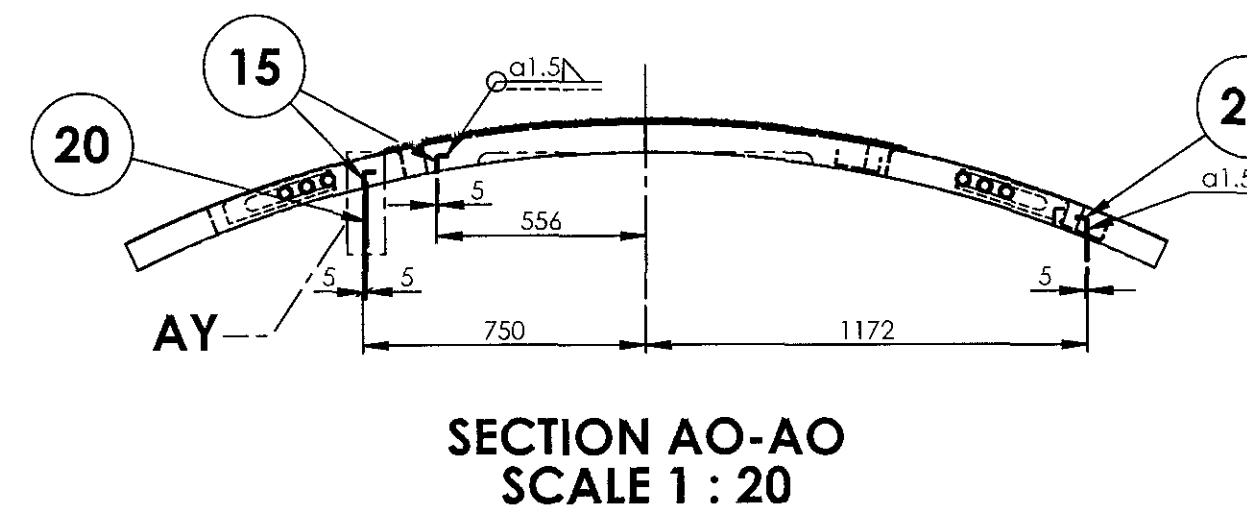
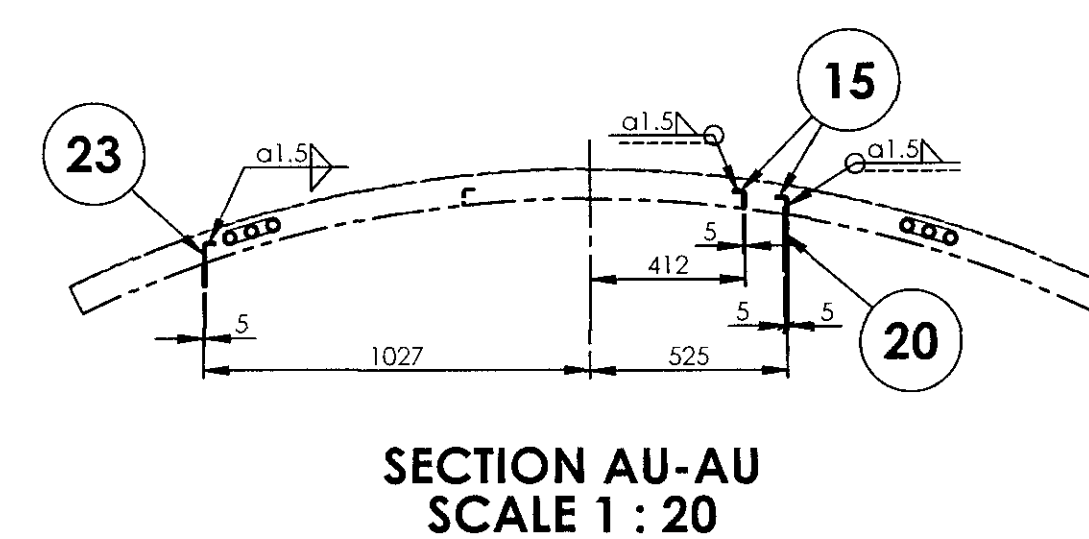
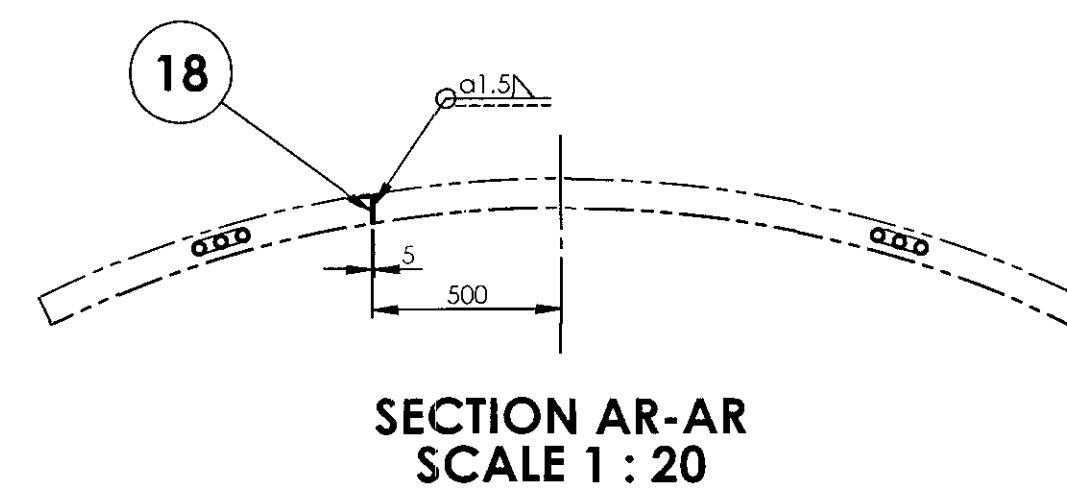
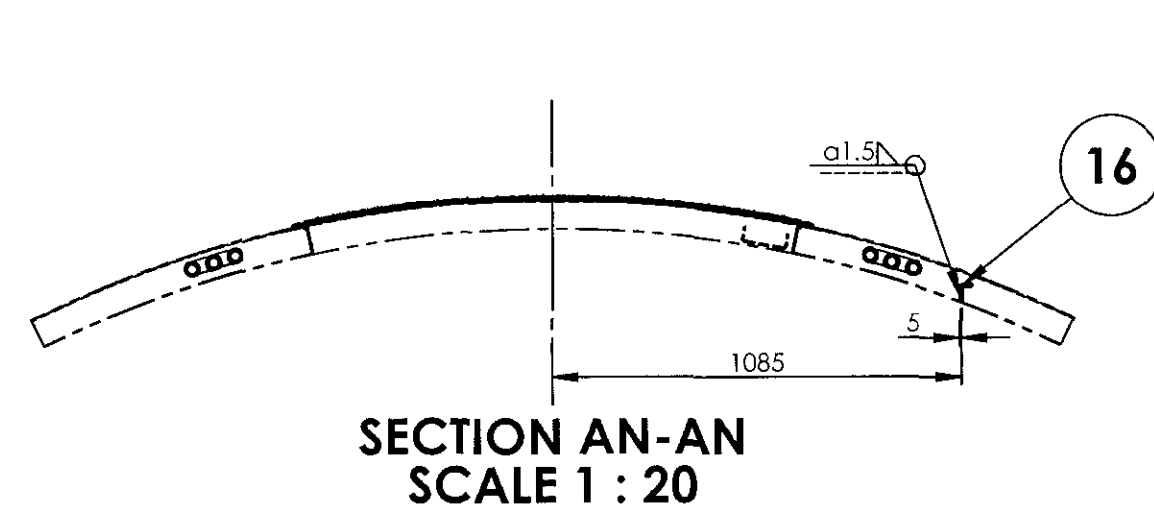
DESCRIPTION

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 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 ONE COAT OF (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.
10. ITEM-14 (NAME PLATE) SHALL BE WELDED OR RIVETTED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.



1	WELDING PIN ASSEMBLY ON ROOF		25	53814024		0.784	
1	LAYOUT OF ELECTRICAL CONDUITS		24	83114005		85.71	
2	ANGLE FOR AIR COOLER PIPE (KOEL)		23	AAD14708		2.01	
2	ANGLE FOR AIR COOLER PIPE (KOEL)		22	AAD14457		2.90	
1	ANGLE FOR AIR COOLER PIPE (KOEL)		21	AAD14459		1.44	
2	FLAT FOR AIR COOLER PIPE		20	AAD14455		0.39	
1	ANGLE FOR EXHAUST PIPE		19	AAD14454		1.14	
1	ANGLE FOR AIR COOLER PIPE (KOEL)		18	AAD14483		1.25	
2	ANGLE FOR EXHAUST PIPE		17	AAD14453		1.52	
1	ANGLE FOR PANEL FIXING		16	AAD14451		0.93	
4	ANGLE FOR AIR COOLER PIPE		15	AAD14452		1.05	
1	NAME PLATE FOR SUPPLIER IDENTIFICATION		14	AAA51072		0.043	
1	AIR OUTLET GRILL MOUNTING		13	11012.0.89.320.012		34.905	
1	REINFORCEMENT		12	AAB14309		1.124	
1	REINFORCEMENT		11	AAB14308		1.250	
1	REINFORCEMENT		10	AAB14114		2.460	
1	ROOF SHEET ASSEMBLY		9	53814006		248.290	
1	ROOF SHEET ASSEMBLY		8	53814019		175.011	
1	ROOF SHEET ASSY.		7	53814003		231.104	
1	MEMBER		6	AAB14117		3.049	
1	MEMBER		5	AAB14118		3.046	
1	REINFORCEMENT		4	AAB14113		1.593	
1	STIFFENING ANGLE		3	AAB14123		1.410	
1	STIFFENING ANGLE		2	AAB14122		1.405	
1	LOCATION OF ROOF ARCHES		1	83114002		380.275	
QTY.	DESCRIPTION	DIMENSIONS	ITEM	REF DRGS	MATL	WT/UNIT	REMARKS

GROUP: 1-6 Roof Construction

SURFACE AREA IN Sq.m: 187.45

WT/ASSY IN Kgs:

ROOF COMPLETE

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
3 OF 3

83116001

A1

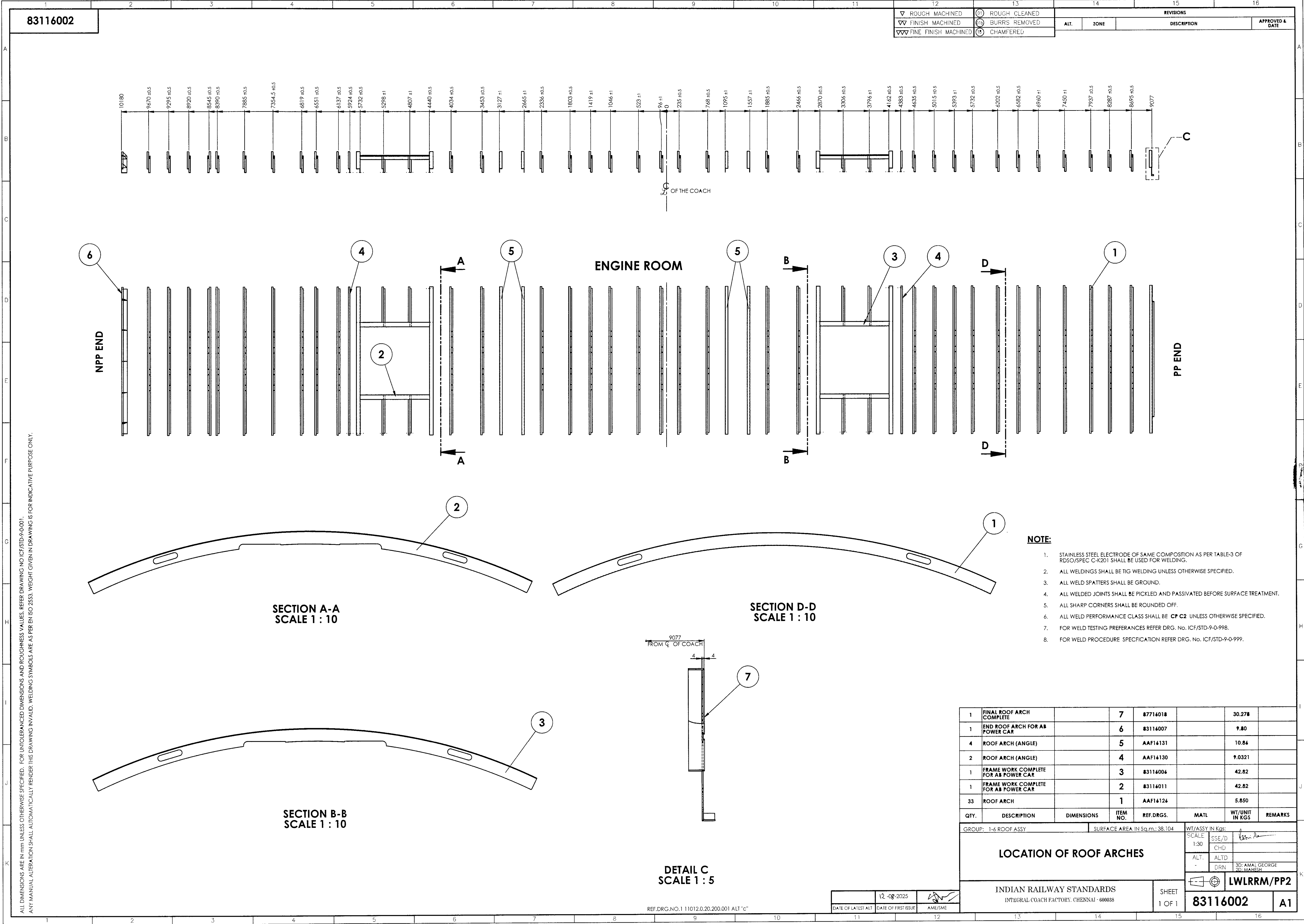
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28-07-2025

DATE OF LATEST ALT.

DATE OF FIRST ISSUE

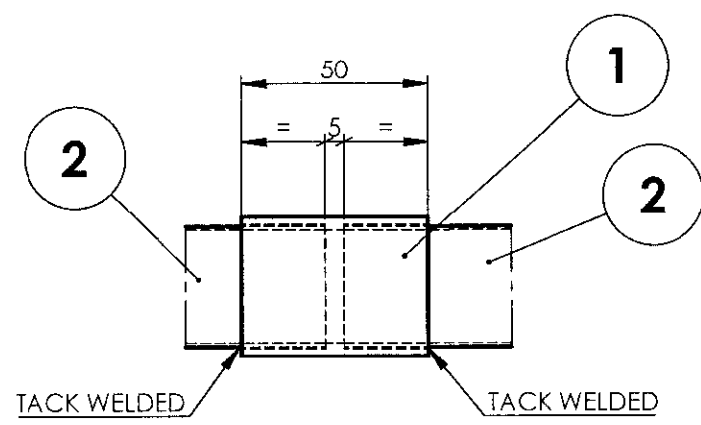
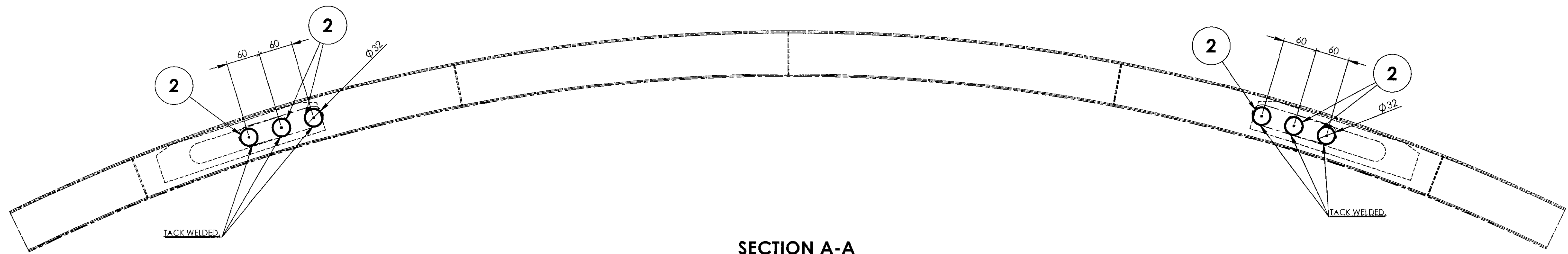
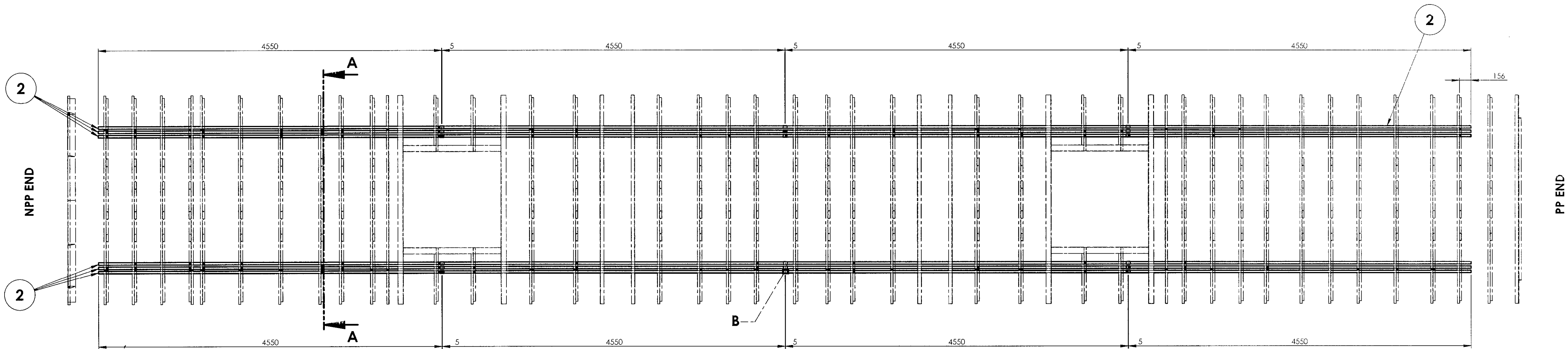
AME/SIE



83116005

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



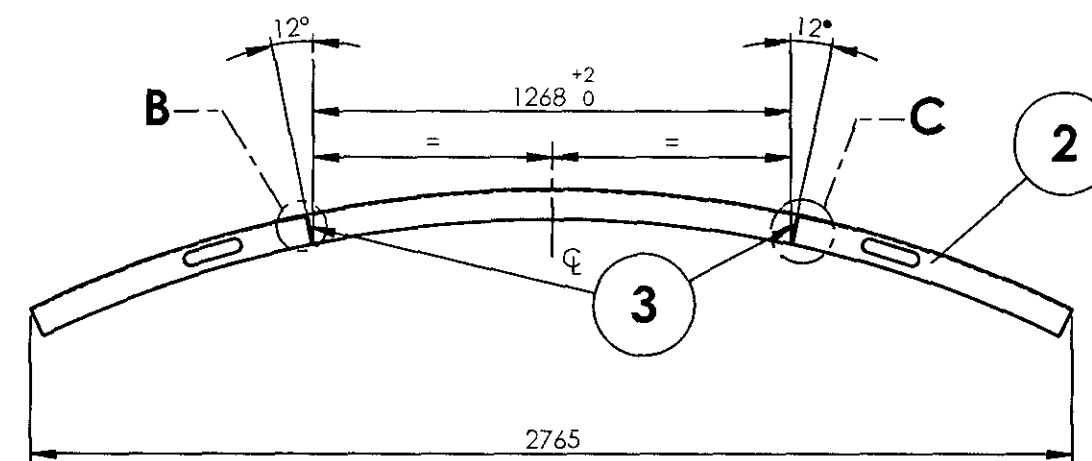
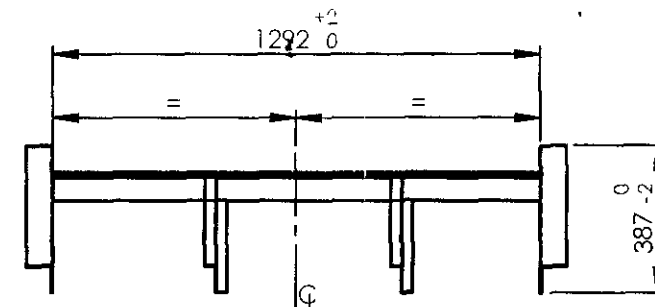
- NOTE:**
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
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 7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
 8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
 9. ALL SHARP EDGES AND BURRS TO BE REMOVED IN CONDUITS TO AVOID DAMAGE TO ELECTRICAL CABLES.

24	CONDUIT	1 x OD32 x 4550	2		SS-304	3.50	
18	COUPLER FOR CONDUITS		1	AAE14744		0.09	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 59.59		WT/ASSY IN Kgs:	
LAYOUT OF ELECTRICAL CONDUITS				SCALE	SCALE	SCALE	SCALE
				1:40	1:40	1:40	1:40
				ALT	ALT	ALT	ALT
				DRN	DRN	DRN	DRN
INDIAN RAILWAY STANDARDS				SHEET		LWLRRM/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600035				1 OF 1		83116005	
DATE OF LATEST ALT.				DATE OF FIRST ISSUE		A1	
23-07-2025				AME/SME			

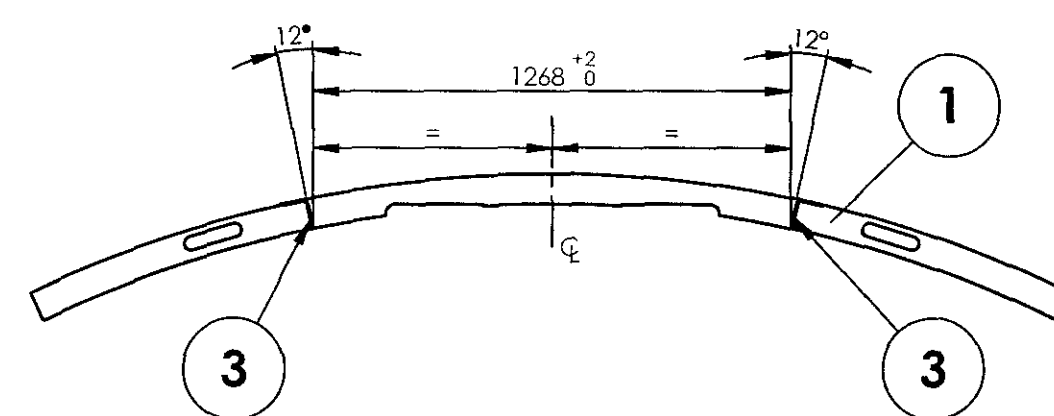
83116006

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



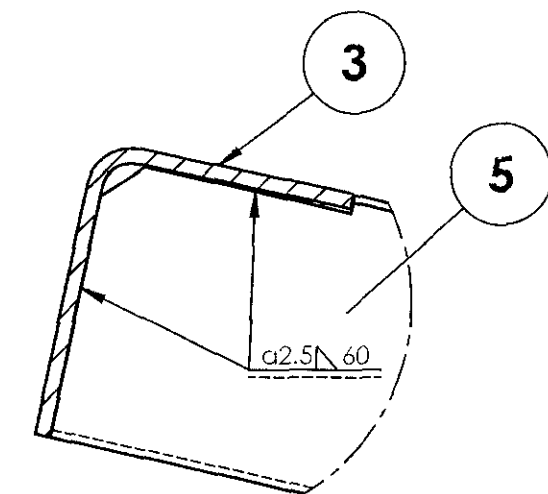
SECTION A-A



SECTION D-D



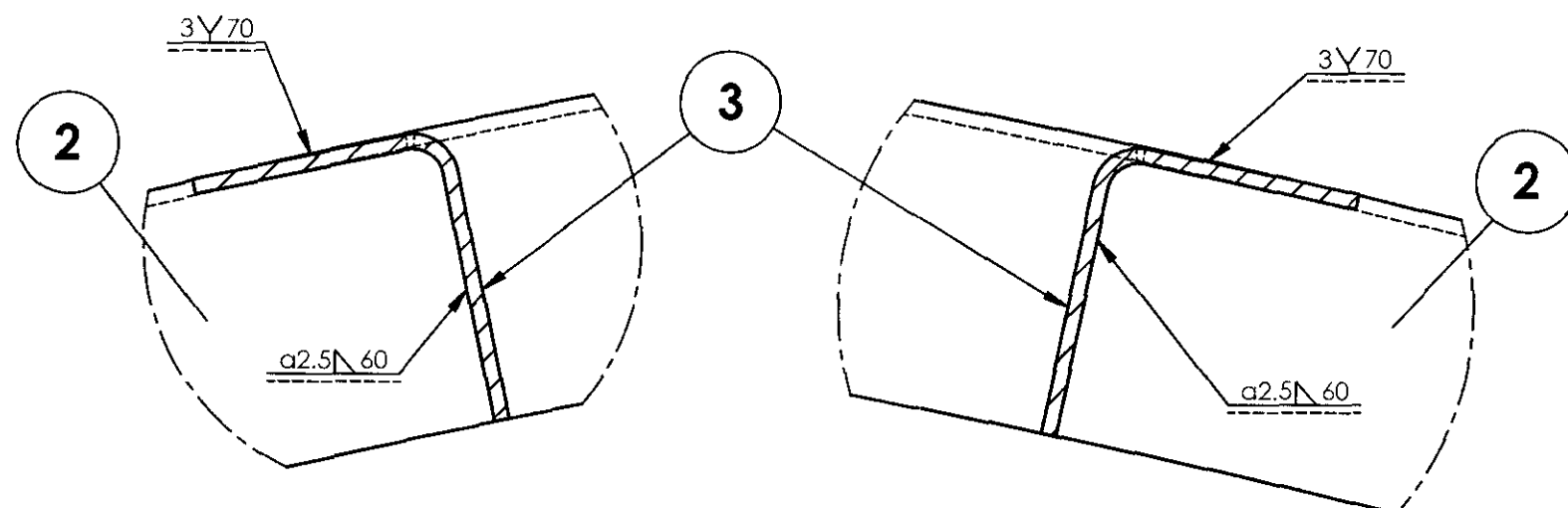
SECTION G-G

DETAIL F
SCALE 1 : 2

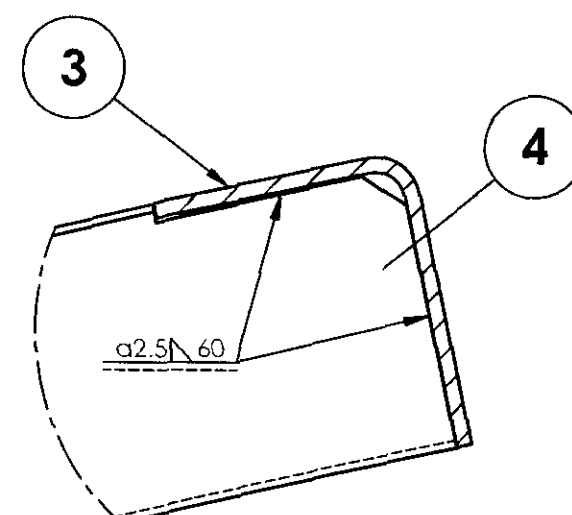
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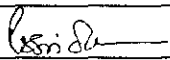
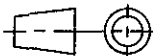
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP 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.

ENGINE ROOM SIDE

DETAIL B
SCALE 1 : 2

REF.DRG.NO.

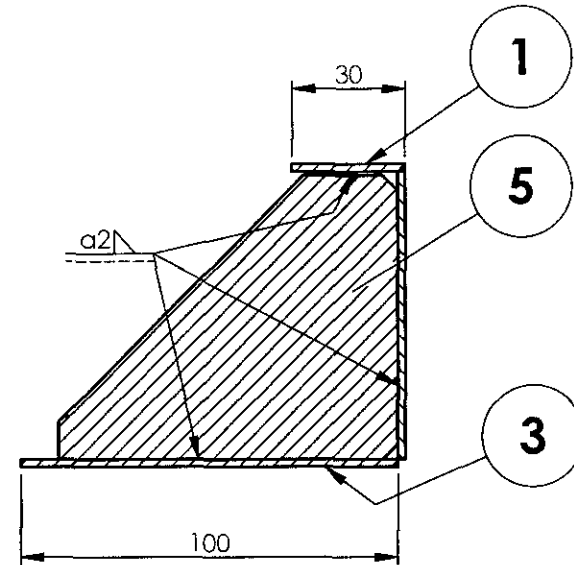
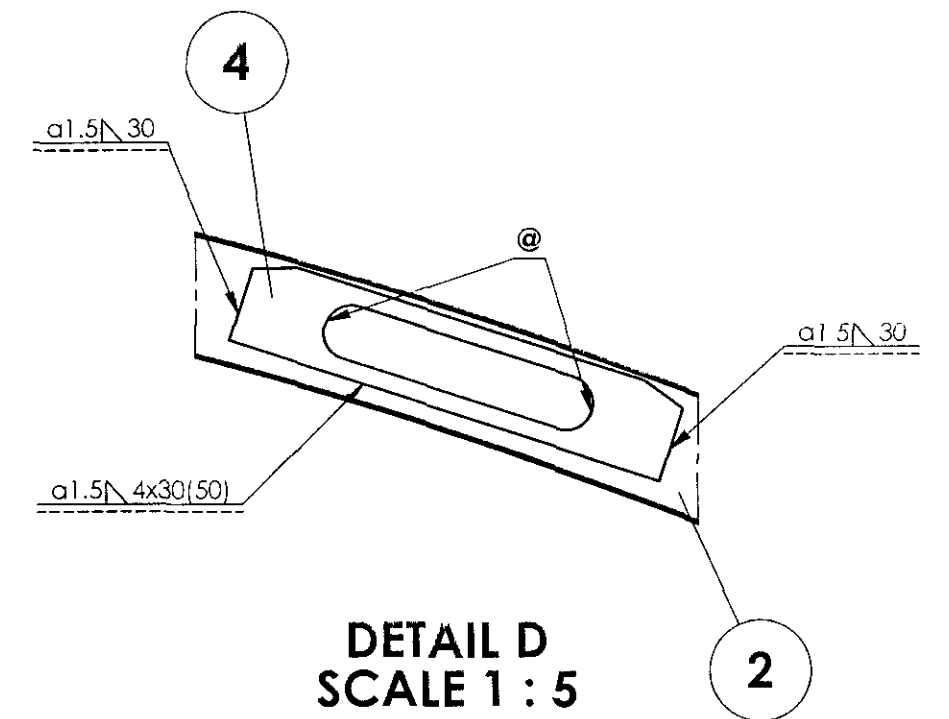
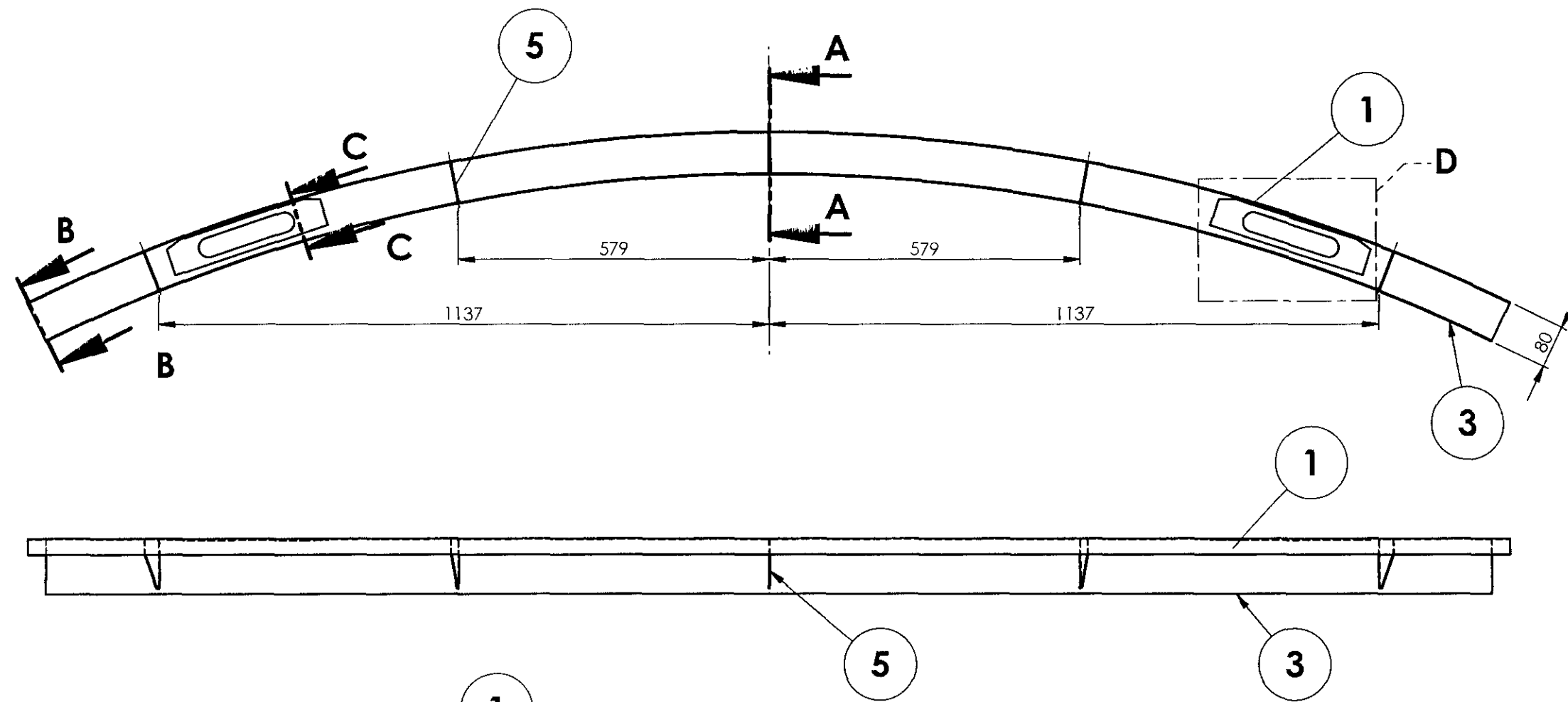
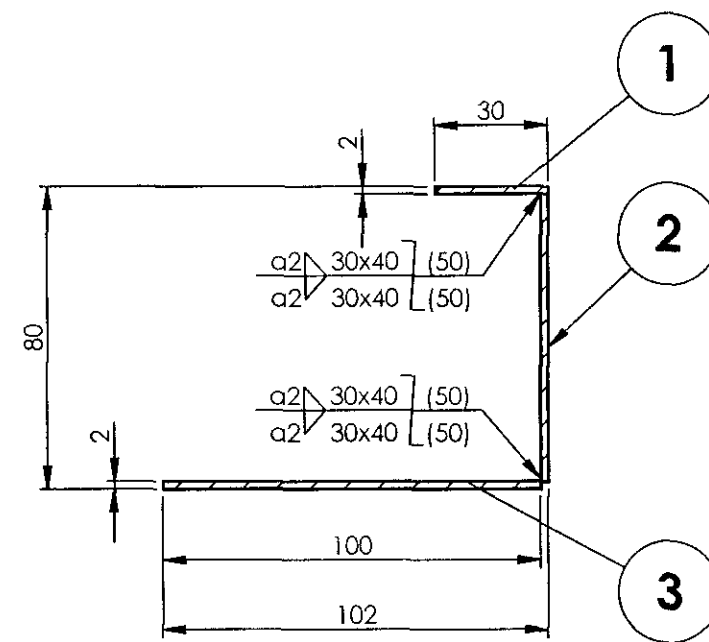
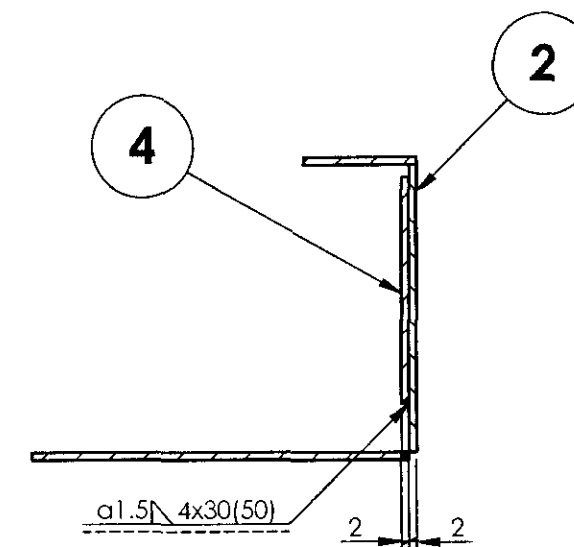
DETAIL C
SCALE 1 : 2DETAIL E
SCALE 1 : 2

2	PART ROOF ARCH (RH)		5	AAF14129		1.50		
2	PART ROOF ARCH		4	AAF14128		1.50		
2	LONGITUDINAL STIFFENER		3	AAB14103		5.834		
1	ROOF ARCH (ANGLE)		2	AAF14127		12.49		
1	ROOF ARCH		1	AAF14147		12.43		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.: 3.15		WT/ASSY IN Kgs:			
FRAME WORK COMPLETE					SCALE 1:20	SSE: D		
						CHD		
					ALT	ALTD	3D: AMAL GEORGE 2D: KUNITHAKUR	
						DRN		
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					LWLRRM/PP2			
					83116006			
				SHEET 1 OF 1	A2			

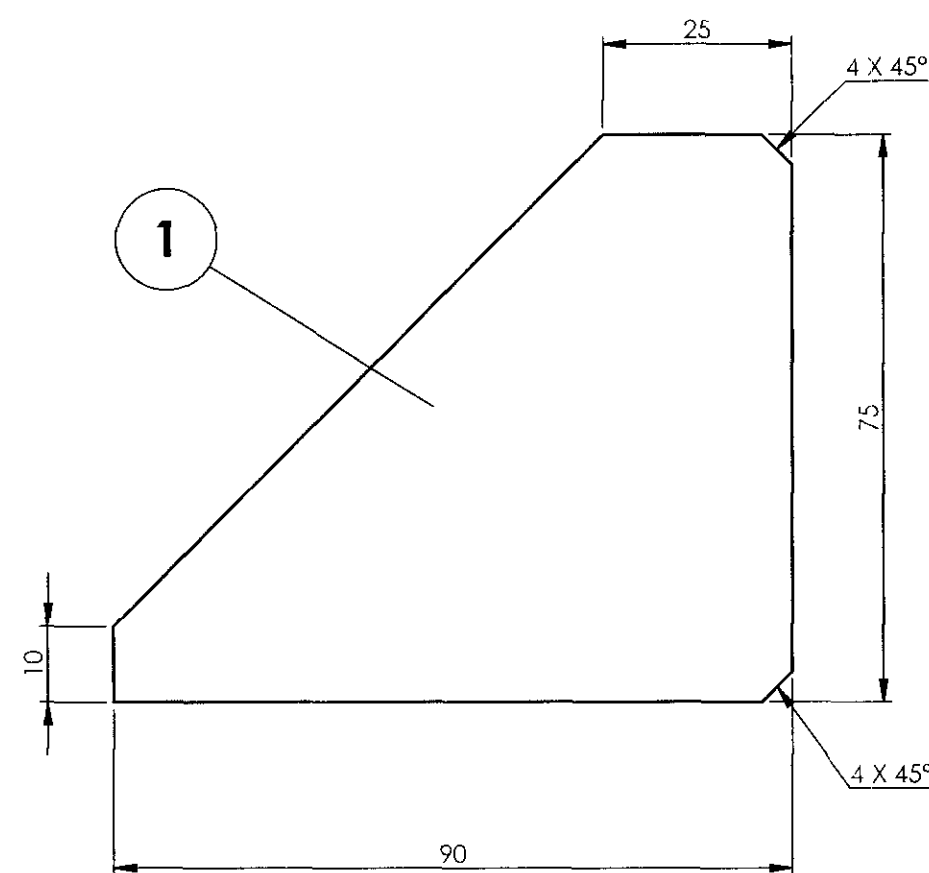
83116007

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

SECTION A-A
SCALE 1 : 2SECTION B-B
SCALE 1 : 2SECTION C-C
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 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. SLOTTED HOLES OF ITEM-4 SHALL BE ALIGNED PROPERLY WITH THAT OF ITEM-2.



ISOMETRIC VIEW

5	RIB	3x75x90	5		RDSO/SPEC C-K201 X2CrNi12	0.07	
2	STIFFENING PLATE FOR END ROOF ARCH		4	AAF16219		0.18	
1	PLATE FOR ARCH		3	AAA16837		4.46	
1	PLATE FOR END ROOF ARCH		2	AAF16132		3.23	
1	PLATE		1	AAA16836		1.37	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6				SURFACE AREA IN Sq.m.: 1.27		WT/ASSY IN Kgs:	
ROOF ARCH (FABRICATED)				SCALE 1:10	SSE/D	3D: AMAL GEORGE 2D: KUNTI THAKUR	
				ALT	CHD		
				ALT	DRN		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		LWLRRM/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038				83116007		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	28-07-2025	AME/SME
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83116011

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

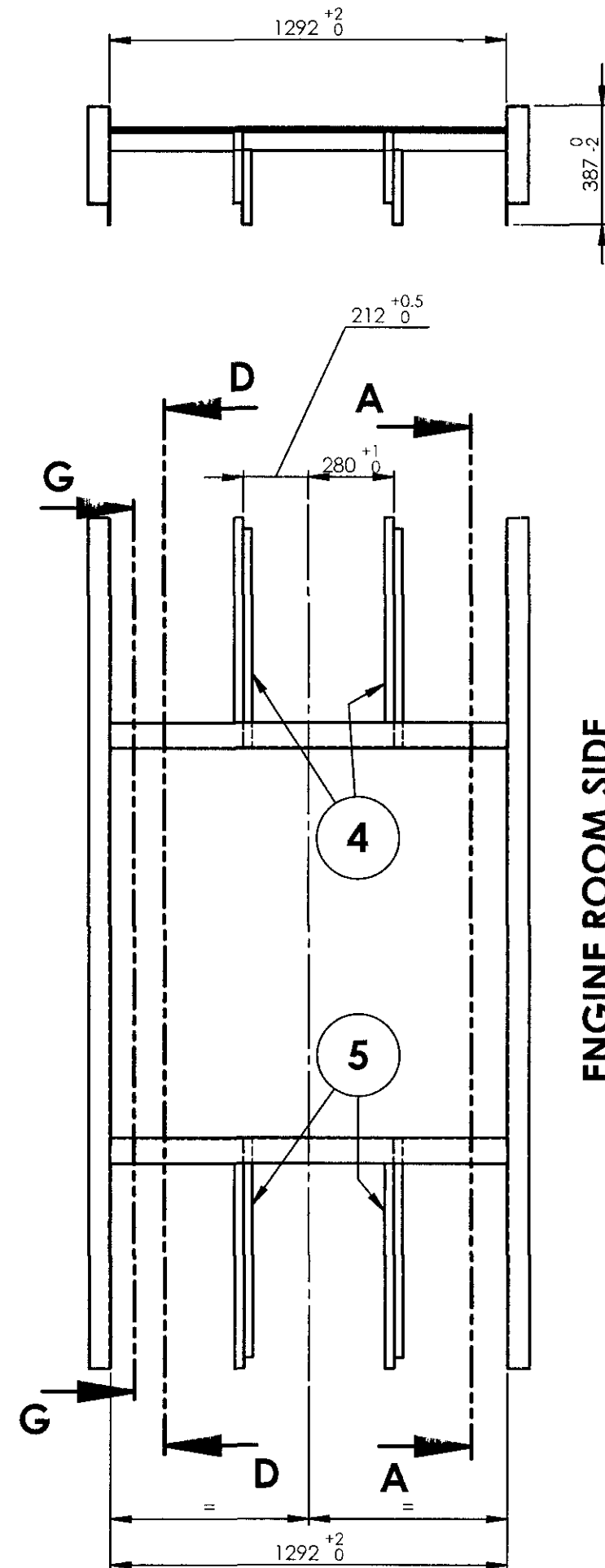
① ROUGH CLEANED
①a BURRS REMOVED
①b CHAMFERED

REVISIONS

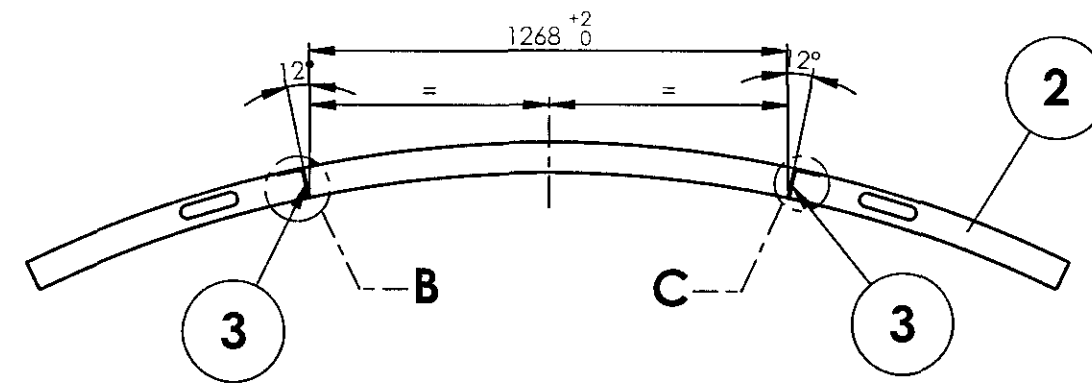
ALT.

ZONE

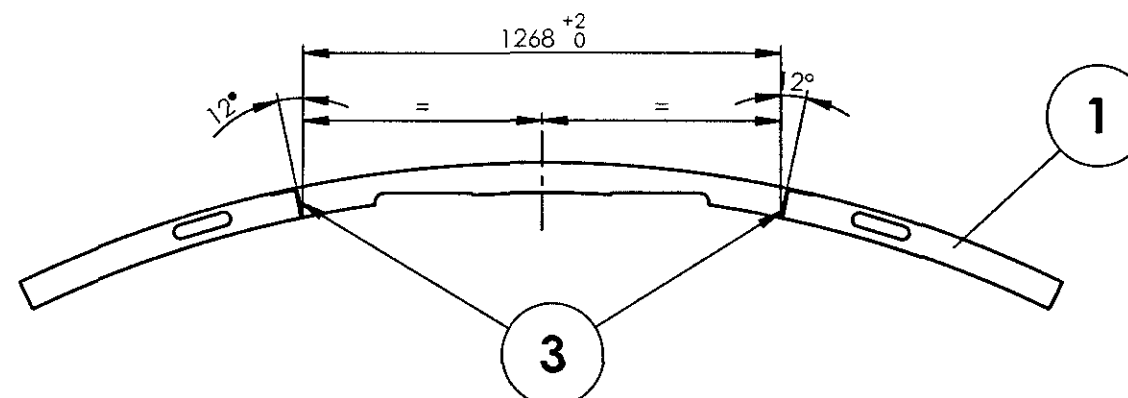
DESCRIPTION

APPROVED &
DATE

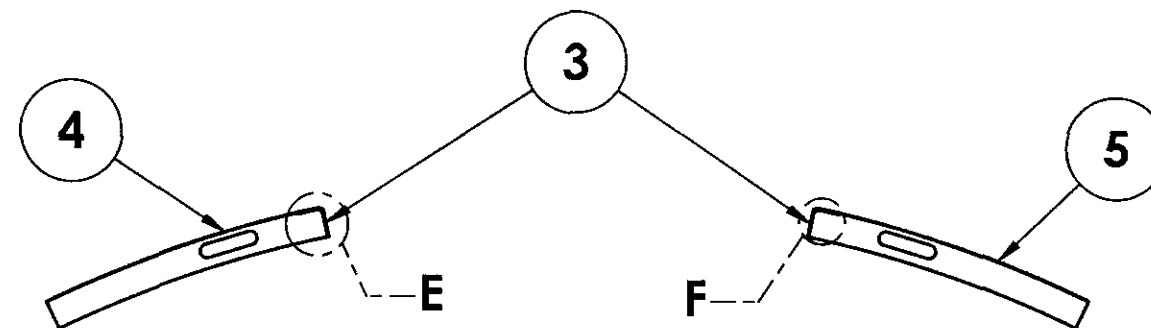
ENGINE ROOM SIDE



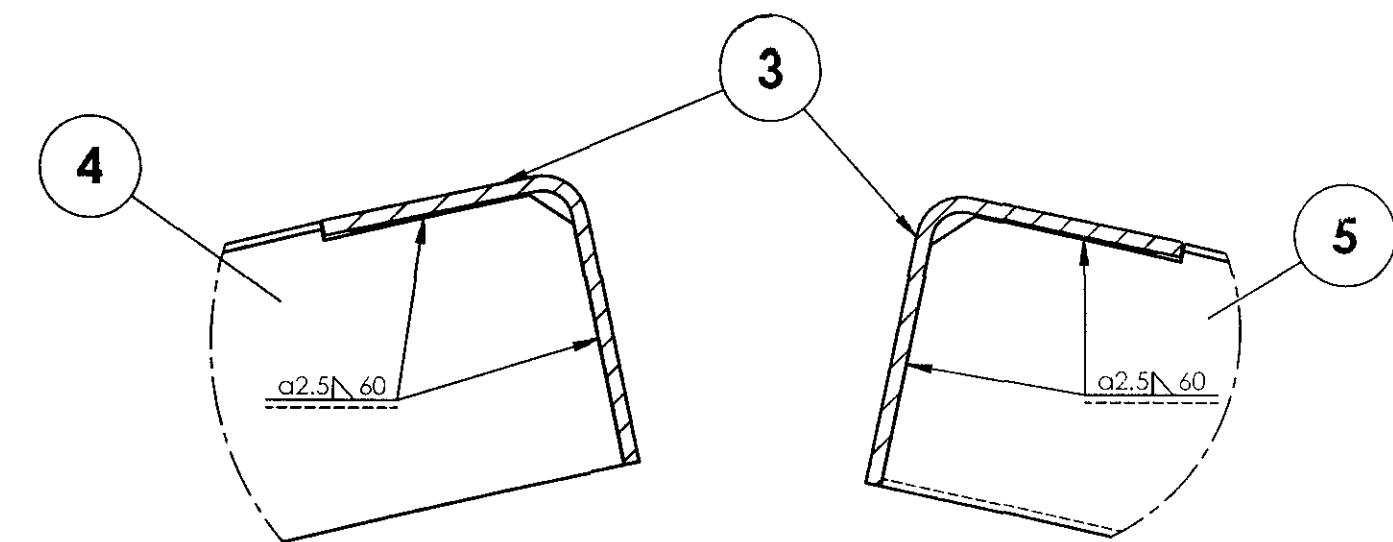
SECTION D-D



SECTION A-A

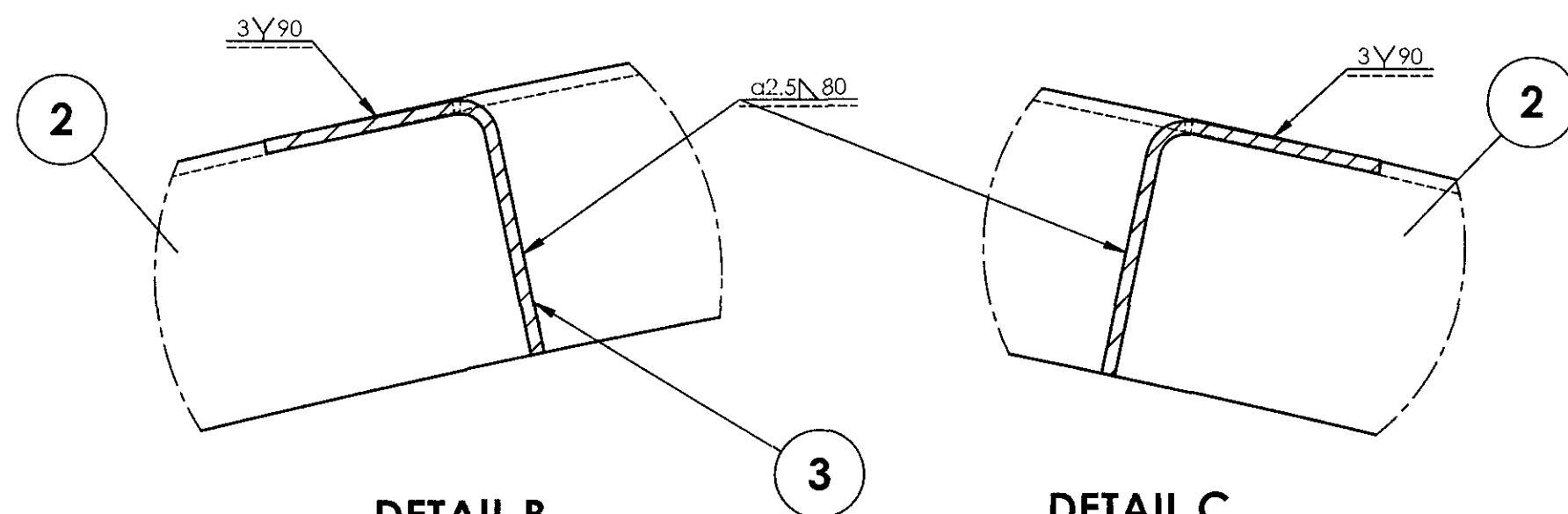


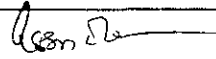
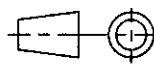
SECTION G-G

DETAIL E
SCALE 1 : 2DETAIL F
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 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.

DETAIL B
SCALE 1 : 2DETAIL C
SCALE 1 : 2

2	PART ROOF ARCH (RH)		5	AAF16129		1.50	
2	PART ROOF ARCH		4	AAF16128		1.50	
2	LONGITUDINAL STIFFENER		3	AAB16103		5.836	
1	ROOF ARCH (ANGLE)		2	AAF16127		12.69	
1	ROOF ARCH		1	AAF16147		12.43	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.: 3.15		WT/ASSY IN Kgs:		
FRAME WORK COMPLETE					SCALE 1:20	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						LWLRRM/PP2	
						83116011	
					SHEET 1 OF 1		

DATE OF LATEST ALT.	28-07-2025	AME/SME
DATE OF FIRST ISSUE		

REF.DRG.NO.2 11012.0.20.200.003

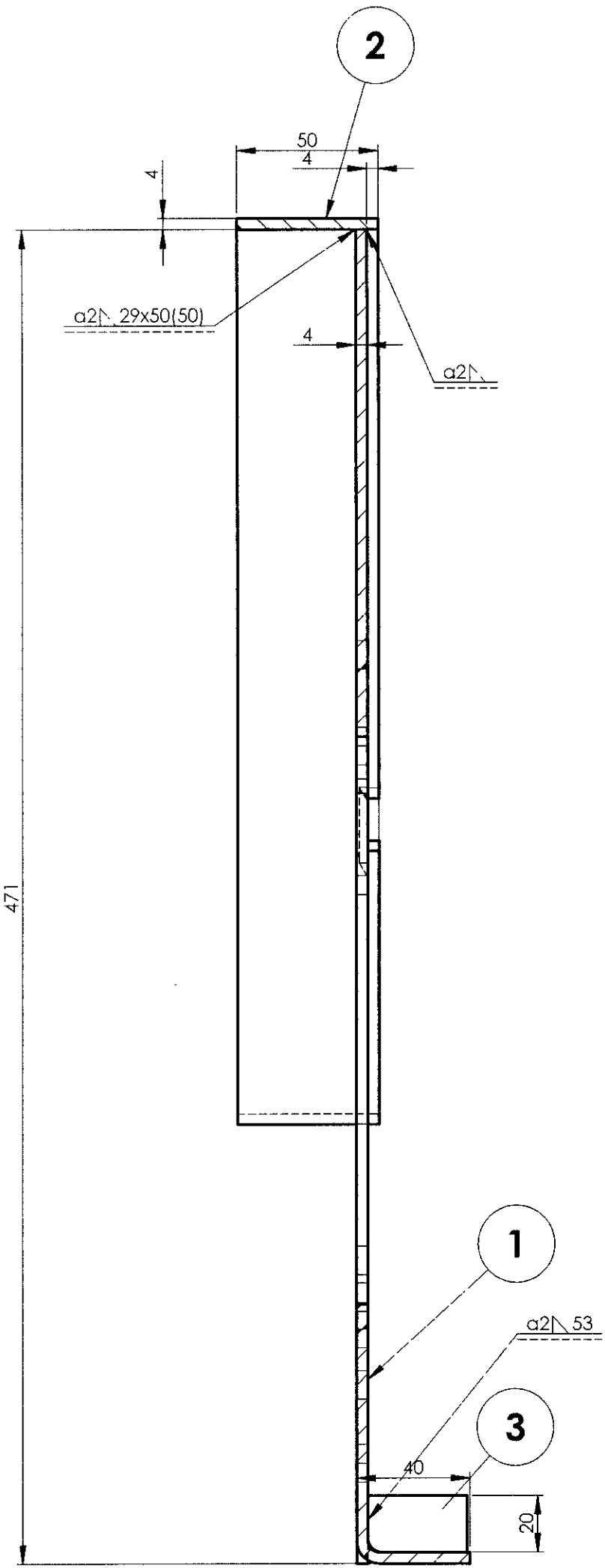
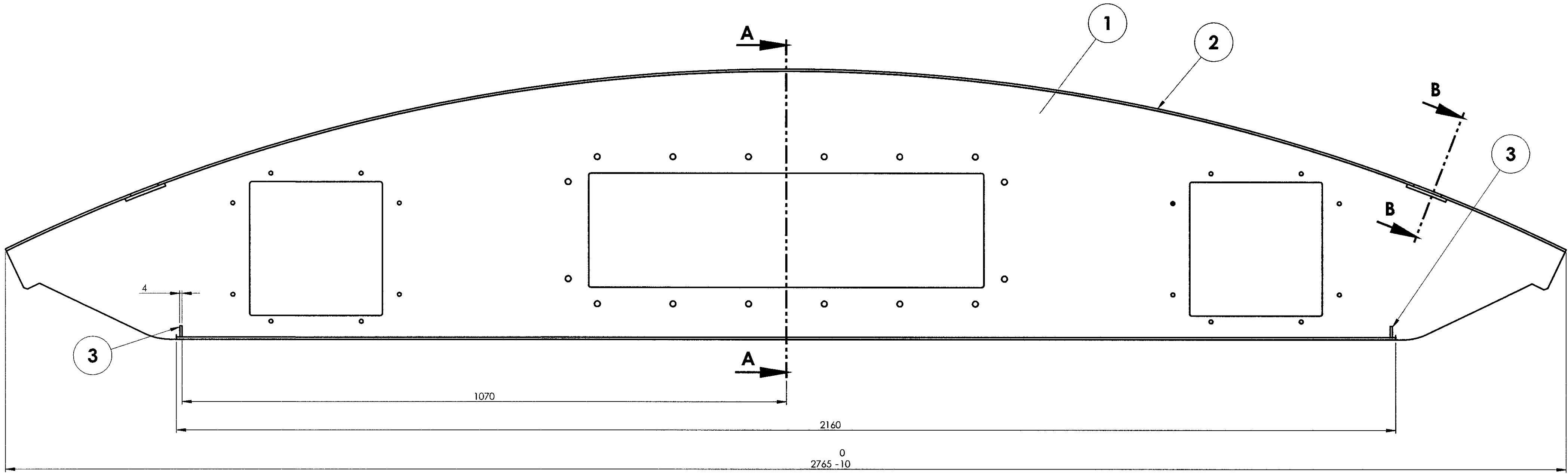
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

87716018

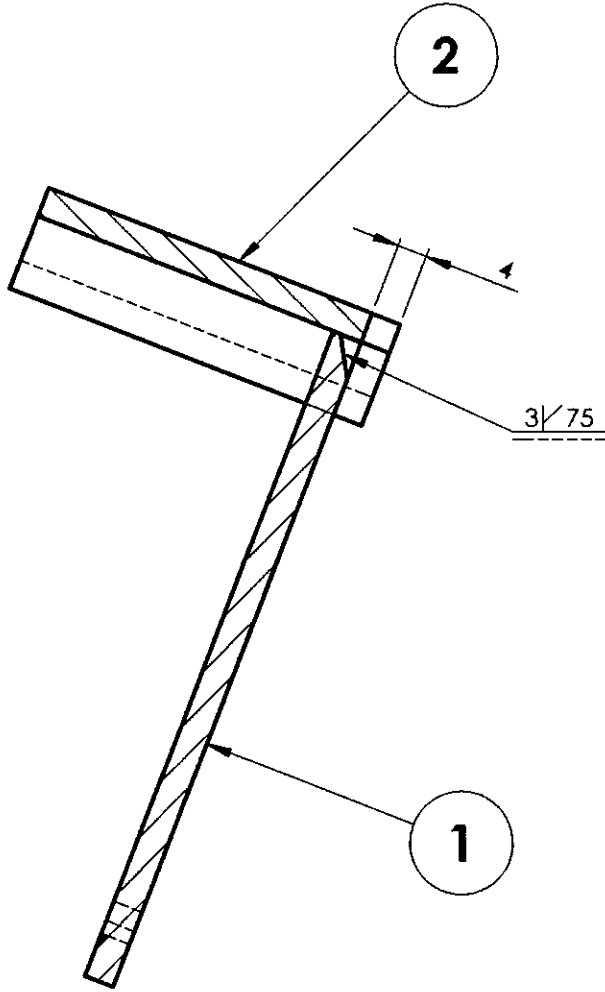
▽ ROUGH MACHINED
▽▽ FINISH MACHINED
▽▽▽ FINE FINISH MACHINED

(01) ROUGH CLEANED
(01a) BURRS REMOVED
(15) CHAMFERED

REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		
a		OUTSIDE WELDING OF ITEM-1& 2 REVISED TOCONTINUOUS WELDING		15/04/23



SECTION A-A
SCALE 1 : 2



SECTION B-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 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 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.

2	CLOSING PIECE		3	AAD16973		0.02	
1	FLANGE		2	AAA16895		4.561	
1	FRONT SHEET		1	AAD16969		25.673	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 1.958		WT/ASSY IN Kgs: 30.278	
FINAL ROOF ARCH COMPLETE				SCALE 1:5	SSE/D	15/04/23	
					CHD		
				ALT. a	ALTD		
					DRN	H. Irshath Ahamed	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		LOMAC	
INTEGRAL COACH FACTORY, CHENNAI - 600038				87716018		A1	

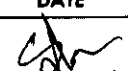
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS 813:1986.

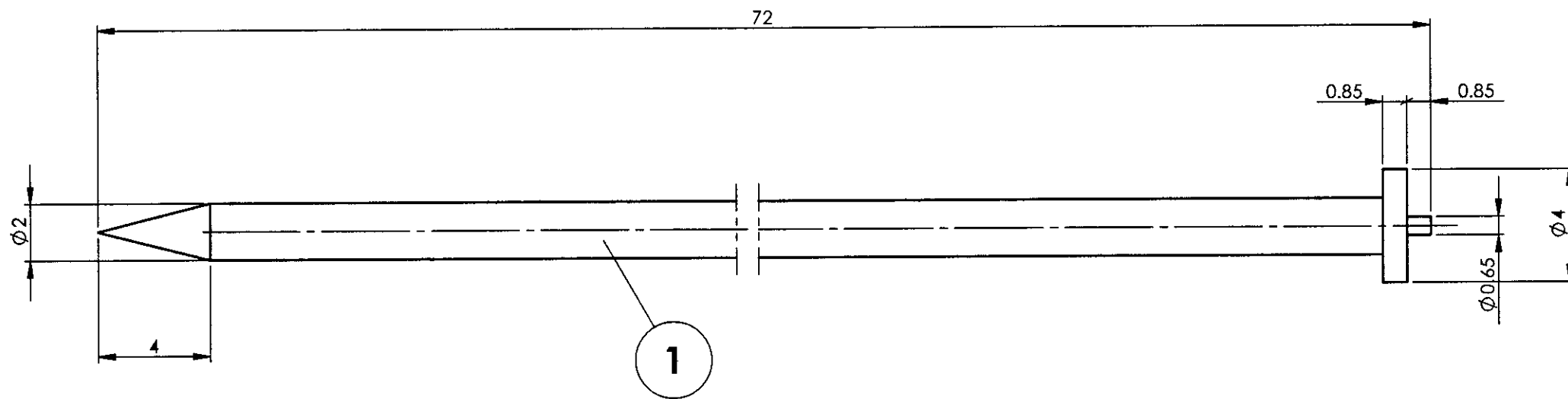
REF.DRG.NO.

15-3-2023	21-07-21	15/04/23
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA16493

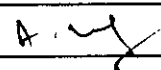
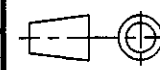
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

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

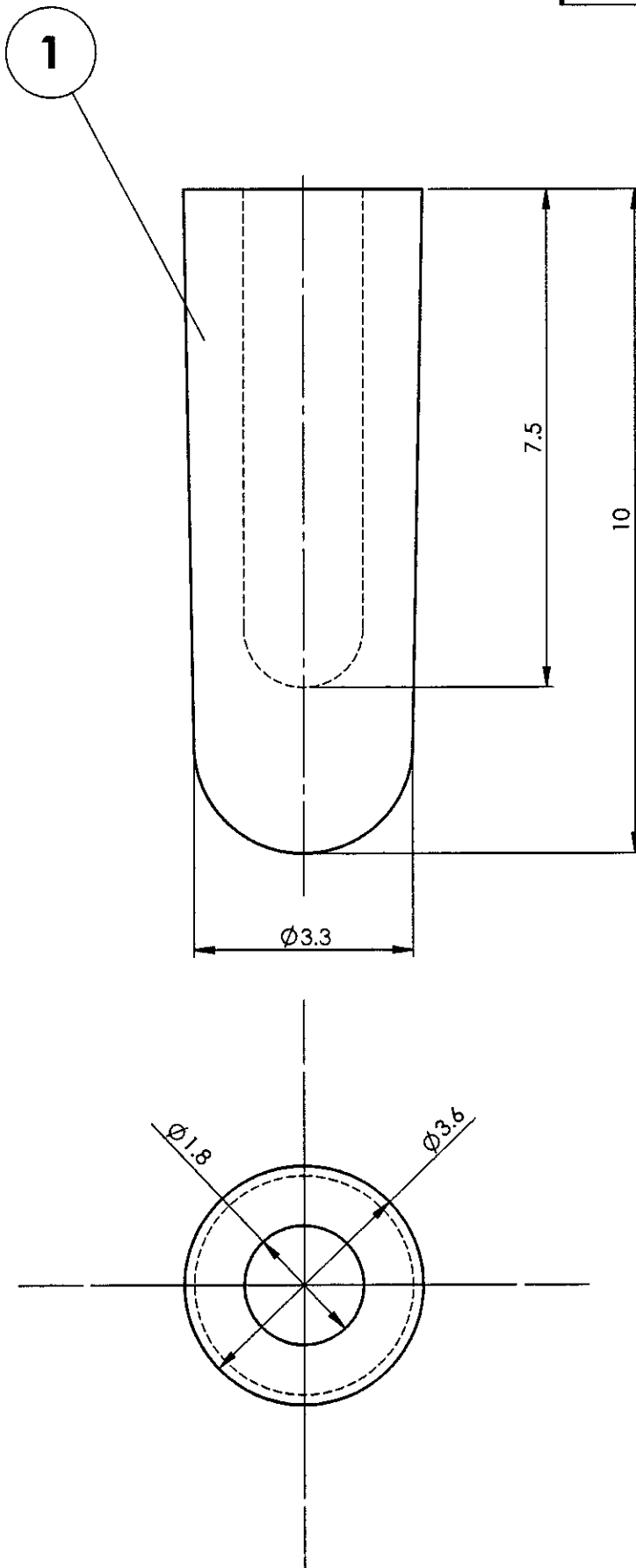
REF.DRG.NO.mi001576, ITEM-1


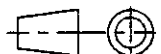
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Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF CONSTRUCTION		SURFACE AREA IN Sq.m.:0.000			WT/ASSY IN Kgs:		
WELDING PIN					SCALE	SSE/D	
					5:1	CHD	
					ALT.	ALTD	A.Palanichamy
					a	DRN	3D:A.Palanichamy 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

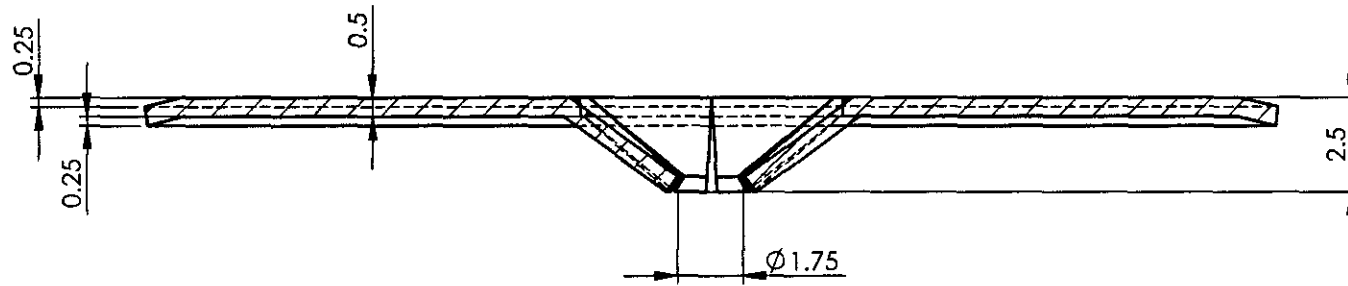
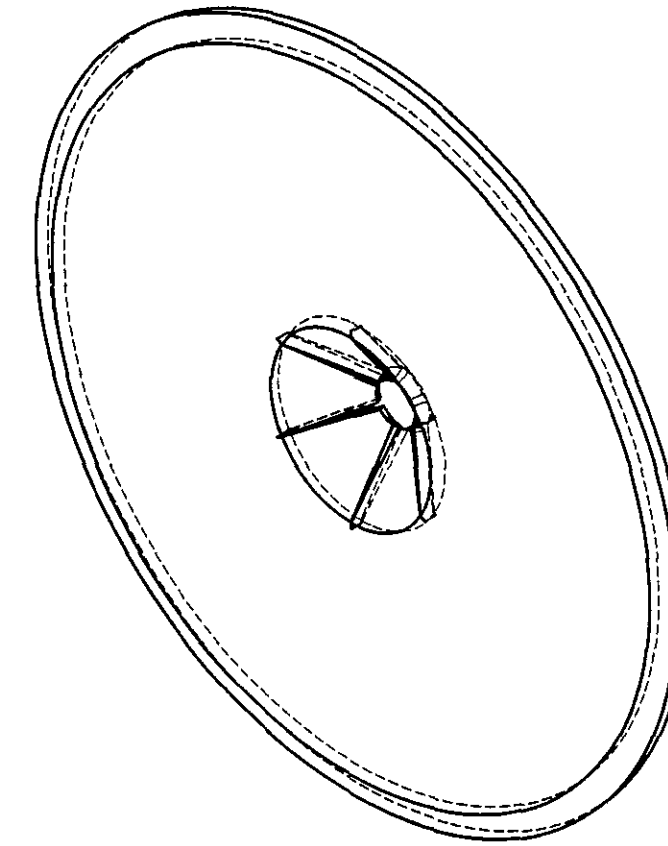
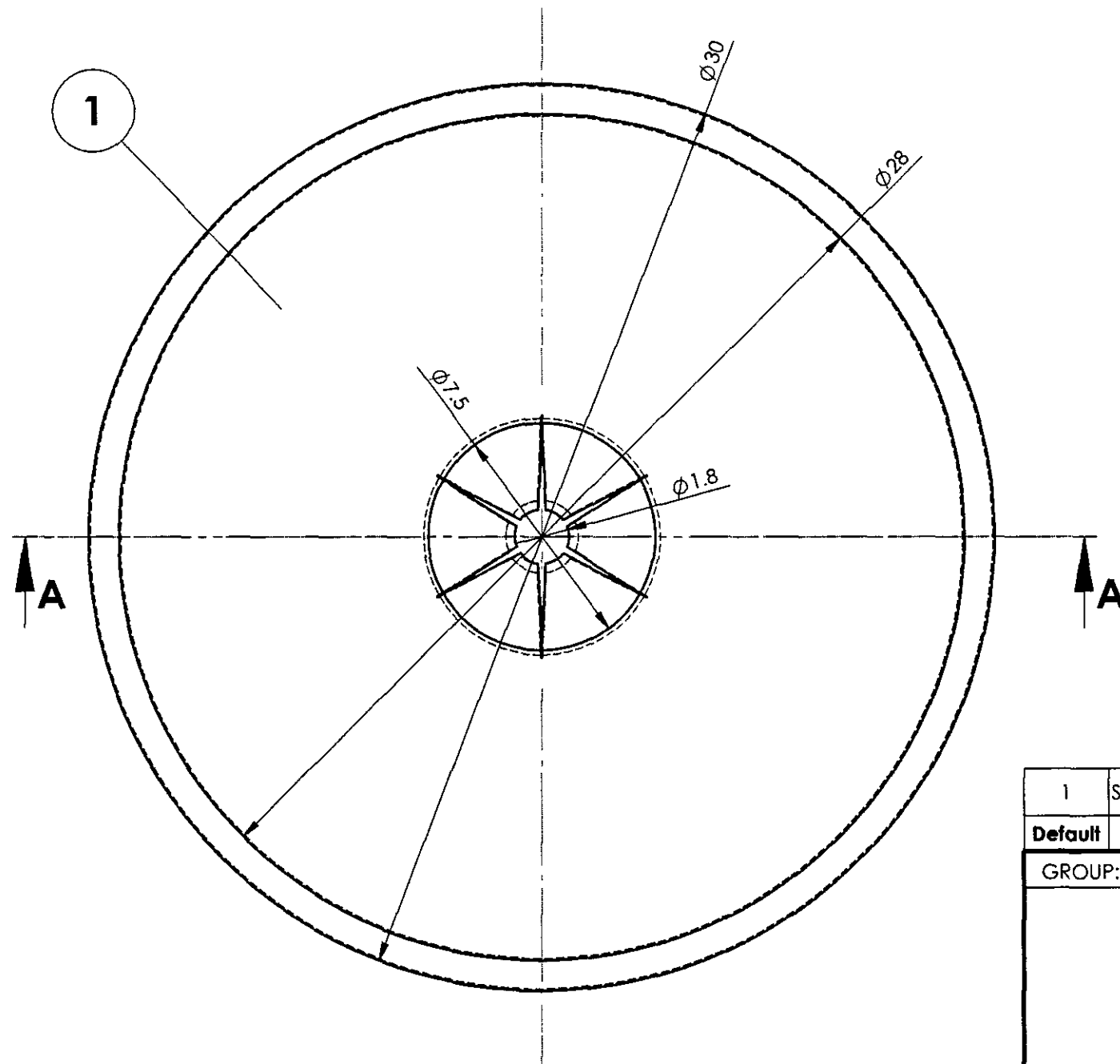
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

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				SHEET 1 OF 1		AAA16495	
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.
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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

AAA16836

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

①b BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

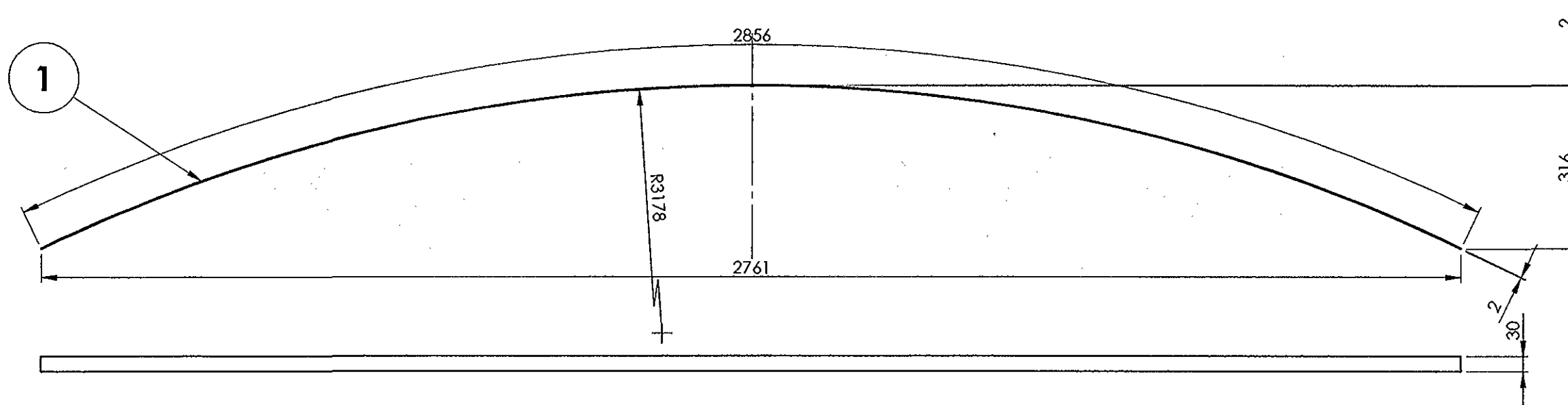
①8 CHAMFERED

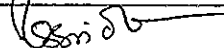
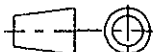
REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

1	PLATE	2x30x2856	1		RDSO/SPEC C-K201 X2CrNi12	1.37		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6		SURFACE AREA IN Sq.m.:182971.58			WT/ASSY IN Kgs:1.37			
PLATE FOR ARCH					SCALE	SSE/D		
					1:1	CHD		
					ALT.	ALTD		
						DRN	S.Bala V.Subramani	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
					SHEET 1 OF 1		AAA16836	A3

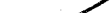
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

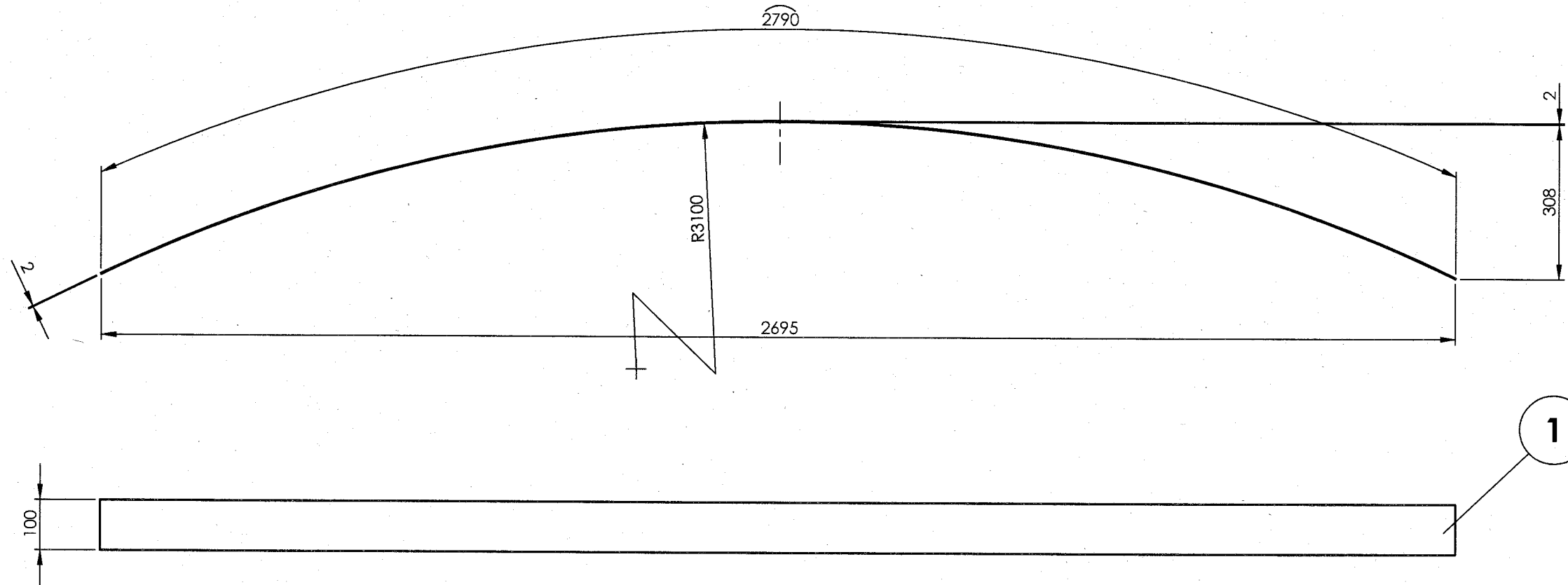
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	31-07-2013	U. 31/7
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA16837

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

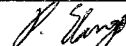
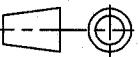
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DESIGN REVISED.	



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 IS: 813-1986.
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REF.DRG.NO.

	03/09/18	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

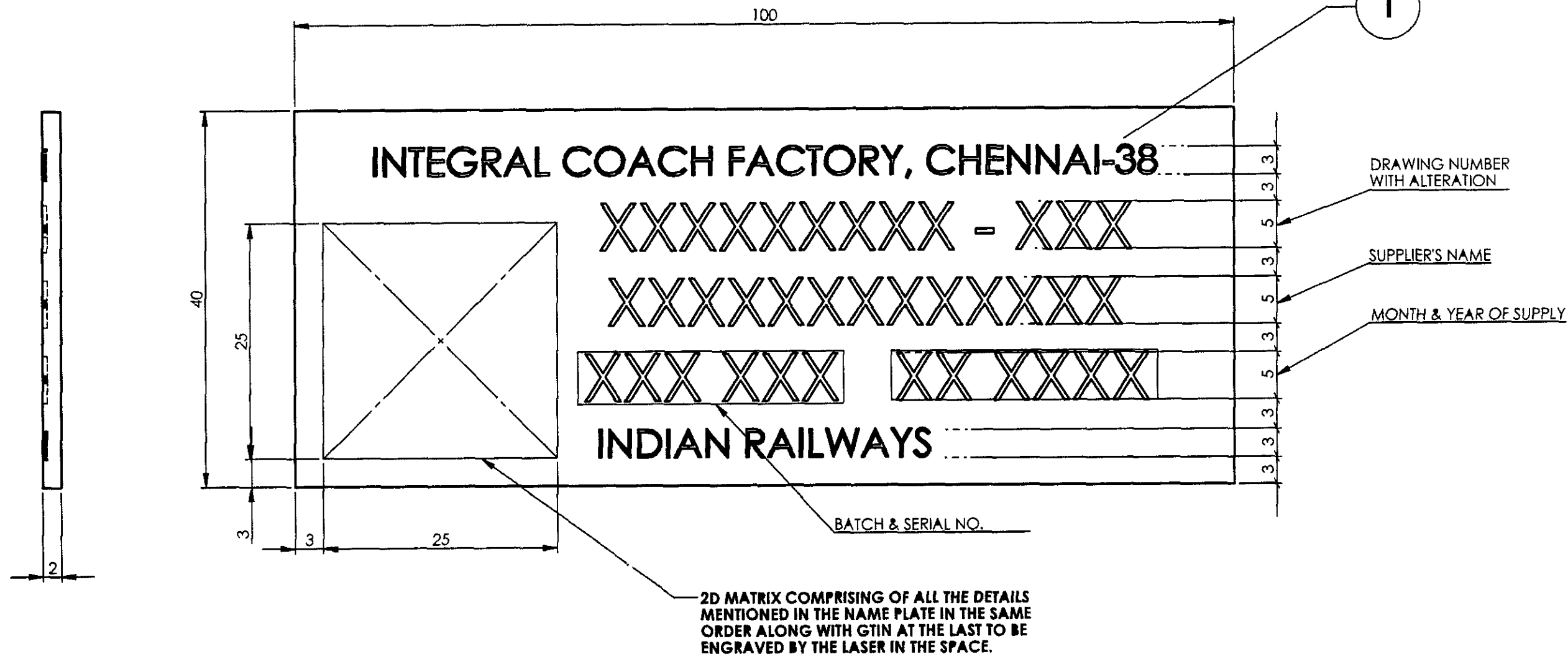
1	PLATE FOR ARCH	2x100x2790	1		RDSO/SPEC C- K201 X2CrNi12	4.46		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6		SURFACE AREA IN Sq.m.:569429.44			WT/ASSY IN Kgs:			
PLATE FOR FABRICATED ARCH					SCALE	SSE/D		
					1:1	CHD		
					ALT. a	ALTD	M.SIVAKUMAR	
						DRN	S.Bala V.Subramani	
								
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA16837		A3
INTEGRAL COACH FACTORY, CHENNAI - 600088								

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"><i>As per spec</i></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>K.Srirom</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	<i>As per spec</i>	1:10	CHD	ALT.	ALTD			DRN	K.Srirom	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	<i>As per spec</i>																																																																								
					1:10	CHD																																																																									
					ALT.	ALTD																																																																									
						DRN	K.Srirom																																																																								
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																																																																										
REF.DRG.NO.3.10113.0.20.210.114																																																																															
1		2		3		4		5		6		7		8																																																																	

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.	<i>sd</i>

**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	<i>sd</i>	
				ALT. d	CHD		
INDIAN RAILWAY STANDARDS				ALT. d	ALTD	KUNTI THAKUR	
				ALT. d	DRN	G. NAGESWARAN	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA51072 A3	
INTEGRAL COACH FACTORY, CHENNAI - 600038							

06-07-2024	02.06.2010	<i>sd</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

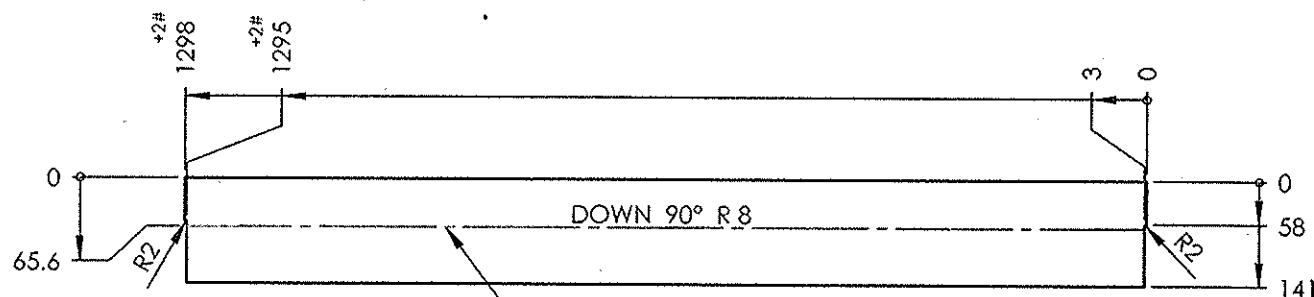
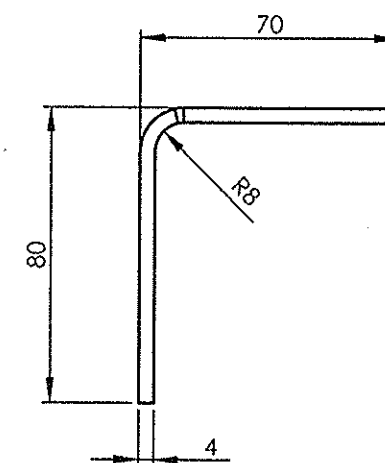
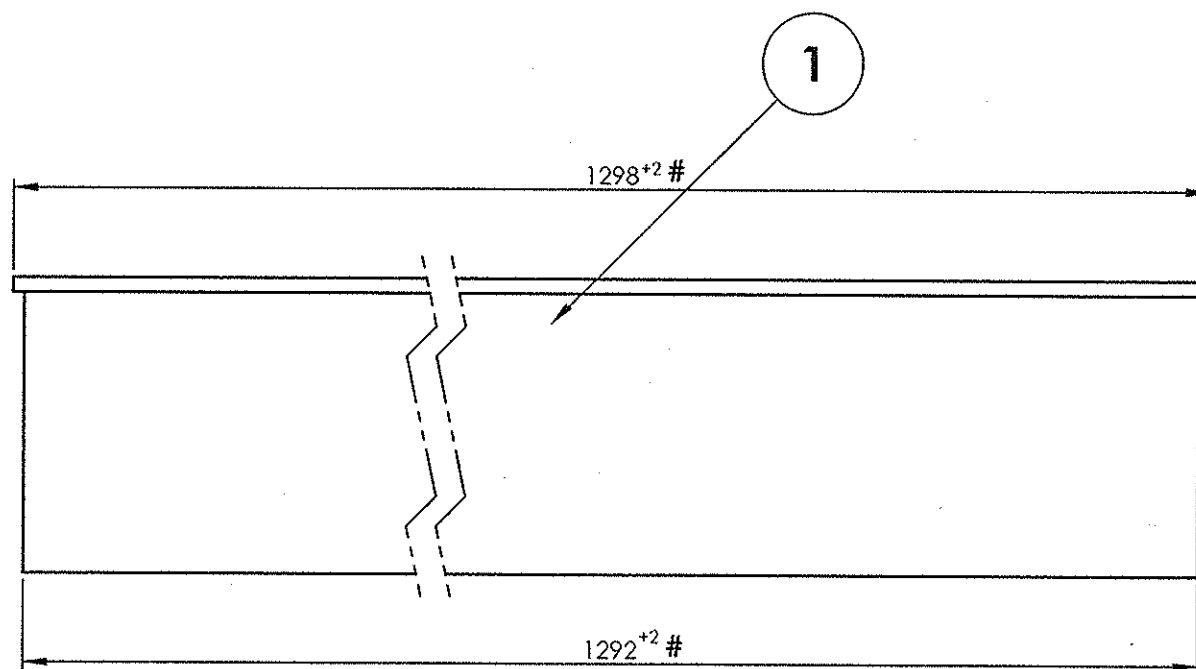
REF.DRG.NO.

AAB16103

▽ 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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MANDATORY MANUFACTURING ALLOWANCE.

DEVELOPMENT VIEW

1	LONGITUDINAL STIFFENER	4x141x1298	1		RDSO/SPEC C-K201 X2CrNi12	5.836	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.376			WT/ASSY IN Kgs:		
LONGITUDINAL STIFFENER					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAB16103		A3

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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

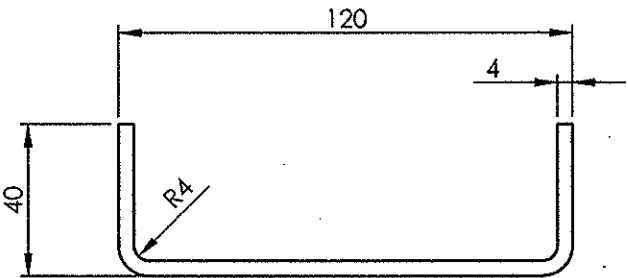
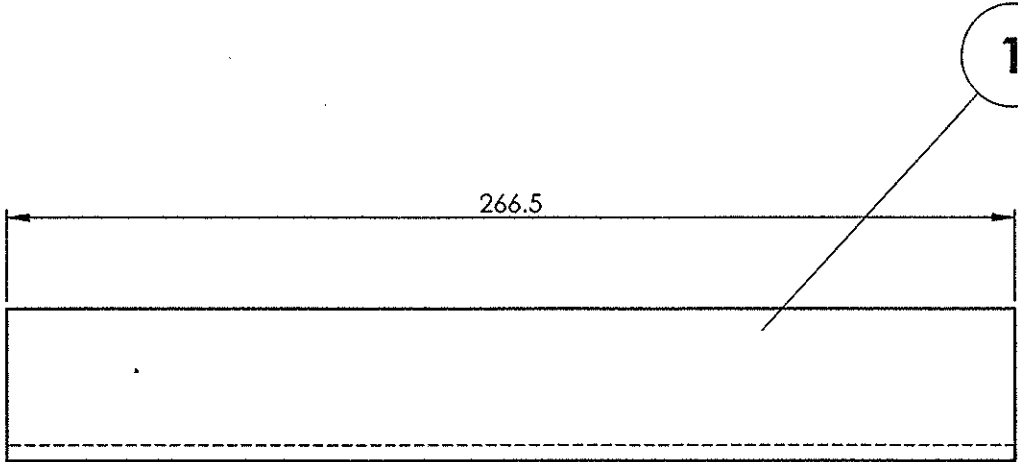
REF.DRG.NO.3 11012.0.20.200.107

	27/11/10	A. N.
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAB16113

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



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WEIGHT INDICATED IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.3 11012.0.20.200.110

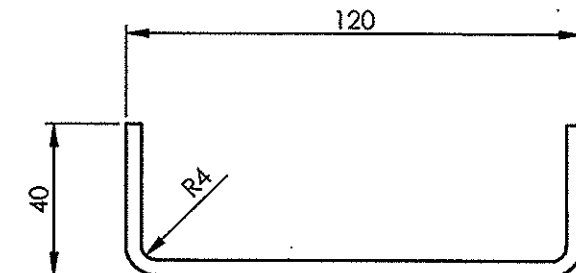
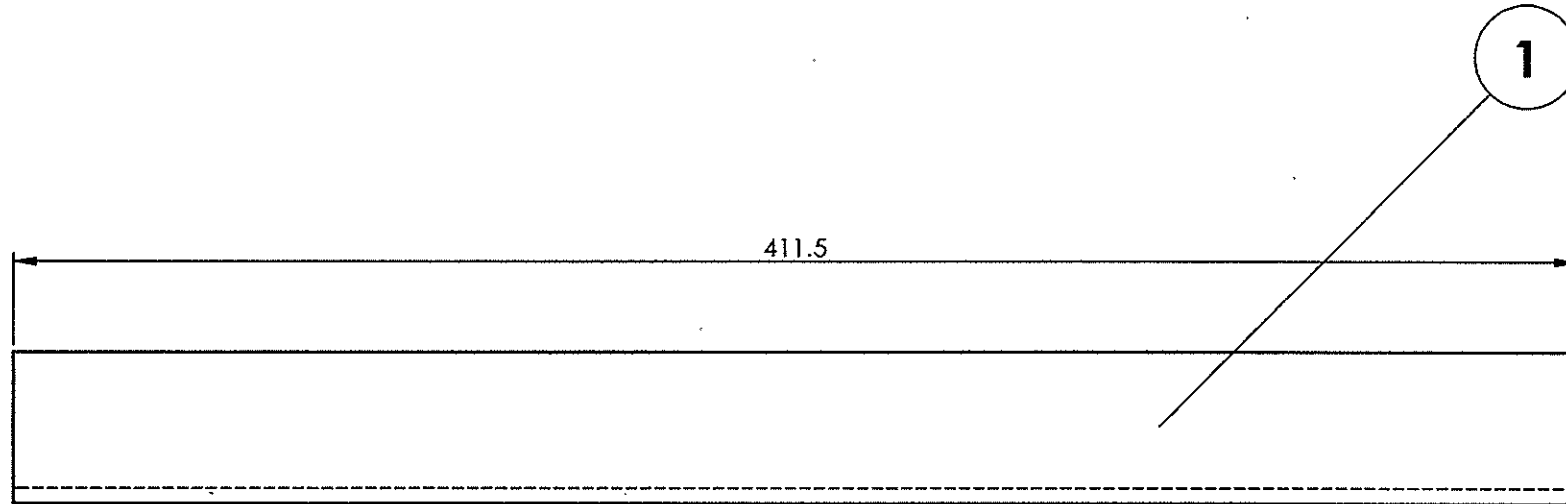
	8/3/16	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	REINFORCEMENT	4x184x266.5	1		RDSO/SPEC C-K201 X2CrNi12	1.593	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.103			WT/ASSY IN Kgs: 1.593		
REINFORCEMENT					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAB16113		A3

AAB16114

▽ 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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WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.3 11012.0.20.200.111

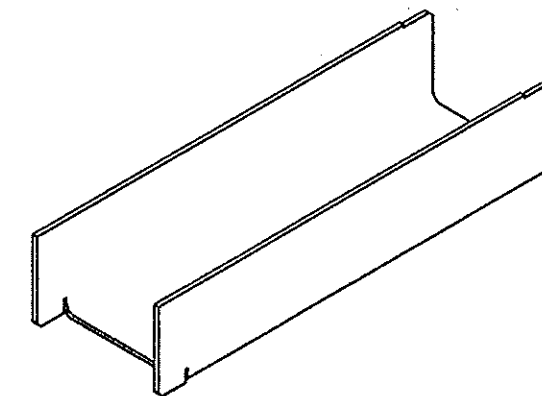
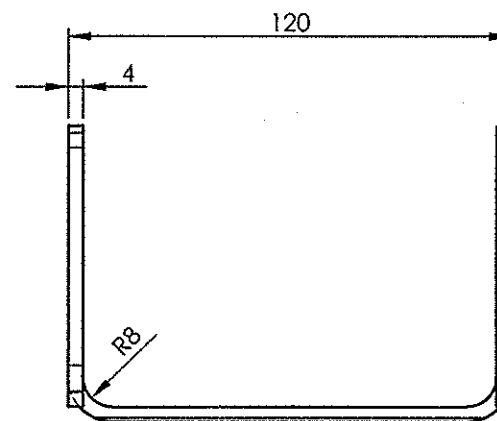
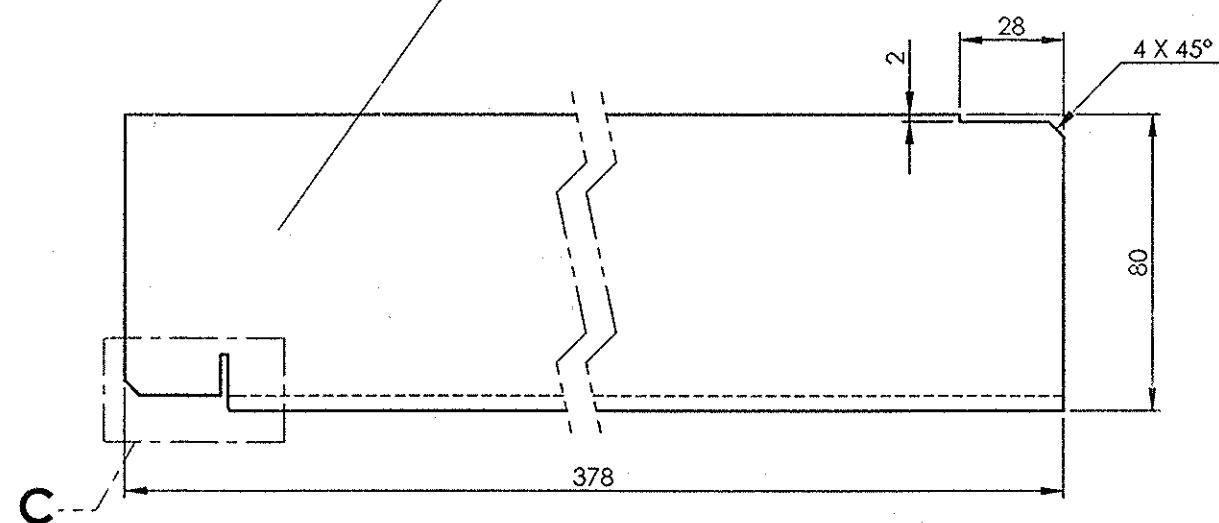
	03-01-2015	<i>S. Balaji</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	REINFORCEMENT	4x184x411.5	1		RDSO/SPEC C-K201 X2CrNi12	2.460	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.159			WT/ASSY IN Kgs:		
REINFORCEMENT					SCALE	SSE/D	<i>P. Sange</i>
					1:1	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAB16114

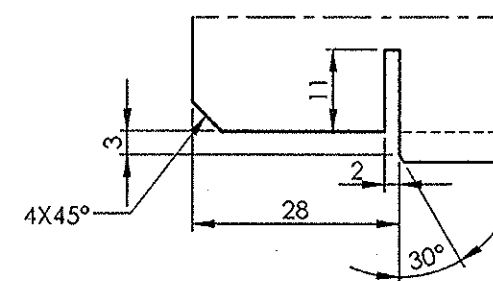
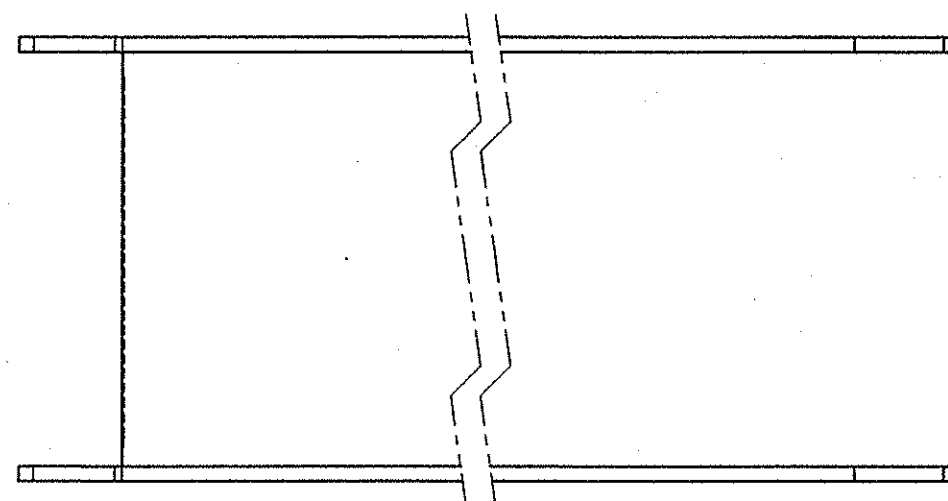
AAB16117

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



ISOMETRIC VIEW

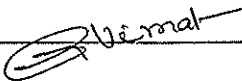



DETAIL C
SCALE 1 : 1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
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REF.DRG.NO.3 11012.0.20.200.114' NIL'

	2/3/11	P.N.
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

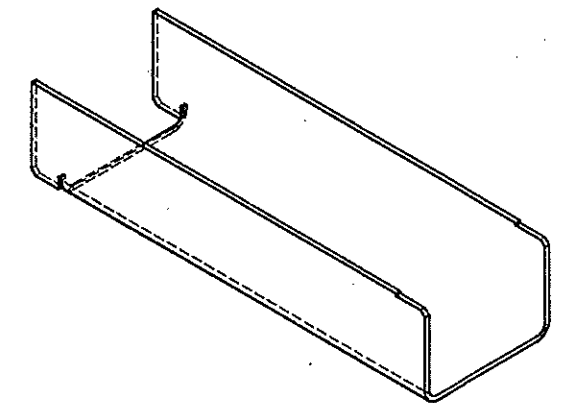
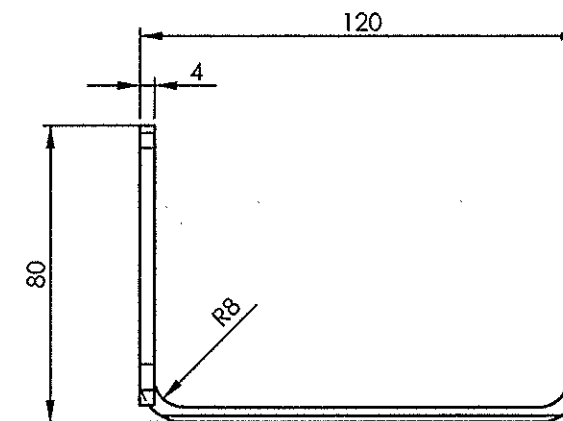
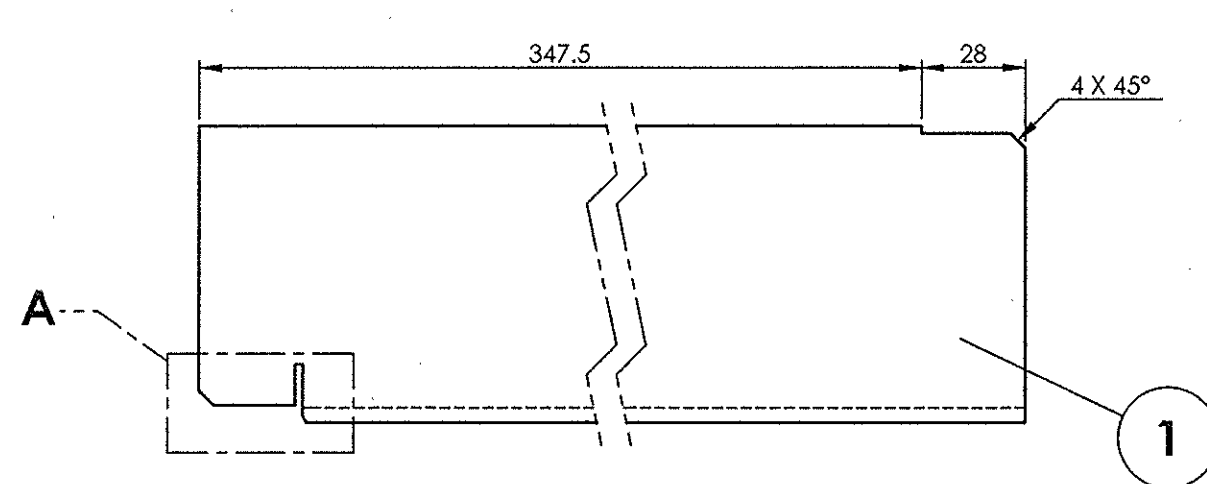
1	MEMBER	4x263x378	1		RDSO/SPEC C-K201 X2CrNi12	3.069	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.197			WT/ASSY IN Kgs:3.069		
MEMBER					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		AAB16117	
						A3	

AAB16118

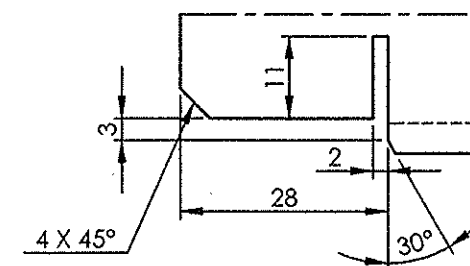
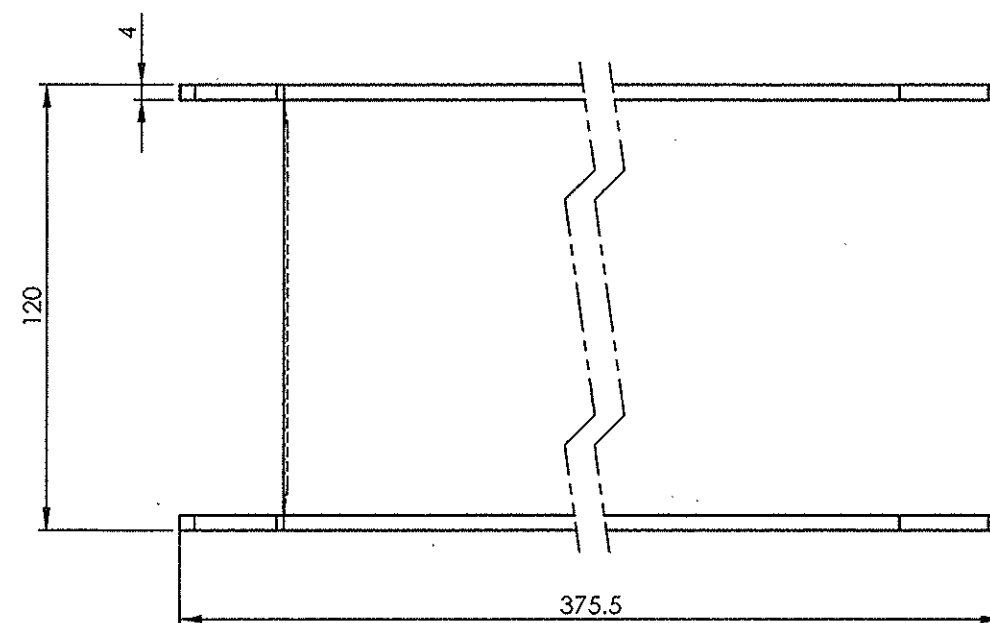
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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ISOMETRIC VIEW

DETAIL A
SCALE 1 : 1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0001.
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WEIGHT INDICATED IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.3 11012.0.20.200.115

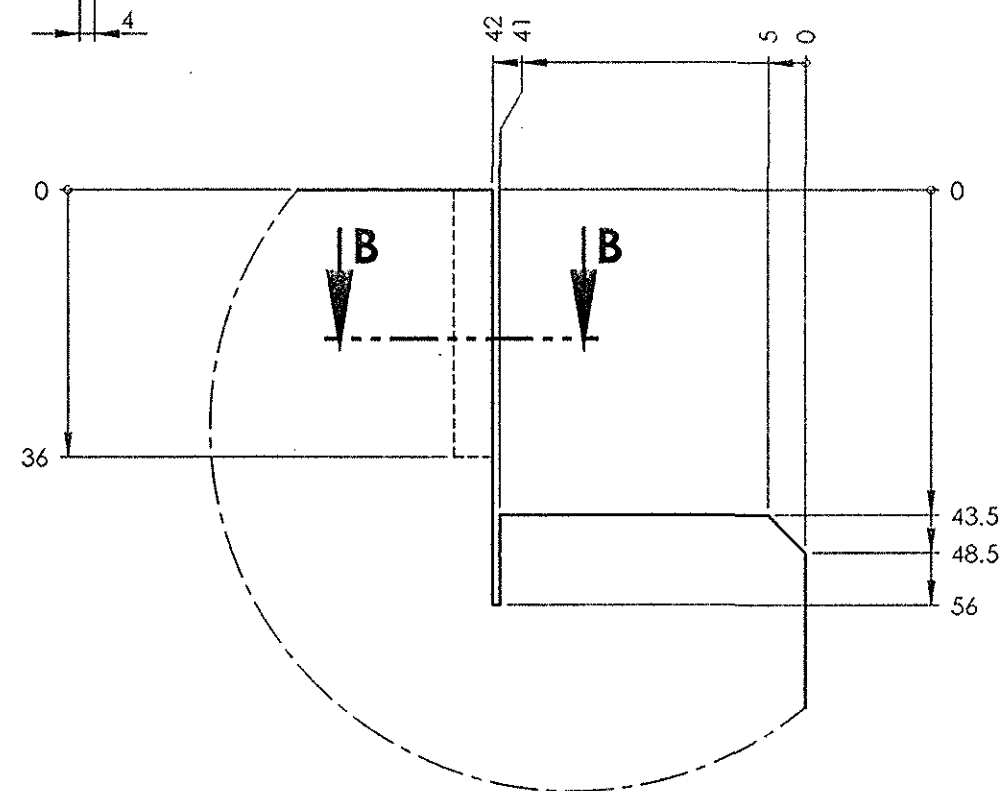
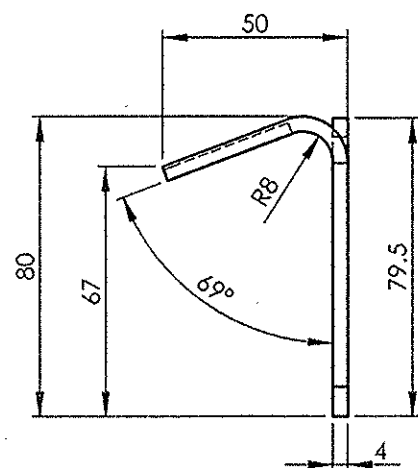
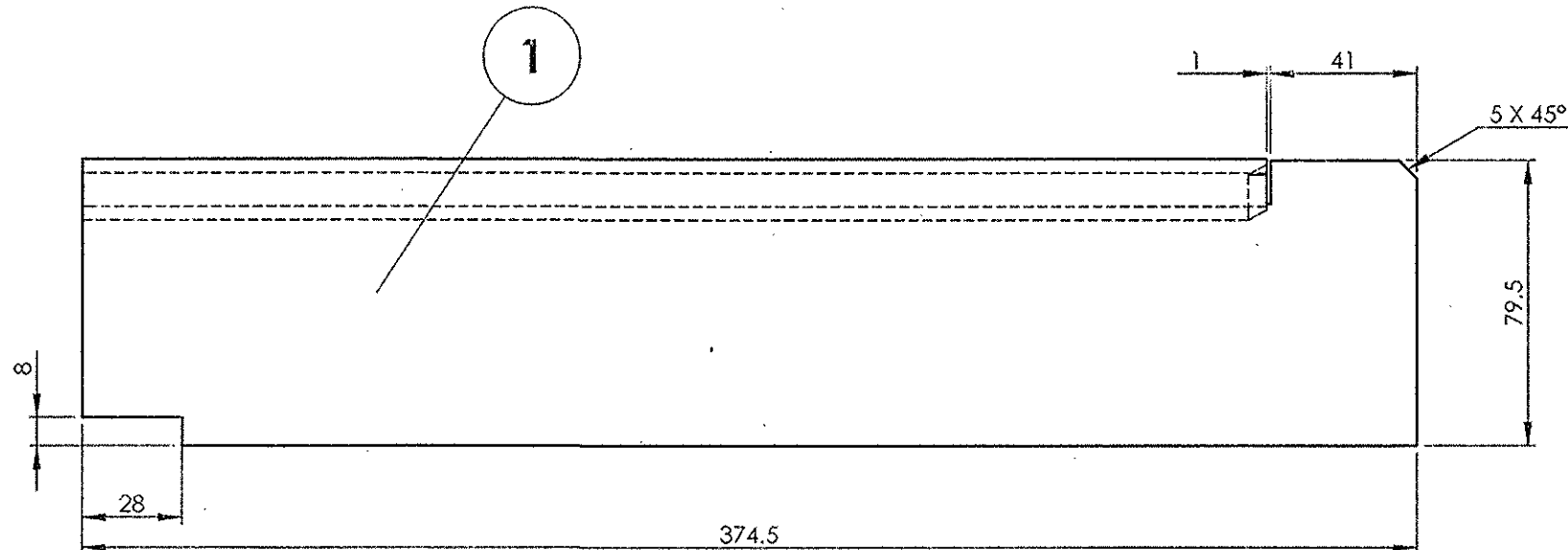
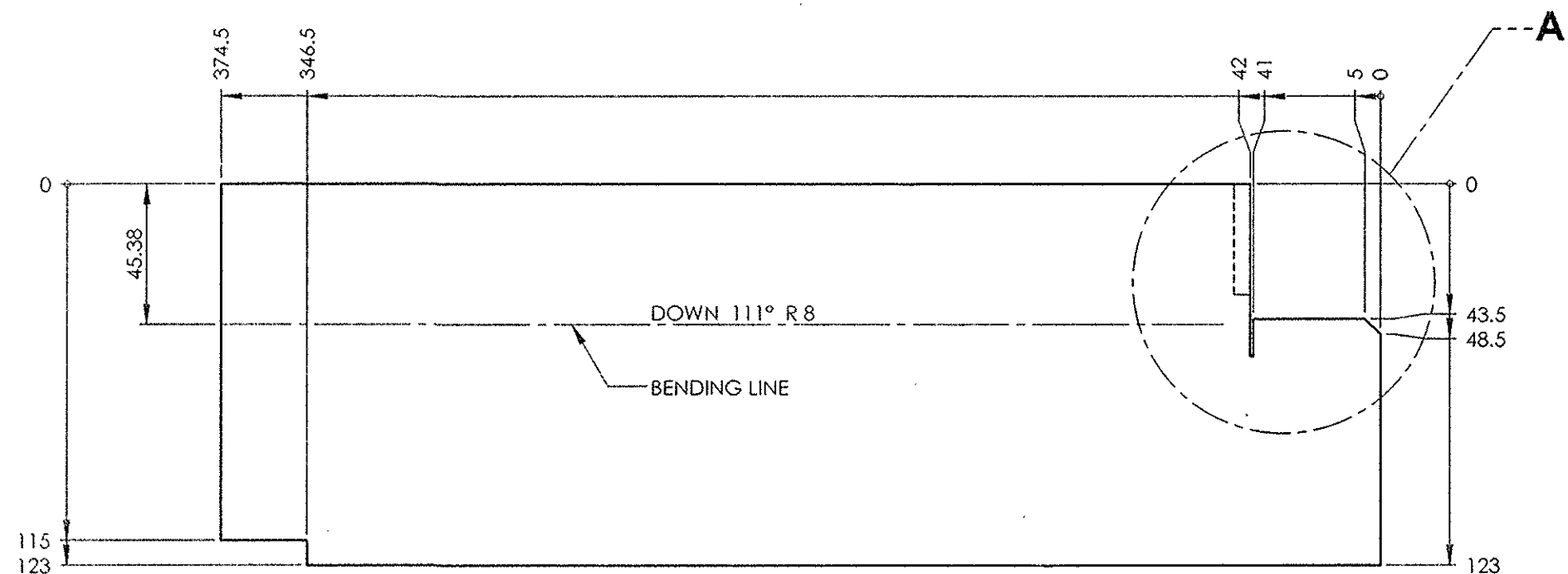
	8/5/16	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	MEMBER	4x263x375.5	1		RDSO/SPEC C-K201 X2CrNi12	3.046	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	.MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.196			WT/ASSY IN Kgs:3.050		
MEMBER					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAB16118		A3

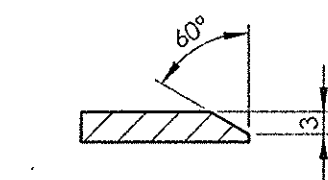
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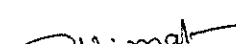

▽ ROUGH MACHINED	(01) ROUGH CLEANED
▽▽ FINISH MACHINED	(02) BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	(03) CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

DETAIL A
SCALE 1 : 1

DEVELOPMENT VIEW

SECTION B-B
SCALE 1 : 1

1	STIFFENING ANGLE	4 x 123 x 374	1		RDSO/SPEC C- K201 X2 Cr Ni 12	1.405	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY			SURFACE AREA IN Sq.m.: 0.092		WT/ASSY IN Kgs:		
STIFFENING ANGLE					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
						AAB16122	
					SHEET 1 OF 1	A2	

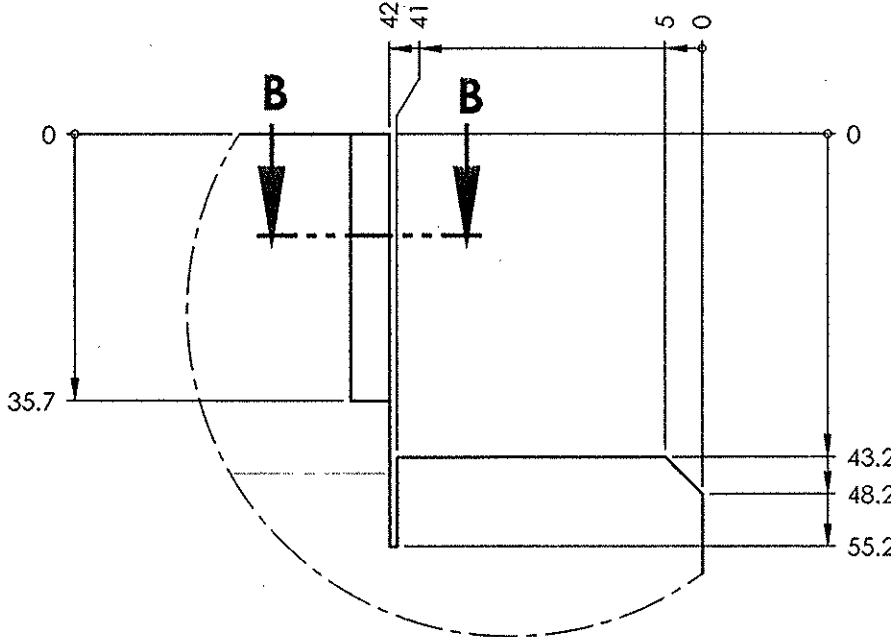
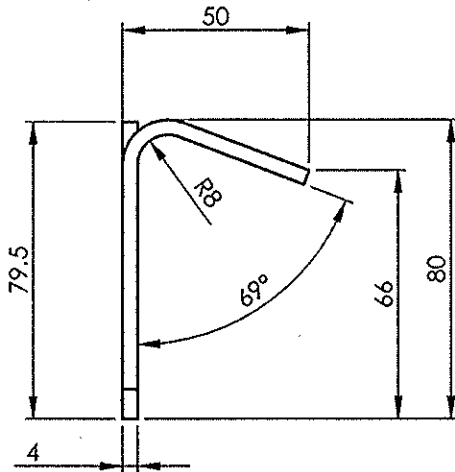
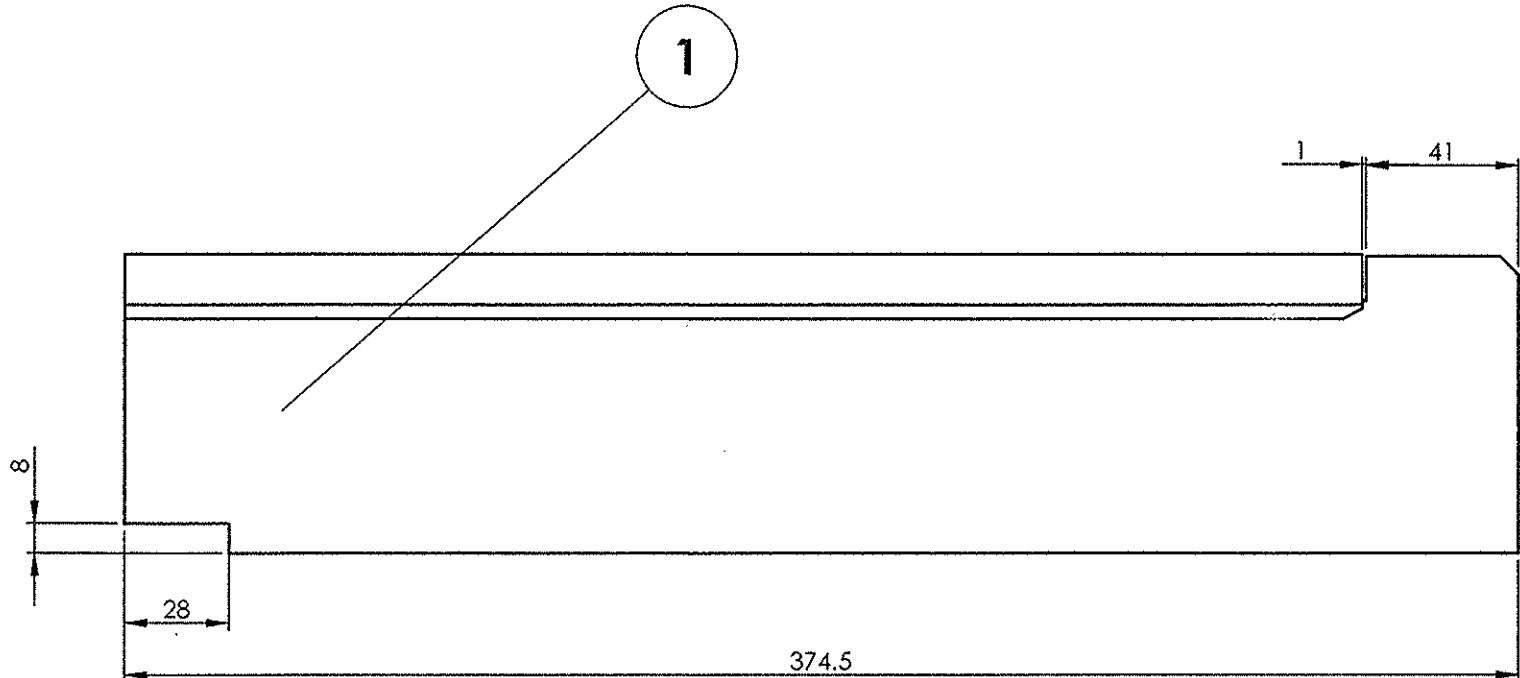
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0001.
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REF.DRG.NO.2 11012.0.20.200.108 ALT 'A'

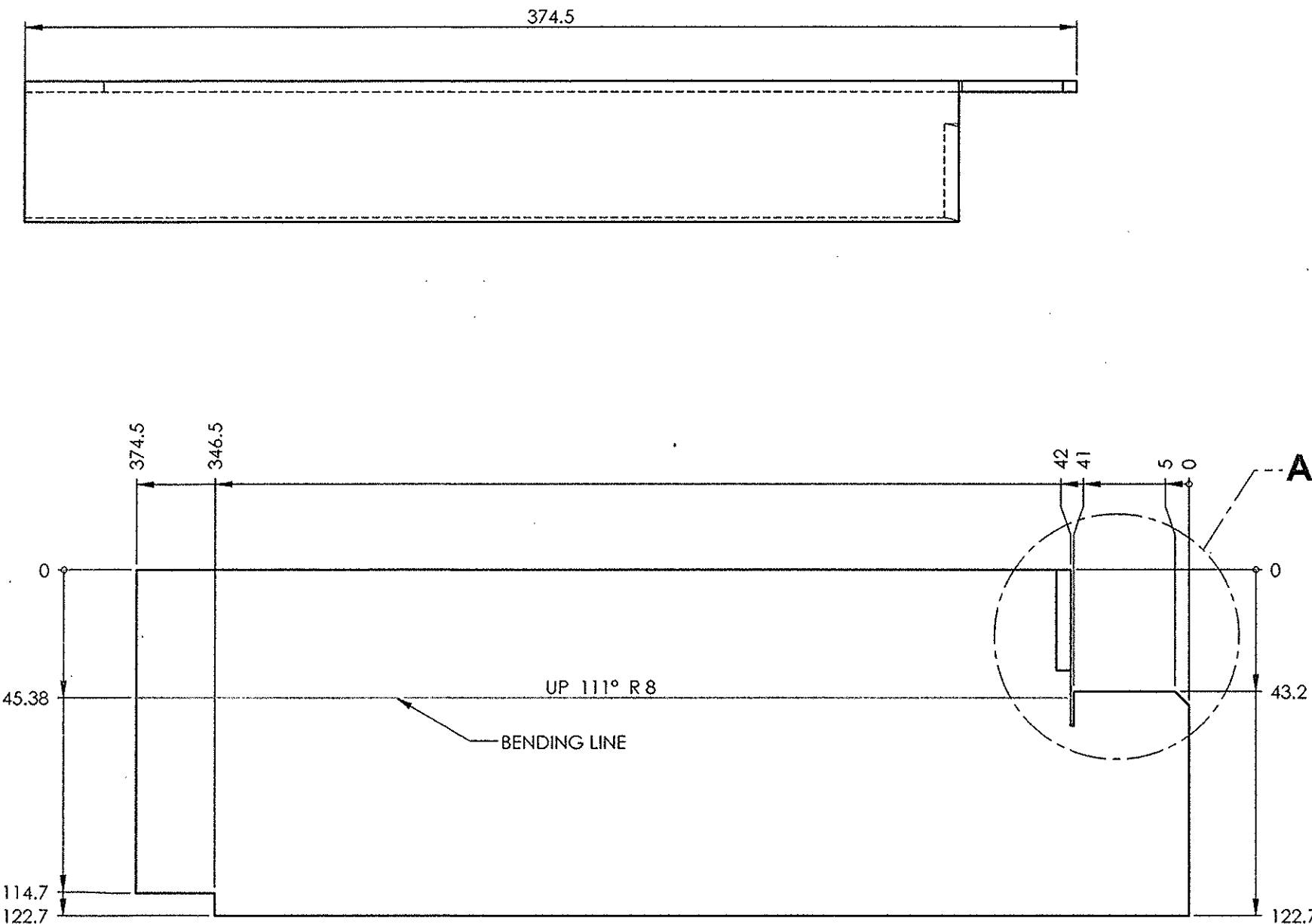
DATE OF LATEST ALT.	8-2-16	AME/SME
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AAB16123

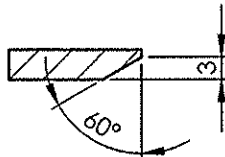
▽ ROUGH MACHINED	① ROUGH CLEANED	REVISIONS			
▽▽ FINISH MACHINED	② BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED				



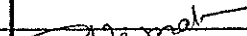
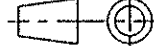
DETAIL A
SCALE 1 : 1



DEVELOPMENT VIEW

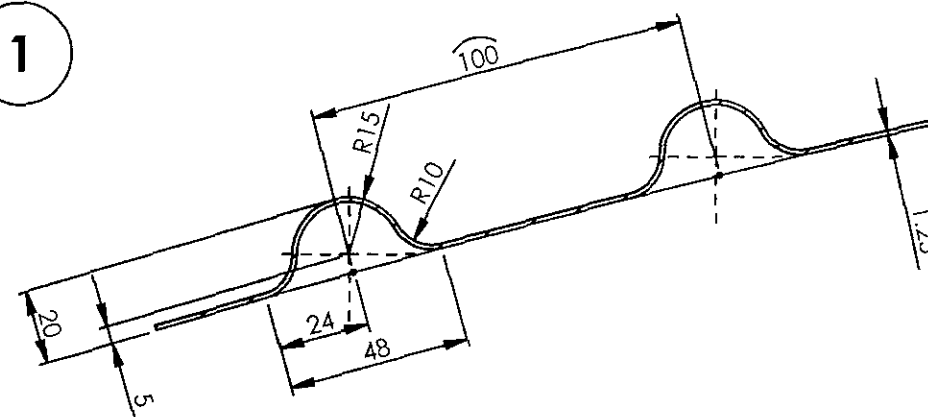
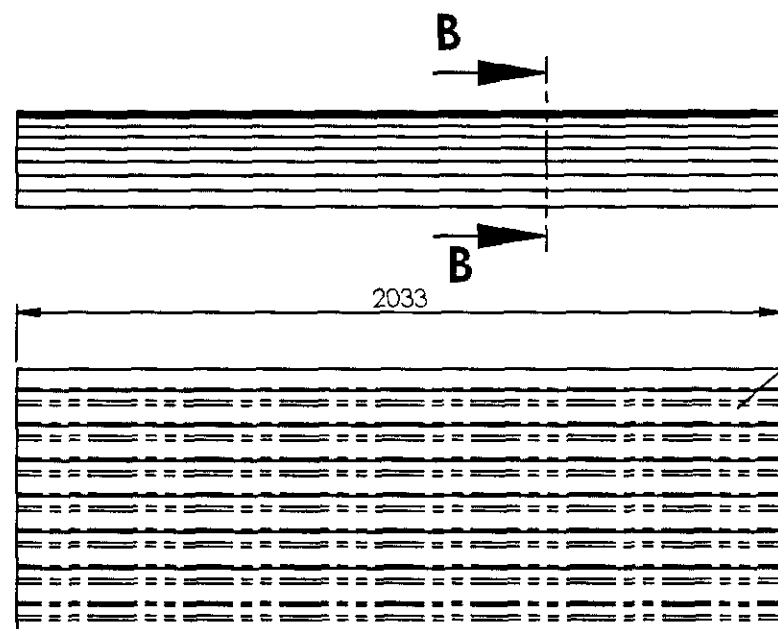


SECTION B-B
SCALE 1 : 1

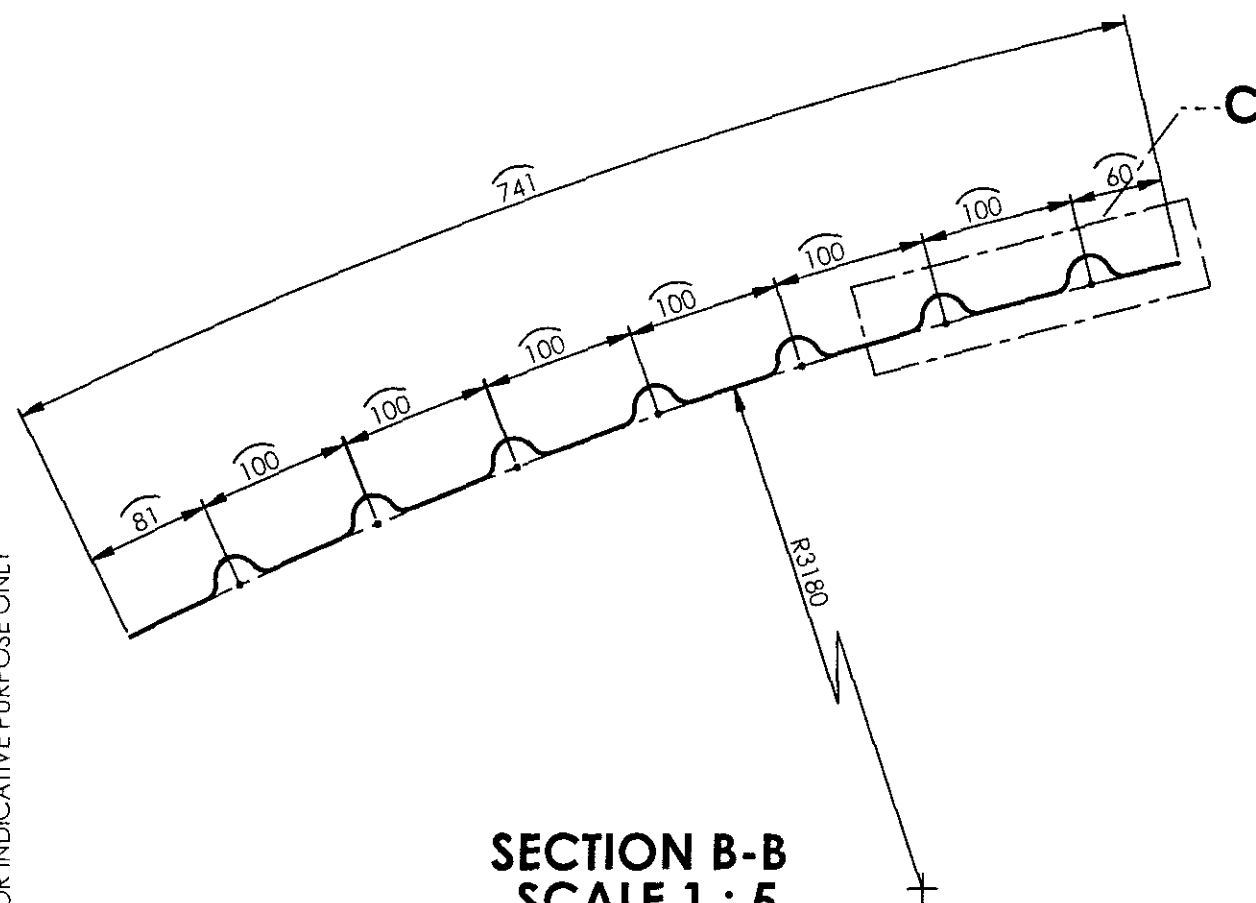
1	STIFFENING ANGLE	4 x 123 x 374	1		RDSO/SPEC C- K201 X2 Cr Ni 12	1.410	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.092			WT/ASSY IN Kgs:		
STIFFENING ANGLE					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAB16123		A2

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		R.M. SIZE FOR ITEM-1 ALTD. FROM 1.25 x 855 x 2033 TO 1.25 x 855 x 2033.	-Sd-
b		R.M. SIZE FOR ITEM-1 ALTD. FROM 1.25 x 855 x 2033 TO 1.25 x 876 x 2033. DETAIL A & NOTE DELETED. VIEWS UPDATED.	Sd-
c		SECTION B-B REVISED. VIEWS UPDATED.	



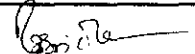
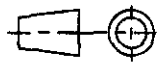
DETAIL C
SCALE 1 : 2



SECTION B-B
SCALE 1 : 5

~~NOTE:~~

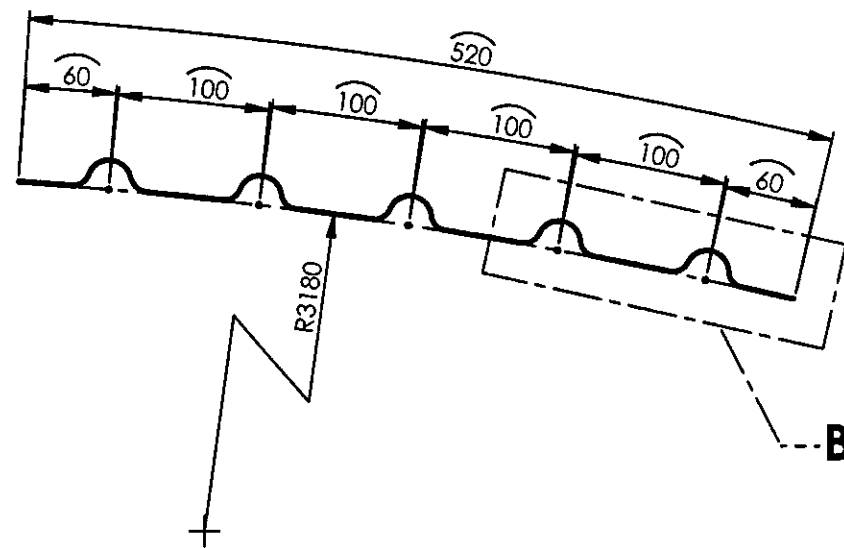
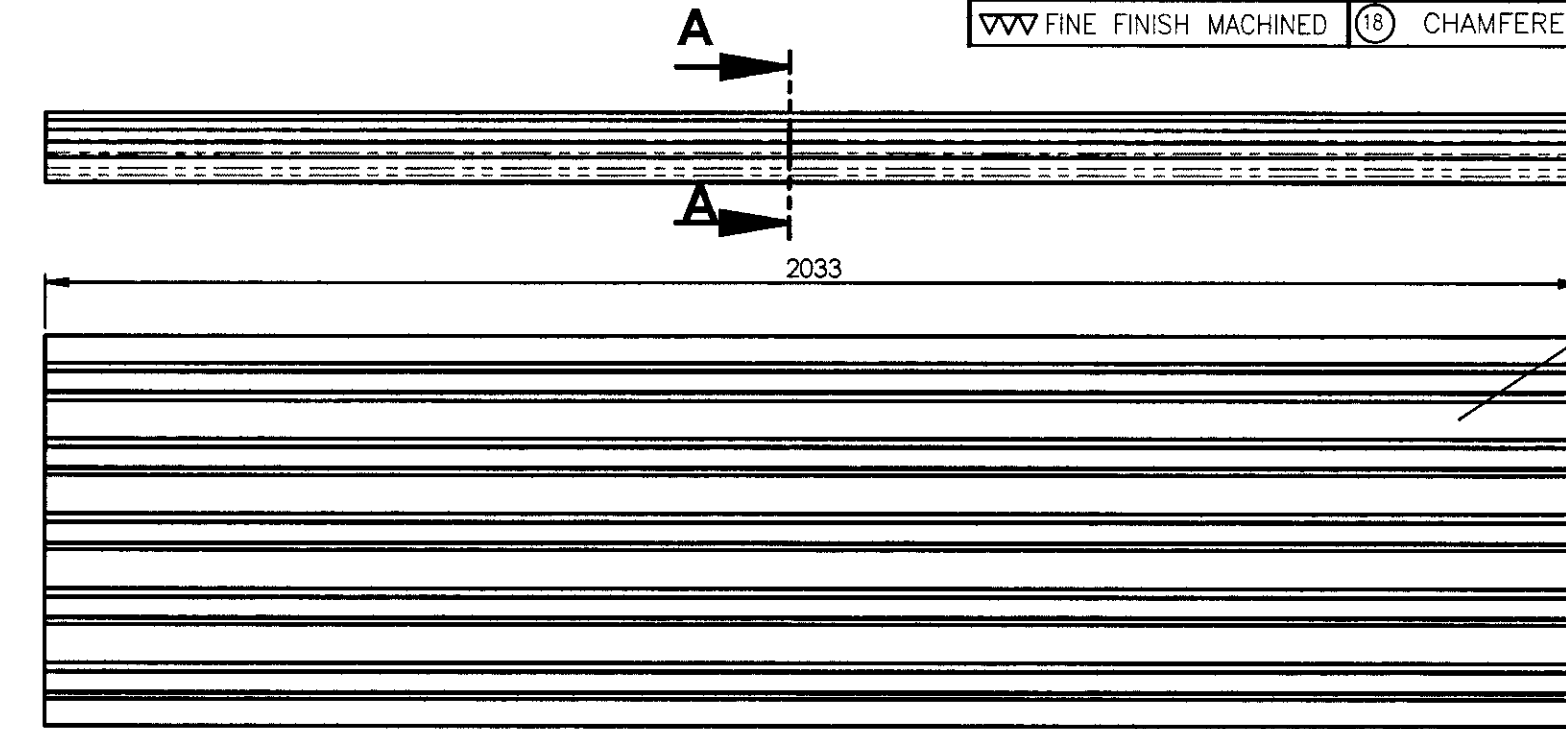
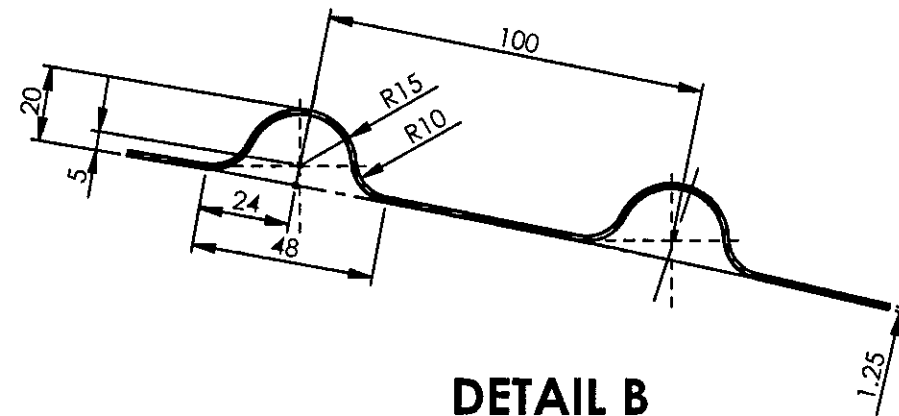
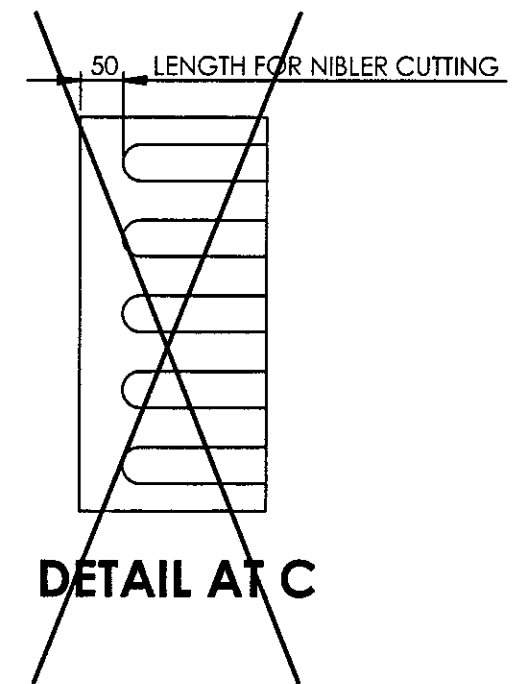
~~NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50 mm
BEFORE FLUTES TO BE MADE.~~

1	ROOF SHEET PART	1.25 x 876 x 2033	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	17.578	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:3.523			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT. c	ALTD	AMAL GEORGE
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY CHENNAI - 600038				SHEET 1 OF 1			
					AAB16124		A3

AAB16125

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		R.M.SIZE FOR ITEM-1 ALTD. FROM 1.25x603x2023 TO 1.25x603x2033.	Sd
b		DETAIL C & NOTE DELETED.	

SECTION A-A
SCALE 1 : 5DETAIL B
SCALE 1 : 2

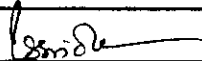
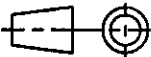
DETAIL A C

NOTE:-

NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50MM
BEFORE FLUTES TO BE MADE.

REF.DRG.NO.MI001648

22-02-2024	14-1-2015	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

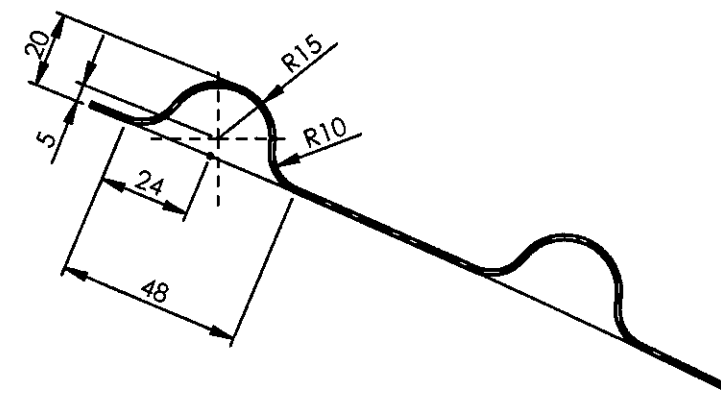
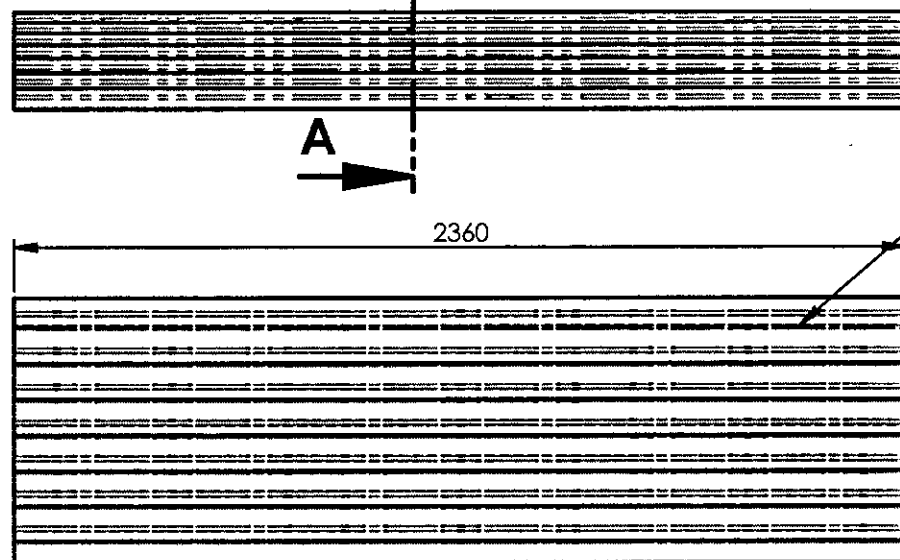
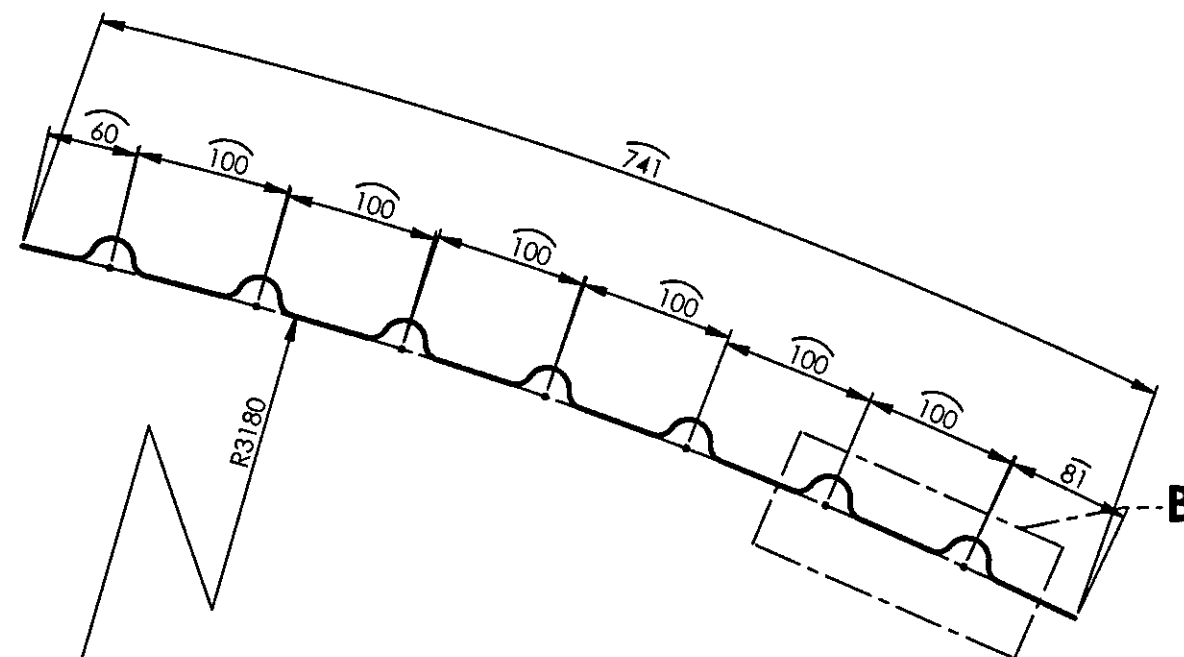
1	ROOF SHEET PART	1.25x603x2033	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	12.356		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6		SURFACE AREA IN Sq.m.:2.478			WT/ASSY IN Kgs:			
ROOF SHEET PART					SCALE	SSE/D		
					1:10	CHD		
					ALT. b	ALTD	AMAL GEORGE	
						DRN	S.Bala V.Subramani.	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
						SHEET 1 OF 1		
					AAB16125		A3	

AAB16126

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

REVISIONS

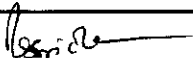

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		RM SIZE ALTD FROM 1.25 x 836 x 2360 TO 1.25 x 857 x 2360. VIEWS UPDATED.	<i>[Signature]</i> 22/02/24

DETAIL B
SCALE 1 : 2SECTION A-A
SCALE 1 : 5

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.MI001649

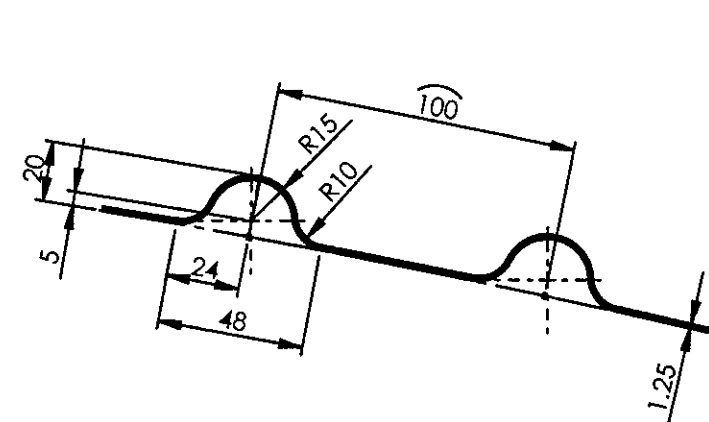
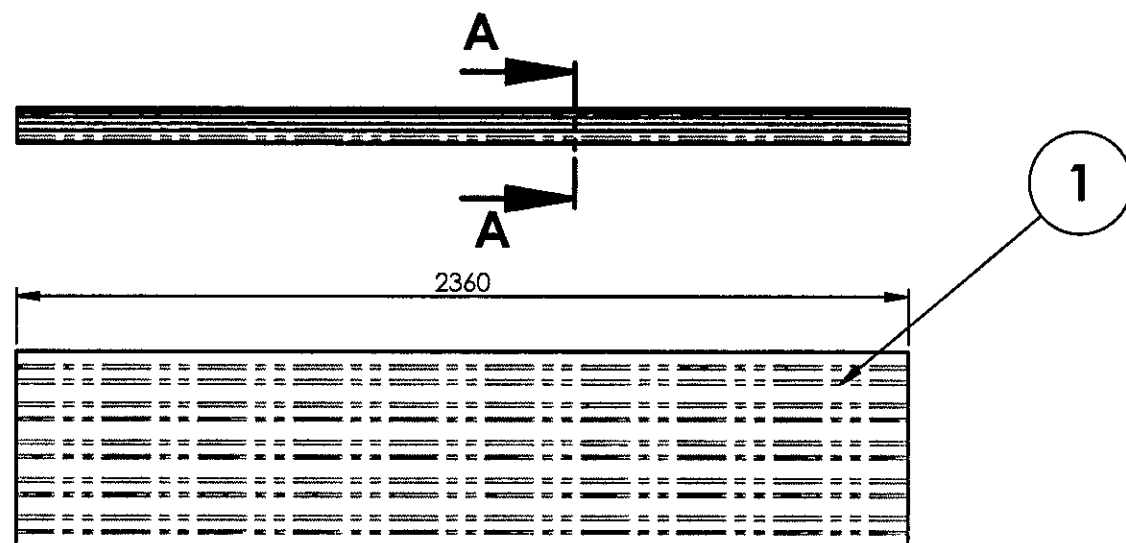
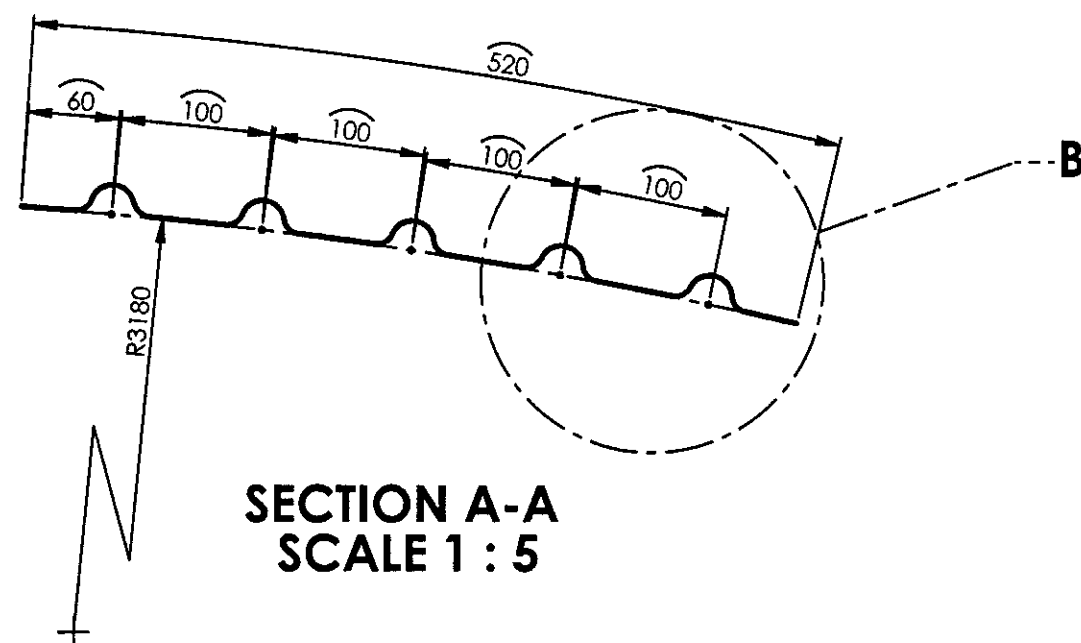
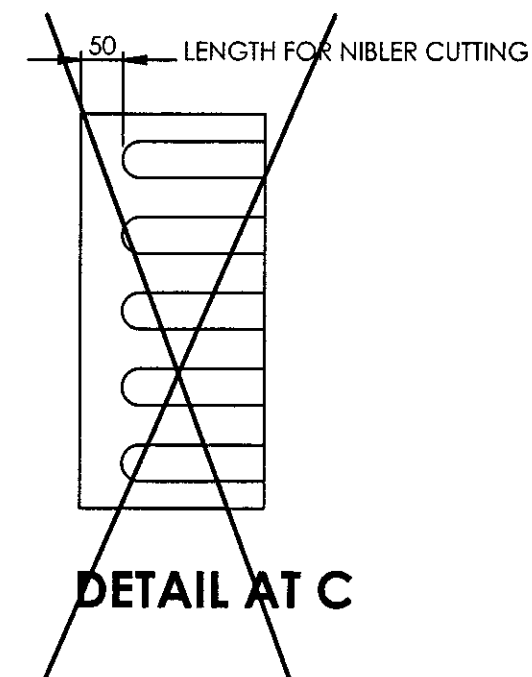
22-02-2024	14-01-2015	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	ROOF SHEET PART	1.25 x 857 x 2360	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	20.405	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:4.089			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	AMAL GEORGE
					a	DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAB16126

AAB16127

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DETAIL AT C & NOTE DELETED.	

DETAIL B
SCALE 2 : 5SECTION A-A
SCALE 1 : 5

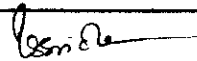
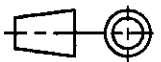
NOTE:

NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50MM
BEFORE FLUTES TO BE MADE.

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.MI001648

22-02-2024	14-01-2015	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

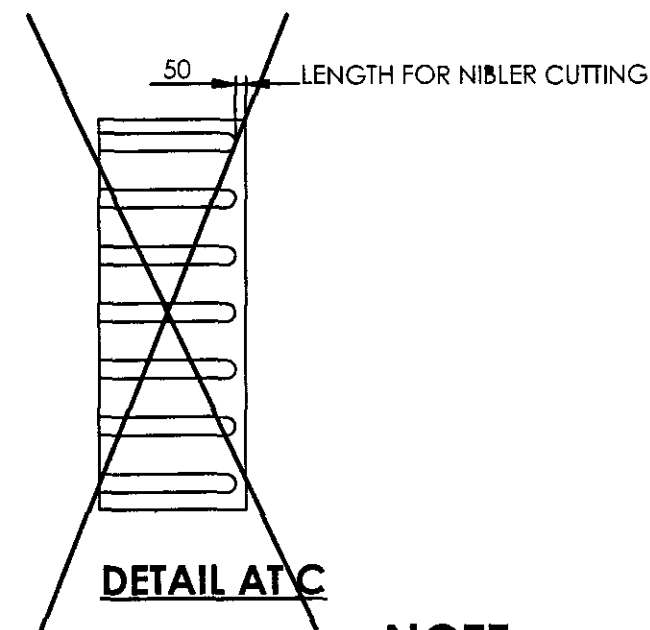
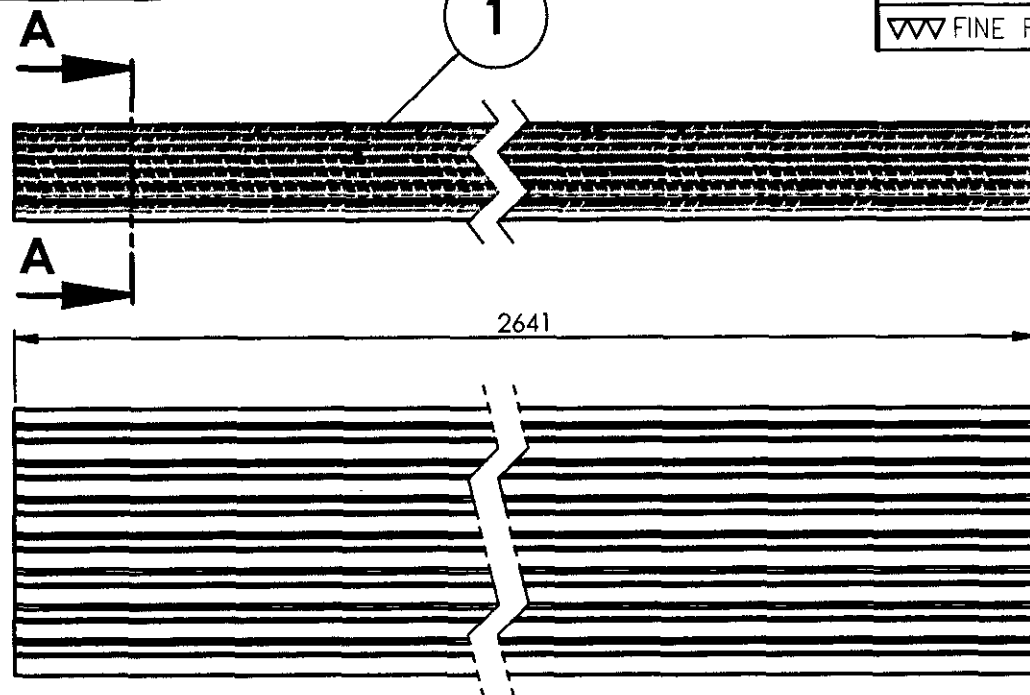
1	ROOF SHEET PART	1.25x603x2360	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	14.344		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6		SURFACE AREA IN Sq.m.:2.876			WT/ASSY IN Kgs:			
ROOF SHEET PART					SCALE	SSE/D		
					1:20	CHD		
					ALT.	ALTD	AMAL GEORGE	
					a	DRN	S.Bala V.Subramani.	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
					SHEET 1 OF 1		AAB16127	A3

AAB16128

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

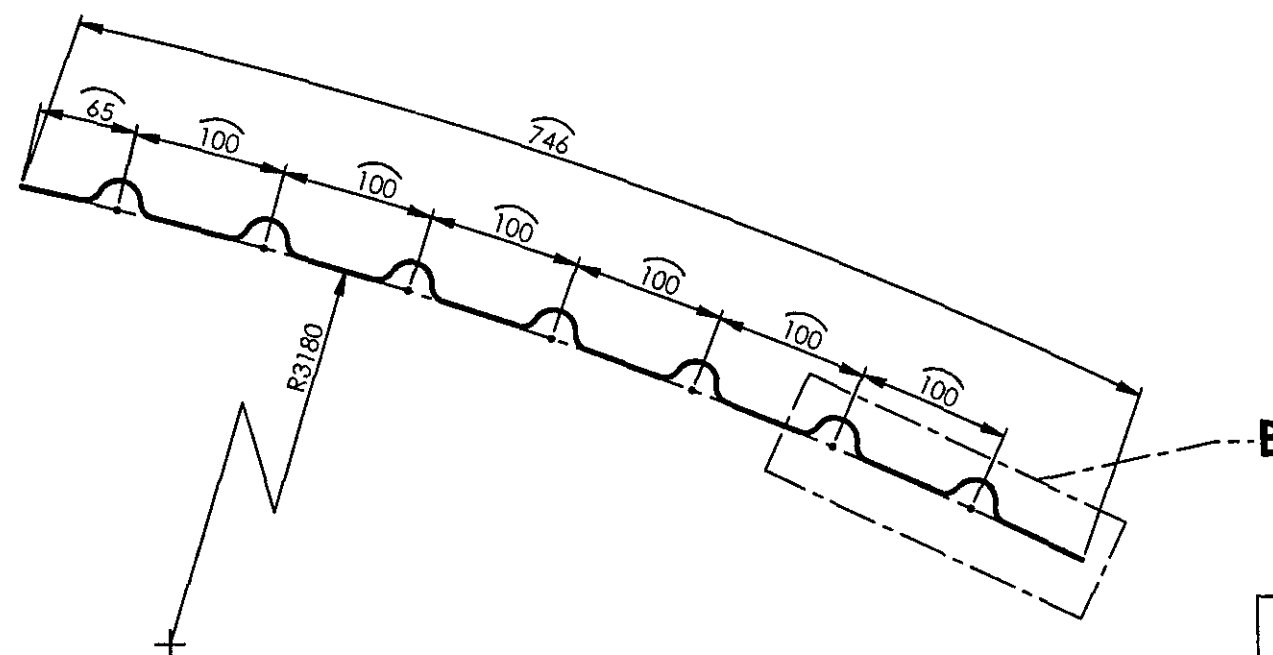
REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		RM SIZE REVISED FROM 1.25 x 855 x 2641 TO 1.25 x 871 x 2641. NOTE & DETAIL C DELETED. VIEWS UPDATED.	<i>[Signature]</i>

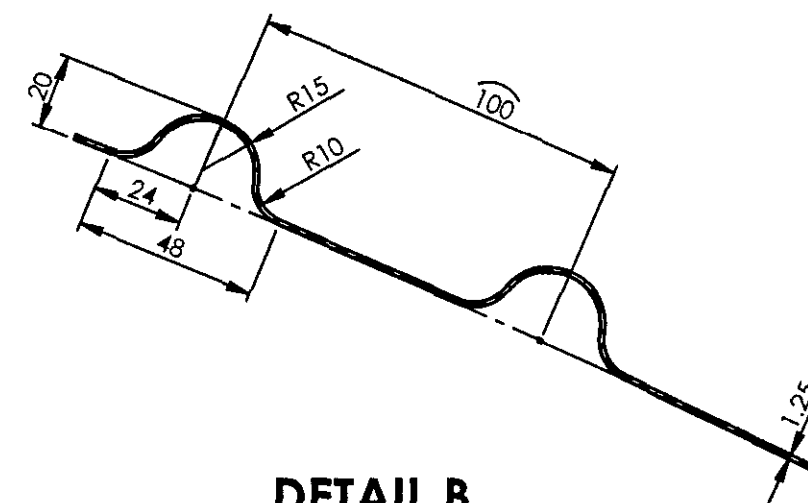


NOTE:

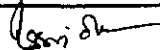
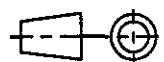
NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50MM BEFORE FLUTES TO BE MADE.



SECTION A-A
SCALE 1 : 5



DETAIL B
SCALE 1 : 2

1	ROOF SHEET PART	1.25 x 876 x 2641	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	22.967	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:4.602			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	AMAL GEORGE
					a	DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAB16128		A3

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 EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.MI001647-'a'

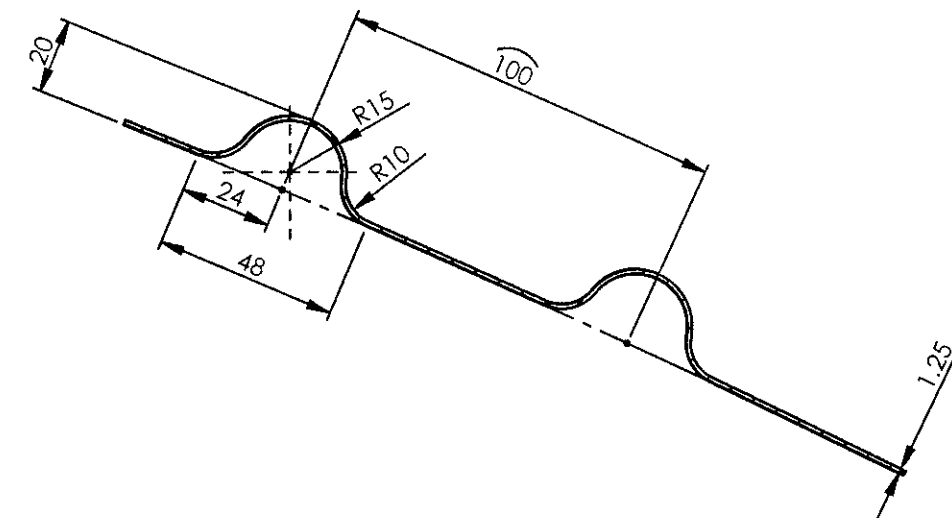
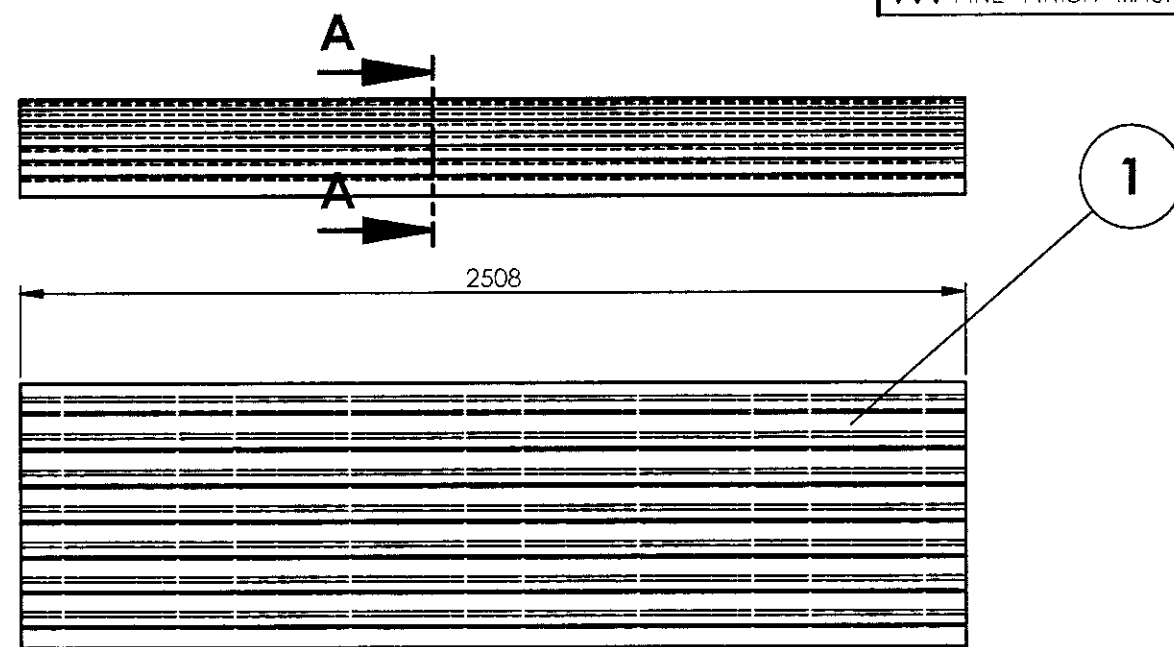
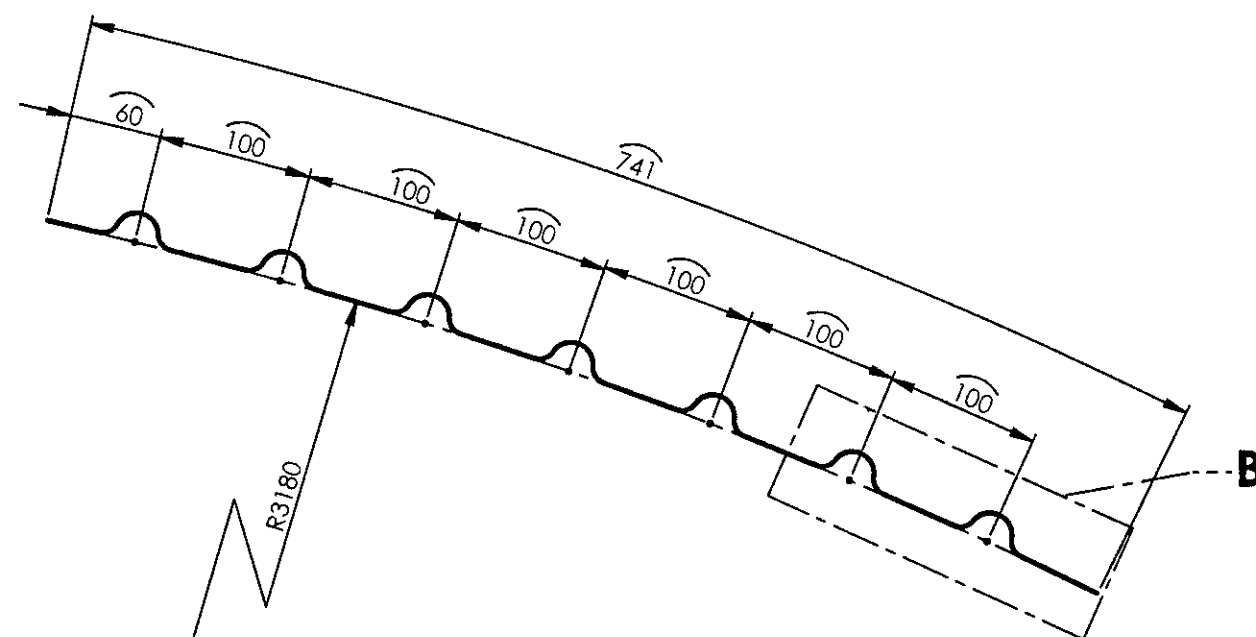
22-02-2024	19-02-2015	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

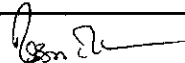
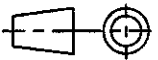
AAB16129

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

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		RM SIZE ALTD FROM 1.25 x 855 x 2508 TO 1.25 x 876 x 2508. VIEWS UPDATED.	-Sd-
b		SECTION A-A REVISED. VIEWS UPDATED.	

DETAIL B
SCALE 1 : 2SECTION A-A
SCALE 1 : 5

1	ROOF SHEET PART	1.25 x 876 x 2508	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	21.685	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:4.345			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	AMAL GEORGE
					b	DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAB16129	
							A3

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 EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.MI001649

09-07-2025	19-02-2015	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAB16130

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED

② BURRS REMOVED

③ CHAMFERED

REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

a

RM SIZE FOR ITEM-1 ALTERED FROM 2x452x2033 TO
2x452x2033.

b

MATL SPEC ALTD FROM RDSO/SPEC C-K201 X2 Cr NI12 TO
RDSO/SPEC C-K201 X5 Cr NI1810

A

A

2033

452

2

R3180

SECTION A-A
SCALE 1 : 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 IS: 813-1986.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.MI001642-'a', ITEM-10

DATE OF LATEST ALT.

19-02-2015
DATE OF FIRST ISSUE

AME/SME

1 ROOF SHEET PART

2x452x2033

1
ITEM
NO.

REF. DRGS

RDSO/SPEC C-K201
X5 Cr NI 18 10

14.707

MATL.SPEC.

WT/UNIT
IN KGS

REMARKS

GROUP: 1-6

SURFACE AREA IN Sq.m.: 1.848

WT/ASSY IN Kgs:

ROOF SHEET PART

SCALE
1:20

SSE/D
CHD

P. V. Rao

ALT.
b

ALTD
DRN

Kunti Thakur

S.Bala V.Subramani.

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

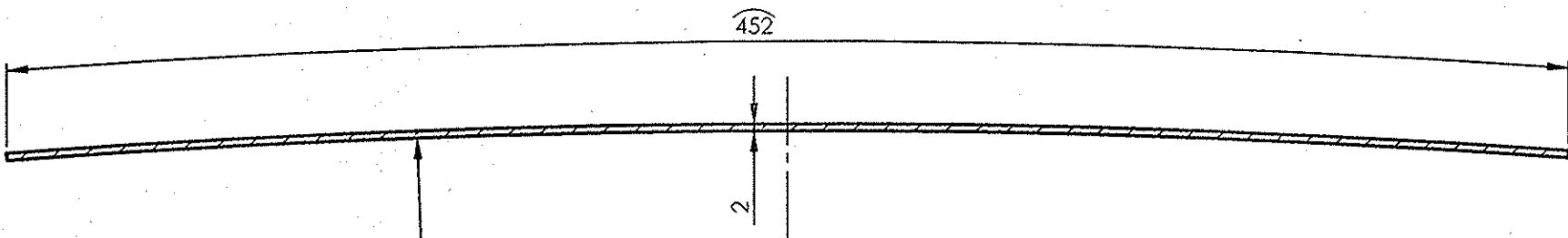
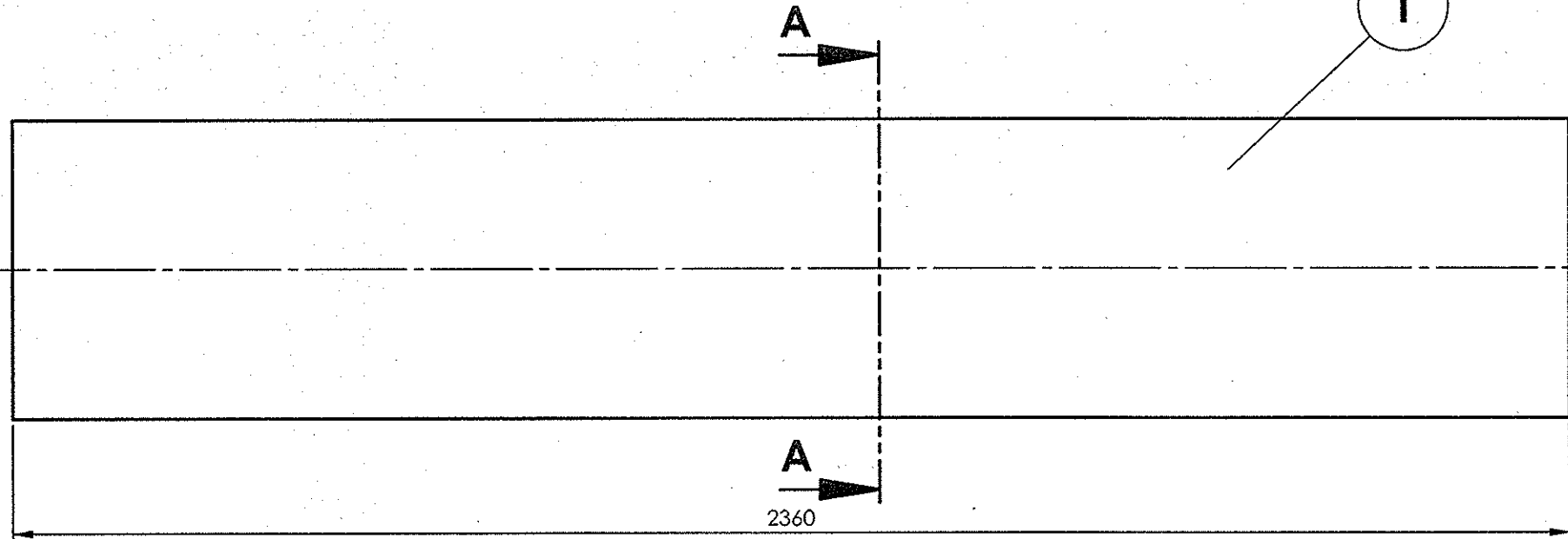
AAB16130

A3


AAB16131

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1 : 2

1	ROOF SHEET PART	2x452x2360	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	17.073	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6			SURFACE AREA IN Sq.m.:2.145			WT/ASSY IN Kgs:	
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani.
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
AAB16131		A3					

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO IC/STD-9-001.
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

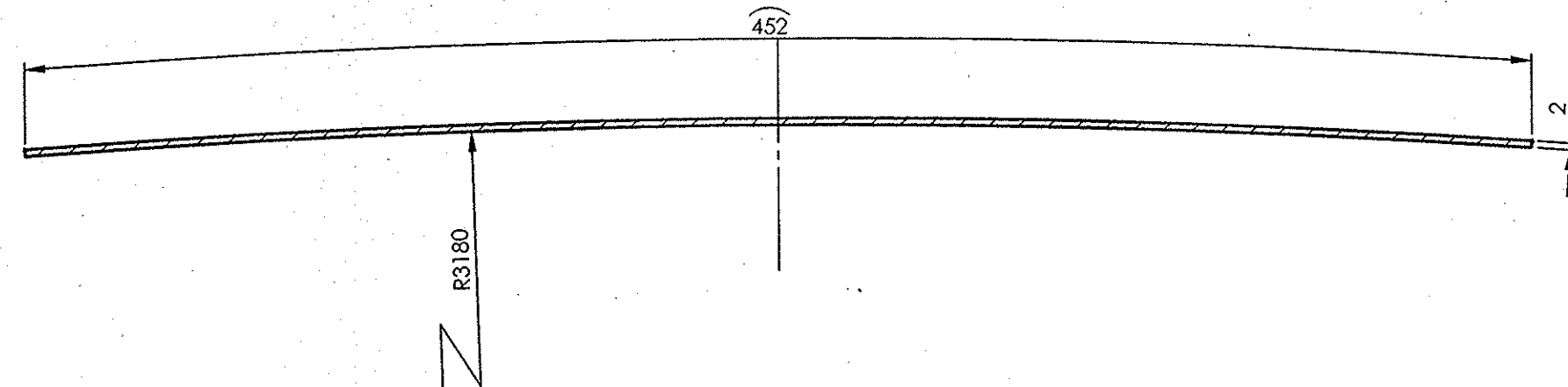
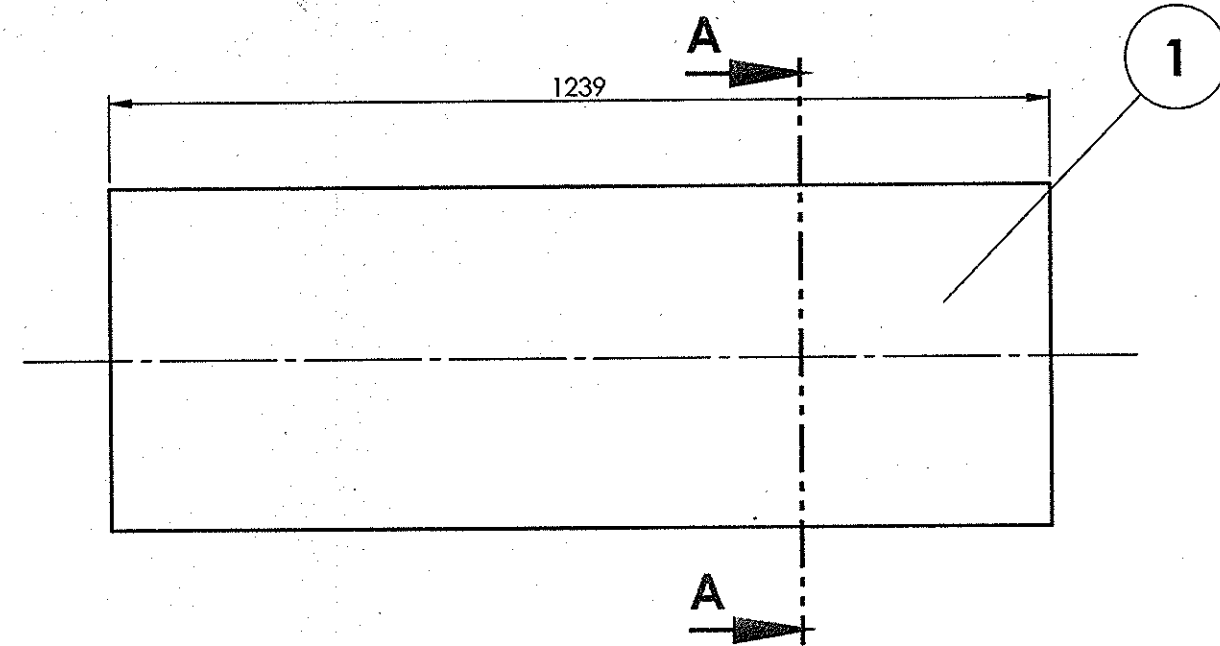
REF.DRG.NO.MI001642

DATE OF LATEST ALT.	05-02-2015	AME/SME
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AAB16132

▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊖8 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE




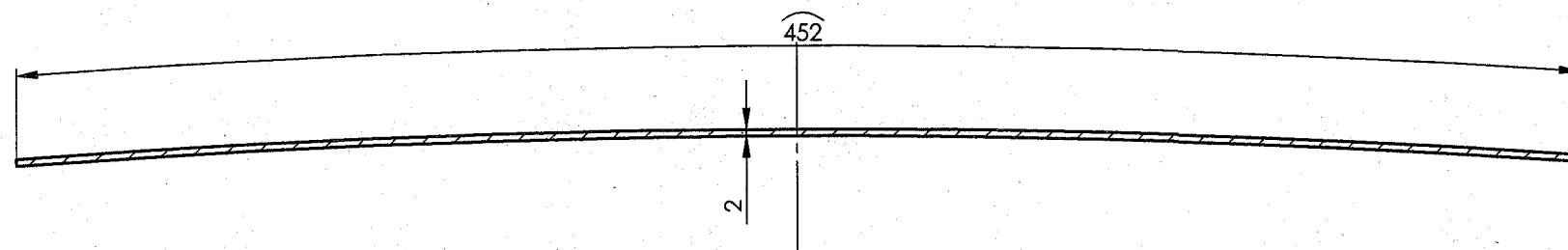
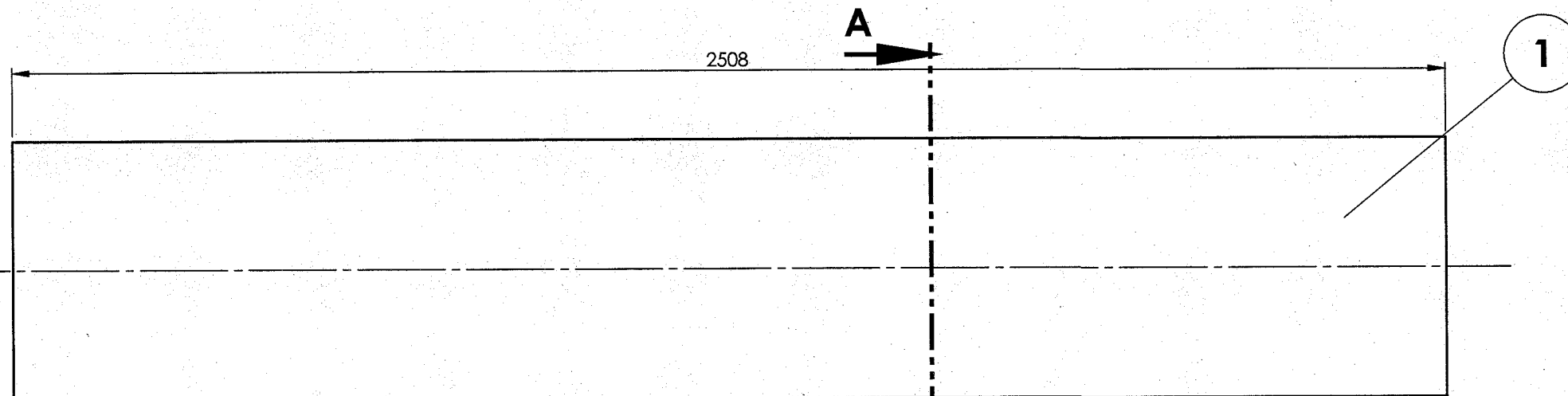
SECTION A-A
SCALE 1 : 2

1	ROOF SHEET PART	2x452x1239	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	8.963	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:1.127			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE 1:10	SSE/D	
						CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAB16132		A3

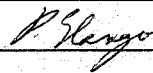
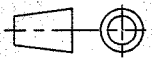
AAB16133

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATL SPEC ALTD FROM RDSO/SPEC C-K201 X2 Cr Ni12 TO RDSO/SPEC C-K201 X5 Cr Ni1810.	



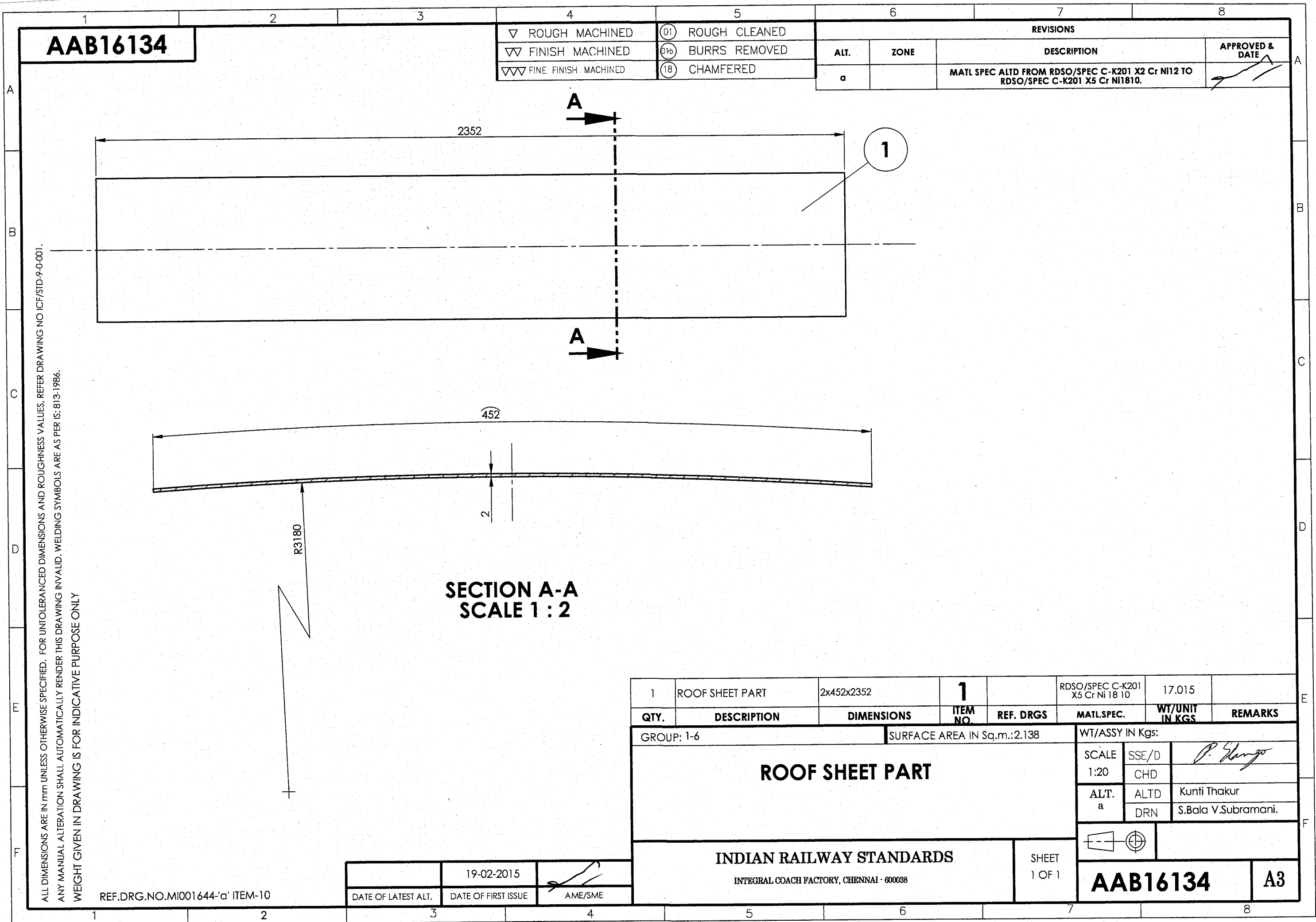
SECTION A-A
SCALE 1 : 2

1	ROOF SHEET PART	2x452x2508	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	18.144	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:2.280			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	Kunti Thakur
					a	DRN.	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAB16133	
							A3

REF.DRG.NO.MI001644-'a' ITEM-8

	19-02-2015	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

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

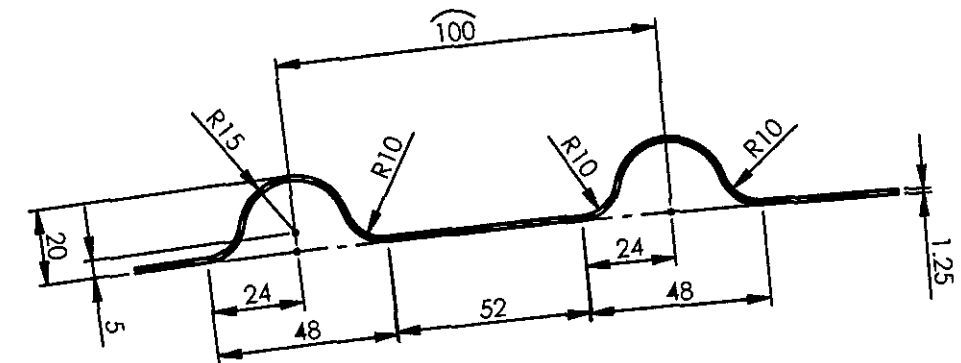
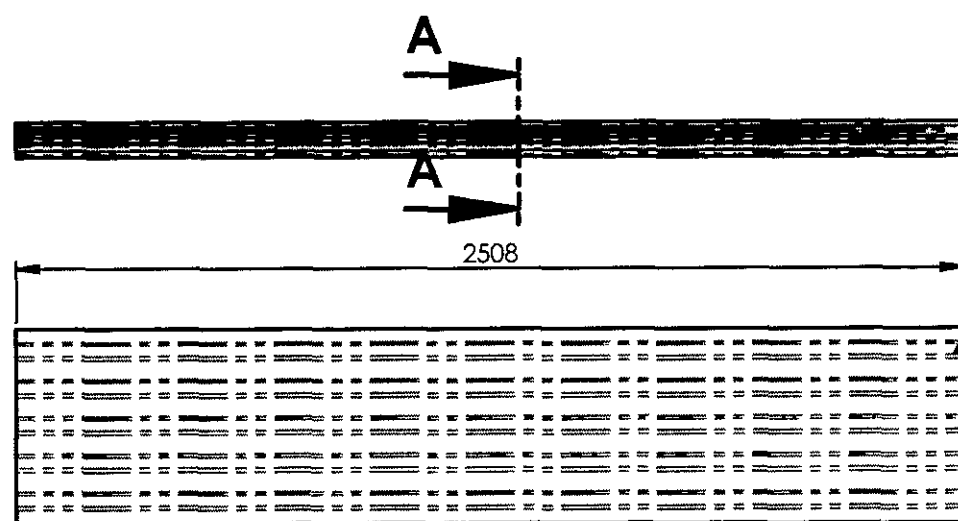
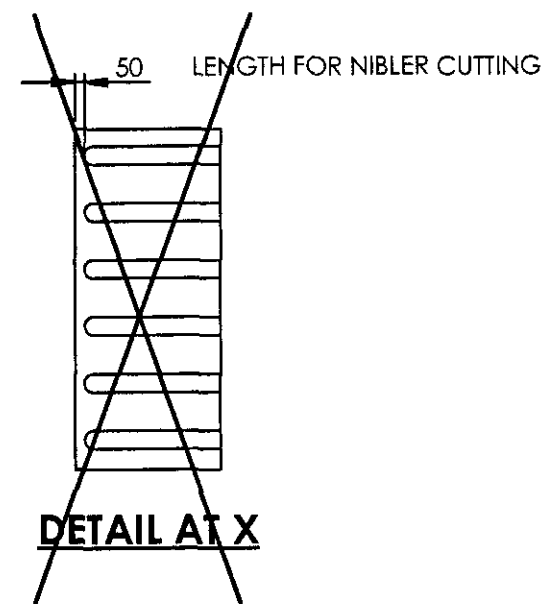


AAB16135

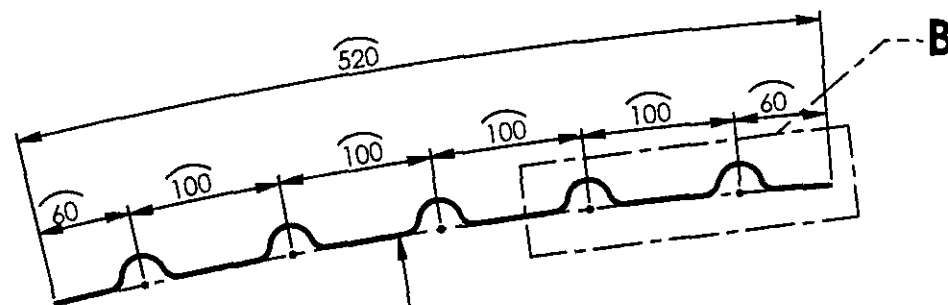
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DETAIL X & NOTE DELETED.	

24/9/24

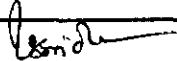
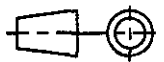
DETAIL B
SCALE 1 : 2

DETAIL AT X

SECTION A-A
SCALE 1 : 5

NOTE:


NIBLER CUTTING IS TO BE DONE ON BENDING LINES UP TO 50MM
BEFORE FLUTES TO BE MADE.

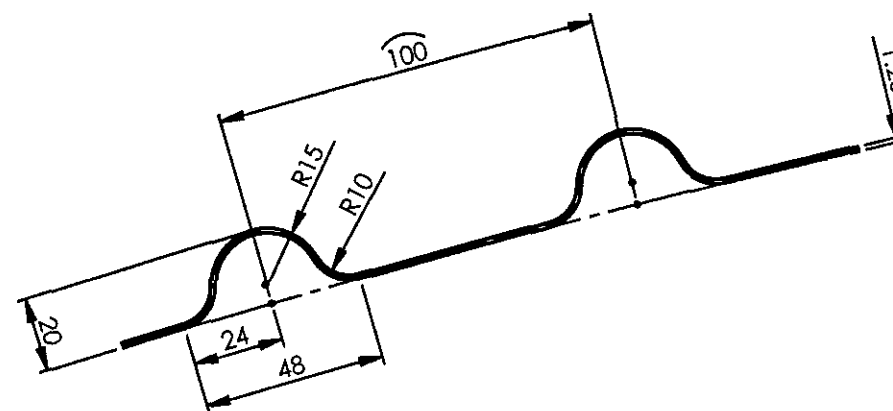
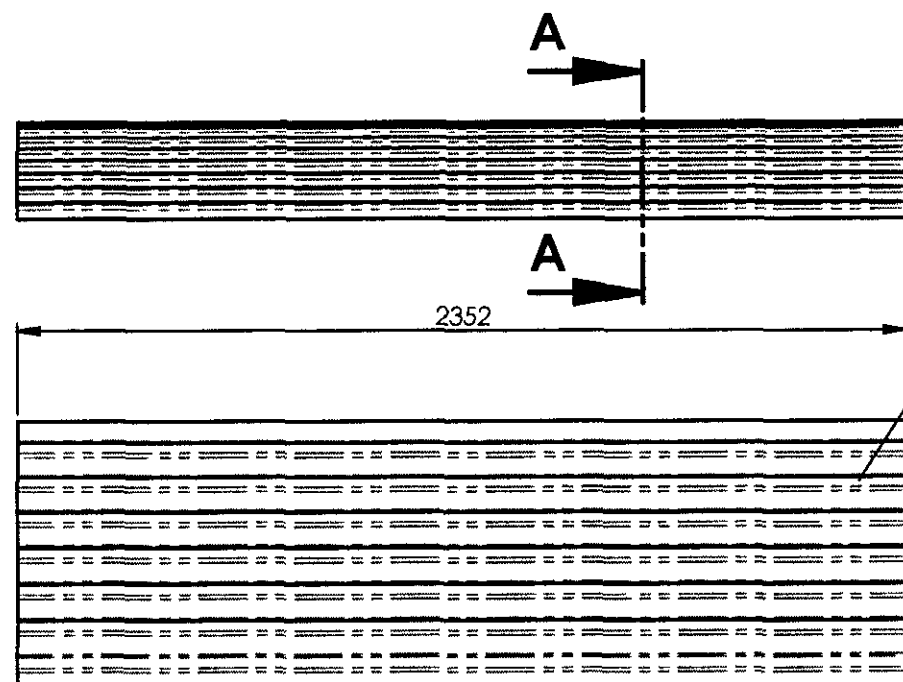
1	ROOF SHEET PART	1.25x603x2510	1		RDSO/SPEC C- K201 X5 Cr Ni 18 10	15.258	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:3.059			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	AMAL GEORGE
					a	DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAB16135		A3

22-02-2024	08-03-2016	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

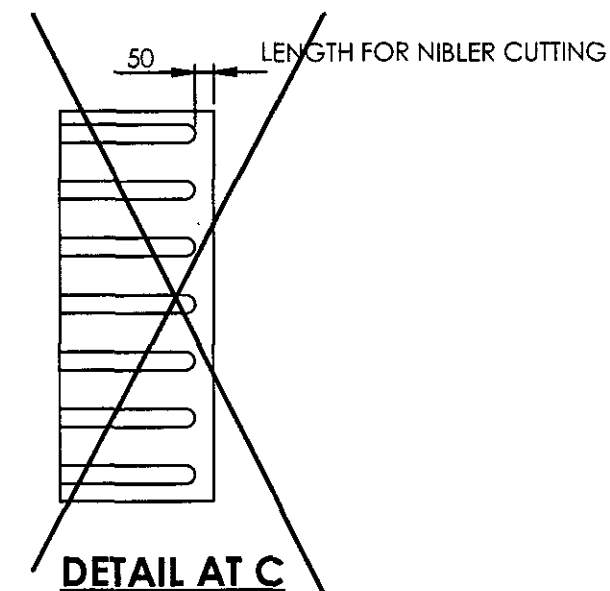
REF.DRG.NO.MI001648

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		RM SIZE ALTD FROM 1.25 x 834 x 2352 TO 1.25 x 857 x 2352. NOTE & DETAIL AT C DELETED. VIEWS UPDATED.	

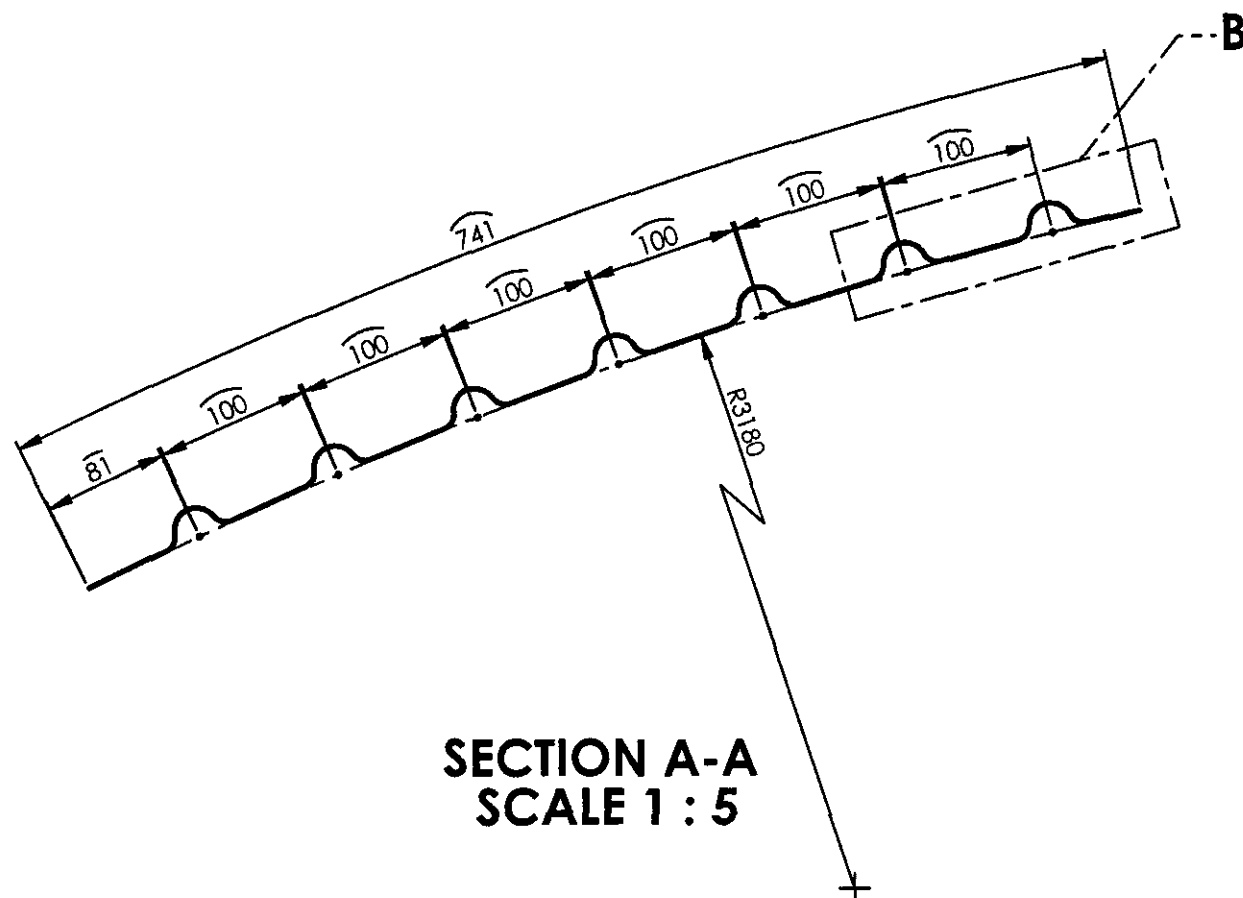


DETAIL B
SCALE 1 : 2




~~NOTE:~~

~~NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50MM
BEFORE FLUTES TO BE MADE.~~



SECTION A-A
SCALE 1 : 5

1	ROOF SHEET PART	1.25x 857 x 2352	1		D50/SPEC C-K201 X5 Cr Ni 18 10	20.336	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:4.075			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	<i>Inside</i>
					1:20	CHD	
					ALT.	ALTD	AMAL GEORGE
					a	DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAB16136		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.MI001645

22-02-2024	19-02-2015	V. Subh
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAB16137

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

①b BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

①8 CHAMFERED

REVISIONS

ALT.

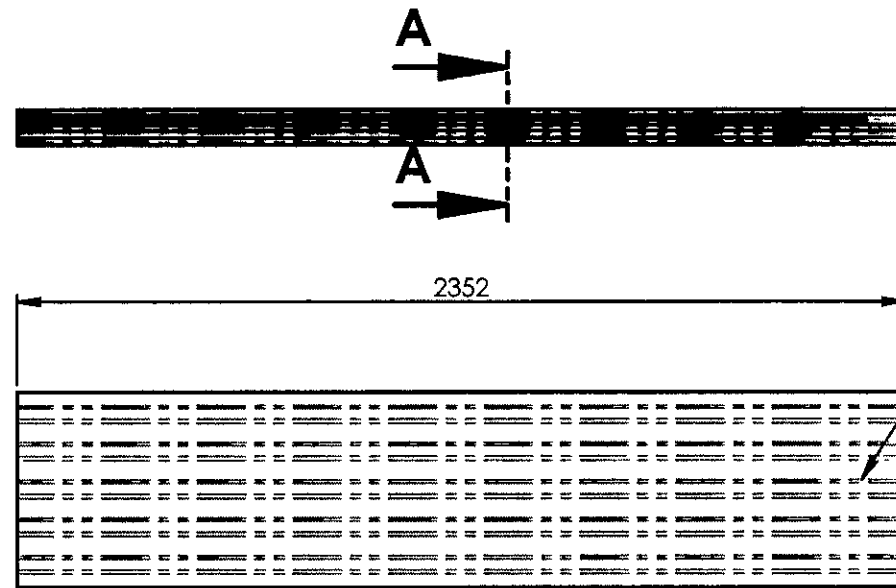
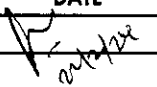
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DESCRIPTION

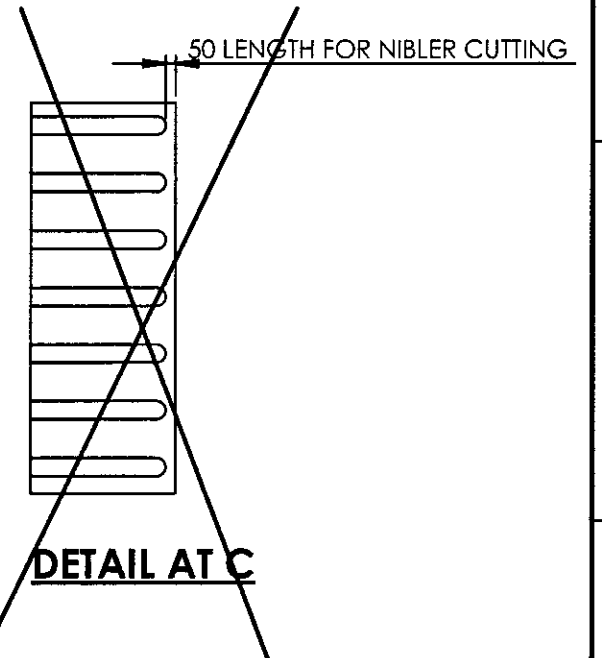
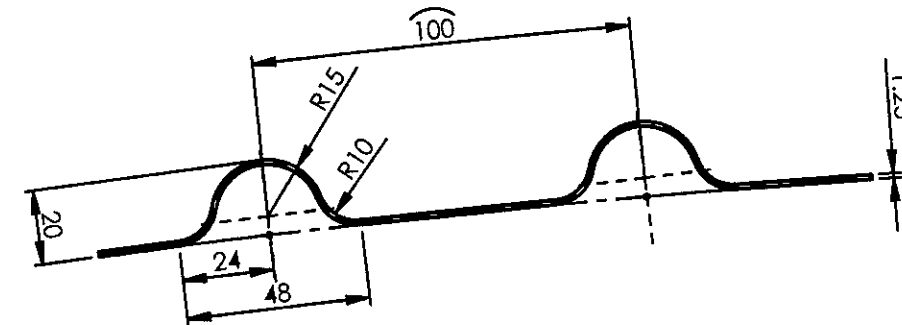
APPROVED &
DATE

a

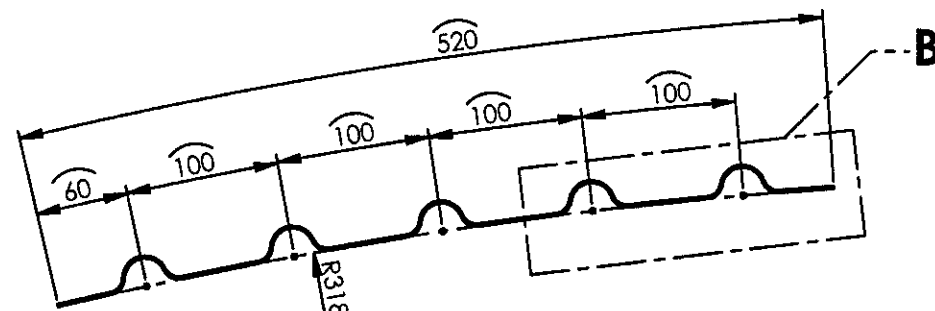
DETAIL C & NOTE DELETED.



1



DETAIL AT C

SECTION A-A
SCALE 1 : 5

NOTE:

NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50MM
BEFORE FLUTES TO BE MADE.

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.MI001648

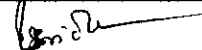
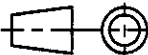
22-02-2024

DATE OF LATEST ALT.

19-02-2015

DATE OF FIRST ISSUE

AME/SME

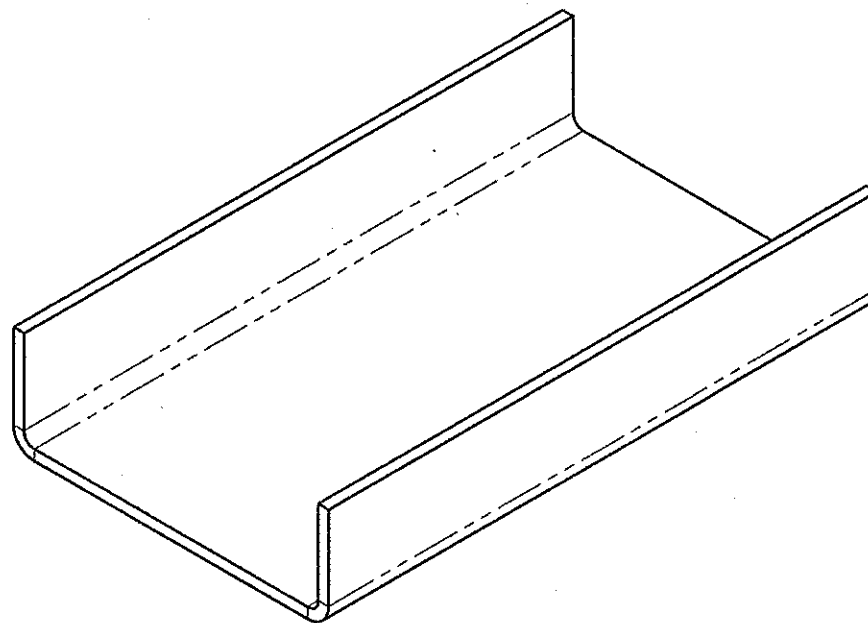
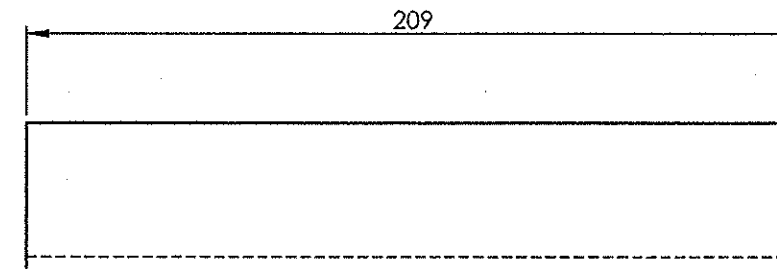
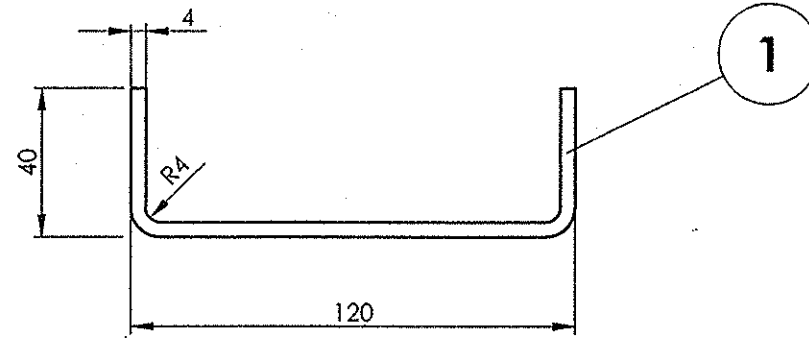
1	ROOF SHEET PART	1.25x603x2352	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	14.309	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:2.869			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	AMAL GEORGE
					2	DRN	S.Bala V.Subramani.
							
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1	AAB16137		A3
INTEGRAL COACH FACTORY, CHENNAI - 600038							

AAB16308

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

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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1	REINFORCEMENT	4x184x209	1		RDSO/SPEC C-K201 X2CrNi12	1.250	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.081			WT/ASSY IN Kgs:		
REINFORCEMENT					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani
					INDIAN RAILWAY STANDARDS		SHEET 1 OF 1
AAB16308							
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 IS: 813-1986.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.3 11012.0.20.200.112

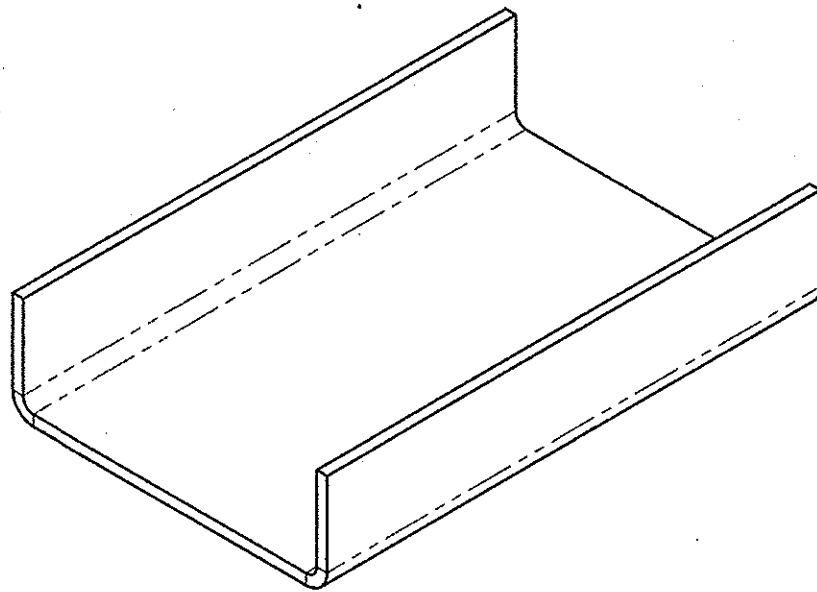
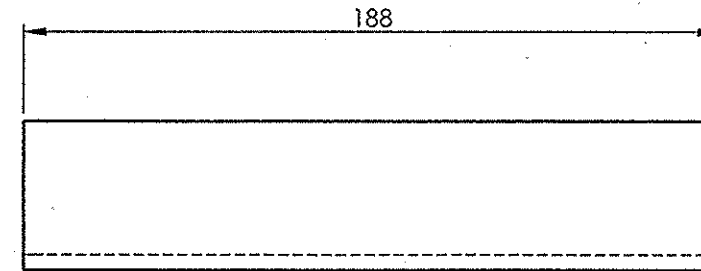
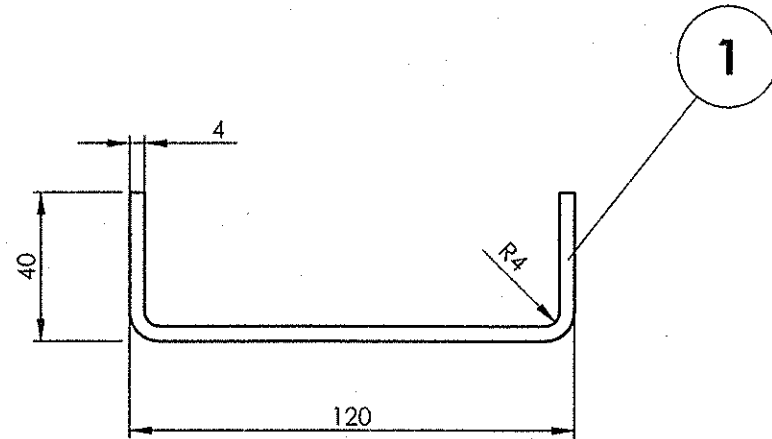
	8 -03-2015	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

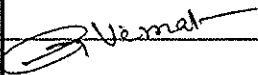
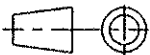
AAB16309

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

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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1	REINFORCEMENT	4x184x188	1		RDSO/SPEC C-K201 X2CrNi12	1.124	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.073			WT/ASSY IN Kgs:		
REINFORCEMENT					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	S.Bala V.Subramani
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAB16309		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.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.3 11012.0.20.200.113

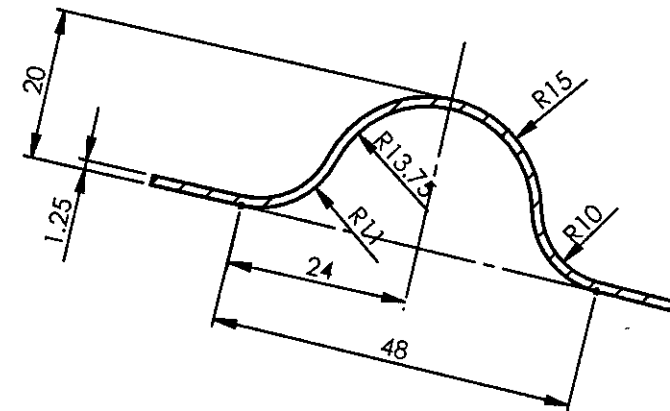
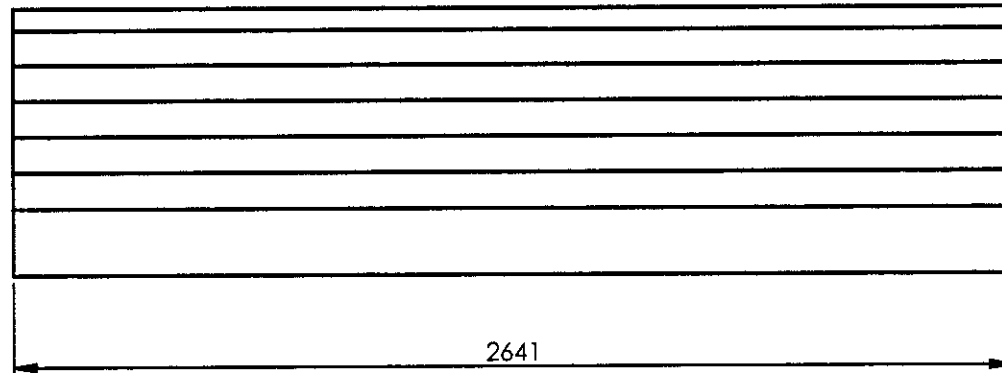
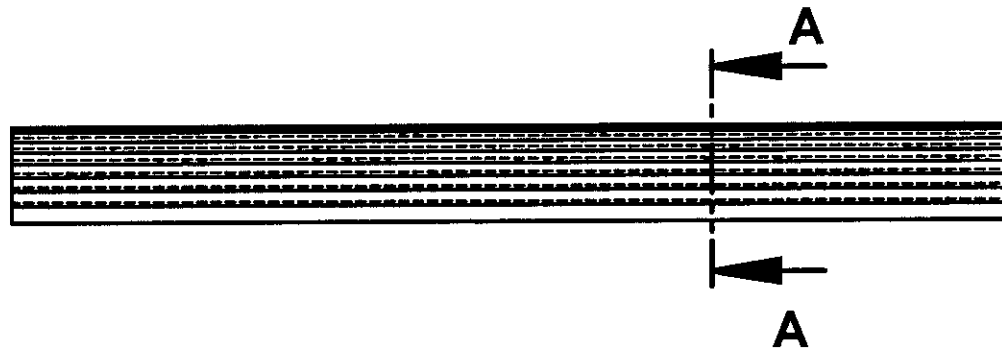
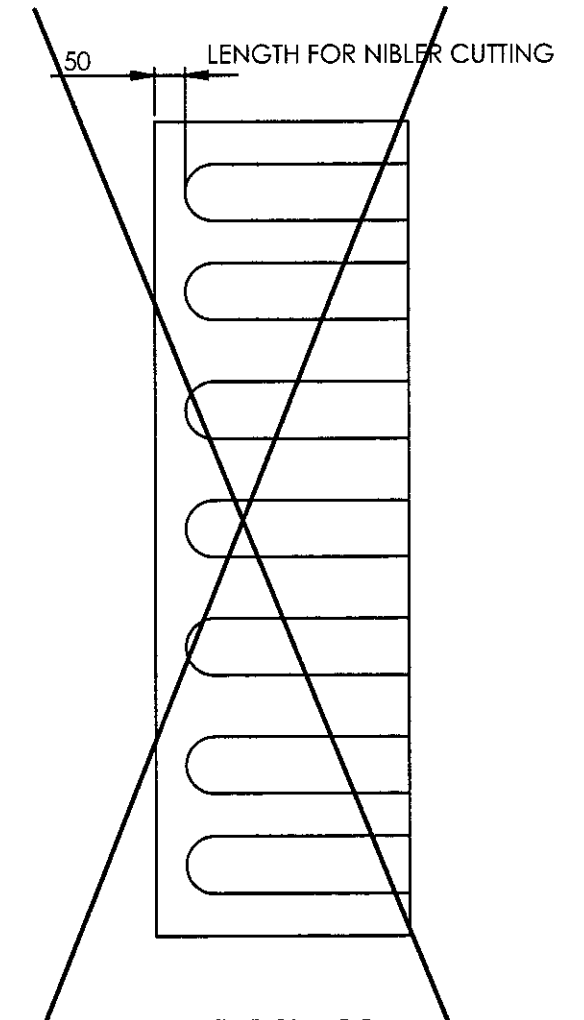
	8-03-2016	R. M.
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAB16311

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

REVISIONS

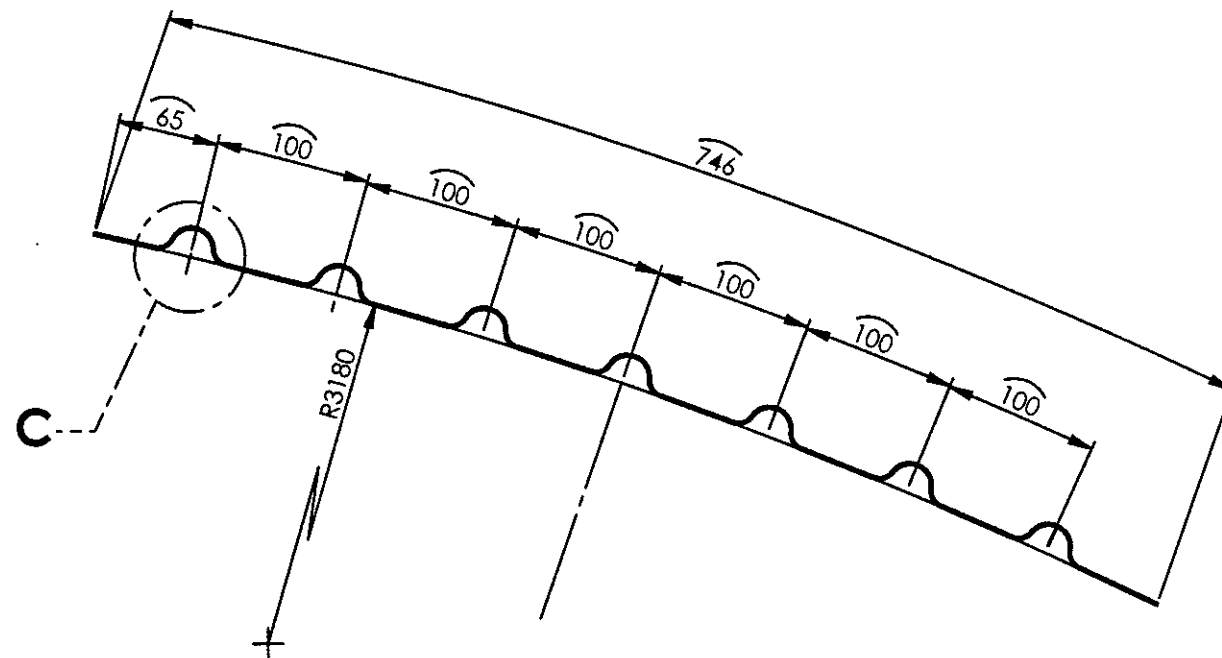
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		BILL OF MATERIALS ADDED.	-Sd-
b		RM SIZE ALTD FROM 1.25 x 855 x 2641 TO 1.25 x 876 x 2641. DETAIL X & NOTES DELETED. VIEWS UPDATED.	

DETAIL C
SCALE 1 : 1

DETAIL X

NOTE:

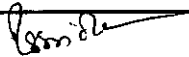
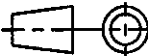
NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50MM
BEFORE FLUTES TO BE MADE.

SECTION A-A
SCALE 1 : 5

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

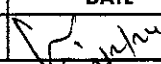
REF.DRG.NO.MI001658

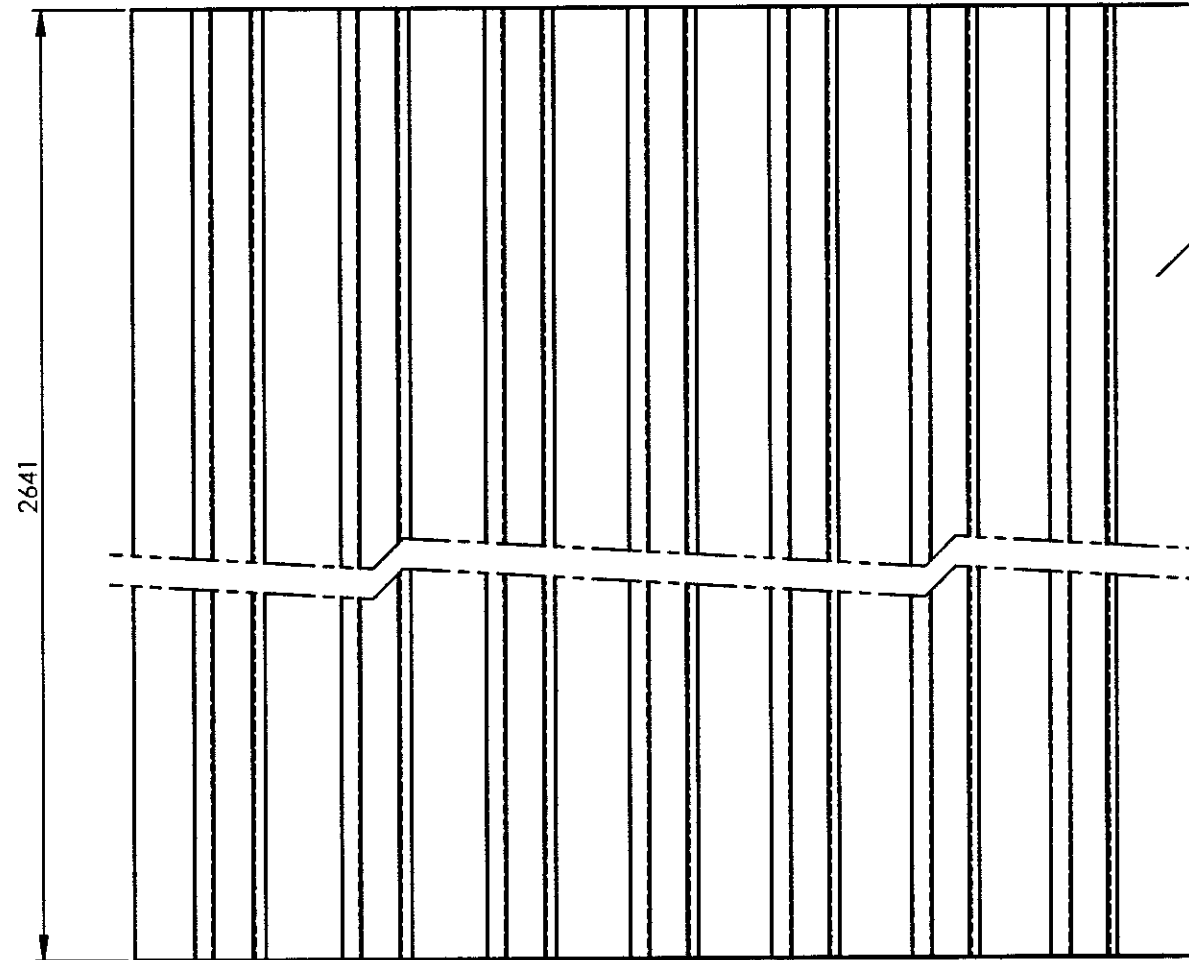
22-02-2024	25-04-2019	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	ROOF SHEET PART	1.25 x 876 x 2641	1		RDSO/SPEC C- K201 X5 Cr Ni 18 10	22.967	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:4.602			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT. b	ALTD	AMAL GEORGE
						DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAB16311

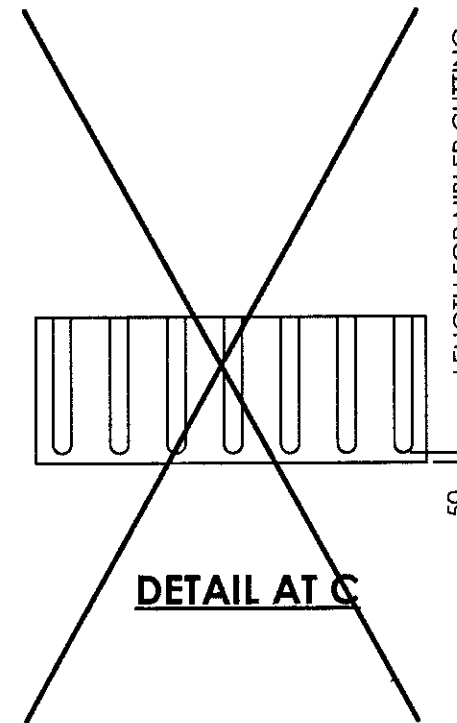
AAB16312

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

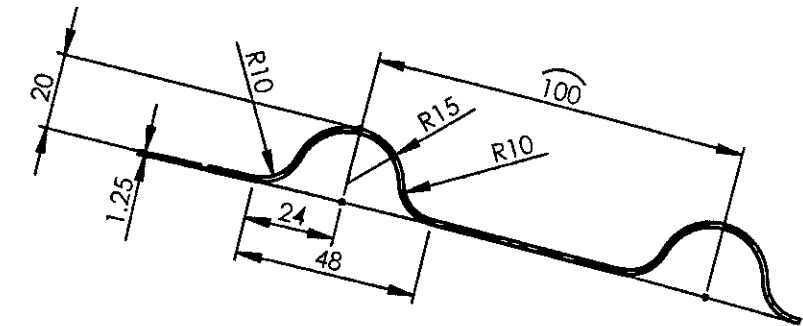
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		RM SIZE ALTD FROM 1.25 x 855 x 2641 TO 1.25 x 876 x 2641. DETAIL AT C & NOTE DELETED. VIEWS UPDATED.	



1



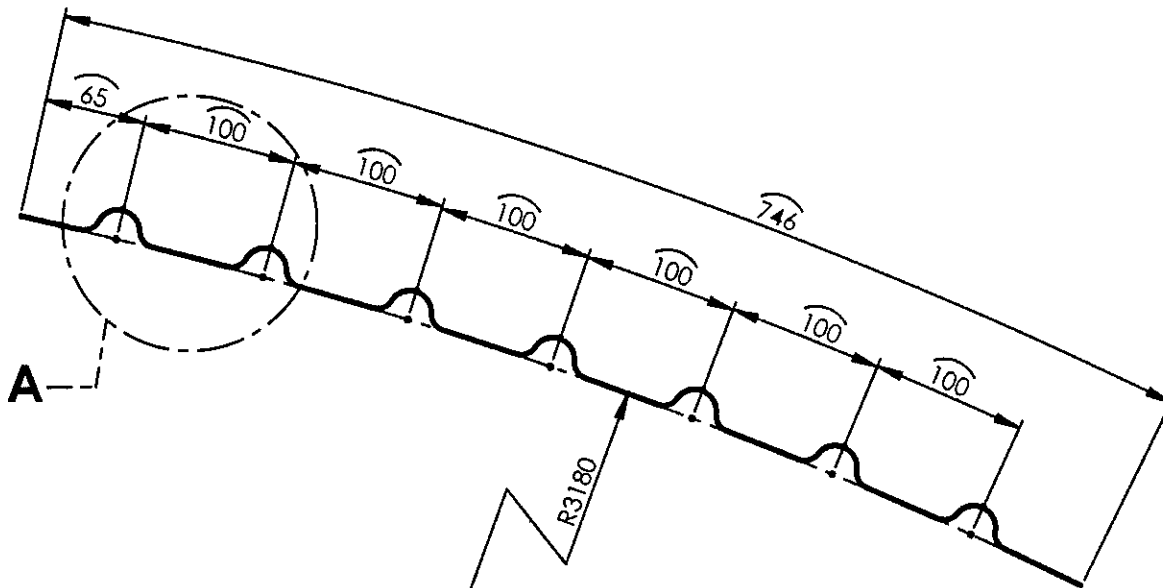
LENGTH FOR NIBLER CUTTING

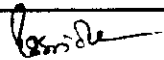
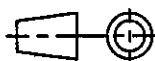


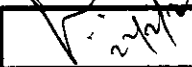
DETAIL A
SCALE 1 : 2

NOTE:

NIBLER CUTTING IS TO BE DONE ON BENDING LINES UPTO 50 mm BEFORE FLUTES TO BE MADE.



1	ROOF SHEET PART	1.25 x 876 x 2641	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	22.967		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6		SURFACE AREA IN Sq.m.: 4.602			WT/ASSY IN Kgs:			
ROOF SHEET PART					SCALE	SSE/D		
					1:1	CHD		
					ALT. a	ALTD	AMAL GEORGE	
						DRN	S.Bala V.Subramani.	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1				
					AAB16312		A3	

22-02-2024	08-03-2016	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

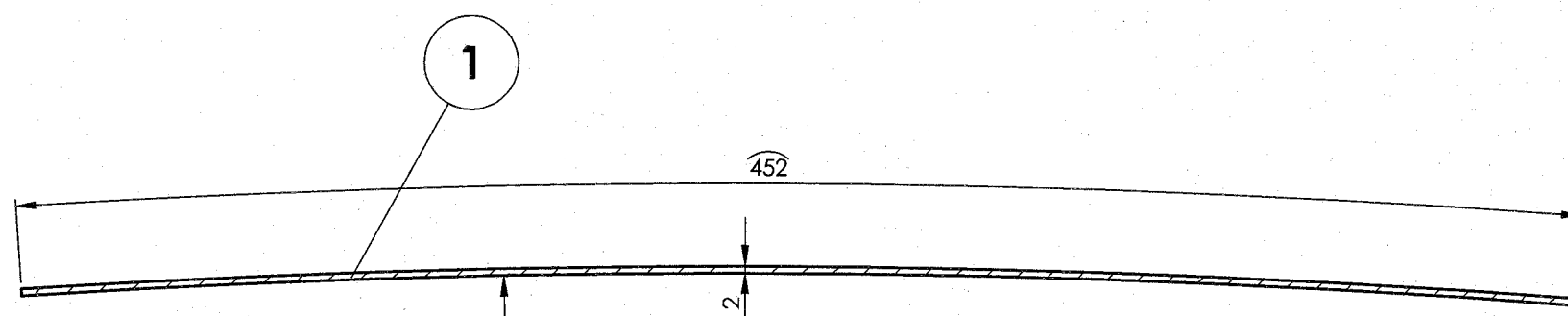
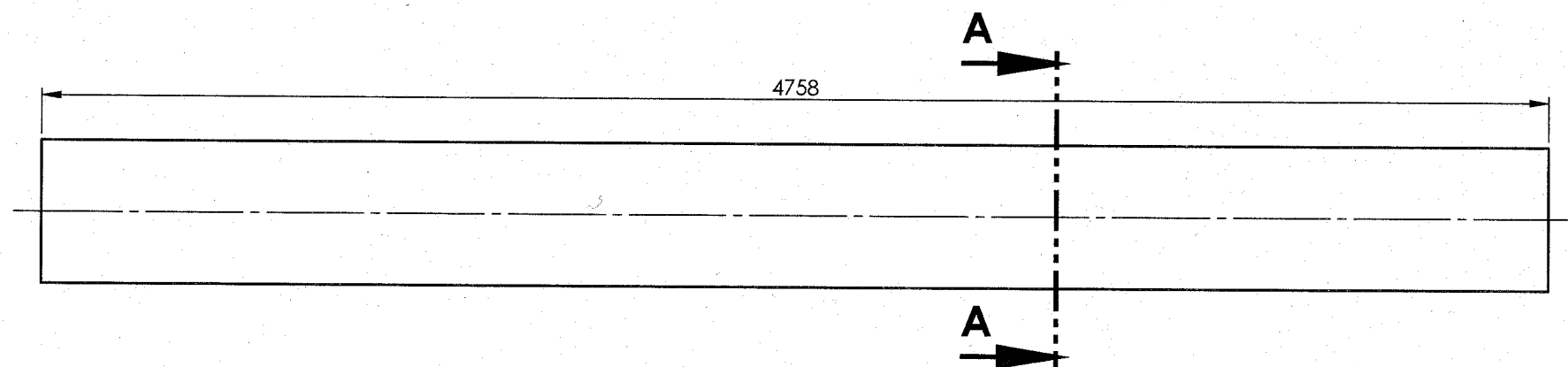
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AAC16823

▽ 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

1	ROOF SHEET PART	2x452x4758	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	34.421	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS

GROUP: 1-6

SURFACE AREA IN Sq.m.:

WT/ASSY IN Kgs:

ROOF SHEET PART

SCALE
1:50SSE/D
CHD

ALT.

ALTD

DRN

S.Bala V.Subramani.

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

AAC16823

A3


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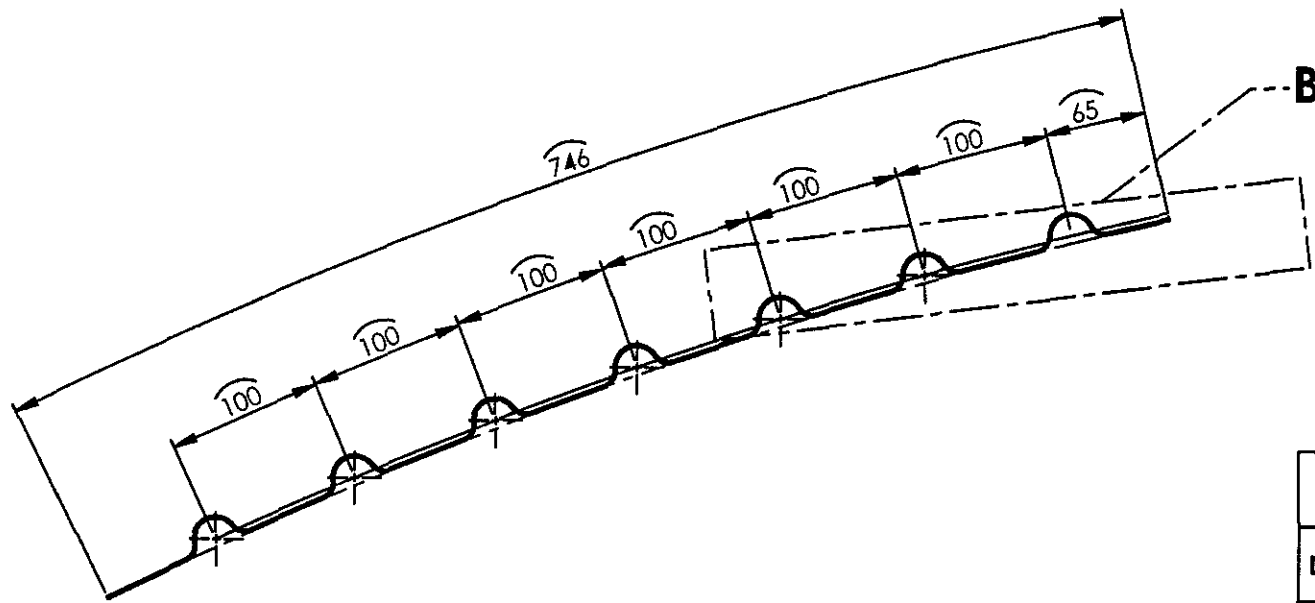
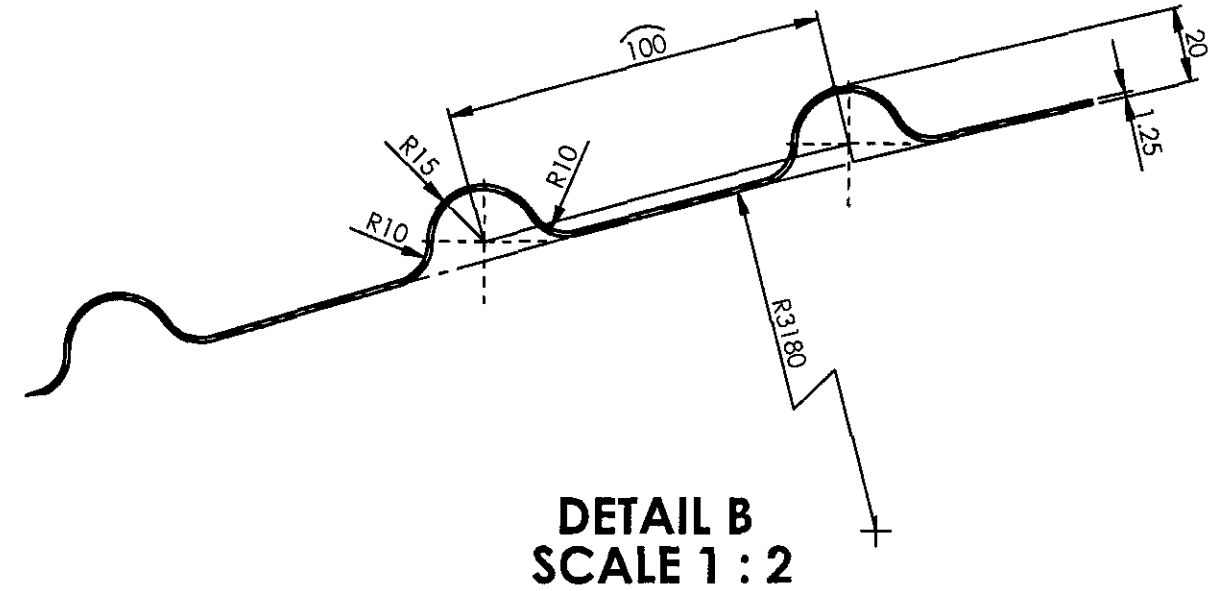
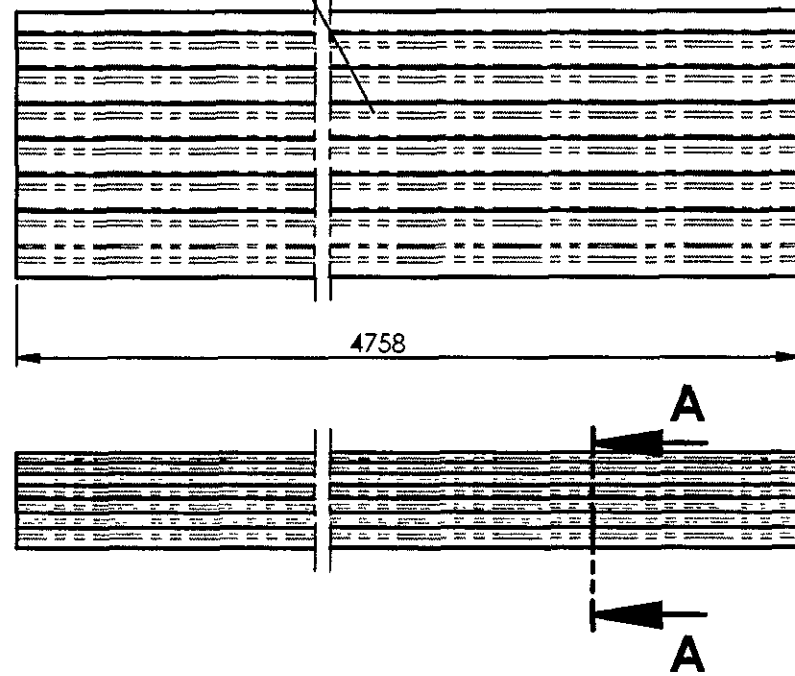
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	24-10-18	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

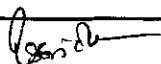
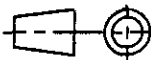
AAC16824

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		RM SIZE ALTD FROM 1.25 x 841 x 4758 TO 1.25 x 862 x 4758. VIEWS UPDATED.	



SECTION A-A
SCALE 1:5

1	ROOF SHEET PART	1.25x862x4758	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	41.377	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:8.289			WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	AMAL GEORGE
					2	DRN	S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAC16824		A3

22-02-2024	24-10-2018	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

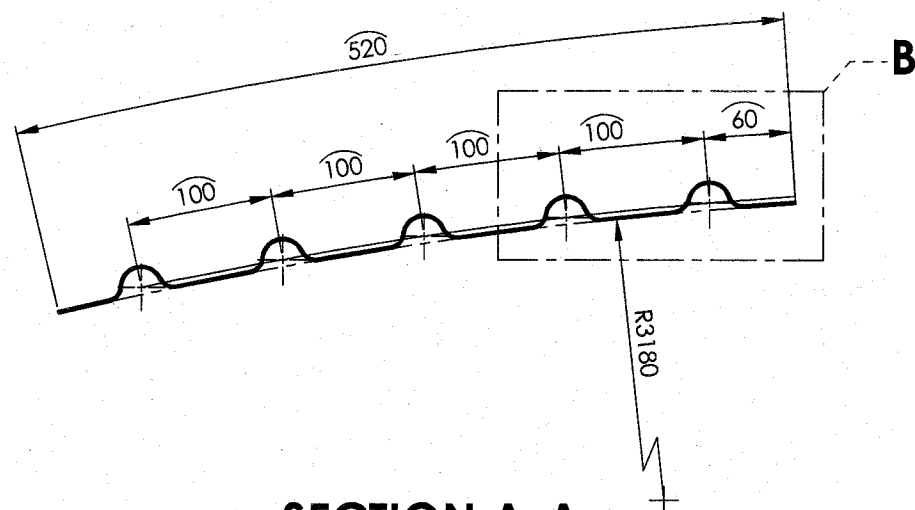
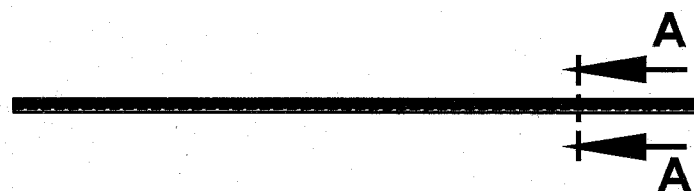
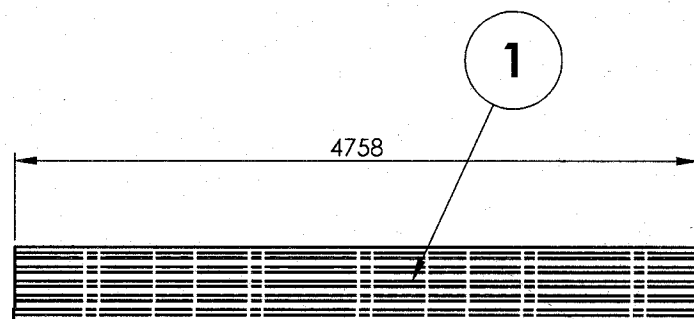
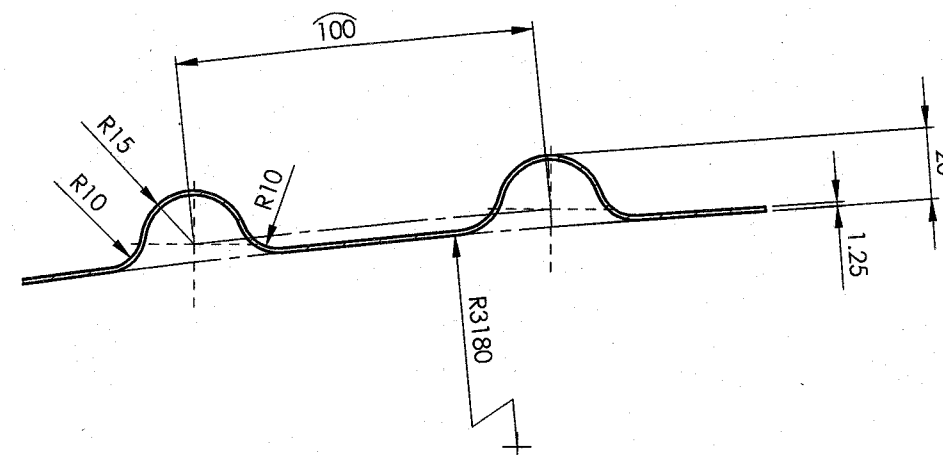
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REF.DRG.NO.

AAC16839

▽ 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 : 5DETAIL B
SCALE 1 : 2

1	ROOF SHEET PART	1.25x603x4758	1		RDSO/SPEC C-K201 X5 Cr Ni 18 10	28.919	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6			SURFACE AREA IN Sq.m.:5.797		WT/ASSY IN Kgs:		
ROOF SHEET PART					SCALE	SSE/D	
					1:50	CHD	
					ALT.	ALTD	
					DRN		S.Bala V.Subramani.
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600088					AAC16839		
					A3		

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REF.DRG.NO.

	24-10-18	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME