

53815009

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED

①b BURRS REMOVED

①B CHAMFERED

REVISIONS

ALT.

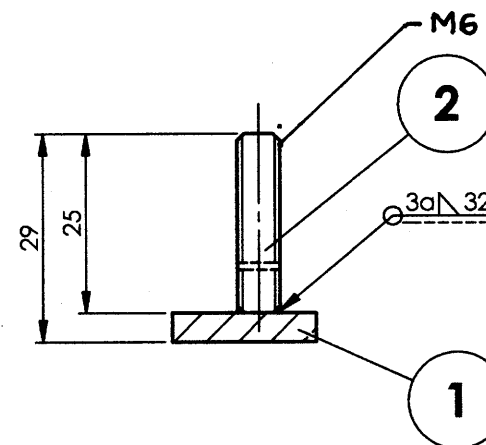
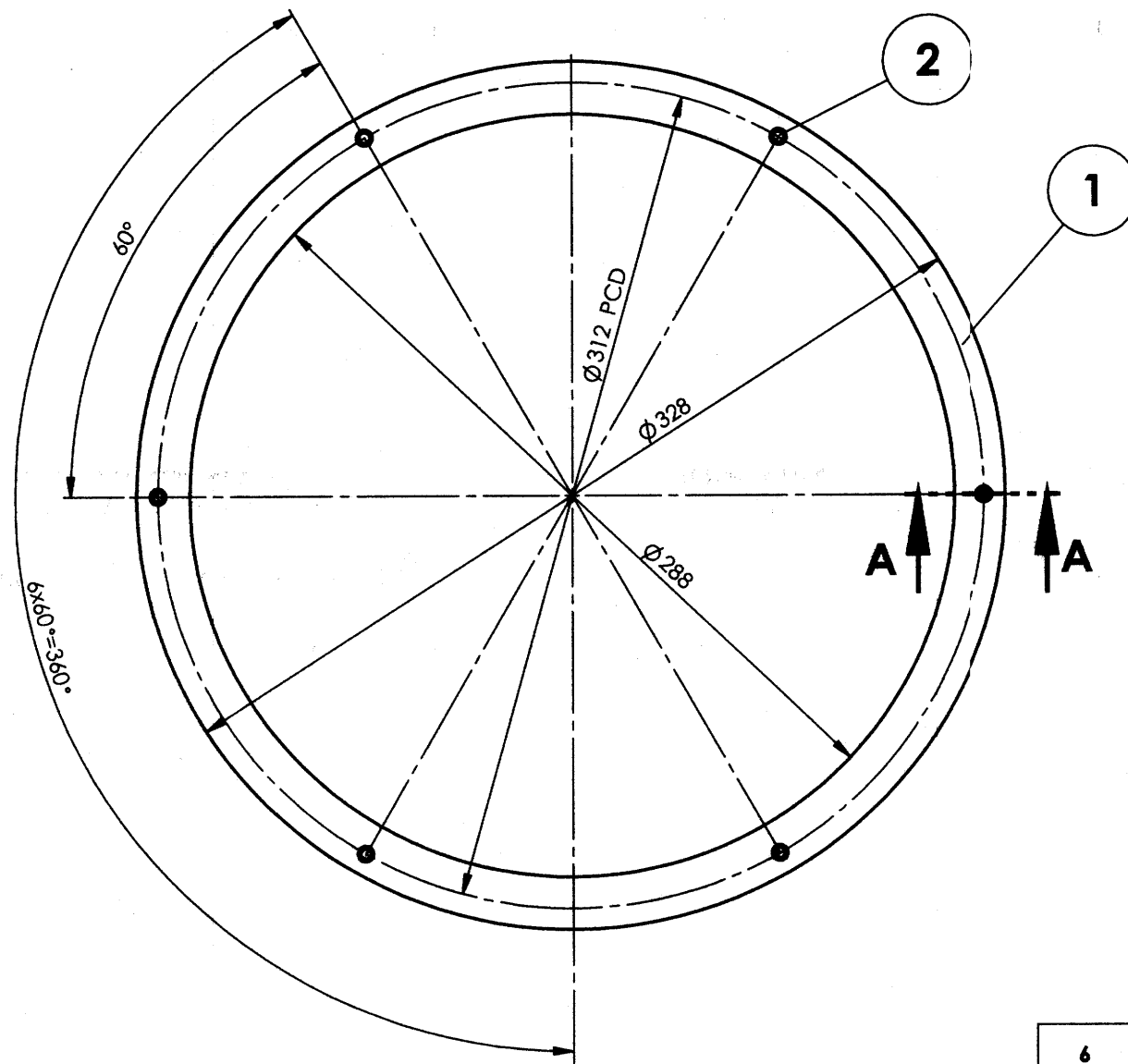
ZONE

DESCRIPTION

APPROVED &
DATE

a

STUD DIMENSION CHANGED FROM M8 TO M6 IN SECTION A-A.

SECTION A-A
SCALE 1 : 1

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

REF.DRG.NO.3 11012.0.20.120.008

30-10-2020

DATE OF LATEST ALT.

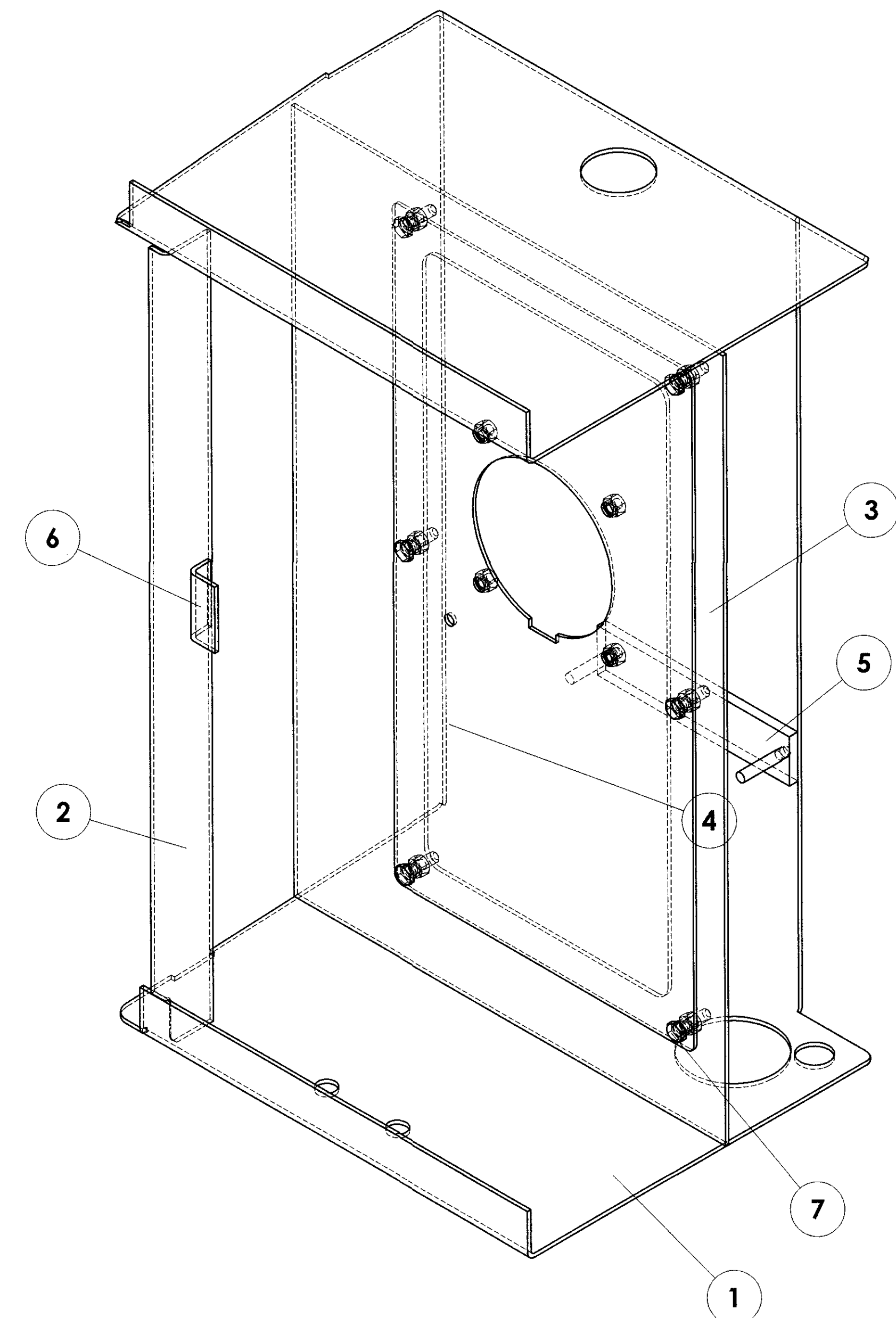
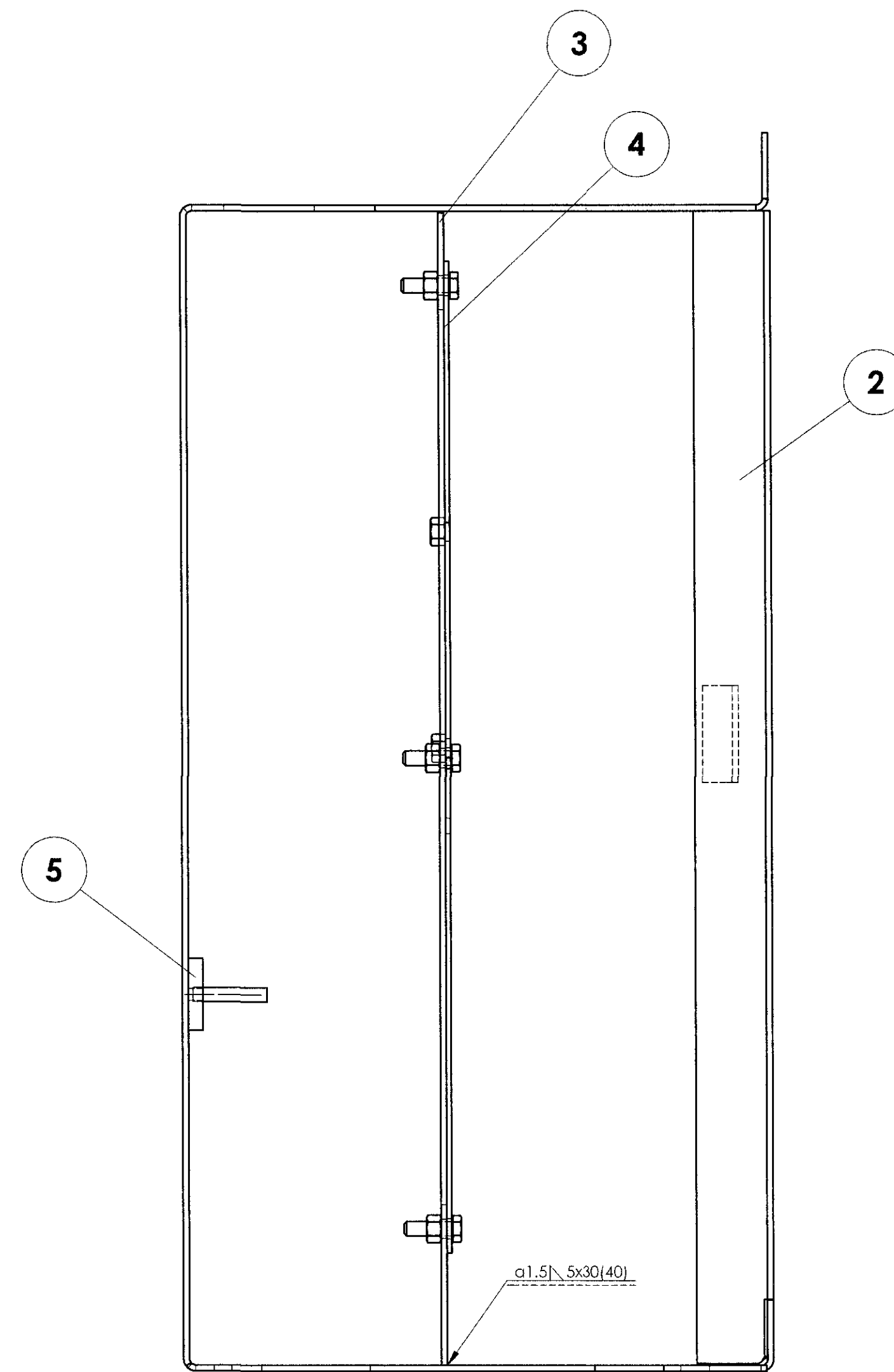
06-09-2014

DATE OF FIRST ISSUE

AME/SME

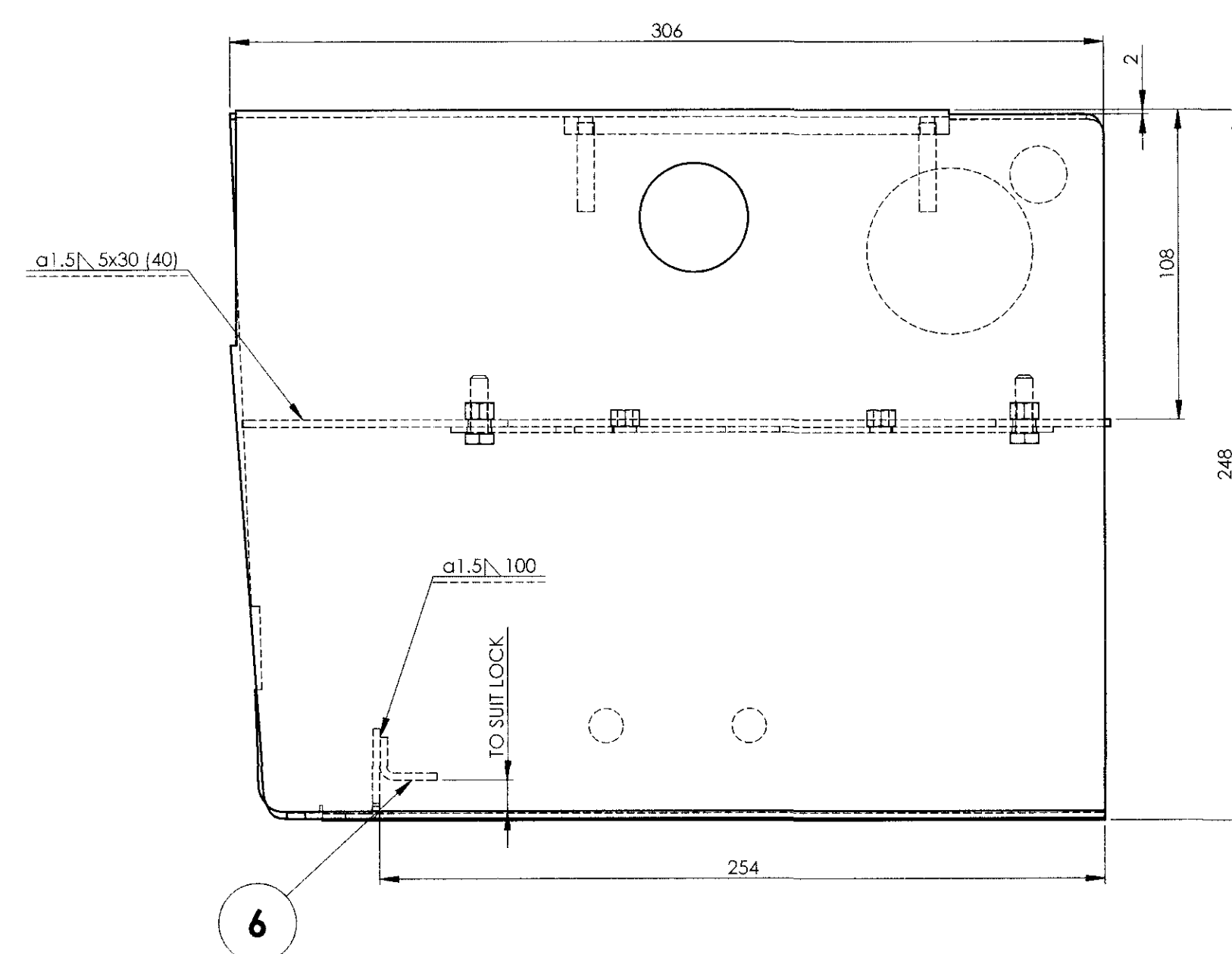
6	STUD	A M6x25	2	IS 1862			
1	INTERMEDIATE RING		1	AAA15590		0.619	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 End Construction				SURFACE AREA IN Sq.m.:0.049		WT/ASSY IN Kgs:	
INTERMEDIATE RING COMPLETE					SCALE 1:2.5	SSE/D CHD	
					ALT. a	ALTD DRN	AMAL B. Saravanan
INDIAN RAILWAY STANDARDS					LWLRRM		
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		
53815009						A3	

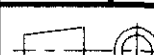
▽ ROUGH MACHINED	(01) ROUGH CLEANED	REVISIONS			
▽▽ FINISH MACHINED	(11b) B.JRRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
▽▽▽ FINE FINISH MACHINED	(18) CHAMFERED	a		ITEM-6 LOCATION REVISED.	N F-X 2/11/12



NOTE:

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
5. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.



6	HEXAGON HEAD SCREW	IS 1364 (Part-2)/ISO 4017 - M6 x 20-A2-70	7	IS:1364 (PART-2)	IS:1367 (P-14) A2-70			
1	STOP		6	AAA15193		0.025		
1	FIXING BRACKET		5	58115006		0.194		
1	COVERING SHEET COMPLETE		4	58115005		1.271		
1	BRACKET COMPLETE.		3	58115014		1.654		
1	ANGLE SUPPORT		2	AAA15431		0.377		
1	BRACKET		1	AAA15428		5.568		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DGS.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: 1-5 End Construction		SURFACE AREA IN Sq.m.: 0.960			WT/ASSY IN Kgs: 9.449			
BRACKET COMPLETE					SCALE	SSE/D	<i>Pandurangabhe</i>	
					1:2	CHD		
					ALT. a	ALTD	H. Ishath Ahamed	
						DRN	B.SARAVANAN	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					LGS/EOG	58115004		
				SHEET	A1			
				1 OF 1				

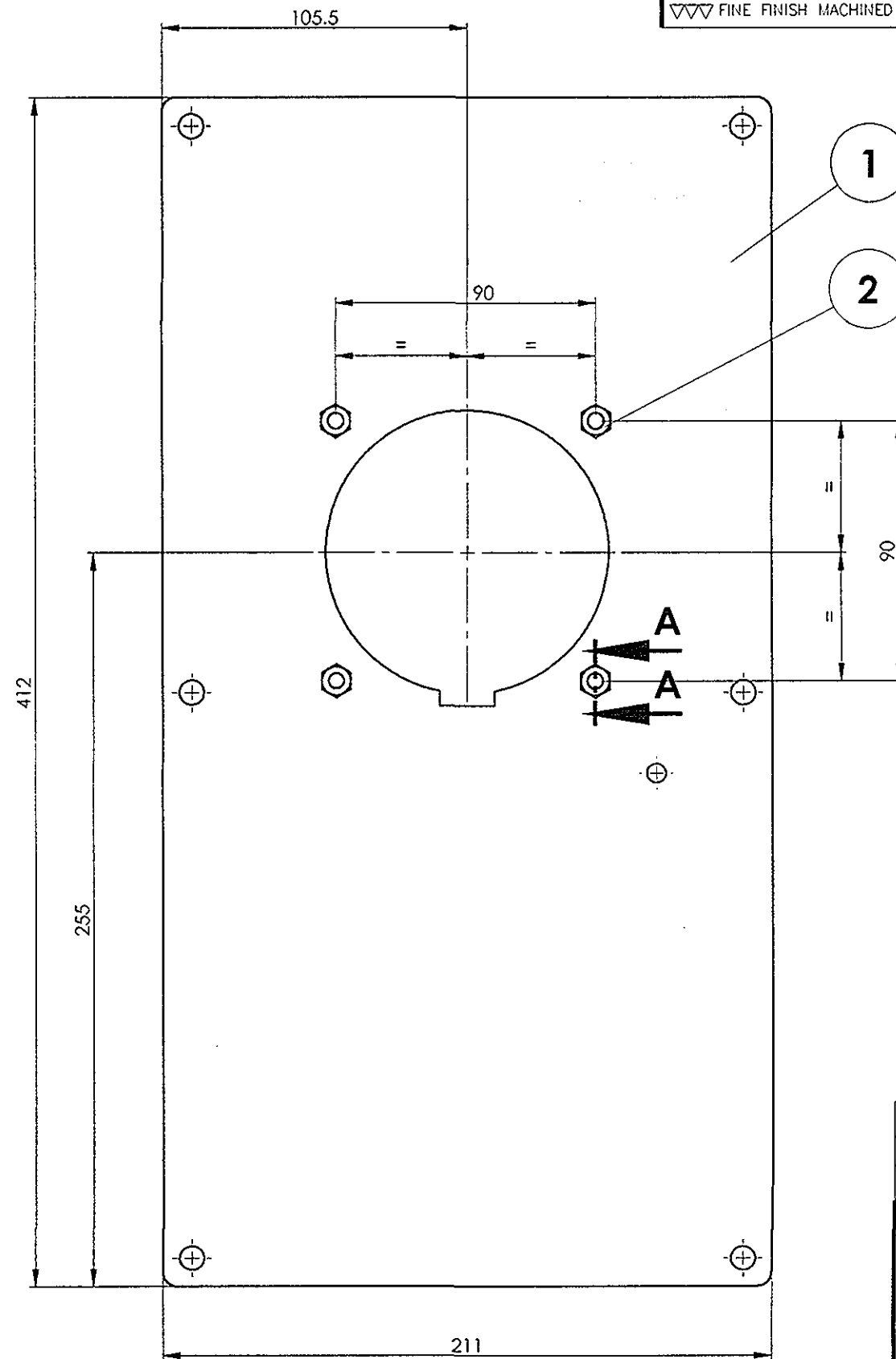
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. CF/STD-9-0001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS813-1986.

REF.DRG.NO.

58115005

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

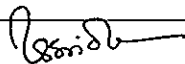
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A SCALE 1 : 1

NOTE:

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
5. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.

4	HEXAGON NUT	IS:1364(PART-3)/ISO 4032-M6-A2-70	2	IS:1364	IS:1367 (P-14) A2- 70		
1	SHEET		1	AAA15429		1.259	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.164			WT/ASSY IN Kgs:1.587		
COVERING SHEET COMPLETE FOR BULK SUPPLY MOUNTING ON LHB/EOG COACHES.					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
					DRN	B.SARAVANAN	
					INDIAN RAILWAY STANDARDS		SHEET 1 OF 1
INTEGRAL COACH FACTORY, CHENNAI - 600038					58115005		A3

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ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

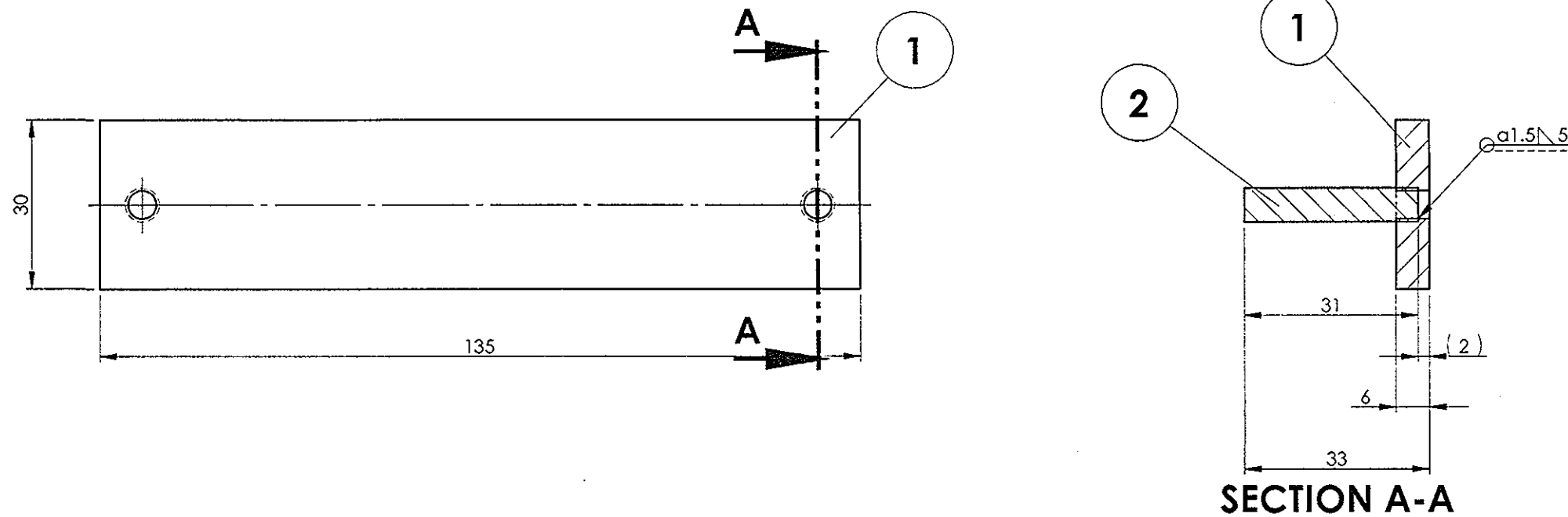
REF.DRG.NO.3 10113.0.20.120.183_BR

DATE OF LATEST ALT.	28 -03-2013	AME/SME
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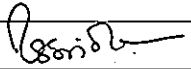
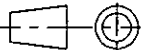
58115006

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

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			

**NOTE:**

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
5. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.

2	STUD	A M6x25 IS:1862 P-8.8	2	IS 1862			
1	BRACKET		1	AAA15430		0.193	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.011			WT/ASSY IN Kgs:0.193		
FIXING BRACKET (RH)					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	
						DRN	B.SARAVANAN
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							LGS/EOG
SHEET 1 OF 1					58115006		A3

REF.DRG.NO. 3 10113.0.20.120.035

	28 -03-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

58115014

4		5		6		7		8	
▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS					
▽▽ FINISH MACHINED		①① BURRS REMOVED		ALT.	ZONE	DESCRIPTION		APPROVED & DATE	
▽▽▽ FINE FINISH MACHINED		①①① CHAMFERED							

1

2

30

196 ±0.2

196 ±0.2

83

191 ±0.2

A

A

1

2

α1.5 3x7

SECTION A-A
SCALE 1 : 2

NOTE:

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
5. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.

6	HEXAGON NUT	IS:1364(PART-3)/ISO 4032-M6-A2-70	2	IS:1364	IS:1367 (P-14) A2-70		
1	BRACKET		1	AAA15433		1.636	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION				SURFACE AREA IN Sq.m.:0.173		WT/ASSY IN Kgs:1.654	
BRACKET COMPLETE.						SCALE	SSE/D
						1:5	CHD
						ALT.	ALTD
						DRN	B.SARAVANAN
INDIAN RAILWAY STANDARDS						SHEET 1 OF 1	
INTEGRAL COACH FACTORY, CHENNAI - 600038						58115014	
						A3	

REF.DRG.NO.3 10113.0.20.120.032_A

28 -03-2013

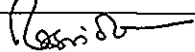
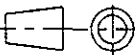
AME/SME

DATE OF LATEST ALT.

DATE OF FIRST ISSUE

DATE

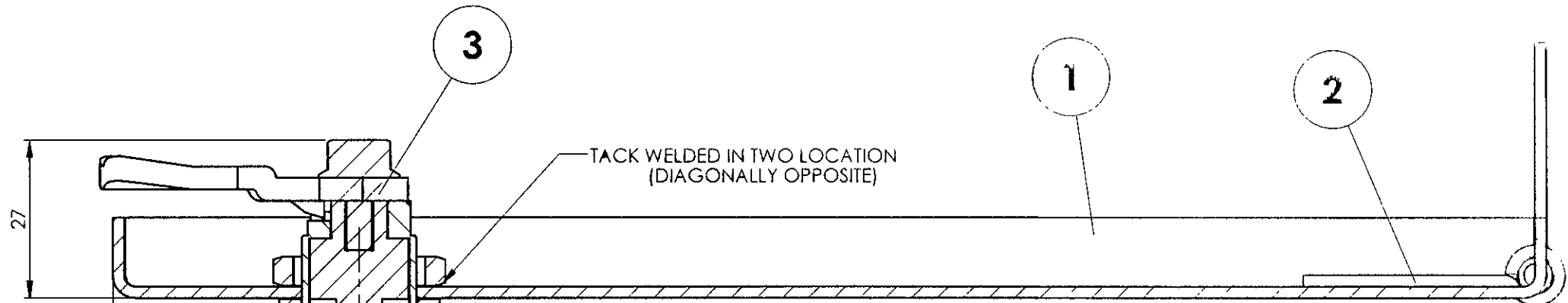
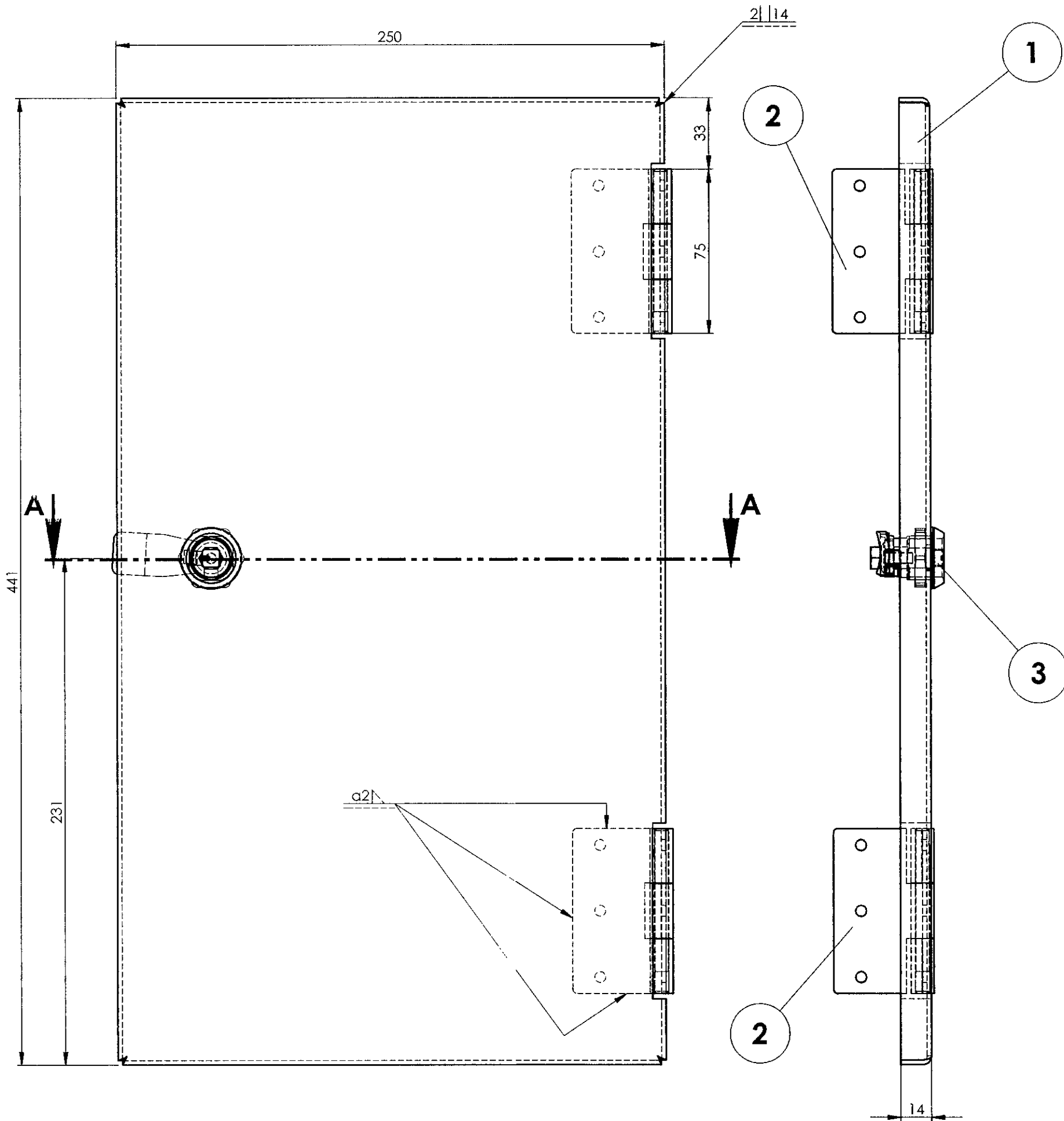
1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
5. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.

6	HEXAGON NUT	IS:1364(PART-3)/ISO 4032-M6-A2-70	2	IS:1364	IS:1367 (P-14) A2- 70		
1	BRACKET		1	AAA15433		1.636	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.173			WT/ASSY IN Kgs:1.654		
BRACKET COMPLETE.					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	B.SARAVANAN
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	 LGS/EOG		
					58115014		A3

58115015

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		REF. DRG. DELETED AND REMARK ALTD FOR ITEM-3.	SA. 04-2019
b		ITEM-4 AND NOTE-7&8 ADDED. ITEMS-1,2,3 & NOTE-6 REVISED.	SA. 25-06-2020
c		ITEM-4 & NOTE-8 DELETED. NOTE-6 & 7 REVISED.	11/2/24



SECTION A-A
SCALE 1 : 1

NOTE:

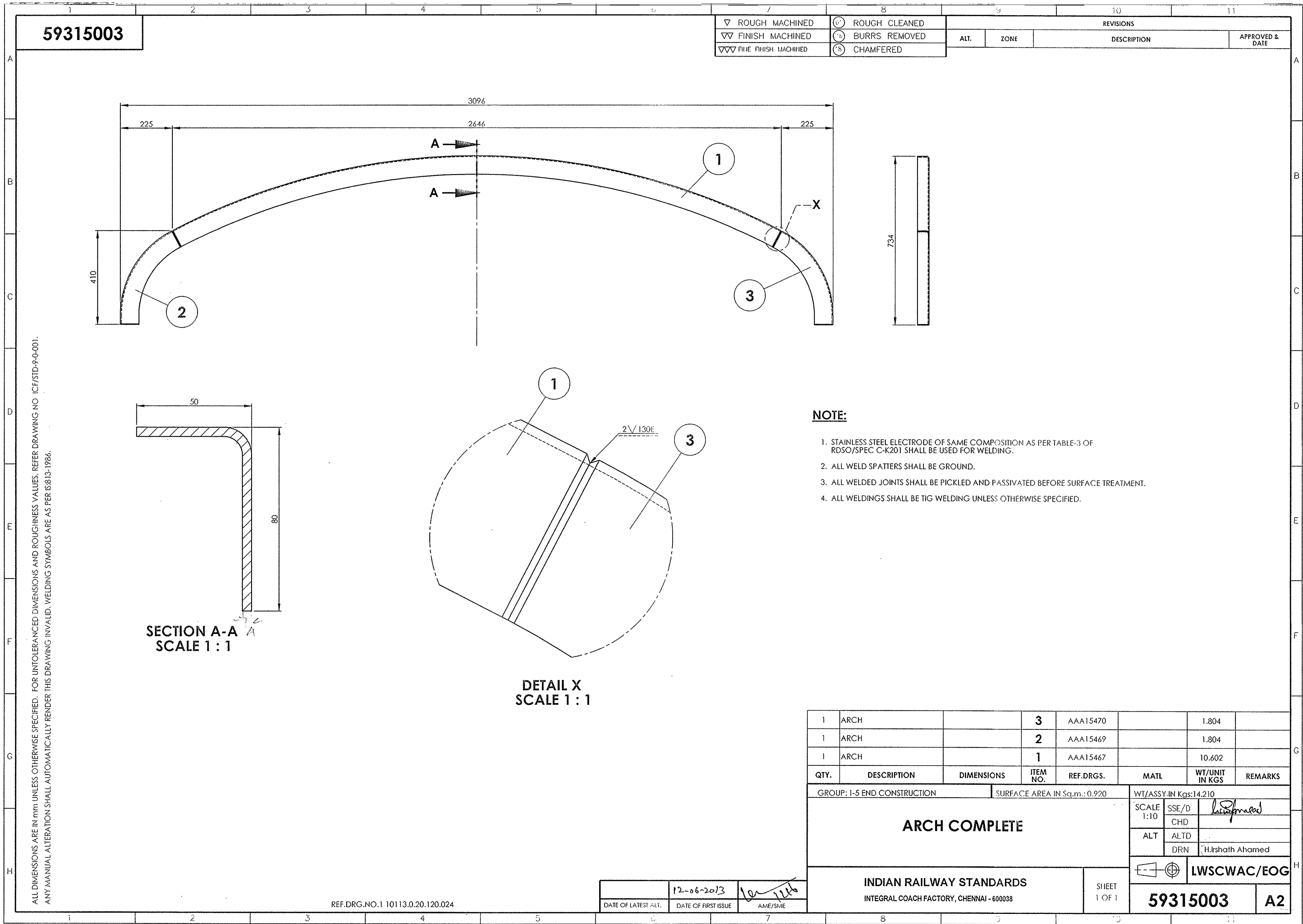
1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
5. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.
6. # CAM LATCH TO PART NUMBER -E5-32-0524-111 OF M/S. SOUTHCO (OR) CAM LATCH TO PART NUMBER 379-0065.07-30326 AND PART NUMBER 200-0520 OF M/S DIRAK TO BE USED.
7. \$ - HINGE TO PART NUMBER EH-99-314 OF M/S. SOUTHCO (OR) HINGE TO PART NUMBER 378-0007.07-07550 OF M/S DIRAK TO BE USED.
8. @ - LATCH NUT TO PART NUMBER E3-0-64136 OF M/S. SOUTHCO TO BE USED TO PREVENT UNAUTHORISED REMOVAL OF LOCK.

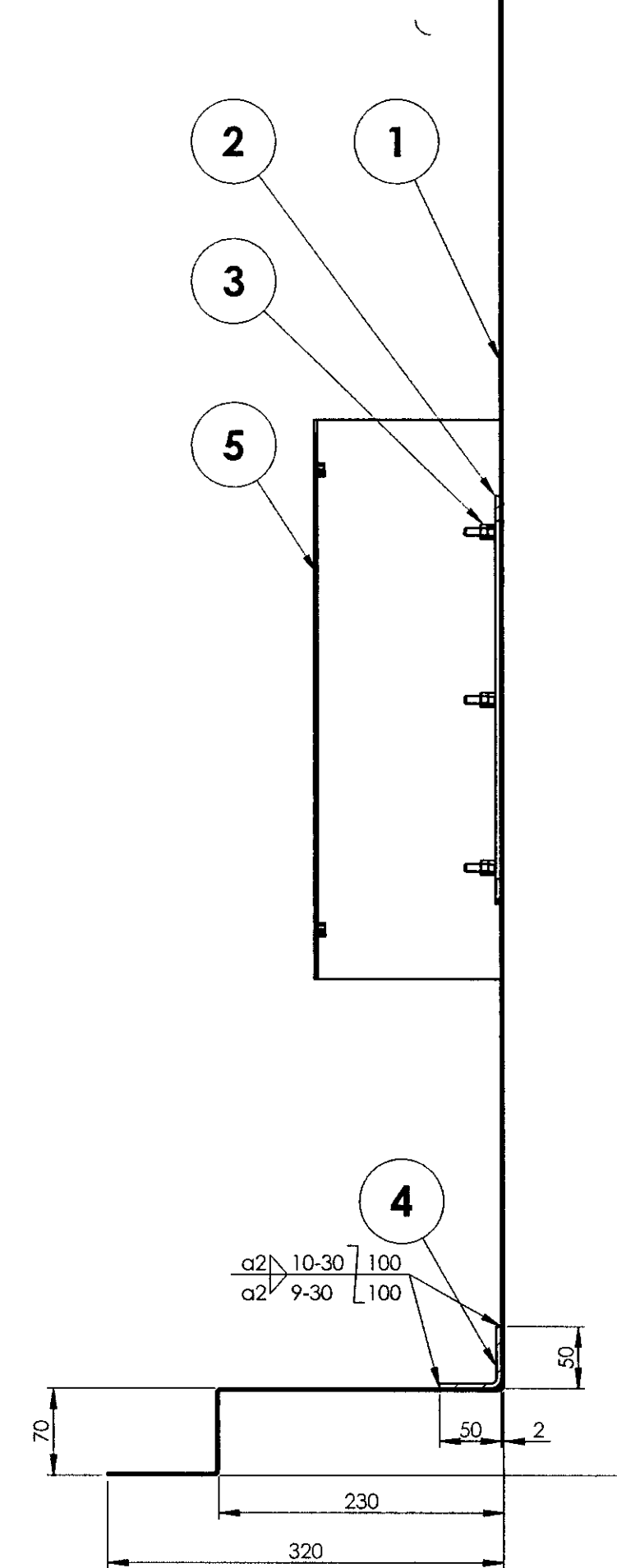
1	LATCH NUT(WELDABLE)		4	-		0.00	@	
1	LOCK ASSEMBLY		3			0.009	#	
2	HINGE		2			0.02	\$	
1	SHUTTER		1	AAA15432		1.949		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: (1-5) END CONSTRUCTI			SURFACE AREA IN Sq.m: 0.293		WT/ASSY IN Kgs:			
SHUTTER ASSEMBLY FOR EFT SOCKET					SCALE 1:2	SSE/LI CHD	<i>Pandurangula</i>	
					ALT c	ALTD		VJAYAKUMAR
						DPII	B.SARAVATHI	
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038			

01-02-2024	28-03-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.

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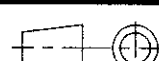


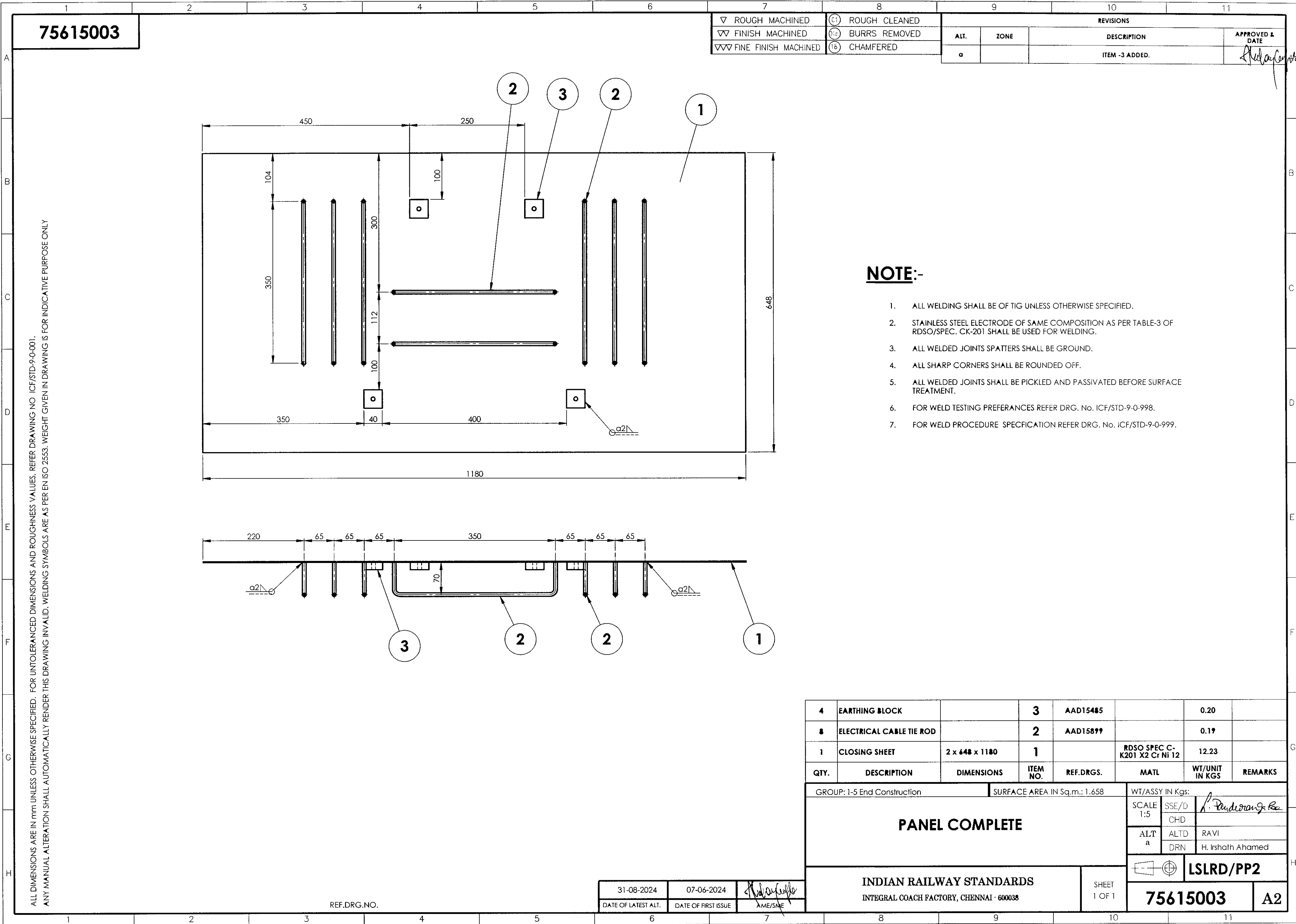


SECTION A-A
SCALE 1 : 5



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

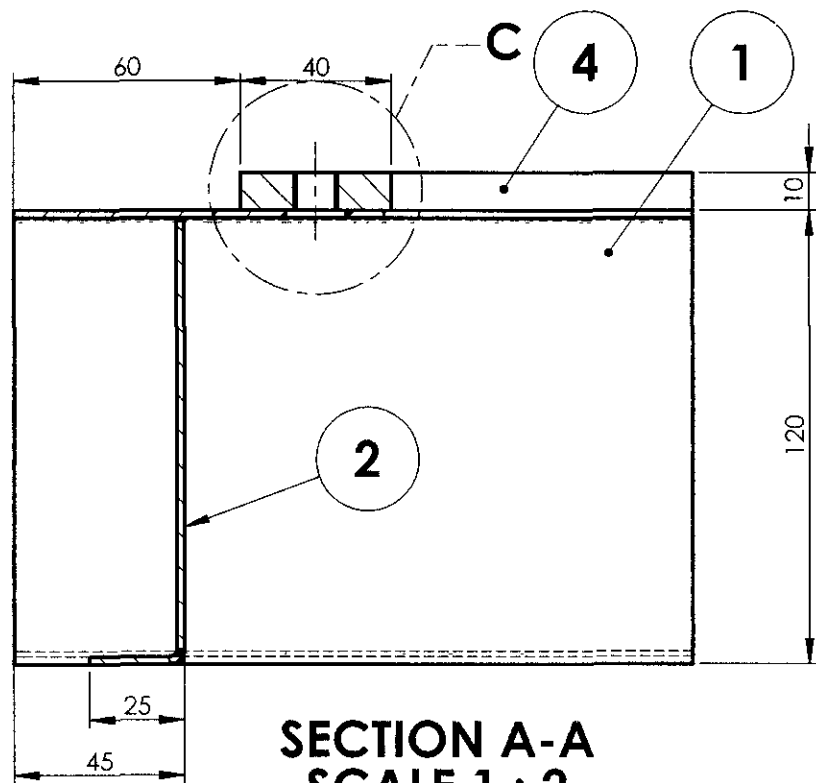
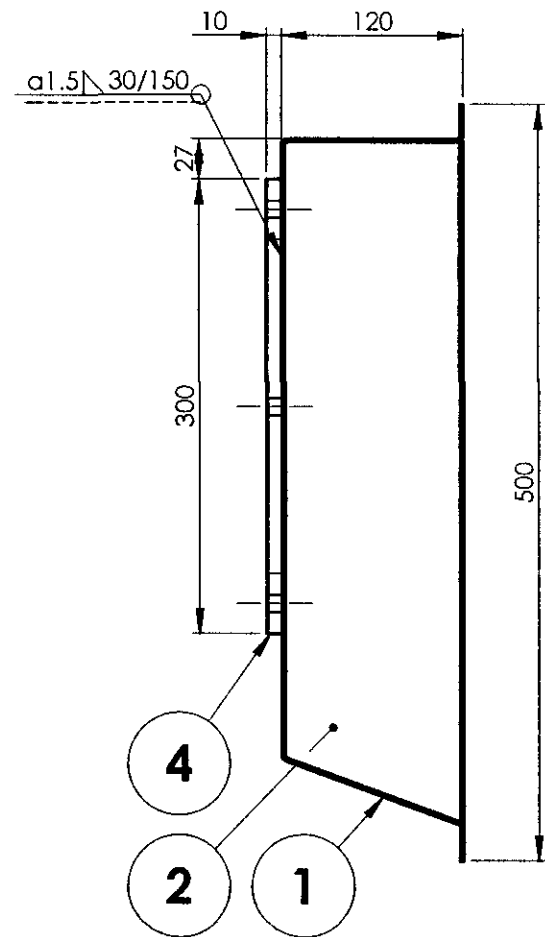
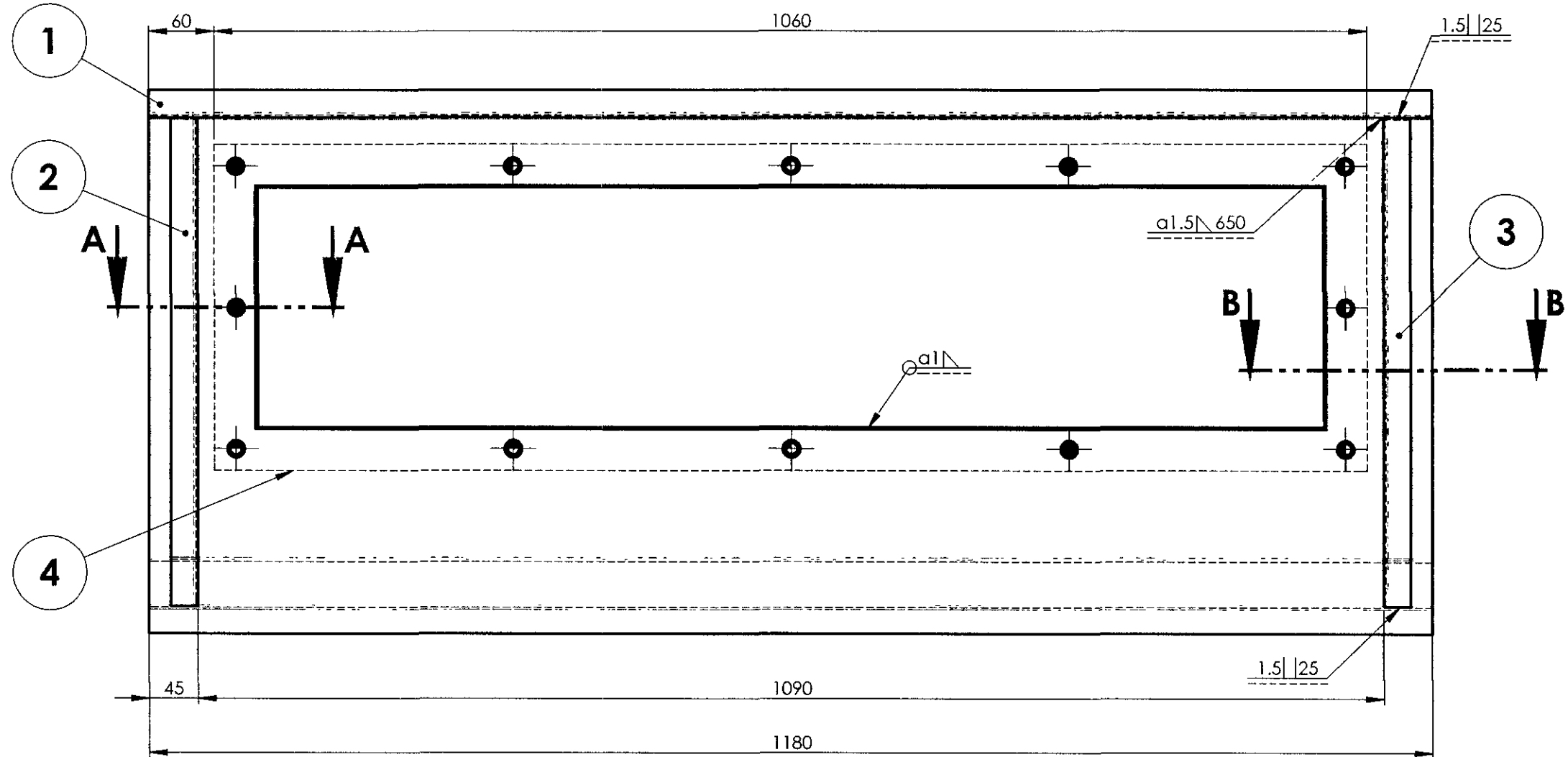
1	FIXING BRACKET FOR TAIL LAMP		5	87015007		4371.94	
1	SUPPORT ANGLE		4	AAD15882		3497.82	
12	HEXAGON NUT	IS:1344 (PART-3)/ISO 4032-M8-A2-70	3	IS:1344 (PART-3) 2007	IS:1347 (P-14) A2-70		
1	INTERMEDIATE RING COMPLETE		2	53815009		0.449	
1	CENTRE SHEET		1	AAD15870		34750.10	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT./UNIT IN KGS	REMARKS
GROUP: 1-5 End Construction			SURFACE AREA IN Sq.m.: 5096586.96			WT/ASSY IN Kgs:	
END WALL SHEET COMPLETE				SCALE 1:5		SSE/D CHD <i>A. Ishath Ahmed</i>	
				ALT. -		ALTD DRN H. Ishath Ahmed	
						LSLRD/PP2	
				75615002		A1	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			



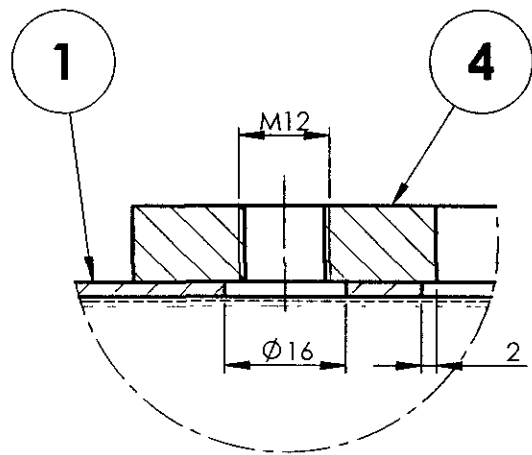
75615005

▽ ROUGH MACHINED	⑥1 ROUGH CLEANED
▽▽ FINISH MACHINED	⑥1c BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑥1b CHAMFERED

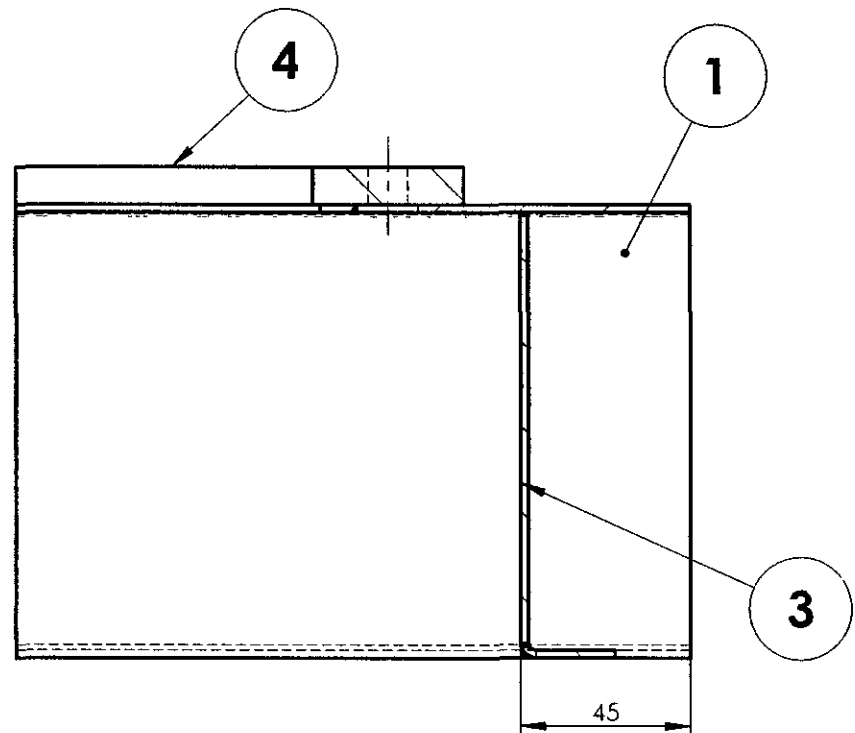
REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		



SECTION A-A
SCALE 1 : 2



DETAIL C
SCALE 1 : 1



SECTION B-B
SCALE 1 : 2

NOTE:-

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

1	BASE PLATE FOR ELECTRICAL COUPLER		4	AAD15880		8.11	
1	SIDE COVER		3	AAD15874		0.97	
1	SIDE COVER		2	AAD15872		0.97	
1	COUPLER PLATE		1	AAD15871		9.59	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:	
ELECTRICAL COUPLER BASE PLATE				SCALE 1:5	SSE/D	H. Irshath Ahmed	
					CHD		
				ALT	ALTD	H. Irshath Ahmed	
					DRN		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		LSLRD/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038				75615005		A2	

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REF.DRG.NO.

DATE OF LATEST ALT.	30/5/24	AME/SME
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75615006

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

①1 ROUGH CLEANED

①10 BURRS REMOVED

①8 CHAMFERED

ALT.

ZONE

DESCRIPTION

APPROVED & DATE

REVISIONS

420

120

2

1

2

2

2

2

60

285

185

240

1

2

①1 1.5 (3 PLACES)

NOTE:-

1. ALL WELDING SHALL BE OF TIG UNLESS OTHERWISE SPECIFIED.

2. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC. CK-201 SHALL BE USED FOR WELDING.

3. ALL WELDED JOINTS SPATTERS SHALL BE GROUND.

4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.

5. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.

6. FOR WELD TESTING PREFERANCES REFER DRG. No. ICF/STD-9-0-998.

7. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.

8. ALTERNATIVELY ASTM A554 GRADE MT-304 (OR)ASTM A269/A269M GR TP304 ALSO ACCEPTABLE FOR ITEM-2.

4

CONDUIT

1mm THK x Ø40 x 420

2

1

SUPPORT FOR CONDUITS

1

AAD15708

QTY.

DESCRIPTION

DIMENSIONS

ITEM NO.

REF.DRGS.

MATL

WT/UNIT IN KGS

REMARKS

GROUP: 1-5 End Construction

SURFACE AREA IN Sq.m.: 503730.03

WT/ASSY IN Kgs:

SCALE 1:5

SSE/D

CHD

ALT

ALTD

DRN

H. Irshath Ahamed

TOP CONDUITS COMPLETE

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET 1 OF 1

75615006

A2

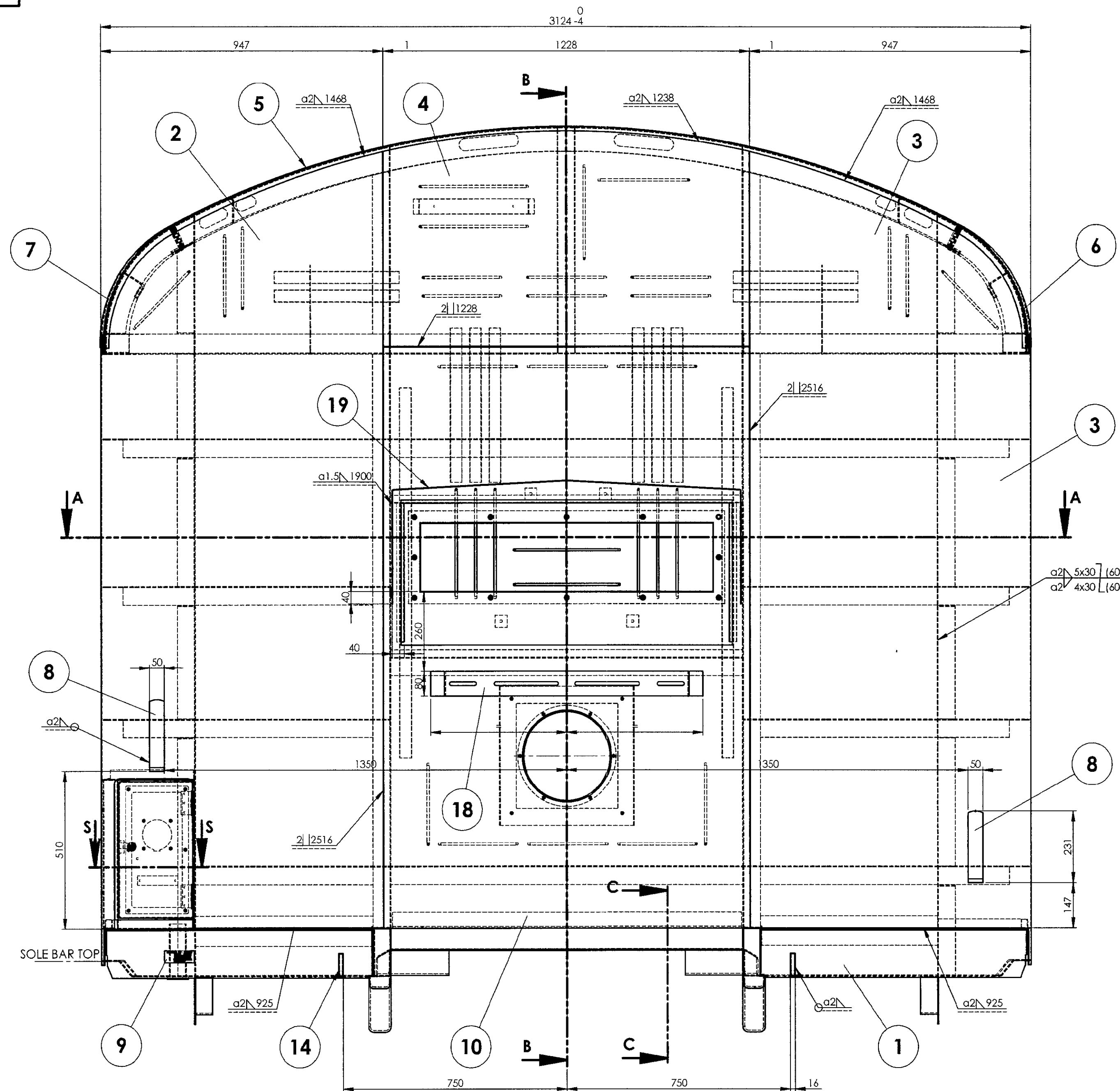
DATE OF LATEST ALT.

DATE OF FIRST ISSUE

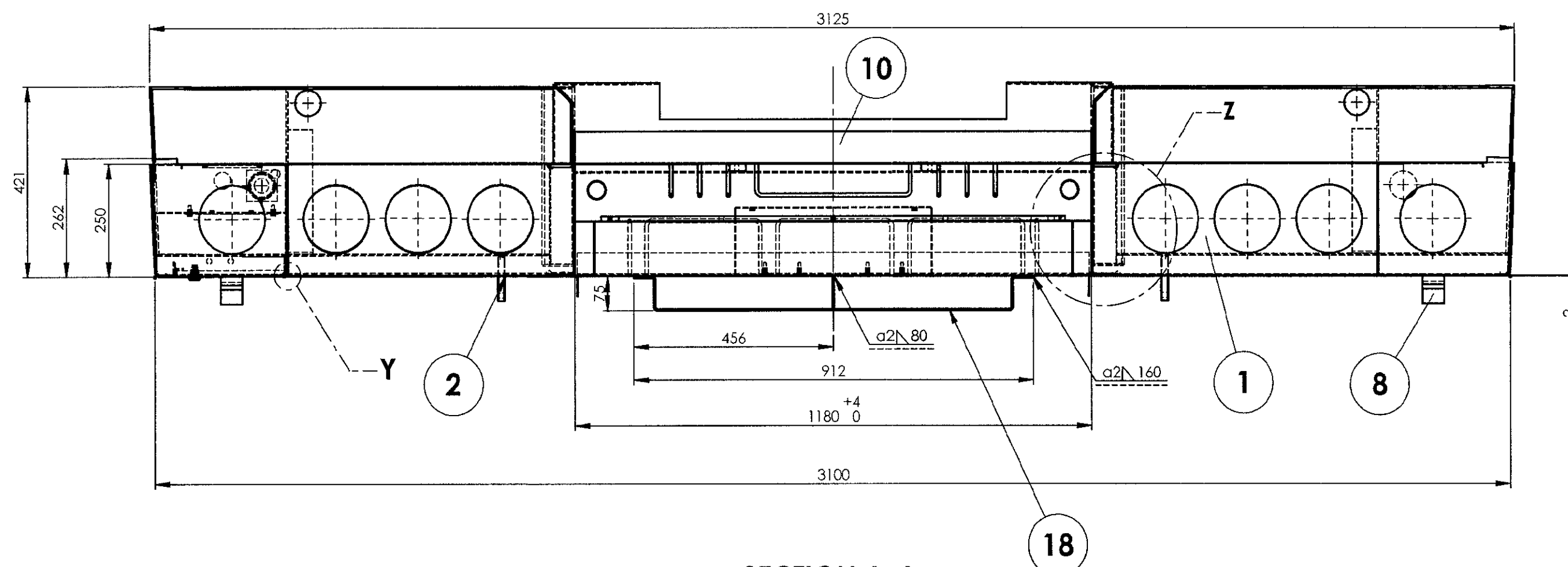
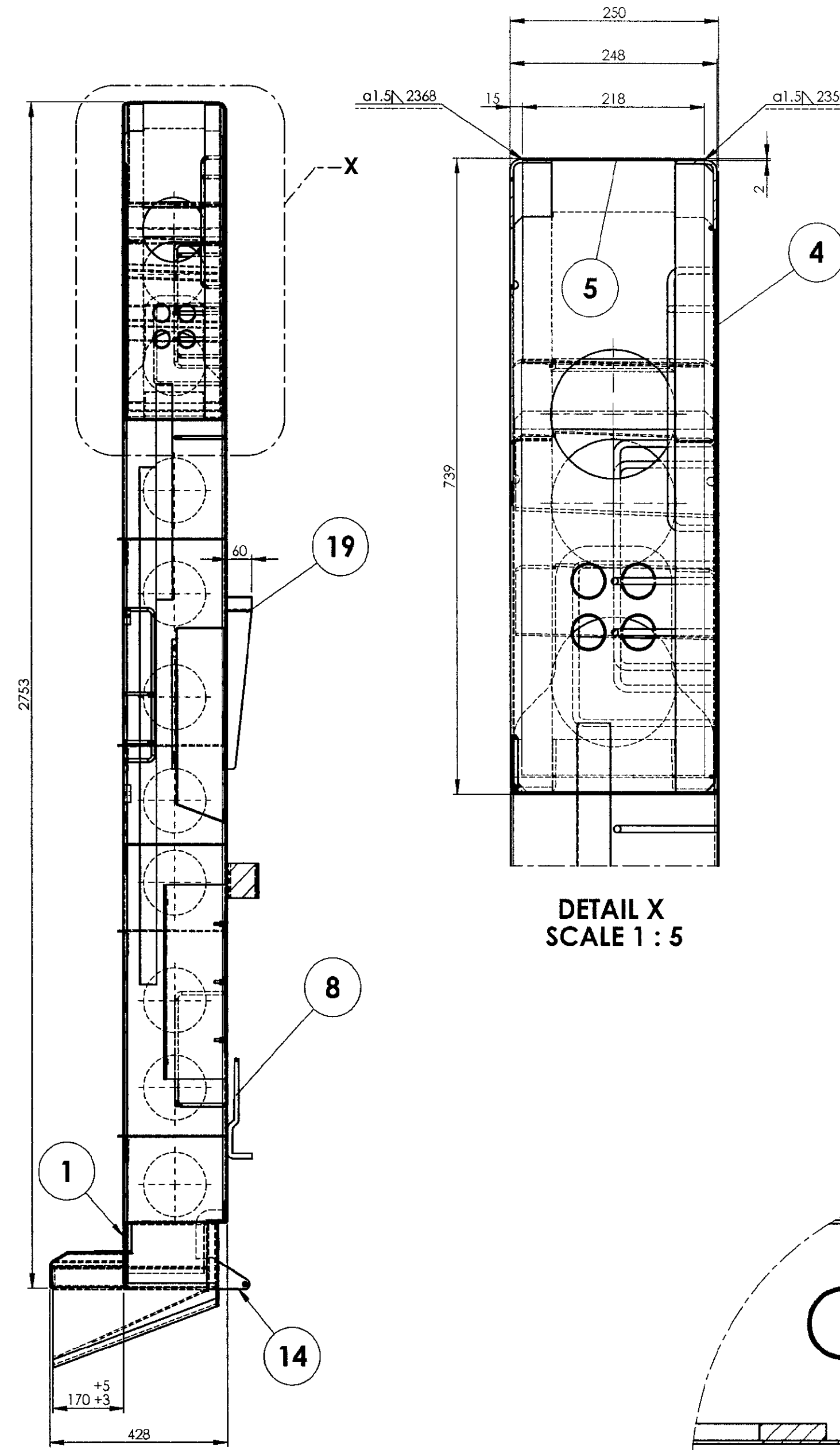
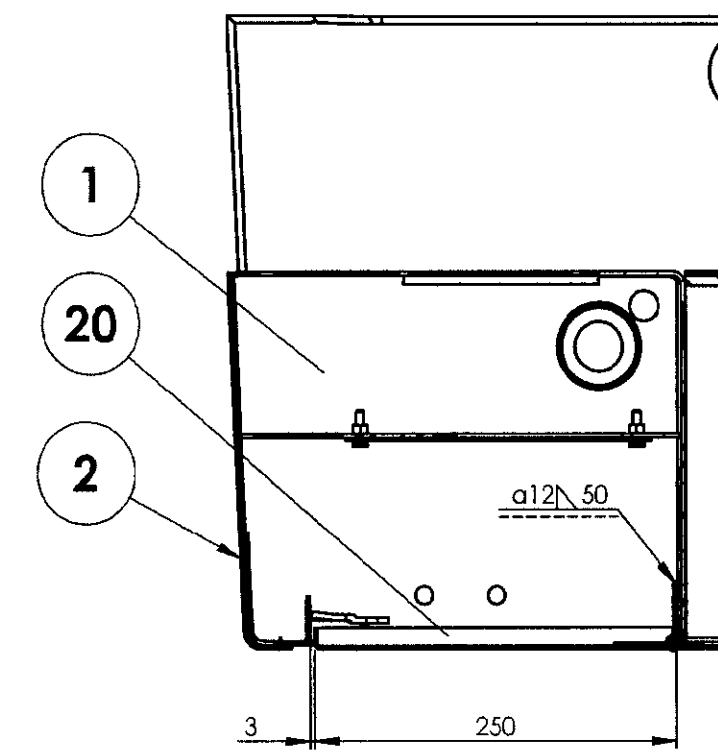
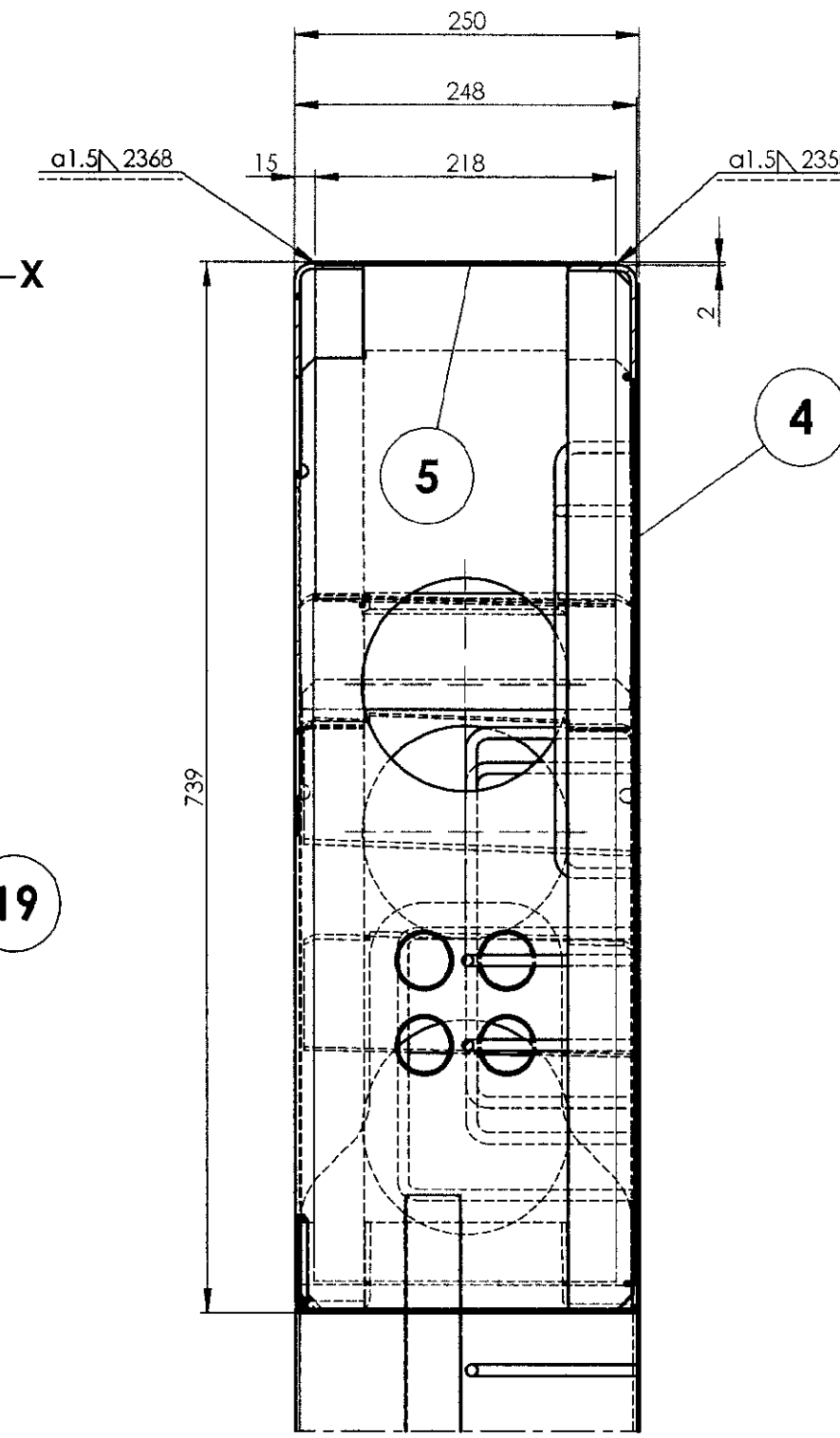
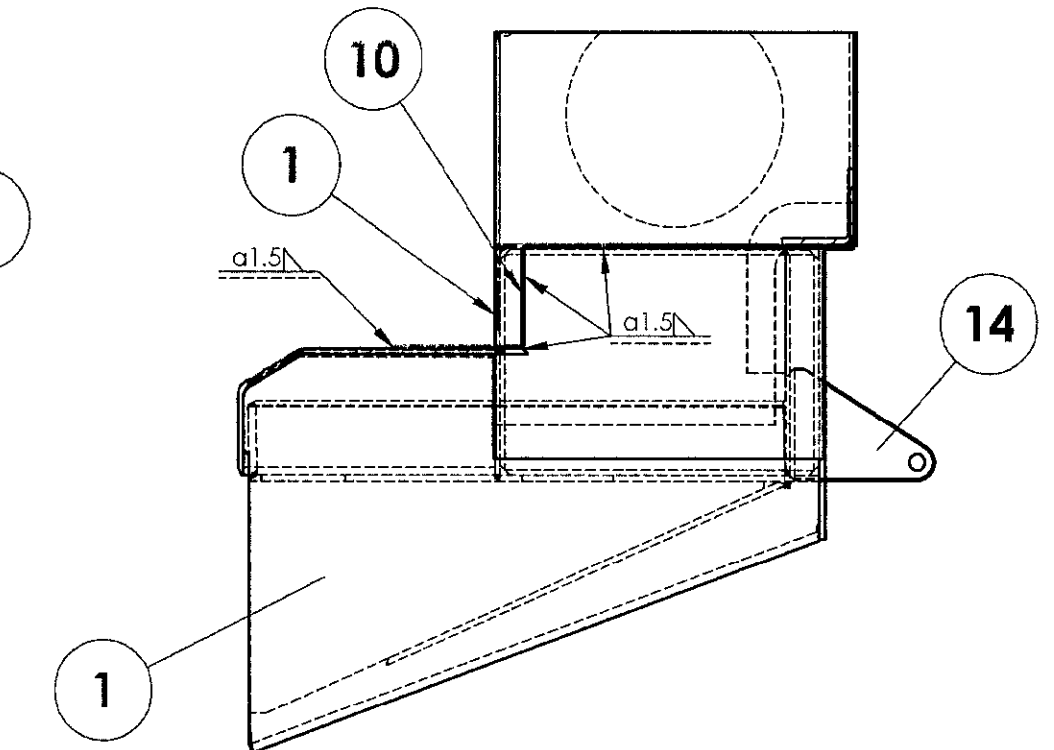
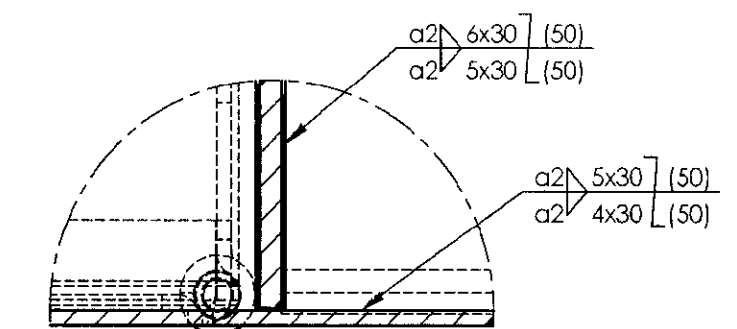
AME/SME

83115002

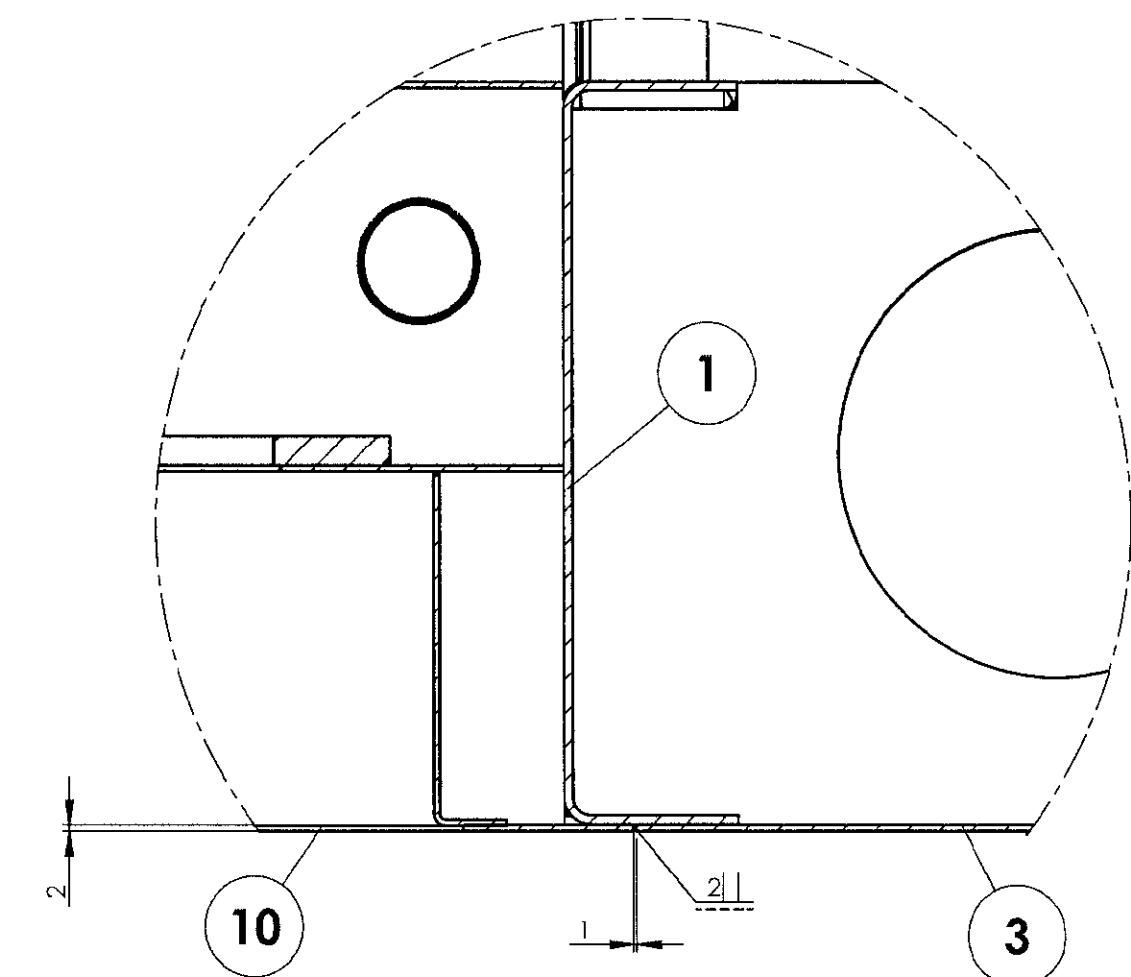
▽ ROUGH MACHINED	⑩ ROUGH CLEANED
▽▽ FINISH MACHINED	⑪ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑫ CHAMFERED



VIEW FROM COACH OUTSIDE

SECTION A-A
SCALE 1 : 10SECTION B-B
SCALE 1 : 10SECTION S-S
SCALE 1 : 5DETAIL X
SCALE 1 : 5SECTION C-C
SCALE 1 : 5

DETAIL Y

DETAIL Z
SCALE 1 : 2.5

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THE DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:13-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

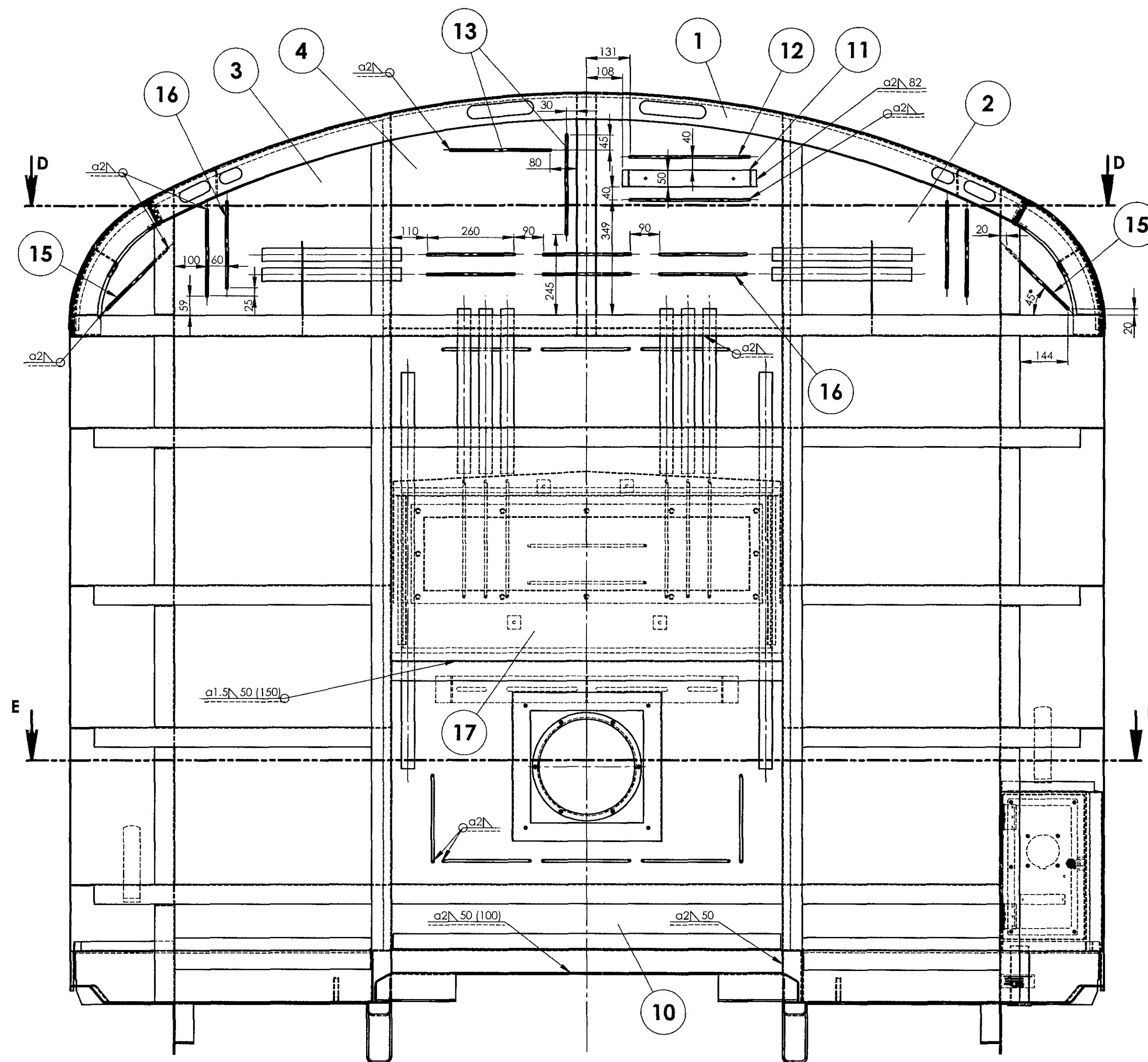
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12-08-2025	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE

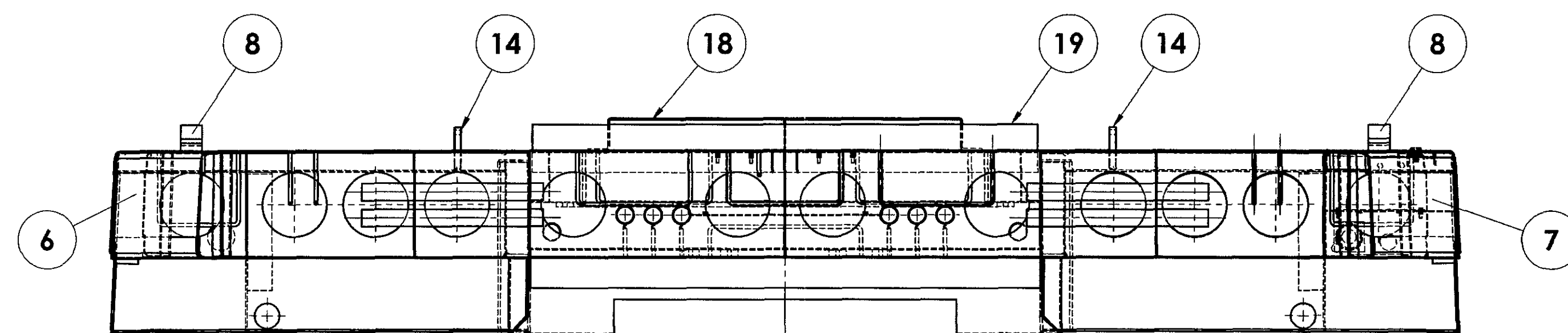
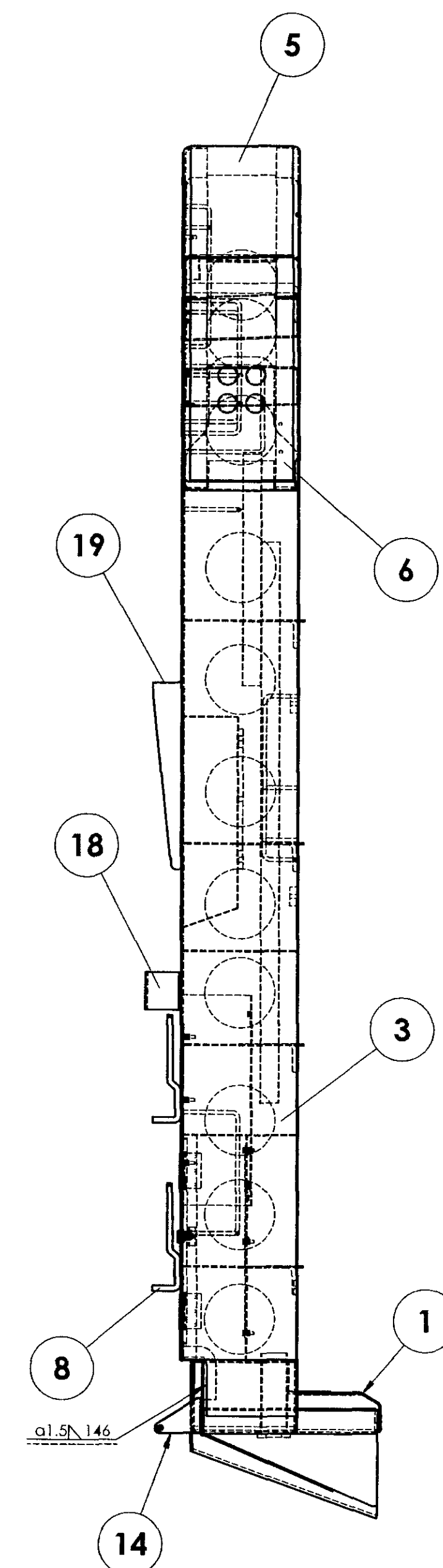
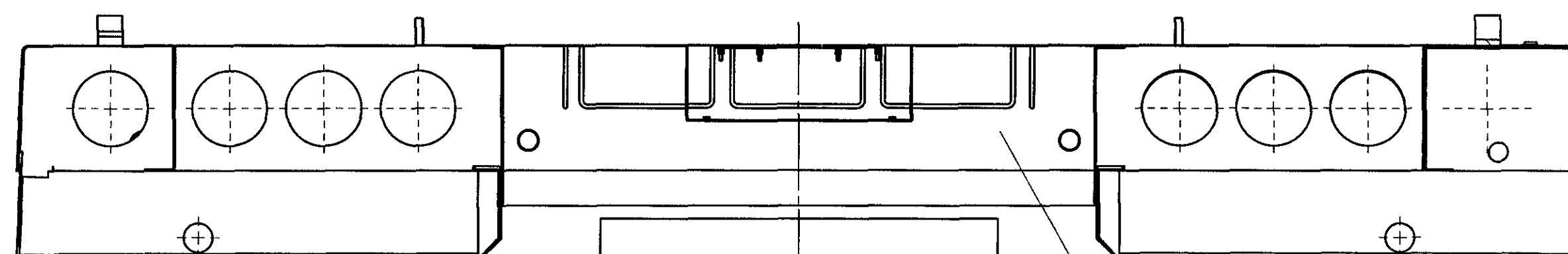
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SCALE 1:10	SSE/D	CHD
ALT	ALTD	DRN
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		LWLRRM/PP2
SHEET 1 OF 3		83115002
		A1

83115002

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①⑨ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①⑩ CHAMFERED



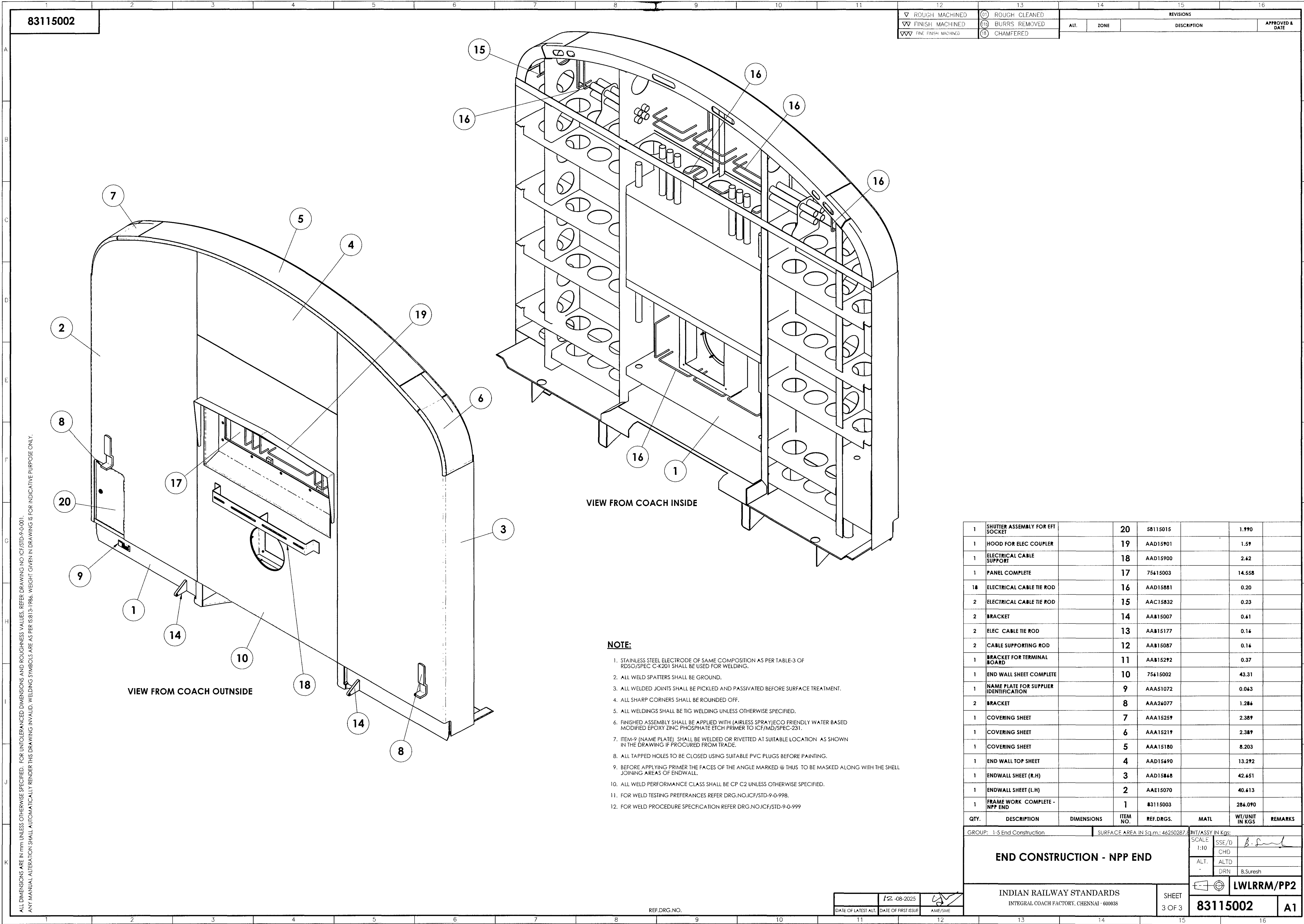
VIEW FROM COACH INSIDE

SECTION D-D
SCALE 1 : 10SECTION E-E
SCALE 1 : 10

REF.DRG.NO.

DATE OF LATEST ALT.	12-08-2025	AME/SME
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GROUP: 1-5 End Construction		SURFACE AREA IN Sq.m: 46250287.8		WT/ASSY IN Kgs:	
SCALE 1:10		SSE:0		CHD	
ALT.		ALTD		DRN	
INDIAN RAILWAY STANDARDS		SHEET 2 OF 3		LWLRRM/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038		83115002		A1	



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.

12		13		14		15		16	
▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS					
▽▽ FINISH MACHINED		⑩ BURRS REMOVED		ALT.	ZONE	DESCRIPTION	APPROVED & DATE		
▽▽▽ FINE FINISH MACHINED		⑮ CHAMFERED							

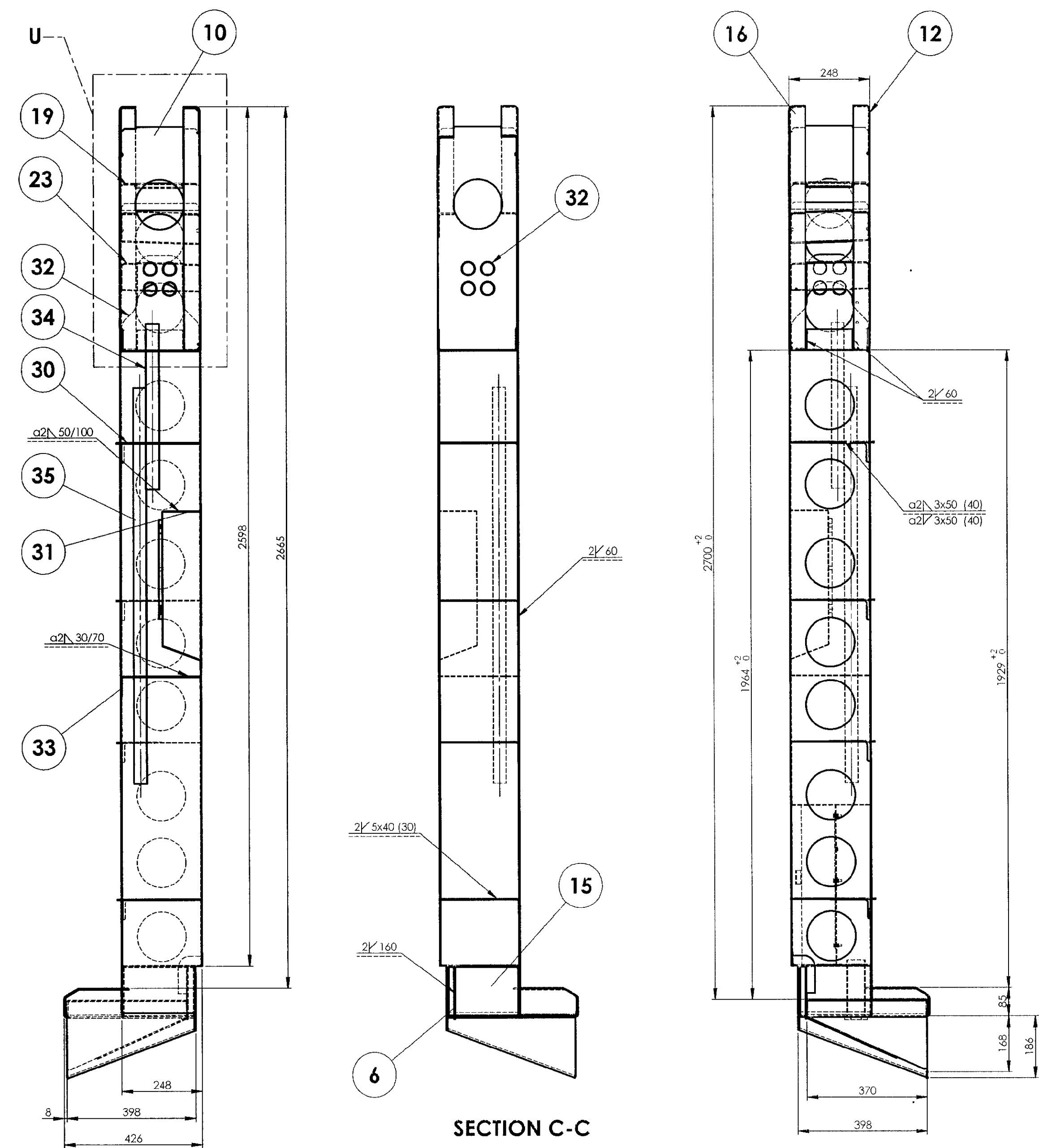
1	SHUTTER ASSEMBLY FOR EFT SOCKET		20	58115015		1.990	
1	HOOD FOR ELEC COUPLER		19	AAD15901		1.59	
1	ELECTRICAL CABLE SUPPORT		18	AAD15900		2.42	
1	PANEL COMPLETE		17	75615003		14.558	
16	ELECTRICAL CABLE TIE ROD		16	AAD15881		0.20	
2	ELECTRICAL CABLE TIE ROD		15	AAC15832		0.23	
2	BRACKET		14	AA115007		0.41	
2	ELEC CABLE TIE ROD		13	AA115177		0.14	
2	CABLE SUPPORTING ROD		12	AA115087		0.14	
1	BRACKET FOR TERMINAL BOARD		11	AA115292		0.37	
1	END WALL SHEET COMPLETE		10	75615002		43.31	
1	NAME PLATE FOR SUPPLIER IDENTIFICATION		9	AAA51072		0.063	
2	BRACKET		8	AAA24077		1.284	
1	COVERING SHEET		7	AAA15259		2.389	
1	COVERING SHEET		6	AAA15219		2.389	
1	COVERING SHEET		5	AAA15180		8.203	
1	END WALL TOP SHEET		4	AAD15690		13.292	
1	ENDWALL SHEET (R.H)		3	AAD15848		42.651	
1	ENDWALL SHEET (L.H)		2	AAE15070		40.413	
1	FRAME WORK COMPLETE - NPP END		1	83115003		284.090	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

- 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. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY)ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.
 7. ITEM-9 (NAME PLATE) SHALL BE WELDED OR RIVETTED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.
 8. ALL TAPPED HOLES TO BE CLOSED USING SUITABLE PVC PLUGS BEFORE PAINTING.
 9. BEFORE APPLYING PRIMER THE FACES OF THE ANGLE MARKED @ THUS TO BE MASKED ALONG WITH THE SHELL JOINING AREAS OF ENDWALL.
 10. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
 11. FOR WELD TESTING PREFERENCES REFER DRG.NO.ICF/STD-9-0-998.
 12. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.ICF/STD-9-0-999

GROUP: 1-5 End Construction		SURFACE AREA IN Sq.m.: 46250287.8		WT/ASSY IN Kgs:	
END CONSTRUCTION - NPP END				SCALE 1:10	SSE/D CHD
				ALT.	ALTD
				DRN	B.Suresh
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 3 OF 3	LWLRRM/PP2 83115002 A1

DATE OF LATEST ALT.	12-08-2025	AME/SME
DATE OF FIRST ISSUE		

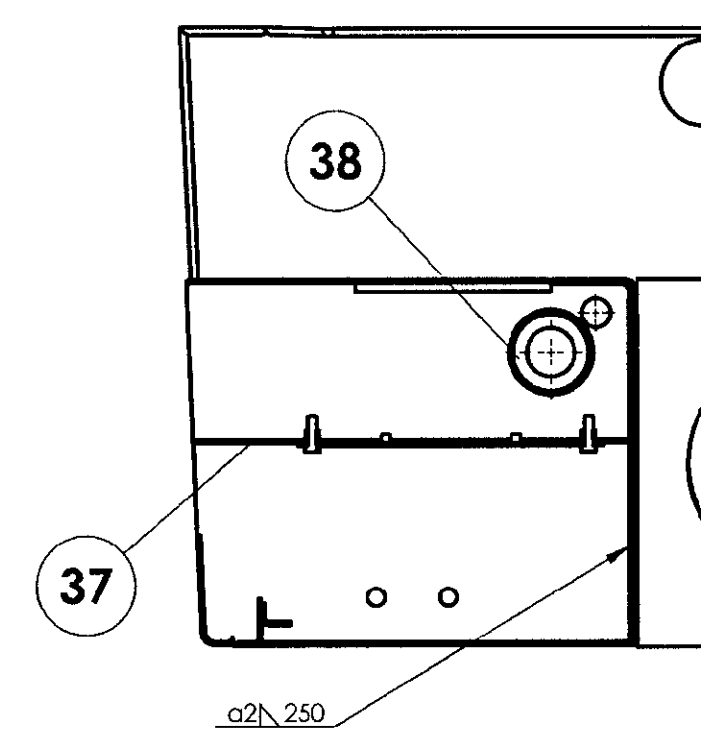
12	13	14	15	16
▽ ROUGH MACHINED	(11) ROUGH CLEANED	REVISONS		
▽▽ FINISH MACHINED	(11a) BURRS REMOVED	ALT.	ZONE	APPROVED & DATE
▽▽▽ FINE FINISH MACHINED	(11b) CHAMFERED			



SECTION B-B

SECTION C-C


VIEW FROM-R


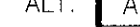


SECTION S-S
SCALE 1 : 5

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

REF.DRG.NO.

	12-08-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SM

GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.: 26.630		WT/ASSY IN Kgs:	
FRAME WORK END CONSTRUCTION				SCALE	
				1:10	
				SSE/D	CHD
				ALT.	ALTD
				DRN	3D B.Suresh 2D Mahesh
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					LWLRRM/PP2
				SHEET 1 OF 3	83115003
					A1

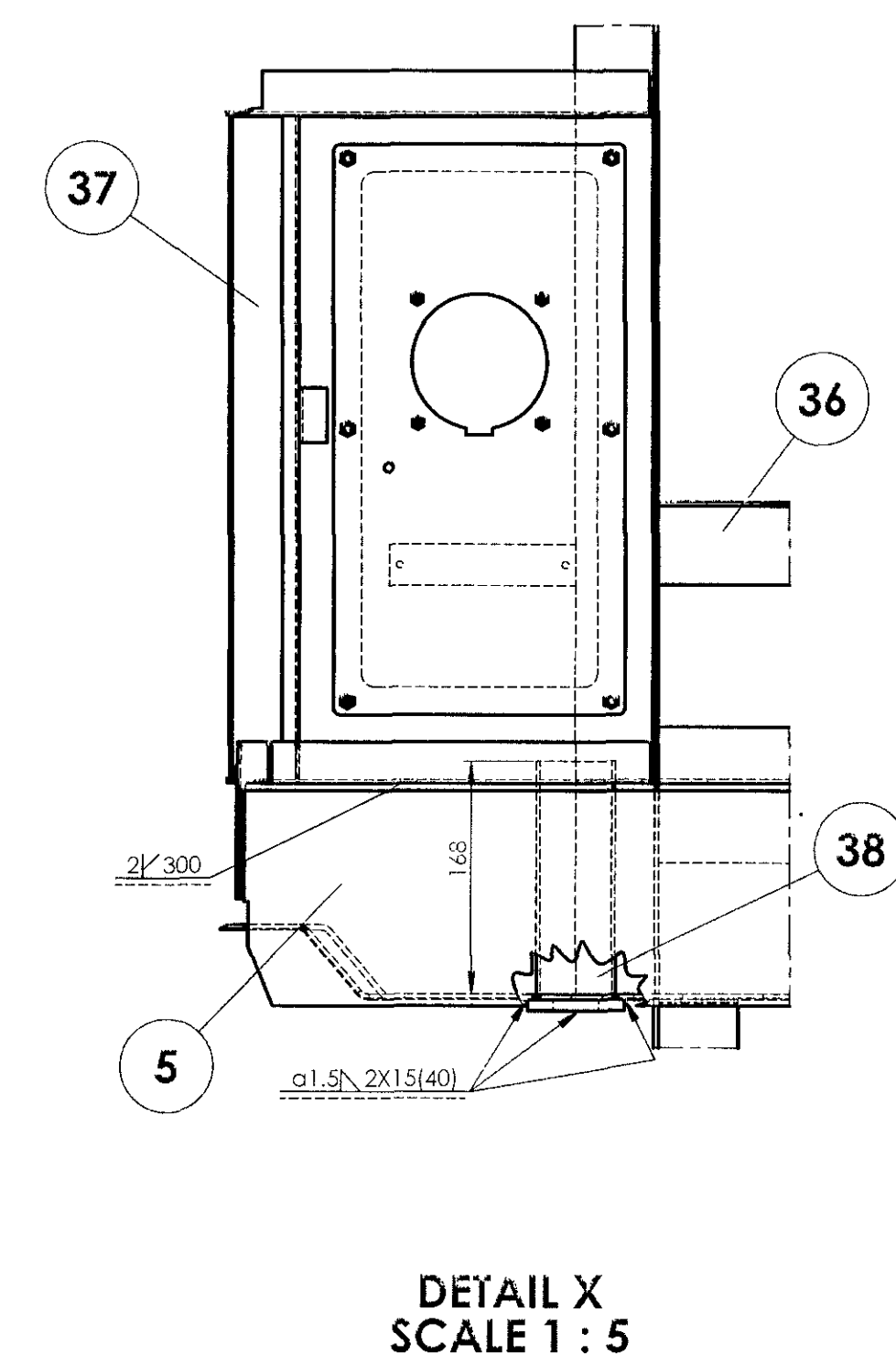
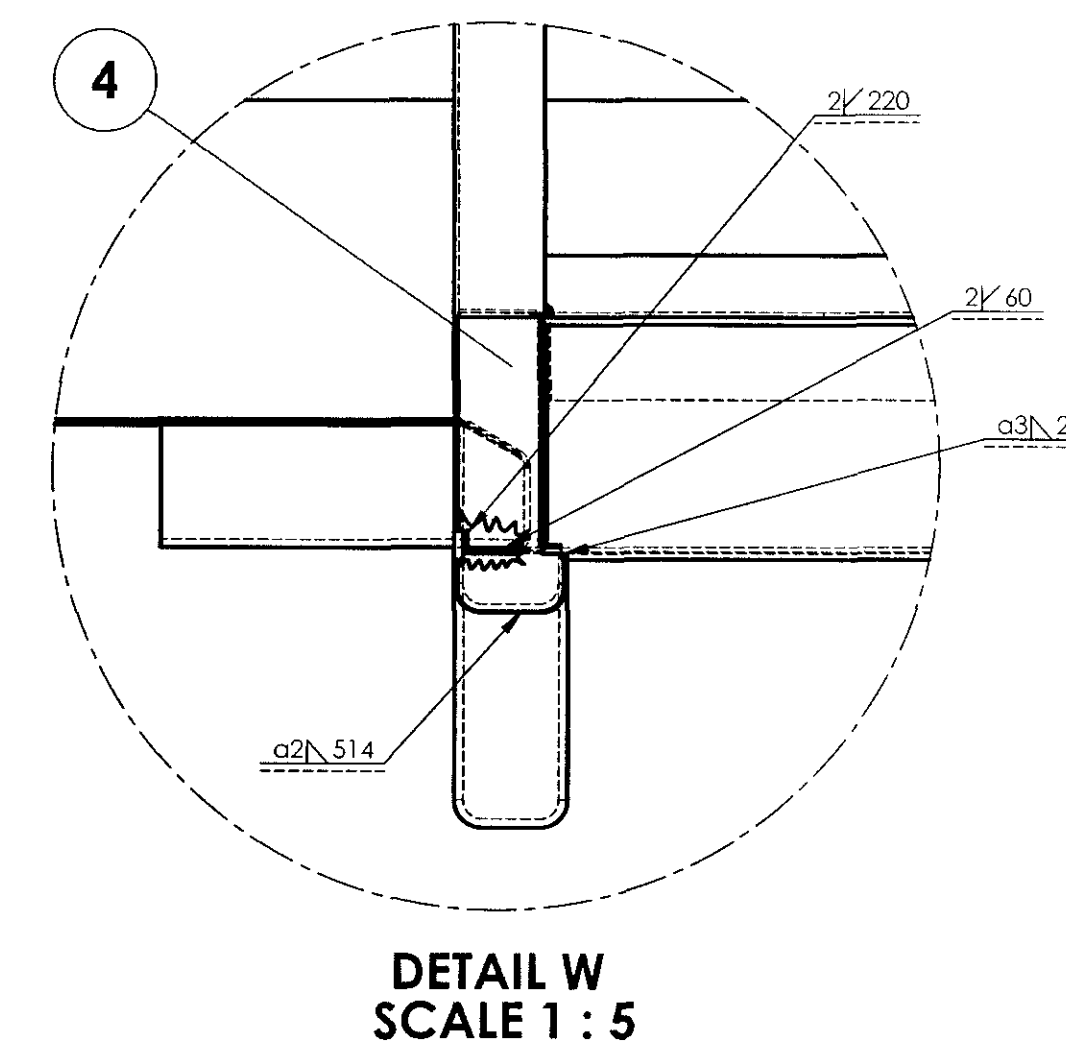
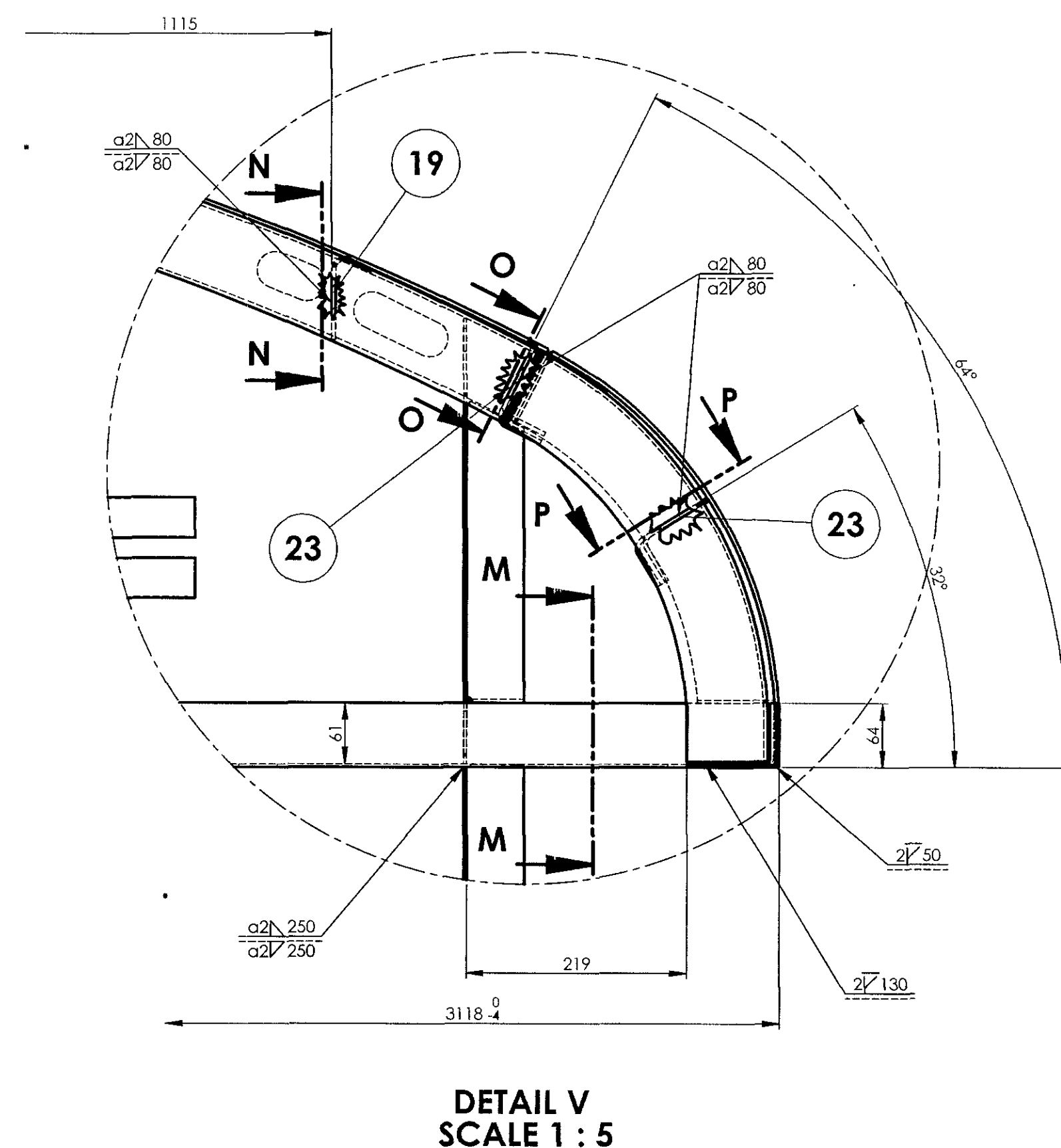
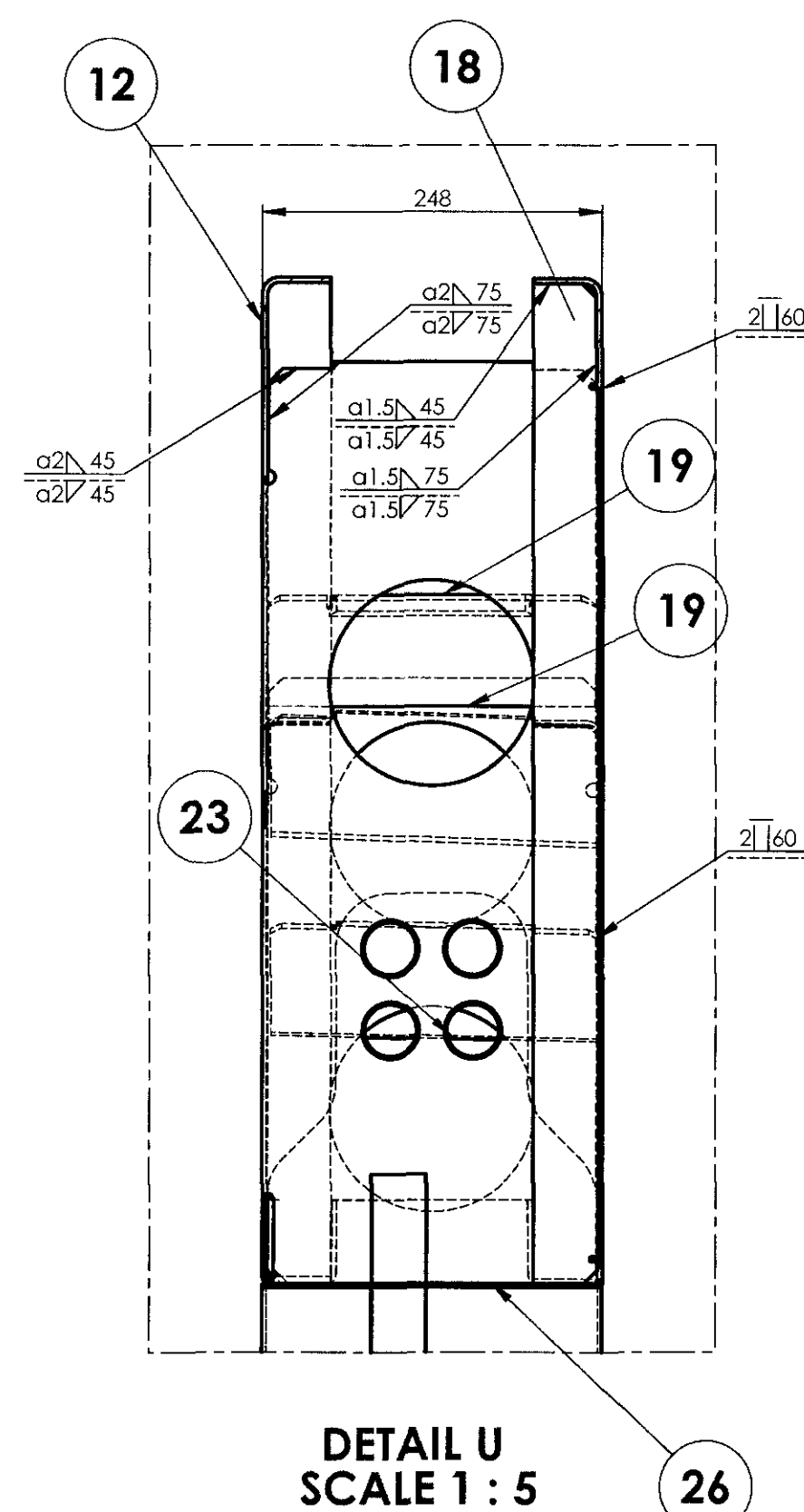
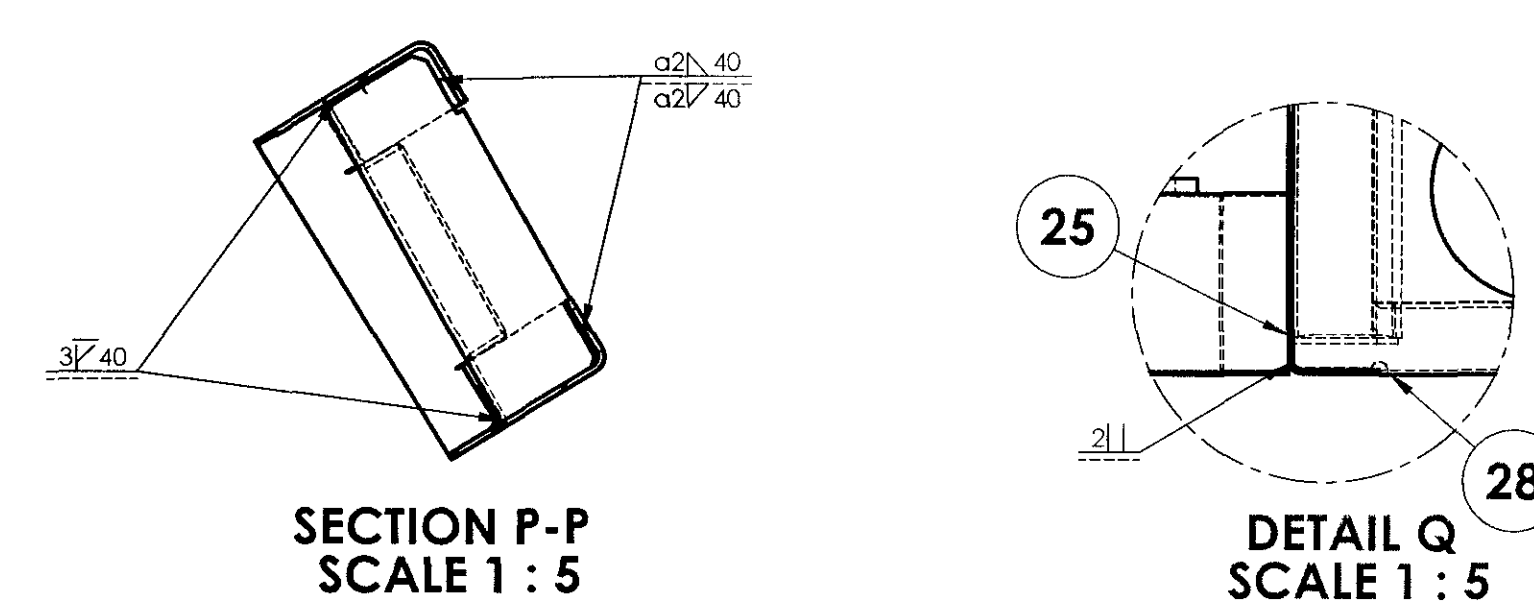
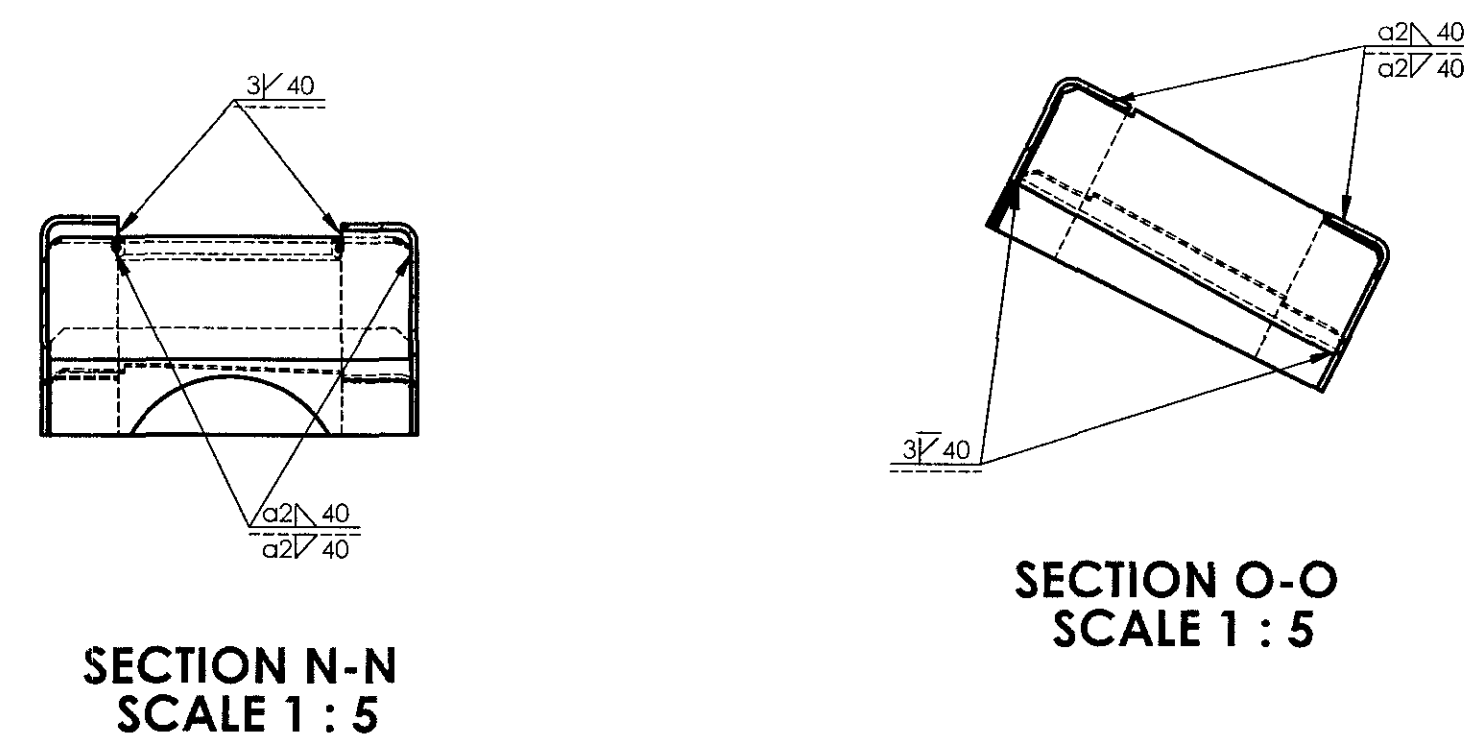
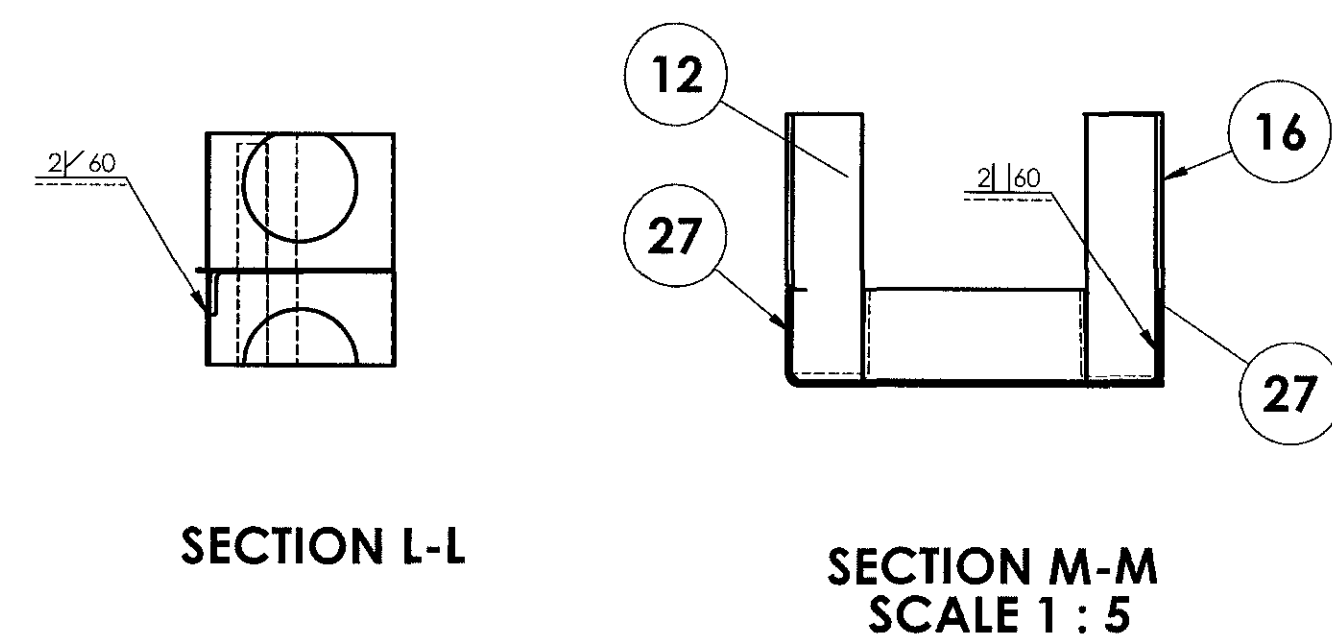
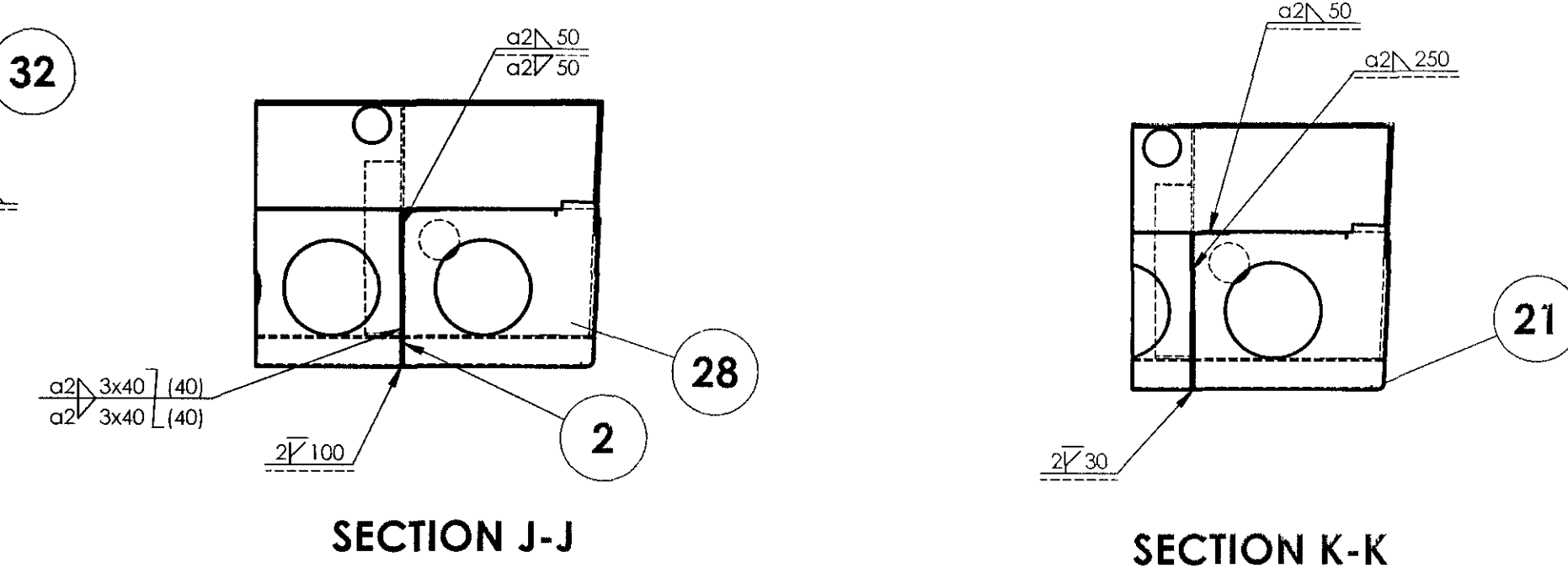
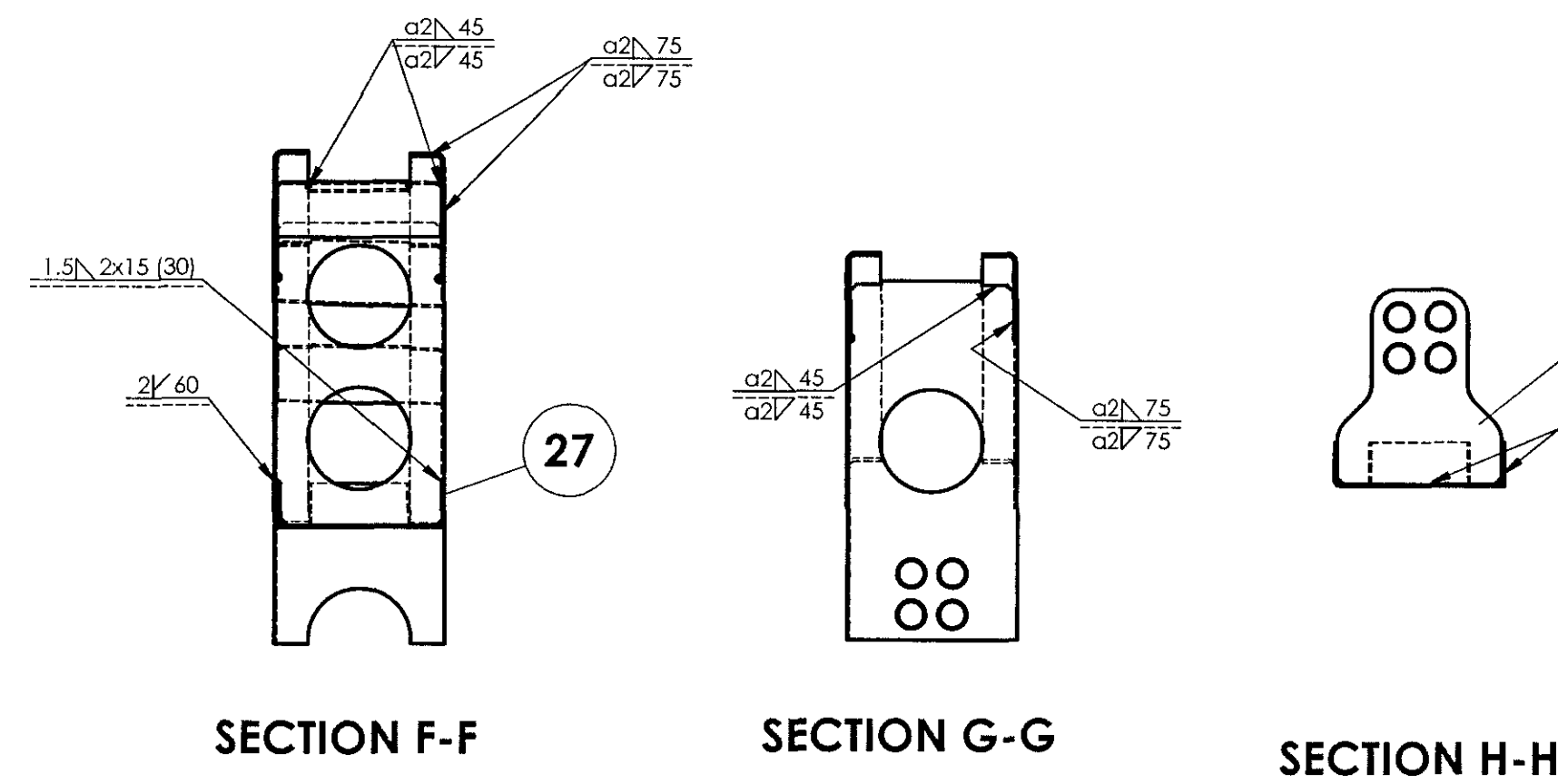
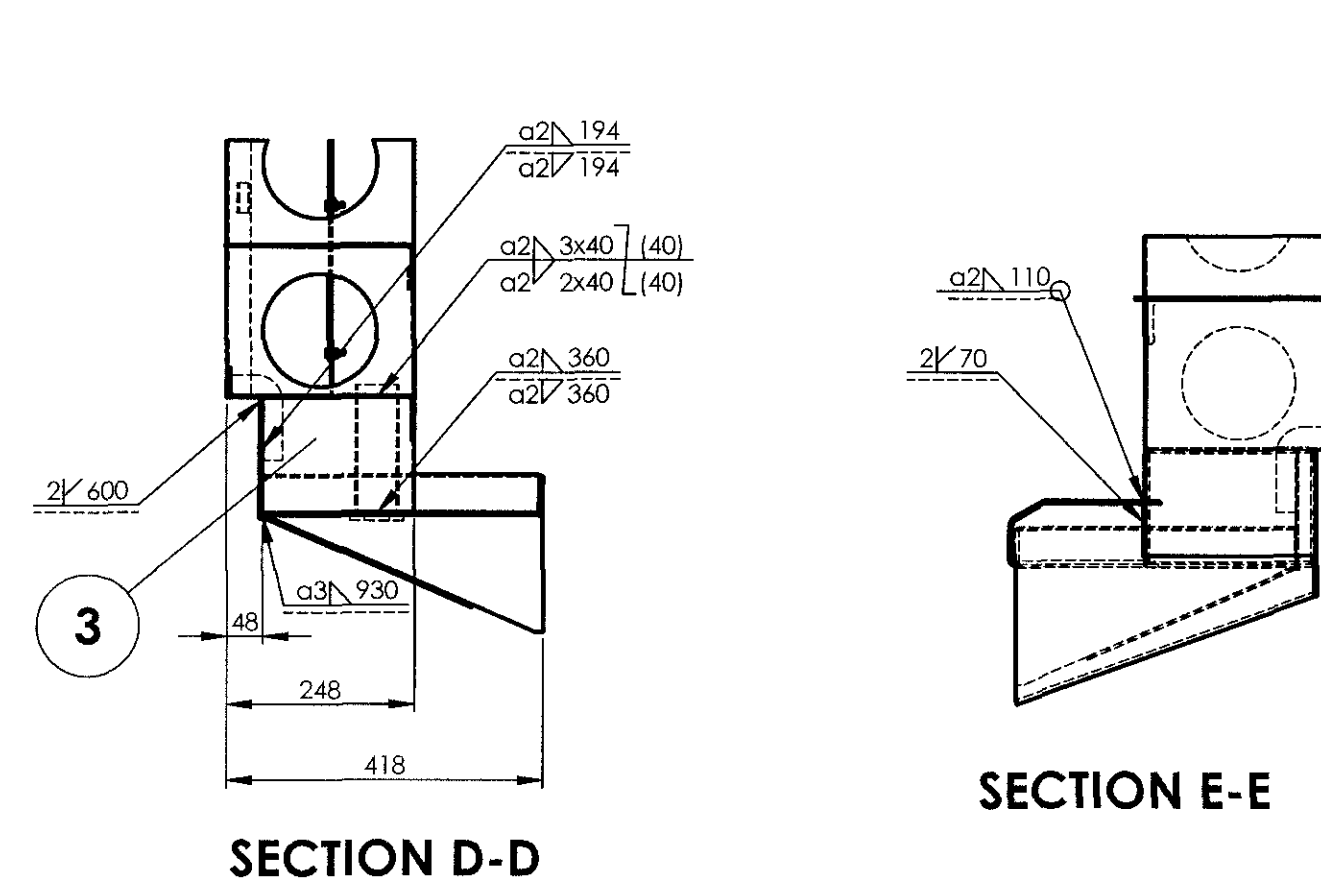
83115003

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

⑪ ROUGH CLEANED
⑫ BURRS REMOVED
⑬ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE



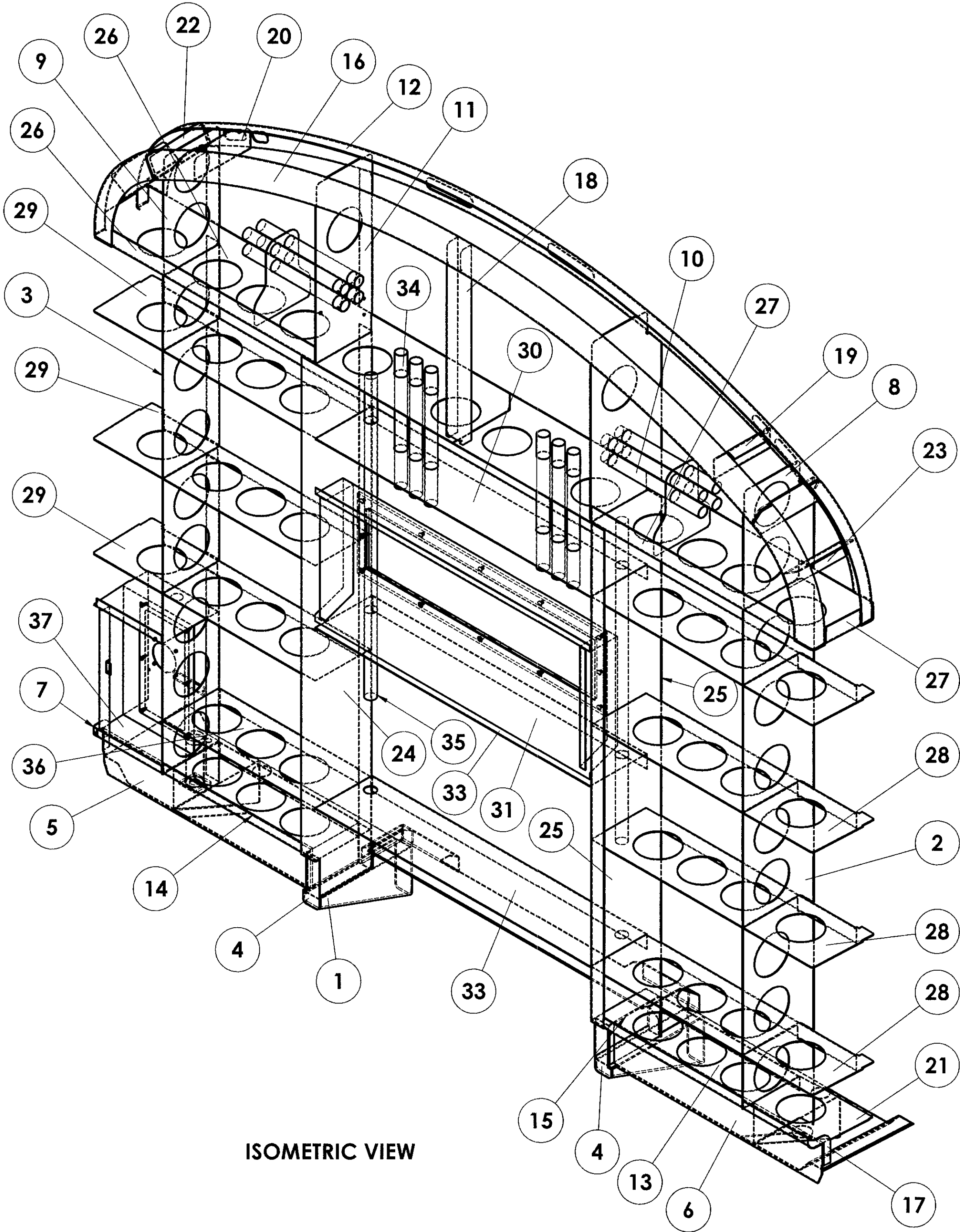
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GROUP: 1-5, END CONSTRUCTION		SURFACE AREA IN Sq.m.: 26.630		WT/ASSY IN Kgs:	
SCALE 1:10		SSE/D		CHD	
ALT.		ALTD		DRN	
INDIAN RAILWAY STANDARDS		SHEET 2 OF 3		LWLRM/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038		83115003		A1	

83115003

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



ISOMETRIC VIEW

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL 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 PREFERANCES REFER DRG.NO.JCF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.JCF/STD-9-0-999

1	PIPE COMPLETE		38	49515018		0.859	
1	BRACKET COMPLETE		37	58115004		9.128	
1	FLANGE		36	AAE15075		3.376	
2	CONDUIT	1mm THK x Ø40 x 1200	35		IS:17874 X04Cr19Ni9	1.17	
4	CONDUIT	1mm THK x Ø40 x 500	34		IS:17874 X04Cr19Ni9	0.49	
2	HORIZONTAL STIFFENER		33	AAD15878		8.52	
2	TOP CONDUITS COMPLETE		32	75615006		2.34	
1	ELECTRICAL COUPLER BASE PLATE		31	75615005		19.63	
1	HORIZONTAL STIFFENER		30	AAD15873		8.32	
3	FLANGE		29	AAE15074		5.078	
4	FLANGE		28	AAE15073		5.078	
1	FLANGE		27	AAE15081		10.168	
1	FLANGE		26	AAE15080		10.168	
1	PILLAR LH		25	AAE15072		16.86	
1	PILLAR RH		24	AAE15071		16.86	
2	REINFORCEMENT		23	AAA15474		0.911	
2	REINFORCEMENT		22	AAA15473		0.911	
1	FLANGE		21	AAA15414		1.294	
1	REINFORCEMENT		20	AAA15205		0.741	
1	REINFORCEMENT		19	AAA15206		0.780	
1	REINFORCEMENT		18	AAE15084		1.675	
1	REINFORCEMENT		17	AAA15232		0.088	
1	ARCH COMPLETE		16	59315003		14.208	
2	WEB		15	AAA15208		0.782	
1	FLANGE LH		14	AAE15078		3.83	
1	FLANGE RH		13	AAE15077		3.83	
1	ARCH COMPLETE		12	97115009		13.148	
1	PILLAR		11	AAE15083		4.060	
1	PILLAR		10	AAE15082		4.078	
1	PILLAR		9	AAA15237		2.101	
1	PILLAR		8	AAA15238		2.101	
1	REINFORCEMENT		7	AAA15252		0.089	
1	FRAMEWORK PART		6	AAA15253		4.519	
1	FRAMEWORK PART		5	AAA15254		4.520	
2	REINFORCEMENT		4	AAA15257		0.362	
1	RAM PILLAR		3	AAD15904		10.688	
1	RAM PILLAR		2	AAE15431		10.583	
1	SILL ARRANGEMENT		1	49515003		39.942	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-5 END CONSTRUCTI		SURFACE AREA IN Sq.m.: 26.630		WT/ASSY IN Kgs:	
FRAME WORK END CONSTRUCTION		SCALE	SSE/D		
		1:10	CHD		
		ALT.	ALTD		
		DRN	3D B.Suresh 2D Mahesh		
INDIAN RAILWAY STANDARDS		SHEET		LWLRRM/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038		3 OF 3		83115003	
				A1	


REF.DRG.NO.

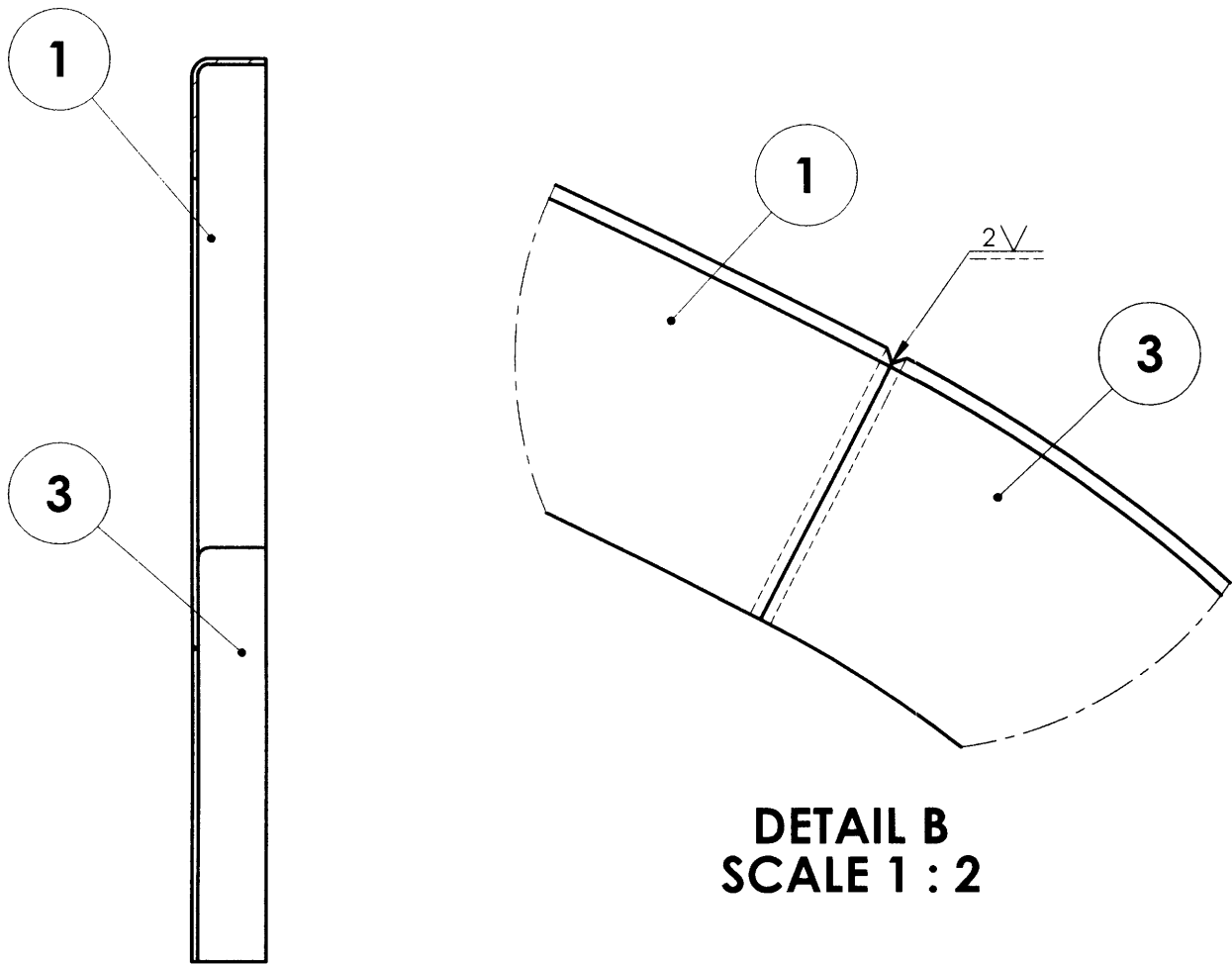
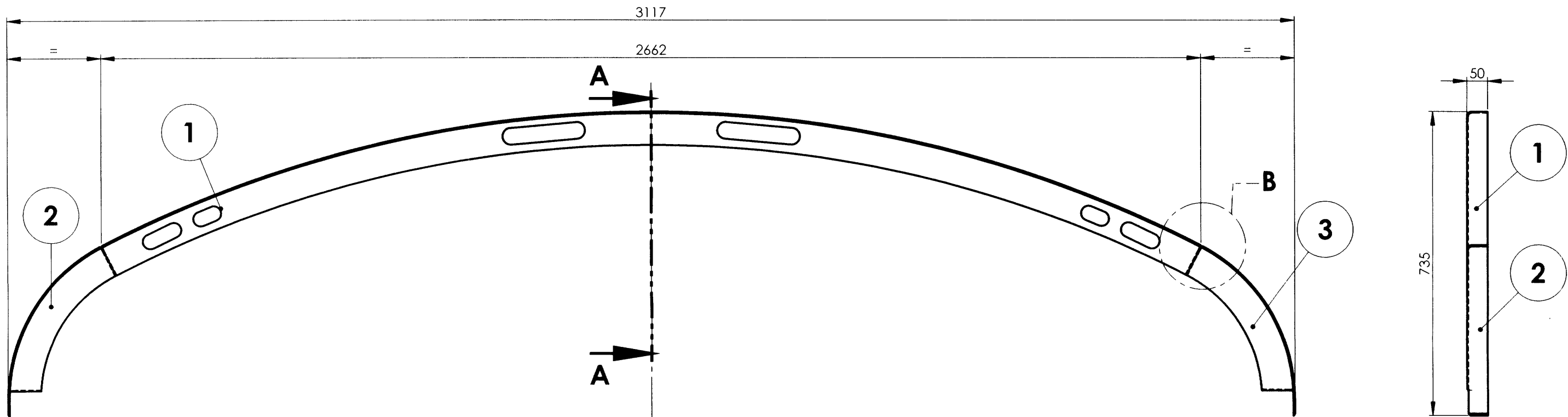
	12-08-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	NAME/NAME

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				▽▽ FINISH MACHINED		⊖⊖ BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE																																																																																														
				▽▽▽ FINE FINISH MACHINED		⊖⊖⊖ CHAMFERED																																																																																																						
<div><div><div><div><div><div>450</div><div>370 ±0.50</div><div>40</div><div>40</div><div>370 ±0.50</div><div>450</div></div></div><div><div>150</div><div>1.5</div><div>1.5</div><div>1</div><div>2</div></div></div></div></div> <div><div>NOTE:-</div><div><div>1. ALL WELDING SHALL BE OF TIG UNLESS OTHERWISE SPECIFIED.</div><div>2. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC. CK-201 SHALL BE USED FOR WELDING.</div><div>3. ALL WELDED JOINTS SPATTERS SHALL BE GROUND.</div><div>4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.</div><div>5. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.</div><div>6. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.</div><div>7. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.</div></div></div> <table><tr><td>4</td><td>HEXAGON NUT</td><td>IS:1364 (PART-3)/ISO 4032-M6-A2-70</td><td>2</td><td>IS:1364 (PART-3) 2007</td><td>IS:1367 (P-14) A2-70</td><td></td><td></td></tr><tr><td>1</td><td>BRACKET</td><td></td><td>1</td><td>AAC15968</td><td></td><td>4.36</td><td></td></tr><tr><td>QTY.</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO.</td><td>REF.DRGS.</td><td>MATL</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></tr><tr><td colspan="4">GROUP: 1-5 End Construction</td><td colspan="2">SURFACE AREA IN Sq.m.:447326.65</td><td colspan="2">WT/ASSY IN Kgs:</td></tr><tr><td colspan="6" rowspan="4">FIXING BRACKET FOR TAIL LAMP</td><td>SCALE</td><td>SSE/D</td></tr><tr><td>1:5</td><td>CHD</td></tr><tr><td>ALT.</td><td>ALTD</td></tr><tr><td>DRN</td><td>RAVI</td></tr><tr><td colspan="6">INDIAN RAILWAY STANDARDS</td><td colspan="2">TV/AC</td></tr><tr><td colspan="6">INTEGRAL COACH FACTORY, CHENNAI - 600088</td><td colspan="2">SHEET 1 OF 1</td></tr><tr><td colspan="6">REF.DRG.NO.-</td><td colspan="2">87015007</td></tr><tr><td colspan="6">DATE OF LATEST ALT.</td><td colspan="2">A3</td></tr><tr><td colspan="6">DATE OF FIRST ISSUE</td><td colspan="2"></td></tr><tr><td colspan="6">AME/SME</td><td colspan="2"></td></tr></table>															4	HEXAGON NUT	IS:1364 (PART-3)/ISO 4032-M6-A2-70	2	IS:1364 (PART-3) 2007	IS:1367 (P-14) A2-70			1	BRACKET		1	AAC15968		4.36		QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS	GROUP: 1-5 End Construction				SURFACE AREA IN Sq.m.:447326.65		WT/ASSY IN Kgs:		FIXING BRACKET FOR TAIL LAMP						SCALE	SSE/D	1:5	CHD	ALT.	ALTD	DRN	RAVI	INDIAN RAILWAY STANDARDS						TV/AC		INTEGRAL COACH FACTORY, CHENNAI - 600088						SHEET 1 OF 1		REF.DRG.NO.-						87015007		DATE OF LATEST ALT.						A3		DATE OF FIRST ISSUE								AME/SME							
4	HEXAGON NUT	IS:1364 (PART-3)/ISO 4032-M6-A2-70	2	IS:1364 (PART-3) 2007	IS:1367 (P-14) A2-70																																																																																																							
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AME/SME																																																																																																												

97115009

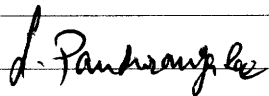
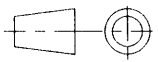
▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊖⊖⊖ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		ITEM - 1 REVISED.	




NOTE:

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

1	ARCH		3	AAA15472		1.662		
1	ARCH		2	AAA15471		1.662		
1	ARCH		1	AAD15701		9.823		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: 1-5 End Construction			SURFACE AREA IN Sq.m.:			WT/ASSY IN Kgs:		
ARCH COMPLETE						SCALE 1:10	SSE/D	
							CHD	
						ALT a	ALTD	RAVI
							DPN	B.Suresh
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	 LWS/VA			
					97115009		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.1 10113.0.20.120.025

07-09-2023	17-07-23	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA15180

▽ ROUGH MACHINED

⊙ ROUGH CLEANED

▽▽ FINISH MACHINED

⊙ BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

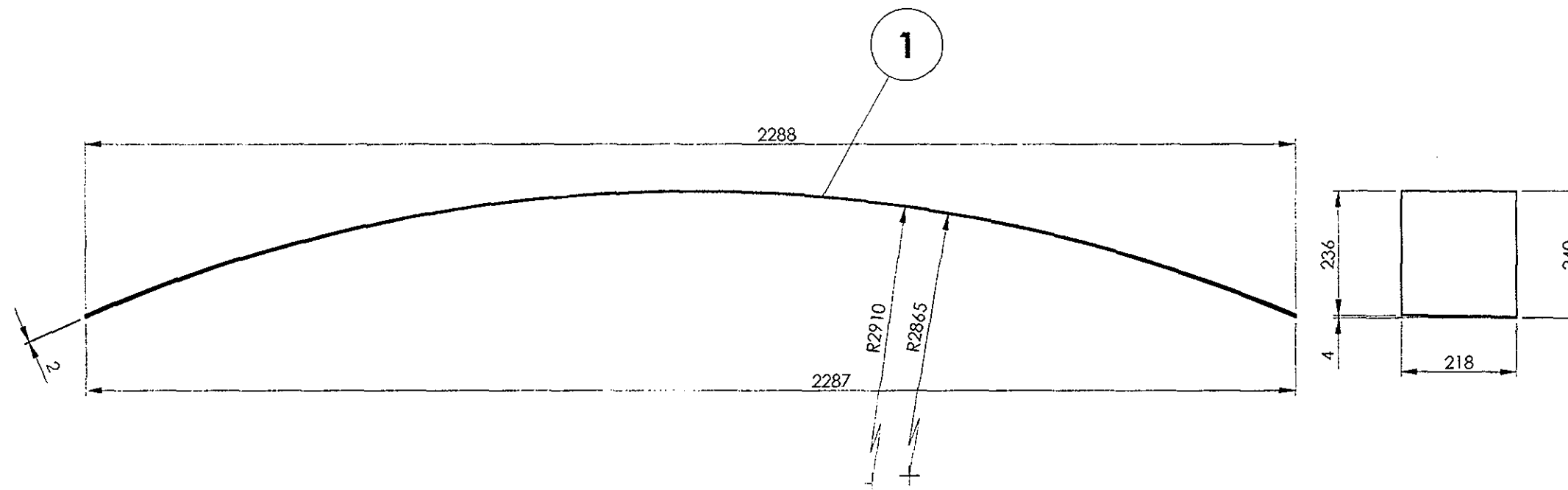
⊙ CHAMFERED

REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &
DATE


1	COVERING SHEET	2x218x2353	1		RDSO/SPEC C-K201 X2CrNi12	8.203	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5				SURFACE AREA IN Sq.m.:1035418.877 WT/ASSY IN Kgs:8.203			
COVERING SHEET					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					DRN	D.MOSES & T J K VELU	
SHEET 1 OF 1					AAA15180		
DATE OF LATEST ALT.					A3		

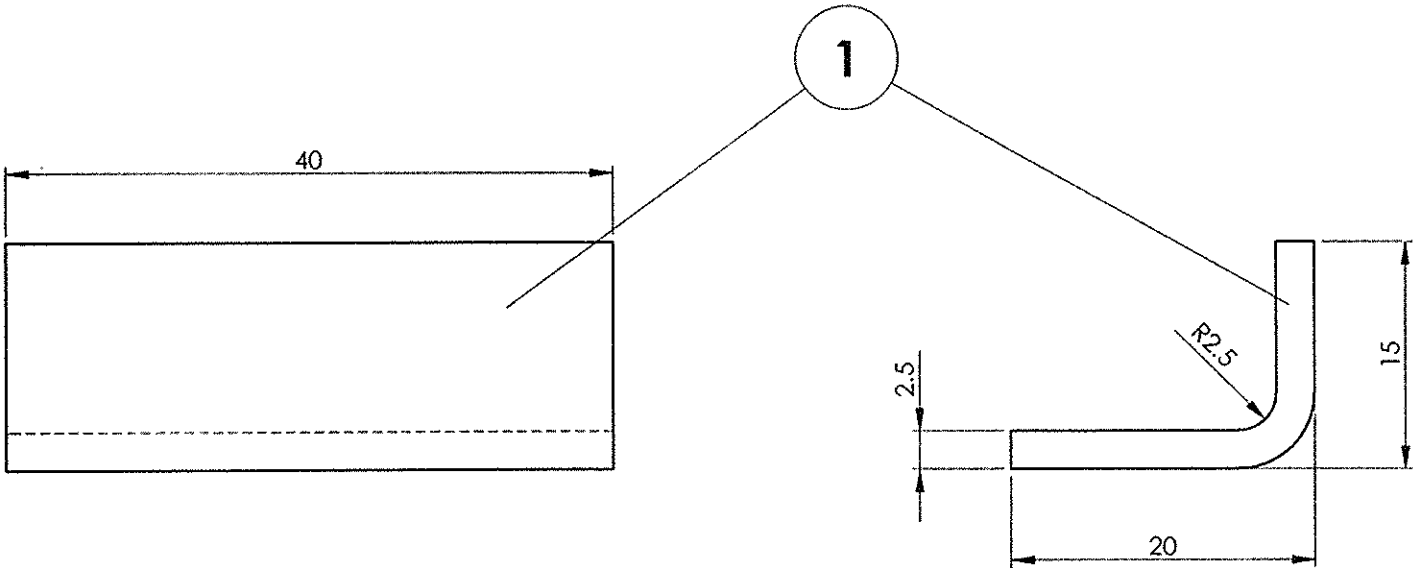
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.

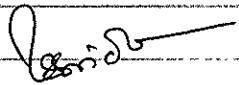
AAA15193

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		R.M.SIZE ALTD. FROM 2.5x35.2x40 TO 2.5x30x40 AND MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	 3/15



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

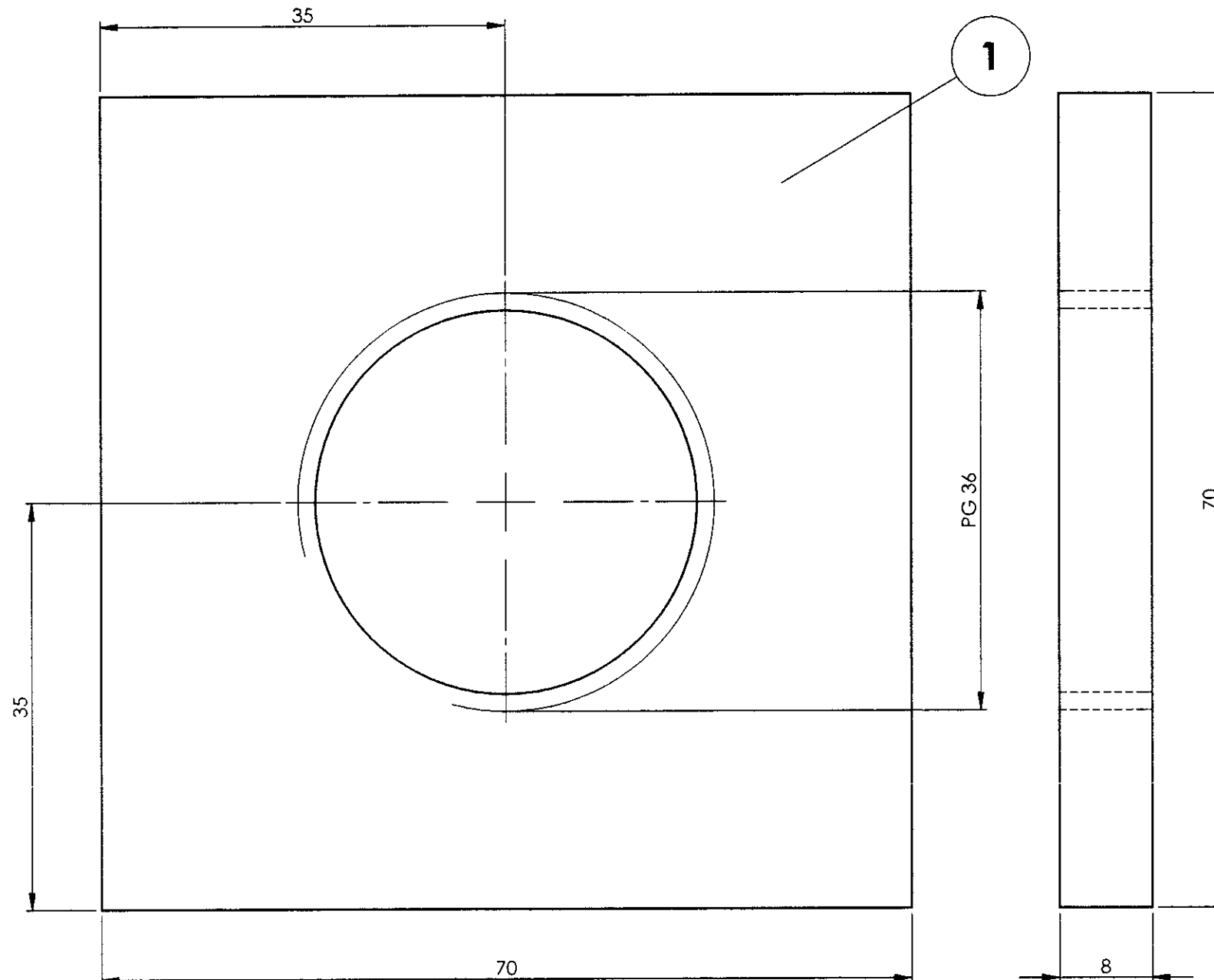
1	STOP	2.5x30x40	1		RDSO/SPEC C-K201 X2CrNi12	0.025	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.003			WT/ASSY IN Kgs:0.028		
STOP					SCALE 2:1	SSE/D CHD	
					ALT. a	ALTD	
						DRN	D.MOSES & T J K VELU.
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
					AAA15193		A3

AAA15203

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

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	
b		TAPPED HOLE SIZE CORRECTED FROM M36X3.0 T PG 36 AND MATERIAL SPEC. REVISED FROM RDSO/SPEC.C-K201 X2 CrNi12 TO RDSO/SPEC C-K201 X5 CrNi1810	
c		NOTE 1 ADDED	✓ 04/7/23



NOTE:

1. ALTERNATIVELY IS 6911 X04Cr19Ni9 (OR) ASTM A240 S30400 MAY BE USED IN LIEU OF RDSO/SPEC C-K201 X5Cr Ni 18 10 FOR ITEM 1.

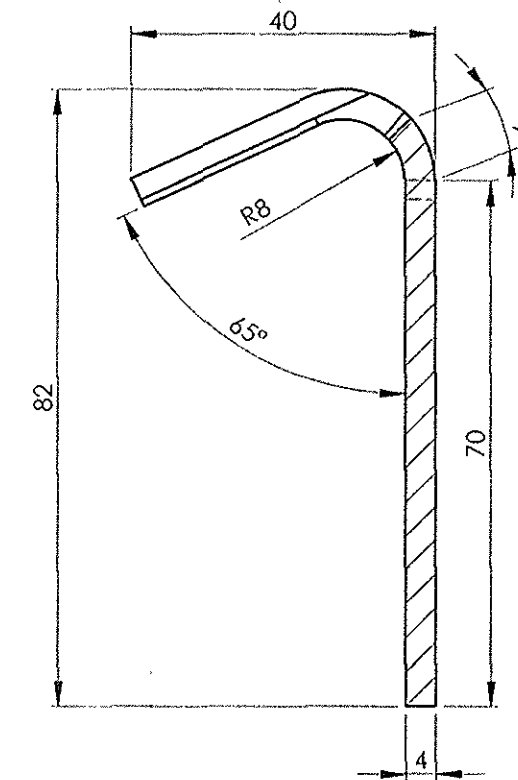
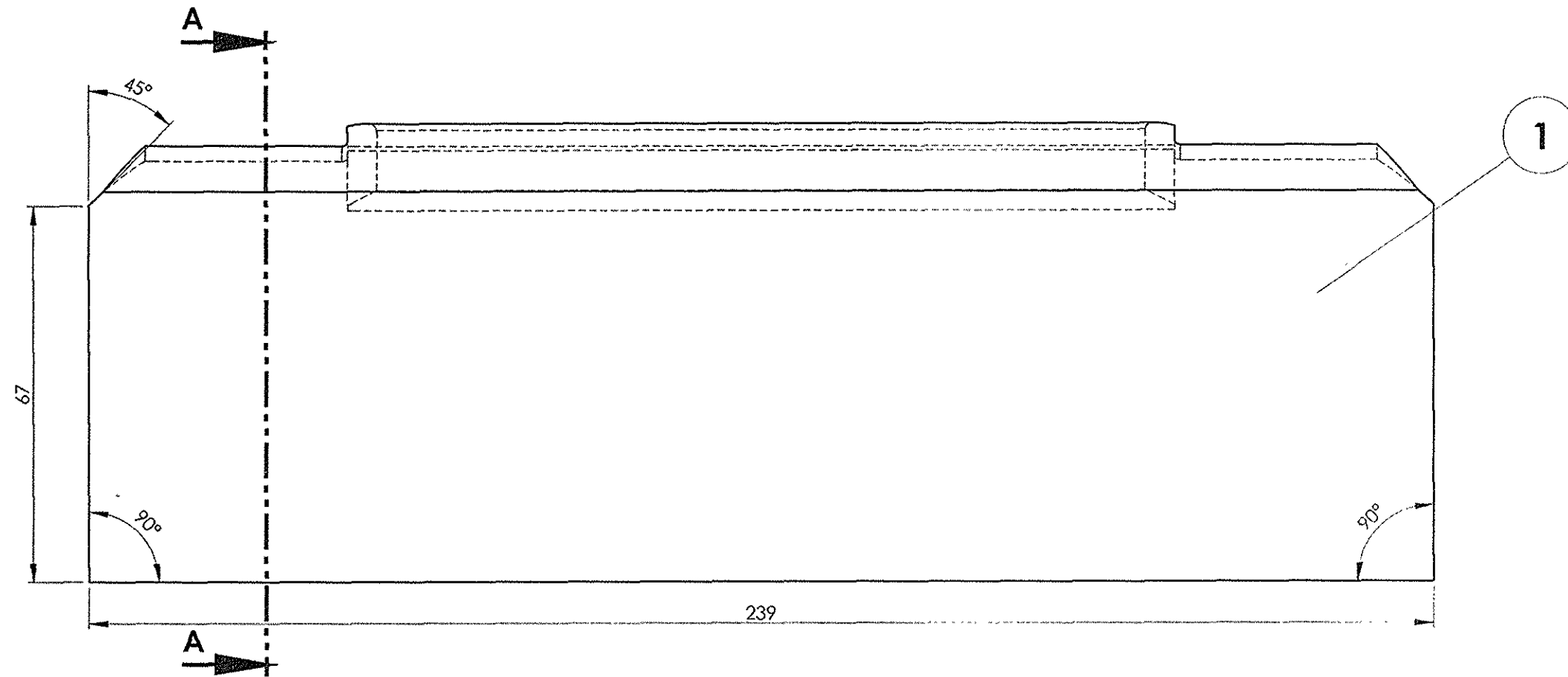
1	PLATE	8x70x70	1		RDSO SPEC C- K201 X5 Cr Ni 18 10	0.212	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.011			WT/ASSY IN Kgs:0.259		
PLATE					SCALE 2:1	SSE/D CHD	<i>L Panduranga R</i>
					ALT. c	ALTD	MAHESHBABU
						DRN	D.MOSES & T J K VELU
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
AAA15203		A3					

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

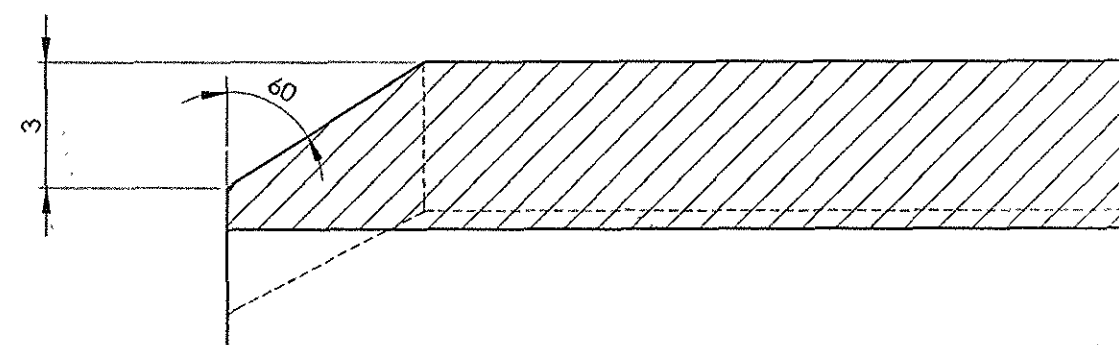
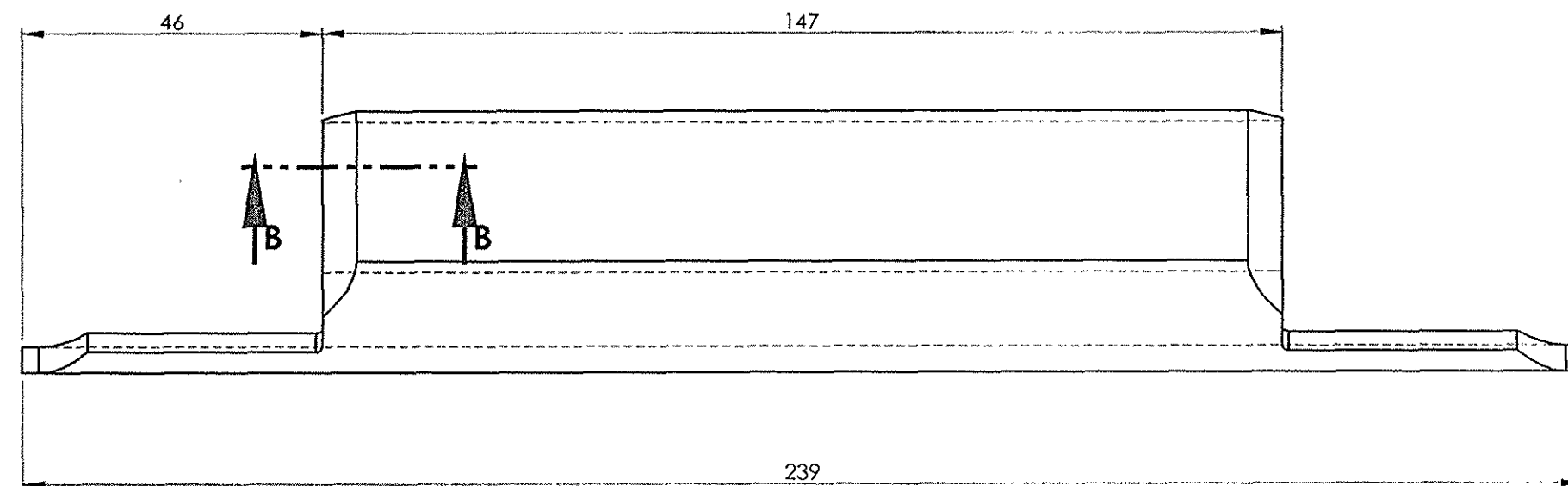
REF.DRG.NO.

AAA15205

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			
1		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12		30/06	



SECTION A-A



SECTION B-B
SCALE 5 : 1

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


REF.DRG.NO.

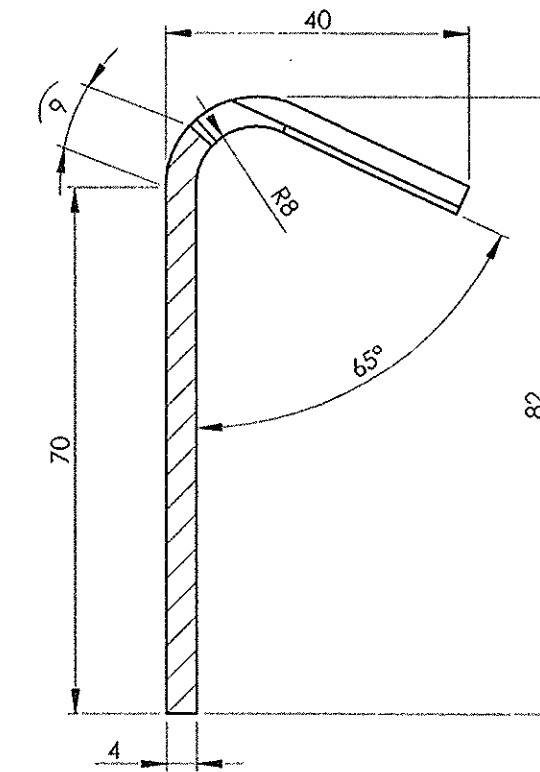
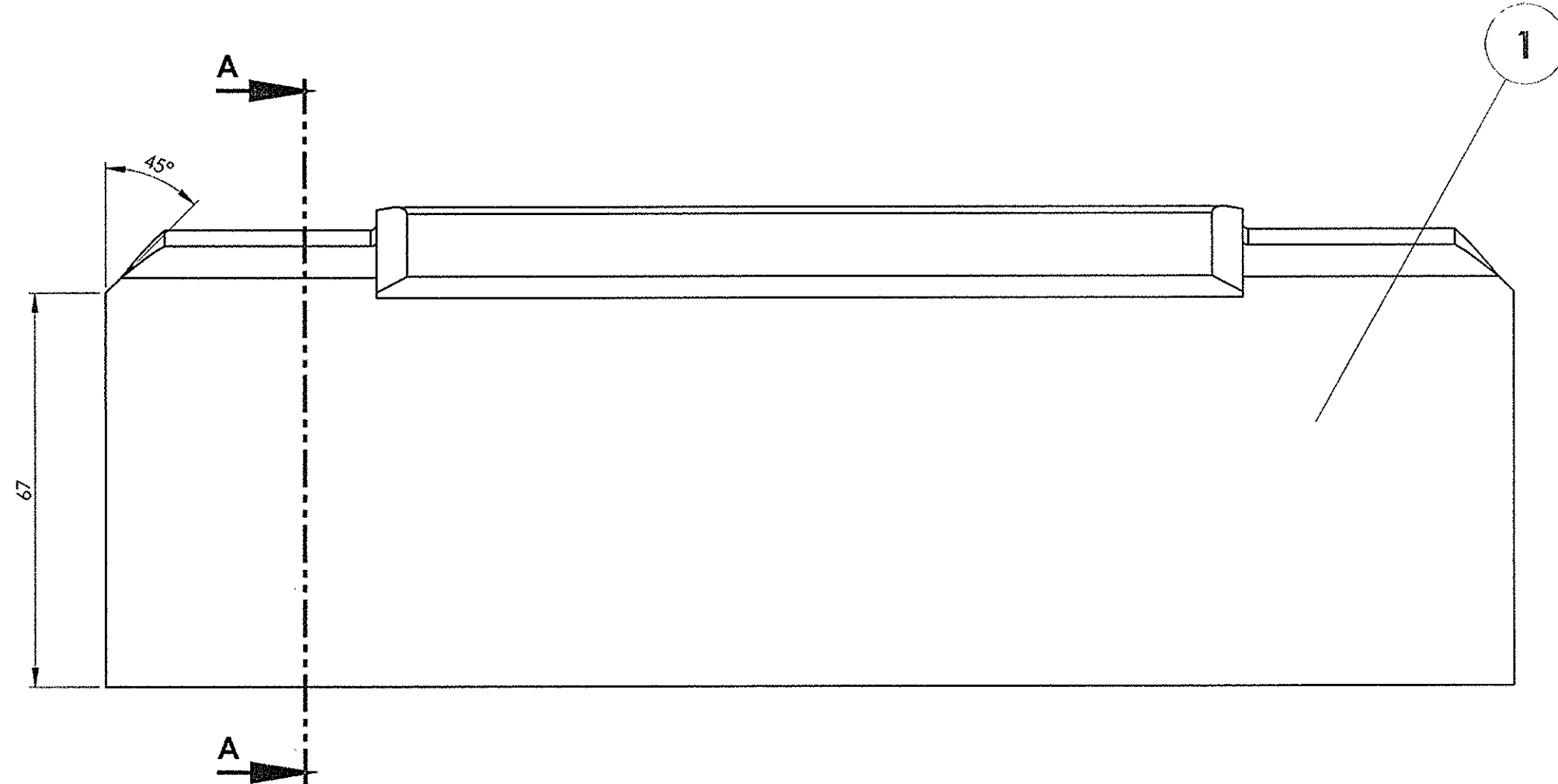
-05-2013	24-12-2009	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	

1	REINFORCEMENT	4x115.3x239	1		RDSO/SPEC C-K201 X2CrNi12	0.761	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5				SURFACE AREA IN Sq.m.:0.050		WT/ASSY IN Kgs:0.761	
REINFORCEMENT					SCALE 1:1	SSE/D	
					CHD		
					ALT a	ALTD	B.SARAVANAN
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					DRN		D.MOSES & T J K VELU
					SHEET 1 OF 1	AAA15205 A2	

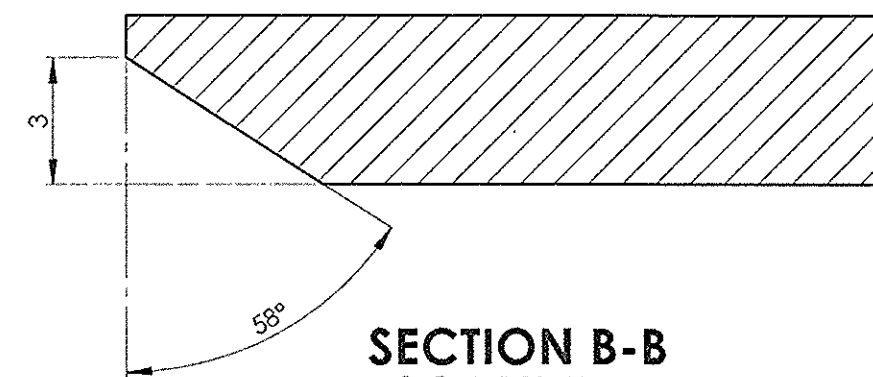
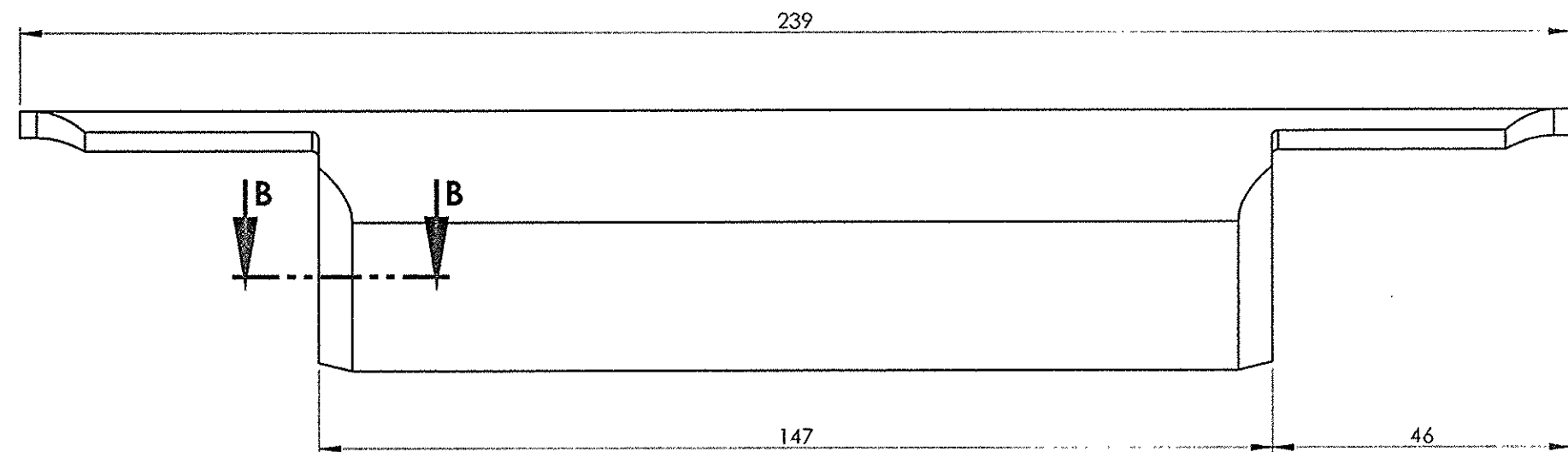
AAA15206

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	

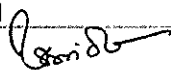
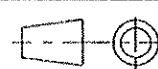



SECTION A-A



SECTION B-B
SCALE 5 : 1

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

1	REINFORCEMENT	4x115.3x239	1		RDSO/SPEC C-K201 X2CrNi12	0.761		
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-5		SURFACE AREA IN Sq.m.: 0.050			WT/ASSY IN Kgs: 0.761			
REINFORCEMENT					SCALE 1:1	SSE/D		
						CHD		
					ALTA	ALTD	B.SARAVANAN	
						DRN	D.MOSES	
INDIAN RAILWAY STANDARDS								
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA15206		
						A2		

-05-2013	24-12-2009	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.

AAA15208

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

⊖ ROUGH CLEANED

⊖ BURRS REMOVED

⊖ CHAMFERED

REVISIONS

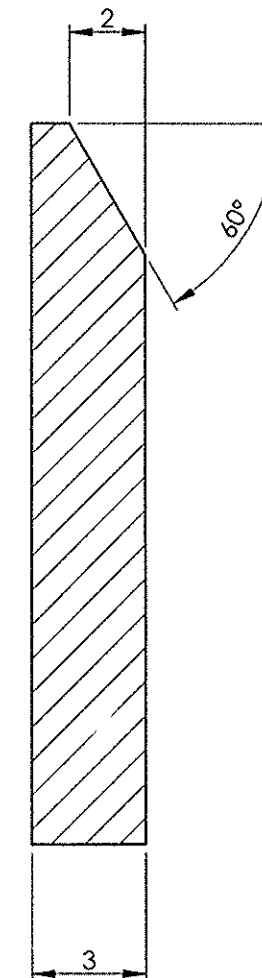
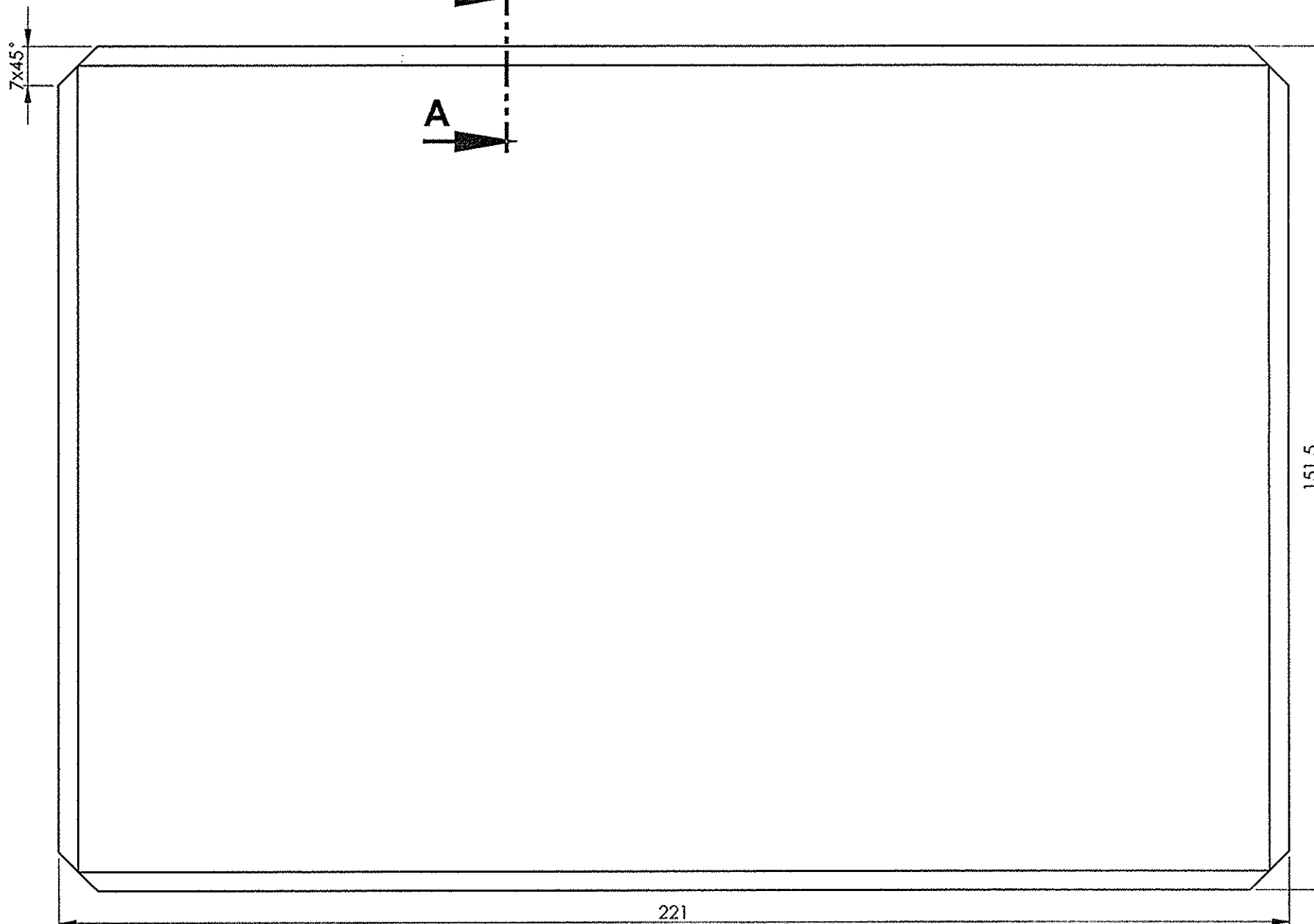
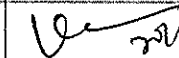
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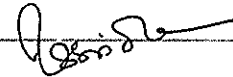
ZONE

DESCRIPTION

APPROVED &
DATE

a

MATERIAL SPEC. ALTD. FROM SS-409M TO
RDSO/SPEC. C-K201 X2CrNi12SECTION A-A
SCALE 5 : 1

1	WEB	3x151.5x221	1		RDSO/SPEC C-K201 X2CrNi12	0.782	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.068			WT/ASSY IN Kgs:0.782		
WEB					SCALE 1:1	SSE/D CHD	
					ALT. a	ALTD DRN	
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
SHEET 1 OF 1		AAA15208	A3				

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

REF.DRG.NO.

-05-2013

24-02-2009

AME/SME

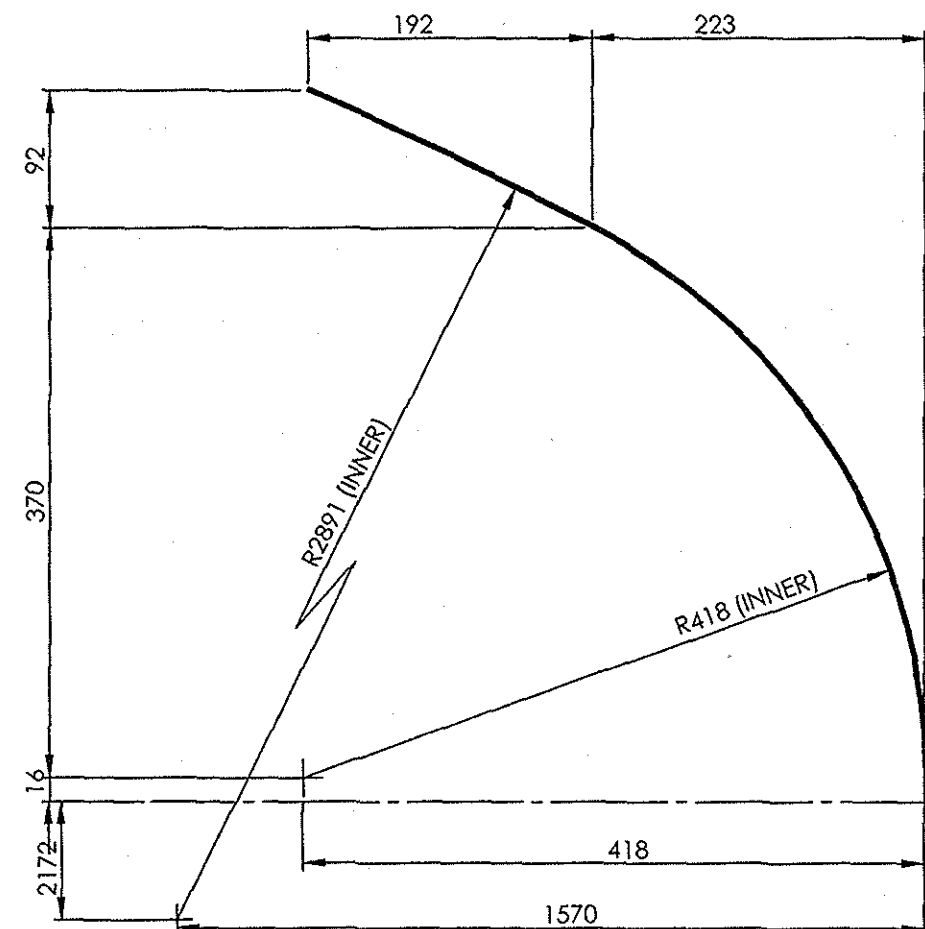
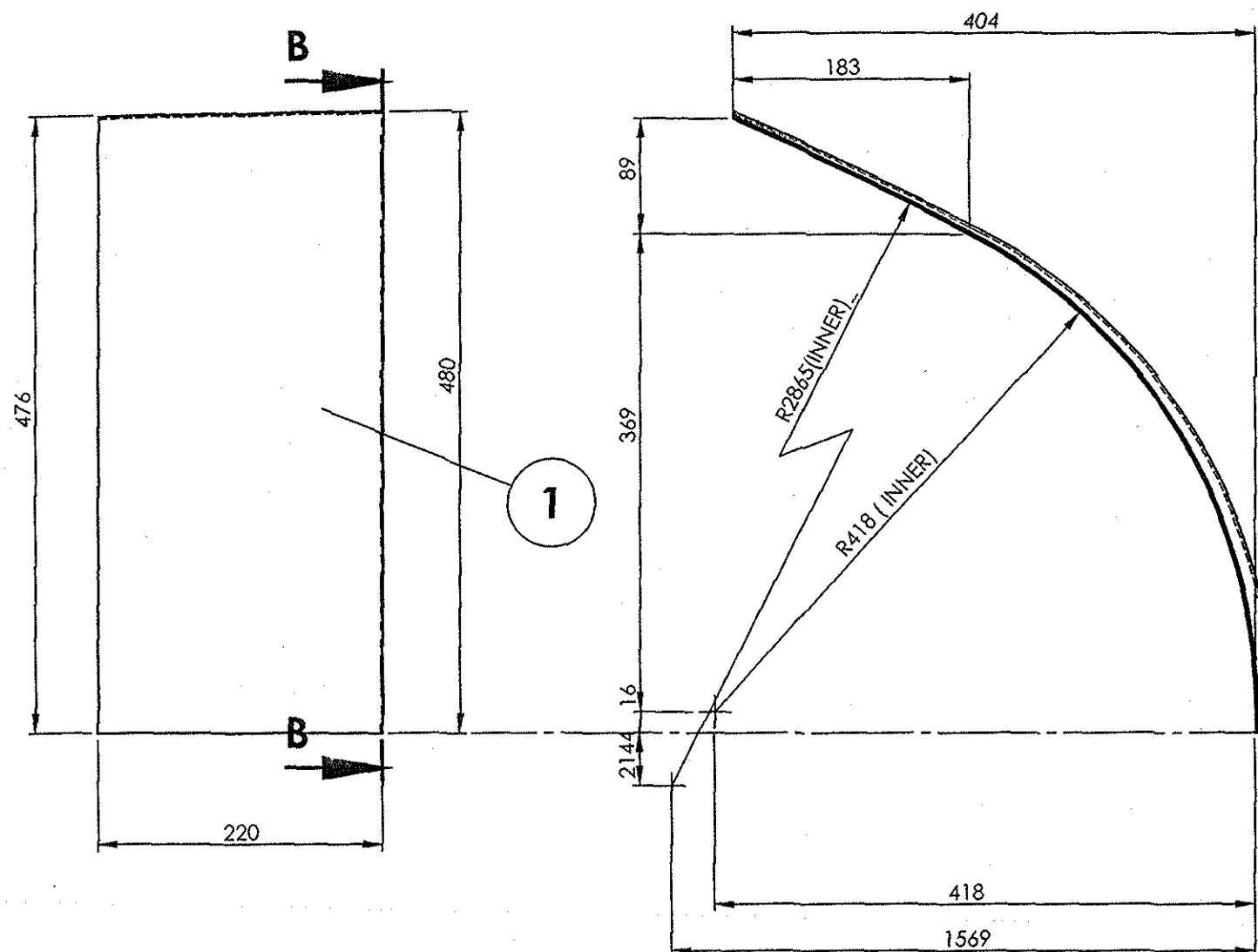
DATE OF LATEST ALT.

DATE OF FIRST ISSUE


AAA15219

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC REVISED.	<i>A. (19)</i>



SECTION B-B

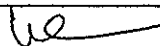
1	COVERING SHEET	2x220x670	1		RDSO/SPEC C-K201 X2CrNi12	2.389	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.296			WT/ASSY IN Kgs:2.337		
COVERING SHEET					SCALE	SSE/D	<i>h. Prasad</i>
					1:5	CHD	
					ALT. a	ALTD	TIKYA NAIK
						DRN	A.Palanichamy & T J K VELU
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA15219		A3

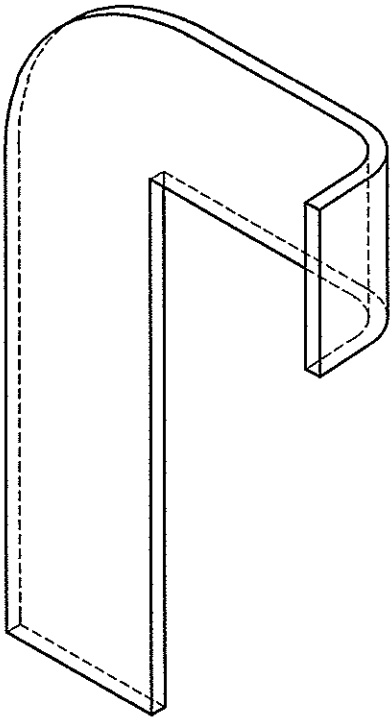
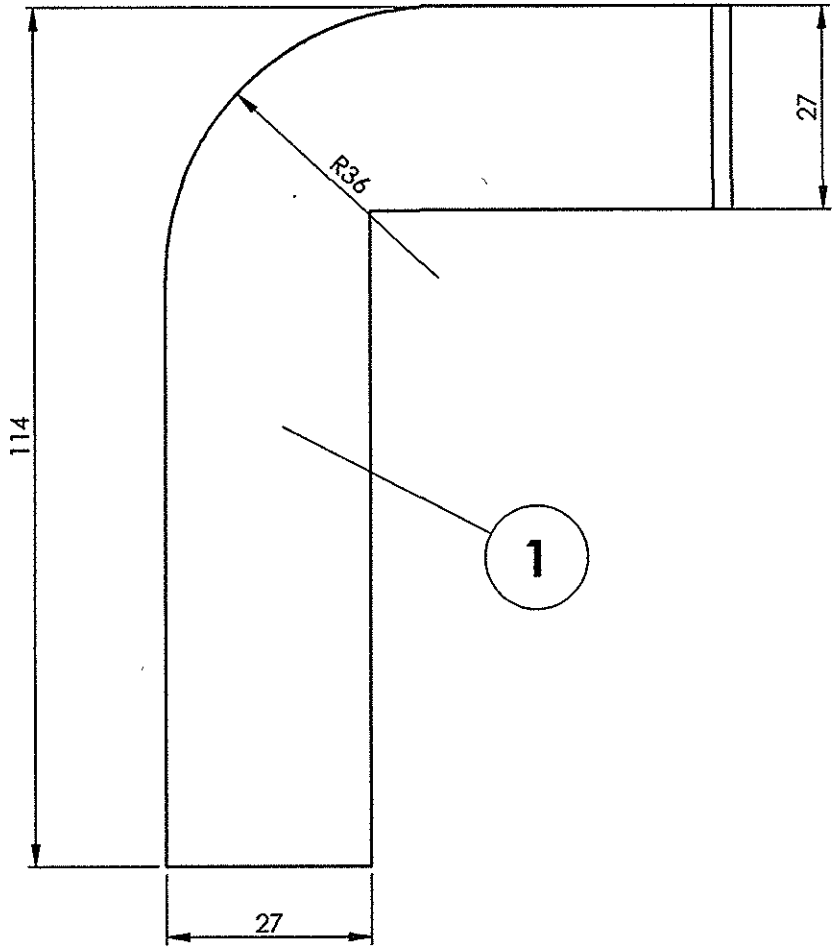
19-02-2016	26-02-2016	<i>A. M.</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	SME

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

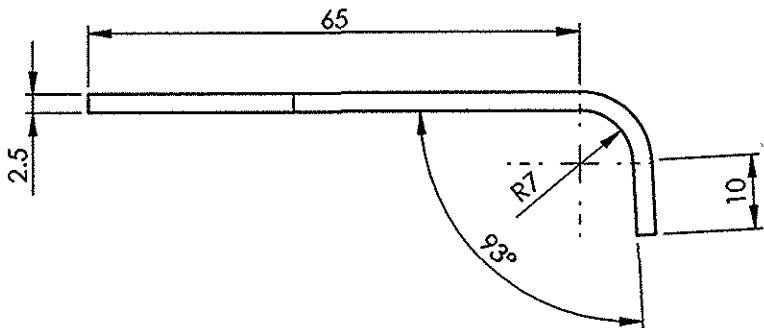
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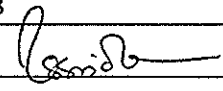

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	



ISOMETRIC VIEW




1	REINFORCEMENT	2.5x87x114	1		RDSO/SPEC C-K201 X2CrNi12	0.088	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.010			WT/ASSY IN Kgs:0.088		
REINFORCEMENT					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	B.SARAVANAN
					a	DRN	D.MOSES & T J K VELU
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA15232		A3

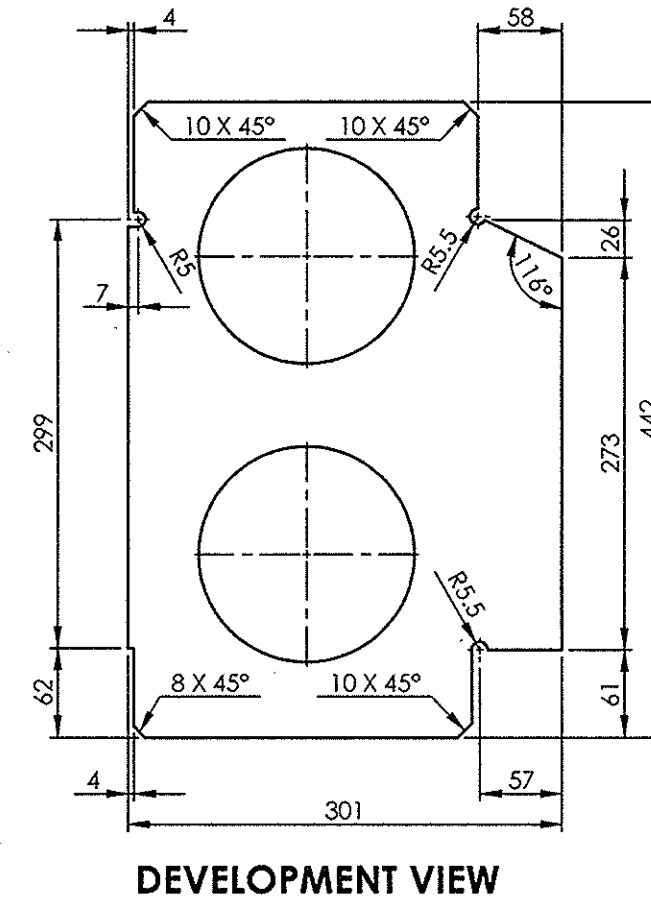
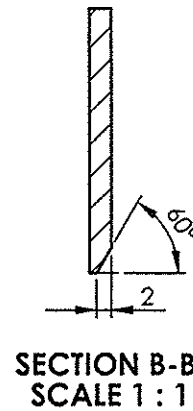
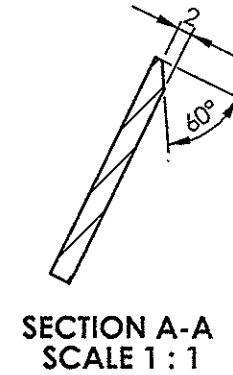
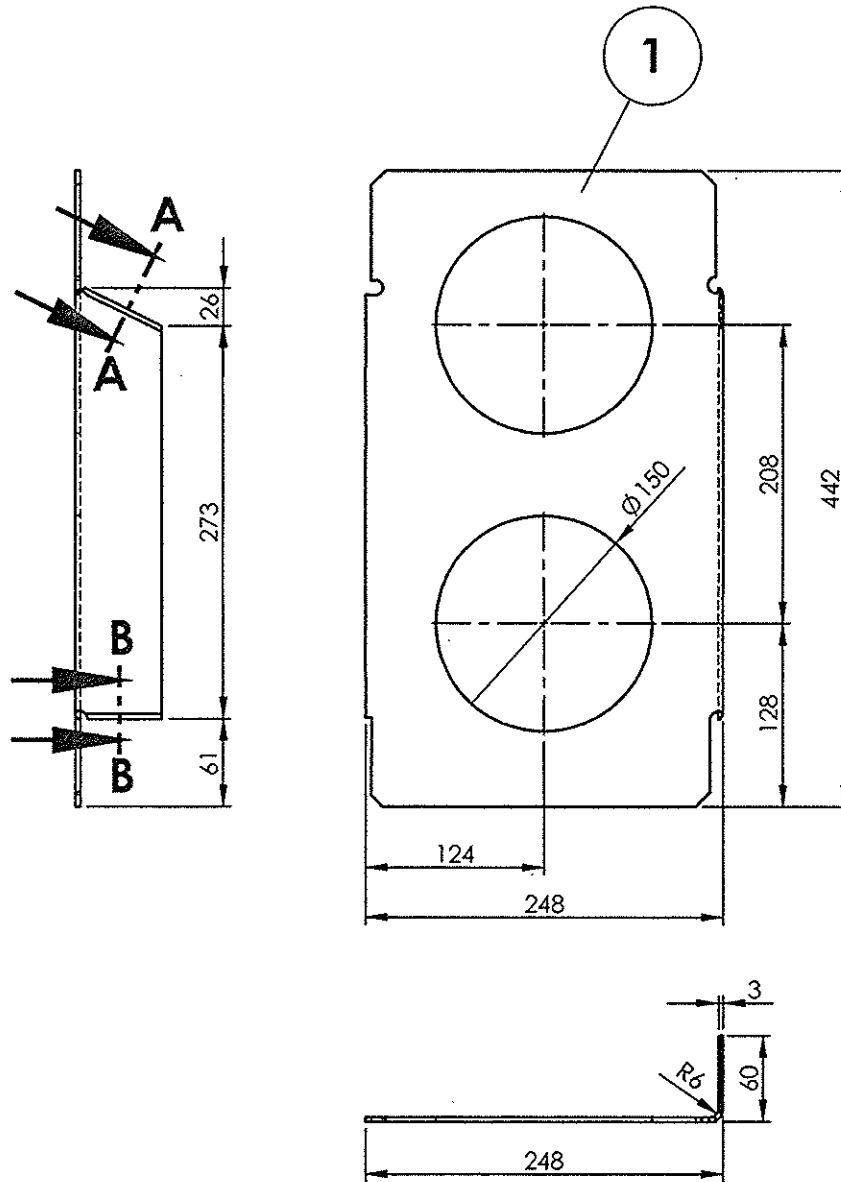
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.

AAA15237

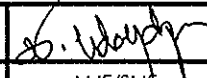
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

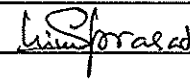
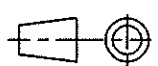
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
b		Ø 150 HOLES ADDED, DIMENSION REVISED, CHAMFERING, SECTION-AA & BB ADDED, VIEWS UPDATED.	



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


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24-06.2017	05.03.2010	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

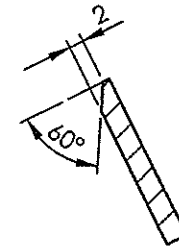
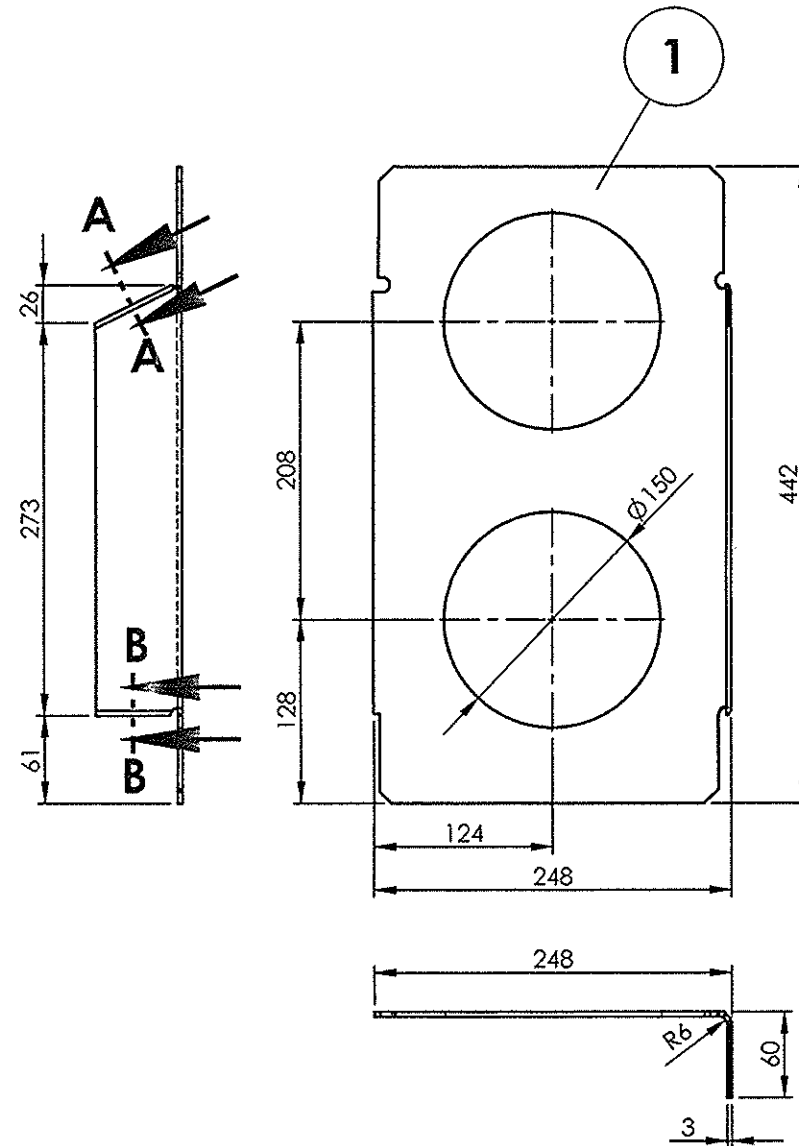
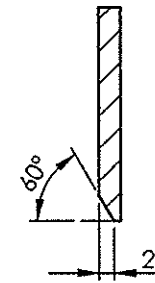
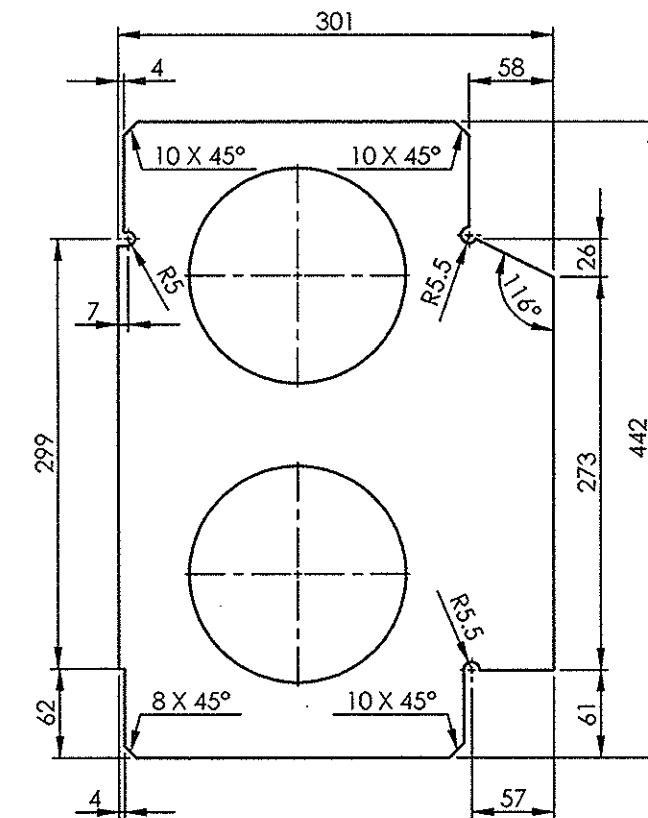
1	PILLAR	3x301x442	1		RDSO/SPEC C-K201 X2CrNi12	2.101	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.182			WT/ASSY IN Kgs:		
PILLAR					SCALE	SSE/D	
					1:5	CHD	
					ALT. b	ALTD	R.Vijay Rathinam
						DRN	D.MOSES & T J K VELU
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA15237	
							A3

AAA15238

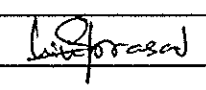
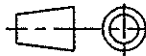
▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊖⊖⊖ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
b		Ø 150 HOLES ADDED, DIMENSION REVISED, CHAMFERING, SECTION-AA & BB ADDED, VIEWS UPDATED.	

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

SECTION A-A
SCALE 1:1SECTION B-B
SCALE 1:1

DEVELOPMENT VIEW

1	PILLAR	3x301x442	1		RDSO/SPEC C-K201 X2CrNi12	2.101	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.182			WT/ASSY IN Kgs:		
PILLAR					SCALE 1:5	SSE/D	
						CHD	
					ALT. b	ALTD	R.Vijay Rothinam
						DRN	D.MOSES & T J K VELU
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
					AAA15238		A3
INTEGRAL COACH FACTORY, CHENNAI - 600038							

AAA15244

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED

①b BURRS REMOVED

①8 CHAMFERED

REVISIONS

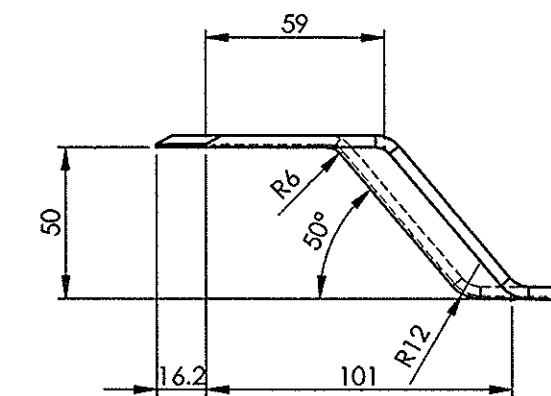
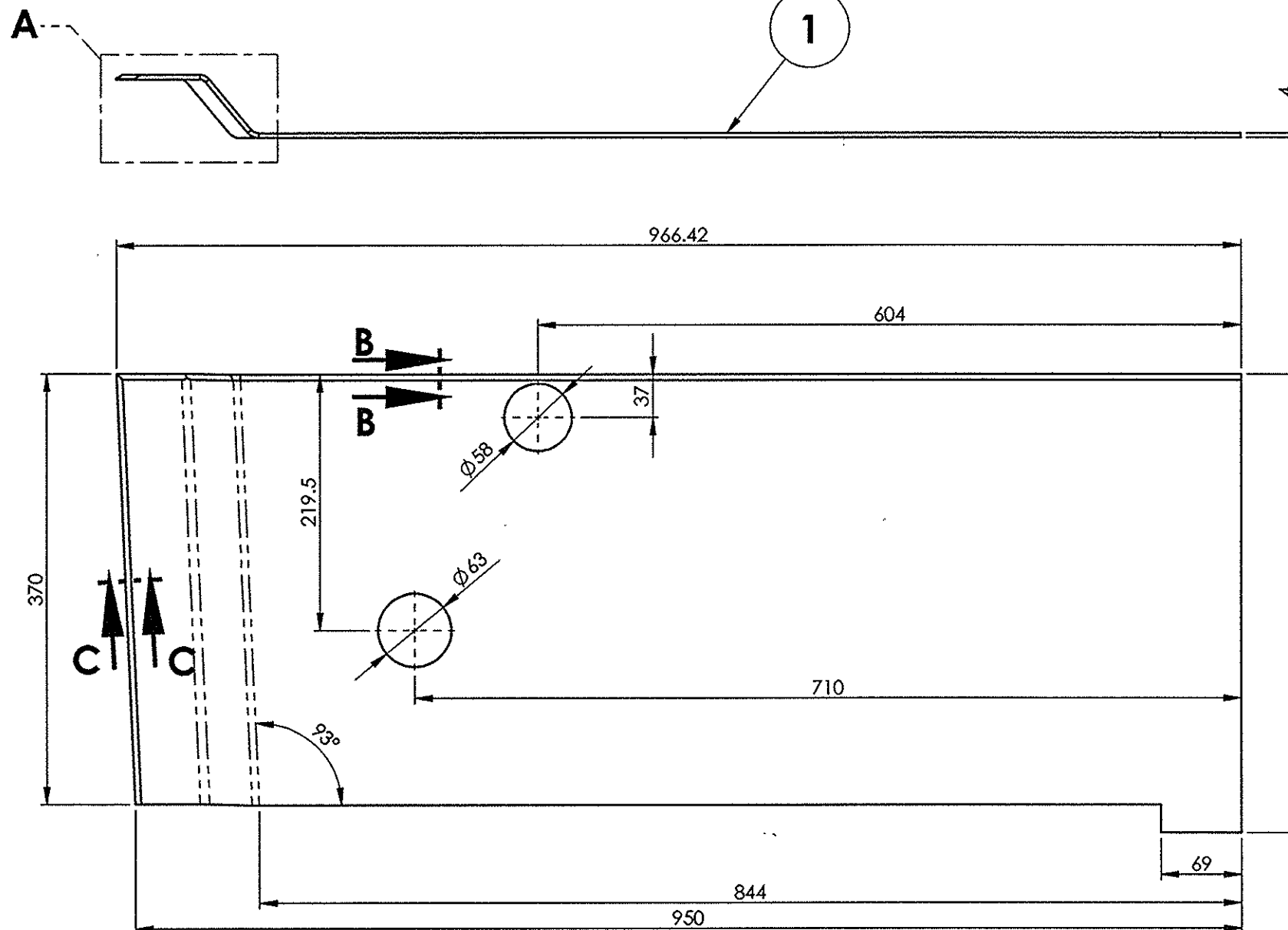
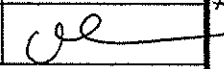
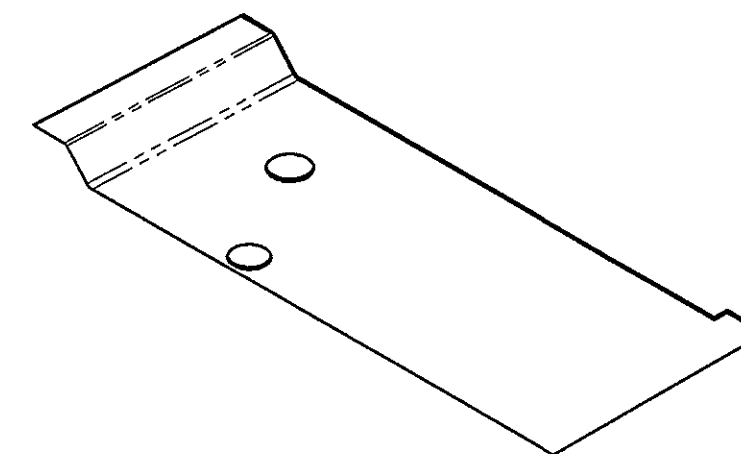
ALT.

ZONE

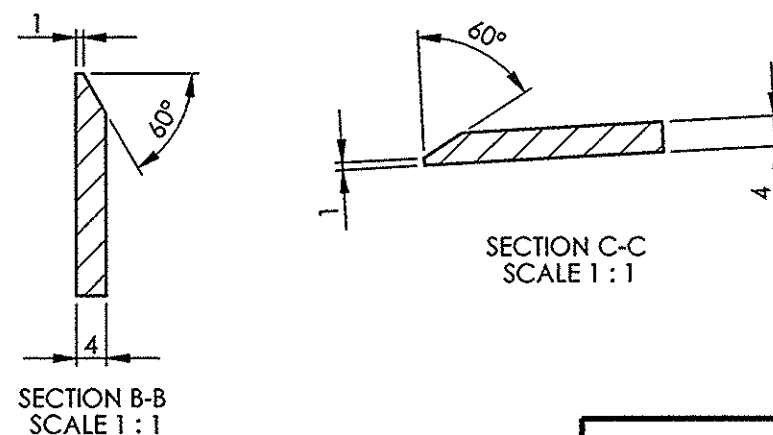
DESCRIPTION

APPROVED &
DATE

a

MATERIAL SPEC. ALTD. FROM SS-409M TO
RDSO/SPEC. C-K201 X2CrNi12DETAIL A
SCALE 2 : 5

ISOMETRIC VIEW

SECTION C-C
SCALE 1 : 1SECTION B-B
SCALE 1 : 1

REF.DRG.NO.

30-03622013

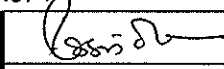
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AME/SME

DATE OF LATEST ALT.

DATE OF FIRST ISSUE

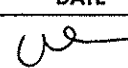
AME/SME

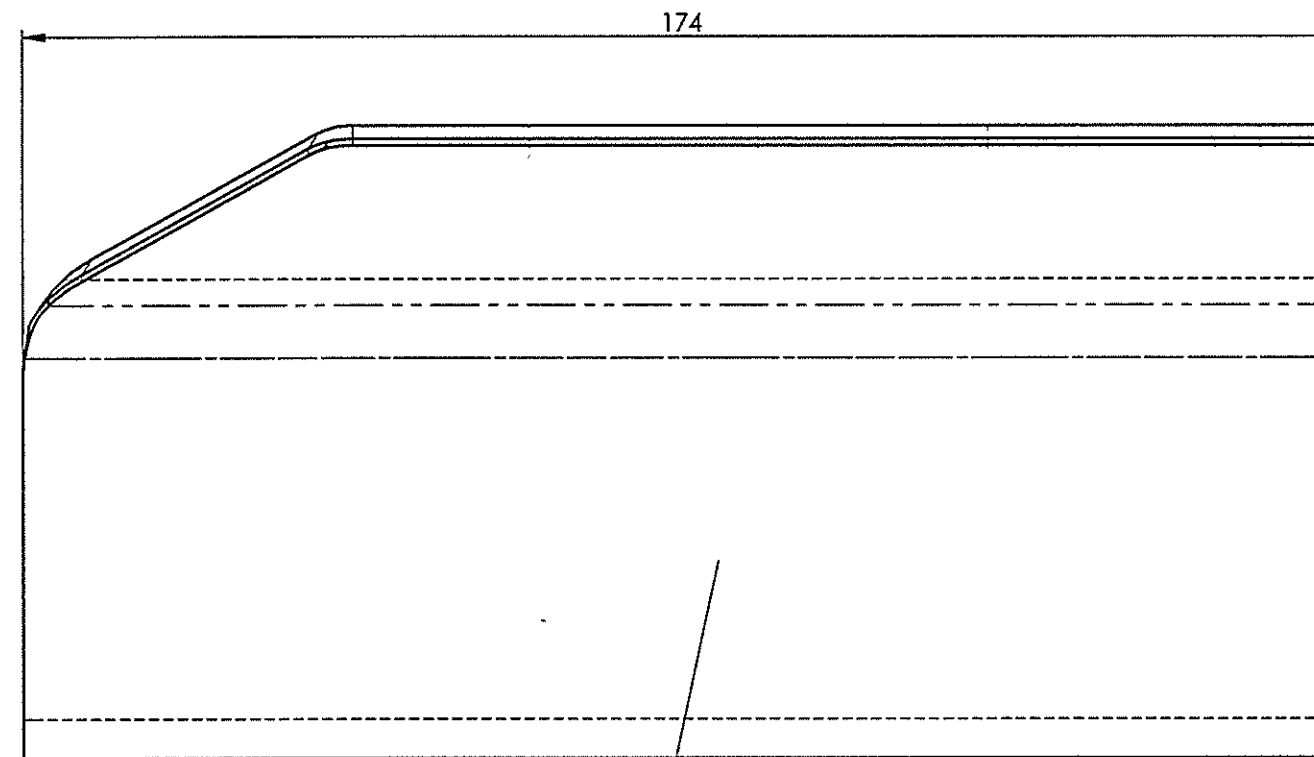
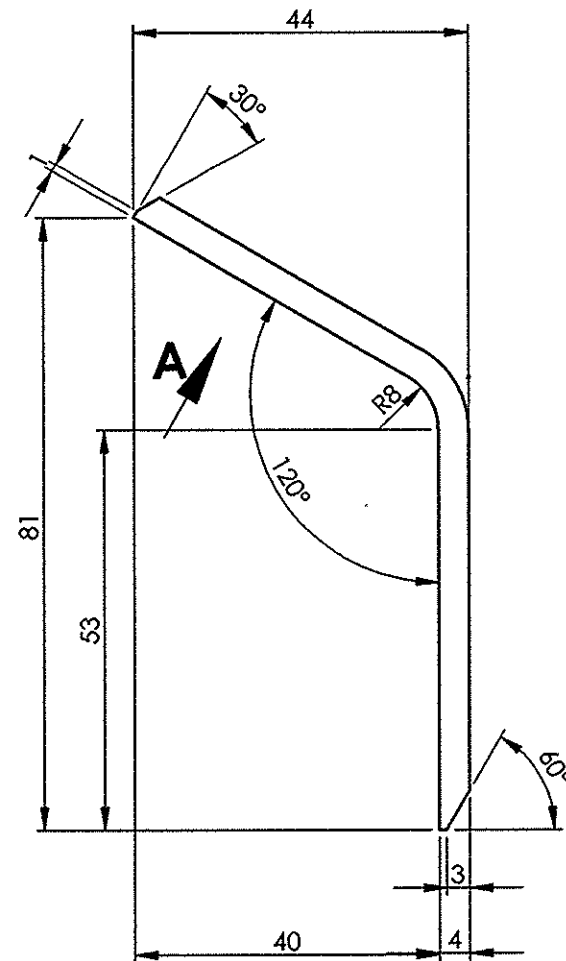
1	FLANGE R.H	4x394x988	1		RDSO/SPEC C-K201 X2CrNi12	11.394	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION				SURFACE AREA IN Sq.m.:0.727		WT/ASSY IN Kgs:11.394	
FLANGE R.H					SCALE 1:5	SSE/D	
					ALT. a	CHD	
INDIAN RAILWAY STANDARDS					ALT. a	DRN	B.SARAVANAN
					ALT. a	DRN	A.Palanichamy & T J K VELU
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		
					AAA15244		A3

AAA15247

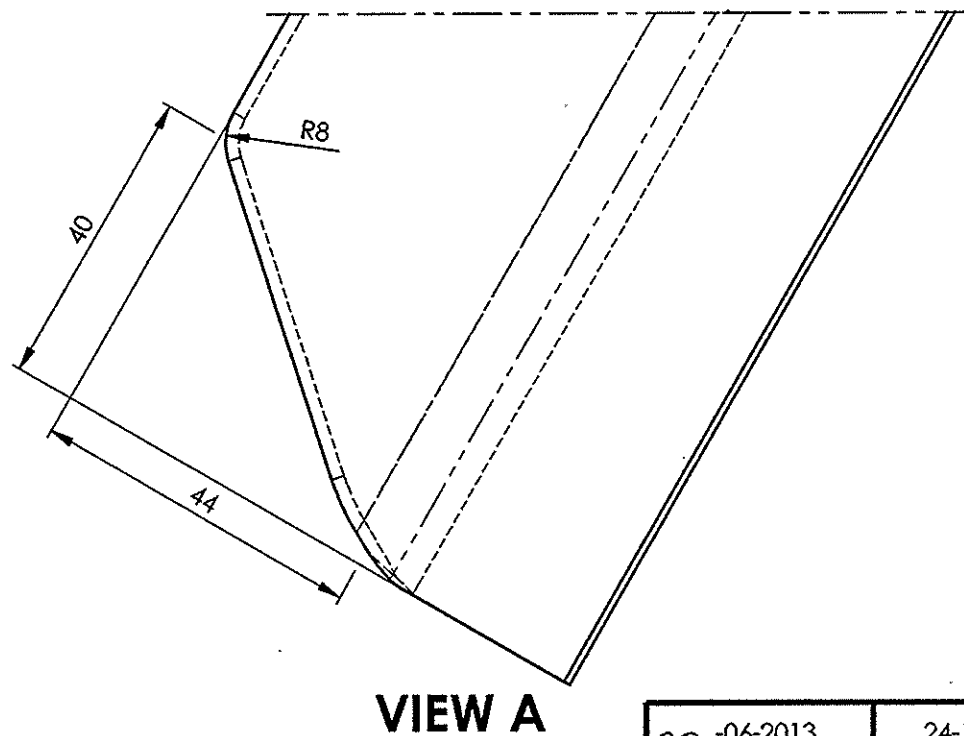
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS


ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	

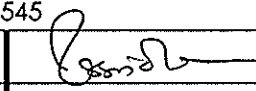
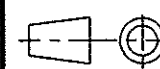


1



VIEW A

30-06-2013	24-12-2009	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	SME/AME

1	COVERING SHEET	4x105x174	1		RDSO/SPEC C-K201 X2CrNi12	0.542	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION				SURFACE AREA IN Sq.m.:0.036		WT/ASSY IN Kgs:0.545	
COVERING SHEET					SCALE 1:1	SSE/D CHD	
					ALT. a	ALTD DRN	B.SARAVANAN A.Palanichamy & T J K VELU
							
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA15247		A3

AAA15248

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

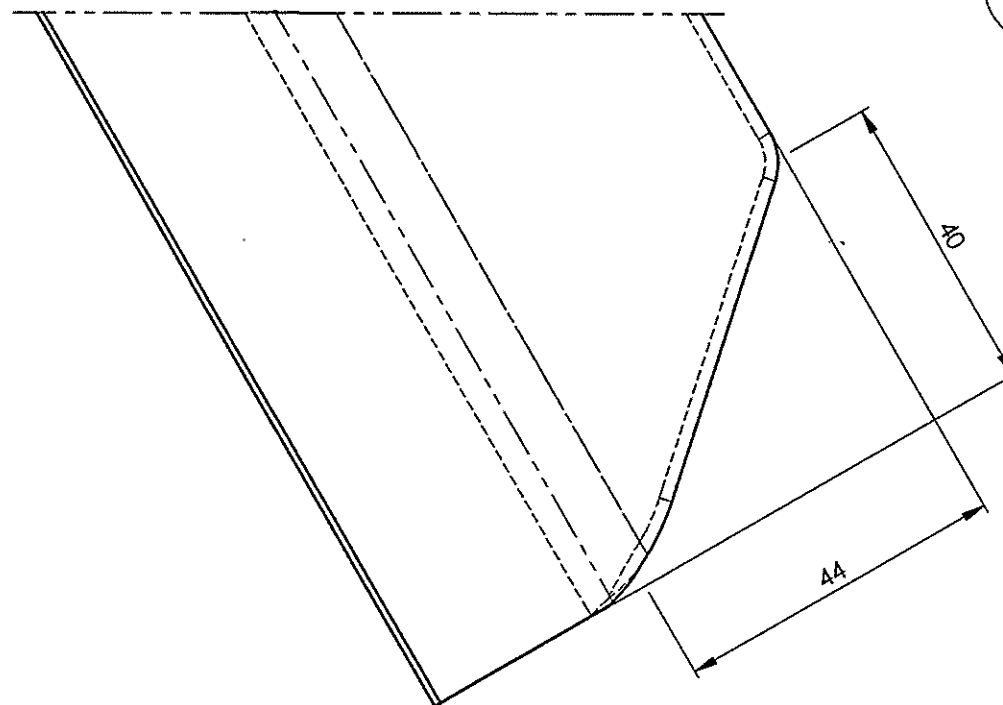
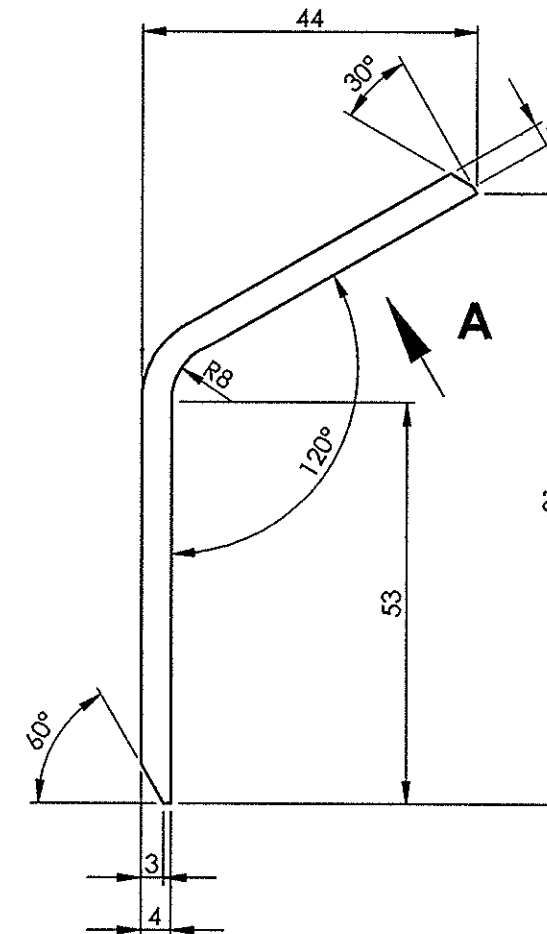
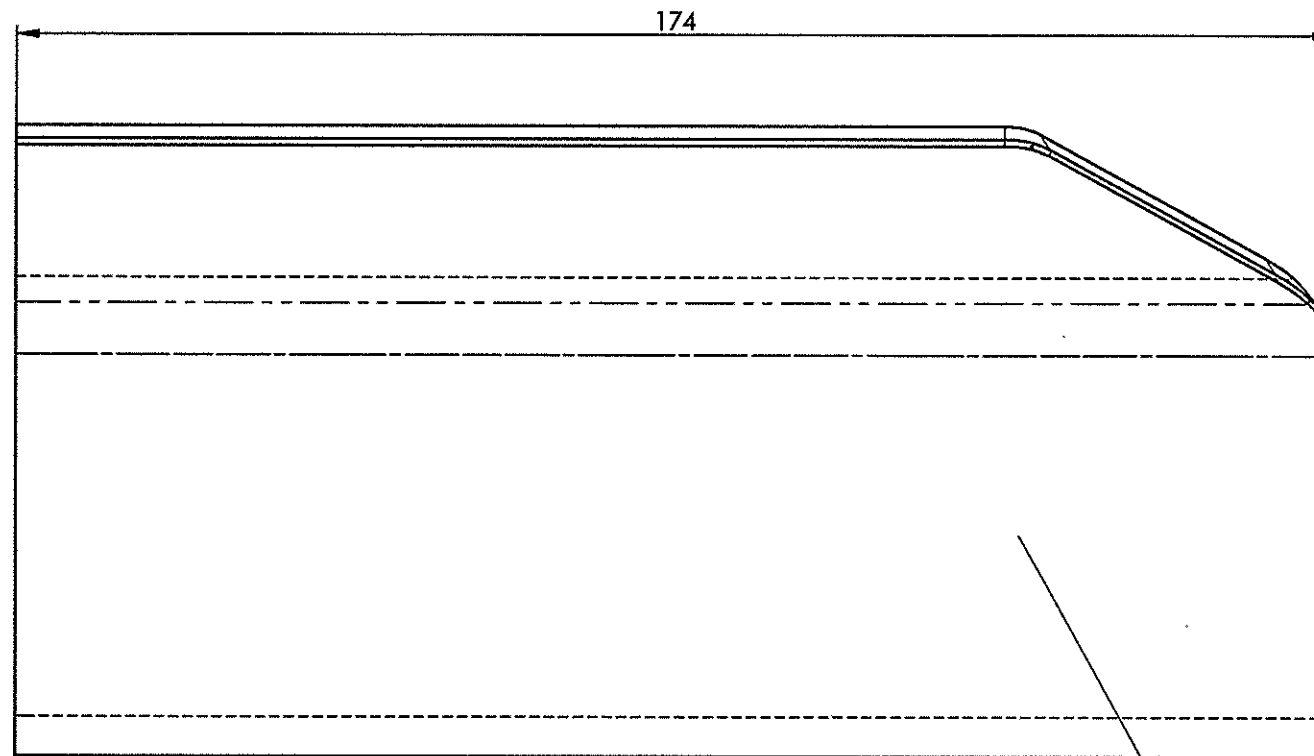
① ROUGH CLEANED

② BURRS REMOVED

③ CHAMFERED


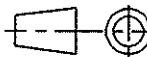
REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	<i>ve</i>



VIEW A

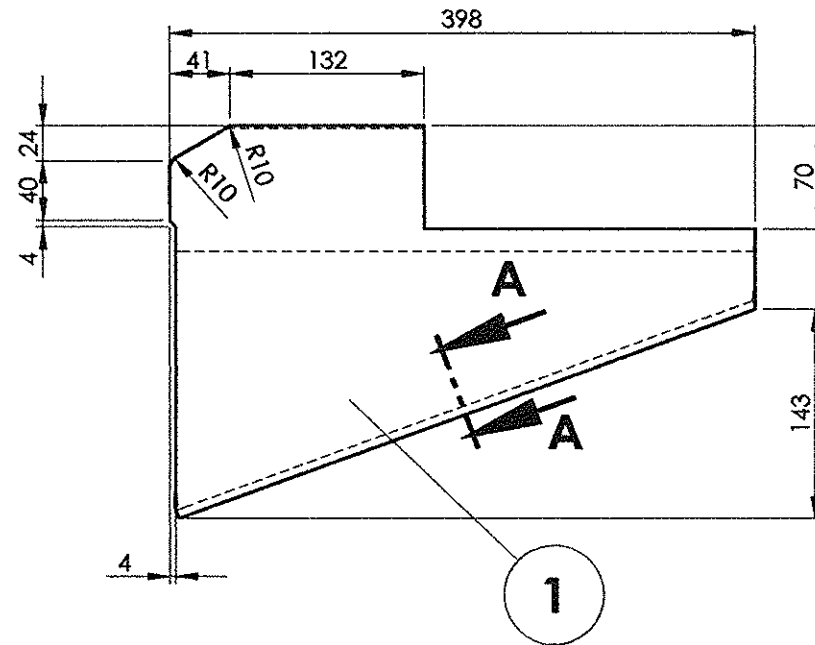
30-06-2013	24-12-2009	<i>ve</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	SME/AME

1	COVERING SHEET	4x105x174	1		RDSO/SPEC C-K201 X2CrNi12	0.542		
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.036			WT/ASSY IN Kgs:0.545			
COVERING SHEET					SCALE	SSE/D		
					1:1	CHD		
					ALT. a	ALTD	B.SARAVANAN	
						DRN	A.Palanichamy & T J K VELU	
INDIAN RAILWAY STANDARDS								
INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	AAA15248		A3	

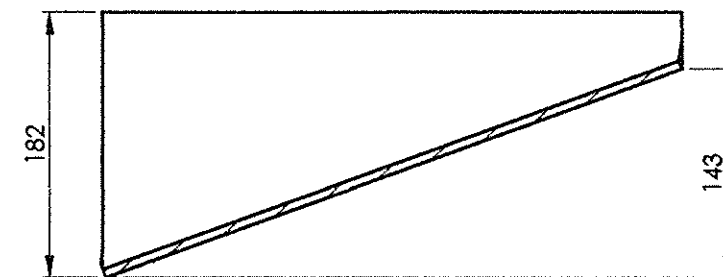
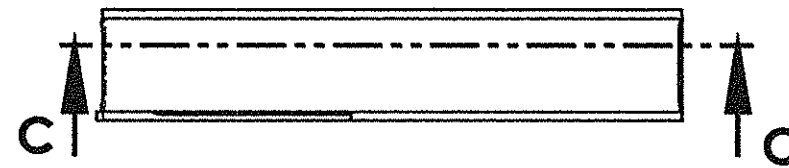
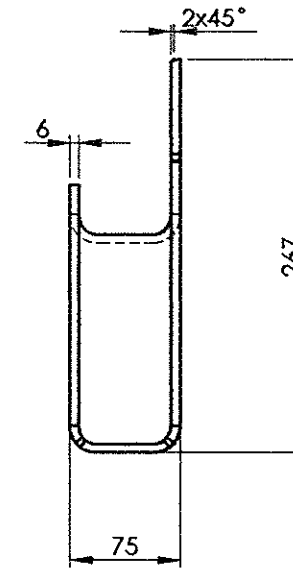
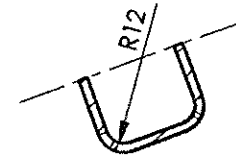
AAA15249

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

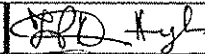
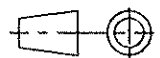
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A



SECTION C-C

1	CONSOLE	6x440x451	1		IRS M-41-1997	5.916	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.261			WT/ASSY IN Kgs:5.939		
CONSOLE					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	A.Palanichamy & T J K VELU
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600088					AAA15249	A3	

AAA15250

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

① ROUGH CLEANED
①b BURRS REMOVED
⑱ CHAMFERED

REVISIONS

ALT.

ZONE

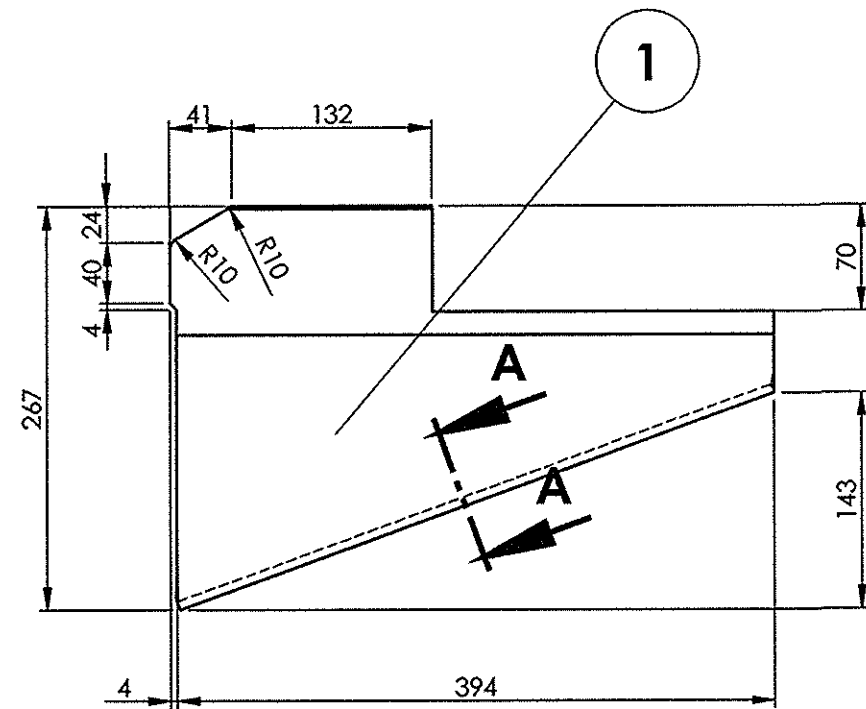
DESCRIPTION

APPROVED &
DATE

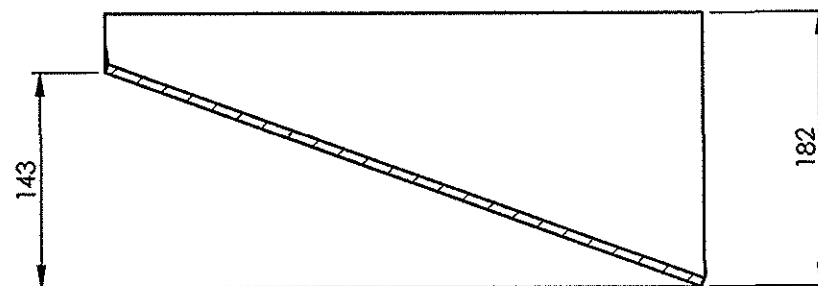
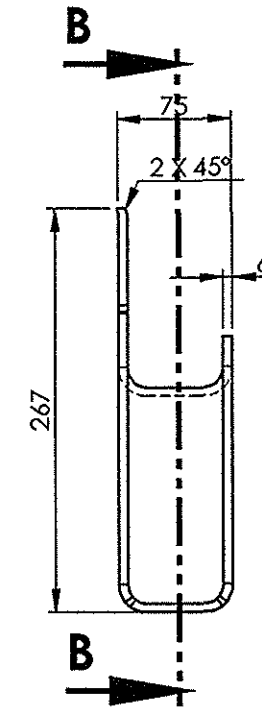
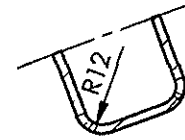
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MAT. SPEC. ALTERED FROM RDSO/SPEC C-K 201 X2CrNi12 TO
IRS M41-97.

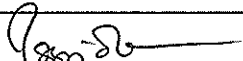
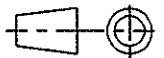
be



SECTION A-A



SECTION B-B

1	CONSOLE	6x440x451	1		IRS M-41-1997	5.92	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.261			WT/ASSY IN Kgs:5.939		
CONSOLE					SCALE	SSE/D	
					1:5	CHD	
					ALT. a	ALT D	V.S.SRIDHARAN
						DRN	T.J.Kumaravelu
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAA15250	
							A3

30-06-2013

28-03-2013

be 30/6

DATE OF LATEST ALT.

DATE OF FIRST ISSUE

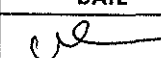
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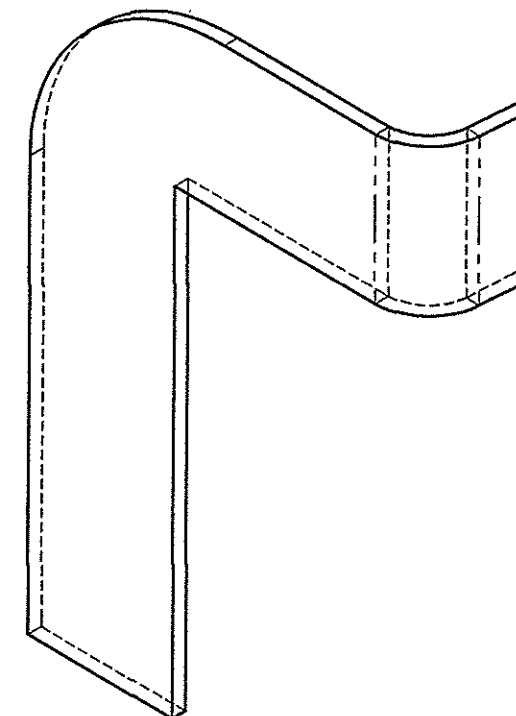
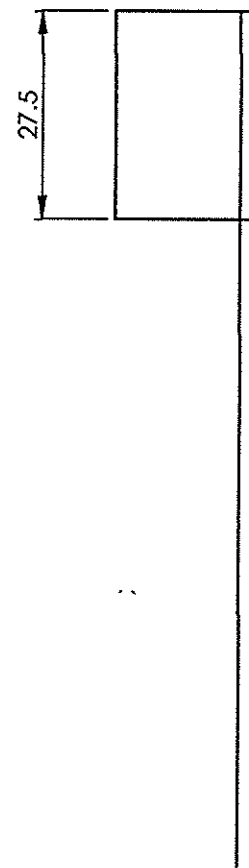
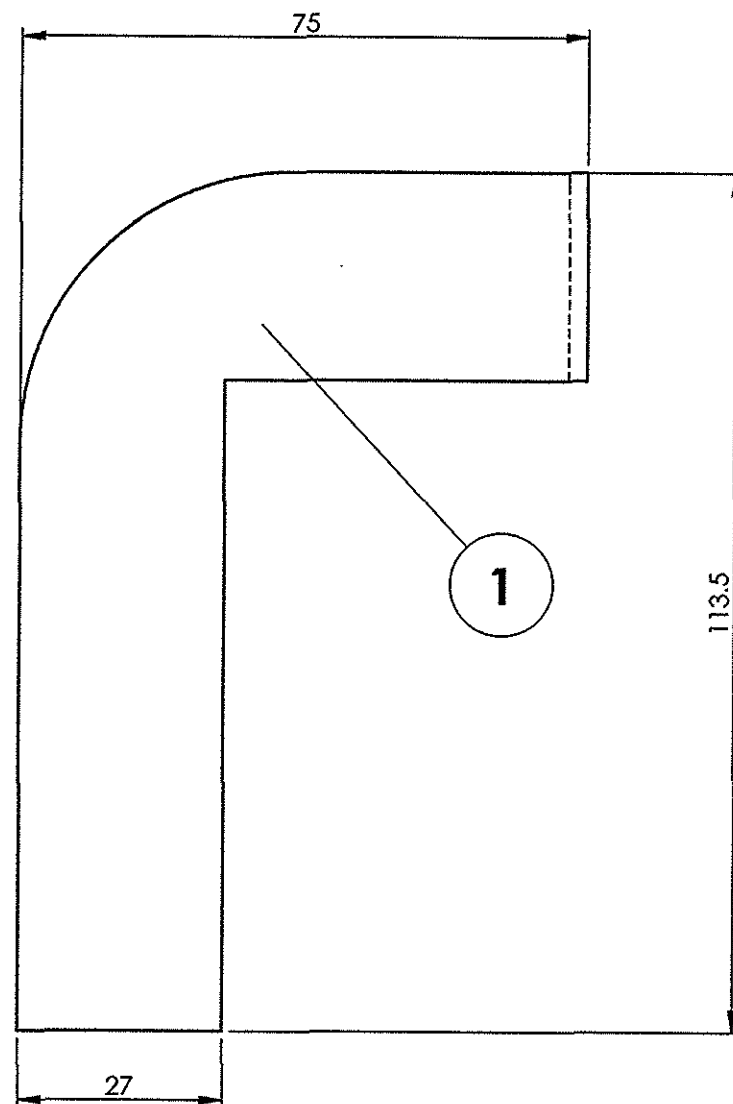
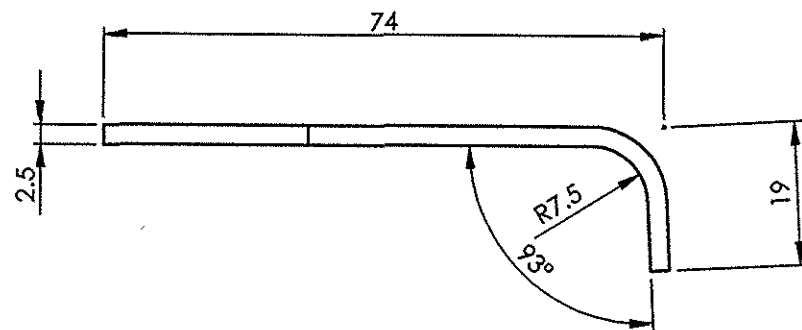
REF.DRG.NO.

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

AAA15252

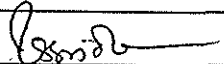
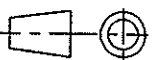
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED


REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	



3D VIEW

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

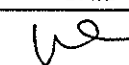
1	REINFORCEMENT	2.5x87x114	1		RDSO/SPEC C-K201 X2CrNi12	0.089	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.010			WT/ASSY IN Kgs:0.089		
REINFORCEMENT					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	B.SARAVANAN
					a	DRN	D.MOSES & T J K VELU
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			A3
					AAA15252		

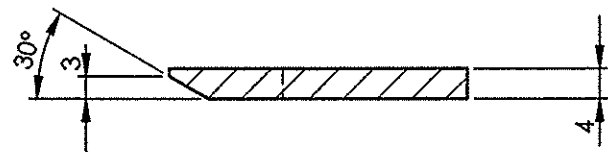
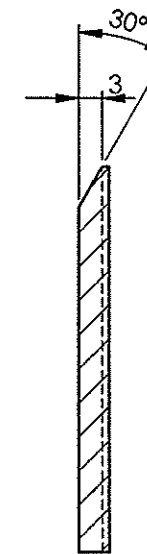
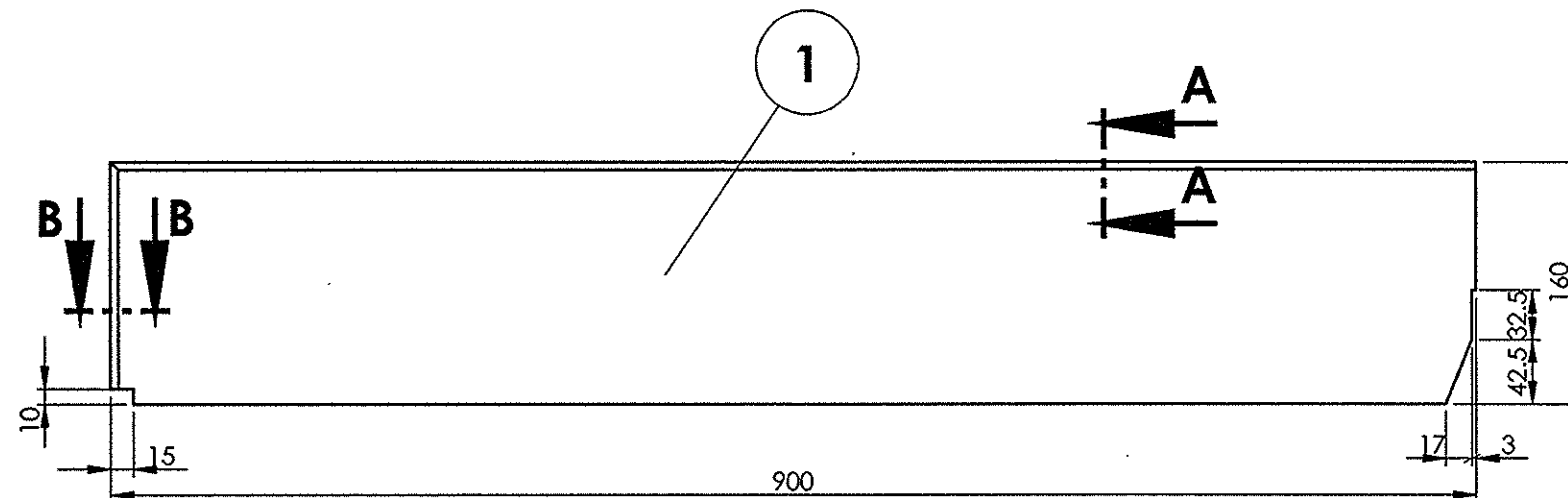
30 -06-2013	26-02-2010	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	SME/AME

AAA15253

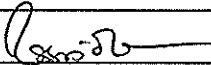
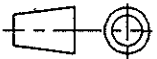
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	

SECTION B-B
SCALE 1 : 1SECTION A-A
SCALE 1 : 1

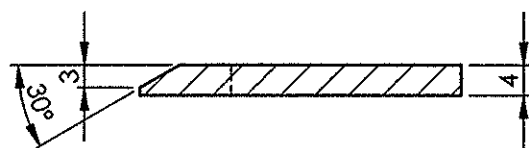
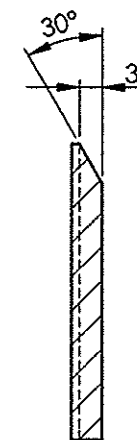
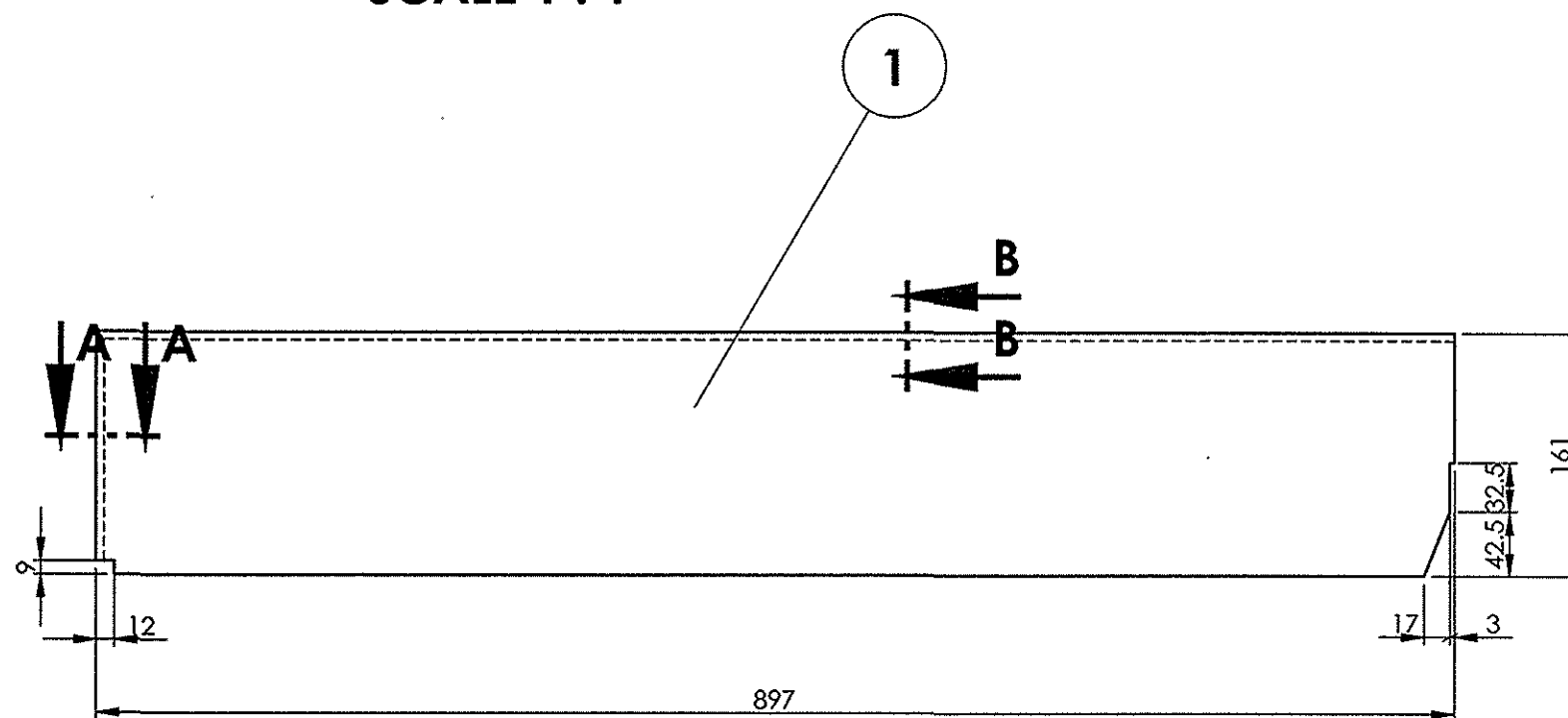
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

1	FRAMEWORK PART	4x160X900	1		RDSO/SPEC C-K201 X2CrNi12	4.519	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.293			WT/ASSY IN Kgs:4.519		
FRAMEWORK					SCALE	SSE/D	
					1:5	CHD	
					ALT. a	ALTD	B.SARAVANAN
						DRN	D.MOSES & T J K VELU
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA15253	A3	

AAA15254

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

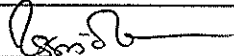

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		R.M.SIZE ALTD. FROM 4x160x900 TO 4x160x897 AND MATERIAL SPEC. ALTD.FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	

SECTION A-A
SCALE 1 : 1SECTION B-B
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.

30-06-2013	26-02-2010	12/30/13
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	FRAMEWORK PART	4x160x897	1		RDSO/SPEC C-K201 X2CrNi12	4.520	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.293			WT/ASSY IN Kgs:4.520		
FRAMEWORK					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	B.SARAVANAN
					a	DRN	D.MOSES & T J K VELU
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		
					AAA15254		A3

AAA15257

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED

⑥1b BURRS REMOVED

①8 CHAMFERED

REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

a

R.M.SIZE ALTD. FROM 4x70x189 TO 4x70x194 AND MATERIAL
SPEC. ALTD FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12ue
20

1

56

156

194

R15

70

4

-07-2013

26-02-2010

AME/SME

DATE OF LATEST ALT.

DATE OF FIRST ISSUE

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

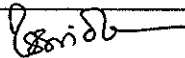

SHEET
1 OF 1

AAA15257

A3

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

REF.DRG.NO.

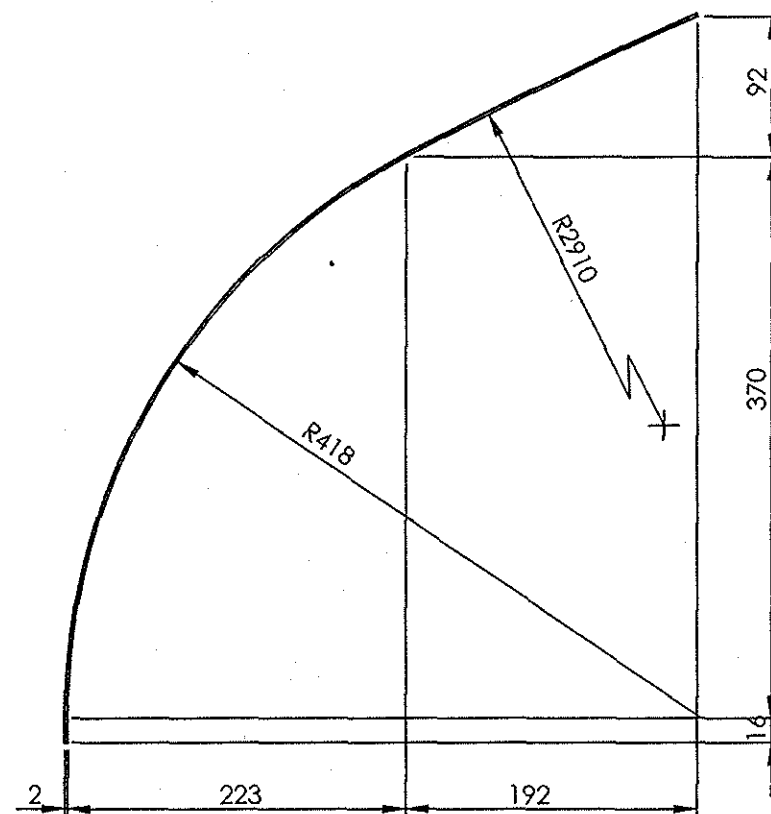
1	REINFORCEMENT	4x70x194	1		RDSO/SPEC C-K201 X2CrNi12	0.362		
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.025			WT/ASSY IN Kgs:0.362			
REINFORCEMENT					SCALE	SSE/D		
					1:2	CHD		
					ALT. a	ALTD	B.SARAVANAN	
						DRN	D.MOSES & T J K VELU	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
					SHEET 1 OF 1	AAA15257		
						A3		

AAA15259

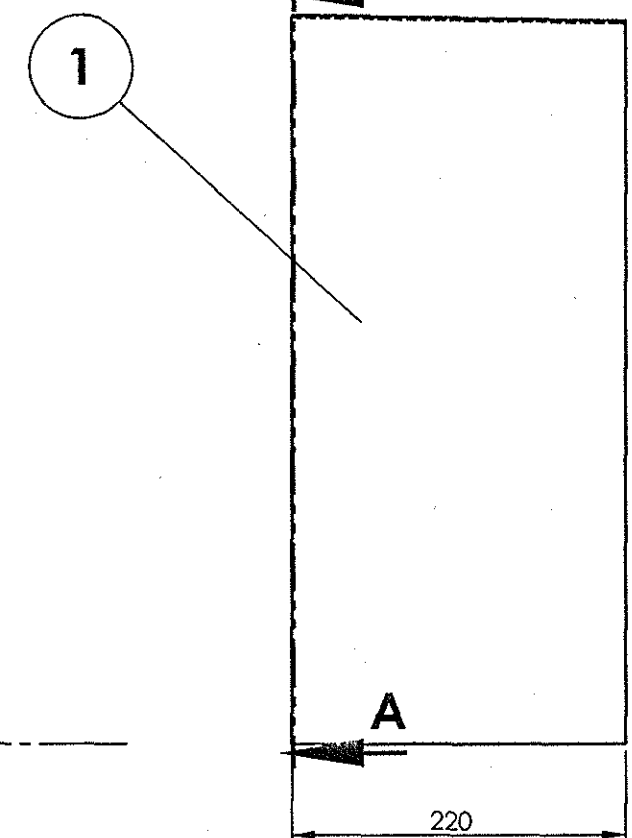
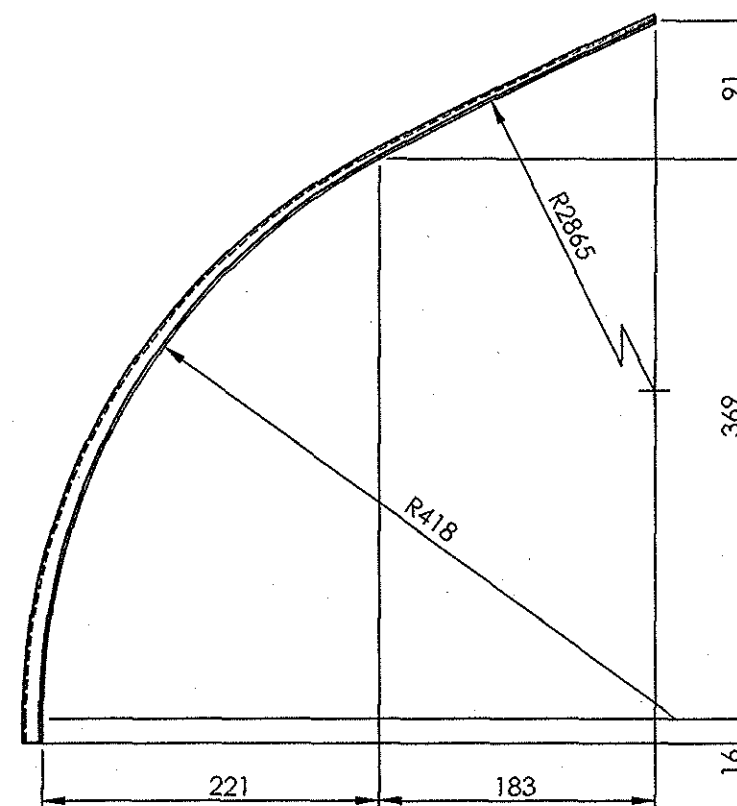
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC REVISED	<i>R</i> 19/1



SECTION A-A



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

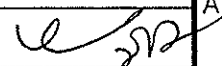
1	COVERING SHEET	2x218x676	1		RDSO/SPEC C-K201 X2CrNi12	2.389	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.296		WT/ASSY IN Kgs:2.340			
COVERING SHEET					SCALE	SSE/D	<i>L. Srinivas</i>
					1:5	CHD	
					ALT.	ALTD	TIKYA NAIK.M
					a	DRN	A.Palanichamy & T.J K VELU
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA15259		
					A3		

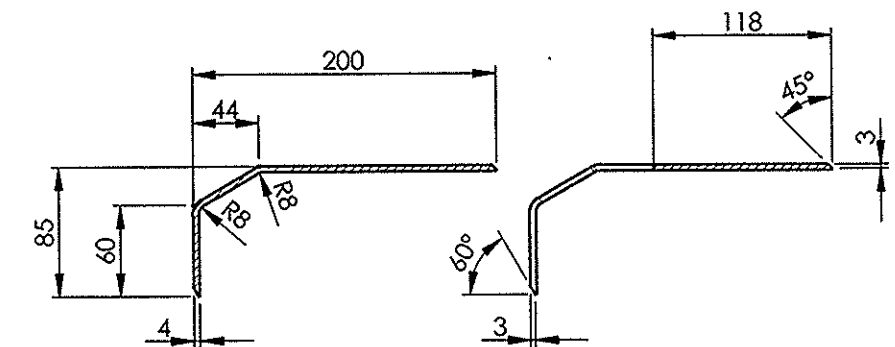
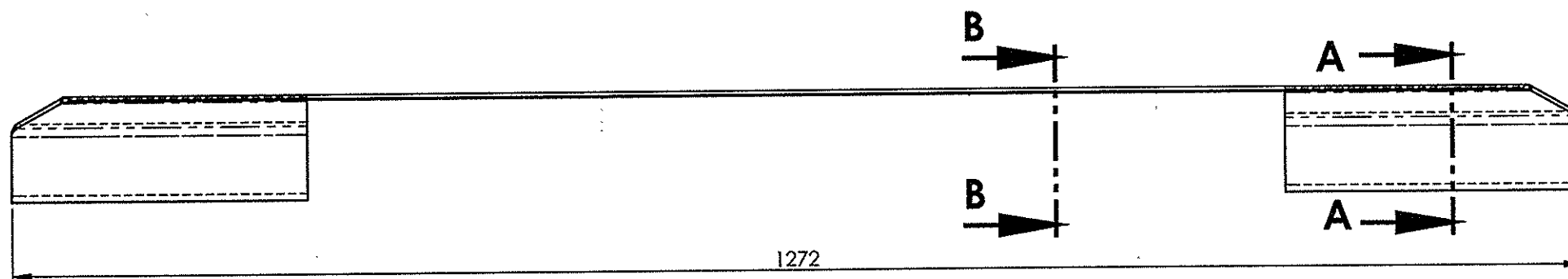
19-02-2016	26-02-2010	<i>A.M.</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	SME

AAA15261

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

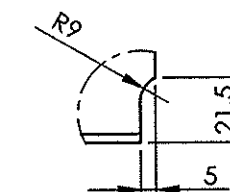
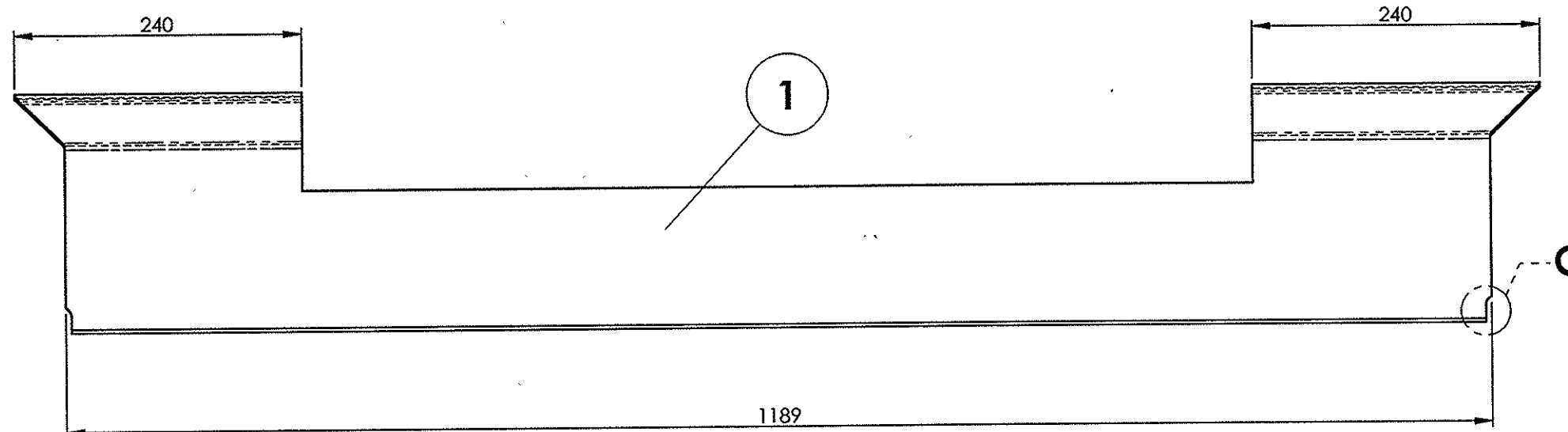
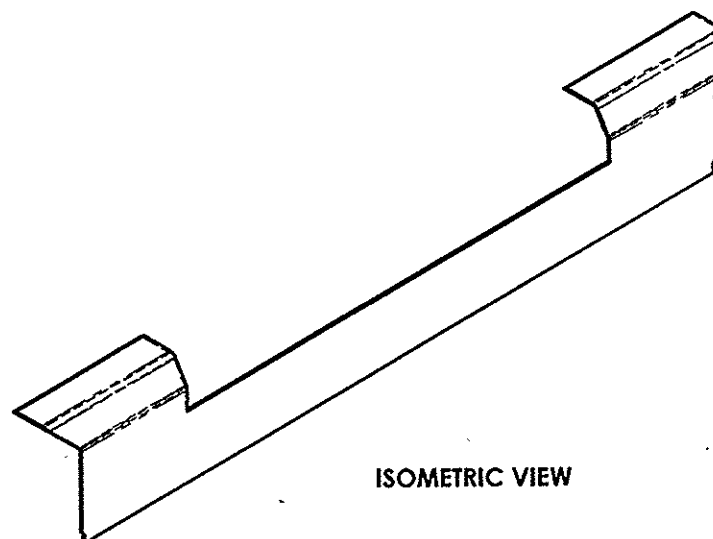
REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12	 2/2

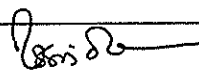
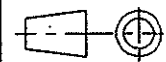



SECTION A-A

SECTION B-B

DETAIL C
SCALE 2 : 5

ISOMETRIC VIEW

1	SILL	4x261.5x1272	1		RDSO/SPEC C-K201 X2CrNi12	6.458	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.418			WT/ASSY IN Kgs:6.458		
SILL					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	B.SARAVANAN
					a	DRN	A.Palanichamy & T J K VELU
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600088				SHEET 1 OF 1		AAA15261	
						A3	

-07-2013	24-12-2009	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

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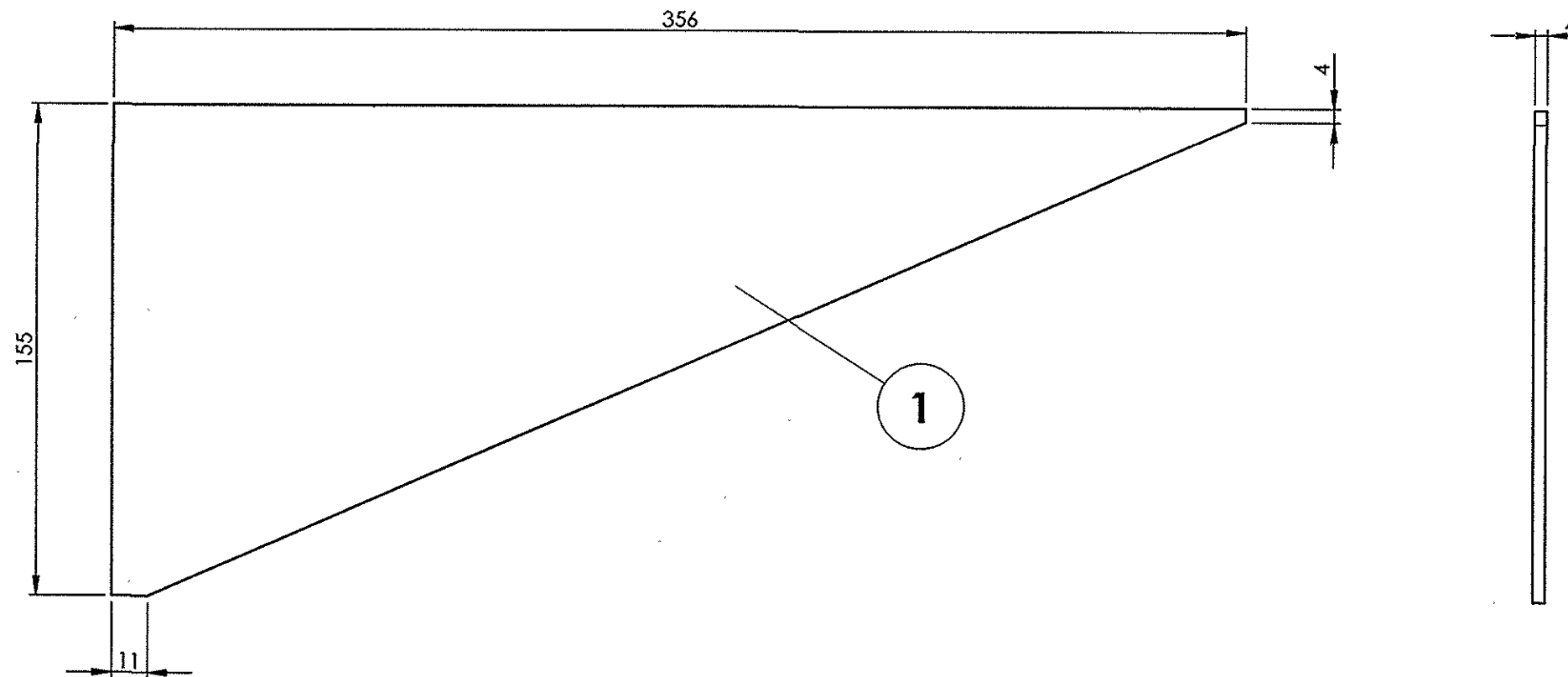
REF.DRG.NO.

AAA15263

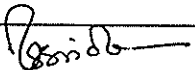

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO RDSO/SPEC. C-K201 X2CrNi12.	<i>ue</i> 21/11



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

1	WEB	4x155x356	1		RDSO/SPEC C-K201 X2CrNi12	0.935	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.062			WT/ASSY IN Kgs:0.935		
WEB					SCALE	SSE/D	
					1:2	CHD	
					ALT. a	ALTD	B.SARAVANAN
						DRN	A.Palanichamy & T J K VELU
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA15263		A3

AAA15264

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED

② BURRS REMOVED

③ CHAMFERED

REVISIONS

ALT.

ZONE

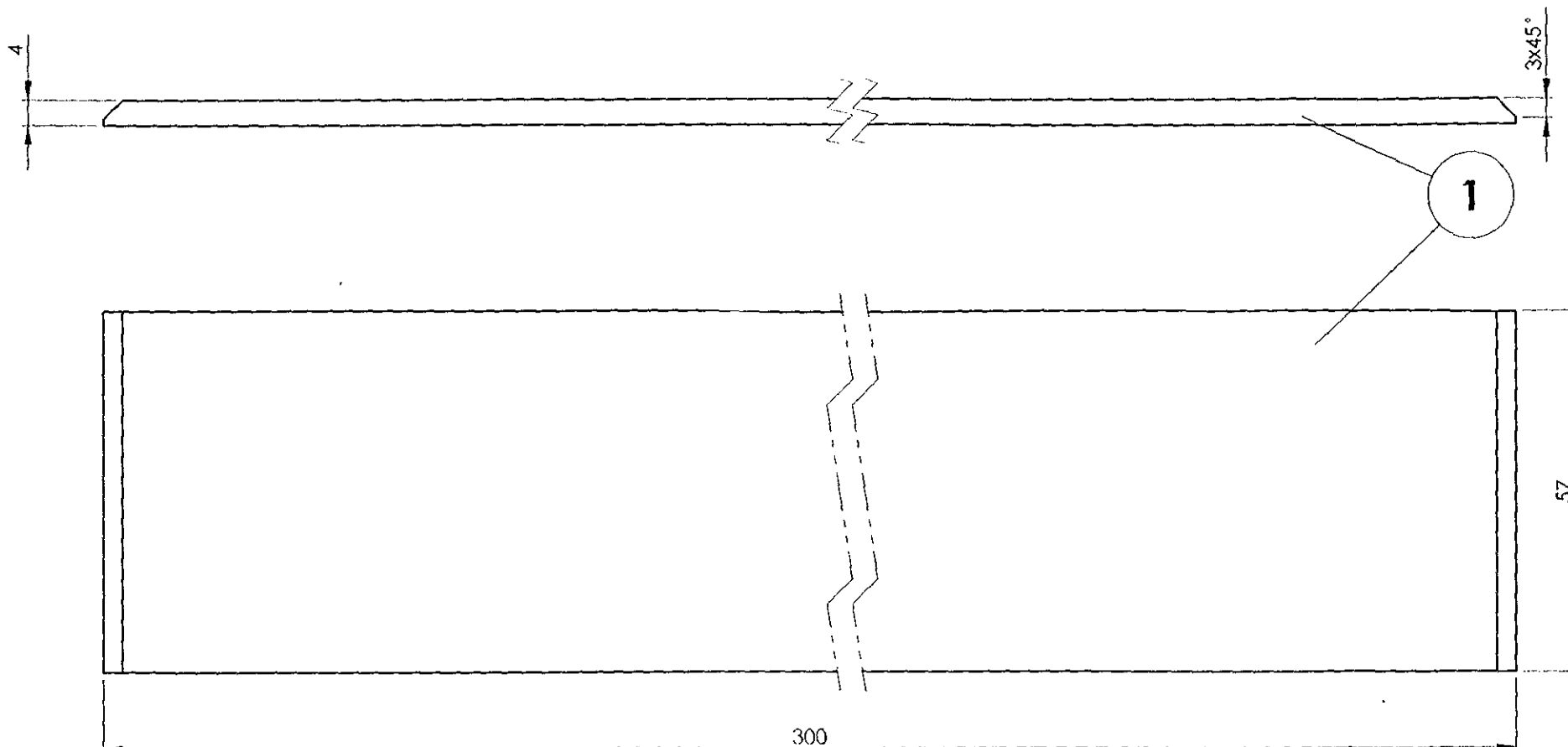
DESCRIPTION

APPROVED &
DATE

a

R.M. LENGTH ALTD. FROM 400 TO 300

10-11-2013

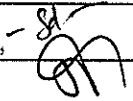


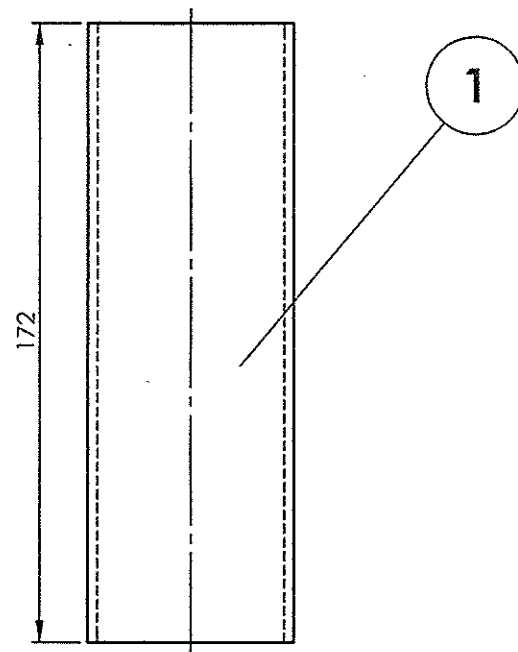
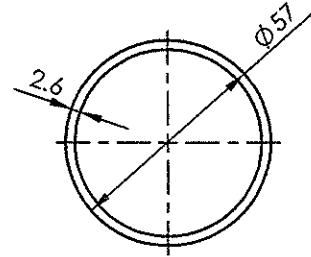
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

1	SHEET	4x57x300	1		RDSO/SPEC C-K201 X2CrNi12	0.543	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5 END CONSTRUCTION		SURFACE AREA IN Sq.m.:0.049		WT/ASSY IN Kgs:0.730			
SHEET					SCALE	SSF/D	B.SARAVANAN A.Palanichamy & T J K
					1:1	CHD	
					ALT.	ALTD	
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA15264		A3
28-03-2013		24-12-2009					
DATE OF LATEST ALT.		DATE OF FIRST ISSUE		SME			

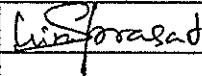
AAA15287


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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. ALTD. FROM SS-409M TO IS:6913-'73 Tab-1 Gr-'B'	
b		NOTE ADDED	

**NOTE:**

1. ALTERNATIVELY AISI-304 IS ACCEPTABLE

1	PIPE	O.D 57x2.6x172	1		IS:6913-'73 Tab-1 Gr-'B'	0.600	WELDED TUBES
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-5		SURFACE AREA IN Sq.m.:0.059			WT/ASSY IN Kgs:0.678		
PIPE					SCALE	SSE/D	
					1:2	CHD	
					ALT. b	ALTD	ANU C
						DRN	D.MOSES & T J K VELU
					INDIAN RAILWAY STANDARDS		
INTEGRAL COACH FACTORY, CHENNAI - 600038							

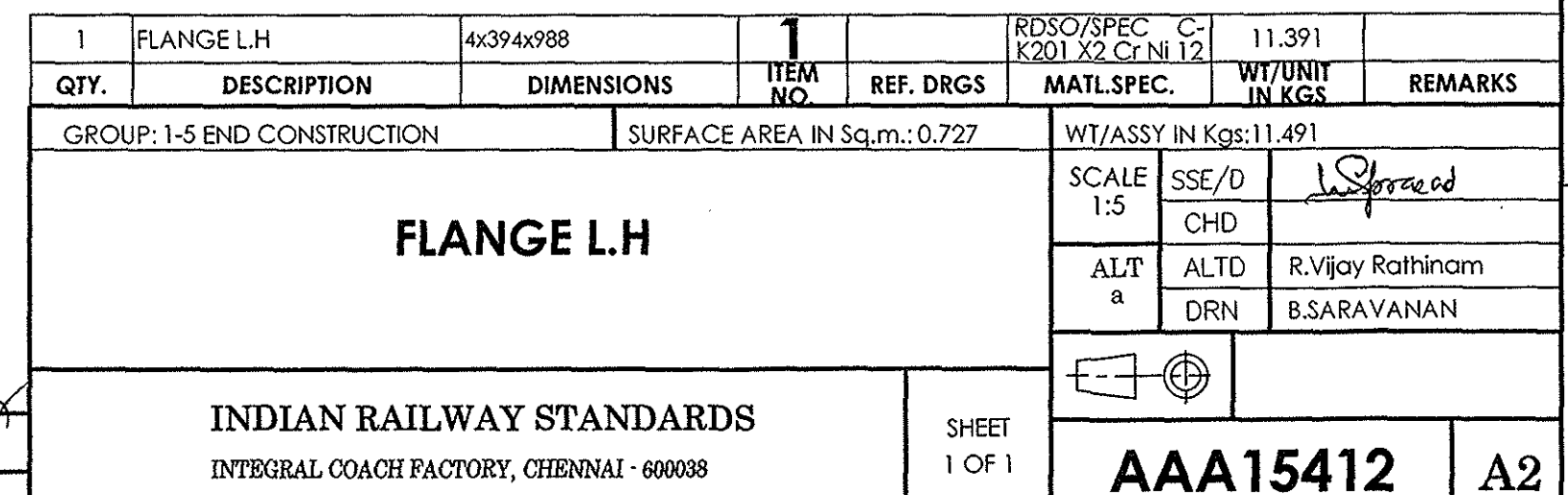
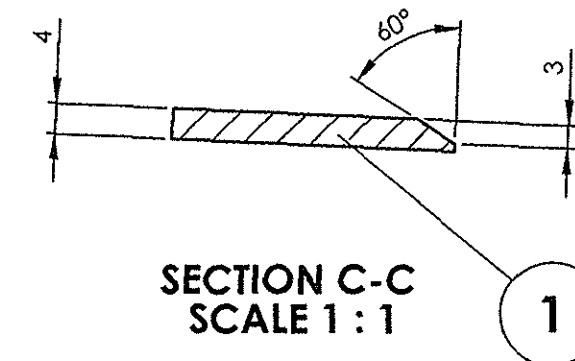
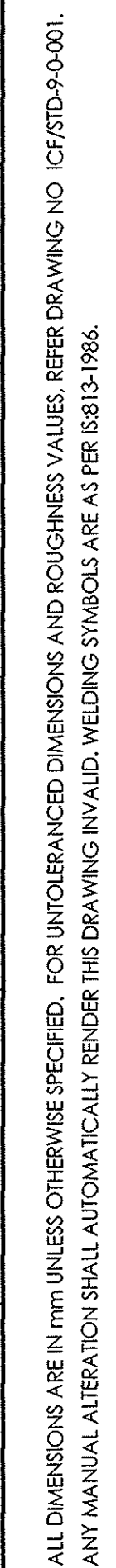
27-07-2017	26-02-2010	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME


REF.DRG.NO.3.10113.0.26.120.034 ITEM-2

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A
B
C
D
E
F
G
H

Figure 1. The structure of the proposed model.



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