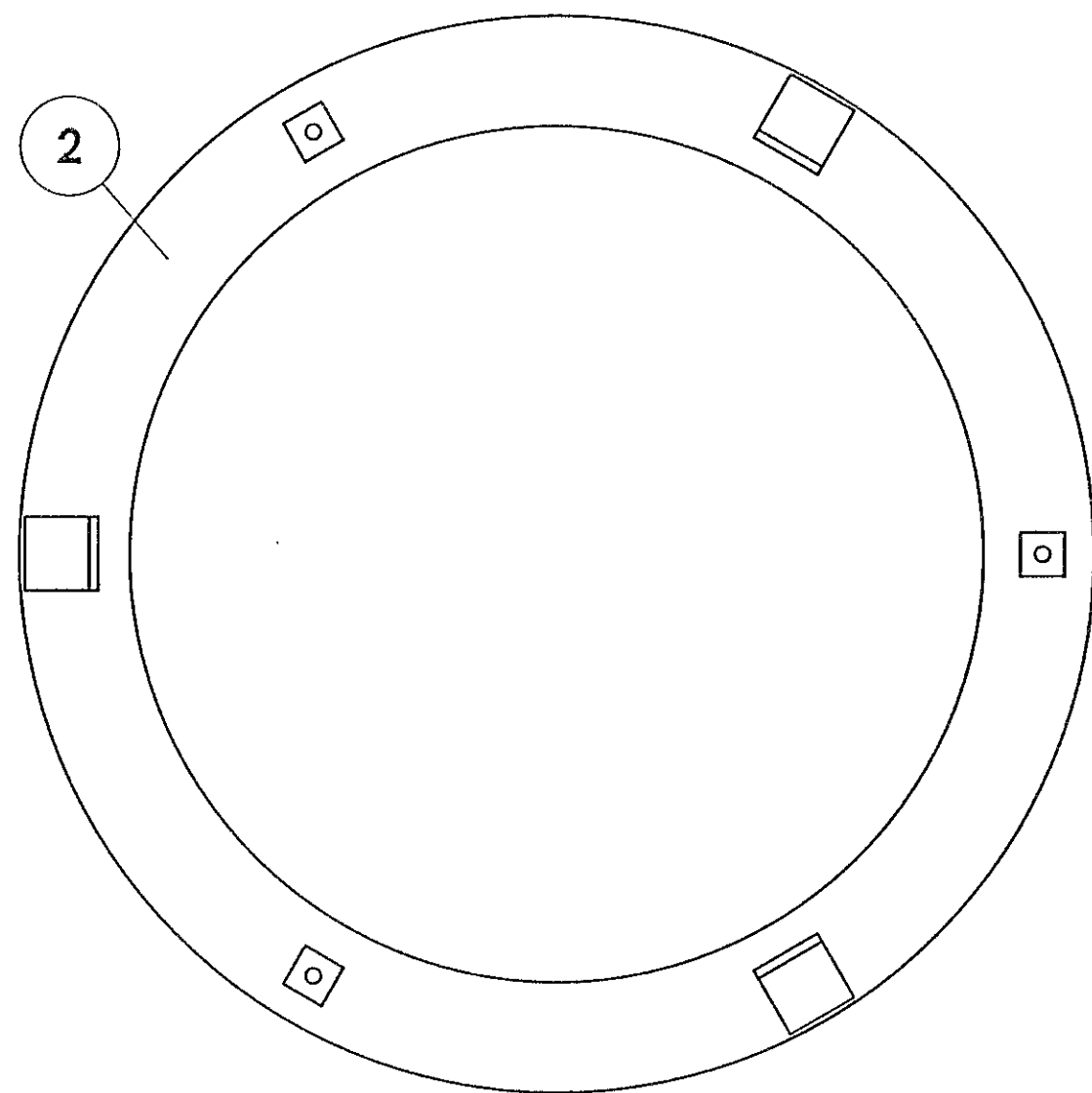
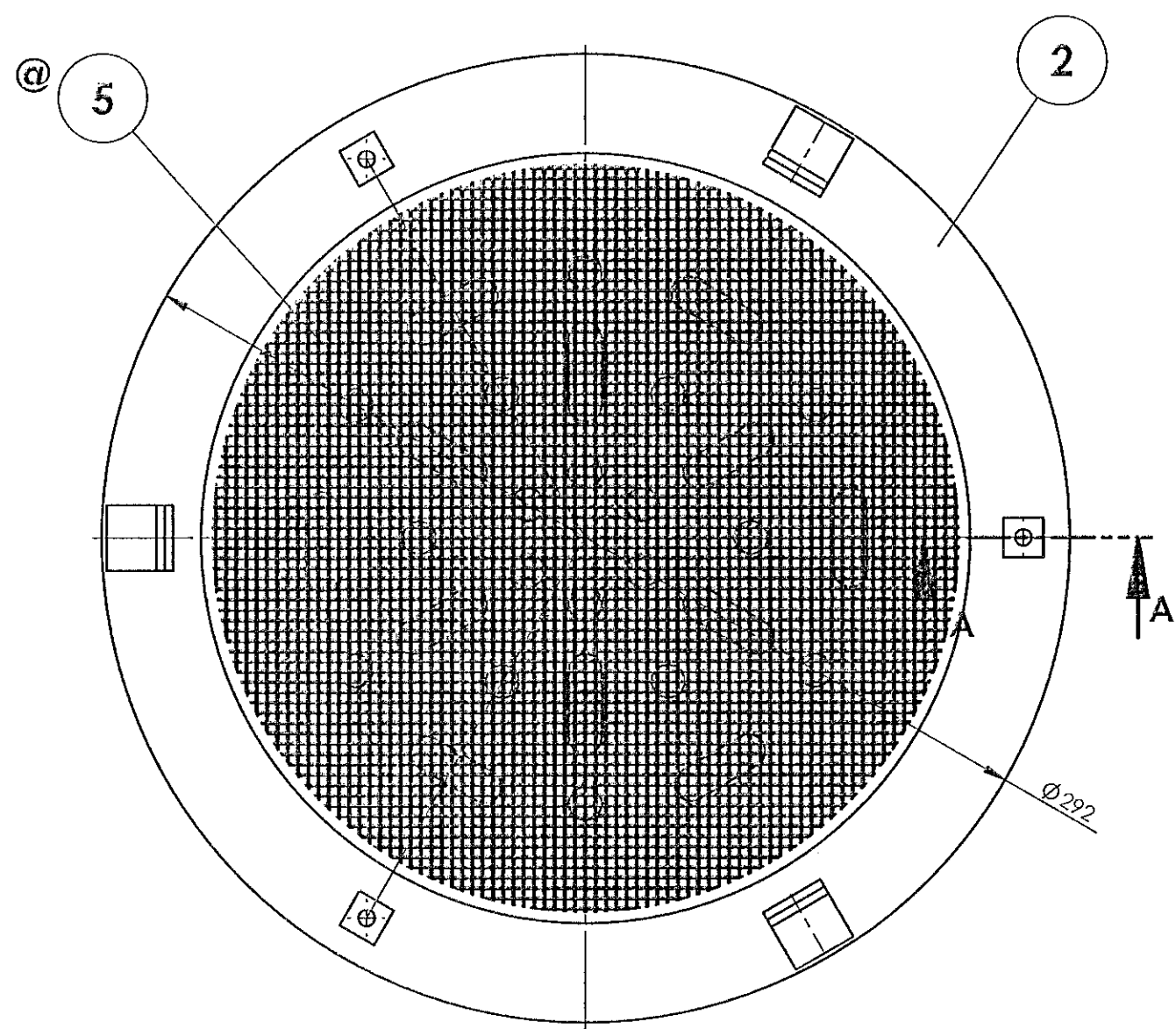
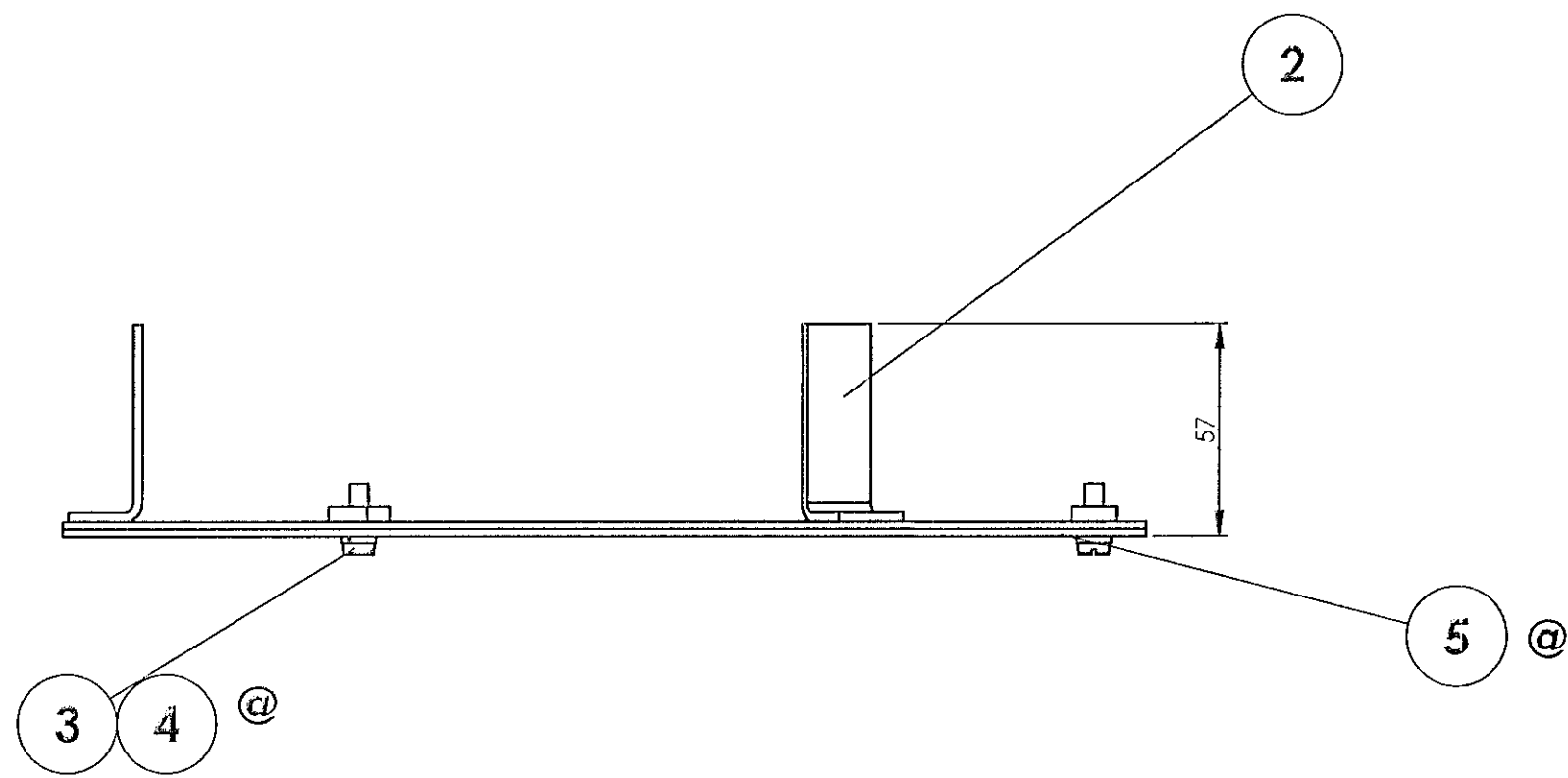


SSA16023

▽ ROUGH MACHINED	01 ROUGH CLEANED	REVISIONS			
▽▽ FINISH MACHINED	02 BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
▽▽▽ FINE FINISH MACHINED	03 CHAMFERED	a		ITEM-5 ADDED, ITEM-1 DELETED.	-Sd-
		b		NOTES REVISED, NEW CONFIGURATION FOR GRILL PLATE ASSEMBLY IN LHB NON AC COACHES ADDED.	

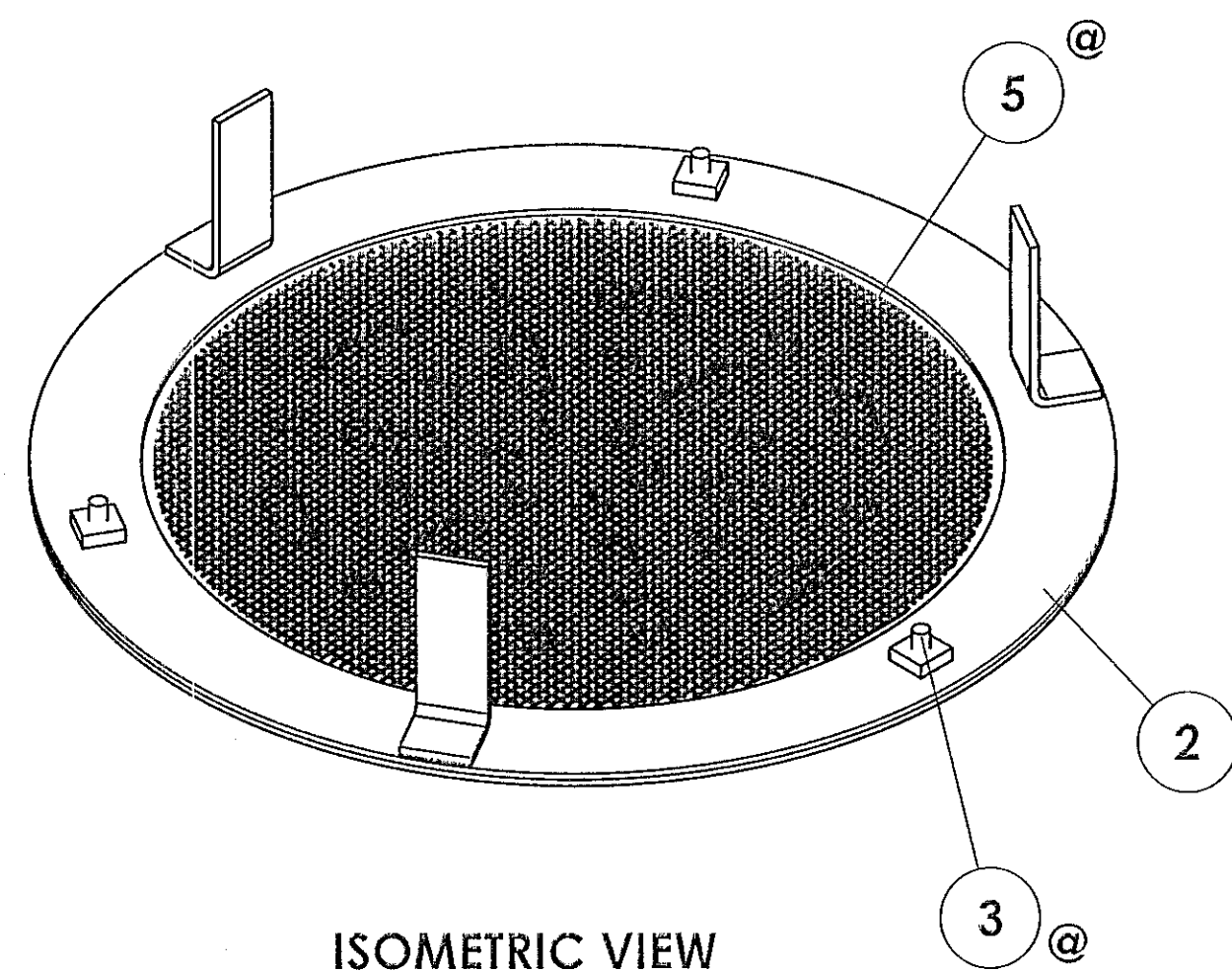
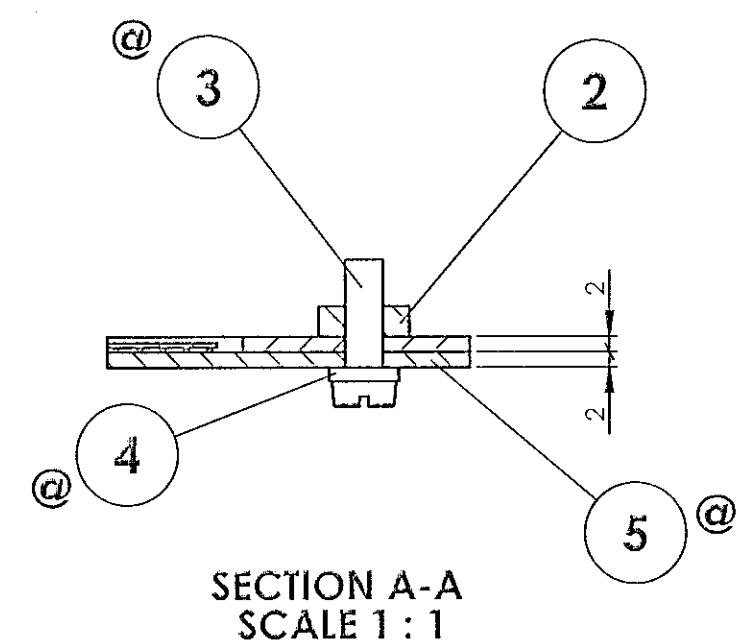


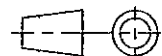
CONFIGURATION OF ITEMS APPLICABLE FOR SELF
PROPELLED COACHES & COACHES OTHER THAN
LHB

CONFIGURATION OF ITEMS APPLICABLE
FOR ALL LHB NON AC COACHES

NOTE:

@1. ITEMS 3,4 & 5 ARE NOT APPLICABLE TO ALL LHB NON AC COACHES.



1	GRILL ASSEMBLY		5	SSA16027		1.051	
3	SPRING LOCK WASHER	B6-IS 3063	4	IS 3063	ISI-304		
3	CHEESE HEAD SCREW	ISO T207-MSx16-A2-70	3	IS:1366	ISI:1367 PART-14 A2-70		
1	RING COMPLETE		2	SSA16024		0.490	
1	GRILL PLATE		1	AAA16849		0.99	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.: 0.064			WT/ASSY IN Kgs:		
GRILL COMPLETE FOR ROOF VENTILATOR					SCALE	SSE/D	Sd/- 20/11/20
					1:2	CHD	
					ALT.	ALTD	AMAL GEORGE
					b	DRN	V.S.SRIDHARAN
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038						SHEET	
					1 OF 1	SSA16023	A1

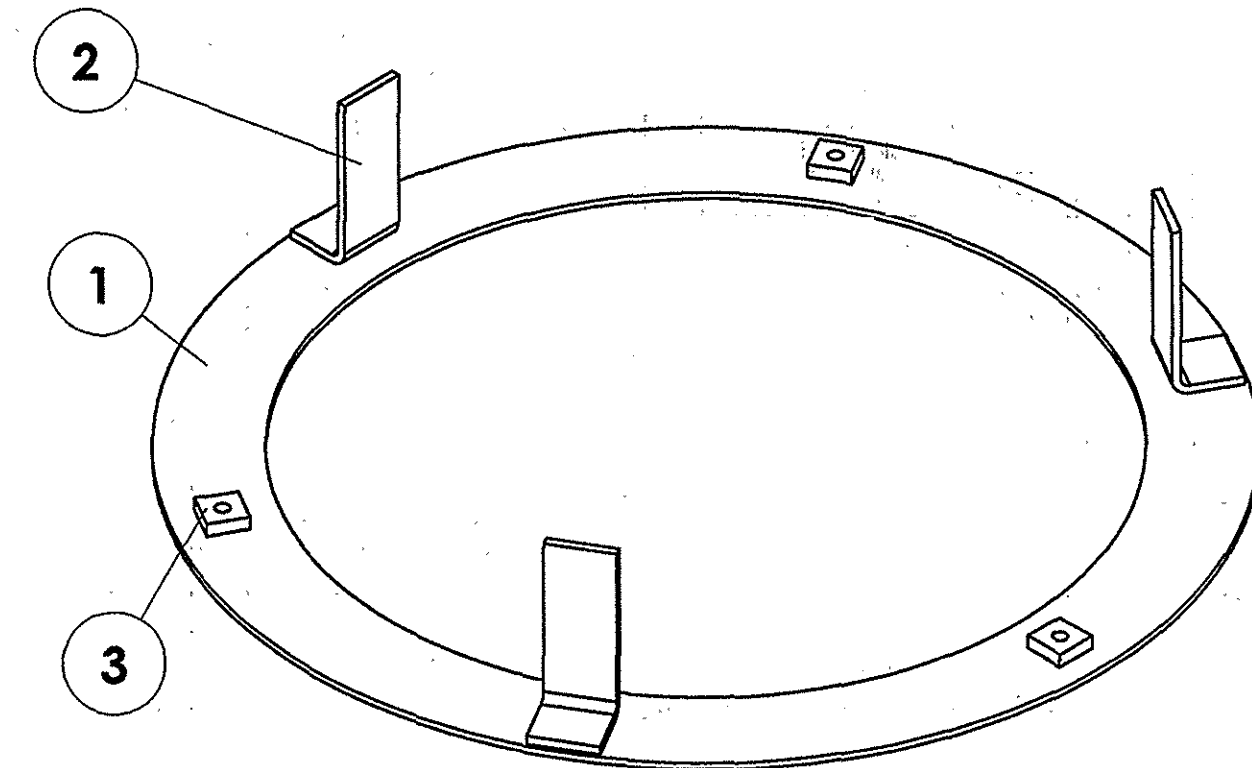
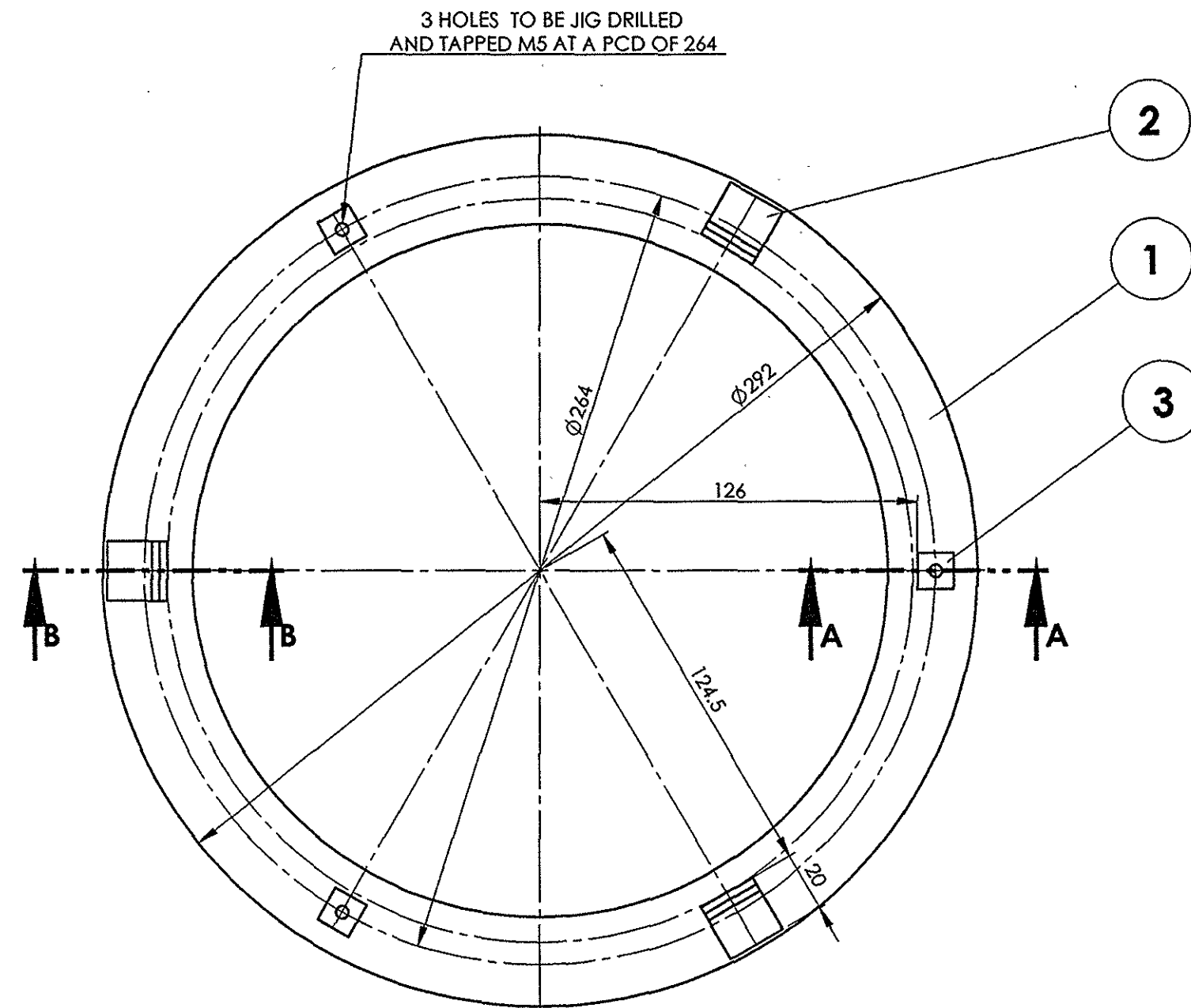
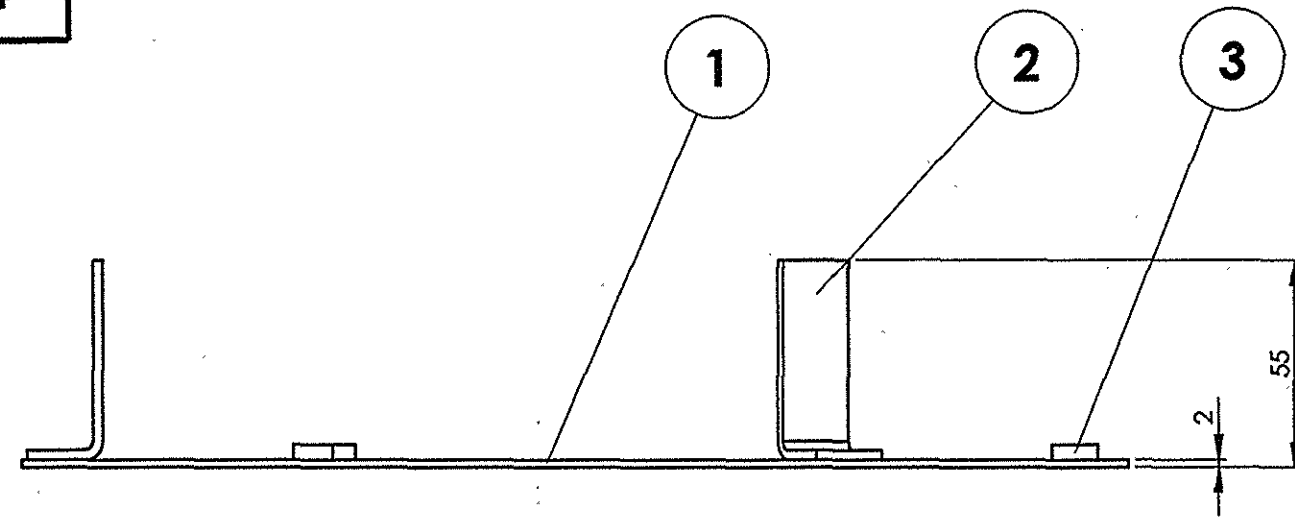
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO.ICE/STD-9-0-01. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

20-09-2025	31-07-2013	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	

SSA16024

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

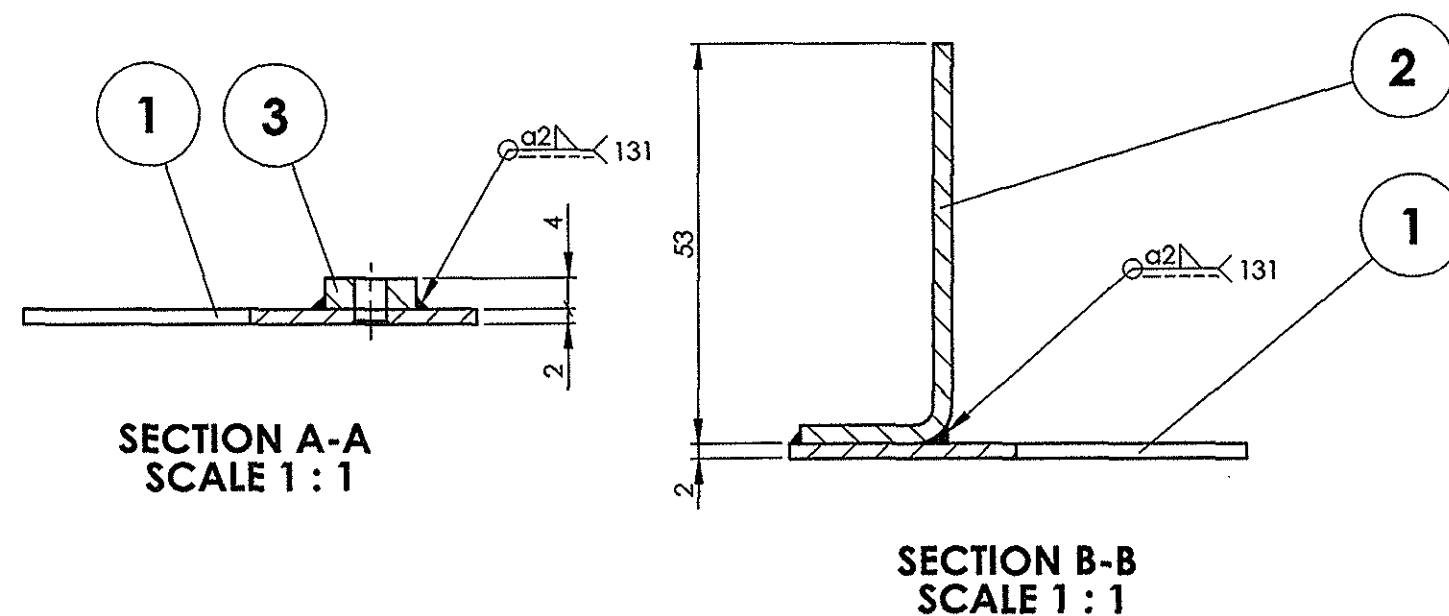
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



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.



3	THICKENER		3	AAA16071		0.0046	
3	ANGLE		2	AAA16844		0.028	
1	BASE PLATE		1	AAA16843		0.395	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6				SURFACE AREA IN Sq.m.: 0.064		WT/ASSY IN Kgs: 0.490	
RING COMPLETE					SCALE 1:2	SSE/D	
					CHD		
					ALT	ALTD	
					DRN	V.S.SRIDHARAN	
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					SSA16024		
DATE OF LATEST ALT. 31-07-2013					A2		
DATE OF FIRST ISSUE							
AME/SME							

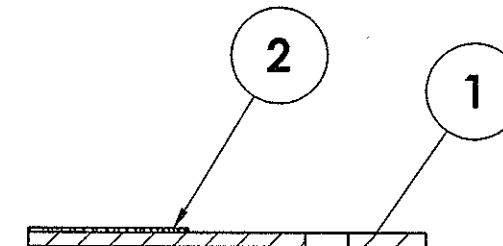
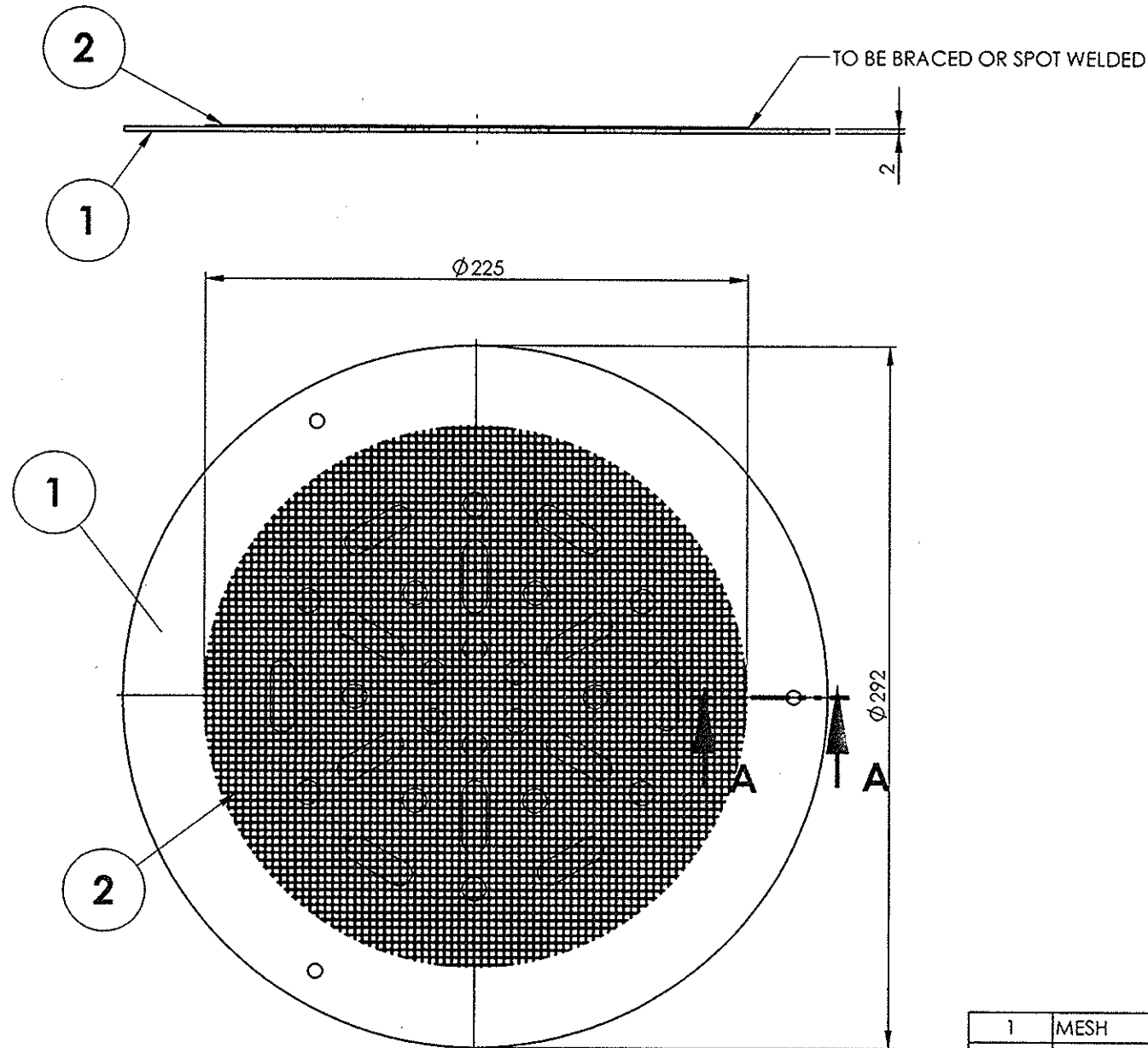
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986.


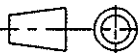
REF.DRG.NO. IS16152

SSA16027

▽ 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

1	MESH		2	AAB16869		0.05	
1	GRILL PLATE		1	AAA16840		0.99	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6		SURFACE AREA IN Sq.m.:0.172			WT/ASSY IN Kgs:		
GRILL ASSEMBLY					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	T.J.Kumaravelu
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					-		
					SHEET 1 OF 1	SSA16027	
							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

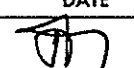
REF.DRG.NO.-

	10-04-2017	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

49515012

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

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		M6 TAP 10 NO'S ADDED	

SECTION A-A
SCALE 1 : 4SECTION B-B
SCALE 1 : 4SECTION C-C
SCALE 1 : 4DETAIL E
SCALE 1 : 2DETAIL D
SCALE 1 : 2

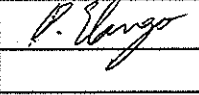
10	BACK PIECE		5	AAA15278		0.011	
1	SHEET		4	AAA15277		0.130	
1	FLANGE		3	AAA15199		0.980	
1	WEB		2	AAA15197		0.545	
1	FLANGE		1	AAA15198		1.099	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL.SPEC.	WT/UNIT IN KGS	REMARKS

GROUP: 1-5 END CONSTRUCTION

SURFACE AREA IN Sq.m.: 0.294

WT/ASSY IN Kgs:

FRAME COMPLETE

SCALE 1:5	SSE/D CHD	
ALT. a	ALTD DRN	MATHANKUMAR J A.Palanichamy & T.J.K.V.

 LWGSCWAC2

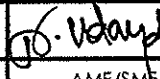
INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

49515012

A3


/0.-05-2017	27-03-2010	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

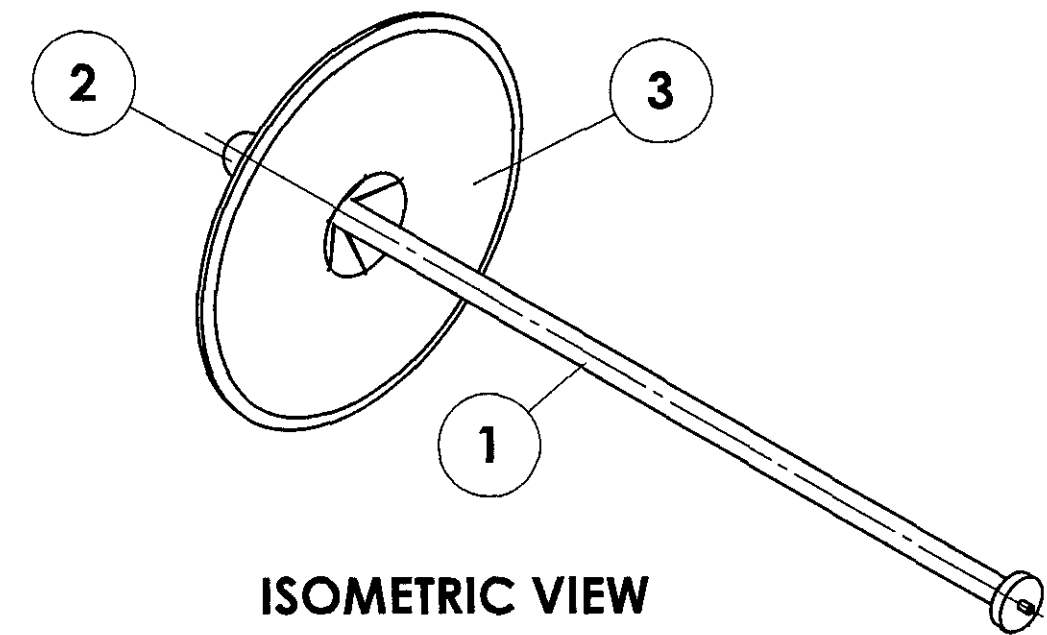
REF.DRG.NO.

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

49516008

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

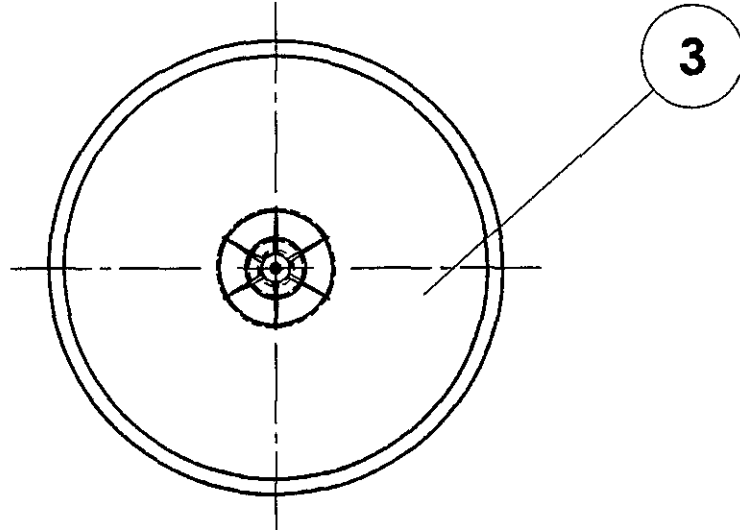
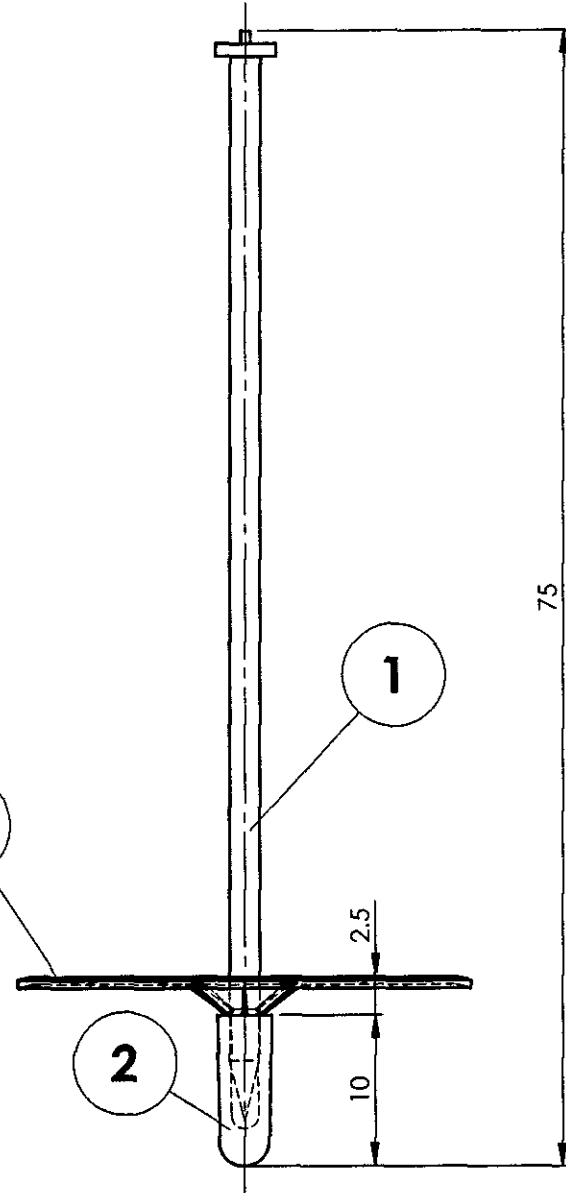
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		NOTE REVISED. VIEWS UPDATED AS PER DETAIL.	



ISOMETRIC VIEW

NOTE:

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



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

GROUP: 1-6 ROOF CONSTRUCTION

SURFACE AREA IN Sq.m.:0.002

WT/ASSY IN Kgs:

WELDING PIN ASSEMBLY

SCALE
1:1

SSE/D
CHD

ALT.
a

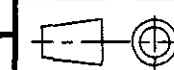
ALTD
DRN

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

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1



LWGSCWAC2

49516008

A3

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

REF.DRG.NO.mi005176

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

53814004

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

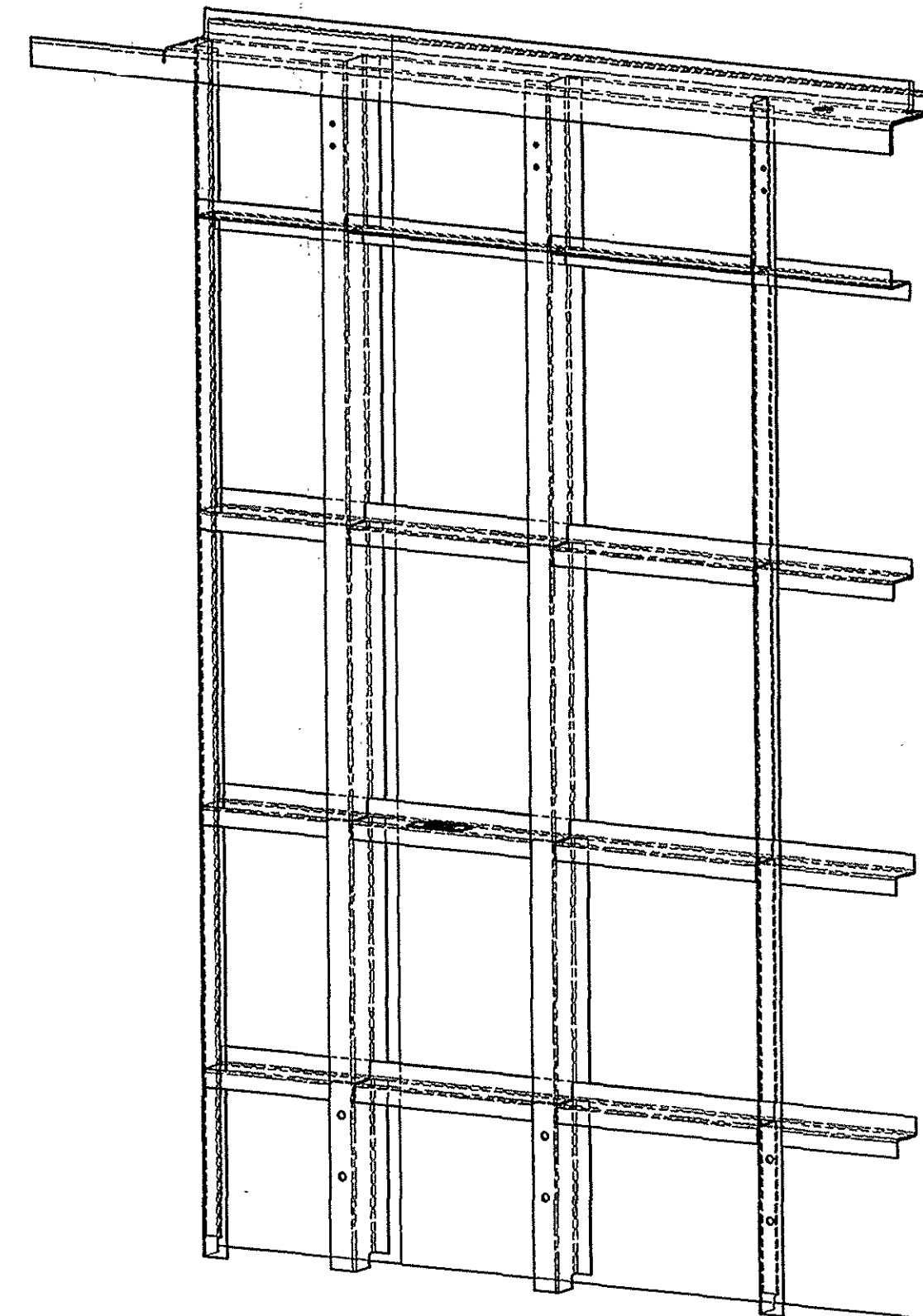
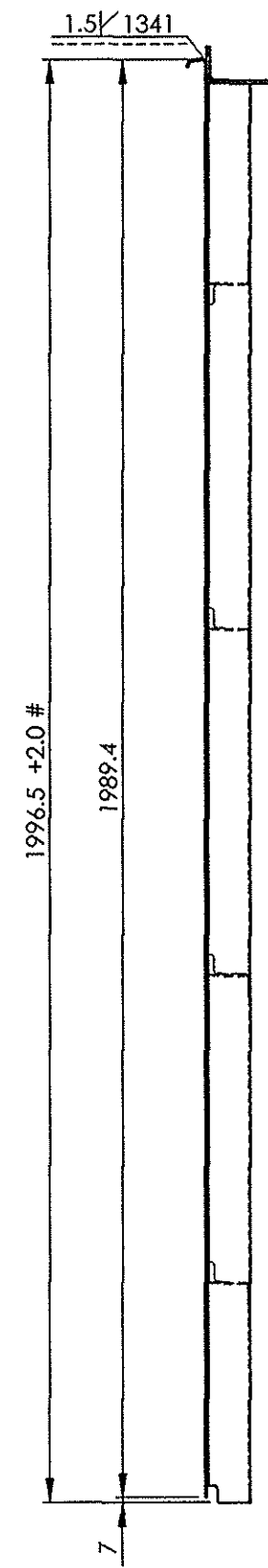
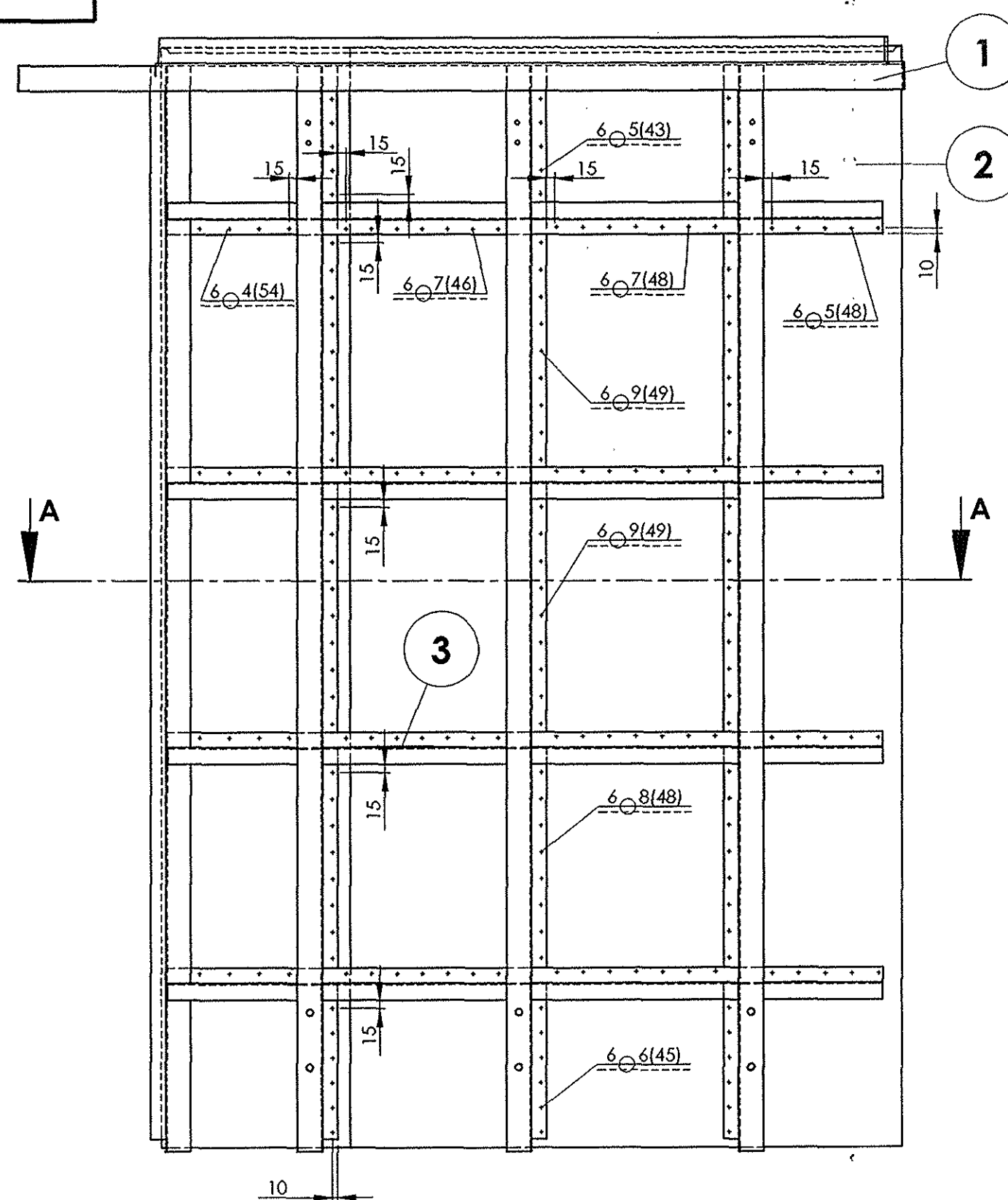
① ROUGH CLEANED
①b BURRS REMOVED
①8 CHAMFERED

REVISIONS

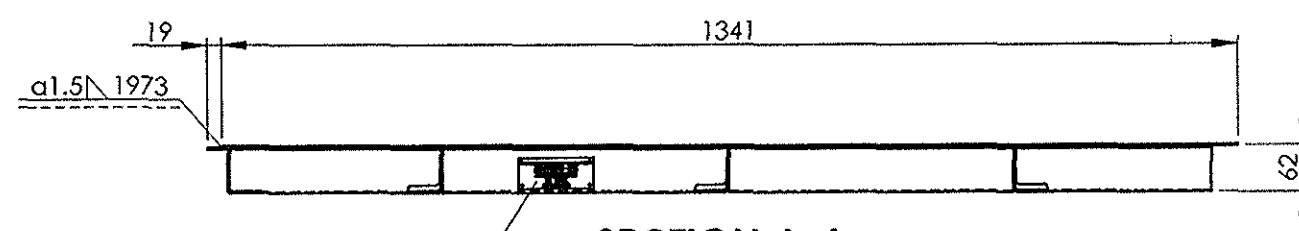
ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

ISOMETRIC VIEW



SECTION A-A

NOTE:

1. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
2. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
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. 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-3 (NAME PLATE) SHALL BE WELDED OR RIVETTED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.
8. ITEM SHALL BE OFFERED FOR PROTO TYPE INSPECTION BY ICF BEFORE TAKING UP BULK MANUFACTURE. SINCE THE ITEM IS DEVELOPED FIRST TIME, MINOR CHANGES LIKE CHANGE OF LOCATION OF MEMBERS, SIZE, ALTERATION OF BACK PIECES AND WELDING REQUIREMENTS HAVE TO BE ACCOMMODATED. THESE CHANGES SHALL BE IMPLEMENTED IN CONSULTATION WITH DESIGN DEPARTMENT OF ICF.
- # 9. MANDATORY MANUFACTURING ALLOWANCES.

1	NAME PLATE		3	AAA51072		0.063	
1	SIDEWALL SHEETING ARRANGEMENT (PP END)		2	53814020		43.266	
1	SIDEWALL FRAME WORK LEFT COMPLETE (PP END)		1	53814019		39.724	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-4 SIDEWALL COMPLETE

SURFACE AREA IN Sq.m.: 9.164

WT/ASSY IN Kgs:

SIDEWALL PP END LEFT COMPLETE

SCALE 1:10

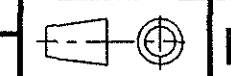
SSE/D CHD

ALT

ALTD

DRN

A.Palanichamy

**LWLRRM**

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1**53814004****A2**

REF.DRG.NO.1 10113.0.20.110.005 Alt. Nil

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 IS813:1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

53814014

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

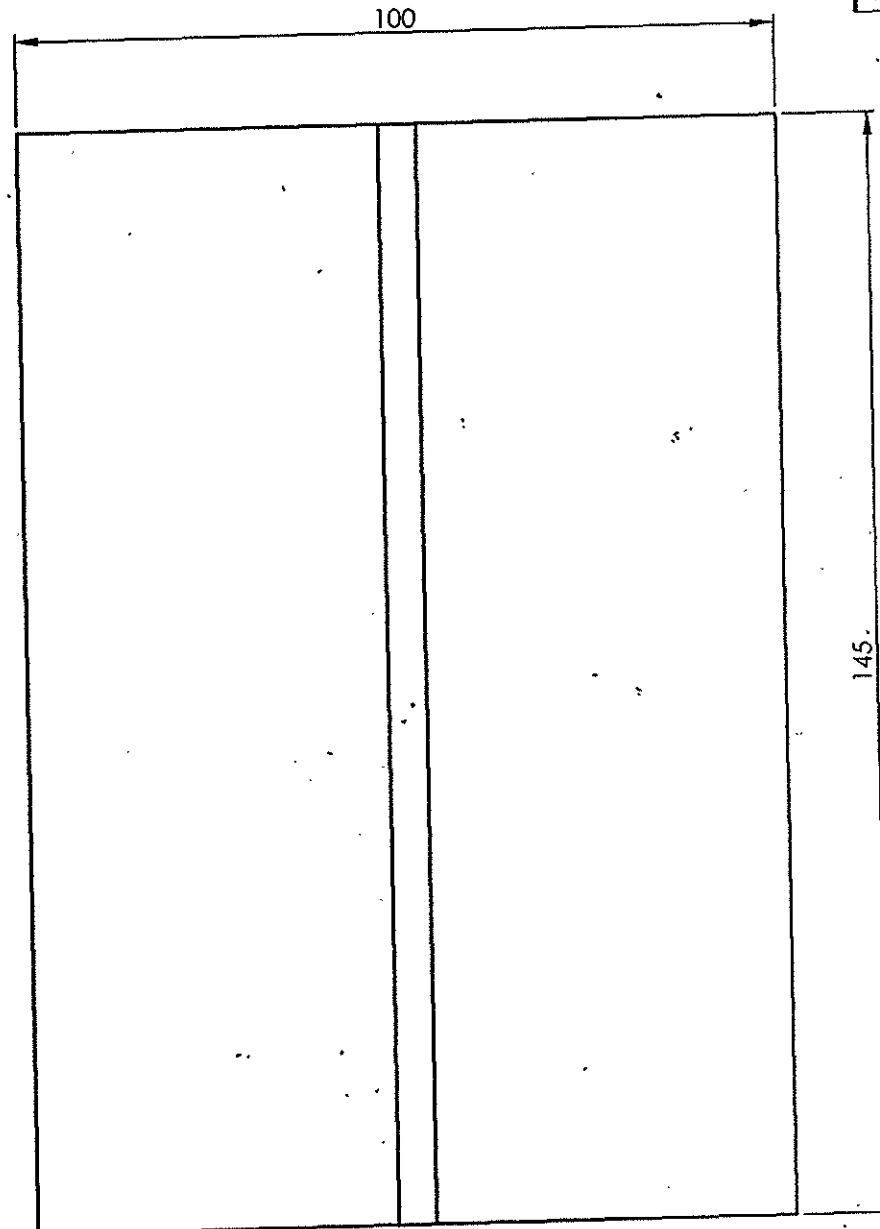
⊙ ROUGH CLEANED
⊙(D) BURRS REMOVED
⊙(R) CHAMFERED

ALT.

ZONE

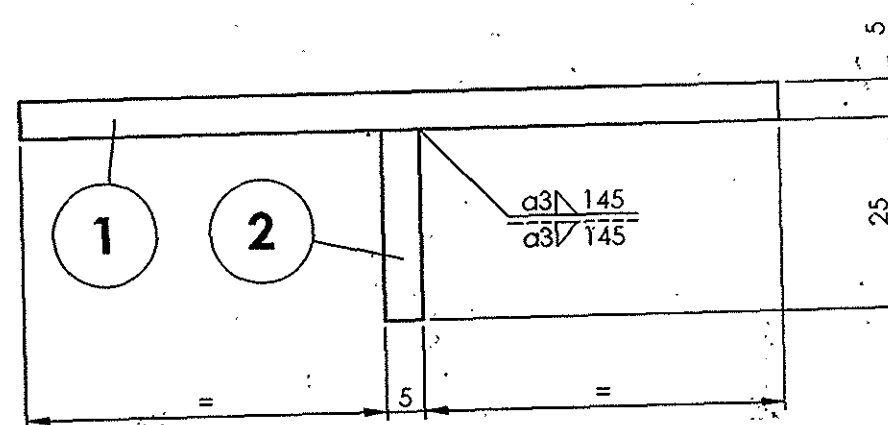
DESCRIPTION

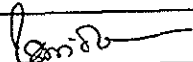
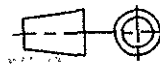
APPROVED &
DATE



NOTE:

1. ALL WELDINGS SHALL BE OF TIG WELDING UNLESS OTHERWISE SPECIFIED.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.



1	PLATE	5x25x145	2		RDSO/SPEC C-K201 X2CrNi12		
1	PLATE	5x100x145	1		RDSO/SPEC C-K201 X2CrNi12		
QTY.	DESCRIPTION	DIMENSION	ITEM NO.	REF. DRGS	MATL. SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-4 SIDE WALL ASSEMBLY			SURFACE AREA IN Sq.m.:0.040		WT/ASSY IN Kgs:		
T-STOPPER FOR SLIDING DOOR					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	
						DRN	A.Palanichamy
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					53814014		
						A3	

REF.DRG.NO.LR10345 Alt a/-



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. MANDATORY MANUFACTURING ALLOWANCES.

1	ROOF FLANGE		11	AAA14381		9.098	
1	PILLAR		10	AAA14937		0.695	
1	PILLAR		9	AAA14936		1.801	
1	HORIZONTAL MEMBER		8	AAA14951		0.576	
1	HORIZONTAL MEMBER		7	AAA14947		0.622	
1	HORIZONTAL MEMBER		6	AAA14953		2.795	
1	HORIZONTAL MEMBER		5	AAA14952		2.805	
1	HORIZONTAL MEMBER		4	AAA14950		2.803	
1	PILLAR		3	AAA14934		5.001	
1	PILLAR		2	AAA14939		4.854	
1	PILLAR		1	AAA14933		5.001	
QTY.	DESCRIPTION	DIMENSIONS	ITEM	REF.DRG.S.	MATL	WT/UNIT	REMARKS

GROUP: 1-4 SIDEWALL ASSEMBL	SURFACE AREA IN Sq.m.: 3.350	WT/ASSY IN Kgs:
-----------------------------	------------------------------	-----------------

**FRAME WORK COMPLETE -SIDEWALL
LEFT NPP END**

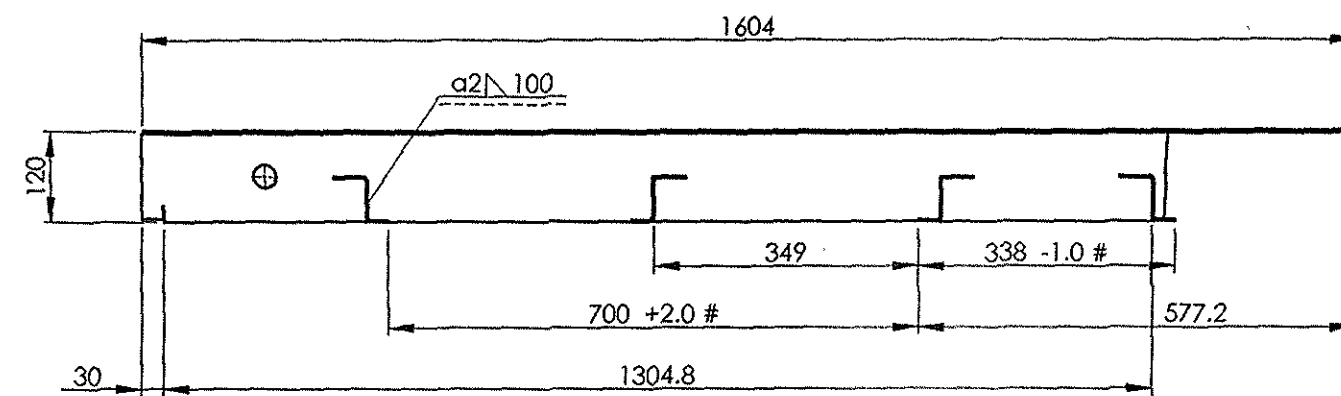
INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET 1 OF 1		LWLRRM
	53814016	

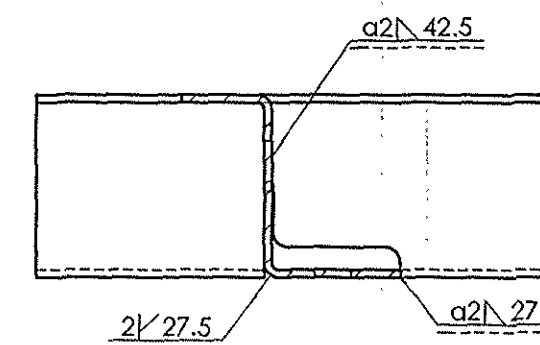
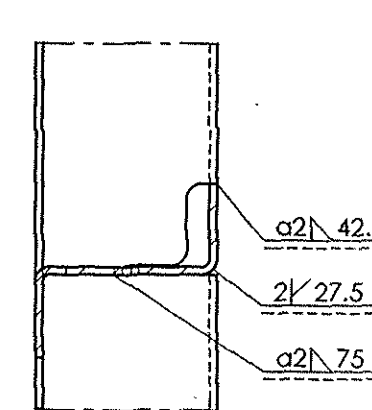
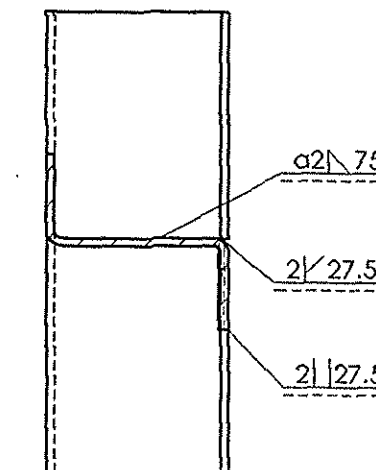
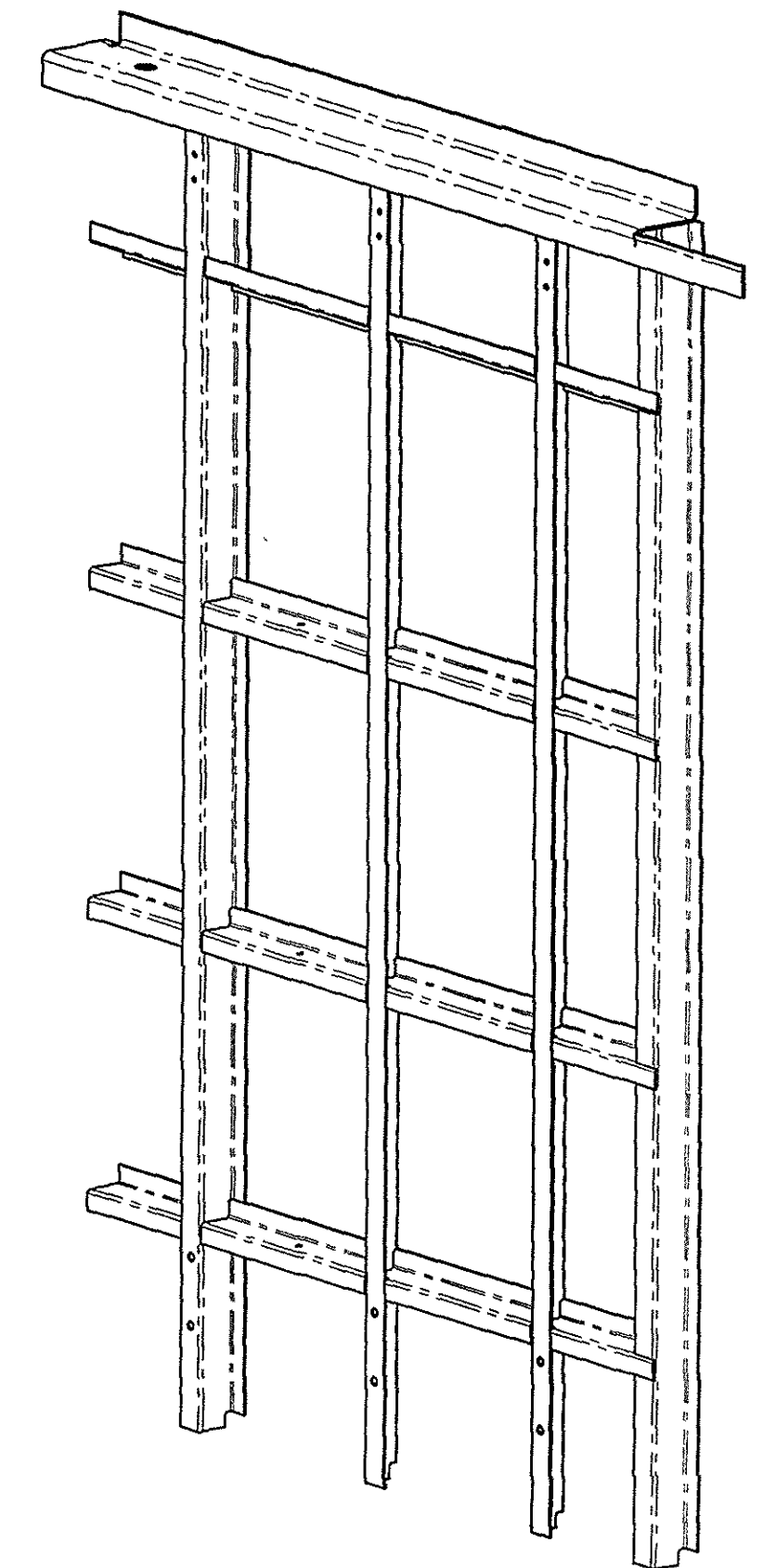
53814018

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

REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		



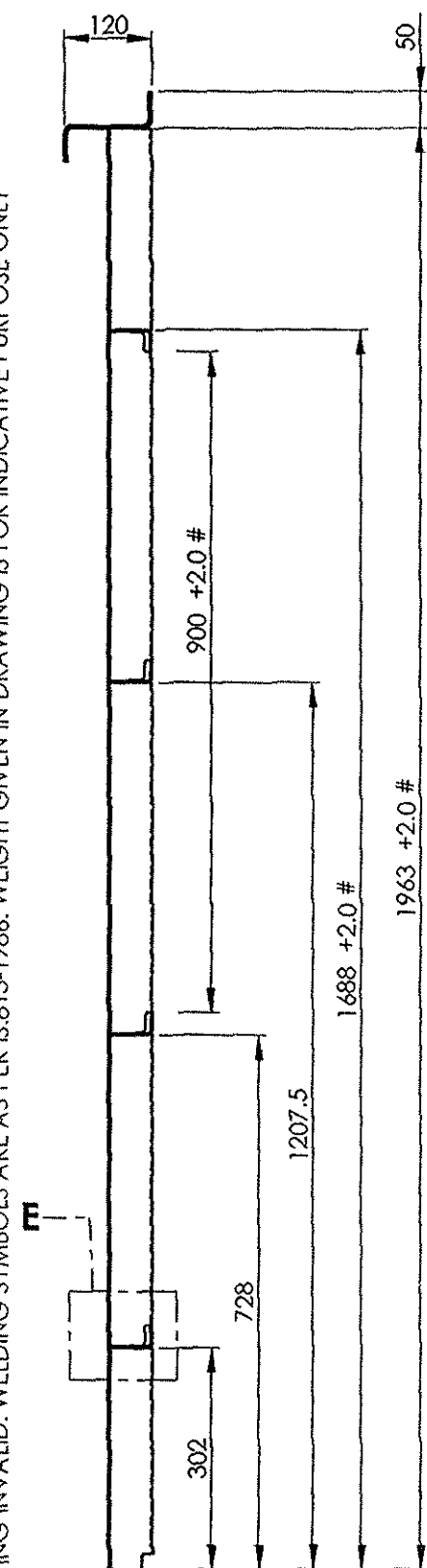
SECTION C-C

SECTION D-D
SCALE 1 : 2.5DETAIL E
SCALE 1 : 2.5SECTION F-F
SCALE 1 : 2.5

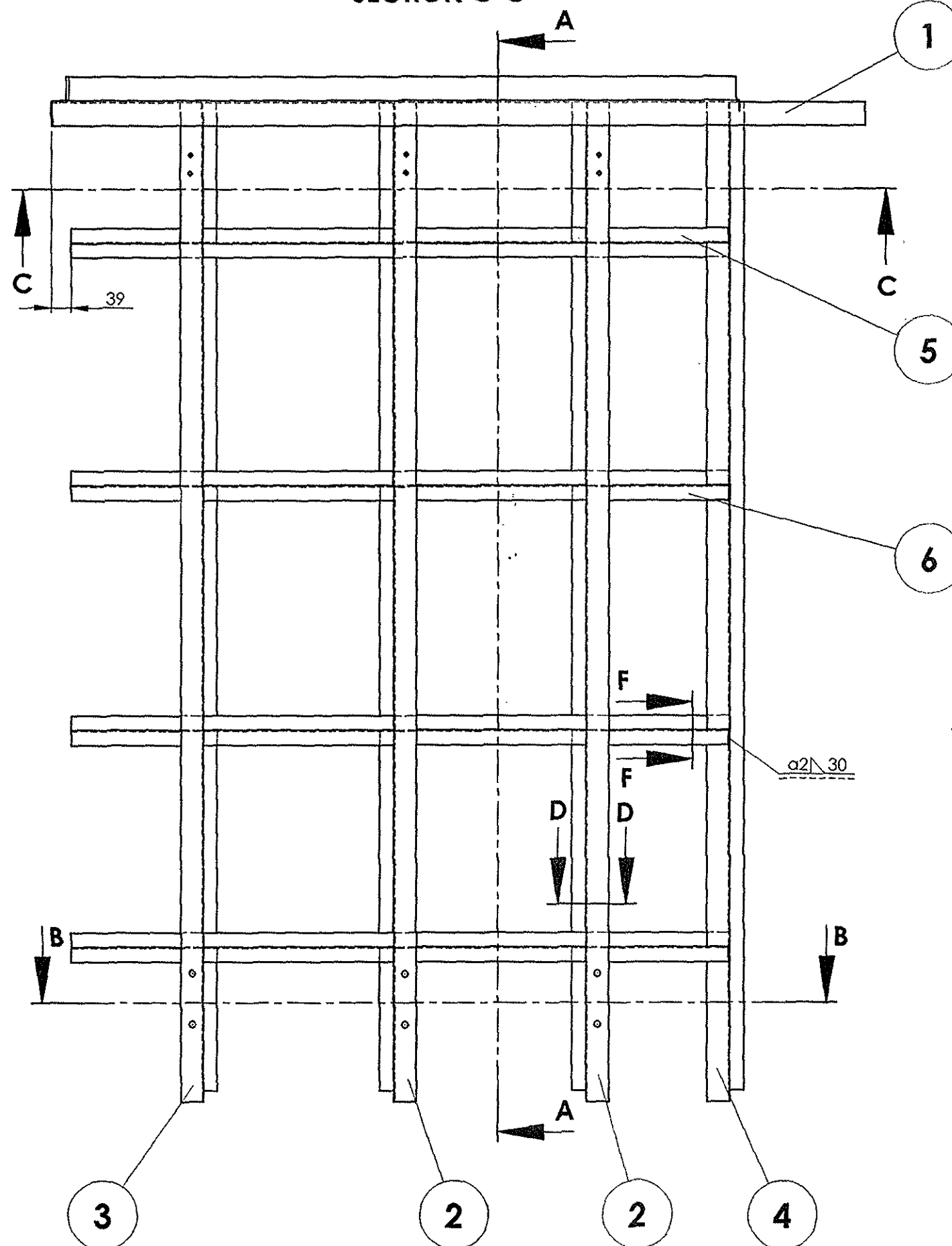
ISOMETRIC VIEW

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. MANDATORY MANUFACTURING ALLOWANCES.



SECTION A-A



SECTION B-B

3	HORIZONTAL MEMBER		6	AAA14953		2.795	
1	HORIZONTAL MEMBER		5	AAA14949		2.796	
1	PILLAR		4	AAA14939		4.856	
1	PILLAR		3	AAA14932		4.862	
2	PILLAR		2	AAA14931		4.862	
1	ROOF FLANGE		1	AAA14381		9.098	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-4 SIDEWALL ASSEMBLY

SURFACE AREA IN Sq.m.:3.725

WT/ASSY IN Kgs:

**SIDEWALL FRAME WORK RIGHT
COMPLETE (PP END)**

SCALE 1:10	SSE/D	CHD	ALT	ALTD	DRN	A.Palanichamy
------------	-------	-----	-----	------	-----	---------------

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600088SHEET
1 OF 1

LWLRRM

53814018

A2


REF.DRG.NO.1 11012.0.20.111.003

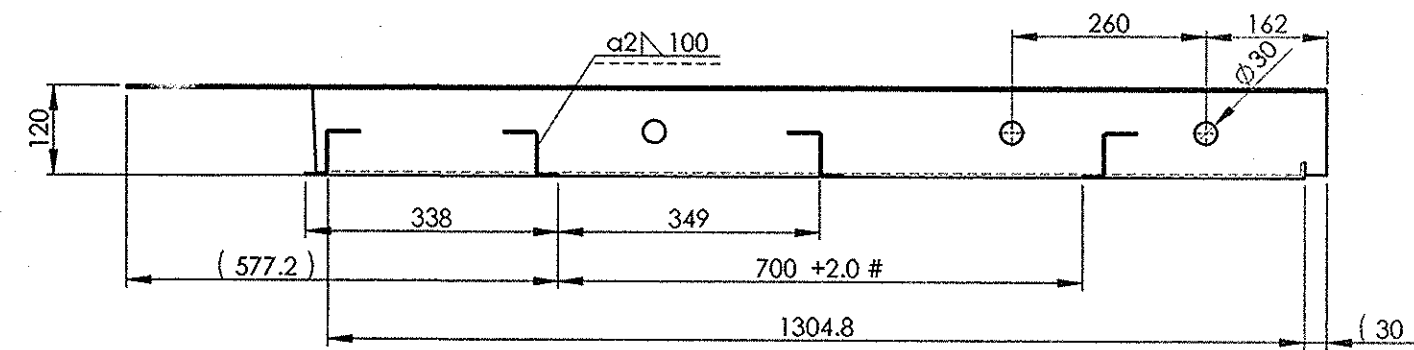
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME
	-1-2015	

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

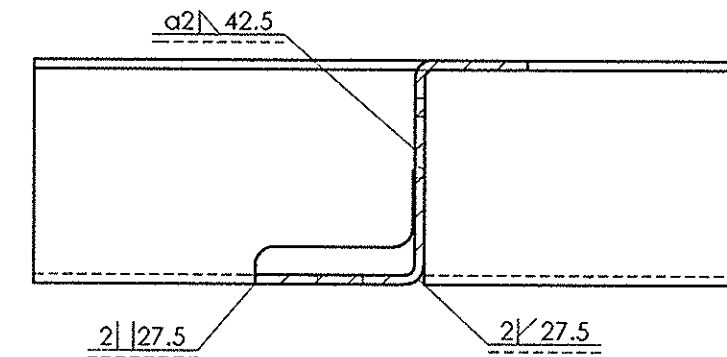
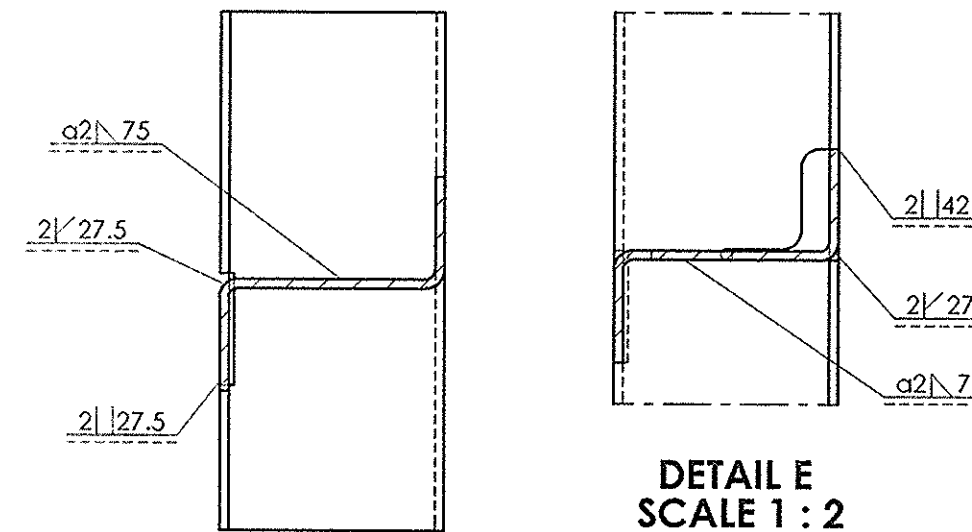
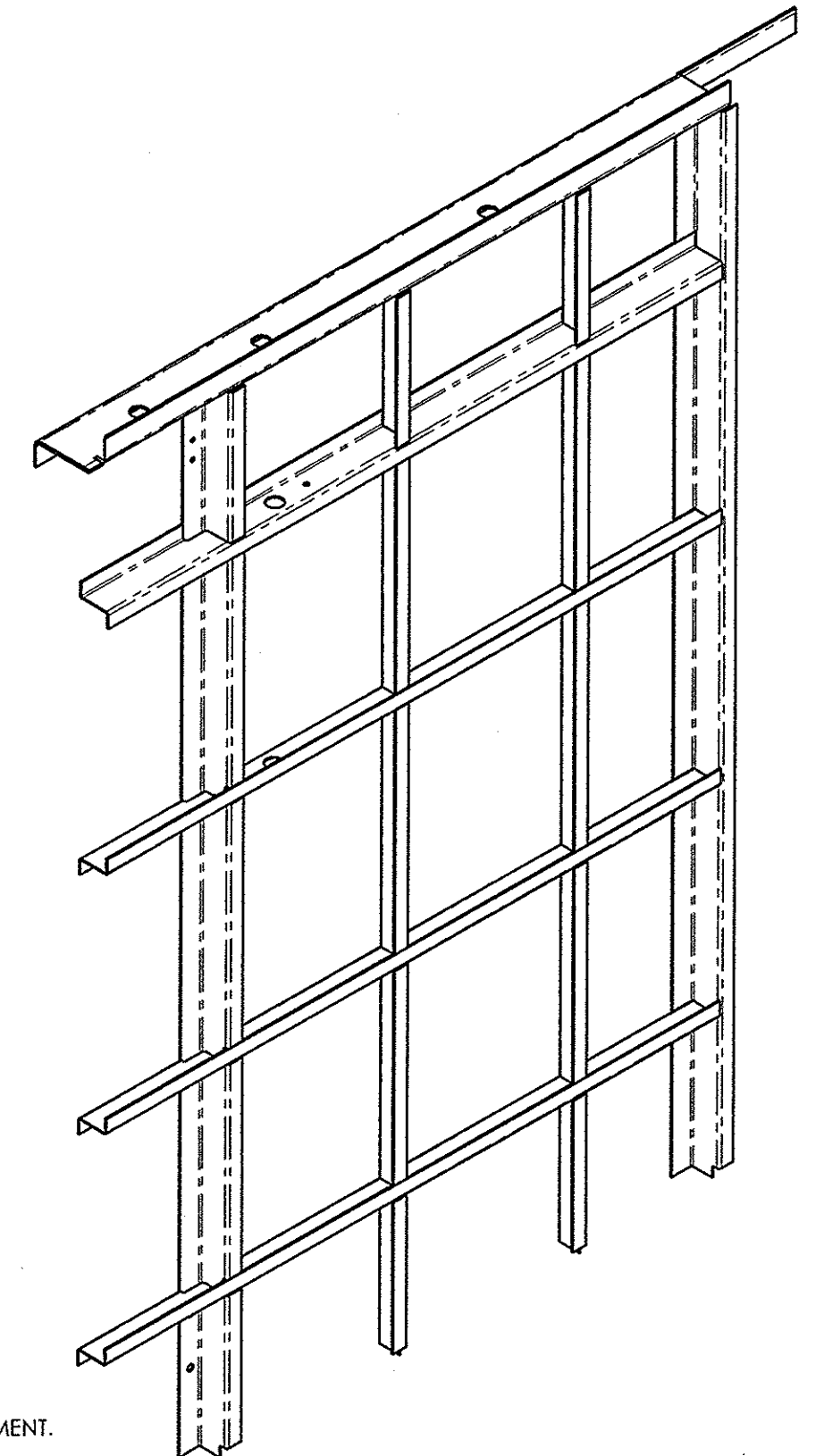
53814019

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
	a	ITEM-7 ADDED & Qty FOR ITEM-6 ALTED FROM 3 TO 2	



SECTION C-C

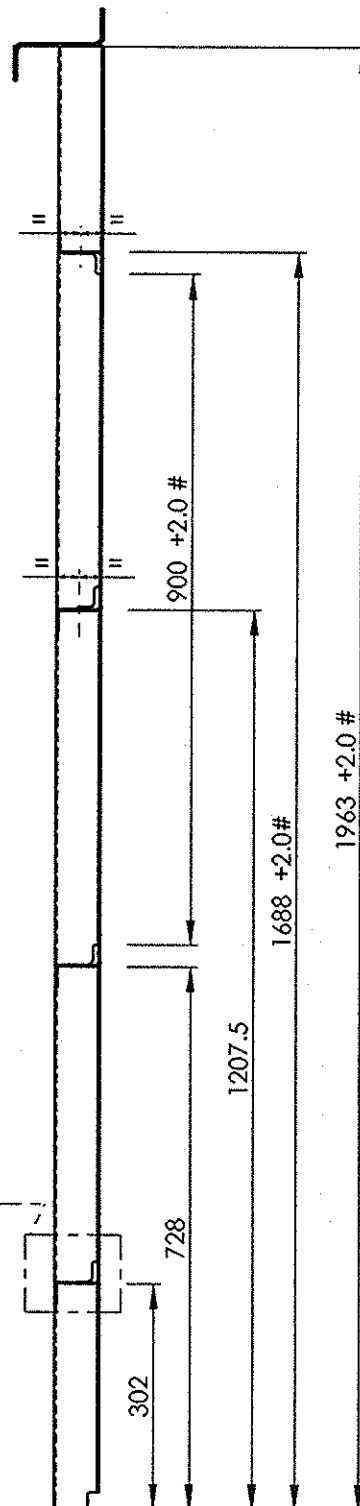
SECTION D-D
SCALE 1 : 2DETAIL E
SCALE 1 : 2SECTION G-G
SCALE 1 : 2

ISOMETRIC VIEW

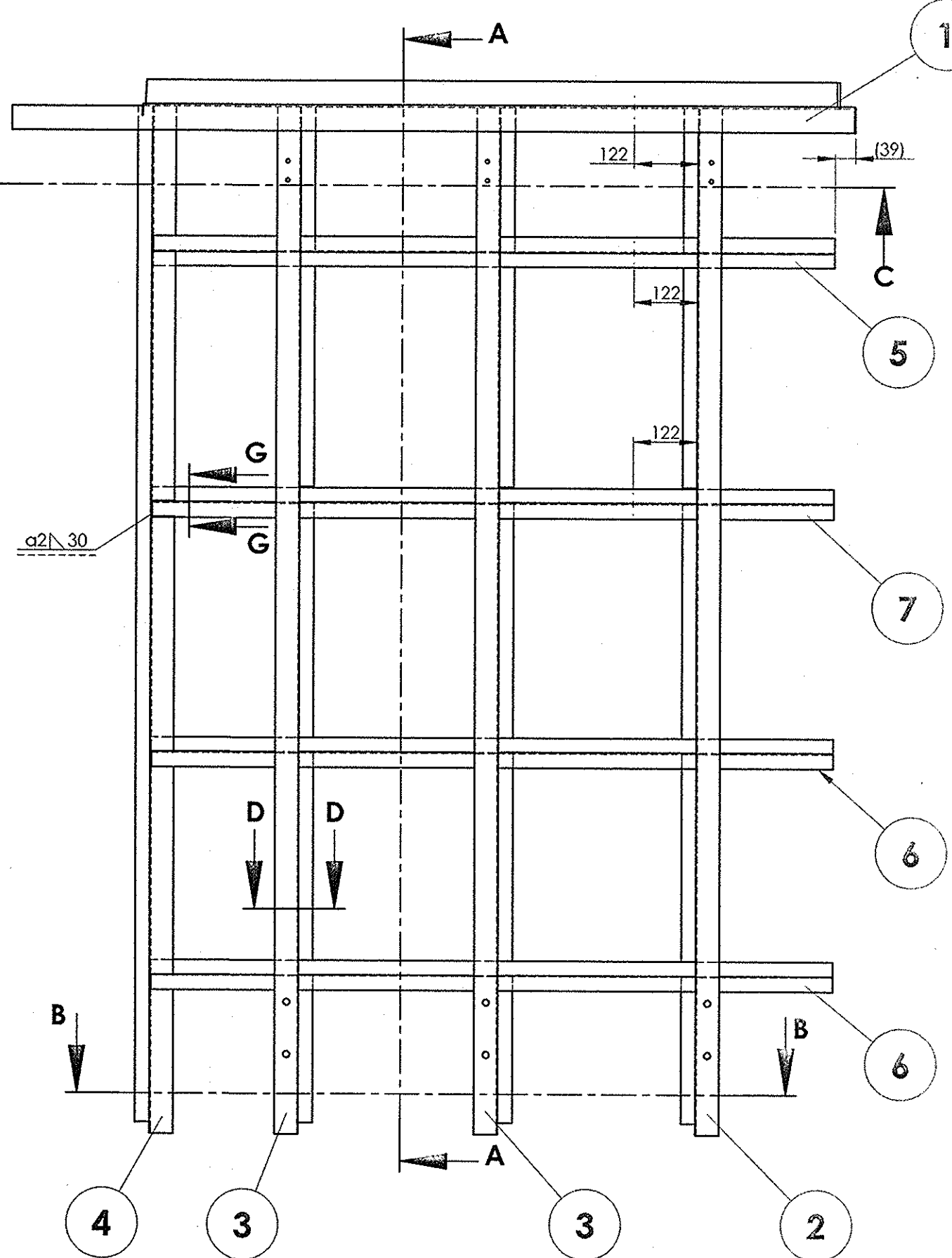
NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL 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. MANDATORY MANUFACTURING ALLOWANCES.

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.



SECTION A-A



SECTION B-B

1	HORIZONTAL MEMBER		7	AAD14186		2.782	
2	HORIZONTAL MEMBER		6	AAA14949		2.796	
1	HORIZONTAL MEMBER		5	AAA14953		2.781	
1	PILLAR		4	AAA14938		4.854	
2	PILLAR		3	AAA14932		4.862	
1	PILLAR		2	AAA14931		4.862	
1	ROOF FLANGE		1	AAA14370		9.052	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-4 SIDEWALL ASSEMBL

SURFACE AREA IN Sq.m.: 3.720

WT/ASSY IN Kgs:

SIDEWALL FRAME WORK LEFT
COMPLETE (PP END)

SCALE 1:10

SSE/D

CHD

ALT a

ALTD

DRN

SATISH KUMAR

A.Palanichamy

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

53814019

A2

REF.DRG.NO.1 10113.0.20.111.005 Alt A/-

28-02-2018

DATE OF LATEST ALT.

05-01-2015

DATE OF FIRST ISSUE

AME/SME

53814020

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

⑥ ROUGH CLEANED

⑥b BURRS REMOVED

⑧ CHAMFERED

REVISIONS

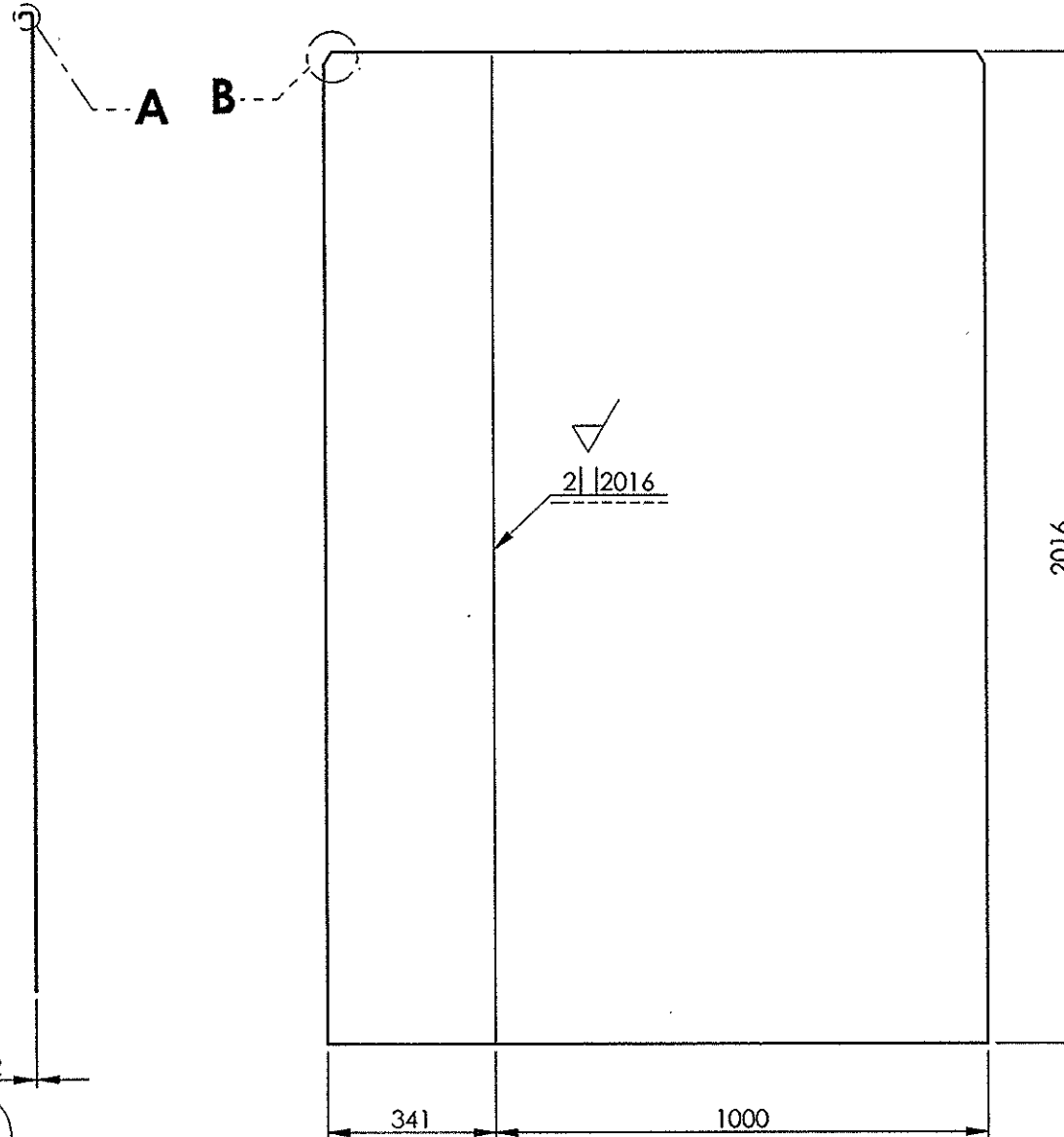
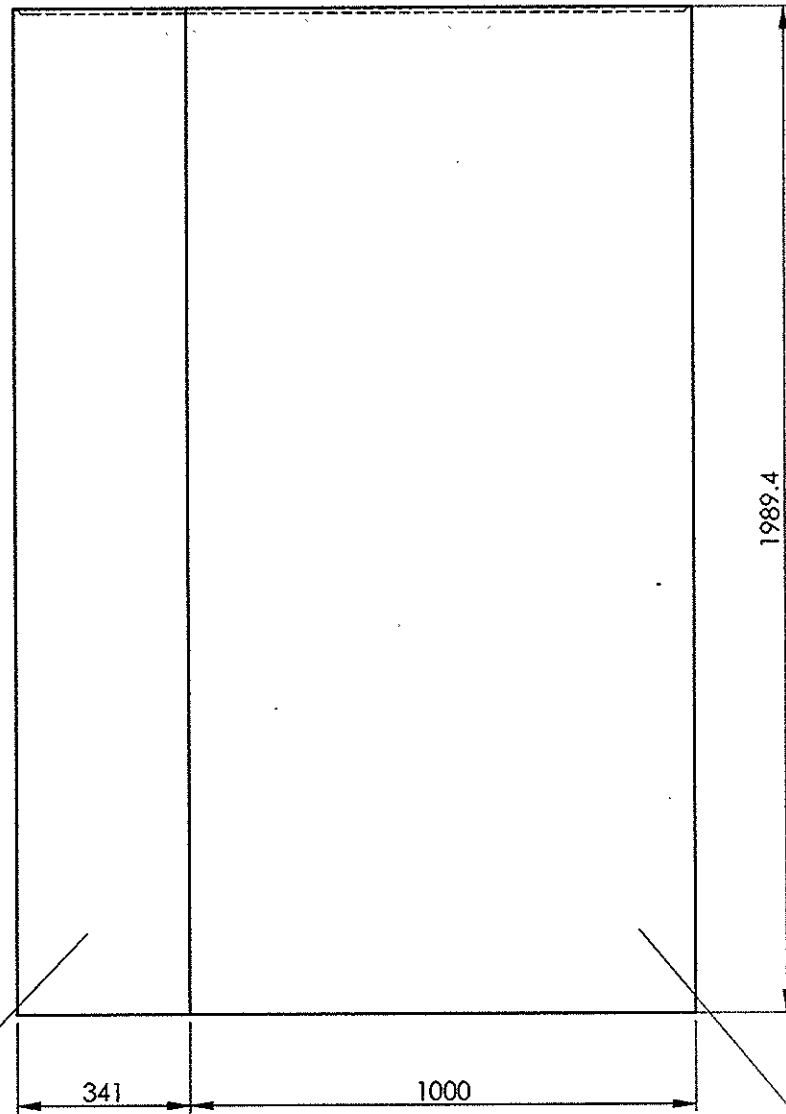
ALT.

ZONE

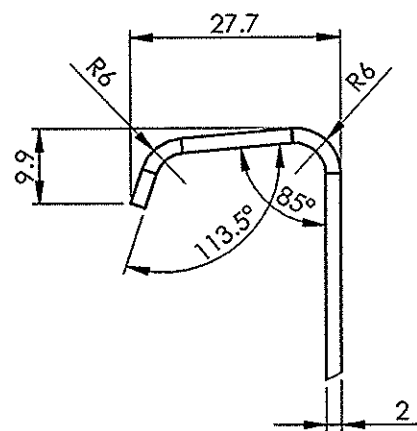
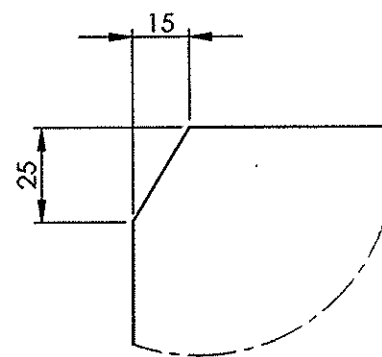
DESCRIPTION

APPROVED &
DATE

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



DEVELOPMENT VIEW

DETAIL A
SCALE 1 : 1DETAIL B
SCALE 1 : 2

1	SIDEWALL SHEET	2x341x2016	2		RDSO/SPEC C-K201 X2CrNi12	11.001	
1	SIDEWALL SHEET	2x1000x2016	1		RDSO/SPEC C-K201 X2CrNi12	32.266	
QTY.	DESCRIPTION	DIMENSION	ITEM NO.	REF. DRGS	MATL. SPEC.	WT/UNIT IN KGS	REMARKS

GROUP: 1-4 SIDEWALL ASSEMBLY

SURFACE AREA IN Sq.m.:

WT/ASSY IN Kgs:

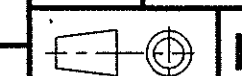
SIDEWALL SHEETING ARRANGEMENT
(PP END)SCALE
1:15SSE/D
CHD

ALT.

ALTD

DRN

A.Palanichamy



LWLRRM

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

53814020

A3

REF.DRG.NO.2 10113.0.20.114.003 Alt A/-

DATE OF LATEST ALT.

DATE OF FIRST ISSUE

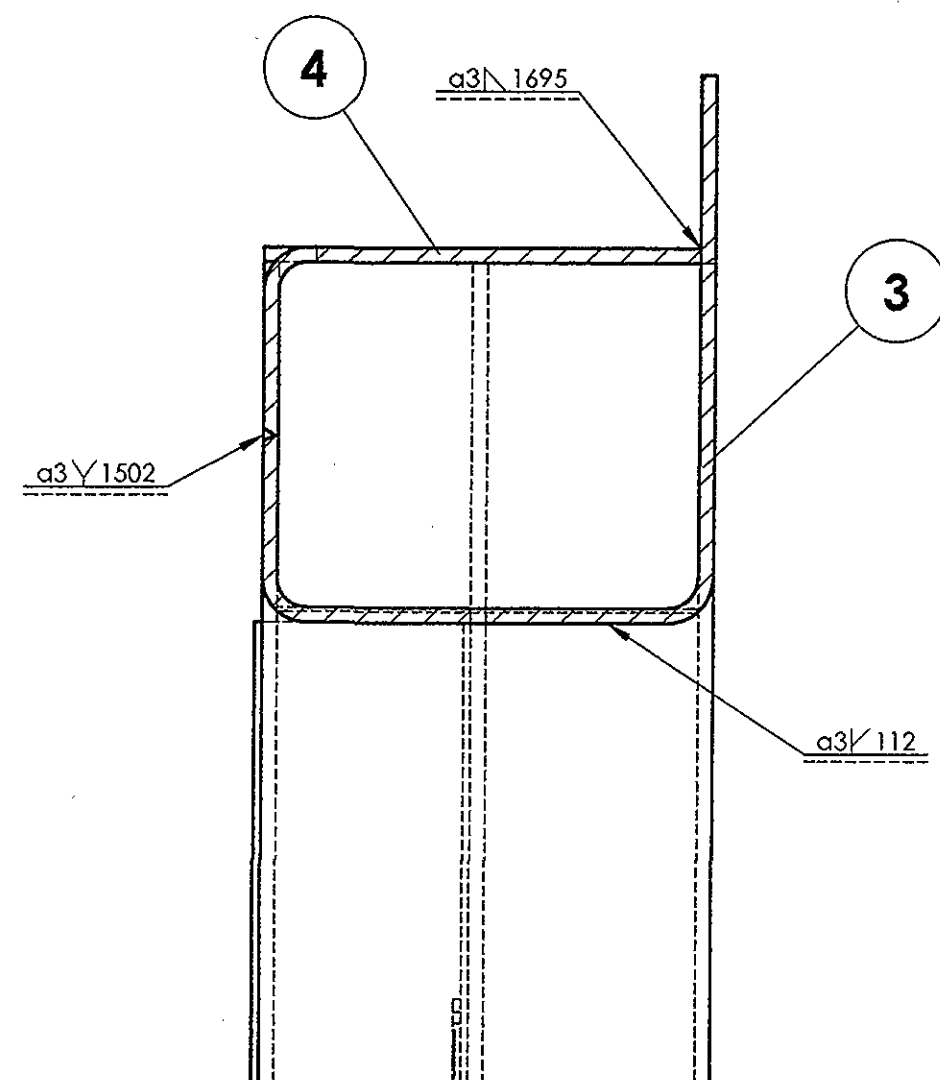
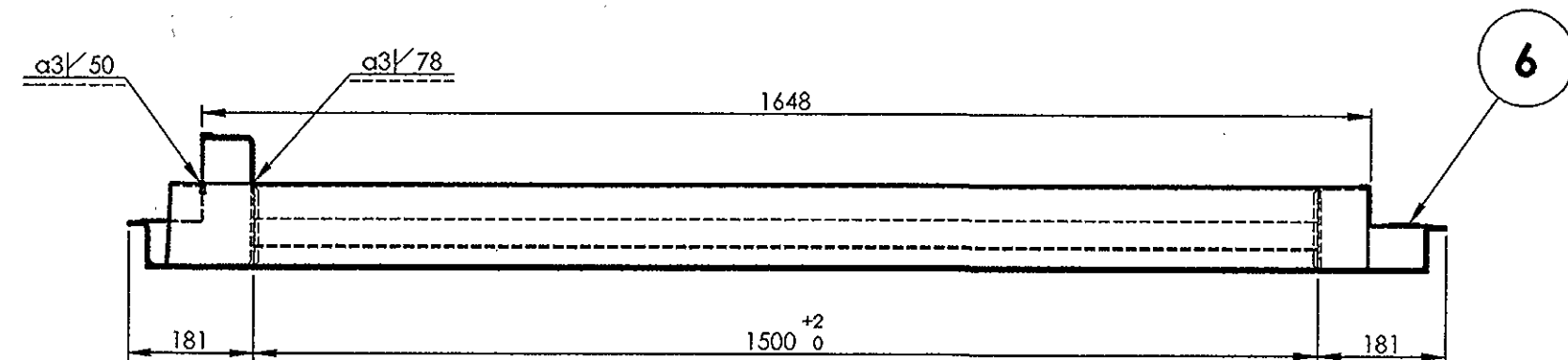
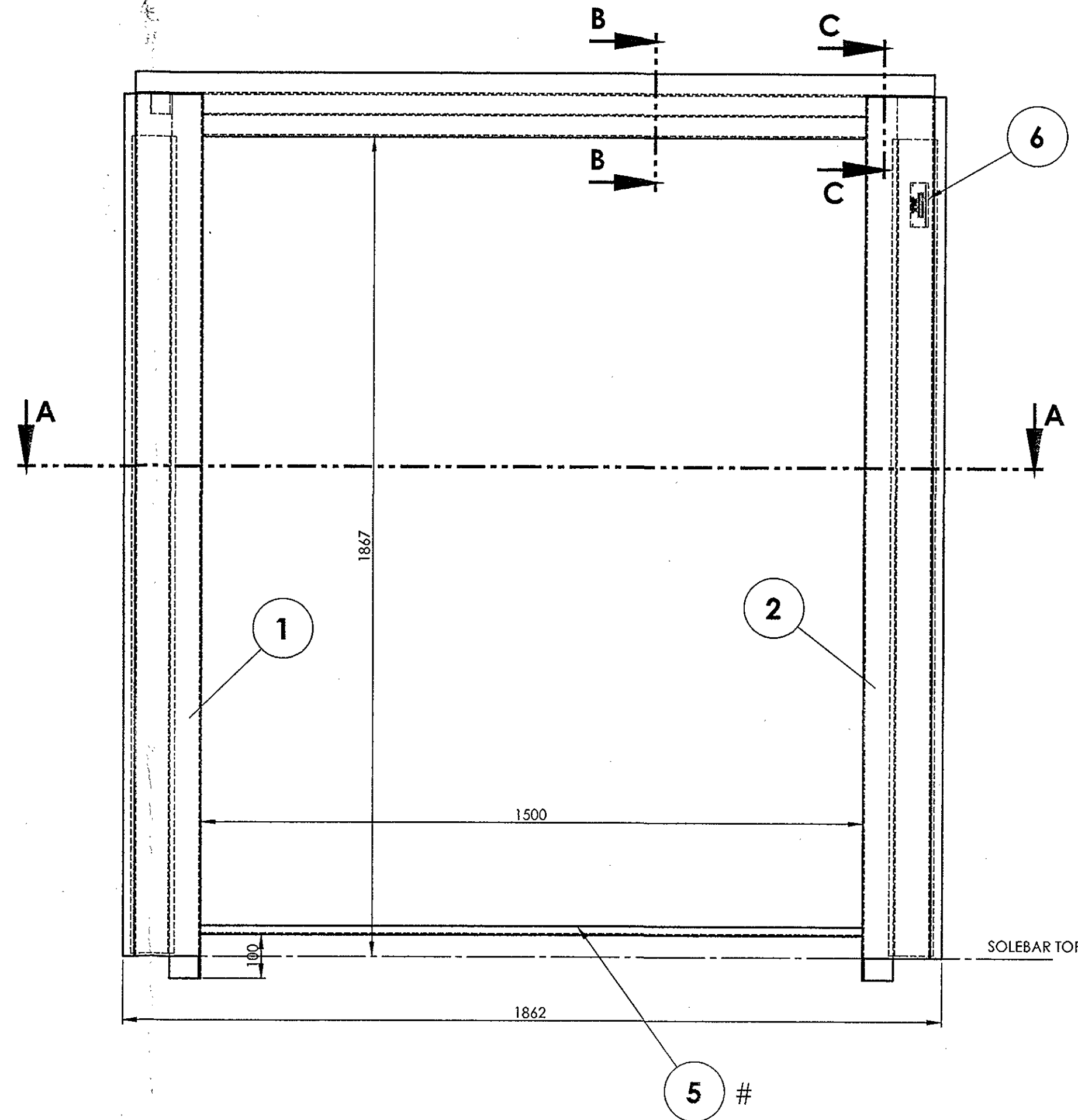
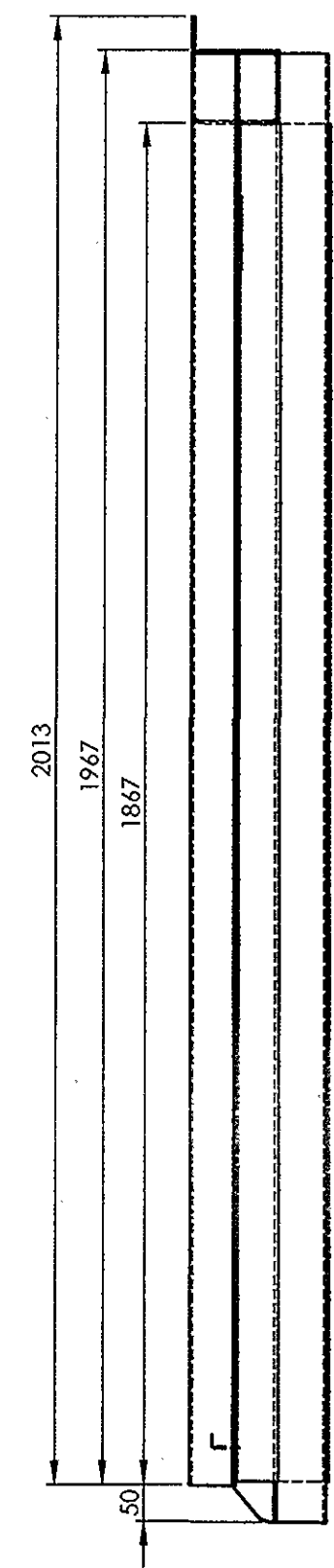
AME/SME

53814026

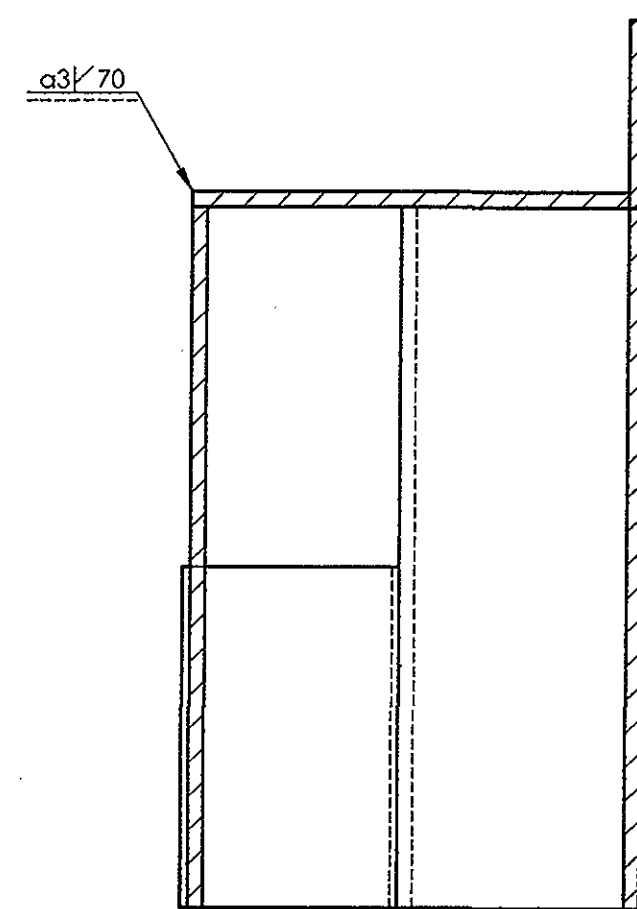
▽ ROUGH MACHINED
▽▽ FINISH MACHINED
▽▽▽ FINE FINISH MACHINED

⑪ ROUGH CLEANED
⑫ BURRS REMOVED
⑬ CHAMFERED

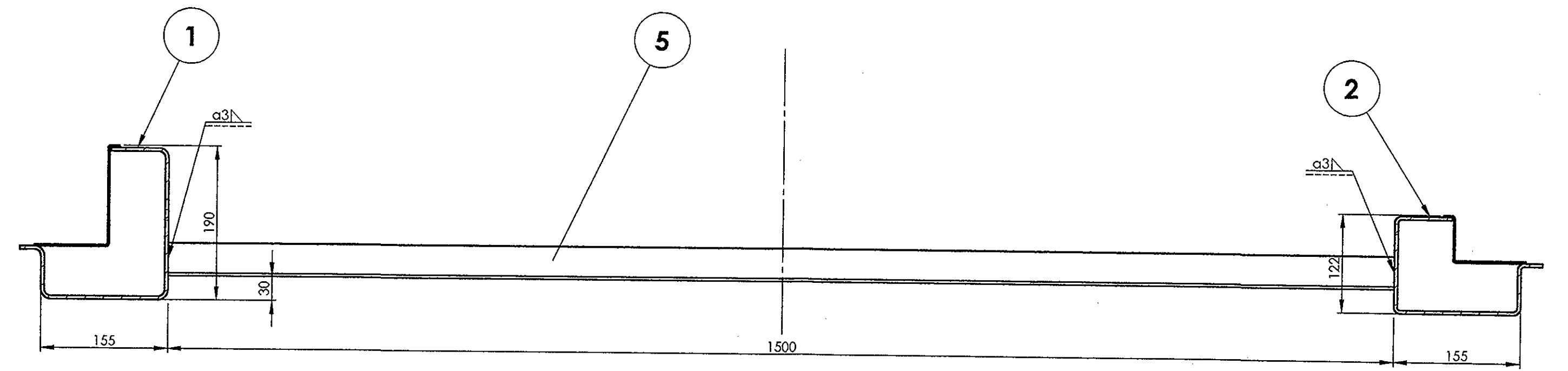
REVISIONS		APPROVED & DATE	
ALT.	ZONE	DESCRIPTION	



SECTION B-B
SCALE 1 : 2



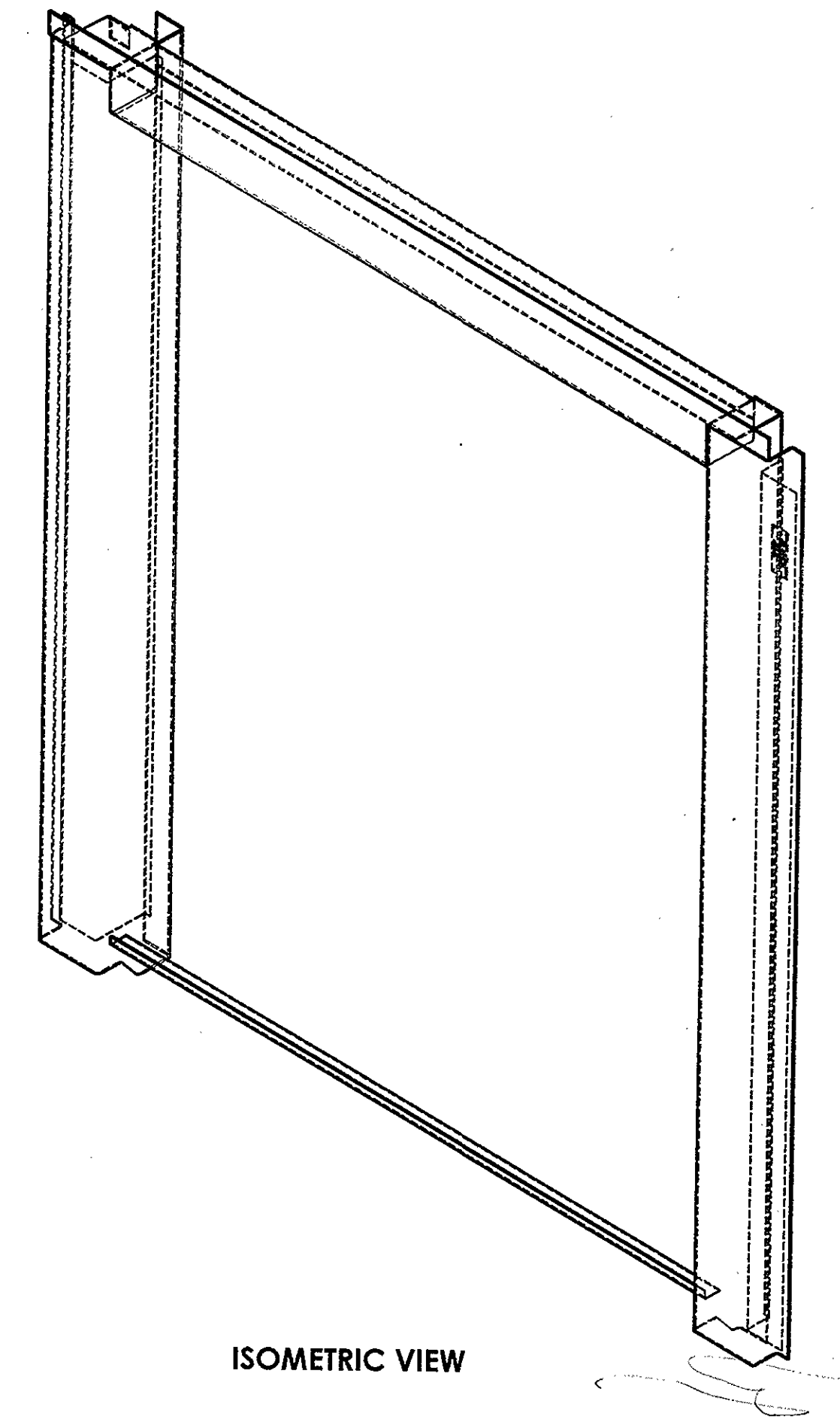
SECTION C-C
SCALE 1 : 2



SECTION A-A
SCALE 1 : 5

NOTE:

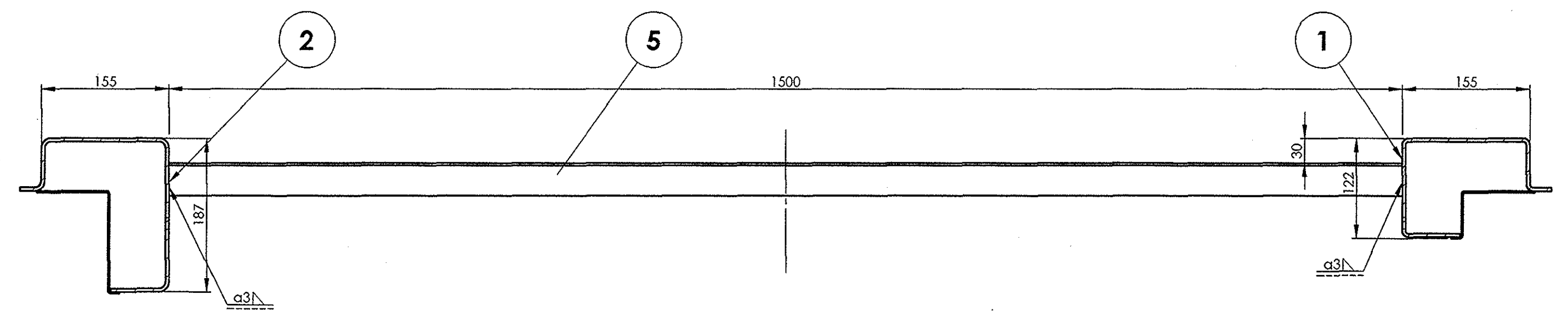
1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
5. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.
6. ITEM-6 (NAME PLATE) SHALL BE WELDED OR RIVETTED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.
7. ITEM SHALL BE OFFERED FOR PROTO TYPE INSPECTION TO ICF BEFORE TAKING UP BULK MANUFACTURE. SINCE THE ITEM IS DEVELOPED FIRST TIME, MINOR CHANGES LIKE CHANGE OF LOCATION OF MEMBERS, SIZE, ALTERATION OF BACK PIECES AND WELDING REQUIREMENTS HAVE TO BE ACCOMMODATED. THESE CHANGES SHALL BE IMPLEMENTED IN CONSULTATION WITH DESIGN DEPARTMENT OF ICF.
8. ITEM-5 (DUMMY ITEM) SHALL BE TACK WELDED, AND TO BE REMOVED IN SHELL ASSY. STAGE.



ISOMETRIC VIEW

1	NAME PLATE	6	AAAS1072	0.063	
1	ANGLE	5	AAA14930	1.982	
1	TOP FLANGE	4	AAA14925	8.311	
1	TOP FLANGE	3	AAA14926	14.810	
1	DOOR CUTOUT	2	53814028	30.687	
1	DOOR PILLAR R.H.	1	53814029	36.718	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	REMARKS
GROUP: 1-4		SURFACE AREA IN Sq.m.: 6.633		WT/ASSY IN Kgs: 92.449	
DOOR CUTOUT L.H		SCALE	SSE/D	CHD	
		1:10	ALT	ALT	
		ALT	DRN	G.VIMALA	
		DRN			
INDIAN RAILWAY STANDARDS		SHEET		LWLRRM	
INTEGRAL COACH FACTORY, CHENNAI - 600038		1 OF 1		53814026	
DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME	
3/3/2014		2/3/14			
REF.DRG.NO.LR10295				A1	


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



ISOMETRIC VIEW

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. ITEM-6 (NAME PLATE) SHALL BE WELDED OR RIVETTED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING/ PROCURED FROM TRADE.
7. ITEM SHALL BE OFFERED FOR PROTO TYPE INSPECTION TO ICF BEFORE TAKING UP BULK MANUFACTURE. SINCE THE ITEM IS DEVELOPED FIRST TIME, MINOR CHANGES LIKE CHANGE OF LOCATION OF MEMBERS, SIZE, ALTERATION OF BACK PIECES AND WELDING REQUIREMENTS HAVE TO BE ACCOMMODATED. THESE CHANGES SHALL BE IMPLEMENTED IN CONSULTATION WITH DESIGN DEPARTMENT OF ICF.
8. ITEM-5 (DUMMY ITEM) SHALL BE TACK WELDED, AND TO BE REMOVED IN SHELL ASSY STAGE.

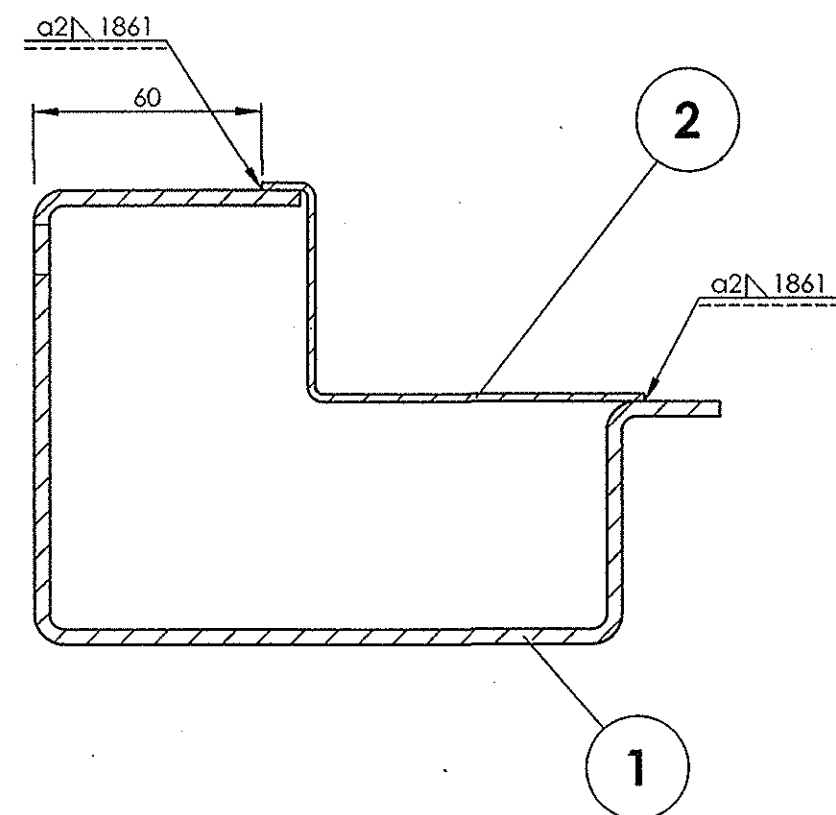
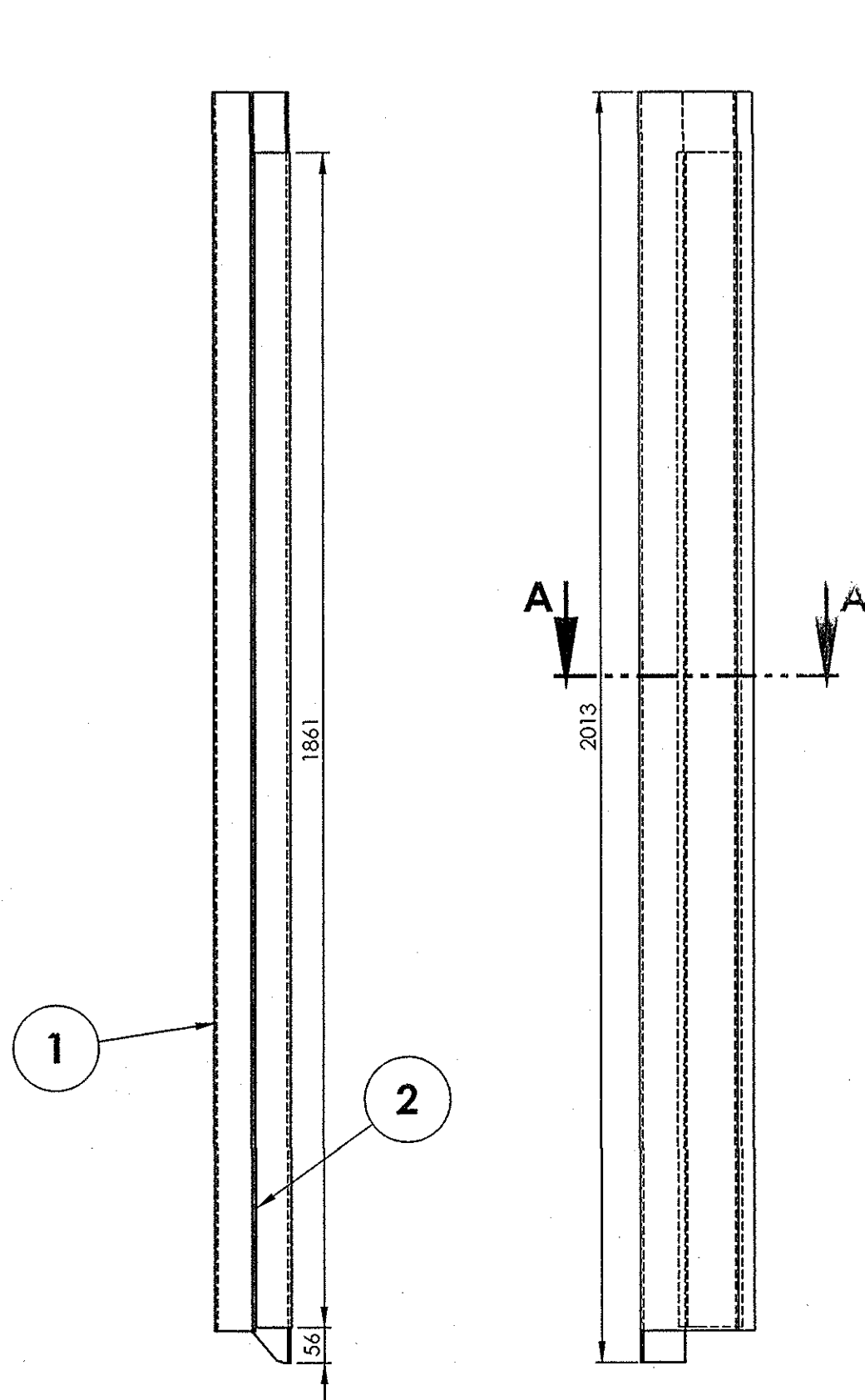


1	NAME PLATE		6	AAA51072		0.063	
1	ANGLE		5	AAA14930		1.982	
1	TOP FLANGE		4	AAA14927		8.312	
1	TOP FLANGE		3	AAA14926		14.810	
1	DOOR PILLAR R.H		2	53814031		36.596	
1	DOOR PILLAR L.H		1	53814030		30.689	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRG.S.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-4				SURFACE AREA IN Sq.m.: 6.622		WT/ASSY IN Kgs: 92.451	
DOOR CUTOUT R.H				SCALE 1:10			
				SSE/D		CHD	
				ALT.		ALTD	
				DRN		G.VIMALA	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600030							
				SHEET 1 OF 1			
				53814027			
				A1			

53814028

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

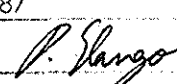
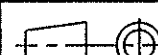
REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



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 WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.

1	ANGLE		2	AAA14924		4.60		
1	DOOR PILLAR		1	AAA14923		26.087		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: 1-4			SURFACE AREA IN Sq.m.: 2.233			WT/ASSY IN Kgs:30.687		
DOOR CUTOUT						SCALE 1:10	SSE/D	
							CHD	
						ALT	ALTD	
							DRN	G.VIMALA
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							LWLRRM	
							SHEET 1 OF 1	
						53814028		A2

-	3/3/2014	W. J. S. S. S.
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

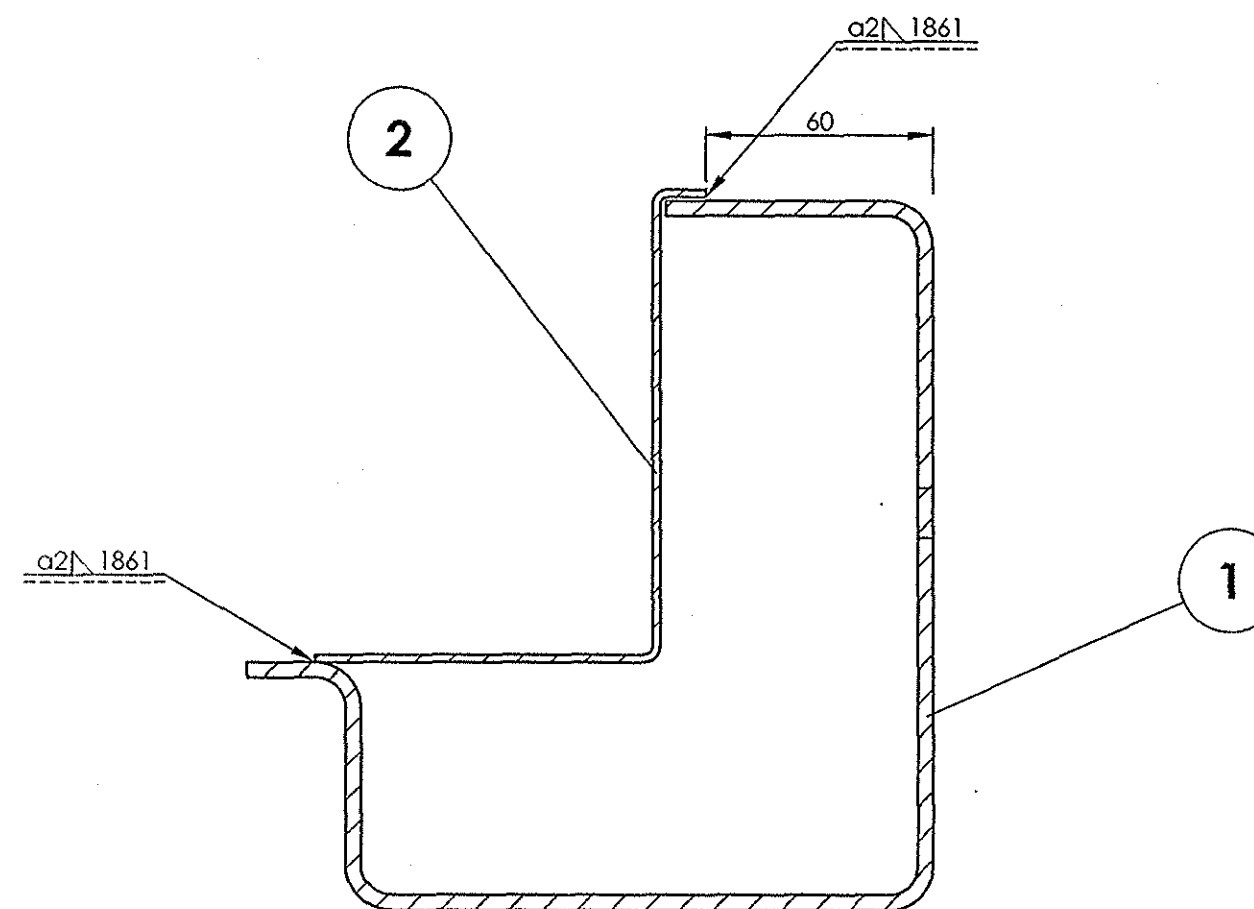
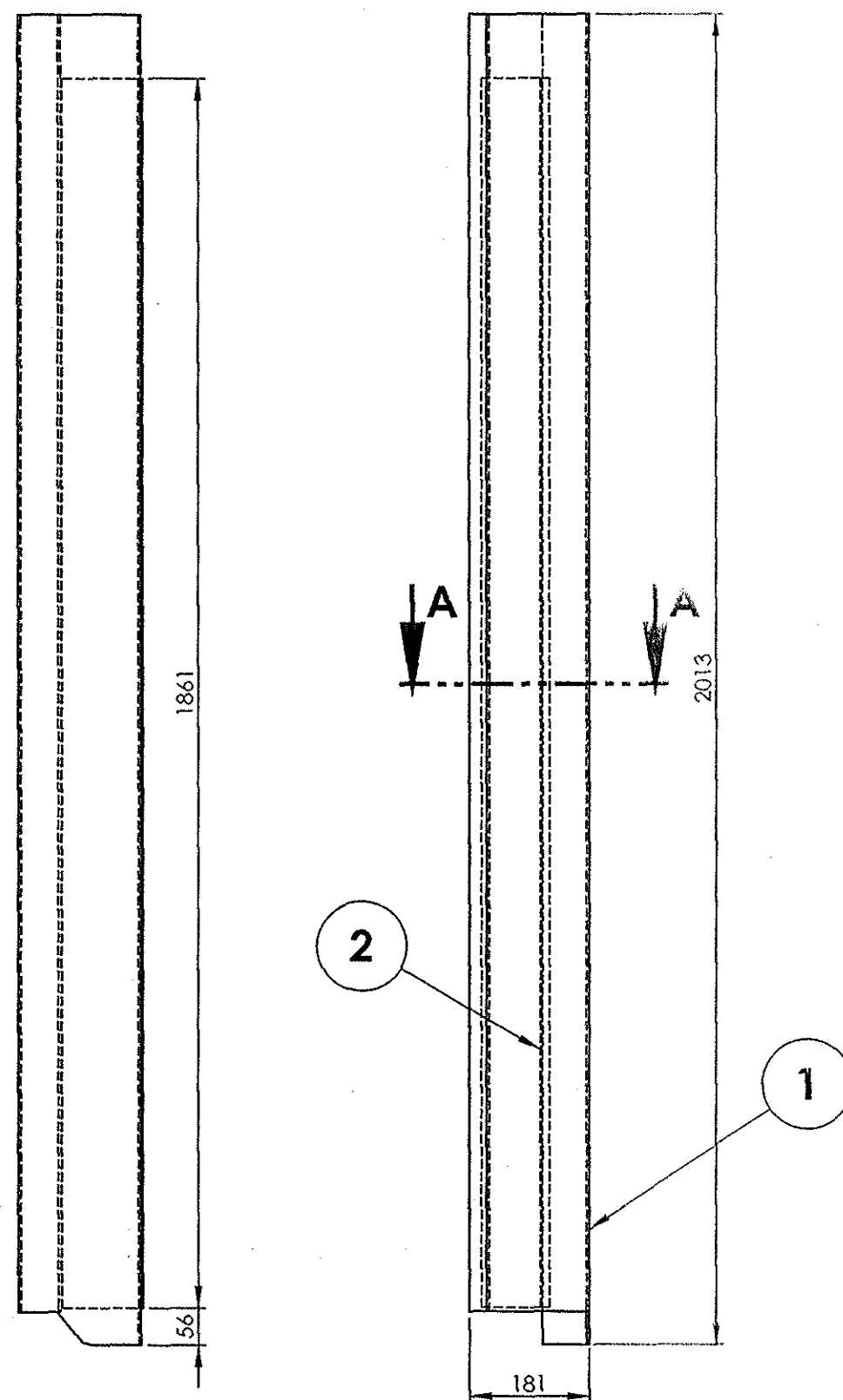
REF.DRG.NO.LR10297-'b'

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.

53814029

▽ 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 : 2

NOTE:

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.

1	ANGLE		2	AAA14922		6.653	
1	DOOR PILLAR		1	AAA14921		30.066	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-4			SURFACE AREA IN Sq.m.: 2.739		WT/ASSY IN Kgs:36.596		
DOOR PILLAR R.H.					SCALE 1:10	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	G.VIMALA
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						LWLRRM	
						53814029	
					SHEET 1 OF 1		A2

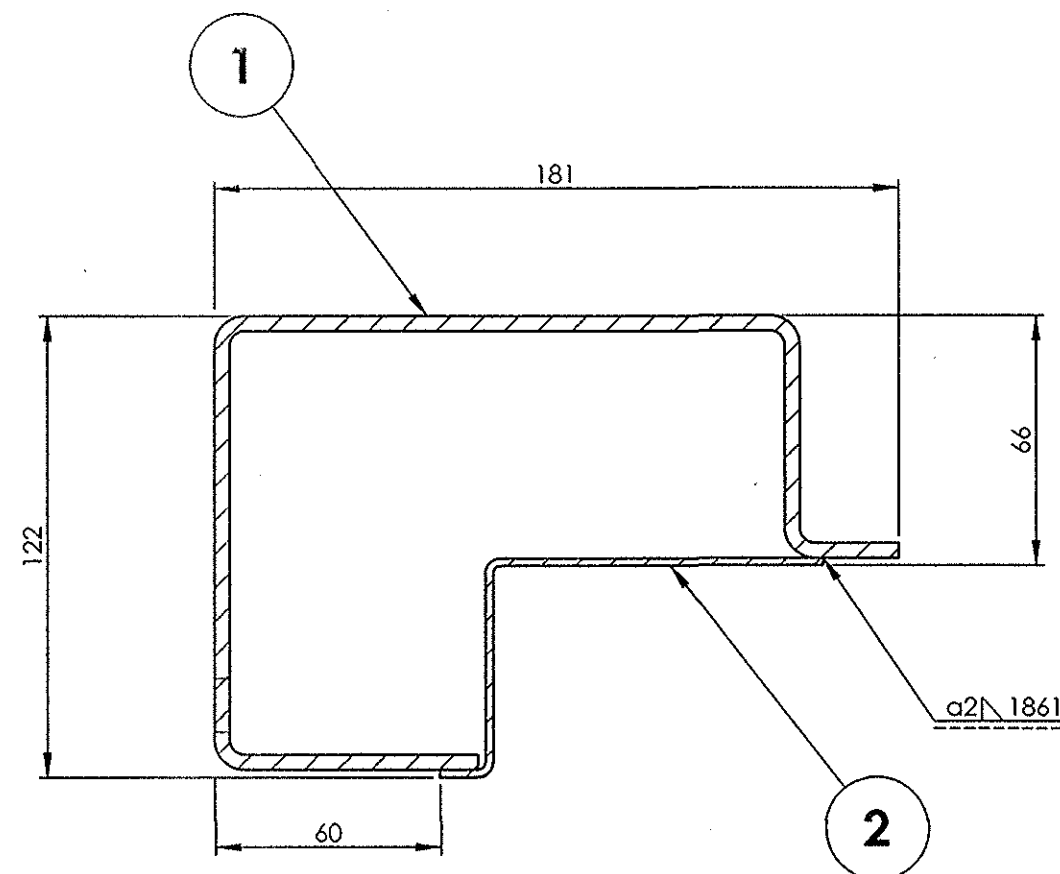
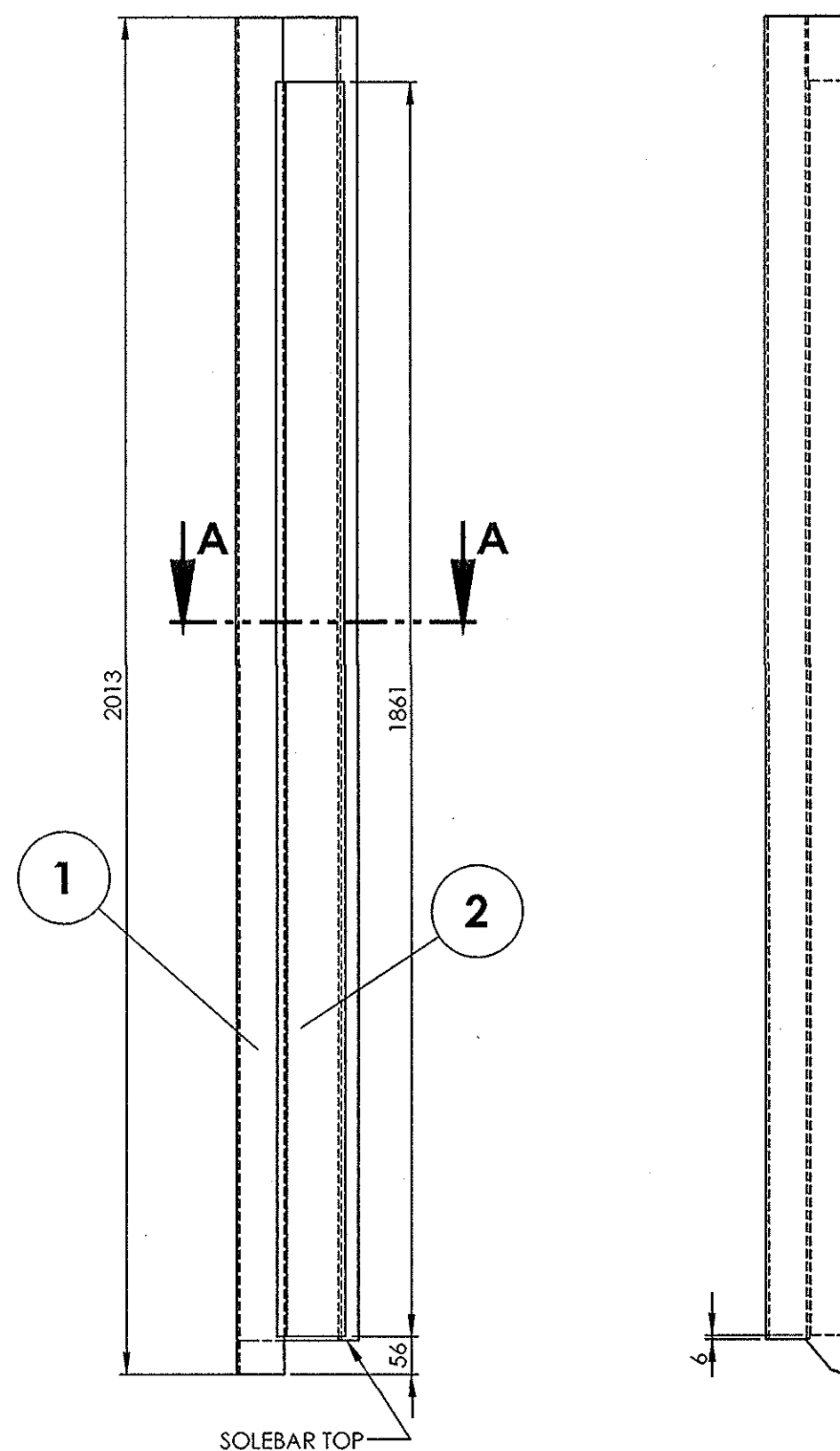
REF.DRG.NO.LR10300

DATE OF LATEST ALT.	3/3/2014	AME/SME
---------------------	----------	---------

53814030

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

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



SECTION A-A
SCALE 1 : 2


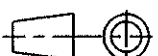
NOTE:

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.

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.LR10307

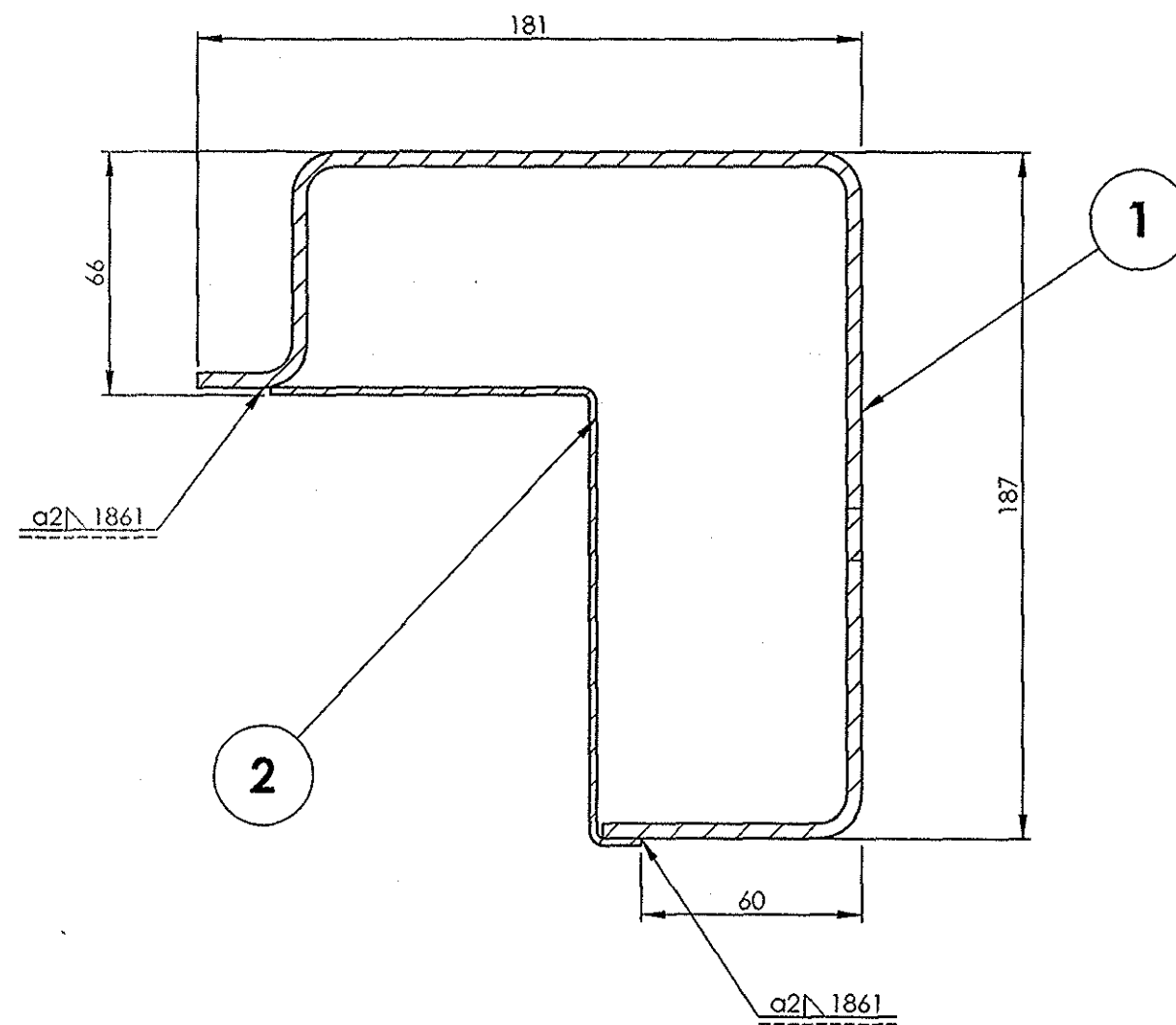
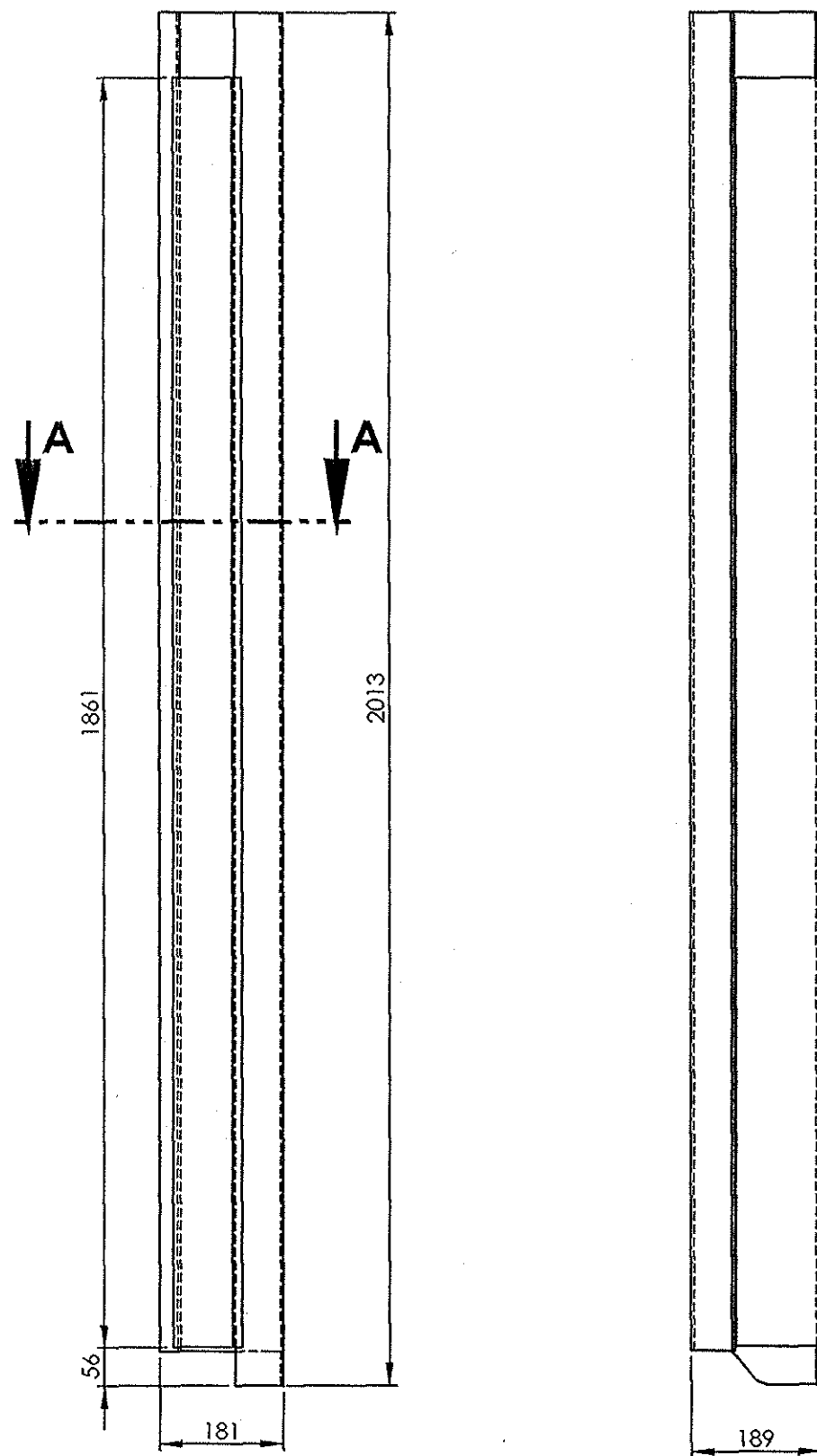
DATE OF LATEST ALT.	3/3/2014	AME/SME
---------------------	----------	---------

1	ANGLE		2	AAA14924		4.60		
1	DOOR PILLAR		1	AAA14928		26.090		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: 1-4			SURFACE AREA IN Sq.m.: 2.233			WT/ASSY IN Kgs:30.689		
DOOR PILLAR L.H						SCALE 1:10	SSE/D	
						CHD		
						ALT	ALTD	
						DRN	G.VIMALA	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							LWLRRM	
							53814030	
						SHEET 1 OF 1		

53814031

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



REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



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 WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.

1	ANGLE		2	AAA14922		6.593	
1	DOOR PILLAR		1	AAA14929		30.003	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-4			SURFACE AREA IN Sq.m.: 2.727		WT/ASSY IN Kgs:36.596		
DOOR PILLAR R.H					SCALE 1:10	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	G.VIMALA
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						LWLRRM	
						53814031	
					SHEET 1 OF 1		A2

	3/3/2014	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.LR10308-ALT 'b'

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

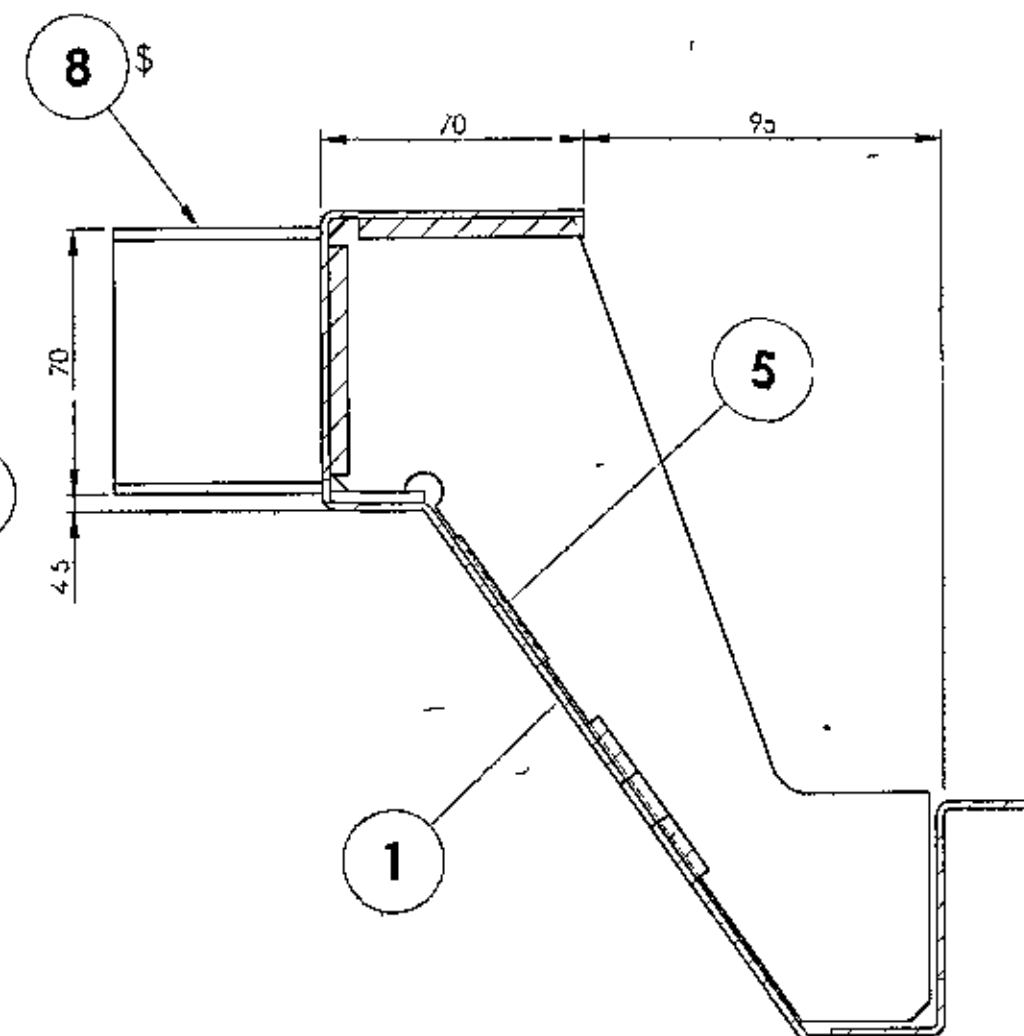
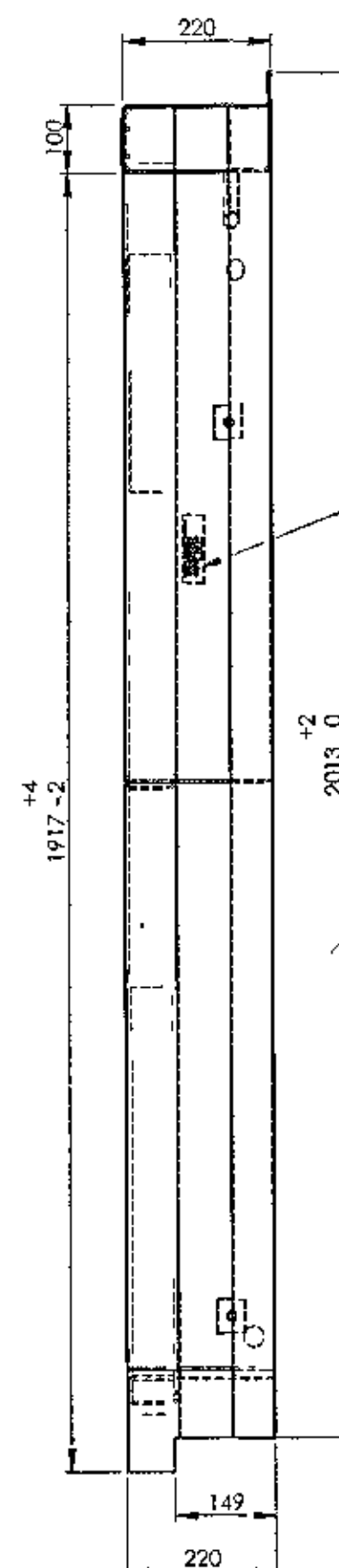
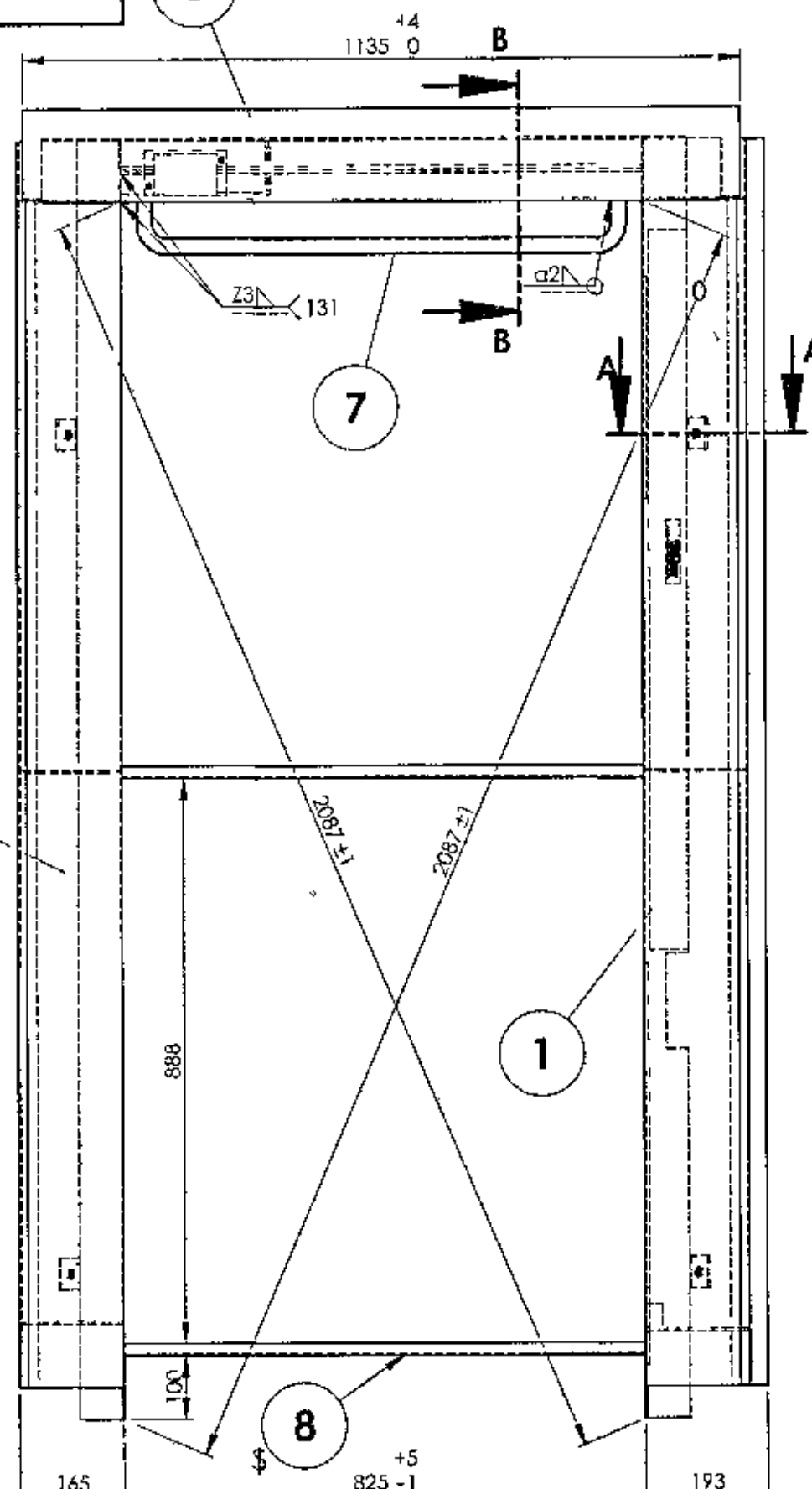
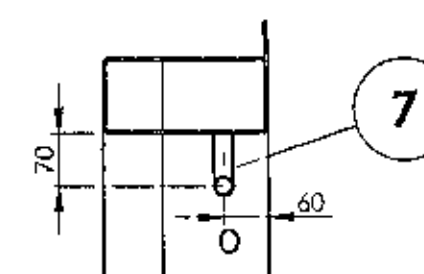
72914089

▽ ROUGH MACHINED
 ▽ FINISH MACHINED
 ▽▽ FINE FINISH MACHINED

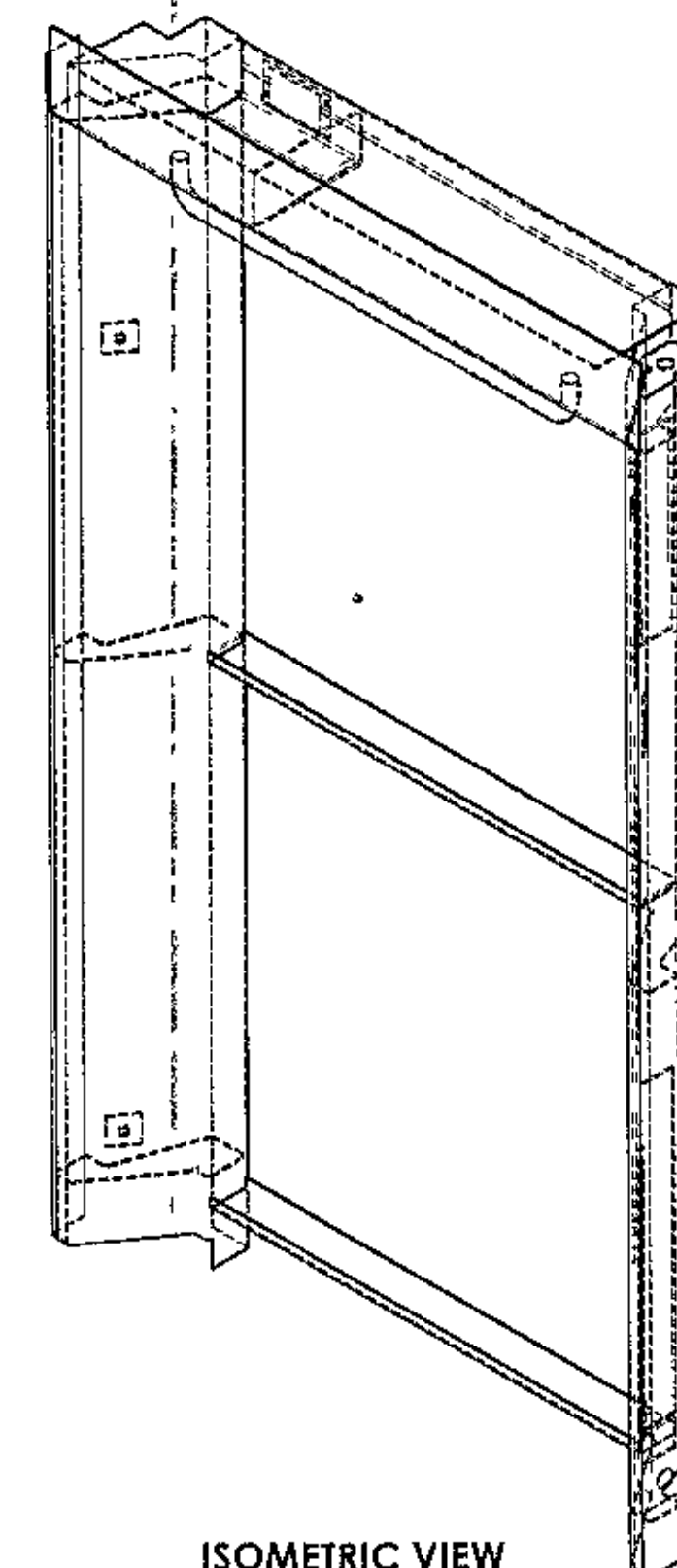
(01) ROUGH CLEANED
 (02) BURRS REMOVED
 (03) CHAMFERED

REVISIONS

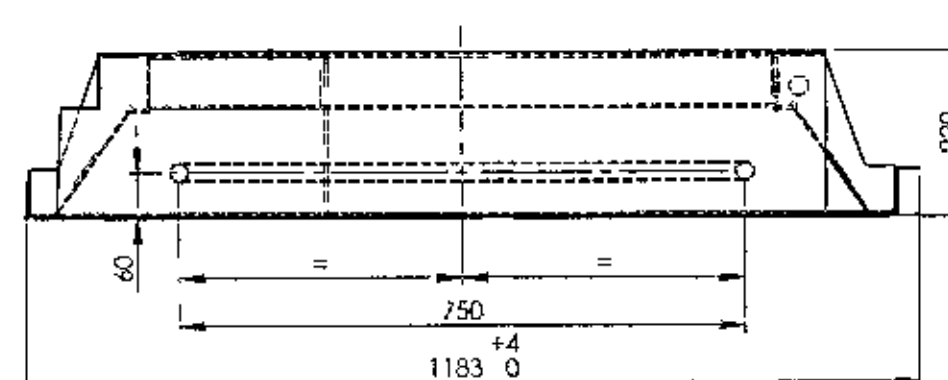
ALT	ZONE	DESCRIPTION	APPROVED & DATE
b		ITEM 3 DELETED AND ITEM 6 ADDED	-sd
c		ITEM 7 AND SECTION B-B ADDED WELD TESTING PREFERENCES NOTE & NOTE 7 DELETED NOTES- 10 11 12 ADDED	-sd
d		ITEM 4 DELETED ITEM 8 ADDED NOTE 8 AND VIEWS UPDATED	-sd

SECTION A-A
SCALE 1:2

SECTION B-B



ISOMETRIC VIEW

**NOTE:**

- 1 ALL WELD SPATTERS SH-ALL 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 ITEM 5 (NAME PLATE) SHALL BE WELDED OR RIVETTED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE
- 7 ITEM 5 SHALL BE OFFERED FOR PROTO-TYPE INSPECTION TO ICF BEFORE TAKING UP BULK MANUFACTURE. SINCE THE ITEM IS DEVELOPED FIRST TIME, MINOR CHANGES LIKE CHANGE OF LOCATION OF MEMBERS, SIZE ALTERATION OF BACK PIECES AND WELDING REQUIREMENTS HAVE TO BE ACCOMMODATED. THESE CHANGES SHALL BE IMPLEMENTED IN CONSULTATION WITH DESIGN DEPARTMENT OF ICF.
- 8 ITEM-8 (DUMMY ITEM) SHALL BE TACK WELDED AND TO BE REMOVED IN SHELL ASSY STAGE
- 9 PROFILE OF DOOR CUT OUT ASSY TO BE CHECKED USING TEMPLATE TO DRAWING NO J&T/T-1504/01
- 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

2	CHANNEL		8	AAI14041		1 983	
1	GUARDS HANDLE		7	AAG14567		1 01	
1	UPPER FRAME COMPLETE		6	SSA14031		22 510	
1	NAME PLATE FOR SUPPLIER IDENTIFICATION		5	AAA51072		0 063	
1	ANGLE		4	AAA14806		1-090	
1	UPPER FRAME COMPLETE		3	72914133		35 196	
1	DOOR POST LEFT COMPLETE		2	SSA14030		15 689	
1	DOOR POST RIGHT		1	72914090		21 485	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO	REF DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP 1-4

SURFACE AREA IN Sq m 6.048

WT/ASSY IN Kgs

DOOR CUT OUT ASSEMBLY

INDIAN RAILWAY STANDARDS
 INTEGRAL COACH FACTORY, CHENNAI 600038

SHEET
1 OF 1

LSLRD/US

72914089

A2

REF DRG NO LR10257

03-03-2024
 DATE OF ATST ALT

03-04-18
 DATE OF FIRST ISS. E

AME/AMF

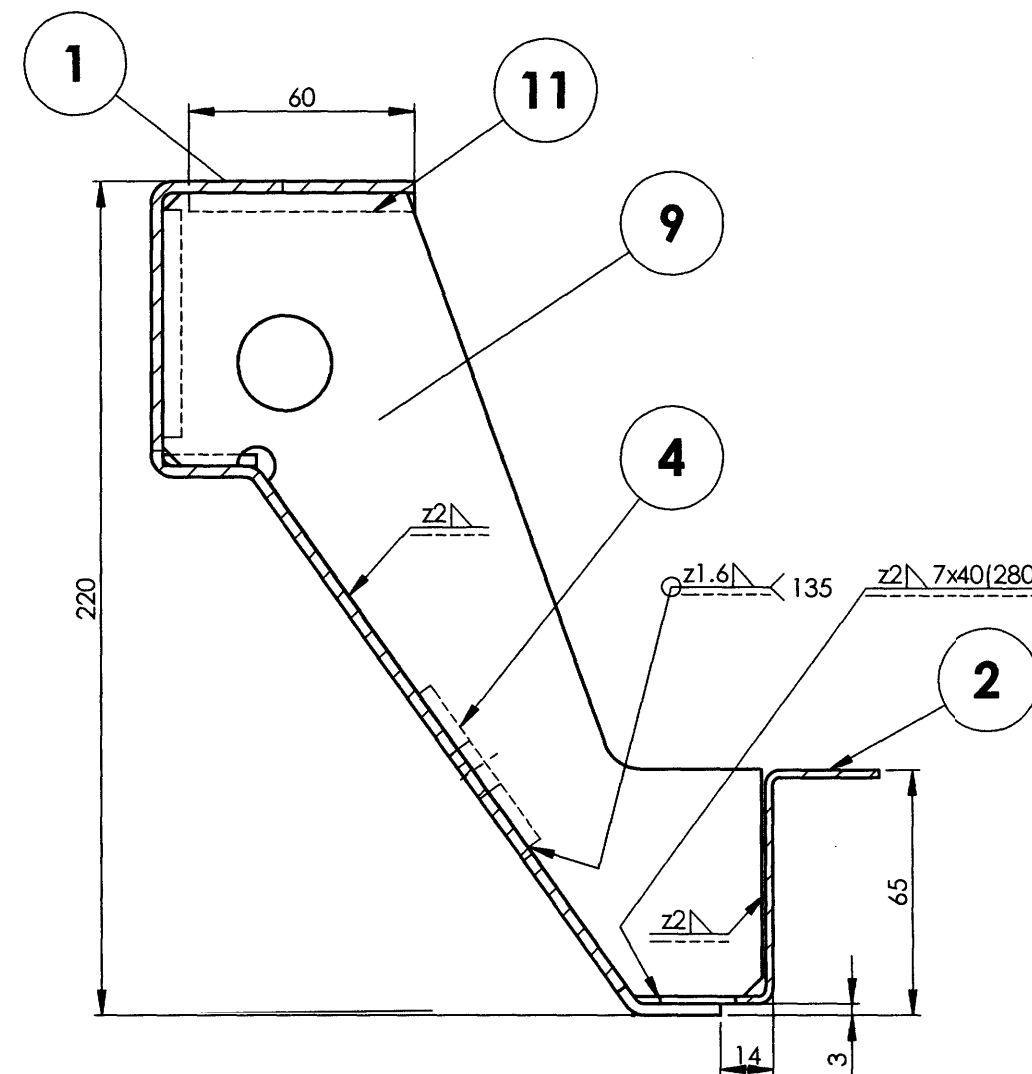
ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

72914090

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		ITEM-9 ADDED. QTY. FOR ITEM-3 ALTD. FROM 3 TO 2. VIEWS UPDATED.	sd/-
b		ITEM-10 ADDED AND LOCATING DIMENSION OF ITEMS- 3, 6 & 8 ALTD.	sd/-
c		ITEMS-11,12 ADDED. ITEM-5 DELETED.	<i>[Signature]</i>

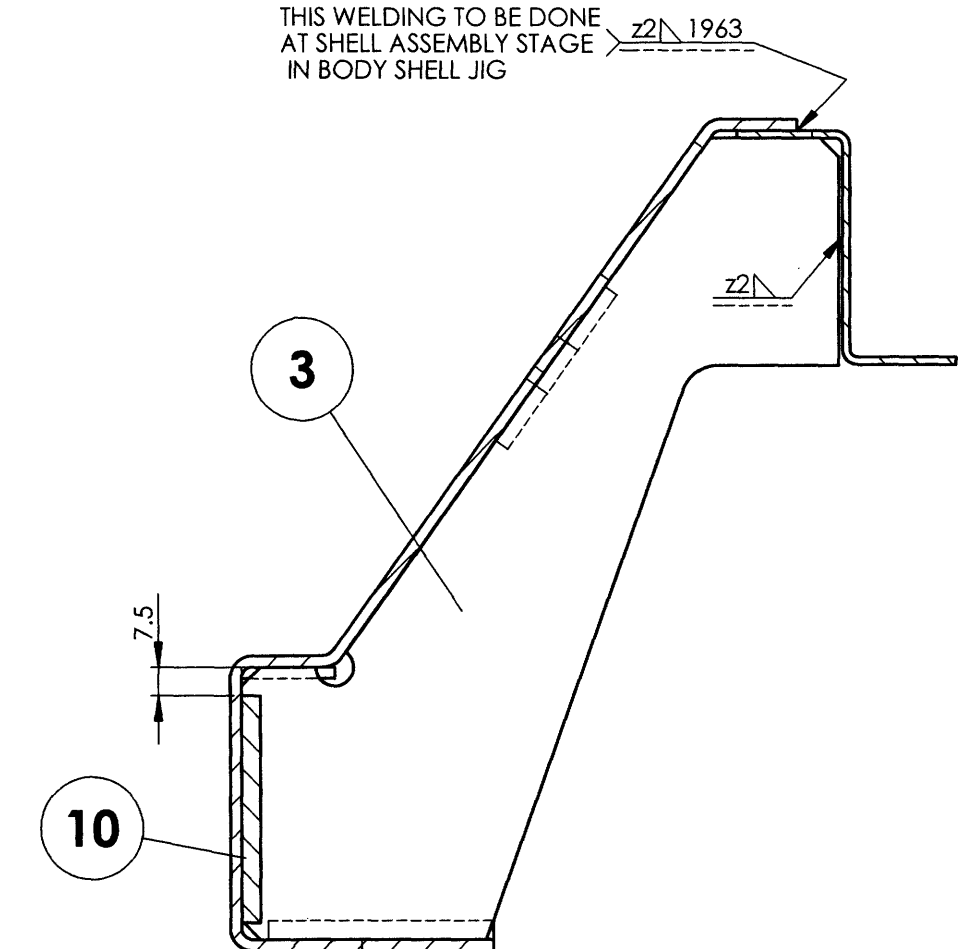
THIS WELDING TO BE DONE AT SHELL ASSEMBLY STAGE IN BODY SHELL JIG



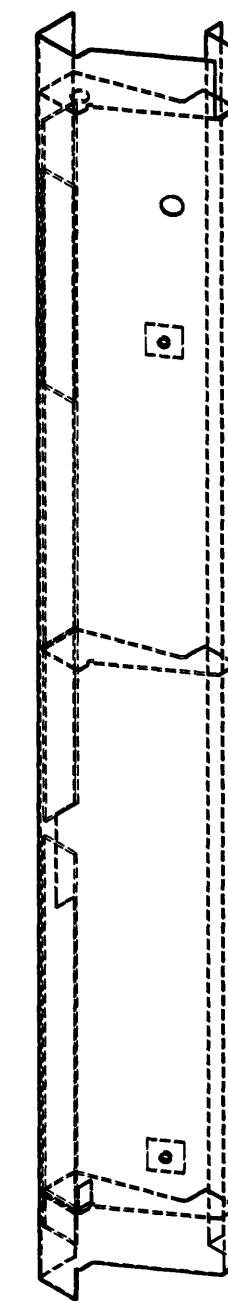
SECTION A-A
SCALE 1 : 2

NOTE:

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.

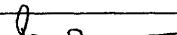
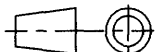


SECTION B-B
SCALE 1 : 2



ISOMETRIC VIEW

1	FLAT	5x60x280	12		RDSO SPEC C-K201 X2Cr Ni 12	0.67	
1	FLAT	5x60x850	11		RDSO SPEC C-K201 X2Cr Ni 12	2.04	
1	FLAT FOR DOOR	5x50x60	10		RDSO/SPEC C-K201 X2Cr Ni 12	0.120	
1	WEB		9	AAD14962		0.40	
1	FLAT FOR DOOR		8	AAA14798		0.021	
1	FLAT FOR DOOR		7	AAA14796		0.840	
1	FLAT FOR DOOR		6	AAA14797		1.379	
1	SUPPORT		5	AAA14402		0.416	
2	BACK PIECE		4	AAA14398		0.075	
2	WEB		3	AAB14289		0.42	
1	DOOR PILLAR FLANGE		2	AAA14405		3.592	
1	DOOR POST RIGHT		1	AAD14366		16.981	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-4		SURFACE AREA IN Sq.m.: 2.262		WT/ASSY IN Kgs:		
DOOR POST RIGHT				SCALE 1:5	SSE/D	
					CHD	
				ALT c	ALTD	G.VIMALA
					DRN	T.J.Kumaravelu
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					LSLRD/US	
					72914090	
					A2	
				SHEET 1 OF 1		

02-2021	04-04-2018	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

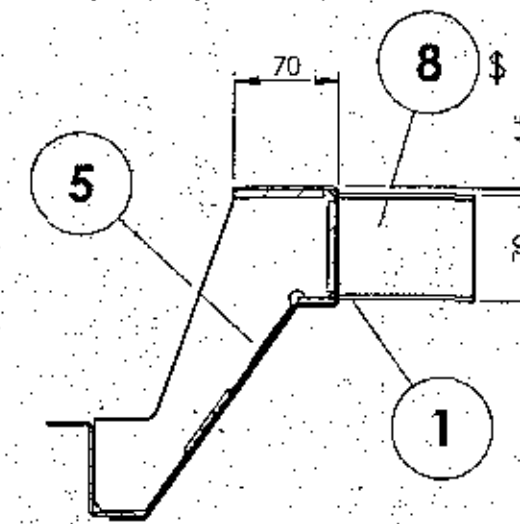
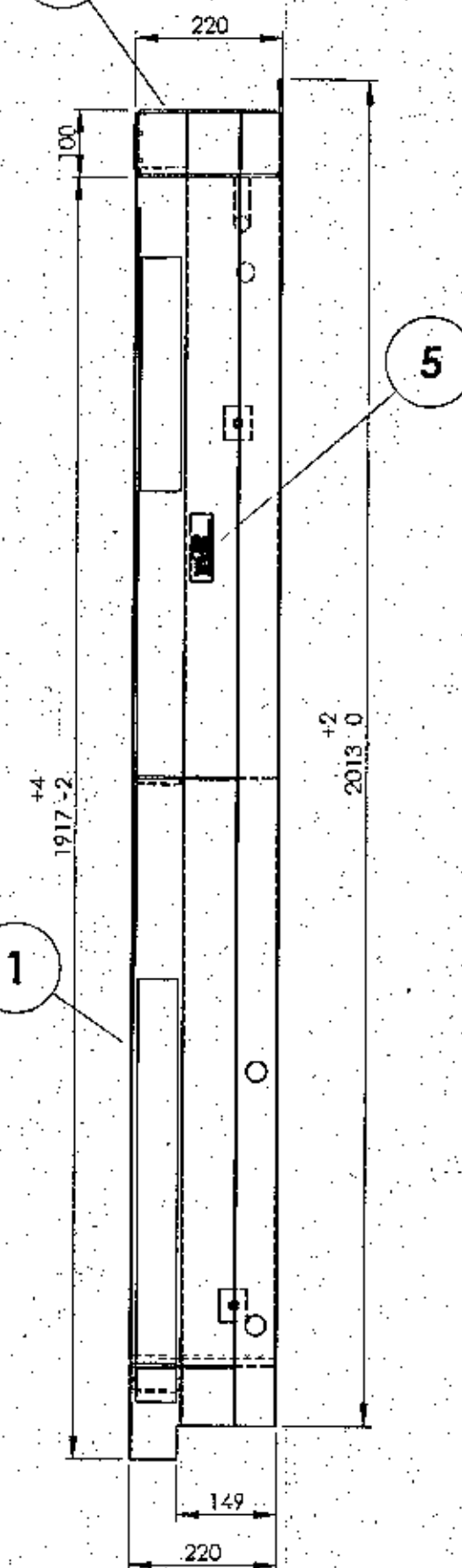
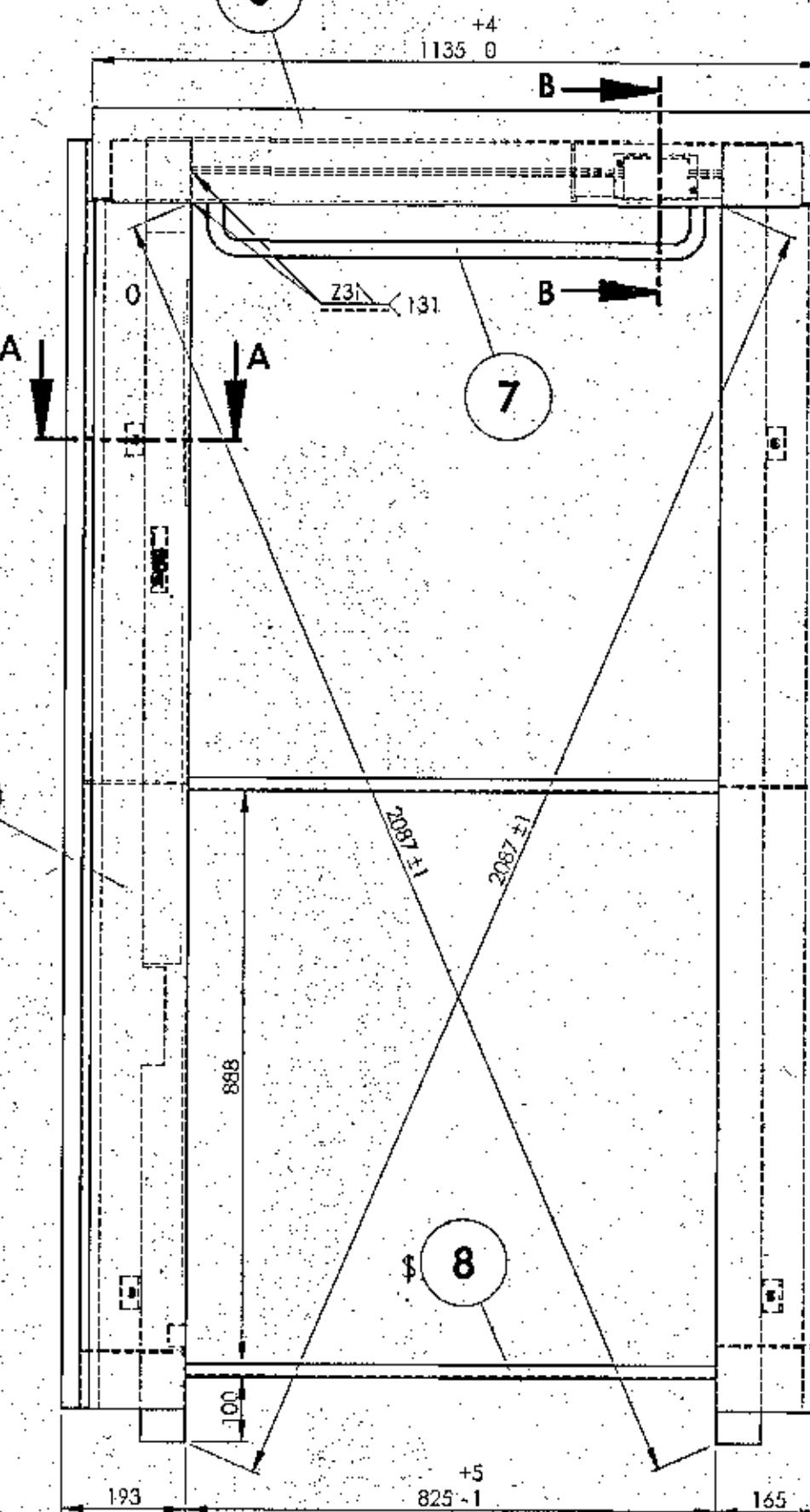
REF.DRG.NO.LR10261

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

72914091

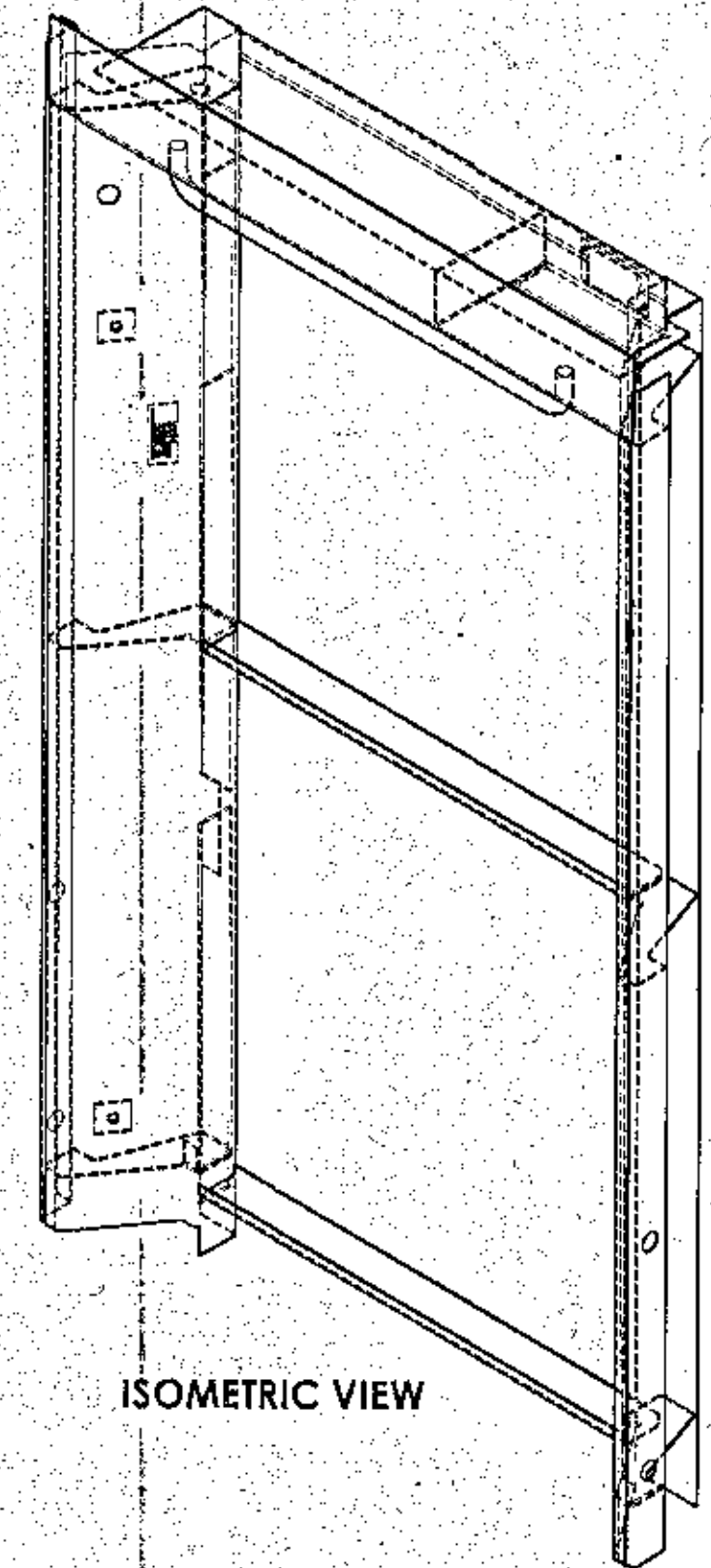
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		ITEM-3 REF. DRG. NO. ALTERED, NOTE-9 DELETED, WELD NOTE ADDED.	-sd-
b		ITEM-3 DELETED AND ITEM-6 ADDED.	-sd-
c		ITEM-7 AND SECTION-BB ADDED, WELD TESTING PREFERENCES NOTE & NOTE-7 DELETED, NOTES-11,12,13 ADDED.	-sd-
d		ITEM-4 DELETED, ITEM-8 ADDED, NOTE-8 AND VIEWS UPDATED.	-sd-

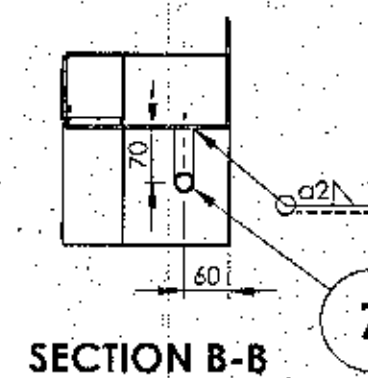
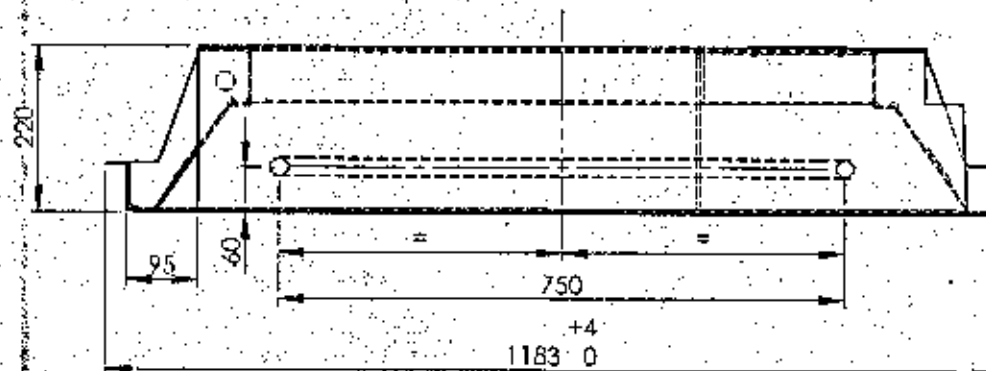
SECTION A-A
SCALE 1:5

NOTE:

- ALL WELD SPATTERS SHALL BE GROUND.
- ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
- ALL SHARP CORNERS SHALL BE ROUNDED OFF.
- ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
- FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.
- ITEM-5 (NAME PLATE) SHALL BE WELDED OR RIVETED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.
- ITEM SHALL BE OFFERED FOR PROTO-TYPE INSPECTION TO ICF BEFORE TAKING UP BULK MANUFACTURE. SINCE THE ITEM IS DEVELOPED FIRST TIME, MINOR CHANGES LIKE CHANGE OF LOCATION OF MEMBERS, SIZE, ALTERATION OF BACK PIECES AND WELDING REQUIREMENTS HAVE TO BE ACCOMMODATED. THESE CHANGES SHALL BE IMPLEMENTED IN CONSULTATION WITH DESIGN DEPARTMENT OF ICF.
- ITEM-8 (DUMMY ITEM) SHALL BE TACK WELDED, AND TO BE REMOVED IN SHELL ASSY. STAGE.
- MANDATORY MANUFACTURING ALLOWANCES:
- PROFILE OF DOOR CUT OUT ASSY. TO BE CHECKED USING TEMPLATE TO DRAWING NO: J&T/T-1504/01.
- ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
- FOR WELD TESTING PREFERENCES REFER DRG NO: ICF/STD-9-0-998.
- FOR WELD PROCEDURE SPECIFICATION REFER DRG NO: ICF/STD-9-0-999.



ISOMETRIC VIEW



SECTION B-B

2	CHANNEL		8	AA14041		1.983	
1	GUARD'S HANDLE		7	AAG14567		1.01	
1	UPPER FRAME COMPLETE		6	SSA14027		22.511	
1	NAME PLATE FOR SUPPLIER IDENTIFICATION		5	AAA51072		0.063	
1	ANGLE		4	AAA14804		7.098	
1	UPPER FRAME COMPLETE		3	72914136		22.531	
1	DOOR POST R.H		2	SSA14025		15.666	
1	DOOR POST LEFT		1	72914092		21.478	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-4

SURFACE AREA IN Sq.m.: 6.044

WT/ASSY IN Kgs:

DOOR CUT OUT ASSEMBLY

SCALE 1:10	SSE/D	CHD	T. Ukkirapandian
ALT d	ALT d	DRN	T. J. Kumaravelu

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038SHEET
1 OF 1

72914091

A2

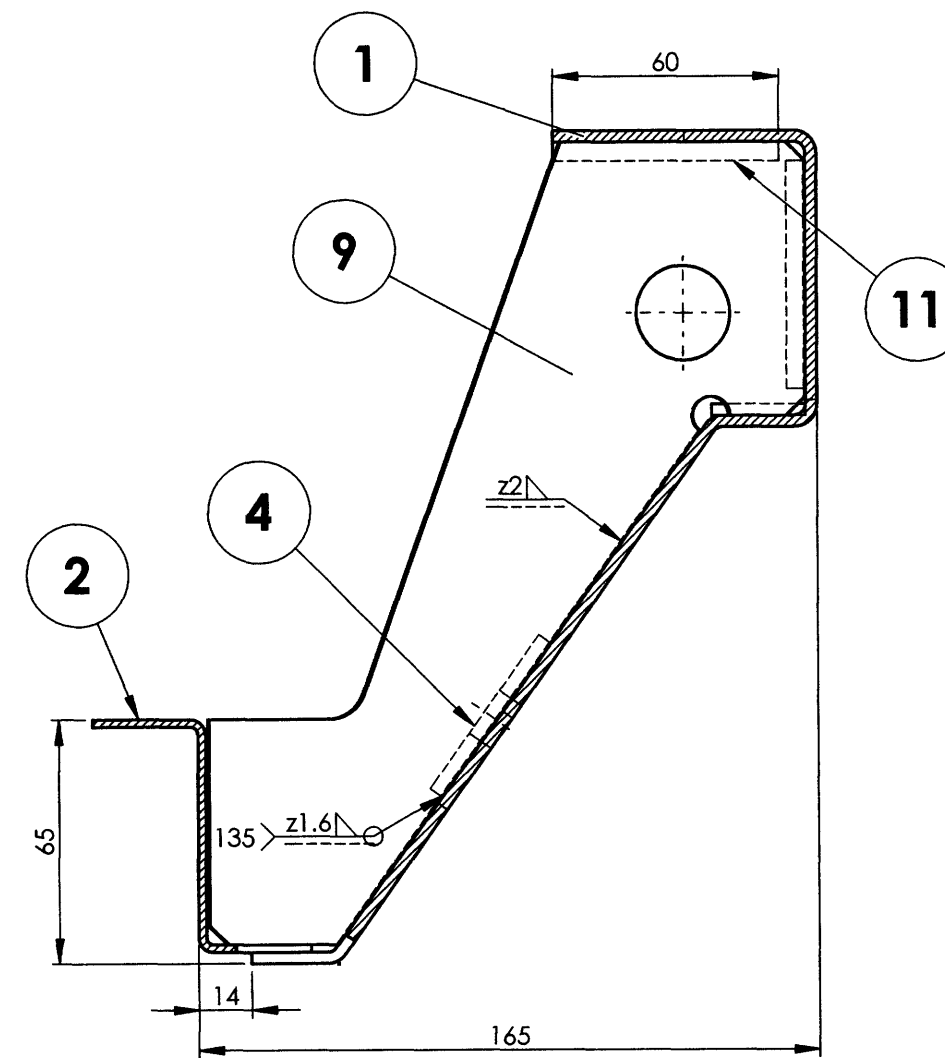
REF.DRG.NO.LR10256

03-03-2026	03-04-18	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

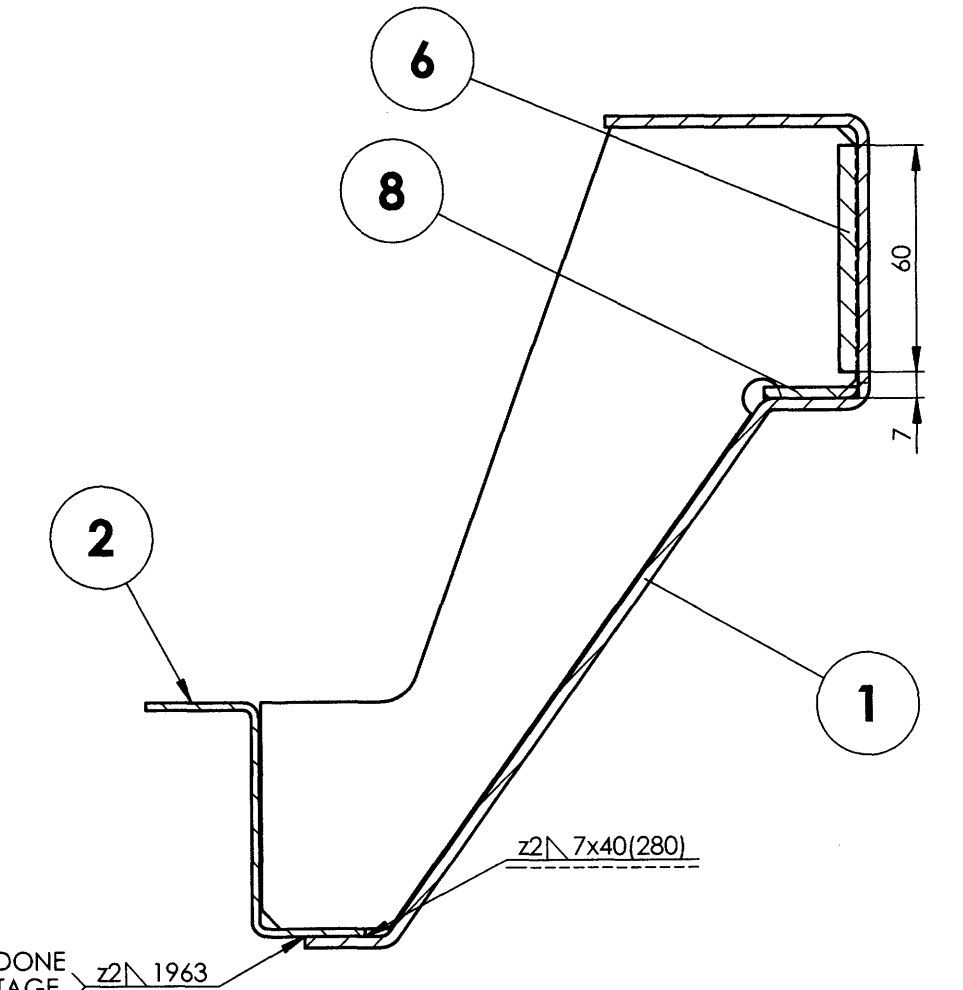
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

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.

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		ITEM-9 ADDED. QTY. FOR ITEM-3 ALTD. FROM 3 TO 2.	sd/-
b		ITEM-10 ADDED AND LOCATING DIMENSION OF ITEMS- 3,6 & 8 ALTD.	sd/-
c		ITEMS-11,12 ADDED. ITEM-5 DELETED.	<i>[Signature]</i> 9/2/24

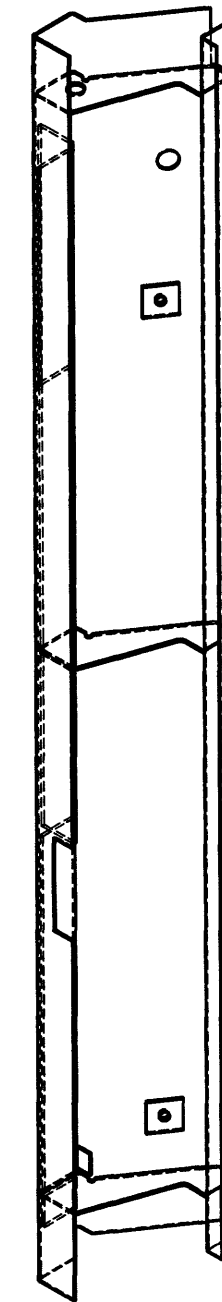


SECTION A-A
SCALE 1 : 2



SECTION B-B
SCALE 1 : 2

1. ALL WELD SPATTERS SHALL BE GROUND.
2. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
3. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.



ISOMETRIC VIEW

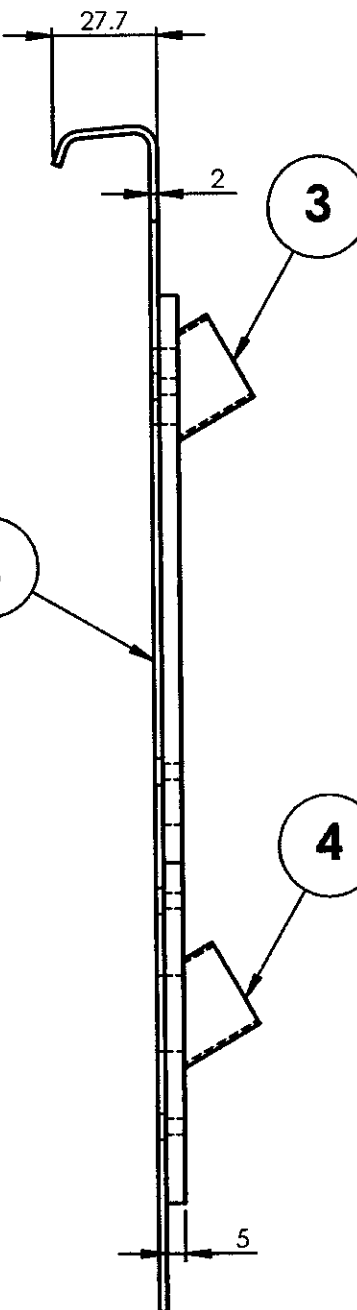
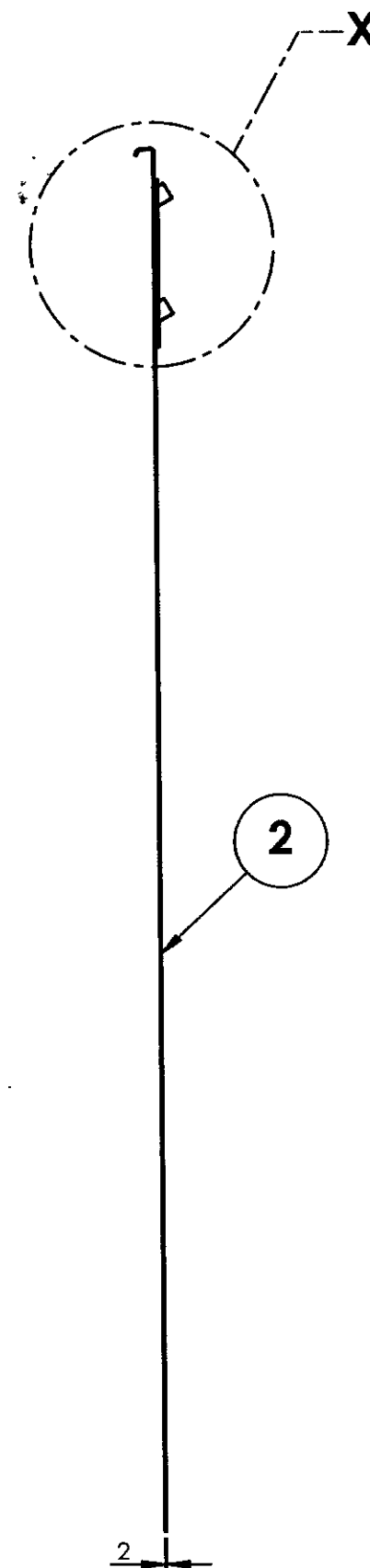
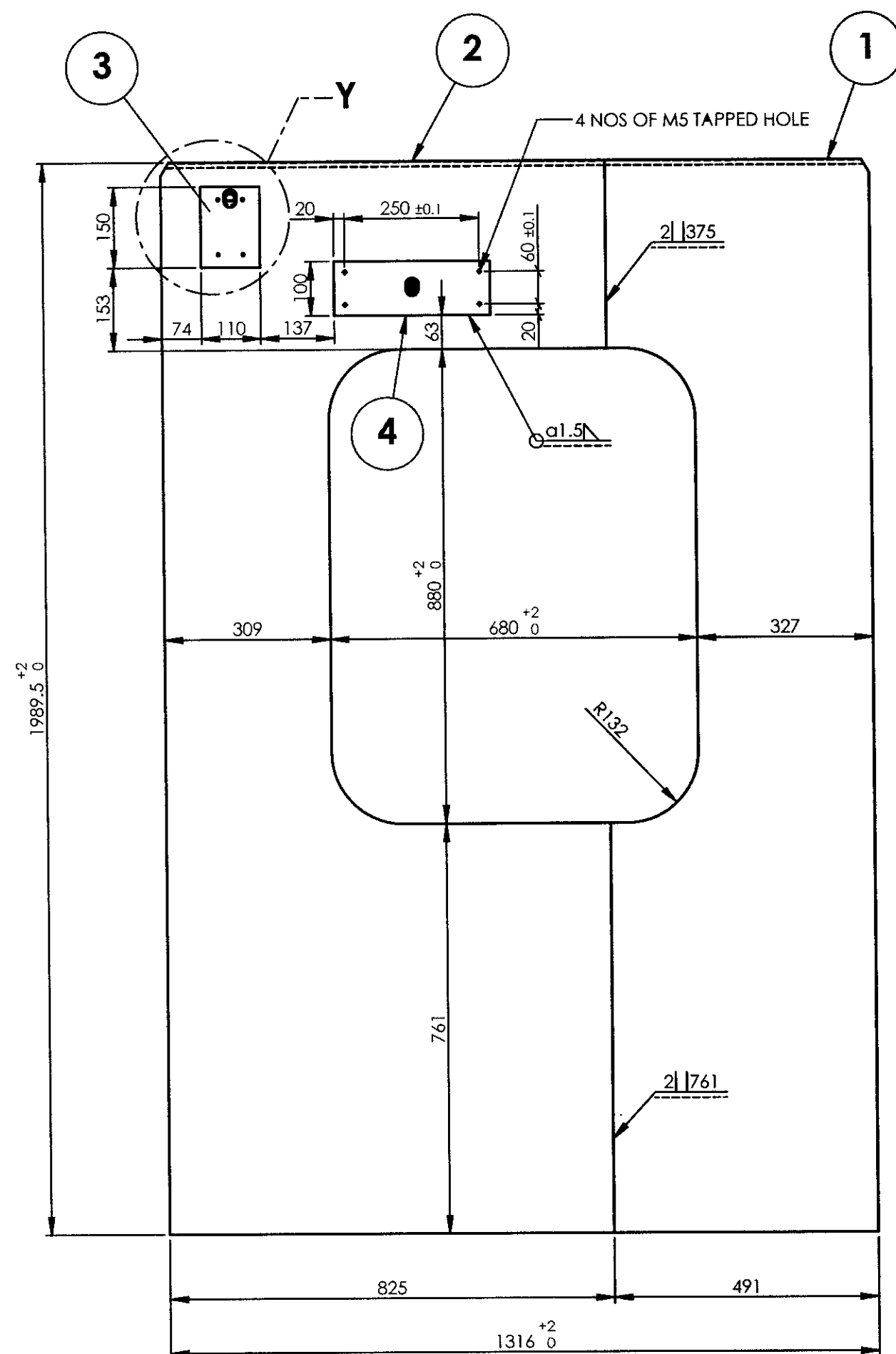
9-02-2021	03-04-18	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.LR10259

75514022

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

REVISIONS			ALT.	ZONE	DESCRIPTION	APPROVED & DATE

DETAIL Y
SCALE 1 : 5DETAIL X
SCALE 1 : 2**NOTE:**

1. ALL WELDINGS SHALL BE LASER WELDING UNLESS OTHERWISE SPECIFIED.
2. THERE SHALL NOT BE ANY EXCESS WELD METAL ON COACH OUTSIDE.
3. ALL WELD SPATTERS SHALL BE BUFFED.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
6. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. ALL THE THREADED HOLES SHALL BE PROVIDED WITH SUITABLE DUMMY BOLTS TO SAFEGUARD THREADS.

1	BACKPIECE FOR EXTERNAL EMERGENCY LIGHT FIXING		4	AAJ14482		1.155	
1	BACKPIECE FOR PACIL		3	AAA14904		0.655	
1	LAV. SIDE WALL SHEET		2	AAJ14484		19.445	
1	LAV. SIDE WALL SHEET		1	AAA14812		13.642	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-4 Body Side Walls				SURFACE AREA IN Sq.m.: 4.162		WT/ASSY IN Kgs:	
LAV. SIDE WALL SHEET ASSEMBLY RIGHT					SCALE 1:10	SSE/D	10/10/24
					CHD		
					ALT	ALTD	-
					DRN		T.Ukkirapandian
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					LSCN/PP2		
SHEET 1 OF 1					75514022		A2

REF.DRG.NO.59314013

-	24-07-2024	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

83114001

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

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
------	------	-------------	-----------------

NPP END

PP END

ISOMETRIC VIEW

1	SIDEWALL NPP END LEFT COMPLETE		6	83114013		70.883	
1	SIDEWALL NPP END RIGHT COMPLETE		5	83114012		71.449	
1	SIDEWALL PP END RIGHT COMPLETE		4	83114014		82.894	
1	SIDEWALL PP END LEFT COMPLETE		3	53814004		82.910	
1	SIDEWALL ASSEMBLY COMPLETE (RIGHT)		2	83114003		1246.229	
1	SIDEWALL COMPLETE (LEFT)		1	83114002		1282.869	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-4 Body Side Walls

SURFACE AREA IN Sq.m.:297.552

WT/ASSY IN Kgs:

LOCATION OF SIDEWALLS

SCALE	SSE/D	
1:75	CHD	
ALT.	ALTD	-
	DRN	T.Ukkirapandian

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

LWLRRM/PP2

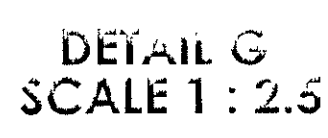
83114001

A3

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

REF.DRG.NO.-

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



83114003

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

19243

Q OF COACH

VIEW FROM Y (COACH OUTSIDE)

SECTION H-H

SECTION B-B
SCALE 1 : 2.5DETAIL J
SCALE 1 : 2.5SECTION C-C
SCALE 1 : 5SECTION U-U
SCALE 1 : 5SECTION D-D
SCALE 1 : 5SECTION E-E
SCALE 1 : 5SECTION F-F
SCALE 1 : 5DETAIL G
SCALE 1 : 2.5DETAIL K
SCALE 1 : 2.5SECTION A-A
SCALE 1 : 10

NPP END

PP END

REF.DRG.NO.LP14110-ANX-6

15-05-2026	28-07-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

GROUP: 1-4 SIDEWALL ASSEMBLY		SURFACE AREA IN Sq.m.: 130.325		WT/ASSY IN Kgs:	
SIDEWALL RIGHT COMPLETE		SCALE	SSE/D		
		1:30	CHD		
		ALT.	ALTD		
		a	DRN		
INDIAN RAILWAY STANDARDS		SHEET		LWLRRM/PP2	
INTEGRAL COACH FACTORY, CHENNAI - 600038		1 OF 2		83114003	
				A1	



CENTERLINE TO BE MARKED AFTER WELDING
THE RESPECTIVE WELD PARTS.

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE 3 OF RDSO/SPEC-K-201 SHALL BE USED FOR WELDING.
2. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
3. ALL WELD SPATTERS SHALL BE GROUND.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
6. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
9. FINISHED ASSEMBLY SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231.
10. ITEMS MARKED THUS ® TO BE SUPPLIED LOOSE AND WELDED AT BODY SHELL STAGE.
11. SCHEDULE OF REQUIREMENTS FOR MANUFACTURE OF SIDEWALL ASSEMBLY SHALL COMPLY TO ICF/MD/SPEC-200 LATEST REVISION.
12. ITEM-4 (NAME PLATE) SHALL BE WELDED OR RIVETED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING/ PROCURED FROM TRADE.

2	BACKPIECE FOR FIXING FDS PANEL	5x120x475	12		RDSO SPEC C. K201 X2 Cr NI 12	2.28	
1	BACKPIECE FOR EXTERNAL EMERGENCY LIGHT FIXING		11	AAJ14482		1.155	
1	BACKPIECE		10	AAK14706		1.51	
1	CHANNEL		9	AAA14945		1.079	
1	CHANNEL		8	AAA14944		1.142	
2	T-STOPPER FOR SLIDING DOOR		7	53814014		0.725	
1	DOOR CUT OUT ASSEMBLY		6	72914091		64.695	
1	DOOR CUTOOUT LH		5	53814026		92.450	
1	NAME PLATE FOR SUPPLIER IDENTIFICATION		4	AAA51072		0.063	
1	CARLINE RIGHT COMPLETE		3	83114009		235.542	
1	FRAME WORK RIGHT COMPLETE		2	83114008		439.039	
1	SIDEWALL SHEET COMPLETE (RIGHT)		1	83114011		411.060	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-4 Body Side Walls	SURFACE AREA IN Sq.m.: 130.325	WT/ASSY IN Kgs:
----------------------------	--------------------------------	-----------------

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
2 OF 2

	LWLRRM/PP2	K
---	-------------------	---

83114003

A1 |