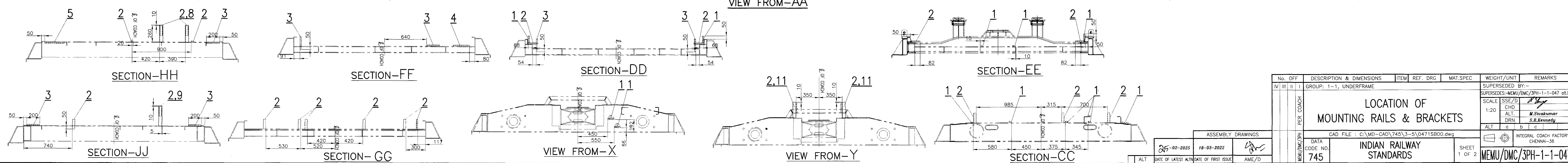
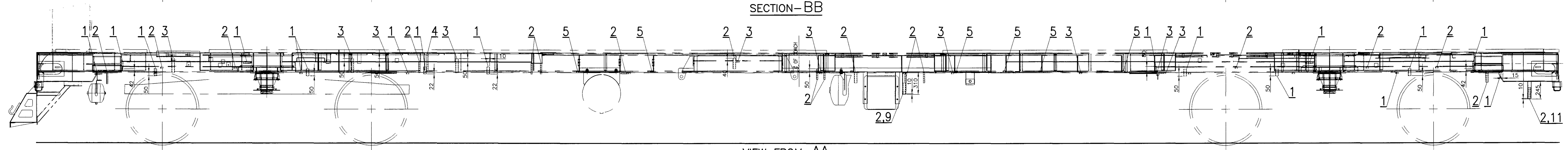
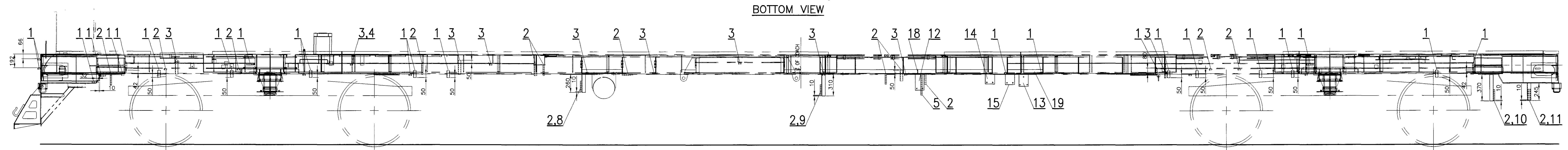
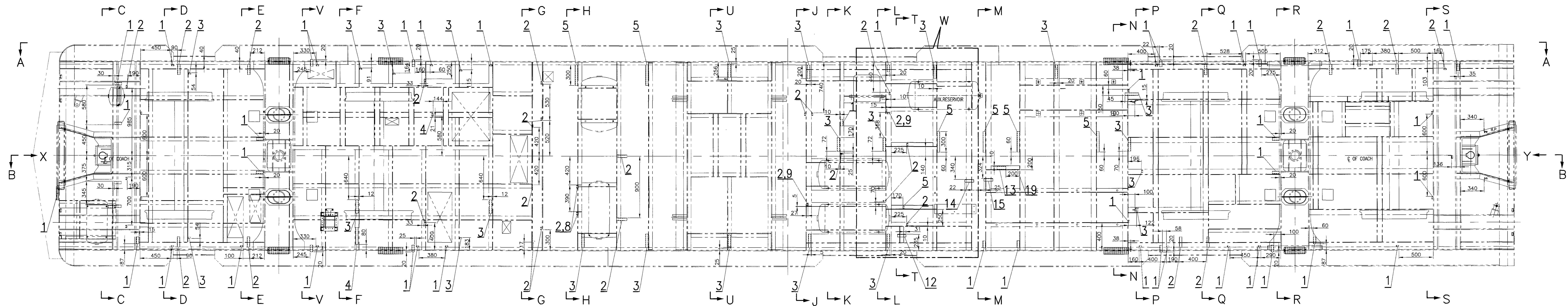
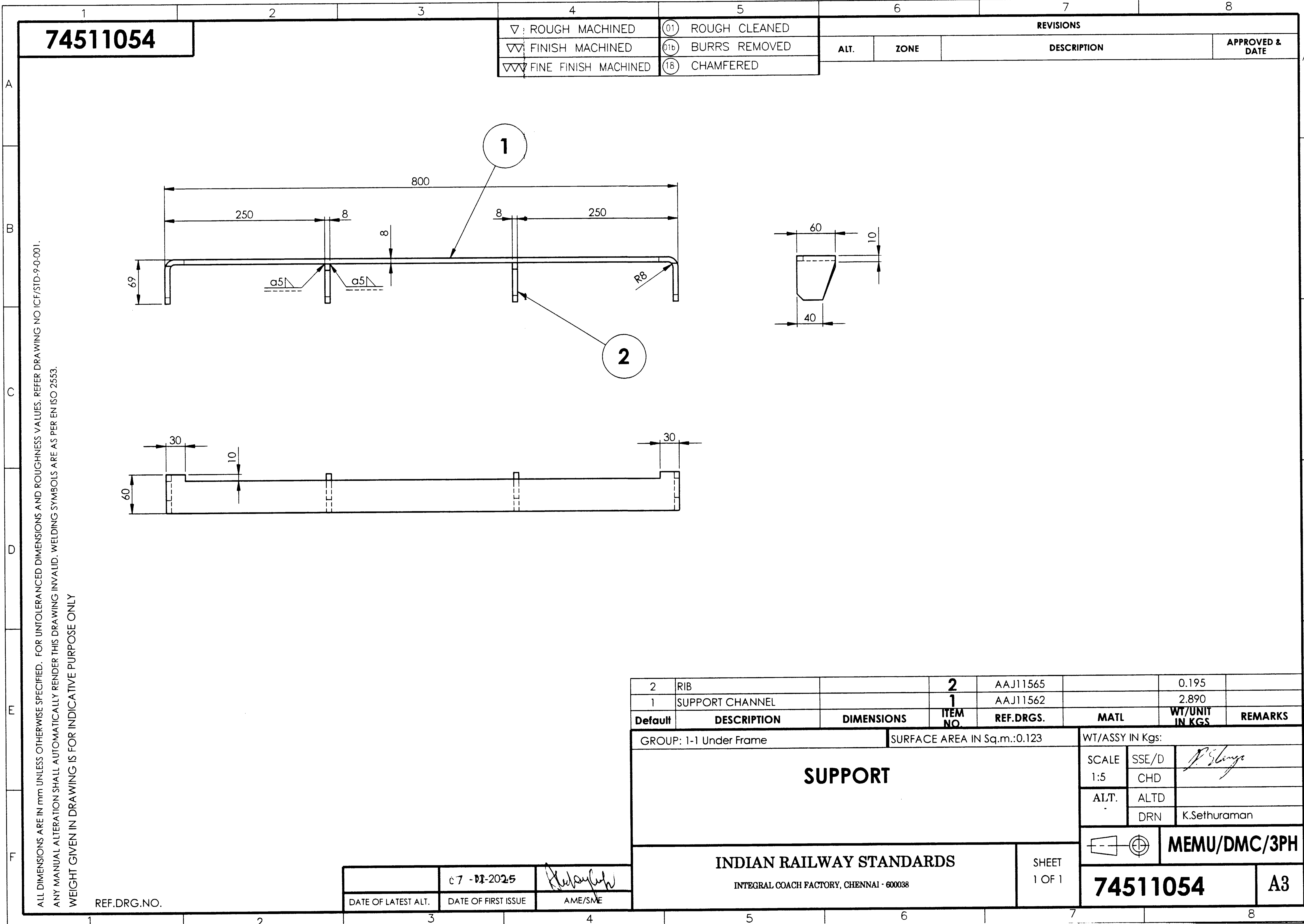


▽ ROUGH MACHINED	① ROUGH CLEANING	ALTERATIONS
▽▽ FINISH MACHINED	② CHAMFERED	
▽▽▽ FINE FINISH MACHINED		



No.	OFF	DESCRIPTION & DIMENSIONS			ITEM	REF.	DRG	MAT.	SPEC	WEIGHT/UNIT	REMARKS
IV	III	II	I	GROUP: 1-1, UNDERFRAME					SUPERSEDED BY:- SUPERSEDES: MEMU/DMC/3PH-1-1-047 SCALE: SSE/D 1:20 CHD ALT. <i>M. Sivakumar</i> DRN <i>S.R. Kennedy</i> ALT a b c		
PER COACH				LOCATION OF MOUNTING RAILS & CRACKS					INTEGRAL COACH FACTORY CHENNAI-38		
MEMU/DMC/3PH				CAD FILE : C:\MD-CAD\745\3-5\04715B00.dwg INDIAN RAILWAY STANDARDS					SHEET 1 OF 2 MEMU/DMC/3PH-1-1-04		
DATA CODE NO. 745											

FORM IR A1a 1050 x 600



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

74511054

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

2	RIB		2	AAJ11565		0.195	
1	SUPPORT CHANNEL		1	AAJ11562		2.890	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-1 Under Frame		SURFACE AREA IN Sq.m.:0.123			WT/ASSY IN Kgs:		
SUPPORT					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	K.Sethuraman
INDIAN RAILWAY STANDARDS						MEMU/DMC/3PH	
INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		74511054	A3

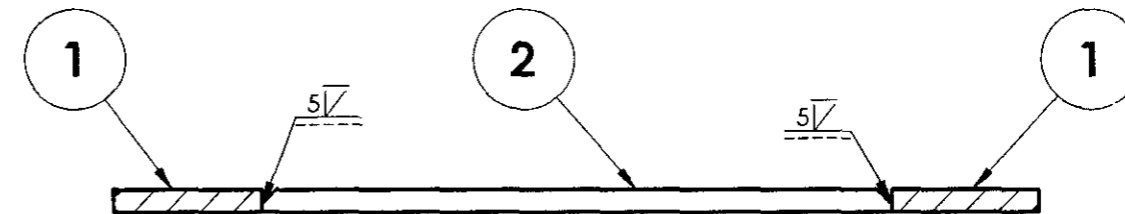
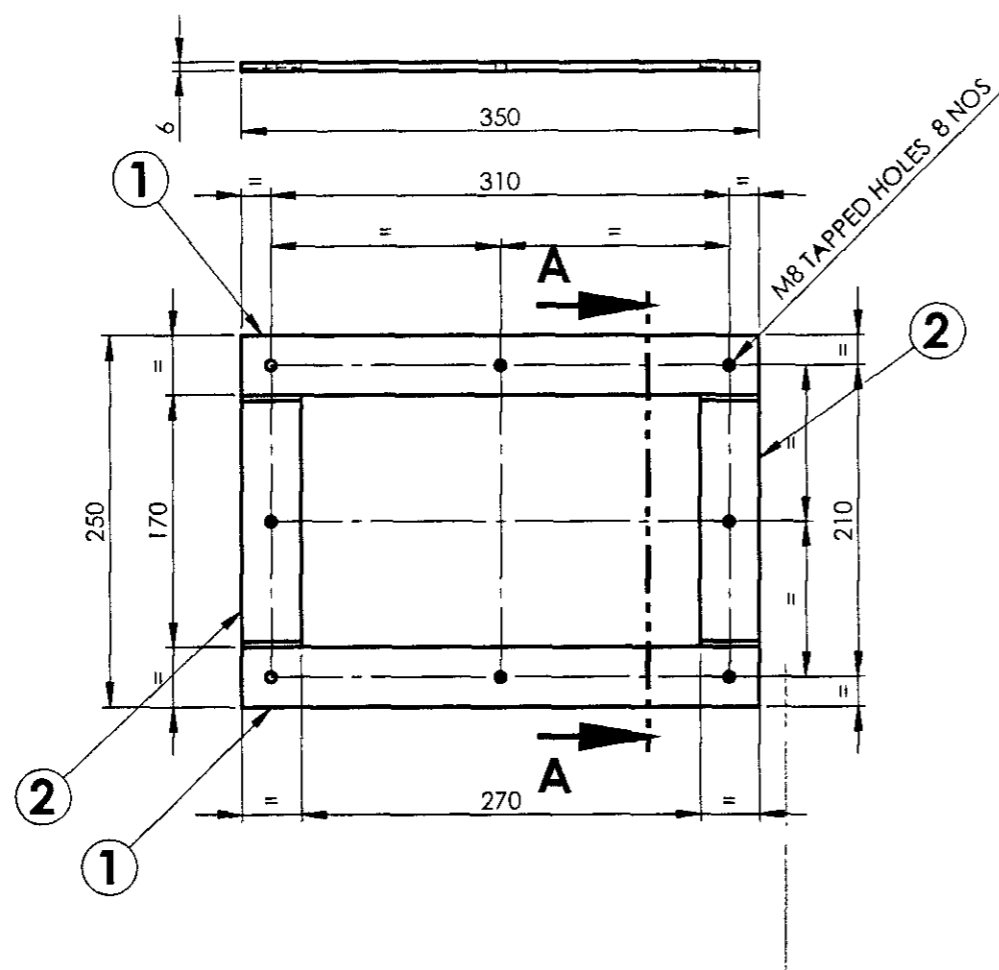
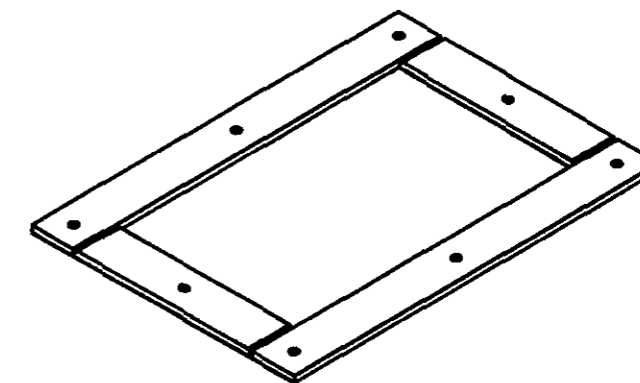
	c7 -11-2025	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	A.M.E./S.M.E

REF.DRG.NO.

74511055

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

SECTION A-A  
SCALE 1 : 2

ISOMETRIC VIEW

**NOTE:**

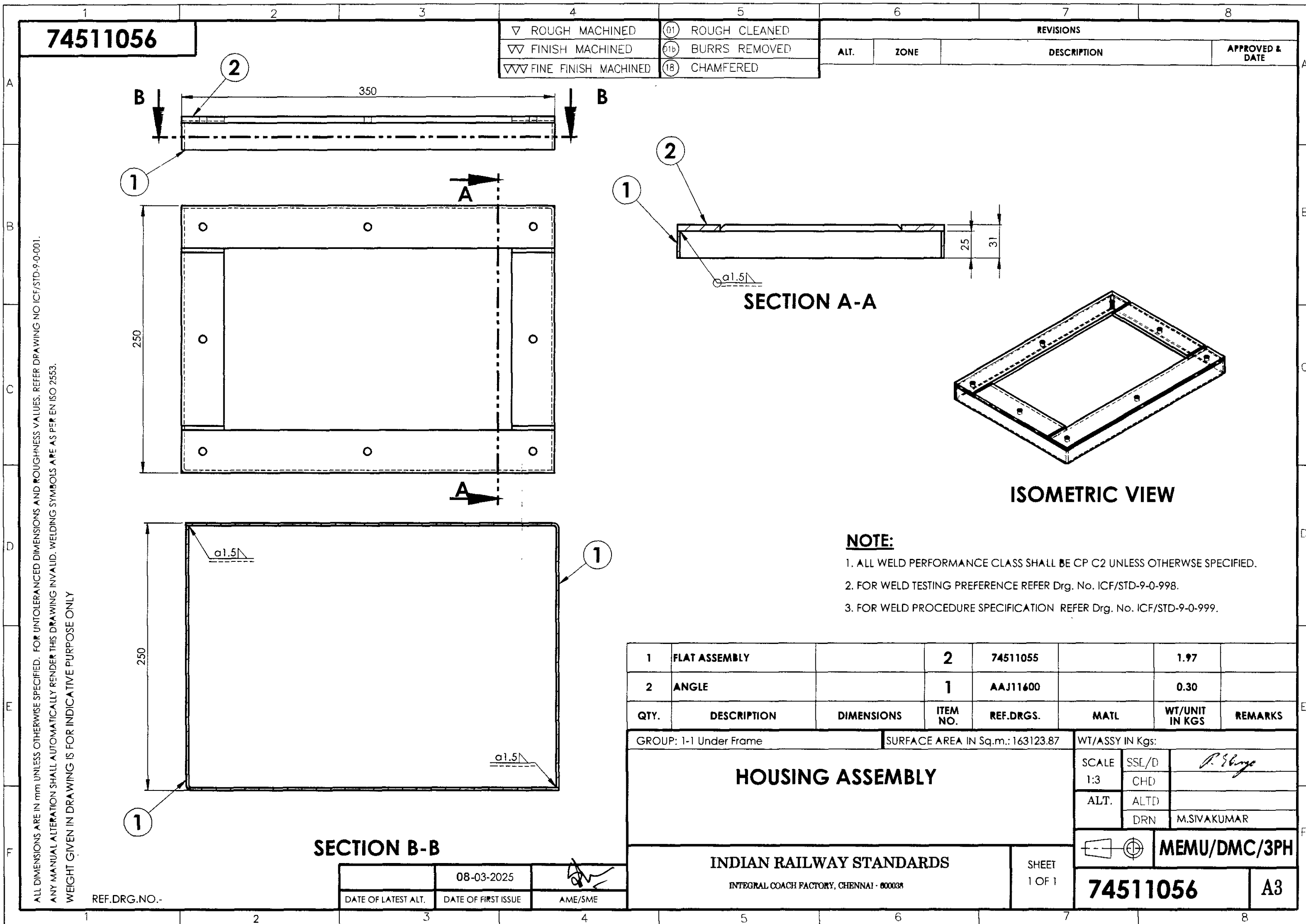
1. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
2. FOR WELD TESTING PREFERENCE REFER Drg. No. ICF/STD-9-0-998.
3. FOR WELD PROCEDURE SPECIFICATION REFER Drg. No. ICF/STD-9-0-999.

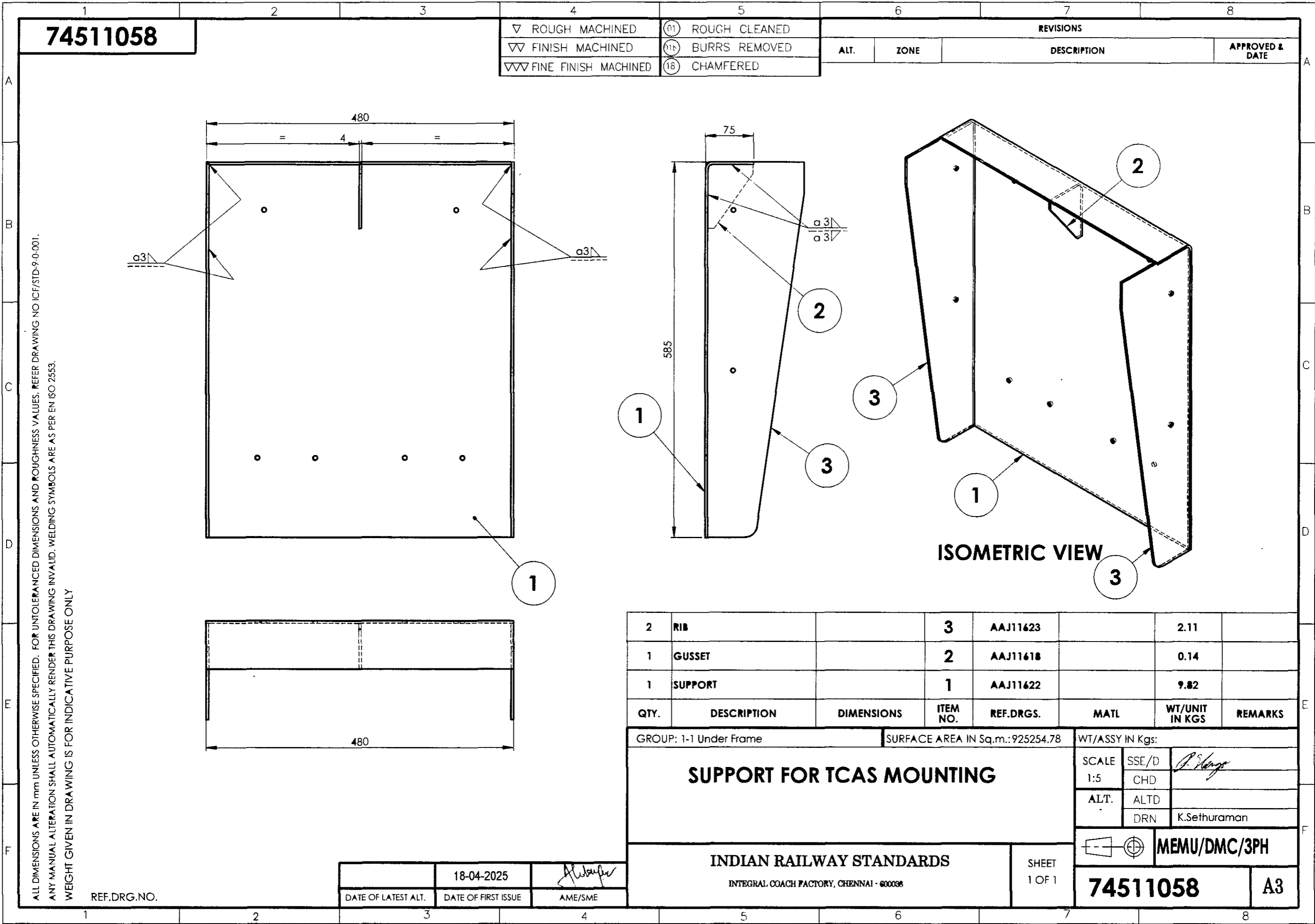
2	FLAT		2	AAJ11599		0.32	
2	FLAT	6x40x350	1		RDSO SPEC C- K201 X2 Cr Ni 12	0.67	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-1 Under Frame				SURFACE AREA IN Sq.m.: 97600.92		WT/ASSY IN Kgs:	
FLAT ASSEMBLY					SCALE	SSE/D	<i>P. Sange</i>
					1:5	CHD	
					ALT.	ALTD	
						DRN	M.SIVAKUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					MEMU/DMC/3PH		
					74511055		A3
DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME		SHEET 1 OF 1	

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

REF.DRG.NO.-

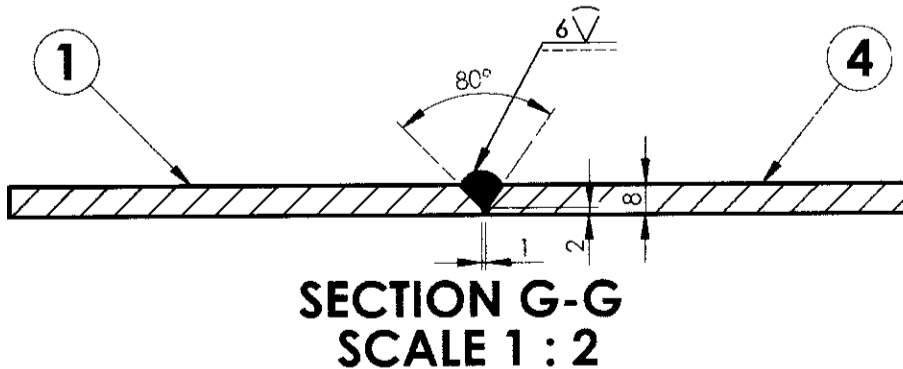
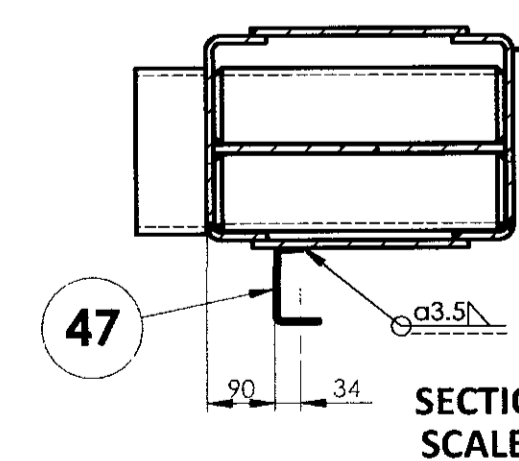
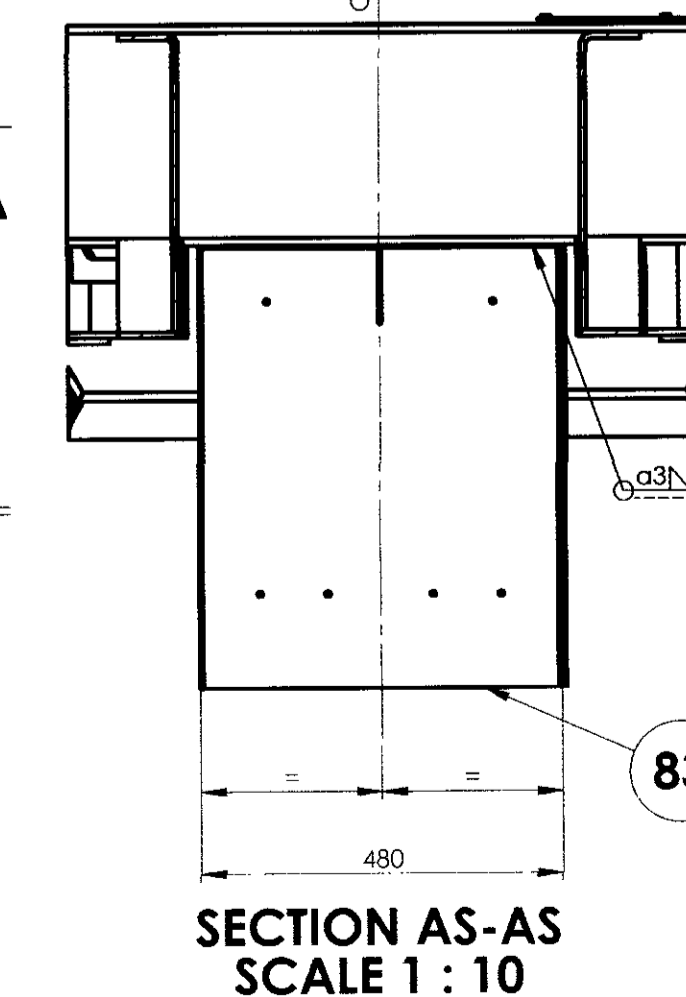
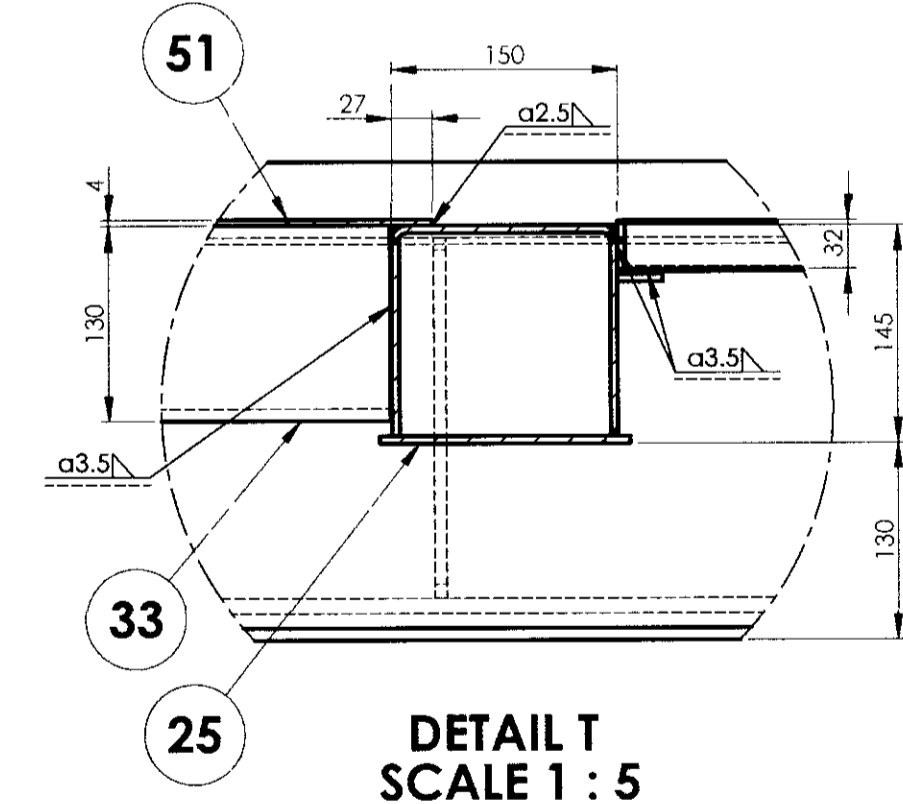
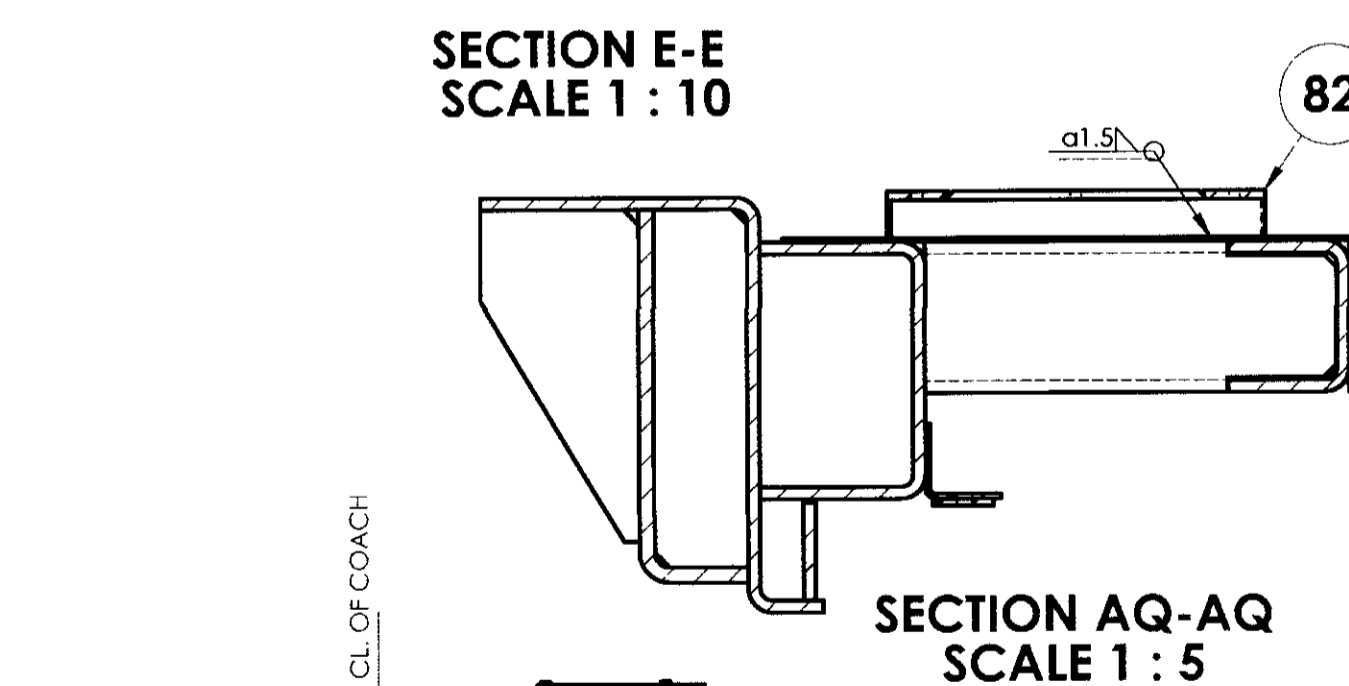
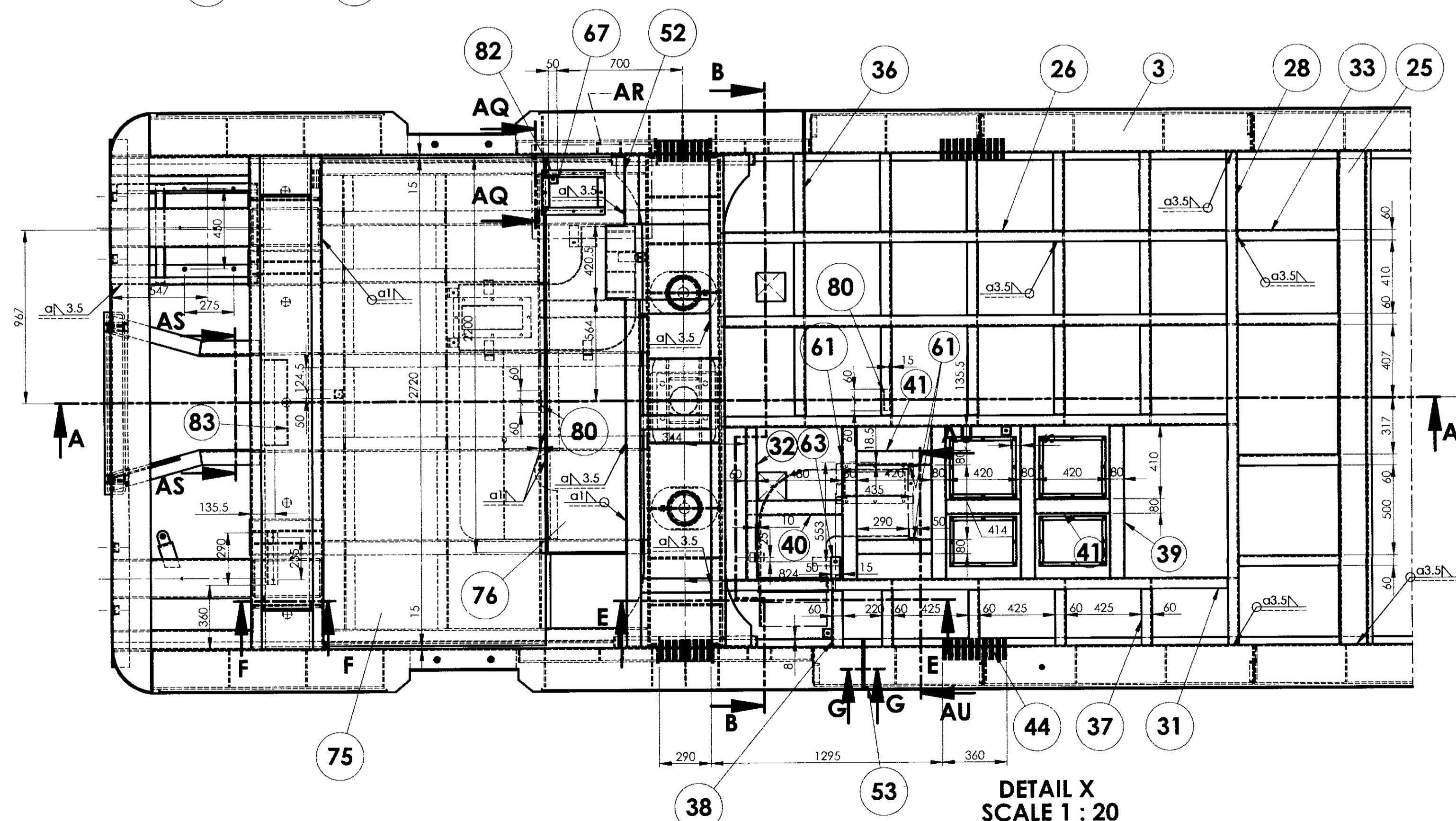
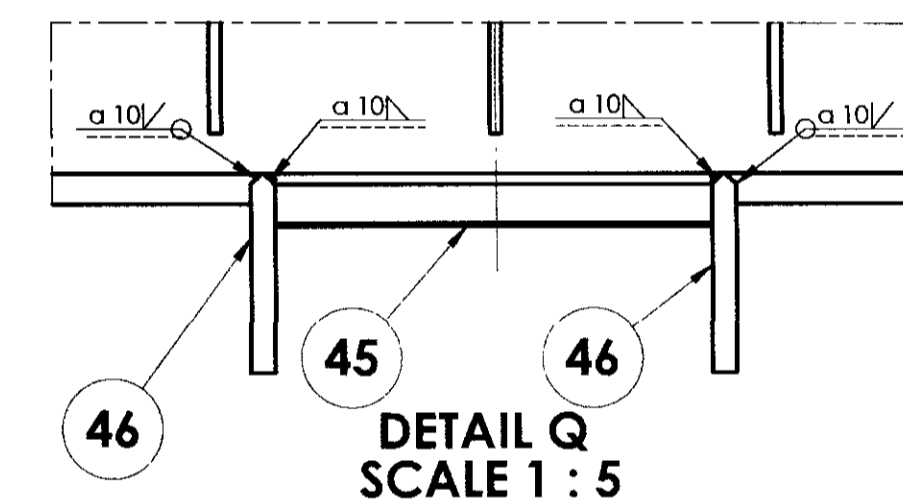
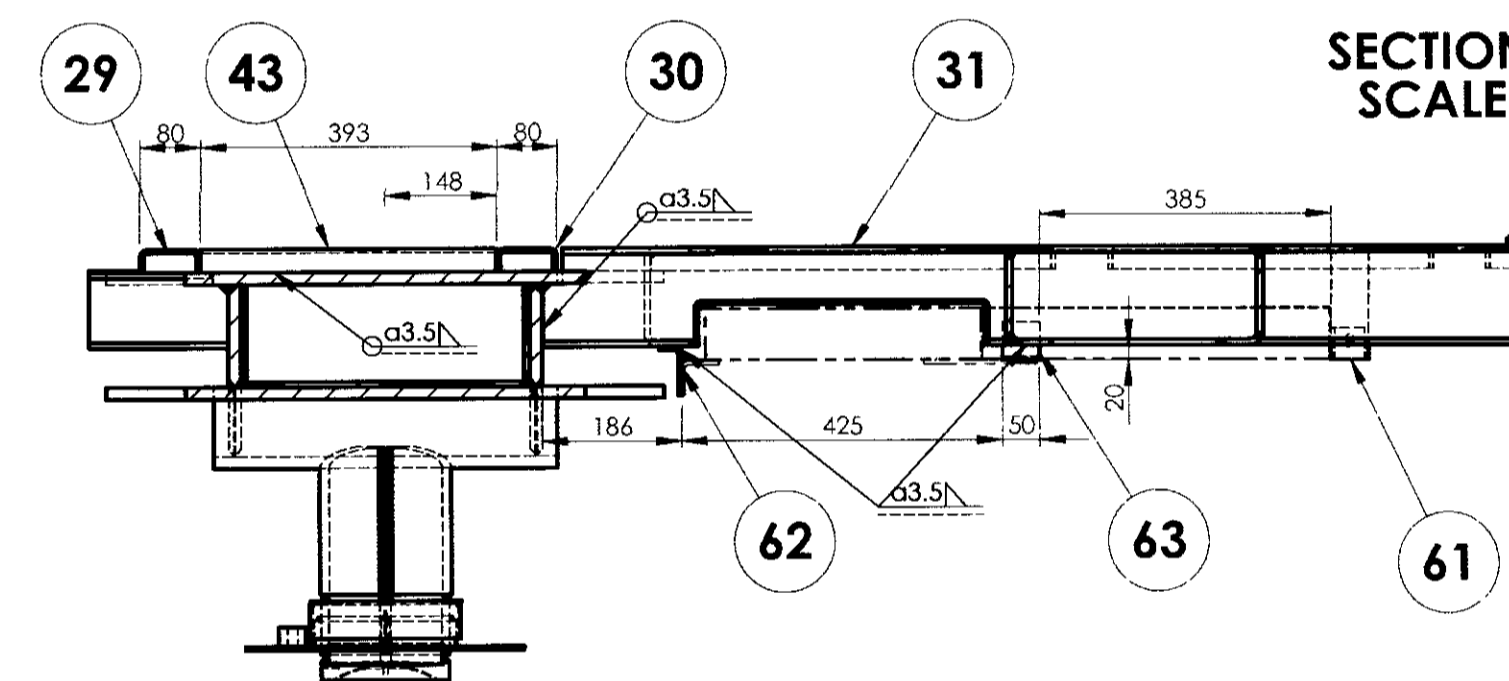
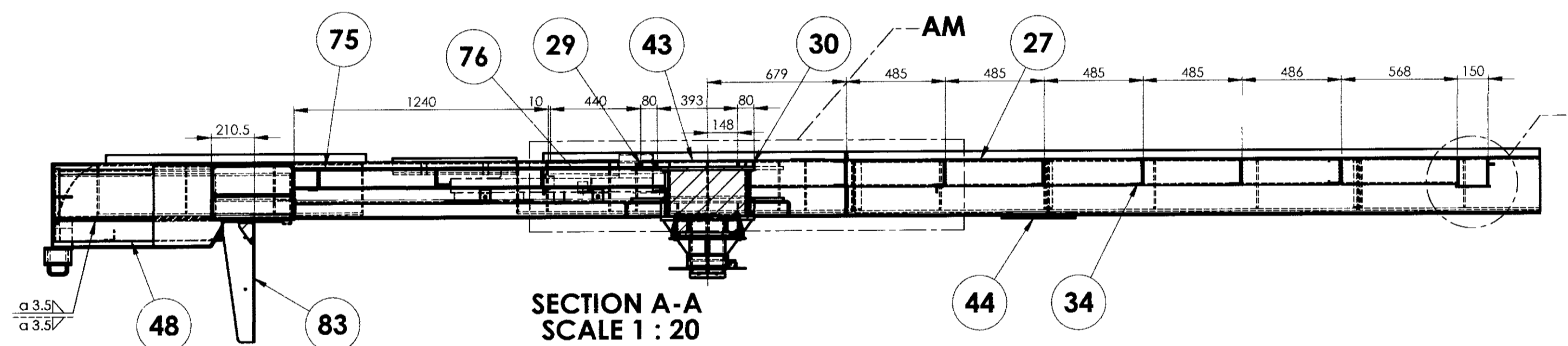
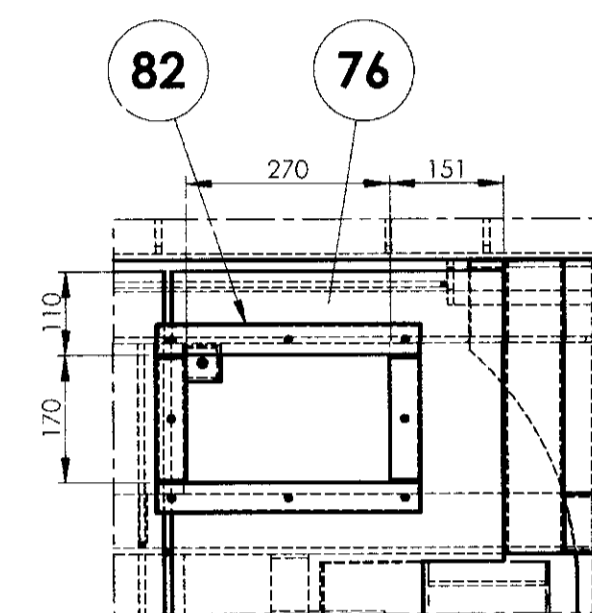
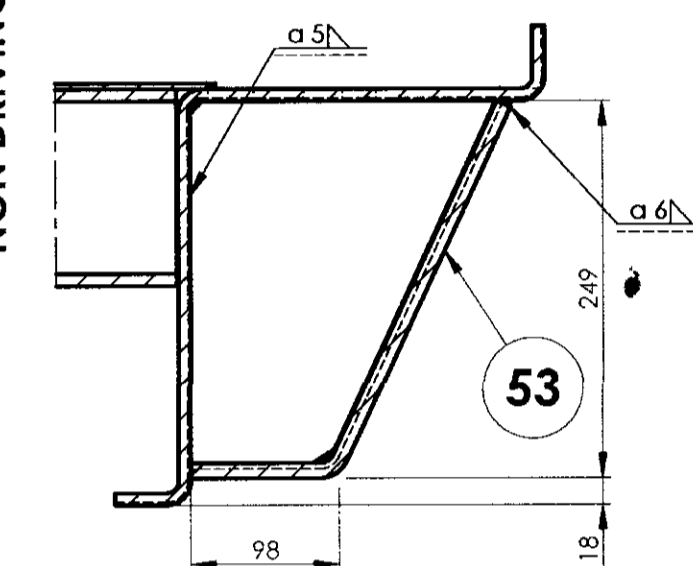
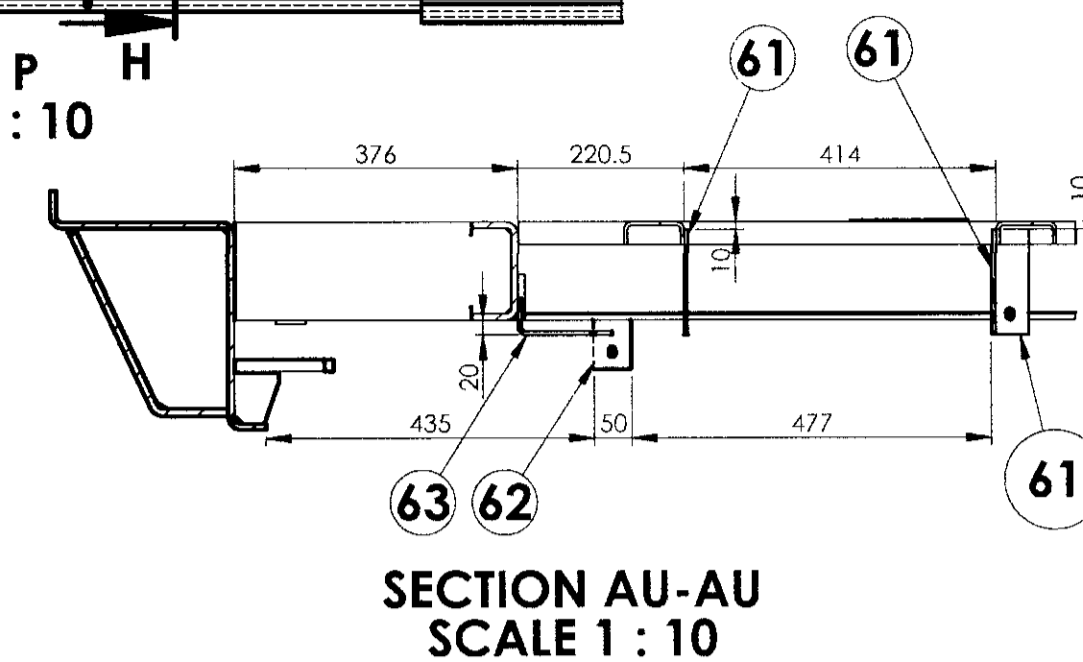
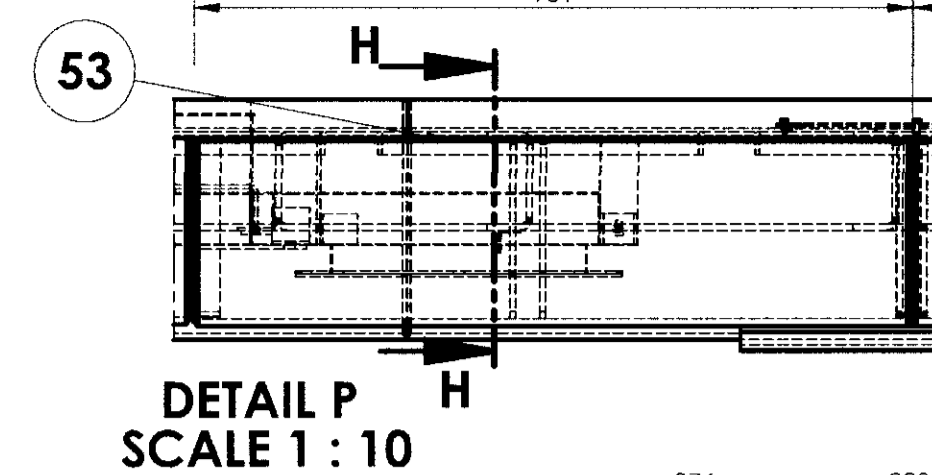
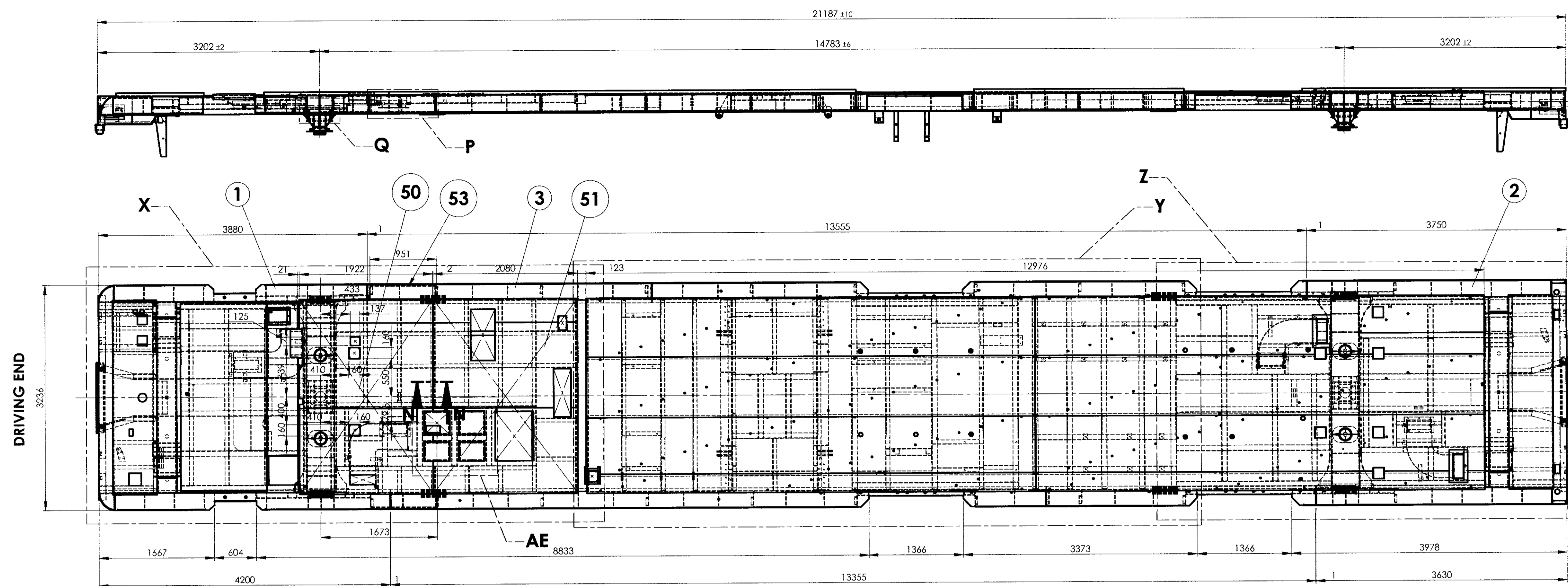
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DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME





74511059

REVISIONS		ALT.	ZONE	DESCRIPTION	APPROVED & DATE
12	ROUGH MACHINED	00		ROUGH CLEANED	
13	FINISH MACHINED	01		BURRS REMOVED	
14	FINE FINISH MACHINED	02		CHAMFERED	

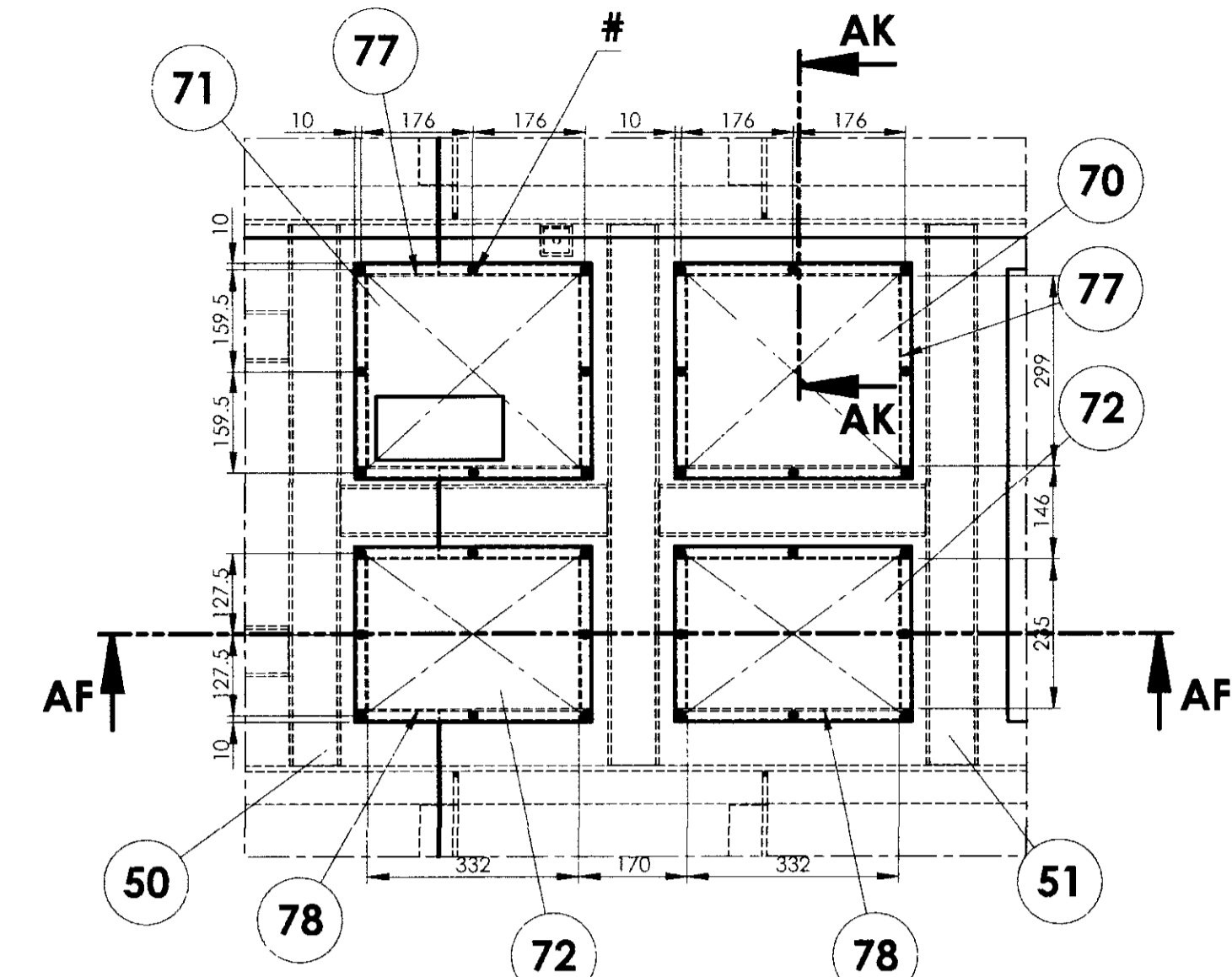


DATE OF LATEST ALT. 04-2026  
DATE OF FIRST ISSUE 18-04-2025  
AM/MSME

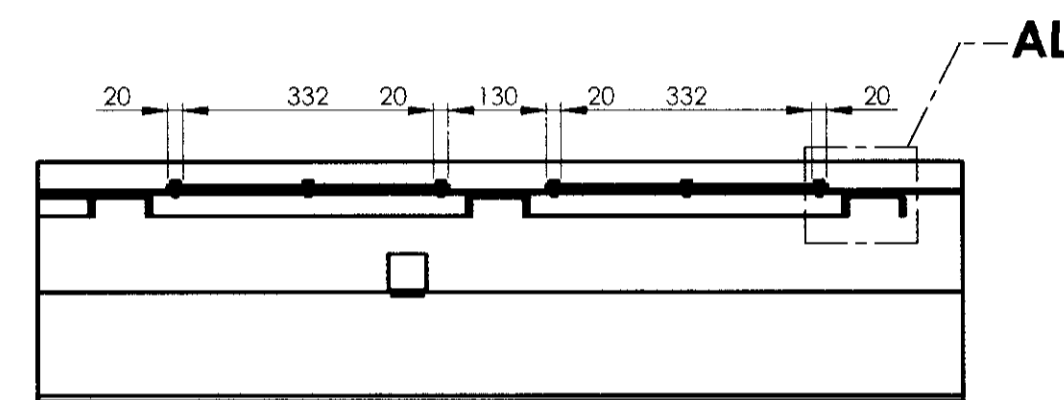
GROUP: 1-1 Under Frame		SURFACE AREA IN Sq.m.: 411.073		WT/ASSY IN Kgs:	
SCALE 1:40		SSE/D		CHD	
ALT. C		ALTD		DRN	
INDIAN RAILWAY STANDARDS		MEMU/DMC/3PH		NARASIMMALU	
INTEGRAL COACH FACTORY, CHENNAI - 600038		SHEET 1 OF 3		74511059	
				A1	

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICFSID-93-001.

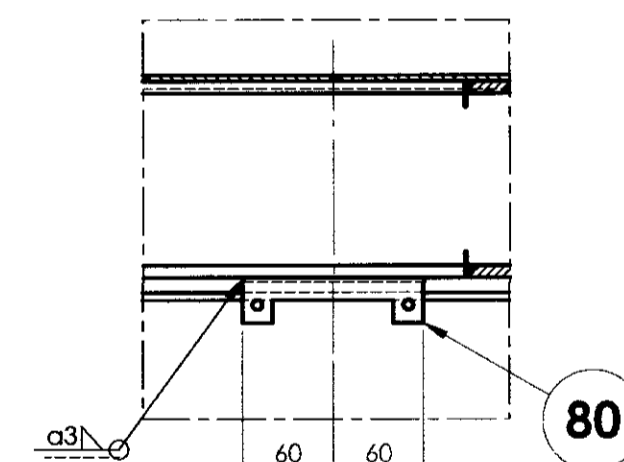
①	ROUGH CLEANED
①b	BURRS REMOVED
①8	CHAMFERED



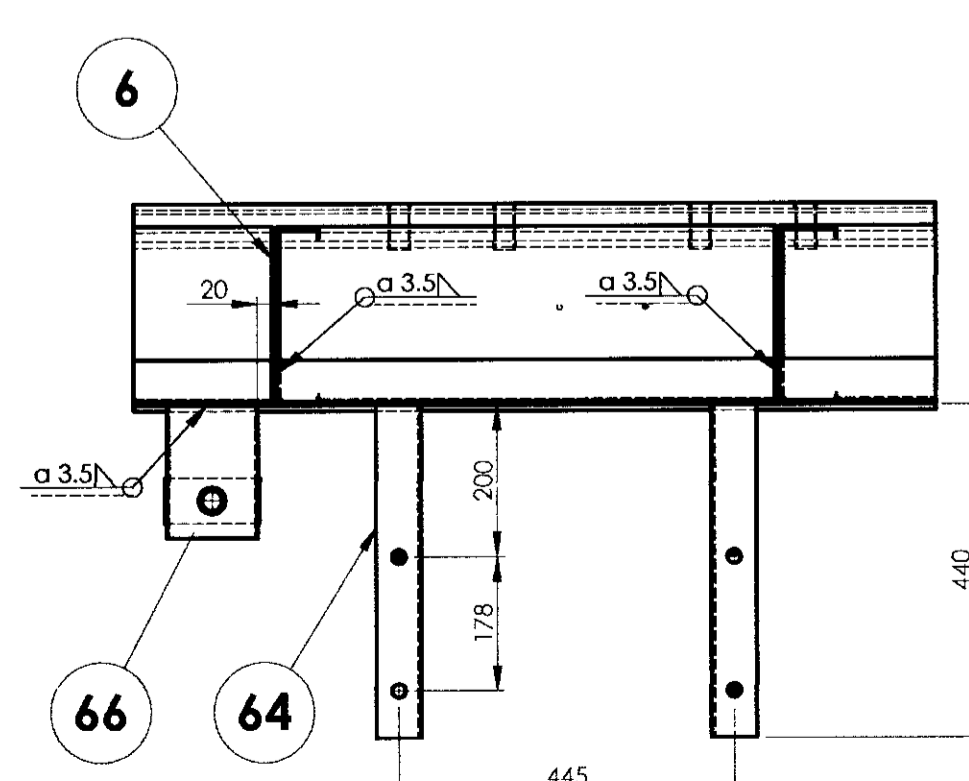
**DETAIL AE**  
**SCALE 1 : 10**



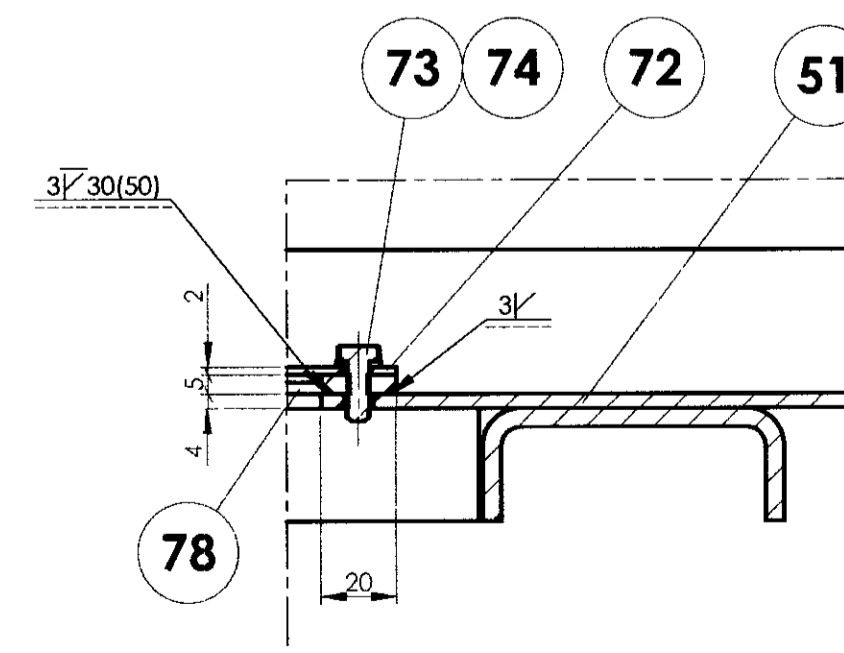
**SECTION AF-AF**  
**SCALE 1 : 10**



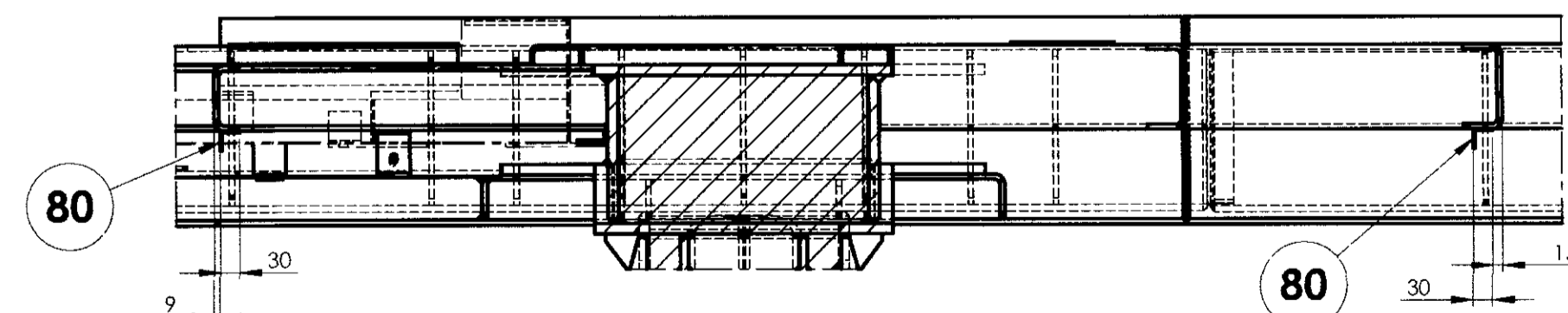
**SECTION N-N**  
**SCALE 1 : 2**




**SECTION J-J**  
**SCALE 1 : 10**



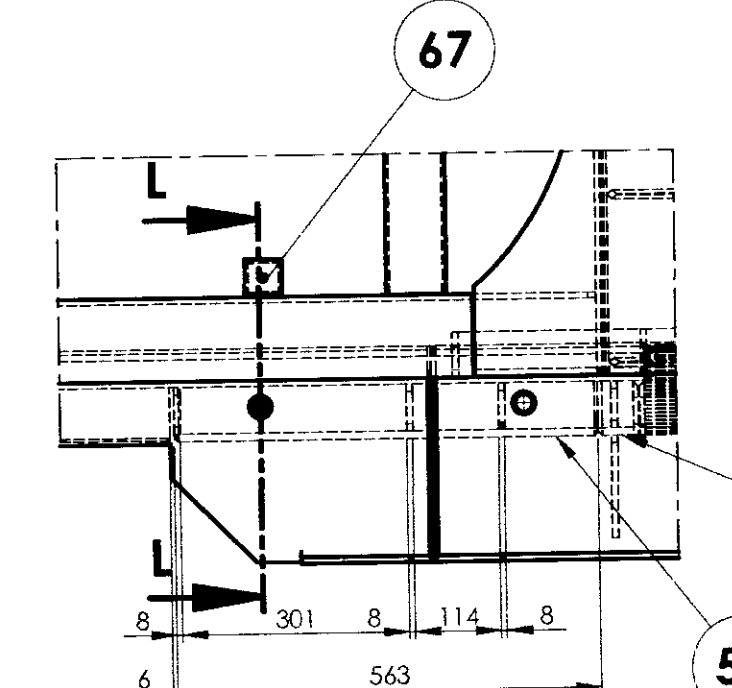
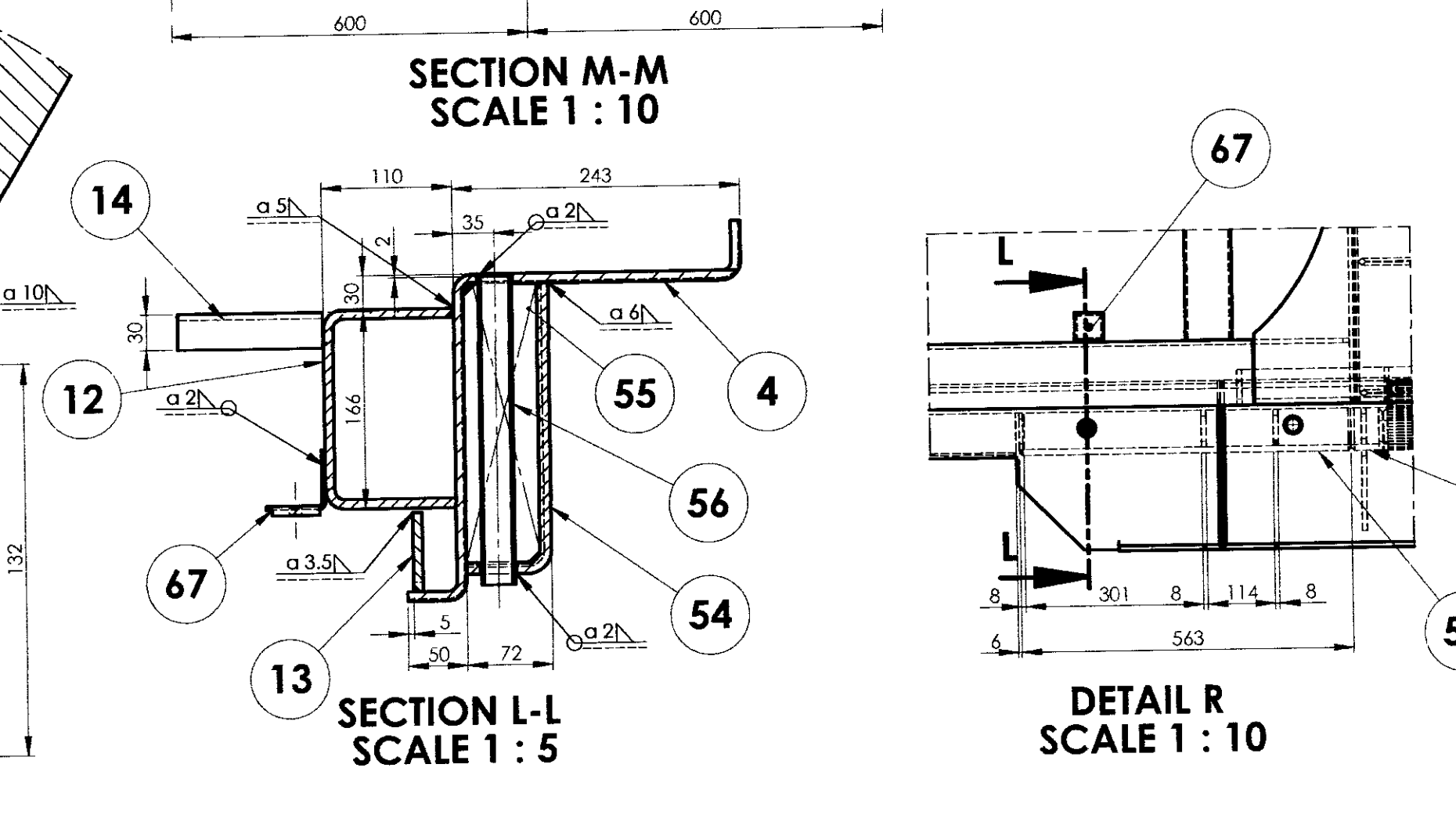
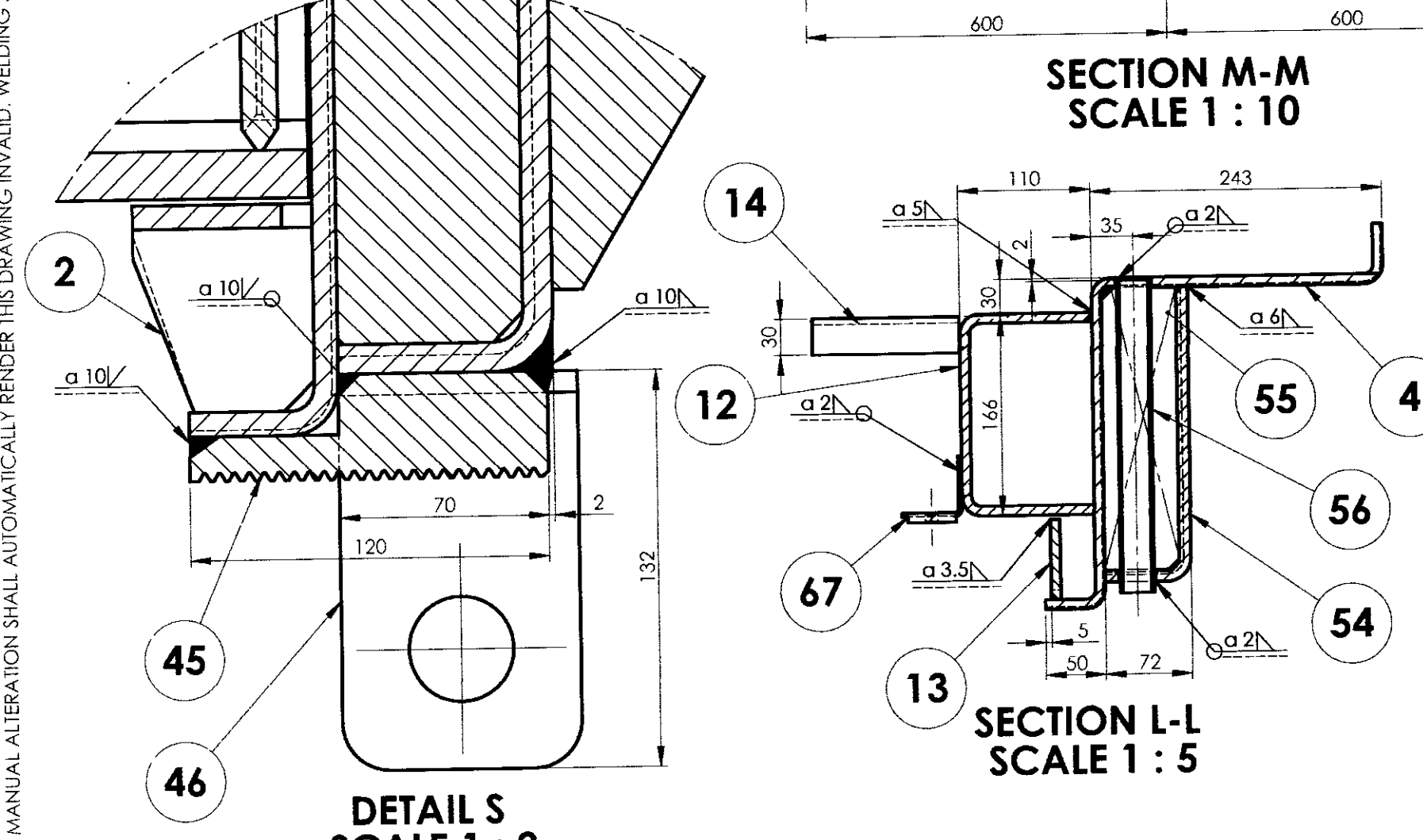
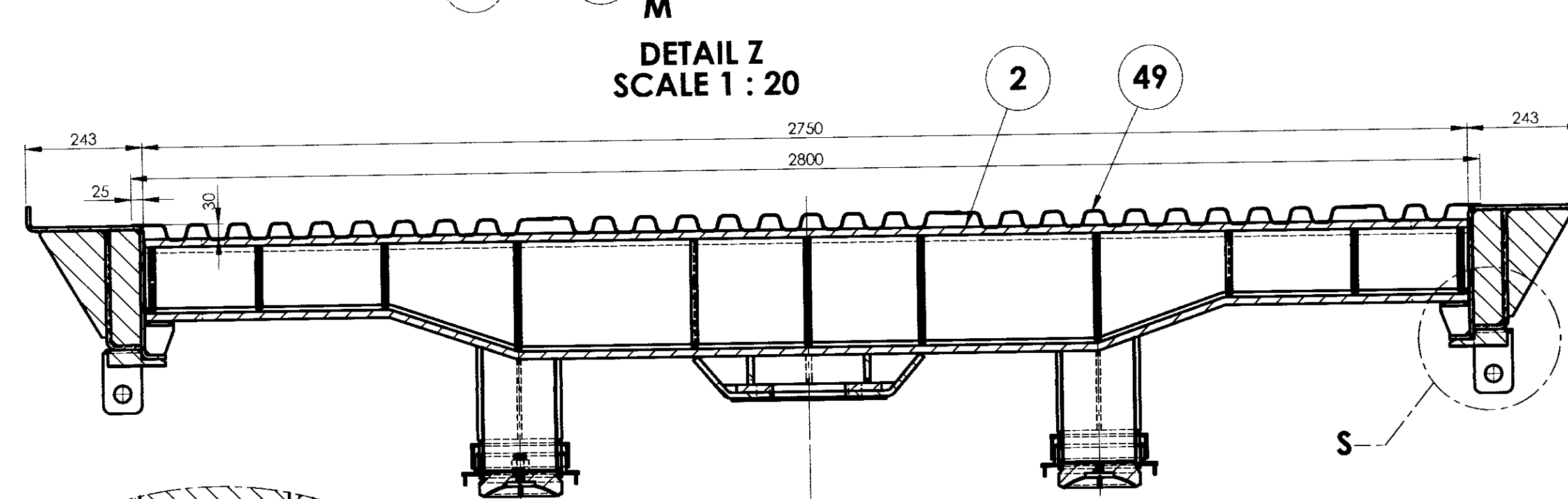
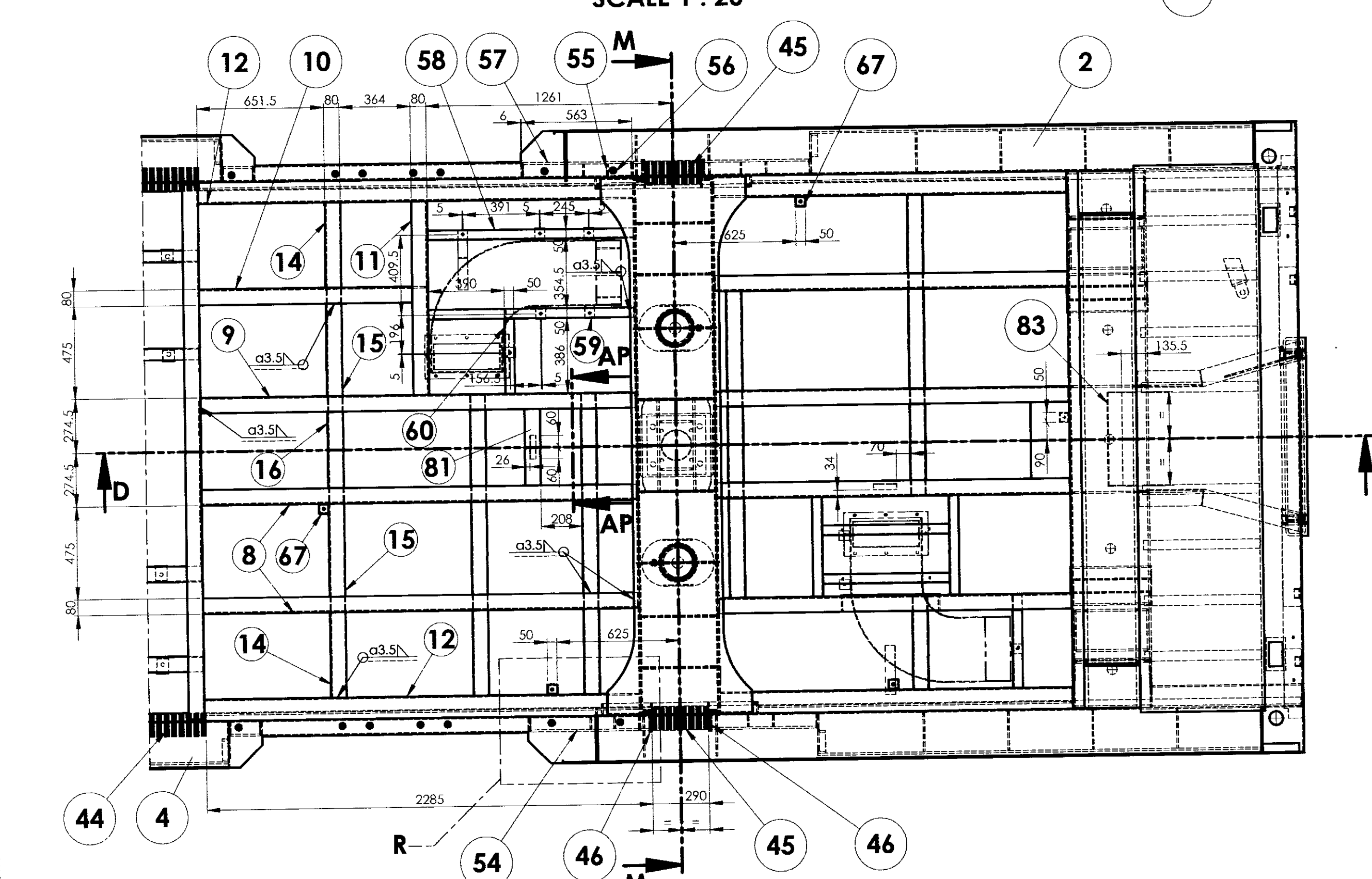
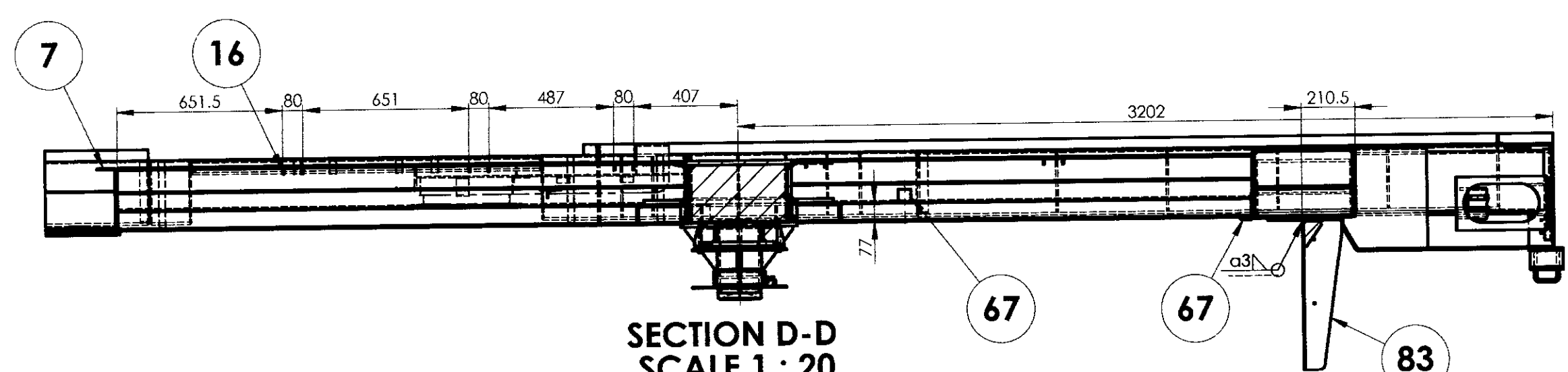
**DETAIL AL**  
**SCALE 1 : 2**



**DETAIL AM**  
**SCALE 1 : 10**

GROUP: 1-1 Under Frame		SURFACE AREA IN Sq.m.: 411.07/3		WT/ASSY IN Kgs:	
<h1 style="text-align: center;">UNDER FRAME ARRGT.</h1>				SCALE	SSE/D
				1:40	CHD
				ALT.	ALTD
				C	DRN
				NARASIMMALU M.SIVAKUMAR	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					MEMU/DMC/3PH
				SHEET	74511059
				2 OF 3	
					A1


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

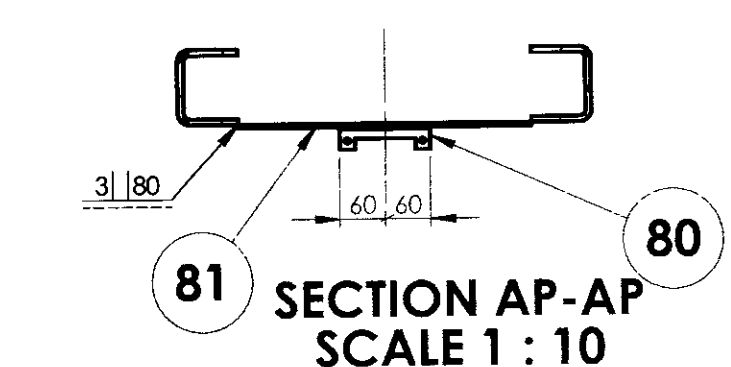





**NOTE:**

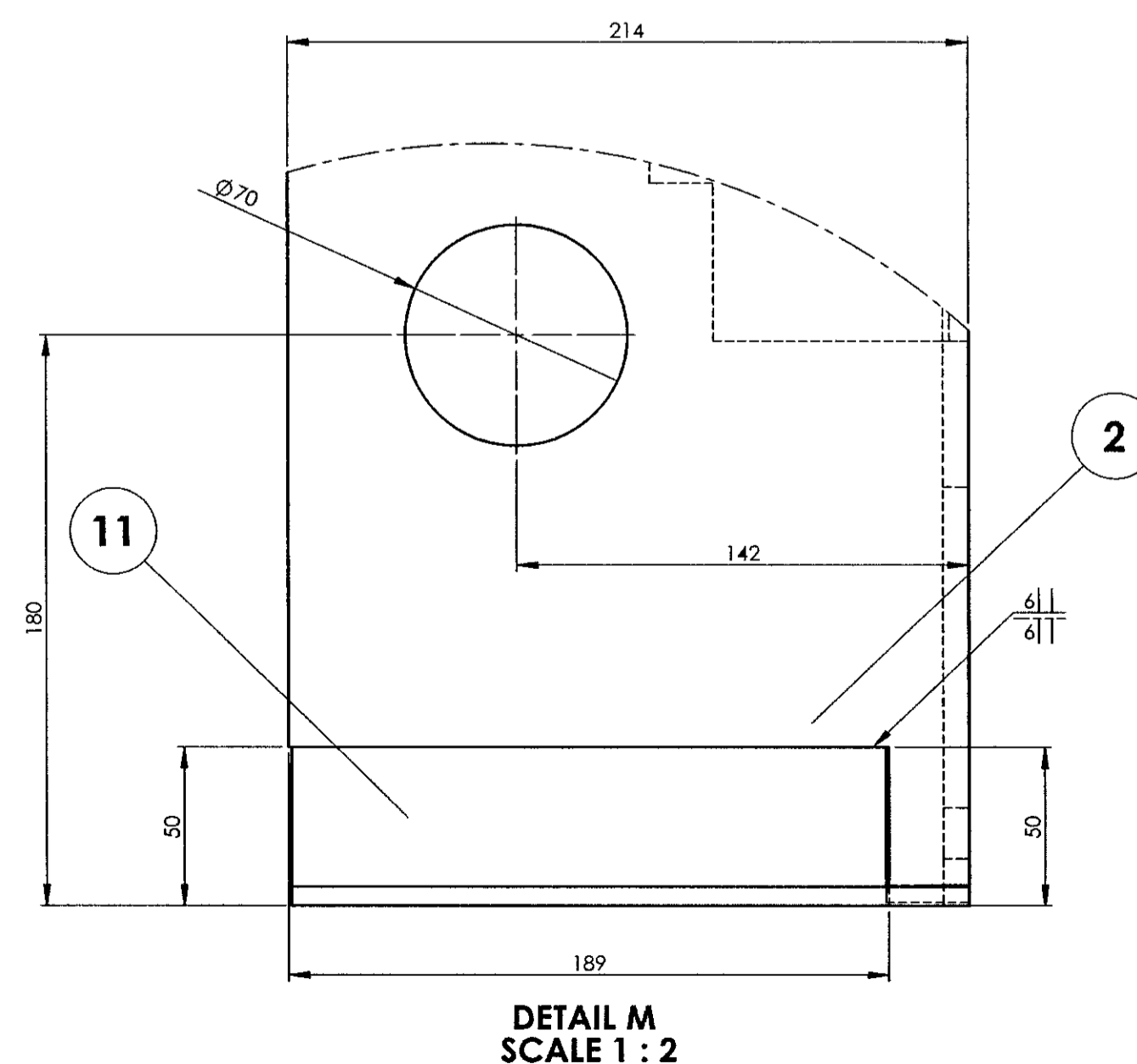
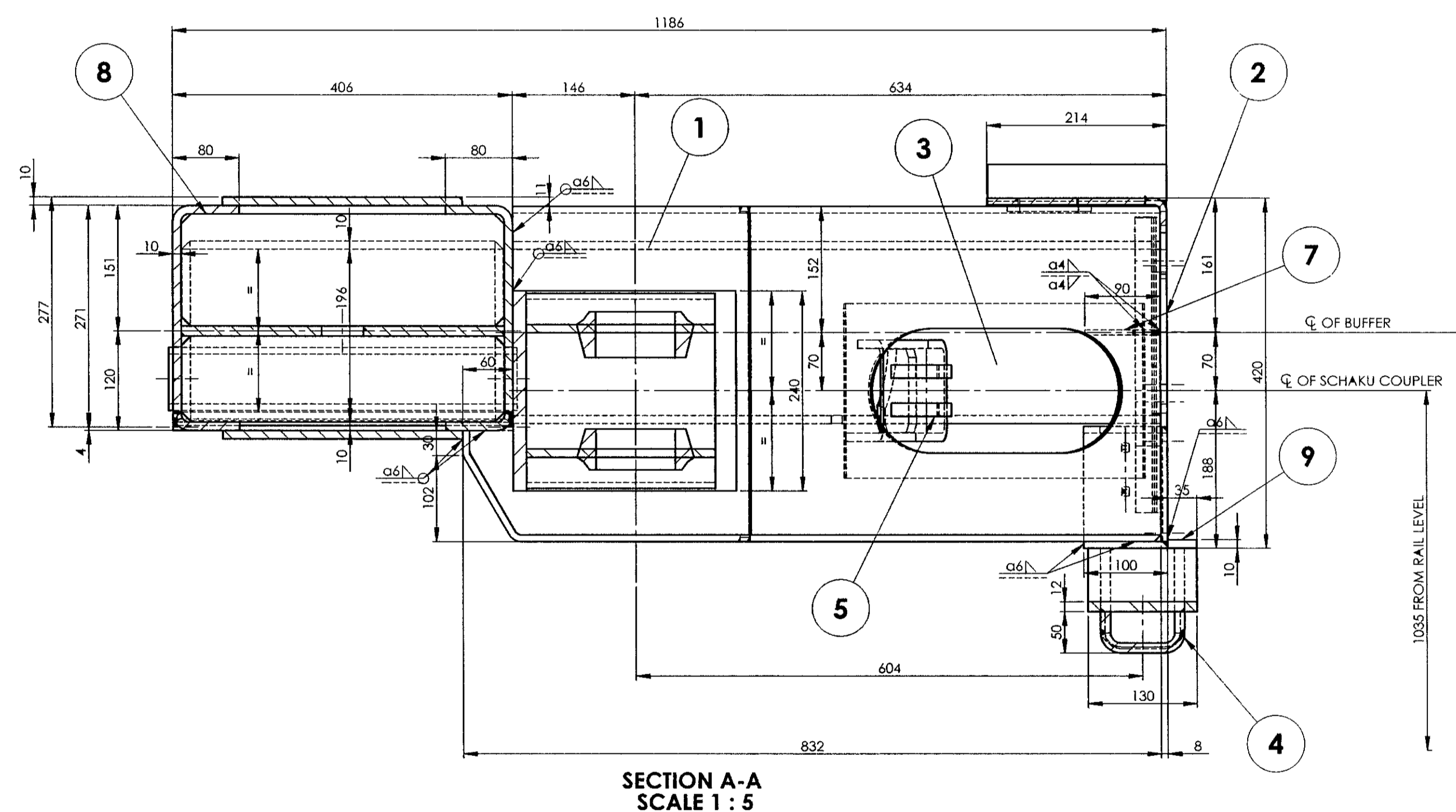
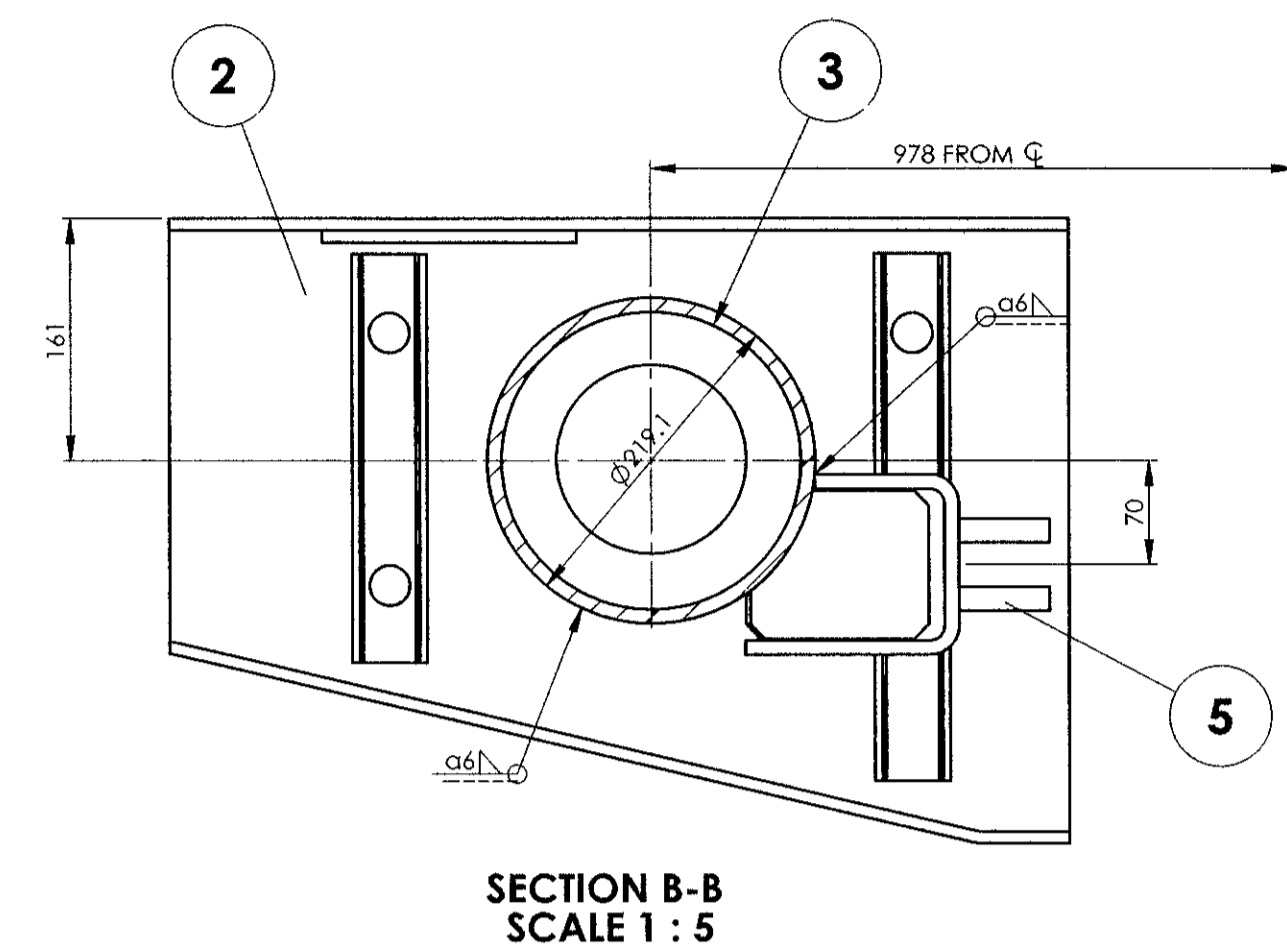
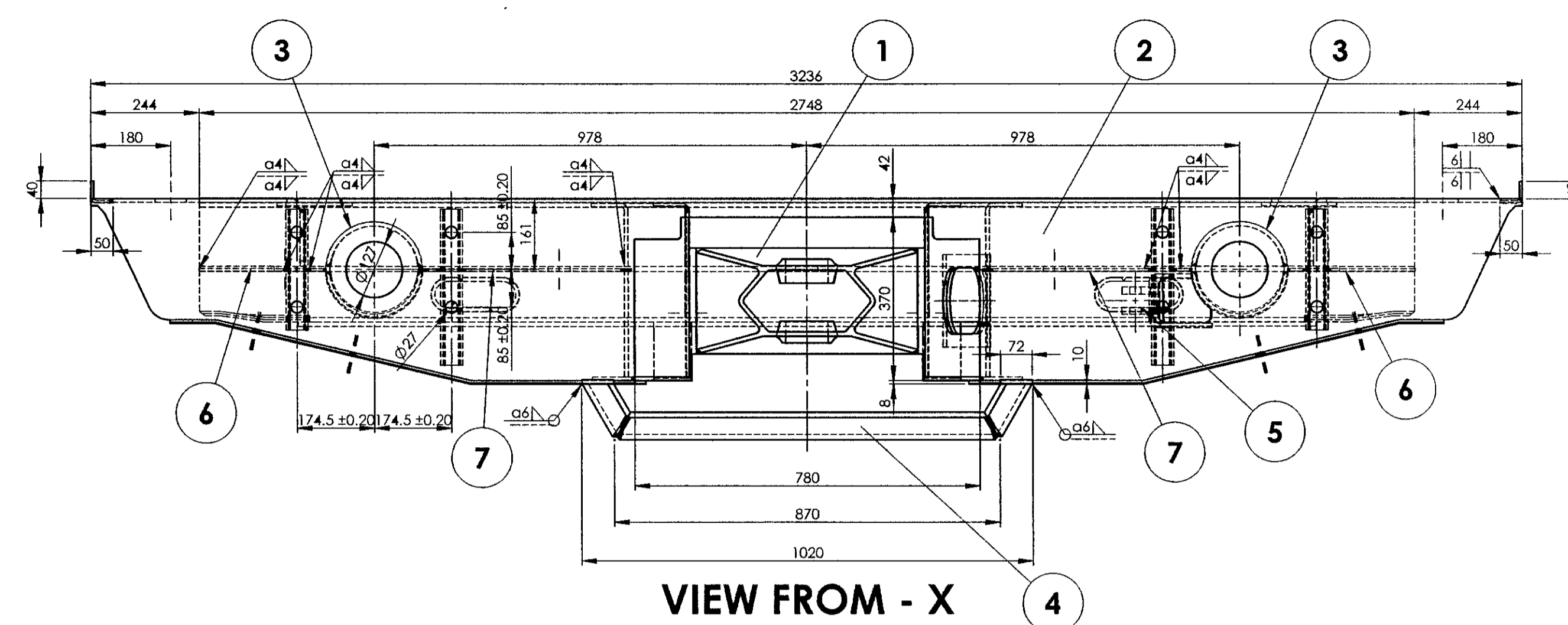
1. FOR WELDING PROCEDURES REFER ICF/STD-1-1-999.
  2. EARTHING SURFACE OF ITEM-67 HSALL BE MASKED DURING PAINTING.
  3. ITEM-68 TO BE WELDED ON ITEM-50 AFTER LIFTING THE BODY FROM THE SHELL JIG.
  - # 4. LOCATING DIMENSION FOR Ø8 HOLES ON ITEMS-50 & 51 SHALL BE MAINTAINED TO SUIT THE FRAME COMPLETE OF ITEM 77 & 78.
  5. PAINTING SYSTEM FOR UNDERFRAME COMPLETE REFER DWG.NO-LWLRRM-1-1-116.
  6. BEFORE MOUNTING THE CORRUGATED SHEET FLOOR THE AREA OF CONTACT SURFACE SHALL BE PAINTED WITH ALUMINIUM- WELDING COAT TO RCF SPEC. MDTs-28272 LATEST REVISION.
  7. UNDERFRAME HAS TO ASSEMBLED USING SUITABLE WELDING FIXTURE.
  8. NECESSARY CARE IS TO BE TAKEN THAT THE TWIST ON THE UNDERFRAME AND VARIATION ON DIAGONALS ARE TO BE WITHIN 2mm.
  9. TROUGH FLOOR IS NOT SHOWN IN PLAN VIEW FOR CLARITY.  
74113001 SUITABLY RELIEVED TO WELD ITEM-19 (74111041).
  10. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
  11. FOR WELD TESTING PREFERENCES, REFER DRAWING NO. ICF/STD-9-0-998.
  12. FOR WELD PROCEDURE SPECIFICATION, REFER DRAWING NO. ICF/STD-9-0-999.

2	SUPPORT FOR TCAS MOUNTING		83	74511058		14.18		4	CHANNEL		39	AAD11254	4.11
1	HOUSING ASSEMBLY		82	74511056		2.57		1	CHANNEL		38	AAD11253	4.77
1	FLAT	5x80x389	81		IRS M-41-97	1.22		4	CHANNEL		37	AAD11252	4.77
4	BACKPIECE		80	AAH11887		0.13		5	CHANNEL		36	AAD11251	6.13
1	LOCATION OF MOUNTING RAILS & BRACKETS		79	MEMU/DMC/3P H-1-1-047		0.20		5	CHANNEL		35	AAD11250	6.45
2	FRAME COMPLETE		78	74511046		0.88		5	CHANNEL		34	AAD11249	7.30
2	FRAME COMPLETE		77	74511045		0.97		4	CHANNEL		33	AAD11248	7.97
1	SS FLOOR SHEET		76	AAG11543		17.58		1	CHANNEL		32	AAD11247	11.91
1	SS FLOOR SHEET	2.5x1240x2720	75		RDSO SPEC C-K201 X2 C/ NI 12	67.46		1	CROSS BEARER COMPLETE		31	74511032	38.959
32	SPRING LOCK WASHER	B6- IS 3063	74	IS 3063	AISI-304			1	CHANNEL		30	AAD11244	13.33
32	HEXAGON HEAD SCREW	ISO 4017 - M6 x 14- A2-70	73	IS:1344 PART-2 2002	IS:1347 (P-14) A2-70			1	CHANNEL		29	AAD11245	9.40
2	CLOSING SHEET		72	AAG11091		1.63		1	CHANNEL		28	AAD11243	38.40
1	CLOSING SHEET		71	AAG11090		1.69		2	CHANNEL		27	AAD11242	40.05
1	CLOSING SHEET		70	AAG11089		2.01		1	CHANNEL		26	AAD11241	40.05
1	MODULAR FRAME FOR MAIN TRANSFORMER (FOR ABB TRANSFORMER ONLY)		69	74511042		473.209		1	CROSS BEARER COMPLETE		25	74511030	65.747
2	CLOSING PIECE		68	AAA13200				1	CHANNEL		24	AAD11444	11.85
8	EARTHING LUG		67	37471014		0.17	COL-1	1	CHANNEL		23	AAD11443	11.85
2	HAND LAMP BRACKET		66	56711011		0.956		1	CHANNEL		22	AAD11442	16.80
1	FLAT		65	AAD11283		3.29		1	CHANNEL		21	AAD11441	16.80
1	FRAME FOR E.P. UNIT		64	74511039		8.877		1	CHANNEL		20	AAD11288	17.84
1	FIXING ANGLE		63	AAD11281		0.32		1	CHANNEL		19	AAD11440	17.84
1	FIXING ANGLE		62	AAC11064		0.17		1	CHANNEL		18	AAD11439	12.22
3	FIXING PLATE		61	AAD11282		0.28		1	CHANNEL		17	AAD11438	12.22
1	CHANNEL		60	AAB11974		2.08		3	CHANNEL		16	AAD11204	2.12
1	CHANNEL		59	AAB11973		5.46		4	CHANNEL		15	AAD11211	2.43
1	CHANNEL		58	AAB11972		5.39		4	CHANNEL		14	AAD11212	2.10
1	ANGLE		57	AAD11269		13.11		2	SUPPORT PLATE		13	AAD11214	9.77
4	STEEL TUBE		56	AAD11230		0.34		2	DOORWAY STIFFENER		12	AAD11213	48.24
4	RIB		55	AAD11228		0.92		1	CHANNEL		11	AAD11209	14.51
1	ANGLE		54	AAD11268		13.11		1	CHANNEL		10	AAD11205	16.41
2	COVER SHEET		53	AAD11267		26.74		1	CHANNEL		9	AAD11199	32.56
1	CHANNEL		52	AAD11266		1.89		2	CHANNEL		8	AAD11198	32.56
1	TOP SHEET ASSEMBLY		51	74511034		149.895		1	MODULE-I FOR UNDER FRAME		7	74511024	312.000
1	TOP SHEET ASSEMBLY		50	74511033		165.452		1	MODULE FOR MAIN AND AUX. RESERVOIR		6	74511017	252.675
1	TROUGH FLOOR ASSEMBLY		49	74513001		720.315		1	MODULE FOR A.S & PANTOGRAPH RESERVOIR		5	74511006	95.937
1	SUB MODULE FOR HORN RESERVOIR		48	74511038		17.059		1	LONGITUDINAL BEAM ASSEMBLY		4	74511023	787.597
1	CHANNEL		47	AAB11930		2.03		1	LONGITUDINAL BEAM ASSEMBLY		3	74511022	824.282
8	LIFTING LUG		46	AAB11934		1.14		1	END PART (NON DRIVING END)		2	74511027	2220.783
4	LIFTING PAD		45	AAB11933		6.767		1	END PART DRIVING END (MEMU/DMC/3PH)		1	74511003	2304.033

14		15		16	
REVISONS					
ALT.	ZONE	DESCRIPTION		APPROVED & DATE	
a		QTY. FOR ITEM-83 ALTD. FROM 1 TO 2, VIEWS UPDATED.		-sd-	
b		NOTE-5 TO 12 ADDED.		-sd-	
c		SECTION AU-AU ADDED AND BILL OF MATERIALS RE-ARRANGED.			



INDIAN RAILWAY STANDARDS			SHEET													
INTEGRAL COACH FACTORY, CHENNAI - 600038			3 OF 3													
<table><tr><td>11</td><td>-04-2026</td><td>18-04-2025</td><td colspan="2"></td></tr><tr><td>DATE OF LATEST ALT</td><td>DATE OF FIRST ISSUE</td><td colspan="2">AME/SME</td><td></td></tr></table>			11	-04-2026	18-04-2025			DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME			<table><tr><td colspan="2">74511059</td><td>A1</td></tr></table>	74511059		A1
11	-04-2026	18-04-2025														
DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME														
74511059		A1														



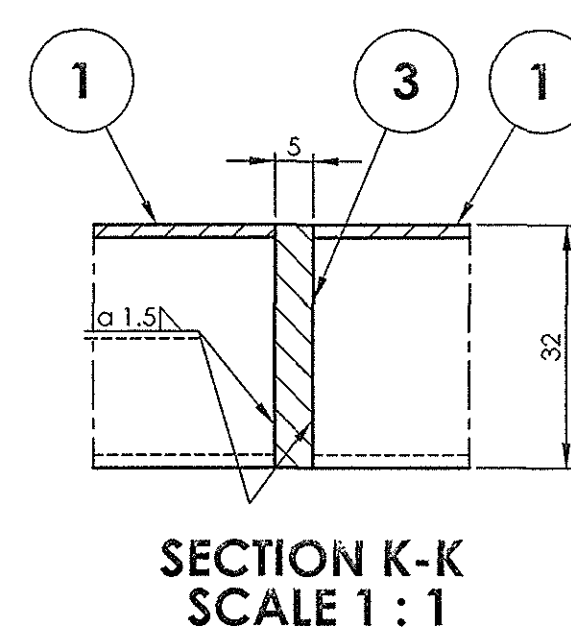
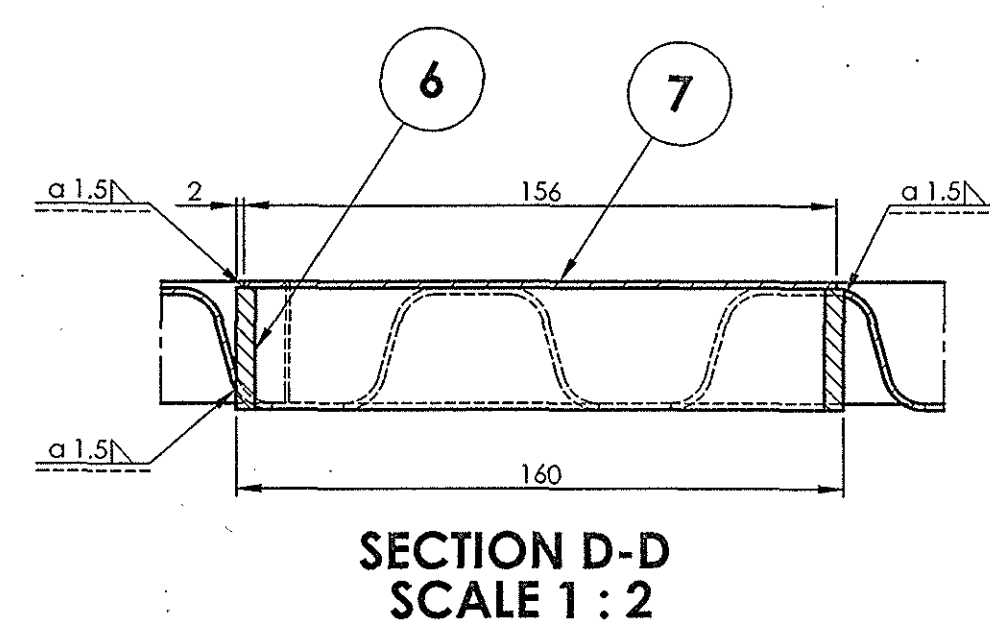
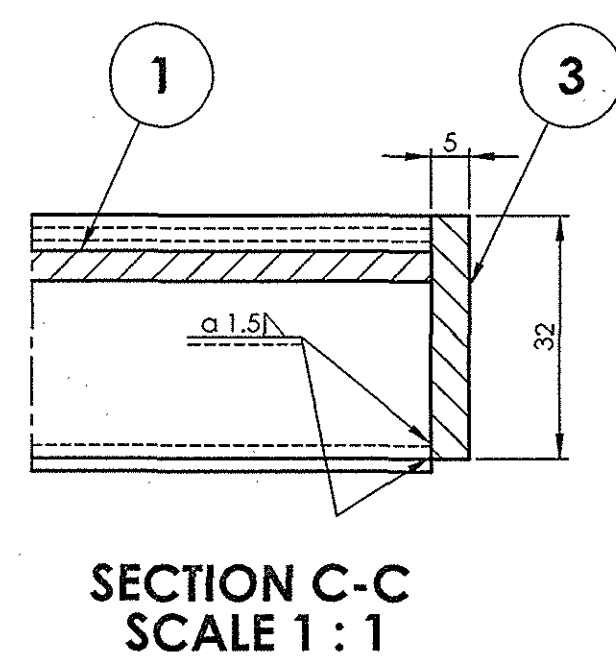
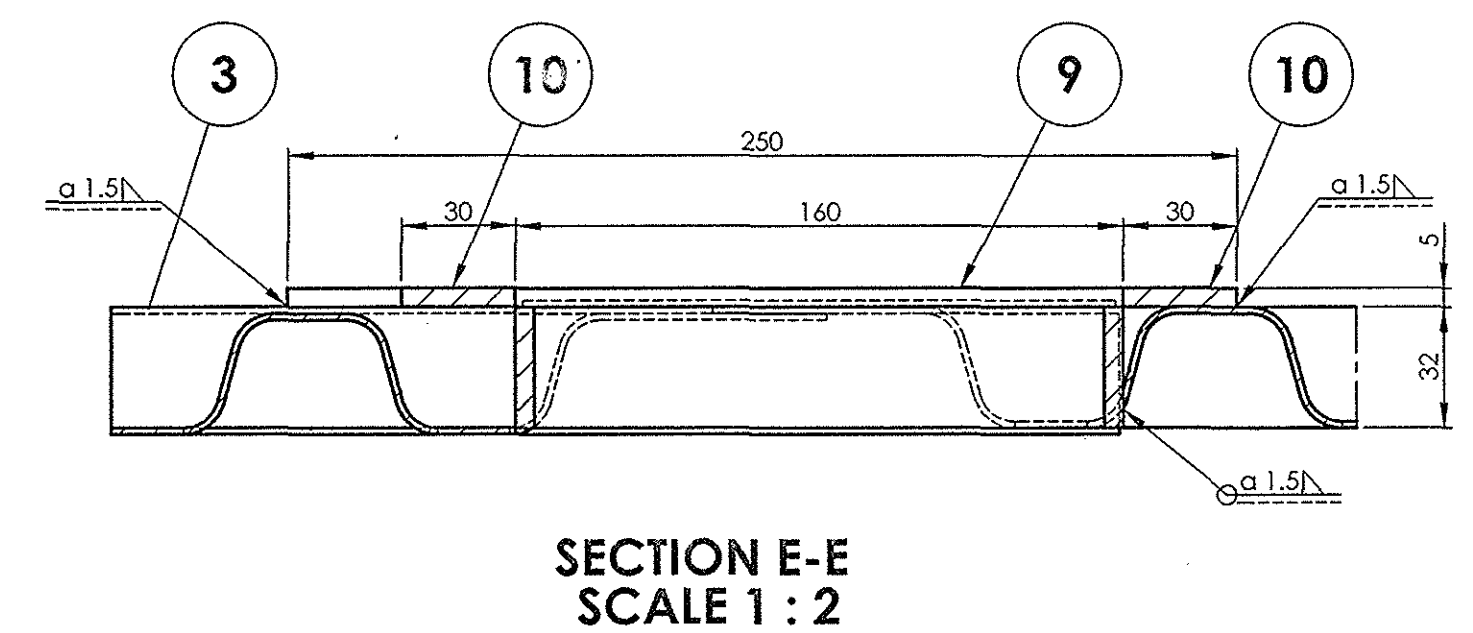
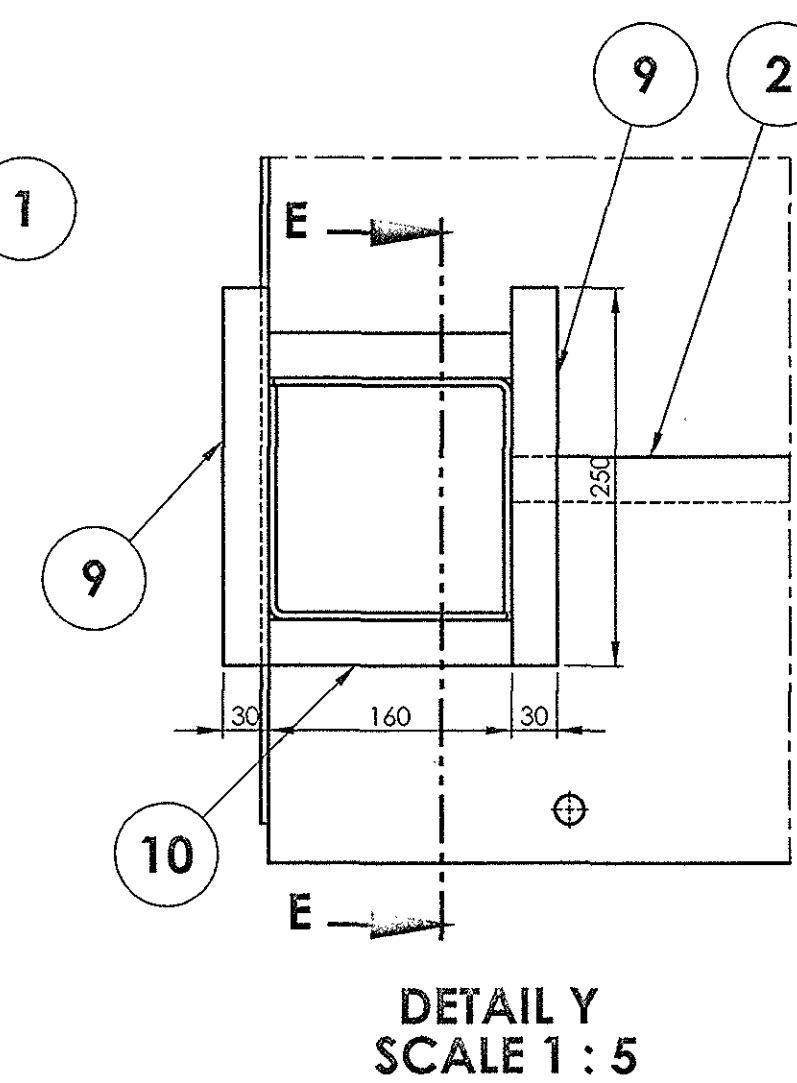
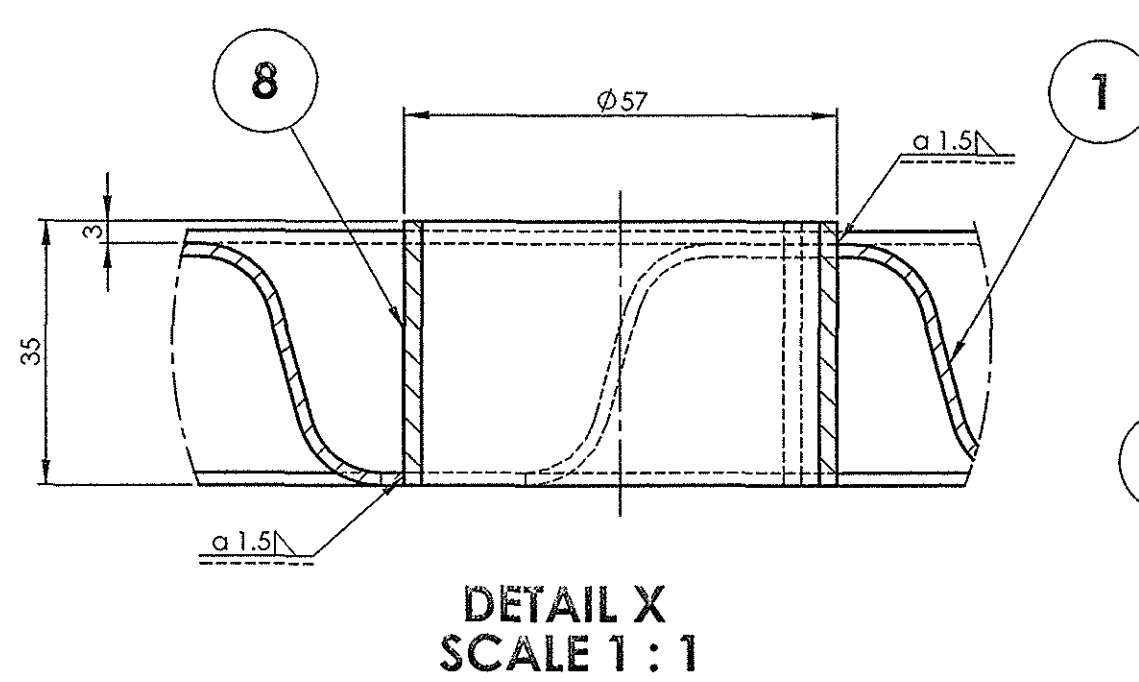
1. SUITABLE PLATE TREATMENT [OR] GRIT BLASTING [OR] SAND BLASTING [OR] PICKLING TO BE DONE AND EPOXY TO RDSO/SPEC. M&C/PCM/123/06 TO BE APPLIED TO A JG. OF MINIMUM 75 MICRONS

2. DIMENSIONS MARKED THUS      ARE TO BE MAINTAINED BY MEANS OF DIT.

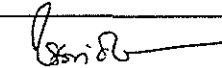
§ 3. FOR ALTERNATE DESIGN OF ITEM-3 REFER DMU/DPC-1-2-202/COL-V.

# 4. TOP COVER PLATE ( ITEM-6 OF DRG.NO. 66312004 ) IS TO BE SUPPLIED LOOSE & WELDED IN ENDPART MANUFACTURING STAGE AFTER WELDING COMPLETE INNER HEADSTOCK TO THE I-BEAM.

1	ANGLE		11	DMU/DPC/SS-1-2-001		0.85	ITEM-10
1	ANGLE		10	AAD11045		0.85	
2	PLATE		9	AAA12032		0.20	
1	INNER HEADSTOCK ASSY.		8	66312004		470.926	
2	RIB		7	AAA12044		1.877	
2	RIB		6	AAA12165		1.143	
1	BRACKET		5	SSA12006		3.663	
1	SUPPORTING BEAM		4	SSA12005		28.252	
2	TUBE		3	AAA12031		38.01	\$
1	OUTER HEADSTOCK		2	74512002		110.002	
1	COMPLETE COUPLING BEAM		1	56712004		113.220	
1	COMPLETE		1				
Default	DESCRIPTION	DIMENSIONS	ITEM NO	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-2				SURFACE AREA IN Sq.m.: 22.398		WT/ASSY IN Kgs:	
HEADSTOCK ARRGT (NON DRIVING END)				SCALE		SSE/D	
				1:10		CHD	
				ALT. b		SURESH KUMAR S	
				DRN		P.MURUGAN	
INDIAN RAILWAY STANDARDS				SHEET		MEMU/DMC/3PH	
INTEGRAL COACH FACTORY, CHENNAI - 600038				1 OF 1		74512001	
						A1	




% 1. ITEM-7 TO BE WELDED ON ITEM-6 AFTER LIFTING THE SHELL FROM BODY JIG.

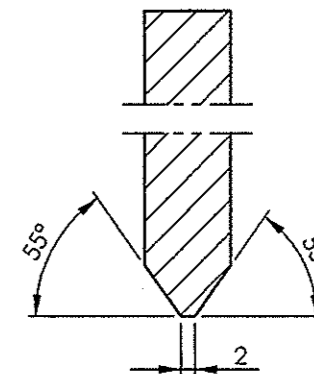
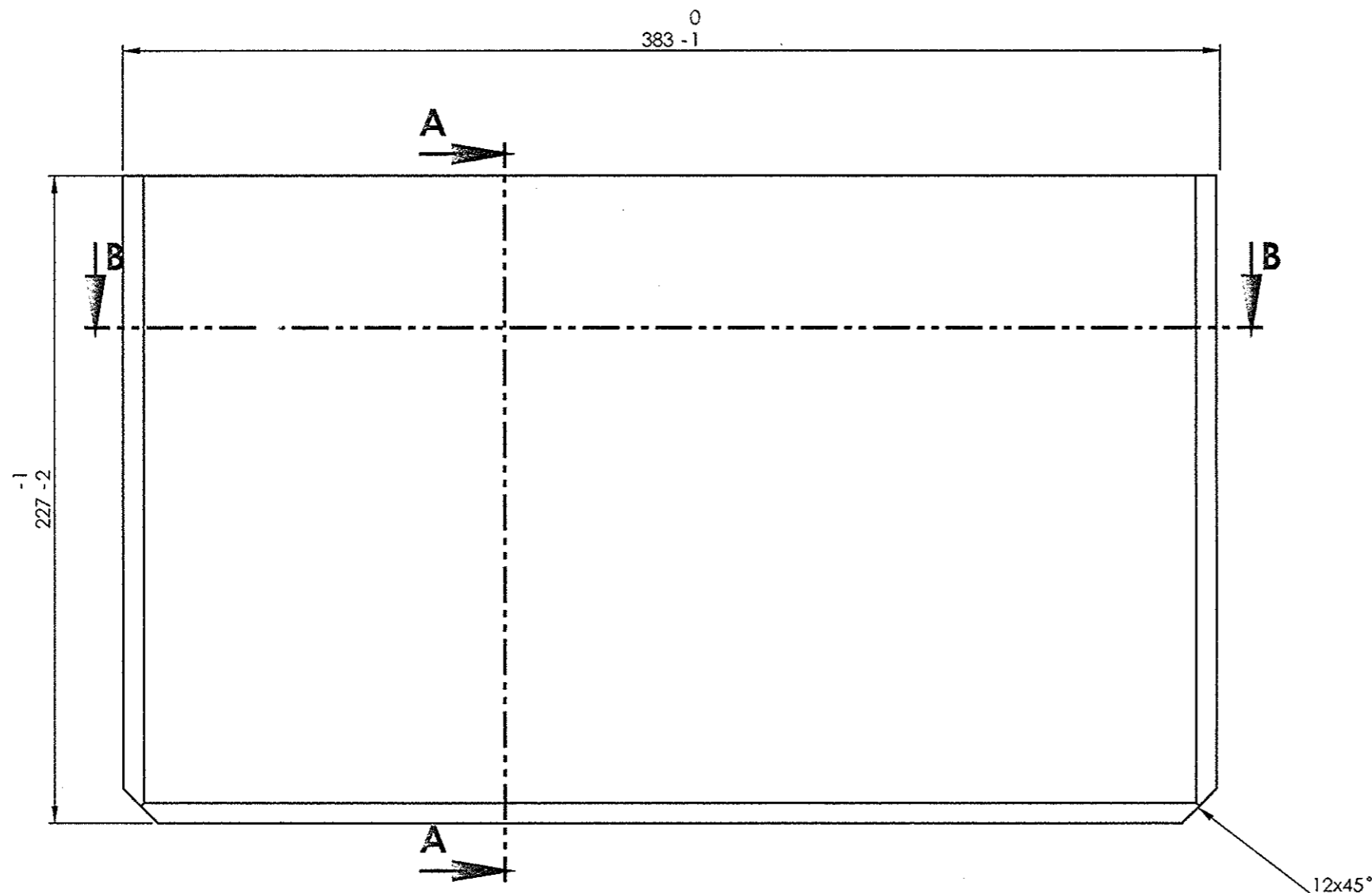
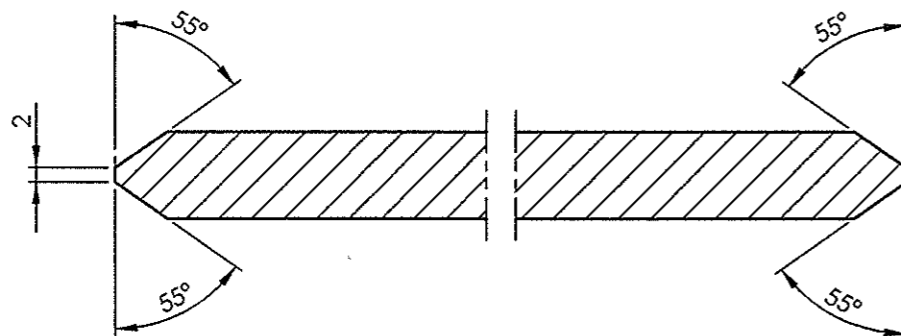
2	PLATE		10	AAD11292		0.19	
2	PLATE		9	AAD11291		0.30	
12	PIPE		8	AAA13175		0.11	
6	CLOSING PIECE		7	AAA13031		0.33	%
7	HOUSING		6	SSA13006		0.778	
2	PLATE		5	AAA13178		2.741	
2	HOUSING		4	66313002		1.251	
3	CONNECTING WEB		3	56713016		3.516	
2	TROUGH FLOOR PART (CRF)		2	AAA13198		30.108	
6	TROUGH FLOOR PART (CRF)		1	AAA13197		106.316	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-1			SURFACE AREA IN Sq.m.: 103.895		WT/ASSY IN KGS:		
TROUGH FLOOR ASSEMBLY					SCALE	SSE/D	
					1:20	CHD	
					ALT.	ALTD	
						DRN	K.SETHURAMAN
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	MEMU/DMC/3PH	
						74513001	
						A1	

AAA11021

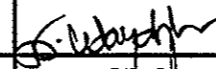
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

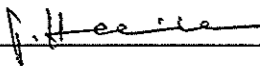
## REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		ADDITIONAL CHAMFERING PROVIDED ON THE EDGES. MATERIAL SPEC. REVISED. SECTIONS ADDED ACCORDLY.	

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


REF.DRG.NO.19911509-ITEM-04

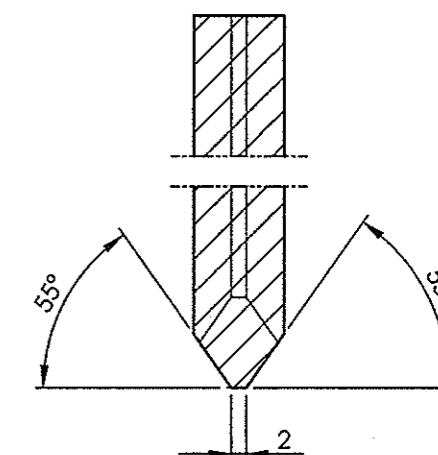
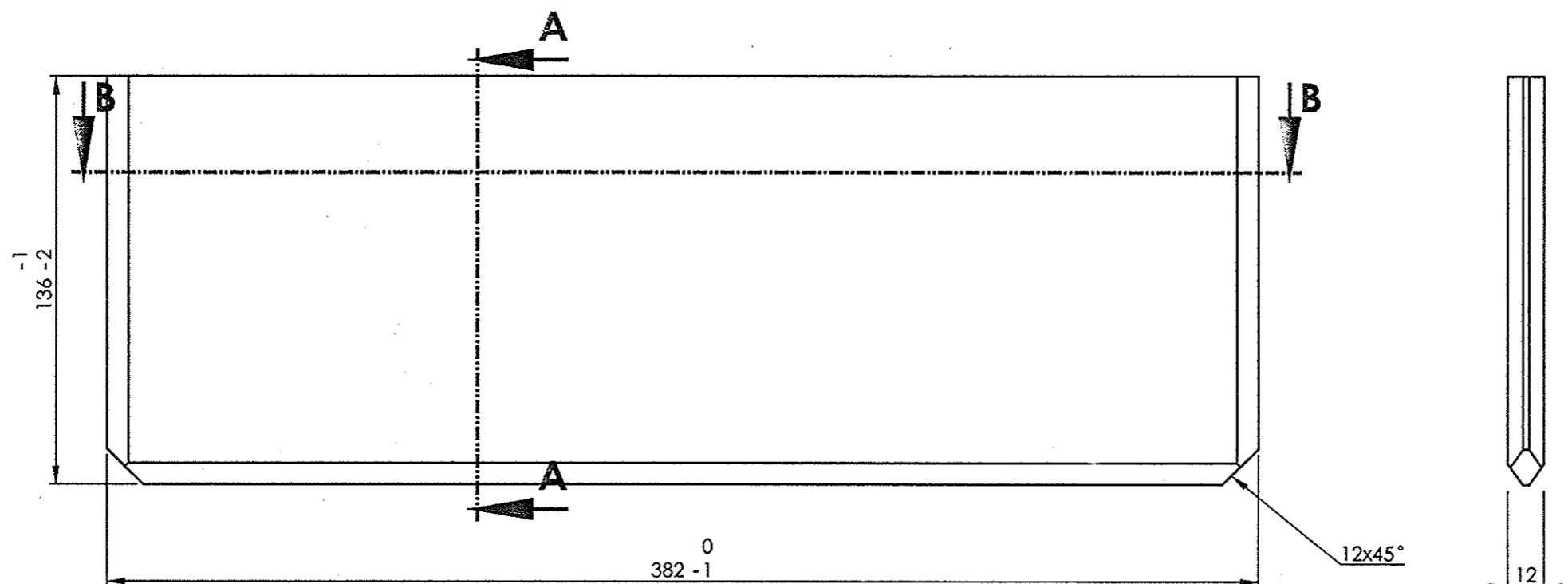
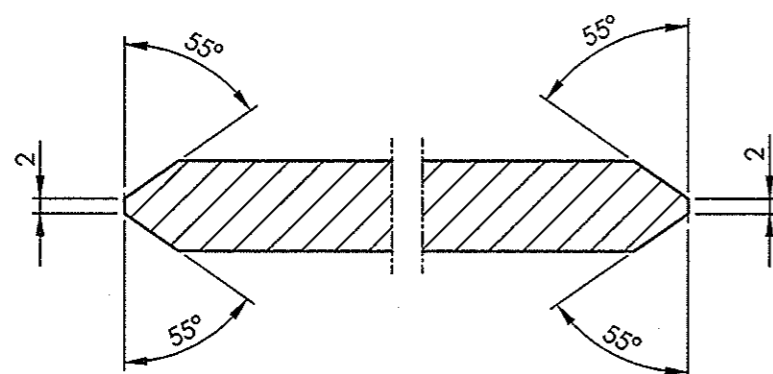
16-12-2017	24-12-2011	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

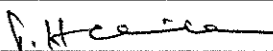
1	RIB	12 x 227 x 382	1		EN10025-5:2004 S355J2W+N	7.931		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: BODY BOLSTER		SURFACE AREA IN Sq.m.:0.182			WT/ASSY IN Kgs:			
RIB					SCALE 1:2	SSE/D CHD		
					ALT. a	ALTD	G.SURESH BABU	
						DRN	B.SURESH/CHINA SRINIVASA RAO	
					INDIAN RAILWAY STANDARDS  INTEGRAL COACH FACTORY, CHENNAI - 600038			
					SHEET 1 OF 1			
					AAA11021		A3	

AAA11022

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		ADDITIONAL CHAMFERING PROVIDED ON EDGES. SECTIONS ADDED ACCORDLY. MATERIAL SPEC. REVISED.	

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

1	RIB	12 x 136 x 382	1		EN10025-5:2004 S355J2W+N	4.708	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: BODY BOLSTER		SURFACE AREA IN Sq.m.:0.112			WT/ASSY IN Kgs:		
RIB					SCALE	SSE/D	
					1:2	CHD	
					ALT. a	ALTD	G.SURESH BABU
						DRN	B.SURESH/CHINA SRINIVASA RAO
					INDIAN RAILWAY STANDARDS  INTEGRAL COACH FACTORY, CHENNAI - 600038		
AAA11022		A3					

REF.DRG.NO.19911509-ITEM-06

16-12-2017	24-12-2011	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SMG

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

1	2	3	4	5	6	7	8																		
<div style="font-size: 24pt; font-weight: bold;">AAA11030</div>			▽ ROUGH MACHINED	① ROUGH CLEANED	<div style="font-size: 10pt; font-weight: bold;">REVISIONS</div> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;">ALT.</th> <th style="width:10%;">ZONE</th> <th style="width:50%;">DESCRIPTION</th> <th style="width:30%;">APPROVED &amp; DATE</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>			ALT.	ZONE	DESCRIPTION	APPROVED & DATE													▽▽ FINISH MACHINED	①b BURRS REMOVED
			ALT.	ZONE				DESCRIPTION	APPROVED & DATE																
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED																								

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.08911043-ITEM-1

1	BUSH	Ø188/170x45	1		IS:2062-2006 E 250 C	1.693	FROM 16x50x554
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: UNDERFRAME				SURFACE AREA IN Sq.m.:0.059		WT/ASSY IN Kgs: 1.693	
BUSH FOR COVER						SCALE	SSE/D
						1:2	CHD
						ALT.	ALTD
						DRN	B.SURESH
INDIAN RAILWAY STANDARDS					<div style="font-size: 10pt;">SHEET 1 OF 1</div>		<div style="font-size: 24pt; font-weight: bold;">AAA11030</div>
INTEGRAL COACH FACTORY, CHENNAI - 600038							

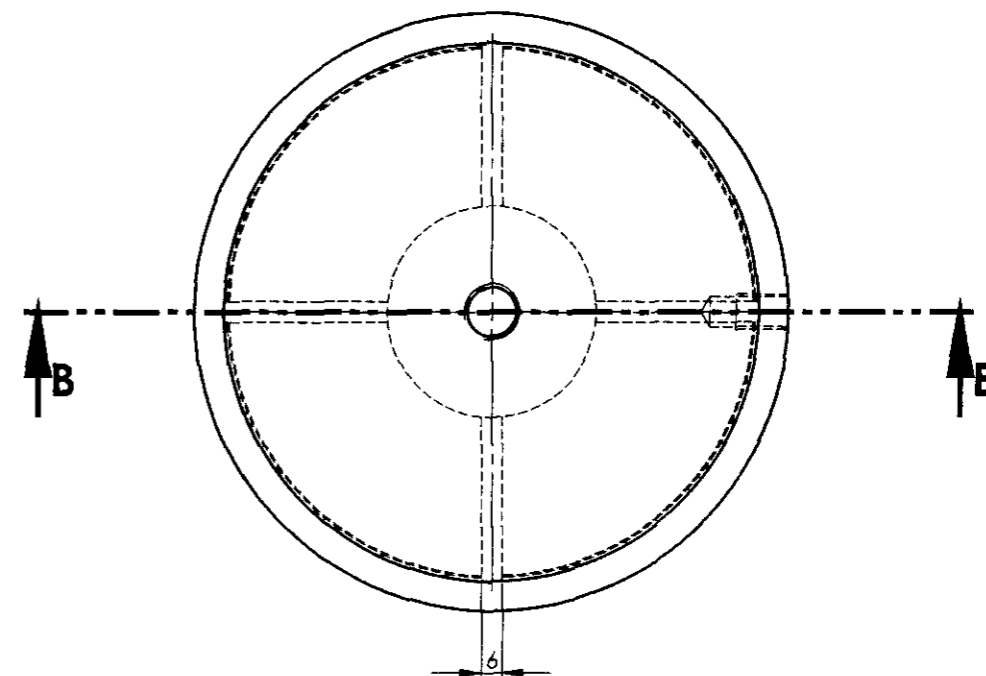
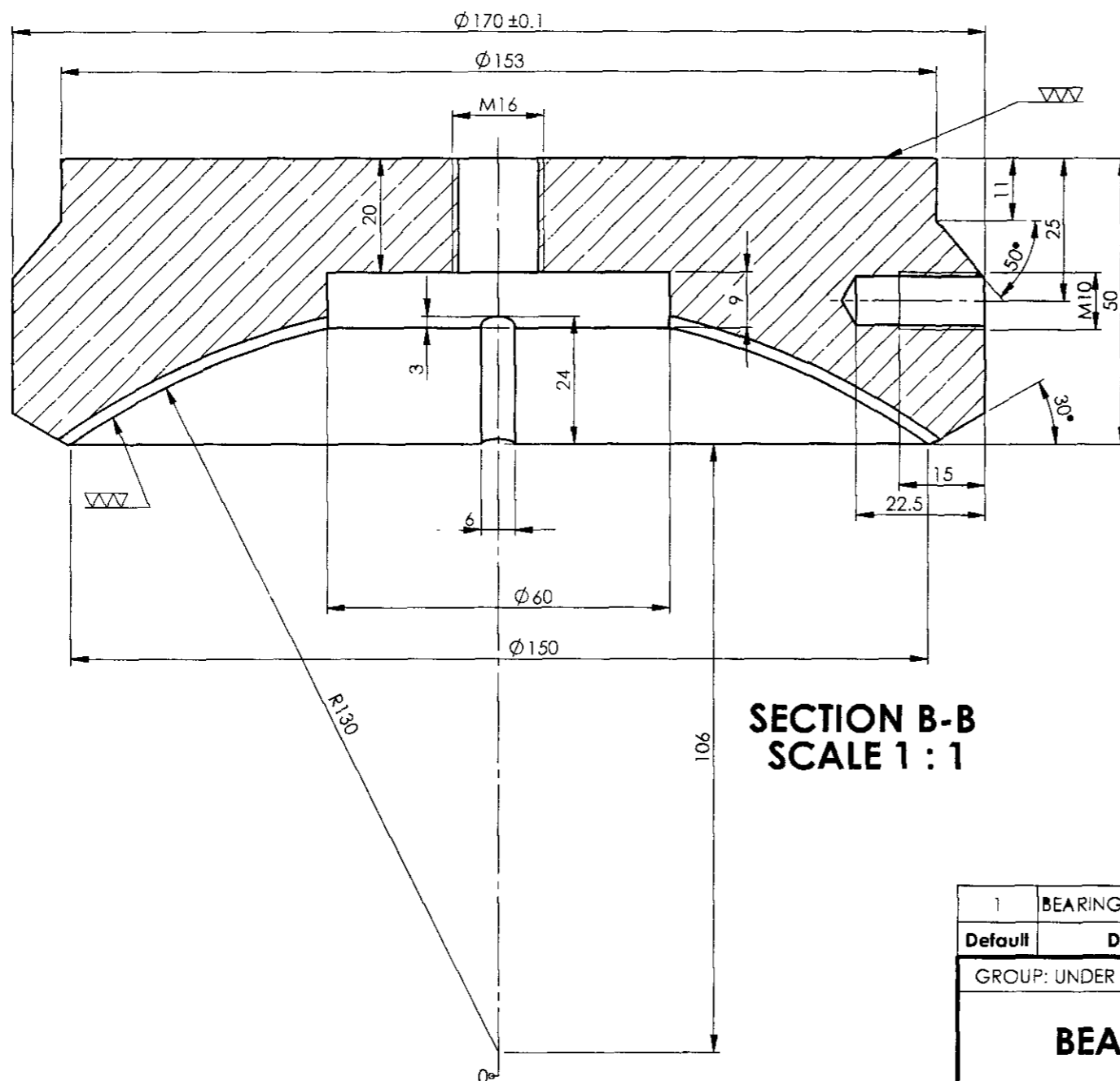
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DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME			
		24-12-2011		to. udapathy			

1		2		3		4		5		6		7		8																																																						
AAA11033				▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS																																																												
				▽▽ FINISH MACHINED		①b BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE																																																						
				▽▽▽ FINE FINISH MACHINED		①b CHAMFERED		a				MATERIAL SPEC. REVISED.																																																								
								b				WIDTH OF RIB ALTD FROM 70 mm TO 125 mm		g																																																						
<div>ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY</div> <div></div>																																																																				
<table><tr><td>1</td><td>RIB</td><td>8x125x165</td><td>1</td><td></td><td>IRS M-41-1997</td><td>0.736</td><td></td></tr><tr><td>QTY</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO.</td><td>REF. DRGS</td><td>MATL.SPEC.</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></tr><tr><td colspan="4">GROUP: 1-1 Under Frame</td><td colspan="2">SURFACE AREA IN Sq.m.:</td><td colspan="2">WT/ASSY IN Kgs:</td></tr><tr><td colspan="6" rowspan="3">RIB</td><td>SCALE 1:1</td><td>SSE/D CHD</td></tr><tr><td>ALT. b</td><td>ALTD DRN</td><td>SURESH BABU.G</td></tr><tr><td colspan="2">V.S.SR.DHARAN/CHINA SRINIVASA RAO</td></tr><tr><td colspan="4">INDIAN RAILWAY STANDARDS</td><td colspan="2">SHEET 1 OF 1</td><td colspan="2">AAA11033</td></tr><tr><td colspan="4">INTEGRAL COACH FACTORY, CHENNAI - 600038</td><td colspan="2"></td><td colspan="2">A3</td></tr></table>																1	RIB	8x125x165	1		IRS M-41-1997	0.736		QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	GROUP: 1-1 Under Frame				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:		RIB						SCALE 1:1	SSE/D CHD	ALT. b	ALTD DRN	SURESH BABU.G	V.S.SR.DHARAN/CHINA SRINIVASA RAO		INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA11033		INTEGRAL COACH FACTORY, CHENNAI - 600038						A3	
1	RIB	8x125x165	1		IRS M-41-1997	0.736																																																														
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS																																																													
GROUP: 1-1 Under Frame				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:																																																														
RIB						SCALE 1:1	SSE/D CHD																																																													
						ALT. b	ALTD DRN	SURESH BABU.G																																																												
						V.S.SR.DHARAN/CHINA SRINIVASA RAO																																																														
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA11033																																																														
INTEGRAL COACH FACTORY, CHENNAI - 600038						A3																																																														
REF.DRG.NO.		02.-03-2021		24-12-2011		AME/SME																																																														
		DATE OF LATEST ALT.		DATE OF FIRST ISSUE																																																																
1		2		3		4		5		6		7		8																																																						

AAA11034

▽ ROUGH- MACH- NED	③ ROUGH- CLEANED
▽▽ FINISH- MACH- NED	④ BURRS REMOVED
▽▽▽ - 12- 14- VAC- NED	⑧ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		MATERIAL SPEC. REVISED.	
b		GROOVE DIMENSIONS UPDATED.	<i>efm</i>

SECTION B-B  
SCALE 1 : 1

1	BEARING PIECE	Ø170x50	1		IS:2062-2011 E 250 C	6.324	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: UNDER FRAME ASSY				SURFACE AREA IN Sq.m.:0.071		WT/ASSY IN Kgs:	
BEARING PIECE FOR SIDE BEARER					SCALE 1:2	SSE/D CHD	<i>H. H.</i>
					ALT. b	ALTD DRN	SURESH BABU G
							V.S.SRIDHARAN/CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA11034	
INTEGRAL COACH FACTORY, CHENNAI - 600036						A3	

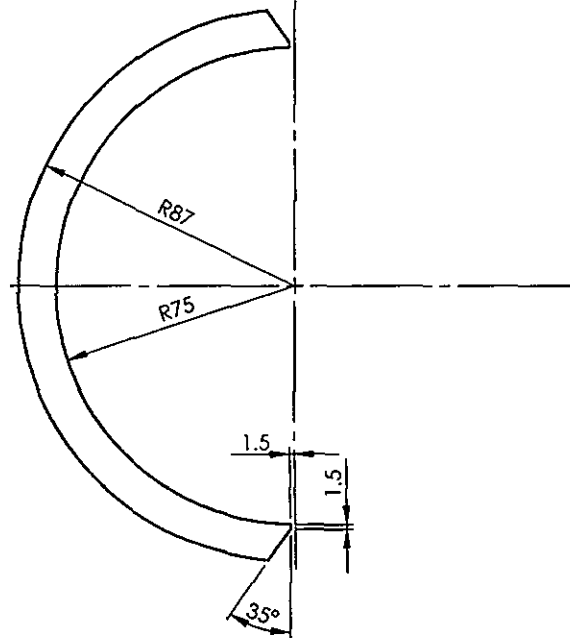
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9 0 001.  
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813:1986.  
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE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

REF.DRG.NO.08911038-ITEM-2

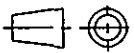
13-07-2022	24-12-2011	<i>efm</i>
DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME

A
B
C
D
E
F

279



REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

1	TUBE HALF	12x252x279	1		IS:2062-2006 E 250 C	6.445	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: UNDERFRAME		SURFACE AREA IN Sq.m.:0.149			WT/ASSY IN Kgs:6.050		
TUBE HALF FOR SIDE BEARER					SCALE	SSE/D	<i>J. Hea</i>
					1:2	CHD	
					ALT.	ALTD	
						DRN	B.SURESH
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			A3
INTEGRAL COACH FACTORY, CHENNAI - 600038							
				AAA11035			

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.

AAA11271

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

①b BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

⑱ CHAMFERED

REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &  
DATE

SL. NO.

MONTH & YEAR OF MANUFACTURE

MANUFACTURER'S INITIAL

1

15

60

90

10

5

10

5

10

5

50

3.15

NOTE.

1. NUMBER PLATE DETAILS SHALL BE STAMPED IN 10 MM HEIGH  
LETTERS

-	NAME PLATE	3.15x50x90	1		IRS M-41-1997	0.113	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: UNDERFRAME		SURFACE AREA IN Sq.m.: 0.010			WT/ASSY IN Kgs: 0.113		
NAME PLATE FOR BODY BOLSTER & BOGIE BOLSTER					SCALE 2:1	SSE/D	<i>[Signature]</i>
						CHD	<i>[Signature]</i>
					ALT.	ALTD	
					DRN	S.BALA V.SUBRAMANI.	
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038							
SHEET 1 OF 1							
AAA11271					A3		

DATE OF LATEST ISSUE	DATE OF FIRST ISSUE	DY.CME/D	SME
			<i>[Signature]</i>

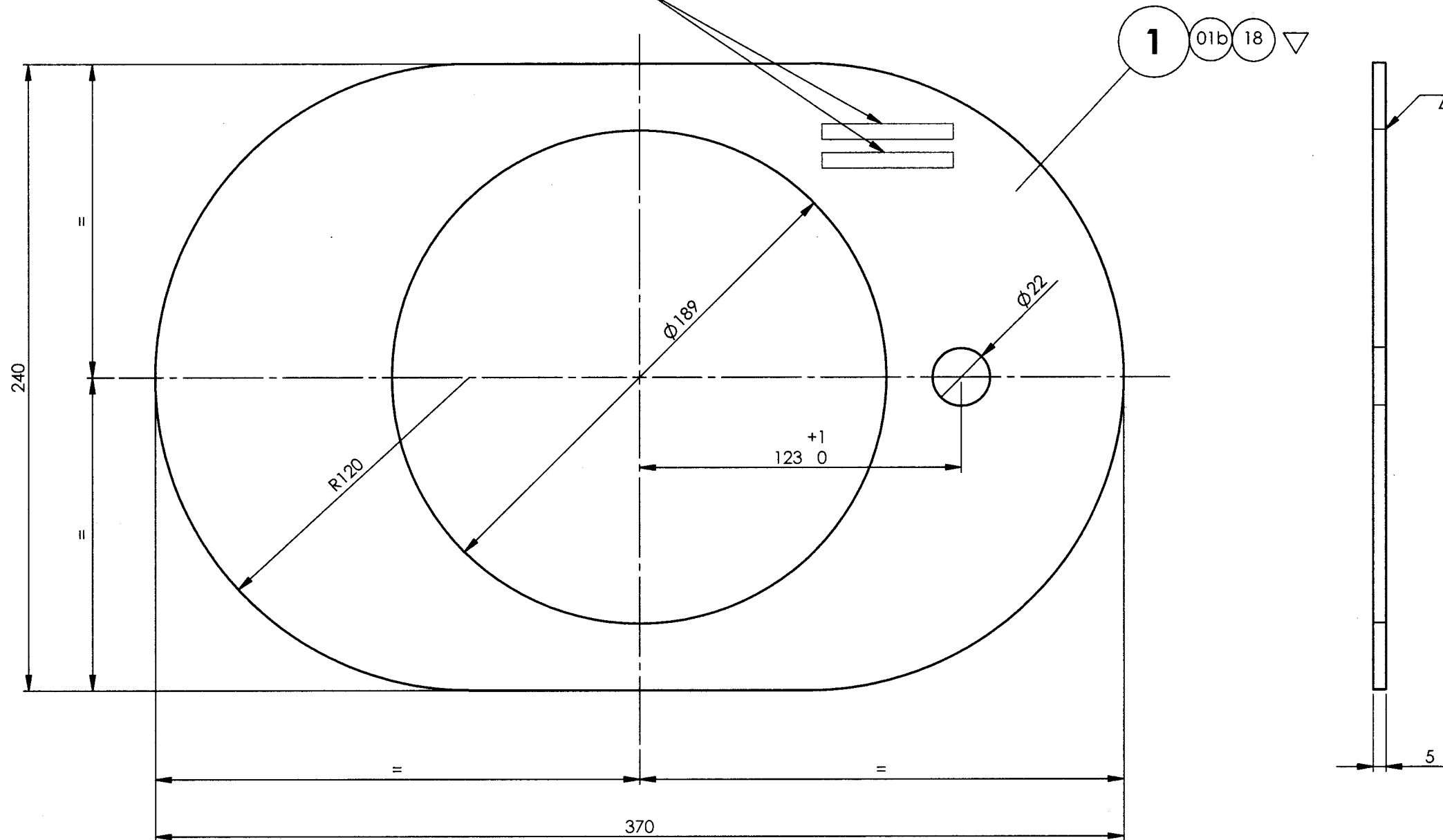
1	2	3	4	5	6	7	8	
AAA11321			▽ ROUGH MACHINED	⑩ ROUGH CLEANED	REVISIONS			
			▽▽ FINISH MACHINED	⑩b BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
			▽▽▽ FINE FINISH MACHINED	⑩8 CHAMFERED				
<div><div><div>0</div><div>50 - 1</div><div>5</div><div>Ø171</div><div>Ø192</div><div>Ø200</div><div>R5</div></div><div><div>Ø200/25x50</div><div>1</div><div>IS:1161-'98 HFS YST-210</div><div>1.227</div></div><div><div>SCALE 1:2</div><div>ALT.</div><div>SSE/D</div><div>CHD</div><div>ALTD</div><div>DRN</div><div>V.S.SRIDARAN CHINA SRINIVASA RAO</div></div><div><div>INDIAN RAILWAY STANDARDS</div><div>INTEGRAL COACH FACTORY, CHENNAI - 600038</div><div>SHEET 1 OF 1</div><div>AAA11321</div><div>A3</div></div></div> <div><div>REF.DRG.NO.</div><div>24.12.2011</div><div>AME/SME</div></div> <div><div>DATE OF LATEST ALT.</div><div>DATE OF FIRST ISSUE</div><div>AME/SME</div></div>								
1	2	3	4	5	6	7	8	

AAA11567

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

REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		
a		LOCATION & DIA OF OIL FILLING HOLE ALTD FROM 125 TO 123mm & DIA 12 TO 22mm		

MANUFACTURER'S NAME, MONTH, YEAR AND SERIAL NO IN 6mm TYPE



1	BASE PLATE	5x240x370	1		IRS M-41-1997	1.884		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: UNDER FRAME		SURFACE AREA IN Sq.m.:0.104			WT/ASSY IN Kgs:			
BASE PLATE FOR COVER					SCALE	SSE/D		
					1:2	CHD		
					ALT. a	ALTD	Shanmugavel N	
						DRN	CHINA SRINIVASA RAO	
INDIAN RAILWAY STANDARDS  INTEGRAL COACH FACTORY, CHENNAI - 600038								
						SHEET 1 OF 1		
					AAA11567		A3	

07-07-2021	24-12-2011	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

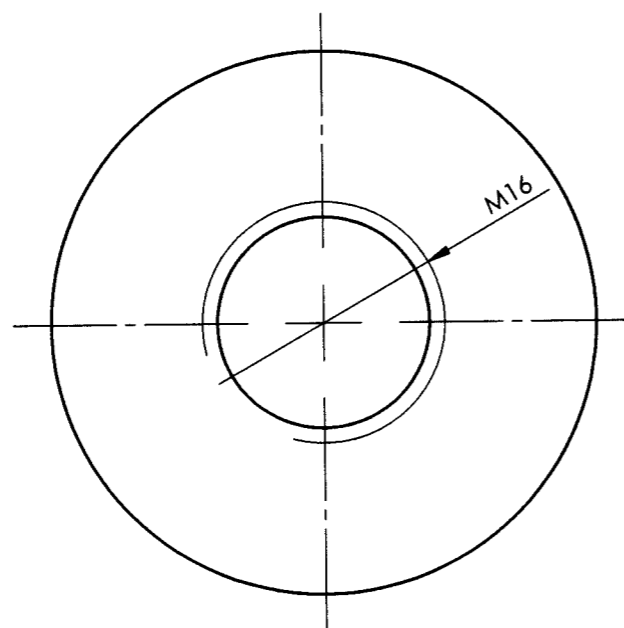
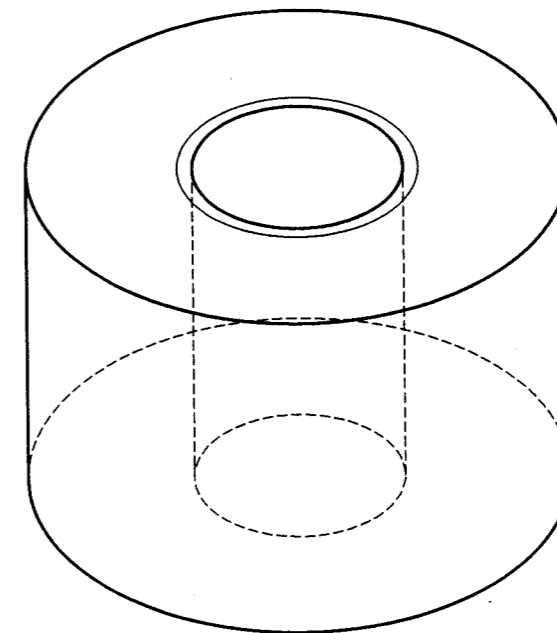
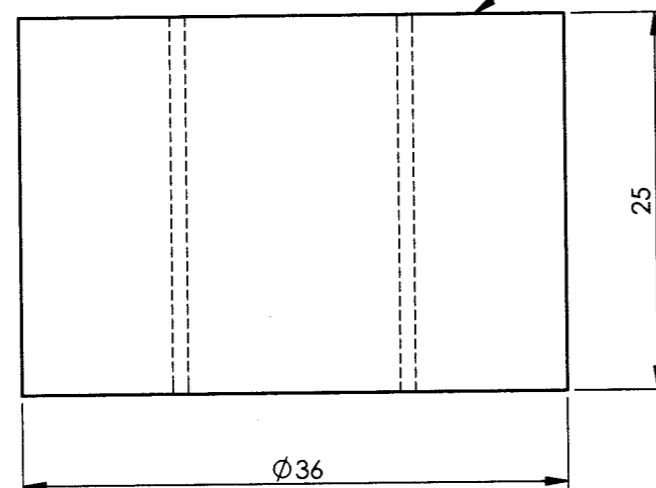
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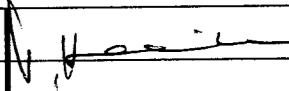
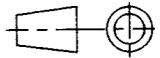
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

AAA11569

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

REVISIONS				
ALT.	ZONE	DESCRIPTION	DATE	APPROVED
a	-	OVERALL DIMENSION & TAP HOLE SIZE REVISED	07/2021	Sh



1	BOSS	Ø36X25	1		IS:2062-2006 E 250 A	0.170	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: UNDERFRAME		SURFACE AREA IN Sq.m.:0.006			WT/ASSY IN Kgs:		
BOSS FOR COVER					SCALE 2:1	SSE/D	
						CHD	
					ALT. a	ALTD	SHANMUGAVEL N
						DRN	CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS  INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA11569		A3

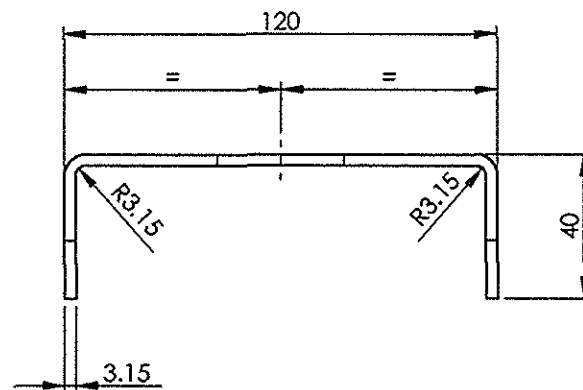
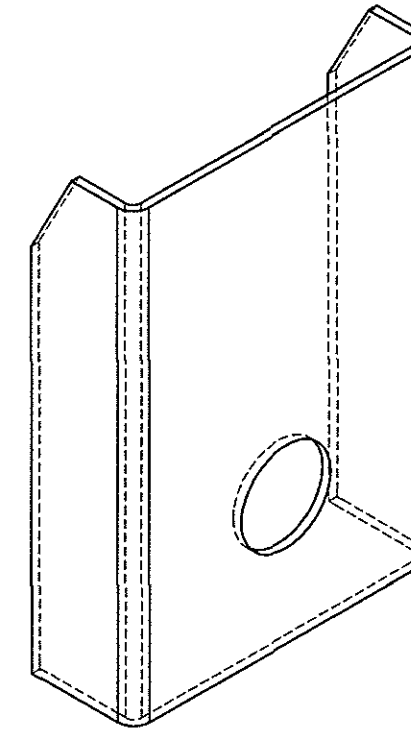
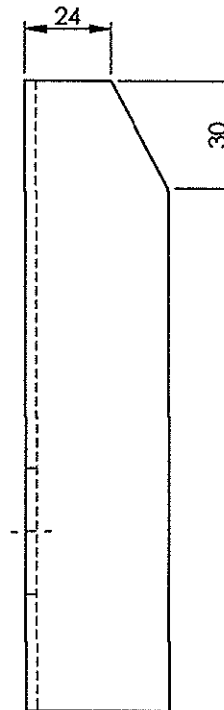
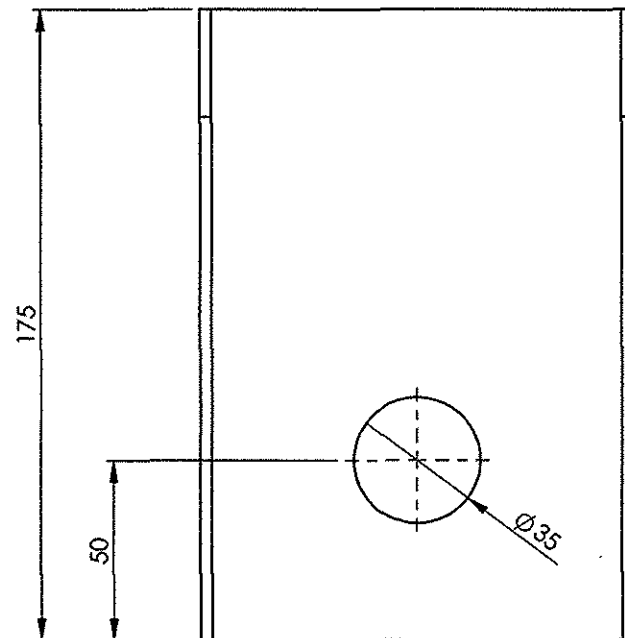
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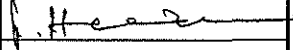
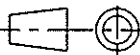
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.  
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.  
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE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

AAA11600

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

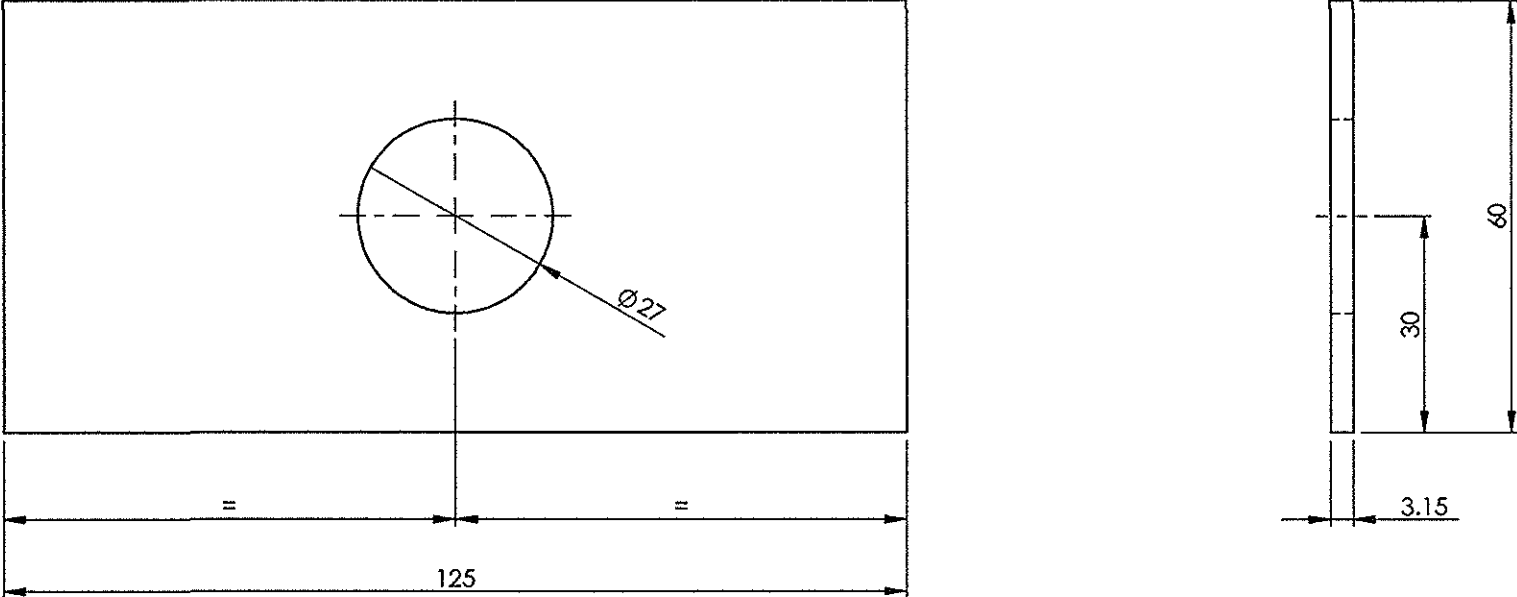
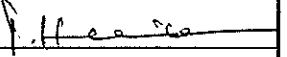
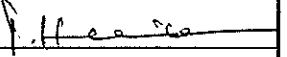
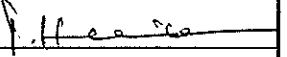
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	CHANNEL	3.15x175x187	1		IRS M-41-1997	0.785	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: UNDERFRAME		SURFACE AREA IN Sq.m.:0.066			WT/ASSY IN Kgs:0.785		
CHANNEL FOR HAND LAMP BRACKET					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	V.V.CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAA11600	
							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.08811267-ITEM-4

1		2		3		4		5		6		7		8																																																																	
AAA11601				▽ ROUGH MACHINED		⑩1 ROUGH CLEANED		REVISIONS																																																																							
				▽▽ FINISH MACHINED		⑩1b BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE																																																																	
				▽▽▽ FINE FINISH MACHINED		⑩18 CHAMFERED																																																																									
<div>ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.</div> <div></div>																																																																															
<table><tr><td>1</td><td>FLAT</td><td>3.15x60x125</td><td>1</td><td></td><td>IRS M-41-1997</td><td>0.171</td><td></td></tr><tr><td>QTY.</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO.</td><td>REF. DRGS</td><td>MATL.SPEC.</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></tr><tr><td colspan="2">GROUP: UNDERFRAME</td><td colspan="2">SURFACE AREA IN Sq.m.:0.015</td><td colspan="4">WT/ASSY IN Kgs:0.171</td></tr><tr><td colspan="5" rowspan="3">FLAT FOR HAND LAMP BRACKET</td><td>SCALE</td><td>SSE/D</td><td rowspan="3"></td></tr><tr><td>1:1</td><td>CHD</td></tr><tr><td>ALT.</td><td>ALTD</td></tr><tr><td colspan="5" rowspan="3">INDIAN RAILWAY STANDARDS</td><td>DRN</td><td colspan="2">V.V.CHINA SRINIVASA RAO</td></tr><tr><td colspan="2"></td></tr><tr><td colspan="2"></td></tr><tr><td colspan="5">INTEGRAL COACH FACTORY, CHENNAI - 600038</td><td>SHEET 1 OF 1</td><td colspan="2">AAA11601</td></tr><tr><td colspan="2">DATE OF LATEST ALT.</td><td>DATE OF FIRST ISSUE</td><td colspan="2">AME/SME</td><td colspan="3">A3</td></tr></table>																1	FLAT	3.15x60x125	1		IRS M-41-1997	0.171		QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	GROUP: UNDERFRAME		SURFACE AREA IN Sq.m.:0.015		WT/ASSY IN Kgs:0.171				FLAT FOR HAND LAMP BRACKET					SCALE	SSE/D		1:1	CHD	ALT.	ALTD	INDIAN RAILWAY STANDARDS					DRN	V.V.CHINA SRINIVASA RAO						INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA11601		DATE OF LATEST ALT.		DATE OF FIRST ISSUE	AME/SME		A3		
1	FLAT	3.15x60x125	1		IRS M-41-1997	0.171																																																																									
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS																																																																								
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					1:1	CHD																																																																									
					ALT.	ALTD																																																																									
INDIAN RAILWAY STANDARDS					DRN	V.V.CHINA SRINIVASA RAO																																																																									
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA11601																																																																									
DATE OF LATEST ALT.		DATE OF FIRST ISSUE	AME/SME		A3																																																																										
1		2		3		4		5		6		7		8																																																																	

AAA12031

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED

② BURRS REMOVED

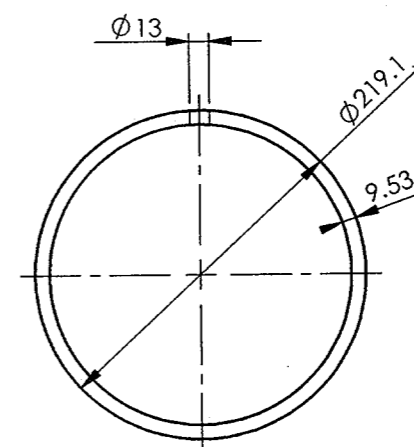
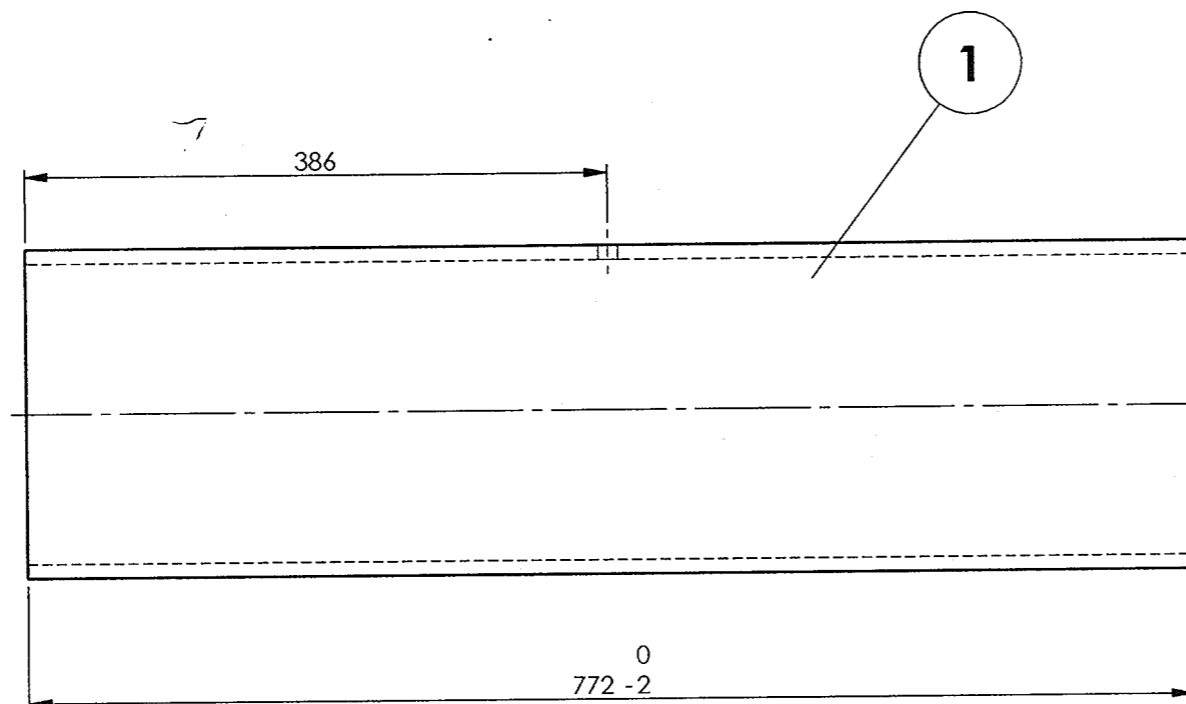
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## REVISIONS

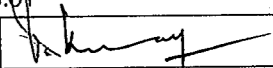
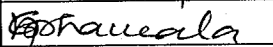
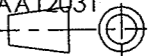
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ZONE

DESCRIPTION

APPROVED &  
DATE

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS REFER DRAWING NO ICF/STD-9-0-001.  
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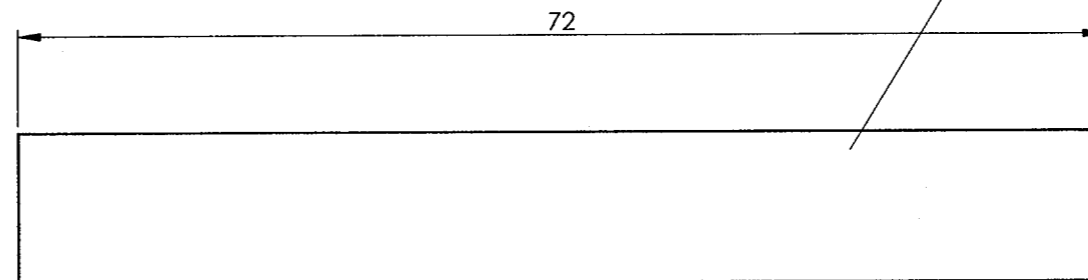
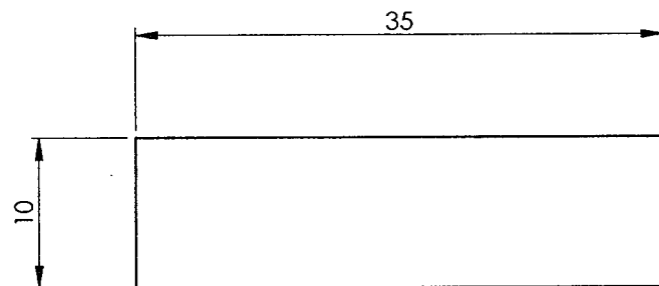
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GROUP: 1-2		SURFACE AREA IN Sq.m.: 1.03			WT/ASSY IN Kgs: 38.01		
TUBE					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
					DRN	K.Sethuraman	
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INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA12031	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A3	

AAA12032


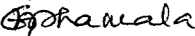

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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DATE OF LATEST ISSUE	DATE OF FIRST ISSUE	DY.CME/D	SME
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1	PLATE	10x35x72	1		IRS M-41-1997	0.20	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.: 0.01			WT/ASSY IN Kgs: 0.20		
PLATE					SCALE 2:1	SSE/D	
						CHD	
					ALT.	ALTD	
						DRN	K.Sethuraman
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
						SHEET 1 OF 1	
					AAA12032		A3

AAA12036

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

⊖ ROUGH CLEANED  
⊖⊖ BURRS REMOVED  
⊖⊖⊖ CHAMFERED

REVISIONS

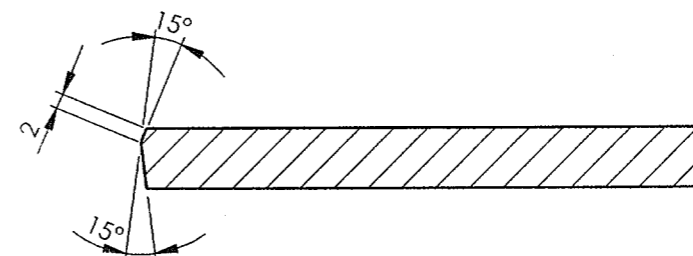
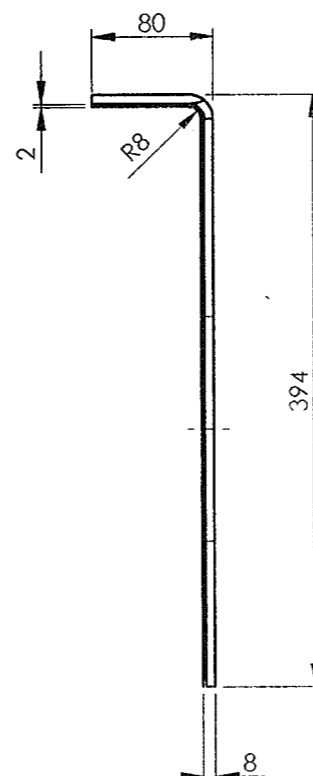
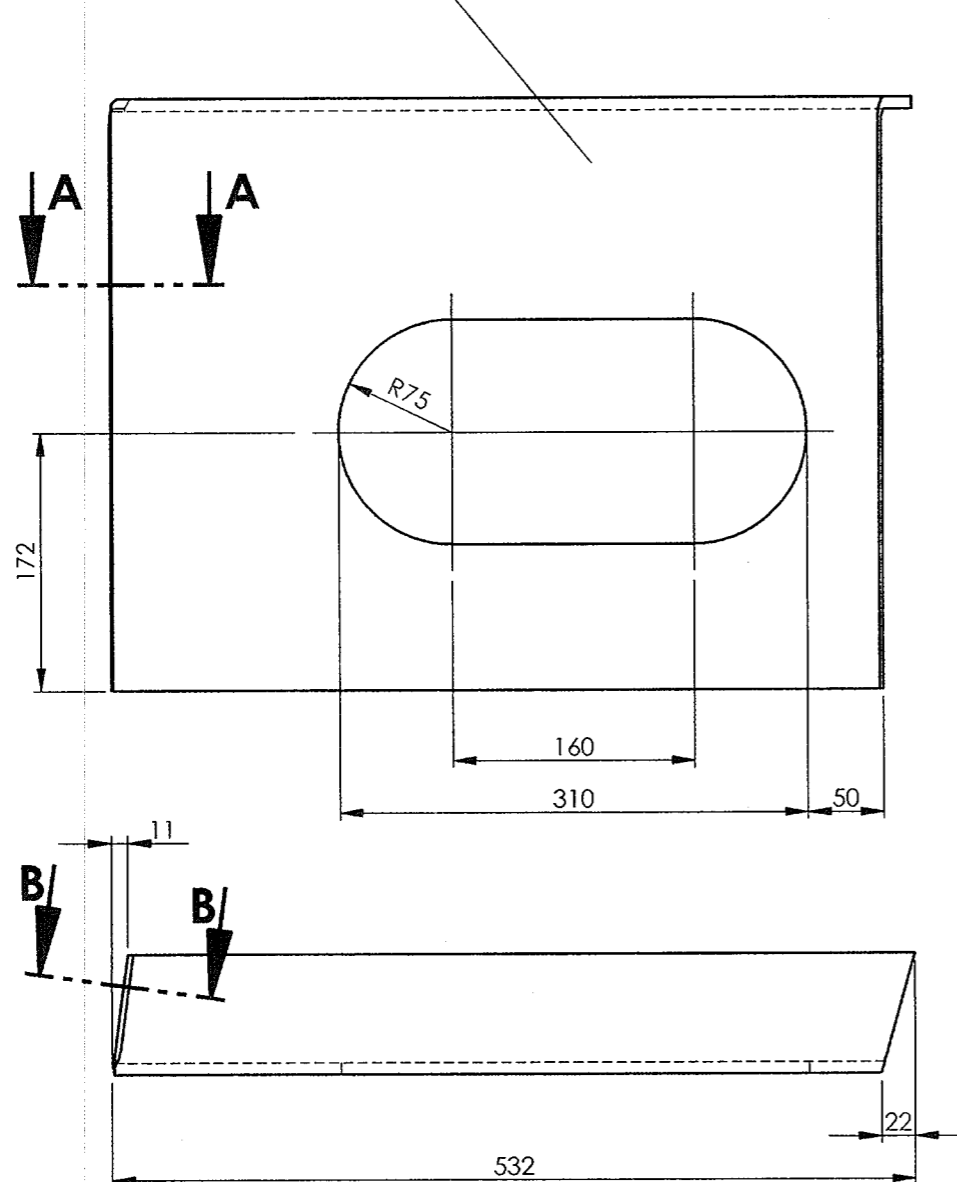
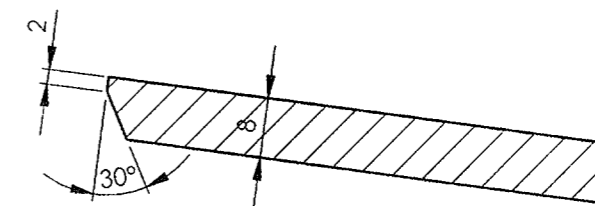
ALT.

ZONE


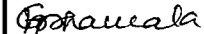
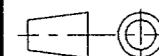
DESCRIPTION

APPROVED &  
DATE

1

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

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS REFER DRAWING NO ICF/STD-9-0-001.  
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1	BENT ANGLE R.H	8x461x532	1		IRS M-41-1997	12.151	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.: 0.409			WT/ASSY IN Kgs: 12.151		
BENT ANGLE R.H					SCALE 1:5	SSE/D	
						CHD	
					ALT.	ALTD	
						DRN	K.Sethuraman
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		AAA12036
							A3

AAA12037

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

⊖ ROUGH CLEANED  
⊖⊖ BURRS REMOVED  
⊖⊖⊖ CHAMFERED

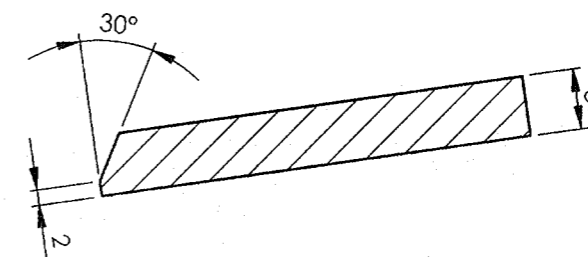
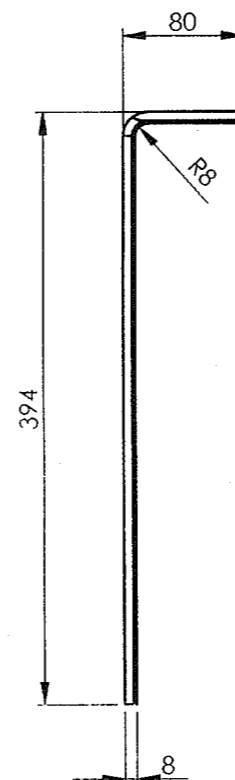
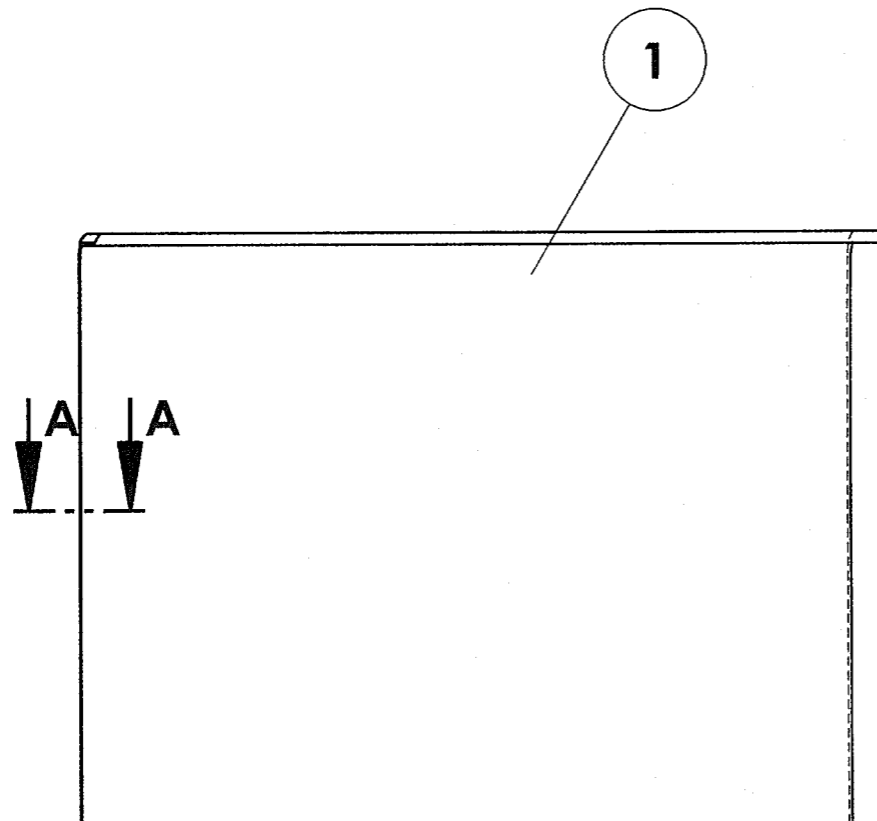
REVISIONS

ALT.

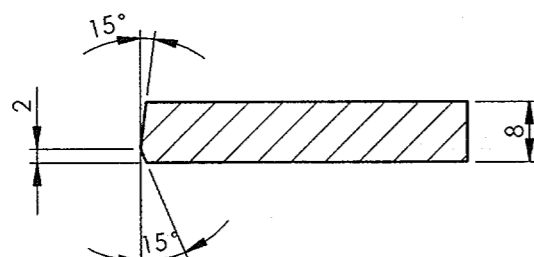
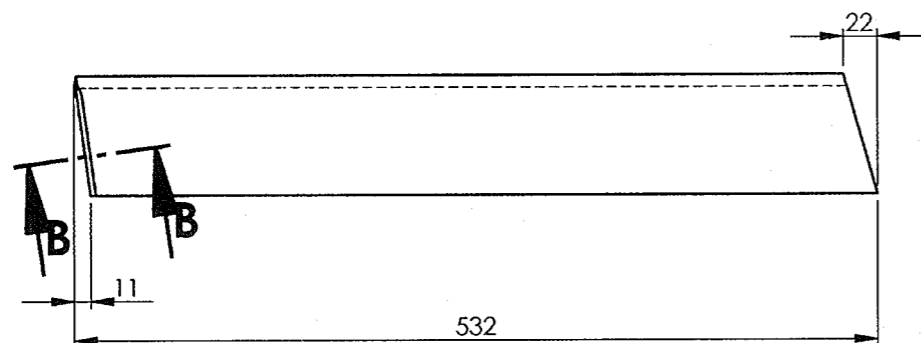
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DESCRIPTION

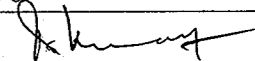
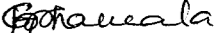
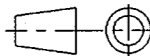
APPROVED &  
DATE



SECTION B-B  
SCALE 1 : 1



SECTION A-A  
SCALE 1 : 1

1	BENT ANGLE L.H	8x461x532	1		IRS M-41-1997	14.769	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.: 0.486			WT/ASSY IN Kgs: 14.769		
BENT ANGLE L.H					SCALE 1:5	SSE/D	
						CHD	
					ALT.	ALTD	
						DRN	K.Sethuraman
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		
					AAA12037		A3

DATE OF LATEST ISSUE	DATE OF FIRST ISSUE	DY.CME/D	SME

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AAA12040

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

② BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

③ CHAMFERED

ALT.

ZONE

REVISIONS

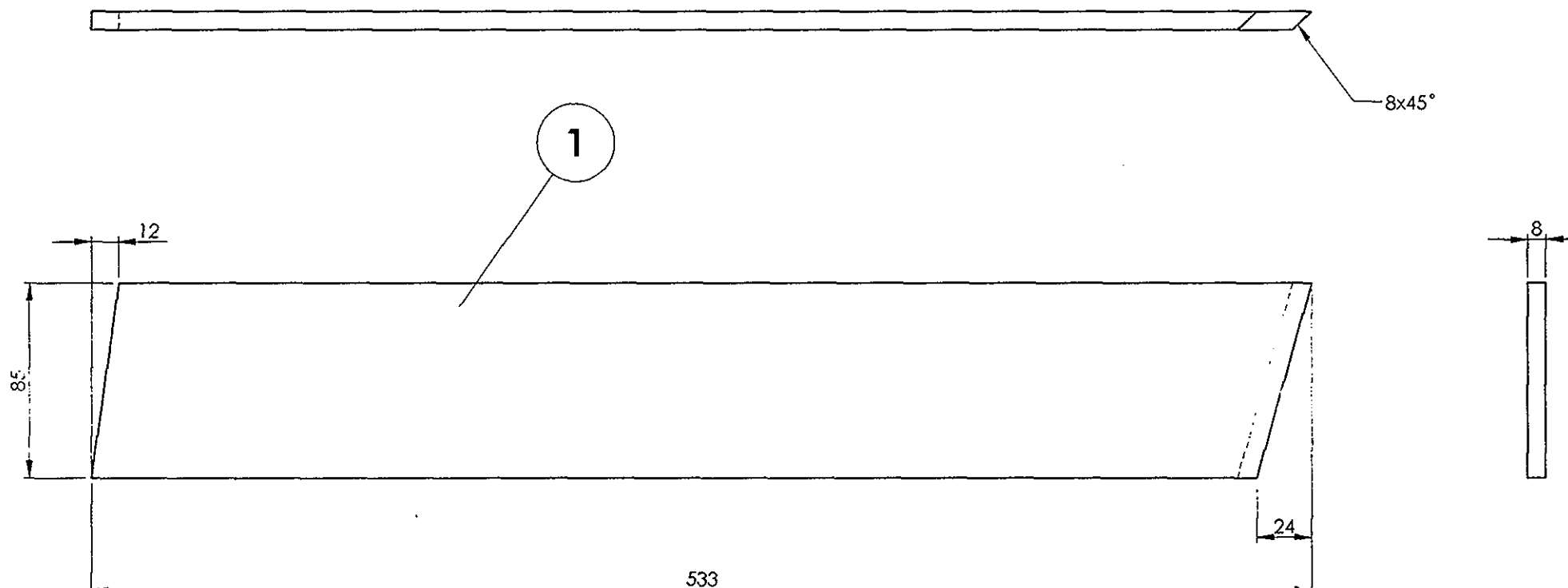
DESCRIPTION

APPROVED &  
DATE

CHAMFER ADDED.

8x45°

1



533

24

8

1	BOTTOM SHEET	8x85x533	1		IRS M-41-1997	2.727	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.: 0.097			WT/ASSY IN Kgs: 2.727		
BOTTOM SHEET					SCALE 1:2.5	SSE/D CHD	<i>K. Sethuraman</i>
					ALT. a	ALTD DRN	K.SETHURAMAN K.Sethuraman
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1	AAA12040		A3
INTEGRAL COACH FACTORY, CHENNAI - 600038							

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AAA12043

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

② BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

③ CHAMFERED

## REVISIONS

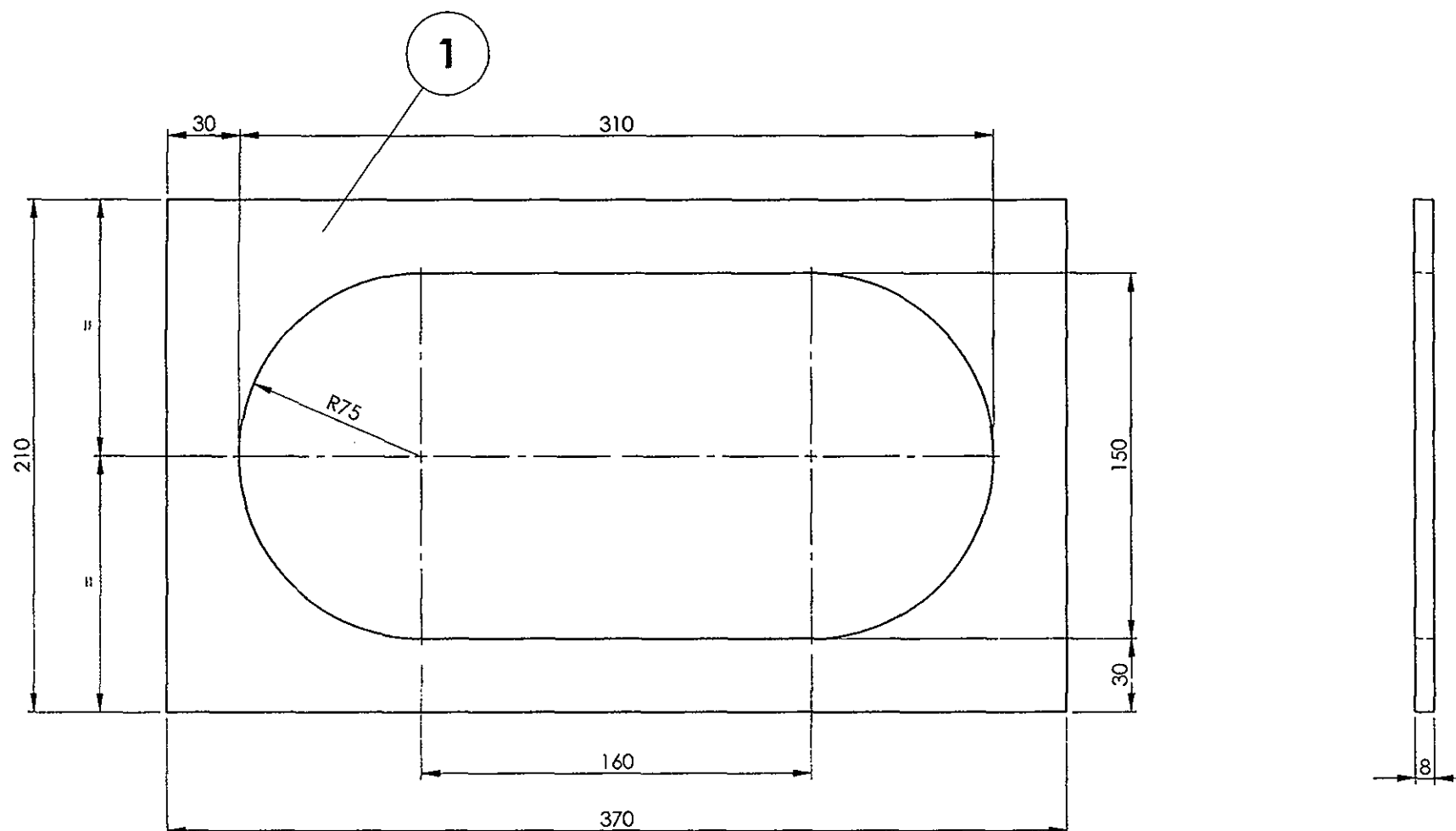
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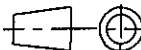
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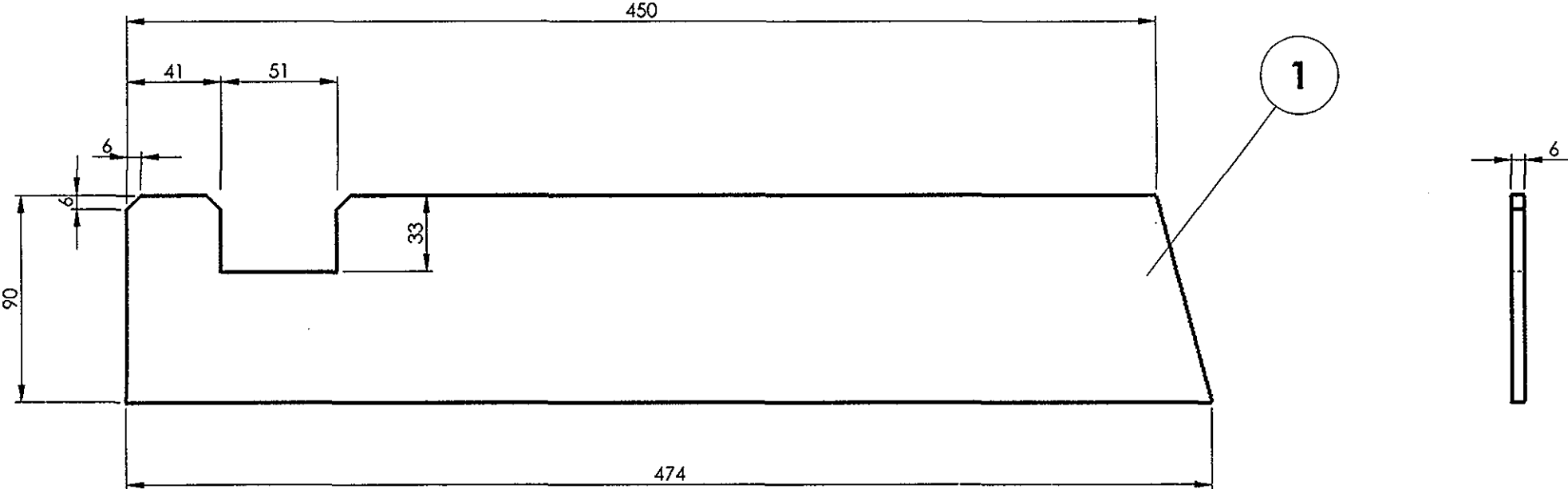
APPROVED &  
DATE

a

MAT.SPEC. ALTERED FROM IS:2062-99 Fe 410 Cu-WC  
TO IRS-M-41-1997.

1	REINFORCEMENT	8x210x370	1		IRS M-41-1997	2.263	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.: 0.088			WT/ASSY IN Kgs: 2.263		
REINFORCMENT					SCALE 1:2.5	SSE/D	<i>K. Sethuraman</i>
						CHD	
					ALT. a	ALTD	K.SETHURAMAN
						DRN	K.Sethuraman
INDIAN RAILWAY STANDARDS  INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA12043		A3

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	2	3	4	5	6	7	8		
AAA12044			▽ ROUGH MACHINED	① ROUGH CLEANED	REVISIONS				
			▽▽ FINISH MACHINED	② BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE	
			▽▽▽ FINE FINISH MACHINED	③ CHAMFERED	a		MAT.SPEC. ALTERED FROM IS:2062-99 Fe 410 Cu-WC TO IRS-M-41-1997		
A									A
B									B
C									C
D									D
E									E
F									F

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	RIB	6x90x474	1		IRS M-41-1997	1.877	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.: 0.087			WT/ASSY IN Kgs: 1.877		
RIB					SCALE 1:2.5	SSE/D CHD	
					ALT. a	ALTD DRN	K.SETHURAMAN
					K.Sethuraman		
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		AAA12044 A3
INTEGRAL COACH FACTORY, CHENNAI - 600038							
	24.12.2011						
	DATE OF LATEST ISSUE	DATE OF FIRST ISSUE	AME/SME				

1		2		3		4		5		6		7		8																																																																					
AAA12068				▽ ROUGH MACHINED		⊖ ROUGH CLEANED		REVISIONS																																																																											
				▽▽ FINISH MACHINED		⊖⊖ BURRS REMOVED		ALT.		ZONE		DESCRIPTION			APPROVED & DATE																																																																				
				▽▽▽ FINE FINISH MACHINED		⊖⊖⊖ CHAMFERED																																																																													
<div>ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS 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.</div> <div><div><div><div><div><div>1</div></div></div><div><div><div>100</div><div>70</div><div>15</div></div><div><div>20</div><div>130</div><div>170</div></div></div></div><div><div><div>8</div></div></div></div></div> <table><tr><td>1</td><td>STIFFENER</td><td>8x100x170</td><td>1</td><td></td><td>IRS M-41-1997</td><td>0.50</td><td></td></tr><tr><td>QTY</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO.</td><td>REF. DRGS</td><td>MATL.SPEC.</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></tr><tr><td colspan="4">GROUP: HEAD STOCK</td><td colspan="2">SURFACE AREA IN Sq.m.:0.02</td><td colspan="2">WT/ASSY IN Kgs:0.50</td></tr><tr><td colspan="6" rowspan="4">STIFFENER</td><td>SCALE 1:1</td><td>SSE/D</td><td rowspan="2">K. SETHURAMAN</td></tr><tr><td></td><td>CHD</td></tr><tr><td>ALT.</td><td>ALTD</td><td rowspan="2">K.Sethuraman</td></tr><tr><td></td><td>DRN</td></tr><tr><td colspan="6">INDIAN RAILWAY STANDARDS</td><td colspan="2">SHEET 1 OF 1</td><td rowspan="2">AAA12068</td><td rowspan="2">A3</td></tr><tr><td colspan="6">INTEGRAL COACH FACTORY, CHENNAI - 600038</td><td colspan="2"></td></tr><tr><td colspan="2">DATE OF LATEST ISSUE</td><td colspan="2">DATE OF FIRST ISSUE</td><td colspan="2">DY.CME/D</td><td colspan="2">SME</td><td colspan="2"></td></tr></table>																1	STIFFENER	8x100x170	1		IRS M-41-1997	0.50		QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	GROUP: HEAD STOCK				SURFACE AREA IN Sq.m.:0.02		WT/ASSY IN Kgs:0.50		STIFFENER						SCALE 1:1	SSE/D	K. SETHURAMAN		CHD	ALT.	ALTD	K.Sethuraman		DRN	INDIAN RAILWAY STANDARDS						SHEET 1 OF 1		AAA12068	A3	INTEGRAL COACH FACTORY, CHENNAI - 600038								DATE OF LATEST ISSUE		DATE OF FIRST ISSUE		DY.CME/D		SME			
1	STIFFENER	8x100x170	1		IRS M-41-1997	0.50																																																																													
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS																																																																												
GROUP: HEAD STOCK				SURFACE AREA IN Sq.m.:0.02		WT/ASSY IN Kgs:0.50																																																																													
STIFFENER						SCALE 1:1	SSE/D	K. SETHURAMAN																																																																											
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INDIAN RAILWAY STANDARDS						SHEET 1 OF 1		AAA12068	A3																																																																										
INTEGRAL COACH FACTORY, CHENNAI - 600038																																																																																			
DATE OF LATEST ISSUE		DATE OF FIRST ISSUE		DY.CME/D		SME																																																																													
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AAA12161

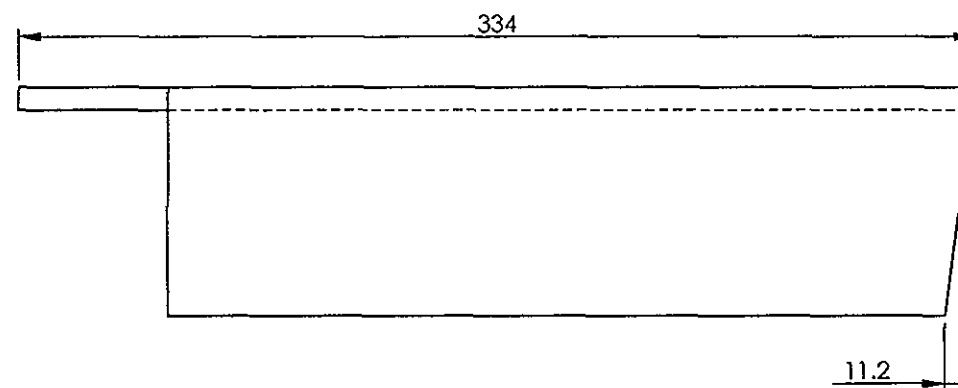
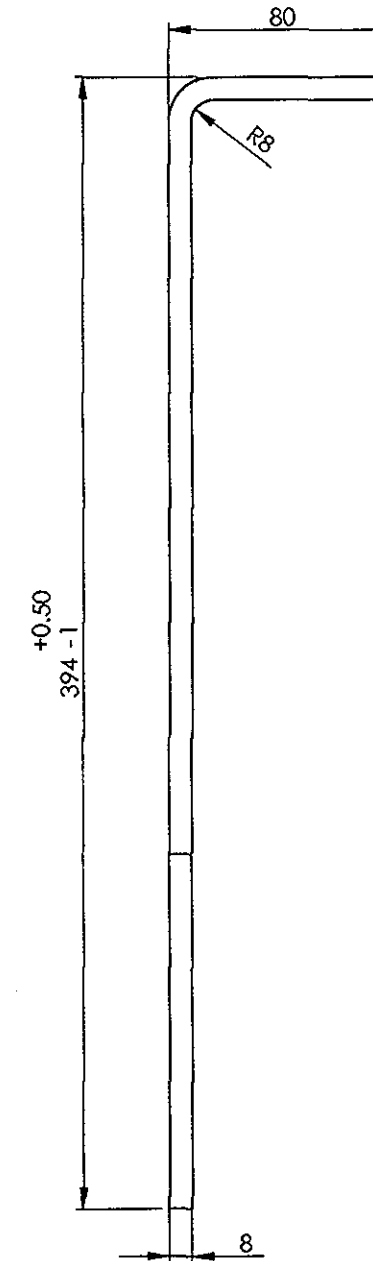
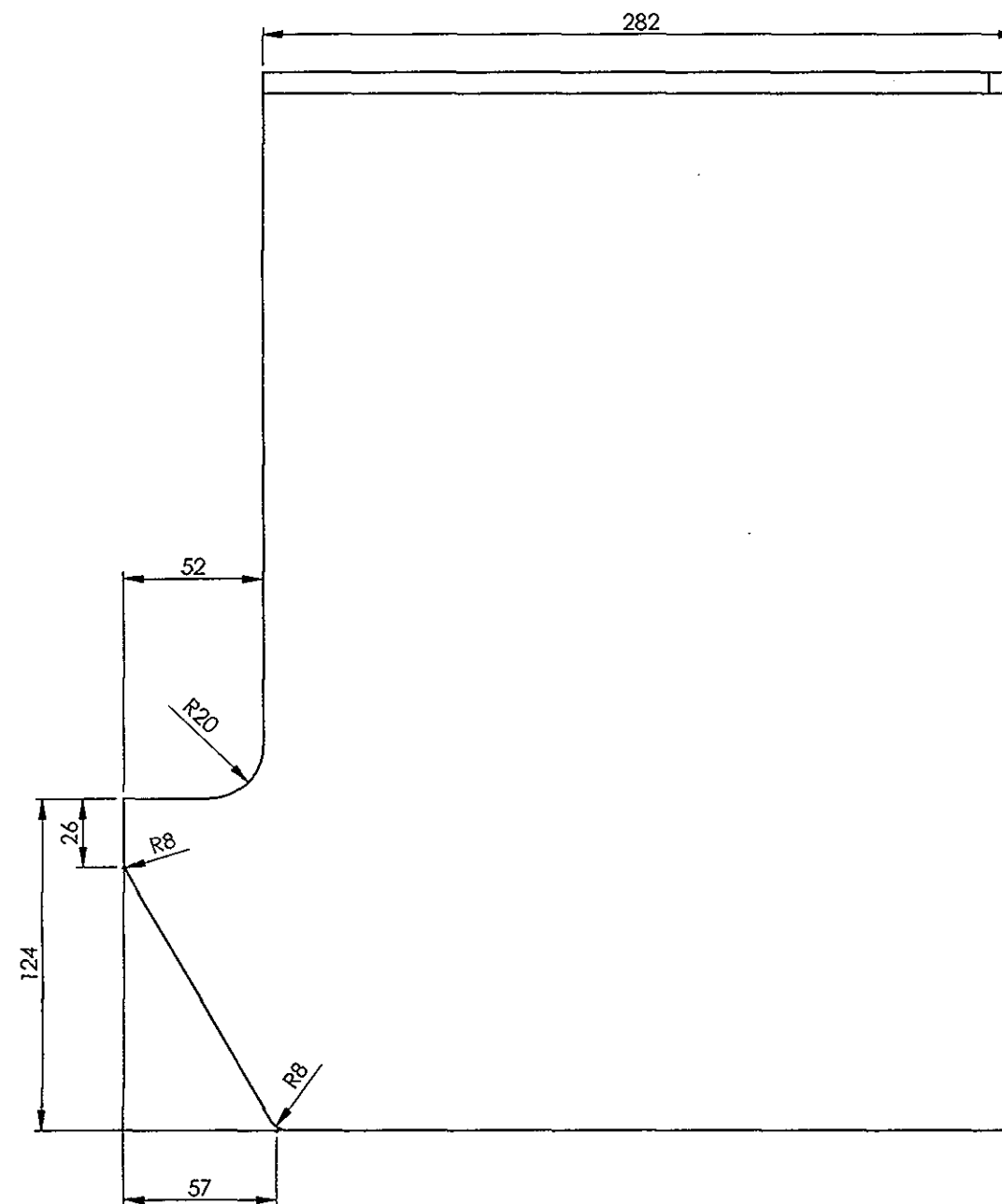
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①c CHAMFERED

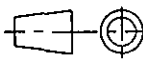
## REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &  
DATE

1	BENT ANGLE	8x334x461	1		IRS M-41-1997	8.355	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.278			WT/ASSY IN Kgs:8.355		
BENT ANGLE					SCALE	SSE/D	J. Heave
					1:2.5	CHD	
					ALT.	ALTD	
						DRN	V.V.CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA12161		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.15612202-ITEM-3

DATE OF LATEST ALT.	24.12.2011	AME/SME
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AAA12162

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

## REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &  
DATE

282

80

8

R8

+0.50  
394 - 1

52

R20

R8

26

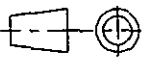
124

R8

57

334

11.2

1	BENT ANGLE	8x334x461	1		IRS M-41-1997	8.355	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.278			WT/ASSY IN Kgs:8.355		
BENT ANGLE					SCALE	SSE/D	V.V.CHINA SRINIVASA RAO
					1:2.5	CHD	
					ALT.	ALTD	
						DRN	
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA12162	
							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.15612202-ITEM-4

24.12.2011

AME/SME

AAA12163

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

② BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

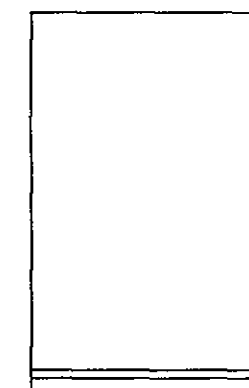
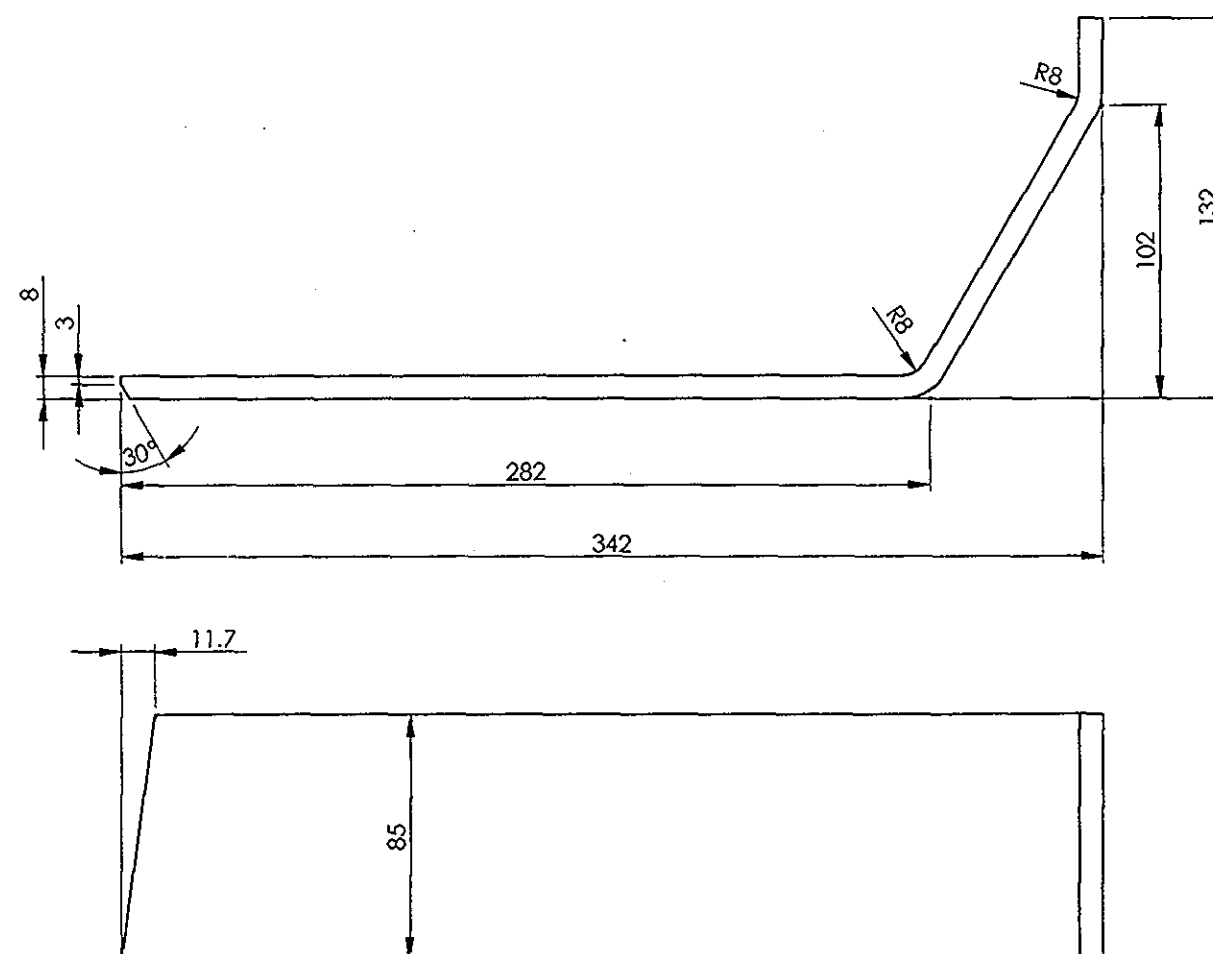
③ CHAMFERED


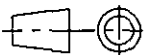
REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &  
DATE

1	BOTTOM SHEET	8x85x428	1		IRS M-41-1997	2.217		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.079			WT/ASSY IN Kgs:2.217			
BOTTOM SHEET					SCALE	SSE/D		
					1:2.5	CHD		
					ALT.	ALTD		
						DRN		
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								V.V.CHINA SRINIVASA RAO F
					SHEET 1 OF 1			
					AAA12163		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.15612202-ITEM-6

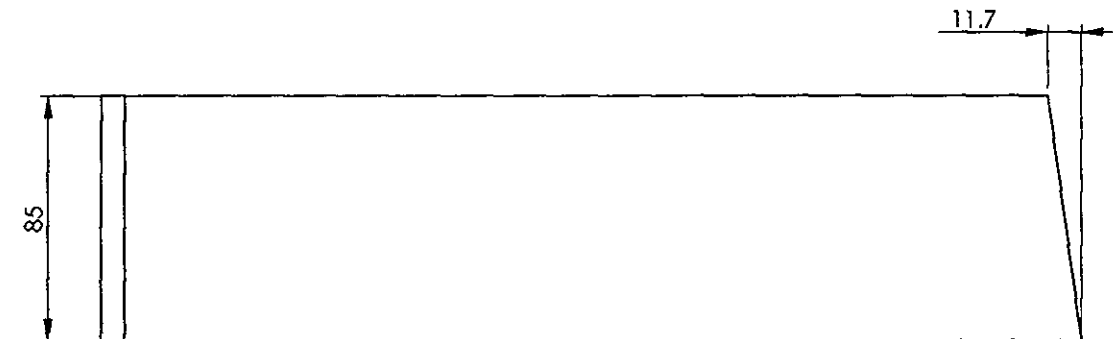
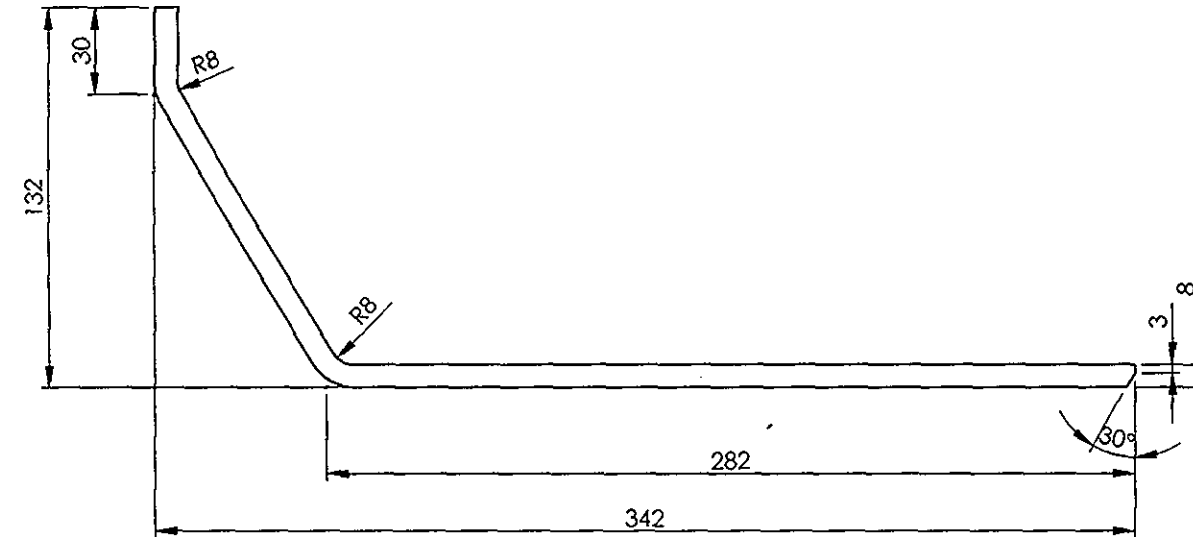
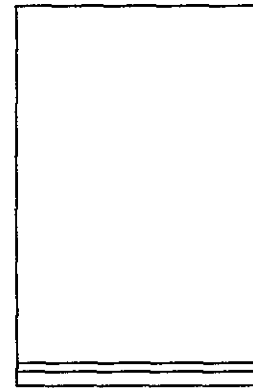
	24.12.2011	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA12164

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

## REVISIONS


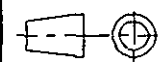
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.  
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.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

REF.DRG.NO.15612202-ITEM-7

DATE OF LATEST ALT.	24.12.2011	AME/SME
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1	BOTTOM SHEET	8x85x428	1		IRS M-41-1997	2.217		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.079			WT/ASSY IN Kgs:2.217			
BOTTOM SHEET					SCALE	SSE/D		
					1:2.5	CHD		
					ALT.	ALTD		
						DRN		V.V.CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS								
INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		AAA12164		A3

1		2		3		4		5		6		7		8	
AAA12165						▽ ROUGH MACHINED		⊖ ROUGH CLEANED		REVISIONS					
						▽▽ FINISH MACHINED		⊖⊖ BURRS REMOVED		ALT.		ZONE		DESCRIPTION	
						▽▽▽ FINE FINISH MACHINED		⊖⊖⊖ CHAMFERED		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.

1	RIB	6x90x289	1		IRS M-41-1997	1.143	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.:0.053		WT/ASSY IN Kgs: 1.143			
RIB					SCALE 1:1	SSE/D	V.V.CHINA SRINIVASA RAO
					CHD		
					ALT.	ALTD	
					DRN		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA12165	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A3	
DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME			
24.12.2017		24.12.2017		V.V.China			

REF.DRG.NO.14012003-ITEM-15		DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME	
		24.12.2017		24.12.2017		V.V.China	

▽ ROUGH MACHINED	⑧ ROUGH CLEANED
▽▽ FINISH MACHINED	⑧⑩ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑧ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

1	RIB	6x90x289	1		IRS M-41-1997	1.143	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEAD STOCK		SURFACE AREA IN Sq.m.:0.053			WT/ASSY IN Kgs:1.143		
RIB					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	
						DRN	V.V.CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAA12165	
							A3

1	2	3	4	5	6	7	8	
AAA12166			▽ ROUGH MACHINED	① ROUGH CLEANED	REVISIONS			
			▽▽ FINISH MACHINED	② BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
			▽▽▽ FINE FINISH MACHINED	③ CHAMFERED	a		LENGTH ALTD FROM 2749 TO 2748.	

1	CENTRE PLATE	12x386x2748	1		IS:2062-2006 E 250 C	98.996	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:2.186		WT/ASSY IN Kgs:			
CENTRE PLATE				SCALE 1:10	SSE/D CHD		
				ALT. a	ALTD DRN	A.V.V.Srinivas V.V.CHINA SRINIVASA RA	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA12166 A3	
INTEGRAL COACH FACTORY, CHENNAI - 600038							

-04-2016	24-12-2011	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.52912003-ITEM-04

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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AAA12167			▽ ROUGH MACHINED	① ROUGH CLEANED	REVISIONS																																																																						
			▽▽ FINISH MACHINED	② BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE																																																																			
			▽▽▽ FINE FINISH MACHINED	③ CHAMFERED																																																																							
<div>ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.</div> <div><div>1</div><div>135 -2</div><div>386 -2</div><div>12 X 45°</div><div>10</div></div>																																																																											
<table><tr><td>1</td><td>WEB</td><td>10x135x386</td><td>1</td><td></td><td>IRS M-41-1997</td><td>4.068</td><td></td></tr><tr><td>QTY.</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO.</td><td>REF. DRGS</td><td>MATL.SPEC.</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></tr><tr><td colspan="2">GROUP: HEADSTOCK</td><td colspan="2">SURFACE AREA IN Sq.m.:0.114</td><td colspan="4">WT/ASSY IN Kgs:4.068</td></tr><tr><td colspan="5" rowspan="4">WEB</td><td>SCALE</td><td>SSE/D</td><td rowspan="2">V.V.CHINA SRINIVASA RAO</td></tr><tr><td>1:2</td><td>CHD</td></tr><tr><td>ALT.</td><td>ALTD</td><td></td></tr><tr><td></td><td>DRN</td><td></td></tr><tr><td colspan="4">INDIAN RAILWAY STANDARDS</td><td colspan="2">SHEET 1 OF 1</td><td colspan="2">AAA12167</td><td>A3</td></tr><tr><td colspan="4">INTEGRAL COACH FACTORY, CHENNAI - 600038</td><td colspan="2"></td><td colspan="2"></td><td></td></tr><tr><td colspan="2">DATE OF LATEST ALT.</td><td>DATE OF FIRST ISSUE</td><td colspan="2">AME/SME</td><td colspan="4"></td></tr></table>									1	WEB	10x135x386	1		IRS M-41-1997	4.068		QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.114		WT/ASSY IN Kgs:4.068				WEB					SCALE	SSE/D	V.V.CHINA SRINIVASA RAO	1:2	CHD	ALT.	ALTD			DRN		INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA12167		A3	INTEGRAL COACH FACTORY, CHENNAI - 600038									DATE OF LATEST ALT.		DATE OF FIRST ISSUE	AME/SME					
1	WEB	10x135x386	1		IRS M-41-1997	4.068																																																																					
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS																																																																				
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.114		WT/ASSY IN Kgs:4.068																																																																							
WEB					SCALE	SSE/D	V.V.CHINA SRINIVASA RAO																																																																				
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						DRN																																																																					
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA12167		A3																																																																			
INTEGRAL COACH FACTORY, CHENNAI - 600038																																																																											
DATE OF LATEST ALT.		DATE OF FIRST ISSUE	AME/SME																																																																								
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AAA12170				▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS																																																																																										
				▽▽ FINISH MACHINED		①b BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE																																																																																				
				▽▽▽ FINE FINISH MACHINED		①8 CHAMFERED		a				MATERIAL REVISED TO IRS M 41-1997.		[Signature]																																																																																				
<div><div><div>0 384 -1</div><div>10 x 45°</div><div>10 X 45°</div></div><div><div>6</div><div>R98</div><div>10</div></div></div>																																																																																																		
<table><tr><td>1</td><td>CENTRE STIFFENER HALF</td><td>10x312x384</td><td>1</td><td></td><td>IRS M-41-1997</td><td>9.120</td><td></td></tr><tr><td>QTY.</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO.</td><td>REF. DRGS</td><td>MATL.SPEC.</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></tr><tr><td colspan="4">GROUP: HEADSTOCK</td><td colspan="2">SURFACE AREA IN Sq.m.:0.248</td><td colspan="2">WT/ASSY IN Kgs:</td></tr><tr><td colspan="6" rowspan="2">CENTRE STIFFENER HALF</td><td>SCALE</td><td>SSE/D</td><td>[Signature]</td></tr><tr><td>1:2</td><td>CHD</td><td></td></tr><tr><td colspan="6" rowspan="2"></td><td>ALT. a</td><td>ALTD</td><td>A.V.V.Srinivas</td></tr><tr><td></td><td>DRN</td><td>V.V.CHINA SRINIVASA RA</td></tr><tr><td colspan="6">INDIAN RAILWAY STANDARDS</td><td colspan="2">SHEET 1 OF 1</td><td></td></tr><tr><td colspan="6">INTEGRAL COACH FACTORY, CHENNAI - 600038</td><td colspan="2">AAA12170</td><td>A3</td></tr><tr><td colspan="2">-04-2016</td><td colspan="2">24-12-2011</td><td colspan="2">[Signature]</td><td colspan="2"></td><td></td></tr><tr><td colspan="2">DATE OF LATEST ALT.</td><td colspan="2">DATE OF FIRST ISSUE</td><td colspan="2">AME/SME</td><td colspan="2"></td><td></td></tr></table>															1	CENTRE STIFFENER HALF	10x312x384	1		IRS M-41-1997	9.120		QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	GROUP: HEADSTOCK				SURFACE AREA IN Sq.m.:0.248		WT/ASSY IN Kgs:		CENTRE STIFFENER HALF						SCALE	SSE/D	[Signature]	1:2	CHD								ALT. a	ALTD	A.V.V.Srinivas		DRN	V.V.CHINA SRINIVASA RA	INDIAN RAILWAY STANDARDS						SHEET 1 OF 1			INTEGRAL COACH FACTORY, CHENNAI - 600038						AAA12170		A3	-04-2016		24-12-2011		[Signature]					DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME				
1	CENTRE STIFFENER HALF	10x312x384	1		IRS M-41-1997	9.120																																																																																												
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS																																																																																											
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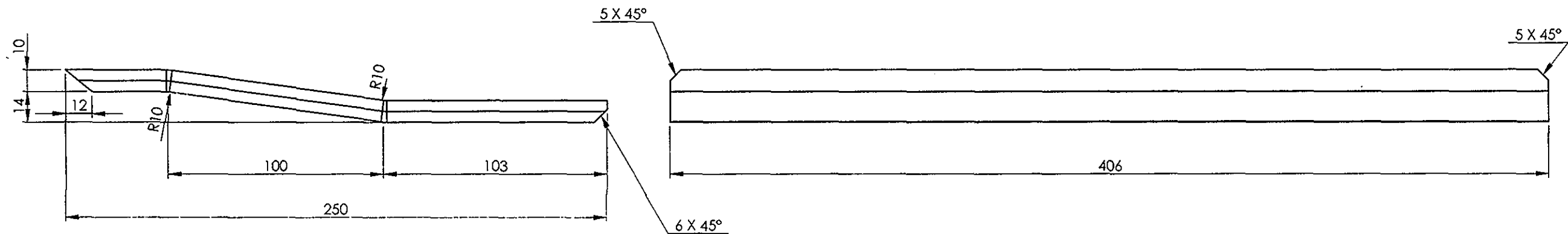
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICE/STD-9-0-001.  
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.  
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

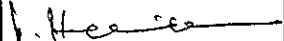
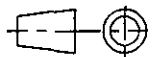
REF.DRG.NO.00012511-ITEM-1

AAA12171

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

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



1	COVER PLATE	10x251x406	1		IRS M-41-1997	7.701	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.214			WT/ASSY IN Kgs:7.888		
BOTTOM END COVER PLATE					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	V.V.CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	AAA12171		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.

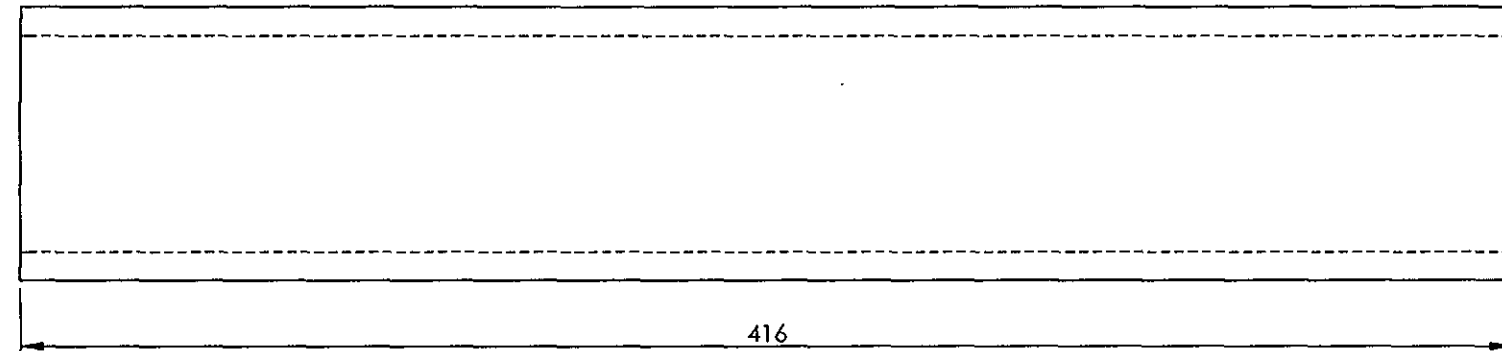
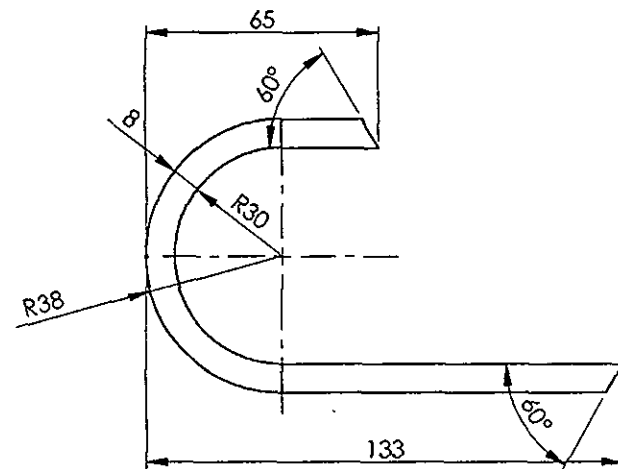
REF.DRG.NO.45812012-ITEM-06

	24.12.2011	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA12172

▽ ROUGH MACHINED	① ROUGH CLEANED
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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.

REF.DRG.NO.15612202-ITEM-28/52911005-ITEM-3

	24.12.2011	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	TUBE HALF	8x229x416	1		IRS M-41-1997	5.857	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.:0.198			WT/ASSY IN Kgs:5.857		
TUBE HALF					SCALE	SSE/D	<i>[Signature]</i>
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						DRN	V.V.CHINA SRINIVASA RAO
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
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AAA12173

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① ROUGH CLEANED

② BURRS REMOVED

③ CHAMFERED

REVISIONS

ALT. ZONE DESCRIPTION APPROVED & DATE

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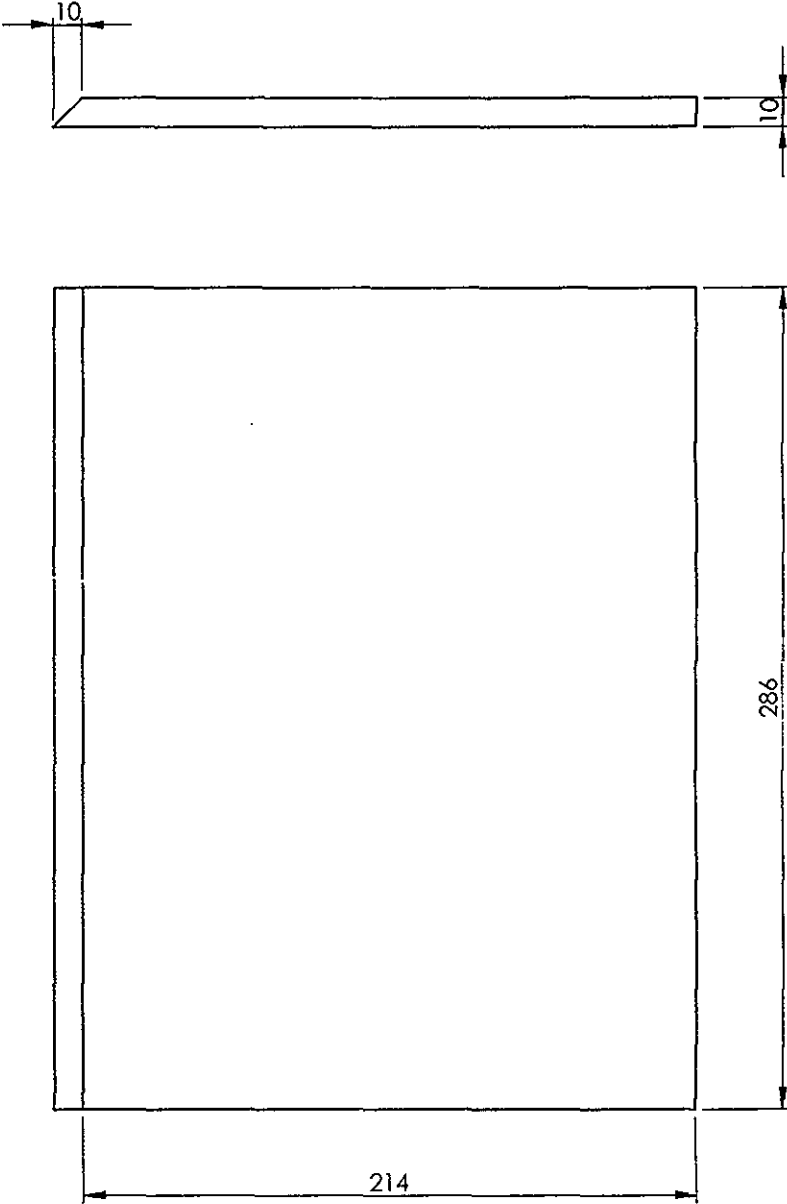
1	COVER PLATE	10x286x2300	1	IRS M-41-1997	51.637	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.: 1.367		WT/ASSY IN Kgs: 51.637		
COVER PLATE				SCALE 1:5	SSE/D CHD	
				ALT.	ALTD	
				DRN	V.V.CHINA SRINIVASA RAO	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038				AAA12173		
				A3		

REF.DRG.NO.15612202-ITEM-32

DATE OF LATEST ALT. 24.12.2011

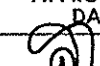
DATE OF FIRST ISSUE

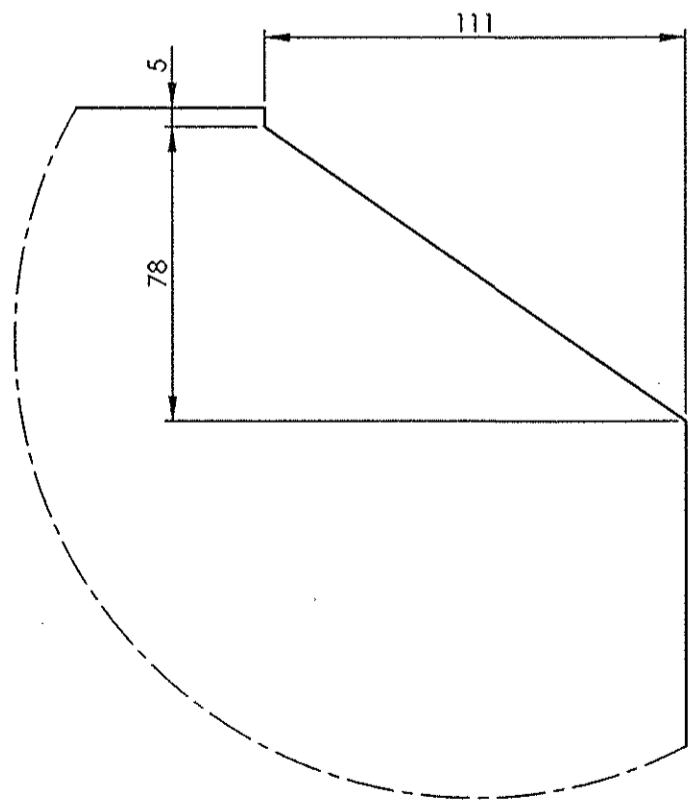
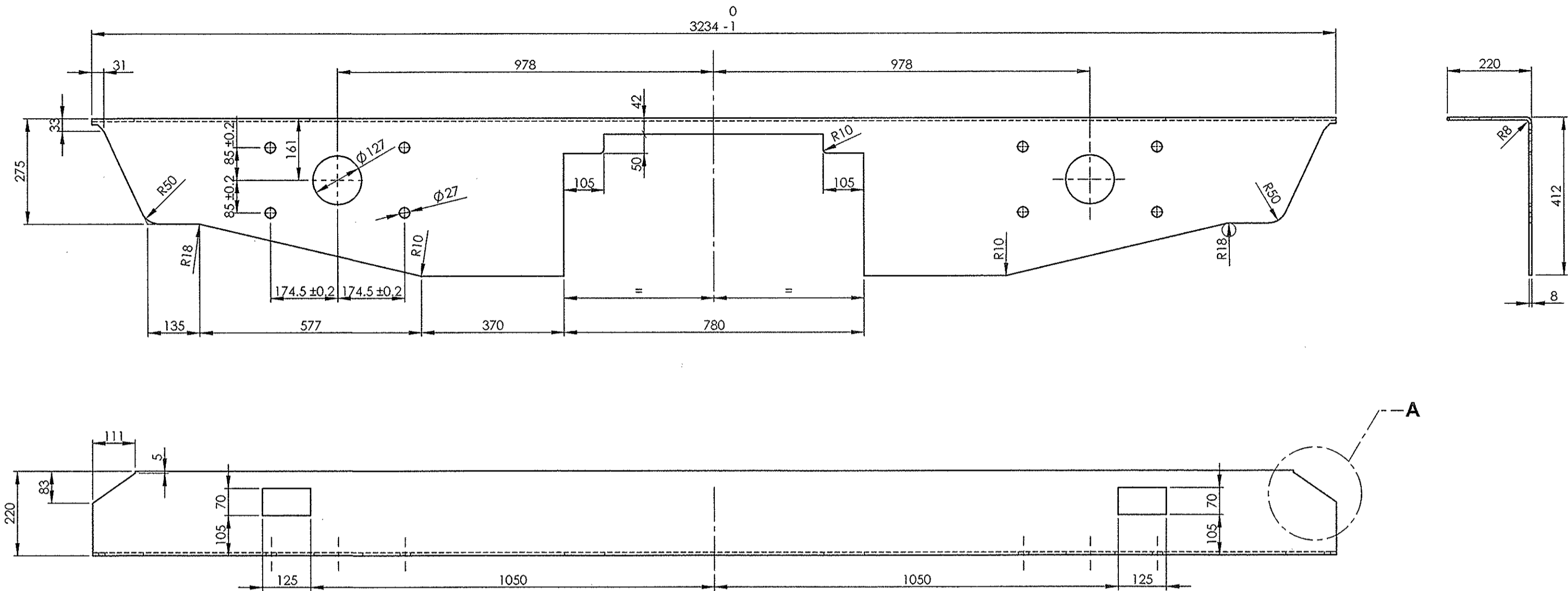
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			▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE	
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C									C
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E									E
F									F
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO IC7/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.									
REF.DRG.NO.45812012-ITEM-02									
		24.12.2011	S. S. Srinivas Rao						
DATE OF LATEST ALT.		DATE OF FIRST ISSUE	AME/SME						
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		AAA12174 A3		
INTEGRAL COACH FACTORY, CHENNAI - 600038									
GROUP: HEADSTOCK SURFACE AREA IN Sq.m.:0.138 WT/ASSY IN Kgs: 5.029									
COVER PLATE					SCALE 1:2.5		SSE/D CHD		
					ALT. ALTD		V.V.CHINA SRINIVASA RAO		
					DRN				
					⊖				
1 COVER PLATE 10x224x286 1 REF. DRGS IRS M-41-1997 4.917									
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS		

AAA12267

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

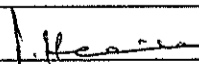
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		CUTAWAY FOR DOORWAY AND DETAIL-A ADDED.	

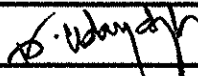


DETAIL A  
SCALE 1 : 2

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

REF.DRG.NO.53112004 - ITEM-1

1	OUTER HEADSTOCK	8x619x3234	1		IRS M-41-1997	92.111	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: HEADSTOCK		SURFACE AREA IN Sq.m.: 3.015			WT/ASSY IN Kgs:		
OUTER HEADSTOCK					SCALE 1:10	SSE/D	
						CHD	
					ALT a	ALTD	A.V.V.Srinivas
						DRN	A.V.V.Srinivas
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
AAA12267		A2					

12-2017	29-04-2016	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME