

4/1

RAIL COACH FACTORY, KAPURTHALA
(Coach Alteration Instruction)

CAI/RCF/MECH/R-SS/004

MD46251

Date: 06.05.06

1. **Description:** Cover for drain cock of under slung water tanks (685 lts and 450 ltrs) for RCF Stainless Steel coaches (Rajdhani Rake)
2. **Drawing No:**

S. No.	Description	Drawing No. & alt
1	Drain Cock Cover	CC63135 alt. 'd'
2	Fresh Water Tank 450 liter	LP63100 alt 'b'
3	Bracket for drain cock of water tank	LW63195 alt. 'nil'
4	Sheet casing complete	CC63973, alt 'b'
5	Sheet casing complete	LP63105 alt 'b'
6	Bracket	CC63998 alt 'nil'

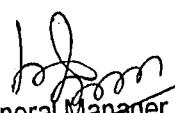
3. **Reason for alteration:** To prevent damage of drain cock by flying blasts.
4. **Coach type:** RCF Stainless Steel coaches.
5. **To be carried out:** During IOH/POH or unscheduled repair in sick line.
6. **Special Instructions:**

a. **For 685 ltrs water tank:**

- Weld the bracket to drawing no CC63998 with electrode to DIN 17007 material no. 1.4576 as per location to drawing no. CC63973.
- Mount the drain cover to drawing no. LW63195 as per details given in drawing no. CC63135.

b. **For 450 ltrs water tank:**

- Weld the bracket to drawing no CC63998 with electrode to DIN 17007 material no. 1.4576 as per location to drawing no LP63105.
- Mount the drain cover to drawing no. LW63195 as per details given in drawing No. LP63100

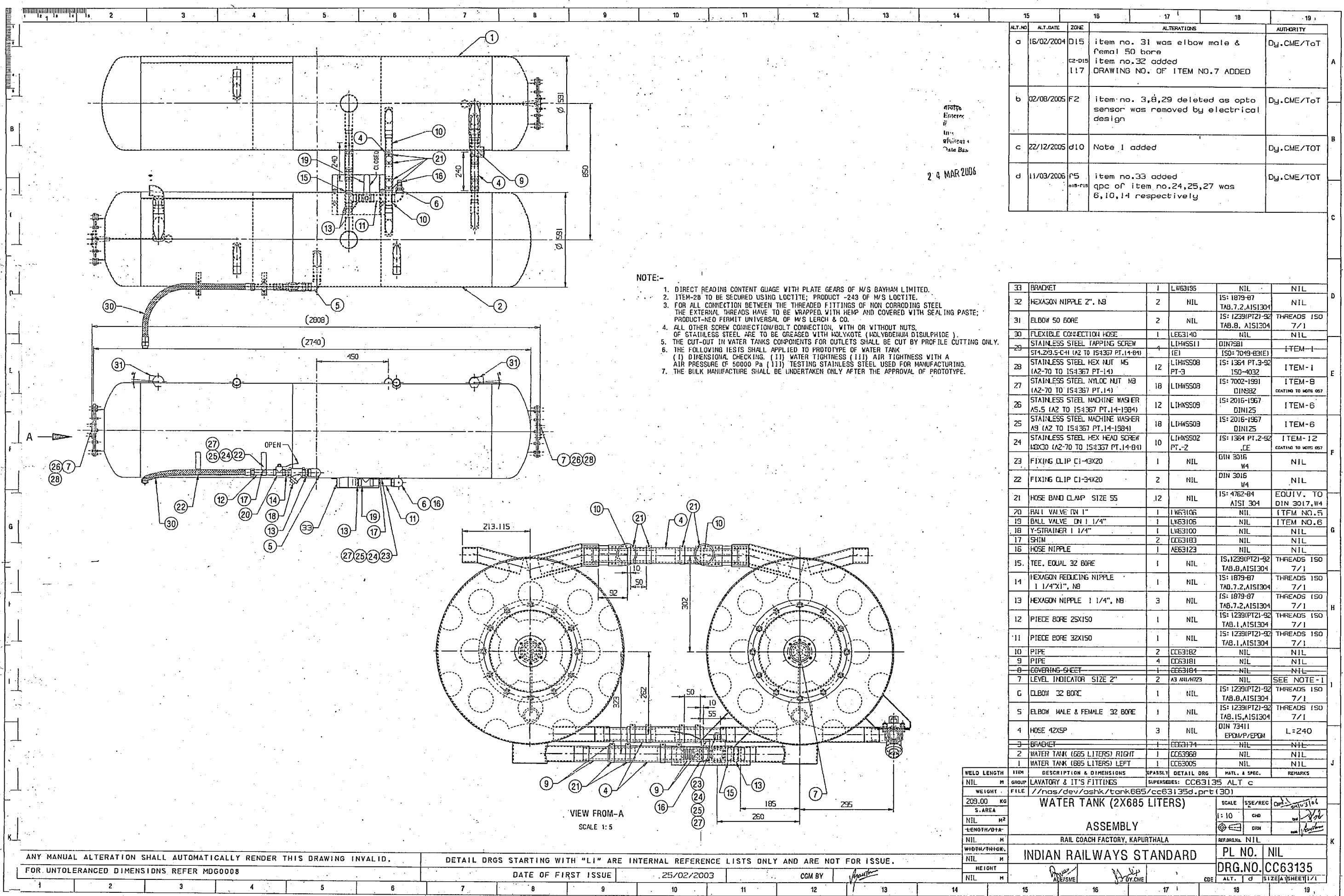

For General Manager (Mech.)

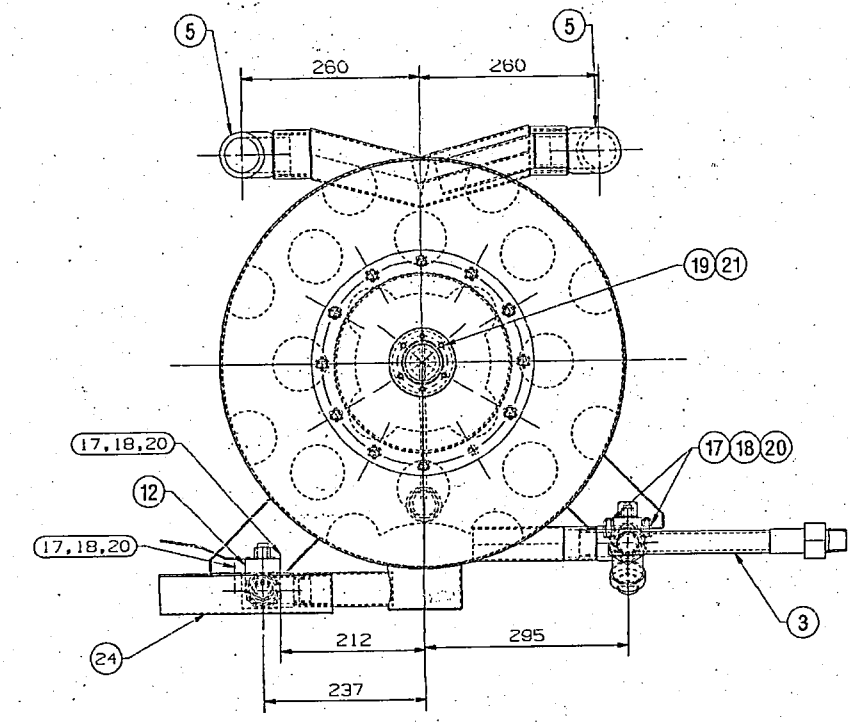
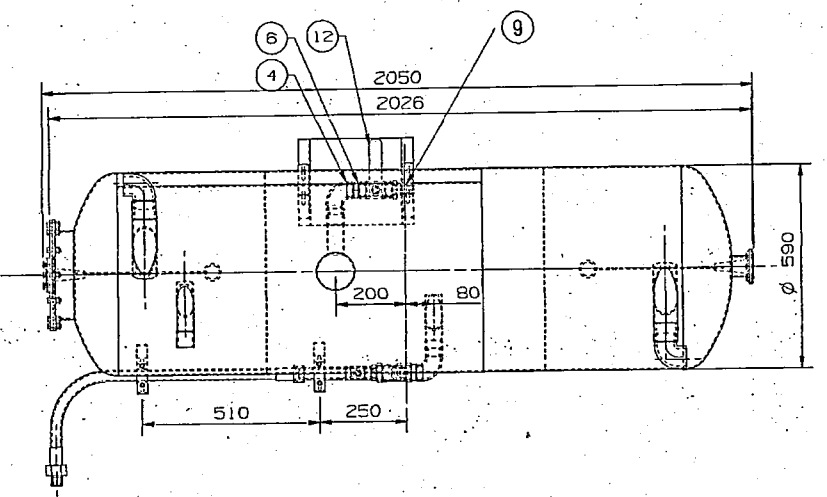
Encls:

CC63135 alt. 'd'
LP63100 alt 'b'
LW63195 alt. 'nil'
CC63973, alt 'b'
LP63105 alt 'b'
CC63998 alt 'nil'

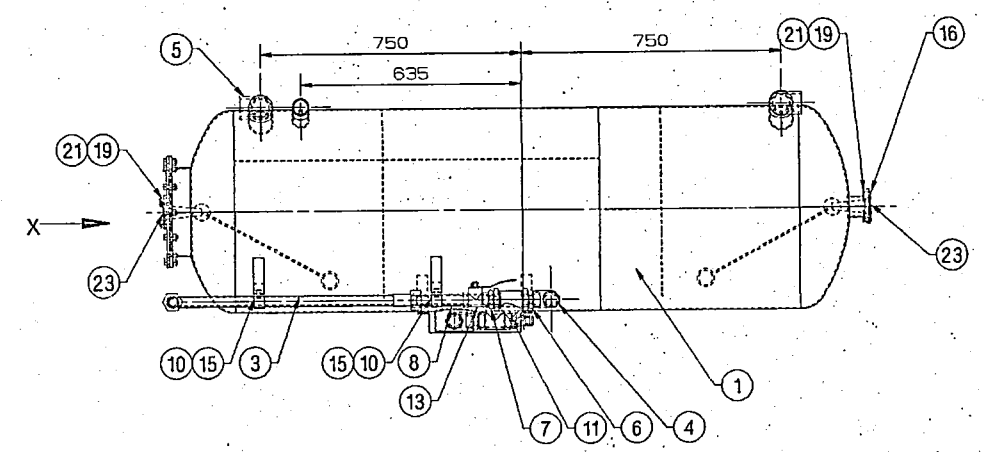
Chief Mechanical Engineer/Western Railway
Chief Mechanical Engineer/Eastern Railway

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VIEW FROM X
(scale: 1:5)



- NOTE: -
1. DIRECT READING CONTENT GAUGE WITH PLATE GEARS OF M/S BAYHAM LIMITED.
 2. ITEM-21 TO BE SECURED USING LOTCLITE; PRODUCT -243 OF M/S LOTCLITE.
 3. FOR ALL CONNECTION BETWEEN THE THREADED FITTINGS OF NON CORRODING STEEL THE EXTERNAL THREADS HAVE TO BE WRAPPED WITH HEMP AND COVERED WITH SEALING PASTE; PRODUCT-NEO FERMIT UNIVERSAL OF M/S LERCH & CO.
 4. ALL OTHER SCREW CONNECTION/BOLT CONNECTION, WITH OR WITHOUT NUTS, OF STAINLESS STEEL ARE TO BE GREASED WITH MOLYKOTE (MOLYBDENUM DISULPHIDE).
 5. THE CUT-OUT IN WATER TANKS COMPONENTS FOR OUTLETS SHALL BE CUT BY PROFILE CUTTING TOOL.
 6. THE FOLLOWING TESTS SHALL APPLIED TO PROTOTYPE OF WATER TANK
(i) DIMENSIONAL CHECKING. (ii) WATER TIGHTNESS. (iii) AIR TIGHTNESS WITH A AIR PRESSURE OF 50000 Pa (iiii) TESTING STAINLESS STEEL USED FOR MANUFACTURING.
 7. THE BULK MANUFACTURE SHALL BE UNDERTAKEN ONLY AFTER THE APPROVAL OF PROTOTYPE.

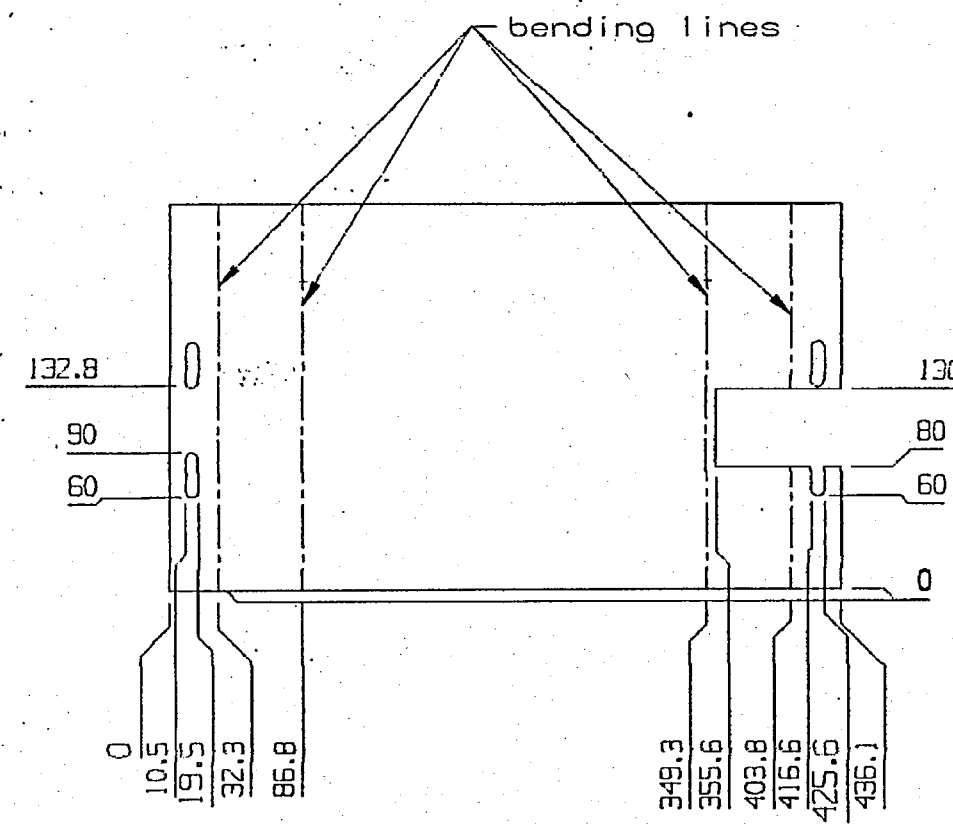
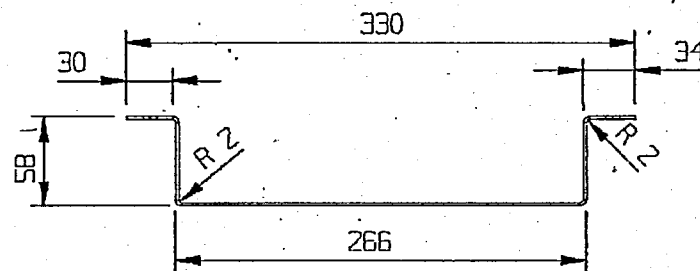
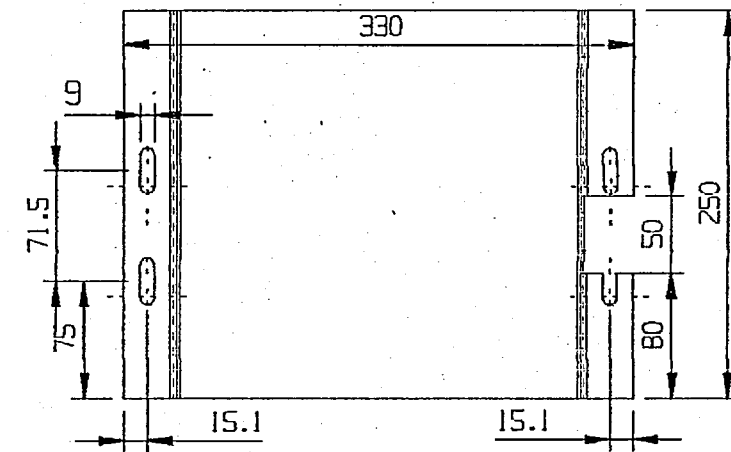
ALT.NO	ALT.DATE	ZONE	ALTERATIONS	AUTHORITY
a	04/09/2005	J2 P12	item no. 2,22 deleted as opto sensor has been deleted by electrical design item no.14 deleted	Dy. CME/TOT
b	23/03/2006	d4 P8-P10 P17-a17	item no.24 added and item no.4,6,9,12 rearranged item no.17,18,20 added qpc of item no.17,18,20 was 6,4,4	Dy.CME/TOT

24	BRACKET	1	LW63155	NIL	NIL
23	LEVEL INDICATOR SIZE 2"	2	NIL	NIL	SEE NOTE - 1
22	STAINLESS STEEL SLOTTED CSK HD (1/4" 304L S14-210 C (A2-70 TO 154367 PT.14-B4))	1	L1HWSS09	IS: 7170-1989,15 0-1482	ITEM - 6
21	STAINLESS STEEL NYLOC NUT M5 (A2-70 TO 154367 PT.14)	12	L1HWSS08	IS: 7002-1991 DIN982	ITEM - 6 COATING TO MOTT 057
20	STAINLESS STEEL NYLOC NUT M8 (A2-70 TO 154367 PT.14)	8	L1HWSS08	IS: 7002-1991 DIN982	ITEM - 8 COATING TO MOTT 057
19	STAINLESS STEEL MACHINE WASHER M5.3 (A2 TO 154367 PT.14-1984)	12	L1HWSS09	IS: 2016-1957 DIN125	ITEM - 2
18	STAINLESS STEEL MACHINE WASHER M8.4 (A2 TO 154367 PT.14-1984)	8	L1HWSS09	IS: 2016-1957 DIN125	ITEM - 5
17	STAINLESS STEEL HEX HEAD SCREW MEX30 (A2-70 TO 154367 PT.14-B4)	10	L1HWSS02	IS: 1364 PT.2-92 .CE	ITEM - 12 COATING TO MOTT 057
16	STAINLESS STEEL HEX HEAD SCREW MEX25 (A2-70 TO 154367 PT.14-B4)	6	L1HWSS02	IS: 1364 PT.2-92 .CE	ITEM - 2 COATING TO MOTT 057
15	FIXING CLIP C1-34X20	2	NIL	DIN 3016 W4	NIL
14	BRACKET	1	CEG3174	NIL	NIL
13	BALL VALVE 1"	1	LW63106	NIL	ITEM NO.5
12	BALL VALVE 1 1/4"	1	LW63106	NIL	ITEM NO.6
11	FILTER 1 1/4"	1	LW63100	NIL	NIL
10	SHIM	3	CEG3183	NIL	NIL
9	HEXAGON HOSE NIPPLE 1 1/4"	1	AEG3123	NIL	NIL
8	PIECE 25X150	1	NIL	IS: 1239(P12)-92 TAB.1,AISI304	THREADS ISO 7/1
7	HEXAGON REDUCING NIPPLE 1 1/4"x1", N8	1	NIL	IS: 1879-87 TAB.7.2,AISI304	THREADS ISO 7/1
6	HEXAGON NIPPLE 1 1/4", N8	2	NIL	IS: 1879-87 TAB.7.2,AISI304	THREADS ISO 7/1
5	ELBOW MALE & FEMALE 50 BORE	2	NIL	IS: 1239(P12)-92 TAB.15,AISI304	THREADS ISO 7/1
4	ELBOW MALE & FEMALE 32 BORE	2	NIL	IS: 1239(P12)-92 TAB.15,AISI304	THREADS ISO 7/1
3	FLEXIBLE CONNECTION HOSE 25 BORE	1	LE63140	NIL	NIL
2	COVERING SHEET	1	CEG3184	NIL	NIL
1	FRESH WATER TANK 450 L	1	LP63140	NIL	NIL

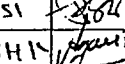
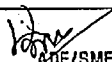
WELD LENGTH	ITEM	DESCRIPTION & DIMENSIONS	SPASSLY	DETAIL DRG	MATL. & SPEC.	REMARKS
NIL	M	GROUP LAVATORY & ITS FITTINGS	SUPERSEDES: LP63100 ALT a			
WEIGHT	FILE	//nas/dev/ashk/w_tank450/lp63100b.prt (3D)				
NIL	KG	FRESH WATER TANK 450L COMPLETE			SCALE	SSE/REG
S.AREA					1:10	CHD
NIL	M ²					DRN
LENGTH/DIA						
WIDTH/THICK.						
NIL	M	RAIL COACH FACTORY, KAPURTHALA			REF.DRG.NO.	NIL
INDIAN RAILWAYS STANDARD					PL NO.	NIL
					DRG.NO.	LP63100
WEIGHT						
NIL	M				CODE	ALT. b
					SIZE	A (SHEET) 1/1

ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.		DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE.		
FOR UNTOLERANCED DIMENSIONS REFER MDG0008		DATE OF FIRST ISSUE	01/01/2003	CGM BY 

ALT.NO	ALT.DATE	ZONE	ALTERATIONS	AUTHORITY
NIL	NIL	NIL	NIL	NIL

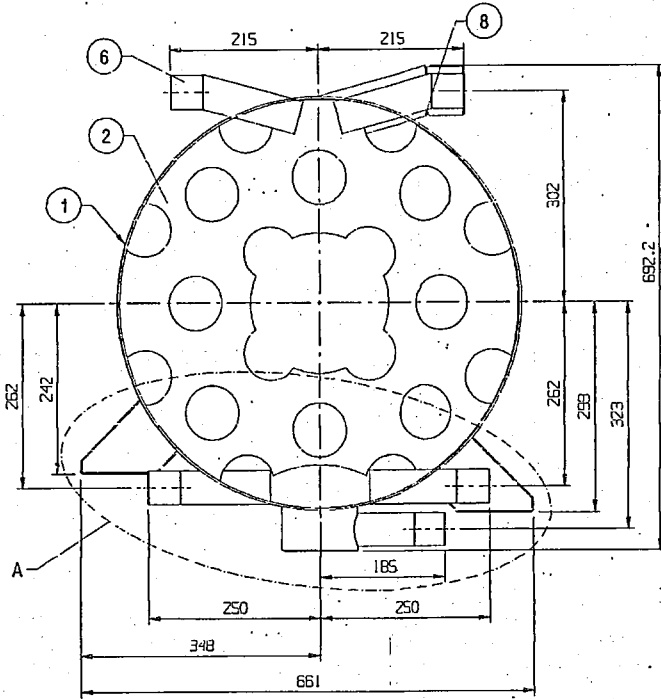
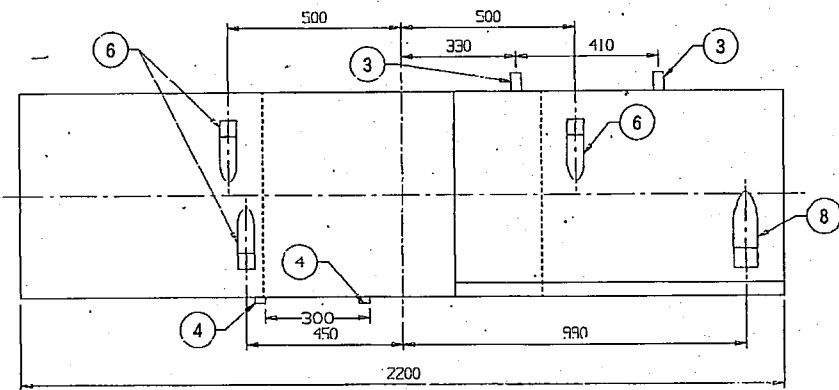


24 MAR 2006

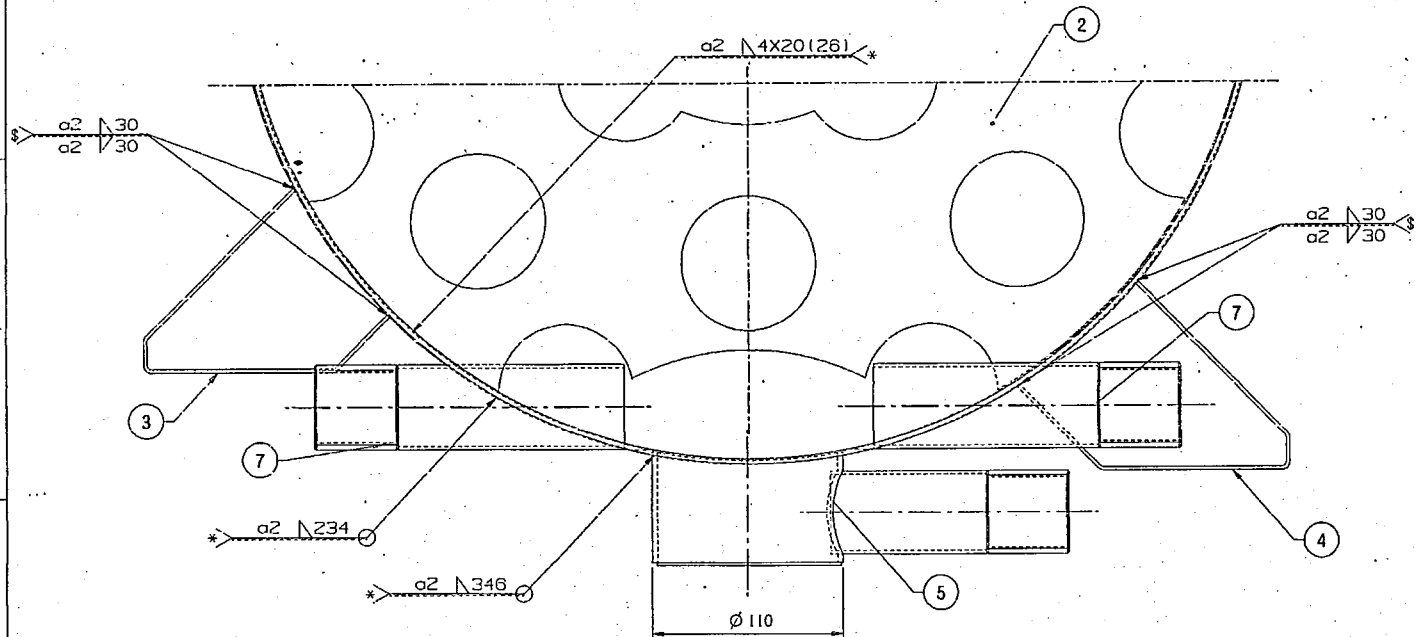
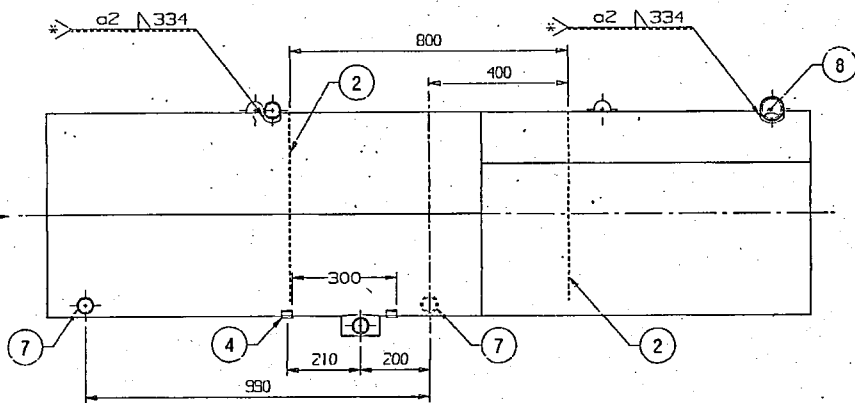
		NIL		SHEET ZX250X436		NIL		NIL		IS:6911-92 x4Cr17n112Mo2Ti		EQUIVALENT TO AISI 316Ti									
WELD LENGTH		ITEM		DESCRIPTION & DIMENSIONS				DPASSLY		DETAIL DRG		MATL. & SPEC.		REMARKS							
NIL		M		GROUP				SUPERSEDES: NIL													
WEIGHT		FILE		\\NAS\DEV\ASHK\TANK685L\LW63195.prt (3D)																	
NIL		KG		bracket for drain cock of LHB type water tank								SCALE		SSE/REC		Cmt					
S.AREA												1:5		CHD		TPSI		24/03/06			
NIL		M ²												DRN		ASHK					
LENGTH /-DIA																					
NIL		M		RAIL COACH FACTORY, KAPURTHALA								REF.DRG.NO.		NIL							
WIDTH /-THICK				INDIAN RAILWAYS STANDARD								PL NO.		NIL							
NIL		M														DRG.NO.		LW63195			
HEIGHT																					
NIL		M				A06/SME				DY.SME		CDE		ALT.		NIL		SIZE A3 SHEET 1/1			

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FOR UNTOLERANCED DIMENSIONS REFER MDG0008	DATE OF FIRST ISSUE	10/03/2006	CGM

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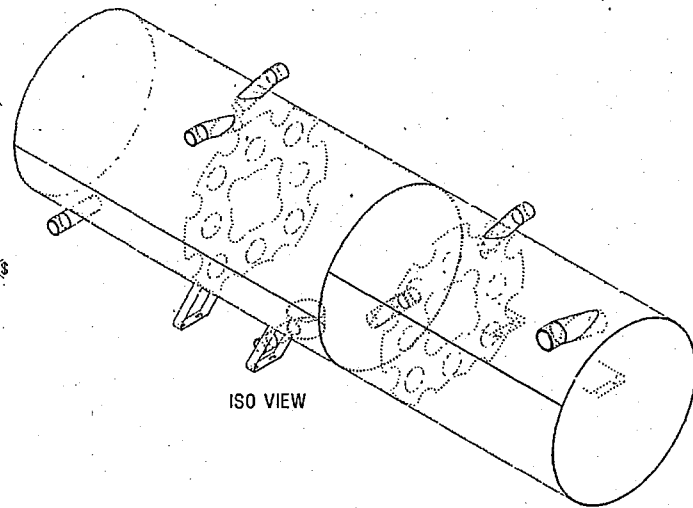
VIEW FROM 'X'



DETAIL AT 'A' (SCALE 1:2)

NOTE :-

1. ALL WELDING MUST BE LEAKPROOF.
- * 2. WELDING SHOULD BE DONE AS PER DIN 6700-13a WITH STAINLESS STEEL WELDING ELECTRODE TO DIN 17007 MATERIAL NO. 1.4576.
- § 3. WELDING SHOULD BE DONE AS PER DIN 6700-13b WITH STAINLESS STEEL WELDING ELECTRODE TO DIN 17007 MATERIAL NO. 1.4576.



ISO VIEW

4/16/2006
Entered
by
In:
of 16/2/2006
Date Recd
24 MAR 2006

8	CONNECTION PIECE	1	CC63984	NIL	NIL
7	CONNECTION PIECE	2	CC63983	NIL	NIL
6	CONNECTION PIECE	3	CC63982	NIL	NIL
5	DEPLETION	1	CC63981	NIL	NIL
4	BRACKET	2	CC63980	NIL	NIL
3	BRACKET	2	CC63977	NIL	NIL
2	WASH PLATE	2	CC63980	NIL	NIL
1	SHEET CASING	1	CC63979	NIL	NIL

WELD LENGTH		ITEM	DESCRIPTION & DIMENSIONS		OPASSLY	DETAIL DRG	MATL. & SPEC.	REMARKS
NIL		M	GROUP	LAVATORY & IT'S FITTINGS	SUPERSEDES:		CC63973	ALT a
WEIGHT		FILE	//nas/dev/ashk/tank6851/cc63973b.prt (30)					
97.900		KG	SHEET CASING COMPLETE					
S.AREA								
NIL		M ²	RAIL COACH FACTORY, KAPURTHALA					
LENGTH/DIA								
NIL		M	INDIAN RAILWAYS STANDARD					
WIDTH/THICK.								
NIL		M	PL NO. 01155854					
HEIGHT								
NIL		M	DRG.NO. CC63973					
			ALT. b SIZE A/SHEET 1/1					

ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. 61100
FOR UNTOLERANCED DIMENSIONS REFER MDG0008

DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE.

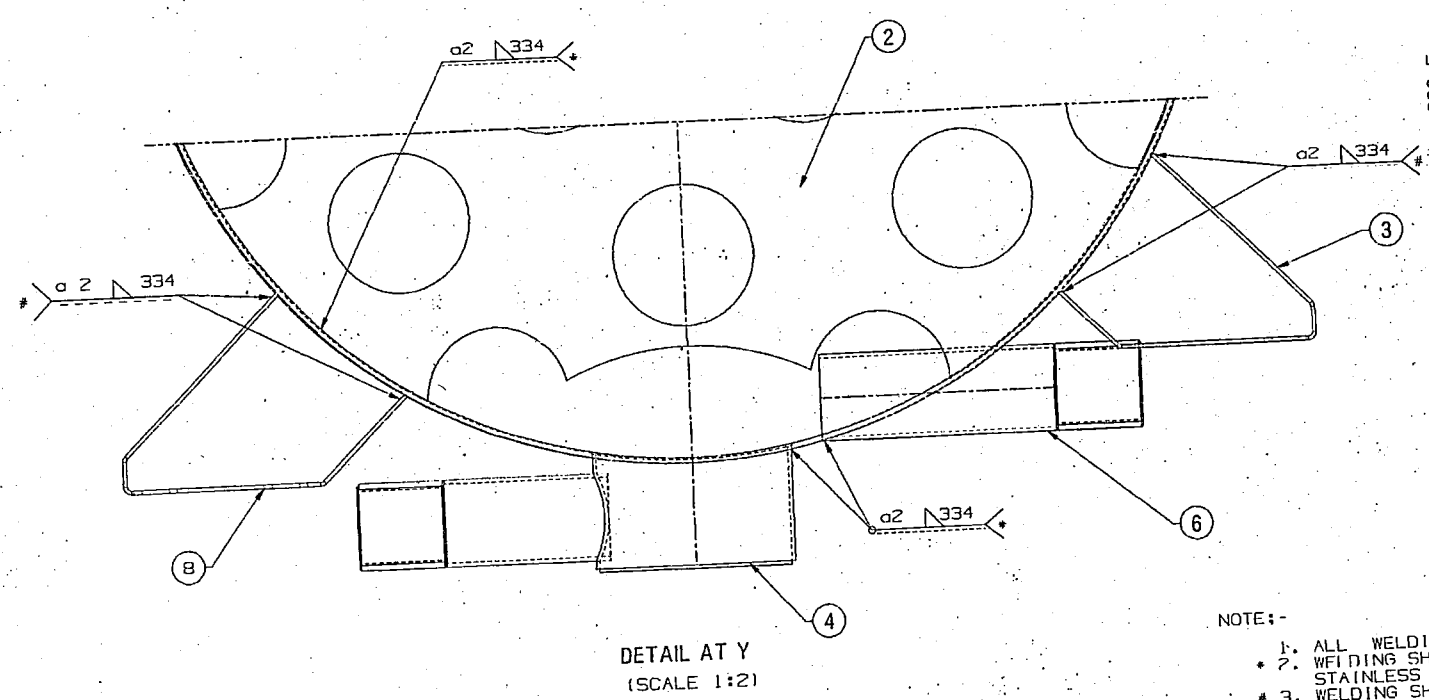
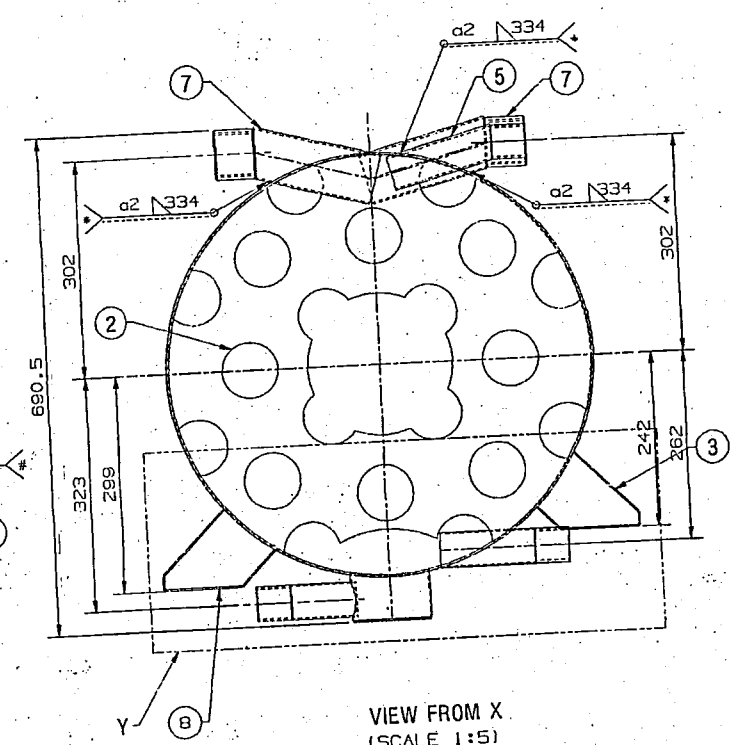
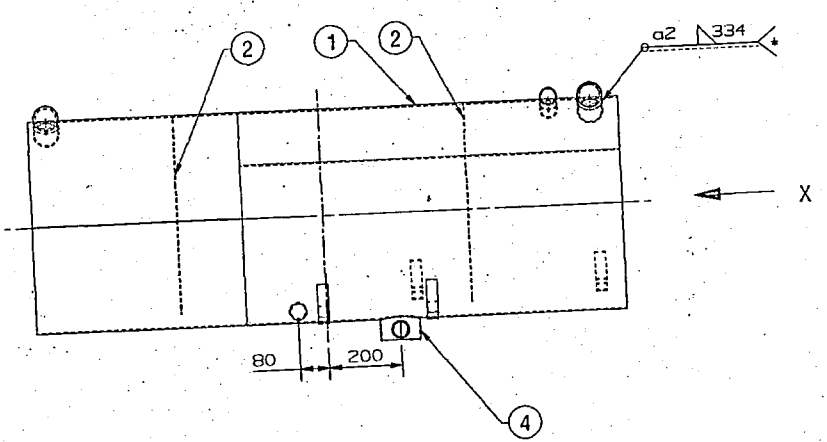
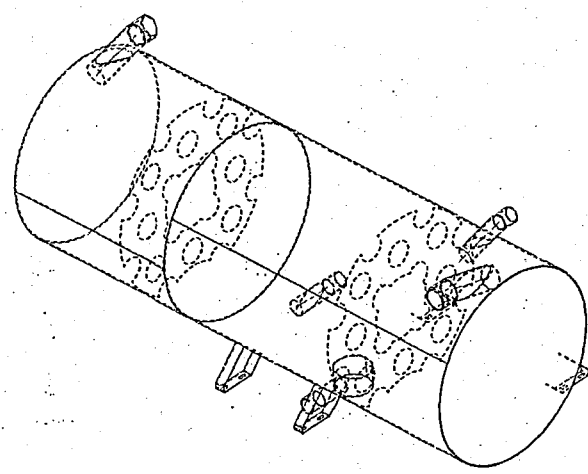
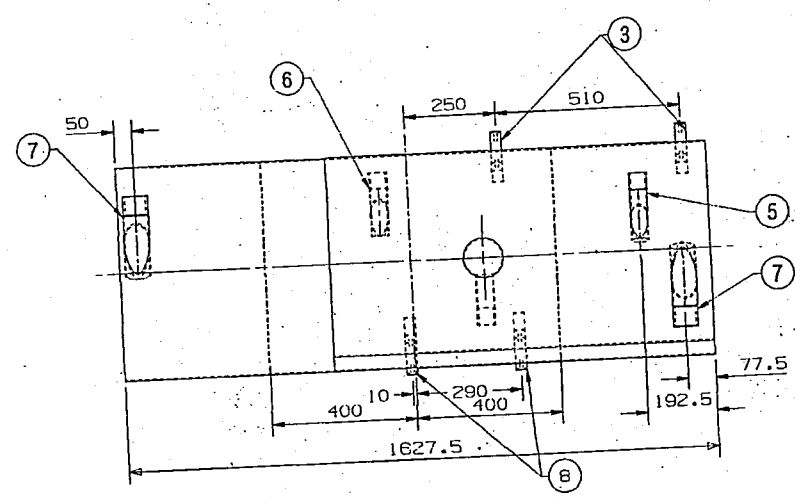
DATE OF FIRST ISSUE 15/03/2001

CGM BY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

ALT. NO.	ALT. DATE	ZONE	ALTERATIONS	AUTHORITY
a	06/01/2006	a11 k14	Welding dimension a2 was a1.5 Welding electrode material no. was 1.4370 and weight was 55.806 Kg.	Dy.CME/TOT
b	23/03/2006	a5.h10 h2	item no.8 added and dimension 10, 290 added. welding dimension added	Dy.CME/TOT

Notes
Eutecoc
to
of
Date Box
24 MAR 2006



- NOTE:-
- 1. ALL WELDING MUST BE LEAKPROOF.
 - 2. WELDING SHOULD BE DONE AS PER DIN 6700, 13a WITH STAINLESS STEEL WELDING ELECTRODE TO DIN 17007 MATERIAL NO. 1.4576.
 - 3. WELDING SHOULD BE DONE AS PER DIN 6700, 13b WITH STAINLESS STEEL WELDING ELECTRODE TO DIN 17007 MATERIAL NO. 1.4576.

8	BRACKET	2	cc63998	NIL	NIL
7	CONNECTION PIECE	2	cc63994	NIL	NIL
6	CONNECTION PIECE	1	cc63993	NIL	NIL
5	CONNECTION PIECE	1	cc63992	NIL	NIL
4	DEPLETION	1	cc63981	NIL	NIL
3	BRACKET	2	cc63997	NIL	NIL
2	WASH PLATE	2	cc63990	NIL	NIL
1	SHEET CASING	1	LP63110	NIL	NIL

WELD LENGTH	ITEM	DESCRIPTION & DIMENSIONS	SUPPLIES	DETAIL DRG	MATL. & SPEC.	REMARKS
NIL	M	GROUP	LAVATORY & ITS FITTING	SUPERSEDES: LP63105 ALT a		
WEIGHT	FILE	//nas/dev/ashk/tank450/lp63105b.prt (3D)				
79.090	KG					
S. AREA						
NIL	M ²					
LENGTH/DIA						
1.627/0.590	M					
WIDTH/THICK.						
0.002	M					
HEIGHT						
NIL	M					

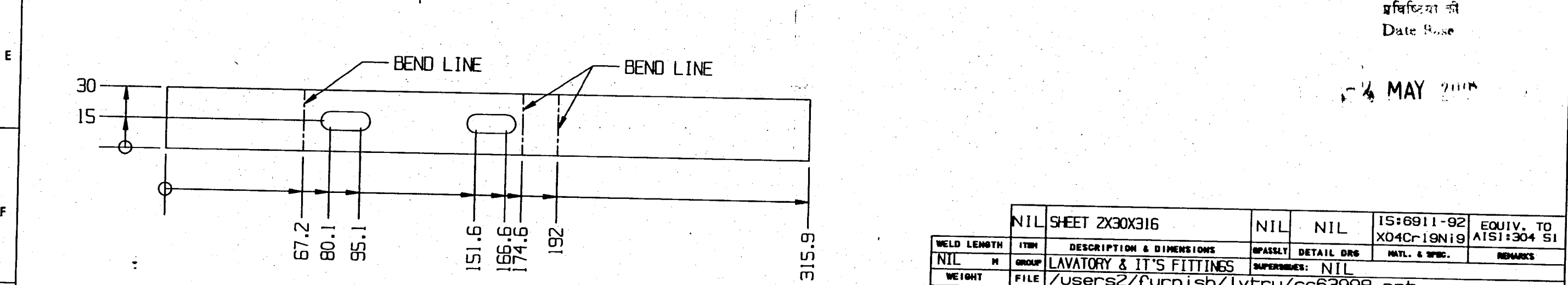
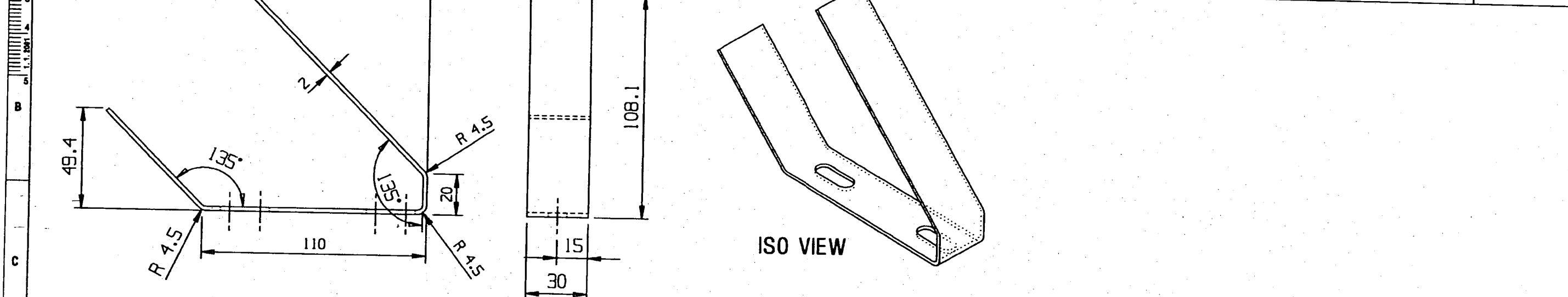
SHEET CASING COMPLETE			SCALE	SSE/REG	CHD	DRN	DATE
INDIAN RAILWAYS STANDARD			1:10				24 MAR 2006
RAIL COACH FACTORY, KAPURTHALA			REF.DWG.	NIL			
			PL NO.	01158545			
			DRG.NO.	LP63105			
			ALT.	b	SIZE (A) SHEET 1/1		

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FOR UNTOLERANCED DIMENSIONS REFER MDG0008

DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE.

DATE OF FIRST ISSUE	01/01/2003	CGM BY	
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ALT. NO	ALT. DATE	ZONE	ALTERATIONS	AUTHORITY
NIL	NIL	NIL	NIL	NIL



0.140	KG	SCALE		SSE/REG	4.5-01
S. AREA		BRACKET			

DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE. THIS IS A COMPUTER GENERATED DRAWING. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER IT INVALID.										FROZEN		NIL LENGTH / DIA NIL WIDTH / THICK NIL HEIGHT NIL		BRACKET RAIL COACH FACTORY, KAPURTHALA REF. DRG. NO. 61135		1:2 CHD DWN 61135	
FOR UNTOLERANCED DIMENSIONS REFER MDG0008										DATE OF FIRST ISSUE		15/03/2001		PL NO. 00205308		DRG. NO. CC63998	
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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