

5/1

RAIL COACH FACTORY, KAPURTHALA
(Coach Alteration Instruction)

CAI/RCF/MECH/R-SS/005

MD46251

Date: 06.05.06

1. **Description:** OEM water Level Indicators for under slung water tanks in RCF Stainless Steel coaches (Rajdhani Rake).

2. **Drawing No:**

S. No.	Description	Drawing No. & alt
1	Water Tanks 2x685L	CC63135 alt.'d'
2	Water tank 450 L	LP63100 alt 'b',
3	Water tank 2x685L+450L	LW63156 alt 'a'

3. **Reason for alteration:** To overcome the problems of water seepage and accumulation of water drops on Level Indicator.

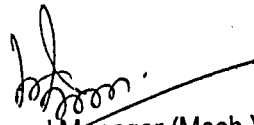
4. **Coach type:** RCF Stainless Steel coaches.

5. **To be carried out:** During IOH/POH or unscheduled repair in sick line.

6. **Special Instructions:**

- Dismount the existing (old) level Indicator from under slung fresh Water Tank.
- Fit the Original Equipment Manufacturer's Water Level Indicator of M/s Bayham.
- Ensure proper sealing of Indicator edges to prevent seepage of water.

Address of OEM water level indicator manufacturer:
BAYham Ltd Rutherford road,
Daneshil West Industrial Estate,
Basingstoke Hampshire RG24 8PG.
Tel: +44 1256 464911
Fax: +44 1256 464366
Email: sales@bayham.demon.co.uk

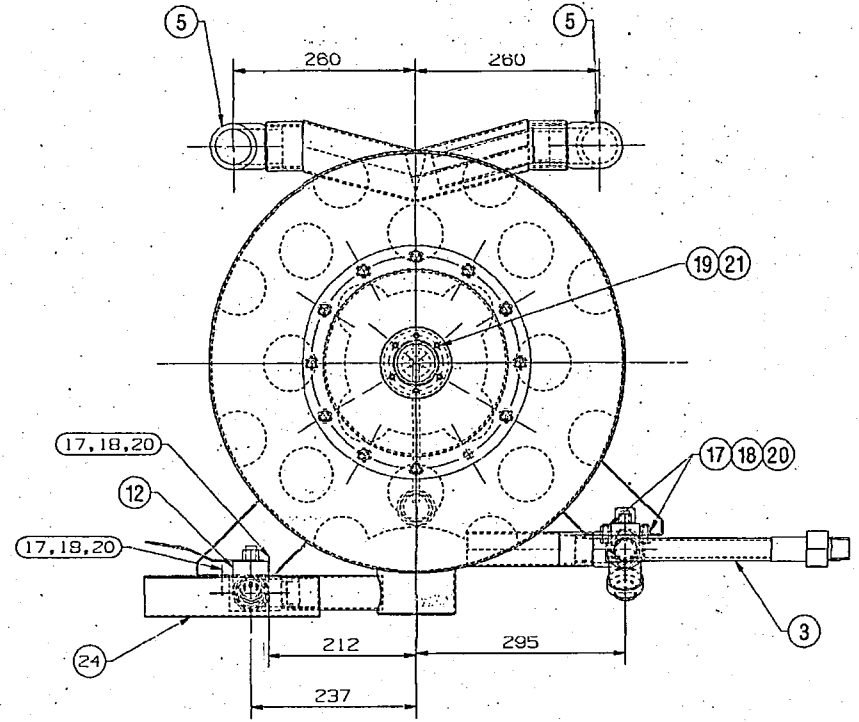
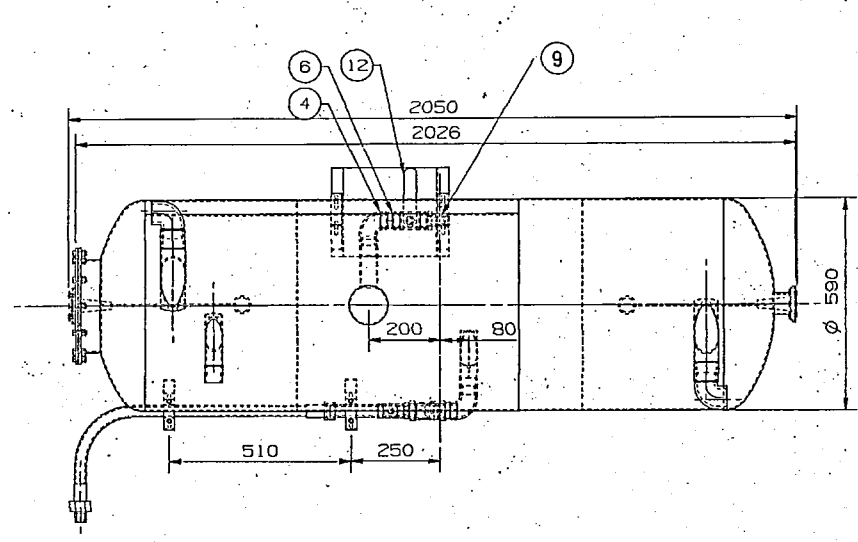

For General Manager (Mech.)

Encls:

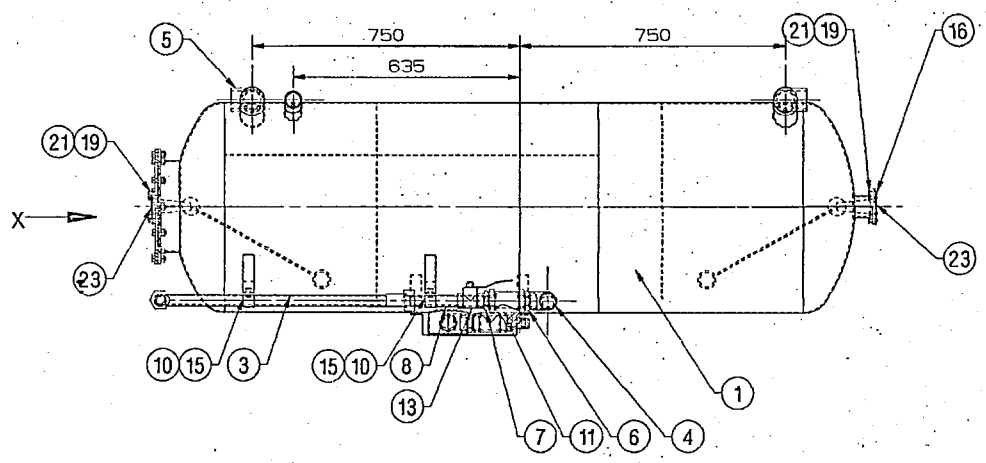
CC63135 alt. 'd'
LP63100 alt 'b',
LW63156 alt 'a'

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

ALT. NO.	ALT. DATE	ZONE	ALTERATIONS	AUTHORITY
a	04/08/2005	J2	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	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



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 LOCTITE: PRODUCT -243 OF M/S LOCTITE.
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 1).
5. THE CUT-OUT IN WATER TANKS COMPONENTS FOR OUTLETS SHALL BE CUT BY PROFILE CUTTING ONLY.
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.

21	BRACKET	1	LW63195	NIL	NIL
23	LEVEL INDICATOR SIZE 2"	2	NIL	NIL	SEE NOTE-1
22	STAINLESS STEEL SLOTTED CSK HD	4	LHW5503	IS: 7170-1999, IS 0-1482	ITEM-6
21	STAINLESS STEEL NYLOC NUT M5 (A2-70 TO IS4367 PT.14)	12	LHW5508	IS: 7002-1991 DIN932	ITEM-6 COATING TO MOTS 057
20	STAINLESS STEEL NYLOC NUT M8 (A2-70 TO IS4367 PT.14)	8	LHW5508	IS: 7002-1991 DIN932	ITEM-8 COATING TO MOTS 057
19	STAINLESS STEEL MACHINE WASHER M5.3 (A2 TO IS4367 PT.14-1984)	12	LHW5509	IS: 2016-1967 DIN125	ITEM-2
18	STAINLESS STEEL MACHINE WASHER M8.4 (A2 TO IS4367 PT.14-1984)	8	LHW5509	IS: 2016-1967 DIN125	ITEM-5
17	STAINLESS STEEL HEX HEAD SCREW M8X30 (A2-70 TO IS4367 PT.14-84)	10	LHW5502	IS: 1364 PT.2-92 CE	ITEM-12 COATING TO MOTS 057
16	STAINLESS STEEL HEX HEAD SCREW M5X25 (A2-70 TO IS4367 PT.14-84)	6	LHW5502	IS: 1364 PT.2-92 CE	ITEM-2 COATING TO MOTS 057
15	FIXING CLIP CI-34X20	2	NIL	DIN 3016 W4	NIL
14	BRACKET	1	EE63174	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	CC63183	NIL	NIL
9	HEXAGON HOSE NIPPLE 1 1/4"	1	AE63123	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", M8	1	NIL	IS: 1879-87 TAB.7.2, AISI304	THREADS ISO 7/1
6	HEXAGON NIPPLE 1 1/4", M8	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	EE63184	NIL	NIL
1	FRESH WATER TANK 450 L	1	LP63101	NIL	NIL

WELO LENGTH	ITEM	DESCRIPTION & DIMENSIONS	OPASSLY	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					
S.AREA	M ²					
LENGTH/DIA	M					
WIDTH/THICK.	M					
HEIGHT	M					
NIL	M					

SCALE

SSE/REG

1:10

CHD

DRN

REF.DWG. NTL

PL NO.

NIL

DRG.NO.

LP63100

ALT.

b

SIZE

A1 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

Signature

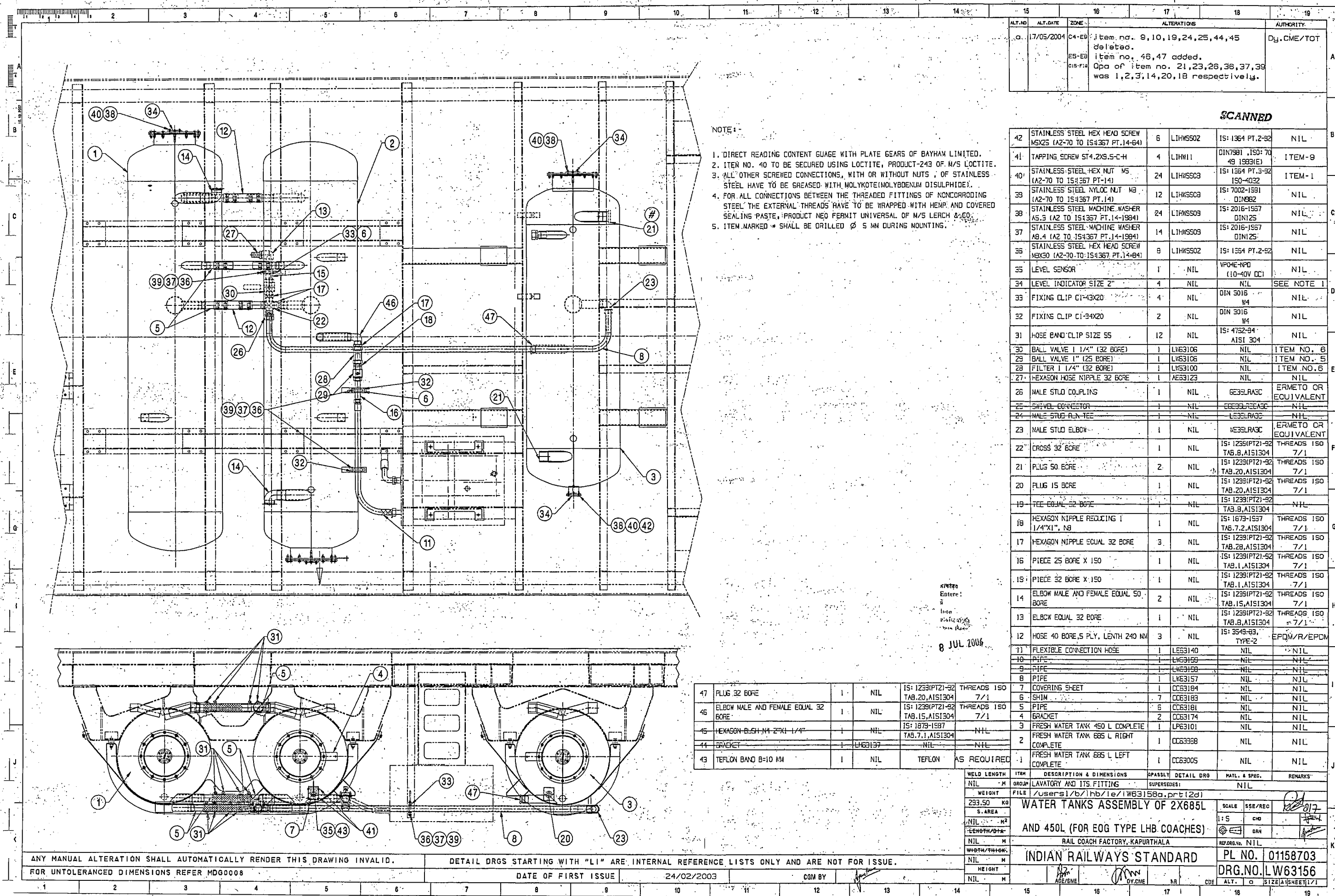
RAIL COACH FACTORY, KAPURTHALA

INDIAN RAILWAYS STANDARD

Signature

DY.CME

CDE



NOTE:

1. DIRECT READING CONTENT GAUGE WITH PLATE GEARS OF BAYHAM LIMITED.
2. ITEM NO. 40 TO BE SECURED USING LOCTITE, PRODUCT-243 OF M/S LOCTITE.
3. ALL OTHER SCREWED CONNECTIONS, WITH OR WITHOUT NUTS, OF STAINLESS STEEL HAVE TO BE GREASED WITH MOLYKOTE (MOLYBDENUM DISULPHIDE).
4. FOR ALL CONNECTIONS BETWEEN THE THREADED FITTINGS OF NONCORRODING STEEL THE EXTERNAL THREADS HAVE TO BE WRAPPED WITH HEMP AND COVERED SEALING PASTE, PRODUCT NEO FERMIT UNIVERSAL OF M/S LERCH & CO.
5. ITEM MARKED # SHALL BE DRILLED ϕ 5 MM DURING MOUNTING.

SCANNED

42	STAINLESS STEEL HEX HEAD SCREW MSX25 (A2-70 TO IS4367 PT.14-64)	6	LIHWSS02	IS: 1364 PT.2-92	NIL	
41	TAPPING SCREW ST4.2X9.5-C-H	4	LIHW11	DIN7981, ISO: 7049 1993(E)	ITEM-9	
40	STAINLESS STEEL HEX NUT M5 (A2-70 TO IS4367 PT.14)	24	LIHWSS03	IS: 1364 PT.3-92 ISO-4032	ITEM-1	
39	STAINLESS STEEL NYLOC NUT M8 (A2-70 TO IS4367 PT.14)	12	LIHWSS03	IS: 7002-1991 DIN962	NIL	
38	STAINLESS STEEL MACHINE WASHER A5.3 (A2 TO IS4367 PT.14-1984)	24	LIHWSS03	IS: 2016-1987 DIN125	NIL	
37	STAINLESS STEEL MACHINE WASHER A8.4 (A2 TO IS4367 PT.14-1984)	14	LIHWSS03	IS: 2016-1987 DIN125	NIL	
36	STAINLESS STEEL HEX HEAD SCREW MSX30 (A2-70 TO IS4367 PT.14-64)	8	LIHWSS02	IS: 1364 PT.2-92	NIL	
35	LEVEL SENSOR	1	NIL	VP04E-NPD (10-40V DC)	NIL	
34	LEVEL INDICATOR SIZE 2"	4	NIL	NIL	SEE NOTE 1	
33	FIXING CLIP CI-43X20	4	NIL	DIN 3016 W4	NIL	
32	FIXING CLIP CI-34X20	2	NIL	DIN 3016 W4	NIL	
31	HOSE BAND CLIP SIZE S5	12	NIL	IS: 4752-94 AISI 304	NIL	
30	BALL VALVE 1 1/4" (32 BORE)	1	LW63106	NIL	ITEM NO. 6	
29	BALL VALVE 1" (25 BORE)	1	LW63106	NIL	ITEM NO. 5	
28	FILTER 1 1/4" (32 BORE)	1	LW63100	NIL	ITEM NO.6	
27	HEXAGON HOSE NIPPLE 32 BORE	1	AE63123	NIL	NIL	
26	MALE STD COUPLING	1	NIL	6E3SLRAC	ERMETO OR EQUIVALENT	
25	SWIVEL CONNECTOR	1	NIL	6E3SLRAC	NIL	
24	MALE STD RUN TEE	1	NIL	6E3SLRAC	NIL	
23	MALE STD ELBOW	1	NIL	6E3SLRAC	ERMETO OR EQUIVALENT	
22	CROSS 32 BORE	1	NIL	IS: 1239(P2)-92 TAB.8, AISI304	THREADS ISO 7/1	
21	PLUG 50 BORE	2	NIL	IS: 1239(P2)-92 TAB.20, AISI304	THREADS ISO 7/1	
20	PLUG 15 BORE	1	NIL	IS: 1239(P2)-92 TAB.20, AISI304	THREADS ISO 7/1	
19	TEE EQUAL 32 BORE	1	NIL	IS: 1239(P2)-92 TAB.8, AISI304	NIL	
18	HEXAGON NIPPLE REDUCING 1 1/4"X1", M8	1	NIL	IS: 1879-1987 TAB.7.2, AISI304	THREADS ISO 7/1	
17	HEXAGON NIPPLE EQUAL 32 BORE	3	NIL	IS: 1239(P2)-92 TAB.28, AISI304	THREADS ISO 7/1	
16	PIECE 25 BORE X 150	1	NIL	IS: 1239(P2)-92 TAB.1, AISI304	THREADS ISO 7/1	
15	PIECE 32 BORE X 150	1	NIL	IS: 1239(P2)-92 TAB.1, AISI304	THREADS ISO 7/1	
14	ELBOW MALE AND FEMALE EQUAL 50 BORE	2	NIL	IS: 1239(P2)-92 TAB.15, AISI304	THREADS ISO 7/1	
13	ELBOW EQUAL 32 BORE	1	NIL	IS: 1239(P2)-92 TAB.8, AISI304	THREADS ISO 7/1	
12	HOSE 40 BORE, 5 PLY, LENGTH 240 MM	3	NIL	IS: 3549-93, TYPE-2	EPDM/R/EPDM	
11	FLEXIBLE CONNECTION HOSE	1	LE63140	NIL	NIL	
10	PIPE	1	LW63150	NIL	NIL	
9	PIPE	1	LW63150	NIL	NIL	
8	PIPE	1	LW63157	NIL	NIL	
7	COVERING SHEET	1	CC63184	NIL	NIL	
6	SHIM	7	CC63189	NIL	NIL	
5	PIPE	6	CC63181	NIL	NIL	
4	BRACKET	2	CC63174	NIL	NIL	
3	FRESH WATER TANK 450 L COMPLETE	1	LP63101	NIL	NIL	
2	FRESH WATER TANK 685 L RIGHT COMPLETE	1	CC63398	NIL	NIL	
1	FRESH WATER TANK 685 L LEFT COMPLETE	1	CC63005	NIL	NIL	

8 JUL 2006

47	PLUG 32 BORE	1	NIL	IS: 1239(P2)-92 TAB.20, AISI304	THREADS ISO 7/1
46	ELBOW MALE AND FEMALE EQUAL 32 BORE	1	NIL	IS: 1239(P2)-92 TAB.15, AISI304	THREADS ISO 7/1
45	HEXAGON BUSH M 2"X1 1/4"	1	NIL	IS: 1879-1987 TAB.7.1, AISI304	NIL
44	BRACKET	1	LW63197	NIL	NIL
43	TEFLON BAND 8-10 MM	1	NIL	TEFLON	AS REQUIRED

WELD LENGTH	ITEM	DESCRIPTION & DIMENSIONS	QUANTITY	DETAIL DRG	MATL. & SPEC.	REMARKS
NIL	M	GROUP	LAUATORY AND ITS FITTING	SUPERSEDES:	NIL	
WEIGHT	FILE	/Users/1/b/1/b/1e/1/W63158a.prt(12d)				
233.50	KG					
S. AREA						
NIL	M ²					
LENGTH/DIA						
NIL	M					
WGT/M/THICK						
NIL	M					
HEIGHT						
NIL	M					

WATER TANKS ASSEMBLY OF 2X85L AND 450L (FOR EOG TYPE LHB COACHES)

RAIL COACH FACTORY, KAPURTHALA

INDIAN RAILWAYS STANDARD

PL NO. 01158703

DRG.NO. LW63156

SCALE 1:5

DATE 01/07/07

BY 01/07/07

CHKD 01/07/07

APPD 01/07/07

ALT. 0

SIZE A1/SHEET 1/1

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DATE OF FIRST ISSUE 24/02/2003

COM BY