भारत सरकार (GOVERNMENT OF INDIA)
रेल मंत्रालय (MINISTRY OF RAILWAYS)
रेलवे बोर्ड (RAILWAY BOARD)

No.2016/RS(PF&EC)-142/Coaches/1 New Delhi dt.30.11.2016

1. M/s. JSL Lifestyle, Village Rohad, Tehsil-Bahurgarh, Haryana-124507.
2. M/s. Railfab, Opposite, Rail Coach Factory, Kapurthala -144601.
3. M/s. Omax Auto Ltd., Village Binola, Gurgaon-122001.
4. M/s. Amit Engineers, B-61 Phase-7, Industrial Area, Mohali-160055.
5. M/s. Oasis Fabricator, Jaroda Gate, Jagadhari, Haryana-135003.
6. M/s. Railtech,Rail Coach Factory, Kapurthala -144601.
7. M/s. Hindusthan Fibre Glass Works, C-1B,231/3-4GIDC Estate, Porramangamdi, Vadodara, Guarat-391243.
8. M/s.Victora Auto Pvt.Ltd 44 KM stone, Delhi, NH-2, Village-Sikri, Faridabad-121004
9. M/s. Mohan Rail Compon. Pvt. Ltd. Opposite RCF, Kapurthala-144602

Sub : Revision/modifications in drawings of Smaller Bio-digester to RDSO's drawing no.14053

Ref : (i) Board's letter No. of even No. dated 15.11.2016.

(ii) RDSO's letter no. MC/CB/LF/Anaerobic dated 16.11.2016.

This is in continuation to Board's above (i) referred letter. Further, the drawings of Rubber sealings or drawings having rubber component in Bill of Material have also been revised/modified by RDSO vide letter referred at (ii) above.

Copies of the same are enclosed herewith for necessary action at your end.

Yours sincerely

(Rajiv Kad)
Director Railway Stores (W)
Railway Board

DA : 1. CG – 14058 Alt.2
2. CG – 14064 Alt.2
3. CG – 14096 Alt.2

Copy to:

- **GM(I)/RITES Northern Region** | For kind information and necessary action please
- **DME(Dev.), Railway Board**

भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226 011
EPBX (0522) 2451200
Fax (0522) 2458500

Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226 011
DID (0522) 2450115
DID (0522) 2465310

MC/CB/LF/Anaerobic

Date: 16.11.2016

DME /Dev.
Railway Board
Rail Bhawan, New Delhi

Sub: Revision /Modification in the Rubber components of smaller bio digester to the RDSO drawing no. CG-14053.

Ref: 1. Railway Board's letter no. 2016/Dev.Cell/ICCI/2 Dated 03.11.2016.
2. This office letter of even no. dated 07.11.2016.

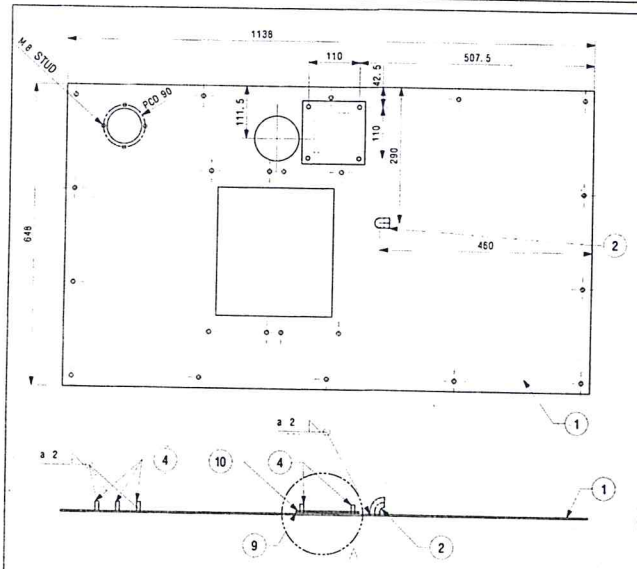
Vide above reference 1, Railway Board has forwarded the issues highlighted by M/s Railtech of Rubber components properties and requested to review the related drawings for defining the standard values of Shore hardness in all rubber components.

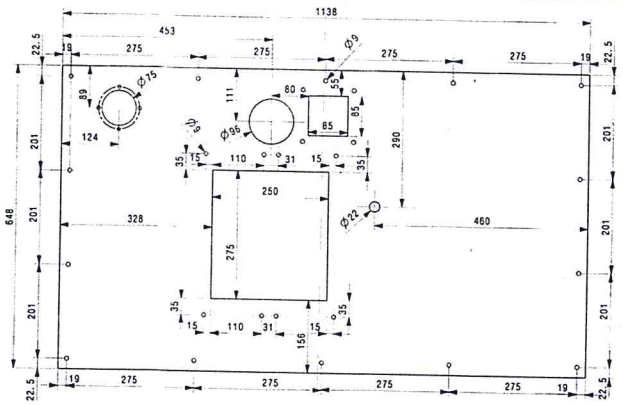
All the related drawings has been revised / modified accordingly. Copies of the same are enclosed herewith for necessary action at your end.

DA : 1. CG-14058 Alt-2,
2. CG-14064 Alt-2,
3. CG-14096 Alt -2

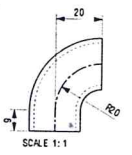
16-11-16
(Indrajit Singh)
Exec. Director (std)/Carriage

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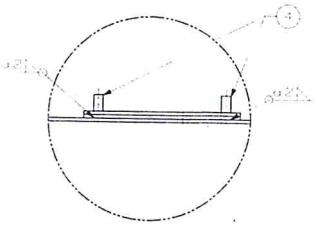




DETAIL OF ITEM NO.1



DETAIL OF ITEM NO.2



DETAIL A
SCALE 1:1

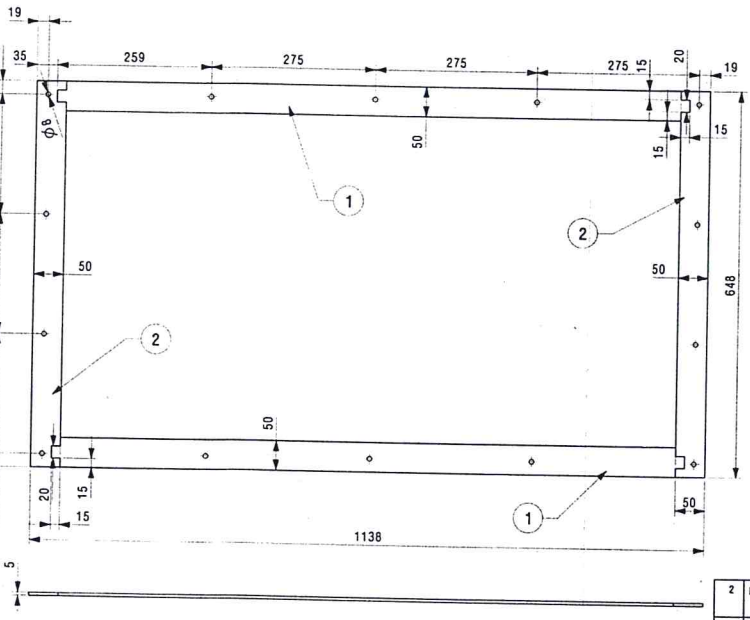
ITEM	DESCRIPTION & DIMENSIONS	No. OFF	REF. DRG.	WT. OF ONE kg	MTL. & SPEC.	REMARKS
10	COVER PLATE 3X135X135	1			AISI 316L	
9	PACKING	1			EPDM RUBBER	SHORE HARDNESS A 60±5
8	BEND PIPE FOR EVACUATION OF FIRST CHAMBER	1	CG-14101			
7	COUPLER TYPE 'DC' 2-1/2"	1			AISI 304	CAMLOCK FITTING
6	ADAPTER TYPE 'F' 2-1/2" (MALE)	1			AISI 304	CAMLOCK FITTING
5	SOCKET REDUCING 65X50	1			IS:1239,PT.2 TABLE-14, AISI 304	
4	M8X20 STUD	16			IS:1367(PT-14) SEC1	
3	BEND PIPE OD Ø 60.33 WALL THICKNESS 2.77	1			ASTM A-312, AISI 316	
2	BEND PIPE OD Ø 21.25 WALL THICKNESS 1.65	1			ASTM A-312, AISI 316	
1	SHEET 3X648X1138	1			AISI316L	

ALT. ITEM	AUTHY.	DESCRIPTION	CKD.	DATE
2	SS/66/16	1. SHORE HARDNESS OF ITEM NO. 9 WAS 50.		
1	SS/16/16	ITEM 3,5,6,7,8 DELETED AND ITEM 9 AND 10 ADDED. QPA of ITEM-4 WAS 4.		

ASSEMBLY DRGS.
REFERENCE :-
SUPERSEDED BY:-
SUPERSEDES:-
SCALE 1: 5
P
C
D
J.S. SS/SI/14
CDIC NO. :- K-503
B.G.
R.D.S.O. (CG)

INDIAN RAILWAYS
ICF\RCF TYPE COACHES
TOP COVER WITH EVACUATION INTERFACE ASSEMBLY
CG-14058

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NOTE :-

ITEM NO 1 & 2 SHALL BE JOINED WITH SUITABLE ADHESIVE FOR LEAK PROOF APPLICATION.

ITEM	DESCRIPTION & DIMENSIONS	No. OFF	REF. DRG.	WT. OF ONE kg	MTL. & SPEC.	REMARKS
2	RUBBER SEALING 5X50X648	2			EPDM RUBBER SHORE A HARDNESS 60±5.	
1	RUBBER SEALING 5X50X1068.5	2			EPDM RUBBER SHORE A HARDNESS 60±5.	

ALT.	ITEM	AUTH.	DESCRIPTION	CKD.	DATE
2		SS/68/16	1. SHORE HARDNESS OF ITEM NO. 1 AND 2 WAS 80 MAX.		
1		SS/18/16	DRAWING MODIFIED		

ASSEMBLY DRGS.
REFERENCE :-

SUPERSEDED BY:-
SUPERSEDES:-

INDIAN RAILWAYS
ICF\RCF TYPE COACHES

SCALE 1:5 P C D J.S. SS/37/14

RUBBER SEALING FOR TOP COVER

CODIC NO. :- K-503 | B.G. | R.D.S.O. [CG] | CG-14064

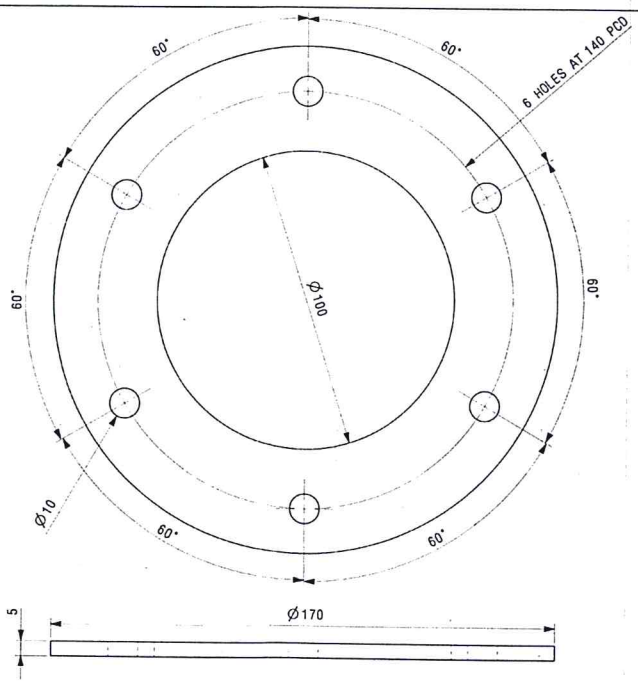


TABLE-1			
S.NO.	PPROPERTY	REQUIRED VALUE	TEST METHOD
1	SPECIFIC GRAVITY (gm/cubic cm)	1.140±0.10	ASTM D-972
2	TENSILE STRENGTH (IN MPa AT BREAK) MIN.	5 MPa	ISO 37
3	% ELONGATION (AT BREAK) MIN.	300%	ISO 37
4	HARDNESS (SHORE -A)	60±5	ISO 7619
5	COMPRESSION SET (FOR 22 HOURS)	AT 70°C 35% MAX. AND AT 100°C 55% MAX.	ISO 815
6	TEAR STRENGTH (Min.)	20KN/M	ISO 34
7	ASH CONTENT (Max.)	20%	ASTM D-4574

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ITEM	DESCRIPTION & DIMENSIONS	No. OFF.	REF. DRG.	WT. ONE kg	MTL. & SPEC.	REMARKS
1	RUBBER SEALING	1			EPDM	TABLE-1

ALT.	ITEM	AUTH.	DESCRIPTION	CKD.	DATE
(2)		SS/6/11	1. COMPRESSION SET VALUE WAS DEFINED AT 23°C 35% AND AT 70°C 55%. 2. TEST METHOD OF TENSILE STRENGTH AND % ELONGATION WAS ISO 527-1 & ISO 527-3. 3. TEST METHOD OF HARDNESS (SHORE A) WAS ISO 868. 4. TOLERANCE ON SPECIFIC GRAVITY VALUE WAS 0.05.		
1		20/5/11	MATERIAL OF ITEM NO.1 DEFINED AS EPDM.		

ASSEMBLY DRGS.
REFERENCE :-
CDIC NO. :- K-503

SUPERSEDED BY:-
SUPERSEDES:-

SCALE		
1:1	P	
	C	
	D	
J.S.		SS/14/11

B.G. | R.D.S.O. [CG]

INDIAN RAILWAYS
ICF\RCF TYPE COACHES

RUBBER SEALING FOR 100 MM BALL VALVE

CG-14096