

S.No. 1892



भारत सरकार
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Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226 011
DID (0522) 2450115
DID (0522) 2455310



No. MC/CB/LF/Anaerobic

Dated 09.10.2017

मुख्य यांत्रिक अभियंता

1. मध्य रेलवे, छत्रपतिशिवाजीटर्मिनस, मुम्बई- 400 001.
2. पूर्व रेलवे, फेयरलीलेस, कोलकाता- 700 001.
3. उत्तर रेलवे, बड़ौदाहल्लस, नईदिल्ली- 110 001.
4. दक्षिण रेलवे, पार्कटालन, चेन्नई- 600 003.
5. दक्षिण मध्य रेलवे, रेलमिलायम, सिकन्दराबाद-500 071.
6. दक्षिणपूर्व रेलवे, गार्डनरीय, कोलकाता- 700 043.
7. पूर्वोत्तर रेलवे, गोरखपुर- 273 012.
8. पूर्वोत्तरसीमान्त रेलवे, सालीगाँव, गुवाहाटी- 781 011.
9. पश्चिमरेलवे, चर्चीट, मुम्बई- 400 020.
10. पूर्व मध्य रेलवे, हाजीपुर- 844 101.
11. पूर्वतटीय रेलवे, बीडीए रेंटलकालोनी, रेलवेकाम्पलेक्स, उन्नयेश्वरपुरा, मुंबई- 751 015.
12. उत्तर मध्य रेलवे, हार्लिंगरोड, इलाहाबाद-211 001.
13. उत्तरपश्चिमरेलवे, जयपुर- 302 006.
14. दक्षिणपश्चिमरेलवे, हुवली- 580 023.
15. पश्चिम मध्य रेलवे, जबलपुर- 482 001.
16. दक्षिणपूर्व मध्य रेलवे, आरईआफिसकाम्पलेक्स, बिलासपुर- 495 004.
17. बी.ई.एम.एल. बेंगलूरकाम्पलेक्स, न्यूथिप्पासान्द्रा, पोस्टबाक्स नं. 7501, बेंगलूर- 560 075.
18. कोंकणरेलवेकार्पोरेशनलि. कार्पोरेटआफिस, बेलापुरभवन, नवीमुम्बई- 400 614.
19. इन्टीगरलकोचफैक्टरी, चेन्नई- 600 038.
20. रेलकोचफैक्टरी, हुसैनपुर, कपूरथला- 144 602.
21. गार्डनकोचफैक्टरी, रायबरेली- 229212.

Sub: Toilet Ventilation system in LHB Coaches

Ref: Railway Board Letter no. 2007/M (C)/137/16 Vol XI dated 21.08.2017.

The issue of foul smell and pressurized flushing system has been discussed in various forums. Member rolling stock has desired that the issue should be finalized within one week. RDSO team led by ED/Carriage visited the MCF/RBL to analyze the efficacy of existing systems and to examine the improvements required. Based on the study and the trials conducted by RDSO at MCF, following is to be implemented

- a) The earlier system of pressurized flushing used in CDTS system should be reverted back immediately. RCF to issue CAI for in service Coaches.
- b) RDSO will examine to improve the existing system of pressurized flushing based on the mixing of feed pipe compressed air with flushing water, used presently in coaches.
- c) Present system of ventilation being used in LHB coaches is studied and it is observed that existing ventilation system is not effective. Trial has been conducted by providing exhaust fan in the end wall of each lavatory and found to be satisfactory. Instruction for fitment of Exhaust Fan at the bottom of the lavatory and drawing for this modification is enclosed herewith.

DA: As above

(Indrajit Singh)

Executive Director (Stds./Carriage)

Copy to:

1. EDME/Dev, Railway Board, Rail Bhavan, New Delhi - 110 001
2. EDME/Coaching, Railway Board, Rail Bhavan, New Delhi - 110 001
3. CDE/ICF/Chennai - 600 038
4. CDE/RCF/KXH - 144 602
5. CDE/MRCF/RBL - 229212

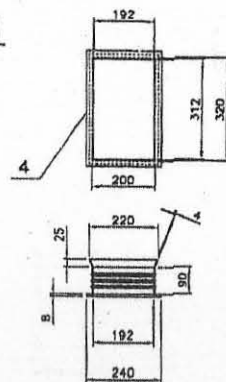
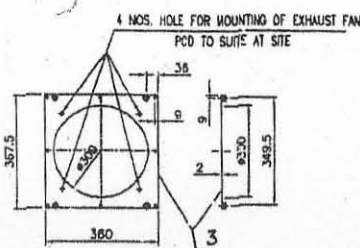
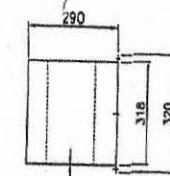
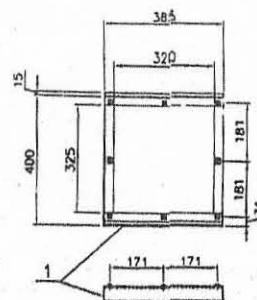
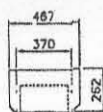
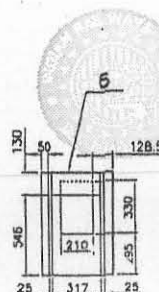
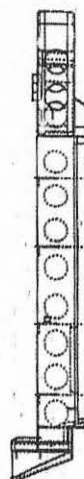
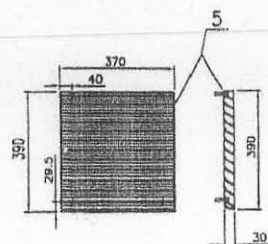
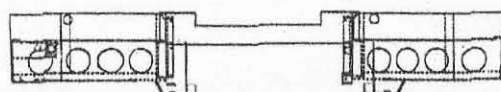
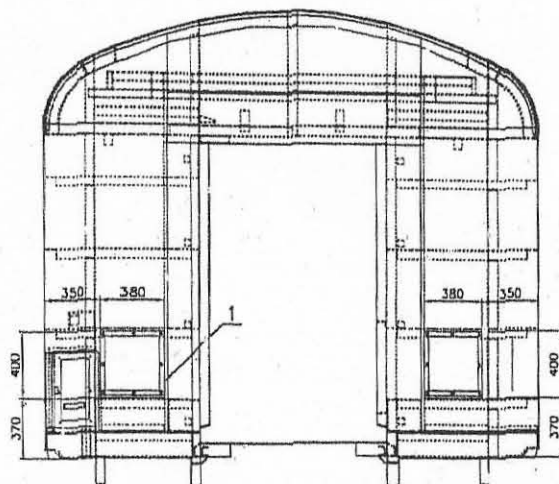
Received
13/10/17
S. K. Singh

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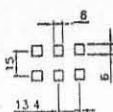
INSTRUCTION FOR PROVISION OF 12" (300mm) EXHAUST FAN ON END WALL OF LHB COACH TO MINIMIZE THE FOUL SMELL IN LAVATORY.

Following Steps are to be followed for fitment of 12" (300mm) Exhaust Fan in the end wall of coaches:

1. Stripping of Dustbin from inside the lavatory in case of in service coaches.
2. Marking of rectangular hole of 200 x 320 mm size in lavatory module at washbasin side which shall be located at 215mm from adjacent side wall of module and 300mm above the lavatory floor.
3. Cut the rectangular hole of 200 x 320 mm by appropriate cutting machine.
4. Stripping of insulating material from end wall.
5. Check the feasibility of cutting of SS plate in end wall.
6. Marking of hole of 380 x 400 mm at end wall as per location given RDSO study sketch No.SD-17010.
7. Cut the hole of 380 x 400 mm by hand held Plasma Cutting Machine.
8. Upper cross member in front of hole is to be cut / grind upto 15mm by grinding machine to clear the passage for fitment of duct, if required.
9. Welding of Frame assembly (Item No.1 of Drg. No.SD-17010) to the end at location given in RDSO Drg. No. SD-17010.
10. Fitment of duct (Item No.2 of Drg. No.SD-17010) in to the end wall.
11. Fitment of 12" Heavy Duty Exhaust Fan (Min.1350 RPM, Max. Power 90 Watt, Min Air Deliver 1550 m³/h) 220 V AC of Crompton Greaves/Almond/Usha /Orient Make on Cover Sheet (item No.3 of Drg. No.SD-17010). Exhaust fan legs shall be mounted directly with Cover Sheet.
12. Make provision of electrical wiring/connection by ensuring proper safety. Provide MCB of 1 Amp for each Exhaust fan.
13. Mounting of cover sheet along with Exhaust fan on end wall by 6 Nos. M6x16 SS Hex. Head Bolt with Spring Washer.
14. Fitment of Air Grill (Item No.5 of Drg. No.SD-17010) on the outside of the end wall by 4 Nos. M8 x 20 SS Hex Socket Hd. Cap Screw
15. Fitment of Perforated Dustbin frame (Item No.6 of Drg.No.SD-17010) from inside the Lavatory Module.
16. Fitment of Rubber Hose (Item No.4 of Drg.No.SD-17010) into the duct from inside of lavatory module.
17. Fitment of Aluminum / SS grills of suitable size from inside of the lavatory to cover the duct opening.
18. Final inspection of practical running/Fitment of exhaust fan & its outcome.



DETAIL AT 'X'



NOTE :

1. THIS IS A INDICATIVE DRAWING FOR BASIC DIMENSION. FOR FURTHER DETAILS, RCF'S DRAWING MAY BE REFERRED.
2. 300MM HEAVY DUTY EXHAUST FAN SHALL BE DIRECTLY MOUNTED ON COVER PLATE WITH SUITABLE RUBBER PACKING. THE MOUNTING HOLE FOR EXHAUST FAN SHALL BE DRILED ON COVER PLATE TO SUITEAT SITE.

6	MODIFIED DUSTBIN STAND	4	RCF DRG. NO. 14006418		
5	AIR GRILL	4	RCF DRG. NO. 602.275.000.001		
4	RUBBER HOSE	4		EPDM (HARDNESS SHORE A 50±5)	
3	COVER SHEET	4	RCF DRG. NO. 2 10113.0.29.400.05	C-K201	
2	DUCT	4		X2Cr-Ni12	
1	FRAME ASSEMBLY	4	RCF DRG. NO. 2 10113.0.20.120.03	C-K201	
ITEM	DESCRIPTION & DIMENSIONS	NO. OF COACH	REF. DRG. NO.	UNIT (Gram)	MATL. & SPEC. REMARKS

ASSEMBLY DRCS. REFERENCE:-	SUPERSEDED BY:	INDIAN RAILWAY STANDARDS
	SCALE	MAIN LINE COACHES
	1:20 C	ABHAY SINHA
	1:10 D	S.K.SRINASTAVA
	J.S.	55/22/17
CHECK SHEET No.	B.G.	R.D.S.O. [CG]
		SD-17010

ALT.	ITEM	AUTHY.	DESCRIPTION	CKD.	DATE
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