

**[National Automotive Board (NAB)]**

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Date : 03<sup>rd</sup> December 2024

**TYPE APPROVAL CERTIFICATE**

FOR

**Retro-fit Emission Control Devices (RECD) Compliance**

Cert	Report	Specs	Drg	Total
04	18	149	28	199 pgs

1. Based on the verification of documents & trials conducted on RECD model "C2-CS1800-R12" (Family designation C2-R12) for below mentioned manufacturer and it is certified that the following RECD model complies with the provisions of Type Approval of CPCB System Procedure for Retro-fit Emission Control Devices (RECD) Compliance to Diesel Power Generating Set Engines Up to Gross Mechanical Power 800 kW, as per NGT Order/report "Report filed in O.A. No. 681/2018 dated 6.08.2019".

Documental Reference		RECD Manufacturer			
C O T G 0012 dtd. 11/01/2024		M/s Chakr Innovation Pvt. Ltd. Survey No. 236, Hissa No. 7 and Survey No. 237 Hinjewadi, Taluka Mulshi, Pune, Maharashtra - 411057 Plant : Hinjewadi, Pune			
RECD Family Designation		Engine Manufacturer		Tested Engine Model	
C2-R12		M/s Cummins India Limited		KTA-38-G17	
RECD Model			Engine Cubic Capacity		Gross Engine Power
C2-CS1800-R12			38000 cm <sup>3</sup>		797 kW @ 1500 rpm
Engine Baseline emissions	CPCB Stage -II	Class of RECD	Class II	Engine Manufacturing Date	
				January 2023	
S. No.	Item Description	Parent RECD Type		RECD types within the RECD family (if applicable)	
				Annexure-II	
				Annexure-III	

2. **Validity of the Certificate**

This Type Approval Certificate is valid for Genset engine CPCB Stage -II effective from 01.07.2014 to 30.06.2023.	a.	As per System and procedure for Emission Compliance of Retro-fit Emission Control Devices(RECD) for Diesel Power Generating Set Engines up to Gross Mechanical power 800kW as per NGT Order/report "Report filed in O.A. No. 681/2018 dated 06.08.2019 or until further amendment in the MoEFCC rule, whichever is earlier.
	b.	No change in specified RECD technical specification.

3. It is certified that the above **RECD Model** (Details listed in Annexure-II) comply with the emission limits for Retro-fit Emission Control Devices (RECD) to Diesel Power Generating Set Engines having Gross Mechanical Power **500.3kW to 797.0kW**, as prescribed under the following rules, notified by **Ministry of Environment, Forest and Climate Change (MoEFCC), Govt. of India:**

Rule No.	Description	Date
CPCB-PCLS/12/2021-22	System and procedure for Emission Compliance of Retro-fit Emission Control Devices(RECD) for Diesel Power Generating Set Engines up to Gross Mechanical power 800kW as per NGT Order/report "Report filed in O.A. No. 681/2018 dated 6.08.2019	01.02.2022

4. COP : COP shall be completed by **30.06.2025** as per CPCB Procedure, for details refer **COP Annexure-I**.

5. This Certificate supercedes the earlier certificate COTG 0012 dt. 11.01.2024

AUTHORISED SIGNATORY		
SITARAM KASHYAP DEPUTY GENERAL MANAGER	SAURABH DALELA DIRECTOR	Page 1 of 4