

C O S G 0530 E01

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## TYPE APPROVAL CERTIFICATE

FOR

	Da	2014 III.			
	Cert	Report	Specs	Drg	Total
1	05	<u>.</u> 616	211	25	257 pgs

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

1. Based on the verification of documents & trials conducted on RECD model "Chakr Shield 2.0 C2-CS1800-R10-V2" (Family designation C2-R10) 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".

		ver out kw, as per inc	T Order/report	"Report filed in O.A. No. 681/2018 dated 6.08			
Documental F	Reference	RECD Manufacturer  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					
c COSG 0	530 Su .2023 Ma						
RECD Family D	esignation	Engine Manufacturer			Tested Engine Model		
C2-R10 M/s. Cat			M/s. Cat	erpillar Inc.	C15-2GP-1		
RECD Model				Engine Cubic Capacity	Gross Engine Power		
Chakr Shield 2.0 C2-CS1800-R10-V2			chield 20	15200 cm <sup>3</sup>	454 kW @ 1500 rpm		
Engine Baseline emissions	CPCB Stage -II	Class of RECD	Class II	Engine Manufacturing Date	September 2017		
0 No. 14	D	Parent RECD Type RECD types within the		RECD types within th	he RECD family (if applicable)		
S. No. Item	Description	Annexure-II					
RECD suitable for	r Phase II Certifie	d Diesel Gener	ator engi	ne / engine famillies	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.

- As per System and procedure for Emission Compliance of Retro-fit Emission Control Devices(RECD) for Diesel Power Generationg 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 294.5 kW to 454 kW, as prescribed under the following rules, notified by Ministry of Environment, Forest and Climate Change (MoEFCC), Govt. of India:

Rule No.	. Description			
1950	System and procedure for Emission Compliance of Retro-fit Emision Control Devices(RECD)	Strieto NE CT		
CPCB-PCLS/12/2021-22	for Diesel Power Generationg Set Engines up to Gross Mechanical power 800kW as per NGT	01.02.2022		
Chak' ans	Order/report "Report filed in Q.A. No. 681/2018 dated 6.08.2019	C.R.NO.		

- 4. COP: COP shall be completed by 30.06.2024 as per CPCB Procedure, for details refer COP Annexure-I.
- 5. This certificate supercedes the earlier certificate COSG 0530 dt. 30.06.2023.

	AUTHORISED SIGNATORY	3,	· Huga	1410 yes	Inhe
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	SITARAM KASHYAP DEPUTY GENERAL MANAGER	* MANESAR * P3	SAL	JRABH DALELA DIRECTOR	Page 1 of