

C O S G 0504 V01

Date: 12<sup>th</sup> May 2023

CO S G0504V01

## TYPE APPROVAL CERTIFICATE

 Cert
 Report
 Specs
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**FOR** 

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"

Generating Set Engines Up to Gross Mec	hanical Pow	er 800 kW, as per NO	ST Order/repor	t "Report filed in O	.A. No. 681/2018 dated 6	5.08.2019"	115.	- 2000	
Documental Reference		RECD Manufacturer							
Was. Indo.	M/s, Chakr Innovation Pvt Ltd								
COSG 0504 dtd. 10.05.202	23 S.N	IO 236,Hissa N	lo.7 & S.N	lO 237, Taluk	a Mulish, Hinjewa	adi, Phase 1,	Pune - 411 057	', Maharashtra	
ig Chy	Pla	nt : Hinjewad	li, Pune	CS. Mr.	chaki III.	ration	7.19 CV.	CB-1 MI	
RECD Family Designation		Engine Manufacturer					RECD Model		
C2-R10	Ms Crak	M/s. Caterpillar Inc. 19			Chakr Sh	Chakr Shield 2.0_C2-CS1800-R10-V2			
Tested Engine Model			Engine	Engine Cubic Capacity		Gross Engine Power			
K Info tall C1	5-2GP-1	MsChan	V Innovi	P <sup>M</sup>	5200 cm <sup>3</sup>	Mechan	454 kW @ 1500	) rpm pr lie	
Engine Baseline emissions CPCB S	tage -II	Class of RECD	Class II	Engine Ma	anufacturing Date	te	September 20	)17	
C No. Itam Description		Parent RECD	Туре	R	ECD types within	the RECD far	ne RECD family (if applicable)		
S. No. Item Description	. No. Item Description		Type 1		Type 3	Type 4	Type 5	Type 6	
o. We.		Day .	-,	Annexure-II	101010	out	16. N	le.	
RECD suitable for Phase II	Certified	d Diesel Gene	rator engi	ne / engine i	famillies	6,	Annexure-l	1 ~3k	
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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
Emision Control Devices(RECD) for Diesel Power Generationg Set
a. 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 **454 kW**, as prescribed under the following rules, notified by **Ministry of Environment, Forest and Climate Change (MoEFCC), Govt. of India:** 

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

4. COP: COP shall be completed by 30.06.2024 as per CPCB Procedure, for details refer COP Annexure-

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M/s. ChakeInnovationPvtLtdC15-2GP-1M/s. ChakeInnova		M/s. ChakrInnovationPvILt8C15-2GP-1M/s. ChakrInnova	
SITARAM KASHYAP 🐠	* MANEGAR *	MADHUŠUDAN JOSHI 💎	Page 1 of
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