

RECD Type Approval Certificate No

ARAI/MoEF/RECDTA/NIPL-R2/2024-02

Date: 25th October 2024

**CERTIFICATE
OF
TYPE APPROVAL
FOR**

Cert	Rep	Spec + Drg	Total
4	24	172	200 Pgs

**COMPLIANCE TO PARTICULATE MATTER EMISSION
NORMS FOR RETROFIT EMISSION CONTROL DEVICE
ON IN-USE DIESEL GENSET ENGINE (up to 800 kW)**

1. In order to establish compliance to the provisions of **Particulate Matter emission**, applicable as on date, documental verification/ necessary testing was carried out on the following Retrofit Emission Control Device model(s), submitted by the manufacturer / supplier referred below:

Retrofit Emission Control Device Manufacturer (RECD Manufacturer, Assembler Type Approval Certificate Owner)		Retrofit Emission Control Device Manufacturing Plant		Test Report Reference	
M/s. Novorbis Itus Pvt. Ltd. 212, Kolte Patil City Centre, Hinjewadi Phase -1 Pune, Maharashtra – 411057		M/s. Novorbis Itus Pvt. Ltd. Survey No 261/1, Kasurdi Kheba, Karandi Kheba, Bhor, Pune, Maharashtra, 41206		EDL/RECDTA/NIPL-R2/2024/03 dt. 23.10.2024	
Retrofit Emission Control Device Model		RECD Class		RECD Family	System and Procedure
Parent		CarbonFree-500K	Class I	R2	Pollution Control Series PCLS/12/2021-22
Engine Manufacturer		Tested Engine Model/s	Engine Family	Gross Engine Power	Engine Type approval Certificate No.
Phase II	M/s. Greaves Cotton Ltd.	I2VI4TAG23	F-500	444 kW @ 1500 rpm	ARAI/MoEF/DGTA/GCLP-F500/2014-01-E4
	M/s. Greaves Cotton Ltd.	6G11TAG29	F-201	178.8 kW @ 1500 rpm	ARAI/MoEF/DGTA/GCLP-F201/2015-11-E2
RECD suitable for Phase Phase II Certified Diesel Generator engine / engine families					See Annexure I

2. It is certified that the above-mentioned Retrofit Emission Control Device family/models comply with the emission limits applicable for In-Use Genset Diesel Engines (upto 800 kW), as prescribed under NGT Order O.A. No. 681/2018 dt. 06.08.2019.
3. The above R2 RECD Family / model is suitable for retro fitment of In-use DG Set manufactured for Phase II - On or after 1st July 2014 to 30th June 2024
4. Validity of the Certificate:

This RECD Type Approval Certificate is Valid till	1. The validity of existing emission requirements as per NGT Order No. O.A. 681/2018 dated 06.08.2019 or until further amendment, whichever is earlier.
	2. No change in technical specification of the Retrofit Emission Control Device specified
	3. Explicitly the Type Approval Certificate withdrawn by the engine supplier
	4. Till CoP is not missed

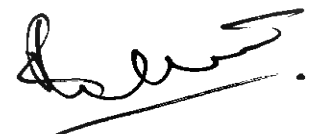
5. Conformity of Production (CoP) requirements:

COP test shall be carried out every year (between the period 1st July and 30th June) as per "System and Procedure for Emission Compliance Testing of Retro-fit Emission Control Devices (RECD) For IN-USE Diesel Power Generating Set Engines Up to Gross Mechanical Power 800 kW" or further amendment.

AUTHORISED SIGNATORY



A. A. BADUSHA
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Place of Issue: Pune



Dr. REJI MATHAI
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