



[National Automotive Board (NAB)]

C O T G 0128

Date : 28th May 2024

TYPE APPROVAL CERTIFICATE

FOR

Retro-fit Emission Control Devices (RECD) Compliance

Cert	Report	Specs	Drg	Total
13	11	138	19	181 pgs

1. Based on the verification of documents & trials conducted on RECD model "C2-CS1800-R8" (Family designation C2-R8) 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			
Current Certificate		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-R8		M/s Kirloskar Oil Engine Limited		DV8 SR1	
RECD Model			Engine Cubic Capacity		Gross Engine Power
C2-CS1800-R8			15928 cm ³		294 kW @ 1500 rpm
Engine Baseline emissions	CPCB Stage -I	Class of RECD	Class II	Engine Manufacturing Date	
				December 2011	
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 -I effective from 01.07.2004 to 30.06.2014.	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 114.9kW to 293.9kW, 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.

AUTHORISED SIGNATORY		
 SITARAM KASHYAP DEPUTY GENERAL MANAGER		 SAURABH DALELA DIRECTOR
		 Page 1 of 13



C O T G 0128

Date : 28th May 2024

COP Annexure-I

Criteria*	COP Required
RECD Manufacturer/Importer/Retrofitter	RECDs fitted on engines of all ratings shall be subjected to the verification of CoP once for every 500 units per family or once a year, whichever is earlier Wherever applicable, RECDs fitted on engines of all ratings of engines shall be subjected to the verification of PCD once every CoP-year by PCD family (ies) representative RECD(s). Such demonstration is PCD family dependent and irrespective of combined volumes produced and sold under such family (ies)

* As Applicable

Annexure-II





S No	Item Description	Parent RECD Type	RECD types within the RECD family (if applicable)
		Type 1	Type 2
1	Manufacturing Plant address	M/s Chakr Innovation Private Limited, Survey No. 236 & 237, Hissa No.7, Taluka - Mulshi, Rajiv Gandhi Infotech Park, Hinjewadi Phase -1, Pune, Maharashtra - 411057	
2	Manufacturer's trade name or mark	Chakr Innovation Private Limited	
3	RECD family designation	C2-R8	
4	RECD type/model designation	C2-CS1800-R8	C2CS1800-R6
5	RECD Category (Domestic/Imported)	Domestic	
6	Class of RECD	Class II	
7	Type Identification of the RECD	Continuous	
8	Location of type ID marking	Refer Specification no. CIPL/TA/C2-CS1800-R8 dtd. 15.05.2024 Clause no 1.8	
9	Identifying part number(s) of the RECD	C2-CS1800-R8-V2.3	C2-CS1800-R6-V2.3
10	Engine/ Engine-Family for which the RECD is intended (application range)	DV8 SR1	
11	PM Reduction Efficiency of the RECD	85.89%	
12	Designed for fitment to an engine meeting the emissions requirements of (Regulation and Stage):	CPCB Stage -I	

ICAT Ref No. 2024-0228; IOCS No: 176440

Base Engine Type Approval Certificate number ARAI/MoEF/DGTA/KOELK-F23/2010-101

Test Report Reference CT0ET 0220 dt. 22/05/2024

AUTHORISED SIGNATORY

			
SITARAM KASHYAP DEPUTY GENERAL MANAGER		SAURABH DALELA DIRECTOR	Page 2 of 13



C O T G 0128





Date : 28th May 2024

Annexure-III

List of applicable engine(s) as per GSR 371(E) dtd. 17.05.2002, GSR 520(E) dtd. 01.07.2003 and GSR 448(E) dtd. 12.07.2004 certified In-Use DG sets for corresponding RECD models of RECD Family.

S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
1	AB VOLVO PENTA, SE40508, GOTHENBURG, SWEDEN	F13	TAD1351GE	286 kW	ARAI/MOEF/DGTA-II/IMP/VOLVO-F13/2013-067 Dt. 13-12-2013
2	Ashok Leyland Ltd. Chennai	F25	AL6DTIDG4	147 kW	ARAI/MoEF/DGTA-II/ALL-F25/2013-046 Dt. 11-07-2013
3			AL6DTIDG2	116 kW	
4			AL6DTIDG3	130 kW	
5		F22	AL4127AG2	125 kW	ARAI/MOEF/DGTA/ALL-F22/2008-072 Dt. 16-12-2008
6		F18	AL6DTI G2	114 kW	ARAI/MOEF/DGTA/ALL-F17/2008-042 Dt. 29-09-2008
7		F27	AL11TA G2	178.8 kW	ARAI/MoEF/DGTA/ALL-F27/2013-057 Dt. 23-10-2013
8			AL11TA G1	163 kW	
9		F28	ALV8TA G1	291.3 kW	ARAI/MoEF/DGTA/ALL-F28/2013-060 Dt. 23-10-2013
10		F26	AL8NTIG3	223 kW	ARAI/MoEF/DGTA/ALL-F26/2013-047 Dt. 11-07-2013
11			AL8NTIG1	180 kW	
12			AL8NTIG2	163 kW	
13		F16	AL615TAG1	188 kW	ARAI/MOEF/DGTA/ALL-F16/2008-010 Dt. 26-03-2008
14			AL615TAG2	168.0 kW	
15		Ashok Leyland Ltd. Hosur	F5	AL6DTI G4	231.3 kW
16	F11		AL680TAG3	152 kW	ARAI/MOEF/DGTA/ALH-F11/2007-011 Dt. 20-03-2007
17		AL680TAG2	133.5 kW		
18	Ashok Leyland Limited Ennore, Tamilnadu; Hosur, Tamilnadu & Pant Nagar, Uttarakhand	F23	AL6DTI G4	146 kW	ARAI/MoEF/DGTA/ALL-F23/2011-042 Dt. 19-10-2011
19			AL6DTI G3	128 kW	
20	F18	AL6DTI G2	114 kW	ARAI/MoEF/DGTA/ALL-F18/2011-031 Dt. 13-07-2011	
21	Asian Power Controls Ltd. Pune	F1	OWTA62015	185 kW	ARAI/MOEF/DGTA/IMP/APC-F1/2008-048 Dt. 12-09-2008
22	Avtec Limited Sector-III, Sagore, Pithampur Industrial Area Dist. Dhar (M.P.) 454 774 & M/s. Avtec Limited, Plot No. 1& 2, Sector B, Nimpura Industrial Estate, Kharagpur - 721301	F9	AGDH7012515	127 kW	ARAI/MOEF/DGTA/AVTEC-F10/2013-021 Dt. 06-03-2013
23			AGDH6710015	110 kW	
24	BEML Mysore	F3	BSA6D125G1	174 kW	ARAI/MOEF/DGTA/BEML-F3/2004-036 Dt. 11-08-2004
25			BSA6D125G2	194 kW	
26			BSA6D125G3	203 kW	
27			BSA6D125G4	215 kW	

AUTHORISED SIGNATORY

			
SITARAM KASHYAP DEPUTY GENERAL MANAGER		SAURABH DALELA DIRECTOR	Page 3 of 13







C O T G 0128

Date : 28th May 2024

Annexure-III Cont.

S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
28	BEML Mysore	F2	BS6D125G1(PES-100)	123 kW	ARAI/MOEF/DGTA/BEML-F2/2006-036, Dt. 17-12-2006
29		F5	BSA6D140G1	245 kW	ARAI/MOEF/DGTA/BEML-F5/2005-19 Dt. 01-06-2005
30			BSA6D140G2	275 kW	
31	Caterpillar India Pvt. Ltd. Mathagondapalli, TN	F1	3306 DITA-GS-2	203 kW	ARAI/MOEF/DGTA/CIPL-F1/2008-017 Dt. 21-05-2008
32			3306 DITA-GP-1	163 kW	
33			3306 DITA-GS-1	179 kW	
34			3306 DITA-G2-2	184 kW	
35		F2	3306 DITA-GS-4	250 kW	ARAI/MOEF/DGTA/CIPL-F2/2008-018 Dt. 21-05-2008
36			3306 DITA-GP-3	203 kW	
37			3306 DITA-GS-3	224 kW	
38		F3	3406 DITA-GP-4	228 kW	ARAI/MOEF/DGTA/CIPL-F3/2008-019 Dt.21-05-2008
39			3406 DITA-GS-2	250 kW	
40			3406 DITA-GP-1	292 kW	
41	Cooper Corporation Pvt Ltd. MIDC, Satara	F5	6B2D1C 125	125 kW	ARAI/MOEF/DGTA/CCPL-F5/2012-006 Dt. 29-03-2012
42		F4	6B2D1C 170	170 kW	ARAI/MOEF/DGTA/CCPL-F4/2012-007 Dt. 29-03-2012
43		F4	6B2D1C170	170 kW	ARAI/MoEF/DGTA/CCPL-F4/2012-023 Dt. 28-08-2012
44			6B2D1C150	150 kW	
45			4B2D1C100	113 kW	
46	CPIPL Hosur	F1	3306 DITA GS-2	203 kW	ARAI/MOEF/DGTA/CIPL-F1/2007-002 Dt. 28-07-2004
47			3306 DITA GP-1	163 kW	
48			3306 DITA GS-1	179 kW	
49			3306 DITA GP-2	184 kW	
50		F2	3306 DITA GS-4	250 kW	ARAI/MOEF/DGTA/CIPL-F2/2007-003 Dt.12-02-2007
51			3306 DITA GP-3	203 kW	
52			3306 DITA GS-3	224 kW	
53			3306 DITA GP-4	228 kW	
54		F3	3406 DITA GP-1	292 kW	ARAI/MOEF/DGTA/CIPL-F3/2007-004, Dt. 12-02-2007
55		Cummins India Ltd. Daman	F6	6BTA5.9G2I	114 kW
56	F18		6BTAA5.9G-I	115 kW	ARAI/MOEF/DGTA/CILD-F18/2006-037 Dt. 17-12-2006
57	F18		6BTAA5.9G1I	125.2 kW	ARAI/MOEF/DGTA/CIL-F18/2004-056 Dt. 27-11-2004
58	Cummins India Ltd. Kothrud, Pune 411038	F17	6CTAA8.3-G4	231 kW	ARAI/MOEF/DGTA/CIL-F17/2007-034- E1, Dt. 18-09-2008

AUTHORISED SIGNATORY

 SITARAM KASHYAP DEPUTY GENERAL MANAGER	 INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY MANESAR • 190104 RAJASTHAN	 SAURABH DALELA DIRECTOR	 Page 4 of 13
---	---	---	--







C O T G 0128

Date : 28th May 2024

Annexure-III Cont.

S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
59	Cummins India Ltd. Kothrud, Pune 411038	F28	6BTAA 5.9 G5	146 kW	ARAI/MOEF/DGTA/CIL-F28/2008-052 Dt. 18-09-2008
60		F32	QSL9-G7	300 kW	ARAI/MoEF/DGTA-II/CILP-F32/2012-029 Dt. 27-11-2012
61			QSL9-G7.1	271 kW	
62			QSL9-G7.2	257 kW	
63			QSL9-G7.3	235 kW	
64		F40	QSB 5.9 -G2	153.6 kW	ARAI/MoEF/DGTA-II/CILP-F40/2013-001 Dt. 17-01-2013
65			QSB 5.9 -G1	137.2 kW	
66			QSB 5.9 -G3	124.5 kW	
67		F41	QSB 6.7- G12	191.1 kW	ARAI/MoEF/DGTA-II/CILP-F41/2013-002 Dt. 17-01-2013
68			QSB 6.7 - G11	174.5kW	
69		F7	NT-14-61	208.8 kW	ARAI/MOEF/DGTA/CIL-F7/2003-33 Dt. 4-12-2003
70			NT-14-62	228 kW	
71		F9	NT-14-G3	208.8 kW	ARAI/MOEF/DGTA/CIL-F9/2003-35 Dt. 4-12-2003
72			NT-14-G4	228 kW	
73			NT-14-F5	254 kW	
74	Cummins India Ltd. Power Generation Business Unit, 19-25A, Silver Industrial Estate, Bhipore, Daman-396210	F18	6BTAA5.9-G3	115 kW	ARAI/MoEF/DGTA/CILD-F18/2010-089 Dt. 23-09-2010
75			6BTAA5.9-G4	127 kW	
76	Cummins India Ltd. Pune	F2	6CTA-8.3-G1-I	153 kW	ARAI/MOEF/DGTA/CIL-F2/2007-054 Dt. 31-08-2007
77			6CTA-8.3-G2-I	163 kW	
78			6CTAA-8.3-G1-I	183 kW	
79		F8	NTA-14-G2	254 kW	ARAI/MOEF/DGTA/CIL-F8/2007-026 Dt. 09-07-2007
80			NTA-14-G1	283 kW	
81			NTA-14-RG1	283 kW	
82			NTA-14-RG2	254 kW	
83		F20	NTA-855-G2-I	283 kW	ARAI/MOEF/DGTA/CIL-F20/2007-029 Dt. 09-07-2007
84		F17	6CTAA8.3-G4	231.2 kW	ARAI/MOEF/DGTA/CIL-F17/2007-034 Dt. 31-07-2007
85		F19	NT-855-G5-I	228.2 kW	ARAI/MOEF/DGTA/CIL-F19/2004-057 Dt. 27-11-2004
86		F20	NTA-855-G2-I	283.4 kW	ARAI/MOEF/DGTA/CIL-F20/2004-058 Dt. 27-11-2004
87		F21	NTA-855-G1-I	283.4 kW	ARAI/MOEF/DGTA/CIL-F21/2004-059 Dt. 27-11-2004
88	F22	NTA-855-G-I	283.4 kW	ARAI/MOEF/DGTA/CIL-F22/2004-060 Dt. 27-11-2004	

AUTHORISED SIGNATORY

 SITARAM KASHYAP DEPUTY GENERAL MANAGER	 INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY MANESAR • 150901	 SAURABH DALELA DIRECTOR	 Page 5 of 13
---	---	---	---







C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
89	Cummins India Ltd. Pune	F17	6CTAA8.3-G4	231.2 kW	ARAI/MOEF/DGTA/CIL-F17/2004-025 Dt. 17-06-2004
90		F1	6CT 8.3-G2-I	130.8 kW	ARAI/MOEF/DGTA/CIL-F1/2003-005 Dt. 28-03-2003
91		F2	6CTA-8.3-G1-I	148.4 kW	ARAI/MOEF/DGTA/CIL-F2/2003-006 Dt. 30-03-2003
92			6CTA-8.3-G2-I	163 kW	
93			6CTAA-8.3-G1-I	183 kW	
94	DEUTZ AG Otto Str. 1, D-51149 Cologne, Germany	F11	BF6M1015C	214 kW	ARAI/MoEF/DGTA/IMP/DEU-F10/2011-035 Dt. 27-07-2011
95		F7	TCD 2013 L064 V	227 kW	ARAI/MoEF/IMP/DGTA/DEIPL-F7/2011-014 Dt. 26-03-2011
96	Deutz (Dalian) Engine Co., Ltd. No- 49 DangBei Road, Sha Hekou District, Dalian, China	F6	BF6M1013FC	201 kW	ARAI/MoEF/IMP/DGTA/DEIPL-F6/2010-084 Dt. 20-09-2010
97			BF4M1013EC	129 kW	
98			BF6M1013EC	153 kW	
99	Deutz Engines India Pvt. Ltd Pune.	F3	BF6M1013EC-D20C133	133 kW	ARAI/MoEF/DGTA/IMP/DEIPL-F3/2013-056 Dt. 01-09-2013
100			BF6M1013FC-D20C166	166 kW	
101	Doosan Infracore Co. Ltd. 7-11, Hwasu-dong, Dong-gu, Incheon, Korea	F1	P126TI IN01	241 kW	ARAI/MOEF/DGTA/IMP/DICL-F1/2010-080 Dt. 03-08-2010
102			P126TI IN02	272 kW	
103	Empower Gensets Pvt Ltd.Survey No. 36/1, Pisoli Road, Pisoli, Taluka Haveli Ditric Pune - 411028, India.	F2	BF6M1013FC	166 kW	ARAI/MoEF/DGTA/IMP/EGPL-F2/2011-044 Dt. 29-09-2011
104	Greaves Ltd Chinchwad, Pune	F4	TD2V6	114.6 kW	ARAI/MOEF/DGTA/GLP-F4/2003-14 Dt. 23-05-2003
105		F12	TBD2V6 MK-I	145.8 kW	ARAI/MOEF/DGTA/GLP-F12/2003-22 Dt. 26-06
106		F22	TBD4L4	148.6 kW	ARAI/MOEF/DGTA/GCLP-F22/2007-024 Dt.02-07-2007
107			TBD4V6	222.8 kW	
108			TBD4V8	292.7 kW	
109			TBD4IV6	222.8 kW	
110			TBD4IV6P	245.6 kW	
111		F9	6YDCMK3	114.73 kW	ARAI/MOEF/DGTA/GCLP-F9/2007-035, Dt. 31-07-2007
112		F21	TBD2V6MK IP	145.8 kW	ARAI/MOEF/DGTA/GCLP-F21/2007-019 Dt. 09-07-2007
113			TBD2V8P	162.8 kW	

AUTHORISED SIGNATORY

			
SITARAM KASHYAP DEPUTY GENERAL MANAGER		SAURABH DALELA DIRECTOR	Page 6 of 13



C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
114	Greaves Ltd Chinchwad, Pune	F21	TBD2V6MK I	144.89 kW	ARAI/MOEF/DGTA/GCLP-F21/2007-019 Dt. 09-07-2007
115			TBD2V8MK I	275.81 kW	
116			TBD2V12MK I	276.81 kW	
117			TBD2V12	244.65 kW	
118			TBD2V12MK II	291.258 kW	
119			TBD2V12MK IIP	291.258 kW	
120	Greaves Cotton Ltd. (D.E.U.), Chinchwad, Pune	F28	4G11TAG3	114 kW	ARAI/MoEF/DGTA/GCLP-F28/2009-063- E2 Dt. 17-04-2013
121			6G11TAG3	163 kW	
122			6G11TAG1	127.2 kW	
123			6G11TAG2	144.5 kW	
124			6G11TAG4	178.8 kW	
125		F28	4G11TAG3	114 kW	ARAI/MoEF/DGTA/GCLP-F28/2009-063- E1 Dt. 02-01-2013
126			6G11TAG3	163 kW	
127			6G11TAG1	127.2 kW	
128		F30	6G11TAG2	144.5 kW	ARAI/MOEF/DGTA/GCLP-F30/2010-078 Dt. 09-08-2010
129			TBD3V6MK-II	230.2 kW	
130		F22	TBD3V8MK-II	291.3 kW	ARAI/MOEF/DGTA/GCLP-F22/2007-24 Dt. 02-07-2007
131			TBD4L4	148.6 kW	
132	TBD4IV6P		245.65 kW		
133	TBD4V6		222.86 kW		
134	TBD4V8		292.73 kW		
135	F16	TBD4IV6	222.86 kW	ARAI/MOEF/DGTA/GCLP-F16/2004-065 Dt. 15-11-2004	
136		TBD4L4	144 kW		
137		TBD4V6	222.86 kW		
138		TBD4V8	292.73 kW		
139	F13	TBD4IV6	222.86 kW	ARAI/MOEF/DGTA/GCLP-F13/2003-40 Dt. 31-12-2003	
140		TBD3V6 MK-1	176 kW		
141		TBD3V6	169 kW		
142	F10	TBD3V8	230.2 kW	ARAI/MOEF/DGTA/GCLP-F10/2004-06 Dt. 26-02-2004	
143		TD4L4	113.9 kW		
144	F9	6YDCMK3	114.3 kW	ARAI/MOEF/DGTA/GCLP-F9/2004-013 Dt. 20-03-2004	
145	F12	F12	TBD2V6MKI	144.8 kW	ARAI/MOEF/DGTA/GCLP-F12/2005-24 Dt. 05-09-2005
146			TBD2V8MKI	186.08 kW	
147			TBD2V12MKI	275.81 kW	
148			TBD2V12	245.65 kW	
149			TBD2V12MKI	291.258 kW	
150			TBD2V12MKIIP	291.258 kW	

AUTHORISED SIGNATORY

			
SITARAM KASHYAP DEPUTY GENERAL MANAGER		SAURABH DALELA DIRECTOR	Page 7 of 13



C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
151	Greaves Cotton Ltd. Pune	F15	TBD4L4, TBD4L4P	148.6 kW	ARAI/MOEF/DGTA/GCLP-F15/2005-26 Dt. 24-09-2005
152		F10	TD4L4	112.74 kW	ARAI/MOEF/DGTA/GCLP-F10/2005-29 Dt. 27-09-2005
153		F17	TBD3V6 MK-I	186 kW	ARAI/MOEF/DGTA/GCLP-F17/2005-31 Dt. 26-03-2005
154			TBD3V6 MK-IP	186 kW	
155			TBD3V6	169 kW	
156			TBD3V6P	169 kW	
157		F22	TBD4IV6P	245.6 kW	ARAI/MOEF/DGTA/GCLP-F22/2005-33 Dt. 26-03-2005
158		F21	TBD2V6MK-IP	164 kW	ARAI/MOEF/DGTA/GCLP-F21/2005-34 Dt. 26-11-2005
159			TBD2V8P	204.7 kW	
160		F10	TD4L4P	114.7 kW	ARAI/MOEF/DGTA/GCLP-F10/2006-022 Dt. 20-07-2006
161	HPPL Hosur	F1	3306 DITA GS-2	203 kW	ARAI/MOEF/DGTA/HPL-F1/2006-015 Dt. 06-07-2006
162			3306 DITA GP-1	163 kW	
163			3306 DITA GS-1	179 kW	
164			3306 DITA GP-2	184 kW	
165		F2	3306 DITA GS-4	250 kW	ARAI/MOEF/DGTA/ HPL-F2/2006-016 Dt. 06-07-2006
166			3306 DITA GP-3	203 kW	
167			3306 DITA GS-3	224 kW	
168			3306 DITA GP-4	228 kW	
169		F3	3406 DITA GP-1	292 kW	ARAI/MOEF/DGTA/ HPL-F1/2006-017 Dt. 06-07-2006
170		F1	3306DITA-GS-2	203 kW	ARAI/MOEF/DGTA/HPL-F1/2004-029 Dt. 28-07-2004
171			3306DITA-GP-2	184 kW	
172			3306DITA-GS-1		
173			3306DITA-GP-1	163 kW	
174		F2	3306DITA-GS-4	250 kW	ARAI/MOEF/DGTA/HPL-F2/2004-030 Dt. 28-07-2004
175			3306DITA-GP-4	228 kW	
176			3306DITA-GS-3	224 kW	
177			3306DITA-GP-3	203 kW	
178	F3	3406DITA-GP-1	292 kW	ARAI/MOEF/DGTA/HPL-F3/2004-031 Dt. 28-07-2004	
179	Indo Power Generation	F1	6068HF158	153 kW	ARAI/MOEF/DGTA/IMP/PGPL-F1/2009-030, Dt. 24-06-2009
180			6068HF258	183 kW	
181			6068TF258	120 kW	
182	Indo Marine Engineering Co. Pvt. Ltd. Pune	F2	6081HF001 200	200 kW	ARAI/MOEF/DGTA/IMP/IMEC-F2/2009-037, Dt. 30-06-2009
183			6081HF001 260	260 kW	
AUTHORISED SIGNATORY					
 SITARAM KASHYAP DEPUTY GENERAL MANAGER			 SAURABH DALELA DIRECTOR		 Page 8 of 13



C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
184	Jeruz Magnegas Pvt. Ltd. Rajkot, Gujarat	F1	BF6M1013ECP	133.2 kW	ARAI/MOEF/DGTA/IMP/JER-F1/2008-030, Dt. 18-07-2008
185	Kaytee Switchgear Ltd. Hubli	F4	R6113ZLD	155 kW	ARAI/MOEF/DGTA/KSL-F7/2006-039 Dt. 05-09-2007
186		F3	6KSWITC105	127 kW	
187		F7	6KSWATC-105	110 kW	
188	Kirloskar Electric Company Limited Unit 14, Gokul Road, Hubli 580030	F4	6KSWITC113	155 kW	ARAI/MoEF/DGTA/KECL-F4/2011-025 Dt. 28-06-2011
189		F25	6IKK135ZLD1	236 kW	ARAI/MoEF/DGTA/IMP/KECL-F25/2011-030, Dt. 22-07-2011
190		F20	6IKK135ZLD	187 kW	ARAI/MOEF/DGTA/KECL-F20/2010-001 Dt. 16-02-2010
191		F21	6IKC120IZD2	236 kW	ARAI/MOEF/DGTA/KECL-F21/2010-002 Dt. 16-02-2010
192		F22	12VKK135AZD	300 kW	ARAI/MOEF/DGTA/KECL/F22/2010-013 Dt. 16-02-2010
193	Kirloskar Oil Engines Ltd. Pune	F20	6SL1500TASR1	164.5 kW	ARAI/MOEF/DGTA/KOEL-F20/2006-028 Dt. 17-10-2006
194			6SL1500TASR2	184.0 kW	
195		F8	6SL1500TAI	164.5 kW	ARAI/MOEF/DGTA/KOEL-F8/2006-029 Dt. 04-12-2006
196			6SL1500TA	184.0 kW	
197	Kirloskar Oil Engine Limited Khadki, Pune	F3	6R1080TA	113.2 kW	ARAI/MOEF/DGTA/KOEL-F3/2003-003 Dt. 28-03-2003
198		F7	6SL9088TA1	129.8 kW	ARAI/MOEF/DGTA/KOEL-F8/2003-42 Dt- 24-01-2004
199			6SL9088TA	145.72 kW	
200		F8	6SL1500TAI	164.1 kW	ARAI/MOEF/DGTA/KOEL-F8/2003-42 Dt- 24-01-2004
201			6SL1500TA	181 kW	
202		F3	6R1080TA	113.2 kW	ARAI/MOEF/DGTA/KOEL-F3/2004-021 Dt. 17-06-2004
203		F10	6KL12TASRI	284 kW	ARAI/MOEF/DGTA/KOEL-F10/2004-026 Dt. 24-06-2004
204			6KL12TA	241 kW	
205			6K12TA SR11	272 kW	
206		F112	4K1080TAG2	114.7 kW	ARAI/MoEF/DGTA-II/KOEL-F112/2013-054, Dt. 20-08-2013
207	4K1080TAG1		114.7 kW		
208	F114	6SL1500TAG3	228 kW	ARAI/MoEF/DGTA-II/KOEL-F114/2014-001, Dt. 17-01-2014	
209		6SL1500TAG2	183 kW		
210	F113	6K1080TA G2	147 kW	ARAI/MoEF/DGTA-II/KOEL-F113/2014-003, Dt. 05-02-2014	
211	Kirloskar Oil Engine Limited Khadki, Pune	F11	6SL8800TASRII	173.3 kW	ARAI/MOEF/DGTA/KOEL-F11/2004-052 Dt. 29-10-2004
212			6SL8800TASRI	254 kW	

AUTHORISED SIGNATORY

 SITARAM KASHYAP DEPUTY GENERAL MANAGER	 MANESAR	 SAURABH DALELA DIRECTOR	 Page 9 of 13
---	---	---	--







C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
213	Kirloskar Oil Engine Limited Khadki, Pune	F17	6SL9088TAI	130 kW	ARAI/MOEF/DGTA/KOEL-17/2005-27 Dt. 21-10-2005
214			6SL9088TA	147 kW	
215		F15	6K1080TAG	128 kW	ARAI/MOEF/DGTA/KOEL-F15/2005-14 Dt. 31-03-2005
216			6K1080TAG SR1	147 kW	
217		F37	4K1080TA1	114.7 kW	ARAI/MoEF/DGTA/KOEL-F37/2011-043 Dt. 29-09-2011
218		Kirloskar Oil Engine Limited Khadki, Pune	F10	DV6ITA SRI	284 kW
219	DV6ITA			241 kW	
220	DV6ITASRII			272 kW	
221	F23		DV8 SR1	294 kW	ARAI/MoEF/DGTA/KOELK-F23/2010-101 E1, Dt. 19-10-2011
222	F23		DV8 SR1	294 kW	ARAI/MoEF/DGTA/KOELK-F23/2010-101 Dt. 3-02-2011
223	F3		6R1080TA	113.2 kW	ARAI/MOEF/DGTA/KOEL-F3/2008-034 Dt. 09-07-2008
224	F15		6K1080TA	147.2 kW	ARAI/MOEF/DGTA/KOEL-F15/2008-056 Dt. 01-10-2008
225	F10		TD226B-6IID1	116.2 kW	ARAI/MOEF/DGTA/IMP/LIPL-F10/2008-058, Dt. 16-10-2008
226	Lombardini India Pvt. Ltd. Aurangabad	F13	WD12D320 E21	228 kW	ARAI/MOEF/DGTA/LIPL-F13/2009-033 Dt. 11-06-2009
227		F11	WD10D260 E21	204.30 kW	ARAI/MOEF/DGTA/IMP/LIPL-F12/2009-034
228	Mahindra & Mahindra Limited Akurli Road, Kandivali (E), Mumbai 400101, India	F21	62805 GC	185 kW	ARAI/MoEF/IMP/DGTA/M&M-F21/2011-028 Dt. 13-07-2011
229			61985 GC	132 kW	
230			62205 GC	146 kW	
231		F15	61985GC	132 kW	ARAI/MOEF/DGTA/IMP/M&M-F15/2008-012, Dt. 15-05-2008
232		F21	62805GC	186 kW	ARAI/MOEF/DGTA/IMP/M&M-F21/2008-078, Dt. 20-01-2009
233		F20	62205GC	146 kW	ARAI/MOEF/DGTA/IMP/M&M-F20/2008-079, Dt. 20-01-2009
234		F25	64205GC	280 kW	ARAI/MOEF/DGTA/IMP/M&M-F25/2009-019, Dt. 27-05-2009
235			63455GC	230 kW	
236		F46	61695 GM-C2	113.34 kW	ARAI/MoEF/DGTA-II/M&M-F46/2013-048 Dt. 12-07-2013
237		F34	61695 GM-C2	113.34 kW	ARAI/MOEF/DGTA/M&M-F46/2014-012 Dt. 19-06-2014

AUTHORISED SIGNATORY

 SITARAM KASHYAP DEPUTY GENERAL MANAGER		 SAURABH DALELA DIRECTOR	 Page 10 of 13
---	---	---	---







C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
238	Mahindra Navistar Engines Pvt. Ltd. Plot # A-1/1, Chakan Industrial area, Village Nlgoje, Taluka -Khed, Chakan, Pune-410501, Maharashtra.	F4	S12- V (200KVA)	180 kW	ARAI/MoEF/DGTA/MNEPL-F4/2010-100 Dt. 29-12-2010
239			S12- IV (180KVA)	163 kW	
240	Mahindra Heavy Engines Pvt. Ltd. Chakan,Pune- 410 501	F12	200kVA Mech.CPCB-I	180 kW	ARAI/MoEF/DGTA/MHEPL-F12/2013-071
241			180kVA Mech.CPCB-I	163 kW	
242		F11	200kVA Elec.CPCB-I	180 kW	ARAI/MoEF/DGTA/MHEPL-F11/2013-070
243			180kVA Elec.CPCB-I	163 kW	
244		F13	160kVA Mech.CPCB-I	146.5 kW	ARAI/MoEF/DGTA/MHEPL-F13/2013-072 Dt. 24-10-2013
245			140kVA Mech.CPCB-I	128.7 kW	
246	125kVA Mech.CPCB-I	114.7 kW			
247		F3	SE12-II (200 KVA)	180 kW	ARAI/MoEF/DGTA/MNEPL- F3/2010-094 Dt. 29-12-2010
248			SE12-I (180 KVA)	163 kW	
249		F6	MaxxForce 7.2 P Elec / 200 kVA	180 kW	ARAI/MoEF/DGTA/MNEPL-F6/2012-005 Dt. 30-01-2013
250			MaxxForce 7.2 P Elec / 180 kVA	163 kW	
251	Mahindra Navistar Engines Pvt. Ltd. Pune, Maharashtra - 412111	F5	X12-14-125KVA-Mech	112.5 kW	ARAI/MoEF/DGTA/MNEPL-F5/2011-036 Dt. 29-09-2011
252		F7	MaxxForce 7.2 P Mec CPCB I 200kVA	180 kW	ARAI/MoEF/DGTA/MNEPL-F7/2013-007 Dt. 30-01-2013
253			MaxxForce 7.2 P Mec CPCB I 180kVA	163 kW	
254	Mahindra Navistar Engines Pvt. Ltd. Pune, Maharashtra - 412111	F8	MaxxForce 7.2 P Mec CPCB I 160kVA	146 kW	ARAI/MoEF/DGTA/MNEPL-F8/2013-008 Dt. 01-01-2013
255			MaxxForce 7.2 P Mec CPCB I 140kVA	146.5 kW	
256			MaxxForce 7.2 P Mec CPCB I 125kVA	114.7 kW	
257	Mahindra Navistar Engines Pvt. Ltd. Pune, Maharashtra - 412111	F2	S12-I (160 KVA)	146.13 kW	ARAI/MoEF/DGTA/MNEPL- F2/2010-086 Dt. 23-09-2010
258			S12-II (140 KVA)	128.74 kW	
259			S12-III (125KVA)	114.7 kW	
260		F9	MaxxForce 7.2 P Mech CPCB II 160 KVA	146.13 kW	ARAI/MoEF/DGTA/MNEPL-F9/2013-016 Dt. 01-03-2013
261			MaxxForce 7.2 P Mech CPCB II 125 KVA	114.7 kW	
262	Mak Controls and Systems Pvt. Ltd. 7/41-B, Avinashi Road, Coimbatore- 641 014	F10	TCD2013L062V	191 KW	ARAI/MoEF/DGTA/IMP/MCSP-F10/2012-12, Dt. 30-04-2012
263		F7	BF4M1013FC	117 KW	ARAI/MoEF/DGTA/IMP/MCSP-F7/2011-017, Dt. 02-05-2011
264			BF6M1013FC	187 KW	

AUTHORISED SIGNATORY

 SITARAM KASHYAP DEPUTY GENERAL MANAGER	 ICAT International Centre for Automotive Technology Innovation • Service • Excellence MANESAR • 150107INDIA	 SAURABH DALELA DIRECTOR	 Page 11 of 13
---	--	---	--







C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
265	MTU India Pvt. Ltd. 159/1, Tathawade, Pune-Mumbai Highway, Pune 411033	F5	6R1600G80F	301 kW	ARAI/MoEF/DGTA-II/IMP/MTU-F5/2013- 34 Dt. 30-04-2013
266			6R1600G10F	249 kW	
267			6R1600G20F	274 kW	
268			6R1600G70F	274 kW	
269	MTU Friedrichshafen GmbH Nussdorferstrasse 88662 Uberlingen Germany	F3	8V1600 G80F	301 kW	ARAI/MoEF/IMP/DGTA/MTU-F3/2010- 098
270		F4	6R1600 G10F	249 kW	ARAI/MoEF/IMP/DGTA/MTU-F4/2010- 099 Dt. 10-01-2011
271			6R1600 G20F	274 kW	
272			6R1600 G70F	274 kW	
273	6R1600 G80F		301 kW		
274	Navistar, Inc. 10400 W. North Ave. Melrose Park, IL 60160, USA	F1	GCB330A	246 kW	ARAI/MOEF/DGTA/IMP/NAV-F1/2010- 081, Dt. 12-08-2010
275			GCB300A	224 kW	
276		F2	GCB325A	242 kW	ARAI/MOEF/DGTA/IMP/NAV-F2/2010- 082
277	Perkins Engines Company Ltd. Eastfield, Peterborough, PE15NA	F4	1306C-E87 TAG6	246 kW	ARAI/MoEF/DGTA/IMP/PECL-F4/2011- 002, Dt. 03-02-2011
278			1306C-E87 TAG4	224 kW	
279	Shandong Weichai Huafeng Power Co. Ltd., China	F8	R6105ZLD1-P1	127 kW	ARAI/MOEF/DGTA/IMP/HUA-F8/2009- 025, Dt. 11-06-2009
280			R6105ZLD-P1	110 kW	
281	Shanghai Diesel Engine Co. Ltd. 2636 JunGong Road, Shanghai, China	F6	12V135AZD	300 kW	ARAI/MOEF/IMP/DGTA/SDEC/F6/2010- 006, Dt. 16-02-2010
282		F1	SC9D 280D	185 kW	ARAI/MOEF/DGTA/IMP/SDEC-F1/2009- 016 Dt. 27-05-2009
283			SC8D 200D	132 kW	
284			SC8D 220D	146 kW	
285			SC8D 245D	163 kW	
286	Shanghai Diesel Engine Co. Ltd. 2636 JunGong Road, Shanghai, China	F2	G128ZLD	187 kW	ARAI/MOEF/DGTA/IMP/SDEC-F2/2009- 017 Dt. 27-05-2009
287			G128ZLD1	236 kW	
288			G128ZLD2	206 kW	
289			G128ZLD11	280 kW	
290	F3	SC11CB300D1	221 kW	ARAI/MOEF/DGTA/IMP/SDEC-F3/2009- 018, Dt. 27-05-2009	
291		SC11CB350DL	248 kW		
292	Shanghai Diesel Engine Co. Ltd. 2636 JunGong Road, Shanghai, China	F8	SC9D280D	185 kW	ARAI/MoEF/IMP/DGTA/SDEC/F8/2011- 023 Dt. 02-06-2011
293			SC8D200D	132 kW	
294			SC8D220D	146 kW	
295			SC9D245D	163 kW	
296	F9	SC9D340D2	228 kW	ARAI/MoEF/DGTA/IMP/SDEC-F9/2013- 017, Dt. 23-02-2013	
297	F11	SC7H250D2	168 kW	ARAI/MoEF/DGTA/IMP/SDEC-F11/2013- 044, Dt. 14-08-2013	
298		SC7H230D2	154 kW		

AUTHORISED SIGNATORY

 SITARAM KASHYAP DEPUTY GENERAL MANAGER	 INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY MANESAR	 SAURABH DALELA DIRECTOR	 Page 12 of 13
---	--	---	---

Innovation • Service • Excellence






C O T G 0128

Date : 28th May 2024

Annexure-III Cont.					
S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
299	Shanghai Diesel Engine Co. Ltd. 2636 JunGong Road, Shanghai, China	F10	SC4H180D2	120 kW	ARAI/MoEF/DGTA/IMP/SDEC-F10/2013-028, Dt. 25-03-2013
300	SuperNova Engineers Ltd. Ahmedabad	F6	YC6M320D	235.5 kW	ARAI/MOEF/DGTA/IMP/SEL-F6/2008-074
301		F5	YC6A190D	133.5 kW	ARAI/MOEF/DGTA/IMP/SEL-F5/2008-075
302	TLD Europe France	F1	QSB6.7	164 kW	ARAI/MOEF/DGTA/IMP/TLD-F1/2008-046, Dt. 18-09-2008
303	VE Commercial Vehicle Ltd., 102, Industrial area No-2 Pithampur- 454775, Dist-Dhar, Madhya Pradesh	F7	EE694TCI 125KVA CPCB-II	115 kW	ARAI/MoEF/DGTA/II/VECVL-F7/2014-005, Dt. 28-01-2014
304	Volvo India Pvt. Limited Yalachahalli, Tavarekere Post, Hosakote, Bangalore	F2	TAD1247GE	251.9 kW	ARAI/MOEF/DGTAN/OLVO-F2/2005-04 Dt. 03-03-2005
305		F5	TAD734GE	216 kW	ARAI/MOEF/DGTA/IMP/VOLVO-F5/2007-048
306		F3	TAB941GE	280 kW	ARAI/MOEF/DGTAN/OLVO-F3/2005-17 Dt. 03-03-2005
307			TAD940GE	241 kW	
308		F4	TAD740GE	220 kW	ARAI/MOEF/IMP/DGTAN/VOLVO-F4/2005-18, Dt. 01-06-2005
309			TWD740GE	181 kW	
310		F8	TAD 1341 GE	271 kW	ARAI/MOEF/DGTA/IMP/VOLVO-F8/2010-083, Dt. 19-08-2010
311			TAD 1342 GE	303 kW	
312	Weichai Welfang Dutz Engines Co. Ltd.	F4	WP6D175E22	129 kW	ARAI/MOEF/IMP/DGTA/WWDF-F4/2010-070
313			WP6D160E20	117 kW	
314	Yuchai Machinery Co. Ltd. 88, Tianqiao West Road, Yulin,	F8	YC6B155L-D20	112 kW	ARAI/MoEF/DGTA/IMP/SEL-F8/2010-093

Note: Engine details mentioned above are sourced from : www.cpcb.nic.in

*** END OF DOCUMENT ***

AUTHORISED SIGNATORY			
			
SITARAM KASHYAP DEPUTY GENERAL MANAGER		SAURABH DALELA DIRECTOR	Page 13 of 13