

## 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	Type 3	Type 4	
1	Manufacturing Plant address	M/s Maxmoc Motor Works India Pvt. Ltd. SK Fuels Opposite, NH44, Dindigul to Madurai Main Road, Alamarathupatti PO, Dindigul - 624303				
2	Manufacturer's trade name or mark	M/s Maxmoc Motor Works India Pvt. Ltd.				
3	RECD family designation	MMW/DAT-SAT				
4	RECD type/model designation	MMW/DAT-SAT.11	MMW/DAT-SAT.12	MMW/DAT-SAT.13	MMW/DAT-SAT.14	
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. MMW/RECD/19/11/2024 dtd. 19/11/2024 Clause no 1.8				
9	Identifying part number(s) of the RECD	MMW/DAT-SAT.11 Series 3000	MMW/DAT-SAT.12 Series 3000	MMW/DAT-SAT.13 Series 3000	MMW/DAT-SAT.14 Series 3000	
10	Engine/ Engine-Family for which the RECD is intended (application range)	KTA-19-G9				
11	PM Reduction Efficiency of the RECD	85.96%				
12	Designed for fitment to an engine meeting the emissions requirements of (Regulation and Stage):	CPCB Stage -I				

ICAT Ref No.	2024-1260; IOCS No: 180977
Base Engine Type Approval Certificate number	ARAI/MOEF/DGTA/CIL-F16/2004-17
Test Report Reference	CT0ET 0475 dt. 10/12/2024

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## 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	Cummins India Ltd., Kothrud, Pune	F9	NT-14-F5	254 kW	ARAI/M OEF/DGTA/CIL-F9/2003-35, dt. 12/4/2003
2	Greaves Cotton Ltd, Pune	F13	TBD3V12	333.18 kW	ARAI/M OEF/DGTA/GCLP-F13/2003-40, dt. 12/31/2003
3			TBD3V12 M K1	356.7 kW	
4	Cummins India Ltd., Pune	F13	KTA19-G4-I	447.2 kW	ARAI/M OEF/DGTA/CIL-F13/2004-07, dt. 2/26/2004
5			KTA19-F3-I	403 kW	
6			KTA19-F5-I	366 kW	
7	Kirloskar Oil Engines Ltd., Khadki	F10	6KL12TASRI	284 kW	ARAI/M OEF/DGTA/KOEL-F10/2004-026, dt. 6/24/2004
8			6K12TA SR11	272 kW	
9	Kirloskar Oil Engines Ltd., Khadki	F9	8K15TASRI	414 kW	ARAI/M OEF/DGTA/KOEL-F9/2004-027, dt. 8/2/2004
10			8K15TA	363 kW	
11			10K18TA	443 kW	
12	HPL, Hosur	F3	3406DITA-GS-2	351kW	ARAI/M OEF/DGTA/HPL-F3/2004-031, dt. 7/28/2004
13			3406DITA-GP-2	319 kW	
14			3406DITA-GS-1	322 kW	
15			3406DITA-GP-1	292 kW	
16	HPL, Hosur	F4	3412DITA-GP-1	449 kW	ARAI/M OEF/DGTA/HPL-F4/2004-032, dt.7/28/2004
17	Kirloskar Oil Engines Ltd., Khadki, Pune	F11	6SL8800TA	310 kW	ARAI/M OEF/DGTA/KOEL-F11/2004-052, dt. 10/29/2004
18			6SL8800TASRI	254 kW	
19	Cummins India Ltd., Pune	F20	NTA-855-G2-I	283.4 kW	ARAI/M OEF/DGTA/CIL-F20/2004-058, dt. 11/27/2004
20	Cummins India Ltd., Pune	F21	NTA-855-G1-I	283.4 kW	ARAI/M OEF/DGTA/CIL-F21/2004-059, dt. 11/27/2004
21	Cummins India Ltd., Pune	F22	NTA-855-G-I	283.4 kW	ARAI/MOEF/DGTA/CIL-F22/2004-060 Dt. 27-11-2004
22	Greaves Cotton Ltd., Pune	F16	TBD4V8	292.73 kW	ARAI/M OEF/DGTA/GCLP-F16/2004-065, dt. 11/15/2004
23	Volvo	F2	TAD1242GE(P)	351.9 kW	ARAI/M OEF/DGTA/VOLVO-F2/2005-04, dt. 3/3/2005
24			TAD1247GE	251.9 kW	
23	Greaves Cotton Ltd., Pune	F18	TBD3V12 M K-I	356.7 kW	ARAI/M OEF/DGTA/GCLP-F18/2005-05, dt. 3/31/2005
24	DEIPL	F1	BF8M 1015CP	448 kW	ARAI-RCN/M OEF/DGTA/IM P/DEIPL-F1/2005-09, dt. 3/31/2005
25	Greaves Cotton Ltd., Pune	F19	TBD3V12P(P)	379 kW	ARAI/M OEF/DGTA/GCLP-F19/2005-10, dt.6/17/2005
26			TBD3V12(V)	333.18 kW	

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S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
27	Volvo, Bangalore	F3	TAB941GE	280 kW	ARAI/ M OEF/ DGTA/ VOLVO-F3/ 2005-17, dt. 3/3/2005
28	BEM L, Mysore	F5	BSA6D140G5,	327 kW	ARAI/ M OEF/ DGTA/ BEM L-F5/ 2005-19, dt. 6/1/2005
29			BSA6D140G1	245 kW	
30			BSA6D140G2	275 kW	
31			BSA6D140G3	309 kW	
32			BSA6D140G4	314 kW	
33	Greaves Cotton Ltd., Pune	F12	TBD2V12MKI	275.81 kW	ARAI/ M OEF/ DGTA/ GCLP-F12/ 2005-24. dt. 9/5/2005
34		F22	TBD4IV6P	245.6 kW	ARAI/MOEF/DGTA/GCLP-F22/2005-33 Dt. 10/ 27/ 2005
35					
36					
37	Greaves Cotton Ltd., Pune	F21	TBD2VI2P	320.4 kW	ARAI/ M OEF/ DGTA/ GCLP-F21/ 2005-34,dt. 26/ 11/ 2005
38	Cummins India Ltd., Pune	F24	NTA-855-G4-I	325 kW	ARAI/ M OEF/ DGTA/ CIL-F24/ 2006-004, dt. 08/ 05/ 2004
39	Cummins India Ltd., Pune	F25	NTA-14-G3-I	336 kW	ARAI/ M OEF/ DGTA/ CIL-F25/ 2006-005, dt. 08/ 05/ 2006
40			NTA-14-RG2-I	336 kW	
41	FG Wilson	F2	2806CE16TPG1	444.6 kW	ARAI/ M OEF/ DGTA/ FGW-F2/ 2006-006, dt. 03/ 23/ 2006
42			2806CE16TPG2	432.6 kW	
43	HPPL Hosur	F2	3306 DITA GS-4	250 kW	ARAI/ M OEF/ DGTA/ HPL-F2/ 2006-016, dt. 07/ 06/ 2006
44	HPPL Hosur	F3	3406 DITA GS-2	351 kW	ARAI/ M OEF/ DGTA/ HPL-F1/ 2006-017, dt. 07/ 06/ 2006
45			3406 DITA GP-1	292 kW	
46			3406 DITA GS-1	322 kW	
47			3406 DITA GP-2	319 kW	
48	HPL, Hosur	F4	3412DITA-GS-1	449 kW	ARAI/ M OEF/ DGTA/ HPL-F4/ 2006-018, dt. 08/ 18/ 2006
49	CPIPL, Hosur	F2	3306 DITA GS-4	250 kW	ARAI/ M OEF/ DGTA/ CPIPL-F2/ 2007-003, dt. 02/12/2007
50	CPIPL, Hosur	F3	3406 DITA GS-2	351 kW	ARAI/ M OEF/ DGTA/ CPIPL-F3/ 2007-004, dt. 02/ 12/ 2007
51			3406 DITA GP-1	292 kW	
52			3406 DITA GS-1	322 kW	
53			3406 DITA GP-2	319 kW	
54	CPIPL, Hosur	F6	C-18-GP-1	452 kW	ARAI/ M OEF/ DGTA/ CPIPL-F6/ 2007-007, dt. 02/ 12/ 2007
55	Greaves Cotton Ltd., Chinchwad, Pune	F21	TBD2V12P	320.4 kW	ARAI/ M OEF/ DGTA/ GCLP-F21/ 2007-019, dt. 07/ 09/ 2007
56			TBD2V8M K I	275.81 kW	
57			TBD2V12M K I	276.81 kW	
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S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
58	Greaves Cotton Ltd., Chinchwad, Pune	F21	TBD2V12M K II	291.258 kW	ARAI/ M OEF/ DGTA/ GCLP- F21/ 2007-019, dt. 7/9/2007
59			TBD2V12M K IIP	291.258 kW	
60			TBD4V8	292.7 kW	
61	Greaves Cotton Ltd., Chinchwad, Pune	F22	TBD4V12	444 kW	ARAI/ M OEF/ DGTA/ GCLP- F22/ 2007-024, dt. 07/ 02/ 2007
62			TBD4IV12	444 kW	
63			TBD4IV6P	245.6 kW	
64			NTA-14-G2	254 kW	
65	Cummins India Ltd., Pune	F8	NTA-14-G1	283 kW	ARAI/ M OEF/ DGTA/ CIL-F8/ 2007-026, dt. 07/ 09/ 2007.
66			NTA-14-G3	336 kW	
67			NTA-14-RG1	283 kW	
68			NTA-14-RG3	336 kW	
69			NTA-14-RG2	254 kW	
70			NTA-855-G2-I	283 kW	
71	Cummins India Ltd., Pune	F20	NTA-855-G2-I	283 kW	ARAI/ M OEF/ DGTA/ CIL-F20/ 2007-029, dt. 07/ 09/ 2007
72	Cummins India Ltd., Pune	F16	KTA19-G4	448 kW	ARAI/ M OEF/ DGTA/ CIL-F16/ 2007-053, dt. 08/ 31/ 2007
73			KTA19-G3-I	403 kW	
74			KTA19-RG3	403 kW	
75			KTA19-G5-I	366 kW	
76			KTA19-G5-E	366 kW	
77	Cummins India Ltd., Pune	F27	QSX-15-G8	444 kW	ARAI/ M OEF/ DGTA/ CIL-F27/ 2007-067, dt. 11/ 20/ 2007
78	Kirloskar Oil Engines Ltd., Khadki, Pune	F10	DV6ITA SRI	284 kW	ARAI/ M OEF/ DGTA/ IM P/ KOEL-F10/ 2004- 026- E2, dt. 18/ 06/ 2012
79			DV6ITASRII	272 kW	
80	Caterpillar India Pvt. Ltd., Mathagondapalli, TN	F3	3406 DITA-GP-1	292 kW	ARAI/ M OEF/ DGTA/ CIPL-F3/ 2007-004, dt. 02/ 12/ 2007
81			3406 DITA-GS-1	322 kW	
82			3406 DITA-GP-2	319 kW]	
83	M TU India Pvt. Ltd., 159/ 1, Tathawade, Pune-Mumbai Highway, Pune 411033	F3	8V1600G80F	394 kW	ARAI/ M oEF/ IM P/ DGTA/ M TU- F3/ 2010-098- E2, dt. 10/01/2010
84			10V1600G10F	407 kW	
85			10V1600G20F	448 kW	
86			10V1600G70F	448 kW	
87	Shanghai Diesel Engiens Co. Ltd.	F2	G128ZLD11	280 kW	ARAI/ M OEF/ DGTA/ IM P/ SDEC- F2/ 2009-017, dt. 27/ 05/ 2009
88	Greaves Cotton Ltd., (D.E.U.), Chinchwad, Pune	F22	TBD4V12	444 kW	ARAI/ M oEF/ DGTA/ GCLP-F22/ 2012-011, dt. 11/ 05/ 2012
89			TBD4I V12 kW	444 kW	
90	Mahindra & Mahindra Ltd., Kandivili, Mumbai	F25	64205GC	280 kW	ARAI/ M OEF/ DGTA/ IM P/ M & M - F25/ 2009-019, dt. 27/ 05/ 2009

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S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
92	Indo Marine Engineering Co. Pvt. Ltd., Pune	F2	6081HF001 260	260 kW	ARAI/ M OEF/ DGTA/ IM P/ IM EC-F2/ 2009-037, dt. 06/ 30/ 2009
93	Shanghai Diesel Engine Co. Ltd., 2636JunGong Road, Shanghai, China	F4	12V135AZLD	339 kW	ARAI/ M OEF/ IM P/ DGTA/ SDEC/ F4/ 2010-004, dt. 16/ 02/ 2010
94		F5	12V135BZLD2	459 kW	ARAI/ M OEF/ IM P/ DGTA/ SDEC/ F5/ 2010-005, dt. 16/ 02/ 2010
95		F6	12V135AZD	300 kW	ARAI/ M OEF/ IM P/ DGTA/ SDEC/ F6/ 2010-006, dt. 16/ 02/ 2010
96	Kirloskar Electric Co. Ltd., Gokul Road, Hubli-580030, Karnataka	F23	12VKK135IAZLD	339 kW	ARAI/ M OEF/ DGTA/ KECL-F23/ 2010-007, dt. 16/ 02/ 2010
97		F22	12VKK135AZD	300 kW	ARAI/ M OEF/ DGTA/ KECL/ F22/ 2010-013, dt. 16/ 02/ 2010
98	Caterpillar Inc. 100 NE Adams, Peoria, IL, USA.	F1	C-15GP-1	445 kW	ARAI/ M OEF/ DGTA/ IM P/ CIUSA/ F1/ 2010-011, dt. 16/ 02/ 2010
99			C-15-GP-2	463 kW	
100			C15-GS-3	409.5 kW	
101			C15-GP-3	416 kW	
102			C15-GS-4	369 kW	
103			C15-GP-4	388 kW	
104				342 kW	
105			C15-GS-5	375 kW	
106			C15-GP-5	331 kW	
107	Volvo India Pvt. Limited, Yalachahally, Tavarekere Post, Hosakote Taluk, Bangalore	F7	TAD1344GE	354 kW	ARAI/ M OEF/ DGTA/ IM P/ VOLVO-F7/ 2010- 073, dt. 28/ 06/ 2010
108	Mahindra & Mahindra Ltd., Akurli Road, Kandivali (E), Mumbai-400101	F31	12V5105GC	339 kW	ARAI/ M OEF/ DGTA/ IM P/ M &M - F31/ 2010-074, dt. 5/ 07/ 2010
109		F30	12V6905GC	459 kW	ARAI/ M OEF/ DGTA/ IM P/ M &M - F30/ 2010-075, dt. 5/ 07/ 2010
110	Greaves Cotton Ltd., (D.E.U.), Chinchwad, Pune-19	F30	TBD3V8M K-II	291.3 kW	ARAI/ M OEF/ DGTA/ GCLP-F30/ 2010-078, dt. 9/ 08/ 2010
111	Doosan Infracore Co. Ltd., 7-11, Hwasu-dong, Dong-gu, Incheon, Korea	F2	P158LE IN01	363 kW	ARAI/ M OEF/ DGTA/ IM P/ DICL-F2/ 2010-079, dt. 3/ 08/ 2010
112			P158LE IN02	414 kW	
113			P180LE IN01	443 kW	
114		F1	P126TI IN02	272 kW	ARAI/ M OEF/ DGTA/ IM P/ DICL-F1/ 2010-080, dt. 3/ 08/ 2010
112	Volvo India Pvt. Limited Yalachahally, Tavarekere Post, Hosakote, Bangalore	F8	TAD 1343 GE	325 kW	ARAI/ M OEF/ DGTA/ IM P/ VOLVO-F8/ 2010- 083, dt. 19/ 08/ 2010
113			TAD 1341 GE	271 kW	
113			TAD 1342 GE	303 kW	
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S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
118	M TU Friedrichshafen GmbH, Nussdorf erstrasse 88662 Uberlingen Germany	F3	8V1600 G10F	325 kW	ARAI/ M oEF/ IM P/ DGTA/ M TU-F3/ 2010-098_E2 dt. 31/ 05/ 2012
119			8V1600 G20F	358 kW	
120			8V1600 G70F	358 kW	
121			8V1600 G80F	301 kW	
122			10V1600 G10F	407 kW	
123			10V1600 G20F	448 kW	
124			10V1600 G70F	448 kW	
125	M TU Friedrichshafen GmbH, Nussdorf erstrasse 88662 Uberlingen Germany	F4	6R1600 G10F	249 kW	ARAI/ M oEF/ IM P/ DGTA/ M TU-F4/ 2010-099, dt. 10/ 01/ 2011
126			6R1600 G20F	274 kW	
127			6R1600 G70F	274 kW	
128			6R1600 G80F	301 kW	
129	Kirloskar Oil Engines Ltd. Khadki, Pune- 411003	F23	DV10	448 kW	ARAI/ M oEF/ DGTA/ KOELK-F23/ 2010-101, dt. 3/ 02/ 2011
130			DV8SR1	294 kW	
131			DV8	360 kW	
132			DV8SR1	294 kW	
133	Kirloskar Oil Engines Ltd. Khadki, Pune-411003	F36	DV10SR1	460 kW	ARAI/ M oEF/ DGTA/ KOELK-F36/ 2010-102, dt. 17/ 01/ 2011
134	Cummins India Ltd. Kothrud, Pune 411038	F32	QSL9-G7	271kW	ARAI/ M oEF/ DGTA-II/ CILP-F32/ 2012-029, dt. 27/ 11/ 2012
			QSL9-G7.2	257kW	
135	AB VOLVO PENTA, SE40508, GOTHENBURG, SWEDEN	F9	TAD1641GE	430 kW	ARAI/ M OEF/ DGTA/ IM P/ VOLVO-F9/ 2011-016, dt. 2/ 05/ 2011
136	DEUTZ AG Otto Str. 1, D-51149 Cologne, Germany	F10	BF6M 1015CP	365 kW	ARAI/ M oEF/ DGTA/ IM P/ DEU-F10/ 2011-034, dt. 27/ 07/ 2011
137	DEUTZ AG Otto Str. 1, D-51149 Cologne, Germany	F11	BF8M 1015CP	459 kW	ARAI/ M oEF/ DGTA/ IM P/ DEU-F10/ 2011-035, dt. 27/ 07/ 2011
138			BF8M 1015C	418 kW	
139			BF6M 1015C	345 kW	
140	Kirloskar Oil Engine Limited, Khadki, Pune.	F23	DV8SR1	294 kW	ARAI/ M oEF/ DGTA/ KOELK-F23/ 2010-101-E1, dt. 19/ 10/ 2011
141			DV8	360 kW	
142			DV10	418 kW	
143			DV8SR2	345 kW	
144	Greaves Cotton Ltd., (D.E.U.), Chinchwad, Pune	F22	TBD4V8	292.73 kW	ARAI/ M OEF/ DGTA/ GCLP-F22/ 2007-24, dt. 2/ 07/ 2007
145			TBD4V12	444 kW	
146			TBD4 IV12P	488 kW	
147	M TU India Pvt. Ltd., 159/ 1, Tathawade, Pune-Mumbai Highway, Pune 411033	F3	8V1600G10F	325 kW	ARAI/ M oEF/ IM P/ DGTA/ M TU-F3/ 2010-098- E2, dt. 31/ 05/ 2012
148			8V1600G20F	358 kW	
149			8V1600G70F	358 kW	
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S. No.	Manufacturer Name & Address	Engine Family	Engine Model	Rated Gross Mechanical Declared Power	Type Approval Certificate Number
151	Cummins India Ltd. Kothrud, Pune 411038	F31	QSN14-G3	396 kW	ARAI/ M oEF/ DGTA-II/ CILP-F31/ 2012-024, dt. 3/ 10/ 2012
152			QSN14-G1	334kW	
153			QSN14-G2	363kW	
154			QSN14-G4	319kW	
155			QSN14-G5	346kW	
156	Cummins India Ltd. Kothrud, Pune 411038	F32	QSL9-G7	300 kW	ARAI/ M oEF/ DGTA-II/ CILP-F32/ 2012-029, dt. 27/ 11/ 2012
157	M TU India Pvt. Ltd., 159/ 1, Tathawade, Pune-Mumbai Highway, Pune 411033	F5	6R1600G80F	301 kW	ARAI/ M oEF/ IDGTA-II/ IM P/ M TU-F5/ 2013-34, dt. 30/ 04/ 2013
158			6R1600G10F	249 kW	
159			6R1600G20F	274 kW	
160			6R1600G70F	274 kW	
161	M TU India Pvt. Ltd., 159/ 1, Tathawade, Pune-Mumbai Highway, Pune 411033	F6	10V1600G10F	407 kW	ARAI/ M oEF/ DGTA-II/ IM P/ M TU-F6/ 2013-35, dt. 30/ 04/ 2013
162			10V1600G20F	448 kW	
163			10V1600G70F	448 kW	
164			8V1600G10F	325 kW	
165			8V1600G20F	358 kW	
166			8V1600G70F	358 kW	
167			8V1600G80F	394 kW	
168	Deutz AG, Germany Ottostrasse 1, D- 51149 Koln (Porz-Eil) / Germany	F10	BF6M 1015CP	365 kW	ARAI/ M oEF/ DGTA-II/ IM P/ DEU-F10/ 2013-39, dt. 9/ 05/ 2013
169			BF8M 1015C	418 kW	
170			BF6M 1015C	314 kW	
171			BF6M 1015C	345 kW	
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Note: Engine details mentioned above are sourced from : [www.cpcb.nic.in](http://www.cpcb.nic.in)

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