

EMISSION STANDARDS FOR OFF-ROAD DIESEL ENGINES WITH EFFECT FROM 1 JULY 2012

US Tier II

Net Power kW	CO g/kWh	NMHC + NOx g/kWh	PM g/kWh
> 560	3.5	6.4	0.2
450 ≤ P < 560	3.5	6.4	0.2
225 ≤ P < 450	3.5	6.4	0.2
130 ≤ P < 225	3.5	6.6	0.2
75 ≤ P < 130	5.0	6.6	0.3
37 ≤ P < 75	5.0	7.5	0.4
19 ≤ P < 37	5.5	7.5	0.6
8 ≤ P < 19	6.6	7.5	0.8
P < 8	8.0	7.5	0.8

Test cycle as stipulated under ISO 8178

EU Stage II

Net Power kW	HC g/kWh	CO g/kWh	NOx g/kWh	PM g/kWh
130 ≤ P ≤ 560	1.0	3.5	6.0	0.2
75 ≤ P < 130	1.0	5.0	6.0	0.3
37 ≤ P < 75	1.3	5.0	7.0	0.4
18 ≤ P < 37	1.5	5.5	8.0	0.8

Test cycle as stipulated under ISO 8178

Japan Tier I

Net Power kW	HC g/kWh	CO g/kWh	NOx g/kWh	PM g/kWh	Smoke opacity %
130 ≤ P ≤ 560	1.0	3.5	6.0	0.2	40
75 ≤ P < 130	1.0	5.0	6.0	0.3	40
37 ≤ P < 75	1.3	5.0	7.0	0.4	40
19 ≤ P < 37	1.5	5.0	8.0	0.8	40
8 ≤ P < 19	1.5	5.0	9.0	0.8	-

Test cycle as stipulated under ISO 8178

- CO - Carbon monoxide
- HC - Hydrocarbons
- NOx - Oxides of nitrogen
- PM - Particulate matter
- NMHC - Non-methane hydrocarbons
- g/kWh - Gram per kilowatt-hour