

NON-ROAD ENGINE EMISSION STANDARDS

Non-Road Diesel Compression Ignition Engine NO_x Emission Standards By Model Year

Engine Power (hp)	Tier Phase	Model Year	Emission Standards (g/hp-hr)		
			NO _x ⁵	For Reference	
				NO _x +NMHC ⁶	PM ⁶
25 hp - 49 hp (19 kW - 36 kW)	Tier 0 (Uncontrolled)	Pre-1998	7.2	N/A	1.44
	Tier 1	1999-2003	6.745	7.1	0.60
	Tier 2	2004-2007	5.32	5.6	0.45
	Tier 4	2008-2012	5.32	5.6	0.22
		2013+	3.325	3.5	0.02
50 hp - 74 hp (37 Kw - 55 Kw)	Tier 0 (Uncontrolled)	Pre-1997	8.8	N/A	1.50
	Tier 1	1998-2003	6.9	N/A	0.72
	Tier 2	2004-2007	5.32	5.6	0.30
	Tier 3	2008-2012	3.325	3.5	0.02-0.30 ¹
	Tier 4	2013+	3.325	3.5	0.02
75 hp - 99 hp (56 Kw - 74 Kw)	Tier 0 (Uncontrolled)	Pre-1997	8.8	N/A	1.50
	Tier 1	1998-2003	6.9	N/A	0.72
	Tier 2	2004-2007	5.32	5.6	0.30
	Tier 3	2008-2011	3.325	3.5	0.30
	Tier 4 (Phase-In)	2012-2013	0.30-3.325 ²	N/A	0.01
	Tier 4	2014+	0.30	N/A	0.01
100 hp - 174 hp (75 kW - 129 kW)	Tier 0 (Uncontrolled)	Pre-1996	9.5	N/A	1.19
	Tier 1	1997-2002	6.9	N/A	0.40
	Tier 2	2003-2006	4.655	4.9	0.22
	Tier 3	2007-2011	2.85	3.0	0.22
	Tier 4 (Phase-In)	2012-2013	0.30-2.85	N/A	0.01
	Tier 4	2014+	0.30	N/A	0.01

Engine Power (hp)	Tier Phase	Model Year	Emission Standards (g/hp-hr)		
			NOx ⁵	For Reference	
				NOx+NMHC ⁶	PM ⁶
175 hp - 299 hp (130 kW - 224 kW)	Tier 0 (Uncontrolled)	Pre-1995	9.3	N/A	1.11
	Tier 1	1996-2002	6.9	N/A	0.40
	Tier 2	2003-2005	4.655	4.9	0.15
	Tier 3	2006-2010	2.85	3.0	0.15
	Tier 4 (Phase-In)	2011-2013	0.30-2.85	N/A	0.01
	Tier 4	2014+	0.30	N/A	0.01
300 hp - 599 hp (225 kW - 449 kW)	Tier 0 (Uncontrolled)	Pre-1995	9.5	N/A	1.08
	Tier 1	1996-2000	6.9	N/A	0.40
	Tier 2	2001-2005	4.56	4.8	0.15
	Tier 3	2006-2010	2.85	3.0	0.15
	Tier 4 (Phase-In)	2011-2013	0.30-2.85	N/A	0.01
	Tier 4	2014+	0.30	N/A	0.01
600 hp - 749 hp (450 kW - 559 kW)	Tier 0 (Uncontrolled)	Pre-1995	9.7	N/A	0.98
	Tier 1	1996-2001	6.9	N/A	0.40
	Tier 2	2002-2005	4.56	4.8	0.15
	Tier 3	2006-2010	2.85	3.0	0.15
	Tier 4 (Phase-In)	2011-2013	0.30-2.85	N/A	0.01
	Tier 4	2014+	0.30	N/A	0.01
750 hp - (560 kW -)	Tier 0 (Uncontrolled)	Pre-1999	9.1	N/A	1.02
	Tier 1	2000-2005	6.9	N/A	0.40
	Tier 2	2006-2010	4.56	4.8	0.15
	Tier 4 (Phase-In)	2011-2014	2.6/0.50 ³	N/A	0.075
	Tier 4	2015+	2.6/0.50 ⁴	N/A	0.03/0.02 Error! Bookmark not defined.

Notes:

1. Manufacturers selecting Tier 4 Option 1 will be meeting the PM emission standard of 0.22 g/hp-hr from 2008 through 2012. The manufacturers selecting Tier 4 Option 2 can keep Tier 3 standard of 0.30 g/hp-hr from 2008 through 2011, but are required to meet Tier 4 standard of 0.02 g/hp-hr in 2012.
2. These standards are phased-in during the indicated years. At least 50% of a manufacturer's engine production must meet these standards during each year of the phase-in. Therefore, it is not guaranteed that a Tier 4 (Phase-In) equipment and/or engine will meet the lower standard. If an applicant proposes to purchase a Tier 4 (Phase-In) equipment and/or engine, the applicant must certify, in the application, the emission level that the new equipment and/or engine will meet. Copies of the form certifying the engine family to the lower emission standard must be provided. If it is not yet known what emission standard to which the engine will be certified, then use the Tier 3 standard.