

Nonroad CI Engine Emission Standards

Engine Power (hp)	Model Years	Regulation	HC ^b	Emission Standards (g/hp-hr)			PM	NONROAD Tech Types
				NMHC+NO _x	CO	NO _x		
<11	2000-2004	Tier 1		7.80	6.00		0.75	T1
	2005-2007	Tier 2		5.60	6.00		0.60	T2
	2008+	Tier 4					0.30	T4A, T4B ^e
≥11 to <25	2000-2004	Tier 1		7.10	4.90		0.60	T1
	2005-2007	Tier 2		5.60	4.90		0.60	T2
	2008+	Tier 4					0.30	T4A, T4B ^e
≥25 to <50	1999-2003	Tier 1		7.10	4.10		0.60	T1
	2004-2007	Tier 2		5.60	4.10		0.45	T2
	2008-2012	Tier 4 transitional					0.22	T4A
	2013+	Tier 4 final		3.50			0.02	T4
50 to <75	1998-2003	Tier 1				6.90		T1
	2004-2007	Tier 2		5.60	3.70		0.30	T2
	2008-2012	Tier 3 ^c		3.50	3.70			T3
	2008-2012	Tier 4 transitional ^c					0.22	T4A
	2013+	Tier 4 final		3.50			0.02	T4
≥75 to <100	1998-2003	Tier 1				6.90		T1
	2004-2007	Tier 2		5.60	3.70		0.30	T2
	2008-2011	Tier 3		3.50	3.70			T3B
	2012-2013	Tier 4 transitional	0.14 (50%) ^d			0.30 (50%)	0.01	50% T4 50% T4N
	2014+	Tier 4 final	0.14			0.30	0.01	T4N
≥100 to <175	1997-2002	Tier 1				6.90		T1
	2003-2006	Tier 2		4.90	3.70		0.22	T2
	2007-2011	Tier 3		3.00	3.70			T3
	2012-2013	Tier 4 transitional	0.14 (50%)			0.30 (50%)	0.01	50% T4 50% T4N
	2014+	Tier 4 final	0.14			0.30	0.01	T4N
≥175 to <300	1996-2002	Tier 1	1.00		8.50	6.90	0.40	T1
	2003-2005	Tier 2		4.90	2.60		0.15	T2
	2006-2010	Tier 3		3.00	2.60			T3
	2011-2013	Tier 4 transitional	0.14 (50%)			0.30 (50%)	0.01	50% T4 50% T4N
	2014+	Tier 4 final	0.14			0.30	0.01	T4N
≥300 to <600	1996-2000	Tier 1	1.00		8.50	6.90	0.40	T1
	2001-2005	Tier 2		4.80	2.60		0.15	T2
	2006-2010	Tier 3		3.00	2.60			T3
	2011-2013	Tier 4 transitional	0.14 (50%)			0.30 (50%)	0.01	50% T4 50% T4N
	2014+	Tier 4 final	0.14			0.30	0.01	T4N
≥600 to ≤750	1996-2001	Tier 1	1.00		8.50	6.90	0.40	T1
	2002-2005	Tier 2		4.80	2.60		0.15	T2
	2006-2010	Tier 3		3.00	2.60			T3
	2011-2013	Tier 4 transitional	0.14 (50%)			0.30 (50%)	0.01	50% T4 50% T4N
	2014+	Tier 4 final	0.14			0.30	0.01	T4N
>750 except generator sets	2000-2005	Tier 1	1.00		8.50	6.90	0.40	T1
	2006-2010	Tier 2		4.80	2.60		0.15	T2
	2011-2014	Tier 4 transitional	0.30			2.60	0.08	T4
	2015+	Tier 4 final	0.14			2.60	0.03	T4N
Generator sets >750 to ≤1200	2000-2005	Tier 1	1.00		8.50	6.90	0.40	T1
	2006-2010	Tier 2		4.80	2.60		0.15	T2
	2011-2014	Tier 4 transitional	0.30			2.60	0.08	T4
	2015+	Tier 4 final	0.14			0.50	0.02	T4N
Generator sets >1200	2000-2005	Tier 1	1.00		8.50	6.90	0.40	T1
	2006-2010	Tier 2		4.80	2.60		0.15	T2
	2011-2014	Tier 4 transitional	0.30			0.50	0.08	T4
	2015+	Tier 4 final	0.14			0.50	0.02	T4N

^a These standards do not apply to recreational marine diesel engines over 50 hp. Standards for this category are provided in Table 7

^b Tier 4 standards are in the form of NMHC.

^c For 50 to <75 hp engines, a Tier 3 NO_x standard of 3.5 g/hp-hr was promulgated, beginning in 2008. The Tier 4 transitional standard also begins in 2008; it leaves the Tier 3 NO_x standard unchanged and adds a 0.22 g/hp-hr PM standard.

^d Percentages are model year sales fractions required to comply with the indicated NO_x and NMHC standards, for model years where less than 100 percent is required.

^e The T4A tech type is used in 2008-2012. The T4B tech type is used in 2013+.