

Table 1. ARB and USEPA Off-Road Compression-Ignition (Diesel) Engine Standards (NMHC+NOx/CO/PM in g/bhp-hr). When ARB and USEPA standards differ, the standards shown here represent the more stringent of the two.

Maximum horsepower	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015+
<11	See Table 2 footnote (a)					7.8 / 6.0 / 0.75			5.6 / 6.0 / 0.6			5.6 / 6.0 / 0.30 ^a									
11≤hp<25						7.1 / 4.9 / 0.60			5.6 / 4.9 / 0.60			5.6 / 4.9 / 0.30									
25≤hp<50	-	7.1 / 4.1 / 0.60				5.6 / 4.1 / 0.45			5.6 / 4.1 / 0.22			3.5 / 4.1 / 0.02									
50≤hp< 75	-					5.6 / 3.7 / 0.30			3.5 / 3.7 / 0.22 ^c			3.5 / 3.7 / 0.02 ^c									
75≤hp<100						- / 6.9 / - / - ^b			3.5 / 3.7 / 0.30			0.14 / 2.5 / 3.7 / 0.015 ^{b,c}		0.14 / 0.30 / 3.7 / 0.015 ^b							
100≤hp<175	-		4.9 / 3.7 / 0.22			3.0 / 3.7 / 0.22			0.14 / 1.5 / 2.6 / 0.015 ^{b,c}		0.14 / 0.30 / 2.2 / 0.015 ^b										
175≤hp<300			1.0 / 6.9 / 8.5 / 0.40 ^b			4.9 / 2.6 / 0.15			3.0 / 2.6 / 0.15 ^e			0.14 / 1.5 / 2.6 / 0.015 ^{b,c}									
300≤hp<600	-					4.8 / 2.6 / 0.15			3.0 / 2.6 / 0.15 ^e			0.14 / 1.5 / 2.6 / 0.015 ^{b,c}									
600≤hp≤750						1.0 / 6.9 / 8.5 / 0.40 ^b			4.8 / 2.6 / 0.15			3.0 / 2.6 / 0.15 ^e			0.14 / 1.5 / 2.6 / 0.015 ^{b,c}						
Mobile Machines > 750hp	-					1.0 / 6.9 / 8.5 / 0.40 ^b			4.8 / 2.6 / 0.15			0.30 / 2.6 / 2.6 / 0.07 ^b			0.14 / 2.6 / 2.6 / 0.03 ^b						
750hp<GEN ≤1200hp						1.0 / 6.9 / 8.5 / 0.40 ^b			4.8 / 2.6 / 0.15			0.30 / 2.6 / 2.6 / 0.07 ^b			0.14 / 0.50 / 2.6 / 0.02 ^b						
GEN>1200 hp						1.0 / 6.9 / 8.5 / 0.40 ^b			4.8 / 2.6 / 0.15			0.30 / 0.50 / 2.6 / 0.07 ^b			0.14 / 0.50 / 2.6 / 0.02 ^b						

a) The PM standard for hand-start, air cooled, direct injection engines below 11 hp may be delayed until 2010 and be set at 0.45 g/bhp-hr.

b) Standards given are NMHC/NOx/CO/PM in g/bhp-hr.

c) Engine families in this power category may alternately meet Tier 3 PM standards (0.30 g/bhp-hr) from 2008-2011 in exchange for introducing final PM standards in 2012.

d) The implementation schedule shown is the three-year alternate NOx approach. Other schedules are available.

e) Certain manufacturers have agreed to comply with these standards by 2005.



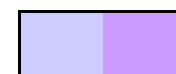
: Tier 1



: Tier 2



: Tier 3



: Tier 4 Interim / Final