

# 2009 Heavy-Duty Diesel Engines



## Systems Solutions for More Performance

## North American Availability & Specifications

37-1120 kW (50-1500 hp)

### Piston Systems



### Cylinder Components



### Valve Train Systems



### Air Management Systems



### Liquid Management Systems



### Powertrain



Driven by performance

MAHLE Industries, Incorporated  
PO Box 748  
Morristown, TN 37814  
Phone: (423) 318-1124  
Fax: (423) 587-5170  
info@us.mahle.com

Brand (Maker)	Engine Family	Engine Model	Displacement (L)	Production Location	2008 Pro-Volume <sup>1</sup>	Cylinders	Cylinder Head VPC	Power, kW (hp) @ rpm	Torque, N·m (lb·ft) @ rpm	Bore x Stroke, mm (in)	SFC, g/kWh (lb/hp-hr)	Compression Ratio	Block Material	Dry Mass, kg (lb)	Application
<b>AM General</b>															
General Engine Products	Optimazer		6.5	Franklin, OH	28,000	V8	DI, 2	119-187 (160-250) @ 3,000 to 3,400	393 - 746 (290 - 550) @ 1,700 - 2,000	103 x 97 (4.06 x 3.82)	NA	20:1	Cast iron	354 (780)	GS, M, M, TB
<b>Caterpillar</b>															
Caterpillar	C	C2.2	2.2	UK, Griffin, GA	6,500	4, inline	DI	31-49.2 (41.6-66) @ 2200-3000	130-208 (95.9-153.4) @ 1800	84 x 100 (3.3 x 3.9)	NA	23:1	Cast iron	184-194 (406-427.7)	AG, IS, OH
Caterpillar	C	C3.4	3.3	Japan	7,500	4, inline	DI/IDI	47-62 (63-83) @ 2500	200-265 (147.5-195.5) @ 1600	94 x 120 (3.7 x 4.72)	NA	19.5:1-22.0:1	Cast iron	245-265 (540-584)	AG, IS, OH
Caterpillar	C	C4.4	4.4	Peterborough, UK	4,500	4, inline	DI	54-83 (72-113) @ 2200-2400	265-418 (195.5-308.3) @ 1400-1700	105 x 127 (4.13 x 5.0)	NA	16:2:1	Cast iron	291-306 (641.5-675)	AG, IS, OH
Caterpillar	C	C4.4 ACERT	4.4	Peterborough, UK	4,500	4, inline	DI	61.5-106 (82.5-142) @ 2200	360-550 (265.5-405.7) @ 1400	105 x 127 (4.13 x 5.0)	NA	16:2:1	Cast iron	360 (793)	AG, IS, OH
Caterpillar	C	C6.6 ACERT	6.6	Peterborough, UK	2,200	6, inline	DI	89-205 (119.4-274.9) @ 1800-2500	400-774 (693-916) @ 1400	105 x 127 (4.13 x 5.0)	NA	16:2:1	Cast iron	506 (1115)	AG, IS, OH
Caterpillar	C	C7 ACERT	7.2	Greenville, SC, Goswales, Belgium	19,000	6, inline	DI	168-224 (225-300) @ 1800-2200	1028-1274 (758-940) @ 1400	110 x 127 (4.33 x 5.0)	216 (0.355) @ 1800	16.5:1	Gray iron	588-776 (1296-1711)	AG, IS, OH
Caterpillar	C	C9 ACERT	8.8	Greenville, SC, Goswales, Belgium	14,000	6, inline	DI	205-290 (275-375) @ 1800-2200	904-1220 (1225-1668) @ 1400	112 x 149 (4.41 x 5.87)	213 (0.351) @ 1800	17.0:1	Gray iron	664 (1456)	GS, TB
Caterpillar	C	C11 ACERT	11.1	Mossville, IL	3,500	6, inline	DI	242-336 (325-450) @ 1800-2100	1097-1156 (1487-2056) @ 1400	130 x 140 (5.12 x 5.51)	207 (0.340) @ 2100	17.2:1-18:1	Gray iron	930 (2053)	GS, TB
Caterpillar	C	C13 ACERT	12.5	Mossville, IL	20,000	6, inline	DI	287-388 (385-520) @ 1800-2100	1298-1634 (1769-2216) @ 1400	130 x 157 (5.12 x 6.2)	205 (0.338) @ 2100	17.3:1	Gray iron	1149 (2533)	GS, TB
Caterpillar	C	C15 ACERT	15.1	Mossville, IL	16,000	6, inline	DI	328-444 (440-595) @ 1800-2100	1484-2004 (2012-2717) @ 1400	137.2 x 171.4 (5.4 x 6.75)	209 (0.343) @ 2100	18:1	Gray iron	1469-1565 (3239-3450)	GS, TB
Caterpillar	C	C18 ACERT	18.1	Mossville, IL	4,000	6, inline	DI	429-597 (575-800) @ 1800-2100	1938-2697 (2717-3656) @ 1400	145 x 183 (5.71 x 7.2)	198 (0.325) @ 1800	16.3:1	Gray iron	1665-1673 (3650-3668)	GS, IS, OH
Caterpillar	C	C27 ACERT	27.0	Griffin, GA	1,800	V12	DI	597-858 (800-1150) @ 1800-2100	3657-5255 (2697-3876) @ 1400	137.7 x 152.4 (5.42 x 5.99)	202.2-207.7 (0.332-0.341) @ 1800-2100	16.5:1	Gray iron	2946 (6495)	GS, IS, OH
Caterpillar	C	C32 ACERT	32.1	Griffin, GA	3,700	V12	DI	708-1007 (950-1350) @ 1800-2100	2438-4548 (3305-6166) @ 1400	145 x 162 (5.71 x 6.38)	NA	16.5:1	Gray iron	2946 (6495)	GS, IS, OH
Caterpillar			34.5	Lafayette, IN	100	V8	DI	507-746 (680-1280) @ 1200-1800	NA	170 x 190 (6.7 x 7.5)	NA	13.0:1	Gray iron	4309 (9500)	AG, IS, OH
Caterpillar			35.8B	Lafayette, IN	2000	V8	DI	746-820 (1000-1100) @ 1800	NA	170 x 190 (6.7 x 7.5)	NA	14.0:1	Gray iron	4309 (9500)	AG, IS, OH
Caterpillar			51.8	Lafayette, IN	3000	V12	DI	761-1119 (1020-1500) @ 1200-1800	NA	170 x 190 (6.7 x 7.5)	NA	13.0:1	Gray iron	6078 (13,400)	AG, IS, OH
Caterpillar			3512B	Lafayette, IN	3,000	V12	DI	1119-1231 (1500-1650) @ 1800	6319 (8567) @ 1400	170 x 190 (6.7 x 7.5)	NA	14.0:1	Gray iron	6078 (13,400)	GS, OH, IS
Caterpillar			69.0	Lafayette, IN	5,500	V16	DI	1011-1492 (1355-2000) @ 1200-1800	NA	170 x 190 (6.7 x 7.5)	NA	13.0:1	Gray iron	7484 (16,499)	GS, OH, IS
Perkins		404D-22	2.2	UK, Griffin, GA	14,000	4, inline	DI	31.0-38.0 (41.9-51.0) @ 2200-3000	130-142 (95.9-105.5) @ 1800	84 x 100 (3.3 x 3.9)	NA	23:1	Cast iron	184 (406)	AG, IS, GS, OH
Perkins		404D-22T	2.2	UK, Griffin, GA	14,000	4, inline	DI	40-45.5 (53.6-71.0) @ 2600-3000	185-190 (136.4-140) @ 1800	84 x 100 (3.3 x 3.9)	NA	23:1	Cast iron	194 (428)	AG, IS, GS, OH
Perkins		404D-22TA	2.2	UK, Griffin, GA	8,000	4, inline	DI	49.2 (66) @ 2500	208 (153) @ 1800	84 x 100 (3.3 x 3.9)	NA	23:1	Cast iron	194 (428)	AG, IS, GS, OH
Perkins		804D-33	3.3	Japan	18,000	4, inline	DI	47.0 (63.0) @ 2500	200 (147.5) @ 1600	94 x 120 (3.7 x 4.7)	220 (0.36)	22.0:1	Cast iron	245 (540)	AG, IS, GS, OH
Perkins		804D-33T	3.3	Japan	9,000	4, inline	DI	55-62 (73-83) @ 2500	245-265 (180.7-195.4) @ 1600	94 x 120 (3.7 x 4.7)	NA	22.0:1	Cast iron	265 (584)	AG, IS, GS, OH
Perkins		1104D	4.4	Peterborough, UK	4,500	4, inline	DI	54-55.9 (72-78) @ 2200	291-325 (192.5-195.4) @ 1700	105 x 127 (4.1 x 5.0)	NA	18:2:1	Cast iron	291 (642)	AG, IS, OH
Perkins		1104D-44T	4.4	Peterborough, UK	3,000	4, inline	DI	55.5-74.5 (74.4-99.9) @ 2200-2400	307-392 (226-289) @ 1400	105 x 127 (4.1 x 5.0)	NA	18:2:1	Cast iron	372 (820)	AG, IS, GS, OH
Perkins		1104D-44TA	4.4	Peterborough, UK	2,900	4, inline	DI	68-83 (89.2-111.3) @ 2200-2400	393-418 (290-308) @ 1400	105 x 127 (4.1 x 5.0)	NA	18:2:1	Cast iron	360 (793)	AG, IS, GS, OH
Perkins		1104D-E44T	4.4	Peterborough, UK	3,800	4, inline	DI	61.5-74.5 (82.5-99.9) @ 2200	360-420 (265.5-310) @ 1400	105 x 127 (4.1 x 5.0)	NA	18:2:1	Cast iron	360 (793)	AG, IS, GS, OH
Perkins		1104D-E44TA	4.4	Peterborough, UK	4,800	4, inline	DI	74.5-106 (99-142) @ 2200	420-550 (310-406) @ 1400	105 x 127 (4.1 x 5.0)	NA	16:2:1	Cast iron	360 (793)	AG, IS, GS, OH
Perkins		1160D-E66TA	6.6	Peterborough, UK	1,800	4, inline	DI	89-235 (119.4-275) @ 1800-2500	543-1050 (400-774) @ 1400-1500	105 x 127 (4.1 x 5.0)	NA	16:2:1	Cast iron	506 (1114)	AG, IS, OH
<b>Cummins</b>															
Cummins	A	A2300	2.3	Korea	5,000	4, inline	DI, 2	31-45 (41.60) @ 2400-2800	146-183 (108-135) @ 1600	88 x 94 (3.46 x 3.7)	NA	NA	Cast iron	205-209 (452-461)	AG, IS, OH
Cummins	B	B3.3	3.3	Japan	4,000	4, inline	DI, 2	45-53 (60-80) @ 2200-2000	214-204 (158-224) @ 1600	95 x 115 (3.74 x 4.53)	NA	NA	Cast iron	241-275 (531-606)	AG, IS, OH
Cummins	B	B4.5	4.5	U.S., UK, Brazil, Japan	5,500	4, inline	DI, 2	66-74 (80-99) @ 2100-2500	294-414 (217-306) @ 1300-1500	102 x 128 (4.02 x 5.0)	NA	NA	Cast iron	287-338 (721-749)	AG, IS, OH
Cummins	B	QSR3.3	3.3	Japan	4,800	4, inline	DI, 2	60-82 (80-110) @ 2200-2600	371-415 (274-306) @ 1400-1600	95 x 115 (3.74 x 4.53)	NA	NA	Cast iron	275 (606)	AG, IS, OH
Cummins	B	QSB	4.5, 6.7	Columbus, IN; Rocky Mount, NC, UK, Brazil	11,000	4 or 6, inline	DI, 4	82-205 (110-275) @ 1800-2500	470-990 (347-730) @ 1300-1800	107 x 124 (4.21 x 4.88)	NA	NA	Cast iron	371-485 (818-1069)	AG, IS, OH
Cummins	B	B5.9	5.9	Columbus, IN; Rocky Mount, NC, UK, Brazil, Japan, India, China	12,000	4, inline	DI, 2	82-93 (110-129) @ 2200-2500	469-506 (346-373) @ 1300-1500	102 x 120 (4.0 x 4.7)	NA	NA	Cast iron	538 (1184)	AG, IS, OH
Cummins	B	B5.9	5.9	Columbus, IN; Rocky Mount, NC, UK, Brazil, Japan, India, China	35,000	6, inline	DI, 2	112-129 (150-173) @ 2200-2500	633-719 (467-530) @ 1300-1500	102 x 120 (4.0 x 4.7)	NA	NA	Cast iron	432 (952)	AG, IS, OH
Cummins	B	ISB	6.7	Columbus, IN; Rocky Mount, NC, UK	130,000	6, inline	DI, 4	149-243 (200-325) @ 2600	705-1017 (520-750) @ 1600	107 x 124 (4.21 x 4.88)	NA	NA	Cast iron	522 (1150)	TB
Cummins	C	CB.3	8.3	Columbus, IN; Rocky Mount, NC, UK, Brazil, Japan, China	18,000	6, inline	DI, 2	138-194 (185-260) @ 2000-2200	654-1205 (630-888) @ 1500	114 x 135 (4.5 x 5.3)	NA	NA	Cast iron	617 (1360)	AG, IS, OH
Cummins	C	QSC	8.3	Columbus, IN; Rocky Mount, NC, UK, Brazil, Japan, China	7,600	6, inline	DI, 2	153-254 (205-340) @ 1800-2200	1010-1424 (745-1050) @ 1400-1500	114 x 135 (4.5 x 5.3)	NA	NA	Cast iron	723 (1594)	AG, IS, OH
Cummins	C	QSL	8.3	Columbus, IN; Rocky Mount, NC, UK, Brazil, Japan, China	21,000	6, inline	DI, 4	179-298 (249-360) @ 2200-2400	895-1424 (650-1050) @ 1300-1400	114 x 135 (4.5 x 5.3)	NA	NA	Cast iron	754 (1662)	TB
Cummins	L	ISL	8.9	Jamestown, NY; Rocky Mount, NC, UK	8,000	6, inline	DI, 4	186-316 (250-425) @ 2100-2200	990-1695 (730-1250) @ 1300-1400	114 x 145 (4.5 x 5.7)	NA	NA	Cast iron	716 (1578)	TB
Cummins	L	OSL	8.9	Jamestown, NY; Rocky Mount, NC, UK	4,000	6, inline	DI, 4	186-272 (250-365) @ 1800-2100	1288-1519 (950-1120) @ 1400-1500	114 x 145 (4.5 x 5.7)	NA	NA	Cast iron	738 (1627)	AG, IS, OH
Cummins	M	ISM	10.8	Jamestown, NY	22,000	6, inline	DI, 4	209-373 (280-500) @ 1800-2100	1254-2102 (925-1550) @ 1400-1500	125 x 147 (4.92 x 5.79)	NA	NA	Cast iron	1005 (2215)	TB
Cummins	M	QSM	10.8	Jamestown, NY	7,000	6, inline	DI, 4	196-298 (260-400) @ 1800-2100	1146-1698 (845-1400) @ 1300-1400	125 x 147 (4.92 x 5.79)	NA	NA	Cast iron	984 (2175)	AG, IS, OH
Cummins	X	QSK	15.0	Jamestown, NY	2,800	6, inline	DI, 4	261-496 (350-665) @ 1800-2100	1603-2942 (1182-1975) @ 1400	137 x 169 (5.39 x 6.65)	NA	NA	Cast iron	1451 (3200)	AG, IS, OH
Cummins	X	QSK	15.0	Jamestown, NY	5,200	6, inline	DI, 4	287-485 (385-650) @ 1800-2100	1966-2779 (1450-2050) @ 1400	137 x 169 (5.39 x 6.65)	NA	NA	Cast iron	1865 (4099)	TB
Cummins	K	QSK19	19.0	Seymour, IN	5,600	6, inline	DI, 4	327-384 (450-600) @ 1800-2100	2237-3084 (1650-2375) @ 800-1500	159 x 159 (6.25 x 6.25)	NA	NA	Cast iron	1890-2055 (4170-4600)	AG, IS, OH
Cummins	K	QSK23	23.0	Daverly, England; Brazil	900	6, inline	DI, 4	356-708 (760-950) @ 1800-2100	3287-3958 (2424-2919) @ 1300-1400	170 x 170 (6.69 x 6.69)	NA	NA	Cast iron	2722 (6000)	OH
Cummins	T	QST30	30.0	Seymour, IN	1,500	V6	DI, 4	567-1119 (760-1500) @ 1800-2100	3349-6162 (2470-4877) @ 1100-1400	140 x 165 (5.5 x 6.5)	NA	NA	Cast iron	5328 (11737)	IS, OH
Cummins	K	QSK38	38.0	Daverly, England	1,900	V12	DI, 4	686-940 (920-1260) @ 1200-1800	5235-6195 (3861-4569) @ 1000-1400</						