ARB-Approved Engine Families for the Hug Engineering, Inc. Mobiclean R System

Relating to Executive Order Series DE-12-001

Effective Date: September 9, 2014

Notes: Exhaust temperature criterion depends on the engine family. The numbers in the "Temp Criterion" column correspond to the criteria below:

1. Over 240 °C at least 50 percent of the time.
2. Over 200 °C at least 15 percent of the time.
3. Over 200 °C at least 30 percent of the time.

Model Year	Manufacturer	Engine Family	Displacement (L)		Temp Criterion
			1	2	
1991	Caterpillar	MCT0403FZC1	6.6	*	1
1991	Caterpillar	MCT0403FZD2	6.6	*	1
1991	Caterpillar	MCT0403FZE3	6.6	*	1
1991	Caterpillar	MCT0629FZD4	10.3	*	1
1991	Caterpillar	MCT0893FPBX	14.6	*	1
1991	Caterpillar	MCT0893FZD5	14.6	*	1
1991	Cummins	MCE03.4FAA2	3.4	*	1
1991	Cummins	MCE0359FAA9	5.9	*	1
1991	Cummins	MCE0359FABX	5.9	*	1
1991	Cummins	MCE0505FAA2	8.3	*	1
1991	Cummins	MCE0611FZA2	10.0	*	1
1991	Cummins	MCE0611FZB3	10.0	*	1
1991	Cummins	MCE0855FZA6	14.0	*	1
1991	Cummins	MCE0855FZC8	14.0	*	1
1991	Cummins	MCE0855FZD9	14.0	*	1
1991	Detroit Diesel Corporation	MDD11.1FZA2	11.1	*	1
1991	Detroit Diesel Corporation	MDD12.7FZAX	12.7	*	1
1991	Ford	MFM07.8FPK8	7.8	6.6	1
1991	General Motors	MGM06.2DAB2	6.2	*	1
1991	Hino	MHM03.8FAA0	3.8	*	1
1991	Hino	MHM06.5FAA6	6.5	*	1
1991	International	MNV0360EPC7	5.9	*	1
1991	International	MNV0360FPCX	5.9	*	1
1991	International	MNV0466EPC4	7.6	*	1
1991	International	MNV0466FPC7	7.6	*	1
1991	International	MNV07.3DAA1	7.3	*	1
1991	Mack	MMT0728FAF1	11.9	*	1
1991	Mack	MMT0728FAG2	11.9	*	1
1991	Mack	MMT0728FAH3	11.9	*	1
1991	Mercedes-Benz	MMB5.96FAA3	6.0	*	1
1991	Perkins	MPE0365FAA1	6.0	*	1
1991	Renault	MRE0335FAA4	6.2	*	1
1991	Volvo	MVT06.7FAA1	6.7	*	1
1991	Volvo	MVT12.0FAA0	12.0	*	1
1992	Caterpillar	NCT0403FZC0	6.6	*	1
1992	Caterpillar	NCT0403FZD1	6.6	*	1
1992	Caterpillar	NCT0403FZE2	6.6	*	1
1992	Caterpillar	NCT0403FZF3	6.6	*	1
1992	Caterpillar	NCT0629FZD3	10.3	*	1
1992	Caterpillar	NCT0638FPCX	10.5	*	1
1992	Caterpillar	NCT0893FPB9	14.6	*	1
1992	Caterpillar	NCT0893FZD4	14.6	*	1

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1992	Cummins	NCE0359FAA8	5.9	*	1
1992	Cummins	NCE0359FAB9	5.9	*	1
1992	Cummins	NCE0359FACX	5.9	*	1
1992	Cummins	NCE0505FAA1	8.3	*	1
1992	Cummins	NCE0505FAB2	8.3	*	1
1992	Cummins	NCE0611FZA1	10.0	*	1
1992	Cummins	NCE0611FZB2	10.0	*	1
1992	Cummins	NCE0855FZA5	14.0	*	1
1992	Cummins	NCE0855FZB6	14.0	*	1
1992	Cummins	NCE0855FZC7	14.0	*	1
1992	Cummins	NCE0855FZD8	14.0	*	1
1992	Cummins	NCE0855FZFX	14.0	*	1
1992	Cummins	NCE0855FZG0	14.0	*	1
1992	Detroit Diesel Corporation	NDD11.1FZA1	11.1	*	1
1992	Detroit Diesel Corporation	NDD12.7FZA9	12.7	*	1
1992	Ford	NFM07.8FPK7	7.8	*	1
1992	General Motors	NGM06.2DAB1	6.2	*	1
1992	General Motors	NGM06.5EAB5	6.5	*	1
1992	Hino	NHM03.8FAAX	3.8	*	1
1992	Hino	NHM06.5FAA5	6.5	*	1
1992	International	NNV0360EPC6	5.9	*	1
1992	International	NNV0360FPC9	5.9	*	1
1992	International	NNV0466EPA1	7.6	*	1
1992	International	NNV0466FPC6	7.6	*	1
1992	International	NNV07.3DAA0	7.3	*	1
1992	Isuzu	NSZ0235FAAX	3.9	*	1
1992	Isuzu	NSZ0396FAB7	6.5	*	1
1992	Mack	NMT0728FAA6	11.9	*	1
1992	Mack	NMT0728FAB7	11.9	*	1
1992	Mack	NMT0728FAC8	11.9	*	1
1992	Mack	NMT0728FAD9	11.9	*	1
1992	Mack	NMT0728FAEX	11.9	*	1
1992	Mack	NMT0728FAF0	11.9	*	1
1992	Mack	NMT0728FAG1	11.9	*	1
1992	Mack	NMT0728FAH2	11.9	*	1
1992	Mack	NMT0728FAK7	11.9	*	1
1992	Mack	NMT0728FAL8	11.9	*	1
1992	Mercedes-Benz	NMB12.0FAA4	12.0	*	1
1992	Mercedes-Benz	NMB5.96FAA2	6.0	*	1
1992	Mitsubishi	NMM0238FAA0	3.9	*	1
1992	Mitsubishi	NMM0302FAA0	4.9	*	1
1992	Mitsubishi	NMM0460FAA6	7.5	*	1
1992	Nissan	NND0254EAB1	4.2	*	1
1992	Nissan	NND0423FAC9	6.9	*	1
1992	Nissan	NND0452FAC9	7.4	*	1
1992	Perkins	NPE0243FAJ9	4.0	*	1
1992	Perkins	NPE0365FAA0	6.0	*	1
1992	Renault	NRE0335FAA3	5.5	*	1
1992	Renault	NRE0377FABX	6.2	*	1
1992	Renault	NRE0377FAC0	6.2	*	1

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1992	Volvo	NVT06.7FAA0	6.7	*	1
1992	Volvo	NVT12.0FAAX	12.0	*	1
1992	Volvo	NVT12.0FAB0	12.0	*	1
1993	Caterpillar	PCT0403FZC9	6.6	*	1
1993	Caterpillar	PCT0403FZDX	6.6	*	1
1993	Caterpillar	PCT0403FZE0	6.6	*	1
1993	Caterpillar	PCT0403FZF1	6.6	*	1
1993	Caterpillar	PCT0629FZD1	10.3	*	1
1993	Caterpillar	PCT0629FZE2	10.3	*	1
1993	Caterpillar	PCT0638FPC8	10.5	*	1
1993	Caterpillar	PCT0893FPB7	14.6	*	1
1993	Caterpillar	PCT0893FZD2	14.6	*	1
1993	Caterpillar	PCT0893FZE3	14.6	*	1
1993	Cummins	PCE0359FAA6	5.9	*	1
1993	Cummins	PCE0359FAB7	5.9	*	1
1993	Cummins	PCE0359FAC8	5.9	*	1
1993	Cummins	PCE0359FAD9	5.9	*	1
1993	Cummins	PCE0359FDA1	5.9	*	1
1993	Cummins	PCE0505FAAX	8.3	*	1
1993	Cummins	PCE0505FAB0	8.3	*	1
1993	Cummins	PCE0505FDA5	8.3	*	1
1993	Cummins	PCE0505FDD8	8.3	*	1
1993	Cummins	PCE0611FZAX	10.0	*	1
1993	Cummins	PCE0611FZB0	10.0	*	1
1993	Cummins	PCE0661FZA2	10.8	*	1
1993	Cummins	PCE0661FZB3	10.8	*	1
1993	Cummins	PCE0855FZA3	14.0	*	1
1993	Cummins	PCE0855FZB4	14.0	*	1
1993	Cummins	PCE0855FZC5	14.0	*	1
1993	Cummins	PCE0855FZD6	14.0	*	1
1993	Cummins	PCE0855FZF8	14.0	*	1
1993	Cummins	PCE0855FZG9	14.0	*	1
1993	Cummins	PCE0855FZHX	14.0	*	1
1993	Cummins	PCE0855FZK4	14.0	*	1
1993	Detroit Diesel Corporation	PDD08.5FZB7	8.5	*	1
1993	Detroit Diesel Corporation	PDD08.5FZK7	8.5	*	1
1993	Detroit Diesel Corporation	PDD11.1FZAX	11.1	*	1
1993	Detroit Diesel Corporation	PDD11.1FZD2	11.1	*	1
1993	Detroit Diesel Corporation	PDD12.7FZA7	12.7	*	1
1993	Detroit Diesel Corporation	PDD12.7FZDX	12.7	*	1
1993	General Motors	PGM06.2DABX	6.2	*	1
1993	General Motors	PGM06.5EAB3	6.5	*	1
1993	Hino	PHM03.8FAA8	3.8	*	1
1993	Hino	PHM06.5FAA3	6.5	*	1
1993	International	PNV0360FPC7	5.9	*	1
1993	International	PNV0408FPA2	6.7	*	1
1993	International	PNV0408FPB3	6.7	*	1
1993	International	PNV0466EPAX	7.6	*	1
1993	International	PNV0466FPC4	7.6	*	1
1993	International	PNV0466FPD5	7.6	*	1

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1993	International	PNV0466FPE6	7.6	*	1
1993	International	PNV0466FPF7	7.6	*	1
1993	International	PNV0530FPA2	8.7	*	1
1993	International	PNV07.3DAA9	7.3	*	1
1993	International	PNV07.3EPA2	7.3	*	1
1993	Isuzu	PSZ0235FAA8	3.9	*	1
1993	Isuzu	PSZ0396FAB5	6.5	*	1
1993	Mack	PMT0728FAB5	11.9	*	1
1993	Mack	PMT0728FAC6	11.9	*	1
1993	Mack	PMT0728FAD7	11.9	*	1
1993	Mack	PMT0728FAE8	11.9	*	1
1993	Mack	PMT0728FAF9	11.9	*	1
1993	Mack	PMT0728FAGX	11.9	*	1
1993	Mack	PMT0728FAH0	11.9	*	1
1993	Mack	PMT0728FAJ4	11.9	*	1
1993	Mack	PMT0728FAL6	11.9	*	1
1993	Mercedes-Benz	PMB12.0FAA2	12.0	*	1
1993	Mercedes-Benz	PMB5.96FAA1	6.0	*	1
1993	Mitsubishi	PMM0238FAA9	3.9	*	1
1993	Mitsubishi	PMM0302FAA9	5.0	*	1
1993	Mitsubishi	PMM0460FAA4	7.5	*	1
1993	Nissan	PND0254EABX	4.2	*	1
1993	Nissan	PND0423FAC7	6.9	*	1
1993	Nissan	PND0452FAC7	7.4	*	1
1993	Perkins	PPE0243FAK4	4.0	*	1
1993	Perkins	PPE0365FAA9	6.0	*	1
1993	Renault	PRE0335FAA0	6.2	*	1
1993	Renault	PRE0377FAB8	6.2	*	1
1993	Renault	PRE0377FAC9	6.2	*	1
1993	Volvo	PVT06.7FAA9	6.7	*	1
1993	Volvo	PVT12.0FAA8	12.0	*	1
1993	Volvo	PVT12.0FAB9	12.0	*	1
1994	Caterpillar	RCP403DZDAAA	6.6	*	2
1994	Caterpillar	RCP403DZDABA	6.6	*	2
1994	Caterpillar	RCP629EZDARA	10.3	*	2
1994	Caterpillar	RCP638EZDARA	10.5	*	2
1994	Caterpillar	RCP893EZDARA	14.6	*	2
1994	Cummins	RCE359D6DAAB	5.9	*	2
1994	Cummins	RCE359D6DAAW	5.9	*	2
1994	Cummins	RCE359D6DABW	5.9	*	2
1994	Cummins	RCE505D6DAAA	8.3	*	2
1994	Cummins	RCE505D6DAAB	8.3	*	2
1994	Cummins	RCE505D6DAAC	8.3	*	2
1994	Cummins	RCE505F6DAAW	8.3	*	2
1994	Cummins	RCE611EGDARW	10.0	*	2
1994	Cummins	RCE661EJDARA	10.8	*	2
1994	Cummins	RCE661EJDARC	10.8	*	2
1994	Cummins	RCE661EJDARW	10.8	*	2
1994	Cummins	RCE661FJDAAA	10.8	*	2
1994	Cummins	RCE855EJDARW	14.0	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1994	Cummins	RCE855EJDASW	14.0	*	2
1994	Detroit Diesel Corporation	RDD11.EJDARA	11.1	*	2
1994	Detroit Diesel Corporation	RDD12.EJDARA	12.7	*	2
1994	Detroit Diesel Corporation	RDD8.5EJDARA	8.5	*	2
1994	Detroit Diesel Corporation	RDD8.5EJDARW	8.5	*	2
1994	Detroit Diesel Corporation	RDD8.5FJDABA	8.5	*	2
1994	General Motors	RGM6.5C6DAAA	6.5	*	2
1994	General Motors	RGM6.5C6DAAB	6.5	*	2
1994	General Motors	RGM6.5C6DAAC	6.5	*	2
1994	General Motors	RGM6.5C6DARW	6.5	*	2
1994	Hino	RHM3.8C7DARW	3.8	*	2
1994	Hino	RHM6.5D7DARW	6.5	*	2
1994	International	RNV408D6DAAW	6.7	*	2
1994	International	RNV444C8DABA	7.3	*	2
1994	International	RNV466D6D0TW	7.6	*	2
1994	International	RNV466D6DAAA	7.6	*	2
1994	International	RNV466D6DABA	7.6	*	2
1994	International	RNV466D6DARW	7.6	*	2
1994	International	RNV466D6DASW	7.6	*	2
1994	International	RNV530D6DAAA	8.7	*	2
1994	International	RNV7.3C8DAAA	7.3	*	2
1994	Isuzu	RSZ3.9C6DARW	3.9	*	2
1994	Mack	RMK728EGDARA	11.9	*	2
1994	Mack	RMK728EJDARA	11.9	*	2
1994	Mercedes-Benz	RMB6.0D6DAAA	6.0	*	2
1994	Mercedes-Benz	RMB6.0D6DARA	6.0	*	2
1994	Mitsubishi	RMT238B7DAAA	3.9	*	2
1994	Nissan	RND254C6DAAA	4.2	*	2
1994	Nissan	RND423D6DAAA	6.9	*	2
1994	Perkins	RPK243C6DAAA	4.0	*	2
1994	Perkins	RPK365D6DAAA	6.0	*	2
1994	Volvo	RVT12.EJDBRA	12.1	*	2
1994	Volvo	RVT6.7D6DBRA	6.7	*	2
1995	Caterpillar	SCP403DZDAAA	6.6	*	2
1995	Caterpillar	SCP403DZDABA	6.6	*	2
1995	Caterpillar	SCP403DZDARK	6.6	*	2
1995	Caterpillar	SCP442DZDARK	7.2	*	2
1995	Caterpillar	SCP629EZDARK	10.3	*	2
1995	Caterpillar	SCP629EZDARM	10.3	*	2
1995	Caterpillar	SCP638EZDARA	10.5	*	2
1995	Caterpillar	SCP729EZDARL	11.9	*	2
1995	Caterpillar	SCP893EZDARK	14.6	*	2
1995	Cummins	SCE239D6DAAA	3.9	*	2
1995	Cummins	SCE359D6DAAA	5.9	*	2
1995	Cummins	SCE359D6DAAW	5.9	*	2
1995	Cummins	SCE359D6DABW	5.9	*	2
1995	Cummins	SCE505D6DAAA	8.3	*	2
1995	Cummins	SCE505D6DAAW	8.3	*	2
1995	Cummins	SCE505D6DABW	8.3	*	2
1995	Cummins	SCE505F6DAAW	8.3	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1995	Cummins	SCE611EGDARW	10.0	*	2
1995	Cummins	SCE661EJDARA	10.8	*	2
1995	Cummins	SCE661EJDARC	10.8	*	2
1995	Cummins	SCE661EJDARW	10.8	*	2
1995	Cummins	SCE661EJDASW	10.8	*	2
1995	Cummins	SCE661EJDATW	10.8	*	2
1995	Cummins	SCE661FJDAAA	10.8	*	2
1995	Cummins	SCE855EJDARA	14.0	*	2
1995	Cummins	SCE855EJDARB	14.0	*	2
1995	Cummins	SCE855EJDARW	14.0	*	2
1995	Cummins	SCE855EJDASW	14.0	*	2
1995	Cummins	SCE855EJDATW	14.0	*	2
1995	Detroit Diesel Corporation	SDD11.EJDARA	11.1	*	2
1995	Detroit Diesel Corporation	SDD12.EJDARA	12.7	*	2
1995	Detroit Diesel Corporation	SDD8.5EJDARA	8.5	*	2
1995	Detroit Diesel Corporation	SDD8.5EJDARW	8.5	*	2
1995	Detroit Diesel Corporation	SDD8.5FJDABA	8.5	*	2
1995	General Motors	SGM6.5C6DAAB	6.5	*	2
1995	General Motors	SGM6.5C6DAAC	6.5	*	2
1995	General Motors	SGM6.5C6DAAW	6.5	*	2
1995	General Motors	SGM6.5C6DARW	6.5	*	2
1995	Hino	SHM3.8C7DARW	3.8	*	2
1995	Hino	SHM6.5D7DARW	6.5	*	2
1995	International	SNV444C8D0AA	7.3	*	2
1995	International	SNV444C8D0RA	7.3	*	2
1995	International	SNV444C8D0SA	7.3	*	2
1995	International	SNV466D6DARA	7.6	*	2
1995	International	SNV466D6DASA	7.6	*	2
1995	International	SNV466D6DATA	7.6	*	2
1995	International	SNV466D8DARB	7.6	*	2
1995	International	SNV466D8DASB	7.6	*	2
1995	International	SNV466D8DATB	7.6	*	2
1995	International	SNV530D6DARA	8.7	*	2
1995	International	SNV530E6DASA	8.7	*	2
1995	International	SNV530F6DATA	8.7	*	2
1995	International	SNV7.3C8DAAA	7.3	*	2
1995	Isuzu	SSZ3.9C6DARW	3.9	*	2
1995	Isuzu	SSZ7.1D6DAAA	7.1	*	2
1995	Mack	SMK728EGDARA	11.9	*	2
1995	Mack	SMK728EJDARA	11.9	*	2
1995	Mercedes-Benz	SMB6.0D6DAAA	6.0	*	2
1995	Mercedes-Benz	SMB6.0D6DARA	6.0	*	2
1995	Mitsubishi	SMT460D7DAAA	7.5	*	2
1995	Nissan	SND254C6DAAA	4.2	*	2
1995	Nissan	SND423D6DAAA	6.9	*	2
1995	Perkins	SPK243C6DAAA	4.0	*	2
1995	Perkins	SPK365D6DAAA	6.0	*	2
1995	Renault	SR3377D8DAAW	6.2	*	2
1995	Renault	SR3377D8DABW	6.2	*	2
1995	Volvo	SVT12.EJDBRA	12.1	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1995	Volvo	SVT6.7D6DBRA	6.7	*	2
1996	Caterpillar	TCP403DZDAAA	6.6		2
1996	Caterpillar	TCP403DZDABA	6.6		2
1996	Caterpillar	TCP403DZDARK	6.6		2
1996	Caterpillar	TCP442DZDAAK	7.2		2
1996	Caterpillar	TCP442DZDARK	7.2		2
1996	Caterpillar	TCP629EZDARK	10.3		2
1996	Caterpillar	TCP629EZDARM	10.3		2
1996	Caterpillar	TCP638EZDARA	10.5		2
1996	Caterpillar	TCP729EZDARL	11.9		2
1996	Caterpillar	TCP893EZDARK	14.6		2
1996	Cummins	TCE239D6DAAA	3.9		2
1996	Cummins	TCE359D6DAAA	5.9		2
1996	Cummins	TCE359D6DABW	5.9		2
1996	Cummins	TCE505D6DAAA	8.3		2
1996	Cummins	TCE505D6DAAW	8.3		2
1996	Cummins	TCE505D6DABW	8.3		2
1996	Cummins	TCE661EJDARA	10.8		2
1996	Cummins	TCE661EJDARB	10.8		2
1996	Cummins	TCE661EJDARC	10.8		2
1996	Cummins	TCE661EJDARW	10.8		2
1996	Cummins	TCE661EJDASW	10.8		2
1996	Cummins	TCE661EJDATW	10.8		2
1996	Cummins	TCE661FJDABA	10.8		2
1996	Cummins	TCE855EJDARA	14.0		2
1996	Cummins	TCE855EJDARB	14.0		2
1996	Cummins	TCE855EJDARW	14.0		2
1996	Cummins	TCE855EJDASW	14.0		2
1996	Cummins	TCE855EJDATW	14.0		2
1996	Detroit Diesel Corporation	TDD11.EJDARA	11.1		2
1996	Detroit Diesel Corporation	TDD12.EJDARA	12.7		2
1996	Detroit Diesel Corporation	TDD12.EJDATW	12.0		2
1996	Detroit Diesel Corporation	TDD8.5EJDARA	8.5		2
1996	Detroit Diesel Corporation	TDD8.5EJDARW	8.5		2
1996	Detroit Diesel Corporation	TDD8.5FJDABA	8.5		2
1996	General Motors	TGM6.5C6DAAA	6.5		2
1996	General Motors	TGM6.5C6DABA	6.5		2
1996	General Motors	TGM6.5C6DABW	6.5		2
1996	Hino	THM3.8C7DARW	3.8		2
1996	Hino	THM6.5D7DARW	6.5		2
1996	International	TNV444C8D0RA	7.3		2
1996	International	TNV444C8D0SA	7.3		2
1996	International	TNV466D6DARB	7.6		2
1996	International	TNV466D6DATB	7.6		2
1996	International	TNV466D8DARB	7.6		2
1996	International	TNV466D8DATB	7.6		2
1996	International	TNV530D6DARA	8.7		2
1996	International	TNV530D8DARA	8.7		2
1996	International	TNV530E6DASA	8.7		2
1996	International	TNV530E8DASA	8.7		2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1996	International	TNV7.3C8DAAA	7.3		2
1996	Isuzu	TSZ3.9C6DARW	3.9		2
1996	Isuzu	TSZ7.1D6DAAA	7.1	*	2
1996	Mack	TMK728EGDARA	11.9		2
1996	Mack	TMK728EJDARA	11.9		2
1996	Mitsubishi	TMT238C7DBAA	3.9		2
1996	Mitsubishi	TMT358D7DBAA	5.9		2
1996	Mitsubishi	TMT460D7DBAA	7.5		2
1996	Nissan	TND254C6DAAA	4.2		2
1996	Nissan	TND423D6DAAA	6.9		2
1996	Perkins	TPK243C6DAAA	4.0		2
1996	Perkins	TPK365D6DAAA	6.0		2
1996	Renault	TR3377D8DAAW	6.2		2
1996	Renault	TR3377D8DABW	6.2		2
1996	Volvo	TVT12.EJDBRA	12.1		2
1996	Volvo	TVT6.7D6DBRA	6.7		2
1997	Caterpillar	VCP403DZDAAA	6.6	*	2
1997	Caterpillar	VCP403DZDABA	6.6	*	2
1997	Caterpillar	VCP403DZDARK	6.6	*	2
1997	Caterpillar	VCP442DZDAAK	7.2	*	2
1997	Caterpillar	VCP442DZDARK	7.2	*	2
1997	Caterpillar	VCP629EZDARK	10.3	*	2
1997	Caterpillar	VCP629EZDARX	10.3	*	2
1997	Caterpillar	VCP638EZDARA	10.5	*	2
1997	Caterpillar	VCP729EZDARX	11.9	*	2
1997	Caterpillar	VCP893EZDARA	14.6	*	2
1997	Caterpillar	VCP893EZDARX	14.6	*	2
1997	Caterpillar	VCP967EZDARK	15.8	*	2
1997	Cummins	VCE239D6DAAA	3.9	*	2
1997	Cummins	VCE359D6DAAA	5.9	*	2
1997	Cummins	VCE359D6DABW	5.9	*	2
1997	Cummins	VCE359DJDARA	5.9	*	2
1997	Cummins	VCE505D6DAAA	8.3	*	2
1997	Cummins	VCE505D6DAAW	8.3	*	2
1997	Cummins	VCE505D6DABW	8.3	*	2
1997	Cummins	VCE661EJDARB	10.8	*	2
1997	Cummins	VCE661EJDARC	10.8	*	2
1997	Cummins	VCE661EJDASA	10.8	*	2
1997	Cummins	VCE661EJDATW	10.8	*	2
1997	Cummins	VCE661FJDABA	10.8	*	2
1997	Cummins	VCE855EJDARA	14.0	*	2
1997	Cummins	VCE855EJDARB	14.0	*	2
1997	Cummins	VCE855EJDARC	14.0	*	2
1997	Cummins	VCE855EJDATW	14.0	*	2
1997	Detroit Diesel Corporation	VDD11.EJDARA	11.1	*	2
1997	Detroit Diesel Corporation	VDD12.EJDARA	12.7	*	2
1997	Detroit Diesel Corporation	VDD12.EJDATA	12.0	*	2
1997	Detroit Diesel Corporation	VDD3.8C8DABA	3.8	*	2
1997	Detroit Diesel Corporation	VDD8.5EJDARA	8.5	*	2
1997	Detroit Diesel Corporation	VDD8.5FJDABA	8.5	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1997	General Motors	VGM6.5C6DAAA	6.5	*	2
1997	General Motors	VGM6.5C6DABA	6.5	*	2
1997	General Motors	VGM6.5C6DABW	6.5	*	2
1997	General Motors	VGM6.5C6DARW	6.5	*	2
1997	Hino	VHM8.0DHDARA	8.0	5.3	2
1997	International	VNV444C8DARW	7.3	*	2
1997	International	VNV444C8DASW	7.3	*	2
1997	International	VNV466D6DARA	7.6	*	2
1997	International	VNV466D8DARW	7.6	*	2
1997	International	VNV466D8DASA	7.6	*	2
1997	International	VNV530D6DARA	8.7	*	2
1997	International	VNV530D8DARA	8.7	*	2
1997	International	VNV530E6DASA	8.7	*	2
1997	International	VNV530E8DASA	8.7	*	2
1997	International	VNV7.3C8DAAA	7.3	*	2
1997	International	VNV7.3C8DAAW	7.3	*	2
1997	Isuzu	VSZ3.9C6DARA	3.9	*	2
1997	Isuzu	VSZ7.1D6DAAA	7.1	*	2
1997	Isuzu	VSZ7.1D6DAAW	7.1	*	2
1997	Mack	VMK728EGDARA	11.9	*	2
1997	Mack	VMK728EJDARA	11.9	*	2
1997	Mack	VMK728EJDAYW	11.9	*	2
1997	Mitsubishi	VMT238C7DBAA	3.9	*	2
1997	Mitsubishi	VMT358D7DBAA	5.9	*	2
1997	Mitsubishi	VMT460D7DBAA	7.5	*	2
1997	Nissan	VND254C6DAAA	4.2	*	2
1997	Nissan	VND423D6DAAA	6.9	*	2
1997	Renault	VR3377D8DAAW	6.2	*	2
1997	Renault	VR3377D8DABW	6.2	*	2
1997	Volvo	VVT12.EJDBRA	12.1	*	2
1997	Volvo	VVT6.7D6DBRA	6.7	*	2
1998	Caterpillar	WCPXH0442HRK	7.2	*	2
1998	Caterpillar	WCPXH0442HSK	7.2	*	2
1998	Caterpillar	WCPXH0629ERK	10.3	*	2
1998	Caterpillar	WCPXH0729ERK	11.9	*	2
1998	Caterpillar	WCPXH0893ERK	14.6	*	2
1998	Caterpillar	WCPXH0967ERK	15.8	*	2
1998	Cummins	WCEXH0359BAD	5.9	*	2
1998	Cummins	WCEXH0359BAE	5.9	*	2
1998	Cummins	WCEXH0505CAC	8.3	*	2
1998	Cummins	WCEXH0505CAD	8.3	*	2
1998	Cummins	WCEXH0505CAE	8.3	*	2
1998	Cummins	WCEXH0505CAF	8.3	*	2
1998	Cummins	WCEXH0661MAA	10.8	*	2
1998	Cummins	WCEXH0661MAB	10.8	*	2
1998	Cummins	WCEXH0661MAC	10.8	*	2
1998	Cummins	WCEXH0661MAD	10.8	*	2
1998	Cummins	WCEXH0661MAE	10.8	*	2
1998	Cummins	WCEXH0855NAA	14.0	*	2
1998	Cummins	WCEXH0855NAB	14.0	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1998	Cummins	WCEXH0855NAC	14.0	*	2
1998	Cummins	WCEXH0912XAA	14.9	*	2
1998	Detroit Diesel Corporation	WDDXH03.8C1C	3.8	*	2
1998	Detroit Diesel Corporation	WDDXH08.5EJD	8.5	*	2
1998	Detroit Diesel Corporation	WDDXH08.5FJC	8.5	*	2
1998	Detroit Diesel Corporation	WDDXH11.1EHD	11.1	*	2
1998	Detroit Diesel Corporation	WDDXH12.7EGD	12.7	*	2
1998	General Motors	WGMXH06.5521	6.5	*	2
1998	General Motors	WGMXH06.5522	6.5	*	2
1998	General Motors	WGMXH06.5523	6.5	*	2
1998	General Motors	WGMXH06.5526	6.5	*	2
1998	Hino	WHMXH08.0JTR	5.3	8.0	2
1998	International	WNVXH0444CCB	7.3	*	2
1998	International	WNVXH0444CCD	7.3	*	2
1998	International	WNVXH0466CCB	7.6	*	2
1998	International	WNVXH0466CCD	7.6	*	2
1998	International	WNVXH0530CCB	8.7	*	2
1998	International	WNVXH0530CCD	8.7	*	2
1998	Isuzu	WSZXH07.84RA	7.8	*	2
1998	Mack	WMKXH11.9E51	11.9	*	2
1998	Mack	WMKXH11.9E52	11.9	*	2
1998	Mack	WMKXH11.9E53	11.9	*	2
1998	Mercedes-Benz	WMBXH4.25DJA	4.2	*	2
1998	Nissan	WNDXH04.2TAB	4.2	*	2
1998	Nissan	WNDXH06.9FAB	6.9	*	2
1998	Volvo	WVTXH07.350S	7.3	*	2
1998	Volvo	WVTXH12.150S	12.1	*	2
1999	Caterpillar	XCPXH0442HRK	7.2	*	2
1999	Caterpillar	XCPXH0442HSK	7.2	*	2
1999	Caterpillar	XCPXH0629ERK	10.3	*	2
1999	Caterpillar	XCPXH0729ERK	11.9	*	2
1999	Caterpillar	XCPXH0893ERK	14.6	*	2
1999	Caterpillar	XCPXH0967ERK	15.8	*	2
1999	Cummins	XCEXH0359BAI	5.9	*	2
1999	Cummins	XCEXH0359BAJ	5.9	*	2
1999	Cummins	XCEXH0359BAK	5.9	*	2
1999	Cummins	XCEXH0505CAC	8.3	*	2
1999	Cummins	XCEXH0505CAD	8.3	*	2
1999	Cummins	XCEXH0505CAE	8.3	*	2
1999	Cummins	XCEXH0505CAF	8.3	*	2
1999	Cummins	XCEXH0661MAC	10.8	*	2
1999	Cummins	XCEXH0661MAG	10.8	*	2
1999	Cummins	XCEXH0661MAH	10.8	*	2
1999	Cummins	XCEXH0661MAI	10.8	*	2
1999	Cummins	XCEXH0855NAD	14.0	*	2
1999	Cummins	XCEXH0855NAE	14.0	*	2
1999	Cummins	XCEXH0855NAF	14.0	*	2
1999	Cummins	XCEXH0912XAB	14.9	*	2
1999	Cummins	XCEXH0912XAD	14.9	*	2
1999	Detroit Diesel Corporation	XDDXH03.8C1N	3.8	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
1999	Detroit Diesel Corporation	XDDXH08.5EJL	8.5	*	2
1999	Detroit Diesel Corporation	XDDXH08.5FJN	8.5	*	2
1999	Detroit Diesel Corporation	XDDXH11.1EHL	11.1	*	2
1999	Detroit Diesel Corporation	XDDXH12.7EGL	12.7	*	2
1999	Detroit Diesel Corporation	XDDXH14.0ELL	14.0	*	2
1999	General Motors	XGMXH06.5521	6.5	*	2
1999	General Motors	XGMXH06.5523	6.5	*	2
1999	General Motors	XGMXH06.5526	6.5	*	2
1999	Hino	XHMXH08.0JTR	5.3	8.0	2
1999	International	XNVXH0444ANA	7.3	*	2
1999	International	XNVXH0444ANB	7.3	*	2
1999	International	XNVXH0466ANA	7.6	*	2
1999	International	XNVXH0466ANB	7.6	*	2
1999	International	XNVXH0530ACT	8.7	*	2
1999	International	XNVXH0530ANA	8.7	*	2
1999	International	XNVXH0530ANB	8.7	*	2
1999	International	XNVXH07.3ACA	7.3	*	2
1999	International	XNVXH07.3ANE	7.3	*	2
1999	Isuzu	XSZXH04.83AA	4.8	*	2
1999	Isuzu	XSZXH07.84RA	7.8	*	2
1999	Mack	XMKXH11.9E54	11.9	*	2
1999	Mercedes-Benz	XMBXH4.25DJA	4.2	*	2
1999	Mercedes-Benz	XMBXH6.37DJA	6.4	*	2
1999	Mitsubishi	XMTXH03.9D4A	3.9	*	2
1999	Mitsubishi	XMTXH05.8D6A	5.9	*	2
1999	Mitsubishi	XMTXH07.5D6A	7.5	*	2
1999	Nissan	XNDXH04.6FAB	4.6	*	2
1999	Nissan	XNDXH06.9FAB	6.9	*	2
1999	Renault	XR3XH0377KWC	6.2	*	2
1999	Renault	XR3XH0377LWC	6.2	*	2
1999	Volvo	XVTXH07.350S	7.3	*	2
1999	Volvo	XVTXH07.399B	7.3	*	2
1999	Volvo	XVTXH12.150S	12.1	*	2
2000	Caterpillar	YCPXH0442HRK	7.2		2
2000	Caterpillar	YCPXH0629ERK	10.3		2
2000	Caterpillar	YCPXH0729ERK	11.9		2
2000	Caterpillar	YCPXH0893ERK	14.6		2
2000	Caterpillar	YCPXH0967ERK	15.8		2
2000	Cummins	YCEXH0359BAI	5.9		2
2000	Cummins	YCEXH0359BAO	5.9		2
2000	Cummins	YCEXH0359BAP	5.9		2
2000	Cummins	YCEXH0505CAF	8.3		2
2000	Cummins	YCEXH0505CAG	8.3		2
2000	Cummins	YCEXH0505CAH	8.3		2
2000	Cummins	YCEXH0505CAI	8.3		2
2000	Cummins	YCEXH0540LAA	8.8		2
2000	Cummins	YCEXH0661MAG	10.8		2
2000	Cummins	YCEXH0661MAH	10.8		2
2000	Cummins	YCEXH0661MAI	10.8		2
2000	Cummins	YCEXH0855NAD	14.0		2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2000	Cummins	YCEXH0855NAE	14.0		2
2000	Cummins	YCEXH0855NAF	14.0		2
2000	Cummins	YCEXH0912XAC	14.9		2
2000	Cummins	YCEXH0912XAD	14.9		2
2000	Cummins	YCEXH0912XAE	14.9		2
2000	DaimlerChrysler	YMBXH4.25DJA	4.3		2
2000	DaimlerChrysler	YMBXH6.37DJA	6.4	*	2
2000	Detroit Diesel Corporation	YDDXH03.8C1N	3.8		2
2000	Detroit Diesel Corporation	YDDXH08.5EJB	8.5		2
2000	Detroit Diesel Corporation	YDDXH08.5EJL	8.5		2
2000	Detroit Diesel Corporation	YDDXH08.5FJN	8.5		2
2000	Detroit Diesel Corporation	YDDXH12.7EGL	12.7		2
2000	Detroit Diesel Corporation	YDDXH14.0ELL	14.0		2
2000	General Motors	YGMXH06.5521	6.5	*	2
2000	General Motors	YGMXH06.5526	6.5	*	2
2000	Hino	YHMXH05.3JTD	5.3	*	2
2000	Hino	YHMXH08.0JTP	8.0	*	2
2000	Hino	YHMXH08.0JTR	8.0	*	2
2000	International	YNVXH0444ACT	7.3	*	2
2000	International	YNVXH0444ANA	7.3	*	2
2000	International	YNVXH0444ANB	7.3	*	2
2000	International	YNVXH0444ANC	7.3	*	2
2000	International	YNVXH0466ANA	7.6	*	2
2000	International	YNVXH0466ANB	7.6	*	2
2000	International	YNVXH0530ACT	8.7	*	2
2000	International	YNVXH0530ANA	8.7	*	2
2000	International	YNVXH0530ANB	8.7	*	2
2000	International	YNVXH07.3ANA	7.3	*	2
2000	Isuzu	YSZXH04.83AA	4.8	*	2
2000	Isuzu	YSZXH07.84RA	7.8	*	2
2000	Mack	YMKXH11.9E56	11.9	*	2
2000	Mack	YMKXH11.9V57	11.9	*	2
2000	Mitsubishi	YMTXH03.9D4A	3.9	*	2
2000	Mitsubishi	YMTXH05.8D6A	5.9	*	2
2000	Mitsubishi	YMTXH07.5D6A	7.5	*	2
2000	Nissan	YNDXH04.6FAB	4.6	*	2
2000	Nissan	YNDXH06.9FAB	6.9	*	2
2000	Renault	YR3XH0377KWC	6.2	*	2
2000	Volvo	YVTXH07.350S	7.3	*	2
2000	Volvo	YVTXH12.150S	12.1	*	2
2001	Caterpillar	1CPXH0442HAK	7.2	*	2
2001	Caterpillar	1CPXH0442HBK	7.2	*	2
2001	Caterpillar	1CPXH0442HRK	7.2	*	2
2001	Caterpillar	1CPXH0629ERK	10.3	*	2
2001	Caterpillar	1CPXH0729ERK	11.9	*	2
2001	Caterpillar	1CPXH0893ERK	14.6	*	2
2001	Caterpillar	1CPXH0967ERK	15.8	*	2
2001	Cummins	1CEXH0239BAD	3.9	*	2
2001	Cummins	1CEXH0239BAE	3.9	*	2
2001	Cummins	1CEXH0359BAO	5.9	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2001	Cummins	1CEXH0359BAU	5.9	*	2
2001	Cummins	1CEXH0359BAV	5.9	*	2
2001	Cummins	1CEXH0505CAM	8.3	*	2
2001	Cummins	1CEXH0505CAN	8.3	*	2
2001	Cummins	1CEXH0505CAO	8.3	*	2
2001	Cummins	1CEXH0505CAP	8.3	*	2
2001	Cummins	1CEXH0540LAA	8.8	*	2
2001	Cummins	1CEXH0540LAB	8.8	*	2
2001	Cummins	1CEXH0540LAC	8.8	*	2
2001	Cummins	1CEXH0661MAP	10.8	*	2
2001	Cummins	1CEXH0661MAQ	10.8	*	2
2001	Cummins	1CEXH0661MAR	10.8	*	2
2001	Cummins	1CEXH0855NAD	14.0	*	2
2001	Cummins	1CEXH0855NAE	14.0	*	2
2001	Cummins	1CEXH0855NAF	14.0		2
2001	Cummins	1CEXH0912XAC	14.9	*	2
2001	Cummins	1CEXH0912XAD	14.9	*	2
2001	Cummins	1CEXH0912XAE	14.9	*	2
2001	Detroit Diesel Corporation	1DDXH08.5EJB	8.5	*	2
2001	Detroit Diesel Corporation	1DDXH08.5EJL	8.5	*	2
2001	Detroit Diesel Corporation	1DDXH08.5FJY	8.5	*	2
2001	Detroit Diesel Corporation	1DDXH12.7EGL	12.7	*	2
2001	Detroit Diesel Corporation	1DDXH14.0ELL	14.0	*	2
2001	General Engine Products	1GEPH06.5CFF	6.5	*	2
2001	General Motors	1GMXH06.5521	6.5	*	2
2001	General Motors	1GMXH06.5526	6.5	*	2
2001	Hino	1HMXH05.3JTD	5.3	*	2
2001	Hino	1HMXH08.0JTP	8.0	*	2
2001	Hino	1HMXH08.0JTR	8.0	*	2
2001	International	1NVXH0444ANA	7.3	*	2
2001	International	1NVXH0444ANB	7.3	*	2
2001	International	1NVXH0444ANC	7.3	*	2
2001	International	1NVXH0466ANA	7.6	*	2
2001	International	1NVXH0466ANB	7.6	*	2
2001	International	1NVXH0530ACT	8.7	*	2
2001	International	1NVXH0530ANA	8.7	*	2
2001	International	1NVXH0530ANB	8.7	*	2
2001	International	1NVXH07.3ACE	7.3	*	2
2001	International	1NVXH07.3ANA	7.3	*	2
2001	Isuzu	1SZXH04.83AA	4.8	*	2
2001	Isuzu	1SZXH07.84RA	7.8	*	2
2001	Mack	1MKXH11.9H56	11.9	*	2
2001	Mack	1MKXH11.9H59	11.9	*	2
2001	Mack	1MKXH11.9V57	11.9	*	2
2001	Mack	1MKXH11.9V60	11.9	*	2
2001	Mack	1MKXH11.9V61	11.9	*	2
2001	Mercedes-Benz	1MBXH12.0DJA	12.0	*	2
2001	Mercedes-Benz	1MBXH12.8DJA	12.8	*	2
2001	Mercedes-Benz	1MBXH4.25DJA	4.2	*	2
2001	Mercedes-Benz	1MBXH6.37DJA	6.4	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2001	Mercedes-Benz	1MBXH6.37DJC	6.4	*	2
2001	Mitsubishi	1MTXH03.9D4A	3.9	*	2
2001	Mitsubishi	1MTXH04.8M5A	4.9	*	2
2001	Mitsubishi	1MTXH05.8D6A	5.9	*	2
2001	Mitsubishi	1MTXH07.5D6A	7.5	*	2
2001	Nissan	1NDXH04.6FAB	4.6	*	2
2001	Nissan	1NDXH06.9FAB	6.9	*	2
2001	Volvo	1VTXH07.350S	7.3	*	2
2001	Volvo	1VTXH12.150S	12.1	*	2
2002	Caterpillar	2CPXH0442HAK	7.2	*	2
2002	Caterpillar	2CPXH0442HBV	7.2	*	2
2002	Caterpillar	2CPXH0442HBX	7.2	*	2
2002	Caterpillar	2CPXH0442HRK	7.2	*	2
2002	Caterpillar	2CPXH0629EBX	10.3	*	2
2002	Caterpillar	2CPXH0629ERK	10.3	*	2
2002	Caterpillar	2CPXH0729EBX	11.9	*	2
2002	Caterpillar	2CPXH0729ERK	11.9	*	2
2002	Caterpillar	2CPXH0893EBX	14.6	*	2
2002	Caterpillar	2CPXH0893ERK	14.6	*	2
2002	Caterpillar	2CPXH0967ERK	15.8	*	2
2002	Cummins	2CEXH0239BAD	3.9	*	2
2002	Cummins	2CEXH0239BAE	3.9	*	2
2002	Cummins	2CEXH0359BAB	5.9	*	2
2002	Cummins	2CEXH0359BAO	5.9	*	2
2002	Cummins	2CEXH0505CAM	8.3	*	2
2002	Cummins	2CEXH0505CAN	8.3	*	2
2002	Cummins	2CEXH0505CAQ	8.3	*	2
2002	Cummins	2CEXH0540LAB	8.8	*	2
2002	Cummins	2CEXH0540LAC	8.8	*	2
2002	Cummins	2CEXH0661MAP	10.8	*	2
2002	Cummins	2CEXH0661MAS	10.8	*	2
2002	Cummins	2CEXH0855NAA	14.0	*	2
2002	Cummins	2CEXH0912XAF	14.9	*	2
2002	Cummins	2CEXH0912XAG	14.9	*	3
2002	DaimlerChrysler	2MBXH12.0DJA	12.0	*	2
2002	DaimlerChrysler	2MBXH12.8DJA	12.8	*	2
2002	DaimlerChrysler	2MBXH15.9DJB	15.9	11.9	2
2002	DaimlerChrysler	2MBXH4.25DJA	4.3	*	2
2002	DaimlerChrysler	2MBXH6.37DJA	6.4	*	2
2002	DaimlerChrysler	2MBXH6.37DJC	6.4	*	2
2002	Detroit Diesel Corporation	2DDXH08.5EJL	8.5	*	2
2002	Detroit Diesel Corporation	2DDXH08.5FJY	8.5	*	2
2002	Detroit Diesel Corporation	2DDXH12.7EGL	12.7	*	2
2002	Detroit Diesel Corporation	2DDXH12.7FGN	12.7	*	2
2002	Detroit Diesel Corporation	2DDXH14.0ELL	14.0	*	2
2002	General Engine Products	2GEPH06.5521	6.5	*	2
2002	General Engine Products	2GEPH06.5527	6.5	*	2
2002	General Engine Products	2GEPH06.5CFF	6.5	*	2
2002	General Motors	2GMXH06.5521	6.5	*	2
2002	Hino	2HMXH05.3JTD	5.3	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2002	Hino	2HMXH08.0JTP	8.0	*	2
2002	Hino	2HMXH08.0JTR	8.0	*	2
2002	International	2NVXH0365AEA	6.0	*	2
2002	International	2NVXH0444ANA	7.3	*	2
2002	International	2NVXH0444ANB	7.3	*	2
2002	International	2NVXH0444ANC	7.3	*	2
2002	International	2NVXH0466ANA	7.6	*	2
2002	International	2NVXH0466ANB	7.6	*	2
2002	International	2NVXH0530ANA	8.7	*	2
2002	International	2NVXH0530ANB	8.7	*	2
2002	International	2NVXH0530ANC	8.7	*	2
2002	International	2NVXH07.3ACE	7.3	*	2
2002	International	2NVXH07.3ANA	7.3	*	2
2002	Isuzu	2SZXH04.83AA	4.8	*	2
2002	Isuzu	2SZXH06.64RA	6.6	*	2
2002	Isuzu	2SZXH07.84RA	7.8	7.2	2
2002	Mack	2MKXH11.9H59	11.9	*	2
2002	Mack	2MKXH11.9H63	11.9	*	2
2002	Mack	2MKXH11.9H64	11.9	*	3
2002	Mack	2MKXH11.9V60	11.9	*	2
2002	Mack	2MKXH11.9V61	11.9	*	2
2002	Mack	2MKXH11.9V65	11.9	*	2
2002	Mack	2MKXH11.9V66	11.9	*	3
2002	Mack	2MKXH11.9V67	11.9	*	2
2002	Mitsubishi	2MTXH03.9D4A	3.9	*	2
2002	Mitsubishi	2MTXH04.8M5A	4.9	*	2
2002	Mitsubishi	2MTXH05.8D6A	5.9	*	2
2002	Mitsubishi	2MTXH07.5D6A	7.5	*	2
2002	Nissan	2NDXH04.6FAB	4.6	*	2
2002	Nissan	2NDXH06.9FAB	6.9	*	2
2002	Renault	2R3XH0377BNA	6.2	*	2
2002	Renault	2R3XH0377CNA	6.2	*	2
2002	Volvo	2VTXH07.350S	7.3	*	2
2002	Volvo	2VTXH12.150S	12.1	*	2
2003	Caterpillar	3CPXH0442HBV	7.2	*	2
2003	Caterpillar	3CPXH0442HBX	7.2	*	2
2003	Caterpillar	3CPXH0629EBV	10.3	*	2
2003	Caterpillar	3CPXH0629EBX	10.3	*	2
2003	Caterpillar	3CPXH0729EBV	11.9	*	2
2003	Caterpillar	3CPXH0729EBX	11.9	*	2
2003	Caterpillar	3CPXH0893EBV	14.6	*	2
2003	Cummins	3CEXH0239BAD	3.9	*	2
2003	Cummins	3CEXH0359BAG	5.9	*	3
2003	Cummins	3CEXH0359BAH	5.9	*	3
2003	Cummins	3CEXH0505CAN	8.3	*	2
2003	Cummins	3CEXH0505CAQ	8.3	*	2
2003	Cummins	3CEXH0540LAC	8.8	*	2
2003	Cummins	3CEXH0661MAT	10.8	*	3
2003	Cummins	3CEXH0661MAU	10.8	*	3
2003	Cummins	3CEXH0912XAH	14.9	*	3

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2003	Cummins	3CEXH0912XAJ	14.9	*	3
2003	DaimlerChrysler	3MBXH12.0DJA	12.0	*	2
2003	DaimlerChrysler	3MBXH12.8DJA	12.8	*	2
2003	DaimlerChrysler	3MBXH15.9DJB	11.9	15.9	2
2003	DaimlerChrysler	3MBXH4.25DJA	4.3	*	2
2003	DaimlerChrysler	3MBXH4.25DJC	4.3	*	2
2003	DaimlerChrysler	3MBXH6.37DJA	6.4	*	2
2003	DaimlerChrysler	3MBXH6.37DJC	6.4	*	2
2003	Detroit Diesel Corporation	3DDXH12.7EGY	12.7	*	3
2003	Detroit Diesel Corporation	3DDXH14.0ELY	14.0	*	3
2003	General Engine Products	3GEPH06.5521	6.5	*	2
2003	General Engine Products	3GEPH06.5527	6.5	*	2
2003	General Engine Products	3GEPH06.5CFF	6.5	*	2
2003	Hino	3HMXH05.3JTD	5.3	*	2
2003	Hino	3HMXH08.0JTP	8.0	*	2
2003	Hino	3HMXH08.0JTR	8.0	*	2
2003	International	3NVXH0365AEA	6.0	*	2
2003	International	3NVXH0444ANB	7.3	*	2
2003	International	3NVXH0444ANC	7.3	*	2
2003	International	3NVXH0466ANA	7.6	*	2
2003	International	3NVXH0466ANB	7.6	*	2
2003	International	3NVXH0530ANA	8.7	*	2
2003	International	3NVXH0530ANB	8.7	*	2
2003	International	3NVXH0530ANC	8.7	*	2
2003	International	3NVXH06.0AEA	6.0	*	2
2003	Isuzu	3SZXH04.83AA	4.8	*	2
2003	Isuzu	3SZXH06.63AK	6.6	*	2
2003	Isuzu	3SZXH06.64RA	6.6	*	2
2003	Isuzu	3SZXH07.84AA	7.8	*	2
2003	Isuzu	3SZXH07.84RA	7.8	*	2
2003	Mack	3MKXH11.9H64	11.9	*	3
2003	Mack	3MKXH11.9H70	11.9	*	3
2003	Mack	3MKXH11.9V65	11.9	*	3
2003	Mack	3MKXH11.9V67	11.9	*	2
2003	Mack	3MKXH11.9V68	11.9	*	3
2003	Mitsubishi	3MTXH03.9D4A	3.9	*	2
2003	Mitsubishi	3MTXH04.8M5A	4.9	*	2
2003	Mitsubishi	3MTXH05.8D6A	5.9	*	2
2003	Mitsubishi	3MTXH07.5D6A	7.5	*	2
2003	Nissan	3NDXH04.6FAB	4.6	*	2
2003	Nissan	3NDXH06.9FAB	6.9	*	2
2003	Volvo	3VTXH12.150S	12.1	*	3
2004	Caterpillar	4CPXH0442HBK	7.2	*	3
2004	Caterpillar	4CPXH0537HBK	8.8	*	3
2004	Caterpillar	4CPXH0537HBX	8.8	*	2
2004	Caterpillar	4CPXH0680EBK	11.1	*	3
2004	Caterpillar	4CPXH0763EBK	12.5	*	3
2004	Caterpillar	4CPXH0928EBK	15.2	*	3
2004	Cummins	4CEXH0359BAG	5.9	*	3
2004	Cummins	4CEXH0359BAH	5.9	*	3

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2004	Cummins	4CEXH0505CAR	8.3	*	2
2004	Cummins	4CEXH0505CAS	8.3	*	2
2004	Cummins	4CEXH0540LAE	8.8	*	2
2004	Cummins	4CEXH0661MAT	10.8	*	3
2004	Cummins	4CEXH0661MAU	10.8	*	3
2004	Cummins	4CEXH0912XAH	14.9	*	3
2004	Cummins	4CEXH0912XAJ	14.9	*	3
2004	DaimlerChrysler	4MBXH12.8DJA	12.8	*	3
2004	DaimlerChrysler	4MBXH2.69DJB	2.7		3
2004	DaimlerChrysler	4MBXH4.25DJA	4.3	*	3
2004	DaimlerChrysler	4MBXH6.37DJA	6.4	*	3
2004	Detroit Diesel Corporation	4DDXH12.7EGY	12.7	*	3
2004	Detroit Diesel Corporation	4DDXH14.0ELY	14.0	*	3
2004	General Engine Products	4GEPH06.5527	6.5		3
2004	Hino	4HMXH04.7JTA	4.7	*	3
2004	Hino	4HMXH07.7JTA	7.7	*	3
2004	Hino	4HMXH07.7JTB	7.7	*	3
2004	International	4NVXH0365AEB	6.0	*	3
2004	International	4NVXH0466AEA	7.6	*	3
2004	International	4NVXH0466ANA	7.6	*	2
2004	International	4NVXH0466ANB	7.6	*	2
2004	International	4NVXH0530ANA	8.7	*	2
2004	International	4NVXH0530ANB	8.7	*	2
2004	International	4NVXH0530ANC	8.7	*	2
2004	International	4NVXH0570AEA	9.3	*	3
2004	International	4NVXH06.0AEB	6.0	*	3
2004	Isuzu	4SZXH05.23AA	5.2	*	3
2004	Isuzu	4SZXH06.64AA	6.6	*	3
2004	Isuzu	4SZXH06.64AW	6.6	*	3
2004	Isuzu	4SZXH07.84RA	7.8	*	3
2004	Isuzu	4SZXH07.84RW	7.8	*	3
2004	Mack	4MKXH11.9H64	11.9	*	3
2004	Mack	4MKXH11.9H70	11.9	*	3
2004	Mack	4MKXH11.9H73	11.9	*	3
2004	Mack	4MKXH11.9V65	11.9	*	3
2004	Mack	4MKXH11.9V67	11.9	*	2
2004	Mack	4MKXH11.9V71	11.9	*	2
2004	Volvo	4VTXH12.150S	12.1	*	3
2005	Caterpillar	5CPXH0442HBK	7.2	*	3
2005	Caterpillar	5CPXH0537HBK	8.8	*	3
2005	Caterpillar	5CPXH0680EBK	11.1	*	3
2005	Caterpillar	5CPXH0763EBK	12.5	*	3
2005	Caterpillar	5CPXH0928EBK	15.2	*	3
2005	Cummins	5CEXH0359BAB	5.9	*	3
2005	Cummins	5CEXH0359BAF	5.9	*	3
2005	Cummins	5CEXH0359BAG	5.9	*	3
2005	Cummins	5CEXH0359BAH	5.9	*	3
2005	Cummins	5CEXH0505CAR	8.3	*	2
2005	Cummins	5CEXH0505CAX	8.3	*	2
2005	Cummins	5CEXH0505CAY	8.3	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2005	Cummins	5CEXH0540LAE	8.8	*	2
2005	Cummins	5CEXH0540LAH	8.8	*	2
2005	Cummins	5CEXH0540LAI	8.8	*	2
2005	Cummins	5CEXH0661MAT	10.8	*	3
2005	Cummins	5CEXH0661MAU	10.8	*	3
2005	Cummins	5CEXH0661MAX	10.8	*	3
2005	Cummins	5CEXH0912XAH	14.9	*	3
2005	Cummins	5CEXH0912XAJ	14.9	*	3
2005	DaimlerChrysler	5MBXH12.8DJA	12.8	*	3
2005	DaimlerChrysler	5MBXH4.25DJA	4.3	*	3
2005	DaimlerChrysler	5MBXH6.37DJA	6.4	*	3
2005	DaimlerChrysler	5MBXH7.20DJA	7.2	4.8	3
2005	Detroit Diesel Corporation	5DDXH12.7EGY	12.7	*	3
2005	Detroit Diesel Corporation	5DDXH14.0ELY	14.0	*	3
2005	General Motors	5GMXH06.6592	6.6	*	3
2005	General Motors	5GMXH06.6593	6.6		3
2005	Hino	5HMXH04.7JTA	4.7	*	3
2005	Hino	5HMXH07.7JTA	7.7	*	3
2005	Hino	5HMXH07.7JTB	7.7	*	3
2005	International	5NVXH0275AEA	4.5	*	3
2005	International	5NVXH0365AEC	6.0	*	3
2005	International	5NVXH0466AEA	7.6	*	3
2005	International	5NVXH0570AEA	9.3	*	3
2005	International	5NVXH06.0AEC	6.0	*	3
2005	Isuzu	5SZXH05.23AB	5.2	*	3
2005	Isuzu	5SZXH07.84RA	7.8	*	3
2005	Isuzu	5SZXH07.84RB	7.8	*	3
2005	Isuzu	5SZXH07.84RW	7.8	*	3
2005	Mack	5MKXH11.9H70	11.9	*	3
2005	Mack	5MKXH11.9H73	11.9	*	3
2005	Mack	5MKXH11.9V65	11.9	*	3
2005	Mack	5MKXH11.9V67	11.9	*	2
2005	Mack	5MKXH11.9V71	11.9	*	2
2005	Mack	5MKXH11.9V74	11.9	*	3
2005	Mitsubishi Fuso	5MFTH04.9M5A	4.9	*	3
2005	Mitsubishi Fuso	5MFTH07.5M6A	7.5	*	3
2005	Volvo	5VTXH12.150S	12.1	*	3
2006	Caterpillar	6CPXH0442HBK	7.2	*	3
2006	Caterpillar	6CPXH0537HBK	8.8	*	3
2006	Caterpillar	6CPXH0680EBK	11.1	*	3
2006	Caterpillar	6CPXH0763EBK	12.5	*	3
2006	Caterpillar	6CPXH0928EBK	15.2	*	3
2006	Cummins	6CEXH0359BAB	5.9	*	3
2006	Cummins	6CEXH0359BAF	5.9	*	3
2006	Cummins	6CEXH0359BAG	5.9	*	3
2006	Cummins	6CEXH0359BAH	5.9	*	3
2006	Cummins	6CEXH0359BAI	5.9	*	2
2006	Cummins	6CEXH0505CAX	8.3	*	2
2006	Cummins	6CEXH0505CAY	8.3	*	2
2006	Cummins	6CEXH0540LAI	8.8	*	2

Model Year	Manufacturer	Engine Family	Displacement (L) 1	Displacement (L) 2	Temp Criterion
2006	Cummins	6CEXH0540LAJ	8.8	*	3
2006	Cummins	6CEXH0661MAT	10.8	*	3
2006	Cummins	6CEXH0661MAU	10.8	*	3
2006	Cummins	6CEXH0661MAX	10.8	*	3
2006	Cummins	6CEXH0912XAH	14.9	*	3
2006	Cummins	6CEXH0912XAJ	14.9	*	3
2006	DaimlerChrysler	6MBXH12.8DJA	12.8	*	3
2006	DaimlerChrysler	6MBXH4.25DJA	4.3	*	3
2006	DaimlerChrysler	6MBXH6.37DJA	6.4	*	3
2006	DaimlerChrysler	6MBXH7.20DJA	7.2	4.8	3
2006	Detroit Diesel Corporation	6DDXH12.7EGY	12.7	*	3
2006	Detroit Diesel Corporation	6DDXH14.0ELY	14.0	*	3
2006	General Motors	6GMXH06.6590	6.6	*	3
2006	General Motors	6GMXH06.6591	6.6	*	3
2006	Hino	6HMXH04.7JTA	4.7	*	3
2006	Hino	6HMXH07.7JTA	7.7	*	3
2006	Hino	6HMXH07.7JTB	7.7	*	3
2006	International	6NVXH0275AEA	4.5	*	3
2006	International	6NVXH0365AEC	6.0	*	3
2006	International	6NVXH0466AEA	7.6	*	3
2006	International	6NVXH0570AEA	9.3	*	3
2006	International	6NVXH06.0AEC	6.0	*	3
2006	Isuzu	6SZXH05.23AB	5.2	*	3
2006	Isuzu	6SZXH07.84RA	7.8	*	3
2006	Isuzu	6SZXH07.84RW	7.8	*	3
2006	Mack	6MKXH10.8C02	10.8	*	3
2006	Mack	6MKXH11.9H70	11.9	*	3
2006	Mack	6MKXH11.9H73	11.9	*	3
2006	Mack	6MKXH11.9V65	11.9	*	3
2006	Mack	6MKXH11.9V67	11.9	*	2
2006	Mack	6MKXH11.9V71	11.9	*	2
2006	Mack	6MKXH11.9V74	11.9	*	3
2006	Mitsubishi Fuso	6MFTH04.9M5A	4.9	*	3
2006	Mitsubishi Fuso	6MFTH07.5M6A	7.5	*	3
2006	Volvo	6VTXH12.150S	12.1	*	3
2006	Volvo	6VTXH16.1C01	16.1	*	3