

ARB-Approved Engine Families for the ESW Technologies

ThermaCat™ System

Relating to Executive Order Series DE-09-015

Effective Date: November 2, 2012

a. The ThemaCat™ system verification only supports engine models between 175 hp and 375 hp

Model Year	Manufacturer	Engine Family	Displacement (L)	
			1	2
1993	Cummins	PCE0505FDA5	8.3	*
1993	Detroit Diesel Corporation	PDD08.5FZK7	8.5	*
1994	Caterpillar	RCP403DZDAAA	6.6 ^a	*
1994	Caterpillar	RCP403DZDABA	6.6	*
1994	Cummins	RCE359D6DAAB	5.9	*
1994	Cummins	RCE359D6DAAW	5.9 ^a	*
1994	Cummins	RCE505D6DAAA	8.3	*
1994	Cummins	RCE505D6DAAB	8.3	*
1994	Cummins	RCE505D6DAAC	8.3	*
1994	Cummins	RCE505F6DAAW	8.3	*
1994	Detroit Diesel Corporation	RDD8.5EJDARA	8.5	*
1994	Detroit Diesel Corporation	RDD8.5EJDARW	8.5	*
1994	Detroit Diesel Corporation	RDD8.5FJDABA	8.5	*
1994	General Motors	RGM6.5C6DAAA	6.5	*
1994	General Motors	RGM6.5C6DAAC	6.5	*
1994	Hino	RHM6.5D7DARW	6.5	*
1994	International	RNV408D6DAAW	6.7	*
1994	International	RNV444C8DABA	7.3 ^a	*
1994	International	RNV7.3C8DAAA	7.3	*
1994	International	RNV466D6D0TW	7.6	*
1994	International	RNV466D6DAAA	7.6	*
1994	International	RNV466D6DARW	7.6	*
1994	International	RNV466D6DASW	7.6	*
1994	International	RNV530D6DAAA	8.7	*
1994	Mercedes-Benz	RMB6.0D6DAAA	6.0	*
1994	Mercedes-Benz	RMB6.0D6DARA	6.0 ^a	*
1994	Nissan	RND423D6DAAA	6.9	*
1994	Perkins	RPK365D6DAAA	6.0	*
1994	Volvo	RVT6.7D6DBRA	6.7	*
1995	Caterpillar	SCP403DZDAAA	6.6 ^a	*
1995	Caterpillar	SCP403DZDABA	6.6	*
1995	Caterpillar	SCP403DZDARK	6.6 ^a	*
1995	Caterpillar	SCP442DZDARK	7.2	*
1995	Cummins	SCE359D6DAAA	5.9	*
1995	Cummins	SCE505D6DAAA	8.3	*
1995	Cummins	SCE505D6DAAW	8.3	*
1995	Cummins	SCE505D6DABW	8.3	*
1995	Cummins	SCE505F6DAAW	8.3	*
1995	Detroit Diesel Corporation	SDD8.5EJDARA	8.5	*
1995	Detroit Diesel Corporation	SDD8.5EJDARW	8.5	*
1995	Detroit Diesel Corporation	SDD8.5FJDABA	8.5	*
1995	General Motors	SGM6.5C6DAAC	6.5	*
1995	General Motors	SGM6.5C6DAAW	6.5	*
1995	Hino	SHM6.5D7DARW	6.5	*
1995	International	SNV444C8D0AA	7.3	*
1995	International	SNV444C8D0RA	7.3	*
1995	International	SNV444C8D0SA	7.3	*
1995	International	SNV7.3C8DAAA	7.3	*
1995	International	SNV466D6DARA	7.6	*

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Model Year	Manufacturer	Engine Family	Displacement (L)	
			1	2
1995	International	SNV466D6DASA	7.6	*
1995	International	SNV466D6DATA	7.6	*
1995	International	SNV466D8DARB	7.6	*
1995	International	SNV466D8DASB	7.6	*
1995	International	SNV466D8DATB	7.6	*
1995	International	SNV530D6DARA	8.7	*
1995	International	SNV530E6DASA	8.7	*
1995	International	SNV530F6DATA	8.7	*
1995	Isuzu	SSZ7.1D6DAAA	7.1	*
1995	Mercedes-Benz	SMB6.0D6DAAA	6.0	*
1995	Mercedes-Benz	SMB6.0D6DARA	6.0 ^a	*
1995	Mitsubishi	SMT460D7DAAA	7.5	*
1995	Nissan	SND423D6DAAA	6.9	*
1995	Perkins	SPK365D6DAAA	6.0	*
1995	Renault	SR3377D8DAAW	6.2	*
1995	Renault	SR3377D8DABW	6.2	*
1995	Volvo	SVT6.7D6DBRA	6.7	*
1996	Caterpillar	TCP403DZDAAA	6.6 ^a	*
1996	Caterpillar	TCP403DZDABA	6.6	*
1996	Caterpillar	TCP403DZDARK	6.6 ^a	*
1996	Caterpillar	TCP442DZDAAK	7.2	*
1996	Caterpillar	TCP442DZDARK	7.2	*
1996	Cummins	TCE359D6DABW	5.9	*
1996	Cummins	TCE505D6DAAA	8.3	*
1996	Cummins	TCE505D6DAAW	8.3	*
1996	Cummins	TCE505D6DABW	8.3	*
1996	Detroit Diesel Corporation	TDD8.5EJDARA	8.5	*
1996	Detroit Diesel Corporation	TDD8.5EJDARW	8.5	*
1996	Detroit Diesel Corporation	TDD8.5FJDABA	8.5	*
1996	General Motors	TGM6.5C6DABA	6.5	*
1996	General Motors	TGM6.5C6DABW	6.5	*
1996	Hino	THM6.5D7DARW	6.5	*
1996	International	TNV444C8D0RA	7.3	*
1996	International	TNV444C8D0SA	7.3	*
1996	International	TNV7.3C8DAAA	7.3	*
1996	International	TNV466D6DARB	7.6	*
1996	International	TNV466D6DATB	7.6	*
1996	International	TNV466D8DARB	7.6	*
1996	International	TNV466D8DATB	7.6	*
1996	International	TNV530D6DARA	8.7	*
1996	International	TNV530D8DARA	8.7	*
1996	International	TNV530E6DASA	8.7	*
1996	International	TNV530E8DASA	8.7	*
1996	Isuzu	TSZ7.1D6DAAA	7.1	*
1996	Mitsubishi	TMT358D7DBAA	5.9	*
1996	Mitsubishi	TMT460D7DBAA	7.5	*
1996	Nissan	TND423D6DAAA	6.9	*
1996	Perkins	TPK365D6DAAA	6.0	*
1996	Renault	TR3377D8DAAW	6.2	*
1996	Renault	TR3377D8DABW	6.2	*

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1996	Volvo	TVT6.7D6DBRA	6.7	*
1997	Caterpillar	VCP403DZDAAA	6.6 ^a	*
1997	Caterpillar	VCP403DZDABA	6.6	*
1997	Caterpillar	VCP403DZDARK	6.6 ^a	*
1997	Caterpillar	VCP442DZDAAK	7.2	*
1997	Caterpillar	VCP442DZDARK	7.2	*
1997	Cummins	VCE359D6DAAA	5.9 ^a	*
1997	Cummins	VCE359D6DABW	5.9	*
1997	Cummins	VCE359DJDARA	5.9	*
1997	Cummins	VCE505D6DAAA	8.3	*
1997	Cummins	VCE505D6DAAW	8.3	*
1997	Cummins	VCE505D6DABW	8.3	*
1997	Detroit Diesel Corporation	VDD8.5EJDARA	8.5	*
1997	Detroit Diesel Corporation	VDD8.5FJDABA	8.5	*
1997	General Motors	VGM6.5C6DABA	6.5	*
1997	General Motors	VGM6.5C6DABW	6.5	*
1997	General Motors	VGM6.5C6DARW	6.5	*
1997	Hino	VHM8.0DHDARA	5.3 ^a	8.0
1997	International	VNV444C8DARW	7.3	*
1997	International	VNV444C8DASW	7.3	*
1997	International	VNV7.3C8DAAA	7.3	*
1997	International	VNV7.3C8DAAW	7.3	*
1997	International	VNV466D6DARA	7.6	*
1997	International	VNV466D8DARW	7.6	*
1997	International	VNV466D8DASA	7.6	*
1997	International	VNV530D6DARA	8.7	*
1997	International	VNV530D8DARA	8.7	*
1997	International	VNV530E6DASA	8.7	*
1997	International	VNV530E8DASA	8.7	*
1997	Isuzu	VSZ7.1D6DAAA	7.1	*
1997	Isuzu	VSZ7.1D6DAAW	7.1	*
1997	Mitsubishi	VMT358D7DBAA	5.9	*
1997	Mitsubishi	VMT460D7DBAA	7.5	*
1997	Nissan	VND423D6DAAA	6.9	*
1997	Renault	VR3377D8DAAW	6.2	*
1997	Renault	VR3377D8DABW	6.2	*
1997	Volvo	VVT6.7D6DBRA	6.7	*
1998	Caterpillar	WCPXH0442HRK	7.2	*
1998	Caterpillar	WCPXH0442HSK	7.2	*
1998	Cummins	WCEXH0359BAD	5.9	*
1998	Cummins	WCEXH0359BAE	5.9	*
1998	Cummins	WCEXH0505CAC	8.3	*
1998	Cummins	WCEXH0505CAD	8.3	*
1998	Cummins	WCEXH0505CAE	8.3	*
1998	Cummins	WCEXH0505CAF	8.3	*
1998	Detroit Diesel Corporation	WDDXH08.5EJD	8.5	*
1998	Detroit Diesel Corporation	WDDXH08.5FJC	8.5	*
1998	General Motors	WGMXH06.5521	6.5	*
1998	General Motors	WGMXH06.5522	6.5	*
1998	General Motors	WGMXH06.5523	6.5	*

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Model Year	Manufacturer	Engine Family	Displacement (L)	
			1	2
1998	Hino	WHMXH08.0JTR	5.3 ^a	8.0
1998	International	WNVXH0444CCB	7.3	*
1998	International	WNVXH0444CCD	7.3	*
1998	International	WNVXH0466CCB	7.6	*
1998	International	WNVXH0466CCD	7.6	*
1998	International	WNVXH0530CCB	8.7	*
1998	International	WNVXH0530CCD	8.7	*
1998	Isuzu	WSZXH07.84RA	7.8	*
1998	Nissan	WNDXH06.9FAB	6.9	*
1998	Volvo	WVTXH07.350S	7.3	*
1999	Caterpillar	XCPXH0442HRK	7.2	*
1999	Caterpillar	XCPXH0442HSK	7.2	*
1999	Cummins	XCEXH0359BAI	5.9	*
1999	Cummins	XCEXH0359BAJ	5.9	*
1999	Cummins	XCEXH0359BAK	5.9	*
1999	Cummins	XCEXH0505CAC	8.3	*
1999	Cummins	XCEXH0505CAD	8.3	*
1999	Cummins	XCEXH0505CAE	8.3	*
1999	Cummins	XCEXH0505CAF	8.3	*
1999	Detroit Diesel Corporation	XDDXH08.5EJL	8.5	*
1999	Detroit Diesel Corporation	XDDXH08.5FJN	8.5	*
1999	General Motors	XGMXH06.5521	6.5	*
1999	General Motors	XGMXH06.5523	6.5	*
1999	Hino	XHMXH08.0JTR	5.3 ^a	8.0
1999	International	XNVXH0444ANA	7.3	*
1999	International	XNVXH0444ANB	7.3	*
1999	International	XNVXH07.3ACA	7.3	*
1999	International	XNVXH07.3ANE	7.3	*
1999	International	XNVXH0466ANA	7.6	*
1999	International	XNVXH0466ANB	7.6	*
1999	International	XNVXH0530ACT	8.7	*
1999	International	XNVXH0530ANA	8.7	*
1999	International	XNVXH0530ANB	8.7	*
1999	Isuzu	XSZXH07.84RA	7.8	*
1999	Mercedes-Benz	XMBXH6.37DJA	6.4	*
1999	Mitsubishi	XMTXH05.8D6A	5.9	*
1999	Mitsubishi	XMTXH07.5D6A	7.5	*
1999	Nissan	XNDXH06.9FAB	6.9	*
1999	Renault	XR3XH0377KWC	6.2	*
1999	Renault	XR3XH0377LWC	6.2	*
1999	Volvo	XVTXH07.350S	7.3	*
1999	Volvo	XVTXH07.399B	7.3	*
2000	Caterpillar	YCPXH0442HRK	7.2	*
2000	Cummins	YCEXH0359BAI	5.9	*
2000	Cummins	YCEXH0359BAO	5.9	*
2000	Cummins	YCEXH0359BAP	5.9	*
2000	Cummins	YCEXH0505CAF	8.3	*
2000	Cummins	YCEXH0505CAG	8.3	*
2000	Cummins	YCEXH0505CAH	8.3	*
2000	Cummins	YCEXH0505CAI	8.3	*

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Model Year	Manufacturer	Engine Family	Displacement (L)	
			1	2
2000	Cummins	YCEXH0540LAA	8.8	*
2000	DaimlerChrysler	YMBXH6.37DJA	6.4	*
2000	Detroit Diesel Corporation	YDDXH08.5EJB	8.5	*
2000	Detroit Diesel Corporation	YDDXH08.5EJL	8.5	*
2000	Detroit Diesel Corporation	YDDXH08.5FJN	8.5	*
2000	General Motors	YGMXH06.5521	6.5	*
2000	Hino	YHMXH08.0JTP	8.0	*
2000	Hino	YHMXH08.0JTR	8.0	*
2000	International	YNVXH0444ACT	7.3	*
2000	International	YNVXH0444ANA	7.3	*
2000	International	YNVXH0444ANB	7.3	*
2000	International	YNVXH0444ANC	7.3	*
2000	International	YNVXH07.3ANA	7.3	*
2000	International	YNVXH0466ANA	7.6	*
2000	International	YNVXH0466ANB	7.6	*
2000	International	YNVXH0530ACT	8.7	*
2000	International	YNVXH0530ANA	8.7	*
2000	International	YNVXH0530ANB	8.7	*
2000	Isuzu	YSZXH07.84RA	7.8	*
2000	Mitsubishi	YMTXH05.8D6A	5.9	*
2000	Mitsubishi	YMTXH07.5D6A	7.5	*
2000	Nissan	YNDXH06.9FAB	6.9	*
2000	Renault	YR3XH0377KWC	6.2	*
2000	Volvo	YVTXH07.350S	7.3	*
2001	Caterpillar	1CPXH0442HAK	7.2	*
2001	Caterpillar	1CPXH0442HBK	7.2	*
2001	Caterpillar	1CPXH0442HRK	7.2	*
2001	Cummins	1CEXH0359BAO	5.9	*
2001	Cummins	1CEXH0359BAU	5.9	*
2001	Cummins	1CEXH0359BAV	5.9	*
2001	Cummins	1CEXH0505CAM	8.3	*
2001	Cummins	1CEXH0505CAN	8.3	*
2001	Cummins	1CEXH0505CAO	8.3	*
2001	Cummins	1CEXH0505CAP	8.3	*
2001	Cummins	1CEXH0540LAA	8.8	*
2001	Cummins	1CEXH0540LAB	8.8	*
2001	Detroit Diesel Corporation	1DDXH08.5EJB	8.5	*
2001	Detroit Diesel Corporation	1DDXH08.5EJL	8.5	*
2001	General Motors	1GMXH06.5521	6.5	*
2001	Hino	1HMXH08.0JTP	8.0	*
2001	Hino	1HMXH08.0JTR	8.0	*
2001	International	1NVXH0444ANA	7.3	*
2001	International	1NVXH0444ANB	7.3	*
2001	International	1NVXH0444ANC	7.3	*
2001	International	1NVXH07.3ACE	7.3	*
2001	International	1NVXH07.3ANA	7.3	*
2001	International	1NVXH0466ANA	7.6	*
2001	International	1NVXH0466ANB	7.6	*
2001	International	1NVXH0530ACT	8.7	*
2001	International	1NVXH0530ANA	8.7	*

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Model Year	Manufacturer	Engine Family	Displacement (L)	
			1	2
2001	International	1NVXH0530ANB	8.7	*
2001	Isuzu	1SZXH07.84RA	7.8	*
2001	Mercedes-Benz	1MBXH6.37DJA	6.4	*
2001	Mercedes-Benz	1MBXH6.37DJC	6.4	*
2001	Mitsubishi	1MTXH05.8D6A	5.9	*
2001	Mitsubishi	1MTXH07.5D6A	7.5	*
2001	Nissan	1NDXH06.9FAB	6.9	*
2001	Volvo	1VTXH07.350S	7.3	*
2002	Caterpillar	2CPXH0442HAK	7.2	*
2002	Caterpillar	2CPXH0442HBV	7.2	*
2002	Caterpillar	2CPXH0442HBX	7.2	*
2002	Caterpillar	2CPXH0442HRK	7.2	*
2002	Cummins	2CEXH0359BAB	5.9	*
2002	Cummins	2CEXH0359BAO	5.9	*
2002	Cummins	2CEXH0505CAM	8.3	*
2002	Cummins	2CEXH0505CAN	8.3	*
2002	Cummins	2CEXH0505CAQ	8.3	*
2002	Cummins	2CEXH0540LAB	8.8	*
2002	Cummins	2CEXH0540LAC	8.8 ^a	*
2002	DaimlerChrysler	2MBXH6.37DJA	6.4	*
2002	DaimlerChrysler	2MBXH6.37DJC	6.4	*
2002	Detroit Diesel Corporation	2DDXH08.5EJL	8.5	*
2002	General Engine Products	2GEPH06.5521	6.5	*
2002	General Engine Products	2GEPH06.5527	6.5	*
2002	General Motors	2GMXH06.5521	6.5	*
2002	Hino	2HMXH08.0JTP	8.0	*
2002	Hino	2HMXH08.0JTR	8.0	*
2002	International	2NVXH0444ANA	7.3	*
2002	International	2NVXH0444ANB	7.3	*
2002	International	2NVXH0444ANC	7.3	*
2002	International	2NVXH07.3ACE	7.3	*
2002	International	2NVXH07.3ANA	7.3	*
2002	International	2NVXH0466ANA	7.6	*
2002	International	2NVXH0466ANB	7.6	*
2002	International	2NVXH0530ANA	8.7	*
2002	International	2NVXH0530ANB	8.7	*
2002	International	2NVXH0530ANC	8.7	*
2002	Isuzu	2SZXH06.64RA	6.6	*
2002	Isuzu	2SZXH07.84RA	7.2	7.8
2002	Mitsubishi	2MTXH05.8D6A	5.9	*
2002	Mitsubishi	2MTXH07.5D6A	7.5	*
2002	Nissan	2NDXH06.9FAB	6.9	*
2002	Volvo	2VTXH07.350S	7.3	*
2003	Caterpillar	3CPXH0442HBV	7.2	*
2003	Caterpillar	3CPXH0442HBX	7.2	*
2003	Cummins	3CEXH0505CAN	8.3	*
2003	Cummins	3CEXH0505CAQ	8.3	*
2003	Cummins	3CEXH0540LAC	8.8 ^a	*
2003	DaimlerChrysler	3MBXH6.37DJA	6.4	*
2003	DaimlerChrysler	3MBXH6.37DJC	6.4	*

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Model Year	Manufacturer	Engine Family	Displacement (L)	
			1	2
2003	General Engine Products	3GEPH06.5521	6.5	*
2003	General Engine Products	3GEPH06.5527	6.5	*
2003	Hino	3HMXH08.0JTP	8.0	*
2003	Hino	3HMXH08.0JTR	8.0	*
2003	International	3NVXH0444ANB	7.3	*
2003	International	3NVXH0444ANC	7.3	*
2003	International	3NVXH0466ANA	7.6	*
2003	International	3NVXH0466ANB	7.6	*
2003	International	3NVXH0530ANA	8.7	*
2003	International	3NVXH0530ANB	8.7	*
2003	International	3NVXH0530ANC	8.7	*
2003	Isuzu	3SZXH06.64RA	6.6	*
2003	Isuzu	3SZXH07.84AA	7.8	*
2003	Isuzu	3SZXH07.84RA	7.8	*
2003	Mitsubishi	3MTXH05.8D6A	5.9	*
2003	Mitsubishi	3MTXH07.5D6A	7.5	*
2003	Nissan	3NDXH06.9FAB	6.9	*
2004	Caterpillar	4CPXH0442HBK	7.2	*
2004	Caterpillar	4CPXH0537HBK	8.8 ^a	*
2004	Caterpillar	4CPXH0537HBX	8.8	*
2004	Cummins	4CEXH0505CAR	8.3	*
2004	Cummins	4CEXH0540LAE	8.8 ^a	*
2004	International	4NVXH0466ANA	7.6	*
2004	International	4NVXH0466ANB	7.6	*
2004	International	4NVXH0530ANA	8.7	*
2004	International	4NVXH0530ANB	8.7	*
2004	International	4NVXH0530ANC	8.7	*
2005	Caterpillar	5CPXH0442HBK	7.2	*
2005	Caterpillar	5CPXH0537HBK	8.8 ^a	*
2005	Cummins	5CEXH0505CAR	8.3	*
2005	Cummins	5CEXH0505CAX	8.3	*
2005	Cummins	5CEXH0505CAY	8.3	*
2005	Cummins	5CEXH0540LAE	8.8 ^a	*
2005	Cummins	5CEXH0540LAI	8.8	*
2006	Caterpillar	6CPXH0442HBK	7.2	*
2006	Caterpillar	6CPXH0537HBK	8.8 ^a	*
2006	Cummins	6CEXH0359BAI	5.9	*
2006	Cummins	6CEXH0505CAX	8.3	*
2006	Cummins	6CEXH0505CAY	8.3	*
2006	Cummins	6CEXH0540LAI	8.8	*
2006	Cummins	6CEXH0540LAJ	8.8	*