

**APPENDIX C**

**VERIFIED DIESEL EMISSION CONTROL STRATEGIES  
AS OF APRIL 2003**

**LEVEL 3 Verification: The Engelhard DPX and Johnson Matthey CRT particulate filters are verified for use with the following engine families: Caterpillar (Table 1), Cummins (Table 2), DDC (Table 3), Mack (Table 4), Navistar (Table 5), Volvo (Table 6)**

**Table 1. Caterpillar**

Model Year	Engine Family	Series
<b>1994</b>	RCP403DZDAAA	--
	RCP403DZDABA	--
	RCP629EZDARA	--
	RCP638EZDARA	--
	RCP893EZDARA	--
<b>1995</b>	SCP403DZDAAA	--
	SCP403DZDABA	--
	SCP403DZDARK	--
	SCP442DZDARK	3126
	SCP629EZDARK	--
	SCP629EZDARM	C10, 3176
	SCP638EZDARA	--
	SCP729EZDARL	C12
	SCP893EZDARK	--
<b>1996</b>	TCP403DZDAAA	3116
	TCP403DZDABA	3116
	TCP403DZDARK	3116
	TCP442DZDAAK	3126
	TCP442DZDARK	3126
	TCP629EZDARK	3176
	TCP629EZDARM	C10
	TCP638EZDARA	3306
	TCP729EZDARL	C12
	TCP893EZDARK	3406
	<b>1997</b>	VCP403DZDAAA
VCP403DZDABA		3116
VCP403DZDARK		3116
VCP442DZDAAK		3126
VCP442DZDARK		3126
VCP629EZDARK		3176
VCP629EZDARX		C10
VCP638EZDARA		3306
VCP729EZDARX		C12
VCP893EZDARA		3406
VCP893EZDARX		3406
VCP967EZDARK		3406

Model Year	Engine Family	Series
<b>1998</b>	WCPXH0442HRK	3126
	WCPXH0442HSK	3126
	WCPXH0629ERK	C10
	WCPXH0729ERK	C12
	WCPXH0893ERK	3406
	WCPXH0967ERK	3406
<b>1999</b>	XCPXH0442HRK	3126
	XCPXH0442HSK	3126
	XCPXH0629ERK	C10
	XCPXH0729ERK	C12
	XCPXH0893ERK	3406
	XCPXH0967ERK	3406
<b>2000</b>	YCPXH0442HRK	3126
	YCPXH0629ERK	C10
	YCPXH0729ERK	C12
	YCPXH0893ERK	C15
<b>2001</b>	1CPXH0442HAK	3126
	1CPXH0442HBK	3126
	1CPXH0442HRK	3126
	1CPXH0629ERK	C10
	1CPXH0729ERK	C12
	1CPXH0893ERK	C15
<b>2002</b>	2CPXH0442HAK	3126
	2CPXH0442HBX	3126
	2CPXH0442HRK	3126
	2CPXH0629ERK	C10
	2CPXH0729ERK	C12
	2CPXH0893ERK	C15
2CPXH0967ERK	C16	

**Table 2. Cummins**

Model Year	Engine Family	Series
1994	RCE359D6DAAB	B5.9
	RCE359D6DAAW	B5.9
	RCE359D6DABW	B5.9
	RCE505D6DAAA	C8.3
	RCE505D6DAAB	C8.3
	RCE505D6DAAC	C8.3
	RCE505F6DAAW	C8.3
	RCE611EGDARW	L10
	RCE661EJDARA	M11
	RCE661EJDARC	M11
	RCE661EJDARW	M11
	RCE661FJDAAA	M11
	RCE855EJDARW	N14
	RCE855EJDASW	N14
1995	SCE239D6DAAA	B3.9
	SCE359D6DAAA	B5.9
	SCE359D6DAAW	B5.9
	SCE359D6DABW	B5.9
	SCE505D6DAAA	C8.3
	SCE505D6DAAW	C8.3
	SCE505D6DABW	C8.3
	SCE505F6DAAW	C8.3
	SCE611EGDARW	L10
	SCE661EJDARA	M11
	SCE661EJDARC	M11
	SCE661EJDARW	M11
	SCE661EJDASW	M11
	SCE661EJDATW	M11
	SCE661FJDAAA	M11
	SCE855EJDARA	N14
	SCE855EJDARB	N14
	SCE855EJDARW	N14
	SCE855EJDASW	N14
	SCE855EJDATW	N14
1996	TCE239D6DAAA	B3.9
	TCE359D6DAAA	B5.9
	TCE359D6DABW	B5.9
	TCE505D6DAAA	C8.3
	TCE505D6DAAW	C8.3
	TCE505D6DABW	C8.3
	TCE661EJDARA	M11
	TCE661EJDARB	M11
	TCE661EJDARC	M11
	TCE661EJDARW	M11
	TCE661EJDASW	M11
	TCE661EJDATW	M11
	TCE661FJDABA	M11

Model Year	Engine Family	Series
1996	TCE855EJDARA	N14
	TCE855EJDARB	N14
	TCE855EJDARW	N14
	TCE855EJDASW	N14
	TCE855EJDATW	N14
1997	VCE239D6DAAA	B3.9
	VCE359D6DAAA	B5.9
	VCE359D6DABW	B5.9
	VCE359DJDARA	--
	VCE505D6DAAA	C8.3
	VCE505D6DAAW	C8.3
	VCE505D6DABW	C8.3
	VCE661EJDARB	M11
	VCE661EJDARC	M11
	VCE661EJDASA	M11
	VCE661EJDATW	M11
	VCE661FJDABA	M11
	VCE855EJDARA	N14
VCE855EJDARB	N14	
VCE855EJDARC	N14	
VCE855EJDATW	N14	
1998	WCEXA0359BAH	ISB
	WCEXH0359BAD	ISB
	WCEXH0359BAE	ISB
	WCEXH0505CAC	ISC
	WCEXH0505CAD	ISC
	WCEXH0505CAE	ISC
	WCEXH0505CAF	ISC
	WCEXH0661MAA	M11
	WCEXH0661MAB	M11
	WCEXH0661MAC	M11
	WCEXH0661MAD	ISM
	WCEXH0661MAE	ISM
	WCEXH0855NAA	N14
	WCEXH0855NAB	N14
	WCEXH0855NAC	N14
WCEXH0912XAA	Signature	

**Table 2. Cummins (continued)**

<b>Model Year</b>	<b>Engine Family</b>	<b>Series</b>
<b>1999</b>	XCEXH0359BAI	ISB
	XCEXH0359BAJ	ISB
	XCEXH0359BAK	ISB
	XCEXA0359BAN	ISB
	XCEXA0359BAT	ISB
	XCEXH0505CAC	ISC
	XCEXH0505CAD	ISC
	XCEXH0505CAE	ISC
	XCEXH0505CAF	ISC
	XCEXH0661MAC	M11
	XCEXH0661MAG	ISM
	XCEXH0661MAH	ISM
	XCEXH0661MAI	ISM
	XCEXH0855NAD	N14
	XCEXH0855NAE	N14
	XCEXH0855NAF	N14
	XCEXH0912XAB	Signature
	XCEXH0912XAD	ISX
<b>2000</b>	YCEXH0359BAI	ISB
	YCEXH0359BAO	ISB
	YCEXH0359BAP	ISB
	YCEXA0359BAZ	ISB
	YCEXH0505CAF	ISC
	YCEXH0505CAG	ISC
	YCEXH0505CAH	ISC
	YCEXH0505CAI	ISC
	YCEXH0540LAA	ISL
	YCEXH0661MAG	ISM
	YCEXH0661MAH	ISM
	YCEXH0661MAI	ISM
	YCEXH0855NAD	N14
	YCEXH0855NAE	N14
	YCEXH0855NAF	N14
	YCEXH0912XAC	ISX
	YCEXH0912XAD	ISX
	YCEXH0912XAE	Signature, ISX

<b>Model Year</b>	<b>Engine Family</b>	<b>Series</b>
<b>2001</b>	1CEXA0359BAZ	ISB
	1CEXH0239BAD	ISB
	1CEXH0239BAE	ISB
	1CEXH0359BAO	ISB
	1CEXH0359BAU	ISB
	1CEXH0359BAV	ISB
	1CEXH0505CAM	ISC
	1CEXH0505CAN	ISC
	1CEXH0505CAO	ISC
	1CEXH0505CAP	ISC
	1CEXH0540LAA	ISL
	1CEXH0540LAB	ISL
	1CEXH0540LAC	ISL
	1CEXH0661MAP	ISM
	1CEXH0661MAQ	ISM
	1CEXH0661MAR	ISM
	1CEXH0855NAD	N14
	1CEXH0855NAE	N14
1CEXH0855NAF	N14	
1CEXH0912XAC	ISX	
1CEXH0912XAD	ISX	
1CEXH0912XAE	Signature, ISX	
<b>2002</b>	2CEXA0359BAZ	ISB
	2CEXH0239BAD	ISB
	2CEXH0239BAE	ISB
	2CEXH0359BAB	ISB
	2CEXH0359BAO	ISB
	2CEXH0505CAM	ISC
	2CEXH0505CAN	ISC
	2CEXH0505CAQ	ISC
	2CEXH0540LAB	ISL
	2CEXH0540LAC	ISL
	2CEXH0661MAP	ISM
	2CEXH0661MAS	ISM
	2CEXH0855NAA	N14
	2CEXH0912XAF	ISX

**Table 3. DDC**

<b>Model Year</b>	<b>Engine Family</b>	<b>Series</b>
<b>1994</b>	RDD11.EJDARA	Series 60
	RDD12.EJDARA	Series 60
	RDD8.5EJDARA	Series 50
	RDD8.5EJDARW	Series 50
	RDD8.5FJDABA	Series 50
<b>1995</b>	SDD11.EJDARA	Series 60
	SDD12.EJDARA	Series 60
	SDD8.5EJDABA	Series 50
	SDD8.5EJDARA	Series 50
	SDD8.5EJDARW	Series 50
<b>1996</b>	TDD11.EJDARA	Series 60
	TDD12.EJDARA	Series 60
	TDD12.EJDATW	Series 55
	TDD8.5EJDARA	Series 50
	TDD8.5EJDARW	Series 50
	TDD8.5FJDABA	Series 50
<b>1997</b>	VDD11.EJDARA	Series 60
	VDD12.EJDARA	Series 60
	VDD12.EJDATA	Series 55
	VDD3.8C8DABA	Series VM 638
	VDD8.5EJDARA	Series 50
	VDD8.5FJDABA	Series 50
<b>1998</b>	WDDXH11.1EHD	Series 60
	WDDXH12.7EGD	Series 60
	WDDXH08.5EJD	Series 50
	WDDXH08.5FJC	Series 50
	WDDXH03.8C1C	Turbotronic 638
<b>1999</b>	XDDXH11.1EHL	Series 60
	XDDXH12.7EGL	Series 60
	XDDXH14.0ELL	Series 60
	XDDXH08.5EJL	Series 50
	XDDXH08.5FJN	Series 50
	XDDXH03.8C1N	-
<b>2000</b>	YDDXH12.7EGL	Series 60
	YDDXH14.0ELL	Series 60
	YDDXH08.5EJB	Series 50
	YDDXH08.5EJL	Series 50
	YDDXH08.5FJN	Series 50
	YDDXH03.8C1N	Turbotronic 638
<b>2001</b>	1DDXH12.7EGL	Series 60
	1DDXH14.0ELL	Series 60
	1DDXH08.5EJB	Series 50
	1DDXH08.5EJL	Series 50
<b>2002</b>	2DDXH12.7EGL	Series 60
	2DDXH14.0ELL	Series 60
	2DDXH12.7FGN	Series 60
	2DDXH08.5EJL	Series 50

**Table 4. Mack**

<b>Model Year</b>	<b>Engine Family</b>	<b>Series</b>
<b>1994</b>	RMK728EGDARA	E7, EM7
	RMK728EJDARA	E7, EM7
<b>1995</b>	SMK728EGDARA	E7, EM7
	SMK728EJDARA	E7
<b>1996</b>	TMK728EGDARA	E7, EM7
	TMK728EJDARA	E7
<b>1997</b>	VMK728EGDARA	E7, EM7
	VMK728EJDARA	E7, EM7
	VMK728EJDAYW	E7, EM7
<b>1998</b>	WMKXH11.9E51	E7
	WMKXH11.9E52	E7
	WMKXH11.9E53	EM7
<b>1999</b>	XMKXH11.9E54	E7
<b>2000</b>	YMKXH11.9H56	E7, EM7
	YMKXH11.9V57	E7, EM7
<b>2001</b>	1MKXH11.9H56	E7, EM7
	1MKXH11.9H59	E7
	1MKXH11.9V57	E7, EM7
	1MKXH11.9V60	E7
	1MKXH11.9V61	EM7
<b>2002</b>	2MKXH11.9H63	E7
	2MKXH11.9V60	E7
	2MKXH11.9V61	EM7
	2MKXH11.9V65	E7
	2MKXH11.9V66	EM7
	2MKXH11.9V67	E7

**Table 5. Navistar (International)**

MY	Engine Family	Series
<b>1994</b>	RNV408D6DAAW	--
	RNV444C8DABA	--
	RNV466D6D0TW	--
	RNV466D6DAAA	--
	RNV466D6DABA	--
	RNV466D6DARW	DT 466HT, DT 466
	RNV466D6DASW	DT 466HT, DT 466
	RNV530D6DAAA	--
RNV7.3C8DAAA	--	
<b>1995</b>	SNV444C8DOAA	--
	SNV444C8DORA	--
	SNV444C8DOSA	--
	SNV466D6DARA	DT 466HT, DT 466
	SNV466D6DASA	DT 466
	SNV466D6DATA	--
	SNV466D8DARB	DT 466HT, DT 466
	SNV466D8DASB	DT 466
	SNV466D8DATB	--
	SNV530D6DARA	--
	SNV530E6DASA	--
	SNV530F6DATA	530 Bus
SNV7.3C8DAAA	--	
<b>1996</b>	TNV444C8DORA	--
	TNV444C8DOSA	--
	TNV466D6DARB	DT 466, DT 466HT
	TNV466D6DATB	--
	TNV466D8DARB	DT 466, DT 466HT
	TNV466D8DATB	--
	TNV530D6DARA	--
	TNV530D8DARA	--
	TNV530E6DASA	--
	TNV530E8DASA	--
	TNV7.3B8DOAA	--
	TNV7.3C8DAAA	--
<b>1997</b>	VNV444C8DARW	T444E
	VNV444C8DASW	T444E HT
	VNV466D6DARA	DT 466HT, DT 466
	VNV466D8DARW	DT 466E, DT 466 HT
	VNV466D8DASA	--
	VNV530D6DARA	530 MGD
	VNV530D8DARA	530E
	VNV530E6DASA	530 HVY
	VNV530E8DASA	530E
	VNV7.3C8DAAA	--
	VNV7.3C8DAAW	--
	VNV7.3W8DOAK	7.3 DIT
<b>1998</b>	WNVXH0444CCB	T 444E
	WNVXH0444CCD	T 444E
	WNVXH0466CCB	DT 466E
	WNVXH0466CCD	DT 466E
	WNVXH0530CCB	530E

MY	Engine Family	Series
<b>1998</b>	WNVXH0530CCD	530E
<b>1999</b>	XNVXH0444ANA	T 444E
	XNVXH0444ANB	T 444E
	XNVXH0466ANA	DT 466E
	XNVXH0466ANB	DT 466E
	XNVXH0530ACT	530E
	XNVXH0530ANA	530E
	XNVXH0530ANB	530E
	XNVXH07.3ACA	7.3 DIT
	XNVXH07.3ACB	7.3 DIT
	XNVXH07.3ACC	7.3 DIT
	XNVXH07.3ANE	7.3 DIT
	XNVXH07.3ANF	7.3 DIT
XNVXA07.3CCD	7.3 DIT	
XNVXA07.3CNJ	7.3 DIT	
<b>2000</b>	YNVXH0444ACT	T 444E
	YNVXH0444ANA	444 P
	YNVXH0444ANB	T 444E
	YNVXH0444ANC	T 444E
	YNVXH0466ANA	DT 466E, DT 466E HT
	YNVXH0466ANB	DT 466E, DT 466E HT
	YNVXH0530ACT	530E
	YNVXH0530ANA	DT 530E
YNVXH0530ANB	DT 530E, DT 530E HT	
YNVXH07.3ANA	7.3 DIT	
<b>2001</b>	1NVXH0444ANA	444 P
	1NVXH0444ANB	T 444E
	1NVXH0444ANC	T 444E
	1NVXH0466ANA	DT 466, DT 466 HT
	1NVXH0466ANB	DT 466, DT 466 HT
	1NVXH0466ANB	DT 466, DT 466 HT
	1NVXH0530ACT	DT 530
	1NVXH0530ANA	DT 530
	1NVXH0530ANB	DT 530, DT 530 HT
	1NVXH07.3ACE	7.3 DIT
	1NVXH07.3ACF	7.3 DIT
	1NVXH07.3ANA	7.3 DIT
1NVXH07.3ANC	7.3 DIT	
1NVXA07.3CND	7.3 DIT	
<b>2002</b>	2NVXH0444ANA	T 444E
	2NVXH0444ANB	T 444E
	2NVXH0444ANC	T 444E
	2NVXH0466ANA	DT 466, DT 466 HT
	2NVXH0466ANB	DT 466, DT 466 HT
	2NVXH0530ANA	DT 530
	2NVXH0530ANB	DT 530, DT 530 HT
	2NVXH0530ANC	DT 530
	2NVXH07.3ACE	7.3 DIT
	2NVXA07.3ACF	7.3 DIT
	2NVXH07.3ANA	7.3 DIT
	2NVXH07.3ANC	7.3 DIT
2NVXA07.3CND	7.3 DIT	

**Table 6. Volvo**

<b>Model Year</b>	<b>Engine Family</b>	<b>Series</b>
<b>1994</b>	RVT12.EJDBRA	VE D12
	RVT6.7D6DBRA	VE D7A
<b>1995</b>	SVT12.EJDBRA	VE D12
	SVT6.7D6DBRA	VE D7A
<b>1996</b>	TVT12.EJDBRA	VE D12
	TVT6.7D6DBRA	VE D7A
<b>1997</b>	VVT12.EJDBRA	VE D12
	VVT6.7D6DBRA	VE D7A
<b>1998</b>	WVTXH12.150S	VE D12B
	WVTXH07.350S	VE D7C
<b>1999</b>	XVTXH12.150S	VE D12B
	XVTXH07.399B	VE D7C
	XVTXH07.350S	VE D7C
<b>2000</b>	YVTXH07.350S	VE D7C
	YVTXH12.150S	VE D12C
<b>2001</b>	1VTXH07.350S	VE D7C
	1VTXH12.150S	VE D12
<b>2002</b>	2VTXH07.350S	VE D7C
	2VTXH12.150S	VE D12

**LEVEL 3 Verification:**

**Table 7. Clean Air Partners' DPF is verified for use with the following Power Systems Associates Engine Families:**

<b>Model Year</b>	<b>Engine Families</b>
1996	TPS629EZJARK
1997	VPS442DZJ6RK, VPS442DZJARK, VPS629EZJ6RK, VPS629EZJ6RM
1998	WPSXH0629E6J, WPSXH0729E6J
1999	XPSXH0442E6J, XPSXH0629E6J, XPSXH0729E6J
2000	YPSXH0442E6J, YPSXH0629E6J, YPSXH0729E6J
2001	1PSXH0442E6J, 1PSXH0629E6J, 1PSXH0629E6K, 1PSXH0729E6J
2002	2PSXH0442E6J, 2PSXH0629E6J, 2PSXH0629E6K, 2PSXH0729E6J

**LEVEL 3 Verification:**

**Table 8. Clean Air Partners' DPF is verified for use with the following Caterpillar Engine Families when converted to Bi-Fuel Operation:**

<b>Model Year</b>	<b>Engine Families</b>	<b>Bi-Fuel Retrofit Executive Orders</b>
1998	WCPXH0442HRK	B-49-16
	WCPXH0629ERK	B-49-9
	WCPXH0729ERK	B-49-12
1999	XCPXH0442HRK	B-49-14
	XCPXH0629ERK	B-49-8
	XCPXH0729ERK	B-49-11
2000	YCPXH0442HRK	B-49-13
	YCPXH0629ERK	B-49-7
	YCPXH0729ERK	B-49-10
2001	1CPXH0442HRK	B-40-10
	1CPXH0629ERK	B-40-11
	1CPXH0729ERK	B-40-12
2002	2CPXH0442HRK	B-40-7
	2CPXH0629ERK	B-40-8
	2CPXH0729ERK	B-40-9

**LEVEL 3 Verification:**

**Table 9. The Cleaire Flash and Catch™ system is verified for use with the following Cummins engine families:**

<b>Engine Family</b>	<b>Control Parts List Number</b>
RCE661EJDARW	1856
RCE661FJDARA	1855, 1857
SCE661EJDARW	1856
SCE661EJDARA	1855, 1857
SCE661EJDASW	2036
SCE661EJDATW	2037
TCE661EJDARW	1856
TCE661EJDASW	1855, 1857
TCE661EJDARB	2036
TCE661EJDATW	2037
VCE661EJDATW	2037
VCE661EJDASA	1855, 1856, 1857
VCE661EJDARB	2036
WCEXH0661MAA	2371
WCEXH0661MAB	2370

**LEVEL 1 Verification:**

**Table 10. The Cleaire Flash and Match™ system is verified for use with the following Cummins engine families:**

<b>Engine Family</b>	<b>Control Parts List Number</b>
RCE661EJDARW	1856
RCE661FJDARA	1855, 1857
SCE661EJDARW	1856
SCE661EJDARA	1855, 1857
SCE661EJDASW	2036
SCE661EJDATW	2037
TCE661EJDARW	1856
TCE661EJDASW	1855, 1857
TCE661EJDARB	2036
TCE661EJDATW	2037
VCE661EJDATW	2037
VCE661EJDASA	1855, 1856, 1857
VCE661EJDARB	2036
WCEXH0661MAA	2371
WCEXH0661MAB	2370

**LEVEL 1 Verification: The Donaldson DCM DOC muffler with 6000 Series catalyst formulation together with the Spiracle closed crankcase filtration system with California diesel fuel and the Donaldson DCM DOC mufflers with 6100 Series catalyst formulation plus closed loop crankcase with Donaldson Spiracle™ closed crankcase filtration systems with 15 ppmw or less sulfur diesel fuel are verified for use with the following engine families: (Tables 11 –13)**

**Table 11. DOC Engines**

Model Year	Engine Family	Series	
<b>Caterpillar</b>			
<b>1991</b>	MCT0403FZC1	3116	
	MCT0403FZD2	3116	
	MCT0403FZE3	3116	
	MCT0629FZD4	3176	
	MCT0893FPBX	3406	
	MCT0893FZD5	3406	
<b>1992</b>	NCT0403FZC0	3116	
	NCT0403FZD1	3116	
	NCT0403FZE2	3116	
	NCT0403FZF3	3116	
	NCT0629FZD3	3176	
	NCT0638FPCX	3306	
	NCT0893FPB9	3406	
	NCT0893FZD4	3406	
<b>1993</b>	PCT0403FZC9	3116	
	PCT0403FZDX	3116	
	PCT0403FZE0	3116	
	PCT0629FZD1	3176	
	PCT0629FZE2	3176	
	PCT0638FPC8	3306	
	PCT0893FPB7	3406	
	PCT0893FZD2	3406	
	PCT0893FZE3	3406	
	PCTO403FZF1	3116	
<b>DDC</b>			
<b>1991</b>	MDD11.1FZA2	*	
	MDD12.7FZAX	*	
<b>1992</b>	NDD11.1FZA1	*	
	NDD12.7FZA9	*	
<b>1993</b>	PDD08.5FZB7	*	
	PDD08.5FZK7	*	
	PDD11.1FZAX	*	
	PDD11.1FZD2	*	
	PDD12.7FZA7	*	
	PDD12.7FZDX	*	
	<b>Mack</b>		
	<b>1991</b>	MMT0728FAF1	E7,EM7
MMT0728FAG2		E7,EM7	
MMT0728FAH3		E7,EM7	
<b>1992</b>	NMT0728FAA6	E7	
	NMT0728FAB7	EM7	
	NMT0728FAC8	EM7	

Model Year	Engine Family	Series
<b>Mack (continued)</b>		
<b>1992</b>	NMT0728FAD9	E7, EM7
	NMT0728FAEX	E7
	NMT0728FAF0	EM7
	NMT0728FAG1	E7
	NMT0728FAH2	E7
	NMT0728FAK7	EM7
	NMT0728FAL8	EM7
	<b>1993</b>	PMT0728FAC6
PMT0728FAD7		EM7
PMT0728FAE8		E7
PMT0728FAF9		E7
PMT0728FAGX		E7
PMT0728FAH0		EM7
PMT0728FAJ4		EM7
PMT0728FAL6		E7
PMT0728FAL5		E7
PMT0728FAB5		E7
<b>Navistar</b>		
<b>1991</b>	MNV0360EPC7	*
	MNV0360FPCX	*
	MNV0466EPC4	*
	MNV0466FPC7	*
<b>1992</b>	NNV0360EPC6	*
	NNV0360FPC9	*
	NNV0466EPA1	*
	NNV0466FPC6	*
<b>1993</b>	PNV0360FPC7	DTA360
	PNV0408FPA2	DT408
	PNV0408FPB3	DT408
	PNV0466EPAX	DT466
	PNV0466FPC4	DTA466
	PNV0466FPD5	DTA466
	PNV0466FPE6	DT466
	PNV0466FPF7	DT466
	PNV0530FPA2	*
	PNV07.3EPA2	*
<b>Volvo</b>		
<b>1991</b>	MVT12.0FAA0	*
	NVT06.7FAA0	*
<b>1992</b>	MVT06.7FAA1	*
	NVT12.0FAAX	*
	NVT12.0FAB0	*
<b>1993</b>	PVT06.7FAA9	*
	PVT12.0FAA8	*
	PVT12.0FAB9	*

**Table 12. DOC Engines**

Model Year	Engine Family	Series
<b>Ford</b>		
1991	MFM07.8FPK8	*
1992	NFM07.8FPK7	*
1993	none	*
<b>General Motors</b>		
1991	none	*
1992	NGM06.5EAB5	*
1993	none	*
<b>Hino</b>		
1991	MHM03.8FAA0	*
	MHM06.5FAA6	*
1992	NHM03.8FAAX	*
1993	PHM03.8FAA8	*
	PHM06.5FAA3	*
<b>Isuzu</b>		
1991	none	*
1992	NSZ0396FAB7	*
1993	PSZ0396FAB5	*
<b>Mercedes Benz</b>		
1991	MMB5.96FAA3	*
1992	NMB5.96FAA2	*
	NMB12.0FAA4	*
1993	PMB5.96FAA1	*
	PMB12.0FAA2	*

Model Year	Engine Family	Series
<b>Mitsubishi</b>		
1991	none	*
1992	NMM0302FAA0	*
	NMM0460FAA6	*
1993	PMM0302FAA9	*
	PMM0460FAA4	*
<b>Nissan</b>		
1991	none	*
1992	NND0423FAC9	*
	NND0452FAC9	*
1993	PND0423FAC7	*
	PND0452FAC7	*
<b>Perkins</b>		
1991	MPE0365FAA1	Phaser 180Ti
1992	NPE0365FAA0	Phaser 180Ti
1993	PPE0365FAA9	Phaser 180Ti
<b>Renault</b>		
1991	MRE0335FAA4	*
1992	NRE0335FAA3	*
	NRE0377FAC0	*
	NRE0377FABX	*
1993	PRE0335FAA0	*
	PRE0377FAB8	*
	PRE0377FAC9	*

**Table 13. DOC Cummins Engines**

<b>Model Year</b>	<b>Engine Family</b>	<b>Series</b>
<b>1991</b>	MCE0359FAA9	B5.9
	MCE0359FABX	B5.9
	MCE0505FAA2	C8.3
	MCE0611FZA2	L10
	MCE0611FZB3	L10
	MCE0611FZD5	L10
	MCE0855FZA6	N14
	MCE0855FZB7	N14
	MCE0855FZC8	N14
MCE0855FZD9	N14	
<b>1992</b>	NCE0359FAA8	B5.9
	NCE0359FAB9	B5.9
	NCE0359FAB9	B5.9
	NCE0359FACX	C8.3
	NCE0505FAA1	C8.3
	NCE0505FAB2	C8.3
	NCE0611FZA1	L10
	NCE0611FZB2	L10
	NCE0611FZB2	L10
	NCE0611FZD4	L10
	NCE0855FZA5	N14
	NCE0855FZB6	N14
	NCE0855FZC7	N14
	NCE0855FZD8	N14
	NCE0855FZFX	N14
	NCE0855FZG0	N14
<b>1993</b>	PCE0359FAA6	B5.9
	PCE0359FAB7	B5.9
	PCE0359FAC8	B5.9
	PCE0359FAD9	B5.9
	PCE0505FAAX	C8.3
	PCE0505FAB0	C8.3
	PCE0611FZAX	L10
	PCE0611FZB0	L10
	PCE0661FZA2	M11
	PCE0661FZB3	M11
	PCE0855FZA3	N14
	PCE0855FZB4	N14
	PCE0855FZC5	N14
	PCE0855FZD6	N14
	PCE0855FZF8	N14
	PCE0855FZG9	N14
	PCE0855FZHX	N14
PCE0855FZK4	N14	

**LEVEL 1 Verification: The Donaldson DCM DOC muffler with 6000 Series catalyst formulation together with the Spiracle closed crankcase filtration system with California diesel fuel; the Donaldson DCM DOC mufflers with 6100 Series catalyst formulation plus closed loop crankcase with Donaldson Spiracle™ closed crankcase filtration systems with 15 ppmw or less sulfur diesel fuel; and the Donaldson DCM DOC mufflers with 6100 Series catalyst formulation alone on 15 ppmw or less sulfur fuel are verified for use with the following engine families: (Tables 14 – 19)**

**Table 14. Caterpillar**

Model Year	Engine Family	Series
<b>1994</b>	RCP629EZDARA	*
	RCP638EZDARA	*
	RCP893EZDARA	*
<b>1995</b>	SCP403DZDARK	*
	SCP442DZDARK	3126
	SCP629EZDARK	*
	SCP629EZDARM	C-10, 3176
	SCP638EZDARA	*
	SCP729EZDARL	C-12
	SCP893EZDARK	*
<b>1996</b>	TCP403DZDARK	3116
	TCP442DZDARK	3126
	TCP629EZDARK	3176
	TCP629EZDARM	C-10
	TCP638EZDARA	3306
	TCP729EZDARL	C-12
	TCP893EZDARK	3406
<b>1997</b>	VCP403DZDARK	3116
	VCP442DZDARK	3126
	VCP629EZDARK	3176
	VCP629EZDARX	C-10
	VCP638EZDARA	3306
	VCP729EZDARX	C-12
	VCP893EZDARA	3406
	VCP893EZDARX	3406
	VCP967EZDARK	3406

Model Year	Engine Family	Series
<b>1998</b>	WCPXH0442HRK	3126
	WCPXH0442HRK	3126
	WCPXH0442HSK	3126
	WCPXH0442HSK	3126
	WCPXH0629ERK	C-10
	WCPXH0629ERK	C-10
	WCPXH0729ERK	C-12
	WCPXH0729ERK	C-12
	WCPXH0893ERK	3406
	WCPXH0893ERK	3406
<b>1999</b>	WCPXH0967ERK	3406
	WCPXH0967ERK	3406
	XCPXH0442HRK	3126
	XCPXH0442HSK	3126
	XCPXH0629ERK	C10
	XCPXH0729ERK	C12
<b>2000</b>	XCPXH0893ERK	3406
	XCPXH0967ERK	3406
	YCPXH0442HRK	3126
	YCPXH0629ERK	C-10
	YCPXH0729ERK	C-12
<b>2001</b>	YCPXH0893ERK	C-15
	YCPXH0967ERK	C-16
	1CPXH0442HRK	3126
	1CPXH0629ERK	C-10
	1CPXH0729ERK	C-12
<b>2002</b>	1CPXH0893ERK	C-15
	1CPXH0967ERK	C-16
	2CPXH0442HRK	3126
	2CPXH0629ERK	C-10
	2CPXH0729ERK	C-12
	2CPXH0893ERK	C-15
	2CPXH0967ERK	C-16

**Table 15. Cummins**

MY	Engine Family	Series
1994	RCE611EGDARW	L10
	RCE661EJDARA	M11
	RCE661EJDARC	M11
	RCE661EJDARW	M11
	RCE855EJDARW	N14
	RCE855EJDASW	N14
1995	SCE611EGDARW	L10
	SCE661EJDARA	M11
	SCE661EJDARC	M11
	SCE661EJDARW	M11
	SCE661EJDASW	M11
	SCE661EJDATW	M11
	SCE855EJDARA	N14
	SCE855EJDARB	N14
	SCE855EJDARW	N14
	SCE855EJDASW	N14
	SCE855EJDATW	N14
	1996	TCE661EJDARA
TCE661EJDARB		M11
TCE661EJDARC		M11
TCE661EJDARW		M11
TCE661EJDASW		M11
TCE661EJDATW		M11
TCE855EJDARA		N14
TCE855EJDARB		N14
TCE855EJDARW		N14
TCE855EJDASW		N14
TCE855EJDATW		N14
1997		VCE359DJDARA
	VCE661EJDARB	M11
	VCE661EJDARC	M11
	VCE661EJDASA	M11
	VCE661EJDATW	M11
	VCE855EJDARA	N14
	VCE855EJDARB	N14
	VCE855EJDARC	N14
	VCE855EJDATW	N14
	1998	WCEXA0359BAH
WCEXH0359BAD		ISB
WCEXH0359BAE		ISB
WCEXH0505CAC		ISC
WCEXH0505CAD		ISC
WCEXH0505CAE		ISC
WCEXH0505CAF		ISC
WCEXH0661MAA		M11
WCEXH0661MAB		M11
WCEXH0661MAD		ISM
WCEXH0661MAE		ISM
WCEXH0855NAA		N14
WCEXH0855NAB		N14

MY	Engine Family	Series
1998	WCEXH0855NAC	N14
	WCEXH0912XAA	Signature
1999	XCEXH0359BAJ	ISB
	XCEXH0359BAK	ISB
	XCEXA0359BAN	ISB
	XCEXA0359BAT	ISB
	XCEXH0505CAC	ISC
	XCEXH0505CAD	ISC
	XCEXH0505CAE	ISC
	XCEXH0661MAH	ISM
	XCEXH0661MAI	ISM
	XCEXH0855NAD	N14
	XCEXH0855NAE	N14
	XCEXH0855NAF	N14
	XCEXH0912XAB	Signature
	XCEXH0912XAD	ISX
2000	YCEXH0359BAO	ISB
	YCEXH0359BAP	ISB
	YCEXA0359BAZ	ISB
	YCEXH0505CAG	ISC
	YCEXH0505CAH	ISC
	YCEXH0505CAI	ISC
	YCEXH0540LAA	ISL
	YCEXH0661MAH	ISM
	YCEXH0661MAI	ISM
	YCEXH0855NAD	N14
	YCEXH0855NAE	N14
	YCEXH0855NAF	N14
	YCEXH0912XAC	ISX
YCEXH0912XAD	ISX	
YCEXH0912XAE	Signature, ISX	
2001	1CEXA0359BAZ	ISB
	1CEXH0239BAD	ISB
	1CEXH0239BAE	ISB
	1CEXH0359BAU	ISB
	1CEXH0359BAV	ISB
	1CEXH0505CAN	ISC
	1CEXH0505CAO	ISC
	1CEXH0505CAP	ISC
	1CEXH0540LAA	ISL
	1CEXH0540LAC	ISL
	1CEXH0661MAQ	ISM
	1CEXH0661MAR	ISM
	1CEXH0855NAD	N14
	1CEXH0855NAE	N14
	1CEXH0855NAF	N14
	1CEXH0912XAC	ISX
1CEXH0912XAD	ISX	
1CEXH0912XAE	Signature, ISX	

**Table 15. Cummins (continued)**

<b>2002</b>	2CEXA0359BAZ	ISB
	2CEXH0239BAD	ISB
	2CEXH0239BAE	ISB
	2CEXH0359BAB	ISB
	2CEXH0505CAN	ISC
	2CEXH0505CAQ	ISC
	2CEXH0540LAC	ISL
	2CEXH0661MAS	ISM
	2CEXH0855NAA	N14
	2CEXH0912XAF	ISX

**Table 16. DDC**

Model Year	Engine Family	Series
<b>1994</b>	RDD11.EJDARA	Series 60
	RDD12.EJDARA	Series 60
	RDD8.5EJDARA	Series 50
	RDD8.5EJDARW	Series 50
<b>1995</b>	SDD11.EJDARA	Series 60
	SDD12.EJDARA	Series 60
	SDD8.5EJDARA	Series 50
	SDD8.5EJDARW	Series 50
<b>1996</b>	TDD11.EJDARA	Series 60
	TDD12.EJDARA	Series 60
	TDD12.EJDATW	Series 55
	TDD8.5EJDARA	Series 50
<b>1997</b>	VDD11.EJDARA	Series 60
	VDD12.EJDARA	Series 60
	VDD12.EJDATA	Series 55
	VDD8.5EJDARA	Series 50
<b>1998</b>	WDDXH11.1EHD	Series 60
	WDDXH12.7EGD	Series 60
	WDDXH08.5EJD	Series 50
<b>1999</b>	XDDXH11.1EHL	Series 60
	XDDXH12.7EGL	Series 60
	XDDXH14.0ELL	Series 60
	XDDXH08.5EJL	Series 50
<b>2000</b>	YDDXH12.7EGL	Series 60
	YDDXH14.0ELL	Series 60
	YDDXH08.5EJB	Series 50
	YDDXH08.5EJL	Series 50
<b>2001</b>	1DDXH12.7EGL	Series 60
	1DDXH14.0ELL	Series 60
	1DDXH08.5EJB	Series 50
	1DDXH08.5EJL	Series 50
<b>2002</b>	2DDXH12.7EGL	Series 60
	2DDXH14.0ELL	Series 60
	2DDXH08.5EJL	Series 50

**Table 17. Mack**

Model Year	Engine Family	Series
<b>1994</b>	RMK728EGDARA	E7, EM7
	RMK728EJDARA	E7, EM7
<b>1995</b>	SMK728EGDARA	E7, EM7
	SMK728EJDARA	E7
<b>1996</b>	TMK728EGDARA	E7, EM7
	TMK728EJDARA	E7
<b>1997</b>	VMK728EGDARA	E7, EM7
	VMK728EJDARA	E7, EM7
	VMK728EJDAYW	E7, EM7
<b>1998</b>	WMKXH11.9E51	E7
	WMKXH11.9E52	E7
	WMKXH11.9E53	EM7
<b>1999</b>	XMKXH11.9E54	E7
<b>2000</b>	YMKXH11.9H56	E7, EM7
	YMKXH11.9V57	E7, EM7
<b>2001</b>	1MKXH11.9H56	E7, EM7
	1MKXH11.9H59	E7
	1MKXH11.9V57	E7, EM7
	1MKXH11.9V60	E7
	1MKXH11.9V61	EM7
<b>2002</b>	2MKXH11.9H59	E7
	2MKXH11.9H63	E7
	2MKXH11.9V60	E7
	2MKXH11.9V61	EM7
	2MKXH11.9V65	E7
	2MKXH11.9V66	EM7
	2MKXH11.9V67	E7

**Table 18. Navistar (International)**

Model Year	Engine Family	Series
1994	RNV466D6D0TW	*
	RNV466D6DARW	DT 466HT, DT 466
	RNV466D6DASW	DT 466HT, DT 466
1995	SNV444C8DORA	*
	SNV444C8DOSA	*
	SNV466D6DARA	DT 466HT, DT 466
	SNV466D6DASA	DT 466
	SNV466D6DATA	*
	SNV466D8DARB	DT 466HT, DT 466
	SNV466D8DASB	DT 466
	SNV466D8DATB	*
	SNV530D6DARA	*
	SNV530E6DASA	*
1996	TNV444C8DORA	*
	TNV444C8DOSA	*
	TNV466D6DARB	DT 466, DT 466HT
	TNV466D6DATB	*
	TNV466D8DARB	DT 466, DT 466HT
	TNV466D8DATB	*
	TNV530D6DARA	*
	TNV530D8DARA	*
	TNV530E6DASA	*
	TNV530E8DASA	*
1997	VNV444C8DARW	T444E
	VNV444C8DASW	T444E HT
	VNV466D6DARA	DT 466HT, DT 466
	VNV466D8DARW	DT 466E, DT 466 HT
	VNV466D8DASA	*
	VNV530D6DARA	530 MGD
	VNV530D8DARA	530E
	VNV530E6DASA	530 HVY
	VNV530E8DASA	530E
1998	None	*
1999	XNVXH0444ANA	T 444E
	XNVXH0444ANB	T 444E
	XNVXH0466ANA	DT 466E
	XNVXH0466ANB	DT 466E
	XNVXH0530ANA	530E
	XNVXH0530ANB	530E
	XNVXH07.3ANE	7.3 DIT
	XNVXH07.3ANF	7.3 DIT
	XNVXA07.3CNJ	7.3 DIT

Model Year	Engine Family	Series
2000	YNVXH0444ANA	444 P
	YNVXH0444ANB	T 444E
	YNVXH0444ANC	T 444E
	YNVXH0466ANA	DT 466E, DT 466E HT
	YNVXH0466ANB	DT 466E, DT 466E HT
	YNVXH0530ANA	DT 530E
	YNVXH0530ANB	DT 530E, DT 530E HT
2001	1NVXH0444ANA	444 P
	1NVXH0444ANB	T 444E
	1NVXH0444ANC	T 444E
	1NVXH0466ANA	DT 466, DT 466 HT
	1NVXH0466ANB	DT 466, DT 466 HT
	1NVXH0466ANB	DT 466, DT 466 HT
	1NVXH0530ANA	DT 530
	1NVXH0530ANB	DT 530, DT 530 HT
	1NVXH07.3ANA	7.3 DIT
	1NVXH07.3ANC	7.3 DIT
2002	2NVXH0444ANA	T 444E
	2NVXH0444ANB	T 444E
	2NVXH0444ANC	T 444E
	2NVXH0466ANA	DT 466, DT 466 HT
	2NVXH0466ANB	DT 466, DT 466 HT
	2NVXH0530ANA	DT 530
	2NVXH0530ANC	DT 530
	2NVXH0530ANB	DT 530, DT 530 HT
	2NVXH07.3ANA	7.3 DIT
	2NVXH07.3ANC	7.3 DIT
2NVXA07.3CND	7.3 DIT	

**Table 19. Other Engine Makes**

Model Year	Engine Family	Series
<b>Volvo</b>		
1994	RVT12.EJDBRA	VE D12
	RVT6.7D6DBRA	VE D7A
1995	SVT12.EJDBRA	VE D12
	SVT6.7D6DBRA	VE D7A
1996	TVT12.EJDBRA	VE D12
	TVT6.7D6DBRA	VE D7A
1997	VVT12.EJDBRA	VE D12
	VVT6.7D6DBRA	VE D7A
1998	WVTXH12.150S	VE D12B
	WVTXH07.350S	VE D7C
1999	XVTXH12.150S	VE D12B
	XVTXH07.399B	VE D7C
	XVTXH07.350S	VE D7C
2000	YVTXH07.350S	VE D7C
	YVTXH12.150S	VE D12C
2001	1VTXH07.350S	VE D7C
	1VTXH12.150S	VE D12
2002	2VTXH07.350S	VE D7C
	2VTXH12.150S	VE D12
<b>General Motors</b>		
1994	none	*
1995	none	*
1996	none	*
1997	VGM6.5C6DARW	*
1998	none	
1999	XGMXH06.5523	
<b>Hino</b>		
1994	RHM3.8C7DARW	*
	RHM6.5D7DARW	*
1995	SHM6.5D7DARW	*
	SHM3.8C7DARW	*
1996	THM6.5D7DARW	*
	THM3.8C7DARW	*
1997	VHM8.0DHDARA	*
<b>Isuzu</b>		
1994	none	*
1995	none	*
1996	none	*
1997	none	*
1998	WSZXH07.84RA	*
1999	XSZXH07.84RA	*
2000	YSZXH07.84RA	*
2001	1SZXH06.63RK	*
2002	2SZXH07.84RA	*
	2SZXH06.64RA	*

Model Year	Engine Family	Series
<b>Mercedes Benz</b>		
1994	SMB6.0D6DARA	*
1995	none	*
1996	none	*
1997	WMBXH4.25DJA	*
1998	XMBXH6.37DJA	*
1999	XMBXH4.25DJA	*
	YMBXH6.37DJA	*
2000	YMBXH4.25DJA	*
	1MBXH6.37DJC	*
2001	1MBXH4.25DJA	*
	1MBXH6.37DJA	*
	1MBXH12.0DJA	*
	1MBXH12.8DJA	*
	2MBXH4.25DJA	*
2002	2MBXH6.37DJA	*
	2MBXH6.37DJC	*
	2MBXH12.0DJA	*
	2MBXH12.8DJA	*
	2MBXH15.9DJB	*