

**Attachment 1: : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 1996 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Caterpillar	TCP14.RZDBRK
	TCP10.RZDBRD
Detroit Diesel Corporation	TDD18.TJ4ARE
Deere	TJD8.1R6DBRA
	TJD8.1R6DBRC
Deutz AG	TDZ16.RGDARA
	TDZ16.RGDARB
	TDZ7.1R6DARA
	TDZ7.1R6DARB
Generac	TGN13.R6DARA
IVECO	TVE14.R6DARA
Komatsu	TKL11.RZDARB
	TKL11.RZDARC
Navistar	TNV466R6DARA
	TNV466R6DARB
	TNV466R6DASC
	TNV466R6DASD
	TNV530R6DARA
	TNV530R6DARB
	TNV530R6DASD
	TNV530R8DASC

Model Year 1997 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Caterpillar	VCP10.RZDARD
	VCP14.RZDARJ
	VCP14.RZDARK
Cummins	VCE505R6DTRA
Detroit Diesel Corporation	VDD12.TJDARE
	VDD8.5TJDARE
	VDD9.0TJ30AE
Deere	VJD10.R6DBRA
	VJD10.R6DBRB
	VJD10.RJDARB
	VJD6.8R6DBRA
	VJD6.8R6DBRC
	VJD8.1R6DBRA
	VJD8.1R6DBRC
	VJD8.1RBDRB
Deutz AG	VDZ16.RGDARA
	VDZ16.RGDARB
	VDZ6.1R6DARC
	VDZ7.1R6DARA
	VDZ7.1R6DARB
Generac	VGN13.R6DARA
IVECO	VVE14.R6DARA
Navistar	VNV466R6DASC
	VNV466R6DASD
	VNV530R6DARB
	VNV530R6DASC
	VNV530R6DASD

**Attachment 1 : : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 1998 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
AB Volvo Penta	WVPXL09.6ACB
	WVPXL12.0ACB
	WVPXL16.0ACB
Case	WX9XL0239ABA
Caterpillar	WCPXL07.0MRB
	WCPXL10.5MRD
	WCPXL10.5MRG
	WCPXL14.6ERK
	WCPXL14.6MRJ
Cummins	WCEXL019.AAA
	WCEXL019.AAB
	WCEXL0359AAA
	WCEXL0505AAA
	WCEXL0505ABA
	WCEXL0505ACA
	WCEXL0661AAA
	WCEXL0855AAA
Daewoo	WDWXL11.1BHT
	WDWXL11.1BIA
Detroit Diesel Corporation	VDDXL08.5TJD
	WDDXL09.0TFE
	WDDXL11.1THD
	WDDXL12.1TFE
	WDDXL12.1TFM
	WDDXL12.7TGD
	WDDXL15.9TRE
	WDDXL18.1TFE
	WDDXL23.9TRE
	WMUXL12.0G2V
Deere	WJDXL06.8012
	WJDXL06.8012
	WJDXL08.1009
Deutz AG	WDZXL06.1007
	WDZXL07.1003
	WDZXL07.1004
	WDZXL15.9001
	WDZXL15.9002
GMC	WGNXL13.3HTA
IVECO	WVEXL13.8DAR

Model Year 1998 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Komatsu	WKDXL0239AAA
	WKDXL0239ABA
	WKDXL0359AAA
	WKDXL0359ABA
	WKDXL0505AAA
	WKLXL11.0DB1
	WKLXL11.0DC1
	WKLXL15.2EB1
	WKLXL23.2FC1
	WKLXL7.15CB1
	WKLXL7.15CC1
MTU	WMUXL12.0G2V
Navistar	WNVXL0530BNB
	WNVXL0530BND

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 1999 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
AB Volvo Penta	XVPXL09.6ACB
	XVPXL12.0ACB
	XVPXL16.0ACB
Case	XX9XL0359ABA
	XX9XL0505AAA
	XX9XL0505ABA
	XX9XL0505ACA
Caterpillar	XCPXL07.0MRB
	XCPXL10.5MRD
	XCPXL10.5MRG
	XCPXL14.6MRJ
Cummins	XCEXL019.AAA
	XCEXL019.AAB
	XCEXL0359ABA
	XCEXL0505AAA
	XCEXL0505ABA
	XCEXL0505ABB
	XCEXL0505ACA
	XCEXL0661AAA
	XCEXL0855AAA
	XCEXL0855AAB
Daewoo	XDWXL11.1BIA
	XDWXL11.1BHT
Detroit Diesel Corporation	XDDXL04.7TAE
	XDDXL08.5TJD
	XDDXL09.1TFE
	XDDXL11.1THD
	XDDXL12.1TFE
	XDDXL12.1TFM
	XDDXL12.1TFM
	XDDXL12.7TGD
	XDDXL14.0TLD
	XDDXL15.9TRE
	XDDXL18.1TFE
	XDDXL23.9TRE
Deere	XJDXL06.8012
	XJDXL06.8014
	XJDXL08.1007
	XJDXL08.1009

Model Year 1999 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Deutz AG	XDZXL06.1008
	XDZXL07.1005
	XDZXL07.1004
	XDZXL15.9002
	XDZXL15.9003
Generac	XGNXL13.3HTA
	XGNXL12.0MAA
IVEC	XVEXL13.8DAR
Komatsu	XKLXL11.0DB1
	XKLXL11.0DC1
	XKLXL15.2EC1
	XKLXL23.2FC1
	XKLXL7.15CB1
	XKLXL7.15CC1
	XKDXL0359ABA
	XKDXL0505AAA
	XKDXL0505ABB
	XKDXL0505ACA
Mitsubishi	XMTXL07.5D6C
	XMTXL11.9D6A
	XMTXL11.9D6B
Navistar	XNVXL0530AND
	XNVXL0530ANC
	XNVXL0530BNB
	XNVXL0530BNB
	XNVXL0530BND

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2000 Engines

Manufacturer	Engine Families
Case	YX9XL0359ABA
	YX9XL0505ACA
Caterpillar	YCPXL07.0MRB
	YCPXL10.5MRD
	YCPXL10.5MRG
	YCPXL14.6ERK
	YCPXL14.6MRJ
	YCPXL27.0MRH
	YCPXL27.0MRS
	YCPXL34.5ERK
	YCPXL51.8ERK
	YCPXL69.0ERK
Cummins	YCEXL015.ABA
	YCEXL030.ABA
	YCEXL0359ABA
	YCEXL050.AAA
	YCEXL0505ACA
	YCEXL060.AAA
	YCEXL060.ABA
	YCEXL0661AAA
	YCEXL0855AAA
YCEXLO50.ABA	
Deere	YJDXL06.8012
	YJDXL06.8014
	YJDXL08.1007
	YJDXL08.1008
	YJDXL08.1009
	YJDXL10.5022
Detroit Diesel Corporation	YDDXL04.7TAE
	YDDXL05.2TDM
	YDDXL08.5TJD
	YDDXL09.0TFE
	YDDXL11.1THD
	YDDXL12.1TFE
	YDDXL12.1TFM
	YDDXL12.7TGD
	YDDXL14.0TLD
	YDDXL15.9TRE
YDDXL18.1TFE	
YDDXL23.9TRE	

Model Year 2000 Engines Continued

Manufacturer	Engine Families
Deutz AG	YDZXL06.1008
	YDZXL07.1004
	YDZXL07.1005
	YDZXL15.9002
	YDZXL15.9003
	YDZXL17.5001
Genrac	YGNXL12.0MAA
	YGNXL13.3HAA
	YGNXL13.3HTA
	YGNXL16.0MAA
IVECO	YVEXL13.8DAR
Komatsu	YKLXL0505ACA
	YKLXL11.0DB1
	YKLXL11.0DC1
	YKLXL15.2EC1
	YKLXL23.2FC1
	YKLXL23.2FC2
	YKLXL30.5GC1
	YKLXL7.15CB1
	YKLXL7.15CC1
Mitsubishi	YMTXL07.5D6C
	YMTXL11.9D6A
	YMTXL11.9D6B
Navistar	YNVXL0466ANA
	YNVXL0530ANA
	YNVXL0530ANB
	YNVXL0530ANC
	YNVXL0530AND
Volvo Penta	YVPXL07.3ABB
	YVPXL07.3ACB
	YVPXL09.6ACB
	YVPXL12.0ACB
	YVPXL16.0ACB

**Attachment 1 : : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2001 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Case	1X9XL0239ACA
	1X9XL0359AAA
	1X9XL0359ABA
	1X9XL0505AAA
	1X9XL0505ABA
	1X9XL0505ABB
	1X9XL0505ACA
Caterpillar	1CPXL07.0MRB
	1CPXL10.5MRG
	1CPXL14.6ESK
	1CPXL14.6MRJ
	1CPXL15.8ESK
	1CPXL18.0HRN
	1CPXL27.0HRK
	1CPXL27.0MRH
	1CPXL27.0MRT
	1CPXL34.5ERK
	1CPXL78.1ERK
Cummins	1CEXL015.AAA
	1CEXL019.AAB
	1CEXL0239ACA
	1CEXL028.AAA
	1CEXL030.ABA
	1CEXL0359AAA
	1CEXL0359ABA
	1CEXL0359ABB
	1CEXL0359ABC
	1CEXL0359ABD
	1CEXL0359ADA
	1CEXL050.ABA
	1CEXL0505AAA
	1CEXL0505ABA
	1CEXL0505ABB

Model Year 2001 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Cummins continued	1CEXL0505ACB
	1CEXL0505ACD
	1CEXL0505ACE
	1CEXL060.AAA
	1CEXL060.ABA
	1CEXL0661AAA
	1CEXL0661AAD
Daewoo	1DWXL18.3ASA
	1DWXL11.1BIA
	1DWXL14.6CVT
Detroit Diesel Corporation	1DDXL04.7TAE
	1DDXL08.5TJD
	1DDXL08.5YJD
	1DDXL14.0VLD
	1DDXL14.0WLD
	1DDXL15.9WRE
	1DDXL23.9WRE
	1DDXL31.8XRE
	1DDXL65.0XTE
Deere	1JCXL06.8039
	1JDXL06.8014
	1JDXL06.8038
	1JDXL08.1007
	1JDXL08.1008
	1JDXL08.1009
Deutz	1DZXL06.1008
	1DZXL07.1005
	1DZXL15.9002
	1DZXL15.9003
	1DZXL71.0021
	YDZXL07.1004
Generac	1GNXL17.0FAA
Isuzu	1SZXL09.8EXA
	1SZXL15.7ETA
International	1NVXL0530ANA
	1NVXL0530ANC
	1NVXL0530AND
	1NVXL0530ANE
	1NVXL0530ANF

**Attachment 1: : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2001 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Komatsu	1KLXL0239ACA
	1KLXL0359AAA
	1KLXL0359ABA
	1KLXL0359ABC
	1KLXL0505AAA
	1KLXL0505ABB
	1KLXL0505ACA
	1KLXL060.AAA
	1KLXL11.0DD3
	1KLXL15.2EC3
	1KLXL23.2FC1
	1KLXL23.2FC2
	1KLXL30.5GC1
	1KLXL30.5GD1
	1KLXL7.15CB1
	1KLXL7.15CC1
Mitsubishi	1MTXL07.5D6A
	1MTXL07.5D6C
	1MTXL11.9D6B
	1MTXL11.9D6D
AB Volvo Penta	1VPXL07.3ABB
	1VPXL07.3ACB
	1VPXL09.6ACB
	1VPXL12.1ACB
	1VPXL16.0ACB

Model Year 2002 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Case	2X9XL0359ABA
	2X9XL0359ABB
	2X9XL0359ABB
	2X9XL0359ABE
	2X9XL0505AAA
	2X9XL0505ABA
	2X9XL0505ABB
	2X9XL0505ABD
	2X9XL0505ACA
Caterpillar	2CPXL07.0MRB
	2CPXL10.5MRD
	2CPXL10.5MRG
	2CPXL14.6MRJ
	2CPXL27.0MRH
	2CPXL27.0MRS
	2CPXL27.0MRT
	2CPXL34.5ERK
	2CPXL78.1ERK
Cummins	2CEXL015.AAA
	2CEXL015.AAB
	2CEXL015.ABA
	2CEXL019.AAB
	2CEXL0239ACA
	2CEXL030.ABA
	2CEXL0359ABA
	2CEXL0359ABB
	2CEXL0359ABC
	2CEXL0359ABE
	2CEXL050.ABA
	2CEXL0505AAA
	2CEXL0505ABA
	2CEXL0505ABB
	2CEXL0505ABD
	2CEXL0505ACA
	2CEXL0505ACB
	2CEXL0505ACD
	2CEXL0505ACE
	2CEXL060.ABA
	2CEXL0661AAA
	2CEXL0661AAD

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2002 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Detroit Diesel	2DDXL04.7TAE
	2DDXL05.2TDM
	2DDXL08.5YJD
	2DDXL12.7VGD
	2DDXL14.0VLD
	2DDXL31.8XRE
	2DDXL65.0GTE
	2DDXL65.0XTE
	Deere
2JDXL04.5042	
2JDXL06.8012	
2JDXL06.8014	
2JDXL06.8038	
2JDXL06.8049	
2JDXL08.1007	
2JDXL08.1008	
2JDXL08.1009	
2JDXL08.1036	
2JDXL08.1037	
Deutz AG	2DZXL06.1008
	2DZXL07.1004
	2DZXL07.1005
	2DZXL07.1032
	2DZXL15.9002
	2DZXL15.9003
	2DZXL71.0021
Daewoo	2DWXL08.1APA
	2DWXL08.1BPA
	2DWXL11.1BIA
	2DWXL14.6CVT
	2DWXL21.9AYA
Generac	2GNXL03.0KTA
	2GNXL17.0HAA
Isuzu	2SZXL15.7EXA
	2SZXL09.8EXA
	2SZXL15.7ETA
International Truck	2NVXL0444ANA
	2NVXL0530ANC
	2NVXL0530AND
	2NVXL0530ANF

Model Year 2002 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Komatsu	2KLXL0359ABA
	2KLXL0359ABC
	2KLXL0505AAA
	2KLXL0505ABB
	2KLXL0505ABD
	2KLXL0505ACA
	2KLXL11.0DB1
	2KLXL11.0DD3
	2KLXL15.2EC3
	2KLXL23.2FC2
	2KLXL30.5GC1
	2KLXL30.5GD1
	2KLXL46.3HC1
2KLXL7.15CB1	
2KLXL7.15CC1	
Mitsubishi	2MTXL07.5D6A
	2MTXL11.9D6A
	2MTXL11.9D6B
Scania AB	2Y9XL09.0AAC
AB Volvo Penta	2VPXL07.3ABB
	2VPXL07.3ACB
	2VPXL09.6ACB
	2VPXL12.1ABA
	2VPXL12.1ACA
	2VPXL12.1ACB
	2VPXL16.0ACB

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2003 Engines

Manufacturer	Engine Families
Caterpillar	3CPXL18.0HRX
	3CPXL27.0MRH
	3CPXL27.0MRS
	3CPXL27.0MRT
	3CPXL34.5ERK
	3CPXL58.6ERK
	3CPXL78.1ERK
CNH Engine Corp	3X9XL0239ABA
	3X9XL0359AAC
	3X9XL0359ABE
	3X9XL0505AAB
	3X9XL0505ABD
Cummins	3CEXL015.AAB
	3CEXL015.ABA
	3CEXL019.AAB
	3CEXL023.AAA
	3CEXL0239AAD
	3CEXL0239AAF
	3CEXL0275AAA
	3CEXL0275AAB
	3CEXL030.ABA
Cummins	3CEXL0359AAB
	3CEXL0359AAC
	3CEXL0359AAD
	3CEXL0359ABC
	3CEXL0359ABE
	3CEXL050.ABA
	3CEXL0505ABD
	3CEXL0505ACB
	3CEXL060.ABA
	3CEXL0661AAD
3CEXL078.AAB	
Daewoo Motors	3DWXL05.8COA
	3DWXL11.1DJA
	3DWXL21.9AYA

Model Year 2003 Engines Continued

Manufacturer	Engine Families
Detroit Diesel	3DDXL08.5YJD
	3DDXL12.7VGD
	3DDXL14.0VLD
	3DDXL15.9WRE
	3DDXL31.8XRE
	3DDXL35.8GRP
	3DDXL65.0GTE
	3DDXL65.0GTP
	3DDXL65.0XTE
Deere	3JDXL04.5040
	3JDXL06.8038
	3JDXL06.8039
	3JDXL06.8041
	3JDXL06.8044
	3JDXL06.8048
	3JDXL06.8049
3JDXL08.1037	
Deutz AG	3DZXL05.7033
	3DZXL06.1028
	3DZXL07.1032
	3DZXL15.9002
	3DZXL71.0021
Daewoo Heavy Ind.	3DWXL08.1CPA
	3DWXL18.3ASC
	3DWXL2.37ANT
Isuzu	3SZXL09.8EXA
	3SZXL15.7ETA
	3SZXL15.7EXA
International Truck	3NVXL0530ANF
Komatsu	3KLXL0239AAD
	3KLXL0239AAF
	3KLXL0359AAB
	3KLXL0359ABC
	3KLXL0505ABD
	3KLXL11.0DD3
	3KLXL15.2EC3
	3KLXL23.2FC2
	3KLXL23.2FD4
	3KLXL30.5GC1
3KLXL30.5GD1	



**Attachment 1: : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2003 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Lombardini Motori	3LBDL2.07CHT
Mack Trucks	3MKXL11.9P69
Mitsubishi Heavy Ind	3MVXL24.5AAB
	3MVXL24.5ABA
	3MVXL24.5ABB
	3MVXL24.5ABD
	3MVXL24.5ABE
	3MVXL33.9AAA
	3MVXL33.9ABA
	3MVXL33.9ABB
	3MVXL33.9ABC
	3MVXL33.9ABD
	3MVXL33.9ABE
	3MVXL37.1ABA
	3MVXL37.1ABB
	3MVXL37.1ABC
	3MVXL37.1ABD
	3MVXL49.0ABA
	3MVXL49.0ABB
	3MVXL49.0ABC
	3MVXL65.4AAB
	3MVXL65.4ABA
	3MVXL65.4ABB
	3MVXL65.4ABC
	3MVXL65.4ABD
	3MVXL65.4ABE
	3MVXL65.4ABF
	3MVXL65.4ABG
AB Volvo Penta	3VPXL07.3ACB
	3VPXL09.6ACB
	3VPXL12.1ABA
	3VPXL12.1ACA
	3VPXL12.1ACB
	3VPXL16.0ACB

Model Year 2004 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Caterpillar	4CPXL15.2ESK
	4CPXL15.8ERK
	4CPXL15.8ESK
	4CPXL18.0ESK
	4CPXL18.0HRX
	4CPXL27.0MRH
	4CPXL27.0MRS
	4CPXL27.0MRT
	4CPXL34.5ERK
	4CPXL58.6ERK
	4CPXL78.1ERK
CNH Engine Corp.	4X9XL0239AAC
	4X9XL0359AAJ
	4X9XL0359AAK
	4X9XL0359ABE
	4X9XL0505AAB
	4X9XL0505ABD
Cummins	4CEXL015.AAB
	4CEXL015.ABA
	4CEXL019.AAB
	4CEXL023.AAA
	4CEXL0239AAD
	4CEXL0239AAF
	4CEXL0239AAG
	4CEXL0275AAB
	4CEXL0275AAC
	4CEXL0275AAD
	4CEXL0275AAF
	4CEXL03.3ABA
	4CEXL03.3ABB
	4CEXL030.ABA
	4CEXL0359AAB
	4CEXL0359AAC
	4CEXL0359AAD

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2004 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>	
Cummins (cont.)	4CEXL0359AAE	
	4CEXL0359AAF	
	4CEXL0359AAH	
	4CEXL0359ABC	
	4CEXL0359ABE	
	4CEXL050.ABA	
	4CEXL0505ABD	
	4CEXL0505ACB	
	4CEXL060.ABA	
	4CEXL0661AAD	
	4CEXL078.AAB	
	4CEXL2.28A41	
	4CEXL2.28A42	
	Detroit Diesel	4DDXL08.5YJD
		4DDXL12.7VGD
		4DDXL14.0VLD
4DDXL23.9WRE		
4DDXL31.8XRE		
4DDXL31.8XRE		
4DDXL35.8GRP		
4DDXL65.0GTP		
4DDXL65.0XTE		
4DDXL90.0XTP		
Deere	4JDXL02.9018	
	4JDXL03.0064	
	4JDXL03.0064	
	4JDXL04.5040	
	4JDXL04.5042	
	4JDXL04.5043	
	4JDXL06.8014	
	4JDXL06.8038	
	4JDXL06.8039	
	4JDXL06.8041	
	4JDXL06.8048	
	4JDXL06.8049	
4JDXL08.1037		

Model Year 2004 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>	
Deutz AG	4DZXL03.1039	
	4DZXL03.1040	
	4DZXL03.1041	
	4DZXL05.7033	
	4DZXL06.1038	
	4DZXL06.5035	
	4DZXL06.5036	
	4DZXL06.5037	
	4DZXL06.5042	
	4DZXL06.5043	
	4DZXL07.1005	
	4DZXL07.1032	
	4DZXL15.9002	
	4DZXL71.0021	
	Daewoo	4DWXL05.8C5A
		4DWXL05.8COA
4DWXL05.8CRN		
4DWXL08.1CPA		
4DWXL11.1BIA		
4DWXL11.1DJA		
4DWXL18.3ASC		
4DWXL2.37ANT		
4DWXL21.9AYA		
Isuzu	4SZXL02.2DNB	
	4SZXL02.2DNC	
	4SZXL02.2GNA	
	4SZXL03.1GTB	
	4SZXL04.3GTG	
	4SZXL06.5FXG	
	4SZXL15.7ETA	
4SZXL15.7EXA		
International Truck	4NVXL0530ANF	
Iveco	4VEXL05.9DGS	
	4VEXL12.9GEN	
Kubota	4KBXL03.3ACD	
	4KBXL03.3BAC	
	4KBXL03.3BCC	
	4KBXL03.8ACD	

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2004 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Komatsu	4KLXL0239AAD
	4KLXL0239AAF
	4KLXL0239ADA
	4KLXL0275AAC
	4KLXL0275AAD
	4KLXL03.3JA3
	4KLXL03.3JB3
	4KLXL03.3JD3
	4KLXL0359AAB
	4KLXL0359AAE
	4KLXL0359ABC
	4KLXL0505ABD
	4KLXL11.0DD3
	4KLXL15.2EC3
	4KLXL23.2FC2
	4KLXL23.2FD4
	4KLXL30.5GC1
	4KLXL30.5GD1
MACK Trucks	4MKXL11.9P69
	4MKXL11.9P72
MOTORENFABRIK HATZ	4HZXL3.43C42
	4HZXL3.43V42
Mitsubishi Heavy Ind.	4MVXL05.0AAA
	4MVXL05.0AAD
	4MVXL05.0AAE
	4MVXL24.5AAB
	4MVXL24.5ABA
	4MVXL24.5ABB
	4MVXL24.5ABD
	4MVXL24.5ABE
	4MVXL33.9AAA
	4MVXL33.9ABA
	4MVXL33.9ABB
	4MVXL33.9ABC
	4MVXL33.9ABC
	4MVXL33.9ABE
	4MVXL37.1ABB
	4MVXL37.1ABC
	4MVXL37.1ABD

Model Year 2004 Engines Continued

<b>Manufacturer</b>	<b>Engine Families</b>
Mitsubishi Heavy Ind (continued)	4MVXL49.0ABA
	4MVXL49.0ABB
	4MVXL49.0ABC
	4MVXL49.0ABD
	4MVXL49.0ABE
	4MVXL65.4ABA
	4MVXL65.4ABB
	4MVXL65.4ABC
	4MVXL65.4ABE
	4MVXL65.4ABF
	4MVXL65.4ABG
	4MVXL65.4ABH
MTU	4MTUL21.9R2A
Nissan Diesel	4NDXL02.7TNA
	4NDXL03.0FTA
AB Volvo Penta	4VPXL07.3ACB
	4VPXL09.4ACA
	4VPXL09.4ACB
	4VPXL09.6ACB
	4VPXL09.6ACC
	4VPXL12.1ABA
	4VPXL12.1ACA
	4VPXL12.1ACB
	4VPXL16.0ACB
Yanmar	4YDXL2.00M4T
	4YDXL3.05M4N
	4YDXL3.32J4N
	4YDXL3.32J4T
	4YDXL3.32K4N
	4YDXL3.32K4T
	4YDXL4.41K4N
	4YDXL4.41K4T
Perkins	4PKXL15.8H16
Scania AB	4Y9XL11.7BBG
	4Y9XL15.6BDA

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2005 Engines

Manufacturer	Engine Families
Caterpillar	5CPXL15.2ESK
	5CPXL15.8ERK
	5CPXL18.0ESK
	5CPXL27.0MRH
	5CPXL27.0MRS
	5CPXL27.0MRT
	5CPXL34.5ERK
	5CPXL58.6ERK
	5CPXL78.1ERK
	CNH Engine Corp.
5X9XL0359AAJ	
5X9XL0359AAK	
5X9XL0359ABE	
5X9XL0505AAB	
5X9XL0505ABD	
5X9XL0540AAB	
Cummins	5CEXL015.AAB
	5CEXL015.ABA
	5CEXL019.AAB
	5CEXL023.AAA
	5CEXL0239AAD
	5CEXL0239AAF
	5CEXL0239AAG
	5CEXL0275AAB
	5CEXL0275AAC
	5CEXL0275AAD
	5CEXL0275AAF
	5CEXL03.3ABA
	5CEXL03.3ABB
	5CEXL030.ABA
	5CEXL0359AAB
	5CEXL0359AAC
	5CEXL0359AAD
	5CEXL0359AAE
	5CEXL0359AAF
	5CEXL0359AAH
5CEXL0359ABC	
5CEXL0359ABE	
5CEXL0409AAB	

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
Cummins (continued)	5CEXL0409AAC
	5CEXL050.ABA
	5CEXL0505AAE
	5CEXL0505ABD
	5CEXL0505ACB
	5CEXL0540AAB
	5CEXL060.ABA
	5CEXL078.AAB
	5CEXL2.28A41
	5CEXL2.28A42
Detroit Diesel Corporation	5DDXL08.5YJD
	5DDXL15.9WRE
	5DDXL31.8XRR
	5DDXL35.8GRP
	5DDXL65.0GTE
	5DDXL65.0GTP
	5DDXL65.0XTE
	5DDXL90.0XTP
Deere	5JDXL02.9018
	5JDXL02.9050
	5JDXL04.5042
	5JDXL04.5051
	5JDXL04.5057
	5JDXL04.5076
	5JDXL04.5083
	5JDXL06.8014
	5JDXL06.8038
	5JDXL06.8039
	5JDXL06.8041
	5JDXL06.8048
	5JDXL06.8049
	5JDXL06.8078
	5JDXL06.8079
	5JDXL06.8082
5JDXL06.8101	
5JDXL08.1037	
5JDXL08.1059	
5JDXL09.0102	

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
Deutz	5DZXL02.3048
	5DZXL03.1039
	5DZXL03.1040
	5DZXL05.7033
	5DZXL06.1038
	5DZXL06.5035
	5DZXL06.5036
	5DZXL06.5037
	5DZXL06.5042
	5DZXL06.5043
	5DZXL07.1005
	5DZXL07.1032
	5DZXL15.9002
	5DZXL71.0021
Daewoo Heavy Ind.	5DWXL08.1CPA
	5DWXL18.3ASC
	5DWXL21.9AYA
MotorenFabrik HATZ GMBH	5HZXL3.43C42
	5HZXL3.43V42
Isuzu	5SZXL02.2GNA
	5SZXL03.1GTB
	5SZXL04.3GTG
	5SZXL06.5FXG
	5SZXL09.8EXA
	5SZXL15.7ETA
	5SZXL15.7EXA
Iveco	5VEXL05.9DGS
	5VEXL06.7DGA
	5VEXL12.9GEN
Komatsu	5KLXL0239AAD
	5KLXL0239AAF
	5KLXL0239ADA
	5KLXL0275AAC
	5KLXL0275AAD
	5KLXL03.3JA3
	5KLXL03.3JB3
	5KLXL03.3JD3
	5KLXL0359AAB
	5KLXL0359AAE
	5KLXL0359AAL
	5KLXL0359ABC
	5KLXL0409AAB

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
Komatsu (continued)	5KLXL0409AAC
	5KLXL0505ABD
	5KLXL11.0DD3
	5KLXL15.2EC3
	5KLXL23.2FC2
	5KLXL23.2FD4
	5KLXL30.5GC1
	5KLXL30.5GD1
Kubota	5KBXL03.3ACD
	5KBXL03.3BAC
	5KBXL03.3BCC
	5KBXL03.8ACD
KUKJ	5KMCL2.28A41
	5KMCL2.28A42
Lombardini Motori	5LBDL2.19CHT
Mitsubishi Heavy Industries	5MVXL05.0AAA
	5MVXL05.0AAC
	5MVXL05.0AAD
	5MVXL05.0AAE
	5MVXL24.5ABB
	5MVXL33.9ABB
	5MVXL37.1ABC
	5MVXL49.0ABD
	5MVXL65.4ABB
	5MVXL65.4ABH
MITF	5MFTL07.5D6A
MTU- Friedrichshafen	5MTUL21.9R2A
Nissan Diesel	5NDXL02.7TNA
	5NDXL03.0FTA
Power Systems	5JCBL04.40TC
VMMI	5V5XL02.8R6V
	5V5XL03.0R6T
	5V5XL03.0R6W
	5V5XL04.2S5V

**Attachment 1: : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2005 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
AB Volvo Penta	5VPXL07.3ACB
	5VPXL09.4ACA
	5VPXL09.4ACB
	5VPXL09.4ACC
	5VPXL09.6ACB
	5VPXL12.1ABA
	5VPXL12.1ACA
	5VPXL12.1ACB
	5VPXL16.1ACB
	5VPXL16.1ACC
	5VPXL16.1ACD
	5VPXL16.1ACE
	5VPXL16.1ACF
Yanmar	5YDXL2.00M4T
	5YDXL3.05M4N
	5YDXL3.32J4N
	5YDXL3.32J4T
	5YDXL3.32K4N
	5YDXL3.32K4T
	5YDXL4.41K4N
	5YDXL4.41K4T

Model Year 2006 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
AB Volvo Penta	6VPXL12.1BAA
	6VPXL16.1ACB
	6VPXL9.4BAA
Caterpillar	6CPXL15.2ESK
	6CPXL18.0ESK
	6CPXL18.1ESL
	6CPXL32.0ESK
	6CPXL34.5E2T
	6CPXL58.6E2T
	6CPXL78.1E2T
CNH Engine Corp.	6X9XL0239AAC
	6X9XL0359AAJ
	6X9XL0359AAM
	6X9XL0359ABE
	6X9XL0505ABD
	6X9XL0540AAB
Cummins	6CEXK0505AAE
	6CEXL015.AAB
	6CEXL0239AAD
	6CEXL0239AAF
	6CEXL0239AAG
	6CEXL0275AAB
	6CEXL0275AAC
	6CEXL0275AAD
	6CEXL0275AAF
	6CEXL0275AAI
	6CEXL03.3ABB
	6CEXL03.3ABC
	6CEXL030.AAD
	6CEXL0359AAB
	6CEXL0359AAC
	6CEXL0359AAD
	6CEXL0359AAF
	6CEXL0359AAN
	6CEXL0359ABC
	6CEXL0409AAB
	6CEXL0409AAC
	6CEXL050.AAD
	6CEXL0540AAB
	6CEXL060.AAD
	6CEXL078.AAB

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2006 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
DAIMLERCHRYSLER	6MBXL7.20RJA
Deere	6JDXL02.9050
	6JDXL03.0063
	6JDXL03.0064
	6JDXL04.5042
	6JDXL04.5043
	6JDXL04.5051
	6JDXL04.5057
	6JDXL04.5076
	6JDXL04.5083
	6JDXL06.8014
	6JDXL06.8038
	6JDXL06.8039
	6JDXL06.8041
	6JDXL06.8048
	6JDXL06.8049
	6JDXL06.8078
	6JDXL06.8082
	6JDXL06.8101
	6JDXL08.1037
	6JDXL09.0102
	6JDXL12.5035
	6JDXL12.5073
Detroit Diesel Corporation	6DDXL14.0VLD
	6DDXL31.8XRR
Hino	6HMXL07.7JTM
Isuzu	6SZXL04.3GTG
	6SZXL05.2HXA
	6SZXL05.2IXA
	6SZXL06.5FXG
	6SZXL07.8HXA
	6SZXL15.7HXA
Iveco	6VEXL04.5DGT
JCB	6JBCL04.40NA
	6JCBL04.40TC
	6JCBL04.40TC

Model Year 2006 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
Komatsu	6KLXL0239AAD
	6KLXL0239AAF
	6KLXL0239ADA
	6KLXL0275AAC
	6KLXL0275AAD
	6KLXL0275AAI
	6KLXL03.3JB3
	6KLXL03.3JD3
	6KLXL0359AAB
	6KLXL0359AAE
	6KLXL0359AAL
	6KLXL0359ABC
	6KLXL0409AAB
	6KLXL0409AAC
	6KLXL0505ABD
Kubota	6KBXL03.3ACD
	6KBXL03.3CCD
	6KBXL03.8ACD
Mitsubishi Fuso Truck & Bus Corp	6MFTL05.8D3A
Mitsubishi Heavy Industries	6MVXL03.3DDE
	6MVXL04.2AAA
	6MVXL05.0AAA
	6MVXL05.0AAD
	6MVXL05.0AAE
	6MVXL05.0DDD
	6MVXL06.4AAB
	6MVXL06.4DDD
	6MVXL06.4EEE
MotorenFabrik HATZ GMBH	6HZXL3.43C42
	6HZXL3.43V42
VMMI	6V5XL03.0R6T
	6V5XL04.2G5V
	6V5XL04.2S5V
Yanmar	6YDXL3.32J4T
	6YDXL3.32K4T
	6YDXL4.41K4N
	6YDXL4.41K4T

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2007 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
AB Volvo Penta	7VPXL09.4BAA
	7VPXL12.1BAA
	7VPXL16.1ACB
Anhui Quanchai	7ANHL3.86QCD
Caterpillar	7CPXL07.2ESL
	7CPXL08.8ESK
	7CPXL11.1ESK
	7CPXL12.5ESK
	7CPXL15.2ESK
	7CPXL15.2ESL
	7CPXL18.1ESK
	7CPXL18.1ESL
	7CPXL27.0ESK
	7CPXL32.0ESK
	7CPXL51.8E2W
	7CPXL78.1ERK
	7CPXL34.5T2E
	7CPXL58.6T2E
7CPXL78.1T2E	
CNH Engine Corp.	7X9XL0505AAE
	7X9XL0540AAB
	7X9XL0239AAB
	7NHXL04.5DAA
	7NHXL04.5DCA
	7NHXL04.5DNA
	7NHXL06.7DAA
	7NHXL06.7DCA
	7NHXL06.7DCB
	7NHXL06.7DTA
7NHXL06.7DTC	
Cummins	7CEXL015.AAA
	7CEXL015.AAB
	7CEXL015.AAE
	7CEXL019.AAD
	7CEXL023.AAA
	7CEXL0239AAG
	7CEXL0275AAC
	7CEXL0275AAD
	7CEXL0275AAF
	7CEXL0275AAG
	7CEXL0275AAH
	7CEXL03.3ABA
7CEXL03.3ABB	

Model Year 2007 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
Cummins (cont.)	7CEXL03.3ACA
	7CEXL03.3ACB
	7CEXL030.AAB
	7CEXL030.AAD
	7CEXL030.ABA
	7CEXL038.AAA
	7CEXL0409AAB
	7CEXL0409AAC
	7CEXL045.AAA
	7CEXL050.AAC
	7CEXL050.AAD
	7CEXL050.ABA
	7CEXL0505AAE
	7CEXL0540AAB
	7CEXL060.AAB
	7CEXL060.AAD
	7CEXL0661AAF
	7CEXL0661AAG
	7CEXL0661AAH
	7CEXL0661AAJ
7CEXL078.AAA	
7CEXL078.AAB	
DAIMLERCHRYSLER	7MBXL12.8RJB
	7MBXL15.9RJA
Deere	7JDXL02.4074
	7JDXL02.9017
	7JDXL02.9050
	7JDXL02.9088
	7JDXL03.0063
	7JDXL03.0064
	7JDXL04.5040
	7JDXL04.5042
	7JDXL04.5043
	7JDXL04.5051
	7JDXL04.5057
	7JDXL04.5062
	7JDXL04.5075
	7JDXL04.5076
	7JDXL04.5081
	7JDXL04.5083
7JDXL06.8014	
7JDXL06.8038	
7JDXL06.8039	



**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2007 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
Deere (continued)	7JDXL06.8041
	7JDXL06.8044
	7JDXL06.8048
	7JDXL06.8049
	7JDXL06.8078
	7JDXL06.8080
	7JDXL06.8082
	7JDXL06.8084
	7JDXL06.8101
	7JDXL06.8104
	7JDXL06.8105
	7JDXL06.8106
	7JDXL08.1037
	7JDXL09.0102
	7JDXL12.5035
	7JDXL12.5073
	7JDXL13.5103
Detroit Diesel Corporation	7DDXL14.0VLD
	7DDXL14.0WLD
Deutz	7DZXL03.1039
	7DZXL03.1040
	7DZXL03.1066
	7DZXL06.1038
	7DZXL06.1059
	7DZXL06.1060
	7DZXL06.1061
	7DZXL06.1063
	7DZXL06.5042
	7DZXL06.5043
	7DZXL07.1005
	7DZXL07.1051
	7DZXL07.1053
	7DZXL07.1055
	7DZXL15.9065
	Doosan Infracore
7DWXL05.8UTA	
7DWXL07.6UPA	
7DWXL11.0UJA	
7DWXL21.9UYA	

Model Year 2007 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
GNH UK LTD	7NHXL06.7DCC
Hino Motors	7HMXL04.0WDH
	7HMXL05.1JTA
	7HMXL07.7JTM
	7HMXL10.5PUN
Ishikawajima-Shibaura Machinery	7H3XL2.00N4T
	7H3XL2.22N4L
	7H3XL2.22N4T
	7H3XL2.22TIC
Isuzu	7SZXL02.2GNA
	7SZXL03.0IXA
	7SZXL03.1GNA
	7SZXL03.1GNB
	7SZXL03.1GTB
	7SZXL04.3GTA
	7SZXL04.3GTG
	7SZXL04.3GXA
	7SZXL05.2HXA
	7SZXL05.2IXA
	7SZXL07.8HXA
	7SZXL07.8HXB
	7SZXL09.8HXA
7SZXL15.7HXA	
IVECO	7VEXL03.9B1X
	7VEXL03.9B1Z
	7VEXL04.5DAA
	7VEXL04.5DGN
	7VEXL04.5DGT
	7VEXL04.5DNA
	7VEXL06.7DAA
	7VEXL06.7DCA
	7VEXL06.7DCB
	7VEXL06.7DCC
	7VEXL06.7DGB
	7VEXL06.7DGS
7VEXL06.7DTA	
7VEXL06.7DTC	
7VEXL08.7TR3	
7VEXL10.3MLR	

**Attachment 1: : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2007 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
IVECO (continued)	7VEXL12.9IGR
	7VEXL12.9MLR
	7VEXL12.9TR3
	7VEXL20.1DSL
JCB Power	7JCBL04.40NA
	7JCBL04.40TC
Komatsu	7KLXL0239ADA
	7KLXL0275AAC
	7KLXL0275AAD
	7KLXL0275AAG
	7KLXL0275AAH
	7KLXL03.3JA3
	7KLXL03.3JB3
	7KLXL03.3JD3
	7KLXL03.3JD6
	7KLXL03.3JD7
	7KLXL0359AAE
	7KLXL038.AAA
	7KLXL0409AAB
	7KLXL0409AAC
	7KLXL045.AAA
	7KLXL050.AAC
	7KLXL0505AAE
	7KLXL060.AAB
	7KLXL078.AAA
	7kixl11.0DD6
	7KLXL11.0DD6
	7KLXL15.2ED6
	7kixl15.2ED6
7KLXL15.2ED7	
7KLXL23.2FD6	
7KLXL30.5GD3	

Model Year 2007 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
Kubota	7KBXL02.0EAD
	7KBXL02.0FAD
	7KBXL02.4EAD
	7KBXL02.4FAD
	7KBXL02.4GCD
	7KBXL02.4HCD
	7KBXL02.8BCD
	7KBXL03.3AAD
	7KBXL03.3ACD
	7KBXL03.3BAC
	7KBXL03.3BAD
	7KBXL03.3BBB
	7KBXL03.3BCC
	7KBXL03.3BCD
	7KBXL03.3CCD
	7KBXL03.8AAD
	7KBXL03.8ACD
7KBXL03.8AHD	
Lombardini S.R.L.	7LBDL2.19CHT
MAHINDRA & MAHINDRA LTD.,	7MMLL03.1NEF
	7MMLL03.2NEF
	7MMLL03.2NET
	7MMLL03.4NEF
	7MMLL03.5NEF
Mitsubishi Fuso Truck & Bus Corp	7MFTL02.8M4A
	7MFTL04.9M5A
	7MFTL07.5M6A
	7MFTL12.9M7A

**Attachment 1 : Rypos ADPF Active Diesel Particulate Filter  
Off- Road Certified Engine Family List (0<=0.4 g/bhp-hr PM)**

Model Year 2007 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
Mitsubishi Heavy Industries	7MVXL02.5CCC
	7MVXL03.3DDE
	7MVXL04.2AAA
	7MVXL05.0AAA
	7MVXL05.0AAC
	7MVXL05.0AAD
	7MVXL05.0AAE
	7MVXL06.4FFF
	7MVXL24.5BBA
	7MVXL33.9BBA
	7MVXL37.1BBA
	7MVXL49.0BBA
	7MVXL65.4BBA
	MotorenFabrik HATZ GMBH
7HZXL3.43C42	
7HZXL3.43V42	
MTU Detroit Diesel, Inc.	7MDDL31.8XRR
Nissan	7NDXL02.7TNA
	7NDXL03.0FTA
	7NDXL03.2TNA
Perkins Engines	7PKXL03.3DD1
	7PKXL04.4NH1
	7PKXL04.4RE1
	7PKXL04.4RH1
	7PKXL04.4RG1
	7PKXL06.6PJ1
	7PKXL06.6PJ2
	7PKXL15.2TA2
	7PKXL15.2TAG
	7PKXL18.1TAG
	SCANIA CV AB
7Y9XL11.7BBB	
7Y9XL15.6BDE	

Model Year 2007 Engines (Continued)

<b>Manufacturer</b>	<b>Engine Families</b>
Shandong Weichai Huafeng Power	7SDWL4.33AAA
	7SDWL4.33BBB
	7SDWL7.52AAA
Sisu Diesel	7SIDL03.3G4A
	7SIDL04.4J2A
	7SIDL07.4G4D
	7SIDL07.4G4E
	7SIDL07.4G5B
	7SIDL07.4G5C
Toyota	7TALL02.51DZ
	7TALL04.613Z
VM Motori	7V5XL02.8R6V
	7V5XL03.0R6T
Volvo Construction Equipment AB	7VSXL09.4CE3
	7VSXL12.1CE3
	7VSXL16.1CE3
Yanmar	7YDXL2.00M4T
	7YDXL3.05M4N
	7YDXL3.05P4N
	7YDXL3.32J4N
	7YDXL3.32J4T
	7YDXL3.32K4T
	7YDXL3.32P4N
	7YDXL4.41K4N
Zetor North America	76AXL4.16IUH
	76AXL4.16TUL