Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 1996 Engines

Manufacturer	Engine Families
Caterpillar	TCP10.RZDBRD
	TCP10.RZDBRF
	TCP10.RZDBRK
	TCP12.RZDBRM
	TCP14.RZDBRC
	TCP14.RZDBRK
	TCP18.RZDBRK
	TCP18.RZDBRN
	TCP27.RZDBRK
	TCP27.RZDBRP
	TCP7.2RZDBRK
Cummins	TCE359R6DTRA
	TCE505R6DTRD
	TCE661RGDTRA
	TCE855RGDTRA
	TCE855RJDTRA
Detroit Diesel Corporation	TDD11.TJDARE
	TDD12.TJDARE
	TDD8.5TJDARE
Deere	TJD10.RJDBRA
	TJD10.RJDBRB
	TJD12.RJDBRA
	TJD8.1R6DBRB
Deutz AG	TDZ7.1R6DARB
Generac	TGN13.R6DARA
Iveco	TVE9.5R6DARA
Komatsu	TKL15.RZDARA
Navistar	TNV466R6DARA
	TNV466R6DARB
	TNV466R6DASD
	TNV530R6DARA
	TNV530R6DARB
	TNV530R6DASD
	TNV530R8DASC
	TNV530R8DASE
Volvo	TVS12.R6DARA
	TVS16.R6DARA
	TVS6.7R6DARA
	TVS9.6R6DARA

Model Year 1997 Engines

Manufacturer	Engine Families
Caterpillar	VCP10.RZDARK
	VCP12.RZDARM
	VCP14.RZDARC
	VCP14.RZDARK
	VCP18.RZDARK
	VCP27.RZDARK
	VCP27.RZDARN
	VCP27.RZDARP
	VCP442DZDARK
	VCP7.2RZDARK
Cummins	VCE359R6DTRB
	VCE505R6DTRD
	VCE661RGDTRA
	VCE855RGDTRA
Detroit Diesel Corporation	VDD11.TJDARE
	VDD12.TG4ARE
	VDD12.TJDARE
	VDD8.5TJDARE
	VDD9.0TJ30AE
Deere	VJD10.RJDBRA
	VJD10.RJDBRB
	VJD12.RJDBRA
	VJD12.RJDBRB
	VJD8.1RBDRB
Deutz AG	VDZ16.RGDARA
	VDZ16.RGDARB
	VDZ7.1R6DARB
Generac	VGN13.R6DARA
Iveco	VVE9.5R6DARA
Navistar	VNV466R6DASC
	VNV466R6DASD
	VNV530R6DARA
	VNV530R6DARB
	VNV530R6DASC
	VNV530R6DASD
	VNV530R8DARA
	VNV530R8DASC
	VNV530R8DASE
Volvo	VVS12.R6DARA
	VVS16.R6DARA
	VVS6.7R6DARA
	VVS9.6R6DARA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 1998 Engines

Manufacturer	Engine Families
AB Volvo Penta	Wvpxl06.7aba
	wvpxl09.6aba
	Wvpxl09.6acb
	wvpxl12.0aba
	Wvpxl12.0acb
Case	WX9XL0239ACA
	WX9XL0359ABA
	WX9XL0505ABC
Caterpillar	WCPXL07.2HRK
	WCPXL07.2MRC
	WCPXL10.3ERK
	wcpXL10.5Mrd
	WCPXL10.5MRF
	WCPXL10.5MRG
	WCPXL12.0ERM
	WCPXL14.6MRC
	WCPXL14.6MRJ
	WCPXL15.8ERK
	WCPXL18.0HRK
	WCPxl27.0HRK
	WCPXL27.0HRP
Cummins	WCEXL0359ABB
	WCEXL0239ACA
	WCEXL0359ABA
	WCEXL0505ACA
	WCEXL0661AAA
	WCEXL0855AAB
	WCEXL0855AAA
	WCEXL0359ACA
	WCEXL0505ABC
Daewoo	WDWXL03.3AMN
	WDWXL03.3LMN
	WDWXL05.8AOA
	WDWXL05.8ARN
	WDWXL08.1ADT
	WDWXL11.1BHT
	WDWXL11.1BIA
	WDWxl14.6CVT

Model Year 1998 Engines Continued

Manufacturer	Engine Families
Deere	WJDXL08.1008
	WJDXL10.5003
	WJDXL10.5004
	WJDXL12.5001
	WJDXL12.5002
Detroit Diesel Corporation	WDDXH08.5EJD
	WDDXH08.5FJC
	WDDXH11.1EHD
	WDDXL08.5TJD
	WDDXL11.1THD
	WDDXL12.1TFM
	WDDXL12.7TGD
	WDDXL15.9TRE
	WDDXL23.9TRE
Deere	WJDXL06.8012
	WJDXL08.1007
	WJDXL08.1008
	WJDXL08.1009
	WJDXL10.5003
	WDWXL03.3AMN
Detroit Diesel Corporation	WDDXH08.5EJD
	WDDXH08.5FJC
	WDDXH11.1EHD
	WDDXL08.5TJD
	WDDXL11.1THD
	WDDXL12.1TFM
	WDDXL12.7TGD
	WDDXL15.9TRE
	WDDXL23.9TRE
Deutz	WDZXL02.7013
	WDZXL02.7014
	WDZXL02.9012
	WDZXL07.1003
	WDZXL07.1004
	WDZXL15.9001
	WDZXL15.9002

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 1998 Engines Continued

Manufacturer	Engine Families
Generac	WGNXL13.3HTA
Komatsu	WKDXL0239ACA
	WKDXL0359ABA
	WKDXL0359ACA
	WKLXL15.2eb1
	WKLXL15.2ec1
	WKLXL7.15CB1
MTU	WMUXL12.0G2V
Navistar	wnvxl0530bna
	wnvxl0530bnb
	wnvxl0530bnc
	wnvxl0530bnd
	wnvxl0466bna
	WNVXL0530ANA
	WNVXL0530ANB
Sisu	WSIDL07.4D4A
	WSIDL08.4F3A
Volvo	WVSXL06.7CE1
	WVSXL09.6CE1
	WVSXL12.0CE1
	WVSXL16.0CE1
Yanmar	WYDXL2.00D4T

Model Year 1999 Engines

Manufacturer	Engine Families
AB Volvo Penta	XVPXL06.7ABA
	XVPXL07.3ABB
	XVPXL07.3ACB
	XVPXL09.6ABA
	XVPXL09.6ACB
	XVPXL12.0ABA
	XVPXL12.0ACB
Case	XX9XL0239ACA
	XX9XL0359ABA
	XX9XL0505ABC
Caterpillar	XCPXL07.2HRK
	XCPXL10.3ERK
	XCPXL10.5MRD
	XCPXL10.5MRG
	XCPXL12.0ERM
	XCPXL14.6ERK
	XCPXL14.6MRC
	XCPXL15.8ERK
	XCPXL18.0HRK
	XCPXL27.0HRK
	XCPXL27.0HRN
	XCPXL27.0HRP
Cummins	XCEXL0359ABB
	XCEXL0239ACA
	XCEXL0359ABA
	XCEXL0505ACA
	XCEXL0661AAA
	XCEXL0661AAB
	XCEXL0855AAA
	XCEXL0855AAB
	XCEXL03.3AAB
	XCEXL0359ACA
	XCEXL0505ABC

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 1999 Engines Continued

Manufacturer	Engine Families
Daewoo	XDWXL03.3AMN
	XDWXL03.3LMN
	XDWXL05.8AOA
	XDWXL05.8ARN
	XDWXL05.8ATT
	XDWXL08.1ACN
	XDWXL08.1ADT
	XDWXL11.1BHT
	XDWXL11.1BIA
	XDWXL03.3BMA
	XDWXL11.1DJA
	XDWXL14.6AZA
	XDWXL18.3ASA
	XDWXL2.37ANT
Detroit Diesel Corporation	XDDXL08.5TJD
	XDDXL11.1THD
	XDDXL12.1TFM
	XDDXL12.7TGD
	XDDXL14.0TLD
	XDDXL15.9TRE
	XDDXL23.9TRE
Deere	XJDXL10.5004
	XJDXL10.5022
	XJDXL12.5001
	XJDXL12.5002
	XJDXL12.5020
	XJDXL12.5021
Deutz AG	WDZXL02.7014
	XDZXL02.7014
	XDZXL02.7015
	XDZXL02.9013
	XDZXL07.1004
	XDZXL07.1005
	XDZXL15.9002
	XDZXL15.9003
Generac	XGNXL13.3HTA

Model Year 1999 Engines Continued

Manufacturer	Engine Families
Komatsu	XKDXL0239ACA
	XKDXL0359ABA
	XKDXL0359ACA
	XKLXL15.2EB1
	XKLXL15.2EC1
	XKLXL23.2FD1
	XKLXL7.15CB1
KUBOTA	XKBXL03.3BAC
	XKBXL03.3BCC
Navistar	XNVXL0530BNA
	XNVXL0530BNB
	XNVXL0530BNC
	XNVXL0530BND
	XNVXL0466ANA
	XNVXL0466BNA
	XNVXL0530ANA
	XNVXL0530ANB
	XNVXL0530ANC
Sisu	XSIDL04.4B2A
	XSIDL07.4D4A
Volvo	XVSXL06.7CE1
	XVSXL09.6CE1
	XVSXL12.0CE1
	XVSXL16.0CE1
Yanmar	XYDXL2.00D4T
	XYDXL2.19D4N
	XYDXL2.78D4N
	XYDXL4.41D4N
	XYDXL4.41D4T

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2000 Engines

Manufacturer	Engine Families
AB Volvo Penta	YVPXL05.5AAA
	YVPXL06.7ABA
	YVPXL07.3ABB
	YVPXL07.3ACB
	YVPXL09.6ABA
	YVPXL09.6ACB
	YVPXL12.0ABA
	YVPXL12.0ACB
	YVPXL16.0ABA
Case	YX9XL0239ACA
	YX9XL0239ADA
	YX9XL0359ABA
	YX9XL0359ABB
	YX9XL0505ABC
Caterpillar	YCPXL69.0ERK
	YCPXL07.2HRK
	YCPXL10.3ERK
	YCPXL10.5MRD
	YCPXL10.5MRG
	YCPXL12.0ERM
	YCPXL14.6ERK
	YCPXL14.6MRC
	YCPXL14.6MRJ
	YCPXL15.8ERK
	YCPXL18.0HRK
	YCPXL18.0HRN
	YCPXL27.0HRK
	YCPXL27.0HRN
	YCPXL27.0HRP
	YCPXL27.0MRS
	YCPXL27.0MRT
	YCPXL34.5ERK
	YCPXL51.8ERK

Model Year 2000 Engines Continued

Manufacturer	Engine Families
Cummins	YCEXL060.AAA
	YCEXL060.ABA
	YCEXL0359ABB
	YCEXL0239ACA
	YCEXL0239ADA
	YCEXL0359ABA
	YCEXL0359ABC
	YCEXL0505ACA
	YCEXL0661AAA
	YCEXL0661AAB
	YCEXL0855AAA
	YCEXL0855AAB
	YCEXL03.3AAB
	YCEXL015.ABA
	YCEXL030.AAA
	YCEXL030.ABA
	YCEXL0359ACA
	YCEXL0505ABC
	YCEXL1015.ACA
Daewoo	YDWXL08.1ACN
	YDWXL03.3AMN
	YDWXL03.3BMA
	YDWXL03.3LMN
	YDWXL05.8ARN
	YDWXL14.6AZA
	YDWXL18.3ASA
	YDWXL21.9AYA
	YDWXL05.8AOA
	YDWXL2.37ANT
	YDWXL11.1BIA
	YDWXL11.1DJA
Daimler Chrysler	YMBXL12.0RJA
	YMBXL12.0RJB
	YMBXL12.9R6A
	YMBXL15.9RJA
	YMBXL4.25RJA
	YMBXL6.37RJA
Deere	YJDXL10.5004
	YJDXL10.5022
	YJDXL12.5002
	YJDXL12.5020

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2000 Engines Continued

Manufacturer	Engine Families
Detroit Diesel Corporation	YDDXL08.5TJD
	YDDXL11.1THD
	YDDXL12.1TFM
	YDDXL12.7TGD
	YDDXL14.0TLD
	YDDXL15.9TRE
	YDDXL23.9TRE
	YDDXL31.8VRE
	YDDXL65.0VTE
Deutz AG	YDZXL02.7014
	YDZXL02.9013
	YDZXL05.7019
	YDZXL07.1004
	YDZXL07.1005
	YDZXL15.9002
	YDZXL15.9003
Escorts	YAELL2.86FTD
	YAELL3.14FTD
Genrac	YGNXL13.3HTA
Isuzu	YSZXL04.3GXA
	YSZXL06.5EXA
	YSZXL06.5FXA
	YSZXL07.8EXA
IVECO	YVEXL09.5DAR
Komatsu	YKLXL0239ACA
	YKLXL030.AAA
	YKLXL0359ABA
	YKLXL0359ABC
	YKLXL11.0DD1
	YKLXL0359ACA
	YKLXL03.3JB1
	YKLXL11.0DC1
	YKLXL15.2EC1
	YKLXL30.5GD1
	YKLXL30.5GE1
	YKLXL7.15CB1
	YKLXL7.15CD1
	YKLXL15.2EB1
Kubota	YKBXL02.4GCD
	YKBXL03.3AAD
	YKBXL03.3ACD

Model Year 2000 Engines Continued

Manufacturer	Engine Families
Liebherr	YLHAL17.2ARA
	YLHAL17.2ATA
	YLHAL9.96ARA
	YLHAL9.96ASA
	YLHAL9.96ATA
MAN	YMNXL12.8001
	YMNXL6.87002
Mitsubishi	YMTXL07.5D6A
	YMTXL11.9D2A
MWM Motores	YMWML06.46AI
Navistar	YNVXL0466ANA
	YNVXL0530ANA
	YNVXL0530ANB
	YNVXL0530ANC
	YNVXL0530AND
SCANIA AB	YY9XL09.0BAD
	YY9XL11.7ABA
	YY9XL11.7ABB
Sisu Diesel Inc.	YSIDL07.4D4A
VM Motori	YV5XL02.8R2T
	YV5XL04.2S1T
Volvo	YVSXL06.7CE1
	YVSXL09.6CE1
	YVSXL12.0CE1
	YVSXL16.0CE1

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2001 Engines

Manufacturer	Engine Families
AB Volvo Penta	1VPXL05.5AAA
	1VPXL06.7ABA
	1VPXL07.3ABB
	1VPXL07.3ACB
	1VPXL09.6ABA
	1VPXL09.6ACB
	1VPXL12.1ACB
	1VPXL16.0ACB
Case	1X9XL0239ACA
	1X9XL0239ADA
	1X9XL0359ABA
	1X9XL0359ABB
	1X9XL0505ABC
	1X9XL0505ACC
	1X9XL0540AAA
Caterpillar	1CPXL07.2HRK
	1CPXL07.2HSK
	1CPXL08.8HSK
	1CPXL10.3ESK
	1CPXL10.5MRD
	1CPXL10.5MRF
	1CPXL10.5MRG
	1CPXL12.0ESK
	1CPXL14.6ERK
	1CPXL14.6ESK
	1CPXL15.8ERK
	1CPXL15.8ESK
	1CPXL18.0HRK
	1CPXL18.0HSK
	1CPXL27.0HRK
	1CPXL27.0HRN
	1CPXL27.0HRP
	1CPXL27.0MRS
	1CPXL27.0MRT
	1CPXL34.5ERK
	1CPXL58.6ERK
	1CPXL78.1ERK

Model Year 2001 Engines Continued

Manufacturer	Engine Families
Cummins	1CEXL015.AAA
	1CEXL015.ABA
	1CEXL019.AAC
	1CEXL0239ACA
	1CEXL0239ADA
	1CEXL03.3AAB
	1CEXL030.AAA
	1CEXL030.ABA
	1CEXL0359ABA
	1CEXL0359ABB
	1CEXL0359ABC
	1CEXL0359ABD
	1CEXL0359ACA
	1CEXL0505ABC
	1CEXL0505ACC
	1CEXL0540AAA
	1CEXL060.AAA
	1CEXL060.ABA
	1CEXL0661AAA
	1CEXL0661AAB
	1CEXL0661AAC
	1CEXL0661AAD
Daewoo	1DWXL03.3AMN
	1DWXL03.3BMA
	1DWXL03.3LMN
	1DWXL05.8AOA
	1DWXL05.8ARN
	1DWXL08.1ACN
	1DWXL14.6AZA
	1DWXL18.3ASA
	1DWXL2.37ANT
	1DWXL21.9AYA
DaimlerChrysler AG	1MBXL12.0RJB
	1MBXL12.0RJC
	1MBXL12.9R6A
	1MBXL15.9RJA
	1MBXL21.9R6A
	1MBXL4.25RJA
	1MBXL6.37RJA
	1MBXL6.37RJB
	1MBXL7.20RJA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2001 Engines Continued

Manufacturer	Engine Families
Deere	1JDXL08.1008
	1JDXL08.1036
	1JDXL08.1037
	1JDXL12.5002
	1JDXL12.5029
	1JDXL12.5035
Detroit Diesel Corporation	1DDXL08.5TJD
	1DDXL12.7VGD
	1DDXL14.0VLD
	1DDXL14.0WLD
	1DDXL15.9WRE
	1DDXL23.9WRE
	1DDXL31.8VRE
	1DDXL31.8XRE
	1DDXL65.0XTE
Deutz	1DZXL02.7014
	1DZXL02.7015
	1DZXL02.9013
	1DZXL05.7019
	1DZXL06.1028
	1DZXL07.1004
	1DZXL07.1005
	1DZXL15.9002
	1DZXL15.9003
Generac	1GNXL04.0HAA
	1GNXL04.0HNA
	1GNXL05.0FAA
International	1NVXL0466ANA
	1NVXL0530ANA
	1NVXL0530ANB
	1NVXL0530ANC
	1NVXL0530AND
	1NVXL0530ANE
	1NVXL0530ANF
Isuzu	1SZXL04.3GXA
	1SZXL06.5EXA
	1SZXL06.5FTA
	1SZXL06.5FXA
	1SZXL07.8ATA
	1SZXL09.8EXA
	1SZXL15.7ETA
	1SZXL15.7EXA

Model Year 2001 Engines Continued

Manufacturer	Engine Families
Iveco	1VEXL07.8CRS
	1VEXL09.5DAR
	1VEXL10.3CRS
	1VEXL12.9CRS
Komatsu	1KLXL0239ACA
	1KLXL0239ADA
	1KLXL030.AAA
Komatsu	1KLXL0359ABA
	1KLXL0359ABC
	1KLXL0359ACA
	1KLXL03.3JB1
	1KLXL11.0DD3
	1KLXL11.0DD4
	1KLXL15.2EC3
	1KLXL15.2ED3
	1KLXL23.2FC3
	1KLXL23.2FD3
	1KLXL30.5GC1
	1KLXL30.5GD1
	1KLXL30.5GE1
	1KLXL7.15CB1
	1KLXL7.15CD1
	1KLXL15.2EB1
Liebherr	1LHAL17.2ARA
	1LHAL17.2ATA
	1LHAL17.2AUA
	1LHAL9.96ARA
	1LHAL9.96ATA
	1LHAL9.96AUA
MAN	1MNXL6.87002
Mitsubishi	1MVXL24.5AAB
	1MTXL07.5D6A
MTU Friedrichshafen	1MTUL21.9R2A
MWM Motores	1MWML06.46AI
New Holland UK Ltd	1NHXL07.5A3A
SCANIA AB	1Y9XL09.0BAD
	1Y9XL11.7BBA
Sisu Diesel Inc.	1SIDL07.4D4A
	1SIDL08.4F3A
VM Motori S.p.A.	1V5XL02.8R2T
	1V5XL04.2S1T

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2001 Engines Continued

Manufacturer	Engine Families
Volvo	1VSXL06.7CE1
	1VSXL09.6CE1
	1VSXL12.0CE1
	1VSXL12.1CE2
Westerbeke	1X7XL03.5AAD

Model Year 2002 Engines

Manufacturer	Engine Families
AB VOLVO PENTA	2VPXL05.5AAA
	2VPXL06.7ABA
	2VPXL07.3ABB
	2VPXL07.3ACB
	2VPXL09.6ABA
	2VPXL09.6ACB
	2VPXL12.1ACA
	2VPXL12.1ABA
	2VPXL12.1ACB
Caterpillar	2CPXL07.2HRK
	2CPXL07.2HSK
	2CPXL08.8HSX
	2CPXL10.3ESK
	2CPXL10.5MRD
	2CPXL10.5MRF
	2CPXL10.5MRG
	2cpxl12.0eSK
	2CPXL14.6ESK
	2cpxl15.8erk
	2cpxl15.8eSk
	2cpxl18.0hSk
	2cpxl27.0hrk
	2CPXL27.0HRP
	2cpxl27.0mrS
	2cpxl27.0mrT
	2CPXL34.5ERK
	2CPXL58.6ERK
	2CPXL78.1ERK

Model Year 2002 Engines Continued

Manufacturer	Engine Families
CNH	2X9XL0239ACA
	2X9XL0239ADA
	2X9XL0359ABA
	2X9XL0359ABB
	2X9XL0359ABE
	2X9XL0505ABC
	2X9XL0505ABD
	2X9XL0505ACC
	2X9XL0540AAA
	2NHXL06.7DCR
Cummins	2CEXL015.AAA
	2CEXL015.AAB
	2CEXL015.ABA
	2CEXL0239ACA
	2CEXL0239ADA
	2CEXL03.3AAB
	2CEXL030.AAA
	2CEXL030.ABA
	2CEXL0359ABA
	2CEXL0359ABB
	2CEXL0359ABC
	2CEXL0359ABD
	2CEXL0359ABE
	2CEXL0359ACA
	2CEXL0505ABC
	2CEXL0505ABD
	2CEXL0505ACB
	2CEXL0505ACC
	2CEXL0505ACE
	2CEXL0540AAA
	2CEXL060.AAA
	2CEXL060.ABA
	2CEXL0661AAA
	2CEXL0661AAB
	2CEXL0661AAC
	2CEXL0661AAD
	2CEXL078.AAA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2002 Engines Continued

Manufacturer	Engine Families
Daewoo	2DWXL03.3AMN
	2DWXL03.3BMA
	2DWXL03.3LMN
	2DWXL05.8AOA
	2DWXL05.8ARN
	2DWXL2.37ANT
	2DWXL21.9AYA
Deere	2JDXL06.8039
	2JDXL06.8049
	2JDXL08.1008
	2JDXL08.1036
	2JDXL08.1037
	2JDXL12.5029
	2JDXL12.5035
Detroit Diesel	2DDXL31.8XRE
	2DDXL65.0XTE
	2DDXL08.5TJD
	2DDXL08.5YJD
	2DDXL12.7VGD
	2DDXL14.0VLD
	2DDXL31.8XRE
	2DDXL65.0XTE
Deutz AG	2DZXL02.7014
	2DZXL02.7015
	2DZXL02.9013
	2DZXL05.7019
	2DZXL05.7033
	2DZXL06.1028
	2DZXL07.1004
	2DZXL07.1005
	2DZXL07.1032
	2DZXL07.1034
	2DZXL15.9002
	2DZXL15.9003
	2DZXL35.0001
Escorts Ltd.	2AELL2.14ETD
	2AELL3.14FTD
GENERAC	2GNXL04.0HAA
	2GNXL04.0HNA
	2GNXL05.0FAA

Model Year 2002 Engines Continued

Manufacturer	Engine Families
International Truck	2NVXL0444ANA
	2NVXL0466ANA
	2NVXL0530ANA
	2NVXL0530ANB
	2NVXL0530ANC
	2NVXL0530AND
	2NVXL0530ANE
	2NVXL0530ANF
Isuzu	2SZXL04.3GXA
	2SZXL06.5EXA
	2SZXL06.5FTA
	2SZXL06.5FXA
	2SZXL07.8ATA
	2SZXL07.8EXA
	2SZXL09.8EXA
	2SZXL15.7ETA
	2SZXL15.7EXA
IVECO N.V.	2VEXL05.9DCR
	2VEXL10.3CRS
	2VEXL12.9CRS
Komatsu	2KLXL0239ACA
	2KLXL03.3JB1
	2KLXL030.AAA
	2KLXL0359ABA
	2KLXL0359ABC
	2KLXL0359ACA
	2KLXL0505ABD
	2KLXL060.AAA
	2KLXL078.AAA
	2KLXL11.0DC3
	2KLXL11.0DD3
	2KLXL11.0DD4
	2KLXL11.0DD5
	2KLXL11.0DD6
	2KLXL15.2EB1
	2kLXL15.2EC3
	2KLXl15.2ED3
	2KLXL15.2EE3
	2KLXL23.2FC3
	2KLXL23.2FD3

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2002 Engines Continued

Manufacturer	Engine Families
Komatsu (cont.)	2KLXL30.5GD1
	2KLXL30.5GE1
	2KLXL7.15CB1
	2KLXL7.15CD1
Liebherr	2LHAL17.2ARA
	2LHAL17.2ATA
	2LHAL17.2AUA
	2LHAL9.96ARA
	2LHAL9.96ASA
	2LHAL9.96ATA
	2LHAL9.96AUA
Mitsubishi	2MTXL07.5D6A
	2MTXL07.5D6D
	2MTXL11.9D2A
	2MTXL11.9D2C
	2MVXL24.5AAB
	2MVXL65.4ABB
New Holland	2NHXL07.5A3A
	2NHXL07.5A3F
SCANIA AB	2Y9XL09.0AAC
	2Y9XL09.0BAD
	2Y9XL11.7BBB
Sisu Diesel	2SIDL07.4D4A
	2SIDL08.4F3A
VM Motori	2V5XL02.8R2T
.	2V5XL04.2S1T
Volvo Construction	2VSXL06.7CE1
	2VSXL09.6CE2
	2VSXL12.1CE2
	2VSXL16.0CE2

Model Year 2003 Engines

Manufacturer	Engine Families
AB Volvo	3VPXL07.3ACB
	3VPXL09.6ACB
	3VPXL12.1ABA
	3VPXL12.1ACA
	3VPXL12.1ACB
	3VPXL12.1ACB
Caterpillar	3CPXL07.2HSK
	3CPXL07.2HSL
	3CPXL08.8HSK
	3CPXL08.8HSL
	3cpxl10.3eSk
	3CPXL10.5MRW
	3cpxl12.0esk
	3CPXL14.6ESK
	3cpxl15.8eSk
	3cpxl18.0hSk
	3CPXL27.0HRK
	3CPXL27.0HRP
	3cpxl27.0hrX
	3cpxl27.0mrS
	3CPXL34.5ERK
	3CPXL58.6ERK
	3CPXL78.1ERK
CNH Engine Corp	3X9XL0239AAA
	3X9XL0239AAB
	3X9XL0239ABA
	3X9XL0359AAC
	3X9XL0359ABE
	3X9XL0505ABC
	3X9XL0505ABD
	3X9XL0505ACC
	3X9XL0540AAA
CNH UK LTD	3NHXL06.7DCR
	3NHXL07.5B3A
	3NHXL07.5B3C
	3NHXL07.5B3F

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2003 Engines Continued

Manufacturer	Engine Families
Cummins	3CEXL015.AAA
	3CEXL015.AAB
	3CEXL015.ABA
	3CEXL019.AAC
	3CEXL023.AAA
	3CEXL0239AAA
	3CEXL0239AAD
	3CEXL0239AAF
	3CEXL0239ABA
	3CEXL0239AEA
	3CEXL0239AFA
	3CEXL0275AAA
	3CEXL0275AAB
	3CEXL03.3AAB
	3CEXL030.AAA
	3CEXL030.ABA
	3CEXL0359AAB
	3CEXL0359AAC
	3CEXL0359ABC
	3CEXL0359ABE
	3CEXL0359ACA
	3CEXL0409AAA
	3CEXL0505ABC
	3CEXL0505ABD
	3CEXL0505ACB
	3CEXL0505ACC
	3CEXL0540AAA
	3CEXL060.AAA
	3CEXL060.ABA
	3CEXL0661AAC
	3CEXL0661AAD
	3CEXL0661AAE
	3CEXL078.AAA
	3CEXL078.AAB

Model Year 2003 Engines Continued

Manufacturer	Engine Families
Daewoo	3DWXL03.3AMN
	3DWXL03.3BMA
	3DWXL03.3LMN
	3DWXL05.8ARN
	3DWXL05.8ATT
	3DWXL08.1CPA
	3DWXL11.1BIA
	3DWXL11.1DJA
	3DWXL18.3ASC
	3DWXL2.37ANT
	3DWXL21.9AYA
DaimlerChrysler	3MBXL12.0RJB
	3MBXL12.0RJC
	3MBXL15.9RJA
	3MBXL21.9R6B
	3MBXL4.25RJB
	3MBXL7.20RJA
Deere	3JDXL06.8038
	3JDXL06.8039
	3JDXL06.8048
	3JDXL06.8049
	3JDXL06.8052
	3JDXL08.1037
	3JDXL12.5035
Detroit Diesel	3DDXL08.5YJD
	3DDXL12.7VGD
	3DDXL14.0VLD
	3DDXL15.9WRE
	3DDXL31.8XRE
	3DDXL35.8GRP
	3DDXL65.0GTP
	3DDXL65.0XTE
	3DDXL90.0XTP

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2003 Engines Continued

Manufacturer	Engine Families
Deutz AG	3DZXL02.7014
	3DZXL02.7015
	3DZXL02.9013
	3DZXL04.8007
	3DZXL05.7019
	3DZXL06.1010
	3DZXL06.1028
	3DZXL07.1005
	3DZXL07.1032
	3DZXL07.1034
	3DZXL15.9002
	3DZXL35.0001
GENERAC	3GNXL03.0KTA
Hino Motors	3HMXL12.8KUV
International Truck	3NVXL0365AFA
	3NVXL0530ANE
	3NVXL0530ANF
Isuzu	3SZXL06.5EXA
	3SZXL07.8ETA
	3SZXL07.8EXA
	3SZXL09.8EXA
	3SZXL15.7ETA
	3SZXL15.7EXA
IVECO	3VEXL07.8CRS
	3VEXL10.3CRS
	3VEXL12.9CRS
	3VEXL06.7DCR
KIRLOSKAR OIL	3KOEL04.24PA
Komatsu	3KLXL0239AAA
	3KLXL0239AAD
	3KLXL0239AAF
	3KLXL0239ABA
	3KLXL03.3JB1
	3KLXL030.AAA
	3KLXL0359AAB
	3KLXL0359ABC
	3KLXL0359ACA
	3KLXL0505ABD
	3KLXL060.AAA
	3KLXL078.AAA
	3KLXL11.0DC3

Model Year 2003 Engines Continued

Manufacturer	Engine Families
Komatsu (cont.)	3KLXL11.0DD3
	3KLXL11.0DD5
	3kLXL15.2EC3
	3KLXL15.2ED3
	3KLXL15.2EE3
	3KLXL23.2FD3
	3KLXL23.2FD4
	3KLXL30.5GC1
	3KLXL30.5GD1
	3KLXL30.5GE1
KUBOTA	3KBXL01.1BCB
	3KBXL01.9FCC
Liebherr	3LHAL12.8RMR
	3LHAL17.2ARA
	3LHAL17.2ATA
	3LHAL17.2AUA
	3LHAL9.96ARA
	3LHAL9.96ATA
	3LHAL9.96AUA
Lister Petter	3L5XL1.17FX8
	3L5XL2.29VX9
	3L5XL1.862TC
	3L5XL3.332DW
Lombardini Motori	3LBDL.686SF2
	3LBDL2.07CHT
Mack Trucks	3MKXL11.9P69
MAN	3MNXL6.87002
Mitsubishi	3MVXL18.6BAA
	3MVXL24.5AAB
	3MVXL24.5ABA
	3MVXL24.5ABE
	3MVXL24.5BAA
	3MVXL24.5BAB
	3MVXL33.9ABA
	3MVXL33.9ABB
	3MVXL37.1ABB
	3MVXL37.1ABC
	3MVXL37.1ABD
	3MVXL49.0ABC
	3MVXL65.4ABD

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2003 Engines Continued

Manufacturer	Engine Families
Mitsubishi (cont.)	3MVXL65.4ABG
	3MVXL65.4ABH
	3MFTL07.5D6A
	3MFTL07.5D6D
	3MTXL11.9D2A
Motorenfabrik Hatz	3HZXL3.43A37
MTU	3MTUL21.9R2A
Nissan	3NDXL02.7TNA
	3NDXL04.2TNA
	3NDXL03.0FNA
	3NDXL03.0FTA
Perkins	3PKXL04.0AJ1
.	3PKXL15.8H16
SCANIA AB	3Y9XL09.0BAE
	3Y9XL11.7BBC
Sisu Diesel	3SIDL04.4B1A
	3SIDL04.4B2A
	3SIDL07.4G4A
	3SIDL07.4G4B
	3SIDL07.4G4C
	3SIDL08.4H4A
TOYOTA	3TALL02.51DZ
	3TALL04.613Z
	3TALL05.214Z
VM Motori	3V5XL02.8R2T
Volvo	3VSXL09.6CE2
	3VSXL12.1CE2
	3VSXL16.0CE2

Model Year 2003 Engines Continued

Manufacturer	Engine Families
Yanmar	3YDXL2.00D4T
	3YDXL2.00M4T
	3YDXL2.19D4N
	3YDXL2.78D4N
	3YDXL3.05M4N
	3YDXL3.32D4N
	3YDXL3.32E4N
	3YDXL3.32F4N
	3YDXL3.32H4N
	3YDXL3.32J4N
	3YDXL3.32J4T
	3YDXL3.32K4N
	3YDXL3.32K4T
	3YDXL4.41D4N
	3YDXL4.41D4T
	3YDXL4.41E4N
	3YDXL4.41F4T
	3YDXL4.41K4N
	3YDXL4.41K4T

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2004 Engines

Manufacturer	Engine Families
AB VOLVO PENTA	4VPXL07.3ACB
	4VPXL09.4ACA
	4VPXL09.4ACB
	4VPXL09.4ACC
	4VPXL09.6ACB
	4VPXL09.6ACC
	4VPXL12.1ABA
	4VPXL12.1ACA
	4VPXL12.1ACB
Caterpillar	4CPXL07.2HSL
	4CPXL12.0ESK
	4CPXL14.6ESK
	4CPXL15.8ERK
	4CPXL15.8ESK
	4CPXL18.0ESK
	4CPXL18.0HSK
	4CPXL27.0HRK
	4CPXL27.0HRP
	4CPXL27.0HRX
	4CPXL34.5ERK
	4CPXL58.6ERK
	4CPXL78.1ERK
CNH Engine Corp.	4X9XL0239AAC
	4X9XL0359ABE
	4X9XL0505ABC
	4X9XL0505ACC
	4X9XL0540AAA
	4NHXL06.7DCR
Cummins	4CEXL023.AAA
	4CEXL0359AAC
	4CEXL0359ABE
	4CEXL0505ABC
	4CEXL0505ACB
	4CEXL0505ACC
	4CEXL0540AAA
	4CEXL060.AAA
	4CEXL060.ABA
Daewoo	4DWXL18.3ASC
	4DWXL21.9AYA

Model Year 2004 Engines Continued

Manufacturer	Engine Families
DaimlerChrysler	4MBXL12.0RJB
	4MBXL12.0RJC
	4MBXL15.9RJA
	4MBXL21.9R6B
	4MBXL4.25RJB
	4MBXL6.37RJB
	4MBXL7.20RJA
Deere	4JDXL06.8049
Detroit Diesel	4DDXL08.5YJD
	4DDXL12.7VGD
	4DDXL14.0VLD
	4DDXL31.8XRE
	4DDXL35.8GRP
	4DDXL90.0XTP
Deutz AG	4DZXL03.1039
	4DZXL06.1028
	4DZXL07.1032
	4DZXL07.1034
	4DZXL15.9002
International	4NVXL0365AFA
	4NVXL0530ANF
	4SZXL15.7ETA
	4SZXL15.7EXA
IVECO N. V.	4VEXL07.8CRS
	4VEXL10.3CRS
	4VEXL12.9CRS
	4VEXL06.7DCR
KIRLOSKAR OIL	4KOEL031IRPN
	4KOEL042IRPN
Komatsu	4KLXL0505ABC
	4KLXL11.0DC3
	4KLXL11.0DD3
	4KLXL15.2EC3
	4KLXL15.2ED3
	4KLXL15.2EE3
	4KLXL23.2FD3
	4KLXL23.2FD4
	4KLXL30.5GD1
	4KLXL30.5GE1

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2004 Engines Continued

Manufacturer	Engine Families
LIEBHERR	4LHAL17.2ATA
	4LHAL9.96ATA
Lister Petter	4L5XL1.17FX8
Mitsubishi	4MVXL37.1ABB
MTU	4MTUL21.9R2A
Perkins	2PKXL15.8H16
.	4PKXL15.8H16
SCANIA AB	4Y9XL09.0BAF
	4Y9XL11.7BBF
	4Y9XL11.7BBG
	4Y9XL15.6BDA
Sisu Diesel	4SIDL08.4H4A
Volvo AB	4VSXL09.6CE2
	4VSXL12.1CE2
	4VSXL16.0CE2

Model Year 2005 Engines

Manufacturer	Engine Families
AB Volvo	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
Caterpillar	5CPXL07.2ESL
	5CPXL07.2HSK
	5CPXL07.2HSL
	5CPXL08.8ESK
	5CPXL08.8HSL
	5CPXL10.3ESK
	5CPXL10.5MRW
	5CPXL11.1ESK
	5CPXL12.0ESK
	5CPXL12.5ESK
	5CPXL15.2ESK
	5CPXL15.8ERK
	5CPXL18.0ESK
	5CPXL18.1ESK
	5CPXL27.0ESK
	5CPXL27.0HRK
	5CPXL27.0HRP
	5CPXL27.0MRS
	5CPXL32.0ESK
	5CPXL34.5ERK
	5CPXL58.6ERK
	5CPXL78.1ERK

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
CNH Engine Corp.	5NHXL06.7DCR
	5NHXL07.5B3A
	5NHXL07.5B3C
	5NHXL07.5B3F
	5X9XL0239AAC
	5X9XL0359AAK
	5X9XL0359ABE
	5X9XL0505AAE
	5X9XL0505ABC
	5X9XL0505ABD
	5X9XL0505ACC
	5X9XL0540AAA
	5X9XL0540AAB
Cummins	5CEXL015.AAA
	5CEXL015.AAB
	5CEXL015.AAC
	5CEXL015.AAD
	5CEXL015.ABA
	5CEXL019.AAB
	5CEXL019.AAC
	5CEXL023.AAA
	5CEXL0239AAD
	5CEXL0239AAF
	5CEXL0239AAG
	5CEXL0275AAB
	5CEXL0275AAE
	5CEXL030.AAA
	5CEXL030.ABA
	5CEXL0359AAB
	5CEXL0359AAC
	5CEXL0359AAE
	5CEXL0359AAF
	5CEXL0359AAH
	5CEXL0359ABC
	5CEXL0359ABE
	5CEXL0409AAA
	5CEXL0409AAB
	5CEXL0409AAC

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
Cummins (Cont.)	5CEXL0505AAE
	5CEXL0505ABC
	5CEXL0505ABD
	5CEXL0505ACB
	5CEXL0540AAA
	5CEXL0540AAB
	5CEXL060.AAA
	5CEXL060.ABA
	5CEXL0661AAE
	5CEXL0661AAF
	5CEXL078.AAA
	5CEXL078.AAB
	5CEXL2.28A41
	5CEXL2.28A42
Daewoo	5DWXL18.3ASC
	5DWXL05.8CRN
	5DWXL08.1CPA
	5DWXL11.1BIA
	5DWXL11.1DJA
	5DWXL21.9AYA
DaimlerChrysler	5MBXL12.0RJB
	5MBXL12.0RJC
	5MBXL15.9RJA
	5MBXL21.9R6B
	5MBXL4.25RJB
	5MBXL6.37RJB
	5MBXL7.20RJA
Deere	5JDXL04.5075
	5JDXL04.5081
	5JDXL06.8038
	5JDXL06.8048
	5JDXL06.8049
	5JDXL06.8052
	5JDXL06.8072
	5JDXL06.8080
	5JDXL06.8101
	5JDXL08.1037
	5JDXL09.0102
	5JDXL12.5035
	5JDXL12.5073

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
Detroit Diesel Corporation	5DDXL08.5YJD
	5DDXL14.0VLD
	5DDXL15.9WRE
	5DDXL31.8XRE
	5DDXL31.8XRR
	5DDXL35.8GRP
	5DDXL65.0GTP
	5DDXL65.0XTE
	5DDXL90.0XTP
Deutz	5DZXL03.1039
	5DZXL05.7019
	5DZXL06.1028
	5DZXL06.1038
	5DZXL06.5036
	5DZXL06.5042
	5DZXL07.1032
	5DZXL07.1034
	5DZXL15.9002
	5DZXL71.0021
Hino Motors, Ltd.	5HMXL12.8KUV
International	5NVXL0365AFA
	5NVXL0570AEA
ISEKI MATSUYAMA	5ICLL2.96D4E
Isuzu	5SZXL03.1GTB
	5SZXL06.5EXA
	5SZXL07.8ETA
	5SZXL07.8EXA
	5SZXL09.8EXA
	5SZXL15.7ETA
	5SZXL15.7EXA
	5SZXL15.7HXZ

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
Iveco	5VEXL02.3F1A
	5VEXL07.8CRS
	5VEXL10.3CRS
	5VEXL10.3TR3
	5VEXL10.3VGT
	5VEXL12.9CRS
	5VEXL12.9GEN
	5VEXL12.9VGT
	5VEXL05.9DGS
	5VEXL06.7DCR
	5VEXL06.7DGA
Komatsu	5KLXL0239AAD
	5KLXL0239AAF
	5KLXL030.AAA
	5KLXL0359AAB
	5KLXL0359AAE
	5KLXL0359AAL
	5KLXL0359ABC
	5KLXL0409AAB
	5KLXL0409AAC
	5KLXL0505AAE
	5KLXL0505ABC
	5KLXL0505ABD
	5KLXL060.AAA
	5KLXL078.AAA
	5KLXL11.0DC3
	5KLXL11.0DD3
	5KLXL11.0DDS
	5KLXL15.2EC3
	5KLXL15.2ED3
	5KLXL15.2EE3
	5KLXL23.2FC3
	5KLXL23.2FD3
	5KLXL23.2FD4
	5KLXL30.5GC1
	5KLXL30.5GD1
	5KLXL30.5GE1
Kuboto	5KBXL03.3BAC
	5KBXL03.3BAD
	5KBXL03.3BCC

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
KUKJE	5KMCL2.28A41
	5KMCL2.28A42
Liebherr	5LHAL10.5LPA
	5LHAL12.8RMC
	5LHAL12.8RMR
	5LHAL17.2ARA
	5LHAL17.2ATA
	5LHAL17.2AUA
	5LHAL9.54SPA
	5LHAL9.96ARA
	5LHAL9.96ATA
	5LHAL9.96AUA
MAHINDRA & MAHINDRA	5MMLL03.2NTY
Mitsubishi	5MVXL05.0AAC
	5MVXL18.6BAA
	5MVXL24.5BAA
	5MVXL33.9ABB
	5MVXL37.1ABC
	5MVXL49.0ABD
	5MVXL65.4ABB
	5MVXL65.4ABH
Motorenfabrik Hatz	5HZXL3.43C42
MTU	5MTUL21.9R2A
Perkins	5PKXL06.6PJ1
	5PKXL04.4RE1
	5PKXL18.0H18
	5PKXL15.8H16
SCANIA AB	5Y9XL11.7BBG
	5Y9XL11.7BBI
	5Y9XL15.6BDB
	5Y9XL09.0BAG
	5Y9XL11.7BBH
	5Y9XL15.6BDD

Model Year 2005 Engines (Continued)

Manufacturer	Engine Families
Sisu Diesel	5SIDL07.4G4A
	5SIDL03.3G4A
	5SIDL07.4G4B
	5SIDL07.4G5A
	5SIDL08.4H4A
	5SIDL08.4H5A
	5SIDL08.4H5B
	5SIDL07.4G4C
Volvo	5VSXL12.1CE3
	5VSXL09.4CE2
	5VSXL12.1CE2
Yanmar	5YDXL3.05P4N
	5YDXL3.32J4N
	5YDXL3.32J4T

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2006 Engines

Manufacturer	Engine Families
AB Volvo Penta	6VPXL09.4BAA
	6VPXL12.1BAA
	6VPXL16.1ACB
Caterpillar	6CPXL07.2ESL
	6CPXL07.2HSK
	6CPXL08.8ESK
	6CPXL11.1ESK
	6CPXL12.5ESK
	6CPXL15.2ESK
	6CPXL15.2ESL
	6CPXL18.1ESK
	6CPXL18.1ESL
	6CPXL27.0ESK
	6CPXL27.0HRK
	6CPXL32.0ESK
	6CPXL51.8E2W
	6CPXL27.0ESL
	6CPXL34.5T2E
	6CPXL58.6T2E
	6CPXL78.1T2E
CNH Engine Corp.	6NHXL04.5DNA
	6NHXL05.9DTA
	6NHXL06.7DCA
	6NHXL06.7DCB
	6NHXL06.7DCC
	6NHXL06.7DCR
	6NHXL06.7DTA
	6NHXL06.7DTC
	6NHXL07.5B2H
	6X9XL0239AAB
	6X9XL0239AAC
	6X9XL0359AAJ
	6X9XL0359AAM
	6X9XL0359ABE
	6X9XL0505AAE
	6X9XL0505ABD
	6X9XL0540AAB
	6X9XL0540AAC

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
Cummins	6CEXL015.AAA
	6CEXL015.AAB
	6CEXL015.AAC
	6CEXL015.AAD
	6CEXL015.AAE
	6CEXL019.AAB
	6CEXL019.AAC
	6CEXL019.AAD
	6CEXL023.AAA
	6CEXL0239AAD
	6CEXL0239AAF
	6CEXL0239AAG
	6CEXL0275AAB
	6CEXL0275AAC
	6CEXL0275AAD
	6CEXL0275AAF
	6CEXL0275AAI
	6CEXL03.3ABA
	6CEXL03.3ABB
	6CEXL03.3ABC
	6CEXL030.AAD
	6CEXL0359AAB
	6CEXL0359AAC
	6CEXL0359AAD
	6CEXL0359AAF
	6CEXL0359AAN
	6CEXL0359ABC
	6CEXL0359ABE
	6CEXL038.AAA
	6CEXL0409AAB
	6CEXL0409AAC
	6CEXL045.AAA
	6CEXL050.AAC
	6CEXL050.AAD
	6CEXL0505AAE
	6CEXL0505ABD
	6CEXL0540AAB
	6CEXL060.AAB
	6CEXL060.AAD
	6CEXL0661AAF
	6CEXL078.AAA
	6CEXL078.AAB

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
DAIMLERCHRYSLER	6MBXL4.25RJB
	6MBXL7.20RJA
Deere	6JDXL02.4074
	6JDXL02.9017
	6JDXL02.9050
	6JDXL02.9088
	6JDXL03.0063
	6JDXL03.0064
	6JDXL04.5040
	6JDXL04.5042
	6JDXL04.5043
	6JDXL04.5051
	6JDXL04.5057
	6JDXL04.5062
	6JDXL04.5075
	6JDXL04.5076
	6JDXL04.5081
	6JDXL04.5083
	6JDXL06.8014
	6JDXL06.8038
	6JDXL06.8039
	6JDXL06.8041
	6JDXL06.8044
	6JDXL06.8048
	6JDXL06.8049
	6JDXL06.8052
	6JDXL06.8055
	6JDXL06.8078
	6JDXL06.8079
	6JDXL06.8080
	6JDXL06.8082
	6JDXL06.8084
	6JDXL06.8101
	6JDXL08.1037
	6JDXL09.0102
	6JDXL12.5035
	6JDXL12.5073

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
Detroit Diesel Corporation	6DDXL14.0VLD
	6DDXL31.8XRR
Deutz	6DZXL02.3048
	6DZXL03.1039
	6DZXL03.1040
	6DZXL03.1066
	6DZXL05.7019
	6DZXL05.7033
	6DZXL06.1028
	6DZXL06.1038
	6DZXL06.1057
	6DZXL06.1059
	6DZXL06.1060
	6DZXL06.5035
	6DZXL06.5037
	6DZXL06.5042
	6DZXL06.5043
	6DZXL07.1005
	6DZXL07.1034
	6DZXL07.1051
	6DZXL07.1053
	6DZXL07.1055
	6DZXL15.9065
Doosan	6DWXL05.8COA
	6DWXL05.8CRN
	6DWXL07.6UPA
	6DWXL08.7BDA
	6DWXL11.0UJA
Escorts Ltd.	6AELL3.44FTD
Fujian Lijia.	6FJLL4.05ABT
Hino Motors	6HMXL04.0WDH
	6HMXL05.1JTA
	6HMXL07.7JTM
	6HMXL10.5PUN
International	6NVXL0365AFA
	6NVXL0570AEA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
Isuzu	6SZXL02.2GNA
	6SZXL03.1GNA
	6SZXL03.1GNB
	6SZXL03.1GNC
	6SZXL03.1GTA
	6SZXL03.1GTB
	6SZXL04.3FTA
	6SZXL04.3FXA
	6SZXL04.3GTA
	6SZXL04.3GTG
	6SZXL04.3GXA
	6SZXL05.2HXA
	6SZXL05.2IXA
	6SZXL06.5FTA
	6SZXL06.5FXA
	6SZXL06.5FXG
	6SZXL07.8HXA
	6SZXL15.7HXA
IVECO	6VEXL03.9B1X
	6VEXL03.9B1Z
	6VEXL04.5DGT
	6VEXL04.5DNA
	6VEXL05.9DTA
	6VEXL06.7DCA
	6VEXL06.7DCB
	6VEXL06.7DCC
	6VEXL06.7DCR
	6VEXL06.7DGA
	6VEXL06.7DTA
	6VEXL06.7DTC
	6VEXL10.3TR3
	6VEXL12.9IGR
	6VEXL12.9TR3
JCB Power	6JCBL04.40NA
	6JCBL04.40TC
	6JCBL04.4TA1
KIRLOSKAR OIL	6KOEL04.2PIA
	6KOEL04.2IIN

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
Komatsu	6KLXL0239AAD
	6KLXL0239AAF
	6KLXL0239ADA
	6KLXL0275AAC
	6KLXL0275AAD
	6KLXL0275AAI
	6KLXL03.3JA3
	6KLXL03.3JB3
	6KLXL03.3JD3
	6KLXL030.AAA
	6KLXL0359AAB
	6KLXL0359AAE
	6KLXL0359AAL
	6KLXL0359ABC
	6KLXL038.AAA
	6KLXL0409AAB
	6KLXL0409AAC
	6KLXL045.AAA
	6KLXL050.AAC
	6KLXL0505AAE
	6KLXL0505ABD
	6KLXL060.AAB
	6KLXL078.AAA
	6klxl11.0DD6
	6KLXL15.2ED6
	6klxL23.2FD6
	6KLxl30.5gD3

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
Kubota	6KBXL02.0EAD
	6KBXL02.0FAD
	6KBXL02.4EAD
	6KBXL02.4GCD
	6KBXL02.4HCD
	6KBXL02.8BCD
	6KBXL03.3AAD
	6KBXL03.3ACD
	6KBXL03.3BAC
	6KBXL03.3BAD
	6KBXL03.3BBD
	6KBXL03.3BCC
	6KBXL03.3BCD
	6KBXL03.3CCD
	6KBXL03.8AAD
	6KBXL03.8ABD
	6KBXL03.8ACD
	6KBXL05.8AAD
Kukje	6KMCL2.28A41
	6KMCL2.28A42
Liebherr	6LHAL10.5LPA
	6LHAL12.8RMC
	6LHAL9.54SPA
	6LHAL9.96ARA
	6LHAL9.96ASA
	6LHAL9.96ATA
	6LHAL21.9VMR
Lombardini.	6LBDL2.19CHT
MAHINDRA & MAHINDRA	6MMLL03.1NEF
	6MMLL03.2NEF
	6MMLL03.2NET
	6MMLL03.2NTY
	6MMLL03.4NEF
	6MMLL03.5NEF

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
Mitsubishi Heavy Industries	6MVXL02.5CCC
	6MVXL03.3DDE
	6MVXL04.2AAA
	6MVXL05.0AAA
	6MVXL05.0AAC
	6MVXL05.0AAD
	6MVXL05.0AAE
	6MVXL05.0DDD
	6MVXL06.4AAB
	6MVXL06.4DDD
	6MVXL06.4EEE
Nissan Diesel	6NDXL02.7TNA
	6NDXL03.0FTA
Perkins	6PKXL06.6PJ2
	6PKXL06.0VK1
	6PKXL04.4RE1
	6PKXL04.4RF1
	6PKXL04.4RH1
	6PKXL04.4RJ1
	6PKXL04.4RK1
	6PKXL04.4RH2
	6PKXL04.4RG1
	6PRKL3.99001
	6PRKL3.99002
Same Deutz Fahr Italia	6FGXL06.0WTI
	6FGXL06.0WTO
	6FGXL06.0W00
SCANIA	6Y9XL11.7BBA
	6Y9XL11.7BBB
	6Y9XL15.6BDE
Sisu Diesel	6SIDL03.3G4A
	6SIDL04.4J2A
	6SIDL04.4J3A
	6SIDL06.6I2A
	6SIDL07.4G4B
	6SIDL07.4G4D
	6SIDL07.4G5B
	6SIDL08.4H5B

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2006 Engines (Continued)

Manufacturer	Engine Families
Toyota	6TALL02.51DZ
	6TALL04.613Z
VMMI	6V5XL02.1G7R
	6V5XL02.8R6V
	6V5XL04.2G5V
	6V5XL04.2S5V
	6V5XL03.0R6T
Volvo	6VSXL12.1CE3
	6VSXL09.4CE3
	6VSXL16.1CE3
Yanmar	6YDXL2.00M4T
	6YDXL2.78P4N
	6YDXL3.05M4N
	6YDXL3.05P4N
	6YDXL3.32J4N
	6YDXL3.32J4T
	6YDXL3.32K4N
	6YDXL3.32K4T
	6YDXL3.32P4N
	6YDXL4.41K4N
	6YDXL4.41K4T
Zetor North America	66AXL4.16IUH
	66AXL4.16TUL
Zhejiang Xinchai Diesel Engine Co., Ltd.	6ZHXL3.17XCD

Model Year 2007 Engines

Manufacturer	Engine Families
AB Volvo Penta	7VPXL09.4BAA
	7VPXL12.1BAA
	7VPXL16.1ACB
Caterpillar	7CPXL07.2ESL
	7CPXL08.8ESK
	7CPXL11.1ESK
	7CPXL12.5ESK
	7CPXL15.2ESK
	7CPXL15.2ESL
	7CPXL18.1ESK
	7CPXL18.1ESL
	7CPXL27.0ESK
	7CPXL27.0ESL
	7CPXL32.0ESK
	7CPXL34.5E2W
	7CPXL34.5T2E
	7CPXL51.8E2W
	7CPXL58.6T2E
	7CPXL78.1T2E
CNH Engine Corp.	7NHXL04.5DCA
	7NHXL06.7DCA
	7NHXL06.7DCB
	7X9XL0505AAE
	7X9XL0540AAB
Cummins	7CEXL045.AAA
	7CEXL078.AAA
	7CEXL015.AAA
	7CEXL015.AAB
	7CEXL015.AAE
	7CEXL015.AAH
	7CEXL019.AAD
	7CEXL023.AAA
	7CEXL023.AAB
	7CEXL023.AAC
	7CEXL0239AAG
	7CEXL0275AAB
	7CEXL0275AAG
	7CEXL0275AAK
	7CEXL03.3ACD
	7CEXL03.3ACE
	7CEXL030.AAB
	7CEXL030.AAD
	7CEXL030.AAE

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2007 Engines (Continued)

Manufacturer	Engine Families
Cummins (cont.)	7CEXL030.ABA
	7CEXL0409AAB
	7CEXL0409AAC
	7CEXL0409AAD
	7CEXL050.AAC
	7CEXL050.AAD
	7CEXL0505AAE
	7CEXL0540AAB
	7CEXL060.AAB
	7CEXL060.AAD
	7CEXL0661AAF
	7CEXL0661AAG
	7CEXL0661AAH
	7CEXL0661AAJ
	7CEXL078.AAB
	7CEXL2.28A41
	7CEXL2.28A42
Daedong	7DCLL02.4B87
DAIMLERCHRYSLER	7MBXL12.8RJB
	7MBXL15.9RJA
Deere	7JDXL06.8049
	7JDXL04.5075
	7JDXL04.5081
	7JDXL04.5107
	7JDXL06.8038
	7JDXL06.8048
	7JDXL06.8049
	7JDXL06.8080
	7JDXL06.8101
	7JDXL06.8104
	7JDXL06.8106
	7JDXL08.1037
	7JDXL09.0102
	7JDXL12.5035
	7JDXL12.5073
	7JDXL13.5103
Detroit Diesel	7DDXL14.0VLD
	7DDXL14.0WLD
	7DDXL7.20RJA

Model Year 2007 Engines (Continued)

Manufacturer	Engine Families
Deutz	7DZXL03.1039
	7DZXL03.1066
	7DZXL04.1069
	7DZXL04.1070
	7DZXL04.1076
	7DZXL04.1078
	7DZXL04.1079
	7DZXL04.1080
	7DZXL04.8064
	7DZXL04.8068
	7DZXL04.8071
	7DZXL06.1038
	7DZXL06.1059
	7DZXL06.1060
	7DZXL06.1061
	7DZXL06.1063
	7DZXL06.1067
	7DZXL06.1077
	7DZXL06.5042
	7DZXL07.1051
	7DZXL07.1053
	7DZXL07.1055
	7DZXL07.1056
	7DZXL15.9065
Doosan Infracore	7DZXL03.1039
	7DZXL03.1066
	7DZXL04.1069
	7DZXL04.1070
	7DZXL04.1076
	7DZXL04.1078
GNH UK LTD	7NHXL06.7DCC
Hino Motors	7HMXL05.1JTA
	7HMXL07.7JTM
	7HMXL10.5PUN
	7HMXL10.5PUP
	7HMXL12.9EUV

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2007 Engines (Continued)

Manufacturer	Engine Families
Isuzu	7SZXL03.0IXA
	7SZXL03.1GTB
	7SZXL05.2HXA
	7SZXL05.2IXA
	7SZXL07.8HXA
	7SZXL07.8HXB
	7SZXL09.8HXA
	7SZXL09.8HXB
	7SZXL15.7HXA
	7SZXL15.7HXB
IVECO	7VEXL04.5DCA
	7VEXL06.7DCA
	7VEXL06.7DCB
	7VEXL06.7DCC
	7VEXL06.7DGB
	7VEXL06.7DGS
	7VEXL08.7TR3
	7VEXL10.3MLR
	7VEXL10.3TR3
	7VEXL12.9IGR
	7VEXL12.9MLR
	7VEXL12.9TR3
	7VEXL20.1DSL
Komatsu	7KLXL0275AAG
	7KLXL03.3JA6
	7KLXL03.3JB6
	7KLXL0359AAE
	7KLXL0409AAB
	7KLXL0409AAC
	7KLXL045.AAA
	7KLXL050.AAC
	7KLXL0505AAE
	7KLXL060.AAB
	7KLXL078.AAA
	7KLXL11.0DD6
	7KLXL15.2ED6
	7KLXL15.2ED7
	7KLXL23.2FD5
	7KLXL23.2FD6
	7KLXL23.2FD7
	7KLXL30.5GD3

Model Year 2007 Engines (Continued)

Manufacturer	Engine Families
Kubota	7KBXL03.3BAC
	7KBXL03.3BAD
	7KBXL03.3BCC
	7KBXL03.8AHD
Kukje	7KMCL2.28A41
	7KMCL2.28A42
Liebherr	7LHAL10.5LPA
	7LHAL10.5LPE
	7LHAL12.0KPA
	7LHAL12.8RMC
	7LHAL21.9VMR
	7LHAL24.2VCE
	7LHAL24.2VCI
	7LHAL9.54SPA
MAHINDRA & MAHINDRA LTD.,	7MMLL03.2NTY
Mitsubishi Heavy Industries	7MVXL24.5BBA
	7MVXL33.9BBA
	7MVXL37.1BBA
	7MVXL49.0BBA
	7MVXL65.4BBA
	7MVXL05.0AAC
MotorenFabrik HATZ GMBH	7HZXL2.57C41
	7HZXL3.43C42
MTU Detroit Diesel, Inc.	7MDDL31.8XRR
	7MDDL95.4XTR
Perkins	7PKXL03.3DD1
	7PKXL04.4RE1
	7PKXL06.6PJ1
	7PKXL15.2TA2
	7PKXL15.2TAG
	7PKXL18.1TAG
Scania	7Y9XL11.7BBA
	7Y9XL11.7BBB
	7Y9XL15.6BDE
Shandong Weichai Huafeng Power	7SDWL7.52AAA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2007 Engines (Continued)

Manufacturer	Engine Families
Sisu Diesel	7SIDL03.3G4A
	7SIDL07.4G4D
	7SIDL07.4G5B
	7SIDL07.4G5C
	7SIDL08.4H5B
Volvo Construction Equipment AB	7VSXL09.4CE3
	7VSXL12.1CE3
	7VSXL16.1CE3
Yanmar	7YDXL3.05P4N
	7YDXL3.32J4N
	7YDXL3.32J4T

Model Year 2008 Engines

Manufacturer	Engine Families
AB Volvo Penta	8VPXL09.4BAA
	8VPXL12.1BAA
	8VPXL12.8BCA
	8VPXL16.1ACB
	8VPXL16.1ACW
Caterpillar	8CPXL07.2ESL
	8CPXL08.8ESK
	8CPXL106.T2E
	8CPXL11.1ESK
	8CPXL12.5ESK
	8CPXL15.2ELW
	8CPXL15.2ESW
	8CPXL18.1ESK
	8CPXL18.1ESW
	8CPXL18.1ESX
	8CPXL27.0ESK
	8CPXL27.0ESW
	8CPXL27.0ESX
	8CPXL32.0ESW
	8CPXL32.0ESX
	8CPXL34.5E2W
	8CPXL34.5T2E
	8CPXL51.8E2W
	8CPXL58.6T2E
	8CPXL58.6T2X
	8CPXL78.1E2W
	8CPXL78.1T2E

Model Year 2008 Engines (Continued)

Manufacturer	Engine Families
CNH Engine Corp.	8X9XL0540AAB
	8NHXL04.5DCA
	8NHXL06.7DCA
	8NHXL06.7DCB
Cummins	8CEXL015.AAA
	8CEXL015.AAB
	8CEXL015.AAE
	8CEXL015.AAH
	8CEXL015.AAJ
	8CEXL019.AAD
	8CEXL023.AAA
	8CEXL023.AAB
	8CEXL023.AAC
	8CEXL0275AAG
	8CEXL0275AAK
	8CEXL03.3ACD
	8CEXL03.3ACE
	8CEXL030.AAB
	8CEXL030.AAD
	8CEXL030.ABA
	8CEXL0409AAB
	8CEXL0409AAC
	8CEXL0409AAD
	8CEXL045.AAA
	8CEXL050.AAC
	8CEXL050.AAD
	8CEXL0505AAE
	8CEXL0540AAB
	8CEXL060.AAB
	8CEXL060.AAD
	8CEXL0661AAF
	8CEXL0661AAG
	8CEXL0661AAH
	8CEXL0661AAJ
	8CEXL078.AAA
	8CEXL078.AAB
DAIMLERCHRYSLER	8MBXL07.2RJA
	8MBXL12.8RJB
	8MBXL15.9RJA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2008 Engines (Continued)

Manufacturer	Engine Families
Deere	8JDXL04.5075
	8JDXL04.5107
	8JDXL06.8038
	8JDXL06.8049
	8JDXL06.8080
	8JDXL06.8101
	8JDXL06.8104
	8JDXL06.8106
	8JDXL08.1037
	8JDXL09.0102
	8JDXL09.0114
	8JDXL12.5035
	8JDXL13.5103
Detroit Diesel	8DDXL14.0VLD
Deutz	8DZXL03.2088
	8DZXL03.6081
	8DZXL03.6082
	8DZXL03.6084
	8DZXL03.6086
	8DZXL03.6097
	8DZXL04.1069
	8DZXL04.1070
	8DZXL04.1076
	8DZXL04.1078
	8DZXL04.1080
	8DZXL04.8064
	8DZXL04.8068
	8DZXL06.1057
	8DZXL06.1059
	8DZXL06.1060
	8DZXL06.1061
	8DZXL06.1063
	8DZXL06.1067
	8DZXL06.1077
	8DZXL07.1051
	8DZXL07.1053
	8DZXL07.1055
	8DZXL07.1056
	8DZXL15.9065
Doosan Infracore	8DWXL05.8UTA
	8DWXL07.6UPA
	8DWXL11.0UJA
	8DWXL21.9UYA

Model Year 2008 Engines (Continued)

Manufacturer	Engine Families
Hino Motors	8HMXL05.1JTA
ISHIKAWAJIMA	8H3XL2.00N4T
Isuzu	8SZXL02.2UTA
	8SZXL03.0IXA
	8SZXL03.0JXA
	8SZXL03.0JXB
	8SZXL05.2HXA
	8SZXL05.2IXA
	8SZXL05.2IXB
	8SZXL07.8HXA
	8SZXL07.8HXB
	8SZXL09.8HXA
	8SZXL09.8HXB
	8SZXL15.7HXA
	8SZXL15.7HXB
IVECO	8VEXL04.5DCA
	8VEXL06.7DCA
	8VEXL06.7DCB
	8VEXL06.7DGB
	8VEXL06.7DGS
	8VEXL08.7TR3
	8VEXL10.3MLR
	8VEXL10.3TR3
	8VEXL12.9IGR
	8VEXL12.9MLR
	8VEXL12.9TCD
	8VEXL20.1DSL
JCB POWER SYSTEMS	8JCBL04.4TA7
	8JCBL04.4TA8
	8JCBL04.4TAE
	8JCBL04.4TC6
Komatsu	8KLXL0275AAG
	8KLXL03.3JA6
	8KLXL03.3JB6
	8KLXL0409AAB
	8KLXL0409AAC
	8KLXL050.AAC
	8KLXL0505AAE
	8KLXL060.AAA
	8KLXL060.AAB
	8KLXL078.AAA
	8KLXL11.0DD6

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2008 Engines (Continued)

Manufacturer	Engine Families
Komatsu (cont.)	8KLXL15.2ED6
	8KLXL15.2ED7
	8KLXL23.2FD5
	8KLXL23.2FD6
	8KLXL23.2FD7
	8KLXL30.5GD3
Kubota	8KBXL03.6DAD
	8KBXL03.8AAC
	8KBXL03.8AGD
Liebherr	8LHAL10.5LPA
	8LHAL10.5LPE
	8LHAL12.0KPA
	8LHAL12.8RMC
	8LHAL24.2VCE
	8LHAL9.54SPA
	8LHAL21.9VMR
Mitsubishi Heavy Industries	8MVXL04.2CCC
	8MVXL24.5BBA
	8MVXL33.9BBA
	8MVXL37.1BBA
	8MVXL49.0BBA
	8MVXL65.4BBA
MotorenFabrik HATZ GMBH	8HZXL3.43C42
	8HZXL3.43V42
MTU Detroit Diesel, Inc.	8MDDL31.8XRR
	8MDDL35.8GRR
	8MDDL95.4XTR
Perkins	8PKXL04.4NJ1
	8PKXL06.6PJ1
	8PKXL15.2TA2
	8PKXL15.2TAG
	8PKXL18.1TAG
Scania	8Y9XL11.7BBA
	8Y9XL11.7BBB
	8Y9XL15.6BDE
Volvo Construction Equipment AB	8VSXL09.4CE3
	8VSXL12.1CE3
	8VSXL16.1CE3

Model Year 2008 Engines (Continued)

Manufacturer	Engine Families
Yanmar	8YDXL3.32C4N
	8YDXL3.32C4T
	8YDXL3.32M4T

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2009 Engines

Manufacturer	Engine Families
AB Volvo Penta	9VPXL09.4BAA
	9VPXL12.1BAA
	9VPXL12.8BCA
	9VPXL16.1ACB
	9VPXL16.1ACW
	9VPXL16.1BEA
	9VSXL09.4CE3
	9VSXL12.1CE3
	9VSXL16.1CE3
Caterpillar	9CPXL07.2ESL
	9CPXL08.8ESK
	9CPXL106.T2E
	9CPXL11.1ESK
	9CPXL12.5ESK
	9CPXL12.5ESX
	9CPXL15.2ELW
	9CPXL15.2ESW
	9CPXL18.1ESK
	9CPXL18.1ESW
	9CPXL18.1ESX
	9CPXL27.0ESK
	9CPXL27.0ESW
	9CPXL27.0ESX
	9CPXL32.0ESP
	9CPXL32.0ESW
	9CPXL32.0ESX
	9CPXL34.5T2C
	9CPXL34.5T2E
	9CPXL58.6T2E
	9CPXL58.6T2X
	9CPXL58.6T2Y
	9CPXL78.1E2W
	9CPXL78.1T2E
	9CPXL78.1T2Y
	9CPXL78.1T2X
CNH UK LTD	9NHXL04.5DCA
	9NHXL06.7DCA
	9NHXL06.7DCB

Model Year 2009 Engines (Continued)

Manufacturer	Engine Families
Cummins	9CEXL015.AAA
	9CEXL015.AAE
	9CEXL015.AAH
	9CEXL015.AAJ
	9CEXL019.AAD
	9CEXL023.AAA
	9CEXL023.AAB
	9CEXL023.AAC
	9CEXL0275AAG
	9CEXL0275AAH
	9CEXL0275AAK
	9CEXL03.3ACD
	9CEXL03.ACE
	9CEXL030.AAB
	9CEXL030.AAD
	9CEXL030.ABA
	9CEXL0409AAB
	9CEXL0409AAC
	9CEXL0409AAD
	9CEXL045.AAA
	9CEXL050.AAC
	9CEXL050.AAD
	9CEXL050.AAF
	9CEXL0505AAE
	9CEXL0540AAB
	9CEXL0540AAD
	9CEXL060.AAB
	9CEXL060.AAD
	9CEXL0661AAF
	9CEXL0661AAG
	9CEXL0661AAH
	9CEXL0661AAJ
	9CEXL078.AAA
	9CEXL2.28A41
Detroit Diesel	9DDXL14.DVLD

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2009 Engines (Continued)

Manufacturer	Engine Families
Deutz	9DZXL04.8073
	9DZXL03.2088
	9DZXL03.6081
	9DZXL03.6082
	9DZXL03.6084
	9DZXL03.6086
	9DZXL03.6097
	9DZXL04.1069
	9DZXL04.1070
	9DZXL04.1072
	9DZXL04.1076
	9DZXL04.1078
	9DZXL04.1080
	9DZXL04.8064
	9DZXL04.8068
	9DZXL06.1057
	9DZXL06.1059
	9DZXL06.1060
	9DZXL06.1061
	9DZXL06.1063
	9DZXL06.1067
	9DZXL06.1077
	9DZXL07.1051
	9DZXL07.1052
	9DZXL07.1053
	9DZXL07.1055
	9DZXL07.1056
	9DZXL15.9065
DOOSAN INFRACORE	9DICL05.8UTA
	9DICL07.6UPA
	9DICL11.0UJA
HINO MOTORS	9HMXL04.0NUA
	9HMXL05.1JTA
	9HMXL07.7JTM
	9HMXL10.5PUN
	9HMXL10.5PUP
	9HXML12.9EUV

Model Year 2009 Engines (Continued)

Manufacturer	Engine Families
Isuzu	9SZXL03.0IXA
	9SZXL03.0JXA
	9SZXL03.0JXB
	9SZXL05.2HXA
	9SZXL05.2IXA
	9SZXL05.2IXB
	9SZXL07.8HXA
	9SZXL07.8HXB
	9SZXL09,8HXA
	9SZXL09.8HXB
	9SZXL15.7HXA
	9SZXL15.7HXB
IVECO	9VEXL04.5DCA
	9VEXL06.7DCA
	9VEXL06.7DCB
	9VEXL06.7DGB
	9VEXL06.7DGS
	9VEXL08.7TR3
	9VEXL10.3MLR
	9VEXL10.3TR3
	9VEXL12.9IGR
	9VEXL12.9MLR
	9VEXL12.9TCD
	9VEXL20.1DSL
JCB Power Systems	9JCBL04.4TA7
	9JCBL04.4TA8
	9JCBL04.4TAE
	9JCBL04.4TC6

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2009 Engines (Continued)

Manufacturer	Engine Families
John Deere Power	9JDXL03.0203
	9JDXL04.5107
	9JDXL06.8049
	9JDXL06.8080
	9JDXL06.8101
	9JDXL06.8104
	9JDXL06.8106
	9JDXL08.1037
	9JDXL09.0102
	9JDXL09.0114
	9JDXL13.5103
Komatsu	9KLXL0275AAG
	9KLXL03.3JA6
	9KLXL03.3JB6
	9KLXL0409AAB
	9KLXL0409AAC
	9KLXL050.AAC
	9KLXL0505AAE
	9KLXL060.AAA
	9KLXL060.AAB
	9KLXL11.0DD6
	9KLXL15,2ED7
	9KLXL15.2ED6
	9KLXL23.2FD5
	9KLXL23.2FD6
	9KLXL23.2FD7
	9KLXL30.5GD3
Kubota	9KBXL03.6BAC
	9KBXL03.6DAD
	9KBXL03.8AAC
	9KBXL03.8AGD
	9KBXL03.8AHD
	9KBXL06.1AHD
Liebherr Machines	9LHAL9.54SPA
	9LHAL10.5LPA
	9LHAL10.5LPE
	9LHAL12.0KPA
	9LHAL12.8RMC
	9LHAL24.2VCE
	9LHAL24.2VCI

Model Year 2009 Engines (Continued)

Manufacturer	Engine Families
Mitsubishi	9MFTL02.8M4B
	9MFTL04.9M5A
	9MFTL07.5M6A
	9MFTL12.9M7A
	9MVXL03.3AAC
	9MVXL04.2CCC
	9MVXL24.5BBA
	9MVXL33.9BBA
	9MVXL37.1BBA
	9MVXL49.0BBA
	9MVXL65.4BBA
MOTORENFABRIK	9HZXL2.57C41
	9HZXL3.43C42
	9HZXL3.43V42
MTU DETROIT DIESEL	9MDDL31.8XRR
	9MDDL35.8GRR
NAVISTAR	9NVXL0466ANA
Perkins Engines	9PKXL06.6PJ1
	9PKXL06.6PJ2
	9PKXL12.5TAG
	9PKXL15.2TAG
	9PKXL18.1TAG
Scania	9Y9XL11.7BBA
	9Y9XL11.7BBB
	9Y9XL15.6BDE
Yanmar	9YDXL3.05K4N
	9YDXL3.32C4N
	9YDXL3.32C4T
	9YDXL3.32M4N
	9YDXL3.32M4T

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2010 Engines

Manufacturer	Engine Families
AGCO SISU POWER	ASIDL07.4G4D
	ASIDL07.4G4E
	ASIDL07.4G5B
	ASIDL07.4G5C
	ASIDL08.4H5B
	ASIDL08.4H6A
AB Volvo Penta	AVPXL16.1ACB
	AVPXL16.1ACG
	AVPXL16.1ACW
Caterpillar	ACPXL07.2ESL
	ACPXL08.8ESK
	ACPXL08.8ESL
	ACPXL08.8ESX
	ACPXL10.3ESL
	ACPXL106.T2E
	ACPXL106.T2M
	ACPXL11.1ESK
	ACPXL12.5ESK
	ACPXL12.5ESX
	ACPXL14.6ESK
	ACPXL15.2ELW
	ACPXL15.2ESW
	ACPXL15.2ESX
	ACPXL15.2NZV
	ACPXL18.1ESK
	ACPXL18.1ESW
	ACPXL18.1ESX
	ACPXL27.0ESK
	ACPXL27.0ESW
	ACPXL27.0ESX
	ACPXL32.0ESP
	ACPXL32.0ESW
	ACPXL32.0ESX
	ACPXL34.5T2C
	ACPXL34.5T2E
	ACPXL58.6T2E
	ACPXL58.6T2X
	ACPXL58.6T2Y
	ACPXL68.6T2Z
	ACPXL78.1E2W
	ACPXL78.1T2E
	ACPXL78.1T2X
	ACPXL78.1T2Y

Model Year 2010 Engines (Continued)

Manufacturer	Engine Families
Cummins	ACEXL015.AAE
	ACEXL015.AAH
	ACEXL015.AAJ
	ACEXL019.AAD
	ACEXL023.AAA
	ACEXL023.AAB
	ACEXL023.AAC
	ACEXL0275AAG
	ACEXL0275AAK
	ACEXL03.3ACD
	ACEXL03.3ACE
	ACEXL030.AAB
	ACEXL030.AAD
	ACEXL030.ABA
	ACEXL0409AAB
	ACEXL0409AAC
	ACEXL0409AAD
	ACEXL045.AAA
	ACEXL050.AAC
	ACEXL050.AAD
	ACEXL050.AAF
	ACEXL0505AAE
	ACEXL0540AAB
	ACEXL0540AAC
	ACEXL0540AAD
	ACEXL060.AAB
	ACEXL060.AAD
	ACEXL060.AAD
	ACEXL0661AAF
	ACEXL0661AAG
	ACEXL0661AAJ
	ACEXL078.AAA
DAIMLERCHRYSLER	AMBXL07.2RJA
	AMBXL12.8RJB
	AMBXL15.9RJA
Deutz	ADZXL04.8064
DOOSAN INFRACORE	ADICL05.8UTA
	ADICL07.6UPA
	ADICL11.0UJA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2010 Engines (Continued)

Manufacturer	Engine Families
ISEKI MATSUYAMA	AICLL2.96D4H
	AICLL3.37D4I
IVECO N.V.	AVEXL12.9MLR
	AVEXL12.9TCD
IVECO S.P.A	AVEXL06.7DGS
	AVEXL08.7TR3
	AVEXL10.3MLR
	AVEXL10.3TR3
	AVEXL12.9IGR
	AVEXL12.9MLR
	AVEXL12.9TCD
	AVEXL20.1DSL
JCB Power Systems	AJCBL04.4TA7
	AJCBL04.4TA8
	AJCBL04.4TAE
	AJCBL04.4TC6
John Deere Power	AJDXL03.0203
	AJDXL04.5107
	AJDXL06.8049
	AJDXL06.8080
	AJDXL06.8104
	AJDXL06.8106
	AJDXL06.8117
	AJDXL08.1037
	AJDXL09.0098
	AJDXL09.0114
	AJDXL09.0901
Komatsu	AKLXL0275AAG
	AKLXL03.3JA6
	AKLXL03.3JB6
	AKLXL0409AAB
	AKLXL0409AAC
	AKLXL050.AAC
	AKLXL0505AAE
	AKLXL060.AAA
	AKLXL060.AAB
	AKLXL078.AAA
	AKLXL23.2FD5
	AKLXL23.2FD7
	AKLXL30.5GD3
	AKLXL78.0ZD1

Model Year 2010 Engines (Continued)

Manufacturer	Engine Families
Liebherr Machines	ALHAL10.5LPA
	ALHAL12.0KPA
	ALHAL9.54SPA
	ALHAL24.2VCI
Liebherr Werk	ALHAL21.9VMR
MAHINDRA & MAHINDRA	AMMLL02.5N64
Mitsubishi Fuso Truck and Bus	AMFTL02.8M4B
Mitsubishi Heavy Industries	AMVXL04.2CCC
	AMVXL24.5BBA
	AMVXL33.9BBA
	AMVXL37.1BBA
	AMVXL49.0BBA
	AMVXL65.4BBA
	AMVXL65.4BBB
MTU DETROIT DIESEL	AMDDL21.0GWR
	AMDDL31.8XRR
	AMDDL35.8GRR
	AMDDL95.4XTR
Perkins Engines	APKXL06.6PJ1
	APKXL06.6PJ2
	APKXL12.5TAG
	APKXL15.2TA2
SCANIA AB	AY9XL11.7BBA
	AY9XL11.7BBB
	AY9XL15.6BDE
	APKXL15.2TAG
	APKXL18.1TAG
VM MOTORI S.P.A.	AV5XL04.5T60

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2011 Engines

Manufacturer	Engine Families
AGCO SISU POWER	BSIDL07.4G5C
Caterpillar	BCPXL11.1ESK
	BCPXL12.5ESK
	BCPXL15.2ESW
	BCPXL18.1ESK
CNH UK LTD.	BNHXL04.5DCA
	BNHXL06.7DCA
	BNHXL06.7DCB
Cummins	BCEXL0275AAG
	BCEXL03.3ACD
	BCEXL03.3ACE
	BCEXL0409AAC
	BCEXL050.AAC
	BCEXL060.AAB
Daimler AG	BMBXL04.3RJA
DOOSAN INFRACORE	BDICL05.8UTA
ISEKI MATSUYAMA	BICLL3.37D4I
IVECO S.P.A	BVEXL04.5DCA
	BVEXL06.7DCA
	BVEXL06.7DCB
JCB POWER SYSTEMS LTD.	BJCBL04.4TA7
	BJCBL04.4TA8
	BJCBL04.4TC6
	BJCDL04.4TAE
John Deere Power	BJDXL03.0203
	BJDXL04.5107
	BJDXL06.8104
	BJDXL06.8106
	BJDXL06.8117
Komatsu	BKLXL0275AAG
	BKLXL03.3JA6
	BKLXL03.3JB6
	BKLXL0409AAC
KUBOTA	BKBXL02.4HAD
	BKBXL03.6BCD

Model Year 2011 Engines (continued)

Manufacturer	Engine Families
Mitsubishi Fuso Truck and Bus	BMFTL02.8M4B
	BMFTL02.8M4B
Mitsubishi Heavy Industries	BMVXL04.2CCC
Perkins Engines	BPKXL06.6PJ2
	BPKXL06.6PJ3
VM MOTORI S.P.A.	BV5XL04.5T60

Model Year 2012 Engines

Manufacturer	Engine Families
Caterpillar	CCPXL11.1ESK
	CCPXL12.5ESK
	CCPXL15.2ESW
	CCPXL18.1ESK
	CCPXL07.2ESJ
	CCPXL08.8ESJ
	CCPXL11.1ESJ
	CCPXL12.5ESJ
	CCPXL15.2ESJ
	CCPXL18.1ESJ
	CCPXL27.0ESJ
Perkins Engines	CPKXL06.6PJ3

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2013 Engines

Manufacturer	Engine Families
Caterpillar	DCPXL07.2ESJ
	DCPXL08.8ESJ
	DCPXL11.1ESJ
	DCPXL12.5ESJ
	DCPXL18.1ESJ
	DCPXL08.8NZS
	DCPXL106.NZS
	DCPXL15.2NYS
	DCPXL15.2NZS
	DCPXL18.1ESJ
	DCPXL18.1NYS
	DCPXL18.1NZS
	DCPXL27.0NZS
	DCPXL32.0NZS
	DCPXL78.1NZS
Cummins	DCEXL015.AAH
	DCEXL015.AAJ
	DCEXL019.AAD
	DCEXL023.AAB
	DCEXL0275AAG
	DCEXL0275AAK
	DCEXL030.AAD
	DCEXL0409AAB
	DCEXL0409AAC
	DCEXL0409AAD
	DCEXL050.AAD
	DCEXL0505AAE
	DCEXL0540AAB
	DCEXL060.AAD
	DCEXL0661AAH
John Deere Power	DJDXL04.5119
	DJDXL06.8104
	DJDXL06.8106
	DJDXL06.8120
	DJDXL09.0114
	DJDXL13.5132
Detroit Diesel	DDDXL14.0WLD
DOOSAN INFRACORE	DDICL18.3USA
	DDICL21.9UYA

Model Year 2013 Engines (continued)

Manufacturer	Engine Families
FPT INDUSTRIAL	DFPXL06.7DGB
	DFPXL06.7DGS
	DFPXL08.7TR3
	DFPXL10.3TR3
Komatsu	DKLXL060.AAE
	DKLXL23.2FD5
KUKJE MACHINERY	DKMCL3.41D43
Mitsubishi Heavy Industries	DMVXL24.5BBA
	DMVXL33.9BBA
	DMVXL37.1BBA
	DMVXL49.0BBA
	DMVXL65.4BBA
	DMVXL65.4BBB
MTU DETROIT DIESEL	DMDDL14.0ZWK
	DMDDL21.0ZWR
	DMDDL31.8XRR
	DMDDL35.8GRR
	DMDDL95.4XTR
Perkins Engines	DPKXL04.4NJ1
	DPKXL06.6PJ1
	DPKXL06.6PJ2
	DPKXL06.6PJ3
	DPKXL12.5TAG
	DPKXL15.2TA2
	DPKXL15.2TAG
	DPKXL18.1TAG
VXP	DVPXL09.4BAA
	DVPXL12.8BCA
	DVPXL16.1ACB
	DVPXL16.1ACG
	DVPXL16.1ACW
	DVPXL16.1ADA
	DVPXL16.1BDA
	DVPXL16.1BEA

Attachment 1: DCL MINE-X SOOTFILTER®
Off-Road Certified Engine Family List (<=0.15 g/bhp-hr PM)

Model Year 2014 Engines

Manufacturer	Engine Families
Caterpillar	ECPXL08.8NZS
	ECPXL106.NZS
	ECPXL12.5NYS
	ECPXL15.2NYS
	ECPXL15.2NZS
	ECPXL18.1NYS
	ECPXL18.1NZS
	ECPXL27.0NZS
	ECPXL32.0NZS
	ECPXL78.1NZS
Cummins	ECEXL015.AAH
	ECEXL015.AAJ
	ECEXL019.AAD
	ECEXL023.AAB
	ECEXL0275AAG
	ECEXL0275AAK
	ECEXL03.3ACK
	ECEXL030.AAD
	ECEXL0409AAB
	ECEXL0409AAC
	ECEXL0409AAD
	ECEXL050.AAD
	ECEXL0505AAE
	ECEXL0540AAB
	ECEXL060.AAD
	ECEXL0661AAH
	ECEXL13.0AAA
John Deere Power	EJDXL04.5119
	EJDXL06.8120
	EJDXL09.0114
	EJDXL13.5132
	EJDXL13.5146
Detroit Diesel	EDDXL14.0WLD
DOOSAN INFRACORE	EDICL18.3USA
	EDICL21.9UYA
FPT INDUSTRIAL	EFPXL06.7DGB
	EFPXL06.7DGS
	EFPXL08.7TR3
	EFPXL10.3TR3
Komatsu	EKLXL060.AAE
	EKLXL23.2FD5

Model Year 2014 Engines (continued)

Manufacturer	Engine Families
KUKJE MACHINERY	EKMCL3.41D43
Mitsubishi Heavy Industries	EMVXL24.5BBA
	EMVXL33.9BBA
	EMVXL37.1BBA
	EMVXL49.0BBA
	EMVXL65.4BBA
	EMVXL65.4BBB
MTU DETROIT DIESEL	EMDDL14.0ZWK
	EMDDL21.0ZWR
	EMDDL35.8GRR
	EMDDL95.4XTR
Perkins Engines	EPKXL04.4NJ3
	EPKXL06.6PJ1
	EPKXL06.6PJ2
	EPKXL07.0PW1
VXP	EVPXL16.1ACB
	EVPXL16.1ACG
	EVPXL16.1ACW