

**Attachment 1: Cummins Pacific eMissions DPF  
Off-Road Certified Engine Family List ( $\leq 0.15$  g/bhp-hr PM)**

Model Year 2006 Engines

Manufacturer	Engine Families
Cummins	6CEXL030.ABA
	6CEXL030.AAD
	6CEXL045.AAA
	6CEXL050.AAD
	6CEXL060.AAD
	6CEXL078.AAB

Model Year 2007 Engines

Manufacturer	Engine Families
Cummins	7CEXL023.AAA
	7CEXL023.AAB
	7CEXL023.AAC
	7CEXL030.AAD
	7CEXL030.AAE
	7CEXL030.ABA
	7CEXL050.AAC
	7CEXL050.AAD
	7CEXL050.ABA
	7CEXL060.AAB
	7CEXL060.AAD
	7CEXL060.AAE
	7CEXL078.AAB
	7CEXL078.AAE
Komatsu Ltd.	7KLXL23.2FD5
	7KLXL045.AAA
Mitsubishi Heavy Industries, Ltd.	7MVXL24.5BBA
	7MVXL33.9BBA
	7MVXL37.1BBA
	7MVXL49.0BBA
	7MVXL65.4BBA
MTU Detroit Diesel	7MDDL31.8XRR

Model Year 2008 Engines

Manufacturer	Engine Families
Caterpillar	8CPXL27.0ESK
	8CPXL27.0ESW
	8CPXL27.0ESX
	8CPXL32.0ESW
	8CPXL32.0ESX
	8CPXL34.5E2W
	8CPXL51.8E2W
	8CPXL78.1E2W
Cummins	8CEXL023.AAA
	8CEXL023.AAB
	8CEXL023.AAC
	8CEXL030.AAB
	8CEXL030.AAD
	8CEXL030.ABA
	8CEXL045.AAA
	8CEXL050.AAC
	8CEXL050.AAD
	8CEXL060.AAB
	8CEXL060.AAD
	8CEXL060.AAE
	8CEXL078.AAA
	8CEXL078.AAB
	8CEXL078.AAE
Komatsu Ltd.	8KLXL23.2FD5
	8KLXL23.2FD6
	8KLXL23.2FD7
	8KLXL30.5GD3
	8KLXL050.AAC
	8KLXL060.AAA
	8KLXL060.AAB
	8KLXL078.AAA
Mitsubishi Heavy Industries, Ltd.	8MVXL24.5BBA
	8MVXL33.9BBA
	8MVXL37.1BBA
	8MVXL49.0BBA
	8MVXL65.4BBA
MTU Detroit Diesel, Inc.	8MDDL31.8XRR
MTU Detroit Diesel, Inc.	8MDDL35.8GRR

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Model Year 2009 Engines

Manufacturer	Engine Families
Caterpillar	9CPXL27.0ESW
	9CPXL27.0ESX
	9CPXL32.0ESW
Cummins	9CEXL023.AAA
	9CEXL023.AAB
	9CEXL023.AAC
	9CEXL030.AAD
	9CEXL050.AAD
	9CEXL060.AAD
	9CEXL060.AAE
	9CEXL078.AAB
Komatsu Ltd.	9KLXL23.2FD5
	9KLXL23.2FD7
Mitsubishi Heavy Industries, Ltd.	9MVXL24.5BBA
	9MVXL33.9BBA
	9MVXL37.1BBA
	9MVXL49.0BBA
	9MVXL65.4BBA
	9MVXL65.4BBB
MTU Detroit Diesel	9MDDL31.8XRR
	9MDDL35.8GRR

Model Year 2010 Engines

Manufacturer	Engine Families
Caterpillar	ACPXL27.0ESW
	ACPXL27.0ESX
	ACPXL32.0ESP
	ACPXL32.0ESW
Cummins	ACEXL023.AAA
	ACEXL023.AAB
	ACEXL023.AAC
	ACEXL030.AAD
	ACEXL050.AAD
	ACEXL060.AAD
	ACEXL060.AAE
	ACEXL078.AAE
Komatsu Ltd.	AKLXL23.2FD5
	AKLXL23.2FD7
	AKLXL078.AAF
Mitsubishi Heavy Industries, Ltd.	AMVXL24.5BBA
	AMVXL33.9BBA
	AMVXL37.1BBA
	AMVXL49.0BBA
	AMVXL65.4BBA
	AMVXL65.4BBB
MTU Detroit Diesel	AMDDL31.8XRR
	AMDDL35.8GRR

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Model Year 2011 Engines

Manufacturer	Engine Families
Caterpillar	BCPXL27.0NZS
	BCPXL32.0NZS
	BCPXL78.1NZS
Cummins	BCEXL023.AAB
	BCEXL030.AAD
	BCEXL050.AAD
	BCEXL060.AAD
Komatsu Ltd.	BKLXL23.2FD5
Mitsubishi Heavy Industries, Ltd.	BMVXL24.5BBA
	BMVXL33.9BBA
	BMVXL37.1BBA
	BMVXL49.0BBA
	BMVXL65.4BBA
	BMVXL65.4BBB
MTU Detroit Diesel	BMDDL31.8XRR
	BMDDL35.8GRR

Model Year 2013 Engines

Manufacturer	Engine Families
Caterpillar	DCPXL27.0NZS
	DCPXL32.0NZS
	DCPXL78.1NZS
Cummins	DCEXL023.AAB
	DCEXL030.AAD
	DCEXL050.AAD
	DCEXL060.AAD
Komatsu Ltd.	DKLXL23.2FD5
Mitsubishi Heavy Industries, Ltd.	DMVXL24.5BBA
	DMVXL33.9BBA
	DMVXL37.1BBA
	DMVXL49.0BBA
	DMVXL65.4BBA
	DMVXL65.4BBB
MTU Detroit Diesel	DMDDL31.8XRR
	DMDDL35.8GRR

Model Year 2012 Engines

Manufacturer	Engine Families
Caterpillar	CCPXL27.0NZS
	CCPXL32.0NZS
	CCPXL78.1NZS
Cummins	CCEXL023.AAB
	CCEXL030.AAD
	CCEXL050.AAD
	CCEXL060.AAD
Komatsu Ltd.	CKLXL23.2FD5
Mitsubishi Heavy Industries, Ltd.	CMVXL24.5BBA
	CMVXL33.9BBA
	CMVXL37.1BBA
	CMVXL49.0BBA
	CMVXL65.4BBA
	CMVXL65.4BBB
MTU Detroit Diesel	CMDDL31.8XRR
	CMDDL35.8GRR

Model Year 2014 Engines

Manufacturer	Engine Families
Caterpillar	ECPXL27.0NZS
	ECPXL32.0NZS
	ECPXL78.1NZS
Cummins	ECEXL023.AAB
	ECEXL030.AAD
	ECEXL050.AAD
	ECEXL060.AAD
Komatsu Ltd.	EKLXL23.2FD5
Mitsubishi Heavy Industries, Ltd.	EMVXL24.5BBA
	EMVXL33.9BBA
	EMVXL37.1BBA
	EMVXL49.0BBA
	EMVXL65.4BBA
	EMVXL65.4BBB
MTU Detroit Diesel	EMDDL31.8XRR
	EMDDL35.8GRR

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Model Year 2015 Engines

Manufacturer	Engine Families
Caterpillar	FCPXL27.0NZZ
	FCPXL32.0NZZ
	FCPXL78.1NZZ
Cummins	FCEXL023.AAB
	FCEXL030.AAD
	FCEXL050.AAD
	FCEXL060.AAD
Komatsu Ltd.	FKLXL23.2FD5
Mitsubishi Heavy Industries, Ltd.	FMVXL24.5BBA
	FMVXL33.9BBA
	FMVXL37.1BBA
	FMVXL49.0BBA
	FMVXL65.4BBA
MTU Detroit Diesel	FMDDL31.8XRR
	FMDDL35.8GRR
	FMDDL40.1GRR

Model Year 2016 Engines

Manufacturer	Engine Families
Caterpillar	GCPXL27.0NZZ
	GCPXL32.0NZZ
	GCPXL78.1NZZ
Cummins	GCEXL023.AAB
	GCEXL030.AAD
	GCEXL050.AAD
	GCEXL060.AAD

Model Year 2017 Engines

Manufacturer	Engine Families
Caterpillar	HCPXL27.0NZZ
	HCPXL32.0NZZ
	HCPXL78.1NZZ
Cummins	HCEXL023.AAB
	HCEXL030.AAD
	HCEXL050.AAD
	HCEXL060.AAD

Model Year 2018 Engines

Manufacturer	Engine Families
Caterpillar	JCPXL27.0NZZ
	JCPXL32.0NZZ
	JCPXL78.1NZZ
Cummins	JCEXL023.AAB
	JCEXL030.AAD
	JCEXL050.AAD
	JCEXL060.AAD

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Model Year 2019 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Caterpillar	KCPXL27.0NZS
	KCPXL32.0NZS
	KCPXL78.1NZS
Cummins	KCEXL023.AAB
	KCEXL030.AAD
	KCEXL050.AAD
	KCEXL060.AAD

Model Year 2020 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Caterpillar	LCPXL27.0NZS
	LCPXL32.0NZS
	LCPXL78.1NZS
Cummins	LCEXL023.AAB
	LCEXL030.AAD
	LCEXL050.AAD
	LCEXL060.AAD

Model Year 2021 Engines

<b>Manufacturer</b>	<b>Engine Families</b>
Caterpillar	MCPXL27.0NZS
	MCPXL32.0NZS
	MCPXL78.1NZS
Cummins	MCEXL023.AAB
	MCEXL030.AAD
	MCEXL050.AAD
	MCEXL060.AAD