

**Attachment 1: Rypos APDF  
Certified Marine Engine Family List (0<=0.2 g/bhp-hr PM)**

Model Year 2004 Engines

| <b>Manufacturer</b>               | <b>Engine Families</b> |
|-----------------------------------|------------------------|
| AB Volvo Penta                    | 4VPXM12.1DAA           |
|                                   | 4VPXM12.1DAB           |
|                                   | 4VPXM12.1DAC           |
|                                   | 4VPXM12.1EFA           |
|                                   | 4VPXM05.5DAA           |
|                                   | 4VPXM05.5DAB           |
|                                   | 4VPXM07.3DAA           |
| ALASKA DIESEL ELECTRIC            | 4ADEM06.8475           |
| Caterpillar inc.                  | 4CPXM08.8HN2           |
|                                   | 4CPXM10.3EN2           |
|                                   | 4CPXM12.0EN2           |
|                                   | 4CPXM14.6EN2           |
| Cummins Inc.                      | 4CEXM0505AAA           |
| Cummins Mercruiser Diesel, LLC    | 4CEXM011.AAB           |
|                                   | 4CEXM0359AAA           |
|                                   | 4CEXM0540AAA           |
| Deere Power Systems Group         | 4JDXM12.5071           |
|                                   | 4JDXM06.8068           |
|                                   | 4JDXM06.8069           |
|                                   | 4JDXM08.1070           |
| Detroit Diesel Corp. & MTU        | 4DDXM14.0JIK           |
|                                   | 4DDXM14.0KIK           |
|                                   | 4DDXM14.0MIK           |
| Deutz ag                          | 4DZXM15.9001           |
|                                   | 4DZXM35.0002           |
| Mitsubishi Heavy Industries, Ltd. | 4MVXM14.6BCA           |

Model Year 2005 Engines

| <b>Manufacturer</b>            | <b>Engine Families</b> |
|--------------------------------|------------------------|
| AB Volvo Penta                 | 5VPXM09.4DAA           |
|                                | 5VPXM12.1DAA           |
|                                | 5VPXM12.1DAB           |
|                                | 5VPXM12.1DAC           |
|                                | 5VPXM12.1EFA           |
|                                | 5VPXM05.5DAB           |
|                                | 5VPXM07.3DAA           |
| ALASKA DIESEL ELECTRIC         | 5ADEM06.8475           |
|                                | 5ADEM12.5340           |
| Caterpillar inc.               | 5CPXM07.2HA2           |
|                                | 5CPXM08.8HN2           |
|                                | 5CPXM10.3EN2           |
|                                | 5CPXM12.0EN2           |
|                                | 5CPXM14.6EN2           |
| Cummins Inc.                   | 5CEXM011.AAC           |
|                                | 5CEXM0359AAC           |
|                                | 5CEXM0505AAA           |
| Cummins Mercruiser Diesel, LLC | 5CEXM011.AAB           |
|                                | 5CEXM0359AAA           |
|                                | 5CEXM0505AAB           |
|                                | 5CEXM0540AAA           |
| Deere Power Systems Group      | 5JDXM06.8068           |
|                                | 5jdxm06.8069           |
|                                | 5jdxm08.1070           |
|                                | 5jdxm12.5071           |
| Detroit Diesel                 | 5ddxm14.0JIK           |
|                                | 5ddxm14.0klk           |
|                                | 5ddxm14.0MIK           |
| Detroit Diesel Corp. & MTU     | 5ddxm14.0JIK           |
|                                | 5ddxm14.0MIK           |
|                                | 5ddxm31.8mRP           |

Model Year 2005 Engines (Continued)

| Manufacturer                         | Engine Families |
|--------------------------------------|-----------------|
| Deutz ag                             | 5dzxM15.9001    |
|                                      | 5DZXm35.0002    |
| ISOTTA<br>FRASCHINI<br>MOTORI S.P.A. | 5IFMM20.1V12    |
| IVECO NV                             | 5VEXM05.9MCR    |
|                                      | 5VEXM06.7MTA    |
|                                      | 5VEXM12.9BTC    |
|                                      | 5VEXM12.9MTC    |
| Mitsubishi Heavy<br>Industries,Ltd.  | 5MVXM14.6BCA    |
| Perkins Engines<br>Company ltd       | 5PKXM04.4NA1    |
|                                      | 5PKXM04.4TAG    |
| SCANIA CV AB                         | 5Y9XM11.7BDB    |
|                                      | 5Y9XM15.6BDA    |

Model Year 2006 Engines

| Manufacturer                         | Engine Families |
|--------------------------------------|-----------------|
| AB Volvo Penta                       | 6VPXM05.5DAB    |
|                                      | 6VPXM05.5DAC    |
|                                      | 6VPXM07.3DAA    |
|                                      | 6vpxm09.4daa    |
|                                      | 6vpxm09.4dCA    |
|                                      | 6vpxm09.4dIA    |
|                                      | 6vpxm09.4efa    |
|                                      | 6VPxm12.1Daa    |
|                                      | 6vpxm12.1dab    |
|                                      | 6VPXM12.1DAC    |
|                                      | 6VPXM12.1DCA    |
|                                      | 6VPXM12.1efa    |
| ALASKA DIESEL<br>ELECTRIC            | 6ADEM06.8475    |
|                                      | 6ADEM12.5340    |
| Caterpillar inc.                     | 6cpxm07.2ha2    |
|                                      | 6CPXM07.2HP2    |
|                                      | 6cpxm08.8hn2    |
|                                      | 6cpxm08.8hp2    |
|                                      | 6CPXM08.8HR2    |
|                                      | 6CPXM10.3EN2    |
|                                      | 6CPXM12.0EN2    |
|                                      | 6cpxm12.0ER2    |
|                                      | 6cpxm14.6en2    |
| Cummins Inc.                         | 6CEXM011.AAC    |
|                                      | 6CEXM0359AAC    |
|                                      | 6CEXM0505AAA    |
| Cummins<br>Mercruiser Diesel,<br>LLC | 6CEXM011.AAB    |
|                                      | 6CEXM011.AAD    |
|                                      | 6CEXM0359AAA    |
|                                      | 6CEXM0359AAD    |
|                                      | 6cexm0505aab    |
|                                      | 6CEXM0505AAC    |
|                                      | 6CEXM0540AAA    |
|                                      | 6cexm0540aab    |

Model Year 2006 Engines (Continued)

| Manufacturer                      | Engine Families |
|-----------------------------------|-----------------|
| Deere Power Systems               | 6JDXM06.8085    |
|                                   | 6JDXM08.1086    |
|                                   | 6JDXM12.5087    |
|                                   | 6jdxm06.8068    |
|                                   | 6jdxm06.8069    |
|                                   | 6jdxm08.1070    |
|                                   | 6jdxm12.5071    |
|                                   |                 |
| DETROIT DIESEL CORPORATION        | 6DDXM14.0KLL    |
|                                   | 6DDXM14.0KLR    |
| Detroit Diesel Corp. & MTU        | 6ddxm14.0JIK    |
|                                   | 6ddxm14.0MIK    |
|                                   | 6ddxm31.8mRP    |
|                                   | 6ddxm35.7mns    |
| Deutz ag                          | 6dzm15.9001     |
| Electro-Motive.                   | 6EMDM0710GT2    |
| IVECO NV                          | 6VEXM03.0COM    |
|                                   | 6VEXM05.9MCR    |
|                                   | 6VEXM06.7MTA    |
|                                   | 6VEXM07.8CRS    |
|                                   | 6VEXM12.9BTC    |
|                                   | 6VEXM12.9MTC    |
| Mitsubishi Heavy Industries, Ltd. | 6MVXM14.6BCA    |
|                                   | MNB             |
|                                   | 6MNBM21.9001    |
| Perkins Engines                   | 6PKXM04.4NA1    |
|                                   | 6PKXM04.4TAG    |
| SCANIA CV AB                      | 6Y9XM11.7BDD    |
|                                   | 6Y9XM11.7IMB    |
|                                   | 6Y9XM15.6BDA    |
|                                   | 6Y9XM15.6BDc    |
|                                   | 6Y9XM15.6IMA    |
|                                   | 6Y9XM15.6IMO    |
| Yanmar Co., LTD                   | 6YDXM5.81D6H    |
|                                   | 6YDXM2.00D4T    |

Model Year 2007 Engines

| Manufacturer           | Engine Families |
|------------------------|-----------------|
| AB Volvo Penta         | 7VPXM02.4DAA    |
|                        | 7vpxm09.4daa    |
|                        | 7vpxm09.4dca    |
|                        | 7vpxm09.4dIA    |
|                        | 7vpxm09.4efa    |
|                        | 7VPxm12.1Daa    |
|                        | 7VPxm12.1DaC    |
|                        | 7VPXM12.1DCA    |
|                        | 7VPXM12.1efa    |
|                        | 7VPXM16.1DIA    |
| ALASKA DIESEL ELECTRIC | 7VPXM16.1EFA    |
|                        | 7VPXM05.5DAB    |
|                        | 7VPXM05.5DAC    |
|                        |                 |
| Caterpillar Inc.       | 7ADEM12.5340    |
|                        | 7cpxm07.2ha2    |
|                        | 7CPXM07.2HP2    |
|                        | 7CPXM07.2HR2    |
|                        | 7cpxm08.8hn2    |
|                        | 7cpxm08.8hp2    |
|                        | 7CPXM08.8HR2    |
|                        | 7CPXM10.3EN2    |
|                        | 7CPXM12.0EN2    |
|                        | 7cpxm12.0ER2    |
|                        | 7cpxm14.6en2    |
|                        | 7CPXM18.1EA2    |
|                        | 7CPXM18.1EN2    |
|                        | 7CPXM69.0eN2    |
| 7CPXM78.1eN2           |                 |
| Cummins Inc.           | 7CEXM011.AAC    |
|                        | 7CEXM019.AAB    |
|                        | 7CEXM0359AAC    |
|                        | 7CEXM0505AAA    |
|                        | 7CEXM011.AAC    |
|                        | 7CEXM019.AAB    |

Model Year 2007 Engines (Continued)

| Manufacturer                                     | Engine Families |
|--------------------------------------------------|-----------------|
| Cummins<br>Mercruiser                            | 7CEXM011.AAB    |
|                                                  | 7CEXM011.AAD    |
|                                                  | 7CEXM0359AAA    |
|                                                  | 7CEXM0359AAD    |
|                                                  | 7cexm0505aab    |
|                                                  | 7CEXM0505AAC    |
|                                                  | 7CEXM0540AAA    |
|                                                  | 7cexm0540aab    |
| Deere Power<br>Systems Group                     | 7jdxm06.8068    |
|                                                  | 7jdxm06.8069    |
|                                                  | 7JDXM06.8085    |
|                                                  | 7jdxm08.1070    |
|                                                  | 7JDXM08.1086    |
|                                                  | 7jdxm12.5071    |
|                                                  | 7JDXM12.5087    |
|                                                  | 7JDXM12.5091    |
|                                                  | 7JDXM12.5IM1    |
| DETROIT DIESEL                                   | 7DDXM14.0KLL    |
|                                                  | 7DDXM14.0KLR    |
|                                                  | 7DDXM14.0JLK    |
|                                                  | 7ddxm14.0JIK    |
| Detroit Diesel Corp.<br>& MTU                    | 7ddxm14.0MIK    |
| Deutz ag                                         | 7dzm15.9001     |
| Electro-Motive<br>DIESEL, INC.                   | 7EMDM0710GT2    |
| FPT - iveco motors                               | 7VEXM03.0REC    |
| Ishikawajima-<br>shibaura Machinery<br>co., ltd. | 7H3XM2.22D55    |
|                                                  | 7H3XM2.22D75    |
| Isuzu MOTORS<br>LIMITED                          | 7SZXM15.7EWA    |
|                                                  | 7SZXM15.7EWB    |

Model Year 2007 Engines (Continued)

| Manufacturer                        | Engine Families |
|-------------------------------------|-----------------|
| KUBOTA<br>corporation               | 7KBXM03.3BCC    |
| Mitsubishi heavy<br>industries,Ltd. | 7MVXM14.6BCA    |
|                                     | 7MVXM18.6BCA    |
| MNB                                 | 7MNBM6.87001    |
| MTU Detroit diesel,                 | 7MDDM31.8MRR    |
|                                     | 7MDDM35.7MNR    |
|                                     | 7MDDM65.0MTR    |
| Perkins Engines<br>Company ltd      | 7PKXM04.4NA1    |
|                                     | 7PKXM04.4TAG    |
| SCANIA CV AB                        | 7Y9XM11.7BDD    |
|                                     | 7Y9XM11.7IMB    |
|                                     | 7Y9XM15.6BDA    |
|                                     | 7Y9XM15.6BDC    |
|                                     | 7Y9XM15.6IMA    |
|                                     | 7Y9XM15.6IMO    |
| Steyr motors gMBh                   | 7stym3.200m1    |
| vm motori spa                       | 7V5XM02.0K6R    |
| YANMAR CO., LTD.                    | 7YDXM2.00D4H    |
|                                     | 7ydXm3.00D6H    |
|                                     | 7YDXM4.16D6H    |
|                                     | 7YDXM2.00D4T    |
|                                     | 7YDXM2.19D4N    |
|                                     | 7YDXM5.81D6H    |

Model Year 2008 Engines

| Manufacturer           | Engine Families |
|------------------------|-----------------|
| AB Volvo Penta         | 8VPXM02.4DAA    |
|                        | 8vpxm09.4dCA    |
|                        | 8VPXM12.1DAA    |
|                        | 8VPXM12.1DAC    |
|                        | 8VPXM12.1EFA    |
|                        | 8VPXM05.5DAB    |
|                        | 8VPXM05.5DAC    |
| ALASKA DIESEL ELECTRIC | 8adem06.8275    |
|                        | 8ADEM06.8475    |
|                        | 8ADEM12.5340    |
| Caterpillar inc        | 8CPXM18.1EA2    |
|                        | 8CPXM07.2HA2    |
|                        | 8CPXM07.2HP2    |
|                        | 8CPXM07.2HR2    |
|                        | 8CPXM07.2HW2    |
|                        | 8cpxm08.8hn2    |
|                        | 8cpxm08.8hp2    |
|                        | 8CPXM08.8HR2    |
|                        | 8cpxm08.8hW2    |
|                        | 8CPXM10.3EN2    |
|                        | 8CPXM12.0EN2    |
|                        | 8cpxm12.0ER2    |
|                        | 8cpxm14.6en2    |
|                        | 8CPXM18.1EN2    |
|                        | 8CPXM18.1EP2    |
|                        | 8CPXM18.1EW2    |
|                        | 8CPXM32.1Ea2    |
| 8CPXM32.1EG2           |                 |
| 8CPXM32.1EP2           |                 |
| 8CPXM32.1ER2           |                 |
| 8CPXM32.1EW2           |                 |
| 8CPXM69.0eN2           |                 |
| 8CPXM78.1eN2           |                 |
| Cummins Inc.           | 8CEXM011.AAC    |
|                        | 8CEXM019.AAB    |
|                        | 8CEXM0359AAC    |
|                        | 8CEXM038.AAB    |
|                        | 8CEXM0505AAA    |

Model Year 2008 Engines (Continued)

| Manufacturer                   | Engine Families |
|--------------------------------|-----------------|
| Cummins Mercruiser             | 8CEXM011.AAB    |
|                                | 8CEXM011.AAD    |
|                                | 8CEXM0359AAA    |
|                                | 8CEXM0359AAD    |
|                                | 8cexm0505aab    |
|                                | 8CEXM0505AAC    |
|                                | 8CEXM0540AAA    |
|                                | 8cexm0540aab    |
| DETROIT DIESEL CORPORATION     | 8DDXM14.0KLK    |
|                                | 8DDXM14.0KLR    |
|                                | 8DDXM14.0JLK    |
|                                | 8ddxm14.0JIK    |
|                                | 8ddxm14.0MIK    |
| DEUTZ AG                       | 8DZXM07.1002    |
| Electro-Motive DIESEL, INC.    | 8EMDM0710GT2    |
| FPT - iveco motors             | 8VEXM03.0COM    |
|                                | 8VEXM03.0REC    |
| IHI Shibaura Machinery         | 8H3XM2.22D55    |
|                                | 8H3XM2.22D75    |
| ISOTTA FRASCHINI MOTORI S.P.A. | 8IFMM20.1V12    |
| Isuzu                          | 8SZXm07.8EWA    |
|                                | 8SZXm07.8EWB    |
| IVECO NV                       | 8VEXM06.7COM    |
|                                | 8VEXM06.7REC    |
|                                | 8VEXM12.9MTC    |
|                                | 8VEXM05.9MCR    |
| John Deere Power systems group | 8jdxm06.8068    |
|                                | 8jdxm06.8069    |
|                                | 8JDXM06.8085    |
|                                | 8JDXM06.8108    |
|                                | 8JDXM06.8109    |
|                                | 8jdxm08.1070    |
|                                | 8JDXM08.1086    |
|                                | 8jdxm12.5071    |
|                                | 8JDXM12.5087    |
| 8jdxm12.5091                   |                 |

Model Year 2008 Engines (Continued)

| Manufacturer                     | Engine Families |
|----------------------------------|-----------------|
| KUBOTA                           | 8KBXM03.3BCC    |
| Mitsubishi Heavy Industries,Ltd. | 8MVXM14.6BCB    |
|                                  | 8MVXM18.6BCA    |
| MNB                              | 8MNBM12.8001    |
|                                  | 8MNBM21.9002    |
| MTU Detroit Diesel               | 8MDDM31.8MRR    |
|                                  | 8MDDM348.MHR    |
|                                  | 8MDDM35.7MNR    |
|                                  | 8MDDM65.0MTR    |
| Perkins Engines                  | 8pkxM06.6pk1    |
|                                  | 8PKXM04.4TC1    |
|                                  | 8PKXM04.4NA1    |
|                                  | 8PKXM04.4TAG    |
| SCANIA CV AB                     | 8Y9XM11.7BDD    |
|                                  | 8Y9XM15.6BDA    |
|                                  | 8Y9XM15.6BDC    |
| stx engine co., ltd.             | 8STXM83.3S1E    |
| General Electric Company         | 8GETM0668EMB    |
|                                  | 8GETM0958EMB    |
|                                  | 8GETM0958EMC    |
|                                  | 8GETM0958EML    |
| vm motori spa                    | 8V5XM02.0K6R    |
| Volkswagen Marine                | 8VWXM01.9XTD    |
| YANMAR CO., LTD.                 | 8YDXM3.32J4N    |
|                                  | 8YDXM42.8TI2    |
|                                  | 8YDXM3.00D6H    |
|                                  | 8YDXM2.00D4H    |
|                                  | 8YDXM2.00D4T    |
|                                  | 8YDXM2.19D4N    |
|                                  | 8YDXM3.00D6H    |
|                                  | 8YDXM4.16D6H    |
|                                  | 8YDXM5.81D6C    |
|                                  | 8YDXM5.81D6H    |
|                                  | 8ydxm7.41D6H    |

Model Year 2009 Engines

| Manufacturer                         | Engine Families |
|--------------------------------------|-----------------|
| AB volvo penta                       | 9vpxN09.4dCA    |
|                                      | 9VPXn12.1DAA    |
|                                      | 9VPXN12.1DAC    |
|                                      | 9VPXn12.1EFA    |
|                                      | 9VPXN05.5DAB    |
|                                      | 9VPXN05.5DAC    |
| Cummins Inc.                         | 9cexn011.AAC    |
|                                      | 9cexn019.AAB    |
|                                      | 9cexn038.AAB    |
|                                      | 9cexn05.9AAC    |
|                                      | 9cexn08.3AAA    |
|                                      | 9CEXN60.0AAB    |
| Cummins<br>Mercruiser Diesel         | 9cexn011.AAB    |
|                                      | 9cexn011.AAD    |
|                                      | 9cexn05.9AAA    |
|                                      | 9cexn08.3AAB    |
|                                      | 9cexn08.9AAA    |
| Electro-Motive<br>DIESEL, INC.       | 9EMDn233.GT2    |
| ISOTTA<br>FRASCHINI<br>MOTORI S.P.A. | 9IFMN20.1V12    |
| ISUZU MOTORS<br>LIMITED              | 9SZXN15.7EWA    |
| John Deere Power<br>systems group    | 9jdxN06.8068    |
|                                      | 9jdxN06.8069    |
|                                      | 9JDXN06.8085    |
|                                      | 9JDXN06.8108    |
|                                      | 9JDXN06.8109    |
|                                      | 9JDXN08.1086    |
|                                      | 9jdxN12.5071    |
|                                      | 9JDXN12.5087    |
|                                      | 9jdxN12.5091    |
| MTU Detroit Diesel                   | 9MDDN31.8MRR    |
|                                      | 9MDDN348.MHR    |
|                                      | 9MDDN35.7MNR    |
|                                      | 9MDDN65.0MTR    |
|                                      | 9MDDN86.2MTR    |
|                                      | 9MDDN86.2MTR    |