

## ATTACHMENT 1

## Engine Families EXCLUDED from the HUSS FS-MK DPF Verification

Table 1. Excluded Engine Families (EGR-equipped)

Model Year	Engine Manufacturer	Engine Family	Displacement (L)
2004	International (Navistar)	4NVXL0570AEA	9.3
2004	Liebherr	4LHAL12.8RMR	12.8
2004	Mack	4MKXL11.9P69	11.9
2004	Mack	4MKXL11.9P72	11.9
2005	Deere	5JDXL06.8101	4.5, 6.8
2005	Deere	5JDXL09.0102	9
2005	Detroit Diesel Corporation	5DDXL14.0VLD	14
2005	International (Navistar)	5NVXL0570AEA	9.3
2005	Isuzu	5SZXL15.7HXZ	15.7
2005	Liebherr	5LHAL12.8RMC	12.8
2005	Liebherr	5LHAL12.8RMR	12.8
2005	Lombardini	5LBDL.442155	0.442
2005	Volvo	5VSXL12.1CE3	12.1
2005	Yanmar	5YDXL0.32D1N	0.32
2005	Yanmar	5YDXL0.44D1N	0.44
2006	Deere	6JDXL06.8101	4.5, 6.8
2006	Deere	6JDXL09.0102	9
2006	Deere	6JDXL13.5103	13.5
2006	Deutz	6DZXL06.1057	6.1
2006	Deutz	6DZXL06.1059	6.1
2006	Deutz	6DZXL06.1060	6.1
2006	Deutz	6DZXL07.1051	7.1
2006	Deutz	6DZXL07.1055	7.1
2006	Deutz	6DZXL15.9065	11.9, 15.9
2006	Hino	6HMXL05.1JTA	5.1
2006	Hino	6HMXL07.7JTM	7.7
2006	Hino	6HMXL10.5PUN	10.5
2006	International (Navistar)	6NVXL0365AFA	6
2006	International (Navistar)	6NVXL0570AEA	9.3
2006	Isuzu	6SZXL05.2HXA	5.2
2006	Isuzu	6SZXL05.2IXA	5.2
2006	Isuzu	6SZXL07.8HXA	7.8
2006	Isuzu	6SZXL09.8HXA	9.8
2006	Isuzu	6SZXL15.7HXA	15.7

<b>Model Year</b>	<b>Engine Manufacturer</b>	<b>Engine Family</b>	<b>Displacement (L)</b>
2006	Komatsu	6KLXL11.0DD6	11
2006	Komatsu	6KLXL15.2ED6	15.2
2006	Komatsu	6KLXL23.2FD6	23.2
2006	Liebherr	6LHAL12.8RMC	12.8
2006	Liebherr	6LHAL24.2VCE	16.2
2006	Lombardini	6LBDL.442155	0.442
2006	Mitsubishi	6MFTL07.5M6A	7.5
2006	Mitsubishi	6MFTL12.9M6A	12.9
2006	Mitsubishi	6MFTL12.9M7A	12.9
2006	Perkins	6PKXL06.6PJ1	6.6
2006	Perkins	6PKXL06.6PJ2	6.6
2006	Volvo	6VSXL09.4CE3	9.4
2006	Volvo	6VSXL12.1CE3	12.1
2006	Volvo	6VSXL16.1CE3	16.1
2006	Yanmar	6YDXL0.32D1N	0.32
2006	Yanmar	6YDXL0.44D1N	0.44
2007	AB Volvo Penta	7VPXL12.1BAA	12.1
2007	Cummins	7CEXL0661AAH	11.0
2007	Deere	7JDXL06.8101	4.5, 6.8
2007	Deere	7JDXL09.0102	9.0
2007	Deere	7JDXL13.5103	13.5
2007	Detroit Diesel Corporation	7DDXL14.0VLD	14.0
2007	Deutz	7DZXL04.1069	4.0
2007	Deutz	7DZXL04.1070	4.0
2007	Deutz	7DZXL04.1076	4.0
2007	Deutz	7DZXL04.1078	4.0
2007	Deutz	7DZXL04.1080	4.0
2007	Deutz	7DZXL04.8064	4.8
2007	Deutz	7DZXL04.8068	4.8
2007	Deutz	7DZXL04.8071	4.8
2007	Deutz	7DZXL06.1057	6.1
2007	Deutz	7DZXL06.1059	5.7
2007	Deutz	7DZXL06.1060	6.1
2007	Deutz	7DZXL06.1061	6.1
2007	Deutz	7DZXL06.1067	4.8, 6.1
2007	Deutz	7DZXL06.1077	4.8, 6.1
2007	Deutz	7DZXL06.5074	6.5
2007	Deutz	7DZXL06.5075	6.5
2007	Deutz	7DZXL07.1051	7.1
2007	Deutz	7DZXL07.1053	7.1
2007	Deutz	7DZXL07.1055	7.1

<b>Model Year</b>	<b>Engine Manufacturer</b>	<b>Engine Family</b>	<b>Displacement (L)</b>
2007	Deutz	7DZXL07.1056	7.1
2007	Deutz	7DZXL15.9065	11.9, 15.9
2007	Hino	7HMXL05.1JTA	5.1
2007	Hino	7HMXL07.7JTM	7.7
2007	Hino	7HMXL10.5PUN	10.5
2007	Hino	7HMXL10.5PUP	10.5
2007	Hino	7HMXL12.9EUV	12.9
2007	Isuzu	7SZXL03.0IXA	3.0
2007	Isuzu	7SZXL05.2HXA	5.2
2007	Isuzu	7SZXL05.2IXA	5.2
2007	Isuzu	7SZXL05.2IXB	5.2
2007	Isuzu	7SZXL07.8HXA	7.8
2007	Isuzu	7SZXL07.8HXB	7.8
2007	Isuzu	7SZXL09.8HXA	9.8
2007	Isuzu	7SZXL09.8HXB	9.8
2007	Isuzu	7SZXL15.7HXA	15.7
2007	Isuzu	7SZXL15.7HXB	15.7
2007	Iveco	7VEXL03.2TCE	3.2
2007	Iveco	7VEXL03.2TCI	3.2
2007	Iveco	7VEXL04.5DAA	4.5
2007	Iveco	7VEXL04.5DCA	4.5
2007	Komatsu	7KLXL11.0DD6	11.0
2007	Komatsu	7KLXL15.2ED6	15.2
2007	Komatsu	7KLXL15.2ED7	15.2
2007	Komatsu	7KLXL23.2FD6	23.2
2007	Liebherr	7LHAL10.5LPE	10.5
2007	Liebherr	7LHAL12.8RMC	12.8
2007	Liebherr	7LHAL24.2VCE	16.2
2007	Lombardini	7LBDL.442155	0.442
2007	Mitsubishi	7MFTL04.9M5A	4.9
2007	Mitsubishi	7MFTL07.5M6A	7.5
2007	Mitsubishi	7MFTL12.9M7A	12.9
2007	Volvo	7VSXL09.4CE3	9.4
2007	Volvo	7VSXL12.1CE3	12.1
2007	Yanmar	7YDXL0.32D1N	0.32
2007	Yanmar	7YDXL0.44D1N	0.44
2007	Yanmar	7YDXL3.32M4N	3.32
2008	AB Volvo Penta	8VPXL12.1BAA	12.1
2008	AB Volvo Penta	8VPXL12.8BCA	12.8
2008	AB Volvo Penta	8VPXL16.1BEA	16.1
2008	CNH UK	8NHXL04.5DAB	4.5

<b>Model Year</b>	<b>Engine Manufacturer</b>	<b>Engine Family</b>	<b>Displacement (L)</b>
2008	CNH UK	8NHXL04.5DCA	4.5
2008	CNH UK	8NHXL04.5DTD	4.5
2008	CNH UK	8NHXL06.7DAA	6.7
2008	CNH UK	8NHXL06.7DCA	6.7
2008	CNH UK	8NHXL06.7DCB	6.7
2008	CNH UK	8NHXL06.7DCC	6.7
2008	Cummins	8CEXL0661AAH	11
2008	Daedong Industrial	8DCLL02.0D5T	2
2008	Daedong Industrial	8DCLL02.2D7T	2.2
2008	Deere	8JDXL06.8101	4.5, 6.8
2008	Deere	8JDXL09.0102	9
2008	Deere	8JDXL13.5103	13.5
2008	Detroit Diesel Corporation	8DDXL14.0VLD	14
2008	Deutz	8DZXL02.3048	2.3
2008	Deutz	8DZXL02.3099	2.3
2008	Deutz	8DZXL03.2088	3.2
2008	Deutz	8DZXL03.6081	3.6
2008	Deutz	8DZXL03.6082	3.6
2008	Deutz	8DZXL03.6084	3.6
2008	Deutz	8DZXL03.6086	3.6
2008	Deutz	8DZXL03.6097	3.6
2008	Deutz	8DZXL03.6098	3.6
2008	Deutz	8DZXL04.1069	4.0
2008	Deutz	8DZXL04.1070	4.0
2008	Deutz	8DZXL04.1076	4.0
2008	Deutz	8DZXL04.1078	4.0
2008	Deutz	8DZXL04.1079	4.0
2008	Deutz	8DZXL04.1080	4.0
2008	Deutz	8DZXL04.8064	4.8
2008	Deutz	8DZXL04.8068	4.8
2008	Deutz	8DZXL04.8071	4.8
2008	Deutz	8DZXL05.4087	4.3
2008	Deutz	8DZXL06.1057	6.1
2008	Deutz	8DZXL06.1059	5.7, 6.1
2008	Deutz	8DZXL06.1060	6.1
2008	Deutz	8DZXL06.1061	6.1
2008	Deutz	8DZXL06.1067	6.1
2008	Deutz	8DZXL06.1077	6.1
2008	Deutz	8DZXL06.5074	6.5
2008	Deutz	8DZXL06.5075	6.5
2008	Deutz	8DZXL06.5095	4.3

<b>Model Year</b>	<b>Engine Manufacturer</b>	<b>Engine Family</b>	<b>Displacement (L)</b>
2008	Deutz	8DZXL07.1051	7.1
2008	Deutz	8DZXL07.1053	7.1
2008	Deutz	8DZXL07.1055	7.1
2008	Deutz	8DZXL07.1056	7.1
2008	Deutz	8DZXL15.9065	11.9, 15.9
2008	Hino	8HMXL04.0NUA	4.0
2008	Hino	8HMXL05.1JTA	5.1
2008	Hino	8HMXL07.7JTM	7.7
2008	Hino	8HMXL10.5PUN	10.5
2008	Hino	8HMXL10.5PUP	10.5
2008	Hino	8HMXL12.9EUV	12.9
2008	Ishikawajima Shibaura	8H3XL2.00N4T	2.0
2008	Ishikawajima Shibaura	8H3XL2.22N4T	2.22
2008	Ishikawajima Shibaura	8H3XL2.22TIC	2.22
2008	Isuzu	8SZXL02.2UTA	2.2
2008	Isuzu	8SZXL02.2UXA	2.2
2008	Isuzu	8SZXL03.0IXA	3
2008	Isuzu	8SZXL03.0JTA	3
2008	Isuzu	8SZXL03.0JXA	3
2008	Isuzu	8SZXL03.0JXB	3
2008	Isuzu	8SZXL03.0UTB	3
2008	Isuzu	8SZXL05.2HXA	5.2
2008	Isuzu	8SZXL05.2IXA	5.2
2008	Isuzu	8SZXL05.2IXB	5.2
2008	Isuzu	8SZXL07.8HXA	7.8
2008	Isuzu	8SZXL09.8HXA	9.8
2008	Isuzu	8SZXL09.8HXB	9.8
2008	Isuzu	8SZXL15.7HXA	15.7
2008	Isuzu	8SZXL15.7HXB	15.7
2008	Iveco	8VEXL03.2TAI	3.2
2008	Iveco	8VEXL03.2TCE	3.2
2008	Iveco	8VEXL03.2TCI	3.2
2008	Iveco	8VEXL04.5DAA	4.5
2008	Iveco	8VEXL04.5DCA	4.5
2008	Iveco	8VEXL04.5DTD	4.5
2008	Iveco	8VEXL06.7DAA	6.7
2008	Iveco	8VEXL06.7DCA	6.7
2008	Iveco	8VEXL06.7DCB	6.7
2008	Iveco	8VEXL06.7DCC	6.7
2008	Komatsu	8KLXL11.0DD6	11
2008	Komatsu	8KLXL15.2ED6	15.2

<b>Model Year</b>	<b>Engine Manufacturer</b>	<b>Engine Family</b>	<b>Displacement (L)</b>
2008	Komatsu	8KLXL15.2ED7	15.2
2008	Komatsu	8KLXL23.2FD6	23.2
2008	Kubota	8KBXL02.4FAD	2.4
2008	Kubota	8KBXL02.6EAD	2.6
2008	Kubota	8KBXL03.3CAD	3.1, 3.3
2008	Kubota	8KBXL03.6BAC	3.6
2008	Kubota	8KBXL03.6BAD	3.6
2008	Kubota	8KBXL03.8AAD	3.8
2008	Liebherr	8LHAL10.5LPE	10.5
2008	Liebherr	8LHAL12.8RMC	12.8
2008	Liebherr	8LHAL24.2VCE	16.2
2008	Lombardini	8LBDL.442155	0.442
2008	Lombardini	8LBDL2.19CT2	2.20
2008	Mahindra & Mahindra	8MMLL02.5N52	2.5
2008	Mahindra & Mahindra	8MMLL02.5N57	2.5
2008	Mahindra & Mahindra	8MMLL02.5N59	2.5
2008	Mahindra & Mahindra	8MMLL02.5N62	2.5
2008	Mahindra & Mahindra	8MMLL02.5N64	2.5
2008	Mahindra & Mahindra	8MMLL03.3N75	3.3
2008	Mahindra & Mahindra	8MMLL03.3N79	3.3
2008	Mitsubishi	8MFTL04.9M5A	4.9
2008	Mitsubishi	8MFTL07.5M6A	7.5
2008	Mitsubishi	8MFTL12.9M7A	12.9
2008	Motorenfabrik Hatz	8HZXL3.43C42	3.43
2008	Motorenfabrik Hatz	8HZXL3.43V42	3.43
2008	Volvo	8VSXL09.4CE3	9.4
2008	Volvo	8VSXL12.1CE3	12.1
2008	Volvo	8VSXL16.1CE3	16.1
2008	Yanmar	8YDXL0.32D1N	0.32
2008	Yanmar	8YDXL0.44D1N	0.44
2008	Yanmar	8YDXL2.00N4T	2.0
2008	Yanmar	8YDXL3.32C4T	3.32
2008	Yanmar	8YDXL3.32M4N	3.32
2008	Yanmar	8YDXL3.32M4T	3.32

**NOTE:** The list of excluded engine families is subject to change as additional families become certified.

**Table 2. Provisionally Excluded Engine Families (DOC-equipped)**

[These engine families are excluded from the FS-MK verification unless installation of the FS-MK meets the requirements described in the Executive Order.]

<b>Model Year</b>	<b>Engine Manufacturer</b>	<b>Engine Family</b>	<b>Displacement (L)</b>
<b>2002</b>	Eastern Tools and Equipment	2ETQL.2962E1	0.296
<b>2002</b>	Eastern Tools and Equipment	2ETQL.4062E1	0.406
<b>2003</b>	Eastern Tools and Equipment	3ETQL.2962E1	0.296
<b>2003</b>	Eastern Tools and Equipment	3ETQL.4062E1	0.406
<b>2004</b>	Eastern Tools and Equipment	4ETQL.2962E1	0.296
<b>2004</b>	Eastern Tools and Equipment	4ETQL.4062E1	0.406
<b>2004</b>	Far Winds	4FWLL.4062E1	0.406
<b>2005</b>	Eastern Tools and Equipment	5ETQL.2962E1	0.296
<b>2006</b>	Eastern Tools and Equipment	6ETQL.2962E1	0.296
<b>2007</b>	Eastern Tools and Equipment	7ETQL.2962E1	0.296
<b>2008</b>	China Xingyue	8CXGL0.42DXY	0.4
<b>2008</b>	Mahindra Tractor	8MCTL1.61NTE	1.61

**NOTE:** The list of excluded engine families is subject to change as additional families become certified.