California Environmental Protection Agency AIR RESOURCES BOARD	John Deere Power Systems	EXECUTIVE ORDER U-R-004-0372 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2009	9JDXL06.8115	4.5, 6.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbo Charger, Charge Air Cooler, Electronic Control Module, Smoke Puff Limiter, Exhaust Gas Recirculation	Loader, Tractor, Dozer, Pump, Generator Set, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW < 225	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
225 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		FEL	--	--	3.6	--	0.18	--	--	--
		CERT	--	--	3.4	0.7	0.12	7	2	14

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 13 day of July 2009.

Annette Hebert, Chief
Mobile Source Operations Division

Attachment, 1 of 1
EO# U-R-004-0372

Engine Model Summary Form

ufacturer: **John Deere Power Systems**
ine category: **Nonroad CI**
Engine Family: **9JDXL06.8115**
Family Name: **350HAF**
ocess Code: **New Submission**

Date: 07/08/2009

ıgine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
98HF485B	6068H	199.82@2200	93.30@2200	69.21@2200	688.06@1400	138.7@1400	65.48@1400	EGR EM EC
98HF485C	6068H	199.82@2200	93.20@2200	69.14@2200	618.00@1400	123.9@1400	58.51@1400	EGR EM EC
98HF485O	6068H	250.78@2400	108.30@2400	87.70@2400	688.80@1400	141.3@1400	68.66@1400	EGR EM EC
98HF485P	6068H	217.25@2000	112.20@2000	75.69@2000	688.80@1400	138.9@1400	65.70@1400	EGR EM EC
98HF485Q	6068H	225.30@2400	100.00@2400	80.98@2400	618.00@1400	126.6@1400	61.49@1400	EGR EM EC
98HF485R	6068H	225.30@2200	105.90@2200	78.58@2200	756.90@1400	157@1400	74.21@1400	EGR EM EC
98HF485T	6068H	315.15@1800	178.40@1800	108.32@1800				EGR EM EC
98HRW64A	6068H	229.32@2100	111.60@2100	79.06@2100	671.83@1575	139.2@1575	73.99@1575	EGR EM EC
98HRW64B	6068H	229.32@2100	111.60@2100	79.06@2100	671.83@1575	139.5@1575	74.10@1575	EGR EM EC
98HRW65A	6068H	253.46@2100	123.00@2100	87.11@2100	755.90@1575	154.2@1575	81.95@1575	EGR EM EC
98HRW65B	6068H	253.46@2100	122.70@2100	86.87@2100	755.90@1575	153.2@1575	81.35@1575	EGR EM EC
968HT480	6068H	193.11@2000	98.10@2000	66.19@2000	688.06@1400	138.9@1400	65.61@1400	EGR EM EC
98HDW71	6068H	199.82@2200	93.30@2200	69.21@2200	688.06@1400	138.7@1400	65.48@1400	EGR EM EC
98HDW66	6068H	199.82@2200	93.30@2200	69.21@2200	688.06@1400	138.7@1400	65.48@1400	EGR EM EC
968HL482	6068H	213.23@2100	107.60@2100	72.85@2100	625.37@1600	135.093@1600	69.65@1600	EGR EM EC
98HRW77	6068H	213.23@2100	107.60@2100	72.85@2100	625.37@1600	135.093@1600	69.66@1600	EGR EM EC
968HL481	6068H	193.11@2100	98.80@2100	66.87@2100	561.95@1600	121.91@1600	63.08@1600	EGR EM EC
98HRW75	6068H	193.11@2100	98.80@2100	66.87@2100	561.95@1600	121.91@1600	63.08@1600	EGR EM EC
98HDW69	6068H	225.30@2200	105.90@2200	78.58@2200	755.90@1400	157@1400	74.21@1400	EGR EM EC
45HF485E	4045H	197.14@1800	170.20@1800	69.85@1800				EGR EM EC
98HF485U	6068H	284.30@1800	135.50@1800	96.92@1800				EGR EM EC
968HN053	6068H	300.39@2400	132.30@2400	108.03@2400	770.65@1800	149.2@1800	91.05@1800	EGR EM EC
98HT070B	6068H	202.50@2100	97.90@2100	69.36@2100	618.00@1400	126.2@1400	59.59@1400	EGR EM EC
968HH061	6068H	300.39@2400	132.30@2400	107.37@2400	770.65@1800	149.3@1800	90.61@1800	EGR EM EC
98HDW80	6068H	225.30@2200	105.90@2200	78.58@2200	755.90@1400	157@1400	74.21@1400	EGR EM EC
968HT077	6068H	246.75@1900	136.00@1900	87.31@1900	755.90@1400	147@1400	69.43@1400	EGR EM EC
98HL481A	6068H	193.11@2100	98.80@2100	66.87@2100	561.95@1600	121.914@1600	63.08@1600	EGR EM EC
98HL482A	6068H	213.23@2100	107.60@2100	72.85@2100	625.37@1600	135.093@1600	69.66@1600	EGR EM EC
68HPRNT2	6068H	278.94@2400	126.80@2400	102.74@2400	854.72@1400	170.1@1400	80.47@1400	EM EGR EC
98HF485D	6068H	199.82@2400	90.70@2400	73.42@2400	548.68@1400	111.6@1400	52.69@1400	EGR EM EC
98HF485E	6068H	193.11@2000	97.90@2000	66.05@2000	618.00@1400	124.9@1400	58.98@1400	EGR EM EC
98HF485F	6068H	193.11@2000	98.10@2000	66.19@2000	688.06@1400	138.9@1400	65.61@1400	EGR EM EC
98HF485G	6068H	179.70@2000	90.70@2000	61.18@2000	618.00@1400	124.5@1400	58.80@1400	EGR EM EC
98HF485H	6068H	185.07@2200	87.00@2200	64.53@2200	618.00@1400	124.1@1400	58.62@1400	EGR EM EC
68HF485I	6068H	185.07@2200	87.30@2200	64.78@2200	548.68@1400	109.6@1400	51.75@1400	EGR EM EC
98HF485J	6068H	185.07@2400	85.00@2400	68.85@2400	516.23@1400	103.5@1400	50.27@1400	EGR EM EC
98HF485S	6068H	225.30@2200	106.10@2200	78.75@2200	688.06@1400	141.5@1400	66.91@1400	EGR EM EC
98HF485K	6068H	274.91@2400	119.80@2400	97.05@2400	755.90@1400	149.9@1400	72.80@1400	EGR EM EC
98HF485L	6068H	250.78@2200	117.10@2200	86.87@2200	755.90@1400	156.2@1400	73.79@1400	EGR EM EC
98HF485M	6068H	242.73@2000	123.70@2000	83.45@2000	755.90@1400	154.1@1400	72.87@1400	EGR EM EC
98HF485N	6068H	217.25@2000	111.90@2000	75.49@2000	755.90@1400	148.8@1400	70.38@1400	EGR EM EC

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