California Environmental Protection Agency AIR RESOURCES BOARD	John Deere Power Systems	EXECUTIVE ORDER U-R-004-0373 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	9JDXL06.8116	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
75 ≤ kW < 130	Tier 3	STD	N/A	N/A	4.0	5.0	0.30	20	15	50
		FEL	--	--	3.9	--	0.18	--	--	--
		CERT	--	--	3.5	0.8	0.11	4	1	8

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

SUPERSEDED

Engine Model Summary Form

EO#: U-R-004-0373
Attachment 1 of 1

ufacturer: **John Deere Power Systems**
ine category: **Nonroad CI**
Engine Family: **9JDXL06.8116**
Family Name: **350HAG**
cess Code: **New Submission**

Date: 07/08/2009

ngine 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
68HDW65	6068H	171.66@2200	82.30@2200	60.98@2200	565.64@1400	113.37@1400	53.49@1400	EGR EM EC
68HTJ85A	6068H	173.00@2000	96.00@2000	62.39@2000	575.23@1400	113.1@1400	51.59@1400	EGR EM EC
68HTJ85B	6068H	160.93@2000	89.00@2000	57.77@2000	527.29@1400	106@1400	48.29@1400	EGR EM EC
68HTJ86A	6068H	173.00@2000	96.00@2000	62.39@2000	575.23@1400	113.1@1400	51.59@1400	EGR EM EC
68HL480	6068H	159.59@2300	78.10@2300	57.81@2300	425.52@1700	94.74@1700	51.89@1700	EGR EM EC
68HRW73	6068H	159.59@2300	78.10@2300	57.81@2300	425.52@1700	94.74@1700	51.89@1700	EGR EM EC
68HDW67	6068H	173.00@2250	81.20@2250	61.95@2250	619.47@1400	127.1@1400	59.97@1400	EGR EM EC
45HL480	4045H	139.47@2300	99.80@2300	49.30@2300	395.29@1700	124.20@1700	45.29@1700	EGR EM EC
45HF485A	4045H	172.99@2400	115.60@2400	63.06@2400	475.67@1500	150.7@1500	50.71@1500	EGR EM EC
45HF485B	4045H	154.22@2400	106.60@2400	56.88@2400	424.05@1500	133.0@1500	45.64@1500	EGR EM EC
45HF485C	4045H	154.22@2200	113.30@2200	56.66@2200	475.67@1500	149.5@1500	50.93@1500	EGR EM EC
45HF485D	4045H	148.86@2000	117.00@2000	52.89@2000	475.67@1500	148.8@1500	50.71@1500	EGR EM EC
45HTJ85	4045H	115.33@2000	94.30@2000	41.01@2000	379.80@1400	117.9@1400	35.72@1400	EGR EM EC
45HFJ85	4045H	173.00@2400	115.60@2400	63.06@2400	475.67@1500	150.7@1500	50.71@1500	EGR EM EC
68HDW73	6068H	173.00@2250	81.20@2250	61.95@2250	619.47@1400	127.1@1400	59.97@1400	EGR EM EC
68HDW79	6068H	173.00@2250	81.20@2250	61.95@2250	619.47@1400	127.1@1400	59.97@1400	EGR EM EC
45HL480A	4045H	139.47@2300	99.80@2300	49.30@2300	395.29@1700	124.2@1700	45.29@1700	EGR EM EC

DDI, TC
CAC,
SPL,

SUPERSEDED