California Environmental Protection Agency AIR RESOURCES BOARD	John Deere Power Systems	EXECUTIVE ORDER U-R-004-0343 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)
2008	8JDXL04.5062	4.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Electronic Control Module, Smoke Puff Limiter	Loader, 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
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		FEL	--	--	6.8	--	--	--	--	--
		CERT	--	--	6.5	1.3	0.34	9	6	18

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 19th day of December 2007.

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Form

U-R-004-0343

Attachment p. 1 of 2.

Manufacturer: **John Deere Power Systems**

Engine category: **Nonroad CI**

EPA Engine Family: **8JDXL04.5062**

Family Name: **350TK**

Process Code: **New Submission**

1.Engine 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
4045TT092	4045T	63	84.49@2200	65.00@2200	32.15@2200	261.80@1400	83.9@1400	26.46@1400	EM EC SPL DOC, TC
4045TT095	4045T	74	99.24@2200	76.20@2200	37.70@2200	290.57@1500	89.6@1500	30.21@1500	EM EC SPL
4045TT094A	4045T		84.49@2200	65.00@2200	32.15@2200	261.80@1400	83.9@1400	26.46@1400	EM EC SPL
4045TT094B	4045T		92.54@2300	65.50@2300	33.96@2300	294.25@1400	94@1400	29.77@1400	EM EC SPL
4045TT089	4045T		92.54@2300	68.50@2300	35.50@2300	287.62@1400	94.2@1400	29.66@1400	EM EC SPL

Engine Model Summary Form

U-R-004-0343.

Manufacturer: **John Deere Power Systems**

Engine category: **Nonroad CI**

EPA Engine Family: **8JDXL04.5062**

Mfr Family Name: **350TK**

Process Code: **Running Change**

Attachment p. 2 of 2.

1.Engine 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
4045TT090A	4045T	75.10@2200	58.60@2200	28.89@2200	233.04@1400	74@1400	23.37@1400	EM EC SPL DPF, TC
4045TT090B	4045T	80.47@2200	62.70@2200	31.09@2200	249.27@1400	79.7@1400	25.14@1400	EM EC SPL
4045TT090C	4045T	84.49@2200	64.80@2200	31.97@2200	261.80@1400	84.2@1400	26.46@1400	EM EC SPL
4045TT090D	4045T	88.51@2200	67.90@2200	33.62@2200	275.82@1400	89.4@1400	28.14@1400	EM EC SPL
4045TT090E	4045T	99.24@2200	76.90@2200	38.06@2200	290.57@1500	92.1@1500	31.09@1500	EM EC SPL