California Environmental Protection Agency AIR RESOURCES BOARD	DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY	EXECUTIVE ORDER U-R-004-0232 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)
2005	5JDXL06.8101	4.5, 6.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Engine Control Module, Turbocharger, Charge Air Cooler, Exhaust-Gas Recirculation (EGR)	Loader, Tractor, Pump, Compressor, Generator Set

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 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
		FEL	-	-	4.0	-	-	-	-	-
		CERT	-	-	3.1	0.6	0.13	8	2	16

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 11TH day of March 2005.

Raphael Susnowitz

for Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summary Form

Attachment 1 of 5
U-R-004-0232

.: Deere Power Systems Group Of Deere and
ategory: Nonroad CI
Er Family: 5JDXL06.8101
Fa Name: 350HAA
ess Code: New Submission

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
68HF485A	6068H	278.94@2400	119.80@2400	97.01@2400	755.90@1400	150.9@1400	73.31@1400	EM EGR EC, TC, CAC

Engine Model Summary Form

Manufacturer: **John Deere Power Systems of Deere and**

Engine category: **Nonroad CI**

EPA Engine Family: **5JDXL06.8101**

Mfr Family Name: **350HAA**

F ; Code: **Running Change**

Attachment 2 of 5
U-R-004-0232

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
6068HRT80B	6068H	201.16@2200	97.20@2200	69.89@2200	600.30@1600	124.2@1600	65.04@1600	EM EGR EC Te, CAC
6068HRT81A	6068H	221.27@2200	107.10@2200	76.72@2200	660.03@1600	138.5@1600	72.32@1600	EM EGR EC
6068HRT81B	6068H	186.41@2200	90.90@2200	65.26@2200	623.16@1600	130.2@1600	67.91@1600	EM EGR EC
6068HRT82A	6068H	250.78@2200	120.60@2200	86.42@2200	752.22@1500	158.9@1500	77.39@1500	EM EGR EC
6068HRT82B	6068H	234.68@2200	112.80@2200	80.69@2200	700.59@1600	148@1600	76.95@1600	EM EGR EC
6068HRT82C	6068H	199.82@2200	97.00@2200	69.45@2200	667.41@1600	141.1@1600	73.42@1600	EM EGR EC

✓ Added

Engine Model Summary Form

Manufacturer: **John Deere Power Systems of Deere and**
Engine category: **Nonroad CI**
EPA Engine Family: **5JDXL06.8101**
Mfr Family Name: **350HAA**
F : Code: **Running Change**

Attachment 3 of 5
U-R-804-0232

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
6068HT062	6068H	202.50@2100	97.90@2100	69.36@2100	618.00@1400	126.2@1400	59.59@1400	EM EGR EC, TE, CAC
	added							

Engine Model Summary Form

Manufacturer: **John Deere Power Systems of Deere and**

Engine category: **Nonroad CI**

EPA Engine Family: **5JDXL06.8101**

Mfr Family Name: **350HAA**

ss Code: **Running Change**

Attachment 4 of 5
U-R-804-0232

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
6068HF485T	6068H	315.15@1800	153.50@1800	109.68@1800				EM EC SPL TC, CAC

Engine Model Summary Form

Manufacturer: **John Deere Power Systems of Deere and**

Engine category: **Nonroad CI**

EPA Engine Family: **5JDXL06.8101**

Mfr Family Name: **350HAA**

F s Code: **Running Change**

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U-R-004-0232

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
✓ 6068HT061	6068H	189.09@2000	94.50@2000	63.76@2000	593.66@1400	121.3@1400	57.26@1400	EM EGR EC, CAC