State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-49

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 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-45-9;

IT IS ORDERED AND RESOLVED: That the following Deere Power Systems Group of Deere & Company 1999 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Other OEM Products

Fuel Type: Diesel

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
XJDXL12.5002 (650AA)	12.5	763	Electronic Control Module Turbocharger Charge Air Cooler

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matters (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

Exhaust Emissions (g/bhp-hr)				Smoke Opacity (%)		
THC	CO	NOx	PM	Accel	Lug	Peak
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

	Exhaust Emission (g/bhp-hr)				Smoke Opacity (%)		
Engine Family	THC	CO	NOx	PM	Accel	Lug	Peak
XJDXL12.5002 (650AA)	0.2	0.5	6.0	0.1	10	1	17

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

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

Executed at El Monte, California this 11th day of January 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Model Summary Form

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Manufacturer: **Deere Power Systems Group of Deere & Company**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **XJDXL12.5002**

Mfr Family Name: **650AA**

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
6125AF001A	6125A	408@2100	204@2100	144@2100	1376@1400	1400@1400	125@1400	ECM,TC,CAC
6125ADW01	6125A	283@2000	144@2000	98@2000	965@1500	1500@1500	96@1500	ECM,TC,CAC
6125AF001B	6125A	339@2100	168@2100	119@2100	1125@1400	1400@1400	101@1400	ECM,TC,CAC
6125AF001C	6125A	350@2100	175@2100	124@2100	1181@1400	1400@1400	107@1400	ECM,TC,CAC
6125AF001D	6125A	375@2100	187@2100	133@2100	1268@1400	1400@1400	115@1400	ECM,TC,CAC
6125AF001E	6125A	400@2100	199@2100	141@2100	1349@1400	1400@1400	123@1400	ECM,TC,CAC
6125ADW03	6125A	283@2000	144@2000	98@2000	1002@1500	1500@1500	100@1500	ECM,TC,CAC
6125AF001F	6125A	325@2100	160@2100	114@2100	1098@1400	1400@1400	101@1400	ECM,TC,CAC
6125AF001G	6125A	325@2100	160@2100	114@2100	1098@1400	1400@1400	101@1400	ECM,TC,CAC
6125AT801	6125A	350@2100	175@2100	124@2100	1181@1400	1400@1400	107@1400	ECM,TC,CAC
6125AF001H	6125A	442@1800	225@1800	137@1800	NA	NA	NA	ECM,TC,CAC
6125AF001I	6125A	402@1800	206@1800	125@1800	NA	NA	NA	ECM,TC,CAC
6125AF001J	6125A	375@1800	189@1800	115@1800	NA	NA	NA	ECM,TC,CAC

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