State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-34

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

DEERE POWER SYSTEM 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 System Group of Deere & Company 1998 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	Displacements in Liters	Exhaust Emission Control Systems and Special Features
WJDXL12.5002 (650AA)	12.5	Engine Modification

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
WJDXL12.5002 (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 17th day of February 1998.

R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

Manufacturer: Deere Power Systems Group of Deere & Company

Process Code: New Submission

Manufacturer Family Name: 650AA

EPA Engine Family: WJDXL12.5002

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		408 @ 2100	204 @ 2100	144 @ 2100	1376 @ 1400	265 @ 1400	125 @ 1400	
6125ADW01		283 @ 2000	149 @2000	100@ 2000	965@ 1500	190@ 1500	96@ 1500	
6125AF001B		339 @ 2100	170 @2100	120 @ 2100	1135 @ 1400	217 @ 1400	103 @ 1400	
6125AF001C		350 @ 2100	175 @ 2100	123 @ 2100	1180 @ 1400	226 @ 1400	107 @ 1400	
6125AF001D		375 @ 2100	187 @ 2100	132 @ 2100	1272 @ 1400	244 @ 1400	116 @ 1400	
6125AF001E		400 @ 2100	199 @ 2100	141 @ 2100	1348 @ 1400	260 @ 1400	123 @ 1400	
6125ADW03		283@2000	149@2000	100@2000	1003@1500	197@1500	99@1500	

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