

File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-11

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 1996 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: Combine, Agricultural Tractor

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
TJD12.RJDBRA	12.5 (767)	Turbocharger Charge Air Cooler Engine Control Module

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):

<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
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:

<u>Engine Family</u>	<u>Exhaust Emission (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
	<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
TJD12.RJDBRA	0.2	0.4	5.7	0.1	12	1	17

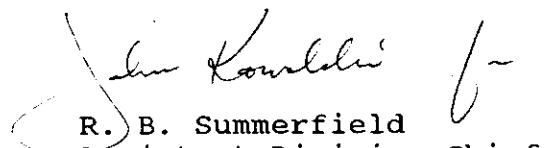
BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

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 5th day of August 1996.


R. B. Summerfield
Assistant Division Chief
Mobile Source Division

**1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY OFF-ROAD DIESEL ENGINES**

Mfgr: Deere Power Systems Group of Deere & Company Engine Family: TJD12.RJDBRA

Displacement: ^(767 in³) 12.5 liters Eng Config: I-6

All Codes in Eng Fam: CA 49S 50S Cert Test Procedures: ARB EPA

Valves/Ports per Cylinder 4 Strokes per Combustion Cycle 4

Maximum Rated Power: 510 HP (380 kW) @ 2100 RPM

Ignition: Compression Compression with Glow Plug Spark

Fuel Type(s): Dedicated Flex-Fuel Dual Fuel Diesel M100 M85
CNG LNG LPG Other (specify)

Diesel Cert Fuel: 40 CFR 89.330-96(b)(2) Table 5

Primary Service Equipment: Agricultural Tractor, Combine

Exhaust ECS (e.g., MFI, TC, CAC): ~~EM~~ ^{ECM} EC, TC, CAC

(Use abbreviations per SAE J1930 JUN93)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/ PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
6125HF001A	510@2100	246 (173)	RE63054	SW373		
6125HRW01	367@2100	178 (126)	RE63052 RE63054	SW278		
6125HRW02	434@2100	209 (88.6)	RE63052 RE63054	SW277		
6125HF001B	425@2100	206 (87.6)	RE63052 RE63054	SW374		
6125HF001C	425@2100	206 (87.6)	RE63052 RE63054	SW287		
6125HF001D	450@2100	219 (92.8)	RE63052 RE63054	SW288		
6125HF001E	475@2100	231 (97.9)	RE63052 RE63054	SW289		
6125HF001F	500@2100	243 (103)	RE63052 RE63054	SW290		
6125HZ001	369@2100	176 (76.0)	RE63052 RE63054	SW375		
6125HZ002	449@2100	213 (91.6)	RE63052 RE63054	SW376		

Date Issued:

Revisions: _____