

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-4

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

DEERE POWER SYSTEMS GROUP

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 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: Agricultural Tractor

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems and Special Features</u>
TJD8.1R6DBRB	8.1	(493)	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):

<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>
TJD8.1R6DBRB	0.5	1.2	6.5	0.1	14	6	21

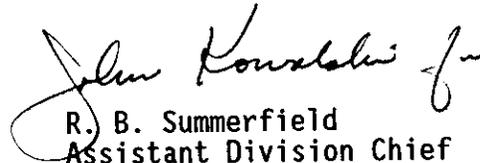
BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

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 28th day of December 1995.


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: TJD8.1R6DBRB
 Displacement: 8.1 liters Eng Config: L-6
 All Codes in Eng Fam: CA ___ 49S ___ 50S Cert Test Procedures: ARB ___ EPA
 Valves/Ports per Cylinder 2 Strokes per Combustion Cycle 4
 Maximum Rated Power: 300 HP (224 kW) @ 1800 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
 Exhaust ECS (e.g., MFI, TC, CAC): EM, 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.
6081AF001A	275 @ 2200	131 (97.2)	RE62648, RE63768			
6081AF001B	251 @ 2200	120 (88.9)	RE61593, RE64261			
6081AF001C	251 @ 1800	138 (83.8)	RE62642, RE63766			
6081AF001D	300 @ 1800	169 (102.5)	RE64184, RE64255			
6081AF001E	275 @ 2200	131 (97.2)	RE62644, RE63767			
6081AF001F	251 @ 2200	120 (88.9)	RE61593, RE64261	RE28320		
6081AT001	190 @ 2100	106 (75.2)	RE64162, RE64214	SW185.86		
			RE61593, RE64261	RE28320		
			RE66463	SW173.74		
			RE62643			
			RE64184, RE64255			
			RE66245			
			RE61593, RE64261			

Date Issued: _____
 Revisions: _____