

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-90
Relating to Certification of New Off-Road Compression-Ignition Engines

DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY

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-45-9;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment:

Model Year: 2001

Typical Equipment Usage: Other Industrial Equipment

Fuel Type: Diesel

<u>Engine Family</u>	<u>Engine Displacement (liters)</u>	<u>Useful Life (hours)</u>	<u>Emission Control Systems and Special Features</u>
1JDXL08.1019	8.1	8000	Direct Diesel Injection 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 exhaust emission certification standards and certification values for hydrocarbons (HC), oxides of nitrogen (NOx), or non-methane hydrocarbons plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) (units are expressed in grams per kilowatt-hour (g/kw-hr)), and the opacity-of-smoke certification standards and certification values in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

<u>Engine Power Rating (kw)</u>	<u>Emission Standard Category</u>		<u>Exhaust Emissions (g/kw-hr)</u>					<u>Smoke Opacity (%)</u>		
			<u>HC</u>	<u>NOx</u>	<u>NMHC+NOx</u>	<u>CO</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
130<KW<225	Tier 1	Standard	1.3	9.2	N/A	11.4	0.54	20	15	50
		FEL	N/A	7.8	N/A	N/A	N/A	N/A	N/A	N/A
		Certification	0.5	6.2	--	0.9	0.23	15	5	24

BE IT FURTHER RESOLVED: That the above-described certification is subject to the following terms, limitations and conditions:

The above family emission limit(s) (FELs) is an emission level declared by the manufacturer to serve for the averaging, banking and trading program and in lieu of an emission standard for certification. It represents the emission standard applicable to this engine family that must be applied when determining compliance of any model within this engine family pursuant to 13 CCR Section 2423(b)(2).

BE IT FURTHER RESOLVED: That the listed engine models also comply with "Emission Control Labels— 1996 and Later Off-Road Compression-Ignition 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, Sections 2425 and 2426).

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

Executed at El Monte, California this 6th day of February 2001.


R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **Deere Power Systems Group of Deere & Company**
 Engine category: **Nonroad CI**
 EPA Engine Family: **1JDXL08.1019**
 Mfr Family Name: **450HB**
 Process Code: **New Submission**

ATTACHMENT

E# U-R-4-90

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
* 6081HF001D	6081H	335@2200	249 ^{KW} 161@2200	119@2200	1035@1600	196@1600	106@1600	TC, CAC, EM
6081HH001	6081H	254@2200	189 120.2@2200	78@2200	694@1600	137@1600	72@1600	TC, CAC, EM
6081HH002	6081H	274.9@2200	205 130.2@2200	85@2200	755@1600	148@1600	78@1600	TC, CAC, EM
6081HH007	6081H	245@2200	183 115@2200	84@2200	760@1600	147@1600	78@1600	TC, CAC, EM
6081HH008	6081H	265.5@2200	148 136.7@2200	80@2200	720@1600	136.7@1600	74@1600	TC, CAC, EM
6081HH009	6081H	278.9@2200	208 145@2200	85@2200	755@1600	148@1600	78@1600	TC, CAC, EM

EPA cert NO: JDX-NR7-01-05.

* removed test engine only. not included in list of certified models.