

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-80
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: Tractor

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>
1JDXL02.9023	2.9	8000	Direct Diesel Injection

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>
37≤KW<130	Tier 1	Standard	N/A	9.2	N/A	N/A	N/A	20	15	50
		FEL	N/A	12.5	N/A	N/A	N/A	N/A	N/A	N/A
		Certification	--	11.8	--	--	--	7	10	11

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

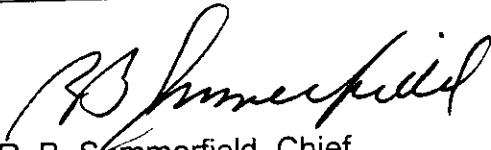
The above family emission limit(s) (FELs) is an emission level declared by the manufacturer to serve for the averaging, banking and trading program and in lieu of an emission standard for certification. It represents the emission standard applicable to this engine family that must be applied when determining 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

ED# U-R-4-80

ATTACHMENT

Manufacturer: Deere Power Systems Group of Deere & Company
 Engine category: Nonroad CI
 EPA Engine Family: 1JDXL02.9023
 Mfr Family Name: 320DB
 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
3029DF180D	3029D	59@2500	44 50.8@2500	21@2500	142@1600	58.1@1600	15@1600	EM DOT ▲
3029DLV52	3029D	53@2300	40 50.5@2300	21@2300	142@1400	63.9@1400	15@1400	EM
3029DKV54	3029D	53@2400	40 48.5@2400	20@2400	139@1400	57.6@1400	14@1400	EM
3029DKV55	3029D	53@2400	40 48.5@2400	20@2400	139@1400	57.6@1400	14@1400	EM
3029DLV53	3029D	53@2400	40 51@2400	20@2400	142@1200	62@1200	12@1200	EM
* 3029DLV54	3029D	53@2400	40 51@2400	20@2400	142@1200	62@1200	12@1200	EM

EPA cert: JDX-NR4-01-15.

* removed per R/C dated 12/19/00.