

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-78
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: Compressor

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>
1JDXL02.9017	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):

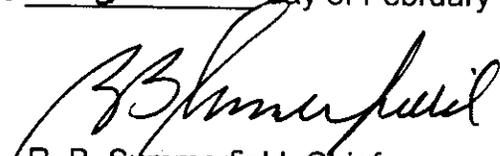
<u>Engine Power Rating (kw)</u>	<u>Emission Standard Category</u>	<u>Standard Certification</u>	<u>Exhaust Emissions (g/kw-hr)</u>					<u>Smoke Opacity (%)</u>		
			<u>HC</u>	<u>NOx</u>	<u>NMHC+NOx</u>	<u>CO</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
37≤KW<130	Tier 1		N/A	9.2	N/A	N/A	N/A	20	15	50
			--	8.8	--	--	--	5	11	12

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-4-18

Manufacturer: **Deere Power Systems Group of Deere & Company**
 Engine category: **Nonroad CI**
 EPA Engine Family: **1JDXL02.9017**
 Mfr Family Name: **320DA**
 Process Code: **New Submission**

ATTACHMENT

37 ≤ kW ≤ 130

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
3029DF180A	3029D	60@2500	45 kW	58@2500	147@1600	68@1600	18@1600	DI EM
3029DF150A	3029D	58@2500	43	56@2500	146@1500	67.3@1500	16@1500	EM
3029DF180B	3029D	58@2500	43	56@2500	146@1000	62.5@1000	15@1000	EM
3029DF150B	3029D	58@2500	43	56@2500	146@1500	62.5@1500	15@1500	EM
3029DF151	3029D	58@2500	43	56@2500	122@1500	63@1500	16@1500	EM
3029DF150C	3029D	48@2500	36	45@2500	139@1000	60@1000	10@1000	EM
3029DFG51	3029D	58@2500	43	56@2500	122@1500	63@1500	15@1500	EM
3029DF152	3029D	58@2500	43	56@2500	122@1500	63@1500	15@1500	EM
3029DF163	3029D	58@2500	43	56@2500	146@1500	67.3@1500	16@1500	EM

EPA cert. JDX-NR4-01-13

Engine Model Summary Form

Manufacturer: **Deere Power Systems Group of Deere & Company**
 Engine category: **Nonroad CI**
 EPA Engine Family: **1JDXL02.9017**
 Mfr Family Name: **320DA**
 Process Code: **Running Change**

EO# U-R-478

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
3029DAT50	3029D	53@2300	54.4@2300	21@2300	141@1600	64.7@1600	15@1600	EM
3029DFG50	3029D	53@2300	54.4@2300	21@2300	141@1600	64.7@1600	15@1600	EM