

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-23

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 1997 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: Dozer

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacements in Liters</u>	<u>Exhaust Emission Control Systems and Special Features</u>
VJD6.8R6DBRD (350TB)	6.8/4.5	Turbocharger

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>
VJD6.8R6DBRD (350TB)	0.2	0.8	5.5	0.2	10	8	24

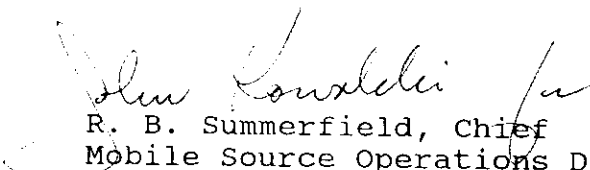
BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

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 23rd day of December 1996.


 R. B. Summerfield, Chief
 Mobile Source Operations Division

A15

LARGE ENGINE MODEL SUMMARY

John Deere

Manufacturer: Deere Power Systems Group of Deere & Company

EPA Engine Family: VJD6.0R6DBRD

Manufacturer Family Name: 350TB

Engine Code	Engine Model	BHP @ RPM (SAE Gross)	Fuel Rate: mm/stroke @ peak HP (for diesel only)	Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	Torque @ RPM (SEA Gross)	Fuel Rate: mm/stroke @ peak torque	Fuel Rate: (lbs/hr) @ peak torque	Emission Control Device Per SAE J1930
4045TT055		109 @ 2300	80 @ 2300	41 @ 2300	303 @ 1400	93 @ 1400	29 @ 1400	EM, TC
4045TF250		125 @ 2400	89 @ 2400	47 @ 2400	328 @ 1400	101 @ 1400	31 @ 1400	EM, TC
606855051		148 @ 2150	73 @ 2150	52 @ 2150	432 @ 1400	85 @ 1400	39 @ 1400	EM, TC
6068TDW52		157 @ 2200	78 @ 2200	56 @ 2200	479 @ 1400	96 @ 1400	45 @ 1400	EM, TC
6068TF055		157 @ 2200	78 @ 2200	56 @ 2200	479 @ 1400	96 @ 1400	45 @ 1400	EM, TC
6068TF053		161 @ 2200	80 @ 2200	58 @ 2200	499 @ 1400	101 @ 1400	47 @ 1400	EM, TC
6068TF250B		185 @ 2400	89 @ 2400	71 @ 2400	503 @ 1400	103 @ 1400	48 @ 1400	EM, TC
6068TF250A		194 @ 2400	93 @ 2400	74 @ 2400	509 @ 1400	107 @ 1400	19 @ 1400	EM, TC

B. Federal Emissions

C. California Codes