

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-4-64
Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY

Pursuant to the authority vested in the Air Resources Board at Sections 43000.5, 43013, and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

IT IS ORDERED AND RESOLVED: That the following diesel engines and exhaust emission control systems produced by the manufacturer are certified as described below for use in heavy-duty off-road equipment:

Model Year: 2000

Typical Equipment Usage: Loaders, Tractor and Generator Set

Engine Power Ratings Range: 175 – 750 horsepower, inclusive

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems and Special Features</u>
	<u>Liters</u>	<u>Cubic Inches</u>	
YJDXL08.1007 (450HA)	8.1	494	Charge Air Cooler Turbocharger

The 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 in grams per brake horsepower-hour (g/bhp-h) for total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM), 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>Exhaust Emissions (g/bhp-h)</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>
Standard	1.0	8.5	6.9	0.4	20	15	50
Certification	0.4	1.0	6.0	0.2	12	4	18

BE IT FURTHER RESOLVED: That the engine models listed on the attachments with engine power ratings less than 175 horsepower are not covered by this Executive Order.

BE IT FURTHER RESOLVED: That the listed engine models comply with "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 "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, Sections 2425 et seq.).

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

Executed at El Monte, California this 24th day of January 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Model Summary Form

U-R-4-64

Manufacturer: Deere Power Systems Group of Deere & Company
Engine category: Nonroad CI
EPA Engine Family: YJDXL08.1007
Mfr Family Name: 450HA
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
6081HF001A	6081H	300@2200	139@2200	103@2200	1024@1200	191@1200	77@1200	TC, CAC, EM
6081HF001C	6081H	300@2200	139@2200	103@2200	959@1400	172@1400	81@1400	TC, CAC, EM
6081HRW01	6081H	268@2200	122@2200	90@2200	871@1200	170@1200	69@1200	TC, CAC, EM
6081HRW03	6081H	275@2200	125@2200	93@2200	892@1200	175@1200	71@1200	TC, CAC, EM
6081HZ004	6081H	300@2100	145@2100	101@2100	960@1500	180@1500	89@1500	TC, CAC, EM
6081HDW04	6081H	182@2200	94@2200	69@2200	841@1000	164@1000	55@1000	TC, CAC, EM
6081HDW03	6081H	165@2000	92@2000	61@2000	705@1000	137@1000	45@1000	TC, CAC, EM
6081HDW01	6081H	217@2190	113.3@2190	84@2190	885@900	180.1@900	54@900	TC, CAC, EM
6081HRW05	6081H	266@2100	130@2100	90@2100	900@1200	181@1200	72@1200	TC, CAC, EM
6081HH004	6081H	325@2200	156@2200	113@2200	1015@1600	188@1600	100@1600	TC, CAC, EM
6081HH006	6081H	292@2200	135@2200	99@2200	917@1600	171@1600	91@1600	TC, CAC, EM
6081HH003	6081H	282@2200	131@2200	94@2200	867@1600	165@1600	88@1600	TC, CAC, EM
6081HN001	6081H	300@2200	140@2200	102@2200	900@1600	164@1600	87@1600	TC, CAC, EM
6081HDW05	6081H	198@2200	102@2200	75@2200	786@1400	144.5@1400	67@1400	TC, CAC, EM
6081HDW06	6081H	231@2200	116.5@2200	85@2200	789@1400	146@1400	68@1400	TC, CAC, EM
6081HT001	6081H	249@2000	136.5@2000	90@2000	950@1200	181@1200	72@1200	TC, CAC, EM
6081HRW17	6081H	283@2200	134@2200	99@2200	932@1400	173.2@1400	82@1400	TC, CAC, EM
6081HRW18	6081H	283@2200	134@2200	99@2200	932@1400	173.2@1400	82@1400	TC, CAC, EM
6081HF001B	6081H	322@1800	175@1800	106@1800	N/A	N/A	N/A	TC, CAC, EM
6081HH011	6081H	328@2200	153.6@2200	112@2200	1007@1600	182.5@1600	99@1600	TC, CAC, EM