## State of California AIR RESOURCES BOARD

### EXECUTIVE ORDER A-108-15

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

### DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 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 Systems Group of Deere & Company 1999 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Compressed Natural Gas (CNG)

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
XJDXH08.1001 (450CNG)	8.1	497	Engine Control Module Turbocharger Charge Air Cooler Oxygen Sensor

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake-horsepower-hour:

Non-Methane	Carbon	Nitrogen	<u>Particulates</u>
<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	
1.3	15.5	4.0	0.10

The following are the certification exhaust emission values for this engine family in grams per brake-horsepower-hour:

Non-Methane	Carbon	Nitrogen	<u>Particulates</u>
<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	
0.4	2.2	2.6	0.05

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 2035 et seq.).

# DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY

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

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this \_\_\_\_\_ day of January 1999.

R.\B. Summerfield, Chief

Mobile Source Operations Division

		-	ms Group of D	eere				
ine category:	DU-KIRKM	₩ HDDE						
Cert contact:	Rick Bish	ор						
1. Model Year: 2. Carry over: If yes, list the previou 3. Process Code: Date EPA Fee Pal 4. EPA Standard Er 5. Mfr's Family Na 6. Engine Cycle: 7. Displacement(s) ( 8. Engine Configura 9. Emission Control	id: ngine Family: ame: (CID or Liters)	1998/9 Yes pr WJDX708.1 New Submi XJDX708.10 450CNG Diesel 8.1 L I-6 Catalyst Engine Mo	ssion  001  □ EGR		17. Estimated Production Period: 18. Sales Area: 19. Plant Contact: 20. Plant Location	Start End	1/1/99 12/31/9 50 Stat	
D. Fuel Type:  Natural Type: Three System Type:  Method Of Aspiration:  Turb		⊠ Electronic □ Smoke Pu Natural Gas	Control Other  Official Other  Official Other  Official Other  Official Other  Official Other  Official Other  Oth		21. Program Inform NCPs PM NOx NMHC+NOx None	AV PM NOx	E+NOx	B&T  ☐ PM  ☐ NOx ☐ NMHC+NOx ☑ None ☐ NA
<ol> <li>Deterioration Fa</li> <li>A. Gaseous Exh</li> <li>B. Smoke:</li> <li>Intended Service</li> </ol>	aust:	Additive NA MHDD			22. Family Emissic	M N/A		
16. Projected Sales					NMHC + NO Unit  23. Nonroad Engir  Crane Loaders Tractor	s:  ne Equipmo Dozer Pump		Generator Set NA
24. Auxiliary Emissic	on Control De	vices:	<u>Sensed</u>	PARAM	ETER Controlled		redu	es AECD result in cing effectivness of on control device(s)
Ada Sp: Turbo La Alti Engine P	•		UEGO, EBP, MAP, RPM, UEG ECT MAP Baro MAT, ECT, Oil P	O, ECT	Phi Phi Spark Adva Phi, Spai Map, ph MAP Phi, RPI	rk i	emission control device(s)  Yes No	
						·-···	_	Yes O No

# **Engine Model Summary Form**

A-108-15 (

Deere Power Systems Group of Deere Manufacturer:

Engine category: On-highway HDDE

EPA Engine Family: XJDX/108.1001

Mfr Family Name: 450CNG

**New Submission** Process Code:

	1		Na t				٠.			)
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	64@1350 ECM, TC, CAC, US	61@1350 From The 1125								
8.Fuel Rate: (lbs/hr)@peak torque	64@1350 ₺	61@1350 FA							en e terreto en esta e terreto en esta	
7.Fuel Rate: mm/stroke@peak torque										
6.Torque @ RPM (SEA Gross)	800@1350	745@1350	to at the state and a material and a state of the state o							
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	84@2200	84@2200	The state of the s		20 % C C C C C C C C C C C C C C C C C C					
4. Fuel Rate: mm/stroke @ peak HP (for diesel only)										
3.BHP@RPM (SAE Gross)	225@2200	250@2200								
2.Engine Model										
1.Engine Code	6081HEN01A	6081HFN01B								