EXECUTIVE ORDER U-R-004-0436 New Off-Road Compression-Ignition Engines

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-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2010	AJDXL09.0098	9.0	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Electror Turbocha	nic Control Module, Dire erger, Charge Air Cooler,	ct Diesel Injection, Smoke Puff Limiter	Loaders, Tractor, Other Industrial Equipment				

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION			EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	P <b>M</b>	ACCEL	LUG	PEAK	
130 ≤ kW < 225	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50	
_		FEL			6.3		0.19				
		CERT			6.1	1.0	0.11	12	2	43	

**BE IT FURTHER RESOLVED:** That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of December 2010.

Annette Hebert, Chief

Mobile Source Operations Division

Attachment: page 10f1.

Date: 12/14/2010

U-R-004-0436

## **Engine Model Summary Form**

Manufacturer: John Deere Power System:

Engine category: Nonroad CI

PA Engine Family: AJDXL09.0098

Mfr Family Name: 450HJ

New Submission

1 100000 0000.	11011 0001111001011									
I.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rete: 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		
6090HTJ16A	6090H	254.80@2000	130.20@2000	87.79@2000	921.83@1400	174.3@1400	82.32@1400	EM EC SPL	37c	, CAC, DI
6090HTJ16B	6090H	227.98@2000	117.80@2000	79.48@2000	829.65@1400	157.3@1400	74.26@1400	EM EC SPL	170	CAC. A
3090HPRNT2	6090H	254.80@2000	131.00@2000	88.41@2000	921.83@1400	177.9@1400	84.00@1400	EM EC SPL	Ta	, CAC, BA , CAC, D , CAC, D
										,
							_			
	<del>. 3 , , </del>		_							
					<u>-</u>			_		
					•		_			
					٧					
	•									