JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0449

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)		
2012	CJDXL02.9209	2.9				
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Mechanica	al Direct Injection, Turb Limiter, Charge Air	ocharger, Smoke Puff Cooler	Tractor			

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 STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER			НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0		20	15	50
		FEL					0.35			
		CERT			4.1	1.3	0.33	13	2	28

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 September 2011.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

Manufacturer:

John Deere Power Systems

Engine category: EPA Engine Family: CJDXL02.9209

Nonroad Cl

8-10-2011

E0#: 4-R- 004- 0449

Mfr Family Name:

320HBA

Process Code:

New Submission

1 100003 0000.	New Submission							
1. Engine code 3029HPY34	2. Engine Model 3029H	3. kW@RPM (SAE Gross) 55.0@2400	4. Fuel Rate: mm/stroke@peak kW (for diesel only) 75.6@2400	5. Fuel Rate: (kg/hr)@peak kW (for diesels only) 13.9@2400	6. Torque (Nm) @RPM (SEA Gross) 263@1800	7. Fuel Rate: mm/stroke@peak torque 89@1800	8. Fuel Rate: (kg/hr)@peak torque 12.2@1800	EM SPL DFI TC CAC
3029HPY33	3029H	48.0@2400	65.6@2400	12.0@2400	235@1800	77.7@1800	10.7@1800	EM SPL DFITC CAC
3029HPY32	3029H	41.0@2400	57.4@2400	10.5@2400	203@1800	68.5@1800	9.4@1800	EM SPL DFI TC CAC
i								
i				- Company and the second secon	***		CONTRACTOR OF THE PROPERTY OF THE PARTY OF T	
			The second secon					
:								
						Company of the control of the second of the	. The straight that the second time to be set up to the	
i								
					// · · · · · · · · · · · · · · · · · ·	Mark the second second		
							and the second of the second o	
						or a constraint of the contract of		
							The state of the s	
					Note that the second section is a second section of the second section in the second section is a second section of the second section		and the second s	
	Marine of the course of the course							
						and the section of th		
								· · · · · · · · · · · · · · · · · · ·
				and the same of th			the state of the s	entransacione con a contrata de la contrata del contrata del contrata de la contrata del contrata del contrata de la contrata del contrata de la contrata del contrata de la contrata de la contrata de la contrata de la contrata del contrata del contrata del contrata de la contrata de la contrata de la cont
			A Secretaria Company of Communication	Marie Marie Marie Con Control Con Control Con Control Con Con Control Cont		COLUMN COMPANY OF THE STREET,		e contract the same and the
								comments that the management of the second con-
						and have a second second second second		
to the contract of the contrac								THE RESIDENCE OF THE RESIDENCE
				The second secon				
								with the second of the second
								A STATE OF THE PARTY OF THE PAR
			THE RESERVE OF THE PROPERTY OF	*** *** *** *** *** *** *** *** *** **		- 11- 11 - 11- 11- 11- 11- 11- 11- 11-		
				a control to a control and the				***************************************