

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-14-012;

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)
2015	FJDXL09.0306	9.0	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Charge Air Cooler, Oxidation Catalyst, Electronic Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Periodic Trap Oxidizer, Turbocharger, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Loaders, Tractor, Dozer, Pump, Compressor, Generator Set, 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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		FEL	--	0.20	--	--	0.01	--	--	--
		CERT	0.003	0.14	--	0.04	0.004	--	--	--

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 14th day of November 2014.

FOR Annette Hebert, Chief
 Emissions Compliance, Automotive Regulations and Science Division

12-29-2015

R/c

EO #: U-R-004-0500

Attachment: Page 1 of 1

Engine Model Summary Form

Manufacturer: John Deere Power Systems
Engine category: Nonroad CI
EPA Engine Family: FJDXL09.0306
Mfr Family Name: 450HCB
Process Code: Running Change

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate:		5. Fuel Rate:		6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate:		9. Emission Control Device Per SAE J1930
			mm/stroke@peak kW (for diesel only)	(kg/hr)@peak kW (for diesels only)	mm/stroke@peak torque	(kW/hr)@peak torque				
* 6090IH023	6090	329@2200	200.1@2200	67.3@2200	1750@1600	243.1@1600	59.5@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
6090HPRNT5	6090	345@2200	215.6@2200	72.5@2200	1843@1600	266.7@1600	65.2@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
6090RW434	6090	317@2100	207.5@2100	66.6@2100	1750@1600	246.5@1600	60.3@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
6090RW458	6090	317@2100	203.9@2100	66.5@2100	1750@1600	243.0@1600	59.6@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
6090RW459	6090	317@2100	203.9@2100	66.5@2100	1750@1600	243.0@1600	59.6@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
6090RW460	6090	317@2100	203.9@2100	66.5@2100	1750@1600	243.0@1600	59.6@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
6090RW461	6090	317@2100	203.9@2100	66.5@2100	1750@1600	243.0@1600	59.6@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
6090RW477	6090	317@2100	203.9@2100	66.5@2100	1750@1600	243.0@1600	59.6@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		
* 6090RW478	6090	317@2100	203.9@2100	66.5@2100	1750@1600	243.0@1600	59.6@1600	EGR EC PTOX OC SCRC NH3OC DFI TC CAC		

* Added per Running Change