

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	FJDXL09.0308	9.0	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
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	--	--	--	--	0.01	--	--	--
		CERT	0.001	0.07	--	0.1	0.003	--	--	--

**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 6<sup>th</sup> day of July 2015.

*Annette Hebert* for Annette Hebert

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

EO#: U-R-004-0506

R/c

9/25/15

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Engine Model Summary Form

Manufacturer: John Deere Power Systems  
 Engine category: Nonroad CI  
 EPA Engine Family: FJDXL09.0308  
 Mt Family Name: 450HCC  
 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:		8. Fuel Rate: (kW/hr)@peak torque	9. Emission Control Device Per SAE J1930
			mm <sup>3</sup> /stroke@peak kW (for diesel only)	(kg/hr)@peak kW (for diesels only)	mm <sup>3</sup> /stroke@peak torque	(kW/hr)@peak torque					
6090HDW28	6090	287@2100	186.6@2100	59.9@2100	1655@1500	231.4@1500	53.1@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090HH020	6090	320@2200	208.1@2200	70.0@2200	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090HPRNT8	6090	341@2200	216.5@2200	72.8@2200	1866@1800	266.8@1600	65.3@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090HT805	6090	320@2200	208.1@2200	70.0@2200	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090HZ017A	6090	320@2200	208.1@2200	70.0@2200	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090HZ017B	6090	283@2200	175.2@2200	58.9@2200	1655@1500	231.4@1500	53.1@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090HZ019	6090	327@2100	217.9@2100	70.0@2100	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW464A	6090	327@2100	217.9@2100	70.0@2100	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW464B	6090	287@2100	186.6@2100	59.9@2100	1655@1500	231.4@1500	53.1@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW465A	6090	327@2100	217.9@2100	70.0@2100	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW465B	6090	287@2100	186.6@2100	59.9@2100	1655@1500	231.4@1500	53.1@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW466	6090	287@2100	186.6@2100	59.9@2100	1655@1500	231.4@1500	53.1@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW467	6090	287@2100	186.6@2100	59.9@2100	1655@1500	231.4@1500	53.1@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW469	6090	287@2100	186.6@2100	59.9@2100	1655@1500	231.4@1500	53.1@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW470	6090	327@2100	217.9@2100	70.0@2100	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW471	6090	327@2100	217.9@2100	70.0@2100	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW473	6090	327@2100	217.9@2100	70.0@2100	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW474	6090	327@2100	217.9@2100	70.0@2100	1749@1600	251.7@1600	61.6@1600	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW475	6090	287@2100	186.6@2100	59.9@2100	1655@1500	233.9@1500	53.7@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			
6090RW476	6090	287@2100	186.6@2100	59.9@2100	1655@1500	233.9@1500	53.7@1500	EGR PTOX OC SCRC NH3OC ECM DFI TC CAC			

\* New ratings Added for Running Change