EXECUTIVE ORDER U-R-004-0496 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-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 FJDXL06.8302 4.5, 6.8			Diesel ·	8000			
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION				
Injection Recircula	r Cooler, Oxidation Cata n, Electronic Control Mo ation, Periodic Trap Oxic Catalytic Reduction-Urea Catalyst	dule, Exhaust Gas lizer. Turbocharger.	Tractor, Loaders, Dozer, Pump, Compressor, Generator Se 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 STANDARD CATEGORY			E	XHAUST (g/kw-ł	OPACITY (%)				
POWER CLASS			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	0.03	0.16	dire size	0.03	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

\_ day of October 2014.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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## Engine Model Summary Form

Manufacturer: John Deere Power System
Engine category: Nonroad CI
EPA Engine Family: FJDXL06,8302

Mft Family Name: 350HCA
Process Code: New Submission

			4. Fuel Rate:	5. Fuel Rate:	6. Torque (Nm)	7. Fuel Rate:		9. Emission Control
		3. KW@RPM	mm/stoke@peak kW	(kg/hr)@peak kW	@RPM	mm/stroke@peak	6. Fuel Rate:	Device Per
. Engine code	<ol><li>Engine Model</li></ol>	(SAE Gross)	(for diesel only)	(for diesels only)	(SEA Gross) .	torque	(kW/hr)@peak torque	
6068HDW86	6068	178@1800	158.8@1800	43.7@1800	1115@1400	164.7@1400	35.2@1400	EGR 50 PTOX OC SCRC NH3OC DFI TC CAC
6068HDW87	6068	152@2200	96.6@2200	32.5@2200	935@1600	129.9@1600	31.8@1600	EGR &C PTOX OC SCRC NH3OC DFI TC CAC
6068HE001	6068	190@2400	109.5@2400	40.2@2400	999@1800	140.3@1600	34.3@1600	EGR PC PTOX OC SCRC NH3OC DFI TC CAC
6068HE002	6068	224@2400	131.3@2400	48.2@2400	1141@1600	163.5@ 1600	39.9@1600	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08A	6068	187@2400	108.2@2400	39,7@2400	1000@1600	140.4@1600	34.3@1600	EGR SE PTOX OC SCRC NH3OC DFITC CAC
6068HFC08B	6068	187@2200	114.8@2200	38.6@2200	1000@1600	139.6@1600	34.1@1800	EGR FC PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08C	6068	168@2400	99.7@2400	36.6@2400	900@1600	126.4@1600	30.9@1600	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08D	6068	168@2400	98.8@2400	36.2@2400	900@1600	126@1600	30.8@1600	EGR FE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08E	6068	168@2200	105,1@2200	35.4@2200	970@1600	135,2@1600	33.1@1600	EGR SC PTOX OC SCRC NH3OC DFITC CAC
6068HFC0BF	6068	168@2000	114.0@2000	34.9@2000	1000@1600	140,1@1600	34.3@1600	EGR PC PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08G	6068	149@2400	90,3@2400	. 33.1@2400	800@1800	111.1@1600	27.2@1800	EGR SC PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08H	6068	149@2400	89.7@2400	32.9@2400	800@1600	111@1600	27.2@1600	EGR FE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08i	6068	149@2200	95.8@2200	32.2@2200	873@1600	119.8@1600.	29.3@1600	EGR PC PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08J	6068	149@2000	101.7@2000	31.1@2000	960@1600	136.1@1600	33.3@1600	EGR E PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08K	6068	138@2400	83.3@2400	30.5@2400	740@1600	103.8@1600	25.4@1600	EGR FE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08L	6068	138@2400	83.0@2400	30.4@2400	741@1600	102.7@1600	25.1@1600	EGR SC PTOX OC SCRC NH3OC DFI TC CAC
8088HFC08M	6068	138@2200	67,8@2200	29.5@2200	809@1600	112.6@1600	27.6@1600	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC08N	6068	138@2000	95.3@2000	29.1@2000	890@1600	126@1600	30.8@1600	EGR EFPTOX OC SCRC NH3OC DFI TC CAC
6068HFC08O	6068	187@2000	125.6@2000	38.4@2000	1000@1600	140.3@1600	34.3@1600	EGR SC PTOX OC SCRC NH3OC DFI TC CAC
6068HFC09A	6068	224@2400	133.2@2400	48.8@2400	1141@1600	163.4@1600	39.3@1600	EGR EMPTOX OC SCRC NH3OC DFI TC CAC
6068HFC09B	6068	224@2200	140.8@2200	47.3@2200	1141@1600	151.1@1600	39.3@1600	EGR E PTOX OC SCRC NH3OC DFI TC CAC
6068HFC09C	6068	205@2400	120.7@2400	44.3@2400	1057@1600	150.6@1600	39.1@1600	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC09D	6068	205@2200	127.8/02200	43.002200	. 1057@1600	150.2@1600	39.0@1600	EGR EPPTOX OC SCRC NH3OC DFI TC CAC
6068HFC09E	6068	187@2400	108.4@2400	39.8@2400	1026@1600	145.6@1600	35.6@1600	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC09F	6068	187@2200	116.2@2200	39.1@2200	1026@1600	145.7@1600	35.6@1600	EGR FO PTOX OC SCRC NH3OC DFI TC CAC
6068HFC09G	6068	168@2400	98.3@2400	36.1@2400	1000@1600	141.0@1600	34.5@1600	EGR 50 PTOX OC SCRC NH3OC DFI TC CAC
6068HFC09H	6068	168@2200	105.1@2200	35.4@2200	1000@1600	142.4@1800	34.8@1800	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
6068HFC09I	6068	168@2200	107.2@2200	36.1@2200	1000@1600	143.7@1600	35.1@1600	EGR EPPTOX OC SCRC NH3OC DFI TC CAC
6068HFG08A	6068	180@1800	132.6@1800	36.5@1800	N/A.	ALIA	NA	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
6068HFG08B	6068	150@1800	111.3@1800 '	30.6@1800	NIA	NIA	NIA	EGR FE PTOX OC SCRC NH3OC DFI TC CAC
6068HFG09A	6068	241@1800	191.4@1800	47.3@1800	NIA	AllA	NIA	EGR SEPTOX OC SCRC NH3OC DFI TC CAC
6068HFG09B	6968	216@1800	163.5@1800	44.9@1800	NIA	NIA	11/4	EGR 50 PTOX OC SCRC NH3OC DFI TC CAC
6068HL498	. 6068	154@2100	104.0@2100	33.3@2100	B42@1600	122@1800	29.7 @ 1600	EGR E PTOX OC SCRC NH3OC DELTC CAC
6068HL499	6068	190@2100	122.3@2100	39.3@2100	1000@1600	140.4@1600	34.3@1600	EGR SE PTOX OC SCRC NH3OC DFI TC CAC
B068HL501	6068	190@2100	123.9@2100	39.8@2100	1024@1600	145@1600	35.5@1800	EGR PC PTOX OC SCRC NH3OC DFI TC CAC
6068HN059	6068	224@2400	131.3@2400	48.2@2400	1141@1600	163.5@1600	40.0@1600	EGR EPPTOX OC SCRC NH3OC DFI TC CAC
6068HPRNT5	6068	236@2400	136.5@2400	50.1@2400	1309@1600	187.4@ 1600	45.8@1600	EGR SE PTOX OC SCRC NH3OC DELTC CAC
6068HT099	6068	190@2100	122.3@2100	39.3@2100	1000@1600	140.4@1600	34.3@1600	EGR EPPTOX OC SCRC NH3OC DFI TC CAC
6068HT100	6068	190@2100	123.9@2100	39.8@2100	1025@1600	145.0@1600	35.5@1600	EGR SEPTOX OC SCRC NH3OC DFITC CAC
6068HT101	6068	190@2100	122.3@2100	39.3@2100	1000@1600	140.4@1600	34.3@1600	EGR SE PTOX OC SCRC NH3OC DFI TC CAC

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6068HT107	6068	213@1900	154.1@1900	44.8@1900	1141@1600	186.6@1600	40.7@1600	EGR BE PTOX OC SCRC NH3OC DE TC CAC . E
6068HT108	6068	156@2100	103.7@2100	33.3@2100	842@1600	121.5@1600	29.7@1600	EGR 50 PTOX OC SCRC NH3OC DFI TC CAC
6088HT113	6068	156@2100	103.7@2100	33.3@2100	842@1600	121.5@1600	29.7@1600	EGR SC PTOX OC SCRC NH3OC DFI TC CAC
6068HT114	6068	190@2100	122.3@2100	39.3@2100	1000@1600	140.4@1600	34.3@1600	EGR 50 PTOX OC SCRC NH3OC DFI TC CAC
6068HT115	6088	190@2100	123.9@2100	39,8@2100	1025@1600	145.0@1600	35.5@1600	EGR ER PTOX OC SCRC NH3OC DFI TC CAC
6068HTJ58	6068	224@2200	143.1@2200	48.1@2200	1170@1600	166.9@1600	40.8@1600	EGR FORTOX OC SCRC NH3OC DFI TC CAC
6068HTJ59	8068	190@2200	120.9@2200	40.7@2200	1025@1600	145@1600	35.5@1600	EGR EPPTOX OC SCRC NH3OC DFI TC CAC
6068RW406A	6068	221@2100	145.9@2100	46.9@2100	1171@1600	167.8@1600	41.0@1600	EGR ES PTOX OC SCRC NH3OC DFI TC CAC
8068RW406B	6088	224@2100	147.0@2100	47.202100	· 1245@1600	181.3@1600	43.7@1800	EGR EO PTOX OC SCRC NH3OC DFI TC CAC
6068RW407A	6068	221@2100	145.9@2100	46.9@2100	1171@1600	167.8@1600	41.00 1600	EGR EG PTOX OC SCRC NH3OC DFI TC CAC
6068RW407B	6068	224@2100	147.0@2100	47.2@2100	1245@1600	181.3@1600	43.7@1600	FEGR EO PTOX OC SCRC NH3OC DFI TC CAC
6068RW410	6068	190@2100	123.0@2100	39.5@2100	1025@1600	142.3@1600	34.8@1600	EGR ET PTOX OC SCRC NH3OC DFI TC CAC
6068RW411	6068	190@2100	123.0@2100	39.5@2100	1025@1600	142.3@1600	34.8@1800	EGR EOPTOX OC SCRC NH3OC DELTC CAC
6068RW423	6068	190@2100	122.3@2100	39.3@2100	1000@1600	140.4@1600	34.3@1600	EGR EOPTOX OC SCRC NH3OC DFI TC CAC
6068RW424	6068	190@2100	123.9@2100	39.8@2100	1025@1600	145@1600	35.5@1600	EGR EPPTOX OC SCRC NH3OC DFI TC CAC
6068RW429	6068	154@2100	104.0@2100	33.3@2100	842@1600	122@1600	29.7@1600	EGR E PTOX OC SCRC NH3OC DFI TC CAC
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