

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	CJDXL09.0202	9.0	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Charge Air Cooler, Diesel Oxidation Catalyst, Electronic Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Periodic Trap Oxidizer, Smoke Puff Limiter, Turbocharger			Tractor, Loaders, 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 (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Interim/ ALT NOx	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.01	1.7	--	0.04	0.01	--	--	--

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 12 day of September 2011.


 Annette Hebert, Chief
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: John Deere Power Systems
 Engine category: Nonroad CI
 EPA Engine Family: CJDXL09.0202
 Mfr Family Name: 450HBA
 Process Code: New Submission

Attachment: page 1 of 2
 U-R-004-0454

1. Engine code	6/21/2011	3. kW@RPM (SAE Gross)	4. Fuel Rate: mm/stroke@peak kW (for diesel only)	5. Fuel Rate: (kg/hr)@peak kW (for diesels only)	6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (kg/hr)@peak torque	9. Emission Control Device Per SAE J1930
6090HPRNT1	6090	332.0@2200	216.6@2200	7.29@2200	1771@1600	258.6@1600	63.31@1600	EC SPL CAC TC DFI
6090HFC95A	6090	317.0@2200	203.5@2200	68.5@2200	1685@1600	242.2@1600	59.29@1600	EC SPL CAC TC DFI
6090HFC95B	6090	298.0@2200	190.6@2200	64.16@2200	1685@1600	242.2@1600	59.29@1600	EC SPL CAC TC DFI
6090HFC95C	6090	298.0@2200	190.6@2200	64.16@2200	1685@1600	242.2@1600	59.29@1600	EC SPL CAC TC DFI
6090HFC95D	6090	298.0@2000	205.6@2000	62.91@2000	1685@1600	242.2@1600	59.29@1600	EC SPL CAC TC DFI
6090HFC95E	6090	280.0@2200	177.7@2200	59.81@2200	1671@1600	239.8@1600	58.7@1600	EC SPL CAC TC DFI
6090HFC95F	6090	280.0@2200	177.7@2200	59.81@2200	1671@1600	239.8@1600	58.7@1600	EC SPL CAC TC DFI
6090HFC95G	6090	280.0@2000	192.2@2000	58.81@2000	1685@1600	242.3@1600	59.32@1600	EC SPL CAC TC DFI
6090HFC95H	6090	261.0@2200	166.1@2200	55.91@2200	1563@1600	222.9@1600	54.57@1600	EC SPL CAC TC DFI
6090HFC95I	6090	261.0@2200	166.1@2200	55.91@2200	1563@1600	223@1600	54.59@1600	EC SPL CAC TC DFI
6090HFC95J	6090	261.0@2000	178.7@2000	54.68@2000	1685@1600	242.4@1600	59.34@1600	EC SPL CAC TC DFI
6090HFC95K	6090	242.0@2200	153.1@2200	51.53@2200	1444@1600	242.6@1600	59.39@1600	EC SPL CAC TC DFI
6090HFC95L	6090	242.0@2200	153.1@2200	51.53@2200	1444@1600	202.7@1600	49.62@1600	EC SPL CAC TC DFI
6090HFC95M	6090	242.0@2000	163.8@2000	50.12@2000	1590@1600	226.9@1600	55.55@1600	EC SPL CAC TC DFI
6090RW410	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090RW412	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090RW414	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090RW416	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090RW418	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090RW420	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090RW411	6090	240.0@2100	161.8@2100	51.99@2100	1400@1575	202.1@1575	48.7@1575	EC SPL CAC TC DFI
6090RW413	6090	240.0@2100	161.8@2100	51.99@2100	1400@1575	202.1@1575	48.7@1575	EC SPL CAC TC DFI
6090RW415	6090	240.0@2100	161.8@2100	51.99@2100	1400@1575	202.1@1575	48.7@1575	EC SPL CAC TC DFI
6090RW417	6090	240.0@2100	161.8@2100	51.99@2100	1400@1575	202.1@1575	48.7@1575	EC SPL CAC TC DFI
6090RW419	6090	240.0@2100	161.8@2100	51.99@2100	1400@1575	202.1@1575	48.7@1575	EC SPL CAC TC DFI
6090RW421	6090	240.0@2100	161.8@2100	51.99@2100	1400@1575	202.1@1575	48.7@1575	EC SPL CAC TC DFI
6090HDW12	6090	220.0@2000	150.4@2000	46.02@2000	1535@1400	220.7@1400	47.27@1400	EC SPL CAC TC DFI
6090HDW11	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090HDW16	6090	240.0@2100	161.8@2100	51.99@2100	1400@1575	202.1@1575	48.7@1575	EC SPL CAC TC DFI
6090HFG95A	6090	326.0@1800	255.5@1800	70.37@1800	X	X	X	EC SPL CAC TC DFI
6090HFG95B	6090	297.0@1800	225.1@1800	61.99@1800	X	X	X	EC SPL CAC TC DFI
6090HFG95C	6090	273.0@1800	202@1800	55.63@1800	X	X	X	EC SPL CAC TC DFI
6090HH015	6090	317.0@2200	202.8@2200	68.26@2200	1720@1600	249.8@1600	61.15@1600	EC SPL CAC TC DFI
6090HZ011	6090	317.0@2200	202.8@2200	68.26@2200	1720@1600	249.8@1600	61.15@1600	EC SPL CAC TC DFI
6090HN004	6090	317.0@2200	202.8@2200	68.26@2200	1720@1600	249.8@1600	61.15@1600	EC SPL CAC TC DFI
6090RW403	6090	317.0@2100	211.7@2100	68.02@2100	1685@1575	242.9@1575	58.53@1575	EC SPL CAC TC DFI
6090HT010	6090	229.0@1900	165.2@1900	48.02@1900	1375@1400	201.3@1400	43.12@1400	EC SPL CAC TC DFI
6090RW401	6090	230.0@2100	152.9@2100	49.13@2100	1305@1600	165.9@1600	40.61@1600	EC SPL CAC TC DFI
6090RW402	6090	230.0@2100	152.9@2100	49.13@2100	1305@1600	165.9@1600	40.61@1600	EC SPL CAC TC DFI
6090HFC94A	6090	224.0@2200	144.5@2200	48.64@2200	1305@1600	165.9@1600	40.61@1600	EC SPL CAC TC DFI
6090HFC94B	6090	224.0@2200	144.5@2200	48.64@2200	1305@1600	165.9@1600	40.61@1600	EC SPL CAC TC DFI
6090HFC94C	6090	224.0@2000	128.5@2000	39.32@2000	1305@1600	160@1600	39.17@1600	EC SPL CAC TC DFI
6090HFC94D	6090	205.0@2200	132.9@2200	44.73@2200	1224@1600	173.5@1600	42.47@1600	EC SPL CAC TC DFI
6090HFC94E	6090	205.0@2200	132.9@2200	44.73@2200	1224@1600	173.5@1600	42.47@1600	EC SPL CAC TC DFI

EGR, DOC, PTOx



6090HFC94F	6090	205.0@2000	140.6@2000	43.02@2000	1290@1500	182.3@1500	41.84@1500	EC SPL CAC TC DFI
6090HFC94G	6090	187.0@2200	122.5@2200	41.23@2200	1120@1600	161.8@1600	39.61@1600	EC SPL CAC TC DFI
6090HFC94H	6090	187.0@2200	122.5@2200	41.23@2200	1120@1600	161.8@1600	39.61@1600	EC SPL CAC TC DFI
6090HFC94I	6090	187.0@2000	131.1@2000	40.12@2000	1232@1500	176.2@1500	40.44@1500	EC SPL CAC TC DFI
6090HFG94A	6090	237.0@1800	181@1800	49.85@1800	X	X	X	EC SPL CAC TC DFI
6090HDW13	6090	224.0@2200	123.5@2200	41.57@2200	1305@1600	165.9@1600	40.61@1600	EC SPL CAC TC DFI
6090HDW15	6090	213.0@2420	127.8@2420	47.32@2420	1125@1600	151.6@1600	37.11@1600	EC SPL CAC TC DFI

EGR, DOC, PTOX
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Date: 8-9-2011