

JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0459
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	CJDXL06.8116	4.5, 6.8	Diesel	8000		
SPECIAL	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Electronic Control Module, Direct Diesel Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter, Exhaust Gas Recirculation			Loaders, Tractor, Dozer, Pump, 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			NMHC	NOx	NMHC+NOx	СО	P M	ACCEL	LUG	PEAK
75 ≤ kW < 130	Interim Tier 4 / ALT 20% NOx and PM	STD	0.19	3.4	N/A	5.0	0.02	20	15	50
		FEL		3.8			0.18			
		CERT	0.06	3.4		0.8	0.11	4	1	8

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 January 2012.

Annette Hebert, Chief

Mobile Source Operations Division

12-20-2011

Engine Model Summary Form

U-R-004-0459

Manufacturer:

John Deere Power Systems

Engine category: EPA Engine Family: Mfr Family Name:

Nonroad CI y: CJDXL06.8116 380HAG Systems

Attachment: Page 10f1

Engine code 45HF485A 68HDW65	2. Engine Model 4045H 6068H	3. kW@RPM (SAE Gross) 129.0@2400 128.0@2200	4. Fuel Rate: mm/stroke@peak kW (for diesel only) 115.6@2400 82.3@2200	5. Fuel Rate: (kg/hr)@peak kW (for diesels only) 28.3@2400 27.7@2200	6. Torque (Nm) @RPM (SEA Gross) 645@1500 767@1400	7. Fuel Rate: mm/stroke@peak torque 150,7@1500 113.4@1400	8. Fuel Rate: (kg/hr)@peak torque 23.06@1500 24.29@1400	9. Emission Control Device Per SAE J1930 EM SPL EGR EC
001,04403	00001	120.0@2200	02.3@2200	21.1@2200	767@1400	113.4@1400	24.23@1400	EM SPLEGREC 1
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