

EXHAUST EMISSION DATA SHEET

MQ POWER GENERATOR SET

Model: DCA70SSJU4F



The engine used in this generator set is certified to comply with United States EPA Tier 4 and CARB Mobile Off-Highway emission regulations.

ENGINE DATA

Manufacturer: JOHN DEERE	Bore: 4.17 in. (106 mm)
Model: 4045HFG04	Stroke: 5.0 in. (127 mm)
Type: 4-Cycle, In-Line, 4-Cylinder, Diesel	Displacement: 275 cid (4.5 liters)
Aspiration: Turbocharger, ECM, EGR, DOC, SCR Electronic Direct Injection, Charge Air Cooler	Compression Ratio: 17.0:1

PERFORMANCE DATA

SAE Gross HP @ 1800 RPM (60 Hz) Rated	107
Load Fuel Consumption (gal/Hr) Rated	4.6
Load Exhaust Gas Flow (cfm) Rated Load	445
Exhaust Gas Temperature (°F)	752

United States EPA - Mobile Off-Highway Tier 4 Limits - 75 ≤ ~ ≤174 BHP

Criteria Pollutant	Emission Requirements	Certified Engine Emissions
NOx (Oxides of Nitrogen as NO2)	0.298 gr/bhp-hr	0.246 gr/bhp-hr
HC (Total Unburned Hydrocarbons)	N/A gr/bhp-hr	N/A gr/bhp-hr
NOx + HC (Combined)	N/A gr/bhp-hr	N/A gr/bhp-hr
CO (Carbon Monoxide)	3.728 gr/bhp-hr	0.074 gr/bhp-hr
PM (Particulate Matter)	0.014 gr/bhp-hr	0.014 gr/bhp-hr
NMHC (Non-Methane Hydrocarbons)	0.141 gr/bhp-hr	0.014 gr/bhp-hr
NMHC + NOx	N/A gr/bhp-hr	N/A gr/bhp-hr

EPA Engine Family:	LJDXL04.5315
EPA Certificate of Conformance:	LJDXL04.5315-016
ARB Executive Order:	U-R-004-0590
Effective Date:	Model Year 2020

Note: Engine operation with excessive air intake or exhaust restriction beyond factory published maximum limits, or with improper service maintenance, may result in higher emission levels.

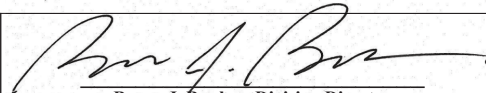


**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2020 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT**

**OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105**

Certificate Issued To: Deere & Company
(U.S. Manufacturer or Importer)
Certificate Number: LJDXL04.5315-016

Effective Date:
07/08/2019
Expiration Date:
12/31/2020


Byron J. Bunker, Division Director
Compliance Division

Issue Date:
07/08/2019
Revision Date:
N/A

Model Year: 2020
Manufacturer Type: Original Engine Manufacturer
Engine Family: LJDXL04.5315

Mobile/Stationary Indicator: Both
Emissions Power Category: 75<=kW<130
Fuel Type: Diesel
After Treatment Devices: Diesel Oxidation Catalyst, Ammonia Slip Catalyst, Selective Catalytic Reduction
Non-after Treatment Devices: Electronic Control, Electronic/Electric EGR - Cooled, Non-standard Non-After Treatment Device Installed

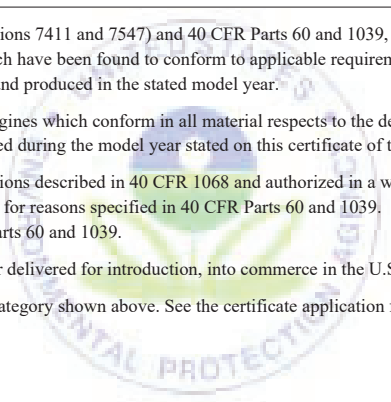
Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Parts 60 and 1039, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Parts 60 and 1039 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Parts 60 and 1039 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Parts 60 and 1039.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Parts 60 and 1039. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Parts 60 and 1039.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

The actual engine power may lie outside the limits of the Emissions Power Category shown above. See the certificate application for details.





Pursuant to the authority vested in California 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-19-095;

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)
2020	LJDXL04.5315	4.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Control Module, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Oxidation Catalyst, 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) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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
56 ≤ kW < 130	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.02	0.33	--	0.1	0.02	--	--	--

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).

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part I-D" adopted October 20, 2005 and last amended October 25, 2012.

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 17TH day of December 2019.

Allen Lyons, Chief
Emissions Certification and Compliance Division

FO#: U-R-004-0590

Attachment: Page 1 of 1
8/30/2019

Engine Model Summary Form

Manufacturer: John Deere Power Systems
 Engine category: Nonroad CI
 EPA Engine Family: LJDXL04.5315
 Mfr Family Name: 350HCG
 Process Code: New Submission

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate: mm ³ /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 ³ /stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque	9. Emission Control Device Per SAE J1930	
4045HAC05A	4045	104@2200	100.9@2200	22.6@2200	400@1800	132.7@1800	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HAC05B	4045	86@2200	84.6@2200	19@2200	506@1800	105.8@1800	17.3@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04A	4045	104@2200	100.9@2200	22.6@2200	540@1800	113.7@1800	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04B	4045	100@2400	96.2@2400	23.5@2400	540@1800	114.2@1800	18.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04C	4045	93@2400	88.6@2400	21.7@2400	493@1800	103.1@1800	16.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04D	4045	93@2200	90.6@2200	20.4@2200	536@1800	112.7@1800	18.4@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04E	4045	86@2400	82.2@2400	20.1@2400	481@1800	96.8@1800	15.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04F	4045	86@2200	84.6@2200	19@2200	506@1800	105.8@1800	17.3@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04G	4045	74@2400	70.4@2400	17.2@2400	391@1800	84.2@1800	13.7@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04H	4045	74@2400	70.4@2400	17.2@2400	391@1800	84.2@1800	13.7@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04I	4045	74@2200	73.5@2200	16.5@2200	427@1800	93.3@1800	14.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04J	4045	74@2200	73.5@2200	16.5@2200	427@1800	89.3@1800	14.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04K	4045	63@2400	63.9@2400	15.6@2400	333@1800	72.2@1800	11.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04L	4045	63@2400	63.9@2400	15.6@2400	333@1800	72.2@1800	11.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04M	4045	63@2200	64.2@2200	14.4@2200	363@1800	68.4@1800	11.2@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04N	4045	63@2200	64.2@2200	14.4@2200	363@1800	68.4@1800	11.2@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFC04O	4045	110@2200	107.4@2200	24.1@2200	540@1800	113.6@1800	18.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFG04A	4045	99@1800	115.1@1800	21.1@1800	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFG04B	4045	80@1800	82.6@1800	19.7@1800	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFG04C	4045	67@1800	77.1@1800	14.1@1800	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFG04D	4045	80@1500	89.7@1500	19.3@1500	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HFG04E	4045	67@1500	90.8@1500	13.9@1500	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HLV73	4045	99@2200	98.2@2200	22@2200	540@1800	113.2@1800	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HLV76	4045	86@2400	81.5@2400	19.9@2400	519@1800	107.9@1800	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HLV78	4045	94@2200	93.4@2200	21@2200	519@1800	107.9@1800	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HLV78A	4045	99@2200	96.8@2200	21.7@2200	540@1800	113.7@1800	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HMC05A	4045	104@2200	102@2200	23@2200	540@1800	113@1800	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HMC05B	4045	86@2200	85@2400	19.2@2400	480@1800	101@1800	16.4@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HP075	4045	94@2200	93.4@2200	21@2200	519@1800	107.9@1800	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HP075A	4045	99@2200	96.8@2200	21.7@2200	540@1800	113.7@1800	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HPR114	4045	106@2400	99.6@2400	24.4@2400	577@1800	123.1@1800	20.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	
4045HT098	4045	94@2200	93.4@2200	21@2200	519@1800	107.9@1800	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM	