## **EXHAUST EMISSION DATA SHEET**

### **MQ POWER GENERATOR SET**

Model: DCA220SSJU4F3



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:
 6068HFG06
 Stroke:
 5.0 in. (127 mm)

 Type:
 4-Cycle, In-Line, 6-Cylinder, Diesel
 Displacement: 415 cid (6.8 liters)

Aspiration: Turbocharger, ECM, EGR, DOC, SCR Electronic Direct Compression Ratio: 17.2:1

Injection, Charge Air Cooler

PERFORMANCE DATA

SAE Gross HP @ 1800 RPM (60 Hz) Rated 215
Load Fuel Consumption (gal/Hr) Rated 8.9
Load Exhaust Gas Flow (cfm) Rated Load 812
Exhaust Gas Temperature (°F) 685

United States EPA - Mobile Off-Highway Tier 4 Limits -

174≤ ~ ≤751 BHP

Date: 4/15/21

Criteria Pollutant	Emiss	sion Requirements	Certifie	d Engine Emissions
NOx (Oxides of Nitrogen as NO2)	0.298	gr/bhp-hr	0.044	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)	2.609	gr/bhp-hr	0.007	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: MJDXL06.8312

EPA Certificate of Conformance: MJDXL06.8312-014

ARB Executive Order: U-R-004-0604

Effective Date: Model Year 2021

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.

Data And Specifications Subject To Change Without Notice



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 2021 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: MJDXL06.8312-014

 $\frac{Effective\ Date:}{08/17/2020}$ 

Expiration Date: 12/31/2021

Byron J, Bunker, Division Director

Compliance Division

Revision Date:

Issue Date:

08/17/2020

Model Year: 2021

Manufacturer Type: Original Engine Manufacturer

Engine Family: MJDXL06.8312

Mobile/Stationary Indicator: Both

Emissions Power Category: 130<=kW<=560

Fuel Type: Diesel

After Treatment Devices: Diesel Oxidation Catalyst, Ammonia Slip Catalyst, Selective Catalytic

After Treatm 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.



### **JOHN DEERE POWER SYSTEMS**

EXECUTIVE ORDER U-R-004-0604 New Off-Road Compression-Ignition Engines

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)						
2021	MJDXL06.8312	6.8	Diesel 8000							
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
Direct Inje Gas Reci	Air Cooler, Oxidation C ection, Electronic Contr rculation, Turbocharger tion-Urea, Ammonia Ox	ol Module, Exhaust , Selective Catalyst	Pump, Compressor, Generator Set, O 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			E	EXHAUST (g/kw-l	nr)		OF	PACITY (%	(o)
	STANDARD CATEGORY		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
		CERT	0.02	0.06	-	0.01	0.02	-	1	

**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 on this 24th day of November 2020.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 

Attachment: Engine Models EO #: U-R-004-0604				Family: MJDXL06.8312 Attachment Last Revised: 11/11/2020															
Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
6068	6068HFG05A	N/A	L6	6.8	Liters	192	kilowatt	1800	143.5	mm3/stroke	1019	N-m	1800	143.5	mm3/stroke	N/A	N/A	N/A	N/A
6068	6068HFG05B	N/A	L6	6.8	Liters	160	kilowatt	1800	119.4	mm3/stroke	849	N-m	1800	119.4	mm3/stroke	N/A	N/A	N/A	N/A
6068	6068HFG05C	N/A	L6	6.8	Liters	165	kilowatt	1500	145.4	mm3/stroke	1050	N-m	1500	145.4	mm3/stroke	N/A	N/A	N/A	N/A
6068	6068HFG05D	N/A	L6	6.8	Liters	160	kilowatt	1500	142.3	mm3/stroke	1019	N-m	1500	142.3	mm3/stroke	N/A	N/A	N/A	N/A
6068	6068HFG06A	N/A	L6	6.8	Liters	241	kilowatt	1800	180.4	mm3/stroke	1279	N-m	1800	180.4	mm3/stroke	N/A	N/A	N/A	N/A
6068	6068HFG06B	N/A	L6	6.8	Liters	216	kilowatt	1800	159.8	mm3/stroke	1146	N-m	1800	159.8	mm3/stroke	N/A	N/A	N/A	N/A
6068	6068HFG06C	N/A	L6	6.8	Liters	197	kilowatt	1500	176.6	mm3/stroke	1254	N-m	1500	176.6	mm3/stroke	N/A	N/A	N/A	N/A
6068	6068HPRNT7	N/A	L6	6.8	Liters	248	kilowatt	1800	184.6	mm3/stroke	1316	N-m	1800	184.6	mm3/stroke	N/A	N/A	N/A	N/A