

## **DEERE & COMPANY**

EXECUTIVE ORDER U-R-004-0646 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)			
2023	PJDXL06.8312	6.8	Diesel	8000			
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Direct Inje Gas Reci	Air Cooler, Oxidation C ection, Electronic Contr culation, Turbocharger tion-Urea, Ammonia Ox	ol Module, Exhaust , Selective Catalyst	Pump, Compressor, Generator Set, Other Steady State 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS			NMHC	NOx	NMHC+NOx	СО	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			

**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 <u>/8th</u> day of October 2022.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

Jolin U. Lang

Attachment: Engine Models EO #: U-R-004-0646 Family: PJDXL06.8312 Attachment Last Revised: 10/5/2022

Displacement -Peak Power -Peak Power -Peak Power -Peak Torque -Peak Torque -Peak Torque - Fuel Model Trim Config Displacement Units Peak Power Units Speed (rpm) Fueling Units Peak Torque Units Speed (rpm) Peak Torque - Fuel Units OBD GHG Special Notes 6068 6068HFG05A 1-6 6.8 Liters 192 kilowatt 143.5 mm3/stroke 1019 N-m 1800 143.5 mm3/stroke N/A N/A 6068 6068HFG05B 1-6 6.8 Liters 160 kilowatt 1800 119.4 mm3/stroke 849 N-m 1800 119.4 mm3/stroke N/A N/A 6068 6068HFG05C 1-6 6.8 165 kilowatt 1500 145.4 1050 1500 145.4 mm3/stroke N/A Liters mm3/stroke N-m N/A 6068 6068HFG05D 1-6 6.8 160 kilowatt 1500 142.3 mm3/stroke 1500 142.3 Liters 1019 N-m mm3/stroke N/A N/A 6068 6068HFG06A 1-6 6.8 Liters 241 kilowatt 1800 180.4 mm3/stroke 1279 N-m 1800 180.4 mm3/stroke N/A N/A 6068 6068HFG06B 1-6 6.8 216 kilowatt 1800 159.8 1146 1800 159.8 mm3/stroke N/A Liters mm3/stroke N-m N/A 6068 6068HFG06C 1-6 6.8 Liters 197 kilowatt 1500 176.6 mm3/stroke 1254 1500 176.6 mm3/stroke N/A N/A 6068 6068HPRNT7 1-6 6.8 Liters 248 kilowatt 1800 184.6 mm3/stroke 1316 1800 184.6 mm3/stroke N/A N/A