

## **DAEDONG CORPORATION**

## **EXECUTIVE ORDER U-R-044-0178**

New Off-Road Compression-Ignition Engines Page 1 of 1

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	PDCLL01.2D78	1.233	Diesel	3000					
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
	Electronic Control M Indirect Diesel Inje		Tractor, Zero-Turn Mower						

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	EMISSION			ı	EXHAUST (g/kw-l	OPACITY (%)					
POWER CLASS	STANDARD CATEGORY		NMHC NOx		NMHC+NOx	со	PM	ACCEL	LUG	PEAK	
8 ≤ kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	20	15	50	
		CERT		1	6.5	2.1	0.31	8	12	12	

**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 29th day of December 2022.

Robin U. Lang, Chief

Johns Ehri for

**Emissions Certification and Compliance Division** 

Attachment: Engine Models EO #: U-R-044-0178 Family: PDCLL01.2D78 Attachment Last Revised: 12/12/2022

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fuel Peak Torque			ue - Peak Torque - Fuel						
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Peak Torque - Fuel	Units	OBD	GHG	Special	Notes
PDCLL01. 2D78	1820- 3014	N/A	L4	1.233	Liters	18.3	kilowatt	3000	22.3	mm3/stroke	70	N-m	1800	24.1	mm3/stroke	N/A	N/A	N/A	N/A
PDCLL01. 2D78	1817- 3014	N/A	L4	1.233	Liters	18.3	kilowatt	3000	22.3	mm3/stroke	68	N-m	2200	23.5	mm3/stroke	N/A	N/A	N/A	N/A
PDCLL01. 2D78	1814- 2814	N/A	L4	1.233	Liters	18	kilowatt	2800	22.2	mm3/stroke	70	N-m	1800	24.1	mm3/stroke	N/A	N/A	N/A	N/A