

YANMAR POWER TECHNOLOGY CO., LTD

EXECUTIVE ORDER U-R-028-0975

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	MYDXL02.2NDA	2.190	Diesel	5,000							
SPECIA	L FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION								
	Direct Injection, Exhaunic Control Module, Per Oxidation Cata	iodic Trap Oxidizer,	Crane, Loaders, Tractor, Dozer, Pump, Compressor, Excavator								

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 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			ı	EXHAUST (g/kw-l		OPACITY (%)				
CLASS	STANDARD CATEGORY		NMHC NOx		NMHC+NOx	СО	PM	ACCEL	LUG	PEAK	
19 ≤ kW < 37	Tier 4 Final	STD	N/A	N/A	4.7	5.5	0.03	N/A	N/A	N/A	
		CERT			3.8	0.4	0.001				

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>30th</u> day of December 2020.

Allen/Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-028-0975 Family: MYDXL02.2NDA Attachment Revised: 12/7/2020

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power -		Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Fuel Units	Peak Torque	Units	Speed (rpm)	Fuel	Fuel Units	OBD	GHG	Special	Notes
4NNDPC	N/A	N/A	14	2.190	Liters	48.8	horsepower	3000	29.8	mm3/stroke	107.6	lb-ft	1950	34.9	mm3/stroke	N/A	N/A	None	None
4NNDAC	N/A	N/A	14	2.190	Liters	47.6	horsepower	3000	29.0	mm3/stroke	103.5	lb-ft	1950	33.5	mm3/stroke	N/A	N/A	None	None
4NNKAC	N/A	N/A	14	2.190	Liters	46.0	horsepower	2800	29.6	mm3/stroke	103.5	lb-ft	1820	33.3	mm3/stroke	N/A	N/A	None	None
4NNMAC	N/A	N/A	14	2.190	Liters	42.5	horsepower	2600	29.0	mm3/stroke	103.5	lb-ft	1690	33.3	mm3/stroke	N/A	N/A	None	None
4NNNAC	N/A	N/A	14	2.190	Liters	40.9	horsepower	2500	28.8	mm3/stroke	103.5	lb-ft	1625	33.3	mm3/stroke	N/A	N/A	None	None
4NNPAC	N/A	N/A	14	2.190	Liters	39.0	horsepower	2400	28.3	mm3/stroke	102.6	lb-ft	1560	33.0	mm3/stroke	N/A	N/A	None	None
4NNSAC	N/A	N/A	14	2.190	Liters	35.8	horsepower	2200	28.0	mm3/stroke	102.6	lb-ft	1430	33.0	mm3/stroke	N/A	N/A	None	None
4NNKCC	N/A	N/A	14	2.190	Liters	41.4	horsepower	2800	26.5	mm3/stroke	93.3	lb-ft	1820	29.9	mm3/stroke	N/A	N/A	None	None
4NNDAC0T	N/A	N/A	14	2.190	Liters	47.6	horsepower	3000	29.0	mm3/stroke	103.5	lb-ft	1950	33.5	mm3/stroke	N/A	N/A	None	None
4NNNAC0T	N/A	N/A	14	2.190	Liters	40.9	horsepower	2500	28.8	mm3/stroke	103.5	lb-ft	1625	33.3	mm3/stroke	N/A	N/A	None	None
4NNPAC0T	N/A	N/A	14	2.190	Liters	39.0	horsepower	2400	28.3	mm3/stroke	102.6	lb-ft	1560	33.0	mm3/stroke	N/A	N/A	None	None