



YANMAR POWER TECHNOLOGY CO., LTD

EXECUTIVE ORDER U-R-028-1031
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.

Table with 5 columns: MODEL YEAR, ENGINE FAMILY, DISPLACEMENT (liters), FUEL TYPE, USEFUL LIFE (hours). Includes a section for SPECIAL FEATURES & EMISSION CONTROL SYSTEMS and TYPICAL EQUIPMENT APPLICATION.

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):

Table with columns: RATED POWER CLASS, EMISSION STANDARD CATEGORY, EXHAUST (g/kw-hr) (NMHC, NOx, NMHC+NOx, CO, PM), and OPACITY (%) (ACCEL, LUG, PEAK).

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 which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 37 ≤ kW < 56 power category in conformance with the incorporated 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 1-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 on this 2nd day of January 2022.

Handwritten signature of Allen Lyons

Allen Lyons, Chief
Emissions Certification and Compliance Division

**Attachment: Engine Models**

**EO #:** U-R-028-1031

**Family:** NYDXL02.1TDA

**Attachment Last Revised:** 12/16/2021

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
4RTDPC			I4	2.091	Liters	61.4	horsepower	3000	36.7	mm3/stroke	129.0	lb-ft	1950	40.8	mm3/stroke				
4RTDAC			I4	2.091	Liters	59.0	horsepower	3000	35.3	mm3/stroke	124.0	lb-ft	1950	39.3	mm3/stroke				
4RTKAC			I4	2.091	Liters	55.1	horsepower	2800	34.8	mm3/stroke	124.0	lb-ft	1820	39.0	mm3/stroke				
4RTLAC			I4	2.091	Liters	53.0	horsepower	2700	34.4	mm3/stroke	124.0	lb-ft	1755	38.8	mm3/stroke				
4RTMAC			I4	2.091	Liters	50.8	horsepower	2600	33.9	mm3/stroke	124.0	lb-ft	1690	38.7	mm3/stroke				
4RTNAC			I4	2.091	Liters	49.1	horsepower	2500	33.6	mm3/stroke	124.0	lb-ft	1625	38.6	mm3/stroke				
4RTPAC			I4	2.091	Liters	47.6	horsepower	2400	33.9	mm3/stroke	125.0	lb-ft	1560	39.1	mm3/stroke				