

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	MFTGL02.2R3N	2.2	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Oxidation Catalyst, Electronic Control Module, Periodic Trap Oxidizer			Loaders, Tractor, Dozer, Generator Set, Road Sweeper	

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 (NO_x), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), 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 STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NO _x	NMHC+NO _x	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	4.6	0.1	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).

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 15th day of December 2020.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-068-0015

Family: MFTGL02.2R3N

Attachment Last Revised: 11/23/2020

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
50D/1	50D/1		I3	2.2	Liters	50	kilowatt	2500	69.5	mm3/stroke	250	N-m	1800	85.2	mm3/stroke				n/a
50D/2	50D/2		I3	2.2	Liters	49	kilowatt	2600	66.7	mm3/stroke	220	N-m	1800	70.2	mm3/stroke				n/a
50D/3	50D/3		I3	2.2	Liters	43	kilowatt	2600	62.3	mm3/stroke	200	N-m	1800	65.2	mm3/stroke				n/a
50D/4	50D/4		I3	2.2	Liters	41	kilowatt	2600	60.2	mm3/stroke	185	N-m	1800	62.6	mm3/stroke				n/a
50D/5	50D/5		I3	2.2	Liters	40	kilowatt	2600	57.0	mm3/stroke	180	N-m	1800	61.8	mm3/stroke				n/a
50D/6	50D/6		I3	2.2	Liters	34	kilowatt	2600	52.4	mm3/stroke	160	N-m	1800	56.0	mm3/stroke				n/a
50D/7	50D/7		I3	2.2	Liters	45	kilowatt	2600	65.8	mm3/stroke	208	N-m	1800	70.2	mm3/stroke				n/a
50D/8	50D/8		I3	2.2	Liters	52	kilowatt	2600	73.5	mm3/stroke	246	N-m	1800	83.0	mm3/stroke				n/a
50D/9	50D/9		I3	2.2	Liters	50	kilowatt	2600	72.5	mm3/stroke	232	N-m	1800	78.8	mm3/stroke				n/a
50D/10	50D/10		I3	2.2	Liters	54	kilowatt	2600	76.0	mm3/stroke	246	N-m	1800	83.0	mm3/stroke				n/a