

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	MPKXL03.6FX1	3.62	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Diesel Oxidation Catalyst, Periodic Trap Oxidizer, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Crane, Loaders, Tractor, Dozer, Pump, Compressor, Generator Set	

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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.02	0.23	--	0.2	0.01	--	--	--

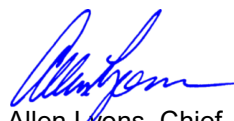
BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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 56 ≤ kW < 130 power categories 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 22nd day of October 2020.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Engine Model Summary Template

Attachment 1 of 2
EO#: U-R-022-0280
Date: 10/2/2020

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
MPKXL03.6FX1	5046/2200 Parent	904J- E36TADDS	134@2200	103.3	50.1	405.6@1500	119.3	39.4	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4774/2400	904J- E36TADDS	94@2400	69.1	36.5	302.4@1200	92.0	30.4	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4784/2400	904J- E36TADDS	100@2400	72.9	38.6	317.1@1500	96.0	31.7	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4788/2400	904J- E36TADDS	110@2400	79.9	42.3	331.9@2400	100.0	33.1	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4790/2400	904J- E36TADDS	115@2400	83.7	44.3	368.7@1500	110.0	36.4	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4792/2400	904J- E36TADDS	121@2400	88.24	46.7	368.7@1500	110.0	36.4	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4794/2400	904J- E36TADDS	100@2400	72.99	38.6	331.9@1500	100.0	33.1	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4796/2400	904J- E36TADDS	94@2400	69.0	36.5	331.9@1500	100.0	33.1	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR

Engine Model Summary Template

Attachment 2 of 2
EO#: U-R-022-0280
Date: 10/2/2020

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
MPKXL03.6FX1	4798/2400	904J- E36TADDS	110@2400	79.9	42.3	368.7@1500	110	36.4	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	4836/2200	904J- E36TADDS	88@2200	68.5	33.2	331.9@1500	100	33.1	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	5044/2200	904J- E36TADDS	127@2200	91.1	44.2	390.9@1500	115.6	38.2	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR
MPKXL03.6FX1	6333/2200	904J- E36TADDS	134@2200	104.0	50.4	390.9@1500	116.5	38.5	DDI, TAA, ECM, DOC, SCR, AMOX, PTOX, EGR

TAA = TC + CAC