

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)
2020	LYDXL0.99NPA	0.993	Diesel	3,000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Indirect Diesel Injection			Crane, Dozer, Loader, Tractor, Pump, Compressor, Excavator	

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
8 ≤ kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT	--	--	5.6	2.0	0.14	1	1	1

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 at El Monte, California on this 14th day of August 2019.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Attachment Page 1 of 1

Engine Model Summary Template

EO# U-R-028-0919
8/1/19

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
LYDXL0.99NPA	N/A	5ENBPM	23.7/3400	19.9	11.2	41.1/2400	20.2	8.0	EM IFI
LYDXL0.99NPA	N/A	5ENAAM	23.9/3600	18.4	10.9	38.4/2400	18.4	7.3	EM IFI
LYDXL0.99NPA	N/A	4PNDAM	19.0/3000	17.1	8.5	36.9/1900	17.7	5.6	EM IFI
LYDXL0.99NPA	N/A	4PNNAM	15.6/2500	16.2	6.7	37.0/1800	17.7	5.3	EM IFI
LYDXL0.99NPA	N/A	4PNPAM	15.0/2400	16.2	6.4	37.0/1800	17.8	5.3	EM IFI
LYDXL0.99NPA	N/A	5ENBAM	22.8/3400	18.8	10.6	39.6/2400	19.2	7.6	EM IFI
LYDXL0.99NPA	N/A	5ENCAM	21.5/3200	18.1	9.6	39.5/2300	19.1	7.3	EM IFI