CALIFORNIA AIR RESOURCES BOARD	**MOTORENFABRIK HATZ GMBH & CO. KG**	**EXECUTIVE ORDER U-R-034-0335** New Off-Road Compression-Ignition Engines Page **1** of **1**

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)
2022	NHZXL1.95V51	1.456, 1.951	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Periodic Trap Oxidizer, Diesel Oxidation Catalyst, Exhaust Gas Recirculation, Electronic Control Module, Turbocharger, Charge Air Cooler	Crane, Loader, 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
19 ≤ kW < 56	Tier 4 Final	**STD**	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	4.2	1.2	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 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 19th day of December 2021.

Allen Lyons, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models **EO #:** U-R-034-0335 **Family:** NHZXL1.95V51 **Attachment Last Revised:** 11/15/2021

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
3H50TICD	3H50TICD-vs-28-IFNsi	N/A	I3	1.456	Liters	43,7	kilowatt	2800	52,0	mm3/stroke	203,0	N-m	2000	63,0	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-28-IFN	N/A	I3	1.456	Liters	43,7	kilowatt	2800	52,0	mm3/stroke	188,0	N-m	2100	59,0	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-28-ICFN	N/A	I3	1.456	Liters	36,4	kilowatt	2800	43,5	mm3/stroke	188,0	N-m	1800	57,5	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-27-IFN	N/A	I3	1.456	Liters	42,0	kilowatt	2700	51,0	mm3/stroke	188,0	N-m	2000	58,0	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-26-IFN	N/A	I3	1.456	Liters	40,3	kilowatt	2600	49,5	mm3/stroke	188,0	N-m	1900	58,0	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-25-IFN	N/A	I3	1.456	Liters	38,6	kilowatt	2500	48,5	mm3/stroke	188,0	N-m	1800	58,0	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-24-IFN	N/A	I3	1.456	Liters	36,4	kilowatt	2400	47,0	mm3/stroke	188,0	N-m	1700	58,0	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-23-IFN	N/A	I3	1.456	Liters	35,3	kilowatt	2300	47,0	mm3/stroke	188,0	N-m	1600	58,0	mm3/stroke	N/A	N/A	N/A	N/A
3H50TICD	3H50TICD-vs-22-IFN	N/A	I3	1.456	Liters	33,7	kilowatt	2200	46,5	mm3/stroke	182,0	N-m	1600	58,0	mm3/stroke	N/A	N/A	N/A	N/A
4H50TICD	4H50TICD-vs-22-IFN	N/A	I4	1.951	Liters	44,8	kilowatt	2200	44,5	mm3/stroke	238,0	N-m	1500	55,0	mm3/stroke	N/A	N/A	N/A	N/A
4H50TICD	4H50TICD-vs-23-IFN	N/A	I4	1.951	Liters	46,9	kilowatt	2300	45,5	mm3/stroke	242,0	N-m	1600	55,0	mm3/stroke	N/A	N/A	N/A	N/A
4H50TICD	4H50TICD-vs-24-IFN	N/A	I4	1.951	Liters	48,8	kilowatt	2400	46,0	mm3/stroke	242,3	N-m	1700	55,0	mm3/stroke	N/A	N/A	N/A	N/A
4H50TICD	4H50TICD-vs-25-IFN	N/A	I4	1.951	Liters	50,8	kilowatt	2500	46,5	mm3/stroke	242,6	N-m	1800	55,0	mm3/stroke	N/A	N/A	N/A	N/A
4H50TICD	4H50TICD-vs-26-IFN	N/A	I4	1.951	Liters	52,7	kilowatt	2600	47,5	mm3/stroke	242,9	N-m	1900	55,0	mm3/stroke	N/A	N/A	N/A	N/A
4H50TICD	4H50TICD-vs-27-IFN	N/A	I4	1.951	Liters	54,8	kilowatt	2700	48,0	mm3/stroke	243,2	N-m	2000	55,0	mm3/stroke	N/A	N/A	N/A	N/A
4H50TICD	4H50TICD-vs-28-IFN	N/A	I4	1.951	Liters	55,4	kilowatt	2800	48,0	mm3/stroke	243,5	N-m	2100	55,0	mm3/stroke	N/A	N/A	N/A	N/A