

Pursuant to the authority vested in the 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-02-003;

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)
2009	9HZXL1.38TV2	1.384	Diesel	5000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger			Pump, Other Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), 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 (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 37	Tier 4 interim	STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT	--	--	7.0	2.6	0.24	3	2	5

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 12th day of December 2008.

J. Lawrence
 Annette Hebert, Chief
 Mobile Source Operations Division

Motorfabrik Hatz
Nonrod CI

Attachment P 1 of 1

U-R-034-0209

Engine Model Summary Template

Engine Family	Engine Code	2 Engine Model	3 Max Crank Speed (RPM)	4 Crank Position (Deg)	5 Fuel Inj. (mm)	6 Stroke (mm)	7 Max Power (kW)	8 Fuel Inj. (mm)	9 Stroke (mm)	10 Displ. (L)
PHCL	3817G	NA	4100	30.5	5.8	88/81900	29.5	3.0		
PHCL	4051	4051/30.5	4100	30.5	6.3	60/82000	29.5	4.3		
PHCL	4051	4051/37.2	37000	24.5	5.2	87/81900	29.0	3.7		
PHCL	4051	4051/39.9	39000	24.5	5.1	87/81900	29.0	3.7		
PHCL	4051	4051/39.9	39000	24.5	5.0	87/81900	29.0	3.7		
PHCL	4051	4051/39.9	39000	24.5	5.0	87/81900	29.0	3.7		
PHCL	4051	4051/42.6	42000	24.5	4.9	88/81900	28.5	3.6		
PHCL	4051	4051/45.3	45000	24.5	4.8	84/81900	28.0	3.5		
PHCL	4051	4051/48.0	48000	24.5	4.7	81/81900	27.0	3.4		
PHCL	4051	4051/48.0	48000	24.5	4.5	80/81900	26.5	3.4		
PHCL	4051	4051/48.0	48000	24.5	4.4	78/81900	26.0	3.3		
PHCL	4051	4051/48.0	48000	24.5	4.3	77/81900	25.5	3.3		

4051

DDI, IC