

 AIR RESOURCES BOARD	MOTORENFABRIK HATZ	EXECUTIVE ORDER U-R-034-0241-1 New Off-Road Compression-Ignition Engines

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)
2011	BHZXL280C27	0.280	Diesel	3000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Mechanical Direct Injection			Pump, Generator Set	

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
KW < 8	Tier 4 - Final	STD	N/A	N/A	7.5	8.0	0.60	N/A	N/A	N/A
		CERT	--	--	7.2	4.8	0.26	--	--	--

BE IT FURTHER RESOLVED: That certification to the standards in 13 CCR 2423(b)(1)(A) -Table 1b listed above has been permitted pursuant to Endnote 2 of the same table.

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 Sections 2425 and 2426 (emission control system warranty).

This Executive Order hereby supersedes Executive Order U-R-034-0241 dated February 7, 2011.

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 27 day of May 2011.

 FOR ANNETTE HEBERT

Annette Hebert, Chief
 Mobile Source Operations Division

Motofabrik Hatz

Nonroad CI

Attachment

page 1 of 2

EO# 0-R-034-0241-1

5/19/2011

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@PPM (SAE Gross)	4.Fuel Rate: mm&trck @ peak HP (br diesel only)	5.Fuel Rate: (Lx/h) @ peak HP (br diesel only)	6.Torque @ PPM (SAE Gross)	7.Fuel Rate: mm&trck @ peak torque	8.Fuel Rate: (Lx/h) @ peak torque	9.Emissions Control Device Per SAE J1930
BHZXL280C27	N/A	1B27	5,4@3600	13,3	2,7	7,9@3600	13,3	2,7	DI / EM
BHZXL280C27	N/A	1B27	5,3@3550	13,3	2,6	7,9@3550	13,3	2,6	DI / EM
BHZXL280C27	N/A	1B27	5,3@3500	13,3	2,6	8,0@3500	13,3	2,6	DI / EM
BHZXL280C27	N/A	1B27	5,2@3450	13,3	2,6	8,0@3450	13,3	2,6	DI / EM
BHZXL280C27	N/A	1B27	5,2@3400	13,3	2,5	8,0@3400	13,3	2,5	DI / EM
BHZXL280C27	N/A	1B27	5,1@3350	13,3	2,5	8,1@3350	13,3	2,5	DI / EM
BHZXL280C27	N/A	1B27	5,1@3300	13,3	2,4	8,1@3300	13,3	2,4	DI / EM
BHZXL280C27	N/A	1B27	5,1@3250	13,3	2,4	8,2@3250	13,3	2,4	DI / EM
BHZXL280C27	N/A	1B27	5,0@3200	13,3	2,4	8,3@3200	13,3	2,4	DI / EM
BHZXL280C27	N/A	1B27	5,0@3150	13,3	2,3	8,4@3150	13,3	2,3	DI / EM
BHZXL280C27	N/A	1B27	5,0@3100	13,3	2,3	8,4@3100	13,3	2,3	DI / EM
BHZXL280C27	N/A	1B27	5,0@3050	13,3	2,3	8,6@3050	13,3	1,6	DI / EM
BHZXL280C27	N/A	1B27	5,0@3000	13,5	2,3	8,7@3000	13,5	2,3	DI / EM
BHZXL280C27	N/A	1B27	4,9@2950	13,5	2,2	8,8@2950	13,5	2,2	DI / EM
BHZXL280C27	N/A	1B27	4,9@2900	13,5	2,2	8,9@2900	13,5	2,2	DI / EM
BHZXL280C27	N/A	1B27	4,8@2850	13,5	2,1	8,9@2850	13,5	2,1	DI / EM
BHZXL280C27	N/A	1B27	4,8@2800	13,5	2,1	9,0@2800	13,5	2,1	DI / EM
BHZXL280C27	N/A	1B27	4,8@2750	13,5	2,1	9,1@2750	13,5	2,1	DI / EM
BHZXL280C27	N/A	1B27	4,7@2700	13,5	2,0	9,2@2700	13,5	2,0	DI / EM
BHZXL280C27	N/A	1B27	4,6@2650	13,5	2,0	9,2@2650	13,5	2,0	DI / EM
BHZXL280C27	N/A	1B27	4,6@2600	13,5	2,0	9,2@2600	13,5	2,0	DI / EM
BHZXL280C27	N/A	1B27	4,5@2550	13,5	1,9	9,3@2550	13,5	1,9	DI / EM
BHZXL280C27	N/A	1B27	4,4@2500	13,5	1,9	9,2@2500	13,5	1,9	DI / EM
BHZXL280C27	N/A	1B27	4,3@2450	13,5	1,8	9,2@2450	13,5	1,8	DI / EM
BHZXL280C27	N/A	1B27	4,2@2400	13,5	1,8	9,2@2400	13,5	1,8	DI / EM
BHZXL280C27	N/A	1B27	4,2@2350	13,5	1,8	9,3@2350	13,5	1,8	DI / EM

