

 AIR RESOURCES BOARD	MOTORENFABRIK HATZ	EXECUTIVE ORDER U-R-034-0215 New Off-Road Compression-Ignition Engines
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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)
2010	AHZXL347C30	0.347	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	STD	--	--	7.5	8.0	0.60	N/A	N/A	N/A
		CERT	--	--	6.6	6.0	0.21	--	--	--

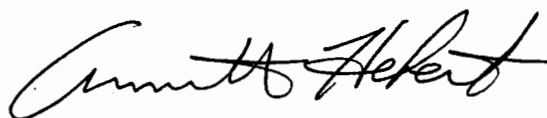
BE IT FURTHER RESOLVED: That certification to the standards in 13 CCR 2423(b)(1)(A) -Table 1b listed above has been permitted pursuant to Endnote 2 of the same table.

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 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 29 day of December 2009.



Annette Hebert, Chief
 Mobile Source Operations Division

Motorenfabrik Hatz
Nonroad CI

Attachment

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Report Template

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.IH@RPM (SAE Gross)	4.IH@RPM (max torque @ peak HP (SAE Gross))	5.IH@RPM (max HP (SAE Gross))	6.Torque @ RPM (SAE Gross)	7.IH@RPM (max torque @ peak torque)	8.IH@RPM (max torque @ peak torque)	9.Emissions Cor Dense Part(SAE)
AHZXL347C30	N/A	1830 / V	6.7@3600	10	3.2	9.8@3600	10	3.2	Mechanical DI
AHZXL347C30	N/A	1830 / V	6.7@3550	10	3.2	9.9@3550	10	3.2	
AHZXL347C30	N/A	1830 / V	6.8@3600	10	3.1	10.0@3500	10	3.1	
AHZXL347C30	N/A	1830 / V	6.8@3450	10	3.1	10.1@3450	10	3.1	
AHZXL347C30	N/A	1830 / V	6.8@3400	10	3.0	10.2@3400	10	3.0	
AHZXL347C30	N/A	1830 / V	6.5@3350	10	3.0	10.3@3350	10	3.0	
AHZXL347C30	N/A	1830 / V	6.5@3300	10	2.9	10.4@3300	10	2.9	
AHZXL347C30	N/A	1830 / V	6.5@3250	10	2.9	10.5@3250	10	2.9	
AHZXL347C30	N/A	1830 / V	6.4@3200	10	2.9	10.6@3200	10	2.9	
AHZXL347C30	N/A	1830 / V	6.4@3150	10	2.8	10.7@3150	10	2.8	
AHZXL347C30	N/A	1830 / V	6.3@3100	10	2.8	10.8@3100	10	2.8	
AHZXL347C30	N/A	1830 / V	6.3@3050	10	2.7	10.8@3050	10	2.7	
AHZXL347C30	N/A	1830 / V	6.2@3000	10.5	2.8	10.9@3000	10.5	2.8	
AHZXL347C30	N/A	1830 / V	6.2@2950	10.5	2.7	11.0@2950	10.5	2.7	
AHZXL347C30	N/A	1830 / V	6.1@2900	10.5	2.7	11.1@2900	10.5	2.7	
AHZXL347C30	N/A	1830 / V	6.0@2850	10.5	2.6	11.2@2850	10.5	2.6	
AHZXL347C30	N/A	1830 / V	6.0@2800	10.5	2.6	11.2@2800	10.5	2.6	
AHZXL347C30	N/A	1830 / V	5.9@2750	10.5	2.5	11.3@2750	10.5	2.5	
AHZXL347C30	N/A	1830 / V	5.8@2700	10.5	2.5	11.4@2700	10.5	2.5	
AHZXL347C30	N/A	1830 / V	5.8@2650	10.5	2.4	11.5@2650	10.5	2.4	
AHZXL347C30	N/A	1830 / V	5.7@2600	10.5	2.4	11.5@2600	10.5	2.4	
AHZXL347C30	N/A	1830 / V	5.6@2550	10.5	2.3	11.6@2550	10.5	2.3	
AHZXL347C30	N/A	1830 / V	5.5@2500	10.5	2.3	11.6@2500	10.5	2.3	
AHZXL347C30	N/A	1830 / V	5.4@2450	10.5	2.3	11.7@2450	10.5	2.3	
AHZXL347C30	N/A	1830 / V	5.4@2400	10.5	2.2	11.8@2400	10.5	2.2	
AHZXL347C30	N/A	1830 / V	5.3@2350	10.5	2.2	11.8@2350	10.5	2.2	
AHZXL347C30	N/A	1830 / V	5.2@2300	10.5	2.1	11.9@2300	10.5	2.1	

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Nonroad CI

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Mechanical CI

Engine Model Summary Template

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Engine Family	1.Engine Code	2.Engine Model	3.HP@RPM (SAE Gross)	4.Fuel Rate: min/kwh @ peak HP (or direct only)	5.Fuel Rate: (bhp) @ peak HP (or direct only)	6.Torque @ RPM (SAE Gross)	7.Fuel Rate: min/kwh @ peak torque	8.Fuel Rate: (bhp) @ peak torque	9.Dimensions Device Per SAE J
AHZXL347C30	N/A	1830 / V	5.1 @ 2250	16.5	2.1	11.9 @ 2250	16.5	2.1	Mechanical CI
AHZXL347C30	N/A	1830 / V	5.0 @ 2200	16.5	2.0	12.0 @ 2200	16.5	2.0	
AHZXL347C30	N/A	1830 / V	4.9 @ 180	16.5	2.0	12.0 @ 180	16.5	2.0	
AHZXL347C30	N/A	1830 / V	4.8 @ 100	16.5	1.9	12.0 @ 100	16.5	1.9	
AHZXL347C30	N/A	1830 / V	4.7 @ 2050	16.5	1.9	12.1 @ 2050	16.5	1.9	
AHZXL347C30	N/A	1830 / V	4.6 @ 2000	16.5	1.8	12.1 @ 2000	16.5	1.8	