HYUNDAI MOTOR COMPANY

EXECUTIVE ORDER U-R-058-0003 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	BHYXL03.9TDI	3.9	Diesel	8,000			
	FEATURES & EMISSION (TYPICAL EQUIPMENT APPLICATION				
Ele Char	ectronic Direct Injection, 7 ge Air Cooler, Electronic	Furbocharger, Control Module	Pump, Compressor, 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) OPACI							CITY (%)	
			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK	
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50	
		CERT			4.0	2.9	0.24	6	3	17	

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

__ day of December 2010.

Annette Hebert, Chief

Mobile Source Operations Division

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ATTACHMENT

U-R-058-0003

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Engine Model Summary Template

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 torqu	9.Emission Control Be Device Per SAE J1930	C, -	11/2
BHYXL03.9TDI	C3	D4DD	91@ 2300	82	41.1	239@ 1600	82	28.5	ECM, DI, TC,	_	
									CAC		
BHYXL03.9TDI	C4	D4DD	91@ 2300	. 82	41.1	239@ 1600	82	20.5	ECM DI TO		
BHTALU3.91DI		טשטט	91@ 2300	, 04	41.1	239@ 1600	04	28.5	ECM, DI, TC, CAC	-	
3HYXL03.9TDI	C5	D4DD	99@ 2300	88	43.9	275@ 1600	90	31.5	ECM, DI, TC,		
THE STATE OF THE STREET, STATE OF THE STATE								Wilderson The Control of the Control	CAC	-	