EXECUTIVE ORDER U-R-050-0034 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 engine and emission control system 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) 8000		
2012	CSIDL04.9G6A	4.9, 6.6	Diesel			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Electronic Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Smoke Puff Limiter, Oxidation Catalyst, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Tractor, Other Industrial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane 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	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	PM.	ACCEL	LUG	PEAK
75 <u>&lt;</u> KW < 130	Interim Tier 4/ ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	3.0		0.1	0.02			

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 20

Annette Hebert, Chief

Mobile Source Operations Division

## ATTACHMENT 1 OF 1

## **Engine Model Summary Template**

U-R-050-0034 12/22/2011

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	(lbs/hr)@peak torqu	9.Emission Control eDevice Per SAE J1930
CSIDL04.9G6A		49AWI.790	166@2100	123	57.4	615@1500	167	55.7 ℃ A	MCX ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.693	165@2100	85	59.5	573@1500	103	51.5 t	ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.695	165@2100	84	58.8	569@1500	102	51.0 แ	ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.810	155@2100	79	55.3	521@1500	93	46.5 i	, ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.811	155@2100	79	55.3	521@1500	93	46.5 N	ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.812	147@2100	76	53.2	508@1500	91	45.5 v	ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.813	147@2100	76	53.2	508@1500	91	45.5	, ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.828	154@2100	78	54.6	523@1500	95	47.5 .	, ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.829	158@2100	80	56.0	561@1500	102	51.0	, ECM,DDI,TC,CAC,SPL,SCR
CSIDL04.9G6A		66AWI.830	165@2100	84	58.8	546@1500	99	49.5	ECM,DDI,TC,CAC,SPL,SCR
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