

TOGNUM AMERICA INC.

EXECUTIVE ORDER U-R-052-0022 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)			
2013	DMDDL35.7XNC	26.8, 35.7	Diesel	8,000			
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION				
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation			Crane, Loader, Tractor, Dozer, Pump, Compressor				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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	EMISSION		EXHAUST (g/kW-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
ELSE > 560 kW	Interim Tier 4	STD	0.40	3.5	N/A	3.5	0.10	20	15	50
		CERT	0.23	3.2		0.3	0.04	3	1	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 _____31 200 day of May 2013.

Erik White, Chief

Mobile Source Operations Division

ATTACHMENT

Engine Model Summary Template

U-R-052-002Z 518/13

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 lorque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930	Ecr
DMDDL35.7XNC	7246	12V2000S96	1150	289	485	3621	348	443	DFITC CAC EGR E	ECH
DMDDL35.7XNC	7247	12V2000C66	1050	262	467	3621	326	441	DFI TC CAC EGR E	ECH
DMDDL35.7XNC	7245	12V2000S56	1050	262	467	3422	326	441	DFI TC CAC EGR E	ECH
DMDDL35.7XNC	7248	16V2000C66	1300	289	485	3898	348	456	DFI TC CAC EGR E	ECH
DMDDL35.7XNC	7250	16V2000S56	1300	289	485	3898	348	456	DFI TC CAC EGR E	ECH
DMDDL35.7XNC	7051	12V2000C66R	1050	293	447	3422	325	441	DFI TC CAC EGR E	EC'M
DMDDL35.7XNC	7249	16V2000S96	1560	289	474	4720	348 .	456	DFI TC CAC EGR	ECH