



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)
2012	CDHXL9532D1	0.953, 0.850	Diesel	3000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Indirect Diesel Injection			Tractor and Riding Mower	

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
8 ≤ kW < 19	Tier 4	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT	--	--	4.8	2.7	0.33	3	6	9

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 7 day of December 2011.

Annette Hebert, Chief
Mobile Source Operations Division

11-18-2011

EO#: 4-R-030-0030
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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 torque	9.Emission Control Device Per SAE J1930
CDHXL.9532D1	DM950D	DM950D-R	18.5kW@3600	19.7@3600	11.8@3600	42.1ft-lbs@2800	21.5@2800	10.0@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RA	18.2kW@3600	19.7@3600	11.8@3600	41.0ft-lbs@2800	21.4@2800	10.0@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RB	18.1kW@3500	20.2@3500	11.8@3500	41.0ft-lbs@2800	21.4@2800	10.0@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RC	18.0kW@3400	20.5@3400	11.6@3400	41.0ft-lbs@2800	21.4@2800	10.0@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RD	17.9kW@3300	20.7@3300	11.4@3300	41.0ft-lbs@2800	21.4@2800	10.0@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RE	17.7kW@3200	20.8@3200	11.1@3200	41.0ft-lbs@2800	21.4@2800	10.0@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RF	17.5kW@3100	20.8@3100	10.7@3100	41.0ft-lbs@2800	21.4@2800	10.0@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RG	16.9kW@3000	20.7@3000	10.4@3000	40.8ft-lbs@2800	21.2@2800	9.9@2800	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RH	16.4kW@2900	20.7@2900	10.0@2900	40.6ft-lbs@2700	21.0@2700	9.4@2700	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RI	15.3kW@2800	19.5@2800	9.1@2800	40.6ft-lbs@2700	21.0@2700	9.4@2700	EM, IDI
CDHXL.9532D1	DM950D	DM950D-RJ	17.2kW@3600	18.7@3600	11.2@3600	40.6ft-lbs@2800	21.0@2800	9.8@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RA	15.7kW@3600	16.7@3600	10.0@3600	35.3ft-lbs@2800	18.2@2800	8.5@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RB	15.6kW@3500	16.9@3500	9.8@3500	35.3ft-lbs@2800	18.2@2800	8.5@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RC	15.5kW@3400	17.1@3400	9.7@3400	35.3ft-lbs@2800	18.2@2800	8.5@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RD	15.3kW@3300	17.2@3300	9.5@3300	35.3ft-lbs@2800	18.2@2800	8.5@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RE	15.1kW@3200	17.3@3200	9.2@3200	35.3ft-lbs@2800	18.2@2800	8.5@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RF	14.9kW@3100	17.5@3100	9.0@3100	35.3ft-lbs@2800	18.2@2800	8.5@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RG	14.5kW@3000	17.5@3000	8.7@3000	34.9ft-lbs@2800	18.0@2800	8.4@2800	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RH	13.9kW@2900	17.3@2900	8.4@2900	34.6t-lbs@2700	17.7@2700	7.9@2700	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RI	13.4kW@2800	17.1@2800	8.0@2800	34.3ft-lbs@2700	17.5@2700	7.9@2700	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RJ	13.0kW@3100	15.2@3100	7.8@3100	30.5ft-lbs@2700	15.1@2700	6.8@2700	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RK	12.4kW@2900	15.2@2900	7.3@2900	30.5ft-lbs@2700	15.1@2700	6.8@2700	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RL	11.6kW@2500	16.4@2500	6.8@2500	32.7ft-lbs@2500	16.4@2500	6.8@2500	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RM	13.2kW@2750	17.1@2750	7.8@2750	34.3ft-lbs@2700	17.5@2700	7.9@2700	EM, IDI
CDHXL.9532D1	DM850D	DM850D-RN	12.8kW@2700	16.6@2700	7.5@2700	33.4ft-lbs@2700	16.6@2700	7.5@2700	EM, IDI