

 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0344
		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)
2010	ADZXL04.8073	4.764	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Mechanical Direct Injection, Turbocharger, Smoke Puff Limiter, Exhaust Gas Recirculation			Loaders, Tractor, 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):

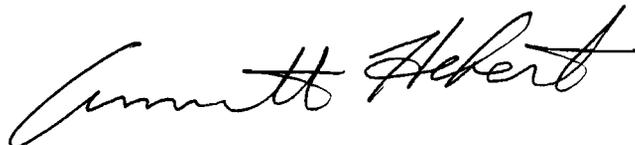
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT	--	--	4.6	2.0	0.19	10	4	15

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 27 day of January 2010.



Annette Hebert, Chief
Mobile Source Operations Division

Deutz AG
Nonroad CI

Engine Model Summary Template

Attachment

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12/29/2009

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@p eak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ADZXL04.8073	C3MI74	TD2013L04 2V	100.4@2200	90	43.9	309.7@1600	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI71	TD2013L04 2V	95.2@2200	86	42.0	295.0@1600	104	36.9	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI67	TD2013L04 2V	90.5@2200	83	40.5	280.2@1600	99	35.1	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI64	TD2013L04 2V	85.8@2200	80	39.1	265.5@1600	94	33.4	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI74A	TD2013L04 2V	100.4@2300	89	45.4	309.7@1600	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI74B	TD2013L04 2V	100.4@2300	89	45.4	295.0@1600	104	36.9	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI74C	TD2013L04 2V	100.4@2100	93	43.3	309.7@1500	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI74D	TD2013L04 2V	100.4@2100	93	43.3	295.0@1600	104	36.9	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI64	D5DCCE3	85.8@2200	80	39.1	309.7@1600	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI74	D5DCEE3	100.4@2200	90	43.9	309.7@1600	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI74A	D5DCAE3	100.4@2200	90	43.9	309.7@1600	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI70	D5DCDE3	93.9@2200	84	41.1	309.7@1600	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI71	D5DCFE3	95.2@2200	86	42.0	309.7@1600	108	38.3	DDI, TC, SPL, EGR
ADZXL04.8073	C3MI74B	D5DCGE3	100.4@2200	90	43.9	309.7@1600	108	38.3	DDI, TC, SPL, EGR