California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0382 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	BDZXL04.1070	4.038	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Mechanical Direct Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter, Exhaust Gas Recirculation			Loaders, Tractor, Dozer, 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	EMISSION STANDARD	and and the	EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS	CATEGORY		нс	NOx	NMHC+NOx	со	РМ	ACCEL	LUG	PEAK
75 <u>≤</u> kW < 130	Tier 3	STD	N/A	N/A	4.0	5.0	0.30	20	15	50
		CERT			4.0	1.0	0.15	14	2	25

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 April 2011.

Annette Hebert, Chief Mobile Source Operations Division

Deutz AG Nonroad CI

Engine Model Summary Template

Attachment page 1 of 1

EO# U-R-013-0382

4/13/2011

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@pe ak torque	8.Fuel Rate: (lbs/hr)@peak toraue	9.Emission Control Device Per SAE J1930
BDZXL04.1070	C3MI88	TCD2012L04	118@2400	92	49	309,7@1550	95	32.7	DDI, TC, SPL, EGR , (AC
BDZXL04.1070	C3MI84	TCD2012L04	112,6@2400	84	44.7	309,7@1550	95	32.7	DDI, TC, SPL, EGR
BDZXL04.1070	C3MI85	TCD2012L04	113,9@2300	87	44.4	309,7@1550	95	32.7	DDI, TC, SPL, EGR
BDZXL04.1070	C3MI84A	TCD2012L04	112,6@2200	88	43	309,7@1550	95	32.7	DDI, TC, SPL, EGR
BDZXL04.1070	C3MI83	TCD2012L04	111,3@2300	85	43.4	309,7@1550	95	32.7	DDI, TC, SPL, EGR
BDZXL04.1070	C3MT85	TCD2012L04	114@2300	89	45.5	295@1600	93	33.0	DDI, TC, SPL, EGR
BDZXL04.1070	C3MT82	TCD2012L04	110@2300	87	44.4	295@1600	93	33.0	DDI, TC, SPL, EGR
BDZXL04.1070	C3MI84B	TCD2012L04	112,6@2100	90	42	309,7@1550	95	32.7	DDI, TC, SPL, EGR