California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0388 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	BDZXL04.8064	4.764	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Smoke Puff Limiter, Exhaust Gas Recirculation	Loader, 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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 3	STD	N/A	N/A	4.0	5.0	0.30	20	15	50
		CERT	--	--	3.8	0.6	0.08	10	0	19

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 28 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-013-0388

4/18/2011

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	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
BDZXL04.8064	C3UI129	TCD2013L04	172.9@2300	131	66.9	494.1@1600	157	55.8	DDI, TC, CAC, ECM, SPL, EGR
BDZXL04.8064	C3UI129A	TCD2013L04	172.9@2200	137	66.9	494.1@1600	157	55.8	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI129B	TCD2013L04	172.9@2100	142	66.2	494.1@1600	157	55.8	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI128	TCD2013L04	171.6@2000	150	66.6	494.1@1600	164	58.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI126	TCD2013L04	168.9@2300	129	65.9	474.2@1600	150	53.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI125	TCD2013L04	167.6@2200	134	65.5	474.2@1600	150	53.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI124	TCD2013L04	166.2@2100	138	64.3	474.2@1600	150	53.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI122	TCD2013L04	163.6@2000	140	62.2	474.2@1600	150	53.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI120	TCD2013L04	160.9@2300	124	63.3	455.8@1600	145	51.5	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI119	TCD2013L04	159.5@2200	128	62.5	455.8@1600	145	51.5	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI118	TCD2013L04	158.2@2100	134	62.5	455.8@1600	145	51.5	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI116	TCD2013L04	155.5@2000	136	60.4	455.8@1600	145	51.5	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI113	TCD2013L04	151.5@2300	117	59.7	437.3@1600	141	50.1	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI112	TCD2013L04	150.1@2200	120	58.6	437.3@1600	141	50.1	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI111	TCD2013L04	148.8@2100	125	58.3	437.3@1600	141	50.1	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI110	TCD2013L04	147.5@2000	128	56.8	437.3@1600	141	50.1	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI105	TCD2013L04	140.8@2300	110	56.2	198.4@1600	136	48.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI104	TCD2013L04	139.4@2200	113	55.2	419.6@1600	136	48.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI103	TCD2013L04	138.1@2100	118	55	419.6@1600	136	48.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI102	TCD2013L04	136.7@2000	121	53.7	419.6@1600	136	48.3	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI95	TCD2013L04	127.3@2000	115	51.1	405.6@1600	133	47.2	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI91	TCD2013L04	122@2000	111	49.3	398.2@1600	127	45.1	DDI, TC, CAC, ECM, SPL
BDZXL04.8064	C3UI113M	TCD2013L04	151.5@2300	118	60.3	398.2@1600	141	50.1	DDI, TC, CAC, ECM, SPL