California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0278 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)
2009	9DZXL04.1080	4.038	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, 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 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	--	--	3.9	0.6	0.09	4	2	7

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 January 2009.

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Template

Deutz AG
Nonroad CI

Attachment P. 1 of 1

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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
9DZXL04.1080	C3UI103	TCD2012L04 103 KW	138,1@2400	104.5	55.7	383,5@1600	126	44.9	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI100	TCD2012L04	134,1@2300	100	51.1	383,5@1600	125	44.4	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI96	TCD2012L04	128,7@2200	95	46.4	383,5@1600	126	44.7	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI92	TCD2012L04	123,3@2100	100	46.6	383,5@1600	127	45.5	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI89	TCD2012L04	119,3@2000	104	46.2	383,5@1600	128	42.6	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI98	TCD2012L04	131,4@2400	98	52.2	365@1600	127	45.5	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI95	TCD2012L04	127,3@2300	96	49	365@1600	126	44.7	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI91	TCD2012L04	122@2200	97	47.4	365@1600	119	42.3	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI88	TCD2012L04	118@2100	95	44.3	365@1600	117	41.5	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI85	TCD2012L04	113,9@2000	96	42.6	365@1600	117	41.5	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI93	TCD2012L04	124,7@2400	98	52.2	348,1@1600	118	41.9	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI91A	TCD2012L04	122@2300	98	50	348,1@1600	115	40.8	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI87	TCD2012L04	116,6@2200	98	47.9	348,1@1600	117	41.5	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI83	TCD2012L04	111,3@2100	94	43.8	348,1@1600	116	41.2	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI81	TCD2012L04	108,6@2000	97	43.1	348,1@1600	115	40.8	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI90	TCD2012L04	120,6@2400	96	51.1	331,1@1600	113	40.1	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI86	TCD2012L04	115,3@2300	93	47.5	331,1@1600	111	39.4	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI83A	TCD2012L04	111,3@2200	90	43.9	331,1@1600	113	40.1	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI79	TCD2012L04	105,9@2100	89	41.5	331,1@1600	112	39.8	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI77	TCD2012L04 77 KW	103,2@2000	87	38.6	331,1@1600	109	38.7	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UT93	TCD2012L04	124,7@2300	97.5	49.8	362,3@1500	119	39.6	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UT81	TCD2012L04	109,6@2300	87	44.4	304,2@1500	117	36.9	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI87A	TCD2012L04	116.7@2200	98	47.9	348.1@1600	117	41.5	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI103A	TCD2012L04	138.1@2400	104.5	55.7	383.5@1600	126.5	44.9	DDI, TC, CAC, ECM, SPL, EGR
9DZXL04.1080	C3UI103B	TCD2012L04	138.1@2400	104.5	55.7	383.5@1600	126.5	44.9	DDI, TC, CAC, ECM, SPL, EGR