California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0430 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)
2012	CDZXL03.6084	3.619	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Mechanical Direct Injection, 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 non-methane hydrocarbon (NMHC), 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 (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Interim Tier 4	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT	--	--	4.4	1.0	0.19	1	1	1

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 2 day of March 2012.

Annette Hebert, Chief
Mobile Source Operations Division

Deutz AG
Nonroad CI

Engine Model Summary Template

Attachment page 1 of 1

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1/31/2012

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
CDZXL03.6084	C3CI50	D2011L04w	67@2600	50	28.8	210@1700	48	18.1	DDI, EGR
CDZXL03.6084	C3CI48	D2011L04w	64.3@2500	49	27.2	210@1700	48	18.1	DDI, EGR
CDZXL03.6084	C3CI46	D2011L04w	61.6@2400	48	25.5	210@1700	48	18.1	DDI, EGR
CDZXL03.6084	C3CI45	D2011L04w	60.3@2300	47	24.0	210@1700	48	18.1	DDI, EGR
CDZXL03.6084	C3CI44	D2011L04w	59@2200	47	22.9	210@1700	49	18.5	DDI, EGR
CDZXL03.6084	C3CI40	D2011L04w	53.6@2000	47	20.8	210@1700	50	18.8	DDI, EGR
CDZXL03.6084	C3CI47,5	D2011L04w	63.6@2600	45	25.9	200@1700	46	17.3	DDI, EGR
CDZXL03.6084	C3CI45,6	D2011L04w	61.1@2500	44	24.4	200@1700	46	17.3	DDI, EGR
CDZXL03.6084	C3CI43,7	D2011L04w	58.6@2400	44	23.4	200@1700	46	17.3	DDI, EGR
CDZXL03.6084	C3CI42,8	D2011L04w	57.3@2300	44	22.4	200@1700	46	17.3	DDI, EGR
CDZXL03.6084	C3CI46A	D2011L04w	61.6@2600	45	25.9	200@1700	46	17.3	DDI, EGR