California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0227 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)
2007	7DZXL04.1069	4.038	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Exhaust -Gas Recirculation, Smoke Puff Limiter	Loader, Tractor, Dozer, Pump, Compressor, Other OEM Products

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
		FEL	-	-	4.7	-	0.40	-	-	-
		CERT	-	-	4.4	0.7	0.09	12	4	22

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 17th day of May 2007.

J. Lourenco for
Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **DEUTZ AG**

Engine category: **Nonroad CI**

EPA Engine Family: **7DZXL04.1069**

Mfr Family Name: **TCD2012L04 2V MECH 37-75KW TIER3**

Process Code: **New Submission**

Attachment
EO# U-R-013-0227

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
C3MT73	TCD2012L04 2V	97.8@2300	78	39.8	281.7@1600	87	30.9	DDI, TC, CAC, SPL
C3MT75	TCD2012L04 2V	100.4@2300	78	39.8	293.6@1600	90	31.9	DDI, TC, CAC, SPL
C3MT66	TCD2012L04 2V	88.7@2200	68	33.2	267.7@1600	82	29.1	DDI, TC, CAC, SPL
C3MT75A	TCD2012L04 2V	100.4@2200	79	38.6	289.1@1600	89	31.6	DDI, TC, CAC, SPL
C3MT75B	TCD2012L04 2V	100.4@2200	79	38.6	302.6@1600	93	33.0	DDI, TC, CAC, SPL
C3MI74	TCD2012L04 2V	100.4@2400	76	40.5	309.7@1600	95	33.7	DDI, TC, SPL
C3MI74A	TCD2012L04 2V	100.4@2300	78	39.8	309.7@1600	95	33.7	DDI, TC, SPL
C3MI74B	TCD2012L04 2V	100.4@2200	79	38.6	309.7@1600	95	33.7	DDI, TC, SPL
C3MI74C	TCD2012L04 2V	100.4@2100	82	38.2	309.7@1600	95	33.7	DDI, TC, SPL
C3MI74D	TCD2012L04 2V	100.4@2000	87	38.6	309.7@1600	95	33.7	DDI, TC, CAC, SPL
C3MI74E	TCD2012L04 2V	100.4@2400	76	40.5	295.0@1600	91	32.3	DDI, TC, CAC, SPL
C3MI74F	TCD2012L04 2V	100.4@2300	78	39.8	295.0@1600	91	32.3	DDI, TC, SPL
C3MI74G	TCD2012L04 2V	100.4@2200	79	38.6	295.0@1600	91	32.3	DDI, TC, SPL
C3MI74H	TCD2012L04 2V	100.4@2100	82	38.2	295.0@1600	91	32.3	DDI, TC, CAC, SPL
C3MI74J	TCD2012L04 2V	100.4@2000	87	38.6	295.0@1600	91	32.3	DDI, TC, CAC, SPL
C3MI74K	TCD2012L04 2V	100.4@2400	76	40.5	280.3@1600	87	30.9	DDI, TC, CAC, SPL
C3MI72	TCD2012L04 2V	96.5@2300	72	36.7	280.3@1600	87	30.9	DDI, TC, CAC, SPL
C3MI72A	TCD2012L04 2V	96.5@2200	76	37.1	280.3@1600	87	30.9	DDI, TC, CAC, SPL
C3MI70	TCD2012L04 2V	93.8@2000	79	35.1	280.3@1600	87	30.9	DDI, TC, CAC, SPL
C3MI70A	TCD2012L04 2V	93.8@2200	70	34.2	265.5@1600	82	29.1	DDI, TC, CAC, SPL
C3MI67	TCD2012L04 2V	89.8@2000	67	29.7	265.5@1600	82	29.1	DDI, TC, CAC, SPL
C3MI68	TCD2012L04 2V	91.1@2200	68	33.2	265.5@1600	82	29.1	DDI, TC, CAC, SPL