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)
2010	ADZXL03.1041	1.555, 2.332, 3.109	Diesel	5000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Mechanical Direct Injection	Loader, Pump

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
8 ≤ kW < 37	Tier 4 Interim	OPTIONAL STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT	--	--	6.4	2.7	0.21	2	3	3

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005.

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 29 day of January 2010.

Annette Hebert, Chief
Mobile Source Operations Division

Deutz AG

Nonroad CI

Engine Model Summary Template

Attachment page 1 of 3

EO# U-R-013-0355

12/30/2009

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
ADZXL03.1041	C3OI19,4	D2011L02I	25,9@2300	40,5	10,3	63,4@1700	42	7,9	DDI, EM
ADZXL03.1041	C3OI20,4	D2011L02I	27,3@2300	43	10,9	66,3@1700	44	8,3	DDI, EM
ADZXL03.1041	C3OI20,6	D2011L02I	27,5@2500	40,5	11,2	63,4@1700	42	7,9	DDI, EM
ADZXL03.1041	C3OI21,3	D2011L02I	28,5@2600	41	11,8	63,4@1700	42	7,9	DDI, EM
ADZXL03.1041	C3OI21,7	D2011L02I	29@2500	43	11,9	66,3@1700	44	8,3	DDI, EM
ADZXL03.1041	C3OI22,3	D2011L02I	29,9@2800	41	12,7	63,4@1700	42	7,9	DDI, EM
ADZXL03.1041	C3OI22,4	D2011L02I	30@2600	44	12,7	66,3@1700	44	8,3	DDI, EM
ADZXL03.1041	C3OI20	D2011L02	26,8@2300	43	10,9	64,9@1700	43	8,1	DDI, EM
ADZXL03.1041	C3OI21	D2011L02	28,1@2500	42	11,6	64,9@1700	43	8,1	DDI, EM
ADZXL03.1041	C3OI21,7	D2011L02	29@2600	43	12,4	64,9@1700	43	8,1	DDI, EM
ADZXL03.1041	C3OI21A	D2011L02	28,1@2300	45	11,4	68,5@1700	46	8,6	DDI, EM
ADZXL03.1041	C3OI22,2	D2011L02	29,7@2500	46	12,7	68,5@1700	46	8,6	DDI, EM
ADZXL03.1041	C3OI23	D2011L02	30,8@2800	43	13,3	64,9@1700	43	8,1	DDI, EM
ADZXL03.1041	C3OI23A	D2011L02	30,8@2600	46,5	13,4	68,5@1700	46	8,6	DDI, EM
ADZXL03.1041	C3OI29,6	D2011L03I	39,6@2300	42	16	95,8@1700	43,5	12,3	DDI, EM
ADZXL03.1041	C3OI31,2	D2011L03I	41,8@2300	43	16,4	101@1700	46	13	DDI, EM
ADZXL03.1041	C3OI31,5	D2011L03I	42,1@2500	42	17,4	95,8@1700	43,5	12,3	DDI, EM
ADZXL03.1041	C3OI32,6	D2011L03I	43,7@2600	42	18,1	95,8@1700	43,5	12,3	DDI, EM
ADZXL03.1041	C3OI33,2	D2011L03I	44,4@2500	44	18,3	101@1700	46	13	DDI, EM
ADZXL03.1041	C3OI34,3	D2011L03I	45,9@2600	44	19	101@1700	46	13	DDI, EM
ADZXL03.1041	C3OI34,5	D2011L03I	46,2@2800	42	19,5	95,8@1700	43,5	12,3	DDI, EM
ADZXL03.1041	C3OI36,3	D2011L03I	48,6@2800	44	20,5	101@1700	45,5	12,8	DDI, EM
ADZXL03.1041	C3OI29,9	D2011L03	40@2300	43	16,4	98@1700	44,5	12,6	DDI, EM
ADZXL03.1041	C3OI31,5	D2011L03	42,2@2300	45	17,2	101@1700	45,5	12,8	DDI, EM
ADZXL03.1041	C3OI31,8	D2011L03	42,6@2500	43	17,9	98@1700	44,5	12,6	DDI, EM
ADZXL03.1041	C3OI32,5	D2011L03	43,5@2400	44	17,5	103,2@1700	46	13	DDI, EM

Deutz AG
Nonroad CI

Engine Model Summary Template

Attachment page 2 of 3

EO# U-R-013-0355
12/30/2004

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
ADZXL03.1041	C3OI32,8	D2011L03	43,9@2600	43	18,6	98@1700	44,5	12,6	DDI, EM
ADZXL03.1041	C3OI33,5	D2011L03	44,9@2500	45	18,7	103,2@1700	46	13	DDI, EM
ADZXL03.1041	C3OI34,5	D2011L03	46,2@2600	45	19,4	103,2@1700	46	13	DDI, EM
ADZXL03.1041	C3OI34,7	D2011L03	46,5@2800	43	20	98@1700	44,5	12,6	DDI, EM
ADZXL03.1041	C3OI36,5	D2011L03	48,9@2800	45	20,9	103,2@1700	46	13	DDI, EM
ADZXL03.1041	C3OI35,5	D2011L03	47,6@2700	44	19,7	103,2@1700	46	13	DDI, EM
ADZXL03.1041	C3OI23,5	D2011L02	31,5@2800	48	14,9	68,5@1700	46,5	8,7	DDI, EM
ADZXL03.1041	C3OI23,3	D2011L02	31,2@2750	46	14	68,5@1700	46	8,6	DDI, EM
ADZXL03.1041	C3OI21,6	D2011L02	28,9@2400	44	11,7	68,5@1700	46	8,6	DDI, EM
ADZXL03.1041	C3OI23	D2011L02I	30,8@2800	43	13,3	64,9@1700	43	8,1	DDI, EM
ADZXL03.1041	C3OI29,9	D2011L03I	40@2500	41	17	88,5@1700	40	11,3	DDI, EM
ADZXL03.1041	C3OI36	D2011L04	49,4@2100	44	20.5	136.4@1700	46.5	17.6	DDI, EM
ADZXL03.1041	D2OC15,2	F2L2011	20,4@1800	39	7,7	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC21	F3L2011	28,1@1800	37	11	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC23,9	F3L2011	32@1800	43	12,8	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC26,6	F3L2011	35,6@1800	47,5	14,2	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC29	F4L2011	38,9@1800	36	14,3	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC34,8	F4L2011	46,6@1800	44,5	17,7	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC15,8	F2M2011	21,1@1800	40	7,9	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC21,5	F3M2011	28,8@1800	37	11	FIXED	0	0	DDI, EM
ADZXL03.1041	D2OC24,5	F3M2011	32,8@1800	43	12,8	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D2OC29,4	F4M2011	39,4@1800	36,5	14,5	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D2OC35,2	F4M2011	47,2@1800	45	17,9	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D2OC36,3	F4L2011	48,7@1800	47,5	18,9	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	C3OI26,4	D2011L03I	35,3@2500	36	14,9	81,1@1700	37	10,4	DDI, EM
ADZXL03.1041	C3OI36	D2011L03	48,2@2750	44	20,1	103,2@1700	46	13	DDI, EM

Deutz AG

Nonroad CI

Engine Model Summary Template

Attachment

EO# U-R-013-0355

12/30/2009

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
ADZXL03.1041	D3OC21	D2011L03I	28.1@1800	37	11	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC23.9	D2011L03I	32@1800	43	12.8	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC29	D2011L04I	38.9@1800	36	14.3	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC34.8	D2011L04I	46.6@1800	44.5	17.7	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC21.5	D2011L03	28.8@1800	37	11	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC24.5	D2011L03	32.8@1800	43	12.8	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC29.4	D2011L04	39.4@1800	36.5	14.5	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC35.2	D2011L04	47.2@1800	45	17.9	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	D3OC36.3	D2011L04I	48.7@1800	47.5	18.9	FIXED	n.a.	n.a.	DDI, EM
ADZXL03.1041	C3OI36A	D2011L04	49,4@2200	40	19.5	132.7@1700	44	16.6	DDI, EM
ADZXL03.1041	C3OI36B	D2011L04	49,4@2300	39	19.9	132.7@1700	44	16.6	DDI, EM
ADZXL03.1041	C3OI36C	D2011L04	49,4@2400	37	19.7	132.7@1700	44	16.6	DDI, EM
ADZXL03.1041	C3OI36D	D2011L04	49,4@2500	36	19.9	132.7@1700	44	16.6	DDI, EM
ADZXL03.1041	D3OC15,2	D2011L02I	20,4@1800	39	7.7	FIXED	0	0	DDI, EM