California Environmental Protection Agency

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	AJDXL04.5083	4.5	Diesel	8000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPL	ICATION		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS Mechanical Diesel Injection, Turbocharger, Smoke Pur Limter			Tractor, Pump, Compressor, Generator Set and Other Industrial Equipment			

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	EMISSION		EXHAUST (g/kw-hr) OPACITY						PACITY (%	6)
CLASS	CATEGORY		HC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
56 <u>≤</u> kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		FEL			6.5					
		CERT			5.8	1.4	0.24	8	6	18

**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

day of December 2009.

Annette Hebert, Chief Mobile Source Operations Division

Date: 2/17/09 Engine Model Summary Form

A Evel Deter

Manufacturer:	John Deere Power Sys
Engine category:	Nonroad Cl
EPA Engine Family:	AJDXL04.5083
Mfr Family Name:	350TM
Process Code:	New Submission

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4045TUV56 4045T 982402400 71.90022400 38.9102200 28.0701400 72.201400 28.2801400 EM SPL DFL 4045TUV534 4045T 82.400200 72.50022400 33.7402200 28.19001400 74.201400 23.3701400 28.190.DFL 4045TUV544 4045T 92.54023400 68.80023400 37.04022400 28.18001400 82.601400 28.0201400 EM SPL DFL 4045TUV544 4045T 92.54023400 68.80023400 37.04022400 28.18001400 82.601400 28.0201400 EM SPL DFL 4045TUV544 4045T 92.54023400 88.80023400 37.04022400 28.18001400 82.601400 28.0201400 EM SPL DFL 4045TUV544 4045T 92.54023400 88.80023400 37.04022400 28.18001400 82.601400 28.0201400 EM SPL DFL 4045TUV544 4045T 92.54023400 88.80023400 37.04022400 28.18001400 82.601400 28.0201400 EM SPL DFL 4045TUV544 4045T 92.54023400 88.80023400 37.04022400 28.18001400 82.601400 28.0201400 EM SPL DFL 4045TUV544 4045T 92.54023400 88.80023400 37.04022400 28.18001400 82.601400 28.0201400 EM SPL DFL 4045TUV544 4045T 92.54023400 88.80023400 37.04022400 28.18001400 82.601400 80.50014000 80.50014000 80.50014000 80.50014000000000000000000000000000000000	1.Engine Code	2.Engine Model	3.BHP@RPM r (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	)
4045TFRNT2 4045T 9624@2200 75.80@2200 38.0f@2200 28.467@3400 88.70/1400 28.32@4400 EM SPL DFI 4045TLV54A 4045T 92.44@2400 28.50@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@2400 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@2400 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@2400 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@2400 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@240 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@240 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@240 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@240 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@240 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@240 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 28.02@1400 EM SPL DFI 4045TLV54A 4045T 92.44@240 88.80@2400 37.04@2400 28.180@3400 82.6@1400 28.02@1400 28.02@1400 80.50 4055TLV54A 4045T 92.44@240 88.80@2400 88.80@2400 80.50 4055TLV54A 4045T 92.44@240 88.80@2400 88.80@2400 80.50 4055TLV54A 4045T 82.44@240 88.80@2400 80.50 4055TLV54A 4055TLV54A	4045TLV56	4045T	99.24@2400	71.90@2400	38.81@2400	278.77@1400	84.7@1400	26.68@1400	EM SPL DFI	1
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	4045TLV54A	4045T	92.54@2400	68.80@2400	37.04@2400	261.80@1400	82.6@1400	26.02@1400	EM SPL DFI	_  ↓
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