EXECUTIVE ORDER U-R-004-0391 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)		
2010	AJDXL06.8117	4.5, 6.8	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Electro Turboch	onic Control Module, Dire arger, Charge Air Cooler	ct Diesel Injection, , Smoke Puff Limiter	Loaders, Tractor, Dozer, Pump, Generator Set, 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 (%)		
POWER CLASS	STANDARD		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
		FEL			3.8					
		CERT			3.5	1.6	0.20	6	2	12

**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: 12/10/09

EO#: U-R-004-0391

**Engine Model Summary Form** 

Manufacturer:

John Deere Power Systems

Engine category:

Nonroad Cl EPA Engine Family: AJDXL06.8117

Mfr Family Name: 350HAH

Process Code:

**New Submission** 

Attachment 1 of1

	New Submission	'					,	
F 1	<b></b>	3.BHP@RPM	4.Fuel Rate: mm/stroke @ peak HP			7.Fuel Rate: mm/stroke@peak	8.Fuel Rate:	9.Emission Control
Engine Code	2.Engine Model	(SAE Gross)	(for diesel only)	(for diesels only)	(SEA Gross)	**************************************		Device Per SAE J1930
45HF285G	4045H	139.47@2400	102.10@2400	55.14@2400	387.17@1600	120.2@1600	43.33@1600	EM EC SPL
45HF285F	4045H	124.72@2400	91.80@2400	49.56@2400	354.72@1600	111.9@1600	40.33@1600	EM EC SPL
45HF285C	4045H	115.33@2400	84.80@2400	45.77@2400			36.45@1600	EM EC SPL
45HF285D	4045H	115.33@2200	90.40@2200	44.71@2200	354.72@1600	113.7@1600	40.97@1600	EM EC SPL
45HF285E	4045H	124.72@2200	97.00@2200	47.98@2200	387.17@1600	124.3@1600		EM EC SPL
68HF285E	6068H	173.00@2400	82.40@2400	66.69@2400	491.89@1500	101.22@1500	51.22@1500	EM EC SPL
68HF285F	6068H	173.00@2200		84,18@2200	526.55@1500	108.46@1500		EM EC SPL
68HF285G	6068H	155.56@2400	75.70@2400	61.31@2400	441.01@1500	93.6@1500	47.43@1500	EM EC SPL
68HF285H	6068H	155,58@2200	79.20@2200	58.78@2200	491,89@1500	102.8@1500	52.01@1500	EM EC SPL
068HF285I	6068H	139.47@2400	68.90@2400	55.80@2400	396.76@1500	87.3@1500	44.23@1500	EM EC SPL
68HF285J	6068H	139.47@2200	72.30@2200	53.64@2200	441.01@1590	96.4@1500	48.88@1500	EM EC SPL
045HF285J	4045H	126.06@1800	115.80@1800	46.90@1800	-	$-1//\alpha$	<del>- \                                   </del>	EM EC SPL
045HF285I	4045H	158.25@1800	144.10@1800	58.32@1800		- H1/#-	<i> 1\//<del>//1</del></i>	EM EC SPL
045HF285H	4045H	132.77@1800	121.70@1800	49.26@1800	1 1 1 1	00 /0 /50	45.04/04500	EM EC SPL
8068HT06B	6068H	123.38@2100	68,20@2100		401,18@1500	90.4@1500	45.84@1500	EM EC SPL
068HT069	6068H	173.00@2000	93.80@2000	63.28@2000	544.25@1500	120.7@1500	61.07@1500 45.11@1800	SECTION AND ARRESTS WITHOUT THE
1045HT056	4045H	127,40@2200	85.60 <b>@</b> 2200	49.81@2200	387.17 <b>@16</b> 00	108.58@1800		
068HT063A	6068H	167.63@2100	87.50@2100	62.00@2100	550.89@1500	118.2@1500 119.1@1500	59.79@1500	EM EC SPL
068HT063B	6068H	173.00@2100	90.00@2100	63.74@2100	573.75@1500		60.26@1500	EM EC SPL
045HL281	4045H	116.67@2300	90.10@2300	46.61@2300	353.40@1600	117.2@1600 97.95@1600	42.16@1600	EM EC SPL
/OOOI ILZOO	000011	140.81@2300	73.10@2300	54.28@2300	429.21@1600	97.95@1600	50.42@1600 50.42@1600	
068HRW72	6068H	140.81@2300	73.10@2300	54.28@2300 63.32@2100	429.21@1600 575.23@1500	many consistency and a proceeding	60.72@1500	EM EC SPL
068HL281	6068H	173,00@2100	93.30@2100	63.32@2100	575.23@1500	125,1@1500	60.72@1500	EM EC SPL
068HRW74 068HL280A	H8909	173,00@2100 119,36@2300	93.30@2100 84.29@2300	47.62@2300	The state of the s	87@1600	44.98@1600	and the second of the second o
045HL283B	4045H	115.33@2300	93.80@2300	46.74@2300	351.77@1600	121.9@1600	42.11@1600	
045HL283A	4045H	123.38@2300	98.10@2300	Control of the state of the sta	376.11@1800	127.6@1600	44.10@1600	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
045HL283C	4045H	104.60@2300	85.90@2300	42.77@2300	319.33@1600	113@1600	38.81@1600	EM EC SPL
068HDW74A	6068H	152.88@2350	78.10@2350	60.37@2350	married allered property of the Control	107.3@160.0	a contract the second contract to the second of	VICE A THE BUILDING WHILE SELECT
6068HT067	6068H	139.47@2200	72.30@2200	53.64@2200	441.01@1500	96.4@1500	48.88@1500	
045HT057A	4045H	108.63@2200	89.20@2200	44.14@2200	· · · · · · · · · · · · · · · · · · ·	and the state of t	38.61@1500	and the professional and the second
045HT057B	4045H	115.33@2200	93.50@2200	46.28@2200	370.95@1500	118.9@1500	40.11@1500	
045HP052C	The second secon	₹ 116.67@2100	Control of the contro	45.75@2100	353.84@157.5	113.9@157-5	40.33@1575	tion of the Confidence of the Address of the Confidence of the Con
045HP052A	4045H	135.45@2100	111.50@2100	52.65@2100	383.93@1575	122.4@1575	43.35@1575	
045HP052B	4045H	128.07@2100	105.50@2100	49.81@2100	386.73@157.5	122.5@1575	43.39@1575	EM EC SPL
045HDW54	4045H	128.74@2200	100.90@2200	49.94@2200	389.39@1600	122.6@1600	44.21@1600	EM EC SPL
3068HT072	6068H	173.00@2000	93.80@2000	63.28@2000	544.25@1500	120.7@1500	61.07@1500	EM EC SPL
068HL280C	6068H	140.81@2300	73.10@2300	54.28@2300	429.21@1600	97.95@1600	50.42@1600	EM EC SPL
068HL281B	6068H	173.90@2100	93.30@2100	63.32@2100	-575.23@1500	125.1@1500	60.72@1500	EM EC SPL
045HL283D	4045H	123.38@2300	98.10@2300	48.73@2300	378.11@1600	127.6@1600	44.10@1600	EM EC SPL
045HPRNT6	4045H	146.18@2400	111.50@2400	60.17@2400	413.65@1800	131.8@1600	47.40@1600	EM EC SPL
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