California Environmental Protection Agency AIR RESOURCES BOARD	DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY	EXECUTIVE ORDER U-R-004-0196 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)
2005	5JDXL06.8078	4.5, 6.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Smoke Puff Limiter	Tractor, Pump, Compressor

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
75 ≤ kW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50
		FEL	-	-	5.9	-	0.29	-	-	-
		CERT	-	-	5.6	1.0	0.26	19	8	43

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 22ND day of June 2004.

Allen Lyons, Chief
Mobile Source Operations Division

Manufacturer	Deere Power Systems Group of Deere and
Engine Category	Nonroad CI
EPA Engine Family	5JDXL06.8078
Mfr Family Name	350HM
Process Code	New Submission

Template

VIEW ENGINE MODELS FILE

U-R-004-0196
Attachment 1 of 2

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
4045HF275C	4045H	139.47@2400	97.80@2400	52.69@2400	367.26@1400	112.1@1400	35.28@1400	EM EC SPL 0
4045HF275D	4045H	124.72@2400	87.90@2400	46.96@2400	344.40@1400	102.7@1400	32.41@1400	EM EC SPL 0
4045HP051	4045H	113.99@2300	83.10@2300	42.99@2300	317.11@1400	94.4@1400	29.77@1400	EM EC SPL 0
4045HL270	4045H	103.26@2300	79.70@2300	39.69@2300	316.01@1500	101.4@1500	33.07@1500	EM EC SPL 0
4045HL271	4045H	112.65@2300	85.40@2300	42.55@2300	348.09@1500	110.7@1500	35.94@1500	EM EC SPL 0
4045HL273	4045H	115.33@2300	85.20@2300	42.77@2300	350.15@1500	110.9@1500	36.38@1500	EM EC SPL 0
4045HL272	4045H	104.60@2300	79.70@2300	39.69@2300	313.80@1500	101.4@1500	33.07@1500	EM EC SPL 0
4045HF275I	4045H	124.72@2400	87.90@2400	46.96@2400	344.40@1400	102.7@1400	32.41@1400	EM EC SPL 0
4045HF275J	4045H	139.47@2200	105.40@2200	52.14@2200	398.24@1400	120.3@1400	37.88@1400	EM EC SPL 0
4045HDW52	4045H	120.70@2200	90.80@2200	44.91@2200	383.49@1400	118.3@1400	37.26@1400	EM EC SPL 0
6068HT059	4045H	147.52@2150	75.90@2150	55.12@2150	433.63@1400	89.2@1400	42.11@1400	EM EC SPL 0
6068HDW60	4045H	167.63@2200	83.90@2200	62.39@2200	519.92@1400	100.6@1400	47.51@1400	EM EC SPL 0
6068HL271	6068H	116.67@2300	61.40@2300	44.54@2300	357.67@1500	81.4@1500	38.59@1500	EM EC SPL 0
6068HRW59B	6068H	119.36@2300	57.20@2300	44.82@2300	362.84@1500	73.4@1500	37.15@1500	EM EC SPL 0
6068HRW59A	6068H	129.41@2300	62.20@2300	48.26@2300	393.07@1500	79.5@1500	40.24@1500	EM EC SPL 0
6068HL273	6068H	129.41@2300	62.20@2300	48.26@2300	393.07@1500	79.5@1500	40.24@1500	EM EC SPL 0
4045HZ275B	4045H	118.01@2200	91.70@2200	43.44@2200	353.99@1400	115@1400	34.51@1400	EM EC SPL 0
4045HZ275D	4045H	108.63@2200	86.40@2200	41.23@2200	329.65@1400	108.4@1400	32.85@1400	EM EC SPL 0

TC, CAC

Engine Model Summary Form

Attachment 2 of 5
U-R-014-0196

Manufacturer: Deere Power Systems Group of Deere and
Engine category: Nonroad CI
EPA Engine Family: 5JDXL06.8078
Mfr Family Name: 350HM
Status Code: Running Change

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
4045HF275E	4045H	124.72@2200	95.00@2200	46.96@2200	367.26@1400	111.6@1400	35.01@1400	EM EC SPL
4045HF275F	4045H	115.33@2000	95.00@2000	42.99@2000	367.26@1400	113.6@1400	35.94@1400	EM EC SPL

Engine Model Summary Form

Attachment 3 of 5

U-K-004-0196

Manufacturer: **Deere Power Systems Group of Deere and**

Engine category: **Nonroad CI**

EPA Engine Family: **5JDXL06.8078**

M' Family Name: **350HM**

s Code: **Running Change**

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
4045HZ060	4045H	115.33@2200	88.00@2200	42.11@2200	336.21@1400	106.8@1400	32.41@1400	EM EC SPL DOC, TC CAC

Engine Model Summary Form

Attachment 4 of 5

V-K-02-0196

Manufacturer: **Deere Power Systems Group of Deere &**

Engine category: **Nonroad CI**

EPA Engine Family: **5JDXL06.8078**

Mfr Family Name: **350HM**

F s Code: **Running Change**

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
6068HDW60	6068H		83.50@2200	61.98@2200		96.8@1400	45.73@1400	EM EC SPL TC, AC

Engine Model Summary Form

Manufacturer: **Deere Power Systems Group of Deere and**

Engine category: **Nonroad CI**

EPA Engine Family: **5JDXL06.8078**

Family Name: **350HM**

Process Code: **Running Change**

Attachment 5 of 5

U-K-004-0196

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
6068HT064	6068H	147.52@2150	75.90@2150	55.12@2150	433.63@1400	89.2@1400	42.11@1400	EM EC SPL DDT, TC CAC