California Environmental Protection Agency AIR RESOURCES BOARD	DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY	EXECUTIVE ORDER U-R-004-0154 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)
2003	3JDXL12.5035	12.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Control Module, Direct Diesel Injection, Turbocharger, Charge Air Cooler	Tractor, Industrial Equipment

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
130 ≤ kW < 225	Tier 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
225 ≤ kW < 450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
450 ≤ kW ≤ 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		CERT	-	-	6.2	0.7	0.15	12	2	24

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 2nd day of January 2003.

Raphael Susnowitz

Allen Lyons, Chief
Mobile Source Operations Division

Attachment 1 of 5

Engine Model Summary Form

Manufacturer: Deere Power Systems Group of Deere and

Engine category: Nonroad CI

EPA Engine Family: 3JDXL12.5035

Mfr Family Name: 650HD

Process Code: New Submission

U-K-004-0154

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
6125HF070A	6125H	504.22@2100	247.00@2100	174.16@2100	1843.66@1575	369@1575	195.99@1575	EM EC CAC Tier 4
6125HRW16A	6125H	331.23@2100	159.00@2100	112.43@2100	1143.07@1575	230@1575	122.35@1575	EM EC TC
6125HRW16B	6125H	421.08@2100	200.00@2100	141.09@2100	1450.59@1575	281@1575	149.47@1575	EM EC CAC
6125HRW17A	6125H	477.40@2100	230.00@2100	160.93@2100	1649.71@1575	323@1575	171.52@1575	EM EC CAC
6125HRW17B	6125H	504.22@2100	241.00@2100	169.75@2100	1741.15@1575	338@1575	179.45@1575	EM EC CAC
6125HF070K	6125H	442.54@1800	242.00@1800	145.50@1800				EM EC CAC
6125HF070L	6125H	482.77@1800	268.00@1800	160.93@1800				EM EC CAC
6125HF070M	6125H	563.23@1800	328.00@1800	198.41@1800				EM EC CAC
6125HF070N	6125H	457 616.87@1800	376.00@1800	227.07@1800				EM EC CAC
6125HRW05	6125H	309.78@2100	156.00@2100	110.23@2100	1090.71@1575	221@1575	117.28@1575	EM EC TC
6125HZ004	6125H	488.13@2200	218.00@2200	160.93@2200	1410.03@1600	225@1600	149.03@1600	EM EC CAC
6125HRW13A	6125H	331.23@2100	159.00@2100	112.43@2100	1143.07@1575	230@1575	122.35@1575	EM EC TC
6125HRW13B	6125H	421.08@2100	200.00@2100	141.09@2100	1450.59@1575	281@1575	149.47@1575	EM EC CAC
6125HRW15A	6125H	477.40@2100	230.00@2100	160.93@2100	1649.71@1575	323@1575	171.52@1575	EM EC CAC
6125HRW15B	6125H	504.22@2100	241.00@2100	169.75@2100	1741.15@1575	338@1575	179.45@1575	EM EC CAC
6125HF070F	6125H	399.62@2100	189.00@2100	132.28@2100	1348.82@1500	265@1500	134.04@1500	EM EC CAC
6125HF070G	6125H	425.10@2100	200.00@2100	132.28@2100	1328.91@1500	281@1500	134.04@1500	EM EC CAC
6125HF070H	6125H	450.58@2100	212.00@2100	149.91@2100	1520.65@1500	303@1500	153.44@1500	EM EC CAC
6125HF070I	6125H	474.72@2100	224.00@2100	156.53@2100	1603.24@1500	321@1500	162.48@1500	EM EC CAC
6125HF070J	6125H	500.20@2100	236.00@2100	165.34@2100	1688.79@1500	341@1500	172.62@1500	EM EC CAC
6125HRW06	6125H	395.60@2100	188.00@2100	132.28@2100	1349.56@1575	271@1575	143.74@1575	EM EC CAC
6125HRW07	6125H	359.39@2100	171.00@2100	121.25@2100	1227.14@1575	246@1575	130.95@1575	EM EC CAC
6125HRW08	6125H	468.02@2100	224.00@2100	156.53@2100	1613.57@1575	320@1575	169.97@1575	EM EC CAC
6125HRW09	6125H	425.10@2100	204.00@2100	143.30@2100	1466.81@1575	290@1575	154.32@1575	EM EC CAC
6125HT001	6125H	354.03@1800	196.00@1800	116.84@1800	1359.88@1300	251@1300	119.05@1300	EM EC CAC
6125HF070B	6125H	300.39@2100	150.00@2100	105.82@2100	1014.01@1500	202@1500	102.07@1500	EM EC CAC
6125HF070C	6125H	324.53@2100	152.00@2100	105.82@2100	1098.08@1500	218@1500	110.45@1500	EM EC CAC
6125HF070D	6125H	350.01@2100	164.00@2100	114.64@2100	1180.68@1500	233@1500	117.72@1500	EM EC CAC
6125HF070E	6125H	375.49@2100	176.00@2100	123.46@2100	1267.70@1500	249@1500	125.88@1500	EM EC CAC

6125HZ012	6125H	463.99@2100	218.00@2100	154.32@2100	1556.78@1575	229@1575	170.41@1575	EM EC CAC
6125HZ013	6125H	537.75@2100	255.00@2100	178.57@2100	1699.12@1575	335@1575	177.91@1575	EM EC CAC
6125HZ011	6125H	390.24@2100	187.00@2100	132.28@2100	1309.00@1575	276@1575	146.60@1575	EM EC CAC
6125HF070U	6125H	600.78@2100	296.00@2100	209.44@2100	1877.58@1500	366@1500	184.74@1500	EM EC CAC
6125HF070T	6125H	549.82@2100	269.00@2100	189.59@2100	1856.19@1500	361@1500	182.54@1500	EM EC CAC
6125HF070S	6125H	525.68@2100	257.00@2100	180.78@2100	1774.34@1500	343@1500	173.28@1500	EM EC CAC
6125HF070R	6125H	500.20@2100	244.00@2100	171.96@2100	1690.27@1500	324@1500	163.80@1500	EM EC CAC
6125HH002	6125H	425.10@2200	194.30@2200	143.30@2200	1217.55@1600	253.5@1600	135.14@1600	EM EC TC
6125HT004	6125H	348.67@2000	180.00@2000	121.25@2000	1255.16@1500	256@1500	129.63@1500	EM EC CAC
6125HDW01B	6125H	295.02@2000	150.00@2000	99.21@2000	1132.01@1500	219.6@1500	111.11@1500	EM EC CAC
6125HDW01A	6125H	288.32@2000	148.00@2000	99.21@2000	1021.39@1500	202@1500	102.29@1500	EM EC CAC

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Engine Model Summary Form

U-R-004-0154 R/C

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

Engine category: **Nonroad CI**

EPA Engine Family: **3JDXL12.5035**

Mfr Family Name: **650HD**

Process 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
6125HRW16A	6125H	324.53@2100						
6125HRW13A	6125H	324.53@2100						

Engine Model S[illegible]ary Form

EPAu-R-004-0154 R/C

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

Engine category: **Nonroad CI**

EPAEngine Family: **3JDXL12.5035**

Mfr Family Name: **650HD**

Process 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
6125HDW01B	6125H	295.02@2000	150.00@2000	99.21@2000	1[illegible]320.1@1500	2.96@1500	1[illegible]11@1500	EM,EC,CAC
6125HDW01A	6125H	288.32@2000	148.00@2000	99.21@2000	102.139@1500	202@1500	102.29@1500	EM,EC,CAC
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Engine Model Summary Form

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

Engine category: **Nonroad CI**

EPA Engine Family: **3JDXL12.5035**

Mfr Family Name: **650HD**

Process Code: **Running Change**

U-R-004-0154

R/C

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
6125HRW18	6125H	525.69@2100	258.00@2100	182.54@2100	1846.61@1575	360@1575	191.58@1575	EM SPL