



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	3JDXL06.8016	4.5, 6.8	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection			Loader, Tractor, Dozer, Generator Set, 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 (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), 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):

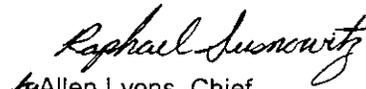
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	7.6	-	-	-	2	3	5

**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 2<sup>nd</sup> day of January 2003.

  
for Allen Lyons, Chief  
Mobile Source Operations Division

Attachment 1 of 2

U-R-004-0158

Manufacturer: Nonroad CI  
 Engine category: 3JDXL06.8016  
 EPA Engine Family: 350DA  
 Mr Family Name: New Submission  
 Process Code:

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesels 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
4045DL050	4045D	77.11@2300	60.00@2800	28.66@2300	233.78@1400	69.2@1400	19.93@1400	EM, DPF
4045DF150F	4045D	56.48.28@2250	37.40@2250	17.64@2250	213.86@1000	65@1000	14.55@1000	EM
4045DR150	4045D	69.73@2350	51.80@2350	26.46@2350	193.22@1000	64.5@1000	14.11@1000	EM, TC
4045DRT51	4045D	80.46@2350	60.40@2350	30.86@2350	219.76@1200	70.4@1200	18.52@1200	EM, TC
4045DFG50	4045D	80.46@2300	62.30@2300	30.86@2300	221.98@1200	69.3@1200	17.64@1200	EM
4045DL070	4045D	77.78@2300	60.00@2300	28.66@2300	220.50@1400	68.3@1400	20.75@1400	EM
4045DT050	4045D	77.78@2200	60.00@2200	28.66@2200	222.71@1200	72@1200	18.84@1200	EM
4045DF153	4045D	83.14@2400	60.00@2400	30.86@2400	222.11@1100	71@1100	17.64@1100	EM
4068DPFIN1	6068D	132.76@2500	60.00@2500	50.71@2500	342.18@1100	73@1100	26.46@1100	EM

TEST ENGINE ONLY. NOT BEING CERTIFIED

# Engine Model Summary Form

Attachment 2 of 2

ED# 4-1-004-0158 K/c

Manufacturer: 1501  
 Engine category: Nonroad CI  
 EPA Engine Family: 3JDXL06.8016  
 Mir Family Name: 350DA  
 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
4045DF270B	4045D	80.46 @ 2500	60.00 @ 2500	33.73 @ 2500	221.98 @ 1200	68.7 @ 1200	18.54 @ 1200	EM
4045DF270C	4045D	73.76 @ 2500	53.60 @ 2500	30.11 @ 2500	208.70 @ 1200	63.9 @ 1200	17.35 @ 1200	EM
4045DF270D	4045D	67.05 @ 1800	62.60 @ 1800	25.35 @ 1800				EM

X added