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 engine and emission control system 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)
2009	9CEXL2.28A42	2.286	Diesel	5000
	FEATURES & EMISSION			
	Indirect Diesel Inje	ection	Crane, Loader, Tractor, Dozer, Pum and Other Industrial	np, Compressor, Generator 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	EMISSION		EXHAUST (g/kw-hr) OPACITY (%)												
POWER CLASS	STANDARD CATEGORY		НС	NOx	NMHC+NOx	со	РМ	ACCEL	LUG	PEAK					
19 <u>&lt;</u> kW < 37	Tier 4 Interim	STD	N/A	N/A	7.5	5.5	0.30	20	15	50					
		CERT			6.0	1.6	0.24	7	8	11					

**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 January 2009.

Annette Hebert, Chief Mobile Source Operations Division

W-R-002-0508

ATTAN HEAT B 1.21 Engine Model Summary Form

Manufacturer:CUMMINS Inc.Engine category:Nonroad ClEPA Engine Family:9CEXL2.28A42Mfr Family Name:A2300Process Code:New Submission

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9.Emission Control Device Per SAE J193(	IDI,EM	IDI,EM	IDI,EM	IDI,EM	IDI,EM	IDI,EM	IDI,EM				n. 1										
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	13.2	12.6	12.2	12.7	N/A	NA	NA			and the second se									 		
mm/stroke@peak torque	37.9	35.0	34.0	35.9	NA	N/A	NA			a second s			AND								
6. Torque @ KPM (SEA Gross)	105@1600	109.2@1600	110.6@1600	103.8@1600	N/A	N/A	NA	الله - الم المحالية المحالية 	<u>a da antina da dista antina da antina da</u>		a ta se a a a a a a a a a a a a a a a a a a				-			•		andres a state a state State a state a Banna state a st	
(lbs/hr) @ peak HP (for diesels only)	21.4	15.7	18.1	16.2	15.3	13.2	11.4	والمرابعة والمرابع والمحاول							*			•		[10] M.	
mm/stroke @ peak HP (for diesel only)	33.0	, 29.0	31.0	33.4	38.8	33.3	34.6			and the second s		ta a second s									
3.BHP@RPM (SAE Gross)	48@2800	44@2400	47@2600	40.7@2500	37.5 <b>@</b> 1800	33.1@1800	29.2@1500														
2.Engine Model	A2300	A2300	A2300	A2300	4A2.3-G1	4A2.3-G1	4A2.3-G1	A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR A CONTRACTOR A CONTRACTOR A CONTRACTOR A CONTRACTOR A CONTRACTOR A	*****				AAAAD 2010, AMBA MAAAADGAAAAAAD 0 0 00 00 00 00 00 0000 0 0 00000 0								
1.Engine Code	FR35024	FR35008	FR35009	FR35010	FR35012	FR35021	FR35022			and a state of the			an to be any set that the set of								