State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-343-1 Relating to Certification of New Heavy-Duty Engines and Vehicles

WESTPORT FUEL SYSTEMS INC.

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

IT IS ORDERED AND RESOLVED: That the following engines and emission control systems produced by the manufacturer are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Model Year: 2001

Fuel Type: Bi-Fuel Engine [Compressed Natural Gas (CNG) or Liquefied Natural Gas

(LNG)] and Diesel

	Disp	olacement	Exhaust Emission Control						
Engine Family	Liters	Cubic Inches	Systems and Special Features						
1WFSH0912XAC	14.9	912	Turbocharger						
			Charge Air Cooler						
			Powertrain Control Module						
			Direct Diesel/Gaseous Fuel Injection						

Engine models and codes are listed on the attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards (Title 13, California Code of Regulations, Section 1956.8) and certification emission levels for this engine family in grams per brake horsepower-hour (g/bhp-hr) under the Federal Test Procedure ("FTP"):

	Non-Methane Hydrocarbons	Carbon Mono <u>xide</u>	Nitrogen <u>Oxides</u>	Particulate <u>Matter</u>
Standards	1.2	15.5	2.5	0.10
Certification	0.4	2.0	2.4	0.05

BE IT FURTHER RESOLVED: That the listed engine models are certified to the optional lower-emission NOx standard pursuant to Title 13, California Code of Regulations, Section 1956.8(a)(1).

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2035 *et seq.*).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this ______ day of February 2001.

R. B. Summerfield, Chief

Mobile Source Operations Division

Engine Model Sp. mary Form

Manufacturer: Westport Fuel Systems Inc.

Engine category: On-highway HDDE

EPA Engine Family. 1WFSH0912XAG

Mfr Family Name: N/A

Process Code: New Submission

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9.Emission Control Device Per SAE J1930	PCM, TC, CAC	M O	The state of the s			werterland the constitution of a state of the state of th				The second secon								and the state management of the control of the cont	 and many a company of the company of		To delete delete constructions and the second secon	Andrew community was the state of the state		
8.Fuel Rate: (lbs/hr)@peak torque	1.8 (diesel)	109 (gas*)	A PROPERTY OF THE PROPERTY OF			TO THE PERSON OF REAL PROPERTY OF THE PERSON		es un estado est		and the state of t				The second secon	The same of the sa	The second secon		The second section of the second seco	THE PROPERTY OF THE PROPERTY O		The same of the sa	the second of the second or property and the second of the	The same and the s	
7.Fuel Rate: mm/stroke@peak torque	4.1 (diesel)	271 (gas*)					The second secon	Company Company Company of Company Com		mention of the control of the contro	· Prof. · · · · · · · · · · · · · · · · · · ·	The second secon		THE RESIDENCE OF THE PROPERTY		The second secon	de de la companya de	The second secon	Management of the control of the con		to the blanca common of the common continuous and common of the common o			
6.Torque @ RPM (SEA Gross)	1450@1200	The state of the s	The second secon	And the second of the second o							The state of the s			man and the second of the seco				and the second s	and the second s		THE RESIDENCE OF THE PARTY OF T			
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	3.5 (diesel)	163 (gas ⁺)				The state of the s		the common control and a second secon		And the state of t	the first of the f	The second secon		The second secon		The same statement of		to the contract which meanings in the latest that the contract to			WALE WATER AND THE PARTY OF THE			
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	6.6 (diesel)	304 (gas*)	* diesel equiv.	energy basis	diesel - 43MJ/kg	CNG - 49 MJ/kg		A TOTAL CONTRACTOR OF THE PROPERTY OF THE PROP		recent to the second se	A THE RESEARCH AND A STATE OF THE PARTY OF T	The second secon			The state of the s	A CONTRACTOR OF THE CONTRACTOR								
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