

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-232-12
Relating to Certification of New Heavy-Duty Motor Vehicle Engines

RENAULT VEHICLES INDUSTRIELS

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 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-45-3;

IT IS ORDERED AND RESOLVED: That the following Renault Vehicles Industriels 1988 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems (Special Features)</u>
JRE0335FPA8	6.2	(377)	Smoke Puff Limiter (Turbocharger) (Intercooler) (Diesel Injection - Direct)
JRE0538FAA9	8.8	(538)	Engine Modification (Turbocharger) (Intercooler) (Diesel Injection - Direct)

Engine models and codes are listed on attachments.

The following are the emission standards for these engine families:

<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
1.3	15.5	6.0	0.60

The following are the certification emission values for these engine families:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
JRE0335FPA8	0.8	3.0	5.9	0.36
JRE0358FAA9	0.8	1.8	4.9	0.41

RENAULT VEHICULES INDUSTRIELS

EXECUTIVE ORDER A-232-12
(Page 2 of 2)

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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 attachment.

Executed at El Monte, California this 25th day of January, 1988.


K. D. Drachand, Chief
Mobile Source Division



1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer RENAULT VEHICULES INDUSTRIELS Engine Family JRE0335FPAS
 Liter (CID) 6.174 (377) Engine-Type In-line 6
 Emission Control Sys. and (Special Features) SPL (TC) (IC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)
MIDRO60226F	R. Bosch GmbH 5000 676 064	R. Bosch GmbH 5000 667 706	200 2350	95 (74.33)	560 1500	108 (53.94)
MIDRO60226I	R. Bosch GmbH 5000 676 339	R. Bosch GmbH 5000 676 304	168 2500	77 (64.1)	427 1500	84 (41.95)

Issue Date : Dec 87	Submitted by Renault Vehicules Industriels				pg.16.16.00
Revision Date :					
Revision N° :					

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer RENAULT VEHICULES INDUSTRIELS Engine Family JRE0538FAA9
 Liter (CID) 8.8 (538) Engine-Type In-line 6
 Emission Control Sys. and (Special Features) EM (TC) (IC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm3/stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm3/stroke (lbs/Hr)
MIDR062030C	R. Bosch GmbH 5000 788 290	R. Bosch GmbH 5000 785 794	204 2300	108 (82)	488 1500	104 (51.4)

Issue Date : Dec 87	Submitted by Renault Vehicules Industriels				pg.16,18.00
Revision Date :					
Revision N° :					