

State of California  
AIR RESOURCES BOARD

## EXECUTIVE ORDER A-232-16

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

## RENAULT VEHICULES 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 Vehicules Industriels 1992 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems and Special Features</u>
NRE0377FAC0	6.2	(377)	Charge Air Cooler Turbocharger
NRE0335FAA3	5.5	(335)	Charge Air Cooler Turbocharger
NRE0377FABX	6.2	(377)	Charge Air Cooler Turbocharger

Engine models and codes are listed on attachments.

The following are the certification emission standards for these engine families in grams per brake-horsepower-hour:

<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.25

The following are the certification emission values for these engine families in grams per brake-horsepower-hour:


<u>Engine Family</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
NRE0377FAC0	0.2	2.1	4.5	0.19
NRE0335FAA3	0.4	1.8	4.7	0.15
NRE0377FABX	0.2	1.6	4.6	0.18

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 (Health and Safety Code Section 43205.5).

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 10<sup>th</sup> day of June, 1992.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

199 2 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer RENAULT VEHICULES INDUSTRIELS Engine Family NRE0377FAC0

Liters (CID) 6.174 (377) Fuel Type DIESEL Engine Config. I - 6

Exhaust ECS & Special Features (TC) CAC  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Pump Mfr. P/N	Injector Mfr. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP cc/stroke	Part. Trap/ Catalyst Mfr. P/N
MIDR	R.BOSCH GmbH	R.BOSCH GmbH	215	99	
060226M/2	5000 691 500	5000 691 504	2350	(75.9)	

Issue Date : <u>Déc.91</u>	Submitted by <u>Renault Vehicules Industriels</u>				Pg <u>16.12.02</u>
Revision Date :					

1992 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer RENAULT VEHICULES INDUSTRIELS Engine Family NRE03\_5FAA3

Liters (CID)      (    ) Fuel Type DIESEL Engine Config. I - 6

Exhaust ECS & Special Features (TC) HE  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Pump Mfr. P/N	Injector Mfr. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP cc/stroke	Part. Trap/ Catalyst Mfr. P/N
MIDR	R. BOSCH GmbH	R. BOSCH GmbH	180	87	
060226L	5000 684 386	5000 684 556	2500	(71.0)	
MIDR					
060226M	5000 684 444	5000 684 559	210 2350	100 (76.2)	

Issue Date : Nov. 90	Submitted by Renault Vehicules Industriels				Pg. 16.12.00
Revision Date :	Déc. 91				

199\_2 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer RENAULT VEHICULES INDUSTRIELS Engine Family NRF0377FABX

Liters (CID) 6.174 ( 377 ) Fuel Type DIESEL Engine Config. T - 6

Exhaust ECS & Special Features (TC) CAT  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Pump Mfr. P/N	Injector Mfr. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP cc/stroke	Part. Trap/ Catalyst Mfr. P/N
MIDR	R.BOSCH Gmbh	R.BOSCH Gmbh	180	82	
060226 L/2	5000 691 358	5000 691 362	2500	(67,0)	

Issue Date : <u>Déc.91</u>	Submitted by <u>Renault Vehicules Industriels</u>				Pg. <u>16.12.01</u>
Revision Date :					