

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-236
Relating to Certification of New Motor Vehicle Engines

AVCO INDUSTRIAL ENGINE OPERATION

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 Avco Industrial Engine Operation 1981 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
HR-H	219 (3.6)	(Smoke Puff Limiter) (Turbocharger)

Engine Models and Codes as listed on attachments.

Section 43200, Part 5, Division 26 of the California Health and Safety Code requires that the engine manufacturer furnish a decal with each engine sold or delivered to a vehicle manufacturer. The decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following certification emission values:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Hydrocarbons + Nitrogen Oxides gm/bhp-hr</u>
HR-H	0.30	1.25	5.1

BE IT FURTHER RESOLVED: That Avco Industrial Engine Operation has provided to the Executive Officer 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 8th day of June, 1981.

K. D. Drachand
K. D. Drachand, Chief
Mobile Source Control Division

1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Avco Ind. Engine Executive Order No. A-236 Page 1
Operation
 Engine Family - Evaporative Family -

ABBREVIATIONS Engine CID (Liters) 219 (3.6)

Ignition System

CA-Centrifugal Advance
 EEC-Electronic Engine Control
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance Control
 VA-Vacuum Advance
 VR-Vacuum Retard

Exhaust Emissions Control System

AIP-Air Injection-Pump
 AIV-Air Injection-Valve
 CL-Closed Loop
 EGR-Exhaust Gas Recirculation
 EM-Engine Modification
 OC-Oxidation Catalyst System
 TR-Thermal Reactor
 TWC-Three Way Catalyst System

Special Features

CCV-Combustion Chamber Valve
 CFI-Central Fuel Injection
 DI-Diesel Injection
 EFI-Electronic Fuel Injection
 MFI-Mechanical Fuel Injection
 TC-Turbocharged

Fuel System

CFI, DI, EFI, MFI
 nV-nVenturi Carburetor
 VV-Variable Venturi

Engine Family

Model

HR-H

HR692HTA

1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer Avco Industrial Engine Operation

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Engine Family HR-H CID(Liter)-Type 219 (3.6) L-6


ECS(Special Features) (Smoke Puff Limiter, Turbocharged)

Engine Model	Fuel Injection Pump Mfr. Bosh Type VE6 Part Number	Injector Mfr. Bosh Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum ³ HP mm ³ /stroke	Label Ident.
HR692 HTA	046-04106014	KBE5854-4	130 @ 4000	44.5	See pg. 3

Date of Issue -

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ENGINE EXHAUST		
EMISSION CONTROL INFORMATION		
AVCO INDUSTRIAL ENGINE OPERATION		
ENG FAMILY		
<input type="text"/>	SERIAL NO:	MODEL
<input type="text"/>	<input type="text"/>	<input type="text"/>
HP	RPM	FUEL RATE (MM ³ /STROKE)
<input type="text"/>	<input type="text"/>	<input type="text"/>
STATIC PUMP TIMING — 4° BTDC		
COLD INLET VALVE _____ INCH		
COLD EXHAUST VALVE _____ INCH		
THIS ENGINE CONFORMS TO _____		
0.19 <input type="checkbox"/> EPA EMISSION STANDARDS		

*Label per Calif. Requirements
to follow. Requested 5/22/81*