

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-9-186-1  
Relating to Certification of New Motor Vehicles

CHRYSLER MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year Chrysler Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks, medium-duty vehicles and heavy-duty vehicles certified to the medium-duty vehicle standards:

<u>Engine Family</u>	<u>Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems</u> <u>(Special Features)</u>
KCR5.9T5HGD5	5.2	(318)	Three-Way Catalyst + Oxidation Catalyst Heated Oxygen Sensor (per Chrysler's letter Air Injection - Pump attached) Exhaust Gas Recirculation (Central Fuel Injection) (On-Board Diagnostics)
	5.9	(360)	

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Loaded Vehicle</u> <u>Weight(lbs.)</u>	<u>Hydrocarbons</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
3751 - 5750	0.50	9.0	1.0
5751 & Larger	0.60	9.0	1.5

The following are the certification emission values for this engine family:

<u>Loaded Vehicle</u> <u>Weight(lbs.)</u>	<u>Hydrocarbons</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
3751 - 5750	0.22	3.4	0.7
5751 & Larger	0.39	6.4	1.5

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles 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.

This Executive Order supersedes Executive Order A-9-186 Issued on February 3, 1988.

Executed at El Monte, California this 27<sup>th</sup> day of May, 1988.

  
K. D. Drachand, Chief  
Mobile Source Division

# DAIMLERCHRYSLER

DaimlerChrysler  
Motors Corporation

June 19, 2000

Mr. Wayne Albertsen,  
Director of Engineering  
Arvin Replacement Products  
Maremont Exhaust Products, Inc.  
4235 West 42<sup>nd</sup> Place  
Chicago, IL 60632

Dear Mr. Albertsen:

Re: Catalyst Configuration – Your Question

I have been able to secure the information necessary to answer your question relative to the catalyst configuration utilized on 1989 Model Year Chrysler Corporation Engine Family KCR5.9T5HGD5. This Engine Family utilized a TWC + OC (three way catalyst + an oxidation catalyst). Both catalysts were housed in the same container (canned together).

If you have further questions concerning this issue please feel free to contact me.

Very truly yours,

DaimlerChrysler Corporation

  
N. T. Nishikubo, Vehicle Emission  
Regulatory Planning & Compliance Specialist

c: G. E. Allardyce  
P. P. Betterman – CARB Staff  
R. A. Castro – CARB Staff ✓  
P. P. Sandretto

Manufacturer CHRYSLER MOTORS CORPORATION      Engine Family KCR5.9T5HGD5  
Evaporative Family KCRTE      Engine Type OHV V/8  
Liters (CID) 5.2 (318) & 5.9 (360)

**ABBREVIATIONS**

Ignition System

CA-Centrifugal Advance  
 ECU-Electronic Control Unit  
 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  
 EGR-Exhaust Gas Recirculation  
 EIC-Electronic Injection Control (Diesel Only)  
 EM-Engine Modification  
 SPL-Smoke Puff Limiter or Throttle Delay  
 TOC-Trap Oxidizer, Continual  
 TOP-Trap Oxidizer, Periodical  
 DBC-Dual Bed Catalyst  
 OC-Oxidation Catalyst  
 TWC-Three-Way Catalyst  
 WUOC-Warm-Up Oxidation Catalyst  
 WUTWC-Warm-Up Three-Way Catalyst  
 OS-Oxygen Sensor  
 HOS-Heated Oxygen Sensor

Special Features

CFI-Central Fuel Injection or Throttle Body Injection  
 EPFI-Electronic Port Fuel Injection  
 MPFI-Mechanical Port Fuel Injection  
 SFI-Sequential Fuel Injection  
 DID-Diesel Injection-Direct  
 DIP-Diesel Injection-Prechamber  
 TC-Turbocharger  
 SC-Supercharger  
 IC-Intercooler or Aftercooler  
 CCV-Combustion Chamber Valve  
 OBD-On-Board Diagnostics

Fuel System

CFI, EPFI, MPFI, SFI,  
 DID, DIP, HOS, OS  
 nV-nVenturi Carburetor  
 VV-Variable Venturi Carburetor

VEHICLE MODELS:

D1E61,D1E62,D1L61,  
 D1L62  
 D2L62  
 D5E61,D5E62,D5L61,  
 D5L62  
 D6L62  
 B1E51,B1L51,B1L52,  
 \*B2L52,B2L53

CARLINE:

DODGE PICKUP D100/D150  
 DODGE PICKUP D250  
 DODGE PICKUP W100/W150  
 DODGE PICKUP W250  
 DODGE WAGON B150/B250

Engine: Front   X        Mid.             Rear         
 Drive: FWD             RWD   X        4WD Full Time             4WD Part Time   X

ATTACHMENT TO PAGE 1  
SDS EXECUTIVE ORDER  
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VEHICLE MODELS:

B3L52,B3L53  
B1L11,B1L12,B2L11,B1E11\*  
B2L12,B2L13,B1E12\*  
B3L12,B3L13  
D4E71,D4L71  
D8E71,D8L71  
D2C62\*\*\*

CARLINE:

DODGE WAGON B350  
DODGE VAN B150/B250  
  
DODGE VAN B350  
DODGE RAMCHARGER AD150  
DODGE RAMCHARGER AW150  
DODGE CAB CHASSIS D250

HDV

B3H52,B3H53,B3H12  
B3H13  
D2H62  
D6H62  
D3H62  
D7H62  
D2H99\*\*  
D3H99\*\*  
D6H99\*\*  
D7H99\*\*

DODGE WAGON/VAN B350  
  
DODGE PICKUP D250  
DODGE PICKUP W250  
DODGE PICKUP D350  
DODGE PICKUP W350  
DODGE CAB CHASSIS D250  
DODGE CAB CHASSIS D350  
DODGE CAB CHASSIS W250  
DODGE CAB CHASSIS W350

Revised: \*02-18-88: R.C. 15TC - Addition of Models

\*\*05-12-88: R.C. 23TC - Addition of Models

\*\*\*05-12-88: VEHICLE INCORRECTLY IDENTIFIED ON ORIGINAL ISSUE OF SDS  
PG. 1 OF E.O. A-9-186.

19\_89 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

E.O. # A-9-186-1

Passenger Cars \_\_\_\_\_ Light-Duty Trucks X Medium-Duty Vehicles X Gas X Diesel \_\_\_\_\_ Page 2

Manufacturer CHRYSLER MOTORS CORPORATION Engine Family KCR5.9T5HGD5

Displacement (CID) 5.2 (318) & 5.9 (360) Eng. Type OHV V/8

Emission Control Sys. (Special Features) TWC,HOS,EGR,AIP,(CFI),(OBD)

Engine Code (CID)	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No.	Fuel System THROTTLE BODY Part No.	EGR Valve Part No.	Cataly Part No.
A-1 (5.2L)	D1E61,D1L61	A40D	4250	4379782	4307607	4287154	4218479 4218481 4218482 4218484 4218485
	D1E62,D1L62,B1E11*, B1L11,B1L12,B1E12*, B2L11,B2L12		4500	4379891**			
	D4L71,D4E71, D2L62,B1E51, B2L13,B3L12		4750				
	B1L51,B1L52, B2L52,B3L13		5000				
	B2L53,B3L52		5250				
M-1 (5.2L)	D1E61,D1L61	M40D	4250	4379786			
	D1E62,D1L62		4500	4379897**			

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue \_\_\_\_\_

Revisions:\*02-18-88: R.C. 15TC - Addition of models.  
\*\*05-12-88: P/N Omitted in Error.

Passenger Cars      Light-Duty Trucks   X   Medium-Duty Vehicles   X   Gas   X   Diesel     

Manufacturer CHRYSLER MOTORS CORPORATION Engine Family KCR5.9T5HGD5

Displ. (CID) 5.2 (318) & 5.9 (360) Eng. Type OHV V/8

Emission Control Sys. (Special Features) TWC,HOS,EGR,AIP,(CFI),(OBD)

Engine Code	Vehicle Models (If Coded see attachment)  (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)  Part No.	Fuel System THROTTLE BODY  Part No.	EGR Valve  Part No.	Catalys  Part No.
A-2 (5.9L)	D1E61,D1L61 D1E62,D1L62 D4L71,D4E71, D5E61,D5E62, D5L61,D2L62, D2H62 D5L62,D3H62 D8L71,D8E71, D2L62,D6L62, D6H62,D7H62	A3	4250 4500 4750  5000 5250	4379790	4307859	4287159	4218479 4218481 4218482 4218484 4218485
A-4 (9L)	B2L11,B2L12 B2L13,B3L12, B3H12 B2L52,B3L13, B3H13 B2L53,B3L52, B3H52,D2H99* B3L53,B3H53 D6H99* D3H99*,D7H99*		4500 4750 5000 5250 5500 6500 7000	4379831 4379901			

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue                                  Revisions: \*05-12-88: R.C. 23TC - ADDITION OF MODELS

Passenger Cars \_\_\_\_\_ Light-Duty Trucks X Medium-Duty Vehicles X Gas X Diesel \_\_\_\_\_  
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Manufacturer CHRYSLER MOTORS CORPORATION Engine Family KCR5.9T5HGD5

liter (CID) 5.2 (318) & 5.9 (360) Eng. Type OHV V/8

Emission Control Sys. (Special Features) TWC,HOS,EGR,AIP,(CFI),(OBD)

Engine Code	Vehicle Models (If Coded see attachment)  (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalys
				Part No.	THROTTLE BODY Part No.	Part No.	Part No.:
A-3 <i>(5.2L)</i>	D1E61,D1L61	A3	4250	4379780	4307607	4287154	4218479
	D1E62,D1L62,B1E11*, D1L61,D4E71,B1E12*, B1L11,B1L12, B2L11,B2L12		4500	4379891**			4218481
	D5E61,D5L61, D5E62,D5L62, D4L71,D2L62, B1E51,B1L51, B2L13,B3L12, B3L13		4750				4218482
	D6L62,B1L52, B2L52		5000				4218484
	D8L71,D8E71, B2L53,B3L52		5250				4218485

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue \_\_\_\_\_ Revisions: \*02-18-88: R.C. 15TC - Addition of models.  
 \*\*05-12-88: P/N OMITTED IN ERROR.



1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

E.O. # A-9-186-1

Passenger Cars \_\_\_\_\_ Light-Duty Trucks X Medium-Duty Vehicles X Gas X Diesel \_\_\_\_\_  
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Manufacturer CHRYSLER MOTORS CORPORATION Engine Family KCR5.9T5HGD5

Liter (CID) 5.2 (318) & 5.9 (360) Eng. Type OHV V/8

Emission Control Sys. (Special Features) TWC,HOS,EGR,AIP,(CFI),(OBD)

Engine Code	Vehicle Models (If Coded see attachment)  (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)  Part No.	Fuel System THROTTLE BODY  Part No.	EGR Valve  Part No.	Cataly  Part No.
A-4 5.9L	D1E61,D1L61	A3	4250	4379831*	4307859 53006041(1)	4287159	4218479
	D1E62,D1L62		4500	4379901**			
	D4L71,D4E71, D5E61,D5E62, D5L61,D2L62, D2H62		4750				
A-5 5.9L	D5L62,D3H62		5000	4379939***			
	D8L71,D8E71, D2L62,D6L62, D6H62,D7H62		5250				
	B2L11,B2L12		4500				
	B2L13,B3L12, B3H12		4750				
	B2L52,B3L13, B3H13		5000				
	B2L53,B3L52, B3H52		5250				
	B3L53,B3H53		5500				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue \_\_\_\_\_

Revisions: \*02-04-88: R.C. 9TC - USE COMMON ECU P/N FOR B&D MODELS.

\*\*05-12-88: P/N OMITTED IN ERROR

(1) PCN UPDATED: AMC ASSIGNED P/N.

\*\*\*06-30-89: RC39TC. REVISE ECU CALIBRATION

Passenger Cars        Light-Duty Trucks X Medium-Duty Vehicles X Gas X Diesel       

Manufacturer CHRYSLER MOTORS CORPORATION Engine Family KCR5.9T5HGD5

liter (CID) 5.9 (360) Eng. Type OHV V/8

Emission Control Sys. (Special Features) TWC,HOS,EGR,AIP,(CFI),(OBD)

Engine Code	Vehicle Models (If Coded see attachment)  (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)  Part No.	Fuel System  Part No.	EGR Valve  Part No.	Catalyst  Part No.
M-2  (5.9L)	D1L61,D1L62, D1E61,D1E62	M4	4500	4379490	4307607	4287154	4218479 4218481 4218482 4218484 4218485
	D2H62,D3H63, D5E61,D5L61, D2L62		4750				
	D5E62,D5L62, D8E71		5000				
	D6H62,D7H62, D8L71,D2H99, D6L62		5250				
	D6H99		6500				
	D3H99,D7H99		7000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue \*05-12-88

Revisions:

R.C. 23TC, ADDITION OF MODELS.

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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Passenger Cars \_\_\_\_\_ Light-Duty Trucks  Medium-Duty Vehicles  Gas  Diesel \_\_\_\_\_

Manufacturer CHRYSLER MOTORS CORPORATION Engine Family KCR5.9T5HGD5

liter (CID) 5.2 (318) & 5.9 (360) Eng. Type OHV V/8

Emission Control Sys. (Special Features) TWC, HOS, EGR, AIP, (CFI), (OBD)

Engine Code	Vehicle Models (If Coded see attachment)  (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst				
				Part No.	THROTTLE BODY Part No.	Part No.	Part No.				
A-4 5.9L	D1E61, D1L61	A3	4250	4379831	4307859	4287159	4218479				
	D1E62, D1L62		4500	4379901	53006041			4218481			
	D4L71, D4E71, D5E61, D5E62, D5L61, D2L62, D2H62		4750	4557393*				4218482			
A-5 5.9L	D5L62, D3H62		5000	4379939						4218484	
	D8L71, D8E71, D2L62, D6L62, D6H62, D7H62		5250	4557393*							4218485
	B2L11, B2L12		4500								
	B2L13, B3L12, B3H12		4750								
	B2L52, B3L13, B3H13		5000								
	B2L53, B3L52, B3H52		5250								
	B3L53, B3H53		5500								
A-2 5.9L	D1E61, D1L61	4250	4379790								
	D1E62, D1L62	4500	4557393*								
	D4L71, D4E71, D5E61, D5E62, D5L61, D2L62, D2H62	4750									
	D5L62, D3H62, D8E71	5000									
	D8L71, D2L62, D6L62, D6H62, D7H62	5250									

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue 06-30-89 Revisions:

10TC. ECU SERVICE UNIT.