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:

Engine Family	Displacement Liters (Cubic Inches)	Exhaust Emission Control Systems (Special Features)
KCR5.9T5HGD5	5.2 (318) 5.9 (360)	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)

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

The following are the emission standards for this engine family:

Loaded Vehicle Weight(lbs.)	Hydrocarbons (Grams per Mile)	Carbon Monoxide (Grams per Mile)	Nitrogen Oxides (Grams per Mile)
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:

Loaded Vehicle Weight(lbs.)	Hydrocarbons (Grams per Mile)	Carbon Monoxide (Grams per Mile)	Nitrogen Oxides (Grams per Mile)
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 27th 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 42nd 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
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E.O. # A-9-186-1

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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

Fuel System

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

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

VEHICLE MODELS:	CARLINE:
D1E61,D1E62,D1L61, D1L62	DODGE PICKUP D100/D150
D2L62	DODGE PICKUP D250
D5E61,D5E62,D5L61, D5L62	DODGE PICKUP W100/W150
D6L62	DODGE PICKUP W250
B1E51,B1L51,B1L52, *B2L52,B2L53	DODGE WAGON B150/B250

Engine: Front X Mid. _____ Rear _____

Drive: FWD _____ RWD X 4WD Full Time _____ 4WD Part Time X

30187 Revised 02-04-88: Correction of Errata.

ATTACHMENT TO PAGE 1
SDS EXECUTIVE ORDER
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VEHICLE MODELS:	CARLINE:
B3L52,B3L53	DODGE WAGON B350
B1L11,B1L12,B2L11,B1E11*	DODGE VAN B150/B250
B2L12,B2L13,B1E12*	
B3L12,B3L13	DODGE VAN B350
D4E71,D4L71	DODGE RAMCHARGER AD150
D8E71,D8L71	DODGE RAMCHARGER AW150
D2C62***	DODGE CAB CHASSIS D250

HDV

B3H52,B3H53,B3H12	DODGE WAGON/VAN B350
B3H13	
D2H62	DODGE PICKUP D250
D6H62	DODGE PICKUP W250
D3H62	DODGE PICKUP D350
D7H62	DODGE PICKUP W350
D2H99**	DODGE CAB CHASSIS D250
D3H99**	DODGE CAB CHASSIS D350
D6H99**	DODGE CAB CHASSIS W250
D7H99**	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 ____

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 (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
	D1E62,D1L62,B1E11*, B1L11,B1L12,B1E12*, B2L11,B2L12		4500	4379891**			4218481 4218482 4218484
	D4L71,D4E71, D2L62,B1E51, B2L13,B3L12		4750				4218485
	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.

030186

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 ____

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.	Catalys Part No.
A-2 (5.9L)	D1E61,D1L61	A3	4250	4379790	4307859	4287159	4218479
	D1E62,D1L62		4500				4218481
	D4L71,D4E71, D5E61,D5E62, D5L61,D2L62, D2H62		4750				4218482 4218484 4218485
	D5L62,D3H62		5000				
	D8L71,D8E71, D2L62,D6L62, D6H62,D7H62		5250				
A-4 (9L)	B2L11,B2L12		4500	4379831 4379901			
	B2L13,B3L12, B3H12		4750				
	B2L52,B3L13, B3H13		5000				
	B2L53,B3L52, B3H52,D2H99*		5250				
	B3L53,B3H53		5500				
	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 _____ Revisions: *05-12-88: R.C. 23TC - ADDITION OF MODELS

030186

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 ____

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.	Catalys Part No.
A-3 (5.2L)	D1E61,D1L61	A3	4250	4379780	4307607	4287154	4218479
	D1E62,D1L62,B1E11*, D1L61,D4E71,B1E12*, B1L11,B1L12, B2L11,B2L12		4500	4379891**			4218481 4218482 4218484 4218485
	D5E61,D5L61, D5E62,D5L62, D4L71,D2L62, B1E51,B1L51, B2L13,B3L12, B3L13		4750				
	D6L62,B1L52, B2L52		5000				
	D8L71,D8E71, B2L53,B3L52		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 _____ Revisions: *02-18-88: R.C. 15TC - Addition of models.
**05-12-88: P/N OMMITTED IN ERROR.

030186

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 ____

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.	Catal Part No
A-4 5.9L	D1E61,D1L61	A3	4250	4379831*	4307859	4287159	421847
	D1E62,D1L62		4500	4379901**	53006041(1)		421848
	D4L71,D4E71, D5E61,D5E62, D5L61,D2L62, D2H62		4750				421848
A-5 5.9L				4379939***			421848
	D5L62,D3H62		5000				421848
	D8L71,D8E71, D2L62,D6L62, D6H62,D7H62		5250				421848
	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

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

19 89 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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				

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

ate of Issue *05-12-88 Revisions:

R.C. 23TC, ADDITION OF MODELS.

30186

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

19 89 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Passenger Cars ____ Light-Duty Trucks X Medium-Duty Vehicles X Gas X 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) Part No.	Fuel System THROTTLE BODY Part No.	EGR Valve Part No.	Catalyst 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 4218484 4218485
A-5 5.9L	D5L62,D3H62		5000	4379939 4557393*			
	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				
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.

30186