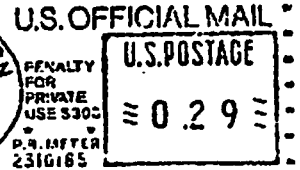




United States  
Environmental Protection  
Agency  
Washington DC 20460

Official Business  
Penalty for Private Use  
\$300 EN-348-F



George Costes  
Costes International Limited  
Highway 34 Bridgwood Road  
Wall Township, N.J. 07719-9738



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY

2565 PLYMOUTH ROAD

ANN ARBOR, MICHIGAN 48105

OFFICE OF AIR AND RADIATION/OFFICE OF MOBILE SOURCES

## EPA Motor Vehicle Aftermarket Retrofit Device Evaluation Program

**Minimum Test Requirements** - Although some devices may require complex test plans, our minimum test requires two vehicles with replicate test sequences in each configuration for each vehicle. The vehicles should be selected from different manufacturers and should be representative of the largest selling engine/transmission combinations in the United States. Each vehicle will be set to its manufacturer's tune-up specifications for the baseline tests. Baseline emissions and fuel economy should be near the levels at which the vehicles were certified.

Test sequences are conducted in "back-to-back" fashion. Minimum testing requirements are as follows: (a) If device installation does not involve adjustment of vehicle manufacturer specifications (e.g., timing, fuel-air mixture, choke or idle speed, etc.), then conduct duplicate tests with the vehicle in baseline condition, and duplicate tests with the device installed with no vehicle adjustments between tests. (b) If installation of the device also involves adjustments (e.g., timing, fuel-air mixture, choke or idle speed, etc.), then conduct duplicate tests with the vehicle in baseline condition, duplicate tests with the adjustments and the device installed, and then conduct duplicate tests with only these adjustments. If mileage accumulation is necessary to realize the full benefit, or to determine whether the vehicle meets emission standards, the same number of miles that were accumulated before the tests with the device must also be accumulated before baseline tests without the device. In addition, the method of mileage accumulation should be kept constant.

### Guidelines For Minimum Emission Improvements (Reduction) Vs. Size of Test Fleet

<u>HC and NOx</u>		<u>CO</u>	
<u>Fleet Size</u>	<u>Average Improvement</u>	<u>Fleet Size</u>	<u>Average Improvement</u>
2	20%	2	20%
2	15%	3	15%
3	10%	7	10%
10	5%	20	5%



United States Environmental Protection Agency  
Washington, DC 20460

**Application for EPA Prior Written Approval**

1. Importer's Name (Last, First, MI)	2. Importers Address (Street, City, State, Zip Code)
3. Expected or actual date of arrival at U.S. port of entry	4. Vehicle Identification Number (VIN) or Heavy-duty Engine Number
5. Original Manufacturer and Model of Vehicle	6. Date of original manufacture
7. Date vehicle purchased	8. Port of entry (UNK if unknown)

9. Code letter of requested exemption or exclusion, (refer to back of form)

10. Explanation of requested exemption or exclusion, use additional sheets if necessary (attach documentation). Also, list special mailing instructions for prior approval.

11. I certify under penalty of perjury that the information I have provided is correct and complete and that the attached documentation does not contain any false or fraudulent statements or conceal any material facts.

Signature of Importer	Daytime Telephone Number	Date
-----------------------	--------------------------	------

**Mailing Instructions**

Mail this form to the following address when using certified U.S. Express Mail, or regular mail:

Attn: Prior Approval  
U.S. Environmental Protection Agency  
Manufacturers Operations Division (EN-340F)  
401 M St., S.W.  
Washington, DC 20460 (202) 392-2504

For delivery by a courier service (e.g., Federal Express, DHL, etc....) Only use the following address:

Attn: Prior Approval  
U.S. Environmental Protection Agency  
Manufacturers Operations Division (EN-340F)  
499 South Capitol Street, S.W.  
Washington, DC 20524 (202) 392-2504

**PRIVACY ACT STATEMENT**

Collection of the information on this form is authorized by the Clean Air Act, 42 USC sec. 7401 et. seq. (see 40 CFR sec. 85.1501 et seq., Importation of Motor Vehicles and Motor Vehicle Engines). The Environmental Protection Agency (EPA) uses this information to determine compliance of imported motor vehicles and heavy-duty engines with U.S. emission requirements and for investigations with respect to EPA's import regulations. Disclosure of this information may be made to other Federal, State or local law enforcement agencies when there is a violation of civil or criminal law. Furnishing the information on this form, is voluntary, but failure to do so may result in disapproval for entry into the U.S. of the motor vehicle or heavy-duty engine identified on this form.

**Paperwork Reduction Act Notice**

The public reporting burden for this collection of information is estimated to average 30 minutes per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), U. S. Environmental Protection Agency, 20503, marked Attention: Desk Officer for EPA.

**MANUFACTURERS U.S. REPRESENTATIVES**

<u>Car Companies</u>	<u>Contact</u>	<u>City &amp; State</u>	<u>Phone No.</u>
1. Alpha Romeo	Mr. Nick D'Uva	Orlando, FL	(407) 856-5000
2. Austin Morris Rover, Triumph, MG	Mr. Dennis Johnston	Lanham, MD	(301) 731-8709
3. BMW	Environmental Engineering Department	Montvale, NJ	(201) 307-4000
4. Chrysler Jeep, Eagle, AMC	Customer Relations	Detroit, MI	U.S. 1 (800) 992-1997 Canada (313) 497-1934 or (313) 497-1961
5. Fiat, Ferrari Lancia	Mr. Albert Negro	Dearborn, MI	(313) 336-2400
6. Ford	Mr. James Dubke	Dearborn, MI	(313) 594-1188
7. GM, Opel, Vauxhall	Mr. Robert Cowell	Warren, MI	(313) 947-1782
8. Honda	Customer Assistance	Torrance, CA	(213) 783-2000
9. Hyundai	Mr. Iban Lee	Ann Arbor, MI	(313) 747-6600
10. Isuzu	Customer Relations	Southfield, MI	(313) 356-7377
11. Jaguar	Mr. Doug Taylor	Leonia, NJ	(201) 818-8500
12. Lotus	Customer Relations	Norwood, NJ	(201) 784-0726
13. Maserati	Mr. Donel Olson	Huntington Beach, CA	(714) 891-4821
14. Mazda	Mr. Takahasi	Ann Arbor, MI	(313) 930-2507
15. Mercedes-Benz	Product Compliance Department	Montvale, NJ	(201) 573-2784
16. Mitsubishi	Customer Assistance	Ann Arbor, MI	(313) 971-0900
17. Nissan-Datsun	Mr. Mike Beckage	Gardena, CA	(213) 719-5463
18. Peugeot Citroen	Mr. Richard Lucki	Lyndhurst, NJ	(201) 438-1113
19. Porsche	Mr. Mike Love	Reno, NV	(702) 348-3198
20. Renault	Mr. John Fellenberg	Detroit, MI	(313) 493-8767
21. Rolls Royce	Mr. Kenneth Preece	Lyndhurst, NJ	(201) 460-9600
22. Saab	Ms. Marylou Wickwire	Orange, CT	(203) 795-5671
23. Subaru	Mr. Al Gloddeck	Pennsauken, NJ	(609) 488-8516
24. Toyota	Customer Assistance	Torrance, CA	(213) 781-2801
25. Volkswagen, Audi	Customer Service	Troy, MI	U.S. 1 (800) 822-8987 Canada (313) 362-7300
26. Volvo	Mr. Gregory Buffalino	Rockleigh, NJ	(201) 768-7300 Ext: 7125
<u>Motorcycle Companies</u>	<u>Contact</u>	<u>City &amp; States</u>	<u>Phone No.</u>
1. BMW	Environmental Engineering Department	Montvale, NJ	(201) 307-4000
2. Harley-Davidson	Mr. Robert Miller	Milwaukee, WI	(414) 342-4680
3. Honda	Customer Assistance	Torrance, CA	(213) 532-9811
4. Kawasaki	Ms. Julie Birch	Santa Ana, CA	(714) 770-0400
5. Suzuki	Mr. Jeffrey Link	Brea, CA	(714) 996-7040
6. Triumph	Mr. Wayne Moulton	Placentia, CA	(714) 996-8200
7. Yamaha	Customer Relations	Cypress, CA	(714) 761-7330

**3/30/93**

**THIS TEST WAS A EMISSION TEST  
FOR REGISTRATION OF THIS VEHICLE ONLY.**

**OUTSIDE INDEPENDENT EMISSION TEST WITH  
CATALYTIC CONVERTER INSTALLED**

**1984 380 SE MERCEDES WITH COATES  
CSRV 280 SE INSTALLED**

**Mercedes 380SE fitted with a 280SE engine incorporating the Coates CSRV Valve System**

**Identification No.: WDB12 60221 207 4483**

The above vehicle passed EPA standard emission tests and was registered for use on U.S. roads.

In-road mileage tests showed a savings in fuel consumption of 18%, compared to the conventional poppet valve engine of the same size and make.

330/93

6

THE STATE OF NEW JERSEY CERTIFIED EMISSION TESTING FACILITY

Make: MB  
Model: 280 SE  
Model Year: 84  
VIN: WDB12602212 074483

The Coates Spherical Rotary Valve  
installed with catalytic convertor  
no air pump and no EGR system.

EMISSIONS TEST DATA

CO .01 %  
HC 0 PPM  
CO2 15.0 %  
OXYGEN %

330/93

ENGINE RPM 1264  
VACUUM

ENGINE TEMPERATURE 59 DEG  
EXHAUST TEMPERATURE 76 DEG

EMISSIONS TEST DATA

CO .00 %  
HC 0 PPM  
CO2 15.1 %  
OXYGEN %

330/93

ENGINE RPM 925  
VACUUM

ENGINE TEMPERATURE 59 DEG  
EXHAUST TEMPERATURE 76 DEG

THE STATE OF NEW JERSEY CERTIFIED EMISSION TESTING FACILITY

Make: MB  
Model: 280 SE  
Model Year: 84  
VIN: WDB12602212 074483

The Coates Spherical Rotary Valve  
installed with catalytic convertor  
no air pump and no EGR system.

EMISSIONS TEST DATA

CO .03 %  
HC 3 PPM  
CO2 15.1 %  
OXYGEN %

480/93

ENGINE RPM 1971  
VACUUM

ENGINE TEMPERATURE 59 DEG  
EXHAUST TEMPERATURE 76 DEG

# CERTIFICATE OF TITLE

PREFIX: 1 IDENTIFICATION NUMBER: WDB12 60221 20744 83 CUFFIX: Z YEAR: 1984 MAKE: MB MODEL: 380 BODY TYPE: 4 DR.

TYPE OF TITLE: STANDARD DUPLICATE NO.: NONE OVERCLOTH: 8 COLOR/TINT: GY DEALER I.D.: NONE AXLES/PROP: 2 FUEL: NONE

FEE: 20.00 ISSUE DATE: 03-02-1998 VIN-REPLACEMENT: NONE MILEAGE: 85000 STATUS: A

OWNER(S): C6008 27871 04402  
 GEORGE J COATES

WALL NJ 07719 9512

F-FLOOD B-SALVAGE  
 P-POLICE T-TAX  
 L-LEMON LAW  
 A-ACTUAL MILEAGE  
 H-HAND THE ACTUAL MILEAGE  
 M-MILEAGE EXCEEDS THE MECHANICAL LIMITS

NUMBER OF OWNERS: 1  
 NUMBER OF LIENHOLDERS: 0

I, THE DIRECTOR OF MOTOR VEHICLES, DEPARTMENT OF TRANSPORTATION OF THE STATE OF NEW JERSEY, DO HEREBY CERTIFY THAT EVIDENCE OF PURCHASE OF OWNERSHIP, IN COMPLIANCE WITH THE LAWS OF THE STATE OF NEW JERSEY, OF THE DESCRIBED ARTICLE, HAS BEEN RECORDED AND FILED WITH ME, AND I DO HEREBY ISSUE THIS CERTIFICATE OF OWNERSHIP SUBJECT TO SECURITY AGREEMENT OR LIEN, IF ANY AS STATED.

CONTROL NUMBER: L024463

*R. Richard Kamin*  
 SIGNATURE

**State of New Jersey**  
 DIVISION OF MOTOR VEHICLES



DATE

LIEN RELEASED BY:

SECOND LIENHOLDER

SIGNATURE

DATE

TITLE DATE

FIRST LIENHOLDER

LIEN RELEASED BY:

SIGNATURE

TITLE DATE

ISM/SS-1 (R10. 3/)

MH LK980610518

VOID IF ALTERED

↑ FOLD AND TEAR AT PERFORATION ↑

THIS IS A RECEIPT DOCUMENT ONLY

VIN: 1 WDB12602212074483	Z	MILEAGE: 85000	A	DUP: 2	STATUS:
MB 1984 4 DR. 380	GY	8	AXLE: 2		
C6008 27871 04402				TITLE I :	20.00
GEORGE J COATES				SALES TAX :	
				TOTAL :	20.00
WALL NJ 07719 9512					
MH LK980610518	20.00	I	STANDARD		

CUSTOMER COPY L024463



*John*

# TEXAS CERTIFICATE OF TITLE

## CERTIFIED COPY

VEHICLE IDENTIFICATION NUMBER	YEAR/MODEL	MAKE OF VEHICLE	BOOK NO.
WDB12602212074483	1984	MERCEDES	4DR
MODEL	MFG CAPACITY IN TONS	WEIGHT	LICENSE NUMBER
		3800	637NJK
PREVIOUS OWNER	DEPARTMENTAL USE ONLY		COMPUTER HEADNO
WESTGATE INVESTMENTS INC DALLAS TX			016231
OWNER	REMARKS:		
	NO MILEAGE BRAND		

ROAD SHOW INC P12-434  
 5130 LEMMON AVE  
 DALLAS, TEX 75209

\_\_\_\_\_  
 SIGNATURE OF OWNER OR AGENT MUST BE IN INK

UNLESS OTHERWISE AUTHORIZED BY LAW, IT IS A VIOLATION OF STATE LAW TO  
 NAME OF ANOTHER PERSON ON A CERTIFICATE OF TITLE OR OTHERWISE  
 INFORMATION ON A CERTIFICATE OF TITLE.



DATE OF LIEN	1ST LIEN HOLDER	1ST LIEN RELEASED	DATE
		BY	AUTHORIZED AGENT
DATE OF LIEN	2ND LIEN HOLDER	2ND LIEN RELEASED	DATE
		BY	AUTHORIZED AGENT
DATE OF LIEN	3RD LIEN HOLDER	3RD LIEN RELEASED	DATE
		BY	AUTHORIZED AGENT

**JAN 02 1990**

IT IS HEREBY CERTIFIED THAT ACCORDING TO THE RECORDS OF THE STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION,  
 THE PERSON HEREIN NAMED IS THE OWNER OF THE VEHICLE DESCRIBED ABOVE WHICH IS SUBJECT TO THE ABOVE LIEN(S) AS SHOWN  
 DO NOT ACCEPT TITLE SHOWING ERASURE, ALTERATION, OR MUTILATION.

ARNOLD W. GAYLER, P.E. ENGINEER-DIRECTOR  
*Arnold W. Gayler*  
 ARNOLD W. GAYLER, P.E. ENGINEER-DIRECTOR, DIVISION OF MOTOR VEHICLES

FORM 30-000 (4-80)

150931



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JEFF FRAZIER  
3351 B S.W. LONGVIEW RD.  
LEE'S SUMMIT, MO 64081

AUG- 7-1991

In reply Refer to: OFFICE OF  
AIR AND RADIATION  
EPA NO: 10576

Dear Sir/Madam:

This letter is in response to your recent inquiry regarding the compliance status of an imported vehicle. Our records indicate that the vehicle described below has met all applicable Environmental Protection Agency (EPA) importation requirements and has been finally admitted into the United States.

Make: MB  
Model: 280 SE  
Model Year: 84  
VIN: WDB12602212 074483

Declaration Code:  
Entry No.:  
Entry Date: / /  
Port: UNK

If you have any questions, you may telephone our office at (202) 382-2504.

Sincerely yours,

*Richard W. Babin*

Chief, Investigation/Imports Section  
Manufacturers Operations Division

THE STATE OF NEW JERSEY CERTIFIED EMISSION TESTING FACILITY

Make: MB

The Coates Spherical Rotary Valve  
installed with catalytic convertor  
no air pump and no EGR system.

Model: 280 SE

Model Year: 84

VIN: WDB12602212 074483

EMISSIONS TEST DATA

CO .01 %  
HC 0 PPM  
CO2 15.0 %  
OXYGEN %

ENGINE RPM 1264  
VACUUM

ENGINE TEMPERATURE 59 DEG  
EXHAUST TEMPERATURE 75 DEG

EMISSIONS TEST DATA

CO .00 %  
HC 0 PPM  
CO2 15.1 %  
OXYGEN %

ENGINE RPM 925  
VACUUM

ENGINE TEMPERATURE 55 DEG  
EXHAUST TEMPERATURE 75 DEG

THE STATE OF NEW JERSEY CERTIFIED EMISSION TESTING FACILITY

Make: MB

The Coates Spherical Rotary Valve  
installed with catalytic convertor  
no air pump and no EGR system.

Model: 280 SE

Model Year: 84

VIN: WDB12602212 074483

EMISSIONS TEST DATA

CO .03 %  
HC 3 PPM  
CO2 15.1 %  
OXYGEN %

ENGINE RPM 1971  
VACUUM

ENGINE TEMPERATURE 59 DEG  
EXHAUST TEMPERATURE 75 DEG



MERCEDES-BENZ

Service

## Technical Data Passenger Cars

1975

Model 107  
Model 114  
Model 115  
Model 116

Daimler Benz AG  
Vertrieb Kundendienst und Teile  
D-700 Stuttgart 60

### Idling Speed/Idling Speed Exhaust Emission — 07.4 Value

Engine	Idling speed l/min	Idling speed exhaust emission value % CO
110	750—850	1.5—2.5
116	700—750	
117, 982/983		

#### Exhaust Emission Versions — USA — Japan

Identification: instruction plate in the language of the country on cross member in front of radiator or on cylinder head cover.

Engines should be set in accordance with data on exhaust emission instruction plate.

#### USA Version

Instruction plate: identification colour black

Engine	Model year	Idling speed l/min	Idling speed exhaust emission value % CO without air injection
117 982/983	1975	700—800	max. 1.5

#### Japan Version

Instruction plate: Yellow Imprint "Japan"

Engine	Idling speed l/min	Idling speed exhaust emission value % CO
110	800—900	max. 1.5
116	760—800	
117 982/983		

### Idling Speed/Idling Speed Exhaust Emission Value — 07.2

Engine	Idling speed l/min	Idling speed exhaust emission value % CO
110	800—900	1.0—2.5
115		
130, 180		

#### Exhaust Emission Versions — USA — Sweden — Japan

Identification: instruction plate in the language of the country on cross member in front of radiator or on cylinder head cover.  
Engines should be set in accordance with data on exhaust emission instruction plate.

#### USA Version

Instruction plate: identification colour black/green

Engine	Model year	Idling speed l/min	Idling exhaust emission % CO without air injection
110	1975/76	800—900	max. 1.0
116			0.4—1.5

#### Sweden Version

Instruction plate: identification colour blue

Engine	Model year	Idling speed l/min	Idling exhaust emission % CO without air injection
110	1976	800—900	max. 1.0
115			1.0—2.5

#### Japan Version

Instruction plate: Yellow imprint "Japan"

Engine	Model year	Idling speed l/min	Idling exhaust emission % CO
110 115 130 180	prior to 1976	800—900	max. 1.5
110			1976

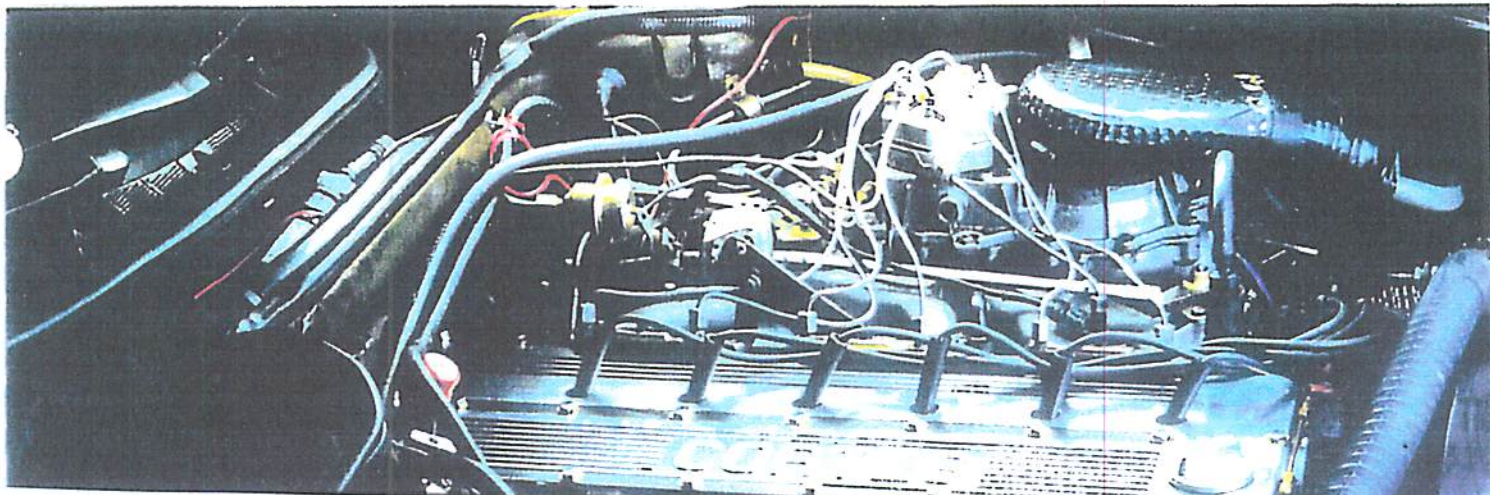
138

### 07.2 — Fuel Pump

Engine	110 115 130 180
Designation of pump	Plunger pump (lever pump <sup>1)</sup> )
Measuring point	following pump inlet
Vacuum at starting speed	mm Hg 250—350
Measuring point	following pump outlet
Delivery pressure at starting speed	kp/cm <sup>2</sup> 0.25—0.38

<sup>1)</sup> USA version; as from model year 1974.  
Sweden version — model year 1976.





**Motor Vehicle Services NEW JERSEY**  
Division of Motor Vehicles

**VEHICLE REGISTRATION**  
 PLATE NO: HLM80G      GOOD THRU: 03/03  
 VIN:                      WDB12602212074483  
 MB 84 4 DR. QY      380 WC:8  
 COATES INTERNATIONAL LTD      PASSENGER      08  
 RT 34 & RIDGEWOOD RD      DL: 20047 05250 77190  
 WALL TWP      NJ 07719      INITIAL  
 EQ:8      FEE: 67.90      DM ER920870103





VEHICLE REGISTRATION

ATE NO: WYD16R GOOD THRU: 06/2013  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C60082787104402  
RENEWAL PT:PA  
ALL NJ 07719  
FEE: 64.50 RP201213282045201

VEHICLE REGISTRATION

PLATE NO: UR757U GOOD THRU: 03/2003  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C6008 27871 04402  
RENEWAL PT:PA  
WALL NJ 07719  
FEE: 61.00 RP200200217690701

VEHICLE REGISTRATION

E NO: WYD16R GOOD THRU: 06/2012  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C60082787104402  
RENEWAL PT:PA  
L NJ 07719  
FEE: 64.50 RP201112655514801

VEHICLE REGISTRATION

PLATE NO: UR757U GOOD THRU: 03/2002  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C6008 27871 04402  
RENEWAL PT:PA  
WALL NJ 07719  
FEE: 61.00 RP200100253957601

VEHICLE REGISTRATION

ATE NO: WYD16R GOOD THRU: 06/2011  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C60082787104402  
RENEWAL PT:PA  
ALL NJ 07719  
FEE: 64.50 RP201011220063701

VEHICLE REGISTRATION

PLATE NO: UR757U GOOD THRU: 03/2001  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C6008 27871 04402  
RENEWAL PT:PA  
WALL NJ 07719  
FEE: 61.00 RP200000613225701

VEHICLE REGISTRATION

ATE NO: WYD16R GOOD THRU: 06/2010  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C60082787104402  
RENEWAL PT:PA  
ALL NJ 07719  
FEE: 64.50 RP200909777523801

VEHICLE REGISTRATION

PLATE NO: UR757U GOOD THRU 03/2000  
VIN: 1 WDB12602212074483  
MB 84 4 DR GY 380 WC: 8  
GEORGE J COATES PASSENGER 08  
DL:C6008-27871-04402  
RENEWAL PT:PA  
WALL NJ 07719  
FEE: 63.50 RP9902241211901

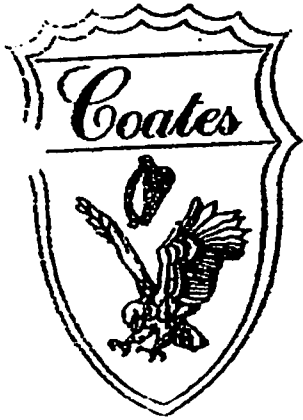
VEHICLE REGISTRATION

PLATE NO: UR757U GOOD THRU: 03/2004  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C6008 27871 04402  
RENEWAL PT:PA  
WALL NJ 07719

VEHICLE REGISTRATION

PLATE NO: UR757U GOOD THRU: 03/1999  
VIN: 1 WDB12602212074483  
MB 1984 4 DR GY 380 WC:8  
GEORGE J COATES PASSENGER 08  
DL:C6008 27871 04402  
RENEWAL PT:PA  
WALL NJ 07719  
FEE: 66.00 MH LK980610518

VEHICLE REGISTRATION  
PLATE NO: HLH80G GOOD THRU: 03/93  
VIN: WDB12602212074483  
MB 84 4 DR GY 380 WC:8  
COATES INTERNATIONAL LTD PASSENGER 08  
AT 34 & RIDGEWOOD RD DL:20047 05250 77190  
WALL TWP NJ 07719 INITIAL  
EQ:8 FEE: 67.90 DM EN920870103



COATES INTERNATIONAL, LTD.  
COATES ENTERPRISES, LTD.  
COATES PRECISION ENGINEERING, LTD.  
COATES AUTOMOTIVE, LTD.  
COATES ENGINE MANUFACTURING, LTD.  
COATES TECHNOLOGIES, LTD.

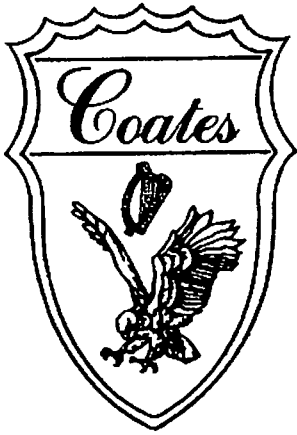
COATES INTERNATIONAL EURO. DIV. LTD.,  
LONDON, UK

COATES INTERNATIONAL, LTD.  
CALGARY, ALBERTA, CANADA

## CSRV ENGINE TESTS

When CIL started testing its CSRV Engines in the early 90's we contacted the EPA to find out where we could have engines and vehicles independently tested. The EPA faxed this list to us. As you can see there is only one EPA recognized testing lab in New Jersey and that is Compliance and Research Service. This is where we have most of our independent EPA tests carried out.

2100 HIGHWAY 34 & RIDGEWOOD ROAD  
HALL TOWNSHIP, N.J. 07719-9738 USA  
PHONE: 732-449-7717  
FAX: 732-449-0764 MAIN  
FAX: 732-282-2102 BILLING  
FAX: 732-449-7736 C.E.O.  
WEBSITE: [www.coatesengine.com](http://www.coatesengine.com)



COATES INTERNATIONAL, LTD.  
COATES ENTERPRISES, LTD.  
COATES PRECISION ENGINEERING, LTD.  
COATES AUTOMOTIVE, LTD.  
COATES ENGINE MANUFACTURING, LTD.  
COATES TECHNOLOGIES, LTD.

COATES INTERNATIONAL EURO, DIV. LTD.,  
LONDON, UK

COATES INTERNATIONAL, LTD.  
CALGARY, ALBERTA, CANADA

**B**

These tests were performed after the vehicle has completed 81,281 miles. This document shows an A & B comparison test between two Mercedes cars with the same size engines. A has the Coates Spherical Rotary Valve System installed and B has a standard poppet valve system. On the dynamometer test sheet A as you will see six tests on the C.S.R.V. engine, and B dynamometer test sheet shows four tests with the standard poppet valve engine, on all test perimeters (HC) Hydro Carbons, (CO) Carbon Monoxide, (NOX) Nitrous Oxides, and (CO<sub>2</sub>). The Coates Spherical Rotary Valve Engine is showing on each test less than half the emissions than the standard poppet valve engine shows.

2100 HIGHWAY 34 & RIDGEWOOD ROAD  
WALL TOWNSHIP, N.J. 07719-9738 USA  
PHONE: 732-449-7717  
FAX: 732-449-0764 MAIN  
FAX: 732-282-2102 BILLING  
FAX: 732-449-7736 C.E.O.  
WEBSITE: [www.coatesengine.com](http://www.coatesengine.com)



COMPLIANCE  
AND  
RESEARCH  
SERVICES, INC.

2 Garfield Street • Linden • New Jersey 07036  
Phone (908) 925-5533 • Fax (908) 925-8288

April 28, 1995

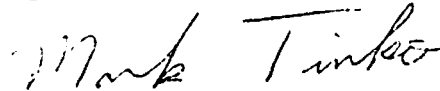
To whom It May Concern,

Here at Compliance and Research Services, Inc., we are a USEPA and California Air Resource Board recognized emission testing laboratory. We follow all specified procedures as stated in the United States Code of Federal Regulations Title 40 part 86. Enclosed you will find a list of our testing capabilities as well as our current equipment list.

Enclosed you will also find some test data. These tests compare a Coates Spherical Rotary Valve engine with a Mercedes OEM version. The tests that were performed were a Steady State and a HOT 505 test on each vehicle. The report number for the HOT 505 test on the Coates engine is CR02745. The report number for the HOT 505 test on the OEM version is CR02769. As you can see, the data shows reduction in the Rotary valve emissions. We feel that this is very good for an experimental engine.

We are currently working on a Coates 302 Ford based engine that is installed in a 1986 Ford Mustang. This motor is not limited to the 1986 model year, and can be installed in any chassis. At this time, this vehicle is currently under development and test are continuing.

Regards,



Mark Timko  
President

Compliance and Research Services, Inc.

Compliance & Research Services  
Emissions Test Controller 386H

TEST NUMBER	CRO2769	DATE	03-01-1995	FUEL TYPE	INDOLENE
VEHICLE REF	coates-280se	A.C.	no	DENSITY	16.33
V.I.N.	11602412114620	ENGINE FAM.	1995 mb/new	SPECIF. CO2	13.4
OPERATOR	m.timko	EVAP.FAM.	stock	Gr.C/gal.	2424
DRIVER	b.depalma	TEST TYPE	HOT505 .LA4	FUEL Fract.	.866
MAKE	mercedes ben	SHIFT FILE	AUTO .L_4	SP. GRAVITY	.743
MODEL	280se	INERTIA WGT	3625	N.H.V.	18480
YEAR	1977	ACTUAL HP	8.4	WT FACTOR	1
TANK CAP	24 gallons	INDIC. HP	6.7	WT FACTOR	0
ODOMETER	81281 miles	ALT. HP arb	7	WT FACTOR	0
TRANS.	auto				
REMARKS					
START TIME	16:56:48	END TIME	17:05:13		

#	EVENT	MILES	TIME	TIME of trace	HOLD	TIME of trace	ERROR
1	crank	0.00	1.1	0.0	for 0.0	0.0	for 0.0
2	ph 1	3.60	505.0	0.0	for 0.0	0.0	for 0.0
3	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
4	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
5	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
6	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
7	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
8	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
9	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
10	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
11	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0
12	end	0.00	0.0	0.0	for 0.0	0.0	for 0.0

PHASE 1	THC	CO	NOx	CO2	NMHC	Tdry = 70.4	Twet = 53.9
SAMPLE	87.060	167.100	85.390	1.466	11.700	BARO. = 767.01	SEC = 506.1
AMBIENT	12.410	4.400	0.670	0.040	2.400	R-H = 31.14	VOL = 2834.6
GRAMS	3.520	15.252	10.912	2102.459	3.077	M.P.G. 14.95	DF = 8.9
GMS/MI	0.978	4.237	3.032	584.118	0.855	MPGnhv 15.06	MI = 3.6
GMS/KM	0.608	2.636	1.886	363.415	0.532	KM/Lit 6.35	KM = 5.7

\*\*\*\*\*  
 WEIGHTED THC CO NOx CO2 NMHC FUEL ECONOMY NOxKf= .8380  
 GRAMS/MI 0.978 4.237 3.032 584.118 0.855 M.P.G. 14.95 NHVmpg 15.0  
 GRAMS/KM 0.608 2.636 1.886 363.415 0.532 KM/Lit 6.35 NHVkpl 6.0  
 \*\*\*\*\*

Cartridge VOL. S 1 = 0.2983 A= 0.2946

POPPET VALVE VERSION B

