Volkswagen AG, a member of the Volkswagen Group

Application for Emissions Certification Parts 1 & 2

2005 **Model Year**

Durability Group: 5VWXGPGNN253
Evap. Families: 5VWXR0110238

Test Group: 5VWXV02.5253

Summary Sheet 590T2-06

Durability Group Description: Four Stroke, Otto Cycle, Gasoline Fueled, Sequential Port Fuel Injection, Catalyst Code: MLKX5

Test group Description: 2.5l SFI/AIR/TWC/HO2S(2)/ORVR - LDV

Applicable Standards: 50-State: Federal Tier 2 BIN 5
California LEV II ULEV

Carlines Covered: Jetta

Vehicles Tested:

VID	Config.	Test Type / #	Test Type / #	Test Type / #
351 750 101 / 05	0	FTP / 9003685	HFET / 9003686	50˚F FTP / 1061073
351 750 101 / 05	0	Cold CO / 1061074	CST / 1061082	
351 750 101 / 05	0	US06 / 9003684	SC03 / 1061167	ORVR / 1061093
351 750 101 / 05	1	2-Day / 1061094	3-Day / 1061095	

Issue Date: 11-11-2004
Update: 03-07-2005
Final Update: 12-05-2005

For Questions, Contact:
Dennis Reineke, (248) 754-4215
Robert Hart, (248) 754-4224

Table of Contents - Part 1

5.1 Test Group Description

Test Group Name	5VWXV02.5253
Summary Sheet Number	590T2-06
Engine displacements covered	2.5 Liters
Arrangement and number of cylinders	5 in line
Vehicle class (es) covered	LDV
Federal Emissions Standards Class	Tier 2 BIN 5
California Emissions Standards Class	LEV II ULEV

5.2 Test Group Emission Standards

Please refer to CFEIS Summary sheet included in Section 7 for applicable emission standards.

6. Test Vehicle Description

Please refer to included CFEIS Vehicle Information (VI) sheets for the following vehicles:

Summary Sheet Number: 590T2-06
Test Group: 5VWXV02.5253
Evaporative/Refueling Family: 5VWR0110238

VID	Config.	Vehicle Type	Tests Performed
351 750 101 / 05	0	Cert. Emission	FTP, HFET, 50°F FTP, SFTP, ASM, Cold CO, CST, ORVR
351 750 101 / 05	0	Fuel Economy	FTP, HFET
351 750 101 / 05	0	Cert. Emission	FTP, HFET (High Altitude)
351 750 183 / 05	0	Fuel Economy	FTP, HFET
351 750 101 / 05	1	Cert. Emission	2-Day EVAP, 3-day EVAP

Date: 29-NOV-04 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS) Page: 1
Time: 11:12:10 AM VEHICLE INFORMATION CAP2000
DATABASE REPORT

Manufacturer: 590 VOLKSWAGEN
Vehicle ID: 351 750 101/05
Division: 1 VOLKSWAGEN
Drive: 3 FRONT DRIVE STR LEFT
Source: 01 MANUFACTURER
Test Group: 5VWXV02.5253
Evaporative/Refueling Family: 5VWXR0110238

Configuration: 0
Model Year: 2005
Carline: 221 JETTA
Catalyst: 3 3-WAY CATALYST
Model Year From/To:
Vehicle Purpose: 01 CERT EMISSION
Turbo/Supercharger: N NONE
Evap System: 1

Engine Information

Engine Code: BGP
Engine Type: 01 OTTO SPARK
Crankcase System: 1
Cylinders: 5
Valves/Cylinder: 4
Displacement: 2480 CC CUBIC CENTIMETERS
Rated HP: 150
Compression Ratio: 9.5

Ignition Timing

1:
1 Before/After:
RPM:
RPM Tolerance:
Degree Tolerance:
Gear:

Idling

RPM: 680
RPM Tolerance: 50
Gear: N NEUTRAL
A/C: YES

Design Vehicle Weights

Curb: 3285
ETW: 3625
ETW Wt Units: P
Gross:
Full Tank Axle: 1956
Empty Tank Axle: 1940
40% Axle: 0
Mfr Wt Units: P

Exhaust Emission Related Components

10 AIR INJECTION PUMP
15 THREE-WAY CATALYST HEATED O2
41 MULTIPLE POINT FUEL INJECTION
60 DETONATION SENSOR
62 ELECTRONIC CONTROLS-DIGITAL

Catalyst Preheating Method

0 NONE

Tire

Manufacturer: MICHELIN
Construction: 2 RADIAL
Size: 205/55R16
Pressure Front: 31
Pressure Rear: 29
Pressure Units: PSI POUNDS PER SQUARE INCH

Odometer Correction

Sign: -
Initial: 22
Factor: .9782
Units: M

Drive Train

Trans Config: 26 L6 LOCK-UP/AUTOMATIC/6-SPEED
Axle Ratio: 3.5
NV Ratio: 32.7

Sales Areas

CA CALIFORNIA
FA FEDERAL ALL ALTITUDE

Multimode O OTHER
Running Change #:
Comments: MY 2005 VW JETTA - L6 TRANS. ETW 3625 - TESTED AS FWD

Date: 29-NOV-04 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS) Page: 2
Time: 11:12:10 AM VEHICLE INFORMATION
DATABASE REPORT

Manufacturer: 590 VOLKSWAGEN Vehicle ID : 351 750 101/05 Configuration: 0

EVAPORATIVE SYSTEMS

Evaporative Emission Code	Canister Type	Canister Bed Vol(CC)	Canister Working Cap	No of Canisters	Alt Canister Loading Rate	Evaporative Emission Control System
A344	B Evap and Refue	2200	110 grams HC	1		102 CANISTER

FUEL SYSTEMS

Fuel System Mfr/Model	Main Tank Capacity	Auxiliary Tank Capacity	Fuel Type	Fuel System
BOSCH/MOT	14.5 GALLONS		G GASOLINE	8 ELECTRIC MPI - SEQUENTIAL

TEST PROCEDURE FUEL

Test Proc	Fuel Type	SS DB	SS ID	TP SIL	TP DD	TP ID	Side Fan	AC HP	ETW CoastDn	Mfr CoastDn	Dyno HP	Target Coeff A	Target Coeff B	Target Coeff C	Set Coeff A	Set Coeff B	Set Coeff C
3	61	A	HWA	1			Y	N	3500	18.45		33	.29	.0171	1	.03	.0164
11	27	A	FTA	1			N	N	3500	16.79		37	.32	.0188	5	.31	.0178
21	61	A	FTA	1			N	N	3500	18.45		33	.29	.0171	1	.03	.0164
23	61	A		1			Y	N	3500	18.45		33	.29	.0171	1	.03	.0164
24	61	A		1			Y	N	3500	18.45		33	.29	.0171	1	.03	.0164
31	61	A	FTA	1			N	N	3500	18.45		33	.29	.0171	1	.03	.0164
34	61	A		1			Y	N	3500	18.45		33	.29	.0171	1	.03	.0164
52	61	A	FTA	1			Y	N	3500	18.45		33	.29	.0171	1	.03	.0164
72	27	A		1			N	N	3500	16.79		37	.32	.0188	5	.31	.0178
90	61	A	US6A	1			Y	N	3500	18.45		33	.29	.0171	1	.03	.0164
95	61	A	FTA	1			Y	N	3500	18.45		33	.29	.0171	1	.03	.0164

Date: 23-NOV-04 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS) Page: 1
Time: 09:08:05 AM VEHICLE INFORMATION CAP2000
DATABASE REPORT

Manufacturer: 590 VOLKSWAGEN
Vehicle ID: 351 750 101/05
Division: 1 VOLKSWAGEN
Drive: 3 FRONT DRIVE STR LEFT
Source: 01 MANUFACTURER
Test Group: 5VWXV02.5253
Evaporative/Refueling Family: 5VWXR0110238

Configuration: 1
Model Year: 2005
Carline: 221 JETTA
Catalyst: 3 3-WAY CATALYST
Model Year From/To:
Vehicle Purpose: 01 CERT EMISSION
Turbo/Supercharger: N NONE
Evap System: 1

Engine Information

Engine Code: BGP
Engine Type: 01 OTTO SPARK
Crankcase System: 1
Cylinders: 5
Valves/Cylinder: 4
Displacement: 2480 CC CUBIC CENTIMETERS
Rated HP: 150
Compression Ratio: 9.5

Ignition Timing

1:
1 Before/After:
RPM:
RPM Tolerance:
Degree Tolerance:
Gear:

Idling

RPM: 680
RPM Tolerance: 50
Gear: N NEUTRAL
A/C: YES

Design Vehicle Weights

Curb: 3285
ETW: 3625
ETW Wt Units: P
Gross:
Full Tank Axle: 1956
Empty Tank Axle: 1940
40% Axle: 0
Mfr Wt Units: P

Exhaust Emission Related Components

10 AIR INJECTION PUMP
15 THREE-WAY CATALYST HEATED O2
41 MULTIPLE POINT FUEL INJECTION
60 DETONATION SENSOR
62 ELECTRONIC CONTROLS-DIGITAL

Catalyst Preheating Method

0 NONE

Tire

Manufacturer: MICHELIN
Construction: 2 RADIAL
Size: 205/55R16
Pressure Front: 31
Pressure Rear: 29
Pressure Units: PSI POUNDS PER SQUARE INCH

Odometer Correction

Sign: -
Initial: 22
Factor: .9782
Units: M

Drive Train

Trans Config: 26 L6 LOCK-UP/AUTOMATIC/6-SPEED
Axle Ratio: 3.5
NV Ratio: 32.7

Sales Areas

CA CALIFORNIA
FA FEDERAL ALL ALTITUDE

Multimode O OTHER
Running Change #:
Comments: MY 2005 VW JETTA - L6 TRANS. ETW 3625 - CA EVAP TESTED AS FWD

Manufacturer: 590 VOLKSWAGEN Vehicle ID : 351 750 101/05 Configuration: 1

EVAPORATIVE SYSTEMS

Evaporative Emission Code	Canister Type	Canister Bed Vol(CC)	Canister Working Cap	No of Canisters	Alt Canister Loading Rate	Evaporative Emission Control System
A344	B Evap and Refue	2200	110 grams HC	1		102 CANISTER

FUEL SYSTEMS

Fuel System Mfr/Model	Main Tank Capacity	Auxiliary Tank Capacity	Fuel Type	Fuel System
BOSCH/MOT	14.5 GALLONS		G GASOLINE	8 ELECTRIC MPI - SEQUENTIAL

TEST PROCEDURE FUEL

Test Proc	Fuel Type	SS DB	SS ID	TP SIL	TP DD	TP ID	Side Fan	AC HP	ETW CoastDn	Mfr CoastDn	Dyno HP	Target Coeff A	Target Coeff B	Target Coeff C	Set Coeff A	Set Coeff B	Set Coeff C
25	23	A	FTA	1			N	N	3500	18.45		33	.29	.0171	1	.03	.0164
27	23	A		1			N	N	3500	18.45		33	.29	.0171	1	.03	.0164
35	23	A	FTA	1			N	N	3500	18.45		33	.29	.0171	1	.03	.0164
38	23	A		1			N	N	3500	18.45		33	.29	.0171	1	.03	.0164

Date: 23-NOV-04 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS) Page: 1
Time: 10:30:12 AM VEHICLE INFORMATION CAP2000
DATABASE REPORT

Manufacturer: 590 VOLKSWAGEN
Vehicle ID: 351 750 183/05
Division: 1 VOLKSWAGEN
Drive: 3 FRONT DRIVE STR LEFT
Source: 01 MANUFACTURER
Test Group: 5VWXV02.5253
Evaporative/Refueling Family: 5VWXR0110238

Configuration: 0
Model Year: 2005
Carline: 221 JETTA
Catalyst: 3 3-WAY CATALYST
Model Year From/To:
Vehicle Purpose: 03 CERT FUEL ECONOMY
Turbo/Supercharger: N NONE
Evap System: 1

Engine Information

Engine Code: BGP
Engine Type: 01 OTTO SPARK
Crankcase System: 1
Cylinders: 5
Valves/Cylinder: 4
Displacement: 2480 CC CUBIC CENTIMETERS
Rated HP: 150
Compression Ratio: 9.5

Ignition Timing

1:
1 Before/After:
RPM:
RPM Tolerance:
Degree Tolerance:
Gear:

Idling

RPM: 680
RPM Tolerance: 50
Gear: N NEUTRAL
A/C: YES

Design Vehicle Weights

Curb: 3230
ETW: 3500
ETW Wt Units: P
Gross:
Full Tank Axle: 1901
Empty Tank Axle: 1885
40% Axle: 0
Mfr Wt Units: P

Exhaust Emission Related Components

10 AIR INJECTION PUMP
15 THREE-WAY CATALYST HEATED O2
41 MULTIPLE POINT FUEL INJECTION
60 DETONATION SENSOR
62 ELECTRONIC CONTROLS-DIGITAL

Catalyst Preheating Method

0 NONE

Tire

Manufacturer: MICHELIN
Construction: 2 RADIAL
Size: 205/55R16
Pressure Front: 31
Pressure Rear: 29
Pressure Units: PSI POUNDS PER SQUARE INCH

Odometer Correction

Sign: -
Initial: 11
Factor: .986
Units: M

Drive Train

Trans Config: 04 M5 MANUAL FIVE-SPEED
Axle Ratio: 3.65
NV Ratio: 42.5

Sales Areas

CA CALIFORNIA
FA FEDERAL ALL ALTITUDE

Multimode
Running Change #:
Comments: MY 2005 VW JETTA - M5 TRANS. ETW 3500 -FUEL ECON. - TESTED AS FWD

Date: 23-NOV-04 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS) Page: 2
Time: 10:30:12 AM VEHICLE INFORMATION
DATABASE REPORT

Manufacturer: 590 VOLKSWAGEN Vehicle ID : 351 750 183/05 Configuration: 0

EVAPORATIVE SYSTEMS

Evaporative Emission Code	Canister Type	Canister Bed Vol(CC)	Canister Working Cap	No of Canisters	Alt Canister Loading Rate	Evaporative Emission Control System
A344	B Evap and Refue	2200	110 grams HC	1		102 CANISTER

FUEL SYSTEMS

Fuel System Mfr/Model	Main Tank Capacity	Auxiliary Tank Capacity	Fuel Type	Fuel System
BOSCH/MOT	14.5 GALLONS		G GASOLINE	8 ELECTRIC MPI - SEQUENTIAL

TEST PROCEDURE FUEL

Test Proc	Fuel Type	SS DB	SS ID	TP SIL	TP DD	TP ID	Side Fan	AC HP	ETW CoastDn	Mfr CoastDn	Dyno HP	Target Coeff A	Target Coeff B	Target Coeff C	Set Coeff A	Set Coeff B	Set Coeff C
3	61	A	0018	1			Y	N	3500	18.77		30	.2	.0186	8	.1	.0183
21	61	A	0001	1			N	N	3500	18.77		30	.2	.0186	8	.1	.0183

7. Test Results

Please refer to included summary sheet.

Date: 18-FEB-05 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
Time: 05:10:29 PM SUMMARY SHEET
DATABASE REPORT

Summary Sheet Version Number: 0 Vehicle Manufacturer: 590 VOLKSWAGEN
Summary Sheet Index Number: 590T2-06 Engine Manufacturer: VWX VOLKSWAGEN
Model Year: 2005 Issue Date: 12-08-04 Revised Date:
Summary Sheet Sales Area: CA CALIFORNIA
FA FEDERAL ALL ALTITUDE
Comments: VW JETTA - TIER 2 / LEV II EXHAUSTTIER 2 / LEV II EVAP - ALL NMOG VALUES ARE CALCULATED FROM NMHC USING

Durability Group Specification

Durability Group: 5VWXGPGNN253 Ignition Type: SPARK
Combustion Cycle: OTTO CYCLE PISTON Fuel Combination: SINGLE FUEL
Basic Fuel Metering System: PORT FUEL INJECTION Primary Fuel: GASOLINE
Trap: NONE Second Fuel: N/A
Catalyst Construction: UNHEATED MONOLITH CATALYST Third Fuel: N/A
Catalyst Precious Metal Combination: PALLADIUM AND RHODIUM THREE-WAY CATALYS

Test Group Specification

Test Group: 5VWXV02.5253 Valves per Cylinder: 4
Federal OBD: CALIFORNIA OBD Projected Job 1 Date: 01-NOV-04
California OBD: CARB OBD II Number of Subsystems: 2
Displacement: 2.5 L Alternate Displacements:
Compliance Program: TIER 2

Comments: VOLKSWAGEN JETTA AND NEW BEETLE

* These Vehicles were certified to SFTP (Supplemental Federal Test Procedure) Standards.

* Conditions and provisions of 40 CFR 86.1835(d) have been met.

Evaporative/Refueling Family Specifications

Evaporative/Refueling Family: 5VWXR0110238
Evaporative System: 1
Vapor Storage System: 1
Canister Work Capacity: 110
Fuel Tank Material: PLASTIC

Date: 18-FEB-05
Time: 05:10:29 PM

CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	3 HWFE (HIGHWAY TEST)
Running Change:		Test Number:	9003686
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A

Dynamometer Target Coefficients:	a = 33	b = .29	c = .0171
Dynamometer Set Coefficients:	a = 1	b = .03	c = .0164

Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
120,000	NOX-HWY	.0115		.004	1	.016	0.090	U2
50,000	NOX-HWY	.011		.002	1	.01	0.07	U2

Date: 18-FEB-05
Time: 05:10:29 PM

CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	COLD CO PREMIUM(Tier 2)	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	11 COLD CO
Running Change:		Test Number:	1061074
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A
Dynamometer Target Coefficients: a = 37 b = .32 c = .0188
Dynamometer Set Coefficients: a = 5 b = .31 c = .0178
Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
50,000	CO-COLD	1.76		.082	1	1.84	10.00	N/A

Date: 18-FEB-05 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
Time: 05:10:29 PM SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	21 FED FUEL 2 DAY EXH (BUTANE LOAD)
Running Change:		Test Number:	9003685
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A

Dynamometer Target Coefficients:	a = 33	b = .29	c = .0171
Dynamometer Set Coefficients:	a = 1	b = .03	c = .0164

Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
120,000	CO	1.065		.196	1	1.26	2.10	U2
50,000	CO	1.065		.082	1	1.15	1.70	U2
120,000	NMOG	.01236	1	.002	1	.0144	0.0550	U2
50,000	NMOG	.01236	1	.001	1	.0134	0.0400	U2
120,000	NOX	.0252		.004	1	.029	0.070	U2
50,000	NOX	.0252		.002	1	.027	0.050	U2

* SFTP(Supplemental Federal Test Procedure) test numbers for the composite HC-NM+NOX and CO(optional) certificate levels: 9003684(US06), 1061167(SC03).

Date: 18-FEB-05
Time: 05:10:29 PM

CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	52 FED FUEL 50 DEG(F) EXHAUST TEST
Running Change:		Test Number:	1061073
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A
Dynamometer Target Coefficients: a = 33 b = .29 c = .0171
Dynamometer Set Coefficients: a = 1 b = .03 c = .0164
Aged Emission Components: N/A

Exhaust Emission Related Components:
10 AIR INJECTION PUMP
15 THREE-WAY CATALYST HEATED O2
41 MULTIPLE POINT FUEL INJECTION
60 DETONATION SENSOR
62 ELECTRONIC CONTROLS-DIGITAL

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
N/A	50-CO	.6		0	1	.60	1.70	U2
N/A	50-NMOG	.034	1	0	1	.0340	0.0800	U2
N/A	50-NOX	.01		0	1	.010	0.050	U2

Date: 18-FEB-05
Time: 05:10:29 PM

CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	90 US06
Running Change:		Test Number:	9003684
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A

Dynamometer Target Coefficients:	a = 33	b = .29	c = .0171
Dynamometer Set Coefficients:	a = 1	b = .03	c = .0164

Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
4,000	CO-US06	2.379				2.38	8.00	N/A
4,000	HC-NM+NOX-US0	.0317				.032	0.140	N/A

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CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	95 SC03
Running Change:		Test Number:	1061167
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A

Dynamometer Target Coefficients:	a = 33	b = .29	c = .0171
Dynamometer Set Coefficients:	a = 1	b = .03	c = .0164

Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
4,000	CO-SC03	.59				.59	2.70	N/A
4,000	HC-NM+NOX-SC0	.036				.036	0.200	N/A

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CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	3 HWFE (HIGHWAY TEST)
Running Change:		Test Number:	9003686
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A

Dynamometer Target Coefficients:	a = 33	b = .29	c = .0171
Dynamometer Set Coefficients:	a = 1	b = .03	c = .0164

Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
120,000	NOX-HWY	.0115		.004	1	.016	0.090	B5
50,000	NOX-HWY	.011		.002	1	.01	0.07	B5

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CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	COLD CO PREMIUM(Tier 2)	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	11 COLD CO
Running Change:		Test Number:	1061074
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A
Dynamometer Target Coefficients: a = 37 b = .32 c = .0188
Dynamometer Set Coefficients: a = 5 b = .31 c = .0178
Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
50,000	CO-COLD	1.76		.082	1	1.84	10.00	N/A

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DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	21 FED FUEL 2 DAY EXH (BUTANE LOAD)
Running Change:		Test Number:	9003685
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A
Dynamometer Target Coefficients: a = 33 b = .29 c = .0171
Dynamometer Set Coefficients: a = 1 b = .03 c = .0164
Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
120,000	CO	1.065		.196	1	1.26	4.20	B5
50,000	CO	1.065		.082	1	1.15	3.40	B5
120,000	HC-NM+NOX-COM	.0412			1	.041	0.650	B5
120,000	NMOG	.01236	1	.002	1	.0144	0.0900	B5
50,000	NMOG	.01236	1	.001	1	.0134	0.0750	B5
120,000	NOX	.0252		.004	1	.029	0.070	B5
50,000	NOX	.0252		.002	1	.027	0.050	B5

* SFTP(Supplemental Federal Test Procedure) test numbers for the composite HC-NM+NOX and CO(optional) certificate levels:

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Summary Sheet Version Number: 0
Summary Sheet Index Number: 590T2-06
Test Group: 5VWXV02.5253
Engine System: 1
Evaporative/Refueling Family: 5VWXR0110238
Evaporative System: 1

Vehicle Manufacturer: 590 VOLKSWAGEN
Engine Manufacturer: VWX VOLKSWAGEN
Certificate Number: 590T2-06
Vehicle Sales Area: CA CALIFORNIA
FA FEDERAL ALL ALTITUDE

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	21 FED FUEL 2 DAY EXH (BUTANE LOAD)
Running Change:		Test Number:	9003685
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A
Dynamometer Target Coefficients: a = 33 b = .29 c = .0171
Dynamometer Set Coefficients: a = 1 b = .03 c = .0164
Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

9003684(US06), 1061167(SC03).

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CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	COLD CO PREMIUM(Tier 2)	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	72 CST TWO SPEED IDLE TEST
Running Change:		Test Number:	1061082
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A
Dynamometer Target Coefficients: a = 37 b = .32 c = .0188
Dynamometer Set Coefficients: a = 5 b = .31 c = .0178
Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
120,000	CO-ST2500	0		0	1	0.00	0.50	N/A
120,000	CO-STI	0		0	1	0.00	0.50	N/A
120,000	HC-ST2500	6		0	1	6.0	100.0	N/A
120,000	HC-STI	6		0	1	6.0	100.0	N/A

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CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	90 US06
Running Change:		Test Number:	9003684
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A

Dynamometer Target Coefficients:	a = 33	b = .29	c = .0171
Dynamometer Set Coefficients:	a = 1	b = .03	c = .0164

Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
120,000	CO-US06	2.379		0	1	2.38	11.10	B5
4,000	CO-US06	2.379				2.38	8.00	N/A
4,000	HC-NM+NOX-US0	.0317				.032	0.140	N/A

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CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VWX VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	95 SC03
Running Change:		Test Number:	1061167
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST	Turbo/Supercharger:	NONE

Dynamometer Power A

Dynamometer Target Coefficients:	a = 33	b = .29	c = .0171
Dynamometer Set Coefficients:	a = 1	b = .03	c = .0164

Aged Emission Components: N/A

Exhaust Emission Related Components:

10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR
62	ELECTRONIC CONTROLS-DIGITAL		

Exhaust Emission

Useful Life	Emissions	Result	RAF	Additive DF	Multiplicative DF	Certification Level	Emission Standard	Tier
120,000	CO-SC03	.59		0	1	.59	3.70	B5
4,000	CO-SC03	.59				.59	2.70	N/A
4,000	HC-NM+NOX-SC0	.036				.036	0.200	N/A

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DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	24 FED FUEL REFUEL (ORVR) (BUTANE)
Running Change:		Test Number:	1061093
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST		
Dynamometer Power Absorption:		Turbo/Supercharger:	NONE
Dynamometer Target Coefficients:	a = 33 b = .29	c = .0171	
Dynamometer Set Coefficients:	a = 1 b = .03	c = .0164	
Aged Emission Components:	N/A		

Exhaust Emission Related Component					
	10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2	
	41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR	
	62	ELECTRONIC CONTROLS-DIGITAL			

Evaporative Emission

Useful Life	Emissions	Result	Additive DF	Muliplicative DF	Certification Level	Emission Standard	Tier
150,000	HC-ORVR	.008	0	1	.008	0.200	C2

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DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	1	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	CARB Phase II Gasoline	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	27 CA FUEL 2 DAY EVAP (BUTANE LOAD)
Running Change:		Test Number:	1061094
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST		
Dynamometer Power Absorption:		Turbo/Supercharger:	NONE
Dynamometer Target Coefficients:	a = 33 b = .29	c = .0171	
Dynamometer Set Coefficients:	a = 1 b = .03	c = .0164	
Aged Emission Components:	N/A		

Exhaust Emission Related Component					
	10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2	
	41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR	
	62	ELECTRONIC CONTROLS-DIGITAL			

Evaporative Emission

Useful Life	Emissions	Result	Additive DF	Muliplicative DF	Certification Level	Emission Standard	Tier
150,000	HC-TEV-2D	.39	.014	1	.404	0.650	C2

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EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	1	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	CARB Phase II Gasoline	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	38 CA FUEL 3 DAY EVAP (BUTANE LOAD)
Running Change:		Test Number:	1061095
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	CALIFORNIA
Catalyst:	3-WAY CATALYST		
Dynamometer Power Absorption:		Turbo/Supercharger:	NONE
Dynamometer Target Coefficients:	a = 33 b = .29 c = .0171		
Dynamometer Set Coefficients:	a = 1 b = .03 c = .0164		
Aged Emission Components:	N/A		

Exhaust Emission Related Component					
	10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2	
	41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR	
	62	ELECTRONIC CONTROLS-DIGITAL			

Evaporative Emission

Useful Life	Emissions	Result	Additive DF	Muliplicative DF	Certification Level	Emission Standard	Tier
150,000	HC-RL	0	0	1	0.000	0.050	C2
150,000	HC-TEV-3D	.24	.014	1	.254	0.500	C2

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DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	0	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	TIER 2 UNLEADED	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	24 FED FUEL REFUEL (ORVR) (BUTANE)
Running Change:		Test Number:	1061093
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST		
Dynamometer Power Absorption:		Turbo/Supercharger:	NONE
Dynamometer Target Coefficients:	a = 33 b = .29 c = .0171		
Dynamometer Set Coefficients:	a = 1 b = .03 c = .0164		
Aged Emission Components:	N/A		

Exhaust Emission Related Component				
10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2	
41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR	
62	ELECTRONIC CONTROLS-DIGITAL			

Evaporative Emission

Useful Life	Emissions	Result	Additive DF	Muliplicative DF	Certification Level	Emission Standard	Tier
120,000	HC-ORVR	.008	0	1	.008	0.200	T2

Date: 18-FEB-05 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
Time: 05:10:29 PM SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	1	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	CARB Phase II Gasoline	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	27 CA FUEL 2 DAY EVAP (BUTANE LOAD)
Running Change:		Test Number:	1061094
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST		
Dynamometer Power Absorption:		Turbo/Supercharger:	NONE
Dynamometer Target Coefficients:	a = 33 b = .29 c = .0171		
Dynamometer Set Coefficients:	a = 1 b = .03 c = .0164		
Aged Emission Components:	N/A		

Exhaust Emission Related Component					
	10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2	
	41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR	
	62	ELECTRONIC CONTROLS-DIGITAL			

Evaporative Emission

Useful Life	Emissions	Result	Additive DF	Muliplicative DF	Certification Level	Emission Standard	Tier
120,000	HC-TEV-2D	.39	.011	1	.40	1.20	T2

Date: 18-FEB-05 CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
Time: 05:10:29 PM SUMMARY SHEET
DATABASE REPORT
EMISSION DATA VEHICLES

Model Year:	2005	Vehicle Manufacturer:	590 VOLKSWAGEN
Summary Sheet Version Number:	0	Engine Manufacturer:	VOLKSWAGEN
Summary Sheet Index Number:	590T2-06	Certificate Number:	590T2-06
Test Group:	5VWXV02.5253	Vehicle Sales Area:	CA CALIFORNIA
Engine System:	1		FA FEDERAL ALL ALTITUDE
Evaporative/Refueling Family:	5VWXR0110238		
Evaporative System:	1		

Vehicle ID:	351 750 101/05	Transmission:	26 L6
Vehicle Configuration:	1	Engine Code:	BGP
Carline Name:	JETTA	Axle Ratio:	3.5
Fuel:	CARB Phase II Gasoline	N/V Ratio:	32.7
Displacement:	2480.0 CC	Compression Ratio:	9.5
Rated HP:	150	High Altitude:	
Test Weight:	3625	Test Procedure Code:	38 CA FUEL 3 DAY EVAP (BUTANE LOAD)
Running Change:		Test Number:	1061095
Fuel System:	ELECTRIC MPI - SEQUENTIAL	Test Sales Area:	FEDERAL ALL ALTITUDE
Catalyst:	3-WAY CATALYST		
Dynamometer Power Absorption:		Turbo/Supercharger:	NONE
Dynamometer Target Coefficients:	a = 33 b = .29	c = .0171	
Dynamometer Set Coefficients:	a = 1 b = .03	c = .0164	
Aged Emission Components:	N/A		

Exhaust Emission Related Component					
	10	AIR INJECTION PUMP	15	THREE-WAY CATALYST HEATED O2	
	41	MULTIPLE POINT FUEL INJECTION	60	DETONATION SENSOR	
	62	ELECTRONIC CONTROLS-DIGITAL			

Evaporative Emission

Useful Life	Emissions	Result	Additive DF	Muliplicative DF	Certification Level	Emission Standard	Tier
120,000	HC-RL	0	0	1	0.000	0.050	T2
120,000	HC-TEV-3D	.24	.011	1	.251	0.950	T2

Date: 18-FEB-05
Time: 05:10:29 PM

CERTIFICATION AND FUEL ECONOMY INFORMATION SYSTEM (CFEIS)
SUMMARY SHEET
DATABASE REPORT
VEHICLES COVERED BY CERTIFICATE

Summary Sheet Version Number: 0
Summary Sheet Index Number: 590T2-06
Test Group: 5VWXV02.5253
Evaporative/Refueling Family: 5VWXR0110238

Vehicle Manufacturer: 590 VOLKSWAGEN
Engine Manufacturer: VWX VOLKSWAGEN
Engine System: 1
Evaporative System: 1

Division	Carline	Sales Area Code and Description
VOLKSWAGEN	221 JETTA	CA CALIFORNIA
VOLKSWAGEN	221 JETTA	FA FEDERAL ALL ALTITUDE

8. Emission Testing Waiver Statements

Please refer to Section 8 of the Common Sections Binder for the complete text of these statements.

High Altitude Exhaust Emissions
High Altitude EVAP/Refueling Emissions
Spitback
Particulate Matter
Certification Short Test
OBD Compliance
Leak Free Exhaust System
Formaldehyde Compliance

9.0 OBD System Description

9.1 General Description

Please refer to Common Section

9.2 Summary Table

Please refer to Confidential Section

9.3 California Air Resources Board OBD System Approval Letter.

11. Auxiliary Emission Control Devices (AECD) Descriptions

Control Device Configuration	Parameters Sensed	Parameters Controlled	Justification
cooling water thermostat	coolant temperature	coolant temperature	A
temperature sensor	coolant temperature	actuation of enrichment characteristic and coolant fan	A
pressure regulator	primary fuel pressure	primary fuel pressure	A
throttle valve position sensor	angel of throttle valve position	actuation of idle speed control, coasting fuel shut off, engine rpm limiting and full-load enrichment	A
knock sensor	engine knocking	ignition timing	A

Justification:
A: under all normal driving condition
B:
C:

Section 12 Pg. 1	Vehicles Covered by Certificate	Engine Code	R.CH-No.:	Revision Date
Part 1/Test Group	5VWXV02.5253	all		

List of Certified Vehicles

Dur. Group	5VWXGPGNN253
Test Group	5VWXV02.5253
Evap Family	5VWR0110238
Emission Control System:	SFI/TWC/AIR/HO2S(2)/ORVR

Engine Displacement:	2.5 liter
Valves / Cylinder:	4
Sales Area:	50 States
MMS [1]:	ME 7.x
SIL:	n.a.

Carline / Engine Code	Model	Engine Code Characteristic				HP @RPM	Torque @RPM	Trans. / OD	ETW	Curb Weight [lbs]	Fuel Tank Capacity [l]	Canister working capacity [g]	Tire size	N/V Ratio	TCDT [sec.]
		Cat. Code	Com-pression ratio	Idle [rpm]	TC Index										
Jetta/ BGP		MLK X5	9.5 - 0.3	680± 50	n.a.	150 @5000	170 @3750	L6	3625	3285	55	110	205/55 R16	32.71	18.45
Jetta/ BGP		MLK X5	9.5 - 0.3	680± 50	n.a.	150 @5000	170 @3750	M5	3500	3230	55	110	205/55 R16	42.46	18.77

* Use J1930 Abbreviations

1) - Motor management system

Section 12 Pg. 2	Vehicles Covered by Certificate	Engine Code	R.CH-No.:	Revision Date
Part 1/Test Group	5VWXV02.5253	all		

Transmission Code	Transmission Code Characteristic												
	Basic drivetrain layout	Transmission Type / OD #	Lock-Up rpm		Gearbox Ratios								
			Gear	min/max	Axle	Gear 1	Gear 2	Gear 3	Gear 4	Gear 5	Gear 6	N/V Ratio	Tire Size
HFU	2WD	L6	3/4/5/6	2000-4570	3.504	4.044	2.371	1.556	1.159	0.852	0.672	32.71	205/55 R 16
HGR	2WD	M5	-	-	3.647	3.778	2.118	1.360	1.034	0.838	-	42.46	205/55 R 16

13.01 Test Group Projected Sales

Please Refer to Section 16 Confidential Information, of this test group

13.02 Compliance Plans

Refer to Section 16 Confidential Information, of the Common Sections Binder

14. Request for Certificate

14.01.00.00 Statement of Compliance

The Volkswagen Group states that any element of design, system, or emission control device installed on or incorporated in the Volkswagen Group's new motor vehicles or new motor vehicle engines for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of the Volkswagen Group's information and belief, cause the emission into the ambient air of pollutants in the operation of its motor vehicles or motor vehicle engines which cause or contribute to an unreasonable risk to public health or welfare except as specifically permitted by the standards prescribed under section 202 of the Clean Air Act. The Volkswagen Group further states that any element of design, system, or emission control device installed or incorporated in the Volkswagen Group's new motor vehicles or new motor vehicle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of the Volkswagen Group's information and belief, cause or contribute to an unreasonable risk to public safety.

The term pollutant means:

a. Diesel particulates
b. Nickel
c. MMT combustion products
d. Ammonia
e. Sulfates
f. Hydrogen sulfide
g. Hydrogen cyanide
h. Ruthenium combustion products
i. Nitrosamines

or any other pollutant which Volkswagen Group has identified which can reasonably be expected to be emitted from these vehicles.

All vehicles have been tested in accordance with good engineering practice to ascertain that such test vehicles meet the requirement of this section for the useful life of the vehicle.

The test vehicles with respect to which data are submitted are in all material respects as described in the application for certification, have been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the application for certification, they meet the requirement of such tests, and on the basis of such tests, they conform to the requirements of the regulations in 40 CFR, Part 86, Subpart S.

The vehicles for which certification is requested conform to the requirements in 86.1810-01 (a) and the description of tests performed to ascertain compliance with the general standards in 86.1810-01 (a) and the data derived from such tests are available.

The testing described under 86.1824-01 has been designed and conducted in accordance with good engineering practice to assure that the vehicles covered by a certificate issued under 86.1848-01 will meet the evaporative emission standards in 86.1811-01 for the useful life of the vehicle.

14.02. Durability Statement

Based on the Volkswagen Group's good engineering judgment, all the vehicles described in this Application for Certification comply with all applicable intermediate and full useful life standards.

15. Other Information

Revision Index for Test Group Only

Page No.	Date:	Comment:	R/C No.
Sec. 7 pg 2-22	02-18-05	Replaced Summary Sheets	-
			-
Cover page	03-04-05	Updated test numbers – EPA tests	-
Sec.17 pg 18	03-04-05	Update test results according EPA confirmatory test.	-
Sec.16.12 pg 3	12-05-05	Final Sales comment added	
Sec. 21 pg 4	11-30-05	Parts list updated	-
Sec. 21 pg 5	11-30-05	Parts list updated	-
Sec. 22 pg 2	12-05-05	Corrected typos	

VOLKSWAGEN

December 8, 2004

Engineering and
Environmental Office (EEO)
Mail Code EEO
3800 Hamlin Road
Auburn Hills, MI 48326
Tel. (248) 754-5000
Fax (248) 754-4207

Mr. David Good,
Vehicle Programs & Compliance Division
Office of Mobile Sources
U. S. Environmental Protection Agency
2000 Traverwood Dr.
Ann Arbor, Michigan 48105

Subject: 2005 Volkswagen Application for Certification

Dear Mr. Good,

We herewith submit the 2005 Volkswagen Part 1 Application for Certification for the following Test Group:

Test Group	Standards	Sales Area
5VWXV02.5253	Tier 2 BIN 5	Federal
	LEV II ULEV	California

Copies of the Certification Fee filing form and California OBD approval letter are contained in sections 15 and 16 of the included electronic application.

All vehicles within this test group comply with all applicable regulations contained in 40 CFR Part 86 and the compliance statements contained in sections 8 and 14.

This submission constitutes our final application and the request for issuance of a Certificate of Conformity.

If you should have any questions in regard to the information provided, please contact this office.

Sincerely,

Leonard W. Kata
VOLKSWAGEN OF AMERICA, INC.
Engineering and Environmental Office

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ANN ARBOR, MICHIGAN 48105
2005 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT OF 1990 ISSUED TO:

Office of Transportation and Air Quality

VOLKSWAGEN	590T2-06	12/08/2004	Merrylin Zaw-Mon	12/08/2004
Manufacturer Name	Certificate Number	Effective Date	Signed by Merrylin Zaw-Mon, Director Certification and Compliance Division	Issued Date

Test Group: 5VWXV02.5253 **Evaporative/Refueling Family:** 5VWXR0110238

Applicable Exhaust Emission Standards: Federal: Tier 2 Bin 5

Applicable Evaporative/Refueling Emission Standards: Federal Tier 2

Engine Displacement: 2.5 Liters

Exhaust Emission Test Fuel Type: TIER 2 UNLEADED

Full Useful Life Miles: Exhaust Emissions: 120,000 miles Evaporative/Refueling Emissions: 120,000 miles

Models Covered: VOLKSWAGEN: JETTA

Pursuant to section 206 of the Clean Air Act (42 U.S.C.7525) and 40 CFR Part 86, this certificate of conformity is hereby issued with respect to test vehicles which have been found to conform to the requirements of the regulations on Control of Air Pollution from New Motor Vehicles and New Motor Vehicle Engines (40 CFR Part 86) and which represent the new motor vehicle models listed above by test group and evaporative/refueling emission family, more fully described in the application of the above named manufacturer. Vehicles covered by this certificate have demonstrated compliance with the applicable emission standards as more fully described in the manufacturer's application. This certificate covers the above models, which are designed to meet the applicable emission standards specified in 40 CFR Part 86 at both high and low altitude as applicable.

EPA is issuing this certificate subject to the conditions and provisions of 40 CFR 86.1848(c). Based on the request of the manufacturer, EPA is issuing this certificate subject to the conditions and provisions of 40 CFR 86.1835(d).

This certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications that applied to those vehicles or engines described in the documentation required by 40 CFR Part 86 and which are produced during the 2005 model year production period stated on this certificate of the said manufacturer, as defined in 40 CFR Part 86.

Catalyst-equipped vehicles designed to be operated on gasoline or flexible fuel are equipped with an emission control device which the Administrator has determined will be significantly impaired by the use of leaded fuel. This certificate is issued subject to the conditions specified in 40 CFR 80.24. Catalyst-equipped vehicles designed to be operated on gasoline or flexible fuel, otherwise covered by this certificate, which are driven outside the United States, Canada, Mexico, Japan, Australia, Taiwan and the Bahama Islands will be presumed to have been operated on leaded fuel resulting in deactivation of the catalysts. If these vehicles are imported or offered for importation without retrofit of the catalyst, they will be considered not to be within the coverage of this certificate unless included in a catalyst control program operated by manufacturer or a United States Government Agency and approved by the Administrator.

In the case of completely assembled vehicles, this certificate of conformity covers only vehicles which are completely manufactured prior to January 1, 2006. Normally incompletely assembled vehicles (such as cab chassis) may be completed after this date, provided that the basic manufacturing (including installation of the emission control system) was completed prior to January 1, 2006. This certificate does not cover vehicles sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

Logged in 6-14-04 BD

VOLKSWAGEN

June 14, 2004

6/15/04
EPA review complete.
LSohacki

Engineering and
Environmental Office (EEO)
Mail Code EEO
3800 Hamlin Road
Auburn Hills, MI 48326
Tel. (248) 754-5000
Fax (248) 754-4207

Lynn Sohacki
U.S. Environmental Protection Agency
Office of Mobile Sources
Vehicle Programs and Compliance Division
National Vehicle and Fuel Emission Laboratory
2000 Traverwood Drive
Ann Arbor, Michigan 48105

Subject: Pre-Certification Submission of Onboard Refueling Vapor Recovery System Description

Dear Ms. Sohacki:

Volkswagen of America, Inc. herewith provides, on behalf of Volkswagen AG, a pre-certification description of an evaporative/refueling emission family that incorporates an onboard refueling vapor recovery (ORVR) system. This submission is provided in response to the updated information request described by the U.S. Environmental Protection Agency in their manufacturers guidance correspondence, VPCD-98-15 (LDV/LDT/SV/ICI) and CCD-00-10 (LDV/LDT/SV/ICI).

The system description applies to the following 2005 model year Volkswagen vehicles (a more complete breakdown by engine family is included in the enclosed exhibits):

Model Year	EVAP/Refueling Family	Vehicle Models
2005	5VWXR0110238	Jetta

Specific responses to the information requirements listed in Enclosure I of the manufacturer guidance correspondence are enclosed with this letter.

Please direct any questions that you may have to my attention. I can be reached by telephone at (248) 754-4224, FAX (248) 754-4207, or e-mail at robert.hart@vw.com.

Sincerely,

Robert A. Hart
VOLKSWAGEN OF AMERICA, INC.
Engineering and Environmental Office

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ►

To Bob Hart	From Lynn Sohacki
Dept./Agency	Phone #
Fax # 248) 754-4207	Fax #

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

EPA MVECP On-Highway Fee Filing Form EPA Form#:3520-29 OMB NO.2060-0104

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM

APPROVED FOR PAYMENT R.E. Thomas Sign. Richard Thomas Acct. P.O. # 4500146837

Applicant's Corporate Name Volkswagen of America, Inc.

Address 3800 Hamlin Road

City/State/Zip Code/Country Auburn Hills, Michigan 48326 U.S.A

On-Highway Certification Request Type (check one)

X LDV/LDT FEDERAL ($33,883)*	LDV/LDT CALIF-ONLY ($16,944)
HDE/HDV ($21,578)	HDE CALIF-ONLY ($826)
HDV/EVAP-ONLY ($826)	MOTORCYCLE ($2414)
*includes MDPV & complete SI HDVs	LD ICI ($8387)*

EPA standard engine family or test group name: 5VWXV02.5253

Amount paid (U.S. Funds Only): $ 33,883
(Make checks payable to: *"U.S. ENVIRONMENTAL PROTECTION AGENCY"*)

Enter check number, "EFT/WIRE" or "EFT/ACH"

Indicate in the EFT message field:
Wire: Location Code# "68-01-0099", "EPA MVECP Fee", ABA# "021030004"
ACH: RDFI-US BANK, Routing Transit# "081000210", Account#: 1001091030, Account Name: EPA
(Include in field: engine family/test group name, corporate name, and MVECP Fees)

Reduced Fee Section

Is the reduced fee calculation as described in 40 CFR 85.2406 (minimum payment $750) attached? ☐

If an Independent Commercial Importer (ICI), list the VIN of imported vehicles/engines below:

(If additional VINs, please put on separate page)

Company Representative: Richard Thomas Signature: Richard Thomas

Title: Certification Strategist Phone/Fax: (248)754-4213/(248)754-4207 Date: 11/01/04

Send all **Fee Filing Forms** for **checks, wires and ACH** payments by mail to:

Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 954472
St. Louis, MO 63195-4472

See instruction page for sending checks and forms by private mail service (e.g., Federal Express). Transmit EFT/Wire payments to the New York Federal Reserve Bank.

Current Form Expires: 1/1/06

VOLKSWAGEN

Engineering and
Environmental Office (EEO)
Mail Code EEO
3800 Hamlin Road
Auburn Hills, MI 48326
Tel. (248) 754-5000
Fax (248) 754-4207

December 9, 2004

Mr. Allen Lyons, Division Chief
Mobile Source Control Division
State of California
Air Resources Board Laboratory
9528 Telstar Avenue
El Monte, California 91731
Attn: On-Road Certification and Audit Section

Subject: Request for Executive Order for MY 2005 Volkswagen Test Group

Dear Mr. Lyons:

We herewith submit the model year 2005 Part 1 Application for Certification for the following Volkswagen Test Group:

Test Group	Standards	Sales Area
5VWXV02.5253	BIN 5	Federal
	LEV II ULEV	California

The EPA Certificate of Conformity is located in Section 15 of the application.

This submission constitutes our final application and the request for issuance of the Executive Order.

If you have any questions with regard to this information please contact our office in Auburn Hills at (248) 754-4215 or (248) 754-4224.

Sincerely,

Leonard W. Kata
VOLKSWAGEN OF AMERICA, INC.
Engineering and Environmental Office

Enclosure

California Environmental Protection Agency AIR RESOURCES BOARD	VOLKSWAGEN AG	EXECUTIVE ORDER A-007-0246 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED:
That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	TEST GROUP	VEHICLE TYPE	EXHAUST EMISSION STANDARD CATEGORY	USEFUL LIFE (miles)		INTERMEDIATE IN-USE COMPLIANCE (*=N/A or full in-use; A/E=exh. / evap. Intermediate in-use)		FUEL TYPE
				EXH / ORVR	EVAP	EXH	EVAP	
2005	5VWXV02.5253	Passenger Car	"LEV II" Ultra Low Emission Vehicle (LEV II ULEV)	120K	150K	A	E	Gasoline (Tier 2 Unleaded)

No.	ECS & SPECIAL FEATURES	EVAPORATIVE FAMILY (EVAF)	DISPLACEMENT (L)
1	TWC, HO2S(2), SFI, AIR, OBD(F)	5VWXR0110238	2.5
*	*	*	
*	*	*	
*	*	*	

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations.

BE IT FURTHER RESOLVED:
That the exhaust and the evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50^0 Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's "NMOG Fleet Average" (PC or LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

BE IT FURTHER RESOLVED:
That for the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this 20TH day of December 2004.

Allen Lyons, Chief
Mobile Source Operations Division

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

(For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

NMOG FLEET AVERAGE [g/mi]		NMOG @ RAF=* CH4 RAF = *		NMOG or NMHC STD [g/mi]	CH4=methane; NMOG=non-CH4 organic gas; NMHC=non-CH4 hydrocarbon; CO=carbon monoxide; NOx=oxides of nitrogen; HCHO=formaldehyde; PM=particulate matter; RAF=reactivity adjustment factor; 2/3 D [g/test]=2/3 day diurnal+ hot-soak; RL [g/mi]=running loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram mi=mile; K=1000 miles; F=degrees Fahrenheit; SFTP=supplemental federal test procedure									
CERT	STD	NMOG CERT [g/mi]	NMHC CERT [g/mi]		CO [g/mi]		NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]	
					CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
0.043	0.049													
	@ 50K	0.009	*	0.040	0.5	1.7	0.02	0.05	*	8.	*	*	0.002	0.07
	@ UL	0.010	*	0.055	0.6	2.1	0.02	0.07	*	11.	*	*	0.004	0.09
	@ 50°F & 4K	0.034	*	0.080	0.6	1.7	0.01	0.05	*	16.	*	*	*	*

CO [g/mi] @ 20°F & 50K			NMHC+NOx [g/mi] (composite)		CO [g/mi] (composite)		NMHC+NOx [g/mi] [US06]		CO [g/mi] [US06]		NMHC+NOx [g/mi] [SC03]		CO [g/mi] [SC03]	
			CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	1.8	SFTP @ 4000 miles	*	*	*	*	0.06	0.14	2.5	8.0	0.04	0.20	0.6	2.7
STD	10.0	SFTP @ * miles	*	*	*	*	*	*	*	*	*	*	*	*

Evaporative Family	3-Days Diurnal + Hot Soak (grams/test) @ UL		2-Days Diurnal + Hot Soak (grams/test) @ UL		Running Loss (grams/mile) @ UL		On-Board Refueling Vapor Recovery (grams/gallon) @ UL	
	CERT	STD	CERT	STD	CERT	STD	CERT	STD
5VWXR0110238	0.25	0.50	0.40	0.65	0.000	0.05	0.01	0.20
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*

* = not applicable; **UL**=useful life; **PC**=passenger car; **LDT**=light-duty truck; **MDV**=medium-duty vehicle; **ECS**= Emission Control System; **STD**= Standard; **CERT**= Certification; **LVW**=loaded vehicle weight; **ALVW**=adjusted LVW; **LEV**=low emission vehicle; **TLEV**=transitional LEV; **ULEV**=ultra LEV; **SULEV**=super ULEV; **TWC**=3-way catalyst; **ADSTWC**=adsorbing TWC; **WU**=warm-up catalyst; **OC**=oxidizing catalyst; **O2S**=oxygen sensor; **HO2S**=heated O2S; **AFS/HAFS**=air- fuel ratio sensor / heated AFS; **EGR**=exhaust gas recirculation; **AIR**=secondary air injection; **PAIR**=pulsed AIR; **MFI**= multiport fuel injection; **SFI**=sequential MFI; **TBI**=throttle body injection; **DGI**=direct gasoline fuel injection; **TC/SC**= turbo/super charger; **CAC**=charge air cooler; **OBD (F)/(P)**=full/partial on-board diagnostic; **DOR**=direct ozone reducing; prefix **2**=parallel; **(2)** suffix=series; **CNG/LNG**= compressed/liquefied natural gas; **LPG**=liquefied petroleum gas; **E85**="85%" Ethanol Fuel;

2005 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	INTERMEDIATE IN-USE COMPLIANCE (*=N/A or full in-use; A/E=exh. / evap. Intermediate in-use)		PHASE-IN STD.	OBD II
					EXH	EVAP		
VOLKSWAGEN	JETTA	5VWXR0110238	1	2.5	A	E	SFTP	Full

17.0 California ARB Information

Please refer to the Common Section for the following information

Production Vehicle same as Test Vehicle Statement

Labeling Durability Statement

Drivability Statement

17.02. Fill Pipe Specifications

Please refer to common section.

17.03 Evaporative Emission Deterioration Program

Please refer to common section.

17.04 **I/M Test Data**

I/M Test Data (V.I.D. 351 750 101/05)

		HIGH RPM TEST				IDLE RPM TEST			
Date	System Miles	Oil Temp.	actual RPM	HC C6H14	CO	Oil Temp.	actual RPM	HC C6H14	CO
	mi	°F	1/min	ppm	% by vol.	°F	1/min	ppm	% by vol.
08-17-04	4059	220	2,500	0	0.0	223	680	0	0.0
09-23-04	4261	224	2,500	0	0.0	224	680	0	0.0
10-21-04	4301	223	2,500	0	0.0	220	680	0	0.0
Standards:				220	1.2			100	1.0

17.04 **I/M Test Data**

I/M Test Data (V.I.D. 351 750 183/05)

		HIGH RPM TEST				IDLE RPM TEST			
Date	System Miles	Oil Temp.	actual RPM	HC C6H14	CO	Oil Temp.	actual RPM	HC C6H14	CO
	mi	°F	1/min	ppm	% by vol.	°F	1/min	ppm	% by vol.
10-06-04	4060	222	2,500	0	0.0	224	680	0	0.0
10-20-04	4174	224	2,500	0	0.0	224	680	0	0.0
Standards:				220	1.2			100	1.0

17.06. Evaporative Emission Deterioration Program

Bench Test Logs (5**VWXR0110238**)

Test procedure according to CARB Component Bench Test Requirements for Evaporative Emission Control Systems (CARB Mail-Out #93-23).

Volkswagen AG Component Bench Test with CARB approval letter, dated July 14, 1994.

Test results after 4,000 miles:

EVAP Comp. Set	Running Loss	Hot Soak **plus** 24-hr diurnal highest
	g/mi	g/test
1	0.000	0.017
2	0.000	0.017
3	0.000	0.022
average	0.000	0.019

Test results after 150,000 miles:

EVAP Comp. Set	Running Loss	Hot Soak **plus** 24-hr diurnal highest
	g/mi	g/test
1	0.001	0.035
2	0.000	0.063
3	0.000	0.044
average	0.000	0.047

Deterioration factors bench testing:

	Running Loss	Hot Soak **plus** 24-hr diurnal highest
150k mi	0.000	0.047
- 4k mi	0.000	0.019
Result:	0.000	0.028
120 k mi	$DF\_BT_{\mathbf{RL}} = 0.000$	$DF\_BT_{\mathbf{HSDI}} = 0.022$
150 k mi	$DF\_BT_{\mathbf{RL}} = 0.000$	$DF\_BT_{\mathbf{HSDI}} = 0.028$

17.06. **Evaporative Emission Deterioration Program (continued)**

Bench Test Logs ORVR (5**VWXR0110238**)

Test procedure according to CARB Component Bench Test Requirements for Evaporative Emission Control Systems (CARB Mail-Out #93-23).

Volkswagen AG Component Bench Test with CARB approval letter, dated May 8,1997.

Test results after 4,000 miles:

ORVR Comp. Set	Refueling Emissions
	g HC/gal
1	0.008
2	0.006
3	0.006
average	0.007

Test results after 150,000 miles:

ORVR Comp. Set	Refueling Emissions
	g HC/gal
1	0.008
2	0.009
3	0.008
average	0.008

Deterioration factors bench testing:

	Refueling Emissions g HC/gal
150k mi	0.008
- 4k mi	0.007
Result:	0.001
120 k mi	DF_BT**ORVR**.0.0008
150 k mi	DF_BT**ORVR**.0.0010

17.06. **Evaporative Emission Deterioration Program (continued)**

Deterioration Factor Calculation Summary (5**VWXR0110238**)

Deterioration Factor Mileage Accumulation (DF_MA)

Vehicle I.D.: 357 5 0068/05

Interpolated values:

	Running Loss	Hot Soak **plus** 24-hr diurnal highest (2 days VT-SHED)	Hot Soak **plus** 24-hr diurnal highest (3 days VT-SHED)
miles	g/mi	g/test	g/test
4000	0.0004	0.2400	0.3554
120000	0.0000	0.2400	0.2004
150000	0.0000	0.2400	0.1607

Deterioration factors mileage accumulation:

	Running Loss	Hot Soak **plus** 24-hr diurnal highest (2 days)	Hot Soak **plus** 24-hr diurnal highest (3 days)
120k mi	0.0000	0.2400	0.2004
- 4k mi	0.0004	0.2400	0.3554
Result:	-0.0004	0.0000	-0.155
DF 120k mi	**DF_MA_{RL} = 0.000**	**$DF\_MA_{HSDI(2)}$ = 0.000**	**$DF\_MA_{HSDI(3)}$ = 0.000**
150k mi	0.0000	0.2400	0.1607
- 4k mi	0.0004	0.2400	0.3554
Result:	-0.0004	0.0000	-0.1947
DF 150k mi	**DF_MA_{RL} = 0.000**	**$DF\_MA_{HSDI(2)}$ = 0.000**	**$DF\_MA_{HSDI(3)}$ = 0.000**

17.06. **Evaporative Emission Deterioration Program (continued)**

Deterioration Factor Calculation Summary (5**VWXR0110238**)

Total Evaporative Deterioration Factor for **120k mi**

Deterioration Factor
Running Loss:

$DF_{\mathbf{RL}} = 0.5 \times (DF\_BT_{\mathbf{RL}} + DF\_MA_{\mathbf{RL}})$

$= 0.5 \times (0.000 + 0.000)$

$= 0.0000$

120k mi $DF_{\mathbf{RL}} = 0.000$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (2 days VT-SHED):

$DF_{\mathbf{HSDI(2)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(2)}})$

$= 0.5 \times (0.022 + 0.000)$

$= 0.0110$

120k mi $DF_{\mathbf{HSDI(2)}} = 0.011$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (3 days VT-SHED):

$DF_{\mathbf{HSDI(3)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(3)}})$

$= 0.5 \times (0.022 + 0.000)$

$= 0.0110$

120k mi $DF_{\mathbf{HSDI(3)}} = 0.011$

Deterioration Factor
ORVR: ($DF\_MA_{\mathbf{ORVR}}$ = n.a. and therefore = 0.000)

$DF_{\mathbf{ORVR}} = 0.5 \times (DF\_BT_{\mathbf{ORVR}} + DF\_MA_{\mathbf{ORVR}})$

$= 0.5 \times (0.0008 + 0.000)$

$= 0.0004$

120k mi $DF_{\mathbf{ORVR}} = 0.000$

17.06. **Evaporative Emission Deterioration Program (continued)**

Deterioration Factor Calculation Summary (5**VWXR0110238**)

Total Evaporative Deterioration Factor for **150k mi**

Deterioration Factor
Running Loss:

$DF_{\mathbf{RL}} = 0.5 \times (DF\_BT_{\mathbf{RL}} + DF\_MA_{\mathbf{RL}})$

$= 0.5 \times (0.000 + 0.000)$

$= 0.0000$

150k mi $DF_{\mathbf{RL}} = 0.000$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (2 days VT-SHED):

$DF_{\mathbf{HSDI(2)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(2)}})$

$= 0.5 \times (0.028 + 0.000)$

$= 0.0140$

150k mi $DF_{\mathbf{HSDI(2)}} = 0.014$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (3 days VT-SHED):

$DF_{\mathbf{HSDI(3)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(3)}})$

$= 0.5 \times (0.028 + 0.000)$

$= 0.0140$

150k mi $DF_{\mathbf{HSDI(3)}} = 0.014$

Deterioration Factor
ORVR: ($DF\_MA_{\mathbf{ORVR}}$ **= n.a. and therefore = 0.000)**

$DF_{\mathbf{ORVR}} = 0.5 \times (DF\_BT_{\mathbf{ORVR}} + DF\_MA_{\mathbf{ORVR}})$

$= 0.5 \times (0.0010 + 0.000)$

$= 0.0005$

150k mi $DF_{\mathbf{ORVR}} = 0.000$

17.06. Evaporative Emission Deterioration Program

Bench Test Logs (**5VWXR0110236**)

Test procedure according to CARB Component Bench Test Requirements for Evaporative Emission Control Systems (CARB Mail-Out #93-23).

Volkswagen AG Component Bench Test with CARB approval letter, dated July 14, 1994.

Test results after 4,000 miles:

EVAP Comp. Set	Running Loss	Hot Soak **plus** 24-hr diurnal highest
	g/mi	g/test
1	0.000	0.054
2	0.000	0.058
3	0.000	0.057
average	0.000	0.056

Test results after 150,000 miles:

EVAP Comp. Set	Running Loss	Hot Soak **plus** 24-hr diurnal highest
	g/mi	g/test
1	0.001	0.102
2	0.001	0.102
3	0.001	0.097
average	0.001	0.1

Deterioration factors bench testing:

	Running Loss	Hot Soak **plus** 24-hr diurnal highest
150k mi	0.001	0.100
- 4k mi	0.000	0.056
Result:	0.001	0.044
120 k mi	$DF\_BT_{\mathbf{RL}} = 0.001$	$DF\_BT_{\mathbf{HSDI}} = 0.036$
150 k mi	$DF\_BT_{\mathbf{RL}} = 0.002$	$DF\_BT_{\mathbf{HSDI}} = 0.044$

17.06. **Evaporative Emission Deterioration Program (continued)**

Bench Test Logs ORVR (**5VWXR0110236**)

Test procedure according to CARB Component Bench Test Requirements for Evaporative Emission Control Systems (CARB Mail-Out #93-23).

Volkswagen AG Component Bench Test with CARB approval letter, dated May 8,1997.

Test results after 4,000 miles:

ORVR Comp. Set	Refueling Emissions	Refueling Emissions
	g HC/Liter	g HC/gal
1	0.009	0.034
2	0.008	0.030
3	0.011	0.042
average	0.0093	0.035

Test results after 150,000 miles:

ORVR Comp. Set	Refueling Emissions	Refueling Emissions
	g HC/Liter	g HC/gal
1	0.013	0.050
2	0.009	0.034
3	0.006	0.021
average	0.0092	0.035

Deterioration factors bench testing:

	Refueling Emissions g HC/Liter	Refueling Emissions g HC/gal
150k mi	0.0092	0.035
- 4k mi	0.0093	0.035
Result:	-0.0001	0.000
120 k mi		DF_BT**ORVR**.0.0000
150 k mi		DF_BT**ORVR**.0.0000

17.06. **Evaporative Emission Deterioration Program (continued)**

Deterioration Factor Calculation Summary (5**VWXR0110236**)

Deterioration Factor Mileage Accumulation (DF_MA)

Vehicle I.D.: 3422 2 0009/04

Interpolated values:

	Running Loss	Hot Soak **plus** 24-hr diurnal highest (2 days VT-SHED)	Hot Soak **plus** 24-hr diurnal highest (3 days VT-SHED)
miles	g/mi	g/test	g/test
4000	0.0002	0.4400	0.400022
120000	0.0002	0.4400	0.390010
150000	0.0003	0.4400	0.38449

Deterioration factors mileage accumulation:

	Running Loss	Hot Soak **plus** 24-hr diurnal highest (2 days)	Hot Soak **plus** 24-hr diurnal highest (3 days)
120k mi	0.0002	0.4400	0.390010
- 4k mi	0.0002	0.4400	0.400022
Result:	- 0.0000	0.0000	-0.010012
DF 120k mi	**DF_MA_{RL} = 0.000**	**$DF\_MA_{HSDI(2)}$ = 0.000**	**$DF\_MA_{HSDI(3)}$ = 0.000**
150k mi	0.0003	0.4400	0.387449
- 4k mi	0.0002	0.4400	0.400022
Result:	0.0001	0.0000	-0.012573
DF 150k mi	**DF_MA_{RL} = 0.000**	**$DF\_MA_{HSDI(2)}$ = 0.000**	**$DF\_MA_{HSDI(3)}$ = 0.000**

17.06. **Evaporative Emission Deterioration Program (continued)**

Deterioration Factor Calculation Summary (5VWXR0110236)

Total Evaporative Deterioration Factor for **120k mi**

Deterioration Factor
Running Loss:

$DF_{\mathbf{RL}} = 0.5 \times (DF\_BT_{\mathbf{RL}} + DF\_MA_{\mathbf{RL}})$

$= 0.5 \times (0.001 + 0.000)$

$= 0.0005$

120k mi $DF_{\mathbf{RL}} = 0.001$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (2 days VT-SHED):

$DF_{\mathbf{HSDI(2)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(2)}})$

$= 0.5 \times (0.036 + 0.000)$

$= 0.0180$

120k mi $DF_{\mathbf{HSDI(2)}} = 0.018$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (3 days VT-SHED):

$DF_{\mathbf{HSDI(3)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(3)}})$

$= 0.5 \times (0.036 + 0.000)$

$= 0.0180$

120k mi $DF_{\mathbf{HSDI(3)}} = 0.018$

Deterioration Factor
ORVR: ($DF\_MA_{\mathbf{ORVR}}$ = n.a. and therefore = 0.000)

$DF_{\mathbf{ORVR}} = 0.5 \times (DF\_BT_{\mathbf{ORVR}} + DF\_MA_{\mathbf{ORVR}})$

$= 0.5 \times (0.000 + 0.000)$

$= 0.0000$

120k mi $DF_{\mathbf{ORVR}} = 0.000$

17.06. **Evaporative Emission Deterioration Program (continued)**

Deterioration Factor Calculation Summary (5VWXR0110236)

Total Evaporative Deterioration Factor for **150k mi**

Deterioration Factor
Running Loss:

$DF_{\mathbf{RL}} = 0.5 \times (DF\_BT_{\mathbf{RL}} + DF\_MA_{\mathbf{RL}})$

$= 0.5 \times (0.002 + 0.000)$

$= 0.001$

150k mi $DF_{\mathbf{RL}} = 0.001$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (2 days VT-SHED):

$DF_{\mathbf{HSDI(2)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(2)}})$

$= 0.5 \times (0.044 + 0.000)$

$= 0.0220$

150k mi $DF_{\mathbf{HSDI(2)}} = 0.022$

Deterioration Factor
Hot Soak plus 24-hr diurnal highest (3 days VT-SHED):

$DF_{\mathbf{HSDI(3)}} = 0.5 \times (DF\_BT_{\mathbf{HSDI}} + DF\_MA_{\mathbf{HSDI(3)}})$

$= 0.5 \times (0.044 + 0.000)$

$= 0.0220$

150k mi $DF_{\mathbf{HSDI(3)}} = 0.022$

Deterioration Factor
ORVR: ($DF\_MA_{\mathbf{ORVR}}$ = n.a. and therefore = 0.000)

$DF_{\mathbf{ORVR}} = 0.5 \times (DF\_BT_{\mathbf{ORVR}} + DF\_MA_{\mathbf{ORVR}})$

$= 0.5 \times (0.000 + 0.000)$

$= 0.0000$

150k mi $DF_{\mathbf{ORVR}} = 0.000$

17.07. Assembly line NMOG/NMHC Factor

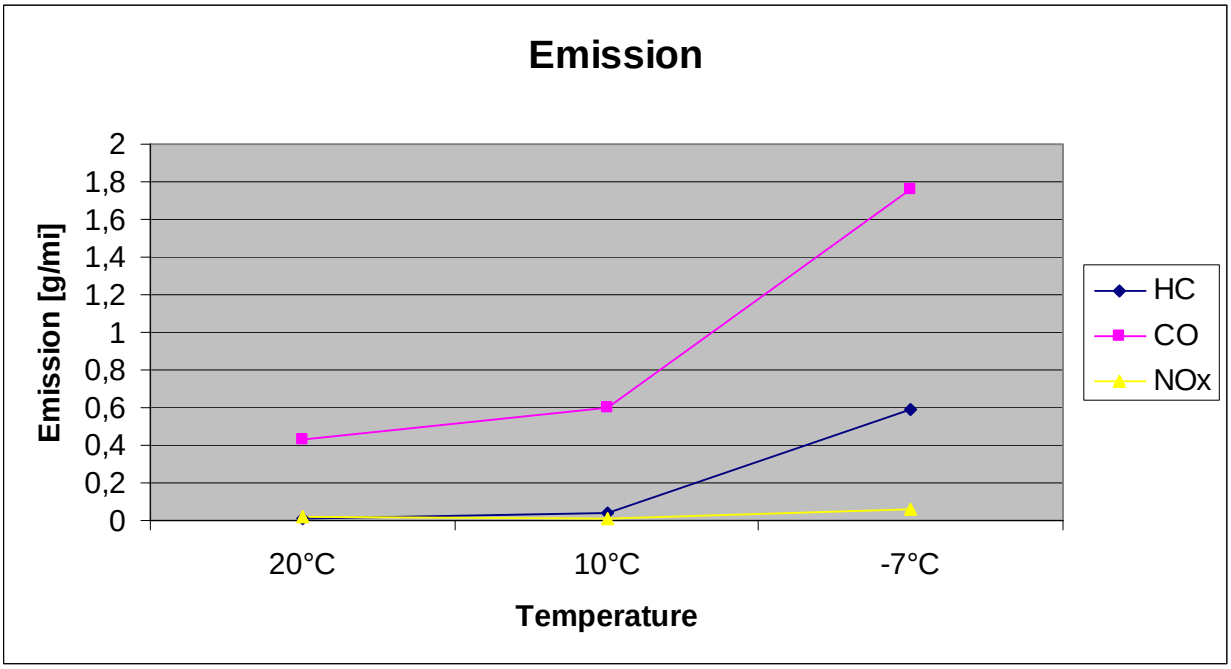
Factor is determined to NMOG/NMHC = 1.04 by regulation. Compliance with HCHO standard is stated.

17.08 ASM / IM Compliance Statement

Certification Compliance with the Acceleration Simulation Mode (ASM) Loaded-Mode Inspection and Maintenance (I/M) Standards

Based on engineering evaluation and in accordance with MAC No. 99-05 Volkswagen and Audi state, that the vehicles covered by this engine family comply with the applicable ASM I/M standards for 2001 model-year passenger cars.

17.09 Continuity of Emissions (FTP 75)



Section 17	Pg. 17	California ARB Information	Engine Code:	R.CH-No.:	Revision Date:
Part 1	Test Group: 5VWXV02.5253		all		

E.O.# _____

2005 AIR RESOURCES BOARD SUPPLEMENTAL CERTIFICATION SUMMARY SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDUM-DUTY VEHICLES

Manufacturer: VOLKSWAGEN Durability Group: 5VWXGPGNN253 Test Group: 5VWXV02.5253

Evap Fam: 1) 5VWXR0110238 2) _____ 3) _____

Evaporative Emission T.P.: CA ____ Fed. X R/L Test Proc: SHED___ Pt Source X

Zero-Evap NMOG Credit: Yes___ No X

Exh Std: CA Tier-1____ TLEV____ LEV ___ ULEV X___ SULEV___ ; US EPA: Tier 2/BIN 5

DDV Basis: 100K___ 120K X 150K___ SFTP: Yes X No____

Veh Type: LEV1: PC___ LDT1___ LDT2___ MDV1___ MDV2____ MDV3___ MDV4___

LEV2: PC/LDT X MDV GVWR <= 10K____ MDV GVWR > 10K____

Fuel Type(s): Dedicated X Flex-Fuel___ Dual-Fuel___ Bi-Fuel___ Gasoline X Diesel___

CNG___ LNG___ LPG___ M85___ Other (specify)_____

Exh Emiss Test Fuel(s): Indo X CBG___ CNG___ LPG___ M85___ Other (specify)_____

Diesel: 13 CCR 2282___ 40 CFR 86.113-90___ 40 CFR 86.113-94___

Durability Service Accum: Whole Veh Full Mi___ Whole Veh Accel Mi X Bench___ Other___

EDV Std Compliance: DF X Aged Parts___ Other ___

Exh ECS (use abbreviations per SAE J1930): ECS 1) SFI/TWC/HO2S(2)/AIR/OBDII

ECS 2) _____

EGR Type: n.a. AIR Type: electric pump

Displ. (L): 2.5 Engine Configuration: 5 / in line Valves per Cylinder: 4

Rated HP: 1) 150 @ 5000 RPM

Engine: Front X Mid. ___ Rear ___ Drive: FWD X RWD ___ 4WD-FT ___ 4WD-PT____

All Eng Codes in Test Group: **CA**____ **49S**_____ **50S** X___

NMOG Test Procedure: Std___ Equiv X RAF: NMOG n.a. CH4 n.a.

Mfr's NMOG Fleet Avg (g/mi): ____ Ratio(NMOG w/o RAF): NMOG/NMHC 1.04 HCHO/NMHC n.a.

OBD2 Compliance: Full X Partial_____ Partial w/o fines____

Test Veh.:

DDV (c/a EVAP DF)		EDV (c/a EVAP,ORVR)		DDV		EDV	
MY	ID	MY	ID	MY	ID	MY	ID
05	357 5 0068/05	05	351 750 101/05	05	357 5 0068/05	05	351 750 183/05

Evap Fam #)	ECS #)	Displ. (Liters)	Engine Code (also list CA/49ST/50ST)	Vehicle Make / Models	Trans. (M5, A4, etc.)
1	1	2.5	BGP / 50 ST	VW Jetta	M5
1	1	2.5	BGP / 50 ST	VW Jetta	A6

Date Issued:	11-25-04				

Revisions:					

2005 MODEL-YEAR CERTIFICATION REVIEW SHEET
EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

E.O.# _____
Page 2 of 2

Manufacturer: VOLKSWAGEN Exhaust Engine Family: **5VWXV02.5253** Evaporative Family: **5VWXR0110238**

P R O J E C T E D E M I S S I O N S
(grams/mile, except mg/mile for HCHO, grams/test D+HS, and grams/gallon for ORVR) (1), (2)

Data Veh ID(3) / Test Ver.	Code (Displ)	Test Loc.	(Check One) Trans	TW/ X ETW	DPA/ X RLHP	MPG City/Hwy	(Check One) NMHC X NMOG	CO	NOx	HCHO	20°F CO	PM	Hwy NOx	City CO2	EVAPORATIVE 3-day D+HS	3-day R/L	2-day D+HS	2-day ORVR
351 750 101/05 0	BGP	EPA	L6	3,625	**	23.8/38.6 @ 120K @ 150K	0.0134 0.0144	1.15 1.26	0.027 0.029	n.a. n.a.	1.84	-	0.01 0.016	373	-	-	-	- 0.008
351 750 101/05 1	BGP	Mfr.	L6	3,625	**										0.254	0.000	0.404	-

(1) The EDV (s) above comply with standards of (@ 50K):	0.040	1.7	0.05	8	10	n.a.	0.07	n.a.	n.a.	n.a.	n.a.	n.a.
(@ 120K for PC &LDT, 120 for MDV / 150k EVAP):	0.055	2.1	0.07	11	n.a.	n.a.	0.09	n.a.	0.50	0.05	0.65	0.20
Emission values include deterioration factors (DFs) (with RAF deterioration, if appl.) of (50K):	0.001	0.082	0.002	n.a.	0.082	n.a.	0.002	n.a.	n.a.	n.a.	n.a.	n.a.
(120K for PC and LDT, 120K for MDV/ 150k EVAP):	0.002	0.196	0.004	n.a.	n.a.	n.a.	0.004	n.a.	0.014	0.000	0.014	0.000
TLEV/LEV/ULEV/SULEV 50°F emissions (w/o RAF and DFs):	0.034	0.60	0.01	n.a.								
TLEV/LEV/ULEV/SULEV 50°F standards:	0.080	1.7	0.05	16								

The NMOG values include a RAF* of: Not Applicable NMOG n.a Methane(CNG or LNG only) _____

(2) Evap DF is the average of: 3-day D+HS: Veh DF 0.000 and 3-day D+HS Bench DF 0.028, R/L: Veh DF 0.000 and R/L Bench DF 0.000
2-day D+HS: Veh DF 0.000 and 2-day D+HS Bench DF 0.028, ORVR Bench DF 0.000

(3) List configuration with highest projected sales first

Remarks The NMOG/NMHC factor by regulation is 1.04/ Factor is used for NMOG calculation (NMHC*1.04)
RAF not applied HCHO Compliance by statement.

EPA SFTP Results: US06 - HC-NM : 0.014 + NOx : 0.18 = 0.032 CO : 2.38, Std. = HC+NOx = 0.140 CO = 8.00.
SC03 - HC-NM : 0.006 + NOx : 0.03 = 0.036, CO : 0.59, Std. = HC+NOx = 0.20, CO = 2.7
** according Road Track Adjustment Procedure, refer to common section 12

Application
Processed by: _____ Date: _____ Released by: _____ Date: _____

Date Issued: 11-25-04

Revisions: 12-15-04 | 03-07-05 | | | | | | |

5VWXV02.0253 Jetta 2.5L (50-State ULEV 2 - BIN 5 - EVAP 2)
Labor Rate San Francisco Area = $99.99

BLUE = PQ35 PARTS NOT OF FILE AS OF NOV. 22, 2004

12/1/2004

	Description	Part Number	Parts Cost	T.U.	Diag.	Labor Cost	Total Cost
I.	**Air Induction System**						
	Camshaft Adjuster Unit	058 109 088E	$108.69	100	50	$149.99	$258.68
	Intake manifold	06A 133 203CF	$675.00	130	50	$179.98	$854.98
II.	**Fuel Metering System**						
	Engine coolant temperature sensor	06A 919 501	$26.33	30	50	$79.99	$106.32
	Air mass sensor	07K 906 461	$296.37	20	50	$69.99	$366.36
	Engine speed sensor	07K 906 433B	$29.95	40	50	$89.99	$119.94
	Fuel pressure regulator	6Q0 201 559A	$26.45	110	50	$159.98	$186.43
	Fuel Injectors	07K 906 031B	$209.78	70	50	$119.99	$329.77
	Fuel Distribution Rail	06A 133 317R 07K 133 317C	$70.68	90	50	$139.99	$210.67
	Throttle body	07K 133 062B	$221.07	50	50	$99.99	$321.06
III.	**Ignition System**						
	Ignition coil	07K 905 715	$40.40	40	50	$89.99	$130.39
	Knock sensors (2X)	030 905 377C 07C 905 377AD 07D 905 377	$73.20	90	50	$139.99	$213.19
VI.	**Fuel Evaperative Control (EVAP) System**						
	EVAP Canister	1K0 201 797L	$131.00	20	50	$69.99	$200.99

	Canisiter purge solenoid valve	06E 906 517	$27.00	30	50	$79.99	$106.99
	Fuel Tank	1K0 201 060DJ	$284.00	190	50	$239.98	$523.98
	Leak diagnosis pump	1J0 906 201 B 1K0 906 201SA	$210.18	100	50	$149.99	$360.17
VII.	**Secondary Air Injection System**						
	Secondary air injection pump	07K 959 253A	$ 342.83	40	50	$89.99	$432.82
	Secondary air control valve	06A 131 351A	$115.00	30	50	$79.99	$194.99
VIII.	**Exhaust**						
	Exhaust manifold	06A 253 031BL	$147.62	190	50	$239.98	$387.60
	Catalytic converter (includes exhaust pipe)	1K0 131 701AB	$900.52	110	50	$159.98	$1,060.50
IX.	**Engine Emissions Control System Sensors** (modules, sensors, solenoids, valves)						
	Powertrain control module (engine)	06A 906 032QE	$319.40	70	50	$119.99	$439.39
	Powertrain control module (transmission)	09G 927 750AS	$435.90	50	50	$99.99	$535.89
	Heated Oxygen Sensor	06A 906 262DA	$161.98	50	50	$99.99	$261.97
	MIL Jetta A4 w/MFI	1J0 920 926F	$438.61	50	50	$99.99	$538.60

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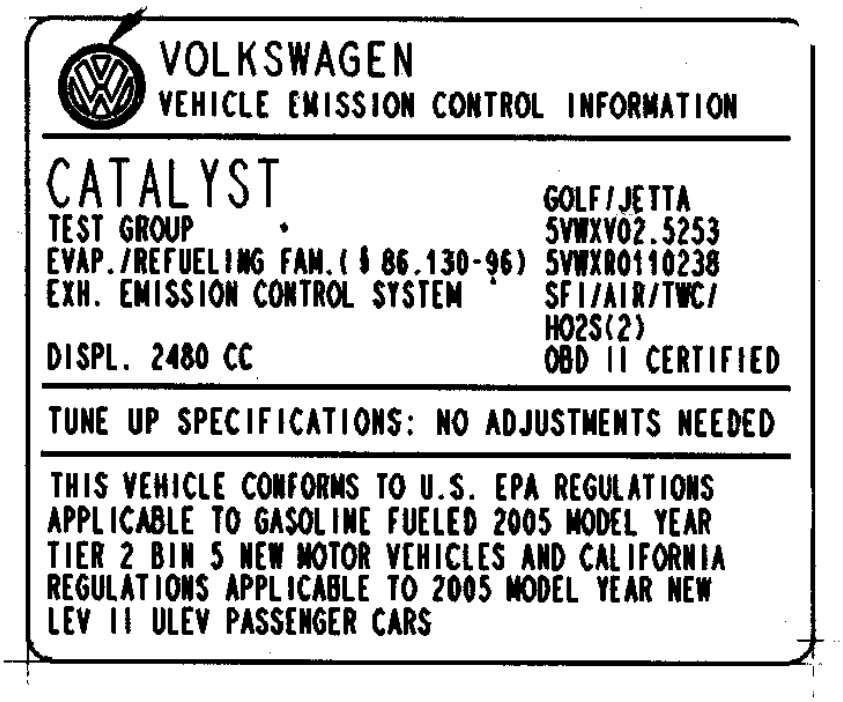
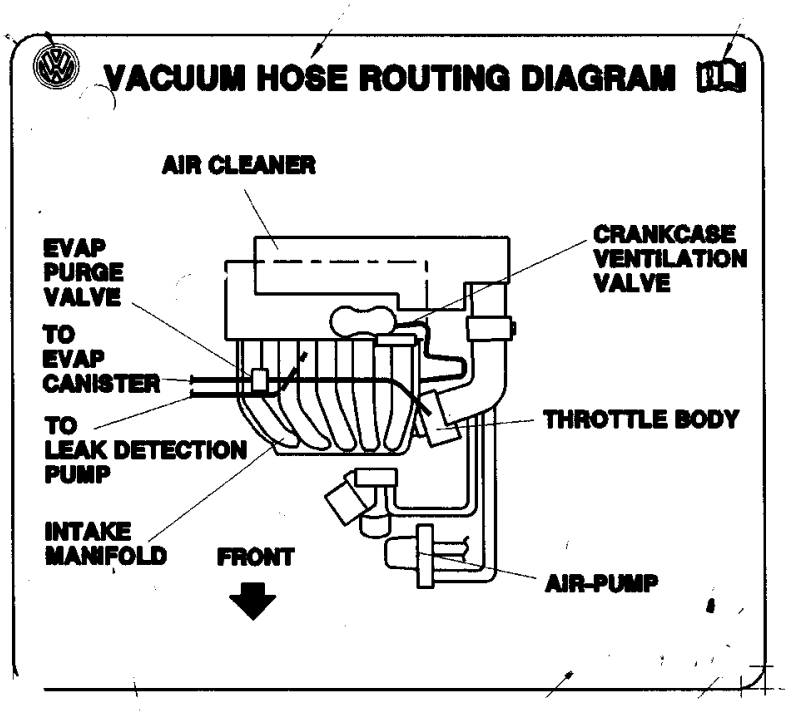
21.00 **Vehicle Emission Control Information Label (Golf/Jetta)**



Vehicle Emission Control Information Label (New Beetle / New Beetle Convertible)

Applicable with MY 06 application.

21.01 Vacuum Hose Routing Diagram (New Beetle Convertible)



21.02 Emission Parts List

Part	Jetta (PQ35)
ECM M5 L6	06A 906 032 QF 06A 906 032 QE
TCM	09G 927 750 AS
Mass Air Flow Sensor	07C 906 461
Intake Manifold Pressure Sensor	036 906 051 G
Spark Plug Identification	NGK PZFR5J-11 Gap: 1.1 - 0.1
Pressure Regulator	6Q0 201 051A
Engine Coolant Temperature Sensor (ECTS)	06A 919 501
Injection Valves	07K 906 031 A 07K 906 031 B
Knock Sensors (2)	07C 905 377 AD 07D 905 377 07K 905 377 A
Throttle Unit	07K 133 062 B
Ignition Transformer	07K 905 715
Engine Coolant Thermostat	07K 121 113 B
Air Cleaner	07K 129 601 B 07K 129 601 C
Cooling Fan Control Thermo Switch	1H0 959 481 B 1J0 959 481 A
Carbon Canister	1K0 201 797 B 1K0 201 797 C
EVAP Frequency Valve	06E 906 517 06E 906 517 A
Heated Oxygen Sensor	LU09 (front) LF 07 (rear)
Fuel Pump	1K0 919 051 M / 1K0 919 087 H 1K0 919 051 AP / 1K0 919 087 AA
Crankcase Ventilation	07K 103 469 07K 103 469 F
Catalyst Assembly	1K0 131 701 AB
Air Pump	07K 959 253 A
Air Valve	07K 131 351 A 07K 131 351 C
Emission Control Label	07K 010 447 P
Vacuum Hose Routing Diagram	07K 010 415 L

21.02 Emission Parts List

Engine Control Module (ECM) Information

Model	Trans-missio n	Engine Code	Calibration Identification (CAL ID)	Calibration Verification Number (CVN)	Remarks
Jetta	M5	BGP	06A 906 032 QF / 6451	4C9FD9A2	Pre-production
			06A 906 032 QF / 6569	8E41F593	Pre-production
			06A 906 032 QF / 6608	E9AEC810	Pre-production
			06A 906 032 QF / 6657	E8BC9CC9	Production

Jetta	L6	BGP	06A 906 032 QE / 6570	DA40D8A3	Pre-production
			06A 906 032 QE / 6589	D776F0F0	Pre-production
			06A 906 032 QE / 6607	AB357807	Pre-production
			06A 906 032 QE / 6656	D6819BF5	Production

21.02 Emission Parts List

Transmission Control Module (TCM) Information

Model	Trans-missio n	Engine Code	Calibration Identification (CAL ID)	Calibration Verification Number (CVN)	Remarks
Jetta	L6	BGP	09G 927 750 AS / 0632	16B15250	Pre-production
			09G 927 750 AS / 0649	452C22AD	Production

22.0 Calibration Information

Emission Component	Parameter	Calibration	Engine Code
fuel system		**refer to page 22.01**	
fuel pressure regulator	fuel pressure	4.0 $\pm$ 0.06 bar at 100 l/h flow rate	
EGR system		**refer to page 22.02**	
ignition system		**refer to page 22.03**	
EVAP system		**refer to page 22.04**	
miscellaneous			
thermostat	starts to open	87 $\pm$ 2 °C	
	fully open by	102 $\pm$ 3 °C	

22.01 Calibration Information fuel system

The motor management system controls lambda as a function of engine speed and engine load and various input signals to the ECM (please refer to sect. 16.09). The basic calibrations are related to the CAL ID and CVN of the ECM.

22.02 Calibration Information EGR system

not applicable

22.03 Calibration Information ignition system

The motor management system determines the ignition timing as a function of engine speed and engine load. The basic calibrations are related to the CAL ID and CVN of the ECM.

22.04 Calibration Information EVAP system

The motor management system calculates the actual purge rate as a function of engine speed, engine load, intake manifold pressure, ambient pressure and canister loading value. The basic calibrations are related to the CAL ID and CVN of the ECM.