

C - SPECIFICATIONS - GASOLINE

Article Text

1991 Volkswagen Passat
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Wednesday, August 25, 1999 07:54PM

ARTICLE BEGINNING

1990-91 ENGINE PERFORMANCE

Volkswagen Service & Adjustment Specifications

1990-91 Passat

1991 Cabriolet, Corrado, Fox, Golf GL, GTI, Jetta,
Jetta GLI, Vanagon

MODEL APPLICATION

NOTE: Information in this article applies to gasoline engine models only.

INTRODUCTION

Use this article to quickly find specifications related to servicing and on-vehicle adjustments. This is a quick-reference article for when you are familiar with an adjustment procedure and only need a specification.

CAPACITIES

BATTERY SPECIFICATIONS TABLE

Application Amp Hr. Rating

Cabriolet, Fox, Jetta,
Jetta GLI & Passat

Without A/C 54

With A/C 63

Corrado, Golf GL, GTI & Vanagon 63

FLUID CAPACITIES TABLE

Application Quantity

Auto. Transaxle (Dexron-II) (1) 3.2 Qts. (3.0L)

Auto. Transaxle Final Drive

(SAE 90/API GL-5)

Except Vanagon (2) .8 Qts. (.76L)

Vanagon 1.4 Qts. (1.3L)

Cooling System (Includes Heater)

Cabriolet 5.1 Qts. (4.8L)

Corrado 6.0 Qts. (5.5L)

Fox 6.9 Qts. (6.5L)

Golf GL, GTI,

Jetta & Jetta GLI 7.0 Qts. (6.6L)

Passat 5.9 Qts. (5.6L)

Vanagon 18.4 Qts. (17.5L)

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Crankcase (Includes Filter)

Fox	3.7 Qts. (3.5L)
Vanagon	4.8 Qts. (4.5L)
All Other Models	4.3 Qts. (4.1L)
Man. Transaxle (SAE 80W-90/API GL-4)	
Fox	1.8 Qts. (1.7L)
Vanagon	3.2 Qts. (3.0L)
All Other Models	2.1 Qts. (2.0L)

(1) - Refill capacity.

(2) - Filled for service life. No oil change.

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QUICK-SERVICE

SERVICE INTERVALS & SPECIFICATIONS

BELT ADJUSTMENT TABLE

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Application (1) DeflectionIn. (mm)

All Models Except Vanagon

Alternator

New (2) 5/64 (2)

Old 13/64 (5)

A/C Compressor

New 3/8 (10)

Old 3/8 (10)

Power Steering

New 5/64 (2)

Old 13/64 (5)

Vanagon

Alternator 3/8-9/16 (10-15)

A/C Compressor 3/8 (10)

(1) - Deflection is with 22 lbs. (10 kg) pressure

applied midway on longest belt run.

(2) - 3/8" (10 mm) on models with A/C.

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REPLACEMENT INTERVALS TABLE

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Component Miles

Air Filter 30,000

Coolant 30,000

Fuel Filter (1) 15,000

Oil & Filter 7500

Spark Plugs 30,000

(1) - Discard mini-fuel filter at 1000-mile maintenance

interval. Install new copper gaskets.

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MECHANICAL CHECKS

ENGINE COMPRESSION

COMPRESSION SPECIFICATION TABLE

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Application	Compression Pressure		Compression
	psi (kg/cm ²)		Ratio
Cabriolet	131- 174	(9.0- 12.0)	8.5: 1
Corrado	116- 174	(8.0- 12.0)	8.0: 1
Fox	131- 174	(9.0- 12.0)	9.0: 1
Golf GL & GTI	131- 174	(9.0- 12.0)	10.0: 1
Jetta	131- 174	(9.0- 12.0)	10.0: 1
Jetta GLI	145- 190	(10.0- 13.0)	10.0: 1
Passat	116- 174	(8.0- 12.0)	10.8: 1
Vanagon	145- 190	(10.0- 13.0)	9.0: 1
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VALVE CLEARANCE

NOTE: All models are equipped with hydraulic lifters. No adjustments are required.

NOTE: Right and left sides refer to engine, as viewed from flywheel.

VALVE ARRANGEMENT

1. 8L & 2.0L

- * Left Side - All Intake
- * Right Side - All Exhaust

2. 1L

- * Both Banks - E-I-I-E

IGNITION SYSTEM

IGNITION COIL

IGNITION COIL RESISTANCE TABLE - Ohms @ 68°F (20°C)

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Application	Primary		Secondary
Jetta GLI & Passat60-.70	6500- 8500
All Other Models52-.76	2400- 3500
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HIGH TENSION WIRE RESISTANCE

HIGH TENSION WIRE RESISTANCE TABLE

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Application	Ohms
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Vanagon

Coil Wire With Connectors	1200- 2800
Spark Plug Wire/Connector	4600- 7400
Spark Plug Connector	4000- 6000
Suppressor (1)	600- 1400

Except Vanagon

Coil Wire Only	(1)
Coil Wire With Connector	1600- 2400
Spark Plug Wire/ Connector	4000- 6000
Suppressor (2)	600- 1400

(1) - Check for continuity.

(2) - Suppressor is located between ignition wire and distributor cap.

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SPARK PLUGS

SPARK PLUG TYPE TABLE

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Application	Bosch	Champi on
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Cabriolet	W7DTC	N7BYC
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Corrado, Fox

Golf GL & Jetta 1.8L	WR7DS	N8GY
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Jetta GLI 2.0L & Passat	F6DSR	N8GY
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Vanagon	W7CC0	N288
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SPARK PLUG SPECIFICATIONS TABLE

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Application	Gap In. (mm)	Torque Ft. Lbs. (N.m)
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All Models028-.032 (.70-.80)	14 (19)
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FIRING ORDER & TIMING MARKS

1.8L & 2.0L

Timing mark location is on flywheel. Timing pointer is on timing hole on transaxle bellhousing.

2.1L

Timing mark on crankshaft belt pulley and notch on "V" belt

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pulley must align with separating line of crankcase.

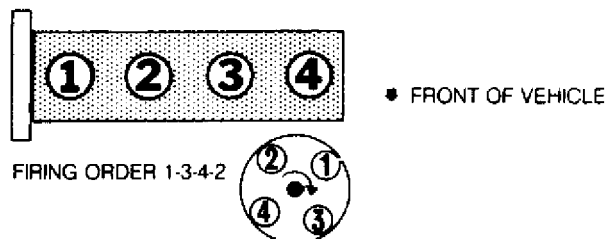


Fig. 1: Firing Order & Distributor Rotation (1.8L & 2.0L)
Courtesy of Volkswagen United States, Inc.

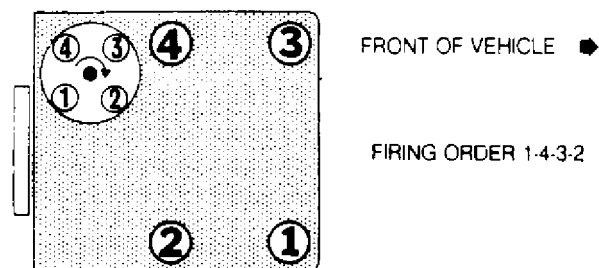


Fig. 2: Firing Order & Distributor Rotation (2.1L)
Courtesy of Volkswagen United States, Inc.

IGNITION TIMING

NOTE: Always reference under-hood label for latest specifications.

IGNITION TIMING TABLE - (Degrees BTDC @ RPM)

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Application	Checking		Adjusting
1.8L	4-8 @ 870-930	5-7 @ 870-930	
2.0L	4-8 @ 770-830	5-7 @ 770-830	
2.1L	4-8 @ 800-900	5-7 @ 800-900	
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NOTE: Off idle timing is computer controlled on models with knock sensor. For adjustment procedures, see D - ADJUSTMENTS article in the ENGINE PERFORMANCE Section.

DISTRIBUTOR SPECIFICATIONS

DISTRIBUTOR ADVANCE TABLE

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Application	Degrees		RPM
	Total Advance		
Cabriolet & Fox	22-26		4500
Golf GL, Jetta & Passat	23-27		6000

- (1) - After checking fuel pressure at idle, turn ignition switch to OFF position.
- (2) - With pressure regulator vacuum hose disconnected, pressure should be 36 psi (2.5 kg/cm²).

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INJECTOR RESISTANCE

INJECTOR RESISTANCE SPECIFICATIONS TABLE

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Application 0hms

Vanagon 16.0-16.4

Except Vanagon (1) 3.7-5.0

(1) - Resistance measured at main electrical
connector on end of fuel rail.

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IDLE SPEED & MIXTURE

IDLE SPEED & CO LEVEL TABLE

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Application Idle RPM CO Level %

Cabriole 750-850 (1) 3-1.1

Corrado 750-850 3-1.1

Fox 875-925 (2) 1.2-1.5

Golf GL, Jetta & GTI

1.8L (Digifant) 750-850 3-1.1

2.0L (CIS-E) N/A (3) 2-1.2

Passat 700-900 (3) 2-1.2

Vanagon 830-930 3-1.1

(1) - Disconnect Blue coolant temperature sensor connector.

(2) - Clamp crankcase breather hose near emission control
valve.

(3) - Not adjustable.

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END OF ARTICLE