03.2024

2017 VW Service

Fluid Capacity Tables 1

- ⇒ Beetle Family (5C)
- ⇒Golf Family (AU1 / BX5 / 5G1)
- \Rightarrow e-Golf (BE2)
- ⇒Jetta A6 (163)
- ⇒Passat (A33)
- ⇒CC (358)
- \Rightarrow Tiguan Limited (5N2)
- ⇒Tiguan (BW2)
- ⇒Touareg (7P6)

Beetle Family (5C) 1.1

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ENGINE OIL CAPACITY

Engine	Engine Oil Type	Engine Oil Capacity With Filter Change
1.8L (CPKA / CPRA)	VW 502 00 (5W-40)	5.5 L (5.8 qt)
2.0L (CPLA / CPPA)	VW 502 00 (5W-40)	5.5 L (5.8 qt)

ADBLUE TANK

Component	Application	Capacity
Refer to Parts Catalog	TDI Vehicles Only	Initial 14.7 L (15.5 qt) Fill / Refill

ENGINE COOLANT

Component	Application	Capacity
Refer to Parts Catalog	CPKA / CPRA / CPLA / CPPA	Initial Approximately 8.0 L (8.5 qt) Fill / Refill

AIR CONDITIONING

A/C System Refrigerant (R134a) Beetle Family Initial 525 \pm 25g (18.5 \pm 0.8 oz.)	Component	Application	Capacity	
Fill / Refill	A/C System Refrigerant (R134a)	Beetle Family	Initial Fill / Refill	525 \pm 25g (18.5 \pm 0.8 oz.)

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wed ^{th loss 21}		r ^a ccep ₁	
Component	Application	Capacity	
Refrigerant Compressor Oil	Denso	Initial 90 cc ± 10 cc 3.0 Fill / Refi	± 0.3 fl. oz.)
or in whole,	Sanden	Initial 0, 110 cc ± 10 cc 3. Fill / Refill	7 ± 0.3 fl. oz.)
DRIVETRAIN		e corre	
Component	Application	Capacity	
Transmission	5 Speed Manual 0A4	Initial Fill 9 1.9 L (2 qt)	
ercia		nfom	
Licomme	6 Speed Manual 02Q	Initial Fill 2.3 L (2.4 qt)	
O BR	6 Speed Automatic 09G	Initial Fill 7.0 L (7.4 qt)	
Hard Hord		Refill 3.0 L (3.2 qt)	
ULIA do			
14611Ad	6 Speed Direct Shift Gearbox	Initial Fill 6.9 - 7.2 L (7.6 qt)
400Ag	02E	Refill 5.2 L (5.5 qt)	
Transmission	4 U*	Mecha- tronic On- ly 3-4 L (3.2-4.2 qt)	

Component	Application	Capacity
Hydraulic Fluid	All Vehicles	Initial 1.0 L (1.05 qt) Fill / Refill

1.2 Golf Family (AU1 / BX5 / 5G1)

i Note

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct filling instructions.

Engine	Engine Oil Type	Engine Oil Capacity With Filter Change
1.8L (CXBA / CXBB)	VW 502 00 (5W-40)	5.7 L (6 qt)
2.0L (CXCA / CXCB)	VW 502 00 (5W-40)	5.7 L (6 qt)
2.0L (CYFB)	VW 502 00 (5W-40)	5.7 L (6 qt)

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Otpenning.		
		hth respect
Component	Application	Capacity
Refer to Parts Catalog	CXBA / CXBB / CXCA / CXCB	Initial Approximately 8.0 L (8.5 qt) Fill / Refill
I brubose	СҮҒВ	Initial Approximately 10.0 L (10.5 qt) Fill / Refile
		nformat

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AIR CONDITIONING

Component	Application	Capacity	
A/C System Refrigerant	(R134a)	Initial Fills Refill	500 \pm 15 g (17.6 \pm 0.5 oz.)
UIIA do		Color	
Refrigerant Compressor	©il Delphi	Participation of the second se	110 \pm 10 cc (3.7 \pm 0.3 fl. oz.)
	Sanden	Initial Fill / Refill	75 \pm 10 cc (2.5 \pm 0.3 fl. oz.)

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DRIVETRAIN		ovised by Volkswagen AG. Volkswag	gen AG does not gua	Arap.
Component		Application	Capacity	110
Transmission		Speed Manual 0A4	Initial Fill	1.9 L (2 gt)
	Orthin,		Refill	1.7 L (1.8 qt)
	noto			EV WIT
	ole, is	6 Speed Manual (OFB)	Initial Fill	2.3 L (2.4 qt)
	in wh			pectit
	art or	6 Speed Manual 02Q	Initial Fill	2.3 L (2.4 qt)
	s, in p	6 Speed Automatic 09G	Initial Fill	7.0 L (7.4 qt)
	bose		Refill	3.0 L (3.2 qt)
	al pur			s of in
DRIVETRAIN Component Transmission	nerci	6 Speed Direct Shift Gearbox	Initial Fill	6.9 – 7.2 L (7.6 qt)
	0D9 (FWD)	Refill	5.2 L (5.5 qt)	
		Mecha-	3–4 L (3.2 ₅ 4.2 qt)	
	He Hours	tronic On- ly	USUNOT	
		6 Speed Direct Shift Gearbox		6.9 [°] 7.2 L (7.6 qt)
		0D9 (AWD)	and the second se	⁴⁰ ⁴¹ 5.2 L (5.5 qt)
		6 Speed Direct Shift Gearbox OD9 (AWD) Oostageological	• Mecha- tronic On- ly	3-4 L (3.2-4.2 qt)
				0.9 L (1 qt)
			AWD Clutch Ini- tial Fill	655 ml (22.0 oz.)
Rear Final Drive		Golf R	Final Drive	0.95 L (1 qt)
			Initial Fill AWD Cou- pling	0.75 L (0.8 qt)
			Refill AWD Coupling	0.65 L (0.7 qt)
		Alltrack	Initial Fill / Refill	0.95 L (1 qt)

Component	Application	Capacity
Hydraulic Fluid	Automatic Trans.	Initial 1.0 L (1.05 qt) Fill / Refill
	Manual Trans.	Initial 1.15 L (1.22 qt) Fill / Refill



120 ml (4.06 fl. oz.)

250 ml (8.45 fl. oz.)

200 ml (6.76 fl. oz.)

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1.3 e-Golf (BE2)

i Note

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct filling instructions. Magen AG. Volkswagen AG

Motor COOLANT	tooised by Volkswas		SUES not guarantes
Component	Application	Capacity	
Refer to Parts Catalog	EAZA CONT	Initial Fill / Refill	Refer to repair manual chapter "Cooling System" and follow strict fill procedure
AIR CONDITIONING	ole, is no		withres
Component	Application	Capacity	
A/C System Refrigerant (R134a)	without heat pump	Initial Fill / Refill	500 + / - 15 g (17.6 + / 🔤 0.5 oz.)
	with heat pump	Initial Fill / Refill	950 + / - 15 g (33.5 + / oz.)

Initial

Initial

Initial

Fill / Refill

Fill / Refill

Fill / Refill

. DA NODE

JUL

PAG Oil for P / N

12E 820 803 E

5QE 816 803 A

5QE 820 803 A

5QE 816 803 PAG Oil for P / N

DRI	/FTR	ΔΙΝ	

Component	Application	Capacity
Transmission	Single Gear (0MD)	Initial Fill 0.8 L (0.85 qt)

 5QE 820 C

 PAG Oil for P / Nyando Ag Patrono Ag Patrono

BRAKE HYDRAULIC SYSTEM

Refrigerant Compressor Oil

Component	Application	Capacity
Hydraulic Fluid	All Vehicles	Initial 1.0 L (1.05 qt) Fill / Refill

1.4 Jetta A6 (163)

i Note

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct filling instructions.

ENGINE OIL CAPACITY

Engine	Engine Oil Type	Engine Oil Capacity With Filter Change
1.4L (CZTA)	VW 502 00 (5W-40)	4.0 L (4.2 qt)
1.8L (CPKA / CPRA)	VW 502 00 (5W-40)	5.5 L (5.8 qt)
2.0L (CPLA / CPPA)	VW 502 00 (5W-40)	5.5 L (5.8 qt)

ENGINE COOLANT

Component	Application	Capacity
Refer to Parts Catalog	CZTA / CPKA / CPRA / CPLA / CPPA	Initial Approximately 8.0 L (8.5 qt) Fill / Refill

AIR CONDITIONING

Component	Application	Capacity	
A/C System Refrigerant (R134a)	Jetta / GLI	Initial Fill / Refill	525 \pm 25 g (18.5 \pm 0.9 oz.)
Refrigerant Compressor Oil	Jetta / GLI	Initial Fill / Refill	110 ± 10 cc (3.7 ± 0.3 fl. oz.)

DRIVETRAIN

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Component	Application	Capacity	
Transmission	6 Speed Automatic 09G	Initial Fill	7.0 L (7.4 qt)
emine.		Initial Fill - Gen 2	6.1 L (6.4 qt)
¹ ^j ou ^s		S WIT	
0/e, _i	5 Speed Manual 0A4	Initial	1.9 L (2 qt)
in wh		pectto	
art or	6 Speed Manual 02Q	Initial Fill	2.3 L (2.4 qt)
ů, in p		porrec	
e e e e e e e e e e e e e e e e e e e	6 Speed Direct Shift Gearbox 02E	Initial Fill	7.2 L (7.6 qt)
India		Refill	5.2 L (5.5 qt)
nercis		Mecha	3-4 L (3.2-4.2 qt)
of contra		tronic On- ly	
Sterning the		15.000 IS	
2 DUIX	3	Jon Stranger	
Component Transmission Transmission Component	Brongen Brongen Protect		
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Component	Application	Capacity
Undersellin Florid	Automatic Trans.	Initial 1.0 L (1.05 qt) Fill / Refill
Hydraulic Fluid	Manual Trans.	Initial 1.15 L (1.22 qt) Fill / Refill

Passat (A33) 1.5

i Note

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct filling instructions.

ENGINE OIL CAPACITY

Nolkswagen AG. Volkswagen AG does no. Engine **Engine Oil Type Engine Oil Capacity With Filter** Change VW 502 00 (5W-40) 5.5 L (5.8 qt) 1.8L (CPRA) 2.0L (DDSA / DDSB) VW 508 00 (0W-20) 5.7 L (6 qt) VW 504 00₁) (0W-30) VW 502 00₁) (5W-40) 3.6L (CDVB) VW 502 00 (5W-40) 5.5 L (5.8 qt)

1) If you must add oil and no oil is available that meets the Volkswagen oil quality standard required for your engine, you can add a maximum 0.5 liters (0.5 qt) of engine oil that meets the ACEA A3 /B4 and API SN specification, and has a viscosity grade of SAE 0W-20. Using oil with a different viscosity grade than SAE 0W-20 can cause the vehicle emissions and fuel consumption to increase. Only use different oils in cases of emergency.

ENGINE COOLANT

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Component	Application	Capacity	
Refer to Parts Catalog	CPRA / DDSA / DDSB	Initial Fill / Refill	Approximately 10.0 L (10.5 qt)
	CDVB	Initial Fill / Refill	Approximately 9.0 L (9.5 qt)
AIR CONDITIONING	Of Dull too		Hunger Coby
Component	Application	Capacity	
A/C System Refrigerant (R134a)	Passat Family Passat Family	Initiabe ^{MSXIO} Fill / Refill	¹ 575 ± 5 g (20.3 ± 0.2 oz.)
Refrigerant Compressor Oil	Sanden	Initial Fill / Refill	110 \pm 10 cc (3.7 \pm 0.3 fl. oz.)

DRIVETRAIN

Component	Application	Capacity	
Transmission	6 Speed Automatic 09G	Initial Fill	7.0 L (7.4 qt)
		Refill	3.0 L (3.2 qt)
6 Speed Di 02E	6 Speed Direct Shift Gearbox	Initial Fill	6.9 – 7.2 L (7.6 qt)
	02E	Refill	5.2 L (5.5 qt)

BRAKE HYDRAULIC SYSTEM

Component	Application	Capacity
Hydraulic Fluid	All Vehicles	Initial 1.0 L (1.05 qt) Fill / Refill
1.6 CC (358) sed by Volksv <i>i</i> Note Mess ² ²⁴¹	_{lag} en AG. voikewagen AG does not guaran	lee or acces

1.6 CC (358) sod by Volkswagen.

i Note

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct Willin Killide filling instructions.

Engine	Engine Oil Type	Engine Oil Capacity With Filter Change
2.0L (CCTA / CBFA)	VW 502 00 (5W-40)	4.7 L (4.9 qt)
3.6L (CNNA)	VW 502 00 (5W-40)	5.5 L (5.8 qt)
		tnesso
Component	Application	Capacity
Refer to Parts Catalog	CCTA / CBFA	Initial Approximately 8.0 L (8.5 qt)
of this are of cont	CNNA	Fill / Refill
	A A A A A A A A A A A A A A A A A A A	
Component	Application	Capacity
A/C System Refrigerant (R134a)	CC Family Jabenshi	Initial 550 \pm 5 g (19.4 \pm 0.2 oz.) Fill / Refill

Component	Application	Capacity
Refrigerant Compressor Oil	Denso	Initial 140 \pm 10 cc (4.7 \pm 0.3 fl. oz.) Fill / Refill
	Sanden / Delphi	Initial 110 \pm 10 cc (3.7 \pm 0.3 fl. oz.) Fill / Refill
	Zexel	Initial 120 \pm 15 cc (4.0 \pm 0.5 fl. oz.) Fill / Refill

DRIVETRAIN

Component	Application	Capacity	
Transmission 6 Speed Direct Shift Gearbox 02E	6 Speed Direct Shift Gearbox	Initial Fill	6.9 – 7.2 L (7.6 qt)
	02E	Refill	5.2 L (5.5 qt)
	Mecha- tronic On- ly	3-4 L (3.2-4.2 qt)	

BRAKE HYDRAULIC SYSTEM

Component	Application	Capacity
Hydraulic Fluid	All Vehicles	Initial 1.0 L (1.05 qt) Fill / Refill

1.7 Tiguan Limited (5N2) *Note* All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct 20 Jul filling instructions. Ranyliability

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Engine	Engine Oil Type	Engine Oil Capacity With Filter Change
2.0L (CCTA)	VW 502 00 (5W-40)	4.7 L (4.9 qt)
ENGINE COOLANT		o the co
Component	Application	Capacity
Refer to Parts Catalog		Initial Approximately 8.0 L ² (8.5 qt) Fill / Refill
AIR CONDITIONING	un and a second s	formati
Component	Application	Capacity
A/C System Refrigerant (R134a)	Tiguan Limited	Initial 660 ± 15 g (23,3 ± 0.5 oz.) Fill / Refill
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Component	Application	Capacity
Refrigerant Compressor Oil	Denso	Initial 140 \pm 10 cc (4.7 \pm 0.3 fl. oz.) Fill / Refill
	Sanden	Initial 110 \pm 10 cc (3.7 \pm 0.3 fl. oz.) Fill / Refill

DRIVETRAIN

Component	Application	Capacity
Transmission	6 Speed Automatic 09M	Initial Fill 7.0 L (7.4 qt)
		Bevel Box 0.9 L (1 qt)
	ised by Volkswagen AG. Vo	AWD AWD AWD Clutch Ini- 0.85 L (0.9 qt) tial Fill Quarant AWD Clutch Re- fill
	asdunessautrol.	AWD 0.7 L (0.74 qt) Clutch Re- fill
	e de la companya de	BP
Rear Final Drive	AWD Only	Initial 0.95 L (1 qt) Fill / Refill
BRAKE HYDRAULIC SY	STEM	specttot

Component	Application	Capacity
Hydraulic Fluid	All Vehicles	Initial 1.15 L (1.22 q
soo		Fill / Refill
und		SOF
1.8 Tiguan (BW2)		inform
ENGINE OIL CAPACITY		ation

ENGINE OIL CAPACITY

Engine	Engine Oil Type	Engine Oil Capacity With Filter Change
2.0L (DGUA)	VW 508 00 VW 504 00 1) VW 502 00 1)	5.7 L (6 qt)

1) If you must add oil and no oil is available that meets the Volkswagen oil quality standard required for your engine, you can add a maximum 0.5 liters (0.5 qt) of engine oil that meets the ACEA A3 /B4 and API SN specification, and has a viscosity grade of SAE 0W-20. Using oil with a different viscosity grade than SAE 0W-20 can cause the vehicle emissions and fuel consumption to increase. Only use different oils in cases of emergency.

ENGINE COOLANT

Component	Application	Capacity
Refer to Parts Catalog	DGUA	Initial Approximately 10.0 L (10.5 qt) Fill / Refill



AIR CONDITIONING

Component	Application	Capacity
A/C System Refrigerant (R1234yf)	DGUA	Initial 460 + / - 15 g (16.2 + / - 0.5 Fill / Refill oz.)
Refrigerant Compressor Oil	Denso	Initial 110 + / - 10 cc (3.7 + / - 0.3 fl. Fill / Refill oz.)
	Sanden	Initial 75 + / - 10 cc (2.5 + / - 0.3 fl. Fill / Refill oz.)
	Mahli / Delphi	Initial 110 + / - 10 cc (3.7 + / - 0.3 fl. Fill / Refill oz.)

DRIVETRAIN

Component	Application	Capacity	
Transmission	8–Speed Automatic (09P)	Initial Fill (FWD & AWD)	7.0 L (7.4 qt) Filled for Life
		Bevel Box (AWD)	0.9 L (1 qt) Filled for Life
	ses. in part or in whole of the search of th	AWD Clutch Ini- tial Fill AG(OCR, Vagen A OCQ)	0.75 L (0.8 qt)
	and uness authorised by	AWD Clutch Re- fill (0CR / 0CQ)	G does not 0.65 L (0:7/gt)
	hole, is not permit	AWD Clutch Ini- tial Fill (0BS)	0.85 L (0.9 qt)
	n part or in w	AWD Clutch Re- fill (OBS)	0.7 L (0.74 qt)
	, ve		rectn
Rear Final Drive	ommercial purposes, it	Initial Fill / Refill	0.95 L (1 qt)
BRAKE HYDRAULIC SYSTEM	ommerc		iomatio

BRAKE HYDRAULIC SYSTEM

Component	Application	Capacity
Hydraulic Fluid	All Vehicles	Initial 1.0 L (1.05 qt)
	BUTTED IUSIA dos	BLU Kellin



1.9 Touareg (7P6)

i Note

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct filling instructions.

Engine	Engine Oil Type	Engine Oil Capacity With Filter Change		
3.6L (CGRA)	VW 502 00 (5W–40) 6.7 L (7.1 qt)		L (7.1 qt)	
ENGINE COOLANT	vw 502 00 (5w-40)	ot guara		
Component	Application	Capacity		
Refer to Parts Catalog	CGRA	Initial Approximately 15.0 L (15.8 qt) Fill / Refill		
Component	Application	Capacity		
A/C System Refrigerant (R134a)	One Evaporator	Initial Fill / Refill	850 ± 50 g (30 ± 1.8 oz.)	
es, in part	Two Evaporators	Initial Fill / Refill	1100 $\pm 0.050 \text{ g} (39 \pm 1.8 \text{ oz.})$	
esodu			ness	
Refrigerant Compressor Oil	CGRA	Initial Fill / Refill	140 $\pm \frac{1}{3}$ 0 cc (4.7 \pm 0.3 fl. oz.)	
DRIVETRAIN			nationin	
Component	Application	Capacity		
Transmission	8 Speed Automatic 0C8	Initial Fill	∬0.4 L − 12.8 L (11−13.5 qt)	
UNGOS :		Refill	3.5 – 4.0 L (4.2 qt)	
- <i>zy</i>	8 Speed Automatic 0C8	Transfer Case Ini- tial Fill (0BV)	0.85 L (0.9 qt)	
		Transfer Case Ini- tial Fill (0BU)	0.6 L (0.6 qt)	
Front Final Drive		Initial Fill / Refill	0.8 L (0.85 qt)	

Component	Application	Capacity	
Rear Final Drive		with EDL	1.25 L (1.3 qt)
		without EDL	0.9 L (1 qt)

Component	Application	Capacity
Hydraulic Fluid	All Vehicles	Initial 1.0 L (1.05 qt) Fill / Refill





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Cautions & Warnings

Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work. You must answer that you have read and you understand these WARNINGS and CAUTIONS before you will be allowed to view this information $PAG_{does_{not}}$

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized Volkswagen retailer or other qualified shop. We especially urge you to consult an authorized Volkswagen retailer before beginning repairs on any vehicle that may still be covered wholly or in part by any of the extensive warranties issued by Volkswagen.
- Disconnect the battery negative terminal (ground strap) whenever you work on the fuel system of the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.
- Volkswagen is constantly improving its vehicles and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Volkswagen retailer parts department for the latest information.
- Any time the battery has been disconnected on an automatic transmission vehicle, it will be necessary to reestablish Transmission Control Module (TCM) basic settings using the Volkswagen Factory Approved Scan Tool (ST).
- Never work under a lifted vehicle unless it is solidly supported on stands designed for the purpose. Do not support a vehicle on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a vehicle that is supported solely by a jack. Never work under the vehicle while the engine is running.
- For vehicles equipped with an anti-theft radio, be sure of the correct radio activation code before disconnecting the battery or removing the radio. If the wrong code is entered when the power is restored, the radio may lock up and become inoperable, even if the correct code is used in a later attempt.
- If you are going to work under a vehicle on the ground make sure that the ground is level. Block the wheels to keep the vehicle from rolling. Disconnect the battery negative terminal (ground strap) to prevent others from starting the vehicle while you are under it
- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset or have taken medicine or any other substances that may impair you or keep you from being fully alert.
- Never run the engine unless the work area is well ventilated. Carbon monoxide (CO) kills.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with acid. Wear goggles, gloves and other protective clothing whenever the job requires working with harmful substances.
- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.
- Do not re-use any fasteners that are worn or deformed in normal use. Some fasteners are designed to be used only once and are unreliable and may fail if used a second time. This includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow the recommendations in this manual - replace these fasteners with new parts where indicated, and any other time it is deemed necessary by inspection.

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Cautions & Warnings

- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the
 instructions thoroughly; do not attempt shortcuts. Use tools that are appropriate to the work and use only
 replacement parts meeting Volkswagen specifications. Makeshift tools, parts and procedures will not make good
 repairs.
- Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the cil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will
 increase system pressure and may cause the system to burst.
- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Volkswagen Service technicians should test, disassemble or service the airbag system.

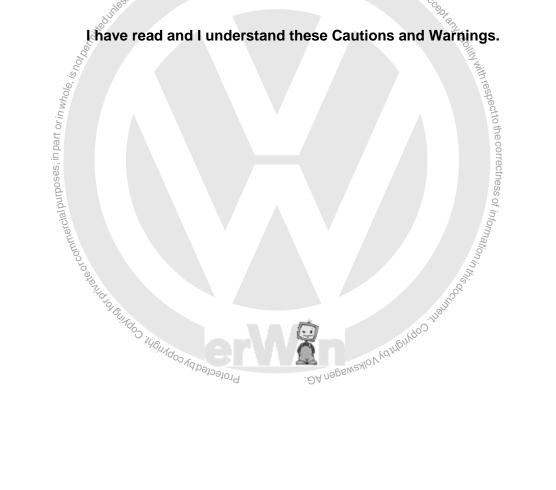
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Cautions & Warnings

- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only be tested by trained Volkswagen Service technicians using the Volkswagen Factory Approved Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.



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