



# 2022 VW Service

## 1 Fluid Capacity Tables

⇒ Jetta / GLI (BU4)

⇒ GTI / Golf R (CD1)

⇒ Passat (A34)

⇒ Arteon (3H8)

⇒ Taos (CL1)

⇒ Tiguan (BJ2)

⇒ Atlas / Atlas Cross Sport (CA2 / CMC)

⇒ ID.4 (E21)

### 1.1 Jetta / GLI (BU4)

#### 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
1.5L – DNKA	VW 508 00 (0W-20)	4.3 L (4.6 qt)
2.0L – DKFA	VW 508 00 (0W-20)	5.7 L (6 qt)

#### ENGINE COOLANT

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

#### AIR CONDITIONING

Component	Application	Capacity
A/C Refrigerant (R1234yf)	Jetta / GLI	Initial Fill / Refill 460 +/- 5 g
Refrigerant Compressor Oil	Denso	Initial Fill / Refill 80 +/- 10 cc
	Sanden	Initial Fill / Refill 75 +/- 10 cc



## DRIVETRAIN

Component	Application	Capacity	
Transmission	6-Speed Manual (02S)	Initial Fill	Approximately 2.3 L (2.4 qt)
		Refill	Approximately 2.1 L (2.2 qt)
Transmission	6-Speed Manual (02Q)	Initial Fill	Approximately 2.3 L (2.4 qt)
Transmission	8-Speed Automatic (09S)	Initial Fill	Approximately 6.3 L (6.6 qt)
Transmission	7-Speed Direct Shift (0GC)	Initial Fill	6.8 L +/- 0.1 L
		Refill	Approximately 6.0 L (6.4 qt)

## BRAKE HYDRAULIC SYSTEM

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

## 1.2 GTI / Golf R (CD1)

### 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
2.0L – DRNA	VW 508 00 (0W-20)	5.7 L (6 qt)
2.0L – DSFE / DSFF	VW 504 00 (0W-30)	5.7 L (6 qt)

## ENGINE COOLANT

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



## AIR CONDITIONING

Component	Application	Capacity
A/C Refrigerant (R1234yf)	GTI / Golf R	Initial Fill / Refill 460 +/- 15 g
Refrigerant Compressor Oil	Denso	Initial Fill / Refill 110 +/- 10 cc
	Hanon	Initial Fill / Refill 120 +/- 10 cc
	Mahle	Initial Fill / Refill 75 +/- 10 cc

## DRIVETRAIN

Component	Application	Capacity
Transmission	6-Speed Manual (02Q)	Completely Disassembled 2.30 L (2.4 qt)
		Partly Disassembled 2.15 L (2.3 qt)
	Bevel Box	Initial Fill 0.9 L (1 qt)
Transmission	7-Speed Direct Shift (0GC)	Initial Fill 6.8 L (7.2 qt) +/- 0.1 L
		Refill Approximately 6.0 L (6.4 qt)
	Front Axle Differential Lock	Initial Fill 0.60 L (0.6 qt) Refill 0.40 L (0.4 qt)
Rear Final Drive Torque Splitter	Clutch Cable (0.4L on each side) (housing lettering "CLUTCH OIL")	Initial Fill / Refill 0.8 L (0.85 qt)
	Hypoid Chamber (housing lettering "HYPOID OIL")	Initial Fill / Refill 0.6 L (0.6 qt)

## BRAKE HYDRAULIC SYSTEM

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



## 1.3 Passat (A34)

### 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
2.0L – DTDA	VW 508 00 (0W-20) VW 504 00 (0W-30) <sub>1)</sub> VW 502 00 (5W-40) <sub>1)</sub>	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	DTDA	Initial Fill / Refill 10.0 L (10.5 qt)

### AIR CONDITIONING

Component	Application	Capacity
A/C Refrigerant (R1234yf)	Passat	Initial Fill / Refill 480 +/- 15 g
Refrigerant Compressor Oil	DTDA	Initial Fill / Refill 110 +/- 10 cc

### DRIVETRAIN

Component	Application	Capacity
Transmission	6-Speed Automatic (09G)	Initial Fill 7.0 L (7.4 qt)
		Refill 3.0 L (3.2 qt)

### BRAKE HYDRAULIC SYSTEM

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



## 1.4 Arteon (3H8)

### 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
2.0L – DSFB	VW 504 00 (0W-30)	5.7 L (6 qt)

### ENGINE COOLANT

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

### AIR CONDITIONING

Component	Application	Capacity
A/C Refrigerant (R1234yf)	Arteon	Initial Fill / Refill 460 +/- 15 g
Refrigerant Compressor Oil	Denso (through 07/08/2019)	Initial Fill / Refill 110 +/- 10 cc
	Denso (from 07/08/2019)	Initial Fill / Refill 80 +/- 10 cc
	Mahle	Initial Fill / Refill 110 +/- 10 cc
	Sanden	Initial Fill / Refill 75 +/- 10 cc

### DRIVETRAIN

Component	Application	Capacity
Transmission	7-Speed Direct Shift (0GC)	Initial Fill 6.8 L (7.2 qt) + 0.1 L
		Refill Approximately 6.0 L (6.4 qt)
	AWD Clutch (0CR / 0CQ)	Initial Fill Approximately 0.75 L (0.8 qt)
		Refill 0.65 L (0.7 qt)
Rear Final Drive	Only AWD	Initial Fill / Refill Approximately 0.95 L (1 qt)



Component	Application	Capacity	
Rear Final Drive Torque Splitter	Clutch Cable (0.4L on each side) (housing lettering "CLUTCH OIL")	Initial Fill / Refill	0.8 L (0.85 qt)
	Hypoid Chamber (housing lettering "HYPOID OIL")	Initial Fill / Refill	0.6 L (0.6 qt)

## BRAKE HYDRAULIC SYSTEM

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

## 1.5 Taos (CL1)

### 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	
1.5 – DNKA	VW 508 00 (0W-20)	4.3 L (4.6 qt)	

## ENGINE COOLANT

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

## AIR CONDITIONING

Component	Application	Capacity	
A/C Refrigerant (R1234yf)	Taos	Initial Fill / Refill	460 +/- 15 g
Refrigerant Compressor Oil	Denso	Initial Fill / Refill	110 +/- 10 cc
	Sanden	Initial Fill / Refill	75 +/- 10 cc
	Delphi	Initial Fill / Refill	110 +/- 10 cc

## DRIVETRAIN

Component	Application	Capacity	
Transmission	8-Speed Automatic (09S)	Initial Fill	Approximately 6.3 L (6.6 qt)
		Refill	N/A



Component	Application	Capacity
Transmission	7-Speed Direct Shift (0CC)	Initial Fill 6.8 L (7.2 qt) +/- 0.1 L
		Refill Approximately 6.0 L (6.4 qt)
	Bevel Box (Filled For Life)	Initial Fill Approximately 0.85 L (0.9 qt)
	AWD Clutch	Initial Fill 0.75 L (0.8 qt)
		Refill 0.65 L (0.7 qt)
Rear Final Drive	Only AWD (0CQ / 0CR)	Initial Fill / Refill 0.95 L (1 qt)
	Only AWD (0BR)	Initial Fill / Refill 0.9 L (1 qt)

## BRAKE HYDRAULIC SYSTEM

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

## 1.6 Tiguan (BJ2)

### 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
2.0L - DTEA	VW 508 00 (0W-20)	5.7 L (6.0 qt.)

## ENGINE COOLANT

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

## AIR CONDITIONING

Component	Application	Capacity
A/C Refrigerant (R1234yf)	Tiguan	Initial Fill / Refill 460 +/- 15 g
Refrigerant Compressor Oil	Denso, Mahli, and Delphi	Initial Fill / Refill 110 +/- 10 cc
	Sanden	Initial Fill / Refill 75 +/- 10 cc



## DRIVETRAIN

Component	Application	Capacity	
Transmission	8-Speed Automatic (09P)	Initial Fill	7.0 L (7.4 qt)
	Bevel Box (only AWD)	Initial Fill / Refill	0.9 L (1 qt)
	AWD Clutch (OCR / OCQ)	Initial Fill	0.75 L (0.8 qt)
		Refill	0.65 L (0.7 qt)
	AWD Clutch (OBS)	Initial Fill	0.85 L (0.9 qt)
		Refill	0.7 L (0.74 qt)
Rear Final Drive	OCQ	Initial Fill / Refill	0.95 L (1 qt)
	OBR	Initial Fill / Refill	0.9 L (1 qt)

## BRAKE HYDRAULIC SYSTEM

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

## 1.7 Atlas / Atlas Cross Sport (CA2 / CMC)

### 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
2.0L – DCGA / DTFA	VW 504 00 (0W-30)	5.7 L (6 qt)
3.6L – CDVC	VW 504 00 (0W-30)	5.5 L (5.8 qt)

## ENGINE COOLANT

Component	Application	Capacity	
Refer to Parts Catalog	DCGA / CDVC / DTFA	Initial Fill / Refill	20.0 L (21 qt)

## AIR CONDITIONING

Component	Application	Capacity	
A/C Refrigerant (R1234yf)	CA2	Initial Fill / Refill	650 +/- 25 g
	CMC	Initial Fill / Refill	550 +/- 25 g
Refrigerant Compressor Oil	CA2 / CMC	Initial Fill / Refill	110 +/- 10 cc





## DRIVETRAIN

Component	Application	Capacity	
Transmission	8-Speed Automatic (09P)	Initial Fill	7.0 L (7.4 qt)
	Bevel Box (only AWD)	Initial Fill / Refill	0.9 L (1 qt)
	AWD Clutch	Initial Fill	0.75 L (0.8 qt)
		Refill	0.65 L (0.7 qt)
Rear Final Drive	Only AWD	Initial Fill / Refill	0.95 L (1 qt)

## BRAKE HYDRAULIC SYSTEM

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

## 1.8 ID.4 (E21)

### Note

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

## E-MOTOR COOLANT

Component	Application	Capacity	
Refer to Parts Catalog	EBJA / EBRA	Initial Fill / Refill	Refer to repair manual chapter "Cooling System"

## AIR CONDITIONING

Component	Application	Capacity	
A/C Refrigerant (R1234yf)	ID.4	Initial Fill / Refill	460 +/- 15 g
Refrigerant Compressor Oil (R1234yf)	ID.4	Initial Fill / Refill	120 ml
A/C Refrigerant (R744)	ID.4	Initial Fill / Refill	420 +/- 15 g
Refrigerant Compressor Oil (R744)	ID.4	Initial Fill / Refill	200 +/- 10 ml



## DRIVETRAIN

Component	Application	Capacity	
Transmission	Single Gear (OMH / OMJ)	Initial Fill/Refill	0.8 L (0.85 qt)

## BRAKE HYDRAULIC SYSTEM

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



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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.**

- 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 or 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.

# 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 oil. 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.

## 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.

**I have read and I understand these Cautions and Warnings.**

