



# FLUID CAPACITY CHART



MY / VEHICLE	ENGINE OIL <sup>[1]</sup>	MANUAL TRANS. <sup>[2]</sup>	AUTOMATIC TRANS. <sup>[3]</sup>	DIFFERENTIAL AUTOMATIC TRANS. <sup>[4]</sup>	COOLING SYSTEM <sup>[5]</sup>	POWER STEERING	WINDSHIELD WASHER	A/C REFRIGERANT R-134a	A/C REFRIGERANT OIL See VESIS for oils
Jetta/Golf GTI Jetta Wagon  2005  new Jetta	w/filter change <b>1.8T(AWP/AWPIA)</b> 4.5L (4.8 qt) <b>1.9 TDI PD (BEW)</b> 4.5L (4.8 qt) <b>2.0 (BEV,BBW)</b> 4.2L (4.4 qt) <b>2.5 (BGP/BGQ)</b> Approx 6.0L(6.3 qt) <b>2.8 (BDF)</b> 5.5L (5.8 qt)	<b>02M</b> 2.3L (2.4 qt) <b>02J</b> 2.0L (2.1 qt)  <b>Rear Final Drive</b> <b>02D</b> 1.0L (1.1 qt)	<b>01M</b> New fill: 5.3L (5.6 qt) Refill: approx. 3.0L (3.2 qt)  <b>09A</b> New fill: 7.0 L (7.4 qt)  <b>09G</b> New fill: 7.0L (7.4 qt) See VESIS for filling after repairs	<b>with trans 02M</b> New fill: 0.75L (0.80 qt) See VESIS for filling after repairs  <b>with trans 09A/09G</b> Capacity included with Automatic Transmission See VESIS for filling after repairs	<b>1.8 T (AWP/AWPIA)</b> 5.0L (5.3 qt) <b>1.9 (BEW)</b> 6.0L (6.3 qt) <b>2.0 (BEV,BBW)</b> 5.0L (5.3 qt) <b>2.5(BGP/BGQ)</b> 9.0L(9.5 qt) <b>2.8 (BDF)</b> 9.0L (9.5 qt)	0.7-0.9L (0.74-0.95 qt) use hydraulic oil G 002 012 Do not use ATF	3.0 L (3.2 qt) Use concentrated ZVW 177 901/903/904/906 Windshield washer container also serves rear washer on wagons  <b>new Jetta</b> 5.0L(5.2qt) w/headlight washer	750+50 g (26+1.8 oz)  <b>new Jetta</b> 525± 25 g (18.5 ± 0.9 oz)	<u>Golf/Jetta fr 10/98 w/ Sandon compressor</u> 135±15 cc (4.6± 0.5 fl. oz) <u>Golf from 11/98 w/ Zexel compressor</u> 115 ± 20 cc (3.9 ± 0.7 oz) See VESIS for PAG oils <b>new Jetta</b> 110 ± 10 cc (3.7 ± 0.3 oz) PAG oil G 052 200 A2

<sup>[1]</sup> ENGINE OIL: **Approx qty!** Use petroleum or synthetic(synthetic specifically for **new Jetta**) oils meeting VW oil quality standard: VW502 00(a must for 1.8T), or VW500 00 or VW 501 01, ACEA A2 or A3(A3 for 1.8T), **(TDI-PD) Use ONLY** VW 505 01, ACEA B3/B4. Use viscosity 5W40 or if not avail 5W30. Don't overfill! Overfilling can cause misfire DTC's to be stored in Engine Control Module (ECM) -J220-. To prevent overfil, add approx.0.5L less than cap, start engine,run til eng op temperature is approx. 60°C (140°F), turn OFF ignition, wait approx. 3 minutes, check dipstick, then fill to MAX. See RM for details. **Turbo engines only:** After changing oil and filter, start and run engine at idle til oil pressure light goes out. DON'T rev eng, this could cause damage/ failure of turbocharger.

<sup>[2]</sup> MANUAL TRANS: **02J:**Use mineral oil, SAE 75W90, Part No. G 052 726 A2, **02M:** Use synthetic oil SAE 75W90, Part No. G 052 171 A2.

<sup>[3]</sup> AUTOMATIC TRANS: Use VW ATF, Part No. G 052 162 A2(1 liter container) for **01M** trans, G 052 990 A2(1 liter container) for **09A** trans, G 055 025 A2 for **09G**. Life-time filling, new fill quantity is for reference only. Only replace after repair (i.e. when removing oil pan). See Repair Manual (VESIS) for details.

<sup>[4]</sup> DIFFERENTIAL AUTOMATIC TRANS: Use synthetic gear oil, SAE 75W90, Part No. G 052 145 S2(1 liter container) . Life-time filling, new fill quantity is for reference only. Only replace after repair. See Repair Manual (VESIS) for details.

<sup>[5]</sup> COOLING SYSTEM: Use only phosphate-free coolant G 012 A8F A4, PURPLE COLORED. **DO NOT INTERCHANGE OR MIX** older G11(ZVW 237 105),GREEN COLORED.This can result in serious damage to the engine. However, it may be mixed with ZVW 237 G12, PINK COLORED. Frost protection is required down to approximately -25°C (-13°F). In countries with arctic climates, frost protection is required down to approximately -35°C (-31°F). The anti-freeze ratio must be a minimum of 40%, as otherwise frost protection is reduced. The recommended mixture ratio is 50:50. If greater frost protection is required (very cold climates), the amount of G 012 A8F A4 can be increased, but only up to 60%. This provides frost protection to approx. -40°C (-40°F). Do not reduce the coolant concentration by adding water, even in warmer seasons and in warmer countries, as cooling effectiveness will be reduced.

**NOTE: Part numbers are for reference only. Always check with your Parts Dept. for the latest parts information.**



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MY / VEHICLE	ENGINE OIL <sup>[1]</sup>	MANUAL TRANS. <sup>[2]</sup>	AUTOMATIC TRANS. <sup>[3]</sup>	DIFFERENTIAL AUTOMATIC TRANS. <sup>[4]</sup>	COOLING SYSTEM <sup>[5]</sup>	POWER STEERING	WINDSHIELD WASHER	A/C REFRIGERANT R-134a	A/C REFRIGERANT OIL <sup>[6]</sup>
New Beetle 2005	w/filter change <b>1.8T (BKF/ BNU)</b> 4.2L (4.4 qt) <b>1.9 TDI PD (BEW)</b> 4.5L (4.8 qt) <b>2.0 (BEV)</b> 4.2L (4.4 qt)	<b>02J</b> 2.0L (2.1 qt) <b>02M</b> 2.3L (2.4 qt)	<b>01M</b> New fill: 5.3L (5.6 qt) Filled for life <b>09G</b> New fill: 7.0L (7.4 qt) Filled for life <b>02E</b> New fill: 6.4L (6.8 qt) Refill after repairs: 4.5L (4.8 qt) See VESIS for filling after repairs	<b>01M</b> New fill: 0.75L (0.80 qt) Filled for life. See VESIS for filling after repairs <b>09G</b> Included in trans. fill <b>02E</b> N/A	<b>1.8T (AWV/AWP)</b> 5.0L (5.3 qt) <b>1.9 (BEW)</b> 6.0L (6.3 qt) <b>2.0 (BEV)</b> 5.0L (5.3 qt)	0.7-0.9 L (11.8–15.2 oz) Use hydraulic oil G 002 012 Do not use ATF	2.0L (2.1 qt) Use concentrated ZVW 177 901/903/904/906	700 ± 50 g (24.7 ± 1.8 oz)	135 cc (4.6 fl. oz)

<sup>[1]</sup> ENGINE OIL: **Approx.quantities!** Use petroleum or synthetic based oils meeting VW oil quality standard : VW502 00(a must for 1.8T) or VW 500 00 or VW501 01, ACEA A2 or A3, A3(A3 for 1.8T). **TDI-PD Only use** VW 505 01, ACEA B3/B4. Use viscosity 5W40 if available, 5W30 if not available. Do not overfill! Overfilling engine oil can cause misfire DTC's to be stored in ECM (J220). To prevent overfilling, add approx. 0.5L less than capacity, start engine and let run until engine operating temp is approx. 60°C (140°F), turn OFF ignition, wait approx. 3 minutes, check dipstick, then fill to MAX. See Repair Manual for details. **Turbo engines only:** After changing oil & filter, start & run engine at idle till oil pressure light goes out. DON'T rev engine, this could cause damage/ failure of turbocharger.

<sup>[2]</sup> MANUAL TRANS: **02J:**Use mineral oil, SAE 75W90, Part No. G 052 726 A2, **02M:** Use synthetic oil, SAE 75W90, Part No. G 052 171 A2.

<sup>[3]</sup> AUTO.TRANS: Use VW ATF, Part No. G 052 162 A2(1L)for **01M**. Life-time filling, new fill quantity is for reference only. Only replace after repair (i.e. when removing oil pan). See VESIS for details. Use G 055 025 A2 for **09G**. Use G 052 182 A2 for **02E** Trans.

<sup>[4]</sup> DIFFERENTIAL AUTO.TRANS: Use synthetic gear oil, SAE 75W90, Part No. G 052 145 A2(1L). Life-time fill, new fill qty is for ref. only. Only repl. after repair.

<sup>[5]</sup> COOLING SYSTEM: Use phosphate-free coolant G 012 A8F A4, PURPLE COLOR. **DO NOT INTERCHANGE OR MIX** G11(ZVW237 105),GREEN COLOR. This can result in serious damage to engine. However, it may be mixed with ZVW 237 G12, PINK COLOR. Frost protection is req. down to approx. -25°C (-13°F). In areas with arctic climates, frost protection is req. down to approx. -35°C (-31°F). The coolant ratio must be a min. of 40%, as frost protection is reduced. The recommended mixture ratio is 50:50. If greater frost protection req. (very cold climates), the amount of G 012 A8F A4 can be increased, but only up to 60%. This provides frost protection to approx.-40°C(-40°F).Don't reduce concentration by adding water, inwarmer seasons/countries,cooling effectiveness will be reduced.

<sup>[6]</sup> A/C REFRIGERANT OIL: Use PAG oil, Part No. G 052 154 A2 w/Sandon compressor.

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MY / VEHICLE	ENGINE OIL <sup>[1]</sup>	MANUAL TRANS. <sup>[2]</sup>	AUTOMATIC TRANS. <sup>[3]</sup>	DIFFERENTIAL AUTOMATIC TRANS. <sup>[4]</sup>	COOLING SYSTEM <sup>[5]</sup>	POWER STEERING <sup>[6]</sup>	WINDSHIELD WASHER <sup>[7]</sup>	A/C REFRIGERANT R-134a	A/C REFRIGERANT OIL <sup>[8]</sup>
New Beetle Conv. 2005	w/filter change <b>1.8T (BKF)</b> 4.2L (4.4qt) <b>2.0 (BEV)</b> 4.0L (4.2 qt)	<b>02M</b> 2.3L (2.4qt) <b>02J</b> 2.0L (2.1 qt)	<b>09G</b> Initial fill: 7.0L (7.4 qt) Filled for life, no change. See VESIS for filling after repairs	Capacity included with Automatic Transmission. See VESIS for filling after repairs	<b>1.8T (AWV)</b> <b>2.0 (BGD)</b> 5.0L (5.3 qt)	0.7-0.9L (0.74-0.95qt)	2.0L (2.2 qt)	700 ± 50 g (24.7 ± 1.8 oz)	135 cc (4.6 fl. oz)

**[1] ENGINE OIL: Approx quantities!** Use petroleum or synthetic based oils meeting VW oil quality standard:W502 00(a must for 1.8T) or VW 500 00 or VW 501 01, ACEA A2 or A3(A3 for 1.8T).API service SJ. Use viscosity 5W40 if available, 5W30 if not available. Do not overfill! Overfilling engine oil can cause misfire DTC's to be stored in Engine Control Module (ECM) -J220-. To prevent overfilling, add approx. 0.5L less than capacity, start engine and let run until engine operating temperature is approx. 60°C (140°F), turn OFF ignition, wait approx. 3 minutes, check dipstick, then fill to MAX. See Repair Manual for details.**Turbo engines only:** After changing oil & filter, start & run engine at idle till oil pressure light goes out. DON'T rev engine, this could cause damage/ failure of turbocharger.

**[2] MANUAL TRANS:** **02J:**Use mineral oil, SAE 75W90, Part No. G 052 726 A2, **02M:** Use synthetic oil, SAE 75W90, Part No. G 052 171 A2.

**[3] AUTOMATIC TRANS:** Use VW ATF, Part No. G 055 025 A2(1 liter container). Life-time filling, initial fill quantity is for reference only. Only replace after repair (i.e. when removing oil pan). See Repair Manual (VESIS) for details on filling after repair.

**[4] DIFFERENTIAL AUTOMATIC TRANS:** Combined with Automatic Transmission. See Repair Manual(VESIS) for details on filling after repair.

**[5] COOLING SYSTEM:** Use only phosphate-free coolant G 012 A8F A4, PURPLE COLORED. **DO NOT INTERCHANGE OR MIX** older G11(ZVW 237 105),GREEN COLORED.This can result in serious damage to the engine. However, it may be mixed with ZVW 237 G12, PINK COLORED. Frost protection is required down to approximately -25°C (-13°F). In countries with arctic climates, frost protection is required down to approximately -35°C (-31°F). The anti-freeze ratio must be a minimum of 40%, as otherwise frost protection is reduced. The recommended mixture ratio is 50:50. If greater frost protection is required (very cold climates), the amount of G 012 A8F A4 can be increased, but only up to 60%. This provides frost protection to approx. -40°C (-40°F). Do not reduce the coolant concentration by adding water, even in warmer seasons and in warmer countries, as cooling effectiveness will be reduced.

**[6] POWER STEERING:** Hydraulic oil G002 000. Do not use ATF.

**[7] WINDSHIELD WASHER:** Concentrated ZVW 177 901/903/904/906.

**[8] A/C REFRIGERANT OIL:** Use PAG oil , Part No. G 052 154 A2 with R-134a.

**Note:**

Convertible top oil is: G002 000. Refer to VESIS for proper usage.

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MY / VEHICLE	ENGINE OIL <sup>[1]</sup>	MANUAL TRANS. <sup>[2]</sup>	AUTOMATIC TRANS. <sup>[3]</sup>	DIFFERENTIAL AUTOMATIC TRANS. <sup>[4]</sup>	COOLING SYSTEM <sup>[5]</sup>	POWER STEERING <sup>[6]</sup>	WINDSHIELD WASHER	A/C REFRIGERANT R-134a	A/C REFRIGERANT OIL <sup>[7]</sup>
Passat 2005	w/filter change <b>1.8T(AWM)</b> 4.1L (4.3qt) <b>2.0 TDI-PD (BHW)</b> 3.6L (3.8qt) <b>2.8 (ATQ)</b> 6.0L (6.3 qt)	<b>012/01W</b> 2.25L (2.4 qt)	<b>01V</b> New fill: 9.0L (9.5 qt) Refill: approx. 2.6-3.0L (2.7-3.2 qt)	<b>01V</b> Front final drive New fill: 0.75L (0.80 qt) <b>01V</b> (all-wheel drive) Transfer gearbox New fill: 0.8L (0.85 qt) <b>01R</b> Rear final drive New fill: 1.5L (1.6 qt)	<b>1.8 (AWM)</b> 7.0L (7.4 qt) <b>2.0 (BHW)</b> 7.0L (7.4 qt) <b>2.8 (ATQ)</b> 8.0L (8.5 qt)	Approx. 1.0 L (1.1 qt)	6.2L (6.6 qt) Use concentrated ZVW 177 901/903/904/906 Windshield washer container also serves rear washer on wagons	600 ± 25 g (21 ± 0.9 oz)	250 cc (8.5 fl. oz)

**[1] ENGINE OIL: Approximate quantities!** Use high quality synthetic based oil meeting VW oil quality standard: VW502 00(a must for 1.8T) or VW 500 00 or VW 501 01, ACEA A2 or A3(A3 for 1.8T).API service SJ. **TDI-PD Only use VW 505 01.** Use viscosity 5W40 if available, 5W30 if not available.Do not overfill! Overfilling engine oil can cause misfire DTC's to be stored in Engine Control Module (ECM) -J220-. To prevent overfilling, add approx. 0.5L less than capacity, start engine and let run until engine operating temperature is approx. 60°C (140°F), turn OFF ignition, wait approx. 3 minutes, check dipstick, then fill to MAX. See Repair Manual for details. **Turbo engines only:** After changing oil and filter, start and run engine at idle until oil pressure light goes out. DO NOT rev engine, this could cause damage/failure of the turbocharger.

**[2] MANUAL TRANS:** Use synthetic oil, SAE 75W90, Part No. G 052 911 A1

**[3] AUTOMATIC TRANS:** Use VW ATF, Part No. G 052 162 A2(1 liter container). Life-time filling, new fill quantity is for reference only. Only replace after repair (i.e. when removing oil pan). See Repair Manual (VESIS) for details.

**[4] DIFFERENTIAL AUTOMATIC TRANS:** Use synthetic gear oil, SAE 75W90, Part No. G 052 145 S2. Life-time filling, new fill quantities are for reference only. Only replace after repair. See Repair Manual (VESIS) for details.

**[5] COOLING SYSTEM:** Use only phosphate free coolant G 012 A8F A4, PURPLE COLORED. **DO NOT INTERCHANGE OR MIX** older G 11(ZVW 237 105), GREEN COLORED. This can result in serious damage to the engine. However, it may be mixed with ZVW 237 G12, PINK COLORED. Frost protection is required down to approximately -25°C (-13°F). In countries with arctic climates, frost protection is required down to approximately -35°C (-31°F). The anti-freeze ratio must be a minimum of 40%, as otherwise frost protection is reduced. The recommended mixture ratio is 50:50. If greater frost protection is required (very cold climates), the amount of G 012 A8F A4 can be increased, but only up to 60%. This provides frost protection to approx. -40°C (-40°F). Do not reduce the coolant concentration by adding water, even in warmer seasons and in warmer countries, as cooling effectiveness will be reduced.

**[6] POWER STEERING:** Hydraulic oil G 002 000. Do not use ATF.

**[7] A/C REFRIGERANT OIL:** Use PAG oil with R-134a, use Part No. G 052 300 A2.

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MY / VEHICLE	ENGINE OIL <sup>1</sup> (Rev 11/04)	MANUAL TRANS.	AUTOMATIC TRANS. <sup>2</sup> (Rev 9/04)	DIFFERENTIAL AUTOMATIC TRANS. <sup>3</sup> (Rev 9/04)	COOLING SYSTEM <sup>4</sup>	POWER STEERING <sup>5</sup>	WINDSHIELD WASHER <sup>6</sup>	A/C REFRIGERANT R-134a	A/C REFRIGERANT OIL <sup>7</sup>
Touareg 2005	w/filter change <b>BAA</b> 6.3L (6.7 qt) <b>AXQ</b> 7.6L (8.0 qt) <b>BKW</b> <b>(TDI – PD)</b> 11.5L (12.0 qt)	N/A	<b>09D</b> New fill: 9.0L (9.5 qt) See VESIS for filling after repairs	<b>OAA</b> Front final drive New Fill: 1.0L (1.1 qt) <b>OAD</b> Transfer box New fill: 0.85L ( 0.9 qt) <b>OAB/OAC</b> New fill: 1.0L (1.1 qt) See VESIS for filling after repairs	<b>BAA/BHX/AXQ</b> 9.0L (9.5 qt) <b>BKW</b> 13.0L (13.7 qt)	Fluid Cap N/A	6.0L (6.3 qt)	<b>Dual zone</b> 700+50 g (24.7+1.8 Oz) <b>Four zone</b> 1050 + 50g (37 + 1.8 oz)	<b>Dual zone</b> 200± 10 cc (6.76± .34 fl oz) <b>Four zone</b> 300 cc (10 oz)

<sup>1</sup>ENGINE OIL: **Approximate quantities!** Use synthetic based oil meeting VW oil quality standard: VW502 00 or VW 505 01 or VW 500 00 ACEA A2 or A3. **Use VW 505 01 for engine code BKW.** Use viscosity 5W40 if available, 5W30 if not available. Do not overfill! Overfilling engine oil can cause misfire DTC's to be stored in Engine Control Module (ECM) -J220-. To prevent overfilling, add approx. 0.5L less than capacity, start engine and let run until engine operating temperature is approx. 60°C (140°F), turn OFF ignition, wait approx. 3 minutes, check dipstick, then fill to MAX. See Repair Manual for details. **Turbo engines only:** After changing oil and filter, start and run engine at idle until oil pressure light goes out. DO NOT rev engine, this could cause damage/failure of the turbocharger.

<sup>2</sup>AUTOMATIC TRANS: Use VW ATF, Part No. G 055 025 A2 (1 liter container). Life-time filling, new fill quantity is for reference only. Only replace after repair (i.e. when removing oil pan). See Repair Manual VESIS for details.

<sup>3</sup>DIFFERENTIAL AUTOMATIC TRANS: Use synthetic gear oil, SAE 75W90, Part No. G 052 145 S2 (1 liter container), for frt final/final drive. Life-time filling, new fill quantity is for reference only. Only replace after repair. See Repair Manual VESIS for details, use G 052 162 A2 for transfer box fluid requirements.

<sup>4</sup>COOLING SYSTEM: Use only phosphate-free coolant G 012 A8F A4, PURPLE COLORED. **DO NOT INTERCHANGE OR MIX** older G11(ZVW237 105), GREEN COLORED. This can result in serious damage to the engine. However, it may be mixed with ZVW 237 G12, PINK COLORED. Frost protection is required down to approximately -25°C (-13°F). In countries with arctic climates, frost protection is required down to approximately -35°C (-31°F). The anti-freeze ratio must be a minimum of 40%, as otherwise frost protection is reduced. The recommended mixture ratio is 50:50. If greater frost protection is required (very cold climates), the amount of G 012 A8F A4 can be increased, but only up to 60%. This provides frost protection to approx. -40°C (-40°F). Do not reduce the coolant concentration by adding water, even in warmer seasons and in warmer countries, as cooling effectiveness will be reduced.

<sup>5</sup>POWER STEERING: Hydraulic oil G002 000. Do not use ATF.

<sup>6</sup>WINDSHIELD WASHER: Concentrated ZVW 177 901/903/904/906.

<sup>7</sup>A/C REFRIGERANT OIL: Use PAG oil, Part No. G 052 300 A2 with R-134a.

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MY / VEHICLE	ENGINE OIL <sup>1</sup>	MANUAL TRANS.	AUTOMATIC TRANS. <sup>2</sup>	DIFFERENTIAL AUTOMATIC TRANS. <sup>3</sup>	COOLING SYSTEM <sup>4</sup>	POWER STEERING <sup>5</sup>	WINDSHIELD WASHER	A/C REFRIGERANT R-134a	A/C REFRIGERANT OIL <sup>6</sup>
Phaeton 2005	w/filter change <b>BAP</b> 11.8L (12.5 qt) <b>BGH</b> 7.5L (7.9 qt)	N/A	<b>01L</b> <b>Initial fill</b> 9.8 (10.4 qt) <b>09L</b> <b>Initial fill</b> 9.8L (10.4 qt)	<b>01L</b> Front final drive New fill: 1.3L (1.4 qt) Transfer gear box New fill: 0.8L (0.8 qt) <b>01R</b> Rear final drive New Fill: 1.5L (1.6 qt) <b>09L</b> Front final drive New fill: 1.1L (1.2 qt) Transfer gear box New fill: 0.55L (0.58 qt) <b>08Y</b> Rear final drive new fill: 1.1L (1.2 qt)	<b>BGJ</b> 9.0L (9.5 qt) <b>BAP</b> 17L (18 qt)	0.7–0.9L (0.74–0.95 qt)	6.0L 6.3 qt) Use Concentrated ZVW 177 901/903/904/906	600 ± 25g (21 ± 0.9 oz)	200 cc ± 10 cc (6.76 ± .34 fl oz)

<sup>1</sup> **ENGINE OIL: Approx.quantities!** Use synthetic based oil meeting VW oil quality standard: VW502 00 or VW500 00 or VW505 01 ACEA A2 or A3, API Sevice SJ for all engines. Use oil viscosity 5W40 if avail, or 5W30 if not available. Do not overfill! Overfilling engine oil can cause misfire DTC's to be stored in Engine Control Module (ECM) -J220-. To prevent overfilling, add approx. 0.5L less than capacity, start engine and let run until engine operating temperature is approx. 60°C (140°F), turn OFF ignition, wait approx. 3 minutes, check dipstick, then fill to MAX.

<sup>2</sup> **AUTOMATIC TRANS:** Use VW ATF, Part No. G 052 162 A2 (1 liter container). Life-time filling, new fill quantity is for reference only. Only replace after repair (i.e. when removing oil pan). Use G 055005A for 09L trans. See Repair Manual VESIS for details.

<sup>3</sup> **DIFFERENTIAL AUTOMATIC TRANS:** Use synthetic gear oil, SAE 75W90, Part No. G 052 145 A2 (1 liter container). Life-time filling, new fill quantity is for reference only. Only replace after repair. See Repair Manual VESIS for details.

<sup>4</sup> **COOLING SYSTEM:** Use only phosphate-free coolant G 012 A8F A4, PURPLE COLORED. **DO NOT INTERCHANGE OR MIX** older G11(ZVW237 105),GREEN COLORED. This can result in serious damage to the engine. However, it may be mixed with ZVW 237 G12, PINK COLORED. Frost protection is required down to approximately -25°C (-13°F). In countries with arctic climates, frost protection is required down to approximately -35°C (-31°F). The anti-freeze ratio must be a minimum of 40%, as otherwise frost protection is reduced. The recommended mixture ratio is 50:50. If greater frost protection is required (very cold climates), the amount of G 012 A8F A4 can be increased, but only up to 60%. This provides frost protection to approx. -40°C (-40°F). Do not reduce the coolant concentration by adding water, even in warmer seasons and in warmer countries, as cooling effectiveness will be reduced.

<sup>5</sup> **POWER STEERING:** Hydraulic oil G002 000. Do not use ATF.

<sup>6</sup> **A/C REFRIGERANT OIL:** Use PAG oil, Part No. G 052 300 A2 with R-134a.

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