



17-18-06 - Oil Consumption Measurement

Release date: 9/18/2024

Condition

| Applicable Vehicles | | | | | |
|---------------------------------|-----------|-----------|-------------|----------------|--------------|
| Model(s) | Year | Eng. Code | Trans. Code | VIN Range From | VIN Range To |
| All (Except Routan and ID.4) | 2000-2025 | All | All | All | All |

| Revision Table | | | |
|-----------------|----------------|----------------|---|
| Instance Number | Published Date | Version Number | Reason For Update |
| 2017813/19 | 9/18/2024 | 17-18-06 | To include 2025 model year applicability. |
| 2017813/18 | 6/20/2023 | 17-18-06 | To include 2024 model year applicability. |
| 2017813/1 | 12/10/08 | V170803 | Original publication. |

Customer states oil consumption is higher than the Volkswagen oil consumption standard of up to 0.5 quarts per 600 miles, or 0.5 liters per 1000 km.

Technical Background

In order to provide effective lubrication and cooling of internal engine components, all internal combustion engines consume a certain amount of engine oil. Oil consumption varies from engine to engine and may change significantly over the life of the engine.

Typically, engines with specified break-in periods consume more oil during the break-in period, and the oil consumption will stabilize after the break-in period. Refer to the *Owner Manual* for specific break-in procedures.

Under normal conditions, the rate of oil consumption depends on the quality and viscosity of the oil, the RPM at which the engine is operated, the ambient temperature, and road conditions.

Further factors include the amount of oil dilution from water condensation or fuel residue and the oxidation level of the oil.

Production Solution

Not applicable.



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Service

Before testing or attempting repair, explain Technical Background to the customer.

Prior to beginning Part # 1 of this test, visually inspect the engine for any signs of leaks. If leaks are present, repair per Elsa before continuing with this bulletin.

If the customer complains that their engine is apparently consuming oil in excess of the Volkswagen oil consumption standard above, an oil consumption test must be performed using the test plan in the VAS 6150/X or VAS 6160/X tester, **before any repair is carried out.**

Oil Consumption Test, Part 1

Using the VAS tester, navigate to the Oil consumption measurement using one of the provided methods below:

ODIS Service

Diagnosis Operating Mode: Special functions top tab >> 17 – Sub systems, marginal conditions >> 01 – Oil consumption measurement >> Select “Perform Test” button.



If the test plan is not located using the path above, use the search feature to find the “Oil Consumption Measurement” test plan.



NOTICE

It is important that the steps in the oil consumption test plan are followed precisely, and that the weight of the specified oil fill mass, as calculated by the test plan, is closely adhered to.

- An error of only 50 grams can alter the oil consumption measurement by 0.1 quarts at 1000 miles!



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NOTICE

When completing the attached Oil Consumption Measurement Worksheet, it is important to carefully document the weights of the empty measuring container, the oil fill volume before adding to the vehicle, the weight of the residual oil in the measuring container, and the actual weight of filled oil amount before road test.

- After putting the clean measuring container on the scale, it must be zeroed before adding the specified oil fill volume to the measuring container. Once all of the oil has been added to the container, the amount must be recorded under section '4c. Weight of oil only before adding to vehicle'.

Example work flow:

Once the scale is powered on and zeroed, add the empty, clean measuring container to the scale. Record the weight under '4b. Weight of empty, clean measuring container'. Next zero the scale again and add the required oil fill amount as calculated by the test plan. Record this figure under '4c. Weight of clean oil only before adding to vehicle'. Next, add the engine oil to the vehicle and re-weigh the measuring container with residual oil without zeroing the scale. Record this number under '4d. Weight of residual oil in measuring container' as a positive number. Subtract the figure in section 4d. from the figure in section 4c. and record this number under '4e. Actual weight of filled oil amount before road test' (See figure 1 below as an example).

| 4. Oil Consumption Test Pt.1 | |
|---|--------------|
| 4a. Required oil fill amount per ELSA Pro / Repair Manual: | 6 quarts |
| 4b. Weight of <u>empty, clean</u> measuring container: | 200 grams |
| 4c. Weight of <u>clean oil only</u> before adding to vehicle: | 4290 grams |
| 4d. Weight of residual oil in measuring container: | - 50 grams |
| 4e. Actual weight of filled oil amount before road test: | = 4240 grams |
| 4f. Road test starting mileage: | _____ miles |

Figure 1

Oil Consumption Test, Part 2

- When the customer returns the vehicle to the dealership after a minimum of 630 miles (1014 km), complete part # 2 of the oil consumption test plan using ODIS Service or the VAS 6150/X or VAS 6160/X tester.
- If the results of the oil consumption test plan are within specification no further work is to be performed. If the results are outside of the allowable specification proceed to step 3.



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3. Before any repairs are performed, a Volkswagen Technical Assistance Center (TACS) case must be opened, and the results of the consumption test, copy of the diagnostic log, and the completed Oil Consumption Measurement Worksheet must be sent for review.

NOTICE

When performing part 2 of the oil consumption test plan, it is critical that the final value entered from part 1 is accurate.

- When entering the filled oil quantity before the oil consumption road test, recall the figure recorded under part 4e, 'Actual weight of filled oil amount before road test'. If you enter the specified oil fill mass that was calculated by the test plan your results will be incorrect!
- The GFF oil consumption test can also be used for older engines not listed in the GFF test plan, since the test and procedure is identical for all engines. Please use any current engine code.

Warranty**NOTICE**

If the result of the test is that the oil consumption is within the permissible tolerance, another oil consumption test on the same engine will not be covered under Warranty within the next 25,000 miles (40,000 km).

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual ¹⁾

| Model(s) | Year(s) | Eng. Code(s) | Trans. Code(s) | VIN Range From | VIN Range To |
|--|---|--------------|----------------|---|--------------|
| All Vehicles (except Routan and ID.4) | 2000-2025 | All | All | All | All |
| SAGA Coding | | | | | |
| Claim Type: | Use applicable Claim Type ¹⁾ | | | | |
| Service Number: | Damage Code | HST | | Damage Location (Depends on Service No.) | |
| 1716 | 0010 | -- | | -- | |



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| | | |
|--|---|-------------------|
| Parts Manufacturer | Phaeton, Golf, Rabbit, GTI, R32, Eos, Passat Sedan, Passat Wagon, Tiguan, Tiguan LWB, Atlas, Touareg, CC, Atlas Cross Sport, Arteon | WWO ²⁾ |
| | Jetta, Beetle, Beetle Convertible, Jetta Wagon, Golf Wagon, Jetta SportWagen, Golf SportWagen, Taos | 3ME ²⁾ |
| Labor Operation ³⁾ : Oil consumption test part # 1 | | 17160199 = 90 TU |
| Labor Operation ³⁾ : Oil consumption test part # 2 | | 17160299 = 60 TU |
| Causal Part: Select Labor Operation | | 17160199 |
| Diagnostic Time ⁴⁾ | | |
| GFF Time expenditure | 01500000 = 00 TU max. | NO |
| Road Test | 01210002 = 00 TU 01210004 = 00 TU | NO |
| Technical Diagnosis | 01320000 = 00 TU max. | NO |
| Claim Comment: Input "As per Technical Bulletin 2017813" in comment section of Warranty Claim. | | |
| <p>¹⁾ Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only.</p> <p>²⁾ Code per warranty vendor code policy.</p> <p>³⁾ Labor Time Units (TUs) are subject to change with ELSA updates.</p> <p>⁴⁾ Documentation required per Warranty Policies and Procedures Manual.</p> | | |



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Required Parts and Tools

| Part Description | Part No: |
|------------------|----------|
| Engine Oil | See ETKA |

| Tool Description | Tool No: |
|-----------------------------------|---|
| VAS Diagnostic Tool | VAS 6150/X & VAS 6160/X with ODIS Service with: current online updates |
| Midtronics Battery tester/charger | InCharge 940 (INC-940) or GRX3000VAS |
| Digital Scale | CPWP15 |

Digital scale with 15 kilogram capacity and 5 gram accuracy, tool number CPWP15, can be obtained by contacting the VW Tools and Equipment Program at www.tools.vw.com or by calling 1-800-892-9650.

Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.

Oil Consumption Measurement Worksheet

Date: _____

1. Dealer Data

Dealer Number: _____

Contact Person: _____

Telephone: _____

2. Vehicle Data

Vehicle Identification Number (VIN): _____

Warranty Start Date: _____

Model: _____

Engine Code: _____

License Plate Number: _____

3. Customer Report

Estimated oil consumption as per customer: _____ quart(s) / 1000 miles

Complaint since (date/mileage): _____

Driving profile: _____ % City
_____ % Rural
_____ % Highway

4. Oil Consumption Test Pt.1

- 4a. Required oil fill amount per ELSA Pro / Repair Manual: _____ quarts
- 4b. Weight of **empty, clean** measuring container: _____ grams
- 4c. Weight of **clean oil only** before adding to vehicle: _____ grams
- 4d. Weight of residual oil in measuring container: $\begin{array}{r} \text{---} \\ - \\ \hline \end{array}$ grams
- 4e. Actual weight of filled oil amount before road test: $\begin{array}{r} \text{---} \\ - \\ \hline = \end{array}$ grams
- 4f. Road test starting mileage: _____ miles

5. Oil Consumption Test Pt. 2

- 5a. Weight of drained oil after road test: _____ grams
- 5b. Road test ending mileage: _____ miles
- 5c. Road test starting mileage: $\begin{array}{r} \text{---} \\ - \\ \hline \end{array}$ miles
- 5d. Miles driven: $\begin{array}{r} \text{---} \\ - \\ \hline = \end{array}$ miles

Calculated oil consumption per ODIS test plan: _____ quart(s) / 1000 miles

| | |
|-------------|------------------|
| Date: _____ | Signature: _____ |
|-------------|------------------|