



## 17-18-06 - Oil Consumption Measurement

Release date: 3/14/2022

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**Condition****Applicable Vehicles**

Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
All (Except Routan and ID.4)	2000-2022	All	All	All	All

**Revision Table**

Instance Number	Published Date	Version Number	Reason For Update
2017813/16	3/14/2022	17-18-06	To include additional clarification during procedure and updated worksheet.
2017813/15	6/22/2021	17-18-06	To include 2022 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.



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## Production Solution

Not applicable.

## 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.

**Tip:**

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

**Note:**

It is important that the steps in the oil consumption test plan are followed precisely, and that the weight of 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!

**Note:**

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’.



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**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).

<b>4. Oil Consumption Test Pt.1</b>			
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

Fig.1

**Oil Consumption Test, Part 2**

1. 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.
2. 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.
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.

**Note:**

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!



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**Note:**

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****Note:**

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 <sup>1)</sup>**

Model(s)	Year(s)	Eng. Code(s)	Trans. Code(s)	VIN Range From	VIN Range To
All Vehicles (except Routan and ID.4)	2000-2022	All	All	All	All
SAGA Coding					
Claim Type:	Use applicable Claim Type <sup>1)</sup>				
Service Number:	Damage Code		HST	Damage Location (Depends on Service No.)	
1716	0010		--	--	
Parts Manufacturer	Phaeton, Golf, Rabbit, GTI, R32, Eos, Passat Sedan, Passat Wagon, Tiguan, Tiguan LWB, Atlas, Touareg, CC, Atlas Cross Sport, Arteon			WWO <sup>2)</sup>	
	Jetta, Beetle, Beetle Convertible, Jetta Wagon, Golf Wagon, Jetta SportWagen, Golf SportWagen, Taos			3ME <sup>2)</sup>	
Labor Operation <sup>3)</sup> : Oil consumption test part # 1			17160199 = 90 TU		
Labor Operation <sup>3)</sup> : Oil consumption test part # 2			17160299 = 60 TU		



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<b>Causal Part:</b> Select Labor Operation		17160199
<b>Diagnostic Time</b> <sup>4)</sup>		
<b>GFF Time expenditure</b>	01500000 = 00 TU max.	NO
<b>Road Test</b>	01210002 = 00 TU	NO
	01210004 = 00 TU	
<b>Technical Diagnosis</b>	01320000 = 00 TU max.	NO
<b>Claim Comment:</b> Input "As per Technical Bulletin 2017813" in comment section of Warranty Claim.		
<p><sup>1)</sup> Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only.</p> <p><sup>2)</sup> Code per warranty vendor code policy.</p> <p><sup>3)</sup> Labor Time Units (TUs) are subject to change with ELSA updates.</p> <p><sup>4)</sup> Documentation required per Warranty Policies and Procedures Manual.</p>		

## 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](http://www.tools.vw.com) or by calling 1-800-892-9650.



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## 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:  $\begin{array}{r} \text{_____} \\ - \text{_____} \\ \hline \text{_____} \end{array}$  grams
- 4e. Actual weight of filled oil amount before road test: \_\_\_\_\_ 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:  $\begin{array}{r} \text{_____} \\ - \text{_____} \\ \hline \text{_____} \end{array}$  miles
- 5d. Miles driven: \_\_\_\_\_ miles

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

Date: \_\_\_\_\_ Signature: \_\_\_\_\_