



Mercedes-Benz

star bulletin



DTB

Date: October 28, 2008
 Order No.: S-B-18.00/40
 Supersedes:
 Group: 18

**SUBJECT: Model 163, 164, 170, 171, 203, 204, 209, 211, 215, 216, 219, 220, 221, 230, 251 and 463
 AMG Vehicles
 Equipped with Engine 112.96x, 113.98x, 113.99x, 156.98x or 275.98x
 Oil Consumption**

If you receive customer reports in the above model AMG vehicles of excessive oil consumption due to repeated oil level messages in the instrument cluster, review the information below and follow instructions accordingly.

Factors which may influence oil consumption:

1. Usage related influences that increase oil consumption:

- The load spectrum is significantly higher than on comparable standard production engines
- Driving profile (aggressive driving style)
- Normal engine wear after break in is completed

2. Design related influences that increase oil consumption:

Engine 156

- High RPM design
- Large piston diameter
- Low friction design

Engines 112.96x, 113.98x/99x, 275.98x:

- Increased stroke (113.98x/99x) compared to the standard engine
- Low friction design
- Number of cylinders (275.98x)
- Turbocharging (275.98x)

YOUR
ENGINE →

Before repair actions are taken, please note the following:

1. Oil consumption may be higher if the vehicle is new or frequently driven at high engine speeds.

This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Quality Records.

An oil consumption measuring test should only be performed after the engine break-in period of at least 1800 miles (~3000 km).

3. The maximum allowable oil consumption specification is 1.35 quart/1000 mi. (0.8 liter/1000km)
4. Accurate measurement of oil consumption can only be accomplished after driving longer distances, minimum 300 miles (~500 km).
5. An oil consumption measurement must always be performed to substantiate all customer oil consumption complaints.
6. To ensure the most accurate measurement possible, perform the consumption test using the weighing method.



Note: Prior to performing an oil measurement test inspect the engine for any evidence of oil leaks or any malfunctions with the crankcase ventilation system that would contribute to increased oil consumption. An oil consumption test must be completed prior to any major engine repairs for oil consumption complaints.

Oil Consumption Measurement:

1. Only use approved engine oil, refer to the WIS documents:

Specified Engine Oils	BB00.40-P-0223-02A
Sheet 229.5	BB00.40-P-0229-05A
Sheet 229.51	BB00.40-P-0229-51A
2. Perform weighing of engine oil at start and finish under the same ambient conditions. Refer to instructions Measure Oil Consumption, WIS group 18.00. For documentation use Oil Consumption Test Input Sheet (see step 9).
3. Engine must be at operating temperature (approx. 80°C engine oil temperature).
4. The oil must be weighed in the same location at the start and the finish of the drive.
5. Allow the engine oil to drain 15 minutes both before and after the measurement drive.
6. Use the same receptacle before and after the measurement drive.
7. Do not drain the oil out of the oil filter and oil cooler, this oil quantity is not required.
8. Do not forget the second oil pan (if applicable) when draining the engine oil.
9. Fill out Oil Consumption Test Form. Form can be found on Star TekInfo → Warranty Information → Oil Consumption Test Form. Print a copy and submit with warranty claim for any oil consumption related repairs.



Note: Use TAB key or Arrow keys to navigate test sheet

Minimum driving distance for oil consumption measurement drive:

- Drive performed by customer → Distance greater than 600 miles, (~1000km) preferred, because the driving style of the customer is taken into account.
- Drive performed by workshop → Distance greater than 300 miles, (~500 km) to obtain most accurate measurement possible. Measurement drive performed by the workshop should include the following driving (if possible):
 - 50% highway driving
 - 25% secondary road driving
 - 25% stop and go traffic

Repair: If the engine oil consumption is greater than 1.35 qt/1000 mi. (0.8 lit./1000km) as measured by the weighing method, proceed as follows: