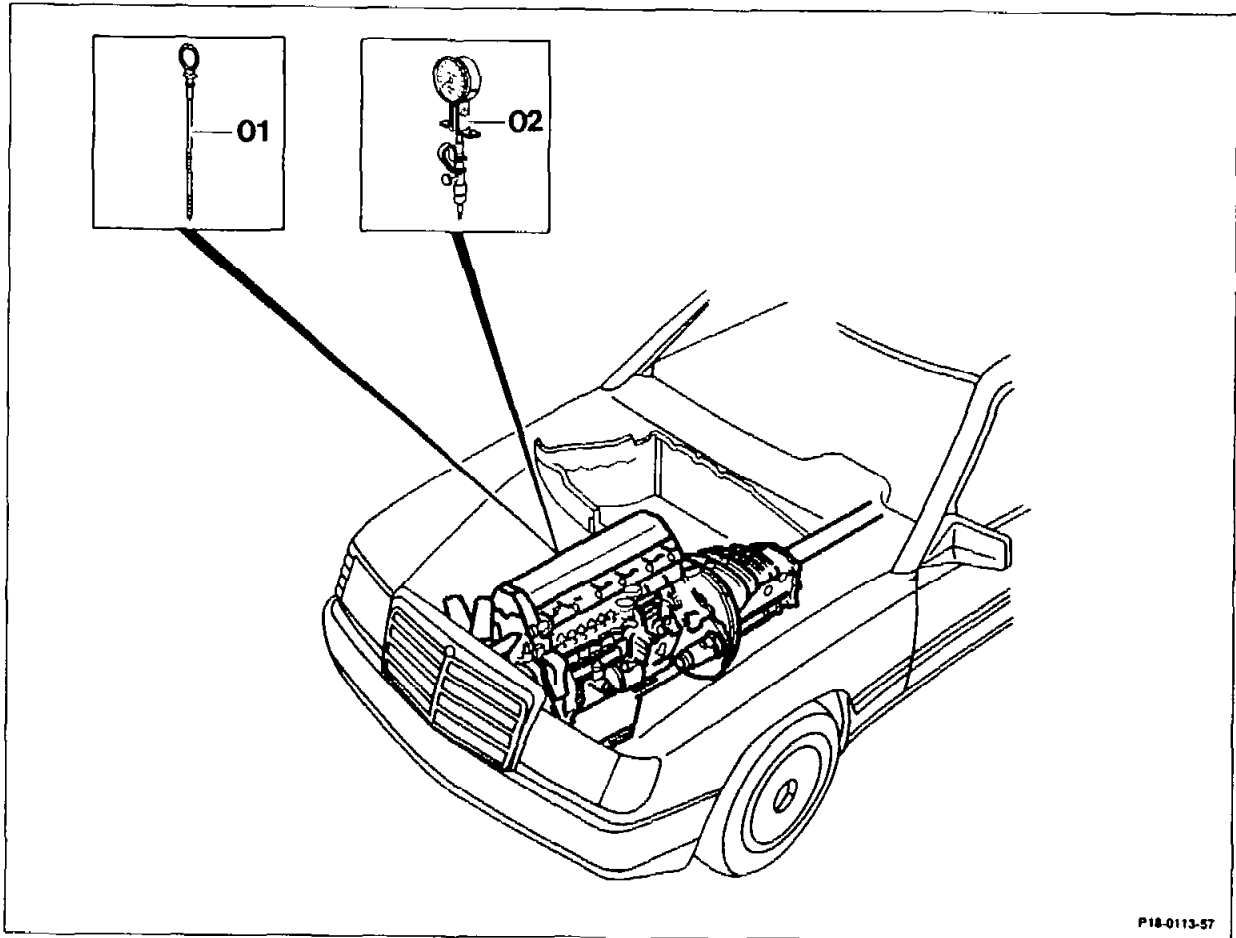


# 18-025 Measuring oil consumption

Operation no. of operation texts and operation values or standard texts and flat rates .....	18-1010
.....	18-1020



P18-0113-57

Engine ..... check for external loss of oil.  
 Engine oil change ..... perform (18-002).



Perform oil consumption test only with fresh oil. Exception is if last oil change was performed within the last month or car has been driven not more than 1000 km.

Car ..... park on a level spot and mark spot.  
 Engine oil temperature ..... warm up to 80 °C. Measure oil temperature with remote thermometer 124 589 07 21 00.

Engine ..... switch off; wait exactly 5 minute before measuring oil level with the appropriate dipstick 115 589 15 21 00 or 120 589 06 21 00, respectively. The part number of the dipstick used should be stated on the oil consumption measurement sheet.

The millimeter scale of the dipstick must be pointing toward the engine. Withdraw dipstick after 3 seconds. Read off oil level.



(Before test drive)

The oil level must not be higher than the level stated on the oil consumption measurement sheet. Avoid overfilling oil. Adjust oil to correct level and repeat measurement. Read off the quantity of oil from the diagram of the oil measurement sheet for the oil level indicated and enter in sheet.

Test drive ..... must be performed over a distance of 250 km (if measurement conducted by workshop personnel) or 1000 km (if measurement conducted by customer).

If measurement conducted by workshop personnel, take into account the conditions in which the customer normally drives the car.

Car ..... park on marked spot.

Engine oil temperature ..... measure with remote thermometer 124 589 07 21 00.



If the engine is switched off to allow the oil to cool down to 80 °C, the engine must be run for about 10 seconds by blipping the accelerator before performing the measurement.

Oil consumption ..... calculate in liters/100 km from quantity of oil consumed (cm<sup>3</sup>) and distance driven (km).

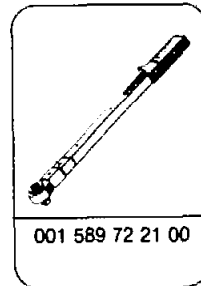
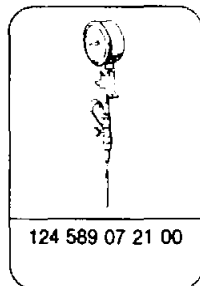
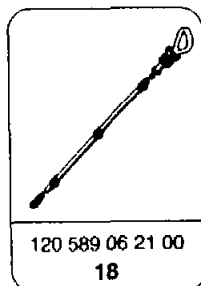
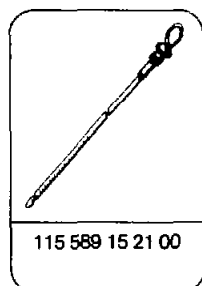
## Measurement sheets

Engine	Print no. (German/English)	Print no. (French/Spanish)
601.911/912	6516 7457 41	6516 7457 42
602.911/912 603.912	6516 7458 41	6516 7458 42
603.913/963	6516 7472 41	6516 7472 42
602.961/962 603.960/961/962	6516 7459 41	6516 7459 42
603.970	6516 7473 41	6516 7473 42
603.971	6516 7474 41	6516 7474 42
Measurement sheet for weighing method	6516 7401 41	6516 7401 42

## Tightening torques

	Nm
Oil drain plug M 12 × 1.5 × 13	30
Oil drain plug M 14 × 1.5 × 22	25

## Special tools



## Notes

The oil consumption should not exceed  
1 liter/1000 km.

The procedure for the oil consumption  
measurement is described on the front side of  
the measurement sheet. It is essential to  
observe this procedure to avoid incorrect  
measurements.

The oil consumption for engines for which no  
measurement sheet exists, can be obtained  
using the weighing method.

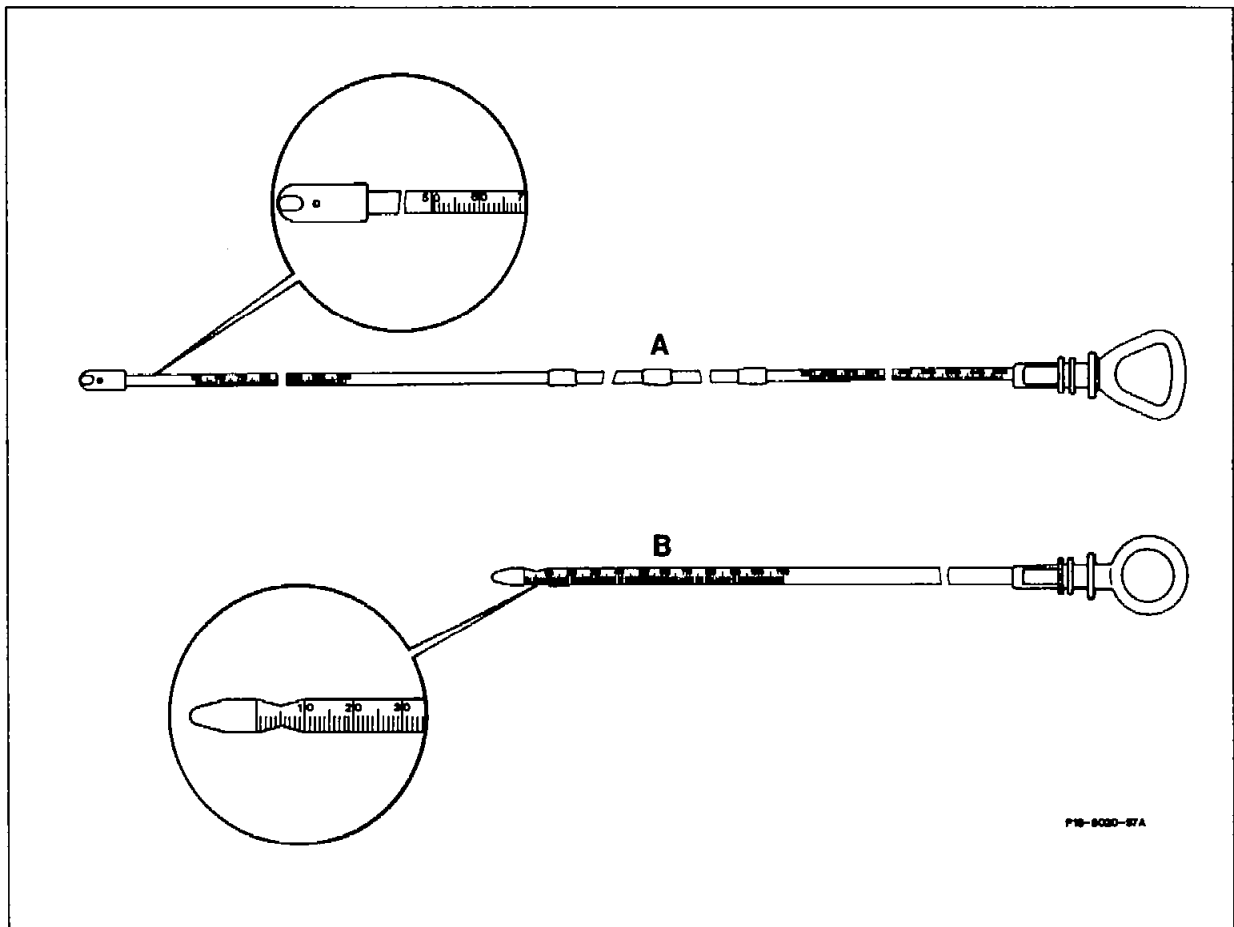
### New oil consumption dipstick

A new dipstick with a millimeter scale is required for engines 602.91 with exhaust gas recirculation and side section on the oil sump.

Because of this length, the dipstick touches the bottom of the oil sump and projects out of the guide tube.

Dipstick with part no. 115 589 15 21 00 remains valid.

The part number of the dipstick used should be stated on the measurement sheets.



A Dipstick part no. 120 589 06 21 00 (new)

B Dipstick part no. 115 589 15 21 00 (old)

### Measurement procedure

The oil consumption test drive can also be driven by the customer himself. A distance of 1000 km should be covered as a general rule.

Customer information regarding oil consumption should be taken into account:

If a high oil consumption is indicated (> 2 liters/1000 km), shorten the distance driven if necessary.

If a low oil consumption is indicated (< 2 liters/1000 km), the distance driven may be more than 1000 km.

Top up engine oil only to the level stated.

The engine oil level should be determined by the workshop personnel before and after the oil consumption test drive and entered in the sheet.

If the oil consumption test drive is conducted by the workshop personnel, a distance of 250 km (previously 100 km) should be covered.

### **Engine oil**

The oil consumption test drive should only be conducted with fresh engine oil. For this reason, the engine oil should be changed before conducting the test drive.

It is not necessary to change the engine oil if the last oil change was performed within the last month or if the vehicle has been driven not more than 1000 km since the last engine oil change.

