

Changing Oil and Filter for the Sprinter 2.7

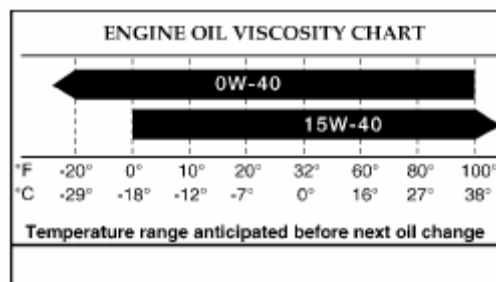
Changing oil and filter on the Sprinter 2.7 has been a frequent and early topic for the Yahoo Sprinter Group. Some uninformed trade press to the contrary, changing the oil and oil filter on the Sprinter 2.7 is as easy, and in fact, easier than for most other vans or cars on the market today.

Requirements:

9.5 quarts oil API CI-4 and MB Sheet No. 228.3 (non-synthetic) or 229.3 or 229.5¹ (synthetic)²:

2002 and before, either synthetic or non-synthetic
2003 and after, DC recommends synthetic

Choose viscosity based on the Sprinter Service Manual chart to the right.



Oil filter (see footnote 1):

Manufacturer	Part Number	Cost
Fram	CH9301 CH9301ECO (EU only)	Usually less than \$10.00 delivered
Dodge	5086301AA	\$10-12
Freightliner/Mercedes	A 611-180-00-09	\$10-12
Baldwin	P7198	Baldwin is a construction machinery filter supplier. Locate dealers at www.baldwinfilter.com
Mann (OEM)	HU718/1K	
Hengst	E11 D57	

Tools:

13 mm wrench

wrench for oil filter cap

normal oil changing stuff – catch basin, recycling bottles, rags

¹ If the oil is rated MB 229.5, then a special fleece oil filter must be used. These filters for Sprinters are not yet readily available in the US.

² A partial listing of MB approved oils for the 2.7 (OM612) engine in the US is located at <http://www.whnet.com/4x4/oil.html>.



Drain the oil. There have been discussions whether through-the-dipstick oil removal, as used on other Mercedes engines, works. I jerry rigged a system to test it out – I was not successful. It left 1.5 qts behind.



Loosen and remove the oil filter cap.

The removed the oil filter cap and attached oil filter



Pull the old filter off and remove the three O-rings from the plastic filter mounting spike. Replace with new O-rings provided in the new filter kit. Then slide the new filter onto the mounting spike.

Note how little oil has drained from the filter and mounting spike. This is not a messy job.



There have been several discussions as to whether there is a mess in pulling the filter from the block-integral oil filter canister. That is not the case. The oil drains directly into the block. Note the condition of the canister upon removal of the filter.



Reinstall the oil drain plug. Reinstall and hand tighten the oil filter cap. Then refill crankcase with 9.5 quarts of approved oil. Don't forget to reinstall the oil filler cap.

Start the engine and check for leaks. Over tightening the oil filter cap can force the O-ring out from the flange and destroy the seal.

Resetting ASSYST

For those with the ASSYST option, it must be reset. It involves awkward arm/finger placements that remind me of setting the options on cheap Chinese electronic watches. Upon completion, it will give a preliminary estimate of your next oil change requirement. However, if you mess up and reset twice, ASSYST will revert back to the DC recommended 10,000 mile standard. Also – go figure – the Sprinter Service Manual's instructions are: go to the owner's manual for instructions.

- 1) Put the Key in the # 2 position
- 2) Hit the "MI" button on the dash twice
- 3) Put the Key in the # 0 position (key out position) within 10 seconds of hitting the MI Button
- 4) Press the MI Button and turn the key into the # 2 position at the same time. There will be a confirmation noise
- 5) Release and all done.

Additional Factoids:

As taken from the Sprinter Service Manual:

Oil Service intervals:

10,000 miles or as indicated by the ASSYST indicator (optional equipment); except:

- A) every 12 months regardless of mileage, or
- B) ½ of the indicated mileage if the diesel used is in excess of 0.05% sulfur

ASSYST oil quality sensor:

The oil quality sensor is grouped with the oil temperature and oil level sensors.

“Oil quality is detected for indicating the need-based oil change interval. The oil quality is detected on the basis of the capacitance of the engine oil (dielectrics, does not conduct electricity), this being as much as six times greater in case of poor quality.

Oil level and oil quality are separate of each other. The information is first of all compensated in the ECM before being transmitted over the CAN bus.

Faults at the oil sensor are detected by the ECM and entered into fault memory. The voltage for the oil sensor (approx.5V) is supplied by the ECM.”

Just hope the oil sensor doesn't need replacing. Removal requires unmounting the engine from the chassis and swinging the stabilizer bar out of the way.