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11 00 ... Engine oil service (N47)



### Warning!

## Risk of scalding!

Carry out work on the vehicle only when wearing oil- and heat-resistant protective gloves incl. forearm protection, face guard and protective apron.



#### Important!

Carry out the engine oil service only when the engine is at operating temperature.

Observe the exact engine oil filling capacity.

Overfilling the engine with engine oil will result in **engine damage**.

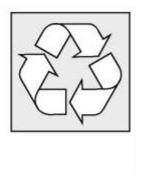
Please keep to test and drip-off times (10 min at minimum).

### Important!

### Risk of damage!

When working on the engine oil, coolant or fuel circuit, it is essential always to protect the alternator against dirt contamination.

Cover alternator with suitable materials.



# Recycling:

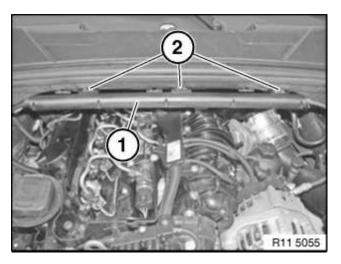
Catch and dispose of drained engine oil in a suitable collecting vessel.

Observe country-specific waste disposal regulations.

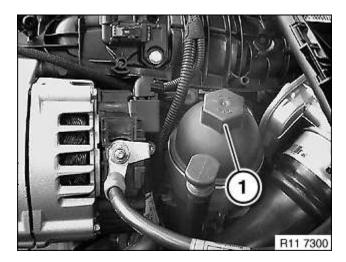


# Necessary preliminary tasks:

Remove <u>acoustic cover</u>



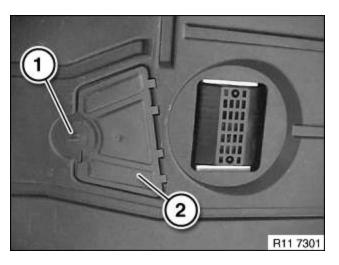
Unclip cable duct (1) in these positions (2) and put to one side.



Release oil filter cover (1) with a suitable tool.

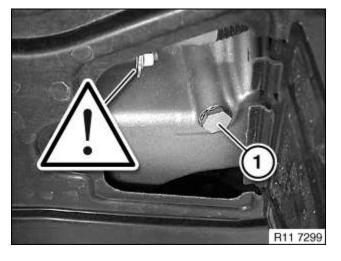
## Note:

Engine oil flows out of the oil filter housing and back into the oil sump.



Turn plastic screw (1).

Release service opening (2).



Important!

Risk of shorting at starter!

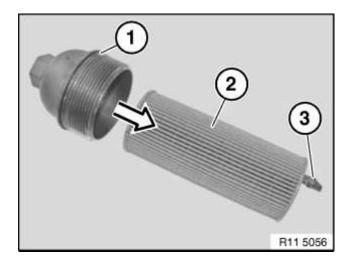
Remove screw plug (1) from oil sump and drain engine oil.

Tightening torque 11 13 1AZ.

Installation note:

Replace sealing ring.

Pull out oil filter element (2) in direction of arrow.

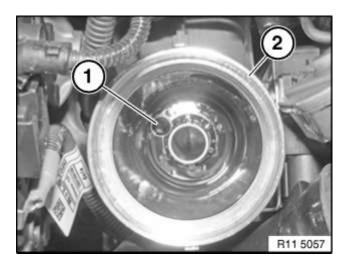


Installation note:

Replace oil filter element (2) and sealing ring (1).

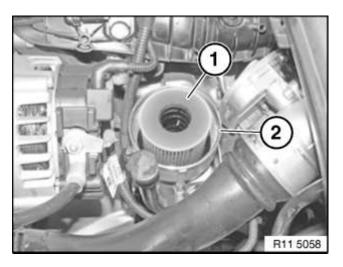
### Note:

Moisten sealing ring (1) on oil filter cover and sealing ring (3) on oil filter element guide with engine oil.



#### Note:

Guide bore (1) for oil filter element in oil filter housing (2).

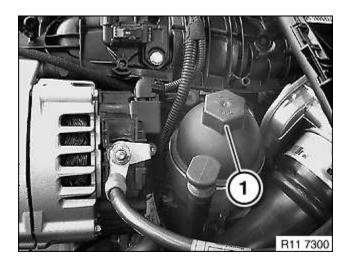


Insert new oil filter element (1) in guide bore of oil filter housing (2).

Screw oil filter cover into oil filter housing (2) and tighten down.

Tightening torque 11 42 1AZ.

Secure oil filter cover (1) with a suitable tool.



Tightening torque 11 42 1AZ.

Note:

Pour in engine oil.

Start engine and run at idle until oil pressure indicator light goes out.

Switch off engine

Check oil filter cover (1) and screw plug of the oil sump for leaks.

Assemble engine.



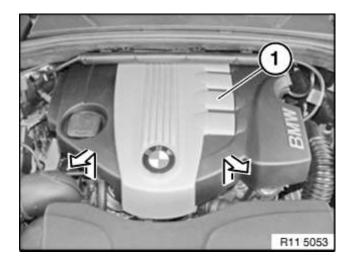
Checking engine oil level:

- Park vehicle on a horizontal surface
- Check engine oil level using the oil dipstick after the engine has been at operating for 5 minutes
- Top up engine oil if necessary

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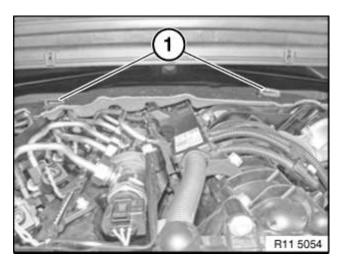
11 00

Removing and installing/renewing acoustic cover (N47)



Remove acoustic cover (1) in following steps:

- Raise at front.
- Pull out in direction of travel.



Installation note:

Slide acoustic cover into both guides (1).

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# 11 13 Oil Pan

Type Thread Tightening specification Meas	sure
1AZ Oil drain plug N47 / N47S M12 x 1.5 Replace sealing ring 25 Nm	

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# 11-42 Oil Filter and Pipes

		Type	Thread	Tightening specification	Measure
1AZ	Oil filter cap to oil filter housing	N47 / N47S			25 Nm
2AZ	TC oil feed to crankcase	N47 / N47S		Replace banjo bolt, sealing rings	22 Nm
3AZ	TC oil return to crankcase	N47 / N47S		Hose clamp	3 Nm
4AZ	H.P./L.P. TC oil feed to crankcase	N47S	M10	Replace double banjo bolt, sealing rings	22 Nm
5AZ	Oil feed H.P. to oil return L.P.	N47S		Hose clamp	3 Nm

4	•	1	
	•		
	•		

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# 11 40 Oil supply E81 / E82 / E87 / E88 / E84 / N47 D20

Oil grades and consumption:		
see recommended engine oils for BMW Group engines		
Filling capacity, engine oil change with oil filter element	Litres	5.20