

**RevHigh Instructions for oil pump bolt checks for the Bavarian V8 cars.
Torque settings for the bolts.**

11 13 Oil Pan

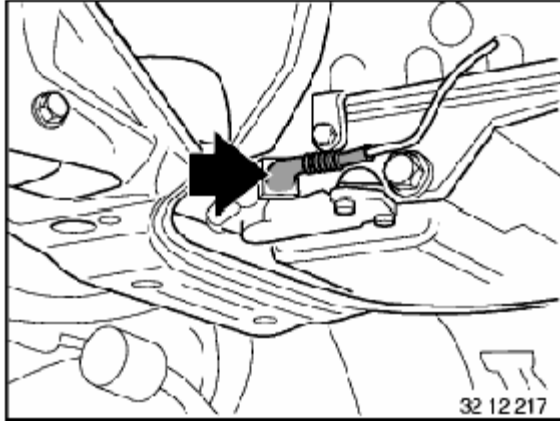
	Type	Thread	Tightening specification	Measure
1AZ Oil drain plug	All	M12 x 1.5		25 Nm
	All	M18 x 1.5		30 Nm
	All	M22 x 1.5		60 Nm
2AZ Oil pan on engine block	All	M6 8.8		10 Nm
	All	M6 10.9		12 Nm
	N42	M8 8.8	Replace screws	30 Nm
	All others	M8 8.8		22 Nm
Oil sump, lower section to upper section	All	M6 8.8		10 Nm
	All	M8 8.8		22 Nm
Oil sump bottom section to top section with microencapsulated screws	All	M6 10.9	Replace screws	12 Nm

TOOLS-

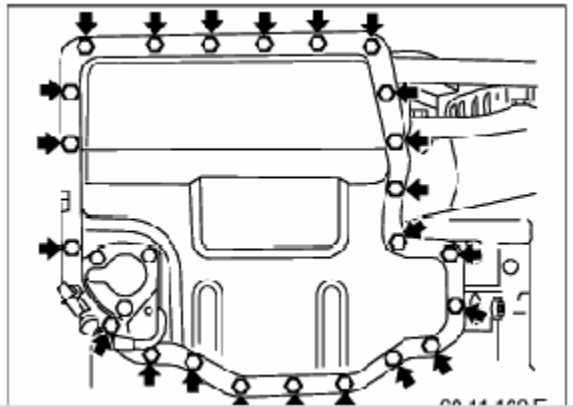
- A good TQ wrench will have Nm and Lb ft on it so you can dial it in. For security measures add a dab/droplet of loctite on the nut prior to installation. I suggest the loctite (red or medium) for this so the nut does not back out again.
- Brand new BMW lower oil pan gasket from the dealership. Cost is around \$16.50.
- A wire wheel attachment to either an electric drill or air ratchet is recommended in order to remove the cork gasket from the oil pan. Any other tools that you may have to remove gasket material are highly advisable. I.E. Scribes, razors etc. You do NOT want to soak the oil pan in varsol or gasoline. The oil level sending unit has a rubber seal which could dry out and cause a leak.
- A metric socket set, extensions and ratchet are recommended, normal hand tools. Quarter ratchet is also handy if available. Oil drain pan and large cardboard or mat will be needed.
- Brake clean is also an option in order to fully clean out the oil pan once gasket material is removed.

The Process-
DRAIN OIL FIRST-

Removing the oil pan- remove the splash guard/underbody panel, begin to disconnect the plug from the oil level switch. Reference:



Unfasten the bolts on the pan to the block. Reference:



Pan is off! Congratulations!



Use the brake clean to clean off the oil pan residue. Then wipe the pan down. Removing the gasket material will be a PITA if you have the cork gasket in place. When removing the material use care as to not warp the pan, as this will create oil leaks.

Here is the pan next to the new gasket. The new gasket is metal with a rubber liner that faces inside the pan. A much better gasket than the cork stuff.



Your clean oil pan should look like this after gasket removal and a thorough cleaning.



Now remove the black plastic cover to expose the oil pump gear and hardware. There are 3 nuts to remove. Are you feeling lucky?



Spray a little bit of brake clean in the general lower area to clean off any oil from where you will be working. Do NOT remove all 3 nuts at one time. Take your correct size socket, extension and ratchet and place it over this first nut. Apply slow amounts of tq to remove and see how easily the nut comes off. Remove the nut and clean with the brake clean. Let it air dry and place a drop/dab of loctite on the threads. NOTE: It doesn't take a lot of loctite. TQ ea. nut down using the chart above. I used roughly 14-16lbs.

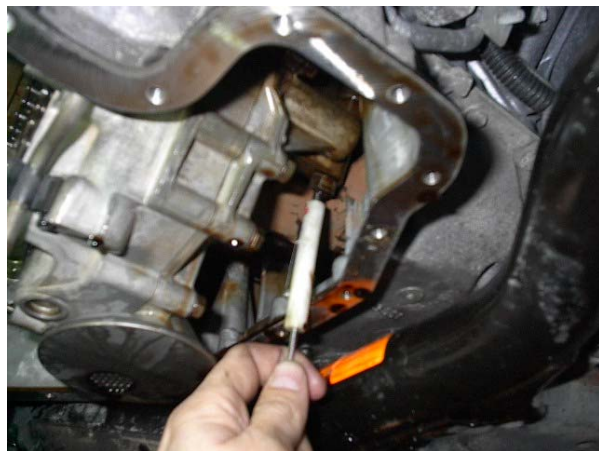
1st-



2nd-



3rd-



I would recommend looking inside the oil screen pick-up area for any lodged debris. Use a fine pick or scribe to remove any debris from the screen. I found a piece of my oil dipstick plastic lodged inside this area. The plastic becomes brittle and can break off. This is the area the plastic will collect. Not a good area for it if the screen becomes clogged it can starve the engine from oil.

After checking/re-installing the 3 oil pump nuts you are done. Time to place everything back together and tighten things down. Wipe down the outer edge of the block where the oil pan mates to the block. .

- Place the black oil pump gear cover back on and use about 4lbs of TQ.
- Align the oil pan gasket with the rubber liner facing inside the oil pan.
- Install the oil pan to the block. Use about 8lbs of TQ for tightening the oil pan bolts.
- Fill engine with oil and start. Let idle and check for any oil leaks.
- Install underbody panel and you are done.

I discovered 2 out of the 3 nuts very loose on my own car. I'm really happy and lucky I performed this procedure when I did. It could have saved my engine from complete failure.

I hope this helps.

John aka RevHigh

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When performance matters, RevHigh!



Use this information at your own risk. This procedure is recommended for cars that have 70K miles or more due to other enthusiast reporting this common failure. Your mechanic at your next oil change can easily do the procedure for you if you do not feel comfortable doing this. It only takes about 30 minutes to do this aside from the oil change.