

**Modification notes**

28.7.09	Value modified: Engine oil, Specifications for service products	Engine 272.920/921/922/923/940/941/942/943/944/945/946/947/949/951/952/960/961/963/964/965/966/967/968/969/970/972/973/974/980/982/983/984/985/988 Engine 272.911/948/950/971/975/977/991	*BF18.00-P-1001-01M
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	<b>Remove</b>		
<b>Danger!</b>	<b>Risk of death</b> caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between columns of vehicle lift and position four support plates at vehicle lift support points specified by vehicle manufacturer.	AS00.00-Z-0010-01A
<b>Danger!</b>	<b>Risk of injury</b> to skin and eyes caused by handling hot or glowing objects.	Wear safety gloves, protective clothing and safety glasses, if necessary.	AS00.00-Z-0002-01A
<b>Danger!</b>	<b>Risk of accident</b> caused by vehicle starting off by itself when engine is running. <b>Risk of injury</b> caused by contusions and burns during starting procedure or when working near the engine as it is running	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.	AS00.00-Z-0005-01A
	Notes on avoiding damage through contamination and foreign objects		AH00.00-P-5000-01A
		Only replace the engine oil when the engine is at normal operating temperature.	
1	Start engine	Allow engine to warm up until coolant and engine oil have reached operating temperature.	
2	Turn off engine	The vehicle must be horizontal otherwise all the engine oil cannot be extracted or drained which can lead to an incorrect oil filling with consequential damage.	
3 	Open engine hood Opening engine hood, moving to upright position and closing		AR88.40-P-1000EW
4	Empty oil filter housing and replace oil filter element	Engine 272  Engine 273 Drain pan <a href="#">gotis://S_18.1_08.0</a> Screw cap to oil filter housing Socket	AP18.00-P-0101-06V  AP18.00-P-0101-06SX  *BA18.20-P-1001-01O *103589020900
5.1	Pull oil dipstick out of guide tube and drain engine oil using engine oil extractor	When extracting the engine oil.  Engine oil extractor - mobile <a href="#">gotis://S_18.1_02.0</a>	AP18.00-P-0101-02Z
5.2 	Remove rear section of lower engine compartment paneling Remove/install bottom engine compartment paneling	When draining the engine oil by removing the drain screw.	AR61.20-P-1105EW
6	Remove drain screw from oil pan and drain engine oil	When draining the engine oil by removing the drain screw.	
	<b>Install</b>		
7.1	Detach engine oil extractor and insert oil dipstick into the guide tube	After suctioning off the engine oil.	
7.2	Screw in drain screw	When draining the engine oil by removing the drain screw. Replace sealing ring. Oil drain screw to oil pan	*BA01.45-P-1001-01M
8     	Pour in engine oil  Specified and approved quality grades and viscosity classes conforming to SAE at enduring low outside temperatures Notes concerning extension of the oil change interval  Service Information: Engine oil change Specified engine oils (service)	Use only approved engine oils.  Engine oil filling capacity * Not for USA, Japan	AH18.00-P-1000-01BA  AH18.00-P-0102-01A  *BF18.00-P-1001-01M SI18.00-P-0011A BP00.40-P-0000-00A

<b>BB</b>	Approved engine oils (service)		BB00.40-P-0226A
	<b>Checking</b>		
9	Conduct engine test run and check engine for leaks	Only raise rpm 10 seconds after the engine has started.	
10	Turn off engine		
<b>AR</b>	Install rear section of the lower engine compartment paneling Remove/install bottom engine compartment paneling	When draining the engine oil by removing the drain screw. Only install rear section of lower engine compartment paneling after completing all maintenance operations.	AR61.20-P-1105EW
	<b>Checking</b>		
12	Check the engine oil with the oil dipstick approx. 5 minutes after switching off the engine at operating temperature, correct if necessary	The vehicle must be on a level surface otherwise false measurements will occur. Insert oil dipstick up to the end stop in the guide tube and leave it there for at least 3 s.	
<b>AR</b>	Close engine hood Opening engine hood, moving to upright position and closing		AR88.40-P-1000EW
14	Reset service indicator Notes concerning extension of the oil change interval		AP00.20-P-0042EW AH18.00-P-0102-01A

#### Oil filter


Number	Designation		Engine 272	Engine 273
BA18.20-P-1001-01O	Threaded cap to oil filter housing	Nm	25	25

#### Oil pan

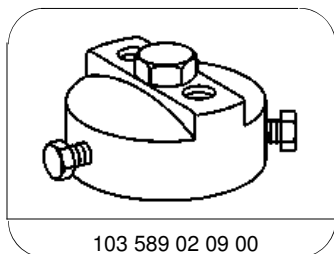
Number	Designation		Engine 272	Engine 273
BA01.45-P-1001-01M	Oil drain screw to oil pan	Nm	30	30

#### Engine lubrication

Number	Designation		Engine 272.920/921/922/923/ 940/941/942/943/944/ 945/946/947/949/951/ 952/960/961/963/964/ 965/966/967/968/969/ 970/972/973/974/980/ 982/983/984/985/988	Engine 272.911/948/ 950/971/975/ 977/991
BF18.00-P-1001-01M	Engine oil Filling capacity without oil filter	Liters	-	-
	Filling capacity with oil filter	Liters	8,0	7,0
	Specifications for service products	Sheet	-	-
		Sheet	BB00.40-P-0229-03A	BB00.40-P-0229-03A
		Sheet	BB00.40-P-0229-05A	BB00.40-P-0229-05A

 **Engine lubrication**

Number	Designation	Engine
BF18.00-P-1001-01M	Engine oil Filling capacity without oil filter	Liters -
	Filling capacity with oil filter	Liters 8.5
	Specifications for service products	Sheet <a href="#">BB00.40-P-0229-01A</a>
		Sheet <a href="#">BB00.40-P-0229-03A</a>
		Sheet <a href="#">BB00.40-P-0229-05A</a>



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Wrench socket