













ENGINE 642 in MODEL 166, 204, 207, 212, 218
ENGINE 642.8/932, 642.930 ## as of 458148 in MODEL 221
ENGINE 642.861/867 in MODEL 222

Modification notes

9.7.13	Motoröl	MOTOR 642.826/830/832/834/836/838/850/852/853/854/856/858/861/862/868 außer CODE 474 (Partikelfilter)	BF18.00-P-1001-01A
9.7.13	Motoröl	MOTOR 642.932/961 außer CODE 474 (Partikelfilter)	BF18.00-P-1001-01A
9.7.13	Motoröl	MOTOR 642.930 ## ab 458148 außer CODE 474 (Partikelfilter)	BF18.00-P-1001-01A
9.7.13	Motoröl	MOTOR 642.960 außer CODE 474 (Partikelfilter)	BF18.00-P-1001-01A

	Remove		
 Danger !	Risk of death caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between vehicle lift columns and position the four support plates at the vehicle lift support points specified by the vehicle manufacturer.	AS00.00-Z-0010-01A
 Danger !	Risk of accident from vehicle starting off by itself when engine running. Risk of injury (bruises and burns) resulting from working on the engine while it is being started or when it is running.	Secure vehicle to prevent it from starting off by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.	AS00.00-Z-0005-01A
 Danger !	Risk of injury . Skin or eye injuries may result when handling hot or glowing objects.	Wear protective gloves, protective clothing and safety glasses, if necessary.	AS00.00-Z-0002-01A
	Notes on avoiding damage through contamination and foreign objects		AH00.00-P-5000-01A
	Notes on engine oil extraction as preferred oil change method		AH18.00-P-0103-01A
1	Allow engine to warm up	 Until the coolant and engine oil have reached operating temperature.	
2  AR  AR	Open engine hood	MODEL 166, 204, 207, 212, 218, 221, 222 MODEL 166 ENGINE 207, 212  MODEL 207, 212 with CODE U60 (Pedestrian protection) Move engine hood to vertical position : Remove left and right clamping lever at top on left and right engine hood hinge.	AR88.40-P-1000GQ AR88.40-P-1000EW
3	Remove upper engine cover		
4	Drain oil filter housing, remove oil filter element	 Socket wrench bit	AP18.00-P-0101-06TI *642589000900
5	Suction off engine oil	When extracting engine oil  To enable all the engine oil to be extracted, the vehicle has to be on a horizontal surface, whereupon the extraction of the engine oil can then be started straight away once the engine has been switched off. It must however be ensured that the extraction procedure is not stopped until at least 5 min after the engine has been switched off and the old oil filter has been removed. This gives the engine oil time to flow back into the oil pan. If necessary, the extraction procedure must be started several times before the 5 minutes have expired. Otherwise the entire quantity of engine oil is not extracted, and any oil remaining in the engine can result in overfilling after pouring in the specified oil change quantity. This can then result in damage to the engine and catalytic converter.	AP18.00-P-0101-02PI

		<p>i If necessary, insert engine oil extraction probe into guide tube, and mount intake connection of engine oil extractor to engine oil extraction probe. The engine oil extraction probe must be inserted until contact with the base of the oil pan is perceived.</p> <p>Engine oil suction unit - mobile gotis://S 18.1 02.0</p>	
6.1	Remove bottom section of soundproofing	MODEL 204 (except 204.9), 207, 212, 218 When draining the engine oil by removing the drain screw	AR94.30-P-5300EW
6.2	Remove lower engine compartment paneling	MODEL 204.9, 221, 222 When draining the engine oil by removing the drain screw MODEL 204.9 Model 221 except code Z07 (Highest protection) MODEL 221 with CODE Z07 (Highest protection) MODEL 222	AR61.20-P-1105CY AR61.20-P-1105SX AR61.20-P-1105SXS AR61.20-P-1105LF
6.3	Remove underfloor paneling	When draining the engine oil by removing the drain screw MODEL 166	AR61.30-P-1001GQ
7	Remove drain screw and drain engine oil	When draining the engine oil by removing the drain screw <p>i To extract all the engine oil, the vehicle must be level and the drain bore is to be left open for at least 5 minutes.</p> <p>Any quantity of oil remaining in the engine can otherwise result in overfilling after pouring in the specified oil change quantity. This can then result in damage to the engine and catalytic converter.</p>	
Xi	Install		
8	Screw in drain plug	After draining the engine oil by removing the drain screw <p>i replace seal.</p> <p>Nm Oil drain screw to oil pan</p>	*BA01.45-P-1006-01Q
9	Install oil filter element	<p>i Install new seals.</p> <p>Nm Threaded cap to oil filter</p> <p>S Socket wrench bit</p>	AP18.00-P-0101-06TI *BA18.20-P-1001-01T *642589000900
10	Pour in engine oil Specified and approved quality classifications and viscosity classes according to SAE at continuously low outdoor temperatures Notes concerning extension of the oil change interval Service Information: Engine oil change	<p>* Not for USA, Japan</p> <p>i Use only approved engine oils.</p> <p>S With CODE 474 (Particulate filter)</p> <p>S Except CODE 474 (Particulate filter)</p>	AH18.00-P-1000-01BA AH18.00-P-0102-01A SI18.00-P-0011A *BF18.00-P-1001-01S *BF18.00-P-1001-01A
11	Conduct an engine test run and check engine for leaks	<p>i Do not increase engine rpm until 10 seconds after starting the engine. Engine damage may occur otherwise.</p> <p>In the event of leakage: ↓ Determine and rectify cause, subject to separate repair order.</p>	
12	Turn off engine		
13	Install upper engine cover	i Only install upper engine cover after completing all maintenance operations.	
14.1	Install bottom part of soundproofing	MODEL 204 (except 204.9), 207, 212, 218 After draining the engine oil by removing the drain screw	AR94.30-P-5300EW
14.2	Install lower engine compartment paneling	MODEL 204.9, 221, 222 After draining the engine oil by removing the drain screw MODEL 204.9 Model 221 except code Z07 (Highest protection)	AR61.20-P-1105CY AR61.20-P-1105SX

AR		MODEL 221 with CODE Z07 (Highest protection)	AR61.20-P-1105SXS
AR		MODEL 222	AR61.20-P-1105LF
14.3	Install underbody paneling	After draining the engine oil by removing the drain screw	
AR		MODEL 166	AR61.30-P-1001GQ
15	Start engine and allow it to warm up	i Until the coolant and engine oil have reached operating temperature.	
16	Turn off engine		
17	Check engine oil level using oil dipstick, correct if necessary	i insert oil dipstick up to the end stop in the guide tube and maintain length of stay of a least 3 s.	
18	Close engine hood	MODEL 166, 204, 207, 212, 218, 221, 222 MODEL 166 ENGINE 207, 212 i MODEL 207, 212 with CODE U60 (Pedestrian protection) Close engine hood: Mount left and right clamping lever onto top on left and right engine hood hinge.	AR88.40-P-1000GQ AR88.40-P-1000EW

Nm Oil pan

Number	Designation	ENGINE 642		
BA01.45-P-1006-01Q	Oil drain screw to oil pan	M12	Nm	30
		M24	Nm	45

Nm Engine lubrication, oil filter

Number	Designation	ENGINE 642	
BA18.20-P-1001-01T	Threaded cap to oil filter	Nm	25

Engine lubrication system

Number	Designation			ENGINE 642.826/830/832/834/836/838/850/852/853/854/856/858/861/862/867/868 without CODE 474 (Particulate trap)	ENGINE 642.932/961 without CODE 474 (Particulate trap)
BF18.00-P-1001-01A	Engine oil	Filling capacity (oil and filter change)	Liter	8,0	8,0
		Sheet		BB00.40-P-0228-03A	BB00.40-P-0228-03A
		Sheet		BB00.40-P-0228-05A	BB00.40-P-0228-05A
		Sheet		BB00.40-P-0228-51A	BB00.40-P-0228-51A
		Sheet		BB00.40-P-0229-03A	BB00.40-P-0229-03A
		Sheet		BB00.40-P-0229-31A	BB00.40-P-0229-31A
		Sheet		BB00.40-P-0229-05A	BB00.40-P-0229-05A
		Sheet		BB00.40-P-0229-51A	BB00.40-P-0229-51A
		Sheet		BB00.40-P-0229-52A	BB00.40-P-0229-52A

Engine lubrication system

Number	Designation			ENGINE 642.930 ## as of 458148 without CODE 474 (Particulate trap)	ENGINE 642.960 without CODE 474 (Particulate trap)
BF18.00-P-1001-01A	Engine oil	Filling capacity (oil and filter change)	Liter	8,0	8,0

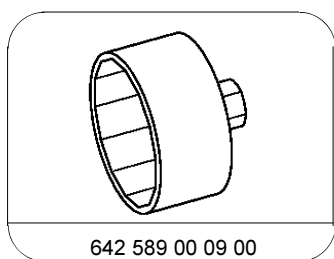
	Sheet	BB00.40-P-0228-03A	BB00.40-P-0228-03 A
	Sheet	BB00.40-P-0228-05A	BB00.40-P-0228-05 A
	Sheet	BB00.40-P-0228-51A	BB00.40-P-0228-51 A
	Sheet	BB00.40-P-0229-03A	BB00.40-P-0229-03 A
	Sheet	BB00.40-P-0229-31A	BB00.40-P-0229-31 A
	Sheet	BB00.40-P-0229-05A	BB00.40-P-0229-05 A
	Sheet	BB00.40-P-0229-51A	BB00.40-P-0229-51 A
	Sheet	BB00.40-P-0229-52A	BB00.40-P-0229-52 A

 Engine lubrication system

Number	Designation	ENGINE 642.826/830/832/834 /835/836/838/850/852/853/854/856/858/861/862/867/868 with CODE 474 (Particulate trap)	ENGINE 642.930 ## as of 458148 with CODE 474 (Particulate trap)
BF18.00-P-1001-01S	Engine oil	Filling capacity (oil and filter change) Liter	8,0
	Sheet		8,0
	Sheet		BB00.40-P-0228-51A
	Sheet		BB00.40-P-0229-31A
	Sheet		BB00.40-P-0229-51A
	Sheet		BB00.40-P-0229-52A

 Engine lubrication system

Number	Designation	ENGINE 642.932/961 with CODE 474 (Particulate trap)	ENGINE 642.960 with CODE 474 (Particulate trap)
BF18.00-P-1001-01S	Engine oil	Filling capacity (oil and filter change) Liter	8,0
	Sheet		8,0
	Sheet		BB00.40-P-0228-51A
	Sheet		BB00.40-P-0229-31A
	Sheet		BB00.40-P-0229-51A
	Sheet		BB00.40-P-0229-52A



Socket wrench bit