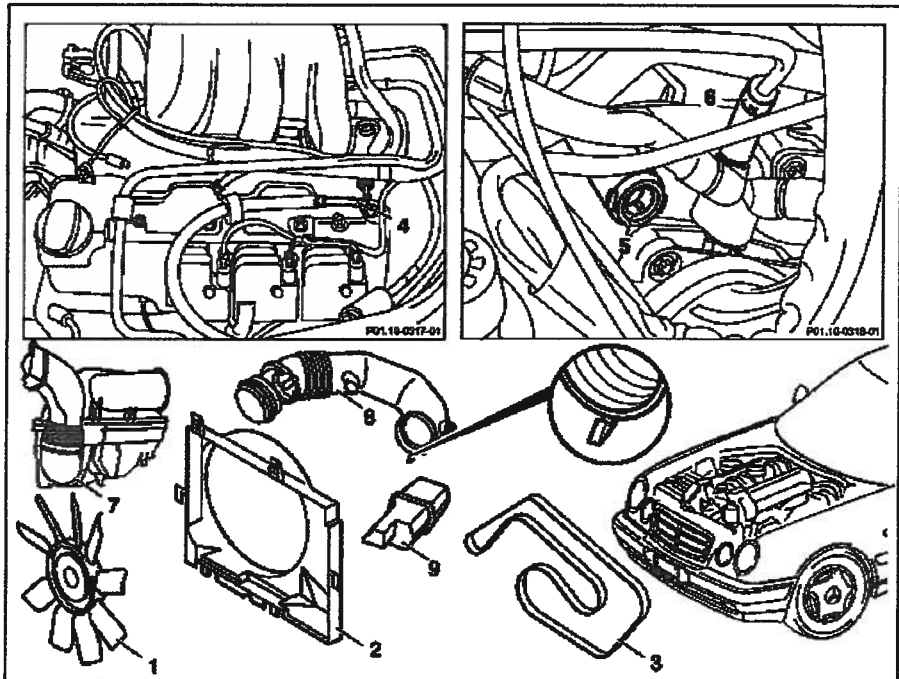


ENGINE 112 / (except 112.921 /941) in MODELS 210 / / /, 208, 202, 129 (except 210.081 /281 /082 /282)

ENGINE 113 in MODELS 210, 208, 202, 129

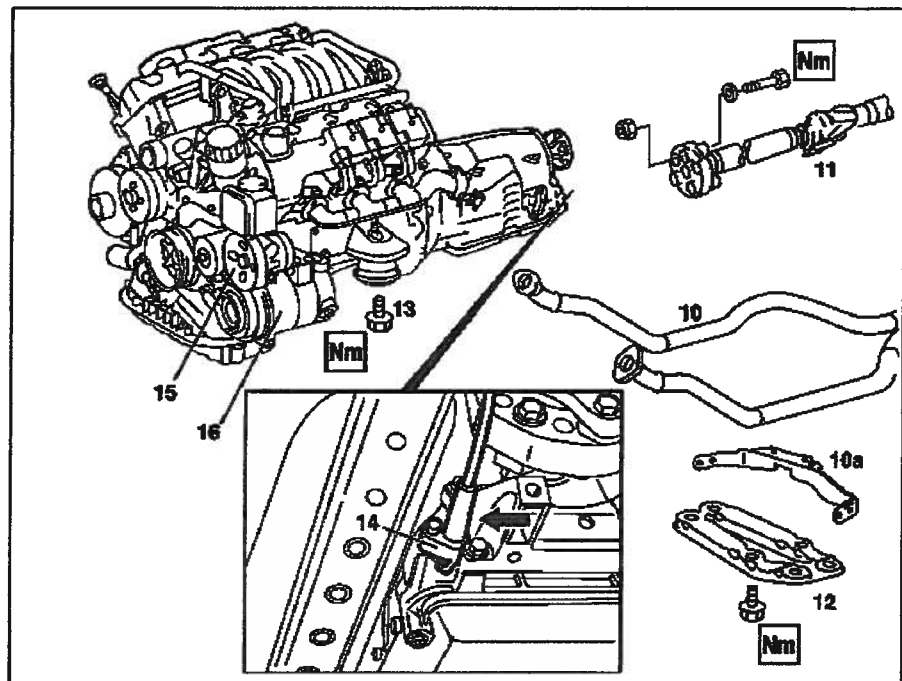
Shown on model 210 with engine 112

- 1 Viscous fan
- 2 Fan shroud
- 3 Poly V-belt
- 4 Fuel line
- 5 Brake booster vacuum line
- 6 Regeneration vacuum hose
- 7 Air filter housing
- 8 Resonance tube
- 9 Resonance unit



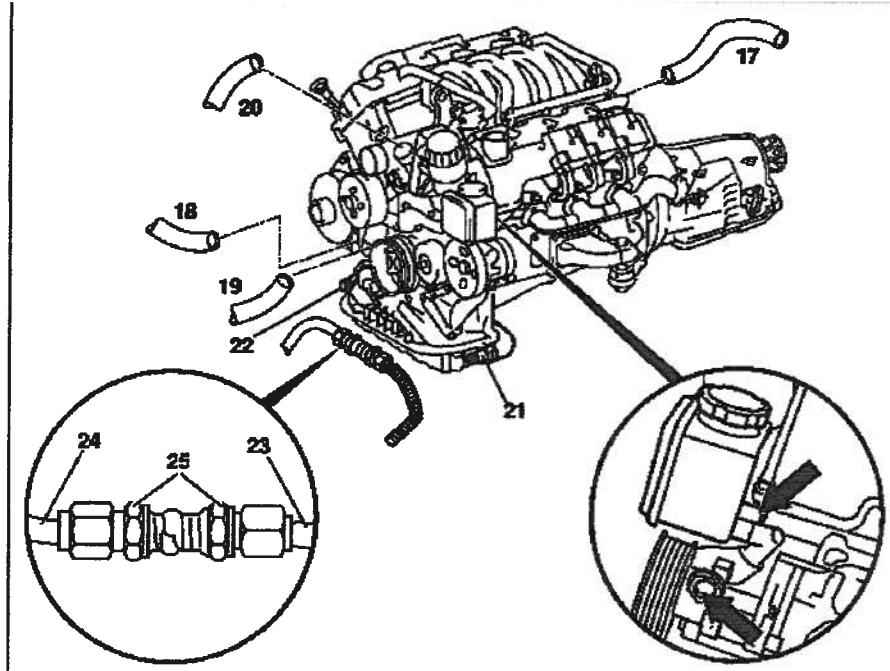
P01.10-0314-06

- 10 Exhaust system
- 10a Bracket
- 11 Propeller shaft
- 12 Rear engine crossmember
- 13 Bolt
- 14 Cable of parking shift lock
- 15 Power steering pump
- 16 AC compressor



P01.10-0315-06

- 11 Coolant line
- 18 Coolant line circulation pump→coolant pump
- 19 Coolant line radiator→coolant pump
- 20 Coolant line radiator→thermostat housing
- 21 Oil line
- 22 Oil line
- 23 Connector hose
- 24 Connector hose
- 25 Connecting piece



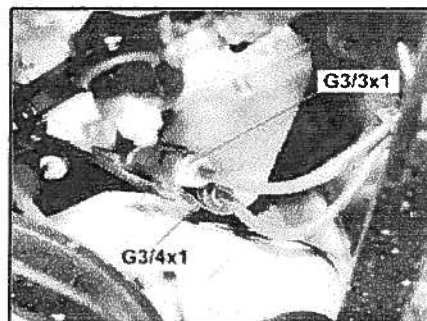
P01.10-2018-06

Only models 208, 202 with engines 112, 113

Shown on engine 112.

G3/3x1 Oxygen sensor connector





















G3/4x1 Oxygen sensor connector












P49.00-2002-01

	Remove/Install		
Danger!	Risk of death caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between the columns of the lifting platform and position the four support plates below the hoist support points specified by the vehicle manufacturer.	AS00.00-Z-0010-01A
	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
		External torx set Torx bit set	*001589760900 *000589011000
		 	*WH58.30-Z-1001-06A *WH58.30-Z-1002-06A
1	Remove engine cover or air filter	 - On models 129, 202.093/033, 208.370/374/470 and 210.274/074 the air filter is integrated in the engine trim panel. - Remove engine cover or air filter by pulling vertically up and away from the cylinder head covers.	
2 	Inspect both rear engine lifting eyes for marking Rear lifting eyes of engine reinforced	Engine suspension fittings without codes must be replaced.) Engine 112, 113	BT01.00-P-0001-01A

<p>⚠ Danger!</p> <p>3</p> <p>ⓘ</p>	<p>Risk of explosion caused by oxyhydrogen gas. Risk of poisoning and caustic burns caused by swallowing battery acid. Risk of injury caused by burns to skin and eyes from battery acid or when handling damaged lead-acid batteries</p> <p>Disconnect battery ground cable</p> <p>Notes on battery</p>	<p>No fire, sparks, open flames or smoking. Wear acid-resistant gloves, clothing and safety glasses. Pour battery acid only into suitable and appropriately marked containers.</p> <p>i Installation: After connecting ground lead, read fault memory and calibrate power windows. Vehicles with stationary heater: adjust time display on stationary heater. All MODELS</p>	<p>AS54.10-Z-0001-01A</p> <p>AR54.10-P-0003A</p> <p>AH54.10-P-0001-01A</p>
<p>4</p>	<p>Remove engine compartment paneling</p>		<p>AR61.20-P-1105AB</p>
<p>⚠ Danger!</p> <p>5</p>	<p>Risk of injury to skin and eyes caused by scalding from contact with hot coolant spray. Risk of poisoning from swallowing coolant.</p> <p>Drain the coolant from radiator</p>	<p>Do not open cooling system unless coolant temperature is below 90 °C. Open cap slowly and release the pressure. Do not pour coolant into beverage bottles. Wear protective gloves, protective clothing and eye protection.</p>	<p>AS20.00-Z-0001-01A</p> <p>AR20.00-P-1142HA</p>
<p>6</p>	<p>Drain and collect engine oil</p>	<p>Nm Ⓢ</p>	<p>*BA01.45-P-1003-01B *BF18.00-P-1001-01H</p>
<p>7</p> <p>WF</p>	<p>Detach connection hoses (23, 24) at oil lines (21, 22) and fit together with connection piece (25)</p> <p>Connection fitting for automatic oil pipes</p>	<p>i Seal connections!</p> <p>Ⓢ Set of plugs</p>	<p>*129589009100 WF58.50-P-2020-01A</p>
<p>8</p>	<p>Remove viscous fan (1)</p>	<p>All except model 208.365/465 with engine 112. i Right-hand thread!</p>	<p>AR20.40-P-5660C</p>
<p>9</p>	<p>Remove fan shroud (2).</p>	<p>- On models fitted with suction fan, separate plug connection of suction fan before removing fan shroud.</p>	
<p>10</p>	<p>Remove air filter housing (7).</p>	<p>All except models 129, 202.033/093, 208.370/374/470, 210.074/274</p>	
<p>11</p>	<p>Remove resonance tube (8) and resonance unit (9)</p>	<p>All except models 129, 202.033/093, 208.370/374/470, 210.074/274</p> <p>- Separate plug connection of hot film mass air flow sensor (HFM-SFI) for this step and</p> <p>- Unbolt resonance pipe at cylinder head cover.</p> <p>i The resonance pipe is attached to the rear of the intake manifold with a plastic bracket. ⓘ Do not damage plastic bracket.</p>	<p>AR07.07-P-1454A</p>
<p>12</p>	<p>Remove hot film mass air flow sensor with air intake pipe</p>	<p>Models 129, 202.033/093, 210.074/274, 208.370/374/470</p>	<p>AR07.07-P-1454AG</p>
<p>13</p>	<p>Detach coolant lines (18, 19) at coolant pump</p>		
<p>14</p>	<p>Detach coolant line (20) at thermostat housing</p>		
<p>15</p>	<p>Detach coolant line at top of expansion reservoir</p>	<p>Only for models 208, 202</p>	
<p>16</p>	<p>Remove radiator</p>	<p>Models 210, 208, 202 with engine 113 Model 129 with engine 113</p>	<p>AR20.20-P-3865HD AR20.20-P-3865AV</p>
<p>17</p> <p>WF</p>	<p>Attach guard plate for radiator/condenser Guard plate for radiator/condenser</p>		<p>WF58.50-P-0110-01A</p>
<p>18</p>	<p>Detach vacuum line (5) from brake booster at rear of intake manifold</p>		
<p>19</p>	<p>Extract power steering pump (15) oil</p>	<p>Ⓢ Hand pump</p>	<p>*112589007200</p>
<p>20</p>	<p>Disconnect ground lead at power steering pump (15)</p>		

21	Detach return flow and pressure lines of power steering pump (15)	<p> Seal connections!</p> <p> Set of plugs</p> <p> Nm</p> <p> Nm</p>	<p>*129589009100</p> <p>*BA46.30-P-1002-01A</p> <p>*BA46.30-P-1003-01A</p>
22	Pull vacuum line (6) off intake manifold	<p> Model 129</p> <p>Detach vacuum line (6) directly at purge control valve.</p>	
23	<p> Danger!</p> <p>Risk of explosion caused by ignition of flammable products, risk of poisoning caused by inhaling fuel vapors or swallowing fuel as well as risk of injury to skin and eyes exposed to fuel.</p> <p>Disconnect fuel line (4) at fuel distributor</p>	<p>No fire, sparks, open flames or smoking. Pour fuels only into suitable and appropriately marked containers. Wear protective clothing when handling fuel.</p> <p> Reduce fuel pressure via service valve! Collect fuel.</p> <p> Engine 112</p> <p> Engine 113</p> <p> Pressure hose</p>	<p>AS47.00-Z-0001-01A</p> <p>*BA07.52-P-1001-01A</p> <p>*BA07.52-P-1001-01A</p> <p>*119589046300</p>
24	Detach coolant line (17)	<p> In model 202.093/033 an additional coolant line is attached to the right cylinder head.</p> <p>The coolant line of the right cylinder head runs to an external transmission oil cooler which is located on the right behind the front molding. The routing of the coolant line to the left cylinder head is the same as that of production vehicles.</p>	
25	Disconnect engine wiring harness	<p>Models 210, 208, 202</p> <p>Model 129</p>	<p>AR01.00-P-2410K</p> <p>AR01.00-P-2410AV</p>
26	Remove poly V-belt (3)	<p> Installation: Lock tensioning device with a drift or pin (diameter 5 mm). Model 129, 210 with engine 113, 208 with engine 113, 202 with engine 113. Model 210 with engine 112, 208 with engine 112, 202 with engine 112.</p> <p> Installation: Lock tensioning device with a drift or pin (diameter 5 mm).</p>	<p>AR13.22-P-1202B</p> <p>AR13.22-P-1202BA</p>
27	Disconnect connector from A/C compressor (16)		
28	Unscrew A/C compressor (16) from timing case cover	<p> Attach the AC compressor at the bottom of the engine compartment with its lines and cables connected.</p> <p> Nm</p>	<p>*BA83.55-P-1001-01A</p>
29	Detach exhaust system (10) at exhaust manifold	<p> Installation:</p> <p>In vehicles with engine damage the exhaust system must be examined for swarf and any swarf present removed before installing.</p> <p> Nm</p>	<p>*BA14.10-P-1002-01B</p>
30	Separate plug connections of sensors on right (G3/3x1) and on left (G3/4x1) and release	<p>Only in models 208, 202</p>	
31	Remove bracket (10a) of exhaust system	<p>All except model 129</p> <p>Support exhaust system.</p> <p> Installation:</p> <p>Replace nuts</p>	
32	Unscrew clutch slave cylinder	<p>Only model 210, 202, 129 with manual transmission.</p> <p> Do not disconnect line.</p>	<p>AR25.20-P-0150A</p>
33	Disconnect propeller shaft (11) from transmission	<p> Nm</p>	<p>*BA41.10-P-1001-01A</p>
34	Release cable for parking shift lock (14)		<p>AR27.60-P-0500-05B</p>
35	Detach shift rod from transmission		

36	Remove rear engine crossmember (11) at transmission	 For this step support transmission.  	*BA22.10-P-1002-01L *BA22.10-P-1003-01L
37	Unscrew bolts (13) of front engine mounts at front axle carrier		*BA22.10-P-1001-01L
38	Press pressure line of level control out of fixtures at bottom part of oil pan	Model 129 only	
39	Attach engine hoist to engine lifting eyes	  On model 210 with engine 113 and model 208 with engines 112, 113 use the engine removal fixture! 	*WH58.30-Z-1001-07A *WH58.30-Z-1017-07A
40	Lower engine towards the rear and lift out		
41	Install in the reverse order		
42	Inspect cooling system for leaks	 If fitting new cylinder head gaskets, first bring the engine to operating temperature.	AR20.00-P-1010HA
 Danger!	Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns during starting procedure or when working near engine	Secure vehicle to prevent it from moving. Wear closed and snug-fitting work clothes. Do not grasp hot or rotating parts.	AS00.00-Z-0005-01A
43	Check oil level in automatic transmission and correct if necessary		AR27.00-P-0101A
44	Run engine and inspect for leaks		
45	Read out fault memory and erase	Stored faults which can result from cables being disconnected or from simulation during removal and installation or test work, have to be processed and erased in the fault memories after completing the work: ↓ Diagnosis Manual Volume 2, Index 0: Connection and use of test equipment	

 Oil pan

Number	Designation	Motor	Engine
		112/910/911/ 912/913/914/ 915/917/920/ 921/922/923/ 940/941/942/ 943/944/945/ 946/947/949/ 951/954/955/ 960/961/970/ 972/973/976	113.940/941/ 942/943/944/ 945/946/960/ 961/962/963/ 965/967/968/ 969/980/981/ 982/984/986/ 992
BA01.45-P-1003-01B	Oil drain screw to oil pan M14	Nm 30	30

 Fuel rail

Number	Designation	Engine
		112 except 112.945/951/ 960/961
BA07.52-P-1001-01A	Disconnect fuel feed line at fuel rail	Nm 38

Nm Fuel rail

Number	Designation	Engine 113.987	Engine 113.990/ 991	Engine 113.992/ 993 AMG	Engines 113.940/941/ 942/943/944/ 945/946/948/ 960/961/962/ 963/964/965/ 966/967/968/ 969/971/980/ 981/982/984/ 986/988
BA07.52-P-1001-01A	Fuel feed line to fuel distributor	Nm	38	38	38

Nm Exhaust manifold

Number	Designation	Engine 112 except 112.951	Engines 113.940/941/ 942/943/944/ 945/946/948/ 960/961/962/ 963/964/965/ 966/967/968/ 969/971/980/ 981/982/984/ 986/992/993
BA14.10-P-1002-01B	Flange connection, exhaust manifold and front exhaust pipes	Nm	20

Nm Engine mounts, engine supports

Number	Designation	Engines 112.910/920, 113.944 in models 202.026/029/033/ 086/089/093	Engine 112.911/921/941, 113.940/980 in model 210.061/063/ 065/070/074/261/263/ 265/270/274
BA22.10-P-1001-01L	Bolt, front engine mounts to front axle carrier	Nm	35
BA22.10-P-1002-01L	Bolt of rear engine mount to rear engine cross member	Nm	30
BA22.10-P-1003-01L	Bolt of rear engine crossmember to body	Nm	40

Nm Engine mounts, engine supports

Number	Designation		Engines 112.921/941, 113.940 in model 210.081/ 082/083/281/ 282/283	Engine 112.923 /943, 113.961 in model 129.059/ 064/068
BA22.10-P-1001-01L	Bolt, front engine mounts to front axle carrier	Nm	35	25
BA22.10-P-1002-01L	Bolt of rear engine mount to rear engine cross member	Nm	35	30
BA22.10-P-1003-01L	Bolt of rear engine crossmember to body	Nm	40	40

Nm Engine mounts, engine supports

Number	Designation		Engine 112.940, 113.943/984 in model 208.365/ 370/374/465/470
BA22.10-P-1001-01L	Bolt, front engine mounts to front axle carrier	Nm	35
BA22.10-P-1002-01L	Bolt of rear engine mount to rear engine cross member	Nm	30
BA22.10-P-1003-01L	Bolt of rear engine crossmember to body	Nm	40

Nm Driveshaft

Number	Designation		Model 129	Model 202
BA41.10-P-1001-01A	Self-locking nut of flexible joint to transmission or front propeller shaft	M10 Nm	40	40
		M12 Nm	60	60

Nm Driveshaft

Number	Designation		Model 208	Model 210
BA41.10-P-1001-01A	Self-locking nut of flexible joint to transmission or front propeller shaft	M10 Nm	40	40
		M12 Nm	60	60

Nm Power steering pump

Number	Designation		MODEL 202.026/029/ 033/086/089/093	Model 208.365/370 374/465/470
BA46.30-P-1002-01A	Return line to power steering pump	Nm	2	2
BA46.30-P-1003-01A	High-pressure expansion hose to power steering pump	M14x1.5 Nm	30	-
		M16x1.5 Nm	40	40

Power steering pump

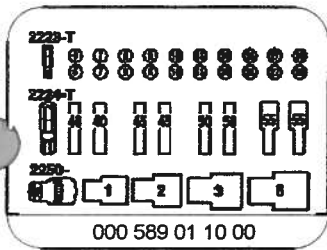
Number	Designation		Models 210.061/063/ 065/070/074/ 081/082/083/ 261/263/265/ 270/274/281/ 282/283/663	Model 129.058/ 060/061/063/ 066/067/076
BA46.30-P-1002-01A	Return line to power steering pump	Nm	2	40
BA46.30-P-1003-01A	High-pressure expansion hose to power steering pump	M14x1.5 Nm	-	-
		M16x1.5 Nm	45	45

Refrigerant compressor

Number	Designation		Engines 112.923/943, 113.961 in model 129	Engines 112.910/911/ 920/921/940/941, 113.940/943/944/980/ 984 in model 202, 208, 210
BA83.55-P-1001-01A	Bolt, refrigerant compressor to bracket	Nm	20	20

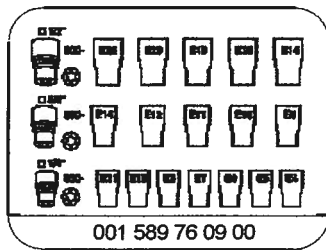
Engine lubrication

Number	Designation		Engine 112 except 112.916/953/975	Engines 113.940/941/ 942/943/960/ 961/962/969/ 982	Engines 113.944/980/981/ 984/986/991
BF18.00-P-1001-01H	Engine oil Filling capacity with oil filter	Liters	8.0	8.0	7.5
	Filling capacity without oil filter	Liters	7.5	-	-
	Specifications for Operating Fluids	Sheet	BB00.40-P-0229-01A	BB00.40-P-0229-01A	BB00.40-P-0229-01A
		Sheet	BB00.40-P-0229-03A	BB00.40-P-0229-03A	BB00.40-P-0229-03A
		Sheet	BB00.40-P-0229-05A	BB00.40-P-0229-05A	BB00.40-P-0229-05A



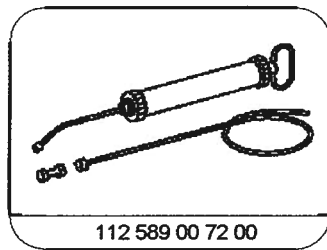
000 589 01 10 00

Torx bit set



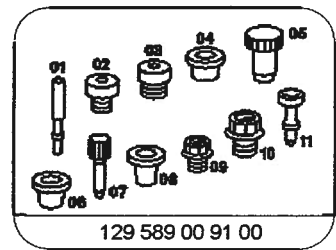
001 589 76 09 00

External Torx set



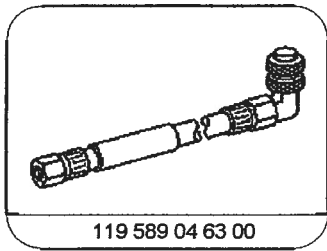
112 589 00 72 00

Hand pump



129 589 00 91 00

Set of stop plugs



119 589 04 63 00

Pressure hose

Commercially available tools (see Workshop Equipment Manual)

Number	Designation	Make (e. g.)	Order number
WH58.30-Z-1001-06A	6 mm wrench hexagon on flexible shaft for hose clips with worm drive	Hazet Güldenwerther Bahnhofstrasse 25-28 D-42857 Remscheid	426-6
WH58.30-Z-1002-06A	7 mm hexagon socket on flexible shaft for hose clips with worm drive	Hazet Güldenwerther Bahnhofstrasse 25-28 D-42857 Remscheid	426-7
WH58.30-Z-1001-07A	Engine hoist (self-locking)	Bäcker Herderstrasse D-42853 Remscheid	3188
WH58.30-Z-1017-07A	Engine removal device	Erwin Schairer GmbH Keltenstraße 9 D-72469 Meßstetten	WBM 0304.01