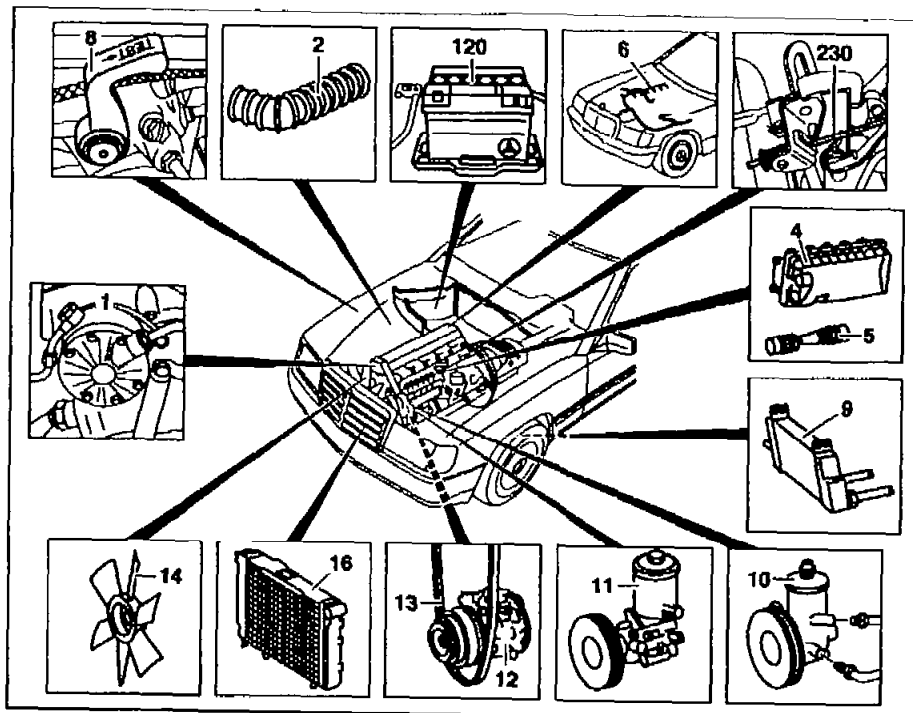
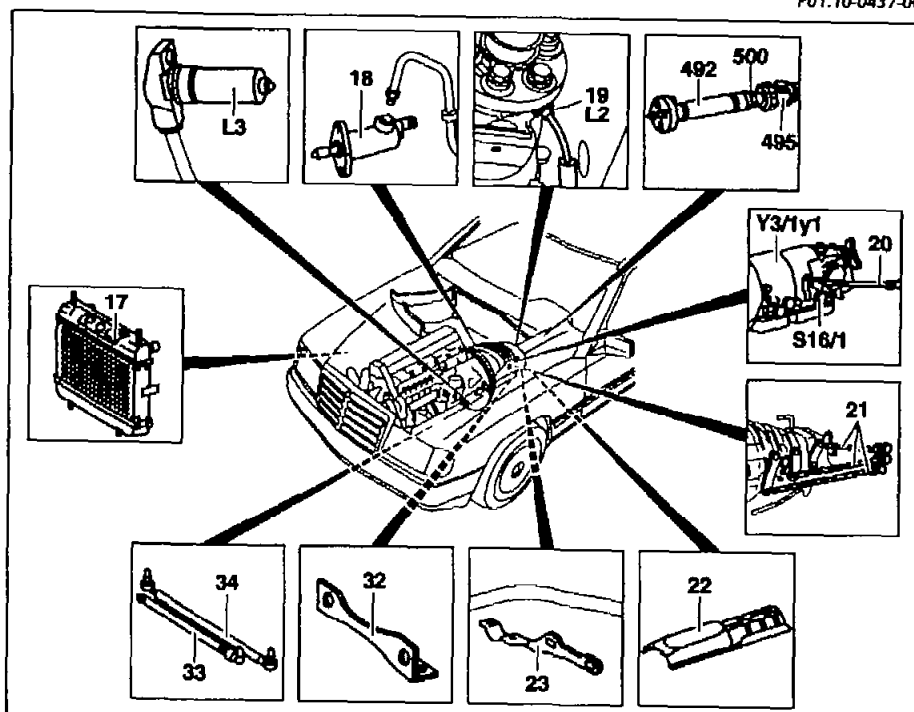


ENGINE 603.913 /963 in MODEL 124

Model 124 4MATIC

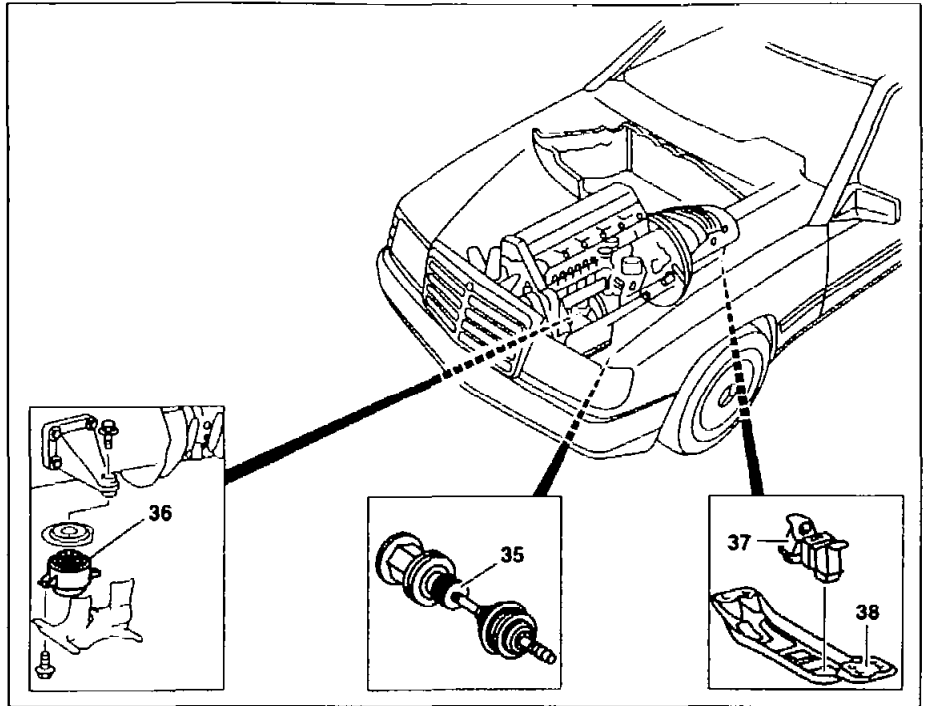


P01.10-0437-06



P01.10-0438-06





















P01.10-0439-06

	Removing, installing		
1	Disconnect negative and positive cables of battery (120)		
2.1	Take off air intake hose (5)	only naturally aspirated engines	
3.1	Take off air filter cover (4) together with filter element	only naturally aspirated engines	
4.1	Detach intake hose (2) to turbocharger	only turbo engines	
5	Remove radiator (16)		AR20.20-P-3865HW
6.1	Disconnct ATF lines	 If automatic transmission fitted	000 589 40 37 00
7.1	Attach guard plate to condensor	If AC fitted	
8	Slacken coolant hoses between engine and chassis and detach		
9	Take off viscous fan (14)		AR20.40-P-5660HW
10.1	Remove poly V-belt (13)	If AC fitted	AR13.22-P-1202HW
11.1	Take off AC compressor (12)	Do not disconnect the refrigerant line at the compressor. Attach compressor to side in chassis.	
12	Slacken vacuum hoses and fuel lines between engine and chassis		
13	Detach Bowden cables (230) of throttle control		
14	Separate electrical connection cables between engine and chassis, plug connections and connectors		
15	Separate plug connection of oil pressure switch and oil level sensor		
16	Unbolt starter connection cables		



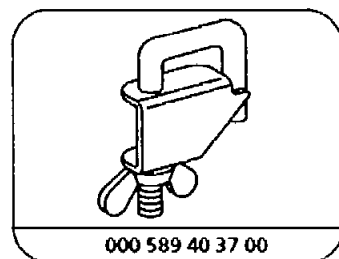
17	Separate plug connections of generator		
18	Take off engine wiring harness (6)		
19	Switch service valve (8) of 4MATIC into test position "A"		
20	Pinch off oil feed hose on underside of 4MATIC reservoir	 Before disconnecting oil lines and hoses	000 589 40 37 00
21	Extract oil from the reservoir of the power steering pump (10) and unbolt oil lines		112 589 00 72 00
22.1	Unbolt oil lines and hoses of pressurized oil pump (1) between engine and chassis	 Naturally aspirated engine	
23.1	Extract tandem pump (11) oil from the reservoir, detach oil lines of power steering. Unbolt oil lines and hoses between engine and chassis	 Turbo engine	
24.1	Unbolt air-oil cooler lines and hoses between engine and chassis	 Turbo and naturally aspirated engines with exhaust gas recirculation	
25.1	Unbolt transmission air-oil cooler (17) oil lines and hoses between engine and chassis	 Turbo engines with automatic transmission and trailer hitch in combination with AC	
26.1	Detach shift linkage (21)	 If manual transmission fitted	
27.1	Unbolt clutch sensor (18) hydraulic line and bleed clutch sensor	 If manual transmission fitted	
28.1	Detach shift rod (20)	 If automatic transmission fitted	
29.1	Unplug starter lockout, reversing light switch (S16/1) cable connection	 If automatic transmission fitted	
30.1	Unplug kickdown solenoid valve (Y3/1y1) cable connection	 If automatic transmission fitted	
31	Unbolt speedometer shaft (19) and speedometer inductive sensor (L2), respectively		
32	Unbolt speed sensor (L3) at oil pan		
33	Unbolt exhaust side support (23)		
34	Unbolt heat shields (22)		
35	Unbolt transverse bridge (32) at center tunnel		
36	Unbolt propellor shaft (492)	 Replace self-locking hexagon nut.	41-050/2
37	Detach propellor shaft intermediate bearing (495)		41-050/2
38	Slacken clamping nut (500) at intermediate bearing	 	41-050/2 201 589 00 01 00 001 589 66 21 00
39	Unbolt hydraulic lines (AV, ZS) at transfer case		28-200
40	Unbolt steering shock absorber at body	 Replace self-locking hexagon nuts.	
41	Remove track rod (34)	 Replace self-locking hexagon nuts.	46-7007



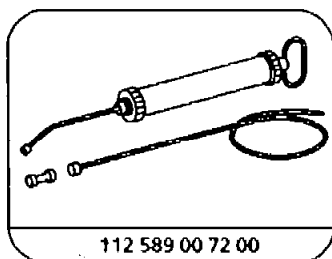
42	Unbolt front drive shafts (35) at front axle housing	<p>i Do not pull inner joint too far apart and align. Push together propellor shaft and secure with wire.</p> <p>i Replace self-locking hexagon socket bolts.</p>	33-0620
43	Component compartment panel	i Attach guard plate	
44	Attach engine to engine hoist and position horizontally		WH58.30-Z-1001-07A WH58.30-Z-1002-07A
45	Unscrew hexagon bolts of front left and right engine mounts (36)	i Shields of left and right engine mounts differ.	AR22.10-P-1260HX
46	Unbolt rear engine mount (37) from engine support	i Inspect adjusting bolt	AR22.10-P-1160HW
47	Support front of transmission from below		
48	Unbolt rear engine support (38)		AR22.10-P-1160HW
49	Lift engine out of engine compartment with engine hoist	i Do not stress or strike lube oil line at transfer case when lifting out and inserting the engine.	
50	Install in the reverse order		
51	Inspect engine oil level, correct		
52	Inspect cooling system for leaks		AR20.00-P-1010HA
⚠ Danger!	Risk of accident as a result of vehicle starting off when engine running. Risk of injury as a result of bruises and burns if you insert your hands into engine when it is being started or when it is running.	Secure vehicle to prevent it starting off. Wear closed and close-fitting work clothes. Do not grasp hot or rotating parts.	AS00.00-Z-0005-01A AR01.10-P-2400HY/5
53	Run engine and inspect for leaks		
54	Bleed 4MATIC hydraulic system		28-140

Commercially available tools (see Workshop Equipment Manual)

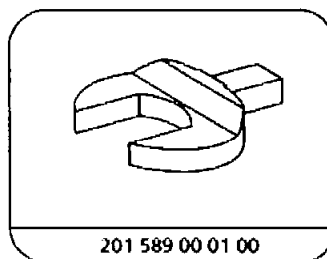
Number	Designation	Make (e.g.)	Order number
WH58.30-Z-1001-07A	Engine hoist (self-locking)	Bäcker Herderstraße D-42853 Remscheid	3188
WH58.30-Z-1002-07A	Shackle		C1 DIN 82101



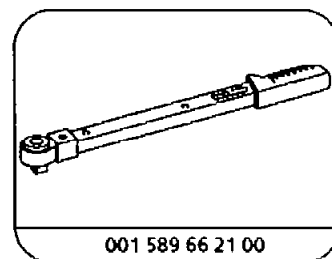
Clamp



Hand pump




Open-end wrench



Torque wrench



AS00.00-Z-0005-01A	Risk of accident as a result of vehicle starting off when engine is running. Risk of injury as a result of bruises and burns if you insert your hands into engine when it is being started or when it is running.	Secure vehicle to prevent it from moving off. Wear closed and close-fitting work clothes. Do not grasp hot or rotating parts.	 Danger!
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Possible dangers

Risk of accident

from vehicle starting off during starting operation (e.g. when testing compression pressure) as a result of gear engaged or when engine running and vehicles with automatic transmission as a result of selector lever position "P" or "N" not engaged (exception: some vehicles do not have a selector lever position "P").

Risk of injury

Severe injuries may be caused by freely rotating parts in the area of the running engine. The heat produced by the engine when it is operating can result in severe burns if contact is made with individual, unshielded parts.

Rules of conduct / Protective measures

- As a general rule, carry out work on the running engine only if this is absolutely essential.
- Before starting the engine, apply parking brake.
- On models with manual transmission, move gearshift lever into Neutral position.
- On models with automatic transmission, move selector lever into position "P" or "N" (exception: some vehicles do not have a selector lever position "P").
- On models which do not have selector lever position "P", secure selector lever to prevent it from being operated unintentionally.
- Wear closed and close-fitting work clothes.
- Take off any jewelry, such as chains, rings etc.
- If you have long hair, wear a suitable head cover.
- Before commencing work on the running engine, check to obtain a general picture of the positioning of parts which may be hot.
- When carrying out work when starting the engine or when engine is running, do not touch any hot and rotating parts.

First aid measures in the event of burns

- Do not rub the skin areas affected; flush with plenty of cold water and cover skin with sterile bandages.
- Immediately consult a physician.

