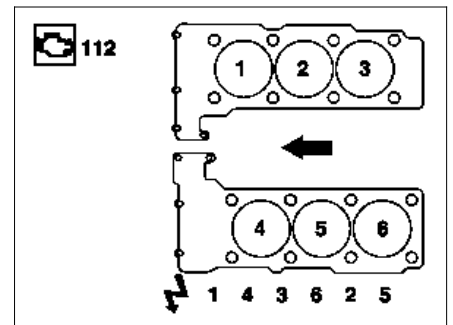


		Misfire, damaging to TWC
1	Fault code (USA) Readout on generic scan tool)	P2050 Sum (P0300) P2051 Misfires on cylinder 1 (P0301) P2055 Misfires on cylinder 2 (P0302) P2053 Misfires on cylinder 3 (P0303) P2052 Misfires on cylinder 4 (P0304) P2056 Misfires on cylinder 5 (P0305) P2054 Misfires on cylinder 6 (P0306)
2	Fault storage Actuation of the engine diagnosis indicator lamp (EURO3/4) or CHECK ENGINE (MIL) malfunction indicator lamp (USA)	after expiry of test duration and fault The malfunction indicator lamp is actuated immediately Check Eng. Light
3	Checking frequency	Continuous
4	Checked signal or status	Number of detected combustion misfires (detection via a smooth operation assessment)
5	Fault setting conditions Limit value, TWC deteriorating	A maximum of 4 - 35 combustion misfires within 200 engine revolutions (depending in the motor speed and load according to the performance map; e.g. 4 misfires from a medium motor speed and load, 35 misfires in idle without load).
6	Check prerequisites	- engine speed approx. 500 to 6250 rpm - engine speed change less than 1500 rpm per second - load change less than 50% per second - No ESP control intervention function - no road surface irregularities recognized (via CAN by ESP control unit , determined via comparison of wheel speeds) - no fault in the signal from the camshaft Hall sensor - no deceleration fuel shutoff - engine load more than 17% - sensor wheel adaptation already performed in deceleration phase
7	i	If too many misfires occur at a cylinder, the cylinder is cut off (cylinder selective fuel cutoff). Misfires through faults in the ignition system If ignition does not take place misfiring occurs. If faults on the ignition system are also stored in addition to the misfire faults then begin with troubleshooting in the ignition system. Maximum permissible deviation from smooth running on a cylinder of approx. 3 ms ² . If this value is exceeded then determine the ignition circuit causing this through switching off the ignition circuit as follows: 1. Switch off an ignition circuit (a or b) using STAR DIAGNOSIS/HHT. 2. Observe the smooth running value on the effected cylinder. - The value only changes by a minimal amount (up to approx. 2 ms ²): the ignition circuit which is still switched in is fault-free. - The value changes by strongly (more than 2 ms ²): the switched-in ignition circuit has a fault. Check spark plug, ignition line and ignition coil. Misfires due to fuel starvation If combustion misfires are recognized, another fault code P203A (P0460) is output if the level in the fuel tank is too low. This information suggests combustion misfires due to fuel starvation. Misfiring because of miscellaneous causes Combustion misfires may be caused by many faults in the injection system. Other component or function faults are usually stored, in addition to the misfire fault, in this case. The cause may also be due to faults in the engine mechanics.

Engine 112

Cylinder arrangement and ignition firing order



P01.00-2188-01