



We recommend replacing these products – at best order them immediately.

When replacing these products, we recommend that the products listed below be also replaced.*

► It is generally recommended to replace the motor oil and the oil filter.

camshaft



tappets *required*
 shaft seals *required*
 valve cover gasket *required*
 timing belt drive/
 chain drive *recommended*
 water pump *recommended*

cylinder head



air filter *recommended*
 thermostat *recommended*
 timing belt drive/
 chain drive *recommended*
 cylinder head gasket set *required*
 cylinder head bolts *required*

camshaft kit



tappets *required*
 shaft seals *required*
 valve cover gasket *required*

gasket set (cylinder head)



cylinder head gasket *required*
(diesel: partly different thicknesses)
 cylinder head bolts *required*
 thermostat *recommended*

valves



tappets *recommended at 100.000km*
 valve-springs *if worn out*
 valve guides *if worn out*
 valve collets *required*
 cylinder head gasket set *required*
 cylinder head bolts *required*

cylinder liners



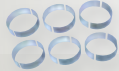
pistons *recommended*

pistons and piston rings



full gasket set *recommended*
 conrod bearings *recommended*
 connecting rod bolts *required*
 cylinder head bolts *required*
 cylinder liners *recommended*
(engine-dependent: engine with liners)

conrod bearings



oil pan gasket *required*
 connecting rod bolts *required*

connecting rod



full gasket set *recommended*
 conrod bearings *required*
 cylinder head bolts *required*

turbocharger



charger gasket set *required*
 air filter *required*
 oil lines *recommended*
 oil cooler *recommended*
 charge air cooler *recommended*
 adjacent parts of turbocharger *see SI0089*

crankshaft



full gasket set *recommended*
 crankcase gasket set *required*
 main bearings *required*
 main bearing bolts *recommended*
 conrod bearings *required*
 connecting rod bolts *required*
 cylinder head bolts *required*

oil pump



oil pump drive *recommended*
 oil pan gasket *required*

*The repair instructions issued by the engine manufacturer must be observed.
 This list is not intended to be exhaustive.

For further information see:
www.ms-motorservice.de/downloads