

REP-REP-RAE9011M57T2-1121531_SCR REP-REP-RAE9011M57T2-1121531_SCR - Replace all crankshaft main bearing shells (M57T2-SCR) - V.2, VIN: XXXXXXXX

ISTA system version	4.09.13.21349	Data version	R4.09.13	Programming - data
VIN	XXXXXXXX	Vehicle	3'/E90/SEDAN/335d/M57/AUTO/US/LL/2010/10	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	-			

11 21 531

Replace all crankshaft main bearing shells (M57T2-SCR)



Special tools required:

- [00 2 590](#)
- [00 9 120](#)



Necessary preliminary work:

- Remove [engine](#)
- Remove [cylinder head](#).
- Remove [the gear case](#) at front
- Remove [radial shaft seal](#) at rear
- Remove [oil pump](#)



Important!

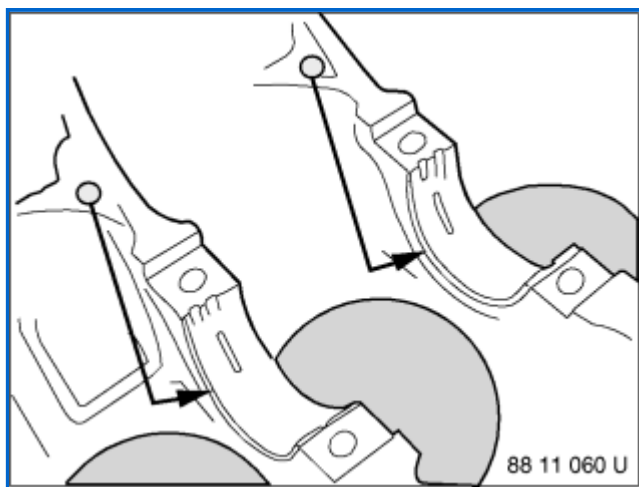
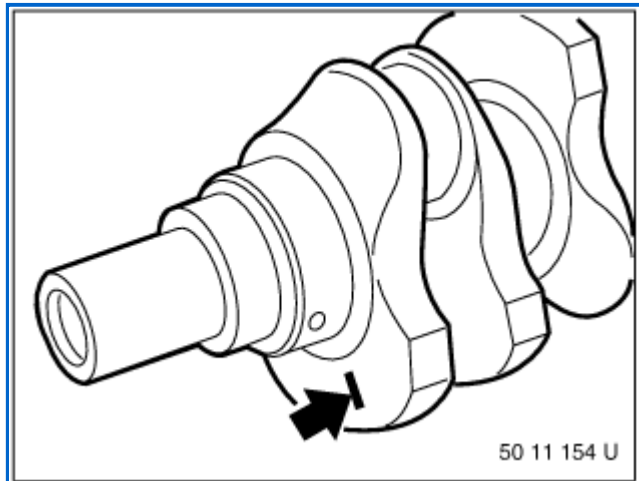
Replace main bearing bolts.

Do not wash off bolt coating.

There must be no oil in the blind holes (risk of cracking).

Important!

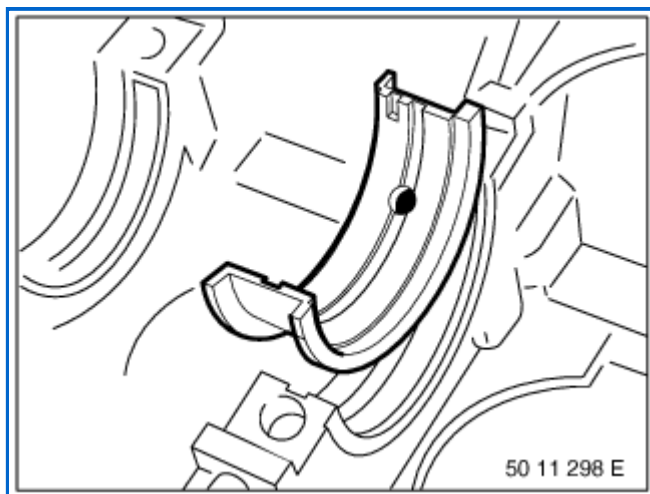
Check [the grinding stage of the crankshaft](#).



Installation note:

When exchanging bearing shells (also exchange crankshafts), classification of bearing shell allocation in the crankcase is discontinued.

Only fit yellow bearing shells into the crankcase.

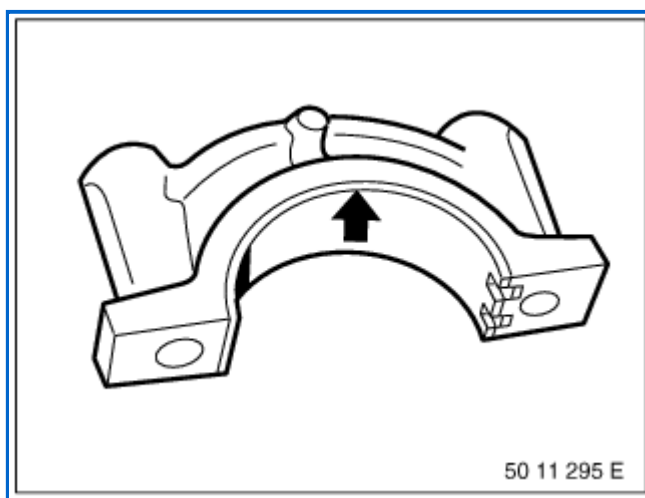
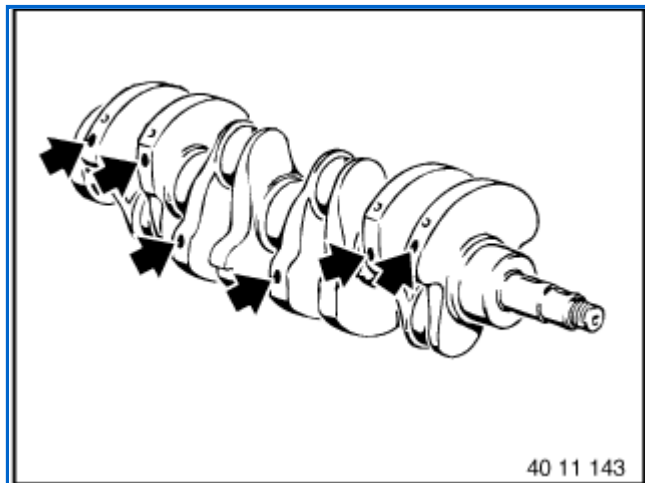


Note:

The axial guidance on the crankshaft is fitted to bearing position 6.

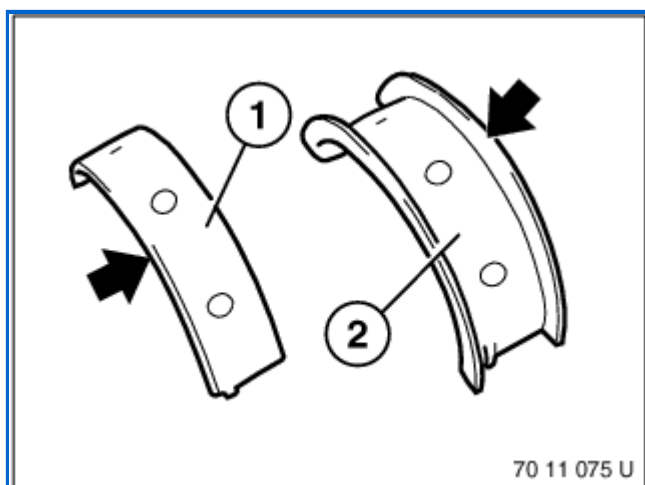
Insert the guide bearing shell in the engine block.

The crankshaft is marked with yellow, green or white paint, depending on the tolerance of the main bearing journal.



Installation note:

The bearing shell classification for the bearing cap is marked on the crankshaft in yellow, green or white paint.



The bearing shells are marked with yellow, green or white paint.

1. Bearing shell
2. Guide bearing

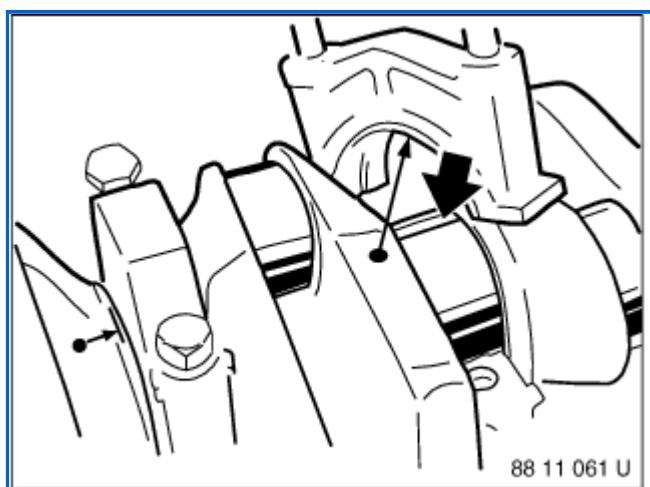
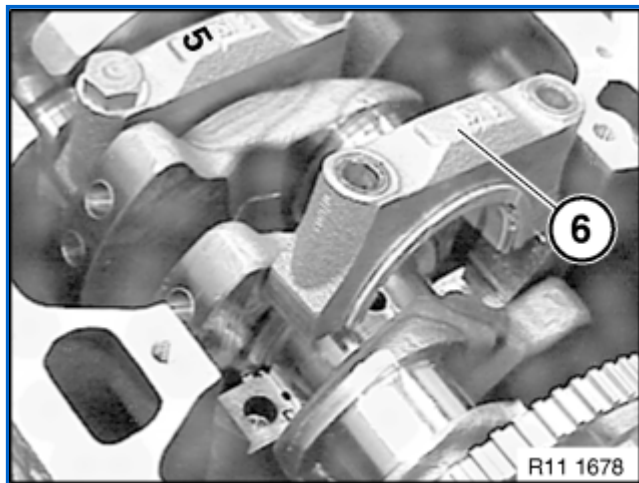
Observe [grinding stage of main bearing journals](#).

Note:

Main bearing caps 1 to 5 are marked on exhaust side.

The main bearing caps 6 and 7 are not marked.

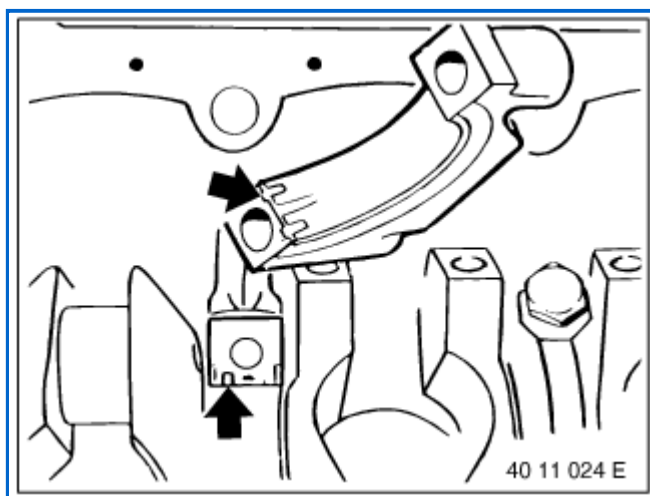
Main bearing cap 6 is a guide bearing.



Check the main bearing clearance on the crankshaft.

Install crankshaft, fit special tool [00 2 590](#) (Plastigage type PG1) on the oil-free crankshaft.

Do not twist crankshaft.



Install main bearing cap so that grooves in main bearing shell guide are on one side.

Align main bearing cap flush with side of bearing seat.

Note:

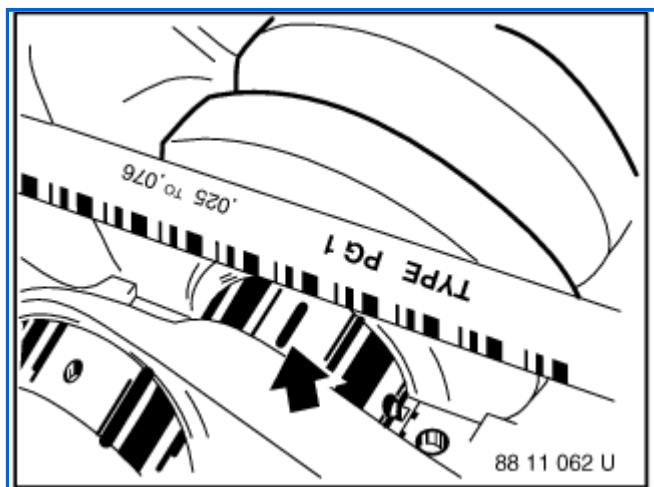
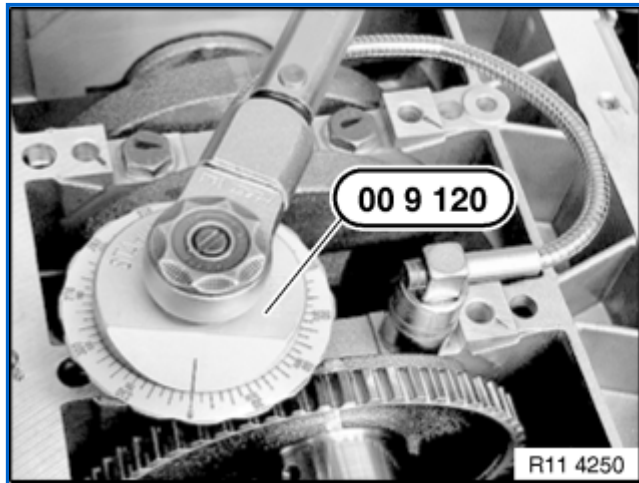
To check main bearing clearance, use the old main bearing bolts.

Wash and oil main bearing bolts.

Tightening specifications for main bearing:

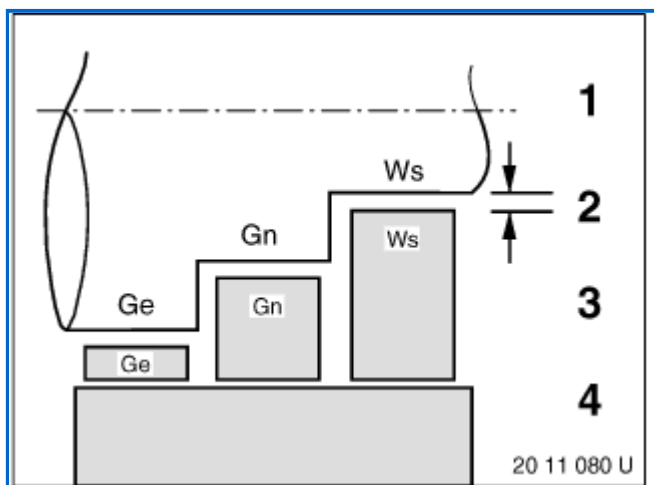
1. Tighten screws to jointing torque.
2. Tighten down bolts with special tool [00 9 120](#) to angle of rotation.

Tightening torque [11 11 1AZ](#).



Remove main bearing cap and read off radial clearance at width of flattened plastic thread (Plastigage) with assistance of measuring scale.

If necessary, to correct bearing clearance, fit new bearing shells with a different colour coding.



Overview:

Colour code/shaft diameter/bearing strength

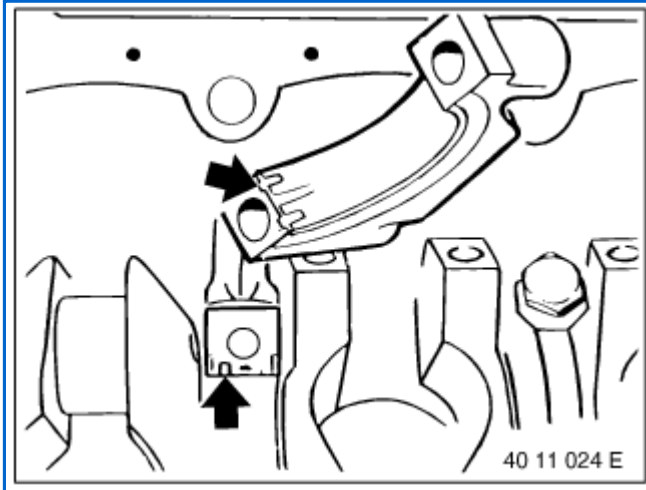
- Ge = yellow
- Gn = green
- Ws = white

1. Crankshaft
2. Bearing clearance
3. Bearing shells: Yellow, green, white
4. Bearing cap

Note:

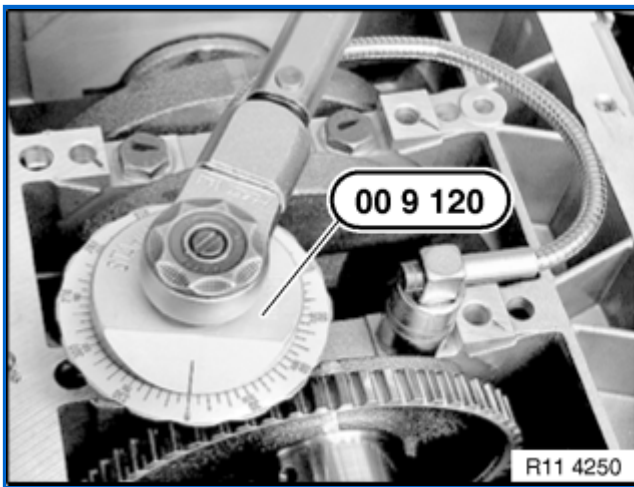
Remove plastigage.

Coat main bearing shells and crankshaft with engine oil.



Install main bearing cap so that grooves in main bearing shell guide are on one side.

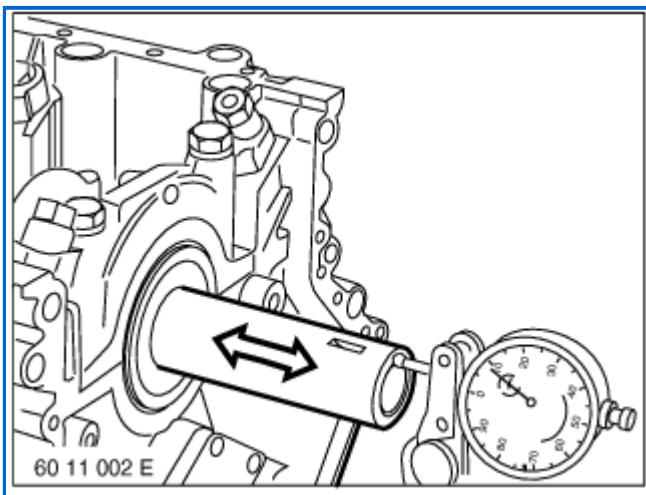
Align main bearing cap flush with side of bearing seat.



Tightening specifications for main bearing:

1. Tighten all screws on main bearing cap with jointing torque.
2. Loosen the screws on the main bearing cap 4.
3. Strike back and front of crankshaft with plastic hammer to centre guide bearing (do not damage crankshaft).
4. Tighten bolts of main bearing cap no. 4 to jointing torque.
5. Tighten down all screws on main bearing caps with special tool [00 9 120](#) to angle of rotation.

Tightening torque [11 11 1AZ](#).



[Check side clearance.](#)

If necessary, check guide bearing shells, crankshaft and engine block.



Assemble engine.