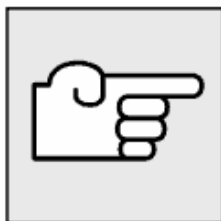


Instructions for disconnecting and connecting battery,  
refer to General Information MG 12.

Disconnect negative battery lead.



Unfasten drain plug for coolant on right engine block.

Drain and dispose of coolant.

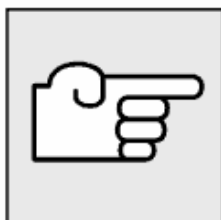
**Installation:**

Replace sealing ring on drain plug.

Tightening Torque,

refer to Technical Data 11 11 5AZ.

Top up coolant. Vent cooling system and check for leaks,  
refer to 17 00 005.

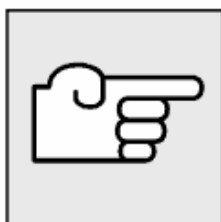


Remove timing case covers, top left and right,  
refer to 11 14 080 / 11 14 085.

Remove hub for vibration damper,

refer to 11 23 031.

Remove water pump with thermostat housing,  
refer to 11 51 000.



**Note:**

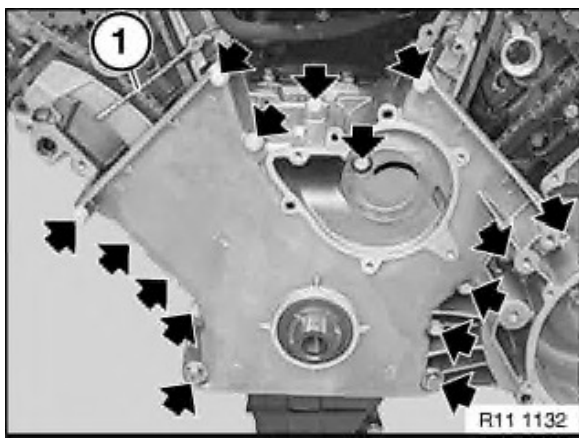
When the liquid-cooled alternator is removed, a residual  
quantity of coolant emerges from the timing case cover.

Catch and dispose of residual quantity of coolant.

Remove liquid-cooled alternator.

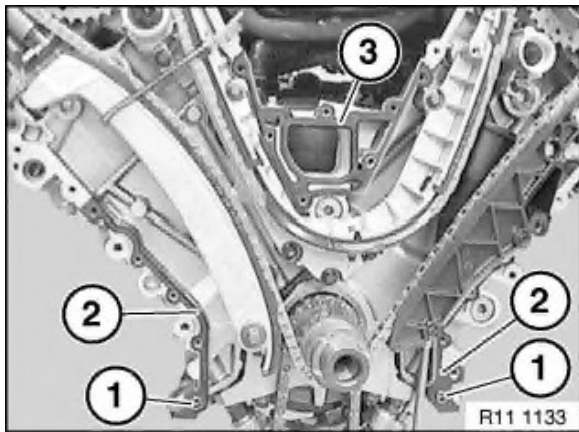
Remove upper oil sump section,

refer to 11 13 010.



Press bow cover against the timing chain. Secure bow cover with a plastic strap (1).

Remove lower timing case cover.



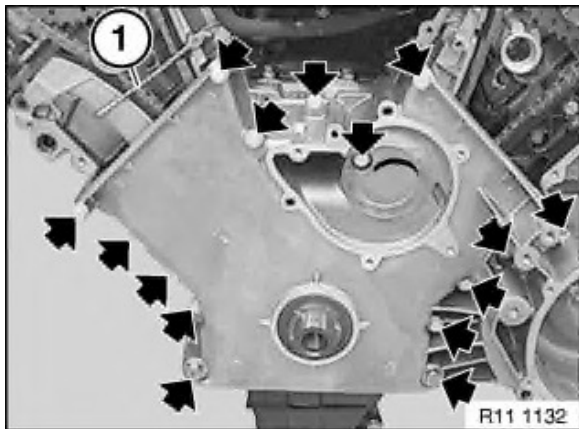
**Installation:**

Clean and remove grease from sealing surfaces of the engine block.

Check dowel sleeves (1) for damage and correct installation position.

Replace seals (2 and 3).

Apply thin coat of Drei Bond 1209 to front and back edges of seals (refer to BMW Parts Service).



**Installation:**

Install timing case cover, insert all screws and initially tighten to approx. 5 Nm.

Firmly tighten all screws in alternate sequence.

Tightening Torque,  
refer to Technical Data 11 14 1AZ.

**Caution!**

Once all screws have been tightened down, retighten them in a second operation.

Replace radial seal in timing case cover at bottom,  
refer to 11 14 141.