

# **REP-REP-RAE8211N55-1165020 Removing and installing / replacing exhaust turbocharger (N55) &comma; VIN: VM11125**

ISTA system version	<b>4.02.14.17970</b>	Data version	<b>R4.02.14.17970</b>	Programming data	-
VIN	<b>VM11125</b>	Vehicle	<b>1'/E82/Coupe/135i/N55/MANUAL/US/LL/2010/11</b>		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	<b>0 km</b>				

**11 65 020**

**Removing and installing / replacing exhaust turbocharger (N55)**



## **Warning!**

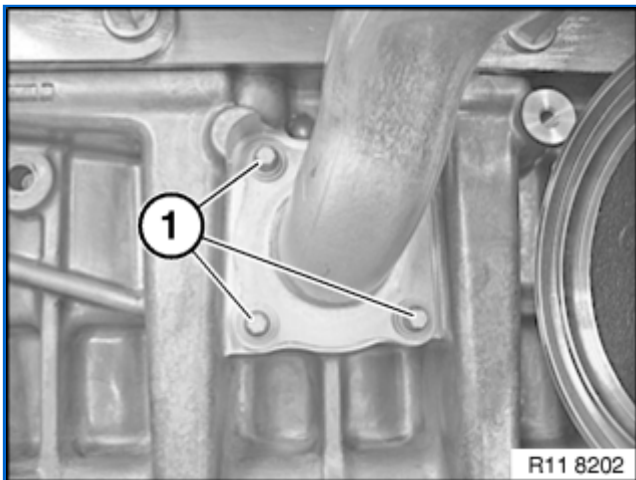
The module consists of exhaust turbo charger and exhaust manifold.

The weight of the turbocharger is approx. 15 kg.



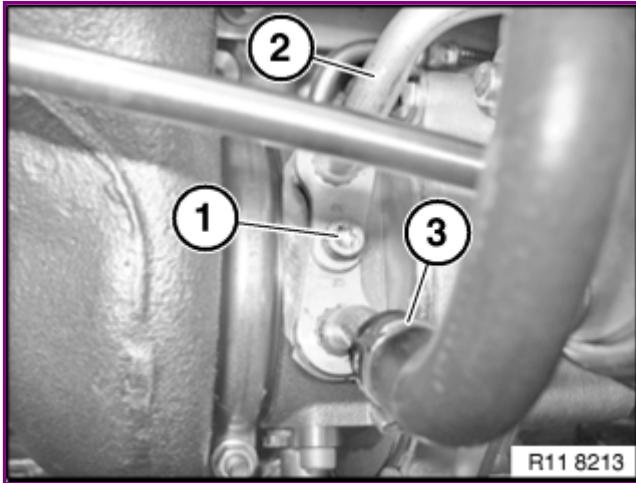
## *Necessary preliminary tasks:*

- Remove [fan cowl](#) with electric fan.
- Drain [coolant](#).
- Remove [coolant thermostat](#).
- Remove [coolant pump](#).
- Remove [charge air cooler](#).
- Remove right [engine support arm](#).
- Remove right [engine mount](#).
- Remove [catalytic converters](#)



Release screws (1).

Tightening torque [11 53 4AZ](#).



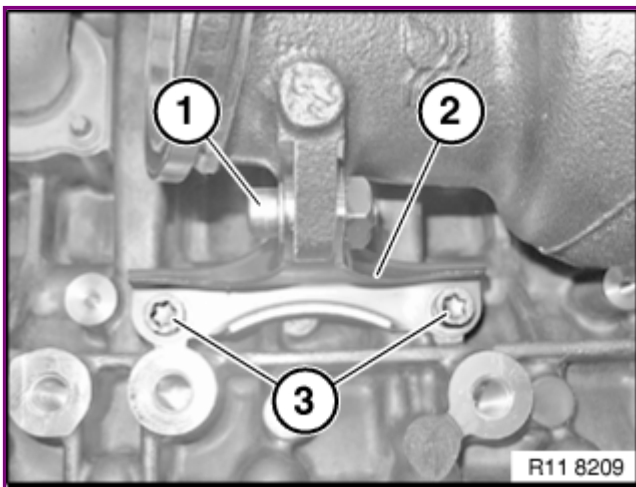
Release screw (1).

Tightening torque [11 53 10AZ](#).

If necessary, use appropriate tool to loosen coolant return line (3) and coolant flow line (2) at connection point.

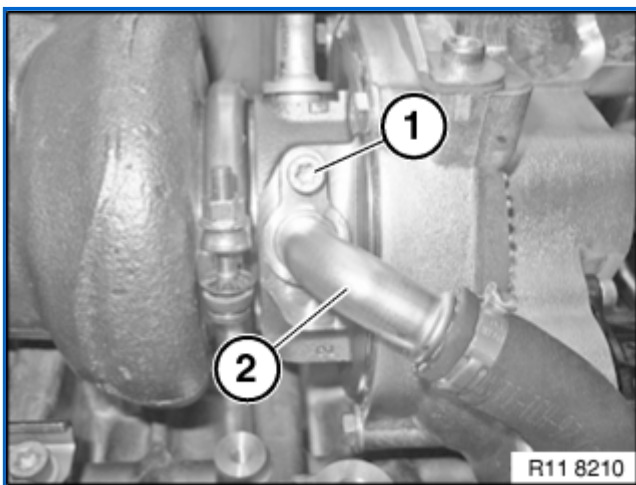
*Installation note:*

Replace sealing rings.



Release screw (1).

Loosen screws (3) but do not remove.



Release screw (1).

Tightening torque [11 42 6AZ](#).

If necessary, use appropriate tool to loosen oil return lines (2).

*Installation note:*

Replace sealing ring.

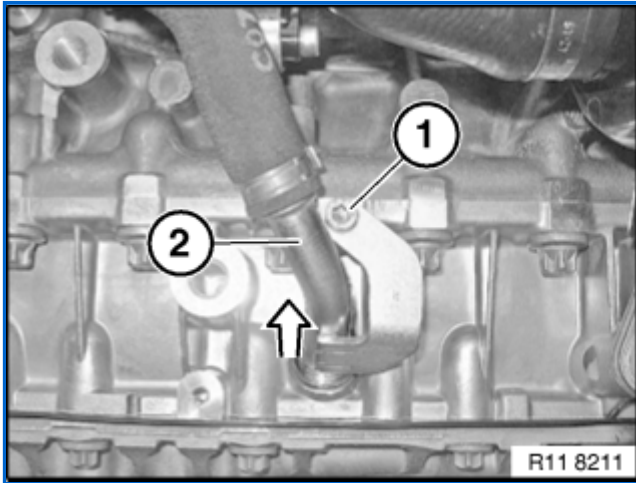
Release screw (1).

Tightening torque [11 42 7AZ](#).

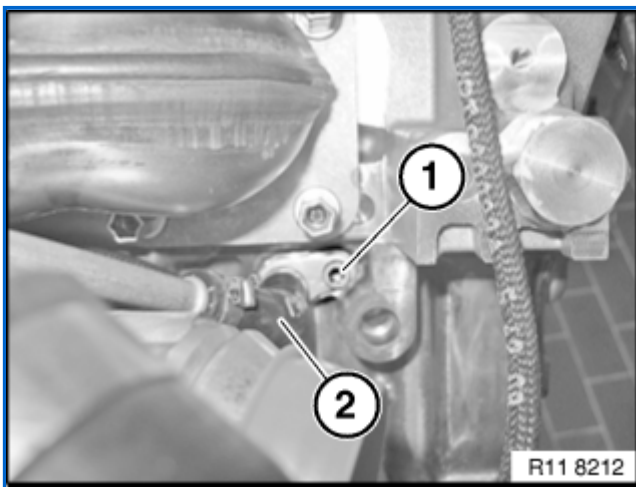
If necessary, use appropriate tool to loosen oil return lines (2).

Possibility of oil escaping when oil return line is disconnected.

*Installation note:*



Replace sealing ring.



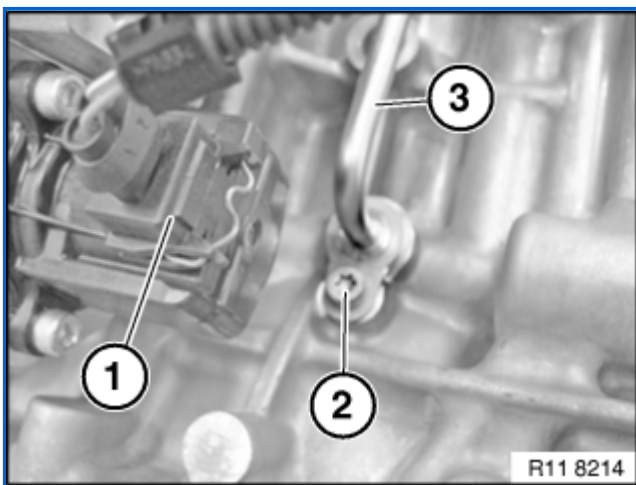
Release screw (1).

Tightening torque: [11 42 4AZ](#).

If necessary, use appropriate tool to loosen coolant return lines (2) at connection point.

*Installation note:*

Replace sealing ring.



Loosen plug connection (1) at blow-off valve.

Release screw (2).

Tightening torque [11 65 4AZ](#).

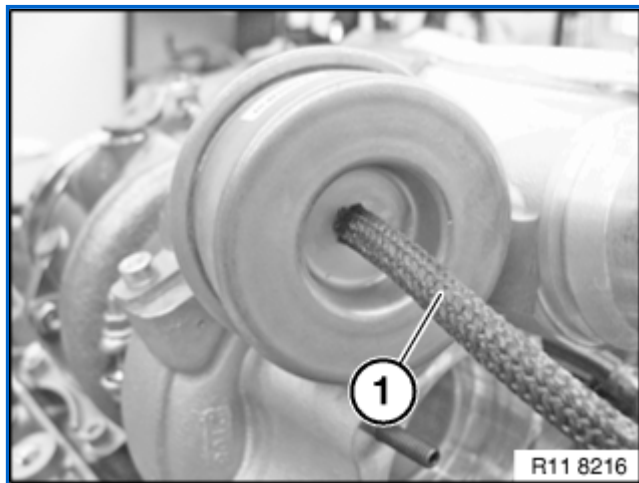
If necessary, use appropriate tool to loosen oil feeder lines at point of connection (3).

Possibility of oil escaping when oil return line is disconnected.

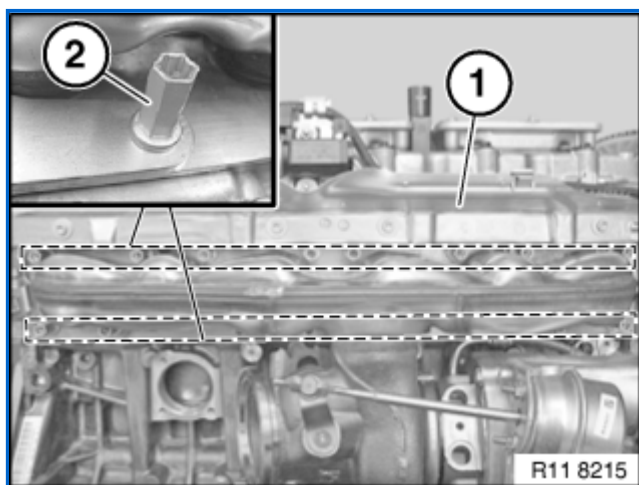
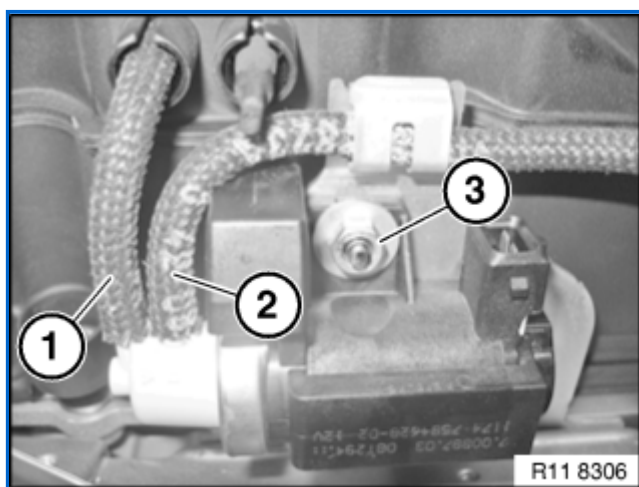
*Installation note:*

Replace sealing ring.

Disconnect vacuum hose (1) from vacuum line.



Disconnect vacuum hose (1) from cylinder head cover.



Remove heat shield (1).

Tightening torque: [11 65 2AZ](#)

Loosen all flange nuts (2) along the line.

Remove module by manoeuvring downwards on gearbox side.

*Note:*

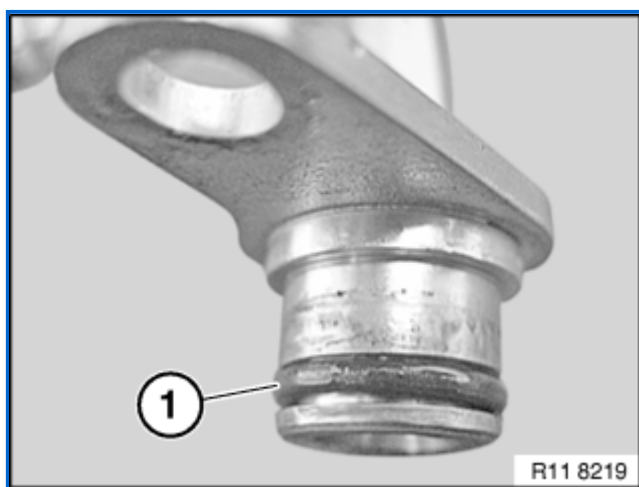
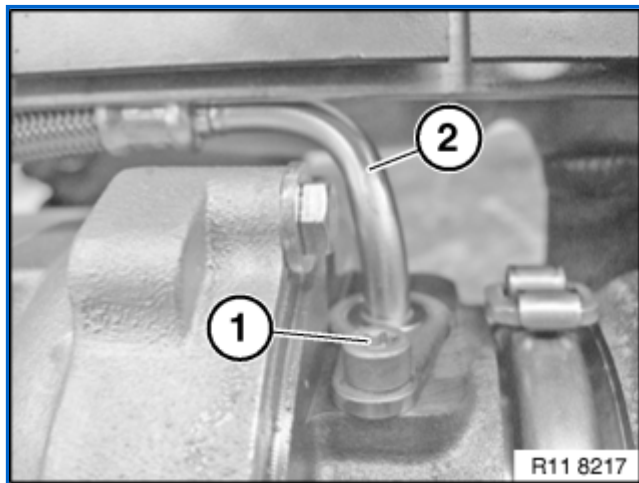
Overall weight of module is **approximately 15 kg**.

*Note:*

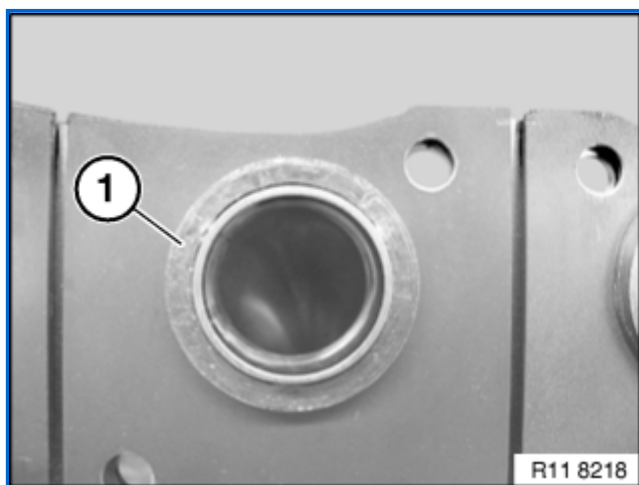
Oil supply line (2) can only be replaced after removal of the turbocharger.

Release screw (1).

If necessary, use appropriate tool to loosen oil feeder lines at point of connection (2).



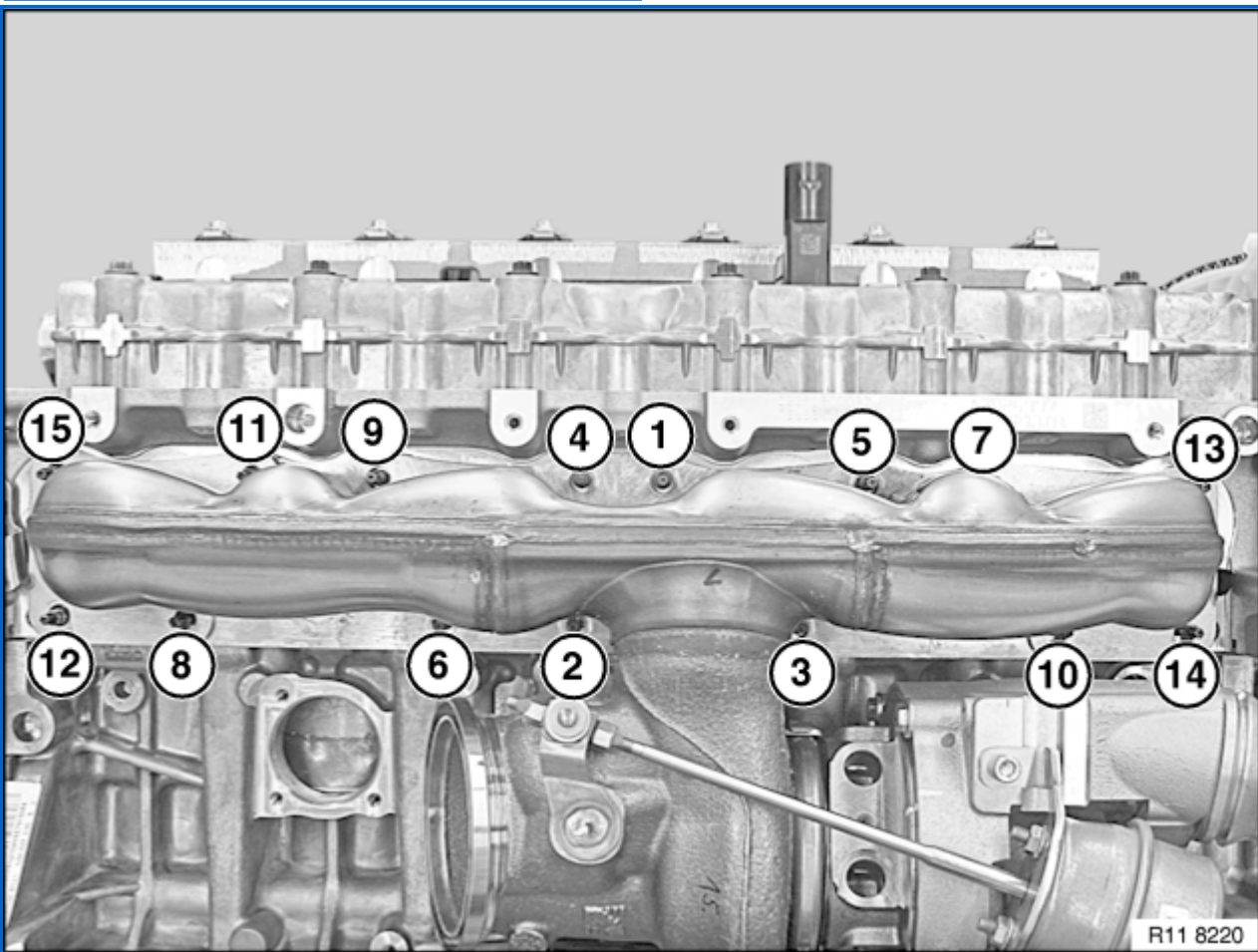
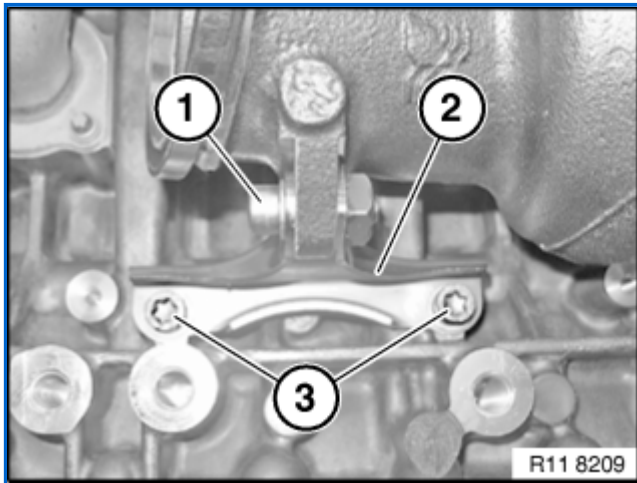
*Installation note:*  
Replace all sealing rings (1).



*Installation note:*  
Replace all graphite seals (1).  
Position turbocharger on cylinder head and hold in place with two bolts.

Insert bolt (1) but do not tighten at this point.





Important!

The module consists of exhaust gas turbo loader and exhaust gas manifold and must be installed stress-free.

Torque and torque sequence must be observed without fail.

Tightening torque: [11 65 1AZ](#).

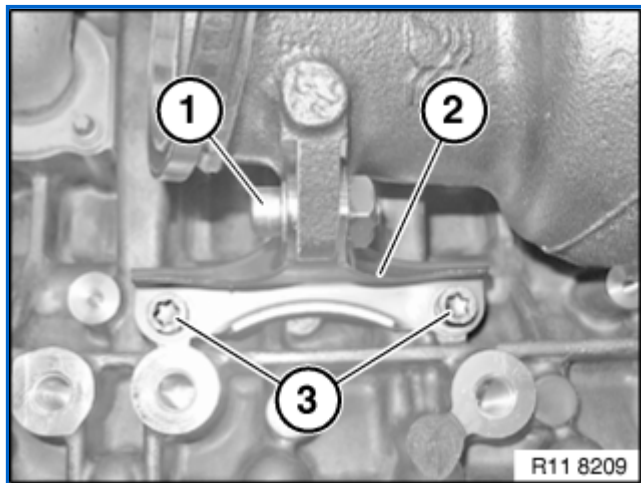
1. Join all flange nuts in sequence 1 to 15 to **8 Nm**.
2. Tighten all flange nuts to a torque of **13 Nm** in sequence (1 to 15).

Installation note:

Flange nuts 1 to 5 are accessible from above.

Flange nuts 6 to 15 are accessible from below.

Secure screws (3).



Tightening torque: [11 65 9AZ.](#)

Tighten bolt (1).

Tightening torque [11 65 8AZ.](#)



Assemble engine.

Observe BMW Diagnostics System instruction.

Carry out BMW leak test for intake system.

11 00 670

**Secure engine in  
installation position****Special tools required:**

- [00 6 100](#)
- [00 6 130](#)
- 00 6 050
- 00 6 070-072
- 00 6 070-071
- 00 6 050-053

**Warning!**

Danger of injury!

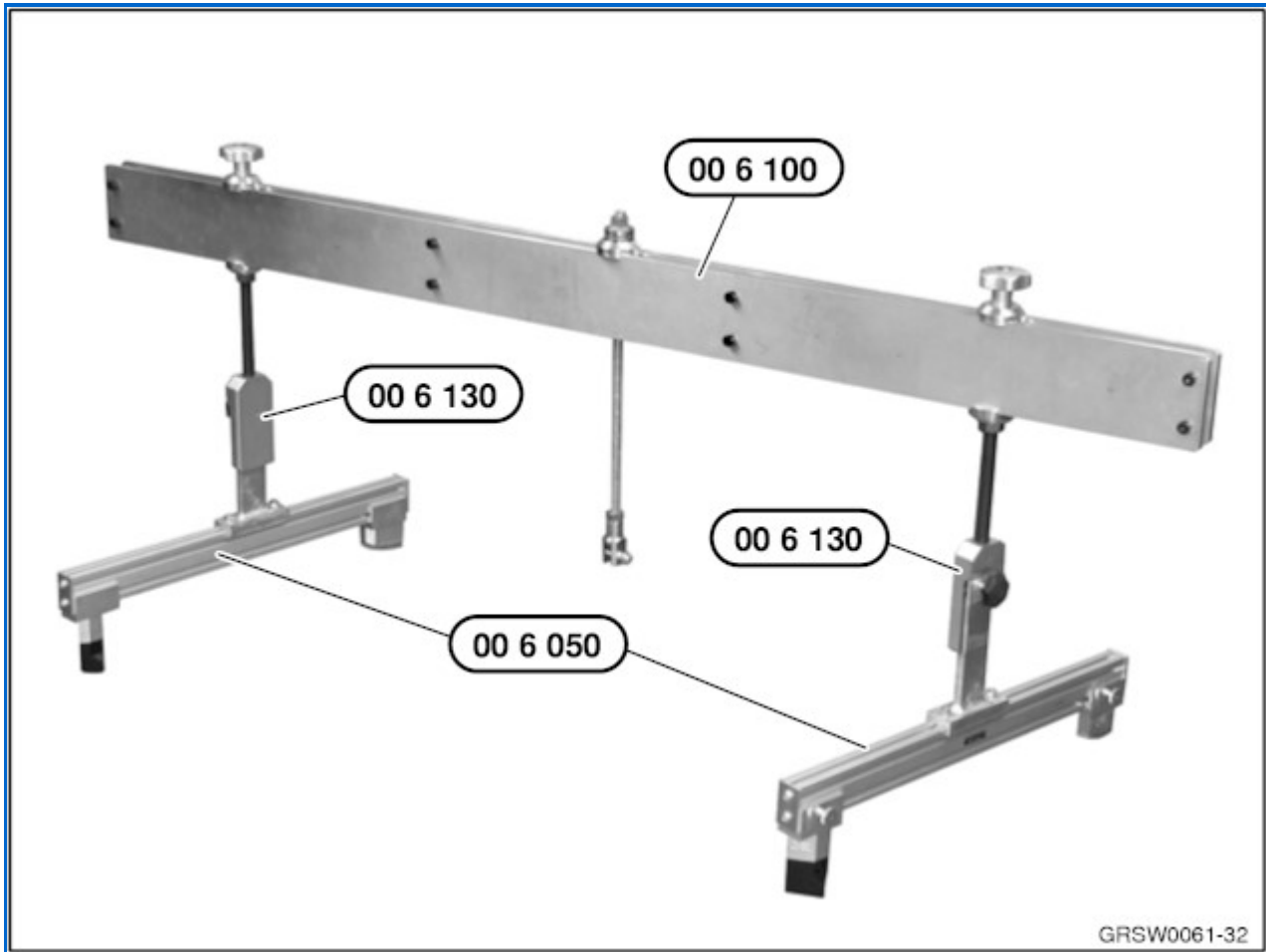
Observe following instructions relating to  
special tool:

1. Prior to each use, check the special tools for defects, modifications and operational reliability.
2. Damaged/modified special tools must not be used!
3. No changes or modifications may be made to the special tools!
4. Keep special tools dry, clean and free of grease.

**Note:**

- [Numbering system for special tools](#) has been re-encoded.





Special tools

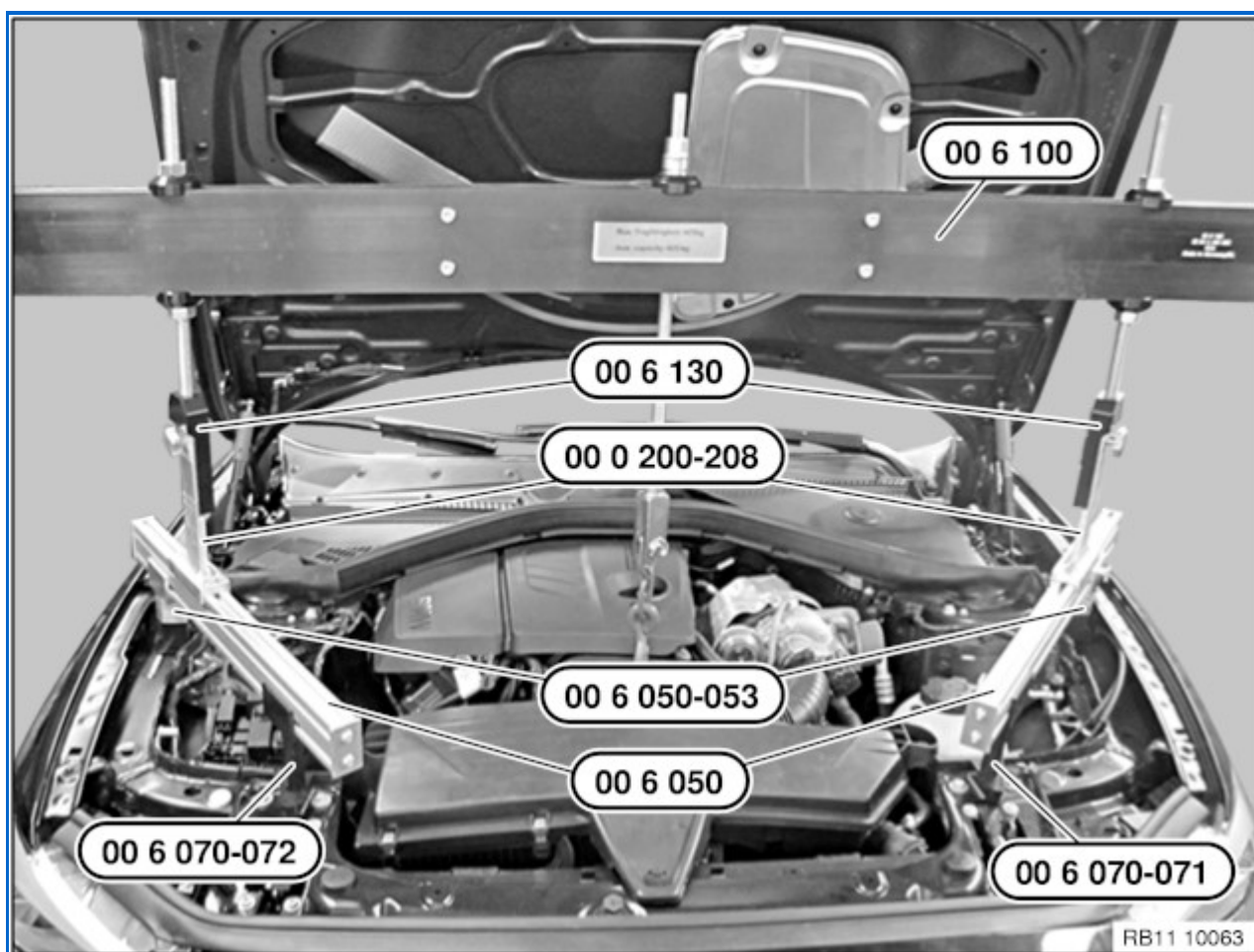
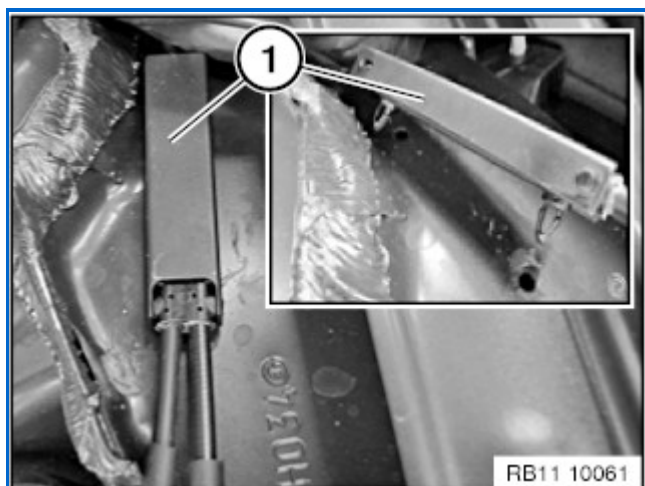


*Necessary preliminary tasks:*

- Secure the engine compartment lid in the service position.
- Remove front [underbody protection](#).
- F33 convertible only, remove front-end struts.

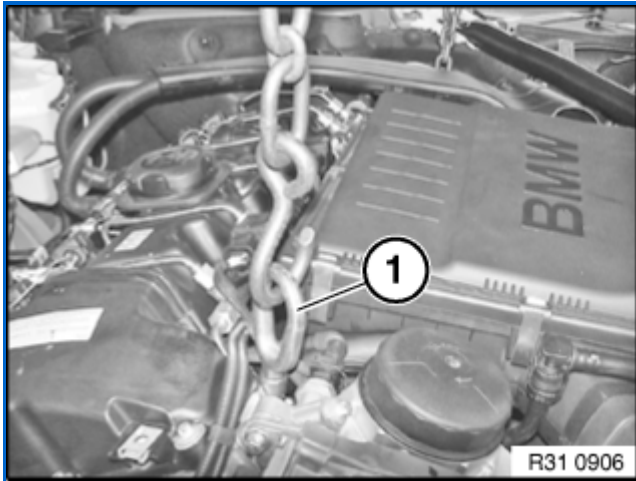
Assemble cross-member [00 6 100](#) with the special tools, [00 6 130](#), 00 6 050, 00 6 070-072, 00 6 070-071, 00 6 050-053.

Unclip Bowden cable (1) for hood opening.



Fit cross-member [00 6 100](#) with a 2nd person helping.

Screw towing hook (1) into engine block.



Attach chain to towing eye.



### Warning!

Danger of injury!

Tighten down all screws and nuts on transverse member [00 6 100](#).

### Important!

Before lifting the engine, check the lifting lugs for damage (cracks) and to ensure they are seated securely.

Avoid a change of engine position in the transverse or longitudinal direction.

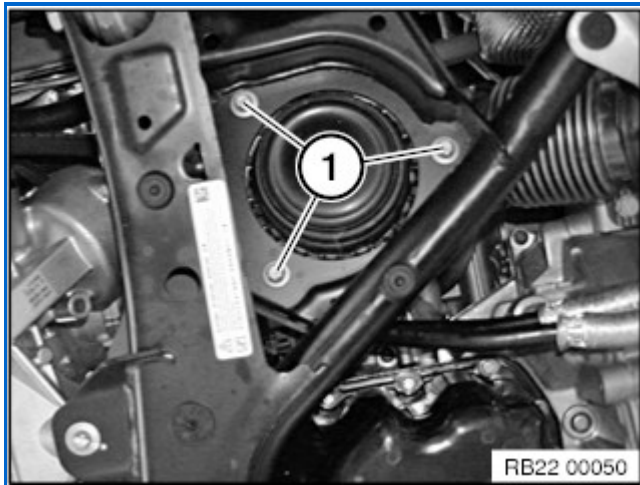
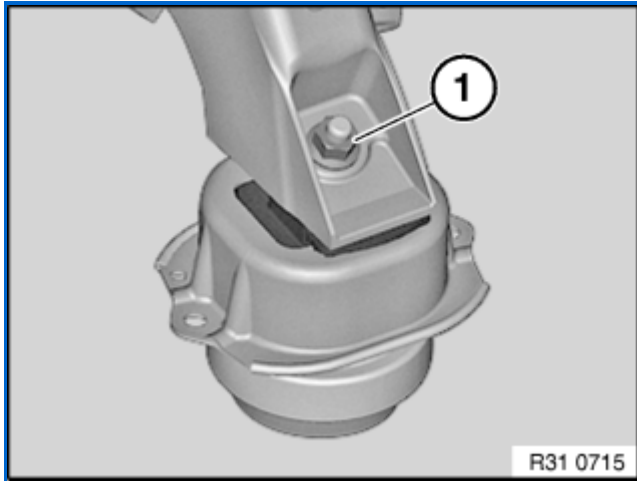
Always make sure there is sufficient clearance between the engine (or its add-on parts) and the body.

*Note:*

**4WD**

Release bolts (1) on engine mount.

Tightening torque [22 11 2AZ](#).



*Note:*

### Rear-wheel drive

Release screws (1) from both engine mounts.

Raise engine approx. 10 mm with cross member.

Tightening torque [22 11 1AZ](#).

### Important!

Observe installation note!

To ensure play between engine mount and front axle support, lower the engine completely before tightening the screw connection (engine mount/front axle support).

Tightening torque [22 11 1AZ](#).

# **REP-REP-RAE9217N54-1751000 Removing and installing/replacing charge air cooler (N54, N54T, N55)&comma; VIN: VM11125**

ISTA system version	<b>4.02.14.17970</b>	Data version	<b>R4.02.14.17970</b>	Programming data	-
VIN	<b>VM11125</b>	Vehicle	<b>1'/E82/Coupe/135i/N55/MANUAL/US/LL/2010/11</b>		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	<b>0 km</b>				

**17 51 000**

**Removing and installing/replacing charge air cooler (N54, N54T, N55)**



## **Special tools required:**

- 11 8 670



## **Necessary preliminary tasks:**

- Remove front [underbody protection](#).
- Unfasten and detach charge air duct on left and right of charge air cooler.
- **Only E84 with pedestrian protection:**  
Remove pedestrian protection.

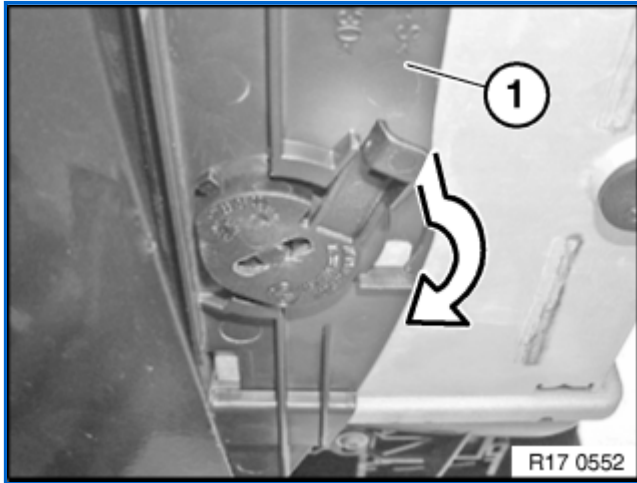


## **Important!**

Coat sealing rings of snap fasteners with lubricant.  
Pressure pipes cannot be fitted without lubricant.

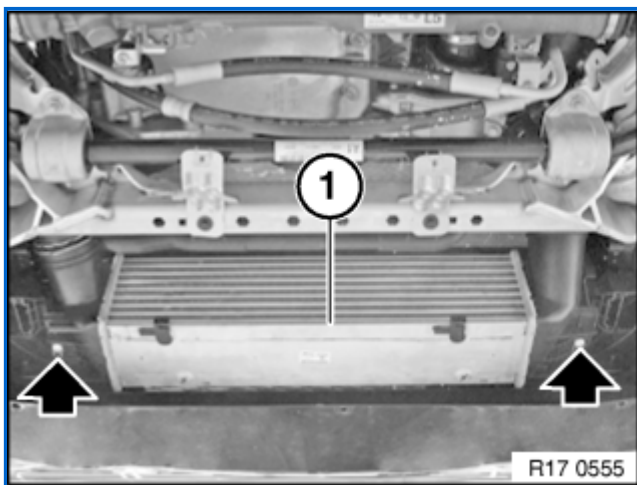
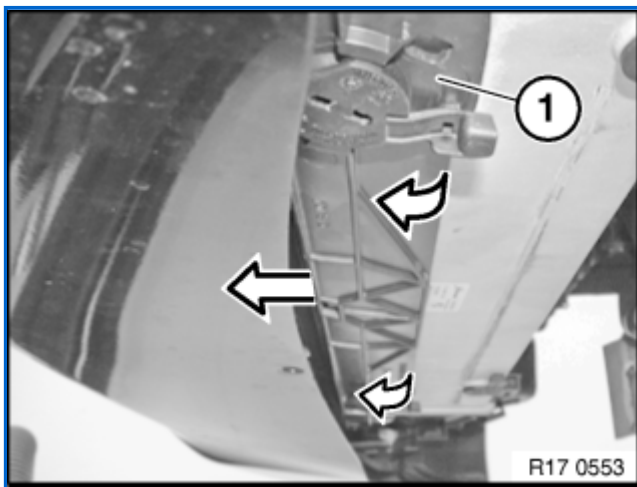
## **Only, when cover (1) is installed:**

Release lock on cover (1) in direction of arrow.



**Only, when cover (1) is installed:**

Release cover (1) in direction of arrow and remove.

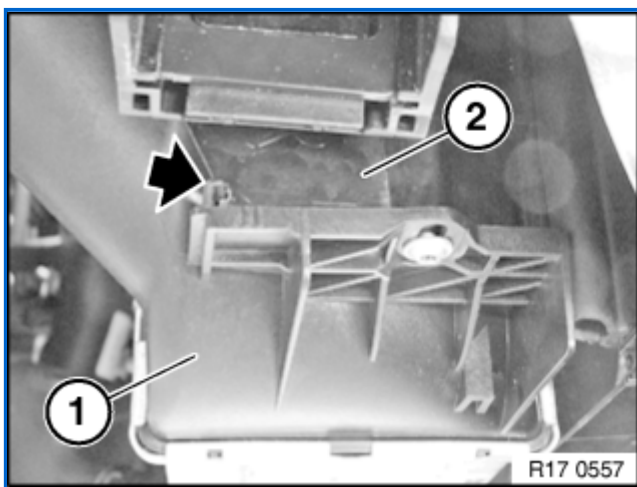
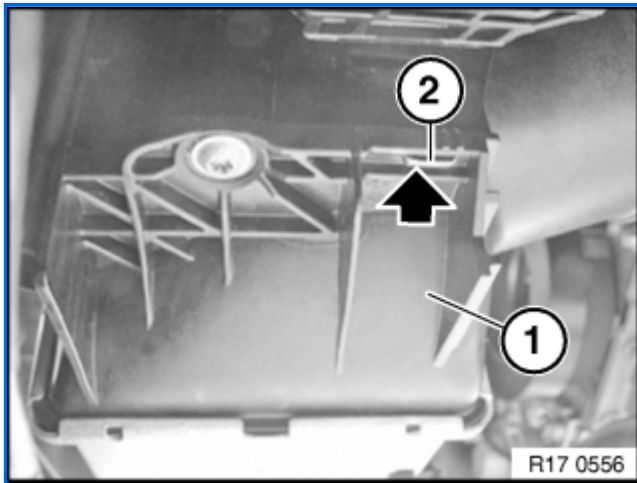


Release screws and remove charge air cooler (1).

*Installation note:*

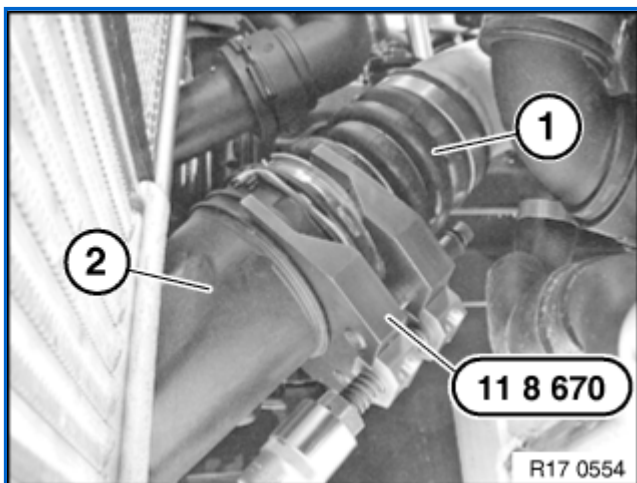
Make sure charge air cooler (1) and cooler bracket (2) are in correct installation position.





*Installation note:*

Make sure charge air cooler (1) and cooler bracket (2) are in correct installation position.



*Installation note:*

**Caution!**

**Risk of damage** to sealing rings!

Special tool 11 8 670 is essential!

- Coat sealing rings with antiseize agent.
- Attach charge air duct (1) with special tool 11 8 670 to charge air cooler (2).
- Charge air ducts must audibly snap into place.

Texts refer to and illustrations show the right side. The procedure is identical for the left side.



Reassemble the vehicle.

**REP-REP-RAE9217N54-1711035 Remove and install or replace the fan cowl with electric fan (N53, N54, N54T, N55)&comma; VIN: VM11125**

ISTA system version	<b>4.02.14.17970</b>	Data version	<b>R4.02.14.17970</b>	Programming data	-
VIN	<b>VM11125</b>	Vehicle	<b>1'E82/Coupe/135i/N55/MANUAL/US/LL/2010/11</b>		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	<b>0 km</b>				

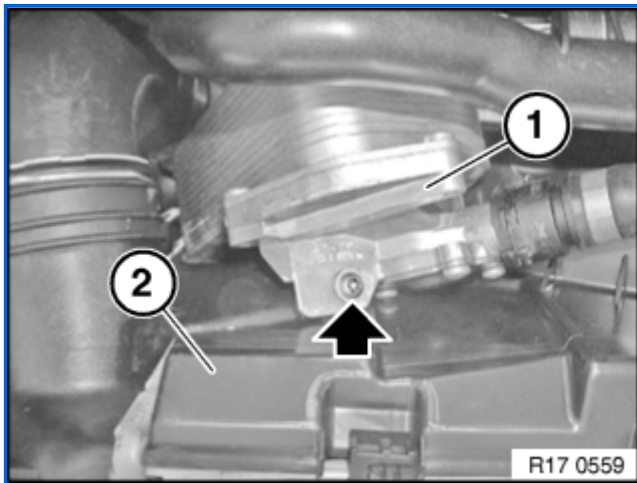
**17 11 035**

**Remove and install or replace the fan cowl with electric fan (N53, N54, N54T, N55)**



**Necessary preliminary work:**

- Read out the fault memory of the DME control unit.
- Switch off ignition.
- Remove [intake port](#).
- **Only automatic or twin-clutch gearbox:**  
Remove front [underbody protection](#).



**Only automatic or twin-clutch gearbox:**

Release screw.

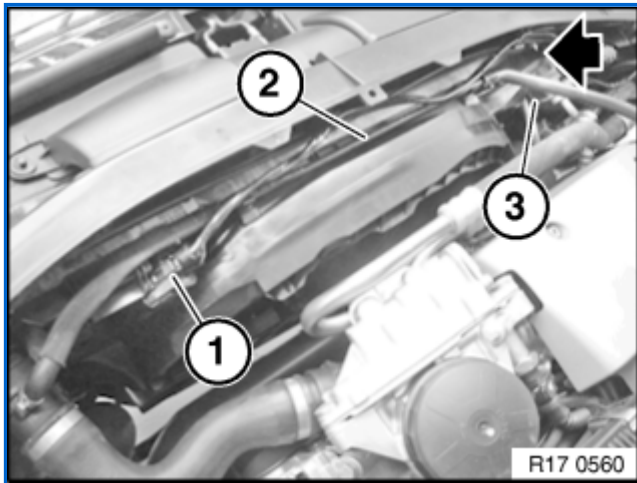
Detach cooler (1) for automatic transmission from fan cowl (2).

Unlock connector (1) and remove.

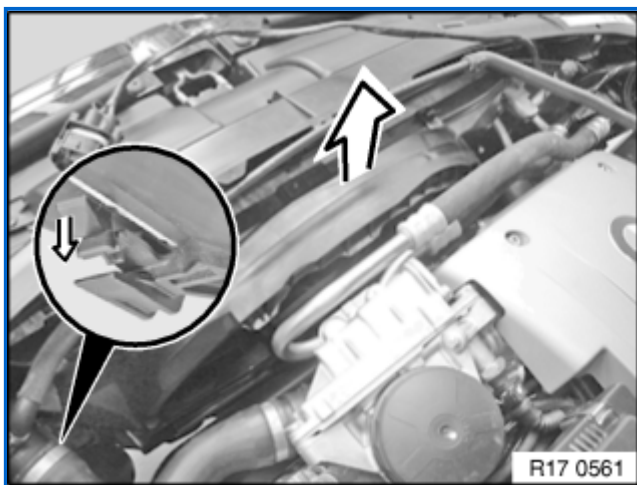
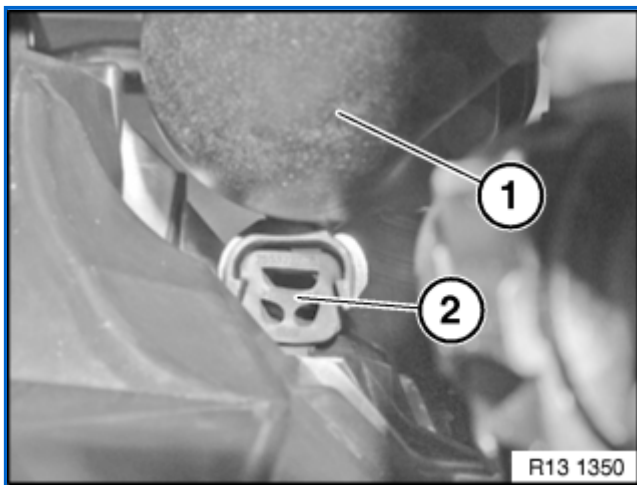
Unclip line (2) from fan cowl.

Cut open cable strap (3).

Release screw.

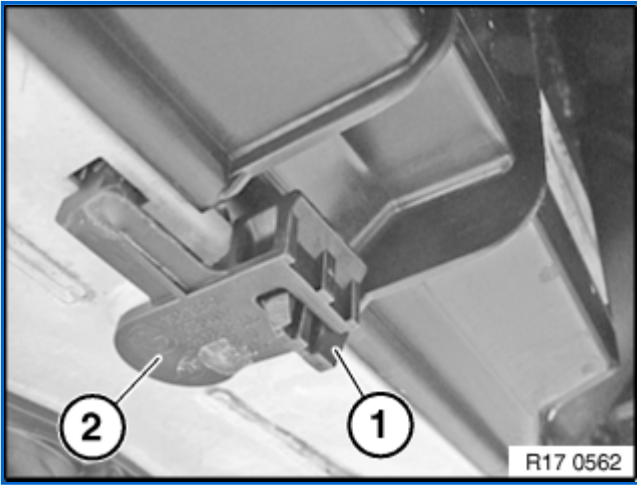


Release charge air duct (1) from rubber mount (2) on fan cowl.



Unlock catch in direction of arrow.  
Remove fan cowl towards top.

*Installation note:*  
Make sure fan cowl (1) and holder (2) are in correct installation position.

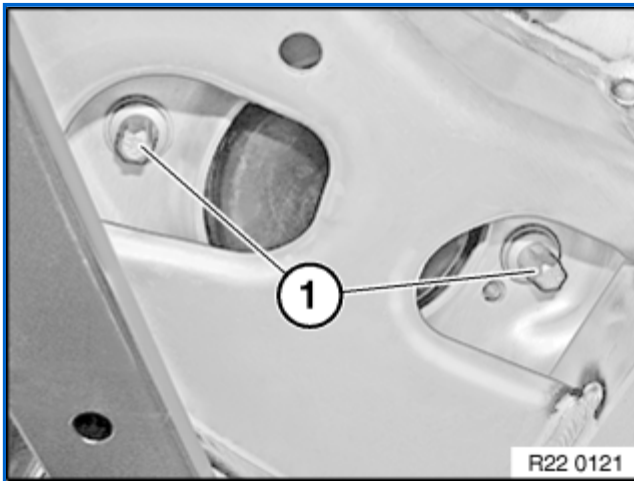


**REP-REP-RAE8222-2211001\_N55 Replacing right engine mount (N55)&comma; VIN: VM11125**

ISTA system version	<b>4.02.14.17970</b>	Data version	<b>R4.02.14.17970</b>	Programming data	-
VIN	<b>VM11125</b>	Vehicle	<b>1'/E82/Coupe/135i/N55/MANUAL/US/LL/2010/11</b>		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	<b>0 km</b>				

**22 11 001****Replacing right engine mount (N55)****Necessary preliminary work:**

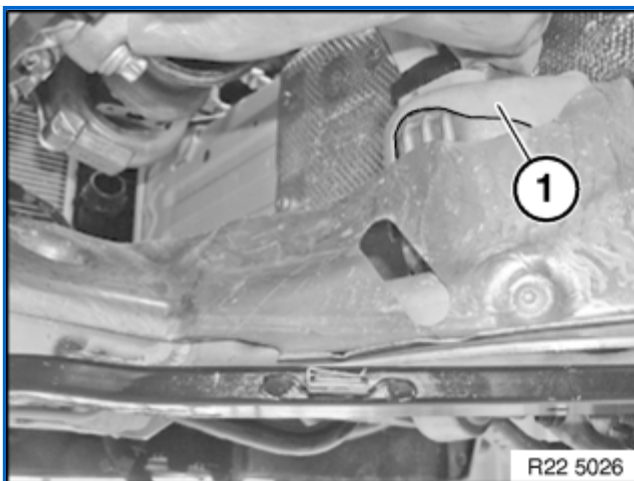
- Remove [right engine support arm](#).
- Remove [underbody protection](#)



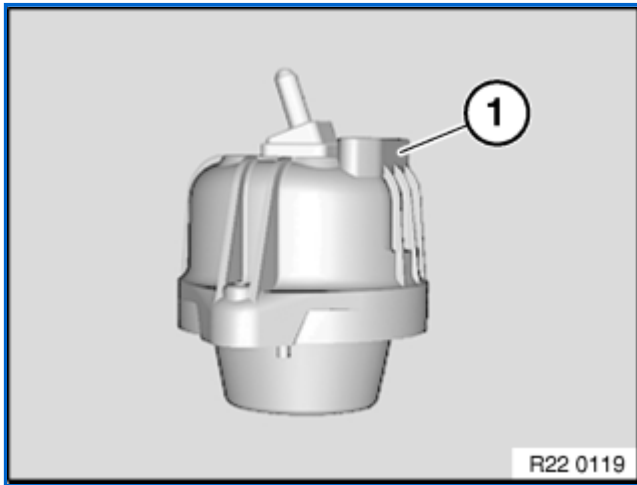
Release screws (1) and remove engine mount.

Tightening torque [22 11 1AZ](#).

Similar to graphic.

**Installation note:**

Make sure rubber part (1) is correctly located.



*Installation note:*

Rubber part (1) of engine mount must point to centre of vehicle.

Engine mount identification:

Right engine mount

- Even component number

Left engine mount

- Odd component number



## REP-REP-RAE8222-2211100\_N55 Replacing right engine support arm (N55) &comma; VIN: VM11125

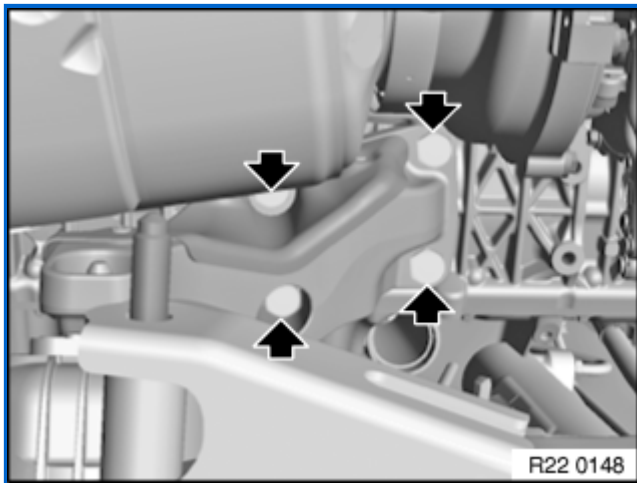
ISTA system version	4.02.14.17970	Data version	R4.02.14.17970	Programming data	-
VIN	VM11125	Vehicle	1'/E82/Coupe/135i/N55/MANUAL/US/LL/2010/11		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

22 11 100

Replacing right engine support arm (N55)

### Necessary preliminary work:

- Secure [engine in installation position](#).
- [Remove front underbody protection](#).



Release screws.

Remove engine support arm from engine.

Tightening torque [22 11 3AZ](#).

*Note:*

Graphic for N54 engine.