

31 10 001

Completely removing and installing front axle with engine and transmission (.N55)



Special tools required:

- [17 2 050](#)
- [00 9 030](#)
- [13 5 161](#)
- [13 5 162](#)



Important!

When removing, note that the unit weights approx. 250 to 450 kg.

Check the vehicle payload.

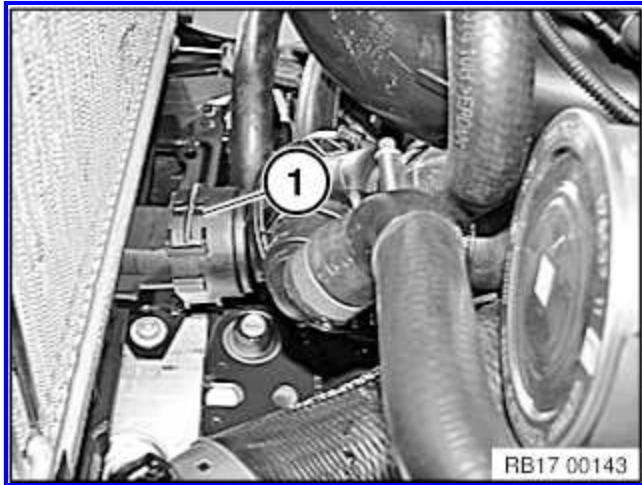
Footwell at front is loaded with approx 200 kg.

Note safety information of [table lift](#)!

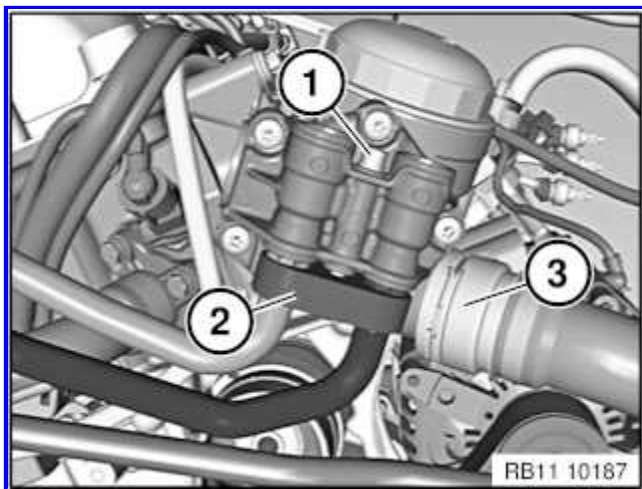


Necessary preliminary tasks:

- Position vehicle on vehicle hoist so its weight is centred.
- Disconnect battery.
- [Suction off](#) the air conditioning.
- Remove [expansion tank](#).
- Remove [fan cowl](#) with electric fan.
- Drain [coolant](#).
- [Remove](#) bulkhead sound insulation.
- Detach vacuum line from brake booster.
- Detach [engine wiring harness](#) in electronics box and set aside.
- Remove complete [propeller shaft](#).
- Remove front [brake pads](#).
- Remove both brake calipers at the front and hang them to one side.



Unlock and detach thermostat on radiator (1).

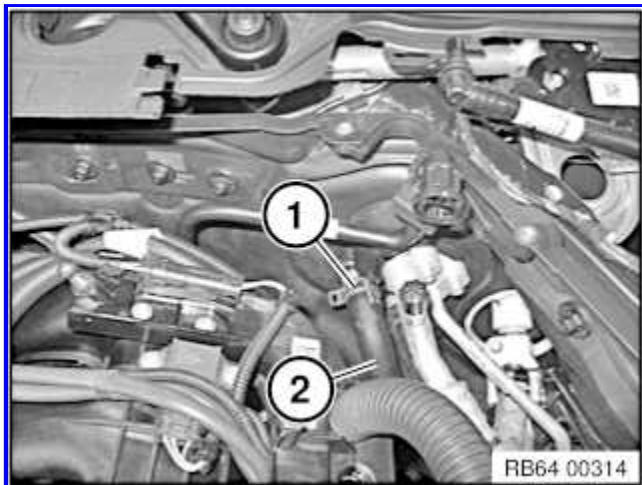


Release screw (1).

Tightening torque [17 22 4AZ](#).

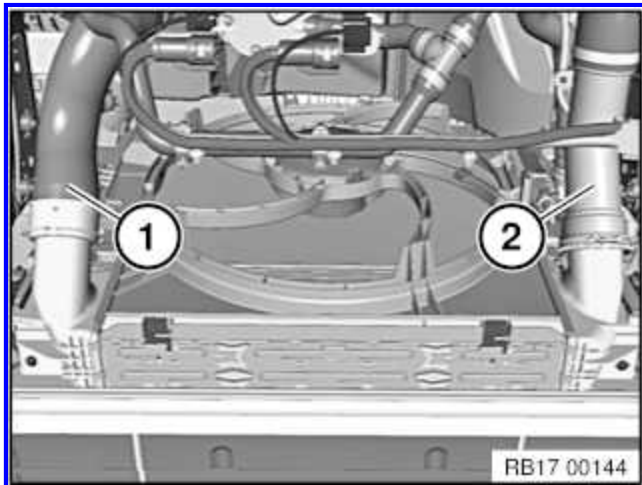
Remove engine oil pipe from thermostat (2).

Unlock and detach coolant hose (3).



Release hose clamp (1) with special tool [17 2 050](#) and detach coolant hose (2).

Unlock and detach charge air line (1) and charge air pipe (2) of charge air cooler and set to one side.



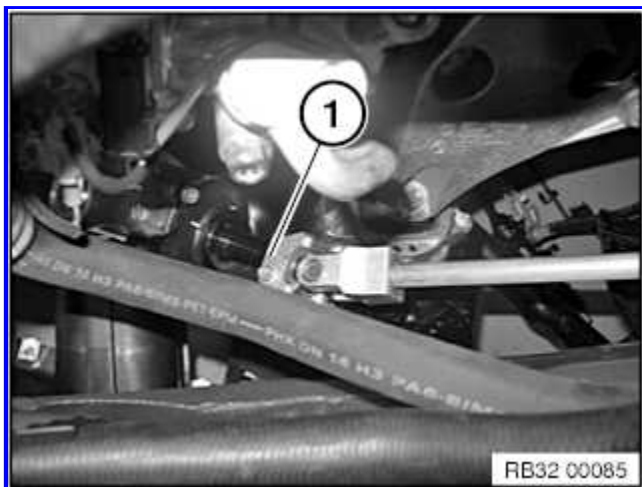
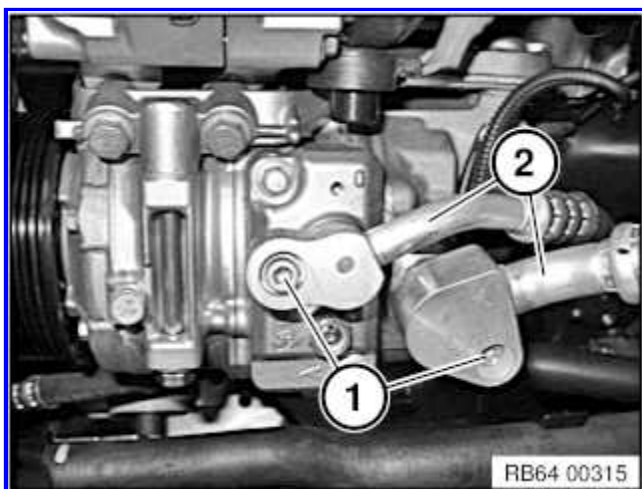
Release screws (1) and remove refrigerant lines (2).

Tightening torque [64 52 1AZ](#)

Installation note:

Replace sealing rings.

Use special tool [00 9 030](#) to install sealing rings without damaging them.



Release clamping bolts (1) on steering shaft at the bottom of the steering gear and pull off.

Installation note:

Clean screw threads to remove all remnants of screw locking adhesive.

Replace clamping bolts.

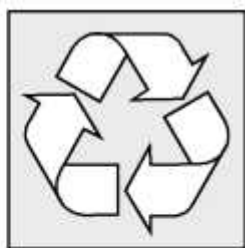
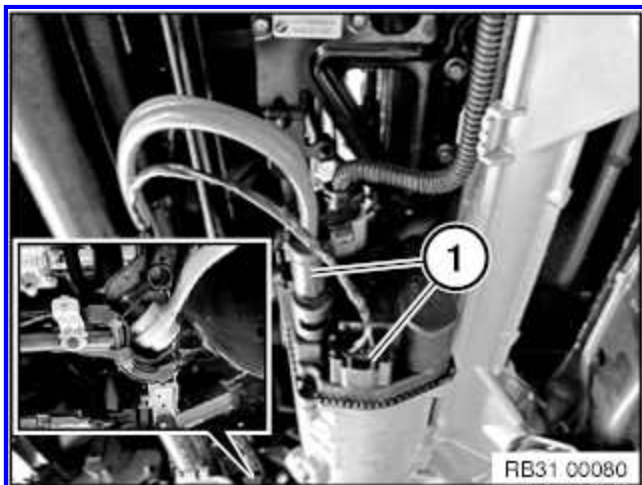
Tightening torque [32 31 2AZ](#).

Unlock and detach both electrical connectors (1) on steering gear.

Unclip cable routing from front axle support and fold back cable toward engine support.

Installation note:

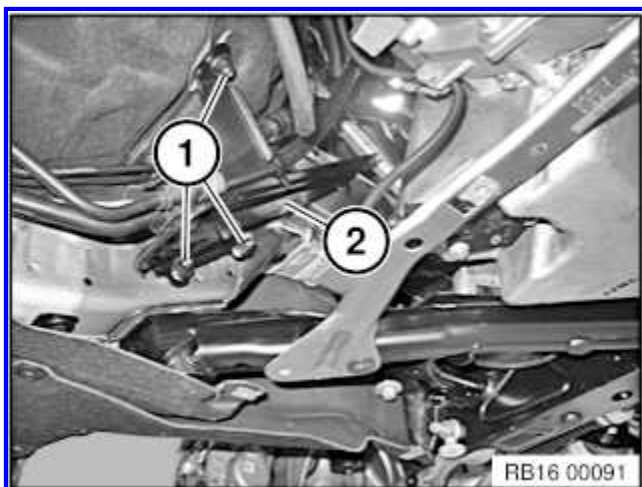
Replace faulty cable clips.



Recycling:

Catch and dispose of escaping fuel with auxiliary materials.

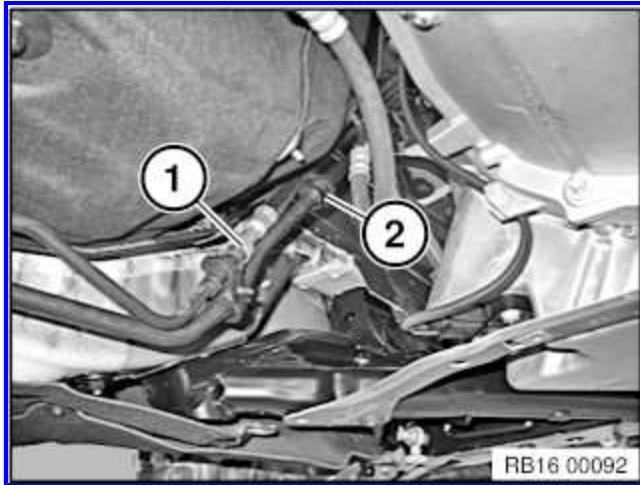
Observe country-specific waste disposal regulations.



Release screws (1) and remove protective plate (2).

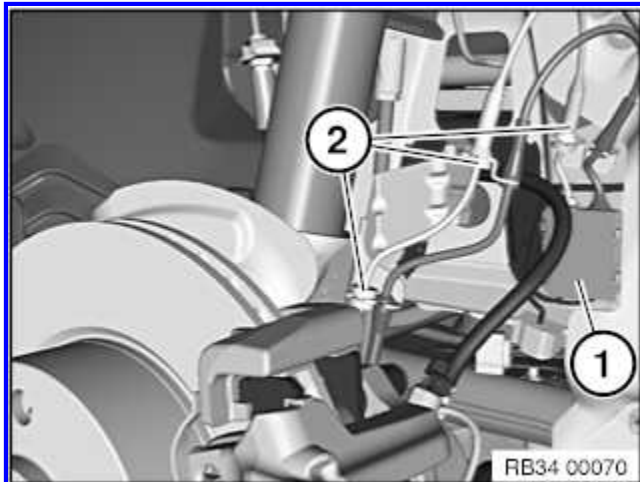
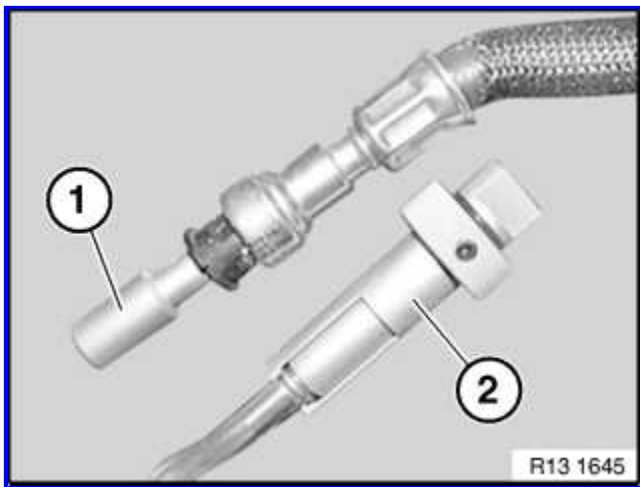
Unfasten fuel line (1) and disconnect.

Unlock and detach tank ventilation line of carbon canister (2).



Close off fuel line (1) with special tool [13 5 161](#).

Close off fuel line (2) with special tool [13 5 162](#).



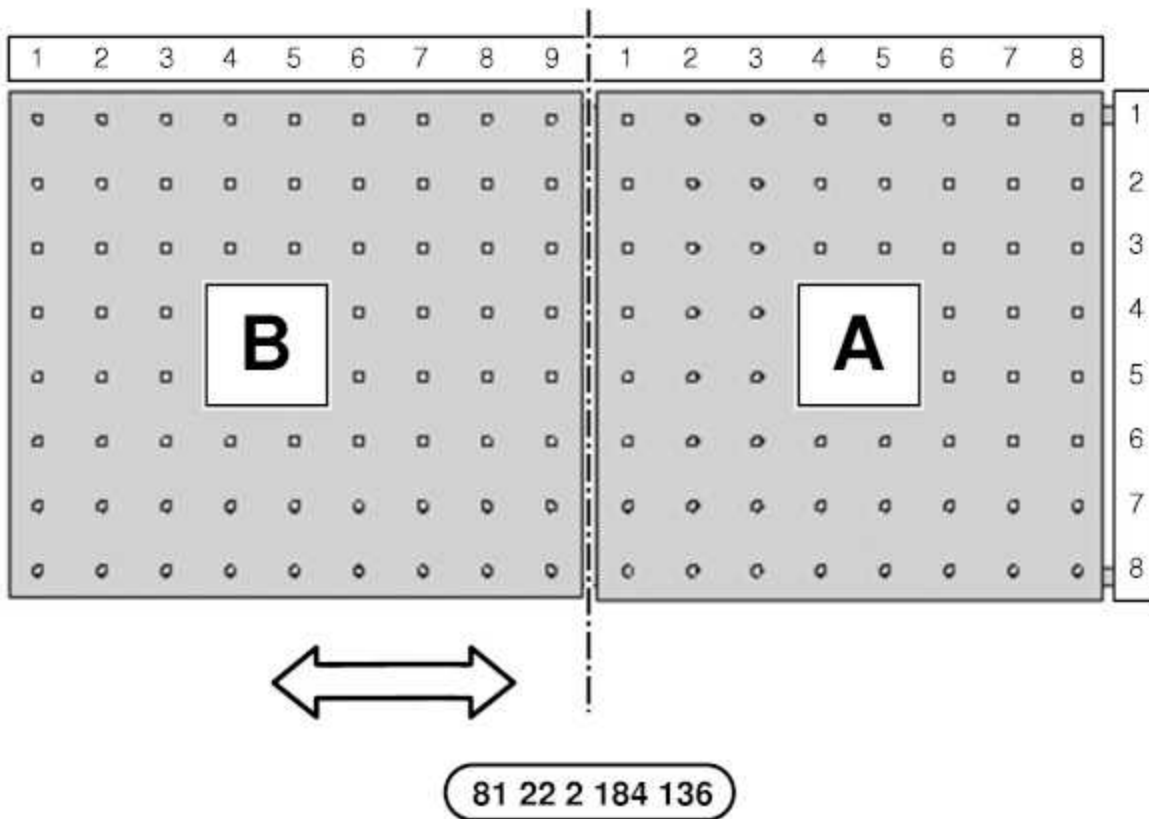
Open connector housing (1), pull electrical connection out of bracket and disconnect.

Disengage cable with rubber grommets from holders (2).

Installation note:

Check that the electrical connectors and rubber grommets are correctly mounted.

Note [31 00 Mobile table lift](#) document.



RB31 00100

Important!

**Coordination of
table lift from
left to right.**

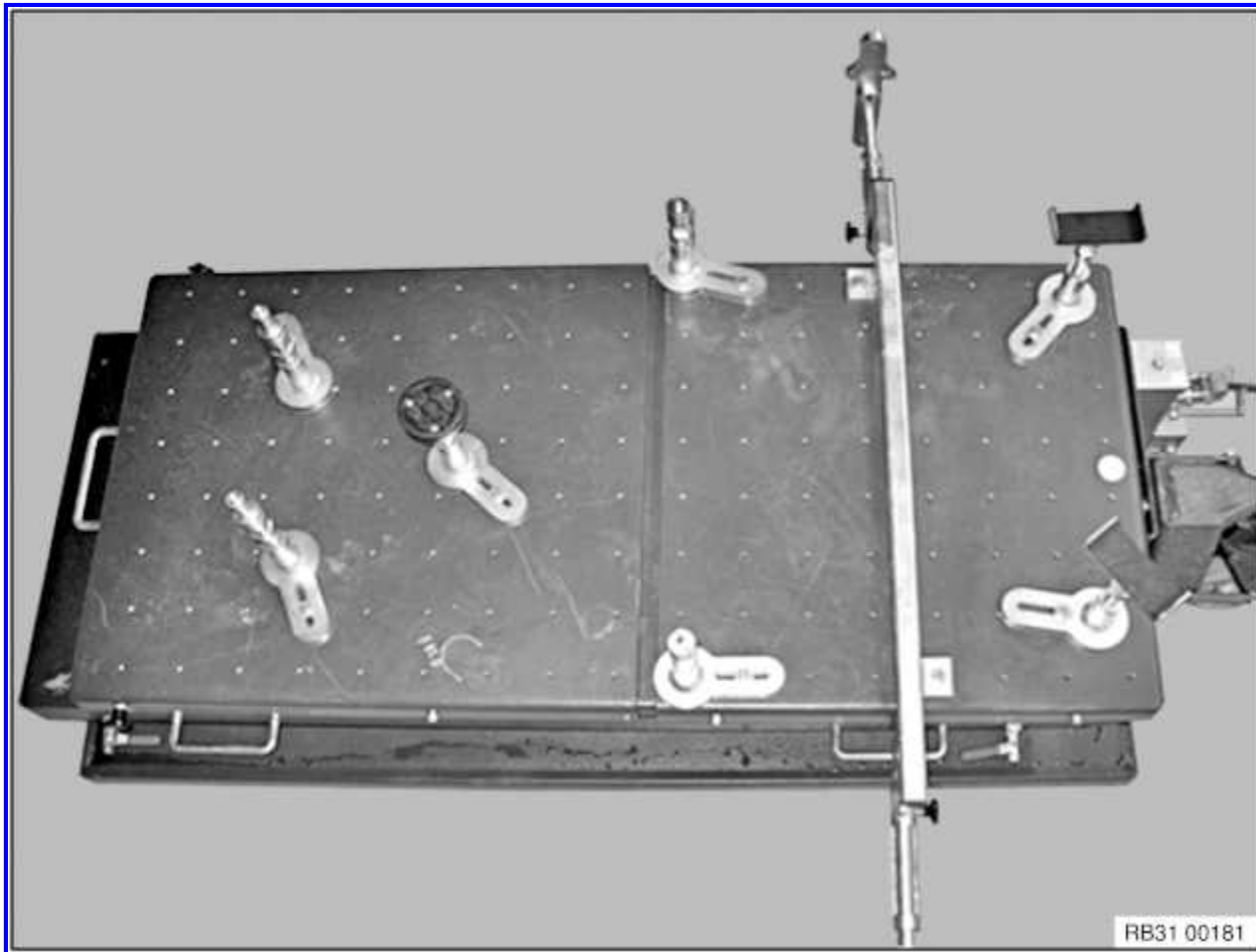
Position engine on
working surface of
table lift **A**.

Position
transmission on
working surface of
table lift **A**.

Work surface of
table lift **B** can be
adjusted in length
(see arrow).

**Structure of table
lift.**

Position adapter
(50) on work surface
of table lift **B** for
transmission cross-
member with
coordinates 3/2 and
3/7.



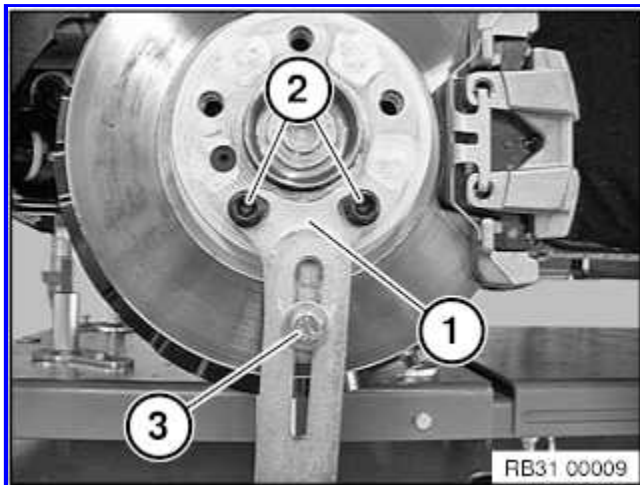
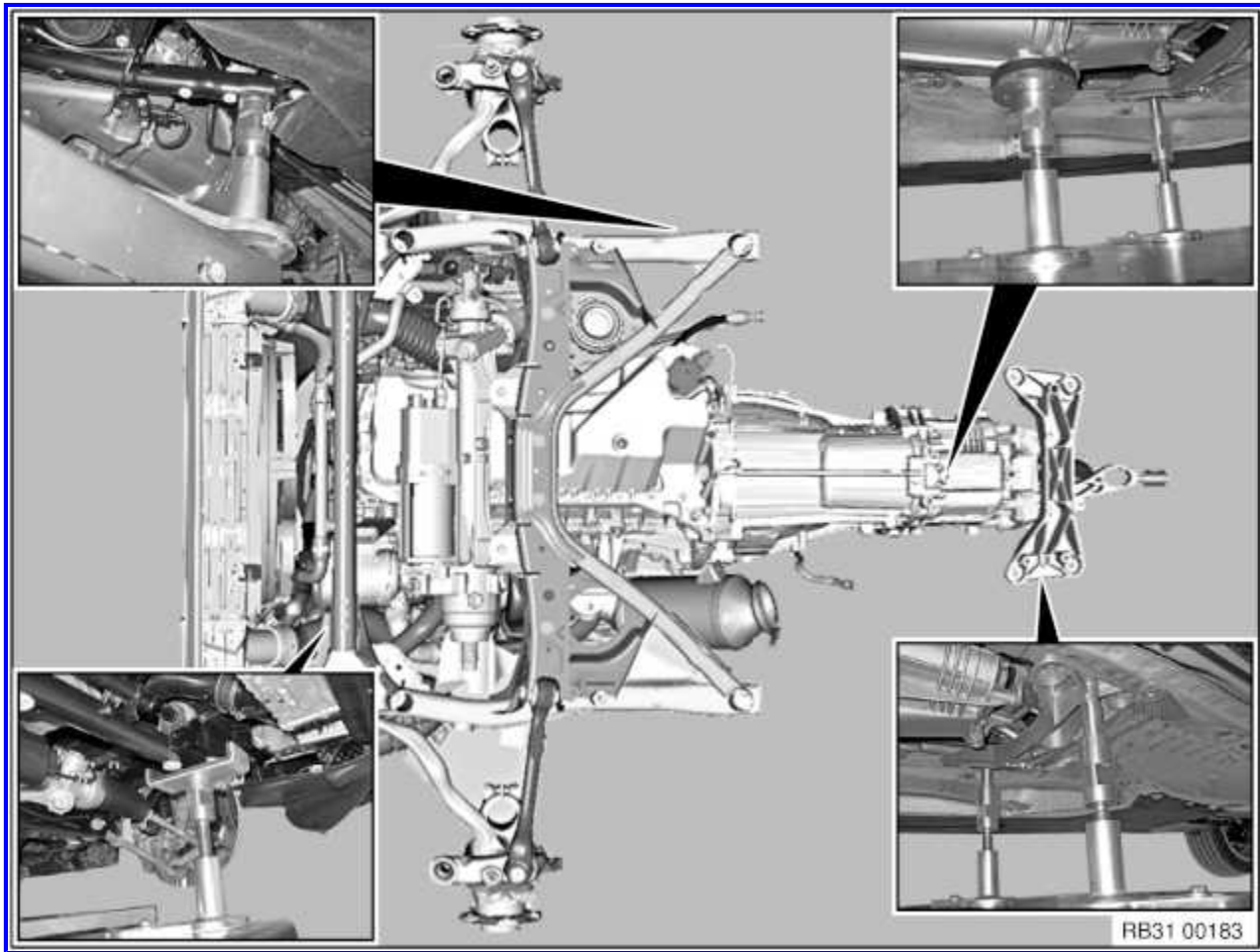
Position adapter (80) on work surface of table lift **B** under transmission with coordinates 7/5.

Position adapter (60) on work surface of table lift **A** for front axle support with coordinates 2/1 and 2/8.

Position adapter (10) on work surface of table lift **A** for swivel bearing with coordinates 4/1 and 5/8.

Position adapter (70) on work surface of table lift **A** for front axle support with coordinates 7/2 and 7/7.

Possible attachment points of front axle support (1 and 2) and transmission cross-member (3).



Adapt and secure (3) wheel hub adapter (1) on left and right of wheel hub (2).

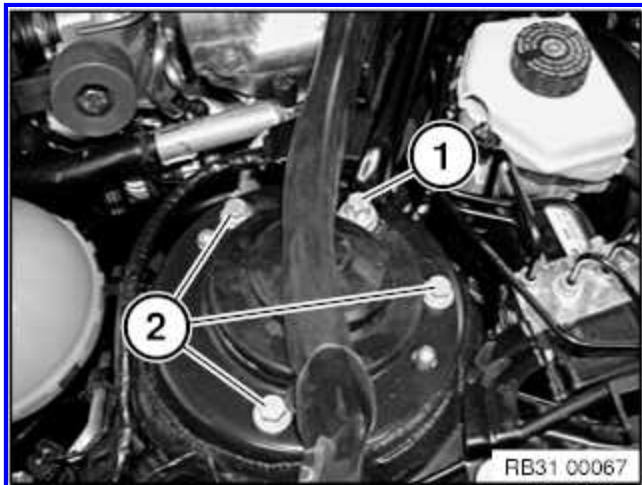
Release left and right spring strut screws (2).

Tightening torque [31 31 1AZ](#).

Installation note:

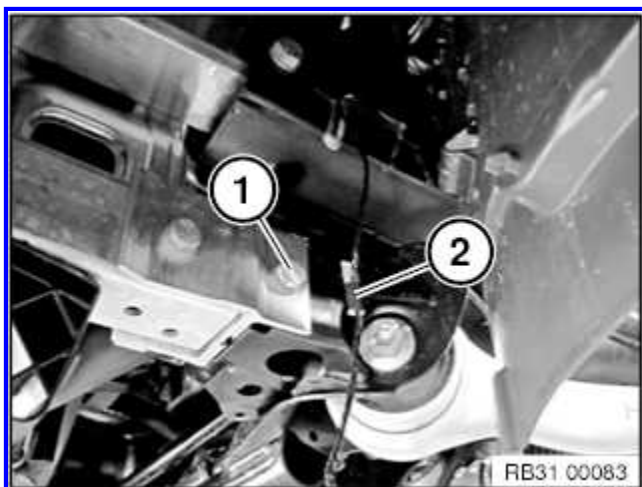
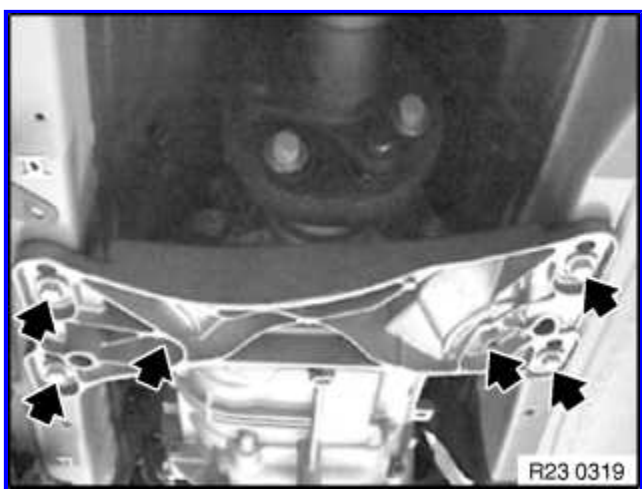
Clean inside contact surface at spring strut dome.

Align spring strut with boreholes on spring strut dome using centring pins and push up.



Release screws of transmission cross-member (manual gearbox).

Tightening torque [23 32 3AZ/4AZ](#).



Release screws (1) on left and right.

Tightening torque [51 11 6AZ](#).

Unclip cable tie (2).

Installation note:

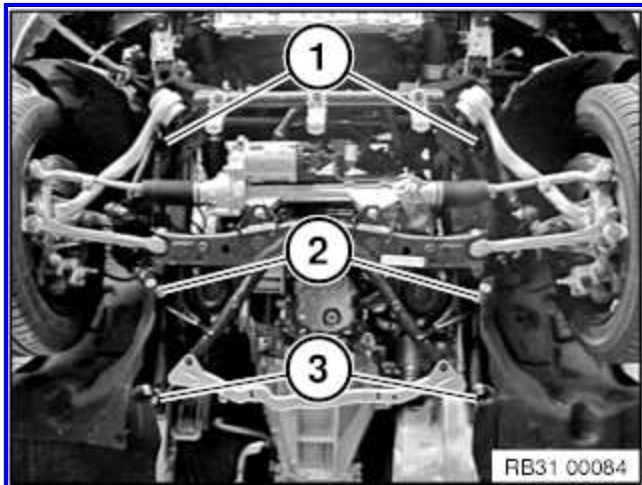
Replace faulty cable clips.

Release bolts (1-3).

Carefully lower the front axle complete with the motor and transmission.

Installation note:

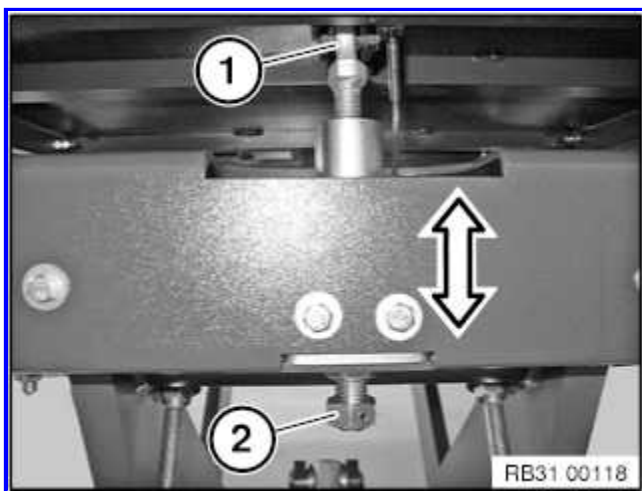
Note the installation location and tightening sequence of the screws.



Check threads for damage; if necessary, repair with [Helicoil thread inserts](#).

- Bolt (1) M12x45
- Screw (2) M12x165
- Screw (3) M14x60

Tightening torque [31 10 1AZ](#).



Installation note:

Position the table lift beneath the vehicle.

Adjust the table lift to the vehicle inclination using the adjusting screw (2).



After installation:

- Check and add engine oil.
- Fill and bleed hydraulic system.
- Check line connections for leak tightness
- Check and clear the fault memory