

BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) Haynes Online Manual

# 11 Rear shock absorber - removal, inspection and installation

#### Removal

- 1 Block the front wheels, then raise the rear of the vehicle and support it securely on jackstands. To improve access, remove the rear wheel.
- 2 On E-series chassis models, remove the luggage compartment side trim panel (see Chapter 11).
- 3 Position a floojack underneath the hub carrier, then raise the jack so that it is supporting the weight of the carrier. This will prevent the hub carrier from dropping when the <u>shock absorber</u> is unbolted.

#### E90, E91, E92 and E93 chassis

4 Loosen and remove the nut securing the <u>shock absorber</u> to the lower mount **(see illustration)**. Counterhold the <u>shock absorber</u> shaft with a wrench.

# 11.4 Rear shock absorber lower mounting nut



5 From within the luggage compartment, pry up the rubber cap, then unscrew the upper mounting nut, counterholding the <u>shock absorber</u> shaft with a wrench (see illustrations). Lower the <u>shock absorber</u> out from underneath the vehicle. 11.5a When installing the rubber cap above the shock absorber mounting, the arrow must point upward

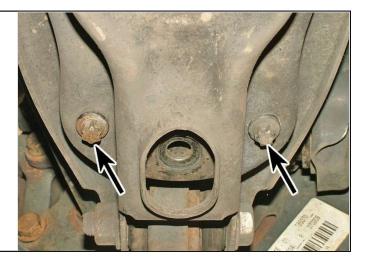


11.5b Rear shock absorber upper mounting nut



6 If required, remove the two bolts and remove the mounting from the suspension arm (see illustrations) .

11.6a Remove the shock absorber mounting bolts . . .



## 11.6b . . . and maneuver the mount from the control arm



#### F30, F31 and F34 chassis

7 Remove the cover from the camber arm, then loosen the shock absorber lower bolt/nut.

8 Remove the three mounting bolts from the top of the <u>shock absorber</u>, then lower the jack and remove the shock absorber through the wheelwell.

### Inspection

9 Remove the trim cap, bump stop and protective tube.

10 Examine the <u>shock absorber</u> for signs of fluid leakage. Check the piston for signs of pitting along its entire length, and check the body for signs of damage. While holding it in an upright position, test the operation of the shock absorber by moving the piston through a full stroke, then through short strokes of two to four inches (50 to 100 mm). In both cases, the resistance felt should be smooth and continuous. If the resistance is jerky, or uneven, or if there is any visible sign of wear or damage, replacement is necessary. **Note:** *Shock absorbers should only be replaced in pairs*.

11 Inspect all other components for signs of damage or deterioration, and replace any that are suspect.

12 Slide the tube, bump stop and cap onto the shock absorber.

#### Installation

#### E90, E91, E92 and E93 chassis

13 If removed, install the lower mounts to the suspension arm and tighten the bolts to the specified torque.

14 Ensure the upper mount and body contact surfaces are clean and dry.

15 Maneuver the shock absorber into position, and install the new upper mounting nut.

16 Engage the lower end of the <u>shock absorber</u> with the mount, then install the nut, tightening it to the specified torque.

17 Tighten the upper mounting nut to the specified torque setting, then install the rubber cap over the upper mounting, noting that the arrow must point upwards.

18 Install the luggage compartment trim panel.

19 Install the wheel and lower the vehicle to the ground. Tighten the wheel bolts to the torque listed in <a href="mailto:this-">this</a> <a href="mailto:Chapter's Specifications">Chapter's Specifications</a>.

### F30, F31 and F34 chassis

20 Installation is the reverse of removal, making sure to tighten the lower <u>shock absorber</u> bolt/nut at the normal ride height position.

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