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BMW 3-Series (92-98) & Z3 (96-98) Haynes Online Manual

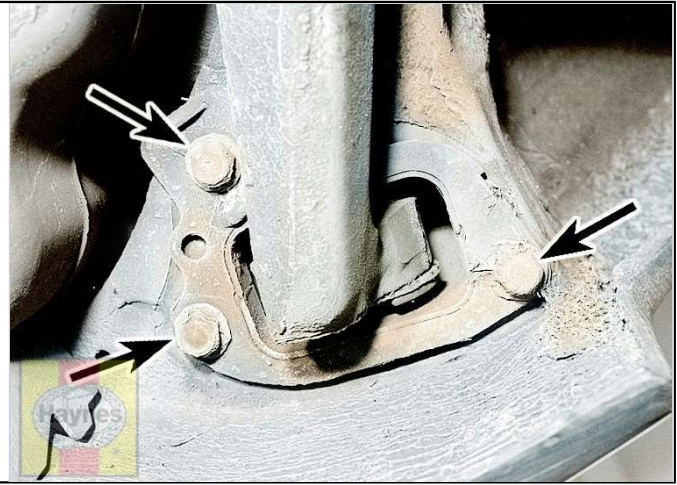
13 Rear suspension trailing arm - removal, overhaul and installation

3-Series models (except 318ti)

Removal

- 1 Chock the front wheels, then jack up the rear of the vehicle and support it on axle stands. Remove the relevant wheel.
- 2 Remove the relevant driveaxle (see [Chapter 8](#)) and continue as described under the relevant sub-heading.
- 3 Unscrew the two bolts securing the brake caliper mounting bracket in position, then slide the caliper assembly off the disc. Using a piece of wire or string, tie the caliper to the upper control arm, to avoid placing any strain on the hydraulic brake hose.
- 4 Disconnect the parking brake cable from the rear of the back plate. On models with ABS, also remove the rear wheel sensor (see [Chapter 9](#)) .
- 5 Unscrew the retaining bolts and release the brake line bracket from the trailing arm.
- 6 Remove the coil spring (see [Section 12](#)).
- 7 Using paint or a suitable marker pen, make alignment marks between the lower control arm and pivot bolt eccentric washer. 8 Also make alignment marks between the trailing arm front mounting bracket and the vehicle underbody (see illustration) . This is necessary to ensure that the rear wheel alignment and camber are correct on installation.

13.8 Mark the position of the trailing arm bracket on the body before loosening the mounting bolts (arrows)



9 Loosen and remove the nut and washer from the lower control arm pivot bolt. Withdraw the pivot bolt, then slowly lower the arm and remove the jack.

10 Loosen and remove the nut and pivot bolt securing the upper control arm to the trailing arm.

11 Unscrew the three bolts securing the trailing arm mounting bracket to the vehicle body and remove the trailing arm. **Note:** *Do not loosen the trailing arm pivot bushing bolt unless replacement of the bushing/mounting bracket is necessary.*

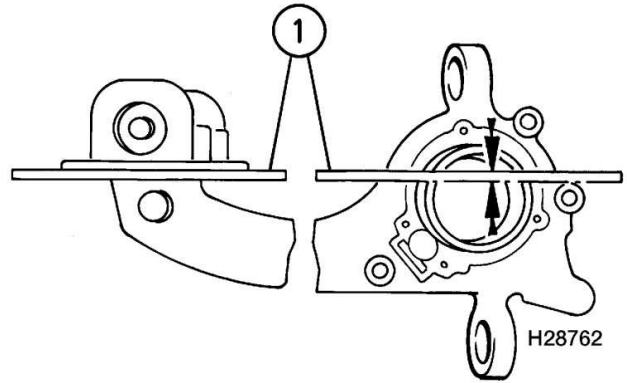
Overhaul

12 Loosen and remove the nut and pivot bolt and separate the front mounting bracket and trailing arm.

13 Thoroughly clean the trailing arm and the area around the arm mountings, removing all traces of dirt and underseal if necessary. Check carefully for cracks, distortion or any other signs of wear or damage, paying particular attention to the mounting bushings. If either bushing requires replacement, the lower arm should be taken to a BMW dealer or suitably-equipped garage. A hydraulic press and suitable spacers are required to press the bushings out of position and install the new ones. Inspect the pivot bolts for signs of wear or damage and replace as necessary.

14 Install the mounting bracket to trailing arm, and install the pivot bolt and nut. Position the bracket as shown, using an 8 mm (5/16-inch) rod, and tighten the pivot bolt to the specified torque (see illustration) .

13.14 To position the mounting bracket correctly in relation to the trailing arm, place an 8 mm (5/16-inch) rod (1) against the mounting bracket and rest it on the trailing arm as shown. The mounting bracket pivot bolt can then be tightened to the specified torque



Installation

15 Place the trailing arm assembly into position and install the mounting bracket retaining bolts. Align the marks made prior to removal, then tighten the mounting bracket bolts to the specified torque.

16 Engage the control arms with the trailing arm and install the pivot bolts and nuts. Tighten the bolts by hand only at this stage. Make sure the marks on the lower control arm and eccentric washer are aligned.

17 Install the coil spring (see [Section 12](#)), then install the shock absorber lower mounting bolt. Tighten the bolt by hand only.

18 Install the brake line retaining bracket to the trailing arm, and securely tighten the retaining bolts.

19 Referring to [Chapter 9](#), reconnect the parking brake cable to the expander lever and (where necessary) install the ABS wheel sensor. Slide the caliper into position over the disc, making sure the pads pass either side of the disc, and tighten the caliper bracket mounting bolts to the specified torque.

20 Install the driveaxle (see [Chapter 8](#)) and lower the vehicle to the ground.

21 With the vehicle on its wheels, rock the car to settle the disturbed components in position, then tighten the shock absorber lower mounting bolt and the upper control arm pivot bolts to their specified torques. Check that the lower arm eccentric washer is still correctly aligned with the mark, then tighten it to the specified torque.

Note: On completion, it is advisable to have the camber angle and wheel alignment checked and, if necessary, adjusted.

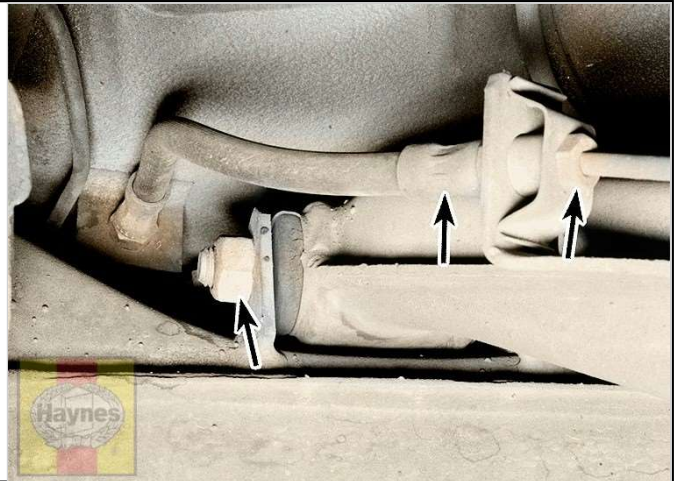
318ti and Z3 models

22 Loosen the wheel lug bolts, raise the rear of the vehicle and support it securely on axle stands. Remove the wheel.

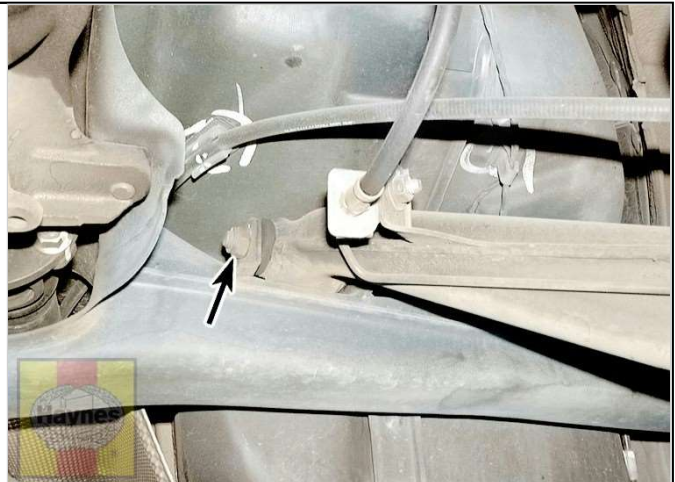
23 Remove the driveaxle (see [Chapter 8](#)).

24 Disconnect the rear brake hose from the metal brake line at the bracket on the trailing arm (see illustrations). **Note:** For information on disconnecting brake hose-to-metal line connections, see [Chapter 9](#). Plug the line and hose to prevent brake fluid from leaking out.

13.24a Disconnect the rear brake line fitting (right arrow) from the hose (center arrow) at this bracket on the trailing arm, then plug the line and hose immediately to prevent fluid leaks; the left arrow points to the nut for the inner pivot bolt (318ti models)



13.24b Inner pivot nut/bolt (arrow) on a Z3 trailing arm

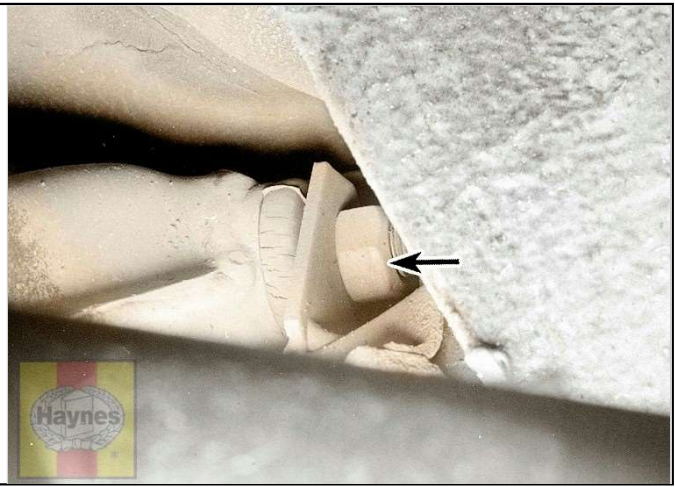


25 Disconnect the parking brake cable (see [Chapter 9](#)).

26 Remove the coil spring (see [Section 12](#)).

27 Remove the trailing arm pivot bolts (see illustrations) and remove the trailing arm.

13.27a Nut (arrow) for the outer pivot bolt (318ti models)



13.27b Outer pivot nut/bolt (arrow) on a Z3 trailing arm



28 Inspect the pivot bolt bushings. If they're cracked, hardened or otherwise deteriorated, take the trailing arm to a BMW dealer or other qualified repair shop and have them replaced. Each bushing has a larger diameter shoulder on one end. Make sure this larger diameter shoulder on each bushing faces away from the trailing arm (the inner bushing shoulder faces the center of the vehicle and the outer bushing shoulder faces away from the vehicle).

29 Installation is the reverse of removal. Support the trailing arm with a floor jack and raise it to simulate normal ride height, then tighten the fasteners to the torque listed in [this Chapter's Specifications](#). Be sure to bleed the brakes (see [Chapter 9](#)).