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

25 Tie-rod ends - removal and installation

Removal

1 Apply the parking brake, then raise the front of the vehicle and support it securely on jackstands. Remove the appropriate front wheel.

2 Make a mark on the tie-rod and measure the distance from the mark to the center of the tie-rod end. Record this measurement, as it will be needed to ensure the wheel alignment remains correctly set when the balljoint is installed.

3 Unscrew the tie-rod end clamp bolt (see illustration 24.2) . Discard the bolt; a new one must be installed.

4 Remove the nut securing the tie-rod end to the steering knuckle, and unscrew it until the edge of the nut is flush with the end of the shank. Release the balljoint by gently tapping the end of the shank with a soft-faced hammer (see illustration 20.3a and 20.3b) . There is no need to use a balljoint separator tool - a new one must be installed.

5 Unscrew the tie-rod end from the tie-rod, counting the exact number of turns required.

6 Carefully clean the tie-rod end and the threads. Replace the tie-rod end if its movement is sloppy or too stiff, if excessively worn, or if damaged in any way; carefully check the stud taper and threads. If the balljoint boot is damaged, the complete balljoint assembly must be replaced; the boot is not available separately. **Note:** *Tie-rod ends should be replaced only in pairs* .

Installation

7 Screw the tie-rod end onto the tie-rod by the number of turns noted on removal. This should position the tie-rod end close to the relevant distance from the tie-rod mark noted prior to removal.

8 Install the tie-rod end to the steering knuckle, then install a new retaining nut and tighten it to the specified torque.

9 Insert the new tie-rod end clamp bolt, and tighten it to the specified torque.

10 Install the wheel, then lower the vehicle to the ground and tighten the wheel bolts to the specified torque.

11 It is recommended that the front wheel alignment be checked at the earliest opportunity. On models with active steering, have the steering angle sensor calibration checked using BMW diagnostic equipment. Entrust this task to a BMW dealer or other qualified shop.

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