18. Remove the support and lower the vehicle.
19. Apply the brakes several times to seat the brake shoes and caliper piston. Do not move the vehicle until a firm brake pedal is obtained.

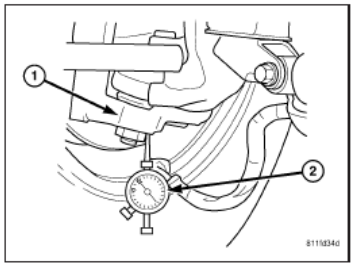
LOWER BALL JOINT

DIAGNOSIS AND TESTING

LOWER BALL JOINT

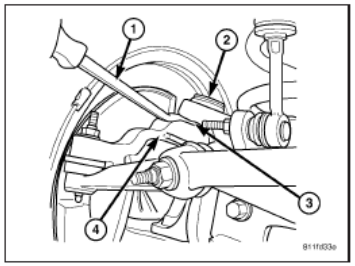
To properly diagnose the lower ball joint two readings from the dial indicator are necessary. The two readings must be added together to find a total ball joint movement as identified in the steps below.

1. Raise and support the vehicle.
2. Attach a dial indicator (2) with the indicator resting on the flat part of the steering knuckle (1) by the lower ball stud.
3. Set the dial indicator (2) to zero.

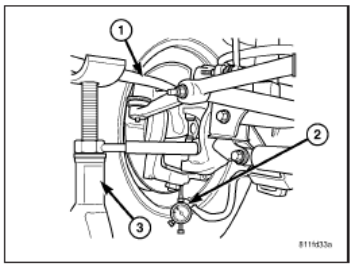


NOTE: Use care not to damage the upper ball joint grease seal (3).

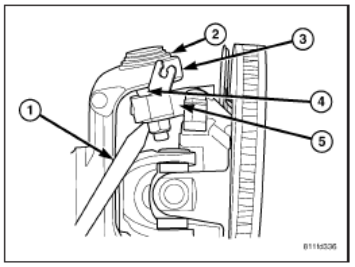
4. Pry between the knuckle (4) and the axle tube yoke next to the upper ball joint (2). Record the reading on the dial indicator **This will be the first reading**.



5. Set the dial indicator (2) back to zero.
6. Set up a jackstand (3) and use a long prybar (1) to lift the knuckle assembly

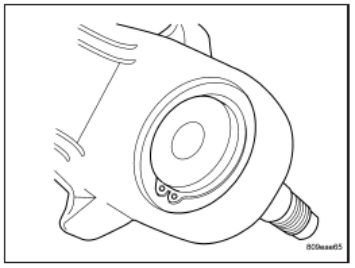


7. Pry upwards on the flat part of the steering knuckle (5) next to the ball joint stud and nut (2) using the jackstand as leverage. Record the reading on the dial indicator **This will be the second reading**.
8. Add the two reading together for a total lower ball joint movement, If this reading is above 2.29 mm (0.090 in) then replacement of the lower ball joint is necessary (Refer to 2 - SUSPENSION/FRONT/ LOWER BALL JOINT - REMOVAL).

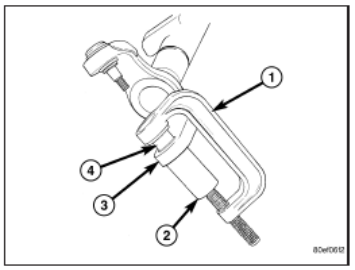


REMOVAL

1. Remove lower snap ring from the lower ball joint.

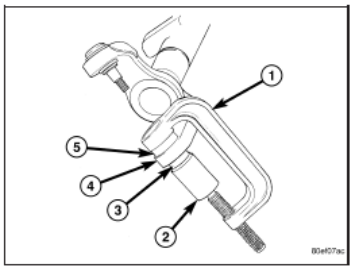


2. Position special tool 8975–2 (RECEIVER) (2) and 8975–4 (DRIVER) (4) with tool C4212–F (1) as shown to remove lower ball stud.



INSTALLATION

1. Position special tool 8975–1 (DRIVER) (2) and 8975–3 (RECEIVER) (5) with C4212–F (1) as shown to install lower ball stud (3).



UPPER BALL JOINT

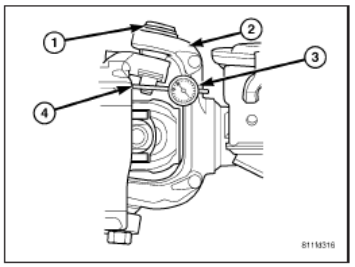
DIAGNOSIS AND TESTING

UPPER BALL JOINT

To properly diagnose the upper ball joint two readings from the dial indicator are necessary, The two readings must be added together to find a total ball joint movement as identified in the steps below.

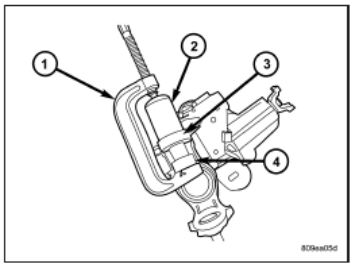
1. Raise and support the vehicle.

2. Attach a dial indicator (3) with the indicator resting on either the front or back sides of the steering knuckle (4) as close to the upper ball joint (1) as possible.
3. Set the dial indicator(3) to zero.
4. Grab the tire by pushing in on the top of the tire and pulling out on the bottom of the tire. Record the reading on the dial indicator (3) **This will be the first reading**.
5. Set the dial indicator (3) back to zero.
6. Grab the tire by pulling in on the top of the tire and pushing out on the bottom of the tire. Record the reading on the dial indicator (3) **This will be the second reading**.
7. Add the two reading together for a total upper ball joint movement, If this reading is above 1.52 mm (0.060 in) then replacement of the upper ball joint is necessary (Refer to 2 - SUSPENSION/FRONT/UPPER BALL JOINT - REMOVAL).



REMOVAL

1. Position special tool 6761 (RECEIVER) (2) and 8445–3 (DRIVER) (4) with C-4212–F (1) as shown to remove upper ball stud.



INSTALLATION

1. Position special tool 8445–2 (DRIVER) (2) and 8975–5 (RECEIVER) (5) with C-42121–F (1) as shown to install upper ball stud (3).