

# Ball Joint Checking

## BMW

Axial movement of ball joint with pressure applied by leverage should be .055" (1.4 mm) or less. If play exceeds specifications, replace control arm assembly.

## CHRYSLER CORP. IMPORTS

**Pickup Models** — With components removed from vehicle, check upper ball joint for starting torque and lower ball joint for axial play. Starting torque should be .6-2.5 ft. lbs. (.08-.35 mkg). Axial play should be .02" (.5 mm) or less. Replace components as necessary.

**All Other Models** — With components removed from control arm and ball joint still installed, check following: Axial and radial play should be 0" and rotating torque should be 2.2-4.3 ft. lbs. (.3-6 mkg) on Champ and Colt hatchbacks. Starting torque should be 9 ft. lbs. (1.2 mkg) on Champ and Colt hatchbacks and 4-7 ft. lbs. (.55-.98 mkg) on all other models. If not to specifications, replace components.

## COURIER

Check working surfaces of ball joints and studs for wear or damage. End play should not exceed .031" (.8 mm). If end play is excessive, replace ball joint. See *Courier in SUSPENSION Section*.

## DATSUN

Remove lower control arm. Use appropriate gauge and attach it to top of ball joint stud nut. Measure force (INCH lbs.) required to turn ball joint stud. If measurement is not within specifications, replace ball joint.

**Ball Joint Turning Torque**

Application	New		Used	
	In. Lbs. (cmkg)		In. Lbs. (cmkg)	
200SX .....	35-87	.....	17-69	.....
	(40-100)		(20-80)	
210 & 510 .....	35-87	.....	More Than 17	.....
	(40-100)		(More Than 20)	
280ZX .....	22-69	.....	More Than 13	.....
	(25-80)		(More Than 15)	
310 .....	26-87	.....	More Than 8.7	.....
	(30-100)		(More Than 10)	
810 .....	52-104	.....	More Than 35	.....
	(60-120)		(More Than 40)	
Pickup				
Upper .....	8.7-43.3	.....	More Than 8.7	.....
	(10-50)		(More Than 10)	
Lower .....	①	.....	①	.....

① — Axial play limits — .004-.039" (.1-1.0 mm).

## FIAT

**Strada** — Raise and support vehicle on drive on-type hoist. Using a jack, raise lower control arm. Insert ball joint gauge (A.96505) over ball joint. Lower edge of gauge must not touch threaded portion of bolt. If not to specifications, replace ball joint and/or control arm. See *Fiat in SUSPENSION Section*.

**All Other Models** — With vehicle raised and supported under lower control arms, grasp wheel at top and bottom and try to shake wheel. If any movement is noted, control arm must be removed and further inspected. See *Fiat in SUSPENSION Section*.

## HONDA

Raise and support front of vehicle. Attach dial indicator to lower control arm with indicator tip on steering knuckle near ball joint. Place pry bar between lower control arm and steering knuckle. Push on pry bar and observe movement on dial indicator. If movement exceeds .020" (.5 mm), ball joint must be replaced. See *Honda in SUSPENSION Section*.

**NOTE** — Do not damage ball joint rubber boot when inserting pry bar.

## JAGUAR

Ball joints must be replaced if signs of wear are evident. Lower ball joint uses shims. These shims are not to be used to compensate for wear. The shims are designed to provide adjustment for ball joints during overhaul reassembly.

## LUV

With vehicle raised and supported under lower control arms, grasp wheel at top and bottom, then try to move wheel. Replace lower ball joint or upper control arm with ball joint if movement exceeds .06" (1.52 mm).

## MAZDA

**RX7** — Check ball joint dust seal for wear or damage. If damage is evident, control arm with ball joint must be replaced. See *Mazda in SUSPENSION Section*.

**All Other Models** — Check ball joint dust seal for wear or damage and replace seal, if necessary. Ball joint end play must not exceed .039" (1 mm). If end play exceeds specifications, replace ball joints. See *Mazda in SUSPENSION Section*.

## MERCEDES-BENZ

There should be no lateral movement of ball joint. Vertical movement is adjusted by adding or removing washers.

## PORSCHE

**924** — Measure distance between upper edge of control arm and lower edge of steering knuckle using a vernier caliper. Place a lever under ball joint and pry upward. Record any movement. New ball joints should have no play. Wear limit for other ball joints is about .078" (2 mm).

**All Other Models** — Check ball joint seal for signs of wear or damage. If any damage is noted, ball joints must be replaced. See *Porsche in SUSPENSION Section*.