

# Ball Joint Checking

## ALFA ROMEO

**All Models** — Check working surfaces of ball pins and their seats, and ball joint studs for damage or wear. Axial play should not exceed specifications (.04"). Replace complete ball joint unit when indicated.

## BMW

**All Models** — With lower control arm removed, measure axial (up and down) movement of ball joint stud. If movement exceeds .0945", replace ball joint. See *BMW* in *SUSPENSION* Section.

## CAPRI

**All Models** — To check ball joint wear, raise vehicle and attach a dial indicator to a suitable fixed pivot, with stem on ball joint cap. Raise wheel independently of vehicle and note maximum dial gauge reading. If gauge reading is in excess of .098", ball joint should be replaced.

## COLT

**All Models** — With components removed from control arm and ball joint still installed, check the following: Horizontal and vertical free play (0"), and ball joint rotation starting torque 4-7 ft. lbs. (.6-1.0 mkg). Replace ball joints if correct specifications are not obtained.

## DATSUN

**All Models (Exc. 620 Pickup)** — Remove lower control arm. See *Datsun* in *SUSPENSION* Section. Measure axial movement by lifting and depressing ball joint stud. Difference between these two measurements is axial movement. Using suitable spring tension gauge attached to top of ball joint stud, measure force (ft. lbs.) required to move ball joint stud laterally. If either measurement is not within specifications, replace ball joint.

### Ball Joint Specifications

Application	Axial	Lateral
		INCH Lbs. (cmkg)
B210.....	.004-.012" (.1-.3 mm)	52 (60)
610 & 710 .....	.004" (.1 mm)	35 (40)
260Z.....	.001-.024" (.03 mm-.6 mm)	

## FIAT

**All 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 for further inspection. See *Fiat* in *SUSPENSION* Section.

## HONDA

Raise and support front of vehicle. Attach dial indicator onto lower control arm with indicator tip on steering knuckle near ball joint. Place pry bar between lower control arm and steering knuckle. **NOTE** — Take care not to damage ball joint rubber boot. Push on pry bar and observe movement on dial indicator. If any movement is noted on dial indicator, ball joint must be replaced. See *Honda* in *SUSPENSION* Section.

## JAGUAR

**All Models (Exc. "E" Type Series 3)** — Upper ball joint must be replaced if signs of wear or play are evident. The lower ball joint is adjustable with shims if axial play exceeds .004-.006". Shims must not be removed to take up excessive wear in ball pin and socket. If parts are badly worn, replacement is required.

**"E" Type Series 3** — Upper and lower ball joints are adjustable by using shims to keep play within limits. Lower ball joint should have .004-.006" axial play and upper ball joint should have .004" axial play. Shims should not be removed to take up excessive wear in ball pin and socket. If parts are worn, replacement is required.

## JENSEN-HEALEY

Raise front of vehicle and support under each lower control arm. Grasp wheel at top and bottom and try to shake wheel. **NOTE** — Do not confuse axial play of wheel bearing with worn ball joints. If any looseness is observed, ball joints should be replaced. See *Jensen-Healey* in *SUSPENSION* Section.

## LUV

With vehicle raised and supported under lower control arms, grasp wheel at top and bottom. Try to shake wheel and if any movement is noted, inspect front suspension for wear or damage.

## MAZDA

**All Models (Exc. Pickup)** — Check ball joint dust seal for wear or damage and, if necessary, replace seal. Check ball joint for wear or looseness by disconnecting each tie rod and attaching a pull scale to tie rod hole in spindle arm. If this measurement is not within 27-40 lbs. (12-18 Kg) or 13-22 lbs. (6-10 kg) all others, it will be necessary to replace ball joint. See *Mazda* in *SUSPENSION* Section.

**Mazda (Pickup)** — Check ball joint dust seal for wear or damage and, if necessary, replace seal. Ball joint end play is preadjusted at factory to be from 0-.08" (0-2 mm). If end play exceeds specifications, replace ball joint in its assembled form. See *Mazda* in *SUSPENSION* Section.

## OPEL

**All Models** — Raise and support front of vehicle. Inspect ball joint rubber boots for damage and replace as necessary. Using suitable gauge (J-23745) measure axial play. If axial play is more than .080" (2 mm), ball joint must be replaced. See *Opel* in *SUSPENSION* Section.