

Ball Joint Checking

TOYOTA

Corona, Mark II & Hi-Lux — To check lower ball joint, jack up lower suspension arm and check for ball joint looseness by shaking wheel vertically and horizontally. Looseness limit in vertical direction should be less than .04" (1 mm) Corona & Mark II or .20" (5 mm) Hi-Lux. Looseness limit in horizontal direction should be less than .08" (2 mm) Corona & Mark II or .09" (2.3 mm) Hi-Lux. *NOTE* — *Ensure other suspension parts are tight before checking ball joints.* To check upper ball joints, disconnect upper suspension arm from steering knuckle. Turn ball stud and check for excessive looseness or tightness. Replace ball joint if it is excessively loose or tight.

All Other Models — Check for excessive looseness, proper operation and damaged ball stud. Replace as necessary.

TRIUMPH

All Models — Inspect ball joints for excessive wear or play. Replace ball joint as necessary. See *Triumph in SUSPENSION Section.*

VOLKSWAGEN

Types 1 (Exc. Super Beetle) & 2 — Raise vehicle and turn steering to one side. Install a suitable levering tool so that torsion arms may be pried away from each other. Place a vernier caliper over ball joint with one jaw on steering knuckle and other jaw on ball joint stud. Note reading. Pry on levering tool until ball joint is expanded. Note this reading. Difference

between two readings is ball joint play. If play exceeds specifications, replace ball joint. See *Volkswagen in SUSPENSION Section.*

All Other Models — Raise and support, then turn steering to one side. Install suitable levering tool so that ball joint spring may be compressed. With spring compressed, position a vernier caliper with lower jaw on ball joint stud and upper jaw on top of clamping bolt for ball joint stud. Note reading. Slowly release tension from spring and note travel of caliper. This reading indicates ball joint play. If specified play is exceeded, replace ball joint. See *Volkswagen in SUSPENSION Section.*

Ball Joint Specifications

Application	Lower In. (mm)	Upper In. (mm)
Type 1 (Exc. Super Beetle)	.04 (1)	.08 (2)
Type 2	.08 (2)	.08 (2)
All Other Models	.10 (2.5)	.08 (2)

VOLVO

All Models — Check upper ball joint for excessive wear by shaking wheel. If play is evident, replace ball joint. *NOTE* — *Do not confuse axial play of wheel bearing with worn ball joint.* Check lower ball joint with vehicle under normal load. Place suitable gauge (2967 or 2968) over ball joint. If length exceeds gauge, ball joint should be replaced. See *Volvo in SUSPENSION Section.*