

Wheel Bearing Adjustment

ARROW, CHALLENGER, COLT SAPPORO

All Models — Tighten adjusting nut to 14.5 ft. lbs. After seating bearing components, loosen nut to 0 ft. lbs. Now make final adjustment to 3.6 ft. lbs. After installing lock cap, insert cotter pin.

NOTE — Do not loosen adjusting nut more than 15° to align spindle holes.

AUDI

5000 (Front) — Adjustment not required. Torque spindle nut to 203 ft. lbs. (28 mkg).

5000 (Rear) — Tighten adjustment nut firmly while rotating wheel. Make sure bearing is fully seated. Back off nut until thrust washer can be moved with screwdriver. Insert cotter key.

Fox (Front) — Adjustment not required. Torque spindle nut to 145 ft. lbs. (20 mkg) for M 18x1.5 nuts or 175 ft. lbs. (24 mkg) for M 20x1.75 nuts

Fox (Rear) — Remove grease cup, cotter pin and castle nut. Tighten spindle nut and loosen for adjustment. Adjust by lightly tightening spindle nut until plain washer (beneath spindle nut) can just be moved from side to side, using screwdriver. This adjustment will correspond to .0012-.0027" (.03-.06 mm) wheel bearing play.

BMW

Except 733i — While rotating wheel hub, tighten castle nut to 22-24 ft. lbs. (3.0-3.3 mkg), then rotate hub at least 2 more times. Loosen castle nut until bearing end play is noticed. Tighten castle nut to a maximum of about 2 ft. lbs. (.28 mkg), then loosen to nearest hole and install cotter key.

NOTE — After adjustment, slotted washer should move easily, without noticeable resistance.

733i — Tighten castle nut to 22-24 ft. lbs. (3.0-3.3 mkg) while continuously rotating wheel. Loosen castle nut until there is visible axial bearing play. Again rotate wheel and tighten bearing, this time to 2 ft. lbs. (.3 mkg). Insert cotter key. Thrust washer should have movement with only slight resistance after adjustment.

CAPRI

All Models — Rotate wheel, hub and drum assembly while turning adjusting nut to 17-25 ft. lbs. Back adjusting nut off 120°. Install cotter pin and check front wheel rotation.

COURIER

All Models — While rotating wheel, hub and drum assembly, tighten adjusting nut to 17-25 ft. lbs. Back adjusting nut off ¼ turn and retighten nut where castellations on the lock nut are aligned with cotter pin hole in spindle. Install new cotter pin and check wheel rotation.

DATSUN

All, Except F10 — Tighten spindle nut to torque specifications in table. Spin wheel and retorque spindle nut. Loosen nut according to specifications in table and then tighten to align cotter key hole. Insert cotter key.

Wheel Bearing Adjustment

Application	Torque (Ft. Lbs.)	Loosen
B210	18-22	90°
Pickup	25-29	45°
510	22-25	90°
200SX, 810, 280Z	18-22	60°

F10 — Raise vehicle and place on safety stands. Remove tire and wheel. Make sure mounting nut is torqued to 87-145 ft. lbs. (12-20 mkg). Spin wheel hub several times in both directions to ensure free rotation.

FIAT

Model 124 & 131 — While rotating hub, torque spindle nut to 14.5 ft. lbs. Completely loosen nut and retighten to 5 ft. lbs. Loosen nut 30° and stake collar of spindle nut into machined slot on spindle. Attach dial indicator with magnetic base on brake drum and actuating foot on spindle. Hub end play should not exceed .004". **NOTE** — When ever spindle nut has been removed it must be replaced with a new nut.

Models 128 & X1/9 — Tighten front and rear spindle nuts to 112 ft. lbs. When spindle nuts are properly tightened, stake collar of spindle nut into machined slot on spindle.

FIESTA

Front — No adjustment required. Tighten front spindle nut to 173.5-195 ft. lbs. (24-27 mkg).

Rear — Adjust rear bearing by tightening nut to torque of 27 ft. lbs. (3.7 mkg) while rotating drum. Loosen nut 90° and fit retainer nut with cotter key.

HONDA

All Models (Front) — Front wheel bearings are not adjustable. Torque front spindle nut to 87-130 ft. lbs. (Civic and Accord) or 109 ft. lbs. (Civic CVCC).

All, Except Accord (Rear) — Rear wheel bearings are not adjustable. Torque rear spindle nut to 72-94 ft. lbs. (Civic) or 83 ft. lbs. (Civic CVCC).

HONDA (Cont.)

Accord (Rear) — Tighten spindle nut to 18 ft. lbs. (2.5 mkg) and rotate drum several times. Loosen lock nut. Tighten spindle nut to 1.1-3.6 ft. lbs. (.15-.5 mkg). Insert cotter pin.

JAGUAR

All Models — While rotating hub, tighten nut until no end play is evident. Loosen nut 1 or 2 flats to line up cotter key and install cotter key. End play should be measured with a dial indicator and should be .002-.006". If not within specifications, adjust axle nut to correct end play.

LANCIA

All Models — Front wheel bearing and rear wheel bearings are pressed into stub axle housings. Stub axle must be removed to replace bearings. Spindle nut torque not available.

LUV

All Models — While rotating wheel, tighten spindle nut to 22 ft. lbs. Turn hub through two or three turns and loosen nut until just finger tight. Check free play. Using a pull scale attached to wheel stud, measure turning torque; adjust nut until pull recorded on scale is 1.1-2.6 lbs. when wheel begins to rotate.

MAZDA

GLC — Tighten adjustment nut to 14-18 ft. lbs. (2.0-2.5 mkg). Rotate brake discs several times in both directions. Loosen adjustment nut. Using a spring pull scale, set bearing preload (using adjustment nut) to .33-1.32 lbs. (.15-.60 kg).

All Models (Exc. GLC) — With vehicle raised and supported under lower control arms, tighten adjusting nut until hub locks. Back off nut until hub is just free to turn. Rotate hub several times in each direction. Attach pull scale to hub. Preload should be 1.3-2.4 lbs (Pickup) or .88-2.0 lbs. (other models). If preload is not to specifications adjust spindle nut. Align slot in spindle nut with hole in spindle and install cotter key.

MERCEDES-BENZ

All Models — While rotating hub, tighten clamping nut until hub can just be turned. Loosen clamping nut and release bearing tension by striking steering knuckle spindle with plastic hammer. Using a suitable dial indicator, check wheel bearing end play. End play should be .0004-.0008". Adjust clamping nut until end play is within limits. Tighten socket bolt of clamping nut. Washer between outer bearing and clamping nut should rotate with light pressure applied to it.

MG

Midget — Raise front of vehicle and remove each wheel. Remove caliper assembly, but do not disconnect hydraulic brake hose. Support caliper to prevent damage to hose. Attach suitable dial indicator and measure runout of hub at outer edge of brake rotor. If runout exceeds .006" remove rotor and reposition on hub. Torque spindle nut to 46 ft. lbs. and recheck runout.

MGB — Raise front of vehicle and remove front wheels. Using suitable dial indicator, measure hub end play. Correct end

MG (Cont.)

play is .002-.004" (.05-.10 mm). If not within specifications, remove spindle nut, washer, and outer bearing. Add or remove shims behind outer bearing until correct end play is obtained with spindle nut torqued to 40 ft. lbs. (5.5 mkg)

OPEL

All Models — Raise and support front of vehicle. While rotating wheel, torque spindle nut to 21 ft. lbs. Back off spindle nut completely. Now turn the nut all the way in using fingers only. If slot and hole are not aligned, tighten enough to align and install cotter key.

PORSCHE

All Models (Front) — Tighten adjusting nut while turning hub. Loosen adjusting nut until thrust washer can just be moved by exerting hand pressure with a screwdriver. Tighten socket head bolt (pinch bolt).

930 (Rear) — Torque axle nut to 217 ft. lbs. (30 mkg) and check axial play. Adjust axle nut in small steps until axial play is about .001" (.04 mm) (torque may be increased to 325 ft. lbs.; 45 mkg, during this procedure). Loosen axle nut. Retorque nut to 217 ft. lbs. (30 mkg) and insert cotter pin.

RENAULT

R5 (Front) — Nonadjustable. Torque stub axle nut to 90 ft. lbs. (12.4 mkg).

R5 (Rear) — Tighten stub axle nut to 25 ft. lbs. (3.5 mkg). Loosen nut about 1/4 turn. Check bearing end play, it should be between .0004-.002" (.01-.05 mm). Adjust stub axle as necessary. Fit lock plate and cotter pin. Refill hub dust cover cap with 1/3 oz. of grease.

SAAB

All Models (Front) — Front wheel bearings are not adjustable. Torque front spindle nut to 246-261 ft. lbs. (34-36 mkg).

All Models (Rear) — Install washer and lock nut. Tighten lock nut to 36 ft. lbs. (5 mkg) to seat bearings. Loosen lock nut completely, then tighten nut to 1.4-2.9 ft. lbs. (.2-.4 mkg) and lock nut in place by bending flange into slot of lock nut.

SUBARU

All Models (Front) — Front wheel bearing is not adjustable. Tighten spindle nut to 174 ft. lbs.

4WD (Rear) — No adjustment required. Tighten axle nut to 174 ft. lbs. (24 mkg). After tightening nut, punch flange portion of axle nut toward groove in rear axle shaft.

All Other Models (Rear) — While rotating brake drum, snug down spindle nut to seat bearings. Back spindle nut off 1/8 turn and bend down tab of locking washer to secure spindle nut. If