

# Wheel Alignment

## BMW

### ADJUSTMENT

#### TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, ensure tires are properly inflated. The 2002 series requires 26 psi front and rear. The 3.0 series requires 30 psi front and rear. The 530 i series requires 28 psi front and 26 psi rear.

#### CASTER & CAMBER

**All Models** – Before checking caster and camber, vehicle must be in loaded condition. Loaded condition consists of two 143 lbs. weights on front seat, one 143 lbs. weight on rear

seat, gas tank full and 66 lbs. on left side of luggage compartment. If caster and camber are not within specifications check suspension for damage. Repair or replace parts as necessary.

#### TOE-IN

**All Models** – Before checking toe-in, vehicle must be in loaded condition (see Caster & Camber). Check toe-in with front wheels in straight-ahead position. If not within specifications, loosen tie rod clamping bolts. Rotate both tie rod tubes until toe-in is within specifications. Tighten clamping bolts.

## CAPRI

### ADJUSTMENT

#### TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, make sure that tires are properly inflated. Refer to manufacturers specifications, located inside glove box door.

#### CASTER

**All Models** – Caster is nonadjustable. If not within specifications, check front suspension for damage. Repair or replace parts as necessary.

#### CAMBER

**All Models** – Camber is nonadjustable. If not within specifications, check front suspension for damage. Repair or replace parts as necessary.

#### TOE-IN

**All Models** – Position wheels in straight-ahead position and loosen tie rod end lock nut and clips securing bellows. To adjust toe-in, rotate tie rods until specifications are within limits. Tighten lock nuts and secure clips. Tie rods lengths should be equal within 1/4".

## COURIER

### ADJUSTMENT

#### TIRE INFLATION

Before attempting caster or camber adjustments, ensure tires are correctly inflated. Specifications are located on glove box door; especially consider radial tires, they require a different pressure than conventional tires.

**NOTE** – Vehicle must be unloaded, except fuel, water, and oil should be at their proper levels.

#### CASTER

To correct caster, adjust shims between upper control arm and frame or turn control arm shaft until correct angle is obtained (see specifications).

#### CAMBER

The camber is adjusted by adding or subtracting shims between the upper control arm and frame. Shims are available

in the following sizes: .040", .064", .080", and .128". Set camber to specifications as shown in chart.

#### TOE-IN

1) Raise vehicle until front wheels clear ground. Turn wheel by hand and scribe a line in center of each tire tread. Measure distance between marked lines in front of front wheel and at rear of front wheel. Both measurements must be taken at equal distances from ground.

2) If distance between wheels at rear is greater than that at front, but within specifications, adjustment is correct. If adjustment is wrong, loosen clamp bolts and adjust tie rod to specifications.

**NOTE** – Tighten clamping bolts with bolts horizontal and below steering link to prevent interference with center steering link.

## DATSUN

### ADJUSTMENT

#### TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, make sure that tires are properly inflated. Refer to manufacturer's specifications given in owner's manual.

**Pickup Only** – Make measurement with vehicle empty: Fuel tank full, radiator filled, oil levels up to marks, spare tire and hardware in position. Measure distance from center of lower control arm bushing (where it contacts to body) and lower steering knuckle bushing (See "H" In Fig. 1). To adjust, raise vehicle to release tension on anchor bolt adjusting nut and turn anchor bolt to adjust to specified height.

## DATSUN (Cont.)

### Riding Height Specifications

Application	Inches (mm)
620 Pickup	
6 Ft. Bed .....	3.1-3.2 (78-82)
7 Ft. Bed .....	2.5-2.7 (63-68)

### CASTER

**All Models Exc. Pickup** — Preset at factory and cannot be adjusted. If not to specifications, check suspension for wear or damage and repair or replace components as necessary.

**Pickup** — Caster is adjusted by increasing or decreasing thickness of shims inserted between upper link spindle and upper link mounting bracket. When front shim thickness increases, caster decreases. **NOTE** — Do not adjust caster with difference between front and rear shim thickness beyond .079" (2 mm).

### CAMBER

**All Models (Exc. Pickup)** — Preset at factory and cannot be adjusted. If not to specifications, check suspension for wear or damage and repair or replace components as necessary.

**Pickup** — Camber is adjusted by increasing or decreasing the thickness of shims inserted between upper link spindle and upper link mounting bracket. When thickness of shims increase, camber decreases.

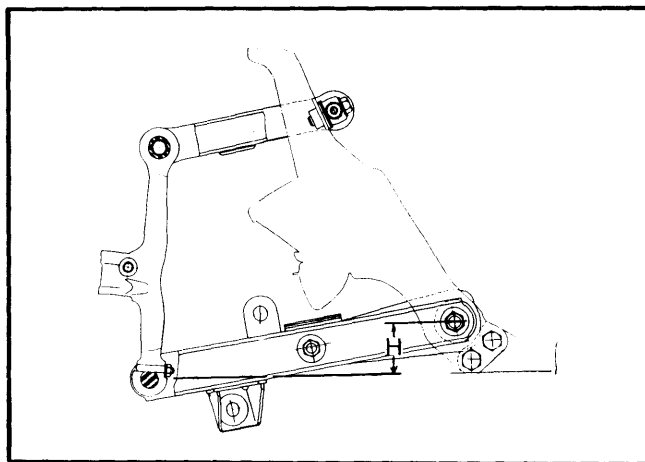


Fig. 1 Pickup Front Suspension Riding Height Measurement Points

### TOE-IN

**All Models Except Pickup** — Adjust by loosening each side steering link lock nut and adjusting steering link to change toe-in. **NOTE** — Left and right side steering links should be adjusted equally. Tighten lock nuts.

**Pickup** — Adjust by loosening steering cross link lock nuts, and adjusting steering cross link to change toe-in. Tighten lock nuts.

## FIAT

### ADJUSTMENT

#### TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, make sure tires are properly inflated. Refer to manufacturers specifications given in owner's manual.

#### CASTER

**Model 131 & 128 (Except. Sport L)** — If caster is not to specifications, raise front of vehicle. Remove stabilizer bar-to-control arm nut and disconnect control arm from body. Remove end of stabilizer bar from control arm. To adjust caster, addition of shims between end of stabilizer bar and rubber pad of control arm will decrease caster angle and removal of shims will increase caster angle. Reverse removal procedure and recheck caster.

**Model 128 Sport L** — If caster is not to specifications, adjust by adding or removing shims located between stabilizer bar bushing and frame.

**Model 124** — If caster is not within specifications, raise front of vehicle and remove wheel and shock absorber. Using suitable tool (A.74174), compress spring to relieve lower control arm and loosen nuts holding control arm pivot bar to crossmember. To adjust caster, remove shims from front stud and move to rear stud to increase caster. To decrease caster, remove shims from rear stud and move shims to front stud. Reverse removal procedure and check caster.

**Model X1/9** — If caster is not to specifications, adjust by adding or removing shims located between stabilizer bar and stabilizer bar support.

#### CAMBER

**Model 124** — If camber is not within specifications, adjust by changing shims. Raise front of vehicle, remove wheel and shock absorber. Using suitable tool (A.74174), compress spring to relieve lower control arm and loosen nuts holding control arm pivot bar to crossmember. To increase camber, remove equal amount of shims from both studs and add equal amount of shims to decrease camber. **NOTE** — Adding or removing equal amounts of shims will not affect caster. Reverse removal procedure and check camber.

**Model 128 & 131 Front** — Camber is nonadjustable. If not within specifications, inspect suspension for damage and repair or replace parts as necessary.

**Model 128 Rear** — If rear camber is not within specifications raise rear of vehicle and compress one end of leaf spring, shifting it from flexible guide anchoring spring to control arm. Remove guide and slowly release spring. Remove nuts attaching pivot to body and loosen screw to free adjustment shims. To increase camber, add an equal number of shims on both screws attaching control arm to body. To decrease, remove equal number of shims from both screws. Reverse removal procedure and check camber.