Wheel Alignment

MAZDA (Cont.)

Pickups

To adjust caster, change shims between upper control arm shaft and support bracket or turn upper control arm shaft until specifications are obtained.

CAMBER

NOTE: On GLC wagon, camber is not adjustable. If camber is not within specifications, inspect suspension for excessive wear or damage. Replace components as necessary.

GLC

1) Camber may be adjusted 1/2° negative or positive. Raise front end and support with jack stands. Remove front wheel and open hood.

2) Remove 2 mounting nuts attaching MacPherson strut support to fender apron. Push MacPherson strut down, turn 180° and tighten mounting nuts. Check camber angle.

RX7 & 626

NOTE: See procedure given under RX7 & 626 Caster & Camber adjustment.

Pickups

To adjust, change shims between upper arm shaft and support bracket until specifications for camber are within limits.

TOE-IN

1) Raise front of vehicle. Turn wheels by hand and mark a line in center of each tire tread. Place vehicle in straight-ahead position and lower vehicle to ground.

2) Measure distance between marked lines at both front and rear of wheel. Make sure measurements are made equal distances from ground.

3) Distance at rear of wheels should be more than that at front of wheels. Loosen lock nuts and turn tie rods until adjustment is correct.

MERCEDES-BENZ

ADJUSTMENT

TIRE INFLATION (COLD)

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

CASTER

Front

1) Test under loaded condition. Load vehicle with 2 weights of 143 lbs. (65 kg) on rear seat and a full tank of fuel. If caster is not to specifications, loosen lock nut on eccentric bolt on front side of lower control arm.

2) To adjust, rotate eccentric bolt until caster angle is within specifications. Hold eccentric bolt in place and tighten lock nut.

CAMBER

Front

1) Test under loaded condition. Load vehicle with 2 weights of 143 lbs. (65 kg) on front seat, 1 similar weight on rear seat and a full tank of fuel. If camber is not within specifications, loosen lock nut of eccentric bolt on rear side of lower control arm.

2) To adjust, rotate eccentric bolt until camber is within specifications. Hold eccentric bolt in place and tighten lock nut.

TOE-IN

Front

1) Place wheels in straight ahead position. If toe-in is not within specifications, adjust by loosening jam nuts on outer tie rods.

2) Rotate tie rods to obtain specified toe-in. Make sure tie rods are adjusted equally. Tighten jam nuts on tie rods and check wheel alignment.

PEUGEOT

ADJUSTMENT

TIRE INFLATION (COLD)

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

TOE-IN

1) Position wheels in straight-ahead position. If toe-in is not to specifications, loosen jam nuts on tie rods.

2) To adjust, rotate tie rods simultaneously in either direction necessary to obtain specified toe-in. Tighten tie rod jam nuts and recheck toe-in.

CAMBER & CASTER

Camber and caster are not adjustable. If alignment is not within specifications, inspect for damaged suspension parts and repair or replace as necessary.

PORSCHE

ADJUSTMENT

TIRE INFLATION (COLD)

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

RIDING HEIGHT

NOTE: Check riding height with fuel tank full, spare tire and jack in vehicle.

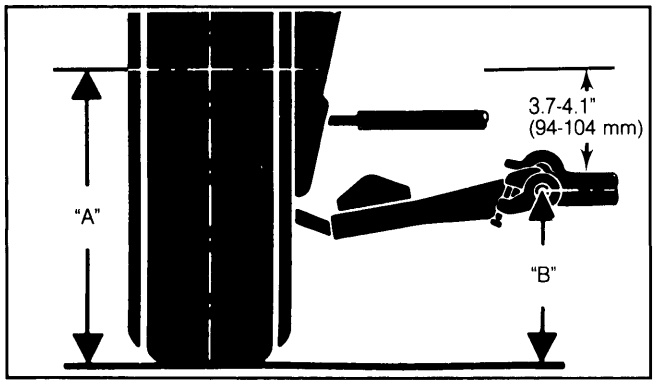
911SC (Front)

1) Checking or adjusting riding height must only be performed with vehicle on level floor. Mark center of front wheel hub cap (grease retainer cup).

2) Jounce vehicle several times to settle suspension. Measure distance "A" and "B" shown in *Fig. 1.* Difference between measurements should be 3.7-4.1" (94-104 mm).

3) To adjust, loosen or tighten torsion bar adjusting bolt until correct height is obtained. Jounce vehicle several times and recheck height. Make sure difference between right and left side measurements does not exceed .20" (5.1 mm).

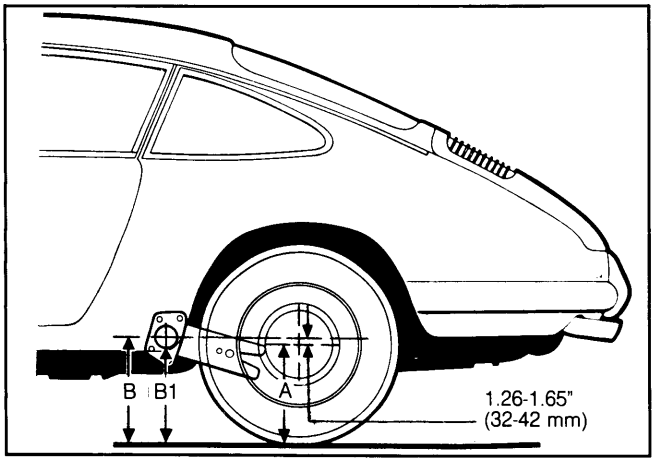
Fig. 1: Front Suspension Riding Height Measuring Points for 911SC



911SC (Rear)

1) To check riding height, vehicle must be on level floor. Mark center of rear wheel. Jounce vehicle several times to settle suspension. Measure distance "A" shown in *Fig. 2.*

Fig. 2: Rear Suspension Riding Height Measuring Points for 911SC



2) Distance "A" plus 1.26-1.65" (32-42 mm) equals "B"; however, distance "B" is difficult to measure because torsion bar is mounted off center in its rubber bushing. Therefore it is necessary to measure distance "B1" and add .585" (14.9 mm), radius of bushing. This total should equal "B".

3) After calculating "B", difference between "A" and "B" should be 1.26-1.65" (32-42 mm). Difference in height from left to right should not exceed .20" (5.1 mm). If values are not within specifications, check front height and rear torsion bar adjustment. Correct as necessary.

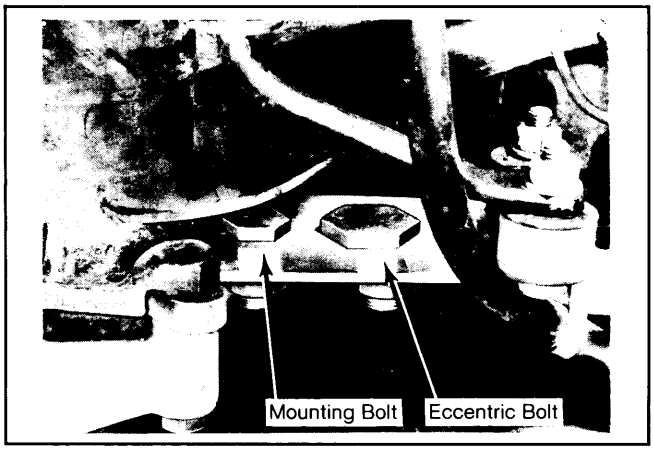
924 (Front & Rear)

1) Front height is adjusted by changing front spring. Spring plate removal is not required to adjust rear height at 2-piece spring plate. Loosen mounting bolt and adjust vehicle height with eccentric. *See Fig. 3.*

2) Height should be .319-.331" (8.1-8.4 mm) when measured from torsion bar center to center of wheel.

NOTE: If spring plate angle is 19° with stabilizer bar or 23° 40' without stabilizer bar, vehicle height is correct.

Fig. 3: Location of 924 & 944 Rear Riding Height & Camber Adjusting Bolts



928 (Front)

1) Checking or adjusting riding height must only be performed with vehicle on level floor. Place wheels in straight ahead position.

2) Measure distance from boss (on forward underside of lower control arm) to floor. Distance should be about 7.48" (190 mm). Height is determined by coil spring and is not adjustable at front axle.

928 (Rear)

1) Checking or adjusting riding height must only be performed with vehicle on level floor. Place front wheels in straight ahead position.

2) Measure distance from lower edge of crossmember (below camber adjusting cam) to floor. Distance should be 6.81-7.20" (173-183 mm).

3) To adjust vehicle upward, turn coil spring adjusting nut (located at under side of lower spring retainer) clockwise. Rear height must be adjusted to match front height. For example, if front height is .394" (10 mm) too high, rear height must be raised .394" (10 mm).

Wheel Alignment

PORSCHE (Cont.)

944 (Front & Rear)

1) Checking or adjusting riding height must only be performed with vehicle on level floor. Place front wheels in straight ahead position.

2) Measure from upper edge of bumper to floor. Measurement must be 19.75-21.25" (502-542 mm).

3) Front height is adjusted by changing front spring. Rear height is adjusted with 2-piece spring struts without removal of torsion bars.

4) Loosen joint between spring strut and trailing arm and adjust to specified value by turning camber eccentric. *See Fig. 3.*

CASTER

911SC

1) If caster angle is not within specifications, it will be necessary to remove adjuster plate which attaches to front suspension strut.

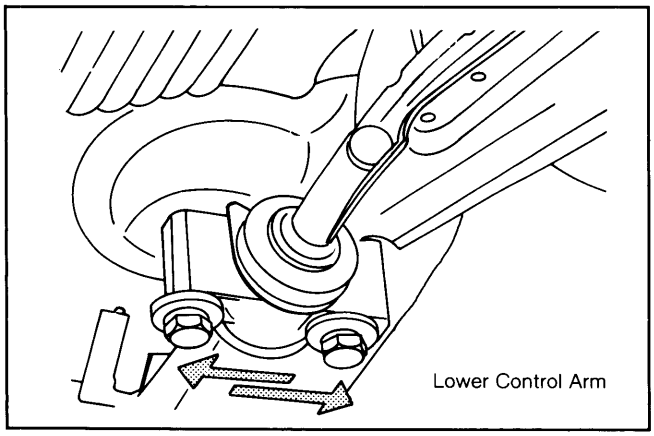
2) Remove enough front compartment carpet to allow access to top of each suspension strut. Mark position of each movable plate, located below each Allen screw.

3) Loosen each screw and upper suspension strut nut. Move assembly lengthwise to obtain correct caster angle. Tighten all 3 screws and suspension strut nut.

924 & 944

To adjust caster, move the rear control arm mount from side-to-side. *See Fig. 4.*

Fig. 4: 924 & 944 Front Caster Adjustment Location



928

Caster is adjusted at eccentric located on lower control arm. To adjust caster, use eccentric closest to brake disc.

CAMBER

911SC (Front)

1) If camber angle is not within specifications, it will be necessary to move adjuster plate which attaches to front suspension strut.

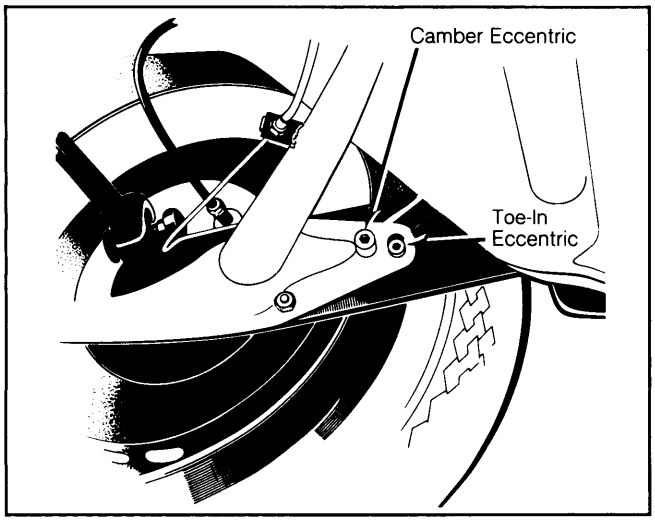
2) Follow procedure outlined for adjusting caster and move assembly from side-to-side to obtain correct camber angle. Tighten all 3 screws and suspension strut nut.

911SC (Rear)

1) To obtain correct camber angle at rear wheels, it is necessary to adjust rear torsion bars first. *See Torsion Bar Adjustment.*

2) Loosen nuts on retaining bolts and on eccentric at rear axle flange. *See Fig. 5.* Turn camber eccentric until camber angle is within specifications. Tighten retaining nuts and eccentric nut.

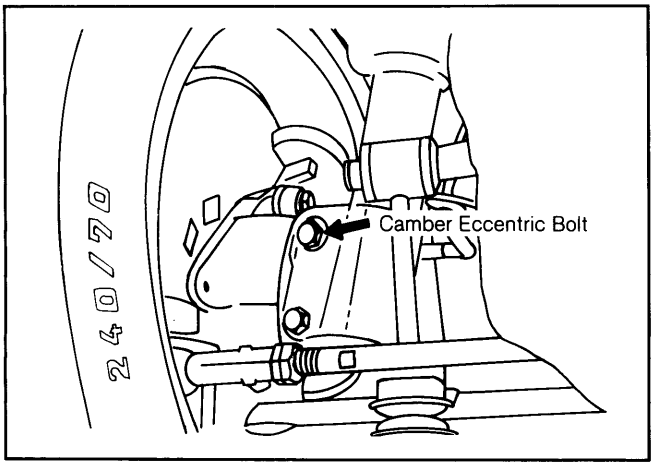
Fig. 5: 911SC Rear Camber Adjustment Points



924 & 944 (Front)

To adjust camber, turn eccentric bolt located at base of suspension strut. *See Fig. 6.*

Fig. 6: 924 & 944 Front Camber Eccentric Bolt Location



924 & 944 (Rear)

To adjust, loosen bolts between spring plate and diagonal arm flange. Bring camber to specification by turning eccentric. *See Fig. 3.*

928 (Front)

To adjust camber, use 2nd eccentric adjuster in from disc brake located on lower control arm.

928 (Rear)

To adjust camber, use eccentric located on inner control arm bushing.

TOE-IN

All Models (Front)

Place front wheels in straight-ahead position. Adjust left and right tie rods equally to obtain specified setting. Coat each tie rod with anti-corrosive compound after adjustment.