Wheel Alignment

RENAULT (Cont.)

front suspension for wear or damage and repair or replace components as necessary.

TOE-IN

Fuego

To adjust toe-in, loosen jam nuts by holding ball joint with wrench. Turn tie rod sleeves equal amounts to adjust toe-in to specifications. Tighten jam nuts and recheck toe-in.

All Others

If toe-in is not to specifications, disconnect tie rod at rack end, loosen jam nut on steering end of fitting. To increase toe-in, unscrew end fitting. To decrease, screw in fitting. Tighten jam nut and connect tie rod. Recheck toe-in.

SAAB

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

To adjust caster, add or remove shims under upper control arm bushing brackets. Changing shims from front to rear bracket increases caster angle. Moving shims from rear to front decreases caster angle.

NOTE: Same shim thicknesses removed from front must be placed under rear and vice versa. Change in caster also affects camber.

CAMBER

To adjust camber, add or remove same number of shims under upper control arm bushing brackets. Increasing shims under both brackets reduces camber angle and removing shims under both increases camber.

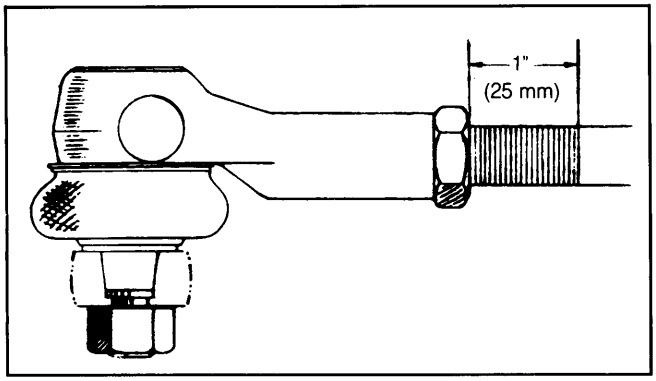
NOTE: Always add or remove same thickness of shims at front and rear or caster angle will be affected.

TOE-IN

1) With wheels in straight ahead position, loosen tie rod jam nuts and turn adjustable sleeves until correct toe-in is obtained. Tighten jam nuts and recheck toe-in.

2) After adjustment of toe-in, measure thread width of tie rod. Manual steering must not exceed 15/16" (24 mm) or 1" (25 mm) for power steering models. For tie rods opposite each other, the difference between measurements must not exceed 3/32" (2 mm).

Fig. 1: Tie Rod Length Measurement, Vehicle with Power Steering



SUBARU

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

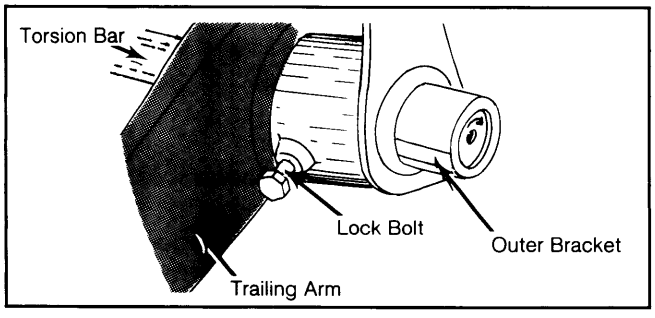
Front (All Models)

Place vehicle on level floor. Measure distance between floor and front end of lower control arm at center of inboard attaching bolt. Adjust clearance by turning nuts (at same time) on strut until specified height is obtained. See Riding Height Specifications table.

Rear (4-WD)

Place vehicle on level floor. Measure distance between floor and lowest point of crossmember pipe. Adjust clearance by turning adjusting bolt (through service hole in floor) clockwise to increase riding height and counter-clockwise to decrease height. See Riding Height Specifications table.

Fig. 1: Installed View of Torsion Bar Outer End Attachment



Rear (2-WD)

1) Riding height is adjusted by changing the angle between trailing arm center line and markings on outer bracket. *See Fig. 1.* Trailing arm and outer bracket have full serrations around torsion bar mounting hole, while torsion bar has 1 missing serration, thus allowing torsion bar to be inserted at any angle.

SUBARU (Cont.)

2) To increase riding height, turn outer end and inner end of torsion bar in direction opposite to cast-in arrow on outer end of bar. Height changes .20" (5 mm) with each shift in serration.

3) Initially set vehicle rear riding height by inserting torsion bar with its missing serrations aligned with markings on outer bracket surface and trailing arm inner surface. This should equal the approximate riding height. See Riding Height Specifications table.

4) Measure riding height at lower face of crossmember to floor and determine numbers of teeth to be shifted on inner and/or outer serrations.

NOTE: Vehicle must be in unloaded condition.

5) At top of shock absorber, remove bolt attaching shock to body. Raise rear of vehicle and remove wheel. Remove lock bolt of outer bushing. Remove bolts connecting outer and inner arms with brake drum supported by a jack to prevent brake hose damage.

6) Place alignment mark on outer bushing, crossmember and torsion bar for reassembly reference. Measure vertical distance between end of outer arm and vehicle body. Pull out outer arm and torsion bar until inner serration is completely disengaged.

7) Rotate torsion bar and outer arm to shift matching of inner serration by appropriate pitches and engage inner serration with crossmember. Pull outer arm from torsion bar and rotate outer arm in opposite direction to shift matching of outer serration by appropriate pitches.

NOTE: Do not disengage inner serration of torsion bar from crossmember.

8) Install outer arm to torsion bar and crossmember, then measure vertical distance between end of outer arm and vehicle body. Change in this distance shows half of change in riding height clearance caused by adjustment.

9) Install bolts connecting outer and inner arms. Repeat adjustment procedure on opposite wheel. Install wheels and lower vehicle. Install shock absorbers and outer bushing lock bolt. Check rear riding height adjustment. If correct, tighten lock bolt on outer bushing. If incorrect, repeat adjustment on each wheel.

RIDING HEIGHT SPECIFICATIONS

Application	Front In. (mm)	Rear In. (mm)
1600 & 1800 2-WD		
Wagon	9.65-10.63 (245-270)	11.02-11.81 (280-300)
All Others	9.45-10.43 (240-265)	10.24-11.02 (260-280)
1600 & 1800 4-WD		
Hatchback	10.43-11.42 (265-290)	12.60-13.39 (320-340)
Wagon	10.63-11.61 (270-295)	13.19-13.98 (335-355)

CASTER

Caster angle is not adjustable. If angle is not to specifications, inspect suspension for wear or damage and repair or replace components as necessary.

CAMBER

Camber angle is not adjustable. If angle is not to specifications, inspect suspension for wear or damage. Repair or replace components as necessary.

TOE-IN

If toe-in is not within specifications, loosen both left and right tie rod jam nuts. Turn both tie rods an equal amount until specified toe-in is obtained. Tighten jam nuts and recheck wheel alignment.

TOYOTA

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

Before adjusting wheel alignment, check riding height. Riding height must be checked with vehicle on level floor. Jounce vehicle serveral times and allow suspension to settle. Check riding height measurement as shown in *Fig. 1 and 2.* If riding height is not within specifications listed in Riding Height Specifications table, check and repair or replace suspension components.

CAMBER & CASTER

Pickup (2-WD)

1) If camber or caster angles are not within specifications, adjust by adding or removing shims between upper control arm shaft and front suspension crossmember.

2) To increase camber, remove shims from upper control arm shaft bolts in equal amounts. To decrease camber, add shims to upper control arm shaft bolts in equal amounts.

RIDING HEIGHT SPECIFICATIONS

Application	Front In. (mm)	Rear In. (mm)
Celica	9.1 (232)	9.4 (240)
Supra	8.8 (223)	10.4 (265)
Corolla	9.1 (232)	9.1 (232)
Corona		
13" Tire	9.0 (229)	8.8 (223)
14" Tire	9.3 (235)	9.0 (229)
Cressida	9.2 (234)	9.8 (248)
Pickup		
1/2 Ton (2-WD)		
7.00x14	10.3 (262)	11.4 (288)
E78x14	10.0 (254)	11.1 (281)
ER78x14	9.9 (251)	10.7 (271)
205/70SRx14	9.5 (242)	10.3 (262)
3/4 Ton (2-WD)	11.0 (279)	12.0 (305)
Starlet		
12" Tire	8.8 (223)	8.9 (225)
13" Tire	9.1 (231)	9.1 (231)
Tercel	8.5 (216)	10.2 (258)