PORSCHE (Cont.)

911 Series (Rear) – To adjust rear wheel toe-in, loosen nuts on retaining bolts and adjusting eccentrics at rear axle flange. Turn toe-in eccentric until toe-in is set to specifications. Hold eccentric stationary and tighten all lock nuts.

924 (Rear) – Adjust toe-in by repositioning control arm flange in slots of spring plate. Use of special tool 1979 is suggested.

928 (Rear) – Rear to adjustments are made at eccentric bolt located on front control arm bushing.

TORSION BAR ADJUSTMENT

911 Series (Rear) – Place torsion bar into transverse tube with inner end splines first. Slip radius arm onto outer end splines of torsion bar. Place suitable leveling tool (VW 261) on lower edge of door opening and adjust level so bubble is in center of glass. Check adjustment (degrees) of free hanging radius arm with same leveling tool. If not to specifications, adjust by turning torsion bar and radius arm in opposite directions. Adjustment of both radius arms must each equal 36°45′±15′.

RENAULT

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.

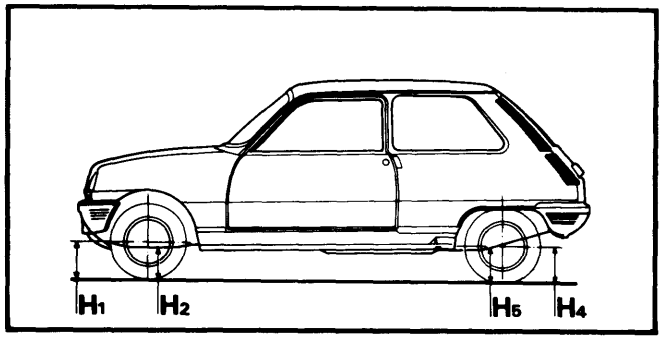

Fig. 1 Riding Height Measurement Points

CASTER

Le Car – 1) Vehicle riding height must be calculated before adjusting caster. Measure distance between ground and rear side member (H5, *Fig. 1*). Measure distance between ground and front side member in line with wheel centers (H2, *Fig. 1*). Subtract measurements and refer to table for correct caster angle.

2) With caster angle determined, loosen both lower control arm mounting bolts. Add or remove caster shims to bring adjustment within specifications. One shim is equal to about 1°.

NOTE – *Never use more than two shims between bushing and side member. Always check steering box height after adjustment.*

Caster Angle Table

Subtracted Value	Caster Angle
3/4″ (20 mm)	13°
1 9/16″ (40 mm)	12½°
2 3/8″ (60 mm)	12°
3 3/16″ (80 mm)	11½°
3 15/16″ (100 mm)	11°
4 3/4″ (120 mm)	10½°
5 1/2″ (140 mm)	10°

CAMBER

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

TOE-IN

If toe-in is not to specifications, disconnect steering arm at rack end. Loosen lock nut on steering end fitting. To increase toe-in, unscrew end fitting. To decrease, screw in fitting. Tighten lock nut and connect steering arm. Recheck toe-in.

SAAB

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

All Models – 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 thickness of shims removed from front must be placed under rear and vice versa. Change in caster also effects camber.*

SAAB (Cont.)

CAMBER

All Models – To adjust camber, add or remove 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

All Models – With wheels in straight-ahead position, loosen steering link (tie rod) lock nut and turn adjustable sleeve until correct toe-in is obtained. Tighten lock nuts and recheck toe-in.

NOTE – *After adjustment of toe-in, measurement "A" (Fig. 1) of tie rod must not exceed 1.0" (25 mm) or 1.02" (26 mm) for power steering models. For tie rods opposite each other, the difference between measurements "A" must not exceed .08" (2 mm).*

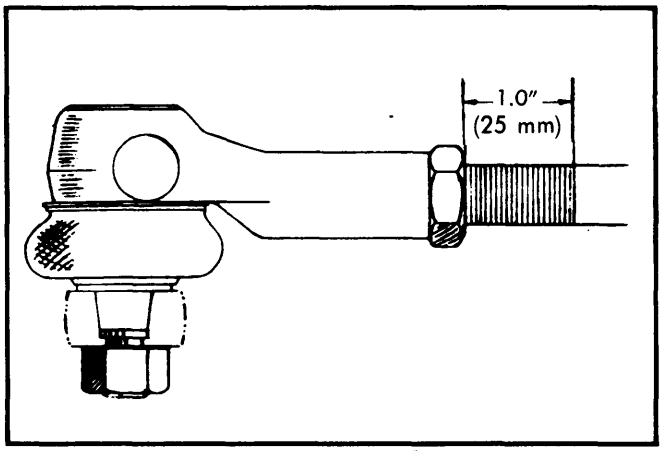

Fig. 1 View Showing Tie Rod Length Measurement

SUBARU

ADJUSTMENT

TIRE INFLATION (COLD)

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

RIDING HEIGHT (REAR)

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

Raising vehicle height is accomplished by turning outer end and inner end of torsion bar in direction opposite to cast-in arrow on outer end of bar. Height changes .20" (5mm) per each serration shifted.

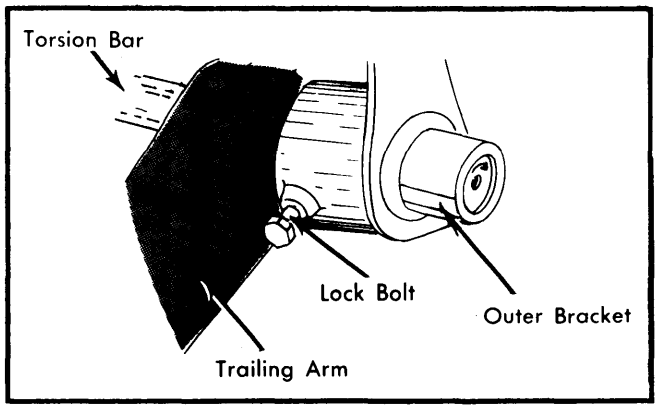

Fig. 1 Installed View of Torsion Bar Outer End Attachment

1) Initially set vehicle rear riding height by inserting torsion bar with its missing serration aligned with markings on outer bracket surface and trailing arm inner surface. This will give approximately the specified riding height as indicated in table.

2) Measure road clearance from center of trailing arm bushing to ground. NOTE – *Vehicle must be in unloaded condition.* Raise rear of vehicle and remove rear wheel.

3) Unscrew shock absorber lower mounting nut and remove it from trailing arm. Unscrew lock bolt on outer bushing.

4) Scribe mark position of torsion bar by making a mark on upper half of inner end surface and lower half of outer end surface. Outer end surface mark should be continued onto trailing arm shaft and outer bracket boss.

5) Holding trailing arm so torsion bar does not twist, disengage serrations by tapping inner end surface of torsion bar See *Fig. 2*.

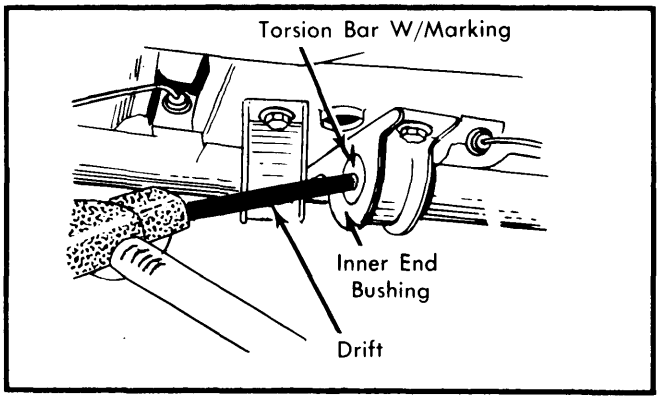

Fig. 2 View Showing Removal Procedure for Torsion Bar

6) Pull torsion bar out of trailing arm. Determine amount of turn necessary to make proper height adjustment and turn inner end of torsion bar to this value. Then, insert outer end of torsion bar to its proper adjusted position.

7) Install rear wheel and lower vehicle. Reattach lower end of shock absorber. Recheck vehicle rear ground clearance as originally measured. If correct, tighten lock bolt on outer trailing arm bushing. If incorrect, repeat adjustment.