VOLKSWAGEN

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

Caster angle is part of front axle design and is not adjustable. If not within specifications, inspect front suspension for wear or damage and repair or replace components as necessary.

CAMBER

Type 1 & 2 (Front) – Camber is adjusted by an eccentric bushing. Loosen nut on upper torsion arm, then rotate eccentric bushing until specified camber angle is obtained. NOTE – *Basic setting is with eccentric notch facing in forward position. Adjustment must be made within 90° either direction.*

Dasher (Front) – If adjustment is necessary, loosen nuts attaching ball joint to track control arm. To adjust, insert suitable adjusting tool (40-200) in adjusting holes in control arm and pry ball joint sideways until camber is set to specifications. NOTE – *Difference in camber between* wheels should not vary more than 1°. Tighten attaching nuts and recheck camber.

NOTE – *On Dasher models, insert tool from front on right side and from rear on left side.*

Rabbit & Scirocco (Front) – If adjustment is necessary, loosen nuts of suspension strut-to-wheel bearing housing mounting bolts. Turn eccentric bolt (upper mounting bolt) until specified camber angle is obtained. Tighten mounting bolt nuts and recheck camber angle.

Type 1 (Rear) – Camber angle is dependent on torsion bar adjustment. If camber angle is not within specifications, see *Torsion Bar Adjustment.*

Type 2 (Rear) – If minor adjustment is necessary, loosen bolts attaching bearing housing to spring plate and diagonal arm. Adjust by changing position of bearing housing in elongated holes in spring plate. Tighten bolts and recheck camber. NOTE – *Range that this procedure will cover is very small.*

Dasher, Rabbit & Scirocco (Rear) – Rear camber is not adjustable. If camber angle is not to specifications, inspect rear suspension for wear or damage and repair or replace components as necessary.

TOE-IN

Type 1 (Front) – Working on inner end of right tie rod, bend up lockplate. Loosen lock nut and clamp bolts from tie rods. Tap tapered rings from inner end of right side tie rod. Rotate tops of tie rods. Forward rotation increases toe-in; rearward rotation decreases toe-in. When specified toe is achieved, place tie rods so ball joints are not angled. Tighten clamp bolts and lock nuts. If steering wheel is not centered after making adjustment, use *Fig. 1* to recenter steering wheel. NOTE – *Centering steering wheel will not alter toe-in.*

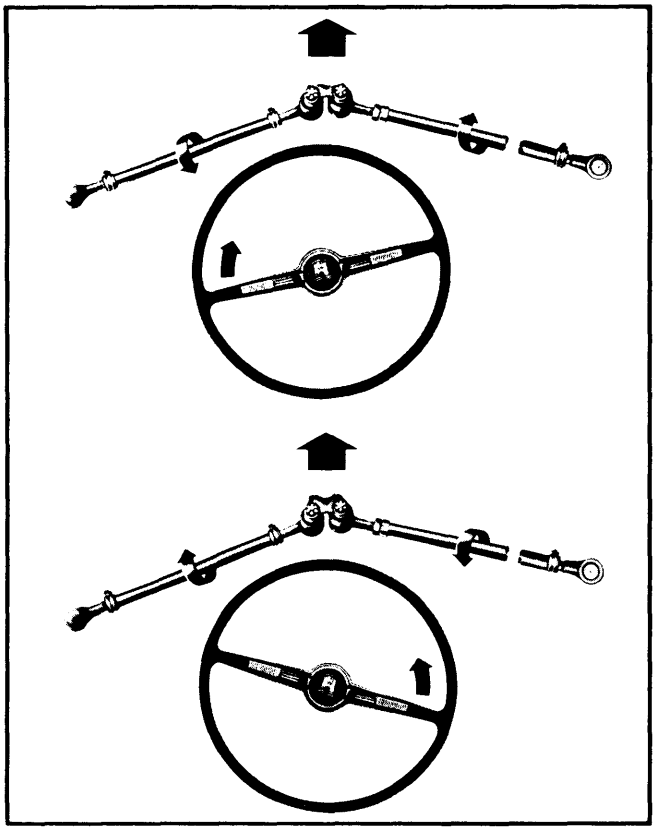

Fig. 1 Direction of Tie Rod Rotation to Align Steering Wheel (Type 1 Only)

Type 2 (Front) – 1) Right side tie rod adjusts front wheel toe. Press drag link off steering drop arm. Place left side wheel in straight-ahead position. Adjust right side tie rod until specified toe is obtained.

2) Place steering gear so protrusion on dust cap is properly aligned. Attach drag link to drop arm. Drag link must enter mounting with no tension against it. Readjust drag link if necessary.

Dasher, Rabbit, Scirocco (Front) – Place front wheels in straight-ahead position. Loosen lock nut on adjustable tie rod end (left side, Dasher; right side, Rabbit and Scirocco). Hold axle boot to avoid twisting. Adjust right side tie rod until specified toe-in is obtained. Tighten lock nut and recheck toe-in.

Type 1 (Rear) – If adjustment is necessary, remove nuts securing spring plate but do not remove bolts. To adjust, move diagonal arm forward or backward in slotted spring plate mounting holes until toe-in is set to specifications. Install spring plate attaching nuts and recheck toe-in.

Type 2 (Rear) – If adjustment is necessary, loosen bolts attaching bearing housing to spring plate and diagonal arm. Change position of bearing housing in elongated holes on spring plate. Tighten bolts and recheck toe-in.

VOLKSWAGEN (Cont.)

All Other Models (Rear) – Toe-in is not adjustable. If toe-in is not within specifications, inspect rear suspension for wear or damage and repair or replace components as necessary.

TORSION BAR ADJUSTMENT (REAR)

Type 1 – Using a suitable protractor, find deviation of vehicle from horizontal plane and note reading which will be used in setting angle of spring plate. Install spring plate on torsion bar and measure position with protractor. If not within specifications, adjust by moving torsion bar, one spline at a time, forward or backward until correct position is obtained.

Type 2 – Using a suitable protractor, check horizontal position of vehicle on one frame side member. Reading should be noted; it will be used in setting spring plate angle. Insert inner end of torsion bar in center anchor and press spring plate on outer end of torsion bar. Adjust protractor on unloaded spring plate until bubble is in center position. Adjust torsion bar one spline forward or rearward until correct specifications are obtained.

Torsion Bar Specifications

Application	Setting (Degrees)
Type 1	$21\frac{1}{3} \pm \frac{5}{6}$
Type 2	
Kombi & Campmobile	
From Chassis 218 000 002	①$21 \pm \frac{5}{6}$
From Chassis 212 2000 001	②$23 \pm \frac{5}{6}$
Station Wagon	
From Chassis 218 000 002	①$20 \pm \frac{5}{6}$
From Chassis 212 2000 001	②$23 \pm \frac{5}{6}$

① – Man. Trans.
② – Man. Trans. and Auto. Trans.

VOLVO

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

Caster cannot be adjusted. If not within specifications, check front end components for damage.

CAMBER

If camber is not within specifications, loosen nuts at strut assembly upper attachment. Use special tool 5038 (or equivalent) at strut upper attachment to adjust camber. Tighten lock nuts. Recheck camber.

TOE-IN

Place wheels in straight-ahead position and loosen lock nut and rubber dust boot outer clamp. Turn tie rods until toe is within specifications. Make sure length of tie rods does not differ more than .08" (2 mm). Measure difference between groove in tie rod and lock nut.