VOLKSWAGEN SPECIFICATIONS & ADJUSTMENTS

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 I & II Exc. Super Beetle (Front) – If adjustment is necessary, loosen lock nut on upper ball joint stud. To adjust, turn eccentric camber adjusting bushing (max. 90°) until camber angle is set to specifications. *NOTE – Difference in camber between wheels should not vary more than ½ °.* Tighten lock nut and recheck camber.

Super Beetle (Front) – If adjustment is necessary, loosen nut on eccentric camber adjusting bolt. To adjust, turn eccentric camber adjusting bolt until camber angle is set to specifications. *NOTE – Difference in camber between wheels should not vary more than ½ °.* Tighten nut and recheck camber.

Type IV (Front) – If adjustment is necessary, raise vehicle and loosen front carrier mounting bolts. Move carrier sideways until correct camber angle is obtained. *NOTE – Vehicle must be level (laterally) on lift. If not, compensate for lateral angle.* Tighten front axle carrier bolts and lower vehicle.

All Models Exc. Type IV & Dasher (Rear) – Camber angle is dependent upon torsion bar adjustment. If camber angle is not to specifications, see *Torsion Bar Adjustment.*

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 ½ °.* Tighten attaching nuts and recheck camber.

Type IV (Rear) – Loosen lower control arm brackets and turn on longitudinal axis. If outer bracket is lowered and inner bracket is raised, camber angle will increase. If moved in opposite direction, camber angle will decrease. Adjust camber angle to specifications and tighten lower control arm brackets.

Dasher (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

All Models (Front) – With front wheels in straight-ahead position, loosen clamps on tie rods. Turn both tie rod tubes equally until correct toe-in is obtained. Tighten clamps and recheck toe-in.

Type I (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 II (Rear) – If adjustment is necessary, loosen bolts attaching bearing housing to spring plate and diagonal arm. To adjust, change position of bearing housing in elongated holes in spring plate. Tighten bolts and recheck toe-in.

WHEEL ALIGNMENT SPECIFICATIONS

Application	Caster (Degrees)	Camber (Degrees)	Toe-In (Inches)	Toe-Out On Turns (Degrees)	
				Inner	Outer
Type I (Front)					
Exc. Super Beetle	$3\frac{1}{3} \pm 1$	$\frac{1}{2} \pm \frac{1}{3}$	$\frac{1}{16}$ to $\frac{7}{32}$	20	18
Super Beetle	$2 \pm \frac{1}{2}$	$1 + \frac{1}{3}$ or $-\frac{2}{3}$	$\frac{3}{32}$ to $\frac{3}{16}$	20	19 to 20
Type I (Rear)					
Exc. "The Thing"	.....	$-1 \pm \frac{2}{3}$	$-\frac{5}{64}$ to $\frac{5}{64}$	.....	.....
"The Thing"	.....	$\frac{1}{3} \pm \frac{2}{3}$	$-\frac{5}{64}$ to $\frac{5}{64}$	.....	.....
Type II					
Front	$3 \pm \frac{2}{3}$	$\frac{2}{3} \pm \frac{1}{3}$	0 to $\frac{1}{8}$	20	17 to 18
Rear	.....	$-\frac{5}{6} \pm \frac{1}{2}$	$-\frac{3}{64}$ to $\frac{9}{64}$	.....	.....
Type IV					
Front	$1\frac{3}{4} \pm \frac{1}{2}$	$1\frac{1}{6} \pm \frac{1}{2}$	$\frac{1}{64}$ to $\frac{5}{32}$	.....	.....
Rear	.....	$-1 \pm \frac{1}{2}$	$\frac{1}{64}$ to $\frac{1}{8}$	.....	.....
Dasher					
Front	$\frac{1}{6} \pm \frac{1}{2}$	$\frac{5}{12} \pm \frac{1}{2}$	$-\frac{1}{12}$ to $\frac{5}{12}$	.....	.....
Rear	.....	$-\frac{1}{2} \pm \frac{1}{2}$	$-\frac{5}{6}$ to $\frac{5}{6}$	.....	.....

VOLKSWAGEN SPECIFICATIONS & ADJUSTMENTS (Cont.)

Type IV (Rear) – If adjustment is necessary, use suitable tool (VW 361/1) and set toe-in to specifications by turning eccentric bolts on inner arm brackets.

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

TORSION BAR ADJUSTMENT (REAR)

Type I – 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 II – Using suitable protractor (VW 245a) check horizontal position of vehicle on one frame side member. Reading should be noted since 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 I (All)	$21\frac{1}{3} + \frac{5}{6}$
Type II	
Station Wagon	$20 + \frac{5}{6}$
Kombi & Van	$23 + \frac{5}{6}$