

## 1973 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

**All Models Exc. Super Beetle & Type 4 (Front)** — If adjustment is necessary, loosen hex nut on upper ball joint. Using suitable tool (VW 179), adjust eccentric bushing until correct camber angle is obtained. Tighten hex nut.

**Super Beetle (Front)** — If adjustment is necessary, loosen nut (max. one turn) on control arm bolt and turn bolt until correct camber angle is obtained. Tighten nut.

**Type 4 (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 4 (Rear)** — Camber angle is dependent upon torsion bar adjustment. If camber angle is not within specifications, See *Torsion Bar Adjustment*.

**Type 4 (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 op-

posite direction, camber angle will decrease. Adjust camber angle to specifications and tighten lower control arm brackets.

### TOE-IN

**Type 1 Exc. Super Beetle (Front)** — With front wheels in straight-ahead position, loosen clamps on steering links (tie-rods). Turn both steering link clamps equally until correct toe-in is obtained. Tighten clamps.

**Super Beetle (Front)** — If adjustment is necessary, position front wheels in straight-ahead position. Loosen steering link (tie rod) clamps and turn clamps equally to obtain correct toe-in. Tighten clamps.

**Type 1 & 3 (Rear)** — If adjustment is necessary, loosen spring plate bolts. Using suitable tool (VW 160) adjust both sides to obtain correct toe-in. Tighten bolts.

**Type 2 (Rear)** — If adjustment is necessary, loosen bottom axle tube flange. Using suitable tool (VW 160) set toe-in to specifications. *NOTE* — Relieve tension on tool before taking reading. Tighten bolts.

**Type 4 (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.

### TORSION BAR ADJUSTMENT (REAR)

**Type 2 & 3** — Using suitable protractor (VW 261) 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 (using protractor VW 261). If not within specifications, adjust by moving tor-

WHEEL ALIGNMENT SPECIFICATIONS					
Application	Caster (Degrees)	Camber (Degrees)	Toe-In (Inches)	Toe-Out On Turns	
				Inner	Outer
<b>Type 1 (Front)</b> Beetle	$3\frac{1}{3}^{\circ} \pm 1^{\circ}$	$\frac{1}{2}^{\circ} \pm \frac{1}{3}^{\circ}$	$\frac{5}{64}$ to $\frac{7}{32}$ "	20°	$17\frac{5}{6}^{\circ}$
Super Beetle	$2\frac{1}{2}^{\circ}$	$1^{\circ} + \frac{1}{3}^{\circ}$ or $-\frac{2}{3}^{\circ}$	$\frac{3}{32}$ to $\frac{3}{16}$ "	20°	19 to 20°
<b>Type 1 (Rear)</b> Beetle (All)	.....	$1^{\circ} \pm 1^{\circ}$	$-\frac{5}{64}$ to $+\frac{5}{64}$ "	.....	.....
Karmann Ghia	.....	$\frac{1}{4}^{\circ} \pm 1^{\circ}$	.....	.....	.....
"Thing"	.....	$-1^{\circ} \pm \frac{2}{3}^{\circ}$	$-\frac{5}{64}$ to $+\frac{5}{64}$ "	.....	.....
<b>Type 2 (Front)</b> All Models	$3^{\circ} \pm \frac{2}{3}^{\circ}$	$\frac{2}{3}^{\circ} \pm \frac{1}{3}^{\circ}$	0 to $\frac{1}{8}$ "	20°	17 to 18°
<b>Type 2 (Rear)</b> Dbl. Joint Axle	.....	$-\frac{5}{6}^{\circ} \pm \frac{1}{2}^{\circ}$	.....	.....	.....
Swing Axle	.....	$3\frac{1}{2}^{\circ} \pm \frac{1}{2}^{\circ}$	.....	.....	.....
<b>Type 3 (Front)</b> All Models	$4\frac{2}{3}^{\circ}$	$1\frac{1}{6}^{\circ} \pm \frac{1}{3}^{\circ}$	$\frac{1}{8}$ to $\frac{17}{64}$ "	20°	19 to 20°
<b>Type 3 (Rear)</b> Dbl. Joint Axle	.....	$-1\frac{1}{3}^{\circ} \pm \frac{2}{3}^{\circ}$	.....	.....	.....
Swing Axle	.....	$1\frac{3}{4}^{\circ} \pm 1^{\circ}$	.....	.....	.....
<b>Type 4 (Front)</b> All Models	$1\frac{3}{4}^{\circ} \pm \frac{1}{2}^{\circ}$	$1\frac{1}{6}^{\circ} \pm \frac{1}{2}^{\circ}$	$\frac{1}{64}$ to $\frac{5}{32}$ "	.....	.....
<b>Type 4 (Rear)</b> All Models	.....	$-1^{\circ} \pm \frac{1}{2}^{\circ}$	$\frac{1}{64}$ to $\frac{3}{8}$ "	.....	.....

# Wheel Alignment

## 1973 VOLKSWAGEN SPECIFICATIONS & ADJUSTMENTS (Cont.)

sion bar one spline forward or backward until correct position is obtained.

**Type 2** — 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
Type 1 .....	$20\frac{1}{2}^{\circ} \pm \frac{5}{8}^{\circ}$
Type 2	
Sta. Wgn. ....	$20^{\circ} \pm \frac{1}{2}^{\circ}$
Kombi & Van .....	$23^{\circ} \pm \frac{5}{8}^{\circ}$
Type 3	
Fastback.....	$23^{\circ} \pm \frac{5}{8}^{\circ}$
Squareback.....	$21\frac{1}{2}^{\circ} \pm \frac{5}{8}^{\circ}$