

# Wheel Alignment

## 1963-73 ALFA ROMEO SPECIFICATIONS & ADJUSTMENTS

### TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, ensure that tires are properly inflated. Giulietta requires 20 psi front and 21 psi rear. All other models require 24 psi front and 26 psi rear. Check tire pressures given against specifications on driver's door lock pillar to verify pressure.

### RIDING HEIGHT

Before attempting to check or adjust riding height, vehicle must be in static loaded condition. To load vehicle, fuel tank must be full, and weights placed in vehicle to simulate full passenger load. Disconnect front and rear shock absorbers. Disconnect stabilizer rods on front and rear suspension. Bounce vehicle several times and allow suspension to take a static position.

#### Passenger Load Weight

| Application    | Lbs. (kg)    |
|----------------|--------------|
| 1972 & Earlier |              |
| 2-Door .....   | 210 (95.25)  |
| 4-Door .....   | 420 (190.51) |
| 1973           |              |
| 2-Door .....   | 310 (140.61) |
| 4-Door .....   | 620 (281.23) |

#### Riding Height Dimensions

| Application                     | Front<br>in. (mm)      | Rear<br>in. (mm) |
|---------------------------------|------------------------|------------------|
| Giulia 1300 (1968 & Earlier)    |                        |                  |
| To 645.000 <sup>①</sup> .....   | ② 1.5<br>(38.10).....  | .40<br>(10.16)   |
| From 645.001 <sup>①</sup> ..... | 1.34<br>(34.03).....   | 1.43<br>(36.32)  |
| GT1300.....                     | ③ 1.34<br>(34.03)..... | .59<br>(14.98)   |
| 1300 TI.....                    | 1.34<br>(34.03).....   | .40<br>(10.16)   |
| Giulia 1600 (1968 & Earlier)    |                        |                  |
| Sprint GT.....                  | ② 1.5<br>(38.10).....  | .59<br>(14.98)   |
| Spider .....                    | 1.11<br>(28.19).....   | 1.30<br>(33.02)  |
| TI.....                         | ② 1.5<br>(38.10).....  | .40<br>(10.16)   |
| TI Super.....                   | 1.5<br>(38.10).....    | .59<br>(14.98)   |
| GTC .....                       | 1.5<br>(38.10).....    | .79<br>(20.06)   |
| Sprint GTA .....                | 2.26<br>(57.40).....   | 1.61<br>(40.89)  |
| Sprint GT Veloce.....           | ③ 1.5<br>(38.10).....  | .59<br>(14.98)   |
| Super .....                     | ② 1.5<br>(38.10).....  | .40<br>(10.16)   |
| 1750 (1969-71) & 2000 (1972)    |                        |                  |
| GT Veloce.....                  | ④ .95<br>(24.13).....  | 1.61<br>(40.89)  |
| Berlina.....                    | 1.5<br>(38.10).....    | 1.43<br>(36.32)  |
| Spider Veloce .....             | .95<br>(24.13).....    | 1.30<br>(33.02)  |
| 2000 (1973)                     |                        |                  |
| GT Veloce.....                  | 1.9<br>(48.26).....    | 1.62<br>(41.14)  |

### Riding Height Dimensions (Cont.)

| Application         | Front<br>in. (mm)    | Rear<br>in. (mm) |
|---------------------|----------------------|------------------|
| Berlina.....        | 1.34<br>(34.03)..... | 1.42<br>(36.06)  |
| Spider Veloce ..... | .94<br>(23.87).....  | 1.30<br>(33.02)  |

- ① — Chassis No.
- ② — With elongated cross section wishbone shaft 1.34" (34.03 mm).
- ③ — With upper limiting buffer outside spring .55" (13.97 mm).
- ④ — 2000 GT Veloce 1.93" (49.02 mm).

**All Models Front Exc. Giulietta** — Measure distance from lower wishbone shaft to floor and from bottom swivel pin to floor. Calculate difference between measurements and if not within specifications, adjustment must be made before proceeding with wheel alignment checks. Remove spring on side affected with suitable tool (A.2.0169) and add suitable spacer with chamfered edge down. Install spring and recheck front suspension height.

**All Models Rear Exc. Giulietta** — Measure distance between rear axle housing and rubber pad. If measurement not within specifications, adjustment is necessary before proceeding with wheel alignment checks. Remove spring. See *Coil Springs in SUSPENSION* Section. Insert spacer of suitable thickness between spring and its seat. Install spring and recheck rear measurement.

### CASTER

**Giulietta** — Caster is nonadjustable. If not within specifications, check suspension for damage. Repair or replace components as necessary.

**All Others** — Caster angle should be checked under static load with shock absorbers disconnected at one end. Difference in caster angle between left and right front wheels should not exceed  $\frac{1}{3}^{\circ}$ . If caster angle is not within specifications, loosen lock nuts on upper control arm stud rods and lengthen or shorten strut rods to obtain specified angle. Retighten lock nuts.

### CAMBER

**Giulietta** — If camber not within specifications, loosen bolts for brackets on upper wishbones. Add or remove shims between bracket and body until camber set to specifications. Tighten bolts.

**All Other Models** — Camber is nonadjustable. If not within specifications, check suspension for damage. Repair or replace components as necessary.

### TOE-IN

**Giulietta** — Position wheels in straight ahead position. Loosen track rod lock nuts. Adjust left hand lateral track rod to set left front wheel to zero toe-in. Measure length of left track rod and adjust right track rod to same length. Adjust right track rod by loosening central track rod lock nuts and rotating central track rod until right wheel set to zero toe-in. Reduce both lateral track rods by equal amounts to set toe-in to specifications. Tighten all lock nuts.

# Wheel Alignment

## 1963-73 ALFA ROMEO SPECIFICATIONS & ADJUSTMENTS (Cont.)

**All Other Models** — Position wheels in straight ahead position. Loosen lock nuts on left hand tie rod and rotate tie rod until toe-in on left wheel is 1/16". Measure left tie rod and adjust right tie rod to same length. Adjust right track rod by loosening central track rod lock nuts and rotating central track rod until right wheel set to 1/16" toe-in. Tighten all lock nuts. Measure both tie rod lengths and central track rod. If not within specifications, check suspension for damaged components. Repair or replace as necessary.

### Track Rod Length Specifications

| Application     | Left & Right  | Center   |
|-----------------|---------------|----------|
|                 | in. (mm)      | in. (mm) |
| 1750.....       | 10.52.....    | 21.26    |
|                 | (267.20)..... | (540.00) |
| All Others..... | 10.71.....    | 21.26    |
|                 | (272.03)..... | (540.00) |

| WHEEL ALIGNMENT SPECIFICATIONS  |                       |                  |                  |                 |                  |       |
|---|-----------------------|------------------|------------------|-----------------|------------------|-------|
| R — Right      F — Front<br>Rr — Rear     L — Left<br>Man — Manual Steering<br>Pwr — Power Steering | Steering Axis Inclin. | Caster (Degrees) | Camber (Degrees) | Toe-In (Inches) | Toe-Out On Turns |       |
|   |                       |                  |                  |                 | Inner            | Outer |
| Giulietta   |                       |                  |                  |                 |                  |       |
| Berlina   | ....                  | +30' ±30'        | 0°               | .12 ±.04        | ....             | ....  |
| Sprint  | ....                  | +50' ±30'        | 0°               | .12 ±.04        | ....             | ....  |
| Spider  | ....                  | +1°20' ±30'      | 0°               | .12 ±.04        | ....             | ....  |
| Giulia 1300 All Models  | ....                  | +1°30' ±30'      | +50' ±30'        | .12 ±.04        | ....             | ....  |
| Giulia 1600 All Models  | ....                  | +1°30' ±30'      | +50' ±30'        | .12 ±.04        | ....             | ....  |
| 1750  | ....                  | +1°30' ±30'      | +20' ±30'        | .12 ±.04        | ....             | ....  |
| 2000  | ....                  | +1°30' ±30'      | +20' ±30'        | .12 ±.04        | ....             | ....  |