Adjusting Rear Wheel Suspension

Exact adjustment of the torsion bars is accomplished by measuring the angle of inclination of the radius arm in relation of the horizontal plane of the car; the radius arm must not be under load.

Make sure that the chassis is standing in level position by placing the protractor (VW 245a) on the floor tunnel. Readings for the slacked radius arm are as follows:

Type 356 C/1600 C and 1600 SC:

Coupe and Cabriolet

21° 30' without compensating spring

17° with compensating spring

(optional equipment)

Type 356 C/2000 GS, with compensating spring (rear suspension 356 B)

Coupe and Cabriolet

19°

Camber: + 10' to + 1° 30' (car empty)

Type 356 C/2000 GS/GT (with compensating spring)

(rear suspension 356 B)

Coupe

13°

Camber: - 30' to - 1° 30' (car empty)

It is essential that both radius arms are adjusted to identical readings to ensure that the suspension is properly aligned and can function satisfactorily under all normal loads since this affects the car's roadability. If adjustment was required on one side only, the other side should be checked as well and readjusted if necessary.

Adjustments are performed as follows:

1. Insert the torsion bar so that its splines engage those within the socket in the frame.
2. Slide radius arm onto the splined outer end of the torsion bar.
3. Hang protractor (VW 245a) on slacked radius arm.
4. Set protractor pendulum so that bubble lines up in the center.

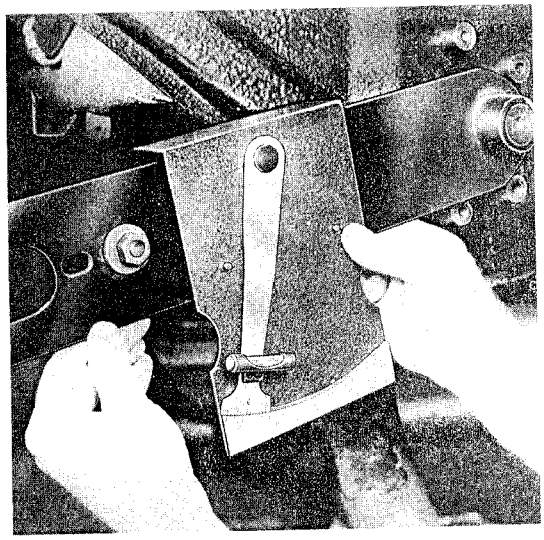

Fig. 4

If the protractor reading reveals an excessive tolerance deviation from the specified value, position of the radius arm must be corrected. Due to an unequal number of splines on the torsion bar ends, it is possible to finely adjust the radius arm angle, that is,

inside end (car's center) has 40 splines
outside end has 44 splines.

When the torsion bar is reset by one spline, it turns 9°; when the radius arm is reset by one spline, an angle difference of approximately 8° 10' results. This makes possible minimal changes of 50'. Should it not be possible to achieve an equal setting on both radius arms, the adjusting procedure should be repeated by using a different radius arm until the required angle of inclination is obtained.

Note:

The alignment of rear wheels can be correctly chekked only on the optical wheel alignment ramp (see page W 5, Group W, basic volume of 356 B Workshop Manuel).