Vehicle Level Ready for Driving

Type	Front axle		Rear axle	
	Axle load approx. kg	Control arm position difference in level "a"	Axle load approx. kg	Semi-trailer arm position difference in level "a"
107 024	850	64 ± 15	710	20 ± 10
107 044	870		730	

Special Tools

Measuring instrument for control arm position of front axle	115 589 01 23 00
Measuring instrument for semi-trailer arm position of rear axle	115 589 02 23 00

Notes

The vehicle level is determined on vehicle **ready for driving.**

On vehicles with level control, **the rear axle level under load must be additionally measured** and adjusted (40.1–330).

Checkup

1 Check control arm position on front axle with measuring instrument (50) (Fig. 1 and 2).

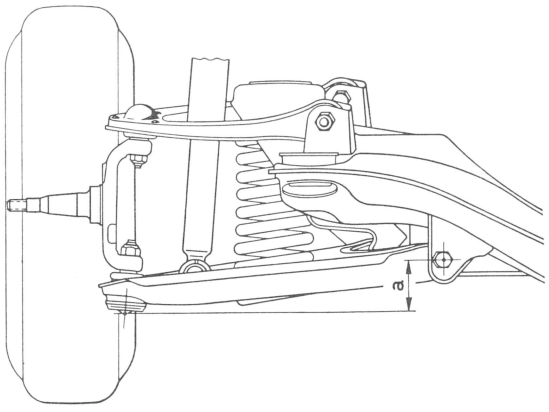


Fig. 1

a = Difference in level axis of control arm bearing – bottom edge of supporting joint

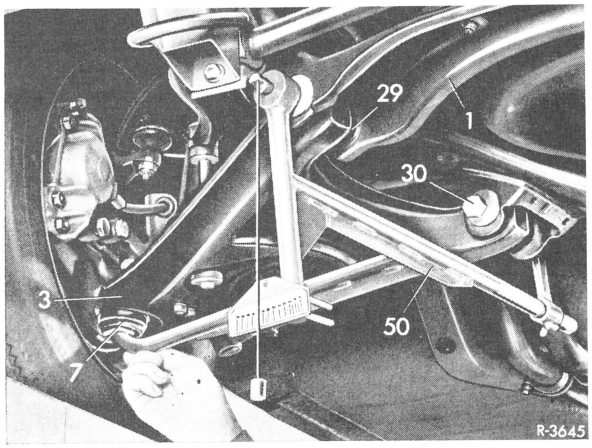


Fig. 2

1 Front axle carrier
3 Lower control arm
7 Supporting joint
29 Rubber bearing
30 Cam bolt
50 Measuring instrument 115 589 01 23 00

2 Check semi-trailing arm position of rear axle with measuring instrument (53) (Fig. 3 and 4).

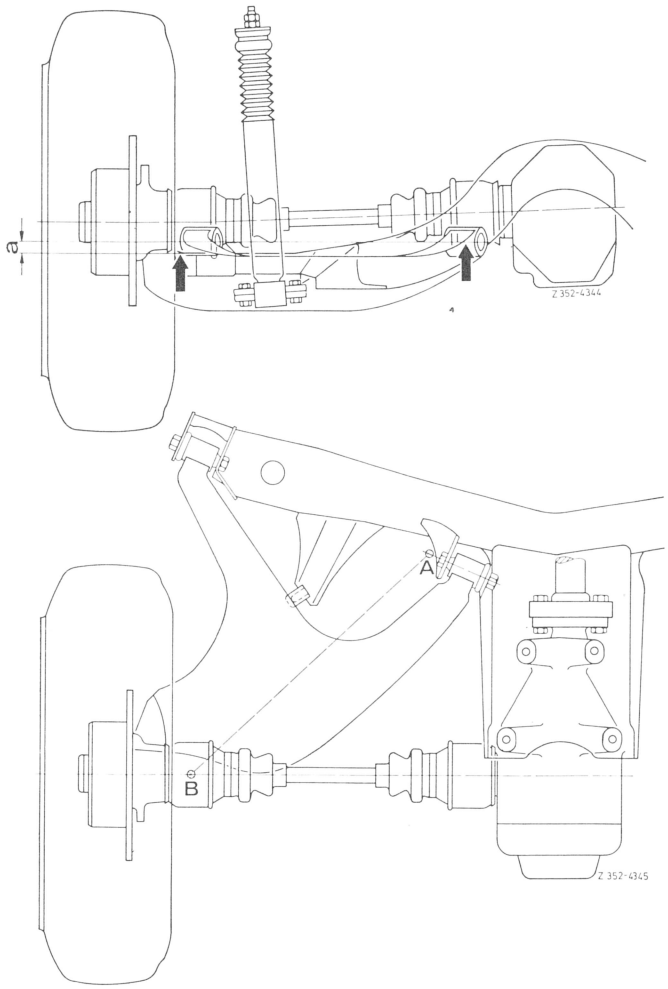


Fig. 3

a = Difference in level axis of rear semi-trailing arm bearing (A) – bottom edge of cup for outer synchronized joint (B)

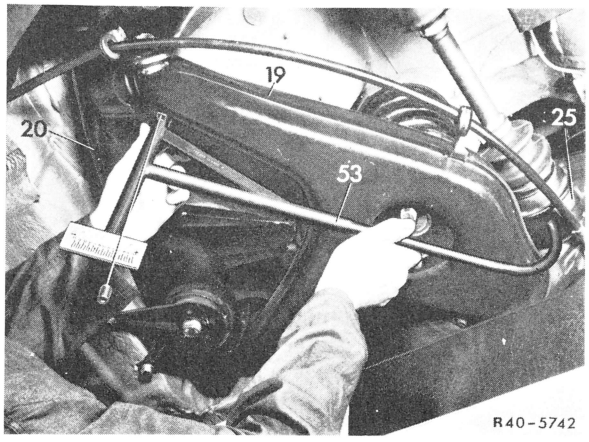


Fig. 4

19 Semi-trailing arm
20 Rear axle carrier
25 Rear axle shaft
53 Measuring instrument 115 589 02 23 00

Adjustment

3 The control arm or semi-trailing arm position can be adjusted by changing the installation height of the springs (32.1–200 or 32.1–210).

4 Measure differences in level (distance "a") between lefthand and righthand vehicle end on body by probing the vehicle level on each side up to edge of door entrance (Fig. 5).

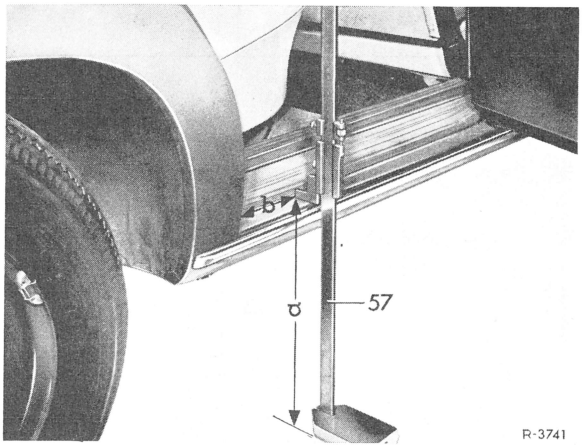


Fig. 5

57 Height gauge

a Distance from ground
b Distance from door cutout approx. 100 mm

But note that slight differences (up to 10 mm)are of no significance. Major differences in height can be compensated by changing the installation height of the front and rear springs.

Vehicle Level Ready for Driving

Model	Front Axle		Rear Axle			
			Vehicle **without** level control		Vehicle **with** level control	
	Axle load[1]) approx. kg	Control arm position mm	Axle load[1]) approx. kg	Semi-trailing arm position mm	Axle load[1]) approx. kg	Semi-trailing arm position mm
Model 107 Coupes and Roadsters with Normal Suspension						
Rear Axle: Diagonal Swing Axle						
107.024 (USA)	905	64 ± 15	760	+ 27 ± 10	–	–
107.044 (USA)	880		730	+ 20 ± 10	–	

1) The respective axle loads refer to pertinent standard equipment without any accessories.

Additional loads on front axle: Sliding roof approx. 10 kg, power steering approx. 10 kg, automatic transmission approx. 15 kg, radio approx. 5 kg, air-conditioning approx. 30 kg. On vehicles with special bodies due to versatile interior equipment up to 30 kg.

Additional loads on rear axle: Sliding roof approx. 10 kg, trailer coupling approx. 20 kg, radio telephone approx. 10 kg. On vehicles with special bodies due to versatile interior equipment up to 40 kg.

Differences in Level

Perm. difference of control arm position of front axle between left and right	5 mm
Perm. difference of semi-trailing arm position of rear axle between left and right	5 mm
Perm. difference between left and right vehicle side, measured at edges of door entrance	10 mm

Correction of Vehicle Level

Control arm position of front axle	Change of rubber mount of front spring by 5 mm	provides change of control arm position by approx. 9 mm
	Change of spring length (spring with color code red for blue or vice versa)	
Semi-trailing arm position of rear axle	Change of rubber mount of rear spring by 5 mm	provides change of semi-trailing arm position by approx. 7 mm
	Change of spring length (spring with color code red for blue or vice versa)	

Special Tools

Measuring instrument for control arm position of front axle		115 589 01 23 00
Measuring instrument for semi-trailing arm position of rear axle	Diagonal swing axle	107 589 02 23 00

Notes

The vehicle level is determined in **condition ready for driving.**

On vehicles with level control, **the level at the rear axle under load** must be **additionally** measured and adjusted (40.1–310).

Checkup

1 Check control arm position of front axle with measuring instrument (50) (1 and 2).

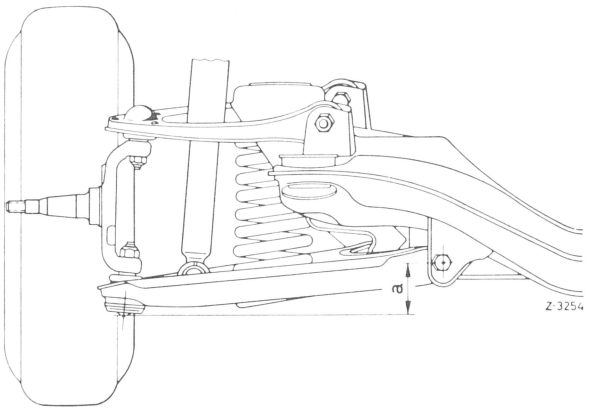


Fig. 1
Front axle
a = Difference in level axis of control arm bearing – bottom edge of supporting joint

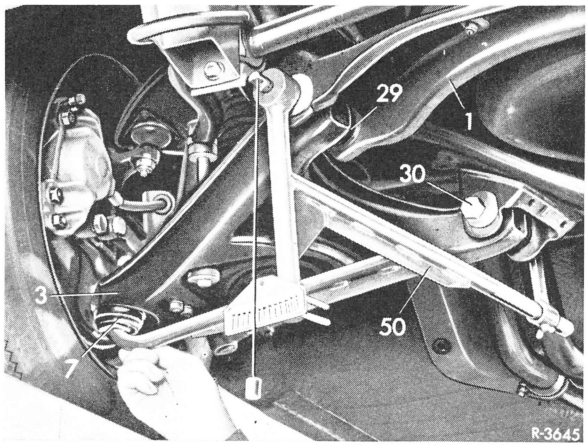


Fig. 2

1 Front axle carrier
3 Lower control arm
7 Supporting joint
29 Rubber mount
30 Cam bolt
50 Measuring instrument

Note: To measure control arm position on righthand steering vehicles and on vehicles USA version starting model year 1975, pull-off sliding fixture of measuring instrument and reattach vice versa (Fig. 3).

On the latest type of measuring instruments, the formerly movable fixture has now been welded-in in parallel to other fixture and no changeover will be required.

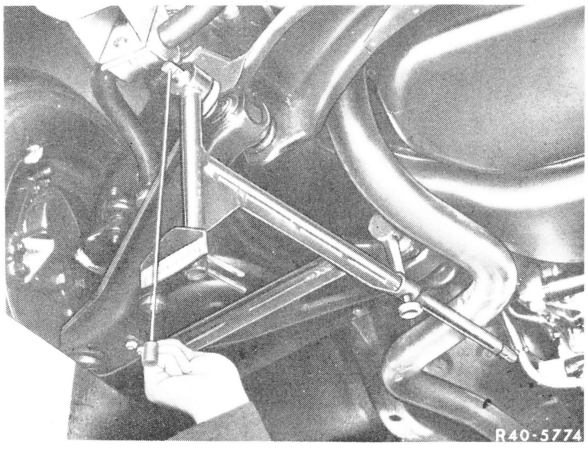


Fig. 3

2 Check semi-trailing arm position of rear axle with measuring instrument (Fig. 4 to 7).

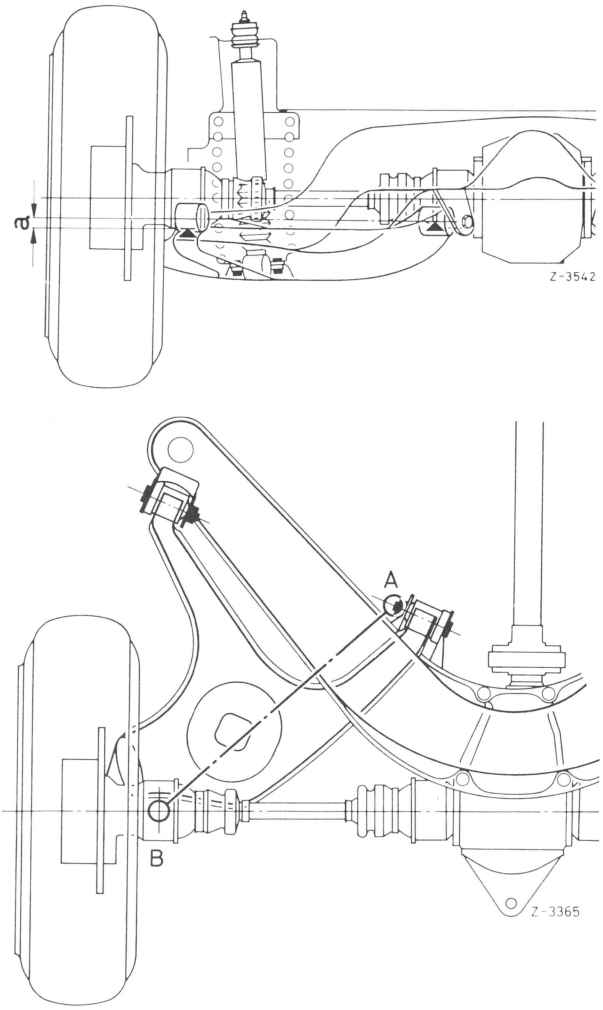


Fig. 4

Rear axle (diagonal swing axle)
Model 107, 114, 115

a = Difference in level axis of inner semi-trailing arm bearing (A) – bottom edge of cup for outer synchronized joint (B)

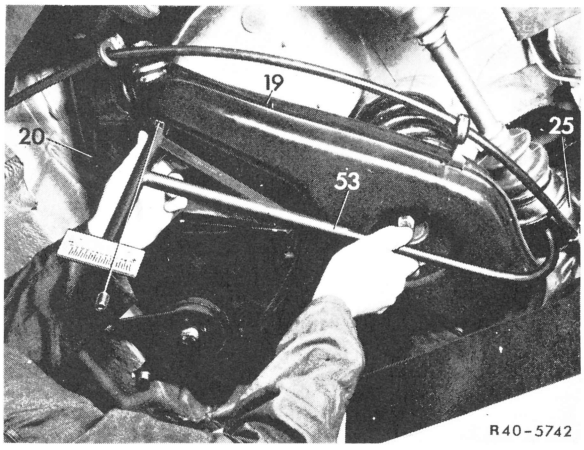
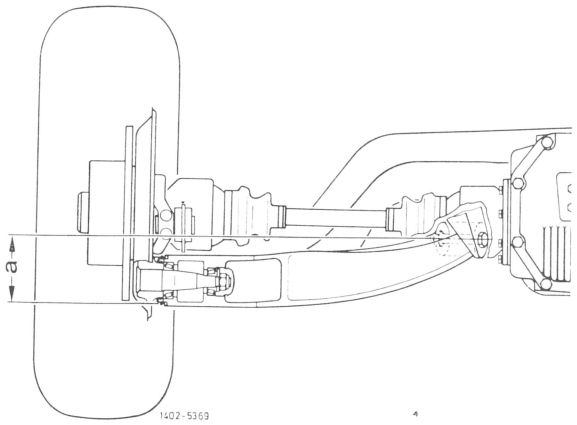


Fig. 5

19 Semi-trailing arm
20 Rear axle carrier
25 Rear axle shaft
53 Measuring instrument



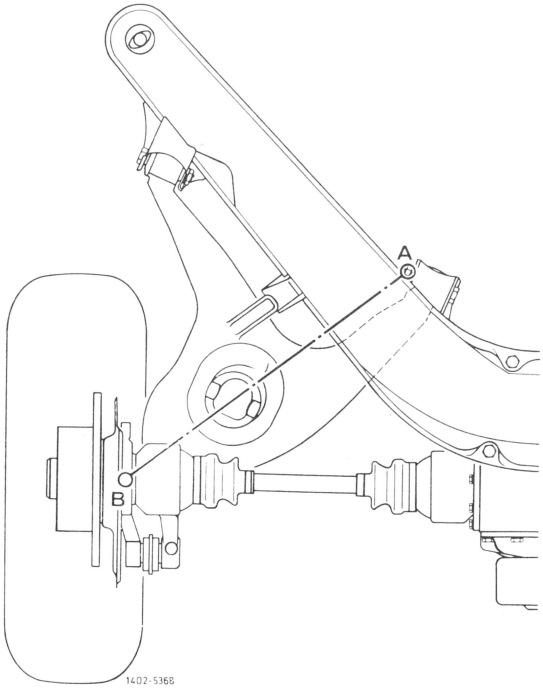


Fig. 6

Rear axle (diagonal swing axle with starting torque compensation) Model 107

a = Difference in level axis of inner semi-trailing arm bearing (A) – bottom edge of guard ring of wheel carrier bearing on coupling – semi-trailing arm (B)

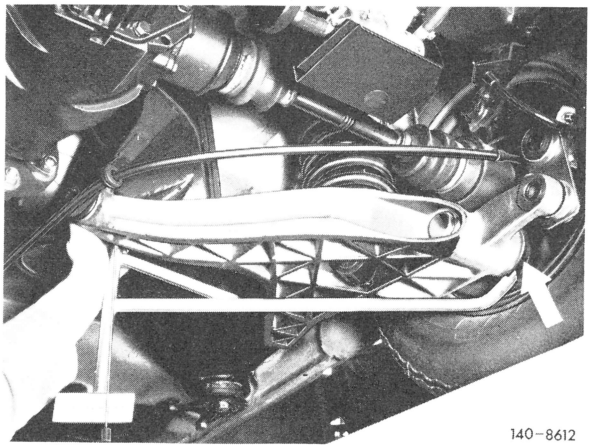


Fig. 7

Differences in Level

3 Measure differences in level (distance "a") between lefthand and righthand vehicle side on body by checking vehicle level each time up to edge of door entrance (Fig. 8 and Table "Differences in Level").

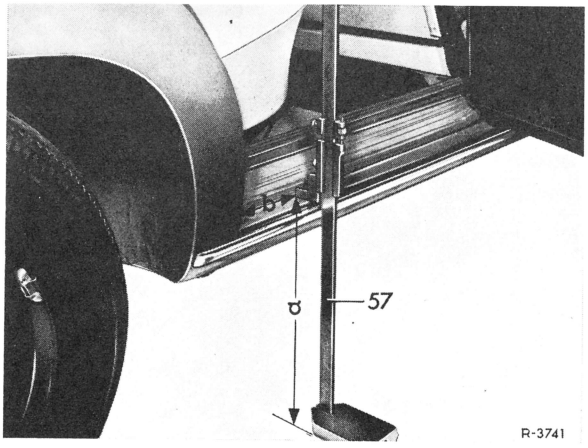


Fig. 8

57 Level gauge

a Distance from ground
b Distance from door cutout approx. 100 mm

Adjusting

4 For adjusting or correcting control arm or semi-trailer position, change installation height of springs (for adjustment of springs refer to 32.1–200 or 32.1–210, for corrections refer to Table "Correction of Vehicle Level").

5 Check adjustment of headlights and correct, if required.