

Chassis Base Panel Gage

Job No.

61 — 1

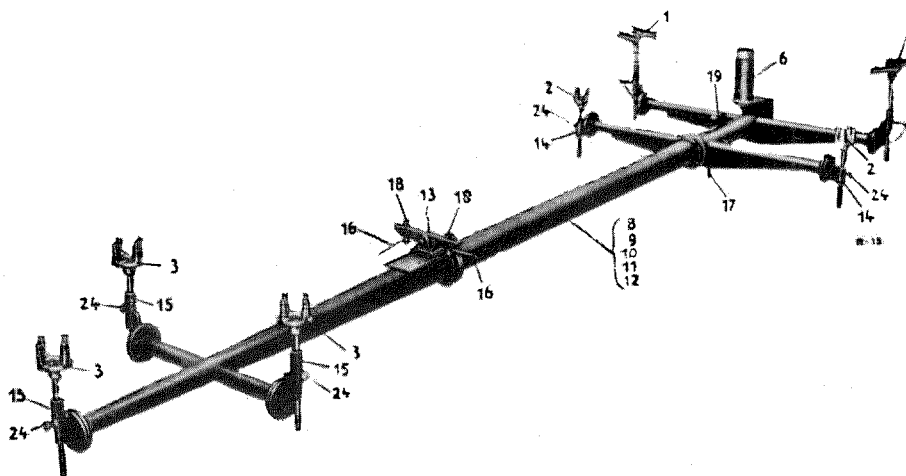


Fig. 61 — 1/1

- | | |
|--------------------------------------------------------|--------------------------------------------------------|
| 1 Rear support | 13 Front support |
| 2 Rear holding cradle | 14 Holder for rear holding cradle and checking device |
| 3 Front holding cradle | 15 Holder for front holding cradle and checking device |
| 6 Locking device for single-jointed axle | 16 Crank handle |
| 8 Adapter tube 970 mm long for Model 190 SL | 17 Crank handle |
| 9 Adapter tube 1220 mm long for Models 180, 180 D, 190 | 18 Latch |
| 10 Adapter tube 1390 mm long for Models 220 a, 220 S | 19 Latch |
| 11 Adapter tube 1270 mm long for Model 220 CA | 24 Locking screw |
| 12 Adapter tube 1320 mm long for Model 219 | |

The Chassis Base Panel Gage 120 589 08 23 (Fig. 61 — 1/1) is supplied by our Sindelfingen works together with the following accessories:

- 2 rear supports (1)
- 2 rear holding cradles (2)
- 3 front holding cradles (3)
- 2 rear checking devices (4) (see Fig. 61 — 1/5)
- 3 front checking devices (5) (see Fig. 61 — 1/6)
- 1 locking device for single-jointed rear axle (6)
- 1 locking device for twin-jointed rear axle (7) (see Fig. 61 — 1/2)
- 1 adapter tube 970 mm long for Model 190 SL (8)
- 1 adapter tube 1220 mm long for Models 180, 180 D, 190 (9)
- 1 adapter tube 1390 mm long for Models 220 a, 220 S (10)
- 1 adapter tube 1270 mm long for Model 220 CA (11)
- 1 adapter tube 1320 mm long for Model 219 (12)
- 1 front support (13)
- 2 rear holders (14)
- 3 front holders (15)

A. Assembly of Chassis Base Panel Gage

1. Fit the adapter tube (9) 1220 mm long which is required for Model 190, to the gage (see Fig. 61 — 1/1).
2. Screw the locking device (6) for the single-jointed rear axle to the gage. The locking device is marked "I" or, on older gages, "220" (Fig. 61 — 1/2).

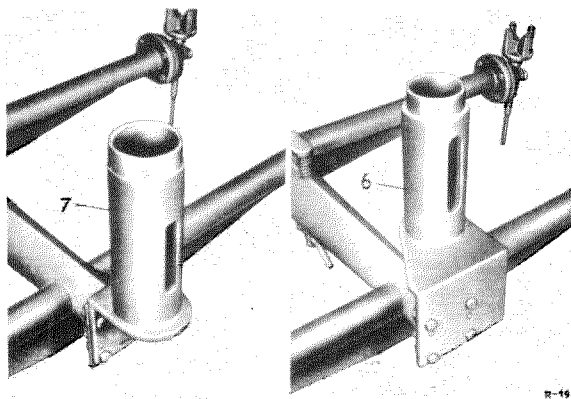


Fig. 61 — 1/2

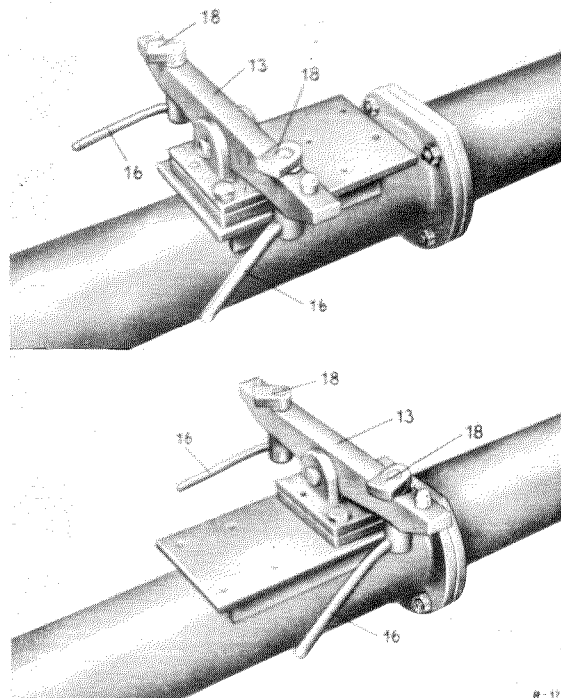
6 Locking device for single-jointed axle
7 Locking device for twin-jointed axle

Note: The locking device (7) (see Fig. 61 — 1/2) for twin-jointed rear axles is marked "II" or, on older gages, "180". It is required for Model 180 cars up to Chassis No. 120 010 5512434, and for Model 180 D cars up to Chassis No. 120 110 5514468. All later cars have a single-jointed rear axle.

3. Screw on the front support (13) (Fig. 61 — 1/3) in the front position.

Note: The support can be screwed on in two different positions. The front position marked "180" is required for Models 180, 180 D, 190, and 190 SL. The rear position marked "220" applies to Models 220a, 220 S, 220 CA, and 219.

4. Screw on the holders (14) for the rear holding cradles (2) to the left and to the right in the rear position marked "220" or "I" (Fig. 61 — 1/4).

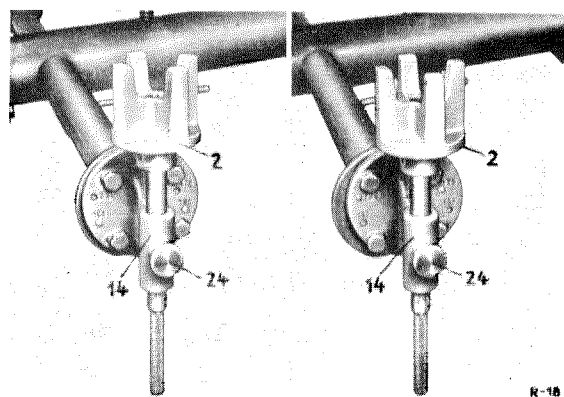


Top: front position
Bottom: rear position

Fig. 61 — 1/3

13 Front support
16 Crank handle
18 Latch

Note: The rear position marked "220" applies to all models with single-jointed rear axle, whereas the front position marked "180" applies to cars with a twin-jointed rear axle.



Front position

Rear position

Fig. 61 — 1/4

2 Rear holding cradle
14 Holder for the rear holding cradle and checking device
24 Locking screw

On recent gages, the markings "220" and "180" have been replaced by the markings "I" and "II". These punch marks are always directly beside the corresponding dowel

pins. The two dowel pins which are not required are pushed back by the flange until they are flush with the front contact surface.

B. Checking of Chassis Base Panel

1. Insert the two rear checking devices (4) in the two holders (14) in the chassis base panel gage (see Figs. 61—1/5 and 61—1/8). Insert the three front checking devices (5) in the three holders (15) (see Figs. 61 — 1/6 and 61 — 1/7).
2. Lift the car body by means of a lifting rig or support it over a pit in such a way that the chassis base panel gage can be installed.
3. Fit the chassis base panel gage from below to the chassis base panel and fix it to the front end of the propeller shaft housing by means of the latch (18) (see Figs. 61 — 1/3

and 61 — 1/7), and to the rear end of the propeller shaft housing by means of the latch (19) (see Figs. 61 — 1/1 and 61 — 1/8).

Tighten the crank handles (16). Take care not to tighten the crank handle (17) too much (see Figs. 61 — 1/7 and 61 — 1/8).

4. Grip the checking devices (4) and (5) at the lower end and push them up in the holders

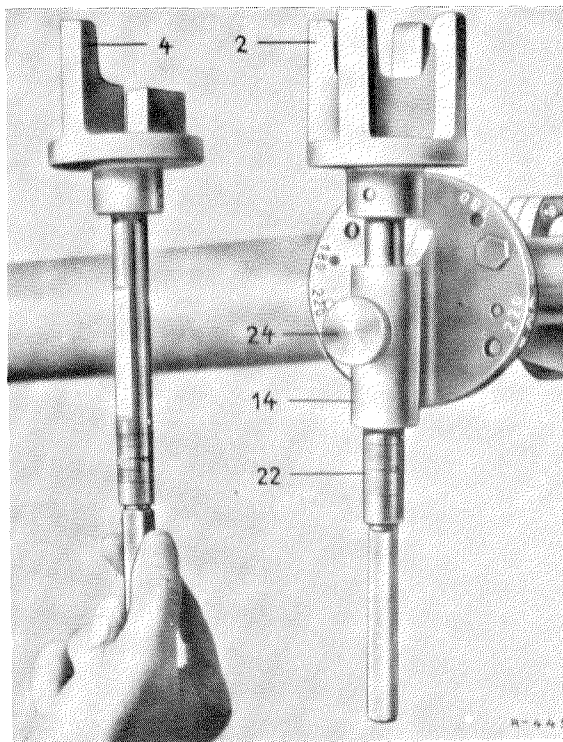


Fig. 61 — 1/5

- 2 Rear holding cradle
- 4 Rear checking device
- 14 Holder for rear holding cradle and checking device
- 22 Measuring scale at holding cradle and checking device
- 24 Locking screw

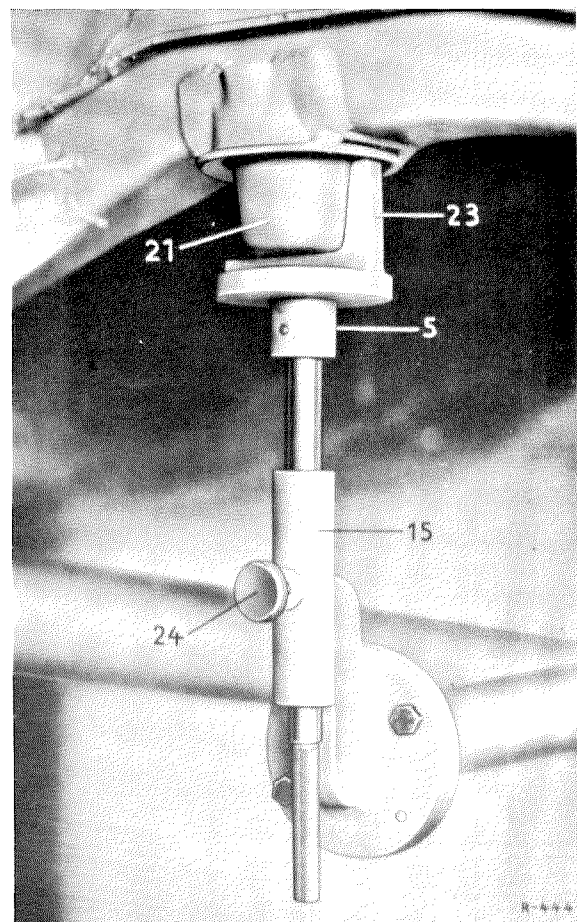


Fig. 61 — 1/6

- 5 Front checking device
- 15 Holder for front holding cradle and checking device
- 21 Front step bearing
- 23 Measuring finger of the checking device
- 24 Locking screw

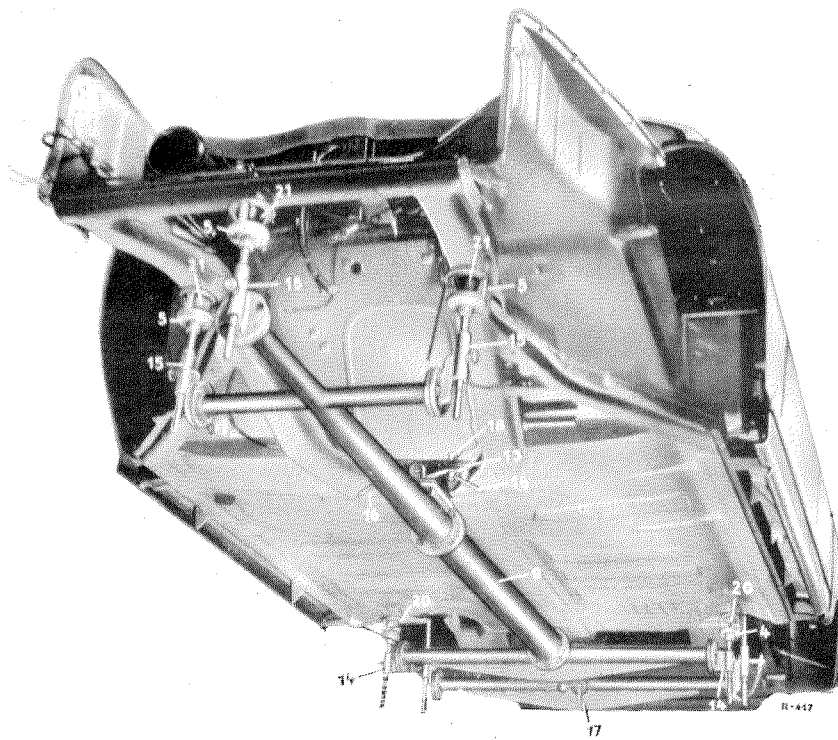


Fig. 61—1/7

- | | |
|--------------------------------------------------------|-------------------------------------------------------|
| 4 Checking device for step bearing, rear | 16 Crank handle |
| 5 Checking device for step bearing, front | 17 Crank handle |
| 9 Adapter tube 1220 mm long | 18 Latch |
| 13 Front support | 20 Rear step bearing for torque arm mounting |
| 14 Holder for rear checking device and holding cradle | 21 Front step bearing for front axle support mounting |
| 15 Holder for front checking device and holding cradle | |

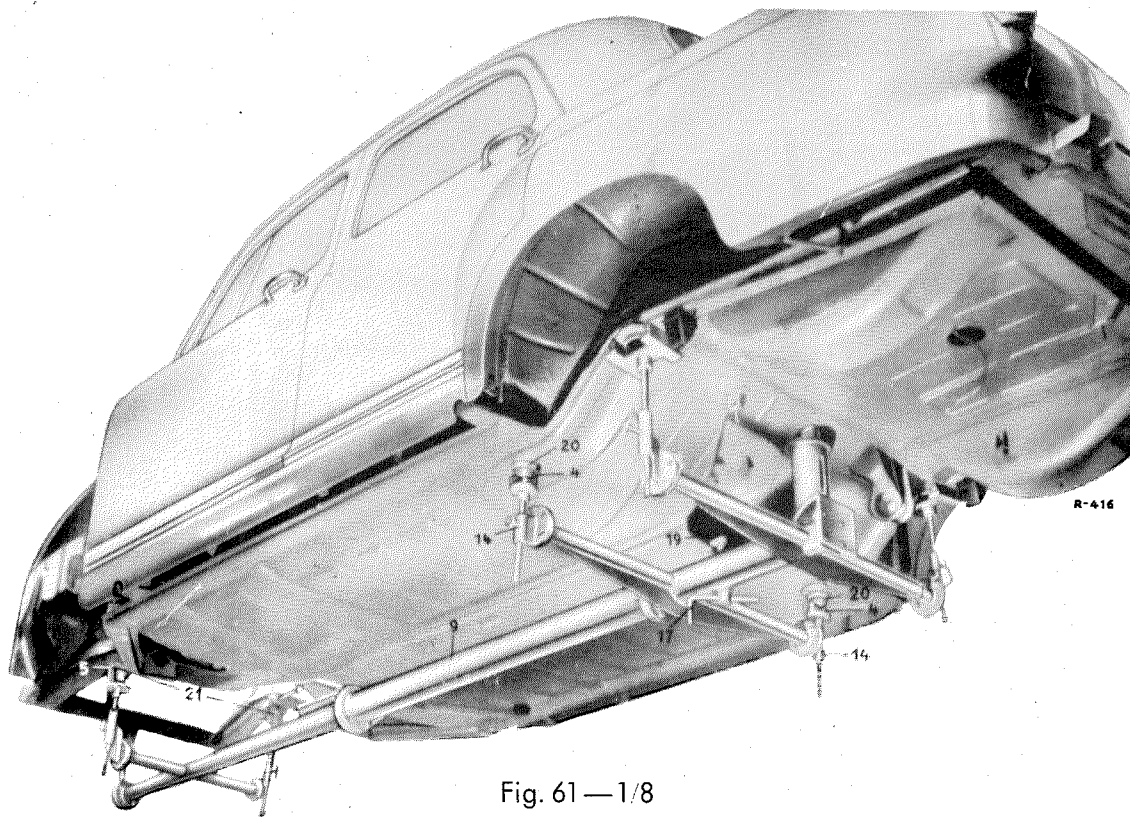


Fig. 61—1/8

- | | |
|-------------------------------------------------------|-------------------------------------------------------|
| 4 Checking device for step bearing, rear | 17 Crank handle |
| 5 Checking device for step bearing, front | 19 Latch |
| 9 Adapter tube 1220 mm long | 20 Rear step bearing for torque arm mounting |
| 14 Holder for rear checking device and holding cradle | 21 Front step bearing for front axle support mounting |

(14) and (15) until they touch the step bearings (20) and (21) (see Figs. 61—1/5, 61—1/6, and 61—1/8). The deviation in height from the specified value can be read off at the scale (22) on the shaft of the checking device (Fig. 61—1/5).

The permissible tolerances are shown in Fig. 61—1/12.

5. The lateral deviation from the specified values can be determined by turning the checking devices (4) and (5). If the checking device can be turned 360° , i. e. a full turn,

there is no deviation. If there is any deviation, turn the checking device in such a way that the differences can be measured as the distance between the measuring finger (23) of the checking device and the step bearing (21) or (20) which is welded to the chassis base panel (Fig. 61—1/6). The permissible tolerances are shown in Fig. 61—1/12.

6. If the deviations from the specified values are outside the permissible limits, the step bearing (20) or (21) must be sawn off and rewelded (see Section C).

C. Welding Front Axle Step Bearing or Torque Arm Step Bearing to the Chassis Base Panel

1. Saw off the damaged or displaced step bearing and grind the cut surface.

In the case of the torque arm step bearings, it is not necessary to cut off the whole step bearing. If cracks are found on the base of the step bearing or if the thread of the welded-in flat-headed screw is damaged, it is sufficient to saw off the lower section of the cup (Fig. 61—1/9).

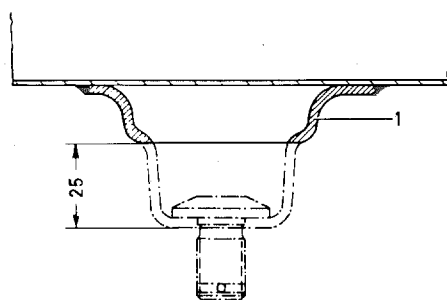


Fig. 61—1/9

1 Remains of the old step bearing

Then electrically weld on a new lower section (Part No. 120 350 06 33) (Fig. 61—1/10).

Please note that the front step bearing for the front axle support is not welded directly

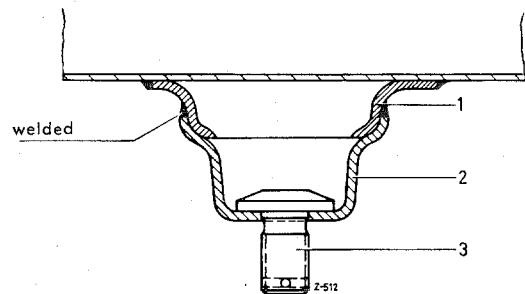


Fig. 61—1/10

1 Remains of the old step bearing
2 New lower section of step bearing
3 Flat-headed screw

to the cross tube of the chassis base panel, but to an intermediate spacer cup (Fig. 61—1/11).

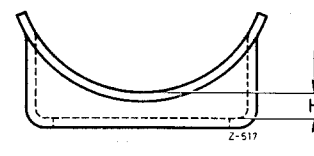


Fig. 61—1/11

To compensate for differences in height, the spacer cup is available in nine different heights from $H = 1.5$ mm to $H = 9.5$ mm, in steps of 1 mm. The spacer cups can be ordered under Part Nos. 10 120 616 01 26 to 09 26.

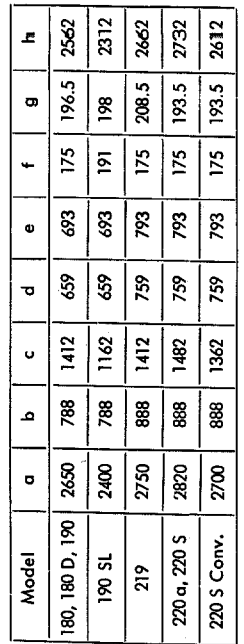
Similarly, the lateral step bearings are not welded directly to the forked members of the chassis base panel, but to intermediate spacer cups.

At the works, the spacer cups are used to correct any differences in height that may occur by welding them to the forked members at a lower or higher point.

When repairs are being made, it is not advisable to cut the spacer cups from the forked members, since there is a danger that the forked members may be damaged in the process. If there are small deviations in height, it is preferable to weld a suitable intermediate plate between the spacer cup and the step bearing or to effect compensation at the support of the rear spring at the chassis base panel.

In the case of large deviations resulting from an accident, the wheel arch assembly has to be removed and the forked members straightened.

2. If the step bearings for the front axle support have to be welded on, insert the three front holding cradles (3) in the three holders (15) (see Fig. 61 — 1/1). If the step bearings for the torque arms have to be welded on, insert the rear holding cradles (2) in the holders (14) (see Fig. 61 — 1/5)
3. Lift the car body by means of a lifting rig or support it over a pit in such a way that the chassis base panel gage can be installed.
4. Fit the chassis base panel gage from below to the chassis base panel and fix it to the front end of the propeller shaft housing by means of the latches (18) (see Figs. 61 — 1/3 and 61 — 1/7), and to the rear end of the propeller shaft housing by means of the latch (19) (see Figs. 61 — 1/1 and 61 — 1/8).
Tighten the crank handles (16). Take care not to tighten the crank handle (17) too much (see Figs. 61 — 1/7 and 61 — 1/8).
5. Put the step bearing (20) or (21) which is to be welded on (see Fig. 61 — 1/7) in the appropriate holding cradles (2) or (3) (see Fig. 61 — 1/1).
6. Move the holding cradles upward until the "0" mark on the scale (22) of the shaft is aligned with the lower edge of the holder (14) or (15) (see Figs. 61 — 1/5 and 61 — 1/6).
Lock the holding cradles in this position by means of the locking screw (24).
7. Attach and weld the step bearings electrically with sheathed electrodes of 3 mm dia.



The height tolerance for the three step bearings of the front axle support is ± 2 mm. However, the maximum deviation between the three step bearings is 3 mm and must not be exceeded when new step bearings are rewelded (for which a tolerance of 2 mm is specified).