# 36 Wheels and tyres

# Specifications

## Wheels and tires

| Model | | 1502 | 1602 | 1802 | 2002 | 2002 A | 2002 TI | 2002 tii |
|---|---|---|---|---|---|---|---|---|
| Wheels | | Steel disc wheel | | | | | | |
| Wheel rim dimension (well-base) | | 4 1/2 J x 13 H2-8 | 5 J x 13 H2-B[2] | | | | 5 J x 13 H2-B | |
| Max. permissible radial runout of wheel rim | mm (in) | 1.0 (0.039) | | | | | | |
| Max. permissible lateral runout of wheel rim | mm (in) | 1.0 (0.039) | | | | | | |
| Wheel bolt circle dia. | mm (in) | 100 ± 0.1 (3.9 ± 0.0039) | | | | | | |
| Factory-approved makes | | Kronprinz, Lemmerz, Südrad | | | | | Kronprinz, Lemmerz | |
| **Standard tires:**[3] Radial-ply[4] (tubeless with 43GS/ 11.5 DIN 7780 rubber valve) | | 165 SR 13 | | | | | – | 165 HR 13 |
| Radial-ply (with tube and metal screw-in valve 40 G DIN 7771)[5] | | – | | | | | 165 HR 13 | |
| Max. permissible radial runout of tire | mm (in) | 2.0 (0.079) | | | | | | |
| Max. permissible lateral runout of tire | mm (in) | 2.0 (0.079) | | | | | | |
| Radial-ply tire circumference | mm (in) | 1800 ± 18 (70.87 ± 0.709) | | | | | | |
| Max. permissible unbalance of one wheel | cmg (oz) | 180 (6.3) | | | | | | |

| **Tire pressures**[6] | atm (lb/in$^2$) | front | rear | front | rear | front | rear |
|---|---|---|---|---|---|---|---|
| Car with up to 4 persons[7] | | | | | | | |
| Radial-ply tires | | 1.8 (26) | 1.8 (26) | 1.9(27) | 1.9(27) | 1.9(27)[8] | 1.9(27)[8] |
| Snow and ice tires 165 SR 13 M & S (E) | | 1.9 (27) | 1.9 (27) | 1.9(27) | 1.9(27) | 1.9(27)[8] | 1.9(27)[8] |
| Car with up to 5 persons and luggage[9] | atm (lb/in$^2$) | front | rear | front | rear | front | rear |
| Radial-ply tires | | 1.8 (26) | 2.0 (28) | 1.9(27)[6] | 2.0(28) | 1.9(27[8] | 2.1(30)[8] |
| Snow and ice tires 165 SR 13 M & S (E) | | 1.9 (27)[10] | 2.1 (30) | 1.9(27)[6] | 2.1(30) | 1.9(27)[8] | 2.1(30)[8] |

1) Use disc wheels (rims) from same manufacturer for both axles and spare wheel
2) On BMW 1600-2, 2002, 2002 A up to 71 models: 4 1/2 J x 13 H1; from 71 models to 73 models, BMW 1602, 1802, 2002, 2002 A: 4 1/2 J x 13 H 2-B
3) Use tires from same manufacturer for both axles and spare wheel. If tires are directional or asymmetric, install correctly in accordance with "inside" and "outside" markings.
4) On BMW 1600-2 only: Cross-ply tubeless tires, 6.00 S 13
5) On BMW 1600-2, 2002, 2002 A up to 71 models: 165 SR 13 on 4 1/2 J x 13 H 1 rims
6) 0.3 bar (4.3 lb/in$^2$) more when tires are warm
7) Up to 2 persons on BMW touring models
8) 0.1 bar (1.4 lb/in$^2$) more on BMW touring 2002 tii and BMW 2002 tii after face-lift, 73 models
9) On BMW touring models, up to 4 persons and luggage
10) 0.2 bar (2.8 lb/in$^2$) more on BMW touring 1802, 2002, 2002 A

# Specifications

## Wheels and tires

| Model | 1502 | 1602 | 1802 | 2002 | 2002 A | 2002 TI | 2002 tii |
|---|---|---|---|---|---|---|---|
| **Tightening torques in Nm (mkp) (lb.ft)** | | | | | | | |
| Wheel nuts or studs | 81 + 8 (8.1 + 0.8) (59 + 6) | | | | | | |
| Metal screw-in valve at rim | 2.2 ... 2.5 (0.22 ... 0.25) (1.6 ... 1.8) | | | | | | |
| **Special equipment** Road wheels | Steel disc[2] | | | | | – | |
| Rim size | 5 J x 13 H2-B | – | | | | | |
| Tire size (tubed radial with screw-in metal valve 43 GS/ 11.5 DIN 7780) | 165 HR 13[1] | | | | | – | |
| Road wheels | Light alloy[2] | | | | | – | Light alloy[2] |
| Rim size | 5 J x 13 H2 | | | | | – | 5 J x 13 H2 |
| Tire size (tubed radial with screw-in metal valve 40 G DIN 7771) | 165 HR 13[1] | | | | | – | 165 HR 13[1] |
| **US version** (Special equipment) Road wheels | – | | | Light alloy[2] | | – | Light alloy[2] |
| Rim size | – | | | 5 J x 13 H2 | | – | 5 J x 13 H2 |
| Tire size (tubed radial with screw-in metal valve 40 G DIN 7771) | – | | | 165 HR 13[1] | | – | 165 HR 13[1] |
| Max. permissible light alloy rim vertical runout mm (in) | 0.3 (0.012) | | | | | | |
| Max. light alloy rim lateral runout mm (in) | 0.3 (0.012) | | | | | | |

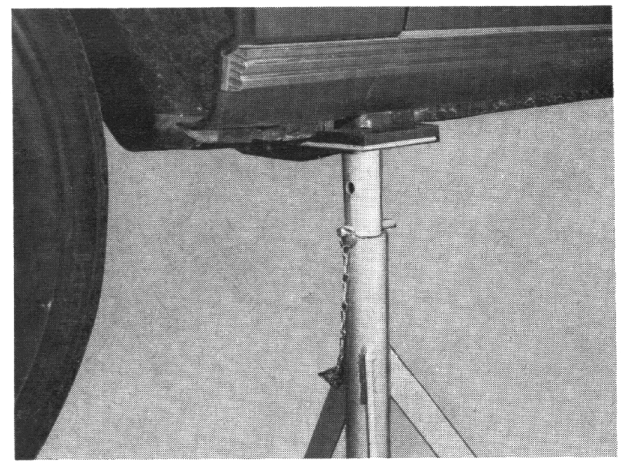
[1]) Use tires of same make for both axles and for spare wheel. If tires are unidirectional or asymmetric, note correct fitting procedure and comply with "outside" or "inside" markings on sidewalls.
[2]) Use disc wheels (rims) of the same make for both axles and spare wheel.

## 36 10 008 Electronically belance front wheel on vehicle

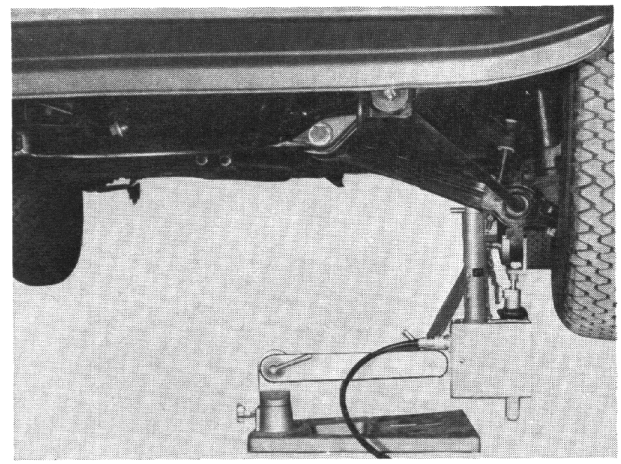
Jack up vehicle with lifting beam and support laterally with axle stands.

Remove old weights, stones in tread and grit from wheel.

Check wheel for lateral and vertical runout. 36 10 209.



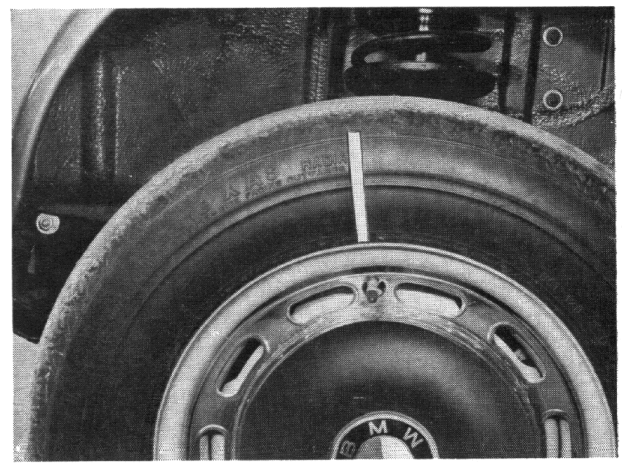
Position transmitter for static and dynamic balancing on tranverse swinging arm.



Apply adhesive tape at one point on the tyre.

Balance wheel in accordance with operating instructions of balancing instrument used.

Weights up to 40 g (0.088 lb) can be fitted at one side, weights exceeding 40 g (0.088 lb) must be fitted in even halves on both sides of the rim.

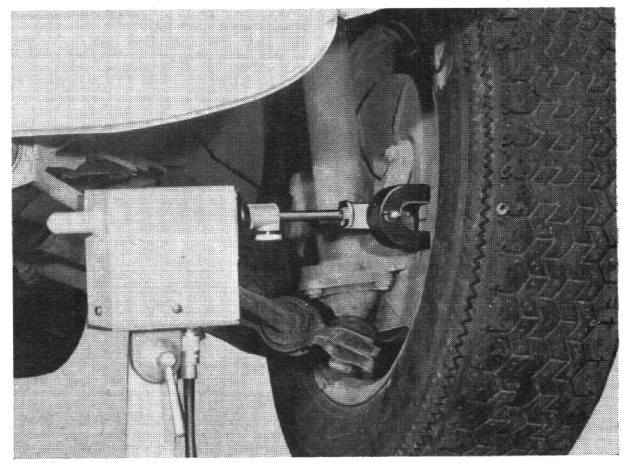


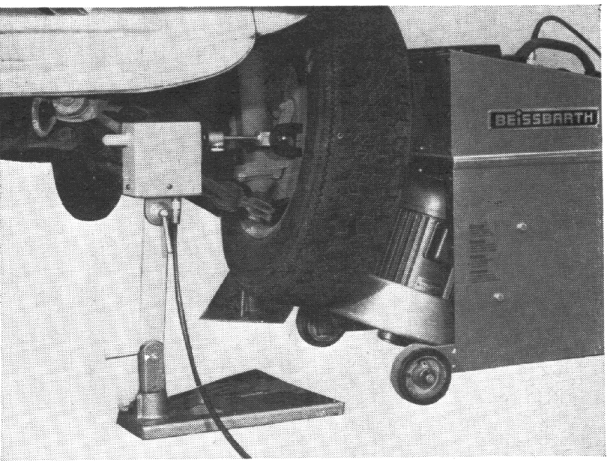
In the case of imbalance still being present (steering wheel still not steady), turn wheel so that the leading edge faces outwards.

When turning ensure that the wheel is not against stop.

Position transmitter for dymanic residual balancing in centre of axle at outer edge of guard plate.

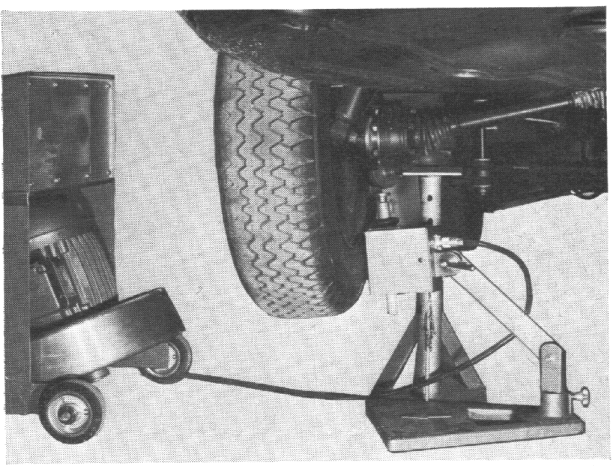
**Note**: Transmitter must be horizontal and at right angles to guard plate.






Balance wheel dynamically in accordance with operating instructions of balancing instrument used.

■



### 36 10 058 Electronically balancing rear wheel on vehicle

Jack up vehicle and support under trailing arm.

Place 30 mm (1.18") thick rubber plate of 42 Shore hardness between trailing arm and axle stand on the side to be belanced.

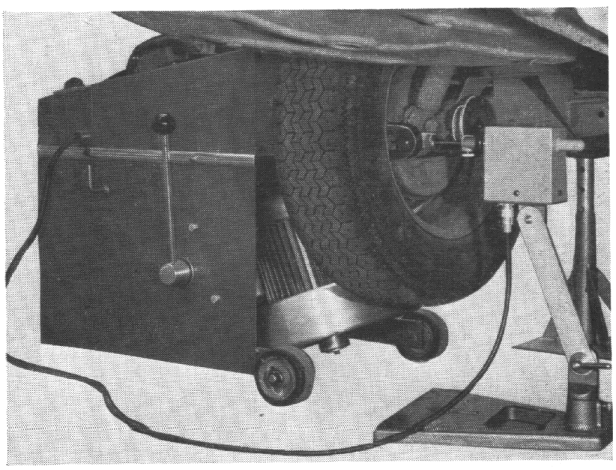
Check rear wheel for lateral and vertical runout. 36 10 209.

Position transmitter at trailing arm.

Accelerate rear wheel with engine power — not with wheel drive roller — to 110 kph (68mph).

Balance wheel in accordance with operating instructions of balancing instrument used.

■



In order to balance dynamically detach drive shaft from rear wheel at flange.

Remove rubber plate between trailing arm and axle stand.

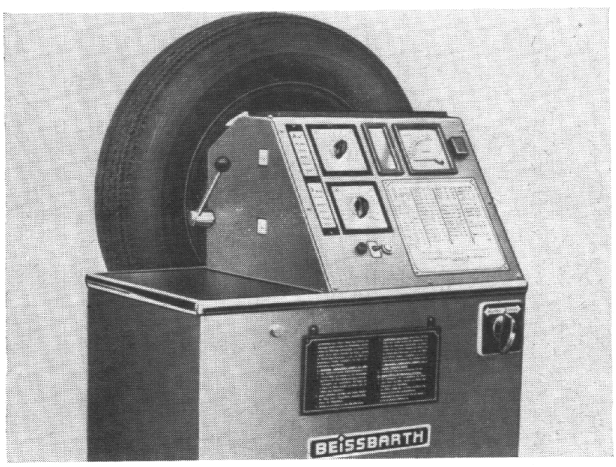
Position transmitter in centre of axle at outer edge of brake carrier.

Spin wheel with wheel drive roller.

Balance wheel in accordance with operating instructions of balancing instrument used.

**Note:** Transmitter must be horizontal and at right angles to brake carrier.

■



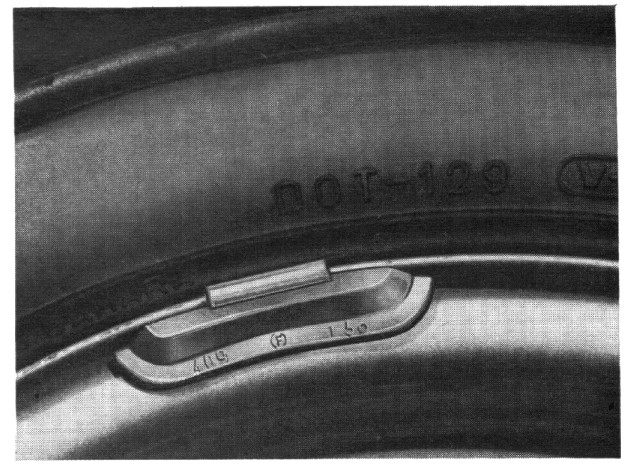

### 36 10 108 Balancing front wheel statically and dynamically

Remove and fit front wheel 36 10 300

Balance wheel in accordance with operating instructions of balancing instrument used.

■

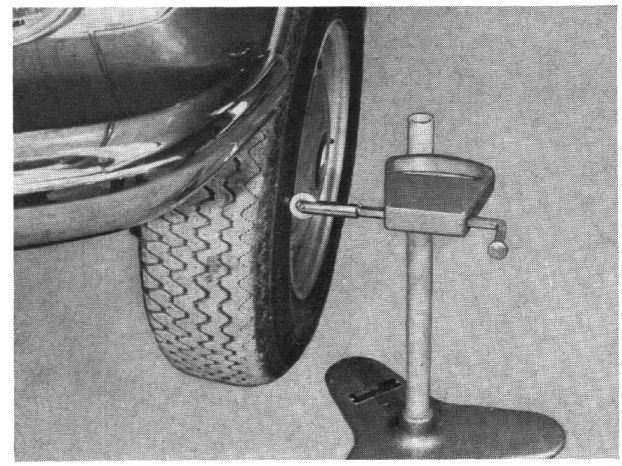
Arrangement of compensating weights on steel rims.



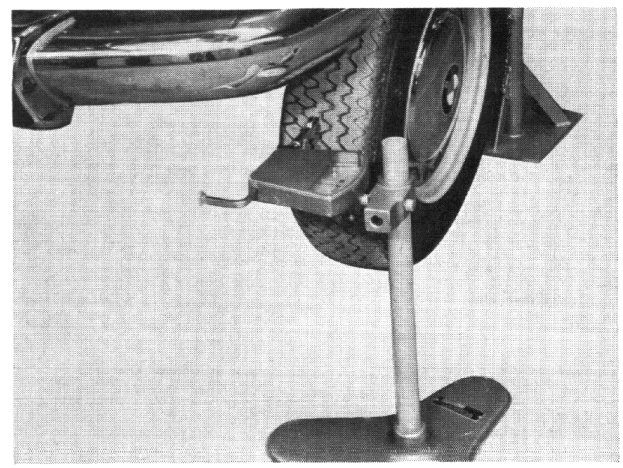
## 36 10 209 Checking wheel for lateral and vertical runout

Jack up vehicle.

Check wheel with measuring device (standard commercial) for lateral runout[1]).



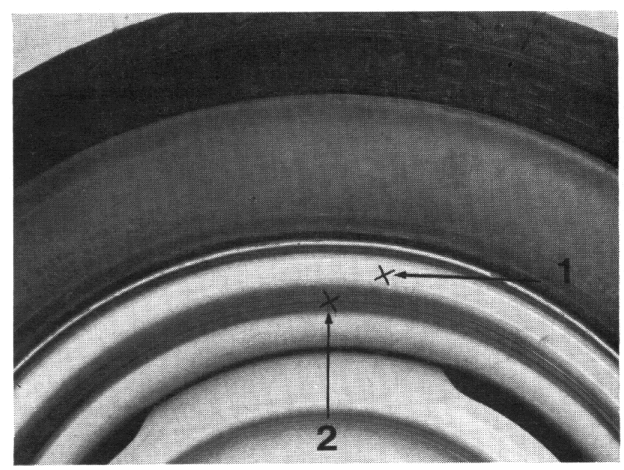
Check wheel with measuring device (standard commercial) for vertical runout[1]).



Check lateral and vertical runout[1]) of rim.

1 = Attachment point for gauging lateral runout.

2 = Attachment point for gauging vertical runout.

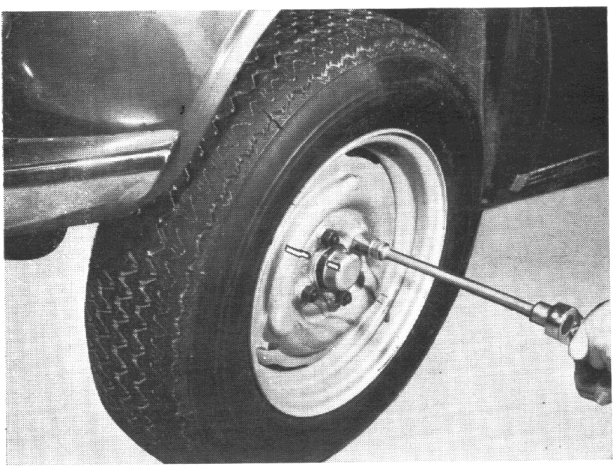



[1]) See Technical data.

## 36 10 300 Removing and fitting front wheel

Push of hub cap with BMW 6036.

■

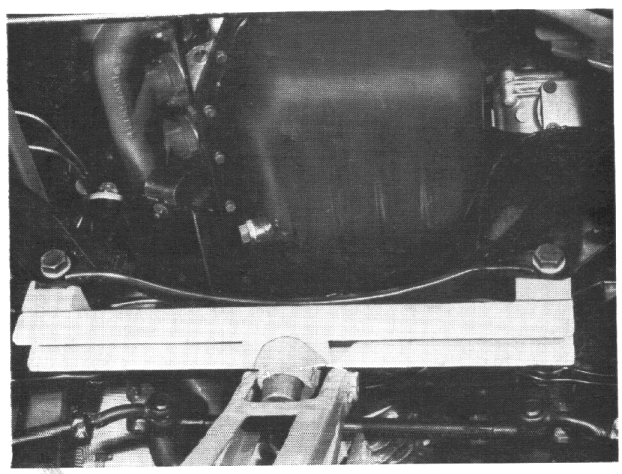


Slacken wheel nuts[1]).

**Note:** Wheel is electronically balanced.

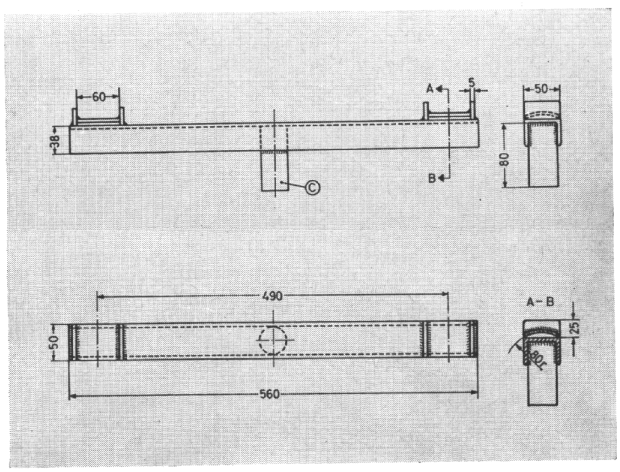
Before removing wheel mark in relation to wheel hub. Lightly grease wheel studs before assembly[1]).

■



Support front axle carrier with vehicle jack and lifting beam.

■



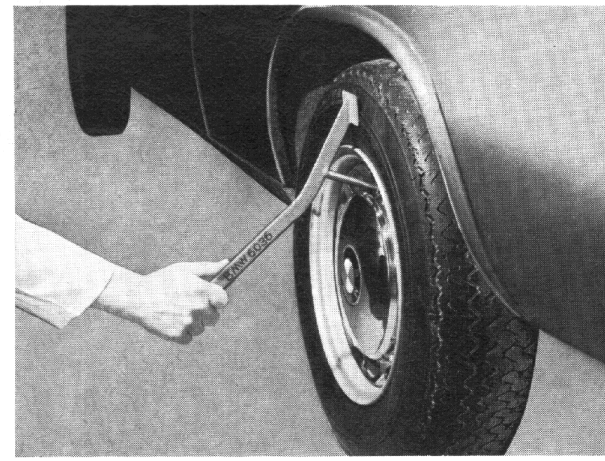

Sketch for marking up the lifting beam C in accordance with vehicle jack head.

■

[1]) See Technical data.

## 36 10 320 Removing and fitting rear wheel

Push off hub cap with BMW 6036.

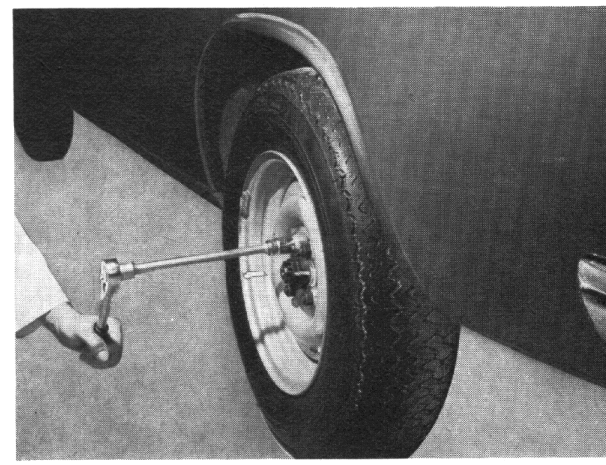


Slacken wheel nuts[1]).

**Note:** The wheel is electronically balanced.

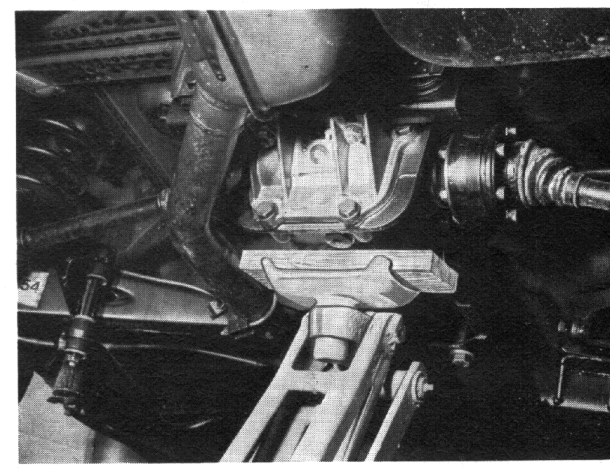
Before removing wheel mark in relation to wheel hub.

Lightly grease wheel studs before assembly.



Jack up vehicle under final drive.

Place a wooden support 22 x 7 x 3.5 cm (8.7 x 2.8 x 1.4") on vehicle jack pad as an auxiliary tool.



[1]) See Technical data.