Revision: Table for balancing weights extended and illustrations showing permissible combinations of disc wheels – balancing weights added.

Data

Perm. unbalance of wheels	p	10
Balancing weights	Weight g	from 20 to 120
	Steps g	from 10 to 10

Balancing Weights

Version	Application	Part No.	Taper
3 starting September 1971	for steel disc wheels (Fig. 6), as well as for light alloy disc wheels with present flange contour (Fig. 12)	from 108 401 15 94 1) to 108 401 25 94 1)	45°

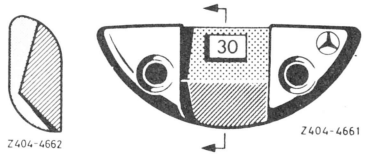

Fig. 3

1) Additional identification: punched-in Mercedes Star.

Retaining Springs for Balancing Weights

Version	Part No.	Surface	Application
Present version (starting August 1970)	108 401 03 28	chrome-passivized	for steel and light alloy disc wheels

Special Tool

Spring remover	000 589 15 63 00

Note

Wheels should be balanced statically and danymically on two levels.

Excessive unbalance of the wheels is the most frequent reason for complaints such as vibrations at higher speeds (starting at approx. 80 km) and unsteadiness of steering wheel. Major unbalances may additionally result in higher wear of wheel bearings, wheel joints and steering linkage. Fast vehicles and modern, wide tires require particularly careful balancing of wheels.

Technically complete and accurate wheel balancing includes:

1. A stationary wheel balancing machine for dynamic measuring of unbalance at each level, which indicates the required weight according to size (in grams) and direction (angle indication) in one measuring run.

2. The clamping means for attaching wheel to balancing machine should permit at least the same accurate centering as on vehicle.

Balancing Weights

For safety reasons, use only specified balancing weights with separate retaining spring.

Avoid non-permissible combinations of disc wheels and balancing weights (refer to Table)!

Steel Disc Wheel (All Versions)

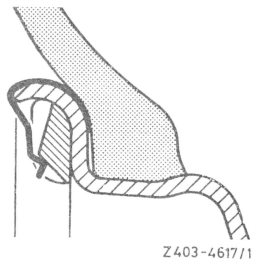

Fig. 4
Balancing weight Version 1

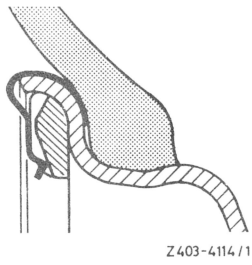

Fig. 5
Version 2

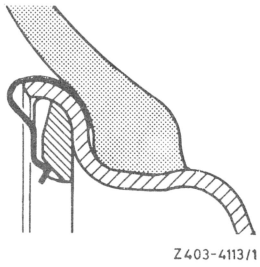

Fig. 6
Version 3

MB Light Alloy Disc Wheel with Former Flange Contour (up to August 1971)

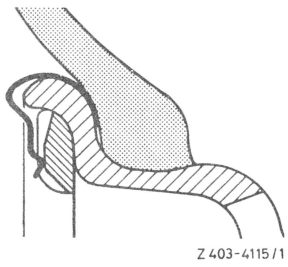

Fig. 7
Balancing weight Version 1
Combination not permitted!

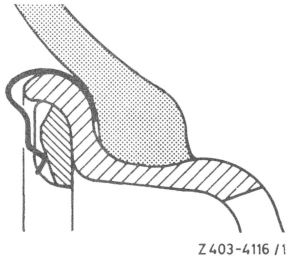

Fig. 8
Version 2

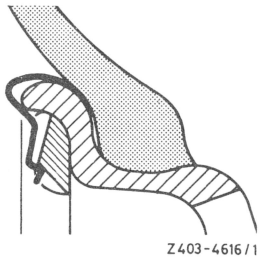

Fig. 9
Version 3
Combination not permitted!

MB Light Alloy Disc Wheel with Present Rim Flange Contour (Starting September 1971)

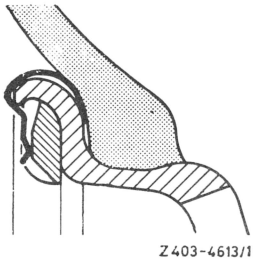

Fig. 10
Balancing weight Version 1

Combination not permitted!

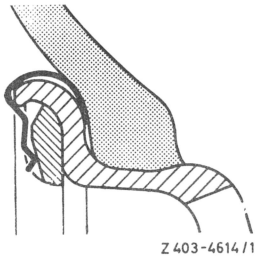

Fig. 11
Version 2

Combination not permitted!

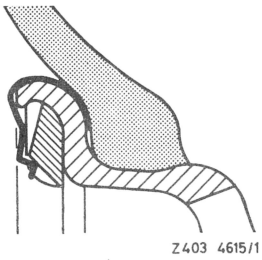

Fig. 12
Version 3

When mounting retaining spring and balancing weight, watch out for accurate seat (Fig. 13).

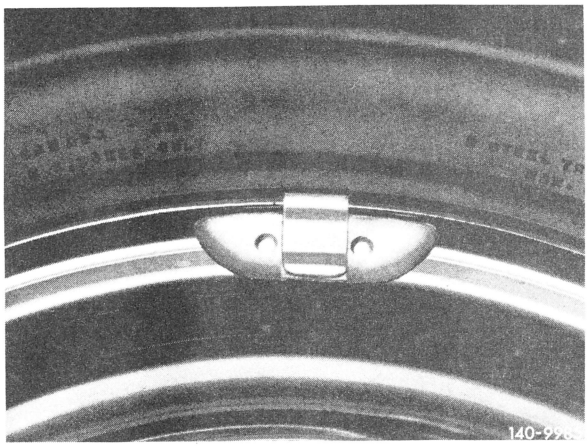

Fig. 13

Use spring remover (Fig. 14) for removing and inserting balancing weight, as well as for pulling out retaining spring.

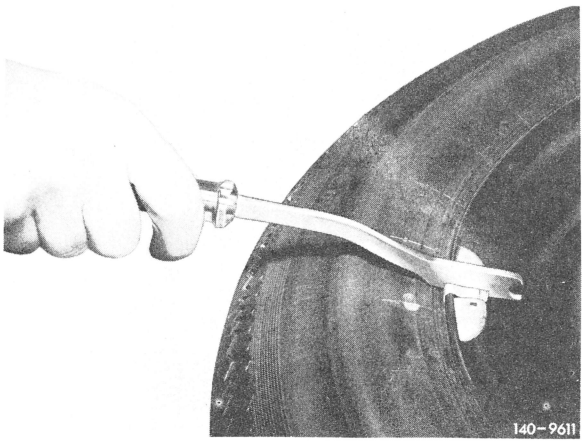

Fig. 14

Centering and Attachment of Wheels on Balancing Machine

The wheels on the balancing machine should not be centered by means of the wheel mounting bolts in the bolt hole circle, but in the center bore of the wheel only by means of a special centering ring. The fit of the disc wheel bore and the centering ring should be as accurate as possible to prevent the wheel from running eccentrically on the balancing machine and thereby leaving a residual unbalance when mounting the wheel on the vehicle.

For fastening the light alloy disc wheels on the balancing machine, light alloy disc wheels attached by means of bolts require bolts approx. 8 mm longer than the bolts used for steel disc wheels.

For quick attachment of the light alloy disc wheels on balancing machines a special clamping device is required due to the higher hub as compared with steel disc wheels.

Checking the Balancing Machine

Balancing machine should be checked regularly, but at least once a week, including accurate indication of the unbalance. This requires a so-called O-wheel, that is, a special wheel running without the slightest unbalance.

Check the indicating accuracy of the balancing machine by removing and reattaching a given weight, as well as by shifting the wheel in the holding device by 180° while checking the indication and extent of the unbalance.

Use a new disc wheel, Part No. 108 400 14 02, as O-wheel, on which either a new or a uniformly worn tire of size 185 HR 14 is mounted. Balance the O-wheel on a balancing machine which is known for absolutely accurate indications. If required, refinish balancing weights as required.

Balancing

Observe the Operating Instructions of the balancing machine used for balancing the wheels.