

PARTS APPROVAL



Nr. / No. 1094/16 vom / of 03.06.2016 TGA-Art 8.1

on the compliance of a vehicle when vehicle parts are properly installed and fitted to the car in accordance with § 19 Par. 3 No. 4 StVZO

Modification : Continuously <u>adjustable suspension system</u> for lowering of

car body by approx. 5-35 mm at front axle and by approx.

15-45 mm at rear axle

:... 25 089

Part type(s)

: KW automotive GmbH

Manufacturer Aspachweg 14

D-74427 Fichtenberg

for the vehicle (type) : Daimler Mercedes-Benz AMG C63, AMG C63 S (204)

Daimler Mercedes-AMG AMG C63, AMG C63 S (204 AMG)

max. axle load : VA (front axle) 1100 kg

HA (rear axle) 1125 kg

0. Instructions for vehicle owner

Performance and confirmation without delay of modification acceptance

With the modification the type approval of the vehicle will expire if the modification acceptance provided for in StVZO § 19 Par. 3 is not performed and confirmed without delay or if conditions laid down are not complied with.

After performance of the technical modification, the vehicle must be pre-sented without delay together with the present TÜV parts approval to an officially recognised inspector at a Technical Inspection Centre or to an inspection engineer from an officially recognised inspection organ-isation to perform and confirm the specified modification acceptance.

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Compliance with Conditions and Notes

The Conditions and Notes given in III. and IV. must be complied with.

Availability of documents

After the acceptance procedure the certificate with confirmation of the modification acceptance must be carried in the car and presented to authorised persons on demand; this will not apply once the vehicle documents have been amended.

Amendment of vehicle documents

The vehicle owner must apply, in accordance with the provision in the confirmation of modification acceptance, for the competent licensing authority to amend the vehicle documents (vehicle registr. documents).

Further conditions can be found in the confirmation of modification acceptance.

I. Field of application

Vehicle manufacturer	Trade name	Vehicle type	Variants and versions	Type approval
Mercedes-Benz	AMG C63, AMG C63 S	204	only coupé with rear wheel drive	valid from amendment 38
Mercedes-AMG	AMG C63, AMG C63 S	204 AMG		valid from amendment 18

The part of the EC type approval number showing *?/?* merely document the current status of the framework directive and are of no significance for this parts approval as long as the parts of the vehicle which are relevant to the lowering of the bodywork have not changed.

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Description of the modification II.

Front axle

For vehicles up to 1100 kg front axle load

		Pre spring	Main spring
Marking		10-60-80	100-70-225*
Corrosion protection		imprinted EPS-powder coating	imprinted EPS-powder coating
Wire size Outer		4 x 7 mm	13,9 mm
diameter	top	- mm	- mm
	middle	76 mm	99 mm
	bottom	- mm	- mm
Untensioned height		80 mm	225 mm
Number of coils		5,1	7
Coil shape		Cylinder, head(s) baselined	Cylinder, head(s) baselined
Spring characteristic		linear	linear

	Spring cup seat (top)	Spring cup seat (bottom)	
Max. diameter	100 mm	82 mm	
Diameter rest	71 mm	61 mm	
Height	23 mm	24 mm	
Spring height adjustment	Stufenlos verstellbarer Federteller (Federbein) Infinitely adjustable cup seat (Strut)		

	Strut
Damping adjustment (rebound/ compression)	without / manual / elektronic (DDC)
Marking	250 1027

Bump stop	Rubber or polyurethane foam element
High/Diameter	35+15/50 mm
Bump travel	extended by 5 mm

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Rear axle

For vehicles up to 1125 kg rear axle load

		Pre spring	Main spring
Marking		10-70-70	160-70-225*
Corrosion protection		imprinted EPS-powder coating	imprinted EPS-powder coating
Wire size Outer		3 x 10,2 mm	15,9 mm
diameter	top	- mm	- mm
	middle	92 mm	103 mm
	bottom	- mm	- mm
Untensioned height		70 mm	225 mm
Number of coils		3,7	6,9
Coil shape		Cylinder, head(s) baselined	Cylinder, head(s) baselined
Spring characteristic		linear	linear

	Spring cup seat (top)	intermediate ring (middle)
Max. diameter	100 mm	89 mm
Diameter rest	71 mm	71 mm
Height	20 mm	17 mm

	Spring cup seat (bottom)	
Max. diameter	98 mm	
Diameter rest	71 mm	
Height	31 mm	
Spring height adjustment	Infinitely adjustable cup seat (Bushing)	

	Shock absorber
Damping adjustment (rebound/ compression)	without / manual / elektronic (DDC)
Marking	250 1132

Bump stop	Rubber or polyurethane foam element
High/Diameter	50+15/50 mm
Bump travel	extended by 20 mm

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III. Notes on possible combination with other modifications

III. 1 Wheel/tyre combinations

There are no technical objections against the use of all O. E. wheel/tyre combinations.

If other wheel-/ tyre combinations are used, the examination in accordance with § 21 German Road Traf-fic Licensing Code - StVZO must by carried out by an officially recognised expert.

III. 2 Aerodynamic devices, special exhaust systems etc.

The dynamic ground clearance is decreased by the provision of special springs/dampers which increase the bump travel of the front and rear axle. In the case of the test vehicle, the min. ground clearance of 80 mm is complied with (below front axle). Care must be taken when driving over humps, barriers and heightened paving or road surfaces.

If special spoilers, aprons and exhaust systems are mounted, attention must be paid to the decreased overhang angle (driving up ramps etc.).

IV. Conditions and Notes

Conditions and notes for the installation shop and modification acceptance

Mounting of the vehicle bodywork components will be performed in accordance with the vehic-le manufacturer's specifications which must be included in the delivery and should be carried out by a specialist shop.

Please check regularly, that the main and helper spring at rear axle are in right position and that there is enough pre-tension, when the rear axle is fully extended. In the case of sufficient pretension, the length of the helper spring must be by approx. 60 mm.

The headlight adjustment has to be checked.

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After modification an axle alignment must be carried out on the vehicle.

The bump stops (rubber or polyurethane foam element) must correspond to the descriptions of this re-port. Additional travel limiters are not allowed.

The installation of the suspension system at vehicles with an electronic damping control system is only permitted with a deactivation of the system by using the "KW-simulation-plugs". The "KW-simulation-plugs" consists of sockets with integrated electric resistance, which are installed at the connecting point of the OEM damper for simulating their existence and also to avoid appropriated error messages. Another way is the deactivation of the electronic damping control system by changing the vehicle software (work to be performed by an authorised specialist shop).

The optional installed Dynamic Damping Control (DDC) was tested with regard to the electromagnetic compatibility (EMC), the system stability and the driving dynamics.

The damping characteristic is adjustable in three steps.

Use of the lowering kit on vehicles with levelling system is not permitted.

The vehicle height must the laid down in the vehicle documents in box 20. The precise measure of the lowering will depend on the specific vehicle tolerances, tyre size and vehicle version.

adjustment ranges

front axle	min.	330 mm	Distance from the spring rest to the nearest fastening screw
	max.	350 mm	rasterning screw
rear axle	min.	15 mm	Distance from contact point of the car to the adjustable spring perch
rear axie	max.	35 mm	aujustable spring percit

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Distance from the wheel centre to the wheelhouse rim

Amendment of vehicle documents:

Amendment of the vehicle documents is only necessary the next time the approval authority has to do with the vehicle documents.

V. Basis of tests and test results

The test vehicle and the modification parts were subjected to a test in accordance with the test conditions regarding raising / lowering of vehicles contained in VdTÜV Merkblatt 751 (08.2008). The test conditions were fulfilled.

VI. Annex: none

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VII. Concluding certification

It is hereby certified that the vehicles described under field of application satisfy the regulations of StVZO in the current version after modification and performed and confirmed modification acceptance, provided the conditions/notes given in the present TÜV approval are observed.

The manufacturer KW automotive GmbH maintains a quality management system according to ISO 9001: 2008 (Certificate Registration No.: 12 102 22913 TMS).

The parts approval may only be reproduced and passed on by the manufac-turer in its unabbreviated form.

The TÜV parts approval shall cease to be valid if technical modifications are made to the vehicle part or if modifications made to the vehicles described affect use of the part and in the case of any changes to the statutory specifications.