



A Supplement Model 201.034

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Suspension

Shock absorber (damper) strut – front axle

The damper strut is identified by 3 red stripes with a depression (arrow) in the outer tube to increase tire clearance.

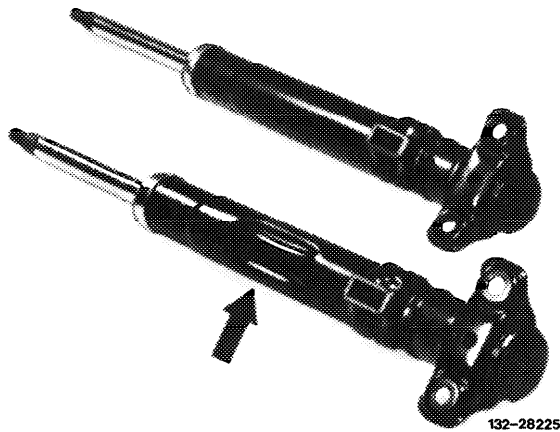


Fig. 32/1

The additional polyurethane (PU) spring (B) is harder and shorter compared with version (A).

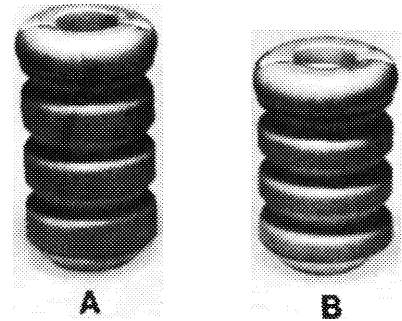


Fig. 32/2

A Model 201.024
Length 96 mm

B Model 201.034
Length 83 mm

Shock absorber (suspension) strut – rear axle

As on the front axle damper strut, the suspension strut is identified by 3 red stripes.

Torsion bars

The front axle torsion bar has a diameter of 23 mm (22 mm on model 201.024).

The torsion bar on the rear axle has been modified both in shape and in dia. (16 mm instead of 13 mm on model 201.024). The torsion bar links have torsional rubber bushings on both sides.

The lever on the torsion bar for actuating the levelling valve as well as the mounting bracket, are adapted to the larger torsion bar dia.

level control - rear axle

A level control system, similar to the one used on model 123.193, is also used on model 201.034.

The oil reservoir, levelling valve, and suspension struts are a new development.

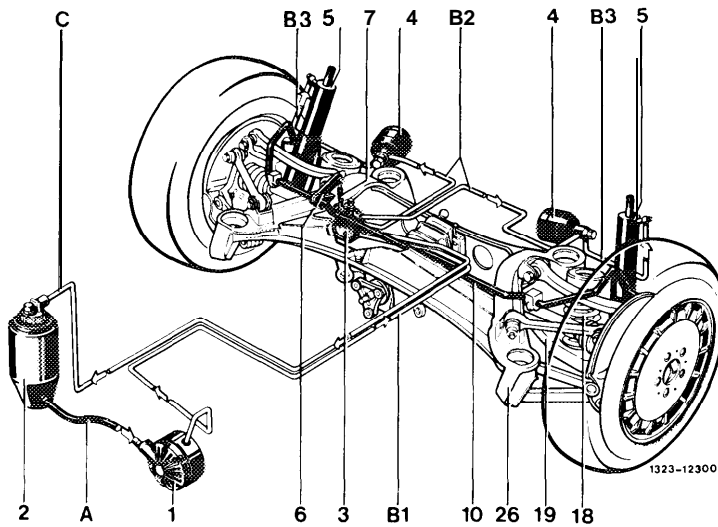


Fig. 32/3

- 1 Hydraulic oil pump
- 2 Oil reservoir
- 3 Levelling valve
- 4 Pressure reservoir
- 5 Suspension strut
- 6 Lever on torsion bar
- 7 Connecting rod
- 10 Torsion bar
- 18 Rear spring
- 19 Spring link
- 26 Rear axle carrier
- A Suction line
(oil reservoir to hydraulic oil pump)
- B1 Pressure line
(hydraulic oil pump to levelling valve)
- B2 Pressure line
(levelling valve to pressure reservoir)
- B3 Pressure line
(pressure reservoir to suspension strut)
- C Return line
(levelling valve to oil reservoir)

Oil reservoir

The reservoir is located on the right side in the engine compartment and has a capacity of 1.15 liter at the min. mark and 1.35 liter at the max. mark. The level control system has a total capacity of approx. 2.0 liters of hydraulic fluid.

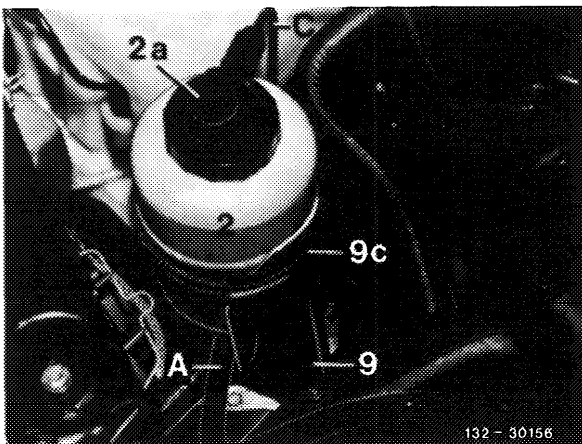


Fig. 32/4

- 2 Oil reservoir
- 2a Cap with oil dipstick
- 9 Oil reservoir mounting bracket
- 9c Holding spring
- A Suction line (oil reservoir to hydraulic oil pump)
- C Return line (levelling valve to oil reservoir)

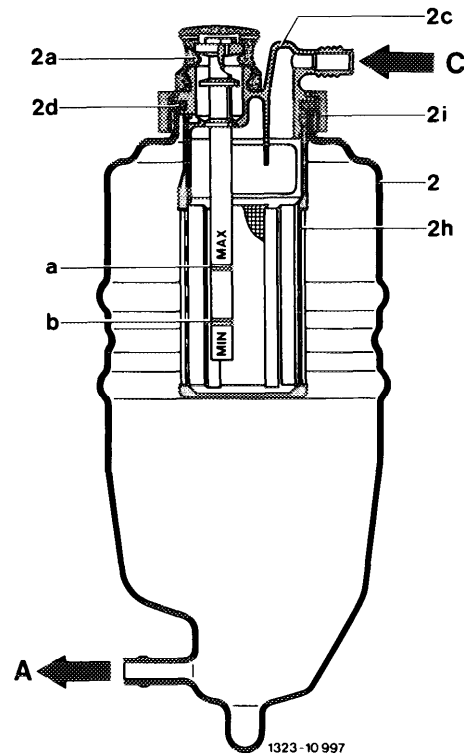


Fig. 32/5

- 2a Cap with oil dipstick
- 2c Cover with connection
- 2d Rubber seal ring
- 2h Filter element
- 2i Fastening nut
- a Max. mark
- b Min. mark
- A Suction line
(oil reservoir to hydraulic oil pump)
- C Return line
(levelling valve to oil reservoir)

To increase passenger comfort, a new hydraulic oil and modified rubber diaphragms in the pressure reservoirs are now used. The pressure reservoirs can be identified by a yellow dot.

Caution!

When filling the system, only use MB-hydraulic oil (part no. 000 989 91 03) as shown on the label on the oil reservoir (in engine compartment).

Checking oil level

Vehicle in curbweight condition:
Level between MIN and MAX

Vehicle with full load:
Level below MIN (not quite visible on dipstick).

Specified oil:
MB-hydraulic oil
Part no. 000 989 91 03 (1 liter container)

Hydraulic oil pump

The hydraulic oil pump is driven by the exhaust camshaft and is flanged to the righthand side of the cylinder head.

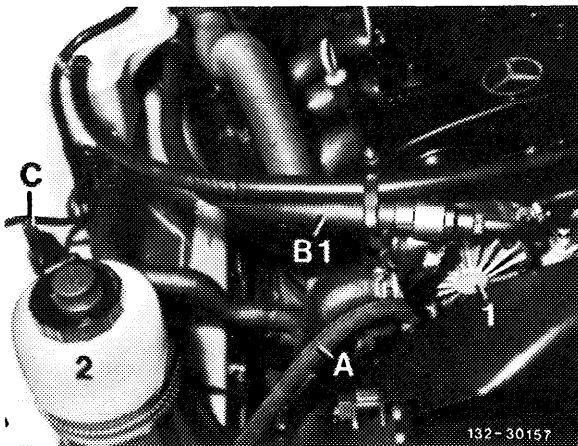


Fig. 32/6

- 1 Hydraulic oil pump
- 2 Oil reservoir
- A Suction line (oil reservoir to hydraulic oil pump)
- B1 Pressure line (hydraulic oil pump to levelling valve)
- C Return line (levelling valve to reservoir)

Levelling valve

The levelling valve operates the same as before. It is light weight due to its compact construction.

The opening pressure of the pressure relief valve is 143 ± 10 bar.

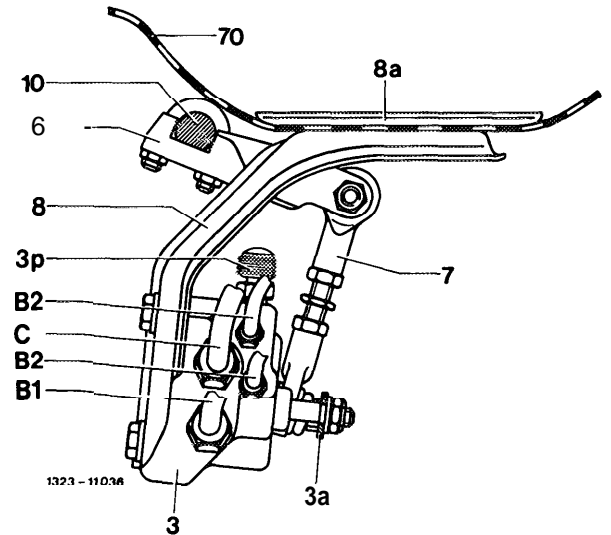


Fig. 32/7

- 3 Levelling valve
- 3a Lever on levelling valve
- 3p Oil drain plug
- 6 Lever on torsion bar
- 7 Connecting rod
- 8 Mounting bracket
- 8a Reinforcing plate
- 10 Torsion bar
- 70 Frame floor
- B1 Pressure line (hydraulic oil pump to levelling valve)
- B2 Pressure line (levelling valve to pressure reservoir)
- C Return line (levelling valve to oil reservoir)

The connecting rod is attached in bore "a" of the lever.

Levelling valve "control point" adjustment

Insert a 4 mm dia. pin into bore "c" and the housing bore for adjustment of vehicle level loaded with 100 kg (refer to Test and adjustment values, vehicle level p. 222).

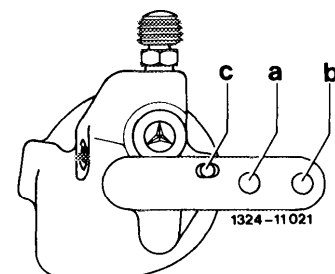


Fig. 32/8

- a Bore for connecting rod ball joint
- c Locating bores in lever and housing for control point position of levelling valve (4 mm dia. pin)

Caution:

The bleed screw in the levelling valve has a conical seat without point (B) and should not be mixed up with the previous bleed screw (A, with point).

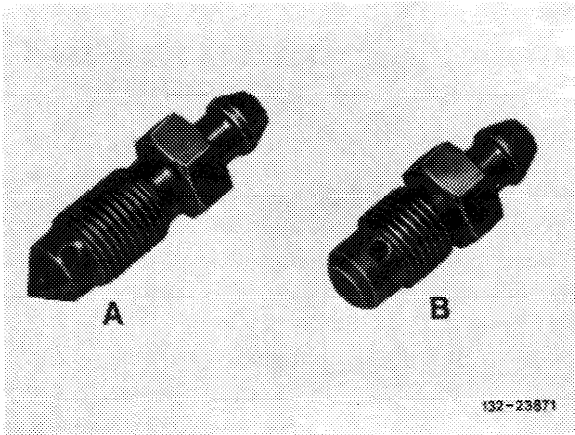


Fig. 32/9

- A Bleed screw, previous version
- B Bleed screw, current version

Repair note

The test procedures “Checking hydraulic oil pump and levelling valve” and “Checking pressure reservoir” can be performed as before. However, to connect the pressure tester 126 589 02 21 00 to the levelling valve use an additional flexible test line 201 589 03 63 00 (038g).

The test line is installed after unscrewing the bleed screw (3p).

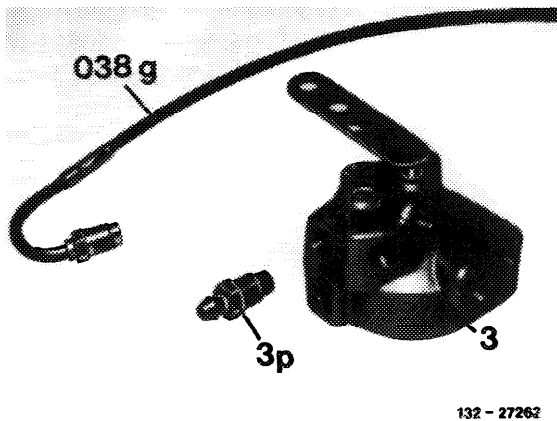


Fig. 32/10

- 3 Levelling valve
- 3P Bleed screw
- 038g Test line

Suspension struts on rear axle

The suspension struts are mounted between the dome of the frame floor and the spring link. The spring compression stop is integrated in the suspension strut (model 123.193 has an additional rubber bumper).

When installing the suspension strut, be sure that the pressure line (B3) for the pressure reservoir is mounted in the correct location.

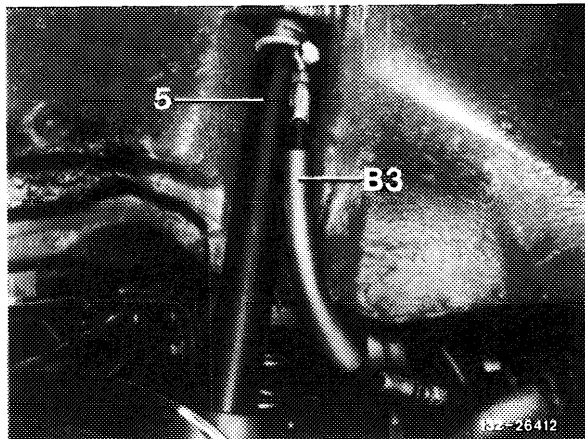


Fig. 32/11

- 5 Suspension strut
- B3 Pressure line (pressure reservoir to suspension strut)

Distance “a” of suspension strut mounting bracket in relation to wheelhousing can be used to verify the correct location.

“a” at rebound = 3 ± 1 mm
 at rest = 6 ± 1 mm
 (curbweight condition)

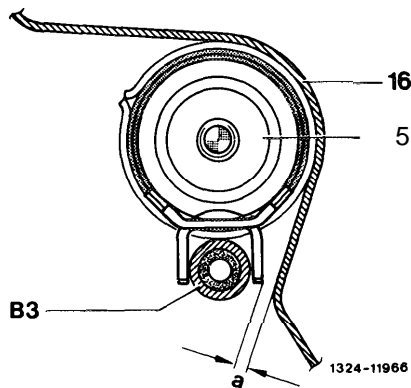


Fig. 32/12

- 5 Suspension strut
- a Distance, mounting bracket to wheelhousing

Testing and adjusting values

Cross-reference, springs - shock absorbers

Front spring Part No.	Damper strut, front Part No.	Rear spring Part No.	Suspension strut, rear Part No.
201 321 28 04 201 321 29 04	201 320 11 30	201 324 32 04	201 320 08 13

When installing springs, refer to tables "Adjustment of springs"!

Adjustment of springs (cross reference, springs- rubber mounts)

A point system, based on various optional equipment, is used to determine several weight groups. Additional points for each option must be added to the base points for the standard vehicle. The total points are then used to determine the proper front or rear spring/rubber mount combination.

Front springs - number of points

Base points (standard vehicle)	Model 201.034	35
Additional points for each option	Automatic transmission	5
	Sliding roof, electric	2
	Underfloor protection (steel plate)	1

Total points	Front spring Part No.	Height of rubber mount (in mm) depending on total points and spring color code	
		blue	red
31 - 36	201 321 28 04	18	23
37 - 41	201 321 29 04	8	13
42 - 47	201 321 29 04	13	18

The part numbers for the rubber mounts are the same as for other 201 models.

Rear springs – number of points

Base points (standard vehicle)	Model 201.034	17	
Additional points for each option	Sliding roof, electric	3	
	Head restraints, rear	1	
Total points	Front spring Part No. 201 324 32 04	Height of rubber mount (in mm) depending on total points and spring color code	
		blue	red
		up to 20	8
21 - 26		13	18

The part numbers for the rubber mounts are the same as for other 201 models.

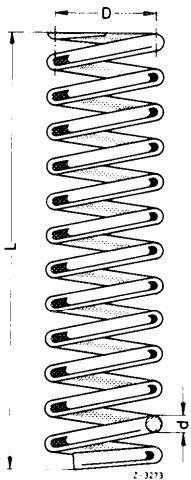


Fig. 32/13
Front and rear springs

- L = Free length
- D = Mean coil dia
- d = Wire dia

Test values of springs

Part No.	Spring travel per 1000 N load	Wire dia. "d"	Spring load, N	Test height (mm)
Front springs				
201 321 28 04	20.7	14.0	6420 ± 220	240
201 321 29 04	18.8	14.4	7100 ± 240	240
Rear springs				
201 324 32 04	24.0	11.9	3310t 190	213.5

Front axle

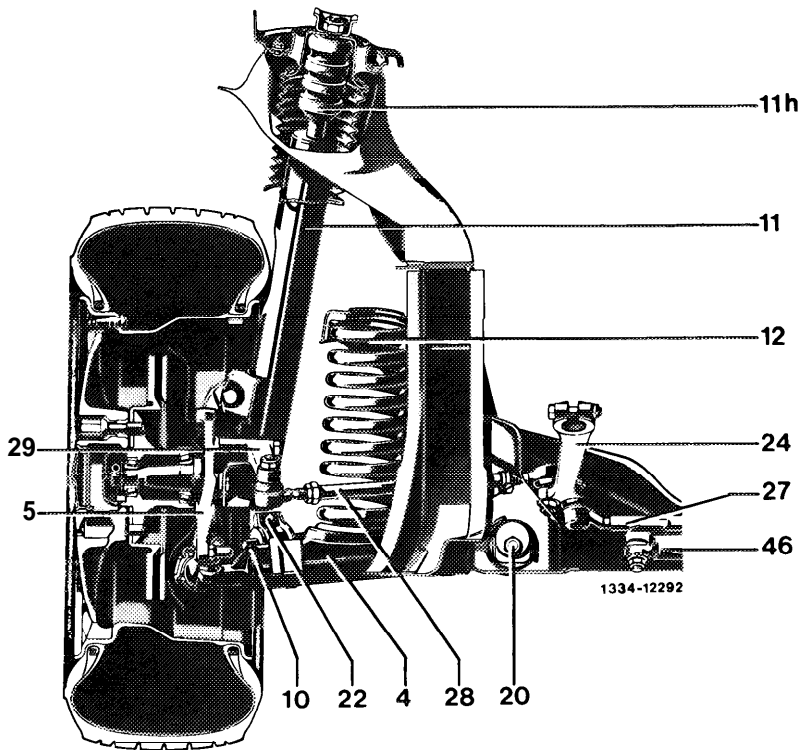


Fig. 33/1

- 4 Wishbone (control arm)
- 5 Steering knuckle
- 10 Torsion bar
- 11 Damper strut
- 11 h PU supplementary spring
- 12 Front spring
- 20 Eccentric bolt, rear
- 22 Torsion bar bushing on wishbone
- 24 Pitman arm
- 27 Drag link
- 26 Tie rod
- 29 Steering knuckle arm
- 46 Steering damper

Wishbone (control arm)

The reinforced wishbone (control arm) has the same two-part bushing with clamping sleeve as installed on model 201.024. The torsion rubber bushings have a shore hardness of 63, compared with 50 on model 20 1.024.

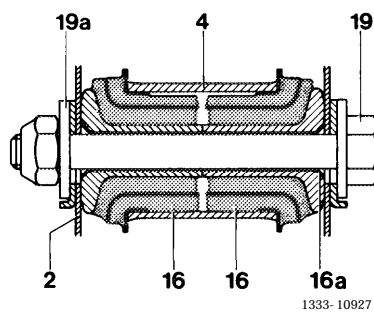


Fig. 33/2

- 2 Frame cross member
- 4 Wishbone (control arm)
- 16 Torsion rubber bushing
- 16a Clamping sleeve
- 19 Eccentric bolt (camber adjustment)
- 19a Eccentric washer

Repair note

The torsion rubber bushings are installed so that the flat surfaces (arrows) are horizontal on the front bushings and vertical on the rear bushings (Fig. 33/3 and 33/4).

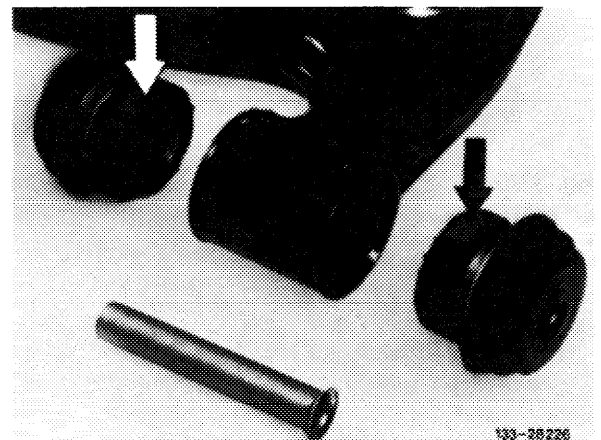


Fig. 33/3 Front bushings, horizontal flats

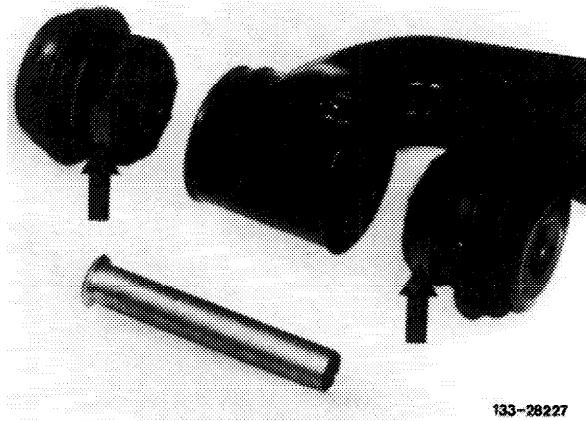


Fig. 33/4 Rear bushings, vertical flats

Steering knuckle

The steering knuckles are reinforced at the load bearing points, as well as at the outer bearing journal. They can be identified by the number stamped inside, left = 24 07 01 and right = 24 07 02.

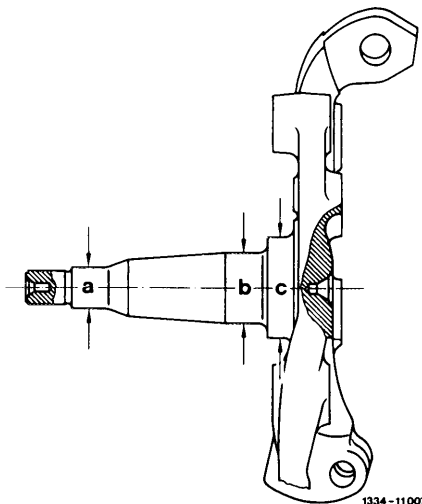


Fig. 33/5

- a Outer bearing seat 19.05 mm
- b Inner bearing seat 31.75 mm
- c Running surface for 45 mm seal ring

Front wheel hub

The front wheel hub can be recognized by the larger flange dia., and the larger seat for the outer tapered roller bearing (Fig. 33/6).

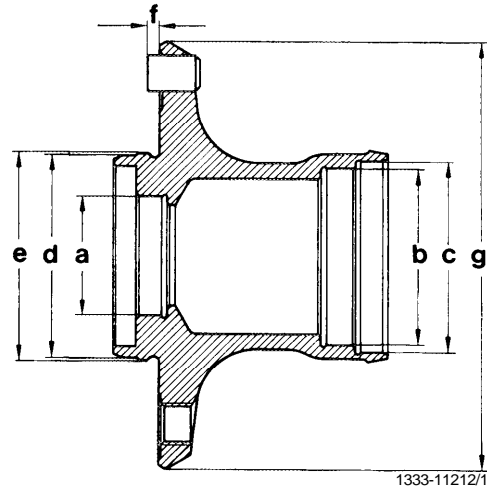


Fig. 33/6

a	Outer bearing seat	45.220 mm 45.195
b	Inner bearing seat	59.117 mm 59.098
c	Seat for seal ring	64.046 mm 64.000
d	Seat for rim	66.400 mm 66.354
e	Seat for brake disk	66.890 mm 66.971
f	Protrusion for roll pin	3.6 - 3.8
q	flange dia	150

Grease capacity of front wheel bearing:

High-temperature bearing grease,
part no. 000 989 49 51 (150 g container)

Total capacity	approx. 65 g
Hub with bearing	approx. 50 g
Hub cap	approx. 15 g

Steering knuckle arm

The contours of the steering knuckle arm have been changed in the area of brake caliper, the stamped identification is as follows:

left = 0110
right = 0111

The new steering knuckle arms are now valid for all 201 models. The previous steering knuckle arms (identification: left = 0108, right = 0109) must not be installed on model 201.034.

Rear axle

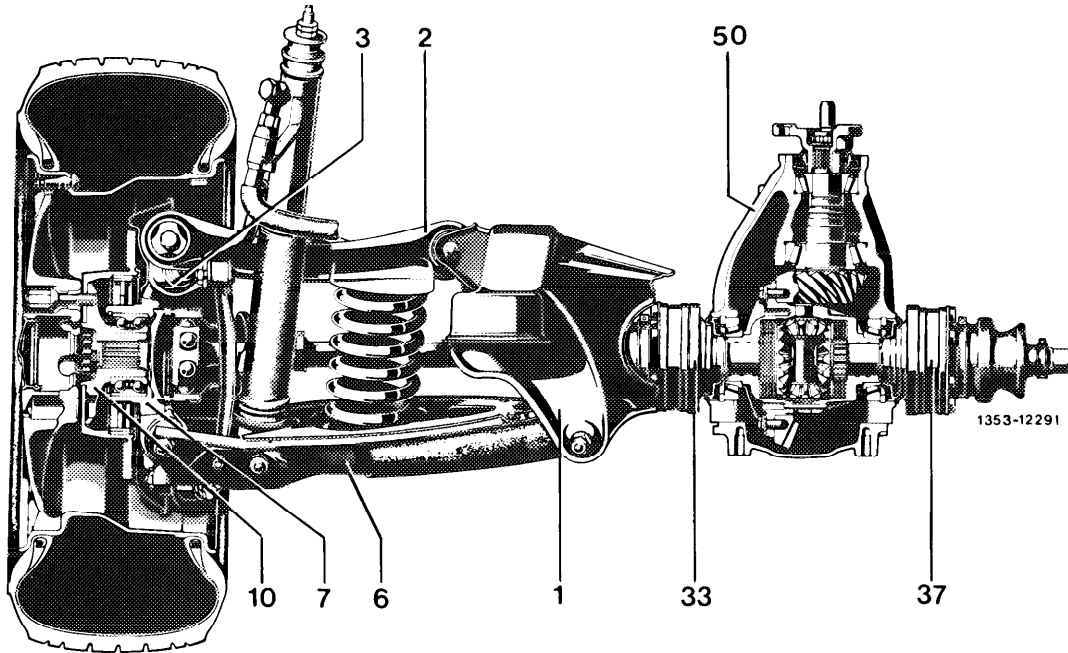


Fig. 35/1

- | | | |
|---------------------|----------------------|----------------------|
| 1 Rear axle carrier | 6 Spring link | 33 Connecting flange |
| 2 Camber strut | 7 Wheel carrier | 37 Axle shaft |
| 3 Pulling strut | 10 Axle shaft flange | 50 Center piece |

Rear axle center piece

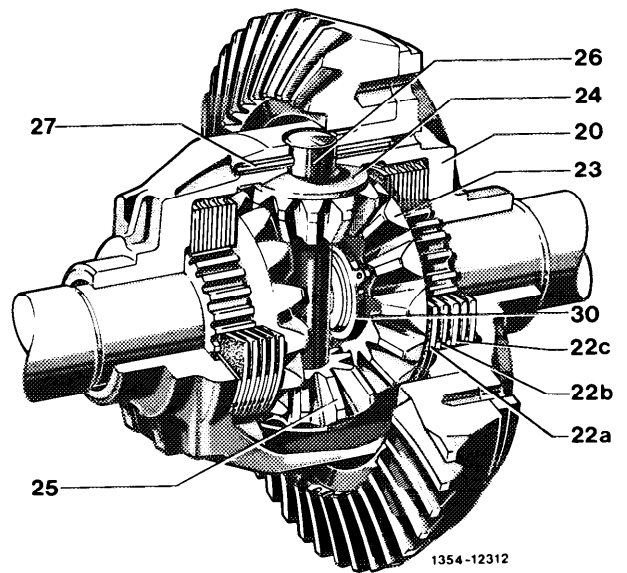
The rear axle center piece is larger, has a gear set with a ring gear dia. of 185 mm, and a ratio of 3.27.

The rear axle has limited slip differential. Use MB limited slip differential oil, part no. 000 583 09 04.

For a functional description refer to the section models 107, 126, 201.

Fig. 35/2 Differential

- | |
|--|
| 20 Differential case |
| 22 a Friction disk with lining on one side |
| 22 b Friction disk without lining |
| 22 c Friction disk with lining on both sides |
| 23 Side gear |
| 24 Spherical washer |
| 25 Differential pinion |
| 26 Differential pinion shaft |
| 27 Roll pin |
| 30 Retaining ring |



The bolt circle on the drive pinion flange is 90 mm.

Due to the larger constant velocity joints, the connecting flanges for the rear axle shafts have a bolt circle dia. of 94 mm each.

Rear axle shafts

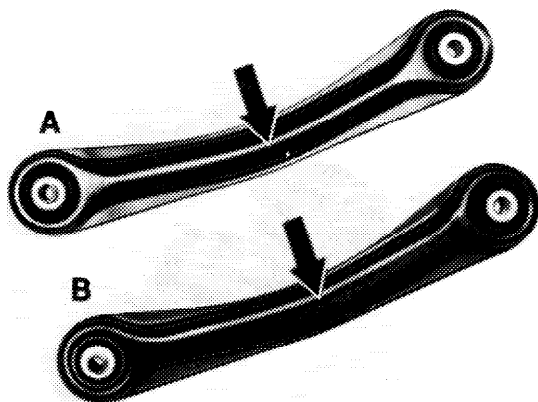
The large constant velocity joints (ball dia. of 22 mm) are similar to those of model 201.024 (ball dia. of 19 mm).

The grease capacity is 120 g of **longterm** grease (120 g tube, part no. 001 989 03 51/11).

Wheel guidance

The following parts differ from the wheel guidance parts of model 201.024.

- a) The rear axle shaft flange dia. is 153 mm
- b) The camber link has a modified profile to increase rigidity.



135-28382

Fig. 35/3

- A Camber strut model 201.024
- B Camber strut model 201.034

- c) The pulling link has modified torsion rubber bushings at the inner and outer pivots, mounted on the wheel carrier side with an M 12 x 1.5 screw.

Assembly note

Install the pulling link so that the rubber bushing with the light-alloy inner bushing is on the rear axle carrier side; and the rubber bushing with the steel inner bushing is on the wheel carrier side.

Tightening torque for inner and outer mounting: 70 Nm.

- d) Spring link with modified torsion rubber bushing (with steel outer bushing and a supporting disk on inner bushing). The spring link is different for **lefthand** and **righthand** side.

Assembly note

Mount spring link so that the supporting disc on the rubber bushing points forward (in driving direction).

Wheels

Cross-reference, wheels – tires – recommended tire brands

Rim Designation Part No.	Summer tires tubeless		Winter tires tubeless	
	Tire size	Tire brand	Tire size	Tire brand
7 J x 15 H 2 ET 44 Light alloy 201 400 13 02 or 201 400 10 02	205/55 VR 15	PIRELLI P6	205/55 R 15 87 T M + S	PIRELLI MS WINTER 190

Rims

Only forged light-alloy rims are available.

The rims have a wheel offset (distance ET from rim center to rim mounting surface) of 44 mm.

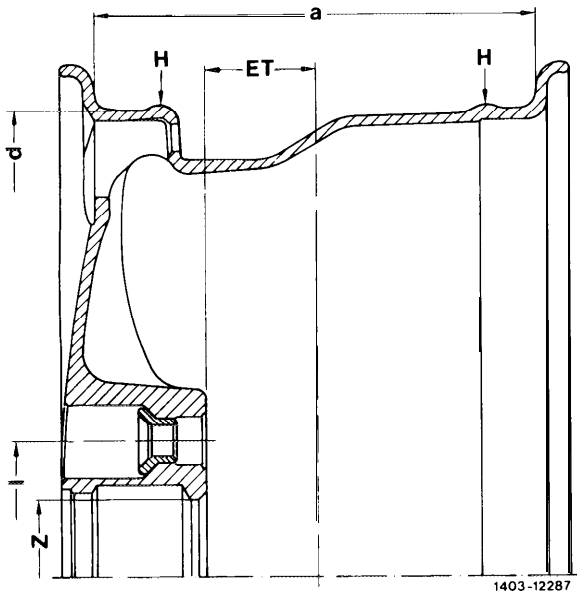


Fig. 40/1

- ET Wheel offset = 44 mm
- H Hump (rim with safety shoulder)
- a Rim width in inches
- d Rim dia. in inches (measuring point)
- l Hole circle dia. = 112 mm
- z Centering bore dia. = 66.5 ± 0.1 mm

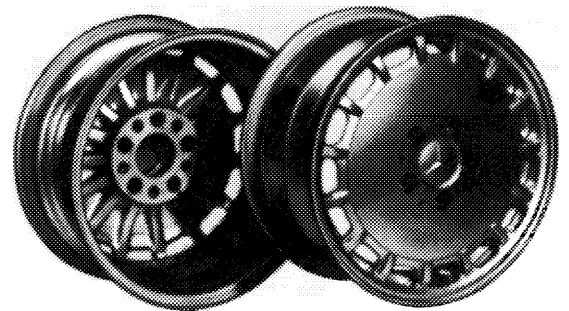


Fig. 40/2 Rim inner and outer side

Wheel attachment

The wheel bolts, part no. 201 400 00 70, have a shank length "L" of 40 mm. The hollow bolt head "K" is 22.5 mm high at the hex. head and is closed off with a light alloy cap.

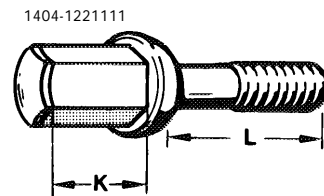


Fig. 40/3 Wheel bolt

Mounting of wheel to vehicle

Screw the "alignment stud", which comes with the spare tire, into the upper threaded hole of the hub prior to installing the wheel.

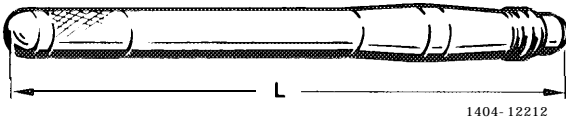


Fig. 40/4 Alignment stud length "L" 122 mm

Mounting tires

Use rubber valve, part no. 000 400 03 13 (length from seat to end of thread is 41 mm).

Balancing of wheels

When balancing wheels, use the new balancing weights with separate spring retainer (2a) on the outside of the rim and adhesive balancing weights (2b) on the inside of the rim.

Caution!

Do not use the balancing weight with separate spring retainer or a hammered-on balancing weight on the inside of the wheel. Damage to the outer ball joint of the tie rod will result.

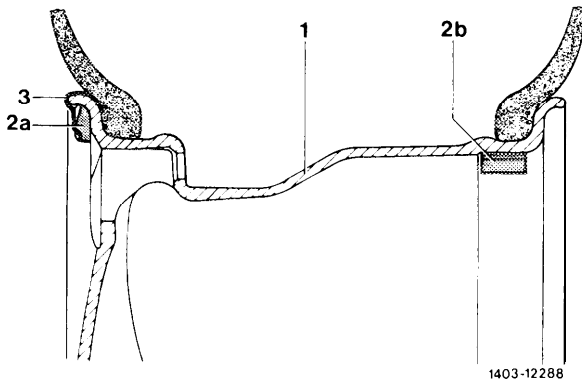


Fig. 40/5

- 1 Light-alloy wheel
- 2a Balancing weight with separate spring retainer (wheel outer side)
- 2b Adhesive balancing weight (wheel inner side)
- 3 Spring retainer

When attaching an adhesive balancing weight, make sure that the inside wheel surface is free of dirt and grease. Adhesive residue of old balancing weights should be removed with solvent.

Adhesive balancing weights

Weight	Part No.
10 g	201 401 09 94
20 g	201 401 02 94
30 g	201 401 03 94
40 g	201 401 04 94
50 g	201 401 05 94
60 g	201 401 06 94
70 g	201 401 07 94
80 g	201 401 08 94

fire inflation pressure

Tire pressure label:
Basic color: silver, lettering color: red

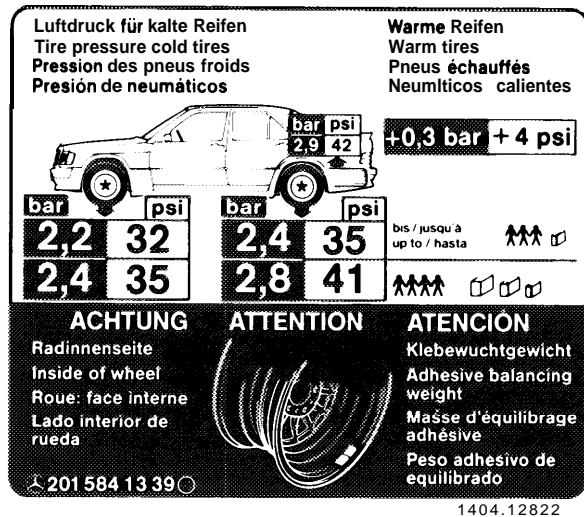


Fig. 40/6

Snow chains

Use MB snow chain with gripping studs RUD-matic system.

Part No.	201 583 02 16
Code No. 1)	46 380

1) The code number is stamped into the closing hook on the tensioning chain

Chassis measurement

The thicker wheel surface requires longer spacer pins for attaching the new quick-clamping fixture for the wheel alignment measuring components. The longer spacer pins and the new quick-clamping fixture are available under tool no. 124 589 01 31 00 and are applicable to all models.

The longer spacer pins are also available individually under tool no. 124 589 01 31 20.

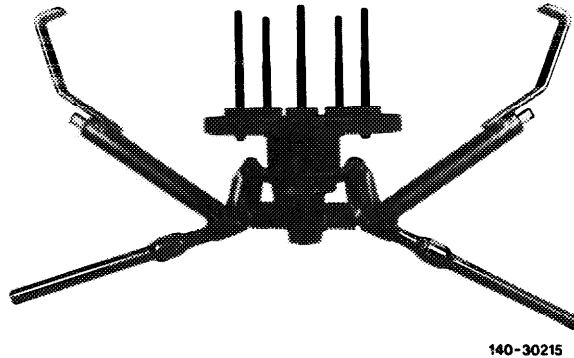


Fig. 40/7 Quick-clamping fixture

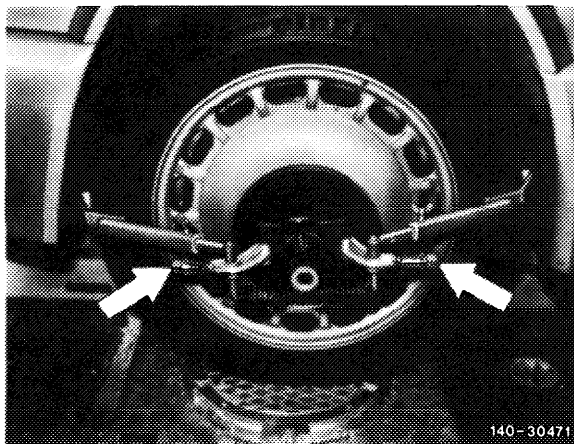


Fig. 40/8 Quick-clamping fixture attached to front wheel (the levers [arrows] are engaged)

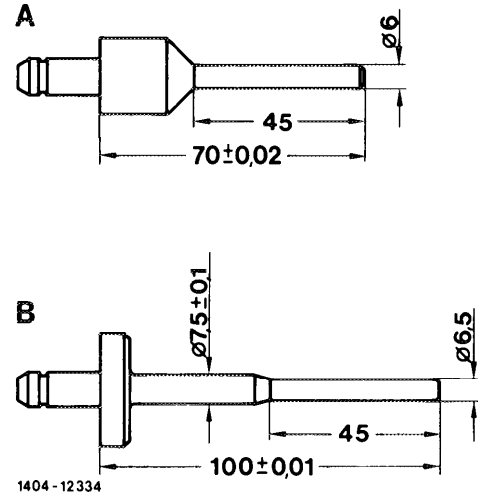


Fig. 40/9

- A Spacer pin 1st version, tool no 901 589 01 27 00
- B Spacer pin 2nd version, tool no 124 589 01 31 20

Measuring vehicle level and wheel alignment in curb-weight condition, as well as measuring and adjusting vehicle level on the rear axle under load are basically the same as for model 201 (For testing and adjusting values refer to page 222).

Pay attention to the following instructions:

1. Adjustment of vehicle level under load

When adjusting the vehicle level under load, always approach the control point from a lower vehicle level by pushing the lever on the levelling valve in the upward (filling) direction.

2. Measuring toe angle on rear axle

Measure toe angle change in the following cases only:

- In case of handling complaints, e.g. rear of vehicle moves sideways when driving over bumps.
- Extreme tire wear.
- After accident repairs requiring replacement of wheel guidance components.

Measuring

The toe angle change is now measured only by direct measurement, that is, by measuring the toe-in per wheel before and after a spring deflection of approx. 60 mm.

Indirect measurement using wheel carrier tilt as a reference, is no longer permitted.

Corrections

The toe angle change can be corrected by installing an eccentric rubber bushing on the tie link. The bore of the rubber bushing has a center offset of 1.45 mm. A correction of toe angle change by approx. 0° 08' is possible. An arrow for direction of installation is moulded into the rubber bushing.

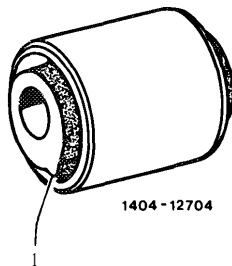


Fig. 40/10 Eccentric rubber bushing

Part no. 124 352 43 65
 1 Arrow for direction of installation

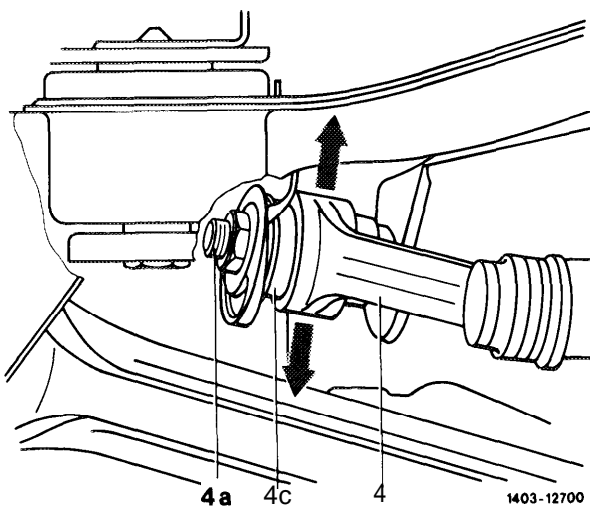


Fig. 40/11 Tie link pivot point on rear axle carrier

4 Tie link
 4a Eccentric bolt with hex. nut
 4c Rubber bushing

For removal and installation of the tie link rubber bushing on the vehicle, use special tool 124 589 02 43 00.

Note

- Prior to removing tie link, mark position of eccentric bolt in relation to rear axle carrier.
- Install eccentric rubber bushing, on tie link with arrow pointing down.

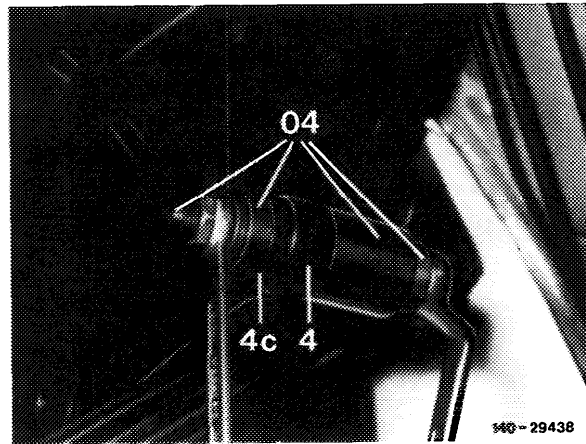


Fig. 40/12 Removal and installation of rubber bushing

4 Tie link
 4c Rubber bushing
 04 Removal/installation tool

Example for correcting toe angle change

Measured toe angle change via 60 mm deflection (from vehicle level +10 mm to -50 mm on rear axle')

Required correction

Change of tie link inclination using eccentric rubber bushing

corresponding toe angle change

Example (Fig. 40/13)

0° 12' in (-) direction (from +0° 10' to -0° 02')

Direction of installation: Arrow pointing downwards

by approx. 0° 08' in (+) direction (from +0° 10' to +0° 06')

¹⁾ Produce this deflection by loading trunk with approx 200 kg or by using pull fixture 201 589 11 31 00 (refer to Introduction Manual, Model Year 1986. Model 126 rear axle, vehicle level)

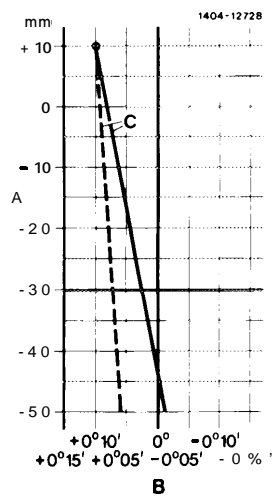


Fig. 40/13

- A Vehicle level
- B Toe-m
- C Toe angle change per wheel (solid line prior to correction, dashed line following correction)

Test and adjustment values

Vehicle level

Front axle level curbweight condition m m	Rear axle level curbweight condition m m	loaded (control point) ¹⁾ m m
+ 12 ^{+ 10} - 15	+ 13 ^{+ 10} - 12	- 12 ± 10 ²⁾

¹⁾ Vehicle load approx 100 kg IN trunk or by using pull fixture 201 589 1131 00 (refer to Introduction Manual, Model Year 1986, Model 126 rear axle, vehicle level)

²⁾ Tolerances for vehicle level refer to test only Maintain nominal values during adjustment

Wheel adjustment on front axle, curbweight condition

Values for wheel adjustment

Front wheel camber	Wheels in straight-ahead position, toe 0°	- 00 20' + 10' ¹⁾ - 20'
	Permissible difference between left and right side	0° 20'
Caster	Wheels in straight-ahead position, toe 0° ²⁾	10° 30' ± 30' ¹⁾
	against wheel stop	10° ± 30' ¹⁾
	Permissible difference between left and right side	0° 30'
Toe-in (front wheels pushed apart with 90 - 110 N)		0° 20' ± 10' or 2.5 ± 1 mm ¹⁾
Toe difference angle (toe-out) at 20° turn of inner wheel		- 0° 40' ± 30' ³⁾
Max. permissible steering wheel turn at inner wheel (steering knuckle stop pin touching stop bracket on wishbone)		43° ⁴⁾⁵⁾
Ball joint reference location (measuring point) = distance "a" between wishbone bushing axis and inboard ball joint end of tie rod (pitman or idler arm in straight-ahead position)		30 ± 2 mm ⁶⁾
Permissible ball joint height difference between pitman and idler arms		3 mm

¹⁾ When making corrections, adjust to nominal value

²⁾ Measure with mechanical caster gauge 201 589 02 21 00.

³⁾ Value specified without toe-in. It must be added when determining toe difference angle (without toe-in).

⁴⁾ Measuring IN special cases possible with turntables only.

⁵⁾ The outer wheel turning angle will be 7° to 11° less than the inner, when INNER wheel stop is against wishbone stop

⁶⁾ Correction is made on idler arm in upward or downward direction by addition or removal of a washer

Front wheel camber adjustment

(the adjustment is made at the front wishbone bushing eccentric bolt)

Camber adjustment range (theoretical) at nominal caster value	from $-0^{\circ} 30'$ to $+0^{\circ} 20'$
--	---

Front wheel caster adjustment

(the adjustment is made at the rear wishbone bushing eccentric bolt)

Caster adjustment range (theoretical) at nominal camber value	from $+9^{\circ} 35'$ to $+11^{\circ} 20'$
--	--

Wheel adjustment on rear axle**Rear wheel camber**

Vehicle level	corresponds to rear wheel camber
+ 20 mm	$-0^{\circ} 55' \pm 30'$
+ 10 mm	$-1^{\circ} 10' \pm 30'$
0 mm	$-1^{\circ} 25' \pm 30'$
- 10 mm	$-1^{\circ} 40' \pm 30'$
- 20 mm	$-1^{\circ} 55' \pm 30'$

Rear wheel toe-in in curbweight condition

Total toe-in of rear wheels	$+0^{\circ} 25'$ $+10'$ $-05'$ or 3 $+1$ -05 mm ¹⁾
Permissible toe-in per wheel (use values for checking only)	between $+0^{\circ} 30'$ and $-0^{\circ} 05'$ or $+3.5$ mm and -0.5 mm ²⁾

¹⁾ When making corrections, adjust to nominal value while equally dividing value between both wheels.

²⁾ During factory assembly of the rear axle, the rear wheels are adjusted equally. However, with the rear axle installed, the actual values may fall anywhere within the tolerance after allowing for tolerances on the frame floor to which the rear axle carrier is bolted. Therefore correction is **not required**.

Additional mechanical chassis measurement

Chassis measurements (beam compass) and checking wishbone bearing inclination on accident vehicles or vehicles suspected of accident damage, is the same as other 201 models.

The following additional information should be noted.

- Prior to performing chassis measurements, the vehicle must be levelled by appropriate loading to ensure that it is not tilted forward or rearward. If the vehicle is not levelled front to rear, measurements V4, H3 and H10 will be incorrect when measured directly.

Measurement	Permissible difference between left and right side or tolerance on distance
H3	1532 $\begin{matrix} +2 \\ -3 \end{matrix}$
H8	480 \pm 2.5

- Measurement H 10 is only required during body repairs on accident vehicles. The measuring point is accessible only after removing the exhaust system rearward of the flange connection.

Propeller shaft

The front and the rear propeller shaft have a tube dia. of 60 mm and a coupling flange bolt circle dia. of 90 mm. Both front and rear shafts use a standard flexible coupling similar to the one on the rear shaft of models 201.024/122.

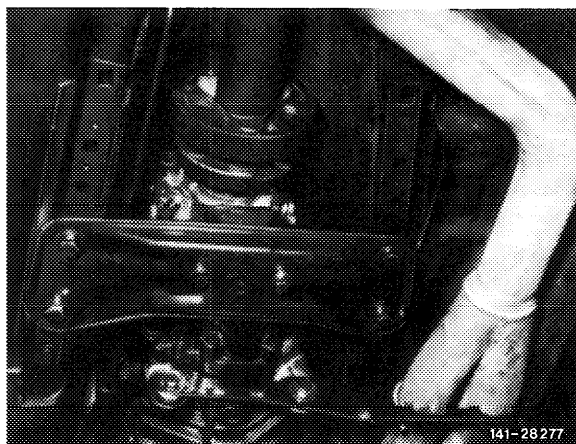


Fig. 41/1

Brakes

Front wheel brake

The front wheel brake has vented brake discs 22 mm thick with a diameter of 284 mm.

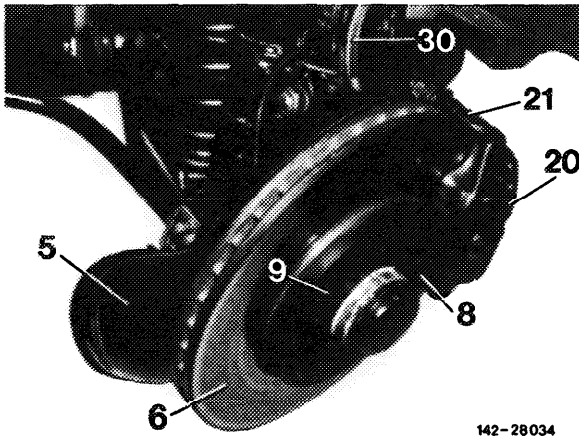


Fig. 42/1

Due to the modified brake disc the floating calipers are wider. The piston dia. is 54 mm. The brake pads are 19.3 mm thick and 110 mm wide.

Rear wheel brake

The brake pads are 15.5 mm thick, therefore, the brake calipers are wider than on the other 201 models and identified by a stamped-in 11 (arrow).

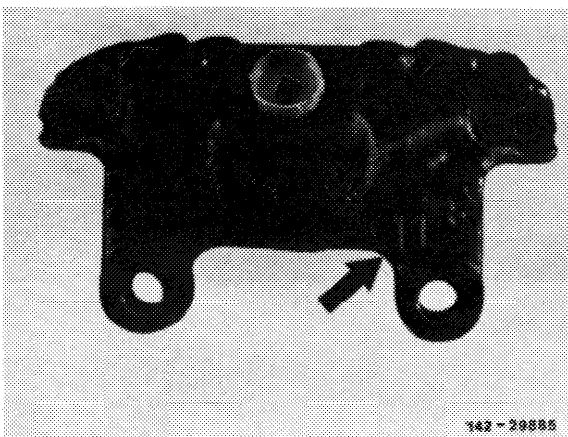


Fig. 42/2

Brake discs

The brake discs on the front and rear axle are additionally fastened with a hex socket button head cap screw at the front wheel hub and the rear axle shaft flange.

Parking brake

The adjusting wheel has 15 teeth. Adjust: Turn adjusting wheel until the vehicle wheel can no longer be rotated, then turn back adjusting wheel by approx. 5 – 6 teeth until the vehicle wheel turns freely.

Brake booster

The double diaphragm brake booster has a diameter of 8/9".

Anti-lock brake system (ABS)

The anti-lock brake system is standard equipment.

Tandem master cylinder

The tandem master cylinder with central check valve is made of light alloy. The bore diameter for the primary circuit is 15/16" and for the secondary circuit is 3/4".

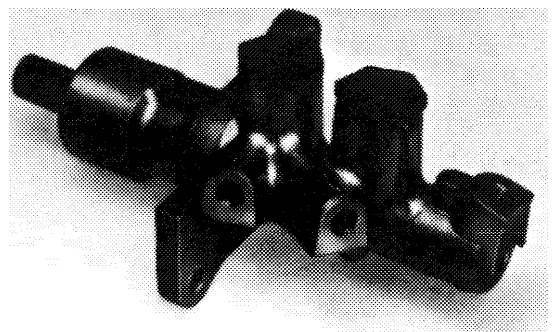


Fig. 42/3

Steering

Steering gear

Power steering 765.902 (LSA 068) is standard equipment. The housing is made of light alloy. The ratio in the center position is 13.28 and the total ratio is 15.14.

Power steering pump

The pressure relief valve of the power steering pump opens at 85 -90 bar. The part no. of the power steering pump is 201 460 16 80.

Idler arm and steering linkage

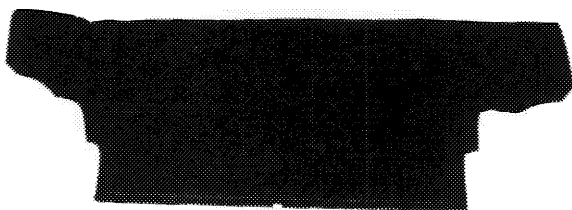
The idler arm, part no. 201 463 17 10 is reinforced. The part no. of the drag link (with increased swivel angle of ball joints) is 201 460 15 05.

Fuel system

The fuel tank has a capacity of 70 liters, of which approx. 8.5 liters are reserve.

The fuel tank partition is one piece

Reinforcing plates (arrow) are used at the upper mounting points of the fuel tank to provide reliable attachment. They must be re-installed after performing repair work.



147 - 28192

Fig. 47/1

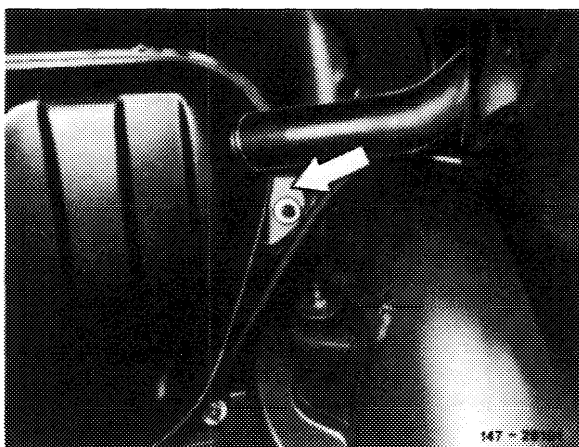


Fig. 47/2

Exhaust system

Compared with model 201.024, the exhaust system has larger mufflers and larger pipe cross sections.

The flange connections to the exhaust manifold are flared on the dual front exhaust pipes.

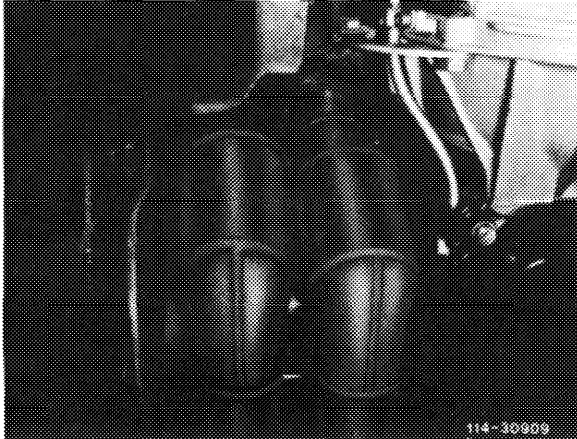


Fig. 49/1

The location of the flange connection between the front and the rear exhaust pipes and the center muffler is the same as model 201.024.

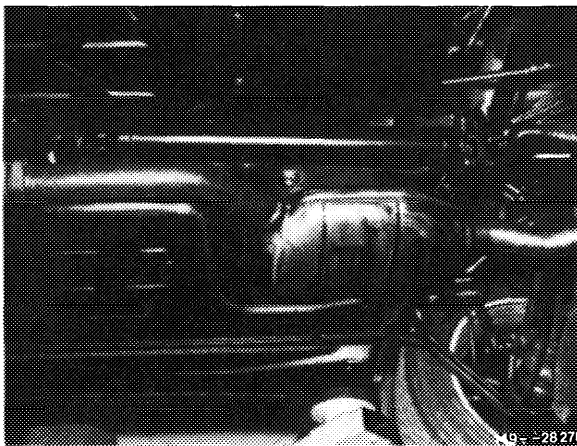


Fig. 49/2

The rear muffler has dual tailpipes that are curved downward. Attachment with rubber hangers as on model 201.024.

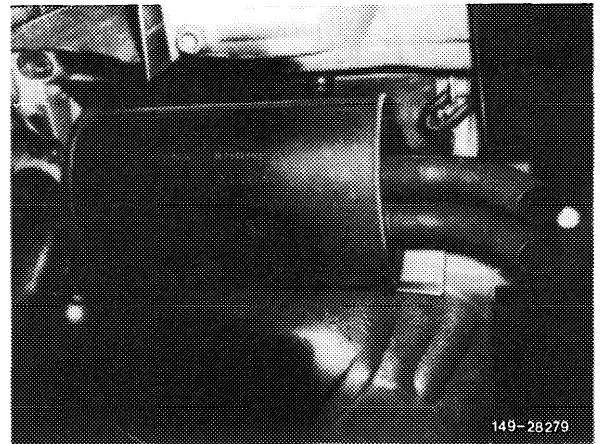


Fig. 49/3

Primary (front) catalysts and underfloor catalysts are the same as on model 201.024.

Electrical system

Instrument cluster

The O₂-sensor replacement indicator lamp has been replaced by an O₂-sensor malfunction indicator lamp. If the indicator lamp (13) comes on it indicates a malfunction in the O₂-sensor circuit.

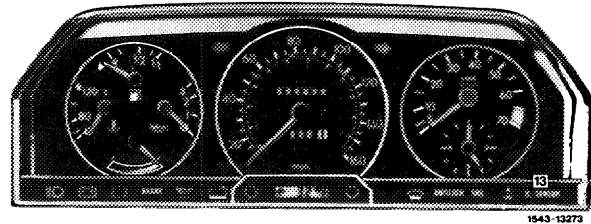


Fig. 54/1

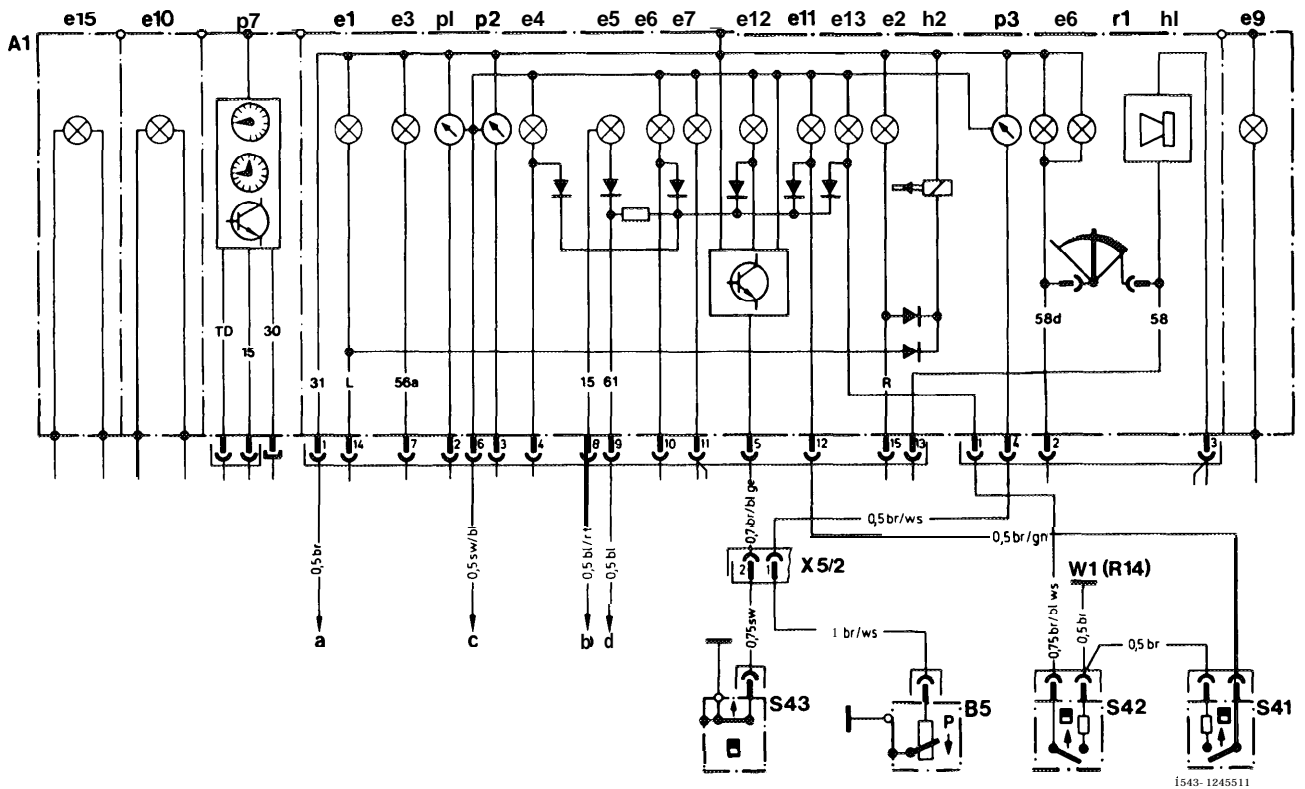


Fig. 54/2 Wiring diagram

- A 1 Instrument cluster
- A le1 Turn signal indicator, left
- A le2 Turn signal indicator, right
- A le3 High beam indicator
- A le4 Fuel reserve indicator
- A le5 Charge indicator
- A le6 Brake pad wear indicator
- A le7 Low brake fluid level/parking brake indicator
- A le8 Instrument illumination
- A le9 Fasten seat belt indicator
- A le10 O₂-sensor malfunction indicator
- A le11 Low coolant level indicator
- A le12 Low oil level indicator
- A le13 Low windshield washer fluid level indicator
- A le15 SRS malfunction indicator
- A hl Warning buzzer
- A lh2 Audible turn signal solenoid
- A lr1 instrument illumination dimmer
- A lp1 Coolant temperature gauge
- A 1p2 Fuel level gauge
- A 1p3 Oil pressure gauge
- A 1p7 Clock/Tachometer

- S 41 Low coolant level switch
- S 42 Low windshield washer fluid level switch
- s 43 Low oil level switch
- B 5 Oil pressure sending unit
- x 5/2 Harness connector, interior/starter, 4 pole
- a Electrical center connector D, socket 11, to main ground W1
- b Electrical center connector D, socket 15, circuit 15 (unfused)
- c Electrical center connector D, socket 2, circuit 15, fuse no. 9
- d Electrical center connector D, socket 8, alternator circuit 61
- W1 (R14) Main ground behind instrument cluster via blower motor resistance group

- bl = blue
- br = brown
- ge = yellow
- gn = green
- rt = red
- sw = black
- ws = white

Additional Instrumentation

The vehicle has a voltmeter, an oil temperature gauge, and a digital stop watch as standard equipment.



ng. 54/3

Voltmeter

The voltmeter is connected to circuit 15 of the 15-pole connector of the instrument cluster (pin socket 6). When the key is in steering lock position "2", the voltmeter indicates the respective voltage.

Oil temperature gauge

The oil temperature is sensed by a temperature sensor in the oil filter housing and indicated on the gauge.

Stop watch

With the key in steering lock position "2" the following functions can be activated using the 3 buttons.

- 1 Button for measuring elapsed time
- 2 Button for measuring average speed for 1 mile driving distance
- 3 Button for resetting elapsed time

1. Measuring elapsed time

Press button 1 to start. The colon in the display flashes.

Press button 1 again to stop. The display shows the elapsed time.

Press button 3 to reset the display to zero, (or when not moving turn key to steering lock position "1" or "0").

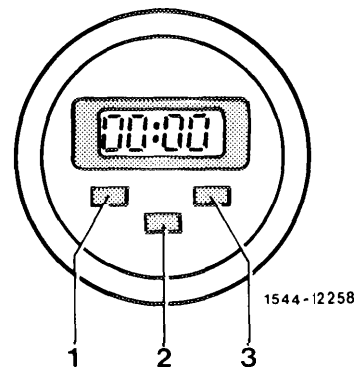


Fig. 54/4

Time display:

From 00:00 to 59:99 – in seconds and 1/100 seconds.

After 1 minute from 01:00 to 59:59 – in minutes and seconds.

After 1 hour from 01:00 to 09:59 – in hours and minutes.

After 10 hours the time will again be measured in seconds and 1 /100 seconds.

2. Measuring average speed for 1 mile driving distance

Press button 2 to start. The colon in the display flashes.

Press button 2 again after driving 1 mile. The display now shows the average speed during that mile.

Press button 2 (or turn key to steering lock position "1" or "0" when not moving) to reset the display.

3. Measuring average speed for 1 mile driving distance while measuring elapsed time

The average speed can also be measured while measuring elapsed time. Measuring of elapsed time will not be interrupted.

Press button 2 while measuring elapsed time to start. Colon in display flashes.

Press button 2 again after driving 1 mile. The display now shows the average speed during that mile. Press button 2 again to display the elapsed time.

Press button 2 (or when not moving turn key to steering lock position "1" or "0") to reset the display.

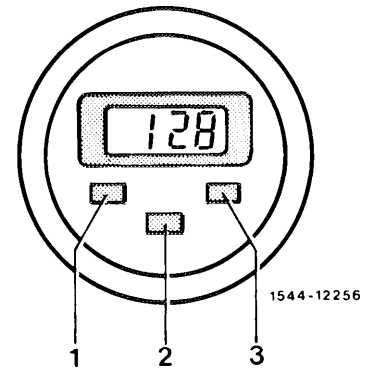


Fig. 54/5

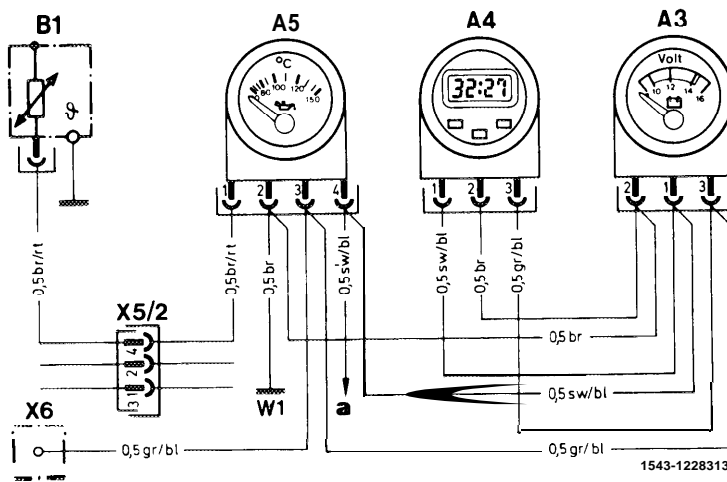


Fig. 54/6 Wiring diagram, additional instrumentation

- A3 Voltmeter
- A4 Digital stop watch
- A5 011 temperature gauge
- B1 Temperature sensor, engine oil
- W1 Main ground behind instrument cluster
- X5/2 4-Pole plug connection, starter harness (near battery)
- X6 Terminal block, circuit 58 d
- a To 15-pole instrument cluster connector Pm socket 6, circuit 15

Removal and installation of console with additional instrumentation

Remove ashtray with holder. Unscrew both fastening screws (1) and pull out panel in downward direction so that the two locks (arrows) of the center console are cleared. Pull the 3 connectors from the individual instruments.

During installation, make sure that the longer electrical harness with the 3-pole connector is plugged on the voltmeter.

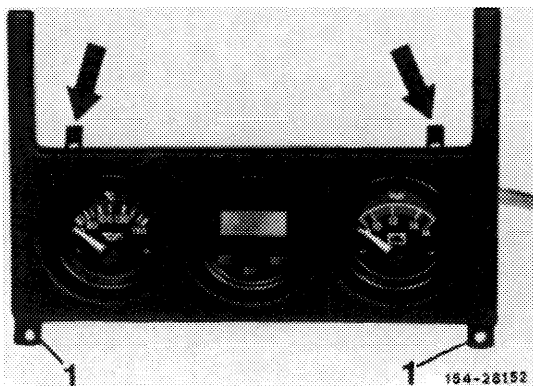


Fig. 54/7

Illumination of switch and control elements

The illumination rheostat in the instrument cluster (terminal 58d) used up to now has been supplemented by an electronic illumination control unit (terminal 58D), phased-into production therefore not available on early model year 1986 vehicles. The electronic illumination control unit is located on the cross-member behind the instrument cluster.

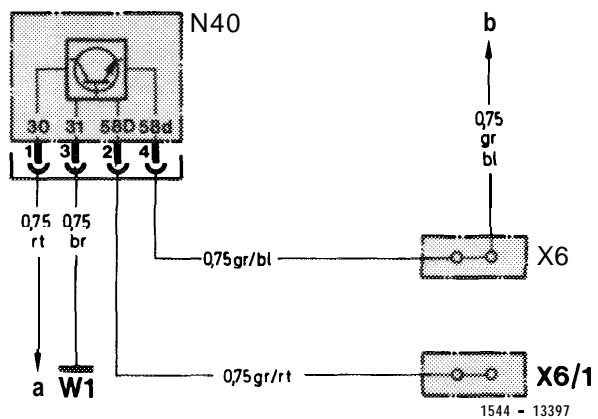


Fig. 54/8 Wiring diagram, electronic illumination control unit

- N40 Illumination control unit
- W1 Main ground (behind instrument cluster)
- X6 Plug connection, terminal 58d
- X6/1 Plug connection, terminal 58D
- a to plug connection X5/1 (circuit 30)
- b to 4-pin connector, terminal 2, instrument cluster (circuit 58d)

Interior

The leather interior upholstery is only available in black.

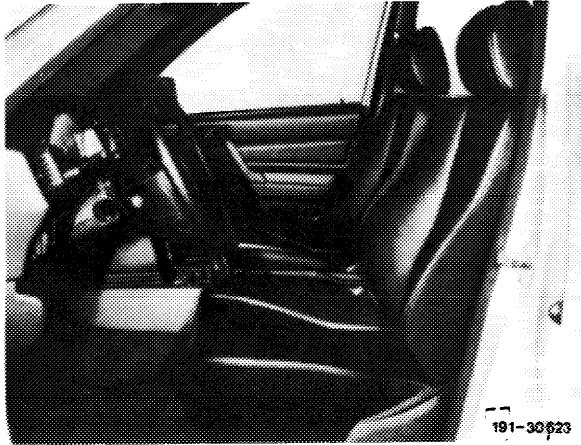


Fig. 68/1

The center console has been modified for mounting additional instruments in the area of the ashtray.

Instrument panel trim, door linings, headlining etc. are similar to other 201 models.

Spare wheel cover

The spare wheel cover has been modified to accommodate the wider tires.

Electrical system, radio, dome lamp

Radio

A new Grand Prix radio is installed. Refer to model 126 section for a complete description.

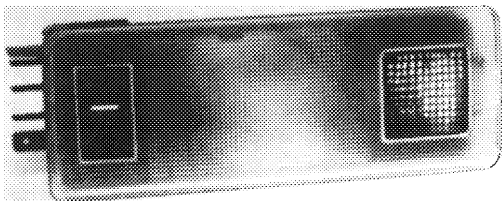
To remove the radio, remove panel with voltmeter, engine oil temperature gauge and digital stop watch (refer to Group 54).

Radio anti-theft protection

Refer to model 126 section.

Front interior/reading lamp

This lamp assembly has an electronic shutoff delay and a passenger-side reading lamp.



182 - 28365

Fig. 82/1

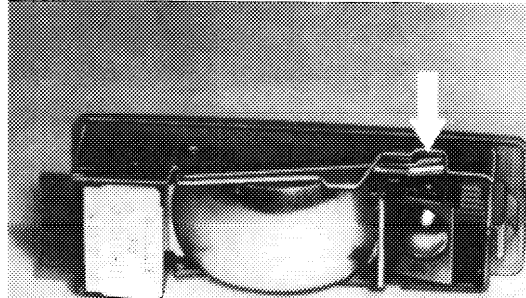
Repair note for replacing bulbs

Reading lamp:

Push contact bar in direction of arrow, so that bulb can drop out.

Dome lamp:

Tilt out reflector and remove bulb.

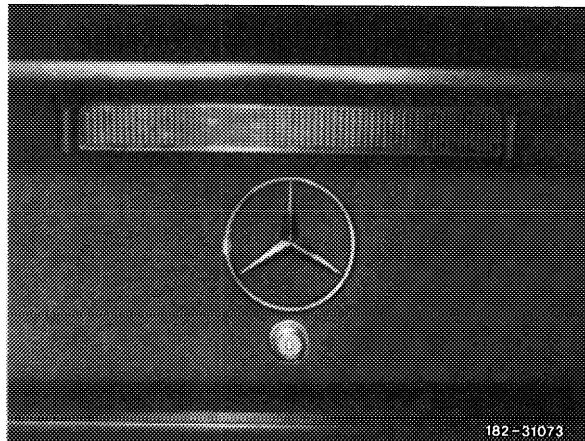


182 - 28366

Fig. 82/2

High mounted stop lamp

A third, high mounted, stop lamp is located on the trunk lid integrated into the rear spoiler. It operates parallel to the other stop lamps.



182 - 31073

Fig. 82/3

Tempmatic climate control

With the exception of the filling capacities and the engine fan actuation, the construction and function of the Tempmatic climate control is the same as on the 1985 model 201.024.

Filling capacities

Refrigerant oil in compressor: 150 cm³
R 12 refrigerant: 0.95 kg

Actuation of the engine fan clutch

At a refrigerant pressure of 20 bar the high pressure switch (S32) provides the input signal to the double contact relay (K8) which actuates the engine fan clutch and auxiliary fan low speed simultaneously.

Previously the high pressure switch (S32) only actuated the auxiliary fan low speed.

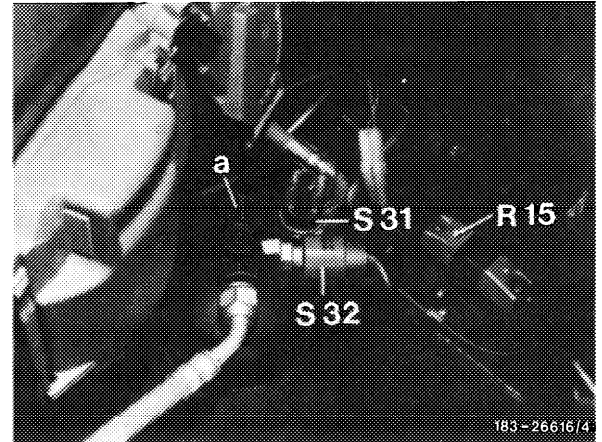


Fig. 83/1

S32 Refrigerant high pressure switch

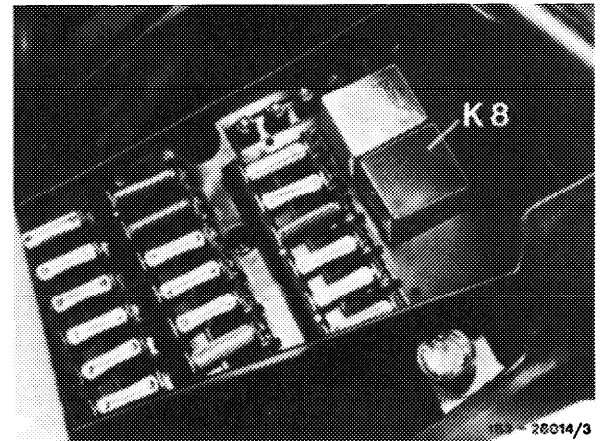
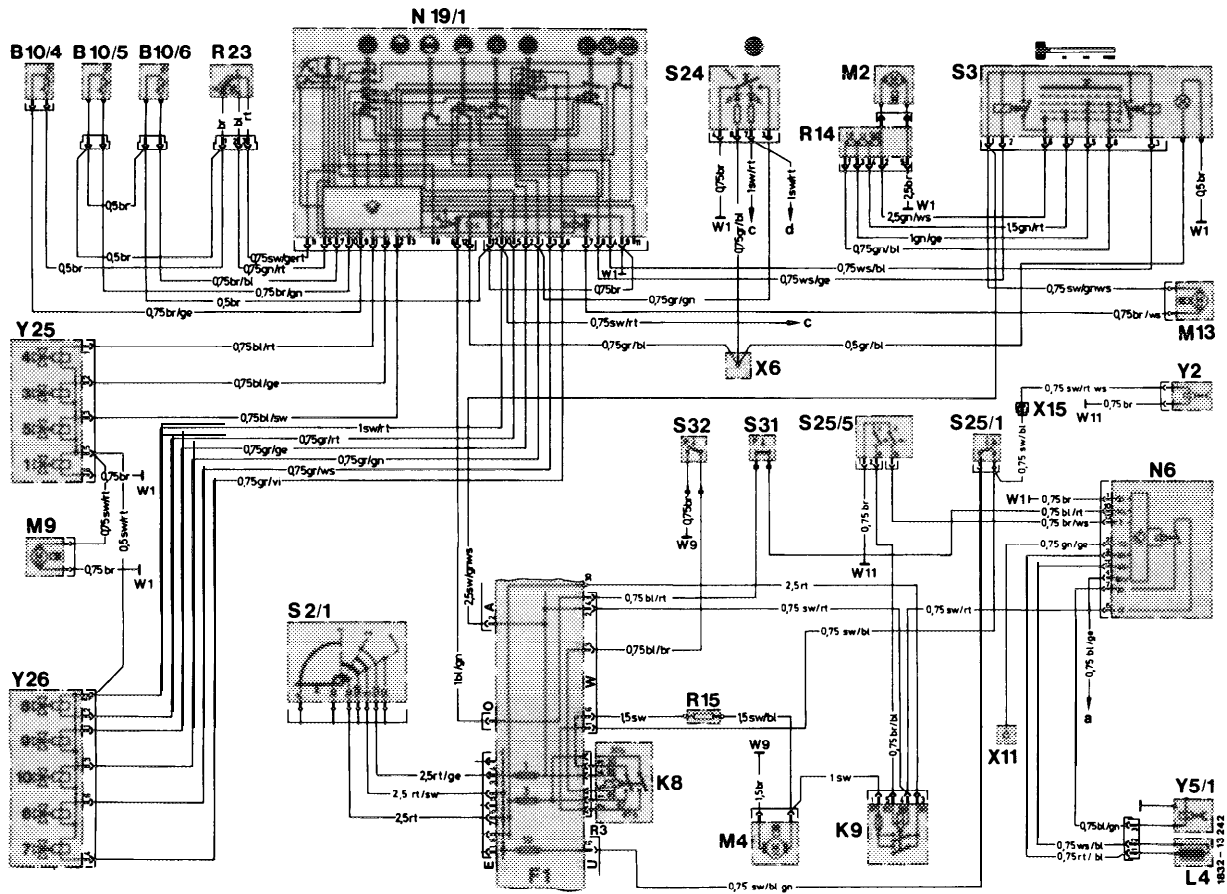


Fig. 83/2

K8 Double contact relay

Wiring diagram



Rg. 83/3 Wiring diagram, Tempmatic climate control

- | | | | |
|--------|---|-------|--|
| B 10/4 | in-car temperature sensor | s 31 | Refrigerant low pressure switch
open: 2 bar/closed: 2.6 bar |
| B 10/5 | Outside air temperature sensor | S 32 | Refrigerant high pressure switch for engine and auxiliary fans
closed: 20 bar/open: 15 bar |
| B 10/6 | Evaporator temperature sensor | w 1 | Main ground /behind instrument cluster) |
| F 1 | Central electric, fuse 1 : 16 A
fuse 3 : 16 A
fuse 10 : 8 A | w 9 | Ground, front (at head lamp assembly) |
| K 8 | Double contact relay for auxiliary fan and engine fan clutch | w 11 | Ground, engine |
| K 9 | Auxiliary fan relay | X 6 | Terminal block, circuit 58d |
| L 4 | A/C compressor rpm sensor | x 11 | Diagnostic socket |
| M 2 | Blower motor | x 15 | Connector Plug, engine fan to coolant temperature switch |
| M 4 | Auxiliary fan | Y 2 | Engine fan clutch |
| M 9 | In-car sensor aspirator blower | Y 5/1 | A/C compressor clutch |
| M 13 | Auxiliary coolant pump | Y 25 | Switchover valve unit (4 connections)
4 Switchover valve for blend air flaps (cold)
3 Switchover valve for heater valve (warm)
5 Switchover valve for heater valve (closed)
1 Switchover valve for heater valve (open) |
| N 6 | A/C compressor protective cutout | Y 26 | Switchover valve unit (5 connections)
8 Switchover valve for legroom flaps
9 Switchover valve for fresh/recirculating air flap (short stroke)
10 Switchover valve for fresh/recirculating air flap (long stroke)
6 Switchover valve for defroster flaps (short stroke)
7 Switchover valve for defroster flaps (long stroke) |
| N 19/1 | Pushbutton switch unit
a Compressor relay
b Auxiliary coolant pump relay
c Illumination
d Fuse, 2 A | a | to electronic control unit CIS-E, Terminal 19 |
| R 14 | Blower resistor group | c | to hazard warning switch, Terminal 15 |
| R 15 | Auxiliary fan resistor | d | to fasten seat belt control unit, Terminal 8 (terminal connection 15) |
| R 23 | Feedback potentiometer | | |
| s 2/1 | Ignition switch | | |
| s 3 | Blower switch | | |
| S 24 | Fresh/recirculation air switch | | |
| S 25/1 | Coolant temperature switch (100°C) engine fan clutch | | |
| S 25/5 | Coolant temperature switch (105/115°C)
a 105°C, auxiliary fan
b 115°C, compressor protective cutout | | |

Detachable body components, external paneling

External paneling

Through the use of **bolted-on** polyurethane (PUR) trim, the front and rear fenders are wider at the wheel-housings.

The lower belt-line and rocker panels are covered with PUR panels up to bumper level.

All these PUR components are painted in vehicle color. In the rocker panel area they are painted with DB 7167 deep dark grey.

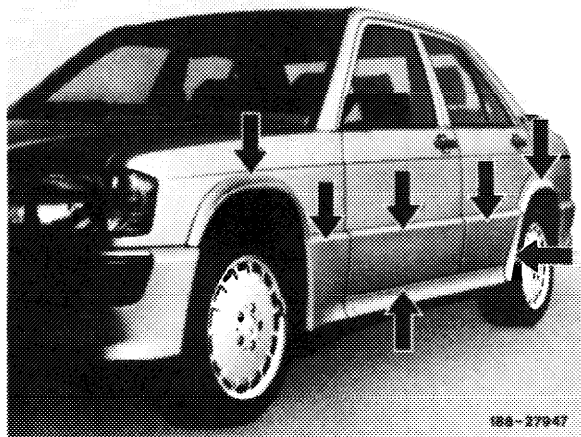


Fig. 88/1 Trim on fenders, side members and doors

Bumpers

The front bumper is designed as a spoiler for improved aerodynamics.

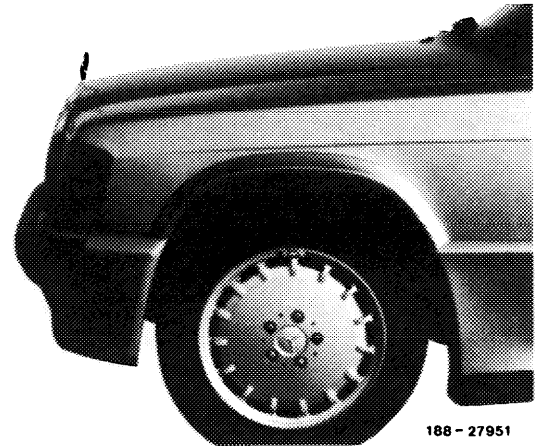


Fig. 88/2 Bumper, front

The rear bumper extends forward to the wheel housings.

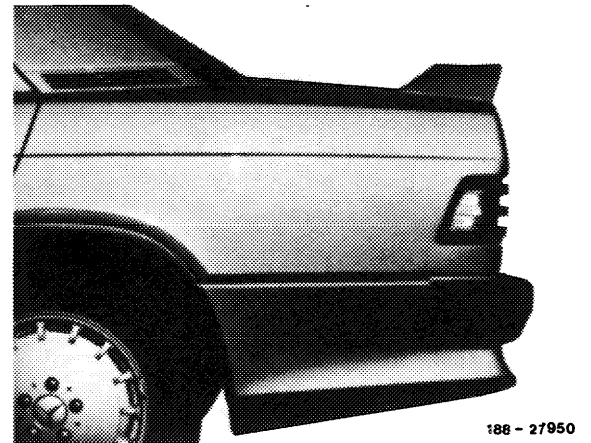


Fig. 88/3 Bumper, rear

The bumper paneling is also painted in vehicle color. Only the lower edge and the protective strips are painted with deep dark grey (like the rocker panels).

Rear spoiler

The rear spoiler is bolted to the trunk lid and painted in vehicle color. The trunk lid springs are stronger due to the increased weight.

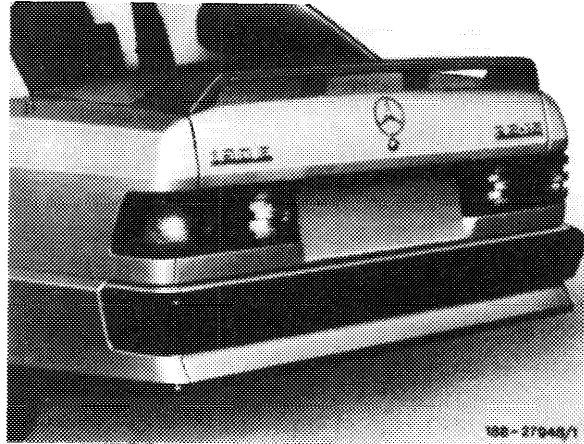


Fig. 88/4 Rear spoiler

Seats, restraint systems

Seats

The front seats have a distinctive shell-shaped design for good lateral support.

Both front seats are electrically adjustable. The driver's seat also has the two-position memory function.

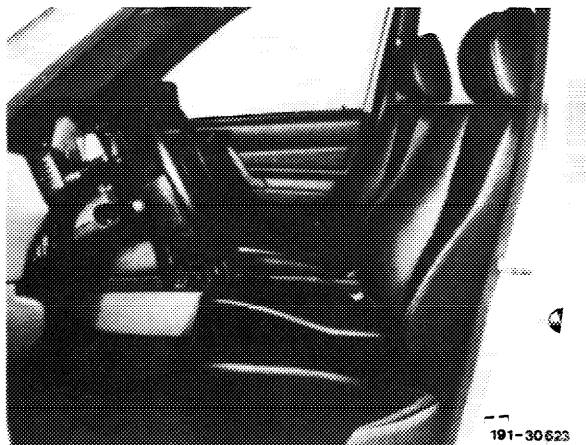


Fig. 91/1 Driver's seat

There are two seats in the rear, their shell-shaped design provides distinctive single seat comfort.

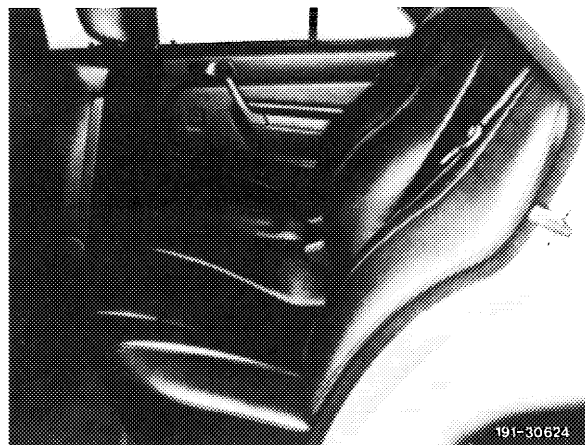


Fig. 91/2 Rear compartment

Head restraints

The head restraint shape is adapted to the new seat design. The switch for head restraint adjustment is located in the seat adjustment switch group. Rear seat head restraints are optionally available.

Supplemental Restraint System (SRS)

The driver airbag and emergency tensioning retractors on both front seat belts are standard equipment.

The rear seats have the standard three-point seat belts. The belt buckles are integrated with the rear seats.