

3300 Overview of Technical Data

G22/G23 Rear-wheel drive, standard suspension/sport suspension settings without low-slung		
Measured from centre of wheel hub to lower edge of wheel arch	Dimension A	
		357 (347 - 367) mm



Rear axle ride height G22 sport suspension settings without low-slung (adaptive M suspension, M Sport suspension)

Measured from bottom centre of rim flange (1) to lower edge of wheel arch (2)

17" wheel rim

590 mm

18" wheel rim

602 mm

19" wheel rim

615 mm

20" wheel rim

628 mm

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Ride height of rear axle G08 for standard suspension, rear wheel drive

Measured from bottom centre of rim flange (1) to lower edge of wheel arch (2)

18" wheel rim	669 mm
19" wheel rim	682 mm
20" wheel rim	694 mm
21" wheel rim	707 mm



Ride height of rear axle G22 for standard suspension, rear wheel drive

Measured from bottom centre of rim flange (1) to lower edge of wheel arch (2)

17" wheel rim	
	590 mm
18" wheel rim	
	602 mm
19" wheel rim	
	615 mm
20" wheel rim	
	628 mm



Ride height, rear axle G08 LCI standard suspension, rear-wheel drive

Measured from bottom centre of rim flange (1) to lower edge of wheel arch (2)

18" wheel rim

669 mm

19" wheel rim

682 mm

20" wheel rim

694 mm

21" wheel rim

707 mm



Track width of rear axle G22, rear-wheel drive

Rim offset 25	
	1622 mm
Rim offset 27	
	1618 mm
Rim offset 30	
	1612 mm
Rim offset 40	
	1592 mm



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3300 Overview of tightening torques

Heat shield to undercarriage		
Screws and nuts	Tightening torque	3Nm

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3310 Overview of Technical Data

Initial filling capacity of rear axle differential oil for M-sports differential (rear axle differential with block)	
	M-sports differential
	1.0 l

Installation position	
	Permissible rotation
	-5 ° ... +5 °

Rear axle differential oil: Capacity overview (all)	
	168LW
	0,75 l
	190AL
	0,8 l
	205AL
	0,8 l
	215LW
	0,9 l
	215LWS
	1.0 l
	225AL
	0,9 l
	225ALS
	1.0 l
	225M
	1.0 l
	235LK
	1,2 l

Transmission oil	
	Final drive oil



3310 Overview of tightening torques

Heat shield to servomotor			
M5x10		Tightening torque	5Nm
Servomotor to rear axle final drive			
M6 Renew screws.		Tightening torque	9Nm
Temperature sensor to lid of M Sport differential of rear axle transmission			
M12		Tightening torque	14Nm
Vibration absorber to rear axle			
M8 Renew screw.		Tightening torque	28Nm
Vibration absorber to rear axle support			
M12 Replace screw and clip nut.		Tightening torque	28Nm



3311 Overview of tightening torques

Lid to rear axle differential		
M12		140Nm
M10		90Nm
Oil filler plug on the rear axle differential		
M22 Renew screw plug with O-ring.	Tightening torque	60Nm
Rear axle differential oil filler plug		
M22 Renew the oil filler plug.	Tightening torque	60Nm

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3317 Overview of Technical Data

Position of the rubber mount in the rear axle support	
If necessary, make a mark on the outer area of the rubber mount to check the installation position.	Permissible rotation in relation to the vertical
	-5 ° ... +5 °

Position of the rubber mount in the rear axle support	
If necessary, make a mark on the outer area of the rubber mount to check the installation position.	Permissible rotation
	-7 ° ... +7 °

Position of the rubber mount or hydraulic bearing for rear axle differential	
	Permissible rotation in relation to the vertical
	-5 ° ... +5 °

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3317 Overview of tightening torques

Rear differential to rear axle carrier, front

M12
Renew screw.

Tightening torque

100Nm

Rear differential to rear axle carrier, rear

M14x110
Renew screw and nut.

Tightening torque.

175Nm

Rear differential to rear axle carrier, rear

M14
Renew nut.

Tightening torque.

175Nm

Vibration absorber to rear axle

M10
Renew screw.

Jointing torque

56Nm

Angle of rotation

90°



3330 Overview of tightening torques

Diffuser, rear		
Screw	Tightening torque	3Nm

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3332 Overview of tightening torques

Camber control arm to rear axle support

M14 Renew eccentric bolt, nut and eccentric washer. Tighten in normal position.	Tightening torque	175Nm
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Camber control arm to wheel carrier

M14 Renew screw and nut.	Jointing torque	165Nm
	Angle of rotation	90°

Control arm to rear axle support

M12 Renew screw and nut. Tighten in normal position.	Tightening torque	100Nm
	Angle of rotation	90°

Control arm to wheel carrier

M14 Renew screw. Tighten in normal position.	Tightening torque	165Nm
	Angle of rotation	90°

Cover to camber control arm

M6 Replace nuts.	Tightening torque	6Nm
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Holder on wheel carrier

Renew screw.	Tightening torque	12Nm
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Toe arm to rear axle support

M12 Replace the eccentric bolt, cam and disc. Tighten in normal position.	Tightening torque	108Nm
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Toe arm to wheel carrier

M12 Renew screw. Tighten in normal position.	Tightening torque	100Nm
	Angle of rotation	90°

Trailing arm to rear axle support

M12 Renew screw and nut. Tighten in normal position.	Tightening torque	100Nm
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Trailing arm to wheel carrier

M12
Renew screw and nut.
Tighten in normal position.

Tightening torque 100Nm

Upper wishbone to rear axle carrier

M12
Renew screw and nut.
Tighten in normal position.

Tightening torque 100Nm

Angle of rotation 90°

Upper wishbone to wheel carrier

M12
Renew screw and nut.
Tighten in normal position.

Tightening torque 100Nm

Angle of rotation 90°

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3333 Overview of tightening torques

Bracing strut on compression strut/body		
M8	Tightening torque	28Nm
Compression strut on body		
M10 Renew screws.	Jointing torque	47Nm
	Angle of rotation	45°
Rear axle carrier to body		
M12 Renew screws.	Tightening torque	108Nm
Special tool on aluminium sleeve		
	Tightening torque	20Nm



3341 Overview of tightening torques

Output shaft to wheel bearing

M16
Replace the collar bolt.

Jointing torque 210Nm

Angle of rotation 90°

Wheel bearing to wheel carrier

M12
Renew spherical collar screws.
Tighten the spherical-collar bolts crosswise.

Tightening sequence must be strictly adhered to and carried out on all spherical-collar bolts at the same time!

Tightening torque 20Nm

Initial torque 140Nm

Unscrew all bolts. max. 45°

Tightening torque 120Nm

Angle of rotation 90°



3352 Overview of tightening torques

Nut and locknut/self-locking nut

M8x40
Renew screws.

Tightening torque

28Nm

Shock absorber to camber arm

M12
Renew nut and screw.
Tighten in normal position.

Tightening torque

100Nm

Angle of rotation

90°

Support bearing on shock absorber

M10
Renew nut.

Tightening torque

41Nm

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3355 Overview of tightening torques

Rear anti-roll bar link to anti-roll bar / wheel carrier		
M10 Renew nut.	Tightening torque	56Nm
Rear anti-roll bar retaining bracket on rear axle support		
M8 Renew screws.		28Nm

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3360 Overview of tightening torques

Control unit for the limited slip differential		
Plastic nut with flange	Tightening torque	2.6Nm
M6	Tightening torque	8Nm
Storage compartment to body		
Plastic nut	Tightening torque	2,6Nm



33 operating fluid overview

Transmission oil

Hypoid Axle Oil G4	500 ml, Bottle	83222447362
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Transmission oil

Hypoid Axle Oil G3	500 ml, Bottle	83222413512
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Transmission oil

Rear axle differential oil SAF-XJ Booster	3x 1 l, Bottle	83222282583
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Transmission oil

Rear axle differential oil SAF Carbon Mod	500 ml, Bottle	83120445832
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Transmission oil

Hypoid Axle Oil G2	500 ml, Bottle	83222413511
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Transmission oil

Technically suitable rear axle differential oils		
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Transmission oil

BMW Synthetics OSP	1 l, Bottle	83222365987
	60 l, Barrel	83229407768

Transmission oil

Rear axle differential oil MSP/A * TU = Trade Unit. TU numbers cannot be ordered! For invoicing purposes only.	1 l, Bottle	83222365988
	1000 ml, TU*	83229405462

Expendable materials

Repair screws (4x) with washers (4x)	M12x1,5x115	07 14 7 426 660
	37x2,5	31 33 6 776 760

Transmission oil

BMW HOK oil	-	83222413513
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