

## Steering and Wheel Alignment

- Tighten nut while counterholding adjusting bolt.
  - Tighten nut only after car has been lowered to ground and suspension has settled.

### Preparing for alignment

- The following conditions are necessary prior to wheel alignment:
  - Correct wheels and tires are installed, in good condition, and are at the correct inflation pressures.
  - All steering and suspension parts and bushings are undamaged and show no signs of abnormal wear. Wheel bearings are in good condition.
  - Ride height is in accordance with specifications. See **300 Suspension, Steering and Brakes-General**.
  - Car is in normal loaded position. See below.
  - Cars with air suspension: Remove air suspension power fuse.

#### Normal loaded position

Each front seat	68 Kg (150 lb)
Center of rear seat	68 Kg (150 lb)
Trunk	21 Kg (46 lb)
Fuel tank	Full

### Alignment specifications tables

In the alignment specification tables that follow, reference is made to the various types of suspension used in E39 cars. The type of suspension can be identified by looking at the label on the front strut tube.

Identifying symbol	Version	Model
None	Standard suspension	Sedan
Solid circle	Sports suspension	6-cylinder sedan
Solid triangle	Sports suspension	V-8 sedan
M5	M sport package	V-8 sedan
Circle	Standard suspension	Touring (Sport Wagon)
Triangle	Sports suspension	Touring (Sport Wagon)

## Steering and Wheel Alignment

## 6-cylinder sedan (525i, 528i, 530i)

Parameter	Standard suspension	M Sport suspension	Sport suspension
Front axle			
Total toe	0° 5' ± 10'	0° 5' ± 10'	0° 5' ± 10'
Camber (difference between left/right maximum 40')	- 13' ± 30'	- 36' ± 30'	- 36' ± 30'
Track (differential angle with 20° lock on inside wheel)	-1° 56' ± 30'	-1° 56' ± 30'	-1° 56' ± 30'
Caster (difference between left/right maximum 30')	N/A	N/A	N/A
With ± 10° wheel lock	6° 28' ± 30'	6° 41' ± 30'	6° 41' ± 30'
With ± 20° wheel lock	6° 42' ± 30'	6° 55' ± 30'	6° 55' ± 30'
Front wheel displacement	0° ± 15'	0° ± 15'	0° ± 15'
Inside wheel (approx. °)	42	41.5	41.5
Outside wheel (approx. °)	33.5	33	33
Rear axle			
Total toe	0° 22' ± 4'	0° 22' ± 4'	0° 22' ± 4'
Camber (difference between left/right maximum 15')	-2° 04' ± 5'	-2° 04' ± 5'	-2° 04' ± 5'
Geometrical axis deviation	0° ± 12'	0° ± 12'	0° ± 12'

## 6-cylinder Sport Wagon (525i, 528i)

Parameter	Standard suspension	Sport suspension
Front axle		
Total toe	0° 5' ± 10'	0° 5' ± 10'
Camber (difference between left/right maximum 40')	- 13' ± 30'	- 36' ± 30'
Track (differential angle with 20° lock on inside wheel)	-1° 56' ± 30'	-1° 56' ± 30'
Caster (difference between left/right maximum 30')	N/A	N/A
With ± 10° wheel lock	6° 28' ± 30'	6° 41' ± 30'
With ± 20° wheel lock	6° 42' ± 30'	6° 55' ± 30'
Front wheel displacement	0° ± 15'	0° ± 15'
Inside wheel (approx. °)	42	41.5
Outside wheel (approx. °)	33.5	33
Rear axle		
Total toe	0° 16' ± 10'	0° 16' ± 10'
Camber (difference between left/right maximum 15')	-1° 50' ± 20'	-1° 50' ± 20'
Geometrical axis deviation	0° ± 12'	0° ± 12'

## Steering and Wheel Alignment

## V-8 Sedan (540i)

Parameter	Standard suspension	M Sport suspension	Sport suspension
Front axle			
Total toe	0° 14' ± 10'	0° 10' ± 10'	0° 14' ± 10'
Camber (difference between left/right maximum 40')	- 13' ± 30'	- 30' ± 30'	- 37' ± 30'
Track (differential angle with 20° lock on inside wheel)	-1° 35' ± 30'	-1° 43' ± 30'	-1° 44' ± 30'
Caster (difference between left/right maximum 30')	N/A	N/A	N/A
With ± 10° wheel lock	6° 18' ± 30'	6° 27' ± 30'	6° 34' ± 30'
With ± 20° wheel lock	6° 36' ± 30'	6° 49' ± 30'	6° 50' ± 30'
Front wheel displacement	0° ± 15'	0° ± 10'	0° ± 15'
Inside wheel (approx. °)	42	41.5	42
Outside wheel (approx. °)	32.6	32	31.8
Rear axle			
Total toe	0° 22' ± 4'	0° 10' ± 8'	0° 22' ± 4'
Camber (difference between left/right maximum 15')	-2° 04' ± 5'	-1° 49' ± 5'	-2° 04' ± 5'
Geometrical axis deviation	0° ± 12'	0° ± 12'	0° ± 12'

## V-8 Sport Wagon (540i)

Parameter	Standard suspension	Sport suspension
Front axle		
Total toe	0° 14' ± 10'	0° 14' ± 10'
Camber (difference between left/right maximum 40')	- 13' ± 30'	- 37' ± 30'
Track (differential angle with 20° lock on inside wheel)	-1° 35' ± 30'	-1° 44' ± 30'
Caster (difference between left/right maximum 30')	N/A	N/A
With ± 10° wheel lock	6° 18' ± 30'	6° 34' ± 30'
With ± 20° wheel lock	6° 36' ± 30'	6° 50' ± 30'
Front wheel displacement	0° ± 15'	0° ± 15'
Inside wheel (approx. °)	42	42
Outside wheel (approx. °)	32.65	31.8
Rear axle		
Total toe	0° 16' ± 10'	0° 16' ± 10'
Camber (difference between left/right maximum 15')	-1° 50' ± 20'	-1° 50' ± 20'
Geometrical axis deviation	0° ± 12'	0° ± 12'

