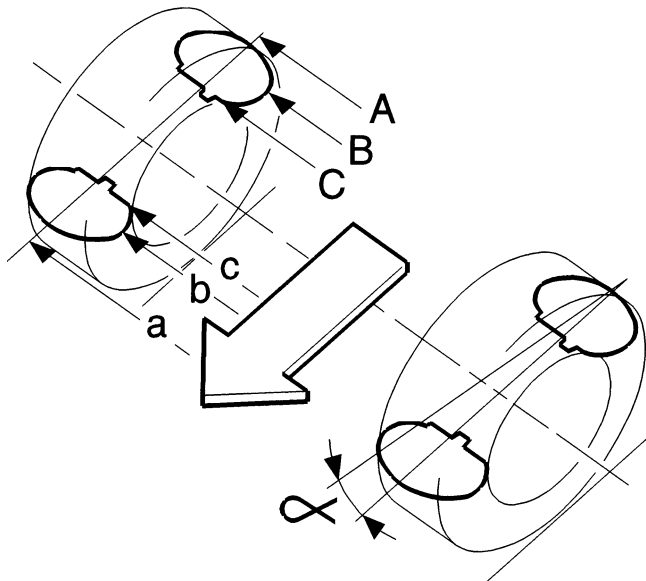


Section 6 Suspension and steering

Group 60 Wheel alignment

Turning circle, measured on S60 tyre sizes 195-225	11.2-12.2 m (37-40 ft)
Steering wheel turns, measured on tyre size 205	3.2

Toe-in:	S60 Check and setting values
Front:	
Camber	$-0.15^{\circ} \pm 0.9^{\circ}$
Caster	$4.0^{\circ} \pm 1^{\circ}$
Toe-in, can be adjusted	$0.1^{\circ} \pm 0.1^{\circ}$
Rear:	
Camber	$0^{\circ} \pm 1.0^{\circ}$
Toe-in, can be adjusted	$0.2^{\circ} \pm 0.2^{\circ}$
Thrust angle, can be adjusted	$0^{\circ} \pm 0.25^{\circ}$



Conversion table for Toe-in from degrees to mm (inches)

Wheel size:	A – a mm (inches)	B – b mm (inches)	C – c mm (inches)
Front wheel 16"	1.0 ± 1.0 ($0.04" \pm 0.04"$)	0.9 ± 0.9 ($0.04" \pm 0.04"$)	0.8 ± 0.8 ($0.03" \pm 0.03"$)
Rear wheel 16"		1.9 ± 1.9 ($0.075" \pm 0.075"$)	1.5 ± 1.5 ($0.060" \pm 0.060"$)

Group 61 Front suspension

Designation	Tightening torques		
	Nm	ft. lb.	Dimension
Mechanical component:			
Ball joint - Spring strut, steel	50 ± 12	37 ± 9	M10
Ball joint - Spring strut, aluminium . .	40 ± 10	30 ± 9	M10
Ball joint - Link arm	80 ± 20	59 ± 15	M12
Control arm - Sub-frame, Left:			
Step 1	65	48	M12
Step 2 angle-tightening	120°		
Control arm - Sub-frame, Right			
Step 1	65	48	M12
Step 2 angle-tightening	120°		
Control arm - Sub-frame:			
Step 1	105	78	M14
Step 2 angle-tightening	90°		
Anti-roll bar - Sub-frame	50 ± 12	37 ± 9	M10
Anti-roll bar - Link	50 ± 12	37 ± 9	M10
Link - Spring strut	80 ± 20	59 ± 15	M12
Shock absorber - Steering arm:			
Step 1	105	77	M14
Step 2 angle-tightening	60°		
Front wheel hub - Steering arm:			
Step 1	20	15	M12
Step 2	45		
Step 3 angle-tightening	60°		
Front wheel hub - Drive shaft	50 ± 12	37 ± 9	M10
Shock absorber - Upper bearing	70 ± 15	52 ± 11	M14

Group 64 Steering

Steering gear:	
Make	SMI
Turns of the steering wheel lock to lock:	
Tyre size: 195/65R15, 205/55R16	3.01
Tyre size: 215/55R16, 225/45R17	2.77
Gear ratios	16.4:1
Power steering balance check:	
Pump pressure at specified steering shaft torque	1.2 MPa
Torque on steering shaft	3.0 - 4.0 Nm (2.2 - 3 lbf ft.)
Greatest permitted difference between right and left	0.7 Nm (0.5 lbf ft.)
Lubricants:	
Grease	Volvo P/N: 11 61 001
Quantity	100 grams (0.2 lbs.)
Power steering fluid, power steering gear:	
Oil type: PENTOSIN, CHF 11S:	
Power steering fluid	Volvo P/N: 11 61 529
Quantity	0.9 litres (0.95 qt)
Power steering pump:	
Maximum pressure	11 MPa

Tightening torques

Mechanical component: Designation:	Tightening torques Nm	Tightening torques lbf ft.	Dimen- sion
Steering wheel - Steering column	40 ± 10	30 ± 7	M14
Airbag unit - Steering wheel . .	10 ± 2.5	7 ± 2	M6
Steering shaft, lower - Steering column	25 ± 6	18 ± 4. 5	M8
Steering shaft, lower - Steering gear	25 ± 6	18 ± 4.5	M8
Steering column - X member . .	25 ± 6	18 ± 4.5	M8
Steering gear - Sub-frame, side	50 ± 12	37 ± 9	M10
Steering gear - Mounting, centre	50 ± 12	37 ± 9	M10
Track rod - Outer ball joint	70 ± 15	52 ± 11	M14
Track rod ball joint - Steering arm, aluminium	80 ± 20	59 ± 15	M12
Bracket - Sub-frame	50 ± 12	37 ± 9	M10
Strut, steering column - Strut, A post	25 ± 6	18 ± 4.5	M8
Heat deflector plate - Steering gear	6 ± 1.5	4.5 ± 1	M5
Mounting, centre - Sub-frame . .	50 ± 12	37 ± 9	M10

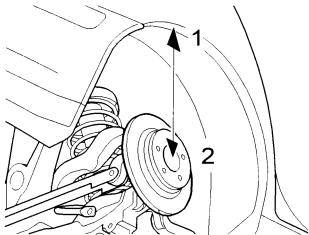
Group 65 Rear suspension

Mechanical component	Tightening torques	Tightening torques	Dimension
Designation:	Nm	lbf ft.	
Sub-frame - Lower control arm	80 ± 20	59 ± 15	M12
Control arm upper, rear - Sub-frame	80 ± 20	59 ± 15	M12
Control arm upper, front - Sub-frame	80 ± 20	59 ± 15	M12
Sub-frame - Track rod	80 ± 20	59 ± 15	M12
Anti-roll bar - Sub-frame	80 ± 20	59 ± 15	M12
Lateral link - Sub-frame	80 ± 20	59 ± 15	M12
Lateral link - Wheel unit	80 ± 20	59 ± 15	M12
Sub-frame, front - Car body	80 ± 20	59 ± 15	M12
Sub-frame, rear - Car body	80 ± 20	59 ± 15	M12
Shock absorber - Upper bearing	60 ± 15	44 ± 11	M12
Lower control arm - Wheel unit	80 ± 20	59 ± 15	M12
Bottom flange - Body	80 ± 20	59 ± 15	M12
Track rod - Wheel unit	80 ± 20	59 ± 15	M12
Bracket ABS cable - Lateral link	2.4 ± 0.4	2 ± 0.2	ST4.8
Control arm lower - Shock absorber	80 ± 20	59 ± 15	M12
Upper bearing - Spring mounting	25 ± 6	18 ± 4.5	M8
Link - Anti-roll bar	80 ± 20	59 ± 15	M12
Upper control arm - Link	80 ± 20	59 ± 15	M12
Rear wheel hub - Wheel bearing housing			M12
Step 1	20	15	
Step 2	45	33	
Step 3 angle-tightening	60°		
EVAP canister - Sub-frame	25 ± 6	18 ± 4.5	M8
Control arm upper - Wheel unit	80 ± 20	59 ± 15	M12
Exhaust mounting - Sub-frame	25 ± 6	18 ± 4.5	M8
Upper bearing - Body	25 ± 6	18 ± 4.5	M8
Bump rubber bracket - Body	25 ± 6	18 ± 4.5	M8

S60

Group 65 Rear suspension

Mechanical component Designation:	Tightening torques Nm	Tightening torques lbf ft.	Dimen- sion
Spring mounting - Body	50 ± 12	37 ± 9	M10
EVAP canister bracket - EVAP canister	10 ± 2.5	7 ± 2	M6

Group 65 Rear suspension

D6500352

Tightening the screwed joint in the control arms

Tighten when the rear suspension is in the normal position:

The normal position of the rear suspension is when the distance from the fender edge 1

to centre of wheel 2)

is the following:

2WD

394 ± 1 mm

(15.5 ± 0.04 ")