

Section 6 Front suspension and steering

Group 60 Wheel alignment

Turning circle, measured at tyres	metres	10.2
measured at bumpers	metres	11.5
Steering wheel turns		3.2

Angle (*can be adjusted)	Checking and adjustment values	Max. difference between right and left sides
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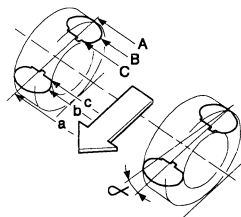
Front

Camber	$0^{\circ} \pm 1^{\circ}$	1°
Can be adjusted $\pm 1^{\circ}$ using a conversion kit. See service manual.		
Caster	$3^{\circ} 20' \pm 1^{\circ}$	1°
Toe-in*	$20' \pm 6'$	$6'$
Wheel deflection		
inner wheel	$39.9^{\circ} \pm 1.6^{\circ}$	
outer wheel	$34.8^{\circ} \pm 0.9^{\circ}$	

Rear

Camber	$-1^{\circ} \pm 30'$
Toe-in*	$4' \pm 10'$
Angle of thrust *	$0^{\circ} \pm 15'$

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



∞	A - a	B - b	C - c
$20' \pm 6'$	3.6 ± 1.0 mm ($0.14'' \pm 0.04''$)	2.9 ± 0.9 mm ($0.11'' \pm 0.04''$)	2.4 ± 0.7 mm ($0.09'' \pm 0.03''$)

Group 61 Front wheel suspension

Tightening torque	Nm	Dim.	ft. lb
Ball joint - Spring strut.....	40	M 10	30
Ball joint - Control arm, stage 1.....	18	M 8	13
stage 2..... angle-tighten	120°		120°
Control arm - Sub-frame, stage 1.....	65	M 12	48
stage 2..... angle-tighten	120°		120°
Anit-roll bar - Subframe.....	50	M 10	37
Anti-roll bar - Link.....	50	M 10	37
Link - Spring strut.....	50	M 10	37
Spring strut - Body.....	25	M 8	18
Shock absorber - Steering knuckle, stage 1.....	65	M 12	48
stage 2.. angle-tighten	90°		90°
Front wheel hub - Steering knuckle, stage 1.....	20	M 12	15
stage 2.....	45		33
stage 3 angle-tighten	60°		60°
Front wheel hub - Driveshaft, stage 1.....	120	M 20	89
stage 2..... angle-tighten	60°		60°
Union - Shock absorber.....	70	M 14	52
Shock absorber - Upper bearing.....	70	M 14	52

Group 64 Steering

Steering gear	
Make	CAM GEAR
No. of turns lock to lock	3,2
Ratio	16.8:1
Clearance between pre-tensioning piston and cover.....mm	0.05 - 0.12
Frictional torque	
measured on input shaft	Nm 0.6 - 1.8
Checking servo balance:	
pump pressure when measuring st. wheel torque.....Mpa	1.2
torque on steering wheel	Nm 3.4 - 4.0
max. deviation between right and left locks	Nm 0.7
Lubricant, type	Grease, Volvo P/N 11 61 001-1
quantity	gram 100
Hydraulic oil, ATF-oil	type F, G
	Dexron D/E
	Ford Mercon
quantity	litres 0.8
Servo pump	
Max.pressure	Mpa 8.3

Tightening torque, steering	Nm	Dim.	ft.lb
Steering wheel - Steering column, upper	40	M 12	30
Airbag unit - Steering wheel	10	M 6	7
Steering shaft, lower - Steering column, steering gear	20	M 8	15
Steering column - Bracket	16	M 8	12
Steering gear - Subframe.....	50	M 10	37
Steering gear - Anchorage, middle.....	80	M 12	59
Tie rod - Outer ball joint	70	M 14	52
Tie rod ball joint - Steering arm	70	M 12	52
Steering column, lower anchorage - Bracket	25	M 8	18
Bracket - Subframe	25	M 8	18
Stop, steering gear - Subframe.....	50	M10	37
Stop - Bracket, servo pipe	25	M 8	18
Anchorage, middle - Subframe	50	M 10	37
Stay, steering column - A-pillar	25	M 8	18
Impact barrier, servo pump - Front attachment plate.....	25	M 8	18

Group 65 Rear wheel suspension

Tightening torques	Nm	Dim.	ft. lb
Rear axle link - Body, stage 1	105	M 14	77
stage 2 angle-tighten	90°		90°
Bracket - Body, stage 1	65	M 12	48
stage 2 angle-tighten	60°		60°
Rear axle link - Support arm, stage 1	65	M 12	48
stage 2 angle-tighten	120°		120°
Bushing housing - Cross stay, stage 1	50	M 10	37
stage 2 angle-tighten	120°		120°
Bushing - Cross stay	80	M 12	59
Shock absorber - Lower attachment	80	M 12	59
Shock absorber - Upper bearing.....	40	M 10	30
Shock absorber (Nivomat) - Upper bearing) M 12.....	40	M 12	30
M 10.....	30	M 10	22
Spring attachment - Spring seat.....	50	M 10	37
Rear wheel hub - Wheel axle, stage 1	120	M 20	89
stage 2 angle-tighten	30°		30°
Wheel axle - End plate, stage 1	35	M 10	26
stage 2..... angle-tighten	60°		60°
Upper bearing - Body	25	M 8	18
Anti-roll bar - Tie plate, left, stage 1	50	M 10	37
stage 2..... angle-tighten	90°		90°
Washer, upper spring attachment - Body.....	50	M 10	37
Wheel - Hub	110	M 12	81
Anti-roll bar - Cross stay, left, stage 1,.....	65	M 12	48
stage 2, angle-tighten	90°		90°
Anti-roll bar - Cross stay, right, stage 1	65	M 12	48
stage 2, angle-tighten	90°		90°
Anti-roll bar - Cross stay, right.....	50	M 10	37