

Section 6 Suspension and steering

Group 60 Wheel alignment

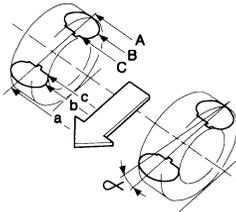
General

Turning circlemetres 9.9
 Steering wheel turns 3.5

Wheel alignment, front

Caster 15" wheel 5° 00' ± 30'
 16" wheel 4° 30' ± 30'
 Camber 18' ± 30'
 difference between right and left sidesmax. 21'
 Toe-inmm 18' ± 8'

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



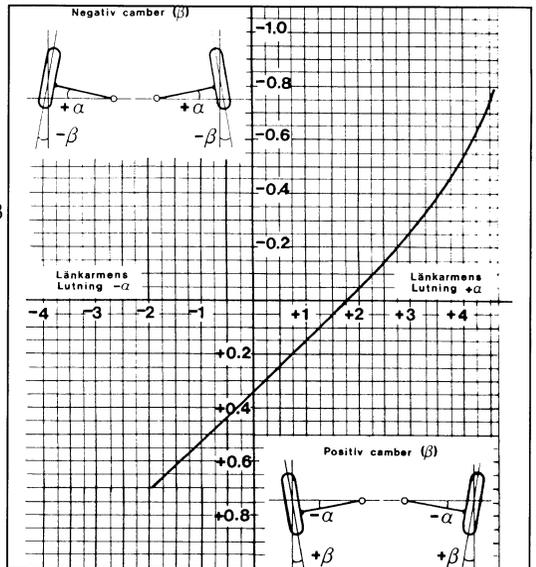
	A - a	B - b	C - c
15" wheel	3.2 ± 1.4 mm 0.12 ± 0.05"	2.3 ± 1.2 mm 0.09 ± 0.05"	2.1 ± 0.9 mm 0.08 ± 0.04"
16" wheel	3.3 ± 1.5 mm	2.4 ± 1.3 mm	2.2 ± 1.0 mm

Wheel alignment, rear (Multi link)

Toe-in
 in degrees 2' ± 3'
 in mm 0.5 ± 0.8

Toe-in variation with load on lower control arm of 8° ± 1°
 max./wheel 3'

Camber
 see diagram



Group 61 Front wheel suspension

Tightening torque	Nm	ft. lb
Front axle member - Body	95	70
Control arm - Front axle member	90	66
Control arm - Ball joint	70	52
Control arm stay - Control arm	100	74
Control arm stay - Body	120	89
Anti-roll bar link - Control arm.....	90	66
Ball joint - Spring strut.....angle-tighten	30 + 90°	22 + 90°
Steering rod - Steering arm	60	44
Upper bearing - Body	50	37
Upper bearing - Shock absorber.....	70	52
Front wheel hub - Stub axle	100 + 45°	74 + 45°

Group 64 Steering

Steering gear			
Make	CAM GEAR	ZF	KOYO
Number of turns lock to lock.....	3.5	3.5	3.5
Ratio	16.9:1	16.9:1	16.9:1
Clearance between pre-tensioning piston and cover.....mm	0.05 - 0.12	0.025 - 0.05	
Frictional torque, measured on input shaft	Nm 0.6 - 1.7 (0.4 - 1.25)	0.6 - 2.1 (0.4 - 1.55)	0.6 - 1.7 (0.4 - 1.25)
Checking servo balance: pump pressure when measuring steering wheel torque.....Mpa	1.2	1.2	1.2
torque on steering wheel	Nm(ft lb) 3.5 - 4.5 (31 - 40)	3.5 - 4.5 (31 - 40)	3.5 - 4.5 (31 - 40)
max. deviation between right and left locks...Nm(ft lb)	1.0(0.7)	1.0(0.7)	1.0(0.7)
Lubricant, type	Grease, Volvo P/N 11 61 001-1	11 61 001-1	11 61 001-1
quantity	grams 100	100	
Hydraulic oil, ATF-oiltype	F, G, Dexron D/E	F, G, Dexron D/E	F, G, Dexron D/E
quantity	litres 0.8	0.8	0.8
Servo pump			
Max. pressure	Mpa 9.3 - 10.0		

Tightening torque, steering	Nm	ft. lb
Steering worm.....	34	25
Steering shaft knuckles, bolts.....	24	18
Steering gear - Front axle member.....	35 + 150°	30 + 150°
Steering rod - Outer ball joint.....	70	52
Steering arm -Outer ball joint.....	60	44
Steering module, torx-screws.....	6	4.4
Sound-proofing /Knee bolster.....	8	6
Steering column in pass. comp.....	24	18
Steering shaft - Steering column.....	24	18
Lever for steering wheel angle adjustment.....	3	2.2
Hoses to steering gear, pressure.....	30	22
return.....	25	18

Group 65 Rear wheel suspension

Tightening torque	Nm	ft. lb
Control arm lower - Suspension upright..... angle-tighten	50 + 90°	37 + 90°
Control arm lower - Rear axle member..... angle-tighten	50 + 90°	37 + 90°
Stud - Body.....	70	52
Support arm bracket - Body, nut..... angle-tighten	70 + 90°	52 + 90°
Support arm bracket - Body, bolt.....	50	37
Support arm bracket - Support arm anchorage..... angle-tighten	125 + 120°	92 + 120°
Support arm - Suspension upright..... angle-tighten	60 + 90°	44 + 90°
Control arm upper - Suspension upright.....	120	89
Control arm upper - Rear axle member, front... angle-tighten	70 + 60°	52 + 60°
Control arm upper - Rear axle member, rear.....	90	66
Track rod - Suspension upright.....	90	66
Track rod - Rear axle member.....	70	52
Rear axle member, front - Body..... angle-tighten	70 + 60°	52 + 60°
Rear axle member, rear - Body..... angle-tighten	70 + 60°	52 + 60°
Final drive, front - Rear axle member.....	160	118
Final drive, rear - Rear axle member.....	160	118
Bracket wire - Rear axle member.....	25	18
Shock absorber - Support arm.....	60	44
Shock absorber - Body.....	90	66
Wheel nut, driveshaft - Driveshaft..... angle-tighten	140 + 60°	103 + 60°
Buffer - Suspension upright.....	25	18
Protector plate - Rear suspension upright.....	25	18
Brake caliper - Suspension upright.....	60	44