

Section 5 Brakes

Group 51 Wheel brakes

Wheel brakes, technical data

Brake fluid, type: DOT 4 +		
Front wheel brake, 16"	mm	Inches
Brake disc (ventilated):		
Outer diameter	305	12.01"
Thickness, new	28	1.10"
Replace when at minimum	25	0.98"
Minimum thickness for brake pad replacement	25.8	1.02"
Maximum lateral runout, disc uninstalled	0.020	0.0008"
Maximum lateral runout, on hub	0.040	0.0016"
Maximum thickness variation	0.008	0.0003"
Wheel cylinder:		
Piston diameter	60	2.36"
Brake pads (Textar 4005 FF):		
Thickness, new (thickness of backing plate not included)	13.5	0.53"
Thickness, minimum (thickness of backing plate not included)	3.0	0.12"
Rear wheel brake		
Brake disc (solid):		
Outer diameter	288	11.34"
Thickness, new	12	0.47"
Replace when at minimum	10	0.39"
Minimum thickness for brake pad replacement	10.7	0.42"
Maximum lateral runout, disc uninstalled	0.030	0.0012"
Maximum lateral runout, on hub	0.050	0.00196"
Maximum thickness variation	0.008	0.0003"
Wheel cylinder:		
Piston diameter	42	1.65"
Brake pads (Roulund DB 8034 E):		
Thickness, new (thickness of backing plate not included)	11.5	0.45"

Thickness, minimum (thickness of backing plate not included)	3.0	0.12"
Master cylinder, type ATE tandem:		
Primary cylinder, diameter	25.4	1"
Secondary cylinder, diameter	25.4	1"
Servo cylinder:		
Type ATE	inches	9x8
Gear ratio (in practice)	5.8	

Group 55 Parking brake

Technical data

	mm	Inches
Brake drum:		
Diameter	178	7.01"
Radial runout, maximum	0.15	0.0059"
Out of round, maximum	0.15	0.0059"
Default values: Full force should be achieved:		
After adjustment	2-5 notches	
When checking, maximum	8 notches	
Always check that the wheels run freely after adjusting them.		

Tightening torques

Mechanical component:	Nm	ft.lb
Mounting screws, front brake calliper:		
Steering arm, steel	100 ± 25	74 ± 18.5
Steering arm, aluminium	100 ± 25	74 ± 18.5
Rear brake calliper - Rear wheel bearing housing ..	50 ± 12	37 ± 9
Backing plate:		
Steering arm, steel	20 ± 5	15 ± 3.5
Steering arm, aluminium	15 ± 3.5	11 ± 2.5
Backing plate, stub axle - Rear wheel bearing housing	10 ± 2.5	7.4 ± 2
Brake calliper, sliding pin	27.5 ± 2.5	20 ± 2
Wheel hub:		
When servicing the following apply	140 ± 30	103 ± 22

Group 59 Anti-lock brakes (ABS)

Mounting nuts:		
Master cylinder - booster	25 ± 4	18.5 ± 3
Booster - firewall	25 ± 4	18.5 ± 3
Bleed nipples:		
Front	9 ± 2	7 ± 1.5
Rear	9 ± 2	7 ± 1.5
Brake pipe, unions	14 ± 3	10 ± 2
Brake hoses - brake calliper	14 ± 2	10 ± 1.5

Group 59 Anti-lock brakes (ABS)

Designation: Component	Version Technical data
Hydraulic pump (MK 20 IE): Complete with control module.	
ABS Volvo P/N	See replacement parts catalogue
STC Volvo P/N	See replacement parts catalogue
Control module (MK 20 IE):	
ABS Volvo P/N	See replacement parts catalogue
STC Volvo P/N	See replacement parts catalogue
DSTC, TRACS AWD Volvo P/N	See replacement parts catalogue
Power consumption:	
Intake valves	< 3 A
Return valves	< 3 A
Sensors:	
Front (ATE) Volvo P/N	See replacement parts catalogue
Rear (ATE) Volvo P/N	See replacement parts catalogue
Tightening torques	Nm (ft.lb.) 10 (7)
Pulse wheel:	
Front Volvo P/N	See replacement parts catalogue

Rear FAG, integrated with the rear bearing. Cannot be replaced as a separate component	Volvo P/N.	See replacement parts catalogue
Rear wheel bearing With pulse wheel	Volvo P/N	See replacement parts catalogue