

Section 5 Brakes

Group 51 Wheel brakes

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"
Min thickness at brake pad replacement	25.8	1.02"
Max lateral runout, floating disc	0.020	0.0008"
Max lateral runout, on hub	0.040	0.0016"
Max thickness variation	0.008	0.0003"
Wheel cylinder:		
Piston diameter	60	2.36"
Brake pads (Jurid 950):		
Thickness, new (thickness of backing plate not included)	12.5	0.49"
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"
Must be replaced at min	10	0.39"
Min thickness at brake pad replacement	10.7	0.42"
Max lateral runout, floating disc	0.030	0.0012"
Max lateral runout, on hub	0.050	0.00196"
Max thickness variation	0.008	0.0003"
Wheel cylinder:		
Piston diameter	42	1.65"
Brake pads (Galfer):		

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Thickness, new (thickness of backing plate not included)	11.5	0.45"
Thickness, minimum (thickness of backing plate not included)	3.0	0.12"

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Master cylinder	mm	Inches
Master cylinder, type ATE tandem:		
Primary cylinder, diameter	25.4	1"
Secondary cylinder, diameter	25.4	1"
Servo cylinder:		Inches
Type: ATE	inches	9 x 8"
	Servo cylinder gear ratio:	
Gear ratio (in practice)	5.8	

Group 55 Parking brake

Technical data

Technical data and default values:	mm	Inches
Brake drum:		
Diameter	178	7.01"
Radial runout, maximum	0.15	0.0059"
Maximum out of round	0.15	0.0059"
Default values. Full power must be maintained:		
After adjustment	2-5 notches	
When checking, maximum	8 notches	
Always check that the wheels run freely after adjusting.		

Tightening torques

Mechanical component:	Nm	lbf ft.
Mounting screws, front brake calliper:		
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 applies	140 ± 30	103 ± 22
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)

Technical data

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
FWD 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 (lbf ft.) 10 (7)
Pulse wheel:	
Front Volvo P/N.	See replacement parts catalogue
Rear FAG, integrated in the rear bearing. Cannot be replaced as a separate component	Volvo P/N. See replacement parts catalogue
Rear wheel bearing Assembly with pulse wheel	Volvo P/N. See replacement parts catalogue