

Section 5 Brakes

Group 51 Wheel brakes

Brakes, Technical data

Brake fluid, type: DOT 4 +	16"		17"	
Front wheel brake	mm	Inches	mm	Inches
Brake disc (ventilated):				
Outer diameter	306	12.01"	336	13.22"
Thickness, new	28	"	30	1.18"
Replace when at minimum	25	0.98"		
Min thickness for 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	16"		17"	
Brake disc (solid):				
Outer diameter	308	11.34"	308	11.34"
Thickness, new	20	0.78"	20	0.78"
Must be replaced at min	10	0.39"		
Min thickness for 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):				
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	mm	Inches
Master cylinder, type ATE tandem:		
Primary cylinder, diameter	25.4	1"
Secondary cylinder, diameter	25.4	1"
Servo cylinder:		Inches
Type: ATE (twin booster)	inch	10" +10"
	Servo cylinder gear ratio:	
Gear ratio (in practice)	5.8	

Tightening torques

Designation	Nm	lbf ft.	Dimensions
Brake calliper - Steering arm	100 ± 25	74 ± 18	M12
Bleed nipple brake calliper front, rear	9 ± 2	6.6 ± 1.5	M10
Guard plate front - Steering arm	20 ± 5	15 ± 3	M8
Locating pin	10 ± 2.5	7 ± 2	M6
Brake calliper rear - Wheel bearing housing	60 ± 15	44 ± 11	M10
Brake calliper rear - Sliding pin	27.5±2.5	20 ± 2	M9
Guard plate rear - Wheel bearing housing ..	12 ± 3	9 ± 2	M6
Brake pipe - Modulator, ABS	14 ± 3	10 ± 2	M10/M12
Brake pipe - Master cylinder	14 ± 3	10 ± 2	M12
Brake pipe - Brake hose	14 ± 3	10 ± 2	M10
Brake lamp	18 ± 2	13 ± 1.5	M10
Bracket vacuum pump - Front side member	8 ± 2	6 ± 1.5	M6
Brake pipe - Joint fitting	14 ± 3	10 ± 2	M10
Brake hose bracket - Bottom flange	25 ± 6	18 ± 4	M8
Brake hose bracket - Side member	10 ± 2.5	7 ± 2	M6
Mounting brake pedal, left-hand drive Automatic	30 ± 5	22 ± 3	M10
Mounting brake pedal, left-hand drive Manual	40 ± 10	29 ± 7	M10
Mounting brake pedal, right-hand drive Manual	35 ± 5	26 ± 3	M10
Mounting clutch pedal	35 ± 5	26 ± 3	M10
Pedal box right-hand drive - Plenum	25 ± 6	18 ± 4	M8
ABS sensor - Steering arm	10 ± 2.5	7.5 ± 2	M6
Handbrake cable bracket - Sub-frame	20 ± 6	15 ± 4	M8
Bracket ABS cable - Shock absorber front 4WD	6 ± 1.5	4.5 ± 1	M5
Brake pads, locating pin	30 ± 5	22 ± 3	

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Servo unit, nut (mounting)	24 ± 5	17 ± 3	
Brake disc locating pin	8 ± 2	6 ± 1.5	
Master cylinder on cars with DSTC (Dynamic stability and traction control), nut (mounting)	24 ± 5	17 ± 3	

Group 55 Handbrake

Technical data

Technical data and default values:	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 power must be maintained:		
After adjustment		2-5 notches
When checking, maximum		8 notches
Always check that the wheels run freely after adjusting.		

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Group 59 ABS brakes

Group 59 ABS brakes

Technical data

Designation: Component	Version Technical data
Hydraulic pump (MK 25 IE): Complete with control module.	
ABS Volvo P/N.	See replacement parts catalogue
STC Volvo P/N.	See replacement parts catalogue
Control module (MK 25):	
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 (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