

## Section 5 Brakes

## Group 51 Wheel brake

<b>Brake fluid</b>		
Quality .....		DOT 4 +
<b>Front wheel brake, 16"</b>		
<b>Brake disc (ventilated)</b>		
outer diameter .....	mm	302
thickness, new .....	mm	26.0
must be replaced at min .....	mm	23.0
min thickness at brake pad replacement .....	mm	23.8
max lateral runout, loose disc .....	mm	0.035
on hub .....	mm	0.040
max thickness variation .....	mm	0.008
<b>Cylinder</b>		
inner diameter .....	mm	57.00
<b>Brake pads (Textar 4005 FF)</b>		
thickness, new .....	mm	14.0
min .....	mm	3.0
<b>Rear wheel brake</b>		
<b>Brake disc (solid)</b>		
outer diameter .....	mm	295
thickness, new .....	mm	9.6
must be replaced at min .....	mm	8.4
min thickness at brake pad replacement .....	mm	8.9
max lateral runout, loose disc .....	mm	0.050
on hub .....	mm	0.080
max thickness variation .....	mm	0.008
<b>Brake pads (Roulund DB 8034 E)</b>		
thickness, new .....	mm	9.4
min .....	mm	2.0
<b>Cylinder</b>		
inner diameter .....	mm	38

<b>Master cylinder, type ATE tandem</b>	
Primary cylinder, diameter .....	mm 23.81
Secondary cylinder, diameter .....	mm 20.64
<b>Servo cylinder</b>	
type ATE .....	inches 1 * 10
Gear ratio .....	4.5 : 1

## Group 55 Parking brake

<b>Parking brake</b>	
Brake drum, diameter .....	mm 178
radial runout, maximum .....	mm 0.15
maximum out of round .....	mm 0.15
Full power must be maintained, readjustment .....	notch 3 - 5
when checking, maximum .....	notch 11
<b>Tightening torques</b>	<b>Nm</b>
Mounting screws, front brake caliper .....	100
rear brake caliper .....	50
protective panel, steering knuckle .....	10
protective panel, stub axle .....	25
brake caliper, sliding pin .....	30
Wheels (stud) .....	110
Mounting nuts, master cylinder .....	25
Mounting nuts, servo cylinder .....	25
Bleed nipples, front .....	9
Bleed nipples, rear .....	5
Brake pipe, screw caps .....	14
Brake hoses to OK .....	18

## Group 59 Anti-lock brakes (ABS)

<b>Hydraulic pump (ATE Mk 4)</b>		
without TRACS .....	Volvo P/N	91 40 248
with TRACS .....	Volvo P/N	91 40 249
<b>Control module (ATE Mk 4)</b>		
without TRACS .....	Volvo P/N	91 40 773
with TRACS .....	Volvo P/N	91 62 675
<b>Intake valves</b>		
power use .....	A	1.75
<b>Return valves</b>		
power use .....	A	3.30
<b>Sensors</b>		
front (ATE) .....	Volvo P/N	68 49 311
rear (ATE) .....	Volvo P/N	91 62 612
resistance .....	$\Omega$	1100 $\pm$ 10%
tightening torques .....	Nm (ft. lb.)	10 (7)
<b>Pulse wheel</b>		
front .....	Volvo P/N	68 14 502
rear (Koyo) .....	Volvo P/N	13 87 941
<b>Position sensor brake pedal</b>		
resistance, resting position .....	$\Omega$	249 $\pm$ 10%
resistance, fully depressed .....	$\Omega$	$\infty$