

Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Engine and cooling system 9000 2.3 Turbo CAT 1993

Type		B234R DOHC 16V turbo 166kW
Capacity (cm ³) / number of cylinders		2290 / 4
Compression ratio / pressure	bar	8.5 / _
Oil pressure	bar	[2.7]
Oil temperature	°C	80
Valve clearance - inlet	mm	0: Hyd.
- exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		TCE
Thermostat opening temperature	°C	89±2
Radiator cap pressure	bar	0.8 to 1.2

Fuel system 9000 2.3 Turbo CAT 1993

Idle speed - manual [auto]	rpm	875
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.0±0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	_
O ₂ @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Saab
Type / ref		Trionic
Main jet / needle		_
Injection pressure	bar	3.0
Pump pressure	bar	3.0
Octane rating	RON	91[U]

Ignition system 9000 2.3 Turbo CAT 1993

Type		Direct electronic
Ignition coil		Saab
Primary resistance	ohms	_
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		_
Points gap (air gap)	mm	_
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static V = Vacuum NV = No Vacuum]	° Crankshaft @ rpm	Computer control
Total ignition advance	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	° Crankshaft	_
Spark plugs		NGK
Type		BCPR7ES
Electrode gap	mm	1.00+0.1-0.2

Electrical system 9000 2.3 Turbo CAT 1993

Battery	V / CC / RC	12 / 60Ah
Alternator voltage / full load current / engine rpm		13.9 to 14.8 / 80 / 2500
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear 9000 2.3 Turbo CAT 1993

Brakes -		
Front (min. friction material thickness)	mm	4.0
Rear (min. friction material thickness)	mm	4.0

Tyres		
Saloon	Size	205/50x16
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	WSM
- Estate / Van	bar	_

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	+1.5±0.5
Camber		-0.65°±0.5°
Castor		+1.65°±0.5°
King pin inclination		+11.3°±0.5°

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	+2.5±1.5
Camber		-0.5°±0.25°

Torque wrench settings 9000 2.3 Turbo CAT 1993

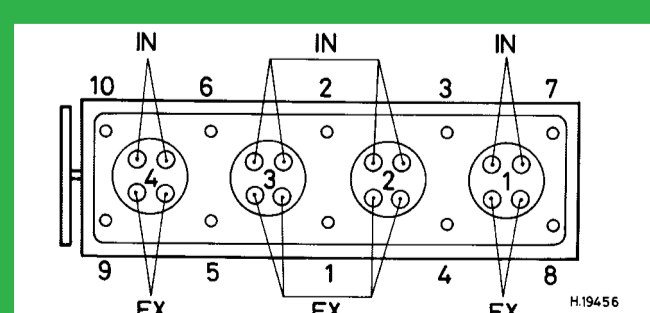
Cylinder head - stage 1	Nm	60
- stage 2	Nm	80
- stage 3	Nm	+90°
- stage 4	Nm	_
Big-end bearings	Nm	48
Main bearings	Nm	110
Clutch cover	Nm	22±2
Flywheel [driveplate]	Nm	60 ¹
Front hubs	Nm	280 to 300
Rear hubs	Nm	290±10
Wheel nuts / bolts	Nm	115±10
Spark plugs	Nm	28

Capacities 9000 2.3 Turbo CAT 1993

Engine oil & filter	litres	4.3
Gearbox - 4-speed [5-speed]	litres	2.5
Automatic transmission - refill	litres	3.0 to 3.5
Final drive	litres	WT
Cooling system	litres	9.0
Fuel tank	litres	66

Notes and Illustrations

¹19mm head bolts: 85



2290 cm³