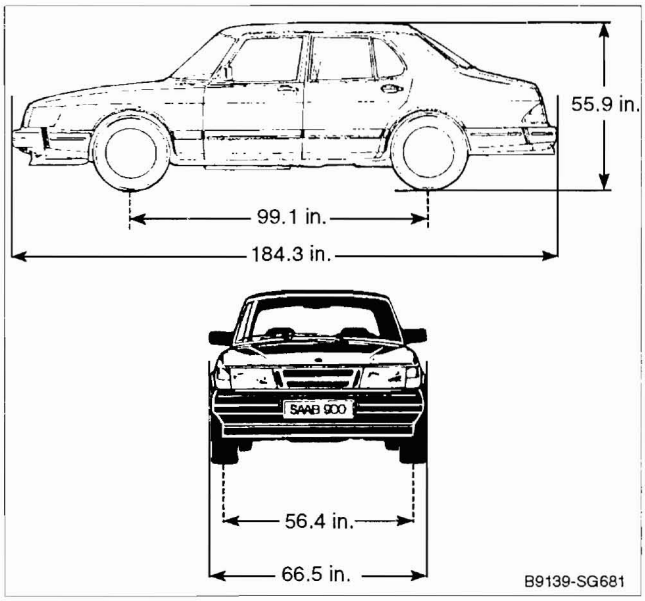
010 Technical Data—General

TECHNICAL DATA—GENERAL



General	mm	in.
Overall length (sedans, convertibles)	4680	184.3
Overall length (hatchback)	4687	184.5
Overall width	1690	66.5
Overall height (at curb weight)	1419	55.9
Overall height with convertible at highest point	2230	87.8
Road clearance (full load)		
SPG models	120	4.7
all other models	137	5.4
Track (front)		
alloy wheels	1430	56.4
steel wheels	1437	56.6

	mm	in.
Track (rear)	1440	56.7
Wheelbase	2517	99.1
Turning radius	5600	220.5
	kg.	**lb.**
Curb weight (depending on equipment)	1252-1411	2755-3105
Gross vehicle weight (depending on equipment)	1677-1768	3690-3890
Weight distribution		
at curb weight	59-62% front	
at gross weight	52-55% front	
Vehicle capacity weight—ex. conv. (five people, 180 lb. luggage)	422	930
Maximum roof rack load—ex. conv.	100	220
Maximum trailer weight:		
trailer with brakes	900	2000
trailer without brakes	450	1000
Maximum trailer tongue weight	75	165
Trunk volume (SAE)		
hatchback		14.9 cu.ft.
hatchback, parcel shelf removed		19.1 cu.ft.
sedan		14.2 cu.ft.
convertible		10.7 cu.ft.

Engine Specifications

Model	Year	Displacement cc (cu. in.)	Compression ratio	Horsepower @ rpm SAE net	Torque lb-ft @ rpm SAE net	Fuel system
900/900S/Convertible	1986-1987	1985 (121)	10.1:1	125 @ 5500	128 @ 3000	Bosch LH 2.2
	1988	1985 (121)	10.1:1	128 @ 6000	128 @ 3000	Bosch LH 2.4
	1989-1990	1985 (121)	10.1:1	128 @ 6000	128 @ 3000	Bosch LH 2.4
	1991-1993	2118 (129)	10.1:1	140 @ 6000	133 @ 2900	Bosch LH 2.4.2
900 Turbo/Turbo Convertible	1985-1988	1985 (121)	9.0:1	160 @ 5500	188 @ 3000	Bosch LH 2.2
	1989-1993	1985 (121)	9.0:1	160 @ 5500	188 @ 3000	Bosch LH 2.4
900 SPG	1985-1986	1985 (121)	9.0:1	160 @ 5500	188 @ 3000	Bosch LH 2.2
	1987-1988	1985 (121)	9:0:1	165 @ 5500	195 @ 3000	Bosch LH 2.2
	1989	1985 (121)	9.0:1	165 @ 5500	195 @ 3000	Bosch LH 2.4
	1990-1991	1985 (121)	9.0:1	175 @ 5500	195 @ 3000	Bosch LH 2.4

LUBRICATION AND MAINTENANCE—QUICK DATA

Engine Oil Change	
Saab recommended engine oil	SAE 10W-30, API Service Rating SG or SF/CD
Alternate for extremely hot climates	15W-40, API Service Rating SG or SF/CD
Engine oil drain plug tightening torque (13 mm or 19mm wrench size)	29-39 Nm (21-29 ft-lb)
Engine Oil Capacity (including filter)	4.2 quarts (4.0 liters)

Ignition System Applications	
1985-1992 turbo models	basic Hall ignition
1986-1992 non-turbo models	EZK ignition —Hall-effect with knock sensor

Spark Plug Applications	
Model	**Spark Plug**
1986-1988 Normally aspirated	NGK BCP 6ES
alternate	NGK BCP 6EV
1989-1993 Normally-aspirated	NGK BCP 5ES

Spark Plug Applications	
Model	**Spark Plug**
1985-1993 Turbo	
normal driving	NGK BCP 7EV
alternate	NGK BCP 7ES
city driving	NGK BCP 6EV
alternate	NGK BCP 6ES
Spark plug electrode gap	0.024-0.028 in. (0.6-0.7 mm)
Tightening torque—sparkplugs	25 to 29 Nm (18 to 21 ft-lb)

Ignition Timing	
Distributor vacuum hose disconnected and plugged, where applicable	
Turbo models	16°BTDC @ 850 rpm
Normally aspirated models	14°BTDC @ 850 rpm

Cooling System	
Capacity (50/50 mixture anti-freeze and water)	10.5 quarts (10 liters)

Engine Drive Belt Tensions (measure using special belt tensioning gauge)		
Drive belt tension	**N**	**(lb)**
Alternator		
checking (minimum)		
one belt	200	(45)
two belts	420	(95)
adjusting, used belts		
one belt	310±20	(70±5)
two belts	645±20	(145±5)
adjusting, new belts		
one belt	535±45	(120±10)
A/C compressor		
checking (minimum)	245	(55)
adjusting, used belt	355±20	(80±5)
adjusting, new belt	535±45	(120±10)
Power steering		
checking (minimum)	220	(50)
adjusting, used belt	310±20	(70±5)
adjusting, new belt	445±45	(100±10)

Manual Transmission	
Grade of oil	SAE 10W-30 SF/CC, SF/CD, SG
Alternate grade of oil	SAE EP 75 API-GL-4 or API-GL-5
Oil capacity	3.1 quarts (3.0 liters)

Automatic Transmission	
ATF	Ford Specification M2C-33F (alternate: Ford Specification G)
ATF capacity	8.5 quarts (8.0 liters)
A/T final drive grade of oil	SAE EP 80 or 75 API-GL-4 or API-GL-5
Alternate grade of oil	10W-30 engine oil
A/T final drive capacity	1.3 quarts (1.25 liters)
ATF drain plug tightening torque	5-8 Nm (48-72 in-lb)
A/T final drive drain or filler plug tightening torque	39-59 Nm (28-44 ft-lb)

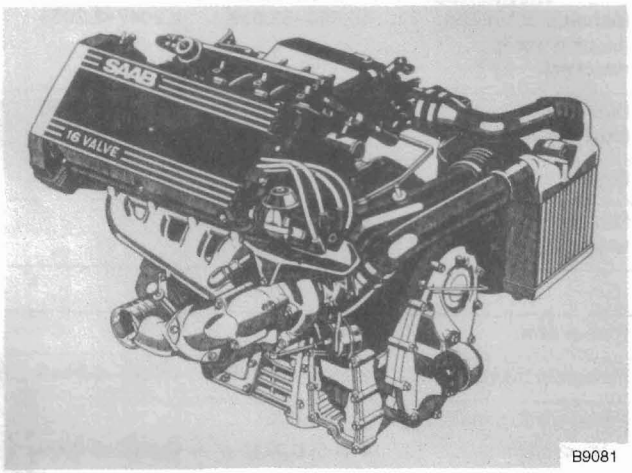
Brake System	
Brake Fluid Grade	SAE Dot 4
Brake Pad Wear Limit	
1985-1987 models	1.0 mm (0.04 in.)
1988 and later models	4.0 mm (0.16 in.)

WARNING
Do not use SAE DOT 5 brake fluid. Brake system failure may result.

Steering and Wheel Alignment	
Power Steering Fluid	GM Power Steering Fluid (GM 9985010), Texaco TL4634 or equivalent

022 Engine—Technical Data

ENGINE TIGHTENING TORQUES



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Tightening Torques	Nm	ft-lb (in-lb)
Camshaft sprocket to camshaft	63	46
Camshaft bearing caps to cylinder head	15	11
Camshaft timing chain tensioner to timing case	63	46
Clutch slave cylinder to transmission case	6–14	(53–124 in-lb)
Coolant drain plug to engine block	15	11
Coolant temperature sensor (LH sensor)	20	15
Connecting rod cap to connecting rod	55	41
Crankshaft pulley to crankshaft		
1985-1990	190	140
1991 and later	175	129

continued

Tightening Torques	Nm	ft-lb (in-lb)
Cylinder block end plate to engine (flywheel end)	20	15
Cylinder head to cylinder block		
stage 1	60	44
stage 2	80 plus and additional 90° (1/4 turn)	59 plus and additional 90° (1/4 turn)
Engine to transmission		
automatic transmission	33–39	24–29
manual transmission	25±3	18±2.2
Engine oil cooler line to oil filter housing	7–10	(62–89 in-lb)
Engine oil drain plug to case	29–39	21–29
EGR valve to cylinder head	8	(71 in-lb)
Exhaust manifold to cylinder head		
turbo models	25	18
normally aspirated models	20	15
Flywheel to crankshaft (17 mm bolt head)	60	44
Flywheel to crankshaft (19 mm bolt head)	85	63
Fuel pump to fuel tank (threaded collar)—1990 and later	55	41
Ignition distributor to cylinder head	20	15
Intake manifold to cylinder head	22	16

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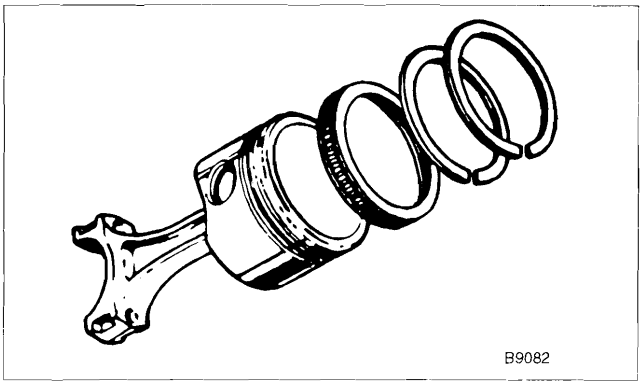
Tightening Torques	Nm	ft-lb (in-lb)
Main bearing caps to cylinder block	110	81
Oil filter to oil filter housing	10	7.4
Oil pressure switch to oil filter housing		
small (1/4"-18 NPTF)	10	(89 in-lb)
large (M14X1.5)	30	22
Oil pump to timing chain cover	8	(71 in-lb)
Oxygen sensor	40	30
Spark plugs to cylinder head	28	21
Thermostat housing to cylinder head	18	13
Timing chain cover to engine block and cylinder head	20	15
Timing chain tensioner to cylinder head	63	46
Valve cover to cylinder head	15	11
All other fasteners		
M5 bolt	5	(44 in-lb)
M6 bolt	10	(89 in-lb)
M8 bolt	20	15
M10 bolt	40	30

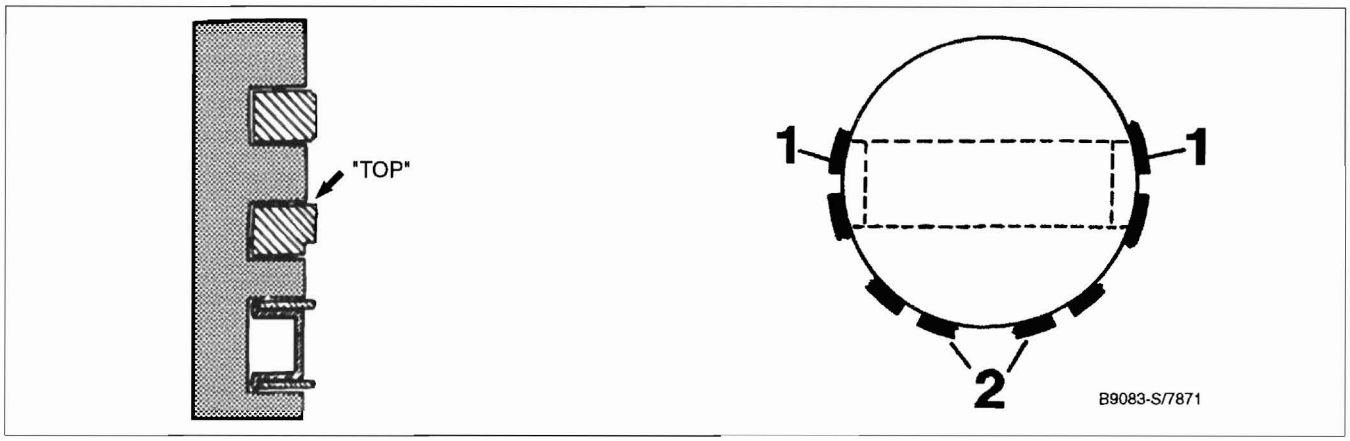
CONNECTING RODS AND PISTON PINS



Connecting rods	mm	in.
Diameter of big end (bearing shells removed)	56.000–56.019	2.2047–2.2055
Diameter of small end (bushing installed)	24.005–24.010	0.9451–0.9453
Big-end clearance	0.026–0.062	0.0010–0.0024
Maximum permissible weight variation per set	9 g (0.32 oz.)	

Piston pins	mm	in.
Piston pin diameter	23.996–24.000	0.9447–0.9449
Piston pin to connecting rod clearance		
B202 engine	0.005–0.014	0.0002–0.0006
B212 engine	0.002–0.011	0.00008–0.0004

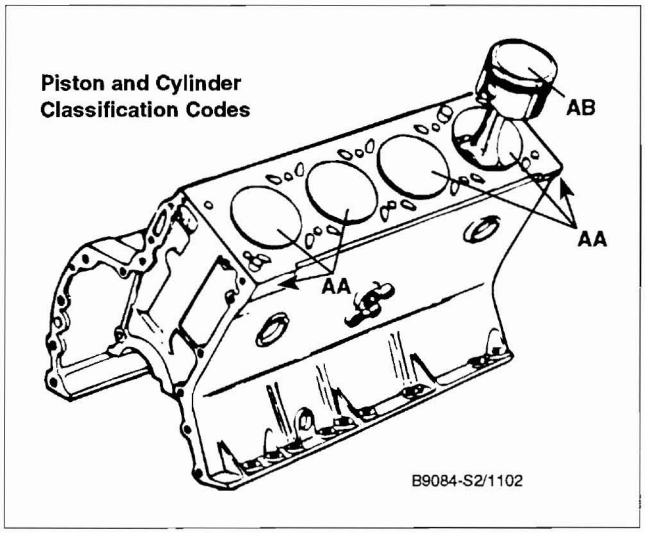
PISTON RINGS



Piston Ring	Top compression ring	Second compression ring	Oil scraper ring
End gap	0.35–0.55 mm 0.0138–0.0217 in.	0.30–0.45 mm 0.0118–0.0177 in.	0.38–1.40 mm 0.0150–0.0551 in.*
Width (thickness)	1.73–1.75 mm 0.0681–0.0689 in.	1.98–1.99 mm 0.0780–0.0783 in.	2.63–2.73 mm 0.1035–0.1075 in.**
Side clearance in piston groove	0.05–0.09 mm 0.0020–0.0035 in.	0.04–0.07 mm 0.0016–0.0028 in.	—

*Applies to segment part of ring
**Oil scraper ring segment width (thickness) 0.58–0.64 mm 0.0028–0.02552 in.

PISTONS



Piston diameter	mm	in.
Turbo engine with Mahle pistons		
standard A	89.960–89.970	3.5417–3.5421
standard AB	89.970–89.978	3.5421–3.5424
standard B	89.978–89.986	3.5424–3.5427
standard C	89.986–90.002	3.5427–3.5434

continued

Piston diameter	mm	in.
Turbo engine with Mahle pistons (cont'd)		
first oversize (0.5 mm)	90.460–90.475	3.5614–3.5620
second oversize (1.0 mm)	90.960–89.975	3.5811–3.5817
Normally aspirated engine with Mahle or KS pistons (ex. B212 engine)		
standard A	89.978–89.988	3.5424–3.5428
standard AB	89.988–89.996	3.5428–3.5431
standard B	89.996–90.004	3.5431–3.5435
standard C	90.004–90.020	3.5435–3.5441
first oversize (0.5 mm)	90.482–90.497	3.5623–3.5629
second oversize (1.0 mm)	90.982–89.997	3.5820–3.5826
Normally aspirated engine with Hepolite pistons (ex. B212 engine)		
standard A	89.977–89.985	3.5424–3.5427
standard AB	89.985–89.991	3.5427–3.5430
standard B	89.991–89.999	3.5430–3.5433
standard C	89.999–90.015	3.5433–3.5439
Normally aspirated engine with Hepolite pistons (ex. B212 engine)		
first oversize (0.5 mm)	90.477–90.492	3.5621–3.5627
second oversize (1.0 mm)	90.977–89.992	3.5818–3.5824

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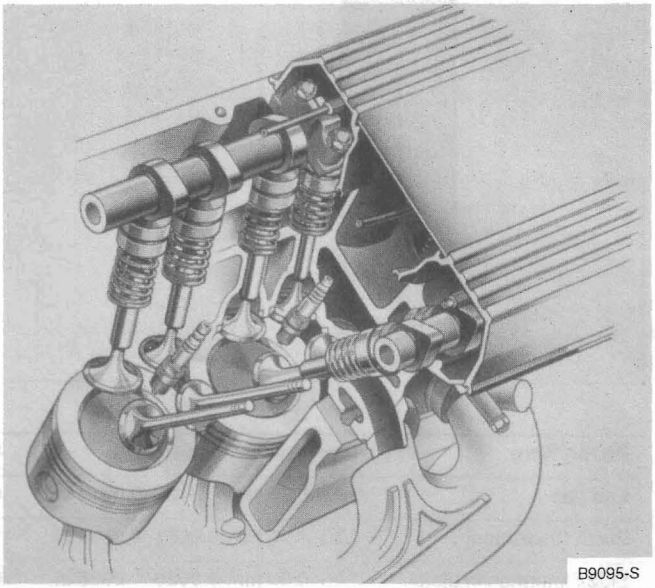
Piston diameter	mm	in.
B212 engine (2.1 liter engine)		
standard A	92.982–92.992	3.6607–3.6611
standard B	92.993–93.002	3.6611–3.6615
standard B	93.003–93.012	3.6615–3.6619
first oversize (0.5 mm)	93.482–93.492	3.6804–3.6808
second oversize (1.0 mm)	93.982–93.992	3.7001–3.7005
nominal piston clearance	0.009–0.035	0.00035–0.00137

Piston-to-Cylinder Clearance (mm)

piston/ cylinder classification	non-turbo (KS)	turbo	non-turbo (Hepolite)
B202 engine (2.0 L)			
A/A	0.012–0.032	0.030–0.050	0.015–0.033
AB/A	0.004–0.022	0.022–0.040	0.009–0.025
AB/B	0.014–0.032	0.032–0.050	0.019–0.035
B/A	—	0.014–0.032	0.001–0.019
B/B	0.006–0.024	0.024–0.042	0.011–0.029
C/B	—	0.008–0.034	—
B212 engine (2.1 L)			
A/A	—	—	0.008–0.028
B/B	—	—	0.009–0.027
B /B	—	—	0.009–0.027

CYLINDER HEAD AND VALVE MECHANISM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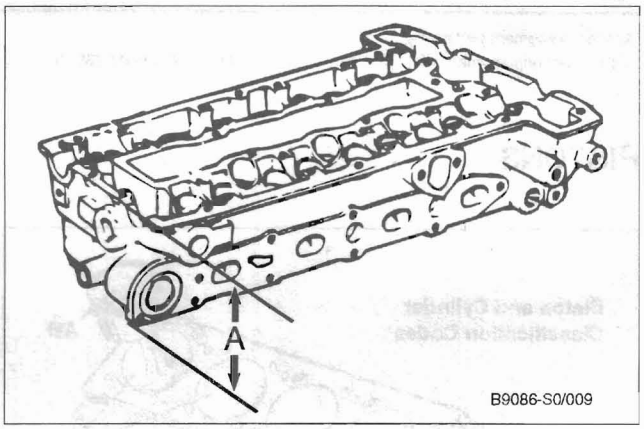

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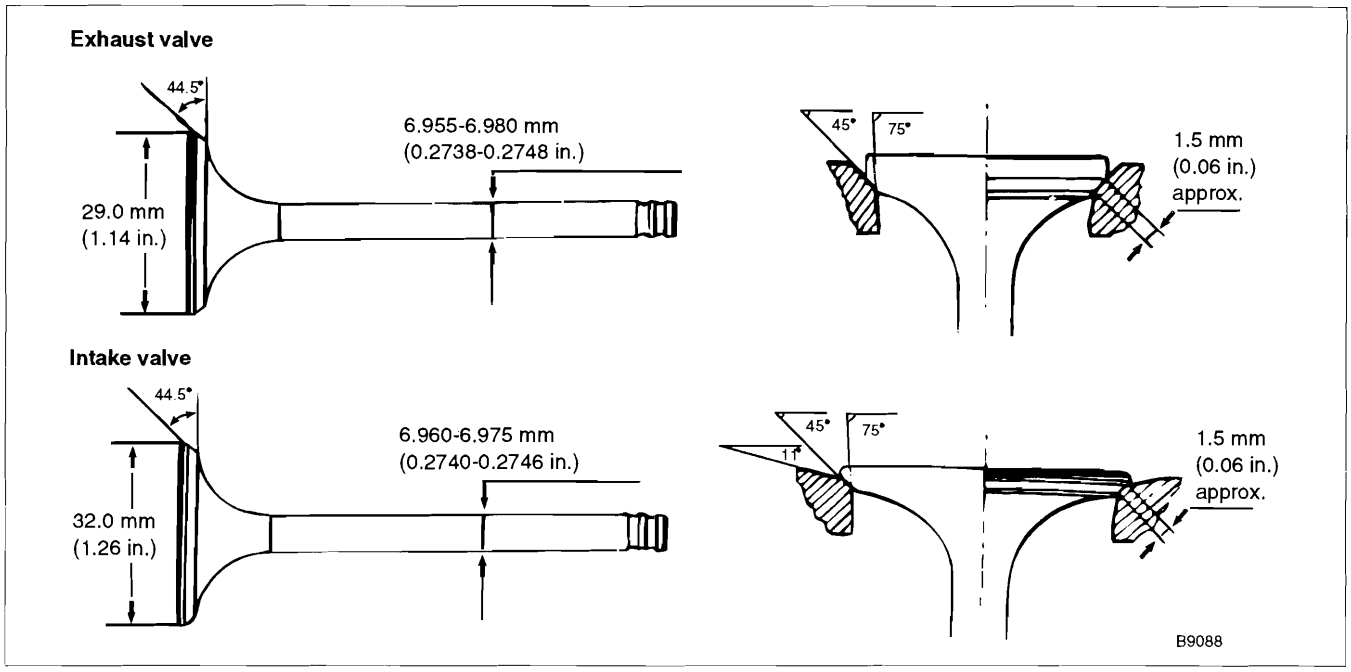
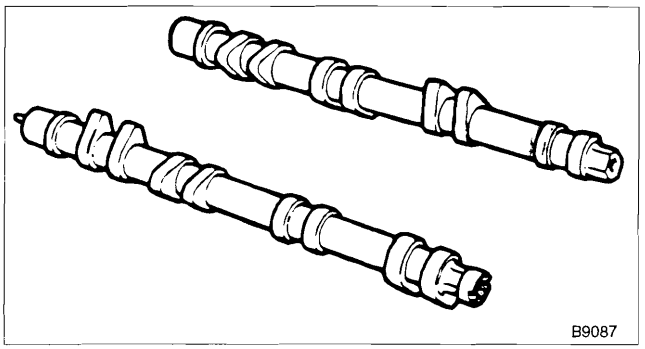
Cylinder head height (dimension A)	mm	in.
New	140.5±0.1	5.533±0.004
After machining	140.1±0.05	5.516±0.004
Machining limit	0.4	0.0016



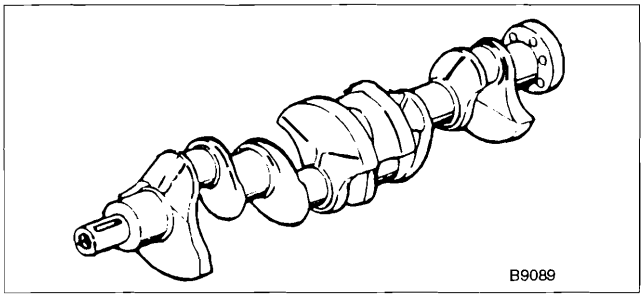
Valves	mm	in.
Valve clearance	non-adjustable	
Valve guides		
valve guide wear (clearance between valve guide and valve stem)		
maximum permissible	0.5	0.02
length	49.00	1.929
outside diameter	12.039–12.050	0.4740–0.4744
bore for valve guide in cylinder head	12.000–12.018	0.4724–0.4731
Valve Springs		
out-of-square (maximum)	1.75	0.07
free height	45.0±1.5	1.77±0.06
installed height	37.0	1.46
height when compressed with pressure of 131–141 lbs.	28.4	1.12



Camshaft	mm	in.
Bearing diameter	28.922–28.935	1.1387–1.1392
Axial play (maximum permissible)	0.08–0.35	0.0031–0.0138

Cam followers	mm	in.
Diameter	32.96–32.98	1.2976–1.2984
Height	26	1.02
Bore for cam followers in camshaft bridge	33.000–33.016	1.2992–1.2998

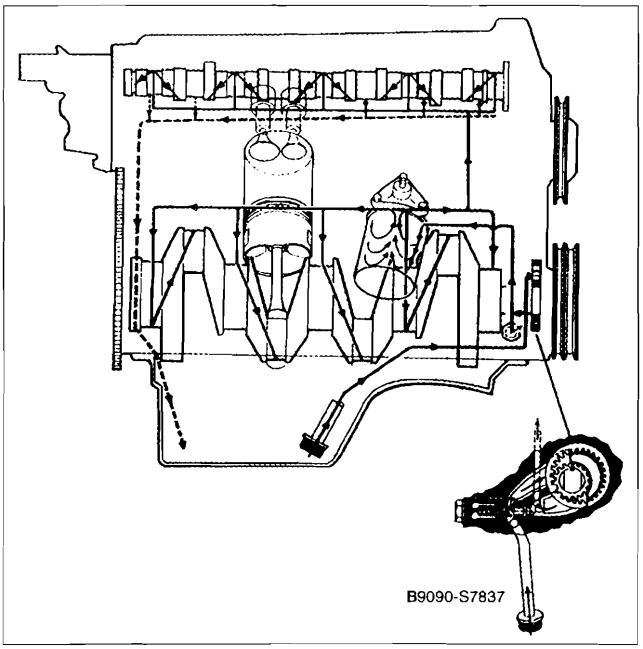
CRANKSHAFT



Crankshaft	mm	in.
Maximum variation in straightness (runout)	0.10	0.004
Axial play (end float)	0.08–0.28	0.003–0.011
Maximum out-of-round of journals	0.05	0.002
Radius of main journal fillet	2.2–2.5	0.09–0.10
Main bearing oil clearance	0.020–0.062	0.0008–0.0024
Big-end bearing oil clearance	0.026–0.062	0.0010–0.0024
Crankpin diameter		
standard	51.981–52.000	2.0465–2.0472
first undersize	51.731–51.750	2.0367–2.0374
second undersize	51.481–51.500	2.0268–2.0276
third undersize	51.237–51.250	2.0172–2.0177
fourth undersize	50.987–51.000	2.0074–2.0079
Main journal diameter		
standard	57.981–58.000	2.2827–2.2835
first undersize	57.731–57.750	2.2729–2.2736
second undersize	57.481–57.500	2.2630–2.2638
third undersize	57.237–57.250	2.2534–2.2539
fourth undersize	56.987–57.000	2.2436–2.2441

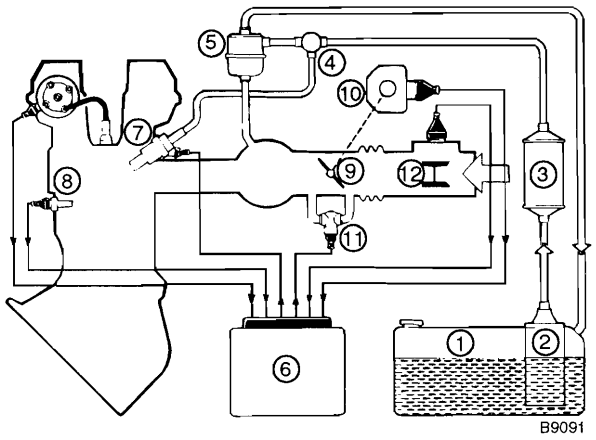
Color markings, main and big-end bearing shells		
standard	first oversize	second oversize
thin-red	thin-yellow	thin-white
thick-blue	thick-green	thick-brown

LUBRICATION SYSTEM



Lubrication System		
Oil pressure at 2000 rpm, engine temp. 80°C (176°F)	at least 2.7 bar	(39 psi)
Oil pressure relief valve opening pressure	3.6–5.3 bar	(52–77 psi)
Warning light on pressure	below 0.3–0.5 bar	(4.4–7.3 psi)
Oil pump end float	0.03–0.08 mm	(0.0012–0.0031 in.)

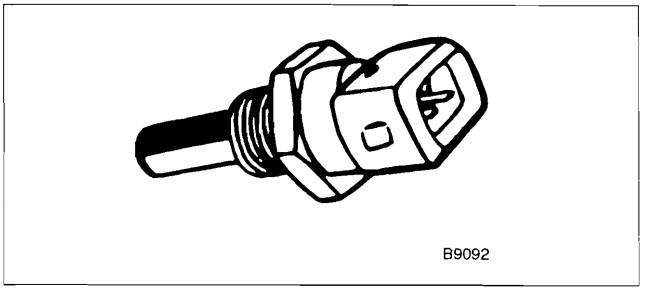
LH Fuel Injection



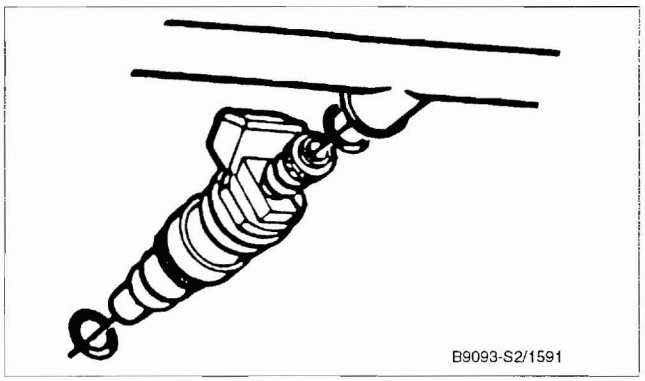
1. Fuel tank
2. Fuel pump
3. Fuel filter
4. Fuel distribution
5. Pressure regulator
6. LH control unit
7. Fuel injector
8. Coolant temperature sensor
9. Throttle plate
10. Throttle switch
11. AIC valve
12. Air mass meter

System	Year/Model	Identification
LH 2.2	1985–1988 turbo 1986–1987 normally aspirated	Three wire AIC idle valve, metal air mass meter with sealed mixture adjustment screw
LH 2.4	1989 and later turbo 1988–1990 normally aspirated	Two wire AIC idle valve, plastic air mass meter without mixture adjustment
LH 2.4.2	1991 and later normally aspirated	Three wire AIC idle valve, similar plastic air mass meter without mixture adjustment

Fuel Pump	
Fuel Pump Delivery Volume (minimum)	900 ml (30 oz.) in 30 seconds
Fuel system pressure — fuel pump running, engine off	
normally aspirated models	3.0 bar (43.5 psi)
turbo models	2.5±0.05 bar (36.3±0.7 psi)
Fuel system pressure — engine idling	
normally aspirated models	2.4 bar (34.8 psi)
turbo models	1.9 bar (27.6 psi)
Residual fuel pressure	
all models	0.1–0.2 bar (1.5–3.0 psi) below system pressure, minimum after 10 minutes

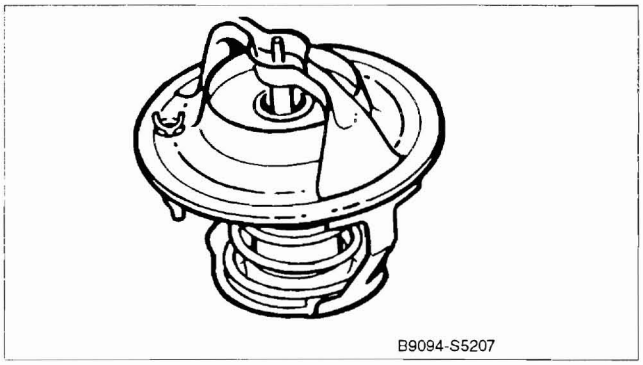


Fuel Injection	
LH Coolant Temperature Sensor Resistance	
Temperature	**Resistance (Ohms, ±10%)**
–4°F (–20°C)	14,000
14°F (–10°C)	9,000
32°F (0°C)	5,800
50°F (10°C)	3,800
58°F (15°C)	3,000
68°F (20°C)	2,600
76°F (25°C)	2,000
86°F (30°C)	1,700
176°F (80°C)	320



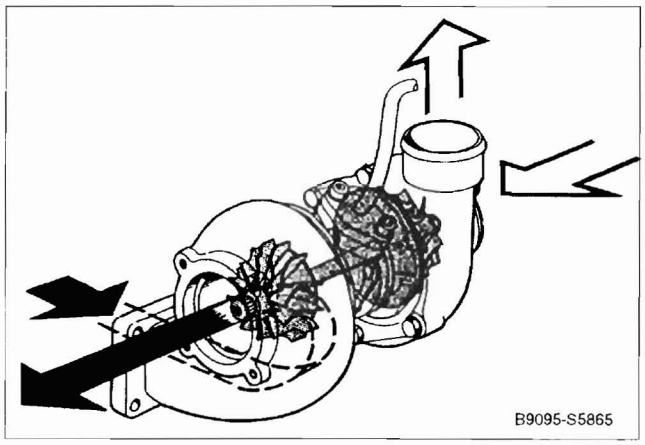
Fuel Injection		
Fuel injector resistance	16 Ohms at 68°F (20°C)	
Oxygen Sensor Specifications		
Oxygen sensor voltage at idle (engine warm)	0.4–1 volt	
Oxygen sensor preheater resistance	approx. 4 Ohms	
AIC Valve Resistance		
Fuel System	Test terminals	Resistance (Ohms)
LH 2.2	1 and 2	20±2
	2 and 3	20±2
	1 and 3	40±4
LH 2.4	1 and 2	8±2
LH 2.4.2	1 and 2	10–15
	2 and 3	10–15
Idle speed (adjustable only on LH 2.2 injection)		850±50 rpm
Idle %CO (adjustable only on LH 2.2 injection)		
normally aspirated	0.5–1.5%	
turbo	0.9–1.6%	
Dashpot Adjustment Specifications (LH 2.2)	speed at which dashpot rod touches throttle lever	
normally aspirated	2500±100 rpm	
turbo	2600±100 rpm	

COOLING SYSTEM



Cooling System	
Cooling system capacity	10 liters (10.5 qts.)
Permissible coolant leakage	1 qt. over 60,000 miles (1 liter/100,000 km)
Coolant thermoswitch closing temperature	194–203°F (90–95°C)
Coolant thermoswitch opening temperature	185–194°F (85–90°C)
Coolant type	Phosphate-free 50% mixture anti-freeze 50% water
Coolant temperature sender resistance	51.2±4.3 Ohms at 90°C (194°F)
Cooling system test pressure (maximum)	1.2 bar (17.4 psi.)

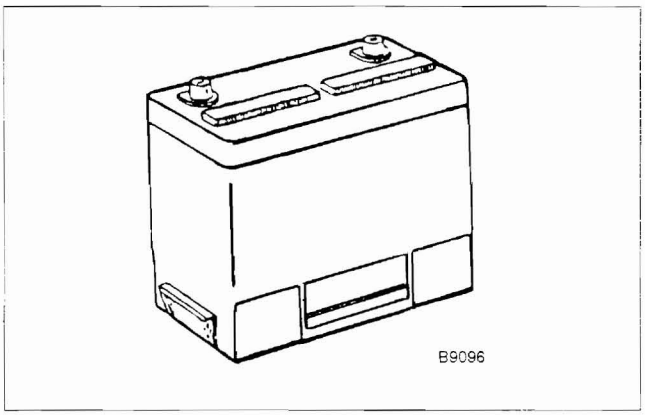
TURBOCHARGER



Turbocharger basic boost pressure	bar	psi
All except 1987 and later SPG models	0.35±0.03	5.0±0.4
1987 and later SPG models	0.40±0.03	5.8±0.4

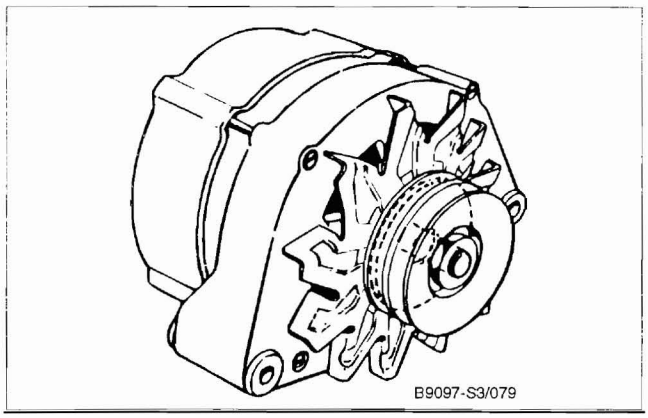
023 Electrical System—Technical Data

ELECTRICAL SYSTEM



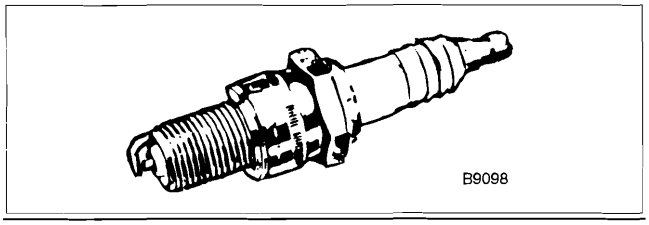
Tightening Torques	Nm	ft-lb (in-lb)
Ignition distributor hold-down bolt	15	11
Knock sensor to engine block	20	15
Solenoid to starter	4.5–5.5	(40–49 in-lb)
Starter field winding strap and battery cable to solenoid	7–9	(62–80 in-lb)
all other fasteners		
M5 bolt	5	(44 in-lb)
M6 bolt	10	(89 in-lb)
M8 bolt	20	15
M10 bolt	40	30

Charging System	
Alternator	
rated output	14 volts



Charging System	
Alternator	
rated speed	1900 rpm
minimum brush length	5 mm (0.2 in.)
Output test values	
36 amps	@ 1500 rpm
54 amps	@ 1900 rpm
80 amps	@ 6000 rpm

Ignition System	
Ignition system type	

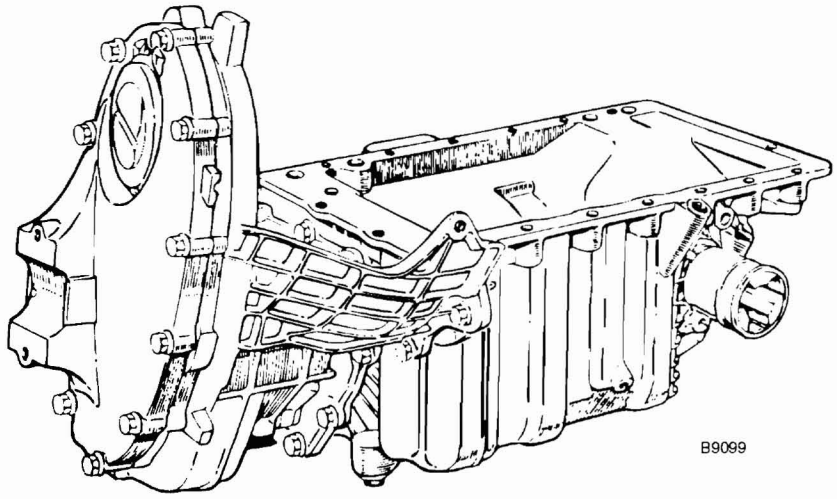


Ignition System	
1985 and later, turbo	basic Hall ignition
1986 and later, non-turbo	EZK ignition-Hall-effect with knock sensor
Ignition firing order	1-3-4-2 (no. 1 cylinder next to firewall)
Ignition timing (vacuum hose disconnected)	
Turbo	16°BTDC @ 850 rpm
Non-turbo	14°BTDC @ 850 rpm
Ignition coil	
primary winding resistance*	0.5–0.9 Ohms
secondary winding resistance*	7200–8200 Ohms
Spark plug wires and rotor	
ignition rotor resistance	1000 Ohms
coil high tension lead resistance (complete with end connectors)	500-1500 Ohms
spark plug lead resistance (complete with end connectors)	2000-4000 Ohms

*Measure with all wires disconnected from coil. See **340 Ignition System** for testing information

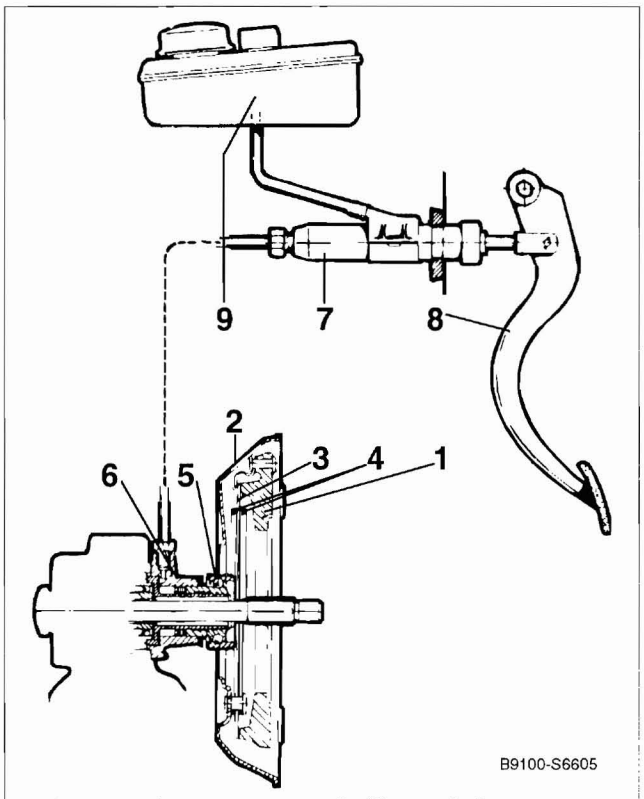
024 Transmission—Technical Data

TRANSMISSION



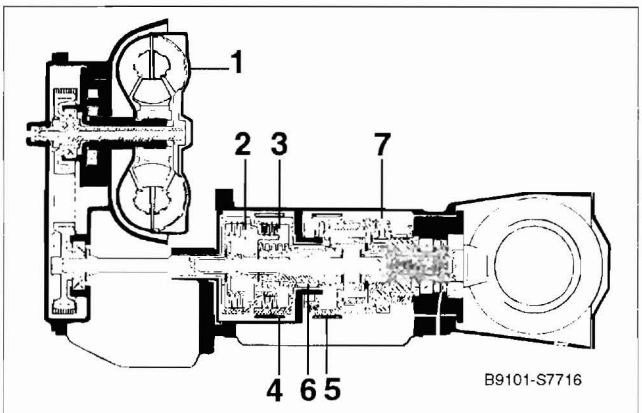
Tightening Torques	Nm	ft-lb (in-lb)
ATF pressure tap (automatic transmission)	5–7	(44–62 in-lb)
ATF sump pan bolts (automatic transmission)	8–12	(71–106 in-lb)
ATF sump pan drain plug (automatic transmission)	5–8	(44–71 in-lb)
ATF cooler connection nut (automatic transmission)	13–16	10–12
Clutch slave cylinder mounting screws	6–14	(53–124 in-lb)
Gearbox drain plug (manual transmission)	39–59	29–44
Selector cable setscrew tightening torque (automatic transmission)	2.5	(22 in-lb)

Tightening Torques	Nm	ft-lb (in-lb)
Shift rod clamp bolt (manual transmission)	30–35	22–26
All other fasteners		
M5 bolt	5	(44 in-lb)
M6 bolt	10	(89 in-lb)
M8 bolt	20	15
M10 bolt	40	30



1. Pressure plate
2. Housing
3. Diaphragm spring
4. Pivot rings
5. Release bearing
6. Slave cylinder
7. Master cylinder
8. Clutch pedal
9. Clutch fluid reservoir

Manual Transmission	
Clutch type	Fichtel & Sachs
Clutch diameter	
non-turbo	204 mm (8 in.)
turbo	216 mm (8.5 in.)
Clutch adjustment	automatic (non-adjustable)
Manual transmission oil capacity	3.0 l (3.5 U.S. qts.)
Grade of oil	SAE 10W-30 SF/CC, SF/CD, SG
Alternate grade of oil	SAE EP 75 API-GL-4 or API GL-5
Clutch/brake master cylinder fluid	DOT 4 brake fluid

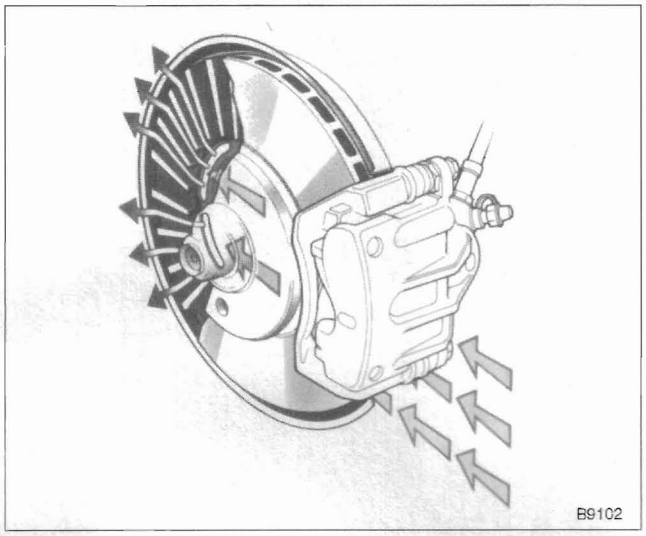


1. Torque convertor
2. Front clutch
3. Rear clutch
4. Front band
5. Rear band
6. One way clutch
7. Governor

Automatic Transmission	
Type	Borg Warner 37
ATF volume (transmission)	8.0 l (8.5 U.S. qts.)
ATF	Ford specification M2C-33F (alternate Ford specification G)
A/T final drive capacity	1.25 l (1.3 U.S. qts.)
A/T final drive grade of oil	SAE EP80 or 75 API-GL-4 or API-GL5
Alternate grade	SAE 10W-30 engine oil
General stall speed (APC solenoid unplugged)	2250–2700 rpm
Line pressure at idle (gear selector in D)	4.2–4.9 bar (61–71 psi)

025 Brakes—Technical Data

BRAKES



Tightening Torques	Nm	ft-lb (in-lb)
ABS hydraulic unit to bulkhead	26±4	19±3
Front caliper mounting bolt to guide pin (1988 models and later)	30–35	22–26
Front caliper to steering member (1985 to 1987)	110–130	81–96
Front pad carrier to steering member (1988 models and later)	70–110	52–81
Rear caliper to axle (1985 to 1987)	70–90	52–66
Rear caliper to pad carrier (pins) (1988 models and later)	25–30	18–22
Rear pad carrier to axle (1988 models and later)	40–54	30–40
All other fasteners		
M5 bolt	5	(44 in-lb)
M6 bolt	10	(89 in-lb)
M8 bolt	20	15
M10 bolt	40	30

Front Brake Disc Applications	
Model year and Model	**Disc type**
1985 through 1987 900	Solid
1985 and 1986 900s	Solid
1985 Turbo	Solid
1987 900s	Ventilated
1986 through 1987 Turbo, including convertible	Ventilated
1988 and later	All Ventilated

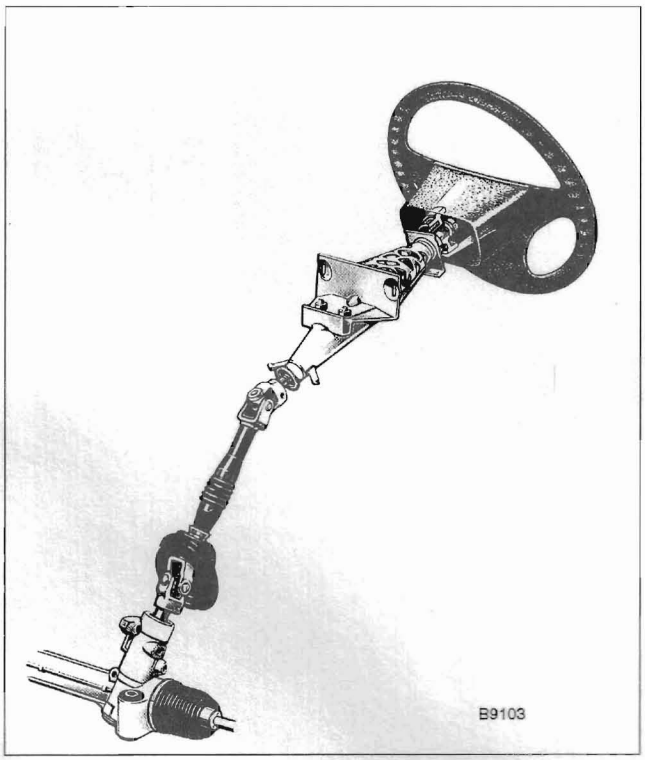
Front Brake Disc	Solid disc	Ventilated disc (1986-1987)	Ventilated disc (1988 and later)
Thickness (new)	12.7 mm (0.50 in.)	20 mm (0.787 in.)	23.5 mm (0.93 in.)
Thickness (wear limit)	11.2 mm (0.441 in.)	18 mm (0.709 in.)	21.5 mm (0.85 in.)
Brake surface lateral runout (maximum)	0.1 mm (0.004 in.)	0.1 mm (0.004 in.)	0.08 mm (0.003 in.)

Rear Brake Disc	
Thickness (new)	9.0 mm (0.354 in.)
Thickness (wear limit)	7.0 mm (0.276 in.)
Brake surface lateral runout (maximum)	0.1 mm (0.004 in.)

ABS Specification	
ABS wheel speed sensor air gap	0.65 mm (0.026 in.)

026 Steering and Wheel Alignment—Technical Data

STEERING AND WHEEL ALIGNMENT



Tightening Torques	Nm	ft-lb (in-lb)
Ball joint to control arm (upper or lower)	40–55	29–41
Ball joint to control arm bolts (self-locking nuts)	40–55	29–41
Ball joint to steering swivel member (self-locking nut)	35–50	26–37
Bearing bracket to control arm (locknut and lock washer)		
lower control arm bracket to control arm	75–90	55–66
upper control arm bracket to control arm	55–70	41–52
Coil spring seat to control arm	55–110	41–81

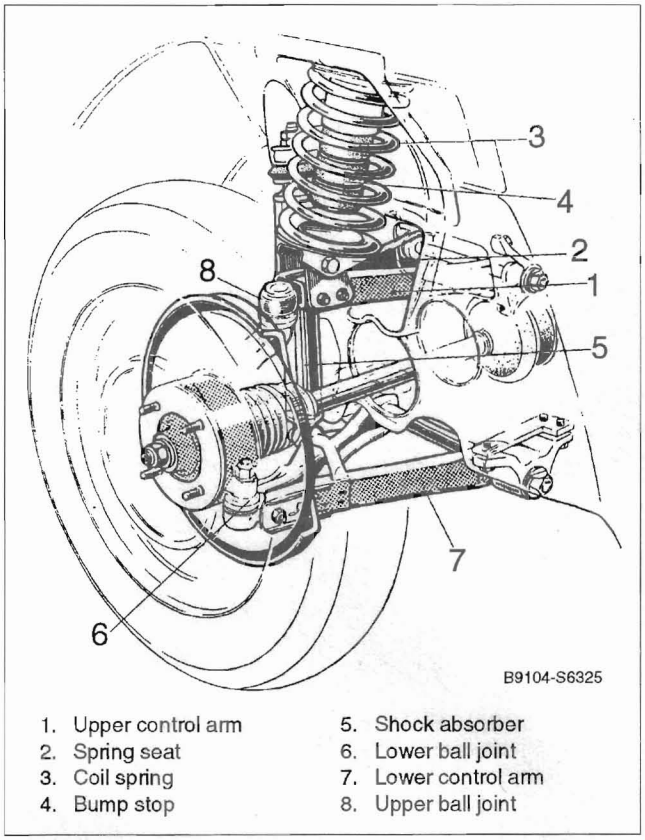
Tightening Torques	Nm	ft-lb (in-lb)
Lower control arm bearing bracket (front or rear) to body		
M12 dry joint	70–95	52–70
M12 lubricated joint (waxed nut)	45–55	33–41
Lower control arm bracket to body	25–35	18–26
Power steering rack to body	60–80	44–59
Road wheel to wheel hub		
lug nuts	90–110	66–81
lug bolts	105–125	77–92
Steering column to steering rack (clamping bolt, self-locking nut)	20–27	15–20
Steering column to body (bolts, use with Loctite)	20–27	15–20
Steering wheel to steering column (self-locking nut)	25–28	18–21
Universal joint to pinion shaft (clamping bolt and self-locking nut)	25–34	18–25
Power steering hose fittings	20–34	15–25
Tie rod end to tie rod	60–80	44–59
Upper control arm bearing bracket (front or rear) to body	40–55	30–41
All other fasteners		
M5 bolt	5	(44 in-lb)
M6 bolt	10	(89 in-lb)
M8 bolt	20	15
M10 bolt	40	30

Steering and Wheel Alignment Specifications	
Chassis Ride Height (measured between top of wheel rim and fender/hood gap)	
Except sport chassis	243 mm (9.56 in.)
Sport chassis	
with 15 in. wheel	230 mm (9.06 in.)
with 16 in. wheel	217 mm (8.54 in.)

Wheel Alignment Specifications		
Measurement	**Model**	
	except sport chassis	sport chassis
Front		
caster	2°±0.5	2°±0.25
camber	0.5°±0.5	0.25°±0.25
toe-in	2±1 mm (0.08±0.04 in.)	1.5±0.5 mm (0.06±0.02 in)
Swivel pin inclination	11.5°±1	11.5°±1
Steering angle—outer wheel	20°	20°
Steering angle—inner wheel	20.75°±0.50	20.75°±0.50
Rear wheels (non-adjustable)		
toe-in	4±1 mm (0.16±0.04 in.)	4±1 mm (0.16±0.04 in.)
camber	-0.5°±0.25	-0.5°±0.25
Ball joint wear limit		
maximum radial play	1 mm	0.040 in.
maximum axial play	2 mm	0.078 in.
Power Steering Fluid		
GM power steering fluid (GM 9985010), Texaco TL4634 or equivalent	75 cl	0.8 qt

027 Suspension—Technical Data

SUSPENSION



1. Upper control arm
2. Spring seat
3. Coil spring
4. Bump stop
5. Shock absorber
6. Lower ball joint
7. Lower control arm
8. Upper ball joint

Tightening Torques	Nm	ft-lb (in-lb)
Front shock absorber to lower control arm	90–100	66–74
Front suspension coil spring seat to control arm	55–110	41–81
Anti-roll bar bracket to lower control arm	40–55	30–41
Power steering rack to body	60–80	44–59
Spring link front mount to body	70–90	52–66

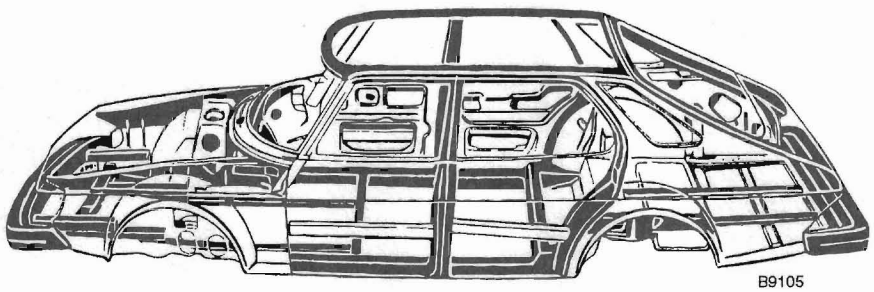
Tightening Torques	Nm	ft-lb (in-lb)
Panhard rod to body or rear axle	40–70	30–52
Torque arm to body or rear axle		
lubricated bushings	21–35	15–26
dry bushings	40–70	30–52
Wheel hubs to drive axle (locking nut)	290–310	214–229
Wheel lug bolts	105–125	77–92
Wheel lug nuts	90–110	66–81
All other fasteners		
M5 bolt	5	(44 in-lb)
M6 bolt	10	(89 in-lb)
M8 bolt	20	15
M10 bolt	40	30

Front Coil Spring Specifications		
Spring color codes	**Spring free length**	
Standard chassis		
green, light green, black, or white	373 mm	14.7 in.
yellow or red	380 mm	15.0 in.
pink or brown	388 mm	15.3 in.
blue or light blue	372 mm	14.6 in.
Sport chassis		
silver or bronze	301 mm	11.8 in.

Rear Coil Spring Specifications		
Spring color codes	**Spring free length**	
Standard chassis		
black or white (left spring)	311 mm	12.24 in.
green or light green (right spring)	308 mm	12.12 in.
Sport chassis		
silver or bronze	293 mm	11.5 in.

028 Body—Technical Data

BODY



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Tightening Torques	Nm	ft-lb (in-lb)
A/C system tightening torques		
A/C compressor-to-evaporator hose		
connection at compressor (pad-type)	22–27	16–20
hose fitting at evaporator	28–39	21–29
A/C compressor-to-condensor hose		
connection at compressor (pad-type)	22–27	16–20
hose fitting at condensor	21–28	15–21
A/C condensor-to-receiver/dryer hose		
hose fitting at condensor	14–20	10–15
hose fitting at receiver/dryer	14–20	10–15
A/C evaporator-to-receiver/dryer hose		
hose fitting at evaporator	14–20	10–15
hose fitting at receiver/dryer	14–20	10–15
A/C expansion valve to evaporator	21–27	15–20
A/C expansion valve pressure equalization fitting to evaporator	7–10	(62–89 in-lb)
Oil fill plug to A/C compressor	8–12	(71–106 in-lb)
Convertible top hydraulic hose fittings	5.1–6.2	(45–55 in-lb)
Seatbelt guide bolt to body (convertible models)	24–40	18–30
All other seat belt mounting bolts	45±10	33±7
All other fasteners		
M5 bolt	5	(44 in-lb)
M6 bolt	10	(89 in-lb)

continued

Tightening Torques	Nm	ft-lb (in-lb)
All other fasteners		
M8 bolt	20	15
M10 bolt	40	30

Body Specifications		
Convertible pump hydraulic fluid	Aeroshell Fluid 4/Shell Code 60 421 (Saab part no. 30 18 694	
Convertible top hydraulic pump minimum working pressure	25 bar	365 psi

A/C System Specifications		
Refrigerant oil capacity (compressor replacement)	1.75 dl	4.9 oz.
Refrigerant oil capacity per component (due to sudden leakage)		
evaporator	0.5 dl	1.4 oz.
receiver/dryer	0.2 dl	0.57 oz.
condenser	0.2 dl	0.57 oz.
hose	0.2 dl	0.57 oz.
A/C refrigerant pressure switch (low gas pressure)		
opening pressure	2.9 bar	41 psi
A/C Coolant temperature switch		
opening temperature	115°C	239°F
A/C Anti-frost switch		
switch closed	4.0–6.2°C	39.2–43.1°F
switch open	0.4–2.6°C	33–36.6°F