SAAB

Service Manual Saab 99

M 1975—83

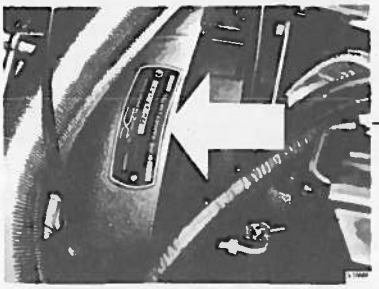
Specifications 0

Contents

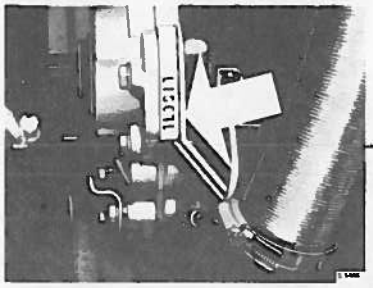
0 Specifications

M 1975–83

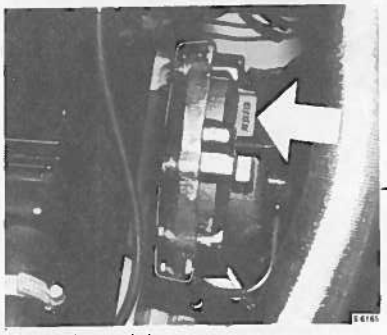

SAAB 99
S G 108



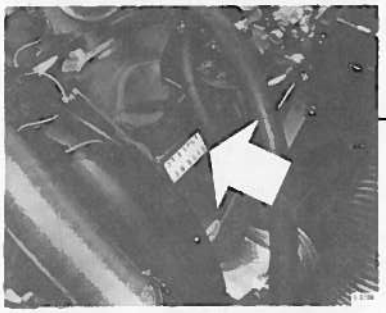
Gearbox No. automatic transmission



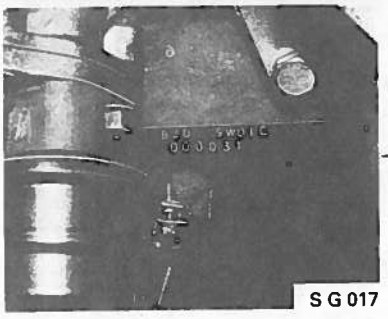
Gearbox No. manual transmission, up to and incl. gearbox No. 81 7000



Gearbox No. manual transmission, as from gearbox No. 90 0001 resp. S 00001



Engine No., B-engine



Engine No., H-engine

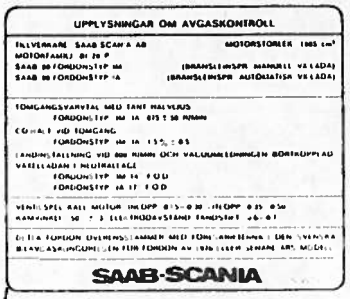
Colour code, body

Colour code, upholstery

S 7193

Chassis No. plate as from model 1981

Modification code plate

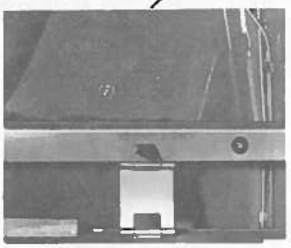


Directions for exhaust emission control

Colour code

Chassis No. plate up to and incl. model 1980

S 5467



Chassis No. 2-door version die stamped in body under seat cashion, rear seat

Chassis No. 4-door version die stamped in body under seat cashion, rear seat

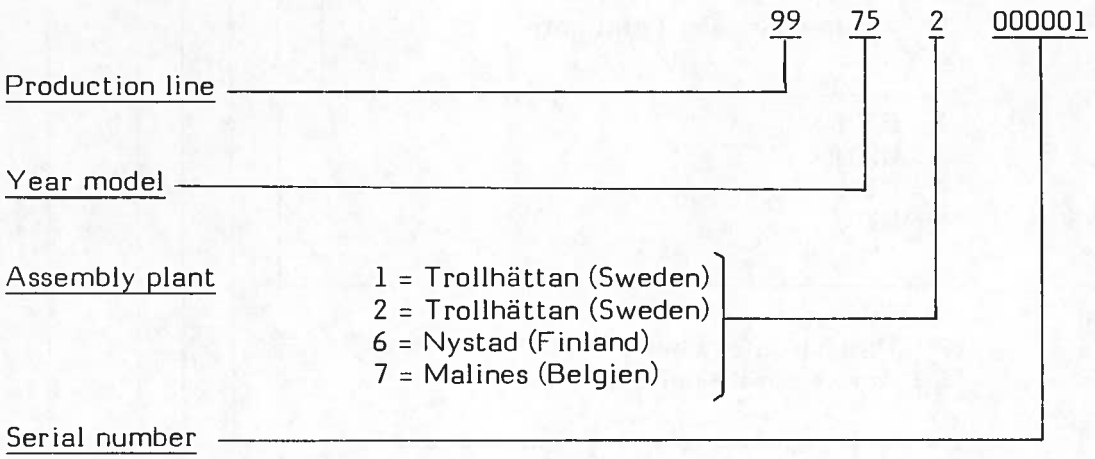
General

Chassis and engine numbers

The illustration show the location of the chassis and engine numbers. For positive identification of a car or engine, these numbers and the meter reading of the car must always be quoted in connection with complaints and other correspondence. When a car is fitted with a replacement engine, the number of the old engine must always be die-stamped in the place provided for the purpose. This is most important in order to avoid any complications if the car in question is later taken abroad.

Chassis number up to 1980 model

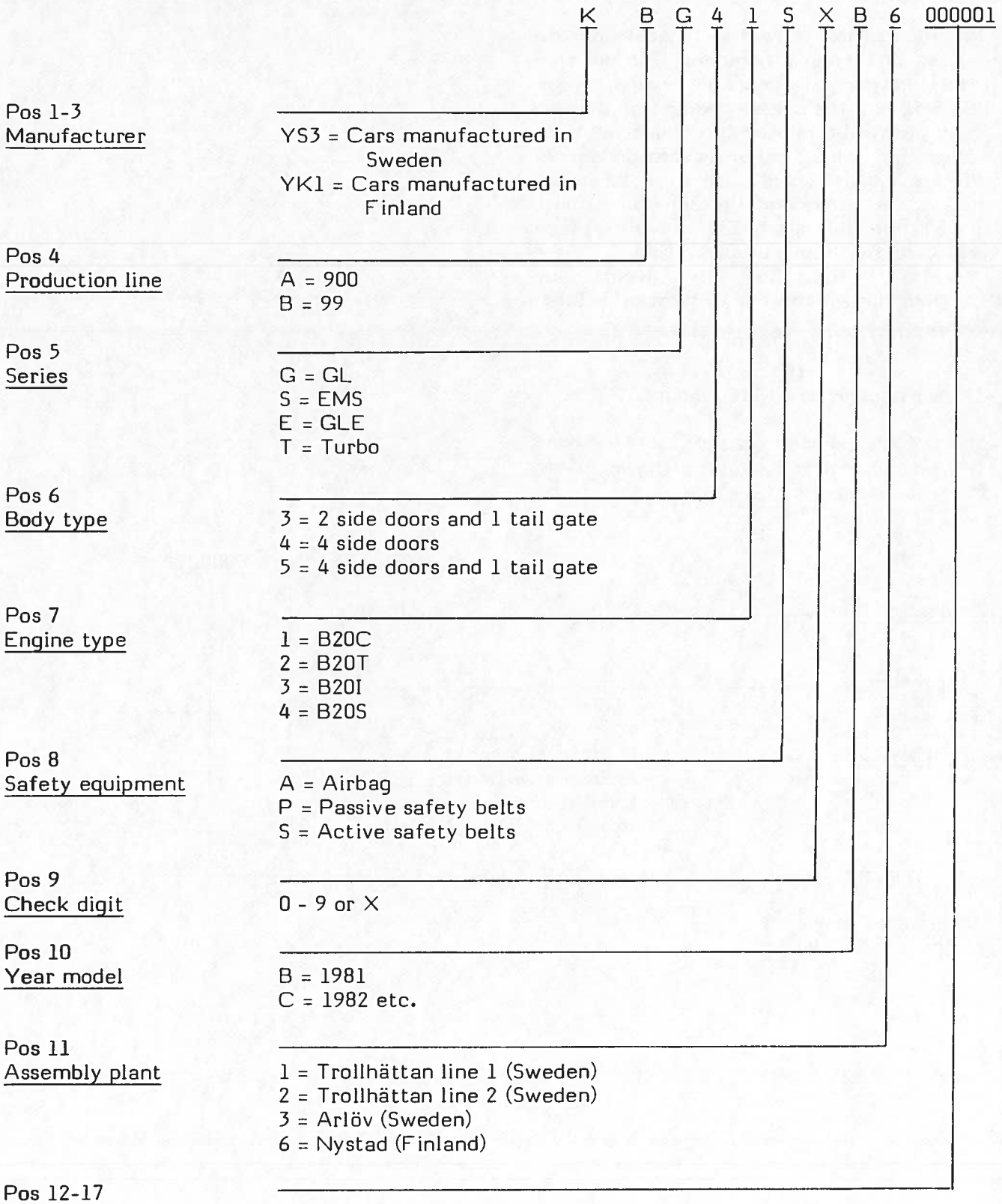
The chassis number consists of 11 digits. The meaning of the digits is shown in the following example:



Each model year
begins with 000 001

Chassis number (Vehicle Identification Number = **"VIN"**) as from 1981 model

The chassis number consist of 17 digits. The meaning of the digits is shown in the following example:



Model variants

Model year 1975:
Saab 99, 99 L, 99 EMS and 99 L Combi Coupé

Model year 1976, 1977:
Saab 99 L, 99 GL, 99 EMS, 99 GL Combi Coupé and 99 GLE

Model year 1978, 1979:
Saab 99 L, 99 GL, 99 EMS, 99 GL Combi Coupé, 99 GLE and 99 Turbo

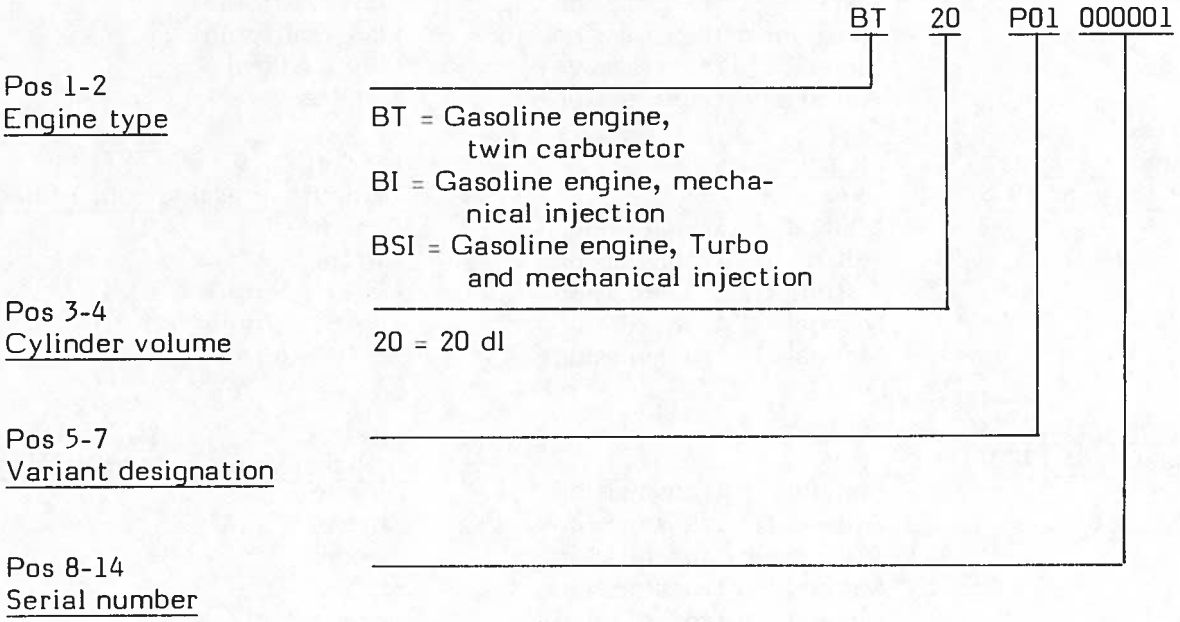
Model year 1980:
Saab 99 L, 99 GL and 99 Turbo

Model year 1981:
Saab 99 L and 99 GL

Model year 1982:
Saab 99 GL

Model year 1983:
Saab 99 GL

Engine number, B-engine



Engine number variants Saab 99 model year 1975	Gearbox type		Market (exhaust emission control degree)
P01	Manual	transmission	Europe
P02	Automatic	transmission	Europe
P03	Automatic	transmission	USA Federal
P04	Manual	transmission	USA West
P05	Automatic	transmission	USA West
P06	Manual	transmission	USA Federal

Engine number variants Saab 99 model year 1976	Gearbox Type	Market (exhaust emission control degree)
P01	Manual transmission	Europe
P02	Automatic transmission	Europe (excl. Sweden)
P03	Automatic transmission	USA Federal
P03	Automatic transmission	Sweden
P04	Manual transmission	USA West
P05	Automatic transmission	USA West
P06	Manual transmission	USA Federal
P07	Automatic transmission	Sweden

Engine number variants Saab 99 model year 1977	Gearbox Type	Market (exhaust emission control degree)
P01	Manual transmission	Europe (excl Sweden
P02	Automatic transmission	Europe (excl Sweden)
P03	Manual transmission	Sweden
P03	Automatic transmission	Sweden
P03	Automatic transmission	USA Federal
P04	Manual transmission	Sweden
P04	Manual transmission	USA Califonia
P05	Automatic transmission	USA Califonia
P06	Manual transmission	USA Federal
P07	Automatic transmission	Sweden

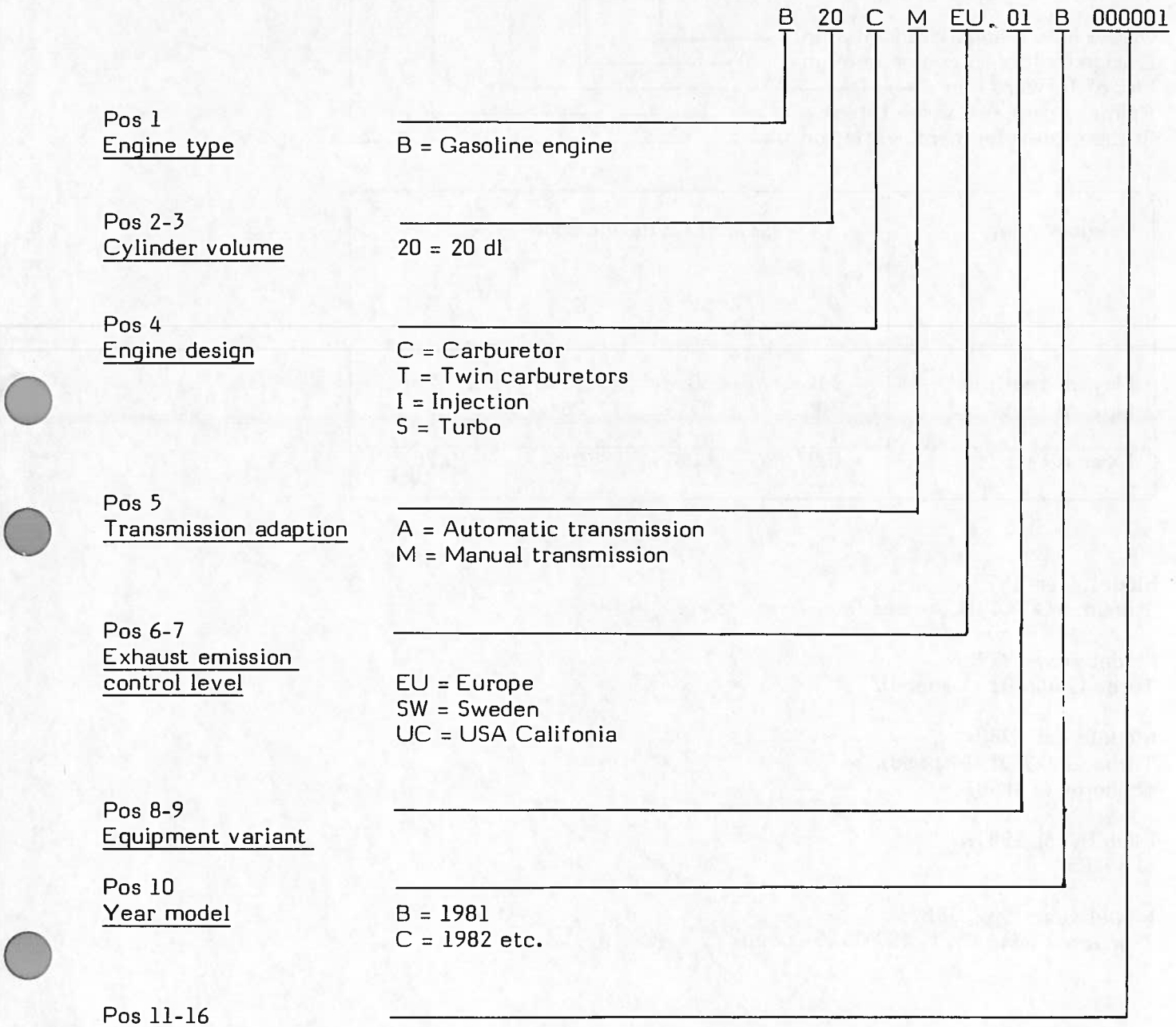
Engine number variants Saab 99 model year 1978	Gearbox Type	Market (exhaust emission control degree)
P01	Manual transmission	Europe
P02	Automatic transmission	Europe (excl Sweden)
P03	Automatic transmission	Sweden
P03	Automatic transmission	USA Federal
P04	Manual transmission	USA Califonia
P05	Automatic transmission	USA Califonia
P06	Manual transmission	USA Federal
P07	Automatic transmission	Sweden

Engine number variants Saab 99 model year 1979	Gearbox Type	Market (exhaust emission control degree)
P01	Manual transmission	Europe
P02	Automatic transmission	Europe
P03	Automatic transmission	USA Federal
P04	Manual transmission	USA Califonia
P06	Manual transmission	USA Federal

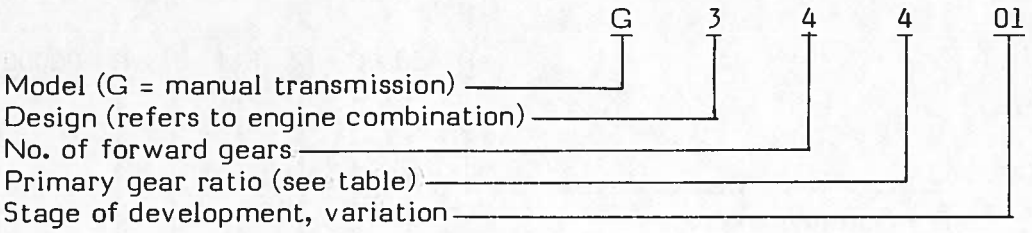
Engine number variants Saab 99 model year 1980	Gearbox type	Market (exhaust emission control degree
P01	Manual transmission	Europe
P02	Automatic transmission	Europe
P03	Automatic transmission	Sweden
P04	Manual transmission	USA
P05	Manual transmission	Europe

Engine number variants Saab 99 model year 1981	Gearbox type	Market (exhaust emission control degree)
P01	Manual transmission	Europe
P02	Automatic transmission	Europe
P03	Automatic transmission	Sweden
P04	Manual transmission	USA

Engine number H-engine



Gearbox designation (as from 1979 model)



Primary gear	Gear ratio designation			
	4	5	6	7
No. of teeth in No. of teeth out	31 30	30 27	31 26	32 25
Gear ratio	0.97	0.90	0.84	0.78

Model year 1979:
Standard G 344 01 (4-speed).

Model year 1979:
Turbo G 446 01 (4-speed).

Model year 1980:
Turbo G 457 01 (5-speed),
economy G 34601

Model year 1981:
G 34603

Model year 1982, 1983:
Standard G 345 05, G 457 05 (5-speed)

Model 1975

	Saab 99, 99 L and 99 EMS	Saab 99 L Combi Coupé
Overall length incl. bumpers	174.01 in (4420 mm)	178.35 in (4530 mm)
Overall width	66.53 in (1690 mm)	66.53 in (1690 mm)
Overall height (empty)	56.69 in (1440 mm)	56.69 in (1440 mm)
Road clearance (curb weight)	6.89 in (175 mm)	6.89 in (175 mm)
Track, front wheels	54.72 in (1390 mm) Saab 99 EMS: 55.12 in (1400 mm)	54.72 in (1390 mm)
Track, back wheels	55.51 in (1410 mm) Saab 99 EMS:55.90 in (1420 mm)	55.51 in (1410 mm)
Wheelbase	97.36 in (2473 mm)	97.36 in (2473 mm)
Turing radius	208.66 in (5.3 m)	208.66 in (5.3 m)
Curb weight (incl. fuel coolant, tools, spare wheel)	2618-2770 lb (1190-1260 kg)	2750-2816 lb (1250-1280 kg)
Max. loaded vehicle weight	3410-3564 lb (1550-1620 kg)	3630 (1650 kg)
Weight distribution:		
Curb weight	Front 60-62 %	Front 58-60 %
Gross weight	Front 52-53 %	Front 49-50 %
No. of seats (incl. driver)	5	5
Trunk volume (SAE)	11.8 cu.ft. (347 dm^3)	13.5 cu.ft (381 dm^3)
Max. roof rack load	220 lb (100 kg)	220 lb (100 kg)
Max. trailer weight	2650 lb (1200 kg)	2650 lb (1200 kg)

	Saab 99 L, 99 GL and 99 EMS	Saab 99 GL Combi Coupé
Overall length incl.bumpers	174.01 in (4420 mm)	178.35 in (4530 mm)
Overall width	66.53 in (1690 mm)	66.53 in (1690 mm)
Overall height (empty)	56.69 in (1440 mm)	56.69 in (1440 mm)
Road clearance (curb weight)	6.89 in (175 mm)	6.89 in (175 mm)
Track, front wheels	55.12 in (1400 mm)	55.12 in (1400 mm)
Track, back wheels	Saab 99 L: 54.72 in (1390 mm) 55.90 mm (1420 mm) Saab 99 L: 55.51 in (1410 mm)	55.90 in (1420 mm)
Wheelbase	97.36 in (2473 mm)	97.36 in (2473 mm)
Turning radius	208.66 in (5.3 m)	208.66 in (5.3 m)
Curb weight (incl. fuel, coolant, tools, spare wheel)	2684-2794 lb (1220-1270 kg)	2770-2794 lb (1260-1270 kg)
Max. loaded vehicle weight	3600 lb (1630 kg)	3696 lb (1680 kg)
Weight distribution:		
Curb weight	Front 60-62 %	Front 58-60 %
Gross weight	Front 52-53 %	Front 49-50 %
No. of seats (incl.driver)	5	5
Trunk volume (SAE)	11.8 cu.ft. (338 dm^3)	13.5 cu.ft. (381 dm^3)
Max. roof rack load	220 lb (100 kg)	220 lb (100 kg)
Max. trailer weight	3300 lb (1500 kg)	3300 lb (1500 kg)

	Saab 99 Sedan	Saab 99 Combi Coupé
Overall length incl.bumpers	174.01 in (4420 mm)	178.35 in (4530 mm)
Overall width	66.53 in (1690 mm)	66.53 in (1690 mm)
Overall height (empty)	56.69 in (1440 mm)	56.69 in (1440 mm)
Road clearance (curb weight)	6.89 in (175 mm)	6.89 in (175 mm)
Track, front wheels	55.12 in (1400 mm)	55.12 in (1400 mm)
Track, back wheels	55.90 mm (1420 mm)	55.90 in (1420 mm)
Wheelbase	97.36 in (2473 mm)	97.36 in (2473 mm)
Turning radius	208.66 in (5.3 m)	208.66 in (5.3 m)
Curb weight (incl. fuel, coolant, tools, spare wheel)	2662-2816 lb (1210-1280 kg)	2750-2860 lb (1250-1300 kg)
Max. loaded weight	3498-3608 lb (1590-1640 kg)	3542-3652 lb (1610-1660 kg)
Weight distribution:		
Curb weight	59.0-60.5 %	57.0-58.5 %
Max.total weight	51.0-52.5 %	49.0-50.5 %
No. of seats (incl.driver)	5	5
Luggage compartment volume (SAE)	11.9 cu.ft. (338 dm^3)	13.5 cu.ft. (381 dm^3)
Recommended load carrying capacity in luggage compartment:		
With 5 passenger à 150 lb (70 kg)	180 lb (80 kg)	180 lb (80 kg)
For each reduction of the number of passengers in the rear seat the load can be increased with	70 lb (30 kg)	70 lb (30 kg)
Recommended load carrying capacity with dropped back seat	480 lb (220 kg)	480 lb (220 kg)
Max. roof rack load	220 lb (100 kg)	220 lb (100 kg)
Max. trailer weight	3300 lb (1500 kg)	3300 lb (1500 kg)

	Saab 99 Sedan Models	Saab 99 Combi Coupé Models
Overall length incl.bumpers	174.01 in (4420 mm)	178.35 in (4530 mm)
Overall width	66.53 in (1690 mm)	66.53 in (1690 mm)
Overall height(curb weight)	56.69 in (1440 mm)	56.69 in (1440 mm)
Road clearance (curb weight)	6.89 in (175 mm)	6.89 in (175 mm)
Track, front wheels	55.12 in (1400 mm)	55.12 in (1400 mm)
Track, back wheels	55.90 mm (1420 mm)	55.90 in (1420 mm)
Wheelbase	97.36 in (2473 mm)	97.36 in (2473 mm)
Turning radius	208.66 in (5.3 m)	208.66 in (5.3 m)
Curb weight (incl. fuel, coolant, tools, spare wheel)	2640-2728 lb (1200-1240 kg)	2640-2904 lb (1240-1320 kg)
Max. total weight	3480-3564 lb (1580-1620 kg)	3570-3750 lb (1620-1700 kg)
Weight distribution front:		
Curb weight	60-61 %	58-59 %
Max.total weight	51-52 %	49-50 %
No. of seats (incl.driver)	5	5
Luggage compartment volume (SAE)	12.6 cu.ft. (356 dm^3)	
With parcel shelf		12.4 cu.ft. (350 dm^3)
Parcel shelf removed		15.4 cu.ft. (435 dm^3)
Recommended load carrying capacity in luggage compartment:		
With 5 passenger à 150 lb(70 kg)	180 lb (80 kg)	180 lb (80 kg)
For each reduction of the number of passengers in the rear seat the load can be increased with	70 lb (30 kg)	70 lb (30 kg)
Recommended load carrying capacity with dropped back seat	480 lb (220 kg)	480 lb (220 kg)
Max. roof rack load	220 lb (100 kg)	220 lb (100 kg)
Max. trailer weight	3300 lb (1500 kg)	3300 lb (1500 kg)

Model 1979

	Saab 99 Sedan models	Saab 99 Combi Coupé models
Overall length incl.bumpers	174.01 in (4420 mm) later production 176.26 in (4477 mm)	178.35 in (4530 mm)
Overall width	66.53 in (1690 mm)	66.53 in (1690 mm)
Overall height(curb weight)	56.69 in (1440 mm)	56.69 in (1440 mm)
Road clearance (curb weight)	6.89 in (175 mm)	6.89 in (175 mm)
Track, front wheels	55.12 in (1400 mm) Turbo 55.51 in (1410 mm)	55.12 in (1400 mm) Turbo 55.51 (1410 mm)
Track, back wheels	56.30 mm (1430 mm) Turbo 56.69 in (1440 mm)	56.30 in (1430 mm) Turbo 56.69 in (1440 mm)
Wheelbase	97.36 in (2473 mm)	97.36 in (2473 mm)
Turning radius	208.66 in (5.3 m)	208.66 in (5.3 m)
Curb weight (incl. fuel, coolant, tools, spare wheel and 150 lb. driver)	2645-2755 lb (1200-1250 kg)	2711-2910 lb (1230-1320 kg)
Max. total weight	3549-3615 lb (1610-1640 kg)	3549-3725 lb (1610-1690 kg)
Weight distribution front:		
Curb weight	60-61 %	58-59 %
Max.total weight	51-52 %	49-50 %
No. of seats (incl.driver)	5	5
Luggage compartment volume (SAE)	12.6 cu.ft. (356 dm^3)	12.6 cu.ft. (356 dm^3) (with parcel shelf) 15.3 cu.ft. (435 m^3) without parcel shelf
Recommended load carrying capacity in luggage compartment:		
With 4 passenger à 150 lb (70 kg)	180 lb (80 kg)	180 lb (80 kg)
For each passengers less in the rear seat the load can be increased by	70 lb (30 kg)	70 lb (30 kg)
Recommended load carrying capacity with rear seat squab down	485 lb (220 kg)	485 lb (220 kg)
Max. roof rack load	220 lb (100 kg)	220 lb (100 kg)
Max. trailer weight	3300 lb (1500 kg)	3300 lb (1500 kg)

	Saab 99 Sedan models	Derivations, as from 1982 model
Overall length incl.bumpers	176.26 in (4477 mm)	
Overall width	66.53 in (1690 mm)	
Overall height(curb weight)	56.69 in (1440 mm)	
Road clearance (curb weight)	6.89 in (175 mm)	
Track, front wheels	55.12 in (1400 mm) Turbo 55.51 in (1410 mm)	55.51 in (1410 mm) 5.5 in rims
Track, back wheels	56.30 mm (1430 mm) Turbo 56.69 in (1440 mm)	56.69 in (1440 mm) 5.5 in rims
Wheelbase	97.36 in (2473 mm) chassis No. BC 600 92 96	97.05 in (2465 mm) as from
Turning radius	208.66 in (5.3 m)	
Curb weight (incl. fuel, coolant, tools, spare wheel and 150 lb. driver)	2545-2733 lb (1200-1240 kg) 1981: 2618-2706 lb (1190-1230 kg)	2574-2651 lb (1170-1205 kg)
Max. total weight	3482-3571 lb (1580-1620 kg) 1981: 3433-3542 lb (1560-1610 kg)	3432-3542 lb (1560-1610 kg)
Weight distribution front:		
Curb weight	60-61 %	
Max.total weight	51-52 %	
No. of seats (incl.driver)	5	
Luggage compartment volume (SAE)	12.6 cu.ft. (356 dm^3)	
Recommended load carrying capacity in luggage compartment:		
With 4 passenger à 150 lb (70 kg)	180 lb (80 kg)	
For each passengers less in the rear seat the load can be increased by	70 lb (30 kg) Recommended load carrying	
capacity with rear seat squab down	485 lb (220 kg)	
Max. roof rack load	220 lb (100 kg)	
Max. trailer weight	3300 lb (1500 kg)	

Specifications

Engine model 1975–81

	Single-carburetor
Type	4-cyl, 4-stroke with overhead camshaft
Power rating, DIN (SAE net)	73 kW (100 hp)/5.200 r/min
Max. torque, DIN	162 Nm (115 ftlb, 16.5 kgm) 3.500 r/min
Compression ratio	9.2:1
Cylinder bore	3.543" (90.0 mm)
Stroke	3.071" (78.0 mm)
Cylinder volume	121.0 in^3 (1985 cm^3)
Ordering of firing (No. 1 at rear)	1-3-4-2
Engine idling speed (warm engine and headlamps on low beam)	875 ± 50 r/min
Weight incl. clutch, throttle valve housing, exhaust manifold, starter and oil filter	appr. 308 lb. (140 kg)
Fuel, octane number, min.	RON 97

	Twin-carbureted engine
Type	4-cyl., 4-stroke with overhead camshaft
Power rating, DIN (SAE net)	79 kW (108 hp)/5.200 r/min
Max. torque, DIN	164 Nm (121 ftlb, 16.7 kgm 3300 r/min
Compression ratio	9.2:1
Cylinder bore	3.543" (90.0 mm)
Stroke	3.071" (78.0 mm)
Cylinder volume	121.0 in^3 (1985 cm^3)
Ordering of firing (No. 1 at rear)	1-3-4-2
Engine idling speed (warm engine and headlamps on low beam)	850 ± 50 r/min
Weight incl. clutch, throttle valve housing, exhaust manifold, starter and oil filter	appr. 308 lb. (140 kg)
Fuel, octane number, min.	RON 97

	Injection engine
Type	4-cyl., 4-stroke with overhead camshaft
Power rating, DIN (SAE net)	87 kW (118 hp)/5.500 r/min
Max. torque, DIN	167 Nm (123 ftlb, 17,0 kgm 3.700 r/min
Compression ratio	9.2:1
Cylinder bore	3.543" (90.0 mm)
Stroke	3.071" (78.0 mm)
Cylinder volume	121.0 in^3 (1985 cm^3)
Ordering of firing (No. 1 at rear)	1-3-4-2
Engine idling speed (warm engine and headlamps on low beam)	850 ± 50 r/min
Weight incl. clutch, throttle valve housing, exhaust manifold, starter and oil filter	appr. 308 lb. (140 kg)
Fuel, octane number, min.	RON 97

	Turbo engine
Type	4-cyl., 4-stroke with overhead camshaft
Power rating, DIN (SAE net)	107 kW (145 hp) at 5.000 r/min
Max. torque, DIN	235 Nm (24 kgm)/3000 r/min
Compression ratio	7.2:1
Cylinder bore	90 mm
Stroke	78 mm
Cylinder volume	121.0 in^3 (1985 cm^3)
Ordering of firing (No. 1 at rear)	1-3-4-2
Engine idling speed (warm engine and headlamps on low beam)	875 ± 50 r/min
Weight incl. clutch, throttle valve housing, exhaust manifold, starter and oil filter	appr. 308 lb. (140 kg)
Fuel, octane number, min.	RON 97

Cylinder block

Material	Specially alloyed cast iron
No. of main bearings	5
Cylinder bore:	
Standard (A)	90.000-90.010 mm
Standard (B)	90.010-90.020 mm
1sr oversize	90.500 mm
2nd oversize	91.000 mm

Cylinder head

Max. grinding or facing of cylinder head surface	0.4 mm
Distance from cylinder head gasket to valve cover gasket surface, new cylinder head	92.75 ± 0.05 mm

Pistons

Make	"MAHLE" or "KARL SCHMIDT" Pistons of different makes must not be fitted to the same engine.
Material	Light alloy
No. of rings per piston	2 compression rings 1 oil scraper (3-piece)
Width of ring grooves:	
Top	1.79-1.81 mm
Middle	2.03-2.05 mm
Bottom	4.01-4.03 mm
Piston diameter (measured 0.79"/20 mm from lower edge perpendicular to pin):	
Standard (AB)	89.980-89.986 mm
Standard (C)	89.999-90.010 mm
1st oversize	90.472-90.487 mm
2nd oversize	90.972-90.987 mm
Piston clearance	0.014-0.040 mm
Withdrawal of piston	From top of block
Piston orientation	Groove on top should be facing the engine transmission end
Pin diameter	23.996-24.000 mm
Fit of pin	0.005-0.014 mm Sliding fit under gentle pressure with thumb
Piston speed (average speed)	13 m/s at 5000 r/min

Piston rings

Upper compression ring	
Thickness	1.73-1.75 mm
Gap, fitted in new cylinder	0.35-0.55 min
Piston ring play in groove	0.050-0.082 mm
Lower compression ring:	
Thickness	1.98-1.99 mm
Gap. fitted in new cylinder	0.30-0.45 mm
Piston ring play in groove	0.040-0.072 mm
Oil scraper:	
Thickness (segment)	0.58-0.64 mm
Gap fitted in new cylinder (segment)	0.38-1.40 mm
Thickness. middle ring	2.63-2.73 mm

Connecting rods

Material	Forged steel
Big-end bore	56.000-56.019 mm
Small-end bush. installed	24.004-24.010 mm
Maximum allowed weight difference between connecting rods in same engine	6 g

Crankshaft

Material	Forged steel
Surface treatment	Tennifer-coated
Journal hardness	approx 800 HV
No. of main bearings	5
Crank pin diameter:	
Standard	51.981-52.000 mm
1st undersize	51.731-51.750 mm
2nd undersize	51.481-51-500 mm
3rd undersize	51.237-51.250 mm
4th undersize	50.987-51.000 mm
Main journal diameter:	
Standard	57.981-58.000 mm
1st undersize	57.731-57.750 mm
2nd undersize	57.481-57.500 mm
3rd undersize	57.237-57.250 mm
4th undersize	56.987-57.000 mm
Radius at journal end	2.2-2.5 mm
Max. out-of-round of journals	0.05 mm
Max. conicity of journals	0.05 mm
Bearing material	Lead-bronze
Crankshaft end float	0.08-0.28 mm
Big-end bearing clearance	0.020-0.062 mm
Crank bearing clearance	0.025-0.062 mm

Colour markings, main and connecting rod bearing shells:	Thin	Thick
Standard	Red	Blue
1st undersize	Yellow	Green
2nd undersize	White	Brown

Camshaft

	Carbureted engine, 1975 model	Carbureted engine, as from model 1976
Number of bearings	5	5
Bearing diameter	Up to and incl. engine number B20P01 45992 and B20P02 10500: 25,94 mm As from engine number B20P01 45993 and B20P02 10501: 28.94	28.94 mm
Camshaft end float	0.08-0.25 mm	0.08-0.25 mm
Cam lift (at 0 valve clearance):		
Inlet valve	10.4 mm	10.3 mm
Exhaust valve	10.6 mm	10.5 mm
Valve timing:		
Inlet (nominal valve clearance)	opens at 12° BTDC closes at 56° ABDC	opens at 10° BTDC closes at 54° ABDC
Exhaust (nominal valve clearance)	opens at 56° BBDC closes at 12° ATDC	opens at 54° BBDC closes at 10° ATDC

	Fuel-injection engines	Turbo engine
Number of bearings	5	5
Bearing diameter	28.94 mm	28.94 mm
Camshaft end float	0.08-0.25 mm	0.08-0.25 mm
Cam lift (at 0 valve clearance):		
Inlet valve	10.8 mm	10.3 mm
Exhuast valve	11.0 mm	10.5 mm
Valve timing:		
Inlet (nominal valve cearance)	opens at 10° BTDC closes at 54° ABDC	opens at 12° BTDC closes at 40° ABDC
Exhaust (nominal valve clearance)	opens at 46° BBDC closes at 18° ATDC	opens at 62° BBDC closes at 2° ATDC

Valve mechanism

Valve face angle, inlet and exhaust	44.5°
Valve seat angle in cylinder head, inlet and exhaust	45.°
Valve seat width, inlet and exhaust	1-2 mm
Valve stem diameter:	
Inlet	7.960-7.975 mm
Exhaust	7.955-7.980 mm
Max. clearance valve stem-valve guide	0.5 mm Measured on valve head, raised 0.12" (3 mm) above seat
Valve head diameter:	
Inlet	42.0 mm
Exhaust	35.5 mm (34.5 mm later design)

Valve guides:

Length	46.65 mm
Outer diameter	13.040-13.051 mm
Bore for valve guides in cylinder head, diameter	13.000-13.018 mm

Valve springs:	1975 model	As from 1976 model
Installed length	39.5 mm	39.5 mm
Free length	44.3 mm	43.1 mm
Length at full elevation	29.5 mm	29.5 mm
Load at full elevation	795-880 N (178-198 lb, 81-90 kg)	755-815 N (170-183 lb., 77-83 kg) (N.B This valve spring (83 58 467) must only be fitted in combination with camshaft 83 58 186 (carbureted engines as from 1976 model and camshaft 83 56 057 (injection engine as from 1975 model.

Valve depressors:

Diameter	37.87-37.98 mm
Height	33 mm
Bore in cylinder head for valve depressors (camshaft bearing assy.)	38.000-38.016 mm

Pallets for valve adjustment:

Diameter	15.5 mm
Thickness	1.77-2.89 mm There are 23 pallets of different thicknesses at intervals of 0.050 mm

Materials:

Exhaust valve	Stellited steel Sodium-cooled exhaust valve are fitted in 1977 model cars with fuel injection engines, as from engine Nos. BI 20 P01006201, BI 20 P02002615 BI 20 P04003376, BI 20 P05001556 BI 20 P07001001 (and P07000604-P07000625

N.B.
Sodium-cooled valves for scrapping must under no circumstances be mixed with ordinary scrap before they have been specially treated, owing to the risk of explosion. Refer to Section 214 under "Scrapping of sodium-cooled valves".

Inlet valve	Steel (Valve spindles are chromium plated)
Valve guides	Cast iron
Valve seats	Sintered metal
Valve clearances, cold engine (30 minutes after running the engine warm: Inspection tolerance zone:	
Inlet	0.006-0.012" (0.15-0.30 mm)
Exhaust	0.014-0.020" (0.35-0.50 mm) Turbo 0.016-0.020 (0.40-0.50 mm)
Adjustment tolerance zone:	
Inlet	0.008-0.010" (0.20-0.25 mm)
Exhaust	0.016-0.018" (0.40-0.45 mm) Turbo 0.018-0.020" (0.45-0.50 mm)
Idler shaft axial play	0.002-0.005" (0.05-0.13 mm)

Lubrication system

Type	Forced-flow circulating oil system Dual-rotor type oil pump
Pressure-lubricated points	Camshaft, crankshaft, idler shaft, connecting rods, transmission chain
Splash-lubricated points	Gudgeon journals, cylinder walls, valve depressors and valve stems
Oil filter	Full-flow type
Crankcase ventilation, fully enclosed	From crankcase through valve cover - restriction to inlet manifold. Valve cover is connected to atmospheric pressure via the air cleaner.
Lubricating oil, grade: SAE 10 W 30, 10 W 40 or 5 W 30. If no oil meeting these specifications is available, oil with a viscosity or SAE 10 W 50 may be used. Service SE in API-system or Ford spec. ESE-M2C-101C	
Oil volume incl. filter	6 Imp. pints (3.5 litres)
Oil pump pressure-reducing valve opens at	4.0-5.0 bar (kgf/cm^2, 57-71 lb/in^2.)
Oil pressure warning light comes on at	0.3-0.5 bar (kgf/cm^2, 4.2-7.1 lb/in^2.)
Oil pressure at 2000 r/min (oil SAE 10 W 40 at 80^{o}C)	Min. 3.0 bar (kgf/cm^2, 43 lb/in^2.)
Oil pump: Axial clearance between rotor and housing	0.002-0.003" (0.05-0.09 mm)
Oil cooler air (Turbo) opening temp. of thermostatic valve	approx. 75^{o}C

Fuel system

Single-carburetor

	As from 1975 model	Modifications as from 1977 model
Make	Zenith	
Model	175 CD-2S(E)	175 CDSEVX
Diameter	1 3/4"	
Metering needle	B1DS	
Float setting	0.63-0.67 in (16-17 mm) between the highest point on the float and the seal of the carburetor body.	
Float valve	0.08 in (2.0 mm)	
Oil type in carburetor damper	Automatic transmission oil to Ford specification M2C.33F or equivalent	
Level or oil in carburetor damper	Min. of 0.040 in (10 mm) below top of damper	
Clearance between fast idling cam and adjusting screw (choke in)	0.04 in (1.0 mm)	
Normal idling speed (engine warmed up and headlights dipped)	850 ± 50 rpm	
CO content		
Up to and incl. 1976 model:	max 3.5 % at 850 r/min	
As from 1977 model Europe	1.5 ± 1 % at 850 r/min	
As from 1977 model Sweden	1.75 ± 0.25 % at 2000 r/min (check value: max. 4.5 % at idling speed)	
On setting at 2000 r/min: Vacuum pipe to distributor, crankcase ventilation hose and, where applicable, vacuum pipe to the EGR valve disconnected.		
Fuel jet setting (adjustable up to and incl 1976 model	0.098 ± 0.008 in (2.5 ± 0.2 mm) between upper surface of fuel jet jet bridge surface in carburetor housing	
Fuel jet setting (fixed as from 1977 model		Inserted to a distance of 0.098 in (2.5 mm) from jet bridge surface
Fuel needle setting in vacuum piston (initial setting for adjustment)	Lower part of groove for plastic washer level with the underside of vacuum piston	
Initial setting for adjustment of fuel needle as from 1977 model		Shoulder of needle level with bottom edge of vacuum piston
Temperature compensator, opening at room temperature (+68°F/+20°C)	0.004-0.012 in (0.1-0.3 mm)	
Colour coding of vacuum piston return spring	Red	

Twin-carburetor	As from 1975 model	Modifications as from 1977 model
Make	Zenith	
Model	150 CD-2S(E)	150 CDSEVX
Diameter	1 1/2"	
Metering needle	B1DS	B5EJ (as from 1980 model B5EQ
Float setting	0.63-0.67 in (16-17 mm) between the highest point of the float and the mating surface at the carburetor housing	
Float valve	0.08 in (2.0 mm)	
Oil type in carburetor damper	Automatic transmission oil to Ford specification M2C.33F or equivalent	
Level or oil in carburetor damper	Min. 0.39 in (10 mm) under the upper part of the damper cylinder	
Clearance between fast idling cam and adjusting screw (choke in)	0.04 in (1.0 mm)	
Normal idling speed (engine warmed up and headlights dipped)	850 ± 50 rpm	
CO content		
Model 1975:	max 3.5 % at 850 r/min	
As from 1977 model Europe	1.5 ± 1 % at 850 r/min	
As from 1977 model Sweden	1.0 ± 0.25 % at 2000 r/min (check value: max. 4.5 % at idling speed)	
On setting at 2000 r/min: Vacuum pipe to distributor, crankcase ventilation hose and, where applicable, vacuum pipe to the EGR valve disconnected.		
Fuel jet setting (adjustable up to and incl 1976 model	0.098 ± 0.008 in (2.5 ± 0.2 mm) between upper surface of fuel jet jet bridge surface in carburetor housing	
Fuel jet setting (fixed as from 1977 model		Inserted to a distance of 0.098 in (2.5 mm) from jet bridge surface
Fuel needle setting in vacuum piston (initial setting for adjustment)	Lower part of groove for plastic washer approx. 0.016 in (0.4 mm) below bottom of vacuum piston	
Initial setting for adjustment of fuel needle as from 1977 model		Shoulder of needle level with bottom edge of vacuum piston
Temperature compensator, opening at room temperature (+68°F/+20°C)	0.004-0.012 in (0.1-0.3 mm)	
Return spring for vacuum piston, color	Blue	
Others		
Fuel pump (mechanical) type	AC Delco No. 7990045	
Static fuel pressure at starter speed	0.17-0.25 bar (kg/cm^2, 2.4-3.6 lb/in^2.)	
Fuel tank capacity	12.1 Imp. gal. (55 liters)	

Fuel system, injection engine

Components

Injection valve	0 437 502 004	As from 1980 model 0 437 502 012
Cold start valve	0 280 170 401	
Mixture control unit:		
Up to and incl. 1976 model	0 438 040 004	
1977 model	0 438 040 034	
As from 1978 model	0 438 120 049	Turbo 0 438 040 041
Air flow sensor:		
Up to and incl. 1976 model	0 438 120 013	
1977 model	0 438 120 046	
As from 1978 model	0 438 120 071	Turbo 0 438 120 087
Fuel distributor:		
Up to and incl. 1977 model	0 438 100 005	
As from 1978 model	0 438 100 023	Turbo 0 438 100 057
Warm up regulator, up to and incl. 1976 model	0 438 140 013	
Warm up regulator, up to and incl. 1977 model	0 438 140 020	Turbo up to and incl. model 1979: 0 438 140 051 Turbo as from 1980 model 0 438 140 070
Auxiliary air valve	0 280 140 107	
Fuel filter, up to and incl. 1978 model	0 450 905 005	
Fuel filter, as from 1977 model	0 450 905 021	
Fuel accumulator:		
Up to and incl. 1977 model	0 438 170 001	
1978 model	0 438 170 014	
As from 1979 model	0 438 170 010	
Fuel pump		
Up to and incl. 1977 model	0 580 254 994	
As from 1978 model	0 580 245 978	
Temperature-sensing		
Up to and incl. 1977* model	0 280 130 214	
As from 1977** model	0 280 130 217	

* Up to and incl. engine number: PI20 PO1-8201, BI20 PO2-3301, B120 PO7-1626
** As from engine number: PI20 PO1-8202, BI20 PO2-3302, B120 PO7-1627

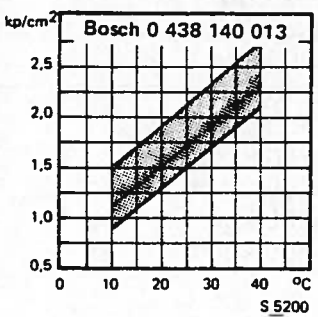
Test values

1. Fuel pump, capacity. (minimum flow against system pressure, ie. measured in the return pipe)

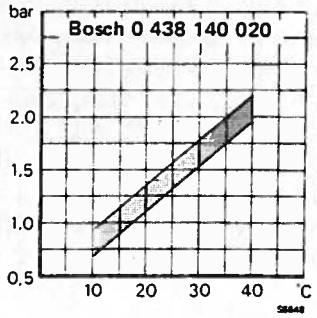
   Up to and including 1977 model 750 cm^3/30 s
   As from 1978 model 900 cm^3/30 s

2. Control pressure, cold engine

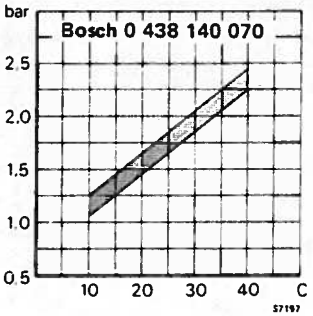
   Up to and incl. 1976 model



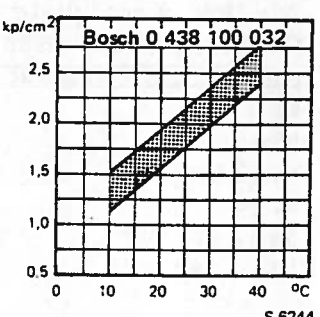
Up to and incl. 1976



As from 1977 model



Turbo as from 1980 model



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3.	Control pressure, warm engine	3.4-3.8 bar (kg/cm^2, 48.5-54.0 lb/in^2)
4	Control pressure, full-laden Turbo 1978-1979 models:	
	62° or speed above 130 km/h	2.5-2.9 bar (kg/cm^2, 35.6-41.2 lb/in^2)
	1980 model Simulated charging pressure in excess of 0.33-0.40 bar	2.5-2.9 bar (kg/cm^2, 35.6-41.2 lb/in^2)
5.	Line pressure:	
	Test value	4.5-5.1 bar (kg/cm^2, 64.0-72.5 lb/in^2)
		Turbo 5.2-5.8 bar (kg/cm^2, 74-82.5 lb/in^2)
	Setting value	4.7-4.9 bar (kg/cm^2, 66.9-69.7 lb/in^2)
		Turbo 5.4-5.6 bar (kg/cm^2, 76.8-79.7 lb/in^2)
6.	Leakage check:	
	Minimum pressure after 20 minutes	1.0 bar (kg/cm^2 14.2 lb/in^2)
	As from 1978 model	1.5 bar (kg/cm^2 21.3 lb/in^2)
7.	Injection valve:	
	Opening pressure as from date code 828 (≈1978)	2.5-3.6 bar (kg/cm^2, 35.6-49.8 lb/in^2)
	Opening pressure as from date code 829 (≈1979 model)	2.7-3.8 bar (kg/cm^2, 38.4-54 lb/in^2)
	Opening pressure 1980 model	3.0-4.1 bar (kg/cm^2, 42.6-58.3 lb/in^2)
	Maximum variation between injection valves in same engine	0.6 bar (kg/cm^2, 8.5 lb/in^2)
8.	Leakage check, injection valve	Test system should maintain a pressure of 2.4 bar (kg/cm^2, 34.1 lb/in^2) for 15 s
9.	Idling speed setting (warm engine and cars to swedish specification: day warning lights on.	850 ± 50 r/min
	CO content:	
	Up to and including 1976 model	Max. 3.5 % at 850 r/min
	Europe as from 1977 model	1.5 ± 1 % at 850 r/min
	Sweden as from 1977 model	1.5 ± 0.5 % at 850 r/min

Tightening torques

Air flow sensor:	
Stop bracket retaining bolts	4.7-5.3 Nm (3.4-8.8 ftlb, 47-53 kgcm)
Counterweight retaining bolts	4.7-5.3 Nm (3.4-3.8 ftlb, 47-53 kgcm)
Air flow sensor plate retaining screw	5.0-5.5 Nm (3.6-4.0 ftlb, 50-55 kgcm)
Fuel distributor retaining bolts	3.2-3.8 Nm (2.3-2.7 ftlb, 32-38 kgcm)
Line pressure regulator screw plug	13-15 Nm (9.4-10.8 ftlb, 130-150 kgcm)
M 8 bolt	10-12 Nm (7.2-8.7 ftlb, 100-120 kgcm)
M 10 bolt	13-15 Nm (9.4-10.8 ftlb, 130-150 kgcm)
M 12 bolt	20-24 Nm (14.4-17.4 ftlb, 200-240 kgcm)
M 14 bolt	15-20 Nm (10.8-14.4 ftlb, 150-200 kgcm)
M 12 cap nut	15-20 Nm (10.8-14.4 ftlb, 150-200 kgcm)
M 14 cap nut	25-30 Nm (18.1-21.8 ftlb, 250-300 kgcm)

Turbo system

Turbo compressor make	Garrett AiResearch
Maximum charing pressure (see Measuring the charging pressure)	0.70 ± 0.05 bar kg/cm^2, 12.8 ± 1.4 lb/in^2
Approximate length of spring in charge pressure regulator (basic setting)	Approx. 18 mm (0.708 in)
Pressure switch actuating pressure	0.9 ± 0.1 bar (kg/cm^2, 12.8 ± 1.4 lb/in^2
Clearance, turbo shaft bearings:	
End float	0.025-0.10 mm
Radial clearance	0.075-0.18 mm
Fuel boosting device, 1979 model:	
Type	Full-load enrichment dependent on speed and throttle valve position
Throttle valve switch (throttle opening when swich closes)	62°
Speed transmitter (closing speed)	80 ± 3 mph (130 ± 5 km/h)
Pressure regulator (reduced control pressure)	2.5-2.9 bar (kg/cm^2, 35-41.2 lb/in^2
CO value with throttle valve switch depressed (CO value at idling speed set at 1.0-2.0 %)	4-6 % CO approx
Fuel boosting device as from 1980 model	
Type	Charging pressure controlled full-load boosting. Warm-up regulator and special control system)
Warm-up regulator	
Simulated charging pressure when the control pressure is reduced	0.33-0.40 bar kg/cm^2, 4.7-5.7 lb/in^2
Reduced control pressure (with carging pressure over 0.4 bar (5.7 lb/in^2)	2.5-2.9 bar (kg/cm^2, 35-41.2 lb/in^2)
Throttle valve switch (throttle opening when contact closes)	62° approx.
CO value at idling speed with simulated charging pressure over 0.4 bar (5.7 lb/in^2)	4-6 % CO approx.

Exhaust emission control system

EGR system

	On-off	Two port (Injection engine with automatic transmission), as from 1978 model
EGR cut-in speed (fast idling)	Around 1 900 r/min	2 600 ± 300 r/min
Vacuum necessary to open EGR valve	2.36 ± 0.20 in (60 ± 5 mm) Hg	2.36 ± 0.2 in (2.36 ± 5 mm) Hg
Opening temperature of PVS valve	Approx. 100°F (38°C)	Approx. 100°F (38°C)
Restriction diameter at EGR outlet in exhaust manifold	0.16 in (4 mm)	No restriction

Deceleration valve, carbureted engines (up to and incl. 1977 model

Setting:

1. Turn the valve screw clockwise until engine speed ceases to increase.
2. Turn the valve screw counter-clockwise until the engine has returned to idling speed and then turn the screw a further 1/2-3/4 turn clockwise from this position.

Checking:

Rev up the engine and release the throttle. Check that the engine speed - after slight delay - returns smoothly and distinctly to idling speed.

Electrically controlled deceleration device

Speed transmitter	Energizes the solenoid when the speed of the car exceeds 19-22 mph/30-35 km/h.
Deceleration solenoid, adjusting	Increases the idling speed to 1 550 ± 50 r/min (Turbo 1978-1979 model: 1 400 ± 50 r/min) when the throttle is closed and the solenoid connected to battery voltage (at speeds above 19-22 mph/30-35 km/h)

N.B.
The solenoid cannot open the throttle valve but merely functions as a stop to prevent the throttle closing completely during engine overrun at speeds exceeding 19-22 mph/30-35 km/h.

Deceleration valve, injection engine

	Up to and incl. 1976 model	As from 1977 model
Time for engine to drop from 3 000 r/min to idling speed	4-5 s	3-6 s

Delay valve

Delay of vacuum signal to vacuum regulator in distributor	6 ± 2 s (Turbo Sweden as from 1979 model: 20 ± 4 s)

Dashpot

Check. Deceleration time from 3000 r/min to idling speed	3-6 s
Setting: r/min when the dashpot rod hits the stop on the throttle spindle. (Vacuum pipe disconnect from the distributor, engine warm)	1979 model: 2600 ± 100 As from 1980 model: 2000 ± 100

Exhaust system

Exhaust pipe inner diameter	1.73" (44 mm)

Cooling system

Type	Pressurized
Liquid capacity of cooling system incl. heating system	7 Imp.quarts (8 l)
Thermostat opens at	$89^{0} \pm 2^{0}$
Radiator pressure cap opens at	0.9-1.2 bar (kg/cm^2, 12.8-17.0 lb/in^2)

Water pump

Clearance between pump shaft and pump cover	No. adjustment needed. Original gasket gives correct clearance.

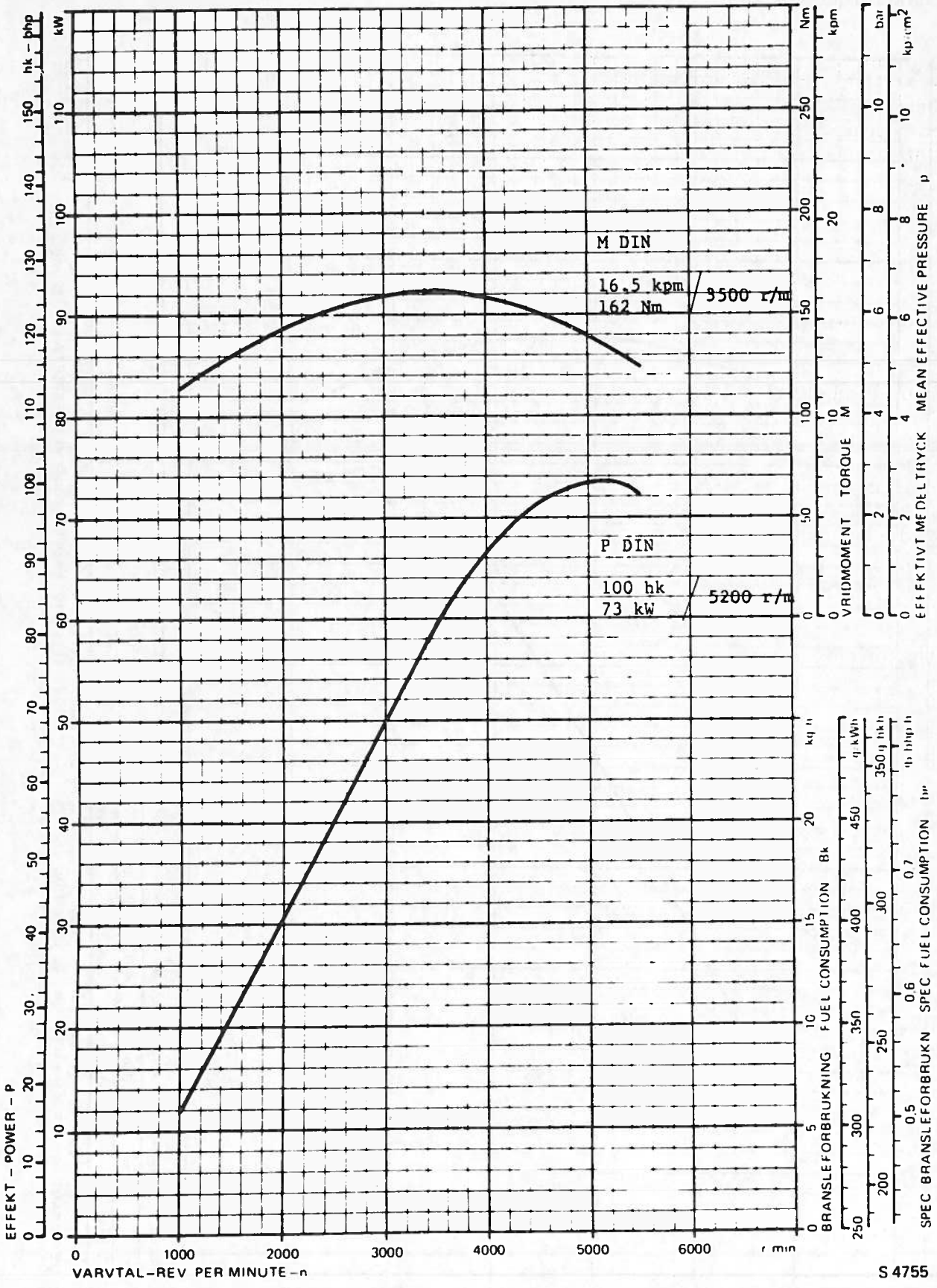
Hammers must never be used when removing or fitting the later version of water pump (impeller retained by nut). As from 1977 model, the thread on the water pump shaft is only used during removal of the pump.
Se Group 2.

Tightening torques

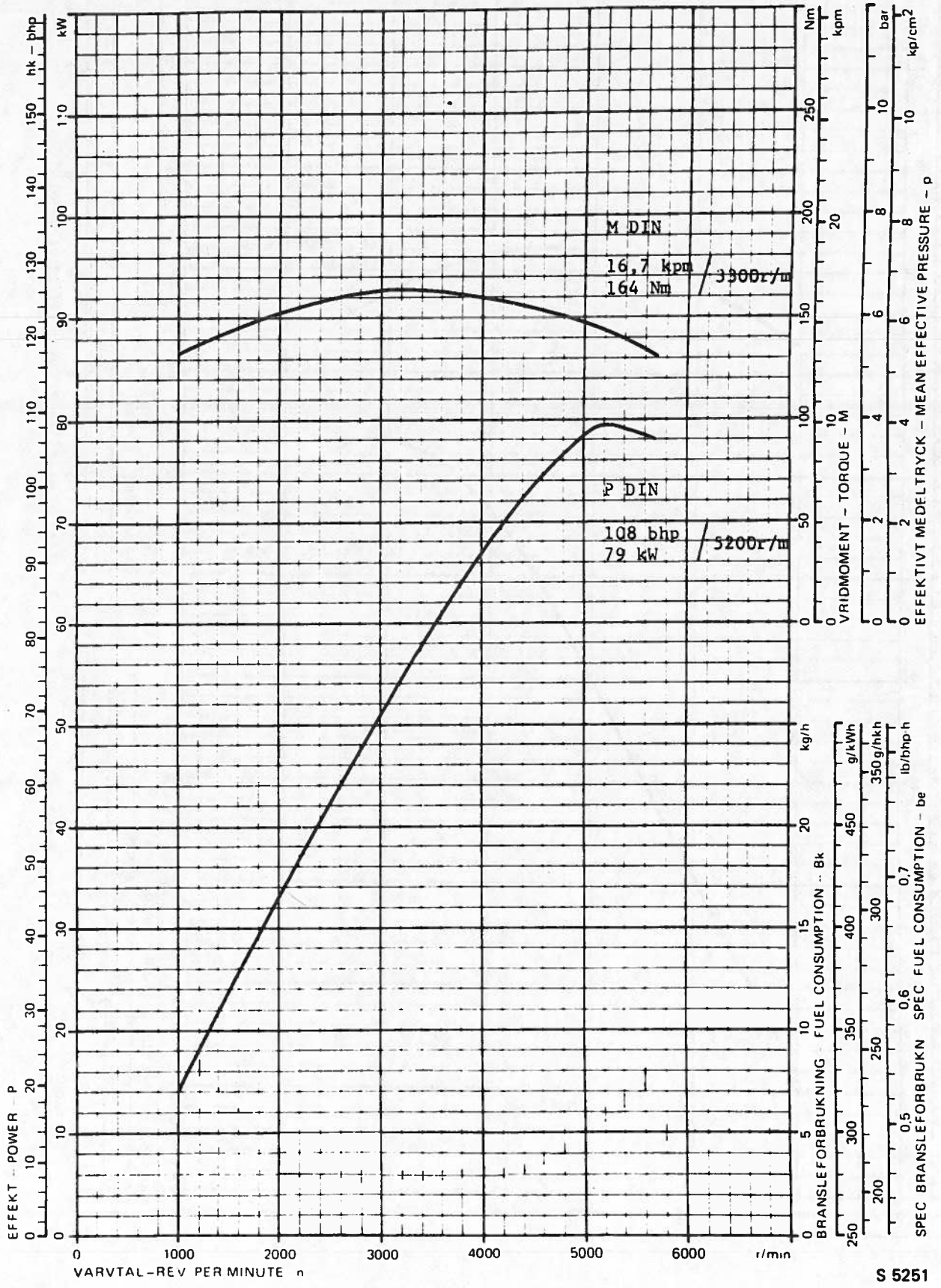
	Dimension	Torque Nm	kgm	ftlb
Main bearings	M 12	108	11	79
Big-end bearing bolts	M 10	54	5.5	40
Camshaft bearing caps	M 8	18	1.8	13
Valve cover	M 6 (M 8)	2.0	0.2	1.4
Crankshaft belt pulley	M 16	190	19	137
Seal end (flywheel side)	M 8	20	2.0	14
Cylinder head screw	M 12	93	9.5	69
Flywheel	M 10	59	6.0	43
Water pump impeller (earlier version, bolt	M 8 (left-hand thread)	25	2.5	18
Water pump impeller (later version, nut)	M 12 (left-hand thread)	15	1.5	11
Oil pump	M 8	18	1.8	13
Spark plugs	M 14 x 1.25	28	2.8	20
Idler shaft keeper plate	M 8	20	2.0	14
Chain sprocket idler shaft	M 10	25	2.5	18
Chain sprocket camshaft	M 8	20	2.0	14
Inlet manifold	M 8	18	1.8	13
Thermostat housing	M 8	18	1.8	13
Throttle valve housing	M 8	18	1.8	13
Exhaust manifold 1975 model	M 10	25	2.5	18
Exhaust manifold 1976 model	M 8	20	2.0	14

For other bolts, use general tightening torques:

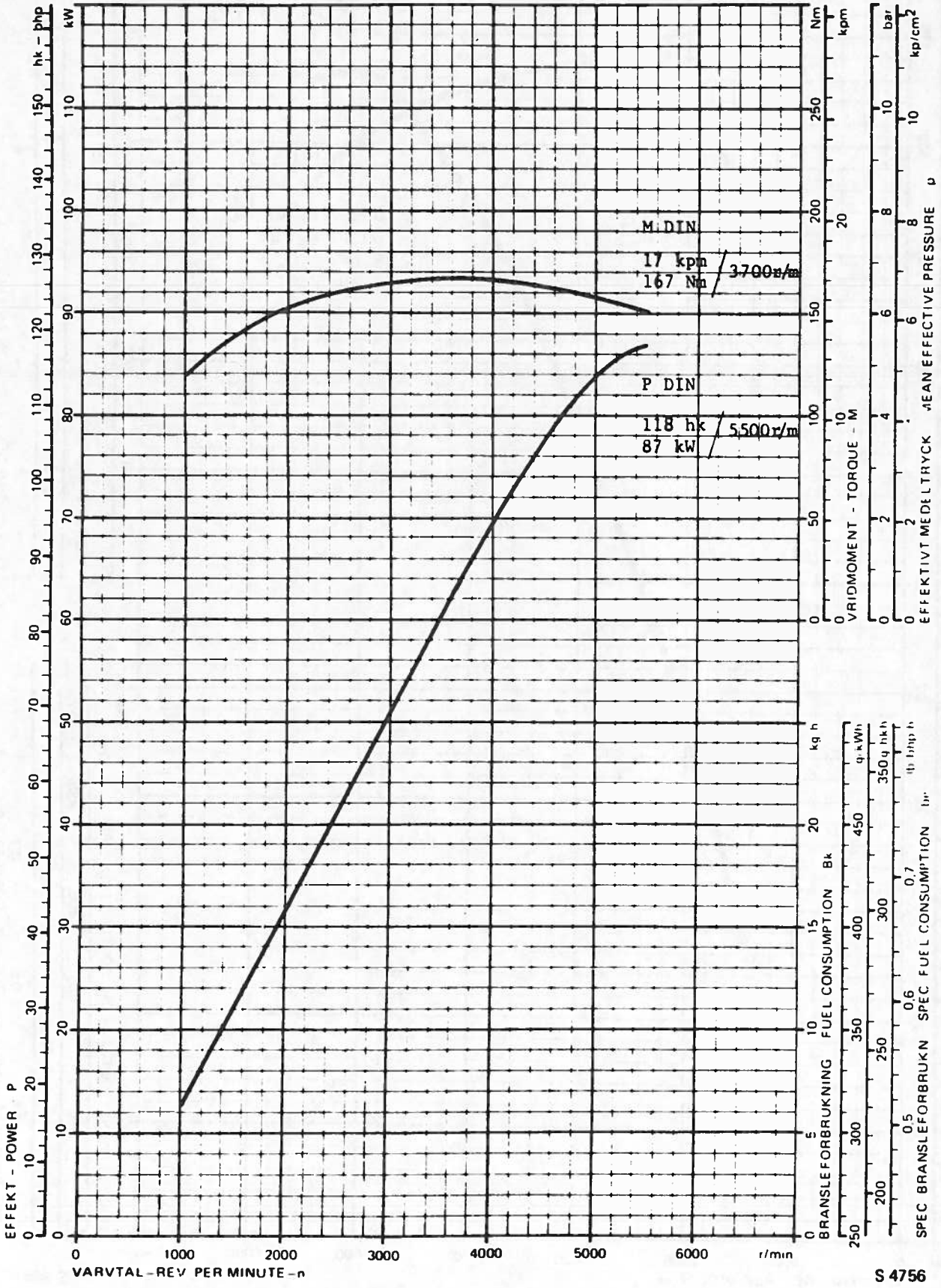
Dimensions	Tightening torque Nm	kgm	ftlb
M 5	4.9	0.5	3.6
M 6	9.8	1.0	7.2
M 8	19.6	2.0	14.4
M 10	39.2	4.0	28.9



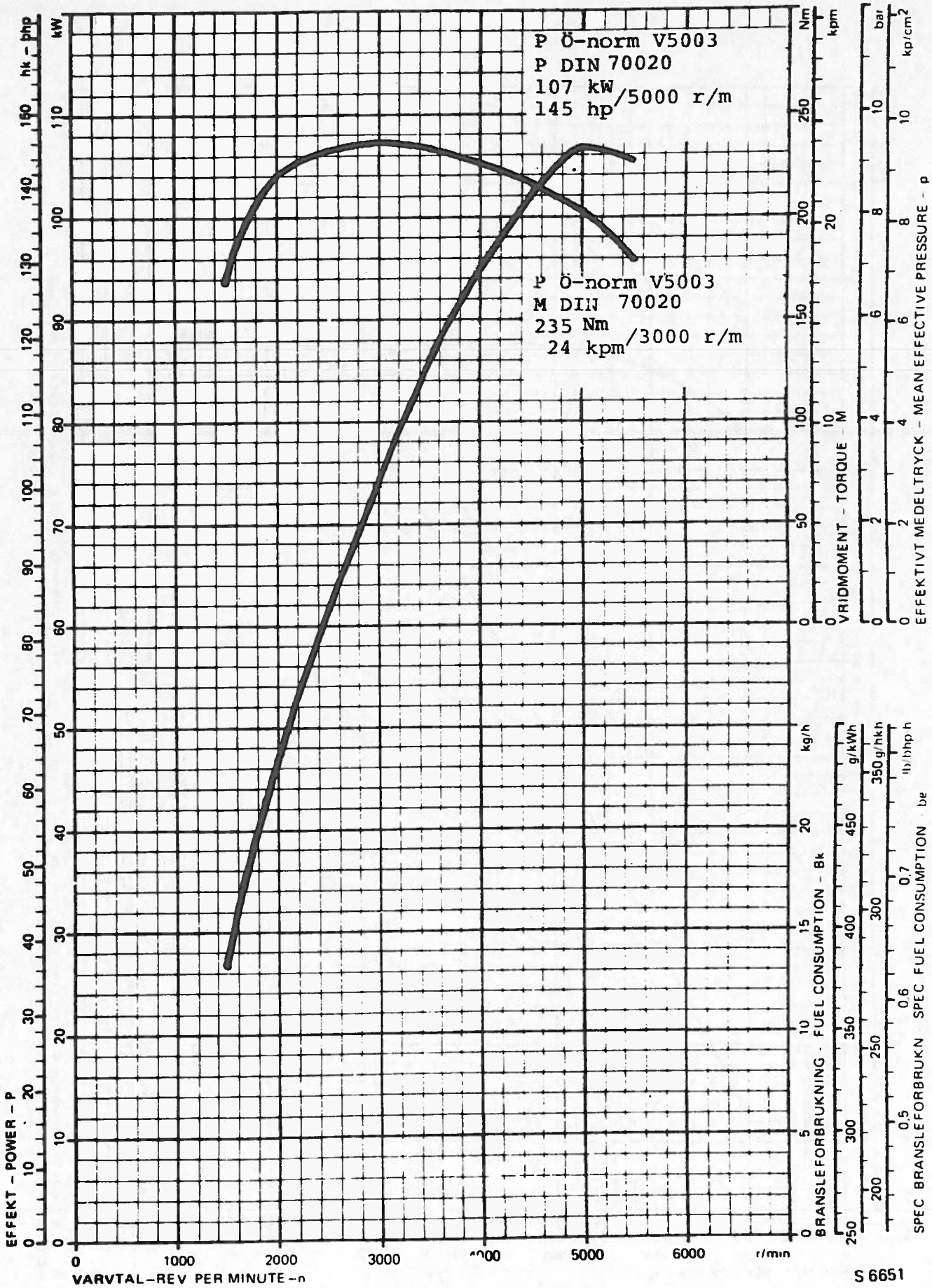
Engine performance graphs, single-carbureted engine



Engine performance graphs, twin-carbureted engine



Engine performance graphs, injection engine



Engine performance graphs, Turbo engine

Engine model 1982–

General data

	Single-carbureted engine
Type	4-cyl, 4-stroke with overhead camshaft
Power rating, DIN (SAE net)	73 kW (100 hp)/5.200 r.p.m.
Max. torque, DIN	162 Nm (120 ft.lb., 16.5 kpm) 3.500 r.p.m.
Compression ratio	9.5:1
Cylinder bore	3.543 in (90.0 mm)
Stroke	3.071 in (78.0 mm)
Cylinder volume	121.0 cu.in. (1985 cm^3)
Firing order	1-3-4-2
Engine idling speed (warm engine and headlamps on low beam)	850 ± 50 r.p.m.
Weight incl. clutch, throttle valve housing, exhaust manifold, starter motor and oil filter	308 lb. (140 kg) approx.
Fuel, minimum octane number,	RON 93 (Sweden spec.) RON 97 (Europe spec.)

Cylinder block

Material	Specially alloyed cast iron
No. of main bearings	5
Cylinder bore:	
Standard (A)	90.000-90.010 mm
Standard (B)	90.010-90.020 mm
1st oversize	90.500 mm
2nd oversize	91.000 mm

Cylinder head

Max. grinding or facing of cylinder head surface	0.4 mm
Distance from cylinder head gasket to valve cover gasket surface, new cylinder head	92.75 ± 0.05 mm

Pistons

Make	"MAHLE" or "KARL SCHMIDT" Pistons of different makes must not be fitted in the same engine.
Material	Light metal alloy
No. of rings per piston	2 compression rings
Width of ring grooves:	
Top	1.79-1.81 mm
Second	2.03-2.05 mm
Scraper	4.01-4.03 mm

Piston diameter perpendicular to gudgeon pin ("MAHLE" measured 16 mm from lower edge of piston "KARL SCHMIDT" measured 26 mm from lower edge of piston)	
	std 9.5:1
Standard A (not spare part)	89.972-89.980
Standard AB	89.980-89.986
Standard B (not spare part)	89.986-89.994
Standard (C)	89.994-90.010
1st oversize (0.5 mm)	90.472-90.487
2nd oversize (1.0)	90.972-90.987
Piston clearance	0.014-0.040
Withdrawal of piston	From top of block
Piston orientation	Groove on top should be facing the transmission end of engine
Pin diameter	23.996-24.000 mm
Fit of pin	0.005-0.014 mm Sliding fit under gentle pressure with thumb
Piston speed (average speed)	13 m/s at 5000 r/min

Piston rings

Top compression ring:	
Thickness	1.73-1.75 mm
Gap, fitted in new cylinder	0.35-0.55 mm
Piston ring play in groove	0.050-0.082 mm
Second compression ring:	
Thickness	1.98-1.99 mm
Gap, fitted in new cylinder	0.30-0.45 mm
Piston ring play in groove	0.040-0.072 mm
Oil scraper:	
Thickness (segment)	0.58-0.64 mm
Gap fitted in new cylinder (segment)	0.38-1.40 mm
Thickness, middle ring	2.63-2.73 mm

Connecting rods

Material	Forged steel
Diameter of drilling in big-end	56.000-56.019 mm
Small-end bush installed	24.005-24.010 mm
Max. permissible weight variation per set	0.2 oz. (6 g)

Crankshaft

Material	Forged steel
Surface treatment	Tennifer-coated
Journal hardness	HV 800 approx.
No. of main bearings	5

Crank pin diameter:

Standard	51.981-52.000 mm
1st undersize	51.731-51.750 mm
2nd undersize	51.481-51-500 mm
3rd undersize	51.237-51.250 mm
4th undersize	50.987-51.000 mm

Main journal diameter:

Standard	57.981-58.000 mm
1st undersize	57.731-57.750 mm
2nd undersize	57.481-57.500 mm
3rd undersize	57.237-57.250 mm
4th undersize	56.987-57.000 mm
Radius at journal end	2.2-2.5 mm
Max. ovality of journals (out-of-round)	0.005 mm
Max. conicity of journals (taper)	0.005 mm
Bearing material	Lead-bronze
Crankshaft end float	0.08-0.28 mm
Main bearing clearance	0.020-0.062 mm
Big-end bearing clearance	0.026-0.062 mm

Colour marking, main and connecting rod bearing shells:

	Thin	Thick
Standard	Red	Blue
1st undersize	Yellow	Green
2nd undersize	White	Brown

Camshaft

Number of bearings	5
Bearing diameter	28.94 mm
Camshaft end float	0.08-0.25 mm

Cam lift (at 0 valve clearance):

Inlet	10.8 mm
Exhaust	11.0 mm

Valve timing (at 0 valve clearance):

Inlet	
- opens	10^{o} BTDC
- closes	54^{o} ABDC
Exhaust	
- opens	46^{o} BBDC
- closes	18^{o} ATDC

Valve mechanism

Valve face angle, inlet and exhaust	44.5^{o}
Valve seat angle in cylinder head, inlet and exhaust	45^{o}
Valve seat width, inlet and exhaust	1-2 mm

Valve stem diameter:

Inlet	7.960-7.975 mm
Exhaust	7.955-7.980 mm
Stem to guide clearance	0.5 mm Measured on valve head raised 3 mm above seating

Valve head diameter:

Inlet	42.0 mm
Exhaust	34.5 mm

Valve guides:

Length	46.65 mm
Outer diameter	13.040-13.051 mm
Bore for valve guides in cylinder head, diameter	13.000-13.018 mm

Valve springs:

Installed length	39.5 mm
Free length	43.1 mm
Length at full elevation	29.5 mm
Load at full elevation	755-815 N (170-183 lb, 77-83 kg)

Valve depressors:

Diameter	37.87-37.98 mm
Height	33 mm
Bore in cylinder head for valve depressors (camshaft bearing assy.) diameter	38.000-38.016 mm

Pallets for valve adjustment:

Diameter	15.5 mm
Thickness	1.77-2.89 mm There are 23 pallets of different thicknesses at intervals of 0.50 mm

Materials

Exhaust valves	Stellited steel
Inlet valve	Steel (Valve stems are chromium plated)
Valve guides	Cast iron
Valve seats	Sintered metal

Valve clearances, cold engine (30 minutes after driving the engine warm

Inspection tolerance zone:	
Inlet	0.006-0.012 in (0.15-0.30 mm)
Exhaust	0.014-0.020 in (0.35-0.50 mm)
Adjustment tolerance zone:	
Inlet	0.008-0.010 in (0.20-0.25 mm)
Exhaust	0.016-0.018 in (0.40-0.45 mm)

Lubrication system

Type	Forced-flow circulating oil system Gear-type oil pump with eccentric ring gear
Pressure-lubricated points	Camshaft, crankshaft, idler shaft, connecting rods
Splash-lubricated points	Gudgeon pins, cylinder walls, valve depressors, valve stems and timing chain.
Oil filter	Full-flow type
Crankcase ventilation, fully enclosed	From crankcase through valve cover - restriction to inlet manifold. Valve cover is connected to atmospheric pressure via the air cleaner.
Lubricating oil, grade:	SAE 10 W 30, 10 W 40, or 5 W 30. If no oil meeting these specifications is available, oil with a viscosity or SAE 15 W 40 or 15 W 50 may be used. The use of additives is not recommended. Service SF in API-system or Ford spec. ESE-M2C-101C
Oil volume incl. filter	6 Imp. pints (3.5 litres)
Oil pump pressure-reducing valve opens at	3.6-5.2 bar (kg/cm^2, 51-74 lb/in^2)
Oil pressure warning light comes on at	0.3-0.5 bar (kg/cm^2, 4.2-7.1 lb/in^2)
Oil pressure at 2.000 r/min (oil SAE 10 W 40 at 176^7^{0}C F, 80^{0}C)	Min. 3.0 bar (kg/cm^2, 43 lb/in^2)

Fuel system

Single-carburetor

Make	Zenith
Model	175 CD
Diameter	1 3/4 in
Metering needle	B1 DS
Float adjustment	0.63-0.67 in, (16-17 mm) between the highest point on the float and the mating flanges of the carburetor housing.
Float valve	0.08 in, (2.0 mm)
Damper oil	Automatic transmission oil
Quantity of oil in damper	Lowest level: 0.39 in, (10 mm) below the upper lip of the air valve sleeve.
Fast idling speed: (Engine at normal running temperature and with an 8 mm drill between the notch in the cam and the stop on the choke housing):	Approx. 1100 r/min
Normal idling speed: (engine at normal running temperature and, for cars with Sweden spec., daylight driving lights on):	850 $\pm$ 50 r/min

CO Content: Sweden: Engine running at 2 000 r/min; hoses to the vacuum control unit and crankcase ventilation disconnected; engine at normal running temperature (just after cut-in of fan); daylight driving light on:	1.75 ± 0.25 %
Europe: Engine running at 850 r/min and normal temperature; an lights off:	1.5 ± 1.0 %
Fuel jet installation position	Inserted to a distance of one in, (2.5 mm) from the jet seating surface
Basic position of fuel needle in vacuum piston (basic setting for adjustment)	Shoulder of needle in line with lower edge of vacuum piston
Temperature compensator, opening at room temperature ($68^{o}F/20^{o}C$)	0.004-0.012 in, (0.1-0.3 mm)
Vacuum piston return spring, colour	Red

Miscellaneous

Fuel pump (mechanical) type	Pierburg 7.20739.00
Static fuel pressure at starter speed	0.17-0.25 bar (2.4-3.6 lb/in^2)
Fuel tank capacity	12.8 Imp. gal. (58 l)

Deceleration valve, carbureted engine with Europe specification

Setting:

1. Turn the valve screw clockwise until engine speed ceases to increase.
2. Turn the valve screw counter-clockwise until the engine returns to idling speed and then turn the screw a further 1/2-3/4 turn clockwise from this position.
   To check:
   Rev up the engine and release the throttle. Check that the engine speed - after a slight delay - returns smoothly and surely to the idling speed.

Dashpot, carbureted engines with Sweden spec.

Checking: Retardation time from 3 000 r/min to idling speed should be:	Between 3 and 6 seconds
Setting: Idling speed when the dashpot rod strikes the throttle lever stop (vacuum hose disconnected and plugged; engine warm)	Single-carburetor engines: 2 600 ± 100 r/min

Delay valve:
cars with sweden spec.

Vacuum signal delay to vacuum control unit	2 ± 1 s
Colour fo valve	Brown

Exhaust system

Exhaust pipe inner diameter	1.73 in (44 mm)

Cooling system

Type	Pressurized
Liquid capacity of cooling system incl. heating system	14 Imp. pints (8 l)
Thermostat opens at	192°F (89°C)
Radiator pressure cap opens at	0.9-1.2 bar (12.8-17.0 lb/in^2)

Water pump

Number of vanes on impeller	8

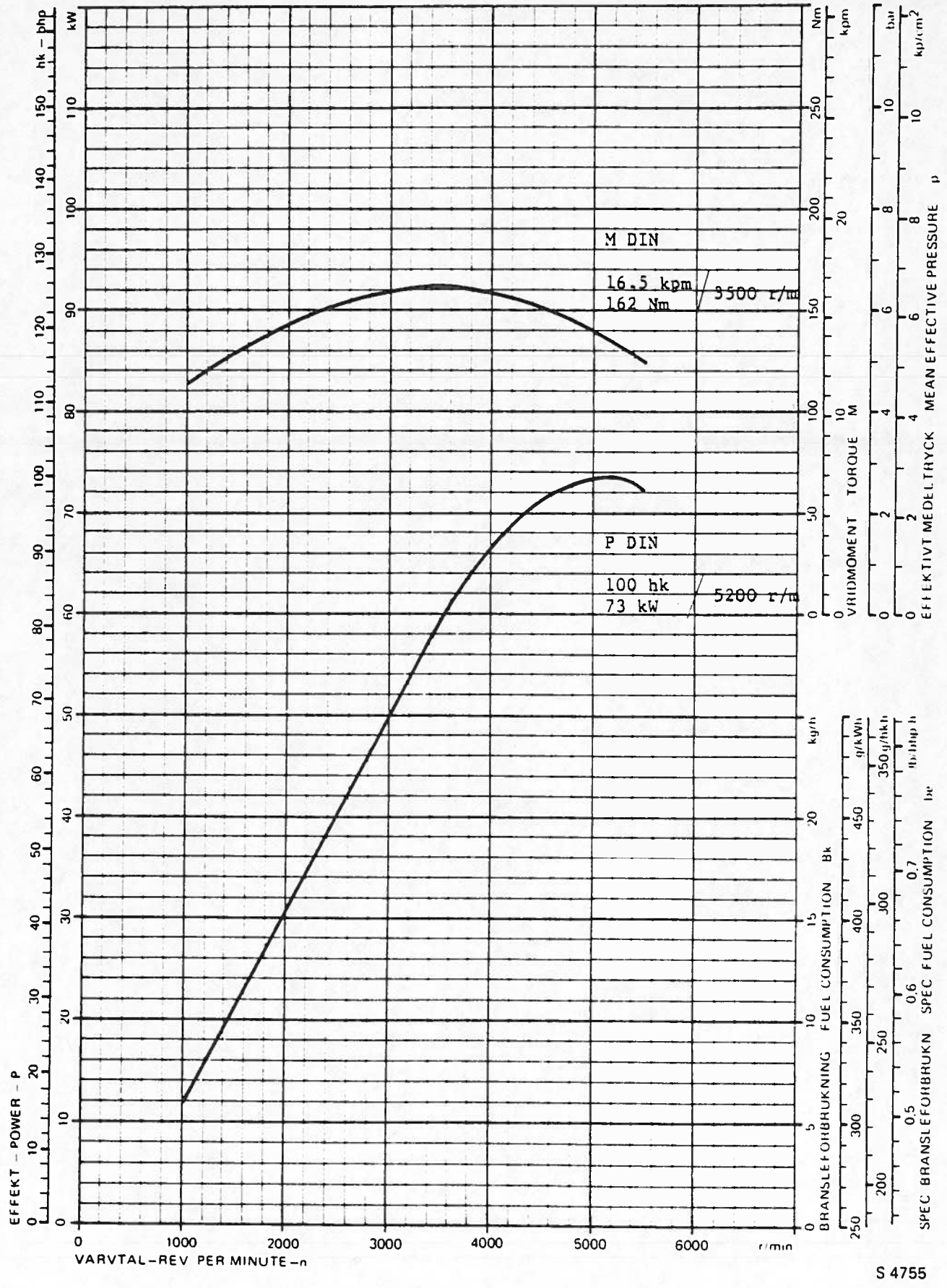
Tightening torques

	Dimension	Torque Nm	kpm	lbft
Main bearings	M 12	108	11	79
Big-end bearings	M 10	54	5.5	40
Camshaft bearing caps	M 8	18	1.8	13
Valve cover	M 6	4.9	0.5	3.6
Crankshaft pulley	M 16	190	19	137
Rear engine plate (flywheel side)	M 8	20	2.0	14
Cylinder head bolts				
Stage I:	M 12	60	6.0	44
Stage II:		90	9	65
Run engine until warm				
Allow to cool (30 min)				
Re-tighten to:				
Stage I:		90	9	65
Stage II:		90° (1/4 turn)		

	Dimension	Torque Nm	kgm	lbft
Flywheel	M 10	59	6.0	43
Oil pump	M 8	18	1.8	13
Spark plugs	M 14 x 1.25	28	2.8	20
Chainwheel, camshaft	M 8	20	2.0	14
Inlet manifold	M 8	18	1.8	13
Thermostat housing	M 8	18	1.8	13
Throttle housing	M 8	18	1.8	13
Exhaust manifold	M 8	25	2.5	18
Timing cover	M 8	20	2.0	14
Distributor	M 6	4.9	0.5	3.5
Oil filter	1/4 in 16 UNF	10	1.0	7.2
Oil pressure switch	1/4 in 18 NPTF	10	1.0	7.2
Thermo-valve EGR	M 14 x 1.5	15	1.5	11

For other bolts, use general tightening torques:

Size	Tightening torque		
	Nm	kgm	lb ft
M 5	4.9	0.5	3.6
M 6	9.8	1.0	7.2
M 8	19.6	2.0	14.4
M 10	39.2	4.0	28.9



Engine performance graphs, single carburetor engine

Electrical system

Battery

Voltage	12 V
Capacity	60 Ah
Earth connection	Negative (-)

Generator

Bosch 55 A

Type designation	Bosch K1 → 14 V 55 A 20
Rated voltage	14 V
Rated speed	2,000 rev/min
Max. permissible continuous load	55 A/14 V
Output	790 W
Stator connection	Star connection

SEV and Marchal 55 A

Up to and including 1978 model	with separate charging regulator
As from 1979 model	with intergrated charging regulator
Voltage/current at 5000 r.p.m.	14 V/55 A
Stator connection	Delta connection 

Bosch 65 A

Type designation	Bosch K1 → 14 V 65 A 21
Rated voltage	14 V
Rated speed	2,100 rpm
Max. permissible continuous load	65 A/14 V
Output	840 W
Stator connection	Star connection 

Bosch 70 A

Type designation	Bosch K1 → 14 V 70 A 20
Rated voltage	14 V
Speed/current at:	
1800 rpm	46 A
3300 rpm	63 A
5000 rpm	69 A
6000 rpm	70 A
8000 rpm	72 A
Output	930 W
Stator connection	Delta connection 
Direction of rotation	Clockwise

Starter motor

Type designation	Bosch GF (R) 12 V 0 001 311 108
No. of cogs in pinion	9
No. of cogs on ring gear	142
Ratio	15.8:1
Output rating	0.8 kW (1.1 hp)

Test results

Mechanical:

Brush spring pressure	11.3-12.8 N (41-46 oz., 1150-1300 p)
Backlash	0.014-0.024" (0.35-0.60 mm)
Distance from pinion to ring gear	0.098-0.118" (2.5-3.0 mm)
Contact reserve	0.039" (1 mm)
Rotor axial play	0.002-0.012" (0.05-0.30 mm)
Pinion free-wheel torque	0.13-0.18 Nm (1.1-1.6 in.lb., 1.3-1.8 kpcm)

Electrical:

Idling, 11.5 V and 35-55 A	6,500-8,500 rpm
Loaded, 9 V and 205-235 A	1,000-1,300 rpm
Locked starter motor	6 V 325-375 A
Lowest engagement voltage for starter solenoid	8 V

Ignition coil (conventional)

Type designation	Bosch kW 12 V
Order no.	Bosch 0 221 119 027
Primary winding resistance at 68°F (+20°C) (across terminals 1 and 15)	2.6-3.1 Ohm
Length of starting spark at 6 V 600 sparks/minute (150 distributor revolutions)	0.4" (10 mm)
Medium current through primary winding at 4,000 sparks/minute (1,000 distributor revolutions)	1.9 A

Ignition coil (breakerless ignition system with inductive transmitter model 1979-81)

Type designation	Bosch kW 12 V
Order no.	Bosch 0 221 122 014
Primary winding resistance at 68°F (+20°C) (across terminals 1 and 15)	1-1,4 Ohm
Secondary winding resistance	5,5-8,5 kOhm
Length of starting spark	Min. 0.47" (12 mm)
Medium current through primary winding at 1,000 distributor revolutions	3,2 A

Distributor (conventional)

Make	Bosch
Type designation	Bosch JFU 4
Order numbers:	
Cars with carburettor engine, model year 1975 with jack shaft of steel (12-tooth gear)	Bosch 0 231 170 115
Cars with injection engine, model year 1975 with jack shaft of steel (12-tooth gear)	Bosch 0 231 170 122
Cars with injection engine, model year 1975 with jack shaft of cast iron (20-tooth gear)	Bosch 0 231 170 158
Cars with carburettor engine with jack shaft of cast iron and cars with injection engine, model year 1976 (20-tooth gear)	Bosch 0 231 170 145
Cars from model year 1977 (20-tooth gear	Bosch 0 231 170 197 or Bosch 0 231 041 079
Cars with H engine	Bosch 0 231 186 032
Capacitor	Bosch 1 237 330 280
Capacitance	0.2 uF ± 10 %

Basic setting:

(Fuel of recommended octane rating)

	B-20 engine									H engine
	All Europe versions and Sweden M1975	M1976 Sweden				M1977 Sweden (not Turbo)				
		Manual		Automatic		Manual		Automatic		
		Carb	Inj	Carb	Inj	Carb	Inj	Carb	Inj	
Ignition timing	17°	22°	24°	25°	27°	18°	20°	21°	23°	18°
Octane rating	96									93
	At max *) 800 rev/min	At 2000 r/min *)								

*) Vacuum hose disconnected

Firing order	1-3-4-2
Contact breaker gap	0.016 in. (0.4 mm)
Dwell angle	50 + 3°
Contact points pressure	4.9-6.2 N (18-23 oz, 500-630 p)
Direction of rotation	Counter-clockwise
Distributor shaft and float	0.004-0.012 in. (0.10-0.30 mm)
Rotor arm resistance	5,000 Ohm
Order number, Turbo, model year 1977	Bosch 0 237 002 026
Order number, Turbo, from model year 1978	Bosch 0 237 005 001
Order number, GLi, model year 1981	Bosch 0 237 002 023
Direction of rotation	Counter-clockwise

Firing order	1-3-4-2
Over-revving cut-out	Rotor with intergrated centrifugal switch which cuts out ignition when engine speed exceeds 6,000 + 200 rpm - 100 rpm
Electronic control unit, (breakerless ingnition system), type	TSZ-2g/l 4/SI
Electronic control unit, order no.	0 227 100 014
Compensating resistor	
With starter motor connected	0,6 Ohm
Total, when driving	1,0 Ohm
Basic setting (distributor vacuum pipe disconnected and plugged):	
Turbo, Sweden	20° BTDC at 2,000 rpm
Turbo, Europe	23° BTDC at 2,000 rpm
Rotor arm resistance	5,000 Ohm

Spark plugs

Type	NGK BP-6ES Champion N-8Y Turbo, hard motorway-type driving: NGK BP-7ES Champion N-9Y Bosch W175 T 30
Thread	M 14 x 1.25
Thread length	0.7" (19 mm)
Electrode gap	0.024-0.028" (0.6-0.7 mm)
Tightening torque	25-29 Nm (18-22 ft.lb., 2.5-3.0 kpm)

Ignition cables	Up to and incl. model 1976	As from model 1977
Resistance:		
Cables to cylinders 1 and 2	14,500 Ohm ± 20 %	3,250 Ohm ± 20 %
Cables to cylinders 3 and 4	13,500 Ohm ± 20 %	3,000 Ohm ± 20 %
Cable between ignition coil and distributor incl. connections	1,000 Ohm ± 20 %	1,000 Ohm ± 20 %

Direction indicator flasher	Type	Saab No.
Type (B-20 engine)	Tridon EP-13	85 46 160
Type (H engine)	Hella 4DB 003 425-02	85 74 527
Flashing frequency	60-120 flashes per min.	

Light bulbs	Power	Cap	Qty.	
Headlights, normal	40/45 W	P 45t	2	
Headlights, H4	60/55 W	P 43t-38	2	
Front direction indicators, (up to 1978 model)	21 W	BA 15s	4	
Front direction indicators, as from model 1977	21(/5) W	BAY 15d	2	(Twin-filament lamp with one wire used)

		Power	Cap	Qty	
Front parking light, up to and incl. model 1976		5 W	BA 15s	2	
Foglight 99 GLE (model year 1976)		55 W (H3)	Pk 22s	2	
Cornering lights/parking light, as from model 1977		21/5 W	BAY 15d	2	(Twin-filament lamp)
Rear direction indicators, stop and back-up lights		21 W	BA 15s	6	
Rear direction indicators, as from model 1977		21 W	BA 15s	2	
Tail lights, up to and incl. model 1976		5 W	BA 15s	2	
Tail lights, as from 1977 models		5 W	BA 15s	2	
Side reversing light, as from model 1977		21 W	BA 15s	2	
Number plate light, Saab 99 Combi Coupé		5 W	SV 8.5-8	2	
Dome light		10 W	SV 8.5-8	1	
Trunk light, Saab 99 (99 L), 99 L (99 GL), 99 GLE and 99 EMS		5 W	SV 8.5-8	1	
Trunk light, Saab 99 Combi Coupé		10 W	SV 8.5-8	1	
Control illumination, switches		1,2 W	W 2 x 4,6d	2	
Ignition switch illumination	2 W	2 W	BA 9s	1	
Rear view mirror light	5 W	5 W	SV 8,5-8	1	
Instrument and indicator lights	1,2 W	1,2 W	W 2 x 4,6d	8	
Hazard warning signal switch	1,2 W	1,2 W	W 2 x 4,6d	1	
Switch, electrically heated rear window Saab 99 Combi Coupé (Model 1975: Only Saab 99 Combi Coupé Model 1976: Not Saab 99 L)	1,2 W	1,2 W	W 2 x 4,6d	1	
Switch cornering light	1,2 W	1,2 W	W 2 x 4,6d	1	
Seat belt warning light	1,2 W	1,2 W	W 2 x 4,6d	1	

Relays

	Type	Saab No.
Light relay	SWF R 601 281	85 62 118
Ignition lock	Bosch 0 332 204 109	85 33 176
Radiator fan	Cartier 118 SR	85 22 310
Radiator fan, Turbo up to and incl. model 1978	Stribel SE 885607	88 56 072
Radiator fan, Turbo as from model 1979	Stribel SE 885607	85 53 893
Electrically-heated rear window	Cartier 118 SR	85 22 310
Start interlock	Bosch 0 332 204 109	85 33 176
Reversing light as from model 1978	Cartier 118 SR	85 22 310
Fuel pump up to and incl. model 1977	Bosch 0 332 204 109	85 33 176
Fuel pump up to and incl. model 1978	Stribel SK 6464 01.3	85 39 728

	Type	Saab No.
Headlight wiper, up to and incl. year 1976	Cartier 227 SR	85 22 286
Headlight wiper, as from model 1977	Cartier 287 SR	85 33 259
Foglight, GLE up to and incl. model 1976	Stribel SE 885607	88 56 072
Relay, intermittent windshield wiper action, GLE, up to and incl. model 1976	Hella 002 450-10	85 30 818
Relay, intermittent windshield wiper action, GLE, Turbo as from model 1977	Hella 002 450-16	85 30 818
Light dimmer, up to and incl.1975	Stribel SR 9723	85 30 842
Light dimmer, as from model 1976	Stribel gul 85 33 101	
Corner light, model 1977	Bosch 0 332 204 109	85 33 176
Logic relay, seatbelt warning	Hella 003 172-00	85 33 010
Safety relay, injection engine up to and incl. 1977	Bosch 0 332 204 109	85 33 176

Horns

Shell type	Mixo TR99 (frequency approx. 425 Hz)
Plate type	Klaxon kW 9 (frequency approx 345 Hz)
Sound intensity	approx 105 dB (A)

Fuel tank unit

Type designation, metal tank	VDO K 221.826/4/5
Type designation, plastic tank (1979-80 models)	Veglia 67 95 021
Type designation, plastic tank (as from 1981 model)	Veglia 93 32 347

Heater fan motor	Up to and incl. model 1976		As from model 1977	
Type designation	Electrolux KP 50351/140		Bosch 0 130 107 051 Electrolux 96 07703-(	
	rev/min	W	rev/min	W
Output and speed at free blowing and a voltage of 13,5 V:				
1/2-speed	2,300	58	2,300	80
1/1-speed	3,500	122	4,000	180

Radiator fan motor

Type designation	Electrolux KP 50351 or SWF 401 313
Output	approx. 143 W
Speed	approx. 2,400 rev/min
Thermostat cut-in temperature, up to and incl. model 1976	202-212°F (95-100°C)
Thermostat cut-in temperature, as from model 1977	194-202°F (90-95°C)
Thermostat cut-out temperature, as from model 1977	185-194°F (85-90°C)

Windshield wiper motor

Type designation	Lucas 54 104 297	
Output rev/min (double strokes/min) and current consumption. Warm motor loaded with 1 Nm (10 kpcm, 8.7 in.lb.) and tension 13,5 V:	rev/min	W
1/2 speed	43	1.8
1/1-speed	64	2,6
Obstructed motor (e.g frozen wiper blades)	-	about 15

Headlight wiper motor

Type designation	SWF 4E 3876/1	
Output rev/min (double strokes/min) and current consumption. Loaded with 0.25 Nm (2.5 kpcm, 2.2 in.lb) and tension 13 V	rev/min	A
	46 $\pm$ 5	1.5-2
Obstructed motor (e.g. frozen wiper blades)	-	5-6
Make, model (left and right design)	Bosch, AHO 12 V	
Output rpm (strokes/min idling speed)	50-60 strokes	
Current consumption	0.75-1.5 A	
Current consumption, motor obstructed, e.g. wiper blades froxen in position (The motor is protected by an intergrated "PTC resistance" against damage should it's movement be obstructed).	4.0-5.5 A	

Windshield washer/headlight washer

Type designation	VDO
At cross flow of four jets, Ø 0.7 mm:	
Pressure	about 1.3 bar (kp/cm^2, 18 psi)
Capacity	about 1.100 cm^3/min
Capacity, tank	5 litres

Electrically-heated driver's seat

Thermostat cut-in temperature	53^{o}F (12^{o}C $\pm$ 2,8^{o}C)
Thermostat cut-out temperature	82^{o}F (28^{o}C $\pm$ 2,8^{o}C)
Heating elements, output:	
Up to 1980 models	65 W approx.
As from 1981 model	70 W approx.

Electrically heated rear window

Output at 13 V Combi Coupé	200 W
Sedan	160 W

Fuel pump CI-system

Designation	Bosch 0 580 254 994
Output	approx. 95 W
Capacity	min. 750 cm^3/30 sec.
Designation	Bosch 0 580 254 978
Output	approx. 120 W
Capacity	min 900 cm^3/30 sec.

Speed transmitter, deceleration device

Actuating speed	$18{,}5\ ^{+3}_{-0}$ mph ($30\ ^{+5}_{-0}$ km/h)
Max. output on test lamp at operational check	1 W

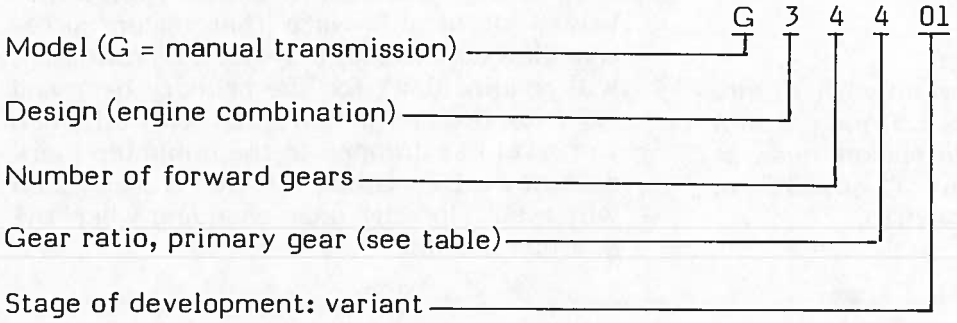
Speed transmitter, fuel boosting device, Turbo 1979 model

Actuating speed	80 $\pm$3 mph (130 $\pm$5 km/h)
Max. output at test lamp at operational check	1 W

Transmission

Model designation, manual transmission, as from 1979 models

The model designation is stamped beside the gearbox number and designates the following:



Primary gear	Gear ratio designation			
	4	5	6	7
No. of teeth in/ No. of teeth out	31/30	30/27	31/26	32/25
Gear ratio	0.97	0.90	0.84	0.78

Clutch

Make	Borg & Beck
Type	Single dry plate with spring-loaded hub (5-speed: and predamper)
Operation	Hydraulically operated
Diameter, Standard	8" (204 mm)
Diameter, Turbo	8 1/2" (217 mm)

Transmission

Oil quantity	4-speed 2.2 imp. quarts (2.5 litre) 5-speed 2.6 imp. quarts (3.0 litre)
Grade of oil	Motor oil SAE 10 W 30 or SAE 10 W 40 alt. SAE EP 75 API-GL4 or API GL-5

Drain plugs, 4-speed and 5-speed transmissions

The gearbox is fitted with a filler tube and dipstick.

Engine oil drain plug: M 14 x 1.5 mm with 19 mm hexagon or 13 mm hexagon as from gearbox no. 81400.

Transmission oil drain plug:
1/2 in x 14 NPTF taper thread with 10 mm square socket head. M 18 x 1.5 mm parallel thread with 10 mm square socket head as from 1982 model gearbox (4-speed) no. 146995 and (5-speed) no. 442810.

When the gearbox is filled with the specified quantity of oil, the level on the dipstick will be between the MIN and MAX markings.

When filling an empty 4-speed transmisson (overhauled transmission), note that the level will drop when the car is driven, since the primary gear case will take approximately 3 dl of oil. Note that under corresponding conditions, a 5-speed transmission will require 0.4 l for the primary gear and 2.7 l for the gearbox. Top up with oil when the level has dropped to the minimum mark or below. Overfilling of the transmission will result in stiff gear-changing when the gearbox is cold.

Bearing compression

Differential bearings:	
New, lightly oiled bearings	1.8-2.8 Nm (16-24 in lb, 18-28 kgfcm)
Bearings having run more than 1,200 miles (2,000 km)	0.8-1.3 Nm (7-11 in lb, 8-13 kgfcm)
Pinion bearing. Torque on spring balance with cord wound round bearing housing:	
New, lightly oiled bearings	48-71 N (10.4-15.4 lb, 4.7-7.0 kgf) 25 ± 5 kgfcm
Bearings having run more than 1,200 miles (2,000 km)	19-43 N (4.2-9.5 lb, 1.9-4.3 kgf) 13 ± 5 kgfcm
Pinion shaft nut in clutch hub (5-speed)	50 ± 10 Nm (5 ± 1 kgfm)

Tightening torques

All 8 mm bolts	20-25 Nm (15-18 ft lb, 2-2.5 kgfm)
Transmission drain plug	39-59 Nm (29-44 ft lb, 4-6 kgfm)
Engine	29-39 Nm (3-4 kgfm)
Slave cylinders nuts	6-14 Nm (4-10 ft lb, 0.6-1.4 kgfm)
Pinion shaft nut nearest the needle bearing (4-speed)	40-60 Nm (30-45 ft lb, 4-6 kgfm)
Crown wheel bolts, M8	50 ± 5 Nm (5 ± 0.5 kgf cm)
Crown wheel bolts, M 10 x 1.25 mm	90 ± 10 Nm (9.0 ± 1 kgfm) as from 1982 model with final drive ratio of 9:33 Transmission no.: 4-speed 142 001 5-speed 436 501
Nut, input shaft (5-speed)	100 ± 10 Nm (10 ± 1 kgfcm)
Pinion bearing housing	20 - 25 Nm (2-2.25 kgfm)

Weights, including oil

4-speed	approx. 55 kg
5-speed	approx. 55 kg

Model	Gearbox	Tyres	Dyn. rolling radius	Primary gear	intermediate gear	Final drive	Overall gear ratio						Road speed, km/h, per 1000 rpm				
							1	2	3	4	5	Reverse	1	2	3	4	5
99	99 CM, EM 73/74	155 SR 15	305	1,00	18:33 1,83	9:35 3,89	13,37	8,06	5,41	3,89	-	14,70	8,60	14,27	21,25	29,56	-
"	99 75	165 SR 15	312	"	"	"	"	"	"	"	-	"	8,80	14,59	21,74	30,24	-
"	99 76/77	175/70 HR 15	305	"	"	"	"	"	"	"	-	"	8,60	14,27	21,25	29,56	-
"		155 SR 15	305	31:30 0,97	18:33 1,83	9:35 3,89	12,94	7,80	5,23	3,76	-	14,23	8,89	14,74	21,97	30,58	-
"		165 SR 15	312	"	"	"	"	"	"	"	-	"	9,09	15,08	22,47	31,25	-
"		175/70 HR 15	305	"	"	"	"	"	"	"	-	"	8,89	14,74	21,97	30,58	-
99 Turbo		175/70 HR 15	305	30:27 0,90	"	"	12,03	7,25	4,87	3,50	-	13,23	9,55	15,86	23,61	32,85	-
" "	G 34401 99	155 SR 15	305	31:30 0,97	18:33 1,83	9:35 3,89	12,94	7,80	5,23	3,76	-	14,23	8,89	14,74	21,97	30,58	-
" "		165 SR 15	312	"	"	"	"	"	"	"	-	"	9,09	15,08	22,47	31,25	-
" "	"	175/70 HR 15	305	"	"	"	"	"	"	"	-	"	8,89	14,74	21,97	30,58	-
99 Turbo	G 44601	175/70 HR 15	305	31,26 0,87	18:33 1,83	9:35 3,89	11,87	7,16	4,80	3,26	-	13,06	9,69	16,06	23,94	35,25	-
99	G 34401 99	155 SR 15	305	31:30 0,97	"	"	12,94	7,80	5,23	3,76	-	14,26	8,89	14,74	21,97	30,58	-
"		165 SR 15	312	"	"	"	"	"	"	"	-	"	9,09	15,08	22,47	31,25	-
"		175/70 HR 15	305	"	"	"	"	"	"	"	-	"	8,89	14,74	21,97	30,58	-
99 Ekonomi	G 34601	155 SR 15	305	31:26 0,84	17:33 1,94	"	11,87	7,16	4,80	3,26	-	13,06	9,69	16,07	23,93	35,26	-
"	"	165 SR 15	312	"	"	"	"	"	"	"	-	"	9,91	16,44	24,48	36,07	-
99 Turbo	G 45701	175/70 HR 15	305	32:25 0,78	15:34 2,27	"	12,91	7,78	5,22	3,76	3,04	14,20	8,90	14,77	22,01	30,61	37,85
99 Ekonomi	G 34603	165 SR 15	312	31:26 0,84	17:33 1,94	"	12,66	7,16	4,80	3,26	-	13,93	9,29	16,43	24,49	36,06	-
99 Ekonomi	G 34505	165 SR 15	312	30:27 0,90	17:33 1,94	9:33 3,67	12,81	7,24	4,86	3,30	-	14,09	9,18	16,24	24,20	35,64	-
99	G 45705	185/65 SR 15	301	32:25 0,78	"	"	12,99	7,34	4,93	3,94	2,86	14,28	8,74	15,46	23,04	32,04	39,62

Automatic transmission

Type	Borg Warner model 35, types 393, 399 and 487
Capacities:	
Oil, automatic transmission	7 Imp.quarts (8.0 litres) automatic transmission fluid according to Ford specification M2C 33G for refilling as part of oil change. Automatic transmission oil M2C33F can be used for topping up.
Oil, final drive	1.1 Imp.quarts (1.25 litres) EP-oil SAE 80 or 75, API-GL-4 or API GL-5

Gear ratios

Torque converter ratio varies between	1.91:1 and 1:1
Primary gear ratio	0.974
1st gear	2.39:1
2nd gear	1.45:1
3rd gear	1:1
Reverse gear	2.09:1
Final drive ratio	3.89:1
No. of teeth pinion/crown wheel	9:35
Normal stalling speed	1 900 - 2 300 r/min
Idling speed with selector in position P or N:	
Injection engines	850 ± 50 r/min
Carbureted engines	
Weight incl. oil	approx. 84 kg

Shift speeds

Up to and incl. gearbox No. 19999	Upshifts		Downshifts	
		1st-2nd	2nd-3rd	3rd-2nd
Full throttle	24-32 mph (39-52 km/h)	45-51 mph (72-82 km/h)	- -	- -
"Kick-down"**	32-40 mph (52-64 km/h)	60-68 mph (96-110 km/h)	51-60 mph (82-96 km/h)	22-28 mph (35-45 km/h)
Partly open throttle*	8-15 mph (12-24 km/h)	12-19 mph (19-30 km/h)	***	0.5-11 mph (1-18 km/h)

As from 1976 models gearbox No. 20000	Upshifts		Downshifts	
	1st-2nd	2nd-3rd	3rd-2nd	3rd-1st
Full throttle	23-37 mph (37-59 km/h)	47-60 mph (78-96 km/h)	- -	- -
"Kick-down"**	37-48 mph (59-77km/h)	47-60 mph (108-125km/h)	57-70 mph (91-112km/h)	29-42 mph (46-48km/h)
Partly open throttle*	9-16 mph (14-26 km/h)	12-19 mph (19-30 km/h)	***	0.5-11 mph (1-18 km/h)

* Shift speeds with partly open throttle. Start from standstill with minimum throttle opening and note road speed when shifts occur.

** Kick-down. Accelerator pressed to the floor.

*** Rolling to standstill. Release the accelerator and let the car roll until it stops. Note the speed when the downshift occurs.

Springs for control system

Springs	Approx. free length		Number of turns	Wire diameter		Major diameter	
	in	mm		in	mm	in	mm
1st-2nd Shift valve	1,094	27,8	13 1/2	0,024	0,61	0,235	5,97
2nd-3rd Shift valve	1,590	40,4	22 1/2	0,036	0,91	0,352	8,94
Primary regulator valve	2,850	72,4	14 1/4	0,054	1,37	0,600	15,24
Secondary regulator valve	2,593	65,9	21 1/2	0,065	1,65	0,485	12,32
Servo orifice control valve	1,005	25,53	17	0,024	0,61	0,203	5,16
Modulator valve	1,069	27,15	19	0,028	0,71	0,211	5,36
Throttle valve, inner spring	0,807	20,5	28	0,018	0,46	0,141	3,58
Throttle valve, outer spring	1,185	30,1	18	0,032	0,81	0,236	5,97

Bearing pre-loads

Differential bearings:	
New bearing, lightly oiled	15,5-24 lb in 1,8-2,8 Nm (18-28 kpcm)
Original bearing in use for more than 12 500 miles (20 000 km)	8-11,5 lb in 0,8-1,3 Nm (8-13 kpcm)
Pinion bearing: (Torque required to rotate pinion - as registered on a spring balance attached to pinion by a line wound round the bearing housing)	
New bearing, lightly oiled	6-10 lb 27-46 N (2,7-4,6 kp)
Original bearing in use for more than 12 500 miles (20 000 km)	31-52 lb 15-24 N (1,5-2,4 kp)

Year	Model	Tyres	Dyn.rolling radius, mm	Primary gear	Final drive	Overall gear ratio				Road speed, km/h, per 1000 r/min			
						1st	2nd	3rd	Rev.	1st	2nd	3rd	Rev.
1975	99EA	175/70 HR 15	305	39:38 0,97	9:35 3,89	9,06	5,49	3,79	7,92	12,69	20,94	30,34	
1976/77	99	175/70 HR 15	305	39:38 0,97	9:35 3,89	9,06	5,49	3,79	7,92	12,69	20,94	30,34	
1978/79	99	155 SR 15	305	39:38 0,97	9:35 3,89	9,06	5,49	3,79	7,92	12,69	20,94	30,34	
	99	165 SR 15	312	39:38 0,97	9:35 3,89	9,06	5,49	3,79	7,92	12,98	21,42	31,03	
1979/80	99	175/70 HR 15	305	39:38 0,97	9:35 3,89	9,06	5,49	3,79	7,92	12,69	20,94	30,34	

Tightening torques

	Qty.	Nm	lb in	kgfm
Brake bands				
Front brake band		1.3	11	0.13
			lb ft	
Rear brake band (After tightening, back off the adjusting screw 3/4 of a turn)		14	10	1.40
Rear brake band, adjusting screw locknut	1	39-53	30-40	4-5.4
Transmission				
Converter to drive plate (flywheel)	4	33-39	25-30	3.4-4.0
Chain cover to converter housing	12	14-21	10-15	1.4-2.1
Transmission casing to converter housing	10	14-21	10-15	1.4-2.1
Sprocket wheel to turbine shaft	1	26-33	20-25	2.7-3.4
Sprocket wheel to input shaft in gearbox	1	33-40	25-30	3.4-4.1
Centre support to casing	3	14-25	10-18	1.4-2.5
Cover for selector rod to casing	5	8-12	6-9	0.8-1.2
Oil pan to casing	12	8-12	6-9	0.8-1.2
Valve body cover to converter housing	10	8-12	6-9	0.8-1.2
Oil pan drain plug	1	5-8	4-6	0.5-0.8
Final drive				
Pinion nut	1	245-265	180-200	25-27
			lb in	
Pinion bearing pre-load (Torque required to rotate pinion shaft, measured with a spring balance) 20-33 lb (27-46 N/2.7-4.6 kgf):		1.8-3.0	15-25	0.18-0.30
			lb ft	
Seal housing to pinion bearing	2	8-12	6-9	0.8-1.2
Pinion bearing to casing	4	26-33	20-25	2.7-3.4
Crown wheel bolts	12	40-60	30-44	4.0-6.0
Drain plugs:				
Final drive	1	39-59	29-44	4.0-6.0
Engine block	1	29-39	21-29	3.0-4.0

	Qty.	Nm	lb ft	kgfm
Oil pump				
Pump cover to pump housing	1	2.5-3.9	2-3	
5/16"-18-2 UNC	5	23-29	17-22	2.3-3.0
Pump cover to converter housing	3	18-25	13-18	1.8-2.5
Governor valve				
Governor valve inspection cover to casing	2	7-11	5-8	0.7-1.1
Governor valve to counter-weight on pinion	2	5-8	4-6	0.5-0.8
Governor cover plate to governor valve body	2	2-5	1.7-4.0	0.2-0.5
Governor mounting - driven shaft	1	5.5-8.0	4-6	0.5-0.8
Valve body			lb in	kgfm
Upper part to valve body	8	2-3	20-30	0.2-0.3
Manual valve lever bracket to valve body	4	2-3	20-30	0.2-0.3
Oil pipe plate to valve body	8	2-3	20-30	0.2-0.3
End plate, primary and secondary regulating valves to valve body	3	2-3	20-30	0.2-0.3
Rear upper end plate to shift valve body	3	2-3	20-30	0.2-0.3
Front upper end plate to shift valve body	3	2-3	20-30	0.2-0.3
Downshift, cam bracket to valve body	2	2-4	20-40	0.2-0.4
			ft lb	
Valve body to casing	3	6-12	4.5-9.0	0.6-1.2
Downshift, throttle cable to casing	1	11-14	8-10	1.1-1.4
Miscellaneous				
Connector, oil cooler	2	7-10	5-7	0.7-1.0
Nut, oil cooler connection	2	13-16	10-12	1.3-1.6
Oil pressure gauge plug	1	5-7	4-5	0.5-0.7
Starter switch locknut	1	5-8	4-6	0.5-0.8

Brakes

Make	Girling. (As from chassis Nos. 99762022110, 99766008979 and 99767003806, the front brakes and master cylinder are of Girling make and these are combined with rear brakes of ATE make.)

Footbrake

Type	Hydraulic disc, vacuum servo assisted. Double diagonal brake circuits.

Handbrake

Type	Mechanical, acting on the front brake disc. Self adjusting.

Master cylinder

Type	Tandem cylinder
Make	Girling
Diameter	7/8 in (22.23 mm)

Front wheel cylinders

Type	Floating yoke
Make	Girling
Diameter	54 mm

Rear wheel cylinders

Type	Fixed yoke	
Make	ATE	Girling
Diameter	30 mm	27 mm

Front brake discs

Outer diameter, braking surface	276 mm
Inner diameter, braking surface	177 mm
Disc thickness, new disc	12.7 mm
Disc thickness, min. after grinding	11.7 mm
Max. permissible grinding depth/side	0.5 mm
Maximum permissible lateral throw of mounted disc	0.10 mm
Parallelism (max. variation in disc thickness	0.015 mm

Rear brake discs

Outer diameter, braking surface	267.5 mm
Inner diameter, braking surface	191.5 mm
Disc thickness, new	10.5 mm
Disc thickness, min. after grinding	9.5 mm
Max. permissible grinding depth/side	0.5 mm

Front brake pads

Brake lining thickness, new pad	10.8 mm
Min. brake lining thickness	1 mm
Friction surface/pad	37 cm^2

NOTE. The inner and outer brake pads have different braking capacities and should not be interchanged

Rear brake pads

Brake lining thickness, new pad	8.5 mm
Min. brake lining thickness	1 mm
Friction surface/pad	20 cm^2 (ATE) 19 cm^2 (Girling)

Brake servo

Type	Braking power increased using partial vacuum from inlet manifold.
Make	Girling
Diameter	9 in
Power increase	3.5:1 with 25 kgf pedal force.

Hydraulic fluid

Specification	To DOT 4
Brake system capacity	0.55 l approx.

Front assembly, steering mechanism

Front wheel alignment

"King pin" angle		11 1/2° ± 1°
Caster		Manual steering gear: 1° ± 1/2° Power-assisted steering gear: 2° ± 1/2°
Camber		1/2° ± 1/2°
Toe-in, measured at rims		0.04" ± 0.04" (1 ± 1 mm)
		2 ± 1 mm
Turning angles:		
Outer wheel	20°	
Inner wheel	20 1/2° ± 1°	
Slip radius	165 SR 15, 4 1/2"	0.30"-0.35" (7.6-9 mm)
"-	155 SR 15, 4 1/2"	0.37"-0.43" (9.5-11 mm)
"-	165 SR 15, 5"	0.50"-0.55" (12.6-14 mm)
"-	175/70 HR 15", 5"	0.61" (15.5 mm)

Rear wheel alignment

	Up to and including 1978 models	As from 1979 models
Camber	0° ± 1°	-1/2° ± 1/4° (negative camber)
Toe-in, sum of both wheels, measured between rims	0 ± 2 mm	2 - 6 mm (1 - 3 mm per side)
Max. difference between left hand and right hand wheelbase (front wheels straight ahead)	0.6 in (15 mm) max.	

Steering mechanism

		Power steering	Saab 900 EMS, as from ch.no. 99762018780 and 99766007925
Steering wheel turns, lock to lock	4.1	3.6	3.4

Steering gear adjustment (manual):

Adjustment of plunger — Clearance between cover and plunger 0.002-0.006 in (0.05-0.15 mm)

Steering gear torque (=pinion torque) — 1.1-2.0 Nm (0.83-1.5 lb ft, 0.11-0.20 kgfm)

Adjustment of ball joint — The rod should be movable to its full limit in all directions with a load of max. 30 N (6.6 lb, 3 kg) applied to the outer joint

Lubricant, type — API service GL 4 SAE 80-90

Lubricant, quantity — 0.23 dm^3 (8.1 fl.0x., 2.3 dl)

Lubricant, level

1. Jack up the car at the left, front jacking point until it is possible to remove the wheel without it catching the ground.
2. Slacken the rubber bellows clip at the left tie-rod and turn the steering wheel to full right-hand lock.
3. Top up with oil between the bellows and the tie-rod until the level has reached the centre of the tie-rod.
4. Tighten the clip which will be facilitated by turning the steering wheel back a short way.

Adjustment of power steering gear:	
Adjustment of plunger	Screw plunger tight, then back off 1/12 turn. Check that the rack does not stick in any position.
Ball joints	Must not be adjusted. Replace if worn.
Lubricant, type	EP SAE 75 or SAE 80/90
Lubricant, quantity	0.2 dm^3 (6.5 fl.ox., 2 dl)
Lubricant, level	1. Jack up the car at the left, front jacking point until it is possible to remove the wheel without it catching the ground. 2. Slacken the rubber bellows clip at the left tie-rod and turn the steering wheel to full right-hand lock. 3. Top up with oil between the bellows and the tie-rod until the level has reached the centre of the tie-rod. 4. Tighten the clip which can be facilitated by turning the steering wheel back a short way.
Servo oil, type	Automatic transmission oil. (See specifications, automatic transmission.) Texaco 4634 power steering fluid. Part No (45) 30 09 800
Servo oil, quantity	1.2 dm^3 (1 litre, 1.1 Imp. quarts)
Servo oil, level	0.4 in (1 cm) above the lower part of the filter in the oil container
Tie rod ends:	
Max. distance from end of thread to locknut	
Manual steering gear	0.98 in (25 mm)
Servo steering gear	1.02 in (26 mm)
Max. permissible difference between above measurements on both sides	0.08 in (2 mm)
Tightening torque:	
Tie rod end nut	49-69 Nm (36-50 lb ft, 5-7 kgfm)
Steering wheel nut	27 Nm (2.7 kgfm)

Suspension system, wheels

Suspension

Front	Individual with transverse control arms
Rear	Rigid axle with 4 longitudinal links and one cross bar
Spring elements, front and rear	Coil springs

Front coil springs

	Up to and including 1978 models	1979 - 1981 models as from chassis No. BB 6007406	1981 models onwards, as from chassis No. BB6007407
Total number of turns	8 1/2	8 1/4	8 1/4
Number of free turns	6 1/2	6 3/4	6 3/4
Wire diameter	13.9 mm	14.2	14.2
Free length	383 mm	370 mm	373 mm
Identification colour	Green	White	White/black

Rear coil springs

	99, 99L, 99 GL and 99 GLE models, up to and including chassis No. 99762028994, and EMS models up to and including chassis Nos. 99762018779, 99766007924 and 99767003175	99, 99 L and 99 GL mopels, as from chassis No. 99762028995
Total number of turns	10 ± 1/8	10 ± 1/8
Number of free turns	8	8
Wire diameter	14 mm	14 mm
Free length	323 mm	329 mm
Identification colour	Green	Yellow

	99 EMS, as from chassis Nos. 99762018780, 99766007925 and 99767003176	99 Combi Coupé up to and including 1978 models
Total number of turns	9 ± 1/8	9 ± 1/8
Number of free turns	7	7
Wire diameter	14.2 mm	14.2 mm
Free length	315 mm	324 mm
Identification colour	White	Blue

	99 Sedan as from 1979 models	99 Combi Coupé 1979 mod.
Total number of turns	9	9,5
Number of free turns	7	8
Wire diameter	14.2 mm	14.5 mm
Free length	315 mm	323 mm
Identification colour	White	Light blue

Shock absorbers, front and rear

Typ	Telescopic shock absorbers, hydraulic or pneumatic

Front shock absorbers

Distance between attachment lug centres	Fully compressed: 258 mm Fully extended: 379 mm
Maximum stroke when fitted	91 mm

Rear shock absorbers

Distance between stop on upper mounting and centre of lower attachment lug	Fully compressed: 282 mm Fully extended: 470 mm
Maximum stroke when fitted	158 mm

Vertical wheel movement

From normal-weight compression to full compression:	
Front	4 in (100 mm)
Rear	4.4 in (110 mm)
Max. spring expansion:	
Front	6,3 in (160 mm)
Rear	7.1 in (180 mm)

Wheels

Max. permissible radial throw of steel rim	0.04 in (1.0 mm)
Max. permissible lateral throw of steel rim	0.04 in (1.0 mm)
Max. permissible radial throw of light alloy rim	0.02 in (0.5 mm)
Max. permissible lateral throw of light alloy rim	0.02 in (0.5 mm)

Wheel nuts:

Width across flats	3/4 in (19.05 mm)
Thread	1/2 in 20 UNF - 2B
Tightening torque	88 - 108 Nm (65 - 80 lbf ft; - 11 kgfm)

Hubs

Maximum play of wheel bearings	0.08 in (2 mm) measured at edge of rim
Tightening torque:	
Bolts hub-brake disc, front	30 - 50 Nm (22-36 lbf ft; 3-5 kgfm)
Hub nuts, front	340-360 Nm (246-260 lbf ft; 34-36 kgfm)
Hub nuts, rear	Tighten first to a torque of 49 Nm (36 lbf ft; 5 kgfm). Slacken the nut and then retighten to a torque of 2 - 4 Nm (1.4 - 2.9 lbf ft; 0.2 - 0.4 kgfm)
Hub nut, rear, as from 1982 models Chassis No.: BC 6009296	300 $\pm$ 10 Nm (30 $\pm$ 1 kgfm)

Rims

Mod. year	L	GL	GLs	EMS	GLE	Turbo		Spare wheel
						Sedan	Combi Coupé	
1975	4.5Jx15 FHA Steel	4.5Jx15 FHA Steel	4.5Jx15 FHA Steel	5Jx15 FHA Light alloy	5Jx15 FHA Light alloy	-	-	4.5Jx15 FHA Steel EMS. GLE: 5Jx15 FHA Light alloy
1976	4.5Jx15 FHA Steel	5Jx15 FHA Steel	5Jx15 FHA Steel	5Jx15 FHA Light alloy	5Jx15 FHA Light alloy	-	-	L: 4.5Jx15 FHA Steel GL: 5Jx15 FHA Steel EMS. GLE: 5Jx15 FHA Light alloy
1977	4.5Jx15 FHA Steel	5Jx15 FHA Steel	5Jx15 FHA Steel	5Jx15 FHA Light alloy	5Jx15 FHA Light alloy	5Jx15 FHA Light alloy (Test cars)	-	L: 4.5Jx15 FHA Steel GL: 5Jx15 FHA Steel EMS. GLE. Turbo: 5Jx15 FHA Light alloy
1978	4.5Jx15 FHA Steel	5Jx15 FHA Steel	5Jx15 FHA Steel	5Jx15 FHA Light alloy	5Jx15 FHA Light alloy	-	5.5Jx15 H2 Light alloy	L: 4.5Jx15 FHA Steel GL: 5Jx15 FHA Steel EMS. GLE. Turbo: 5Jx15 FHA Steel

Mod. year	L	GL	GLs	EMS	GLE	Turbo		Spare wheel
						Sedan	Combi Coupé	
1979	4.5Jx15 FHA Steel	5Jx15 FHA Steel	5Jx15 FHA Steel	-	-	5.5Jx15 H2 Light alloy	-	5Jx15 FHA Steel
1980	4.5Jx15 FHA Steel	-	5Jx15 FHA Steel	-	-	5.5Jx15 H2 Light alloy	-	5Jx15 FHA Steel
1981	4.5Jx15 FHA Steel	4.5Jx15 FHA Steel	5Jx15 FHA Steel (GLi)	-	-	-	-	4.5Jx15 HI Steel
1982	-	4-speed cars: 5Jx15 FHA Steel 5-speed cars: 5.5Jx15 CH Steel	-	-	-	-	-	4.5Jx15 HI Steel
1982 1983	-	4-speed cars: 5Jx15 FHA Steel 5-speed cars: 5.5Jx15 CH Steel	-	-	-	-	-	4.5Jx15 HI Steel

Tyres

Mod. year	L	GL	GLs	GLi	EMS	GLE	Turbo		Spare wheel
							Sedan	Combi Coupé	
1975	155 SR 15	165 SR 15	165 SR 15	165 SR 15	175/70 HR 15	165 SR 15	-	-	L: 155 SR 15 GL, GLs, GLi, GLE: 165 SR 15 EMS: 175/70 HR 15
1976	155 SR 15	165 SR 15	165 SR 15	165 SR 15	175/70 HR 15	165 SR 15	-	-	L: 155 SR 15 GL, GLs, GLi, GLE: 165 SR 15 EMS: 175/70 HR 15
1977	155 SR 15	165 SR 15	165 SR 15	-	175/70 HR 15	165 SR 15	175/70 HR 15 (Test cars)	-	L: 155 SR 15 GL, GLs: 165 SR 15 EMS, Turbo (Test car): 175/70 HR 15
1978	155 SR 15	165 SR 15	165 SR 15	165 SR 15	175/70 HR 15	165 SR 15	-	175/70 HR 15	L: 155 SR 15 GL, GLs, GLi, GLE: 165 SR 15 EMS, Turbo: 175/70 HR 15
1979	155 SR 15	165 SR 15	165 SR 15	-	-	-	175/70 HR 15	-	L: 155 SR 15 GL: 165 SR 15 GLs: 165 SR 15 2-door Turbo cars: 175/70 HR 15

Mod. year	L	GL	GLs	GLi	EMS	GLE	Turbo		Spare wheel
							Sedan	Combi Coupé	
1980	155 SR 15	-	165 SR 15	-	-	-	175/70 HR 15	-	L:155 SR 15 GL: 165 SR 15 2-door Turbo cars: 175/70 HR 15
1981	155 SR 15	165 SR 15	-	165 SR 15	-	-	-	-	T115/70 D15
1982 1983	-	*)	-	-	-	-	-	-	T115/70 D15 (GB, AU: T95/110 R 15)

*)

	Scandinavian	European spec.
4-speed cars	155 SR 15	165 SR 15
5-speed cars	185/65 SR 15	185/65 SR 15

Recommended tyre pressures in lb/in^2 for cold tyres
(The figures in parentheses denote the corresponding pressure in bar)

Make	Size	1-3 persons, cruising at under 100 mph (160 km/h)		1-3 persons, cruising at over 100 mph (160 km/h)		More than 3 persons, cruising at under 100 mph (160 km/h)		More than 3 persons, cruising at over 100 mph (160 km/h)	
		front	rear	front	rear	front	rear	front	rear
All makes	155 SR 15	27 (1.9)	27 (1.9)	32 (2.2)	35 (2.4)	32 (2.2)	35 (2.4)	32 (2.2)	35 (2.4)
All makes	165 SR 15	27 (1.9)	27 (1.9)	32 (2.2)	35 (2.4)	32 (2.2)	35 (2.4)	32 (2.2)	37 (2.6)
All makes	175/70 HR 15	27 (1.9)	27 (1.9)	32 (2.2)	35 (2.4)	32 (2.2)	35 2.4)	35 (2.4)	37 (2.6)
All makes	185/65 SR 15	27 (1.9)	29 (2.0)	27 (1.9)	29 (2.0)	30 (2.1)	32 (2.2)	30 (2.1)	32 (2.2)

Spare wheel

Type				Compact spare	GB, AU
Size	155 SR 15	165 SR 15	175/70 HR	T 115/70 D 15	T95/110 R 15
Tyre pressure	37 (2.6)	37 (2.6)	37 (2.6)	60 (4.2)	80 (5.5)

Auxiliary spring

Check the pressure of the air in the auxiliary spring at the same time as the tyre pressures.

Air pressure, auxiliary spring 29 lb/in^2 (2.0 bar)

Body

Body colours

Colour code	Colour	Solid	Metallic	Remarks
(BK)170	Black	X		
(BK2)165	Dolorado Brown	X		
B8	Carolina Blue	X		
B9	Coeline Blue	X		
B10	Lagoon Blue	X		
GN10	Emerald Green	X		
GN11	Opal Green	X		
GN12	Jade Green	X		
R3	Sienna Brown	X		
(R4)121	Cinnabar Red	X		
(R6)123	Cardinal Red		X	
SK1	Silver Crystal		X	
SK2	Anthracite Grey		X	
SK3	Silver Crystal		X	
W2	Orchid White	X		
Y11	Indian Yellow	X		
Y12	Topaz Yellow	X		
YR2	Sepia Metallic		X	
YR6	Antelope Brown	X		
112	Slate Blue		X	2-coat
124	Carmine Red		X	1-coat
125	Ruby Red		X	2-coat
126	Terracotta Red	X		
130	Indigo Blue		X	2-coat
131	Navy blue	X		
136	Midnight Blue	X		
137	Aquamarin Blue		X	1-coat
140	Pine Green		X	2-coat
148	Acacia Green		X	1-coat
152	Marble White	X		
153	Cirrus White	X		
161	Cameo Beige	X		
167	Chamotte Brown	X		
168	Chestnut Brown	X		
169	Walnut Brown		X	2-coat
172	Silver		X	2-coat
187	Alabaster Yellow	X		

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Printed in Sweden, Graphic Systems AB, Gbg, 1982.1907

Ordering No. 323303