

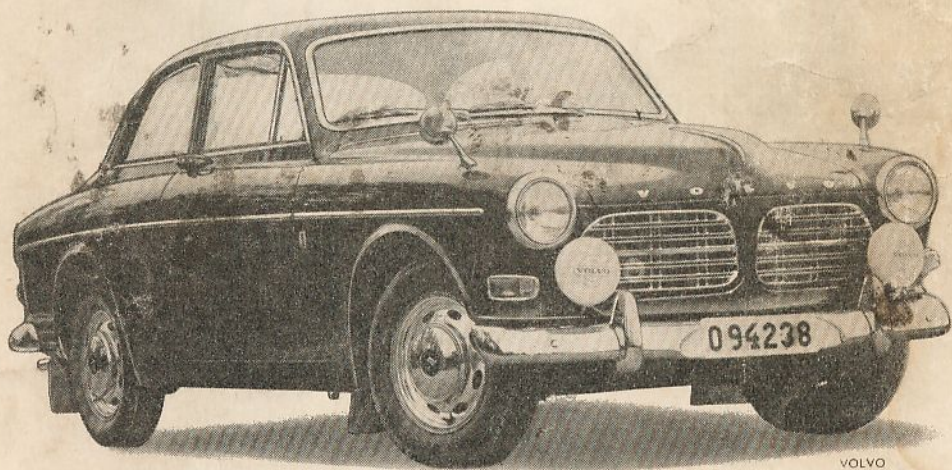


VOLVO 123 GT

Supplement to Instruction Book

Volvo 121/122 S

*Volvo 1800-120 Club Australia - George Minassian
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VOLVO
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For the most part the instruction book for the Volvo 121/122 S applies also to the Volvo 123 GT version. This supplement, therefore, only deals with those features which essentially differentiate the Volvo 123 GT from the other versions in the 121/122 S series.

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DESCRIPTION, DRIVING, SERVICING

General

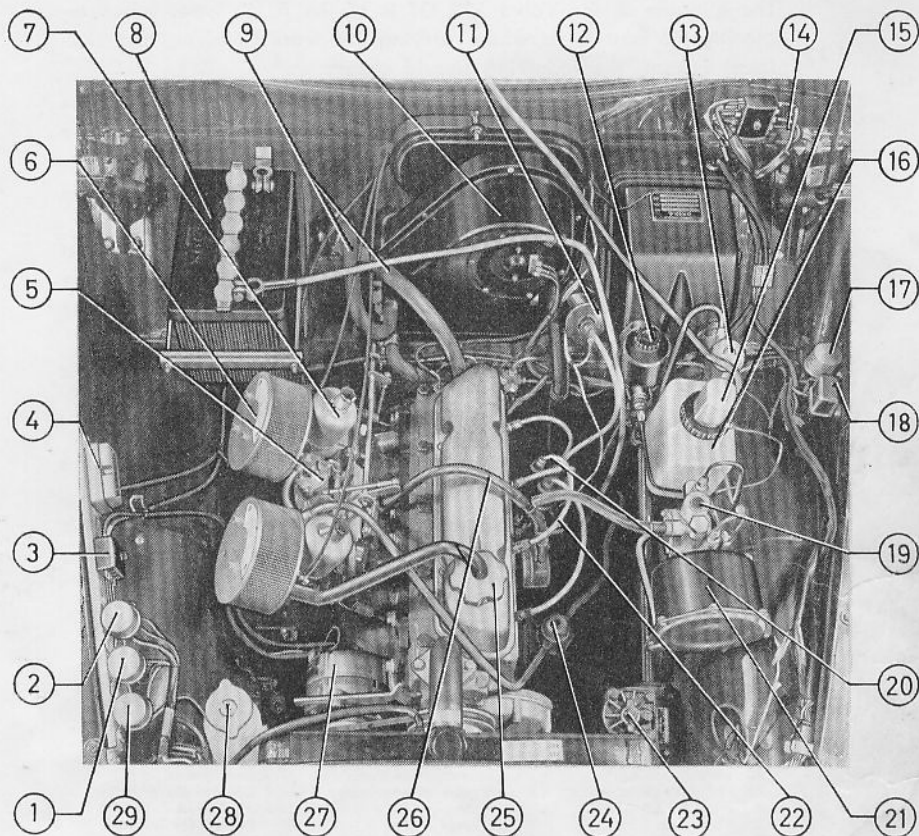
The Volvo 123 GT is fitted with the B 18 B engine, which develops 115 b.h.p. (SAE) at 6 000 r.p.m. The engine is equipped with two SU-carburettors and has a compression ratio of 10:1. As standard the Volvo 123 GT has an overdrive. In addition to the normal headlights at the front, there is also a fog lamp and an iodine-vapour lamp. The engine and luggage compartment are each fitted with a lamp which automatically lights up when the bonnet and the lid are raised.

Standard equipment includes 165 S R 15 braced tread tyres and special shock absorbers.

The vehicle is fitted with two extra rearview mirrors mounted on the front mudguards.

New interior features include a shelf moulded on top of the dashboard and special fittings for the front seats. Mounted on the dashboard is a revolution counter.

Engine compartment



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| 1. Relay for iodine-vapour lamp | 16. Container for windscreen washer |
| 2. Relay for horn | 17. Relay for reversing light |
| 3. Fusebox | 18. Relay for headlight flasher |
| 4. Charging control | 19. Air filter for servo cylinder |
| 5. Float bowl | 20. Distributor |
| 6. Air cleaner | 21. Vacuum servo cylinder |
| 7. Carburettor | 22. Oil dipstick |
| 8. Battery | 23. Steering gear |
| 9. Hoses for heater system | 24. Fuel pump |
| 10. Car heater | 25. Oil filler cap |
| 11. Ignition coil | 26. Hoses for positive crankcase ventilation |
| 12. Container for brake fluid | 27. A. C. Dynamo |
| 13. Container for clutch fluid | 28. Filler cap for coolant |
| 14. Fusebox | 29. Relay for fog lamp |
| 15. Motor for windscreen washer | |

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Electrical system

The dynamo in the Volvo 123 GT is of the A. C. type. When replacing the battery or when carrying out work involving the electrical system, the following should be observed:

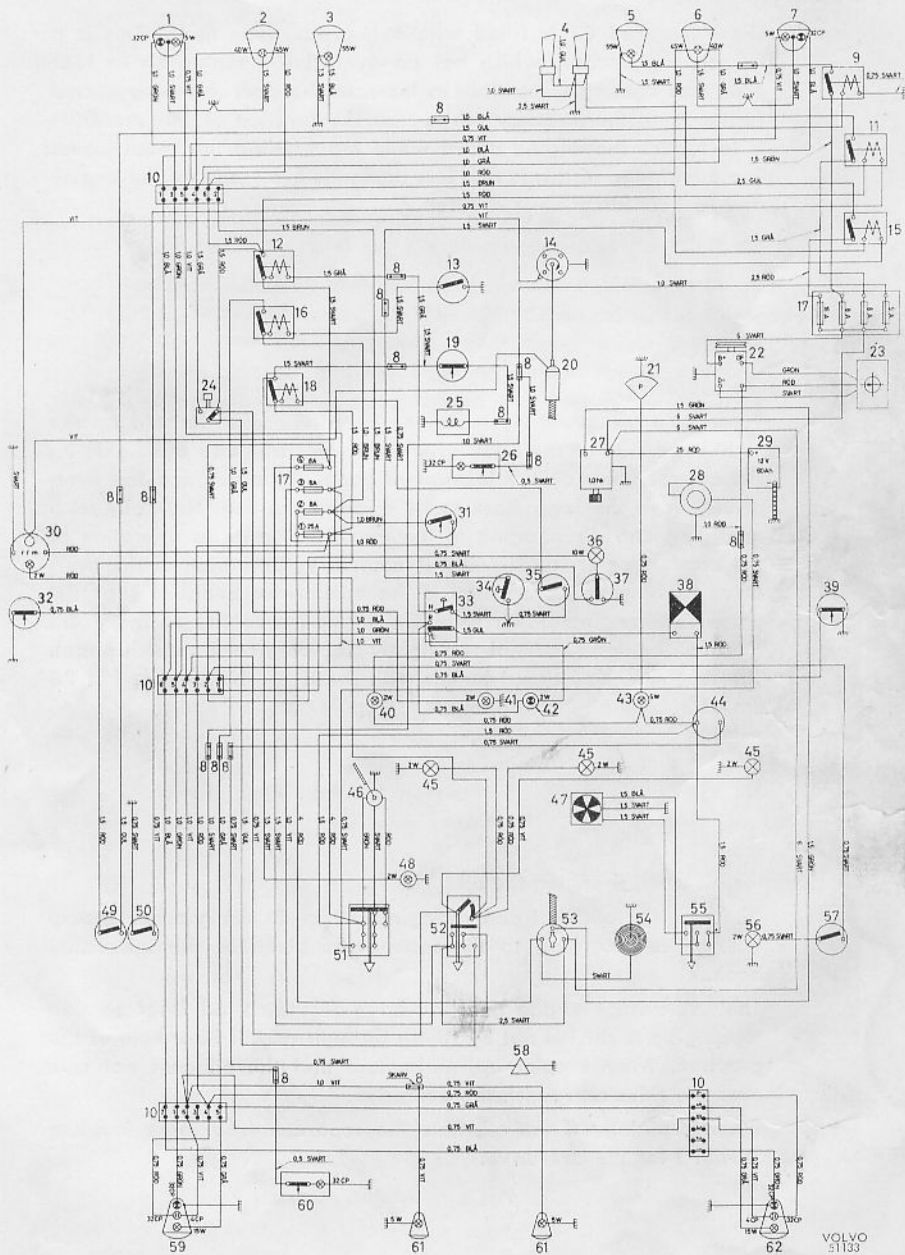
1. A battery connection to the wrong terminal will damage the rectifiers. Before the connections are made, the polarity of the battery should be checked with a voltmeter.
2. If extra batteries are used for starting, they must be properly connected to prevent the rectifiers from being damaged. The negative lead from the auxiliary battery for starting must be connected to the negative terminal stud of the car battery and the positive lead from the auxiliary battery for starting to the positive terminal stud.
3. If a rapid charger is used for charging the battery, the leads of the car battery should be disconnected.

The rapid charger must never be used as an auxiliary unit for starting, otherwise this might damage the dynamo and the charging control.

4. Never disconnect the battery circuit (for example, to change the battery) while the engine is running, as this will immediately damage the dynamo.

Make sure that all the battery connections are properly tightened.

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|--|---|--|
| 1. Flasher and parking light, left | 23. Charging control | 45. Instrument lighting |
| 2. Headlight, left | 24. Dipper switch | 46. Windscreen wipers |
| 3. Iodine-vapour lamp | 25. Solenoid for overdrive | 47. Car heater |
| 4. Horn | 26. Engine compartment light | 48. Control lamp for overdrive |
| 5. Fog lamp | 27. Starter motor | 49. Switch for iodine-vapour lamp |
| 6. Headlight, right | 28. Windscreen washer | 51. Switch for windscreen wipers and washer |
| 7. Flasher and parking light, right | 29. Battery | 52. Switch for headlights and parking lights |
| 8. Connector | 30. Revolution counter | 53. Ignition switch |
| 9. Relay for fog lamp | 31. Brake contact | 54. Cigarette lighter |
| 10. Junction block | 32. Door contact, left | 55. Switch for car heater |
| 11. Relay for iodine-vapour lamp | 33. Light signal device, direction indicator lever switch | 56. Glove locker light |
| 12. Relay for headlight signal | 34. Horn | 57. Switch for glove locker light |
| 13. Switch, on gearbox for reversing light | 35. Overdrive switch | 58. Fuel gauge impulse unit |
| 14. Distributor | 36. Roof light | 59. Rear lamp, left |
| 15. Relay for signal | 37. Roof light switch | 60. Luggage compartment light |
| 16. Relay for reversing light | 38. Flasher unit, direction indicators | 61. Number plate light |
| 17. Fuse box | 39. Door contact, right | 62. Rear lamp, right |
| 18. Relay for overdrive | 40. Warning lamp for battery charging | |
| 19. Switch, on gearbox, for overdrive | 41. Control lamp for headlights | |
| 20. Ignition coil | 42. Control lamp for direction indicators | |
| 21. Oil pressure warning indicator | 43. Control lamp for oil pressure | |
| 22. Dynamo | 44. Fuel gauge | |



Gearbox

The Volvo 123 GT is fitted with a gearbox, type M 41. This is a four-speed gearbox, which has an overdrive mounted on its rear end, thus making it possible to increase the gear-changing a step further than the ordinary 4th speed. The function of the overdrive is to reduce the engine speed while maintaining the road speed. The advantage of this is that less demands are made on the engine and fuel consumption is reduced.

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Engaging the overdrive

To engage the overdrive move the overdrive lever located on the right-hand side of the steering wheel downwards and this lights up the control lamp on the instrument panel. To disengage the overdrive, move the lever back to its original position. Normally with engaging and disengaging of the overdrive no extra operation of the accelerator or clutch pedal is necessary. Operation of the overdrive is, however, facilitated if the accelerator pedal is kept depressed. Changing down from the overdrive to the ordinary 4th gear can be done smoothly by lightly tramping on the clutch pedal. The recommended speed in 4th with the overdrive engaged is 70 km.p.h. (45 m.p.h.) and above.

Checking the oil level, changing the oil

Checking the oil level and changing the oil in the gearbox should take place according to the instructions given in the instruction book.

The overdrive and the gearbox have the same oil level so that topping-up is carried out by filling through the oil filler hole of the gearbox. When topping-up, make sure that the oil does not spill over the sides and reach the overdrive.

When draining off the oil, note the separate drain plug (marked "Drain") for the overdrive.

Lubricant: Engine oil with viscosity SAE 30 (all year round) or multi-grade oil SAE 20W-40.

Cleaning the oil strainer

When changing the oil, clean the oil strainer of the overdrive. Drain off the oil by removing the plug underneath the strainer.

Clean the strainer in petrol (gasoline) or white spirit and blow it dry with compressed air. Check that the gasket is not damaged and place it in position with its steel lining facing inwards. Place the three magnetic washers together so that they are attached to one another by their magnetic force and then fit the strainer and cover.

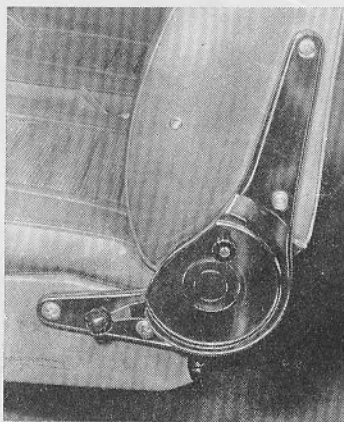
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Interior

The inclination of the front seat backrest is smoothly adjustable by means of the lever located on the outside of the backrest. Move the lever upwards and then adjust the backrest to the desired position. Lock the backrest by pressing the lever downwards.

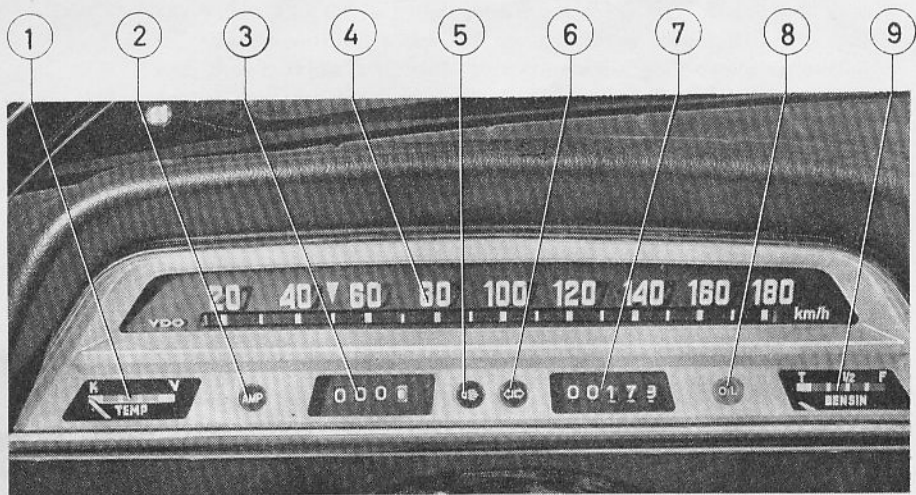
To tilt the backrest forwards, move the lever upwards and then move the backrest forwards. Returning the backrest to its initial normal position does not require the use of the lever.

The initial normal position of the backrest can be adjusted to two other positions simply by turning the small knob mounted on the fittings.

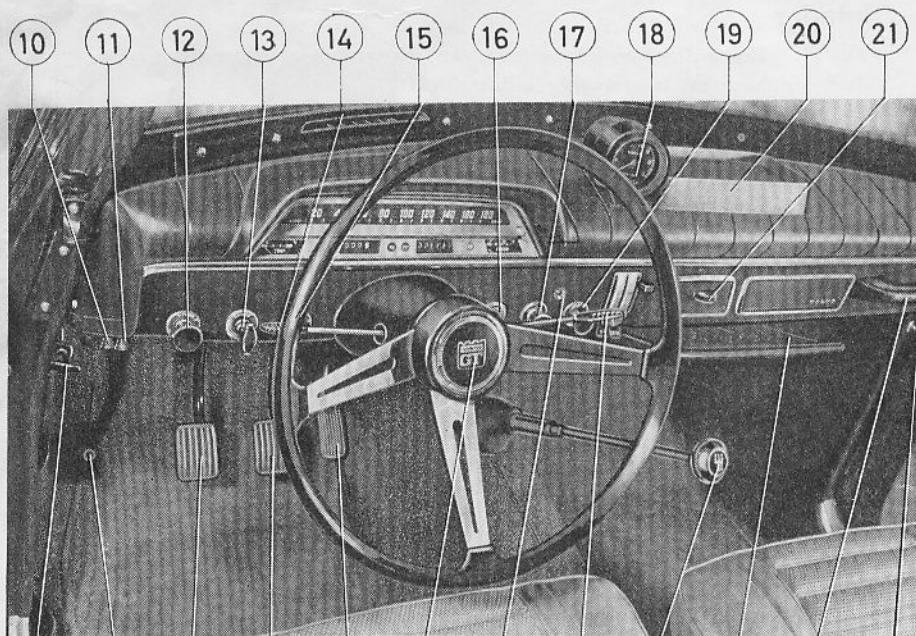


VOLVO
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Instruments and controls



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| 1. Temperature gauge | 17. Cigarette lighter |
| 2. Warning lamp, battery charging | 18. Revolution counter |
| 3. Trip meter | 19. Fan heater control |
| 4. Speedometer | 20. Storage shelf |
| 5. Control lamp, fullbeam headlights | 21. Ash tray |
| 6. Control lamp, direction signal | 22. Bonnet catch handle |
| 7. Mileometer | 23. Foot dipper switch |
| 8. Warning lamp, oil pressure | 24. Clutch pedal |
| 9. Fuel gauge | 25. Brake pedal |
| 10. Switch, fog lamp | 26. Accelerator pedal |
| 11. Switch, iodine-vapour lamp | 27. Horn |
| 12. Control for windscreen wipers and washer | 28. Control lamp, overdrive |
| 13. Choke control | 29. Overdrive switch lever |
| 14. Direction indicator switch, headlight signaler | 30. Gear lever |
| 15. Parking light/headlights switch | 31. Glove compartment |
| 16. Ignition switch with starter contact | 32. Grab handle |
| | 33. Switch for glove compartment light |

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11. Switch for iodine-vapour lamp

The iodine-vapour lamp is switched on when the switch is pulled down. This lamp is connected through the foot dipper switch. With this arrangement, the iodine-vapour lamp is automatically extinguished when changing over from fullbeam to dipped headlights takes place and is switched on again when the fullbeam headlights are engaged.

18. Revolution counter

The revolution counter indicates the speed of the engine in hundreds of revolutions per minute. The normal speed range for the engine is 1500—5500 r.p.m. The marked area between 6000 and 6500 r.p.m. denotes occasional permissible speeds. The speed range 6500—7000 r.p.m. is fully covered in red and should not be used.

Never let the engine labour in top gear but change down in good time. If, on the other hand, you do want a slightly greater pulling power and the engine is running easily with little acceleration, there is of course nothing to prevent you from running the engine below 1500 r.p.m.

SPECIFICATIONS

Type designation 133351 M or
133352 M

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Engine

Type designation **B 18 B**
Output (SAE) at r.p.m. 115 b.h.p./ 6000
Output (DIN) at r.p.m. 96 b.h.p./ 5600
Max. torque (SAE) at r.p.m. 15.5 kgm/ 4000
(112 lb.ft.)
Max. torque (DIN) at r.p.m. 14.7 kgm/ 3500
(106.5 lb.ft.)
Compression ratio 10:1
Valve clearance, warm and cold, inlet .. 0.50—0.55 mm
(0.020—0.022")
outlet .. 0.50—0.55 mm
(0.020—0.022")
Idling speed (warm engine)..... 600—800 r.p.m.

Fuel system

Carburettors, type Horizontal carburettors
designation SU — HS 6

Ignition system

Ignition setting, stroboscope setting at
1500 r.p.m. 97 octane 14—19° B.T.D.C.
100 octane 17—19° B.T.D.C.
Sparking plugs, type Bosch W 225 T 1
or corresponding

Electrical system

Dynamo, type Motorola 12 V, 35 A
Fuses 5 A — 1
8 A — 5
16 A — 1
25 A — 1

Bulbs

	Power	Socket	Number
Fog lamp	55 W	Spec.	1
Iodine-vapour lamp	55 W	Spec.	1
Warning lamp, overdrive	2 W	BA 9 s	1
Luggage compartment light	32 CP	BA 15 s	1
Engine compartment light	32 CP	BA 15 s	1
Revolution counter	2 W	BA 7 s	1

Gearbox

Type designation	M 41
Reduction ratios: 1st speed	3.13:1
2nd speed	1.99:1
3rd speed	1.36:1
4th speed	1:1
4th speed with overdrive	0.76:1
Reverse	3.25:1
Lubricant (all year round)	Engine oil SAE 30 or multigrade oil SAE 20W-40
Capacity	1.6 litres (2¾ Imp. pints = 3½ US pints)

Rear axle

Type	Hypoid bevel gear
Reduction ratio	4.56:1

Tyres

Tyre size	165 S R 15
Air pressure (cold tyres)	
Front	1.8 kg/cm ² (26 lb./sq.in.)
Rear	2.2 kg/cm ² (31 lb./sq.in.)

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AKTIEBOLAGET VOLVO SWEDEN

Service Department