

VOLVO

servicetips

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This marks the first issue of the new Volvo Service Tips.

The idea behind "Volvo Service Tips" is to provide in a very concentrated form all categories of service personnel with information about, among other things:

- product changes which influence servicing work
- new publications, charts, training and other information material which has been issued or is expected to be issued within the near future
- actual courses being given in the Service School
- new tools and aids which have been produced to facilitate servicing work

In addition to these main points of the contents, "Volvo Service Tips" may also deal sporadically with subjects of a purely general service character which may be of interest to you in your everyday servicing work.

Practically speaking "Volvo Service Tips" presents brief summaries of information which is dealt with in more detail in our service manuals, workshop and service bulletins, circular letters, etc.

The format will be limited to 4 pages and we expect to publish 4 times per year.

If you have any suggestions as to other subjects you would like to see dealt with in "Volvo Service Tips", please let us know. Space will be limited — our aim is that it should be possible to read through this information sheet quickly.

M400-410 GEAR BOX

With a view to improving quality, the ball bearings have been replaced with tapered roller bearings. These are introduced from chassis No. 62405. The new bearings should also be used when reconditioning earlier gearboxes, but both bearings must be replaced at the same time.

RECONDITIONING BW 35

It has been shown that adhesive is used for securing the oil pan gasket when reconditioning the Borg-Warner automatic transmission. This is not correct procedure. Also, so much adhesive is used that some of it has accompanied the oil into the control system causing operational disturbances.

B 20, B 30

A workshop bulletin, dated April, 1971 deals with the cylinder block and pistons for the B 20 and B 30 engines.

This bulletin gives us information about:

1. Modified piston
2. New piston marked "G" with 0.03 mm (0.0012") larger piston diameter than the standard piston.
3. Altered piston clearance
4. General on Volvo pistons and dimensions tables.

WB 21-13

KILOWATT instead of horsepower

In 1960, an international standardised measuring system, called SI (Système International d'Unités) was established. It is based on previous systems to a considerable extent. With effect from 1.1.1972, Swedish industry will now be using SI and it has been decided that Volvo will gradually go over to this system.

It has also been decided that during an interim period of three years, the old units will be given in brackets.

For those of you who have anything to do with vehicles, this means that you should get to know all about these new units.

Engine output will be indicated in kW (kilowatt).

1 hp is approximately equal to 0.75 kW

1 kW is approximately equal to 1.35 hp

Force will be indicated in N (Newton).

1 N is approximately equal to 0.1 kp (0.22 lb)

Torque will be indicated in Nm (Newtonmetre).

1 kpm (7.23 lb) is approximately equal to 10 Nm

1 Nm is approximately equal to 0.1 kpm (0.72 lbft)

Speed will be indicated in r/s (revs per second).

Volume will be indicated in dm^3 .

1 dm^3 is equal to 1 litre

1 m^3 is equal to 1000 dm^3

As previously, angles will be indicated in degrees ($^\circ$), but subdivisions will be indicated in decimals.

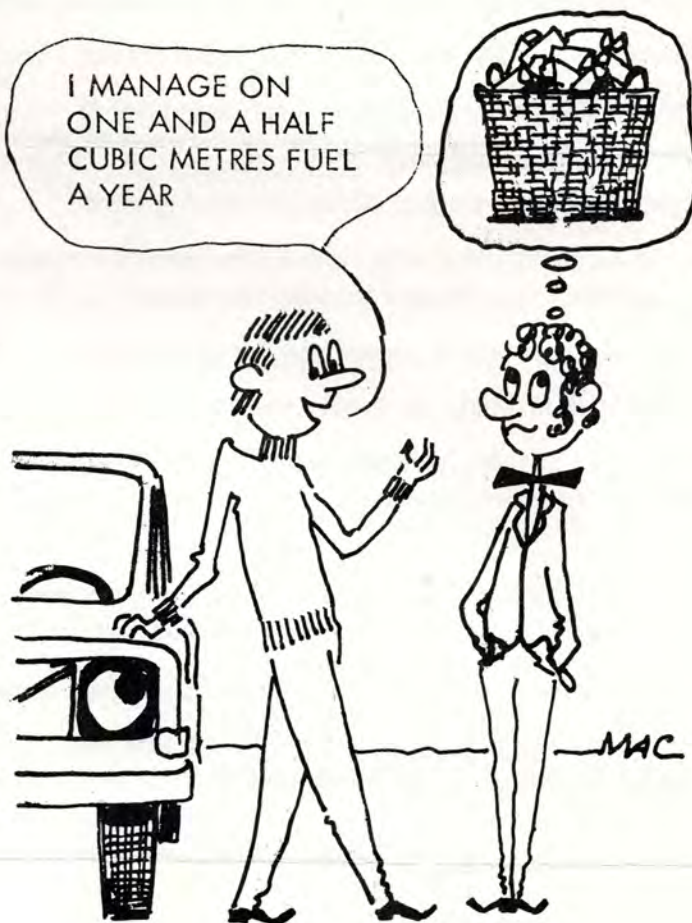
$0.1^\circ = 6' = 360''$

(' = Minute '' = Second)

As an example, we take a Volvo 140 Series B20B engine, using the S.I. system.

Output (DIN at r/s)	(118@5800) SAE 75 kW/92 (100@5500) DIN
Max. Torque (DIN at r/s)	(123 lb/ft/3500) SAE 155Nm/58 (155 lb/ft/3500) DIN
Displacement	1.99 dm^3 (1990 c.c. — 121 C.I.)

This may, at first, appear both complicated and unnecessary, but we believe that after the interim period it will all be much simpler.



From March, 1972, our cars are being fitted with seat belt reminders. These are in the form of a warning lamp and a warning buzzer.

The adjacent diagram shows how the different components are wired up electrically. However, the diagram does not apply to vehicles with the BW 35 transmission.

On the 140 and 164, the warning lamp and buzzer are wired to fuse 3. On 1800 E/ES, they are wired to fuse 6.

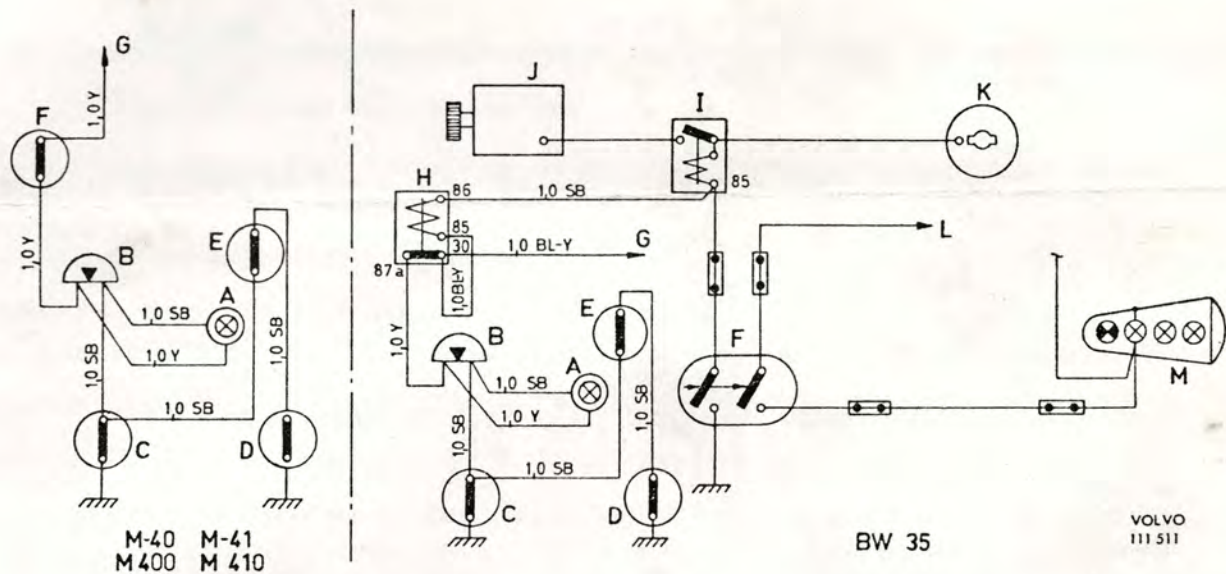


Fig. 1. Wiring diagram

- A. Warning lamp (red) located on control panel in front of gear lever on 140-series and 164, and to right of speedometer on 1800 E/ES.
 - B. Buzzer (concerns only Sweden USA and Canada)
 - C. Contact, belt lock, driver's side
 - D. Contact, belt lock, passenger's side
 - E. Contact, passenger seat, adjustment according to Fig. 2
 - F. Contact, gearbox (M 40, M 41, M400, M 140, see Fig. 3)
 - G. Fusebox. Connection to fuse No. 3 for 140-series and 164 and to No. 6 for 1800 E/ES
 - H. Relay, safety belts, BW 35
 - I. Starter relay, BW 35 (see Fig. 4)
 - J. Starter motor
 - K. Ignition switch
 - L. Main relay, ignition switch
 - M. Reversing lights
- Colour code:
- SB = Black
- Y = Yellow
- BL-Y = Blue-Yellow

New classification of engine oils

A new API-system with new standards for lubricating oil quality has been established. This new classification gives us a clearer definition of the engine oils and facilitates choice with regard to suitability and performance. The new standards will be gradually introduced into our publications but during an interim period the previous designations will be given in brackets.



It'll be easier now!

As far as Volvo is concerned, the normal engine oil recommendations will in future be the following:

carburetor engines For Service SE (MS)

The following table gives a comparison between the new and the previous system, also the range of use for some of the new API-classes.

New system	Previous system	Range of use
SA	ML	
SB	MM	
SC	MS	For carburetor engines of 1964 to 1967 models.
SD	MS	For carburetor engines of 1967 to 1970 models. Can also be used when oil of service class SC is recommended.
SE	—	For carburetor engines of 1971 models and later. Can also be used when oils of service classes SC and SD are recommended.

Safety belt reminders

Mention was made of the new belt reminders earlier in this edition of Service Tips. It now happens that personnel who transport new cars daily are irritated by the buzzing sound and for this reason the belt reminder buzzer is disconnected in all vehicles before shipment. You are therefore requested to check that the belt reminder really functions and where necessary to connect the ground cable under the belt lock before the car is delivered to the customer.