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Engine Oil: over 60,000miles

B16, B18, B20, B30

- Older engines are best with 20/50 engine oil.
eg: Duckhams Q

Always use genuine Volvo oil filters (which have the non-return valve)

Engine Oil: rebuilt motors

B16, B18, B20, B30

- Fresh engines are best with 15/40 engine oil, preferably semi-synthetic or fully synthetic.

Always use genuine Volvo oil filters (which have the non-return valve)

Oil Leaks

The crankshaft front & rear seals are the usual culprits, and need replacing after about 60,000 miles.

- B16: difficult task
 - Front is just a felt ring
 - Rear is two felt half-rings, plus two wood wedges
- B18/B20: replace the felts with our neoprene conversion
 - Before removing the timing cover or rear housing, carefully pare the sump gasket off the bottom edge

Technical Tips

with a safety blade, to avoid damaging the sump gasket.

- B30: replace the neoprenes.

Camshaft Change

This can be achieved without removing the engine...

- Drain out all coolant (including the block)
- remove radiator
- remove cylinder head
- remove pushrods & followers (note down their position for re-assembly)
- remove distributor and the oil pump drive
- remove front pulley and timing cover
- remove camshaft timing gear
- remove thrust plate
- draw out the camshaft.

Fit new camshaft

- slide in new camshaft
- fit timing gear (be careful not to drive out the rear core plug: if you do, then it's simply a matter of removing the block which at this stage takes a mere 20' in fact, then fit a new core plug)
- fit oil pump drive and distributor
- replace followers and push rods
- fit timing cover and pulley
- fit cylinder head;
- adjust valve clearances
- fit radiator and replace coolant.

Gearbox Removal/Refit

There is one tool that makes this job trivial: a 3/8" "wobble drive" hex key. If you have this, using a long extension bar, then simply

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Technical Tips

remove the 4 bolts securing the g/box to the bell-housing.

Removal sequence

- lift rear wheels off the ground
- handbrake off, select neutral
- remove gear lever
- drain g/ox oil
- disconnect reverse and overdrive wires from the g/box
- remove propshaft (*this is why the wheels are free to rotate, making it very easy to get at all 4+4 bolts*)
- now support the g/box and remove its x-member
- remove 4 hex-bolts
- slide g/box (and overdrive) aft then lower away.

Fitting sequence

- overfill with oil
- select a gear (*this makes it easy to rotate the input shaft when engaging it through the clutch*)
- raise g/box, connect reverse (and overdrive) wires
- then insert input shaft through the release bearing and clutch until it locates in the crankshaft spigot bearing (rotate the rear coupling to get the input shaft aligned with the clutch splines)
- ensure that no wires have dropped between bellhousing & gearbox, then fit the 4 bolts to bellhousing
- fit the g/box x-member (*now you can remove the gearbox supporting method*)
- fit gearstick and select neutral
- fit propshaft; check oil level (ie drain out the overfill).

P1800: removal of the g/box is slightly trickier as you must guide the extension housing into the propshaft tunnel until the input shaft is clear of the bellhousing, then gently lower the gearbox front until you can slide the whole unit forward and clear of the car.

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Technical Tips

Clutch Change

Personally I simply remove the gearbox as above, then it's a simpler task to remove the bellhousing, and less prone to bending/damaging the g/box input shaft.

- It's well worth replacing the **spigot bearing** at the same time as fitting a new 3-piece clutch kit: they cost peanuts.
- Also consider replacing the **crankshaft oil seal** at the same time: either simply replace the original felt, or fit our modern neoprene kit.

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