

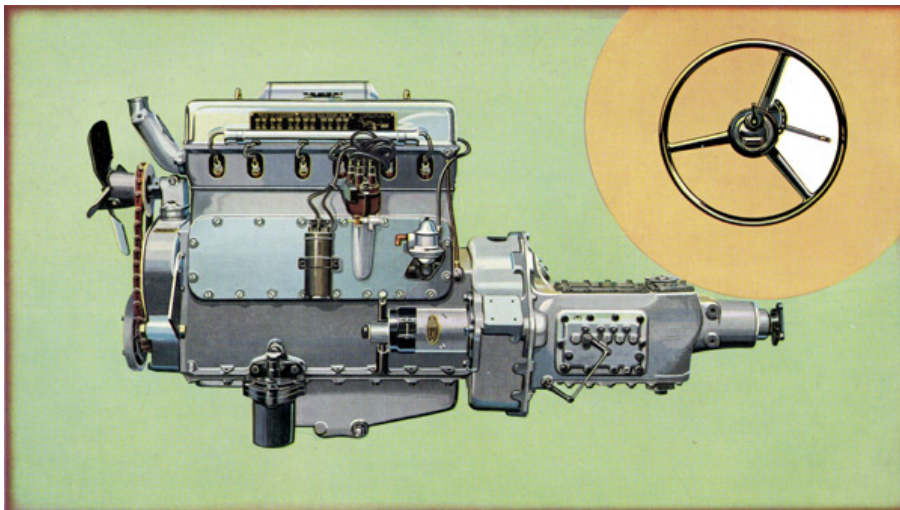
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Daimler and Lanchester cars

Owning and driving a vintage Daimler or Lanchester

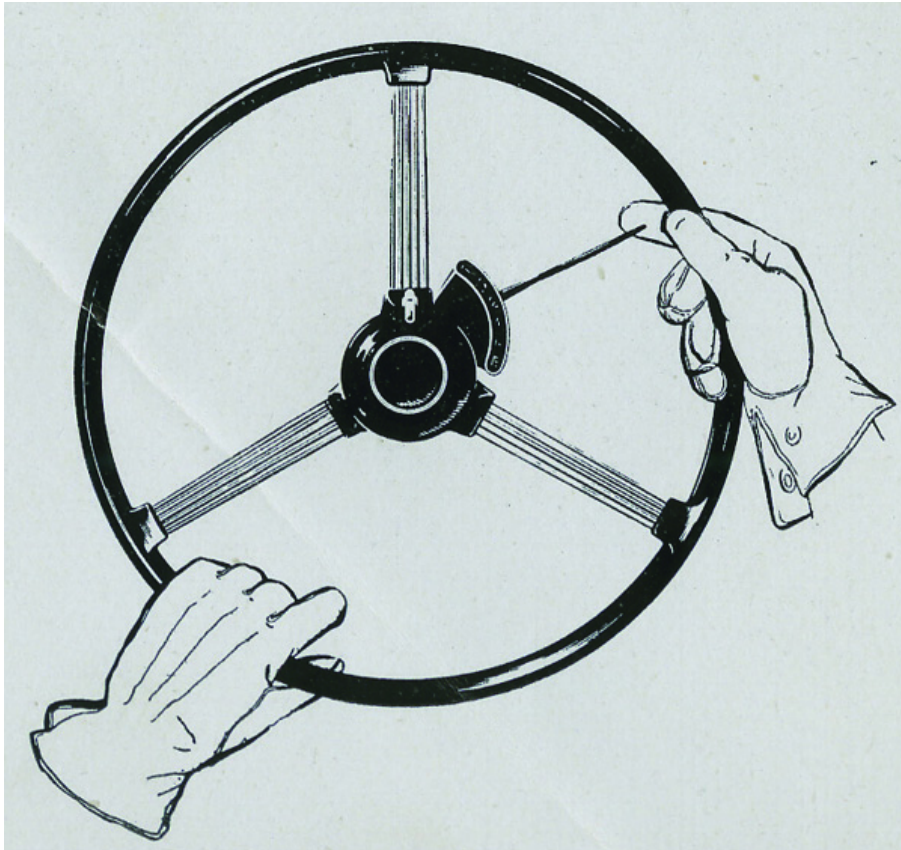
How to drive a Wilson Pre-selector

The Daimler 'self changing gearbox' (Wilson 'Pre-selector') and fluid flywheel provides the stepping stone between manual and fully automatic motor cars and has the best attributes of both systems. If you are a motoring enthusiast and have never driven a Daimler, Lanchester or BSA motor car with this transmission system, you have missed a wonderful driving experience. Before driving it is useful to understand that the Daimler fluid flywheel (an early type of torque converter), will allow the car to idle in any gear and as long as the carburettors and ignition are correctly set up, the car cannot stall.



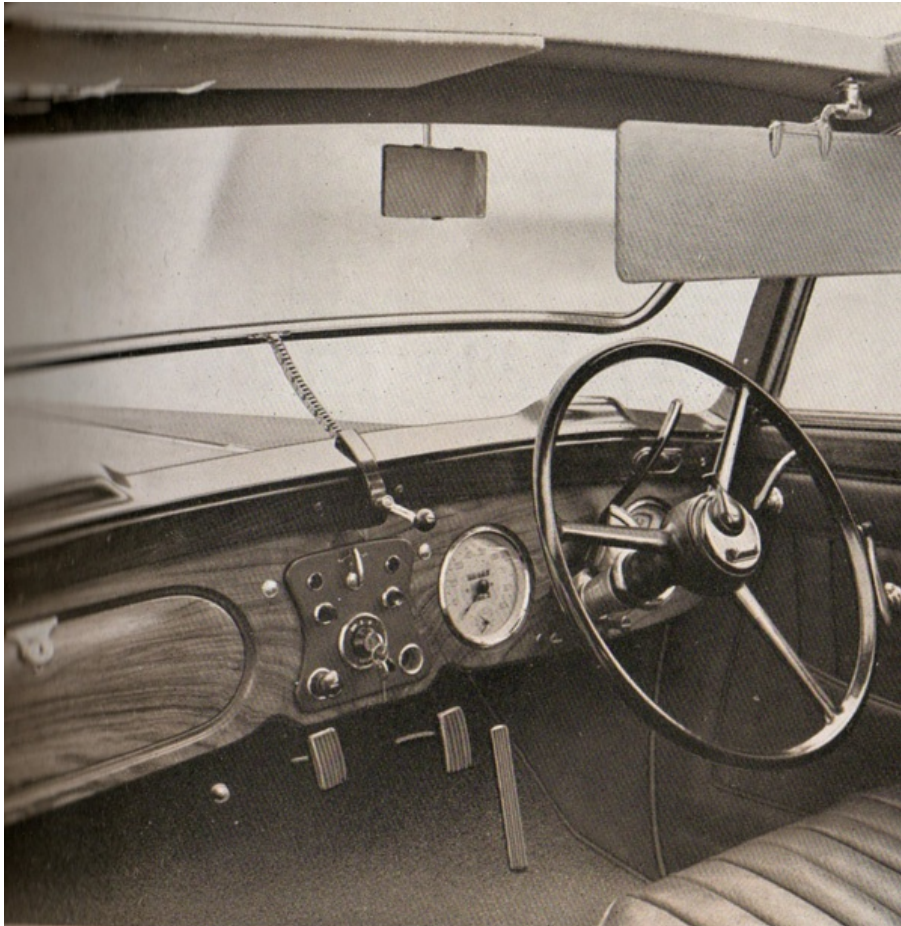
Daimler 15 engine and Pre-selector gearbox

The lever on the gear quadrant mounted on the steering column is the gear selector, the lever easily slides into positions 1 2 3 and T (for top), some cars are fitted with an overdrive, in which case the quadrant will be marked 1 2 T O. To select reverse, the lever must be pushed forward to overcome slight spring pressure. There is no inhibitor switch incorporated in the system and the starter motor may be operated in any gear, it will be clear from this that it is essential to always ensure that the car is in neutral before starting the engine.



To engage neutral, place the lever in the 'N' position then depress and release the gear change pedal (which is positioned where the clutch pedal would be in a motor car fitted with a manual gearbox).

To start the car ensure that the handbrake is set, select and engage neutral, switch on the ignition and press the starter button (using choke and hand throttle if necessary).



The gear change pedal is positioned on the left, it is not a clutch pedal

To drive off, select first gear, then depress and release the gearchange pedal, the car will not move until you release the handbrake and gently depress the accelerator. If the engine is cold and you have the choke and hand throttle in use, it is advantageous to cover the footbrake when engaging the gearchange pedal from rest, this will prevent the car from 'lurching' forward (use of the choke & hand throttle will increase the engine's idle speed).

As soon as the gear has been engaged, select the next gear you are likely to require; for example select 2nd if you have just pulled away in 1st. When you wish to change gear, slightly decrease pressure on the accelerator as you depress and release the gear change pedal. It is not necessary to slip the pedal but a certain amount of 'feeding in' will result in a smoother gear change, repeat the process up through the gears.

It is not necessary to change gears sequentially, the gear selected on the quadrant should be the one you will need next, not the gear you are using, for instance if you are travelling in overdrive, or top, a lower gear usually 3rd, should be selected (to account for hills or obstructions). The selected gear may never be engaged, for example you may round a bend and see a red traffic light ahead, you would then simply select second (or first if there is an upward gradient or you require hard acceleration), bring the car to a stop, apply the hand brake, then depress the pedal. When the lights change, you are already set to go, simply release the handbrake and depress the accelerator pedal.



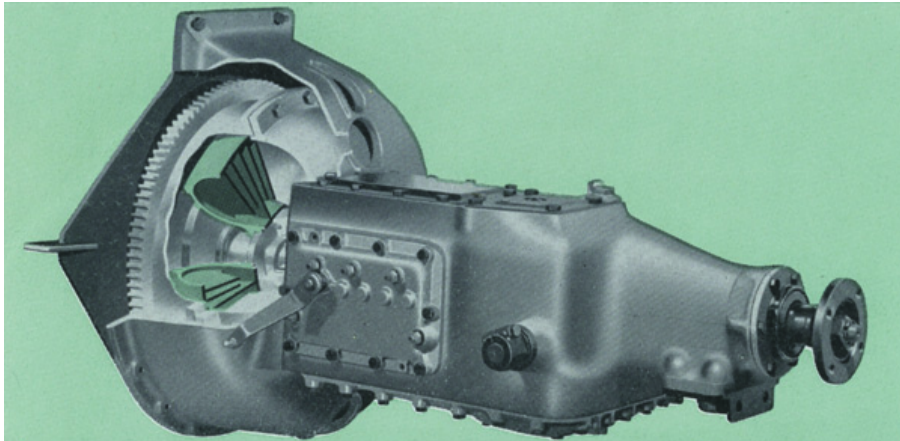
A gear quadrant in a Lanchester motor car

When a quick downward gear change is required (for example whilst travelling up hill), select the lower gear required – and at the very moment you wish to change down, swiftly depress and release the gearchange pedal. Do not ease off the throttle pedal, it is advantageous not to do so, as the gearchange will be quick and no road speed will be lost.

You cannot harm the gearbox by allowing the engine to 'idle' whilst in gear – the fluid flywheel, will take up the drive once you accelerate. It is important not to use the gearchange pedal as you would a clutch pedal, it should never be slipped, neither should it be fiercely dropped, but should be gently and quickly 'let in', this may sound complicated, but after a few miles with the self changing gearbox, its charm and smooth flowing operation, will soon have you enjoying the experience.

Daimler engines of the pre-selector era ran on a fairly low oil pressure, when the engine is hot and at idle, the green oil pressure warning lamp may flicker, although not part of the gearbox operation, it is worth mentioning here that this is not a fault, the condition is described in the drivers handbook and is a perfectly normal operation of the car.

Most Daimlers and Lanchesters will happily pull away from rest in second gear – first being required only when attempting mountainous hill starts, or when trying to match the acceleration figures quoted in The Motor or Autocar. The same cannot be said for the BSA or Lanchester Tens – these cars were low powered and to obtain decent acceleration, full use of the gears must be made.



A Wilson 'self changing' gearbox showing the fluid flywheel

It should be clear by now, that the mere selection of the indicated position on the gear change quadrant, does not engage the gear, this only happens when the gear change pedal is depressed. Experienced drivers will select gears well in advance of requiring them. Sometimes a gear will be selected and not used, for instance when approaching a roundabout, 2nd may be selected, but in the event, the roundabout might remain clear rendering the change unnecessary. On another occasion reverse may be selected whilst on the move, for example when the driver knows that the gear will be required to park up. Whilst cruising at high speed the driver may have 3rd or even 2nd selected, anticipating a future hazard, or turning.

As the driver gains experience with the 'Pre-selector'; he will find useful 'short cuts'. When approaching a set of red traffic lights, the advanced driver may select 1st gear and a split second before the car comes to rest, depress the pedal and engage the gear (with practice, this enables a smoother change than can be made when the car is at a complete rest), immediately select (but not engage) 2nd gear, then set the handbrake. As soon as the lights change the brake will be dropped, accelerator pressed and almost immediately the gear change pedal operated to engage 2nd – the take off will be quick and surprisingly smooth.

The Wilson Pre-selector and Daimler fluid flywheel brings with it a whole new method of driving, fantastically smooth changes, both up and down through the ratios, can fool the passengers into believing that the car is 'gearless'. The enjoyment of making seamless changes and being the master of such a beautiful system of transmission is difficult to describe, I can only reinforce my recommendation; that any true enthusiast should beg, steal or borrow a Daimler with a Wilson pre-selector and take it for an extended drive.

I have driven low powered, small saloons, large limousines and high powered sports cars fitted with this fascinating system. All types have their own charm, the pre-selector, when fitted to a high powered car is exciting and quick. One of the by products of the system though, is the way in which it may be driven on those lazy days when you are feeling chilled out and particularly polite, the transmission can be used almost as an automatic and can be most relaxing.

A word of warning, if you plan to start the engine using the starting handle, always double check that the gear engaged (not merely selected) is neutral. Operators have been pinned against the garage wall, sometimes fatally, when hand starting. With the the choke out and the hand throttle set at a fast idle, the car will simply move forward and keep going until it runs out of petrol.

False neutral; this undesirable occurrence will only come about if the operator fails to fully depress and release the gear change pedal. No harm will be done to the gearbox, but the sudden rise of the pedal to a position that is higher than usual, may cause some alarm to the unsuspecting driver. The pedal will subsequently be very heavy to depress, the correct selection of any gear and the full depression and release of the pedal will ensure correct control is resumed.

The gearbox and fluid flywheel are both filled with straight 30 engine oil. The fluid flywheel requires only occasional 'topping up', this is achieved by lifting the front carpet to reveal a small trap door in the gearbox cover (on early cars the toe board may require removal). There are two filler plugs, which are weighted and balanced. Simply turn the engine until one of them is positioned within the 'trap door'. Remove the bung using either the Daimler tool provided, suitable socket or a box spanner. Fill until oil is seen to dribble out. As the oil does not degrade, the oil in the fluid flywheel does not need to be changed and will only need to be drained in the event of the replacement of the central seal.

The gearbox should occasionally be drained, flushed with paraffin, then refilled using straight 30 engine oil.

The height that the gear change pedal returns to after engaging a gear is different for each ratio, when new the pedals would have risen to an equally graduated height, however after years of use this is unlikely to be the case. An experienced driver who is familiar with his vehicle will be able to tell which gear is engaged by glancing at the gear change pedal or by simply placing his foot upon it.

The gears may be adjusted for slip by engaging the gear concerned (with the engine not running) and pumping the gear change pedal ten or twelve times, the pedal must be fully depressed and allowed to rise to its full height on each stroke. The individual gears may also be adjusted at the gearbox, I would recommend reading the appropriate manual which is available via the Daimler & Lanchester Owners' Club before attempting this.

A peculiarity of Pre-war Daimlers is a delightful hum whilst the car idles in neutral, this is lost to a degree on the later cars as the fluid flywheel was re-designed. If you are test driving a Daimler, Lanchester or BSA and witness a whine in the gearbox, it may not be a fault!