

21 - HINTS AND TIPS ON DRIVING (including starting up sequence)

294. The following information has already been covered in previous sections of Chapter 1. This section is included to consolidate, in convenient form, all the important points concerning the use of the driving controls and to bring out any peculiarities of the vehicle under operating conditions. It should thus prove of value to the student already acquainted with Chapter 1 and, in addition, can be used as a guide by the trained "A" and "B" driver who finds it necessary to drive the vehicle before receiving detailed instructions.

STARTING UP SEQUENCE (See para 185)

Engine cold

295. (a) Check that the fuel, oil and coolant levels are correct.
- (b) Check fire extinguishers.
- (c) During cold weather, turn the engine over a few turns by hand.
- (d) Turn the fuel tap (Fig 19(19)) to main supply.
- (e) Check that the handbrake (Fig 36(20)) is fully on. (In cold weather it is possible for the vehicle to move, if the handbrake is not applied, owing to the thickness of the oil in the gearbox and fluid coupling when cold).
- (f) Check that the forward and reverse lever (21) is in the appropriate position for moving off. (Pushed forward for forward gear and pulled back for reverse gear).
- (g) Select the lowest gear in the gearbox. Fully depress and release the gear change pedal (Fig 36(6)) six times. Repeat for each of the other gears.
- (h) Select the neutral position with the selector lever. Depress and release the gear change pedal.
- (i) Check that the hand throttle control (24) is screwed fully clockwise.
- (j) Pull the carburettor starting device control (1) out to the first stop. In very cold weather pull out to the second stop. In sub-zero conditions, pull out to the third stop (para 94).
- (k) Switch on the ignition. Check that the oil pressure indicator (amber) and ignition warning (red) lights on the switchboard (4) glow, and the fuel level indicator registers.

Note: When the ignition key is inserted, the ignition switch can be turned to any of the three positions provided. If the key is removed when the switch is in the locked position, the switch can-

not be moved. If the key is removed when the switch is in any other position than locked, the switch can be turned to ON and OFF only.

- (l) To start the engine, press down the starter switch lever on the switchboard and release it as soon as the engine starts. If the engine does not start within five or six seconds, release the starter lever, wait a few seconds to allow to come to rest, then make another attempt to start.
- (m) If the carburettor starting device control has been pulled out to the third position, return it to the second position immediately the engine starts. Return it to the first position and then to the fully in position as soon as the engine will tick over evenly without the use of the starting device.
- (n) Adjust the hand throttle control to give a fast idling speed of 800-1,000 r.p.m. and observe that the oil pressure indicator and ignition warning lights go out.
- (o) Return the hand throttle control to the normal position when the engine has warmed up (160°F).
- (p) Stop the engine and re-check the oil level.

Engine warm

296. When starting a warm engine, do not use the carburettor starting device.

Starting by towing

297. (a) Prepare the towed vehicle for starting as in para 295 (a) to (k).
- (b) Engage second gear in the towed vehicle. Return the selector lever to the neutral position.
 - (c) Engage the lowest gear in the towing vehicle.
 - (d) Ease off the handbrake and commence towing. As soon as the engine fires, engage neutral gear by depressing and releasing the gear change pedal. Return the carburettor starting device control to the fully in position as soon as possible.

Note: Do not continue towing if the engine does not start readily.

DRIVING

Seat adjustment

298. The seat should be adjusted (para 22) to suit the individual driver.

Handbrake

299. The handbrake is applied by pulling the lever (Fig 36(20)) straight back. The brake is released by pulling back, pressing the pawl release lever and easing the brake lever forward. Always check that the brake is applied before starting the engine. Do not release it until the vehicle is required to move.

Forward and reverse lever

300. The forward and reverse lever (Fig 36(21)) which is to the left of the driver should only be operated when the vehicle is stationary. To change from forward to reverse or vice versa, bring the vehicle to a standstill and as soon as it stops depress the gear change pedal and move the lever smartly from one position to the other.

301. To engage forward or reverse gear from neutral, move the lever to the required position. If the gear cannot be engaged at any time, apply the handbrake, start the engine, if not already running, and select low gear in the gearbox. Depress the gear change pedal and move the forward/reverse lever quickly to the required position. Select neutral in the gearbox.

Gear selector lever

302. Movement of the gear selector lever (Fig 36(15)), which is to the right of the driver, does not affect the operation of the gearbox until the gear change pedal has been operated.

303. When a gear has been engaged in the gearbox and the vehicle is on the move, the selector lever should be placed in position for the gear which is likely to be required next. In this manner the selection can be done at leisure while the actual change is made when necessary.

Gear change pedal

304. Although the gear change pedal (Fig 36(6)) is fitted in the place normally occupied by a clutch pedal it must not be used in the same manner. The pedal should be regarded as a control which changes the gear in the gearbox and does nothing else. It must never be used in such a manner as to allow the brake bands in the gearbox to slip. When operating the pedal, always press it down as far as it will go before releasing.

Moving off

305. Engage the appropriate gear in the transfer box, and 2nd gear in the gearbox. If moving off on very heavy ground or up a very steep hill, engage the lowest gear in the gearbox. Do not touch the accelerator pedal until the vehicle is actually required to move.

306. Move the vehicle by releasing the brake and pressing on the accelerator pedal. If moving up a hill, accelerate slightly before releasing the brake. Owing to the action of the fluid coupling the vehicle can be moved off very smoothly if the controls are correctly operated.

Halting

307. To bring the vehicle to a standstill, release the accelerator pedal and apply the brake. If the halt is only for a few moments, do not engage neutral but engage the appropriate gear for moving off. The vehicle will not move so long as the brake is on and the engine is not accelerated.

308. If the vehicle is to be halted for some time with the engine running, select and engage neutral gear in the gearbox. If the vehicle is to be left for a considerable period, engage the lowest gear after the engine has been stopped.

Changing up

309. When the vehicle is moving, select the next highest gear before the change is required. When the engine speed has reached approximately 2,500 r.p.m., release the accelerator pedal and press the gear change pedales far as it will go. Hold the gear change pedal down for a moment until the engine speed has dropped sufficiently to match the road speed, then release it. If the vehicle jerks when the pedal is released, the pedal has not been held down for the correct length of time.

Changing down

310. When the vehicle is on the move and a lower gear is required, select the next lower gear before the change is required. If operating on hard level going, release the accelerator and allow the vehicle to slow down until the engine speed is approximately 1,500 r.p.m. When the correct engine speed is reached, fully depress the gear change pedal and hold it down. Slightly increase the engine speed by means of the accelerator and release the gear change pedal.

311. On heavy ground or when ascending a steep hill, maintain the pressure on the accelerator and operate the gear change pedal quickly. In both cases the drive will be taken up without jerk if the engine is turning at the correct speed when the gear change pedal is released.

312. When descending a very steep hill it may be necessary to use the brake to keep the vehicle speed down while changing down, and also to prevent the engine being driven too fast by the weight of the vehicle.

Changing from forward to reverse or vice versa

313. When it is necessary to change from forward to reverse or vice versa, release the accelerator pedal and apply the brake to bring the vehicle to a halt. At the instant when the vehicle becomes stationary, depress the gear change pedal, and move the forward and reverse lever smartly from one position to the other. When the new position is reached, release the gear change pedal. The vehicle will now be in a position to move off immediately, in the selected gear, in the opposite direction.