

2 Clutch pedal travel adjustment

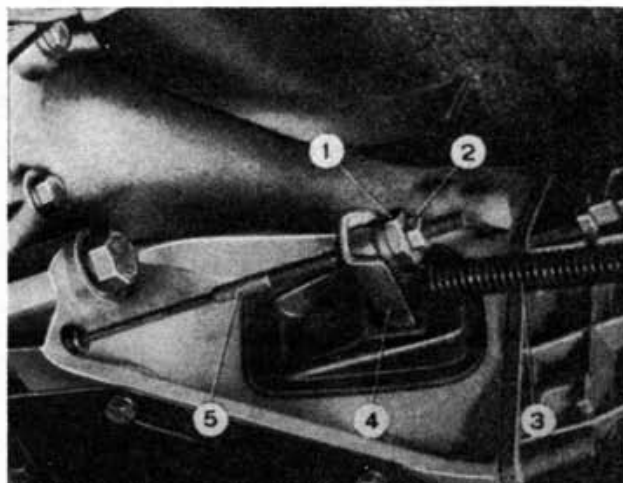
1 When the clutch free pedal travel becomes less than about 1 inch (23 to 25 mm), the position of the control cable end in the clutch actuating lever should be adjusted.

2 Jack up the front of the car and support on firmly based chassis stands. Car ramps will also give sufficient car height to enable access to be gained underneath the car to the clutch bellhousing.

3 Working under the car hold the special actuating rod adjusting nut and release the smaller lock nut. (photo).

4 Now screw the special nut to increase pedal travel as necessary and once the correct free travel has been achieved lock the special nut with the lock nut.

5 Should adjustment or operation not be satisfactory inspect the cable grommets and guide sleeve to ensure that the movement of the inner cable is not inhibited. If any kink or warp in the sleeve or end grommets is noticed, this may account for faulty engagement of the clutch because the trapped cable would not allow the clutch mechanism to engage properly.



2.3 The pedal free travel adjusting special nut and locking nut

- | | |
|-----------------|-----------------|
| 1 Adjusting nut | 4 Release lever |
| 2 Locknut | 5 Cable |
| 3 Return spring | |

3 Clutch - removal and replacement

1 Refer to Chapter 6 and remove the transmission unit from the car. (photo).

2 Mark the relative positions of the clutch assembly and flywheel and unscrew the six bolts securing the clutch assembly to the flywheel. Turn the bolts half a turn at a time in a diagonal manner to prevent distortion to the cover flange.

3 As the bolts are being undone check that the cover flange is being released so sliding up the dowels, as it could fly off under the action of the diaphragm spring when all the bolts are removed if it is binding on one or more dowels.

4 With all the bolts and spring washers removed lift the clutch assembly off the ends of the locating dowels. The driven plate or clutch disc will fall out at this stage as it is not attached to either the clutch assembly or the flywheel (photo).

5 It is important that no oil or grease gets onto any clutch parts. It is advisable to replace the clutch with clean hands and to wipe down the pressure plate and flywheel faces with a clean dry rag before assembly begins.

6 Place the clutch disc against the flywheel with the longer end of the hub facing away from the flywheel. On no account should the clutch disc be replaced with the longer end of the centre hub facing towards the flywheel on reassembly as it will be found quite impossible to operate the clutch with the friction disc in this position. (photo).

7 Replace the clutch cover assembly loosely on the dowels, aligning the mating marks if the original parts are being refitted. Refit the six bolts and spring washers and tighten them finger tight so that the clutch disc is gripped but can still be moved.

8 The clutch disc must now be centralised so that when the engine and transmission unit are mated, the clutch shaft splines will pass through the splines in the centre of the driven plate hub.

9 Centralisation can be carried out quite easily by inserting a round bar or long screwdriver through the hole in the centre of the clutch, so that the end of the bar or screwdriver rests in the small hole in the end of the crankshaft containing the clutch shaft spigot bearing bush.

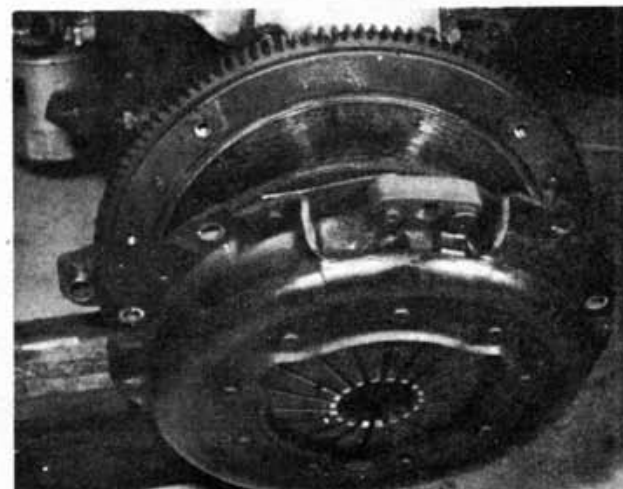
10 Using the clutch shaft spigot bearing as a fulcrum, moving the bar sideways or up and down will move the clutch disc in whichever direction is necessary to achieve centralisation.

11 Centralisation is easily judged by removing the bar and viewing the driven plate hub in relation to the hole in the release bearing. When the hub appears exactly in the centre of the release bearing hole, all is correct. (photo).

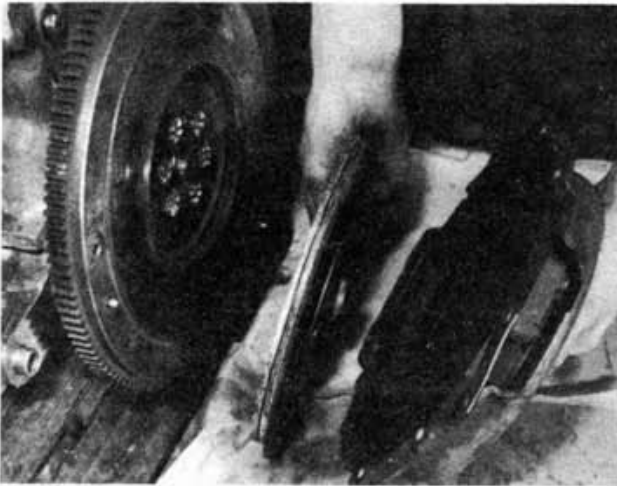
12 Tighten the clutch bolts firmly in a diagonal manner to ensure that the cover plate is pulled down evenly and without distortion of the flange. Finally tighten the bolts down to a



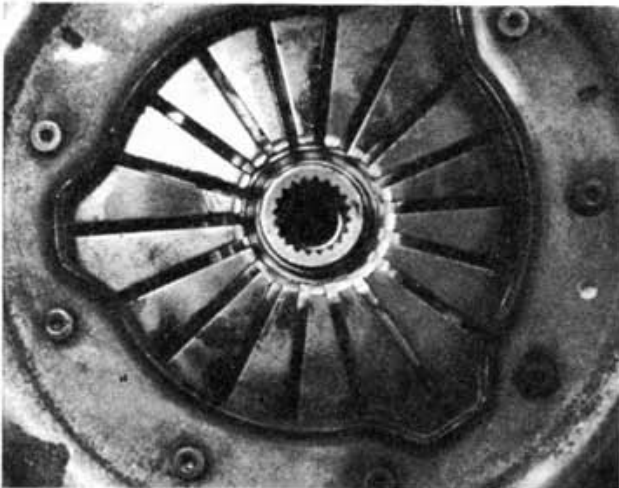
3.1 The clutch exposed when the gearbox is removed



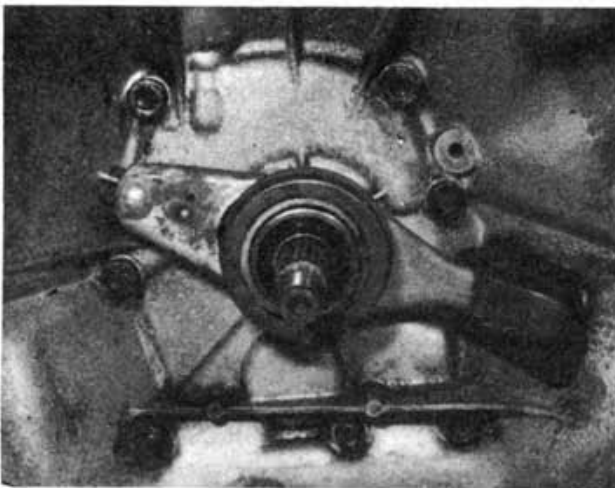
3.4 The clutch mechanism released from the flywheel



3.6 New clutch ready for assembly onto the flywheel



3.11 The clutch friction disc centralized on flywheel and release mechanism



6.1 The clutch release bearing and actuating lever in the bellhousing

torque wrench setting of 0.8 to 1 Kgm (5.8 to 7.2 lbs/ft) (photo).

13 Lightly smear a little Castrol LM Grease onto the crankshaft spigot bearing bush.

4 Clutch - dismantling and reassembly

1 It is not practical to dismantle the pressure plate assembly and the term 'clutch dismantling and reassembly' is usually used for simply fitting a new clutch plate assembly and clutch disc.

2 If a new clutch disc is being fitted it is false economy not to renew the release bearing at the same time. This will preclude having to replace it at a later date when wear on the clutch linings is still very small.

3 If the pressure plate assembly requires renewal (see Section 5) an exchange unit must be purchased. This will have been accurately set up and balanced to very fine limits.

5 Clutch - inspection

1 Examine the clutch disc friction linings for wear and loose rivets, and the disc for rim distortion, cracks, broken hub springs and worn splines. The surface of the friction linings may be highly glazed, but as long as the clutch material pattern can be clearly seen this is satisfactory. Compare the amount of lining wear with a new clutch disc at the stores in your local garage, and if the linings are more than three quarters worn replace the disc.

2 Always renew the clutch driven plate as an assembly to preclude further trouble, but, if it is wished to merely renew the linings, the rivets should be drilled out and not knocked out with a punch. The manufacturers do not advise that only the linings are renewed and personal experience dictates that it is far more satisfactory to renew the driven plate complete than try to economise by fitting only new friction linings.

3 Check the machined faces of the flywheel and the pressure plate. If either is grooved they should be machined until smooth or renewed.

4 If the pressure plate is cracked or split or if the pressure of the diaphragm spring is suspect it is essential that an exchange unit is fitted.

5 Check the release bearing for smoothness of operation. There should be no harshness and no slackness in it. It should spin reasonably freely, allowing for the fact that it has been pre-packed with grease.

6 Should it be considered necessary to carry out a full dimensional check, first place the clutch cover assembly on a base plate with a piece of suitable packing 7.9 mm (0.311 inch) between the cover and base plate. Depress the release flange several times to settle the clutch.

7 It should be observed that with a withdrawal travel of 8 mm (0.315 inch) the pressure plate should be 1.8 to 1.9 mm (0.071 to 0.075 inch) out. The minimum permissible amount is 1.4 mm (0.055 inch).

8 Measure the distance 'X' which should be 42 mm + 1.3/-1 mm (1.653 inch + 0.051/- 0.039 inch). If the measurement is outside the limit measure the thickness of the friction ring (8) which when new is 1.9 to 2 mm (0.075 to 0.079 inch) and make any adjustment on the distance 'X' to compensate for friction ring wear.

6 Clutch release bearing - removal and replacement

1 With the engine and transmission unit separated to provide access to the clutch, attention can be given to the release bearing located in the bellhousing over the clutch shaft. (photo).

2 The release bearing is a relatively inexpensive but important component and, unless it is nearly new, it is a mistake not to replace it during the overhaul of the clutch.

3 To remove the release bearing, first unhook the release