Spare News

The clutch's pressure plate is a conventional Borg and Beck design. But, Citroën – being Citroën – do not set the fingers at what would be a conventional height. This is the mistake most clutch specialists make when setting a 4-cylinder pressure plate, and results is a clutch with a long, non-progressive engagement and a generally 'soggy' feel.

For 'our' method, all the 'special' tools you need are something similar to a 300mm steel rule and a piece of metal 19mm square [or at least in one dimension] and between 25 and 50mm long. This is the 'feeler gauge'.

With the engine out, the transmission off at the bell housing and the pressure plate removed, examine the clutch plate. If it has a 'cushion' centre, the cushion springs should not be broken to loose. None of the wave plates or their rivets should be cracked, broken or missing. The retaining rivet heads should be well below the surface of the facings. The thickness of a new clutch plate is around 8mm, [Trucks and tractors are some 11mm thick, but not Light 15s.] Normally a clutch plate down to 7mm thick is still serviceable and worth re-fitting.

Run a hacksaw blade through the slots in the toggle bolts to clear the staked-in parts of the adjusting nuts. Carefully undo the nuts one turn at a time and in sequence until the pressure plate 'falls apart' into its component pieces. You should then have:-

- 1 machined outer ring with a pressed steel plate bolted in it
- 1 pressure pad [an iron casting]
- 9 springs
- 3 toggle bolts
- 3 adjusting bolts
- 3 toggle washers
- 3 clutch fingers.

Check the friction drive faces of both the flywheel and pressure pads. If scored or severely heat cracked, they will have to be machined before re-assembly.

When checking the spring lengths a 75mm length of dowel which fits snugly inside the springs will keep them end to end when clamping them in the vice and ensures each pair tested is compressed equally. The springs are also less prone to shoot off at a tangent around the workshop.

Assuming now you have nine matched springs, a good pressure pad, three fingers and a set of toggle bolts, nuts and washers, clean them and proceed to assemble the pressure plate. Make sure the springs are properly seated on the pressure pad and in the steel pressing. Pull the toggle bolts through from the pressure pad side, drop on the fingers and the hardened washers, then start threading the adjusting nuts onto the toggle bolt threads. Sequentially tighten the nuts, one turn at a time, until about 3mm of thread projects through the nuts.

Put a flywheel on the bench, sit the clutch plate on it, centralise it by eye, then fit the pressure plate [ensure the hollow dowel in the pressure plate lines-up with the dowel hole in the flywheel]. Fit and tighten in sequence, the bolts holding the pressure plate to the flywheel making sure it is down evenly.

Now, after that comes the good part. Citroën being in the northern hemisphere measure from the flywheel-side up. We, in the southern hemisphere measure from the machine face of the pressure plate down. This is when we put the steel rule across the top face and use our metal block as a 19mm feeler gauge to set each finger in turn. When all three fingers give a neat sliding fit of the gauge between the bottom of this rule and the finger, use the end of the hammer handle to thump each finger in turn, three or four times. Check, adjust, thump and check until there is no further change after the thumping part of the operation. At this point, use either an old screwdriver or a thin chisel to stake the machined tops of the adjusting nuts into the slots in the toggle bolts to lock them. Thump and check the finger heights after staking the nuts onto the toggle bolts. Refit all the components you removed from the camshaft, using either a Light 15 spigot shaft as or a spiggoting tool to centralise the clutch plate before tightening the pressure plate bolts.

On the right hand side of the bell housing, slacken the lock nut at the clutch cross shaft stop and, with a screw driver, unscrew the adjusting screw the adjusting screw 12 turns, or so. Refit the transmission assembly, taking care not to omit the Oldham coupling between the auxiliary drive and the camshaft. Tighten all the bell housing bolts, making sure the bell housing is up evenly. With the left hand, take hold of the clutch lever on the left side of the bell housing – at point it should move back and forth quite easily. Push it lightly towards the rear of the car, the clutch thrust should then be just touching the clutch fingers. Holding it there, use a screwdriver to screw in the stop which you had screwed well out before re-fitting the transmission. Screw the stop in until it just touches the clutch cross shaft, then screw it back out three full turns and tighten the lock nut. This gives the fingers 3mm from the clutch thrust. As the facings wear, the fingers rise and clearance decreases until it is non-existent. Initially, this wear occurs rapidly on a new clutch and should therefore be checked regularly.