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FITTING CONWAYS HONDA CLUTCH (PR50-C1) TO BURMAN GEARBOX

Drain primary chain-case oil.

Remove l/hand footrest hanger, primary chain-case cover and ESA. (If you do not have a split link chain. If you do it is not necessary to remove the ESA)

Remove chain and Burman clutch.

Take off bearing track and inner thick washer from gearbox main-shaft.

Wash out any contamination and oil from chain-case & cover.

Fit new thick washer supplied over main-shaft. Note: This washer is relieved on one side to give clearance for the clutch bearing. Fit it with the recess outwards towards the clutch.

Make sure the inner basket of the new clutch is pushed fully home into the outer basket. Fit chain over clutch sprocket and engine sprocket and fit clutch and ESA onto their shafts or refit chain spring link.

The splines of the new clutch are longer than those of the old clutch. This gives better engagement and longer life but might cause a tight fit. Use a hide mallet to gently tap the centre onto the shaft

Do not use excessive force which may damage the very thin retainer for the circlip of the main-shaft bearing on the kick-start end of the shaft.

If the Clutch is very tight use a Swiss File to relieve both the Main-Shaft Splines and the Clutch Splines until a tight sliding fit is achieved. If you have fitted the Clutch too tight and cannot remove it, we have a Puller that we can offer to remove the Clutch without damage. Please ask us rather than risk damaging the assembly.

If the splines on your main-shaft are worn it does not matter because the new clutch centre will engage good unworn splines behind the worn ones. Fit the Top Hat nut provided after ensuring that the grub screw locker is below the surface of the nut. Put bike in top gear, with a hammer handle of similar, through the spokes of the rear wheel against the spoke nipples and RFM tubes or torque stays.

Fully tighten centre nut (1.5/16" or 33mm socket) and screw in locking grub screw (which is 2BA or 3/16"BSF not metric)

If the ESA was removed, re-fit the 18 spring dimpled plate (PD5) over the outer end of splined cam sleeve (PD4) with the dimples facing outwards away from the springs. This has proved to reduce spring breakage.

Fit the whole ESA unit over the main-shaft with the splined shaft protruding through the dimpled plate and do up the nut fully against the locked rear wheel. This method of fitting the plate will ensure that the splines engage the sleeve easily and correctly.

Fit the clutch plates alternately starting and finishing with a friction plate. (some clutches have a loose thick steel plate first that may or may not be retained by a very thin circlip. Others have a cast alloy plate integral with the centre hub)

Before fitting the pressure plate remove the old clutch push rod. If it is one piece, cut approximately in the middle with a hacksaw. File or grind cut end flat and heat over a gas ring to cherry red and plunge in cold water to harden. Grease shortened push rod and refit to shaft. Push in new section of rod provided, hardened end first.

Remove cable inspection cap on Kick-starter cover and check that the clutch cable is allowing operating arm to go fully out into kick-start cover. If it is not check that the operating arm adjustment under the cover retained by 2 ¼" W screws on the kick-start cover is set midway of its adjustment, then adjust cable or shorten outer to allow arm to sit correctly.

Estimate the length of push rod required to touch pressure plate and cut with hacksaw. Flatten end of rod and re-check length before hardening. Only when you are sure you have it right harden cut end of new rod, grease and fit. If you cut too much off the push rod a ¼" x ¼" roller can be inserted between the cut ends of the push rods and re-measure and cut again. If a roller is not available a section of the discarded rod can be fashioned and hardened for the purpose.

Finally fit pressure plate, springs washers and 10mm bolts. Fully tighten bolts & adjust cable to give a small amount of slack at the lever. Check and adjust primary chain and rear chain. Test clutch operation.

If you are happy with it, re-fit primary cover and footrest hanger.

We recommend filling the chain-case with automatic transmission fluid. However SAE 40 or 20/50 will probably work just as well.

Note: We have found that on occasions, after initial 'bedding down' of the clutch plates the clutch has become sticky and does not easily disengage as easily as it did when first fitted. If this happens it will be necessary to remove the plates and wash them off in a degreasing solvent and re-fit them. The problem should not then re-occur.

Additional information for Series 'A' Twin:

Disregard ESA fitting instructions above.

Each clutch will be supplied to fit dimensions you will have been asked to provide to ensure correct chain alignment. Please check that the sprocket of your new clutch is in line with the engine sprocket when both are done up tight.

Additional information for Series 'A' Singles:

Disregards the ESA fitting instructions as above.

It is not possible to fit all 8 of the Honda clutch plates on pre-war 500cc Vincent's due to the restricted space available in the very thick chain case. However 7 are quite sufficient and the clutch unit has been modified to take just 7 plates.

Having fitted the clutch as above please fit the outer chain-case and check that it is possible to lift the clutch pressure plate fully without contact inside the chain cover.

If contact is made it will be necessary to remove the cover and grind away alloy where the witness of contact shows until clearance is achieved.

Sliming down the clutch unit inevitably reduces spring pressure. If the clutch is found to slip, thin packing washers can be fitted under the springs to increase pressure. Be aware that the post over which the springs sit are tapered so washers with sufficient internal measurement must be used.

General:

If you wish to have a lighter clutch we do have lighter springs available.

Some Clutches will be supplied with 2 Steel Plates fitted together. This is perfectly acceptable and done for locational purposes only. If fitted leave as supplied.

We would appreciate any suggestions or improvements to the Kit that you may wish to suggest.

If you have any problems we would like to be the first to know about it.

We are here to help.

Colin Jenner
Conway Motors Ltd.