

# DCOE Classic style linkage Suitable for 38-55mm DCOE/SP

## Suitable for 38-55mm DCOE/SP Twin Carburettor Sets LP2500 For top mounting only





Fig Part No D		Description	Qty	Fig	Part No	Description	Qty
1	9990163200	Throttle lever male	1	15	9990164400	Linkage rod	1
2	4504814900	Throttle lever female	1	16	9990386200	Pivot 27mm	1
3	5551012800	Shim Washer	3	17	9990386700	Spring	2
4	5552000400	Lock tab	3	18	9990386300	Threaded Pin	1
5	9990385900	Alloy Mount Set	1	19	9990030400	Washer M6 plain	6
6	9990145500	Screw M5 x 30	4	20	9990143000	Outer Cable Adj	4
7	9990002400	Spring washer 5mm	4	21	9990164500	Cable block	1
8	9990386400	Adjustable Eyelet	1	22	9990162800	Throttle Cable	2
9	9990009700	Nut M8	1	23	9990116500	Nut M6 plain	4
10	9990000600	5/16 plain washer	1	24	9990159100	Washer M6 (2mm)	4
11	9900450600	Washer M8 Spring	1	25	9990005700	Tie Wrap	2
12	9990386100	Pin 35mm	1			·	
13	9990269000	R Clip	4				
14	5551003400	Plain Washer	2				

#### **GENERAL NOTES ON INSTALLATION**

- a. It is preferable where possible to fit the throttle levers supplied to the carburettors before installation, and ensure that the throttles open and close freely prior to connecting the throttle linkage.
- b. Measure the accelerator cable travel on the existing installation, to assist in correctly adjusting the new linkage.
- c. Lubricate the linkage with light oil during assembly.

#### THROTTLE LEVER FITMENT

- **N.B.** It may be necessary in certain installations to remove the cast section of manifold between cylinders 2&3 to allow clearance for the new levers (1 & 2).
  - d. Fit the new **Throttle Levers** (**1 & 2**) supplied, to the inside facing ends of the two carburettor throttle spindles. Lever (**1**) fit the throttle spindle on the fuel union side of the carburettor.
  - e. Fit the **Shim Washers** (3) as required behind the **Throttle Levers** (1 & 2). Extra **Shim Washers** (3) are provided to ensure a small amount of clearance exists between the Throttle Levers and the carburettor body. The same applies with regards to the original plain washers on the opposite ends of the throttle spindles if they have been disturbed.
  - f. When securing the Throttle Levers (1 & 2) use the new Tab Washers (4) provided. IMPORTANT: When tightening the throttle shaft nut the throttle lever should be held to avoid twisting of the throttle shaft.

#### LINKAGE ASSEMBLY INSTALLATIONS

- g. Remove the two centre top cover screws from the left hand carburettor. Fit the Actuating Linkage Bracket (5A) and secure using the 2 x M5 Screws (6) and 2 x 5mm Spring Washers (7) see Fig. 1.
- h. Fit the Adjustable Eyelet (8) with the M8 Nut (9), Plain Washer (10) and Lock Washer (11) to the Actuating Quadrant (5B) see Fig 2.
- i. Connect the Actuating Quadrant (5B) to the Linkage Bracket (5A) with the 35mm Pivot Pin (12) and secure using 2 x 'R' Clips (13) and Plain Washers (14), see Fig. 3.
- j. Connect the Linkage Rod (15) between the Adjustable Eyelet (8) of the Actuating Quadrant (5B) and the Male Throttle Lever (1).
- k. Insert the 27mm Spring Anchor Pin (16) to the Linkage Bracket (5A), then place the 2 x Throttle Return Springs (17) onto the Pin (16) and secure with the remaining 2 x 'R' Clips (13), see Fig.4
- Insert the 48mm Threaded Pin (18) into the Actuating Quadrant (5B). Place 2 x Plain 6mm Washers (19) onto the Pin (18) before attaching the 2 x Throttle Return Springs (17), see Fig. 4

m. Remove the two centre top cover screws from the right hand carburettor. Fit the Cable Anchor Bracket (5C) and secure using the remaining 2 x M5 Screws (6) and 2 x 5mm Spring Washers (7). Fit the 2 x Cable Adjusters (20) into the Cable Anchor Bracket (5C) to approximately 2/3<sup>rd</sup> of the thread length, see Fig. 5.

#### ACCELERATOR CABLE CONNECTION

- n. Fit the **Accelerator Cable Connector Block** (21) provided to the accelerator pedal at a position to be able to achieve an accelerator cable operating movement (pull) of between 30mm and 40mm.
- o. The **Accelerator Cables** (22) must now be secured in a suitable position to align correctly with the **Connector Block** (21). This can often be achieved by drilling two 6.5mm dia. anchorage holes 20mm apart in the engine compartment bulkhead. Fit the remaining 2 x Cable Adjusters (20) to form the anchorage for the accelerator cables, secure the Cable Adjusters (20) using the 4 x M6 Nuts (23) and 4 x 6mm Support Washers (24) provided.
- N.B. It is important to ensure that the cable alignment is correct throughout the full movement of the throttle pedal, and does not allow the accelerator inner cables to misalign with the Cable Adjusters. Failure to do so will result in poor throttle operation and wear to the accelerator inner cable which will ultimately cause a breakage.
- p. Fit the Accelerator Cables (22) by first removing the inner cable from the outer cable. Route the Accelerator Outer Cable between the Throttle Linkage Anchor Bracket (5C) and the Cable Adjusters (20) (at the Throttle pedal end). Where necessary cut the accelerator outer cable to achieve the best cable route between the anchorage points, support and secure the cable as necessary using the Nylon Ties (25) provided.
  N.B. It is very important to avoid tight bends, moving components and heat sources.
- q. The inner cables can now be threaded through the throttle pedal Connector Block (21) see Fig 6. Pass the inner cable through the accelerator outer cable anchorage Cable Adjusters (20). When the inner throttle cable is fully inserted the barrel ends of the inner cable will abut the Connector Block (21). Lightly secure the inner cable to the Connector Block using a 2.5mm Allen Key, do not over tighten. The inner cable should now exit the outer cable at the Cable Anchor Bracket (5C).
- r. The accelerator inner cables can now be threaded through the hole in the **Threaded Pin** (18) of the **Actuating Quadrant** (5B), having first placed 2 x M6 Nuts (23) followed
  by 2 x Plain 6mm Washers (19) onto the Pin (18). Next place the remaining 2 x Plain
  6mm Washers (19) followed by the remaining 2 x M6 Nuts (23) onto the Pin (18). With
  the accelerator inner cable between the plain washers and the M6 Nuts (23) ensure the
  inner cable remains central in relation to the hole in the Pin (18) but do not tighten until
  operation t. in the **ACCELERATOR CABLE / LINKAGE ADJUSTMENT**.

#### ACCELERATOR CABLE / LINKAGE ADJUSTMENT

- s. First determine the required height of the throttle pedal at the throttle closed position. N.B. This will be predetermined if the throttle pedal has a return spring and the stop may or may not be adjustable.
- t. With the throttle pedal in the throttle closed position clamp the accelerator inner cable in the linkage **Pin** (18). If the throttle pedal has a return spring, allow a small amount of free play in the accelerator inner cable.
- u. The throttle linkage can now be adjusted achieve full throttle by adjusting the Adjustable Eyelet (8) of the Actuating Quadrant (5B).

Important: In the full throttle position the throttle pedal should contact either an adjustable pedal stop or the bulkhead. This will prevent excessive pedal force from damaging the Carburettor, Throttle Linkage or the Accelerator Inner cables.

v. Finally make any fine adjustments to the **Cable Adjusters** (20) in association with the **Adjustable Eyelet** (8) with regards to full throttle and ensure a small amount of free play exists in the accelerator inner cable where the throttle pedal has a return spring with a top stop.

NOTE: IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THIS LINKAGE IS ADJUSTED AND FUNCTIONS CORRECTLY, AND THAT THE ADJUSTABLE EYELET (8) OF THE ACTUATING QUADRANT (5B) CANNOT BECOME IN-LINE WITH THE LINK ROD (15) AT FULL THROTTLE AS THIS COULD CAUSE THE THROTTLE TO JAM WIDE OPEN.





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