

## 2CV CARBURETTOR COVER SCREWS

(Revised)

by Graeme Dennes

This article applies to the dual-choke carburettor fitted to the 2CV from 1978 onwards.

### 1. Two Types of 2CV Carburettor Top Cover Screws Were Used by Citroen/Solex:

- a. Left-hand drive ("European") 2CVs generally used 5mm diameter, 0.8mm pitch screws, which is a DIN and (later) ISO thread standard. These have 15 thread *spacings* over 12mm ( $12\text{mm} / 0.8\text{mm} = 15$ ), and are commonly available from automotive parts stores, hardware stores, etc.
- b. Right-hand drive ("English") 2CVs generally used 5mm diameter, 0.75mm pitch screws, which is a superseded JIS (Japanese Industrial Standard) thread standard. These have 16 thread *spacings* over 12mm ( $12\text{mm} / 0.75\text{mm} = 16$ ), and are quite difficult to find. I have seen both screw types in use with RHD cars, but the extent that each type was fitted is not known to the writer. Carburettors may also have been changed over in some cars, and so the type of screws originally fitted to the cars when new may be difficult to determine.

The two thread standards appear *very* similar to the eye, but the screws are *not* interchangeable, and *permanent* damage to the threads in the carburettor body *will* result from fitting the incorrect screw.

Should such thread damage occur, it may prevent proper tightening of the cover screws, resulting in poor sealing of the top cover with the gasket and body. This could allow fuel to escape and the possibility of fire! *Treat this as a very serious issue.* Another possible consequence of damaged threads is interference with the carburettor's normal operation through loss of vacuum inside the body chambers, leading to vehicle starting and running problems.

The simple rule to use? Always refit each screw back into the *same* position it came from and hope for the best when retightening!

Wilson Carburettor Service, located in Airport West, Victoria, phone (03) 9330 3216, has a long history with Solex carburettors. They can also supply or manufacture replacement screws of 0.75mm and 0.8mm pitch to your requirements, and perform helicoil repairs for stripped threads.

### 2. Choke cable mounting bracket screw - Standard Screw Is Too Short:

The standard carburettor top cover screws are typically 15mm in length. However, the screw which does double duty to hold the choke cable mounting bracket should be around 22mm length (but no longer) to maximise thread contact with the carburettor body. The effect of this 7mm shortfall is the eventual stripping of the threads in the body socket during normal carburettor maintenance activities because only about *one third* of the body threads are in contact with the screw. A helicoil repair will be needed if the threads are stripped. The problem may be easily resolved by the fitting of a 22mm length screw of the *same* thread type as the original. It seems this issue was never corrected by Citroen. Again, Wilson Carburettor Service can provide the 22mm screw.

### 3. The Perfect Solution:

For my "English" 2CV, which was fitted with 0.8mm threads(!), I made up a set of six custom-length M5 x 0.8 "screws" from hex-headed bolts with a screwdriver slot neatly cut in the heads. Each screw was cut to the maximum length allowable for each position, providing for the correct sealing between the top cover and the body, and the longest maintenance life of the carburettor body threads. Don't forget to slip a split washer under each screw head.

### 4. Photos:

Photo 1 shows a standard Solex M5 x 0.8 x 15 screw, with its fitted split washer, alongside an M5 x 0.8 x 20 replacement screw (hex headed bolt).

Photo 2 shows the new M5 x 0.8 x 22 screw fitted to the choke cable mounting bracket position. Note the slot cut in the head for a screwdriver.

Photo 3 shows a side view of the choke cable mounting bracket, with the new M5 x 0.8 x 22 screw in position. Note the end of the screw just projecting outside of the lower opening of the carburettor body socket (centre of photo), ensuring the maximum possible thread area is being utilised. Ensure all new screws are not *too* long to cause binding against the carburettor body, else more stripped threads will result.



PHOTO 1



PHOTO 2



PHOTO 3