

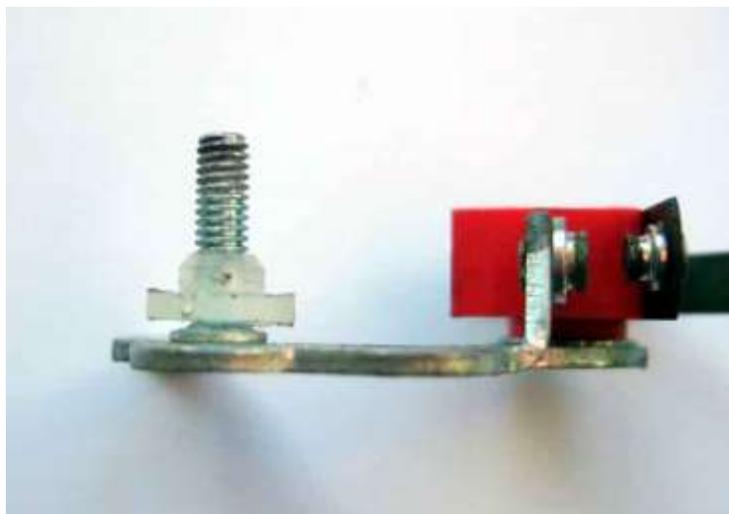
Points Types

(original source: <http://www.mgb-stuff.org.uk/points.htm>)

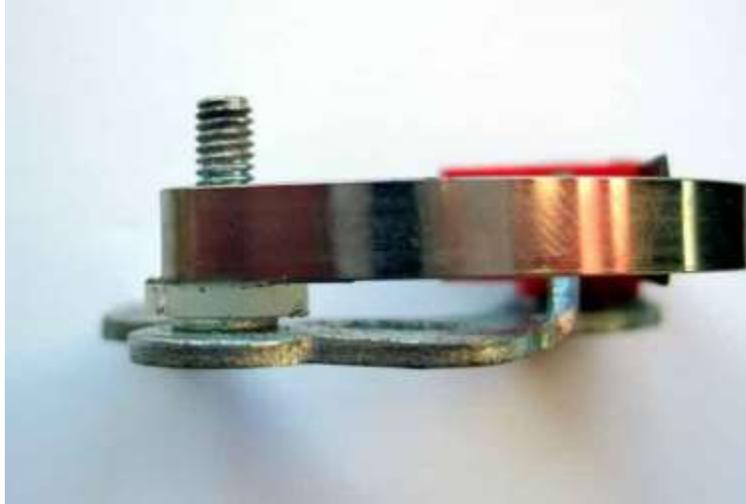
The 'fiddle fit' points for the 25D GCS101 (main image, 2-part GCS107 inset) consisting of several parts which **must** be assembled in the correct order or you will get ignition problems. Note: These can have white cam-followers from other manufacturers as well as the red from Lucas shown here.



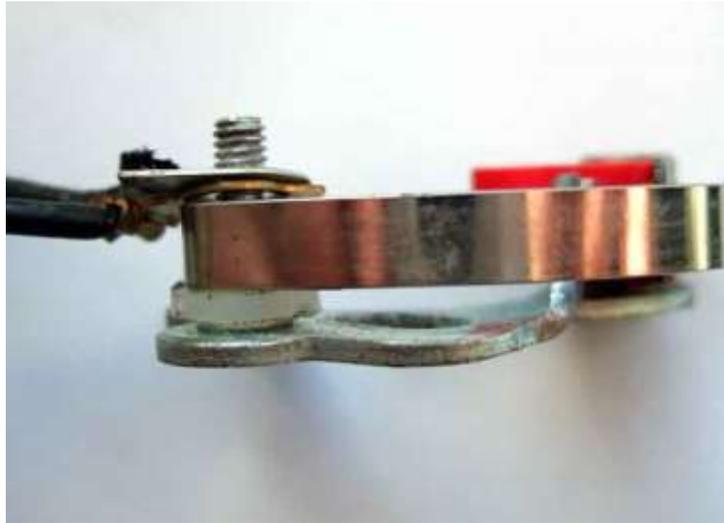
First on the threaded stud is a stepped insulating washer, with the step facing upwards.



Next is the spring of the moving contact, located over the step in the washer.



Next go the condenser and the coil wire tags, in either order.



Next is the other stepped insulating washer, this time with the step facing downwards, so it goes through the holes in the condenser and coil wire tags and the spring of the moving contact.

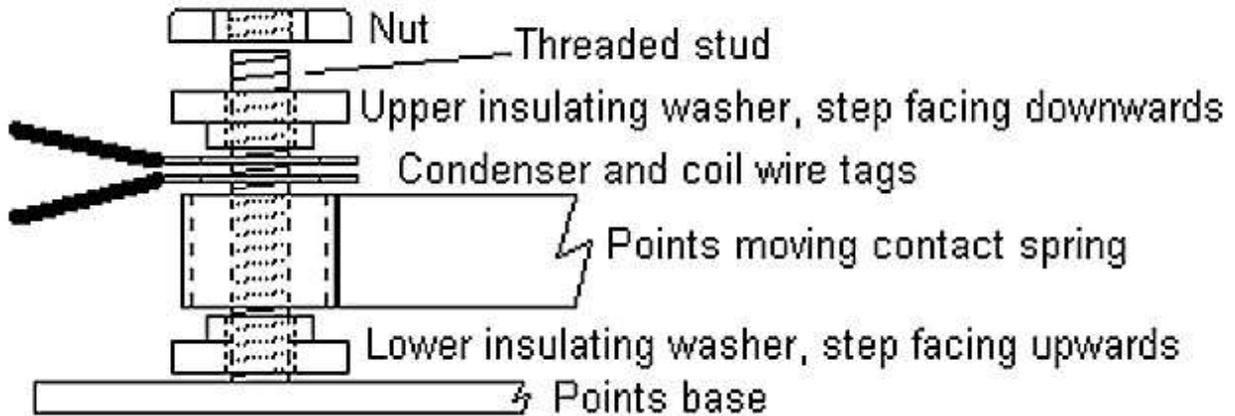


Finally the nut. These seem to be 'handed' in that one side seems flat and the other side has slightly rounded edges to each flat of the hexagon. I always put the flat side against the upper insulating washer as it just seems more 'correct', but I don't suppose it is critical.



The steps in the insulating washers go inside the holes in the moving contact spring and the condenser and coil wire tags so as to prevent them coming into contact with the threaded stud and nut. These two components are at earth/ground potential, and if the coil wire comes into contact with either stud or nut - either because the washers are the wrong way round, not seated properly, or the tags are **between** the washer and nut - the points will be bypassed, the coil continually flowing current, and there will be no spark. Also be aware that if the points tag is correct but the condenser tag is

fitted between the washer and nut you will have ignition, but very weak sparking and lots of points arcing as the condenser will be out of circuit.



General view of the 25D showing the internal wires. Note the very flexible cloth-insulated coil and earth/ground wires, with the very fine conductor strands spot-welded to the connection tags. The condenser wire has conventional plastic insulation as both ends are attached to the moving points plate and so it is not flexed. Note also that the earth/ground wire tag is riveted to the points plate, which means that strictly speaking if this wire fails a new points plate will be required:



The condenser for the 25D distributor, that for the 35D8 for the V8 is very similar:



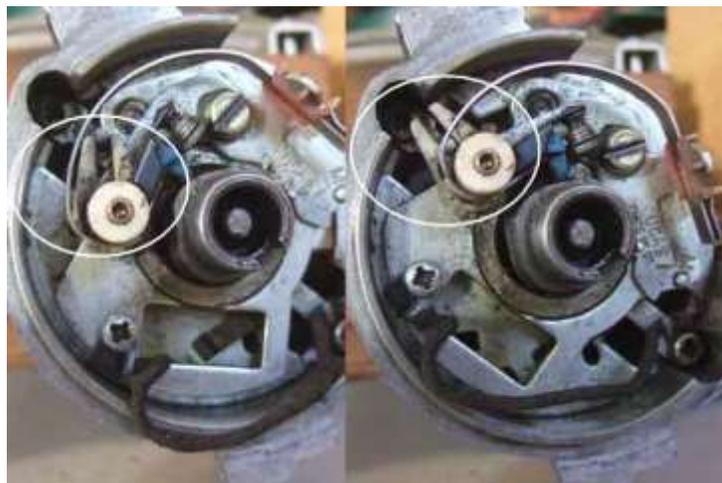
'Quick fit' points for the 45D: 'Fixed' on the left (red cam follower, GCS118) and 'sliding' on the right (blue cam follower, GCS124) with the slotted lever. The felt lubrication pad is used with both types, it rubs on the cam as it rotates and must be **greased**, not oiled. Note the adjustment notch at the pivot end on the GCS118 and the connection end on the GCS124.



With this type the moving contact spring just lays in a channel in a plastic insulator fixed to a post on the fixed contact base. The end of the spring has a partially flattened loop, and a flat brass connector with the condenser and coil wires already attached simply slides into the loop. The only important thing here is that the plastic insulator does lie between the post and the spring.



Showing the 45D 'sliding contact' type, with the points plate in the minimum vacuum advance position on the left and the maximum vacuum advance position on the right. Note the difference in angle of the slotted lever (circled):



Showing the 45D 'sliding contact' type, with the slotted lever in the minimum advance position (left) and maximum advance position (right). Note the difference in height of the cam follower and the different offset of the points in each case.



The connection arrangements are the same for both fixed and sliding types, however note that they are **not** interchangeable as the two base-plates are different. The sliding type have a small peg on the points and a locating hole in the base-plate (left), the fixed type have a large location peg on the base plate and a hole in the pivot, similar to the 25D type shown here on the right:



It would appear that the 45D fixed points could be fitted to the 25D points plate and thereby gain the quicker fitting, felt lubrication pad, and do away with one of the braided wires. Whilst the points themselves can be fitted to the points plate it is all downhill from there. You need the 45D condenser assembly as well for the connection tag, which is fair enough, but the mounting tab fouls the adjuster notch on the points, the adjuster notch is at the wrong end making fine adjustment trickier than before, the condenser to connection tab isn't quite long enough, neither is the section of coil wire between the tag and the grommet, and you would have to drill a hole in the spade connection of the 25D to push the coil wire through. These last two can be overcome

by cutting the wire short and soldering it to the 25D spade (possibly compromising reliability), and trimming the condenser mounting tab, but that still leaves the condenser wire too short and it probably isn't worth the faffing about.



All types of points are secured with a screw, spring washer and plain washer. On an original distributor in my possession the screw is unusual in that it has a plain, narrower portion at the tip before the thread starts (shown on the left below). This aids insertion as you can drop it and the washers into the hole in the points, the plain tip drops into the threaded hole in the points plate, holding the screw upright and relatively secure while you get the screwdriver on it and start to tighten it. Replacement screws, and those in rebuilt distributors, seem to be standard screws threaded for their full length (on the right). With these you really have to drop the screw and washer onto the top of the points while they are out of the distributor, then move the points towards the points plate with one hand and a screwdriver in the other pressing gently down on the screw head. Before the points are lowered all the way to lie on the points plate start turning the screwdriver to start the screw, and then you can let the points go. If you let the points lie on the points plate before the screw has started it will topple over and there is a good chance the washers at least will fall into the centrifugal mechanism. Not too bad if the distributor is already removed as you can just up-end it, shake it, and hope to catch the bits as they fall out, but a nuisance if the distributor is still installed.



Both 25D and 45D have earth/ground springs between the moving points plate and the fixed base plate, which **should** mean that a separate earth/ground wire is not required. But having experienced intermittent cutting out when pressing the throttle on a Scimitar GTE - usually just when pulling out into traffic(!), with a Ford distributor that only had the sliding contact by design, I wouldn't recommend it. In fact the first Scimitar tip I came across was to **retro-fit** a ground wire, which I did, and it solved the problem. This is the 25D ...



... and this the 45D:



Cloth-insulated earth/ground wire for a 45D, screw tags at both ends, so can be replaced independently. This could be used as a replacement for the 25D as well, if obtainable:



45D cloth-insulated earth/ground wire fitted, under the condenser fixing screw (condenser removed for clarity) and points plate fixing screw:



Combined condenser, coil wire and connection tag for the 45D distributor:



Fine adjustment V-notches of the 25D (circled). With the points screw only lightly tightened a screwdriver inserted in the notches can be twisted one way and the other to open or close the gap. Because the fixing screw is only lightly tightened, when the screwdriver is removed the gap remains the same, the screw can then be fully tightened, and the gap rechecked to make sure it hasn't shifted.



The fine adjustment 'V-notch and pip' (circled) of 45D sliding points (45D fixed points have the V-notch at the pivot end of the points plate):



The V8 35D8 points. These are one-part 'fiddle-fit', but with the felt rubbing pad of the quick-fit 45D types. This is fitted at the pivot end of the points rather than the contacts end, which may be because the distributor rotates in the other direction to the 4-cylinder types i.e. clockwise instead of anti-clockwise. They have the peg to locate in the hole in the points plate like the 45D sliding type, but are non-sliding! They don't have the fine adjustment notches of the 4-cylinder types as the 35D8 distributor has an external hex bar with which to adjust the gap/dwell (see below).



The V8 35D8 distributor. This has an external hex bar to set the points gap/dwell. This means dwell can be set with the distributor cap on and the engine running, which takes seconds. The hex bar moves the points plate up and down i.e. moves the points closer to or further away from the cam to alter the gap/dwell, whereas the vacuum advance capsule pivots the plate about a point at the top of the points plate, so moving the points back and fore across the face of the cam to alter the timing.

