



Vs

The Speedway 9-super-7

We first heard rumours of a new 97 copy from Speedway Motors around a year ago. And now it's here. The Speedway Motors 9-super-7 carburetor. But was it worth the wait?

We ordered two pieces. One was sent for testing. The other was sent to our shop for this analysis. Once we'd recovered from the remarkable resemblance between Speedway's box and the Genuine Stromberg packaging, this is what we found – 50 or so reasons why we believe the original and Genuine Stromberg 97 carburetor offers far better quality and value for money.

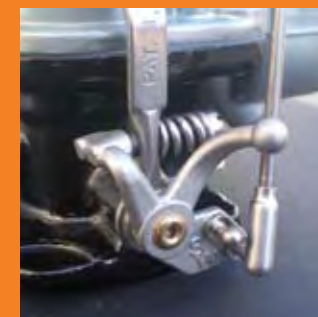
After all the time and money you have invested in your hot rod, custom or restored early Ford, do you really want to cheap out on the carburetors – a vital part that is on full view in the engine bay? Read this document and make your own mind up.

Airflow

We had the max airflow independently verified by an acknowledged carburetor flow expert. The Genuine Stromberg 97 produced over 5% more airflow than the 9-super-7 at 1.5inch Hg pressure drop. You'll see why when you look at the way the carburetor is built. Different flow benches may produce slight variations, but both carbs were tested on the same bench on the same day.

Dyno Testing

An independent review and dyno test of the Speedway Carburetor by 97 expert Jere Jobe has appeared on many website forums. You can find links on the HAMB and Fordbarn websites.





There is no Stromberg name or patent markings.



There are no casting ID numbers or venturi size markings.



The front screw mounting boss on the top flange has been ground off (!) maybe because it fouled on the bowl section. This is because the whole casting is oversize. It is at least 0.1 inch bigger in both overall dimensions.

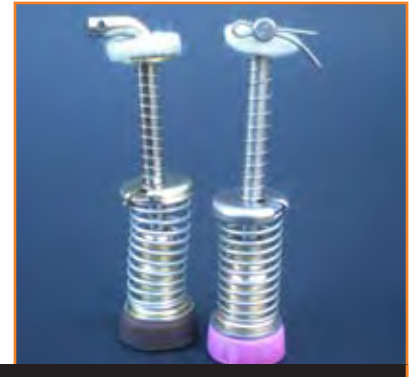


The front plugs in the base are not correct. They should be small removable plugs. These are ball bearings.



The Speedway accelerator pump top rod and spring retainer are not stainless steel like Genuine Stromberg. The spring retainer is oversize in the centre slot so it catches in the spring and leans out of alignment, which could cause it to catch in the accelerator pump well.

The spring inside the accelerator pump leather is not correct (under size) and has little effect on retaining the leather shape in use. The irregular leather, and the extra thin felt washer are both under spec.



The float pin is not countersunk, so it sticks out, and there is an incorrect circle machined on the surface around it. This is what it should look like (right).



The airhorn screws have no spring washers. The screws are not stainless steel and they are an incorrect shape.

The casting post-colouring is poorly matched. Colour matching is notoriously difficult for all carburetor manufacturers, so Genuine Stromberg castings are

graded to ensure that the bowls match the airhorns, and each carburetor pair or tripower is boxed as a matching set. Also, note the blemish on the float bowl.

The Speedway choke plate is not stainless steel like the Genuine Stromberg piece and does not appear to have the correct angled edges so it cannot seat correctly in the casting. This example was warped so the flapper valve could not sit flat on the plate.

The choke plate fixing screws are not correct. They should be brass countersunk with hollow ends so they can be staked over to prevent them falling out. These looked loctited in. We could not remove them.

The choke shaft is plated steel, not the correct brass, and the end button is not stainless steel.



There is no big 97 marking. The non-genuine SP-10 mark looks like it has been hand engraved into the casting.

The throttle shaft is oversize at 0.281 instead of the correct 0.276inch which means less air flow at higher rpm. There is excessive end play in the throttle shaft, which shouldn't exist once the throttle plates are installed. The shaft also has excessive side play in the bush and you can see the clearance in the casting centre web. The whole throttle shaft bore should be reamed to a closer tolerance.

The kicker bush (which holds the throttle shaft at the linkage end) is 0.3inch ID, and the plain bush at the other end is around 0.288inch ID, meaning around 0.007 to 0.019inch clearance on the 0.281inch shaft. The original Ford wear limit is just 0.005inch so both are over limit. You can see daylight along the gaps. This could give the carburetor air leak issues with uneven idle.



The Speedway base casting is made of aluminium instead of the correct cast iron. This is not only non-original, but aluminium is one of the most thermally conductive materials in the world, making ice formation a real possibility. In our opinion it may also wear too quickly in use, with the potential for poor idle control.

It is painted silver and should be black.

The machined height of the base casting is about 0.025 inch too tall, which will affect the power valve accuation point. The correct Stromberg tolerance is 0.005inch. Also the flange thicknesses are incorrectly shaped at the

top - too thick at the front and almost non-existent at the back.

There are no plugs in the rear of the casting, which shows that the upper idle circuits are not drilled at the correct angle. To be correct, these circuits should be drilled through the rear access holes.

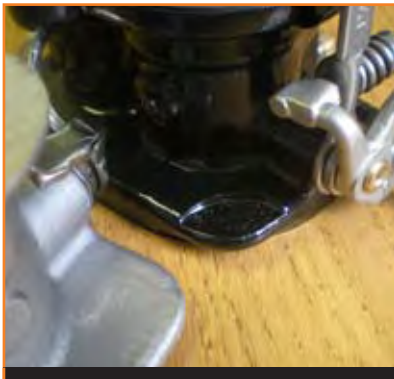
There is no EE-1 mark on the casting as per the original drawings - and the Genuine Stromberg 97 (below).

There is no machined stop for the throttle lever at WOT. This is critically specified on the original Stromberg drawings.

We could not identify the generic gasket material. Genuine Stromberg gaskets are a high-tech cellulose/nitrile mix and were designed slightly undersize so they would not stick out at the edges.

The choke and accelerator pump lever fulcrum screws are not stainless steel like on the Genuine Stromberg. There was a gap here where the choke lever is twisted out of alignment.

The choke lever is the wrong shape here. It should curve in a fixed radius towards the ball. This one is simple bent half way down. It should also taper to echo the original forged shape.





The choke lever should have a countersink mark around the fulcrum screw (see left). It's missing. The choke lever return spring is wrong, too.

The kicker piece should be neatly riveted to the choke lever and the rivet should

have a shoulder so the two parts remain free on riveting. On this example, the choke lever does not move freely on the kicker. There is only one washer on that rivet where there should be two – a plain and a wave washer.



The idle and power valve circuits are plugged with what look like ball bearings. They should be lead plugs, though the Genuine Stromberg 97 uses tin for environmental reasons.

The throttle/choke kicker bar not even a close reproduction. It has the wrong shape and no patent mark stamped on it. The throttle adjustment spring and screw are mounted wrongly. The screw has an incorrect head shape.

None of these parts are stainless steel like the original Stromberg pieces.





The Speedway choke shaft end lever is not stainless steel and it is fixed with a screw. It should be riveted like the original Stromberg part (see right). The choke return spring was pulled out of shape.

The choke lever detent pin is plated steel, not stainless steel. The spring (hidden under the pin) was fixed on the wrong way around.



The Speedway accelerator pump rod (top) has an incorrect look with squared off end caps and a strange end swage.



The accelerator pump lever return spring is too strong. And when the accelerator pump rod is on the S (shorter) ball adjustment, the throttle snaps to over-centre and does not release, which could be highly dangerous in use.

The throttle linkage end piece is a poor facsimile of the original part. The Genuine Stromberg piece is an accurate investment casting. This is a folded steel piece. It is difficult to tell whether the S and W balls are in the correct position to operate the accelerator pump correctly.

The Speedway end piece is screwed on with a socket head screw instead of riveted like the Genuine Stromberg part.



Note the poor casting finish here.

The Speedway booster venturis are oversize at the top. They gauge around 0.417inch ID. The original drawings say around 0.406inch. This will affect the carburetor signal throughout the rev range.

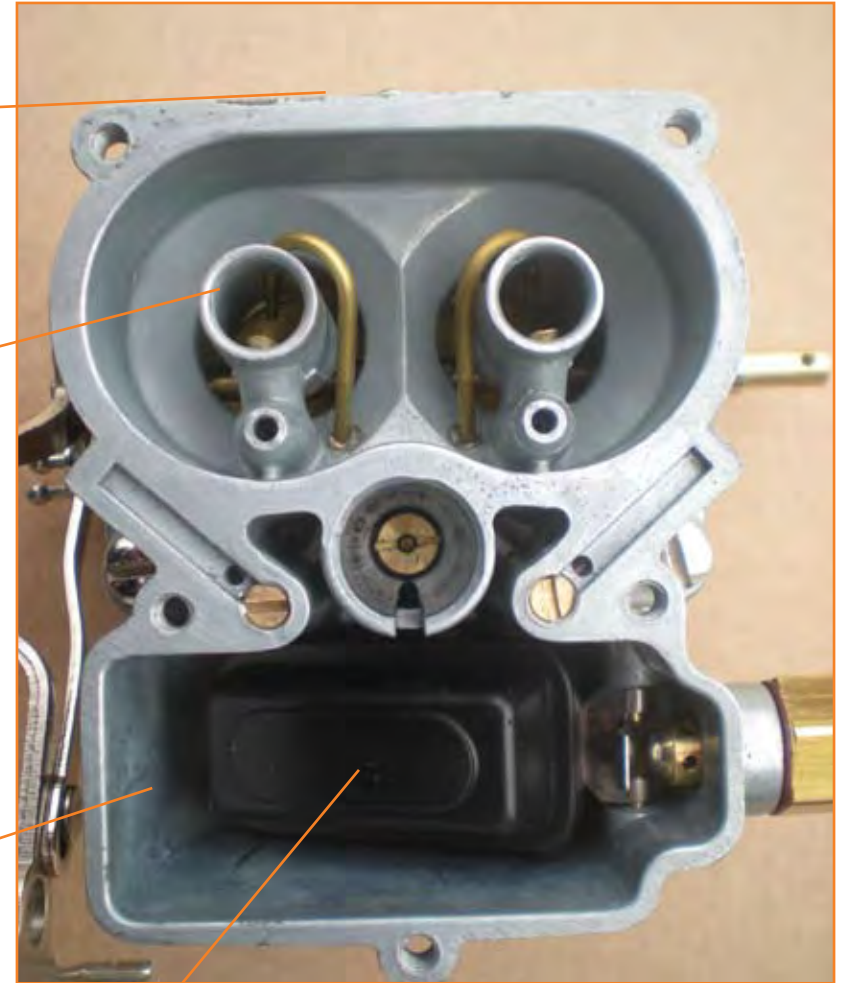
The brass accelerator pump discharge jets point a long way into the booster venturis, which may contribute to cfm underperformance. We did not measure the metered end size of this jet.

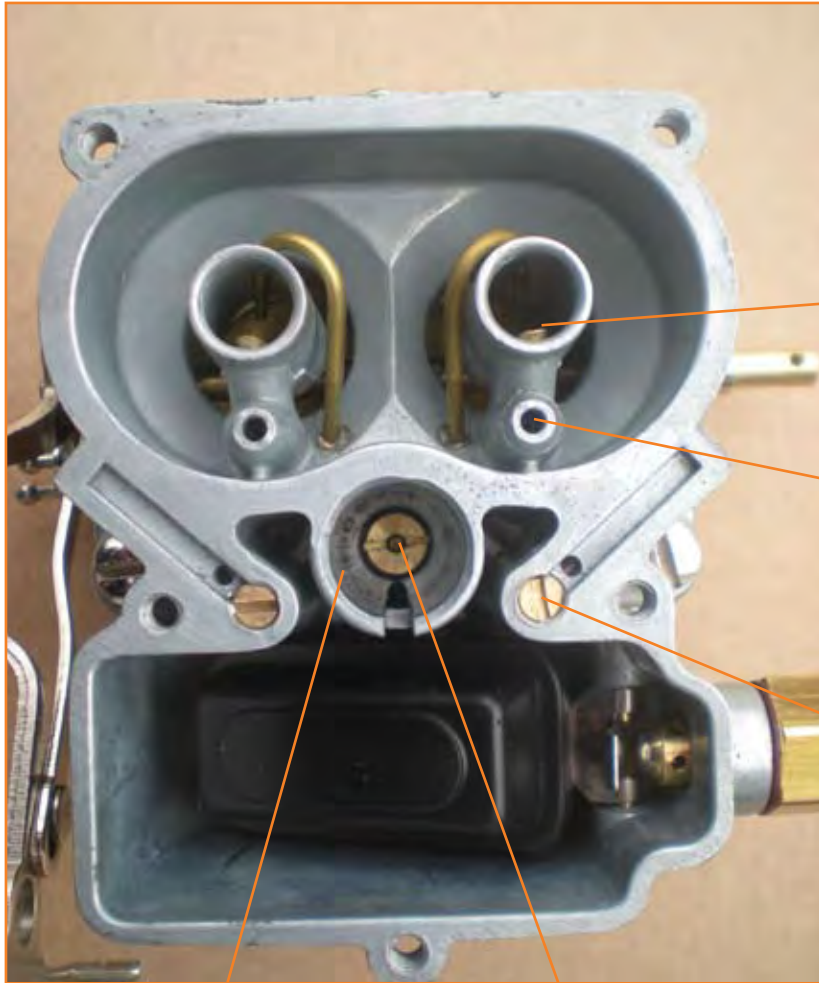


The casting finish is fractured inside the Speedway float bowl and there is evidence of poor die repairs (see left).

The Speedway carburetor has a plastic float - which was not adjusted correctly from the factory, so this carburetor might not run straight out of the box. Genuine Stromberg carburetors use a brass float, made in the USA on the original Stromberg dies.

The Speedway float lever is not vertical on the centre of the hinge pin so sits too far forward onto the inlet valve.





The accelerator pump well looks like it was chamfered at the top edge with a pen knife. And it is scored inside on what should be an exact reamed size.

The power valve pin was broken off and lying in the bottom of the accelerator pump well, meaning no power valve enrichment at higher revs. We have had the same report from another buyer.

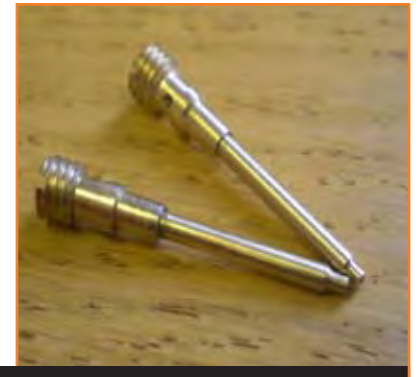


The five holes in the top of the emulsion tubes are undersize. They gauge at 1mm. That is 7.5% undersize, which will affect running throughout the rev range.



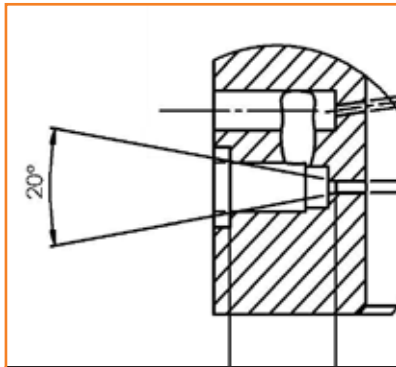
The high speed air bleed jet sizes are critical to the air/fuel mix. On this carburetor one side is 0.003inch undersize. One other side is 0.007 undersize. This is 7.5% and 17.5% undersize, which will affect running and fuel consumption throughout the rev range.

The idle jets are missing a vital angled seat (the Genuine Stromberg part is on the right) which ensures a seal in the casting. Without this, the idle fuel is not metered, causing poor idle stability.



On this Speedway carburetor the centre bowl plug was fixed with loctite for some reason, making it all but impossible to remove (the damage was caused in removal).

The ball in the accelerator pump check valve should be crimped to avoid restricting the flow. On this part, the end is just bent over to retain the ball restricting the flow.

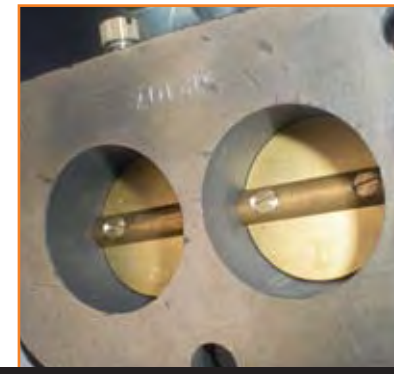
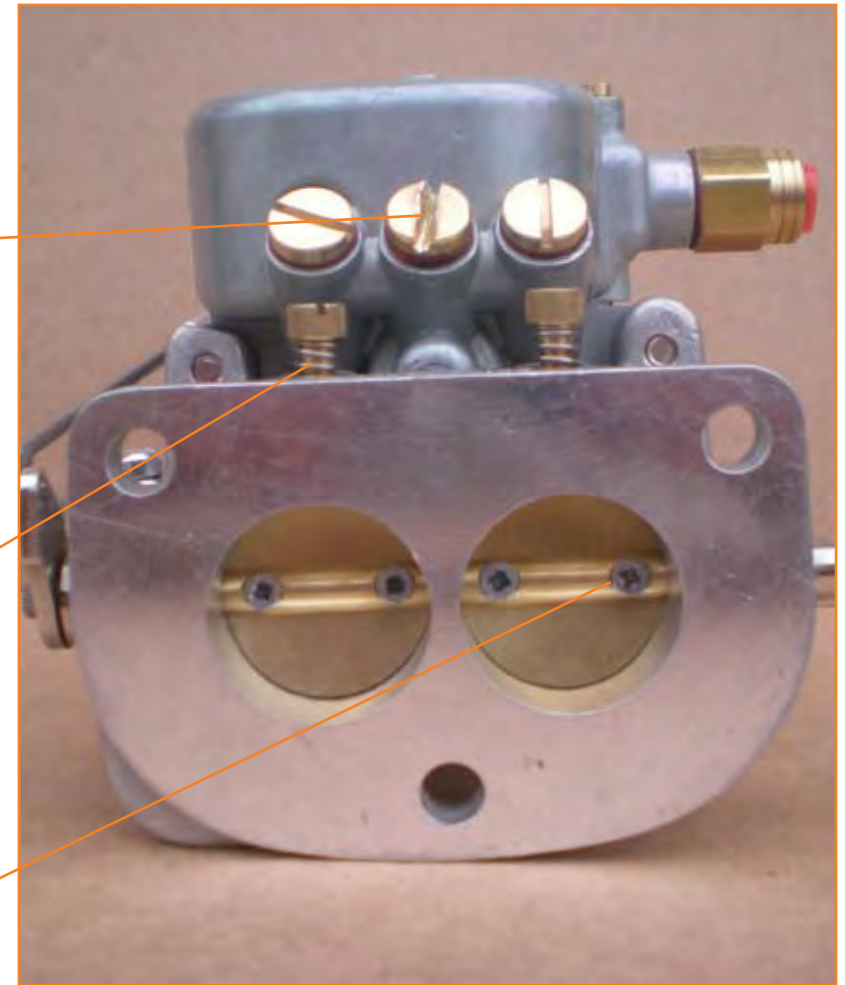


The lower idle holes should have a 20 deg angle in the bottom to match the angle on the idle adjustment screws. This is not in place.

The throttle plate screws are not correct. They should be brass countersunk slotted. These are lightweight aluminium cross-heads with a very fine thread. And they don't have the hollow ends

so you cannot stake the ends to prevent them falling out. These examples look like they were sealed in with a liquid sealant. All this makes future service very difficult indeed.

The throttle plates are oversize. The original Stromberg specification is 1.855inch + 0 and - 0.002. These are 1.203inch so they do not sit correctly in the throttle bore.





Packaging

The outer box looks like an attempt to pass this carburetor off as the Genuine Stromberg part, which it is clearly not.

There were no installation instructions. No warranty details. No owner registration form. This brings the question, are users protected in the event of a problem? Is there any warranty on the part? And if so, what are the terms?



The box insert has just one layer of card to hold the carburetor in place top and bottom during shipping. In our experience, this is not enough and has the potential for the carburetor to break loose in shipping (as this one did). Genuine Strombergs have a more secure double thickness pocket, top and bottom.