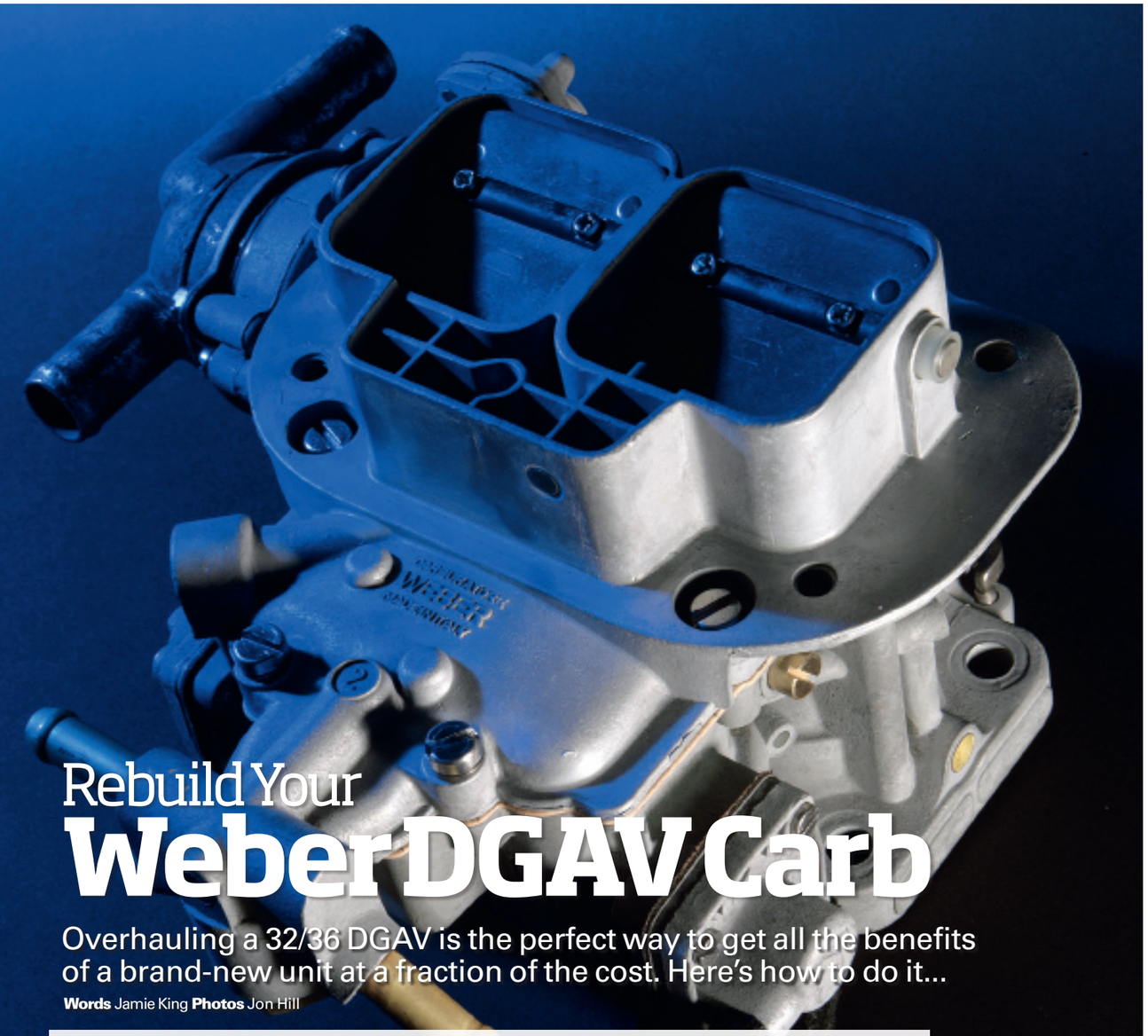


Rebuild Your Weber DGAV Carb

Overhauling a 32/36 DGAV is the perfect way to get all the benefits of a brand-new unit at a fraction of the cost. Here's how to do it...

Words Jamie King **Photos** Jon Hill

The Weber 32/36 DGV and DGAV carburettors were fitted to a whole host of classic Fords, and many have since been retrospectively fitted as a useful performance upgrade.

The carbs are easy to set-up and maintain, however like most things in life they do benefit from some tlc from time to time – either a service or a full rebuild. Fortunately, service kits and replacement parts such as jets, diaphragms and valves are all still readily available from the likes of Webcon direct and Weber dealers.

CONTACTS

Northampton Motorsport
01604-766624
www.northampton motorsport.com
Webcon
01932 787100
www.webcon.co.uk

You may be lucky enough to only need the service kit which can be fitted without too much fuss, but for a 'proper job' you will need to do a complete overhaul.

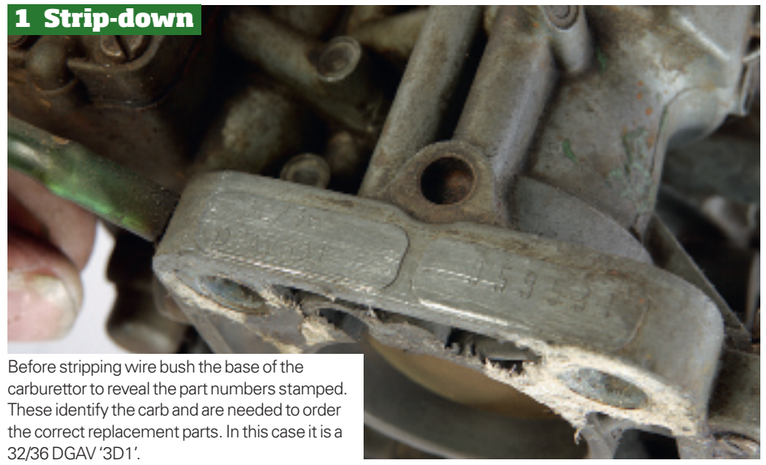
We took our 32/36 DGAV to carburettor specialists and Weber dealers, Northampton Motorsport in, er, Northampton for the guys in the know to show us exactly what's involved with turning a gunked-up, 30-year old carburettor into a nice, shiny, all-singing all-dancing, overhauled unit.

Here's how we did it...

Info

Costs:	
Service kit	£41
Power valve diaphragm	£18
Choke pull-off diaphragm	£13
Teflon bearings (fitted)	£30
Complete overhaul incl service kit	£152

1 Strip-down



Before stripping wire bush the base of the carburettor to reveal the part numbers stamped. These identify the carb and are needed to order the correct replacement parts. In this case it is a 32/36 DGAV '3D1'.

2

Now you can start stripping. Firstly remove the circlip for the choke butterflies with a small flathead screwdriver. Take care not to slip.

3

Then undo the six screws that hold the top on, and remove the top of the carb from the main body. Be careful as the screw heads are fairly soft metal.

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Remove the float pin with a small screwdriver, or if tight gently tap a small punch with a hammer. Then remove floats and float needle valve.

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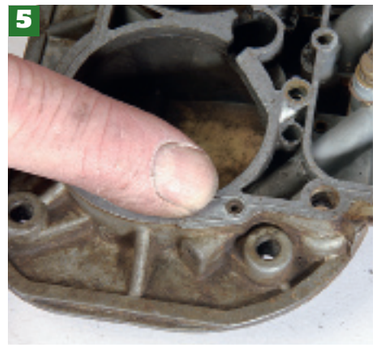

Test the power valve diaphragm by pushing down on the spring and blocking the small airway on the face surface. If the diaphragm is good the vacuum created will mean the spring will stay compressed, if it doesn't the power valve will need replacing.

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Remove the power valve diaphragm by undoing the three flathead screws that hold it in position, and take a closer inspection. This one's really had it.

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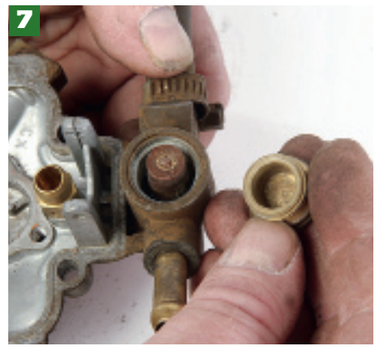
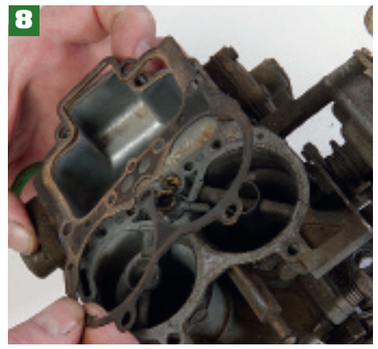
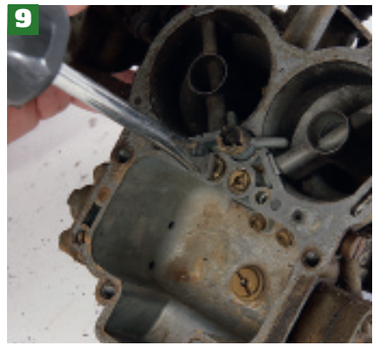


Then undo the 19 mm filter plug and remove the old filter. Remove the 10 mm float needle valve seat and the top half is ready for cleaning.

8



Now move on to stripping the main body of the carb. The first thing to go is the old gasket.



Remove the air corrector jets from the top surface and the main jets from the float bowl. Also remove the emulsifying tubes from under the air jets. It's worth writing down which size jets came from which place to ensure fitting them correctly later.

Remove the idle jet and progression jet from the sides of the float bowl.

Now remove the accelerator pump jet and delivery valve from the centre of the main body.

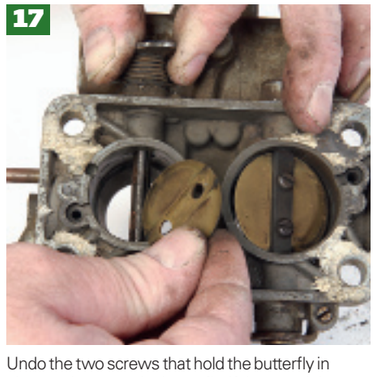
Remove the power valve from the float bowl.

Now remove the accelerator diaphragm and enrichment device from the sides of the float bowl, and remove the mixer screw from the side of the main body. (Some DGAVs do not have the enrichment device).

Remove the automatic choke housing (on the DGAV). If the unit works leave it alone as trying to repair them usually ends up with the centre bolt shearing off. If that happens the only way forward is to convert to manual choke as replacement auto choke parts are not available.

Then remove the three screws that hold the choke pull-off diaphragm in place and remove the diaphragm itself. Check it is in good condition, if not a replacement will be needed. Then remove the choke unit from the main body by undoing the three retaining screws at the side.

Turn the carb over to see the throttle butterflies. Remove the locking tab and 12 mm locking nut that holds the throttle shaft in position. Before removing the linkages and springs either write down or take a photograph of the order they come off in to help you remember how it all goes back together.



Undo the two screws that hold the butterfly in place and remove the butterfly. If they are tight gently tap with a hammer to loosen.

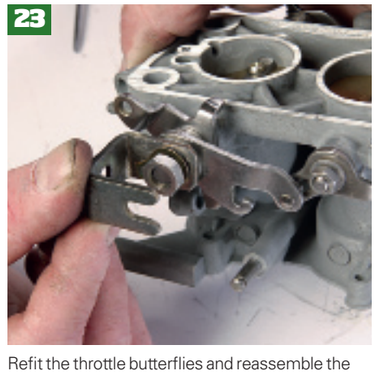
Then remove the throttle shaft from the main body and check for wear. Repeat steps 16 and 17 for the secondary shaft, remove and then check for wear. Finally remove the auxiliary venturis by hand or gently persuade with a pair of pliers.

One stripped carb ready for thorough cleaning before reassembly. To clean the carb you can use carb cleaner but for a better finish professionals like Northampton Motorsport have all the parts chemically cleaned.

Before reassembling the carb Northampton Motorsport carry out a couple of trick mods. Firstly the base of the carb is machined totally flat to ensure a perfect seal with the spacer block. Also the body is reamed to accept Teflon bushes between the body and throttle shafts.

The next step is to fit the bushes. Patience is needed as they can be very tricky.

Now refit the throttle and secondary shafts into the main body. A drop of oil helps lubricate the shafts and makes life a little easier.

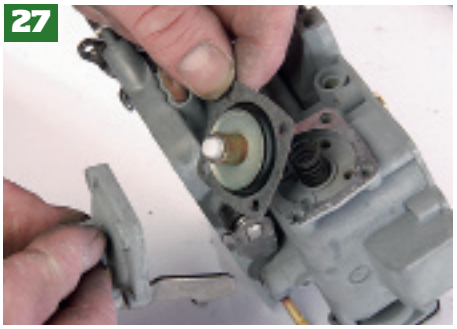


Refit the throttle butterflies and reassemble the throttle shaft linkages and springs in the reverse order to the way it was disassembled.

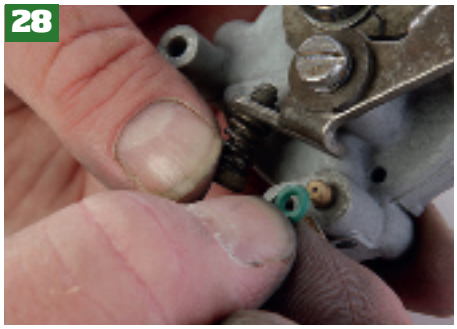
Next refit the auxiliary venturis. If they are loose they will rattle and will not work, so gentle tap the body with a hammer and punch to secure them in place.

Before refitting the jets and emulsifying tubes replace the old O-rings with new ones from the service kit. Refit the jets in the same position you marked down earlier in step 9.

Refit the accelerator pump jet and delivery valve in the centre of the main body.



Next refit the enrichment device and accelerator pump, replacing both diaphragms with new items from the service kit.



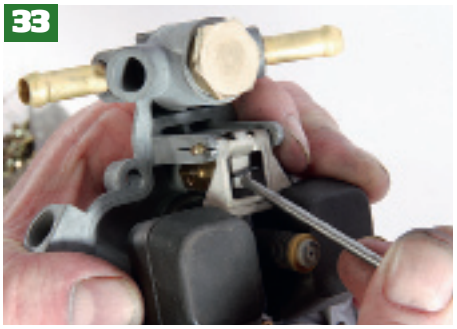
Refit the auto choke unit replacing the small green O-ring for the new one from the service kit...

...then screw the choke unit to the main body, refit the choke pull-off diaphragm, and refit choke housing. If the old diaphragm was perished new items are available from Northampton Motorsport.

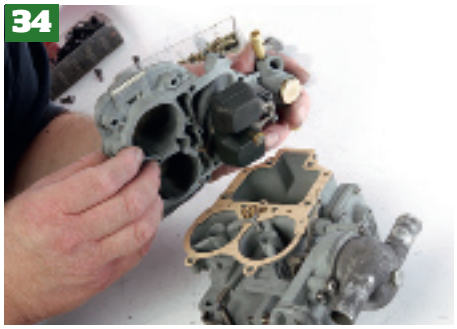
Next refit the mixture screw in the side of the main body, replacing the O-ring with a new item. To roughly get the right mixture wind the screw in all the way then unscrew by two turns.

Refit the power valve diaphragm and float needle valve into the top of the carb then the filter with the new item from the service kit and replace 19mm filter nut. Once again new diaphragms are available.

The next job is to refit and set-up the floats. Plastic floats need to be 35 mm from the surface and brass ones need to be set-up at 41 mm.

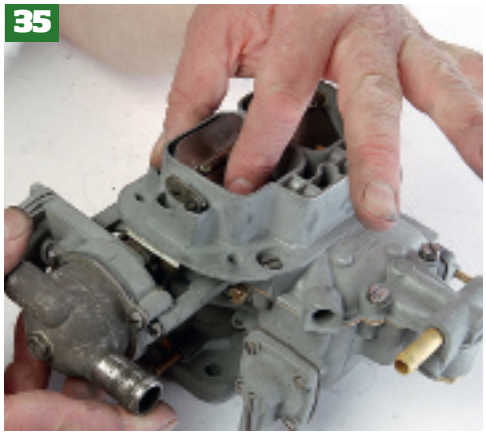


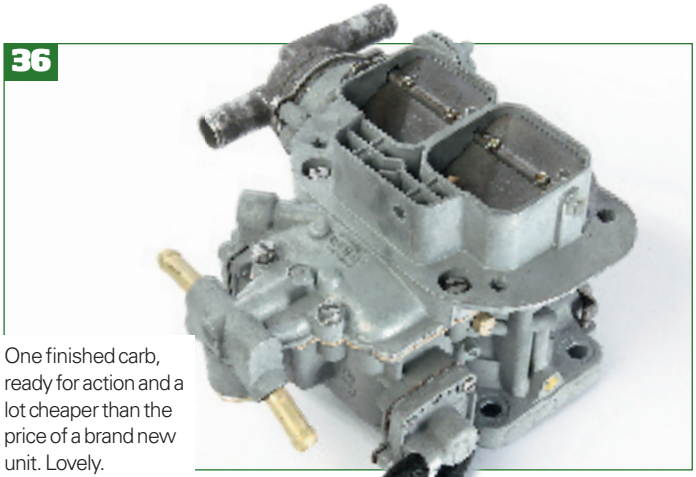
To adjust the distance between the float and the top of the carb gently push on the float tab with a screwdriver to bend it to the correct position



Fit the new gasket and refit the top of the carb to the main body. Be careful to make sure the floats stay as you just set them.

The final job is to refit the choke linkage and circlip, and set up the automatic choke unit – to do this loosen the three screws that hold the choke housing and rotate until the choke butterflies are set correctly. This can be tricky as locating the housing correctly after rotating it means loosening the centre bolt, which often snaps.





One finished carb, ready for action and a lot cheaper than the price of a brand new unit. Lovely.