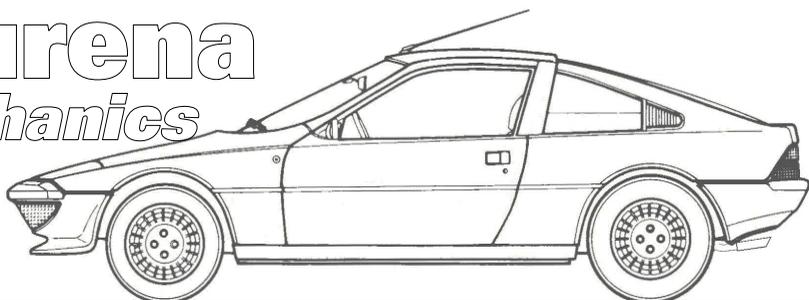


Murena *mechanics*

Roy Gillard



Twin Carburettors

As you will know the Murena S came with twin side-draught Solex 40 carburettors, also previously fitted to standard 2.2 models in the dealer 'Prep 142' upgrade kit.

Flexible mounting

All twin side-draught carbs. whether Solex, Weber or Dell'Orto, should be mounted with a flexible coupling to absorb the engine vibrations and help prevent fuel frothing. The Murena used rubber bushes and metal cup washers under the Nyloc nuts, with rubber 'O' rings in the manifold joint. (These nuts must **never** be done up so tight that the joint is solid.)

An alternative system, uses Thackeray spring washers instead of the rubber bush system and these were usually seen on cars like the Elan and Lotus Cortina with twin cam engines; or the Rapier H120, etc. The rubber bush type system is often known as the 'Cosworth' system.

Modification mistakes

Almost every U.K. modified Murena 2.2 I've come across with either twin side-draught Webers or Dell'Ortos, have no rubber mounts and the carbs. are bolted solidly to the manifold! Is it any wonder that these modified engines, don't run as well as they should, never mind the fact that their set-up is often questionable.

Even if you have a non original inlet manifold it should at least have been installed correctly, as with the original Prep 142/S models. There is no excuse for bolting the carburettors up solidly.



*Dell'Ortos removed from Murena 2.2 engine
Note incorrect solid mounting to manifold*

Incorrect manifold

Whilst many standard Murena 2.2 engines were modified by companies here, there was always the problem that they considered the original inlet manifold too expensive even though it was not really considering the special requirements.

Therefore they sourced inlet manifolds from other cars & engines with similar twin carbs. and modified them as they thought necessary. The trouble is that all these are incorrect with no lift or offset to clear the fuel tank. The left hand intake of the left carburettor will be almost up against the fuel tank, restricting the airflow and upsetting the balance, as well as leaving little room for an air box to take the air

intake down to a cooler point as with the original factory set-up.

Incorrect intake/air filter

They often fitted the thinnest of 'pancake' filters, but these are usually restrictive and you really shouldn't have the air intake at the top of the engine bay. Why? Simply, the top of this engine compartment gets extremely hot and you don't want the engine breathing this very hot air. First, it will have less oxygen and therefore less power, but more importantly it's not good for the engine internally and particularly the cylinder head which as we know, can easily suffer from excess heat.

Even in the Tagora they were prone to cracking, and their front engine bay was much bigger with more room for air to keep the temperatures down. But I have stripped two Tagora engines recently, taken from cars with low mileages (under 50,000 miles) hoping to find good cylinder heads, only to find they had small cracks too.

Water jacket spacer

One final point with a non original manifold is that the thermostat housing needs to be mounted away from the cylinder head so this will need a spacer.

Manifolds and cooling

It is worth mentioning that the standard down-draught Solex carb. sits on a water heater manifold, but the twin side-draughts need no inlet manifold heating. So Matra made a special version of the coolant pipe under the manifold for the coolant from the thermostat housing to feed back into this pipe near the thermostat housing. Also the Matra twin side-draught inlet manifold included that coolant spacer necessary for the thermostat housing.

The new version of the water pipe with the new connection point required a new hose to maintain the engine coolant circulation back to the coolant header tank, whilst the thermostat was still closed.

The original system had fed from the thermostat housing to the manifold on the right, and out on the left back to the pipe also on the left. So the special pipe under the manifold was altered with that left hose connection moved across to the right.

Those engines modified here to twin side-draught carbs. usually still have the original coolant pipe so they need a longer hose to take the feed from the thermostat housing all the way across underneath the carbs. to the original connection on the left. This can actually be the source of a problem since I have seen this hose rub through, split and cause an unseen coolant leak underneath the carburettors. So if you have one of these, please make sure that hose is supported and cannot rub on anything.

Throttle linkage

Last point about these non-standard inlet manifolds is that the carburettors will be spaced wider apart than the original and therefore the throttle link brackets are the wide ones similar to cars like the Lotus or Jensen-Healey where the side-draught carbs. probably came from.

If you do manage to get an original or a copy of the original inlet manifold, the carbs. will be closer together so the linkage will need to be shorter. I've found that the two brackets you will need are the same as those fitted to an Alfa-Romeo with similar twin side-draught carbs.

Roy Gillard