

R.G.M. MOTORS SINGLE CARB TECH SHEET

There is a choice of several different single carb conversions for the Norton twin cylinder engines, the 360 degree firing interval being particularly suitable for single carb operation. All the following offer the advantages, in differing degrees, of simplicity, neatness, economy, cheapness, and light throttle action when compared to the twin carb set up. The common choices are as follows.

S.U. supplied by Phoenix Engineering, without doubt it is the most economical, but on the down side it is ugly, expensive, and makes the bikes run rather flat. If long distance steady touring is your main activity, and fuel economy your prime requirement this is the best bet, contact Phoenix Engineering, Thrupton circuit, Andover.

Mikuni. More commonly used in the USA. These are good carbs and work well, very similar to the Amal MK 2.

On the down side spares are expensive and far harder to obtain (in the UK) than for the Amal equivalent. Unsure of supplier.

32 MM Amal MK 1 concentric, this is the cheapest of all the carbs, it works quite well as a single carb, expect a 25% improvement in fuel economy, little difference in acceleration or mid range, with a 3 or 4 % reduction in top speed. It has an additional advantage in that on a Commando with the perforated surround air filter a single entry front plate can be purchased which will allow the retention of the standard filter. On the down side these carbs do tend to wear rather quickly. Contact R.G.M. Motors.

34 MM Amal MK 2, Excellent compromise offers the simplicity and neatness of a single carb with performance comparable to a pair of MK 1 Amals, neat, easy to tune (like all Amals), rubber mounted, simplified cold starting procedure, and a larger slide area which greatly extends its service life. Expect a 15% improvement in fuel economy. All spares readily available. Contact R.G.M. Motors.

38 MM Amal MK 2, produced in small numbers for the bigger engines, (920 etc) Popular with the motocross people. For some reason almost all of these have been sent to New Zealand. Contact R.G.M. Motors.

FITTING INSTRUCTIONS.

The manifold is cast aluminium and angled so that the carburettor is horizontal in use. The automatic washing sequence sometimes leaves casting sand trapped in the manifold, please check and if necessary wash with hot soapy water. Check that all the tapped holes on the cylinder head are free from protrusions and using a non setting jointing compound fit the manifold. The original heat insulating washers, screws and washers can be used. For maximum economy the settings listed below have been

found suitable.

	750 Commando		850 Commando	
	32 MM MK 1	34 MM MK 2	32 MM MK 1	34 MM MK 2
Main jet	240/250	270/280	260/270	290/300
Needle	standard	2 A 1	standard	2 A 1
Needle jet	106	106	106	107
Slide	3 1/2	chrome 3	3 1/2	chrome 3 1/2
Pilot jet	25/20	20/15	none	15

It must be realised that no two engines are the same and the above figures represent a guide only, comments appreciated. Please note the following. If a MK 2 carb runs persistently rich at low speed, check that the choke plunger is seating properly, the plunger can be removed quite easily, check there is no dirt holding it off its seat. Sometimes a light tap can improve seating. Also check that the fork that actually operates the plunger is free in the plunger groove, and check that the float is able to operate correctly, its movement not being compromised by the gasket or whatever. If richness continues fit a number 15 pilot jet (if not already fitted).....If performance is more important than economy experiment with larger main jets.

Engines in poor condition may need to run slightly richer if performance is to be maintained.....If starting is poor fitting a slide with less cutaway may improve this with some loss of economy.....As a guide when tuning Amals the sequence is main jet, ie flat out for at least a mile preferably on a slight up hill gradient, pull in clutch, kill motor, cruise to a halt, look at plug colour, aim for a chocolate brown, any indication of a sooty colour go down, whiteness go up. Make sure you are flat out, ie over 100 MPH. Do not do anything dangerous, use a rolling road if necessary.

Once the main jet is correct go onto needle, drop needle to weaken, lift to richen mixture, run at about middle throttle position. If a satisfactory mixture cannot be obtained by moving the needle, fitting a needle jet with a higher number will richen the mixture.

Running at a walking pace and opening the throttle is slide cutaway, the lower the number stamped on the base of the slide the richer the mixture.

Tickover and slow running is pilot jet and air screw, a lower number on the pilot jet will weaken the mixture, sometimes no jet is fitted and there will in this case be a small tapped hole in the carb body. Turn the air screw either in or out with the engine ticking over until maximum speed is achieved, then adjust the tickover down to the desired speed using the slide stop screw. If it is felt to be necessary to alter the mixture at tickover by more than the air screw will allow you must change the pilot jet, on MK2 Amals this is located in the float bowl. Standard four stroke is 25, smallest, often needed on Commandoes, particularly 850 is 15.