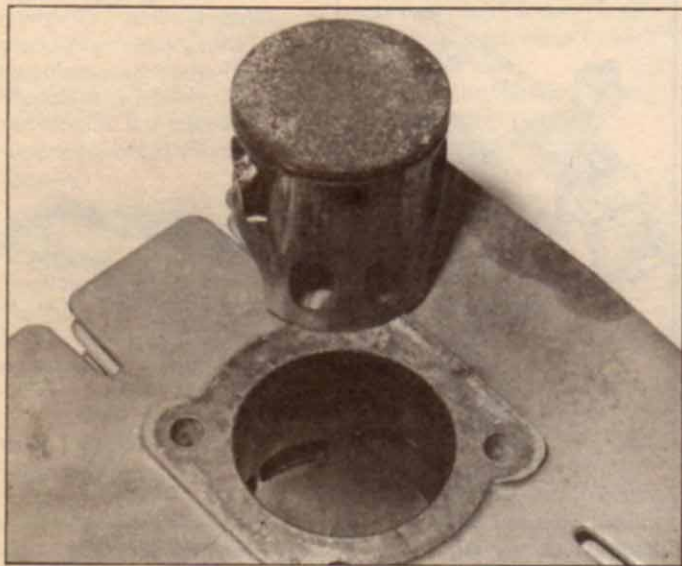


# DT 50

## PLUS TWELVE

## TAKE TWO



*Running in without the help of oil is not recommended and wins Gregory Tillson the dumbcluck of the month award.*

**T**HE best laid plans of almost anybody are often prone to being screwed up by fools. Back in the November issue, we reported on big bore modifications made to reader Gregory Tillson's DT50 Yamaha.

First signs were encouraging. In converted form the bike was willing to rev out hard and just needed some small attention to the ignition system and the gearing to get the best out of the conversion.

And that was pencilled in for the December issue. Which is where the fool came in (sorry Greg but you deserve it). Young Tillson was enjoying the new found zip of the bike on his daily hack to work and back, gently running in the new barrel and piston like I'd asked him too. So carried away was he, however, that he forgot to check the two-stroke oil in its separate tank. You can guess what followed: the engine locked solid and I got a plaintive phone call:

"Jim, me bike's seized up."  
Showing as much forbearance as I could, having already spent many hours stripping the engine to replace

the main bearings and oil seals, not to mention the clutch, small end and several other odds and sods, I promised to pop over some time soon and take a look at the damage ...

... which was quite extensive but not as bad as it might have been. The barrel was scrap, with some heavyweight tramlines cut into it. The edges of the piston ring groove had been heavily blurred over, trapping the ring firmly in its groove. On very careful removal of the gudgeon pin, with copious amounts of rag stuffed into the crankcase mouth, I extracted the small end in several small pieces (again).

The cylinder head, fortunately, was unmarked and the bottom end of the motor had also escaped damage.

It would have served Greg right if I'd just put the motor back to standard, restricted, 49cc form and told him to get on with it. Charity prevailed, however, and I contacted Arnie Fletcher of Len Manchester Motorcycles who import a Spanish made overbore kit for the DT for a mere £32. He agreed to send one and with strong notions of "having been

here before some time" it was back down to the workshop to fit it.

He Autisa kit is, as its price suggests, much more basic than the Malossi kit supplied previously by Spares and Repairs of Watford. It consists simply of a barrel and piston to which you attach the original cylinder head, carburettor and exhaust, using the original Yamaha reed valve and reed block.

Unlike the Malossi barrel, which was aluminium alloy with an electro fusion coating on the cylinder bore, the Autisa barrel is cast iron with a steel liner, like the original.

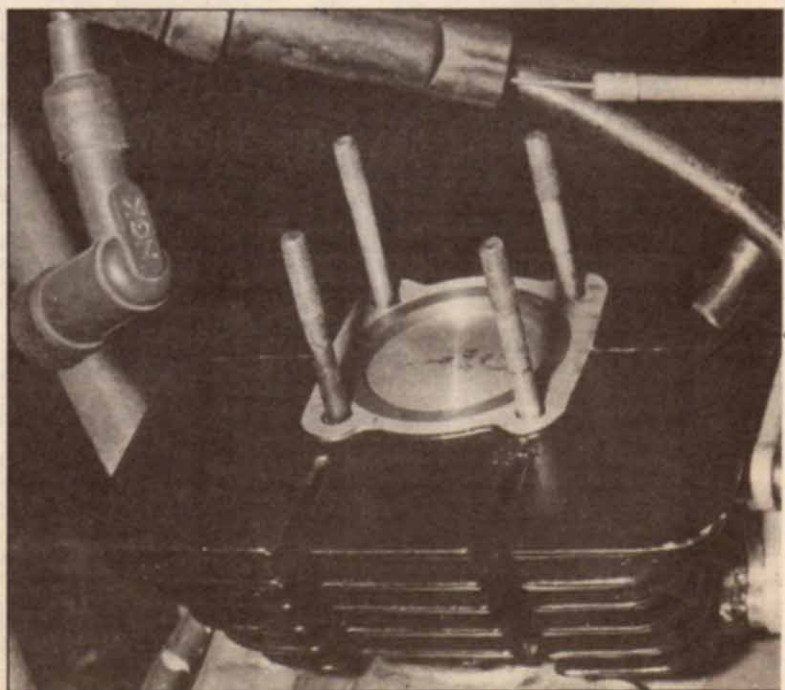
A side-by-side comparison showed that the port timing on the Autisa barrel was nearly identical to that of the Malossi barrel, the main difference being that the Autisa component had a slightly larger inlet port that opened just a tiny bit earlier.

Because of this, it seemed likely that the carburettor and exhaust system supplied with the Malossi kit would probably work well enough with the Spanish barrel so I decided to fit those rather than the original Yamaha bits, which in any case, were well knackered, particularly the carburettor.

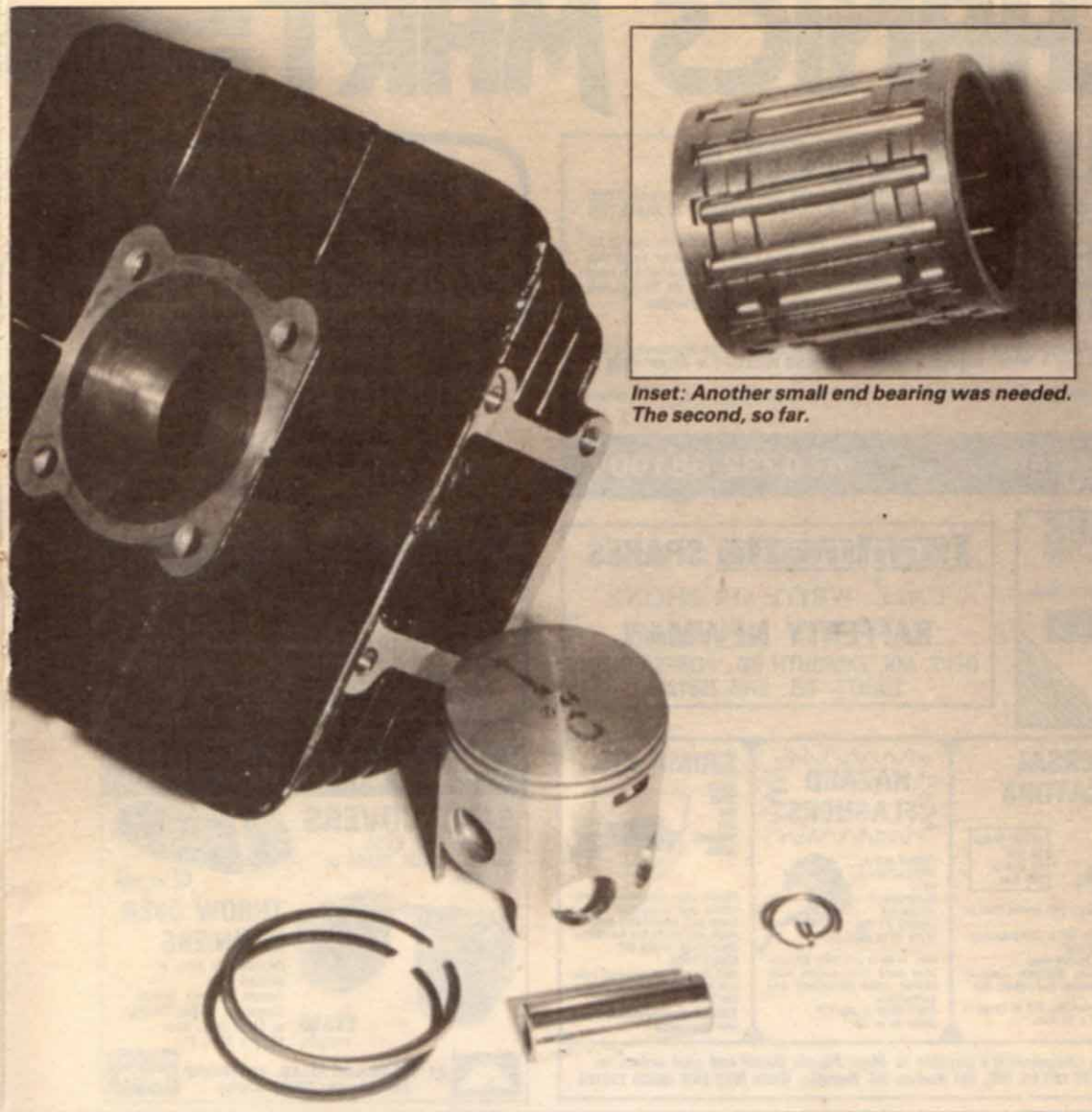
Fitting, starting with yet another new small end bearing, was as straightforward as the Malossi kit had been. Everything slotted neatly into place with no modifications being necessary. I left the jetting and reed stops as they were, although there may be some performance gains to be made in those areas provided that Greg can get through the



*The Autisa barrel and piston takes the ca*



*The barrel fits straight on with no difficulties or mismatches.*



*Inset: Another small end bearing was needed. The second, so far.*

running in period without forgetting to keep the oil level topped up.

The rebuilt engine was reluctant to fire up until I resorted to bump starting it. Once warm, it was OK although Greg tells me that he has had a bit of trouble with it on very cold mornings. There is little to choose in performance between the Autisa and Malossi barrels, judging from an initial, brief ride I took on the bike.

So now we're back roughly where we were a few weeks ago with me waiting for the engine to bed down sufficiently for final tuning and speed testing. Barring accidents, we'll wrap that one up before the next issue.

Meanwhile, what if you don't happen to have a spare carb and exhaust system kicking around as we did. Well, the carburettor is very restrictive due to its small choke size. That can be partially remedied by having it bored out and then jetted up. Remember though you can only bore it to a diameter equivalent to that of the throttle slide or said slide won't fit any more.

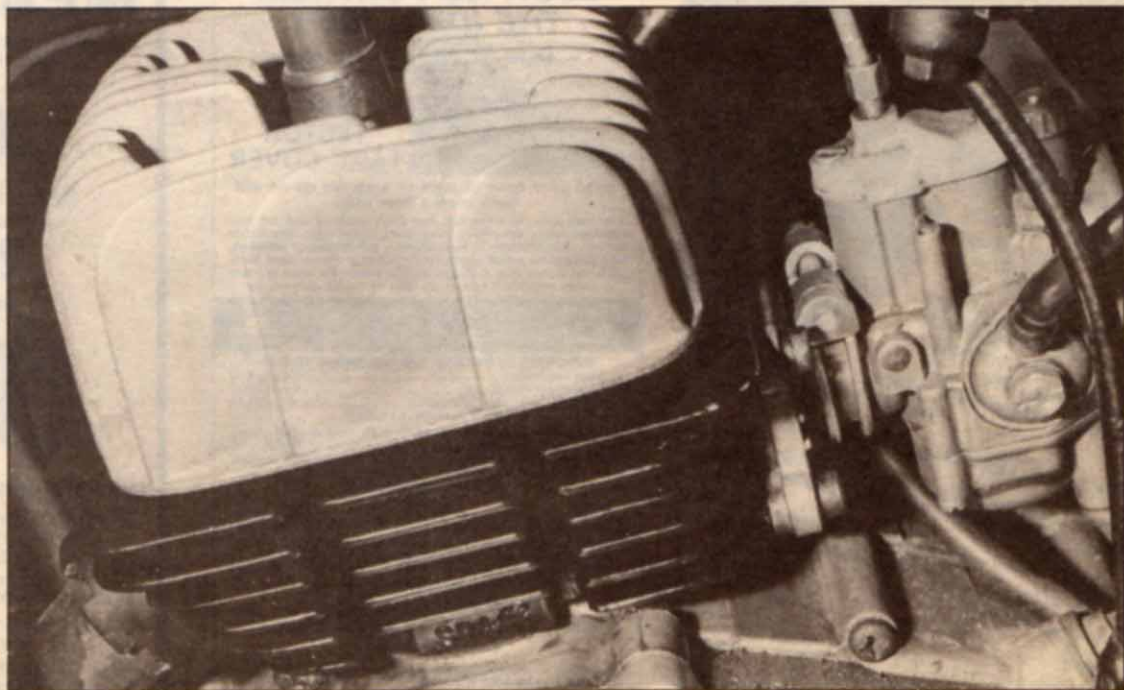
It would probably be easier to buy a carburettor from an 80cc two-stroke secondhand from a breaker and then jet it to suit the engine.

Unless you know what you are doing, it's best not to tamper with the stock exhaust. An aftermarket system is your best bet.

And the final part of this extended feature will appear next month. See you then and don't forget the oil Greg!

**Jim Lindsay**

*Capacity out to 62cc and comprises the bits shown here.*



*The standard cylinder head is retained with the conversion.*

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