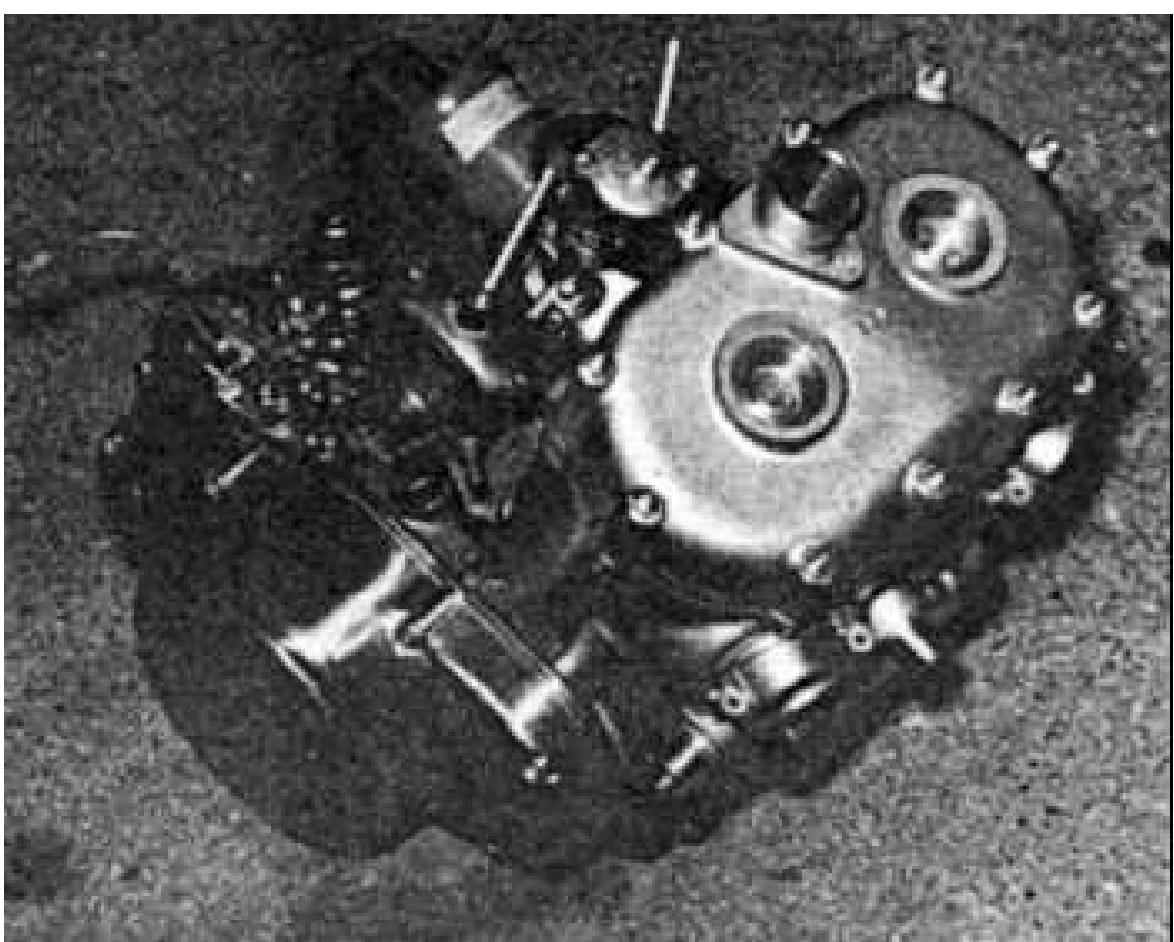


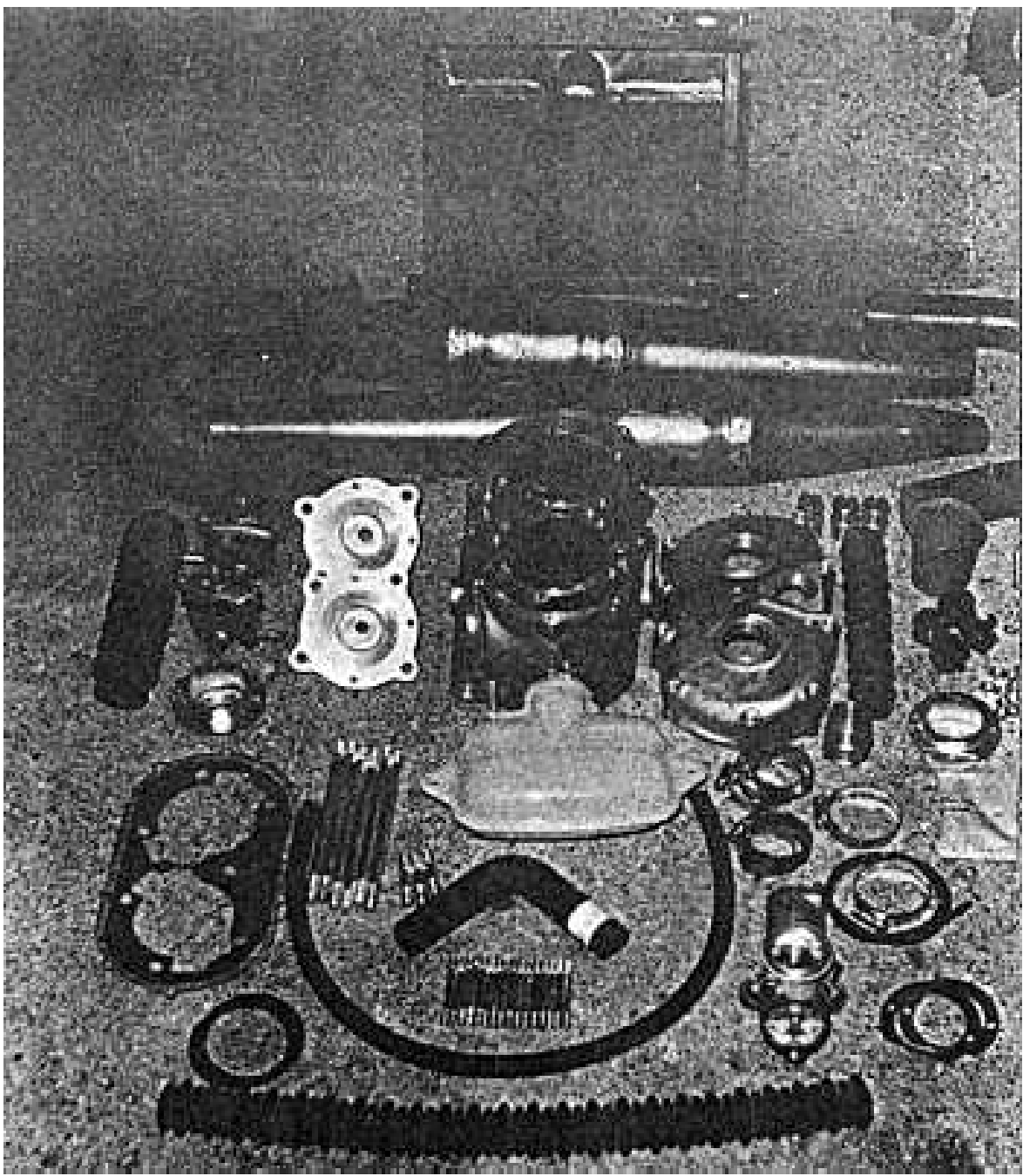


## Hi-Tac's Suzuki 500

In 1972 Peter Inchley, ex-Norvil chief, went his own way with the Hi-Tac organisation. Hi-Tac produced kits for several two-stroke machines including the T500. Peter Inchley saw the need to stabilise two-stroke engine performance by water-cooling the engines. He made no porting modifications to increase performance but sought to control the temperature of the cylinders. Having control of the of the cylinder temperature allowed for much more scope in the engine specifications. For example the Suzuki could now run at reduced piston clearances of 0.002in giving better compression and reducing blow-by of the rings. Because of the increased control of thermal loading a much higher compression ratio could be used. The water-cooled cylinder block had spun cast iron cylinders which can be removed for porting and re-lining. The Suzuki used a single 38mm Amal Concentric carburettor which gave considerable flexibility to the motor with no noticeable loss in top end performance. the kit also included expansion chambers. Hi-Tac also worked on close ratio gears for the T500, CDI ignition systems, nickel cadmium battery packs and a contact breaker trigger ignition system to replace the points setup. Used with the CDI this system gave consistent timing up to 14,000 rpm. The water-cooled conversion retailed at 318 UK pounds. Has anyone seen one, got one or some pics and will Father Xmas please send me a kit?



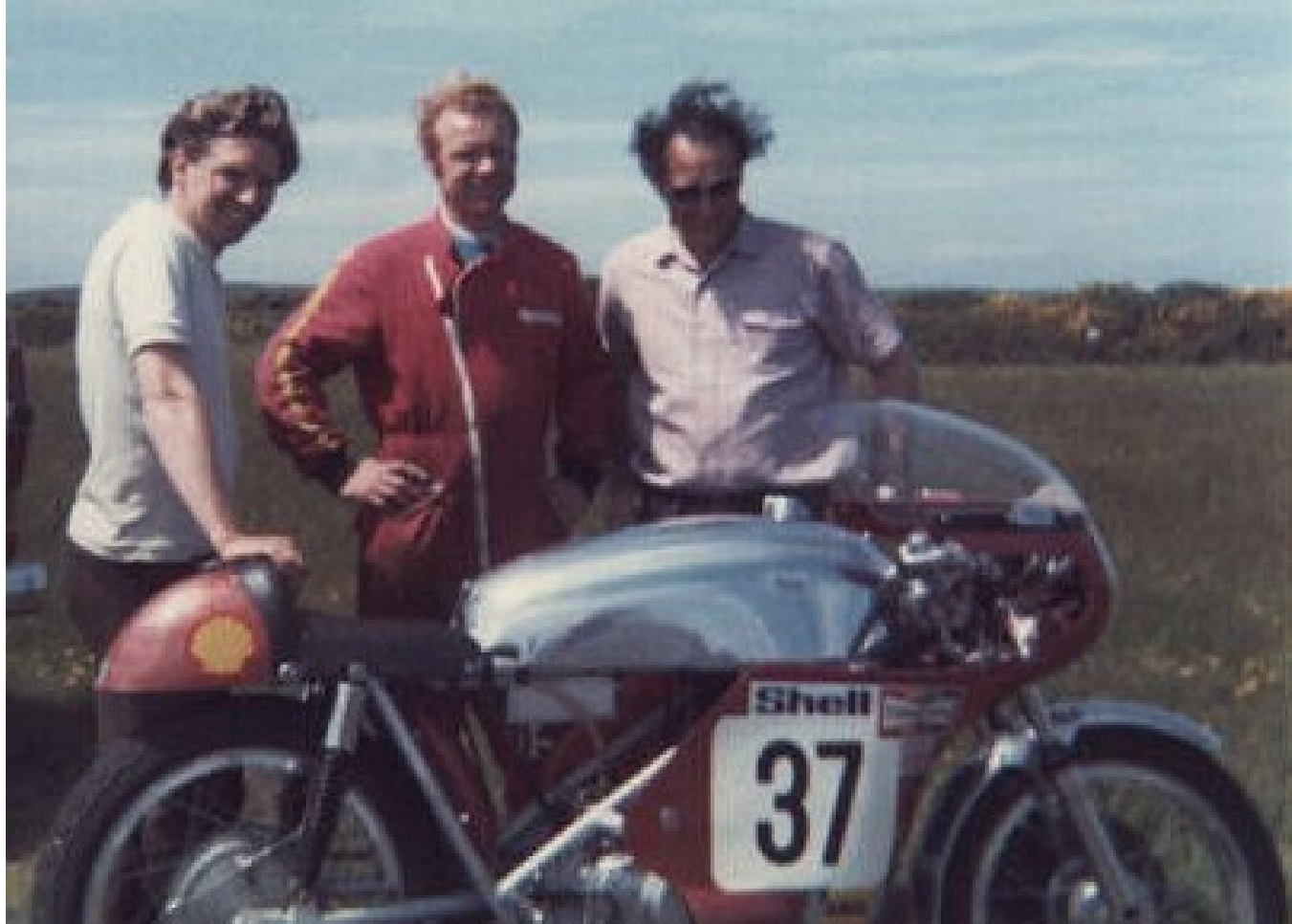
The full kit!



From: Peter Inchley 1 Apr 99



pic 1. Charlie Sanby, our rider, astride the bike at Jurby airfield in the Isle of Man. Poor Charlie is now dead I'm afraid. Died at quite an early age.



pic 2. Me, Dave the mechanic, and Frank Higley (my Hi-Tac partner, also now dead) at Jurby.



pic 3. my son Graham on the bike.



pic 4. Me at work on one of the motors.



pic 5. Charlie getting ready for testing at Jurby.

Let me tell you a little about the development programme. the air cooled 500 Suzuki in racing trim was producing about 60 bhp, and I was confident this could be easily improved upon with watercooling and extensive port mods. Indeed the first run on the dyno with the prototype showed 72 bhp which was a good start.

Our biggest problem was getting a reliable ignition system, and we ended up with a Krober electronic ignition. The first one was perfect, but that is always the case!! We kitted out 14 motors with stock Krober systems, and every one gave us major problems!!!!!! We were getting extra intermittent sparks at about 50 degrees before TDC, and this resulted in the pistons disintegrating into millions of pieces. During this period we lost a lot of good customers of course. Krober denied any problems, but declined an all expenses paid trip to see the problem for themselves on our dyno.

However we persevered, and corrected the problem by ourselves. Next we went to twin 1.5" Amal GP carbs, and with further port and exhaust work we got 84 bhp. We were estatic and took the bike to the Isle of Man for the TT and Charlie got a very creditable third place, and we were at long last faster than the quick 350 Yamahas!! Bearing in mind the excess weight we were carrying we were well satisfied with that.

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Sad to say, since this article was prepared, Peter Inchley has passed away, I am honoured to provide this page in his memory. Vale Peter.  
Murray 2004





# Hi-Tac's Suzuki 500

Tam Byrne has sent us pics of his interesting Hi-Tac 500



THE FRAME IS A SPONDON, OF AROUND 1973/4, THE TANK IS VERY NARROW BUT DEEP, HOLDS AROUND 4 1/2 UK GALLONS, WITH THE WELL IN THE TANK IT OFFERS A HEAD OF FUEL TO THE CARBS, GRAVITY FEED, NO PUMP



# Hi-Tac's Suzuki 500

Barry Sheene with the new water-cooled T500 based Hi-Tac Suzuki in 1971







#### Hi-Tac Watercooled 500cc Twin

Based on the Suzuki T500 bottom end, the UK built Hi -Tac water-cooled 500cc twin was an interesting attempt to build a sports road going 500 and a successful road racing engine.

Thanks to Bas Völlink for the pics.....seen at the Bikersclassics in Francorchamps this year (2005) a beautiful job and I would love a set of those pipes!

