



Pavel Simak's 37 Scott

*What a GREAT PICTURE to start off
the New Year!!!!!!!*

1937 Scott. Any gen anyone???

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EJP

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Stuff from Ted the Ed!

*Now then, now then, now then Guys and
Gals!!!!!!!!!!*

(The late Sir Jimmy Saville quote)

First of all can we wish our reader a Happy and Prosperous New Year with many trouble-free Sott miles under his/her wheels

Herewith our latest offering, compiled with the help of more and more contributors. All most welcome. Can I thank you all and especially the “backroom boys” who make this occasional newsletter possible, all of whom lead full and busy lives. We do rely on the help of Rogers family to post these offerings, contributions from around the world and input from various sources. I myself seem to have embarked on a third career as a session musician with gigs and recording sessions around the country hence it’s somewhat erratic apearance and my forgetfullness regarding who posted what and which pics appear in which article. *(Grovel! Grovel!)*

However, here we are in 2012 with another fun-packed year ahead of us. As I recently passed a life milestone and am shortly to recive my Old Age Pension I decided that the most sensble use for this windfall is to put some of it towards my low-key racing career. Hence the complete strip of the MPG Scott which will be modified with better brakes etc and stuff gleaned from trying it out last year at Cadwell Park, Lincs My favorite circuit!!!!!!!!

So!!!!!!!!!!

Here’s to2012!!!!!!!!!!!!!!!!!!!!!!

EJP

Latest Pics of the Bob Collet 4 Cylinder Scott!!



We are pleased to run the following to help the Scott Owners Club and all Scott owners.

FORWARD

When it became obvious that I could not fund the future production of 600cc pistons privately, I wrote the following for the Scott Owners Club magazine "Yowl" so that members could consider if they wished their club to fund this project from club funds or by means of an appeal to members.

In case there are a number of owners who subscribe to the Moss Newsletter but are not members of the SOC who wish to register their willingness to contribute to this project, please contact roger@mossengineering.co.uk

PISTONS

For the special attention of owners of Scott 600cc Long stroke, Short stroke and Silk engines.

Original die casting piston dies for these models held by Hepolite were scrapped years ago.

David Holder has a set of private metal dies but it is suggested that Hepolite would require a minimum production run of 500 pistons.

When George Silk faced this problem, he was obliged to buy a minimum batch of 1000 pistons finished to one size only. Because of this, the Silk engine was designed so that instead of replacing pistons with an oversize item when the engine was worn, the engine needs to have replacement cylinder liners fitted. This is considerably more expensive individually, but was the only acceptable solution for manufacturing. The Scott cylinder blocks were not designed to accommodate liners.

The Silk die cast pistons are a good quality product as the wall thicknesses are as lightweight as can be achieved whilst retaining reliable strength.

What are the drawbacks of using Silk Pistons for our Scott's

1) They are 3" diameter pistons so unless you can manage to withdraw the ring stops, and deepen the ring grooves without making the ring grooves oversize, a rebuilder must rebore to suit the existing Silk pistons.

Furthermore, the thin walls preclude any significant reduction in outside diameter.

- 2) The taper on the Silk pistons is not suitable for iron Scott engines, so in order to correct this, the pistons must be set up and reground at extra cost. I bore to 75.70mm dia and grind Silk piston skirts to 75.60mm and the body of the skirt progressively to proven sizes.
- 3) The ring grooves are no longer deep enough so Triumph T140 rings are purchased which have a radial depth of 0.125". These are then set up in a special workholding fixture and their inside diameter bored to give a radial depth of 0.110" which was the dimension of original Scott rings.



- 4) A 600cc Long Stroke engine standard bore is 2.875" diameter and top oversize is 2.9375" dia. The piston protrudes from the bottom of the barrel skirt at the bottom of its stroke, so that the lower portion of the crankcase must be big enough to accept 2.9375" plus some clearance. The clearance is approximately 1/16" i.e. 3 inches and the skirt of the Silk piston is 3" less a

few thou. The crankcase now needs setting up on a boring machine to increase the size of this clearance to give a safe margin.

5) As we can only reduce the Silk piston a very small amount, then we are forced to bore our economically irreplaceable cylinder blocks to the maximum bore they will accept, even though, were a range of smaller pistons available, then they could have been rebored to a considerably smaller size, which leaves the possibility of being bored several more times before its life is finished.

6) The residual stock of Silk pistons held by Clive Worrel is modest and finite. When they are gone, even this somewhat inconvenient solution will no longer be open to us.

So, what are the options?

Unlike the majority of four stroke engines, we cannot find a similar useable piston. As the Scott and Silk use the Day Cycle Deflector piston we are on our own!

a) We could commission new metal dies and get die cast pistons made, but the costs would be totally unacceptable and this would not give us the ability to accommodate a variety of sizes and models

b) We could use sand cast blanks which we could machine up to make pistons. Without doubt, this would be the cheapest option, but it is not possible to control the size and shape accurately, so extra metal must be left to leave thicker and heavier pistons. Remember it is not possible to machine the inner profile of a piston to correct uneven and overly thick and heavy walls. No credible manufacturer would use this method as the extra weight imposes much greater loads on the bearings and shortens crank and engine life.

c) Bearing in mind that the above two methods were unacceptable as regards cost and quality, we needed another answer. The most suitable method would seem to be "Investment Casting" or as it is often known "Lost Wax" In this method a less expensive mould is made from Aluminium and a special hot wax injected into it under pressure. When the wax impression has cooled and hardened, it is removed from the mould and dipped into a ceramic semi liquid like the "Slip" used in the pottery industry. After this has set, the outer is built up by progressive coats of ceramic slurry until the whole is quite strong. The ceramic shell is now heated and the original wax impression is poured out (Hence "Lost Wax") At this point we have a very smooth and accurate cavity where the wax had previously been into which we can pour our aluminium piston alloy.

When the piston alloy has set, the ceramic mould is broken to release the

piston blank with finished deflector and internal profile. There just remains the heat treatment of the piston blanks to finish this stage

With this method in mind, we started to consider the design of what could be made. We were very lucky to obtain a copy of the original Hepolite engineering drawings of the Silk pistons. Ted Hills, our designer, drew these out again on CAD and having the advantage of all that computer aided design can bestow, we set about modifying this proven design to be more suitable to use in Scott engines.

As most existing Scott cylinder barrels will have some wear, we elected to reduce the internal diameter of the proposed pistons by 1.75mm (approx. 0.070") In this case if the outside diameter is machined to leave a wall thickness that is identical to the existing Silk piston, then the block will only need to be bored to 73.95mm (2.911") leaving the possibility of several future bores. As the wall thickness of the Silk type of piston is quite thin, it would be possible to machine the outside of the piston blank to at least two oversizes before the extra wall thickness started to add significant weight. It should be clearly understood that the accuracy of the internal profile of the piston is by far the most important aspect and it is planned that although the deflector would be finished, the outside diameter of the blank would be left oversize for the rebuilder to finish to suit the engine in hand.

The internal profile of the gudgeon pin bosses are designed to be oval by 1/16" in the vertical direction and the walls round the gudgeon pin bores to be increased slightly to add strength from experience. The overall length would be left longer.

The short stroke piston has a dimension from the crown of the deflector to the gudgeon pin centreline that is 1/16" greater than the long stroke piston whilst the distance from the gudgeon pin to the skirt is the same. The modification to the gudgeon pin bosses and overall length therefore makes it possible to manufacture both long and short stroke variants from these precision blanks.

When, as is inevitable, the residual stock of Silk pistons are exhausted, then these piston blanks can be used to make pistons for Silks, as it is only necessary for the bespoke manufactured liners to be made slightly smaller in their bores to suit the available pistons

We have quotations from one supplier of a mould price of £5500 and pistons in batches of 50 at £40 each, making an outlay of £7500. This is totally uneconomic for a single private person to fund.

My suggestion is that the Scott Owners Club buys and owns the mould and stocks the blanks that can be sold to anybody. To ensure the future of the majority of the bikes in the club would cost each member about £10. I ask if those who feel willing and able to assist would register their interest with Eddie Shermer in the first instance so we can judge if there is enough interest to make this project possible. All technical work by Moss will be free of charge as our contribution.

Eddie Shermer as Editor of Yowl, has a seat on the management committee of the SOC and can present the feedback to the general committee, who can then make a decision of if, and hopefully, how to proceed. I (Roger Moss) am just a normal club member so can have no input in these matters.

Other variants

We have considered whether using 3D laser prototyping is a viable alternative to manufacture a mould in thermal set hard resin rather than an aluminium mould made by conventional machining methods. So far we do not have enough information to evaluate this, so if any member has experience in this field, then all advice and help will be gratefully received. If enough interest is shown and the SOC committee wish to proceed, then we will get further comparative quotes to ensure we would be able to get the best value. Any technical queries or suggestions to roger@mossengineering.co.uk. Please help us ensure a future for most Scotts by registering your interest with Eddie Shermer as inside Yowl front cover.

There is no convenient and cheap answer to this problem and I believe that the method suggested will provide the best compromise solution to the majority of Scotts in use. The comments apply to other piston sizes, but unless the emerging field of 3D Laser profiling can provide an answer to producing the moulds for the wax impressions at a significant savings over conventionally produced multi part aluminium moulds, then the costs to provide for other less common sizes would inevitably be high per piece part.
Roger Moss

The Intrigue of the Two-Stroke Engine.

Bob Mather. Australia

My first powered two wheeler back in 1958 was my push bike fitted with a 32cc Cyclemaster engine, an amazing little engine fitted with a rotary valve. It wasn't long before the question arose, how can I get more power? A fellow apprentice on a sheet metalwork course came up with a new exhaust system which improved things somewhat and I soon learnt how to keep the carb. set up correctly depending on whether it was a hot or cold day.

The following year, a 1954 James Colonel with a 1H 225cc Villiers engine took over. I used to avidly read any articles on two-stroke engines and their improvement performance wise. The James was geared higher than standard, the compression ratio increased, ports filed out, a slightly larger Amal carb. fitted and a longer Villiers silencer fitted to which I welded a 3/4 inch washer on the outlet, which puzzled a lot of people. All these modifications made a big difference to performance, it was fun to ride and it did 100 mpg.

Move forward to April 1963 and I bought my first Scott, a 1957 Brum Scott with a left over DPY engine, which Harry Langman had built according to Tom Ward.

Another apprentice built a stainless steel expansion box from dimensions in Tuning for Speed. It didn't go any better(it was a very quick bike anyway) but gave a fantastic exhaust note, rather noisy and only fitted on runs to Cadwell park from near Nottingham.

I built a twin resonant exhaust system, which didn't work, had a weird ringing exhaust note and the bike drank petrol. This was soon removed and

shortly after in 1965, I came out here to Australia and the Scott arrived 3 months later, partly dismantled in a crate. It was put back together and the next morning I rode from north of Adelaide via Melbourne to Sydney, 1253 miles in two days.

I sold the Scott in Sydney in 1967, I believe the first Brum Scott in Australia.

In 1997 while on holiday in England. I bought a 1932 open frame Flyer and I

have done a lot of work on this bike to improve performance including gas flow improvements, lightening and over 25 different variations of exhaust.

All these exhaust experiments with a resonant system gradually gave me more

and more torque with a few exceptions, in fact a really big improvement, but after a while I gradually started to lose top speed at the same time.

By now I had learnt a fair bit about resonant exhaust systems by trial and error and have got a load of rejects and superceded designs. I have got the overall tuned length sorted, but had a good think as to where the top speed was being lost, so one evening armed with paper, pencil and a calculator, I worked out at what degree of exhaust port opening the returning negative and

positive waves arrived at all different revs.

and found the header pipe had gradually got too long resulting in the negative pulse arriving too late to evacuate the cylinder and also draw fresh charge up the transfer passage.

In fact my calculations on the length of header pipe fitted came within one mph of the top speed obtainable. This was very encouraging as I must be on the right track. I then worked out what length I needed to compliment the overall tuned length of the whole system to get a higher top speed and found

I couldn't get it as short as required due to the fact that the bike is on what is known as Historic Registration with rules of no modifications to increase performance. All the expansion box and silencer parts which incidently reach to the very rear of the bike, are hidden in a long body which looks like a Silk silencer. If the pipe was made to the ideal length it would look too obvious so I have shortened it as much as possible and lengthened the expansion box the same amount to retain the overall tuned length which has given me back my top speed.

Next the old Lucas magneto became unreliable and hated moisture. Peter Scott's magneto had failed completely so we decided to fit BT-H self

generating electronic magnetos. Next problem, magnetos to suit Scotts were no longer made. After a lot of hassle, we managed to get two magnetos specially made, anti clockwise for me and clockwise for Peter.

I thought that will fix my ignition problems. WRONG!
Without touching anything else, the old magneto was removed and the new one fitted. I set the ignition timing to 33 degs. BTDC as was the old magneto



and went for a ride. The bike ran horribly, wouldn't two stroke properly and was just generally unpleasant to ride I can't stand a badly set up engine. Before I had the engine set up so the engine ran smoothly right through the range. To say I was disappointed was an understatement.

Next I started to retard the ignition bit by bit until things improved and eventually found 21 degs BTDC the best setting. The carburation was way out,
much too rich, so I worked on the mixture strength until finally the engine ran properly as it did before. To get to this state of affairs, the needle had to be dropped two grooves, it is now in the top groove the lowest setting.

Peter Scott also had to retard the ignition on his longstroke. His engine is

also running too rich, but he hasn't tried weakening it yet.

I find it amazing that removing the old magneto and fitting the electronic one can throw the settings out so far from what they were originally. 12 degs. retard and dropping the needle two grooves is a massive difference.

The bike is now really lively and uses less fuel.

It's not too weak, I checked the radiator and crankcase temperatures with the wifes infra red thermometer and it is running no hotter than it used to.

Regards,
Bob Mather.
Carey Gully
South Australia.

Selling Scotts

Paul Whitehead, Zambia.

On the subject of selling Scotts.I have not really considered it as 6 of the 10 came to me in bits.

In fact of the 12 I have owned only two were bought in a condition where they could be started.

I have recently sold 2-a 1930 Flyer and a 1956 Birmingham model.

They were both duplicates and the inferior of the duplicates.

As I have collected the machines they have each come with their cache of spares, so my spares stock is considerable.

Mostly components that were discarded in rebuilds so they are somewhat tired but serviceable with work.

It is my intention to get all machines in excellent condition before I sell as in their current form they are probably worth very little.I dread the thought of selling the machines when I know that they are in need of sound engineering

and that most buyers may well not bother so another wonderful Scott gets consigned to a dusty corner awaiting an engineering miracle that never comes.

This may well be different in the UK but here people buy a Scott and call me requesting advice.

The advice is given and that is the last I hear from them-I never see the machine running and if occasionally I see it at a club event it is invariably retired on a trailer.



But all this aside I will consider selling but only when I have completed them and are satisfied that they are in a condition that ensures their preservation.

I have one 1979 Silk, one 1961 Brum, two 1937 Flyers, two straight back Flyers 1927 and 1928, three 1929 deluxe Flyers and two 2 speeders -1929 and 1925.

With regard to spares I have frames, crankcases, cylinder blocks, pistons, flywheels, gearboxes, clutches, undertrays, forks, oil pumps and at least 10 pairs of con rods plus many miscellaneous other bits.

It is unlikely that I will need much of these as my machines with the exception of the 1925 two speeder are all complete and what needs replacement will be refabricated as they are mostly the sensitive bits that

wear.

Again I am reluctant to part with these until my machines are finished.

But again I need to be realistic and fair to others.

What I should do is catalogue it all and exchange bits for some of the missing bits for my 2 speeder.

I also would love a racing engine from you so may be we can arrange some form of trade?

Regards

Paul Whitehead

Engineering Words from Roger Moss

Dear Paul

I suggest that you remove crankpin screws, outer roller plates and with a small magnet, the rollers

Keep the rollers identified to side and before you remove them, clean outer face and mark so you can replace the same way round if reuseable

Now check roller sizes and condition and condition of the crankpin bush and the rod big end ring

Look carefully at the outer roller plate to see if it is flat or dished

Hold the rod big end and see if you can detect movement in the little end

Send me your observations and if possible photos of rollers, outer roller plate and big end ring

I have exchange short stroke rods, gudgeon pins in 5/8" and 16mm (Plus approx 0.005"), crankpin bushes for Scott and Moss sizes but with a small

allowance for honing in the bores. You really need the services of a knowledgeable workshop if you want a rebuild done in South Africa and I would suggest you contact

Peter Bosson

9 Kompanie Road

Melkbosstrand

Cape Province 7441

South Africa

tbreng@yahoo.com
021 553 3228

Peter and his son are experienced in rebuilding two strokes and I believe he helped Ken Mercer with his Scott

Ken Mercer
11 Hadedda Street,
Durbanville, 7550
South Africa.

0027 21 9752339
mercerk@telkomsa.net

If you have blueing of the roller plates, then it is very likely that the truth of axis of the little end bush in the rod is out of tolerance
If the outer roller plate is dished, then this would indicate quite a bad error

A set of exchange rods would cure this, but you would need to know the condition of the gudgeon pins and the bores in the pistons

Obviously I can supply sets of rollers

Ironically, before the Scott big ends were made wider from 1/4" to 3/8", the adverse effects of rod little end bore alignment errors were much less

One thing I have not mentioned as it really goes without saying---

Check that the crankpin bushes are not loose on the crankpin

If rod wag, caused by slope error in the rod LE bush, is excessive, it will try and lock the rollers against the crankpin bush and skid it round rather like a sprag clutch

This then wears the crankpin oval and tapered, then you really do have problems which can only be cured by a special set up and regrinding undersize and have undersize bore crankpin bushes

In your case, if this is so, use the Moss / Waye cranks you have
These are from 1997 when I researched the strongest steel for cranks which at that time was obtainable in the USA.

As I wanted the cranks heat treated in the USA by a company used to dealing

with this special steel for MacDonal Douglas and NASA, I had the blanks machined at a small company in Santa Barbara in California near to where Clive Waye was working. I asked him to organise the movement of the

blanks
to and from the companies for me and then ship to me in the UK where I did
the final grinding myself.

Clive asked the company who did the CNC machining to put his name on
the
cranks also--

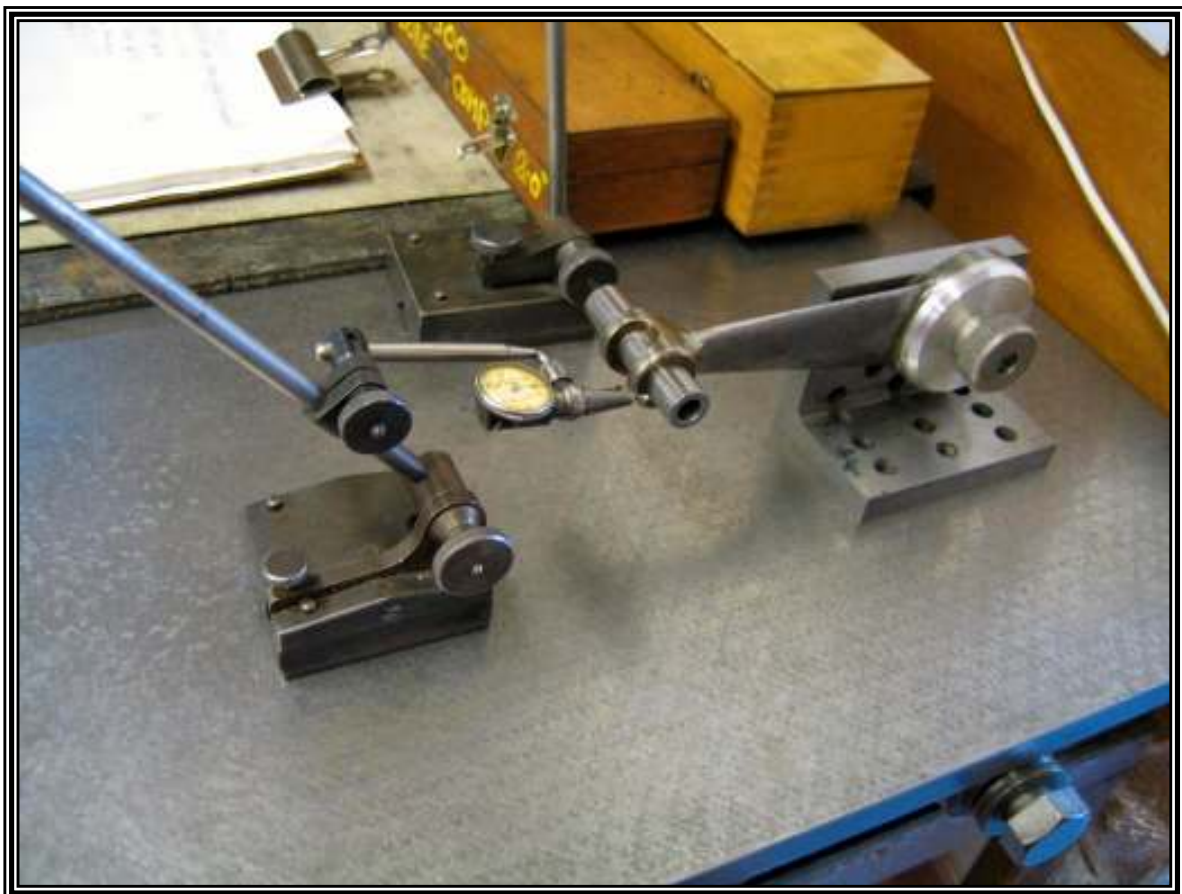
Later batches were all produced entirely in the UK as this steel was
produced for military aircraft and Airbus projects by Corus and heat
treatment was available at Bodycote.

Before any decision is made about your engine, more information is required

I send Kindest Regards

Roger

Pics Checking rod LE alignment to be within 0.0015" per inch maximum
Blued rods at top indicate LE alignment error in slope, i.e. the LE bore is
not parallel to the big end axis and so slides from one side to the other in
use



Please note that on my engines, I not only ensure alignment accuracy in the LE bores, but control the side float in the pistons by shimming.

Blued rods at the bottom indicate an error in twist in the LE bore, so the reciprocation action is trying to twist the rod BE against the roller plates first clockwise then anticlockwise during each stroke---

The poor engine! Slope error is more harmful and these examples are relatively mild, but believe me, I have seen some horrors that have done great damage to newly rebuilt engines within 1000 miles. I should be grateful really as these errors have kept me busy for years!

But then, engineering and true Precision Engineering are different!



From Paul Whitehead SA

Dear Roger,

Its Paul Whitehead from South Africa. You made up a Silk Carb needle for me

some years back.

I have been very busy over the last 5 years or so and have had to ignore my Scotts and in fact all motorcycling.

I have now rejoined the SOC and am trying to pick up on where I left off.

Just to complicate matters I have entered our Durban to Johannesburg rally and have entered my 1927 Flying squirrel-long frame and straight back crankcase.

I need your advice on the following:

When I last rallied the machine in about 2004 although it completed the 700 km 2 day event without a problem when I was preparing it for the 2005 event

I noticed that the race plates on the big wend had blued. I was not sure if this was a new occurrence or some old injury.

I retired the bike for 2005 and rode a 1928 Sunbeam instead.

I bought the bike in Zimbabwe and although it looks somewhat ratty it has always gone exceedingly well. I am not sure if it is a 498cc or a 596 cc as I have never had the block off. It is an FZ crankcase. It has a suction oiling system regulated by two needle valves. The oil lines are transparent and the best oiling check is a visual one on the pipes which are routed from the oil tank to a needle valve block mounted on the back of the lefthand side of the radiator and thence to the two crank chambers. I have run it in a Stihl 2 stroke oil. The engine compression is good .

Now that I wish to rally it again in March 2012 I have been pondering the problem of the blued big end.

I could just close my eyes and ride it however the thought of breaking a crank and wrecking the crankcase haunts me.

I do not have the space to strip the engine ,diagnose what remedy is required , order the parts or have the machine work done and then reassemble.

According to all I have read the blued race plated could be caused by a

number and combination of factors. Mis aligned main main bearing cups, oil starvation, mis aligned con rods/big end and small end.

As an interim remedy in order to protect the crank case I am considering the following:

1. Assume the main bearings are ok and from what I can tell the crankcase has never been welded.
2. Replace the cranks with a MossWaye SS crank set which I bought from the spares scheme some years ago.
3. Replace the rods with a reconditioned set from you.
4. Replace the crank pin sleeve race plates and rollers to the big end.-Are you able to supply these so that they will fit the Moss Waye crank without my having to get the crank to the UK?
5. The small end will have to be pressed undersize and I will have to get it fitted to my gudgeon pins.

I realize that this is not an ideal strategy and that if the problem is misalignment of the crank in the crank cases the big end will just destroy itself again.

What the above will achieve however will be to replace the existing crank with a far stronger one and in the case of failure will hopefully only confine itself to replacing the race plates, rollers and at worst the conrods. The crankcase will be protected.

My question to you thus is:

Do you see any flaws in the logic and remedy?

Can you supply me with:

- a. A reconditioned set of SS conrods. Small end to be undersize to allow final fitting here to existing gudgeon pins.
- b A pair of crank pin sleeves, raceplates and rollers all to fit a MossWaye crank.

I would appreciate your comments.

Regards

Paul Whitehead

The Continuing Saga of Richard Moss's Racer



Roger tells me the enclosed Pics of the Scott with the new racing exhaust are his Wedding present to his son Richard.



From: JON HODGES [mailto:jonh7r@gmail.com]
Sent: 30 December 2011 14:58
To: roger@mossengineering.co.uk
Cc: editorejp@live.co.uk
Subject: Mystery Machine

Hi Roger

The basis of your mystery machine was easy to identify for me having owned an example of the complete machine for many years. It is a 1948/9 AJS 7R. It does look as though the front forks may be the later shorter ones. I attach a couple of pictures of mine taken many moons ago one of which is road going trim with speedo and Burgess silencer.

I wish you all well for the New Year

Jon H



Triumph in the West

©EJP

Dreaming and Working.

As we thump out of Kyle towards the Achnasheen road the sky clouds over from the West and drops of rain spatter my sunglasses, turning the unfolding vista into a fragmented, prismatic world of blurred shapes and light. It was only a light shower and I turn left to attempt the climb. By now I can tell if the bike will achieve the task and know that this time, even after 200yds of heavy pedalling, we will not make it. This causes no frustration as by now patience has become second nature. I just turn the outfit around and coast to the bottom of the hill. The showers return as I change to the small belt. As usual a couple of people stop to ask if they can help. I decline and carry on working, chatting all the while to a middle aged woman and a young girl about the practicalities and dangers of using a 1914 bike on the roads.

They are both motorcyclists and own a Harley Davidson and 1960's Triumph respectively. There is a refreshing openness about female bikers, a self confidence, a polite assertiveness with a complete absence of any "mind games". It occurred to me that the ideals of the Feminist movement are encapsulated and have been put into practical every day use by these charming women. No wonder the "Housewife" types put them down and men seem threatened by them. Practically, however, the girls are locals and tell me about the road to Kishorn and the Pass of the Cattle, giving me the benefit of their experience on their own bikes. From this I know it is just my sort of going, the objective should be difficult to achieve and the outcome should be in doubt until you have tried your best. These musings pass the time until the small belt is fitted, the rain has stopped and my motorcycling acquaintances have waved me good-bye. The climb is stunning!

The engine revs freely and I know from the start that we will fly to the top. The gearing is by now around six and a half to one and it is going to be some hill which will beat us! Play time! I let the engine revs fall on purpose to see how it reacts to low revs and high load. Absolute heaven as it picks up instantly with the increase in throttle movement. Shutting the levers the speed drops to stalling point and, with a quick spin of the pedals, I coax the power back into the engine. There is a practical point in all this.(Oh yeah!) This is the first time I have had a long hill to see how the bike reacts, and it is the testing ground before the pass. I juggle with the advance and retard like a pianist at the Albert Hall, let the revs drop, listen to the lowering exhaust note, the deep bass boom as the power stroke jolts us forward, the click of the tappets and hiss from the carburettor as the fresh charge is drawn into the depths of the cylinder to be compressed and exhausted, speeding us on our way.

I pick up the engine with a frenzy of pedalling, the snap of the exhaust now echoing off the surrounding hills and blending into a continuous rasp as the power comes thick and fast. We rise above the surrounding mist and as I look back over Lochalsh and Skye we enter the woods at the summit. We stop, change back to the normal belt and I climb aboard determined to relax and enjoy the four mile descent. We press on through the ubiquitous conifer plantations, someone has planted a few broad leafed trees to try and redress the balance and I drift off into a daydream about acidification of mountain salmon streams and the lack of a fully integrated conservation policy linking, forestry, land use and fisheries.

I spent the 1993 season salmon netting off Hopeman and learnt a few things about Government and Landowners greed and stupidity viz a viz these matters.

"There is an incoming message from command Captain!"

Oh yes! this sometimes happens! I had better tell you all about drifting! Dreaming or drifting, occurs when there is nothing important to do. Riding the bike becomes easy. The clicks, groans and rattles act as a soporific noise lulling you into a dream. Pumping the oil, balancing the air and throttle, monitoring all these actions become automatic and the drifting can begin! With me it takes the form of a split second drift on the current subject, this can range from religion to social comment, through music, children, levitation, in fact anything which takes my fancy! Followed by a return to

reality to check that everything is well. The drift gets progressively longer until a mechanical problem or an untoward noise snaps me out of it. Some of my more memorable drifts have lasted hours on modern bikes, especially on motor ways, It is not to be encouraged, however, on more esoteric transport like Veteran Triumphs! I suppose its the subconscious equivalent of forty winks. In my case the call back to reality is preceded by a message from Space! I know some riders who have much more erotic dreams than me!

Slowly, I became aware that we are travelling above our normal 25 to 30mph as we drop downhill. The throttle and choke are eased back in unison to slow us down, nothing happens, the speed increases and I apply the rear brake, again nothing! All the brakes, throttle, magneto and decompressor levers are used in turn and the speed increases to 50mph. The incline is **really** steep now, the outfit just about under control as I concentrate on staying calm. "Let the bike go, keep the handlebars steady, drift into the middle of the road to give yourself more room. Stay cool". At 55mph the speed stabilises and starts to drop as the hill flattens out. The bike slows rapidly now and my heart rate drops to more manageable proportions!

What Happened There!

Got it! It's Raining.

Stupid Boy!

This is an important lesson and I take it to heart. I had read somewhere that rain is an enemy to belt driven bikes and even more so when a sidecar is fitted. The brakes don't work and the belt will tend to slip under any sort of load depending on the incline. Another part of the equation as added and I mentally re-arrange the actions to take and compute what this means in terms of stopping distances, climbing ability and safety. People sometimes ask me if riding the Triumph is boring! In the last three miles I have pondered on feminism in the 90s, conservation, physics and why my right leg keeps slipping off the footrest. (*Its an oil leak!*) No it's never boring!

The light rain stops and I have to work hard at the climbs to keep the normal belt on the bike, the legs are going like pistons as I whiz up the slopes.

You know! I'm really enjoying this, this is real West Coast going. The road climbs and falls, bends unfold and I lean in on the left-handers playing at

racers as we climb past Stromeferry. No time now for philosophical thoughts as a flurry of traffic keeps me on my toes and a couple of steep hills keep me on the pedals. We sweep over the brow of a blind summit and the road disappears! I stand up in alarm as the road drops away before me. Its like teetering on the edge of a cliff as it suddenly reappears in front with an amazing drop looming.

Goodness gracious!" That was scary! what is even more scary, and positively lethal, is the Wallace Arnold bus which foolishly, chooses this moment to try and overtake me! The brakes are full on! All systems are shut off as I try to slow! The road is single track, which at the best of times isn't easy to overtake on. Here he comes! Sidecar wheel teetering on the edge of the road, a bright blue shape passes me as I concentrate on holding the line. Don't Panic! I chance a glance down the hill and see a bloody Frenchman attempting the climb in a Citroen 2CV!

Now come on! A joke's a joke! The bus has nowhere to go but left as he pulls over to let the Frenchman through. My right shoulder makes contact with the bus and I edge away to the left. It's not possible to go far as an Armco barrier protects vehicles from falling over the edge and landing up in Loch Carron! There is nothing I can do except hold the line and lean hard on the bus. The brakes begin to grip! The bus pulls ahead leaving me a gibbering wreck at the bottom!

Now! That wasn't funny! And, its bloody raining again! Glancing back, the hill is **Enormous!** I wouldn't like to attempt that in the rain! Of which, by now, there is lots and lots! I press on because it's better than standing still! A railway station called Achnashee passes on the left and, dimly seen through the murk, a local waits opposite clad in layers of clothes and full rainwear. The road turns sharp right and I am caught by the sudden appearance of a fair sized hill. There is no way we can climb this without taking a run at it. So whizzing round I splash back to the station and try again.

Full throttle! We career forward into the rain, the belt slipping and grabbing, the revs climbing and falling as we round the bend and start the attack. This is hopeless! We only get a quarter of the way up before I have to stop with belt slip. Back down to the station. In the pouring rain I shorten the belt, pack away the tools, and give it another shot. Even worse! Just around the bend is all I can manage! That nicely sums up my thoughts about myself!

Around the bend!!!!

I hear faint screams and, looking up the hill, see two cyclists clad in the ubiquitous Lycra. The rain has affected their brakes and they are out of control! There is nothing I can do as they speed past mouthing Gallic oaths and praying to French Saints. As they sweep past I hear their screams fading into the distance, so assumed that they were all right. Anyway, I didn't see any pools of blood or wreckage as I was forced to return to the station. Sitting there it dawns on me that I am well and truly stuck. The hill is too steep to climb in the rain and I can't go back for the same reason.

Nice one Ted!

It's no good sitting here getting soaked, so I put the rain out of my mind and think about the problem.

The local steps forward, I've been expecting this, throws the hood of the mackintosh back and in that lovely, soft, west highland lilt a girl in her twenties asks what's the matter. I explain about the belt and the rain. She looks at the hill, looks at the bike, looks at me and says, "Why don't you push the bike along the railway track till you get to Strathcarron station? There won't be another train to Kyle for three hours!" As I look at her in some astonishment a van draws up and her young man whisks her away home. Now! that's what I call Lateral Thinking! Was she serious? No! don't be silly Ted. Can you see the banner headlines in the West Highland Press.

" HEAD ON CRASH BETWEEN TRAIN AND SIDECAR OUTFIT"

"HORRIFIC SCENES BY KYLE!"

I think about it, I can't believe it, but I am actually considering this idea!

Getting out the tape measure I hop over the barrier and check the width of the rails. Now then! If I put the outfit to one side this would work. Just a minute though! The rails are too high and the sidecar chassis will not clear them. Just as well I suppose! I walk to the Loch side and consider pushing the bike around the edge but a quick look puts the kibosh on that as, 1. The tide is coming in, and 2. there are logs and branches strewn all along the foreshore. Back to the drawing board. By now the rain has slackened and

there is just a hint of brightness to the West. I decide to approach the problem from a different angle and use the public's natural curiosity!

OK. Let's try this!

I attempt another climb but stop in exactly the same spot. Chocking the outfit to stop it sliding back I tie a rope, which I just happen to have stowed in the basket, onto the front of the sidecar chassis. Stick out my thumb and look extremely forlorn! Lots of cars pass, they are either going too fast or cannot see through the spray, anyhow, no one stops and I drip around for a further twenty minutes before I see a Transit van screech around the right hand bend. It worked! The hairy van held four equally hairy workmen, they see me, hop out, hitch me up and in the blink of a very wet eye we are at the top! Now! That's what I call Sneaky!

Not knowing what lay ahead, I decided to leave the small belt on the bike. The rain eases and we make our way along the shores of the Loch. After so much rain and exertion I was surprised to find myself relatively dry. Only my gloves and scarf were soaked and these were wrung out at the next halt.

Is it possible to stretch time? I had travelled only 10 miles since Kyle but it seemed an age. It had taken most of the afternoon to get this far and all these events had followed on together, one after the other, with no perceptible break between. I suppose that if events are crammed together in one seamless line then this continuation of struggle and effort merges into one homogeneous mass where physical action fills time to the second, thereby sharpening ones perception and appreciation. **Pretty deep stuff Eh!** Anyway! the roads are drying quickly with a brief glimpse of a watery sun. I had experienced a typical West Coast squall caused by the interaction of the mountains and the sea, an exciting and challenging combination! (*pun!*)

We turn towards the village of Lochcarron and clatter straight through. Heads turn as I bask in the reflected glory of the outfit, but don't stop as we are making good time and are approaching the Pass. The road climbs and I need to pedal for a quarter of a mile, even with the low belt fitted! We track to the right passing around the back of the village. Climbing and climbing into the mountains I pump the oil and twiddle the levers to get the best from the combination. The nice thing about climbing into high regions is the swoop down the other side as the road narrows into single track. I relish the

views across Loch Kishorn and, with a quick glance back, see the mountain tracks wending their unbroken way into the hinterland. This deserves closer inspection, so I halt for a few moments to take it all in. The idea was to have a brew up but here was to be the first violent encounter with the West Coast Megga Midge!

Megga Midge is a misnomer. The Megga refers not to size, indeed they are almost microscopic, but to their ability to reduce sane, confident people to swearing, arm waving lunatics.

With something slightly bigger at least you would have the satisfaction of getting the odd one before it gets you but this! This is just unbelievable! I tried to fool them by running backward and forwards but the scouts soon caught me and told the rest of the squadron where the food was! There was no answer to this continuous and unrelenting attack, so I used a major proportion of the Repel Plus to, at least, stop the bites but this did little to reduce the clouds of insects flying about my head. The only salvation was in flight. With a frantic heave the outfit was pulled back onto the road and we are away and safe! I pass through Kishorn without stopping although there is a rather interesting old manor house which I would have liked to explore but midge attacks cool my enthusiasm somewhat! Past the village a left turn looms and a large, red, rectangular sign proclaims,

Bealach-Na-Ba, (The Pass of the Cattle) Kishorn-Applecross. Not suitable for learner drivers or caravans! Normally closed during Winter months.

This is the Big Time folks! decisions have to be made!

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