

scott e-newsletter



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The Scott e-newsletter

Produced by Steven Enticott and Roger Moss as a private non profit making project. It is intended for all who have an interest in Scott motorcycles, their variants and their history. The objective of this free monthly newsletter by email is to promote a sense friendship, fellowship and objective mutual help and interest, using modern communication technology.

This newsletter is not connected with “The Scott Owners Club” or any of its sections. We do, however recommend membership of the SOC to those with serious long term Scott interests. Roger Moss and Steven Enticott are both members.

We are very happy indeed to receive your suggestions and especially your contributions to improve and develop this newsletter. In truth, if you like the concept, please help with the contributions, as the organisers will find it difficult to continue to supply regular new copy unaided. Help us to help you!

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To receive your free newsletter, send us stories for publication, feedback, support or simply to be taken of the list contact Steven Enticott at **steven@enticott.com.au**

To send technical copy please contact Roger Moss at **roger@mossengineering.co.uk**



A subscriber profile.

Before explaining how I became involved with the restoration of a Scott it may be an advantage to consider why. The Scott was after all no more than boxes of parts, none were assembled and there was obviously much more missing than present. This basically was the attraction, as the following account will make clear - I do like a challenge!

My involvement with motorcycles began with a bad experience at the tender age of fourteen and as that was close to fifty years ago it can be said that the initial trauma did not put me off too much. With the lucidity of memory that comes with advancing years I can still recall all the major elements of that fateful day. A slightly older school friend Mike, arrived in our village on a motorcycle, it was a green, plunger framed, three speed 125cc Bantam and I was fascinated. He had ridden it from his house down the back lanes that were at that time merely tracks rather than proper roads. I was absolutely fascinated by the whole thing and he delighted in showing me all the controls and gave several demonstrations of how to start and ride the beast. Adulation and begging proved their worth and Mike was at last persuaded to let me have a go but not on the road. If I followed him back to the cindertrack lane I could ride there without much chance of encountering any traffic.

Once in position I was given my final instructions with especial emphasis on the necessity for completely pulling in the clutch lever when changing gear. With the engine running and first gear selected I slowly released the clutch and was off up the track. Having to change up to second and then top gear meant that I did not, at first, have the time to appreciate the ride but as I cruised along in top I was enthralled by the power (yes I know it was only a Bantam) and control.

This was far, far better than riding Dinah the retired carhorse who the village children had learnt could be tempted with a carrot or a handful of grass to come to the gate. The gate was then used as a boarding platform to jump onto her back where, depending on her mood, she would either walk off slowly to the middle of the field and stand still despite all our urging and we would be forced by boredom to slide off, or sometimes be lively enough to break into a slow canter that still provided enough movement to dislodge her load of laughing children.

On the motorbike I was in control of both speed and distance and despite the rutted track the speed I achieved was certainly enough to instil that little edge of fear that prevents the use of full throttle. I know I overstretched the limits set by Mike as to how far down the lane I should ride but I did eventually slow down, turn round and set off back. Beginning the return, first gear was supplanted by second and before I made the change up to top I let the revs rise much further than the first time so that the little bike was starting to buck and weave over the ruts as I prepared to change up to top. It was here that my concentration was rudely broken as in my effort to fully pull in the clutch lever I used the wrong hand and applied the front brake locking up the front wheel.

This was the conclusion that we came to later as we held an inquest into what had happened to pitch me forward over the bars and the bike, free of its incompetent rider and hindrance of front braking remained upright for a considerable distance before wobbling slowly up to the hawthorn hedge and there, still upright, the engine stalled. Mike could not believe that I had sustained so many cuts; bruises and abrasions while his bike had not even been scratched in its encounter with the hedge. Mike will crop up later in the story as our paths cross again but for the moment it is sufficient to say that because his bike was undamaged we remained friends and that I, despite the pain, was firmly addicted to motorcycles.

I cannot remember where my first bike came from or where it went to but in the way that first time for some things tend to stick in the mind I can remember its number OFM 707. It was a Royal Enfield 125cc Ensign and it was a 'seven mile machine'. This was because of my naivety and lack of experience with things like spring washers! A previous owner had either lost or just not put back the two spring washers on the 2BA screws that secured the timing plate so that, after timing the points to the correct position, the bike would start and run for about fifteen minutes before the back plate turned until the engine slowed and stopped. Resetting the timing would effect a cure but for weeks I was satisfied to have a bike that would at least get me out to explore the immediate surrounding roads even if that did involve several stops.

I had by now started work as an apprentice electrician with ICI and for the first six months this meant being an office boy at the local chemical works. The real training was at the Apprentice Training School and this was quite some distance away from our village and also on the far side of the river Mersey. I was very fortunate in that a lad from the village two years my senior was also attending the school and he had a 175 Bantam Super with a dual seat.

With arrangements for sharing petrol cost made we had a four-month stint riding through some really bad winter weather with the added complication of the Runcorn - Widnes Transporter Bridge adding its own unique obstacle to our journey. This was at that time the only way for road traffic to cross the Mersey between Liverpool and Warrington and it had a basic problem, apart from its age related unreliability, it could not operate in high winds. For those unfamiliar with this type of river crossing an underslung platform big enough to take about six cars and twenty or so passengers was pulled back and forth over the river and the Manchester Ship Canal. Boats passing up and down the canal had right of way so there were numerous delays incurred waiting for ships to pass as well as those previously mentioned. For car driver there was no alternative but to wait but to intrepid motorcyclists who could not afford to be late for work whatever the cause there was another route, the Old Railway Bridge. Constructed to carry the main Liverpool to London main line it had at the Widnes end a toll booth and at Runcorn a much more daunting obstacle - six flights of steps for pedestrians to negotiate. It was up and down these steps that we had to push/carry/ride the Bantam on every occasion that the Transporter was inoperative, which in winter seemed more often than not.



The Runcorn Transporter Bridge with the Old Bridge in the background

It was for me fortuitous that my rides on the Bantam were to be curtailed as the rider's term finished and I still had another two months to go. It was the excuse needed for me to buy the first of only two new road bikes I have ever owned. Apprentice's wages meant that it had to be purchased on the 'drip feed' method but it did provide an economical and very enjoyable means of transport to work as well as giving ultra reliable service for forays into Wales and the Peak District at weekends.

My choice, determined mainly by affordability plus racing success in the Isle of Man was a 50cc Suzuki AKC 9B on which I covered over thirty thousand miles with only plugs and rear chain replacement adding to the services that I carried out. It did eventually expire but only as the result of my stupidity and was again due to my inability to differentiate between left and right, only this time it was my feet that caused the trouble rather than my hands.

I had set out to go fishing in Wales at spot just over fifty miles from home and it was on a notorious set of bends that took the road over a railway track that I encountered, on the wrong side of the road, a car who's driver had lost control round the first bend. Although it would have been impossible to stop the reflex action of applying the brakes had the unfortunate consequences for the left hand side mounted gear lever that I stamped on, jamming the gearbox in second. I managed to avoid serious injury by swerving out of the path of the car but in the time it took me to stop, recover and look back all I could see was the rapidly disappearing rear bumper as the car sped away.



Maureen (my future wife) on the Suzuki

No amount of roadside fiddling would free the gearbox and as this was well before there was any help, other than that provided by fellow riders, I set out for home with the poor little engine practically glowing red-hot as I tried to keep up a speed whereby I was not being overwhelmed by other traffic.

To its everlasting credit the bike got me back to within a mile of home before crying enough and the engine stopped with a series of ominous backfires. It later transpired that the flywheel magneto had developed a crack and unable to afford a replacement I reluctantly left the bike in the hands of the dealer having negotiated some small value by using it as part exchange for a Edition 2.

very tired looking Ariel Arrow. Historically the Suzuki was also significant in that it brought me into contact with another apprentice Paul, who had a 500cc BSA A7 twin. We became firm friends and the two of us formed an unlikely pair as we rode together most weekends. Paul still has his BSA and although very limited by arthritis manages to ride it on a fair number of occasions.

Mike now re-enters the tale. He had since leaving school put his considerable skill to use by opening, in a local air raid shelter, a motorcycle and scooter repair shop. This was to become a Mecca for lots of local riders and Mike's interest in not only repairing but also tuning bikes was legendary. He had a 200cc Sports Arrow as his test bed and had at various times fitted it with oversized carburettors, then disc valves (home made) and even casting aluminium, - with the aid of the fan in his mum's vacuum cleaner – to make a larger front brake drum.

I swapped my Arrow for this potent little machine but not before Mike had put it back externally to standard. The padded flywheels polished ports and high compression piston were however still inside and as such it had quite astonishing performance for such a small capacity engine, Again with the luck so often bestowed on ugly people I was fortunate in that Paul had found two four stroke really scruffy Ariel's for sale but could not afford them both. He bought the Square Four and I bought the 500cc VHA. That it was my first restoration was also lucky in that I was determined to make the best job I could of the project. It was here that the basics of all future restorations were learnt, never believe estimates of either time or money, do as much of the work yourself as you possibly can, always use the best replacements you can afford for missing or unserviceable parts.

It also helps if you multiply the amount of time the project will take by a factor of at least two. In my case it was probably nearer to three and again in the continued serendipity that marks my

life, in the week that I got all the paperwork necessary to put the VHA on the road as SLG 76H, I managed, through grossly over revving to try and pass another bike to blow up the Sports Arrow and put a rod through the bottom of the crankcase. That the VHA would lead me into so many unexpected situations was astounding.

Jeff Meehan - jeff.meehan@ntlworld

This ends part 1 of Jeff's tale – subsequent parts will follow in the coming eNewsletter months.

A technical case study

Case Study no. 1

Background. An engineer toolmaker has a couple of Scotts during his active lifetime. His son grows up with the evocative memories of radiators and stirring exhaust notes. Father retires and son wishes to find a Scott for them to restore together. Before a suitable machine can be found, the father dies. After some time the son decides to continue the search for a Scott that he can restore in his father's memory. A bike is found and after a brief trial, is purchased. The purchase is derided by working colleagues who ride only modern bikes.

After a short time, there is a catastrophic failure. The engine is brought for attention. Condition is visible on receipt. LH big end has suffered catastrophic failure. Outer roller plate has broken up, rollers have escaped from big end. These items punched through upper section of crank chamber. LH rod eye bearing ring broken and missing a segment. Rod badly deformed beyond recovery. Extensive crack round LH crank chamber.



Strip examine, measure, record details, make assessment.

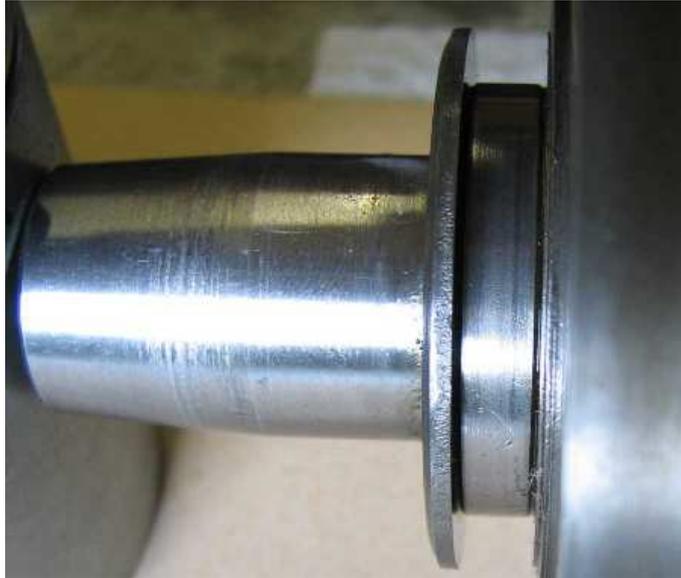
Catastrophic case damage is usually caused by a long stroke crank failing. In this case the crank is intact.

The LH little end bronze bush is worn completely through to the parent bore in the rod.
The RH little end bronze bush is worn, but only consistent with significant bore to piston wear.

We look at measurements and wear evidence.

Conclusion.

At some time the crank set has been apart and has been rebuilt by bolting up the centre bolt only. It was not "Knocked up". When the engine ran, the cranks became loose, especially the LH side as the position where the taper engages in the flywheel is immediately beneath the primary drive sprocket where the greatest load is exerted. The flywheel taper has been deformed, especially around the keyway where there is less support for the crank taper. The crank taper was significantly abraded in the same area.



The evidence of the damage was polished out and the engine reassembled. The LH crank then settles to a part supported asymmetrical condition, in this case it is at a slight angle to its correct position and orbits in a conical path. The LH main bearings and gland seal then run like a swash plate or face cam. The resulting evidence can be seen in the narrow rock induced wear track on the LH main bearing rollers and bearing ring.

The spring loaded metal sealing gland has been trying to seat squarely against its mating face in the main bearing cup, but as it is a sliding fit on the one inch diameter of the crank stem that is now running significantly out of true, it cannot satisfy its function.

The orbit of the crank axis is communicated, via the big end, to the rod, which tries to wag violently from side to side. This is only restricted by the fit of the little end bearing, which then wears rapidly, allowing even more violent rod wag.

This violent rod wag finally breaks the outer roller plate, the rollers escape and are punched through the case. Please note that the broken segments of the outer roller plate seen on the photograph, were deformed before they were broken, so proving that the damage was not caused by shattering through excessive brittleness. Cause of failure. Incorrect assembly of crankshafts in flywheel.

For assembly protocol click link

<http://www.mossengineering.co.uk/index.php?area=5&content=96>

It was unfortunate that the buyer had never ridden a Scott, so as to have some yardstick against which to evaluate the bike being considered. A ride on a Scott in good condition was arranged to give him this experience. Having discovered how satisfying and zestful a Scott can be, he is resolved that the pain of repair will be fully justified.

It is quite clear that nobody did anything incorrect knowingly. It follows that the solution is to make information widely and openly available and not restricted to commercial rebuilders. The Scott has a justified reputation as a charismatic classic motorcycle. It also has a reputation for being troublesome.

If a Scott is assembled correctly from good components, it is an outstanding machine. There are, unfortunately, too many which fall short of this ideal. Bill Jameson in Australia made a great private contribution when he painstakingly compiled a host of technical items extracted from Yowl and made this openly available. My colleague in this newsletter, Steven Enticott, went one step further when he privately transferred "Technicalities" on to CD ROM and made them available to anyone interested in Scotts, free on request. Our aim with this newsletter is to continue this objective of disseminating information as a private unrestricted venture.

Pistons

The problem of producing spares in small quantities at acceptable prices is always difficult. But when the process depends on first producing an economically viable batch of aluminium die castings, before subsequent machining can be considered, it becomes more difficult.

To consider the manufacture of pistons, we first need to achieve a critical quantity.

Neither the Spares Scheme, nor the independent suppliers are able to fund such a quantity.

Our suggestion is that each of us consider to put on our shelves, a pair of semi finished pistons that could be finished at some time in the future when your engine needed a rebore and new pistons. In this case a viable quantity of pistons could be sourced, that were partly machined so that the pistons were complete with gudgeon pins, but only required the outside diameter and the ring grooves to be finish machined by a rebuilder of your choice. I would suggest the diameter was rough machined to plus 80 so that an oversize of up to plus 70 could be produced

You would then have your insurance on the shelf. The more owners wished to participate, the lower the costs would be. If there was enough demand, then even the rarer pistons could be considered.

One thing is sure, we either work together or nobody gets anything in the near future.

I invite all those who are interested in this suggestion, including rebuilders, to either write or email giving details of their engine and piston sizes if possible. There would be no obligation at this stage. We would then compile a list for each piston type and ascertain if there was sufficient possible quantity to get quotations.

David Holder has one set of long stroke piston dies, with the option of an alternative core to make a piston that can be also used for short stroke engines. This produces a rather heavy piston and is the blank sold by Bob Trickett to Ken Lack and Tim Sharp some time ago from which they supplied their customers. This batch, originally from David Holder is now almost exhausted.

If interest and quantity were sufficient, we could invite tenders to produce new die equipment where none now exists and thus ensure supply in the future. Any other suggestions to address this emerging problem will be warmly welcomed.

Where did the seed for my Scott passion come from...

I was thinking the other day about why my interest in Scott's and when did it all start...

It was the late 1980's when I first spotted a Scott, around the time Aussie Wayne Gardner was winning his championship on his 500cc Honda. At that time I was living life pretty much out of a bag strapped to the back of a motorcycle out in Australia's outback Northern Territory on what turned out to be a five year lifestyle change, more on that another day maybe...

Enough said, we were back down in Victoria to witness the return of 500cc racing to Australia when my step brother Marcus and I visited a classic bike show held in a local Town Hall, coinciding with the return of 500cc racing.

As you can imagine 500cc racing was all the rage in town with Wayne Gardner, Eddie Lawson, Randy Mamola, Kevin Swantz, Kevin Magee and others in town doing battle at the Phillip Island raceway. Looking through the displays we came across a solitary Scott on display.

What's this then a twin cylinder water cooled oil injected two-stroke isn't this just like the boys were racing down at the track just 65 years older! Well my interest was kindled...and the flame flickered slowly for many years.

It wasn't until 2001 when restoring an Austin 7 that it dawned on me, why am I spending all this time on a car? Hey I'm a motorcyclist and have always been a motorcyclist from a young age and becoming even more consumed as I get older.

So I jumped onto the internet and went searching for clubs, finding the UK Scott Owners Club, converting Aussie dollars into pounds and sent a cheque of to the old country...only to be told the SOC has an Australian section why don't you join them...!

So I rung the local president Dick Firkins, he told me of a Scott for sale, so biting the bullet and forking over the currency I simply have never looked back...

Love my Scott, love riding it – it was one of my best choices.

Technical tips

A few thoughts on poor Scott starting when hot

When I first had a Scott, I had exactly this problem. It used to drive me mad. I gradually, in seeking more efficiency, made the engine better, although not by changing port timings. I reasoned that the inlet was very inefficient, in fact, there are few engines that have so many basic impediments to efficient running that are so easily improved. Even with a standard engine, you can improve the breathing efficiency very significantly. If it breathes better, then more gas goes in. There is more compression pressure and thus the mixture fires more easily. Forget about calculated compression ratios, the effective compression pressure possibly equates to no more than 3.5:1

Naturally, you also need an efficient carb, mag and unrestricted exhaust. If the engine has these and piston clearances that are reasonably correct, then it will work OK. If the engine inlet tract has a little attention, then it goes better and starts more easily.

Like the Scott company, I do not recommend gas flow enhancement on engines equipped with standard long stroke cranks. As these were known to be weak 75 years ago, most are now living on borrowed time. It would be wrong to encourage anyone to release more power that would logically bring the usual cataclysmic result closer.

If you have checked everything and all seems ok, then I only have one more thought. Modern two stroke oils are made for engines where the alignment and clearance accuracy is much closer than the agricultural standards found on most Scotts. Do not be offended by this. Manufacturing and material technology has moved on vastly in recent years. You may not like it, but look at what a small Japanese bike will do and how reliable they are. My point is that the oil film thickness used today is much thinner than the old oils. This oil film, not only tries (with varying degrees of success) to keep the metal parts away from each other, but it also helps to plug big gaps that allow mixture to bleed past pistons. Strip an engine that has been run on modern synthetic oil. It often looks like it has been washed in a solvent! I tried it and VERY quickly stopped using it.

My suggestion is that you mop out the wells, drain out your oil, wash through with petrol, then try Castor R 40. I know folks will laugh at you, but they admire the Kings New Clothes!

When you strip an engine on R40, there is a thick viscous deposit everywhere. It does not drain off so that the engine is quickly effectively dry for a restart. If you use a Pilgrim pump, it works much more reliably with the thicker medium. Your engine will last MUCH longer and my bet is, that you will find that not only does the engine run more smoothly, but it will start more easily when hot, as the oil remains on the bore surfaces to help seal the system. I personally like to use some in a petroil mix as a safety. The down side is that carbon deposits more rapidly, but I have never found this a problem.

One other thing,-- It smells gorgeous!

I use R40 on my racer. The ports are standard, the inlet tract is reworked, I have a modern mag and a good carb. The exhaust is only a mild extractor giving perhaps only 5% more than open Siamese pipes. My piston clearances are as close as is consistent with trouble free running. I hate to sound smug, but the racer fires on the first piston that goes over TDC.

Mortons will also test the bike for a "racer Test" in Classic Racer Magazine in the near future. Our objective is to show a prospective owner that a Scott is a fascination bike in its own right, but that Alfred's basic design has a lot of further potential that now with stronger cranks can be safely unlocked by those who wish it.

Scott's in competition.

The Moss Scott racer was tested for "Classic Racer" magazine at Lydden near Dover on 25 / 26 June. The test rider was Mike Powell. Mike has been champion of BSA Bantam racing more times than is decent! His dad also has a Scott. Mike was surprised by the Scott. He said that it was neither like a "normal" two stroke, nor a four stroke. He was impressed with the wide spread of torque that made it so easy to ride.

We look forward to a positive write up that draws attention to the unique characteristics of the Scott design. (We will publish this article in the eNewsletter in due course) Rider Paul Dobbs had several wins over the weekend. The races were made more interesting by the practice of running two classes together in the same race, as entries for the older classes decline. Paul was then battling with big four stroke machines up to 1972, having left his class riders in his wake.

The cheer from the spectators when he rode round a racing Triumph Trident from the early 1970's was very uplifting. We had many spectators come to look with amazement at the trusty Moss Scott. Perhaps a possibility of the odd convert?

Paul was intending to return to New Zealand this Christmas and Roger is looking forward to taking over the riding duties next year. However Paul has enjoyed himself so much, that he now wishes to return next year and ride the Scott again. Roger will be 65 next year and can not miss another season racing. (old age...?) The answer is for Roger to build another engine for his old 3 speed Super based machine and use that...

Life is good.

Paul Dobb's words...

As someone who until 18 months ago had ridden and raced only modern(ish) Japanese bikes, I would like to convey my new-found enjoyment of the sport. This was brought about by a chance meeting with a bloke by the name of Roger Moss and his Scott Squirrel.

I have raced, worked on bikes and run workshops around the world for 12 years and I thought I'd had enough of bikes after several goes at the Isle of Man TT. I'd promised my wife I wouldn't spend any more money on racing and I was ready to retire my leathers. Then I had a call from an old friend of my dad's in New Zealand. He asked me to build a Goldstar race bike for him before we moved back to New Zealand. This, along with a call from Tony Harris asking if I'd like to race a Scott, changed all our plans.

At this point I discovered that all I knew about working on and riding bikes would count for almost nothing. The month I had allowed to prepare the Goldy turned into a year of swear words and bleeding knuckles. My first race on the Scott had me convinced that tree surgery would be a better move. Coming out of Gerards at Mallory Park the Scott would suddenly go into the most terrifying tank slapper, which continued the length of the straight. The skid marks left by the front wheel were almost as good as the ones left in my pants. Roger's comment was "She does that - you just have to relax." This I was having a little trouble doing.

After a passing comment from Roy Sherwood and an evening studying photos of the bike from the meeting, we set about taming the Scott. We decided there wasn't enough weight on the front wheel. At this point I heard a rumour that a journalist of note had commented after riding the bike "It's the most evil thing I've ever ridden". This made me feel a little better about being intimidated by the Scott.

After the option of smaller wheels was dismissed (it had already been tried before to no avail) the only option left was move the rider. I suggested: to the pub would be good. A set of straight bars and new seat mounts moved me forward and over the front wheel by about 3". This dramatically converted the Scott into the most confidence-inspiring bike I have ever ridden. We were instantly on the pace. With good results came a mass of interest - the bike draws a crowd after every race. The sense of achievement when you make so-called superior bikes pay their respects to the Scott is great. In the wet the bike is a real giant killer - being passed in the

rain by a bike with a 21" front wheel and no suspension must be hard to swallow. And all this on a bike old enough to be my grand-dad.

The 2004 season was a mixture of me learning the bike and Roger fine tuning the motor and brakes. A disagreement on which tyres to run was sorted out at Pembry where the lap-times and a first class win made the decision for us.

The rest of the season was mostly highs with the occasional low when things, as they do, went wrong. The racing was hard and close with Ian Bain, Ian Cramp and Mike Farrell putting up stiff opposition on Norton's, Velos and Ridges - all supposedly superior mounts. We missed Anglesey. Roger was setting a new land speed record for a Scott at 114mph. Not bad for an old lady (the bike – not Roger). We finished third and fourth in our classes at the end of the year. Not a bad effort, all being considered.

The 2005 season started badly with a broken gearbox shaft putting us out in the morning practice at Mallory. On closer inspection, it appeared that the shaft might have been broken for a portion of the 2004 season. This goes to show how tough these bikes really are. We missed Pembry due to commitments at the Isle of Man TT so battle proper commenced at Lydden in June. A second place in the first race followed by three wins had our hopes up for Sunday - if the rear tyre would last the distance. Sunday dawned and we struggled to two third places with the Scott running hot and very slow. Roger found the problem: the ignition timing had slipped. We missed the third race while it was put right.

For the last race the Scott was back with vengeance: a class win and third to a BSA Rocket and Norton Commando in the Open Specials. If we'd had two more laps I think we could have seen them both off.

What all this has proved to me is that these bikes – when put together properly - are reliable, fast and loads of fun. Old bikes need to spend their weekends at the race track or on the road doing what they were built to do. It's a shame there is so much history in museums and back sheds wasting away. Get them out and play with them!



Many thanks to Roger for letting me ride such a wonderful bike that makes even me look good.

Paul Dobbs (Dobsy)

dobsy_uk@yahoo.ie

Footnote – you must simply go to Rogers web site and download the video footage of the Scott in action – simply sensational....

Click [here](#) to see the Scott performing at Cadwell in the 1980's

Click [here](#) to see it out in the last meeting July 2005, Cadwell again.

Question and answer section.

From Egbert Ziehaus in Czech Republic

I am not so long a Scott owner and have in the moment some Problems. Now my asks:

Q Petrol - no Oil in Petrol tank?

A The Scott was designed to have no oil in petrol tank. My opinion is that it is safer to have some oil in the petrol tank. If the pump stops working, then you will not have too serious damage.

Q Oil - mineral, synthetic or two Stroke in Oil tank?

A Scott's like mineral oil Sae 40 in oil tank. Do not use synthetic. The oil film is too thin. I do not use mixing two stroke oil in oil tank.

Q How many Drops p/min at the Oil pump, rpm?

A I will copy a question I received about Pilgrim pumps and my answer from the technical section on my website

Problems setting Pilgrim pump

Roger I saw with great interest your comments about oil and hot starting. I have recently purchased a 1936 Flyer and had no idea what oil was in it when bought. I have had to replace the oil because I used it up and was advised to purchase Silkolene super two stroke oil. I have done this but am now experiencing excessive smoking (the Scott that is) on tick over and after overrun and also finding it difficult to regulate one side of the pilgrim pump in as much as it is pulsing but cannot identify a clear drop of oil running down the pump, what tends to happen is that it collects round the base of the beak and runs down ad hoc, making it very difficult to regulate , by the way the beaks are not the same one appears to be aluminium and the other of steel construction. To get to my point would the castrol oil you recommend be of any advantage to me and where could I get some from?

We have two subjects here

Pilgrim pump - The problem you describe is quite common. It may be that the pump is not mounted horizontally, so that one beak will not drop oil, and it flows round underneath instead. Of course from how you describe the difference between the two beaks, then someone could have done some work on it!

My first suggestion is to put the bike on an incline so that the malfunctioning beak points more downhill.

It is likely that you will now see drips. If the drips are not clear, remove the top cover and plastic window, it will not affect the operation and you can clean it while it is removed.

If you have the correct Pilgrim pump with the knurled adjuster, turn it anti clockwise about one turn.

Start the engine. Keep at fast tick over speed. Opening the delivery of the pump will make sure you blow out any air. Now close up the oil delivery knurled knob until the beak pulses four times and then drops a drop on the fifth pulse. (This is the setting for lubrication using the Pilgrim pump only and no oil in petrol)

Do the same on both sides of the pump. Put a paint mark on the knob each side to give a future guide. Screw the adjuster in till it stops and count the turns then return to original position. You can now say that the best setting would be (For Instance) Two and a half turns from full in and that will give your paint mark to the top.

Go out for a run. After one mile, stop with the engine running and gear in neutral. Look and see that the pump is still dripping. You should be able to see through the window without removing it each time.

Do look if the pump has been mounted at an angle and correct this if possible, otherwise you might have to find a slight hill each time for one beak.

Oil - I am sure that Silkolene Super Two is a perfectly good oil for normal use. If it is thinner than what was previously in the tank, then it will go through the pump faster and maybe hence the smoke.

I use my engine much harder than normal and so will choose to use what I have found to be the best lubricant and lubrication system. I choose to use old fashioned Castor grade 40 as in

Castrol R 40. I am sure that you can get it from many places, I use Supreme Motorcycles of Earl Shilton Leics. Uk. Tel UK 01455 841 133 web <http://www.suprememotorcycles.co.uk/about.htm> I can also recommend them for relining brakes and clutches and many classic British bike requisites.

Silkolene also do a castor based oil, but is thinner and less prone to stay on the walls of the bores etc when left standing. I would recommend that oil to the ratio of 5% is used in the petrol and then the dripper / Pilgrim set at 1 drop every 7 pulses.

Petroil is much more reliable and you will not have a disaster if the Pilgrim stops working while you are out on a long ride. Petroil also gives more oil when you are at wider throttle openings. The Pilgrim only will keep supplying oil when you go down a long hill with throttle closed. In this instance, too much oil. When you climb the other side of the valley with wide open throttle, it still gives the same amount, perhaps too little.

Ok to sum up. For normal riding (not like me) about 5% mixing oil in premium unleaded petrol (or normal unleaded) Set pilgrim to one drip every 7 pulses. Belt and braces! If you want to avoid putting oil in the petrol Set Pilgrim to one drip every 5 pulses.

Q Reducer is fitted before the Oil pump.

A The Pilgrim pump was made to use on four stroke machines at 50% of engine speed. The pump is used on Scott's at 100% engine speed, without modification. The pump is working much more quickly and is asked to give less oil per engine revolution. It is much better to fit a reduction gear before the pump.

Q What's the best for the Carb, Jet, Needle?

A Check fuel flow is ok (min 400 ml / min) at the bottom carb feed and tap filter is not blocked.

Ignition about 33 deg BTDC at full advance (For a standard engine without gas flow enhancement)

Main jet for a standard 17 / 19 bhp 600cc engine with Amal 276 15 / 16" choke carb is 190 (ie 190ml / min at 500 mm head through a hole of 4D length) (Standard Engine) Best plugs are NGK Iridium BR6EIX long reach or BR6HIX short reach. Set gap 0.015 / 0.018" Mag runs twice the speed of a four stroke, a smaller gap needs less voltage to fire and gives a mag an easier time with no perceptible difference in output.

Subscriber soapbox.

Well I'll be the first to jump onto the soapbox, its hear every month and anyone is welcome to get up and say their piece – please bear in mind our policy of not publishing anything critical of any clubs or persons!

I'll start with an apology our subscription database has started in the hundreds and is climbing daily – after the first edition we were swamped with well wishes, encouragement and support, but my reply to some of your messages was “short” please forgive me of this – time really beat me on this first edition.

You see the whole aim of this newsletter is to bring Scott enthusiasts together on a global basis, it matters not if you are a member of the Scott Owners Club, in fact looking through our database it appears the majority of our subscribers are not members and that's OK by us. This meeting point has nothing to do with the club, whilst we encourage it as a great group, membership is not a requirement for this newsletter.

So to build on this fellowship over the next month you will receive an email from me asking your permission to start to publish (in our next edition) the names and email address of our subscribers or if you prefer to remain anonymous for whatever reason just your email address and city/country.

I have met up with plenty of great people in the Scott world and would like others to do the same. The published details will look something like this

Steven Enticott	steven@enticott.com.au	Melbourne	Australia
Roger Moss	roger@mossengineering.co.uk	Leicestershire	UK
Anonymous	Flyingsquirrel79@hotmail.com	London	UK

It doesn't mention your bikes, your street address or even your name if you do not want it – not much to fear hear I'd say (but that's up to you to judge). Please join us in this fellowship of “the Scott”

Steven Enticott

For Sale Section

1950 SCOTT FLYING SQUIRREL - In good condition sympathetically restored still has its original paint on the frame engine rebuilt by Tim Sharp. New rims tyres etc. Only 1000 miles since rebuild. T&T £3750

Economical, comfortable, reliable G3LS 1953 – Fully restored all receipts T&T £2200

SUNBEAM MODEL 2 - Sporting Side valve, untouched condition, mechanically sorted new big end, spindles, cables, tyres etc. T&T £3650.

Selling them because I need to move house. All good bikes...

Kind Regards Tim Jackson timread@readjacko.wanadoo.co.uk
S.Yorks – can deliver
TEL. 01302 883062.

Wanted – 1929 2 speed Super Squirrel Frame with Sidecar mounts – contact Tony Edmonds on 03 – 9786 1626 (Melbourne Australia) or simply email me - steven@enticott.com.au and I will pass on details.

Kick start springs-\$20, Stainless dog bone dampers engraved-\$80 set, Ribbed brake drums alaTT Rep or plain \$300, Sprockets dished \$300. Looking for 1920 Motor can swap other bits let me know your needs. Terry Doyle, Melbourne Australia tdoyle@alphalink.com.au

Supplier lists.

We recently had a call from an owner in USA. He said it was becoming more difficult to find small companies who could take on the “one off” specialised jobs required by owners of historic vehicles. He said that bigger companies were committed to production flow and could not consider such disruptive jobs. He said that the UK was lucky in having a “Cottage Industry” that could cater for such needs.

To start this off, I will compile a list of suppliers who I have used personally and can vouch for the quality of the product and the fairness of the price. This is not to suggest that others are not equally deserving, but only that I personally have no experience of their service.

The first supplier I should recommend is for sheds. Stan Thomas claims that Scott Motorcycles were conceived as a way of promoting the sale of sheds. He claims that it was recognised that every Scott would need a shed in which to spend many snug years whilst they were being “restored” He claims that this gave great satisfaction to many who were seeking a purpose in life, and that the satisfaction was in the journey, rather than the arrival. Indeed many feared the evil day when the “restoration” would be complete. The Scott shed was an alternative to the shed on the local allotment. A cosy retreat in which to pass endless happy days. The “good lady” (or “her indoors”) is very happy with this arrangement, as she knows exactly that her spouse is quite beyond the reach predatory females or other fascinations.

However, we are now entering an era where a new generation of owners are not content to be mechanical monks, but wish the zest of the open road, the next horizon, the thrill of riding a well prepared bike on good roads in blissful scenery. (Try the A68 south of Edinburgh!) And More!! We wish to introduce you to each other, to savour new friendships, to know that you are not alone in enjoying the Scott fellowship -----of the road!

As our Newsletter is for those who have embraced the internet, we give website links or email address, unless the supplier has no internet connection.

Magnetos New Self generating electronic. Vintage appearance

BT-H Magnetos Ltd Leicestershire UK

<http://www.bt-h.biz/index2.htm>

Magnetos Rebuilder and spares BTH Lucas etc.

Independent Ignition Supplies

<http://www.magneto.co.uk/>

Special ignition systems

Rex Caunt Racing

<http://www.rexcauntracing.com/>

Spark Plugs

NGK Co We use NGK spark plugs in our racer with complete confidence. Check out this website for info

http://www.ngksparkplugs.com/techinfo/spark_plugs/techtips.asp?nav=31000&country=US

And this one for the UK

<http://www.ngkntk.co.uk/>

Rev Counters Electronic. "Scitsu" Pick up from HT lead. Vintage in appearance, works with mags.

Dawson Harmsworth Ltd.

PO Box 3606

Sheffield S6 2YZ

Tel UK 0114 233 7460

Scott big end roller plates

Laurie Erwood (SOC member)

laurieandval@erwood208.fsnet.co.uk

Tyres, oil, all types of accessories

Ken Inwood. Hersham Racing Service

173 Hersham Road,

Hersham Nr Walton on Thames

Surrey

Tel UK 01932 229 547

Amal Spares plus Classic British Bike Spares

Hitchcocks Motorcycles

www.hitchcocksmotorcycles.com

Scott Radiators New and repair

John Hodges Darrad Radiators

darad@myddfai.com

Dynamometer setting up and tuning

Dave Holmes Operating a dyno is not enough. For good setting up you need a water brake dyno and a really skilled engine specialist who can interpret the readings. Absolutely the best way to set up any engine. Coventry UK

dholmes@250mov.freemove.co.uk

Control Cables
T Johnson (Cables) G.B.
cableman@btinternet.com

Hard Chrome plating including bores
Michrome Electro Plating Coventry UK
www.michrome.co.uk

Engineering Patterns for quality replacement castings. Melton Mowbray UK
Tony Pacey (Tony has made my patterns for 35 years – says it all!)
james.pacey1@ntlworld.com

Brake Linings, Clutch linings, British bike spares.
Supreme Motorcycles Earl Shilton UK
<http://www.suprememotorcycles.co.uk/about.htm>

Authentication of Scott Motorcycles by SOC Registrar. Send details and photo by post with
SAE

John Underhill Leicester UK

John Underhill
74 Greengate Lane,
Birstall,
Leicester. LE4 3DL
UK

Aluminium Castings. Top quality floor moulding in high strength aluminium. Heads, barrels,
cases etc.

Accrite Aluminium Ltd.
Unit 10, South Leicester Ind Est
Beverage Lane, Ellistown,
Leicester LE67 1EU
Tel UK 01530 263 038

Iron Castings including Malleable iron brake drums etc
<https://www.castmetalsfederation.com/home.asp>

Metalcast (Bilston) Ltd
93 Wolverhampton Street
Bilston WV14 0LU -UK

Piston Rings Made to order
Phil Daintree
22 Hawkstone Road
Whitefield
Manchester N45 7PJ - UK
Tel UK 0161 766 4487

Engraving Leicester UK (engraves degree graduations on our flywheels and crank
screws)
Robinson Engraving
15 Ruskin Avenue,
Syston,
Leics, LE7 2BY – UK Tel UK 0116 260 5998

Scott Owners Club Spares Scheme (Please note the SOC Spares Scheme can only sell to SOC members)

<http://scottownersclub.org/spares/>

Scott Engine and transmission rebuilding Specialist in 2 speed gears

Ken Lack

5 Norton Lees Square

Sheffield S8 8SP - UK

Tel UK 0114 281 1250

Scott Engine and Transmission rebuilding

Tim Sharp

14 Hazel Beck,

Cottingley Bridge,

Bingley,

Yorks. BD16 1LZ - UK

Tel UK 01274 567 528

Scott Engine and Transmission rebuilding

Sam Pearce Motorcycles

www.sampearce-scott.co.uk

Scott Engine and Transmission rebuilding, New sports engines etc. Any challenging engineering project.

Scott technical information on website

Moss Engineering

www.mossengineering.co.uk

Aluminium Castings (not high strength alloys) Covers, guards etc often from existing pattern without new pattern by skilled 3 man foundry. Used by Ken Lack and myself for years.

Victoria Street Foundry Ltd.

Victoria Street

Syston

Leics LE7 8LF

UK

Tel UK 0116 260 8100

Technicalities on CD – Bill Jamieson's compilation of technical articles

steven@enticott.com.au

This is our offering as a start. We have tried to avoid the more specialised suppliers, so if you have a problem that is not covered here, please enquire from roger@mossengineering.co.uk

We ask your help to enlarge this section for the sake of all, so send in your recommendations worldwide. Please only send details of those suppliers who have given you good service personally. The list with subsequent additions will be kept on file on the Moss Eng. Website for easy permanent access.

Disclaimer

The content in this newsletter is offered as being correct in as far as we, the publishers, are able to verify.

We can not be held responsible for any loss or damage incurred whilst carrying out suggested procedures or using recommended suppliers.