

The Online Scott Newsletter



!!!!!!Not mad in any Way!!!!!!

(An unsolicited pic.)

*After some investigation I find that this is from the Armin
Ficher website at*

*<http://www.fischer-photography.de> to whom we extend our
thanks*

Disclaimer!

The complete contents of this **social** newsletter are offered to all subscribers purely as a guide only and all subscribers agree to accept this newsletter on that understanding. Any article in this newsletter does not imply any endorsement or implication that the compilers agree with any opinion or services mentioned within it. All subscribers accept that they are wholly, and personally, responsible for checking that any services used are suitable and appropriate for their personal needs. Articles, and services, seen in this newsletter are on an “as is” basis and the compilers make no representations or warranties of any kind with respect to the contents and disclaims all such representations and warranties about the accuracy, completeness or suitability for any purpose of the information or related graphics within. Furthermore, whilst every reasonable effort is made to ensure the accuracy of information, it may contain technical or typographical errors. All liability of the compilers, howsoever arising, for any such inaccuracies or errors is expressly excluded to the fullest extent of the law. Once again, all subscribers, by downloading it. Are agreeing to accept this social newsletter on that basis.

EJP editorejp@live.co.uk

Dear Friends.

Ted and I send out this Christmas Newsletter with our very best wishes that you will enjoy Christmas and that 2016 will be a very rewarding year in as many ways as you wish

I am very aware that without the variation of style that is given by Scott contributors, then this newsletter is condemned to be of a limited style. I apologise for this, but we each are, what we are, warts and all, and all the wishing in the world will not make us a master wordsmith.

The Reg Hargeaves Collection

A man named Reg Hargreaves had a great interest in sporting classic cars and Scott motorcycles.

I knew of this man by reputation, but cannot recall ever meeting him. He eventually expired as we all must one day, and I was approached by two men I did know who were trying to help the widow.

I was asked to visit and be introduced to the widow, see the dismantled collection and advise.



From what I learned, the collection had included such



toothsome examples as Reynolds Specials, Veteran Scotts and perhaps some TT machines. Age range to be from Veteran to 1950 but mostly early / mid 1920's. My understanding was that some of these bikes were in a nearly finished state and as such soon found new owners.

This left the rest of the machines, which had been dismantled so that paintwork could be done, forks rebuilt etc. There are many drawers full of carburettors, magnetos, control levers, sprockets, hubs. In fact all the pieces for the remaining dismantled bikes. There were about 10 engines that had been rebuilt by other rebuilders.

One frame was either an original 1927 TT frame, or was a very good copy. On this frame the magneto had an included platform so that the sprocket was nearer to the flywheel and thus had a shorter chain run.



The remaining dismantled Scotts are the makings of around 12 Scotts of ages by estimate between 1926 and 1935 and mostly late 1920's.

The widow has no knowledge of Scotts and does not want folks coming to try and buy one or two choice examples and to sort out all the associated components.

What is needed is a person, or a group who would buy the whole lot at one go and take it all away. Mick Izzard and



Cliff Bowman, both long term friends of Reg and Jan would handle the transaction on behalf of Jan Hargreaves, the widow.

Cliff Bowman, who used to sprint Scotts built by his late brother Dennis Bowman, was with Reg Hargreaves when

the bikes were dismantled for restoration and could give guidance.

Of course there is a lot of work to do before these bikes could be returned to a roadworthy and saleable condition.



The main objective is to help Jan Hargreaves to clear this unique cache in return for a fair but not exorbitant price.

Willing buyer, willing seller being the order of the day.

For any potential purchaser. The VMCC have the Scott works despatch books, within which can be found all the information to verify these machines and John Underhill's

Scott Selection illustrated volumes have the original pictures.



Scott rotary valve???

As neither Mick Izzard nor Cliff Bowman are on email, I suggest that anyone interested should contact me in the first instance and I will pass on the details. I try to help to find a solution to this problem but am only involved on a **non-financial advisory friendly** basis.

Roger Moss email roger@mossengineering.co.uk

Scott gathering for 2016

I am informed that the dates that were left available from Abbotsholme School for a Gathering in 2016 were not acceptable to the club. We have been a bit spoiled by having such an excellent venue, but the numbers who were prepared to pay for the food and lodging were declining. So what to do for 2016?

I have raced with the VMCC racing section since 1970 and this is now restyled as British Historic Racing (BHR) I was on the management committee of the VMCC Racing Section in the 70's and have been elected on to the management of BHR in the last couple of years. Because of this, I was aware that there will be a well promoted event on June 24, 25 and 26 2016 at Cadwell Park.

The reason for this is that this is the 50th anniversary of the first VMCC race meeting in 1966 and the 70th anniversary of the restart of racing at Cadwell Park in 1946. Those of you who are members of the Scott Owners Club will see in the December 2015 Yowl, the centre photo of the "All Scotts Race" in 1946.

This photo is courtesy of Bill Swallow, whose father Ken was an avid Scott rider and had a shop selling Scotts amongst other makes. Bill tells me that he assembled the first post war Scott they had from Matt Holder to sell after the war. The picture is from the Swallow family album and we must thank them for their permission to reproduce it in

Yowl. On the same subject, I also supplied to Eddie a copy of the programme of the first VMCC race meeting in 1966, which you can see reproduced in Yowl December 2015. Just look at how many Scotts were entered.

I have just been talking to an old racing colleague Rev Bob Torrens who has his Scott back and running after a spell in a museum. Bob will be along to this meeting where there will be track rides for those who do not retain racing licences.

One event at Cadwell I have long much enjoyed is the track event of the BSA Rocket Three and Triumph Trident Club which they call “The Beezumph” It is great fun to take my 1934 (ish) Scott out with these much later powerful machines and demonstrate that the Scott can hold its own with most.

The Beezumph is not only a track event, but also their club rally that they do in great style. They have had a marquee, a band, a BBQ and are allotted a good area where all their bikes can be put out on display and of course a concours and presentation.

It is not within my brief as SOC President, which holds no position on the management committee, to make decisions on a venue for the SOC “Gathering”, but I have suggested that this would make a good choice for our 2016 event.

There are good toilets, showers, a clubhouse that serves food and over and above this the event could be expanded

along the lines of the Beezumph.

I must say that my heart sank a little when I heard that members were reserving their approval until they knew the cost of entry at the gate.

If any non UK readers are considering a holiday in the UK in 2016, I do suggest that you might consider to plan your visit to include this event. If you wish a track ride, do contact me and I will do my best to get you a ride. I should point out that there are hotels in the area, but you would have to try further away if reservations were left too near the date of the event.

For SOC members who still have Yowl April 2015, I suggest you read the piece “Time Racing Away” by my friend Rev Bob Torrens.

Related Happenings

About midyear I had a phone call from a man who had bought a Scott and wanted some advice. Where do you live I asked? “Ivybridge” he replied. Ah! My son Richard lives in that small town you should go and discuss whatever problems you have with him, I’m sure you he will be pleased to help.

In the Scott Owners Club there are often expressions of regret for how few people attend meetings, but then if you could reasonably expect folks to attend at no more than a 40 mile radius, then these local pockets represent a very

small proportion of the overall area of the UK.

A new Scott owner in the USA wrote me a letter asking for information and I was able to refer them to Ray Pallett and John Sims, who had established a USA Scott group based around a Yahoo message board to keep members in contact with each other especially in California. This progressive group had taken a stand at a local classic motorcycle show to fly the flag for Scotts and I take my hat off to their initiative.

I would very much like the Scott owners club to publish a membership list that gives only country and district and email address that at least could be used by others who might want fellowship or advice from existing owners. Without an ability to know where fellow members are located, individual owners are considerably isolated.

This newsletter is now circulated to 625 readers and some time ago we did enquire whether those who received the newsletter would be prepared to advise us of the district where they met so that even if the Scott owners club did not produce such a list, we might be able to help in such cases.

I ask you to give some serious thought to this and if you feel you would be prepared to at least have your location on file then please and please email me with this information then we can add this to our circulation list.

Work Related Gen

Doesn't time fly by when you are busy?. This seems to have been very busy year for me, even if very little seems to have been achieved.

Following the unfortunate test day crash, I felt a little disheartened, and the project to rebuild the racer was put on one side while I considered how I would straighten out the frame and forks. Luckily son Richard did some research and advised me of a company called Mainstone Motoliner who specialised in straightening out frames.

I suppose being near Brands Hatch they had a regular clientele of over enthusiastic racers, so when this would be just up their street. I took the frame, forks and wheels to them and in a fairly short time they had straightened out the parts for the very reasonable fee of around £380.

The damage they reported was that the rear end of the frame was twisted quite badly, the headstock twisted a little, the legs of the forks were deformed quite significantly so these were straightened and they advised me that wheels were no longer true and would need attention or replacement.

The frame forks wheels et cetera are now on my bike building stand and I promised myself that I would allow myself the luxury of working on this rebuild on Saturdays and Sundays, but so far other things have got in the way, namely too much work and having a new RH shoulder joint fitted so no work for more than six weeks.

The tank is being repaired and repainted by Dream Machine and luckily the radiator escaped damage as it is the narrow Two Speed type. I will try and get a bit done

over Christmas

As our bikes get older it is only natural that some deterioration will occur, especially in certain sensitive areas. One of these is the crankcase sealing system which uses a metal to metal gland

When all working parts are in almost perfect alignment this system works perfectly and was a good solution to a problem when synthetic seals were not available in the early part of the last century.

If the alignment of the taper in the flywheel and thus the cranks is slightly compromised then the truth of the gland will be compromised and its ability to seal against the back face of the cup degraded.

The symptoms will be difficulty in starting and spitting as though you have a weak mixture. I have made these suggestions before but I think there is no harm to repeating this information. If you have such problems, unscrew the top of the pilgrim pump and removed the plastic window and fill both reservoirs with engine oil, I personally prefer a straight 40-weight oil but anything reasonably similar will do. Now try and start the engine. After a short time you should find that the running becomes more regular with less spitting. You will produce lots of smoke and any improvement in running will only be evident whilst the excess oil is helping to seal the air leaks between the gland and the main bearing cup..

If you have this problem, all is not lost, I designed a solution some time ago and this has been proved out in use.

It involves fitting a synthetic seal and a non -return valve and the metal gland is replaced with a bronze thrust ring which screws in place of the outer screwed ring of the main bearing to control end float.

If you want to see examine examples of this type of wear then I suggest you click the following link and read the piece entitled autopsy.

http://www.mossengineering.co.uk/newsletter/Scott_Newsletter_41.pdf

Many will know of my interest in Cornish hard-rock mining and indeed I do give talks about this at various times. There is a simplified piece on my website about Cornish mining in the St Erth valley

Over the years I have any had enquiries about this. On one occasion recently I received an email message from a lady in Australia, she told me that her great-grandfather had been a miner working on the mines at St Agnes in Cornwall and that his title there was engineer.

He then emigrated to Australia and worked in the Moonta minds there where again his title was engineer. Her question was, what qualifications would he have to have had to justify the title of engineer? I smiled inwardly as I typed the response, exactly the same as Mr Newcomen, Richard Trevithick, George Stephenson and John Wilkinson et al.

The title of engineer was given to those who demonstrated by their natural born ability their suitability to cope with such problems and indeed the very great contribution to our

Industrial Revolution was made by such untutored but gifted people.

Nobody had taught Joseph Day or Alfred Scott how to design engines or motorcycles, but these gifted people with a great sense of your curiosity and determination had found solutions to their ambitions themselves.

About three weeks ago, I gave a lecture to the Institute of Mechanical Engineers in Birmingham about the origins of the Scott motorcycle and this focuses the mind, so perhaps a few historical notes here might be of interest.

Our story starts with Joseph Day who had been working. Stothert and Pitt in Bath who were makers of cranes and engines.

In later years their wharf cranes were familiar sight wherever the British did maritime trade but in the early days their products were much smaller. Joseph Day was an ambitious man and left to form his own company and wanted also to make small engines for all sorts of use.

We should understand that in 1893 these engines were gas engines that subsequently developed to use petrol or gasoline. These internal combustion engines were based on the design of Otto and protected by his patents. Thus anyone wishing to make an engine of the four-stroke type was at that time obliged to pay patent royalties to the Germans.

Joseph Day was unhappy with this and also realise that to produced camshafts and valves and springs for four stroke engine involved expense and complication and his thoughts

fell to designing an engine that was as simple as possible.

If we consider steam engine practice then the use of the poppet valves was a rarity and slide valves quite common, and so Joseph Day formulated a design of a two-stroke engine using the top and bottom of the piston to open and close ports.

This solved the admission and the exhaust operation, but not the transfer, and to solve this he devised pistons having a little trapdoor with a spring in the crown of the piston. While this worked it was not very reliable and was a definite limitation.

Luckily for Joseph Day he had a skilled workman named Frederick Cock who, being hands on, involved in the manufacture of these simple engines fell to thinking why the transfer could not be controlled in a similar manner to the inlet and the exhaust.

It was Frederick Cock who completed the jigsaw to come up with the classic crossflow deflector piston Day cycle engine and this was patented.

It was this design that Alfred Scott adopted as the basis for his embryo motorcycle powerplant being an engine reduced to its minimum number of working parts, and thus weight

Now back to the original taper problem with reference to slight inaccuracies that can develop causing the axis of the tapers in the flywheel to become compromised affecting the efficiency of the original gland sealing system.

Correcting this has long been an ambition to find a method that was fairly straightforward and did not involve considerable time and expense.

Recently I decided to pursue an idea to make something between a lap and an abrasive tapered piece.

A hardened and ground metal mandrel with a taper exactly to the right angle for the flywheel and one end that could be held in an accurate collet was made.

It was then given a deposit of cubic boron nitride that looks like a fine coral and is the second hardest material known to man.

I then proceeded to find trim this deposit by using a green great wheel as you would use for grinding tungsten carbide although I must admit it wore great amounts from the wheel but eventually this has been successful. It is very pleasing when such an off the wall idea proves a success and so tapers can be corrected quite readily now.

It was quite like old times setting up a device called sign centres where you have a pair of centres which can be elevated to a precise angle so as to set and proof the setting of your machine.

Pistons

The 500 cc Pistons have become a painful saga as the original dies were made very much in error. For many years ex Rolls-Royce and Moss machine tools designer Ted Hills had given wonderful help in designing spare parts and components for Scots for our own archives. Amongst these were the 600 cc pistons already in production. In order to avoid any misunderstanding I placed an order to produce 3D CAD drawings of the 500 Pistons, so that correct dies could be made.

I am, at last, pleased to report that sectioned samples from the new dies have been received, inspected and passed off

as fit for production.

There will be very limited call off for 500 cc pistons and this project is unlikely to make me rich!

10 iron DPY barrel castings are on order, and this might be another example of ambition exceeding economic practicality, but then wouldn't life be boring if we had to do everything that was sensible.

An enthusiastic Scott owner from Scotland asked me if I would be prepared to give a talk to the Stirling Castle group at some point.

I decided that too long had expired since I'd last seen my friend Ted Parkin who lives up near Elgin and that I should make a trip to renew our friendship in early 2016 and that perhaps I could give a talk in the course of this so I've arranged in early May next year to do this.

I much like to meet kindred spirits and share my respect and enthusiasm for the men who gave birth to the Scott motorcycle and added a little more purpose to our lives.

I have resolved that the racer will be rebuilt, hopefully better than ever, possibly with an iron block with improved breathing and will be back rampant on the track in 2016.

**Happy Christmas and a fulfilling New Year
to you all
Roger Moss**

*And now the winner of the “Sporting
Lady trophy” 2015
Alison Hunt*



*Vincent to the North, Triumph in the West
and the two Scott books*

For them Wots Interested.

*I have had an approach to put all my motorcycling
books into an Omnibus volume
(all are already copyrighted of course)
Negotiations are in hand. Meanwhile before and
after pics from the new owner of my old Vincent 30
years down the line!!!!!!*





The plan is to uprate the 4 books with more detailed text, new pictures and an introduction to my new book “Riding Rocinante”
(Travels on a JZR)

From the Dorset Boy

It's been a quiet summer on the Scott racing front. All kinds of responsibilities and activities fill a Summer when you've got two very small children and I must admit to at least attempting to lead a balanced life, especially when the sun is out. Also, doing a bit of Scott work for other people does mean that I'm spending time on their engines rather than my own! It's all-good though and I was looking forward to getting to the September meeting at Cadwell park as this is my favourite meeting of all.

My 1932 Flying Squirrel racer was still on the bench looking a little forlorn at the beginning of September. I had removed the top end after the seizures at Anglesey because I wanted to check the pistons and bores. The seizures had occurred on both pistons at the rear corners and the left-hand piston was a little distorted because of it. I spent quite a bit of time filing the damage out carefully. The bores were fine, although I flex-honed them to freshen them up a bit.

The last time I had assembled the engine, I used a gasket compound called 'three bond' which has good gap filling properties and remains flexible. I used a tiny smear on various surfaces that I had scraped flat, just to ensure a good seal. I had a hell of a job getting things apart and in fact the bond was so good that it pulled the devcon epoxy out of some corrosion damage on one of the carburettor flange faces. There's such a thing as too good! I think I'll use it where a face isn't good, but back to a silicone sealant where it's needed.

So, with the engine back together and the repaired radiator back in (thank you again, Graham Moag), the bike just needed a few bits sorting out to get it ready. The front mudguard needed to be replaced and the L/H footrest needed straightening. A few other little bits as well.

Inevitably, some of these things ended up being left to the last minute, which was OK since I'd arranged to have the day free before I went to Cadwell just to make sure everything was finished. Unfortunately, my wife had a work deadline that meant that I had to look after our children on this day. This was an error in my calculations! Instead of an unhurried day and early afternoon departure to Cadwell, I frenetically worked on the bike from around 5pm till

9.00pm on the Friday night, then packed the van and went to bed at 10.30pm. At 1.00am I arose, drank coffee and set off to Cadwell... over 6 hours away.

The drive wasn't so bad and the morning was crisp, with a low mist that hugged the warm ground. It was obvious that it would clear and clear it did. It was indeed a beautiful morning welcome from Cadwell Park.

I arrived pretty much as people were starting to get up and got the bike down to Scrutineering early. No problems here and I signed on and started to check the bike over myself.

Practice for solos was called and the bike started immediately. The twin carbs breathing without bellmouths because I knew I needed to make some that actually flowed properly and I hadn't done testing to base a length on. I figured it would do at this point.



1" type 76s without bellmouths... yet!

The Scott seemed willing at low revs although I was concentrating on the clutch, given the seizures it had experienced at Anglesey. Sure enough, at the bottom of the park straight it came. I was quick to get the clutch in and coasted to the marshall's post to wait for the end of the session and the recovery truck.

Back in the paddock I started to go through the fuel system. A gentleman called Peter, who was interested in the Scott, was kind enough to help as I went through the fuel system checking the flows through the taps, lines and banjos.

It's dangerous to assume but sometimes you forget. I had the bike on the dyno at the beginning of the year and had thought that this would show up any problems with fuel supply. It wasn't that I was expecting it to give problems, and it didn't. I'd made sure that the fuel lines were all of a decent size and had put the lot together being as careful as possible to avoid flow related issues. The dyno runs were completed without the suspicion of a seizure, so I hadn't thought there was likely to be a problem.

I did flow tests all the way to the banjos that fit to the bottom of the carbs and was surprised at the results. They were barely able to flow the potential of the main jet. With my newfound assistant's help, I drilled every fitting out and found that I'd increased flow by a couple of hundred cc's per minute to each carb. Part of the flow improvement was that I removed a connector pipe between the feeds to the two float chambers from my twin taps. I'd thought that this was a good idea in case one tap became blocked but in effect the T- piece connectors were just another cause of a pressure drop. Amal main jets are rated by cc's per minute flow (albeit under certain controlled conditions that I wasn't trying to emulate) but at least now I had almost double the flow specified by each jet. I thought that should cover that as a possibility of seizure.

I was therefore hopeful when I got out in my first race, though aware that I still may be missing something.

It seized at the end of park straight on about the second lap. Bugger.

I started to think about the history of this problem. Roger had presented my future wife and myself with the exhaust as a wedding present in 2011. She was overjoyed of course :). Gibsons had made it in the southeast and they'd had the bike to fit it to properly. They hadn't run any calculations but had copied my dad's pipe which he'd supplied them with for that purpose.

I went to the Prescott hill climb early in 2012 as the first outing with the bike and .. guess what.. it had seized at the first corner. It sound so hard edged

and got so hot that I'd ended up fitting another head gasket at the next outing (BHR meeting at Lydden) simply to get it to stop overheating. It didn't overheat (though it still got very hot) but it was slow. I thought perhaps that all this was a sign that if I wanted the power, it was a case that I'd need to make the engine dissipate heat better. Maybe my radiator, which is very small, was incapable or that my block (cast iron) was too slow in getting that heat away. It started to look very expensive.



That was why I switched to methanol in the first place...that I thought it might provide me with an easy alternative.

Methanol had worked, but was there another problem that it was hiding?

I had been wondering somewhere of course whether the pipe was in fact unsuitable for some reason. Since none of the problems existed before the pipe, it seems like a clear possibility. I talked to Rex Caunt (BSA Bantam tuner) on the Sunday and told him that I wondered whether the stinger outlet was too small and that it was the exhausts inability to get rid of the pressure quick enough that was causing the heat build up. He gave me a 'rule of thumb' to work out whether this was the case.

Apparently, the inside diameter of the 'stinger' pipe outlet is normally around 60% to 62% of the inside diameter of the beginning of the header pipe (around 50mm).

My Flying Squirrel's

Gibsons exhaust header pipes My Flying Squirrel's Gibsons exhaust header pipes That would make it around 30 to 31mm ID. I couldn't get to the stinger, but I could measure the silencer outlet and it was around 26.8mm. That's under 54% of the ID.



When I start to think about it more, I think there's another reason why it might need to be bigger. It's a 2 into 1 pipe and although the operations of the phases are separated, there's not the time to dissipate pressure that you get with a normal 1 pipe for 1 cylinder operation. In fact it makes sense to me that the outlet should be bigger than a standard pipe for this.

Silencer outlet

So in terms of racing it was a terrible weekend but in terms of development, I feel happy that I've got some new direction for the off season. I'm going back to basics with the fuel system and the exhaust and maybe even make

some experimental pipes simply for the dyno. I also have started to realise what the dyno may or may not be useful for. I'll still use the dyno to show what relative power I've achieved but I won't assume that it's all I need for testing.

I've got lots of reasons to be excited about this winter. Roger finally took his bike to Motoliner in Maidstone to have the frame and forks checked and straightened after Steve Plater's crash at the beginning of the year. It will be good to see that make progress.

The Moss Silk Scott needs to start moving to the next level... a dry build to see what kind of tank and seat unit it's going to need and where the exhausts can go. I really look forward to moving forward with this.

I've got my lathe to finish scraping/ re-building, my milling machine to re-commission and tool up for and various other engines and gearboxes to work on in the meantime.

I still have a dream of making my Flying Squirrel the machine to beat in the vintage class and will be yet again edging toward that over the winter. I can but try!

Richard Moss