

Wel Well Well!!!!!!

Here we are again!!!

**Time for the new
On-line Scott
Newsletter!!**

(and other stuff)



The “BOY Racer” is back!!!!



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EJP

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Full spec (courtesy of Moss Engineering) below

MOSS ENGINEERING 33 Kings Lane, South Croxton, Leics.

LE7 3RE. UK. Tel 01664 840215

SPEC OF TED PARKIN'S ENGINE

REF 3389

28-07-06

Upgraded Scott Replica engine for competition use.

75.96, Stroke 73.24,

Capacity 664cc features include

High strength heat treated aluminium LM25TF.

Large 38mm inlet tract feeding barrel inlet system.transfer passages,
cast in stuffer blocks.

spectacles,

Underside of block forms roof of inlet tract

Large diameter ball journal main bearings with synthetic
crankcase seals.

Main bearing lubrication via non return valves.

Engine secured at front by M16 studs and nuts in helicoiled bosses

Engine rear lower mountings allowed to flex to clamp undertray properly

Cast in aperture at front of case covered by sheet aluminium cover raised
on spacers.

(This helps chain threading and cooling of inner faces of crankchambers)

Revised crankcase doors with O ring seals on outside diameter.

Primary chain lubrication via brush oiler situated above bottom run.

Reduced in diameter to permit lowered floor of inlet tract.

Flywheel periphery engraved every one degree to allow accurate setting

of timing.

Lightweight barrel in LM25TF high strength alloy plated with "Silchromel" (special chrome plating process) and ground to leave 0.010mm chrome depth. (As per Yamaha TZ racing two strokes) inlet tract feeding single large bridgeless inlet window per cylinder. finishing to transfer tracts for maximum flow. (port height) of transfer and exhaust retained as Scott 1929 TT Replica to retain torque characteristics.

Head Cast in LM25TF, externally as per Scott pattern. pressures enhanced by having the chamber shape contoured to match the deflector piston head shape. Close matching gives squish effect. takes place initially in a counterbore with the plug in central position.

efficient combustion requires ignition timing at 21 deg BTDC at full advance. NGK PFR 7B platinum (racing use)

Special extra long stroke 73.24mm in very high strength 300MVAR to 110TT

Cranks with heavy metal balance inserts in flange.

Rear of crank 1.500" dia to match bore of ball main bearings.

Crankpin 0.8125 dia with large ground blend radius.

New rods from new forgings.

Big end fitted with bearing cages 10 rollers 3/8" x 5/16" per side
Little end, Aluminium bronze bush, bored, oil grooved and honed to high accuracy.

Rods shimmed in pistons to prevent "wagging" and ensure rods stand square on rollers.

Silk lightweight type with windows to promote transfer breathing and enhance lubrication and cooling to little end bearings.

Single ring used

38mm TT type with Scott flange utilising Amal Mk2 Concentric internal details where convenient. 3 way dripper, one to each main bearing via non return valves and one to primary chain.

Main lubrication by petrol 46cc Castrol R40 / litre Premium unleaded fuel

A few words from a would be racer!!

The “Boy Racer” (*now even older*) decided, after quite a long sojorne working on a most interesting building project, that it was now time to return to working on the Scotts for a change.

The racing bike had been living high on a shelf in a workshop getting dustier as the months dragged by. This in itself was a bit of an interesting problem as there was no one around to help me get it down. So with a little invention, a few steel ramps and various wooden supports it was finally removed and returned to my not so well equipped workshop. I decided to start at the front and work my way backwards.



Brakes.

These were the first things to look at. Both Roger and I had ridden it at Cadwell Park a couple of years ago and both commented on the lack of retardation. A full examination now ascertained that only one of the double

Scott front brakes were doing the required business. So a long time was spent re-evaluating the problem. My initial thoughts were to get hold of a couple of 125 Honda single sided brakes and cut the hubs in half to reweld and make a BHR acceptable brake. However, this had snags. Finding them was a bit of a problem and I belatedly thought that the front forks might object to the extra strain. Even though Roger had uprated the fork crown **thingy**. (*Real technical speak Eh!*)

I eventually settled on a better way to adjust them, giving equal force to both sides by incorporating a swivel bar at the brake lever.

The front rim was checked and trued as necessary, now with a very acceptable truth and run out.

Forks

Not a lot to do to these apart from doing a bit of cleaning, adjusting etc

Engine

Cleaning, adjusting and setting up the carb.

Frame etc

Cleaning adjusting and designing another use for the lower speedway tank compartment. With a bit of thought I decided to put a “tee” piece into one of the carburettor feeds. It probably was not required but we will see how it works out on test.

Road Test

It was **FABULOUS!!!** The bike handled well. The brakes **WORKED!!** And the engine pulled like a good un! In fact as I popped it into 2nd gear and opened the throttle the back wheel stepped out!! That is **real power** and easily controllable....a slight flat spot at the needle jet has been sorted So now just a little fettling of the front mudguard (*now done*) and the adjusting of the drippers (*courtesy of Ged Rumble*) and we are there!!

Now what to do with it????????????????

Block pics and news from Roger

Pics depict a newly manufactured iron block showing inlet tract arrangement where it must be noted that as the “Spectacles” portion of the crankcase will be removed, then this forms the upper ceiling of an enhanced inlet tract.



Note the two 10mm counter bores which are used to enable accurate positioning on holding fixtures during the metal cutting processes and by using ring dowels (Sleeves) to accurately position the cylinder head which also has such features.

Ports timings are more advanced than standard DPY blocks, but less than the aluminium competition blocks I make to special order which still give much improved torque at low to medium revs.

I am now considering the manufacture of these iron high spec blocks. To achieve this I would need a minimum of 10 firm orders. The blocks could then be substantially cheaper. If enough people are interested please contact me to ascertain the demand and we can move this forward.



News from the spares front

Dies and piston blanks to make 500cc pistons are currently in manufacture as are another batch of cranks comprising 15 sets of standard long stroke cranks. 5 sets of standard long stroke cranks to be fitted with Tungsten weighting slugs, and finally 5 sets of a special heavy duty crank variant for use with ball bearing main bearings and incorporating heavy metal

weighting slugs. These can be used in standard cases after appropriate modification or in the Moss high duty large inlet competition crankcases.

News from the Racing front

It would be entirely unreasonable to expect that we could go through life without some setbacks and when faced with these, however sombre we feel, we know that we must soldier on regardless. If not, then generally your troubles just magnify. I tell you this, as I am facing some disappointments currently and so you might detect that the tone is a little less upbeat than usual.

You will recollect from our previous Newsletter No 50, that I had met two times TT winner Steve Plater at the Stafford bike show in Autumn 2014.

For anyone who has not seen the video, just Google “Steve Plater interviews Roger Moss”

This lowbrow pantomime was my reaction to being presented with an opportunity to publicise Scott Motorcycles and British Historic Racing. The upshot was that Steve Plater came to the BHR stand afterwards and was interested to ride my bike. Steve was acting as Compere for Mortons publishing house who were sponsoring the show and, of course, publish a number of leading motorcycle magazines.

An old racing friend Malc Wheeler is a senior man at Mortons and he suggested that an interesting feature could be produced for inclusion in Classic Racer magazine, which described how a successful racer of modern machines found the experience of riding an eighty year old roadster derived club racing bike. As I have found over the years that there are significant areas for improvement within the Scott engine, I saw this as a wonderful opportunity to convey to a younger audience the fact that the Scott is a much more vibrant machine than might be imagined.

I was asked by BHR to take my bike to the January Newark show and whilst there, a Mortons photographer took some photos for the proposed feature. It

was agreed that later in the year we would arrange to attend a track day at Cadwell where Steve Plater could get familiar with my bike.

As time passed, Richard continued to develop his Scott and so we had the prospect of having two Scotts for Steve Plater to ride and to be included in the proposed feature.

Before this there was a BHR race meeting in Anglesey on 16th and 17th of May and both Richard and I entered. Two days later on 19th May we had arranged to take the Scotts to a track day at Cadwell for Steve to ride, whilst the next day Weds 20th, I had promised to give a talk to the VMCC North Lincs section near Gainsborough. I remember being told the saying “Tell Allah your plans and hear him laugh”



The Moss Scott and Steve Plater before the “*throw tester off*” episode

Well, somebody had a sense of humour as about two weeks before Anglesey, I contracted flu and found it very difficult to sleep with all the coughing etc that goes with that condition. I then lost my voice so had to call off the Anglesey event. Richard went and I have no doubt rode with considerable determination, but fell at a point where several other riders were to fall off, with a suspicion that a previous rider had dropped some oil on this corner. To his great chagrin, the end cap and part of the top tank of his small speedway type radiator was damaged beyond the scope of a paddock patch up, so we were back to one bike for the track day. We duly met up on 19th at Cadwell and I explained to Steve Plater that I certainly did not wish to doubt his ability as a fine rider of racing motorcycles, but, in his own interest I should tell him about some areas where instability was likely to be experienced.



Richards somewhat second hand Scott at Cadwell

I explained that at a point, which we know as the exit from Charlies bend on to the start of Park Straight, it would start to wag its head quite vigorously

and that my procedure was to drop a gear, lean forward to transfer as much weight forward as possible and gun it. If you got to the bit “Thy Kingdom Come” and you were still on, you would be OK for the rest of the circuit, at least at the pace I go.



Before the prang!!!

Because of old race injuries, I have little movement in my right shoulder and so ride with bent down narrow bars like old fashioned Brooklands bars, but a bit more narrow. It might be of interest to Scott riders here to make some comments about tyres. I had found over the years that a Scott handles best with a 3.25” tyre on the back. Chris Williams who used to ride the Clive Waye machine with such style confirmed this and in passing, I have to say that that bike was the best handling bike I have ever ridden. Mine was a dog compared to that bike, but as Chris said after riding mine “If we had your engine in our bike, nobody would see us for dust, not even the modern boys”

As 3.25" tyres are difficult to get, I find that the Avon 90 x 90 x 19 Roadrider tyre is of equivalent size and gives optimum handling.

As for the front tyre, I use a traditional 21" x 3" Avon Speedmaster in a race compound and this gives light quick handling especially where quick changes of direction are needed.

So for a first outing, Steve went out with my narrow bars and a speedmaster tyre on the front. For a second session we fitted Vincent Straight wide bars, still with the Avon Speedmaster front tyre.

This is the format that Paul Dobbs used with great success, **winning the BHR championship**, however we had one more variant.

Avon had added a 21" front tyre to their range of 90 x 90 roadrider tyres with the BMW off road bikes in mind. Richard had tried one at the end of 2014 and found it very stable, but when I tried it with my narrow bars, I found it too slow to turn into corners and so reverted to the Speedmaster as the best combination I had found.

For the third outing Steve went out with the wide bars and the 90 x 90 x 21" Roadrider on the front. He went round at great speed for a few laps until the red flag went out and they stopped the session.

My Scott came back in the pick up truck. Steve said that coming off Charlies, it gave two big lurches and threw him off, then went side over side down the track. The fork links are bent and I need to check the forks for straightness. The tank is damaged and sundry other items destroyed. So that is the end of racing for 2015 as unlike a modern bike, all these pieces were made individually and take quite a bit of time to replace.

The main difficulty is that I am obligated to rebuild a number of engines for Scott owners and so cannot just drop everything to rebuild the racer. You will perhaps understand that a person gets quite attached to a bike you have largely fashioned over a period of 40 years and so such a setback is prone to dampen ones spirits.

As regards the handling, some of these problems may be of my making, as years ago I decided that a race bike should be as light as possible. With this

in mind I had Spondon Engineering make me a look alike frame in light tubing and to compound the error, I made cylinder barrels of aluminium. The result is that the front is too light in some track conditions.

The objective now is to steadily repair the bike then make a new barrel in iron (*see above re these barrels*) as a copy of my best aluminium barrel that I had had to abandon some years ago due to a water leak caused by a pattern makers error which resulted in a lack of metal where it should have been.

As regards other factors re handling I think I should consult experts such as Mervyn Stratford and Roger Cramp and see if they have any suggestions

Roger Moss

S.O.C

The Scott Owners Club and I have had a somewhat strained relationship over the years. I always recommend membership to all Scott owners but years ago the opinion of the SOC management was that no information or spares should be supplied to non-members so as to oblige them to join the SOC first. If an owner approached me for information, I would certainly not refuse to help a non-member. I would give whatever help I could to demonstrate what a jolly good bunch these SOC members were and encourage them to join the club. The objectives were the same but the means to the end were different. After making free information available on my website and then in the newsletter, I was rewarded by being given the SOC membership number 666 to denote the devil

I am sure that broad minded readers will enjoy this little joke, but wait, there is more--- I have been invited to become the SOC President for the next five years, which I accepted with grateful thanks.

In view of the above, you can perhaps understand my quiet pleasure when it was announced in the May 2015 Yowl, that it was intended to put Technicalities and the Scott newsletters on the club Website. This showing the welcoming hand philosophy I had long advocated,

Spares in work and under consideration

Let us take the second item first.

I have always refused to accept that for lack of support that Scotts of any type should be destined to inactivity in a collection or museum, but one need is staring us urgently in the face. That need is that very many existing barrels are near the end of their life. The most difficult and prohibitively expensive to replicate are the blind barrels, but it seems that providing a barrel is sound, then we should make determined steps to find a specialist company who could fit a liner to these and restore them for many years ahead. I ask if any of you can recommend a company with a proven expertise in this speciality.

It is likely that this service is more likely to be found amongst the support industry for Vintage cars.

Any information would be gratefully received.

DPY barrels As I was unable to find a DPY barrel with the inlet ports in an optimal position, I machined one from a casting. But as this was not done on a CNC machine, the time was fulsome so price worked out at around £1500. I am hoping to get this component redrawn in 3D CAD and so it can be programmed into a CNC machine and the production time much shortened. Unfortunately, to be economic, it needs a small batch to be produced, so again cash to be laid out ahead is considerable.

Perhaps it would be cheaper to put a liner in DPY barrels as these are easier than blind barrels, so again, we need to talk to a specialist.

Cranks. We have 15 sets of standard long stroke cranks, 5 sets with provision for tungsten heavy metal balancing slugs, 5 sets HD cranks for use

with ball bearing main bearing design and another 4 sets the same but with provision for balancing slugs. I am just waiting for a few crankpin screws, then they can all go for hardening before grinding. To go with the cranks, a batch of crankpin bushes have been made and hardened rings and bronze bushes are in work to enable a batch of long stroke rods to be reconditioned. In order to make spares at acceptable prices, they must be made in batches, but this means a lot of money committed on overdraft for a considerable period till we can break even. As I remarked recently, the Scott Motorcycle Company failed to make any appreciable financial headway when they were producing these same components in greater quantities with much cheaper labour and material costs, so trying to make such components in much smaller quantities is hardly a recipe to become rich.

New Scott owners

Pierre Girard from Paris contacted me to ask if I could help him find a girder forked Scott that he could use for historic racing and I noticed in the current Yowl that Scott stalwart David Waring had such a bike for sale. I passed on the information and I understand that an agreement to sell has been concluded.

I am often asked if I will do a strip and report on an engine. This entails the customer standing alongside with a clipboard to record the relevant measurements and observations. Of course the big advantage for an owner, is to see exactly how an engine is stripped and measured and what to look for that might indicate potential problems. You will realise that if the engine then needs work, as is usually the case, then I cannot just push such an engine in front of those of other owners who have usually been waiting rather too long already. In such a case I often ask if Eddie can help and I supply the required engine spares,

Tomorrow another strip and assess for a new owner from Market Harborough who is an old dog of an engineer like myself, so this will be like a busman's holiday. Then two days later the same service for an owner who previously resided in St Helena, but now located on Ascension Island.

Yowl

It was me who urged Eddie Shermer to take over the job of Editor of Yowl and so I am grateful that he still talks to me. In fact, now I recollect, it was also my big idea that he involved himself in setting up a workshop to help Scott owners and like me, it gives a focus in our lives and we meet some really nice human beings and get pleasure from being able to help. The SOC house magazine Yowl is always very professionally turned out with interesting historical and current technical and general content.

Can I make a personal plea that readers of our newsletter who are not SOC members might consider joining the club for the modest sum involved? It is well worth it for the Yowl even if you do not live in the UK.

Info Wanted on a TT Replica

On July 1st 2015 I bought an early TT Replica that has an interesting history. On December 21st 1928 it was despatched to a man called Te Luy (or Luu), in Den Haag, Holland. He was the backer/sponsor/helper of rider Hennie van der Veen. Hennie had won the 750cc class of the Dutch TT at Assen on June 25th 1927, riding a very standard-looking long-wheelbase Flying Squirrel. I therefore believe that the Rep was sent to Te Luy (or Luu) in the hope that Hennie could repeat his 1927 performance in the 1929 Dutch TT, but I have been unable to find out anything about the 1929 Dutch TT entry or results, except for mention of some British riders such as Freddie Hicks (Velocette).

Oddly, the bike was returned to Scott Motors Leeds Depot in 1929 and it was UK registered for the first time on 31/12/1929. It was sold to a Herbert Crowther, of The Gables, Park View, Cleckheaton.

Frame number is 2281

Engine number is RZ1651

Gearbox number is 1327C

These numbers are all as listed in the works despatch books, so it is quite a survivor, and it has not been on the road since 1966, around 50 years ago, so it needs a lot more than a quick rub-down with an oily rag !

My appeal is therefore for knowledge of its time in Holland. Was it ridden in the 1929 Dutch TT ? Was Hennie van der Veen a rider in the event ? He died in October 2002, aged 98.

My contact details are as listed in Yowl Section Information.

Brian Marshall

Fun in Cornwall!!!!

I decided to have a short holiday while the cranks were being ground and the foundry was casting another batch of pistons. The little car (trike) was loaded on to it's trailer and I set off for my favourite part of the UK, Cornwall, or to be more exact, West Penwith. I stop at an excellent campsite called Trevaer near St Hillary, which is about 6 miles North of Penzance. I unload the JZR trike and use it for all my touring about. I have to smile every time as I pass a Caravan Club site just half a mile before this site.

That site is always very full and Marina says they are like "Fish in a tin", whereas here we have plenty of room. I have had such a good time that I thought that even if very few of you will visit Cornwall, it seems only right that I share some of the highlights of my week. My first priority was to visit Hampsons of Hayle, who must be the makers of the finest Cornish Pasties in the county. If you fancy a true delight, seek them out in Foundry Square around lunchtime. I promise that you will not be disappointed. I am not really an expert in art, but some years ago an artist friend advised me to visit the Penlee Gallery and Museum in Penzance to see the work of Walter Langley who painted in water colours and was a leading member of the Newlyn School of painters. My friend was correct and I found that his paintings really reached me. While in Penzance, take in a pasty or another

treat at Lavenders of Alverton Street, A small discreet deli that locals do not tell the visitors about.



**Crowns pumping and winding engine houses Botallack mine.
Wheal Hazzard open shaft in foreground**

You may already know of my long love affair with Cornish mining History and I have been a member of The Carn Brea Mining Society for more than 35 years. A small group with big ideas and great determination, the first notable project was to reconstruct the walls of two very iconic engine houses that were part of the Crowns section of Botallack Mine **(see pic)**

On a fine day, there is no finer experience than to sit on the wild flower bedecked cliffs, with the restless sea at your side, gulls wheeling overhead

and to survey these historic pumping and winding engine houses. To any practical soul endowed with a modicum of curiosity, the question of how these houses were constructed and the heavy engines were installed in this position without modern cranes can only leave one with a feeling of deep respect for their ingenuity and determination. The mining industry in Cornwall was once of truly global significance and a group of major mines decided to set up a mining school to ensure that there would be a future supply of capable miners. It was a primary objective that training should comprise both academic and practical skills. The practical aspects fell into two main subjects.

The first was how a mine should be efficiently worked so as to bring the lode bearing ore to the surface as economically as possible. To teach these disciplines, a section of an existing mine that was above the normal water table was taken over and here the students were taught drilling, blasting and the many planning matters that needed to be taken into account. Today, ex miner and fellow CBMS member John Nurhonen took me on a guided tour of this unique and quite extensive example of mining history. This was a real treat and made my holiday. I must point out that access to this mine is only granted to members of CBMS by arrangement, but if you are interested in mining history, then why not join the Carn Brea Mining Society (See website)

The second aspect to be taught to the students was how the hard rock pieces were to be reduced to the consistency of coarse sand and the cassiterite (Tin oxide) should be isolated from the material of no value.. This was and is a very exacting discipline, as the percentage of cassiterite in the broken rock will seldom exceed 2%.

A full processing plant was set up in or about 1900 and this has been restored to be a fully working “Mill” This fascinating plant has equipment believed to be unique in the world and is a treat for any person of logical bent. In other parts of the buildings, which is part of a “World Heritage Site” is a museum of Cornish mining unequalled anywhere. So if you are visiting Cornwall, do not miss this gem which is named “King Edward Mine” at Troon, near Camborne

Roger Moss