

war-torn environment being shelled in the middle of winter. Later Scott sent out built up crankcases, in the latter stages, complete engines. Despite Stuart White's family being ardent Scott enthusiasts, I won't tell you about his comments about Scotts in field service, you would not like to hear them! So, for the update, related only to 1915 these must have been line bored to jig plate accuracy, ensured by the use of fit bolts, six of them I think, to retain the halves of the vertical split crankcase. How many Scott owners club members have one of these engines, engine numbers in the early threes, I have one! Why wasn't this practice carried out post-1915 on non-split standard engines. My ill-fated recent restoration of my 1925 596cc two speed flying squirrel, a problem child from a first start-up. It had an intermittent misfire on the left-hand side, yes identified by oil blown up into the sight glasses on the LH side. Never twigged the excess oil collected in the under tray, blamed the magneto, so I can assume the face contact of the new packing glands I made for that side must be out, with experiment I discovered you can blow through the left hand oil pipe at any position of the rotation. So what to do? Bore everyone in my local about the situation. Leave the bike under wraps in the corner of my workshop. Forget it take up golf. Last option do something myself, even if it is potty.

So, dismantle engine, after recording crankshaft end float. Check for nothing stupid, as Roger described in June 2015. Try to read into the situation and assess. Check the left hand crank taper run to mains bush face. Make up a close tolerance mandrel at least of 1 inch diameter that is true. Assuming that the right-hand cop is true pull back on the cup face to address left-hand bore, i.e. the bush will have to be a good close tolerance to the 1 inch shaft and more. Apply engineers blue to the face of the sliding bush, only a slight smear, rotate against the offending cup back face to see how the land lies. Note the disposition of the reference eyespot. Then address with a saucer-type grinding wheel in your die grinder. It requires patience and is time-consuming. Aim for 85% average of blue finish, carefully lapping with a carborundum based lapping paste. If you are concerned with the use of grinding paste then break off the end of a matchstick and push into the lubrication hole in the cup face. After the operation clean the area with white spirit use household needle to work out the matchstick apply air pressure from compressor at blow out. This should cure the problem.

David Frank

Hi Eddie

Can I clear up a point or two re the line boring/lapping of main bearings?

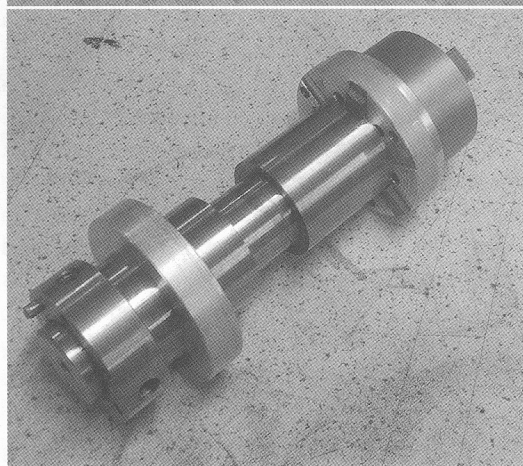
The gadget you drew was a reasonable representation. What we did to effect a WORKSHOP repair was to laboriously hone the offending mains using shim steel held on with jubilee clips .carborundum paste and honing oil (3 in one is ok) the inner square end faces also clean up the gland faces. The shim steel was various thickness to clean up, the clearance taken up by +.001" rollers or bigger inners. You are quite correct to ask about what if the cups had been put in wrong during the life but this is easily checked by setting the c/case on its top face and dialling in each side of the main tracks.

MANUFACTURE

It may be of interest when faced with making our own engine we also had to make the specialised machines to manufacture them. The 700s has four mains bores. The top half crankcase was sat on the block face (i.e. upside down) , the line boring bar with rougher

and finisher microbore tool bits, for each bore, the bottom half bolted up and then all four bores done in one short pass. The bearing housings were ground up, and although we had left a bit of wriggle room if we required, they all came out the same size.

On the same machine we had a mandrel with six fly cut tools and machined the crank chambers, again they all came out to the right size, we never adjusted either bar.



What about Scott engines then. If the workshop remedy is not for you it is possible to invert the crankcase on a big lathe, drill the shrouds heat the case knock the cups out, line bore off the top face, new cups careful fitting new shrouds shrunk on (like the old cartwheel rims) then with luck you will be back in line. I know what I would rather do unless water has been in the

rollers. You have got a fair bit of hardness to go at before you'll come to soft, so my guess is most engines could be rescued with the workshop remedy.

George Silk

I imagine this is the sort of lapping tool you are talking about. I made this up after talking with George and have successfully used it to rescue a couple of cases. (See pictures above) Eddie

Secret Squirrel

The cold evenings are drawing in at this time of year with bonfire night just behind us. Having waited for the last rays of daylight to fade, two figures emerged from the dusk carrying between them some kind of framework. Turning into the drive in the shadow of the big beech tree they