**The Lathe Project Blog – started 5th June 2020**

**Thursday 2nd July 2020**

Big step forward today. I was expecting to have to wait until tomorrow when my eldest son visit to move the lathe into the space I created yesterday, However, I found a 4ft wrecking bar in the shed and found that using this as lever it was quite easy to side the whole thing and spin it round so it is now in position. Better yet there is plenty of room on one side to give access to the tap for the hose pipe connection and on the other side to tuck the compressor away. Happy bunny. I now need to rebuild the workbench (smaller of course) to sit above the compressor and provide storage space for things like the arc welder. Still quite a lot to do but it is looking promising. I believe there may be room for the bike lift in its old position as well but have not yet tried that. That will be a real bonus if it does fit.

**Wednesday 1st July 2020**

No further progress on the lathe itself but today I dismantled one of the workbenches in the garage having first found temporary homes for all the things that normally live on or under it. Probably just as well I did this regardless of the lathe as some of the timbers were riddled with wordworm. They are now all on the bonfire! Anyway the picture shows the space I have created. One of the reasons for doing the job now is that my son is coming to visit for the weekend and I am hoping that between us we can move it to its new home. The idea is to keep both lathes with the original one allocated to mill-drill use. I am not convinced this is will turn out to be a satisfactory location as the whole thing stands out 3ft from the wall due to the motor mountings. However, it cannot be worse than its present location stuck in the middle of the garage doing nothing.

**Monday 22nd June 2020**

The second piece of Brammer Belt arrived today. Bit fiddly to join the two pieces but I got there in the end. I seem to recollect reading in the VMCC journals from years ago that there is a special tool for this job. Armed with a 2metre length, I was able to thread it round the pulleys and determine how where to make the break. Taking it apart is a lot easier and re-joining was also easier second time around. It was of course a little slack but there was plenty of adjustment on the motor platform so it's now all tensioned and lined up.

Finally the moment of truth; plugged it in switched on and away it went, no bangs puffs of smoke or nasty noises. The only thing I did discover is that despite the switch having a forward and a reverse position, it runs forwards whichever is selected. I think this is to prevent running the lathe backward and accidentally unwinding the chuck. I don't think this is a problem but I will check with the experts. Busy on other projects at present, but when the dust has settled on them I need to decide the long term future for the lathe.

**Wednesday 17th June 2020**

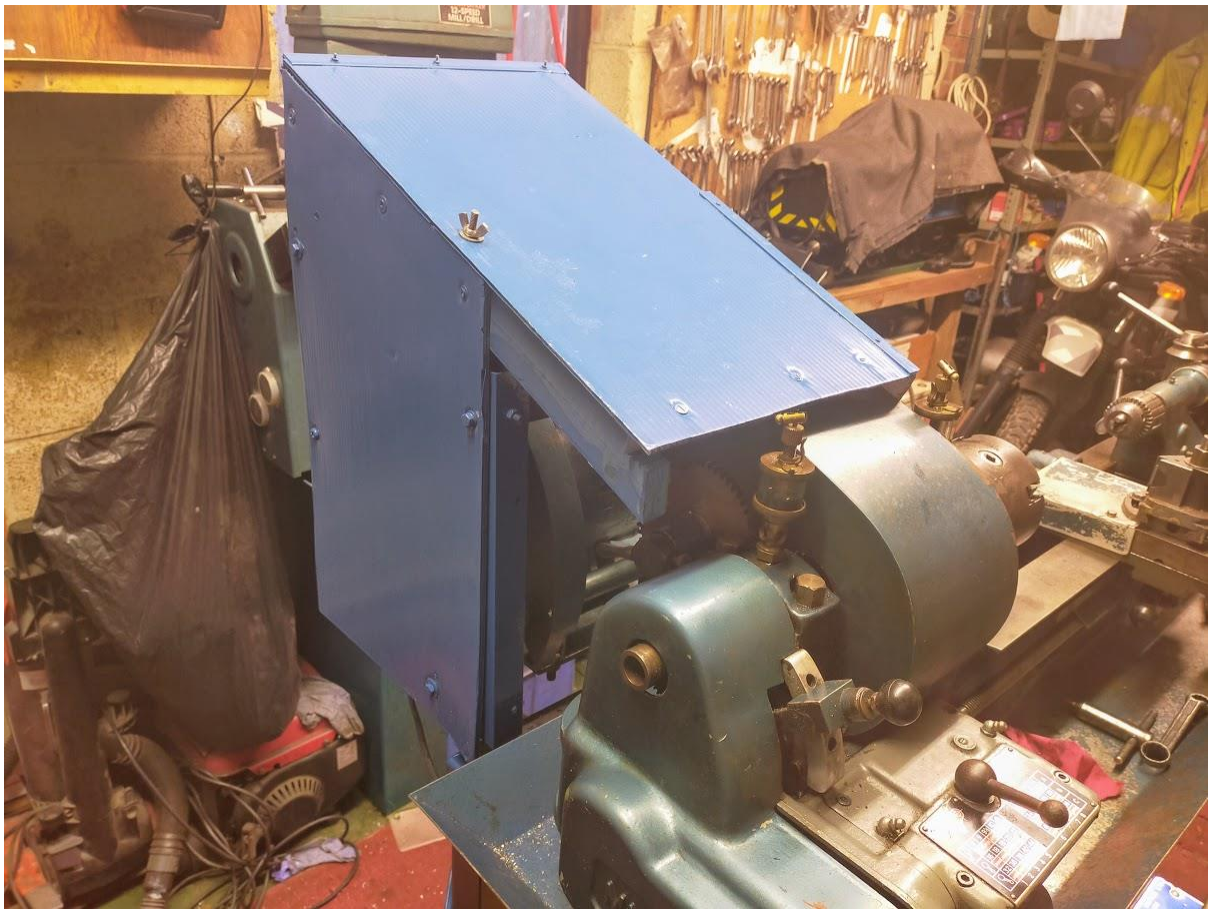
Practically no useful progress on this project sad to say. The Brammer belt finally turned up on Monday and when I tried to fit it turned out to be far too short. Initially I thought they had delivered short measure on the belt but sure enough it was almost exactly 1mtre long. But and this is s big but, the last two inches form part of the overlap (Brammers are made up of three linked segments) and when you joined up the belt the internal diameter was 37"; Something I had not allowed for. To make matters worse I had measured the internal diameter using a piece of string which of course sat

in the bottom of the belt pulleys. In practise the belts sit very high in the pulleys only sinking closer to the bottom as they (or the pulleys) wear. The result was a gap of 4-5" overall!. I contacted the supplier and asked if I could buy another 6" or so to lengthen the belt – No chance, they buy in the belts in 1 metre lengths and that's all they can supply.

Plan B was to move the countershaft mounting so that a shorter belt was needed. This would have meant sorting out the motor belt but worst case would be a new longer one and ordinary V belts are quite cheap. Plan B failed when I found there was insufficient movement in the mounting plate for a 37" belt. Currently there is no Plan C , I am still sulking over the situation and trying to find an alternative other than to buy another metre of Brammer at £27 – I doubt there is one but I have to try.

**Thursday 11th June 2020**

Well the back stopped play yesterday and it's not a huge amount better today but I decided I could not stand another day doing nothing. By doing thing slowly and carefully, I managed to complete the guard for the pulleys. Not a thing of great beuty but it had to be done with whatever material I could lay my hands on around house and garden. The top is held by two wing nuts to allow easy removal for changing the pulley – though on my other lathe, I rarely bother.



It would appear that the 4" 3 jaw chuck which does not fit my lathe probably belongs to the other lathe sold by Peter Heal and now in the possession of Bill Edmondson. I will get it to him in due course. I decided to have another go at cleaning up the reverse jaws for the 6" 3 jaw and after a lot of filing and polishing I did manage to get them to fit. My plan is to leave this chuck permanently

with reverse jaws fitted. The smaller 3 jaw and the 5” 4 jaw should be adequate to all normal operations. All I need now is the drive belt.

**Tuesday 9th June 2020**

I have sent emails to various people with pictures asking for help in identifying the lathe. One chap has already come back with some thoughts and asking fro more pictures. The editors of a couple of local model engineering society newsletters have also agreed to publish a request for information. In the interim I have made a start of a guard for the pulleys. Managed to rick my back tripping over in the garage which stopped progress and looks set to do so for a few days.

**Monday 8th June 2020**

Lying in bed last night I had another think about the way I had set up the motor mounting plate. I had carefully drilled the holes in the table so that it was central lengthways. But installing the suds tray showed that the motor and the heavy part of the lathe would partially overhang the left hand end of the table. This morning I re-drilled the table using the suds tray centrally mounted as the template. When friend Terry arrived to give me a hand he agreed it was a better solution so we duly assembled the lathe in the revised position and it has worked out fine. With the lathe itself bolted down we could fit the motor and countershaft and get the motor belt tension set. With this done we were able to work out the size of belt from countershaft to headstock. 37.5”. To fit a conventional type V belt would require the headstock to be dismantled so Terry suggested using a Brammer type belt which can be taken apart and rejoined after wrapping round the pulleys. He uses this type of belt on his lathe. Indeed when I looked them up on the internet they were recommended for exactly my type of installation. I have now ordered one which should be here by the end of the week. The picture below shows progress to date. Tomorrow I need to fabricate a guard for the motor and countershaft. The other big issue is where I could locate it in the workshop as it is considerably wider overall than my existing lathe. However, this is of course conditional on getting the thing actually running and deciding if I want to keep it. It would be nice to keep both lathes if possible as the Clarke could then be set up in Milling mode but that might be a step too far.

**Sunday 7th June 2020**

The stand has been the focus of todays activities. It is not the original stand for this lather so it took a while to figure out exactly how to lay it out. I spent quite a long time thinking about this whilst walking the dog, When I got back I had a phone call from Terry D who had reached exactly the same conclusion as me – which was comforting. First task was to de-rust the base which had clearly been holding water for some considerable time. Fortunately the steel is quite thick so its cosmetic damage only. I have left it soaking in derusting fluid for now and when it dries I will paint it to inhibit further rusting.

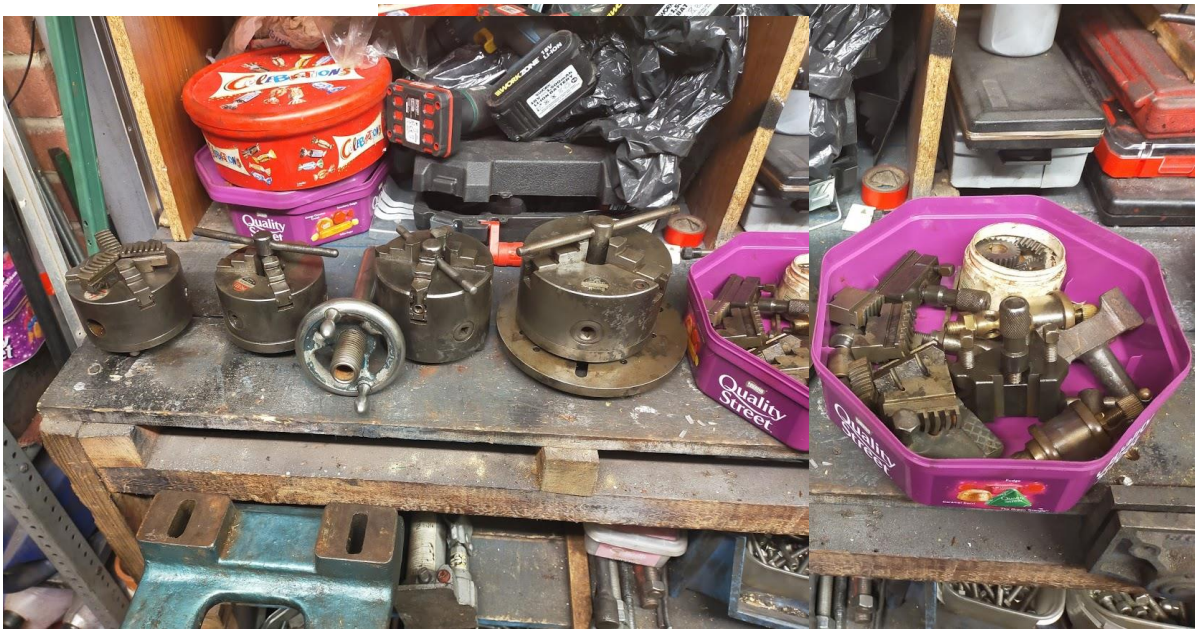
Next step was to attach some angle iron to widen the base and make it more stable. The motor and countershaft assembly hang out a long way at the back and it could tip otherwise. Then it was a case of offering up the motor base and drilling the mounting holes. To help counterbalance the motor assembly, the actual lathe is mounted toward the front of the bench. This meant I also had to re-drill the holes in the suds tray as otherwise it would have stuck out much too far. As with all the jobs it was the thinking, measuring and marking out that took the time, Drilling the actual holes was relatively

quick as its only thing sheet steel. In the event this proved to be a wrong decision and the original holes had to be used else the gearbox fouled the edge of the tray; the gearbox and the saddle winder stick out farther than the tray anyway. Trial and error which would have been avoided if I had only seen the lathe when it was up and running rather than a pile of bits.

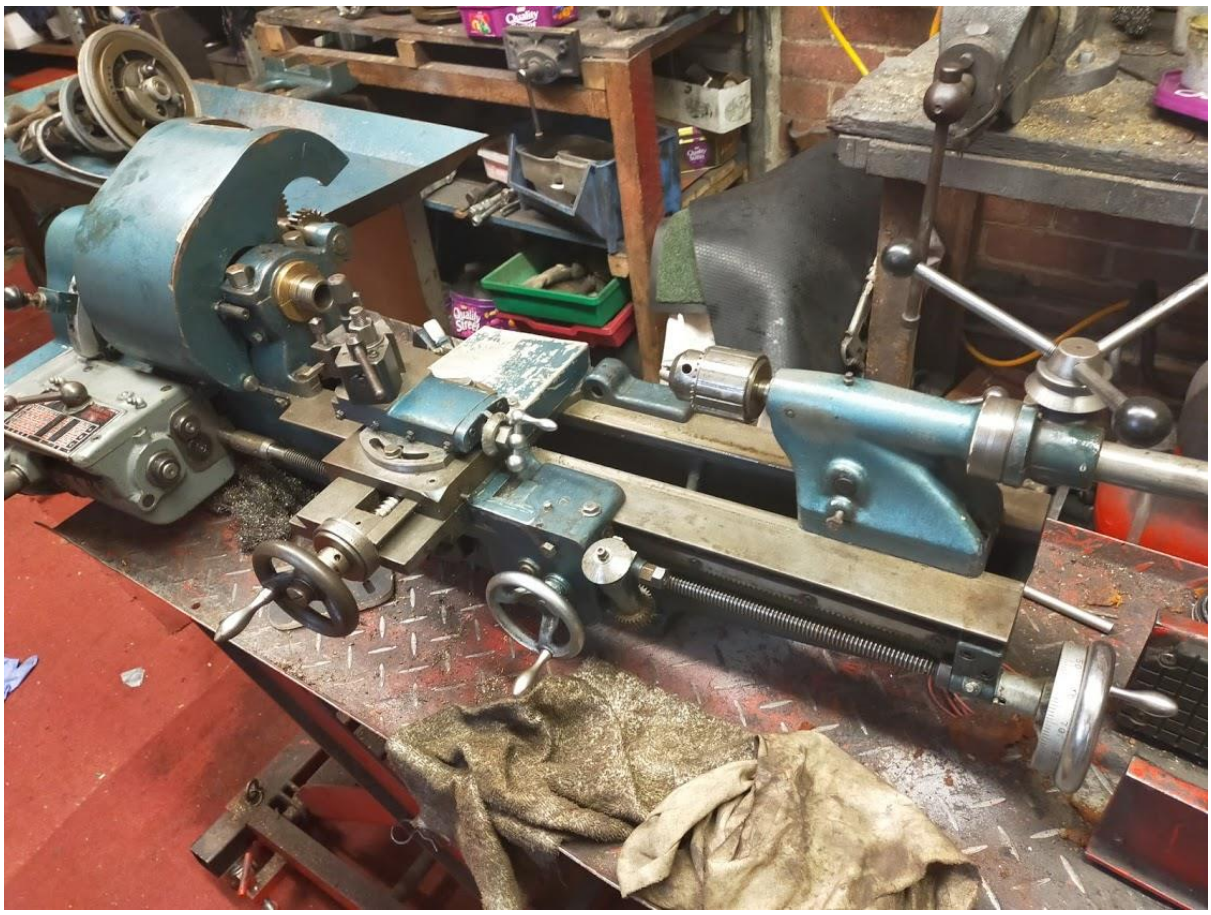

The next step is to mount the lather and the countershaft so I can figure out the size of the drive belt, and how to fit it.

**Saturday 6th June 2020**

Good progress today, All 4 chucks have been cleaned and are working properly. I have 4" and 6" 3 jaw chucks and a 5" 4 jaw self centering chuck. The fourth chuck is also a 4" 3 jaw but does not fit this lathe and it is missing one of the adjuster screws though it seems to work fine without it; and



there is no chuck key. I'll put this to one side for now, someone may be glad of it for spares. In the red box I found a set of reverse jaws for each of the 3 jaw chucks but they are quite badly rusted and though they have cleaned up quite well, I suspect they are not much use. Sad but in truth I have rarely needed to use reverse jaws. There is als an 8" face plate which will be very useful. Also in the red box were some spare gears which I have cleaned up. I am not sure what these are for, possibly they were needed before the gearbox was fitted. One has some stripped teeth which is worrying.There are two additional  quick change tool posts which have come up like new. The rest of the stuff in the red box has been cleaned up but in truth I don't know what its for (as yet).



The bed of the lathe and the tailstock have been cleaned up and are all good. The only wear I have found is the bushes supporting the saddle traverse handle, not critical but I suspect that there are new bushes for this in the red box.
All I have to do is figure out how to get the unit apart.

The next job is to figure out how the motor fits to the lathe.

**Friday 5th June 2020**

This is another project caused by John Hill. He told me about a lathe

with a lot of desirable features (most of which meant nothing to me at that point) and suggested I ought to buy it. Now buying another lathe was not anywhere near the top of my wish list , in fact it was not on it at all. However,  the more I looked into it the more I felt this was something worth pursuing. The lathe was owned by  a gentleman in Taunton and was kept in a shed on a local farm. The farmer wanted his shed back and the contents had to be cleared by Monday (this was Wednesday). The lathe owner was long time friend of Bill Edmondson who is a long time friend of John Hill. The latter was asked if he knew firstly what make the lathe was and secondly if John knew anyone who might buy it. Some of the pictures I was sent are shown below and frankly I just felt sorry for it and against my better judgement agreed to buy it.

Today I drove down to Taunton and picked it up. In the flesh it was not quite as bad as the pictures indicated. None of the rust appeared to be serious and  there was a motor included which was a bonus.

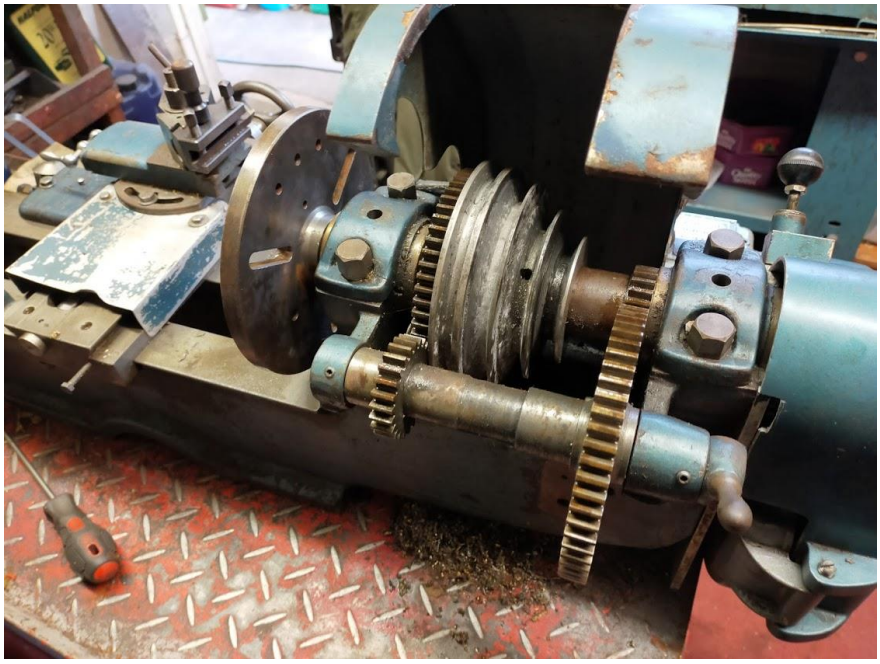
Back home Terry Dixon came round to help unload and pass judgement on what I had bought. The jury is still out on the make. It has many features of a Myford M7 but equally many differences. The cross slide and tailstock are pure Myford, the bed is similar but the feet arrangement differs and there is no cutout under the chuck to increase the throw. The back gears are on separate shaft at the back rather than inside the lathe head and the lever is at the back rather than the front. The motor mounting is still a source of mystery but it appears that counter shaft sits much lower than on the M7 with the belt horizontal rather than almost vertical. The pulleys have four positions, M7's have 3 pulley positions,  but the forward and reverse gear train and lever are pure M7. In time I will take pictures of these various features.

So far we have not found anything broken or badly worn and rust/dirt apart it appears to be in good nick. It also has a screw cutting gearbox with the word Myford cast into the cover that functions smoothly, a quick change toolpost with three tool holders, a gadget to help line up for screw cutting (no idea of its correct name) and a quick action tailstock adjuster. Apparently these are very desirable things which make the lathe well worth what I paid for it (oh yeah – heard that before somewhere). Anyway, I am happy enough with my purchase and looking forward to making a start tomorrow – probably on the chucks.

Box of assorted parts as yet unidentified.


The chucks as they arrived – looking very sad.

Tailstock, oilers and spare quick change tool holders as they arrived. The tailstock adjuster is an after-market quick action type. The original adjuster is at the top of the picture.



The back gear is on a separate countershaft at the back of the lathe.