West Wiltshire Society of Model Engineers Newsletter

Issue No. 18 April/May 2021

Calendar

March

27th – Club site working party to prepare for re-opening. 9:30am

29th – Site re-opens for member bookings.

Maximum 6 members on site at a time.

Pre-booking essential please.

April

7th – WWSME AGM – Zoom. 7:30pm

News

Site Re-Opening

In line with the government timetable, the WWSME site will be available for up to six members at a time from March 29th. The clubhouse will remain closed until indoor meeting is allowed. In order to ensure the maximum number of people are managed a booking facility will be in place as there was in autumn.

Peter Broughm has volunteered to manage the bookings up to the 10th April (bookings can be made beyond this date), another contact will take over after this.

To ensure the site is ready for opening on the 29th, a working party will be held on Saturday 27th at 9:30. Please come and help if can. Note that a COVID safety awareness briefing will be given prior to work starting.

We all hope that this is the start of things returning to normal by the summer, and the club can return to being the social space that it should be.

WWSME AGM

Following the cancellation of the WWSME AGM on 1st April 2020 and again on 19th September due to the Covid-19 lockdowns, the meeting will now be held via Zoom on the 7th April 2021 at 7:30pm. Because of the need to record attendance at the AGM please e-mail secretary@wwsme.org.uk for the link to join the meeting if you are going to "attend".

Friday Zoom Meetings

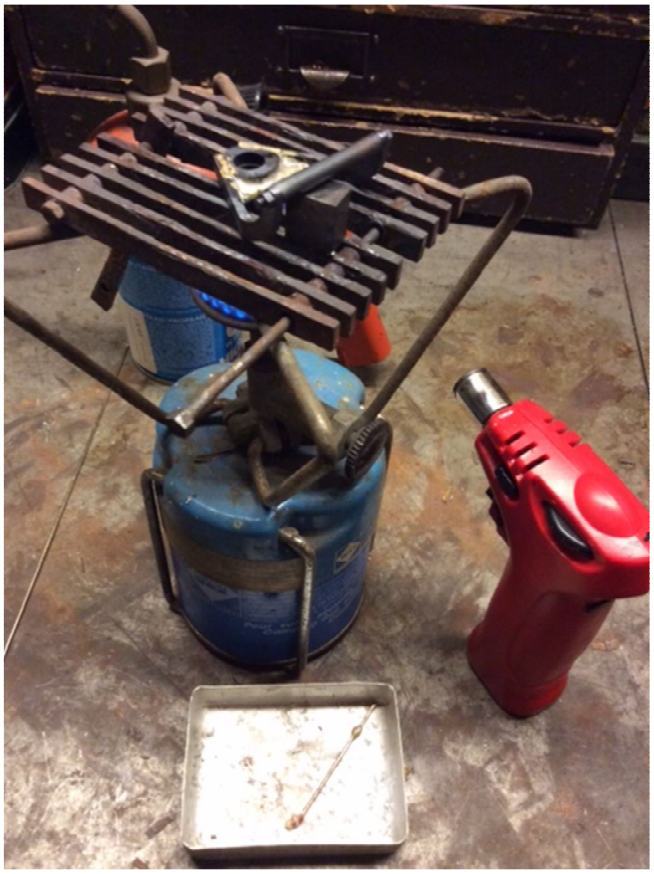
As a service to members during the restrictions due to the pandemic and the loss of our Friday morning get-togethers at the Club we are now holding weekly Friday meetings via Zoom.

The meeting will be open from 10am to 12pm on Fridays and is an informal session for all WWSME members to join. Please see the member's area of the club website for instructions of how to join us.

Silver Soldering Using Butane

By Chris Wiggins

Due to my enforced garage imprisonment because of Covid, I have been getting on with making my 1" Fowler Ploughing Engine (just the 12 years to date, but there is now light at the end of the tunnel). Progress has been good, but I got to the point where I needed to silver solder some small assemblies. I usually my oxy-acetylene for silver soldering, but I will only use this kit in the garden shed; I won't use it in the garage because it is too confined. It is far too cold currently to contemplate doing anything in the garden shed, so I wondered if it might be possible to use my 'soft soldering' butane torch, in the garage.



A quick investigation on the internet revealed that butane has a slightly higher calorific value than

propane, but its boiling point is about -1°C, whereas for propane it is around -45°C. So there was a potential latent heat issue, which might cause icing on the butane canister. None the less, it was worth having a go. I used my small butane torch in conjunction with my old butane cooking stove. I had recently renewed the fire grate in Maisie, so I used the old grate as a stand for the component.

The stove delivered the background heat and the small torch the local heat for the soldering. It worked very well.

I didn't have any icing problems, even though it was relatively cold in the garage. I had to keep the head of the torch out of the heat rising from the stove, so as not to completely melt its plastic casing. The stove burnt a bit on the rich side, as the soldered part was covered in soot after soldering. I found that I could get the silver solder to 'wet' relatively quickly, but it took much longer to get it to melt completely.

After a communication with our Newsletter editor, he suggested trying silver solder wire. I purchased some 0.7 mm diameter silver solder wire. The important point about this wire is that it has a high (55%) silver content. This gives a lower melting temperature, but more importantly the solder has a eutectic composition. This means all of the solder melts at one temperature, and thus eliminates the problem I had above with trying to melt all of the silver solder. It is more expensive (by weight) than the lower silver content silver solder, but being a wire I could make small ringlets, hence wastage was minimal. I found it very easy to solder small components, I only needed to use the butane torch. Once the solder reached its melting temperature it would instantly flash onto the (fluxed) joint, and I simply removed the heat at this point.

This is a photo of some of the small parts I have silver soldered by this method.

I am sure this is nothing new to some members, but it was a good learning curve me and worthwhile and interesting exercise.