



THE EMPIRE'S LAUNCH

The Consuta Trust

The advancement of education in the history of steam launches, by preservation, maintenance and exhibition of the steam launch **Consuta**

Patron: The Rt. Hon. Lord Strathcona & Mount Royal

Consuta Trust Newsletter - Spring 2018

The Consuta Social

Thirty three of our supporters came along to the Beetle and Wedge for the annual Trust social.

This restaurant has such a lovely outlook over the river, and the day was bright sunny so there was quite a lot of rowing activity on the river.

Where should we have our social event next year, please let me know if you have any ideas or suggestions?



The Consuta HLF funded project

We finally had an agreement with the Beale Park Trust for use of a lean to shed on the side of the farm barns used by Henley Sales & Charter. Some extra work was needed to this shed, specifically to lengthen it to 80ft, box in some of the openings and the



two ends; access is through a field gate. Most volunteers say that they prefer this to the old cowshed because there is more space and it's brighter.

The shed will be set up with lighting, work benches and other needs for the project work programme ahead. In early April we moved the shallot out, this was an old film prop used by Turks for several historic films, now in very poor condition. Consuta was finally moved under cover. Several supporters came along providing useful encouragement and support for the move which went very well

without any hitch. This involved first removing Consuta's propeller and rudder because they have quite low ground clearance which might have caused problems when towing the trailer over the rather muddy track in the field.



We may have a low wattage electric supply for lights but will have to rely on our portable generator when using any power tools.

The shed has been fitted with a 1 ton gantry and weighing scale which will be especially useful for lifting the new boiler into Consuta, During the last 18 years we have had to rely on the crane we use for launching and recovering of Consuta to remove the boiler on the same day.

The project time scales

Unfortunately the delay means that our project time scales have had to be changed., so Consuta will not be operational during 2018. However one useful advantage is that the main part of the refurbishment work will at least be during warmer weather, (cheers from all involve in the work). Consuta however should be fully operational for the start of the 2019 season.

The engine was lifted out for the first time in 16 years which was so easy with the right equipment. Must remember to weigh the engine now we have the scale. The engine mounting frame and sump have also been removed which exposes the bilge floor area under the engine with 16 years of accumulated oil and dirt.

The other work carried out has been to remove the mahogany boiler casing





side panels. These were held down by a large number of screws plus some stiff resistance from the varnish. At one point we did wonder whether the wood had been glued, but thankfully not so. Some of this wood may be reusable.

Careful checks and measurements of all the early Consuta photos are being made now to see if we can get her looking just as she was when built 120 years ago.

A mock-up of the boiler mounting plate and the ash pan has already been made.

Once all the various sections have been agreed then they will be drawn up for final off site fabrication. The design of the new smokebox will be an interesting task, which will need space for a future steam drier (not really a superheater). Also how should the funnel be mounted and what sort of smokebox door to have?

We are going to lag the backhead on the new boiler, this will be good for the fireman on hot days. One interesting task is to decide where to place all the backhead valves, one of our old photos shows a couple on the top of the boiler casing, wonder what they were?

The new boiler is at Kintbury which makes it easier to check out the fit of all the new backhead fittings. The boiler has been hydraulic tested to 360 psi, this is twice its designed working pressure of 180 psi and is a normal final inspection procedure on new build boilers. As part of the project we purchased a 2nd hand trailer with a lid cover and this is perfect for moving and carrying out the initial prepwork on the new boiler.

The picture below was taken looking down the dome and shows the large steam collection pipe and below are all the new shiny boiler tubes.

Consuta's old boiler is still quite serviceable; do you know anybody who would like a useful loco style boiler including some good fittings and all ready for future service? It's boiler





inspection is good until July this year. This boiler would greatly benefit by having a dome retro fitted to the barrel, unfortunately it was never a practical option for Consuta as this change would have made the boiler casing even higher.

General project work is progressing very well, we have fairly regular work parties plus extra hours put in by a few of us from time to time. Dates when the project shed is planned to be open can be seen on the Consuta project webpage; check our Google calendar. There are quite a few jobs which can be carried out off the site where parts can be taken away for the work. If you would like to help with any of the work please let me know.

Lifting up the old high boiler casing top was always quite tricky due to it's weight and shape. The fixed part of the casing was a combination of a steel frames with attached wooden frames, then fitted with the tall mahogany sides. These parts were held together with a combination of wood and machine screws; quite a complex heavy structure. The new boiler top will be smaller and much lighter, so is intended to be a simple lift off box style which will include the casing sides. These new arrangements are to be tested out using a variety of mock-ups.

This photo shows a view of the decks with the old boiler casing removed



All the bilges have now been thoroughly de-oiled so just need a wipe clean and prepare ready for a repaint.

Boat Shows

This year The Trust have no plans for a presence at the Beale Park Boat Show, as we didn't have the boat afloat there seemed no point, however next year we will be back in style.

New data regulations

Now most people will be aware of this new data protection requirement from the EU which goes under the name of GDPR (General Data Protection Requirement 2018). If you want to know what data the Consuta holds I've included a copy of our policy with this newsletter; fortunately we don't have to register with the ICO (Information Office Commission).

Finally I'm sorry for the delay in getting out our Spring new letter. If you want to know more about progress please keep an eye on the website and our facebook, or come along to the published work days shown on the google calendar.



Photo on the left shows the new water gauge fittings placed on the new boiler.

The big flange mount with studs is for the large steam 1½" stop valve which takes engine steam from the backhead. The two valves lower down are the shut off valves for the injector water feeds, the one on the right has a check valve attached.

Two photos below on the left the clean bilge's – just need to clean under the long machinery bearers – on the right a small group discussing progress. – where is the steering wheel?



Some personal opinions about the Consuta hull design.

We know that Consuta floats lower in the water than when she was originally built. This is because Consuta is about one ton heavier than in 1898 so represents a displacement some 1½ inches deeper in the water than when built; so a new lighter boiler would have the potential of allowing Consuta to float an inch higher.

However there are other parameters that have led me to conclude that the design of Consuta was not quite right. I think Sam Saunders knew this and took the opportunity to correct these in his second steam umpire launch Maritana. One change he made was to make Maritana some four feet longer. I've often puzzled over this, was there a purpose? The next comparable launch of similar size built after Maritana, was the petrol engined 1912 Enchantress built at the Springfield works yard which was by then owned by Hobbs (1911). Enchantress was not a stitched hull but was probably made to the lines of Consuta by the same Springfield workforce who built Consuta and is the same length.

Here are my thoughts.

We are aware that Consuta has a lower freeboard than all other later umpire launches and this might not just be due to the steam plant weight but may have been part of an original design which was changed.

It is possible that Saunders increased the freeboard of Maritana to correct this – not easy to judge from photos. However by increasing Maritana's length by four feet he was able to fit a longer fore-deck to reduce any bow down loading at those times when the front compartment had a lot of passengers, numbers carried here can be up to 10 people.

Also the covered bow deck section on Enchantress is longer than the that on Consuta where it was possible to locate the front compartment further back on the hull because the petrol engine in Enchantress required less space than needed for the steam machinery. This must also reduce the tendency to push the bow down when loaded.

One feature which Hobbs didn't change on Enchantress was the location of the rudder. Both Consuta and Enchantress have semi balanced rudders which are over hung from the stern some distance from the propeller. Helmsmen new to Consuta soon find that it is not possible to put the rudder over and kick the stern left or right using a short burst on the engine; this makes the art of making tight turns an interesting technique which needs to be developed. At speed (ie over 10 mph Consuta turns quite quickly) but it is a brave skipper who adopts this approach on a busy river. One technique which works while travelling slowly during a turn is to blip the engine – it is noticeable that Consuta turns quicker when power is off. I've seen Enchantress take this technique a stage further by using several ahead and astern changes in quick succession during the turn – must try this out some time, possibly not really practical with a separate person on the engine manoeuvring controls.

The later build umpire launches have the rudder close to the prop, but on Consuta the rudder is about six feet behind the prop. I remember Ian Rutter telling me that the turning ability of Victoria (a Saunders 30ft hull) was greatly improved by moving the overhung rudder to a position under the hull just behind the prop. However there is one nice feature due perhaps to the present rudder placing is that when travelling in a straight line ahead putting the engine into astern does not change boat's direction.

Brian Smith