



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 2016

Dear All,

Winter Social

Our winter social luncheon at the Shillingford Bridge Hotel had 50 supporters and guests attending, it is a lovely spot looking out over the Thames and we were made most welcome. Any thoughts or suggestions about where we should go next year would be welcome? One suggestion is to have our social at the River Spice, Caversham Bridge – great location with a comprehensive Indian Buffet menu.



The museum project



As you may know our sister trust the Tamesis Trust (see logo based on early Thames Conservancy licence plate) had applied for lottery funding for the museum, the total cost of this museum was around £2.6m. The HLF informed us late January that they were not able to offer a grant for the project, and they gave various reasons, but the truth is that they are short of funding and are only able to provide grants for one in eight applications presented to them. They did at least acknowledge the importance of the Thames heritage and also Consuta, but sadly totally ignored the importance of Cygnet and Donola; we think because these historic craft do not have that important National Historic Ships grading of “Fleet Status” – Consuta does have this grading.

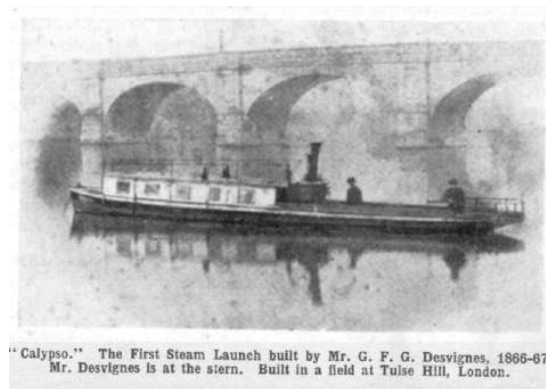
Very disappointing perhaps but in some respects makes a much simpler project. The conditions set for applicants to obtain an HLF grant are very onerous involving additional costs. Subtracting all these costs for the various added requirements for a HLF grant, the museum could then realistically be built for under £1m; surprising perhaps, nevertheless £1m is still a very large figure. The main build cost is for foundations which need to be piled, and these have been estimated at about £450,000.

The provision of a Thames boat museum is an important and worthwhile project, we have been encouraged by so many people telling us we must go on. Quite right of course so the Tamesis Trustees are now looking at ways of raising the funds. Our first aim is to obtain reserved matters planning approval, this needs agreement with West Berkshire Planners for an approved landscape scheme for the site, plus agreement about the building appearance. Although application plans are being drawn up we haven't as yet appointed an architect/surveyor for this work, so if you have any suggestions please do contact us ASAP. Then if you have any thoughts or can help with the main fund raising work again please do let us know.

If you wish to know more about the museum project have a look at the Tamesis Trust website; also

click on the Tamesis Facebook section, there are numerous links to old films and photos about the Thames; and you don't need a facebook account for this. It is quite surprising the amount of old films that have survived, many from Pathe News; there is one very old film clip which shows Desvignes's umpire steam launch Hibernia taken at Henley in 1899, another of Consuta on training work at Henley, this one probably early 1900's.

Photo opposite is G.F.G. Desvignes first steamboat.



Now Consuta Business

Work schedule since Christmas

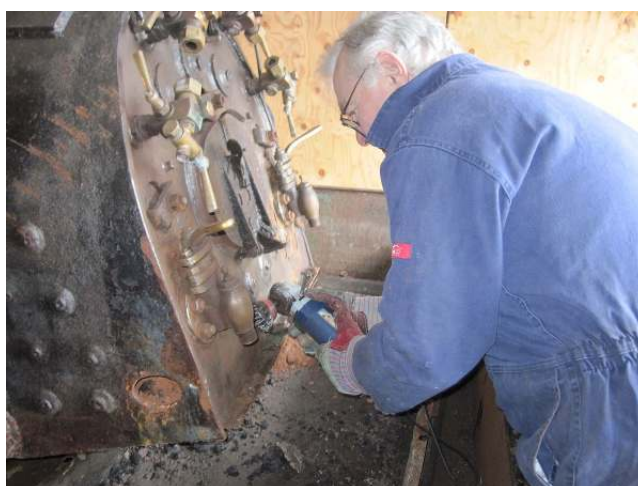
The first work on Consuta was to make some non structural repair/modification to the boiler by seal welding the tubes in the firebox. This is a common practice when tubes are susceptible to leakage in service. The photo here shows the boiler being moved to Thatcham where the work was carried out.

Consuta and the boiler both on trailers were eventually moved into the Cowshed during

February; this then allowed winter maintenance work to start. It was fortunate that we were able to fit the boiler trailer in front of Consuta as well, which means we can work on the boiler under cover, and also lift the boiler with block and tackle to refit the ashpan.

Over time various paints have been tried on Consuta's boiler but have never lasted very well, probably because the boiler surface has not been totally derusted, painting over rust even if it has been treated is not good enough. The boiler was built in 1980's but had to be kept outside for several years which was presumably when the rust had started.

The best way to clean off rust would be to sand blast the boiler however not a practical proposition while housed at our temporary base. There is a youtube video showing the use of a laser deruster but I think these are very expensive and specialist high power devices – so not an option. To date the treatment has been by powered wire brushes, air needle gun and even some manual de-rusting hammering. The various paints tried are red oxide, red lead (yes the real stuff with lead – tin is very heavy), some clever anti rust stuff called Rust Bullet, and ordinary Hammerite. All looked good when first painted on but they don't last – no doubt any remaining rusticle particles under the paints cause paint cracking when the boiler heats and cools.



We've now obtained some expensive satin black paint for the backhead which is good to 250 °C and cures at 150 °C, so fingers crossed, the boiler outer plate temperature at steam pressure of 180 lbs/sqin will be about 193 °C.

New boiler

I'm sure that you will be pleased to know that work on the new boiler is being pushed ahead. David has some new software (steep learning curve to use no doubt) which he tells me can provide all details of the boiler plates ready for laser cutting. Cutting services can even cut plates complete with all the weld preps as provided by the CAD package. So all that is then needed is to weld the "flat pack" boiler materials together. Sorry to report that if you are a traditionalist, the Consuta trustees are not going for a flanged and riveted boiler, they just want the lightest (and by far the cheapest option) – pity perhaps but as has been pointed out a welded design will be lighter and with suitable lagging most people wouldn't see the difference once fitted in the boat without close inspection.

The half section model of the boiler made by David is presently sitting in Consuta and it does look very good; it seems that the boiler casing can be lowered by at least 3 to 4 inches. We are now getting carried away with great ideas of how the boiler top/casing could be "easily" modified, so that once all this is done Consuta would look as it was in those old photos and being lighter, float at the original waterline and be easier to steam – it's a win win situation all round. The changes involve fitting a narrower and lower boiler casing plus pipework changes.

Other more basic work required for the season ahead that has been done by the working parties was that unpleasant task of cleaning the bilges. Fortunately this time we had some excellent wet vac equipment lent by Colin and Nigel which made it much easier. This dirt is a nasty mix of ash, coal dust and oil which had dried out after Consuta had been removed from the water; this concoction was seemingly glued to the hull bilge's. After the cleaning, the bilge's looked pretty good so didn't need any repaint – good stuff that Danboline paint.

So firemen in future please please note and I shout "DO NOT ALLOW WATER TO ACCUMULATE IN THE ASHPAN AND OVERFLOW INTO THE BILGES". I know the ashpan design is not good, but with the recent modifications this overflow should not happen, perhaps we should instigate fines, or being more practical consider repositioning the injector overflows to discharge out through hull skin fittings.

The flooding issue usually arises when injectors aren't working correctly, which if unnoticed allows large quantities of injector water to spill into the ashpan. There is a section of plastic pipe which when plugged onto the bilge ejector suction point can be used to remove excess water from the ashpan.

With the boiler out and the ashpan removed we were able to have a good look at the firebars. Well we knew that they were not in perfect shape; several as well as being bowed up also have cracks on the top section of the bar.

The fire bar design is a rather strange one and perhaps not particularly good. Graham Lindsay



had been given some original Consuta firebars (in poor condition) by Laurie Weaver when he lived at Cleeve Mill. As you will know Consuta was originally based here when owned by Mr Clutton. Casting patterns were made to the style of these original bars.

If you look at the photo of an undamaged bar it seems obvious to me that the top of the fire-bar will get red hot while the lower stiffening piece will not, so due to heat expansion the bars will bow up in use. Probably the heating and cooling from several firings will then severely strain the casting, eventually leading to breakage. All the breaks are in the top bar.



As the bars have been in use now for nearly 15 years perhaps we might expect the need for replacement. Seven new bars are required to replace the damaged ones. I am also going to look at the possibility of using fabricated stainless steel bars, perhaps a longer service life.

Consuta Pontoons at Beale Park

Those who attend the Beale Park Boat Show will probably know that our pontoons have slowing been losing buoyancy, so we decided to investigate their construction. The pontoon floor is built on a wood frame with compartments fitted with blocks of expanded foam to provide the floatation. Over time the bottom of these foam blocks has worn away a little, also they have become partly saturated with water.

There seemed to be two relatively easy options to improve the floatation. One is to add extra foam on the top of the existing foam blocks, however this means removing the top planks to put this in place, another possible solution is to place empty 25 litre plastic containers at the pontoon joins – three can be fitted along each join. Colin has provided a quantity of foam offcuts which Paul has chopped up to put in the drums then used expanding foam to fill the remaining space in each container. This has yet to be completed, fingers crossed that our passengers won't get wet feet at the show now.



One task we needed to do was collect the Gray Marine engine from Pat Newton. This is the last petrol engine used in Consuta during the 1960's.

The engine is a 6 cylinder 1930's side valve design, capacity probably 244 cu ins (4 litres). There is a plate on the engine which states governed to 2,200 rpm, so probably about 70 hp. With all the ancillaries it probably weighing about a half ton

Geoff had stored this when it was donated to the trust.



Back end of the boiler being raised to refit the ashpan, which has also needed some repair work. It is stainless but has some small parts in steel, which have corroded over time and so are being replaced.

Above crew fit in an acro prop in preparation for lifting the boiler.

On the right Paul checks out the engine bearings for any wear.

The oiling arrangements on the engine are really quite primitive, the valve gear for example has small oil holes drilled into the steel and requires a small squirt of oil by the engineer from time to time during use, sometimes forgotten.

Brian Smith - April 2016



Consuta operations – 2016

Note – Possibilities

April - May	Consuta work parties	
	Boiler examination	
	Consuta re-launch	
2nd June	Boat Show setting up	
3rd – 5th June	Beale Park Boat Show	
17th - 19th June	Henley Women's Regatta	
25th June	Reading Town regatta	
26th June	Wedding anniversary to Henley	booked
29th June – 3rd July	Henley Royal Regatta	
6th – 10th July	Henley Festival	
16th – 17th July	Trad Boat Rally	
16th July	Goring and Streatley Regatta	
20th August	Wedding party Caversham to Hardwick Estate	booked
TBA August	SBA event Henley?	

In addition to the possible events shown above there have been other enquiries, details to be confirmed later. There will also be special supporter outings, repositionals and boat handling sessions. Note most of these events are dependant on good weather.

Another day trip up the Kennet would be popular, probably best starting from Charvil.

If you would like to help crewing at any of these events please do let me know.

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BWS March 2016