



The Consuta Trust

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

Website: www.consuta.org.uk

News Letter No. 46 — Autumn 2011

Dear Supporter,

End of Season

Doesn't time fly? we are fast approaching the winter months and Consuta has now been safely lifted out at the end of the summer season.

The boiler was removed first, this is always a tight squeeze, then Consuta, and

finally to be followed by lifting the Shallop out and putting it onto its modified trailer. The crane used was a 35 ton all terrain type.

The photo below shows Consuta's boiler on its trailer being man-handled into the cowshed.



Steam outings

Our operations this year have been surprisingly varied.

Following a rather wet Trad Boat Rally, Consuta was moved upriver to her birth place to participate at the Goring and Streatley Regatta. I don't know if you noticed but the date of this event didn't clash with the Trad boat Rally this year, and this one day regatta was blessed with some quite nice weather. Consuta ran many short "free" trips for regatta visitors; nevertheless the voluntary donation box did very well. We always seem to find out more about Consuta's history when we are here, one visitor told me he remembered seeing Consuta on umpire duty at the Henley Royal Regatta in the 1950's. Now we had thought she had been restricted to working on the lower Thames after the war; I wonder if anyone has any pictures of Consuta taken over this period.

On Sunday following the G&S event on the Saturday, a private party from Goring was taken up river as far as Wallingford, then returned to the Swan at Streatley in time for lunch. There was however no rest or lunch for the crew as Consuta didn't stop, but carried on down river during the afternoon to get to our mooring at Charvil to be ready for yet another private function based at Harleyford the next weekend. During this outing Consuta travelled down as far as Cookham Lock.

We had been contacted by the BBC in July who enquired about hiring Consuta for use in a programme they were making about rowing shortly after WW2. We wondered why did they wanted a steam umpire launch for this period story set in the late 1940's? Consuta was around of course but had not been a steamer since 1923. The fee for a two day shoot in August was an excellent boost to funds.

The skipper and crew were played by Collin Henwood on the helm and David Eager, with cloth cap, on the engine. Colin had to shave off his beard for this job much to our amusement, although Lucie was rather surprised. I don't know any details about this film, but will try to give advanced notice when it is likely to be screened.

Also in August two days had been scheduled to give short river trips for River and Rowing Museum visitors; one day had to be called off because of bad weather.

This was then followed by the SBA Thames Rally based at Beale Park early September. On the Saturday Consuta and two other steamers travelled up to Benson for lunch, the weather was quite pleasant. The Sunday morning however was extremely wet so Consuta remained sheeted up. I decided to take our family steam launch San Toy back to Kintbury despite the torrential rain; the weather forecast promised fine weather in the afternoon and we were not disappointed. This is a super trip, first down the Thames to Caversham stopping for lunch at the River Spice restaurant (previously the Riverside Inn), then through Reading onto the River Kennet to Newbury, then the Kennet and Avon canal to our home at Kintbury. We arrived back home on Monday afternoon; 34 locks and about 38 miles in two days – phew!



Photos of Consuta's last outing on October 1st.

Do you remember it was a lovely hot day.

Below:- Just leaving the Swan (Pangbourne).

Right:- Consuta had to sit diagonally in Whitchurch lock to keep clear of the cill.

Bottom:- The Swan seen below the weir, Consuta went up the short weir stream – there used to be a boatyard here where the river Pang joins the Thames.



So ended the last trip of the year

Now what about a Base for Consuta

We've been talking for a long time now about having a suitable home base for Consuta to provide public access throughout the year and also allowing maintenance and cleaning work on Consuta in all weathers.

Consuta is very popular operationally but there have been few offers of help to provide the right sort of base. The Trust has funds and is confident that it could raise additional capital if required, but we just cannot get a suitable place. We are still working on this, perhaps we are not pushing hard enough; if you have any suggestions or can help in any way please do let us know.

Engineering Operational Matters

Paul Smith adjusted the valve timing on the after cylinder, this improved the timing so he now wants to do the same on the forward cylinder; but access is a bit more awkward because of the location of the reversing lever, this will be a winter task.

Engineering Problems

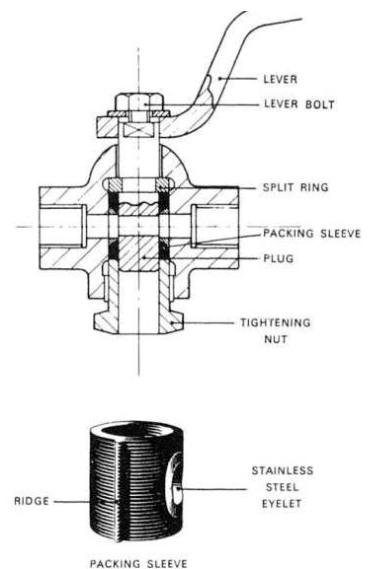
The blow down valve had given trouble by jamming. This valve is a groove packed plug cock which requires just 90 degree turn between open and shut. The groove packing model is the best for leak free operation because it does not rely on a perfect metal to metal seal, but instead relies on gland packing material fitted in four slots of the plug body. It seemed that what had happened was that one of these packing pieces was just a bit too long so had been squeezed short on assembly, but when the valve plug was rotated it bowed out into the throughway slot and jammed the valve. When this fault occurred it was not a disaster but it did mean that a blow-down operation was not possible.

Another problem occurred during steam raising for the RRM visit, the pressure seemed to be slow rising even though the fire was very good (it was described to me as a raging fire). However the pressure gauge suddenly shot up from 70 psi to 180 psi so clearly indicating that the boiler was at or nearly at full pressure. The injectors were used to stop the pressure rise resulting in the boiler becoming very full and because the blowdown was out of commission the water level couldn't be lowered, which resulted in both safeties letting off with a frightening roar. Because the boiler was overfilled a lot of the boiler water was lifted through the safeties as well; drenching the funnel. The funnel paint didn't seem to like this and bubbled; the top section turned a light brown colour which cannot be cleaned off. I wonder why; our thinking is that maybe the boiler treatment reacted with the hot paint. So if you saw Consuta in September with an off white funnel; you know why.

So what was the problem with the pressure gauge

Later investigations showed that the problem with the pressure gauge was due to a fault in the gauge shut off cock which was blocked. This valve appears to be another type of packed gland using plastic sleeve packing. The sleeve if not properly retained can rotate and block off the pipe. I'd heard of this fault in some model engineering fittings but didn't know it could happen on full size valves. After the incident a hole was drilled through the packing (blue plastic turnings!) and there were no further problems for the remainder of the steam outings. The valve will be stripped down during the winter maintenance so more on this later.

The pictures right shows the construction of a sleeve packed gland, the ridge on the packing sleeve is intended to stop the sleeve rotating which otherwise could put the throughway out of alignment.



Example of a sleeve-packed cock (Richard Klinger Ltd)

Thank you to everyone who helps to keep Consuta running each year,

Your support towards the running costs – help with the maintenance – or the crewing is most appreciated.

Brian Smith October 2011

Continue over.....



I wish Consuta was a bit lighter! – who said that?

Why? Read on

The pictures above were taken just before Consuta was craned out. The photo on the left shows Consuta floating about 1 inch higher because the boiler has been emptied of water (holds about 70 gallons ie 700lbs). The photo on the right shows how much higher she rides when the boiler has been removed – 1.5 ton when empty.

For any fast boat it is important to keep boat weight to a minimum, once the hull is pushed past what is referred to as “the natural maximum hull speed”. For Consuta this is about 11mph. Over this speed the power required to go faster can be high and will cause wash and swell; which becomes very much worse if the boat weight is increased.

Consuta was thought to have weighed only 3 tons when built, she currently weighs over 4 tons after restoration, 1.5 tons is due to the boiler and 1/3 ton due to boiler water content.

As you may know the current boiler apart from being too heavy has several other bad features, water carry over in the steam take off being a problem; so it has always been our intention of looking at a better and lighter replacement boiler.

David Eager has used his CAD programme to produce an alternative boiler design and the next page shows a comparison between the present boiler with a lighter replacement.

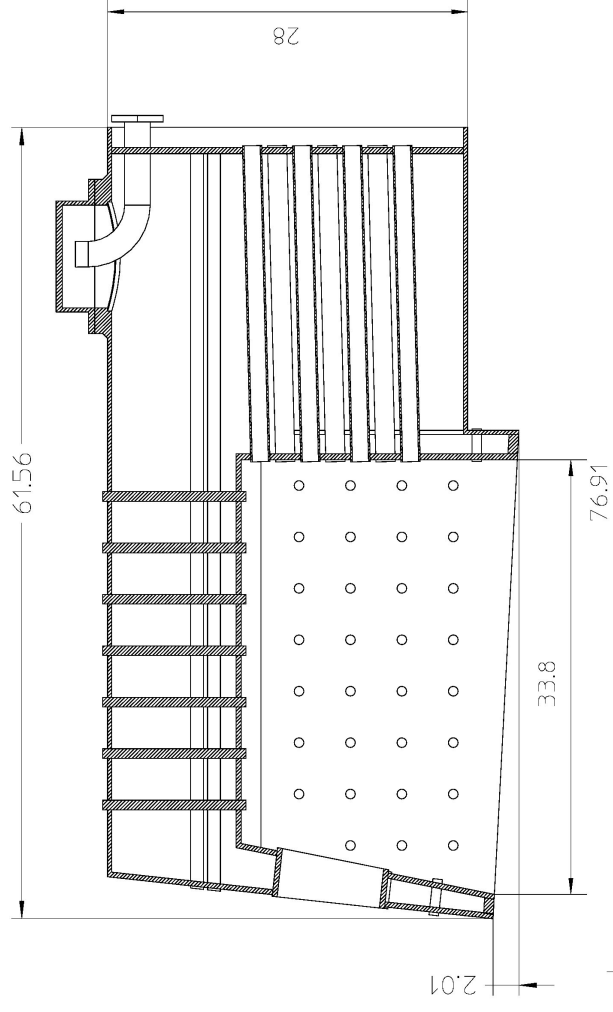
In addition to the reduced weight (about 1000 lbs overall including the reduced water content) the boiler would have the following advantages:-

- A greater range between full and empty on the water gauge.
- A dome to provide drier steam to the engine.
- The steam take off could also have a steam drier fitted in the smokebox (superheat?)
- Slightly larger combustion chamber. (less smoke)
- More fire tubes.
- Shorter barrel which will permit more space in the engine compartment

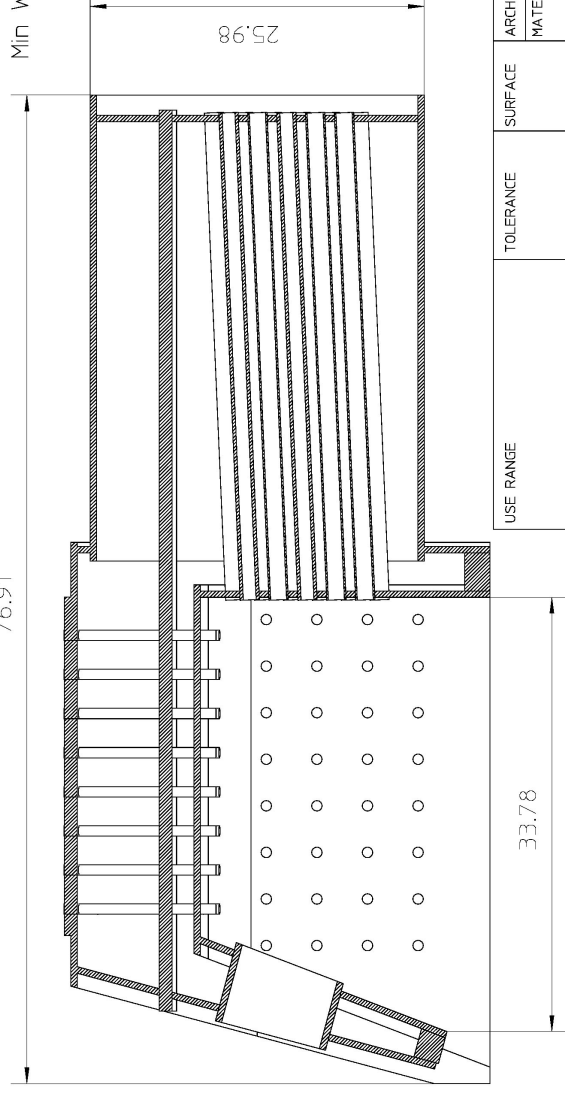
There is still much detail design work to be carried out on the boiler design, but we intend to find the cost of a replacement boiler. Of course there would be several other changes required to fit in a replacement boiler; ie pipework, ashpan and smokebox etc.

The present boiler is still in very good order having been re-tubed just two years ago, so I suppose could have a good sale value.

The next page has a comparison of present and replacement boilers; more on this issue over the next few months. ■



Old Boiler
Empty Weight 2,121 lbs
Max Water Capacity 77 gallons
Min Water Capacity 49 gallons
Max Water Weight 768 lbs
Min Water Weight 500 lbs



V4 Boiler Comparison

USE RANGE				TOLERANCE		SURFACE		ARCHIVE		SCALE		1:10			
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