Salt Water & Cast Iron

Some 20 odd years ago I acquired a 2 cylinder 2 stroke Stuart Marine engine, Model P55M.(8h.p.) These were built by Stuart Turner of Henley on Thames in England and were available in both 1 and 2 cylinders. They were sold with the Stuart forward and reverse marine gear box and by all accounts they gave good service.

My engine came in a completely dismantled state. Each item was taken apart to the last nut and bolt, even the magneto and carburettor, and placed in cardboard cartons and ice cream containers etc.

The most obvious problem was the cylinder block assembly for the studs which pass through it had been cut off level with the upper and lower surfaces. I spent good many hours drilling out what was left of the studs, there are 8 of them approx 8 inches long, and when finished placed the whole lot on some wooden shelves for restoration at some time in the future.
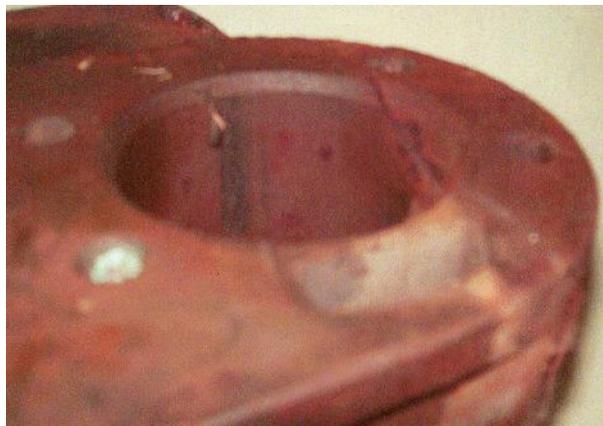
Thinking about restoring something new for the next Power of the Past, I remembered the Stuart project so I dragged it out and proceeded to clean and paint all the various components. I was part way through this when I discovered a serious problem, something which came as quite a shock.

The cylinder block on which I had spent so much time and had put away well oiled all those years ago had cracked badly and looks to be beyond repair.

The cracks on it are 3-4 mm. wide and there are three of them. Further checking revealed a badly cracked water pump housing and a crack running the length of the expansion box that is wide enough to accept a pencil. Because this engine spent it's entire working life in salt water it was so impregnated with salt that once it dried out the corrosion properties began their silent work.

I then remembered how when iron artefacts are salvaged from the sea they are kept in sea water until their conservation is finished. Something to think about if you have to restore a marine engine that has been used at sea.

P.S. Does anyone have or know of a spare cylinder block for 2 cylinder Stuart?

Mike Sheehan