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NEWSLETTER OF THE BOAT "PARAPPA"

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Parappa, winner of the Hobart Regatta Fishing Boat Race of 1919

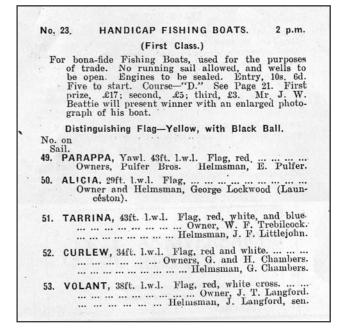
The fishing boat *Parappa* took first place in the Hobart Regatta handicap event for fishing boats (First class) in 1919. Owned by the Pulfer Brothers, and skippered by Ned Pulfer, *Parappa* came first in a field of five. *Curlew* came in second, followed by *Tarrina*,

Today, *Parappa* is a 90 year old Tasmanian fishing boat that has spent her working life around southern Tasmania, with occasional time off to show her sailing ability. She is now being preserved as an excellent example of a Tasmanian cray boat that has survived as a working boat by undergoing 90 years of continuous upgrading and technological development.

Parappa is a 52 ft (15 m) boat of huon pine planks on steam bent ribs, built by Ned Jack at Trevallyn, Launceston, in 1915. Today she looks very different to the 1919 regatta photo, as there have been many changes to keep her facilities and equipment up-to-date. She was originally built as a gaff-rigged yawl, with quite low freeboard, with a coach house with hatch in the stern giving access to the engine room (where the skipper slept), a large wet well, and low



"Parappa" won the Fishing Boat (First Class) race in the Hobart Regatta in 1919



The Hobart Regatta program for 1919 shows Parappa in a field of five well known boats.

fo'c'stle forward. Steering was originally by tiller, but this was converted to wheel when a wheelhouse was added. The gaff rig, so spectacular in the regatta photo, was replaced by the more practical Bermudian rig, which does not require a wooden gaff of more than the weight of a man to be hauled up the mast as part of raising the main sail. The deck was raised in the 1960s, by one plank all round and by 45 cm forward to provide standing room in the fo'c'stle. The wood-burning stove was replaced by a gas stove in the 1970s, and a refrigerator added. Parappa was originally built with a 10 HP engine, but that was the first of about 10 engines, generally increasing in power and efficiency with each changeover. A new aluminium wheelhouse was installed in about 2002, along with hydraulics for the pot hauler and anchor winch, a genset for 12V and 240V power, and modern navigation electronics.

Parappa was retired from active service in 2004, when the continual process of upgrading, maintenance and modernisation was no longer feasible. She is now on the hard stand at Oyster Cove Marina at Kettering, for maintenance to the hull and deck. Feel free to drop by and see work under way on this historic vessel.

Parappa's first engine

Parappa's British Ship registration certificate of 1921 records that her engine was a 10 HP Union petrol engine, 1912 model. She was built in 1915, so presumably this engine was installed when she was built. Parappa was purchased by the Jager family of Lune River and Southport in 1936, and Handy Jager told me the Union engine was still there when they took over.

Parappa has had about 10 engines, which over her life of 91 years, averages out at about 9 years per engine. The Union engine was replaced in about 1937 with a Junkers two stroke, and that was followed by a series of Stirling, Clae, Perkins, Ford and Bedford motors. The current engine is a Bedford 6 cylinder diesel. Unfortunately the Union engine is long gone. It was broken up and used as ballast in the Jager family's next boat, the 'COJ'.

Union engines were manufactured by the Union Gas Engine Company in San Francisco, California. Development of four-cycle petrol engines was well advanced on the west coast of USA by the start of

World War I in 1914. In the 1913 catalogue, Union claim that they had been manufacturing engines for 28 years. In that catalogue they offer a range of one, two, or three cylinder engines of 7 to 150 HP; *Parappa's* engine was apparently two cylinders.

Union was an early exporter of engines. In 1916 a business magazine reported that Union was "finding a particularly good market in the South Sea islands for both marine engines for power boats and stationary engines for electric lighting and pumping. Every steamship leaving the Bay of San Francisco carries a shipment of its products. These go to Australia, the Fiji, China, the Philippines, Hawaii and Samoa". At least one of these engines found its way to the Jack boatyard in Launceston for instal-

lation in *Parappa*. We know nothing about the series of companies and agents that moved the engines along their commercial path, or the mechanics that installed and later serviced them.

When I talked with Handy Jager in 2004 I asked him about the engine:

"There was a Union engine, 10 HP petrol when we got her in 1936. She ran at 360 revs flat out. They claimed on the papers that she would do six and a half knots with that, but it might have done five. If there was no wind."

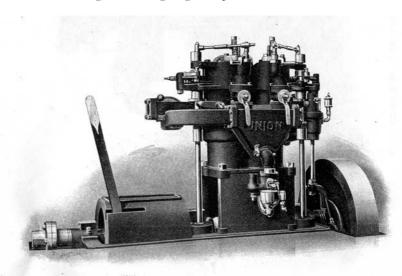
He spoke about starting the engine, and the ignition system:

"To start the motor it was just your hand on the flywheel. Turn her over and away she went. There was a battery, but just for ignition, but not like the ordinary battery now; they were more-or-less cylinder shape. All the battery was used for was the ignition. There weren't spark plugs, just the old make-and-break. They had what was called a low tension magneto, just to charge the battery to run the ignition."

I asked Handy's brother Bob Jager why the Union engine lasted so long:

"A lot of those old engines lasted a long time, because they didn't do much bloody work. They were so small they wouldn't do much, and petrol was in real terms dearer than it is now. When I was a kid and went to buy petrol it was 2/2d a gallon. It had to be carted in drums or in a case, there weren't the tankers there are now. A case of petrol had two four gallon tins in it".

The 1913 Union engine catalogue lists the 10 HP engine as weighing 850 pounds. Is was rated at 450



Union 10 HP petrol engine as used in "Parappa", from the Union Gas Engine Company catalogue of 1913

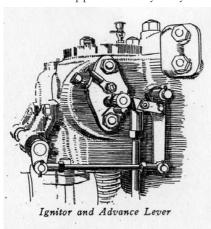
rpm, when driving a 24 inch propeller. Cylinders were 5 ½ inch bore with 6 inch stroke. The illustration shows that the cylinder block had the two cylinders cast as one unit, which was modern practice at the time. Casting technology until then was such that cylinders were cast separately and bolted together. The low engine speed and low compression delivered much less power than faster running engines today, but made a relatively unstressed engine. Bearings could be simple, and lubrication was not so critical. And the engine could be directly coupled to the propeller without the need for reduction gears. The engine was equipped with a clutch and a reverse gear, but forward gear was direct drive. The clutch

Parappa



and reverse lever – the large lever at the back of the engine – wasn't accessible by remote control from the wheelhouse, so manoeuvring for berthing needed an engine driver at the engine. And spark advance was not automatic, also needing to be adjusted by the engine driver as the engine was sped up or slowed down.

The make-and-break ignition system used contact breaker points inside the cylinder, rather than in the distributor as they would be later. One contact was stationary and the other movable, being pushed against the stationary one at the proper time and then snapped back by a system of rods, cams and



springs. As the contacts opened, a spark jumped across the gap, igniting the fuel in the cylinder. The coil was a single winding of coarse wire; current was supplied by a set of dry cells in the early days, and later by a magneto.

A single cylinder Union engine dating from 1897, but similar to the one used in the Parappa is still in use today in the launch *Swan*. Mori Flapan, who with Andy Munns was part owner of Swan in the 1980s, described what it was like operating the engine:

"Everything on the engine was manually controlled. Before starting, all the lubricators were opened, checked for oil and topped up where necessary. The operator had to adjust the mixture, timing, compression, throttle and battery switch to suit the needs of the moment. The engine was started using a hand crank on half compression and battery power with timing on neutral and out of gear. A few turns of the crank, and all being well, she would fire and gradually build up revs. To get underway, the compression was switched to full, she would be put in gear and revolutions controlled using the timing rather than the intake throttle. The mixture would then be adjusted by viewing the exhaust gasses passing out of the top of the funnel using a mirror that lay on the engine casing. Normally, black smoke would appear indicating an overly rich mixture. The fuel mixture cock was gradually closed to give a leaner mixture until the black smoke disappeared. Too lean a mixture would result in white smoke. We would then check the number of revs by counting against the second hand of a watch. Over 400 rpm, and everything was running sweetly. You could easily count the revolutions because 400 rpm meant only 200 power strokes per minute on a fourstroke motor. Once the boat was clear of obstacles and was unlikely to engage in manoeuvres, you could change

the battery switch to dynamo. As the engine warmed up, the mixture changed and you had to adjust it from time to time checking the colour of the exhaust and the revs.

"Prior to manoeuvring, you had to remember to change that battery switch, otherwise at the most crucial moment, the engine would stop firing. It would still be turning over for a few moments because of the inertia of the massive flywheel and in that time you still had a window of opportunity to flick the battery switch. You manoeuvred using the compression, timing and reverse gearbox. It was a great help to have someone else to take the steering wheel, though on occasion, the one person handled both the engine and helm.

"The electrics were low tension. If the engine did not fire, you could visibly inspect the make and break chamber by opening a port and flicking the ignitor open. You had to be careful though because the mixture inside the chamber might ignite (This is the voice of experience here!). One time we were motoring along when there was an almighty bang from the engine compartment and we stopped. Looking inside, we found a snow-like substance falling inside. Investigation found that the ignitor had stripped its thread in the cover and the snow was mica that had disintegrated. The mica was used to insulate the ignitor post from the engine. We had to use the hand-crank to get back to the mooring.

"There was no carburettor. Instead there was a device similar to a globe non-return valve. At the place where the handle of a globe valve would pass, there was a needle valve. The vacuum from the engine would lift the "non-return" part of the globe valve striking the needle valve and drawing in petrol. A crude mechanism, but it worked. Sometimes, if there were difficulties starting up you would be alarmed to see petrol coming out of this device into the bilge! However, the boat was arranged with a dual combustion air intake. One intake came from below the engine and acted as a bilge scavenger to reduce explosive fumes. The other intake took preheated air that had passed through a jacket formed on the lower part of the engine cylinder. The engine was apparently arranged to also burn fuels less volatile than current petrol.

(Thanks to Meredith Beechey for finding the *Union Gas Engine Company Catalogue* of 1913 in the San-Francicso Maritime Museum Library, and to Mori Flapan for the article *Thirty Years of Marine Engine Development* from 1937).

Parappa



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Parappa today

Parappa is on the hard stand at Oyster Cover Marina, Kettering, with work well advanced on the onceevery-90-years hull service. The planks have been refastened to the ribs by 3500 stainless steel screws—two at each plank/rib junction - to support the original copper nails. The copper nails had worked loose and in some cases corroded away completely, particularly near the concrete ballast. The huon pine hull is being strengthened and waterproofed by gluing in king billy pine strips between the planks with epoxy glue. The traditional method of caulking a carvel-planked boat is to hammer cotton or oakum caulking between the planks and cover with putty, but the choice of splining was made to provide greater hull strength. This is necessary as some of the internal ribs are broken, and rotted to some extent, and cannot be accessed for inspection or repair. Ribs under the concrete ballast, under the engine or behind ceiling are particularly difficult to access. Able Marine have completed two-thirds of the splining work, with the job expected to be completed in summer 2006/2007.



Mick Perigo gluing in splining strips

While Able Marine has been working on refastening and splining, Des Beechey has been sealing the deck and replacing some deteriorated timber. The deck, made of celery top pine, is *Parappa's* second deck. *Parappa* was built in 1915, but the present deck was installed in the 1960s by Scotty Jager. At that time the main deck was raised a plank, and the fo'c'stle raised about a foot, requiring new deck beams and deck planks throughout.

On a working fishing boat the deck is constantly wet with seawater, which is a good preservative for the deck timber and the timber below. With *Parappa* now in retirement, the inundation with sea water is less frequent, and freshwater from rain encourages rot. The original putty and caulking between deck planks had broken down in some places, and is being replaced by a modern sealant. The older traditional method of deck plank sealing was tar, but modern sealants give better adhesion between the



Parappa on the hard stand at Kettering

planks.

The process of deck sealing is long and tedious, consisting of 15 stages. Firstly, scrape off old paint to reveal the condition of the deck. Then scrape old caulking and putty from between the planks. Rout out the seams to 8 mm wide, and repair any rotten sections. Sandpaper to remove furry edges. Paint the groove with two coats of Timber Master epoxy paint to strengthen the edges, which may otherwise split. Prime with DeckFlex primer. Edge the grooves with masking tape. Squeeze in DeckFlex sealer, and smooth off with a putty knife. Remove the masking tape and excess sealer and allow to dry for a week. Then paint the deck with primer, undercoat and top coat, using ordinary enamel paint.

Some small sections of rotted deck planks have been replaced. Rot developed on the end of planks where fresh water could enter, but did not develop around the iron dumps used to nail down the planks. Although rusted, the iron seems to have had a preservative effect on the surrounding timber. Two planks on the transom were rotted in parts so were removed, repaired by epoxy laminating and replaced. The brass screws that had been used to fix these planks had de-zincified since installation in the 1960s; we hope that the stainless steel screws used to replace them will last as long, or longer.



Deck sealing and new stanchions