

# Restoration of "Apache"

1972 Hunter 701 (1/4 Ton) Sloop - Sail no. K6540



On her mooring at Beaumaris,  
prior to purchase

# Why a Hunter 701?

- In 2007 I felt that it was time to see how the “other half ” of the boat owning fraternity live – in their GRP world of resin, woven-rovings, chopped-strand matting, polyester and plastic widgets.
- I needed a small, but fast and seaworthy boat. It had to be simple and economical to maintain and easily parked on the beaches and drying harbours of the Bristol Channel. Also suitable for solo long-distance cruising and for the “Jester Transatlantic Challenge” at some stage in the future....
- The Hunter 701 hydraulic keel version ticks all of those boxes, having been designed by Oliver J Lee - who well knew how to make seaworthy small GRP hulls move easily and fast.
- A suitable boat, called “Apache” sail no.K6054 was found (on E-bay as it happened) and collected in November 2007.

# Hunter 701 design characteristics

- Going from a traditional large timber racing boat to a 24ft GRP hull is akin to changing a vintage Bentley for a Lotus Seven and has required a certain mental and physical flexibility (eg: I've stopped calling little GRP boats "yogurt-pots" and I no longer try to run over them when out sailing !!)
- The 701 is a very easily driven hull, ahead of its day in that the slippery underwater shape is similar to many modern racing yachts. However, in those 1970's days, keeping the freeboard and windage to a minimum was felt to be more important than cabin headroom or stowage space.
- During the early GRP period, boat builders and designers really had no idea what they were doing with this wonderful new plastic stuff – so they just continued as if they were working in wood. Consequently "Apache" is built like the proverbial Brick... with traditional teak and mahogany cabin fittings.
- I am restoring Apache to her original 1972 condition and I am fortunate in having been able to contact several previous owners and build up a good technical file, including her original rating certificates, sail and hull drawings.

# Hunter 701 1972 Specification

- Built by Hunter Boats of Rochford in 1972
- Designed by Oliver J Lee. ( he also designed the Squib; Ajax, Achilles etc)
- Hull number 64 out of about 100 boats (20 Hydraulic-keel version built)
- LOA: 23ft 6" Beam:7ft LWL: 20ft 6" Draft: keel up; 2ft 6" Down; 4ft.
- Ballast: ½ ton cast-iron bulb on 1 inch steel plate; Total hull Wt 1.5 tons
- Engine: Watamota petrol (now, 6hp Lister-Petter water cooled Diesel).
- Sail-handling controls all run back to cockpit - roller headsail being added.

Designed as a blown-up "Squib with a Lid" the first (19ft ) boat was simply called "Hunter"; the 701-development is thus one of the first "Hunter-Boats"

# History

- Two versions of the Hunter 701 were built, fin keel and a hydraulic lifting keel. Apache is a 1972 example of the latter. She is hull number 64 out of a total of about 85, built by both Oliver Lee in his own workshops and by the Poland family at the newly formed “Hunter Boats” at Rochford.
- I have yet to uncover Apache’s first few years of history but the bits of info. that came with the boat and various fitments lead one to believe that she was a seriously competitive South-Coast JOG boat in the early 1970’s. Apache would then have become uncompetitive under I.O.R. by 1976 ish.
- If anybody has information about the Hunter 701 named “Apache”, sail number K6054 please do get in touch with me at [www.classicboatsurveys.com](http://www.classicboatsurveys.com) [kathy@classicboatsurveys.com](mailto:kathy@classicboatsurveys.com)

# Apache, prior to collection



The youthful previous owner had obviously been presented with a set of “Boys toys” for Christmas that year, as the boat had been seriously attacked below the water-line with a variety of things with teeth, knives and coarse grinding discs..... OUCH!!

# Concealer par-excellence.....



.....all of which had left large areas of exposed laminate. The results of this vandalism had been concealed by a freshly applied coating of anti-fouling.

A good stiff boat... with a ½ ton cast-iron keel-bulb 3 ft below the hull



The hydraulics had been disconnected, which would have allowed the keel to free-fall if left unsupported. This would act like a half ton hammer on the GRP keel-box.....

# Just like a Dolphin.....



The good ballast-ratio, very low wetted-area and slim canoe body of the 701 result in a very fast boat for her size, with excellent windward ability.

# Keel support.....



I often wondered what those barrel thingies were for !

Good piece o' string, that.....



A half-ton of cast iron looking for a way down.....

# And now, on to the trailer....



The trailer was actually designed for a bilge-keeler, so a bit of hocus-pocus was necessary to get the boat to fit.....

# Ready to go....



Severn Estuary... here we come!

That was a long day.....



Only 180 more miles to go....

# A stalwart friend....



To whom, my heartfelt thanks and appreciation for all of his help with this somewhat extended project...

# Unpacking.....



Well, we made it back to Gloucestershire.....

# Getting organised.....



- A proper workshop is essential when working on this kind of project.
- The diesel generator produces an anti-social noise when under load, so it is used with caution. Visit the Generac 3000 at <http://youtu.be/tAylOwjR820>
- The lights only, can run quietly from a 500w inverter connected to the car.

# OK, lets get cracking...



- Initially a cheap and cheerful bit of blue plastic tarpaulin draped over the supported mast provided a dry work space.
- This was subsequently covered with a much heavier-guage sheet. Keeping the project dry is an absolute essential.

# Ideal for Gnomes or legless-crew!



- The GRP hull is extremely well engineered and moulded.
- The keel-box provides rigidity and support for the mast-step
- However, sitting or sleeping-room only - nominally 4 berths!

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# Fore-peak



- Fo'c'sle vee-berths with sea-toilet, chain-bin and hanging-locker.
- A new overhead Skylight / vent will be fitted during the refit.

# Interior – as was.....



The mahogany rudder blade had recently been repaired – probably having been used as an emergency brake on the rocks around Anglesey.....

# Skipper's berth.....



I'm glad I'm thin..... The new chart-table layout will be handy for taking a peek at the nav, whilst off-watch or under self-steering when solo.....

# Engine space.....



The original Watamota Sea-Nymph crawled out and died some years back. The current outboard-engine arrangement is being replaced by a reconditioned 1972 Lister Petter 1ACW inboard Diesel (70Kg), the same age as the boat.

# The original WaterMota reversible / feathering propeller gear.



A very clever little piece of engineering, but the propeller gears were corroded and spares not available - or I would have used the system with the replacement Lister-Petter diesel engine, to save 25kg of weight.

# The old engine mountings



An “Aquadrive” constant velocity coupling and folding propeller are being installed, together with double acoustic-silencing foam to the engine box. This will result in a quiet and smooth engine, hopefully.

# Constant-velocity coupling



The smallest “Aqua-drive” constant velocity joint

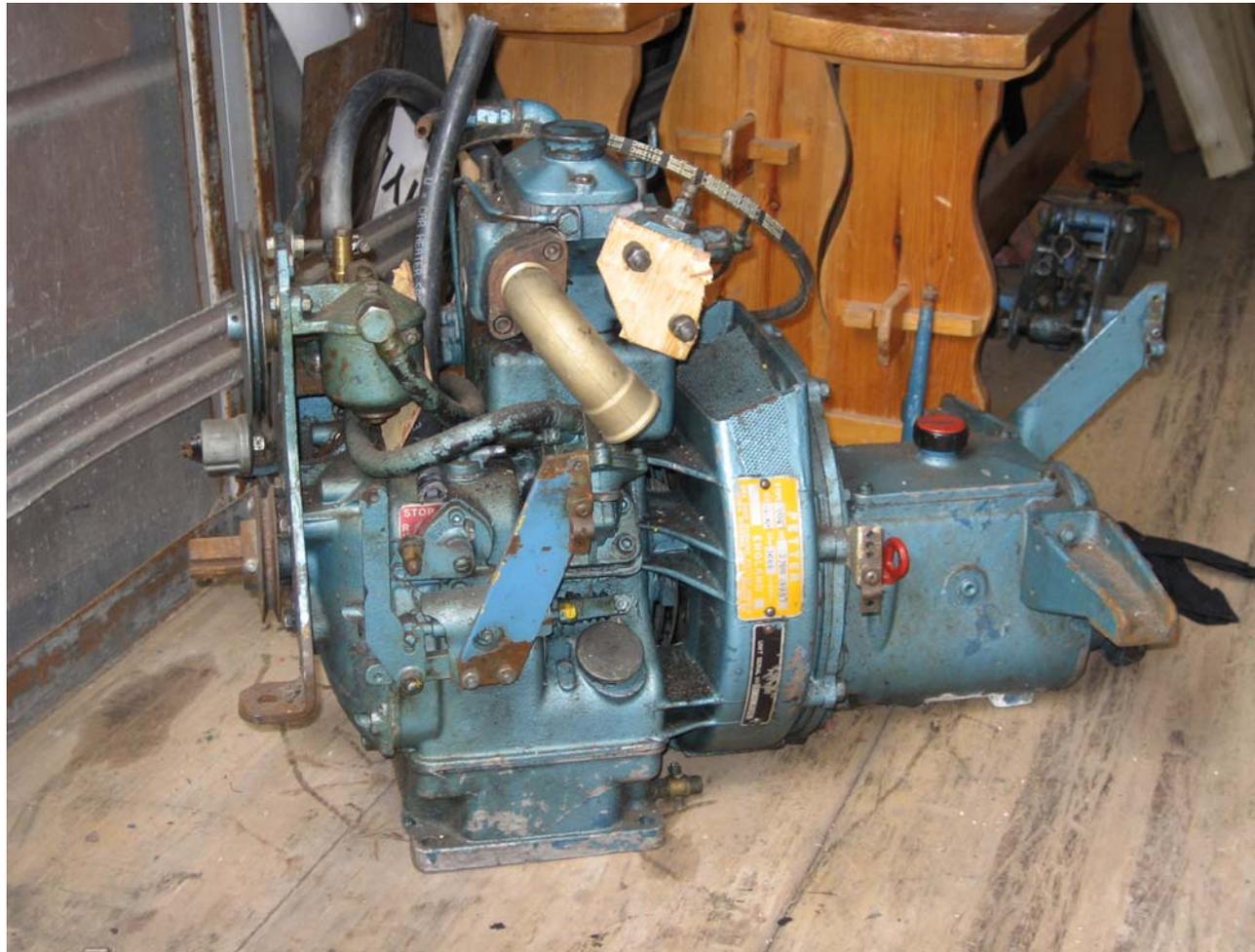
- Enables 15 degree angle between engine and propshaft
- Allows for extra flexible anti-vibration engine mountings
- Makes changing the engine and re-alignment very easy
- **Downside** - bloomin’ costly compared to a normal joint!!

# A plywood engine.....?!



Using the maximum deflection of the Aqua-drive joint, the engine can be installed horizontally, which only means 4" extra on the engine box height.

and the real deal ...



1972 vintage, Lister-Petter AC1W marine diesel  
Watch it running at <http://youtu.be/q4I7ynw3Q64>

# Future engine alternative: Beta 10HP twin cyl. diesel



- I expect the Lister-Petter to outlast me... ( and I expect to go on annoying my friends for at least 30 years more), however the coupling and engine beds have all been designed so that the Beta can be dropped straight in,
- It is 20kg heavier however, but is freshwater cooled – a great advantage.

Boats are Boring Boring  
very very Boring....



Well, obviously only a canine viewpoint .....

# Stripping the inside of the boat



Every square inch of the inside has been stripped using a hand scraper. The coating seen here was a typical 1970's "furry" sprayed-on material. Very difficult to shift, as chemicals had no effect whatsoever ...

# A slow process, but nearly there..



The worst bit to prepare was definitely the cabin roof, which had been painted with some weird gloop. I tried chemical stripper, blowlamp etc etc and ended up using good old-fashioned elbow-grease and a scraper.

# Port quarter almost ready...



Priming and painting accounts for less than 25% of the total time spent on the dismantling and surface preparation. However, I confidently expect the interior coatings to last fifteen years at least.

# Geronimo!!!



The last of three buckets full of paint debris, just from the inside of the hull.  
The outside produced another four buckets of anti-fouling and shavings

# New Navigation space



- A full chart-sized navigation table and chart- box has been shoe-horned in athwart-ships to port, where the galley used to be.
- A hinged seat will be fitted to the forward end of the port quarter-berth, thus making a very compact and comfortable skipper's compartment....

# Something to “nail-to”



The original teak and mahogany internal bright-work is responding well to re-finishing and when varnished, together with white paint on cabin sides and keelbox will present an attractive traditional appearance.

# New Galley



- The original galley was very basic and the space is now used for a large chart table, with a seat on the forward end of the quarter-berth.
- The new fore and aft galley will allow cooking whilst close-hauled....
- A gimballed Taylors model K twin burner primus hob will replace the original Origo alcohol stove. The cook can be seated whilst working...

# A small space, but it works!!



A stainless-steel tube crash-bar and vertical strut to the coach-roof have been designed, to protect the stove from flying crew-members in rough weather. Strong grab-handles are also being fitted at strategic points...

# The underwater Hull...



- 25 litres of an environmentally friendly antifouling stripper called Movitall was imported from Oz and this effectively enabled the entire underwater hull and topsides to be taken back to the laminate.
- The hull appeared not to have been gel-coated originally, which is odd, but had been coated with some early form of epoxy type of coating as far as I could determine.

# And after the paint-stripper.....



- For the topsides, a Random orbital sander and 40 grade grit, followed by epoxy primer, more sanding and then post-office red traditional topcoat.
- Degreasing and epoxy priming for the bottom and keel, then ME100 epoxy coating and “copper-coat” permanent epoxy anti-fouling for all of the underwater surfaces - reducing future seasonal maintenance to almost nil !

# Mahogany Rudder Blade



- All paint and primer was scraped off back to bare wood; it will be coated with traditional aluminium wood primer – the timber must breathe – before several coats of traditional oil-based yacht enamel are applied. The only bit of underwater timber on Apache - thank goodness for GRP! (there, I've finally said it!!!)

# Mahogany Rudder Stock



This received the same treatment as the blade

# A sizeable (self-filling) cockpit!



- Due to Apache's very low profile and free-board, the sensibly sized cockpit tends to fill through the drain when the boat is well heeled.
- The above feature will, however, be useful as a bath in the tropics.....
- I may well move the main track to the forward end of the cockpit, as has been done with several of these boats (and fit a bath-plug.....)

# A well-designed foredeck....



- **indeed so...**but not a place for me these days – I've done my bit with hanks!
- A new roller Genoa is being installed with a fixed head-stay for racing sails.
- A Baby-stay (storm-jib) is already provided for, and lazy jacks for the main.

# Mmmm...to Perspex, or not to Perspex??



- **Probably I will make a perspex board...** A perspex bubble alternative to the GRP main-hatch is also planned, for long-distance solo sailing.
- This will enable the boat to be sailed from the bridge deck seat, providing shelter and full visibility when using the windvane or motoring with autohelm.
- A robust spray-hood is also to be installed. I've done my time at getting soaked and cold at the tiller for hours on end!

Looks quite clean in this pic...



Note the stiffening rib forward of the mast step. Very strong....

# Well arranged control lines



The deck might well have been designed for single-handers – no room for gorillas on this boat anyway - they always eat such a lot!

# Teak needs some attention....



- The green running rigging is attractive, as well... “au-naturel” perhaps?

# SL400.... Ughh!



I think a nice new unit with integral holding tank will be going in instead...

# “Roo” a Sister Ship



Based locally and also planning some long-distance cruising

# Nice Keel.....



A bit of competition never hurt anyone! An identical Hunter 701 DK to play with – and just down the River too!! “Roo” lives at Weston.....

# Lamp posts have their uses....



Courtesy of Herefordshire County Council

# “Ben” - Assistant Surveyor 2002-2011



Now retired and gone to live in Leicestershire. He got fed up with boats and opted for some posh Huntin' Shootin' and Fishin' - he's still very much around, however .....

# **The End**

(or not the end!!!!)

Of

**“The Apache Project”  
As of 2011**

**An ongoing saga...**

**By**

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