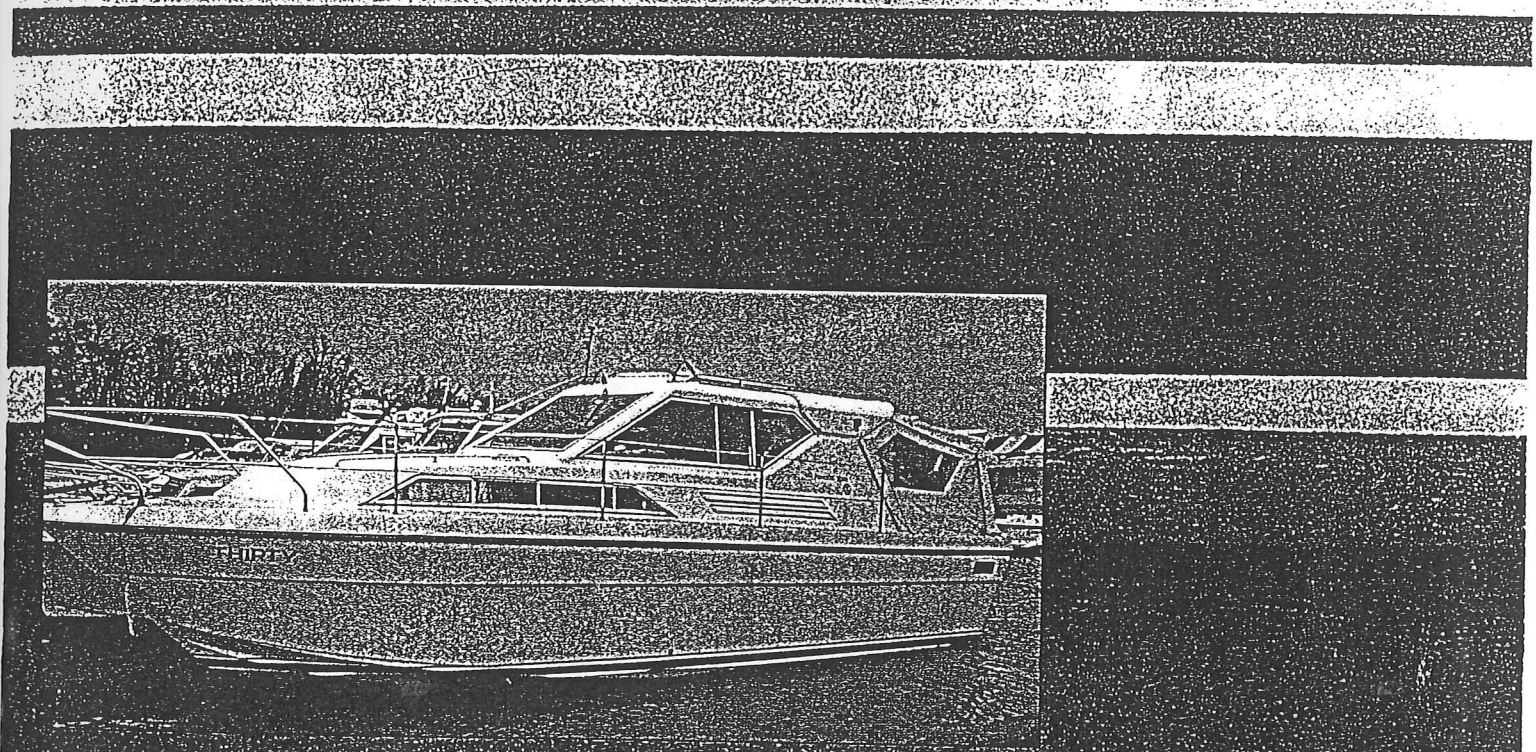
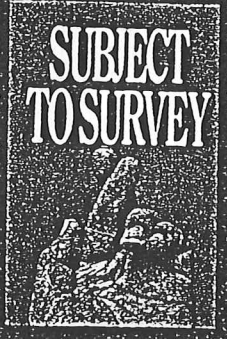


PRINCESS 30DS

SUBJECT TO SURVEY



Marine Projects' 30ft cruiser is a firm favourite with both offshore and inland boaters – and deservedly so. Tony Jones joins surveyor Frank Verrill for a close look at a 1985 model

THE Princess 30DS must be one of the most popular motor cruisers of all time. It's small enough to be handled with ease, yet has comfortable family accommodation and, when fitted with one of the more powerful engine options, a good turn of speed. The 30DS can be found wherever there are motor boats: around the coasts both at home and abroad, on rivers – we've even seen them in Broads hire fleets. So when surveyor Frank Verrill told us he'd been asked to look at one, we went along gladly, interested in what the surveyor's instruments might discover.

The boat was on the Thames, at Windsor, at the height of the winter floods. Having successfully negotiated the precarious plank from the marina wall to the floating pontoon (the normal access was under two feet of water) we joined Frank as he started his examination.

A careful look round inside and out to get a feel for the boat and her general condition was first on the agenda, followed by a check of the electrical functions, including fridge, Navtex, echo sounder etc. This revealed an unserviceable anchor light and helm position indicator. Otherwise all was well. The generally clean and unworn condition of the upholstery in particular suggested that the boat had been well looked after and not heavily used.

Frank, equipped with clipboard, checklist, and torch, started at the forward end, inspecting the condition of the hull and paying particular attention to the top hat section stringers. All was not well.

Hull internal: *Inspected wherever access was possible. In the fore-peak the standard of GRP finish was rough and there was still a considerable amount of building swarf evident in the bilges. Under the saloon sole in the tank space there were three cracked frames on the* ▷

starboard side and two on the port side. This appears to have happened when the vessel had either been craned out and put down hard, or it had been subject to some severe weather conditions in the open sea. It is therefore recommended that the top hat sections should be cut back, acetoned clean and new layers of GRP should be bonded to the top hat sections and the fore and aft stringers with a maximum of 8oz chopped strand mat.

The bilges had been well gelled out, but Frank wasn't impressed with some internal bulkheads which hadn't been bonded to the hull. "These aren't structural in the strict sense", he said, "but I have known interior joinery to come apart in very severe conditions – leading at least one inexperienced crew to believe that the boat was breaking up, and so put out a Mayday."

Frank's approach to the survey focused closely on structural, engineering and safety aspects, believing that customers can make up their own minds on cosmetic defects. Continuing his inspection aft involved getting down into the tank space beneath the saloon sole. Here, some further problems became obvious.

Fuel tanks: *The tanks are stainless steel. The welds are very untidy and the tanks are insecure, resting on the bilge stringers and kept in position by two pieces of wood nailed with ordinary nails into the top hat foam sections. When tested with a mallet they were loose and not secure. Also attached to these packing pieces of timber were two coach screws holding the tank straps. The tanks showed signs of movement and there was no retaining wedge block at the aft end of the starboard tank allowing it to move aft. On the port side there was a tank support aft, but none on the forward side. This tank was free to move forward. The fuel lines of solid drawn copper, although having an expansion coil in the line, could be severed by the movement of the tanks.*

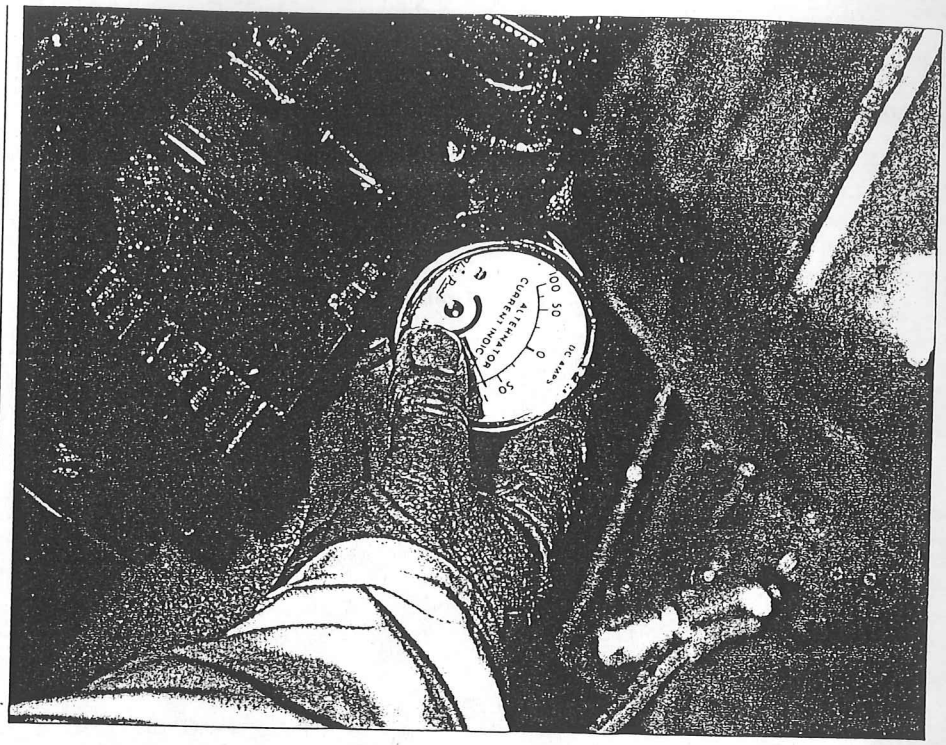
Recommendations: the securing straps should be removed, proper securing bolts should be glassed in, and the straps securely bolted down. The pieces of packing timber on the inboard side of the tanks should be glassed over to make a solid mounting. At the aft end of each tank a packing block should be glassed in to retain the tank firmly in position. The same measures should be taken at the forward ends of the tanks.

Frank also found the water tank virtually adrift in the bottom of the boat, held in only by its piping and resting on the sharp edges of the timber supports. He recommended that it should be firmly strapped in and the bearers be dressed to the contour of the tank. He then moved aft again, into the engineroom – to find more bad news. The gas strut holding the engineroom hatch was not fixed properly and had become tired over the years. He suggested that the mounting be repaired and another strut attached on the other side.

Attached to the bottom of the hatch were two Halon 1.36kg automatic fire extinguishers. Unfortunately the mounting instructions, which stated that the units should be mounted between the horizontal and vertically downwards, had been ignored. "It's also pretty daft to fix extinguishers directly to foam sound proofing," he commented. "Obviously a lot of the extinguishant will just soak into the foam – which isn't fire resistant, I notice." He recommended in the report that stainless steel backing plates should be fitted under each extinguisher and that they should be mounted at about 30°. He also felt that a further two extinguishers should be fitted in the tank space. Quite apart from safety considerations, these would be required by most insurers.

The bilge pump installation prompted further comment.

Bilge Pumps: *The vessel is equipped with two electric bilge pumps, one in the engine space, and one in the tank space. The one in the engine space has no anti-syphon rise pipe. The pipe rises up to engine bearer level and is then discharged over the transom only 2in above the waterline. With a large number of people in the cockpit, this outlet would be under water and syphoning back would take place. It is therefore strongly recommended that an anti-syphon rise pipe be fitted, rising up into the cockpit coamings and then down to the overboard discharge. The same applies to the bilge pump in the tank space except that here the pipe does rise to the top of the tank before discharging overboard, but I would prefer to see an anti-syphon rise with air bleed screws in the discharge pipe.*



Checking the alternator output with an induction ammeter.

As a former boatbuilder and a person with many years' experience of the marine industry, Frank is well qualified to comment on hull condition and standards of construction. However, engines are his particular speciality so, while in the engineroom, Frank investigated the state of the twin 200hp Volvo V8 Aquadrives, having first noted a 196.3hr reading on the engine hour meters.

The filters, fuel pumps, breathers and fresh water pumps were all found to be in good order, and the oil on the dipsticks was up to the mark and quite clean. The fuel lines, however, came in for criticism as they were secured with electrical cable clips, several of which were broken.

The engines were then started and while they were warming up, Frank checked them carefully with a long probe-type stethoscope. The only untoward noise was a slight rumble in the shield bearing of the starboard outdrive. He recommended that this leg should be removed and the output shaft checked for security; if the bearing breaks up it can cause major damage.

After fifteen minutes, the gauges showed that the engines were well up to normal temperature. But with both tachometers showing 1500rpm, Frank's mechanical rev counter indicated 1250rpm on the port engine and 1325rpm on the starboard. On checking the alternator outputs, Frank found that the starboard engine was pumping out 70A, and that voltage on the starboard battery was low – the battery would probably need replacing in the near future.

By the time the boat was ready to be craned out for an external inspection of the ▷

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CONTINUED

hull it was pouring with rain. This made an ultrasonic test of the superstructure superfluous – any leaks would have been only too apparent. But Frank did find a perished seal in the sunroof.

After a pressure wash, a number of blisters could clearly be seen below the waterline. Not the dreaded osmosis, surely?

Hull – bottom: *Suffers from antifouling detachment. There are many antifouling blisters apparent, but these are thought to be caused by incompatible antifouling coats being applied. Unfortunately due to inclement weather it was not possible to check general moisture levels over whole of the bottom, but one area was cleaned, dried and tested at 16% which is an acceptable level considering the weather conditions on the day. On the port side there is a nasty abrasion to one of the spray rails. Recommendation: the bottom should be scraped clean of antifouling, the area on the spray rail where it is damaged should be built up with matching gelcoat, faired and polished to original finish. The bottom should be antifoul primed, then coated with a coat of new antifouling.*

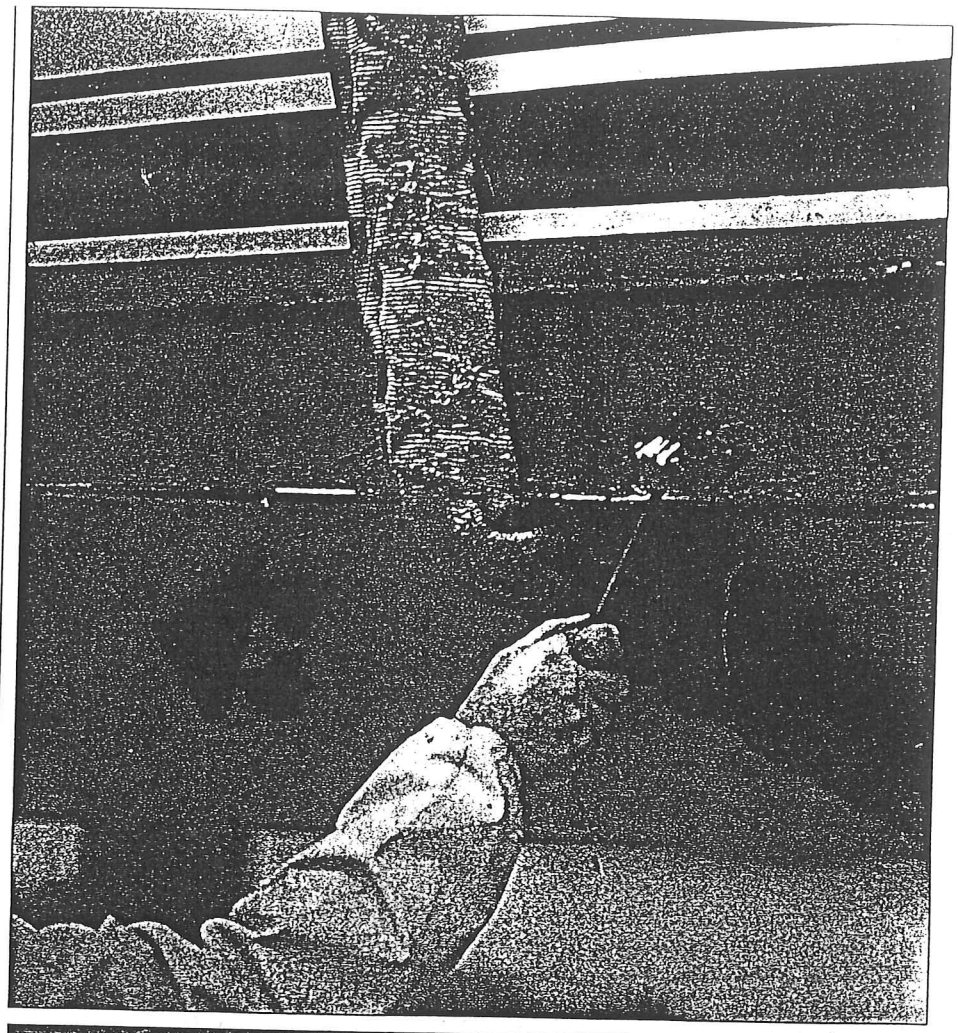
The outdrives were the next items for scrutiny. The tilt mechanisms were tested, oil samples taken, and the gaiters inspected closely. All was well except that both propellers were damaged, so Frank recommended that both outdrives should be serviced as a precautionary measure and the propellers attended to. This concluded the survey. The written report finishes with a general opinion and valuation:

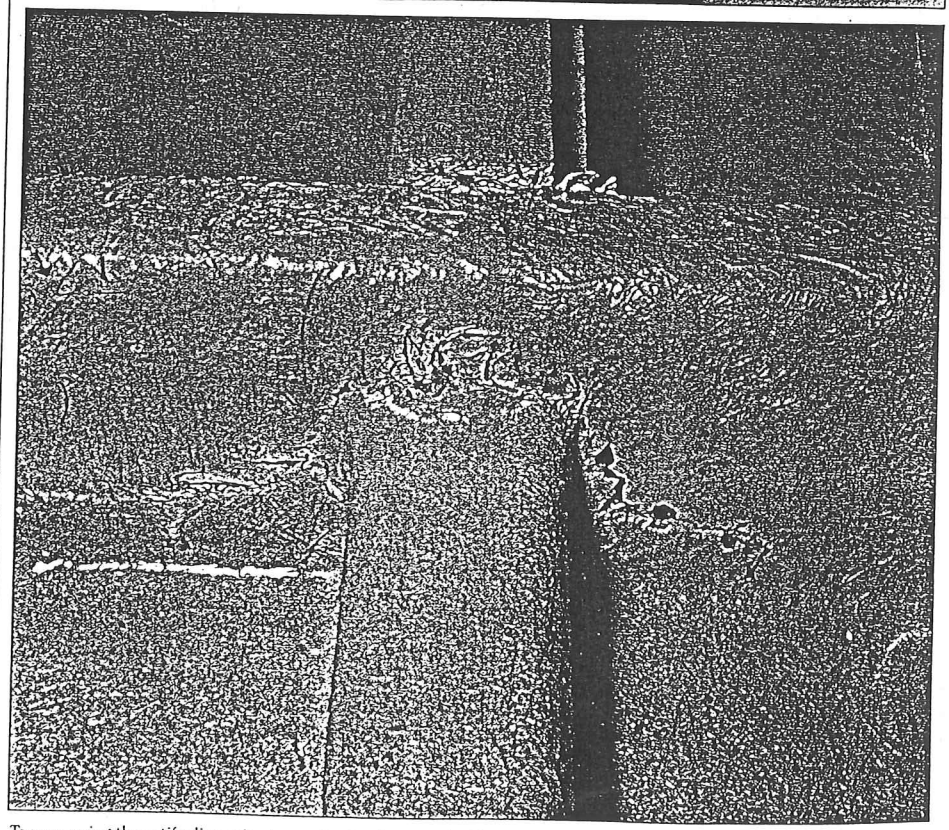
It is my considered opinion this vessel has had very little use and has been well looked after, except that it is suffering some structural defects in the tank space and the defects listed above. I would forecast repairs to this vessel to be somewhere in the region of between £1000 and £1500. I also note the asking price of £38,000 is in the top limits for a vessel of 1985 manufacture. It should therefore be in pristine condition with all the above mentioned defects attended to.

Armed with this report the prospective owner went back to the vendors for some serious bargaining. A satisfactory conclusion was reached; the major points found by Frank being attended to and the Princess is now with her new owner and fit for many more years of service. □

Survey carried out by Frank Verrill and Partners, 6 Old Bridge House Road, Bursledon, Hants SO3 8AJ. Tel: 042 121 2881.

We have made special arrangements with the surveyor and his client to publish what is normally confidential information. Defects found on one vessel cannot be assumed to exist on other of the same type or from the same builder, nor can this survey be taken as an indication of the condition of this particular vessel at any time in the past or future.





Top: removing the antifouling prior to examination for osmosis. Above: one of the cracked frames on the starboard side.