



PIERA

PART ONE

| story **PETER BRADY** images **JONATHAN WOOD**

The first Pathfinder Offshore 45 is now in the water. She has undergone sea trials and survey inspections and we can finally see how *Piera*, which means rock in Italian, looks and performs on the water (coincidentally Peter also means rock). The story of the Offshore 45 and *Piera* is pretty extensive, so I have split it into two parts with the boat and layout in the first half and the design construction and equipment in the second for those more interested in *Piera's* technical background.

THE POWER

First impressions from those who have been on board *Piera* is of a sense of power as in strong, well built, has authority, is capable, impressive and lastly another one of power's meanings – influential.

THE PASSION

Most people associate the word passion with the exciting parts of a relationship, however there is another meaning that covers how everyone involved with *Piera's* creation including the owners feel and that is compelling enthusiasm.

Anyone who knows me knows that I am passionate about every boat I design and build, so what makes *Piera* so special? Firstly, it's a boat that I have had in my head for years, but at 45ft I couldn't quite get to

work until now. Secondly, and this is why everyone else has bought into the same compelling enthusiasm, *Piera* has a quality about her that the French describe as 'je ne sais quoi' or something that can't easily be named or described. This feeling

emerged while the boat came together and got stronger through the build as everyone involved bought in to the vision. *Piera* has such a welcoming, comfortable yet purposeful feeling when you step on board – she just makes you want to drive off into the

THE POWER AND THE PASSION

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it is a sense that everything just feels right. There is an old saying about experience being the only advantage to growing old, so when you blend my 44 years of design and boatbuilding experience, Lorma and Chloe's 27 years of marine interior design, the owner's 50 plus years



TOP: The foredeck seating incorporates the anchor locker and deck storage.

ABOVE LEFT: The side decks are wide and safe for all ages.

ABOVE RIGHT: Even with all its equipment and storage, the aft deck has a huge amount of clear floor space.

at sea and their clear vision of how they wanted to spend their remaining years on the water, then a boat like *Piera* is the result.

THE BOAT

There is no mistaking *Piera's* 1960's express cruiser heritage in her styling although her lines are sharper and more rakish than the 60's designs, but she does hark back to an era when virtues like dry decks, visibility, shade, ventilation and all the practical features that make life on the water so much more comfortable and relaxing were in vogue. People who were into boats in those times had to be keen as they didn't have all the home comforts and navigation aids that we take so much for granted these days, so practical design, good sea keeping and functionality rather than electronic

equipment and fashion were their priority. Whilst overseas styling trends were absorbed by Australian designers of the era in their work, the boats were still local in their layouts and features to meet the different requirements of climate and sea conditions. These days, imports dominate the markets but features better suited to Australian conditions are still sought after by many boaties judging by the market price and scarcity of good cruisers of this type either from this era or the versions of it still being created, as they have stood the test of time.

What we have done in developing *Piera* and power cats like her is to take the classic long-range coastal cruiser formula and add to it a higher cruising speed, stability, shallow draft, better manoeuvrability and reliability with twin engines, all the

home comforts and navigation aids and on top of this, a level of accommodation, comfort and privacy that designers of the 60's could only dream of in a boat of this size.

Piera is unashamedly a powerboat, not just in looks but also in her accommodation and mechanical arrangements, and it is this clarity of purpose that makes her stand out from most other production power cats on the market at present.

This difference is obvious as soon as you board *Piera* through either the side gates or transom doors. Her raised bulwarks and side decks are more generous than most monohulls that are 15ft larger and provide a very secure 'in, rather than on the boat feeling'. This pure power boat philosophy is further reinforced by the full width uncluttered aft deck that extends right to the forward face of the transom beam where the tender cradle sits. In fact if you didn't see the bows when you came on board, you would think it was a very wide monohull until you went forward or down below into the hulls.

The roof line over the aft deck is the same for the pilothouse and

extends out to the full width of the boat and provides not only full shade and shelter to the back deck, but its height allows the breeze to flow through removing any hot air from the cockpit. *Piera* is air-conditioned throughout, but special attention has been paid to her thermal efficiency to reduce its running time. To achieve this, the pilothouse aft deck top is constructed using 25mm foam core with a 135mm air gap to the ceiling

a small hatch in the ceiling over each helm chair which not only lets the hot air out when stationary, but when steaming you can direct fresh air to your face, head or neck just like you would on a plane by subtly changing the open hatch angle.

ON DECK

Beginning our tour on *Piera's* foredeck, we have used the front seats as deck storage and entrance

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for further insulation, along with the array of solar panels covering most of the top surface providing further insulation. The pilothouse sides are shaded by the cabin overhangs and the windows and doors can be opened on the sides and aft faces for cross flow ventilation. There is even

to the anchor locker so the owners do not have to get on their hands and knees get to the fenders or ropes. This seating area is a magic place to sit when underway as it is both comfortable and safely back from the bows. The anchor system is robust yet easy to use with a



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TOP: Spectacular owner's en-suite.

ABOVE: Full height mirrors double the light and sense of space.

self-launching main bow roller and a second simpler bow roller for lighter fishing anchors or heavy ropes from permanent moorings. All corners in this area have stainless steel wear strips on them to prevent the gelcoat being chipped from dragging gear and there are even dedicated attachment rings for the anchor bridle on each bow, which is a detail seldom seen on production power cats.

Moving down the side decks you feel very safe as the corner detail at the edge of the front cabin top doubles as a drip rail and hand rail and there

is a stainless steel handrail on the top of the bulwarks 800mm off the deck as per the survey requirements. Halfway down the side decks on both sides is a door in the bulwarks as *Piera* will visit many ports that only have wharfs rather than pontoons, so a higher entry level is very useful. Aft of the gate is the side fairing that is part of the boat styling, which supports the pilothouse overhang and provides security when continuing aft down the steps to the back deck. This fairing also drains the water off the pilothouse top with outlets over the side that can be plumbed to feed rainwater into the water tanks if desired. Because the owner's brief was for a length of no more than 45ft, *Piera* does not have a duckboard and so I have used a different arrangement for boarding from a pontoon and getting into the tender. By stopping the hull side 2ft short of the transom beam I have created a back step area by locating the gate on the forward side of the beam, providing good access with the least amount of room lost from the aft deck. As the owners are still keen divers having been involved in the abalone fishing industry all their lives, on the port side of the transom there is a hinged dive platform that is used in combination with the port engine room ladder clipped to the transom. This is again a reflection of the dual purposing of as much of the boats gear as possible, as is the starboard engine room's ladder being set up so it can be used to access the pilothouse roof to clean the solar panels. Speaking of ladders, there is even a set of teak steps stored in the transom that hook on the side of the boat through the side doors for easy access when on a pontoon.

The aft beam contains the survey bilge system to starboard, fender and rope storage in the middle and the watermaker and deck fridge-freezer controls to port. A tender cradle is fitted to the aft beam with a custom built davit by ADC fitted on the port corner. We had originally built hinged stainless steel lifting arms for the tender but when the 6:1 pulley blocks struggled to lift the tender we weighed it and found that

its actual weight was 311kg not the around 200kg that was stated by the manufacturers. This is the third tender we have been asked to fit by clients that has been around a third heavier than claimed and in this case we had to completely rethink how we were going to handle it safely and I am very grateful to John Berg at ADC for his help in quickly coming up with a solution. At the forward end of the aft deck, the washing machine-drier and deck fridge freezer are located to port with a cupboard to starboard housing the roll out barbecue designed by the owner, dive bottle storage and a large sink with tap in its top. Even with all this equipment, *Piera* still has over 18 x 7ft (5.5 x 2.2m) of clear deck space on the aft deck for entertaining, dining or just relaxing.

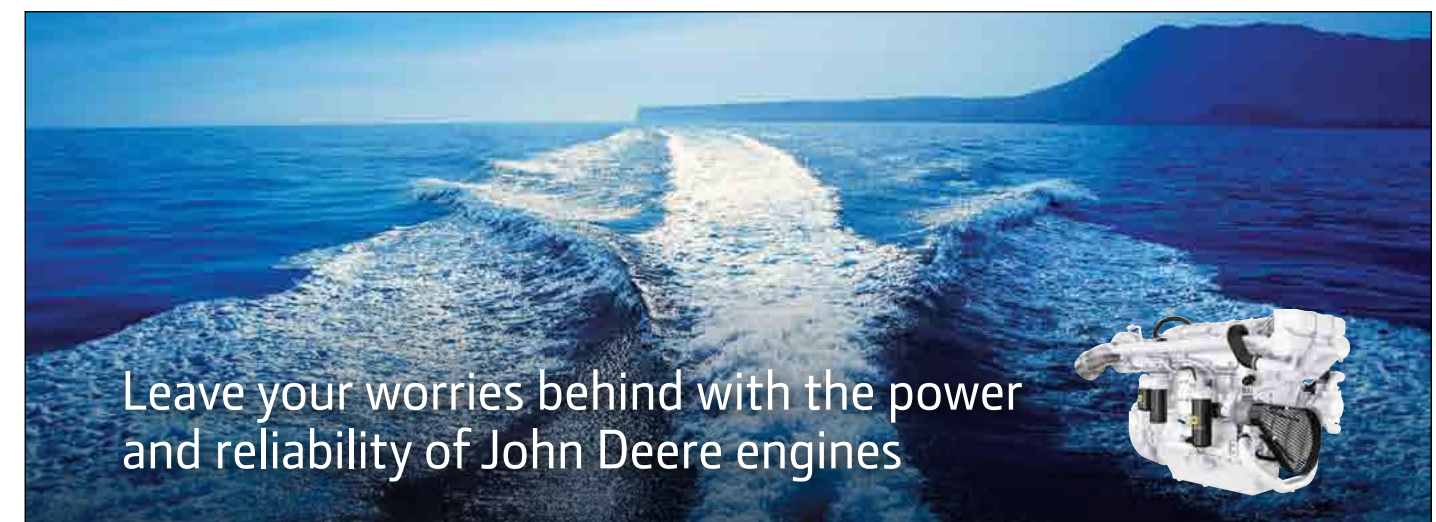
THE PILOTHOUSE

By designing the pilothouse floor and side decks above the mid bedroom

ceilings, *Piera's* layout takes full advantage of the powercat's beam both internally and externally. Not having to build the saloon and galley furniture as part of the mid bedrooms ceiling provides dramatically more storage space in these areas and creates the extra floor space that in turn allows features like the island bench-breakfast bar and exceptional access between the doorways. The trawler style side doors and bi-fold doors to the aft deck make a huge difference to the feel of the saloon-

galley-helm station area and allows for quick and easy access to the side decks from the helm when docking. The ability to handle the boat easily with just two people on board was a critical requirement of the owner's design brief and to this end the boat is fitted with a powerful bow thruster, a plug for the engine-gears remote controls on the foredeck for anchoring and also on the aft deck for docking, fishing or when retrieving divers. The survey requirement for 800mm

MOVING DOWN THE SIDE DECKS YOU **FEEL VERY SAFE** AS THE CORNER DETAIL AT THE EDGE OF THE FRONT CABIN TOP **DOUBLES AS A DRIP RAIL AND HAND RAIL**



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high bulwarks and rails has made the boat feel very safe, particularly for children and our two and bit year old grandson has road tested this feature by running round and round the boat in complete safety even when steaming at 15kts.

The island bench allows people to access the galley from both ends as well as housing the twin refrigerator drawers and freezer and doubles as a servery and breakfast bar with a foot rest that is also used to restrain the bar stools when at sea. Above the island bench, the TV swings down out of the ceiling for just the right viewing angle from the settee



TOP: TV swings down over the island bench/breakfast bar leaving the walkways clear and keeping full access to the large well equipped galley.

ABOVE: Plush settee converts to either day bed or double by removing top section of table supports.

and as it is above the bench, does not affect access through the saloon when it is down. The outer benches of the galley feature a dishwasher, microwave-convection oven, in bench extractor fan and induction cook top. All bench surfaces and even the table top are Corian like Hi-Macs solid surfaces that have an industrial contemporary look that is balanced by the more traditional boat finishes around them. There is even a spice cupboard in the corner along with plenty of drawers and cupboards, in fact everything a keen cook and ex restaurant owner could want. To port the plush settee

can be formed into a day bed by removing the deep back cushions and the table can even be lowered by removing one section of its bases to create a double bed if required. Again in keeping with the boat's 'everything must have a multiple use' philosophy, the permanent section of the table bases have wine and champagne racks built in to them.

As the helm station area is slightly narrower than *Paradigm's*, it required a great deal of testing and persistence to get both the right sized helm chairs and then to get them to rotate through 360° with enough clearance in the middle to operate the controls easily when docking. Again this may seem like a small detail to fuss about, but it makes a huge difference to how easily the boat operates as well as adding two more seats to the saloon when entertaining. In fact it has been the obsession with getting all these small details right over the whole boat that have made it something special. The helm seats are my favourite spot on the boat as they epitomise the boat's character of control and comfort and if you stand back and watch people's reactions when they hop up into them when steaming or entertaining, the expression on their face is immediately 'how good is this'.

The helm station and how it is laid out demonstrates as much as any other feature on *Piera* the vessel's 'clarity of purpose'. It looks nothing like the sports car like dashes of many current power boats, nor does it have that added on look that you often find in converted sailing cats. Every item was located with a great deal of thought into its ease of operation by either one or two people. The helm is to port as the international maritime rules require us to pass port to port and you would be surprised at how much easier it makes judging the boats distance from another when passing in a tight channel if the helm is on the correct side. The Yanmar engine gauges and warning lights are right in front of the helmsman so they can be observed at a glance, although we did customise the standard Yanmar panels by removing the gauges from

the outside surround and making them symmetrical in their layout. The engine-gear controls are in the middle so they can be operated easily when docking from a standing position, yet fall to the helmsman's right hand at sea or the navigator's left hand so they too can stop the boat in an emergency. There is a touch screen in front of each helm chair where any combination of charts, forward facing sounder, normal sounder, radar, FLIR camera or aft deck camera can be displayed and controlled by either screen. The auto pilot controls are in the middle, but these too can be controlled from either screen. The VHF radio, Sat-phone, fuel and water gauges plus fire alarm panels are on the navigator's side and the switches that control the horn, night and dash lights are in the middle. The DC electrical panel is located to starboard of the helm station where it is easily reached from the navigator's helm chair or the stairwell with the AC panel outboard of this again where it is visible but harder to reach by children. Even the steering wheel has been set up so you can stand comfortably with the top of the wheel at the right height for your hands to naturally rest on and when seated the wheel is still comfortable to use with either your hands or feet.

Under the helm station area of the pilothouse floor are located the Sentry Lithium Iron (LiFePo4) house and emergency batteries which keeps the wiring runs to the DC



switchboard as short as possible. Aft of the batteries are the 2 x 330lt polyethylene water tanks and behind them are the 2 x 1,500lt fuel tanks. This arrangement concentrates all the major weight in the middle both fore and aft and athwart ships, minimising pitching and roll snap which in turn provides a much smoother motion as the hulls do not have to overcome the momentum of weight before their above waterline buoyancy starts to create lift. This equates to a softer ride in head seas and makes the boat quick to surf and very controllable in following seas. Behind the fuel tanks and accessed through a hatch just inside the back bi-fold doors is a 2ft wide by 21/2ft high crawl space where the fuel shut off taps and sight gauges, engine air shutoff controls, engine room fire extinguishers and fire suppression release controls are located. Outboard of this equipment on each side is a watertight door for access to the engine room at sea in

An extraordinary amount of time went into getting the helm station and seating right to the last detail.

rough conditions or to check the high efficiency 200amp alternators. These are mounted on a frame attached to the engine, driven by a belt from a lay shaft connected by a flexible coupling to the front of the engine.

The pilothouse is different from most of our previous boats in that it doesn't have a deck level bathroom, although there is a swim shower on the back beam and a sink and tap in the aft deck. Instead, each bedroom has their own en-suite, which means there is 360° visibility from the helm and a larger saloon-galley, so many people will judge the trade off as worthwhile.



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ACCOMMODATION

Piera's accommodation plan was based around the ability for a couple to live on board as near to full time as they wanted in real comfort, with guest bedrooms for another two couples or a family plus overnight sleeping for another two if needed and I would be amazed if any other 45ft power boat be they monohull or catamaran has an owner's cabin as large and liveable as *Piera's*. It spans the full width of the boat and has a single level flat floor, making it a luxurious, private space with no above floor traffic noise unlike the mid cabins of most monohull power

doors, which not only make the cabin seem twice as large as it already is, they also provide easy access to the back of the drive station, its electrics and electronics plus the house and emergency battery boxes and water tanks. The en-suite located on the starboard side again has a separate shower stall and plenty of storage, light and ventilation that would put many a far larger boat to shame.

As I have mentioned in previous articles on the Offshore 45, it was the design of the stairwells that made it possible to fit an en-suite to each mid cabin without having to resort

have their own privacy doors for day time use. The finish for all the bedrooms is foam backed vinyl on the walls and ceiling combined with waxed teak veneer on the doors and drawer areas and waxed solid teak trim. Karndean vinyl floor tiles are used throughout the boat and although they are not light in weight, their thick backing gives good sound insulation and a soft feeling of quality.

CONCLUSION

Piera is a very strong, very safe boat that is capable of going anywhere around Australia or even trans-ocean and will be well suited to Bass Strait conditions where she will spend quite a bit of her time. Sea trials to date in a variety of conditions have shown her to be a very comfortable sea boat with a gentle motion, confirming the ride qualities experienced on *Rehab* and *Paradigm* and using the same philosophy of all large weights located centrally are a design advantage.

Working the original Offshore 45 design around the inclusion of the extra bathrooms and survey requirements was challenging to say the least and it was made even more so by the extras that were added during the construction. These included air-

conditioning throughout, larger fuel tanks, a 210ltph watermaker, dive compressor, dishwasher, saloon table that converts to a double bed, wine bottle storage etc. Not only did we manage to get all these extras and survey equipment on to the boat, but we managed to do it in such a way as you would hardly notice. The only real give away in regards to survey is the many instruction and safety plaques around the boat plus

the equipment itself, some loss of deck storage to the bilge and fire pump manifold, the extra watertight doors and the extra weight of construction. But most importantly, we have managed to keep the boat absolutely as intended which was very satisfying.

In terms of performance, the boat was 28% heavier than the base design which related to a 10% drop in top speed from 21-19kts and the fuel burn at mid-teens cruise speed increased by 20% based on the figures we have been able to collect so far.

into weight and build cost. Higher tech construction to keep weight down and twin systems for virtually all the mechanical systems make the powercat safer, however they also add to the cost of construction. Realistically we should be comparing the value for money of a displacing power cat like *Piera* with monohulls of around 55ft and even when you do, she still holds her own in terms of equipment and accommodation. It is however when you compare the lifestyle opportunities and quality that the displacing power cats stability, range, high cruising speed, manoeuvrability, safety and just

shear liveability that a boat like *Piera* provides, making it hard to beat by far longer monohulls.

Piera also absolutely demonstrates the huge difference between a custom or bespoke powercat and a production boat with her attention to detail and unique design features.

What is also very special about *Piera* is that she is Australian designed and built, using as much local labour, materials and equipment as possible as in many cases, it is the best. This not only demonstrates that Australia still has the capability to lead the world in the development of power catamarans, but also pays the wages of a great many Australians both directly and indirectly which in turn spreads out through the local economy. This is not just the hollow rhetoric often spouted by politicians, this is the reality on the ground and it is something that we and the owners are very proud of.

At this stage the owners are planing to take *Piera* down to Philip Island for Christmas and we are working towards her first public showing at the 2018 Sanctuary Cove Boat Show.



ABOVE LEFT: Domestic sized shower stall in owner's en-suite.



ABOVE RIGHT: Spacious owner's en-suite.

boats. There is no odd shaped bed, no dangerous sudden reductions in headroom – just lots of space, light and ventilation. The bedroom is air-conditioned, has its own TV which the navigation data can be sent to, has four large drawers under the queen sized bed, more drawers under bedside tables and a number of other storage areas including a full height hanging locker. The aft wall is formed by four full height mirrored

to a sliding 'L' door over the stairs which is neither intuitive to use nor particularly private and are prone to rattle on their slides. The starboard mid cabin is set up with a double bed and two generous singles on the portside. Both lower cabins are air-conditioned, have socks and undies drawers, a hanging locker and a shelf for personal items like phones. Forward of the stairways are their good sized en-suites which



ABOVE LEFT: Comfortable mid cabins with plenty of storage and ventilation.



ABOVE RIGHT: Good sized mid-cabin en-suite.

Just comparing power boats by their length in regards to features and cost was realistic until powercats came along as their beam throws this type of simple comparison out the door. With up to 8ft (2.4m) of extra beam and only a slight taper at the bow, the powercat will have up to 400sqft (45sqm) of extra deck space more than a monohull of the same length and while this translates into extra area and features, it also translates

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