

## Searching for the Ideal Tender Lift and Storage Answer



*What would we do without our 'tenders'!*

### Our Ubiquitous Tender (Dinghy)

Whatever its purpose, our tender is really useful when it's needed. But when it's not needed, what do you do with it? Hang it on davits, tow it, pull it onto the swim platform, carry it on deck or, if it's an inflatable, deflate and stow it? Travelling with our tender can be a pain in the tail, but we can improve things.

For nearly 4 years, I towed an AB 3.7 metre rigid inflatable (see Fig. 1), behind my Grand Banks 42. I readily admit I habitually looked aft, hoping not to see only the broken painter trailing in the wake, or in a following sea the tender surfing and whacking me in the stern, or a strong wind getting under it and flipping it over. Towing worked well when I was nimbler - launching and retrieval at the boat ramp was 'part of boating'! When the total time (i.e. launching, retrieval, washdown and storage) started to exceed 90 mins, I researched other options, but wanting to retain the AB centre console RIB. The RIB's weight would clearly determine the choice and size of the 'lifter' I selected, yet I had no idea what the tender weighed (complete with 20HP outboard, full fuel tanks, battery, anchor, chain, flares, life jackets, etc.) You can guess my surprise when the scales read **254 kgs!** To make boating life easy I needed a *powered* 'lifter'.



*Fig.1 AB Mares centre console*

**I think I found the 'perfect' solution**, but only after a lot of research, which in itself was not unenjoyable.

### What Are the Options?

In Australia, they are:

- A. davits on the marlin board or swim platform

- B. davits on the transom
- C. a crane on the flybridge or fore deck
- D. a hydraulic lift fitted underneath a marlin board/swim platform
- E. a hydraulic platform, or
- F. a Presto Marine hydraulic lift fitted onto the existing marlin board/swim platform.

Options A to E are summarised below, more or less in terms of increasing cost, A being the most affordable and E being the most expensive.

At the end of my research, **Option F, the Presto Marine hydraulic lift**, stood out from the crowd, on many fronts, especially on cost competitiveness, superb Swedish engineering and manufacturing, ease of installation, quietness of operation, radio/remote controlled, outstanding operational performance and aesthetics.

This is the story of my research, with an unplanned and delightful ending.

### A. Davits on Marlin Board/Swim Platform

These may be permanently mounted, removable or swivelling, while others may be supported partially by stern rails (if fitted) and powered manually, electrically or hydraulically.

They fall into two broad types:

(i) Less expensive bolt-on versions, manually operated, easy to install but with limited lifting ability (say <100 kgs), some of which require removal of larger outboard motors, fuel tanks and other gear, before lifting.

(ii) More expensive, motorized, heavily reinforced units, capable of lifting up to around 350kgs. There are a number of 'off-the-shelf' options available and many are custom made. See Figs 2 & 3 below.



Fig. 2 Marlin board mounted davits #1



Fig. 3 Marlin board mounted davits #2

The advantages of marlin board mounted units are they tend to be the least expensive of the powered davits, generally electrically operated from the mothership's 12/24-volt power supply, can be installed relatively easily and inexpensively, generally require no strengthening of the boat's transom (which can be expensive) and none of the operating systems are underwater (savings on annual maintenance costs and easy access to

components for servicing &/or repair). The tender must be stabilized/tied down to prevent side-to-side swaying motion underway. Not the most ideal storage solution.

Their primary criterion for selection will likely be the strength of the existing supporting brackets underneath the marlin board/swim platform. Will they be strong enough to handle the additional weight of the davits and tender (when full of gear!).

The disadvantages, for some owners are aesthetics, blocking the view whilst relaxing with a wine on the aft deck, impeding access into and from dinghy and additional difficulty in fitting a protective waterproof cover around the lifting cables of the davits (whilst not forgetting to remove the tender's plug). This is a good option for owners on a limited budget, who can readily handle the disconnecting and reconnecting of snap shackles or snap hooks to the tender when launching and retrieving the tender in choppy seas and high winds – sometimes a bit of a challenge for some 'more senior/less nimble' owners.

## B. Davits on Transom

These can be off-the-shelf, or custom made to suit an owner's requirements, use electric or hydraulic power and are mounted to the strongest section of the transom. See Figs. 4 & 5. Cables or high strength straps lift/lower the dinghy, requiring extra care with waterproof covers, to avoid rain filling the dinghy (sometimes the plug is inadvertently left in place), increasing the load on both the transom and lifting gear.



*Fig. 4 Davits mounted towards top of transom*



*Fig. 5 Davits mounted towards bottom of transom*

Their distinct advantage is the tender can be lifted well above the wake of the boat, avoiding wave interference in following seas. The aesthetic downsides, access drawbacks and disconnecting/reconnecting snap shackles challenges, associated with davits on marlin boards/swim platforms, as mentioned above, also apply to this option. Again, the tender must be stabilized/tied down to prevent side-to-side swaying motion underway. Not the most ideal storage solution.

Prior to selecting transom-mounted davits it is imperative the transom construction be checked by a marine surveyor, or at least by an experienced in boat builder, to ensure its structure is capable of carrying the substantial additional forces introduced by the cantilever effect of the davits and tender, especially the higher stresses experienced at initial extraction of the tender from the water. Options A and B are well proven and have much going for them.



### C. Davit or Crane on Foredeck or Flybridge

Single arm davits or cranes using hydraulic, electric or pneumatic power, installed on the foredeck or flybridge is another option. See Figs. 6 & 7. When not in use, they are stowed, low profile on the deck and are designed to handle larger tenders, the higher pricing reflecting the added lifting capacity. Even though they are powered, launching and retrieval of a tender with a crane can take some time, especially if being done singlehanded. If launching or retrieving in a choppy sea or windy conditions, given the single point of lift, the tender will swing and pivot, making it harder to control. The setup requires chocks on the deck - a very safe way to stow the tender on board when underway. A supporting standpipe is frequently installed in the boat, firmly attached to the hull and deck structure, and the telescoping crane fits into or onto it. Deemed by many owners to be easier to use than marlin board or transom mounted davits, they have much greater reach and height. Subject to any reports of deck cracking and leaks associated with your choice of crane should be checked out pre-purchase/installation, this is another well-proven option.



Fig. 6 Davit or crane on foredeck (in stowed position)



Fig. 7 Davit or crane on flybridge (not stowed)

### D. Hydraulic Lift 'Cradles' Fitted Underneath Marlin Board/Swim Platform

Hydraulic and electric lifts, fitted with cradles or chocks on which the tender sits, have become popular in the last decade or so, especially with advances in electronic controls and superior reticulating-arm engineering. See Figs. 8 & 9.



Fig. 8 Lift 'Cradle' underneath marlin board #1



Fig. 9 Lift 'Cradle' underneath marlin board #2

Lifting cradles such as these resonate with powerboat owners who are perhaps retired or less nimble, and yachtsmen who have transitioned to a power boat, and wish to continue boating, without the hassles of towing being the only option. Hydraulic lift cradles can

handle greater weights, thus owners can opt for a larger tender or a centre console RIB, instead of a traditional inflatable dinghy, while retaining easy launch and retrieve.

Regular preventative maintenance of this option is crucial as there is a complex mechanical and hydraulic system sitting underwater, all the time. Repairs, particularly anything more than minor, necessitate a haulout. Substantial tie downs of the tender to the mothership are essential for secure storage, especially when underway, to prevent swaying and side-to-side motions. This is one of the more expensive options, and installations must be professionally executed.

### **E. Hydraulic Platforms**

This option is a natural extension of the cradle lift, being a submersible swim platform, when lowered into the water is used as a tender launch, capable of handling loads upwards of 1200 kgs. See Figs 10 & 11. The hydraulic rams and arms are frequently off-the-shelf kits, but the platform itself has to be custom made to marry-up to the shape of the boat's existing moulded-in deck. Installing a hydraulic swim platform is ideally done during in-factory construction of the boat. One can be added as an aftermarket project, but is an expensive undertaking. This perhaps explains why boat builders are increasingly offering a lifting swim platform as a new boat option, when access to the rear section of the hull and transom areas are optimal, before steering, exhaust, and other mechanical systems are installed.



*Fig. 10 Hydraulic platform being installed (note chocks)*



*Fig. 11 Hydraulic platform with tender secured*

They may look complex, but are basically marine-grade stainless steel multi-jointed lifting arms, bolted to the transom and carrying a fiberglass platform. Each arm is raised/lowered by a hydraulic cylinder, designed to keep the platform level during movement. The hydraulic pump together with control box and electrical wiring, are mounted inside the hull, e.g in lazarette or in a cabinet or under a bunk in an aft cabin. The hydraulic cylinders and hoses are mounted on the hull, underwater.

A general guide on maximum tender sizing is, the overall tender length must be 600mm narrower than the beam of the mothership, hopefully leaving enough clearance for any docking mishaps!

Submerge the platform all the way and you can drive a tender, jet-powered RIB or PWC right onto the chocks, touch a remote control button, and lift everything out of the water. Simple! Outboard-powered tenders demand a little more attentiveness when approaching. This option tends to be the most expensive when retro-fitted, but is becoming increasingly popular on larger power yachts. Excellent storage functionality.

Each option has its own benefits and limitations. All work and will do the job. But the final option E, I believe addresses all other lift's shortcomings, has some distinct advantages and has proven to be a well executed and cost effective, retrofit design, which is exactly what I was seeking. At the end of the research this was my choice for *Grand Spirit* and here's why.

#### F. Presto Marine Hydraulic Lift

This is a simple hydraulic lift and storage solution It effortlessly launches, retrieve and stores tenders, dinghies, RIBs or PWCs. It comes in three different models/lifting capacities - 200 kgs, 500 kgs & 1000 kgs, benefits from well respected Swedish patented design, has in-built safety features, and high quality manufacturing. The lift can be factory-installed or retro-fitted to a wide variety of boat models. Presto Marine has installed lifts (both in-factory and retro fitted) on boats manufactured by Fairlane, Princess, Grand Banks, Sunseeker, SeaRay, NordWest, Delta, Azimut, Grandezza, etc. Over three hundred units have been installed, in Europe and in USA.

The service from Presto Marine was first-rate, including airfreighting the lift from Sweden to Australia, arriving within 5 working days from factory dispatch! See Figs. 12, 13, 14 & 15.



Fig. 12 Exquisitely simple Presto Marine lift mechanism



Fig. 13 Presto Marine Lift on my Grand Banks 42

One person can operate the lift using a small hand-held remote control (retained on a lanyard around my neck). The tender can be launched in less than 1 minute and retrieved and stowed in under than 2 minutes; all done silently, safely, speedily and securely.

There are two types available, *fixed* (F type) for boats with narrower (<600mm) platforms/marlin boards (see Fig. 16) and *rails* (R type) for boats with deeper (>900mm)



platforms (see Fig. 17). The R type allows the tender to slide inwards and be locked down close to the transom. Both types are easy to install.



*Fig. 16 PM L200 Fixed lift on narrow platform/deck*



*Fig. 17 PM XL500 Raillift on deep platform/deck*

### **My Reasons for Selecting the XL500F Lift**

These were:

- Ability to lift 500kgs – double the weight of my tender (254kgs); a great safety margin.
- The lifting arms and rams do not appear above the cap rail (see Fig. 13) - aft deck 'sundowner' views remain unrestricted.
- The lift brings the centre of gravity of the tender closer in to the transom, improving weight distribution, mothership handling, excellent storage and increased safety in following seas.
- Only the two stainless steel and powdered coated lifting arms and rams are exposed to the marine atmosphere, well above the waterline; all other components are tucked away in the dry lazarette.
- During operation, the hydraulic cylinders or hoses do NOT enter the water, thus barnacle fouling, and possible corrosion or electrolysis, are not problems.
- Unlike Options D & E the Presto Marine lift eliminates underwater maintenance issues and associated higher costs.
- Boarding and disembarking the tender is essentially unobstructed.
- Drifting off and sliding back onto the chocks are easy for one person driving the tender. When retrieving, the hydraulic arms can be raised slowly to ensure the tender is correctly positioned onto the chocks, before disembarking and raising to the stowed position.
- Replacing the two centre brackets under the marlin board with two stronger stainless steel brackets, allowed the XL500F model to be fitted effortlessly onto the existing marlin board. The new brackets were tied internally to in-hull stringers. I probably did not need to do this but I am a conservative boat owner who likes to be 'at ease' when on-board!

- With the professional support of [Pro Marine WA](#), a local marine engineering firm, the installation was straight forward; the electrics and hydraulics are essentially ‘plug and play’, and the remote control for the unit comes pre-programmed.
- The total cost was approximately 50% of two quotes I received for Option E, the hydraulic platform.
- The last reason is less easy to articulate. Grand Banks’ reputation worldwide is that they build a model, traditional, trawler style power yacht that is in every way, high class, using time-honored workmanship. It was important that the ageless lines and profile of the traditional Grand Banks design remain unimpeded. The quiet dignity of this well-found design should not be interrupted. I spent many hours contemplating what would be the equivalent of Grand Banks in the world of hydraulic lifts and storage. Options A -E are undoubtedly suitable for many owners, are progressive in technology, and continue, in their own way, to define contemporary tender lift engineering. On the other hand, the Presto Marine lift, perhaps like Volvo, I felt is a hallmark of the fusion of old and new world craftsmanship ,creating a safe, enduring, and classic style. Together they make a decidedly conservative statement, of attentive construction and solid design, yet embodying a modern technology solution.
- ***Finally, motoring from and returning to Grand Spirit in my tender, now uplifts my soul even higher – perhaps the greatest test and finest reward of all.***

Figs 18 & 19 show the Presto Marine XL500F fitted to *Grand Spirit*.



*Fig. 18 Mares RIB on PM XL500F Lift on my Grand Banks – a perfect marriage.*





*Fig. 19 Timeless lines & profile of the Grand Banks design are maintained*

### **An Unplanned and Delightful Ending**

I was impressed with the people at Presto Marine, their helpful replies to my (many) queries, the very efficient delivery service, the ease of installation, the performance of the lift itself and the very secure on-board storage.

Following successful commissioning and trials, I sought appointment as the company's representative for Australia.

This has been formally agreed and I would be pleased to answer any queries from readers.

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An Australian website is being prepared. In the meantime you might like to visit the Presto Marine website at: <http://www.prestomarine.com/>