

BARGE TO SERVICE THE CAVALLI ISLANDS

BY KEITH INGRAM



The latest barge from Commando Boats, based on the successful Facilitator design by Angelo Lavranos, was recently launched in Half Moon Bay, Auckland, before making its way to the Cavalli Islands, north of the Bay of Islands.

When talking with Angelo about the design specs, he said the client wanted to load a slightly heavier and higher digger than they were totally happy with in the standard Facilitator design. The increase in beam, increased the metacentric height and immersion rate to compensate. Moulded depth to the main deck was increased slightly also.

The client fitted much smaller motors than we have been using on this design, so we also ran a check to see that they were still adequate. She is performing as predicted, 26 knots empty and 17 knots with three tonne load he said.

The increased beam also is slightly more economic from the available sheet size in construction. The boat has slightly better "all round" utility, although the previous three metre beam limit was in line with easier road transportation requirements. Beam restrictions often distort the proportions of vessels away from what one would "ideally" choose without constraints. The planing surfaces are more efficient with this increased beam and so the design efficiencies improve as well, said Angelo.

Outboard powered and still able to be hauled out of the water on its own trailer, the barge is to be used for servicing Step Island or Motukawaiti Island, the most southern of the Cavalli group of islands. The island is in private ownership and the family were looking to have their own barge to give them independence. Not only did the barge have to have a load carrying capacity, its

sea keeping abilities and speed were all essential attributes. The barge also needed to be hauled on the island at night or during inclement weather plus, it needed to have the ability to be able to land on the beach at Matauri Bay which was the closest practical place to gain service from the mainland.

Unlike the Facilitator class of vessels, this barge is approximately half a metre wider because there was no road carrying restrictions thus giving a larger deck space.

Powered by twin 90 hp four stroke Suzuki outboard motors gives the barge a service speed of around 20 to 25 knots with a fully laden speed of 12 to 15 knots, more than enough to cater for the projected demands in the north. During delivery, fuel burn at 3500rpm giving 16.5 knots was 17lts per motor per hour with a one tonne load on board.

The barge is built to SSM because the owners also wanted to have the ability to do contract barge work to nearby island families in the Cavalli group.

Her deadweight is three tonnes un-laden with an additional load carrying capacity of 4.5 tonne.

Once launched we took the barge around to the ramp to check out the bow ramp operation prior to doing sea trials.

The deck area is large and clear with solid hold-down points on the deck near the bulwarks. Lashed to the deck already was the single axle heavy duty trailer in a dismantled condition, ready for delivery to the island. This .9 tonne trailer was specially built with a long drawbar so that the barge can be launched and recovered off the beach on the island.

Once underway and after a settling in period for the outboards the twin 90s certainly got the barge moving in a hurry. Obviously, while some of the earlier Facilitator barges



Surveyor Bill Anderson discusses his final inspection



The large beach trailer dismantled and lashed on deck

Stowage locker for safety gear



have larger horsepower and can travel at 35 plus knots, the island's owners were looking for more conservative power, fuel economy and functionality. As long as they could get 20 knots light ship and 10 knots laden this would fit in the timeframes for servicing the island quite comfortably. Speed was not an issue but reliability and the added advantage of twin engines were considered to be important.

Once underway we noticed a bit of slip in the turns with some cavitation with air passing under the hull but this was to be expected given her design configuration and the fact that there were no grousing strakes.

The hull is constructed in marine alloy with a 8mm bottom, 5mm sides and the deck is 8mm checker plate. The ▶

Commando
Boats NZ Ltd
A Division of Metal Designs Auckland Ltd

Commercial craft custom built to your specification



8a Neilpark Drive, East Tamaki
Ph 09 274 5586, Fax 09 274 8248
Email info@metaldesigns.co.nz
www.metaldesigns.co.nz

For Versatile Workboat Designs

Lavranos Marine Design Ltd
PH 09-478 1942 • FAX 09-478 1943
EMAIL lavranos@ihug.co.nz
www.lavranosyachtdesign.co.nz

With only one tonne on board, Cavalli scoots along with an easy planing attitude



The Portofino style transom and helm console

bulwarks and coamings and frames are all in 5mm alloy. While the bottom may look flat it has five percent lift from the centre to the chine to assist in passage making but will still give a bit of slip in the turns at speed.

The hull is essentially in three watertight compartments incorporating nine longitudinal and eight transverse frames and bulkheads. Each watertight compartment has a drain hole that may be checked once on the trailer to ensure the vessels watertight integrity has not been breached at any time. The bow ramp is constructed in 8mm plate channel and box section alloy capable of loading a small truck, ute or van or even a tractor.


Fuel for the motors is provided by six 20lt tote tanks stowed under the raised floor of the steering console. The reason for tote tanks is their transportability. They can be carried on the ute and refuelled at the nearest service station on the mainland.

All additional safety equipment and spare gear is stowed in watertight lockers built into the console.

Once underway, we noted the typical bluff bow of the barge would soon offer spray for the wind to quickly dampen the occupants so we sought shelter behind the helm console. The outboard sponson incorporating a Portofino extension of the hull was actually part of the hull giving added lift at the stern and provided ease of access to the outboard motor power heads.

When questioned, about the number of these small barges Commando Boats have built, boss, Bruce de Baugh replied that these barges have evolved over time.

“We have been lucky to have the design skills of Angelo Lavranos and the professional seamanship skills of an old sea dog Alistair Reynolds. Alistair has built a number of these barges,” said Bruce, “and through his extensive on the job trialling we have modified the barge design to where we believe we have optimised the design to deliver the best performance and robust functionality.”

Clearly the success of this little barge is now being reflected in the number of forward orders and interest from around New Zealand and the Pacific. This latest barge is no different as when talking with the owners and skipper the barge is working out exceptionally well with the only modification being the addition of a zinc block to the transom. 

SPECIFICATIONS

LOA	9.5m
Beam	3.6m
Draft	.300m
Displacement	3 Tonnes
Dead weight	4.5 tonnes
Power	Twin 90hp outboard motors
Designer	Lavranos Marine Design
Builder	Commando Boats