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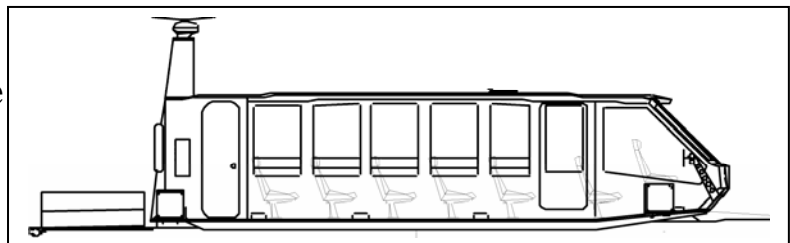
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15.40 Meter Aluminium Catamaran 40Pax to 60 Pax



Date: 22nd of June 2010

**Optional Superstructure
(Lower Cost)**



**Side Windows may be omitted for open seating area.
Seating simply Bench, optional individual GRP moulded or bus type
Offered without crew accommodation(optional)
Offered without snack bar(optional)
Interior finish to be simply and easily cleaned to meet classification.**

Table of Contents

1. General Description

1.1 Main Particulars

1.2 Principal dimensions

1.3 Propulsion

1.4 Tank capacities

1.5 Vessel layout

1.6 Modifications

1.7 Owner's supply

1.8 Documents supplied with vessel

1.9 Labels

1.10 Certification and Survey

1.11 Trials and supervision

1.12 Testing equipment and systems

1.13 Sea trials

1.14 Vessel Registration

1.15 Definitions

1.16 Manufacturing and equipment quality and specification

1.17 Delivery

2. Hull and Superstructure

2.1 Materials

2.2 Hull

2.3 Superstructure

2.4 Hatches and Emergency escape

2.6 Watertight doors

2.7 Windows

2.8 Stairs, ladders and handrails

2.9 Fenders

2.10 Bollards

2.11 Lifting lugs

2.12 Mast

2.15 Markings hull and superstructure

2.16 Painting, deck covering and anti-foul

2.17 Cathodic protection

3. Propulsion and steering

3.1 Main engines

3.2 Shaft and propeller installation/water Jet

3.3 Main engine speed and gearbox control

3.4 Steering system

4. Primary ship systems

4.1 Bilge and general service system

4.2 Diesel fuel system

4.3 Cooling water system

4.4 Fresh water system

4.5 Black water system

4.6 Ventilation

4.7 Exhaust system

5. Electric installation

5.1 General description

5.2 Power generating and distribution systems

5.3 Lighting and Sockets

5.4 Alarm installation

6. Deck equipment

6.1 Anchor equipment

- 6.2 Mooring equipment
- 6.3 Hydraulic deck crane (Optional)
- 6.4 Storage
- 6.5 Life saving appliances
- 7. Auxiliary systems
- 7.1 Fire Prevention, Detection and Extinction
- 8. Arrangement of service and living areas
- 8.1 General
- 8.2 Wheelhouse arrangement
- 8.3 Passenger seating in main wheelhouse
- 8.5 Crew accommodation (Optional)
- 8.6 Engine room arrangement
- 8.7 Insulation(Optional)
- 8.8 Heating or Air-Con (Optional)
- 9. Navigation and communication equipment (As to client's requirements)

1 General Description

1.1 Principal dimensions

- 1.2.1 LOA (excluding fenders and jet guard) approx. 15.40 m
- 1.2.2 Beam (excluding fenders) approx. 5.57 m
- 1.2.3 Draft aft (max including stern gear) approx. 1.00 m
- 1.2.4 Air Draft approx. 5.00 m
- 1.2.5 Crew 3
- 1.2.6 Passengers 60
- 1.2.7 Estimated weight 17,000Kg

1.3 Propulsion

1.3.1 The vessel is driven by 2 x Iveco CV - 500HP @ 2600rpm with Twin 376 Ultra water Jet Drives. The engines are sea water cooled and may be removed via two large inspection hatches on the aft deck.

1.4 Tank capacities

Please see General Arrangement Plan for tank layout

- 1.4.1 Fuel oil approx. 2 x 2,000 litres (fuel not included)
- 1.4.2 Fresh water approx. 1 x 200 litres
- 1.4.3 Black water tank 200 litres

1.5 Vessel layout

Each hull is sub-divided in to 4 watertight compartments: -

- 1.5.1 Engine room
- 1.5.2 Tank room
- 1.5.3 Accommodation
- 1.5.4 Fore peak (collision bulkhead)

1.6 Modifications

1.6.1 The Builder is at liberty to modify constructions and/or designs, provided such modifications do not affect the specification's object.

1.7 Owner's supply

1.7.1 Where the Owner supplies his own components, equipment and/or any other materials, which are to be incorporated in the vessel, the additional costs for bringing these on board and/or for their installation, are not included in this specification.

1.8 Documents supplied with vessel

The following documents (but not limited to) will be supplied with the vessel on delivery: -

- 1.8.1 Builder's certificate
- 1.8.2 Compliance certificate
- 1.8.3 Stability booklet
- 1.8.4 General Arrangement drawings
- 1.8.5 Electrical circuit diagrams
- 1.8.6 Hydraulic system diagram and schematic

1.8.7 Manuals relating to onboard equipment

1.8.8 Engine/gearbox manuals

1.8.9 Compass deviation card

1.8.10 Piping diagram.

N.B. The vessel can be supplied with an electronic Operations and Maintenance Manuals at an additional extra cost. Please ask for details.

1.9 Labels

1.9.1 Identification labels are fitted at all relevant pipelines, deck equipment, deck fittings, valves, switches and control equipment to comply with MCA Code of Practice,

1.10 Certification and Survey

1.10.1 The Vessel is built under survey by customers choice of class (please note that this at extra cost to the customer)

1.11 Trials and supervision

All work and equipment on the vessel will be tested in the United Kingdom for suitability, performance and workmanship for the intended purpose. The Builder will furnish all consumables that are necessary for tests and trials including fuel and lubes.

1.11.1 A table of results for all tests will be supplied with the vessel.

1.12 Testing equipment and systems

1.12.1 Anchor equipment

1.12.2 Windows, watertight doors and hatches will be pressure hose tested

1.12.3 Navigation and electronic communications equipment

1.12.4 A.C. and D.C. Electrical systems

1.12.5 Hydraulic systems

1.12.6 Bilges system

1.12.7 Fresh water system

1.12.8 Waste water system

1.12.9 Ventilation system

1.12.10 Lighting system

1.12.11 Heating system

1.13 Sea trials

The Builder's trials are carried out on completion of the vessel in Dartmouth, United Kingdom. The engine manufacturer's engineer will be in attendance. The sea trials include:

1.13.1 Speed trials over a measure mile to establish top speed

1.13.2 Manoeuvring trials for main steering and standby systems

1.13.3 Systems trials for all installed machinery and equipment

1.13.4 Endurance trial to run the vessel over a number of conditions for a time to exceed 4 hours

1.13.5 Compass adjustment

1.13.6 Noise measurements will be taken at maximum RPM at the following positions: -

Main wheelhouse helm position

Lower accommodation

Aft Deck

1.13.7 All trials are to be carried out with validation by the engine manufacturer's engineer the trial condition shall be with full tanks at commencement and full crew complement.

1.13.8 After final inspection and satisfactory trials, the Owner and/or his representative shall acknowledge, in writing, his acceptance of the vessel as concerns its construction, workmanship, arrangement, machinery, equipment, etc., and his technical acceptance shall be at the Builder's Yard. The vessel will not be deemed to be „handed over“ until all documentation listed in this specification is complete and submitted to the owner.

1.14 Vessel Registration

The Owner shall register the Vessel at its own cost and expense.

1.16 Manufacturing and equipment quality and specification

The workmanship and general manufacturing will be of high standards as applicable by the Builder's quality procedures. In practice this means smooth finishes, neat welding and quality fitments throughout. All materials and equipment used in the construction will be

new and of high marine quality. Manufacturers' names may be used in this specification to describe the quality standard of equipment. The Builder reserves the right to substitute other manufacturers' equipment to the same standard and quality.

1.17 Delivery

1.17.1 The vessel will be delivered to Dartmouth UK for owner collection complete with the equipment and manuals to the specification and contract.

2. Hull and Superstructure

2.1 Materials

2.1.1 Aluminium Marine grade light alloy (aluminium) type.

2.1.2 Plating: AA 5083

2.1.3 Extrusions: AA 6082 or AA 6060

2.1.4 Stainless steel Stainless steel type A4 316 is used unless otherwise mentioned

2.2 Hull

2.2.1 The hulls are a deep V design with spray chines, and tunnels to increase the overall efficiency of the vessel in terms of outright performance, stability and fuel consumption.

2.2.2 A sea chest is fitted to the bottom of each hull. Each inlet box has a flush mounted removable cover for inspection and cleaning.

2.3 Superstructure

2.3.1 The aluminium wheelhouse is welded to the hull and is well braced.

2.3.3 The wheelhouse has an aluminium access door to the rear and a door to the starboard side.

2.4 Hatches and Emergency escape

2.4.1 Entry to the engine spaces is gained through aluminium doors located on either side of the wheelhouse aft bulkhead.

2.4.2 There is an emergency escape hatch from each engine space on raised comings located on the aft deck as per GA drawing.

2.4.3 Engine removal or service is via two fitted aluminium watertight hatches one starboard; one port side flush with the side decks.

2.4.4 An aluminium fore peak hatch fitted flush to the fore deck houses the main anchor and chain.

2.4.5 Emergency escape from accommodation is via a watertight escape hatch on the foredeck.

2.6 Watertight doors

2.6.1 Watertight doors are manufactured of aluminium plate with hinges and handles to Sea Fish approval. These are located to both port and starboard hulls: -

Engine/tank room

2.7 Windows

2.7.1 All windows conform to ISO 12216 for window strength and tightness requirements for commercial vessels up to 24m.

2.7.2 All windows are in tinted glass except the front windows which are clear.

2.7.3 Please see General Arrangement Plan for window layout

2.7.4 Screen wipers - Electrical (24V) pantograph screen wipers/washers are fitted on front windows (3) of helm position with synchronised switch panel in dashboard.

2.7.5 Window in toilet/shower is frosted glass with opener.

2.7.7 Two opening windows, one each to port and starboard side in the raised helm section.

2.8 Stairs, ladders and handrails

2.8.1 The engine room ladders are integral to the aft wheelhouse bulkhead and are manufactured of heavy duty aluminium tube.

2.8.2 The accommodation steps to the lower cabins are integral to the forward bulkhead and are manufactured in aluminium. There is a gate at the top of each staircase.

2.8.4 A fixed ladder is located on the forward watertight bulkheads in each hull to facilitate emergency escape through hatch on foredeck from lower accommodation cabins.

2.8.6 There are 3 steps to the foredeck on the port and starboard side of the wheelhouse.

2.8.8 Handrails are manufactured of heavy duty, aluminium tube and located around the vessel as per the GA drawing.

2.8.9 There are built in access ladders to port and starboard sides of the vessel with a gate marked Rescue Zone.

2.9 Fenders

For the general arrangement of fenders refer to the GA drawing

2.10 Bollards

2.10.1, 8 heavy duty double bollards will be positioned around the vessel to provide for mooring and spring requirements.

2.11 Lifting lugs

2.11.1 Four lifting lugs are incorporated into the hull to provide for dry docking and shipping purposes.

2.12 Mast

2.13.1 A single fixed mast is fitted to carry mast head, anchor lights and other appropriate navigation sensors, lights and shapes.

2.15 Markings hull and superstructure

2.15.1 Vinyl characters will be applied for the name and port of registry on the stern.

2.15.3 Draught marks are welded and painted on the outsides of the bow and stern of both hulls.

2.15.4 A black load line mark will be positioned on both port and starboard sides of the vessel in accordance with the vessel's stability booklet.

2.16 Painting, deck covering and anti-foul

The painting scheme and anti-fouling, including all preparation will be carried out as recommended by a reputable marine paint manufacturer.

2.16.1 The lower hull below the water line to be painted with the paint supplier's standard anti-foul paint (Colour TBA).

2.16.2 The main wheelhouse will be in white with an orange top rim.

2.16.3 The wheelhouse roof will be painted white.

2.16.4 All deck areas will be in a non-slip grey finish.

2.16.5 The hull will be painted in one colour TBA.

2.16.6 The mast, internal bulwarks and handrails will be painted white.

2.17 Cathodic protection

Cathodic anode protection for all hull parts below water skin fittings: -

2.17.1 The number and type of anodes are suited for one year operational use in UK waters.

2.17.2 Anodes are fixed to the hull on either doubling plates or raised mounts welded to the hull to minimise hull penetration and facilitate replacement whilst afloat.

3. Propulsion and steering

3.1 Main engines

3.1.1 Iveco CV – 500HP @2600 RPM

3.1.2 Twin 305 ZF 1.18.1 gearboxes (T.B.C)

3.2 Twin 376 Ultra Water Jet Drives

3.3 Main engine speed and gearbox control

3.3.1 Quick shift electronic gear and throttle controls.

3.4 Steering system

3.4.1 Hypro Char-Lynn Power Helm 145cc series 6 with Edson wheel and power knob.

3.4.2 Powered hydraulic steering pumps fitted to both main engines power the hydraulic steering system, providing back up should one engine fail.

4. Primary ship systems

4.1 Bilge and general service system

4.1.1 A separate electric pump is able to draw water from a filtered sea water supply to provide water for a fire and deck wash main.

4.1.2 A whale gusher 90 manual bilge pump is fitted in each engine space.

4.1.3 4 x KPM predator 24 volt electric bilge pumps in each hull, one in each water tight compartment with a 200 litre per minute capability.

4.2 Diesel fuel system

4.2.1 Fuel tanks are of aluminium construction and independent of the main hull. Each engine is supplied by its own dedicated tank. The tanks are well baffled and have 3

inspection panels fitted in each tank.

4.2.2 Fuel is supplied to the main engines from the fuel storage tanks via Racor Duplex 75/1000 max water separator filters with remote shut off valves. Flexible piping is used for all fuel supply to the engines.

4.2.3 Fuel tanks are fitted with electrical gauges to the main helm position.

4.2.4 Fuel tanks are filled from stand pipes on the deck located within banded compartments to prevent spillage of fuel overboard in the event of spillage or over filling.

4.2.5 Fuel tank breathers are located within the banded compartments and provided with shut offs.

4.2.6 Fuel tanks are pressure tested prior to fitting (copy of test certificate supplied in documentation)

4.2.7 A fuel transfer pump links the port and starboard tanks.

4.2.8 Fuel for 11kW generator (5.2.1) is drawn from the main tank with its own separate filter system.

4.3 Cooling water system

4.3.1 Each engine is separately served by its own filtered sea water connection for cooling purposes via a sea chest.

4.3.2 Additional inlets for ancillary equipment are also taken from the chest with manual shut offs provided.

4.4 Fresh water system

4.4.1 1 x 390 litre freshwater tank provides fresh water storage and is filled via a stand pipe on the deck. This tank is connected to a 24V pressurised water system where opening of any tap activates the pump.

4.4.2 Hot water is provided by a calorifier connected to the starboard engine cooling system, Webasto heating system and with internal electric immersion heater.

4.4.3 The galley is provided with a stainless sink unit and hot + cold water tap.

4.4.4 The heads is provided with a washbasin and shower with hot + cold water.

4.5 Black water system

4.5.1 The manual toilet is connected to a divert valve for either direct overboard discharge or to a black water tank (200 litres). This can be discharged overboard via a waste transfer pump when appropriate or to a shore facility.

4.5.2 Controls and level gauges are fitted to the main control panel.

4.5.3 A discharge point is provided on the deck.

4.6 Ventilation

4.6.1. The engine room is provided with natural and forced ventilation.

4.6.2 Natural ventilation is provided via two air intake ducts built in to the forward engine room access hatches, fitted with spray arresters and fire flaps.

4.6.3 Forced ventilation/extraction is provided by electric fans (reversible) located in the aft engine room escape hatches with spray arresters and fire flaps.

4.6.4 The tank rooms and cabins have natural ventilation provided through swan neck vents on the deck above with closures.

4.6.5 The heads have a 240V extraction fan fitted which will activate with the light switch located in the heads.

4.6.6 The galley is fitted with a 240V extractor fan above the cooker with localised switching.

4.7 Exhaust system (Depending on Drive system installed)

4.7.1 Main engine exhausts

4.7.2 The exhausts of the main engines are seawater cooled and manufactured of approved rubber hoses. Stainless steel water injection pipes are fitted at the engine manifolds.

4.7.3 The exhausts have an overboard connection at the transom with a stainless steel nonreturn flap and are fitted in accordance with engine and exhaust manufacturers recommendations.

4.7.4 The exhausts are fitted with dual chamber water lift silencers.

4.7.5 The exhaust discharges are located at the stern.

4.7.6 The exhausts of the generator engines are of similar design to the main engine exhaust systems.

5. Electric installation

5.1 General description

The design and layout of the electric system, the materials, installation and testing meet the MCA standards. All electric cables and materials are suited for marine application and are in accordance with the requirements for the safe and efficient operation of the vessel. All electric equipment, which function or application is not evident, shall be provided with notices.

The following networks are installed: -

5.1.1 12 & 24V network

5.1.2 A 240V power network via shore supply

5.1.3 A 240V via generator

5.2 Power generating and distribution systems

5.2.1 Beta Marine 11KW Generator

5.2.2 Alternators 24V

5.2.3 The main engines are fitted with 24V alternator units (engine maker supplied) charging 4 x 12V batteries each, linked in series to provide a split 24V system, starter batteries/boat load batteries.

5.2.4 24 volt electrical power for engine starting, wheelhouse navigation equipment and emergency lighting is supplied from battery sets housed in the engine space and appropriately ventilated.

5.2.5 Essential/emergency services are distributed through a separate board for automatic operation of communications.

5.2.6 Shore power connection

5.3 Lighting and Sockets

5.3.1 Search light (Jabsco) x 1 and 4 good quality deck lights (Aqua Signal Series 80 Flood Lamps) suitably distributed.

5.3.2 The switches are located at the helm in a light switch console with all other lighting circuits that need to be controlled from the main helm to avoid interference with visibility when navigating during the hours of darkness.

5.3.3 The wheelhouse is lit by multi function LED lights giving both red and white light function.

Main wheelhouse 22 x LED Downlights

Raised helm 4 x LED Downlights (red/white)

Heads 2 x downlighters

Cabins & crew area 2 x downlights (each side)

Reading light x 4 (one in each berth)

Engine & tank room 8 x lights

5.3.4 Engine space and other compartment lighting are switched near the compartment entrances.

5.3.5 Navigation lights are supplied from the 24V system and switched from the helm console and suitable for the length of vessel. The external fittings are connected through watertight plugs and sockets and are as follows: -

5.3.5.1 1 Masthead light

5.3.5.2 1 each Port and Starboard light

5.3.5.3 1 Stern light

5.3.5.4 1 Anchor light

5.3.5.5 4 deck floodlights

5.3.5.6 1 remote electric control search light

5.3.5.7 1 NUC signals

5.3.5.8 1 restricted manoeuvrability signals

5.3.6 A number of sockets with an output of 240V are fitted in the wheelhouse and cabins: -

5.3.6.1 2 x 1 double socket port and starboard in wheelhouse

5.3.6.2 2 x 1 double socket in galley

5.3.6.3 1 x 1 double socket in each cabin

5.3.6.4 1 double socket by helm

5.3.7 12v battery socket x 1

5.4 Alarm installation

5.4.1 The alarms of the diesel engines and others are displayed on the main dashboard. Each alarm has an indicator light and acoustic signal.

5.4.2 Other alarms include: -

5.4.2.1 High bilge water level alarm in each watertight compartment.

5.4.2.2 Smoke detection in engine room and accommodation

5.4.2.3 Heat detection in engine room

5.4.2.4 Auxiliary generator provided with manufacturer's alarm system.

6. Deck equipment

6.1 Anchor equipment

The anchor equipment and installation is in accordance with MCA Code of Practice.

6.1.1 Electric windlass

6.1.2 Bow roller.

6.2 Mooring equipment

6.2.1 4 x 20m x 16mm diameter mooring lines are provided.

6.2.2 5 x Fenders

6.3 Hydraulic deck crane (Supplied if required at extra cost)

6.4 Storage

6.4.1 Fixed standard storage basket on foredeck

6.5 Life saving appliances

6.5.1 The vessel is supplied with certified LSA equipment to meet MCA Code of Practice, Category 2, 60 miles from safe haven 12 passengers plus 3 crew. Excludes liferaft(s)

7. Auxiliary systems

7.1 Fire Prevention, Detection and Extinction

7.1.1 The vessel is fitted with a FirePro Fire system comprising of 4 x statx units @ 24 cubic metres each, 2 x control panel, 2 x thermal sensors (built in), 2 x smoke detectors, 2 x heat detectors and 2 x sounder beacons

7.1.2 A separate electric pump is able to draw water from a filtered sea water supply to provide water for a fire and deck wash main.

7.1.3 The engine room is lined with both acoustic and fireproof material to the underside of the decks, main bulkheads, bulkhead sides to 300mm below water level and wheelhouse bulkhead in air intake/access to engine/tank room.

8. Arrangement of service and living areas

8.1 General

8.1.1 The layout of the accommodation, wheelhouse is as shown on the General Arrangement Plan. All walls, ceilings and surfaces are of smooth, wipe clean or carpet finish. Floors are rubber mat.

8.2 Wheelhouse arrangement

8.2.1 Access to the main wheelhouse is from the aft deck through the main rear wheelhouse door.

8.2.2 There are steps port and starboard leading to the crew cabins below.

8.2.3 There is a heads with manual toilet, wash basin and shower unit with hot and cold water. There is a frosted opening window and access door to main wheelhouse.

8.2.4 The Galley is located to the rear of the wheelhouse and contains a sink and drainer with hot and cold water, worktop, electric hob (including fiddle rails) and built in oven, full size fridge and cupboard space.

8.2.5 Free standing microwave

8.2.6 Seating area as per GA drawing.

8.3 Passenger seating in main wheelhouse

8.3.1 The seating area will accommodate 60 passengers in individual sprung black vinyl seats with seat belts, head and armrests.

8.3.2 The seats are mounted on GRP boxes with storage below and stainless steel foot rests.

8.5 Crew accommodation

8.5.1 Two standard berths (2ft 6") in each cabin with mattresses. Forward storage area to each cabin.

8.5.2 Reading light above each berth

8.6 Engine room arrangement

8.6.1 Chequered aluminium floor plates are fitted in the engine room. 8.6.2 Aluminium hand rails around engines and protective guards over exposed shafts and belts.

8.7 Insulation

8.7.1 High density insulation to aluminium walls and ceilings in all main accommodation/cabin areas providing both thermal and acoustic insulation.

8.8 Heating

8.8.1 Webasto Thermo 90ST Marine diesel heater system for hot water

4 x Kalori Alize FAI matrix heater 3.8kw (main wheelhouse and bunk heating)

1 x Kalori Compact D4 matrix heater 4.3kw (windscreen demist)

9. Navigation and communication equipment

Quantity Unit Part No Description

2 Each 705-E52067 Raymarine Radome 4kw 24"

1 Each 330-M31LI Icom IC-M31 handheld

1 Each 330-M505 icom IC-M505 Fixed vhf

1 Each 330-MB75 Flush mount kit for IC-M505

2 Each 166-P110 Eagle Loudhailer 30watts

2 Each 345-SS1P Plastic Deck Gland for above 4mm-9mm

1 Each 599-LV25 2.5mtr Pacific longreach vhf antenna white c/w 6m cable

1 Each 599-LDMS Stainless antenna mount

1 Each 599-SCE10 VHF Coaxial cable extension X 10mtrs

1 Each 345-SS1 SS deck gland for above

1 Each 705-E02022 Raymarine C120 12.1" Colour m/f display

1 Each 705-E02013 Raymarine E120 12.1" Colour m/f display

1 Each 705-E66080 Raymarine SS560 st.stl transducer & fairing

1 Each 705-E63069 Raymarine DSM300 Digital echo sounder unit

1 Each 792-ORI241220000 Orion DC Converter 24-12volts 20amp

2 Each 240-GOLD-XL3 Navionic XL3 Gold Navigation Chart uk/eire

3 Each 705-E32042 Raystar 125

1 Each Icom M401 Fixed VHF c/w MD20 Antenna

1 Each 119-CSB200/AG AIS class B transponder c/w 1m cables

1 Each This package includes AG100 GPS pole mount unit c/w 10m cable

1 Each 818-AIS-MAST V-Tronix AIS whip Antenna c/w 20mtrs RG58 cable

1 Each 818-ACC154 BNC Plug for above RG58 cable (change end)

1 Each 705-M81124 Raymarine Hydraulic Pump 24v Type 3

1 Each 705-E12183 Raymarine Control Head Display ST8002

NOTE:

Where makes and models of machinery and equipment have been specified, these are indicative and can be substituted by equivalents according to the preferences of the purchaser or availability.