NEW BUILD - 11m RIB Patrol Boat

Listing ID: 4095

DESCRIPTION: NEW BUILD - 11m RIB Patrol Boat
DATE LAUNCHED: Built to Order
LENGTH: 11.5m (37ft 8in)
BEAM: 3.45m (11ft 3in)
DRAFT: 0.6m (1ft 11in)
LOCATION: ex factory, China
BROKER: Geoff Fraser

General Description

1. GENERAL

1.1 General Description

This specification describes the design and construction of the proven reliable, tactically seized, rough sea-going 11M advanced composite vessel which will be arranged as a Fast Security Patrol Craft (hereafter referred to as "vessel") to use in coastal and offshore waters with equipment capacities to focus on below missions:

a. Terrorist activities interdiction;
b. Coastal patrol against illegal activities and smuggling;
c. Interception of hostile vessels;
d. Fishery control;
e. Protecting natural resources against unauthorized exploitation;
f. Offshore facilities protection;
g. SAR operations;
h. Oil field security and protection;
i. Short-range combat operation;
j. Limited logistics support;
k. Swift mobilization of troops.

The vessel will be constructed to a high commercial standard with particular attention to minimising noise transference and vibration while enhancing structural rigidity and integrity, and offering best crew comfort and mission-capability.

Principal particulars:
• LOA: 11.5 m
• Hull Length: 10.7 m
• BOA: 3.45 m
• Hull Beam: 2.7 m
• Depth: 1.625 m
• Freeboard (bow): Approx. 1.5 m
• Draft (hull): Approx. 0.6 m
• Displacement (lightship load): Approx. 5 tonnes
• Displacement (half load): Approx. 5.8 tonnes
• Displacement (full load): Approx. 6.6 tonnes
• Midship deadrise: 22 deg.
• Stern transom deadrise: 19 deg.
• Engines: 2 x YAMAHA F300 300HP @ 5000-6000RPM
• Max. speed: 38 knots at full load/100% MCR/Beaufort Scale sea state two/clear hull
• Cruising speed: Approx. 25 knots
• Fuel capacity: 2 x 600L
• Range: No less than 300 NM at 20 knots with 10% fuel reserved
• Endurance: No less than 10 hours at 25 knots cruising speed
• Compliment: 12 persons in total among which eight with shock-mitigation jockey seats
• Seakeeping ability: Sea state 4 according to Douglas Scale
• Construction: PVC cored composites to be 3D infused throughout

1.2 Design and Attributes

i. Vessel Layout:
The vessel is laid out with the hull to include one fore tank for stowage of anchor and anchor chains, one void tank for stowage of general service equipment, one fuel tank compartment and one void space for installation of OBM start-up batteries and service battery bank while the deck is laid with open center console and one hardtop to accommodate the control station with eight shock-mitigating seats as per shown in the GA drawings.

Taking in mind for intention of stable, efficient and long voyage navigation in adverse conditions, the vessel is specially laid out with best available ergonomics for improved comfort, better sustained duty-efficiency and capability, highlighted as follows:

1) The console station is centrally located to offer a flexible platform for a variety of electronics and high visibility having the forward section of the hardtop fully cover the console station and crew seating so as to effectively stop the burning sun from directly shining into the console station in tropical, hot summer weather.

2) The deck layout provides superior walk-around quality with wide side decks and spacious bow sections to enhance deck maneuvering safety.

ii. Hull Form:
The hull form is well proven and will be double-chine, non-stepped, dynamic-stability enhanced & lifting-optimized keel, variable deadrise deep V planing form incorporating with a fine forward entry, flared bow, wide chine flats, lifting strakes/spray rails, planing flats and low L/B ratio at the main chines, having the bottom lines set to run slightly downward from stern transom to have its lowest point at 3/4 of waterline length (the hull bottom section that is designed to cut through waves) before rising up to the bow.

iii. Seakeeping Ability:

iii.i Seakeeping Ability in Head Seas
Seakeeping ability in head seas for planing hull is dependent on trim angle and deadrise of the hull bottom that encounters the wave. In our design, we have given strict control on Lcb and Lcg so that there will be no big change to distance between Lcb and Lcg no matter at displacement speeds or planing speeds, thus the vessel will be able to run much flatter with the forward fine entry to effectively and efficiently cut through head seas without tendency to fly out of water as can be found in many competitive boats of similar speeds, ensuring much softer, smoother, flatter and more comfortable riding quality without obvious hull slamming but higher speeds to be maintained in waves.

iii.ii Seakeeping Ability in Following Seas, Side/Quartering Waves
Seakeeping ability of a planing hull in following seas, side/quartering waves is dependent on dynamic stability of the vessel while the dynamic stability of a vessel is subject to the capability of the underwater hull configuration on how strong it can give grip to water so that the tracking course of the vessel cannot be easily impacted by outside factors through following seas and side/quartering waves. In order to actualize superior dynamic stability, below trade-offs have been made in the hull form design:

1) Buttock lines to be slightly downward in form from stern transom to the forward so as to give good handling in following seas because big, wide, deeply immersed transoms will cause the boat to yaw, especially at displacement speeds and in steep waves.

2) Chine flats to be slightly down angled so as to co-operate with the deep V underwater section to give enhanced grip for enhanced capability in stable tracking course.

3) Low L/B ratio at the main chines to give dynamic beam to ensure high quality of running attitude in big following seas and breaking waves without serious pitching or heaving even in rough seas.

4) Each heavy equipment/machinery/liquid tank to be carefully selected and to be laid out at a possibly low position of the V hull bottom so as to lower down the Vcg of the vessel for improved stability which is of vital importance in maintaining high quality running in following seas, high speed turning and side waves.

5) High buoyancy bow with the added anti-collision fines and large-sized EVA foamed fendering above waterline to ensure that the bow will not immerse into waves when doing crash stop for emergency or coming across with big, irregular waves.

iv. Static Stability:
The featured variable deadrise deep-V form makes the hull bottom flattened from amidships to stern transom, which will work with the low L/B ratio and wide, slightly down-angle chine flats and deep keel to create best grip to the water with significant lateral resistance to stop the platform from heeling so as to bring for excellent static stability.

v. Damaged Stability:
The hull is divided by three watertight bulkheads to form four sub-divisions to meet class and flag state requirement for damaged stability and will remain afloat and upright with flooding in any single main compartment.

vi. Deck Condition:
The vessel is designed with high freeboard along the waterline length and incorporates with wide, slightly down-angle secondary chine flats, spray rails and anti-collision fins to work with flared bow to ensure truly dry deck at all speeds and maneuvering conditions.

vii. Strong Bow Protection:
The bow will be structurally reinforced with built-in anti-collision bulkhead to enhance abrasion resistance and then to be outer-fixed with heavy-duty EVA foamed fendering in order to ensure that the bow structure can absorb all reasonable loads/impacts transmitted and to give good seagoing abilities, ensuring extremely strong protection for real world tough missions.

xiii. Attributes:
The vessel will be designed to provide the following attributes:

1) Shall be sea going and capable of undertaking sea voyages under its own power at any design loaded condition and draught.

2) Shall be capable of working in juridical waters of PNG, regardless of sheltered, unsheltered or open seas with waves up to Douglas state four.

3) Shall offer stable platform with all-around maneuvering quality on the whole deck.

4) Shall be applicable for good day helm visibility.

5) Shall have good manoeuvrability in all defined conditions and low noise at all speeds.

6) Shall offer a structural life span of 15 years under normal operations and reasonable maintenance, allowing for 500 running hours of average annual usage.

ix. Operation Conditions:
The vessel and equipment package will be suitable for operation in tropical weather conditions in the tropical Arabian seas, detailed as below:

Ambient Air Temp. : Max 50 deg. C

Seawater Temp.: Max 35 deg. C

Relative Humidity : Max 95%

As special note, maximum speed at open throttle may be slightly reduced due to impact to performance in maximum power output of the main engines when at extreme weather with sea water temperature higher than 35 deg. C.

1.3 Compliance and Survey
The vessel is to be surveyed to latest Rules and Regulations for the Classification of Lloyd’s Register, notated as Special Service Craft, patrol, G2 Service Group. As such, the vessel will be designed and built for patrol mission in restricted service area of waters with reasonable weather as defined by Lloyd’s Register, and generally the range to refuge is no more than 20 nautical miles in water.

Furthermore, the vessel shall comply with the requirements of main class for stability purposes of the Lloyd’s Register “Rules for the Classification of Special Service Craft” applicable to G2 navigation zone.

The Builder will appoint an approved Surveyor, at additional cost subject to preference by shipowner, to carry survey inspections during construction and testing as per Survey requirements.

1.4 Quality and Control
The shipyard is accredited to ISO 9001:2008 which is certified by RINA and CCS, both are members of International Association of Classification Societies (IACS).
IMPORTANT: The Company offers the details of this vessel in good faith but cannot guarantee or warrant the accuracy of this information nor warrant the condition of the vessel. A buyer should instruct their agents, or their surveyors, to investigate such details as the buyer desires validated. This vessel is offered subject to prior sale, price change, or withdrawal without notice.

NEW BUILD - 11m RIB Patrol Boat Images

Below: Main Deck Plan: