



SEABOATS

MARINE BROKERS WITH A GLOBAL APPROACH

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NEW BUILD - 16m Fast Patrol / Interceptor Boat



Listing ID - 4721

Description	NEW BUILD - 16m Fast Patrol / Interceptor Boat
Date Launched	Built to Order
Length	16m (52ft 5in)
Beam	4.5m (14ft 9in)
Draft	0.92m (3ft)
Location	ex yard, China
Broker	Geoff Fraser geoff.fraser@seaboats.net +64 21 61 222 5
Price	POA

The targeted operating missions:

Initially designed as patrol/interceptor boat, this K-TOUGH Hull based boat is also perfect for fire rescue/pilot transit/security/escort//command/VBSS/quick response/surveillance and any other types of military/paramilitary/professional operations that need to deal with rough open seas and hostile environments.

The real-life validated, truly world-changing capabilities from DNA:

Built on our exclusively innovated K-TOUGH Hull Architecture Platform, this small enough, only commonly equipped boat is enabled from the very DNA with capabilities to revolutionize your tough mission safety, performance and cost savings by allowing you to get at least five times of far better rough open sea handling safety, performance, stability, comfort, control, dryness, coxswain's visibility and damaged survivability than found with any far larger, far more expensively equipped boat from any of today's so-called top reputed US/EU/UK/Australian companies even when the comparable boat is already more than five times of higher cost and already installed with very expensive ride controls, gyro stabilizers, etc. This means that, you can expect a K-TOUGH Hull based boat only around 10m with only

twin outboard motors to effortlessly beat any patrol/interception/SAR/pilot transit/command/VBSS/quick response/surveillance of more than 20m from any other company in all aspects of sea handling qualities and capabilities with hands-down (We have achieved this capabilities target five years ago from real-life comparison tests in 3-4m waves even only based on our first generation of K-TOUGH Hull platform which made end users to have quickly put aside their existing boats delivered from the very top reputed US/EU/UK companies once having our boats on hand, only use and keep over-using our boats which is a difficult-to-believe phenomenon that it even astonished the prime minister, while this unique Hull Platform now has evolved into its third generation which can create even far better capabilities).

Here are some of the real-life validated, truly industry-disrupting capabilities that have been repeatedly proven from the use of our delivered boats which will allow you to further learn what you can get from a K-TOUGH Hull based boat:

- Approx. 30%+ better fuel efficient compared with a deep-V hull of equivalent hull length, chine beam, deadrise angle distribution, LCG, windage areas and displacement;
- Approx. 3 times better agility at high speeds;
- Approx. 5 times + better control in high speed tactics maneuvering;
- Approx. 5 times + better in dynamic stability;
- Approx. 50% better acceleration (effortlessly enter into plane with no high bow-up);
- Approx. 5 times + comfort and safety in rough seas over any far larger, far more expensively equipped boat from any other company (no exception to any of today's so-called top reputed US/EU/UK/Australian companies that may come to your mind) even when the comparable boat is already more than 5 times higher in cost and already installed with very expensive gyro stabilizers and active stabilizing fins.---If there comes chance for you to have a K-TOUGH Hull based boat for use in your country, you can do back-to-back comparison test with any of such far larger and far more expensively equipped boat from any of such so-called top reputed designers/shipyards that can be found in your country. KINGTOUGH can return 10% of contract value to you if you find the result is not as claimed!!
- Approx. 5-10 times better sustained high speed helmsman's visibility from the front;
- Riding at full speed in open sea moderate waves extremely stable and comfortable just like driving a car on expressway, and, doing low speed maneuvering in open sea is unbelievably stable just like walking on land;
- Approx. 2-3 times better crash stop distance due to our unique hull's self braking effect;
- More than 10 times of less fault rate due to extremely comfortable working environments created by our unique K-TOUGH Hull Architecture for everything (equipment,machinery, electronics, structure,etc) that needs to perform on this basic platform (fact-based cases and contact information of end users available for your convenience of verifying).
- And many others....

The scientific mystery behind above world-changing capabilities:

With no exaggeration, tough open sea mission handling capabilities of high speed boats have been stagnated for more than 100 years by the more than 100 years of shared problematic fundamentals in hull shapes setting, which makes all of today's high speed boats of all hull sizes, specifications and operating purposes to behave still inherently too violent as found of more than 100 years ago, with unaccepted pitching, rolling, heaving, rocking, jumping, flying out, transom throwing, side skidding, sharp heeling, bow steering and poor damaged survivability to keep wasting energy, threatening safety and limiting tough mission handling capabilities of both the boats and the users as the roots of all evils and roots of more than 99% tragedies and accidents like crew injuries/deaths, structure/equipment/machinery breakdowns and capsize recorded every year with the navies, coast guards, special forces, SAR agencies, pilot transit operators and other military/paramilitary/professional boat users---This crucial truth has been long time played down and is difficult to believe for many people, but, if you put aside the emotional confidence built on the so-called successful stories/proven hulls/so-called long list of existing clients and solidly base on facts from real-life riding behaviors as the ultimate rule for justification, you will quickly find that, every delivered boat from every of today's so-called top reputed US/EU/UK/Australian designers/shipyards and every other designer/shipyard is nothing but only another example of continuing extending this more than 100 years of endless

suffering to continue damaging everything and continue creating tragedies for more users especially in today's information globalization with capabilities in boat solutions developing, engineering and construction already made to be nothing special while the good or bad of real-life behaviors of any boat is so easily obtained from the internet.

However, with our exclusively innovated K-TOUGH Hull Platform, we offers to the world fundamentally while also systematically different scientific working logic for the hulls of our boats to interact with the oncoming flow in a fundamentally different way, which on the other hand enables every K-TOUGH Hull based boat to be born with capabilities to self stabilize its riding behaviors in rough open seas, self clear up impacts brought by oncoming waves, self dampen landings on high swells, self enhance and re-allocate lifting forces to evenly and even more strongly lift the hull, self brake from emergency crash stop besides capabilities to effortlessly cut, penetrate and track through choppy seas and capabilities to self protect all dangerous hull structural areas to allow the boat to continue navigating and mission handling even in the event of damage to the keel along the whole hull length from emergency grounding or damage to the portside/starboard/bow/stern of the hull structure from collision by illegal boats/floating objects, thus eliminating all of the globally watched sensitive, abrupt and violent riding behaviors/motions 100% found in all of our competing boats from the very scientific roots, thus making every K-TOUGH Hull based boat to handle waves just like a dream which is described by our existing coast guard clients as boats that have made their existing boats delivered and marketed by today's very top reputed US/EU/UK companies as world-class capable boats to be just like rubbish, because, our boats have fundamentally defied logic in small boat capabilities which are far beyond imagination.

And, this is how the world of high speed boat capabilities is made to have stagnated for more than 100 years and how we have made it to be fundamentally changed!

The Design:

Dedicated for tough military/paramilitary/professional missions in rough open seas and hostile environments, the boat features a truly high volume hull with high freeboard throughout whole hull length for platform dependability which is combined with best functionalities layout, deck working/berthing/boarding safety and simplicity with all systems interfaces to be strategically located and easily reached, just as shown in the GA drawings.

The Engineering:

The boat is engineered for many years of over-use in heavy seas with heavy-duty construction from structures to the fittings and the installations.

The outlined specifications:

PRINCIPAL DIMENSIONS

LOA: 16m

Hull length:14.8m

L WATERLINE:14.6m

BOA: 4.5m

Breadth:4m

Max Draft (hull only): 0.92m

Depth Moulded: 2.3m

Height Overall:4m(from keel to roof)

Number of Deck: 1

Lightship Displacement: Approx. 18t

Full-load displacement: Approx. 20t

SAFETY EQUIPMENT

Part One: Lifesaving Equipment

1 x Ultra light offshore life raft capable for 6 persons

- 4 x SOLAS Adult type life jacket;
- 4 x Life Ring Buoy with Distress Marker Light
- 2 x Portable VHF Radio (See also in “Navigation and Communication Equipment”)
- 1 x EPIRB, operating at 121.5 and 406 MHz (See also in “Navigation and Communication Equipment”)

Part Two: Firefight Equipment

- 4 x 5 kg portable extinguisher, strategically fitted in the forward hull cabin, in the wheelhouse and in the engine room.
- 1 x Automatic/manually activated engine room fire suppression system for engine room

DECK FUNCTIONALITIES AND CAPACITIES

Rear deck:

Designed as MOB and featured with one step-down MOB platform located near the waterline level and fitted with grab railing to allow survivors to easily climb onto the MOB Platform and then onto the aft working deck;

Aft deck:

Designed as working deck with the parameter of the deck well protected by heavy-duty deck railing;
One CL watertight deck hatch designed and located vertically above the waterjets and is offered together with dedicated aluminium welded ladder to easily and safely enter into the waterjet room for pump checking and servicing simplicity;
One large watertight engine overhaul hatch designed and located vertically above the engines to allow the engines to be freely lifted out of the engine room for overhaul simplicity. It is also offered as schedule service access for machinery in the engine room;

Side decks:

Designed as passageway to allow 360 degrees of walk around the wheelhouse and also to allow berthing and boarding to other ship directly from the shoulders; Overhead grab railing will be added on the external top side of the wheelhouse for side berthing and boarding safety.

Fore Deck:

Designed as working deck with direct access from the CL to the bow boarding station; safety boarding rail will be provided on the sides of the bow boarding station;

DECK FUNCTIONALITIES AND CAPACITIES

Rear deck:

Two MOB platforms together with grab railing located portside and starboard of outboard motors installation well to allow survivors to be easily retrieved and safely rescued;

Aft deck:

Designed as working deck with the parameter of the deck well protected by raised deck bulwarks and heavy-duty grab railing; The aft deck is designed to be separated from the rear deck by a laterally constructed deck coaming with two over-sized deck draining ports to go through the bottom of the deck coaming to allow deck water to be quickly discharged overboard;

Side decks:

Designed as passageway to allow 360 degrees of walk around the wheelhouse and also to allow berthing and boarding to other ship directly from the shoulders; Overhead grab railing will be added on the external top side of the wheelhouse for side berthing and boarding safety.

Fore Deck:

Designed as working deck with direct access from the CL to the bow boarding station; safety boarding rail will be provided on the sides of the bow boarding station;

Two raised boarding stations are fitted on the shoulders to allow berthing and boarding operations from the shoulders from/to the commercial ship.

DECK EQUIPMENT:

1 x 20kg HHP stainless steel anchor, designed to be manual operated and placed inboard of the hull in its dedicated anchor locker in order to secure a free forward working deck and avoid the hanging anchor from rocking to the forward hull section by heavy seas;

4 x Double bitt bollards constructed from aluminium and above watertight bulkheads which will be integral also for the functionality of fairleads and lifting lugs

MACHINERIES Type/Model/Output and Capacity

Main Engine:

2 x MAN i6 588KW @ 2300RPM diesel inboard diesel high speed marine diesel engine, rated to be intended for 500-1000 annual operating hours with rated power to be usable at 2/10 hours.

Gearbox:

2 x ZF360 (deduction ratio 0.925:1)

Propulsion:

2 x Hamilton HTX30 mixed flow waterjets

Generator:

1 x Northern Lights 12KW@1800RPM, 60Hz, single phase.

PERFORMANCE

Max Speed:

No less than 40 knots at full load displacement

TANKAGE CAPACITIES

Fuel Oil:

1800L

Fresh Water for window spray wiping:

100L

CRUISING RANGE:

No less than 180 knots at cruising speed

NAVIGATION/TELECOM EQUIPMENT

1 x Raymarine AXIOM PRO 12 12"HD touch control screen integrally displaying data of chart plotter, GPS, Radar, Eco Sounder on helmsman control station

1 x Raymarine AXIOM PRO 12 touch control screen integrally displaying data of CCTV and night vision on radio control station

1 x Raymarine GA150 GPS antenna

1 x RD418HD radar radome for 48MN

1 x CPT-S Echo Sounder or similar

1 x SS-2000 magnetic compass or equal, 4-1/2"(114mm), 12VDC

1 x IC-M324 fixed mounted VHF or similar

1 x RA112CR VHF antenna

- 1 x ICOM IC-7300 HF +50MHz SSB/CW/RTTY/AM/FM 100W Transceiver
- 1 x MA-500TR AIS or similar
- 1 x RA112CR AIS antenna
- 1 x E100 EPIRB or similar
- 1 x LED type navigation light system which will be supplied in shape in accordance to 72 COLREG
- 1 x LED type deck working/spot/flood light system as required by tender.

SURVEILLANCE EQUIPMENT:

Strong Search Light:

- 1 x Jabsco 12V DC Strong marine search light with 320 deg. visibility coverage and controlled from wheelhouse;
- 1 x Blue flashing light to be mounted on the mast
- 1 x FLIR M364 night vision system integrated with CCTV to have the image to be displayed on the same multifunction display
- 1 x HK VISION AE-MN5043 CCTV system with 4 CH video recorder, 2 TB hard drive and three cameras. The cameras will be strategically located on aft deck and in the engine room and will be subject to final review by purchaser.
- 1 x Super-LED 22" Lightbar, Blue/Red.
- 2 x LED Law Enforcement Strokes, 24VC Blue/Red.
- 1 x Loud Hailer/Siren/ Intercom System, compatible with Police Light System

CABINS LAYOUT AND FUNCTIONALITIES

- 1 x wheelhouse on main deck, laid out with 4 x SHARK SEATING captain's shock-mitigating seats besides 1 x helmsman console station on front portside and 1 x radio/navigator console station on front starboard besides 1 x step-down stairway to lead from CL of the front of the wheelhouse to the forward hull compartment;
- 1 x head on portside of the mid of the forward hull compartment and 1 x open galley on the starboard of same compartment;
- 1 x Forward hull crew sleeping cabin for 4 x persons with upper /lower bunks on each side;

INTERIOR FITOUT

To be of high quality commercial fitout with hard-wearing finish.

The interior fitout panels are preliminarily to be FORMICA fireproof panels or similar with dark gray color throughout (or subject to user preference).

The control station is designed to be of light color or dark gray.

CABINS VENTILATION:

The wheelhouse is designed to be naturally ventilated via low profile ventilators and two sliding windows on the front of each side; the forward hull cabin for crew sleeping service is designed to be naturally ventilated via low profile ventilators while the galley space and the head compartment are designed with forced ventilation by using extract fans.

TOOL KITS:

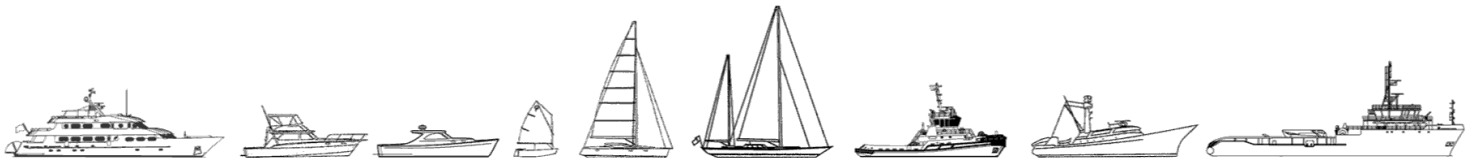
One general service tool kits for the mechanics and one general service tool kits for the electrics will be supplied in two dedicated tool boxes with the boat which will allow easy servicing to nearly all mechanical interfaces and electrical interfaces

SHIPPING EQUIPMENT:

- 1 x Custom fabricated, mild steel welded boat cradle will be supplied with each boat for fixing the boat firmly onboard of commercial ship for ocean transit safety.



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