



#### **BOAT BUILDERS BY TRADE**

Safe at Sea are boat builders by trade and the boats are handcrafted in Gothenburg on the west coast of Sweden. Inhouse capacity includes; plastic works, steel works, joining, painting and coating, electrical design and installation, drivetrain builds and engine tuning. Build capacity of about 70-80 boats/watercrafts per year.





#### PURPOSE BUILT TO CUSTOMER SPECS.

Every project starts in dialogue with the customer. We know by experience that there is not ONE patent solution for all operations, therefore we offer extensive opportunities to adapt the platforms for your specific needs. We understand the meaning of reliability, it must never be the operators equipment that is setting limits in solving a task.

#### **SOLUTION ORIENTED APPROACH**

We understand the customer environment and with experience from a variety of projects and requirements we continously evolve our capabilites within building purpose built boats with mission specific features. We have the ability to design hulls, body and tubes for specific needs, we use polyrea coating and keel guards for ultimate protection so that our boats withstand abuse and beach landings. Hull/aft extensions and chassi modifications together with electrical installations and drivetrain modifications is examples of procedures performed in our facilities on the Swedish west coast.

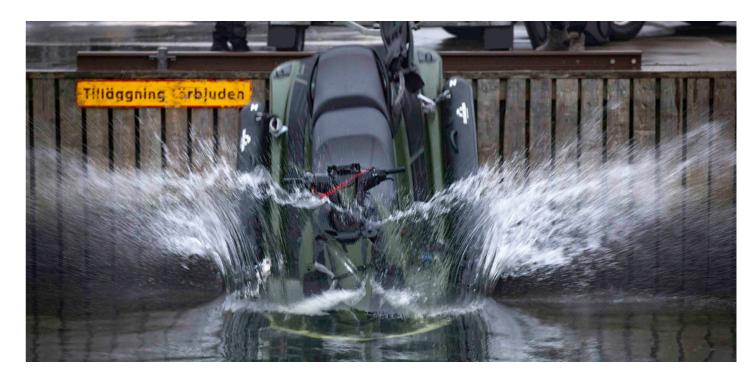
#### MISSION CRITICAL RELIABILITY

From 15 years experience of building SAR watercraft systems used on the global arena in a great variety of emergency environments we have in-depth knowledge of the pro's and con's of small boat systems and in-field challenges. We understand the need of different solutions depending on a vast variety of factors and user environments. We provide extensive courses in riding the crafts as well as perform all levels of maintenance and repairs throughout the life span of each craft. Our watercrafts are built to perform in harsch and hostile environments and designed so that the operator can perform his duty even when various mishaps occur.



#### **TESTED AND VERIFIED**

Our watercrafts are designed, built, tested and verified to withstand abuse, wear and tear in hostile environments. Quick launch methods from high piers is no exeption. Our watercrafts are drop tested from 2,5 m without taking any damage. Launch them, push the button and go!



#### COMPLETE SYSTEMS SOLUTIONS AND AFTER MARKET SUPPORT

Depending on customer requirement and need we can supply the boats alone or as complete systems solution including launch platforms for launch from vessels and piers, storage and maintenance containers, a great number of optional accessories and safety equipment for pilot and operators. We are closely connected to some of the most competent suppliers of premium tactical equipment in Europe and can supply complete pilot and operator equipment for maritime operations above and beneath the surface.



## Standard Build Platforms





Reliable engines & Drivetrains

Power source • Turbo support • eLECTRIC

Rugged, Stabilized and Reliable



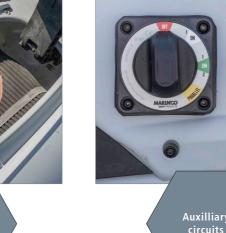




## Details / Features



Extended range fuel system





Auxilliary circuits



**Lifting points** Helo/Crane



Electrical drivetrain



Electrical installations



Optional Controls



Attachment/ Protection



Rifle Attachment



Module Attachment

# **GUARDRUNNER QRW™**



The Guardrunner QRW is a fast, rugged and reliable watercraft that can be built on either Yamaha or Kawasaki chassi. It has a reinforced hull coated with an extremely strong and abrasion resistant polyrea coating. It has a protective keelguard and will withstand extensive abuse and hard beach landings. The Guardrunner QRW is equipped with stability tubes surrounding the lower front and side areas of the craft. This gives the Guardrunner QRW unique stability and handling performance in all environments and ables it to work close to large ships (boarding) and in heavy seas.

We offer designs and drivetrain options based on Yamaha and Kawasaki 4-stroke engines which from our point of view is the most reliable engine constructions in the jetski segment. All of our drive train options are built and tuned for optimized reliability and rideability for extended professional use.

Our engines/jet-propulsion is modified and tuned by Stenborg Powersports in Sweden.



Both platforms can be equipped with auxilliary electrical circuits for optimized electrical redundancy as well as with double fuel cells (70 x 35 liters) for extended range capacity. This together with the rugged hull reinforcement and stability tubes provide the end-user with a highly reliable platform that can be equipped with a number of tactical accessories and capabilities.

# **SEARANGER QRW**™



Pax: 4 operators + Pilot + Light equipment

The SeaRanger QRW is built on a Jetski platform with a hull/tube integration console. It is a unique and highly capable watercraft designed to be used for fast and agile transportation of small units and equipment. The design enables operations in all types of water; shallow water, narrow bays, narrow passages or in open water with strong seas. The SeaRanger QRW creates an unmatched capabilty for both fast and stealthy movement as the platform enables the same inaccessible paths of advancement as a normal jet ski.

The final body configuration is designed in dialogue with the customer. To this date we have designed two body versions, one single and one twin seater option. The single seater option offer an aft deck with enhanced load capacity and inspection/cleaning hatch for quick field cleaning of the jet propulsion system. The extended load area of the single seater can be equipped with our loading rack system including attachment rails and hard cases of various sizes. The tubes of the Searanger QRW is equipped with fixed MOLLE-patches so that mission specific equipment can be attached directly to the tubes.



Hull and sponson protective coating

Keelguard for protection of hull and keel

Attachment points for towing (front/aft)

• Integrated or external battery charger

Auxilliary Electric Circuits

• Lifting points: For handling by crane / helicopter

#### Features

Length: 3.75mBeam: 1.53mDraught: 0.3m

• Weight, approx: 395kg\*

• Fuel capacity: 70L (+35L optional)

Fuel: UnleadedRange: 100-120 Nm

- Hull and sponson protective coating
- Keelguard for protection of hull and keel
- Lifting points: For handling by crane / helicopter
- Attachment points for towing (front/aft)
- Integrated or external battery charger
- Auxilliary Electric Circuits
- Internal splashproof storage 130L

## Engine options

- 4-cylinder, 4-stroke, Suction type engines
- 4-cylinder, 4-stroke, Supercharged engines
- 4-cylinder, 4-stroke, Turbo supported engines (electrical turbo with power switch for on/off)
- Electric drivetrain version in progress

#### Features

Length: 4.20mBeam: 2.30mDraught: 0.3mWeight, approx: 495kg\*

• Fuel capacity: 70L (+35L optional)

• Fuel: Unleaded

Fuel: UnleadedRange: 100-120 Nm

#### **Engine options**

- 4-cylinder, 4-stroke, Suction type engines
- 4-cylinder, 4-stroke, Supercharged engines
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# A MORKEORSE ON WATER

#### BUOYANT AND STABILIZED

When the Searanger QRW slows down to zero, the external side hull sections is filled with water so that the watercraft stabilizes as a working platform. When the watercraft accelerates, the external side hulls is quickly drained of water in order to quickly come up to speed.

#### **SWEDISH MADE HIGH-END TUBES**

Our watercrafts are equipped with tubes made from rugged Hypalon and through Swedish handcrafted quality. We offer single or multi section tubes as well as foam filled variants if decided in dialogue with customer. The Searanger QRW in this image are equipped with a 5 section tube with extremely abrasion resistent Polyrea coating on the front section. The tubes can be fitted with our MOLLE attachment patching system so that the user unit can fit equipment or signature management solutions directly onto the tubes.

#### STERN SECTION

We offer single and double seater versions of our watercrafts. The single seater version offer a large open deck/load area that can be fitted with our quick load rail system providing the opportunity to fit hard cases and similar into a quick attach and release system.

We offer a cleaning hatch system so that the operator get direct access into the jet water intake for removal of seaweed, dirt or similar related to shallow water environments.

### A MULTI-ROLE PLATFORM

We prefer to say "platform" as the boats are individually built for each specific customer and need.

- Hull extensions, modifications and rebuilds
- Modification and tuning of drivetrain
- Design and modification of electrical system
- Modification and installation of fuel cells
- Modification of tubes
- Installation of all optional accessories
- Maintenance, service and up-fit
- Launch and storage systems for launch and recovery from larger ships
- Launch and recovery systems for road transport
- Storage systems

#### **ENGINE/PROPULSION**

We use Yamaha and Kawasaki drivetrains as they have proven themselves to be the most reliable and safe drivertrains with a robust construction from the bottom, up. Our drivetrains options provide great torque and great power throughout the RPM-range. The jet propulsion package on our crafts is tuned to perform hazzle free and we offer constructions with a fast access tunnel to the jet in order to provide easy field cleaning if the intake gets clogged.

We offer a variety of drivetrain options, each option can be further tuned to various specifications according to customer requirements. The different engine options offer different output and driving behaviour but still with a high level of engine reliability.

- Suction type, fuel injected engines
- Supercharged
- Turbo charged, fuel injected engines

#### Electrical Turbo option

The Turbo option uses an electrical turbo convertion system that is active only when the operator activates it and need the extra power. The Turbo is activated/deactivated through a button at the steering handle. This specific turbo system is an external system that does not in any way affect the engine when not in use. This is from our point of view the absolute best option as it does not affect the engine over time the same way as a supercharger. Another positive thing with the Turbo option is that the total fuel consumption is kept to a minimum which increases range. The Turbo activated increases engine output with 35-40% in the mid to upper RPM-range.

#### Supercharger

This is the most powerful engine option and as the supercharger is a direct part of the engine itself it provides power throughout the RPM-range/powerband. The backside of the supercharger option is that if the supercharger breaks, it will make the engine loose most of its power output.

We have Rescue Runners with matching numbers and 12 years of service (900 service hours) still operational which is a speaking reference for the Yamaha engine.





# EXPERTS ON WATERCRAFTS FOR TACTICAL OPERATIONS



For more information or quote, please contact: jonas@equipnor.se