INTRODUCTION

The all new Griffon 995ED is a fully amphibious hovercraft capable of carrying a maximum payload of 995kg, or up to eight persons, at high speeds over a variety of surfaces.

The very large and accessible main compartment has outfit options for many different roles such as search & rescue, surveying, passenger ferry or military operations. Utilising the latest high tech system solutions from the automotive, aerospace and marine industries the 995ED redefines what is possible in a hovercraft.

The latest innovation in manufacturing techniques ensures that the hovercraft is extremely light-weight whilst maintaining the trademark Griffon robustness. Two independent power modules using Ford Tyger 67kW diesel engines provide lift through highly efficient fans and supply the two light-weight electrical thrust motors. The dimensions of the craft are such that it can be road trailored with the side bodies deflated.

SPECIFICATION SUMMARY

Dimensions when hovering -
- length 8.6m
- beam 5.2m
- average cushion depth 0.5m

Dimensions for shipping and transportation -
- length 8.6m
- beam 2.2m

Maximum Payload 995kg

Maximum People onboard 8

Maximum Operational Speed 30knots

Endurance 5 Hours

Maximum wind for operations 25 knots

Maximum sea state for operations 0.75m

Temperature range of operation +45 to -30°C

Combining Ease of Use, Manoeuvrability, Twin Engine redundancy, Road Transportability and close to 1 tonne of payload.
DESIGN & CONSTRUCTION

(i) Hull

The hull is constructed from marine-grade 5083 & 6082 aluminium alloy and designed to comply with ISO 12215-5:2008 for areas up to 20 miles from a safe haven. The extremely lightweight and efficient hull is joined with the latest extreme strength marine adhesive. The hull is fully protected with a marine grade polyurethane paint.

The underside of the hull skid pads to allow landing on unmade beaches and rough ground.

(ii) Side Bodies

Either side of the hull are flat inflatable sidebodies to which the skirt is attached. This innovative system significantly improves the working area compared hovercraft of a similar size whilst maintaining the ability for them to be deflated for transportation.

(iii) Skirt

The skirt is a stabilised open loop and segment type. The outer loop is made from rubber coated polyester weave with the segments made from natural rubber coated nylon. The segments are bolted for easy replacement. The whole of the skirt system is accessible for maintenance without lifting the craft.

(iv) Cabin

The 995ED is supplied as standard with a GRP wheelhouse over the operators’ position giving weather protection to the front seat and controls. The large 4m x 2m working part of the Cabin can be fitted out in a number of role options including additional seats, stretcher hold-downs and equipment tie-down points.

As standard the very useful large opening is supplied with soft roll-down covers on each side but optional hard gull-wing doors can be fitted if required.

(v) Power Modules

Unique to the 995ED are its 2 standard power modules that can be quickly and easily removed for off-craft maintenance. Each module contains a proven and world-wide supported 67kW Ford Tyger diesel engine driving a highly efficient integral lift fan and electric generator.

If one power module is inactive, the craft can be operated (with reduced performance) on the other alone.

(vi) Thrust Modules

The 995ED uses twin azimuthing electric drive thrust modules to provide directional thrust and propulsion. The advanced lightweight axial thrust electric motors can provide 45kW each. The motors are fully reversible and are independently speed controlled from the operators’ position. The twin ducts are tied together in normal operation and controlled using ‘fly-by-wire’ technology from the operator’s steering wheel. For transportation the ducts can be disconnected from the steering and swung through 90° to minimise craft width.

(vii) Electrical Installation

The 995ED is extensively controlled using a CANBus System allowing superb re-configuration and expansion for different roles. All essential services are designed to comply with rigorous safety standards.
BENEFITS OF THE 995ED IN A SEARCH & RESCUE ROLE

1) **Road Trailer-able:** The 995ED is EU legally road trailer-able behind a 4x4 vehicle.

2) **Wide side decks:** The craft is fitted with inflatable 1m + wide flat side decks, offering access to rescue crews, ample area for equipment storage and improved casualty recovery. The side decks are collapsible for transportation and can be inflated very quickly using a pressured system.

3) **Two diesel engines:** The 995ED is powered by two diesel engines to electric drive modules for additional reliability, improved manoeuvrability and lower noise.

4) **Independent lift and propulsion system:** The 995ED has a independently controllable lift and propulsion system allowing for greater control at low speed, especially in a casualty recovery situation.

5) **Greater power to weight ratio:** The 995EDs electric/diesel transmission system gives it a far greater power to weight ratio, and a reversing and braking capability.

6) **Swiveling ducts:** With the use of twin electric azimuthing drive thrust modules, the 995EDs manoeuvrability is vastly improved, these are ‘swiveling ducts’ as opposed to rudders, giving the pilot greater control at low and high speed.

7) **High obstacle clearance:** A higher obstacle clearance than any other hovercraft of its size, gives the 995 greater performance over hard surfaces and improved sea keeping ability.

8) **Hard top:** Optional heated/air conditioned hard top enclosure, with easy access to side decks for crew and stretchers.

9) **Large main cabin:** A large main cabin and 995kg payload offers ample space and capability for carrying a stretcher or numerous casualties in a rescue scenario.
OPTIONAL EQUIPMENT

The Following optional equipment can be supplied at extra cost. Fitted optional equipment will reduce the available payload. The options may include, but are not limited to those listed below:

Navigation & Communication Equipment:
- Fixed VHF
- Mobile VHF
- Chart plotter/GPS/Radar combined system
- Multi Function displays for engines
- Wireless crew intercom system

Craft Equipment:
- Fixed Driving lights
- Additional handrails to assist crew mobility in an out of cabin to side decks
- Additional wipers
- Hover on Hover Off Road trailer

Crew Personnel Protection Equipment:
- Dry suit
- Life jacket
- Under layers
- Helmet with visor, head torch and wireless communication device

Onboard Rescue Role Equipment:
- Throwing lines
- Medical kit
- Small Oxygen canister
- Mud rescue boards
- Mud lance and water tanks
- Search Lights (hand held with mounts)
- Stretcher

TRAINING

Basic Pilot Training

Initial pilot training will cover the substantial elements of driving the craft and will lead to a Type Rating Certificate for the hovercraft being used. Griffon Hoverwork is authorised to issue Type Rating certificates as our training meets and exceeds maritime regulations.

Advanced Pilot Training

Advance pilot training builds on the skills learnt on the initial course and develops your pilots further, giving them greater confidence and ability.

Mechanic Training

The Initial Technicians Course will give your mechanics the ability to carry out maintenance as per the maintenance schedule.

SPARES AND SERVICE PACKS

We offer four decades worth of knowledge in the provision of spare parts and services for the craft. GHL can provide the following spares and service packages which follow the craft type servicing schedule, these will include both consumables and contingency spares vital to the success to any operation:

- 500 hours spares and service packs
- 1000 hours spares and service packs
- 2000 hours spares and service packs
- 3000 hours spares and service packs

Griffon Hoverwork Ltd reserve the right to modify drawings, descriptive matter, weights, dimensions and performance figures contained within this specification without prior notice.