

WATER AMBULANCES

Dutch Health BV/Pacific Workboats cc



Introduction

Amsterdam, 11th January 2011

We take great pleasure in presenting our range of ambulance boats: the Rescue Eagles 7.9m thru 16m.

The vessels in this brochure have been developed in close cooperation with well reputed designers in the Netherlands, Britain and the USA and with a variety of experts in the field of rescue vehicles. Together with the experience of more than 15 years of Dutch Health BV in the construction of ambulance boats for world wide customers, your Company may be assured of receiving a state of the art Ambulance Boat, built and outfitted to the highest International Standards.

All vessels are built and fully equipped at the Dutch Health BV Shipyard in Lemmer, the Netherlands.

Special attention has been given to the following key elements:

- ✓ Matching the design to the operational requirements of the ambulance boat
- ✓ The boat is built and outfitted to your specific requirements: ICU Ambulance, Hospital, Mother and Child Clinic, Mortuary.
- ✓ The boats are designed for heavy duty use with:
 - Good sea-keeping
 - A high level of crew comfort and safety
 - Suitable equipment
 - Good endurance, including space for stores, consumables, medical supplies and spare parts
 - Environmentally aware building and operation
 - Competitive pricing
 - Low Life Cycle Costs

You will find the results of these considerations in the Specifications that follow.

We sincerely hope that our offer(s) will be of interest and of benefit to your Company,

Sincerely yours,

Pieter Wiemers, Managing Director, Dutch Health BV

Chris Smith, Managing Director, Pacific Workboats cc

Rescue Eagle Hovercraft



The Viking V12 and V18 have been designed for the transport of passengers, freight and patients over long distances and difficult terrains such as water, grass, mud, sand, ice and swamps.

Specification: Following are the current specifications for the Viking V12:

Hull & Superstructure:	Aluminum
Length:	9.63m
Width:	4.41m
Height - off cushion:	3.2m
Obstacle Clearance:	0.45m
Fuel:	271 litres
Power:	Cummins 275hp/205Kw Marine diesel
Capacity:	12 - plus Operator

Performance: The Viking V12 has been designed to provide the best balance of performance over a wide spectrum of uses. The aluminum all welded construction provides for the most robust design possible. A Cummins 275hp/Kw, turbo-charged diesel is fitted for it's power to weight ratio and Cummins' worldwide network of product support. A fully reversing propeller transmits engine power for all speeds from high speed cruise to full reverse. The seating arrangement is such that the craft can be re-configured from passenger carrying to stretchers and a mixture of the two in a matter of minutes. The side sponsons are robust enough to carry large and heavy objects like fuel drums.

Payload - (including Fuel):	1814 kg.
Speed - cruise on water:	56 km/h
Fuel – Consumption:	33 litres/hr
Endurance:	8 hours
Wave Height - Full Load:	1m
Braking System:	Reversing Propeller

Wave Handling: the ability of any hovercraft to negotiate waves, chop, swell or surf is primarily a function of wave amplitude (height), frequency (distance from crest to crest) and shape (smooth top, sharp crest, breaking wave). The power installed available for lift and thrust is the second consideration, while the direction of the hovercraft, relative to the wind, is a third consideration. If the wave height is greater than the recommended wave height, and the wave frequency is greater than 1.5 times the length of the craft (i.e.: crests closer together), making headway will be difficult and slow. However, the lower the wave frequency (the greater the distance from crest to crest) the easier it will be to make headway and the greater the height of wave which can be managed. For example, the Viking V12 has demonstrated good headway into 1.5 to 1.8m waves which were 17 to 20m from crest to crest while going into the wind. The craft has also demonstrated excellent headway when running with the wind in 1.8 to 2.2m waves.

Any reduction in wave frequency from 17 to 20m will result in an increase in the wave height, which can be handled.

Noise Levels: The Viking V12 has been subjected to a great deal of research and development with respect to the reduction of the typical hovercraft noise signature. As a result, the Viking V12 is one of the quietest medium-size transport hovercrafts on the market. Following are the results of noise measurements taken inside and outside of the vehicle:

Test 1 - at the rear of the cabin, between the two side-mounted lift fans and directly in front of the engine bulkhead, at cruising speed: 79 dBa;

Test 2 - at the Pilot's operating position, at cruising speed: 76 dBa;

Test 3 - outside the vehicle at a distance of 90 to 110m, with the vehicle passing at right angles at cruising speed: 60 to 70 dBa.

Control System: The control system is arguably the best hovercraft control system in the world. The craft can be hovered in position like a helicopter, it can reverse, there is steering in reverse and it can turn virtually within its own length. All of those manoeuvres are accomplished with a joystick control and a series of throttle-style levers. It takes the average person about 4 hours to learn the basic slow speed manoeuvres. Thereafter, training concentrates on the theory of hovercraft operations, high-speed travel and maintenance. With this exceptional level of manoeuvring, parking and manoeuvring areas can be quite small, relative to the craft size.

Heating, Ventilation and Air Conditioning: Cabin heating and ventilation is standard equipment. Two optional heavy vehicles Heater/Air Conditioning Units provide air conditioning.

Reliability: With the exception of the propeller, the power train for the hovercraft has been derived from readily available heavy-duty commercial components. The engine and hydraulic systems for lift, aero controls and propeller pitch have been selected for their extended life characteristics. The primary drive belt is a toothed belt, which is fully enclosed in the Pylon housing. There are no exposed belts to collect contaminants and wear prematurely.

Maintainability: This hovercraft has been designed to be maintained by a person of average mechanical skills, with simple hand tools. A full Operator's Manual and Maintenance Servicing Schedule accompany every craft.

Mixed Passenger and Freight Operations: The Viking V12 has a nominal passenger carrying capacity of 12, plus one crewmember. The seating is referred to as "sofa style", with a continuous seating area around the edge of the cabin in case of disaster transport. The seating can accommodate a greater number of passengers sitting more closely together, and a jump seat can be installed between the two front seats for one more passenger. Where local transportation rules permit, a number of standing passengers can be accommodated, as would be found in a standard city bus.

The Viking V12 can be re-configured from passenger carrying to an ambulance/hospital service in a matter of minutes. The ceiling can be used for operation lights. The cabin is equipped with one 66 cm. passenger door and one 1.64m cargo door. Both doors are hinged at the roof centerline and

provide a large opening for the loading of stretchers and patients. Depending on the need the hovercraft can accommodate up to three stretchers in addition to seated patients/casualties.

Standard Features:

Variable Lift/Thrust Control System
Elevator Pitch Trim Control
Variable Lift Fans for Lateral Balance Control
Variable Pitch Fully Reversing Propeller
Loop and Segmented Skirt
Anti Spray Skirt
Folding Side Structures
Omni-directional Amber Strobe Light
Full Cabin Tinted Windows
Windshield Wiper/Washer
Heavy Duty Batteries
Fire Extinguishers

Cabin Heating and Ventilation
Full Instrumentation Console
VHF Radio
GPS
Navigation Lights
Engine Bay Fire Suppression System
Automatic Electric Bilge Pumps





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