

# HAVEN MARINE SURVEYING

## MV SEA LEOPARD

Haven Marine Surveying operate the "Sea Leopard", a Lochin 33 survey vessel powered by a 250hp Ford Sabre engine. She has a cruising speed of 11 knots with a maximum speed of 17 knots. The vessel has a forward wheelhouse and clear aft deck with a hydraulic, jibbing stern A frame. She has a hydraulic winch, certified for 240KG, for the deployment and recovery of survey instruments and samplers. This can also be used for the recovery of persons from the water using a DOT approved lifting harness. The vessel has a Vetus electric anchor handling winch installed at the bow.

The "Sea Leopard" is berthed at Neyland Marina, Pembrokeshire and is operated by Mr W.E. Thomas and his son Mr I. Thomas. She has been operating as a survey vessel since Mr Thomas senior, a marine engineer with over 40 years of commercial boating experience, established Haven Marine Surveying in 1998. As the company has expanded Willie has been joined in the business by his son Ian, a qualified hydrographic surveyor with extensive experience of working offshore and within the dredging industry. Both Willie and Ian hold the RYA/MCA Powerboat Advanced Skippers ticket with commercial endorsement.

### Navigation and communications equipment:

- Kodon 913D Differential GPS (DGPS) Navigator
- Simrad NX45 12" Colour Chart Plotter
- Simrad NX45 Colour 50/200KHz Echo Sounder
- Simrad GS10 WAAS/EGNOS DGPS Antenna
- JMC V-105 50KHz Echo Sounder
- Kodon MD-3404 Radar
- Simrad RD68 DSC VHF Radio set
- Sailor RT 144 Radio set
- Suunto Steering Compass

### Onboard electrical supplies:

- 3 KVA Generator supplying 240/120 AC power
- 12 volt DC, 24 volt DC
- 240 volt AC up to 1 Kilowatt (via inverter)

### Accommodation:

The vessel has a large chart table, suitable for client equipment installation, with adjoining bench seat and single adjustable surveyors seat. There is also a forward cabin with microwave oven, berths and a toilet. The accommodation is heated by an eberspacher heater.

### Vessel certification:

The "Sea Leopard" has been inspected by Burness Corlett and Partners, Southampton and issued with a Small Commercial and Workboat Certificate. The vessel has a full complement of safety equipment and is licensed to MCA category 3 (up to 20M from safe haven) standard under both the Small Workboats & Small Commercial Motor Vessels codes.

### Services provided to clients include:

- Vessel charter for hydrographic survey
- Site investigation and environmental grab sampling and core sampling
- Vessel charter for environmental, geotechnical and fishing surveys
- Civil and mechanical underwater camera and video inspection services



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## Haven Marine Surveying's clients include:

- Besix Kier JV
- Celtic Marine Ltd
- Deep BV
- EGS Surveys
- Environmental Tracing Systems
- Fugro Surveys
- Hebog Environmental
- Jacobs UK
- Milford Haven Port Authority
- Ministry of Agriculture and Fisheries
- Neyland Yacht Haven
- Royal Haskoning
- RPS Group
- Trinity House
- Wessex Water
- UK Dredging

Client references are available on request.

Haven Marine Surveying also have the following survey equipment for hire:

### Off Set Day Grab

0.1metre squared, complete with stainless steel buckets and sorting tray. Deployment of the Day Grab is undertaken via our hydraulic, jibbing stern A frame and hydraulic winch.

### Core Sampler

A new type of marine core sampler, well suited to near shore coring operations. This system, which consists of core barrels of varying length that attach to a manually driven hammer mechanism, has proven to be highly effective at producing cores of up to 3m in length. Deployment of the core sampler is undertaken via our hydraulic, jibbing stern A frame and hydraulic winch, with the hammer driven by a separate capstan. Please refer to our separate core sampling information sheet for further details.

### Underwater Camera Systems

We have a number of underwater camera systems that have been developed in house.

The most commonly used is the Drop Down System, fitted with a Sony high resolution 2.9mm wide angle colour lens CCD sensor (752 x 582 picture elements) with 2 x 50 watt halogen lamps for illumination. The system is fitted inside stainless steel housings and has been pressure tested to a depth of 200 metres. It has been designed to work down to 100 metres depth and can be deployed from the side of the "Sea Leopard" by hand or using an electric winch that can be controlled from the wheelhouse. This system was successfully used to survey the Maerl beds at Milford Haven during the South Hook LNG construction.

We also have a Pole Camera, fitted with a 4mm wide angle colour lens system, with integral lights. This system can be used for inspection of piles, jetties and underwater sections of boats. It is fitted with a 10 metre umbilical cord and deployed with 3 to 5 metre fibreglass staff. We also have a similar speciation camera system with a 50 metre umbilical cord.

All camera systems are interfaced with a differential GPS system giving Lat/Long positions on both monitor and recording tapes. The wheelhouse control system consists of a Sony videocassette recorder and Vista 12" colour monitor. The systems can be lowered from our jibbing stern A frame and hydraulic winch, and can be towed at low speeds if required.

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