

## Gravity lifeboat davits (type: HE 170)

### General introduction:

The gravity lifeboat davits have been designed for long time operation under adverse and extreme conditions in a highly corrosive marine environment.

The HE davit is a freestanding deck mounted davit consisting of two columns and a winch. The system is suitable for safe and efficient handling of a fully manned lifeboat against unfavourable conditions of trim of up to 10 degrees and a list of up to 20 degrees either way.

The davit is a hinged gravity type davit and it lowers the boat on the water by the help of its own weight (gravity davit). Also the davit is designed for boarding the boat in stowed position. The boat may be lowered without stopping as turning out and lowering is a continuous movement at a minimum of time-spending.

Recovery of the lifeboat with its crew is realised by using the electric driven winch. In case of a power failure or malfunctioning of the electric system, hoisting can also be done manually by using the crank handle of the winch.

With the exception of the manual slewing mode with regard to rescue boat handling, the LE series meets the latest IMO/SOLAS requirements and LSA Code as well as the European Council Directive 96/98 EC on Marine Equipment (M.E.D.). In those cases where manual slewing is not allowed a hydraulic slewing davit of the LE series can be used as an alternative.

### LE System: End User Advantages

1. Compact design with minimum height, width and length.
2. Small footprint, for easy installation onboard.
3. Delivered as one complete pre-assembled and tested davit system, "plug and play", ready for immediate use.
4. Stainless steel for all shafts, piping and bolts and nuts up to M16.
5. Easy access for periodic maintenance, service and repair, support by with clear labelling and detailed manuals.

### Model:

- Type: HE170.
- Davit working load: Max. 170 kN.
- Davit hoisting load: Max. 75 kN.
- Winch load : Max. 170 kN (Pull of wire rope).
- Designed condition: Heel 20° + Trim 10°.
- Hoisting speed: 5.0m/min.
- Boat falls: 18X19-22-1770.
- Power source: 440V, 60Hz, 3 phase (other power source on request) .
- Self weight:
  - Davit: Approx. 10.000 kg.
  - Winch: Approx. 2950 kg (life).

### Davit frames:

The davit arm is a welded construction provided with all relevant accessories such as sheaves, top sheave

and lifting/maintenance eye.

### Winch:

Each davit will be supplied with an electric driven winch. The winch is a standard item and consists of the following main components;

- Closed gear casing;
- Built-on electric motor;
- Double winch drum with separate section for remote control wire;
- Speed reducer gear (conventional gear train);
- Centrifugal brake unit for gravity lowering;
- Stop brake of the “dead-man” type;
- Manual cranking gear with safety device;

### Accessoires:

Each davit system will be supplied with the following accessories:

#### Electric controls

- Limit switch of davit. (2 pieces).
- Limit switch of winch (1 piece).
- Remote control device.
- Strut and boat support.
- All necessary wire.
- Powerbox

#### Wire rope

- Galvanised non-rotating steel wire rope provided with thimble at one end and of sufficient length for lowering the rescue boat into the water;

#### Remote control parts

- Stainless steel remote control wire of sufficient length;
- Handgrip for operating from within the lifeboat;
- Remote control sheaves;

### Optional accessoires:

The following accessories are to be seen as non-standard but can be supplied optionally:

- Gear oil
- Performing on-board test
- The davit is dismantled for shipment and needs to be installed on deck.
- Ladder.

### Conservation:

Unless agreed otherwise, all steelwork will be shot blasted to SA 2,5 and coated with one layer of 2-component epoxy primer. Dry film thickness 60-80 microns. This conservation is not suitable for outdoor storage for a long period of time.

### Spare parts:

Upon request a separate offer for the supply of spare parts can be prepared. A detailed spare parts list with drawings is included in the instruction manual.

### Instruction manual:

The davit is supplied with 3 sets of instruction/operation and maintenance manuals in the English

language. The manual contains all required information for installation, start-up, operation, maintenance and spare parts. A set of arrangement drawings, diagrams and part drawings is included.

### **Steel construction / design regulations:**

All materials used in steel construction of the davit, are certified in accordance with the various classification rules and regulations with full traceability.

### **Approvals and certificates:**

The davit is supplied with the following test certificates:

- Davit type approval certificate issued by class (if applicable)\*
- Davit factory acceptance test certificate issued by class
- Winch factory acceptance test certificate issued by class
- Wire certificate
- Shackle certificate

Copies of the relevant approvals and certificates are included in the instruction, maintenance and operations manual of the davit system.