

Davit systems for rescueboats (type:SCM 10/Gravity lowering/Manual slewing)

General introduction:

The manual slewing davits have been designed for long time operation under adverse and extreme conditions in a highly corrosive marine environment. The manual slewing davits of the SCM-R series are so-called "plug-in and play units" all guaranteeing easy installation on board.

The SCM-R davit is a freestanding deck mounted davit consisting of a davit arm, column and winch. The system is suitable for safe and efficient launching and recovery of a fully manned rescue boat against unfavourable conditions of trim of up to 10 degrees and a list of up to 20 degrees either way.

Lowering of the fully manned rescue boat to the water level is realised by means of gravity. The lowering procedure can be controlled in two ways, either by means of a remote control wire from within the rescue boat or by lifting the brake handle of the winch directly. Recovery of the rescue boat 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.

Since the safe working load and outreach of the davit are normally determined by the size of the rescue boat, EO have chosen for a limited range of standard designs which can be adapted to some extent in order to meet individual and specific needs.

With the exception of the manual slewing mode, the SCM-R 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 SCH-R series can be used as an alternative.

SCM - R 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, supported by clear labelling and detailed manuals.
7. Relatively low davit weight and low deck forces.
8. Light weight aluminum arm available on request.

Davit column:

The davit column is an assembly of an inner column, an outer column and a self-braking worm gear unit. The self-braking properties of the worm gear guarantee that the davit is kept in position even under extreme list and trim conditions. Standard the SCM-R davit is delivered with a fixed inner column which should be flanged onto a counter foundation/pedestal. Optionally the davit can be delivered with a fixed outer-column. The main advantage of this type of column is that manual slewing can take place from a fixed position on deck.

Davit arm:

The davit arm is a welded construction of a hollow section, a pipe, steel plates and a flange and provided with all relevant accessories such as winch foundation, top sheave and lifting eye.

Winch:

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

- Closed gear casing;
- Built-on electric motor;
- Single 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

- Motor starter built onto the davit arm and provided with main switch, push button and “power on” indicator;
- Limit switch

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 rescue boat;
- Remote control sheaves;
- Loose items such as wire rope clips and shackles;

Conservation:

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

Optional accessoires:

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

- Stainless steel automatic release hook (off-load type);
- Counter foundation/Pedestal;
- Cradle for rescue boat

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
- Hook certificate (optional)

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