END USER ADVANTAGES:

1. Stainless steel for all shafts, piping and bolts and nuts up to M12
2. Integrated boat supports
3. Remote control push button box for electric hoisting and emergency stop
4. Easy access for periodic maintenance, service and repair, support by with clear labelling and detailed manuals;

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GRAVITY PIVOTING LIFE BOAT DAVIT

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<th>Doc. Nr.</th>
<th>Date</th>
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PALFINGER NED-DECK reserves the right to change the specification without prior notice.
TECHNICAL DESCRIPTION

1. GENERAL INTRODUCTION
The PALFINGER NED-DECK hydraulic pivoting davits, PFH series, have been designed for long time operation under adverse and extreme conditions in a highly corrosive marine environment. The hydraulic pivoting davits of the PFH series can be delivered in two executions:

1. Skid mounted version, which is so-called “plug-in and play unit” guaranteeing easy installation on board.
2. Free standing version, (the free standing version has a lower weight compared to the skid mounted version).

The PFH davit is a davit consisting of two davit arms, each supported by a davit stool, cylinders, an electric winch and hydraulic power pack unit. The system is suitable for safe and efficient launching and recovery of a totally (or partially) enclosed life boat.

Pivoting out the fully manned boat from its stowed position into launch position is realised by means of accumulated power obtained from a self-containing hydraulic power pack unit. Only the highest quality equipment has been chosen and installed to ensure the lowest possible emission, sound and maintenance, as well as good and safe access for service.

The launching procedure can be controlled in two (2) ways. Either from the control valve on the HPU, which is normally installed on the deck and/or via the remote control wires from within the life boat. The lowering motion can be controlled in two ways, either by means of a remote control pull wire from within the boat or from deck side by lifting the brake handle of the winch directly.

Recovery of the boat is realised by means of the electric driven winch (Fully equipped boat + 3 persons, launching crew only).
In case of a power failure or malfunctioning of the electric/hydraulic system, hoisting can also be done manually by using the ratchet handle of the winch.

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

The PFH series meet the latest IMO/SOLAS requirements and LSA Code as well as the European Council Directive 96/98 EC on Marine Equipment (M.E.D.).

PFH SERIES: SAFETY BENEFITS
Hydraulic pivoting life boat davits are more safe to use by the operating crew during launching and recovery operations of the life boat, compared to the conventional gravity pivoting life boat davits. During the hydraulic pivoting movements the operating crew is in full control of the (fully manned) life boat. Conventional gravity pivoting davits can pivot outboard too fast, this can be dangerous for the complete crew onboard and cause serious damage to the life boat and its suspension systems.

2. DAVIT ARMS
The davit system consists of two davit arms of a box-welded construction, each supported by a davit stool. The davit arms are provided with all necessary wire rope sheaves, provisions for fastening of relevant accessories, eyes for span wire, eyes for lashing wires and eyes for maintenance slings. Each frame is provided with all necessary provisions for fastening of relevant accessories such as hydraulic cylinders, power pack unit and starter box. The davit arm does also incorporate the boat chocks with D-fenders.
3. WINCH
The PFH davit will standard be supplied with an electric driven winch.
The winch is a standard item and consists of the following main components:

- Winch frame
- Closed gear casing;
- Built-on electric motor
- Centrifugal and stop brake;
- Winch drum with separate section for remote control wire;
- Hand hoist unit.

4. HYDRAULIC POWER PACK UNIT (HPU)
The hydraulic power pack unit consists of the following main components:

- Steel hydraulic tank, with identical conservation as davit system;
- Hydraulic pump;
- Electric motor;
- Pressure switches;
- Pressure relief valve;
- Control valve for pivoting outboard/inboard (parallel run of both arms).

5. DAVIT STOOLS
The davit system consists of two stools, each supporting a davit arm. The stools are built-up from profiles and steel plates to a stiff rigid frame in order to transfer the forces to the deck structure. The stools are provided with all necessary wire rope sheaves, bollards, provisions for fastening of relevant accessories and locking device for securing of boat in stowed position. Normally the davit stools are to be welded onto the deck but upon request they can also be delivered with a flange (optional).

6. HYDRAULIC CYLINDERS
Each davit will be supplied with two high quality double acting hydraulic cylinders provided with dual over-centre valves. The cylinder rods are made of stainless steel (14057).

7. ACCESSORIES
Each davit system will be supplied with the following accessories:

ELECTRIC CONTROLS
- Motor starter built onto the davit arm provided with main switch, remote control push button box for electric hoisting and emergency stop
- Limit switch

SUSPENSION PARTS
- Galvanised non-rotating steel wire rope provided with thimble at one end and of sufficient length for lowering the life boat into the water;
- Non topping lower blocks and plate links
- All necessary chains, links and shackles

REMOTE CONTROL PARTS
- Support (or span wire) for remote control parts;
- Stainless steel remote control wire of sufficient length;
- Pull cord for operating from within the lifeboat;
- Remote control sheaves and blocks;

CONSERVATION
Unless agreed otherwise, all steelwork will be shot blasted to SA 2.5 and coated with one layer of Interlarg 345 primer of brand INTERNATIONAL, Dry film thickness 100 microns.

This conservation is not suitable for outdoor storage for a long period of time.
8. OPTIONAL ACCESSORIES
The following accessories are to be seen as non-standard but can be supplied optionally:

- Life and rescue boat lay-out, hoisting speed 18 m/min with 6 persons in life/rescue boat;
- 3 layer paint system suitable for marine environment.
- 42V Converter for battery charger
- Explosion proof.
- Foul weather and recovery pendants (rescue boat only!)
  In case the lifeboat is also rated as a rescue boat, the davit can be supplied with foul weather and recovery pendants.

9. 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.

10. 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.

11. STEEL CONSTRUCTION / DESIGN REGULATIONS
All materials used in steel construction of the davit, are certified in accordance with the various classification rules and regulations.
Upon request material certificates (3.1) for the main components are also available (for full traceability).

12. APPROVALS AND CERTIFICATES
The davit is supplied with the following test certificates:

- Davit type approval certificates are issued by class, according IMO/SOLAS, LSA Code and EC/MED;
- Davit factory acceptance test certificate issued by class
- Winch factory acceptance test certificate issued by class
- Wire certificate

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