END USER ADVANTAGES:

1. Compact design.
2. Small footprint, for easy installation onboard
3. Delivered as a "plug and play" unit, ready for immediate use
4. Stainless steel control stand with multicore cable, for operating the davit.
5. HPU (hydraulic power pack unit) included; all critical components are fully submerged in hydraulic oil
6. Stainless steel for all shafts, piping and bolts and nuts up to M12
7. Easy access for periodic maintenance, service and repair, support by with clear labelling and detailed manuals
8. Integrated Shock absorber (hydraulic dampener),
9. Integrated Wave compensation/Constant tensioning system,
10. Capable of MOR handling (Means of Rescue).
TECHNICAL DESCRIPTION

1. GENERAL INTRODUCTION
The PALFINGER NED-DECK hydraulic pivoting davits have been designed for long time operation under adverse and extreme conditions in a highly corrosive marine environment.

The PRH davit is a freestanding deck mounted davit consisting of a base frame, davit arm, cylinders, winch and hydraulic power pack unit. The system has been designed to meet the latest IMO requirements and is suitable for safe and efficient launching and recovery of a fully manned fast rescue boat even under severe and adverse weather conditions (wind force 6 on the Beaufort-scale, in association with a significant wave height of at least 3 m). The PRH series are all provided with a constant wire tensioning system and hydro-pneumatic shock absorber.

The launching procedure can be controlled in two (2) ways, i.e.:
1. From control stand (normal procedure for rescue operations);
2. From inside the rescue boat (emergency operations).

During normal operations, all system functions are hydraulically controlled and actuated from the davit’s operating console which is placed on deck near the railing.

In case of an emergency, pivoting out and lowering the rescue boat is realised by means of so-called “stored-power” obtained from an accumulator. Both motions, pivoting and lowering are controlled from within the rescue boat by means of remote control pull wires.

Recovery of the rescue boat is realised by means of the hydraulic driven winch. In case of a power failure or malfunctioning of the electric system, hoisting can also be done manually at reduced speed.


* The PRH series are approved according the IMO MSC/Circ. 809 and according to the newly adopted SOLAS amendments MSC 82/24 add 1, chapter VI paragraph 6.1.7 each ship carrying a fast rescue boat will also require a fast rescue boat davit system complete with constant tensioning system and shock absorber. In addition the PRH davit series have successfully passed the Heavy Weather Sea Trails as per IMO Res./MSC.81(70), Part 1, para. 8.1.8.

2. BASE FRAME
The base frame is a welded steel construction, built up from hollow sections and steel plates to a stiff rigid frame in order to transfer the system forces to the deck structure.

Each frame is provided with all necessary provisions for fastening of relevant accessories such as hydraulic cylinders, power pack unit with starter box and accumulator.

3. DAVIT ARM
The davit arm is built up of hollow sections and steel plates and provided with all necessary provisions for fastening of relevant accessories such as hydraulic cylinders, winch foundation, sheaves and remote control parts.

For transportation reasons, the davit arm consists of a base part and an upper part which are easily built together by means of a hinge/flange connection.

The davit arm does also incorporate the boat chocks with D-fenders.
4. WINCH
The davit will be supplied with a hydraulic driven winch built onto the davit arm. The winch is a standard item and consists of the following main components:

- Winch frame
- Closed planetary gear casing;
- Built-on high pressure hydraulic motor
- Fail-safe multi disc brake;
- Grooved winch drum with separate section for remote control wire;

5. HYDRAULIC POWER PACK UNIT (HPU)
Each davit will be supplied with a sophisticated electric/hydraulic power unit which has been fully adjusted in our workshop guaranteeing easy installation onboard. This power unit consists of the following main components:

- Hydraulic tank with integrated hydraulic pump driven by an electric motor;
- Electric Starter box provided with main switch, emergency stop button, "power-on" indicator, and failure signalling indicators.
- Nitrogen pre-charged accumulator.

6. HYDRAULIC CYLINDERS
Each davit will be supplied with two high quality double acting hydraulic cylinders provided with a dual over-centre valve. The cylinder rods are made of stainless steel (1.4057) with additional nickel / chrome coating.

7. OPERATING CONSOLE
Each davit will be supplied with a stainless steel operating console which should be placed near the railing enabling the operator to have full view over the entire launching and hoisting procedure. From this console all system functions can be controlled.

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

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

LASHING SYSTEM
In order to secure the rescue boat in stowed position, each davit system will be supplied with an adequate lashing system consisting of two lashing straps with ratchet spanners

LADDER
For easy access of rescue boat in stowed position, each davit system will be supplied with a galvanised ladder which should be welded on deck by Yard.

REMOTE CONTROL PARTS
- Stainless steel remote control wire of sufficient length;
- Handgrip for operating from within the rescue boat;
- Remote control sheaves;

CONSERVATION
Unless agreed otherwise, all steelwork will be shot blasted to SA 2.5 and coated with one layer of Intergard 345 primer of brand INTERNATIONAL, Dry film thickness 100 microns.
This conservation is not suitable for outdoor storage for a long period of time.
9. OPTIONAL ACCESSORIES
The following accessories are to be seen as non-standard but can be supplied optionally:
- 3 layer paint system suitable for marine environment
- Front boat support (PRH 30)
- Bolting counter foundation
- 42V Converter for battery charger - (Fast Rescue boat)

10. 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.

11. 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.

12. 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).

13. 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
- Hook certificate (if hook included in scope of supply)

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