END USER ADVANTAGES:

1. Compact design.
2. Small footprint, for easy installation onboard;
3. Stainless steel for all shafts, piping and bolts and nuts up to M12
4. Self lubricating bearings;
5. Stainless steel control stand,
6. Easy access for periodic maintenance, service and repair, support by with clear labelling and detailed manuals;
7. Integrated Shock absorber (hydraulic dampener),
8. Integrated boat supports
9. Integrated Wave compensation/Constant tensioning system,

**DAUGHTER CRAFT / WORK BOAT DAVIT**

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PALFINGER NED-DECK reserves the right to change the specification without prior notice.
TECHNICAL DESCRIPTION

1. GENERAL INTRODUCTION
The PRH-H series, for launch and retrieval of daughter crafts and/or work boats are designed for long time reliable operation in a tough and corrosive marine environment.

The PRH-H Series is delivered as a complete unit, fully tested, adjusted and ready for installation onboard. Standard the davit is designed and manufactured in accordance with the latest Bureau Veritas (BV) requirements and meets also other major national/class regulations. The PRH-H series will be designed according the latest IMO/SOLAS requirements, LSA Code and/or upon request specific offshore requirements such as UKOOA and Norwegian Maritime Authority.

The davit systems are standard delivered with its own self contained hydraulic power unit and a hydraulic operated winch and frame system, (all piping connections will be labelled from factory).

The davit will be supplied as a complete unit.
Only carefully selected high quality equipment has been used and installed to ensure the lowest possible emission of sound and vibration, for easy access for service and repair.

The davit is equipped with a well dimensioned “shock absorber” system to avoid overload of the davit system in rough operation conditions. The winch is equipped with a full hydraulic constant tensioning system.

2. DAVIT FRAME
The davit structure is built as a totally enclosed hollow box structure with a bearing support in lower end. The lower end is prepared for connection to the king pivot point bracket by means of two self aligning stainless steel bearings. Both bearings are equipped with maintenance free self-lubricating bearing bushes. The outer end is equipped with a wire sheave bracket. The winch is located on top of the intermediate beam structure.

3. WINCH
The winch consists of a steel drum with a flanged on planetary gearbox driven by a variable displacement hydraulic motor. The gear box is fitted with a fail-safe multi disc brake. The brakes are dimensioned to take the full load plus any additional dynamic forces acting on the winch. In the case of a hose or pipe failure, the brakes will block the load immediately.
A counter balance valve/brake valve is mounted in the winch loop ensuring smooth and accurate winch operation.

The winch drum is of the grooved type while a pushing roller is applied for smooth coiling. The winch is equipped with a constant tensioning system. The constant tensioning (CT) system is activated by the operator at the control station. The winch will automatically hoist or lower the boat with CT speed and follows the boat movements in the sea.
If the self tension is actuated before the boat reaches sea level the CT system will be over-rided.

4. HYDRAULIC CYLINDERS
The davit is equipped with high quality hydraulic cylinders, built especially for use in the marine environment. The stainless steel cylinder rods are coated with Ni/Cr in order to obtain improved protection against corrosion.
A double load holding valve is mounted to the cylinder to maintain a constant luffing speed independent of hook load and to block the jib in case of a hose/pipe failure.

5. CONTROL PANEL
An easy to install stainless steel control panel is included in the scope of supply. The panel is fully assembled and contains the main control valve and operation instruction signs. Piping between control panel and davit is yard supply. Wireless radio remote controls are available upon request.
6. WIRE ROPE
The winch is equipped with a galvanised, non-rotating wire rope and a high quality wedge socket with buffer pipe in the outer end. The free end of wire is double secured by one “iron grip” wire clamp. The inner end of the wire is secured to the winch drum by means of a wedge wire clamp. The clamp system is easy to inspect.

8. HYDRAULIC PAINTERLINE BOOM
Hydraulically actuated out holder/towing boom with dampening device for painter line is optionally available. All moving fittings, hinge pins, etc., to be 316L stainless steel. Hydraulic cylinder complete with counterbalance valve.
Length of boom depending on final lay-out and location on deck (suggested minimum length approx. 3500 mm). Several types and designs of this boom are available (slewing, pivoting, boom winch, etc.).

This painter line boom is offered for a total boat handling concept. The tow boom can be operated upon request from the davit control console.

9. SAFETY SYSTEMS
- Overload protection of all motions by pressure limiting valves
- Mechanical/hydraulic hook stop in upper hook position
- Mechanical limitation of cylinder stroke
- Double load holding valve direct in cylinder ports on main cylinders
- Fail-safe, oil submerged disc brake on winch gearbox
- Counter balance valve on winch motor
- Shock dampener (hydro-pneumatic type)

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 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.