COMPLETE DECK EQUIPMENT SOLUTIONS

PALFINGER MARINE PRODUCT CATALOGUE

PALFINGER MARINE IN BRIEF

As a global partner for innovative and reliable deck and lifesaving equipment, PALFINGER MARINE supplies high-quality products to fulfil standardised and customised demands.

Supported worldwide by a network of experienced and skilled specialists, we provide flexible and efficient service solutions. Our portfolio gives a competitive edge for customers in the maritime and offshore industry.

PALFINGER MARINE operates in all major segments, including oil & gas and offshore vessels, marine, fishing and fishfarming, cruise, navy and coast guard as well as wind.

PALFINGER MARINE is part of the publicly listed PALFINGER Group, one of the world's leading manufacturers of innovative lifting solutions for use on commercial vehicles and in the maritime field. PALFINGER is headquartered in Salzburg, Austria.

DECK EQUIPMENT

04.

CRANES | WINCHES | LIFTING AND HANDLING EQUIPMENT | FENDERS

Marine, offshore and wind cranes by PALFINGER MARINE are designed to meet safety standards and extreme environmental conditions of the maritime industry. The extensive range of AHC cranes, foldable knuckle boom cranes, knuckle boom cranes, stiff boom and telescopic boom cranes as well as wire luffing lattice boom and travelling cranes can be used for various applications within the shipbuilding, oil and gas and offshore wind industry. Decades of worldwide experience in producing cranes is the basis for the company's technical expertise, innovative strength and uncompromising quality.

PALFINGER MARINE is a supplier of customised deck machinery and handling equipment for offshore vessels, special vessels and oil rigs. The comprehensive product portfolio includes a wide range of winches, lifting and handling equipment including A-frames and slipway systems. The well-proven designs ensure trouble-free operations in demanding maritime environments which require high performing and reliable equipment. PALFINGER MARINE also offers a wide range of pneumatic fenders, foam-filled fenders, fixed fenders and fender davits available for a wide range of applications.

BOATS AND DAVITS

40.

DAVITS | LIFE- AND RESCUE BOATS | MILITARY AND PROFESSIONAL BOATS

PALFINGER MARINE davits are innovative, user-friendly and are intended for long-term, reliable operation in harsh and hazardous marine and offshore environments. Daughter crafts and workboats are easy to install, trouble-free, maintenance-friendly and ensure safety when it matters most.

PALFINGER MARINE offers a wide range of high-end lifeboat solutions from even the most complex of projects to standard lifeboat products for the offshore and shipping industry. The product range covers totally enclosed lifeboats, free fall lifeboats, partially enclosed lifeboats, rescue boats and fast rescue boats.

PALFINGER MARINE is also specialised in designing and manufacturing special boats such as military and law-enforcement boats.

SERVICE

64.

AFTER SALES | SERVICE

PALFINGER MARINE provides comprehensive, customised and reliable services to customers around the world. A global network of specially trained engineers and experts offer extensive know-how and experience.

DECK EQUIPMENT

CRANES | WINCHES | LIFTING AND HANDLING EQUIPMENT | FENDERS

CRANES

FOLDABLE KNUCKLE BOOM CRANES | Range from 30 up to 2840 kNm

PK 50002 M


PK 150002 M


PFM 3500


PK 40002 M


PK 23500 M


PFM 4500

PK 150002 M

As a result of their sophisticated crane geometry work is effortless with foldable knuckle boom cranes. They make full use of their strengths and flexibility when loading and unloading equipment. Due to their compact construction they can easily be accommodated on every type of vessel especially where space is limited. Adding various features and options make the foldable knuckle boom cranes a multi-functional tool. PALFINGER MARINE foldable knuckle boom cranes can be designed according to offshore rules and regulations.

Crane Type	Outreach	Lifting Capacity	Lifting Moment	Total Moment	Pedestal Outer Diameter	Slewing Angle	Operating Pressure	Dead Weight
PC 2700	1.5–5 m	1745–500 kg	25.6–25 kNm	27.2 kNm		325°	200 bar	230–260 kg
PK 4501 M	3.4–11 m	1180–230 kg	38.9–24.2 kNm	44.9 kNm	450 mm	400°	300 bar	560–760 kg
PK 6500 M	3.5 –9.2 m	1600–480 kg	55.7–43.8 kNm	58.7 kNm	450 mm	400°	315 bar	530–670 kg
PK 8500 TM	2.5–10.6 m	3450–620 kg	85.0–65.5 kNm	93.7 kNm	450 mm	400°	300 bar	700–1060 kg
PK 8501 M	3.5–13.8 m	2100–250 kg	72–33.8 kNm	79.3 kNm	450 mm	400°	310 bar	810–1230 kg
PK 11001 M	3.7–14 m	2550–390 kg	93.4–54 kNm	104.8 kNm	450 mm	400°	310 bar	820–1270 kg
PK 12000 M	4–14.3 m	2850–470 kg	113–64.3 kNm	116.6 kNm	596 mm	420°	300 bar	1080–1520 kg
PK 15500 M	4–14.3 m	3600–600 kg	140.2–84 kNm	144.1 kNm	596 mm	420°	300 bar	1190–1710 kg
PK 18500 M	4.1–14.3 m	4350–940 kg	174.1–131.3 kNm	196.8 kNm	620 mm	400°	300 bar	1700–2070 kg
PK 23500 M	4.1–16.4 m	5400–900 kg	217–144.2 kNm	235.9 kNm	620 mm	400°	300 bar	1820–2400 kg
PK 29002 M	4.1–21.1 m	6200–560 kg	245.4–115.5 kNm	282.9 kNm	620 mm	400°	300 bar	2190–3230 kg
PK 32080 M	4–13.7 m	7700–1900 kg	299.6–255.5 kNm	340 kNm	620 mm	400°	300 bar	2360–2890 kg
PK 33002 M	4.1 – 20.8 m	7480 – 715 kg	302 – 145 kNm	355 kNm	709 mm	endless	300 bar	3170 – 4430 kg
PK 41002 M	4.1–20.8 m	9160–1015 kg	370.2–207.7 kNm	431 kNm	709 mm	endless	300 bar	3720–5110 kg
PK 50002 M	4–20.3 m	11900–1460 kg	469.9–290.9 kNm	542.7 kNm	834 mm	endless	300 bar	3770–5370 kg
PK 65002 M	4–20.3 m	15100–2100 kg	600–415.9 kNm	684.3 kNm	834 mm	endless	300 bar	4220–5960 kg
PK 90002 M	4.1–21.9 m	18000–2050 kg	715.1–440 kNm	855 kNm	917 mm	endless	300 bar	6490–8590 kg
PK 150002 M	3.8–21.2 m	26400–3500 kg	992.7–730.5 kNm	1176.4 kNm	990 mm	endless	300 bar	8090 –10560 kg
PFM 2000	7.5 –20.8 m	20000–5000 kg	1470–1022 kNm	1883.2 kNm	1750 mm	endless	300 bar	12200–16500 kg
PFM 2500	7.7–19.8 m	20000–7200 kg	1497–1386 kNm	2296.4 kNm	1750 mm	endless	300 bar	16800–20200 kg
PFM 3500	7.4 –21.3 m	25000–9800 kg	1825–2040 kNm	3172.4 kNm	2101 mm	endless	300 bar	21600–25100 kg
PFM 4500	7.6–20.2 m	32000–14000 kg	2400–2835 kNm	4059.4 kNm	2101 mm	endless	300 bar	28100–30600 kg

TYPICAL APPLICATIONS

OFFSHORE CRANES	MARINE CRANES	WIND CRANES
Service cranes	Service cranes	Nacelle cranes
Provision and cargo handling cranes	Provision and cargo handling cranes	
Access basket cranes	Fishing and fishfarming cranes	

FEATURES

- Long-life surface treatment: corrosion protection
- Low/high temperature operations
- Return oil utilisation
- Continuous slewing system
- Power link system

OPTIONS

- Constant tensioning
- Remote control
- Standing platform
- Operator's cabin
- Overload protection: MOPS, AOPS
- Offshore Control System (OCS)
- Lifting of personnel – man-riding
- Workman basket
- External hydraulic power packs
- Local control stand (FLVK)

CRANES

STIFF BOOM CRANES | Range from 150 up to 30000 kNm

The PALFINGER MARINE stiff boom cranes are based on a pedestal slewing design with hydraulic cylinder luffing. The cranes are available in the range from 141–30000 kNm lifting moment and are supplied according to customer requirements. The stiff boom cranes can be delivered within a broad range of certifications and numerous optional features. Stiff boom cranes are typically used in dock, on fixed installations and in harbour conditions.

Crane Type	Outreach	Lifting Capacity	Lifting Moment	Total Moment	Pedestal Diameter	Dead Weight
PSM RANGE						
PSM 200	6–16 m	3.5– 0.9 t	144–210 kNm	270 kNm	885 mm	2.7–3.2 t
PSM 400	6–16 m	5.6–1.7 t	288–336 kNm	424 kNm	885 mm	3.2–3.7 t
PSM 600	6–20 m	10–2.3 t	460–600 kNm	737 kNm	1095 mm	4.4–5.5 t
PSM 900	6–20 m	14.2–3.2 t	640–852 kNm	1039 kNm	1325 mm	5.9– 7 t
PSM1200	6–24 m	19–3.5 t	840–1140 kNm	1409 kNm	1490 mm	7.8–10.2 t
PSM1500	7–24 m	20.3–4.6 t	1104–1421 kNm	1765 kNm	1490 mm	9.2–11.3 t
PSM1800	7–24 m	25.6–5.4 t	1296–1792 kNm	2202 kNm	1770 mm	11.4–14.1 t
PSM3000	21 m	12.5 t	2625 kNm	3750 kNm	1775 mm	24.8 t
PSW 36000*	6–15 m	2 t @ SWH 2 m 3 t @ SWH 0.75 m	340–390 kNm	550 kNm	885 mm	4-4.5 t
DK RANGE						
DK220	27.5 m	20 t	2200 kNm	4000 kNm	1800 mm	15 t
DK300	30 m	25 t	3000 kNm	5000 kNm	2065 mm	17.5 t
DK400	32 m	30 t	4000 kNm	6300 kNm	2050 mm	20 t
DK500	35 m	35 t	5000 kNm	8000 kNm	2240 mm	25 t
DK800	40 m	50 t	8000 kNm	11500 kNm	2271 mm	45 t
DK1000**	43 m	60 t	10000 kNm	14400 kNm	2536 mm	60 t
DK1200	45 m	80 t	12000 kNm	18000 kNm	2550 mm	85 t
DK1600	50 m	100 t	16000 kNm	34000 kNm	3166 mm	120 t
DK2000	50 m	125 t	20000 kNm	44000 kNm	3987 mm	160 t
DK2500	50 m	150 t	25000 kNm	50000 kNm	4000 mm	180 t
DK3000	55 m	200 t	30000 kNm	60000 kNm	4500 mm	220 t

*Special offshore wind crane

**Available only for deck cranes

TYPICAL APPLICATIONS

OFFSHORE CRANES	MARINE CRANES	WIND CRANES
Deck cranes (shipboard)	Service cranes	Substation cranes
Ship to Ship cranes	Hose handling cranes	Platform cranes
Hose handling cranes	Container and cargo handling cranes	
Provision cranes		

FEATURES

- Long-life surface treatment: corrosion protection
- Operation from control platform on crane
- Integrated electro hydraulic drive / HPU
- Continuous slewing
- Low/high temperature operations

OPTIONS

- Constant tensioning
- Remote control
- Operator's cabin
- Overload protection: MOPS, AOPS
- Offshore Control System (OCS)
- Lifting of personnel – man-riding
- External hydraulic power packs
- Anti-collision system
- Active Heave Compensation (AHC)
- Design according to rules and regulations (API 2C, EN13852, NORSOK etc.)
- Diesel hydraulic drive
- Shock absorber
- Metalizing
- Aux winch
- Lebus drum

CRANES

TELESCOPIC BOOM CRANES | Range from 140 up to 12000 kNm

The PALFINGER MARINE telescopic boom cranes are based on a pedestal slewing design with hydraulic cylinder luffing. The boom extension is a telescopic inner section that allows a more flexible and wider operational radius in use and leaves the crane stored in a compact position. The advantages of the telescopic cranes are low weight and less complex design making them maintenance-friendly. The cranes are available in the range from 140–12000 kNm lifting moment and are supplied according to customer requirements and with numerous optional features.

Crane Type	Outreach	Lifting Capacity	Lifting Moment	Total Moment	Pedestal Diameter	Dead Weight
PTM RANGE						
PTM 200	6–14 m	3.3–1 t	133–198 kNm	241 kNm	885 mm	2.8–3.2 t
PTM 400	6–14 m	5.5–1.8 t	252–330 kNm	381 kNm	885 mm	3.7–4.3 t
PTM 600	7.5–17.5 m	7.5–2.2 t	385–563 kNm	603 kNm	1095 mm	5.3–6.3 t
PTM 900	8.2–20 m	9.9–2.7 t	540–812 kNm	980 kNm	1325 mm	7.8–9.2 t
PTM 1200	8–20 m	12–3.9 t	780–960 kNm	1375 kNm	1490 mm	11.5–12.8 t
PTM 1500	8–20 m	15–5.1 t	1020–1200 kNm	1765 kNm	1490 mm	12.7–14 t
PTM 1800	12–36 m	16–1.8 t	648–1920 kNm	2555 kNm	1770 mm	19.2–23 t
PTM 3000	12.5–18.5 m	22–10 t	1850–2750 kNm	3720 kNm	1775 mm	27 t
DKT RANGE						
DKT 220	30 m	30 t	2200 kNm	4000 kNm	1800 mm	25 t
DKT 300	30 m	30 t	3000 kNm	5000 kNm	2065 mm	27.5 t
DKT 400	30 m	30 t	4000 kNm	6300 kNm	2050 mm	30 t
DKT 500	32 m	35 t	5000 kNm	8000 kNm	2240 mm	35 t
DKT 800	37 m	50 t	8000 kNm	11500 kNm	2271 mm	55 t
DKT 1000*	40 m	60 t	10000 kNm	14400 kNm	2536 mm	70 t
DKT 1200	43 m	80 t	12000 kNm	18000 kNm	2550 mm	100 t

*Available only for deck cranes.

TYPICAL APPLICATIONS

OFFSHORE CRANES	MARINE CRANES	WIND CRANES
Deck cranes (shipboard)	Provision cranes	Substation cranes
Ship to Ship cranes	Service cranes	
Pipe handling cranes	Container and cargo handling cranes	
Provision cranes		

FEATURES

- Long-life surface treatment: corrosion protection
- Operation from control platform on crane
- Electro hydraulic drive
- Continuous slewing
- Low/high temperature operations
- Innovative design
- Components protected from wear and tear

OPTIONS

- Constant tensioning
- Remote control
- Operator's cabin
- Overload protection: MOPS, AOPS
- Offshore Control System (OCS)
- Lifting of personnel – man-riding
- External hydraulic power packs
- Anti-collision system
- Active Heave Compensation (AHC)
- Design according to rules and regulations (API 2C, EN13852, NORSOK etc.)
- Diesel hydraulic drive
- Shock absorber
- Metalizing
- Aux winch
- Lebus drum

CRANES

KNUCKLE BOOM CRANES | Range from 130 up to 30000 kNm


DKF 2000


DKF 2000


PKM 700 T


DKF 1250

PKM 1200

DKF 900


DKF 600

PALFINGER MARINE knuckle boom cranes are designed to lift high loads with extended jib and provide the operator with great flexibility during lifting operations. The knuckle boom crane range is available from 130–30000 kNm lifting moment. Severe weather conditions and heavy seas introduce oscillating motions to suspend loads. The improved level of control makes the crane ideal for offshore lifting operations in higher sea states.

Crane Type	Outreach	Lifting Capacity	Lifting Moment	Total Moment	Pedestal Diameter	Dead Weight
PKM RANGE						
PKM 150	8–12 m	2.1–1.1 t	132–168 kNm	267 kNm	885 mm	3.0–3.3 t
PKM 250	10–14 m	2.9–1.8 t	242–290 kNm	437 kNm	885 mm	3.8–4.1 t
PKM 350	12–16 m	3.6–2.3 t	370–430 kNm	644 kNm	1095 mm	5.5–5.8 t
PKM 550	14–18 m	4.7–3.2 t	573–660 kNm	1017 kNm	1325 mm	7.5–7.8 t
PKM 750	14–18 m	6.1–4.2 t	749–855 kNm	1316 kNm	1490 mm	10.3–11.1 t
PKM 1150	16–20 m	7.3–5.2 t	1040–1160 kNm	1904 kNm	1490 mm	11.8–12.5 t
PKM 1450	16–20 m	9.0–6.4 t	1268–1440 kNm	2185 kNm	1770 mm	14.8–15.6 t
PKM 700 T	21 m	2.5 t	525 kNm	1245 kNm	1430 mm	12.5 t
PKM 1300 T	25 m	4.5 t	1125 kNm	2840 kNm	1690 mm	18.8 t
DKF RANGE						
DKF 220	27.5 m	30 t	2200 kNm	4000 kNm	1800 mm	25 t
DKF 300	30 m	30 t	3000 kNm	5000 kNm	2065 mm	27.5 t
DKF 400	32 m	30 t	4000 kNm	6300 kNm	2050 mm	30 t
DKF 500	35 m	35 t	5000 kNm	8000 kNm	2240 mm	35 t
DKF 800	37 m	50 t	8000 kNm	11500 kNm	2271 mm	55 t
DKF 1000*	40 m	60 t	10000 kNm	14400 kNm	2536 mm	70 t
DKF1200	43 m	80 t	12000 kNm	18000 kNm	2550 mm	100 t
DKF 1600	45 m	100 t	16000 kNm	34000 kNm	3166 mm	150 t
DKF 2000	50 m	125 t	20000 kNm	44000 kNm	3987 mm	200 t
DKF 2500	50 m	150 t	25000 kNm	50000 kNm	4000 mm	220 t
DKF 3000	55 m	200 t	30000 kNm	60000 kNm	4500 mm	275 t

*Available only for deck cranes

TYPICAL APPLICATIONS

OFFSHORE CRANES	MARINE CRANES	WIND CRANES
Deck cranes (shipboard)	Provision cranes	Substation cranes
Ship to Ship cranes	Service cranes	
Pipe handling cranes	Container and cargo handling cranes	
Boat handling cranes		

FEATURES

- Long-life surface treatment: corrosion protection
- Operation from control platform on crane
- Integrated electro hydraulic drive / HPU
- Continuous slewing
- Low/high temperature operations

OPTIONS

- Constant tensioning
- Remote control
- Operator's cabin
- Overload protection: MOPS, AOPS
- Offshore Control System (OCS)
- Lifting of personnel – man-riding
- External hydraulic power packs
- Anti-collision system
- Active Heave Compensation (AHC)
- Design according to rules and regulations (API 2C, EN13852, NORSOK etc.)
- Diesel hydraulic drive
- Shock absorber
- Metalizing
- Aux winch
- Lebus drum
- Docking head for boat handling
- Pipe gripper

CRANES

ACTIVE HEAVE COMPENSATED (AHC) CRANES | Range from 130 up to 30000 kNm

100 T AHC Crane

PALFINGER MARINE delivers AHC offshore cranes ranging from smaller models for SOV's to larger models for subsea lifts, in addition to special systems for module handling deployments. All cranes are tailor-made to meet customer requirements and can be delivered in various configurations. The AHC system is developed for the harsh offshore environment. Rugged design made by experienced engineers, ensures trouble free operation under the most extreme conditions.

AHC CRANE DESIGN FEATURES

LOW WEIGHT AND LOW CENTRE OF GRAVITY
- Low built design
- All components and the AHC winch placed as low as possible to ensure low weight and low center of gravity
- High lifting capabilities compared to weight and center of gravity maximise the cargo capacity on deck
- Maximising wire capacity on the AHC winch while remaining safe fleet angles

LOW POWER CONSUMPTION
- Advanced hydraulic drive system and smart system design to share the available power effectively between the different functions
- Low installed power compared to AHC performance and available hoisting speeds

HIGH PERFORMANCE
- Capacity to reduce movement with up to 98 %
- Optimised drive train for correct speed and high capacity

OPERATOR ERGONOMICS AND MAINTENANCE ACCESS
- State-of-the-art operator cabin environment
- Designed for easy access to all points of maintenance, inspection and service

HYDRAULIC SYSTEM
- HPU placed inside crane pedestal (no need for container system)
- Zero load drop when the brake is removed, no need for tuning of the system with different loads
- Load can be held in subsea mode with brake off and all safety systems active for several days if necessary without any movement of the load due to leakage in the hydraulic system

FEATURES
Fully equipped operators cabin
Up to 3000 m capacity wire
AOPS / MOPS / TENSIONING
Flood lights
Boom tip camera
Helicopter lights
Emergency back-up control system
Design according to DNV 2.22
SWL 5–250 t

OPTIONS	
Tugger winches	Remote diagnostic
Aux winch (with our without AHC winch)	Winch below deck
Fiber rope solution	Design according to EN 13852 / NORSOK
Pedestal adapter	
Hazardous zone classification	
Lift planning tool	

100 T AHC CRANE

DKF1600C
100 T AHC CRANE
- Low center of gravity
- Low weight
- Low power consumption
- Superior AHC performance

5 T AHC CRANE

DKF220C
5 T AHC CRANE
- Low weight
- Extended outreach for windmill operations

AHC Flexible Module Handling System

AHC FLEXIBLE MODULE HANDLING SYSTEM – FMHS
- Travelling on rails
- SWL up to 70 t
- Rotation +/- 180
- Roll and pitch +/- 20
- Working depth down to 3000 m

WIRE LUFFING LATTICE BOOM CRANES | Range from 4000 up to 30000 kNm

DKW 2500 installed at Johan Sverdrup platform

The PALFINGER MARINE wire luffing lattice boom cranes are based on a slewing pedestal design. The cranes are state-of-the-art and supplied according to the latest offshore rules and regulations in the range of 4000–30000 kNm lifting moment. Wire luffing lattice boom cranes are supplied with built in electro hydraulic or diesel hydraulic power packs. In addition PALFINGER MARINE has developed a new and innovative fully electric wire luffing crane design. Wire luffing lattice boom cranes are typically used on fixed installations and on drilling rigs, Jack ups, drillships, FPU's and FPSO's. Typically used when the needed outreach exceeds 40–50 m.

Crane Type	Max. Outreach	Max. Lifting Capacity	Lifting Moment	Total Moment	Pedestal Diameter	Dead Weight
DKW RANGE						
DKW 400	35 m	30 t	4000 kNm	6300 kNm	2050 mm	20 t
DKW 500	37 m	35 t	5000 kNm	8000 kNm	2240 mm	25 t
DKW 800	43 m	50 t	8000 kNm	11500 kNm	2271 mm	40 t
DKW 1000	47 m	60 t	10000 kNm	14400 kNm	2536 mm	50 t
DKW 1200	50 m	80 t	12000 kNm	18000 kNm	2550 mm	60 t
DKW 1600	55 m	100 t	16000 kNm	34000 kNm	3166 mm	80 t
DKW 2000	65 m	125 t	20000 kNm	44000 kNm	3987 mm	120 t
DKW 2500	70 m	150 t	25000 kNm	50000 kNm	4000 mm	130 t
DKW 3000	80 m	200 t	30000 kNm	60000 kNm	4500 mm	160 t

FEATURES

- Operators cabin
- Electro hydraulic drive
- Design according to DNV 2.22
- Continuous slewing

OPTIONS

- Tugger winches
- Remote control
- Fully electric drive / diesel hydraulic
- Regenerative feedback to platform/ship
- Design according to API-2C / ABS / EN13852 / NORSOK / BV / LRS etc.
- Personnel lift
- AOPS / MOPS / TENSIONING
- Anti-collision system / Metalizing
- Shock absorber
- Aux winch
- Lebus drum

DKW 1200
- Electro hydraulic drive
- Up to 47 m outreach
- Max. SWL 40 t

DKW 1600
- Electro hydraulic drive
- Up to 54 m outreach
- Max. SWL 20 t

DKW 2000
- Electro hydraulic drive
- Up to 48 m outreach
- Max. SWL 63 t

NEW INNOVATIVE ELECTRICAL CRANE DESIGN

PALFINGER MARINE has developed a new and innovative range of wire luffing lattice boom cranes with fully electric drive based on VFD technology, designed according to EN13852-1 and NORSOK R002.

- State-of-the-art control system
- Safe to use up to significant wave height up to 6 m
- Optimised load charts to ensure flexibility in operation
- Designed for easy maintenance – access to all areas of the crane
- Remote access of crane for quick support and fault detection
- Off the shelf components to ensure easy maintenance and quick supply of spare parts

ADVANTAGES
- Less vibration, less noise
- Less components
- More smooth and predictable operations
- Reduction in maintenance cost
- Subject to wear and tear

ENVIRONMENT-FRIENDLY
- No risk of oil spill
- Less power consumption

DKW 2500 / Johan Sverdrup

TYPICAL APPLICATIONS

OFFSHORE CRANES
- Deck cranes
- Ship to Ship cranes

KEY DESIGN FEATURES

- Internal slewing gearing and slewing gears
- Reduced need for maintenance
- Easy access to all types of maintenance
- Weight optimalised
- Enables operation in up to 6 m significant wave height

CRANES

TRAVELLING CRANES | Range from 1 up to 600 t

DKF-R Cargo rail crane


TKG-DKF 400 Travelling deck crane


TKG 150 T Gantry crane


TKG-DKF 100 Travelling deck crane


TKG 200 T Gantry travelling crane system


TKU 40 T – ROV hangar crane


PR – Provision crane

PALFINGER MARINE travelling cranes are available in numerous configurations and for a range of applications from very simple engine room cranes to highly advanced BOP and XMAS tree handling cranes. The travelling feature indicates the mobility of the crane in the way it travels within a given area of operation. Structures of overhead, underslung, gantry and semi-gantry cranes are available for various handling requirements up to SWL 600 t. Travelling cranes are delivered electric or hydraulic driven and with numerous different features and options depending on applications. All cranes are delivered tailor-made according to project specific requirements.

Range	Category	Lifting Capacity	Span	Dead Weight
TKO	Overhead travelling crane	1–600 t	5–50 m	5–200 t
TKU	Underslung travelling crane	1–200 t	5–30 m	5–50 t
TKG	Gantry travelling crane	1–600 t	5–50 m	10–600 t
TKSG	Semi-gantry travelling crane	1–600 t	5–50 m	1– 400 t

The PALFINGER MARINE range of travelling cranes is divided in four main categories according to geometry:

- TKO Overhead travelling crane
- TKU Underslung travelling crane
- TKG Gantry travelling crane
- TKSG Semi-gantry travelling crane

In addition the range comprises travelling cranes for different special applications like:

- DKF-R Cargo rail cranes
- TKG-DKF Travelling deck cranes
- ER Engine room cranes
- PR Provision cranes

TYPICAL APPLICATIONS

OFFSHORE CRANES	MARINE CRANES
BOP handling cranes	Monorail provision cranes
X-mas tree handling cranes	Engine room cranes
Pipe handling cranes	Cargo rail cranes
Riser handling cranes	Travelling deck cranes
Cargo rail cranes	Service cranes
Travelling deck cranes	
Service cranes	


TKSG 150 T Semi-gantry crane

TKO 130 T Overhead travelling crane


TKO 25 T Overhead travelling crane

TKSG 150 T
SEMI-GANTRY CRANE
- Hydraulic drive by ringline system
- Two trolleys for BOP handling

TKO 130 T
OVERHEAD TRAVELLING CRANE
- For handling of 130 t thrusters
- Fully electric

TKO 25 T
OVERHEADTRAVELLING CRANE
- Fully electric drive
- Anti collision system

CRANES

FIXED BOOM CRANES



PALFINGER MARINE fixed boom cranes are experts for safe and fast material handling to the offshore wind platform. A special surface coating and processing of of high-quality materials protects the fixed boom cranes against corrosion. Fixed boom cranes are available with electric and hydraulic drives.

Crane Type	Outreach	Lifting Capacity	Significant Wave Height	Power Consumption	Dead Weight
PF RANGE					
PF6000	2.4 m	0.7–1 t	1.8 m	6 kW	0.9 t
PF8000	2.9 m	1 t	1.8 m	6 kW	1 t
PF9000	3.4 m	1 t	1.8 m	6 kW	1.3 t
PF16000	3.0 m	2 t	1.8 m	12 kW	1.6 t
PF20000	6.9 m	1 t	1.8 m	9 kW	2 t

FEATURES

Stainless steel components	Slewing speed ~ 1 rpm	Bottom flange on mounting base
Overload protection system (MOPS/AOPS)	Electric power 3x 400–690 V/50–60 Hz/~6 to 12 kW	10–12 mm wire rope, rotation free galvanised
Electrically operated rope winch	Cable remote control system (IP66)	Surface protection: spray galvanised 60–160 µm + system A8.04 acc. to DIN EN ISO 12944 C5-M high (320 µm)
Hoisting speeds ~ 10–20 m/min	Protection class E-motor (IP56)	
Hoisting height 25–28 m	Manually/Electrically operated slewing drive	
Acoustic warning system		

OPTIONS

- Pivoting bars (additional lifting points)
- Slack wire detection system
- Visual warning light
- Working light
- Pulley line system

TYPICAL APPLICATIONS

- Wind Cranes
- Platform cranes / Transition Piece
- Substation

WINCHES

ANCHOR WINDLASS WINCHES

PALFINGER MARINE anchor windlass winches are offered in a variety of configurations and sizes to handle virtually any anchor application. Anchor windlass winches by PALFINGER MARINE have rugged design including fabricated steel construction, heavy duty split bronze bearings, gears hardened to exceed working load requirements, clutched and braked drums and high corrosion resistance. The winch design provides easy access to all points of lubrication and inspection. Wire drum windlass winches can be delivered (without cable lifters). Windlass winches are supplied with roller type chain stoppers suitable to withstand 80 % of the chain breaking force.

FEATURES
Electric or hydraulic drive
Rated pull (cable lifters) – according to class
Single or double configuration
Chain size from 36–160 mm
Manually operated clutch
Manually operated band brake
Local control

OPTIONS
With or without mooring drum
Auto tension/tension control (for mooring drums)
With or without warping end
Chain length and/or speed measurement
Bridge operated anchor drop
Hydraulic operated brake
Remote control (wireless)

PALFINGER MARINE offers a range of mooring winches for all types of vessels with almost unlimited speed and line pull capacities. The rugged design is made for harsh and demanding offshore conditions and includes heavy duty split bronze bearings. The operating mechanism for brakes and clutches are designed for easy and safe manual operation but may also be remotely operated by hydraulic cylinders. The winch design provides easy access to all points for lubrication and inspection.

FEATURES
Electric or hydraulic drive
Single or multi drum configuration
With or without warping end
Rated pull: 5–40 t
Manually operated clutch and band brake
Local control

OPTIONS
Auto tension/tensioning control
Split drums
Hydraulic operated band brake
Hydraulic operated clutch
Light line speed
Remote control (wireless)

CAPSTANS

PALFINGER MARINE offers a range of capstans for various mooring operations. Hydraulic capstans are designed with internal drive systems in order to save space onboard the vessel. Electric capstans can be incorporated directly into the deck structure by means of foundation pipe pieces. The foundations are open at the bottom and make it easy to connect the motors from below deck. Electric capstans are delivered with DOL or frequency converters for variable speed.

FEATURES
Electric or hydraulic drive
Rated pull from 3–15 t
Local control or remote control with cable

BOLLARD CAPSTANS

PALFINGER MARINE combined bollard capstans (powered bollards) have a space-saving design to make efficient use of deck space onboard the vessel. They combine the features of a standard capstan (rotating part) with the features of a standard bollard (non rotating part).

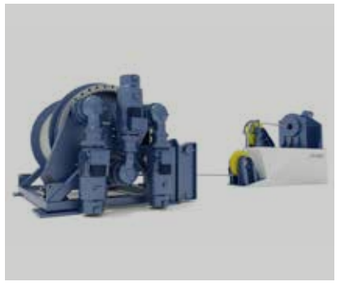
FEATURES
Electric or hydraulic drive
Rated pull from 5–10 t
Local control or remote control with cable

WINCHES

MOORING SYSTEMS

PALFINGER MARINE supplies mooring systems suitable for offshore vessels which require advanced mooring capabilities. The systems consist of multiple mooring winches with centralised control systems in addition to local manual controls on each winch. The mooring systems are equipped with wire rope tension and payout length control and are capable of emergency release under a combination of all of the following conditions: dead ship (by use of accumulators), brake on and hoisting/lowering conditions. Configuration from 4–16 point mooring.

FEATURES	OPTIONS
Electric or hydraulic drive	Remote control (from bridge or radio remote)
Single or double drum configuration	Rope length and/or speed measurement
Type of drum: steel wire	Bridge operated anchor drop
Rated pull from 20–400 t / Capacity up to 2000 m	Water cooled brakes
Manual or hydraulic operated clutch	
Spooling device / Local control	
Auto tension / Tensioning control	



CONSTANT TENSION WINCHES

Constant tension (CT) is used to achieve a constant line-pull set by the winch operator. PALFINGER MARINE's range includes various CT winch models where the line-pull is either measured by a load cell or by the software in the frequency drive controllers. If the actual line-pull differs from the preset value the winch will pay in/out wire to maintain the preset value. An adjustment of the wire tension is possible by changing the tension set point value. PALFINGER MARINE also supplies CT winches for lifting purposes. These winches are delivered according to DNV lifting appliances. CT lifting winches are a suitable alternative when active heave compensation (AHC) is not required.

FEATURES		OPTIONS
Hydraulic or electric drive	Local control	Spooling device
Single drum configuration	Drum capacity according to customer's request	Remote control
5–40 t rated pull		

TUGGER WINCHES

PALFINGER MARINE offers a range of different tugger winches for work on deck onboard various kinds of offshore vessels with rated pull from 5–30 t. The robust design allows safe and longterm operation in harsh conditions. Winches are delivered with easy access for lubrication and inspection.

FEATURES		OPTIONS
Electric, hydraulic or pneumatic drive	Rated pull from 5–30 t	Remote control (wireless)
Single drum configuration	Drum capacity from 100–600 m	Secure grid
With or without warping end	Manually operated clutch	Hydraulic operated brake
Type of drum: Steel wire		

WINCHES

ANCHOR HANDLING WINCHES

AHT winches can be supplied up to 500 t capacity (line pull at first layer) with hydraulic and electrical drives and spooling devices according to individual client requirements. These winches are delivered with local controls as well as advanced bridge control systems, handling all required functions and automations. The winches are of eavy-duty box frame type construction with the main drums running on spherical roller bearings. All drums are declutchable able.

ANCHOR HANDLING WINCH CONFIGURATIONS

PALFINGER MARINE offers a wide range of anchor handling/towing (AHT) winches with the following configurations:

- Double drum waterfall
- Side-by-side
- Triple drum waterfall

WINCH OPERATING MODES

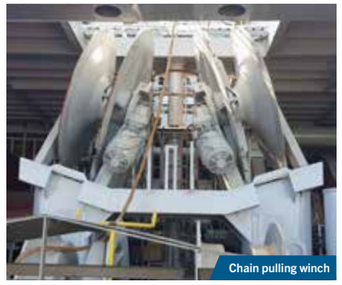
There are several defined operating modes which can be used when conducting different types of work:

- Hoisting
- Lowering
- Speed lowering
- Dynamic breaking

FEATURES

- Hydraulic or electrical drive
- Double (waterfall or side by side) and triple configuration
- Rated pull: 150–500 t on 1st layer
- Brake holding force: up to 670 t
- Hydraulic operated brake
- Hydraulic operated clutch
- Spooling device
- Local control for maintenance
- Remote control on bridge

SUPPLEMENTARY PRODUCTS


Chain pulling winch


Chain rollers


Secondary winches

TOWING WINCHES

100 T TOWING WINCH

- Electrical driven
- Brake holding capacity 250 t
- Double configuration
- Drum capacity: 1000 m steel wire
- Local and remote operated spooling device

125 T TOWING WINCH

- Hydraulic driven
- Single drum configuration
- Brake holding capacity: 250 t
- Drum capacity: 1500 m steel wire
- Local and remote operated spooling device

115 T WINDLASS TOWING WINCH

- Hydraulic driven
- Combined windlass / Towing winch
- configuration
- Active escort winch
- Brake holding capacity: 200 t

PALFINGER MARINE towing winches: are available for all types of tugs and offshore vessels including PSV's and standby vessels. The rugged design made by highly experienced engineers ensures trouble-free operation under the most extreme conditions. The winches are delivered with joystick bridge control for required functions and automation, in addition to local controls. The wire spooling system ensures excellent spooling of extremely long wires, without the need for a defined minimum distance between the winch and the first wire sheave. Forward towing winches for tugs can be delivered according to customers requirements including active escort tug requirements. Aft towing winches are delivered either in single or double drum configurations with water fall or linear configuration options.

FEATURES

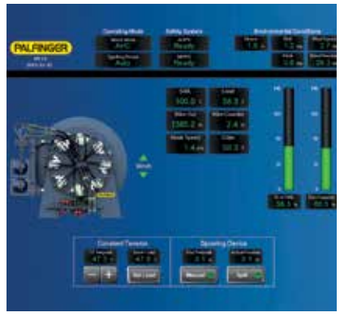
- Electric or hydraulic drive
- 25–300 t pull at first layer
- Up to 500 t static brake holding capabilities at the first layer
- Hydraulically operated brakes and clutches (remote operated)
- Locally and remote operated spooling devices (fully controllable)
- Remote control system, bridge mounted
- Emergency release function
- Drum capacity according to customer's request

WINCHES

ACTIVE HEAVE COMPENSATION WINCHES (AHC)

150 T AHC WINCH
- 150 t AHC winch
- Energy efficient
- Spooling device
- Stand alone unit

15 T AHC WINCH
- 15 t AHC Winch
- Electrical driven
- 500 m wire



CONTROL SYSTEMS
- State of the art
- User-friendly interface
- Different configurations available

The AHC system is specially designed for load handling from a vessel or rig towards the seabed, underwater installations or other fixed targets on the seabed.

AHC is used to control the relative position of a load to a fixed object. The position is determined by the control system using a real time signal from a Motion Reference Unit (MRU) as an input signal. In response to this signal the AHC system will pay in/out to keep the load at a constant elevation.

AHC ON HYDRAULIC DRIVEN WINCHES

AHC winches by PALFINGER MARINE are based on a secondary controlled hydraulic active heave compensation system. This enables compensation of the heave motion of the vessel with an extremely fast response time at low power consumptions.

AHC ON ELECTRIC DRIVEN WINCHES

PALFINGER MARINE also supplies electric driven winches with active heave compensation. High power, low inertia E-motors allow realtime compensation of the heave motion of the load. In response to the signal from the motion reference unit the winch will pay in/out wire rope.

WINCH CONTROL

The control system can be delivered with different configurations ranging from a simple control unit and on to advanced systems with multiple displays and data recorders. One of the benefits of the hydraulic system is zero load drop when the brake is removed. The load can be held in subsea mode with brake off and all safety systems active for several days if necessary without any movement of the load.

FEATURES	OPTIONS
Electric or hydraulic drive	Spooling device
Single drum configuration	Lifting frame
Remote control	

STORAGE WINCHES

PALFINGER MARINE supplies a wide range of custom-made storage winches. Normally they are supplied for rope or wire. PALFINGER MARINE also designs special purpose storage winches like iceberg net winches and hose storage winches. The winches are designed according to project-specific specifications and can be delivered in different configurations for various line pulls and brake holding capacities.

FEATURES	OPTIONS
Electric or hydraulic drive	Remote control
Singel or double drum configuration	Spooling device
Capacity and speed according to requirements	Hydraulic operated brakes
3–60 t rated pull	
Manually operated band brake / Local control	

STREAMER STORAGE WINCHES

PALFINGER MARINE has a range of streamer storage winches suitable for seismic vessels and seismic support vessels. The winches are typically delivered with 7000–10000 m of streamer cable. They are designed to be moved easily from vessel to vessel if needed.

FEATURES	OPTIONS
Electric or hydraulic drive	Remote control
Single or double drum configuration	Containerised design
Capacity according to customer's requirements	Lifting frame
Spooling device	
Rated pull from 3–10 t	
Local control	

WINCHES

BULK LOADING STATIONS

– 12 + 13 reels for 100 m of hose
– Stacked configuration
– Hydraulic driven
– Remote control by wander lead

– 2 x 10 reel loading station for 60 m hose
– Foundation structure for welding onto box girder
– Hydraulic driven
– Local control on each reel

– 4 x 5 hose reels for 40 m of hose
– Electrical driven
– Deck mounted
– Local and radio control

Effective loading of fluids and dry bulk materials between supply vessels and fixed or floating production units is necessary to maintain continuous operations.
PALFINGER MARINE supplies standard solutions or customised design for a variety of hoses and length suitable for both new buildings and upgrades.
Installing bulk loading stations with hose reel winches provide several advantages compared to traditional saddles:

– Increased safety of equipment and personnel in hostile offshore environments
– Less time needed for operation
– Reduced need for operating personnel – one-man operated
– Environment protection and protection from spillage
– Reduced exposure to sunlight for longer hose life
– Increased lifespan of the hoses due to less wear and tear
– Easy access for maintenance and service

A typical station will be fitted with multiple reels for 60–100 m of 4" or 5" soft wall hoses with floating elements/floating hose for mediums like drill water, potable water, base oil, brine, diesel, mud, cement etc.

FEATURES
Electric, hydraulic or pneumatic drive
With or without skid foundation
Delivered for Safe zone, Zone 1 or Zone 2
Number of reels 1 to 16
Reel capacity: up to 120 m of soft wall hose
Hoses diameter: 1.5"–8"
Local control

OPTIONS
Foundation strucures
Stacked configuration
Reels in stainless steel
Remote control
Hoses included in delivery
Lifting equipment

2 x 3 hydraulic hose reels, skid mounted

1 x 4 hydraulic hose reel, skid mounted, stainless steel

2 x 7 hydraulic hosereels, skid mounted

SHIP TO SHIP BUNKER REELS

The Ship to Ship bunker reels are made for bunkering while vessels are moving. The reels are typically used for diesel and Heavy Fuel Oil (HFO). Standard reels are included framed foundation and designed for up to 250 m of 4” or 5” hose. Reels are normally delivered for hard wall hose, but can be delivered included spoolingdevice suitable for soft wall hose.

FEATURES
Electric, hydraulic or pneumatic driven
Single drum configuration /capacity according to customer's request
Designed for hard wall hose
Size of hose: 4" and 5" / Length of hoses: standard up to 250 m
Rated pull according to customer's request
Local control

OPTIONS
Remote control
Designed for soft wall hose
Spooling device
Hoses included in supply

HOSE REELS FOR DIESEL SUPPLY

PALFINGER MARINE supplies hose reels for various vessels like PSV's, MPSV’s, well intervention vessels etc. The reels are designed for transfer of diesel to and from other vessels and oil rigs. A typical reel is hose reel/bunker reel for diesel with 60 m of soft wall hose inclusive floating part. Hose reels are adapted to the required hose length and hose diameter.

FEATURES
Electric, hydraulic or pneumatic driven
Single drum configuration
Designed for hard wall or soft wall hose
Drum capacity and size of hoses according to customer's request
Local control

OPTIONS
Hoses included in supply
ISO container brackets for easy removal
Remote control

LIFTING AND HANDLING EQUIPMENT

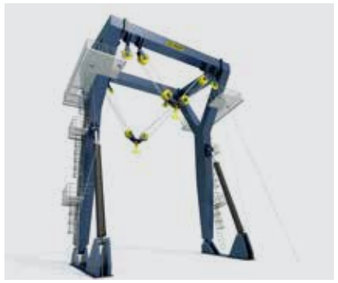
A-FRAMES

PALFINGER MARINE has a range of A-frames for different purposes with a lifting capacity ranging from 10–250 t and a working out-reach / in-reach of up to 25 m. Heavy duty design is made for use in harsh environments and detail design is done according to project-specific requirements with several options available.

A-frames are designed for different purposes/applications: Anchor handling, buoy handling, plough handling and subsea handling (with use of AHC winch) etc.

FEATURES

Hydraulic drive	Design: Stern or side mounting	Load measuring device
10–250 t SWL	Guide wire winches è Sheave arrangement with lower to deck function	Bolted deck interface
Local or remote control from bridge		



CONTAINER AND PALLET HANDLING SYSTEM (CPHS)

PALFINGER MARINE has developed an semi-automated system for safe, efficient and easy handling of containers, pallets and loose goods on board windmill service operation vessels (SOVs).
The system is highly adaptable and suitable for various vessel designs as well as retrofitting to existing vessels. The overhead travelling crane is equipped with a telescopic container spreader for handling both 10" and 20" containers. The system can be adapted to the length and width of the container store and can be delivered with container yoke for container handling in transverse or longitiuinal direction.

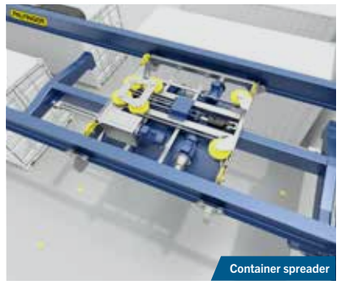
FEATURES

Rated capacity container lifting 12–25 t
Rated capacity pallet fork 1 t (EUR pallet)
For standard 10" and 20" ISO or PWHC containers
Local control: portable cable based control panel

OPTIONS

1 t Aux winch for loose goods
Detachable pallet fork
Radio remote control

Transverse trolley



Container spreader

Pallet fork

DECK EQUIPMENT

STERN ROLLERS

PALFINGER MARINE supplies single and double stern rollers with SWL ranging from 50–750 t. The short-ended design provides up to 75 % reduction in man-hours for installation compared to traditional stern rollers, lighter construction with less friction between drum and axel and simultaneous and full utilisation of both drums (double drums).

FEATURES

Single or double configuration
SWL from 50–750 t

CARGO SECURING SYSTEM (CSS)

Cargo securing systems from PALFINGER MARINE enables safe and efficient moving and securing of cargo onboard platform supply vessels. The system can easily be fitted to new vessel designs and consists of 7–11 lines, each with two securing carriers. The system is one man operated by remote controlled and enables securing of cargo on both sides of the vessel.

FEATURES

Hydraulic drive
Pull force (each line) 15–20 t

LIFTING AND HANDLING EQUIPMENT

ONBOARD SLIPWAY SYSTEMS | Offshore vessels



PALFINGER MARINE supplies highly innovative onboard slipway systems for stowage and launch and recovery of small crafts such as rescue boats, daughter crafts and lifeboats onboard offshore vessels and offshore windfarm service vessels. The systems can be delivered mounted on a hydraulic controlled frame (with hydraulic cylinders for lifting the entire frame) or for mounting directly into the hull structure of the mother vessel. All systems are adapted according to vessel structure in addition to the length and hull shape of the small crafts. PALFINGER MARINE works closely with customers and design companies in order to find the optimal and the most cost-efficient solution according to the intended usage, speed, type of crafts, wave height, sea state and redundancy requirements in addition to material, weight and space constraints.

BENEFITS COMPARED TO TRADITIONAL LAUNCH AND RECOVERY SYSTEMS (LARS)

ALL VESSELS

- Safe operation even in harsh weather condition: eliminate the use of hooks, painter line, or arrester wire during normal operation, reducing the risk of dangerous situations occurring during launch and recovery of daughter crafts.
- Performance: Better than launch and recovery by davit systems when it comes to operating conditions and weather window.
- Versatility: can handle crafts with different shape, propulsion system and weight. PALFINGER MARINE's slipway systems can handle multiple crafts and transfer a craft from the slipway to a stowage position on the mother vessel.
- Short response time: the system enables very fast launch and recovery speeds in emergency situations.
- Easy operation: vessel personnel can learn to operate proficiently in a short period of time.

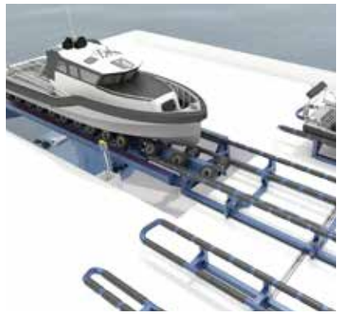
WINDFARM SERVICE OPERATION VESSELS (SOV)

- Increased productivity: Multi-craft slipway systems enable SOVs to launch several personnel and cargo transfer boats in order to service more than one windmill at a time. By using personnel and cargo transfer boats the SOV does not have to wait for service personnel at the windmill unit, eliminating the need for the SOV dropping-off and picking-up personnel and goods at each individual windmill unit. The SOV can use the gangway at easy accessible windmill units and use personnel and cargo transfer boats to service less accessible windmill units.
- Lower fuel consumption and emission: The SOV does not have to approach each and every windmill unit to transfer personnel.
- Lower risk of damage to windmill installation
- By using personnel and cargo transfer boats, the SOV can stay at a distance during supply operations, reducing the risk of collisions between SOV and windmill installations.

FEATURES
Single or double/parallel slipways with wheels
Deck or frame mounted
Hydraulic drive
Self adjusting to different hull shapes
Back up winch system for emergency
Overrunning clutches on wheels (allow high speed entry)
Local and/or remote control

OPTIONS
Stored power
Different types of stern arrangement – extension of the slipway into the sea
No drive on wheels (gravity launch with small craft providing power for recovery)

ONBOARD SLIPWAY SYSTEM | Navy and Coast Guard


- Hydraulic adjustable wheel drives
- Adaptable to different hull shapes
- Foldable stern ramp
- Guide poles on ramp entrance
- Integrated redundancy/back up system
- Operating conditions: Sea State 0–3
- Safe working load: 1–12 t
- Adaptable to different hull shapes
- Hydraulic slipway elevator
- Integrated boat transfer unit
- Boat handling and parking cradles
- Skidding system for boat cradles
- Securing system for cradles
- Operating conditions: Sea State 0–7
- Safe working load: 1–30 t
- Cradle with guide rollers and fenders
- Mechanical cradle guide
- Rack and pinion cradle drive
- Integrated redundancy/back up system
- Optimal for multiple outboard engines
- Operating conditions: Sea State 0–3
- Safe working load: 1–5 t

For Navy and Coast Guard vessels PALFINGER MARINE has developed several different slipway systems depending on intended use, vessel design and type of small crafts.

STERN RECOVERY SYSTEM

PALFINGER MARINE stern recovery system is suitable to launch and recover RHIBs, fast rescue boats, interceptors and daughter crafts onboard navy and coastguard vessels within seconds. This entry system is similar to the launching and landing system found on advanced air craft carriers. The craft enters the slip by own speed and a catch system reduce the speed by hooking to the craft. The major benefits are fast and safe operations, one man operation, the innovative launch/retrieval system, hook arrestor system and minimised maintenance requirements.

FEATURES
Available in single or twin configuration
Minimised maintenance requirements / One-man operation

OPTIONS
Stored power package
Ex-proof components
Other options available on request

HOSE SECURING SYSTEM

Hose Securing System (HSS) provides automated and safe operation during loading and off-loading of fluids and dry bulk material. Various numbers of Hose Securing Arms (HSA) are mounted outside of the rail on the vessel close to the bulk loading connection points for catching and locking the hose. During loading and unloading the system compensates increasing and decreasing pressure of the hoses.

FEATURES
Hydraulic driven
Configuration: According to customer's request
Hoses designed for up to 6" SW and HW hoses
Local and /or remote control

FENDERS

FENDERS

Pneumatic – NPF series
- Fully ISO 17357-1:2014 compliant
- Chain & tyre net type / Sling type
- Stock world wide: Busan, Singapore, Dubai, Rotterdam, Haugesund, Bergen
- Global service network

Foam filled – NFF series
- First class quality – closed cells with no absorption
- From 30 kg/m³ to 140 kg/m³ density
- Non marking
- Chain and tyre net optional

Fixed fenders – System fenders
- Rubber profiles for ships and quays
- System fenders for ports
- Wide range of available sizes and configurations
- Available for a wide range of applications

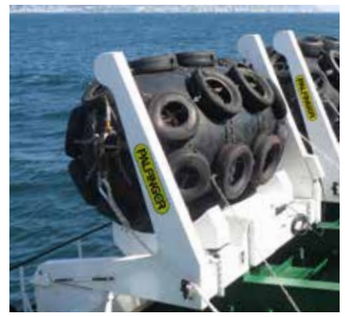
FEATURES AND OPTIONS – PNEUMATIC FENDERS

- High protection netting with aircraft tyres
- Complete STS mooring package – ropes, wires and hardware
- 2 year operational spare part package
- Class certification (ABS)
- Service Agreement including safety valve testing and re-certification

FENDER DAVITS

SCM-F Series
- Slewing davit for smaller sized fenders
- Easy to install
- High reliability
- Easy to operate

SFD Series
- Slewing davit for bigger sized fenders
- Provided with self-contained HPU
- Solid and proven design
- High reliability



NFD Series
- Totally enclosed plug and play system
- Easy to install and operate (remote control)
- Safe and efficient handling of heavy duty fenders
- Reduced maintenance cost

Type	Safe Working Load (SWL)	Max Fender Weight
SLEWING FENDER DAVIT		
SCM-F	5–12 kN	500–1200 kg
SFD	12–80 kN	1200–8000 kg

Type	Safe Working Load (SWL)	Fender Size
PIVOTING FENDER DAVIT		
NFD 2500 – 2035	24.5 kN	2.0 diameter x 3.5 m length
NFD 2500 – 2540	24.5 kN	2.5 diameter x 4.0 m length
NFD 5500	54 kN	2.5 diameter x 5.5 m length
NFD 8000	78.5 kN	3.3 diameter x 6.5 m length
NFD 16000	157 kN	4.5 diameter x 9.0 m length

FEATURES AND OPTIONS

ACCESSORIES OPTIONS
- Paint system for marine environment
- Ex-Proof
- Skin mounted
- Other options available on request
- Local control on each reel

TIME SAVING
- Increased efficiency and safety
- Operating time reduction
- Integrated control station

HOOKS

SEACURE HOOK SYSTEM

The SeaCure LHR M2 release gear systems have been designed and tested in compliance with the new IMO regulation, and are based upon more than 85 years experience in developing lifesaving equipment. We believe LIFETIME EXCELLENCE needs to be backed up with competence onboard your vessel, therefore we offer our Computer Based Training as part of the hook offer. As your partner, we will guide you through the rules and regulations,looking after your lifesaving equipment through our global service network, managed and monitored in our safety management system.

LIFEBOAT HOOKS	
KH6,5M2	(on-offload)
LHR3,5M2	(on-offload)
LHR6M2	(on-offload)
LHR9M2	(on-offload)
LHR12M2	(on-offload)
LHR28	(on-offload)

FREE FALL HOOKS	
FFH13	(hydraulic)
FFH15	(hydraulic)
FFH16	(hydraulic)
FFH25	(hydraulic)

FEATURES FOR LHR HOOKS

- 3.5, 6, 9 and 12 t versions available
- Meets IMO requirements for lifeboat release and retrieval systems
- Tested and approved to IMO testing requirements set in MSC 1392
- Approved according to major classification societies and flag states
- No wear and tear on critical components
- Optional Secondary Safety System (SSS)
- Use of high corrosion resistance materials
- User friendly, easy to understand and operate

RAFT AND RESCUE BOAT HOOKS

PALFINGER MARINE raft and rescue boat hooks are designed for release of davit launched rafts and rescue boats. They come with an EC (wheel mark) certificate as standard, and are fully SOLAS approved. Our hooks are also approved by Transport of Canada and USCG, and a number of other classification societies. The hooks are made out of high quality stainless steel, in order to withstand the marine environment, and are delivered with a 5-year guarantee.

LIFE RAFT HOOK	
ARH23	(automatic)
ARH33	(automatic)
CAR 35	(combined automatic release hook)

RESCUE BOAT HOOKS	
RRH15	(on-offload)
RRH25	(on-offload)
RH3.7	(offload)
CAR 35	(combined automatic release hook)
CAR F-35	(automatic)

Model	SWL	Mode of Operation	Relevant Standard
ARH23	23 kN	automatic	– MED A.1/1.26 Release Mechanism for Liferafts Launched by a Fall or Falls – SOLAS Chapter III, as amended – LSA Code for Hooks for Liferaft Launching, as amended – MSC.81(70), as amended – USCG-EU MRA/USCG Module B number: 160.133/EC0038
ARH33	33 kN	automatic	
CAR 35	35 kN	combined	
RRH15	15 kN	on-offload	– MED A.1/1.26a Release Mechanism for Lifeboat and rescue boats – SOLAS Chapter III, LSA Code and MSC.81(70) as amended – Fully compliant with updated SOLAS requirements as per Resolutions MSC.320(89) and MSC.321(80) – Compliant with MSC.1/Circ.1392
RRH25	25 kN	on-offload	
CAR 35	35 kN	combined	
CAR F-35	35 kN	automatic	

BOATS AND DAVITS

DAVITS | LIFE- AND RESCUE BOATS | MILITARY AND PROFESSIONAL BOATS

DAVITS

LIFE RAFT AND RESCUE BOAT SLEWING DAVITS

SCM-L SERIES
- Slewing davit for life rafts up to 39 pers.
- Standard and proven design
- Easy to install
- Low cost of ownership
- Easy to operate

SCH-R SERIES
- Slewing davit for rescue boats up to 5.25 m (L.O.A.)
- Standard and proven design
- Easy to install (plug and play)
- Provided with self contained stainless steel HPU
- Easy to maintain

SCM-R SERIES
- For rescue boat handling
- Manual slewing
- Electrical hoisting

Type	Safe Working Load (SWL)	Max Boat Weight	Radius / Outreach	Operation
RESCUE BOAT SLEWING				
SCM 10–3.5 R	10 kN	1020 kg	3.5 m	manual
SCM 10–5.2 R	10 kN	1020 kg	5.2 m	manual
SCH 10–4.0 R	10 kN	1020 kg	4 m	hydraulic
SCH 10–5.2 R	10 kN	1020 kg	5.2 m	hydraulic
SCH 12–3.5 R	12 kN	1224 kg	3.5 m	hydraulic
SCH 17–4.0 R	17 kN	1733 kg	4 m	hydraulic

Type	Safe Working Load (SWL)	Max Life Raft Weight	Radius	Outreach	Operation
LIFE RAFT					
SCM 14–3.5 L	15 kN	1529 kg	3.5 m		manual
SCM 21–4.0 L	23 kN	2345 kg	4 m		manual
SCM 21–3.5 L	23 kN	2345 kg	3.5 m		Manual
SCM 33–4.0 L	36 kN	3670 kg	4 m		manual
PBR 33	36 kN	3670 kg		3.75 m	manual

Type	SWL Rescue Boat	SWL Life Raft	Radius	Operation
COMBI RESCUE BOAT / LIFE RAFT DAVITS				
SCH 23/17–4.0 LR	17 kN/1733 kg	23 kN/2345 kg	4 m	hydraulic

FEATURES AND OPTIONS

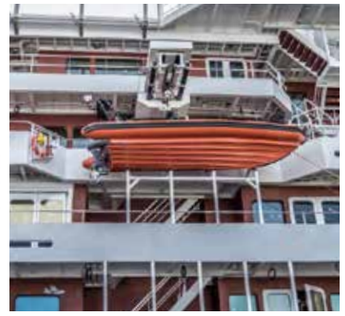
FEATURES

- Easy exchangeability of components
- Stock availability
- Proven design

(FAST) RESCUE BOAT DAVITS

PRHE SERIES
- Hydraulic pivoting and electric hoisting
- Easy to install (plug and play)
- Self-contained stainless steel HPU
- Easy to maintain
- Optional light weight version
- H Series = Hydraulic hoisting/lowering
- Foldable davit arm for easy transportation

NPDS SERIES
- Easy to install (plug and play)
- Totally enclosed system
- All components protected from wear and tear
- Innovative design
- Optional Ro-Ro certificate (NPDS 3500H)



NTDS SERIES
- Roof mounted telescopic davit
- Space-saving option
- All components protected from wear and tear
- Easy to install
- Totally enclosed system

Type	Safe Working Load (SWL)	Max Boat Weight	Hoisting	Operation
A-FRAME (FAST) RESCUE BOAT DAVITS				
PFHS 15	15 kN	1529 kg	0–18 m/min	electric
PRHE 20	20 kN	2038 kg	0–18 m/min	electric
PRHE 25-2	27.5 kN	2549 kg	0–18 m/min	electric
PRHE 25 H 2	27.5 kN	2549 kg	0–18 m/min	hydraulic
PRHE 35-2	35.3 kN	3600 kg	0–18 m/min	electric
PRH 25 H [1]	27.5 kN	2804 kg	0–48 m/min	hydraulic
PRH 35 H [1]	37.5 kN	3823 kg	0–48 m/min	hydraulic
PRH 30 [1/2]	30 kN	3059 kg	0–48 m/min	hydraulic
PRH 35 AP [1]	37.5 kN	3823 kg	0–48 m/min	hydraulic
SINGLE ARM TOTALLY ENCLOSED DAVIT				
NPDS 3500 H / NPDS 3500 HFR [1/2]	31.4 kN	3200 kg	0–18/50 m/min	hydraulic
NPDS 4000 / NPDS 4000 HFR [1]	39.2 kN	4000 kg	0–18/50 m/min	hydraulic
NPDS 6000 H [1]	58.8 kN	6000 kg	0–48 m/min	hydraulic
NPDS 1500 E	14,7 kN	1500 kg	0-18/54 m/min	full electric
TELESCOPIC DAVITS				
NTDS 1800 H	17.6 kN	1800 kg	0–18/50 m/min	hydraulic
NTDS 3500 H	31.4 kN	3500 kg	0–18/50 m/min	hydraulic

[1] High speed, optional constant tensioning plus shock absorber
[2] Ro-Ro fast rescue boat davit

FEATURES AND OPTIONS

ACCESSORIES (OPTIONS)

- Shock absorber
- Boat supports
- Ex-proof
- Heating system
- Other options available on request

FULL ELECTRIC DAVIT

DAVITS

WORKBOAT | DAUGHTER CRAFT DAVITS

PRH-AP SERIES
- Hydraulic pivoting A-frame davit with anti pendulum docking head (AP)
- Winch equipped with fully hydraulic constant tensioning system
- Hydraulically operated anti-pendulum docking head
- Increased safety for crew due to AP docking head

PFH-CT SERIES
- Hydraulic pivoting dual point davit
- Two independently operated constant tensioning winches
- Hydro-pneumatic shock absorber
- Stainless steel operating console

NTDS SERIES
- Roof mounted telescopic davit
- Space-saving option
- All components protected from wear and tear
- Easy to install
- Totally enclosed system

Type	Safe Working Load (SWL)	Max Boat Weight	Hoisting
HYDRAULIC A-FRAME DAVITS			
PRH 55 H	55 kN	5608 kg	0–18/35 m/min (hydraulic)
PHR 75 H	75 kN	7647 kg	0–18/48 m/min (hydraulic)
PRH 55 AP	55 kN	5608 kg	0–18/35 m/min (hydraulic)
PRH 75 AP	75 kN	7647 kg	0–18/48 m/min (hydraulic)
PRH 100 AP	100 kN	10197 kg	0–18/48 m/min (hydraulic)
HYDRAULIC DUAL POINT DAVITS			
PFH-CT 100	100 kN	10197 kg	0–18/35 m/min (hydraullic)
TELECOPIC DAVIT			
NTDS 12000H	117.7 kN	12000 kg	0–18/30 m/min (hydraullic)

FEATURES AND OPTIONS

ACCESSORIES (OPTIONS)

- Shock absorber
- High speed winch
- Painterline boom
- Constant tensioning system
- Ex-proof
- Other options available on request

INNOVATIVE

- Designed for daily operations
- Meeting Navy and Coast Guard requirements
- Increased operational efficiency

DAVITS

LIFEBOAT DAVITS

PFH SERIES
- Hydraulic pivoting davit for lifeboats
- Ideal for situations where height restrictions apply
- Modular built system, easy to install
- Foldable davit arms for easy transportation
- Provided with selfcontained HPU

VIP SERIES
- Gravity based davits
- Hydraulic brake system
- Low cost of ownership
- Easy to operate

Type	Safe Working Load (SWL)	Max Boat Weight	Operation
HYDRAULIC PIVOTING LIFEBOAT DAVITS			
PFH 80	80 kN	8158 kg	hydraulic pivoting/gravity lowering/electric hoisting
PFH 145	145 kN	14785 kg	hydraulic pivoting/gravity lowering/electric hoisting
PFH 180	180 kN	18354 kg	hydraulic pivoting/gravity lowering/electric hoisting
PFH 230	230 kN	23453 kg	hydraulic pivoting/gravity lowering/electric hoisting
LIFEBOAT DAVIT			
VIP 1000	123 kN	12600 kg	gravity lowering/electric hoisting

FEATURES AND OPTIONS

ACCESSORIES OPTIONS
- Converter
- Life-/rescue execution (if applicable)
- Ex-proof
- Skid mounted
- Other options available on request

INNOVATIVE
- Designed for daily operations
- Increased operational efficiency
- Meeting Navy and Coast Guard requirements

LIFEBOAT DAVITS

NPD SERIES
- Hydraulic pivoting and hydraulic hoisting/lowering
- Easy to install (plug and play)
- Totally enclosed system
- All components protected from wear and tear
- Innovative design

NTD SERIES
- Hydraulic hoisting
- Easy to install
- Totally enclosed system
- All components protected from wear and tear
- Innovative design

Type	Safe Working Load (SWL)	Max Boat Weight	Hoisting
LIFEBOAT DAVITS			
NPD 6000H	58.8 kN	6000 kg	0–5/18 m/min
NPD 11300H	110.8 kN	11300 kg	0–5/18 m/min
NPD 14800H	145.1 kN	14800 kg	0–5 m/min
TELESCOPIC DAVITS			
NTD 12000H	117.7 kN	12000 kg	0–5/18 m/min

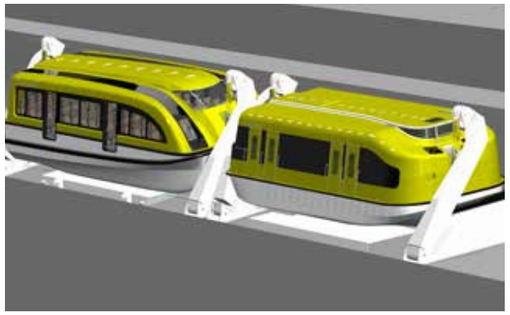
FEATURES AND OPTIONS

ACCESSORIES OPTIONS
- Ex-proof
- Heating system
- Other options available on request

DAVITS

PASSENGER VESSELS DAVITS | Cruise

VIP SERIES
- Gravity based davits
- Hydraulic brake system
- Low cost of ownership
- Easy to operate



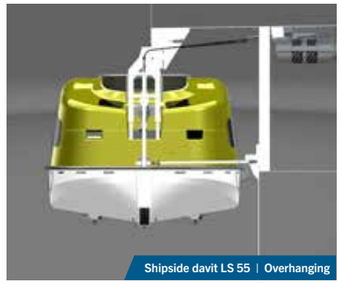
PD SERIES
- Innovative design
- Semi-gravity based, hydraulic assisted
- Easy to install (plug and play)
- A good solution if limited space

PALFINGER MARINE offers a range of innovative, compact and well-designed davits for the cruise market which maximize the available deck space on board while at the same time offering an extremely efficient installation process and minimal lifetime maintenance.

Type	Safe Working Load (SWL)	Max Boat Weight	Hoisting
PASSENGER VESSELS DAVITS			
PD 24	235.4 kN	24000 kg	0–5 m/min
VIP 23 FDL	231.4 kN	23600 kg	0–5 m/min
VIP 24 FD	231.4 kN	23600 kg	0–11.8 m/min
PD 55DM	539.4 kN	55000 kg	0–5 m/min
LS 55	539.4 kN	55000 kg	0–5 m/min
PD 55L	539.4 kN	55000 kg	0–5 m/min

Pivoting davit PD 55 DM

Pivoting davit 55 L | Free promenade deck



Shipside davit LS 55 | Overhanging

DAVITS

OFFSHORE DAVITS | Gravity

FPG SERIES
- Fixed outrigger platform davit for lifeboats
- Solid and proven design
- Easy to operate
- For life- and/or rescue boat handling

FAD 1000
- Independent integrated hydraulic system
- Gravity lowering/Electrical hoisting
- Light weight, with adjustable hook distance
- Easy to install and maintain

Type	Safe Working Load (SWL)	Max Boat Weight	Operation/Hoisting
OFFSHORE DAVITS – GRAVITY			
FPG 85-2	85 kN	8667 kg	gravity lowering/electric hoisting
FPG 120	120 kN	12236 kg	gravity lowering/electric hoisting
FPG 145	145 kN	14785 kg	gravity lowering/electric hoisting
FPG 180	180 kN	18354 kg	gravity lowering/electric hoisting
FPG 230	230 kN	23453 kg	gravity lowering/electric hoisting
FAD 1000.1	128 kN	13052 kg	gravity lowering/electric hoisting

OFFSHORE DAVITS

NRDS SERIES
- Easy to install (plug and play)
- Totally enclosed system
- All components protected from wear and tear
- Innovative design
- Hydraulic hoisting/lowering

FPR-H SERIES
- Fixed outrigger platform davit for (fast) rescue boats
- For hoisting speeds of up to 48 m/min
- Easy to operate
- Optional, equipped with wave compensation system

Type	Safe Working Load (SWL)	Max Boat Weight	Hoisting	Operation
OFFSHORE DAVITS – HYDRAULIC				
FPR 30	30 kN	3059 kg	18 m/min	electric hoisting/gravity lowering
FPR 35 H	37.5 kN	3823 kg	48 m/min	hydraulic hoisting/lowering
NRDS 3500 H	31.4 kN	3200 kg	18–48 m/min	hydraulic hoisting/lowering

LIFE- AND RESCUE BOATS

RESCUE BOATS

RSQ 450 SERIES
- Hull made out of seawater resistant aluminum or glass reinforced plastic (GRP)
- Designed for service in the most demanding environments
- 15–40 Hp outboard engines
- Complies with SOLAS regulations
- Perfect alternative for inflatable MOB's

RSQ 475 SERIES
- Inboard diesel with propeller
- Optional offload release hook
- Hull made out of seawater resistant aluminum or glass reinforced plastic (GRP)
- Complies with SOLAS regulations
- Low maintenance on the aluminum hull

Model	Dimensions	Capacity (pers. at 82.5 kg)	Weight (incl. max. pers.)	Propulsion
RSQ 450 A	4.9 x 1.8 x 1.6 m m	6	955 kg	25 hp – outboard engine (optional 15 hp/40 hp)
RSQ 450 G	4.9 x 1.8 x 1.6 m m	6	965 kg	25 hp – outboard engine (optional 15 hp/40 hp)
RSQ 475 A	5 x 2.0 x 2.3 m	6	1585 kg	32 hp – inboard diesel with propeller (optional 59 hp)
RSQ 475 G	5 x 2.0 x 2.3 m	6	1680 kg	32 hp – inboard diesel with propeller (optional 59 hp)

A = Aluminum
G = Glass reinforced plastic

OPTIONS AND ACCESSORIES

- Boat cover
- Steering console
- (Releasable) cradle
- Spare parts

FAST RESCUE BOATS

FRSQ 600 SERIES
- Hull and console made out of seawater-resistant luminum or glass reinforced plastic (GRP)
- Designed for service in the most demanding environments
- Excellent maneuverability and stability
- Inboard diesel and outboard version available
- Complies with SOLAS regulations

FRSQ 630 – NEW GENERATION
- Designed for excellent performance in rough seas
- Suitable for a wide range of operations
- Heavy duty D-section fendering
- Helm designed for safety & excellent ergonomics
- Optional self-righting bag & foam fenders
- Complies with IMO/SOLAS and NMA Offshore regulations, LSA Code as well as USCG regulation

FRSQ 700 SERIES
- Single or twin inboard diesel with waterjet propulsion
- Closed cell foam fender with a hypalon cover to absorb possible heavy impacts
- Double shock absorbing seats fitted
- Deep V-bottom construction for high speeds and stability
- Aluminum hull guarantees a long lifetime and low maintenance

FRSQ 850 SERIES
- Single or twin inboard diesel with waterjet propulsion
- Excellent maneuverability and stability
- Aluminum hull guarantees a long lifetime and low maintenance
- Closed cell foam fender with a hypalon cover to absorb possible heavy impacts
- Boat can carry up to 21 persons according to SOLAS

Model	Dimensions	Capacity (pers. at 82.5 kg)	Weight (incl. max. pers.)	Propulsion
FRSQ 600 A*	6.4 x 2.3 x 2.3 m	15	3128 kg	190 hp – inboard diesel with waterjet (optional 300 hp)
FRSQ 600 G*	6.4 x 2.3 x 2.3 m	15	3218 kg	144 hp – inboard diesel with waterjet (optional 232/258 hp)
FRSQ 700**	7.1 x 2.7 x 2.7 m	15	3338 kg	258 hp – single inboard diesel with waterjet
FRSQ 850 A	8.5 x 3.2 x 2.7 m	21	5032 kg	370 hp – single inboard diesel with waterjet (optional 440 hp)
FRSQ 850 G	8.5 x 3.2 x 2.7 m	21	5483 kg	190 hp – twin inboard diesel with waterjets (optional 292 hp)

A = Aluminum
G = Glass reinforced plastic

* Single outboard engine and twin outboard engine are also available for this boat
** Also available with single or twin inboard diesel with waterjets

OPTIONS AND ACCESSORIES

- (Fixed) VHF
- Rescue net
- Remote control offload release hook
- GPS
- EPIRB
- Spare parts

LIFE- AND RESCUE BOATS

LIFEBOATS

LBT SERIES

- Complies with SOLAS regulations
- Available in two versions: tanker or dry cargo
- Fitted with European standard equipment
- Capacity 25–150 persons
- For marine and offshore applications
- Big size seats available
- External steel parts are of 316 L quality
- Polar code approval available upon request

Cargo version (C) / Tanker version (T)	L x W x H	Max Seating (pers. at 82.5 kg)	Hook Distance	Davit Load
LBT 525 C / LBT 525 T	5.3 x 2.3 x 3.1 m	25	4.9 m	4403 / 4753 kg
LBT 650 C / LBT 650 T	6.5 x 2.3 x 3.1 m	36	6.1 m	5485 / 5935 kg
LBT 700 C / LBT 700 T	7.0 x 2.7 x 3.1 m	48	6.6 m	7216 / 7605 kg
LBT 750 C / LBT 750 T	7.5 x 2.9 x 3.3 m	68	7.1 m	8965 / 9335 kg
LBT 850 C / LBT 850 T	8.5 x 2.9 x 3.3 m	80	8.1 m	10949 / 11295 kg
LBT 935 C / LBT 935 T	9.4 x 3.6 x 3.3 m	102	9 m	13825 / 14315 kg
LBT 1090 C / LBT 1090 T	10.9 x 3.9 x 3.5 m	130	10.5 m	17406 /17906 kg
LBT 1180C / LBT 1180 T	11.8 x 4.2 x 3.7 m	150	11.3 m	21350 / 22000 kg

OPTIONS AND ACCESSORIES

- VHF radio
- SART (Search and Rescue Transponder)
- EPIRB (Emergency Position Indicating Radio Beacon)
- Engine heater
- Boat heater
- Polar package
- Spring starter/hydraulic starter

LIFE- AND RESCUE BOATS

FREE FALL LIFEBOATS

FF 1200
- Design basis DNV OS-E406/NORSOK R-002 & Solas
- 70 person capacity based on an average weight of 100 kg per person
- Superior space and comfort for person size from 1.4 m to 2.1 m and weight from 50 kg to 150 kg
- Seats with 5-point seat belts provide excellent safety and comfort
- Twin steering position
- Structural design gives the lifeboat max. strength, safety and minimum of deflection
- Unique combination of excellent positive headway and low G-forces
- High power engine, 280 hp. High speed and high bollard pull

Free Fall Boat Offshore	No. of pers.	FF Height	L x B x H	Weight Equipped	Weight Loaded
FF 1200	70	46 m*	16.7 x 3.9 x 4.5 m	21500 kg	28500 kg

*Max free fall height is 46 meter. For DNV-OS-E406 the free fall height must be confirmed project by project.

REFERENCE PROJECTS
- Johan Sverdrup (Statoil)
- Gina Krogh (Statoil)
- Martin Linge (Total)
- Ivar Aasen (DNO)

Free Fall Davits Offshore	Installation Type	Davit Weight	2 Boats	3 Boats	4 Boats	5 Boats	6 Boats
LA 1200 SU	Fixed		75000 kg	101000 kg	127000 kg	152900 kg	178800 kg
LA 1200 SU FL	Floating		82800 kg	111500 kg	140100 kg	168800 kg	197400 kg
LA 1200 HO	Rig type	44000 kg	one boat per system				
LA 1200 H	Ship type	42200 kg	one boat per system				

TYPICAL APPLICATIONS

- Platforms of any type
- Drillships
- FPSOs
- Car carriers
- Any large complement ship
- VLCCs
- VLOCs
- LNGCs
- LNG-FPSOs

FF 1200 / Triple LA 1200 SU system

FF 1000
- 60 person capacity MSC272(85)
- Freefall height 36 m
- Unique combination of positive headway and low G-forces
- Strength tested from 47 m

LBF
- Complies with SOLAS regulations
- Freefall height between 16–32 m
- Capacity from 14–60 persons
- Available in two versions: tanker or dry cargo
- European standard equipment

Free Fall Boat Offshore	No. of pers.	FF Height	L x B x H	Weight Equipped	Weight Loaded
FF 1000 S M2	60	36 m	12.6 x 3.4 x 4.3 m	10866 kg	15816 kg

Cargo Version (C) / Tanker Version (T)	L x W x H	Max Seating (pers. at 82.5 kg)	Max Drop Height	Davit Load
LBF 490 C / LBF 490 T	4.9 x 2.4 x 3.1 m	16	16 m	3 963 / 4 313 kg
LBF 580 C / LBF 580 T	5.8 x 2.6 x 3.1 m	26	17 m	5 646 / 5 976 kg
LBF 680 C / LBF 680 T	6.8 x 2.7 x 3.2 m	31	22 m	6 440 / 6 740 kg
LBF 750 C / LBF 750 T	7.5 x 2.7 x 3.2 m	35	22 m	7 374 / 7 724 kg
LBF 850 C / LBF 850 T	8.8 x 2.9 x 3.3 m	40	25 m	8 322 / 8 722 kg
LBF 950 C / LBF 950 T	9.5 x 3.2 x 3.3 m	51	32 m	10773 / 11448 kg

Type	Safe Working Load (SWL)	Max Boat Weight	Operation
FREE FALL DAVITS			
JYF 55	59 kN	6016 kg	free fall launching or hydraulic lowering
JYF 75	75 kN	7647 kg	free fall launching or hydraulic lowering
JYF 90	90 kN	11523 kg	free fall launching or hydraulic lowering
JYF 105	113 kN	11523 kg	free fall launching or hydraulic lowering

OPTIONS AND ACCESSORIES

- Boat heater
- Emergency spring starter
- Engine heater
- Hydraulic starter
- SART (Search and Rescue Transponder)
- EPIRB (Emergency Position Indication Radio Beacon)
- Other options available on request

LIFE- AND RESCUE BOATS

CRUISE LIFEBOATS AND TENDERS | NEW GENERATION

PALFINGER MARINE offers a full range of partially enclosed lifeboats and combined tender/lifeboat systems for any kind of passenger vessel. All can be delivered with our customised davit systems.

CTL 38 AND CTL 38 SV

CTL 38 is one of the most sold tender lifeboats in the world, offering a comfortable ride, low running costs and good manoeuvrability. It is offered as a standard version, the CTL 38, and a shortened version, the CTL 38 SV.

MPC 29 AND MPC 32

The PALFINGER MARINE MPC series consists of two compact 150 people partially enclosed lifeboats, offering optimal manoeuvrability, spacious interior and user friendliness

THE NEW CTL 49 AND CTL 57

New developed tender lifeboats with latest innovations in design and technics. The largest tender lifeboat in the market with almost countless options for individual customization.

THE NEW MPC 39 AND MPC 49

With its capacity of up to 450 persons it is the largest lifeboat in the market. The unique double deck design provides safe boarding and comfortable seating. Advanced safety by design.

Type	No. of pers./LIFEBOAT	No. of pers./TENDER	L x W x H	Weight Loaded	Hook Distance
CTL 38	150	120	12 x 4.7 x 3.9 m	23600 kg	11.2 m
CTL 38 SV	150	120	11.2 x 4.7 x 3.9 m	23600 kg	10.5 m
CTL 49	250	200	15 x 5.5 x 4.2 m	39000 kg	14.2 m
CTL 57	270	220	17.5 x 5.7 x 4.2 m	43000 kg	16.7 m
MPC 29	150		8.8 x 4.5 x 3.4 m	17100 kg	8.5 m
MPC 32	150		9.6 x 4.5 x 3.4 m	17100 kg	8.5 m
MPC 39	330		12.5 x 5.5 x 4.2 m	38000 kg	11.5 m
MPC 49	450		15 x 5.5 x 4.2 m	53000 kg	14.2 m

OPTIONS AND ACCESSORIES

- Extras for low temp areas (POLAR Code compliance)
- Tailored designs with your or our architects
- Wood applications on floors, walls or other interiors
- Fast ferry comfort seats
- Restroom facilities with hot and cold water
- Entertainment systems with sound and screens
- AC systems and/or heatings
- LED Mood lights in cabin or outside
- USB charging ports at each seat row
- Panoramic windows in ceiling
- Bar on board

MILITARY AND PROFESSIONAL BOATS

DAUGHTER CRAFTS

FRSQ 850 A FRDC SERIES
- Complies with UKOOA/SOLAS regulations
- Can be equipped and designed as workboat, patrol boat or for SAR purposes
- Both hull and cabin made out of seawater-resistant
- Both in single- or twin inboard diesel propulsion

FRSQ 1000 A FRDC
- Complies with UKOOA/SOLAS regulations
- Delivered with design approval and certificate of inspection
- Deep V-bottom construction suitable for high speeds and high stability in any offshore environment
- Excellent reachability of the engines for maintenance purposes
- Both hull and cabin made out of seawater resistant aluminum

FRSQ 1200 A FRDC SERIES
- Twin inboard diesel with waterjet propulsion
- Can be equipped and designed as workboat, patrol boat or diving support boat
- The coxswain and navigator have access to an ergonomic cockpit
- Three shock absorbing seats are installed
- Cushioned covered seats are available for twelve survivors

Model	Dimensions	Capacity (pers. at 82.5 kg)	Weight (incl. max. pers.)	Propulsion
FRSQ 850 A FRDC	8.5 x 3.3 x 3.3 m	10	6000 kg	190 hp – twin inboard diesel with waterjets (optional 292 hp)
FRSQ 1000 A FRDC	10.4 x 3.5 x 3.3 m	15	7261 kg	258 hp – twin inboard diesel with waterjets (optional 292 hp)
FRSQ 1200 A FRDC	12 x 3.5 x 3.6 m	15	8750 kg	258 hp – twin inboard diesel with waterjets (optional 370)

A = Aluminum

OPTIONS AND ACCESSORIES

- Rescue net horn
- Radar
- Horn
- GPS
- Spare parts
- Airconditioning

WORKBOATS

FRSQ 670 A WB
- Designed for many different applications because of the high stability and large deck area
- Hull shape guarantees a stable boat, ideal for different deckloads and towing purposes
- Propulsion is an inboard diesel engine in combination with a propeller shaft
- Strong, less damage responsive, more maintenance-friendly and made of heavy duty aluminum

FRSQ 850 A WSV
- Available as windfarm or workboat version
- The closed cell foam fender with a hypalon cover absorbs possible heavy impacts
- Twin inboard diesel engines with waterjet propulsion
- Aluminium used guarantees the low maintenance costs and the long lifetime of the hull
- Can be executed in full redundant setup for optimum reliability

FRSQ 1200 A WB
- FRSQ tug especially designed for oil spill recovery and towing purposes
- Modifications to the hull can be easily implemented
- The coxswain and navigator have access to an ergonomic cockpit
- Three shock absorbing seats are installed
- Twin inboard diesel with waterjet propulsion, bollardpull up to 4.1 t

Model	Dimensions	Capacity (pers. at 82.5 kg)	Weight (incl. max. pers.)	Propulsion
FRSQ 670 A WB	6.9 x 2.7 x 2.7 m	6	2305 kg	110 hp – single inboard diesel with propeller
FRSQ 850 A WB	8.5 x 3.1 x 2.7 m	15	4788 kg	164 hp – twin inboard diesel with waterjets (optional 292 hp)
FRSQ 850 A WSV	8.5 x 3.2 x 2.7 m	21	5033 kg	370 hp – single inboard diesel with waterjets (optional 440 hp)
FRSQ 950 A WB/Tug	9.5 x 3.5 x 3.3 m	3	8050 kg	279 hp – twin high thrust waterjets (optional 440 hp)
FRSQ 1000 A WB	10.4 x 3.5 x 3.3 m	15	7260 kg	200 hp – twin inboard diesel with waterjets (optional 292 hp)
FRSQ 1200 A WB	12 x 3.5 x 3.4 m	15	10485kg	258 hp – twin inboard diesel with waterjets (optional 440 hp)

A = Aluminum

OPTIONS AND ACCESSORIES

- Additional seats
- Towing hooks / Bolders
- Rescue equipment
- VHF
- GPS
- Railings

MILITARY AND PROFESSIONAL BOATS

RIGID BOATS

FRSQ 850 A NAVY
- Multirole missions
- High maneuverability due to twin waterjet propulsion
- Protective fender to deaden hard side impacts
- Tailor-made solutions
- Excellent reachability of the engines for maintenance purposes

FRSQ 1000 A NAVY
- Deep V-bottom construction, suitable for high speeds and high stability in any marine environment
- Closed cell foam fender with a polyurea top-layer, possible to repair on-site
- Excellent reachability of the engines for maintenance purposes
- Many possibilities to customise the layout of the craft
- Recovered by single arm davit or stern entry system

PB 1500 A NAVY
- Specially designed for professional use such as industrial activities, coast guards, military or rescue work for high speed
- V-shape hull provides high stability during navigation and good seakeeping in hostile marine environment
- Many possibilities to customise the layout of the craft
- Hull and cabin made out of seawaterresistant aluminum
- Special attention is paid to local reinforcements in highly loaded areas

Model	Dimensions	Capacity (pers. at 82.5 kg)	Weight (incl. max. pers.)	Propulsion
RSQ 475 A Navy	5 x 2 x 2.3 m	6	1585 kg	32 hp – inboard diesel with propeller (optional 59 hp)
RSQ 475 A Navy	6.2 x 2.3 x 2.2 m	15	3085 kg	90 hp – single outboard (optional 250 hp)
PB 700 A Navy	7.1 x 2.7 x 2.7 m	10	3428 kg	190 hp – twin inboard diesel with waterjets (optional 250 hp)
FRSQ 850 A Navy	8.6 x 3.2 x 2.7 m	21	4953 kg	190 hp – twin inboard diesel with waterjets (optional 250 hp)
FRSQ 1000 A Navy	10.4 x 3.5 x 3.3 m	15	7400 kg	232 hp – twin inboard diesel with waterjets (optional 292 hp)
PB 1500 A Navy	15.1 x 4.8 x 5.9 m	17	13500 kg	400 hp – twin inboard diesel with waterjets (optional 550 hp)

A = Aluminum

OPTIONS AND ACCESSORIES

- Different type of seats
- Defense systems
- Armor
- Communication equipment
- Spare parts

RIGID INFLATABLE BOATS

PB 500 RIB
- Hull is made of GRP
- Excellent reachability of the engine for maintenance
- Inflatable tubes or foam filled tubes
- Single inboard diesel, coupled to a waterjet
- Single point lifting hook or 4-point lifting sling
- For SAR or patrol purposes

PB 700 RIB
- Inflatable or foam filled fender
- Several options of seating arrangements
- In- or outboard propulsion
- Suitable for stern entry recovery
- For SAR, patrol or interception purposes
- Construction built in GRP or aluminium
- Many possibilities for customisation

PB 1100 RIB
- Inflatable or foam filled fender
- Special made V-shaped hull provide high stability during high speed manoeuvring and excellent seakeeping in hostile marine environments
- Designed for recovery by davit or stern entry system
- Lifting sling or single point lifting hook
- Several options of seating arrangement
- Special attention is paid to local reinforcements in highly loaded areas

Model	Dimensions	Capacity (pers. at 82.5 kg)	Weight (incl. max. pers.)	Propulsion
PB 500 RIB	5.1 x 2.2 x 2 m	5	1777 kg	110 hp – single inboard diesel (optional 190 hp)
PB 700 RIB	7.3 x 2.9 x 2.7 m	10	3100 kg	90 hp – twin single inboard or outboard (optional 200 hp)
PB 1100 RIB	11 x 2.9 x 2.9 m	15	5900 kg	200 hp – twin inboard our outboard (optional 350 hp)

A = Aluminum

OPTIONS AND ACCESSORIES

- Boat heater
- Emergency spring starter
- Engine heater
- Hydraulic starter
- Spark arrestor
- Console cover
- Communication equipment
- T-top

SERVICE

AFTER SALES | SERVICE

GLOBAL PRESENCE

With 25 service stations worldwide we have direct access to most of the key ports in the world.

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SERVICE

GLOBAL PRESENCE

PALFINGER MARINE has 25 fully owned sales and service hubs in Europe, Asia, the Americas, the Middle East and Africa, in addition to our network of certified service partners. For our customers, this means 100 % global service coverage, fast response times and efficient service execution.

SERVICE PORTFOLIO

INSPECTION AND MAINTENANCE
- Global coverage
- Multi-brand service
- Yearly and 5-yearly inspections
- Preventive maintenance
- Pre-inspection
- Load testing
- Supervision

SPARE PARTS AND REPAIR
- Global coverage
- Spare parts kits
- 20 years spare parts guarantee / availability
- Hook exchange
- Spare parts availability for all PALFINGER MARINE brands

REFURBISHMENT AND UPGRADES
- Modifications and modernisations
- Refurbishment on-site or in the workshop
- GRP repair and re-painting

HOOK REPLACEMENT
- Deadline expires 1st July 2019
- Hook replacement programs
- Compliance with the latest IMO regulations
- Minimum impact on daily operations

AGREEMENTS
- Global coverage
- Customised / tailored fleet (service) agreements including training, spare part kits, fixed prices, annual and 5-yearly inspections
- Multi-brand service

TRAINING
- Global coverage
- Operator and maintenance training
- In-house and on-site training
- DNV-GL certified training centres
- Hands-on coaching
- Customised training sessions

PROVIDING SERVICE TO 25+ OWN BRANDS

PALFINGER MARINE has acquired and built up an impressive portfolio of brand names along the way.
The company counts 25 fully owned service stations offering service to all 25+ own brands.
Specially trained engineers and experts with extensive know-how ensure fast on-site support around the globe.

Our service specialist for davits and boats also offer multi-brand service.

BRANDS PART OF PALFINGER MARINE:

Harding
Norwegian Deck Machinery (NDM)
Bergen Group Dreggen
Ned-Deck Marine
Fast RSQ
Watercraft America
Schat-Harding
Schat Davits Ltd
Schat-Davit Company
Schat Watercraft Group
Bjorke Batbyggeri
Davit-Company
Georg Eide Sønner AS
William Mills Marine
MASECO
Mulder & Rijke
Beiyang Boatbuilding Co.
Edgewater Machine & Fabricators Inc
Noreq
NoreqFender
NoreqActa
Watercraft
Viking Marine
Waterman
Fiskars
Acta
LAR

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