



**PALFINGER**

# GOVERNMENTAL AND PROFESSIONAL BOATS

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HSBO 2021

# TOPIC OVERVIEW

1. Palfinger history
2. Marine segments
3. PALFINGER boats production locations
4. Boats segments
5. PALFINGER engineering process – new design
6. Palfinger latest Governmental boats developments
7. Questions &Answers

# 1. PALFINGER HISTORY

The international mechanical engineering company PALFINGER is the world's leading provider of innovative crane and lifting solutions.



# LIFTING SOLUTIONS FOR EVERY CHALLENGE



LOADER  
CRANES



TIMBER/RECYCLING



HOOKLIFTS &  
SKIPLOADERS



TAIL LIFTS



MARINE  
CRANES



OFFSHORE  
CRANES



PASSENGER  
SYSTEMS



ACCESS  
PLATFORMS



TRUCK  
MOUNTED  
FORKLIFTS



RAILWAY  
SYSTEMS



WIND  
CRANES



DAVITS



BRIDGE INSPECTION  
& MAINTENANCE



TURNKEY  
SOLUTIONS



WINCHES



BOATS

# GLOBAL PLAYER WITH LOCAL FOOTPRINT



## FACTS AND FIGURES



**>11,000**

### WORKFORCE IN 2019

In 2019 the company had 11,126 employees.



**>80**

### MANUFACTURING AND ASSEMBLY, SALES AND SERVICE LOCATIONS

The PALFINGER Group is active in 31 countries and has 36 manufacturing and assembly locations in Europe, the CIS, North and South America and Asia.



**>5,000**

### SERVICE POINTS

A worldwide sales and service network with more than 5,000 service points in over 130 countries on all continents ensures optimum customer proximity.



**88**

### YEARS OF EXPERIENCE

Established in 1932 and headquartered in Bergheim (Austria) the company has for many years been among the leading international manufacturers of hydraulic lifting solutions.

# LIFETIME SERVICE AS KEY FOR TCO AND RELIABILITY

**PALFINGER**

## GLOBAL NETWORK

High quality of our network through Trainings & Standards.



## SERVICE & REPAIR

Maintenance and regular service extend the life of the product and ensure maximum safety.

## SPARE PARTS

High availability in original spare parts with high quality standards make the difference for a high product life cycle.



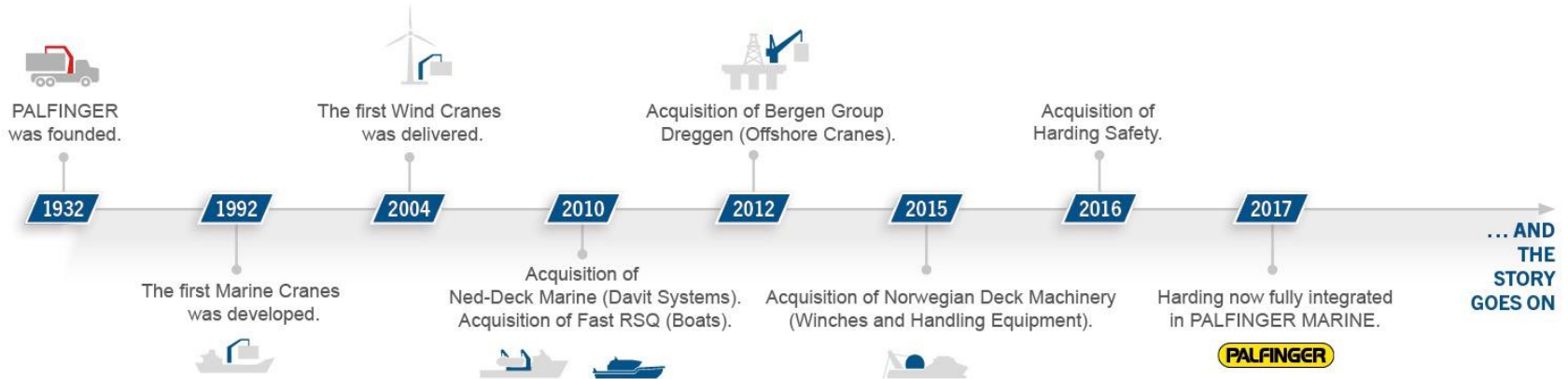
## SERVICES & PRODUCTS

A wide range of specially developed services as well as innovative software and hardware solutions (e.g. PALFINGER Smart Eye) to ensure maximum uptime.

## **2. MARINE BUSINESS**



# MILESTONES



# SALES AND SERVICE NETWORK



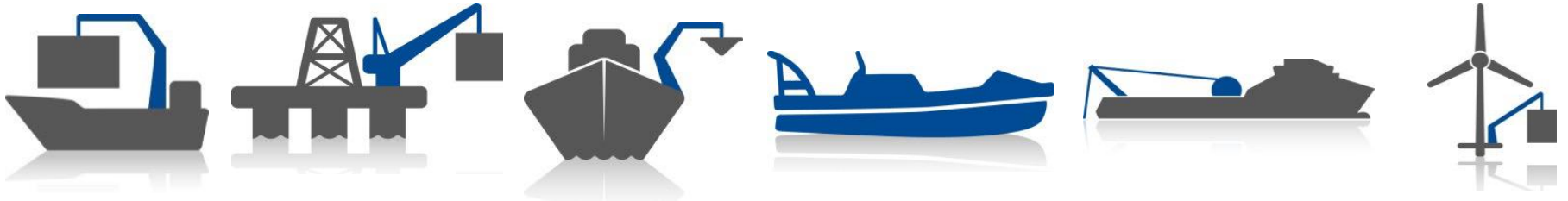
With more than 25 service stations worldwide, PALFINGER has direct access to most of the key ports in the world.



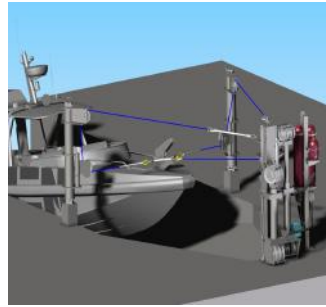
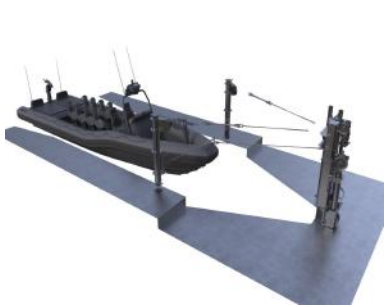
# SERVING ALL MAJOR MARITIME SEGMENTS



# PALFINGER MARINE PRODUCTS



# STERN ENTRY SYSTEMS



## **3. BOAT PRODUCTION PLANTS**

# PALFINGER BOATS VIETNAM



- Plot 6,500 m<sup>2</sup>, office and workshop 2,500 m<sup>2</sup>
- Over 150 employees
- GRP boats production
- From Q2 2016 start producing aluminium boats
- Extension of workshop from 2,500m<sup>2</sup> to 6,000m<sup>2</sup> to be realized before Q3 2016



# PALFINGER BOATS THE NETHERLANDS



- Plot 2,500 m<sup>2</sup>, office and workshop 2 x 1,100m<sup>2</sup>
- 80 employees
- 150 boats sold in 2015
- Mainly aluminum boat production up to 15 m
- 1600 m<sup>2</sup> land purchased to expand in future





## **4. GOVERNMENTAL AND PROFESSIONAL BOATS SEGMENTS**

# SERVING VARIOUS SEGMENTS



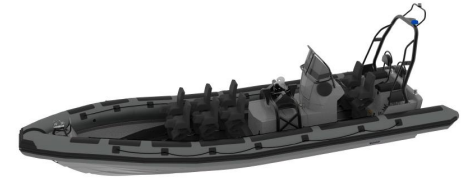
Fire-Fighting



Police



Navy



Coast Guard



Army



Special Forces



# **5. PALFINGER NEW DESIGN PROCES**

# ENGINEERING PROCESS



# ENGINEERING PROCES



**ENGINEERING STEPS**  
 ENGINE TYPE: 2500RUC (4-CYLINDER)  
 POWER: 250 HP  
 (No gearbox was associated with engine)

Shaft length: 1174

Shaft diameter: 110 mm  
 - 110 mm diameter  
 - 110 mm diameter  
 (of shaft)

**DETAIL 'A'**  
 Seal all around with Skaflex 201

**SECTION 'B-B'**  
 Use Lockite 240  
 Seal with Skaflex 201

**DETAIL 'C'**  
 Use Lockite 240  
 Target Socket head Bolt M10 90mm

**DETAIL 'D'**  
 Welding ass. FR50 700 see JFP-100047

**SECTION 'E-E'**  
 Torque Spindle nut 115 Nm  
 Torque hex bolt M12 100Nm  
 Welding ass. FR50 700 see JFP-100047

**DETAIL 'F'**  
 Torque Socket head Bolt M10 90mm  
 Use Lockite 240

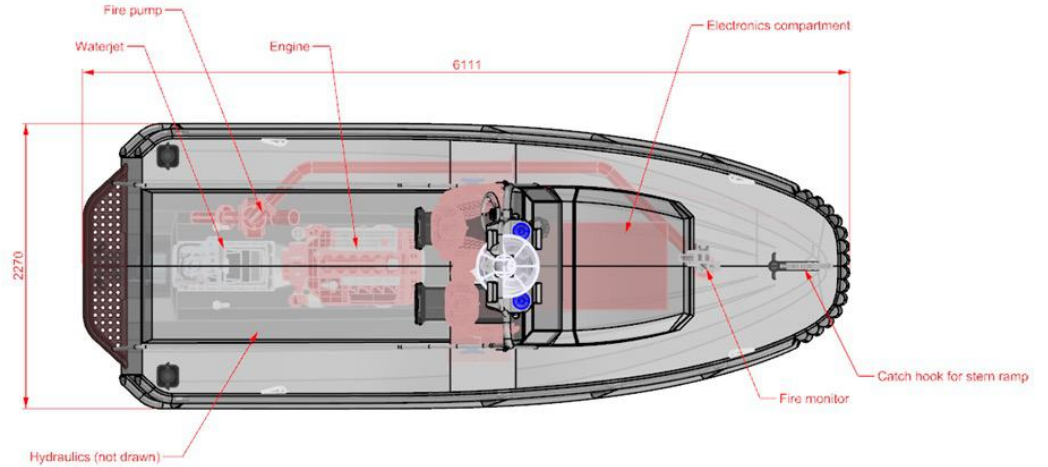
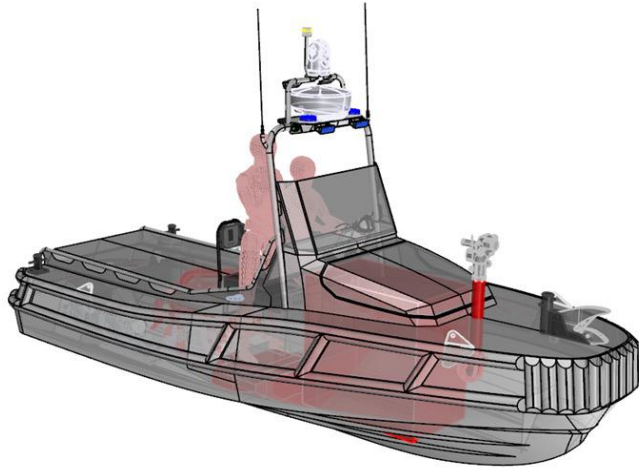
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**RSQ 700A PROPULSION SYSTEM (250HP)**

**PALFINGER**

Part No. 80010 201.12.05  
 Rev. 01  
 Date: 01.12.2014  
 Drawing No. 80010 201.12.05  
 Part No. 80010 201.12.05  
 Rev. 01  
 Date: 01.12.2014  
 Drawing No. 80010 201.12.05

# SPECIALIZED BOATS



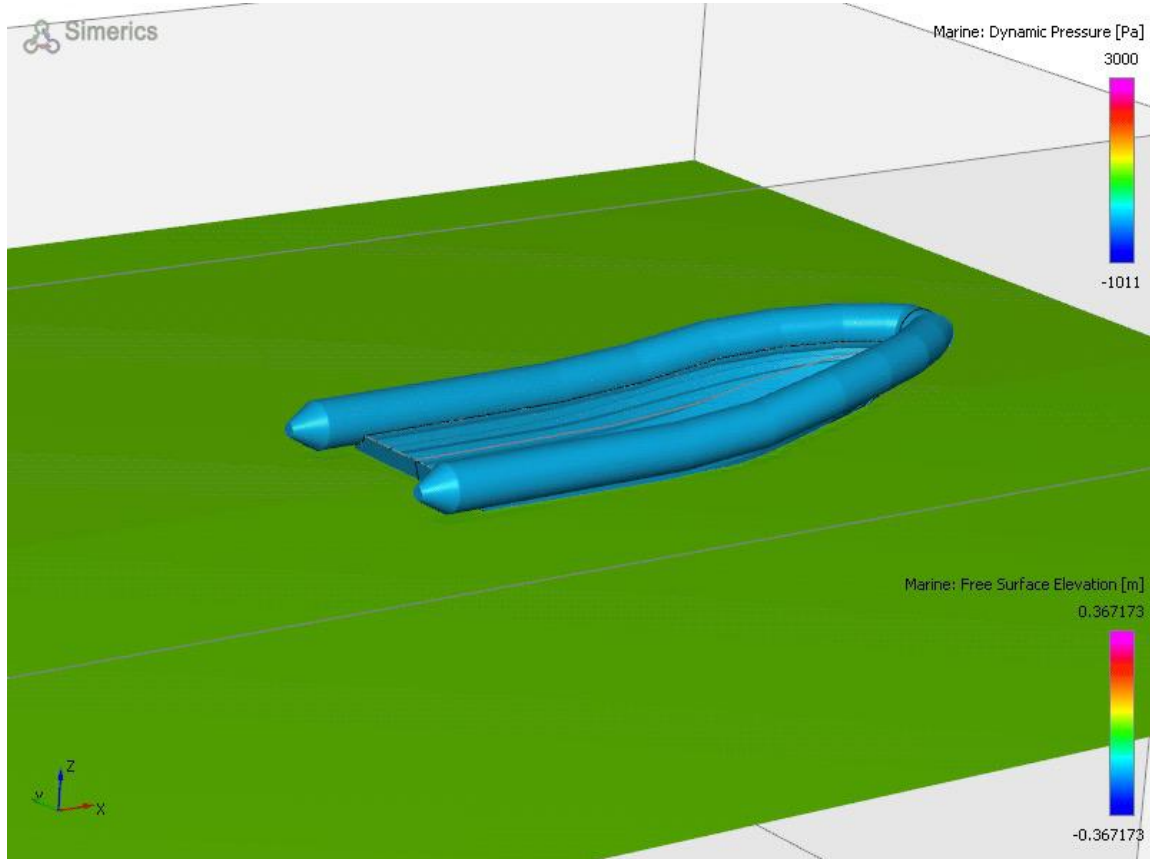
PALFINGER new design process

# PB 750 G WATER JET VERSION



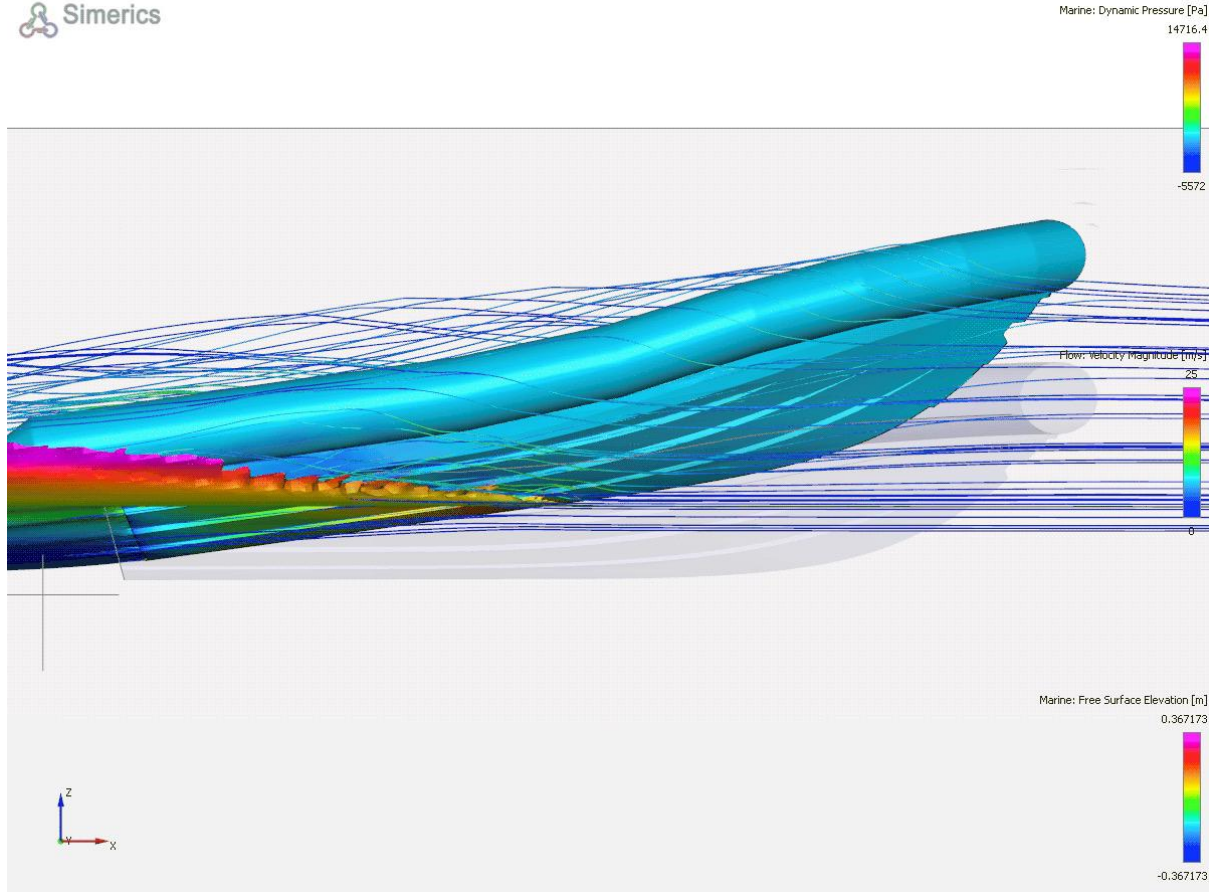


# COMPUTATIONAL FLUID DYNAMICS I





# COMPUTATIONAL FLUID DYNAMICS II



# COMPUTATIONAL FLUID DYNAMICS III

- Hydrodynamic resistance prediction
- Aerodynamic prediction
- Dynamic stability assessment – spray rail
- Prediction of flow, trim and resistance under water
- Discover potentially costly design errors
- Saves time and costs

## **6. LATEST GOVERNMENTAL DEVELOPMENTS**

## PB 700 G RIB



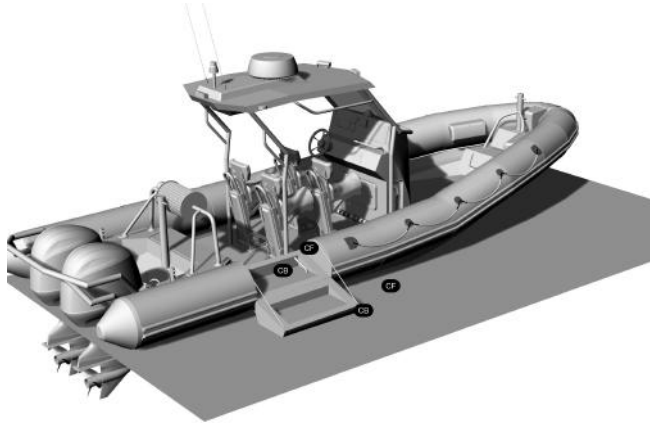
- 7.0M – SAR RIB
- Single inboard diesel water-jet / Stern Drive / Twin Outboard
- 2 pcs. Diving doors
- Speed 30 knots with 3 persons



# PB 750 G RIB OUTBOARD / WATER-JET / STERNDRIVE



- PB 750 G RIB SAR
- 7.5M RIB
- Twin outboard or water-jet
- 35 Knots with 4 pers.





**PB 750 G RIB**

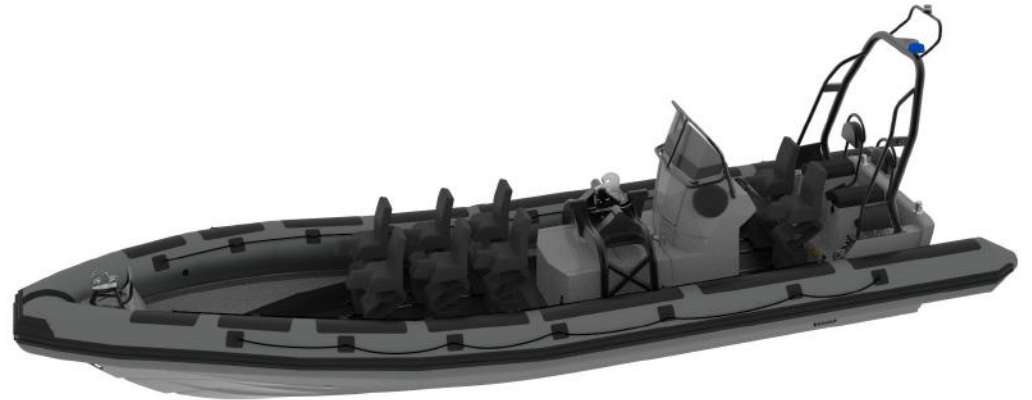
**PALFINGER MILITARY  
& PROFESSIONAL  
BOATS**

**LIFETIME EXCELLENCE**

## PB 900 G RIB OUTBOARD / WATERJET / STERNDRIVE



- PB 900 G RIB SAR
- 9M RIB
- Single quick release hook with AP head
- 10 persons on mitigation jockey seats
- 40 knots with 10 persons





## FRSQ 850 A FIFI TWIN INBOARD DIESEL



- Based on our existing & proven model PB 850 ALU TID DEF – 10 pcs. SG Navy
- Twin inboard diesel waterjet
- Speed with 3 pers. 40 knots
- Self-Righting
- FIFI by use of extra PTO & Waterpump on engine & hydraulic pump. Full deck space available and most reliable system
- Emergency situation, 21 persons in the boat (SOLAS), and additional 28 pcs. divided over the 3 life-rafts







**FRSQ 850 A TID FiFi**  
**FAST RESPONSE**  
**RESCUE &**  
**FIRE-FIGHTING**  
**BOAT**

LIFETIME EXCELLENCE

# FRSQ 850 A FIFI TWIN INBOARD DIESEL - IMPROVEMENTS



## PB 850 A LAW ENFORCEMENT



- Twin inboard diesel water-jet
- 8.46M Defence execution
- DNV Drawing Hull approval
- 40 knots with 3 pers.



**PB 850 A TID  
LAW ENFORCEMENT**

**PALFINGER  
GOVERNMENTAL &  
PROFESSIONAL  
BOATS**

**LIFETIME EXCELLENCE**





# PB 850 A AMBULANCE / PILOT BOAT



8.5M Ambulance multi purpose boat

- Self-Righting
- Twin inboard
- Speed with 3 pers. up to approx. >35Kn



# 7. QUESTIONS & ANSWERS

# CONTACT

**PALFINGER**

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**THANK YOU FOR  
YOUR ATTENTION!**