

**PALFINGER**

LIFETIME EXCELLENCE

# AFTER SALES & SERVICE RAILWAY SYSTEMS





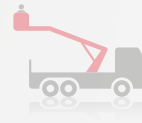
## **PALFINGER RAILWAY SERVICE**

### **A PARTNERSHIP THAT LASTS THE ENTIRE PRODUCT LIFETIME**

- Service is of top priority for PALFINGER Railway. Our extensive global service network allows us to be close to our customers, wherever they may be in the world.
- We offer rapid, professional and unbureaucratic support for all technical issues.
- Customer-focused thinking and flexibility are key strengths of our highly qualified and experienced team of technicians.
- With a long product lifecycle and high cost efficiency, PALFINGER products are highly regarded the world over.
- The PALFINGER Railway service team provides you with support from the commissioning phase and beyond, handling training, servicing and repairs. We also adapt the equipment to your local requirements and perform upgrades for a second product lifecycle.







# FOR US, “**LIFETIME EXCELLENCE**” MEANS DELIVERING THE VERY BEST PERFORMANCE AS STANDARD.

LIFETIME EXCELLENCE is our promise. Our central message. The core of our brand. For our customers, it means uncompromising top performance. The most cost-effective, reliable and innovative lifting solutions in a global network of professional service partners – for the lifetime of the product.

## EXCELLENCE RELIABILITY & EXPERTISE

The premium quality and high capacity of our products, durable components and outstanding workmanship, global service dependability and the stability and strength of the company make PALFINGER a reliable partner for professionals.

## SUPPORT

## EXCELLENCE SERVICE & LOCATIONS

The combination of outstanding products, a sharp customer focus and expert service makes up the overall concept behind PALFINGER, enhanced by a global dealer network and local sales and service partners.



### EXCELLENCE ECONOMY & EFFICIENCY

PALFINGER products boast an outstanding price-performance ratio. The high level of productivity, ease of use and tight-knit service network mean that an investment in a PALFINGER product more than pays for itself over the product's service life.

### PERFORMANCE

### EXCELLENCE INNOVATION & FLEXIBILITY

PALFINGER is committed to leadership in innovation. In the past, ground-breaking developments have revolutionised products, and intelligent system solutions and unique functionality from PALFINGER will continue to shape the industry and new product developments in the future, too.

### SAFETY

### ON-SITE SERVICES

### EXPERTISE



# COMMISSIONING



In order to be able to guarantee optimum performance of PALFINGER products, the following activities are performed by the manufacturer customer service team during commissioning:

- Checking of signal exchanges with the carrier vehicle and between other PALFINGER equipment installed on the same vehicle.
- Adjustment of safety-relevant systems, such as height limitation and opposite track blocking
- TÜV approval and handover to customer
- Operator training

Commissioning by the manufacturer guarantees that devices are operated safely and in the most effective way.



Optimised lifting capacity/outreach of the machine in terms of stability according to customer specifications.  
Consideration of the following criteria:

- Slewing angle
- Track cant
- Vehicle at standstill or creep speed
- Position of support legs
- Vehicle frame deflection
- Detachable counterweight
- If applicable - further PALFINGER units on the same vehicle
- Depending on the vehicle concept - further relevant parameters



# TRAINING



In a competitive global environment, specialist expertise is a key factor for success. The PALFINGER Railway training team puts its knowledge at your fingertips. Increased efficiency and safety through continuous further training.

We combine products, activities and services to share knowledge:

- Clear training methods and materials
- Skilled trainers and contacts
- Modern, practical training systems in company-owned training centre
- Progressive course programme to build trainee knowledge

Greater knowledge, more benefits and better application of knowledge for:

- Operators and users
- Internal and external service technicians
- Operator service staff
- Maintenance staff





## TO TRAIN

As a leading global specialist, PALFINGER possesses wide-ranging technological expertise.

Trainees receive individual training in small groups to learn the basics, gain a fundamental understanding of key principles and develop expert knowledge.

Training is provided at the company-owned training centre in Salzburg or at the customer's own site.

## TO UNDERSTAND

The modular training programme is designed to develop technical understanding and give participants the skills they need to solve problems, whether the participant is a newly recruit to be qualified or an established, experienced technician.

Practical learning exercises effectively convey and allow participants to understand the learning content.

→ e-learning with online access to PALFINGER education modules



## TO APPLY

By accompanying the customer on site and collaborating closely, the operators learn to unlock the full potential of PALFINGER devices.

- The knowledge acquired in the theoretical element of the course is put into practice here
- Support during use; identification of issues arising during everyday use, as well as resolutions for these issues
- Product and customer-specific training for workshop staff



# SERVICE



PALFINGER Railway supports servicing and maintenance work, no matter whether it is performed by the PALFINGER customer service team or the customer's own technicians. Planned measures are better than unplanned breakdowns.

- Regular servicing and inspections extend the service life of the device and guarantee safety for the user.
- Early identification and repair of damage, and the performance of preventive maintenance, increase device availability.
- In order to ensure the continuity of maintenance work, PALFINGER Railway offers a range of optional service contract programmes.
- If a backlog of repairs or servicing work arises for a device, PALFINGER will be happy to carry out this work following a prior assessment. Request a quotation from PALFINGER!





### LOCAL SERVICE

Technicians have received high-level training to enable them to work in our customers' environments using all of the appropriate personal protective equipment.



### TELEPHONE SUPPORT

An experienced team is on hand to provide advice and assistance. Whether you have technical questions, or need to request spare parts or documentation, the PALFINGER Railway team will be happy to help.



### MOBILE SERVICE

If fast on-site assistance is required, you can count on us. All common spare parts are available in our mobile workshops at all times. This enables us to provide you with on-site support quickly and easily through our comprehensive maintenance and repair services.

# REPAIRS



If a product becomes damaged over time, you can rely on the extensive PALFINGER Railway service network! Our employees will provide you with fast, competent support on site:

- Our team benefits from extensive training, has access to all data and uses original spare parts, all of which guarantee skilled repairs.
- Any design improvements are incorporated into original documentation, such as the electronics and hydraulics plans, as well as the spare parts catalogue, as necessary.
- The manufacturer's technicians are in the best position to carry out professional repairs.



# MODIFICATIONS



If our customers' requirements change, if adjustments need to be made to accommodate local circumstances or if our customers simply want to improve efficiency, PALFINGER RAILWAY is pleased to offer modification services.

- Requirements for vehicles and devices that are used for maintenance and repairs often change over time. Various attachments are available, and changing the field of application or specialising in certain applications can facilitate increased efficiency by making improvements to the product.
- The manufacturer's competent staff and the availability of a complete database guarantee high-quality, safe modifications to the device. A device can be adapted to suit virtually any customer requirements.

Adapted designs increase versatility and maximise efficiency.

# CRANE ATTACHMENTS

**AN EFFICIENT AND EFFECTIVE WAY TO SIGNIFICANTLY  
INCREASE THE VERSATILITY OF YOUR CRANE**

PALFINGER Railway offers an extensive range of attachments. Equipping a crane with the right accessories turns it into a multifunctional tool and means it can work even more efficiently. High-quality, perfectly coordinated accessories support our customers and help them to achieve maximum performance. Accessories can be ordered at any time.

Our service team will be happy to provide a personalised quotation including an assessment of technical feasibility.

## Extract from accessories list:



**AUGERS**  
TO PREPARE MAST FOUNDATION HOLES

Ideal for preparing foundations for masts of overhead cables and signaling systems. The augers are available in different diameters.



**PILE DRIVERS**  
TO DRIVE MAST FOUNDATIONS  
INTO POSITION

Various types of pile drivers (impact or vibration type) can be fitted to suitable crane models to ram mast foundations into position.



**CABLE WINCHES**  
TO IMPROVE HANDLING OF PARTS

Cable winches facilitate the handling of bulky parts, for example installing masts below existing catenary systems.





**WORKMAN BASKETS**  
FOR WORKING ON OVERHEAD WIRING

Workman baskets are an ideal tool, especially for working on catenary systems. Fixed or slew-able workman baskets are used depending on the field of application.



**BRANCH SAWS**  
TO CUT THE STRUCTURAL CLEARANCE  
OUTLINE ALONG THE LINE

Branch saws or even branch shears allow the clearance outline to be cut. The cabin offers optimum protection for the operator.



**MULCHERS**  
TO REMOVE VEGETATION ALONG THE LINE

The use of mulchers to remove vegetation is both efficient and environmentally friendly.



**SNOW BLOWERS**  
TO CLEAR AREAS OF SNOW

Snow blowers fitted on the crane boom enable surfaces and paths alongside the vehicle to be cleared.



**CLAMSHELL BUCKETS**  
TURN A CRANE INTO A VERSATILE MACHINE

The universal clamshell bucket is ideal for day-to-day digging and loading applications.



**BULK MATERIAL GRABS**  
FOR TRACK BALLAST, CONSTRUCTION  
RUBBLE AND EXCAVATED EARTH

The robust bulk material grab is ideal for transporting bulk materials such as track ballast, rubble and excavated earth, and can also be used for light-duty digging.



**TIMBER GRABS**  
TO POSITION SLEEPERS AND RAILWAY  
ELEMENTS

The timber grab is used when handling railway sleepers and short railway elements.



**POLYP GRABS**  
MULTIFUNCTIONAL DEVICE

PALFINGER offers a wide range of multi-arm grabs for handling waste and scrap. Available with 4, 5 or 6 grab arms and with full-length arms, half-length arms or arms with grab tips.



**RAIL GRABS**  
TO HANDLE RAILS AND SLEEPERS

Rail grabs allow you to pick up longer rails positioned close to each other. Rail grabs are also suitable for handling sleepers.

# MODERNISATION



Retaining old devices is advantageous in a number of situations. Firstly, the vehicle's licence is retained, and secondly, operators do not need to be retrained. The PALFINGER modernisation programme doubles the product lifecycle and has many other advantages, including:

- Extends the product's service life – new purchase not necessary
- Due to little kilometric performance, the service life of the carrier vehicle is limited by the superstructure, which could almost be doubled by a modernisation.
- Replacement of faulty parts reduces downtime and increases availability
- Possibility to improve performance by making technical enhancements
- Adaptation based on customer requirements
- Improved appearance
- Wear parts renewal
- Obsolete components are replaced by the equivalent new versions



## Example of a modernisation programme



The device is inspected and an initial assessment is made of the scope of the work required.



The attachments are removed. The main components are disassembled and labelled.



The components are stripped of paint, cleaned and conserved using a chemical dipping method.



The components are inspected for structural damage by means of an MT test (magnetic particle test).



The components are given a CDP (cathodic dip paint) coating. Cathodic dip painting provides outstanding mechanical and chemical protection, which also extends into the cavities of the components.



Components are given a top coat.



New electronic components are pre-assembled.



All moving parts are given new bearings.





New seal sets are fitted.



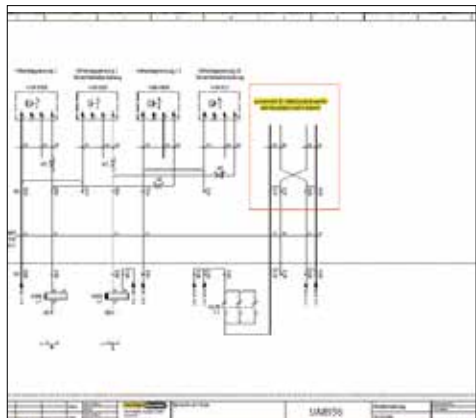
Attachments are refitted. All wear parts, such as hydraulic hoses, are newly manufactured.



Functional and load test.



Quality assurance checks. Paint finish and transport preparation.



If applicable, documentation is amended, supplemented and archived.



Fitting on carrier vehicle.



Commissioning and training on site.



# SPARE PARTS



The only way to guarantee the safe and long-term use of a device is to exclusively use original spare parts. Technicians from the PALFINGER Railway customer service team and certified service partners have access to the extensive PALFINGER spare parts depot.

- PALFINGER Railway products have a very long service life. Service lives of 20 years or more are not uncommon. A specialist team manages the spare parts supply for all devices on the market – for up to 10 years after the model has been discontinued, and often longer.
- Direct contact with customers and vehicle manufacturers ensures that spare parts requests are handled quickly, without excessive administrative procedures.



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