



Optimized Efficiency in the Long Goods Warehouse:
The Multi-Lifter multidirectional sideloader

DAMBACH
LAGERSYSTEME

Proven multi-talent:
Powerful, manoeuvrable, space-saving



Manoeuvrable, powerful and compact – the DAMBACH Multi-Lifter is based on our experience from decades of practical applications and the use of well-proven standard components. These principles of the new multi-directional sideloader guarantee flexible use, reliable continuous operation and a long service life.



Robust:
Vehicle frame and mast extension

The Multi-Lifter is erected on a two-part vehicle frame consisting of a main and a U-frame. Both frames are joined together with a special abrasion-resistant central pin so that they can move independently. This hinged joint permits unevenness in the floor to be reliably compensated for. In this way constant floor contact is ensured - even during travel movements - which is perfect for optimum stability. The Multi-Lifter can also be equipped with cushion tyres for operating on uneven floors.

Parallel-movement extension cylinders are responsible for extending the mast. This ensures the smooth and jolt-free movement of the mast. A special plus factor: The speed is controlled at both end positions of the mast extension by means of an electronic end-of-travel damping system to reduce wear. Moreover the mast extension rails can be easily adjusted to take account of wear.

Economic drive system:
Powerful and energy-saving

The up-to-date, high-performance three-phase technology used in the two 7.5 kW drive motors provides high acceleration and speed with maximum efficiency and power.

Also driven by a three-phase motor is the internally-geared hydraulic pump. On the one hand this pump operates extremely quietly and on the other it is particularly efficient in recovering energy during lowering. The energy recovery system developed by Dambach Lagersysteme for travelling and lowering is highly efficient and permits longer operating times without recharging or changing the batteries.

Also safe outdoor operation: The low-maintenance, enclosed design of the motors provides protection from moisture and dirt.

The newly-developed double load-carrying wheels are fitted close to the front edge of the truck and significantly improve the stability due to their large track width. The steering is operated by two highly dynamic hydraulic motors.

Reliable:
DAMBACH multidirectional control concept

The optimized and matched control parameters of the DAMBACH multidirectional control concept coordinate the steering movements of the four wheels. This innovative control concept in connection with the three-phase drive units permits particularly precise travelling and positioning at the same time as high acceleration and final speed.

Various programmed steering movements can be selected in lengthwise or transverse travel:

- All-wheel steering
- Rear axle steering
- Circular steering
- Parking
- Diagonal steering
- Front axle steering

To reduce the amount of cabling and increase the functional safety the steering components are linked together via a CAN-BUS. All steering modules correspond with Safety Category 3.



Practical:
The information and service terminal

The display of the on-board computer is integrated into the steering wheel and supports the reading-out of driver and service information. Thus for example travel speed, wheel setting and steering program can all be displayed. Maintenance intervals, battery display and operating hours can likewise be called up.

The improved ergonomics and the plus factors of comfort and safety ease the work and increase the throughput rate.

Economical:
More power – less downtime

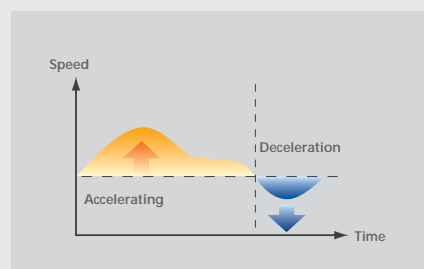
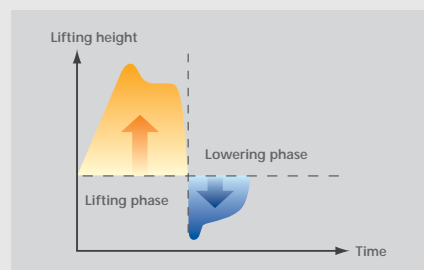
With the Multi-Lifter every lowering and braking process is used to recover energy. The results:

- Longer operating times without recharging
- Smaller batteries
- Higher efficiency

Relaxing:
User-friendly, ergonomic cab

Working with the Multi-Lifter can be really enjoyable. Control elements and displays are clearly arranged and easy to reach. The workstation has been completely reconfigured – with lots of space and freedom to move. Macrolon panels provide good views on all sides as well as safety for the driver.

The spacious cab and the comfortable, multi-adjustable seat ensure fatigue-free work. The control desk, the steering wheel and the arm supports are ergonomically matched to the operator. Self-explanatory symbols simplify the operation and help to avoid operating errors. Specially-low access to the transverse cab helps to ensure rapid entry and exit.



Modern, efficient warehouse technology requires innovative solutions which are individually matched to the respective transport tasks and spatial conditions. Alongside this however they must also meet the required standards so as to optimally match the existing structures.

- Powerful drives
- Low front part dimension
- Ergonomic cabs
- Precision hydraulics
- Flexible modular system
- Energy recovery

Safety through stability: The distortion-free lifting gear

Static and dynamic distortions are minimized with the newly-developed lifting mast in connection with the vehicle frame. This simplifies the putting into storage and the taking out of storage of items at great heights. The wide mast overlap and generously-dimensioned guide rolls on the mast ensure additional safety.

The large fork inclination made possible with standard tilting cylinders adds additional flexibility. In addition the pivotal point of the fork carrier which has been designed as low as possible prevents the shovel effect which otherwise normally occurs.

All-rounder: A wide choice of different fork carrier variants and fork arms is available for the DAMBACH Multi-Lifter.

Flexibility through know-how: The optimum solution for every warehouse

Years of experience and a broad know-how in this specialist field ensure individual advice and planning – and hence an optimum concept for every warehouse.

No matter what sort of loads you have to move, DAMBACH will ensure the smooth operation of your internal transport.

Maintenance-friendly system concept: Everything is clear and easy to operate

The design of - and the easy access to the driving unit, steering and hydraulics simplify the maintenance and any necessary repair work. The driving units of all DAMBACH Multi-Lifters are located under easy-to-open hoods. All modules can be rapidly and simply exchanged independently of one another.



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