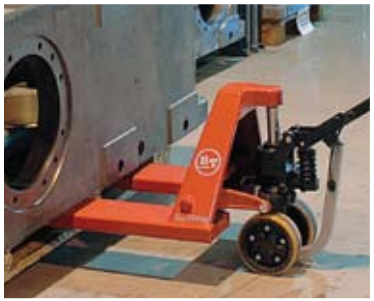
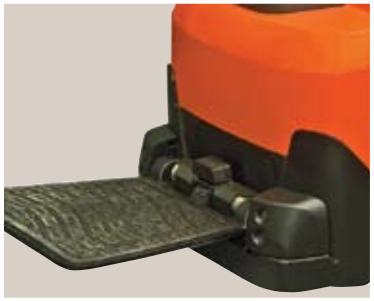
Driving Down Costs in Horizontal Transport



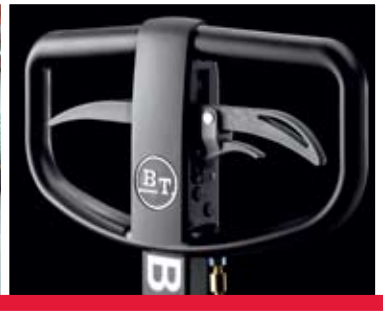


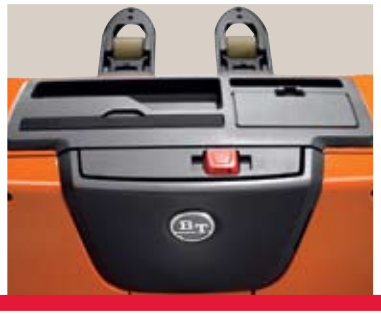






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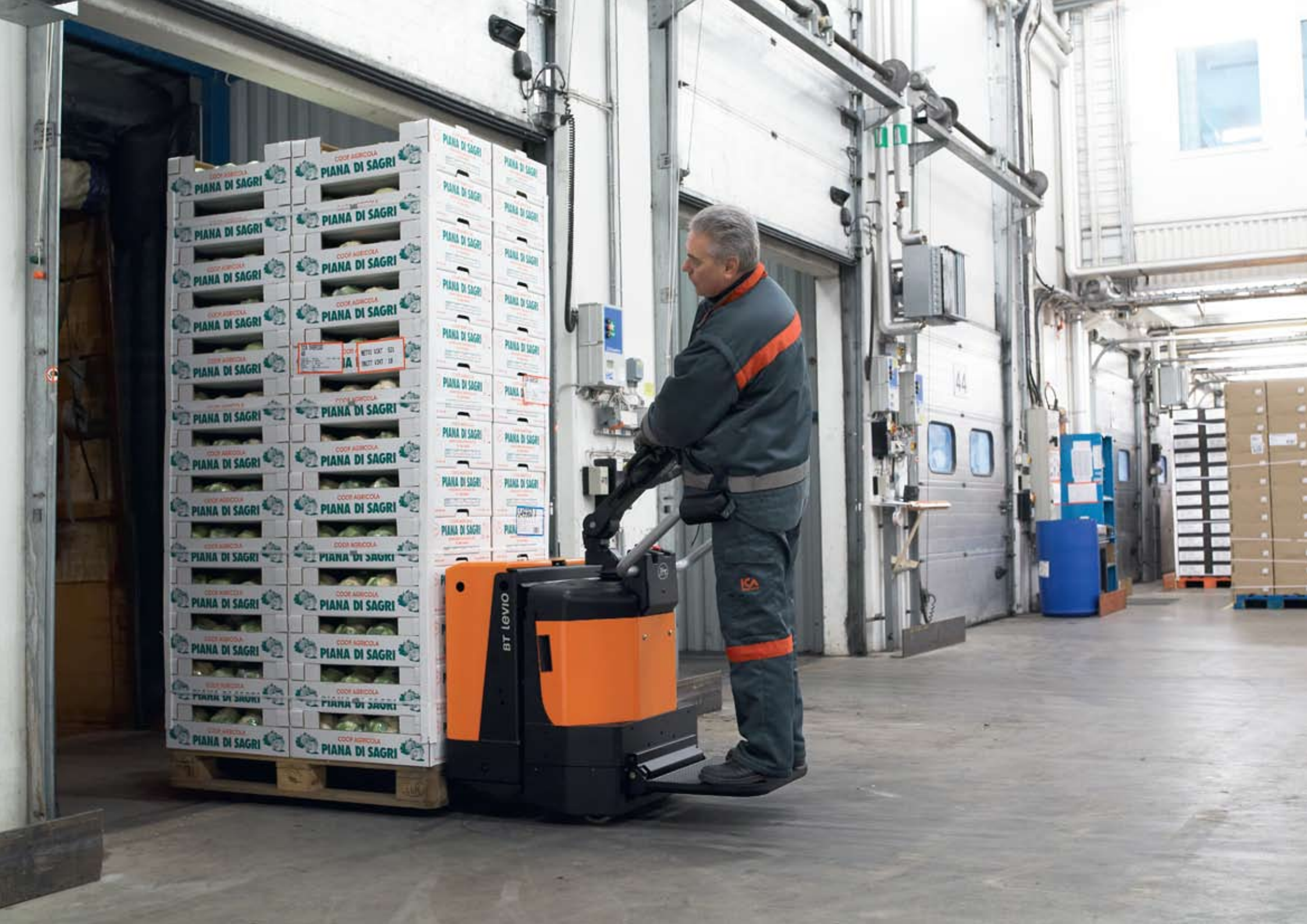

PIANA DI SAGRI
COOP AGRICOLA
BT LEVIO

Driving Down Costs in Horizontal Transport

The journey from plant to plate in the supply chain can be a long one, with goods being moved numerous times in the process. Throughout the chain there are many horizontal journeys with loads simply being moved from A to B. Early in the manufacturing process this type of movement is likely to be carried out with conventional counterbalance trucks – but as stock moves through the distribution chain it is more likely to be moved by machines that are carefully selected to maintain maximum productivity at the lowest cost.

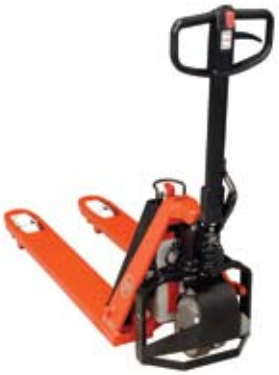
The reality is that all stock needs to be transported horizontally in all stages of the storage and distribution process. However, the requirements in terms of handling equipment will vary according to the exact circumstances of each step. In some cases the requirement may be for long distance high-speed multi-pallet transport. At other stages it is more a matter of short distance travel with a hand pallet truck.

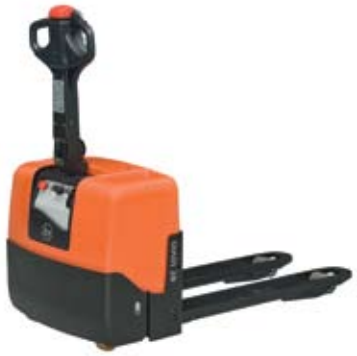
Toyota Material Handling Europe (TMHE) has a vast experience in horizontal transport with the BT range of warehouse trucks – a range that established new concepts that have since become standard industry practice. With this foundation of experience, TMHE is well-placed to help your company drive down costs in horizontal movement.

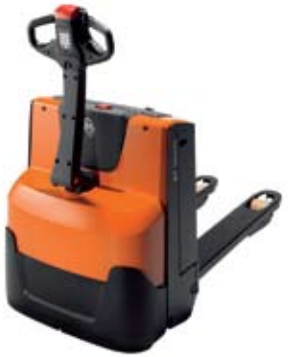
In this brochure we show the broad competence that TMHE has in horizontal transport and we focus on selected products to illustrate our approach in driving down costs.

The widest range to select the optimum trucks for your application

The first step towards driving down cost is to ensure that you have the optimum trucks to match the requirements of the application. BT offers the most complete range of machines, ensuring the right level of power, strength and performance.







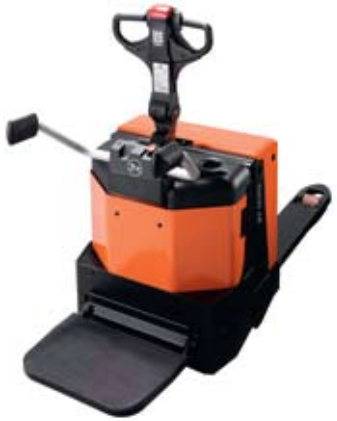
BT Lifter	BT Pro Lifter	BT Pro Lifter M	BT Levio *W-series*	BT Levio *W-series*
2300 kg / 3000 kg	2300 kg	1000 kg	1300 kg	1400 kg / 1600 kg / 1800 kg / 2000 kg / 2500 kg

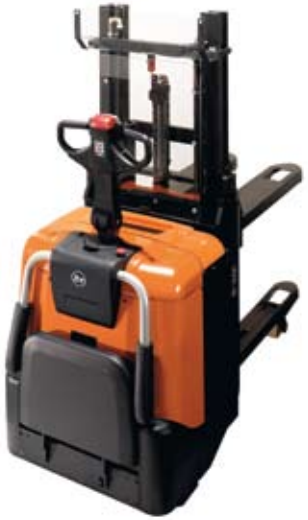
The BT Lifter family of long-life hand pallet trucks offers the widest choice of models including many specialist trucks to meet specific requirements.

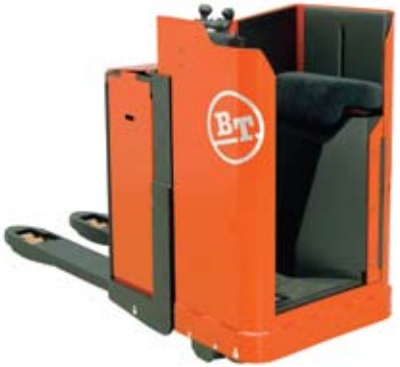
Key cost benefits:
- exceptional quality and working life, typically five times longer than other hand trucks
- easy-start BT Pro Lifter models reduce effort by up to 67% – increasing productivity and helping to avoid the potential cost of injuries
- specialist versions to improve operations – silent trucks for night-time deliveries – trucks with a scale to weigh on-the-move – anti-corrosion trucks to extend working life

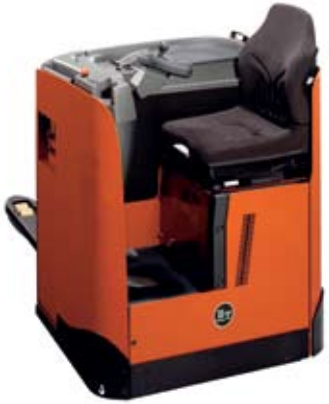
The BT Levio W-series of electric pedestrian-operated trucks enables selection of the exact specification to suit your needs, in terms of capacity and battery size.

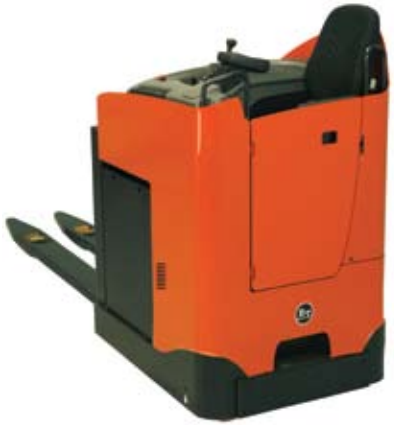
Key cost benefits:
- simple design, manoeuvrability and visibilty allows ease-of-use, reducing errors and consequential damage
- the focus on operator safety reduces risk of costly injuries, with particular focus on protection of the operator's feet
- exactly the right spec for the job











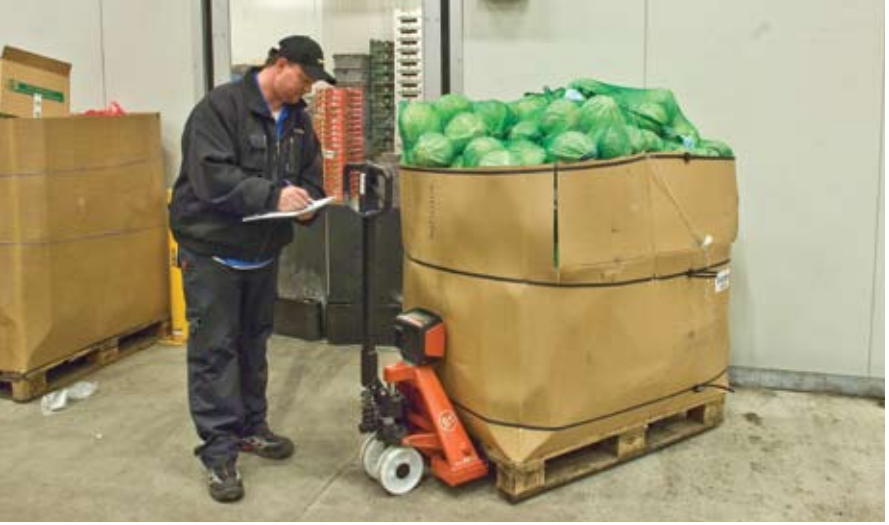
BT Levio *P-series*	BT Staxio *P-series*	BT Levio *S-series*	BT Levio *R-series*	BT Levio *R-series*
2000 kg / 2400 kg	1600 kg / 2000 kg	1600 kg / 2000 kg	2000 kg	3000 kg

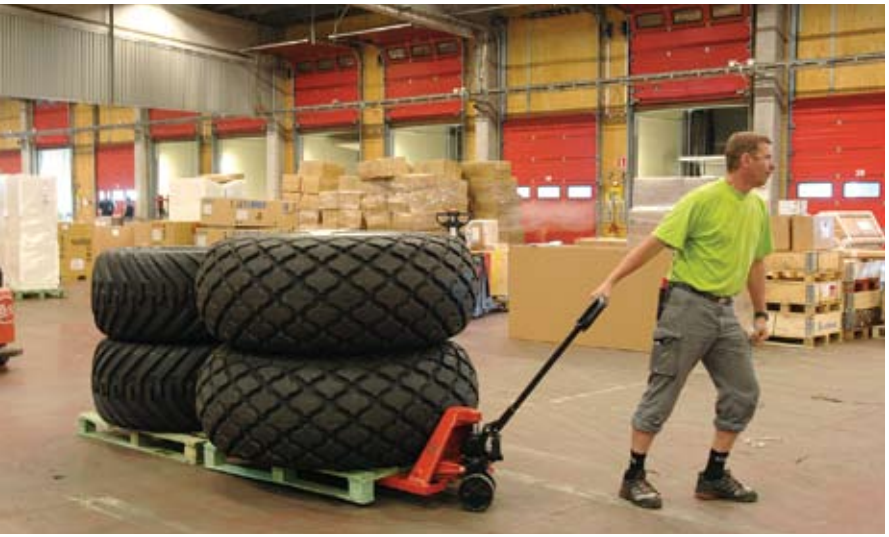
BT Levio P-series trucks are at the heart of most horizontal transport applications. The driver platform concept, which was pioneered by TMHE, allows high productivity without compromising manoeuvrability. BT Staxio models allow for double load handling.

Key cost benefits:
- manoeuvrability and fast lift/lower means high productivity and lower risk of errors
- stability and traction technology improves reliability in operation

For longer distance travel, the S and R-series models in the BT Levio range provide the ideal answer, with high-speed models capable of speeds in excess of 19 k/h

Key cost benefits:
- productivity – exceptional performance characteristics
- capacity, with long fork trucks able to handle multi-loads to further increase productivity





Simple movements

The simplest form of movement for a palletised load is with a hand pallet truck. Hand trucks are used within all branches of industry and throughout storage and distribution systems.

Hand pallet trucks play a vital part in the supply chain, and TMHE manufactures the BT Lifter range, which was the forerunner of today's lightweight pallet truck.

... are only cost-effective with BT Lifters

While the 'simple' hand pallet truck may appear to be a utility product that can have limited impact on cost levels, the reality is very different.

Long-life hand pallet trucks
The quality of BT Lifter hand pallet trucks is world-recognised, and it is a quality standard that we are determined to maintain. Produced in our factory in Sweden, we continuously monitor the durability of our trucks, testing randomly selected units to destruction.

As a result of this level of continuous testing, combined with similar tests conducted on other manufacturers' models, we have established that BT Lifters typically last five times longer. And our standard model comes with a lifetime guarantee.

That's why we call them long-life hand trucks – and it has a major impact on cost.

If you want to assess the way that TMHE helps to drive down costs with hand pallet trucks, do a simple calculation:

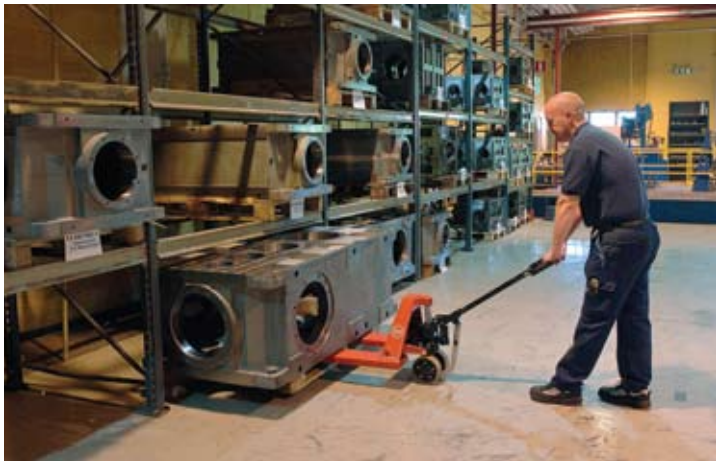
Compare the cost of one BT Lifter with the cost of five competitor trucks. That's the choice – and the only cost-effective solution is the BT Lifter.

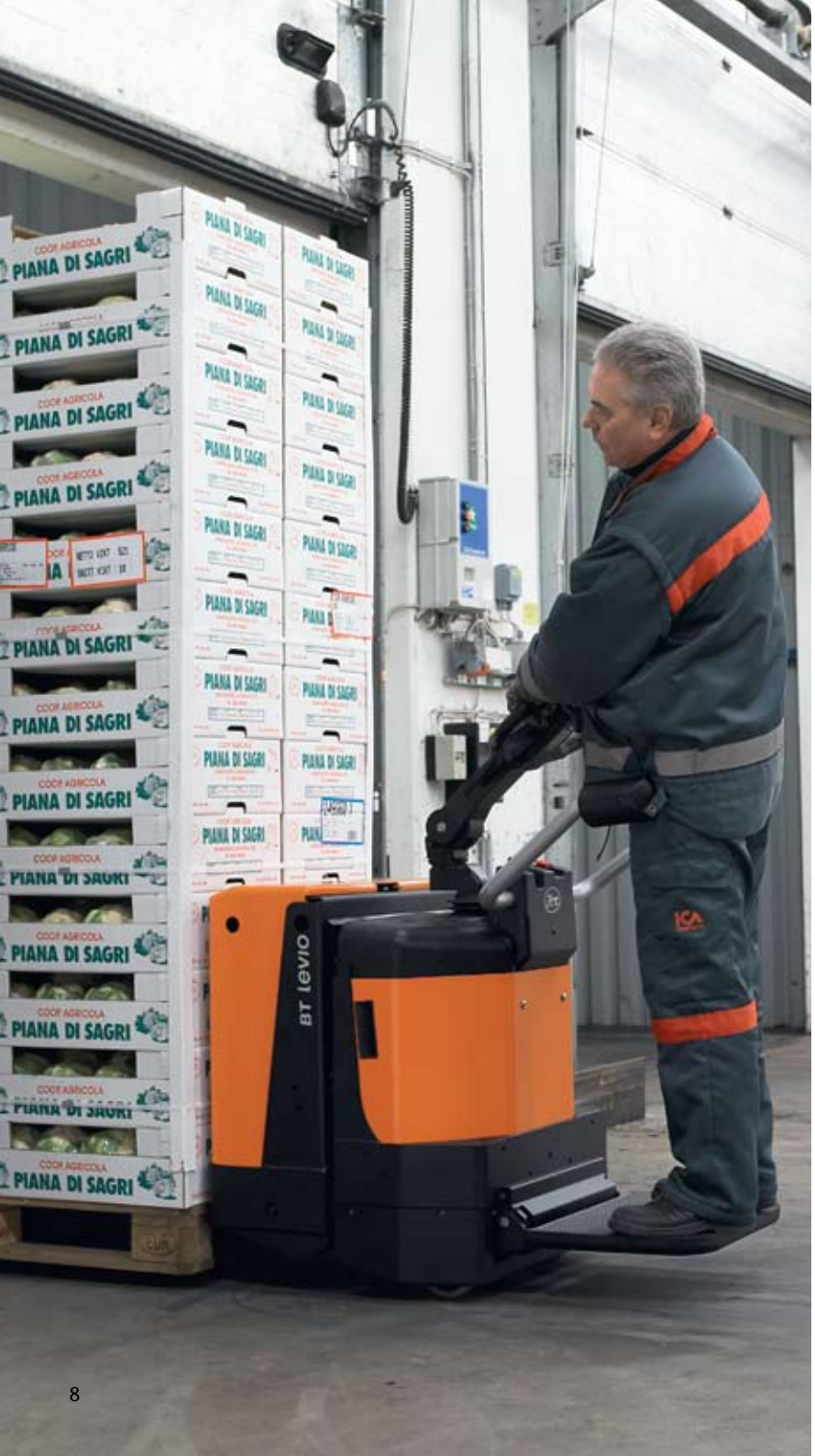
Reducing the human cost in manual handling
Another example of how TMHE can help drive down costs in horizontal movement can be seen with the innovative design of the BT Pro Lifter.

Normally, the most effort required when working with hand pallet trucks is to start the load moving. Even on a level surface a heavy load takes effort, and this is even greater on ramps, uneven surfaces and in tight spaces.

The revolutionary BT Pro Lifter reduces this effort by up to 67%, by using a clever leverage concept to propel the truck into movement. And by using the BT Pro Lifter you can significantly increase the productivity of staff as well as reducing the risk of costly injuries.

Do the sums – if you can increase productivity by 5%, how much could you save in labour cost?





Intensive operations

Many applications involving horizontal transport can only be described in one way – intensive.

Typical examples are movements on loading docks, where time pressure is critical, or in cross-docking applications that need to provide fast and accurate horizontal sortation of goods.

Not only is there time pressure in these applications but there is often pressure in terms of working space, with limited room to manoeuvre.

It is therefore not surprising that this type of application experiences additional costs due to errors and accidents.

The cost of getting it wrong
The total cost of errors in the handling process is significant in many applications (see next page).

The cost comprises many elements including truck damage, impact on other warehouse equipment and vehicles, and also damage to the valuable loads being handled.

Add to this the potential cost of human injury and it is clear that using the optimum equipment in intensive horizontal transport systems can make a major contribution in driving down costs.

… demand the right truck design

TMHE has an impressive heritage in the area of intensive horizontal transportation and today's BT Levio models continue to set the standard.

It was in the 1960s that the first BT platform truck was developed. It was a totally new concept, and set a new standard for the distribution industry.

By adding a fold-down platform operators were able to get the best of both worlds: high levels of performance and productivity and exceptional manoeuvrability.

BT Levio P-series – continuing to set performance standards
The only way to assess the working performance of a machine is through comparative testing. User tests consistently show that the two-tonne BT Levio LPE200 outperforms other models – mainly due to its reduced turning radius, but also thanks to high lift and lower speeds and excellent torque.

Stability and traction are other key factors. The BT Powertrak system – developed in the 1980s – was the first concept to adapt drive-wheel pressure according to the load. This, with the 5-point chassis design, gives outstanding stability and traction, even on difficult surfaces. The concept has since been emulated by other manufacturers.

But what is the result in terms of driving down costs? It comes down to two things:

Productivity and Accuracy

The impact of manoeuvrability can be measured in work-cycle comparisons, and the financial benefits are clear. A 5% increase in productivity can result in savings in valuable time or, in larger fleets, cost reduction in terms of numbers of trucks and drivers.

Add to this the potential savings in stock and equipment damage through reduced errors and the benefits of TMHE truck design are clear.

The cost of getting it wrong

When loads are moved there is an inevitable risk of error. Increase the pressure in terms of intensity, time and space and the risk increases. This is the reality in many horizontal transportation systems.

Selecting the optimum trucks for the job – with visibility, manoeuvrability and safety benefits – willl reduce the risk, but it is unlikely to eliminate it completely.

What is the risk and cost of errors in your operations?
The total cost of errors in handling operations is estimated to have a dramatic impact on total cost. A simple assessment of the value of a single load gives an indication.

The carrying capacity of a pallet means that a load of even the lowest cost items can amount to a substantial value, easily exceeding €1000. Move to medium or higher value commodities and the values escalate, and if goods are damaged, the consequential cost of replacement and clean-up can be substantial.

Factor in the number of times that a load gets handled within a typical operation and the risk increases.

Only you can assess the total cost of getting it wrong in your operations. However when it comes to measuring all of the costs relating to your trucks and the performance of your operators, TMHE can make a big difference.

… measurement and accountability

If you don't know the cost of damage to your trucks, for example, TMHE can help to provide the answer. We can track this with you using Toyota I_Site.

Toyota I_Site collates data from your trucks and from our service history information systems to build a complete picture of how much work it has done, and all of the associated costs. We work with you to analyse this information, in order to improve efficiency and utilisation, as well as addressing issues such as damage costs.

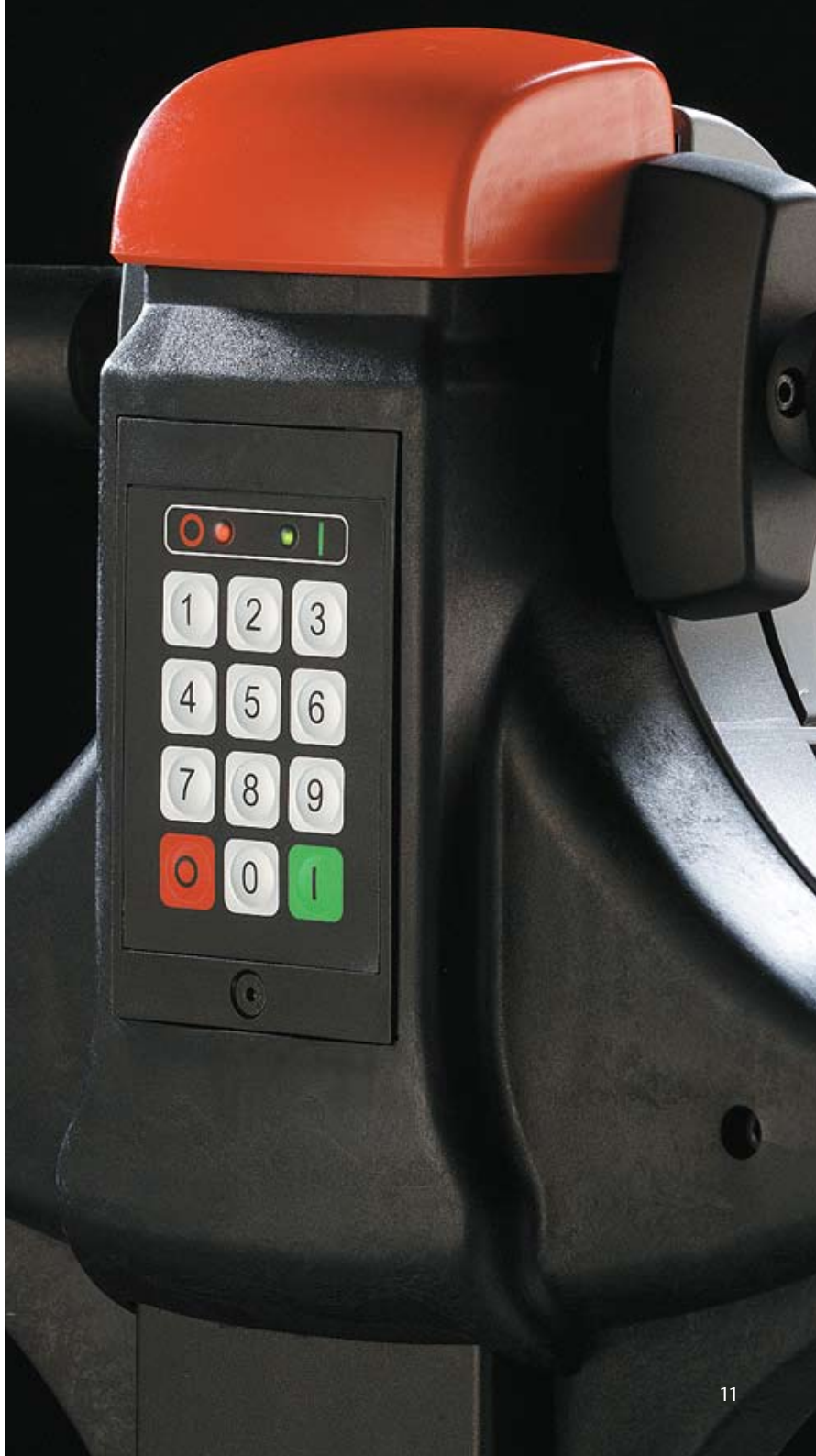
PIN-code tracking

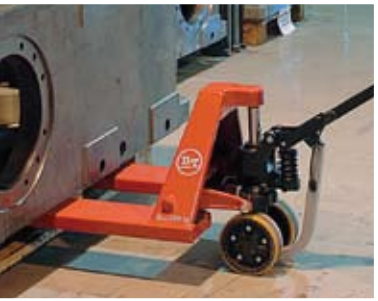
The BT range of warehouse trucks is unique because virtually every truck in the range is equipped with PIN-code start-up, and all trucks are designed for easy upgrade to transmit activity data. This means that we can work with you to monitor the performance of individual drivers and also see when errors occur – tracked by shock sensors on the trucks.

This leads to accountability and the opportunity to address operational issues, through training and improved procedures.

By working this way our customers are already significantly driving down costs in their operations.

How far can we help to drive down costs in your business?

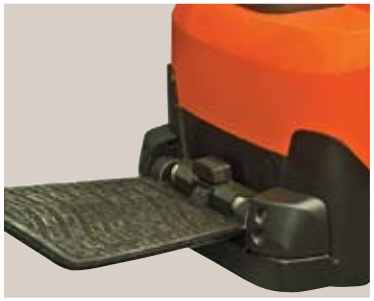




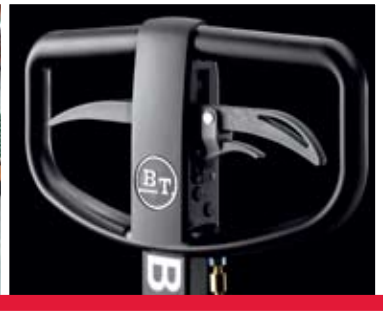


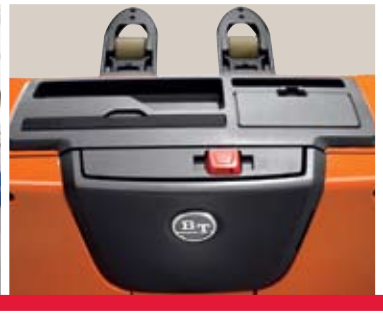









TOYOTA

MATERIAL HANDLING

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TOYOTA INDUSTRIAL EQUIPMENT

TOYOTA MATERIAL HANDLING EUROPE, MANAGING THE TOYOTA AND BT MATERIALS HANDLING BRANDS IN EUROPE