Driving Down Costs in Stacking and Storage















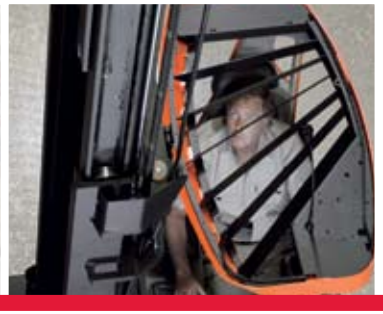
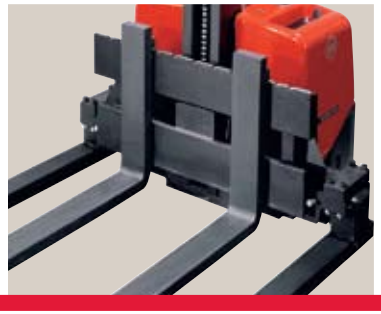

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BT reflex

Driving Down Costs in Stacking and Storage

The storage and movement of goods can be a complex process but the vast majority of consumer products travel extensively on pallets and forklift trucks during their journey along the supply chain. With this in mind it is evident that material handling equipment has a vital role to play, with estimates that a typical journey from raw material to retail store involves 40 'rides' on a pair of forks.

The need to keep associated costs to a minimum has resulted in ever-increasing expectations from handling operations – storing goods at higher levels to improve use of space, and moving loads more quickly, to increase productivity.

Truck manufacturers have responded by upgrading the capability of equipment with improved lift heights and higher speeds for travel, lift and lower. However, there are inevitably risks associated with moving loads and storing them at height.

Toyota Material Handling Europe (TMHE) has been working with customers to respond to the demands of today's supply chain, improving both space utilisation and productivity levels. However, we have also been careful to recognise the risks associated with stacking and storing, and developed techniques that significantly improve security without decreasing performance.

It's all about driving down costs in stacking and storage. This brochure show some examples of how we are working.

Assessing the real cost of getting

It is impossible to establish a 'typical' cost that a company might incur as a result of handling errors. It will depend on many factors: the type of goods being handled, the scale of the operation, the quality of procedures, and the skill of the drivers. In fact, many businesses are not able to accurately assess their own cost levels.

There are a number of factors to consider:

Value of the load

What is the typical or average value of a load handled in your business?

Even 'low value' items can represent a high value when stacked on a pallet. For example a can of tinned soup may have a unit value of less than €1, but a pallet load will be worth in excess of €1000.

Higher priced items can create load values that are surprisingly substantial.

Damage risk

What is the likely cost of damage in the event of a handling error?

If the goods are fragile a handling error is likely to result in stock loss.

More robust consignments might survive an incident, but there may still be a cost associated with clean-up and re-packaging.

it wrong

"a pallet of wine is likely to have a value of over €4000"

"a store with 10,000 pallet positions and twice-monthly turnover is likely to generate 1,440,000 'rides' per annum"

"one warehouse truck is likely to handle 50,000 loads per annum (single shift)"

Number of 'Rides'

How many times does a load get handled during its journey through your operation?

In a typical store a load is handled at least six times:

- Unload
- Stack at height
- Lower for picking
- Pick and consolidate
- Transfer to despatch
- Load

Stock turnover

What levels of stock are you carrying?

How many pallet positions?

What is the stock turnover rate?

Height and pace

The greater the storage height, the higher the risk of substantial error.

Risk is also likely to increase in high-pace operations.

Man and machine

The competence of the operator or driver will play a major factor in assessing risk.

So, too, will the competence and condition of the equipment being used.

What features are built into your trucks to help to reduce the risk of error?

TMHE has developed technology to help reduce the risk of error, and the cost of getting it wrong

High level storage

Higher level storage facilities with conventional racking systems typically utilise reach trucks. With lift height capabilities exceeding 11 metres they make excellent use of vertical storage space.

Reach truck performance is a key factor for many companies when selecting equipment for the job, and with high level storage, lift and lower speeds can have a significant effect on work cycles.

Data sheet values will indicate the maximum speeds in workshop conditions. However, can these speeds be realised in real working situations, given the shocks that are typically experienced when lifting and lowering through different sections of the mast?

Likewise the ability of the driver to have a clear and comfortable view of the high level handling process will make a difference to actual productivity.

… and the TMHE approach to maintain pace but reduce risk

TLC – *a unique TMHE feature to increase safety and reduce cost*
The BT Reflex range of reach trucks offers high performance handling, but with a difference.

The unique Transitional Lift Control system uses electronic valves to carefully control lifting and lowering in a way that eliminates shocks from the process. This means that full lift and lower speed can be achieved – increasing productivity without risk of load slippage.

Tilting cab system – *a unique TMHE feature to increase visibility and reduce strain when working at height*
Errors and loss of production pace can result from constrained visibility during high level stacking. The BT Reflex E-series offers the advanced and totally unique tilting cab system, which adjusts the position of the driver to give a clear view of the load without neck strain.

These unique features combine with other design elements to create a truck that can make a real difference to costs. Realisable high performance increases productivity – saving time and potentially reducing the number of trucks and drivers required in fleet operations. Furthermore, smooth, safe pallet handling with maximum visibility can significantly reduce the risk of errors.

What would a 25% reduction in the cost of errors mean to your business?

Low-medium level storage

Low to medium level storage may not have the same challenges in terms of working at height, but other factors also have to be considered.

Using support arm stackers is a cost-effective way of elevating and storing loads, and they are typically used in smaller stores or retail environments.

This creates a different set of risks.

The skill of the operator is likely to be a factor. Pedestrian operated stackers are often used only occasionally by personnel that are relatively inexperienced.

Nevertheless, they are handling the same valuable pallet loads with the same high financial risk should an error occur.

The need to move loads in very tight spaces often adds to the challenge, together with the implications of moving loads in areas that – in retail environments – are occupied by consumers.

… and smooth control to drive down costs

Manoeuvrability – Visibility – Simplicity – *making a vital difference and driving down cost*
The BT Staxio range of support arm stackers has been designed specifically to achieve effective stacking and storage, but recognising the need to take into account the realities of operation.

Size and turning radius are key factors, enabling the truck to turn in the tightest spaces, and visibility is assured because all BT Staxio trucks are built around a 'total view' concept for the operator. Ease-of-use is another key factor, compensating for lack of operator experience.

Smooth and gentle control – *taking extra care of the valuable load*
Even though stackers are usually working at lower levels the consequences of making a mistake can be as costly as making errors at greater heights.

BT Staxio avoids this risk by allowing millimetre-perfect smooth control when lifting and moving the load. The Click-2-Creep function allows very accurate lateral control and the Sensi-lift facility gives the same level of accuracy when elevating to the exact stacking height.

Essentially you are relying on your operators to move goods safely without damaging loads, equipment or, worse still, incurring injury.

Our job is to empower them, and drive down costs in your business.

Driving down costs with effective

A load sitting in a rack, or on the floor, is relatively safe, only exposed to risk in the event of a collision. But as soon as loads are lifted and moved the risk factors increase substantially.

TMHE has carefully developed its ranges of equipment to deliver the combined requirements of productivity and security, which can contribute to cost reduction.

However, driving down costs is also a matter of management – by analysing information and identifying opportunities for improvement in the operation.

Efficiency factors need to be considered, as well as measuring productivity and truck utilisation. All of these elements will affect your bottom line, alongside reductions in the cost of errors.

And 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, because if you can't accurately measure something it can be very hard to improve it.

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.

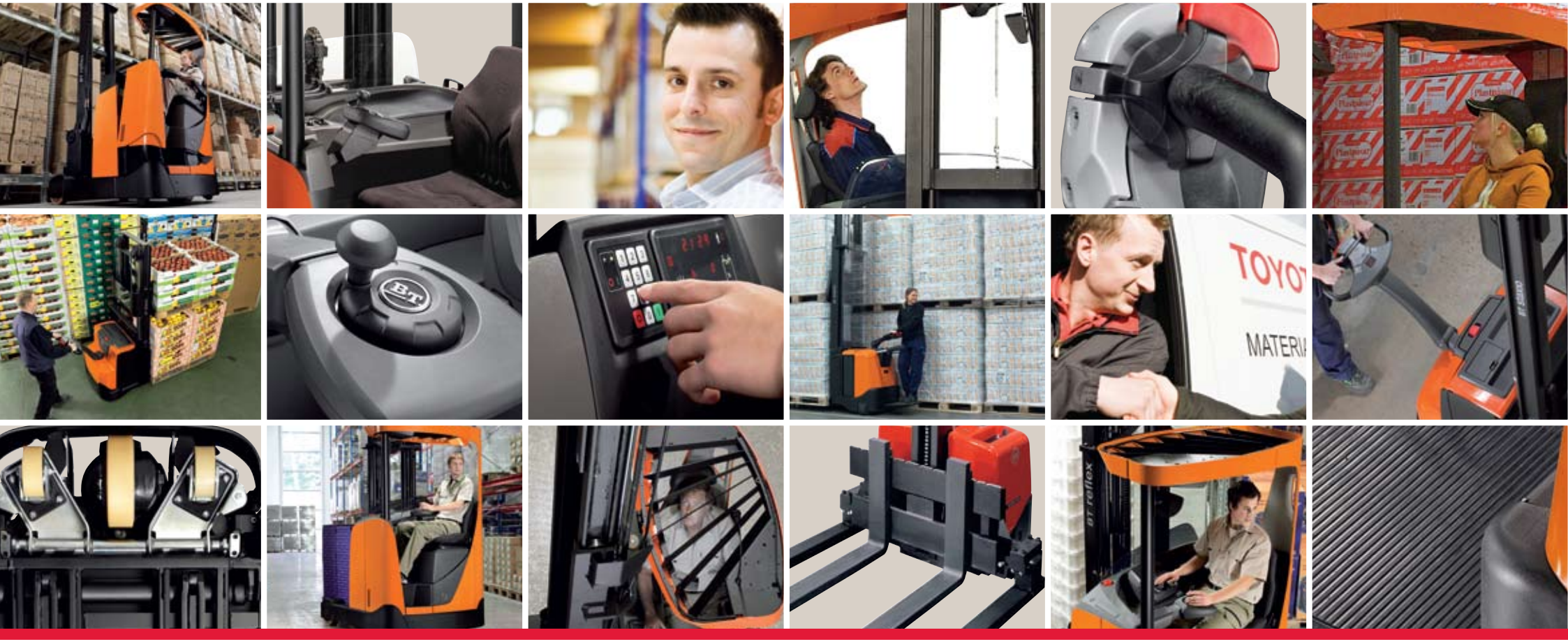
Toyota I_Site collates data from your trucks and from our service history information systems to build a complete picture of how much work has been done, and all of the associated costs. We work with you to analyse this information, in order to improve efficiency and utilisation, as well as addressing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

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