

# Container handling alternatives: the benefits of sidelifers

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There has been much discussion about the place in the industry for sidelifers. Why have sidelifers seen huge success and are in extensive use in some regions whilst still not even heard of elsewhere? Apart from the obvious benefits of the sidelifter service to shippers, packing containers safely at ground level, there are also many benefits to be had by container terminal operators.

Traditional container handling equipment such as reach stackers, forklifts, straddle carriers, etc, can be expensive. There are purchase, setup, operational and maintenance costs. But this equipment has to be used when shipping containers switch from one mode of transport to another. Consequently the handling cost is often a disproportionately large component of the overall cost of transport from origin to final destination.

## Expenses

The expense associated with changing the mode of transport of a shipping container can often make switching from a more expensive mode to a cheaper mode commercially unviable. A classic example of this is the movement of shipping containers by rail within the UK with its relatively small landmass and rail providers who have to compete hard on price with road hauliers. Rail routes within the UK are often too short to adequately offset the large infrastructure and equipment costs of the rail terminals. A shipping container



Figure 1. Containerlift utilising sidelifter at Southampton docks for transferring containers between the train and the quay.



Figure 2. Steelbro SB360 sidelifter deployed by Rugby Cement at Heathrow Terminal 5.



Figure 3. Sidelifter carrying out its own lift on the quay.

moved by rail still requires a road leg to its final delivery point, adding to the transport cost. If containers could be transferred between road and rail more economically and if containers could be railed closer to the final delivery site rather than to a large centrally located terminal, rail would be more competitive.

The purchase price of a reach stacker, heavy forklift or straddle carrier is often dwarfed by the huge cost of civil works this type of equipment requires. A large expanse of reinforced concrete is required to support the massive ground loadings exerted. There is also very little flexibility for redeployment of equipment. If there is no train to service, for example, a huge amount of money is tied up in equipment and civil works that is essentially doing nothing and creating very little return.

### Sidelifters v reach stackers

Rugby Cement, now Cemex, considered all these issues when they decided to deploy sidelifers rather than reach stacker equipment at the rail sidings for the Heathrow Terminal 5 project. Two Steelbro SB360 sidelifers were put into operation for lifting 30ft ISOveyor container tanks between rail wagons and standard skeletal trailers. The ISOveyors each weighed up to 32 tonnes when loaded with Pulverised Fly Ash (PFA). Minimal investment was needed for surface preparation, as no reinforced operating surface was required. Two sidelifers were not only cheaper to buy than one reacher stacker; two machines also gave service assurance, as Rugby Cement would incur large penalties if there were a break in the supply of PFA. If their operation were relying on a single reach stacker, in the event of a breakdown, container handling capacity would go from 100 per cent to 0 per cent. With two sidelifers in operation, a breakdown would mean only 50 per cent handling capacity lost. As sidelifers are standard road going trailers, a return to full handling capacity could quickly be achieved by deploying a replacement sidelifter to site in a matter of hours. Not an option with a reach stacker.

### Case studies

Sidelifter equipment can provide savings and added flexibility to a container depot, intermodal or port operations, and there are numerous examples where this has happened. The port of Gothenburg in Sweden has setup a dedicated sidelifter delivery area. Hauliers arriving at the port with a sidelifter can lift on or lift off their own shipping containers within the designated area without interfacing directly with the ports straddle carriers. This benefits the port with improved equipment utilisation and tempered peaks and troughs of container traffic. During quieter periods the straddle carriers can continue delivery and collecting containers to the sidelifter area whether there are vehicles there or not. The benefit to the haulier is a much faster vehicle turn around time avoiding the normal queues and time spent sitting on the grid waiting to be serviced by a straddle carrier or reach stacker.

Southampton Container Terminal (SCT) also ran a similar operation in conjunction with EWS and Containerlift whereby a sidelifter could carry out its own lifts on the quay. Seven Containerlift sidelifers were operating 24 hours a day, six days a week transferring containers between EWS trains and the quay. A sidelifter would lift an export container directly from the train, carry the container a kilometre to the quay where it would lift the container to the ground. In the same fashion, the sidelifter would return to the train with an import container.

The discussion about the place for sidelifers in the industry usually focuses on sidelifter versus reach stacker or sidelifter versus straddle carrier, and the conclusions are usually and predictably in support of traditional equipment. There is, however, a growing number of successful sidelifter based terminal operations. There are also good examples where the flexibility of sidelifers has been incorporated into established port and terminal operations with positive results for all. By simply dismissing sidelifers could we still be missing a trick?

#### ABOUT THE COMPANY

Containerlift are the UK's leading provider of ground-based container handling services. Keeping containers on the ground is the cost-effective and safe solution for many transport and haulage situations. We have the products, experience and solutions to change the way you think about container transport.

#### ENQUIRIES

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