

Simulating training

Liebherr has launched a range of maritime crane operator simulators which provide virtual training for its ship to shore, rubber tyre gantry, mobile harbour and offshore cranes.

Liebherr Simulations (LiSIM) allows trainees to practice operating maritime cranes in a realistic environment with the option of modifying scenario parameters tailoring them to the training requirements. This can include whether it is a day or night-time operation, the type of cargo or the size of the vessel. It can also be programmed to simulate harsh weather conditions such as heavy winds, snowfall, torrential rain or high waves, allowing both trained operators and trainees alike the chance to gain experience of how to react to unexpected or challenging situations.

The driver's cab and control panel incorporates Liebherr's original drive systems, software and hardware, ensuring that the feel and movement of the cranes are precisely replicated. High definition flat screen monitors and high quality surround sound speakers are used to imitate the views and sounds typically experienced in the cab. It is also possible to design specific port environments and exact port layouts in order to assist in creating a realistic training experience.

The benefits of simulation based training avoids downtime and reductions in productivity which are often caused by onsite crane training. It eliminates any delays in training which might have been caused by poor weather conditions as well as eliminating any risk of damaged equipment or injuries to port personnel.

The instructor stationed outside of the simulator can create challenging or unexpected situations, like sudden heavy winds or lift object faults, during a training session.



The inside of the LiSIM simulator



Weighing up the options

UK based scale manufacturer Avery Weigh-Tronix has developed an integrated Forklift Scale System (FLSC). Although primarily designed for use on forklift trucks it is also suitable for use on any telehandler fitted with an ITA class II or class III cleat type carriage.

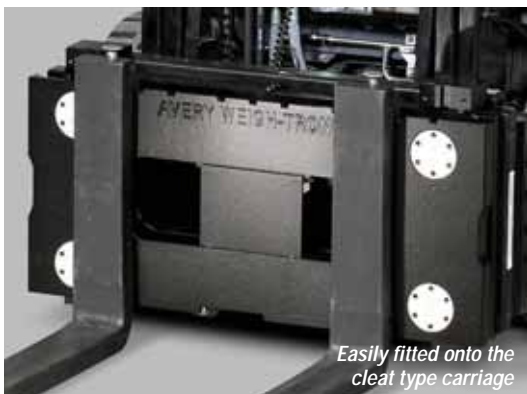
The retrofit scale is comprised of two metal plates coupled together by four weighing sensors which electronically measure loads up to five tonnes, transmitting the data to an in-cab display. An optional wireless system is also available for environments or lifts where a standard coil cable might be damaged. The scale is easily attached to the machine's fork carriage and as there are no flexures or springs, the weighing sensors ensure accurate weighing regardless of whether the truck is on uneven ground or the pallet load is off-centre.

The weight of the load is then displayed on a seven inch FLI 425 touch-screen colour LCD monitor which displays and stores a variety of information. A more simplistic FLI 225 monitor is also available with limited features.

Additional extras include a power conditioner used to regulate power from the electrical system and a Wi-Fi flash card used to extract information stored on the more advanced FLI 425 display system.



A breakdown of the FLSC which is fitted behind the forks.



Easily fitted onto the cleat type carriage

Automatic hoist line adjustment

Austrian crane and access manufacturer Palfinger has launched Rope Tension Control (RTC) and Synchronised Rope Control (SRC) winch systems for its SH range of loader cranes.

The RTC system has been designed to automatically adjust the rope length to match the loader crane's movements, allowing for the rope and sheave head to remain permanently mounted on the crane. Hook operation with the knuckle boom and reeved-in rope is also possible with the new system eliminating the need for any disassembly.

Similarly the SRC system automatically adjusts the rope length to maintain a constant distance between the sheave head/boom nose and the hook block to prevent two-blocking. Sensors in the roller head ensure the same distance when it detects crane movements that lengthen or shorten the rope length. Loads can therefore be traversed horizontally at a constant height or at a constant angle allowing it to easily overcome building contours during roofing work.



Palfinger's RTC and SRC systems being used on its loader crane to assist with the roofing work

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