

LOAD HANDLING

Forklift trucks get new controls

Still and Elobau have redeveloped controls for reach and counterbalance trucks. The multi-function joysticks control hydraulic movements. They come with a CAN interfaces.



With its reach and counterbalance trucks, Still offers a cockpit which includes an Elobau multifunction control (Photo: Still / Elobau)

TO MEET TODAY'S DEMANDS IN lifting heavy loads, a powerful truck is indispensable. In addition to the performance of the vehicles, it is mainly a user-friendly operation that is important to drivers. After all, an operator sitting in a truck all day appreciates an ergonomically equipped cabin. The company Still paid special attention to the control unit of their load forks and attachments. Control units are used almost permanently by the driver to lift and lower pallets, to tilt or move laterally; therefore the individual control keys and rocker switches have to be easily accessible and to operate.

Still has relied on a partnership with Elobau for many years now in connection with these control units. Elobau is a specialist for sensors and controls in Leutkirch, Germany. The company has had an automotive division that includes the development and manufacture of automotive components since the 1980s – from push-buttons, switches, sensors, and joysticks to complete

control panels. About eight years ago, Still and Elobau developed a multi-functional handle which can be incorporated in the FM-X series of reach trucks. The basic element is the Elobau joystick J5, which comes with a CAN interface, as well as various push-buttons also from the Elobau program. This multi-function handle can be used as a single handed control for all hydraulic functions without changing grip. Moreover, push-buttons for auxiliary hydraulics and a "tangible feel" direction of travel are integrated and all movements can be executed.

New forklift construction - new controls

Still's new generation of FM-X reach trucks received, among other things, a redesigned cab – as well as a new control unit. Teams Design, a long-standing Still partner, took care of the forklift design. According to the company, it developed a design that paid special attention to ergonomics and functionality. For the redesign of the multifunction handle, Still again approached Elobau.

Mario Halwachs from Elobau recalls: "It was not just an adaptation of the existing joystick. We had to develop a completely new product using current standard elements housed in a newly constructed base." Because Still also wants to use this multi-function joystick in its counterbalance trucks, it was necessary to make the handle base suitable for two different installation situations.

For installation in the armrest of the counterbalance truck, the mounting height of the handle also had to be reduced – which Elobau managed in differing ways. For example the CAN module, which runs the communication with the vehicle, was redesigned. While it used to be fixed on the bottom of the joystick, it has now been placed on the side.

Like the previous model, the control has rocker switches for driving direction and tilt, a linear slider for lateral movement of the forks, as well as a push button switch for additional functions and the horn. Still press spokesman Jürgen Wrusch adds: "On request, the individual rockers and push-buttons can also be freely assigned so that the user can operate attachments which have been optimized to suit the job."

A number of changes inside the control have been made. For example, the J5 joystick has a base made of plastic, a polyamide with 50 % glass fiber content. Here Elobau has followed the high standards of the automotive industry, which uses this stable and durable material in many cases, for example, components in the engine bay or in suspension and transmission areas.

Jürgen Wrusch highlights: "The control gives the operator a comfortable hand rest position and protects the wrist. In addition, the operator receives a haptic feedback on the functions performed. As the joystick can be operated while wearing a glove, it's suitable for working in cold stores and with its adherence to IP55 can be used in wet environments. Several test drivers have given it a very positive feedback."



Like the previous model, the redesigned joystick contains a rocker for driving direction and tilt, the lateral movement of the forks, as well as an additional function key and a horn button (Photo: Still / Elobau)

Reach trucks

A reach truck is self-supporting and at the same time assisted with support arms. This means that to take up the load, the mast is hydraulically pushed forward so that the forks can move freely in front of the vehicle. The



transport of the load, however, takes place with the mast retracted between the wheels arms. This improves the driving stability and minimizes the aisle width. Because the overall length of the vehicle and load is less than a counterbalance truck, this increases its maneuverability. As the operator sits on the side of this truck, the term used is Sidesitter.

Still offers fingertip control as an option to the multi-function joystick for the control of all hydraulic functions of the reach truck (Photo: Still / Elobau)