



The UniCarriers EPH order picker

About the EPH order picker

SHORT CHARACTERISTICS

Whilst all forklifts utilise the dead-man feature to ensure safety levels for the operator, they also have a direct influence on the safety of equipment and pedestrians in the working area.

In a forklift where the operator sits in a fixed position, it is correct that features such as a dead-man switch, button, pedal or joystick are in the correct position to ensure guaranteed safety and easy use. However when an operator knows that his/her foot must be used to depress a dead-man button, they unconsciously add more weight to that foot.

At the end of a working shift this often means that the leg used for pressing the dead-man button is more fatigued and sometimes aches. No matter how often drivers are told to simply place their foot on top of the button without adding extra pressure, they still press just that little bit more.

In an order picking truck with a wide working platform area, we get different working parameters. These can be adversely influenced by features such as a dead man pedal that is in a fixed location and can cause hindrance.

The objective in developing the new range of UniCarriers order pickers was to provide the required safety features but to do so in a way that did not make the operator do anything that was un-natural or uncomfortable.

The floor sensor in all UniCarriers order pickers is the most efficient and comfortable method of employing this safety requirement.

INNOVATION

The working platform of an order picking truck is approx 500mm x 1200mm depending on truck specification.

A driving position that requires the operator to stand in one position with a foot depressing a dead-man button (approx. 100 x 150 mm) restricts movement and promotes aches and pains, and in severe cases has been known to cause repetitive strain. The working platform of an order picking truck can also be like a warehouse floor. It is possible to create weariness from standing most of the day. Therefore the platform must be designed in such a way that allows maximum possible levels of comfort.

Our idea was to create a soft cushioned floor that provided a comfortable standing position. At the same time, under this cushioned floor we have placed a floor sensor that recognises the presence by weight of the operator.

By stepping onto the truck this device is activated. By stepping off the floor sensor the truck is deactivated. From a safety viewpoint this device needs to be calibrated daily. This is done by the operator being requested to leave the floor area and then step back onto the floor. The truck then recognises the drivers exit and re-entry and this is the method of calibration. This test is enforced after every switch off period.

In conclusion the truck will only operate if the floor sensor is activated and only if initial calibration was successful. This prevents a faulty truck from being operated and a safety feature not able to function.

MAIN GOALS FOR DEVELOPMENT

1. To provide an essential safety function, required by law, in such a way that it allowed activation from almost any position on the platform, that also did not restrict the standing position of the operator.
2. To provide a safety feature that functioned and was activated by the normal daily use by the driver, without the him/her having to consciously press or hold a safety device in place.
3. To have a daily safety check of the safety feature to ensure that the truck was operating within required operational and safety parameters.
4. To provide a safety feature that did not create uncomfortable feelings during daily use.
5. To provide a safety feature that did not represent a trip hazard when stepping through the cabin from one side of the truck to the other. A smooth flat floor surface is vital.
6. To create a safety feature that would work on low level and high level order pickers. This gives familiarity to operators using both types of truck and it also maintains our high level of parts standardisation. This improves parts availability and engineer familiarisation.
7. To provide a safety feature that functions regardless of the direction the truck is driven. One fitting fits all machines without any modification or extra components.

USER BENEFITS

Each and every customer has one priority in a labour intensive function such as order picking, and that is to achieve high levels of performance.

In standard warehouses today the order picking function takes ten times as long as the unloading and stacking functions added together. The extra time factor is the human element which is required to carry out the order picking function. Therefore high levels of performance and the utilisation of time have a direct impact in controlling and reducing materials handling costs

Performance however, is only possible if safety for all concerned is at high levels. And this is even more important in a truck that elevates the operator as well as the load.

Any discomfort experienced by the operator slows down the order picking function.

High comfort levels that equally provide high safety levels, allow high levels of performance.

The floor sensor for all UniCarriers Ergo Picker trucks allows safety levels to be maintained and are double checked by daily calibration. This provides performance and without hindering or delaying the operator.

Order picking trucks also have controls on the fork side, the main mast side or even both sides.

A floor sensor covering a large area of the platform allows the operator to always be standing on the sensor regardless of the driving direction. At all times the sensor functions while the operator is comfortable and unrestricted.

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