

ContChamp DC 4160/4560



A new generation of ContChamp reach stackers

The new generation of ContChamp reach stackers produced by Kalmar LMV is based on an entirely new approach to design and production.

The new ContChamp is a 'low profile' model only on outside appearance; each and every part, from chassis to lifting unit, radiates the highest level of quality — Kalmar LMV quality.

In short, this is a machine for the 1990s.

Kalmar LMV's ContChamp has proved to be a success right from the start — and that does not surprise us. It opens up new opportunities for handling containers and trailers since it is built for use in tough and demanding situations and conditions. Since the introduction, we have delivered more than 100 ContChamp reach stackers to customers all over the world.

Keeps times down to a minimum

The limited space at terminals and depots, for example, requires maximum utilisation. With its flexibility, the Kalmar LMV ContChamp easily satisfies this requirement.

As combined modes of transport increase, so more efficient machines are required. The DC4560RC4 model fitted with Kalmar LMV's Combi unit is built specially for the purpose, with its wide reach and by the fact that containers and trailers can be handled alternately without needing to change the unit, which normally takes time. This also means that terminal costs can be cut to a minimum.

One basic model

The new generation of ContChamp trucks is a product of Kalmar LMV's long experience as a producer of fork lift trucks.

We have just one basic model, which in the standard version is available as three different variants: DC4160RS4, DC4160RS5, and DC4560RC4.

The ContChamp is of a robust design, calculated according to the finite element method (FEM) and measured by strain gauge instruments. The chassis has high strength and torsional rigidity, and a low centre of gravity. Attaching points are provided in the chassis for lifting cylinders, driveshaft, steering shaft, transmission unit, and boom.

Advanced driver environment

Kalmar LMV offers a well-planned driver environment to give the best ergonomic features, and thereby the highest efficiency. We offer cabs which

each driver can adapt to his own requirements — the driver's cab on the DC4160/4560 trucks is no exception. The cab has a convenient entry/exit facility with anti-slip steps and a generously sized step height. And the cab is tested, of course, to the stipulated requirements.

The steering wheel, control levers, and driver's seat are all adjustable to give the best possible ergonomic features.

The rubber-mounted cab is effectively insulated against vibrations and noise, and easily complies with the requirements set out in the standards and regulations relating to this type of cabs.

The control levers and control panel for hydraulic functions are placed where they can be clearly seen, as is the instrument panel with circuit card for fuses and relays.

The boom and lifting unit are operated by a coordinate-type lever, on which the upper buttons control the tilt cylinders, and the lower buttons the rotation motor.

In the event of overloading, the boom lifting, lowering, and protruding movements are interrupted by a warning system, which indicates where there is overloading by means of hazard light on the panel inside the cab.

Good visibility for higher driver efficiency

Windows extending a long way down in the doors and sides provide extremely good all-round visibility. Close-up visibility has also been improved with lower chassis sides. In fact, blind spots have now been reduced to a minimum.

The trucks can be fitted with a hydraulically operated movable

cab, which enables the driver to have maximum control over the lifting unit.

When the cab is in its rear position, the driver has a very clear view of what is happening around him both when driving the truck and when stacking. When the cab is in its forward position, the driver has the best possible visibility for handling trailers. The stability of the truck complies with the high demands as set out in ISO1074 and FEM4.001N, and together with good all-round visibility contributes to higher driver efficiency.

Long experience

Reliability and service-friendly features are integrated into the design of the new trucks. Kalmar LMV has made good use of its long experience of producing fork lift trucks and, wherever



New Approach Experience Ergonomics

possible, uses the same types of components on several models in its wide range of trucks with lifting capacities of between 2 and 90 tonnes.

We have had a worldwide network of service outlets for more than 15 years, and this has provided us with valuable experience, which we can pass on to the benefit of our customers.

Daily checks can be made with the help of inspection panels and hatches on the sides of the truck, since we know from experience that the location of service points is an important factor in ensuring that service and inspection will be carried out as recommended. Maintenance is kept to a minimum as a result of few movable parts; the steering shaft, for example, is entirely maintenance-free. The engine is easily accessible by provision of removable plates in the chassis.

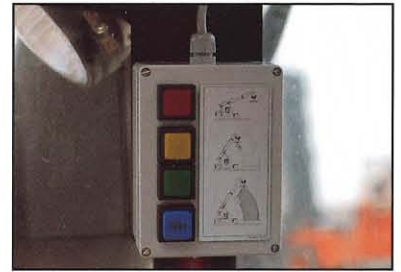
Guaranteed braking system

The ContChamp reach stackers are fitted with oil-cooled wet disc brakes. This is an entirely maintenance-free braking system that can withstand high loads over a long period of time. It does not require any adjustment, and there is no wear of components nor any fading.

This braking system is so safe that Kalmar LMV offers a four year warranty cover or 8,000 hours of operation. The parking brake is of the disc type and can also be used as an emergency brake.



Control lever and panel for hydraulic functions.



A lamp panel is provided for an over-load protection and indication system.



To help the driver, the machine is fitted with an indication panel that is easy to read and which indicates the functions engaged.



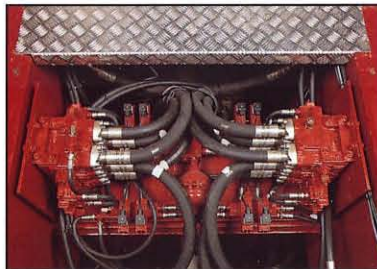
Hoses and cables run in a guide chain to reduce the risk of damage.



The in-cab climate unit maintains a pleasant working climate inside the cab. The unit is operated by switches on the instrument panel and a control below the panel.



The battery box with mains switch is located on the left-hand side of the truck.



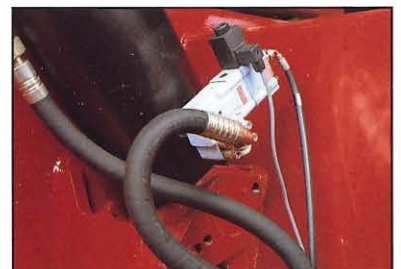
The main controls can be checked through openings in a plate on the upper side of the chassis.



Checking the oil level and topping up are performed in special service covers.



The intake air is purified in a two-stage air cleaner. In the first stage, coarse particulates are separated by a 'cyclone' effect and collected in a dust container. Stage two is performed in a 'main cartridge'. There is a safety cartridge on the inside of the main cartridge which protects the engine from air pollution if, for example, the main cartridge becomes damaged.

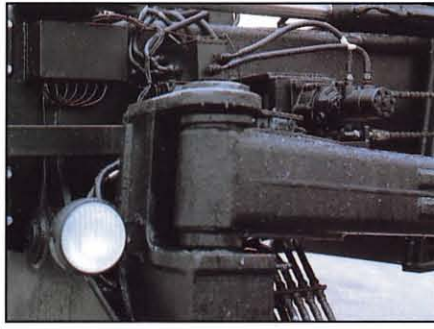


The lifting cylinders are attached in the chassis and fitted with blocking valves to prevent the jib from being turned obliquely when there is uneven loading. Overcenter valves are fitted on the jib to prevent the jib from moving inwards too quickly on account of the load, and they also function as hose failure protection.





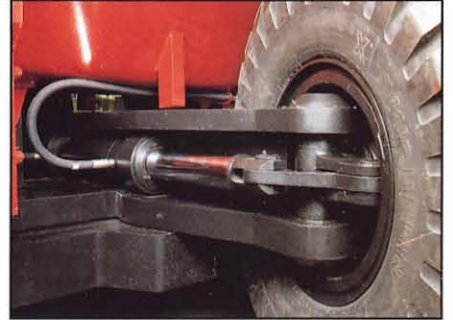
The instrument panel is easy to see and read and has warning lights and gauges for several important functions.



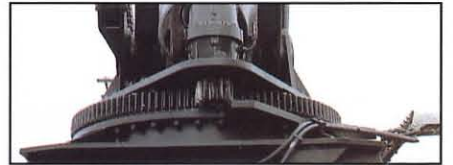
An array of lights is provided to facilitate control and operation of the unit functions when lifting.



The cab has a convenient entry/exit facility with wide and generously sized steps and step height.



The steering shaft is pendulum-mounted with a double-action cylinder. The design incorporates few movable parts, which means few service points and easier service.



The rotator permits a rotation of 95/185 degrees.

Kalmar LMV's DC4160 and DC4560 reach stackers have, of course, a low in-cab noise level. The noise level all round the truck is much lower than in currently stipulated legislation, and the simple addition of insulation material lowers the level even more.





The Combi unit is designed for handling trailers and 20'-40' containers, and is operated by electrohydraulic means from the driver cockpit.



The boom has its own distinctive, high strength steel design, and it can be operated by a double-action protrusion cylinder.

 **Kalmar LMV**

S-341 81 Ljungby · Sweden
Telephone +46(0)372-807 40 · Telex 52115
Telefax +46(0)372-809 71

<http://www.keiyou.net>