

Press release

Chain hoist with balancer function

for intuitive load control

- **Lifting and lowering with the controller or by manual force**
- **Improved precision for load control**
- **Safety and precision through four selectable operating modes**

Wetter, 22 April 2020. With the DCBS chain hoist, Demag presents a compact hoist which, with its smart control system, makes assembly and, above all, joining processes even simpler and safer. In its basic function, the DCBS is a variable-speed chain hoist based on the proven DCS range. It has a perfect command of the usual tasks of this hoist. The operator actuates the D-Grip Servo control handle, and the load with a maximum weight of 160 kg is raised or lowered by an electric motor.

What sets the DCBS apart from other chain hoists, however, is its integrated balancer function, which has been adopted from the Demag D-BE electric balancer. It enables loads to be guided without the need to actuate the controller. The operator simply moves the load to the desired height with little force and can position it much more precisely with both hands because he does not have to take the “detour” via the control panel. This makes the work much easier – not only when exact positioning is required.

By actuating a switch, or automatically depending on the selected control mode, the DCBS unit switches between the two “grip control” and “load control” operating modes for intuitive load control. The hoist is equipped with high-performance sensors to meet this requirement.

The manual force exerted by the operator is detected in the grip control system by a pressure sensor and is used to control the lifting motion. This eliminates the need for the operator to press any buttons to control the hoist.

An integrated load sensor detects the weight of a load and possible weight fluctuations and determines the desired direction of movement and speed from these values in load control mode. This allows the operator to move the load to the desired position using both hands.

In assembly mode, which is particularly suitable for horizontally joining components, any possible uncontrolled load movements are suppressed and converted into a gentle swaying motion. This then enables components to be joined precisely. It also avoids possible damage due to collisions between the parts and thus also increases handling rates during assembly.

The fourth DCBS operating mode is load pick-up mode. This function is useful, for example, when changing tools or removing parts from jigs or test benches. The balancer can be adjusted so that it only lifts until a preset force is reached. It thus enables load handling attachments to be lifted and pre-tensioned – with the result that the load can be removed from a jig, for example, without dropping or being suddenly pulled upwards. At the same time, the machine or jig is protected against excessive forces.

All operating modes are linked to additional protection and safety functions, such as adjustable load or speed limits, and make working procedures even safer.

Combined with the Demag KBK light crane system, DCBS creates mobility for horizontal load transport. It can travel on KBK profile section rails, for example, on single-girder suspension cranes or in system suspension monorails and slewing jib cranes.

Besides its innovative direct load control, DCBS offers a number of design features that simplify its operation, improve safety and reduce service requirements. These include, for example, its slipping clutch with automatic cut-out based on speed monitoring, which prevents permanent slipping in the event of overload. Because the brake is arranged in front of the slipping clutch in the load-bearing arrangement, any dropping of the load is effectively prevented and, in the event of a malfunction, the brake is applied automatically.

Taken together, all of these measures mean that the gearbox, slipping clutch and brake are maintenance-free for up to 10 years – and that the safety-related functions satisfy Performance Level C and Category 2 to EN ISO 13849-1 as a minimum requirement.

With this feature profile, the DCBS makes work easier for the operator, enables very precise and safe load handling and also opens up new tasks beyond the lifting of loads.

Images:



Demag DCBS chain hoist with balancer function for load handling with high precision



The ergonomic D-Grip Servo handle with integrated sensors and for control of the 4 load handling modes

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