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Profitable Lumberjack

Quick and safe control system for forest cranes by Bucher Hydraulics is increasing profits

Sustainability along with increase in profits as well as increased efficiency combined with considerate use of resources are the most important features of modern forest technology. These aims are supported by Bucher Hydraulics especially with its innovative system solutions for crane control systems. Forest machines, such as Forwarder or Harvester, thus turn into highly efficient, profitable lumberjacks.

As a system partner, Bucher Hydraulics has extensive expertise from decades of product development and application expertise. The result is tried-and-tested and reliable Plug & Play solutions from the control block right up to the complete systems, which meet the specific forest crane requirements. The most important criteria for applications in forestry are a high handling capacity as well as fatigue-proof, safe working in addition to the much-required lowering of the operating costs, which is why vibrations and uncontrolled movements of machine parts must be prevented. In case of forest cranes, the hydraulic system must additionally allow extremely dynamic movement sequences, and it should be possible to individually save driver or use profiles for the machine operator.

These high demands are fulfilled by Bucher Hydraulics on the basis of its valve solution LVS, which is designed for steady lowering of the costs. The inherent features of the fast-switching valves are accurate, sensitive and dynamic. Downstream pressure compensators take over the quantity distribution in case of an under-supply so that the movement speed is uniformly reduced and machine operators profit from the comfort and safety of the control unit. At the same time, the current-optimized pressure compensators stabilize the consumer volume flow, which leads to stable functions. Another advantage is the low circulation and block losses thanks to bigger flow channels in the valves. Thus, volume flows of 150 l/min at 9 bar pressure difference are possible at the consumer connections.



No contrast: extremely dynamic and nevertheless soft movement!

The innovative proportional direction control valves of the LVS series are equipped with on-board electronics in the high-end variant, which offers maximum performance and dynamics. In order to fully use this performance for different applications or different operators, the most important parameters such as maximum speed, volume flow characteristics and start/stop ramps can be parameterized and saved via the crane terminal. It is thus possible to save up to 6 different profiles. The sensitive and dynamic control system ensures high, consistent accelerations and defined braking so that the respective loads are positioned quickly and precisely. In addition to the optimum material handling, this increases the safety while operating the crane and thus increases the efficiency. This makes the crane control system by Bucher Hydraulics into a profitable solution with which users can maximize their profits in forestry.

Bucher Hydraulics delivers the complete system solution comprising the directional control valve system, joystick, terminal and masterboard for cranes without load holding valves as well as for cranes with load holding valves. All the components used impress with their high reliability. This is also applicable in case of temperature fluctuations, strong mechanical loads and electromagnetic interferences. In addition, different joysticks and user-specific valve segments are available as additional functionalities.

Bucher Hydraulics offers Plug & Play solutions for forest cranes in different designs. The machine manufacturer (OEM) thus incurs neither development nor software costs.



Bucher Hydraulics permanently refines its crane control systems on the basis of long years of experience. The components are characterized by their high reliability and are durably safe even in case of temperature fluctuations, strong mechanical loads and electromagnetic interferences.



In addition to swiveling the crane, the main functions of the crane control system include the operation of the main arm, boom and telescope as well as rotation, opening and closing of the grab. The extended functionality enables the support and also the "tilt function" (horizontal position) of the crane during ascents.



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