

VALVES FOR VISIBILITY

With an innovative control valve on their tractor-mounted front loaders, end users are able to add functions at minimal cost while maintaining an optimised view of the attachment

Today's design of mobile machinery does not only call for the optimisation of machine functions via optimal hydraulic systems – it also requires the achievement of optimal visibility and ergonomics for the machine operator, as well as smart design to keep component costs down.

Nimco Controls has been at the forefront of hydraulic control valve design with regard to not only optimal load control and low leakage rates, but also in finding solutions that will save the machine designer cost through smart designs as well as adjoining components, thereby reducing the total component cost.

The issue of operator visibility has demanded more attention over recent years as it has been recognised that better visibility and ergonomic work conditions for the operator improves productivity as well as safety. Nimco's latest development in this area is the SVL-300 and SVL-400 compact attachment valve for tractor-mounted front-end loaders. Front-end loaders are usually operated with a two-spool valve mounted on the side of the loader, and which is operated either via a cable or an electronic joystick.

For any third, fourth or additional functions needed on the loader, OEMs are usually forced to use a number of

hoses alongside the loader – hopefully without interrupting the operator's visibility. This usually results in the piping coming out from the loader in an undesirable way.

Any retrofit of extra equipment after the initial point of sale is therefore difficult, time consuming and expensive for both the end user and the distributor responsible for carrying out the work.

Closing in on the problem

The SVL-300 compact valve series is designed to solve this problem, bringing the piping closer to the loader and integrating all the piping and available auxiliary valve functions in one cast valve block which serves as the central attachment point for all pipes and hoses on the cross beam of the loader.

The SVL-300 valve is available as a standard valve block with the option for other functions to be attached directly to it as an optional retrofit.

The standard SVL-300 valve's hydraulic functions include an electrical 6/2 circuit selector valve for any third function operation on the loader, a dual-relief valve for bucket cylinder protection, and the option of either a manually or electric-operated control valve for switching on the accumulator that controls the loader's comfort ride function.



The SVL-300/400 combination provides third and fourth functions without the need for large amounts of space, while still allowing for inline connections with all hoses and piping

Another option is an additional electrical 6/2 circuit selector valve that can be attached to the SVL-300 block due to its very narrow dimensions, and thereby integrate a fourth function possibility for the operator.

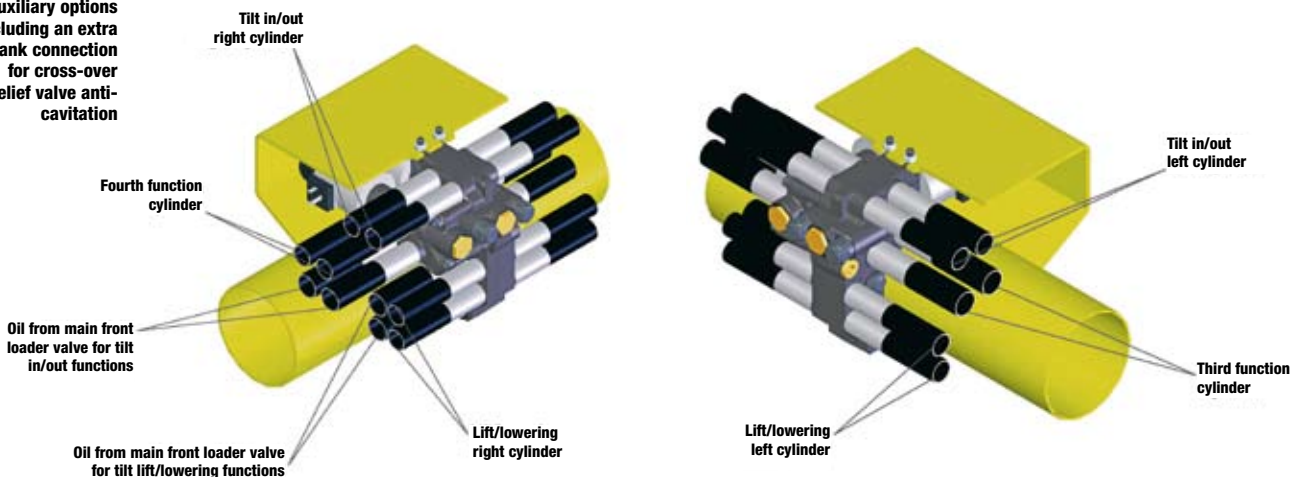
A fifth option is the attachment of a tool-locking valve for tractors that are used with, for example, fork attachments or other tools that must be securely locked during operation.

The special, compact L-shape design of the SVL-300 allows it to be attached to the main beam and provide optimal visibility, safety and ergonomic comfort.

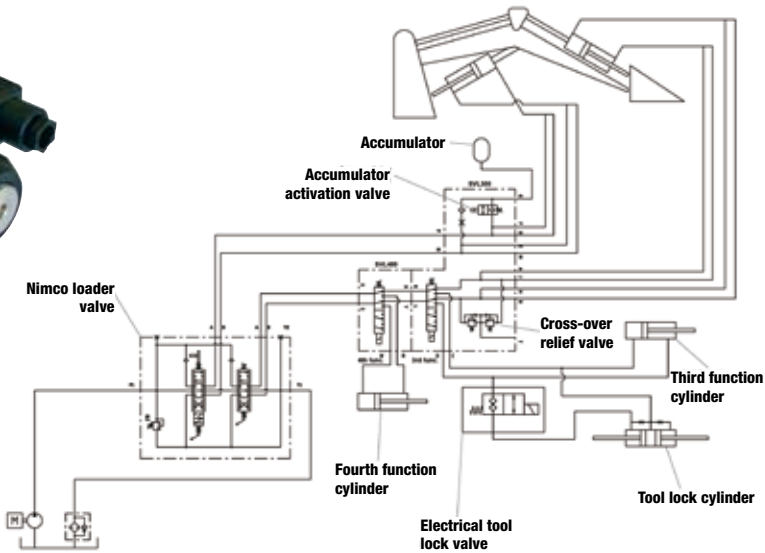
By offering a compact valve such as the SVL-300 on their machines, equipment manufacturers will find that they can equip loaders with the standard equipment required by their customers, while at the same time providing a means for the economical upgrading of options after the initial



The SVL-300 as a standalone valve is pre-machined for all auxiliary options including an extra tank connection for cross-over relief valve anti-cavitation



The SVL-300 is designed so that all pipes and hoses can be attached directly to each side of the valve, allowing the valve to serve as both a valve and a central connecting point for all hose attachments



The SVL-300/400 valve can be integrated with a Nimco Controls loader valve and provide third and fourth functions together with a cross-over relief valve, an accumulator activation valve and the tool change/lock valve option

purchase, and saving money on piping installations and couplings.

As the drive for cost savings, operational safety and improved working environments continues to gather pace, more component integration in specially designed blocks will continue to develop to keep pace with machine builders' demands. It is also likely that the use of cast blocks will increase, as it is often much easier and more economical to integrate traditional spool designs containing special valves than it is when using blocks manufactured from standard material. **ivt**

Torbjörn Nord is founder and managing director of the Nimco Controls Group



CONTACT

www.nimco-controls.com
saleseurope@nimco.se