

Integrated Boom Lock Valve Uses Pressure Control To Protect Excavators from Hose Burst

When excavators or backhoe loaders are doing heavy lifting, it can put a strain on the hydraulic system. An unexpected spike in pressure or flow could cause a hose to rupture, endangering the load and the operator. To protect against this possibility, a lowering control device can be used to prevent boom or arm drop and ensure controlled lowering of the load in the event of a hydraulic line failure. Equipment safety regulations now require the use of such devices.

Conventional hydraulic lowering controls typically employ a pilot-operated proportional poppet valve to control the hydraulic flow between the boom and the main control valve. The poppet controlled via remote pilot pressure that can come from a pilot-operated joystick or an electroproportional pressure-reducing/relieving valve. That solution succeeds at controlling flow - volume or displacement - but what about pressure?

How to Handle the Pressure

The HydraForce EBLV boom lock valve takes a unique approach by controlling pressure rather than flow. It has a poppet seat for low leakage and spool-type metering for improved control. It is internally piloted, without the need for additional pilot lines or sources. The pressure control valve has an integrated housing that also contains a built-in check valve that provides free reverse flow.

The EBLV boom lock valve can be used for a sequence function or a relief function, depending on how it is plumbed. Using it as a sequence valve can help to reduce the effect of back pressure from the main control valve and hydraulic plumbing.



ALL IN ONE - The EBLV boom lock valve is an integrated assembly that features a proportional pressure control cartridge valve in a single-piece housing that also contains a check valve.



Features -ELBV Boom Lock Valve

Flow Rating: 248 lpm/ 66 gpm

Pressure Rating: 420 bar/ 6091 psi

The single-piece housing of the EBLV valve provides a number of advantages.

- **Compact Size** - body with integrated valves is more compact than custom manifolds or valve packages
- **Light Weight** - fewer parts add up to lower weight
- **Multi-Function** - two functions - proportional pressure control and reverse check - in a single body
- **Low Leakage** - fewer seals and hydraulic lines

For more information on the EBLV boom lock valve, contact your HydraForce representative or distributor or visit www.hydraforce.com.

For detailed information and specifications, visit www.hydraforce.com or contact your local HydraForce representative at www.hydraforce.com/distributors/world.htm

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