

In control with Hyspecs

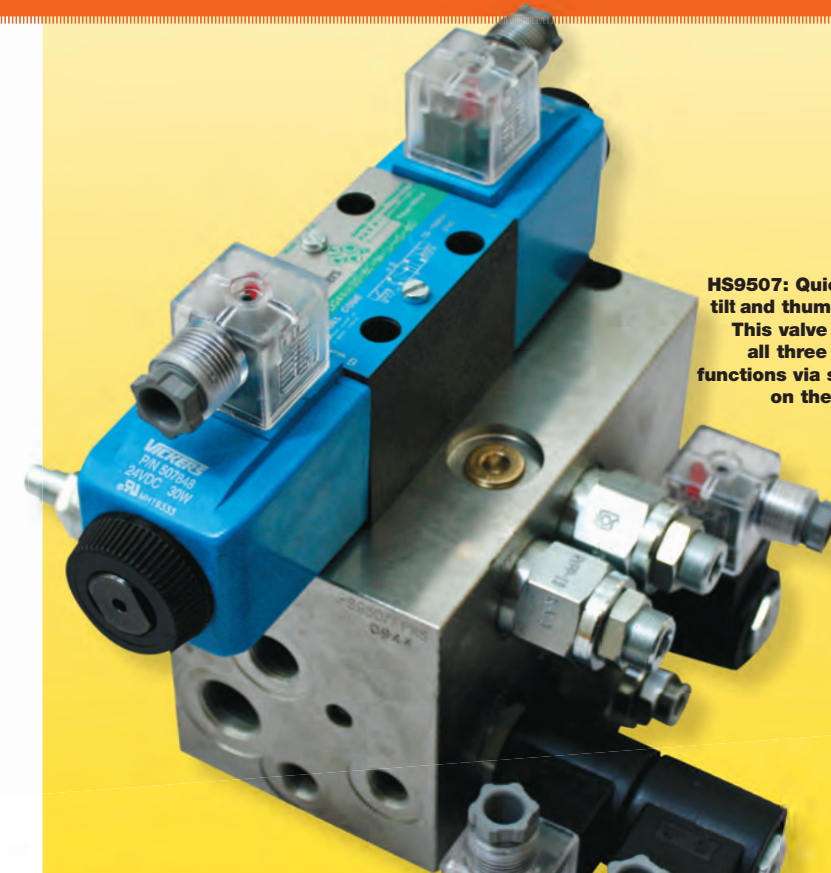
Excavators are a versatile machine with a plethora of attachments available — turning a standard digger into a machine capable of just about anything.

When adding a new attachment to an excavator, you need to be able to control it. If an auxiliary valve is available, that can be used. If not, another hydraulic valve capable of controlling the new attachment will get the job done.

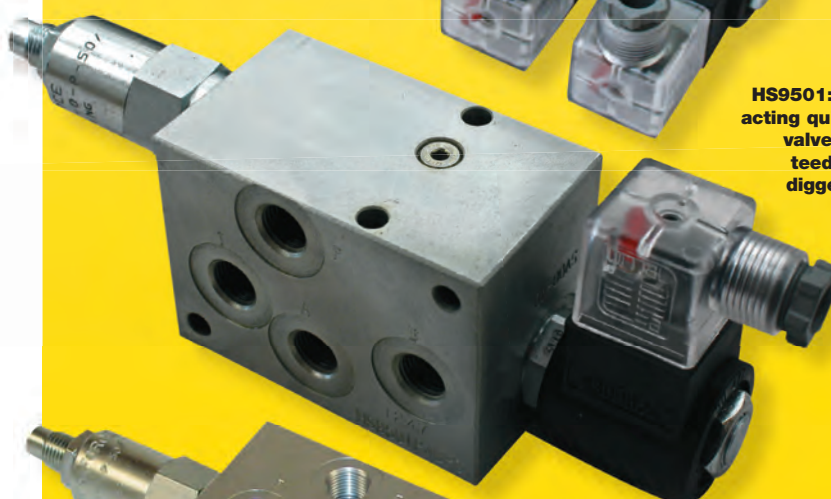
Traditional methods for achieving control of one or more functions on excavator attachments involves a lot of discrete valves, which lead to a hose nightmare or worse — the introduction of lots of potential oil leaks. Not a good thing to have on an environmentally-sensitive site.

Then there's the traditional Cetop valve method for switching a quick-hitch on and off. This takes up a lot of space inside the already tight engine compartment. Hyspecs identified this problem and with the aid of sister company Hytech, started to manufacture aluminium and steel hydraulic cartridge valve solutions at its purpose-built machining centre in Auckland. Manifolds are machined to the smallest size possible with ports and mounting holes arranged to be as user friendly as possible. High quality cartridge valves are screwed directly into the manifold cavities and small solenoid coils complete the valve taking up minimal space. For larger flows Cetop valves are used but due to the integrated circuits in employment, space, extra hoses, and leakage points are all minimised. Now, 10 years later, Hyspecs has over 20 variants of valves available to control excavator attachments.

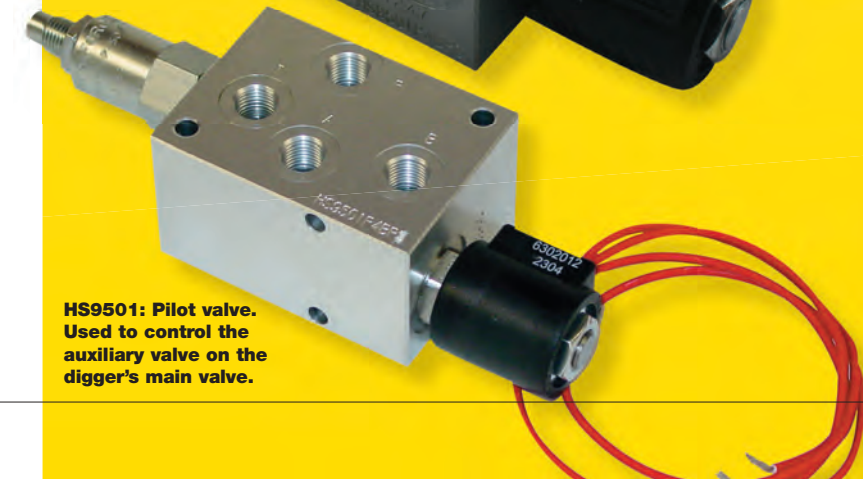
“High quality cartridge valves are screwed directly into the manifold cavities and small solenoid coils complete the valve taking up minimal space”



HS9507: Quick-hitch, tilt and thumb valve. This valve controls all three of these functions via switches on the joystick



HS9501: Double-acting quick-hitch valve. Usually teed into the digger's main pump



HS9501: Pilot valve. Used to control the auxiliary valve on the digger's main valve.

The first valves manufactured were designed to pilot-control the auxiliary valve on an excavator, or to directly control a single or double-acting quick-hitch cylinder. With the help of a hose installer, these valves can be quickly fitted to any new or old excavator.

Pilot valves are used to provide pilot pressure to the auxiliary spool on an excavator. Auxiliary spools are often used to attach rotating grapples. This valve gives the operator fingertip control of the new attachment. A pressure reducer/reliever gives the user a means of setting up the desired flow with proportional auxiliary spools.

Quick-hitch valves are used to clamp, hold, and release a quick-hitch cylinder at the end of



HS9515: Two-stage pilot control valve. Controls the digger's main spool valve



the excavator boom. Utilising the excavators flow and pressure from a test point on one of the pumps, the quick-hitch valve can be turned on/off via a switch in the cab.

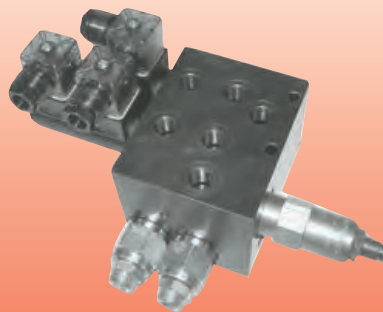
Further down the track new valves were designed: tilt control; tilt and thumb; and even an all in one quick-hitch, tilt and thumb valve to control all three functions. Variations in the designs account for single or double-acting cylinders, pressure reducing and relief valves where needed, load sensing, and two inlets for high-flow requirements. Proportional or

two-stage control of an excavators main spool is also available. Counterbalance options, negative-controlled tilt, and even dual-pump flow-sharing valves are all available. If it doesn't already exist we can make it. ■

For more information on the Hyspecs excavator valve range, call one of its sales engineers or download the excavator valving PDF from the Hyspecs website hyspecs.co.nz by browsing for 'excavator valving' in the online shop.

Attaching a new quickhitch, tilt or thumb to your excavator?

Make the job easier by using Hyspecs excavator valves, specifically designed to control your excavator attachments



- Compact, easy to install, minimises leakages.
- Quickhitch valves to suit single or double acting cylinders.
- Integrated quickhitch, tilt and thumb control valves with load sensing and cross line relief protection all in-built.
- Multi-function ergonomic handles for simultaneous electrical switching and manual control of valves.

- Manufactured in NZ by sister company Hytech.
- Thumb control valves with cross line relief protection.
- 20 different variations on valve combinations - if we don't have it, we can build it for you.
- Reliable low current draw solenoids provide millions of cycle lifetime. Rated to at least IP65.



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