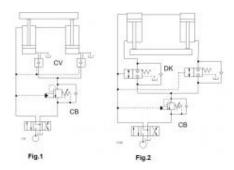


Load-Holding of Two Cylinders – Mechanically Coupled

Machine: | Actuator: Cylinder | Function: Counterbalance, Lift/Lower

Prepared for : Prepared by :

Schematics

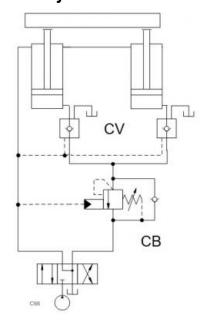


Related Products

Cartridges

CBIY - 2:1 pilot ratio, standard capacity counterbalance valve CVEV - Vented pilot-to-open check valve DKFC - Normally closed, balanced poppet, logic element - pilot-to-open

Summary



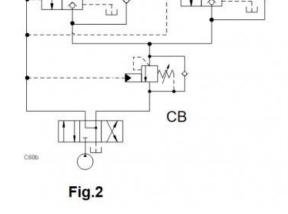


Fig.1

The circuits show two vented pilot-to-open check valves CV or logic valves DK to keep two cylinders in position. A single counterbalance valve CB is used to control the overrunning load.

Standard counterbalance valve : <u>CB**, CB*J</u>
 Vented pilot-to-open check : <u>CV*V, CK*V</u>
 Balanced logic element: <u>DK*C</u>

Benefits of this circuit arrangement:

- The pilot-to-open check valves CV secure a leak-free position of the two cylinders that move a door. Since
 the cylinders are mechanically coupled, independent control of each cylinder movement may lead to
 distortion. Opening both P.O. check valves enables the cylinders to be controlled by one CBV, which
 prevents overrunning loads.
- In Fig.1 vented P.O. check valves are required since back pressure will be present downstream.
- In Fig.2 with high load-induced pressures and a rigid frame the vented P.O. check valves are replaced with vented CBVs or balanced logic elements.

For Sun technical support, contact Bernhard Kristen.

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