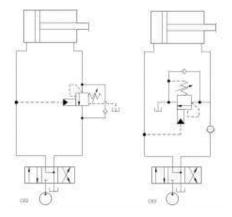


Cushion Lock on One Side of a Cylinder Only

Machine: Industrial | Actuator: Cylinder | Function: Counterbalance, Cushion Lock

Prepared for : Prepared by :

Schematics



Related Products

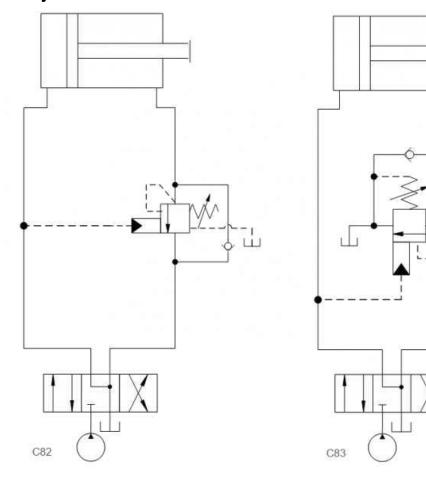
Cartridges

CWIK - 1:1 pilot ratio, vented counterbalance valve

CBEA - 3:1 pilot ratio, standard capacity counterbalance valve

CXEC - Free flow side to nose check valve with auxiliary external port and Delrin seat

Summary



The example shows advantages of replacing a vented counterbalance valve with a standard valve plus check valve.

Vented counterbalance valve: <u>CW**</u>
Standard counterbalance valve: <u>CB**</u>
Standard check Valve: CX**

Benefits of this circuit arrangement:

- Fig.1 shows a circuit with a vented counterbalance valve that is used for high pressure in the return line.
- Fig. 2 shows a less expensive standard counterbalance valve as alternative. This circuit will require an additional tank port.
- Fig. 2 also allows sizing the counterbalance valve for the actual flow through the valve during load lowering and using a check valve for higher flow during lifting. The vented counterbalance valve in figure 1 may have been chosen for sufficient capacity across the reverse free flow check (50 gpm). The oversized counterbalance valve then is potentially unstable during load lowering (25 gpm).

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