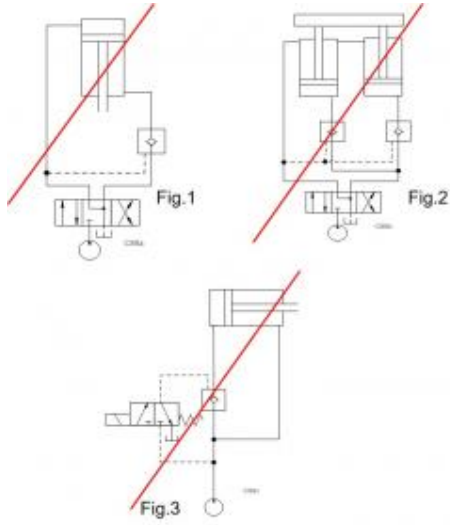


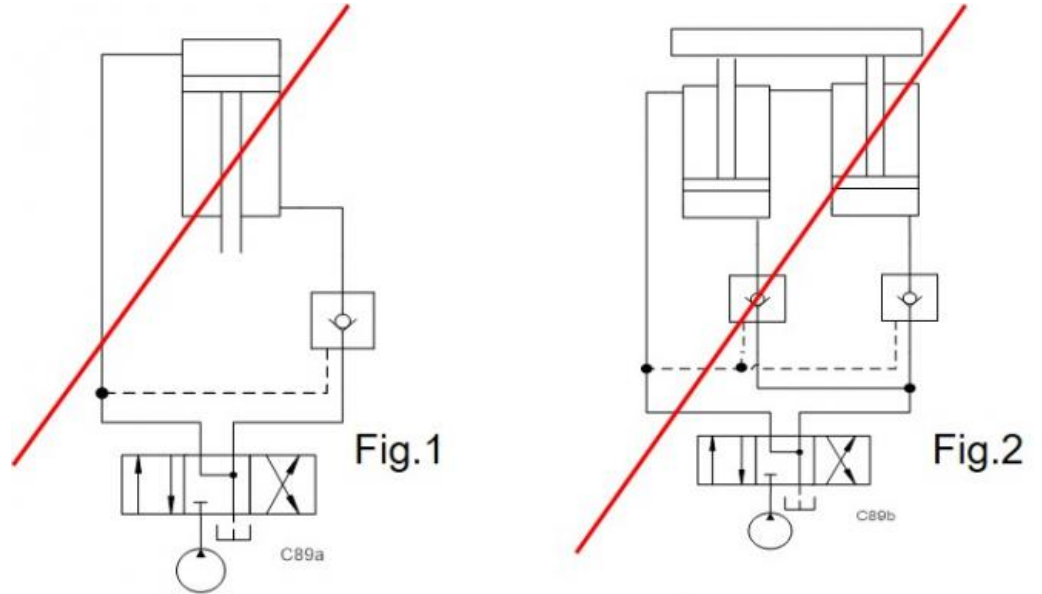
Prepared for :

Prepared by :

## Schematics



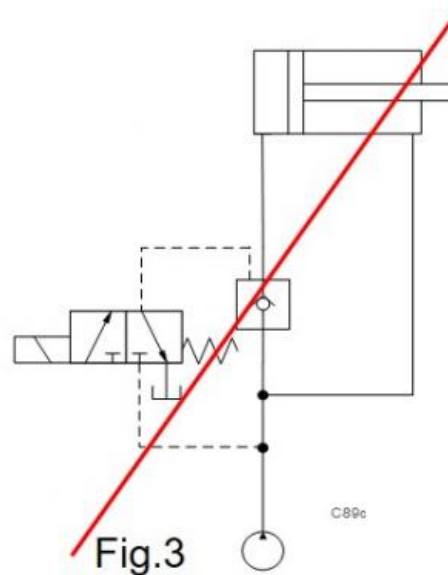
## Summary



## Related Products

### Cartridges

- CKBB - Pilot-to-open check valve with standard pilot
- CBAA - 3:1 pilot ratio, ultra-restrictive counterbalance valve



The following circuits are presented to illustrate potential problems. In some cases, available pilot pressure cannot open a PO check against load induced pressure and/or intensified cylinder pressure.

- Pilot-to-open check valves 3:1: CK\*B
- Standard counterbalance valve: CB\*\*

Caution Notes:

- **Fig 1.** It may not be possible to open the check valve on the rod side of the cylinder due to pressure intensification.
- **Fig 2.** In cases where cylinders are rigidly coupled, the P.O. check valves do not open simultaneously. As one valve opens, the load shifts and prevents the second valve from opening.
- **Fig 3.** In regen applications, a P.O. check valve may not open completely. Since the pressure differential across the P.O check valve is very low, a standard pilot-to-open check valve may not fully open.

*Note: If the compression of oil moves a cylinder like an overrunning load, consider using a counterbalance valve. In many cases, counterbalance valves and P.O. check valves have the same cavity and porting.*

**For Sun technical support, contact Bernhard Kristen.**