

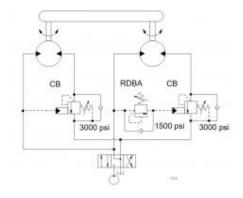
Prepared for:

Motors in Parallel - Precise Movement

Machine: | Actuator: Motor | Function: Counterbalance, Load/Force, Speed

Prepared by:

Schematics

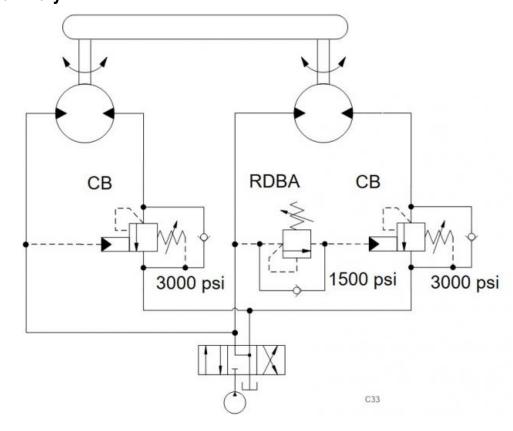


Related Products

Cartridges

CBAA - 3:1 pilot ratio, ultra-restrictive counterbalance valve RDBA - Direct-acting relief valve

Summary



Moving two motors very slowly with small movements could be a problem caused by backlash in gears.

Load-sensitive counterbalance: <u>CB**</u>
 Relief valve: RDBA

Benefits of this circuit arrangement:

- Both counterbalance valves (CB) are set at the same maximum load-induced pressure plus 30% for safety. If both CB open at the same inlet pressure, then both motors would be driven forward simultaneously.
- Backlash in gears would lead to small uncontrolled movements of any one motor. A relief valve in the pilot
 line of one of the motors creates an offset in the crack pressure of the two counterbalance valves. This
 forces the first motor to push against the second motor that still sees a closed counterbalance valve in the
 return line. As pressure builds, eventually both counterbalance valves will open, which will allow fine
 metering control.

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