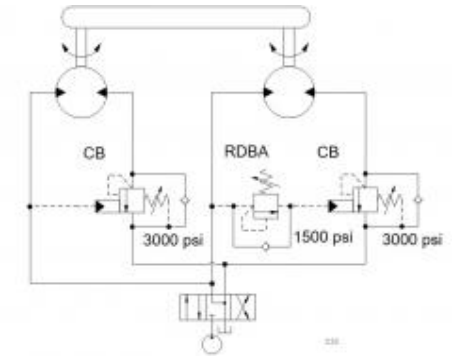
Motors in Parallel - Precise Movement

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

Prepared for : _____

Prepared by : _____

Schematics

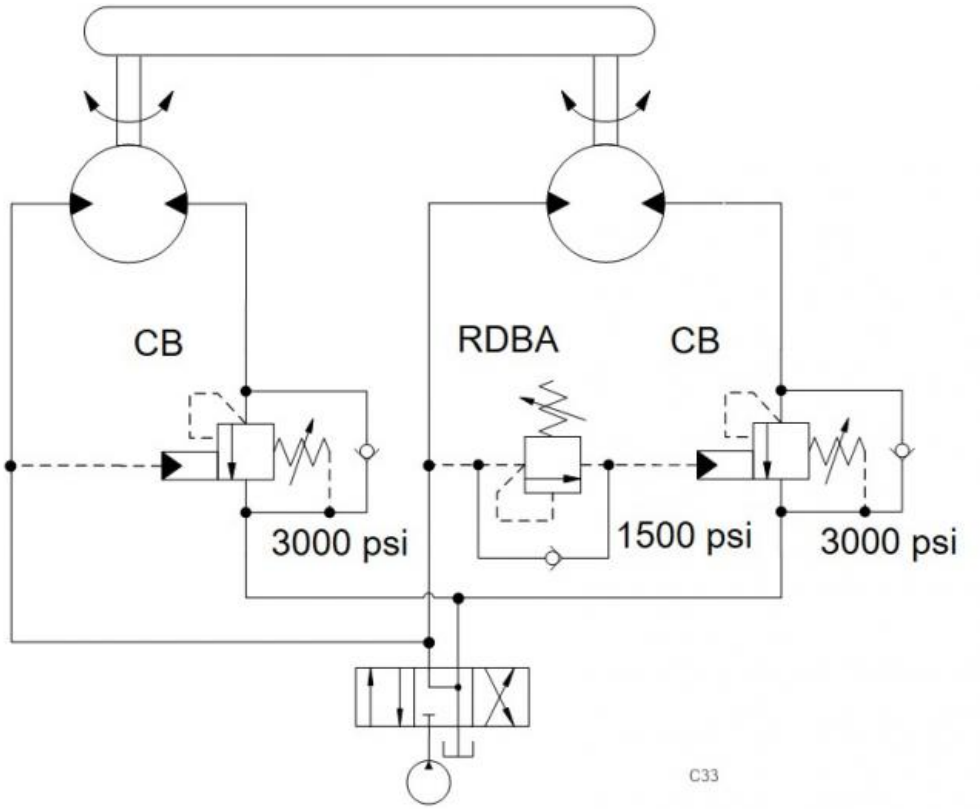


Related Products

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:** **CB****
- **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.

For Sun technical support, contact Bernd Zaehe.