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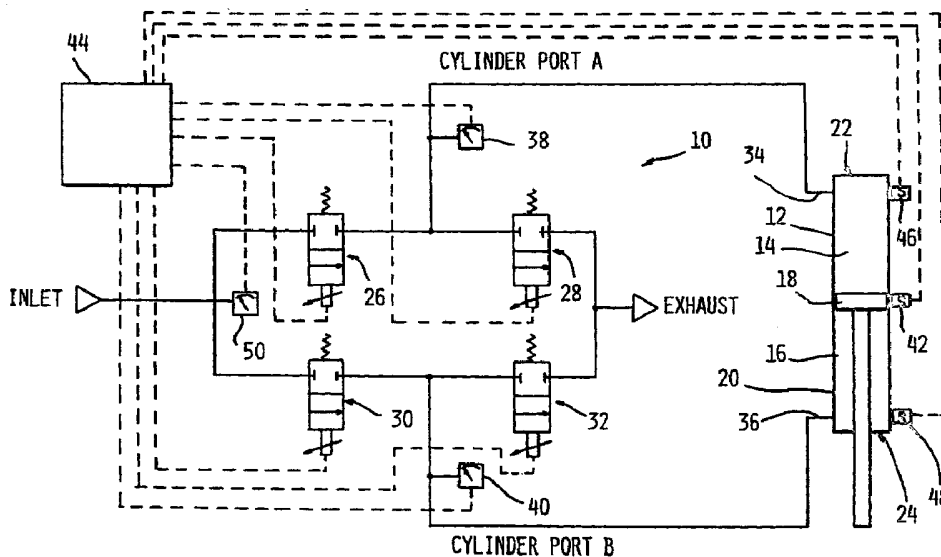
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US 6085632 A **US 5431086 A**
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INT CL⁷ **E02F, F15B**
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(54) Abstract Title: **Multi-valve fluid operated cylinder positioning system**

(57) A position control system is used for controlling a fluid operated cylinder (12) having at least one fluid chamber (14) defined by a piston (18) located within a housing (20) for movement between first and second end limits of travel (22, 24). The system includes at least two electrically actuated proportional flow control valves (26, 30) connected to each port of the cylinder for selectively and proportionally controlling fluid flow into and out of the at least one chamber. At least one pressure sensor (38, 40) is provided for measuring fluid pressure with respect to each chamber. At least one discreet position sensor (42) is located adjacent a midpoint of the cylinder for sensing a discreet centered position of the piston. A controller (44) includes a program and is operably connected for controlling actuation of the at least two valves in response to pressure measured by the at least one pressure sensor and location measured by the at least one position sensor.



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