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(54) Title: PRESSURE REGULATOR WITH IMPROVED DEADBAND

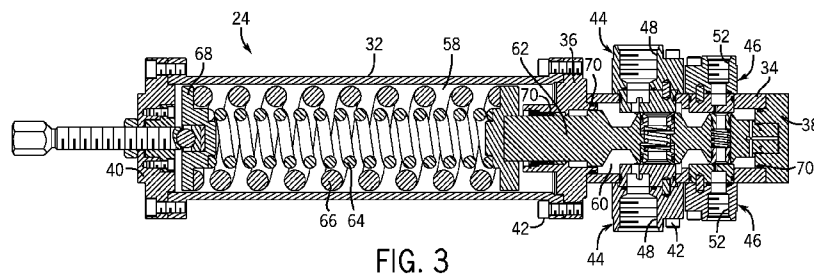


FIG. 3

(57) Abstract: A pressure regulator is provided. In one embodiment, the pressure regulator includes a piston and supply seal rings, wherein the diameter of the piston is at least half of the sum of the diameters of the supply seal rings to reduce deadband and increase sensitivity. In another embodiment, the pressure regulator has a maximum deadband of less than 200 pounds per square inch when coupled to a supply pressure of at least 1000 pounds per square inch. Other embodiments related to pressure regulators are also provided.

