ABSTRACT

SAFETY VALVE TORSIONAL SPRING ASSEMBLY AND METHOD

A safety valve assembly comprises a valve body, a flapper mount, flapper and a hinge used to rotate the flapper in an opened or closed position. Torsional pins are mounted adjacent the flapper mount, each having ends which extend into the hinge and terminating adjacent each other at a location along the hinge. Torsional springs are circumferentially mounted around the torsional pins. Tabs extend from the torsional springs and contact an actuation member extending over the top of the flapper. As such, the torque created by the torsional springs is transferred to the actuation member via the tabs, thereby reducing the stress on the torsional springs.

Figure 1