

SUBSEA ELECTRIC ACTUATOR USING LINEAR MOTOR

Abstract

[0020] An actuator for use with valves in a subsea wellhead assembly. The actuator includes a shaft with an alternating polarity along its length and windings spaced around the shaft that create a magnetic field around the shaft. The shaft is connectable to a valve stem so that flowing current through the windings creates a magnetic field for linearly moving the shaft and operating the valve. A fail safe mechanism can be included that pushes the shaft back to its original position thereby also moving the valve into its original, or fail safe, position.

Figure : 1