ABSTRACT

ENHANCED CONTROL LINE EXIT

An angled passageway is provided in a tubing head of a wellhead assembly for reducing an angle of bend in a control line exiting from a tubing hanger. The angled passageway extends from the bottom to the top of the tubing hanger and is angled relative to the longitudinal axis. By traversing the longitudinal axis with the angled passageway, a sufficient angular orientation of the control line is achieved to minimize bend in the control tube. Another embodiment teaches an upper angled passageway segment in communication with a lower angled passageway segment that interface with one another at an angle. By providing two interacting angled passageways, the required angle of bend of the control tube exiting from the tubing hanger is further reduced.

FIGURE 2