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(54) Title: SMART WELLHEAD

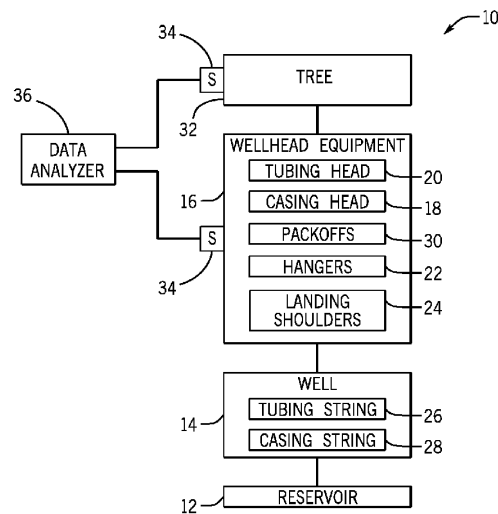


FIG. 1

(57) Abstract: Smart wellhead assemblies with sensors for detecting positions of components within the bores of the wellhead assemblies are provided. In some instances, the sensors can be used to detect one or more of landing, locking, or concentricity of hangers, packoffs, or other internal wellhead components within bores. In one example, a method of installing a hanger within a wellhead includes lowering the hanger within the wellhead and using one or more sensors to detect when the hanger is at a target location. The method can also include activating a locking mechanism of the hanger and using the one or more sensors to detect when the locking mechanism has secured the hanger within the wellhead. Additional systems, devices, and methods are also disclosed.

[Continued on next page]

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