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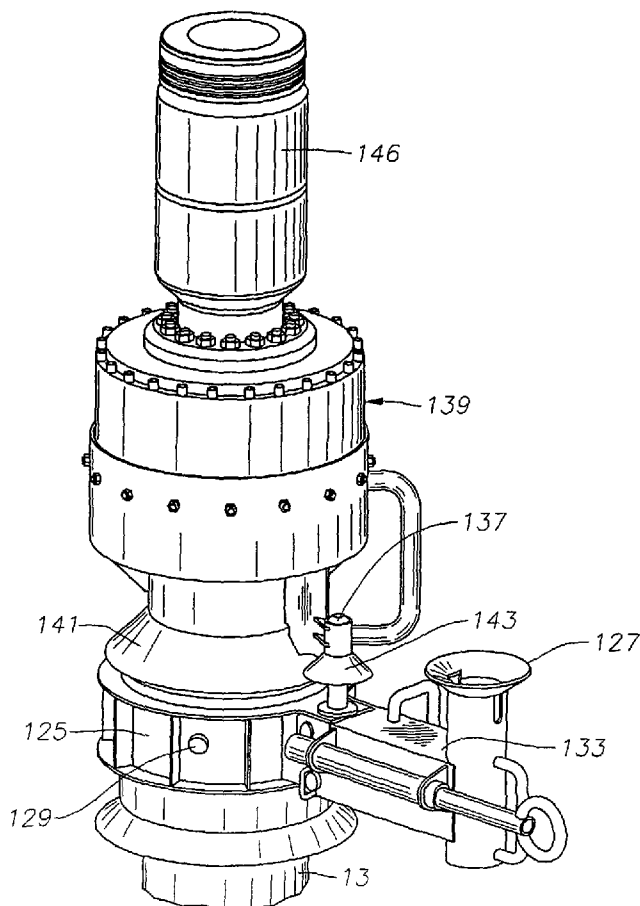
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(54) Title: ORIENTATION SYSTEM FOR A SUBSEA WELL



(57) Abstract: An outer wellhead housing has an external locator member (143) initially oriented in a desired direction. An inner wellhead housing lands in the outer wellhead housing (13). A BOP orientation spool (139) with an external orientation member (143) and an internal orientation member (141) lands on the inner wellhead housing and orients via the external locator member. A tubing hanger with an orientation member and associated tubing hanger running tool with another orientation member lower through the BOP orientation spool and orient as they land in the inner wellhead housing. A production tree (39) with an orientation member (155) on a lower end lands on the inner wellhead housing. The orientation member of the production tree engages the orientation member (127) of the tubing hanger to rotate the tree to a desired orientation.



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