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(54) Title: HYDRO-PNEUMATIC CYLINDER WITH ANNULUS FLUID BYPASS

(57) Abstract: Systems and methods for pressure communication within a hydro-pneumatic cylinder are provided. The hydro-pneumatic cylinder generally includes a rod, a barrel coaxial to the rod, and a piston assembly disposed within the barrel and connected to the rod. The barrel is hollow to define a chamber, and the piston assembly is axially movable within the chamber to stroke the rod relative to the barrel. The hydro-pneumatic cylinder includes: a flow path formed axially through the rod of the cylinder. This flow path may allow for pressure communication between a low-pressure side of the cylinder and a pressure energized lower pin located at a distal end of the rod. The lower pin may be actuated, via this pressure communication to secure the end of the cylinder to a tension ring on a riser.

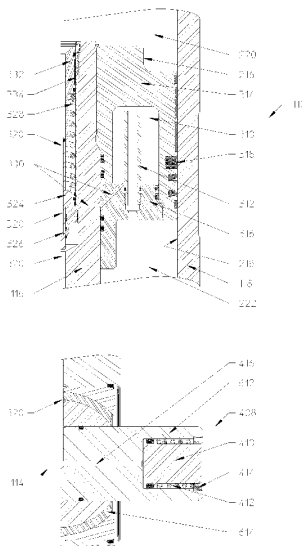


FIGURE 7

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