



ABSTRACT

A petroleum well intervention winch system includes a high pressure confining housing for a drum for a rope to a tool string. The pressure confining housing has a connector with an aperture for the rope to a top of a tool string gate chamber on vertical bore BOP valves on a wellhead on the petroleum well. The rope runs through the aperture via a capstan to the drum. The capstan is driven by a first motor through a first high pressure proof magnetic coupling across a wall of the housing. The drum is driven by a second motor through a second high pressure proof magnetic coupling across the wall of the housing. The capstan is subject to a load tension from the rope and is provided with a hold tension on the rope from the drum. The second motor exerts a constant hold tension on the rope via the drum.

