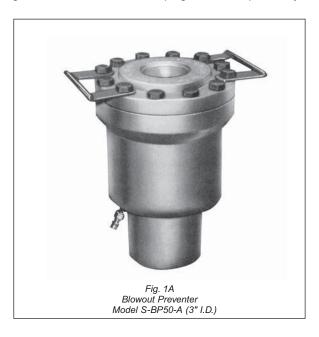


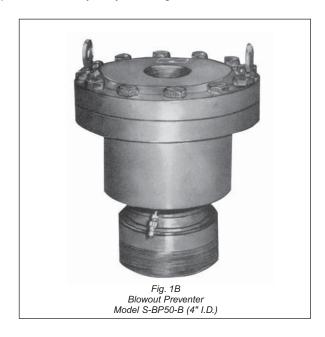
BLOW OUT PREVENTER and ROD STRIPPER

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The combination Blowout Preventer and Sucker Rod Stripper combines safety and economy in a tool designed to perform the necessary function of line wiping. It can be operated from anywhere on the derrick floor utilizing pressure from bottled nitrogen, an optional hand operated hydraulic pump, or the optional BOP control system (Fig. 1C). When this tool is employed of wire line operations, a CAVINS Ball Lock Oil Saver is screwed directly into the top of the Blowout Preventer. When swabbing, a short lubricator the length of the swab between the master gate and the Blowout Preventer is all that is required. The Blowout Preventer is available in either the 3" size with full 3" ID clearance and 4" female. A.P.I. line pipe for the Ball Lock Oil Saver on top or the 4" size with full 4" ID clearance and 4" female A.P.I. line pipe threads top and bottom. Pressure connection is for 1/4" A.P.I. pipe. The units are tested to give full closure up to 3000 psi well pressure with no leakage. The full closure feature of the Blowout Preventer will give a temporary seal, allowing ample time to close the master gate should a well blowout occur.

As a Sucker Rod Wiper, the unit affords exceptionally long wiping service and complete control of the well against possible leakage or blowout. The rubber wiping unit is comparatively inexpensive and very easy to change.





BOP CONTROL SYSTEM

The BOP Control System provides the hydraulic power and controls necessary to operate the Cavins Blow Out Preventer and Rod Stripper during work-over operations (Fig. 1C). Due to its compact design, the unit takes up little space and also stores all accessories, controls and BOP equipment. The BOP accumulator is powered by rig air (26 CFM @ 100 PSI) to charge and maintain pressure stored in the system. The accumulator provides 3000 PSI + to the BOP, which gives an immediate closure or it can be manually operated by a 2 stage hand pump for stripping operations. The BOP Control System can be configured a variety of ways depending on what accessories or options are required by the customer.

