





3000 PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

> Works stripper; valves ; chokes and connections, as illustrated. If a topered drill string is used, a rom preventer must be provided for each size of drill pipe. Casing and the thing rams to fit the preventers are to be available as needed. The ram preventers may be two singles or a double type. If correct in size, the flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and kill line. The substructure height shall be sufficient to install a rotating blowout preventer. The blowout preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated; a Shaffer Tool

2" Choke

lent, is to be available to operate the above pump (s), ar there shall be an additional pump (s) operated by separate power and equal in performance cepebilities. remaining accumulator fluid volume at least_ operated devices simultaneously within pemp (s). With the charging pump (s) shut down, the pressurized fluid volume stored in the occumulators must be sufficient to close all the pressure-Minimum operating equipment for the preventers shall be as follows: (1) Pump (s), driven by a continuous source of power, accable of closing all (2) When requested, accumulators with a precharge of nitrogen of not less than 750 PSI and connected so as to receive a fluid charge from the acave the pressure-operated devices simultaneously within - seconds; after closure, the remaining accumulator pressure shall be not less than 1000 PSI with the ___percent of the original. (3) When requested, an additional source of power, remote and equiva-__seconds. The pump (s) is to be connected to a closed type hydraulic operating system.

The closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided if a Hydril preventer is used. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydroulic equipment.

spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond All valves are to be selected for eperation in the presence of oil, gas, and drilling fluids. The choke flow line valve connected to the drilling choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. the edge of the derrick substructure. All other valves are to be equipped with hanales. The choke manifold, chake flow line, and choke lines are to be supported by metal stands and adequately anchared. The choke Siow line and