

3000 PSI WORKING PRESSURE PREVENTER HOOK-UP

preventer; valves; chakes and connections as illustrated. If a topered drill string is used, a rem preventer must be provided for each size of drill pipe. Casing and tubing rams to lit the proventer are to be available as needed. If cornect in size, the flonged outlets of the ram preventer may be used for connecting to the 4-inch I.D. chake flow tine and kill line, except when air or gas drilling. The substructure height shall be suf-The blowout preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated; a Hydril "GK" ficient to install a rotating blowout preventer.

Minimum operating equipment for the proventers and hydraulically operated valves shall be as follows: (1) Multiple pumps, driven by a continu-

the remaining accumulator fluid valume at least percent of the original. (3) when requested, an additional source of power, remote and equivalent, is to be available to operate the above pumps; or there shall be additional pumps operated by separate power and equal in performance capabilities. a precharge of nitrogen of not less than 750 PSI and connected so as to receive the aforementiated fluid charge. With the charging pumps shut down, the pressurized fluid vol me stured in the ous source of power, capable of fluid charging the total accumulator volume from the nitrogen precharge pressure to its rated pressure within minutes. Also, the pumps are to be connected to the hydraulic operating system which is to be a closed system. (2) Accumulators with

The clasing manifold and temote 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 for operating the Hydril preventer. When requested, a second pressure roducer shall be available to limit operating fluid pressures to ram preventers, Gulf Lagion No.30 hydraulte all, an equivalant or better, is to be used as the fluid to operate the hydroulic equipment.

the derrick substructure. All other valves are to be equipped with handles. and without sharp bends. Easy and safe access is to ba maintained to the choke manifold. All valves are to be solected for operation in the presence of oil, 50s, and drilling funds. The choke flow ling valves connected to the drilling spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of The choke manifold, choke flow line, and choke lines are to be supported by metal stands and adequately anchored. Tha choke flow line and choke lines shall be constructed as straight as possible

* To include derrick floor mounted controls.