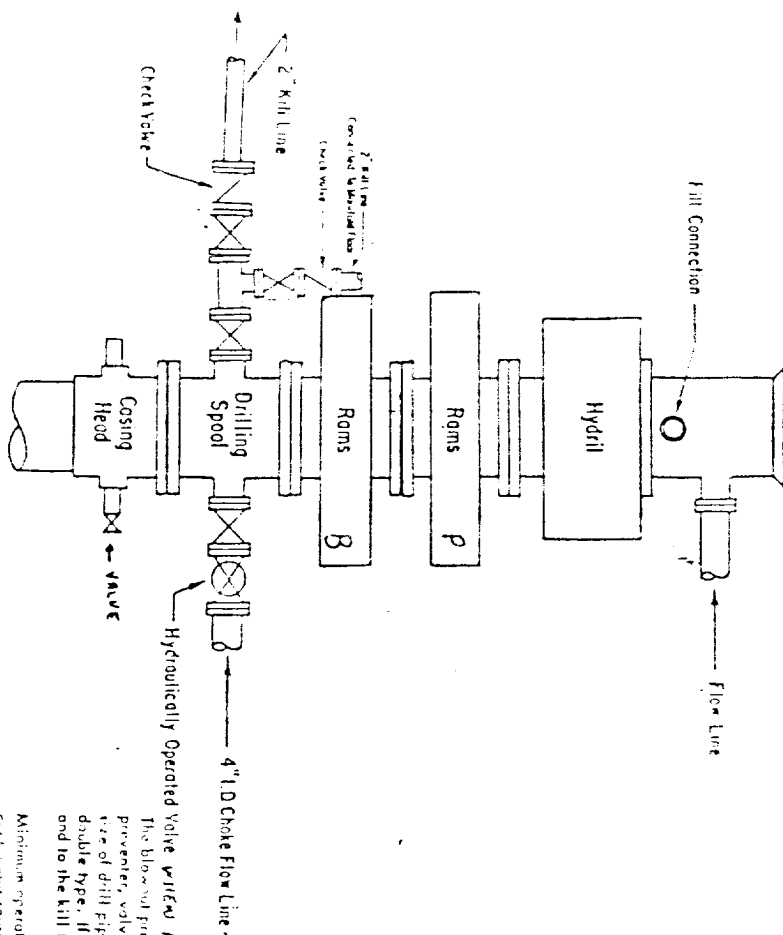




2000-3000 PSI WORKING PRESSURE BOP HOOK-UP FOR LARGE CASINGS

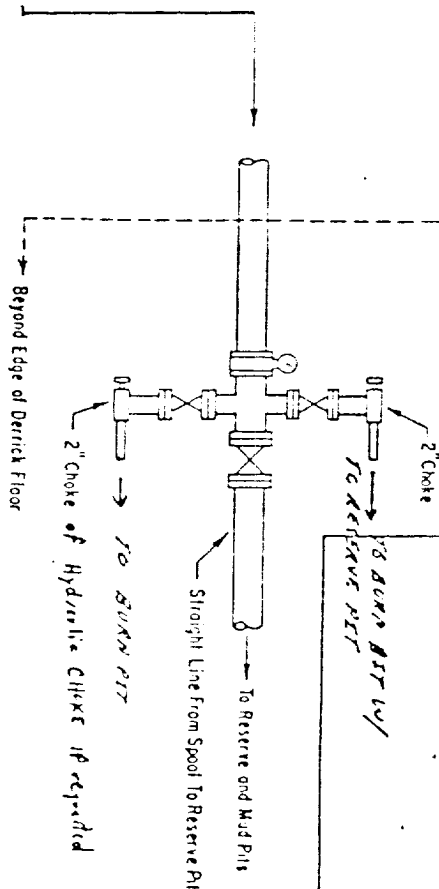
SPECIFY WORKING PRESSURE

Installed, with control handles to indicate open and closed positions. A pressure reducer and regulator must be provided for operating the Hydril preventer. When required, a second pressure reducer shall be available to limit operating fluid pressures to ram preventers. Gulf Legion Flo. 38 hydraulic oil, or equivalent or better, is to be used on the fluid to operate the hydraulic equipment.

The choke manifold, the choke flow line, the choke lines and the relief lines are to be supported by a steel stand and adequately anchored. The choke flow line, relief lines and choke lines shall be constructed as straight as possible and without sharp turns. They and safe access shall be maintained to the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow line valves and valves of the relief lines connected to the drilling spools and all ram type preventers must be equipped with stem extensions, without jamming if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves shall be equipped with handles.

Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1) a hydraulic power source, driven by a continuous source of power, capable of fluid charging the total accumulator volume from the rated pressure to its maximum pressure within 2 minutes. Also, the pumps are to be connected to the hydraulic operating system, which is to be a closed system. (2) the charging pumps shut down, the pressurized fluid volume forced in to recharge the above-mentioned fluid charge. (3) the device simultaneously within 1/4 second after closure, the remaining accumulator pressure shall be not less than 100 PSI with the remaining or cumulative fluid volume of not less than 50 percent of the original. (4) if required, either 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.

The blow out preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated, a Hydril preventer, valves, chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer shall be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available as needed. The ram preventers may be two finger or a double type. If correct in size, the flanged outlets of the ram preventer may be used for connecting to the 4-inch I.D. choke flow line and to the kill line. The substructure height shall be sufficient to install a rotating blow out preventer.



ADDITIONS - DELETIONS - CHARGES SPECIFY

NOTE: After Acquisition means at any time the drill supervisor can, may, or will require the equipment to be installed during operations.

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