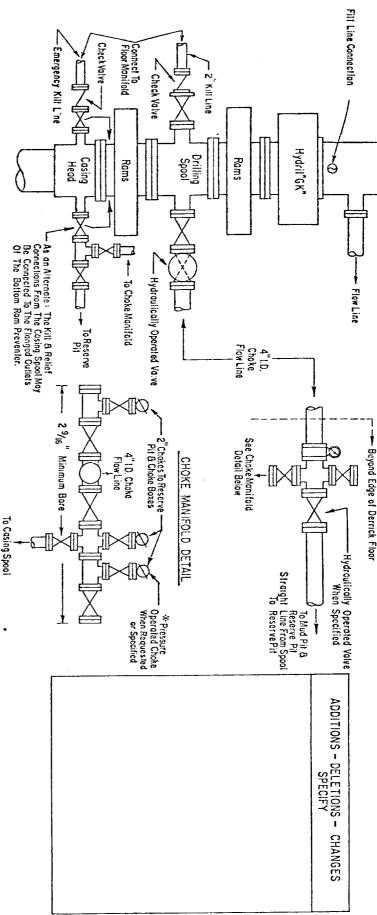
Revised April, . 1971 Flow Line Beyond Edge of Derrick Floor



BLOWOUT PREVENTER HOOK-UP 3000 PSI WORKING PRESSURE

The blowout praventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated; a Hydril "GK" proventer; valves; chokes and connections as illustrated. If a topered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available as needed. If correct in size, the flonged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow the and kill I'ne, except when air or gas drilling. The substructure height shall be suflicient to install a rotating blowout preventer.

ous source of power, capable of fluid charging the total accumulator volume from the nitrogen precharge pressure to its roted pressure within Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1) Multiple pumps, driven by a continu-

accumulators must be sufficient to close all the pressure-operated devices simultaneously within the remaining accumulator fluid volume at least ______ percent of the original. (3) When requests a precharge of nitragen of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With the charging pumps shut down, the pressurized fluid volume stored in the pumps; or there shall be additional pumps operated by separate power and equal in performance capabilities. percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to eperate the above minutes. Also, the pumps are to be connected to the hydraulic operating system which is to be a closed system. (2) Accumulators with seconds; ofter closure, the remaining accumulator pressure shall be not less than 1000 PSI with

The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be lobeled, 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 reducer shall be available to limit operating fluid pressures to ram preventers. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line and 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. All valves are to be selected for operation in the presence of oil, gas, and drilling f unds. The choke flow line 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 derrick substructure. All other valves are to be equipped with handles.

* To include derrick floor mounted controls