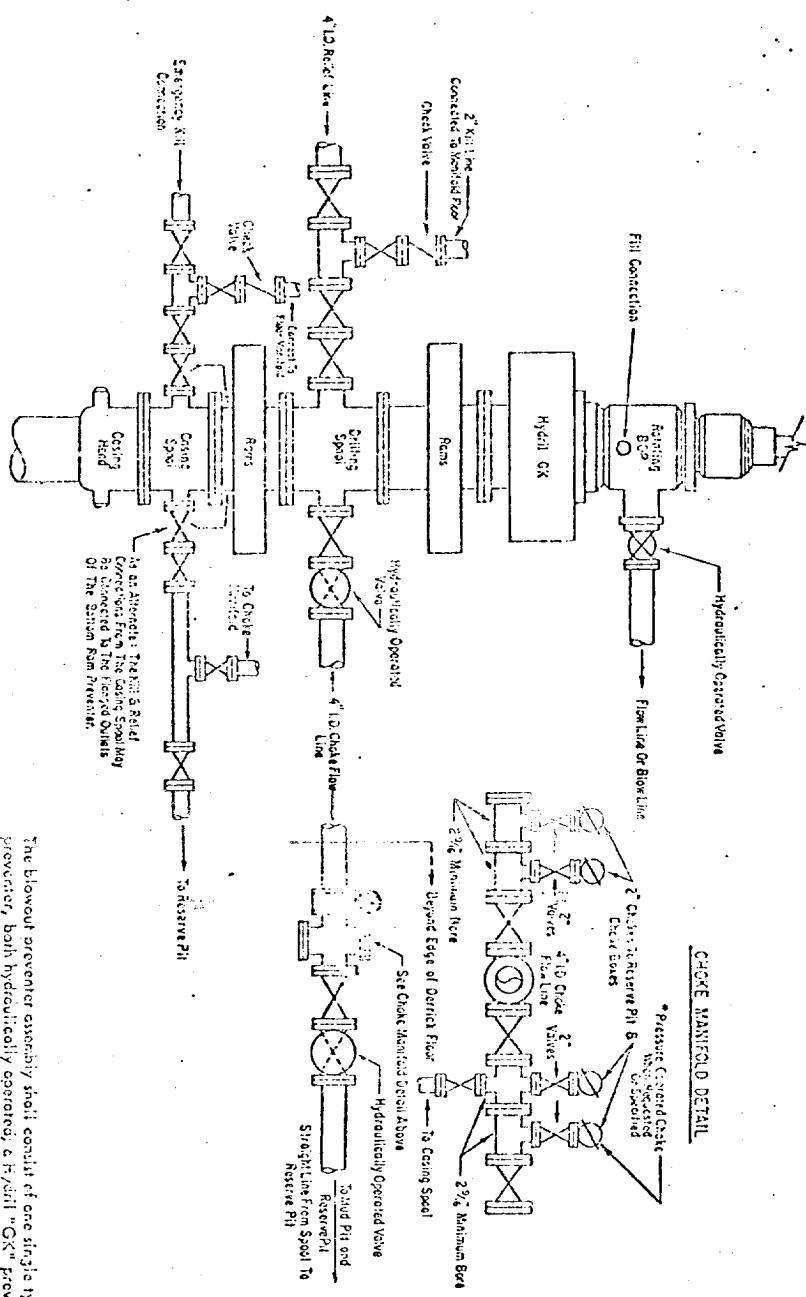


ADDITIONS-DELETIONS-CHANGES SUGGESTED



**5000 PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP**

The blowout preventer assembly shall consist of one single type blind ram, a lower end and one single type pipe ram preventer, both hydraulically operated, a built "G" preventer, a return line blowout preventer valves, chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Coupling and tubing cones to fit the preventers are to be available as required. If correct in size, the flared outlets of the ram preventer may be used for connecting to the 4-inch I.D. choke flow line and 4-inch I.D. relief line, except when air or gas drilling. All preventer connections are to be cap-face flanged.

Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1) Multiple pumps, driven by a continuous 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 nitrogen precharge system which is to be a closed system. (2) Accumulators with a percentage of nitrogen of not less than 75% and connected so as to receive the aforementioned fluid charge. With the charging pumps shut down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressure-operated devices simultaneously within _____ seconds after closure, the remaining accumulators pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume at least _____ percent of the original. (3) When required, 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 pressure reducing regulator must be provided for operating the Hydrill preventer. When required, a second pressure reducer shall be available to limit operating fluid pressures to run preventers. Gulf Legion No. 32 hydraulic oil, or equivalent or better, is to be used as the fluid to operate the hydraulic equipment.