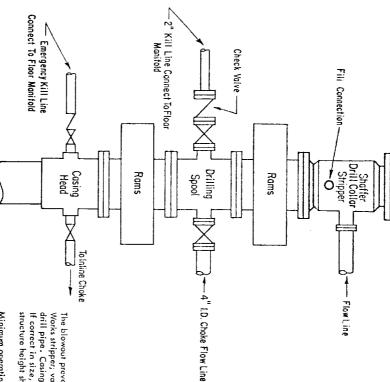
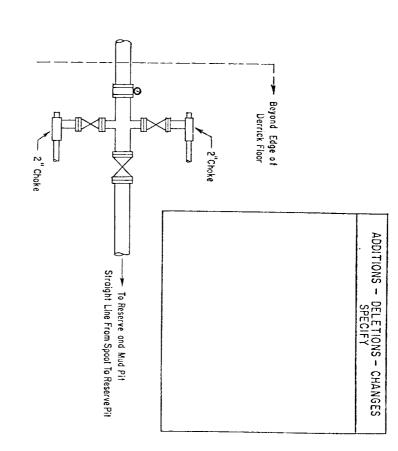
DRAWING NO. 2 Revised April, 1970



3000 PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP



structure 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 Works stripper; 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. Casing and tubing 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 I.D. choke flow line and kill line. The sub-

Minimum operating equipment for the preventers shall be as follows: (1) Pump (3), driven by a continuous source of power, capable of closing all the pressure-operated devices simultaneously within _____seconds. The pump (2) is to be connected to a closed type hydraulic operating system.

(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 above pump (3). With the charging pump (3) that down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressure-pump (3). With the charging pump (3) within _____seconds; after closure, the remaining accumulator pressures shall be not less than 1000 PSI with the capabilities. lent, is to be available to oparate the above pump (s); or there shall be an additional pump (s) aperated by separate power and equal in performance remaining accumulator fluid volume at least __percent of the original. (3) When requested, an additional source of power, remote and equiva-

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 hydroulic ail, 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 fluids. The choke flow line valve 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.