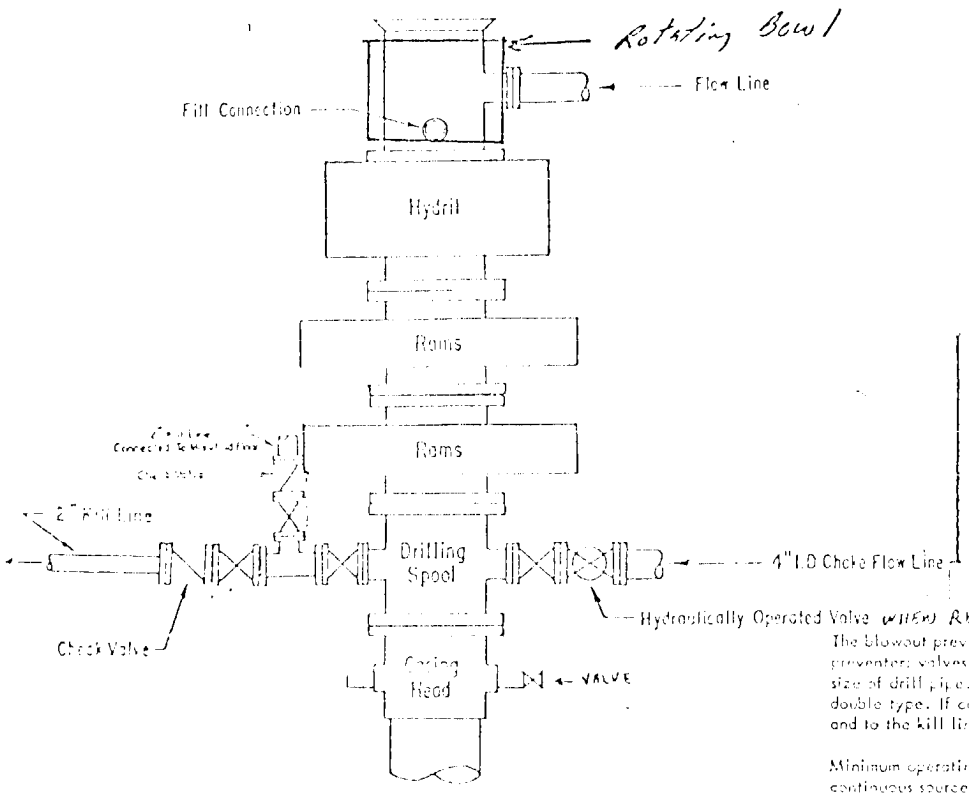
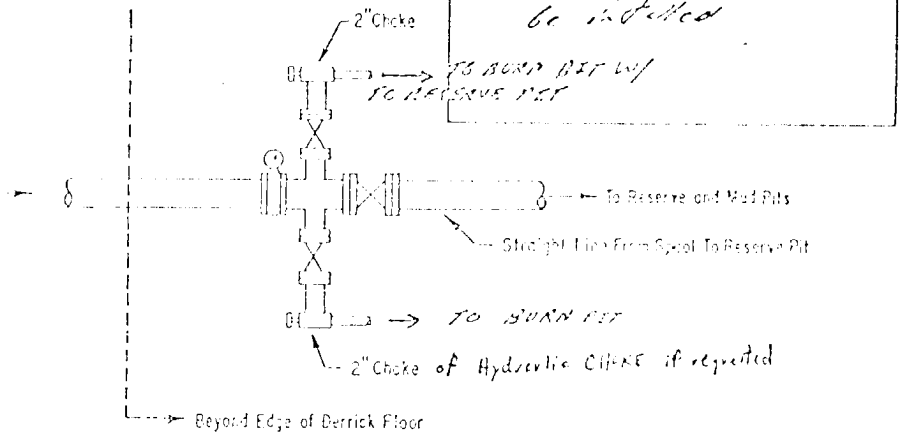
BOP #2

ADDITIONS - DELETIONS - CHANGES SPECIFY

NOTE: "When Required" means at any time the Gulf Supervisor can, may, or will require the equipment to be installed during operations.

Rotating Bowl to be installed





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

SPECIFY WORKING PRESSURE

The blowout 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 two-inch drill string is used, a ram preventer to fit the two-inch 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 to the kill line. The substructure height shall be sufficient to install a rotating blowout preventer.

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 2 minutes. Also, the pumps are to be connected to the hydraulic operating system which is to be a closed system. (2) accumulators with a precharge of nitrogen 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 accumulators shall be sufficient to close all the pressure-operated devices simultaneously within 9 seconds; after closure, the remaining accumulator pressure shall be not less than 1200 PSI with the remaining accumulator fluid volume at least 50 percent of the original. When requested, 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 closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles to indicate 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, the choke flow line, the choke lines and the relief lines are to be supported by metal stands and adequately anchored. The choke flow line, relief lines and choke lines shall be constructed as straight as possible and without sharp bends. Easy 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, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves shall be equipped with handles.