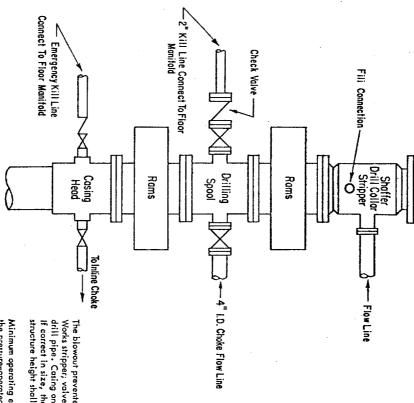
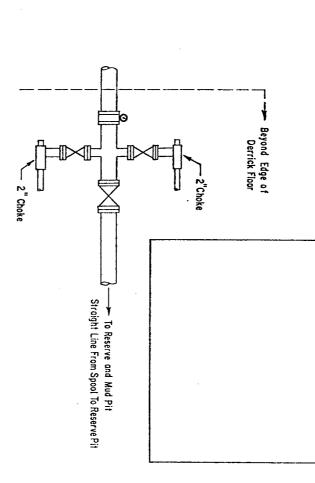
ADDITIONS -

DELETIONS - CHANGES SPECIFY



3COO PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

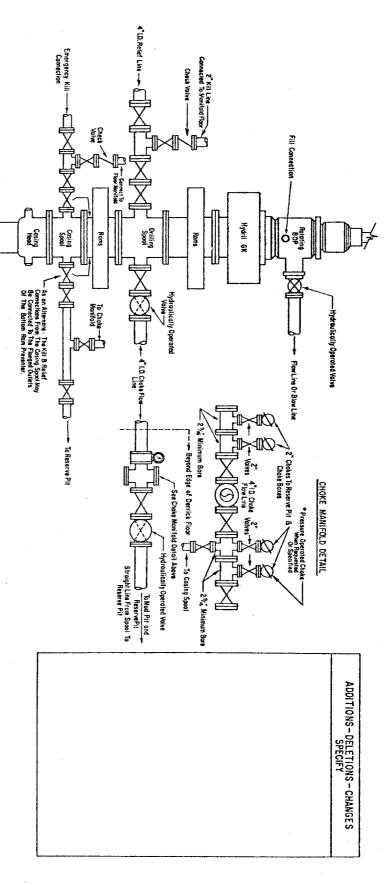


structure height shall be sufficient to install a rotating blowout preventer. Works stripper; valves; chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available 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-The blowout preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated; a Shaffer Tool

capabilities. lent, is to be available to operate the above pump (s); or there shall be an additional pump (s) operated by separate power and equal in performance operated devices simultaneously within. pump (s). With the charging pump (s) shut down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressurethe pressure-operated devices simultaneously within _____seconds. The pump (s) 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 Minimum operating equipment for the preventers shall be as follows: (1) Pump (s), driven by a continuous source of power, capable of closing all remaining accumulator fluid volume at least_ __seconds; after closure, the remaining accumulator pressure shall be not loss than 1000 PSI with the __percent of the original. (3) When requested, an additional source of power, remote and equiva-

open and closed positions. A pressure reducer and regulator must be provided if a Hydril proventer is used. Gulf Legion No. 38 hydraulic oil, an equivalent or botter, is to be used as the fluid to operate the hydraulic equipment. The closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating

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 chake lines shall be constructed as straight as possible and without sharp bands. Easy and safe access is to be maintained to the chake manifold. The choke manifold, choke flow line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line and the edge of the derrick substructure. All other valves are to be equipped with handles.



5000 # PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

The blowart preventer assembly shall consist of one single type blind ram preventer and one single type pipe ram preventer, both hydraulically operated; a Hydril "GK" preventer; a rotating blowart 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. Casing and tubing rams to fit the preventers are to be available as needed. 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 4-inch I,D, relief line, except when air or gas drilling. All preventer connections are to be open-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

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 copabilities. 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, the remaining accumulator fluid volume at least percent of the original. (3) When requested the remaining accumulator fluid volume at least percent of the original. nitrogen precharge pressure to its rated pressure within _____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 percent of the original. (3) When requested, an additional source of _seconds; after closure,

Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment. 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 indicating open and closed positions A pressive 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.

as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. If deemed necessary, walkways and stainways shall be erected in and around 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 relief 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 The chake manifold, chake flow line, relief line, and chake lines are to be supported by metal stands and adequately anchored. The chake flow line, relief line, and chake lines shall be constructed