

BLOWOUT PREVENTER HOOK-UP 3000# PSI WORKING PRESSURE

preventer, both hydraulically operated; a Hydril "GK" preventer; a rotating blowout preventer; valves; achoes and connections, as illustrated. If a toperad drill string is used, a rom preventer must be provided for each size of drill pipe. Casing and tubing roms 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 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the ram preventer may be used for connecting to the 4-inch 1.D. choke flow line and 4-inch flanged outlets of the flanged outlets ou The blowout preventer assembly shall consist of one single type blind ram preventer and one single type pipe ram I.D. relief line, except when air or gos drilling. All preventer connections are to be open-face flanged.

pumps, driven by a continuous source of power, capable of fluid charging the total accumulator volume from the nitrogen procharge pressure to its nated pressure within minutes. Also, the pumps are to be connected to the hydraulite operating system which is to be a closed system. (2) Accumulators with a precharge of nitrogen of not less than 750 PSI and connected as as to receive the determinance fluid charge. With the charging pumps that down, the pressurized fluid volume stored in the occumulators must be sufficient to close all the pressure-operated devices simultancously within executing that closure, the remaining accumulator fluid volume at least the original. (3) Whan requested, an additional source of power, remained 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. Minimum operating equipment for the preventers and hydraulically operated volves shall be as follows: (1)Multiple

The choice monifold, choke flow line, relief line, and choke lines are to be supported by motal stands and adequately anchored. The choke flow line, relief 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. If decend necessary, walkways and stairways shall be arceted in and around the choke manifold. All valves are to be relected for operation in the presence of all, 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 whoels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped preventers must be equipped with stem extensions, universal joints if needed, and hand whoels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped 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 pressure reducer and regulator must be provided for operating the Hydril preventer. When requested, a second pressure reducer shall be available to limit descrating fluid pressures to rom preventers.

Guit Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

* To include derrick floor mounted controls.

with hendles.