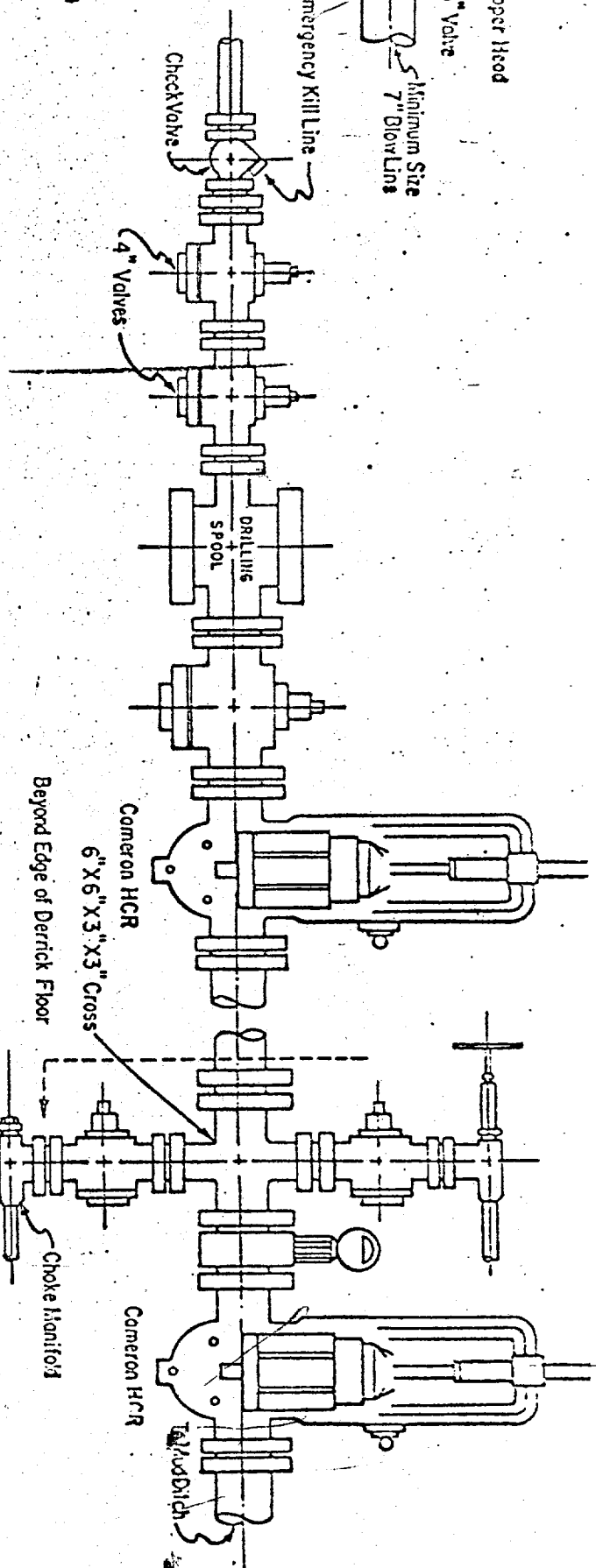


**AIR-GAS-MIST DRILLING
5,000 PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP**



**AIR-GAS-MIST DRILLING
5,000 PSI WORKING PRESSURE
KILL, CHOKER, AND FILL CONNECTIONS**

API Series 1500 Flanges or Better
DETAIL OF 6" FLOW LINE CHOKER ASSEMBLY

Minimum assembly for 5000 PSI working pressure will consist of four preventers and a Shaffer Combination Rotating Stripper Head. The two lower preventers may be Cameron QRC, Cameron Type F, single or double, or Shaffer hydraulic, single or double. The preventer above the drilling spool may be Cameron QRC or Cameron Type F and the upper preventer below the Shaffer Rotating Stripper Head will be Hydril GK.

Size 12-inch preventers may be used for work down through 8-3/8-inch casing. Size 10-inch preventers may be used for work down through 7-3/8-inch casing. Size 6-inch preventers, with a 4-inch or larger flow line choke assembly as shown above, are to be used for work through 7-inch and 5-1/2-inch casings.

Minimum operating equipment for the preventers will be: (1) an air operated pump and (2) an accumulator (s) with some means of obtaining a fluid charge. A closed fluid system is recommended. The closing manifold and remote closing manifold will have a separate four-way valve for each pressure operated device and a Hydril regulator will be provided. Sufficient fluid capacity in the accumulator (s) shall be available to close all the pressure operated devices at the same time with 25 per cent reserve. Gulf No. 561 hydraulic oil shall be used as the operating fluid.

The six-inch flow line shall be supported by a metal stand or reinforced concrete. All valves throughout the assembly shall be selected for operation in both gas and fluids.

The ram type preventers and the Cameron HCR valves will be provided with stem extensions, universal joints, if needed, and operating wheels.