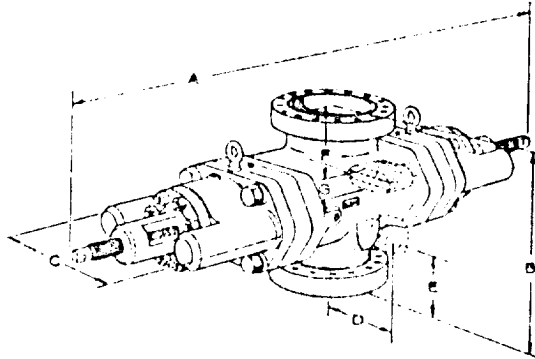


## U BLOWOUT PREVENTER ENGINEERING DATA



Single Open Face Flanged U Blowout Preventer

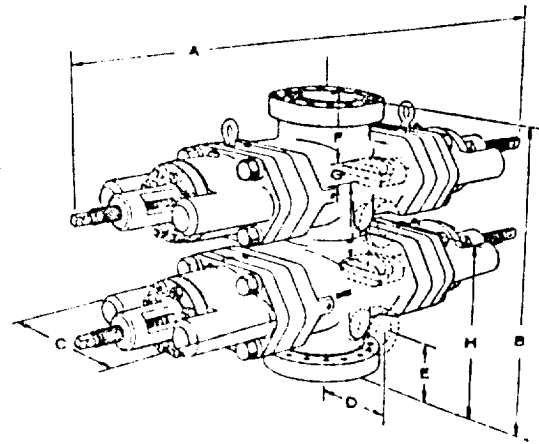
Side Outlets to 4" size (7-1/16" on 26-3/4" preventers) can be provided beneath each set of rams, on either or both sides of U preventers. Side outlet flanges are open face and have the same pressure rating as the vertical run flanges. Valve removal preparations can be provided. To obtain a quotation, the number and size of outlets should be specified.

Flanges conform to API Standard 6A. Type 6BX flanges are standard for 10,000 psi, 15,000 psi, and 20,000 psi working pressures and for 5000 psi working pressures for 13-5/8" and larger bore preventers.

Although most preventers have open face flanges or Cameron clamp hubs, preventers with studded flanges can be furnished.

Sizes and Dimensions are in inches. The over-all length "A" given in the tables does not include the optional wedgelocks. No spacers between rams are included in the table of dimensions of double ram models. Preventers with spacers to clear tool joints can be obtained on special order. For information on preventers with spacers, or sizes not listed, consult your Cameron representative.

Hydraulic Control Connections to operate rams and bonnets are 1" NPT. There are two connections for each set of rams. Hydraulic ram lock connections are 1/2" NPT.



Double Open Face Flanged U Blowout Preventer

## Engineering Data Designations. See Charts on Following Page

- A-1 Over-all length, bonnets closed, locking screws locked
- A-2 Over-all length, ram change, bonnets opened, locking screws unlocked
- B-1 Over-all height flanged
- B-2 As above, with Cameron clamp hubs
- C Over-all width without side outlets (max. width)
- D Centerline of preventer to outlet flange or hub face. Distance is variable.
- E-1 Centerline of side outlet (outlet below lower rams in double model) to bottom flange face
- E-2 As above, to bottom hub face
- F-1 Top of upper ram to top flange face
- F-2 As above, to top hub face
- G Ram height
- H-1 Centerline of side outlet between rams to bottom flange face
- H-2 As above, to bottom hub face
- J Top of lower ram to bottom of upper ram

C.E. LaRue and B.N. Muncy, Jr.

McCLAY FEDERAL #2

11" 3000# - DOUBLE

EXHIBIT E