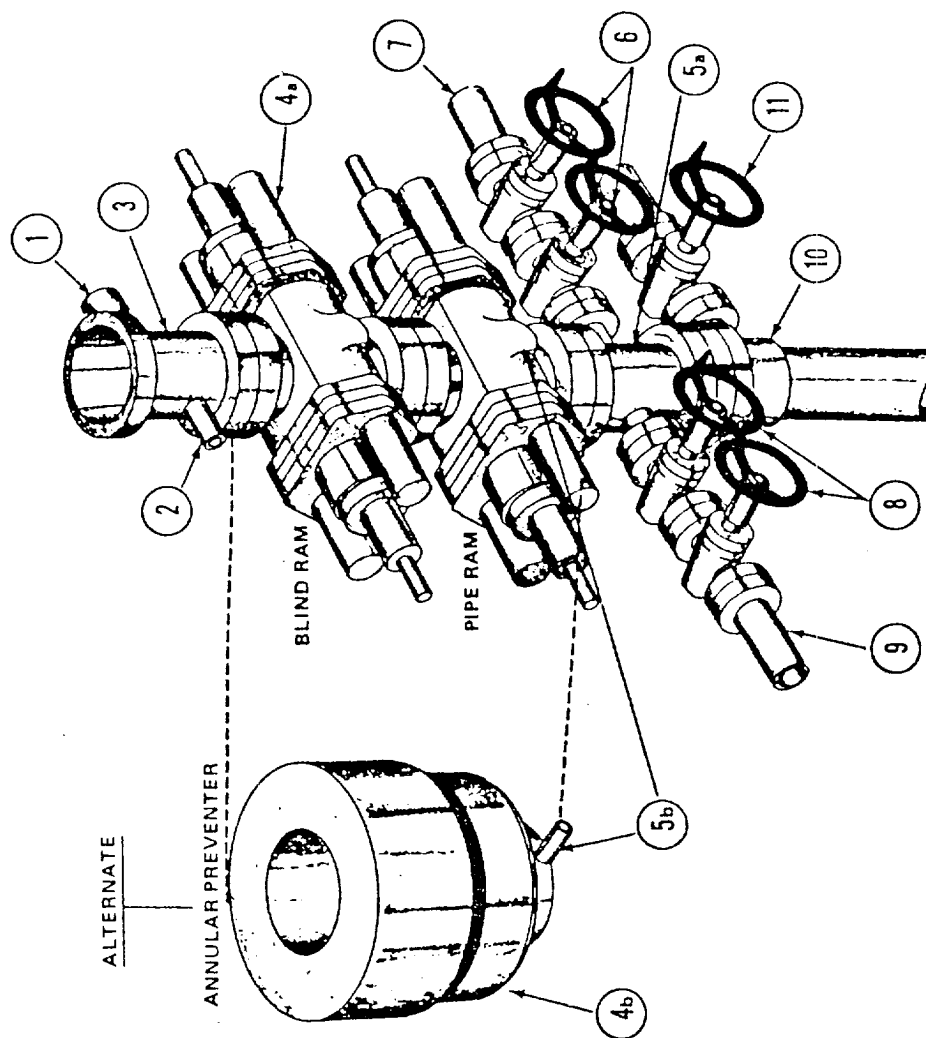




DRAWING & CHECK LIST 102  
SHELL CLASS 2M  
SURFACE INSTALLATIONS NORMAL



NOTE: Second wing valve on choke (6) and kill (8) lines not mandatory unless drilling below 2,000'.

| SHELL MINIMUM BOP<br>STACK REQUIREMENTS |                                                                                                                   |              |                 |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------|-----------------|
| No.                                     | Item                                                                                                              | Min.<br>I.D. | Min.<br>Nominal |
| 1                                       | Flowline                                                                                                          | 8 5/8"       |                 |
| 2                                       | Fill up line                                                                                                      | 2"           | 2"              |
| 3                                       | Drilling nipple                                                                                                   | 1 1/2"       |                 |
| 4a                                      | Two single or one dual hydraulically operated rams*                                                               | 10"          |                 |
| 4b                                      | Annular Preventer                                                                                                 | Not Required |                 |
| 5a                                      | Drilling spool with 2" and 2" outlets                                                                             |              |                 |
| 5b                                      | 2" outlets in ram or annular preventer. Run kill line and choke line from these outlets. (Alternate to 5a above.) |              |                 |
| 6                                       | Gate Valves                                                                                                       | 2-1/16"      |                 |
| 7                                       | Line to choke manifold                                                                                            | 2-1/16"      | 2"              |
| 8                                       | Gate Valves                                                                                                       | 2-1/16"      |                 |
| 9                                       | Line to rig mud pump manifold                                                                                     | 2"           | 2"              |
| 10                                      | Casing spool                                                                                                      | 10"          |                 |
| 11                                      | Gate Valve                                                                                                        | 1-13/16"     |                 |

| OPTIONAL |                               |
|----------|-------------------------------|
| 12       | Wear flange or bore protector |

\* For well servicing - not mandatory to be hydraulically operated.

Ejector 11-27

111

007-1004

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