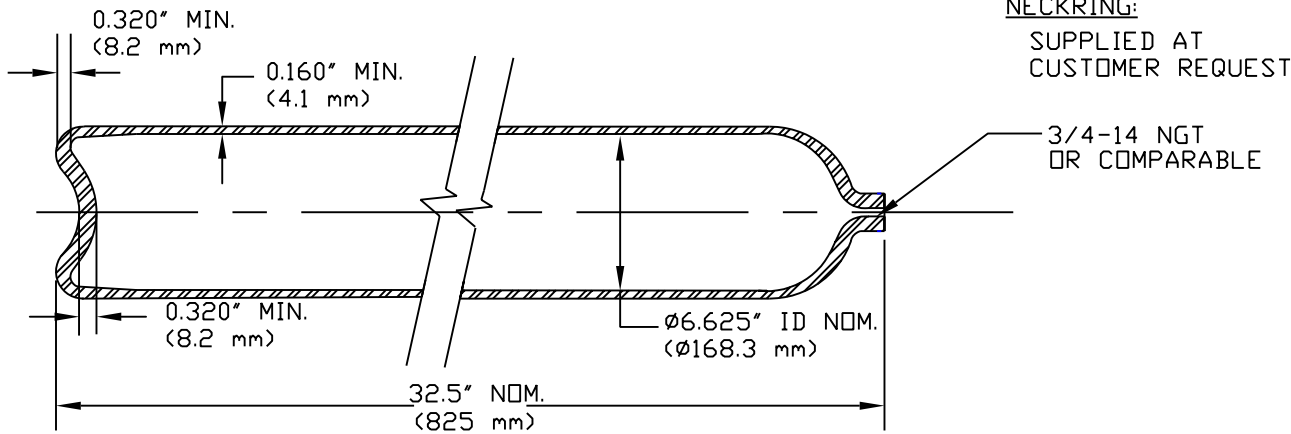


| REV. | ECN - DESCRIP. | DATE | DRWN. | CHKD. | APP. |
|------|----------------|------|-------|-------|------|
|      |                |      |       |       |      |



# DRAWING FOR REFERENCE ONLY

**SPECIFICATION:** DOT 3AA 2265 / TC 3AAM173

**MODEL:** 6BC90

|  |   |
|--|---|
| <b>1. Principal Elements:</b><br>- Min. water capacity: 34.6 lb (15.7 kg)<br>- Min. water volume: 960 in <sup>3</sup> (15.7 liter)<br>- Approx. Cyld. weight: 47 lb (21.3 kg)<br>(w/o fittings)<br>- DOT Service pressure: 2265 psi (156.2 bar)<br>- TC Service pressure: 173 bar<br>- Test pressure: 3775 psi (260.3 bar) | <b>3. Manufacture:</b><br>Hot billet pierce followed by<br>hot drawing.   |
|  | <b>4. Heat Treatment:</b> Q & T   |
| <b>2. Material:</b><br>Chrome-Moly steel, (A.I.S.I. 4130X)   | <b>5. Norris Standard Mechanicals:</b><br>- Tensile: ≥ 105,000 psi (724 MPa)<br>- Elong: ≥ 20% (on 2" gauge)<br>- Flattening: to 6xt without cracks |

|   |  |
|---|--|
| <b>D.O.T. Wall Stress Calculations:</b>   | $S = P(1.3D^2 + 0.4d^2) / (D^2 - d^2)$   |
| $S = \text{Maximum wall stress, psi}$<br>$P = \text{Test pressure, psi}$<br>$D = \text{Outside diameter, inch}$<br>$d = \text{Inside diameter, inch}$ | $S = \frac{3775 [1.3 (6.945)^2 + 0.4 (6.625)^2]}{(6.945)^2 - (6.625)^2}$<br><br>$S = 69,772 \text{ psi (481.1 MPa)}$ |
| Required Minimum Tensile:   | $= \frac{69,772}{0.67} = 104,138 \text{ psi (718 MPa)}$  |



**NORRIS CYLINDER COMPANY**

P.O. BOX 7486 LONGVIEW, TEXAS 75607

REFILLABLE SEAMLESS STEEL  
GAS CYLINDER, MODEL 6BC90

| SCALE    | NOT TO SCALE | DRAWING NO. | REV.           |
|----------|--------------|-------------|----------------|
| DWN. BY  | R.S.         | 12/12/00    | 901A-A-9561 00 |
| CHK'D BY | R.S.         |             |                |
| APP'D BY | B.A.         | SHEET NO. 1 | OF 1 SHEETS    |