



REV.	ECN - DESCRIPT.	DATE	DRWN.	CHKD.	APP.
01	1051 DOT/TC	1/11/93	MB	RS	BA
02	1247	3/27/95	MB	RS	BA
03	1294	3/07/96	DL	RS	BA
04	1301	3/18/96	DL	RS	BA
05	1583	12/15/97	RS	RS	BA
06	1640	3/30/98	TC	RS	BA
07	2452	12/13/04	RS		

**DRAWING FOR  
REFERENCE ONLY**

SPECIFICATION: DOT 3AA 2300 / TC 3AAM 176

MODEL: 10BC100A

**1. Principal Elements:**

- Min. water capacity: 147.1 lbs (66.7 kg)
- Min. water volume: 4079 in<sup>3</sup> (66.7 liter)
- Approx. tareweight: 188 lbs (85.3 kg)
- DOT Service pressure: 2300psi (158.6 bar)
- TC Service pressure: 176 bar
- Test pressure: 3835psi (264.5 bar)

**3. Manufacture:**

Hot billet pierce followed by hot drawing.

**4. Heat Treatment: Q & T**

**5. Norris Standard Mechanical Properties:**

- Tensile: ≥ 105,000 psi (724 MPa)
- Elong: ≥ 20% (on 2" gauge)
- Flattening: to 6xt without cracks

**2. Material:**

Chrome-Moly steel, (A.I.S.I. 4130X)

**D.O.T. Wall Stress Calculations:**

$$S = P(1.3D^2 + 0.4d^2)/(D^2 - d^2)$$

S = Maximum wall stress, psi

P = Test pressure, psi

D = Outside diameter, inch

d = Inside diameter, inch

$$S = \frac{3835 [1.3(10.56)^2 + 0.4(10.06)^2]}{(10.56)^2 - (10.06)^2}$$

$$S = 68,982 \text{ psi (475.6 MPa)}$$

$$\text{Required Minimum tensile:} = \frac{68,982}{0.67} = 102,958 \text{ psi (709.9 MPa)}$$



**NORRIS CYLINDER COMPANY**

P.O. BOX 7486 LONGVIEW, TEXAS 75607

**SEAMLESS STEEL CYLINDER  
MODEL 10BC100A/TC**

SCALE	NOT TO SCALE	DRAWING NO.	REV.
DWN. BY	S. JOHNSON	11/5/91	901A-B-9112 07
CHK'D BY	RS	11/15/91	
APP'D BY	BALDUR	11/25/91	
		SHEET NO. 1	OF 1 SHEETS