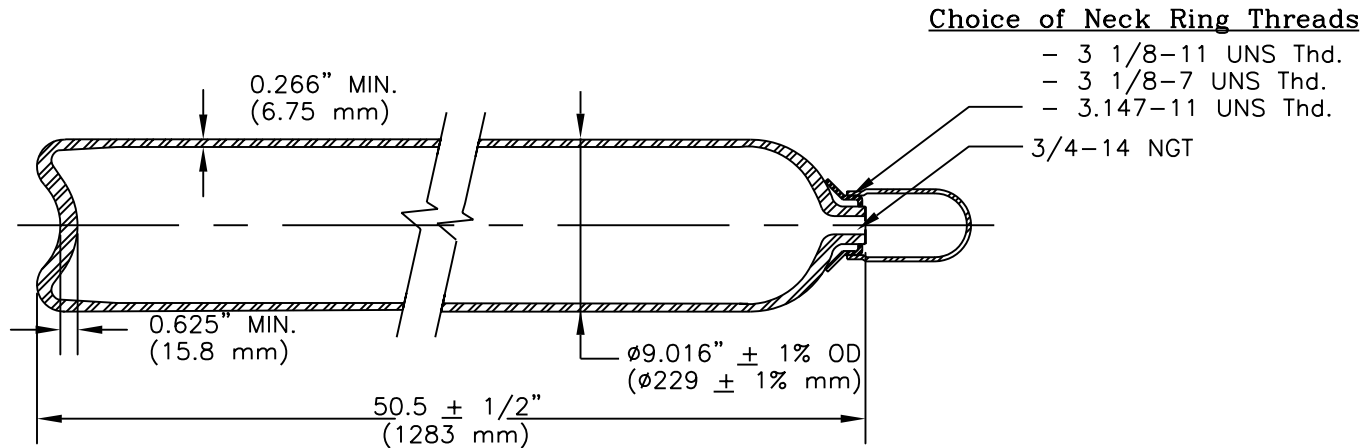


REV.	ECN - DESCRIPT.	DATE	DRWN.	CHKD.	APP.
01	1187 TC	12/4/93			



DRAWING FOR REFERENCE ONLY

SPECIFICATION: DOT 3AA 2900/TC3AAM222

MODEL: 8BC295

1. Principal Elements: - Min. water capacity: 88.2 lbs (40.0 kg) - Min. water volume: 2447 in ³ (40.0 liter) - Approx. tareweight: 135 lbs (61.4 kg) (w/o valve & cap) - DOT Service pressure: 2900 psi (200 bar) - TC Service pressure: 222 bar - Test pressure: 4835 psi (333.4 bar)	3. Manufacture: Hot billet pierce followed by hot drawing.
	4. Heat Treatment: Q & T
2. Material: Chrome-Moly steel, (A.I.S.I. 4130X)	5. Norris Standard Mechanical Properties: - Tensile: ≥ 105,000 psi (724 MPa) - Elong.: ≥ 20% (on 2" gauge) - Flattening: to 6xt without cracks


D.O.T. Wall Stress Calculations: $S = P(1.3D^2 + 0.4d^2)/(D^2 - d^2)$

$S = \text{Maximum wall stress, psi}$
 $P = \text{Test pressure, psi}$
 $D = \text{Outside diameter, inch}$
 $d = \text{Inside diameter, inch}$

$$S = \frac{4835 [1.3 (9.016)^2 + 0.4 (8.484)^2]}{(9.016)^2 - (8.484)^2}$$

$$S = 69,833 \text{ psi (481.5 MPa)}$$

Required Minimum tensile: $= \frac{69,833}{0.67} = 104,229 \text{ psi (718.7 MPa)}$

		NORRIS CYLINDER COMPANY			
		P.O. BOX 7486 LONGVIEW, TEXAS 75607			
REFILLABLE SEAMLESS STEEL GAS CYLINDER, MODEL 8BC295					
SCALE	NOT TO SCALE	DRAWING NO.		REV.	
DWN. BY	S. JOHNSON	1/28/92	901A-B-9130		01
CHK'D BY	R. SHAFKEY	1/28/92			
APP'D BY	B. ARNOLD	1/28/92	SHEET NO. 1	OF 1	SHEETS