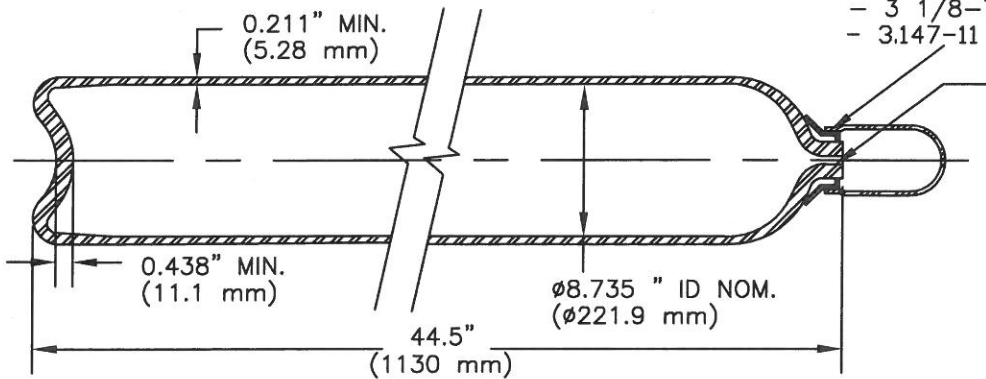


REV.	ECN - DESCRIP.	DATE	DRWN.	CHKD.	APP.
01	1187 TC	12/4/93	SJ	RS	BA
02	2306	6/18/03			
03	2457	1/21/05	RS		
04	2896	9/03/09	JJM	SAM	
05	3056	11/3/11	JJM		

Choice of Neck Ring Threads

- 3 1/8-11 UNS Thd.
- 3 1/8-7 UNS Thd.
- 3.147-11 UNS Thd.

3/4-14 NGT (8BC220S-3),
 1 -11 1/2 NGT (8BC220S-1),
 25E (8BC220S-25E FOR TC-SU10088),
 DIN 477 28,8 (8BC220S-D for TC-SU10088),
 OR COMPARABLE



DRAWING FOR REFERENCE ONLY

SPECIFICATION: DOT 3AA 2265/TC3AAM173 or TC-SU10088-173

MODEL: 8BC220S

1. Principal Elements: - Min. water capacity: 81.8 lbs (37.1 kg) - Min. water volume: 2270 in ³ (37.1 liter) - Approx. tareweight: 102 lbs (46.3 kg) - DOT Service pressure: 2265psi (156.2 bar) - TC Service pressure: 173 bar - Test pressure: 3775psi (260.3 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: $S = P(1.3D^2 + 0.4d^2)/(D^2 - d^2)$

$S = \text{Maximum wall stress, psi}$ $S = \frac{3775 [1.3 (9.157)^2 + 0.4 (8.735)^2]}{(9.157)^2 - (8.735)^2}$

$P = \text{Test pressure, psi}$

$D = \text{Outside diameter, inch}$

$d = \text{Inside diameter, inch}$

$S = 69,759 \text{ psi (481 MPa)}$

Required Minimum tensile: $= \frac{69,759}{0.67} = 104,118 \text{ psi (717.9 MPa)}$



NORRIS CYLINDER COMPANY
 4818 WEST LOOP 281 LONGVIEW, TEXAS 75603 USA

REFILLABLE SEAMLESS STEEL
 GAS CYLINDER, MODEL 8BC220S

SCALE	NOT TO SCALE	DRAWING NO.	REV.
DWN. BY	S. JOHNSON	1/28/92	901A-B-9108 05
CHK'D BY	R. SHAFKEY	1/28/92	
APP'D BY	B. ARNOLD	1/28/92	
		SHEET NO. 1	OF 1 SHEETS