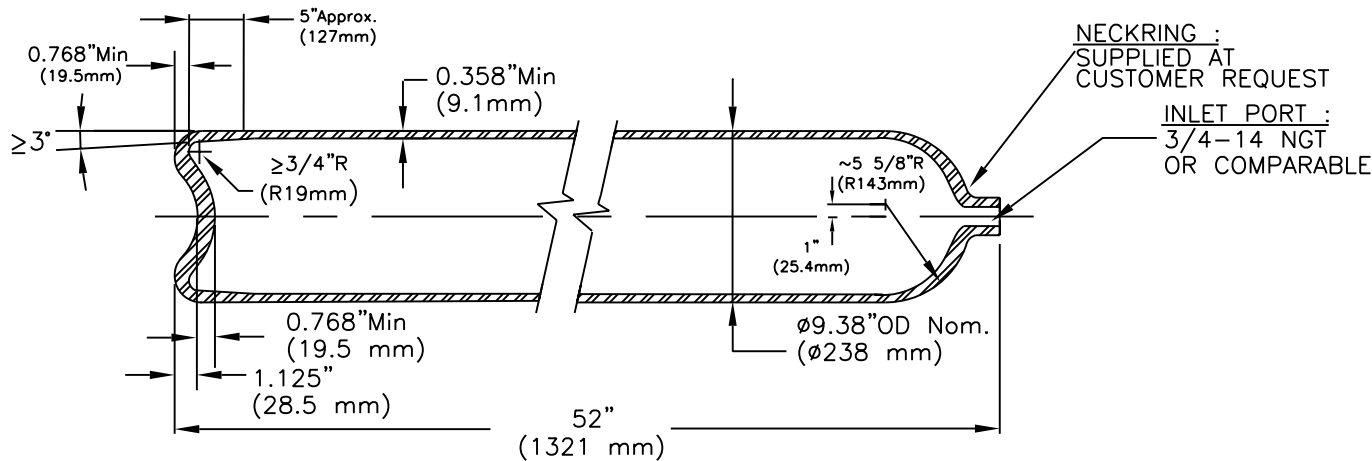


REV.	ECN - DESCIP.	DATE	DRWN.	CHKD.	APP.
01	2247	6/20/02	RS		



DRAWING FOR REFERENCE ONLY

NOTES (other requirements):

- Pre-flaw pressure test each heat per requirements of this Exemption.
- Kic test each new heat of steel not previously tested : $\geq 85 \text{ ksi} \sqrt{\text{in}}$
- Rejection Elastic Expansion: REE = 320 cc. Determined in accordance with CGA pamphlet C-5, at an ave. effective wall stress of 100,000 psi.

SPECIFICATION: DOT-E10869-6000 / TC SU4369-413

MODEL: 8HP585

<p>1. Principal Elements:</p> <ul style="list-style-type: none"> - Min water volume: 2640 in³ (43.3 liter) - Approx. cylinder wt. 185 lbs. (83.9 kg) w/o fittings - DOT Service pressure: 6000 psi (413 bar) - TC Service pressure: 413 bar - Test pressure: 9000 psi (621 bar) 	<p>4. Manufacture:</p> <p>Hot billet pierced followed by hot drawing.</p>
<p>2. Material:</p> <p>Alloy steel, A.I.S.I. 4130 Modified.</p>	<p>5. Mechanical Properties:</p> <ul style="list-style-type: none"> - Tensile: 155,000/175,000 psi (1069/1206 MPa) - Elong.: $\geq 12\%$ (on 2" gauge) - Flattening: to 10xt without cracks - Charpy: (at -60°F, 1/2 size tran. specimen) <ul style="list-style-type: none"> - avg. 3 spec. : 13 ft-lb (45 J/cm²) - individual : 10 ft-lb (35 J/cm²) - Hardness test (each cyld.) : $\leq \text{Rc } 40$ - UT flaw detection (each cyld.) : Reject flaws $\geq 5\%$ of tmin.
<p>3. Heat Treatment: Quenched and Tempered</p>	

Formula for wall stress calculations: $S = P(1.3D^2 + 0.4d^2)/(D^2 - d^2)$

S = Wall stress, psi
P = Minimum test pressure, psi
D = Outside diameter, inch
d = Inside diameter, inch

$$S = \frac{9000(1.3(9.38)^2 + 0.4(8.664)^2)}{(9.38)^2 - (8.664)^2}$$

S = 100,596 psi (693.6 MPa)



NORRIS CYLINDER COMPANY

P.O. BOX 7486 LONGVIEW, TEXAS 75607

SEAMLESS STEEL CYLINDER,
FOR NON-EMBRITTLING PERMANENT
GASES, MODEL 8HP585

SCALE	NOT TO SCALE	DRAWING NO.	REV.
DWN. BY	R.S	11/30/01	901A-A-9605 01
CHK'D BY	R.S	2/26/02	
APP'D BY	B.A	2/27/02	SHEET NO. 1 OF 1 SHEETS