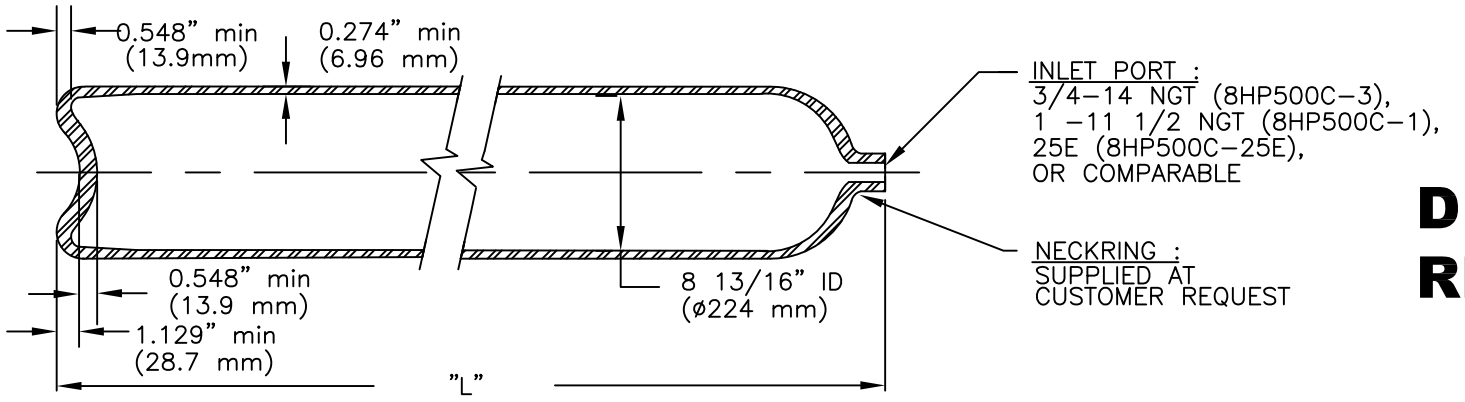
REV.	ECN / DESCRIPTION	DATE	DRWN.	CHKD.	APP.
01	3221	3/16/11	JJM		
02	3222	01/08/14	LJI		
03	3259	07/01/14	LJI	SAM	



DRAWING FOR REFERENCE ONLY

SPECIFICATION: DOT – SP 10869–4500 / TC–SU4369–310
MODEL: SEE TABLE

1. Principal Elements:
- DOT Service pressure: 4500 psi
- TC Service pressure: 310 bar
- Test pressure: 6750 psi (465.4 bar)

2. Material:
Alloy steel, A.I.S.I. 4130 Modified. Per Norris' 4133M4 specification EO–A6

3. Heat Treatment: Q & T

4. Manufacture:
Hot billet pierced followed by hot drawing.

5. Mechanical Properties:
- Tensile: 155,000/175,000 psi (1069/1206 MPa)
- Elong.: $\geq$ 12% (on 2" gauge)
- Flattening: to 10 x t_{min} without cracks, or Bend Test: Per ISO 9809–2, Section 10.3.1
- Charpy: (at –50°C,1/2 size tran. specimen)
  - avg. 3 spec. : 13 ft–lb (45 J/cm^2)
  - individual : 10 ft–lb (35 J/cm^2)
- Hardness test (each cyld.) : $\leq$ Rc 40
- UT flaw detection (each cyld.) : Reject flaws $\geq$ 5% of t_{min}
- Batch Burst Test: $P_b \geq$ 10,800 psi

DOT wall stress calculations:

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

$= \dfrac{6750(1.3(9.361)^2 + 0.4(8.813)^2)}{(9.361)^2 - (8.813)^2}$

$S = 98{,}264$psi (677.5MPa)

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

MODEL	LENGTH 'L'		Min WATER CAPACITY		APPROX. WGT. W/O FITTINGS		REE
	MM	IN	LITERS	IN^3	KG	LBS	CC
8HP575C	1479	58.25	52.6	3210	75.7	167	TBD
8HP550C	1435	56.5	50	3051	72.1	159	TBD
8HP500LC	1334	52.5	46.7	2850	66.1	146	333
8HP500C	1282	50.5	45.0	2750	63.5	140	TBD

NOTES (other requirements):
- Rejection Elastic Expansion: Determined in accordance with CGA pamphlet C–5.

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

SEAMLESS STEEL CYLINDERS FOR DOT SP–10869 AND TC SU 4369 4500 PSI / 310 BAR

SCALE	NOT TO SCALE		DRAWING NO.	REV.
DWN. BY	J. MONCRIEF	2/5/10	901A–A–9835	03
CHK'D BY	SAM	2/5/10		
APP'D BY			SHEET NO. 1 OF 1 SHEETS	