

SPECIAL PERMIT NO. 957 (REVISION 2)

This Special Permit is issued pursuant to the terms of Section 73.22(a)(1) of the Canadian Transport Commission's "Regulations for the Transportation of Dangerous Commodities by Rail" to authorize shipments of Acetylene in three piece welded steel cylinders by rail in Canada, under conditions prescribed herein, and does not relieve any shipper or carrier from compliance with any requirement of the Commission's Regulations, except as specifically stated.

1. BASIS

Letter dated January 19, 1978 from Canadian Cylinder Co. Ltd.,  
P.O. Box 1206-63 Morton Ave., East, Brantford, Ontario. N3T 5T3

2. COMMODITY CLASSIFICATION

Flammable Compressed Gas

3. PROPER SHIPPING NAME

Acetylene

4. REGULATION AFFECTED

Section 73.303

5. AUTHORIZED SHIPPER

Canadian Cylinder Company Limited, its agents and distributors.

6. PACKAGING DESCRIPTION

The cylinder design shall be in accordance with Engineering Products of Canada Limited drawings and detailed data sheets on file with this Commission and must comply in all respects with CTC Specification 4BW except:

- (a) Each cylinder must meet the requirements of CTC Specification 8AL Sections 3, 10(a)(2), 13, 20 and 21.
- (b) Each cylinder must have a service pressure of 250 psig at 70°F.
- (c) Cylinder heads convex to pressure must have a minimum thickness equal to 2.5 times the required sidewall thickness.
- (d) A round out pressure must be applied prior to the official hydrostatic volumetric expansion test prescribed in Section 14 of Specification 4BW.
- (e) Test pressure must be at least 3 times service pressure.
- (f) Minimum burst pressure must be at least 6 times the service pressure.
- (g) Cylinders with outside diameters greater than 5 inches must have a minimum wall thickness of 0.087". The wall stress must be calculated from the formula:

$$S = \frac{3P(1.3D^2 + 4d^2)}{E(D^2 - d^2)}$$

Where E = joint efficiency of the longitudinal seam

$P_s$  = service pressure psig.

- (h) All cylinders are to be inspected and tested by an Independent Inspection Agency approved by this Commission in compliance with CTC Specification 4BW and the above exceptions. Inspection reports shall be submitted to this Commission and to the Bureau of Explosives, Washington, D.C.
- (i) Upon satisfactory completion of inspection and testing each cylinder is to be marked by stamping on the shoulder, top head or neck of the cylinder "CTC SP 957" in addition to the other markings required by CTC Specification 8AL.

7. SPECIAL REQUIREMENTS

Each cylinder shall be plainly marked "CTC SP 957" with letters and figures at least one-half inch high.

8. REPORTING REQUIREMENTS

The Commission shall be advised of any incident involving loss of contents and shall be provided with a summary of experience before the expiration date of the Special Permit.

9. EXPIRY DATE

February 15, 1979.

  
for Director of Operation,  
Railway Transport Committee.

Issued at Ottawa, Ontario  
this 15th day of February, 1978

Address all inquiries to:

Director of Operation,  
Railway Transport Committee,  
Canadian Transport Commission,  
275 Slater Street,  
Ottawa, Ontario.  
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