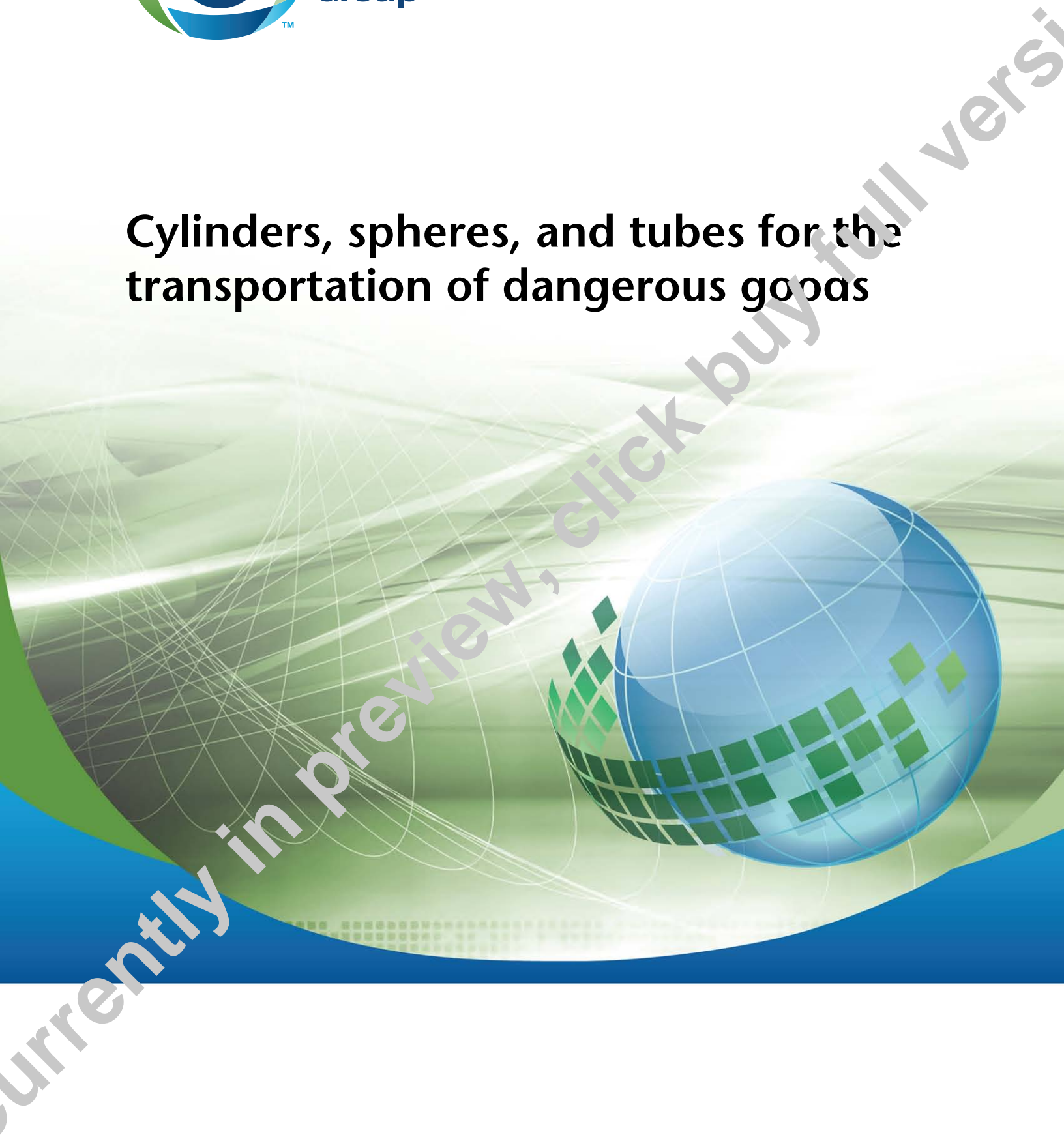




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**B339-14**

# Cylinders, spheres, and tubes for the transportation of dangerous goods



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# Contents

Technical Committee on Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods *xiii*

Preface *xvi*

## **1 Scope 1**

1.1 General 1

1.2 Designations and descriptions of containers 1

## **2 Reference publications 1**

## **3 Definitions 5**

## **4 General requirements and specifications for cylinders, spheres, and tubes 8**

4.1 Materials and parts 9

4.2 Wall thickness 9

4.2.1 General requirements 9

4.2.2 Additional requirements for tubes 10

4.3 Openings in cylinders, spheres, and tubes 11

4.4 Welding or brazing 11

4.5 Heat treatment 12

4.6 Nondestructive inspection of finished or partly finished containers 12

4.6.1 Magnetic particle inspection 12

4.6.2 Liquid penetrant inspection 12

4.6.3 Ultrasonic inspection 12

4.6.4 Radiographic inspection 12

4.7 Leakage test 12

4.8 Tensile test 13

4.9 Weld tests 14

4.10 Impact tests 14

4.11 Flattening test 14

4.12 Lot qualification burst test 14

4.13 Pressure test 14

4.14 New design 15

4.14.1 New design criteria 15

4.14.2 Qualification of a new design 15

4.14.3 Containers submitted for design qualification 15

4.14.4 Pressure-cycling test 15

4.14.5 Burst test 16

4.14.6 Microstructure examination 16

4.15 Additional requirements for cylinders in liquefied petroleum gas (LPG) service 16

4.15.1 Fixed liquid-level gauges 16

4.15.2 Water capacity 17

4.16 Pressure-relief devices 17

4.17 Container valves 17

4.18 Inspection 17

4.19 Marking 17

4.20 Certificate of compliance and test report 19

## **5 Specifications TC-3AM, TC-3ANM, TC-3ASM, and TC-3AXM 19**

5.1 General 19

5.2 Materials 19

5.2.1	General	19
5.2.2	TC-3AM cylinders	19
5.2.3	TC-3ANM cylinders	19
5.2.4	TC-3ASM cylinders	19
5.2.5	TC-3AXM tubes	20
5.3	Wall thickness	20
5.3.1	Cylinders	20
5.3.2	Tubes	20
5.4	Openings	20
5.5	Manufacture	20
5.6	Welding or brazing	21
5.6.1	Cylinders	21
5.6.2	Tubes	21
5.7	Heat treatment	21
5.7.1	General	21
5.7.2	Cylinders	21
5.7.3	Tubes	22
5.8	Tensile test	22
5.8.1	Cylinders	22
5.8.2	Tubes	22
5.8.3	Requirements	22
5.9	Flattening test	22
5.9.1	Cylinders	22
5.9.2	Tubes	22
5.9.3	Alternative bend test	22
5.9.4	Requirements	22
5.10	Pressure test	23
5.11	Rejected containers	23
5.12	Marking	23

## **6 Specifications TC-3AAM and TC-3AAXM** 24

6.1	General	24
6.2	Materials	24
6.2.1	General	24
6.2.2	Cylinders	24
6.2.3	Tubes	24
6.3	Wall thickness	24
6.3.1	Cylinders	24
6.3.2	Tubes	24
6.4	Openings	25
6.5	Manufacture	25
6.6	Welding or brazing	25
6.7	Heat treatment	26
6.8	Magnetic particle or liquid penetrant inspection	26
6.9	Tensile test	26
6.9.1	Cylinders	26
6.9.2	Tubes	26
6.9.3	Requirements	26
6.10	Flattening test	27
6.10.1	Cylinders	27
6.10.2	Tubes	27
6.10.3	Alternative bend test	27
6.10.4	Requirements	27
6.11	Pressure test	27

- 6.12 Ultrasonic inspection 27
- 6.13 Rejected containers 28
- 6.14 Hardness test 28
- 6.15 Marking 28

## **7 Specification TC-3ALM 28**

- 7.1 General 28
- 7.2 Materials 28
- 7.3 Wall thickness 29
- 7.4 Openings 29
- 7.5 Manufacture 29
- 7.6 Welding or brazing 29
- 7.7 Heat treatment 29
- 7.8 Tensile test 29
- 7.9 Flattening test 30
- 7.10 Pressure test 30
- 7.11 Rejected cylinders 30
- 7.12 Marking 30

## **8 Specification TC-3EM 31**

- 8.1 General 31
- 8.2 Materials 31
- 8.3 Wall thickness 31
- 8.4 Openings 31
- 8.5 Manufacture 31
- 8.6 Pressure test 31
- 8.7 Rejected cylinders 31
- 8.8 Marking 31

## **9 Specifications TC-3FCM, TC-3HWM, and TC-3CCM 32**

- 9.1 General 32
- 9.2 Materials 32
  - 9.2.1 Aluminum liners 32
  - 9.2.2 Filament material 33
  - 9.2.3 Resin system 33
- 9.3 Wall thickness 33
  - 9.3.1 General requirements 33
  - 9.3.2 TC-3FCM and TC-3CCM 34
  - 9.3.3 TC-3HWM 34
- 9.4 Openings 34
- 9.5 Manufacture 34
  - 9.5.1 TC-3FCM and TC-3CCM 34
  - 9.5.2 TC-3HWM 35
- 9.6 Welding or brazing 35
- 9.7 Heat treatment 35
- 9.8 Resin curing 36
- 9.9 Tensile test 36
- 9.10 Lot acceptance cycling test 36
- 9.11 Burst test 36
  - 9.11.1 General requirements 36
  - 9.11.2 TC-3FCM 36
  - 9.11.3 TC-3HWM 36
  - 9.11.4 TC-3CCM 36
- 9.12 Pressure test 37

- 9.13 Design qualification tests 37
  - 9.13.1 General 37
  - 9.13.2 New design criteria 37
  - 9.13.3 Cylinder qualification tests 37
  - 9.13.4 Cycling tests 38
  - 9.13.5 Burst test 38
  - 9.13.6 Gunfire test 38
  - 9.13.7 Bonfire tests 38
  - 9.13.8 Drop test 39
  - 9.13.9 Qualification test report 39
- 9.14 Rejected liners and cylinders 39
- 9.15 Inspection 39
- 9.16 Marking 40
  - 9.16.1 General 40
  - 9.16.2 TC-3HWM 40

## **10 Specification TC-3HTM 40**

- 10.1 General 40
- 10.2 Materials 40
- 10.3 Wall thickness 41
- 10.4 Openings 41
- 10.5 Manufacture 41
- 10.6 Welding or brazing 41
- 10.7 Heat treatment 41
- 10.8 Nondestructive inspection 42
- 10.9 Tensile test 42
- 10.10 Flattening test 42
- 10.11 Pressure-cycling and burst tests for lot acceptance 42
- 10.12 Pressure test 42
- 10.13 Design qualification 42
- 10.14 Rejected cylinders 42
- 10.15 Marking 43

## **11 Specification TC-3TM 43**

- 11.1 General 43
- 11.2 Materials 43
- 11.3 Wall thickness 43
- 11.4 Openings 43
- 11.5 Manufacture 44
- 11.6 Welding or brazing 44
- 11.7 Heat treatment 44
- 11.8 Hardness test 44
- 11.9 Tensile test 44
- 11.10 Impact test 45
- 11.11 Pressure test 45
- 11.12 Ultrasonic inspection 45
- 11.13 Rejected tubes 45
- 11.14 Marking 45

## **12 Specification TC-4AAM33 46**

- 12.1 General 46
- 12.2 Materials 46
- 12.3 Wall thickness 46
- 12.4 Openings 46

- 12.5 Manufacture 46
- 12.6 Heat treatment 47
- 12.7 Pressure test 47
- 12.8 Tensile test 47
- 12.9 Weld tensile test 47
- 12.10 Weld guided-bend test 48
- 12.11 Rejected cylinders 48
- 12.12 Marking 48

**13 Specification TC-4BM 48**

- 13.1 General 48
- 13.2 Materials 48
- 13.3 Wall thickness 48
- 13.4 Openings 49
- 13.5 Manufacture 49
- 13.6 Heat treatment 49
- 13.7 Tensile test 50
- 13.8 Flattening test 50
- 13.9 Pressure test 50
- 13.10 Leak test of final assembly 50
- 13.11 Rejected cylinders 50
- 13.12 Marking 51

**14 Specification TC-4BM17ET 51**

- 14.1 General 51
- 14.2 Materials 51
- 14.3 Wall thickness 51
- 14.4 Openings 51
- 14.5 Manufacture 51
- 14.6 Heat treatment 52
- 14.7 Tensile test 52
- 14.8 Pressure test 52
- 14.9 Flattening test 53
- 14.10 Rejected cylinders 53
- 14.11 Marking 53

**15 Specification TC-4BAM 53**

- 15.1 General 53
- 15.2 Materials 54
- 15.3 Wall thickness 54
- 15.4 Openings 54
- 15.5 Manufacture 54
- 15.6 Heat treatment 55
- 15.7 Pressure test 55
- 15.8 Tensile test 56
- 15.9 Weld tensile test 56
- 15.10 Weld guided-bend test 56
- 15.11 Leak test of final assembly 56
- 15.12 Rejected containers 56
- 15.13 Marking 56

**16 Specification TC-4BWM 57**

- 16.1 General 57
- 16.2 Materials 57

- 16.3 Wall thickness 57
- 16.4 Openings 58
- 16.5 Manufacture 58
- 16.6 Heat treatment 59
- 16.7 Radiographic inspection 59
- 16.8 Pressure test 59
- 16.9 Tensile test 60
- 16.10 Weld tensile test 60
- 16.11 Weld guided-bend test 60
- 16.12 Leak test of final assembly 60
- 16.13 Rejected cylinders 60
- 16.14 Marking 60

### **17 Specification TC-4DM 61**

- 17.1 General 61
- 17.2 Materials 61
- 17.3 Wall thickness 61
- 17.4 Openings 61
- 17.5 Manufacture 61
- 17.6 Heat treatment 61
- 17.7 Tensile test 62
  - 17.7.1 Spheres 62
  - 17.7.2 Cylinders 62
- 17.8 Pressure test 62
- 17.9 Flattening test 62
- 17.10 Requirements for the tensile and the flattening tests 62
- 17.11 Rejected containers 62
- 17.12 Marking 62

### **18 Specification TC-4DAM 63**

- 18.1 General 63
- 18.2 Materials 63
- 18.3 Wall thickness 63
- 18.4 Openings 63
- 18.5 Manufacture 63
- 18.6 Heat treatment 64
- 18.7 Nondestructive inspection after heat treatment 64
- 18.8 Pressure test 64
- 18.9 Radiographic inspection of welds 64
- 18.10 Tensile test 64
  - 18.10.1 Spheres 64
  - 18.10.2 Cylinders 64
  - 18.10.3 Requirements 64
- 18.11 Flattening test 64
- 18.12 Rejected containers 65
- 18.13 Marking 65

### **19 Specification TC-4DSM 65**

- 19.1 General 65
- 19.2 Materials 65
- 19.3 Wall thickness 65
- 19.4 Openings 65
- 19.5 Manufacture 65
- 19.6 Heat treatment 66

- 19.7 Process treatment 66
- 19.8 Pressure test 66
- 19.9 Radiographic inspection 66
- 19.10 Flattening test 66
- 19.11 Rejected containers 66
- 19.12 Test conditions 66
- 19.13 Marking 66

**20 Specification TC-4EM 67**

- 20.1 General 67
- 20.2 Materials 67
- 20.3 Wall thickness 67
- 20.4 Openings 67
- 20.5 Manufacture 67
- 20.6 Tensile test 67
- 20.7 Weld tensile test 68
- 20.8 Weld guided-bend test 68
- 20.9 Pressure test 68
- 20.10 Flattening test 68
- 20.11 Leak test of final assembly 69
- 20.12 Rejected cylinders 69
- 20.13 Marking 69

**21 Specification TC-4LM 69**

- 21.1 General 69
- 21.2 Materials 69
- 21.3 Wall thickness 69
- 21.4 Openings 70
- 21.5 Manufacture 70
- 21.6 Welding and joining 70
- 21.7 Radiographic inspection 71
- 21.8 Tensile test 71
- 21.9 Weld tensile test 71
- 21.10 Weld guided-bend test 71
- 21.11 Impact test 71
- 21.12 Proof pressure test 72
- 21.13 Rejected inner vessel 72
- 21.14 Marking 72

**22 Specifications TC-8WM and TC-8WAM 73**

- 22.1 General 73
- 22.2 Materials 73
  - 22.2.1 TC-8WM 73
  - 22.2.2 TC-8WAM 73
- 22.3 Wall thickness 73
- 22.4 Openings 74
- 22.5 Manufacture 74
- 22.6 Heat treatment 75
- 22.7 Radiographic inspection 75
- 22.8 Macro-etch test 75
- 22.9 Pressure test 75
- 22.10 Tensile test 76
- 22.11 Weld tensile test 76
- 22.12 Weld guided-bend test 76

- 22.13 Proof test 77
- 22.14 Dissolved acetylene system 77
  - 22.14.1 Porous filler 77
  - 22.14.2 Solvents 77
  - 22.14.3 Saturation acetylene 78
  - 22.14.4 Acetylene capacity 78
- 22.15 New design 79
- 22.16 Rejected completed cylinder shells 79
- 22.17 Rejected cylinders with a porous filler 79
- 22.18 Inspection 79
- 22.19 Marking 79

### **23 Specification TC-39M 80**

- 23.1 General 80
- 23.2 Materials 80
  - 23.2.1 Steel 80
  - 23.2.2 Aluminum 80
- 23.3 Wall thickness 80
- 23.4 Openings 80
- 23.5 Manufacture 81
  - 23.5.1 General 81
  - 23.5.2 Welded seams 81
  - 23.5.3 Brazed seams 81
- 23.6 Flattening test 81
  - 23.6.1 Sample selection 81
  - 23.6.2 Cylinders 81
  - 23.6.3 Spheres 81
  - 23.6.4 Steel samples 82
  - 23.6.5 Aluminum samples 82
  - 23.6.6 Rejection criteria 82
- 23.7 Pressure tests 82
  - 23.7.1 Pneumatic pressure test 82
  - 23.7.2 Burst test 82
- 23.8 Rejected containers 83
- 23.9 Marking 83

### **24 Requalification, reheat treatment, repair, and rebuilding 83**

- 24.1 General 83
  - 24.1.1 Scope 83
  - 24.1.2 Requirements 84
  - 24.1.3 Personnel 84
- 24.2 Requalification 84
  - 24.2.1 General requirements 84
  - 24.2.2 Ten-year requalification requirements 86
  - 24.2.3 Cylinders with a service pressure of 2.1 MPa or less in nonflammable liquid or mixtures of nonflammable liquids and nonflammable, nonliquefied compressed gases in noncorrosive service 86
  - 24.2.4 Containers used for fire extinguishers 87
  - 24.2.5 Containers used for reclaiming, recycling, or recovered refrigerant gases 87
  - 24.2.6 TC-3HTM and CTC-3HT cylinders 87
  - 24.2.7 TC-3CCM, TC-3FCM, and TC-3HWM cylinders 87
  - 24.2.8 Series-8 cylinders 87
  - 24.2.9 Requalification by visual reinspection only 88
  - 24.2.10 CTC-3AL cylinders manufactured from aluminum alloy 6351 88

24.3	Reheat treatment	89
24.4	Repair	89
24.4.1	General requirements	89
24.4.2	Additional requirements for TC-4LM and CTC-4L containers	90
24.4.3	Additional requirements for Series-8 cylinders	90
24.5	Rebuilding	90
24.5.1	General requirements	90
24.5.2	Series-4 containers, except TC-4LM and CTC-4L containers	91
24.5.3	TC-4LM and CTC-4L containers	91
24.5.4	Series-8 cylinders	92
24.6	Marking	92
24.6.1	General	92
24.6.2	Metal plate	92
24.6.3	Marking information	92
24.6.4	Marking maintenance	94
24.7	Reporting	94
24.7.1	Requalification	94
24.7.2	Repair	95
24.7.3	Reheat treatment and rebuilding	95

## **25 Registration** 95

25.1	General	95
25.2	Registration of manufacturers of containers	95
25.2.1	Initial registration	95
25.2.2	Renewal of certificate of registration	96
25.3	Registration for requalification, repair, reheat treatment, and rebuilding of used containers	96
25.3.1	Manufacturers	96
25.3.2	Non-manufacturers — Initial registration	96
25.3.3	Non-manufacturers — Renewal of certificate of registration	97
25.3.4	Training requirements for requalifiers	97
25.4	Registration of independent inspectors	98
25.4.1	Initial registration	98
25.4.2	Renewal of certificate of registration	98
25.5	Addenda to certificates of registration	99

## **Annexes**

<b>A</b> (normative)	— Forms contained in the independent inspector's report	120
<b>B</b> (informative)	— Contact information	130
<b>C</b> (informative)	— Suggested practice for tolerances not covered by this Standard	131
<b>D</b> (normative)	— Eddy current examination with visual inspection for CTC 3AL cylinders manufactured from aluminum alloy 6351 used in SCUBA, SCBA, and oxygen services	132

---

## **Tables**

<b>1</b>	— Designation and description of seamless cylinders and tubes	99
<b>2</b>	— Designation and description of welded cylinders and spheres	100
<b>3</b>	— Designation and description of nonrefillable containers	100
<b>4</b>	— Designation and description of composite cylinders	101
<b>5</b>	— Designation and description of insulated containers	101
<b>6</b>	— Designation and description of cylinders for acetylene service	101
<b>7</b>	— Chemical composition requirements for steel and nickel	102
<b>8</b>	— Product analysis tolerances for steels in Table 7 (Grades A to G), Table 15, and Table 28	104
<b>9</b>	— Product analysis tolerances for Grade H steel as specified in Table 7	104
<b>10</b>	— Chemical composition requirements for aluminum alloys	105

- 11** — Specified mechanical properties for aluminum alloys for seamless and composite cylinders 106
  - 12** — Flattening knife-edge radius for aluminum alloys 106
  - 13** — Chemical composition requirements for carbon steel 106
  - 14** — Charpy impact test requirements 107
  - 15** — Chemical composition requirements for carbon and high-strength low-alloy steel sheet 107
  - 16** — Elongation requirements for Type E specimens 108
  - 17** — Chemical composition requirements for nonstandard Grade 4130 steel sheet 109
  - 18** — Product analysis tolerances for alloy steel sheet and strip, hot-rolled and cold-rolled\* 109
  - 19** — Chemical composition requirements for stainless steel sheet 110
  - 20** — Product analysis tolerances for flat-rolled stainless and heat-resisting steel plate, sheet, and strip 110
  - 21** — Chemical composition requirements for aluminum alloy AA5154 111
  - 22** — Service temperature requirements for TC-4LM cylinders 111
  - 23** — Chemical composition requirements for stainless steel, Type 304 111
  - 24** — Mechanical properties (annealed) of stainless steel, Type 304 112
  - 25** — Impact values for stainless steel, Type 304 112
  - 26** — Acetone correction factors 112
  - 27** — DMF correction factors 113
  - 28** — Chemical composition requirements for weldable carbon steel sheet 113
  - 29** — Container requalification periods and procedures 114
  - 30** — Sizing of fixed liquid-level gauge (dip tube) length 117
- 

**Figures**

- 1** — Typical marking arrangements 118
- 2** — Alternative bend test 119

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# Preface

This is the sixth edition of CSA B339, *Cylinders, spheres, and tubes for the transportation of dangerous goods*. It supersedes the previous editions published in 2008, 2002, 1996, 1988, and 1983.

This Standard is one of a series of Standards intended for adoption by reference by the Transportation of Dangerous Goods Regulations. Because the Regulations might adopt this Standard with certain exceptions or additional requirements, they should be consulted to determine where they differ from the requirements of this Standard. Until the Regulations are amended to adopt this edition of the Standard, an earlier edition may be the one legally in effect in Canada.

The CSA Technical Committee on Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods, which is responsible for this Standard, has maintained close links with Transport Canada to ensure compatibility of the new edition of this Standard with the amended Transportation of Dangerous Goods Regulations. The Committee has also reviewed and made extensive use of Compressed Gas Association publications and the US *Code of Federal Regulations*. This edition of CSA B339 incorporates numerous amendments and refinements to the previous edition, while retaining the same basic format.

The CSA Technical Committee on Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods is made up of members having responsibility and expertise as manufacturers or users or in related areas that include testing and inspection of containers and materials, material production, and regulatory interests. The Committee considers this Standard, developed by consensus, to be practical, current with respect to technology and industry practices, useful, and acceptable to all interested parties.

This Standard is written in SI (metric) units, except for the cylinder marking requirements, where the service pressure and, where applicable (e.g., Specification TC-39M), the test pressure are expressed in bar. However, for consistency in the design and test requirements of all containers, MPa and kPa have been retained as units to express service pressure. Considering the use of the “bar” unit by ISO (International Organization for Standardization) to mark service and test pressures, the Technical Committee decided to use the same unit for marking service pressure. The capital letter “M” is added to each specification designation to identify formally that the container specification is metricated.

This Standard was prepared by the Technical Committee on Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods, under the jurisdiction of the Strategic Steering Committee on Mechanical Industrial Equipment Safety, and has been formally approved by the Technical Committee.

## Notes:

- (1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- (2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- (3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
- (4) *To submit a request for interpretation of this Standard, please send the following information to [inquiries@csagroup.org](mailto:inquiries@csagroup.org) and include “Request for interpretation” in the subject line:*
  - (a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
  - (b) *provide an explanation of circumstances surrounding the actual field condition; and*
  - (c) *where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

*Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at [standardsactivities.csa.ca](http://standardsactivities.csa.ca).*
- (5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to [inquiries@csagroup.org](mailto:inquiries@csagroup.org) and include “Proposal for change” in the subject line:*
  - (a) *Standard designation (number);*
  - (b) *relevant clause, table, and/or figure number;*
  - (c) *wording of the proposed change; and*
  - (d) *rationale for the change.*

# B339-14

# *Cylinders, spheres, and tubes for the transportation of dangerous goods*

## 1 Scope

### 1.1 General

This Standard covers requirements for the manufacturing, inspection, testing, marking, requalification, reheat treatment, repair, and rebuilding of cylinders, spheres, and tubes (containers) for the transportation of dangerous goods. In addition, it includes the requirements for the qualification of new designs and registration requirements.

### 1.2 Designations and descriptions of containers

#### 1.2.1

This Standard covers the general requirements for containers (see [Clause 4](#)) and specific requirements, as specifications (see [Clauses 5 to 23](#) inclusive), for the manufacture of each type of container. The general requirements are applicable to all containers, unless otherwise stated, or unless they are not relevant to the individual specifications.

#### 1.2.2

The specification designations and descriptions of containers covered in this Standard are listed in [Tables 1 to 6](#).

**Note:** *It should be noted that compliance with the provisions of the Transportation of Dangerous Goods Act and the Regulations thereto might call for additional requirements due to particular characteristics or properties of individual dangerous goods.*

### 1.3

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

## 2 Reference publications

This Standard refers to the following publications and where such reference is made it shall be to the edition listed below, including all amendments published thereto. Where foreign standards are referenced, only the technical content applies. Where there is a variance with this Standard, the requirements of this Standard shall prevail except in the case of Canadian regulations. Users of this Standard are advised against the direct application of any of the following reference publications without careful consideration of this Standard's reference to that standard, specification, or code.

**Note:** See [Annex B](#) for information on the reference organizations.