SRI LANKA STANDARD 1303:2006

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SPECIFICATION FOR TRANSPORTABLE REFILLABLE BRAZED STEEL CYLINDERS FOR LIQUEFIED PETROLEUM GAS (LPG)

SRI LANKA STANDARDS INSTITUTION

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SLS 1303 : 2006 (AMD 438 and AMD 473 Attached)

Gr. 11

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FOREWORD

This standard was approved by the Sectoral Committee on Materials, Mechanical Systems and Manufacturing Engineering and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2006-12-27.

In this standard the requirements for refillable and transportable brazed steel gas cylinders of 0.5 litres up to 15 litres water capacity for liquefied petroleum gas are specified.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or an analysis shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this standard.

The Sri Lanka Standards Institution gratefully acknowledges the use of the following publications, in the preparation of this standard.

IS 7241 :1981 Glossary of Terms used in Gas Cylinder Technology

IS 12586 :1988 Brazed Low Carbon Steel Gas Cylinders not exceeding 13 Litre Water

capacity specification

BSEN 12807: 2001 Transportable refillable brazed steel cylinders for liquefied petroleum

gas (LPG) - Design and construction

1 SCOPE

This Sri Lanka Standard specifies minimum requirements for material, design, construction and workmanship, procedure and test methods of transportable refillable brazed steel liquefied petroleum gas (LPG) cylinders of water capacity from 0.5 l up to and including 15 l. The limit of 15 l is related to available manufacturing processes.

2 REFERENCES

EN 13133	Brazing – Brazer approval
EN 13134	Brazing – Procedure approval
CS 102	Presentation of numerical values
SLS 1184	Specification for valve fittings for use with liquefied petroleum gas(LPG)
	cylinders
SLS 978	Tensile testing of metallic materials Part1– Method of test at ambient temperature

3 DEFINITIONS

For the purpose of this standard, the following definitions shall apply.

- **3.1 batch :** Batch shall mean, cylinders heat treated in the same manner and constructed from steel of similar analysis and made by the same steel manufacturer.
- **3.2** hydrostatic stretch test: Subjecting the cylinder to a hydrostatic pressure equal to the test pressure of the cylinder.
- **3.3 normalizing**: Uniform heating of a cylinder to a temperature within 50 $^{\circ}$ C above the upper critical point (AC₃) of steel followed by uniform cooling in still air.
- **3.4 test pressure :** The pressure at which the cylinder is hydraulically tested.
- **3.5** yield strength: The stress corresponding to a permanent strain of 0.2 per cent of the original gauge length in a tensile test. For practical purposes it may be taken as a stress at which elongation first occurs in the test piece without the increase of load in a tensile test.

4 REQUIREMENTS

4.1 Materials

- **4.1.1** The steel used in the manufacture of cylinder shall conform to any one of the specifications, given in
 - a) Table 1 and Table 2 or
 - b) Table 3 and Table 4 or
 - c) Table 5 and Table 6.