DIN EN ISO 15995:2019-12 (E)

Gas cylinde rs - Specifications and testing of LPG cylinder valves - Manually operated (ISO 15995:2019)

Contents

Page

European foreword ... **4**

Foreword ... **5**

Introduction ... **6**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms and definitions ... **7**

4 Design and specification ... **10**
4.1 General ... 10
4.2 Materials ... 11
4.2.1 General ... 11
4.2.2 Operating temperatures ... 11
4.2.3 Copper alloys ... 11
4.2.4 Non-metallic materials ... 11
4.3 Essential components ... 12
4.3.1 Valve operating mechanism ... 12
4.3.2 Valve body ... 12
4.3.3 Valve stem ... 12
4.3.4 Valve outlet ... 12
4.3.5 Excess flow valve ... 13
4.4 Optional components ... 13
4.4.1 General ... 13
4.4.2 Pressure relief valve ... 13
4.4.3 Eduction tube ... 13
4.4.4 Fixed liquid level gauge ... 13
4.4.5 Excess flow valve ... 13
4.4.6 Non-return valve ... 14
4.4.7 Liquid level indicator ... 14
4.4.8 Sealing cap and sealing plug ... 14
4.4.9 Sediment tube ... 14
4.5 Leak tightness ... 14
4.6 Operating torque ... 14
4.7 Closing torque ... 14
4.8 Opening torque ... 14

5 Valve type test ... **15**
5.1 General ... 15
5.2 Test samples ... 15
5.3 Test procedure and test requirements ... 16
5.4 Inspection ... 17
5.5 Hydraulic pressure test ... 17
5.5.1 Procedure ... 17
5.5.2 Requirement ... 17
5.6 External and internal leak tightness tests ... 17
5.6.1 Procedure ... 17
5.6.2 Requirement ... 18
5.7 Valve stem test ... 18
5.7.1 Procedure ... 18
5.7.2 Requirement ... 19

5.8 Hand wheel fire exposure test 19
5.8.1 Procedure 19
5.8.2 Requirement 19
5.9 Impact test 19
5.9.1 General 19
5.9.2 Procedure 19
5.9.3 Requirement 21
5.10 Excessive closing torque test 21
5.10.1 Procedure 21
5.10.2 Requirement 21
5.11 Excessive opening torque test 21
5.11.1 Procedure 21
5.11.2 Requirement 21
5.12 Endurance test 22
5.12.1 Procedure 22
5.12.2 Requirement 22
5.13 Examination of dismantled valves 22
5.13.1 Procedure 22
5.13.2 Requirement 23
5.14 Excess flow valve test 23
5.14.1 General 23
5.14.2 Excess flow valve test with air 23
5.14.3 Excess flow valve test with water 23
5.14.4 Excess flow strength test 24
5.15 Non-return valve test 24
5.15.1 Procedure 24
5.15.2 Requirement 24
5.16 Vibration test 25
5.16.1 Procedure 25
5.16.2 Requirement 25

6 Documentation and test report 25
6.1 Documentation 25
6.2 Test report 25

7 Production testing 25

8 Markings 25

Annex A (normative) **Special valves 27**

Annex B (normative) **Production testing and inspection 28**

Annex C (normative) **Special low temperature requirements 29**

Annex D (normative) **Vibration testing 30**

Bibliography 31