ISO/TR 12391-3:2002-12 (E)

Gas cylinders - Refillable seamless steel; Performance tests - Part 3: Fracture performance tests; Cyclical burst tests

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 References 1

3 Symbols 2

4 Background information 2

5 Experimental test programme 4
5.1 Types of cylinder tested 4
5.2 Material properties tests 5
5.3 Description of the flawed-cylinder cyclical burst test 6

6 Flawed-cylinder cyclical burst test results 8
6.1 Flawed-cylinder burst test procedure 8
6.2 Flawed-cylinder cyclical burst test results for group B materials 9
6.3 Flawed-cylinder cyclical burst test results for group C materials 10
6.4 Flawed-cylinder cyclical burst test results for group D materials 11

7 Discussion 13
7.1 Background 13
7.2 ISO 9809-2 flawed-cylinder cyclical burst test procedures and acceptance criteria 13
7.3 Comparison of the flawed-cylinder cyclical burst test with the flawed-cylinder burst test with monotonic pressurization to evaluate fracture performance 14

8 Summary and conclusions 15

Bibliography 47