ISO 10427-3:2003-04 (E)

Petroleum and natural gas industries - Equipment for well cementing - Part 3: Performance testing of cementing float equipment

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Functions of cementing float equipment 1

3 Float equipment performance criteria 2
3.1 General 2
3.2 Durability under downhole conditions 2
3.3 Differential pressure capability from below 2
3.4 Ability to withstand force exerted through cementing plugs from above 2
3.5 Drillability of the equipment 2
3.6 Ability to pass lost circulation materials 2
3.7 Flow coefficient of the valve 2
3.8 Reverse-flow resistance of casing fill-up valves 2

4 Apparatus and materials 3
4.1 Flow loop 3
4.2 Circulating test fluid 4
4.3 High-temperature/high-pressure test cell 5

5 Durability test 7
5.1 Test set-up 7
5.2 Test categories 7
5.3 Procedure 8

6 Static high-temperature/high-pressure test 8
6.1 Test categories 8
6.2 Procedure 9

7 Test results 9

Annex A (informative) Results of performance tests on cementing float equipment 10

Bibliography 11