ISO 6403:1988-11 (E)

Hydraulic fluid power; valves controlling flow and pressure; test methods

Contents

Page

0 Introduction 1

1 Scope and field of application 1

2 References 1

3 Definitions 1

4 Symbols and units 2

5 Test Installation — General requirements 2
5.1 Test circuit 2
5.2 Pressure- and temperature-sensing points 2
5.3 Filtration and contimination level 3

6 General test conditions 3
6.1 Test fluid 3
6.2 Test temperatures 3
6.3 Steady-state conditions 3
6.4 Proof pressure 3

7 Test procedure for directional control valves 4
7.1 Test circuit 4
7.2 Steady-state pressure differential/flow characteristics 4
7.3 Internal leakage 4
7.4 Switching envelope 4
7.5 Transient characteristics 5

8 Test procedure for non-return (check) valves 5
8.1 Test circuits 5
8.2 Pressure differential/flow characteristics 5
8.3 Pilot pressure 5
8.4 Leakage 6

9 Test procedure for valves Controlling pressure 6
9.1 Test circuits 6
9.2 Control setting 6
9.3 Pressure-relief valves 6
9.4 Pressure-reducing valves 7
9.5 Unloading valves 7

10 Test procedure for flow control valves 7

10.1 Test circuits 7

10.2 Steady-state flow/pressure characteristics 7

10.3 Control setting 7

10.4 Transient tests on pressure-compensated valves 7

11 Test procedure for flow-dividing valves 8

11.1 Test circuit 8
11.2 Steady-state flow/pressure characteristics 8
11.3 Transient tests 8
12 Test report 9
12.1 General 9
12.2 Test data 9
12.3 Test results 10
13 Identification Statement 11
Figures 1 to 19 ..... 12to27
Annexes
A Classes of measurement accuracy 28
B Use of practical units 29