# ISO 5198:1987-07 (E)

## Centrifugal, mixed flow and axial pumps; Code for hydraulic performance tests; Precision grade

## Contents

Page


0 Introduction ..... 1

1 Scope ..... 1

2 Field of application ..... 1

3 References ..... 2

Section one: General recommendations .....

4 Definitions and symbols ..... 3

5 Specified duty ..... 10

6 General requirements for tests ..... 10

Section two: Measurement methods .....

7 Measurement of rate of flow ..... 17

8 Measurement of head ..... 21

9 Measurement of speed of rotation ..... 38

10 Measurement of power input ..... 38

11 Measurement of pump efficiency by the thermodynamic method ..... 41

12 Cavitation tests ..... 51

Annexes

A Estimation and analysis of uncertainties ..... 57

B Comparison of test results with specified duty ..... 61

C Thermodynamic properties of water and assessment of the accuracy of efficiency measurements by the thermodynamic method ..... 65

D Other cavitation tests ..... 78

E Friction losses ..... 80