ISO 8468:2007-07 (E)

Ships and marine technology - Ship's bridge layout and associated equipment - Requirements and guidelines

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 2

3 Terms, definitions and abbreviations 2
3.1 Terms and definitions 2
3.2 Abbreviations 7

4 Bridge configuration 8
4.1 General 8
4.2 Field of vision 8
4.2.1 General 8
4.2.2 Primary conning position 8
4.2.3 Navigation and manoeuvring workstation 9
4.2.4 Monitoring and secondary navigation workstation 13
4.2.5 Docking (bridge wings) workstation 13
4.2.6 Manual steering (helmsman's) workstation 14
4.3 Windows 14
4.4 Sound reception system 15

5 Bridge functions and tasks and their relations to workstations 15
5.1 General 15
5.2 Location and interrelation of workstations 15
5.2.1 Bridge functions 15
5.2.2 Dedicated workstations 16
5.2.3 Workstations for navigation and manoeuvring, and monitoring and secondary navigation 16
5.2.4 Workstations for docking 17
5.2.5 Workstation for manual steering 17
5.2.6 Workstations for voyage planning and safety 17
5.2.7 Workstation for communication 17
5.2.8 Workstations for additional functions 17
5.3 Tasks to be performed 17
5.4 Configuration and dimensions of consoles 19
5.5 Accessibility and movement 21
5.6 Bridge alarm systems 22
5.6.1 Alarms 22
5.6.2 Bridge navigational watch alarm system (BNWAS) 22
5.6.3 Alarm transfer system 22
5.6.4 Centralized alarm system 23

6 Bridge equipment 23
6.1 General 23
6.2 Distribution of equipment in workstations 23
6.3 Equipment 27
6.4 Illumination and individual lighting of equipment 28
6.4.1 Illumination 28

6.5 Outer shape of equipment 29
6.6 Power supply requirements 29

7 Bridge working environment 29
7.1 General 29
7.2 Vibration 29
7.3 Noise 29
7.3.1 General noise 29
7.3.2 Sound signals 29
7.4 Lighting 29
7.4.1 Goal 29
7.4.2 Guidelines 30
7.4.3 Range of lighting 30
7.4.4 Darkness 30
7.5 Heating, ventilation and air conditioning 31
7.5.1 General 31
7.5.2 Temperature 31
7.5.3 Humidity 31
7.5.4 Guidelines 31
7.6 Surfaces 32
7.7 Interior 32
7.8 Safety of personnel 32

8 Failure mode and effects analysis (FMEA) 33
8.1 General 33
8.2 Objectives 33
8.3 Initial functional failure analysis 33
8.4 Detailed failure mode and effects analysis 34

9 Documentation 34
9.1 Stowage 34
9.2 User information which should be provided 35
9.2.1 By the bridge integrator -- Detailed operating instructions 35
9.2.2 By the ship owner -- Bridge operational procedures and training 35
9.3 Supplemental documentation 35

Annex A (normative) Bridge layout for high speed craft 36

Bibliography 38