DIN EN ISO 20519:2022-11 (E nglisch)

Ships and marine technology - Specification for bunkering of liquefied natural gas fuelled vessels (ISO 20519:2021)

Contents

Page

European foreword ... **4**

Foreword ... **5**

Introduction ... **6**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms and definitions ... **8**

4 Abbreviated terms ... **11**

5 Transfer system design requirements ... **11**
5.1 Vessel requirements ... 11
5.2 Facility requirements ... 12
5.3 Bunker transfer equipment requirements ... 12
5.4 Emergency shutdown and release systems ... 12
5.5 Specific requirements ... 14
5.5.1 System support ... 14
5.5.2 Hoses, corrugated metallic or composite ... 14
5.5.3 Transfer arms ... 15
5.5.4 Bunkering connections ... 15
5.5.5 Dry-disconnect/connect coupling ... 15
5.5.6 Insulation flange ... 16
5.5.7 Fall arrest ... 16
5.6 Identification of transfer equipment ... 16
5.7 Transfer system design analysis ... 17
5.7.1 General ... 17
5.7.2 Additional items to be considered to meet the requirements of 5.4.5 ... 17
5.8 Maintenance ... 17
5.9 Maintenance manual ... 18

6 LNG bunkering processes and procedures ... **18**
6.1 Mooring ... 18
6.2 Communication in preparation for a transfer ... 18
6.3 Risk assessments ... 19
6.3.1 General ... 19
6.3.2 Risk assessment ... 20
6.3.3 Conditions considered ... 20
6.3.4 Assessment methodology ... 20
6.3.5 Acceptable bunkering parameters ... 20
6.4 Vessel safety assessments ... 20
6.5 Bunkering transfer procedures ... 21

7 Management system and quality assurance ... **22**
7.1 Management systems ... 22
7.2 Management systems for transfer equipment manufacturers ... 22

8 Personnel training ... **22**
8.1 Vessel personnel training requirements ... 22
8.2 Additional training requirements for personnel involved in bunkering operations on vessels ... 23
8.2.1 General ... 23
8.2.2 Personnel providing LNG from port or mobile facilities training ... 23
8.3 Documentation of training ... 23

9 Records and documentation ... **23**

Annex A (normative) **LNG bunker checklists** **25**
Annex B (informative) **Risk assessment and controlled zones** **34**
Annex C (informative) **Illustrations of a typical LNG transfer system and functional diagrams of EDS and ERS subsystems** **39**
Bibliography **42**