DIN 86210-1:2012-07 (E)

Replenishment with operating materials and disposal of fluid waste from seagoing vessels - Part 1: Hose fittings for hose asse mblies up to PN 10

Contents

Page

Foreword 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 6

4 Requirements 6
4.1 General 6
4.2 Permissible operating pressures and temperatures 7
4.3 Resistance of coupling materials to various media 7
4.4 Description of a dry disconnect coupling 7
4.5 Description of a full-flow coupling 7

5 Overview 8
5.1 General 8
5.2 Principle of on-board connection (ship) 9
5.3 Principle of shoreside/barge-side connection 9
5.4 Using hoses and types of hose fitting 12

6 Couplings 12
6.1 Coupling applications 12
6.2 Interface of the couplings 12

7 Materials 19

8 Supply media 19
8.1 Diesel fuels 19
8.2 Heavy fuels 20
8.3 Lubricants 20
8.4 Fresh water 20

9 Discharge media 21
9.1 Fuel sludge 21
9.2 Waste oil 21
9.3 Wastewater (bilge water, greywater and blackwater) 21

Annex A (informative) Type testing 23

A.1 Type testing 23
A.2 Maintenance 24

Figure 1 -- Principle of on-board connection (ship) 9

Figure 2 -- Connection by means of a hose assembly and crane 10

Figure 3 -- Connection by means of a hose assembly and hinged/swivelling pipe 11

Figure 4 -- Interface geometry of dry disconnect coupling 13

Figure 5 -- Seal geometry of dry disconnect coupling 15

Figure 6 -- Side elevation, dry disconnect coupling 17

Figure 7 -- Mechanical coding of dry disconnect couplings (only for DN 25) 18

Figure A.1 -- Testing coupling seals 25

Figure A.2 -- Testing the coupling 26

Tables Table 1 -- Allocation of nominal diameters to specific media 12

Table 2 -- Coupling dimensions 14

Table 3 -- Seal dimensions 16

Table 4 -- Coding of dry disconnect couplings 18