

CONFIRMED  
JULY 1999

Specification for

**Roll on/Roll off  
ship-to-shore  
connection: interface  
between terminals and  
ships with straight  
stern/bow ramps**

UDC 629.12.046

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

**BSI**  
Documents

**AVA**

Document Sharing Hub

# Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Shipbuilding and Marine Standards Committee (SME/-) to Technical Committee SME/15 upon which the following bodies were represented:

- British Transport Docks Board
- General Council of British Shipping
- International Cargo Handling Co-ordination Association (ICHCA)
- Independent Ferry Operators
- Co-opted members

This British Standard, having been prepared under the direction of the Shipbuilding and Marine Standards Committee, was published under the authority of the Board of BSI and comes into effect on 31 August 1984

© BSI 02-2000

The following BSI references relate to the work on this standard:  
Committee reference SME/15  
Draft for comment 82/74948 DC

ISBN 0 580 13938 7

## Amendments issued since publication

| Amd. No. | Date of issue | Comments |
|----------|---------------|----------|
|          |               |          |
|          |               |          |
|          |               |          |
|          |               |          |

# Contents

|                                                          | Page               |
|----------------------------------------------------------|--------------------|
| Committees responsible                                   | Inside front cover |
| National foreword                                        | ii                 |
| 0 Introduction                                           | 1                  |
| 1 Scope and field of application                         | 1                  |
| 2 Definitions                                            | 1                  |
| 3 Variation of water level                               | 3                  |
| 4 Shore ramps                                            | 3                  |
| 5 Ship ramps                                             | 8                  |
| Figure 1 — Flap                                          | 1                  |
| Figure 2 — Interface limit line                          | 2                  |
| Figure 3 — Fixed shore ramp                              | 2                  |
| Figure 4 — Adjustable shore ramp                         | 2                  |
| Figure 5 — Threshold height                              | 4                  |
| Figure 6 — Angles of transition between running surfaces | 5                  |
| Figure 7 — Fixed shore ramp class A                      | 6                  |
| Figure 8 — Fixed shore ramp class B                      | 6                  |
| Figure 9 — Adjustable shore ramp — Height above water    | 7                  |
| Figure 10 — Adjustable shore ramp — Outer end            | 7                  |
| Figure 11 — Adjustable shore ramp — Profile              | 8                  |

## National foreword

This British Standard has been prepared under the direction of the Shipbuilding and Marine Standards Committee and is identical with ISO 6812:1983 *“Roll on/Roll off ship-to-shore connection — Interface between terminals and ships with straight stern/bow ramps”* published by the International Organization for Standardization (ISO).

In addition to the contribution to the work on this standard by the organizations listed on the inside front cover, recognition of that provided by the Felixstowe Dock and Railway Company and Posford, Pavry and Partners is acknowledged.

**Terminology and conventions.** The text of the International Standard has been approved as suitable for publication as a British Standard without deviation.

Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Where the words “International Standard” appear, referring to this standard, they should be read as “British Standard”.

**NOTE** Users of this British Standard Marine Series should note that, while observing the requirements of the standard, they should ensure that they comply with such statutory requirements, rules and regulations as may be applicable to the individual vessel concerned.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

### Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

## 0 Introduction

The aim of this International Standard is to harmonize the interface between the terminal and ship, and to lay down certain major dimensions and principles of design concerning the Roll on/Roll off ship-to-shore connection.

Not all existing ships will be able to comply with the requirements of certain clauses in this International Standard. Port Authorities are advised, for an interim period, to take account of the need to accommodate ships that do not comply entirely with the requirements of this International Standard.

To make full use of this International Standard, a Port Authority needs to make a thorough investigation as to the class of ramp required to suit the types of ship expected. If only one fixed shore ramp is to be installed, and no clear indication emerges of the class of ramp to be chosen, a class A fixed shore ramp may offer the best solution.

The class A ramp could then be equipped with removable blocks or other means of making it possible to accommodate ships equipped with a ramp that will not reach down to the level of a class A ramp.

Although this International Standard does not take into account Ro/Ro terminals used in specialized ferry services, Port Authorities are advised to consider this International Standard when building such terminals, to avoid expensive alterations later, if the terminal is then opened to other ships.

**NOTE** Users of this International Standard should note that while observing the requirements of the standard, they should at the same time ensure compliance with such statutory requirements, rules and regulations as may be applicable.

## 1 Scope and field of application

This International Standard specifies requirements and makes recommendations for the Ro/Ro ship-to-terminal interface for ships with a stern and/or bow ramp, the centreline of which is parallel to the centreline of the ship.

It does not apply to Ro/Ro terminals used for specialized ferry services, such as train ferries, and ships that have no ramp of their own.

## 2 Definitions

For the purpose of this International Standard, the following definitions apply.

### 2.1 General

#### 2.1.1

#### **Ro/Ro transport**

a mode of marine transport in which the cargo may be loaded into and unloaded from the ship by essentially horizontal movements, every cargo unit being moved on its own wheels or by a temporary mobile system

#### 2.1.2

#### **flap**

an extension, normally hinged to the free end of a ramp, to give transition between running surfaces (see Figure 1)

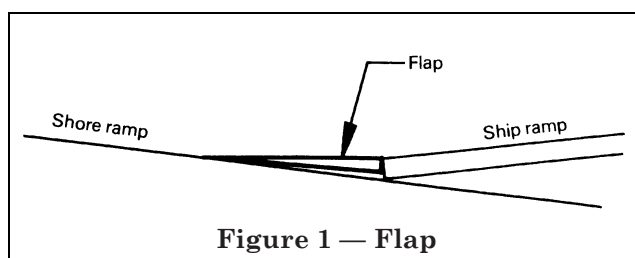


Figure 1 — Flap

### 2.2 Shore

#### 2.2.1

#### **Ro/Ro terminal**

port facilities designed to accept Ro/Ro ships under defined conditions of water level and ship loading, so as to permit cargo handling by a rolling movement. Terminals may include one or more Ro/Ro berths at which Ro/Ro ships can be moored; such berths include fixed and/or adjustable shore ramps

#### 2.2.2

#### **interface limit line**

the line that defines the safe minimum distance between the seaward end of the ship ramp landing area and the outer face of the shore ramp (see Figure 2)

#### 2.2.3

#### **fixed shore ramp**

the fixed incline between the normal quay surface and the outer face of the quay wall on which the shore end of a ship ramp can rest (see Figure 3)