

Code of practice for

Inspection and repair of offshore containers

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Packaging and Freight Containers Standards Policy Committee (PKM/-) to Technical Committee PKM/556, upon which the following bodies were represented:

- Association of Offshore Diving Contractors
- British Offshore Support Vessels Association
- British Rig Owners' Association
- Department of Energy (Petroleum Engineering Division)
- Health and Safety Executive
- OFFCON
- United Kingdom Offshore Operators Association

This British Standard, having been prepared under the direction of the Packaging and Freight Containers Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 29 September 1989

© BSI 12-1998

The following BSI references relate to the work on this standard:
Committee reference PKM/556
Draft for comment 87/43908 DC

ISBN 0 580 16999 5

Amendments issued since publication

Amd. No.	Date of issue	Comments
6456	November 1990	
7762	July 1993	Indicated by a sideline in the margin

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 Definitions	1
3 Design and construction	1
4 Plating of containers	2
5 Marking	2
6 Examination and test	4
7 Repair procedures	6
8 Slings and shackles	7
Appendix A Guidance on design and manufacture of containers	8
Appendix B Required knowledge and experience of the competent person	9
Figure 1 — Format for the plate showing examples of typical markings	3
Figure 2 — Lifting of test load during proof load test	4
Table 1 — Schedule of examination and test	3
Publications referred to	Inside back cover

Foreword

This British Standard has been prepared under the direction of the Packaging and Freight Containers Standards Policy Committee at the request of OFFCON, an unincorporated group of organizations with a common interest in offshore cargo handling equipment, to provide a code of practice, within the context of statutory requirements. It is largely based on provisions set out in the OFFCON Code of Practice issued in 1986 and adopts the plating system for containers introduced by OFFCON.

It is the principal objective of this code to give recommendations for the safe and efficient operation of containers used in trans-shipments between shore bases and offshore installations, and between offshore installations. It is intended that owners and users of such containers should observe all the recommendations of the code except in those circumstances where this would hinder rather than assist the attainment of safe and efficient operation.

Because of the variety of containers to which this code may be applied, it is not possible to lay down detailed constructional recommendations, but appendix A dealing with design and manufacture has been included to provide guidance on the factors to be considered by designers and manufacturers to ensure that containers are fit for purpose. It is recognized that the guidance cannot strictly apply to the design and manufacture of containers already in existence, however, owners should assess existing equipment in the light of the guidance and either modify or re-rate their equipment as necessary.

In particular, attention is drawn to. The Offshore Installations (Operational Safety, Health and Welfare) Regulations, 1976 (SI 1976 No. 1019) which apply to containers used offshore. Those parts of these Regulations relating to testing, thorough examination, certification and marking of lifting appliances and lifting gear are particularly relevant.

In addition, the requirements of the Freight Containers (Safety Convention) Regulations, 1984 (SI 1984 No. 1890) apply to those containers which meet the definition of "freight container" in those Regulations. Those containers will require approval and plating in accordance with the Regulations, in addition to the recommendations of this code. These containers are often referred to as ISO containers and are either tested in accordance with BS 3951-2¹⁾ or the equivalent test methods of the Freight Container (Safety Convention) Regulations, 1984. These tests require a vertical top-lift test but do not include a top-lift test by slings with an included angle of 90°, which is the recommendation of this code (see 6.3). Therefore containers which meet the test requirements of BS 3951-2 or the Regulations are unlikely to meet the recommendations of this code unless they are modified or re-rated.

This code represents a standard of good practice and takes the form of recommendations.

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 10, an inside back cover 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.

¹⁾ The separately published Sections of BS 3951-2 are identical with the equivalent parts of ISO 1496 published by the International Organization for Standardization (ISO).

1 Scope

This code gives recommendations for plating, marking, examination, testing and repair of containers intended for transit to and from offshore installations in the offshore oil and gas industry. The code is also applicable to containers which are retained offshore for a protracted period but which require periodic movement during that time to, from or between offshore installations.

This code is not applicable to items of plant and equipment covered by the Diving Operations at Work Regulations 1981 (SI 1981 No. 399).

Guidance on design and manufacture of containers is given in appendix A.

NOTE The titles of the publications referred to in this code are listed on the inside back cover.

2 Definitions

For the purpose of this British Standard the following definitions apply.

2.1

container

an item of equipment lifted by slings, whose primary purpose is the transportation of goods, materials or equipment, which may be permanently installed in the container, to, from and between offshore installations

2.2

competent person

a person having such practical and theoretical knowledge and actual experience of the containers, which have to be inspected or examined, as will enable him to detect defects or weaknesses, which it is the purpose of the inspection or examination to discover, and to assess their importance to the safe use of the container

NOTE The competent person should seek such specialist advice and assistance as will be required to enable him to make necessary judgements and be a sound judge of the extent to which he can accept the supporting opinions of other specialists (see also appendix B).

2.3

chequer plate

a steel plate having regularly patterned raised portions, often used as flooring

2.4

hook load

the total weight suspended from the crane hook

2.5

lifting set

items of non-integral lifting equipment used to connect the container to the lifting appliance

2.6

maximum gross weight (MGW)

the maximum permissible combined weight of the container and its contents

NOTE The term weight has been used throughout as being the terminology generally adopted and more commonly understood than the term mass.

2.7

non-destructive examination (NDE)

any technique used to detect discontinuities in a material without subjecting it to physical stress

2.8

offshore installation

any installation which is, or has been maintained, or is intended to be established, for the carrying on of any activity to which the Oil and Gas (Enterprise) Act, 1982, applies

NOTE These activities are:

- a) the exploitation or exploration of mineral resources in or under the shore or bed of controlled waters;
- b) the storage of gas in or under the shore or bed of controlled waters or the recovery of gas so stored;
- c) the conveyance of things by means of a pipe, or system of pipes, constructed or placed on, in or under the shore or bed of controlled waters; and
- d) the provision of accommodation for persons who work on or from an installation which is or has been maintained, or is intended to be established, for the carrying on of an activity falling within paragraph a), b) or c) above or this paragraph.

2.9

owner

the legal owner of the container or his delegated nominee

2.10

proof load test

the deliberate application of a predetermined overload to a container

NOTE In this standard a proof load test is used to test the container in accordance with 6.3.

2.11

safe working load/payload (SWL/payload)

the maximum permissible weight of cargo which may safely be transported by the container

2.12

tare

the weight of the container without cargo which includes all fixtures normally fixed to the container in service, excluding the lifting sling and shackles

3 Design and construction

Containers manufactured after the publication of this code should be manufactured in accordance with the recommendations given in appendix A.