



GS 128-1

OIL HOSES FOR DOCK LOADING AND DISCHARGING SERVICES

February 1998

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Document Title			
OIL HOSES FOR DOCK LOADING AND DISCHARGING SERVICES (Replaces BP Engineering Std 179)			
APPLICABILITY			
Regional Applicability:		International	
SCOPE AND PURPOSE			
This Guidance for Specification specifies BP general requirements for the manufacture, inspection and testing of rough and smooth bore and light weight hoses used for dock loading and discharging, and ship-to-ship transfer of crude oil and oil products. It does not apply to hoses for LPG or LNG services and only applies to chemical services by specific agreement with the hose manufacturer.			
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FOREWORD

Introduction to BP Group Recommended Practices and Specifications for Engineering

The Introductory Volume contains a series of documents that provide an introduction to the BP Group Recommended Practices and Specifications for Engineering (RPSEs). In particular, the 'General Foreword' sets out the philosophy of the RPSEs. Other documents in the Introductory Volume provide general guidance on using the RPSEs and background information to Engineering Standards in BP. There are also recommendations for specific definitions and requirements.

Value of this Guidance for Specification

This Guidance for Specification defines BP General requirements for the manufacture, inspection and testing of rough and smooth bore and light weight hoses used for dock loading and discharging, and ship-to-ship transfer of crude oil and oil products. These requirements are based upon BP's knowledge and experience worldwide.

Application

This Guidance for Specification is intended to guide the purchaser in developing a 'fit for purpose' specification for enquiry or purchase.

Text in *italics* is Commentary. Commentary provides background information which supports the requirements of the Specification, and may discuss alternative options. It also gives guidance on the implementation of any 'Specification' or 'Approval' actions; specific actions are indicated by an asterisk (*) preceding a paragraph number. Resolution of the 'Approval' actions is the responsibility of the purchaser's professional engineer.

This document may refer to certain local, national or international regulations but the responsibility to ensure compliance with legislation and any other statutory requirements lies with the user. The user should adapt or supplement this document to ensure compliance for the specific application.

Principal Changes from Previous Edition

This document is an update of BP Standard 179 (September 1981). No technical changes have been made, the update comprises only re-formatting into the Guidance for Specification (GS) style. Users should be aware that this document retains the prescriptive requirements of BP Standard 179.



Feedback and Further Information

Users are invited to feed back any comments and to detail experiences in the application of BP Group Recommended Practices, to assist in the process of their continuous improvement.

For feedback and further information, please contact Engineering Practices Group, BP International or the Custodian. See Quarterly Status List for contacts.



1. INTRODUCTION

1.1 Scope

This Specification specifies BP general requirements for the manufacture, inspection and testing of rough and smooth bore and light weight hoses used for dock loading and discharging, and ship-to-ship transfer of crude oil and oil products. It does not apply to hoses for LPG or LNG services and only applies to chemical services by specific agreement with the hose manufacturer.

1.2 Quality Assurance

Verification of the vendor's quality system is normally part of the pre-qualification procedure, and is therefore not specified in the core text of this specification. If this is not the case, clauses should be inserted to require the vendor to operate and be prepared to demonstrate the quality system to the purchaser. The quality system should ensure that the technical and QA requirements specified in the enquiry and purchase documents are applied to all materials, equipment and services provided by sub-contractors and to any free issue materials.

Further suggestions may be found in the BP Group RPSE's Introductory Volume.

2. GENERAL

2.1 Hoses shall comply with the requirements of [BS 1435](#) except where amplified or modified below.

* 2.2 Unless otherwise specified by BP, all hoses shall meet the requirements for heavy duty service, shall be smooth bore, type S15 or L15 as agreed with BP.

2.3 The test pressures listed in Table 1 of [BS 1435](#) shall be regarded as the maximum working pressures including surge effects.

3. DESIGN

3.1 The hose internal diameter shall be as specified in the enquiry.

* 3.2 All nipples shall be of the steel built-in type with weld neck flanges to [BS 1560](#) or [ANSI B16.5](#) Class 150 flat faced. Unless otherwise approved by BP, flanges shall be galvanised.

* 3.3 Requirements for electrical continuity for hoses will be specified in the enquiry. For dock services where insulating flanges are provided, hoses shall be electrically continuous unless specified otherwise. For hose



strings incorporating several hose lengths, an electrically discontinuous hose shall be provided at the tanker end and all other hoses shall be electrically continuous.

4. INFORMATION REQUIRED WITH TENDER

4.1 The manufacturer shall submit the following details of the proposed construction at the enquiry stage:-

- (a) Overall thickness and material of the liner
- (b) Overall thickness and material of the hose cover
- (c) Overall thickness of the hose wall
- (d) Detail and materials of main carcass reinforcement
- (e) Weight of hose body in kg per metre length
- (f) Weight of hose and fittings

5. TESTING AND INSPECTION

- * 5.1 Unless specifically agreed otherwise with BP, all tests shall be witnessed at the manufacturer's works by BP or a nominated representative.
- 5.2 Prototype test certificates for the particular hose types and constructions offered shall be provided at the tender stage.
- 5.3 Batch sample tests shall be performed on each type of hose supplied for the order. The tests shall be repeated for every tenth hose supplied.
- 5.4 On completion of the order a manufacturing report shall be provided identifying the construction details, as in 4.1, and incorporating all test certificates and test results.

6. MARKING

- 6.1 The information required in [BS 1435](#) para. 16.5 shall be clearly stamped on the rims of the flanges at either end of the hose.
- * 6.2 Any additional marking for non-conducting hoses will be specified by BP if required.



DEFINITIONS AND ABBREVIATIONS

Definitions

Standardised definitions may be found in the BP Group RPSEs Introductory volume.

Abbreviations

ANSI	American National Standards Institute
BP	British Petroleum
BS	British Standard
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas



LIST OF REFERENCED DOCUMENTS

A reference invokes the latest published issue or amendment unless stated otherwise.

Referenced standards may be replaced by equivalent standards that are internationally or otherwise recognised provided that it can be shown to the satisfaction of the purchaser's professional engineer that they meet or exceed the requirements of the referenced standards.

American Standard

[ANSI B16.5](#) Steel Pipe Flanges and Flanged Fittings

British Standards

[BS 1435](#) Rubber Hose Assemblies for Oil Suction and Discharge Services

[BS 1560](#) Steel Pipe Flanges and Flanged Fittings (nominal sizes 1/2 in to 24 in) for the Petroleum Industry

