PORT OF ASHKELON

INFORMATION, OPERATIONAL PROCEDURES AND REGULATIONS HANDBOOK

Eilat Ashkelon Pipeline Co.
Operations Division
July 2003

CONTENTS

FOREWARD

The purpose of this handbook is to acquaint Masters of tankers, Ship Owners and Charterers with the regulations, general information, and services available to tankers and other vessels calling at Ashkelon Terminal/Ashkelon Oil Port.

Every effort has been made to ensure the accuracy of the information contained herein. However, it does not replace any information contained in other official publication concerning the port and the surrounding area. While the information contained is believed to be correct at the time of printing, Eilat-Ashkelon Pipeline Company Ltd., its delegates, and representatives assume no responsibility for any consequence resulting from errors contained therein, or from the use of this information for any purpose whatsoever.

INTRODUCTION

Ashkelon Oil Terminal is operated by the Eilat-Ashkelon Pipeline Company Ltd., as authorized by the Israel Oil Pipeline Concession Law 5728 - 1968 (Published in the Official Gazette, April 15, 1968).

The Ashkelon Oil Terminal Manager may, in his discretion and judgment, cancel any existing regulations, wholly or partly, revise and alter them, or add any new regulations, as he may deem necessary.

All cargo operations (discharging and loading of tankers) will be carried out according to the directives and instructions of the Terminal Manager.

The Terminal Manager or his delegated representative may, in their judgment, order a tanker to change any of the above operations, to vacate its berth and/or leave the port area, should this be necessary.

Ashkelon — General Information

The city of Ashkelon lies 12 miles south of Ashdod. It is built on the site of the ancient city of Ashkelon called by the Crusaders Escalon. The Ashkelon Oil Terminal lays approximately 2 miles south west of Ashkelon.
The storage capacity of Ashkelon terminal is 1.3 million cu. m. for Crude Oil 200,000 cu. m. for Fuel Oil and 4,500 tons for LPG.
The terminal is equipped with dirty ballast tanks and separators for treatment of dirty ballast, discharged ashore by tankers on loading calls.

Available Facilities and Services

Shore leave and transportation:

Shore leave passes are obtainable from the frontier control section of Israel Police Station Ashkelon.
Application for passes should be made via the shipping agent. One Passport photograph is required for each crewmember.
A private boat company provides transportation ashore, arrangements should be made via the shipping agent.
There is a taxi service from the port to the city of Ashkelon.
The voyage to both Jerusalem and Tel-Aviv from Ashkelon is one hour by bus.

Communications:

International phone, e-mail and telefax facilities are available in Ashkelon.

Medical facilities:

Ashkelon has good medical facilities, including a modern well-equipped hospital (arrangements via the agent).

Provisions and stores:

Fresh provisions, dry stores and bonded items are available (arragements via the agent).

Bunkers and fresh water:

Bunkers are not available at the Port of Ashkelon however fresh water can be supplied by the private boat company.

Repairs:

Small workshop repairs can be carried out when necessary.

Mooring restrictions

Mooring at all berths is carried out during daylight hours only.
Unmooring can be carried out at the SPM's 24 hours a day, whilst at the Multi-buoy berths it can be carried out during daylight hours only.

Navigational Information

Location of the terminal

The Ashkelon Oil Terminal is located 12 miles south of the port of Ashdod. A line joining the following positions encompasses the port:

Lat	31°	38.90'N.
Long	34°	31.87'E.
Lat	31°	39.82'N.
Long	34°	31.45'E.
Lat	31°	40.54'N.
Long	34°	31.44'E.
Lat	31°	41.28'N.
Long	34°	30.20'E.
Lat	31°	37.43'N.
Long	34°	27.01'E.
Lat	31°	36.80'N.
Long	34°	28.13'E.
Lat	31°	37.12'N.
Long	34°	30.50'E.

Single Point Moorings positions

SPM No. 3	Lat	31°	39.42'N.
	Long	34°	29.83'E.
SPM No. 4	Lat	31°	38.75'N.
	Long	34°	28.30'E.

Multi-buoy berths positions

Berth No. 1	Lat	31°	40.15'N.
	Long	34°	31.00'E.

Berth No. 2	Lat	31°	39.6'N.
	Long	34°	31.2'E.
LPG Berth	Lat	31°	39 N.
	Long	34°	31.2'E.

Coal Jetty positions

Head of jetty:	Lat	31°	38.05'N.
	Long	34°	29.68'E.

Anchorage

If required, anchorage can be held in the following positions:

Lat	31°	40.63' N.
Long	34°	29.44' E.
Lat	31°	40.05' N.
Long	34°	28.98' E.
Lat	31°	39.48' N.
Long	34°	28.50' E.

Recommended anchorage for coal carriers

Lat	31°	38.90' N.
Long	34°	28.09' E.

Navigation charts and publications

The approach to Ashkelon is through a safe fairway (see British Admiralty charts No.2634 and No. 1585 or U.S.H.O. charts No. 56060-Israel, 56064-Haifa, 56067-Ashdod and 56065- Tel-Aviv).
Port and weather information can be obtained from the B.A. Mariner Handbook N.P. 100, B.A. Mediterranean Pilot book No. 46 Volume V. or U.S.H.O. books 130 and 132.

Navigational aids

The position of the Ashkelon Port lighthouse is:
Lat 31° 38.17'N Long 34° 32.47'E, and is characterized by a group of 2 flashings every 10 sec, to be seen for 15 miles.
The position of the electric power station chimney is Long 34° 31.27'E Lat 31° 37.87'N, characterized by a group of 40 fleshes per minute
The position of the electric power station transmission antenna is Long 34°31.60'E Lat 31° 37.92'N, characterized by a group of 40 flashes per minute.

Meteorological Information

Seasons

The climate of the Israeli coast is typically Mediterranean. The seasons of the year are as follows in general:
Summers are rainless with moderately high temperatures from June to September and a moderately cool winter with an interchange of rainy and stormy periods and calm days from November to March. There are two short transitional periods during which there may be occasional rain and bad weather as well as prolonge spells of fine weather and calm seas.

Winter

Winter weather along the coast is influenced by the passage of active depressions every five to eight days on the average. These depressions are heralded by strong southerly winds, which may be dust-laden. Gale force is reached occasionally. After some time winds veer southwesterly and with the shifting of the depressions, winds become northwesterly and tend to become calmer.

Spring

This is the period of prevailing calm seas in the coastal waters. Land and sea breezes are minimal. The passage of wintry type disturbances slowly decreases in frequency during the season, and may cause relatively short periods of bad weather mainly in March.

Summer

During the summer there are no special weather conditions, the state of sea is influenced by the diurnal passage of breezes along the coasts and a westerly to northwesterly gradient wind offshore. The only change in weather is caused by variations in the strength of the wind due to the passing of minor (cold air / warm air) fronts. Although there are no high seas, summer is a season of continuous agitation of the coastal waters.

Autumn

This is the period of prevailing calm seas in the coastal waters. Land and sea breeze are minimal. The passage of wintry type disturbances slowly increases in frequency during the season, and may cause relatively short periods of bad weather in October and especially in November, similar to those described for the winter season.

Fog

Fog is a relatively rare phenomenon. Its occurrence is generally connected with Hamsin conditions when relatively cool and moist easterly winds prevail on such days. The fog generally occurs over the coastal waters and the coastal strip during the night and may last until mid morning. There is a distinct seasonal distribution of foggy days with a minimum in August-September, a pronounced maximum from April to June, and variable conditions during the other months. The month with the greatest amount of fog is April, when 2-3 days of fog may be encountered on average.

Storms

Storms occur generally during the winter months, the highest frequency being in January. During that month, there are usually 15 days when the height of the waves exceeds two meters and about seven days when it exceeds three meters. During December, February, and March 11 to 12 stormy days can be expected, when waves exceed two meters in height.

Tide and Currents

Maximum variation between high and low water is approx. 4 feet. The average variation is approx. 2 feet. There is no tidal information for Ashkelon, neither in U.S.H.O. nor in British Admiralty Tide Tables, but data for the Port of Tel-Aviv (a secondary Port to Gibraltar) can serve as a guideline. Currents are generally in a northerly direction but may change in the event of northerly storms.

Local Time

Local time is two hours ahead of UTC. Summer Day saving time, which is three hours ahead of UTC, is in operation from March till September.

Pilotage

Pilotage is compulsory within the limits of the terminal. Upon arriving within V.H.F. range from Ashkelon, the master should contact the Oil Terminal — call sign “Delek” on V.H.F. channel 13 - for instructions (namely: whether the vessel is to be berthed on arrival or has to proceed to anchorage).
The terminal pilot will board the vessel at the boarding point located at the intersection of Lat 31° 40’N and Long 34° 29’E or at anchorage.

Pilot ladder requirements:

All pilot ladders must be clean, in good condition and comply with S.O.L.A.S. chapter v, reg. 17. (see appendix 7).

Berthing information

The Ashkelon Terminal loading and discharging facilities consist of three multibuoy berths, namely No. 1 - for discharging white products, No. 2 - for discharging and loading fuel oil and the LPG berth for discharging LPG cargoes. Berths No. 3 and No. 4 are monobuoys used for discharging and loading crude oil tankers.

In addition there is a coal jetty for discharging coal carriers.

Tugs and Boats

The terminal has the following fleet:

Two 55-ton bollard pull tugs, one 16-ton bollard pull tug, and four mooring boats
Usually two mooring boats will assist the vessel in the berthing

Mooring Crew

Terminal's mooring crew will board tankers together with the pilot. The crew consists of three seamen and will assist the pilot during Pilotage and berthing.

Loading master

After the completion of berthing, the pilot will remain on board and act as the loading master throughout ship's stay at berth.

Hose connection

Tanker's manifold must be ready for the connection of the hoses before the berthing of the vessel.
Terminal crew will connect the cargo hoses.
An officer with at least 3 seamen must be present during connection of hoses to assist the terminal's crew whenever asked for.

Draft

Vessels arriving or departing from the Port of Ashkelon in ballast condition must comply with MARPOL annex I regulations 13(2) a, b, c, d and g, adopted by the Israeli authorities, namely:

i Draft amidships (meters) = 2.0 + 0.02L
where L = Length over all (meters)
ii Trim < 0.015 L
iii Propeller fully immersed.

Ballast water & slop oil

Only clean ballast water from the segregated ballast tanks (SBT) can be discharged into the sea in the terminal area. Random samples will be taken from the segregated ballast tanks for checking at terminal's laboratory.
Any ballast water carried in vessels' cargo tanks must be pumped ashore to the terminal ballast water reception facility.
In order to minimize the de-ballasting time, masters are requested to arrive with the minimum ballast on board needed for safe navigation.

Inert gas systems

All vessels must have a fully operational inert gas system. Prior to her arrival, the vessel must confirm that all empty cargo tanks and those containing dirty ballast have been fully inerted and have oxygen content of 8% or less by volume.
If the vessel does not comply with these regulations, berthing will be postponed until completions of repairs of inert gas system have been carried out. In such event, notice of readiness will have to be re-tendered as soon as the vessels re-enters port.

Engine

No engine movements at berth are allowed without permission of the Loading Master.

Flushing terminal floating hoses

In order to prevent sea pollution from the terminal floating hoses, vessels are requested to flush the hoses with seawater after the completion of the cargo operations at a rate of 3,000 cu.m./hr. The terminal will regulate the starting and stopping of this operation.

Berthing requirements

Berths No.1 and 2

Required mooring equipment

Forecastle - two anchors with 11 shackles on each side.
Aft main deck — minimum two single drum winches or one double drum winch.
Poop deck - two double drum winches.
Mooring ropes - 8 coils of 220-meter length and 8” circumference
Shackles - 4 Shackles of 10 ton SWL.
Mooring arrangements are detailed in the attached appendix No.5 "Multi-buoy Mooring Arrangement."

Note: Buoys 1 and 5 are fitted with shore wires of 48 mm diameter
Every vessel has to provide one empty drum on each side or two empty drums on one single winch, in order to accomodate the wires.

Berths No. 1 and No. 2 are positioned at 2.5 Km and 1.8 Km from shorline at water depths of 22 meters and 19 meters respectively. The berths are suitable for mooring tankers as from 20,000 DWT and up to 80,000 DWT with L.O.A of 170 to 250 meters. Maximum allowable draft at berth No. 1 is 17.5 meters and 14.5 meters at berth No. 2.
Both berths are connected to shore via one 32” diameter submarin pipelines terminated by two flexible hose string of 12” at each berth, allowing a maximum loading/discharging rate of 6000 cu.m./hr (see appendix 3).

Berths No.3 and 4

Berths No. 3 and No. 4 are SPM's, situated 3.2 Km. and 3.5 Km offshore respectively. Berths are suitable for mooring VLCC's, however berthing of tankers above 250,000 DWT requires coordination with the Port Manager in advance.
Water depth at both monobuoys is 31 m.
Each berth is connected to shore by two submarine pipelines of 32" diameter, for loading and discharging. The monobuoys are provided with one floating hose string of 230 meter of 20" diameter. Towards the tanker the hose is divided into two strings: the forward one of 12" diameter and the after one of 16"diameter. The end of each string is fitted with a cam lock coupling of 150 ASA (see appendix 2).
The maximum loading and discharging rate at these berths is 6500 cu.m./hr. with a discharging pressure on vessel's manifold restricted to 10 bars (this pressure is required to be maintained at all times).
Each berth is provided with an 18" circ. "Samson" nystron SPM braid rope of 70m in length. Each rope has at its end a 10 meter chafe chain of 76mm stud diameter , and a 3 meter chafe chain of 56mm stud diameter followed by a 10" circ. pickup rope (see appendix 4).
For mooring at berths No. 3 and No. 4 tankers have to provide the following:

- Tongue-type chain stopper
- 8" circ. pickup rope — 200 m length.

Anchors must be lashed and secured before the commencement of berthing.

LPG berth.

The LPG berth is of multi-buoy type and consists of 4 mooring buoys. The depth of the water at the berth manifold is 14 meters and can accommodate tankers with up to 10,000 corresponded DWT. Maximum L.O.A. 130 m and maximum drafts 8.50 m
The berth is connected to the shoreline by a 10" pipe, of 1000 meters length, ended with a flexible hose of 8" diameter. The hose is connected to ship's manifold with a cam lock of 300 ASA.
Maximum pressure of 12 bars is allowed at ship's manifold.

Required mooring equipment at LPG berth

Forecastle - two anchors with 10 shackles on each side.
Poop deck - two double drum winches, or at least two single winches
Mooring ropes - 6 coils of 220-meter length with 8" or 6" circumferences (see appendix 6).

Coal Jetty.

The coal jetty is equipped with 8 berthing dolphins, with quick relief of mooring hooks and a capstan winch mounted on top of each one.
In addition there are further 9 mooring dolphins. Height of dolphins above sea level is 4-meters, except for mooring dolphin No.1, which rises to a height of 6 meters.
The maximum available air draught under the jetty is 15-meters (see appendix 1).

Coal Jetty Information

Maximum Vessel Size	200,000 DWT.
Pier Length	283.60 Meters
Pier Width	24.00 Meters
Water Depth at Pier (Min)	22.50 Meters
Max. Draft of Vessel	18.00 Meters
Height of Pier Above M.S.L	15.00 Meters
Type of Sea Bottom	Mixture of materials as clay, sand, and mud
Density of seawater	1025 kg/cu.m.
Discharging Equipment	
2 Gantry Grab Cranes	1800 TPH (each)
Conveyor	5000 TPH
Fendering System	
Cylindrical Rubber Fenders	8 (one on each of the 8 breasting dolphin).
Size of Fenders	L — 4.30 Meters
	D — 2.70 Meters
	d — 1.35 Meters
Navigation Lights	
Breakwater West Light	Gp. Fl. (2) 6 Sec
Breakwater East Light	Gp. Fl. (2) 10 Sec.

Safety Instructions

When a coal carrier stays alongside the coal jetty, the port will be manned as follows: One pilot, one standby tug and one mooring boat with their crews
Duty pilot keeps watch on V.H.F. Channel 13 and on cellular phone (No. 057-217907), and is available to assist and/or advise on berth operation, weather conditions and any emergency situation.
Masters of vessel must maintain the coal carrier mobility and maneuverability at all time whilst in port, so that the vessel can be moved at short notice. The pilot must be informed immediately if, for any reason, the above regulations are not carried out
Dismantling of machinery affecting vessel's mobility or maneuverability is prohibited unless authorized by the pilot on duty.
Masters of vessels must ensure that during the stay in port, suitable qualified crewmembers in sufficient number are on board to protect its safety and operate al the machinery necessary for its movement and maneuvering.
Masters of vessels shall ensure that their vessels are adequately secured alongside with efficient ropes, that strict watch is kept and that mooring is attended in order to prevent undue movement of the vessel. Changing or re-arranging lines shall be done only when supervised by the Pilot on duty.
Masters of vessel must inform the Port immediately of any accident that ocurred on or near the vessel, such as fire, explosion, injury to ship or shore personnel , etc. A written report must be submitted to the Port Manager with all details of the accident.

Ballast tanks and/or holds should be ballasted as soon as practicable during discharging. Holds designated as ballast tanks should be discharged first and cleaned for that purpose. Fire-fighting equipment must be kept in readiness at all times. Welding, cutting or any other hot works are prohibited aboard, unless prior written permission is obtained from port manager. When permitted, this work shall be supervised by a competent person to ensure that the proper precautions are taken.
Diving operations near the ship and lowering of boats is prohibited without prior written permission.
The emission of dark or dense smoke is prohibited.
Only the shore gangway should be used for access from jetty to ship.
Ship personnel are not allowed to approach the coal bridge on foot. Crew can leave the ship or return only by taxi.
While in port the vessel shall not throw overboard any rubbish, ashes, or garbage . Oil or oily water shall not be pumped or allowed to leak into the sea.
Subject to prior arrangement, oily residues may be pumped into a lorry, for delivery to reception facilities ashore.
Garbage in sealed plastic bags shall be placed in the garbage container on the jetty.

Required mooring equipment.

A coal carrier calling the Port of Ashkelon must be equipped with 18 coils of mooring ropes 220-meters long and of 10” circumference each. The ropes are to be wrapped on the mooring drums.
The position of the coils is to be:
3 lines, 4 breasts, 2 springs - Forward and After.
Vessels are required also to keep 2 additional spare coils of mooring rope for rough weather.
If the collier is equipped with wires, a rope tail of 60-meter length is to be connected to each wire.

Mooring of Coal carrier.

The terminal usually uses two 55-ton tugs and one mooring boat for berhing vessels. Tugs are fastened on to the ship’s bow and quarter, thus mooring is carried out using the push-pull method.

Communication

All tankers bound for Ashkelon must give proper notice via their agents or directly to the head office by telex, fax, or e-mail 72 hrs., 48 hrs, and 24 hrs. prior to arrival.

The 72 hr E.T.A. notices should include the following:

- Confirm E.T.A (local time).
- Vessel’s Arrival draught fwd and aft.
- Whether loaded or part loaded the nature and quantity of the cargo. If ballasted, the type of ballast (segregated/oily) and the quantity to be discharged ashore including the estimated deballasting time.
- If loading, the quantity of cargo to be loaded and requested loading rate.

- Any defects in the vessel or its equipment that might affect the safe operation of the ship.
- Confirm that the inert gas system is fully operational, and that the oxygen content of all tanks dodo not exceeds 8% by volume.
- Nature of the slops on board and their description (oil, oily water etc).
- Additional information to be included in the notice for O.B.O. carriers:

    - ❖ Confirmation that the cargo tank covers are tight and that the tank pressure is at least 500 mm water gage at vessel's arrival.
    - ❖ Capacity of the common tank venting system and confirmation that it is fully operational.
    - ❖ Confirmation that the segregated ballast is clean.

Specific information to be included in the 72 hrs notice for coal carriers:

- Highest coal temperature in each cargo hold.
- The percentage of Oxygen, Methane, and the concentration of Carbon monoxyde, in each hold.
- Hold adjacent to bunker tanks.
- Confirmation that all hold-ladders are intact.
- Confirmation that all holds and hatches are free from loose scale
- Confirmation that all holds are marked to prevent unauthorized persons from entering.
- Confirmation that the vessel has gas detectors on board, in good working condition.
- Confirmation that all navigation equipment is in good working condition.
- Confirmation of the total quantity of separated water pumped out during the sea passage.
- Details of the vessel's discharging sequence

Ship to shore radio communication

The Ashkelon terminal is manned 24 hours a day and can be contacted on VHF channel 13 - call sign "DELEK."
When moored, the loading master or his crew will carry out all communication from ship to shore,

Cellular Phones

The Vessel's agent can supply the vessel with a mobile phone if required.
The use of cellular phones on tanker decks is strictly prohibite

Berthing Sequence

Vessels are berthed on basis of "First come, first served," unless otherwise instructed.

Repairs, maintenance, and hot work

Hot work or any other repair work including boiler tube cleaning, chipping and scraping hull painting, testing or servicing of electrical equipment (including radar, radio and domestic electrical equipment), are prohibited on vessels during their stay in port.

Cargo operations planning

Before the commencement of cargo operations, the terminal loading master and the Master of the Vessel or the officer in charge of cargo operations will carry out a meeting at which the following items will be discussed:

Loading

a. Filling and signing of the ship/shore safety check list.
b. Discussing any deficiencies shown up in the above checklist any additional precautions required. The terminal reserves the right to refuse to load a vessel if these requirements are not met.
c. Discussing the procedures for ballast tank sampling, and iner gas testing
d. Establishing the loading program which should include:

- Quantity of cargo to be loaded.
- Loading rates.
- De-ballasting procedure and rates.
- Procedures for an emergency shut down of operations.

e. Establishing the means of communication to be used during the operations.
f. Establishing the actions to be taken in the event of an emergency.,

Discharging

a. Filling and signing of the ship/shore safety check list.
b. Discussing any deficiencies shown up in the above checklist and any additional precautions required. The terminal reserves the right to refuse to load a vessel if these requirements are not met.
c. Establishing the discharge program which should include:

- Quantities of cargo to be discharged.
- Discharging sequence, including stoppages for ballasting, C.O.W., and internal stripping.
- Procedures for an emergency shutdown of operations.

d. Establishing the means of communication to be used during the operation.
e. Establishing the actions to be taken in the event of an emergency.

Pollution prevention

Oil spill

Utmost care must be exercised when handling cargo and ballast in order to avoid oil spills. No oil, nor any water, which may possibly contain oil, is to be discharged overboard or allowed to escape overboard. Pumping of bilges, emission of smoke - including soot blowing - is prohibited.
Before cargo operations start, all scuppers at main deck level through which oil may escape, must be effectively plugged. No leakage or spillage on board is allowed to leak overboard.
Accumulated water on deck should be drained periodically.
In the event of leakage occurring from a pipe, valve, or cargo hose connection, operations will be stopped immediately and will not be resumed until the fault has been rectified and all hazards from the spilled oil eliminated
Any leakage or spillage must be reported immediately to the Terminal Manager, and all efforts to recover or limit the spill must be taken. The Terminal Management will advise the local environmental authority accordingly.
The vessel will not be allowed to leave berth or the port before receiving clearance to do so.

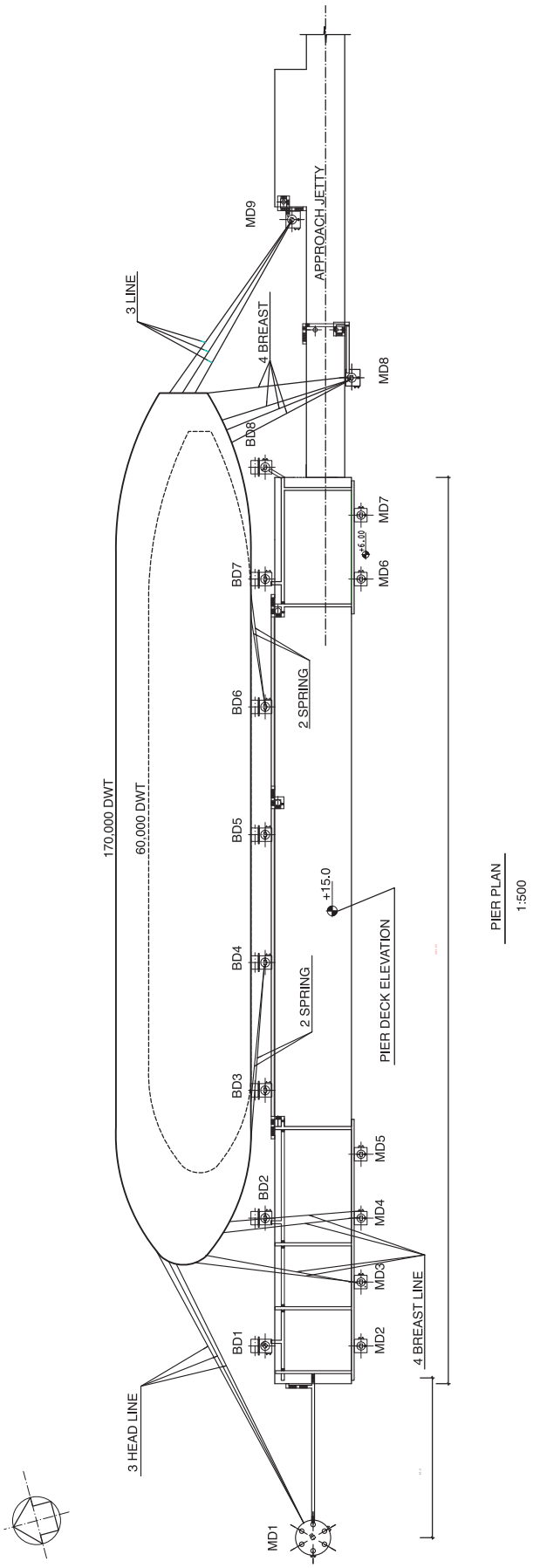
Garbage, waste paper and cartons

Garbage from vessels galley, waste paper, and cartons are to be disposed of into collecting boxes, which are placed on board. Collecting boxes will be transferred ashore by Sofa Boat Company Lunches.

Accommodation

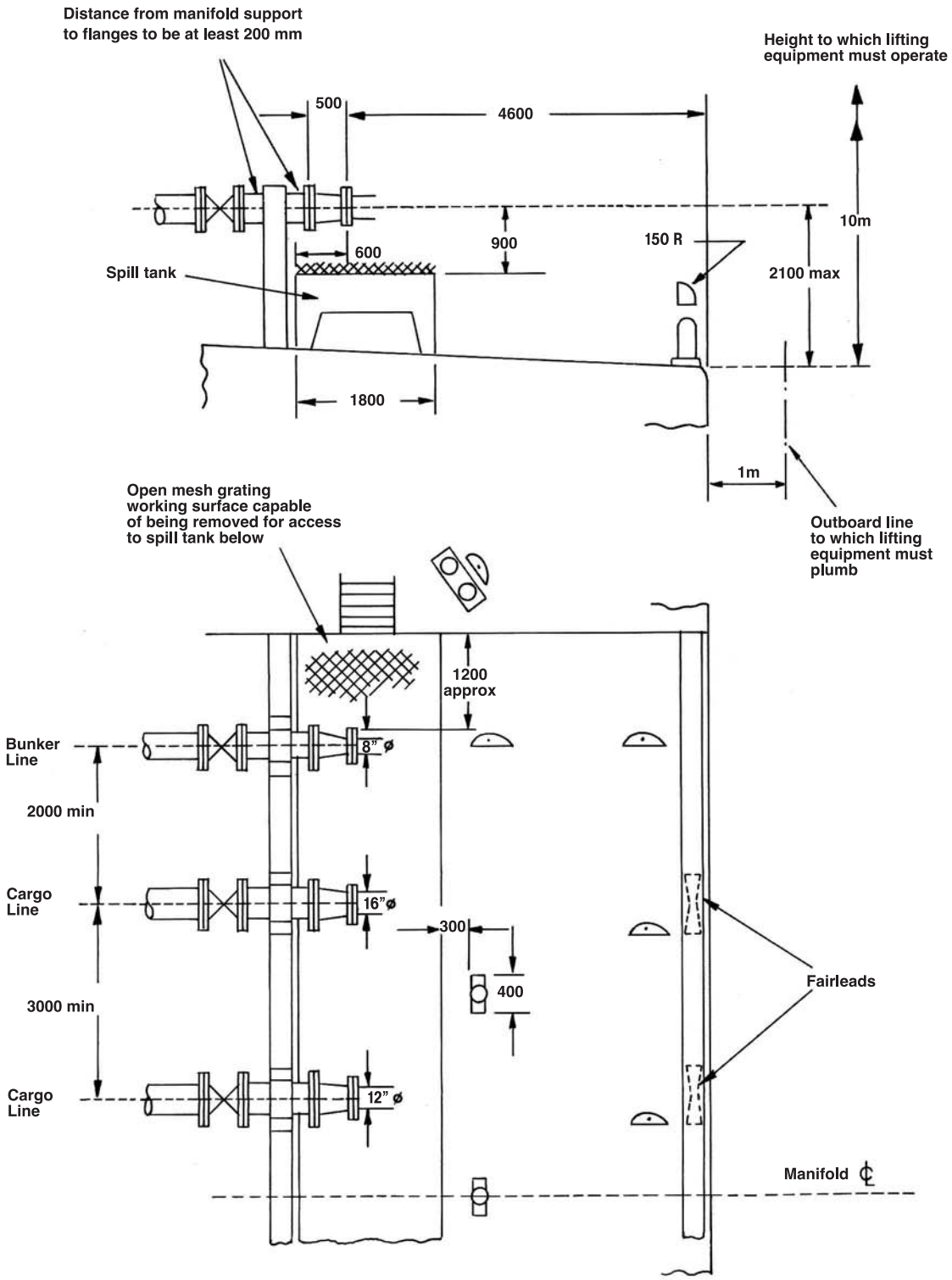
Masters are requested to arrange suitable accommodation for the Loading Master and his crew of 3 seamen. The Loading Master will be accommodated in the vessel’s pilot cabin.

Appendix 1



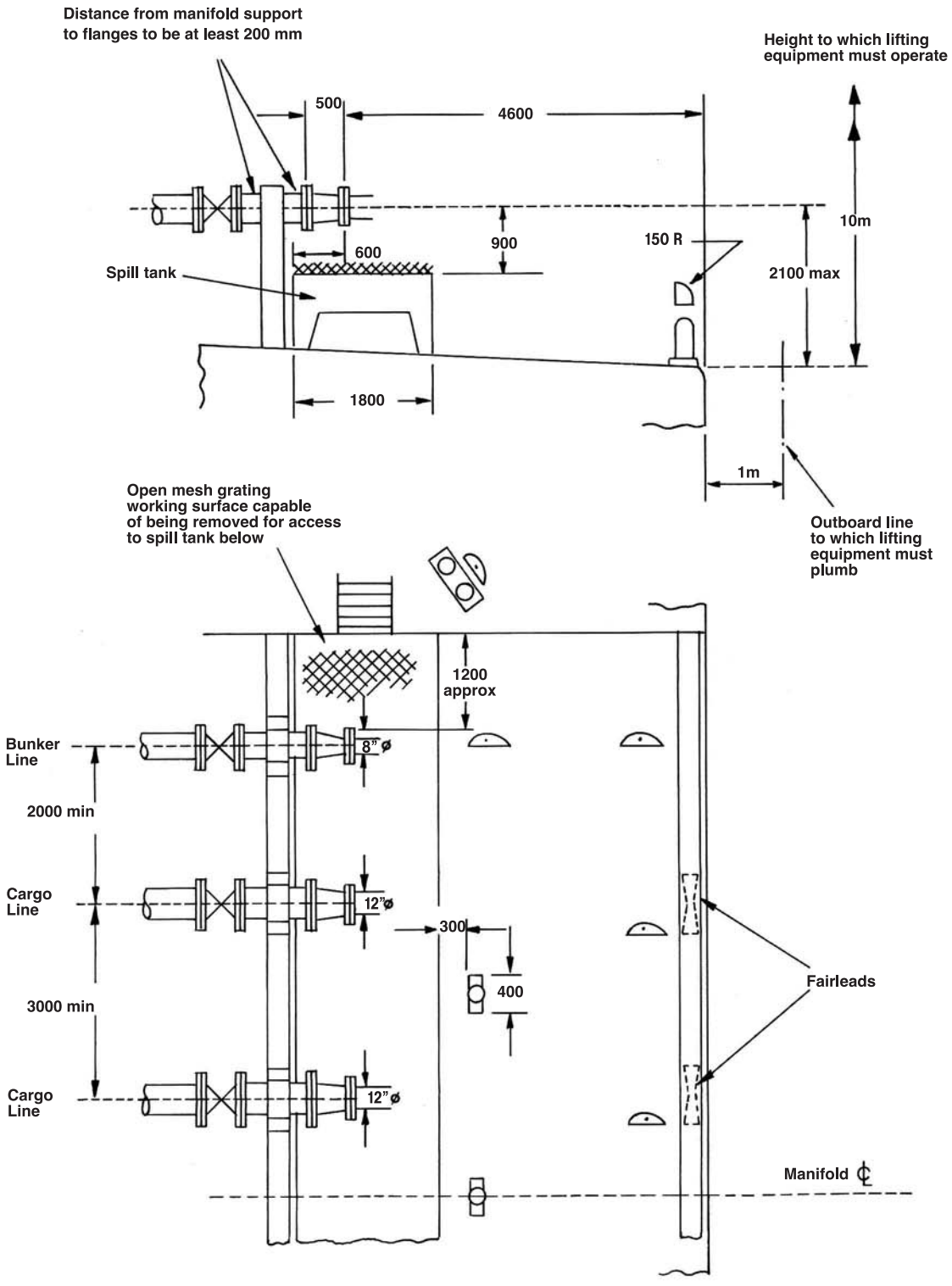
Coal Pier

Appendix 2



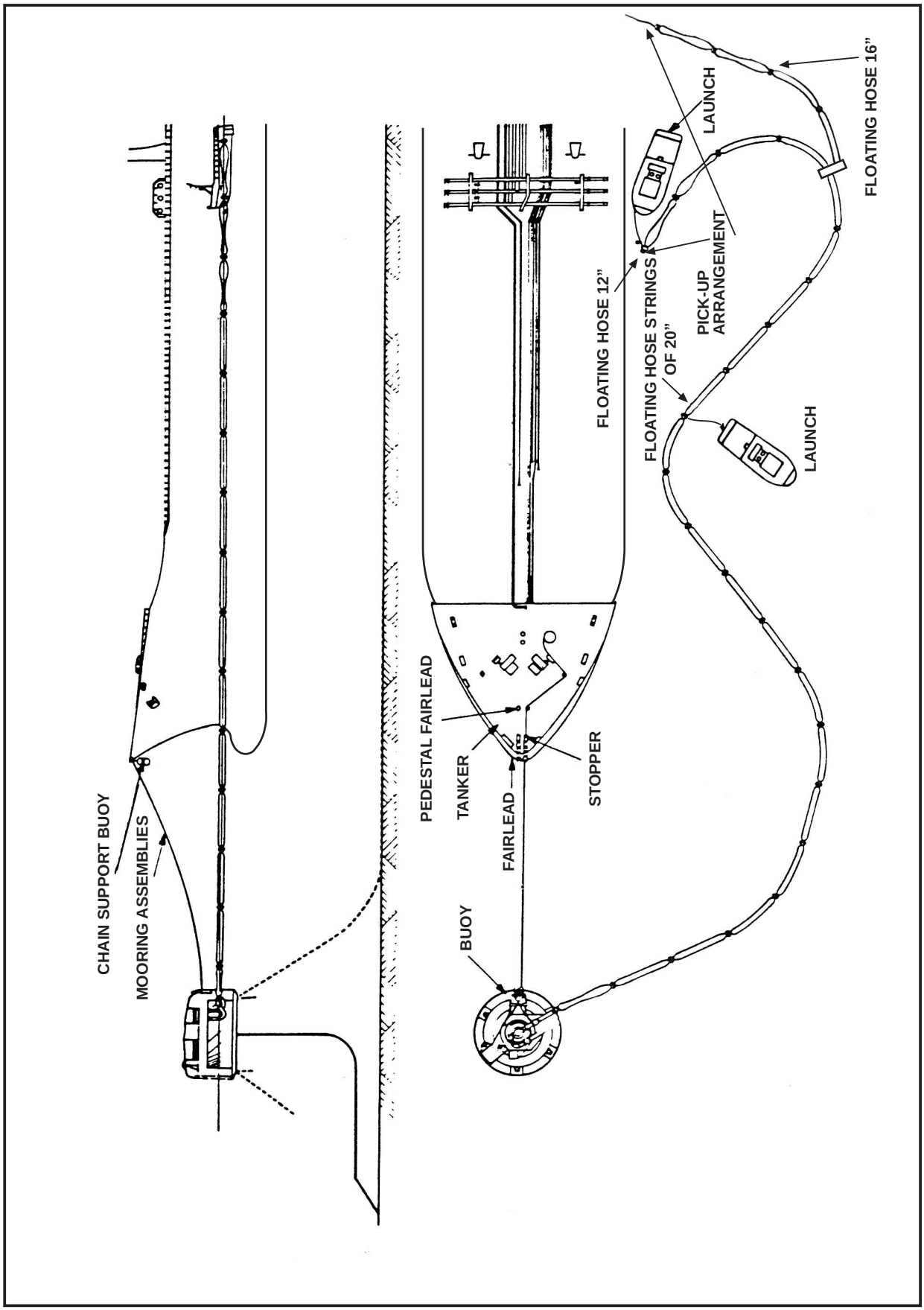
STANDARD MANIFOLD ARRANGEMENT
FOR TANKERS AT BERTHES 3&4

Appendix 3



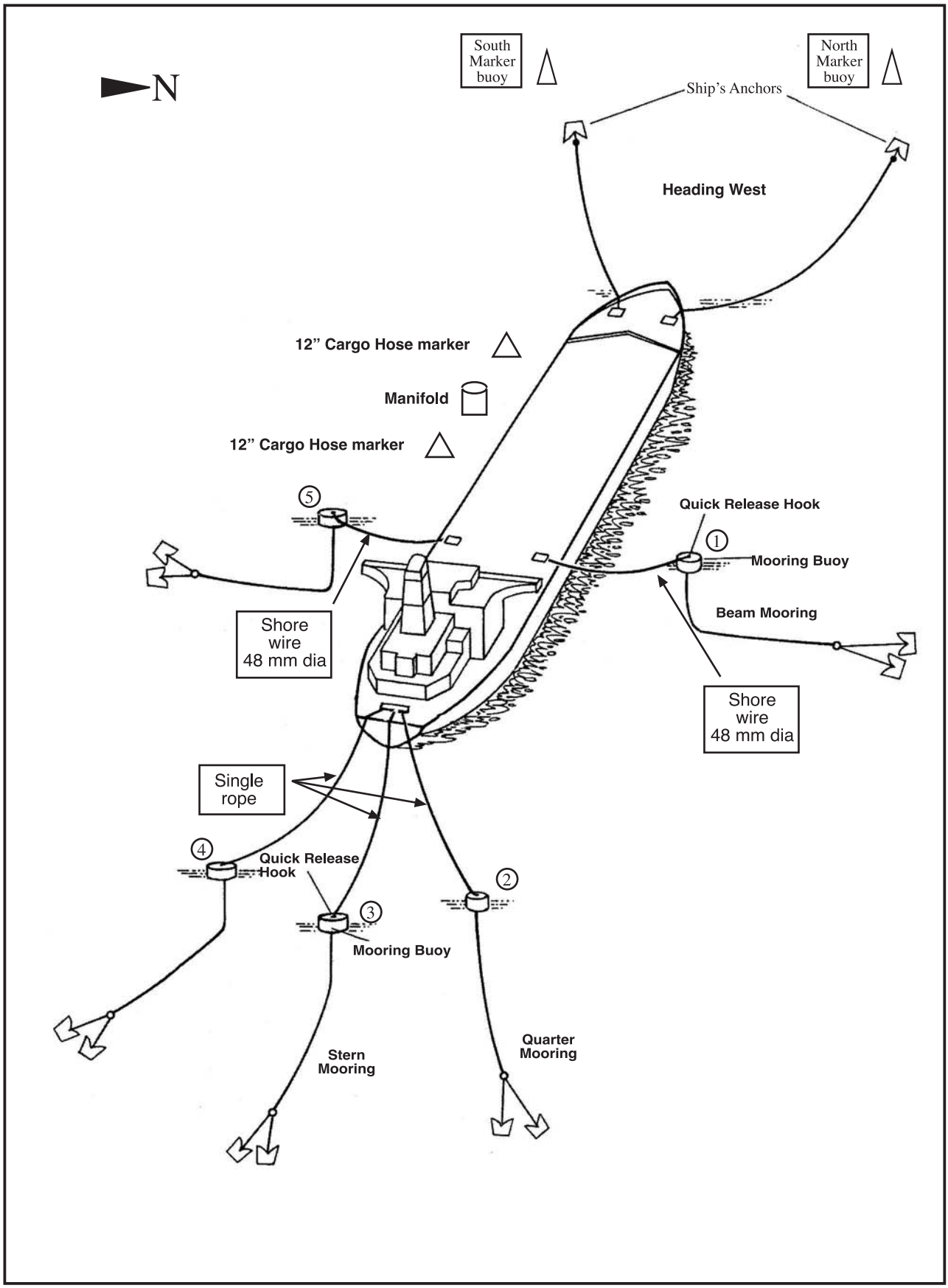
STANDARD MANIFOLD ARRANGEMENT
FOR TANKERS AT BERTHES 1&2

Appendix 4



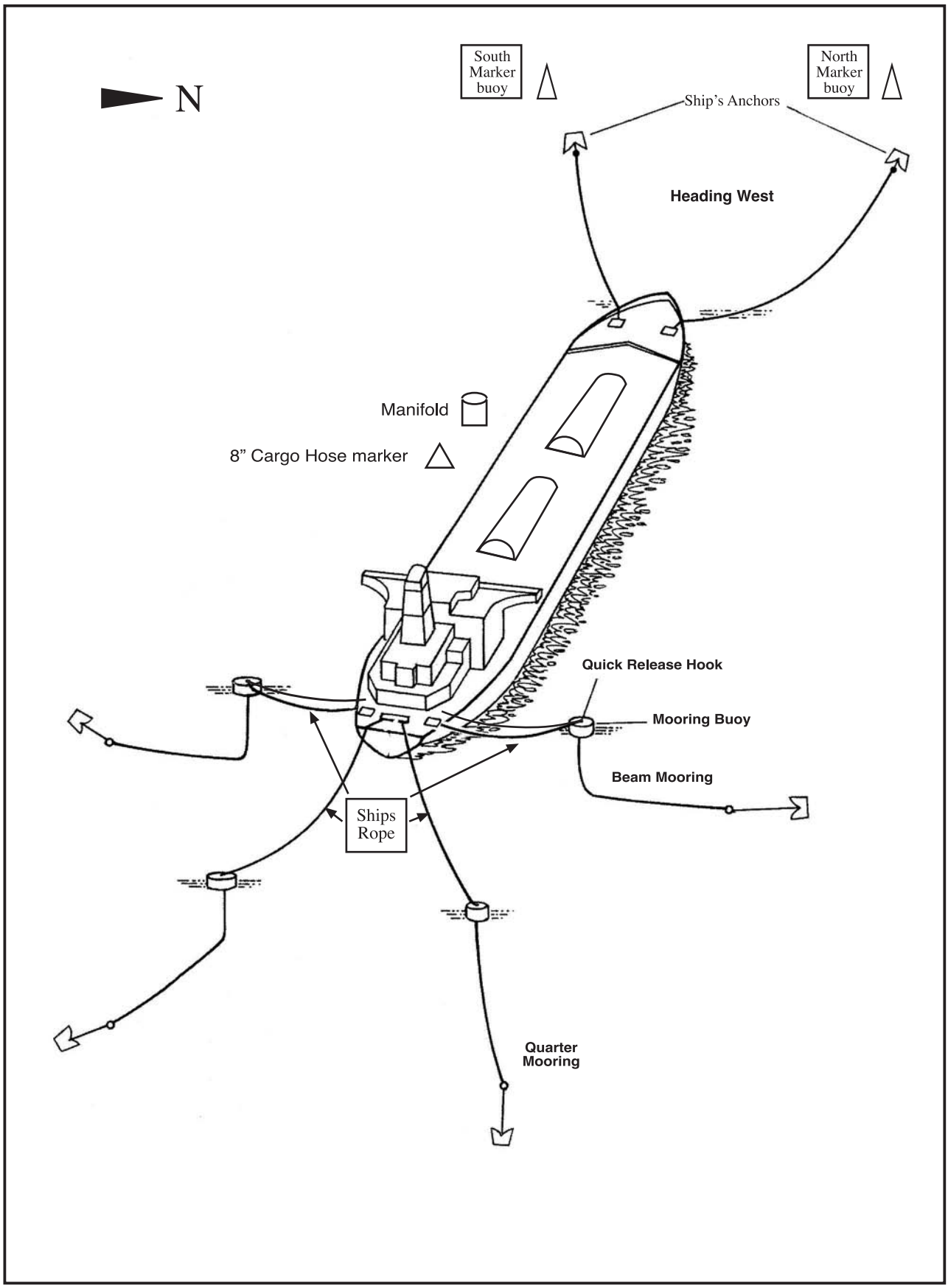
Port of Ashkelon
Single Point Mooring Berth No 3 and No 4
Mooring Arrangement

Appendix 4



Port of Ashkelon
Multi - buoy berth No 1 and No 2
Mooring Arrangement

Appendix 6

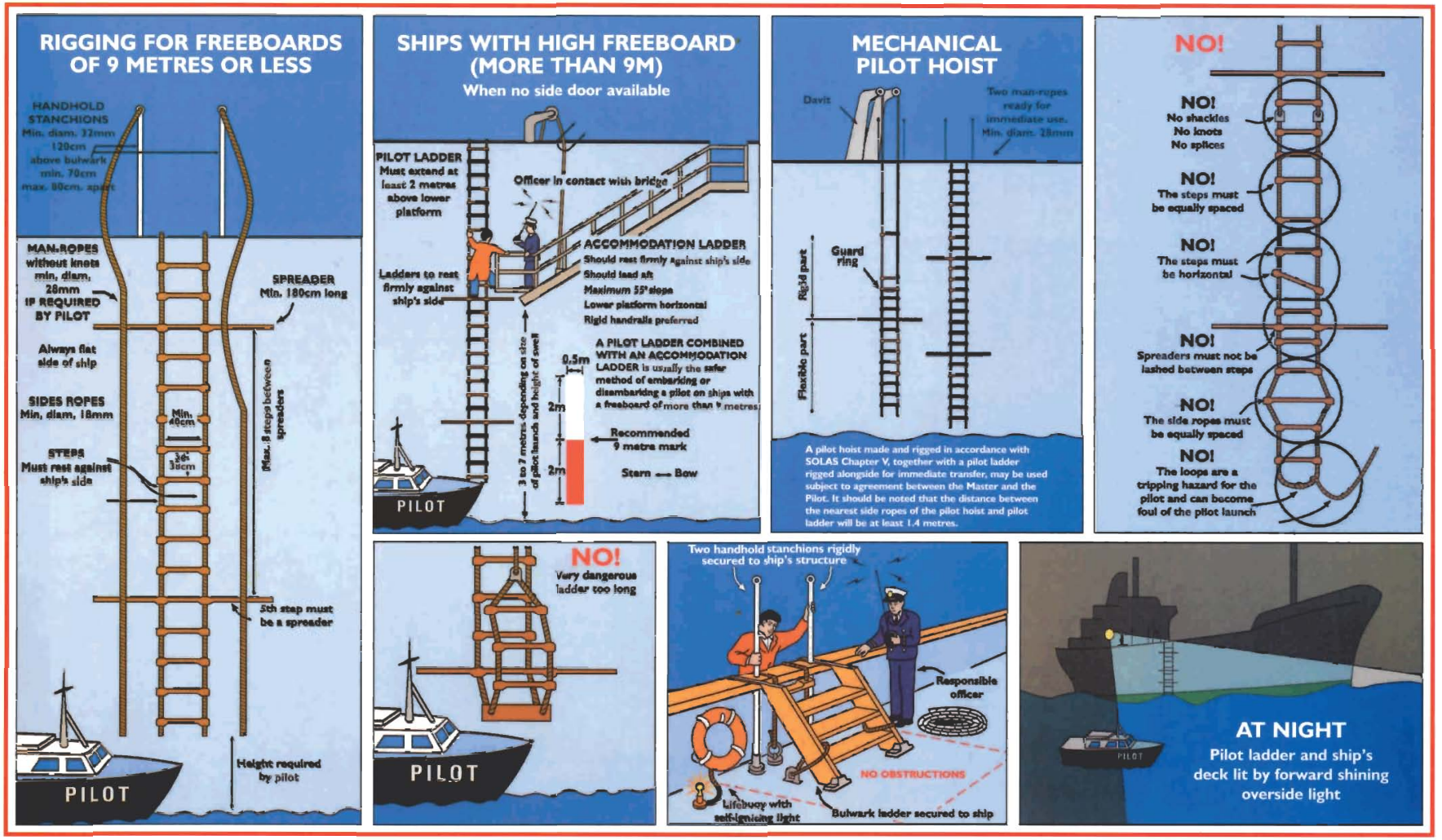


Port of Ashkelon
LPG Berth
Mooring Arrangement

REQUIRED BOARDING ARRANGEMENTS FOR PILOT

In accordance with I.M.O. requirements and I.M.P.A. recommendations

INTERNATIONAL MARITIME PILOTS' ASSOCIATION



Approved by I.M.O

March 1995

Appendix 7