

95

ZEEBRUGGE PORT INFORMATION HANDBOOK



1984

ZEEBRUGGE PORT INFORMATION HANDBOOK



PRESIDENT'S INTRODUCTION

1

1984 has been a key year for Zeebrugge.

A brand new inner harbour became operational and four important enterprises settled there : a multipurpose terminal, a bulk terminal, a fruit-and-perishables terminal, a terminal for the handling of new motorcars...

It has been a swift and promising take-off.

Zeebrugge's possibilities as a multipurpose deep sea port are henceforth largely extended : not only the accessibility, but also, and none the lesser, the technical equipment of these transshipment enterprises belong to the finest examples in modern ports.

At the same time the works for the extension of the new outer port were continued perseveringly. The gigantic breakwaters are approaching their eventual shape and length.

New ro-ro facilities have been set afoot there. As a matter of fact, short sea ro-ro services crossing the North Sea have been booming in the latter months. For these traffics Zeebrugge is the continental number one.

Zeebrugge fosters other aspirations as well :

- as soon as a deep water quay becomes available in the new inner harbour, it will be possible to receive and handle bulk carriers drawing 55 feet there;
- in the new western outer port, two new docks should provide Belgium with a real „balcony" onto the sea, for the big container and ro-ro services first and foremost;
- the so-called Northern Canal should improve in a near future, our inland waterway links with our belgian hinterland, with Northern France and with the Rhine.

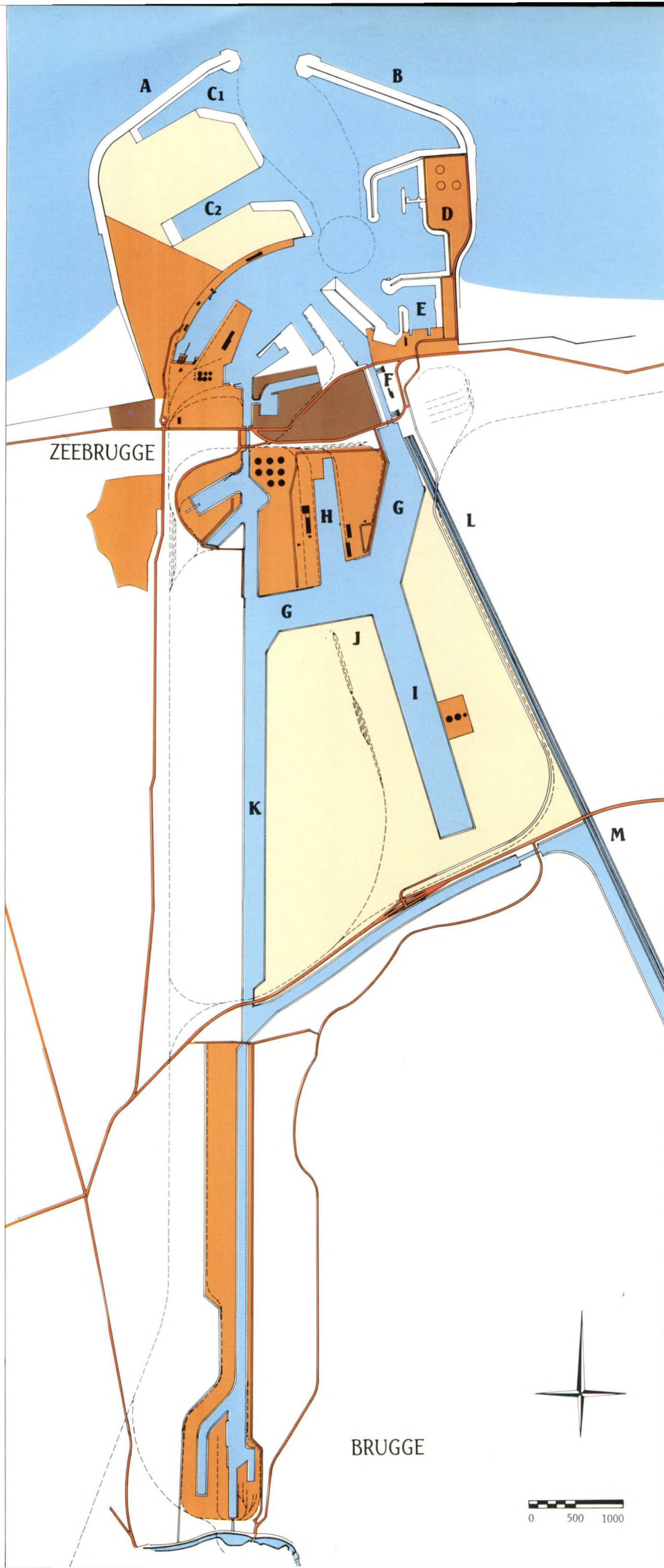
We thank the numerous people who have toiled - with superb expertise and stamina - for the extension of the port.

But we do not forget that the world of maritime transportation is changing continuously, and that the ports must follow these demands and changes closely.



Fernand Traen
President

1st December 1984

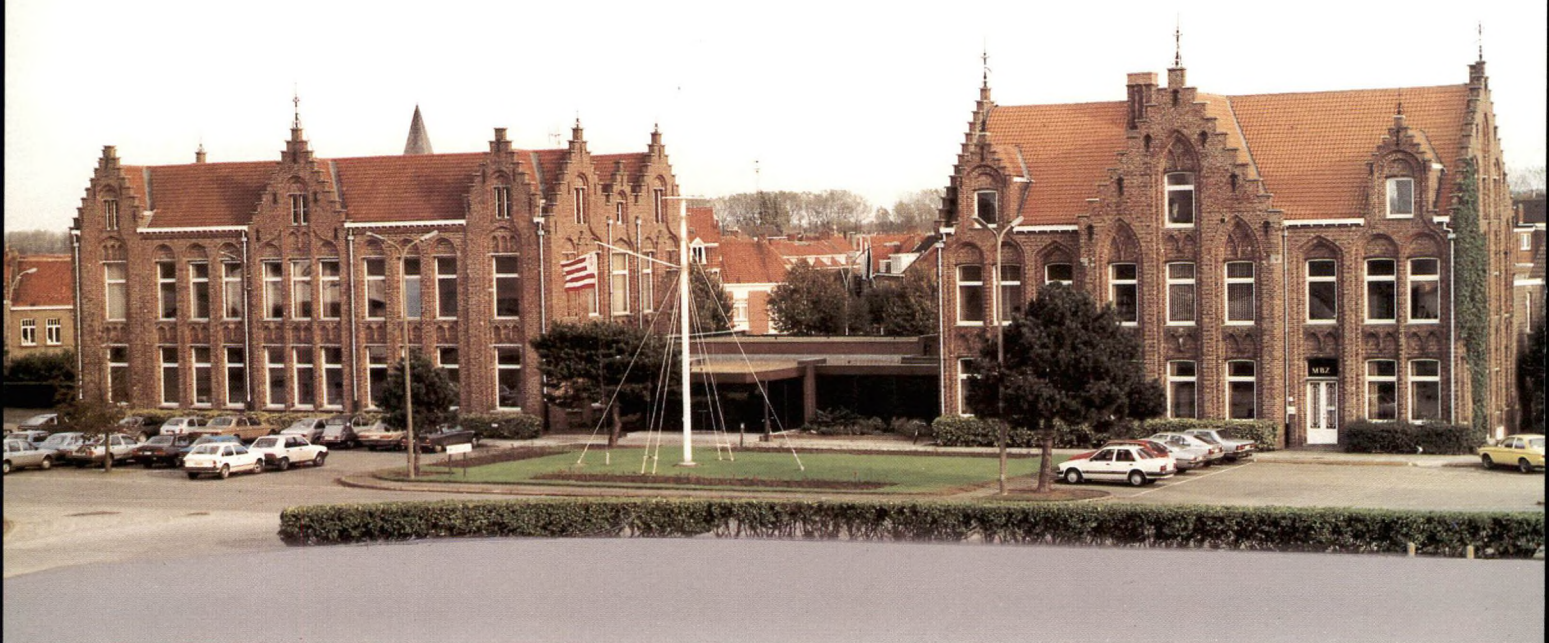


- A New western breakwater
- B New eastern breakwater
- C Planned new docks
- D LNG-terminal
- E Working harbour
- F P. Vandamme-lock
- G Connection dock
- H North inlet basin
- I South inlet basin
- J Transhipment terminal for bulk goods
- K Widening of Baudouin Canal
- L Green buffer area
- M Projected Northern Canal

HISTORICAL SYNOPSIS

2

1877	November	"Over eene rechtstreeksche verbinding van Brugge met de zee" (On a direct link of Bruges with the sea) published by Baron A. De Maere-Limnander.
1891	March 25 September 20	Installation of the "Commission mixte de Bruges Port de Mer" (Mixed Committee Bruges-Seaport), which on invites designs for the construction of a seaport at Bruges with an outlet to the sea via Heist.
1892	March 31 November 24	Opening of the entries. Approval of the design introduced by Messr. Coiseau and Cousin.
1894	June 1	Convention concluded between the Belgian Government, the City of Bruges and Messrs. Coiseau and Cousin for the construction of the harbour complex along the lines of their approved project.
1895	August 23 September 6 September 13 November 25	Approval by the Chamber of Representatives and by the Senate, of the above mentioned convention. Publication in the Official Gazette of the law concerning approval of the convention. Foundation of the "Compagnie des Installations Maritimes de Bruges" (now : "Maatschappij van de Brugse Zeevaartinrichtingen,, or in short M.B.Z.) the Bruges-Zeebrugge Port Authority.
1907	July 23	Official inauguration of the harbour complex by His Majesty King Leopold II.
1924	April 23/24	Establishment of the "Société Belgo-Anglaise des Ferry-Boats" (Anglo-Belgian Company of Ferry-Boats) and inauguration of the first trainferry service between Zeebrugge and Harwich.
1953	June 27	Opening of the trainferry terminal in the outer port.
1962	June 1 October 24	Call of the first Sinclair tanker. Inauguration of the Prince Philip Dock.
1966	March 16	Start of the first carferry service between Zeebrugge and Dover by Townsend Thoresen Car Ferries.
1968	March 19 May 9 June 21	Call of the first container vessel on the Zeebrugge-Harwich run. Call of the first VLCC for Texaco Oil Compagny. Official inauguration of the Short-Sea Container Terminal.
1970	March	Government decision in favour of the extension of the port of Zeebrugge.
1971	June 10	Official inauguration of the "Ocean Containerterminal Zeebrugge".
1972	March 1	Start of the construction of the new sealock.
1976	September	Approval by the Government of the framework contract for the construction of the outer port.
1980	August 9	Government decision on the final dimensions of the outer port.
1983	November 8	First commercial sea-going vessel passes through the new sea-lock.
1984	April 10	Official opening and Christening of the new sea-lock as P. Vandamme-lock.



MANAGEMENT AND OPERATION

3

3.1 Legal basis

The Port of Bruges-Zeebrugge is managed and operated by the "Maatschappij van de Brugse Zeevaartinrichtingen" (M.B.Z.), under a joint concession from the Belgian State and the City of Bruges.

3.2 Structure of M.B.Z.

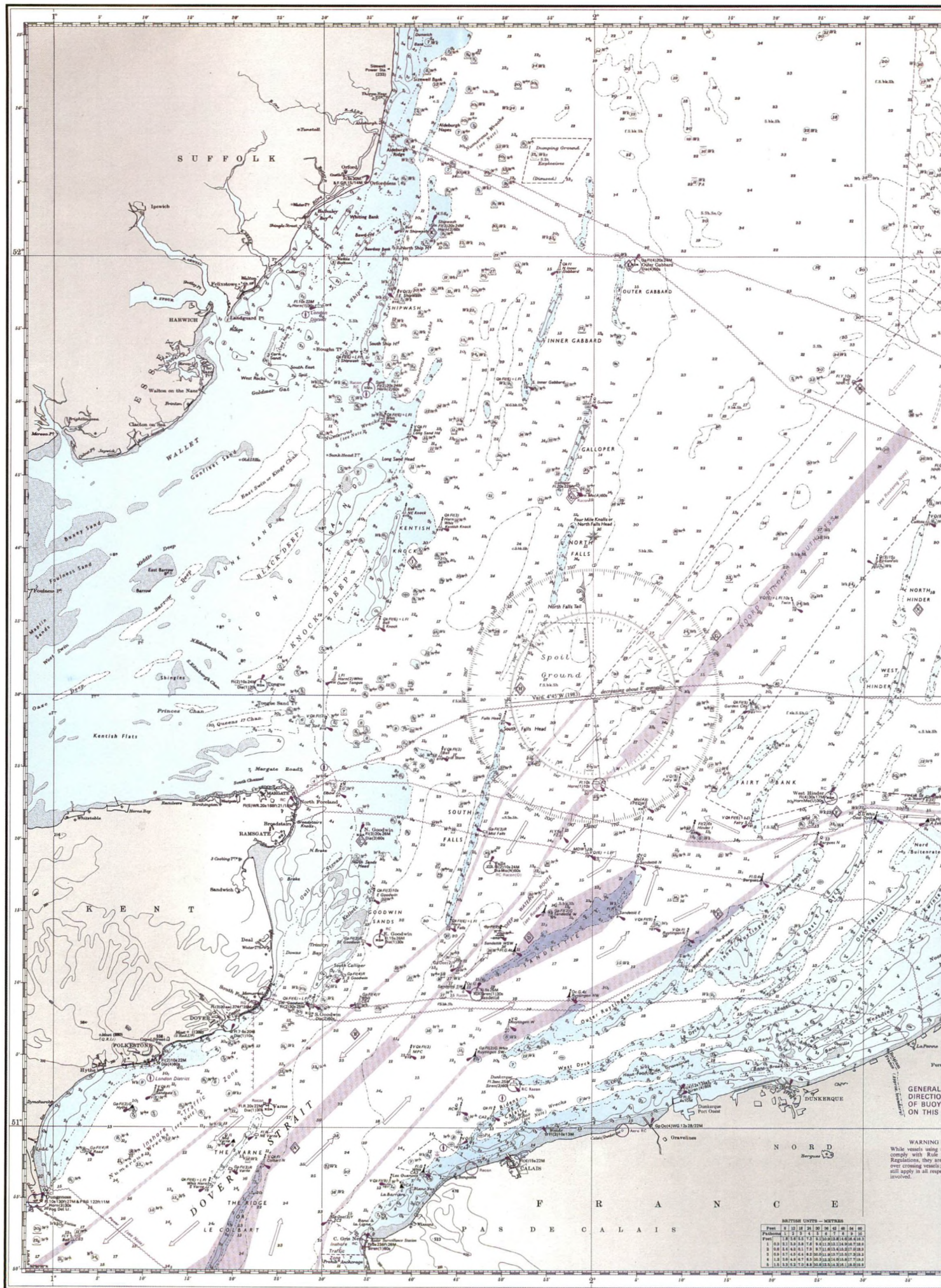
The M.B.Z., founded on November 25, 1895, has the legal status of a "limited company" ; but in its quality of "institution of public utility", it is a semi-official body and is placed under the supervision of the Minister of Public Works.

The highest authority is the General Assembly of Shareholders. The board of Directors counts at least 5 and, at most, 15 members ; two of them are appointed directly by the Belgian Government, two other directly by the City of Bruges ; the remaining members are appointed by the General Assembly of Shareholders. Directors are appointed for a period of 6 years and are reeligible.

The Board elects a President among its members, who also acts as Managing Director.

Control by the Higher Authority is exercised by an Auditor of the Government (Ministry of Public Works) and by a Representative of the Minister of Finance.

The College of auditors is appointed by the General Assembly ; it counts at least 3 and at most 5 members. Daily Management is performed by the President-Managing Director in collaboration with the General Manager and the Inspector-General, and assisted by the department heads.

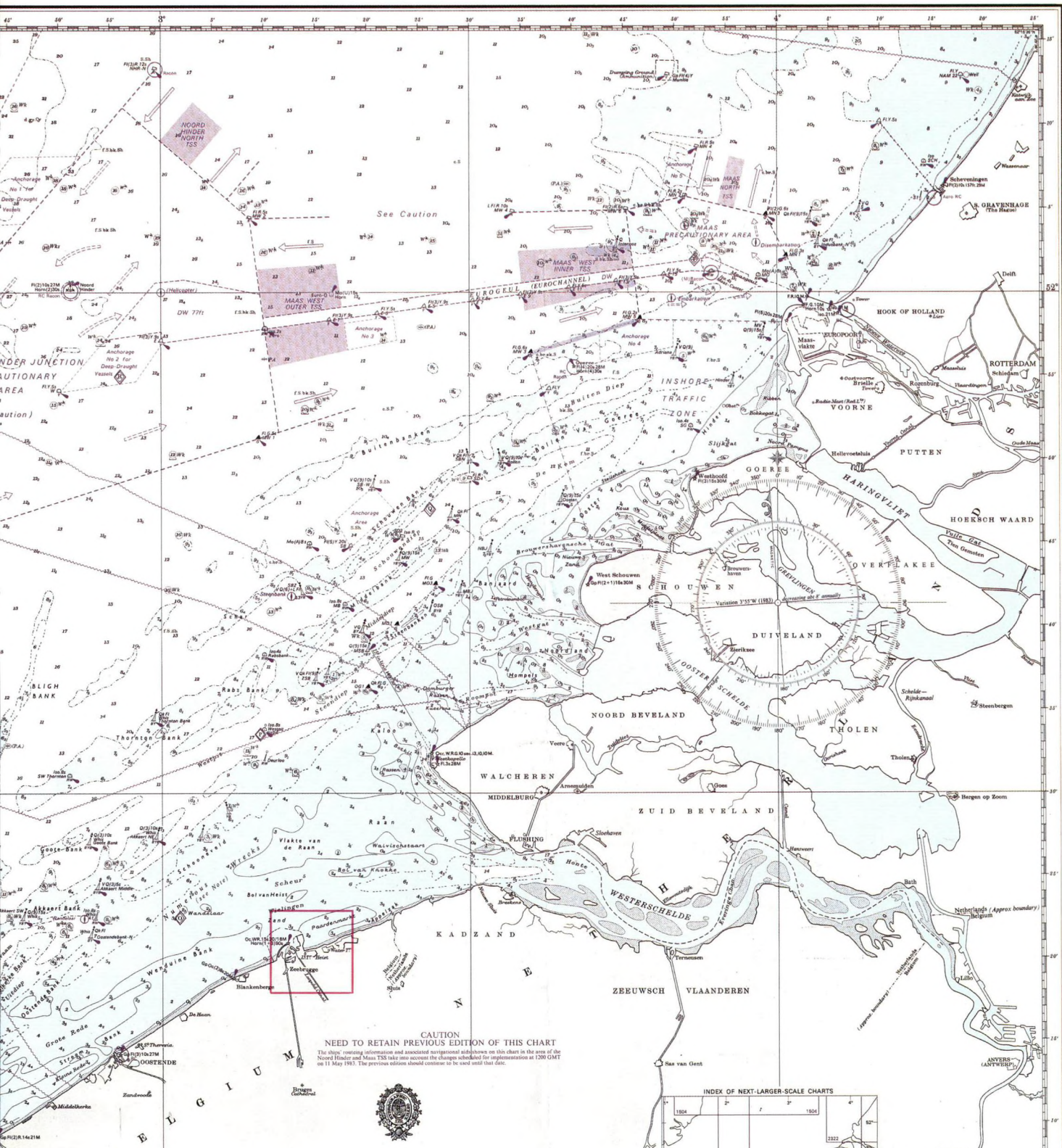


GENERAL
DIRECTION
OF BUOY
ON THIS

WARNING
While vessels using it
comply with Rule
Regulations, they are
over-coming vessels
still apply in all respect
involved.

BRITISH UNITS - METERS

Foot	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Meters	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0	4.3	4.6	4.9	5.2	5.5	5.8	6.1	6.4	6.7	7.0	7.3	7.6	7.9	8.2	8.5	8.8	9.1



NEED TO RETAIN PREVIOUS EDITION OF THIS CHART

DOVER AND CALAIS
TO
ORFORDNESS AND SCHEVENINGEN

FROM THE LATEST INFORMATION IN THE HYDROGRAPHIC DEPARTMENT TO 1983.

Underlined figures express, in Feet, Drying Heights above Chart Datum.

All other Heights are expressed in Feet above Mean High Water Springs.

SOUNDINGS IN FATHOMS

(Under Eleven in Fathoms and Feet)

In certain areas on this chart depths under fifteen fathoms are shown in fathoms and feet.

NATURAL SCALE 1:250,000 (Lat. 51°30')

Projection — Mercator

WRECKS

Owing to the small scale of this chart numerous wrecks are omitted, notably within the six fathom line, in congested areas and where the wreck is not thought to be a danger to surface navigation.

REPORTING

Certain vessels should report to the Navigation, Information and Traffic Management Services for the Thames, the Scheldt and the Rotterdam Waterway. For working details see Admiralty List of Radio Signals, Vol. 6, Part 1.

POWER CABLE

Mariners are warned not to anchor or stand in the vicinity of the Cross Channel Power Cable, and on no account to cut this cable should it be fished.

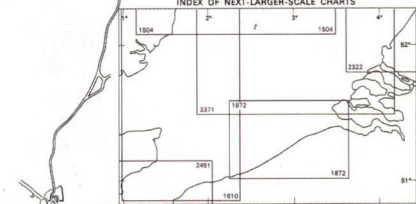
ROUTING

All traffic separation schemes (TSS) and related routing measures are IMO-approved. For full details of special provisions see Chart 5000 or Sailing Directions.

The Deep Water (DW) Route NW of Sandettie Bank is not to be used by vessels which can safely navigate the main channel.

Small ships of 1000 GRT or more, which are either loaded or carrying certain chemicals, are recommended to use the DW.

See the larger-scale charts for cautionary notes relating to the Noord Hinder Junction and Maas TSS.



Tidal Streams referred to H.W. at DOVER											
Hours	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
Direction	110°	110°	110°	110°	110°	110°	110°	110°	110°	110°	110°
Force	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Hours	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th
Direction	110°	110°	110°	110°	110°	110°	110°	110°	110°	110°	110°
Force	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Tidal Information			
Heights above datum of soundings			
Place	High Water	Low Water	Mean Spring
Orfordness	11.0	1.0	1.0
Harwich	11.0	1.0	1.0
Margate	11.0	1.0	1.0
Dover	11.0	1.0	1.0
Calais	11.0	1.0	1.0
Dunkirk	11.0	1.0	1.0
Quendrecq	11.0	1.0	1.0
Zeebrugge	11.0	1.0	1.0
Hook of Holland	11.0	1.0	1.0

3.3 Organization

General Assembly of Shareholders (G.A.S.)

Board of Directors (B.D.)

2 appointed by the Belgian Government (*)

2 appointed by the City of Bruges (**)

11 appointed by the G.A.S.

President - Managing Director :

*Fernand Traen***

Members :

*Albert Claes, Jean Cousin,
André Decloedt**, Johan Demoen*,
Louis Gilles, Robert Jonckheere,
Jean Leclercq, Hendrik Olivier,
Robert Simoen*,
Philippe Van den Borre,
Marcel Vandewiele, Olivier Vanneste*

Auditor of the Government

Eric Stroobants

Representative of the Minister of Finance

Frans Schenk

College of Auditors

(5 members, appointed by the G.A.S.)

*André Goossens, Erwin Priem,
Emile Tytgadt,
Andries Van den Abeele,
Johan Van Oostveldt*

Revisor

Ernest Couckuyt

Management

General Manager :

Maurice Michiels

Inspector-General :

Jan Eerdeken

Departments

Administration

Johan Kimpe, Assistant Adviser

Financial Department :

*Raymond Valcke,
Administrative Secretary*

Commercial Department and
Public Relations :

*Louis Vande Kerckhove,
Commercial Adviser
Walter Falley, n,
Administrative Secretary for
Information*

Harbour Master's Office :

*René Van Havere,
Senior Harbour Master
Robert Creyne, Harbour Master*

Technical Department :

*Jean Decort, Adviser
Donald Duthieuw, Project-leader*

3.4
Addresses

Head Office :
Louis Coiseaukaai 2
B-8000 Brugge
Tel. 050/44 42 11
Tlx. 81 201 porbrg b
Telegrams :
Ports Brugge B
V.A.T. 205.097.392
Register of Commerce : 95 Brugge

Harbour Master's Office :
P. Vandamme sealock building
Aartshertogin Isabellalaan 1
B-8380 Zeebrugge - Brugge 5
Tel.
050/54 32 40
050/54 32 33 (Port Control)
050/54 32 34 (Port Administration)
Tlx. 81 205 porzbg b

Sealock operations :
P. Vandamme-lock :
P. Vandamme sealock building
Aartshertogin Isabellalaan 1
B-8380 Zeebrugge - Brugge 5
Tel. 050/54 32 31

1907 sealock :
Kapitein Fryattstraat 1
B-8380 Zeebrugge - Brugge 5
Tel. 050/54 40 12

Technical department Zeebrugge :
P. Vandamme sealock building
Aartshertogin Isabellalaan 1
B-8380 Zeebrugge - Brugge 5
Tel. 050/54 32 10

Mole gate watchmen :
Tel. 050/54 47 67

Swedish Quay gate watchmen :
Tel. 050/54 47 67

Slipway, Prince Philip Dock :
Tel. 050/54 62 64

Bridge "Herdersbrug" at Dudzele :
Tel. 050/59 91 73



PRESENT SITUATION

4

4.1 Geographical position

Zeebrugge lies directly at the Belgian coast of the North Sea, 22.4 km West of the mouth of the Scheldt estuary, 10 km West of the Dutch-Belgian border.

Geographical coordinates
(lighthouse Mole) :
51°20'N - 03°12'E.

Administratively, Zeebrugge forms a part of the City of Bruges, in the Province of West-Flanders, the only Belgian province bordering the North Sea.
Bruges counts approx. 118,000 inhabitants, 5,000 of whom live in Zeebrugge.

4.2 Maritime access

Approach :
starts at A.1 buoy, 14 miles N.W. of the port (co-ordinates : 51°22'30"N, 2°53'30"E).
Fairways : "Het Scheur" - "Ribzand" - "Wielingen".

Access Channel :
"Pas van het Zand", beaconed ;
4,600 m long, 500 m wide ;
depth Z (- 11 m) LLWS over a width of 300 m ; direction NW-SE.

Tidal currents :
rising tide : direction SW-NE
average velocity : 2 knots
outgoing tide : direction NE-SW
average velocity : 2 knots

Tidal discrepancies :

• mean tide :

+ 4.35 m at HW
– 0.70 m at LW
+ 4 m from 50 min before HW to 1.20 hr after HW
+ 3 m from 1.40 hr before HW to 2.50 hr after HW

• spring tide :

+ 4.70 m at H.W.
+ 0.40 m at L.W.

• neap tide :

+ 3.82 m at HW
+ 1.05 m at LW

Wireless traffic :

059/70 24 38
• Ostend Radio for all messages
VHF channel 16
• pilotage :
A1 buoy : VHF channel 6
Port entrance : VHF channel 9
• port control : VHF channel 13 & 71
• tugs : VHF channel 13

Lighthouses :

• port entrance (top Leopold II-mole) :
uninterrupted white light; occultation :
15 sec (12 sec light, 3 sec darkness)
visible at 25 kms ;
• leading lights (indicating channel axis) : two superposed fixed white lights, visible at 9.5 kms.

4.3
Port subdivision

The port installations of Bruges-Zeebrugge cover a total net area of 743 ha.

The three main port areas are :

- the outer port at Zeebrugge, 125.5 ha
- the inner port at Zeebrugge + the sea canal (Baudouin canal) from the sea locks up the "Herdersbrug" (road bridge) at Dudzele, 297.5 ha
- the Baudouin canal (from the "Herdersbrug" at Dudzele to the lock at Bruges) and the inner port at Bruges (comprising the new industrial area "Herdersbrug"), 320 ha.

• Semaphore :

	Entrance prohibited	Departure prohibited	All traffic suspended
Day	● sphere ▲ cone p. up ● sphere	▼ cone p. down ▲ cone p. up ▼ cone p. down	▼ cone p. down ▲ cone p. up ● sphere
Night	● red ○ white ● red	● green ○ white ● green	● green ○ white ● red

Pilotage :

- from A1-light buoy (14 miles NW of the port ; co-ordinates : 51°22'30"N, 02°53'30"E) or
- from Zand-1 buoy (entrance "Pas van het Zand")
- applications to pilot station "Wandelaar", via Ostend Radio, VHF channel 16
- addresses Pilotage Service : Ostend : Sir Winston Churchillkaai 2, B-8400 Oostende Tel. 059 - 70.77.01/02/03

Zeebrugge : Loodswezenstraat 30 B-8380 Zeebrugge-Brugge 5 Tel. 050 - 54.50.72

Towage :

- from Zand-1 buoy
- permanently available : 3 tugs, from 1,500 to 4,000 HP (bollard pull : 19 to 43 tons) ;
- extra tugs available on request
- applications to U.R.S. (adress below), via Ostend Radio, VHF, channel 13 & 71.

• Address Towage Service : Unie van Reddings- en Sleepdiensten (U.R.S.) c/o Ruys & Co Leopold II Mole 2 B-8380 Zeebrugge-Brugge 5 Tel. 050 - 54.42.60 Tlx. 81.332

Salvage :

- via Ostend Radio, VHF channel 13
- operated by U.R.S. (see Towage, above)

Water salinity :

- 1,025

4.4

The outer port at Zeebrugge

(See map, page 16)

1

The Harbour Mole or Leopold II-mole, area 11 ha.

The outer port and the roadstead are protected by a concrete massive breakwater, with a quarter circle shape.
Total length :
2,487 m, of wich 1,571 m of quayage, fronting the roadstead.
width : 74 m

Other installations :
Bunkering station :
5 tanks, total capacity 20,450 m³ (bunkering from lighter, however, is possible on all quays).
(see 6.10.1)

Gasfreeing station :
(near bunkering station);
capacity 4,000 m³ in gaseous nitrogen (see 6.10.2)

Maritime station :
• equipped for the embarkation and disembarkation of cruise-ship passengers (hall, banking services, refreshment rooms, etc.);
• restaurant (capacity : two rooms with approx. 100 persons each)

Tank storage for molasses :
10 tanks with a total capacity of 87,350 tons

Berths for tugs :
4 berths for tugs in stand-by at quays nrs 9 and 10.

Quays

Number	Length	Water depth
1, 2, 3	450 m	10.50 LLWS
4, 5, 6 (partly)	375 m	9 m LLWS
6 (partly)		
7, 8, 9	746 m	7.20 m LLWS

Cranes : 10 electric travelling cranes

Number	Lifting capacity	Reach
6	8 t	24.50 m
2	8 t	32 m
	16 t	16 m
2	3 t	26.25 m

Sheds : total area : 11,581 sq.m.

Number	Dimensions	Floor area
I	25 × 25 m	625 m ²
II	50.40 × 15 m	776 m ²
IV	25 × 25 m	1,250 m ²
V	115 × 20 m	2,300 m ²
VI	125 × 30 m	3,750 m ²
VII	90 × 32 m	2,880 m ²

Open air storage : approx. 4 ha

2

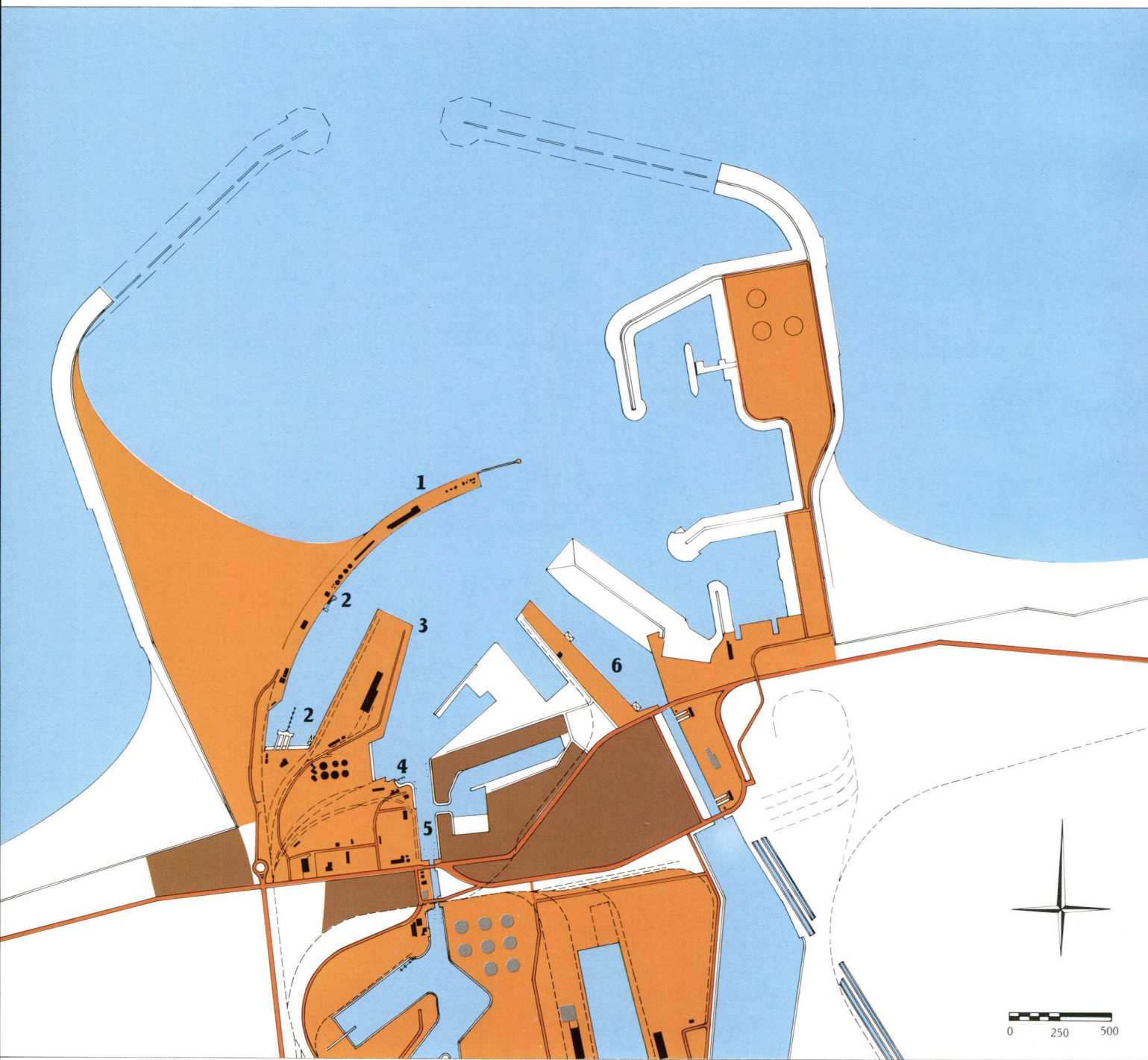
The carferry terminals

Area : 12 ha (for extension, see 8.2.3)
Quay 5 : 1 private ro/ro terminal, with 2 berths
Technical description : see 6.2.2
Quays 10,11, 12 : 2 public ro/ro berths
Quay 13 : 1 private berth
Technical description : see 6.2.3

3

The western Pier

Area : 18 ha.
Quay length :
quay n° 13 : 90 m of connecting quays
quay n° 14, 15 : 715 m (OCZ)
quay n° 16 : 205 m (OCZ and waiting quay)
quay n° 17,18 : 400 m (OCZ)
quay n° 18 : 195 m (terminal for refined oil products)
Total : 1,615 m, of which 1,525 m with a water depth of Z (-13 m) LLWS
Quay height : 8 m above LLWS



4.5 The inner port at Zeebrugge

(See map, page 18)

4

The Train Ferry Terminal (T.F.T.)

Area : 4 ha
Quay n° 19 : berth for trainferry ships
water depth : Z (– 6.70 m) LLWS.

5

The Short-Sea Container Terminal (S.C.T.)

Area : 9.5 ha
Quays n° 21, 22 : length 270 m;
terminal for charging/discharging
container vessels
water depth : Z (– 7 m) LLWS
quay height : Z (+ 7.30 m) LLWS.

6

The Swedish Quay

Area : 12.4 ha
Quays : A, B, C
length : 825 m
water depth : Z (– 18 m) LLWS
quay height : Z (+ 8 m) LLWS
Includes SeaRo terminal (see 6.4)

Note :

The prince Albert Dock and the Tidal Dock form no part of the MBZ concession. They constitute the Zeebrugge fishing harbour which is managed and operated by the City of Bruges.

Address :
Stedelijke Vismijn,
Vismijnstraat,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 41 20

1

The P. Vandamme sealock

Length : 500.30 m between outer gates
width : 57 m
Sill depth : Z (– 15.00 m) LLWS
The water level in the inner port is at
Z (+ 3.50 m) LLWS ;
according to the level of the tide in the
outer port, the usable water depth in
the lock varies between 15.00 and
18.50 m.

Every lock head is equipped with two
steel sliding doors, meaning that a
reserve-door is always available.
Both the sea-side and land-side heads
are equipped with two drawbridges
each, in order not to interrupt traffic
along the coastal road.

The sealock, which has been named
"Ridder P. Vandamme lock" after the
late Burgomaster of Bruges and
President of the Port Authorities, was
officially opened on April 10, 1984, by
Mr. Louis Olivier, Minister of Public
Works.

2

The sealock 1907

Length : 210 m
Width : 19.70 m
Sill depth : Z (– 5.50 m) LLWS
The water level in the Baudouin canal
is at Z (+ 3.50 m); according to the
level of the tide in the outer port, the
usable water depth in the lock varies
between 5.50 and 9 m.

3

The connection dock

Total length : 3,200 m, from
P. Vandamme sealock to Baudouin
canal.
Width : 210 m at sealock exit, widening
to 400 m in first section, 600 m in front
of east quay of North inlet basin, and
again 400 m in front of west quay of
same basin to Baudouin canal.
Depth : 18.50 m (Z (– 15 m) LLWS, +
dock level Z (+ 3.50 m) LLWS).

Length of embankments : 6,000 m,
400 m of which have been executed in
perpendicular quay walls, the
remainder temporarily in slopes.

4

The North inlet basin

Length : 1,130 m + extension of 216 m
over width of 125 m at Northern part.
Width : 225 m at Northern end, 275 m
at Southern end
Depth : 14.00 m
Quays : East quay : 890 m along actual
basin + 216 m of extension (see below)
West quay : 1,130 m
North quay : executed as ro/ro-ramp
over width of 100 m
Extension : 647 m (of wich 216 m on
east side, as prolongation of East quay,
216 m on west side, and 125 m on
North side).
Equipment : Cranes and lifting devices
Electric travelling cranes
2 8 T 32 m
2 8 T 32 m
16 T 16 m

Cargoveyors
General cargo grab crane
Container gantry
Sheds
See 6.7. and 6.9
Open air storage area : approx. 75 ha.

5

The Baudouin canal

Total length : 12.000 km
Length between the sealock to the
bridge at Dudzele : 5.350 km
Width at water surface : 70 m
Width at bottom : 22 m
Depth : 8.40 m = Z (– 4.90 m) + canal
level Z (+ 3.50 m), from km 12.000 to
km 10.000 (northern part of canal)
7.00 m temporarily from km 10.000
onwards (to Bruges inner port).
Quays, with a length of 450 m, in front
of the Coke and Glass works.



4.6
The inner port at Bruges
(See map, page 20)

6
The turning area

Length : 500 m
Width : 175 m
Depth : 8 m

7
The Prince Philip dock

Length : 560 m
Width : 200 m
Depth : 8.40 m

8
The former Ferrydock

Length : 500 m
Width : 130 m
Depth : 8 m

1
The Baudouin canal

Length between the bridge at Dudzele
to the junction lock : 6.650 km
Width at water surface : 125 m
Width at bottom : 77 m
Depth : 7.00 m temporarily

2
The East dock

Length : 370 m
Width : 90 m
Depth : 8 m

3
The West dock

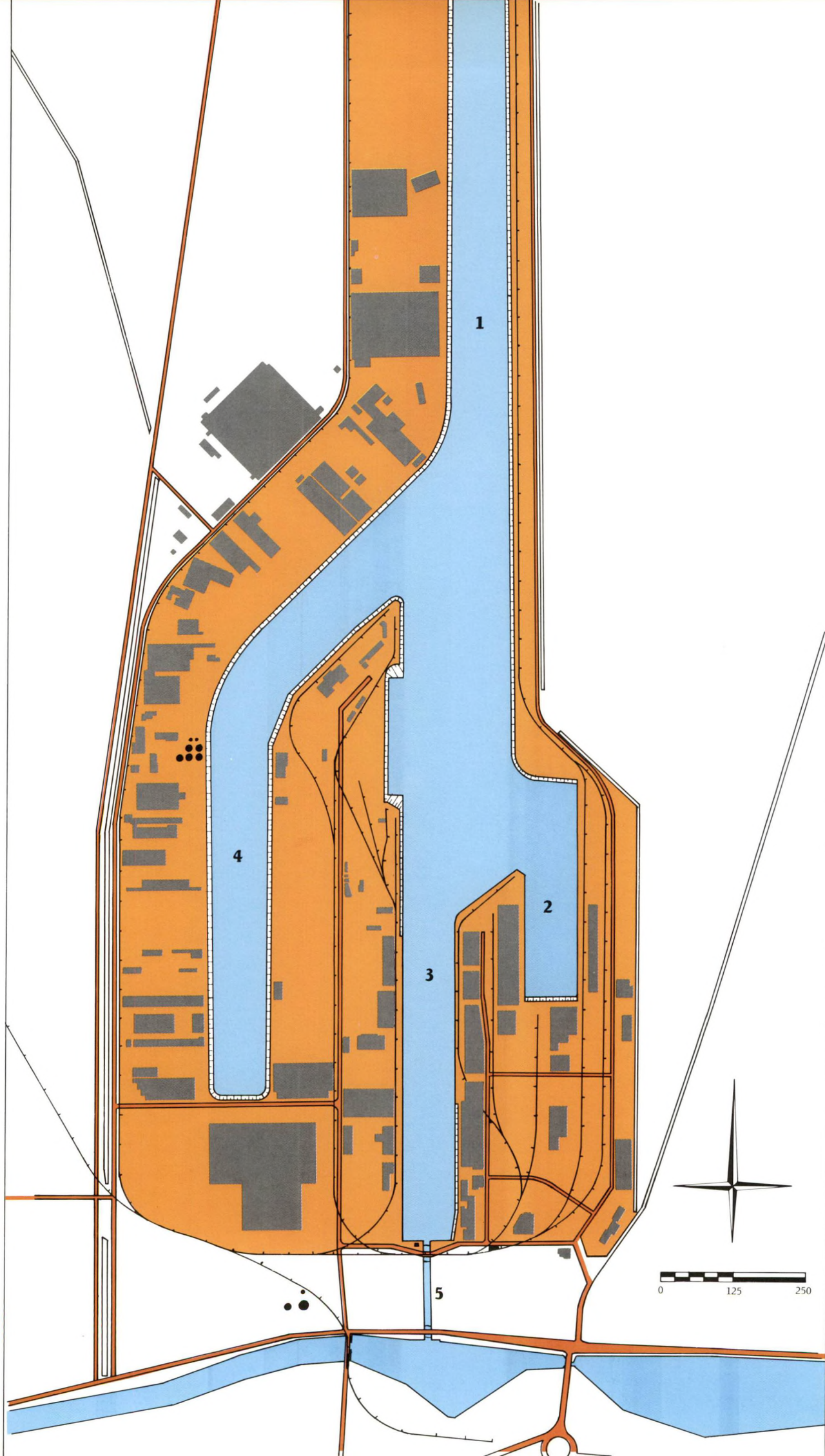
Length : 550 m
Width : 90 m
Depth : 8 m

4
The Industrial dock

Length : 1,080 m
Width : 125 m
Depth : 8 m

5
The junction lock

Length : 115 m
Width : 12 m
Sill depth : 4 m



6
Equipment

Quays

Number	Dock	Length
1 - 2 - 3 (Quenastkaai)	East dock	389 m
4 - 5 (Kaap Hoornkaai)	East dock	228 m
6 (Albertakaai)	East dock	148 m
7 - 8 - 9 (Graaf Visartkaai)	West dock	315 m
10 - 11 - 12 - 13 - 14 (Julius Sabbekaai)	West dock	520 m

Total quay area : 35,000 m²
Total length of embankments (including quays) : 13,080 m

Sheds

Number	Dimensions	Floor area
I	150 × 15 m	2,250 m ²
II	130 × 30 m	7,800 m ² (two storeys)
III	60 × 30 m	1,800 m ²
IV	50 × 30 m	1,500 m ²
V	40 × 26 m	1,040 m ²
VI	96 × 60 m	6,000 m ²
VII	40 × 25 m	1,000 m ²
X	20 × 30 m	600 m ²
Total area		21,990 m ²

Open air storage area : approx. 25 ha

Cranes

Number	Make	Lifting capacity	Reach
2	BM	5 t	32 m
2	BM	8 t	32 m



PORT FUNCTIONS

5

5.1 Port of call for various North Sea freight and passenger services, mainly to and from Great Britain and Scandinavia

Located at the sea-board, Zeebrugge is especially suited for all forms of modern, quick turn-round traffic.

However, it is also a multi-purpose port and plays an important role in the Belgian economy. These functions vary widely.

More than :
160 sailings per week or 8,000 per year
7 million tons of cargo
2 million passengers.

Evolution

Year	Number of sailings	Cargo (× 1,000 t)	Passengers (× 1,000)	TEU's (number)
1970	2,750	1,805	498	± 92,000
1975	4,888	3,596	1,164	112,500
1980	6,085	5,414	2,305	108,200
1983	6,027	6,227	2,021	127,200

Regular services calling at Zeebrugge

	Operated by	Number sailings	Type of service	Represented in Zeebrugge by
Zeebrugge-Harwich	British Rail	2 or 3 per day	Trainferry (freight and passengers)	B.E.V. der Ferry-Boats Tel. 050/54 47 91
Zeebrugge-Dover	Townsend Thoresen	13 per day (5 freight only)	Carferry (freight and passengers)	Townsend Belgium Tel. 050/54 50 50
Zeebrugge-Felixstowe	Townsend Thoresen	3 per day	Carferry (freight and passengers)	Townsend Belgium Tel. 050/54 50 50
Zeebrugge-Hull	North Sea Ferries	1 or 2 per day (second sailing freight only)	Carferry (freight and passengers)	North Sea Ferries (Belgium) Tel. 050/54 50 48 54 34 11 (from 1/4/85)
Zeebrugge-Oslo	Fred Olsen Lines	1 per week	Ro/ro (freight only)	Zeebrugge Transport Tel. 050/54 42 00
Zeebrugge-Harwich	British Rail	2 per day	container (freight only)	B.E.V. der Ferry-Boats Tel. 050/54 52 11
Zeebrugge-Chatham	Norfolk Line	6 per week	Ro/ro (freight only)	Cobelfret Tel. 050/54 53 12
Zeebrugge-Immingham	Cobelfret	6 per week	Ro/ro (freight only)	Cobelfret Tel. 050/54 53 12
Zeebrugge-Dagenham	Ford Motors Cy	2 per week	Ro/ro (vehicles only)	Zeebrugge Transport Tel. 050/54 42 00



5.2

Base port for intercontinental container and ro/ro services

Regular deep sea services calling at Zeebrugge

Operated by	Number of sailings	Ports of call	Represented in Zeebrugge by
Australia/New Zealand			
A.N.Z.E.C.S.	every 10 days	Fremantle, Melbourne, Sydney, Auckland, Wellington, Lyttelton, Port Chalmers	C.G.M. Tel. 050/54 53 01
A.C.T./A.N.L.	every 10 days	Fremantle, Melbourne, Sydney, Auckland, Wellington, Lyttelton, Port Chalmers	A.Z.A. Tel. 050/54 52 01
A.B.C. Container Line	every 3 weeks	Melbourne, Sydney, Fremantle, Adelaide, Brisbane + U.S. Gulf Ports : New Orleans, Houston and Savannah	Zeebrugge Transport Tel. 050/54 42 00
ScanCarriers A/S	every month	Fremantle, Adelaide, Melbourne, Burnie, Sydney, Newcastle, Brisbane, Townsville, Auckland, Napier, Timaru and Jeddah	Best & Osterrieth Tel. 050/54 51 06

North America

Caribbean Islands			
Carol	every week	Bridgetown, Port-of-Spain, Willemstad, Oranjestad, Ponce, Rio Haina, Port-au-Prince, Kingston, Santo-Tomas-de-Castilla, Puerto Cortes	A.Z.A./C.G.M./A.M.M. Tel. 050/54 52 01 - 54 53 01 - 54 50 97
Streamline	every month	La Guaira, Cristobal, Puerto Cortes, Santo-Tomas-de-Castilla, Port Limon, Cartagena, Santa Maria	Best & Osterrieth Tel. 050/54 51 06



Africa

Africatainers S.N.C.D.V.	every 2 weeks	Abidjan, Apapa, Téma, Lomé, Cotonou, Douala, Libreville, Port Gentil, Pointe Noire	Zeebrugge Transport Tel. 050/54 42 00
Woermann Linien D.A.L.	every 2 weeks	Abidjan, Apapa, Téma, Lomé, Cotonou, Douala, Libreville, Port Gentil, Pointe Noire	Zeebrugge Transport Tel. 050/54 42 00
East Asiatic Cy	every 2 weeks	Dakar, Freetown, Monrovia, Abidjan, Téma, Lomé, Lagos, Apapa, Douala, Las Palmas de Gran Canaria, Santa Cruz de Tenerife	Best & Osterrieth Tel. 050/54 51 06
O.T. Africa Line AB	every 2 weeks	Dakar, Abidjan, Téma, Lagos/Apapa + other ports	Zeebrugge Transport Tel. 050/54 42 00
Safcon (Saecs)	every 5 days	Durban, Port Elisabeth, Cape Town.	Zeebrugge Shipping & Bunkering Co Tel. 050/54 42 61

Evolution of international container traffic

Year	Number of ships	Cargo (× 1,000 t)	Number of TEU's
1975	198	404	± 40,000
1980	342	905	72,800
1981	366	1,005	88,800



5.3
Transshipment port
for conventional general cargo

Year	Tonnage of conventional cargo (× 1,000 t)
1970	172
1975	196
1980	196
1983	258

5.4
Passenger port, with a wide range of sailing
possibilities to Great Britain
Also embarkation for international cruises

Year	Passengers (× 1,000)
1970	510
1975	1,170
1980	2,314
1983	2,023



TECHNICAL CHARACTERISTICS OF THE VARIOUS TERMINALS

6

6.1 Train Ferry Terminal (T.F.T.)

Operation and Management :

Belgisch-Engelse Vennootschap der
Ferry-Boats

Head Office :
Montoyerstraat 17/19
B-1040 Brussel
Tel. 02/513 06 60
Tlx. 23 584 ferybo b

Terminal Office :
Loodswezenstraat
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 47 91
Tlx. 81 120

Area : 4 ha
Water depth : Z (— 6.70 m)

Description of the berth :

- Slope :
length : 195 m
width : 25 m
inclination : 1%
equipped with two tracks
- Loading ramp :
length : 50 m
width : 9.60 m
inclination : 4%
max. load : 600 kg/m² (125 lbs/sq.ft)
- Berth cage :
semicircular; cross section 18.50 m,
with special provisions to safely
accomodate train ferries for loading
and unloading operations
- Ships :
max. length allowed : 163 m
max. width allowed : 18.50 m
normal draft : 4 m
- Terminal area :
parking for 250 cars.
Additional fenced area for a further 850
cars
- Terminal building :
office accomodation, terminal
services and customs control.

6.2 Carferry terminals

6.2.1 Public Outer port treminal

Operation and management : MBZ

Head office :
L. Coiseaukaai 2
B-8000 Brugge
Tel. 050/44 42 11
Tlx. 81 201

Public Terminal Office
Carferrybuilding, Doverlaan 7
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 42 63

Present Area : 9,4 ha
(for extension, see 8.2.3.1)

Description :

- Ramps :
number : 2
length : 53 m
width of the bridge, including two
separate protected footpaths for
passengers : 7.10 m
max. load capacity : 400 kgs/m²
(heavy articulated loads to a
maximum of 60 tons with an axle
load of 20 tons over 4 wheels)
- Berths :
number : 2, on both sides of a line of
6 dolphins with a diameter of 10 m,
linked with a gangway
length : 145 m
water depth : Z (— 7 m) LLWS
- Ships :
max. length allowed : no limitation
max. beam allowed : 21.20 m with the
ship's axis in line with the ramp axis
(ships of 33 m beam, however, can
berth obliquely, or out of axis)
- Bridge complex and jetty :
each bridge moves between two
bridge piers which serve as bases
for the hoisting towers.

The jetty is protected by two buffer
fenders (steel diaphragms of 7 by 10 m
each, with two rubber "giant fenders").

Both main bridges rest on sliding
hinges on the land side.
They are slug in cables with
counterweights and can always be
lifted immediately, even during
power cuts.
The lifting speed is 0.20 m/sec.

- The connection between the main
bridge and the ship is by means of a
drawbridge (length 4.50 m, width
3.32 m, wich is lowered either directly
onto the ship's loading deck or onto an
interposed pontoon (in case the ship
itself is equipped with a drawbridge).

- The ramps are controlled from the
engine rooms by means of two closed
circuit TV-cameras which show the
position of the main bridge and the
drawbridge.

- The terminal area has a capacity of
600 cars and is divided into separate
waiting lanes for incoming and
outgoing traffic.
The parking zone has a surface area of
5.9 ha (approx. 2,500 cars or 7,500
running metres of freight).

- Handling of unaccompanied vehicles,
containers and special cargoes can be
done with tugmasters (5,800 cc) and
fork lift trucks (ranging from 2 to
15 tons).

- The terminal building (65 by 30 m,
three storeys) contains office
accomodation for the shipowning
companies, ship agencies, shipping
companies.
Spacious, up-to-date accomodation
ensures passenger comfort :
waiting hall with video, restaurant and
cafeteria (capacity 200 people),
exchange, etc.







Main users :

Townsend Thoresen Car Ferries
Adress :
Townsend (Belgium) N.V.
Carferrybuilding, Doverlaan 7,
8380 Zeebrugge-Brugge 5
Tel. 050/54 50 50
Tlx. 81 306

**6.2.2
Private outer port terminal**

Operation and Management :

North Sea Ferries (Belgium) N.V.
Leopold II dam - Môle
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 50 48
(from 1/4/85 : 050/54 34 11)
Tlx. 81 322

Area :

Along the waterside 2 ha 63 a 58 ca on which a terminal building of 47 × 24,8 m and checkpoint for ticket control and customs and immigration, and an extra parking of 5 ha 87 a 36 ca.
Two roll-on/roll-off vessels can moor and load and discharge at the same time at any tide.

Details linkspan :

Overall length : 104 m
width : 23,20 mW
one bridge length : 30 m
max. load : 180 tons with a max. of 30 tons per axle
second bridge length : 58 m
max. load : 180 tons with a max. of 30 tons per axle
Vessels with a draft of max. 7.20 can be moored at LLWS.
Length of vessel no limit.
Width of ramp max. 18 m

Terminal area

The space along the waterside apart from the checkpoints and building accomodates a parking space of 150 cars short and 50 cars long parking and there are further possibilities to increase upon request.
Besides 1,750 m² for parking small rolling stock.
Handling of unaccompanied vehicles and liftunits.
Unaccompanied trailers are towed by 9 tugmasters with a lifting capacity of 50 tons.
Containers, flats are carried on slavetrailers which are available in sizes 6 m, 9 m and 12 m.
Lifting by a mobile crane capacity SWL 30,000 tons,
3 forklift trucks with capacities varying from 7.5 to 30.5 tons.
With each lantern pole electrical facilities for cooling or heating units electrically.
The terminal building accommodates the North Sea Ferries booking offices and administration, customs and immigration facilities.
Waiting halls and general facilities can very comfortably accomodate 1.500 passengers per call per vessel.
The computer checking-in freight and passengers is fully computerised.
The computer has direct links with Rotterdam-Europoort, Hull, Ipswich and Paris.
The terminal has rail connection.
Rolling stock can be handled via mobile ramp.
Liftunits handled by the available lifting gear.

**6.2.3
Private inner port terminal**

Description :

Area : 5.5 ha
• Bridge :
length : 24 m
width : 7.80 m
max. load : 60 tons in articulated vehicles, with a max. of 20 tons per axle
operation : from a fixed jetty (the water level variations in the Prince Philip dock, max. 0.70 m, being absorbed by the ship's ramp).

• Ships :
max. length : unlimited
max. beam : unlimited
max. width of bow ramp : 8 m

• Terminal area :
divided into separate areas for freight traffic (100 lorries and trailers and 50 passenger cars)

• Handling of unaccompanied vehicles :
containers and special loads :
by means of tugmasters, forklift trucks, tractors and a mobile crane of 30 tons.

• The terminal building (40 by 24 m) comprises booking offices and adminis-
tration, customs offices and passenger hall
(capacity : 150 people).



6.3
Container terminals

6.3.1
The Short Sea Container Terminal
(S.C.T.)

Operation and management :
Belgisch-Engelse Vennootschap der
Ferry-Boats

Head Office :
Montoyerstraat 17/19, B-1040 Brussel
Tel. 02/513 06 60
Tlx. 23 584

Operations Office :
Loodswezenstraat
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 52 11
Tlx. 81 110

Area : 8 ha

Description :

- Quays :
length : 270 m
width : 53 m + 26 m handling area
waterdepth : Z (– 7 m) LLWS
quay height : Z (+ 7.30 m) LLWS
two berths for container vessels
- Gantry cranes :
number : two
make : Peiner, with double headbeam
lifting capacity : 30 tons s.w.l.
length of the headbeam : 70.50 m of
which 18 m overspan the water
intermediate width of headbeams :
15 m
portal height : 21.35 m
rail width : 31 m
max. lifting height above HHWS :
15 m
max. depth under LLWS : 6 m
max. reach beyond seaward
fenderedge : 14 m
max. hoisting speed : 35 m/min.
max. speed of longitudinal travel :
50 m/min
spreader : dead weight : 9 tons
automatically adaptable to I.S.O.
container dimensions 20 ft, 30 ft, 40 ft.
railway tracks served by the cranes
number : four, parallel with the quay
and under the cranes

total length : 1,124 m (4 × 281 m)
capacity : 160 rails cars
terminal area : 5 ha
capacity : 2,200 TEU's

- further terminal equipment :
parking containers :
two Peiner straddle carriers
lifting capacity : 30 tons
handling of special loads :
fork lift trucks and tractors
rail car shunting :
ASEA shunting device (see 6.3.2)

6.3.2
Ocean Container Terminal
Zeebrugge (O.C.Z.)

Operation and Management :
Belgisch-Engelse Vennootschap der
Ferry-Boats

Head Office :
Montoyerstraat 17/19
B-1040 Brussels
Tel. 02/513 06 60
Tlx. 23 584

Operations Office :
New Yorklaan
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 52 71
Tlx. 81 277

Area : 18 ha
of which 17 ha for the actual terminal
(3.50 ha front quay, 13.50 ha rear
quay, parking and buildings)
1 ha for access railway yard

Description :

- Quays :
length : 1.420 m
West quay : 725 m + 90 m
connecting quay
North quay : 205 m
East quay : 400 m
width :
front quay : 55 m
rear quay : 140 m average
height : 8 m above LLWS
water depth : Z (– 13 m) LLWS
- ASEA shunting system :
Automatic remote control shunting of
railway cars under the cranes
avoiding use of locomotives.
This system is available on all four
tracks ; the crane driver (or quay
personnel) can control the railcars on
one or several tracks at will.

• Gantry cranes

Number : 3	2 Munck (double headbeam)	1 Boomse Metaalwerken (monorail type)
lifting capacity (s.w.l.) (spreader with dead weight 10 tons not included)	45 tons	30 tons
length of headbeam(s)	104 m	101 m
outreach beyond fender	37 m	35 m
backreach beyond quay	23 m	23 m
width between headbeams	14 m	—
width between legs	16 m	15.30 m
rail width	31.50 m	31.50 m
spreader width	12.20 m	11.00 m
portal height	26.00 m	25.00 m
max. lift	25 m above HHWS 43 m over-all	23 m above quay 40 m over-all
max. depth below quay level	22 m	16 m
max. hoist speed laden empty spreader	45 m/min 91 m/min	45 m/min 90 m/min
max. trolley speed	120 m/min	150 m/min
longitudinal gantry speed	50 m/min	50 m/min
rotation of the spreader	360°, 1RPM	360°, 1RPM
occasional heavy lifts	60 t	45 t
max. wind velocity when operating	20 m/sec (7/8 Beaufort) pressure : 32 kg/sq.m	25 m/sec (9/10 Beaufort) pressure : 39 kg/sq.m
spreader : dead weight	10 tons automatically adaptable to I.S.O. 20 ft, 30 ft, 40 ft.	10 tons
rail tracks served by the cranes	number : 4, parallel to quay and under the cranes length : 3,020 m (4 × 755 m)	

• Terminal area :
surface area : 3.50 ha for charging/
discharging operations ;
Rear quay surface area : 10.50 ha,
used as back-up area for the storage
of containers (up to 10,000 TEU's), for
the erection of various service
buildings and sheds and additional
service equipment, a.o.

consolidated freight station (C.F.S.) ;
installations for chilled and reefer
containers ;
sheds for stuffing and stripping of
containers ;
sheds for repair and maintenance ;
transtainer area.

• Equipment for handling containers on
the quay area :
10 straddle-carriers (6 Valmo,
4 Peiner) with a lifting capacity of
35 tons ; can stack three high ;
15 fork lift trucks (ranging from 2 to
30 tons) ;
1 trailer tractor ;
2 tractors.

• Consolidated Freight Station (C.F.S.) :
covered sheds :
4,000 m² with railsiding and out ;
7 loading bays for lorries ;
7 loading bays for containers
canopy of 1,000 m² for stripping and
revanning of containers and for
handling IMO cargo.

• Reefer installations :

1
General
Special care is paid to chilled and deep
frozen container cargoes during their
stay on the terminal.
Several hundreds of containers with
perishable goods and deep frozen
products can be maintained at the
desired temperature.

2

Various reefer systems

a)

mechanical chilling :

containers are kept cool by cold air circulation. The system can be used for chilled containers and for deep-frozen products.

b)

cryogenous chilling : the system uses liquid nitrogen. It can be used on deep-frozen products, either through direct injection into the cargo space, or by means of a cargo clip-on or cryo-tower unit.

The latter alternative is also possible for chilled products.

3

Various container systems

- integrated containers :

have a built-in chilling system, powered by a diesel-electro, an electro or a propane engine. Containers are usually stacked on deck and are connected to the ship's engine or stand-by engines.

- porthole containers :

are connected to a cold air-installation either on board of the ship or on-shore (static chilling system with liquid nitrogen of clip-on system powered by various energy suppliers).

4

Various reefer installations on O.C.Z. terminal

a) Mechanical systems.

- Wall systems, Grenco type : 24 slots.

Wall systems are powered from a central engine room.

Cold air circulates through pipes from air coolers on both sides of the engine room. Every separate pipe (with individual air cooler) can ensure the desired temperature, independent of the temperature in the other pipes.

The systems comes in sets of 24, 48 or 72 container slots which can keep up a temperature between + 13° C and – 25° C.

- Tower system, Holima type : 54 slots.

Tower systems deliver chilled air for two containers in chain per tower or for three or four containers in chain if the towers are stacked two high. Fit for both chilled and deep-frozen products with temperatures varying between + 13° C and – 18° C.

- Clip-on system, Air Liquide type : 48 slots.

Clip-on systems are used for chilling standard reefer containers. Fit for chilled and deep-frozen products.

b)

Cryogenous systems

- Fixed stations :

freeze-point type : 48 slots, by Air Products

cryo clip-on : 20 slots, by Air Products

Fixed stations with liquid nitrogen consist of a large, air tight insulated storage tank for liquid nitrogen with a pipe network for distribution (surface or subsoil) in combination with cryo-tower or cryclip-on systems (for all types of products) or with freeze points (LIN-injection with temperature control and LIN-injections at regular intervals) for deep-frozen products.

- Mobile stations :

number of slots unlimited.

Mobile installations (liquid nitrogen dump charging) : liquid nitrogen is injected at regular intervals with an adapted mobile unit.

This system especially befits terminals where the number of reefer containers is highly fluctuating (as it needs no investment for a fixed installation) and where containers remain on the terminal for a limited time. Is used only for deep-frozen products.



6.4 Roll-on/Roll-off terminal

Operation and Management :

SeaRo nv
Zweedse Kaai
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 63 77
Tlx. 81 983

Area : 12.40 ha
Parking space for 800 lorries or trailers

Description :

- Quays :
total length : 825 m
West quay : 725 m + 90 m
width : 120 m
water depth : Z (– 18 m) LLWS
- Equipment for the berthing of Ro/ro vessels : SeaRo nv disposes of two link spans for Ro/ro interface.

6.4.1 MacGregor link span

The first is of MacGregor design, and is a special adaptation of the MacBridge (F) pontoon.
This pontoon bears a rectangular platform of 50 × 33 m.
The four pontoon pillars rest on the bottom by means of chainsupported weights of 160 tons at each corner. When these weights are lifted, the pontoon can be moved at will with tugs.
The chains can be pulled at two corners in such a way that the platform can be tilted to an inclination of max. 10% which can absorb the height difference between the quay and the ship's loading ramp.

6.4.2 MacGregor-Navire link span

The second link span was designed by MacGregor-Navire.
Design criteria :
- Tidal variation in quay height :
8.00 m at MLW
3.50 m at MMW
- Ship beams : 16 m to 21 m
- Ship ramp widths : 5 m to 16 m, axial ramps
- Design loads : on shore ramp :
88 tonnes; on pontoon superstructure :
120 tonnes

Pontoon :
dimensions : length 30.4 m (alongside quay)
width : 19.5 m
is kept afloat by four ballast tanks and seven void spaces ; height-adjusted and trimmed by means of a passive ballasting system.

Superstructure :
fixed ramp, 27.5 m long, providing a 1:10 incline leading to the shore ramp entrance ; tapering in width from 18.5 m at landing end to 7.0 m at shore ramp end

Ramp :
length 40 m
width 7 m
consisting of two-lane driveway coupled to a smooth-bottomed flap resting on the shore.

- Other equipment :
two railway tracks
total length 900 m
terminal building with office accomodation for SeaRo nv terminal users and customs offices.

- Handling of unaccompanied vehicles, trailers, containers and special loads :
1 mobile crane (40 tons)
fork lift trucks (5 to 30 tons)
trailers (up to 60 tons on 10% slope).

6.5 Combined road/rail traffic terminal

Operation and management : T.R.W. (Transport Rail Weg)

Head Office :
Min. Vandenpeereboomstraat
Station West
B-1080 Brussels
Tel. 02/425 62 51
Tlx. 24 829

Operations Office :
Zweedse Kaai
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 41 29

- Technique adopted in Zeebrugge :
vertical loading and unloading of the units (wheels of trailer removed for transportation, therefore decrease of volume and weight)
- Equipment on the terminal :
Autogru Belotti (lifting capacity 40 tons) equipped with a special crane and four splitting arms which frame the units (frame dimensions : 4.87 m × 2.50 m × 3 m).
Containers can also be handled (with use of a spreader).
- Special rail cars used for combined traffic
length : 16.44 m
width of undercarriage : 2.98 m



6.6
Vehicles
terminal

For new motor cars, a separate terminal was established in the inner port.
It comprises an intermediate pontoon (27 m by 13 m) and a parking area of 30,000 m² (285 m by 105 m) with a capacity of 2,500 cars, which is to be doubled soon.

Operation and management :
SeaRo nv
Zweedse Kaai
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 63 77
Tlx. 81 983

6.7
Fruit and perishables
terminal

Operation and management :
BNFW (Belgian New Fruit Wharf)

Head Office : Citroenweg 2,
B-2020 Antwerpen
Tel. 03/541 71 85
Tlx. 32 343

Operations office :
BNFW-North Sea division,
Nieuw-Zeelandkaai,
8380 Zeebrugge-Brugge 5
Tel. 050/54 52 56

Area : 8.64 ha

Quays :
Length 400 m along East quay
Depth : 14.50 m

Sheds :
1. : shed of 142.90 m by 38 m,
area 5,430 m²
free height over all : 10 m
entrance gates : 6 m × 6 m
rail connection inside shed

2. : shed of 143.92 m by 38.26,
area 5,506 m², fully insulated;
divided in two halves, one of which
with a free height of 10 m, the other
subdivided into four different
temperature controlled compartments
entrance gates : 6 m × 6 m

Equipment :
cranes : 2 electric travelling cranes
capacity 8 t with 32 m reach
or 16 t with 16 m reach
Facilities for continuous ship
unloading : 2, designed by PWH
capacity : 3,800 boxes of 22 kilos each
p.h.

6.8
Multipurpose
terminal

Operation and management :
Combined Terminal Operators nv
(C.T.O.)
Leopold II-dam
B-8380 Zeebrugge
Tel. 050/54 44 16 (outer port)
050/54 54 64 (inner port)
Tlx. 82 119 (outer port)
81 608 (inner port)

Area : 17.8 ha (extendable)

Description :
- Quays : length 600 m + 50 m
Ro/ro berth on North corner, along
west quay of North dock in inner
harbour
width : 250 m
water depth : 14.50 m

Equipment :
• Electric travelling crane : 1, lifting
capacity 40 T at 25 m, 28 T at 36 m, 20
T at 50 m.
• Electric travelling cranes : 3, lifting
capacity 8 T at 32 m, 16 T at 16 m
• Other equipment : container lift
trucks, tugmasters, fork lifts, etc. ...
Three railway tracks on quay, one of
which is especially equipped for bulk
handling.

Warehouses:
14,000 m² of covered sheds

Bulk handling : - discharge pits for free
flowing products within one railway
track, connected to high capacity
conveyor belt system for discharging
and loading of such bulk commodities
- bulk storage capacity
- bagging installation (bags of 25 to
75 kgs)



6.9
Terminal for
bulk commodities

Operations and management :
Zeebrugge Behandelingsmaatschappij
(Z.B.M.)
c/o Compagnie Belge de Manutention
(C.B.M.)
Doornzelestraat 71
B-9000 Gent
Tel. 091/27 75 01
Tlx. 12 872
Operations office :
Amerikakaai,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 42 66

Area : 13.8 ha

Description :
• Quays : total length : 530 m
width : 250 m
water depth : 14.50 m

Equipment :
1 electric travelling crane, lifting
capacity 20 T at 50 m and 28 T at 36 m,
or 750 T/hr.
3 electric travelling cranes, (same as
multipurpose terminal; see 6.8)
2 mobile cranes, capacity 750 T/hr.

6.10
Liquid storage terminals

6.10.1
For refined products

Name + address	Number of storage tanks	Total storage capacity
1 Outer port		
• Zeetank nv New Yorklaan 12 B-8380 Zeebrugge-Brugge 5 Tel. 050/54 46 12 Tlx. 81 304	11	146,000 m ³
2 Inner port		
• Petrover nv L. Coiseaukaai, B-8000 Brugge 1 Tel. 050/59 94 17 - 59 94 18	4	12,500 m ³
• Detavernier pvba L. Coiseaukaai 29 B-8000 Brugge 1 Tel. 051/65 58 14	3	5,500 m ³
• Groep Rosseel L. Coiseaukaai 21 B-8000 Brugge 1 Tel. 050/33 99 14	2	4,000 m ³
• L. François Baron Ruzettelaan 308 B-8320 Brugge 4 Tel. 050/35 51 51	3	3,500 m ³
• Traen Gebr. pvba Pathoekeweg 50 B-8000 Brugge 1 Tel. 050/31 51 15	9	10,000 m ³



6.10.2 For glues

Merckx nv

Head Office :
St.-Janslaan 1,
B-1150 Brussels
Tel. 02/762 70 95
Tlx. 21 521

Operations Office :
Loodswezenstraat 21,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 56 51

Storage capacity : 4,200 m³
(glues and other raw materials for
timber industry)

6.10.3 For molasses

Tameco nv
Leopold II-Mole,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 43 18
Storage capacity : 29,700 m³

Head Office :
Tate & Lyle PLC
Sugar Quay
Lower Thames Street
London EC 3R 6DQ

6.10.4 For cereals

Borlim nv

Head Office :
Lanceloot Blondeellaan
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 48 61

Storage capacity :
9 siloes, total capacity : 35,000 tons
Discharge capacity : 150 tons/hr
Loading capacity : 300 tons/hr
Shore and quay length :
total shore length : 160 m
actual quay length : 99 m

Dumingra
Pathoekeweg 32,
B-8000 Brugge 1
Tel. 050/31 51 61
Storage capacity :
2 siloes, 11,300 tons

H.E.L.B.
Krakeleweg 34,
B-8000 Brugge 1
Tel. 050/31 50 24
Storage capacity :
95 cells, 10,000 tons.

Voeders Huys
Krakeleweg 28,
B-8000 Brugge 1
Tel. 050/31 80 38
Storage capacity :
84 cells, 8,000 tons

WACO
Pathoekeweg 68a,
B-8000 Brugge 1
Tel. 050/31 80 08 - 016/24 26 43
Storage capacity :
34 cells, 15,000 tons

6.10.5 For L.P.G.

Zeegas
Marcus Gerardsstraat 4,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 56 10
Two jetties for ships up to 13,000 m³
capacity
Shore storage capacity : 6,500 m³
(two tanks)

6.11 Various other facilities and services

6.11.1 Bunker Station

Belgische Bunkeroliemaatschappij
Administrative Office :
Wetstraat 33,
B-1040 Brussels

Head Office :
Zeebrugge Shipping and Bunkering Cy,
Minister Beernaertstraat 9,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 42 60
Tlx. 81 138

The bunkering station situated at the
end of the mole delivers all grades of
marine fuel.
Supplies can be effected directly ex-
wharf (quays 1 and 2) or by barges and
tanklorries throughout the port.
The depot is offering 24-hour service.
Operators are Messrs. Belgische
Bunkeroliemaatschappij.

6.11.2 Cleaning station

Euroservices nv
Minister Beernaertstraat 9
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 42 61
Tlx. 81 138

The nitrogen plant operated by
Euroservices nv offers gasfreeing and
cleaning facilities for liquid gascarriers.
The station is equipped with a ground
flare and provides the necessary
equipment to change grade in the
shortest delay. 24-hour service is
guaranteed (quay n° 1).



6.11.3

Towage service

Unie van Reddings- en Sleepdiensten
(U.R.S.)
Jordaenskaai 15,
B-2000 Antwerpen
Tel. 03/232 38 80
Tlx. 31 864

Represented in Zeebrugge by
Ruys & Co
Leopold II-Mole
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 42 60
Tlx. 81 930

Tugs are permanently available in the
port (quay 9);

6.11.4

Ships' maintenance and repair

Slipway on the transverse quay of the
Prince Philip Dock in the inner port at
Zeebrugge.

Management : MBZ

Operated by :
nv Valcke Frères
Tijdokstraat 26,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 41 79
Tlx. 81 426

Actual maintenance of ships is done by
the company commissioned by the
shipowner.

Slope :
length : 248 m
width of the cradle : 17.50 m
capacity : ships up to 1,000 t
Transfer area :
length : 85 m
width : 25 m
Equipment :
tower crane :
lifting height : 30 m
max. reach : 30 m
lifting capacity :
1.8 t with jibs at 29 m
6 t with jibs at 11 m

Several ships can use the slope and the
transfer area simultaneously.
Area of the adjacent grounds :
3.8 ha, which can be used by various
ship repairers.

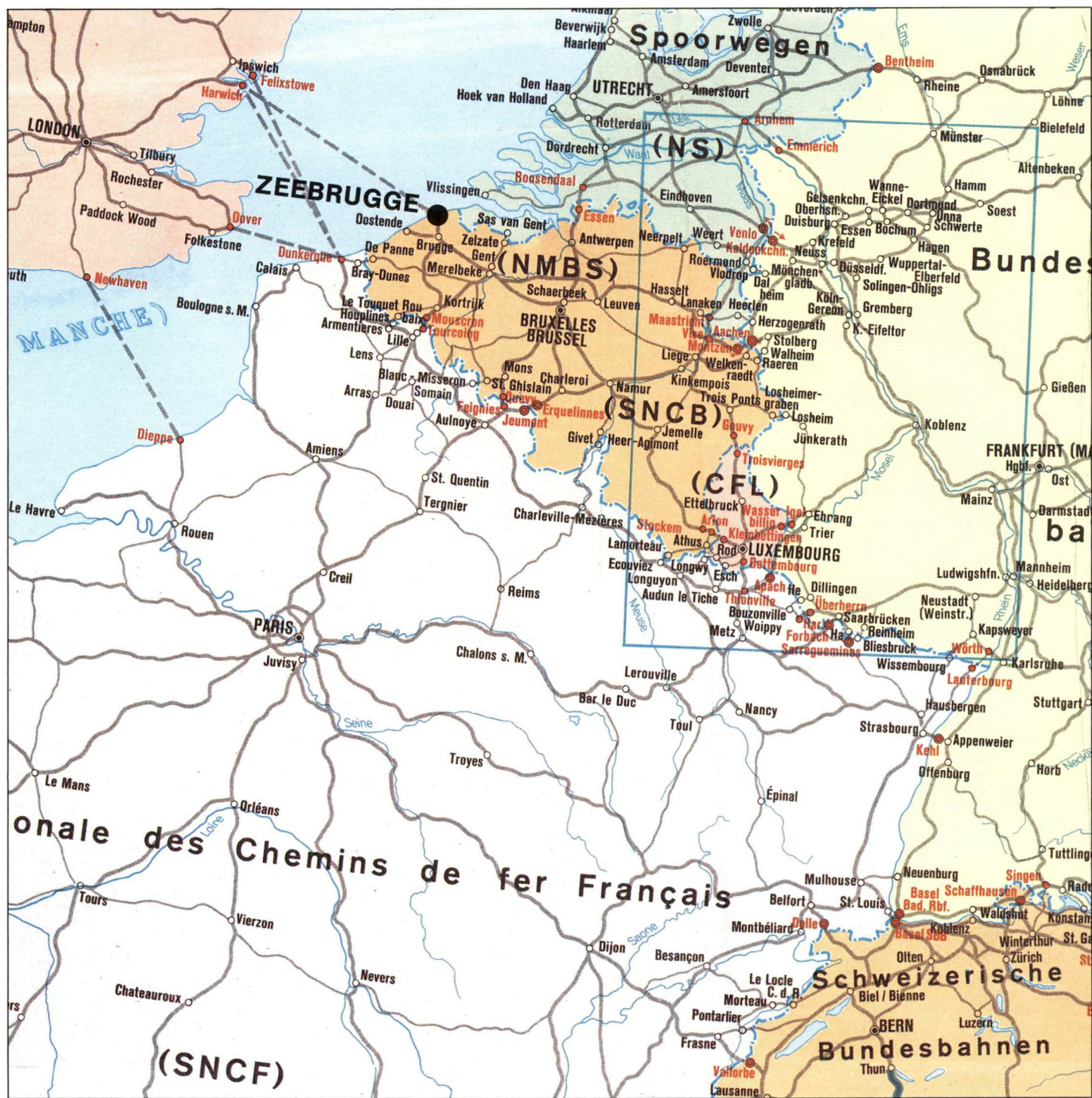
6.11.5

Transport zone

Management :
Transportzone Zeebrugge nv
Walram Romboutstraat 6
B-8380 Lissewege - Brugge 5
Tel. 050/54 54 29
Tlx. via 82 137

Area : 1st stage : 12.7 ha (extendable
to 60 ha)
Purpose : Uniting of port linked and
transportation linked activities
Amenities (partly under construction,
partly foreseen) :

- direct connection with rail
- technical service centre
- administrative transport centre with
 - customs facilities
 - offices for port users
 - parking area
 - covered warehouses
 - open-air storage



CONNECTIONS WITH THE HINTERLAND

7

7.1 Rail

Total railway length within the Bruges-Zeebrugge port area is 50,910 m, broken down as follows :

- Leopold II-môle 6,950 m
- OCZ 9,950 m
- SCT 5,020 m
- TFT 5,290 m
- Swedish quay and Fishing harbour : 3,170 m
- North dock inner harbour :
 - West quay 4,850 m
 - East quay 2,200 m
 - Connections 9,000 m (partly still under construction)
 - Junction dock 4,480 m (under construction)

7.1.1 Location

All terminals for cargo transshipment in the outer and inner ports at Zeebrugge, as well as the passenger station in Zeebrugge, are connected with the international line n° 71 (London - Ostend - Bruges - Ghent - Brussels - Liège - Aachen - Cologne...) with junctions at Brussels to all important European destinations. Zeebrugge has been included in the networks of Interfrigo, Intercontainer, Interferry and T.R.W., who supply special custom-made rail cars, available on request. If necessary, special trains are put on with rail cars of one and the same type only (= block trains).

7.1.2 Main regular train services to and from Zeebrugge

T.E.E.M.-trains

(Trans-Europ-Express-Marchandises)

Transportation of bulk cargo, goods charged in isothermic or refrigerated cars or in large containers with regulated temperature and perishable goods.

Service speed : 85 to 100 km/hr.

Min average speed for the whole itinerary : 45 km/hr.

T.E.C.-trains

(Transport Européens Combinés)

T.E.C. trains provide the most rapid international transportation mode for large containers (from 20') and road vehicles (lorries and trailers).

Some of the main destinations, effective 6 times per week

Countries and stations	Distance (kms)	Duration (hrs)
Luxembourg		
Bettembourg	366	9
Netherlands		
Rotterdam	251	10
France		
Thionville	387	10
St.-Louis	709	14
Paris	438	19
West-Germany		
Aachen	287	7
Köln	365	10
Düsseldorf	343	13
Manheim	579	20
München	959	23
Stuttgart	714	20
Switzerland		
Bâle	716	15
Chiasso	1,029	25
Zürich	918	40
Austria		
Wien	1,029	31
Italy		
Milano	1,090	28
Bologna	1,294	32
Other		
Budapest	1,740	40
Praha	1,169	32
Beograd	1,968	61
Great Britain (by trainferry Zeebrugge-Harwich)		
London	115	
Liverpool	398	
Glasgow	639	



7.1.3

Transport structure, especially for container transport

Domestic Traffic :

Dealt with by Belgian National Railways.

"Nationale Maatschappij der Belgische Spoorwegen, NMBS."

Head office

Frankrijkstraat 85

B-1070 Brussels

Tel. 02/523 80 80

Tlx. 25 035

Local office

N.M.B.S.

Stationsplein

B-8000 Brugge

Tel. 050/38 39 97.

Traffic between Belgian and Dutch ports :

Transport of large containers between Belgian (Antwerp, Zeebrugge) and Dutch ports (Amsterdam, Rotterdam) is dealt with by N.M.B.S. and Dutch Railways (NS).

International Traffic

Is co-ordinated by "Intercontainer", the International Company for Transport by Transcontainers, which is formed by the national railway companies of 23 European countries as well as the international company "Interfrigo". Intercontainer acts as a "Common Commercial Agency" which represents the railway companies of these 23 countries in international container transport.

Intercontainer puts on special container block trains (TECE) on certain lines; moreover, Intercontainer provides individual shipments which are normally routed through the networks of TEEM or TEC.

Intercontainer

Margarethenstrasse 38,

CH-4008 Basle

Tel. 41 61/22 25 25

Tlx. 62 298

Represented in Belgium by :

Interferry nv

Zomerweg 26,

B-2030 Antwerp

Tel. 03/314 69 50

Tlx. 32 529

Both for domestic and for international transport of transcontainers every shipper can negotiate individually with N.M.B.S. or Intercontainer. To rationalize organization of container transportation throughout Europe, in particular by rail, the "Railtrans nv" company was established. It counts over 100 members (shippers, shipowners, non-vessel operators, road haulage companies, etc.) This company groups the members' shipments and intermediates between them and N.M.B.S. and Intercontainer. This scheme ensures more advantageous transport conditions.

Railtrans nv

Zomerweg 26,

B-2030 Antwerp

Tel. 03/315 03 10

Tlx. 31 338

7.1.4

Tariffs for container transport

British Rail/Freightliner tariff 3022

Is applicable for transport between Zeebrugge on the one hand and Harwich and all Freightliner terminals in the U.K. on the other, as well as for inland transport in the U.K. from all Freightliner terminals to Harwich and the adjoining sea voyage to Zeebrugge :

N.M.B.S. commercial management

Frankrijkstraat 85

B-1070 Brussels

Tel. 02/523 80 80

Belgisch-Engelse Vennootschap der Ferry-Boats

Montoyerstraat 17/19

B-1040 Brussels

Tel. 02/513 06 60

Tlx. 23 584

British Rail

General Representation

Rogierplein 23,

B-1000 Brussels

Tel. 02/218 74 25

Belgian Inland Tariff (special tariff 0902)

Applies exclusively to transport of transcontainers between container terminals mutually, and between these terminals and any railway station in Belgium. The special tariff 0902 is a mileage tariff, influenced by the size of the container and the type of rail car used.

Information : All commercial agencies and railway stations of N.M.B.S. in Belgium.

Tariff 9574

Applies to transport between the Belgian ports of Antwerp and Zeebrugge, and the Dutch ports of Amsterdam and Rotterdam.

Intercontainer or General Transcontainer tariff 9145

Only applicable to international container transport.

The rates are not calculated according to mileage, but to link or service destination (the type of commodity and usually the weight of cargo of no importance). The freight rate depends on the size of the container and its gross weight, loaded or empty. The tariff is calculated in IUC-francs (average value of the member country currencies). Basically, this tariff is at par for container transport from the Benelux ports to destinations in Switzerland, Italy, Austria, Yugoslavia, Hungary and a large number of West-German landterminals. It applies only to international traffic; for inland traffic the national tariffs of the various countries are applicable.



7.2
Motorways

State road n° 905 (dual carriageway) Zeebrugge - Bruges (17 kms) links the port of Zeebrugge directly with the E5 motorway (exit 8 south of Bruges), which opens up Europe from North-West to South-East (Great-Britain to Italy).
The motorway interchange E5/E3 at Ghent (40 kms from Bruges) links up with the North-South axis of Western Europe (Scandinavia - Portugal).
Via the interchanges of other motorways with the motorways E5 and E3, any destination in Europe can be reached by motorway conveniently.
At the motorway interchange (RW905/E5) at Bruges, State road n° 905 links up with the A17 motorway, which links the port with its immediate hinterland, and via the E3 (interchange at Kortrijk) with Lille and Paris.

Distances from Zeebrugge to some important european cities :

	Distance (kms)	Via E-motorway
Belgium		
Ghent	55	E5
Brussels	120	E5
Antwerp	125	E5/E3
Liège	210	E5
Netherlands		
Amsterdam	305	E5/E3/E10
Rotterdam	220	E5/E3/E10
Luxembourg		
Luxembourg	320	E5/E40
France		
Lille	70	A17/E3
Paris	330	A17/E3/E10
West-Germany		
Aachen	260	E5
Köln	340	E5
Bremen	495	E5/E3
Düsseldorf	329	E5/E3/A57
Hamburg	600	E5/E3
Mannheim	526	E5/A61
München	853	E5/A61/E4/E11
Stuttgart	654	E5/A61/E12

BELGIE - BELGIQUE SCHEEPVAARTWEGEN - VOIES NAVIGABLES

EDSW SEVN 10 - 1983



MINISTRE DES TRAVAUX PUBLICS - MINISTERIE VAN OPENBARE WERKEN
ADMINISTRATION DES VOIES HYDRAULIQUES - BESTUUR DER WATERWEGEN
Service d'Exploitation des Voies Navigables - Exploitedienst der Scheepvaartwegen
rue de la Loi 155 1050 Bruxelles - Weststraat 155 1040 Brussel

Uitgave oktober 1983
Edition octobre 1983

VOIES NAVIGABLES pour bateaux de la VAARWEGEN voor schepen van de	Klasse	Algemene benaming Dénomination générale	Karakteristieke tonnage caractéristique	BATEAU TYPE			
				Length Longueur m	Breadth Largeur m	Depth Tirant d'eau m	Height Tirant d'air m
I	Spits		300	38,50	5,00	2,20	3,55
II	Kempenaar		600	50,00	6,80	2,50	4,30
III	Kast Campina		1000	67,00	8,20	2,50	3,95
IV	R.H.K.		1350	80,00	9,50	2,50	4,10
V	Grote rijkswaard		2000	95,00	11,50	2,70	5,70
VI	Grootste rijkswaard		> 2000	> 100,00	> 11,50	> 3,00	> 5,70

Verbeteringswerken in uitvoering
Amenagements en cours d'exécution
Diepgang kleiner dan die voorgesteld voor de klasse
Tirant d'eau inférieur à celui prévu pour la classe

Uitgave oktober 1983
Edition octobre 1983

Uitgave oktober 1983
Edition octobre 1983

7.3
Inland navigation

7.3.1
Zeebrugge - Brugge
Both ports are linked by the Baudouin Canal (for description, see 4.5 and 4.6) which gives access to the canal Ostend - Bruges - Ghent.

7.3.2
Link Bruges - Ostend
Via the canal in westerly direction
canal width : 35 m
water depth : 4.50 m

7.3.3
Link Bruges - Ghent and the complete network of Belgian and European waterways
Via the canal in easterly direction (navigable for inland water crafts up to approx. 900 metric ton, soon to be extended to 1,350 tons).

7.3.4
Estuary class inland water craft
Estuary-ships (which have a tonnage certificate both as sea-going vessel and as inland water craft) can call and leave at Zeebrugge via the Hont (Wester Scheldt) and the Flushing approaches.

7.4
Pipe-lines

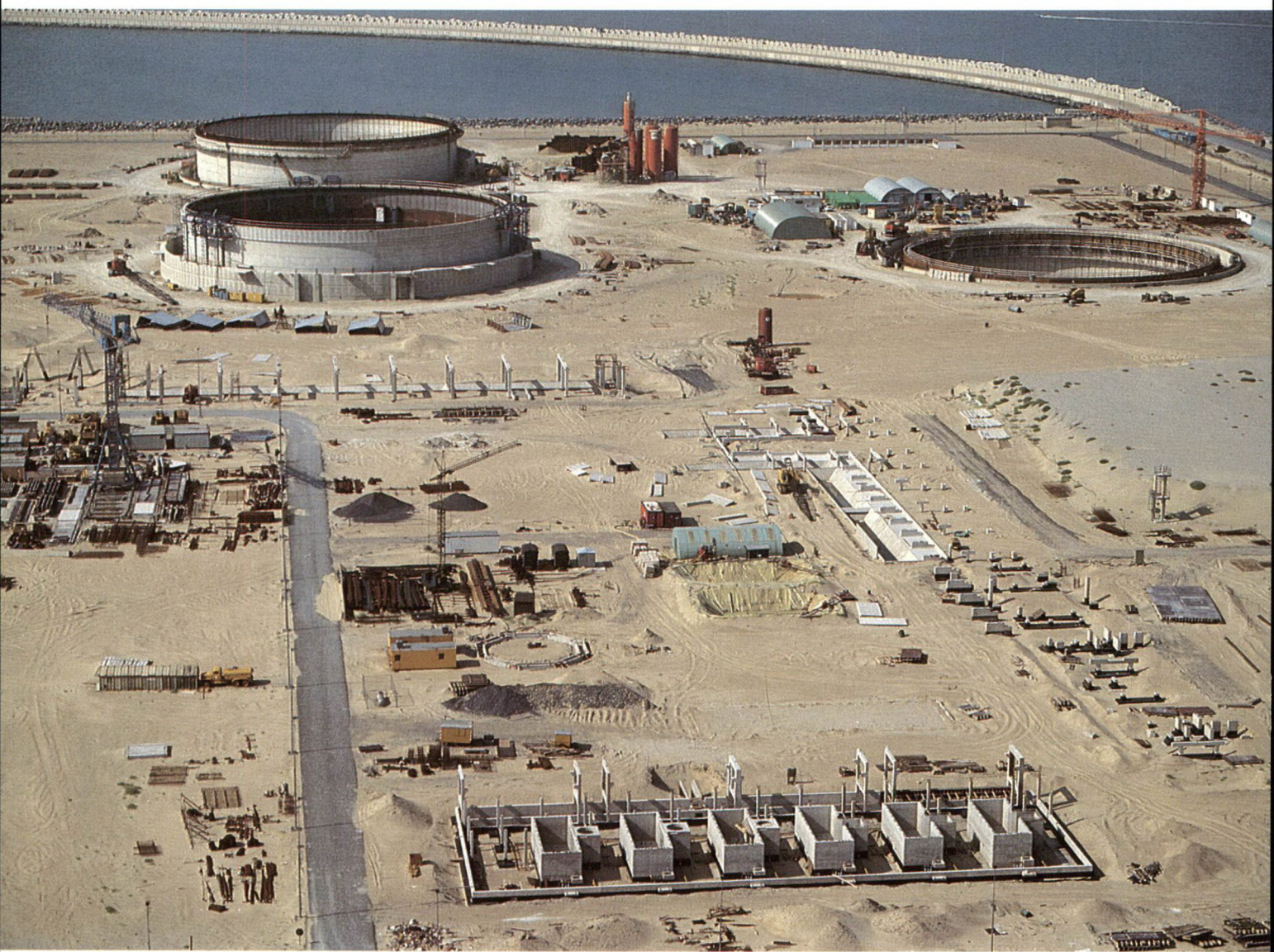
Natural gas
Zeebrugge is connected to the European pipe-line grid. At this moment, gas arrives from inland in the Zeebrugge peakshaving storage plant, situated in the inner port.

As from 1987, when the Zeebrugge maritime LNG terminal will become operational, the pipe-line networks will be used in a reversed direction.

7.5
Air links

7.5.1
Ostend Airport :
situated at 30 kms from Bruges and Zeebrugge. Especially suited for regular daily flights to the U.K. (Gatwick and Southend). Also charters and private business flights.

7.5.2
Brussels Airport :
at 120 kms from Bruges and 135 kms from Zeebrugge (to be reached via E5-motorway and Circular road R1 around Brussels) or by rail (1.5 hr ride). More than 50 air-line operators have landing rights at Brussels Airport. An average of 200 take-offs and landings take place every day, of which 80 % to and from european airports and 20 % to and from outside Europe. These flights are either direct or indirect via the closest transit airports of Amsterdam, Paris, London, Frankfurt.



8.1 Government decisions and evolution

Early 1970 the then Government decided to extend the port. This decision has been preceded by a feasibility study to build a new port for large ships either in the open sea or on the Belgian coast.

The study had shown that preference should be given to the extension of a multi-purpose deepwater seaport at Zeebrugge.

The first decision included the construction of a big sealock, of an inner port (limited to 1,300 ha) and in principle, the extension of the outer port in order to ensure the access of the port and the sealock for large ships. The works for the sealock were commenced in 1972.

The detail decision concerning the construction of the outer port followed after thorough studies of all relevant aspects (hydraulics, nautical and sedimentological aspects and their environmental impact).

After these extensive studies the Government, in 1976, gave the order to start the work for the actual construction of the outer port.

The August 1980 decision was the final one in a series which is to give Zeebrugge its definitive future shape.

The definitive plan is composed of two main sections :

- the construction of a protected outer port reaching to greater sea depths.
- the construction and equipment of a new inner port completely alongside deep fairways, and accessible via a big sealock.

8.2 The new outer port (See map, page 4)

8.2.1 Study and contracting

In 1976, after an international call, the Government passed a frame-contract for the construction of the outer port with the "Tijdelijke Vereniging Zeebouw-Zeezand (TVZ2)" (Temporary Association Sea Construction - Sea Sand), a group of contractors specialised in civil engineering water works. TVZ2 was charged with both the study of the project and its complete execution, in close co-operation with and under the supervision of the Ministry of Public Works, Direction of Waterways, Office of the Coast.

8.2.2 Schedule and timing of the works

The contract for the study and the execution of the works, proposed by TVZ2 and approved by the Government, has been subdivided into six subcontracts, scheduled between 1978 and 1985.

8.2.3 Description

The new outer port will be protected by two long breakwaters with a length of 4,450 m for the Western (A) and of 4,100 m for the Eastern (B) breakwater respectively. The shape and dimensions of this outer port follow from the so-called "Project 1,750 G" which was considered to be the most favourable; therefore, the outer port will extend 1,750 m into the sea beyond the existing outer port; the distance from the actual coast line to the breakwaters ends will be 3,300 m. Within this enclosure, a new port area of 350 ha will be reclaimed from the sea; it will be divided into a western and an eastern area which will have distinct functions.

Western zone

The extension length of this zone allows the construction of two inlet basins;

- the northern dock (C₁), most remote from other port facilities and specially protected, will be reserved for the handling of dangerous goods, specials, Imo, ...;
- the southern dock (C₂) will specifically be constructed and equipped to deal with all modern modes of maritime transport and handling techniques for general cargo e.g. container- and ro/ro-vessels. The length foreseen for the quays in this dock will be 2 × 1,200 m with a water depth of Z (– 16 m) LLWS.

Its direct access and favourable location, modern equipment and spacious surface area of the adjacent quay grounds, will allow a considerable increase of the port's transshipment capacity. It will also enable to cope with future maritime transport and cargo handling developments.



8.3 Sealock and new Inner Harbour

The southern part of the new outer port area, between the Western breakwater and the Leopold II-môle, will be reserved for the extension of carferry terminal parking grounds. Along the Leopold II-môle additional berths for ferries will be built, using these parking areas.

Eastern zone

Following the Government decision of 1975 by which Zeebrugge was selected as port of discharge, storage and distribution for LNG, which will be supplied by ship, the national gas utility company Distrigaz decided to build its LNG-terminal (D) in this part of the outer harbour.

A plot of 40 ha, completely protected by the Eastern breakwater, was put at its disposal for this purpose. This terminal will include a discharging facility, storage tanks for liquid gas and a regazification plant.

The terminal is scheduled to become operational in 1987.

South of the area exists the working harbour (E) which is a special dock, used temporarily by the contractors for berthing all floating-stock and equipment which they use on the port's construction.

8.3.1 Study and contracting

The sealock and the inner harbour are built in accordance with a schedule decided in 1970. Each separate part of it is allotted through public tendering (lock, connection dock, northern and southern inlet basin). The total surface area of that new inner port will be 1,300 ha, of which 300 ha for docks and waterways, so that the net service area of the quay grounds will be 1,000 ha.

8.3.2 Sealock (F)

Along both sides of the access channel to the lock, new quay walls have been built :

- the Western quay (or Swedish quay) has a length of 825 m and is equipped with stilling basins with indented sill, in order to dissipate the energy of the incoming surf (see also SeaRo terminal 6,4);
- the Eastern quay will have a length of 500 m upon completion and will function as a waiting quay for ships.

8.3.3 The South inlet basin and adjacent quay grounds (I)

The southern part of the inner harbour (approx. 850 ha situated South of the Connection dock) is intended for transhipment of general cargo, bulk cargo and energy products and for the implantation of marine-orientated industries.

Planned docks

- the Southern inlet basin (I) has been planned with the following dimensions :
length : 2,500 m
width : 400 m
water depth : 18,50 m

- between the connection dock and the railway bridge at Dudzele, the Baudouin Canal will be widened (K) from 70 to 250 m, over a length of 4,150 m, and will be deepened to 17,50 m.

Rail and road connections are foreseen on all quays and adjacent grounds.

Existing and planned facilities

**1
Gas peak shaving installation**
Distrigaz nv built two natural gas storage tanks (capacity 114,000 m³) in 1978. During low consumption periods, natural gas is stored in liquid form. It is regazified and redistributed during consumption peaks.

**2
Transhipment terminal for bulk goods (J)**
Management and operation : Seabulk nv (established July 1980 with the participation of private and public bodies) with head office at : L. Coiseaukaai 2, B-8000 Brugge.

Site :
60 ha along the South bank of the Connection dock (600 m) and the West bank of the South inlet dock (1,000 m).
The surface area covered by the adjacent grounds for railtracks is 18 ha (length 1,500 m; width 120 m).



Quays :
length : along the Southern inlet
basin : 600 m (unloading quay)
along the Connection dock : 250 m
(loading quay)
water depth : 18 m
capacity :
unloading quay : ships of 125,000 tons
loading quay : ships of 80,000 tons

Quay grounds :
Stage 1 :
40 ha for simultaneous storage of
coal and other bulk;
transshipment capacity :
8 million tons p.a.
Stage 2 :
40 additional ha for doubling the
storage and transshipment capacity.

Equipment :
2 gantries (capacity 50,000 tons of
iron ore or 40,000 tons of coal per
24 hours);
3 stacker - reclaimers
(capacity 5,200 m³ per hour as
stacker, or 3,000 m³ per hour as
reclaimer).

8.3.4 **Other current projects**

Ferry berths in the outer port

Along the Leopold II-mole,
additional berths for carferries will be
built for which the recently reclaimed
grounds between this breakwater
and the new Western breakwater will
serve as parking area.

- The first berth will be constructed
along quay n° 6. It will be equipped
to accomodate twindecked ships,
in order to accelerate loading and
unloading operations.
- Plans are now studied to equip the
working harbour (E) with ro/ro-
facilities.

Waterways

Northern Canal (M) :

The Zeebrugge port extension is
expected to result in a considerable
increase in traffic.

Also to avoid the passage of large
inland watercraft through the City of
Bruges, consideration has been
given to adapt the port's waterways
connections with the hinterland to
the size of large inland watercraft and
pusher convoys.

The "Northern Canal" plan envisages
two stages :

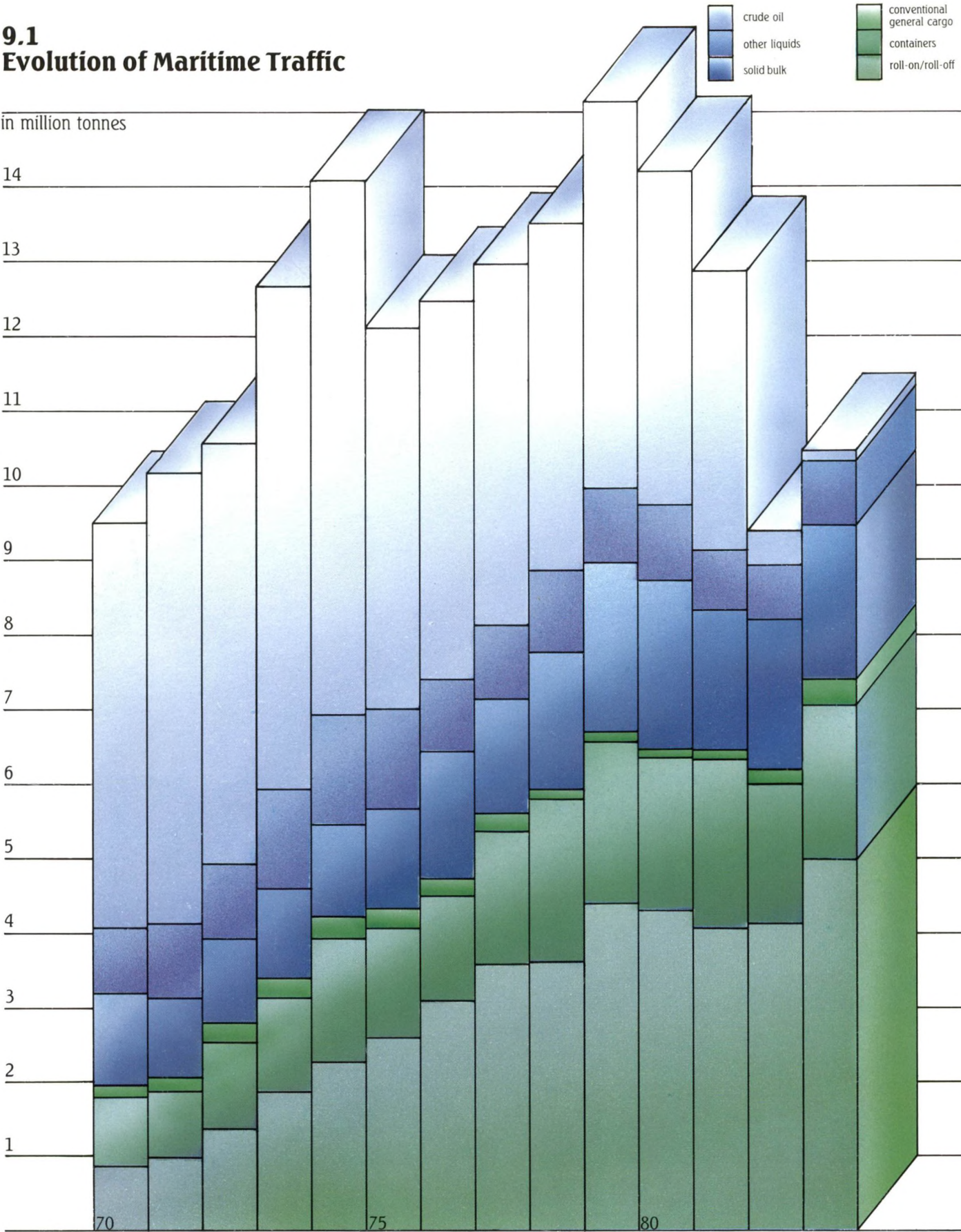
- the adaptation of the Schipdonk
canal to handle 2,000 ton inland
watercraft between Zeebrugge and
Merendree (junction with the Bruges
- Ghent canal).
- the further adaptation of this section,
to receive pusher convoys of
10,000 tons and its connection with
the Terneuzen - Ghent canal.

This project will allow Zeebrugge to
fully link up with the Scheldt - Rhine
water transport system, of which it is
the most southern port.



9.1 Evolution of Maritime Traffic

in million tonnes



The 1982 setback was entirely due to the stoppage of crude oil traffic. Since 1968, Zeebrugge had been the port of importation of crude oil supplied to the Texaco refinery in the Ghent canal zone. This refinery was closed down in January 1982 (see also table 9.2.)



9.2

Traffic breakdown per commodity

Commodities	1970	%	1980	%	1983	%
1						
General cargo						
<i>Roll-on/roll-off</i>						
Trainferry	343,805	3.6	450,025	3.2	443,484	4.3
Carferry	491,756	5.2	3,881,616	27.3	4,495,541	43.6
Subtotal	835,561	8.8	4,331,641	30.5	4,938,925	47.9
<i>Containers</i>						
European	962,404	10.1	1,083,035	7.6	1,178,370	11.4
Intercontinental	—	—	169,697	6.4	932,248	9.1
Subtotal	962,404	10.1	1,988,264	14.0	2,110,618	20.5
Other general cargo	142,192	1.5	169,697	1.2	258,024	2.5
Total	1,940,157	20.4	6,489,602	45.7	7,307,567	70.9
2						
Liquid products						
Crude oil	5,408,103	56.9	4,531,344	31.9	31,964	0.3
Refined products	573,253	6.0	892,682	6.3	674,801	6.6
Other liquids	349,223	3.7	88,469	0.8	164,092	1.6
Total	6,330,579	66.6	5,512,495	38.8	871,653	8.5
3						
Solid bulk						
Coal and coke	488,278	5.1	373,870	2.7	317,289	3.1
Building materials	721,318	7.6	1,781,643	12.6	1,640,900	15.9
Other solid bulk	29,697	0.3	31,872	0.2	167,092	1.6
Total	1,239,293	13.0	2,187,385	15.5	2,125,281	20.6
Overall total	9,510,029	100.0	14,189,482	100.0	10,304,501	100.0



9.3 Evolution of transit traffic (in percentages)

Year	Unloadings		Loadings		Total	
	Import	Transit	Export	Transit	Imp./Exp.	Transit
1970	82.0	18.0	32.6	67.4	73.6	26.4
1971	85.7	14.3	40.3	59.7	78.4	21.6
1972	86.2	13.3	48.3	51.7	79.8	20.2
1973	87.2	12.8	51.9	48.1	81.1	18.9
1974	86.4	13.6	43.7	56.3	78.0	22.0
1975	79.5	20.5	38.5	61.5	69.5	30.5
1976	82.8	17.2	39.5	60.5	73.0	27.0
1977	78.6	21.4	36.4	63.6	68.2	31.8
1978	79.2	20.8	36.0	64.0	68.7	31.3
1979	80.4	19.6	41.6	58.4	71.1	28.9
1980	79.5	20.5	40.0	60.0	69.5	30.5
1981	77.7	22.3	42.0	58.0	67.8	32.2
1982	63.0	37.0	41.7	58.3	54.8	45.2
1983	57.5	42.5	43.2	57.8	51.6	48.4

9.5 Evolution of passenger traffic

Year	Number of Passengers	Index (1970 = 100)
1970	510,500	100.0
1971	530,900	104.0
1972	701,600	137.4
1973	781,000	153.0
1974	884,400	173.2
1975	1,170,300	229.2
1976	1,344,200	263.3
1977	1,605,900	314.6
1978	1,732,800	339.4
1979	1,691,300	331.3
1980	2,313,800	453.3
1981	2,309,800	452.5
1982	2,204,188	431.8
1983	2,023,362	396.3

9.4 Evolution of container traffic (in TEU's)

Year	Number	Index (1970 = 100)
1970	92,400	100.0
1971	84,800	91.8
1972	130,800	141.0
1973	126,200	136.0
1974	155,600	168.5
1975	152,500	165.0
1976	147,500	160.3
1977	180,200	195.0
1978	191,800	208.3
1979	190,000	205.6
1980	181,000	196.7
1981	222,200	241.5
1982	177,200	191.8
1983	205,000	221.9

USEFUL ADDRESSES

10

Port Authority Brugge/Zeebrugge

Maatschappij van de Brugse Zeevaartinrichtingen n.v. MBZ

Louis Coiseaukaai 2,
B-8000 Brugge
Tel. 050/44 42 11
Tlx. 81 201

National bodies

Ministry of Public Works

- Direction of the Waterways
Office of the Coast,
Vrijhavenstraat 3
B-8400 Oostende
Tel. 059/50 19 61
Tlx. 81 604
- Public Relations (Regional Office)
Oude Gentweg 75C
B-8000 Brugge
Tel. 050/33 94 20

Ministry of Finance

- Customs and Excise Office
Louis Coiseaukaai,
B-8000 Brugge
Tel. 050/33 69 16
- Zeebrugge Customs Office
Aartshertogin Isabellalaan 1
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 54 55

Ministry of Communications

Marine Administration &
Sea Salvage Service,
Immigration Officer,
Chief Pilot
Loodswezenstraat 30,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 50 72

Belgian Foreign Trade Office

Regional Direction for West Flanders
Baron Ruzettelaan 35,
B-8320 Brugge 4
Tel. 050/35 81 40

Regional Development Authority

(GOM - West-Vlaanderen)
Baron Ruzettelaan 33,
B-8320 Brugge 4
Tel. 050/35 81 31

State Police (Gendarmerie)

Predikherenrei 3,
B-8000 Brugge,
Tel. 901 or 050/33 75 44
Port Brigade Zeebrugge
Veerbootstraat 1,
B-8380 Zeebrugge-Brugge 5
Tel. 901 or 050/33 75 44

Belgian Railways (N.M.B.S.)

Head Office :
Frankrijkstraat 85,
B-1070 Brussel
Tel. 02/523 80 80
Commercial Department
Station Brugge
Tel. 050/38 39 97
Station Zeebrugge
Tel. 050/54 50 27

Employment Office

Rijksdienst voor Arbeidsvoorziening
R.V.A.
Spanjaardstraat 17,
B-8000 Brugge
Tel. 050/33 52 03
Noordhinderstraat 12,
B-8380 Zeebrugge-Brugge 5

Provincial bodies

Government of West-Flanders

Burg 4,
B-8000 Brugge
Tel. 050/33 06 41

Military Authority of
West-Flanders

Kuipersstraat 21,
B-8000 Brugge
Tel. 050/33 44 17

Municipal bodies

City Administration Bruges

City Hall
Burg 12,
B-8000 Brugge
Tel. 050/33 07 46

Tourist Information

Tourist Office
Markt 7,
B-8000 Brugge
Tel. 050/33 07 11
Tlx. 81 328

Municipal Police

Hauwerstraat 7,
B-8000 Brugge
Tel. 906 or 050/33 77 33
St.-Donaasstraat 6,
B-8380 Zeebrugge-Brugge 5
Tel. 906 or 050/33 77 33

Fire Brigade

Walweinstaat,
B-8000 Brugge
Tel. 900 or 050/33 10 10

Emergency telephone
numbers

900 :
General (accidents, catastrophes, etc.)
901 :
State Police (Gendarmerie)
906 :
Municipal Police

Private organizations

Chamber of Commerce and
Industry

Ezelstraat 25,
B-8000 Brugge
Tel. 050 33 36 96

Association Port of Zeebrugge
Interests

APZI
Ezelstraat 25,
B-8000 Brugge
Tel. 050/33 49 68

Seamen's Club Zeebrugge

Duinpad 1,
B-8380 Zeebrugge-Brugge 5
Tel. 050/54 44 63

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