

GREAT YARMOUTH PORT COMPANY

GENERAL PORT AND PILOTAGE INFORMATION

P16

The following general information is provided as guidance only for vessels visiting the Port of Great Yarmouth. Ships Masters should carry out their passage planning taking all available and appropriate information into account.

Chart

Admiralty Chart 1534 "Great Yarmouth and Approaches" with plans of the Haven and the Outer Harbour covers the whole of the Port of Great Yarmouth and the stretch of coastline from Corton in the south to Winterton in the north.

Position

Great Yarmouth town (52°36'N, 1°44'E) stands on a narrow strip of land between the east bank of the River Yare and the sea. Two lifting bridges (haven and Breydon) at the northern end of Great Yarmouth Haven connect the town with the suburbs of Cobholm and Southtown on the west bank and thence with Gorleston-on-Sea to the west and south of the river mouth.

Function

Great Yarmouth Port consists of an Outer Harbour and a River Port both with separate entrances; the Outer Harbour entrance lies about 740 metres northeast of the River Port entrance. The deep water Outer Harbour offers berthing facilities to vessels up to 200 metres in length and 10 metres draft. The Outer Harbour basin is enclosed by two low rock breakwater arms that are terminated with round caissons that form a 150 metre wide entrance. Behind the berth and land areas the rock breakwater arms are topped by wave walls painted white. . The River Port at Great Yarmouth is situated on the lower 2.6 miles reach of the River Yare seaward of the Yare/Bure confluence that lies just north of Haven Bridge and handles ships up to 123 metres with drafts up to 5.7 metres on spring tides. The port handles a variety of ships and cargoes and is the principle UK port for the Southern North sea gas fields.

The Great Yarmouth district covers an area of 70.34 square miles, and has a resident population of 97,800 (2013).

Topography

To the immediate north of the River Port entrance lie the breakwaters of the Outer Harbour and thence further northwards the coast is low and sandy. To the south of the River Port entrance (which is formed by the mouth of the River Yare) there are low cliffs.

Traffic

In 2012, the combined Outer Harbour and River Port handled a total of 3461 ships totalling 4823211 gross tons.

Port Authority

The statutory harbour authority is Great Yarmouth Port Authority, their statutory harbour duties are discharged by Great Yarmouth Port Company Ltd Eastport UK House, South Beach Parade, Great Yarmouth, NR30 3GY. Website: www.eastportuk.co.uk

Limiting Conditions

In the main approach channel from the southeast (the Holm Channel), the charted limiting depth is 10.7 metres (2013) within the buoyed channel. From the north through the Cockle Gateway, the limiting depth is 7.1 metres (2013). There is a shallower route to the south through the Stanford Channel.

The Outer Harbour is dredged to a depth of 10 metres in the basin and there is a depth of 9.3 metres ESE from the Outer Harbour entrance (2013). The Outer Harbour has 900 metres of berths with the longest berth being the North Terminal of 400 metres. The River Port has in excess of 45 operational berths the longest of which is East Quay (Berth 5) of 270 metres.

The controlling depth in the approach and entrance to the River Port is 4.4 metres, but depths are subject to change and temporary shoaling can occur after strong easterly or south easterly winds. The Haven area from the entrance of the River Yare to Haven Bridge has a least depth in the fairway of 4.4 metres.

The Harbour Master's Office should always be consulted for the latest depths in the Outer Harbour and River Port.

The Port uses its own tidal harmonics and declares a spring range of 2 metres and a neap of 1 metre. Mean low water springs (MLWS) is 0.75 metres above datum (datum = 1.56 metres below ODN). Predicted times of high and low water can be obtained from the Port's website and from the Admiralty Tide Tables.

Maximum Size of Vessel Handled

Ship owners and Masters intending to use the port should consult the Admiralty Pilotage Volume and obtain guidance from the HThe Outer Harbour can handle ships up to 200 metres with drafts up to 10 metres. The longest vessel ever accommodated was a vessel with a LOA of 234 metres, the largest beam vessel had a maximum beam of 75 metres and the maximum draft accommodated was 10.5 metres.

The River Port can handle ships up to 123 metres LOA with drafts up to 6.2 metres, deeper drafted vessels may take the bottom on the berth at low water. The largest vessel ever handled in the River Port was 138 metres in length.

Local Conditions

Both the Outer Harbour and River Port operate on a 24-hour basis and vessels may enter at most times. Due to the strong tides at the entrances, vessels with limited manoeuvrability should enter during the high and low water slack periods.

During periods of strong south-easterly winds, heavy seas may be experienced near to the port entrances and in the River Port entrance seas can be confused with wind against tide and reflections from the southern breakwater arm. The prevailing wind in the port area is offshore. The largest seas and swells are from an easterly or south easterly direction. North Sea swells penetrate as far south as Great Yarmouth, swell waves will also build up locally after sustained winds from the easterly quadrants. Wind and swell waves from the easterly quadrants will have the greatest effect on the harbour entrances and on occasions penetrate into the Outer Harbour, such swells do not generally penetrate more than 300 metres into the River Port.

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Notification to Port Marine Services (Yarmouth Radio)

Information must be provided to Port Marine Services (Yarmouth Radio) prior to a vessel's arrival as follows:

1. For **Port Operational Requirements** and also in compliance with the Dangerous Substances in Harbour Areas Regulations in the case of vessels carrying dangerous goods
2. For information management system purposes, in compliance with the UK **Consolidated European Reporting System (CERS)**
3. For security purposes, in compliance with the **International Ship and Port Facility Security Code (ISPS)**
4. For waste management from ships, in compliance with the **UK Port Waste Reception Facilities Regulations**

1. Port Operational Requirements

- a. Information to be passed to Port Marine Services Prior to Arrival/Departure
 - i. Length Overall
 - ii. Draft
 - iii. Gross Tonnage
 - iv. Last Port/Next Port
 - v. Cargo
 - vi. Berth (if inbound)
 - vii. Agent
 - viii. Flag State (Waste Reporting Regulations requirement)
 - ix. Total number of persons on board (CERS requirement)
 - x. Defects
 - xi. Dangerous Goods (CERS & Dangerous Substances in Harbour Areas Regulations Requirement)P
 - xii. Pilotage requirements or Pilotage Exemption Number
 - xiii. Passage Plan (e.g. whether intending to swing or back in/out)
- b. Notice of ETA
At least 24 hours in advance or immediately upon departure from the last port or installation with an additional notification 8 hours prior to arrival for pilotage requirements (see Admiralty List of Radio Signals). Confirmation of ETA at 2 hours and 1 hour prior to arrival. Vessels should call again when 1 mile off the entrance or pilot station and not enter until permission has been granted.
- c. Notice of ETD or Shifting
Vessels must give as much notice as possible, with confirmation 1 hour before departure. Port Marine Services (Yarmouth Radio) should be contacted when the vessel is ready to let go from the berth and immediately before the vessel is ready to break away from the berth.
- d. Notice when Swinging
Vessels must contact Port Marine Services (Yarmouth Radio) and obtain permission prior to the commencement of a swing, giving the proposed location and method of swinging (e.g. using ropes or swinging free). Upon completion of swinging, Port Marine Services (Yarmouth Radio) should be advised.

2. Consolidated European Reporting System (CERS)

CERS applies to the following vessels:

- All ships of 100 gross tonnage and above
- All recreational craft of 45 metres length and over
- All ships regardless of size when carrying dangerous or polluting goods

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The information must be provided at least 24 hours before the arrival of the ship. If the duration of the voyage is less than 24 hours, then the information must be provided no later than the time of departure from the previous port or installation.

If the port of destination is not known until less than 24 hours before the arrival of the vessel, the information must be provided as soon as possible after the port of destination becomes known.

If the notified voyage information changes, the ship shall immediately notify Port Marine Services. A change of destination must be notified to both original port of destination and revised port of destination.

Information Required:

- a. Ship identification (name, call sign, IMO identification number)
- b. Port of destination
- c. ETA
- d. ETD from port of destination
- e. Total number of persons on board the ship
- f. Dangerous Goods

3. International Ship and Port Facility Security Code (ISPS)

The IMO requirements apply to passenger ships (including high speed craft), cargo ships over 500 gross tonnes and Mobile Off-shore Drilling Units (MODUs) engaged on international voyages.

Ship Pre-Arrival Information should be forwarded to Port Marine Services by the Port Facility Security Officer for the berth to which the vessel is bound. This should be sent in the format and containing all the information, as detailed in the ISPS Code.

4. UK Port Waste Reception Facilities Regulations

Present EU and UK regulations require vessels to notify the terminal or berth operator of the waste on board, amount to be landed and amount to be retained on board along with full details of the vessel.

Anchorage

For advice on anchoring outside of port limits consult the Admiralty Sailing Directions NP54.

Anchorage can be obtained in any part of Caister and Yarmouth Roads in depths of 10 to 24 metres in sand, shells, stones and shingle, but clear of the spoil ground, submarine cables and other charted obstructions

The Roads are exposed to easterly winds which may cause a short choppy sea. In these conditions it may be best to anchor off the shallower parts of the off-lying sandbanks, indicated by the heavier breakers; in particular close west of the south part of Scroby Shoals. In the latter position no direct sea is experienced but some swell finds its way round the ends of the bank.

Gorleston Roads, south-east of the Great Yarmouth River Port entrance, provides a good anchorage, in depths of 10 metres to 20 metres in sand. It is partially sheltered by South Scroby and Corton Sand.

In favourable conditions suitable anchorage can be obtained off the coast between the Britannia Pier and the northern boundary of the port limits 1 mile to the south. Masters should ensure that they do not anchor within port limits or the approaches to the port entrances.

Small craft will find the best anchorage west of Caister Shoal.

Submarine Cables and Pipelines

A gas pipeline passes under the river at the south end of the River Yare in the vicinity of Brush Bend. Warning notices (yellow diamonds, black letters) indicate the landing places and the area where it is prohibited to drop an anchor.

High voltage power cables, that lie on or close to the river bed surface, cross the river in the vicinity of Berth 10 about 1 mile north of Brush Bend. Yellow diamond beacons mark the extent of the cable area and demark where it is prohibited to drop or drag anchors.

At 350 metres north of Haven Bridge there is a cross river water pipeline, the extent of which is marked by yellow diamond marks on each bank.

Pilots and Tugs

Pilotage is compulsory for all vessels over 40 metres in length entering or leaving the port, except warships and vessels exempt by law. There are certain exemptions for vessels shifting within the port however for Masters not familiar with the port or lacking adequate local knowledge, it is recommended to employ the services of a Pilot for shifting or swinging within the port. Vessels should always have an anchor prepared and ready to let go. Due to the strong tidal streams, the confined space and the need to make constant adjustment, the local Pilots may steer vessels into the port.

There are three pilot boarding points for Great Yarmouth:

- Great Yarmouth Outer, in position 52°32'.1N, 1°51.9E about 1.5 miles NE from the Holm Approach Buoy (2010).
- Great Yarmouth Inner, in position 52°34.75'.1N, 1° 46.0'E about ¾ mile east of the Outer Harbour entrance.
- Great Yarmouth River Port in position 52°34.25'N, 1°45.2'E about 5 cables ExS from the River Port entrance.

The pilot boats have a black hull and orange superstructure and are fitted with AIS showing "Pilot Boat" with the vessel name.

There are no tugs within the port and agents should arrange towage services after consultation with the Harbour Master as to actual requirements.

Traffic Regulations

Local Byelaws are in place and may be sighted on the Port's website.

Speed

There is a maximum speed limit of 7 knots over the ground but this speed may not necessarily be a safe speed and vessels should proceed at a slow speed, such that they are able to maintain a safe manoeuvring speed. Care must be taken with speed and wash when passing small craft and vessels moored alongside.

Swinging areas:

In the Outer Harbour vessels are able to swing and manoeuvre within the basin (pilot required). In the River Port vessels may swing on the berth provided there is ample river width to do so and swinging does not interfere with traffic movements. There are designated swinging areas at Brush Bend (95 metres), Berth 3 (92 metres) and Atlas Berth (85 metres). Port Marine Services should be contacted (see section on Port Operational Requirements) prior to swinging a vessel and fenders should be made available for use.

Passage Planning Information

Harbour

The Outer Harbour entrance lies on the seaward side of the South Denes peninsula 4 cables (740 metres) northeast of the River Port entrance. The Outer Harbour basin is approximately 450 x 500 metres, the entrance is 150 metres wide and is approached from the east. The harbour entrance is marked by red and green lateral marks exhibited from lighthouse towers positioned each side of the entrance close to the edge of the entrance caissons.

The River Port entrance is formed by the mouth of the River Yare, with Gorleston Pier to the south and to the north, the northern training wall (North Wall) and the western end of the Outer Harbour southern breakwater. From the entrance the river leads about 2½ cables west and then turns abruptly north at Brush Bend to open up the Haven for a distance of 2 miles to the Haven Bridge. The commercial berths are on the eastern side of the river as far as Berth 10 (cross river electrical cables) and then on both sides of the river thereafter. Most of the commercial berths in the river port have the berth number displayed. There are no mooring bollards from Brush Bend to the Pilot Station at Mission Quay and mooring in this area is not permitted.

Port Traffic Signals

Outer Harbour Entrance

IALA International Port Traffic Signals 1, 2 and 5 are exhibited from a square tower in the Outer Harbour (at the junction of the North Breakwater and the easternmost north berth - NT1). These signals are exhibited into the harbour basin and to seaward.

River Port

IALA International Port Traffic Signals 1, 2, 3 and 5 are exhibited from the 10 metre square tower on the eastern end of the North Wall at the entrance to the River Port. The same IALA signals are exhibited upstream from a square tower in Brush Bend. When the 3 vertical reds (stop signal) are exhibited from the tower at Brush Bend to vessels proceeding down river, those vessels shall not pass south of the stop warning sign that is exhibited on the river bank on the Gorleston side just south of the old lifeboat pen, about 450 metres north of Brush Bend.

Should the traffic lights mentioned above fail, then vessels will be informed by Port Marine Services (Yarmouth Radio) on VHF Channel 12. (see the Admiralty Mariner's Handbook re IALA Traffic Signals).

Bridges

At the northern end of the commercial part of the River Port the Haven and Breydon Bridges (outside port limits) exhibit three red lights vertically disposed; these lights are exhibited either downstream or upstream as appropriate to prohibit traffic passing through the bridge from that direction. These lights are occasional and are only exhibited 5/10 minutes before the bridge is due to open. In addition to normal port traffic communications, vessels should contact the bridge by VHF Channel 12 prior to passage.

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Tidal Streams

From the Admiralty Chart 1534 at the Tidal Diamond position, about 1 mile north-east of the port entrances the tidal streams set as follows:

Time from HW Dover	Remarks
+0600	South-going stream begins
-0020	North-going stream begins.

Spring rate in each direction 2¼ kn.

From local information at the Port, off Brush Quay the tidal streams set as follows:

Local Tidal Times		Remarks
Local LW	+ 2 hours	In-going stream begins. At full flow it rarely exceeds 3 knots except at Haven Bridge.
Local HW	+ 1½ hours	Out-going stream begins. Full flow normally 3 to 4 knots but can reach 6 knots with accelerated flows between the buttresses of Haven Bridge.

Slack water normally occurs at local HW+1½ and LW+2 hours. The streams begin later upriver.

Flood Stream

Inside the offshore banks the south going stream (flood) tends to run parallel to the shore line. Close inshore the stream is deflected along the Outer Harbour north breakwater arm and after passing the end of the breakwater arm the stream swings south again past the Outer Harbour entrance, accelerating as it does so and re-joining the main southerly stream. There is a tidal flow into the Outer Harbour but the tidal currents inside the breakwater entrance tend to be weak, generally with a weak clockwise rotation within the basin on the flood tide and counter-clockwise on the ebb. Vessels entering the Outer Harbour on either the flood or ebb streams, approach from the east counteracting the tide (and wind) so that the vessel is making good a course that will take them through the Outer Harbour entrance. Ship's Masters should be aware that when inbound on a strong tidal flow, as the vessel's bow passes through the entrance into the weak tidal flows within the basin, the vessel will lose the strong tidal flows that were being experienced outside the breakwaters. This will tend to swing the vessel, as part of the vessel will be in the tidal stream and part in the near still water of the Outer Harbour Basin. Once through the entrance action will need to be taken to counteract any swing and to take way off the vessel. Masters should be aware that the swept path of the vessel will increase for approaches during the stronger tidal flows.

During the early period of the south going stream, the stream passing the Outer Harbour entrance follows the Outer Harbour south breakwater and enters the River Port; part of the stream splits and continues south and south west past the Gorleston Pier and then along the coast. After the first hour, the stream has increased in rate and more of the flow will continue south and southwest past the River Port entrance before turning inshore and then back in a north westerly direction into the River Port entrance. As the strength of the stream increases further the north westerly flow passing the Gorleston Pier, develops a more northerly component that now runs strongly past the entrance and then splits as it encounters the North Wall of the entrance, with part continuing west, to flow into the river (to the west) and part forming an eddy current that runs to the east along the southern arm of the Outer Harbour breakwater, this easterly stream turns south and joins the main south going stream. Vessels can experience a strong set to the north from 1-2 cables off the River Port entrance with the strength of the northerly set increasing as the vessel closes the entrance. Vessels should take care

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to take appropriate action to counteract this set. These sets are much stronger during the spring tidal cycle.

Ebb Stream

The out-going stream (ebb) runs out of the River Port entrance and along the Outer Harbour south breakwater arm before joining the main north going stream. Before the main coastal stream has gathered pace, a part of the out-going stream at the River Port entrance has a south easterly component that joins the main north easterly going coastal stream that runs just south and south east of the Gorleston Pier. At the peak of the northerly ebb stream an area of confused eddies can develop just south of the south breakwater arm outside of the River Port entrance. These eddies disappear or are poorly developed when the streams are weaker. Vessels entering the River Port from the east can stem the outgoing easterly stream, by running along about 0.5 cables south of the south breakwater watching for any element of a northerly set. If entering from the southeast vessels will be set to the north until the vessel encounters the outgoing stream when the northerly set will reduce. Once through the entrance vessels should stem the outgoing stream and adjust speed and heading in preparation for rounding Brush Bend.

During and after heavy rain the duration and rate of the out-going stream from the River Port is increased and the in going stream correspondingly reduced. Under these circumstances, on occasions, the out-going stream may attain 5/6 knots off Brush Quay and there may be a continuous out-going stream for 18 hours; the range of tide in these conditions will generally be reduced.

Tidal Anomalies

Prolonged strong winds or heavy rainfall may cause these times to vary and also alter the tidal range by more than 1 metre; the following can be expected in the aforementioned conditions:

	HW Slack	LW Slack	Tidal Height
Northerly wind	later	earlier	increased
Southerly wind	earlier	later	decreased
Heavy rainfall	earlier	later	increased

The tidal ranges in Great Yarmouth are small (1 metre on neaps and 2 metres on springs) but the above wind and rain (or snow) effects can cause noticeable differences to the tidal heights causing tidal surges up to 2 metres.

Landmarks

Nelson's Monument (52°35'.3N, 1°44.1E) (Britannia statue on a stone column)

Power Station Chimney (52°35'.0N, 1°44.1E) (Round grey chimney atop a square building)

Brush Lighthouse (disused) (52°34.3'N, 1°43.9'E) (Red brick tower, 21 metres in height)

Church (tower) (52°36'.2N, 1°43'.8E) (Greek Church – Great Yarmouth)

Church (tower) (52°34'.7N, 1°43'.5E) (St Andrews Church, Gorleston)

Port Lights and Signals

These are described within the "Harbour Lights and Signals" card available on the website or from the Harbour Office and available in the Admiralty List of Lights and Signals)

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River Yare and Great Yarmouth Haven

The Haven entrance is 61 metre wide at its narrowest point.

At the inner end of Gorleston Pier the embankment curves sharply to the north to form Brush Quay or The Brush. An anchor should be ready to assist the turn if necessary at the bend; the anchor should not be dropped in the vicinity of the cross river gas pipe at Brush Bend.

From a position east of Brush Lighthouse (disused), the River Yare runs 2 miles north to Haven Bridge. This part of the river forms the Haven which has a general width of 80 metres.

Berths

Apart from the berths used in support of offshore activities the main operational berths from the south are:-

East Bank Berths

Berth	Length	Depth at MLWS
4A	75 mtrs	5.0 mtrs
5A-5C (East Quay)	270 mtrs	5.0 mtrs
13 & 14	317 mtrs	5.0 mtrs

West Bank Berths

Berth	Length	Depth at MLWS
25 & 26 (Southtown)	160 mtrs	4.5 mtrs

(Note: depths alongside may vary consult the Harbour Master)

Repairs

Engineering services are well provided as a result of services to the offshore industry, all types of repair can be carried out.

Other Facilities

Ship domestic waste disposal; de-ratting; customs; hospitals, one with helicopter landing site and oily waste reception all available.

Supplies

All types of fuel from facilities on either bank of the River Port and by barge in the Outer Harbour. Water is available from most berths in the River Port and on the West Terminal in the Outer Harbour. Stores and provisions are available locally.

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Small Craft

There are limited berthing facilities for small craft in the port but there is a small Visitors Yacht Berth at Town Hall Quay. All craft berthing in this area should be aware of the strong flood and ebb streams which can reach speeds up to six knots in extreme conditions. It is recommended that vessels always stem the tide when berthing and beware of setting onto the Haven Bridge during the flood tide; if necessary swing early to stem the flood tide.

Inland Waterways

At the northern end of the commercial port just north of Town Hall Quay, the Haven Bridge is a double bascule lifting bridge with a width of 26.8 metres when open. Breydon Bridge lies 4 cables to the north west of Haven Bridge and has an opening span of 23 metres. The centre spans of both bridges are marked with navigation lights and both bridges will lift for larger vessels that are unable to pass under the bridges when closed. Small craft able to pass under the Haven Bridge should only do so through the centre span; vessels able to pass under the Breydon Bridge should use the non-opening fixed side spans that lie immediately to the starboard side of the centre span (these spans have a greater vertical experience). Air draft boards, available either side of the bridges, should be consulted before passing under either the Haven or Breydon Bridges. Advance application is required for the bridges to be opened.

3 cables north northwest of the Haven Bridge is the confluence of the Rivers Yare and Bure (from this point and further inland the navigation authority is the Broads Authority). Thence the Yare runs 3 cables north west passing under the Breydon Bridge and continues for another 3½ miles in a west-south-westerly direction across Breydon Water until it meets the River Waveney. The three rivers (Yare, Bure and Waveney) provide over 120 miles of inland navigation and access to Norwich, Coltishall and Beccles and to the Lowestoft and Norwich Navigation.