



Cycling and hiking along the Göta Canal

Hiking or cycling along the Göta Canal is a breeze. You follow the towpath, where no cars are allowed, and will always have the canal in view. This guide will lead you from Borensberg by Lake Boren to Berg by Lake Roxen, and provide interesting information along your journey. The distance from Borensberg to Berg is 20 kilometres. Along the way, there are several sights to see, rest stops, eateries serving lunch, and public toilets.

Here you will find information about the waterways, locks, and bridges, as well as historical facts that you may find interesting. You are about to begin an exciting adventure, and an experience out of the ordinary, in an amazing natural environment, where you can feel the wings of history beating along the way.

Welcome!

## **History of the Göta Canal**

The Göta Canal is one of the largest construction projects ever undertaken in Sweden. It runs between Mem next to the Baltic Sea and Sjötorp at Lake Vänern. A distance of 190 km, out of which 87 km were dug by hand.

Construction of the canal began in 1810 under the direction of Vice Admiral Baltzar von Platen. Soldiers from across the land were billeted here for the construction. The ground-breaking took place in Motala, at the same time as work started in Forsvik and in Sjötorp. Three years later the canal's first lock was completed at Forsvik. After a further four years, the canal was navigable between Motala and Hajstorp. It took a long time to build the canal. A total of 58,000 men; Swedish soldiers, Russian deserters (200 of them) and a number of civilian workers, laboured on the construction. The western section between Sjötorp and Karlsborg was completed in 1822, and ten years later, 1832, the final stretch between Motala and Mem was inaugurated, and the whole of the Göta Canal was completed.





The cycle- or hiking tour starts in Berg, which is the canal's most popular and most visited lock location, where you will find the famous staircase locks in addition to two further double locks.

From Lake Roxen the boats are raised 18.8 meters up in seven 2 connected locks, to Berg's guest harbour. The staircase locks are named Carl Johan after King Carl XIV Johan. The King and his son Prince Oscar visited the construction site in 1815 when they laid two foundation stones for the staircase locks. It is easy to be captivated by the lock operations here, and many spend a whole days by the staircase locks watching the performance.

The lockkeeper's house by the top of the staircase was built around 1815 and many lockkeepers have lived here over the years. Originally the house comprised apartments for two keepers.

A lockkeeper on the Göta Canal received not only money in wages but was partially paid in kind. In the year 1905 for example, the keeper at the Carl Johan staircase locks received 34 cubic metres of firewood worth 96 crowns. Additionally there was a piece of land that he could till. The cash income was 550 crowns a year.

Lockkeepers, who often had family, could not get by solely on opening the locks for boats, but were forced to take on additional employment. It was common to be a blacksmith, mason or carpenter, and to manage these two jobs the keeper would need the help of his family. Often the children would work the locks during the day while the father took care of the locks at night.

Above the staircase locks lies the guest harbour and after that comes the next double lock, Oscar's Locks, appropriately named after King Carl XIV Johan's son, later King Oscar I. These locks have a total rise of 4.8 metres and were built in 1815.

#### "Dubbelgångare"

by Kent Karlsson, 2006

Below the Carl Johan flight of locks stands the sculpture Dubbelgångare (Doppelganger), nine metres tall, on a long breakwater in Lake Roxen. The monumental sculpture is made out of rusted iron and weighs more than four tonnes. The different views of it from land and from the lake give it several different dimensions. "Visioner vid Vatten" (Visions by the Water)

The Art Project, Visioner vid Vatten has made a real impression along the length of the Göta Canal for a number of years now. An annual art competition has resulted in permanent artistic creations or displays in the "canal communities". The lockkeeper's house was built in 1843, the dwelling house also contained a revenue office. In 1918 the house was wired for electricity, but not before 1949 were water and drainage linked up.

There had been a former wooden granary, which had stood by the guest harbour since the beginning of the 1850s. In April 1996 the storehouse burned down, at that time it comprised the Canal Company's workshop and store. Today it has been rebuilt on the old foundations and serves as a hostel and café.

The distance between the locks is short here in Berg and soon after Oscar's Locks come Berg's Locks. The double lock is called Karl Ludvig Eugen, after King Karl XV. It was built between 1819 and 1820 and has a rise of 5.5 metres. The present lockkeeper's house by the locks was built in 1935.

The bascule bridge at Berg's Locks was built as recently as 1998 when it replaced the old bridge. There is a great view from here down the locks to Lake Roxen. From here you can take a detour of 300 metres to Vreta Klosters Kyrka (Vreta Cloister Church), follow the road to Linköping.

The memorial stone west of Berg's Locks on the north canal bank were erected in 1932 in memory of the billeted soldier's contribution to the building of the canal. The six blocks of pink granite have a bronze relief on the side facing the canal. It is C. Berger who created the relief and it gives a symbolic depiction of the canal excavation.

# **Brunnby**

After Berg's Bridge you follow the canal on the towpath along the north side and after almost a kilome-

### Vreta klosters kyrka (Vreta Cloister Church)

Vreta Kloster Kyrka is one of Sweden's most interesting medieval churches and was constructed during the 1100s. Attached to the church are ruins of Sweden's oldest nun's cloister, which was founded at the beginning of the 1100s by King Karl Sverkersson and came to belong to the Cistercian Order. The church was handed over, together with the Vreta Royal Estate to the nun's cloister.

The cloister and the church have been rebuilt many times, amongst other things a new chancel and transept with pointed gothic arches were introduced by Magnus Ladulås. Nuns remained in the cloister until 1582, but after that the building decayed. The church, which always functioned as a parish church, is completely built of limestone, and is considered one of our most beautiful, oldest and most remarkable churches.

tre the next lock and bridge appear, this is Brunnby double lock christened Frans Gustaf Oscar (brother to Karl XV). The lock in Brunnby was built in 1820 and the lower lock is the narrowest and shortest in the whole canal, 34.85 metres long and 7.18 metres wide. The lock's total rise is 5.3 metres. The rolling bridge was manufactured at the Motala Workshop in 1906.

The lockkeeper's wood house was built in 1927. For 40 years Carl Brogren lived and worked as the bridge and lockkeeper in Brunnby, from 1869 to 1909. He was also an agricultural worker and mason. When Brogren took his leave, Gustaf Adolf Nilsson moved into the lockkeeper's house. After 32 years as keeper and carpenter he left his post in 1941. The old animal barn was built at the beginning of the 1900s.



### "Tag det rätta, tag Cloetta"

Cloetta chocolate has a long history in Sweden, which began in 1873 when the brothers Cloetta established themselves in Malmö and in so doing became the first to factory produce chocolate in Sweden.

Cloetta moved their operation to a new factory at Malfors in Ljung's Parish in 1901. The area got the name Ljungsbro, where one of Cloetta's most important production facilities has existed ever since. In 1917 the Svenska Chokladfabriks AB took over the majority shareholding in Cloetta from the Cloetta family. The company was owned by the Svenfelt family who still have a large participating interest in Cloetta.

In Sweden Cloetta has around 550 employees who work at the Scandinavian head office in Malmö, within the sales organisation and in the factories in Helsingborg and Ljungsbro.

# Ljungsbro

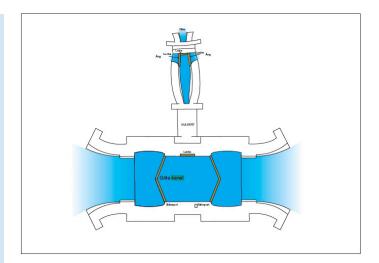
After another few hundred metres you arrive at the community of Ljungsbro and the last double lock before Långkanalen (Long Canal) takes over and gives us a lock free distance of around 18 kilometres, all the way to Borensberg. Heda Lock is called Oscar Fredrik (King Oscar II). It was built during the period 1818 to 1820 and has a rise of 5.2 metres.

The lockkeeper's house is timber and belonged originally to Brunnby farm. The house is called Ugglebo and is located right beside a spring where once upon a time one "drank the well". After the Göta Canal Company bought up the land here it was used as a bake-house before it finally became the lockkeeper's house.

#### **Malfors**

Still within Ljungsbro district you come to Malfors. Here there is a guest harbour and café. The Malfors rolling bridge was built in 1948 and is remotely controlled from Heda. As early as 1825 the Canal Company erected a wooden bridge in Malfors, but in 1843 it was replaced by an iron bridge from the Stafsjö works in Södermanland.

One gets the impression that most of the Göta Canal's lock and bridge keepers were happy in their work as they often remained in their posts for many years.



### Skarpåsen's irrigation plant

The tour now continues west, out of Ljungsbro district and out into the beautiful countryside of the East Götaland plains. Before you get to Skarpåsen's irrigation plant the cycling- or hiking tour takes you through fantastic park-like countryside.

By the canal, near Skarpåsen, there are many stone bollards, serving as reminders that there was once an active port and cargo loading site here. The shipping services were utilised by a brickworks and a limestone quarry, both located nearby. Here at Skarpåsen, you can also see the remains of the meadow irrigation facility that was built alongside the canal.

The 1830 auditors' report for the Göta Canal states that meadow irrigation is one of the goals of the canal project, and Baltzar von Platen often stressed the importance of the canal for agriculture. The fee charged for meadow irrigation at Skarpåsen was three Riksdaler Banco per acre, and contracts were only available for five-year periods – the canal's executive board was well aware of the value of irrigation services.

The water was led from the canal into the irrigation system through a hatch. When the hatch opened, water rushed into the system and farmers could then pick which meadow or section of farmland he wished to irrigate at that particular time. There were three hatches, leading to three different areas. The hatch on the front led up to a ditch, while the hatches on the sides channelled the water in two different directions. The hatches on the side could be opened either simultaneously or one at a time, but the centre hatchet had to be closed if water was to run to the sides.

The meadow irrigation facility was restored in 1995. The hatches were not replaced, however, meaning that it now only leads water to the ditch, and not to the meadows.

The bridgekeeper's house in Malfors was built of wood in 1920 when it replaced an old cold stone cottage from the beginning of the 1800s. The last person to live in the old stone cottage was the bridge-keeper Carl Axel Dahl. He worked as a keeper in Malfors for 35 years, from 1885 to 1920. He was honoured in 1910 with Det Patriotiska Sällskapets (Royal Patriotic Society) medal. After him, construction carpenter Karl Dahl took over responsibility for the bridge and he remained in post for 24 years.

After Skarpåsen the countryside opens up to large spreading plains and fields.

# Ljungs Östra (Ljung East)

Ljungs Östra Bridge was built in 1826, this rolling bridge has a frame of cast iron, but the bridge is no longer in use.

In 1857 the bridge keeper's house was rebuilt on a higher foundation wall. It had previously been called Högåsa, and in the spring and the autumn when the area suffered from severe flooding, the culvert by the bridge could not cope with the rapid force of the large amount of melted snow and 6 rainwater. Thus the bridge keeper's house was often flooded forcing him to use a flatbottomed skiff to get in and out of his house.

On the other side of the canal, out on the main road lies a brick ruin. It is the remains of Ljung's Sockerbruk (Sugar mill), which was built by a German firm who started the growing of beet and sugar production around 1870. The operations ceased after just a couple of years of serious losses.

#### **Water gates**

On long straight stretches, like those at Skarpåsen and by bridges, one will find water gates. For repairs, because the Göta Canal has several long stretches without locks, it was necessary to fix water gates in order to empty sections of the canal. Without these gates the canal would have to be emptied of enormous amounts of water during repair work.

They did also function as an automatic closing device if there is a major leak or break in the canal bank. Water suction caused the water gates to shut and prevent flooding. Today all water gates are locked, and not used for automatic closing.

## "Alnstones"

Drivers who were responsible for the draught animals along the Göta Canal wanted to be paid for their service.

To simplify the remuneration system, "alnstones" were placed along the length of the canal. A total of 143 stones were erected at intervals of 594 metres (equal to 1,000 "alnar"). The cost of hiring a pair of oxen to pull a vessel 1,000 "alnar" was approximately eight "öre" (1 SEK = 100 öre) at the end of the 19th century.

The distances on this stretch is measured from the lighthouse in Borensberg and the numbers on the stones thus mark the distance from there in thousands of alns.



# Ljungs Västra (Ljung West)

The next bridge you pass is Ljungs Västra, there was a wooden bridge here as long ago as 1825, but the bridge here today is from the 1980s. This rolling bridge is remotely controlled from Ruda and comprises rollers on a foundation of concrete. By this bridge there are also double water gates. The bridge keeper's house was built in 1835 after the old limestone house was demolished. On the existing stone footing a timber house was constructed instead. The animal barn and other outhouse buildings were constructed in 1904.

Now you have cycled or hiked about half the distance between Berg and Borensberg.

# Tree planting

When the canal was new trees were planted along several stretches, different tree varieties were tried out, such as linden, maple, ash and Swedish whitebeam. The tree planting continued, in particular during the 1860s when thousands of trees were planted. In those days there were trees planted the entire length except where the forest reached to the canal. However after a time it was discovered that tree planting created problems in certain places where the trees grew fast, and the roots stretched down into the canal embankment and destroyed the support walls of packed clay (a mixture of fine sand and clay). This created leaks, which could be very serious. There was nothing to be done but to remove several trees from those places where the canal was narrowest.

### Ljung's castle

A long avenue stretches from the bridge abutment here at Ljungs östra bridge up to Ljung Manor. The new building, designed by architect Jean Eric Rehn, was built when Axel von Fersen the elder became the owner of Ljung, and was completed during the 1780s. Axel von Fersen was one of the kingdom's leading men: privy councillor, field marshal and Hat Party leader. On his death in 1794 Ljung was taken over by his son Axel von Fersen the younger. He was a close friend of the French royal house and had a very intimate relationship with Queen Marie-Antoinette.

The Crown Price Karl August's sudden death in 1810 led to rumour and unease in the capital. It subsequently appeared that the Prince probably died of completely natural causes, but pamphlets and flyers pointed to Axel von Fersen and accused him and his siblings of conspiracy and murder. Axel von Fersen was brutally murdered in Stockholm in 1810 by an angry mob in front of the soldiers of the Svea Lifeguards. He was buried in Ljung's Church, the little white tower of which can be seen from the canal.

Excerpt from Göta kanal den blå vattenvägen genom Sverige / Göta Canal, the blue waterway through Sweden by Svahn/Nordholm

In 1999 the Göta Canal Company once again made a decision to replant the tree alleys along the canal. Today about 100 trees are replanted each year, and the tree varieties most commonly used are maple and linden. On the stretch between Västra Ljungs Bridge and Sjöbacka, you can see newly planted trees on both sides of the canal, maple and linden.





## Sjöbacka

At Sjöbacka you pass the next bridge, this one was built in 1954 and is an electric rolling bridge that, just like Ljungs Västra, is remotely controlled from Ruda. The first bridge to be placed in Sjöbacka was of wood and was opened in 1825. Before the bridge keeper had a house to live in an old barracks was used to house him. The barracks were bad and in 1848 a permanent house was built.

For 29 years, from 1898 to 1927, Carl Gustaf Johansson worked and lived in Sjöbacka. As well as bridge keeper, he was also a carpenter and dredger foreman. His predecessor, Johan Gustaf Säfström had also been a dredger foreman.

Slightly beyond Sjöbacka the towpath follows a narrow strip of land with the canal on the left and Norrby Lake's blue mirror water, seven metres down on the right. On the other side of the canal, stately oaks and high beech trees form a wonderful park landscape. At Norrby Lake there is a little bathing spot and picnic area – stay a while and have a dip.

#### Ruda

The next bridge is Ruda, this rolling bridge has a span of 7.5 metres. It is 15 metres long and 3.5 metres wide. According to information it was manufactured in Motala and can take a load of 2.5 tons. From Ruda the bridges in Näs, Kungs Norrby, Sörby, Sjöbacka and Ljungs Västra are controlled.

The new bridge keeper's house in Ruda was completed in 1930 and in 1999 underwent a total renovation. The older house still stands there. It is one of the oldest canal houses still preserved. The old bridge keeper's house was built during the first half of the 1800s.

When Karl Uno Fagerström finished as lockkeeper in Borensberg in 1977 an era came to an end. As early as 1890 in fact, Carl Fredrik Konrad Fagerström began as bridge keeper in Ruda. He worked until 1920 when the next 9 Fagerström took over. Karl Rudolf Fagerström was the keeper of the old roller bridge until his death in 1942. The next man at the helm was his son Karl Uno. In 1962 the last Fagerström moved to Borensberg where he stayed until 1977. Between the years 1890 and 1962, that is for 72 years, there has been a Fagerström on duty in Ruda.

# The Canal Company's sheep

After the bridge in Ruda, comes the Canal Company's sheep pens on the other side of the canal. Here about 300 sheep are housed in the winter months. These animals graze along the canal side in the summers to keep the cultural landscape open and to contribute to the life of the canal surroundings. If you are lucky you will come upon them on your tour.

# Sörby

After only a few hundred metres you arrive at Sörby Bridge, which was built in 1970. Like so many of the canal's bridges, it is a rolling bridge. It is remotely controlled from Ruda and comprises rollers on a foundation of concrete.

The bridge keeper's house was built in 1927. The first domicile in Sörby was built of limestone and was probably very cold in the winter. Beside the old house lies a smithy, which was probably already here before the canal construction began. During 1997 and 1998 it underwent a total renovation and was restored to its original form.



After Sörby the canal takes a sharp swing to the right and soon you get a glimpse of Brunneby farm on the other side of the canal.

The old estate house, dating from the end of the 1200s, has its façade towards the canal. Here there is also a church farm from the 1100s, which fell to ruin when a new church was built in 1828 for the parishes of Brunneby and Klockrike.

The old church was sold for 300 crowns to the farm's owner of the time, to be used as a spirit cellar and later as a cereal store. For many years forces worked to restore the church until, as it was purchased by the Royal Academy of Letters and restored, the Brunneby Church Foundation could rededicate it as a church in 1977. The little church with its quirky past is now used for musical concerts or religious services.

Now you are not very far from Borensberg, a little over three kilometres remains of the tour, so enjoy the part that is left. The canal swings again after Brunneby, this time to the left and you arrive at Kungs Norrby.

## Brunneby Musteri (Brunneby Fruit Press)

In the year 1939 the Jewish refugee Friedrich Mautner came to Brunneby. He obtained work as a gardener and was saddened by all the windfall fruit lying on the grass. Out in Europe the war was raging, food was scarce and many were starving, but in Sweden apples and pears were left to rot on the ground. He began to take care of the fruit and after several years he started up a fruit press together with the farm owner.

They made juice to add flavour to medicines and sold it to the Swedish pharmacy. Today Brunneby fruit press boasts a large-scale industrial production of juice, cider and jam. They sell 5 principally to grocery outlets and wholesalers, but the entire range is also available in their own farm shop.

Excerpt from Göta kanal den blå vattenvägen genom Sverige / Göta Canal the blue waterway through Sweden by Svahn/Nordholm, 2004

#### **Excavated canal**

The western section comprises 37 kilometres – the eastern section 50 kilometres – excavated canal.

The excavated earth would virtually be the equivalent of a 5 meter-high and 1 meter-wide wall from Treriksröset to Smygehuk (the northern tip of Sweden to the southern tip). Why not? The canal is 3 meters deep, 26 meters wide on the surface and 14 meters wide across the bottom. The aggregate was just right to dike the canal and avoid floods.

Excerpt from Göta Canal – bilder från västra linjen [Göta Canal – Pictures from the Western Section] by Owe E Hermansson 2002

why did they not use this existing waterway instead of excavating a whole new water channel with all that that entailed. But the River Motala was and is, as the Swedish word "Ström" suggests, too fast flowing to function as a waterway for boats.

After Kungs Norrby you pass the canal's second aqueduct over highway 34 between Motala and Linköping. This aqueduct was built as late as 1993 in conjunction with a new stretch of highway. The aqueduct was built adjacent to the canal and then pushed into place. The work meant that they were obliged to empty the canal of water and they had to remove 25,000 cubic metres of excavated material from the canal's sides and bottom.

# **Kungs Norrby**

The bridge at Kungs Norrby was built as early as 1840 and is remotely controlled from Ruda. Despite its age, this bridge did not arrive in Kungs Norrby before 1964.

It was moved here from Vassbacken in Western Götaland. The bridge keeper's house was built in 1933 when it replaced the limestone house that had been built in 1820. For 60 years the bridge keeper, Per Kjerrman lived in the old limestone house. He worked at the Kungs Norrby Bridge between the years 1838 and 1898. When Per Kjerrmen finished as bridge keeper he had an annual income of 185 crowns from the Canal Company. But Kjerrmen was also a blacksmith, which gave him a little extra money.

Long ago there was a castle in Kungs Norrby. As early as 1307 the place was mentioned in a letter written by Carl Ulf relating to inheritance. In the 1400s the farm was owned by the Vasa family, and in the year 1500 a stone house was built here, but the Danish general, Daniel Rantzau, plundered and burned the castle in 1568. But never give up. The castle was rebuilt and was completed in 1578. In 1693 it was demolished for the final time and all that remains today is a hill and some preserved cellarrooms.

# Motala Ström (River Motala)

The River Motala now also flows parallel with the canal, from Motala through Lake Norrby and Lake Ljung, which you have passed, and out into Lake Roxen at Berg, where you started the tour. From Roxen the River Motala flows on to Glan Lake, through Norrköping and comes to an end in Bråviken and the Baltic Sea. Of course you may ask

#### Näs

The next bridge you pass, the last before Borensberg, is Näs Bridge, this too is a rolling bridge built in 1844. The old bridge keeper's house on the north side of the canal is one of the few remaining original canal houses, built in stone around 1832. The new house is on the south side of the canal and was built in 1936.

Now follow a beautiful stretch of canal with more cattle grids, which is a reminder that you may happen upon sheep along the canal. A cattle grid is a grille placed on the ground with open space beneath it. This grille prevents mainly cloven-hoofed animals from crossing so that no gate or barrier is required.

#### **Borensberg Glass Factory**

Soon you arrive at Borensberg old glass factory. The glass factory started its workshop in 1900, just when the demand for glass bottles was booming. During the 1930s the glass factory was run by a cooperative, part-owned by glass blowers and workers. At times production was considerable. During an eight-hour shift, twenty-eight men, with the help of eight semi-automatic machines, produced 14,000 bottles. Borensberg glass factory closed down in 1952.

Today the buildings in the old works are renovated and a good example of how the workshops that once grew up by the canal can get a new lease of life and adjust to the canal needs of today, accommodation, experiences and tourism. By the glass factory is a hostel, canoe rental and café.

Excerpt from Göta kanal den blå vattenvägen genom Sverige / Göta Canal the blue waterway through Sweden by Svahn/Nordholm, 2004



Now the tour is soon coming to an end, but first you pass by the lovely octagonal gazebo on the other side of the canal at Västanåkröken, which is sometimes called "Styrmans fasa" ('the helmsman's horror'). Soon you also pass one of Sweden's most photographed buildings, the Göta Hotel.

Långkanalen (Long Canal) comes to its end here in and with the lock in Borensberg, which is called Nicolaus August (fourth son of Oscar I), this is a level lock with a rise of only 0.2 metres, and one of the canal's two hand operated locks on the East Götaland side. The lock in Borensberg was the first to be built completely under Swedish management.

The old lockkeeper's house was built in 1820. In the Executive minutes you can read that the house "of limestone with tiled roof" was under construction in Husbyfjöl. The name Husbyfjöl is also written on the gable end of the house. Borensberg was actually named so until the end of the 1800s.

At the entrance to Lake Boren, the old lighthouse and piers are preserved. After thorough renovations in 1994 they were all reopened.

## **Manning the Göta Canal Works**

In 1876 a new instruction was issued for Manning the Göta Canal Works. It was the Canal Executive who established the new rules. Lock and bridge keepers could not, among other things, be further away from their posts "than that he, without delay can properly attend arriving boats."

He should also "keep thorough watch over lock and bridge, with strict attention to cleaning of the same, including snow clearing, so there is no hindrance to traffic. — To not allow anyone to make fast to the gate or boom, and with the utmost attention, see to it that no lock, bridge or any part of the canal's buildings suffer damage through vessel or skipper's fault, and if such should happen that it be reported immediately to the District Manager, before the vessel is allowed to depart."

All in all these rules took up six pages and end with an instruction to post them on the wall.

