

Restoration of the Groninger Sjees (circa 1750)

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Report by the owner / restorer Huib Nijholt

Acquisition and origin

In 1989 I came into possession of the carriage body. Through the National Carriage Museum in Leek I was able to identify the body. According to Mr H.Vos, curator, and A. Hunter, conservator, there was no question about it. This was the 'Groninger Sjees' of which they had a drawing in their archives from a carriage builder in Groningen. The builder had been located on the corner of Boteringestraat and Schuitendiep and stopped production in 1938.

This Sjees was estimated to originate from the first half of the 18th century. The Sjees body with some parts/debris from the undercarriage was the only thing left. At that point there was no information except for the drawing. According to the gentleman, I had to be careful with it and restore it or have it restored because it was very special and rare.

I got it from an old man who didn't want to throw it away because it had been in the barn for a long time already, even in the time of his grandparents. He had never seen it ridden. The undercarriage had been destroyed by a tractor. Therefore the body was nailed to a makeshift sled-like chassis. The moisture from the soil had rotted the chassis, but fortunately the body was spared. The family was baptist (more on this later). As far as he knew this carriage had always been in the family. He didn't know the origin but it was original to Hoogeland. The farm was founded in 1592.

I couldn't continue with it because I had neither the time nor the knowledge of how to go about it. I treated it with woodworm killer and suspended it from the ceiling with ropes so that it could dry and would not be damaged any further. There it hung for 17 years.

Preparation

What made this project special is that there was no example to follow. We had to delve into the development of carriage building before and after 1750 to gain some understanding of how to proceed. You must first internalize the idea and get a feel for the character since it's ultimately the character that makes it.

Many details appear in a certain period and then disappear again. What also happens is that fashion trends that, for example, appeared in the Renaissance between 1600 and 1700, appear 50 to 100 years later in Holland. If you, for example, look at the typical renaissance carving that's commonly found in church furniture in Southern Europe you can see this type of carving show up around 1750 on a Groninger Sjees.

It took 17 years before I started working on the restoration when I retired. In those 17 years I gathered a lot of information through studying the original drawings, watching old carriages in Holland and abroad, studying literature and catalogs of auctions and museums, and lastly but mainly the depot of the Carriage Museum.

The plan

- Determine the state of the body. If it can be saved we proceed, otherwise we won't.
- Determine which original parts can still be used or used as an example.
- Determine again which parts are original to the carriage.
- Collect and file all notes, photographs and sketches.
- Get a professional opinion from the Carriage Museum.
- Determine what the right measurements are.
- Get an approximation of the balance point on the basis of drawings / sketches, weights of components and moments. This for the determination of the silhouette.
- Compare results with the Dutch Sjezen to check the proportions.

Often I caught myself designing the Sjees myself, but that was not the intention. Everything I did had to be backed up with historical evidence, because if you make a mistake, someone will eventually point it out with the consequence that you have to correct it.

This was the result

An axle width of 1.85 meters (existing axle). A height of 2.02 meters. An undercarriage length of 2 meters with a "DISSEL" (two or four horse shaft) length of 3.8 meters and "KRETSTOKKEN" (single horse shaft) of about 2.7 meters. The color black with narrow yellow and red bands for the body. All wood painted in matt black and gloss black for the iron work (advice from carriage museum and friend Peter Zuidman). Limited carving and modesty of the baptists of that time. Most farmers of the Hoogeland were well off and mostly baptist.

As far as the construction goes we went with a farmers sound and practical build, yet still graceful and showing the prosperity of the owners. Groninger farmers from Hoogeland have always been very progressive and were often sent abroad in their early years to bring back new innovations for their own businesses. These businesses often included 3, 4 or even 5 farms with 30 permanent and residential hired workers along with the owners and their families. They sometimes comprised hundreds of acres of farmland including the salt marshes.

The upholstery was matched to the character of a similar carriage from the same era (the "Cabriolet" of the Carriage Museum) but adapted to this type of carriage. A red woolen fabric with knotted rope was used instead of the velvet fabric and buttons on the cushion and back that was used on the Cabriolet. Behind the seat is a stand for a servant, which can also be used for a travel chest, and two handles for the servant. There is an old Sjees at the Carriage Museum where the eyes for the stand are present, it has the same mud plates and is also from before 1800.

Suitable for a one, two or four horse team.

A heavy wagon shaft for riding with 2 people and a servant. To counterbalance it is about 8 kg heavier than the light shaft. This is to adjust the balance on account of the pressure on the horse's back. Suitable for a two horse team and four horse team.

A lighter wagon shaft for 1 or 2 people and 2 horses.

A set of "KRETSTOKKEN" (single horse shaft) of a heavier quality related to the weight of the Sjees: for one horse or two.

A Sjees bracket, 2 pairs of harnesses for 2 and 4 horses.

A large "ZWENG" (see hitch_22.jpg) for attaching the continuing straps on a four horse team.

A travel chest with accessories, a small wooden water/feed bucket, 2 hemp halters with hemp rope, hobbles, a grease bucket, some tools, and space for extra clothing.

No lights (too early).

Given that the old parts of the undercarriage are brass, brass is also used for the new parts. For fixed connections only square nuts have been used and for detachable components forged wing nuts, sometimes with a leather strap lock.

During construction rope was used instead of the leather wagon straps. The leather straps were ordered after everything was done, after the right point for the location of the coach was determined. On the 1.52 meter tall wheels the old metalwork was used. The wheels are spoked in overlapping manner like the old Sjees from 1750 in Middachten on the advice of the Carriage Museum.

For the general character we took the Drentse Sjees from Noordlaren as an example, which is from the same era (advice of the Carriage Museum). There are no old parts used due to the differences and severe corrosion.

Considerations

Given the cost and time of restoration choices have to be made.

How far do you want to take the restoration?

Do you want to stay with your principles?

Do you want to use it with some or all possible horse teams?

How do the horses respond to the Sjees bracket with all the different movements that you end up making?

Do you to keep it transportable?

Polish or paint the brass work? Why choose brass if it would be painted anyway?

Would you drive it on the road?

Appropriate clothing is part of the deal; cost of materials and the Groninger costume jewelry from 1750.

You must have 2 or 4 good horses, with harness.

We have chosen to go for maximum quality.

No compromise on principles, in pursuit of the maximally attainable.

The Sjees should be able to be used for all its original purposes and with all its possible horse teams.

It should be functional for another 150 years.

Parts should be able to be swapped out. So no nails and glue are used in the connections which would be otherwise impossible to take apart without damage.

Execution

The belts are supplied by Divoza in Leek.

The upholstery is provided by J. Kamminga, upholsterer in Uithuizen. In cooperation with the Carriage Museum.

The wheels are supplied by Dijk from Nieuw-Leusen, with my own metalwork.

Aside from these parts everything is made and done by myself, such as the restoration of the body, the woodwork, metalwork, the hardening of the springs, the accessories, the carving on the undercarriage and the painting.

The painted lines were created by our friend Peter Zuidman. Together with him and my wife we've looked at many photos, discussed the matter and made decisions.

For the wooden parts of the undercarriage acacia wood was used and for the other wooden parts American pine. For restoration of the body elm and pine was used. The calf that lends strength to the body and that is located under the seat at the end on the rear panel is hollowed out for three quarters and inserted with lpe.

The woodworm holes were filled with glue. Without this reinforcement the body would not have survived. The curves for the handles were broken off and reapplied, hundreds of woodworm holes were plugged.

On the inside of the foot support, I used a few pieces of plywood to gain firmness. Without layering parts I couldn't achieve sufficient strength. The entire bottom of the body has been restored. The color has been kept original.

The support frame and axle casing are made of acacia wood. Two connections have been glued in the cross member (ASDAM) and have been fixed with angle iron reinforcements against the torsional force of the C- springs. The axle casing lies loose underneath and is secured with wedges and straps. The square nuts sit on brass plates similar to the original. We first tried painted the brass black but this gave a gloomy effect and didn't make the lines stand out. So then we polished everything with the result that the Sjees looks brighter and classier.

Furthermore, the connections of the "KRETSTOKKEN" (single horse shaft) are made of iron bolts with forged wing nuts, the calf on the front lies loose on the frame and is fixed with straps and belt hands to make it a rigid assembly. The pulling force of the horses is transferred directly to the steel axle via the "DISSEL" (two or four horse shaft) in a two or four horse team and with one horse via a drawbar and bracket to a eye bolt on the axle casing. There were originally three bolts on the middle of the axle casing to transfer the forces to the axle. These have been reapplied.

The axle is the original "VETAS" (before 1800 that's what it was called) that I got along with a piece of the frame. The bearings in the wheels have also been reused. The hoops are originals from the old Sjees. Both have 2 new pieces inserted as the wheels were completely rusted away where they had been long standing on the damp clay floor. The U-bolts around the axle endings are new but authentically remade.

A distinct feature of the wheels is the arrangement of the spokes; these are placed alternately with an offset. This gives more strength than side by side on a straight line. I've seen this on a big Mallejan and a few 17th century carriages in Prague. Also as an example this has been chosen for the wheels on the Sjees of the Castle Middachten (1750) .

For the supporting frame we have chosen a heavy iron reinforcement of 40x15 mm, carrying the acacia beams.

The threaded rods have a trapezoidal thread. These are the best match with the sharpened wire from the original model. To this forged wing nuts have been attached.

The pins (10 pieces) with acorn knobs are consistently placed on all connections with both belts. There were two originals still present on the body.

There are two pendulum belts placed between the body and the frame, these could be tightened as needed.

Two mud plates have been attached made of brass.

There is a whip shaft attached to the right of the body on the support frame.

The large C-springs are hardened and tempered.

The step brackets and the copper protection plate have the same pattern as the carving on the calf and are made to existing model.

The platform for the servant/suitcase consists of 2 brackets with a wooden plank which is lined with leather. On the sides 2 stands have been placed to prevent slipping and for the fixation of the suitcase/trunk. They can also be used for straps to fasten luggage. Under the platform there is a step attached.

The paint and painted lines have been kept sober. This is in accord with the fact that the Sjees belonged to a baptist family. It is predominantly black with a consistent application of red and yellow lines on the body and the undercarriage.

Accessories

It was our intention to be able to use all possible horse teams that have ever been used with these types of carriages. That's why there are so many accessories and equipment that go with the Sjees. Because our horses are quite versatile this seemed to be a nice challenge; something unique and different.

In our research of Sjezen and two-wheeled carriages from the period of 1700-1800, we encountered almost all possible horse teams. The travel chest has been kept modest and fitting to the model of the Sjees. It contains all the things needed for the care of the horses and carriage as well some items for the passengers. For instance there is room for the hat of the lady.

The "mail coach bar" is used in a four horse team with continuing straps, which is easier on the eye as well as more flexible.

We have had a lot of fun with this project that we carried out with great care and in minute detail, staying true to the past. It was a true journey into carriage history.

Usquert 2009 H. G. Nijholt