

KEN's History



By Kaj E. Nielsen

Preface

This memoir is published to mark the 90th birthday of manufacturer Kaj E. Nielsen on 19th October 1999.

The wish is to give a picture not only of an era of industrialization in Denmark, but also of the conditions for a true initiator, where only his own initiative, intuition, diligence, tenacity and faith in his own powers were the important factors, for it was the viability of his ideas that had to prove their worth.

Kaj E. Nielsen's story is most intimately linked to the history of KEN Maskinfabrik, but it is also connected to the history of Nil-Bro, and thus to Brobyværk where it all began.

It is the story of a success in a difficult period in the history of Denmark, conducted at a tempo where "you cut your coat according to your cloth" with an eye for where the opportunities existed and where the basic approaches to quality, customer satisfaction, stability and credibility were the cornerstones of the company's development – and these are still valid today.

Modern times are understood through prehistory, and it is our hope that the spirit and the attitudes that lie behind history can continue to live and serve as inspiration for the future, even though the preconditions have changed.

At the dawn of the new millennium, KEN Maskinfabrik A/S is the parent company of a group with over 200 employees in its subsidiaries in Denmark, Sweden, Norway and Lithuania and with more than 30 distributors in both near and distant parts of the globe.

In the future there will be great opportunities within our business areas of heat disinfection, industrial dishwashers and commercial kitchens in general.

In 1997 when KEN was awarded Danish Industry's product prize, we received an albatross as a sculpture. The artist provided the following comment, which can serve as inspiration for the future: "The sculpture symbolizes power, endurance and courage and the ability to conquer the skies over our wide seas."

It is our desire that starting from our historical values we will be able to maintain a healthy business which continues to develop through constant innovation.

Mogens K. Nielsen
Director
KEN Maskinfabrik A/S

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February 1995

Background of Nil-Bro og KEN

First a little about the history of Nil-Bro and KEN and some background information concerning the start of the business.

Going right back in history, I started as an apprentice with my father, Niels Christian Nielsen, in 1923. That was just after I had been confirmed. He was a qualified electrician and had an electrical business in Brobyværk for many years. It has been sold to a former, skilled worker, Marius Jensen. Father started with an auto and machine shop. He was a skilled smith and fitter.



Niels Christian Nielsen



Kaj E. Nielsen

We also did plumbing work and central heating systems. Father was a natural inventor and he had great patience with everything he attempted. When I was apprenticed, I got € 0,27 a week plus room and board, but I had

to keep myself in work clothes. So I was always happy if a car got a puncture on a Sunday. Then I could earn € 0,34 extra.

During the apprenticeship there wasn't much money around, so I started my

own small business in my free time. I bought a roll of heavy copper wire from the cable factory and started making ring hooks for cookers.

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own small business in my free time. I bought a roll of heavy copper wire from the cable factory and started making ring hooks for cookers. They were very fine and cost € 0,14 each. There was another apprentice called Peder Jensen, whose father had a well estimated farm. Peder helped me sell the ring hooks.

We went out to neighbouring towns and they sold very well I remember one evening Peder came to a horse dealer who lived nearby. The horse dealer asked Peder: "And where might you be from?" He explained that his father was

Karl Jensen in Oelsted. The horse dealer then said: "Well, we'd better get that checked out." So he phoned Karl Jensen and asked if he had a son who was going around selling ring hooks. No, he did not know anything about that, so if he could talk to him and Peder was immediately sent home. I couldn't see that there was anything wrong in doing this, and people were really happy with the hooks. When my apprenticeship was over, I lost contact with Peter and didn't see him for maybe 50 years.

When I turned 80 years-old I had a reception at the factory. A very elderly white-haired gentleman with a huge beard arrived. He greeted me and asked if I could recognize him. No, I didn't think I could. He then says: "But what if I say 'ring hooks'." It was a real surprise. He gave me a little ring hook plated with 24 carat gold. Soon after that he fell seriously ill, but he also reached the age of 80, and I visited him then. He died shortly after and I was at his funeral, and this is the end of the story of the ring hook. Now I have two ring hooks, one original and the one from Peder.



The two ringhooks

1. Washing machine

In 1925 we began manufacturing a special washing machine. It had a fire underneath, so the clothes were boiled while it rotated. This machine came to be called "Nil-Bro" (Nielsen Brobyvaerk).

The great difficulty with this machine was that the drum had to change its direction of rotation. It was therefore necessary to construct a new gearbox for it. After about a year father succeeded in building a really strong

and robust gearbox, which he patented.

The first machines were finished at the end of the 1926. The next problem was to get them sold, and father took them out to livestock shows and other places. He was quite proud of the machine and rightly so. One day when he was at a market and the machine was running, a woman came up to him and showed a lot of admiration for the machine. Just before she left, she said: "Yes,

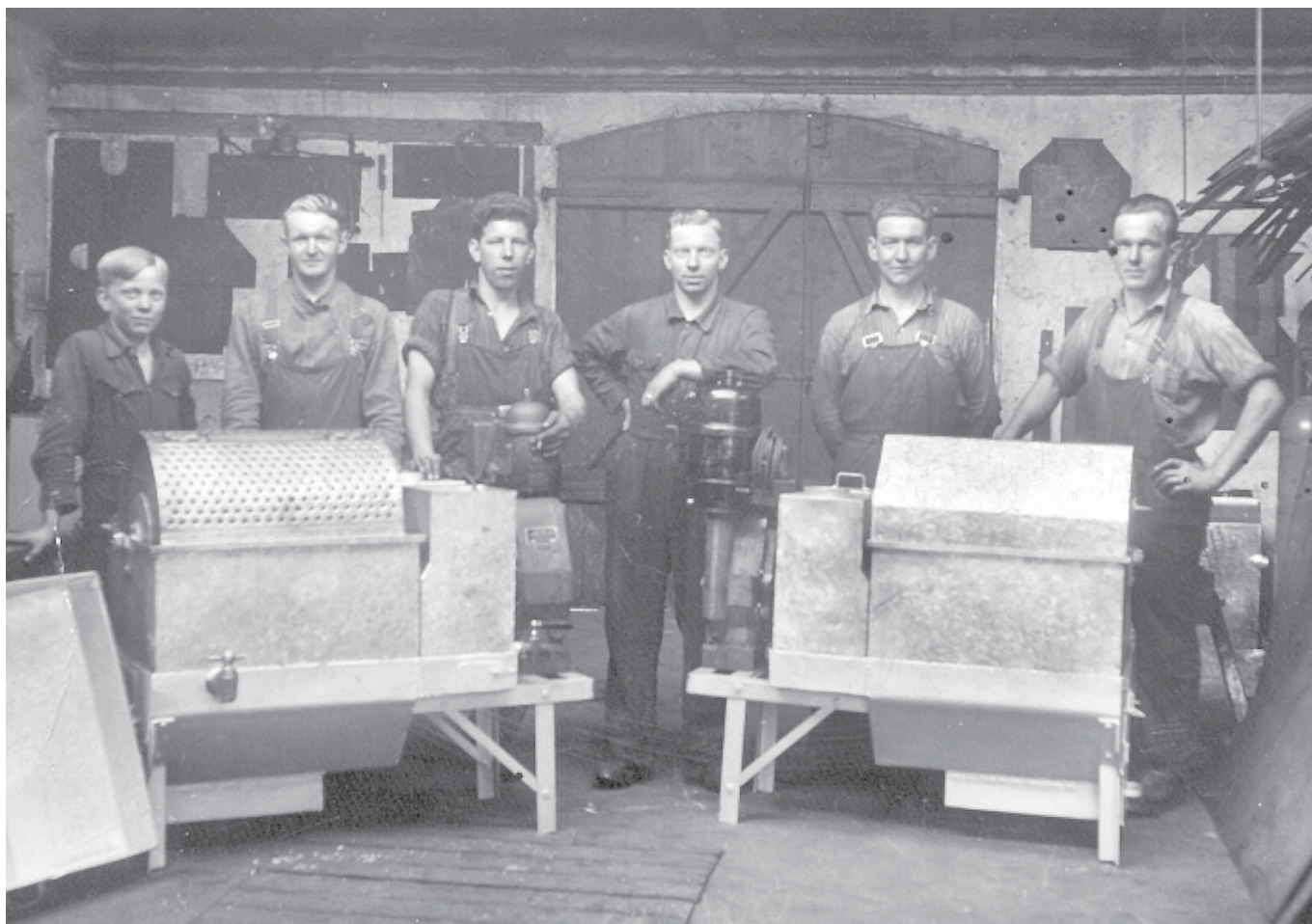
there are still a lot of primitive things around." Dad couldn't help but be amused, because it was not what she meant to say at all.

In 1927 we sold quite a number of machines.

Things went reasonably well until 1929 when some very bad times came along. The economy at home was very tight. Production was moved to another machine shop, where I moved as well. But production practically



The old Nil-Bro in 1914



*Nil-Bro Bent Arne Regnar Arne Arne Svend
 in 1938 Nielsen Philip Pedersen Nielsen Jørgensen Nielsen*

came to a halt. After a while I became a turner at the company. Wages as a journeyman were € 0,14 per hour, and we worked 48 hours a week – in all €6,75 a week. Room and board cost € 5 so there was only € 1,75 left over. I could not always get the € 6,75 as the money was also very tight at the machine shop.

When I left the job after more than 18 months,

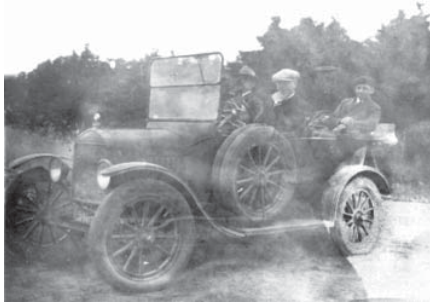
they owed me around € 70 and they told me that I could get it from my father, as he owed them money. That was why I never got the 7/9 Harley Davidson for € 77, which was my greatest wish.

I became a soldier and later I worked at DAE and Ingemann Olsen in Odense. After about two years, I came home again. The production of machines was moved

back to Brobyvaerk, but production was very low and the economy so tight that it was difficult to pay wages. As many people know, the years 1930-31 were the most terrible years, everything practically came to a standstill. For instance, you could buy beef from a home butcher for €0,04 per kg, milk and gasoline cost around € 0,04 per litre.

My start as a travelling salesman

At the beginning of 1932 I told my father that now I would buy an old car and go out to sell machines, as things could not go on the way they were.



Ford T 1930

He gave me a very strong warning and said that it would never work, and the little money I had would quickly be spent. The first month I wouldn't be able to sell a single machine and the first three months we wouldn't make a single cent. I said that we couldn't continue as we were doing either, so I would give it a try.

I bought an old Model 'T' Ford for € 23,50. As you might know, the car had three pedals, a low gear, reverse gear and a foot brake, but all three pedals could be used to brake. I overhauled it from top to bottom, painted it and put slanted side panels on. It had an open body. It was very cold in the winter, but I bought a windproof coat and a leather motoring

hood that went right down into the neck and I managed, but it was still very cold on long trips.

I have often thought that it was financially a bit risky making my first trip to the island of Lolland, where no one knew our machines. But I went to three large farms at random, where I was allowed to come and do their next big washing. During the first month I sold three machines. I can't remember how much money had come in after three months, but father was happy. I would only travel on direct commission, and I got 25%. I had to be very careful with my expenses. In the summer I took a tent with me and it has also happened that I slept in a hay stack.

I remember one

morning near Toerring in Jutland when a train came along. The driver and stoker waved their hands and looked a bit startled when I popped out of the haystack.

Most of the machines were sold to small laundry associations of 5-8 members and the procedure was that I went to villages preferably where there were some farms within a reasonable distance of each other. I started by saying: "I'm from the Nil-Bro Maskinfabrik in Brobyvaerk. We are trying to start up a small washing association. The price is usually €0,70 per wash and €1,35 per half year. What happens is that I can come and do a large wash somewhere, so you have the chance to come along and take a look at



1930: Cylinder head and bottom removed to get access to the piston and connecting rod. We had to drive on 3 cylinders from Oksbøl

the machine.” And most people did want to come and see it. It was very important to find someone who was respected. They would then invite the various ladies to a demonstration and coffee, and their coffee tables were often very large.

It was not common to do business that same day. Some days later I visited various people with a list where the signatures were not binding unless a certain number was reached. The price of the ordinary portable machine was €98 and €70 for the small stationary one.

I often had to travel long distances in the old Ford. For example, one day I went from Brobyvaerk to a town north of Grenaa in Jutland to do a wash and come back, which was around 420 km. The top speed was 60 km/hour. Next day I had to demonstrate at the house of Doctor Lorenzen in Bov near Padborg in the south of Jutland. I remember in the afternoon Lorenzen came up to me and said: “Well you were in Grenaa yesterday and here today, so you must be tired, won’t you stay here for

the night.” I thanked him and accepted, because I was tired, and I sold the machine. This was actually the same Doctor Lorenzen, who was called to help on the morning when the Germans shot the gendarmes at the border on 9th April 1940. Of course there are many stories from the time of the old Ford. I remember one evening I came to the Hotel Jutland in Aarhus and wanted to stay there overnight. They asked for payment in advance. I had never experienced that before. Fortunately earlier that day I had been in a town called Dyngby near Odder and received payment for a machine. I had been given a five hundred kroner note (€67) and I wanted to pay with that. They couldn’t change it; did I have anything smaller; no, unfortunately not. So they had to go around town and try and change it and it was a long time before they succeeded. They never asked for an advance payment again.

One day a “gentleman of the road” wanted to have a ride with me. I said that he could sit up on the back. After I had driven a

little way, I thought it was really stupid to have him in the back. I couldn’t drive into a town with him. So I thought that I would try to make him nervous. So I began to drive fast and hard round the bends. It was not long before he was shouting: “I want to get off - I want to get off”. So I stopped and asked why he wanted to get off when he had just got on. “I daren’t ride with you,” he replied.

On another occasion I had made a demonstration and sold a machine in Skejby near Aarhus. A terrific snowstorm covered the countryside. Three or four young people on the farm wanted to go to a party in Aarhus. They couldn’t get there because the cars were stuck in the snow. They asked if they could drive with me and I said yes, of course, as it would be an advantage to have them to push if need be. But things went very well with the high Ford and its narrow wheels. The most difficult thing was getting past the cars that were stuck - but we drove past them all and the young people enjoyed themselves.

The people I came to know in the years I was selling machinery were incredibly hospitable. I was often very welcome to come and stay the night, including at Krause Kjaer's house in Hjortshøj in Jutland. In Egaa lived an old widow Frandsen, who had an older son at home. I remember I stayed there one winter night when there was a heavy frost. Two hot water bottles had been put in my bed and I didn't really know what to do with them, so I put them up on the floor, but then they began to whistle. In any case the quilt was so thick and heavy that it weighed several kilos. People were nearly always very hospitable and nice.

The old Ford was very reliable and I had only one serious accident. It was a winter morning and I had to get the ferry from Middelfart at 6am to get to Odder in Jutland. It was really nasty weather with sleet. The windscreen wiper had to be operated by hand so it was difficult to see anything. On the bend below Verninge Hill there were some large trees by the road. Suddenly I saw a tree right in front of me. I turned hard left,

but it wasn't enough. The tree struck the rear wheel, the roof of the car came down onto my head, but I thought: "You were lucky to get out of that one." I tried to reverse, but I couldn't move forwards or backwards. It turned out that the whole of the rear end had been torn away from the body of the car, so it wasn't connected. It was very late before I got to Odder.

Now I had had the old Ford for around 2 ½ years and driven about 60,000 km. I had probably earned enough to buy myself a newer car. I sold the old Ford for € 24 which was about the same price I had paid for it.

I bought a '31 Ford A Cabriolet with a small trailer for € 470. I had big problems with the trailer because it was probably one of the first in

Denmark. It was registered only after a lot of difficulty. And paying for it caused a few problems. I think it is both the first and last time that I had to have a longer payment period than usual. I paid a portion of it with a bill of exchange.

In 1935 I was married to Gudrun and we moved to Hoerning near Aarhus, where we got an apartment.

After two years, we moved back to Brobyværk to look after the workshop, while my brother Arne was a soldier.

After a few months we bought a house in Støvring near Aalborg and I sold the machines from there. Sales went well and we were very happy there. Mogens was born on the 4th June 1938. I sold many machines in Vendsyssel and south of Aalborg.



Kaj Nielsen at the house in Støvring 50 years later

The Outbreak of War

On 1st September 1939 things changed completely. That day I was at Skoerping Sawmill demonstrating a machine. It was just before lunchtime that we heard that the Germans had entered Poland that morning. It was shocking news. We realized that now there would be a great war as England had made guarantees to Poland, and on 3rd September England declared war on Germany.

My parents wanted us to come home to Brobyvaerk because nobody knew what was going to happen. We sold our house and went back home, buying a bungalow (Soendervej 21) for € 1210. It had cost €1750 to build a few years before, but there were a lot of houses for sale at that time.

Poland fell after a month-long battle, but everything was actually quite normal for the first six months after that - even on the war front everything was quiet. Only at sea some ships were being sunk. It was a strange time. We knew that something would happen soon. On 7th and 8th April 1940 there were

some skirmishes between the Germans and British around Narvik in Norway. We heard that many German soldiers were on their way north through Rendsburg.

On the 9th April I was up early because I had to go to Moen in Sealand to demonstrate a machine. I had to get the ferry from Nyborg at 6 a.m. I didn't notice anything unusual on the road to Nyborg, but when I got to the crossroads by the prison there were a group of soldiers standing there. One stood in the middle of the road and motioned for me to stop. I thought that they were holding some night exercises. I was late and had no time to stop. I opened the door and shouted: "I have to hurry - I need to get the ferry." The soldier jumped to one side, and shouted: "Jawohl!" It was only then that I saw the soldiers had the same uniforms on that I had seen when the Germans occupied Austria. People talk about feeling shivers running down your spine. I had never felt it before, but I really did then. I thought: "Now they're going to shoot me." But I comforted

myself that I would be difficult to hit as I had a washing machine on the trailer. I leant forward over the steering wheel and pressed the accelerator to the floor, but they didn't shoot. When I came to Nyborg it was swarming with soldiers, who had hand-grenades in their high boots. At the docks they told me that we had just been occupied by the Germans and so there would be no more sailings.

When I got back to the prison, they stopped me again. This time I clearly had to stop, otherwise they would have shot me. They wanted to know where I was going. They brought a map and I showed them and was allowed to drive on. I heard later that everyone had been kept back until dinner time. When I drove off, they were digging a machine gun trench at the intersection. It was strange that they let me drive so I could announce this, because they thought that there was a battle brewing.

I was back in Brobyvaerk at 7 a.m. and it seemed that no one could really understand what had happened. After a few

Independent

days everything started up again, almost as normal. The first month I was able to drive around as usual, but it was all so unreal. I remember that I went to Aalborg. We could drive all the way out to the airport, where the German machines were loaded with bombs and other equipment on their way to Norway. At night, when I was staying in Aalborg they sounded the air raid alarm. They swept the sky with spotlights, but nothing happened.

Another day I was doing a demonstration at a college in Loesning in Jutland. They were very busy making an air-raid shelter there, so it was a poor atmosphere to sell machines in.

All traffic stopped quickly with the small petrol rations. And there was no need for me at home at the company. The supply of materials was poor and the machines they could build, they easily sold on their own. I had to stop working for them. From the time I started in 1933, I had sold around 300 machines.

At that time there were four of us brothers and father, and I could see that at some point there might well be problems with leadership. I really wanted to start my own business, but I didn't know what it should be. It was a very difficult decision to make. It would be saying goodbye to the company. Father put pressure on me and really wanted me to stay. I also had a lot of responsibilities. There were now four of us, because our daughter Birgit arrived in February 1940. A decision had to be made before the beginning of 1941.

Then something strange happened, and you can decide for yourself if you want to call it fate or just coincidence. It happened that on Christmas Eve 1940 we were all gathered at my parents. When we got to the time to pull crackers, Mogens, who was then around 2½ years old, came to me with a slip of paper from the cracker and said: "Here you go Daddy." I read the motto and it said: "Success in business will follow you – avoid partnership – you are strongest alone" I said nothing, but kept

the prophecy. For 30-40 years there was no one but Gudrun who knew what was written on the slip of paper.

I had the motto for many years, but one day unfortunately it was lost.

Now it was clear what I should do. I would start working for myself on 1st January 1941. The big question was what I should do. A little earlier I had been involved with Effort Engineering Plant in Soeborg, which produced "Maren Mixing Machines". I went over there and made a good deal with them. I could buy machines from them and sell them to larger farms across the whole country. I was able to do this because I had saved some money from the sales of washing machines.

Now the worst time I ever had began. The winter was very severe with lots of snow. As everyone knows, the large farms are very far apart and the only way to get to them was by train and bicycle. Most of the business was in Zealand and Jutland, which is why I always had to get the first morning train from Tommerup at 7 a.m. (10 miles away).

One morning in rough weather I was a little bit delayed. Just as I rode onto the platform at the railway station, the train was leaving. The stationmaster was standing there and asked where I wanted to go. I told him that I had to go to the island of Samsø. "That's too bad," said the stationmaster, "I wish I'd known, I could have stopped the train, but now it's too late and unfortunately that's the only train today which connects with Samsø. But perhaps there's another way to get there. There's a ship that goes there every day from Odense, but it's forbidden to take passengers. However, if I call them, I think you might be allowed to go with them." Of course that was what I wanted. I went out there, but to go out with them I had to sign a declaration that I renounced the right to any damages if something should happen. I also had to hide myself on board until we had passed Stige. We came to Samsø without any problem. That just shows how difficult things were.

I often cycled 100 km a day. For example, one day

I cycled from Brobyvaerk through Bogense in the north of Funen, Hofmandsgave, Odense and back home again. Another day I cycled from Vejle in Jutland to visit the great houses across from Juelsminde and then over to Horsens.

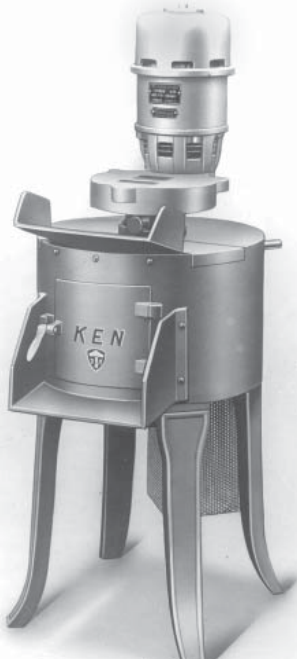
Normally I got a packed lunch from the hotel where I had stayed the night. On the bike places to eat are a long way apart. I remember one time down on the island of Lolland, where there was also a hard winter. I was hungry and there was nowhere to go in and eat. When I started to eat out on the road, I discovered that the cucumbers were like ice cubes.

In winter it was very depressing to travel with blacked-out trains and railway stations. But there were also happy days. I remember particularly a summer day at Præstoe in the south of Sealand. I went out to the farm "Nysoe" where I met tenant farmer Fabricius and his wife down in the kitchen garden. He asked his wife if she wanted a mixing machine. She looked at the brochure and said that yes, she

would like one. It was a big 16-litre machine. From there I drove up to a farm near Tappernøje and sold a 10-litre machine. Then I went to the hotel where I was staying and had a lovely dinner.

The potato peeler

After three or four years I began to suffer from enlarged lungs because of all the hard cycling I had been doing. So I started thinking about what I could do to change things. I thought that if the big farms



The first potato peeler

15-20 people would buy mixing machines, it should also be possible to sell them a potato peeling machine of a suitable size. There wasn't any machine like that available at the time.

Previously I had gone to day school and had been trained in construction and engineering drawing. Due to the war there was, as mentioned, a serious shortage of materials, so I knew that if it was at all possible to obtain

materials then as much as possible had to be made by casted iron, as plate was simply impossible to buy. I spoke with a foundry about whether they could produce such large containers with thin sides. They thought that they should be able to.

Then I started thinking about how it should work and what it should look like. I started making model drawings and working plans for all the castings, steel parts and gears. After 4 to 5 months the drawings, models and castings were ready and I could start producing the machine. At that time I didn't have a workshop, so I hired a place at Nil-Bro.

I started making the first machines, but it was not long before it became necessary to hire a man to help me. This was Regner Pedersen, who was in the company for around 40 years. He was very able and conscientious. After about three months the first machines were ready for trial and testing. The machine worked really well and only small changes were needed. The machine was named

KEN. It was not difficult to sell. At first they were sold through ads and later from customer to customer.

There was a great deal of satisfaction with the machines. We made them in a series of six. They held 6 kg of potatoes and cost € 70. Everything looked promising until one day I got a shock message from the company "Rapid" in Copenhagen. Based on a patent they forbade me to use the material I was using for the peeling plates. I had used emery corn which was set in enamel on the cast plates. They demanded that all the plates in the equipment I had manufactured be confiscated. That was 37 machines. It was a total disaster for me, I couldn't replace all those machines.

I had actually got into this situation quite innocently. I had sent an inquiry to Frederiksvaerk Iron Foundry to hear whether they could coat the plates for me because I had heard it was something they did. They said that they could. I had no idea there was a patent on it. My lawyer Perregaard got on the case and the two lawyers negotiated

a solution. The key thing for me was that the plates in the sold machines should be allowed to remain in the machines. The final result was that the plates could stay in the 37 machines without any compensation, but I had to sign a declaration that even after the patent expired, I could not use that method. Of course I was quite happy with this. But now what, what else could I use, that was a big problem.

I worked almost night and day experimenting with different binding agents. It was impossible to buy anything that could hold together when it got into water. Eventually I had to give up. So I tried drilling 3½ mm holes in a plate and pushing a sharp edge up with a mandrel. It seemed that it could be used without the potatoes becoming too uneven.

I went to Wittenborg's Factories and asked if they could make me some peeling plates using this method. I was lucky. They still had some stainless steel plate and they could do it. They created a sample set, and the peelings from the potatoes looked good, so

I got them to make 200 sets. I knew they would soon have to stop; they could not produce any more.

Now I had enough peeling plates, so I had time to figure out what else could be used. The situation now was that only a few types of materials could be bought. For example, to get a motor you had to supply them with 2 kg of old copper. This demand could be passed on to the customers, and I got masses of the nicest copper kettles and big copper pans since at that time no one was interested in them. Copper could be bought on the black market, but that was forbidden. All ball bearings had to be purchased used and steel shafts were bought at H.I. Hansen, Odense (a scrap company). As the

stainless steel plates were used, I bought steel caps from old stoves. It was all still good quality.

We got proof of this in 1992 when a potato peeler from 1942 was brought to the factory. It just had to have some new peeling plates before it could run again. But it can also be a bad thing that they can keep for so many years.

The production went well until we came to the summer of 1943. Then the factory, DAE, from which we got the motors, was blown up and almost everything was destroyed. DAE was in the predicament that all its papers were destroyed, and customers had to declare themselves, how much they owed. It was several months before they could supply motors again.



The Workshop(Søndervej)

First construction

When 1944 came along, I decided that I would build a workshop. But it was not so easy because the only materials you could buy, if you were lucky, were stone and cement.

You couldn't buy timber. So I went down to Kirkeby near Svendborg and bought some pine trees that I got sawn up for timber. It was a carpenter Lund in Sandholt Lyndelse who got the work, together with bricklayers Johansen and Christiansen. Those two were no great artists, and they used to argue about which of them built the most crooked. I had made all the drawings. Used pipes and iron had to be found down at H.I. Hansen's (The scrap company). The workshop cost around €670.

I also needed some machines. I could buy good second-hand ones, which were cheap. Since there was a lot of lathe work, I needed a machine that was effective and had high accuracy. I looked at a new, very fine "Ohio" lathe, but with all the equipment that cost around €670. That was the same as the workshop, so I had to think about it

a while, but sales were going well, so I bought it and later was very glad that I had. The business was progressing, and the liberation came on 4th May 1945 there were three or four of us working there. That evening was a great happy event that will always remain razor sharp in my memory, and it was of course celebrated among many friends.

The dishwasher

At that time I began to think about manufacturing a dishwasher. I soon realized that it was significantly harder task than the potato peeler. There was a Norwegian company that was advertising a patent for a dishwasher for sale. I travelled to Oslo; I think it was in July 1945, to see the machine and the drawings that were available. I didn't really believe in it. It didn't have a real jet system. So I went to Stockholm and looked at some machines there, but I found nothing of interest.

But I can remember that I was very surprised at the shops there, where you could buy everything. I bought skates for the

kids and nylon stockings for Gudrun, so they were happy when I came home.



KEN type 1000 from the year 1948

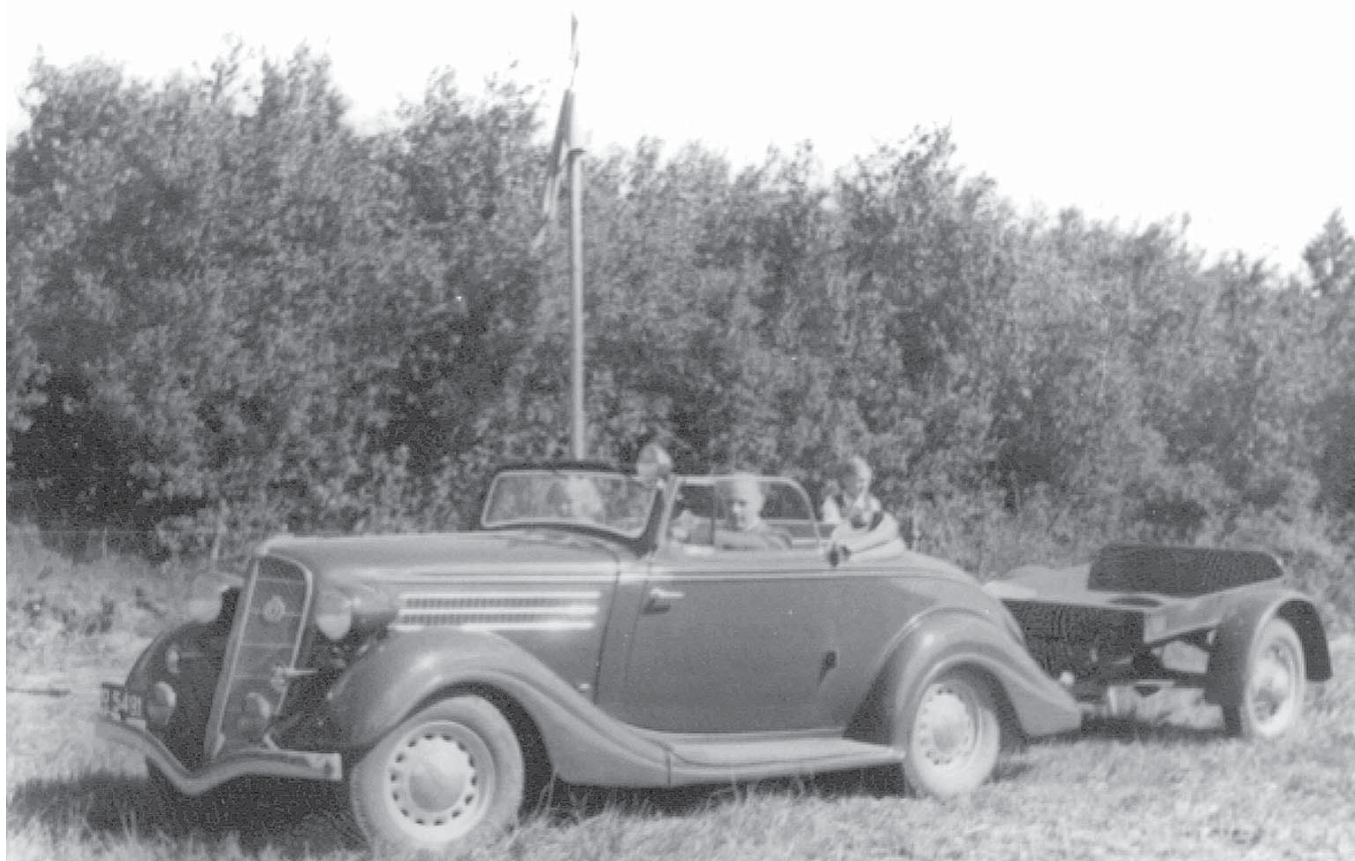
I began to experiment with several different models, but none were good enough. I found that it was necessary to get a clean wash that either the crockery or the jets should move. So I continued working on the system. I needed a pump that I could use. It was a problem and the piping had to be rebuilt many times before the result was good. In addition it had to have a hot water supply and the water should be softened if necessary.

It was only in 1948 that I dared to begin to supply the first machines. Overall

I can say that the machine was well received. There were a few teething problems that needed to be corrected. This was particularly due to the fact that the machine was sold to a completely different clientele than the one it had actually been built for. It was designed for the large farms that had bought the potato peeling machines. These farms had now bought tractors, so instead of having 15-20

people around, they now only had maybe 4-5, and so they didn't need to buy machines. The machines now had to be sold to hotels, restaurants and retirement homes. These places ran them for maybe 8 hours a day instead of half an hour and this had to be taken into account. The machine was very effective: it could wash 22 plates or 44 saucers in about 1½ minutes. In 1948 I sold over 40 machines.

That was quite a large number. The reason was that many people had known for more than two years that I was about to produce a machine and had been waiting for it. Over the next 2-3 years, sales were considerably smaller. That was perhaps also partly because I reduced my sales efforts, as there was much to be learned in this area. Changes also had to be made to the machines.



Approximately 1947: The Ford T had been replaced by a Terraplane, but the trailer remained the same

Business expansion

Sales grew and grew. We also began to produce a potato peeler which was twice as big as the first one. It could hold 12 kg of potatoes. The price of this was € 114 and the little machine was € 74, but prices now began to rise rapidly.



A sample of the KOSAN gastables of which we sold 9000 pieces”

One day I was out at the station in Brobyværk with a load of potato peeling machines, when I got a really good idea. Out in the warehouse there was a gas burner table supplied by Kosangas. It looked very poor, and I thought that Kosangas should be really ashamed about supplying tables like that. I went home and made a table that I thought looked right with a nice terrazzo surface. I had it photographed and went over to talk with the director Tolstrup in Farimagsgade in Copenhagen. When he saw the table, he was very excited by it and

bought 500 of them right away. This led to many thousands of tables over the next two or three years.

Director Tolstrup was a nice man to talk to. I remember that there were to be elections and he said: “We probably aren’t voting for the same party.” I thought that there was a good chance that we might, but then he said: “I’m for the Justice Party.” So I could not promise to vote as he did.

I never started production with such small development costs - and there were also no service or warranty costs.

In 1955 we began to make



Type 2000

a cutting machine for cutting cabbage and making cubed carrots. This was sold to greengrocers who sold chopped cabbage, but

within two to three years this stopped.

Sales of dishwashers and potato peeling machines went well. Now I also had some distributors to sell the increased number of machines. The volume of sales was so important that I had to hire a man to help me. His name was S.A.S. Johansen and he is still in the company after more than 35 years.



S.A.S. Johansen

S.A.S. Johansen officially stopped working for the company at the end of 1993, but he still has a connection to KEN. This man has meant a lot to the company over many years. He was someone who customers could trust.

My wife has also been an incredible help throughout the many years. Without her I don't think it could have been a success. She took care of all the accounting and money, and I just had to make sure that things were running in the right direction.

Her replacement in the middle of the 70's was state-auth. public accountant Eklund Larsen. He came to us as an auditor before he was hired and is now a very trusted employee.



Eklund Larsen

In 1960 the workshop was expanded to triple the size with a canteen, good washrooms and toilets, and we also built a large warehouse. We started to produce a different type of dishwasher for larger kitchens. The machine



Gudrun Nielsen

could be put in between two tables, and the dishes were passed through the sides. In 1962, my brother Arne, in collaboration with a Swedish company from Ystad made a plan for a small dishwasher for domestic use. It was entirely moulded in plastic.

They wanted us to do business together. First of all I had to reconstruct it so that it could wash. We managed to get it to wash fairly well. It was named "Disken", but the whole construction of the machine was too weak. Nevertheless, we produced it for around two years, but it was never a great success.

At that time a lot of new small machines came out and we stopped production. I also remembered that I had received a warning about going into partnership.



The Washer

Service

Servicing of dishwashers is a very important thing. I began to build up a preventive subscription service so customers could get a service once or twice a year.

It proved to be vital for the factory. This system also formed the basis for rapid repairs. It is so important that customers can quickly get faults corrected and that we keep a connection

with them. I started with one car and today in 1995 in Denmark we have 22 service vehicles.



The Service vehicles in 1978



Nil-Bro, Brobyværk - approximately 1950



KEN Machine Factory, Brobyværk - 1995

New generations

In 1967 my son Mogens came home to the factory. He had been apprenticed at home and later educated mechanical engineer. After his time as a soldier, he was out working for three years as an engineer before he came home..



Mogens K. Nielsen

He became a manager for production and development. I was very pleased. He undertook the modernization of the dishwashers and developed a new product within the hospital sector with disinfecting machines. The technology of this machine was so complex that I couldn't handle it.

In 1968, Nil-Bro had to cease production. Competition in washing machines was incredibly

tough. The plant had also developed a machine for dry cleaning clothes. The development had been so expensive that they could not handle it. It was sad after having been in operation for 45 years. Now we can only see Nil-Bro machines in technology museums, where a number of them are to be found.

In 1970 KEN bought the former Nil-Bro buildings and so the circle was completed. The buildings were restored and rebuilt, and we soon built another hall. The company grew steadily and more salespeople were hired in the hospital and commercial kitchen area.

When I was 70 in 1980 Mogens was appointed managing director, and now it was him who had the responsibility for management. At that time there were about 100 people employed and now in 1995 we have about 150.

Of course I am very glad to have such a talented son, who can lead the company onwards.

Likewise, I am very thankful that I am still so healthy that I can be at the factory every day, where I

have a very special job. That suits me best.

Back in 1978 we had already established a sales and service department in Sweden. In 1991 we created a subsidiary in Germany, and at the same time we bought the majority of shares in a commercial kitchen wholesaler company in Aarhus, which took the name KEN/Hallum Storkoekken. Hallum was actually the first distributor that I had contact with around 1950. Around 180 people are employed in total, and I hope that the company will continue to evolve in a healthy way.



KEN 3000

Finally, I should just mention that in 1987 there was a change of ownership. In 1983

my wife and I created a foundation under the name “The Manufacturer Kaj E. Nielsen and Gudrun E. Nielsen Foundation”. The foundation bought all the shares in KEN Maskinfabrik A/S.

The change in ownership of the production company to the Foundation came from the former family company. It was too big a mouthful if it all should be taken in at once. For example, it did not include the buildings, which remained in the old company, which changed its name to “Kaj E. Nielsen Business and Real Estate Company A/S”.

This made it possible for the “KEN” name to go with

the production company. The owners of the property company are still my wife and I, plus our children Birgit and Mogens.

The Foundation was established to ensure the businesses continued in existence, so that it could not one day be bought by a competitor, for example, and perhaps closed down. In this way it can remain

where it is and in Danish hands.

The foundation is managed by a Foundation board which I chair. The profits in KEN Maskinfabrik go to the foundation. The funds that are in the Foundation can never find their way back to me or my wife, or any of the family.



KEN /Hallum Storkøkken A/S, Århus

Kaj E. Nielsen



Kaj E. Nielsen, 1999 at his computer



Gudrun and Kaj E. Nielsen