

Automobile production in small series in the Germany of the 50s on the example of the company Rometsch, Berlin

After a lecture by Günther Kaulmann, held at the meeting for Historical Volkswagen 1994 in Braunschweig recorded and edited by Dr. Ulrich von Pidoll, this is a mostly google translation

I was born in Berlin in 1930 and was not a very good student. As my father did not return from the war, my uncle became my guardian. This uncle had been a colleague of the well-known body builder Beeskow during the war. Through this contact, my uncle had come to the conclusion that a vocational training as a body builder would be the right thing for me.

After my schooldays, which was interrupted for a year due to the war, I rummaged around for a while, because in 1945 there were no apprenticeships. My uncle then got me without my knowledge in 1946 an apprenticeship at the coachbuilder Buhne in Berlin. He told me then on a Friday that I was to be starting Monday there as an apprentice. This is how my career in the automotive industry started, in a job that I did not apply for and that I never wanted to practice.

I already knew from my uncle that before the war Berlin was the stronghold of coachbuilding firms. This was probably due to the fact that most of the film stars lived in Berlin due to the proximity of the UFA in Potsdam-Babelsberg. These film stars, with their special requests for single-make automobiles, made for a boom in the formentioned factories - after all, there were around 30 coachbuilders in Berlin before the war. The special wishes of the movie stars, especially made sure that each vehicle was significantly different in design from the other vehicles and really was built only once, because no movie star wanted to drive the same car as his colleague. Such custom-made goods were still relatively inexpensive to make at that time: it was calculated about 2/3 material and 1/3 labor costs. However, not only the construction of these custom coachbuilt vehicles, but also the repair of accident damage to motor vehicles at that time filled the order books of the bodywork companies.

Since the fuel was rationed after the war and was only handed over to transport vehicles on a bill of lading, many wealthy people had the rear part of their Horch or Maybach cut off behind the driver's seat and replaced by a flatbed body. The vehicle was thus declared to be a delivery van for vital goods, which, of course, were never transported by it. But so it was possible for the rich to receive gas on subscription. These orders ensured the bodywork survived immediately after the war, and in 1950, with the end of the petrol subscription license, we were allowed to restore the vehicles to their original form based on old photographs. But we also had a lot of commissions, which consisted of building new bodies on old chassis.

So, in the bad times immediately after the war, the bodywork companies have earned a lot. But with the increase in labor costs as a part the total price in the course of the 50s, came the end for most companies in this industry. And finally with the construction of the wall in 1961 and the resulting loss of workers from East Berlin began the bad times for these companies.

Due to the lack of intact buildings immediately after the war, my apprenticeship began in 1946 at Karosserie Buhne in an old wine cellar of the Berlin brewery Schultheiss. There, due to the noise from the machines I promptly received some hearing damage, which I still suffer today. Now I was trapped in the clutches of automotive engineering, so I had to come up with something to get out of it. This was all the more necessary as I had blisters on my hands after the first day, which abscessed on the second day. So on the third day, I went to the bosses and asked what I needed to do to get ahead.

On their advice, after fourteen days of my apprenticeship I registered at the Technological School in Berlin. There, of course, I was looked at awry, especially by my uncle, who incidentally founded this school, and greeted me there with the words: "What are you doing here?"

Nevertheless, after the war I was of course proud to finally make my first money. But it was less than I had thought: just 80 pfennigs an hour. This amount was then calculated and paid as a piece rate wage.

Since I was not satisfied with this salary, I was particularly involved in my uncle's engineering school. The result of my diligence was that my uncle gave me teaching assignments in his school as early as the fourth semester. Although I did not get any money for that, but it was more fun than the piecework at my apprenticeship company.

In 1949 I became a journeyman. But that did not make any difference in my pay. The most important difference between my apprenticeship and my journeyman status was that I had been told after passing the journeyman exam: "Now that you are a journeyman, now you can finally say 'Du' (you informally) to us."

The work as a coachbuilder covered according to the provisions of the Berlin guild regulations six areas: namely, sheet metal, wood, steel, locksmith, upholstery and painting. Three of these areas had to be shown in his journeyman and masterpiece, the remaining three had to be proven in a work sample. My masterpiece was a sheet-wood-steel composite, and as a work sample, I had to repair a seat pad, weld a wire insert, and paint a door. Incidentally, my greatest talents at the time were woodworking and aluminum welding. This combination is not so rare, because wood specialists usually have the right feeling for the aluminum, while metal specialists almost always have problems with aluminum welding.

During my working days at Karosserie Buhne I worked on all types of vehicles such as brewery trucks, carriages, cars and buses. This versatile work later greatly benefited me. There is virtually no vehicle I have not repaired, constructed or built myself.

Finally, in 1950, I was given the task of carrying out all constructions for our body shop with 100 employees and to calculate the costs for the production of the individual parts. There were often differences with the management, because it was usually believed that my time and cost targets were set too low. In these cases I have always made the parts myself and thus proved that my specifications were reasonable and feasible.

Later, at the beginning of 1956, I successfully passed the master's examination to become a body builder. However, I felt that a master should leave the company he had learned in, as he could never and never make a great career there. The body builder Beeskow, who was mentioned earlier, had also learned from Erdmann & Rossi in Berlin before moving to Rometsch following the death of the senior manager and the subsequent conversion of his company's field of work. In addition, I earned despite hard work for years only 380 DM per month and had asked the boss two years ago for salary increase, without success. After passing the master examination he was just ready to increase my salary to 400 DM. This was the definitive proof for me that my opinion was correct and that I had to change to get ahead. That's why I quit Buhne at Karosseriebau and started looking for a better job.

At this stage of my life I remembered that for the first time in 1950 I had seen a vehicle from the Berlin-based bodywork company Rometsch at the Berlin Motor Show. At the time, I was thrilled with this car, a yellow model Beeskow Cabriolet. Everyone would want to have such a nice car, but only very few had the necessary money for that, of course. However, the Rometsch was based on a Beetle chassis and had excellent build quality, where typical cars of this kind were only created by designers of show cars. Given this memory, I applied to Rometsch and was hired immediately.

Rometsch was the first coachbuilder in 1950 who broke with the old tradition of making vehicles as one-offs. I am referring of course to the already mentioned Rometsch type Beeskow, popularly called "banana", whose body was designed by the aforementioned body builder Beeskow. This body was made by hand at Rometsch and mounted on a VW chassis. Incidentally, the first car of this type was purchased by actor Victor de Kowa. Later, in 1956, another type designed by the designer Lawrence was additionally produced.

The Rometsch Beeskow production came about rather by chance, as Herr Beeskow showed the elder Rometsch in 1949 a set of sketches of a new car designed by himself. The senior partner was so enthusiastic about these designs that he ordered a production of this vehicle in his company. How much this vehicle was ahead of its time in terms of design, you can tell by the fact that it already had a pontoon body, the details of which were later copied by other vehicle manufacturers. For example, Mercedes Benz took over the design of the front fenders for its 300SL gullwing.

Until my entry at Rometsch, the sale of the coachbuilt vehicles were made at a break even price, so only the body shop repair work earned a profit. However, a recalculation by me showed that on each of the 280 models built so far type Beeskow, depending on the year actually lost between 2000 and 3500 DM. But this was not as bad as it may seem at first glance, because the vehicle construction contributed only a small part of the total sales of the company. The main sales were in the field of body repairs. And just this area had expanded so much by the enormously effective advertising of the coachbuilt vehicle production that Rometsch had to charge three times the price of other bodywork companies in order to keep the rush of buyers within tolerable limits.

In addition to the Beeskow type, by the way, special versions of other types of automobiles were manufactured at Rometsch. The best known of these is probably the four-door VW Beetle taxi. Because according to the Berlin trade regulations, public taxis had to have four doors, and vehicles other than a VW Beetle were then unaffordable to ordinary tradespeople.

My task with Rometsch was to achieve a rationalization of the production of the vehicles, so that in the next four years, no red figures are generated with the vehicle. Among other things, I was able to accomplish this task with a brutally quality- and performance-oriented system from the standpoint of the union. As a result, we all worked "like the idiots," but we also earned a lot of money. And even the company Rometsch now earned 3.5% to 6% on the vehicles.

At the beginning of 1956, it was already obvious that the manufacture of vehicles by hand, according to the old school system, would no longer be possible because of the explosion of labor costs, as in the meantime build costs had already reached a 1/3 of material costs and 2/3 of labor cost ratio. For the company Rometsch was made even more aggravating that Volkswagen GmbH would no longer deliver chassis to Rometsch and even had forbidden their dealers in Berlin to deliver complete vehicles to the named employees of the company Rometsch. At that time, there was something like a war between VW and Rometsch, we even thought we were shadowed by private investigators. Therefore, at the same time as completing my employment contract, I had to purchase a new VW Beetle. By the way, that was my first car in my life, but I should never see it.

Later, we even had to buy complete vehicles from West German VW dealers, which was associated with tremendous transport difficulties because of the unfavorable situation of Berlin in the middle of the GDR. Such a complete VW Beetle would cost us then 4600 DM plus 350 DM purchase costs and costs for the dismantling of the body. Whereas for example, for the conversion of Kübelwagen and for the repair of accident cars for 1950 DM together with the tires could be sold for another 150 DM.

A chassis cost us then already 2850 DM of the total production cost of a vehicle of 8470 DM. Another 2300 DM we needed as a share of material, including the new white wall tires. These totals were added together and added 20% overheads. Thus, to be paid wages for the construction of the body of individual parts just 1616 DM remained at an hourly wage of 2.25 DM left. That was less than enough and gives an insight into the difficulties I faced back then.

I then introduced a piecework wage at Rometsch, with which not only these wage specifications were met, but even two years later, the increased by DM 60 DM material costs could be compensated. The basis of this piecework wage was calculated by me, attainable at normally achievable productivity figures of each work process. For such work was calculated 2.25 DM hourly wage. Those who managed more, got more pay percentage. At the same time, however, it was also stipulated that every employee had to give a half-year

guarantee on his work performance. This guarantee consisted of him having to remedy the employee's mistakes during this period, either unpaid or paid out of his own pocket.

Our workers worked so hard that my piece rate requirements were far exceeded. If the employees still worked at 2.25 DM per hour on 1.1.1956, then on 1.1.1958, depending on the number of employees, DM 5.50 to 9.80 per hour were paid out as a result of exceeding my piece rate specifications.

These piece rate requirements were also valid for the apprentices. Although the apprentices initially only received their collectively agreed wages, they were soon able to be briefed on by their supervisor and, accordingly, soon helped him to make the piece rates. Therefore, he gave them then also a corresponding proportion of his generated piece rate gain for their help. Incidentally, the apprentices also proved to be a great support in the construction of the necessary working machines. Since I had only hired apprentices who agreed with my piece rate system, they all joined accordingly. We did it like the savages - I mentioned it already - but nobody complained because we all became wealthy, even the apprentices.

Before my time one of the employees of Rometsch only built the doors, a second only the mudguards and a third one only welded the aluminum and so on. If one got sick or took a vacation, no more cars could be assembled. Of course, that was an absurdity, and that's why I immediately changed this work system. This was relatively easy, because after the other employees noticed that someone could make a lot of money, for example, by welding aluminum, they looked very closely at him, and after a month, all the other employees could do it as well as he did.

The progress made by my piece rate system is most evident when faced with the old and the new working system. When I started at Rometsch, 34 men built 4 cars a month. After I introduced my system, 11 men built 5 cars a month. Depending on the employee, labor productivity increased by 800% to 1000%. That was the key difference.

Of course, this higher labor productivity was also noticeable in terms of costs. On 1.1.1956 the two front fenders together cost 222 DM labor costs with an hourly wage of 2.25 DM. On 1.1.1958, at the height of my wage system, they cost only 60 DM, whereby the employee in question earned an hourly wage of 9.80 DM. From this it is possible to see what work performance employees are capable of if they are only properly guided, motivated and paid. But such a wage system in a company can only introduce bosses. Unfortunately, these bosses are usually older, and they will by no means want to admit that they have been using a wrong system for work for years. In this point, the Japanese are ahead of us!

Incidentally, I passed my technician's exam in 1957, but that really did not interest anyone at the time.

Although the new Lawrence model was much nicer and more practical than the old Beeskow model, it was not able to establish itself in the automotive market. The reason for this was less about the car or its price, but rather that the time for such designer cars in small series was simply over. For as early as 1953/54, the movie stars were no longer as willing to spend their money on such cars. From 1958 this market collapsed completely.

In 1956, the model Beeskow was supposed to slowly expire. That's why I only improved on this type of vehicle with details such as the door and hood hinges. The planned successor model Lawrence existed at my entry just as a wooden model. However, to our surprise it soon became apparent that the old type Beeskow was still on sale in the USA, while the new model proved to be virtually unsaleable there. In Germany it was exactly the opposite. But in Germany, the model Lawrence was bought only a little, so that the buyers of the model Beeskow in the United States could not be waived. This led to the unsatisfactory situation that both types of vehicles had to be built next to each other in small numbers. From the beginning of 1956 to mid-1959 only a total of 49 vehicles of both types were built, with the model prevailed Beeskow.

I would now like to explain some of the details of the former production methods.

The two front fenders of the Lawrence model were made from 16 parts of a sheet of 1.2 mm thick aluminum sheet. The parts were roughly cut out and then smoothed with a self-made smoothing roller. Subsequently, they were individually driven by hand without the use of pressing machines on a wooden model. We only needed a wooden block and a sandbag made of leather, which was held onto the workpiece and worked with a ball hammer. For larger areas an ash billet was available, which was moved back over an eccentric and a tensioned leaf spring. This ash billet was then adjusted to permanently impact the leather sandbag on the workpiece. As a result of this method of manufacturing the body parts, the use of aluminum sheets is quite inevitable, because with the thick steel sheets that were common then in the automotive industry one would not have been able to realize this cost-effective production the aluminum sheets were then folded on the model or alternatively overlapped, one part was cut straight, then on the other part exactly parallel to this a tear was made and cut just after this crack. Finally, the items were clamped in the vise and heated with a burner and allowed to run. Alternatively, the parts were also tacked together and then welded. So we welded the aluminum parts together without a flux and without an additive. There is no simpler method of accurately fitting complicated rounded geometries.

Apart from wooden models, Rometsch did not invest in their vehicles because all the machines were built by the staff, especially the apprentices themselves. There were no drawings, only models and sketches. For example, we just held the door handle to the shell door until it was right, and then it was fit. Therefore, no two cars that are exactly the same have been built.

In order to keep costs down, attachments from other vehicle manufacturers were used on the vehicles. Only then was it possible to realize a satisfactory appearance at a low price without the vehicle looking cheap. Spare parts catalogs have been around before, and we simply ordered them from the "could fit" method in these catalogs. For example, we only used a round Ford rear light for the Beeskow model, later - in the tail fin era - an angular Fiat light was better. The license plate lamp came from VW, while the turn signals came from Fiat.

Only the windshields we had to make ourselves, because here no other series part fit. While Beeskow still produced the windscreen ten times in a row and always had to discard the first nine because of distortion, I could always have twenty pieces built at one go and use eleven windshields. The side windows and their windows, however, were serial parts, which we ordered from the catalog according to the desired height and then constructed doors and side panels so that they fit. The rear window was made of heat-deformable Plexiglas, which did not cause us any problems during production.

The door itself was made of four folded aluminum sheet parts namely front, rear, top and bottom, spot welded together. The door lock came along with the required mechanics from the company Happich.

The Lawrence was one of the first vehicles to have a padded dashboard. The wedge-shaped padding for this was nothing more than a gasket for a convertible, again from the catalog of the company. Happich, which we covered with synthetic leather and attached with an angle.

I hope that I have given you a little insight into the small series of automotive production of the 50s and conveyed to you how, with sophisticated and yet simple methods we were able to build cars cost-effectively. Of course, what was possible in the 1950s is still possible today. Give me five employees who would like to build cars, and we will build a small series production line for them within half a year.