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Minister

Cem Özdemir

c/o Federal Ministry of Food and Agriculture

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Contribution to climate protection and sustainability

Presentation of my patent "self-adjusting sprocket" EP 2 594 824
Sale of the patent to industry

Dear Minister Özdemir,

Today, I would like to take the liberty of drawing your attention to an invention of mine that **could** also make a **significant contribution to climate protection in Germany**.

They have been responsible for agriculture and forestry for a few months and in these two sectors, as well as in all other sectors of the economy, the use of the above-mentioned patent would protect the environment tremendously and reduce costs for many operators of chain driven plants.

This above patent was filed by me in 2011 new and again improved form at the European Patent Office and this new valid patent with the No. **EP 2 594 824** was granted on January 7, 2015 and initially had protection rights in 10 European countries.



The predecessor patent has been known to the German chain industry for more than 20 years, since I applied for this first patent back in 1993, at that time as an employee of PWH, later Thyssen-Krupp.

The patent rights were transferred to me by Thyssen Krupp in 1996 and I subsequently "ran my feet off" to offer this patent to the German chain industry, which was also interested in licenses several times, but quickly abandoned the idea of building this "self-adjusting sprocket" after a two-year trial on a chain simulator at the Ketten Wulf company in Eslohe in the Sauerland region showed that there was **already a 30% reduction in wear after these two years. The** trial was then immediately discontinued and gradually they also "cheated" their way out of the license agreement previously concluded with me.

There is an investigation report about this 2-year trial, but unfortunately, I am not allowed to publish it, because the company Ketten Wulf had sued me for injunction, because the results of the investigation report should not be accessible to the public.

I would be happy to present the patent to you in person in Berlin. On this occasion, you can then of course also take a look at the investigation report.

Before the start of this two-year trial at the Ketten Wulf company, I had found a courageous engineer from the then Koch company in Wadgassen, who installed two of these self-adjusting sprockets in a new gantry scraper at the Ensdorf power plant in the Saarland.

Without my invention, the power plant would have had a problem at the time with the approval for the new gantry scraper, because in addition to the reduction in wear, another important aspect turned out to be that the noise

level could also be greatly reduced, which was very important in Ensdorf because of a nearby residential area.

All conventionally manufactured chains are subject to high wear, since after just a few years the load on the chain is always on the first tooth of the sprocket, which is worn out as a result and the chain together with the sprocket has to be replaced, which is associated with high costs for the new chain and with considerable downtimes of the equipment.

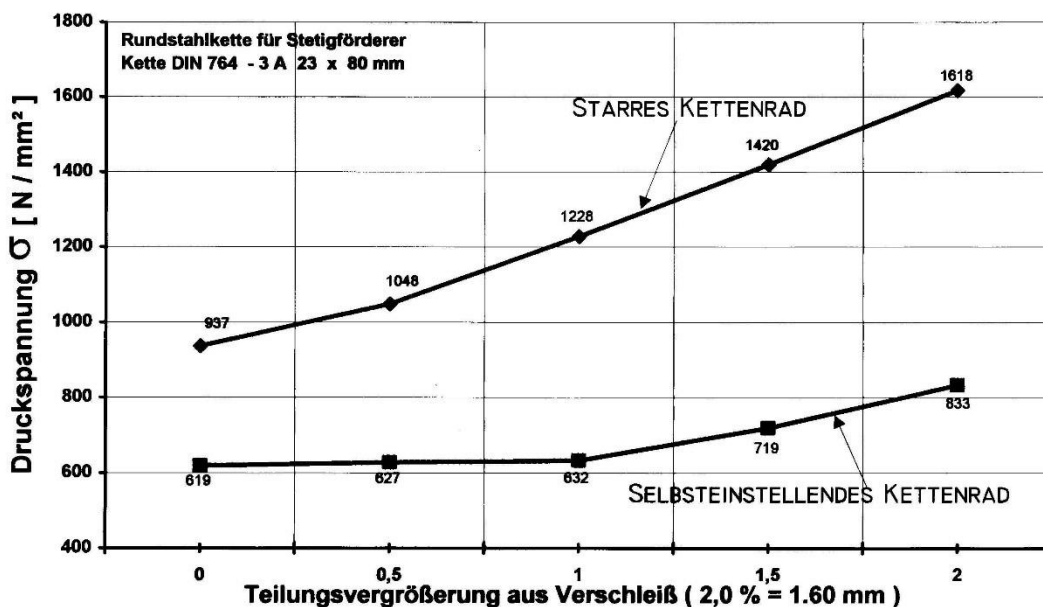
The peculiarity of this self-adjusting sprocket is that on this sprocket ALL the teeth are involved in the transmission of power to the chain, thus distributing the load on the individual teeth and the chain.

The reason is that the teeth of this sprocket are movable, whereas in a conventional sprocket the teeth are rigid and after a certain time due to this wear only the first tooth carries the entire load of the chain, so that the chain must be replaced already for safety reasons.

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Beanspruchung aus Punktberührung

Zugkraft $F = 120 \text{ kN}$ auf den ersten im Eingriff stehenden Zahn



Karl Herkenrath
Diagramm.xls

This means that all the teeth of the sprocket are equally loaded by the self-adjusting sprocket I invented. This leads to the fact that the chain, which is

manufactured depending upon size with a very high financial and labor expenditure, lasts substantially longer, since it is not so strongly loaded by the movable teeth of the chain wheel.

I have written a book about the "self-adjusting sprocket" with the title: "Inventor with long breath", which you can buy at Amazon or download as a PDF file for free from my homepage.

" Book: "Erfinder mit langem Atem" as PDF-file (German)

" Book: "Inventor with long breath" as PDF-file (English)

On YouTube, I posted a movie about this "self-adjusting sprocket" a few months ago:

" Movies on YouTube in different languages

NO CHAIN WITHOUT SPROCKET

As I said, the patent EP 2 594 824 initially had protection rights in 10 European countries. Since it was my ambition from the beginning that as many operators as possible could benefit from this cost-saving and environmentally friendly patent, I have gradually relinquished 9 of the property rights, so that **Germany is now the only country in the whole world that can NOT use this patent**, because it is still protected here.

My daily look at the statistics on my homepage shows me that the patent is now known in well over 210 countries and is also being built there, since it is only patented in Germany and may neither be built nor used here.

Today, as our new Minister of Agriculture, I would like to draw your attention to this patent, because it would be a pity and also somehow embarrassing if such a good patent, the advantages of which are immediately understood by virtually every thinking person, could be used anywhere in the world, but not in Germany, even though it was invented here.

The power plant in Ensdorf, where two of these self-adjusting sprockets were used according to the first patent, has been shut down in the meantime, but

what is still **working there is the portal scraper**, in which, according to my research, **the first chain of the company Ketten Wulf installed there in 2001, i.e. almost 21 years ago !!!, is still working together with two of the self-adjusting sprockets**. Only a few days ago, I took another look at this portal scraper in the Ensdorf power plant.

Finally, I would like to mention that the "self-adjusting sprocket" can, of course, be used in **all chain-driven equipment**, from a **relatively small chain saw to an escalator to large conveyor systems**.

AND THE BEST THING ABOUT THE USE OF THIS "SELF-ADJUSTING SPROCKET" IS THE FACT THAT NO INVESTMENT COSTS WOULD BE NECESSARY, THESE SPROCKETS CAN BE BUILT IMMEDIATELY. ALL THAT IS NEEDED HERE IS FOR A HANDFUL OF CHAIN MANUFACTURERS TO MAKE THEIR CONTRIBUTION TO CLIMATE PROTECTION.

It goes without saying that manufacturers are not interested in selling less expensive drive chains, conveyor chains, etc., but I think this is a matter for politicians, because the new traffic light coalition has taken up the cause: **No more business as usual**.

I'm curious about that.

I think, especially for the many farmers, silviculturists, etc. in our country, who are struggling with big problems anyway, it would certainly be an advantage if they could use the chains, they use in the various implements considerably longer by using this "self-adjusting sprocket" without having to replace the chain after a few years.

If I should have aroused your interest, I am at your disposal at any time for further information.

I will also inform further ministers of the new traffic light coalition and also of the opposition about my invention, which could contribute just in the today's time apart from the cost saving a substantial contribution to the protection of the environment and set my letters as "open letters" in further films with

YouTube, so to speak as information about a possible contribution to the climatic protection.

For today I remain

With kind regards

Karl Herkenrath