



1986 - 2021 | We celebrate

Prins' 35th anniversary



1986 - **2021....**





1986 - founded

1986



1994 - Former Prins office



2004 - Bart as General Manager

2005



2005 - AutoSalon exhibition Brussels

Congratulations



Congratulations to the Prins Team and their 35th anniversary! Frankly, I am so very impressed by what Prins achieves and realizes in markets around the world. The projects

in Nigeria and Tanzania, for example, and the great progress in markets from Germany to Chile. It is very impressive how globally capable and successful the team is.

What makes the Prins Team special is their passion for technology in service of the customer and the environment. When I look ahead, I believe the future is bright for Prins together with Westport Fuel Systems. Because together we can have an even greater impact by bringing affordable and clean transportation technologies to customers around the world.

David M. Johnson
CEO – Westport Fuel Systems, Inc.



Content

- 3** [Welcome](#)
- 4** [From MPI to DI](#)
- 5** [Congratulations to Prins from...](#)
- 8** [Prins knowledge quiz](#)
- 9** [Some Prins' Team members](#)
- 10** [Dual Fuel technology](#)
- 11** [Brochures and videos](#)

12 September 1986 – 2021

Welcome



Today we are celebrating 35-years of Prins Alternative Fuel Systems, a brand that continues to provide great value to the automotive industry worldwide. Over the years, we have created a cleaner environment at affordable prices through our state-of-the-art LPG (Autogas) CNG and LNG applications. Our

shared values of quality, innovation and customer care set Prins apart from the competition and continue to drive our mission.

I am so proud of the people working at Prins and the unique culture we have built. Talented and dedicated people who overcome challenges with unparalleled focus and tremendous efforts.

Looking back

Prins was founded in the early 80's by the Dutch engineer Yde Prins as 'Prins Carburatiesystemen'. In 1986 Ad Smulders took over that business and started 'Prins Autogassystemen B.V.'. Since 1994, Toon Kersten led the company and in 2000 Ecological Engine Company in the UK became the business owner of Prins and I started as Sales Director. It was in 2004 that John King honored me with the opportunity to become the General Manager of Prins, starting an amazing journey for me.

Big projects in the Middle East and the introduction of VSI 1 were the steppingstones to international growth for the company. In 2007, SHV Energy bought Prins from EEC, through their private equity firm NPM Capital. With their support, existing LPG infrastructure networks and partner relations, we could focus on improving the organizational quality of Prins.

In 2014 Westport Innovations (Vancouver, Canada), acquired Prins. With this transfer, Prins became part of a big family of alternative fuel system suppliers. In 2016, Westport merged with Fuel Systems Solutions, becoming Westport Fuel Systems, which we know today.

Over time, the Prins brand grew, and emission restriction tightened (Euro 1 up to Euro 6D). Engine technologies evolved from carburetor to single point injection to multipoint injection, and finally to direct injection. New products and technologies had to be developed to keep pace. VSI 1 evolved into VSI-2.0 and recently we introduced VSI-3 DI. We were able to adjust our VSI system into VSI-DI (vapor) and in 2011, introduced DLM (liquid). In all those years, Keihin remains our valued and reliable partner for injectors. And the famous Prins VSI LPG reducer was accompanied by the world's first ever Electronic Variable Pressure reducer (Prins eVP-500).

In the meantime, Prins DieselBlend was developed based on our VSI experience, from zero so to say, as a reliable new product range for trucks and buses. Our system can run on LPG, CNG and LNG. We support companies in various countries that want to develop infrastructure, reduce greenhouse gas emissions, and also save on fuel costs.

What is next?

I see a greater focus on emissions, new technologies and even cleaner alternative fuels like H2, RNG and other renewable- or biofuels. Full EV and Fuel Cell battery technologies are here. But a mix of alternative fuel technologies is required to reduce emissions at affordable prices to meet future climate targets. Converting existing petrol cars and trucks to run on alternative fuels is a huge opportunity for growth and emissions reduction. Prins, as part of Westport Fuel Systems, is the global market leader in alternative fuels for internal combustion engines will certainly play an important role in developing and supplying systems to make this happen.

I would like to take this opportunity to express my gratitude to all our colleagues, customers, suppliers and partners all over the world. Thank you for your contribution towards 35 years of successes, and many more to come!

Bart van Aerle
Managing Director Prins
Vice President Product and Business Strategy
Westport Fuel Systems



2005 - Cheers to the new (and current) Prins office

2005

2006 - Opening new (and current) Prins office

2007

2007 - VSI-CNG development Hummer

2008 - VSI Development Proton

2008

2009 - VSI-CNG VW Transporter

2010 - LM project UPS fleet

2011

2011 - Importer Days in The Netherlands



Name: **Jeroen Visscher**
Function: **LD/MD Technical Director**
Years at Prins: **11**
Favorite meal: **Nasi**
Car I drive: **Alfa Romeo**
Hobby: **Fast cars**

From MPI to DI Ready for the future

As Technical Director at Prins, I feel very proud reflecting on the company's system developments and innovations over the last 35 years. Teamwork has been an essential element in achieving our successes.

I have always had a passion for vehicles, and in particular, fast passenger cars. Before I started working at Prins, I conducted research on alternative fuels at the HAN University in the Netherlands. I got to know Prins during a joint project with HAN University on Direct LPG Injection. It was via this project that I then began working at Prins in 2010 – so for 11 years now.

We offer our customers high quality, cost-effective and innovative solutions for a wide variety of engine types. Our experience and our extensive product range to convert vehicles equipped with direct injection (DI) engines gives us a unique position in the market!

Development achievements

There is a big difference in converting a passenger car with an MPI (PFI) engine versus a DI-engine. Simply put, DI-engines are more complicated and need a dedicated solution. In 2008, Prins launched the first-ever system to convert vehicles equipped with a DI-petrol engine to LPG: VSI-DI, and Prins has focused on DI-conversions ever since.

I would like to highlight our latest development, the revolutionary bi-fuel VSI-3 DI system. VSI-3 DI stands for the 3rd generation of this system, leveraging all our Prins experience on DI technology. The VSI-3 DI system is developed around maximum system flexibility regarding both

hardware and software. The AFC-3.0 DI ECU has the capability to be programmed according to each vehicle and each petrol engine management system by using advanced hybrid technology electronics. The injection hardware, consisting of Keihin injectors and the Prins eVP-500 reducer, ensure accurate fuel delivery in each engine operating condition. The combination of these state-of-the-art components ensures an optimal performing fuel system with unparalleled performance and efficiency.

"IT BRINGS A RUSH WHEN THE HARD WORK PAYS OFF TO SUCCESSES"

Best memory

What I most enjoy about working at Prins is that we keep innovating to create new and better solutions, monitoring all aspects of the development process from infancy until the best practice phase of the system. If I had to point out one of my best memories, it would definitely be the development of LPG or CNG applications together with our local partners, intended for their specific market. It brings a rush when the hard work pays off and we have yet another dedicated Prins system available in the market and a very excited customer.

At Prins we are very proud of our global network of distributors and installers. We feel strongly connected to them and consider them our partners in providing drivers with a positive experience.

Together with our global network and valued customers, we are ready for the future!

Prins systems at a glance

- 1986 AF/C systems - Poliauto mixer LPG system
- 1990 AFS systems - Poliauto mixer system with ECU and stepper motor
- 1997 YPS (Yde Prins System) first multi-point LPG system
- 2001 VSI (Vapour Sequential Injection) systems & collaboration Keihin (historic milestone for increase in amount of distributors)
- 2008 VSI-DI (direct injection) systems
- 2009 ValveCare (additive system for valve protection)
- 2010 DieselBlend Dual Fuel systems (based on our VSI experience)
- 2010 LM (LiquiMax) systems
- 2011 DLM (DirectLiquiMax) systems
- 2012 VSI-2.0 (further development of VSI 1)
- 2012 DLM Gen 2
- 2014 VSI-2.0 DI (further development of VSI-DI)
- 2016 DLM Gen 3
- 2020 VSI-3 DI (further development of VSI-2.0 DI -> new AFC-3.0 DI computer and standard use of eVP-500 reducer)
- 2020 ValveCare-DI (additive system for valve protection, especially developed for vehicles equipped with a DI engine)

Congratulations to Prins from...



James Rockall
CEO and Managing Director WLPGA
France

Prins formally became a member of the WLPGA in 2008. The WLPGA is the unique global association for the LPG sector. As Prins is a world leader in the manufacture of alternative fuel systems, we have a natural fit. We work closely on matters related to the development of LPG markets. We value the professionalism, expertise and reliability of the Prins Team. In addition, Prins staff are always available and willing to explore and realize opportunities. Without doubt, my most memorable moment with Prins is the first "Global Autogas Day" (2019). The Day brings an opportunity for the industry to get involved through local activities targeting key stakeholders worldwide. The success has led to it being a regular feature of "LPG Week", and it is still strongly a joint effort between Prins and WLPGA.



Yasunori Shimada
Corporate Officer,
Hitachi Astemo Ltd (ex Keihin)
Japan

As a key contact for Prins, working at Gas Injector Supplier Keihin Europe Ltd, I feel very connected to Prins and believe I am part of the Team. Our collaboration started in 2000, so we have been working together for over 20 years. As Sales Engineer at Keihin, I contributed to the oversees Injector sales for the very first version of the Prins VSI system. What I like about Prins is that they are always considering how to improve, with joy and passion. Also, I love their motto: "Quality, Innovation and Customer Care, it's in our nature!". If I had to point out the most memorable moment of Prins, - it's a hard choice because the list of memorable things is endless - I would say the best one is that I resided in Eindhoven and worked with the entire Prins Team.





2011 - 25th anniversary

2011



2011 - Driving BMW X6 at Rally Monte Carlo



2013 - Customer visit in West-Africa



2015 - VSI-LPG Project RAM

2015



2016 - Training Dual Fuel in Nigeria

2016



2016 - 30th anniversary



2017 - Award Dual Injection technology

2017

Congratulations to Prins from...



Ethem Cumhur İnci
Autogas Sales Manager Ipragaz A.Ş.
Turkey

We are the exclusive distributor of Prins for Turkey – the only country where Autogas numbers are bigger than gasoline. Ipragaz entered the Autogas market in 2010, I joined this department in 2013, and that's when the journey with the Prins Team has started. I like working with Prins, because we combine our differences in cultures, skills and perspectives, in order to accomplish our mutual goals. We are sharing our knowledge and negotiating power, coordinating strategies and creating new products. The most effective and creative moment that is memorable for me is the dealer trip we organized in 2018. Together with our best-selling dealers, Ipragaz visited Prins in The Netherlands. Our dealers had a chance to see the innovation department and get to know Prins better.



Ewoud Heijermans
Director AGS nv
Belgium

As we started collaborating in 2001, we have experienced a lot together. Bart van Aerle and I met during our study time, many years ago. Then, when Bart became managing director of Prins, he approached me to contribute to developing the 'new' Prins VSI 1 system. I helped arranging a few cars (Mercedes S500 and Mercedes E Brabus) for the development of the first VSI reducer. We did many test drives, and as a result, we were able to convert cars with high horsepower. I remember my own car had AFC number 00006! In 20 years we built a strong partnership. For me, Prins is like a family. We share ideas and learn from each other. Two highlights are the Importer Days in 2011 and the exhibitions we attended together.



Stuart Weidie
CEO Blossman Services, Inc.
United States

Blossman Services, Inc has been working with the Prins system in the United States since 2007 and has been the official US distributor since 2014. Blossman's experience with Autogas goes back nearly 50 years and we continue to be impressed by the quality and technical performance of the Prins system. It is truly world class. What separates Prins from many companies is not only the technical performance of its systems but the quality of its people. Bart van Aerle is truly a fine leader and the professionalism of the engineers, relationship managers and fulfillment personnel give us great confidence to represent the Prins brand. Our company places great value on the integrity of the vendors we work with and Prins has always honored its commitment and representations during our 15 year relationship. Blossman is honored to be part of the Prins family.



Jan Pouls
Director Pouls Autotechniek BV
The Netherlands

Our company, Pouls Autotechniek, entered the LPG business 40 years ago. We started working with Prins in the year 2000, because they were able to supply the universal solutions we needed at that time. We shared experiences, and contributed to each others successes – just like we still do today. We co-operated in projects for Chrysler and Chevrolet. Nowadays, converting USA pick-up trucks is a big part of our business, for which Prins offers the ultimate solution. Over the years, our relationship to Prins has grown to be very strong, and we still are dedicated to the brand Prins. We appreciate their quality and support, and especially we love the personal contact with the entire Prins Team.



Sani Ibrahim Dangote
Chairman, Dansa Holdings Limited
Mohammed Sani Dangote
Executive Director Sagas Energy Limited
Nigeria

Thank you for being part of our company's successes over the years. The Journey this far has been richly rewarding. Prins is our technical partner in the provision of vehicular engine conversion services, and hardware training in the process of transiting to cheaper, cleaner and more environmental sources of energy. We have been in partnership as Prins West Africa and sole CNG channel partner in the region for more than 10 years now. Prins' technology has proven to be the market leader in the engine conversion industry. Together we achieved the milestone of successfully converting 2.000 trucks belonging to Dangote Industries transport fleet. We greatly appreciate and value the collaboration and look forward to many more years of fruitful partnership. Congratulations!



Alexander Pfannkuche & Malgorzata Adamonis
Managing Directors at Car-Gas
Germany

The Car-Gas Team from Wabern - Unshausen in Germany congratulates Prins! We appreciate our good, friendly relationship with the entire Prins Team. We are an official Prins importer since 2004. Via one of our customers we became aware of the quality of the Prins systems, so we decided to contact them. We got in touch with the nice employees at Prins, and started to co-operate very quickly. Now we are almost 18 years further in time, and we have experienced so many great things together. The co-operation with Prins can be characterized by high quality and friendliness. A highlight in the entire co-operation would be the opening of the new company head office in Eindhoven, Prins' current office actually in 2006.





2017 - GasShow exhibition Warsaw

2017



2018 - DieselBlend CNG development



2019 - VSI-DI LPG Project Kia Italy

2019



2019 - First International 'Autogas Day'



2019 - New corporate moodfilm



2019 - Open Day for family of our colleagues



2019 - Installing solar panels on Prins building



2020 - Introduction VSI-3 DI

2020

Prins knowledge quiz



1

What is the name of our mascotte?

- A Bart
- B Freddy
- C Eddy

2

Where is Prins based?

- A The Hague
- B Eindhoven
- C Amsterdam

3

What was the first solution to convert passenger cars?

- A AF/C
- B VSI
- C LM

4

In how many countries is Prins represented by its global network?

- A Less than 10
- B 10 to 50
- C More than 50

5

What is our slogan?

- A Quality, Innovation and Customer Care, it's in our nature!
- B Prins provides Quality, Innovation and Customer Care.
- C With Quality, Innovation and Customer Care, we are here.

Answers: 1=C 2=B 3=A 4=C 5=A

Some Prins' Team members

Name: Inge van Berlo
Function: Sales Backoffice Assistant
Years at Prins: 14
Car I drive: Toyota Yaris 1.3 on LPG
My hobby: Watching movies and walking with my Rat Terriër Rollo
Favorite dish: A good quality burger and sushi



Best memory: I would like to highlight the importer event in 2011. At Prins' 25 year anniversary I got a chance to meet in person with our customers from all over the world. We went karting and enjoyed a couple of drinks.

Name: Robbie Smit
Function: Area Manager
Years at Prins: 18
Bikes I ride: BMW F750GS and Honda CB650R
My hobby: Bikes, Movies.
Favorite dish: Brussel Sprouts with slow cooked beef



Best memory: too many of such moments, but to pick one would probably be landing my first project at Prins.

Name: Natasja Ernste-Toonders
Function: AM Export
Years at Prins: 21
Car I drive: Audi Q5 on LPG
My hobby: Cooking, fitness, shopping
Favorite dish: Seafood and especially lobster



Best memory: I met my husband at Prins and we are already 10 years married.

Name: Ray Exalto
Function: R&D Engineer
Years at Prins: 21
Car I drive: Suzuki SJ413
My hobby: Working around the house and in the garden. Also, off roading with the SJ is a good way to spend time.
Favorite dish: A good piece of meat on the BBQ



Best memory: working on great products makes working at Prins not just another day at the office. The variety in work makes working at Prins a challenge and never boring.

Name: Lyda van Zuydam-Kleinveld
Function: Financial Manager
Years at Prins: 15
Car I drive: Ford Fiesta on LPG
My hobby: Motorcycling
Favorite dish: Asparagus



Best memory: looking back at all those years, working at Prins is a blessing of teamwork and fun. In between all the hard work, we have shared many tears of laughter during staff activities. We should also remember our colleagues that passed away: Gerard, Herman and Simon.

Name: John Wouters
Function: Sales Director
Years at Prins: 14
Car I drive: BMW M3.40i on LPG
My hobby: Running & dining with friends
Favorite dish: Tenderloin steak with potato wedges



Best memory: for Prins Jeroen and I participated in Rally of Monte Carlo in 2011 and we finished in 2nd position!

Name: Jasper van Sambeek
Function: Master Data Manager
Years at Prins: 32
Car I drive: BMW 535i GT
My hobby: Tennis
Favorite dish: Fries with beef stew



Best memory: car ride from Autogas Triumfi (Albania) to airport Skopje (Macedonia). We left too late, drove back because the driver forgot his passport. The police stopped us for a traffic ticket (crossing continuous line). Then we had a lot of delay at the two border crossings and still arrived just in time for me getting on the plane.

Name: Roger Konings
Function: Director Operations & Procurement
Years at Prins: 24
Car I drive: Audi Q3 on LPG
My hobby: Cycling Race, MTB, Gravel
Favorite dish: I love the fine cuisine, but you can still wake me up for a well prepared Shoarma dish.



Best memory: from all these years I would still choose my early years in Prins. First we were working with mechanical systems like AFS & YPS, and moving to the electronic area. As R&D engineer I launched the first VSI system with Keihin injectors. Then I traveled with our CEO John King to OEM-supplier Keihin in Japan, and we made the most important deal in Prins' history. That is still affecting today's business.



2020 - Ski trip to Austria

2020

2021 - Hydrogen development

2021

2021 - Prins' 35th anniversary

AND MANY INNOVATIONS AND YEARS TO GO



Luis Fernández (left)
Account/Product Manager

Bas ten Broeke (right)
HD Technical Director

Karel Vermeeren,
Johan Willemse,
Artjoms Ohrimenko
Technical team

Dual Fuel technology Heavy Duty transportation

Our main goal is two-fold; to achieve a better TCO (Total Cost of Ownership) for our customers and a contribution to better air quality.

The Dual Fuel technology can be used worldwide for both on-road and off road vehicles, marine and stationary diesel engines, wherever alternative fuels are available. It is mostly used for heavy duty vehicles. Dual Fuel technology is based on using two different fuels in a Compression Ignition (CI diesel) engine. In this way, a certain part of the diesel can be replaced by a cleaner and more economical alternative fuel. Diesel remains responsible for the ignition. The secondary fuel is an alternative fuel like LPG, CNG or LNG. The difference with so-called 'Mono Fuel' or 'Bi-Fuel' systems is the injection of the fuel. With Dual Fuel, the alternative fuel is injected into the intake manifold of a CI engine, while otherwise the fuel is injected into the intake manifold of a Spark Ignited engine.

Global collaborations

Many different types of customers throughout the world are using the Prins Dual Fuel products. For example, Dangote - the biggest cement producer in Africa - is using our Dual Fuel system on thousands of their trucks used to transport the cement from their factories to various locations. In Russia, some of the biggest forwarders and retail groups have transformed their trucks with the Prins CNG Dual Fuel system, and as a result they are able to save on fuel cost and remain more competitive. In addition, we have the only Dual Fuel system used and approved by the largest truck manufacturer in Russia. We also have plans

to expand to Latin America since there is an increased demand for the use of alternative fuels in heavy duty vehicles.

Philosophy

The biggest success is that our product strategy proved to be the correct one. We stayed loyal to our philosophy and since the launch of the product back in 2009, we only supply our conversion kits as dedicated kits, meaning that all components such as the brackets, wiring loom, calibration and rest of the heavy-duty components are specially designed for the vehicle to be converted. A so-called application process will be executed with each new type/brand and truck/engine. This guarantees a fast, uniform conversion for big fleets and most important, a working system as it is approved by the Prins engineers. Don't forget in many cases a truck has to work 24/7 for many years and mileages up to or even over 1.000.000km and downtime is not an option. Prins Dual Fuel can meet these requirements.

Hydrogen and Renewables

Today we are already working on solutions using other alternative fuels, such as biofuels, Hydrogen and DME. The modern CI combustion engine is the most efficient engine available today and can still play an important role for many years to come on our path to a cleaner world and as a steppingstone towards zero emissions. We are collaborating with key stakeholders such as Governments, fuel suppliers and producers, universities and OEMs and it seems that our products will be an important technology on our way to a greener future in transportation.



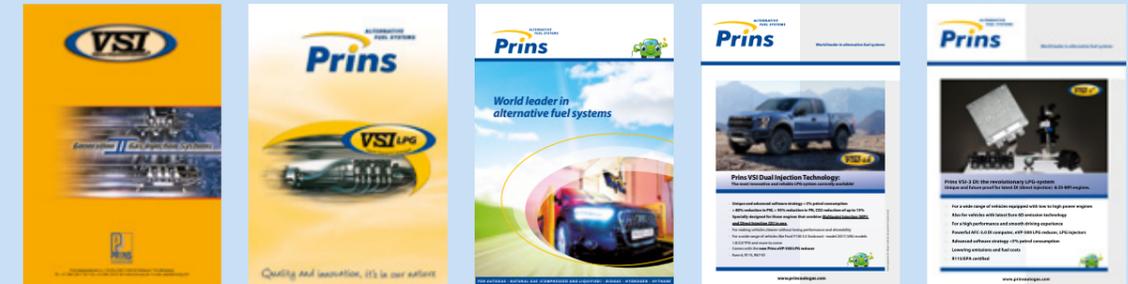
CNG tank package



Demo truck with LPG, CNG and LNG tank package



system development



2003

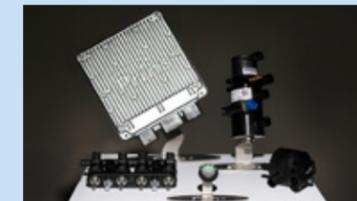
2007

2013

2017

2020

See latest brochures here:



VSI-3 DI | The revolutionary LPG system | 2020 (introduction)



LPG conversion | Timelapse Renault Mégane R.S. Trophy | 2020



LPG conversion | Volkswagen Golf 8 1.5 TSI | 2021

Watch VSI-3 DI videos on YouTube:



Thank you

Prins has undergone enormous developments over the last 35 years. The company has not only grown in R&D but it has also expanded in areas such as Finance, HR, Sales, Marketing, IT, Production, Operations, Purchase, QA, After Sales Service and Logistics. Prins has invested tremendously in its people, training programs, technological innovation, equipment advancements, and infrastructure, in the spirit of continuous improvement. It has cultivated a culture based on excellence not only in customer service, but also in the workplace, and in

the communities in which we operate. Investments that focus on ease of use, visibility, sustainability and process optimisation.

We are proud of how far we have come, and now look to the future with full confidence as part of Westport Fuel Systems.

Thank you to all our colleagues, past and present, for your contribution to Prins' success. And also to our extended family, global suppliers and valued customers for your support over the years. We look forward to many more!

Your Prins team



INNOVATION
 PRAGMATIC INNOVAZIONE PROUD
 LEADER THE NETHERLANDS GOEDE SERVICE VSI-DI
 QUALITY DUTCH NEW TECHNOLOGY
 FRIENDS TEAM FUN LÍDER
 CREATIVE VSI FORTSCHRITT
 GLOBAL HOLLAND INOVACIÓN DIESELBLEND AMAZING TECHNIQUE
 Prins 35 YEAR ANNIVERSARY UNIQUE FAMILY FRIENDLY FIABILIDAD
 AVANT-GARDE EXCELLENCE SIMPLY THE BEST TOGETHER
 FIJNE MEDEWERKERS CUSTOMER CARE
 RELIABLE PROGRESSIVE MILIEUBEWUST
 DYNAMIC FREUNDLICHKEIT DEPENDABLE
 DIRECT INJECTION (DI) BETROUWBAAR
 EVOLUTION

Prins Autogassystemen B.V.
 a Westport Fuel Systems company
 Jan Hilgersweg 22
 5657 ES Eindhoven
 The Netherlands
 Tel. +31 (0)40 254 77 00
 www.prinsautogas.com
 sales@prinsautogas.com

