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aboutcamp B to B

Interview with **Stéphane Gigou** the man that François Feuillet wanted as Trigano's CEO

K 6.5

Face to face with:



Fred Bentley DexKo Global



Rob Quine



Michel Vuillermoz



Michael Degen Messe Düsseldorf



Stefan Koschke Messe Düsseldorf

ECF annual meeting report • **Caravan Salon 2021** highlights The **South American** RV market • Focus on **electric caravans**





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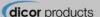
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Issue 33

DECEMBER 2021

no examples in the showrooms. But there's

more: the customer doesn't even know when

the vehicle will be delivered or what the final

price will be. The cost of raw materials, as well

as transport, has increased dramatically and

this has an inevitable influence on the final

prices of vehicles. Even the original equipment

suppliers work in conditions that are certain-

ly not ideal due to the scarcity of raw mate-

rials and the continuous price increases both

of raw materials and in the supply chain. RV

manufacturers are asking suppliers to struc-

ture themselves to cope with growing de-

mand. There are those who are doing it, but

there are also those who fear that this boom

will not last long. Is it worth investing in equip-

ment and personnel, this increasing fixed

costs, for a market that could stop growing,

or worse, contract? What is the right way?

Nobody knows. At the time of closing this

issue of the magazine, the number of infect-

ed people with COVID 19 is growing in many

countries. In Europe, we hope that the worry-

Editor's note



We are all experiencing a strange period with great euphoria but also great problems - a mix that can be confusing and sometimes creates tension. There is extraordinary potential for

our industry with strong desirability for motorhomes and vans - a trend that's become a phenomenon... but there are no vehicles available. The demand is strong but the ability of the manufacturers to meet this demand is relatively low. There is a lack of raw materials and components, and even the base vehicle manufacturers have had to stop production, so not enough motorhomes are not being produced. Manufacturers suspend orders from suppliers and dealers sell vehicles that the customer cannot see, because there are

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ing amount of COVID cases in Germany does

not affect the upcoming important trade fairs

that are scheduled. We are attaching a new

edition of our 2022 trade fair calendar to this

issue of the magazine, but are well aware that

the pandemic has not ended, and aware that

trade fairs in this sector have an important

value. Unless there are serious impediments,

everything will be done to ensure these trade

fairs go ahead as normal. The poof of this is

the success recorded by the caravanning fairs

in Europe. It is also witnessed by the manag-

ers of the Düsseldorf fair who tell us about

their vision in an interesting interview. In this

regard, we also had the pleasure of meeting

Stephane Gigou, the young CEO of Trigano Group, and Fred Bentley, CEO of DexKo Glob-

al: both managers offer us interesting insights

into the market and possible future scenarios.

Finally, among the many contents of this issue,

do not miss our report on the last meeting of

ECF (European Caravan Federation). Enjoy

Antonio Mazzucchelli

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Technology

reading it!

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Paris RV show attracted more than 82,000 visitors

The 55th edition of the Salon des Véhicules de Loisirs (VDL) in Paris, which closed its doors on Sunday, 10th October, attracted more than 82,000 visitors. The show had been eagerly awaited for almost two years by exhibitors and visitors, following the cancellation of last year's show due to resrictions caused by the COVID-19 pandemic. As found in other countries, for many French people, leisure vehicles have become a solution to



travel independently in complete freedom while respecting social distancing and personal hygiene.

"We had a very good quality show" explains JeanJacques Kauffmann, General Commissioner of the Salon des Véhicules de Loisirs. "The stands were beautiful, the exhibitors put a lot of energy into it, and people were happy to meet again. The test center also experienced great success, and demonstrates the appeal of these vehicles to the general public."

Pierre Rousseau, President of the Salon des Véhicules de Loisirs adds: "In this unique context for leisure vehicles, the show was a special edition. It held its promises, it made thousands of visitors dream who were finally able to discover all the new things, and even try them out. The motivation and the desire to meet again were so good and palpable in the aisles, and on the stands. VDL has confirmed its position as the most important exhibition in France and the second largest in Europe."



All in Caravanning has a new Project Director

China's All in CARAVANING (AIC) exhibition has appointed Mr Josh Gu as its new Project Director. He will be in charge of both AIC and ProWine. He succeeds Mrs. Yujia Du, who leaves the company after five successful years. Commenting on the move Mr. Marius Berlemann, General Manager of Messe Düsseldorf (Shanghai) Co., Ltd., said: "As a satellite exhibition of Caravan Salon DÜS-SELDORF, the world's largest show for motorhomes and caravans, AIC will continue its mission in being the lighthouse for the Chinese recreational vehicle and camping industry. By appointing Mr. Josh Gu as the Project Director of AIC, the show and the team will benefit from Josh's wealth of experience."

Editorial

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Giampaolo Adriano - Sales Italy +39 338 9801370 commerciale@aboutcamp.eu Aboutcamp BtoB helps professionals in the caravan/RV and leisure industry around the world keep up to date with all the latest business news and market trends in this sector. It's the most well informed source of B2B information in the caravan industry, with a unique global perspective and an international team of correspondents delivering daily news online at www.AboutcampBtoB.eu, a bi-monthly e-newsletter, and a high quality print magazine delivered (free) in Europe, the United States, Australia, New Zealand, South Africa, Japan, China, Korea, Argentina, Brazil, Chile. The Aboutcamp BtoB magazine is published four times a year with features including exclusive interviews with senior management from the industry, reviews of the major exhibitions around the world, and reports about the latest market trends, plus in-depth profiles of OEM suppliers who specifically manufacture components for this sector. With all the recent acquisitions, new technological developments and more and more consumers buying leisure vehicles around the world, Aboutcamp BtoB is essential reading for everyone working in any business related to the caravan industry. While so

Print edition

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many flock to the internet, and have an inbox full of emails, Aboutcamp BtoB decided to print a paper magazine so that it gets more noticed, read, appreciated and discussed; so, we wish you happy reading!

Web edition

Aboutcamp BtoB is also a **website** updated daily with news and information dedicated to RV builders and OEM producers. The website is supported by a professional **newsletter** sent monthly to the professionals in the RV sector. We also strengthened our presence on **LinkedIn**, where we manage the business page of the magazine but also the group "Caravanning Professional" which allows us to develop direct and informal relationships with decision-makers in the RV industry.

On our website is possible to read online the print edition of all Aboutcamp BtoB issues at:

www.aboutcampbtob.eu/read-the-magazines

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Winnebago fourth quarter results with record full year revenues (+54.1%)

Winnebago Industries has reported financial results for the Company's fourth quarter ended August 28, 2021 of \$1.0 billion, an increase of 40.4% compared to \$737.8 million for the Fiscal 2020 period. Full year Fiscal 2021 results record revenues of \$3.6 billion increased 54.1% from \$2.4 billion in Fiscal 2020 driven by strong consumer demand for Winnebago Industries' products and increased pricing, including lower discounts and allowances. Revenue growth was driven by strong end consumer demand, pricing initiatives across all segments driven by higher material and component costs, and segment and product mix. Gross profit was \$187.2 million compared to \$122.5 million for the Fiscal 2020 period, driven by increased unit growth and pricing, including lower discounts and allowances. Gross profit margin increased 150 basis points to 18.1% in the quarter driven by fixed cost leverage, increased pricing, including lower discounts and allowances, and profitability initiatives. Operating income was \$120.0 million for the quarter, an increase of 75.4% compared to \$68.4 million for the fourth quarter last year. Fiscal 2021 fourth guarter net income was \$84.1 million, an increase of 98.0% com-

ews

pared to \$42.5 million in the fourth quarter of last year.

President and Chief Executive Officer Michael Happe commented: "Winnebago Industries delivered a strong fourth quarter to finish a record Fiscal 2021. The new heights we were able to achieve in revenues and profitability demonstrate the unique strength and appeal of our growing platform of leading brands. Our resilient and focused team continues to successfully manage through a growing backlog and supply chain challenges while driving tremendous preferences for our premium outdoor lifestyle products".

Fiscal 2021 record gross profit margin of 17.9% improved 460 basis points year-overyear driven primarily by robust operating leverage, increased pricing, including lower discounts and allowances, and favorable segment mix. Operating income was \$407.4 million for Fiscal 2021, compared to \$113.8 million in Fiscal 2020. Net income for Fiscal 2021 was \$281.9 million, an increase of 358.8% compared to \$61.4 million in Fiscal 2020. For the full year Fiscal 2021, revenues for the Towable segment were \$2.0 billion, up 63.7% over Fiscal 2020 driven by heightened consumer demand for Grand Design



and Winnebago branded products and increased pricing. Segment Adjusted EBITDA for the full year was \$289.0 million, up 94.9% from Fiscal 2020. Adjusted EBITDA margin of 14.4% increased 230 basis points for the full year over Fiscal 2020. For the full year Fiscal 2021, revenues for the Motorhome segment were \$1.5 billion, up 45.6% from Fiscal 2020 driven by increased unit sales and pricing. As of August 28, 2021, the Company had total outstanding debt of \$528.6 million (\$600.0 million of debt, net of convertible note discount of \$60.4 million, and net of debt issuance costs of \$11.1 million) and working capital of \$651.6 million. Cash flow from operations was \$237.3 million for the full year Fiscal 2021, a decrease of \$33.2 million from the \$270.4 million generated in Fiscal 2020 driven by higher net income which was more than offset by an increase to working capital that was driven by growth in the business and supply chain challenges.



New CEO at Trigano Italia

There has been a change at the top of the Trigano group in Italy following the retirement of Paolo Bicci, who is replaced by Gianguido Cerullo, the new CEO of Trigano SpA, Sea SpA, Trigano Van and Trigano Servizi Srl. Gianguido Cerullo, 51, is married with three children, and trained as a mechanical engineer. He brings 25 years of experience in the household appliances industry, having worked from 1998 to 2007 at Indesit and from 2007 to today in the Elica Group. He has had a multi-functional career in Italy and abroad, mainly in France, in the business areas of logistics, IT, quality and after-sales, with growing roles in Operations and R&D. In 2011, Gianguido was appointed OEM commercial director of the Group Elica, before reaching the position of Group CCO in 2013. Since September 2020, Gianguido has been CEO of BU Cooking, responsible for the sales, purchasing, research and development and human resources areas. The changeover of CEOs will start from 18 October. Paolo Bicci will work alongside Gianguido Cerullo to allow a gradual transition of the implementation of corporate strategies, in continuity with the values of the Trigano group.

DexKo Global acquires National Trailer Parts Warehouse Ltd

DexKo Global Inc., has announced that its wholly-owned subsidiary Dexter Axle Company ("Dexter") has acquired National Trailer Parts Warehouse, Ltd.("National Trailer Parts") located in Swift Current, Saskatchewan, Canada. National Trailer Parts supports manufacturers, dealers, and service centers in Western Canada offering the top brand trailer components in the industry. Employing over 20 people, National Trailer Parts services customers directly from their warehouse in Swift Current with their own fleet of trucks focusing on offering a wide selection of top brand trailer components with a knowledgeable, professional staff.

"We see great value in adding National Trailer Parts to the Dexter business, extending our quality products and exceptional customer service in western Canada, furthering our customer relationships," said Fred Bentley, CEO of DexKo Global.

Adam Dexter, President and CEO of Dexter added: "The valued employees and loyal customers will fit nicely within Dexter's distribution group and we look forward to joining our two companies together. National Trailer Parts fills a void in our coverage of Western Canada and will allow us to more effectively service that customer base."

Keith Brown, managing partner of National Trailer Parts Warehouse, said: "Since 1992, we have been distributing trailer parts and components to our customers in Western Canada. Through that long period of time, we have enjoyed loyal support from our customers, extraor-

dinary effort from our employees and reliable, timely supplies from our vendors. These three factors, in combination, are the success ingredients that define what we do and who we are."





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EHG: record results and sustainability strategy

ERWIN HYMER GROUP





The Erwin Hymer Group achieved a new record turnover of € 2.7 billion in the 2020/21 fiscal year, an improvement of 23% upon its previous year's result. Vehicle deliveries also reached a new record of 65,000 units. The company sees the current development as evidence of a long-term change in travel behavior. With its sustainability strategy, it intends to secure further success in the future. "As our figures show, we succeeded particularly well during the pandemic" explained Martin Brandt, CEO of the Erwin Hymer Group (EHG) at the company's annual press conference. "Caravanning has become mainstream in society. Now it's a matter of ensuring the trend continues toward decelerated and gentle tourism in the long term". The Erwin Hymer Group reported that in Europe, the overall

market for motorhomes and camper vans recorded a significant increase of 20.8% from 2019 to 2020. The Erwin Hymer Group was able to significantly outperform this positive trend in individual segments: camper vans in particular achieved impressive growth of 60% to about 21,000 units in the 2020/21 fiscal year. Sales of classic motorhomes grew by 10% to 30,000 vehicles. The increased sales figures have had an impact on its sales and employee numbers: sales in the 2020/21 fiscal vear were € 2.7 billion, up € 500 million on the previous year - a growth of 23%. With 8,883 employees at the end of July 2021, the Erwin Hymer Group employed more people than ever before - 1,534 more than in the previous year. To support the development in the long term, the Erwin Hymer Group is stepping up its efforts for sustainable business. Jan Francke, Chief Operations Officer (COO) of the Erwin Hymer Group said: "We take our commitment to greater sustainability and social responsibility very seriously, because we're firmly convinced that these factors will ultimately contribute to our long-term success. We can achieve the target of 1.5 degrees only if politics, society and industry work together - which is why we will give this aspect even more weight within our Group and make one of our strategic focal points."

Concorde: new MD

Concorde Reisemobile GmbH has appointed Marcus Engelhardt (47) as its new Managing Director. He will be supported by Joachim Baumgartner (65), who will remain in office until December 31, 2022. "Joachim Baumgartner and Marcus Engelhardt work very well together and complement each other perfectly," says Concorde about the new tandem management team. Joachim Baumgartner, with his lifelong caravanning experience, will use the time to familiarize his new partner, who is himself an enthusiastic motorhomes, with the complex industry structures and the new office. Engelhardt has been Plant Manager at Concorde since September 1, 2020. Since joining the company, he has been part of the extended management team.









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BMPRO appoints new Marketing Manager

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Following rapid growth, BMPRO, the battery management and smart RV technology manufacturer in Melbourne, Australia, has appointed Brad Hooper as the its new Marketing Manager. Hooper brings with him over 15 years of experience in marketing global manufacturing businesses to both domestic and international stakeholders, with 10 years as the Marketing Manager of RV chassis and component manufacturer, AL-KO Vehicle Technology in Australia & New Zealand. BMPRO has identified that Hooper brings not only a wealth of experience across similar industry brands but was impressed by Hooper's dedication as an early member of the Caravan Industry Association of Australia's Future Leaders Committee and nomination as a finalist for the Caravan Industry Association Australia Future Leaders Award in 2018 and 2019. BMPRO CEO, Louise Bayliss comments that *"This is an exciting time to bring in new experience to our BMPRO brand. Our brand is still just under 10 years old and has gone*



through amazing growth, holding a strong brand position in Australia and USA markets so we feel it is the right time to explore where it can take us in the next 10 years with a fresh and dynamic team. Brad's credentials make him a great fit for the brand and strategic direction of our brand".

Leisure equipment

Total Sales



Frank Hugelmeyer appointed as Chair of Outdoor Recreation Roundtable

Frank Hugelmeyer, President of the NMMA (National Marine Manufacturers Association), and already a member of the executive committee of the Outdoor Recreation Roundtable (ORR) has been selected to move into the role as ORR Chair. The executive committee is charged with guiding ORR's strategic direction and supporting the organization in carrying out its threeyear strategic plan.

"As a founding member of ORR, I am honored to serve on the executive committee alongside some of our industry's brightest and inspirational leaders," said Frank Hugelmeyer, president of NMMA. "We have a tremendous opportunity to capitalize on America's growing demand for outdoor recreation and I look forward to working with my colleagues in the community to do just that."

Previously, Frank Hugelmeyer was President of the RV Industry Association from 2015 to 2019.

Trigano fourth quarter 20/21: sales up 4.9%

In the fourth quarter 2020/21, Trigano achieved sales of €659.4 M, up 4.9% compared to the previous financial year which had benefited from a very strong recovery after the end of confinements in Europe. In the fourth guarter, Trigano was once again able to mobilise its teams and production capacities to meet sustained demand for all its product categories, despite supply difficulties which led in particular to the shutdown of motorhomes production lines for several weeks. At constant scope and exchange rates, sales of motorhomes (+2.1%), caravans (-1.1%), trailers (+0.7%) and camping equipment (-4,5%) remained close to their record level reached in the fourth quarter 2020. Deliveries of mobile homes (-8.3%) and garden equipment (-22.2%) did not repeat their performance of the last year, but are at a higher level than in the fourth quarter 2019. Finally, sales of accessories (+11.5%) remained on a very good dynamic confirming the strong interest of the European public for leisure vehicles. Over the financial year, Trigano achieved record sales with strong growth in each of its business segments. Thanks to the strong increase in its production capacities, in particular in the campervans production, Trigano realised motorhomes sales of 2.2 billion Euros (+ 36.1%) and gained market shares. Sales of caravans (+21.0%), accessories for leisure vehicles (+79.0%; +35.2% at constant scope), trailers (+27.3%), camping equipment (+ 7.5%) and garden equipment (+ 18.0%) also remained very dynamic over the year, while those of mobile homes (-6.4%) were affected by the wait-and-see attitude of campsite managers linked to the health crisis.

€M (non-audited figures)	Q4 (June –August)			2021/2020 change				0
	2021	2020	2019	current	scope effect	exchange rate effect	at constant scope and exchange rate*	Current change 2021/2019
Leisure vehicles	602.4	569.3	425.1	+5.8%	+2.7%	+0.7%	+2.4%	+41.7%
Leisure equipment	57.0	59.5	44.7	-4.2%	-	+0.3%	-4.5%	+27.5%
Total Sales	659.4	628.8	469.8	+4.9%	+2.5%	+0.7%	+1.7%	+40.4%
	Year ended August 31 st			2021/2020 change				Current
€M (non-audited figures)	2021	2020	2019	current	scope effect	exchang e rate effect	at constant scope and exchange rate*	change 2021/2019
Leisure vehicles	2,702.3	1,997.4	2,134.4	+35.3%	+2.7%	-	+32.6%	+26.6%

External growth: the process of acquiring the French distribution groups CLC, SLC and Loisiréo is continuing. The opinion of the competition authorities in France is expected to be issued in the coming weeks. This transaction, which is fully in line with Trigano's development strategy through external growth, would allow it to continue investing in the leisure vehicle distribution business in Europe and complete its customer service offering. Outlook: The new ranges of motorhomes were particularly well appreciated by customers of the first national shows (Düsseldorf and Parma) where Trigano achieved record levels of sales. Order books saturate production capacities for the 2022 season. The supply tensions which characterised

231.5

2,933.8

186.6

2,184.0

193.8

2,328.2

+24.1%

+34.3%

+2.4%

last season continue into the start of financial year 2022. In particular, for several weeks, there have been new delays in deliveries of wheelbases linked to the global shortage of semiconductors. These difficulties should result in the shutdown of some production lines of motorhomes for several days and production delays estimated at this stage at nearly 2,000 units. As in 2021, Trigano applies a sourcing policy aimed at achieving the highest level of production. It maintains permanent contact with its suppliers, including Stellantis, in order to adapt its industrial facilities to the quantities delivered. Trigano is implementing action programs that will allow it to increase production as soon as the shortage situation is solved.

-0.3%

0.0%

+24.3%

+31.9%

+19.5%

+26.0%

Dometic to acquire NDS Energy

Dometic has entered an agreement to acquire NDS Energy – a provider of Mobile Power Solutions for the outdoor market based in Italy. The acquisition of NDS Energy strengthens Dometic's offering and market presence within Mobile Power Solutions in the European outdoor market. NDS Energy's net sales for the last 12 months were approximately EUR 11 million with a good operating margin. Approximately 75% of net sales is in Distribution and Service & Aftermarket. The trans-



action is expected to close during the first quarter of 2022. NDS Energy is an Italian-based provider of Mobile Power Solutions, including solar power systems, chargers and inverters. NDS Energy serves several vertical end markets in the fast-growing outdoor

space. The products are sold across several countries in Europe, including to more than 200 dealers in Italy. The company is privately owned, has 25 employees and is headquartered in Pescara, Italy.

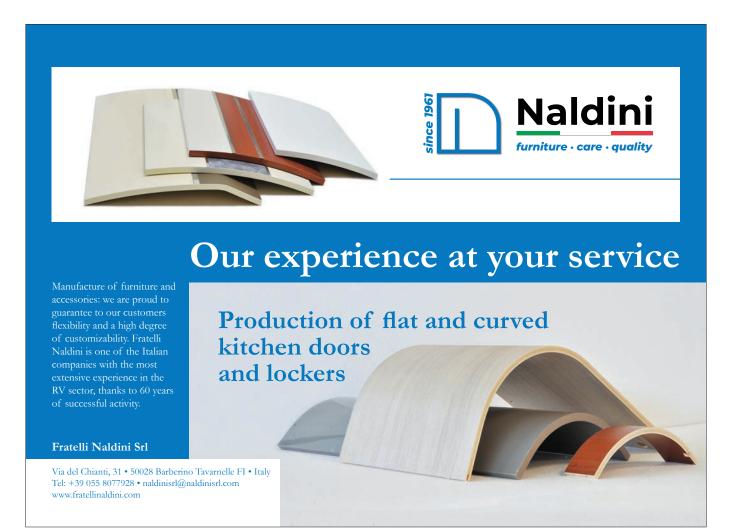
The electrification trend in the Outdoor industry is strong and further expansion in the market for Mobile Power Solutions is a strategic priority for Dometic. With more and more people spending time outdoors, using a vehicle or boat as their base, the need for off-grid power is driving a rapid increase in the demand for efficient and sustainable Mobile Power Solutions.



New Scudo and Ulysse revealed

Fiat Professional and Fiat have announced the return of the Scudo and Ulysse nameplates as they go into production at the Stellantis plant in Hordain, near Valenciennes in northern France. The Fiat MPV and Fiat Professional LCV will be available with either ICE or BEV powertrains. They share the same platform used for other Stellantis models, including Peugeot Expert and Traveller, Citroën Dispatch and SpaceTourer, and Vauxhall Vivaro. The Scudo will be available in three configurations – Van, Combi and Cab with platform – to meet all professional transportation requirements, while Ulysse will be available with combinations from six to nine seats. Both vehicles are also based on the EMP2 platform, the modular nature of which makes it possible to meet specific needs in various markets.

The new models are both a response to the ongoing transition to zero-emissions mobility. Specifically for Scudo, with the rising use of light commercial vehicles in urban areas, these vehicles will make a significant contribution to reducing emissions in cities. Likewise, Ulysse will enable families to enjoy a more sustainable active lifestyle, benefiting from innovative high-tech devices, extraordinary levels of comfort and space at the top of their segment, and advanced safety features. Orders for the Fiat Professional Scudo will open in the main countries between the end of this year and the beginning of next, while the Fiat Ulysse will be available by the first quarter of 2022.



Knaus Tabbert continues growth plans after its first year on the stock exchange

"The initial public offering was an important milestone for the further development of our Group. With the proceeds from the issue of our shares, we have laid the foundation for further dynamic growth, such as the expansion of our production capacities, path-breaking innovations for our industry and the development of sustainable solutions for recreational vehicles," comments Wolfgang Speck, CEO of Knaus Tabbert AG. On September 23rd, 2020, the shares of Knaus Tabbert AG were traded for the first time in the Prime Standard of the Frankfurt

ews



Stock Exchange. Notwithstanding a volatile capital market environment, 10 million shares were issued at a price of 58 euros at the time of the IPO, primarily to institutional investors in Germany and abroad. Since then, the free float has stood at around 35%. Knaus Tabbert AG has kept its promise to continue on its growth course after going public and to invest the funds raised in the expansion of its capacities. By 2025, a further 220 million euros will thus be invested in expanding the current production sites in order to further strengthen its market position in the fast-growing market for recreational vehicles. State-of-the-art production facilities and technologies are to sustainably increase productivity and capacities. To this end, numerous innovations relating to the company's individual brands were presented at the Caravan Salon 2021 in Düsseldorf in September, among others, the study for an electrically powered motorhome from KNAUS. With a successful financial year 2020 and continued growth in 2021, the company has been on a promising path since its IPO. In the first half of 2021, revenue increased by 23% to 442 million euros. Adjusted EBITDA improved by 33% to 45 million euros. "These record results show that we are able to grow while simultaneously strengthening our profitability," adds CFO Marc Hundsdorf.

Knaus Tabbert invests in new production facility

Knaus Tabbert AG has begun construction of a new production facility at its headguarters in Jandelsbrunn (Germany) with an investment of around €50 million. This is the largest new building project in the Group's history and will significantly expand the site's production capacity. The approximately 21,500 m² facility is an important part of the €220 million investment program with which the Group aims to achieve its medium-term growth targets. As part of its corporate strategy, Knaus Tabbert has set itself the goal of increasing sales revenues from the current level of around €800 million (2020) to around €2 billion. "We are investing in the future of tomorrow. The new facility at our main site is a key element of our investment program and an important contribution to the future development of our company," said Werner Vaterl, COO of Knaus Tabbert AG, explaining the groundbreaking ceremony for the new building.

In addition, the new superstructure production facility will enable shorter delivery times for dealers and customers once it is up and running.



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Dometic reports strong sales growth for third quarter 2021

Net sales were SEK 5,545 m (4,466), an increase of 24 percent (with 11 percent organic growth) with an operating profit before depreciation and amortization (EBITDA) of SEK 987 m (867), representing a margin of 17.8 percent (19.4 percent). Operating profit (EBIT) before items affecting comparability was SEK 785 m (690), representing a margin of 14.2 percent (15.5 percent). Operating profit (EBIT) was SEK 762 m (676), representing a margin of 13.7 percent (15.1 percent). Profit for the quarter was SEK 480 m (281).

Juan Vargues, Dometic President and CEO, commented: "Net sales in the quarter totalled SEK 5,545 m (4,466), corresponding to growth of 24 percent despite the significant supply chain disturbances impacting many industries around the world. Organic net sales growth reached 11 percent in the quarter. Based on the last twelve months we achieved a new milestone".

"Compared to a year ago" Vargues continued "we have increased investments in sales and marketing to drive growth in new strategic areas, including B2C. In addition we had a low cost base last year, still influenced by the pandemic related lock-downs.We are continuing to make acquisitions, and in September we announced two further acquisitions targeting the outdoor market; Cadac International, a provider of premium barbecues and accessories to the vehicle-based outdoor market, and Igloo, an iconic brand and manufacturer of cooling boxes and drinkware. Igloo has a clear number one position on the cooling box market in the US and adds strong market positions and consumer experience, assets that will be very useful in the next stage of our transformation. Strategy execution aimed at transforming Dometic into a more consumer-oriented company with lower sales cyclicality and higher margins continues at a high pace. The sales



channel mix is strengthening and the share of Distribution and Service & Aftermarket was 48 percent over the last twelve months, compared to 39 percent for the same period in 2017".

"It is also encouraging" said Vargues "to see our progress on Sustainability. CO2 ton/net sales has decreased by 17 percent compared to 2020, which is already outperforming the full-year 2021 target. One additional site switched to a renewable electricity supply in the quarter. During the quarter we also introduced a new material, "REDUX", a lightweight polyester made from 100% recycled plastic bottles that will be used in a wide range of new products. Operating cash flow for the quarter was SEK 346 m (1,043) impacted by the component shortages and longer than normal supply lead-times. Net debt leverage ratio was 1.5x (2.8x). We are continuously optimistic about the demand outlook for forthcoming quarters. Our order backlog is record high for the period and retail inventory levels are low across all vertical end markets. Supply remains the main uncertainty and it is difficult to predict when the situation will stabilize".



J-MAT J450



The **JMAT J450** is a unique and innovative product, developed by Vetroresina spa, with special materials which grant better mechanical characteristics. This new product, made with a proprietary technology, allows a reduction in weight maintaining the same aesthetic and excellent mechanical characteristics.

Advantages

- Improved mechanical properties
- Optimal fibre/resin ratio



Fiberglass laminates



Thor Industries reports record net sales of \$12.3 billion

THOR Industries, Inc. has announced record results for the fourth fiscal quarter and fiscal year ended July 31, 2021.

"We are pleased to report that in a year of unprecedented challenges, THOR posted record net sales and net income for the fourth fiscal quarter and the full fiscal year, making it the most profitable year in THOR's history. For the fiscal year, we sold over 300,000 units, eclipsed \$12 billion in net sales and generated net income attributable to THOR of \$11.85 per diluted share, which far exceeds the former record for diluted earnings per share of \$8.14 set in fiscal year 2018," said Bob Martin, President and CEO of THOR Industries.

Net sales were \$3.59 billion in the fourth quarter of fiscal 2021, compared to \$2.32 billion in the fourth guarter of fiscal 2020. This year's fourth guarter net sales include \$1.73 billion for the North American Towable RV segment, \$823.1 million for the North American Motorized RV segment and \$969.9 million for the European RV segment. Consolidated gross profit margin increased 170 basis points to 16.6% for the fourth quarter of fiscal 2021, compared to 14.9% in the corresponding period a year ago. The increase in the consolidated gross profit percentage was primarily due to the increase in sales and a reduction in sales discounts compared to the prior-year period. Net income attributable to THOR Industries and diluted earnings per share for the fourth quarter of fiscal 2021 were \$230.3 million and \$4.12, respectively, compared to \$119.2 million and \$2.14, respectively, in the prior-year period. Net sales for fiscal year 2021 were \$12.32 billion compared to \$8.17 billion for fiscal year 2020. The increase in consolidated net sales is due to both the increase in consumer demand and the negative impact of the onset of the COVID-19 pandemic in the prior year, which resulted in six to eight weeks of production shutdowns at most of the facilities. Net income at-

Bailey promotes caravanning with a high-flying caravan stunt in London

A high-flying caravan from UK caravan and motorhome manufacturer, Bailey of Bristol, gave surprised tourists and Londoners a new perspective on caravanning as it was slowly craned into the sky above St Paul's cathedral and placed on a rooftop terrace as the centrepiece of a media and industry event to celebrate the boom in staycations and caravanning during the COVID pancaravan sales have increased by 15% and motorhomes by 30%, while visits to its website have hit one million for the first time ever and it has almost tripled its number of Instagram followers. It's also noticed an acceleration in the rise of a new, younger profile of customers, many with children, who are more technology savvy and spend more time online and on social media. Craning the caravan onto the rooftop required the expertise of highly-experienced operators and had required many months of planning, including arranging temporary road closures and closely monitoring weather forecasts. The event achieved coverage in national newspapers and specialist press.





tributable to THOR in fiscal year 2021 was \$659.9 million, or \$11.85 per diluted share, compared to net income attributable to THOR of \$223.0 million, or \$4.02 per diluted share, in fiscal year 2020. Net cash provided by operating activities for fiscal 2021 was \$526.5 million compared to \$540.9 million in fiscal 2020. Net cash provided by operating activities for fiscal 2021. Net cash provided by operating activities for fiscal 2020. Net cash provided by operating activities for fiscal 2021 was impacted by higher working capital levels, primarily increased inventory levels for production needs to meet the increased consumer demand. North American Towable RV backlog was \$9.28 billion at July 31, 2021, as compared to \$2.76 billion as of July 31, 2020. The addition of the Tiffin Group, acquired on December 18, 2020, accounted for \$373.0 million of the \$1.28 billion increase in net sales, or 26.8% of the 92.0% increase for fiscal 2021. North American Motorized RV backlog was \$4.01 billion at July 31, 2021, compared to \$1.45 billion as of July 31, 2020. European RV backlog was \$3.56 billion as of July 31, 2021, compared to \$1.53 billion as of July 31, 2020.

Stellantis and TotalEnergies welcome Mercedes-Benz as a new partner of Auto-motive Cells Company (ACC)

Stellantis, TotalEnergies and Mercedes-Benz have entered into agreements to welcome Mercedes-Benz as a new partner of Automo-tive Cells Company (ACC). The transaction is subject to agreement on definitive documentation and customary closing conditions, in-cluding regulatory approvals. ACC results from the initiative taken in 2020 by Stellantis and TotalEnergies and supported by the French, German and European authorities, to create a European bat-tery champion for electric vehicles. The entry of Mercedes-Benz in ACC is a clear demonstration of the industrial progress and of the merits of the project, which it will strengthen. ACC's objective is to develop and produce battery cells and modules for electric vehicles with a focus on safety, performance and competitiveness, while en-suring the highest level of quality and the lowest carbon footprint. The updated ACC capacity plan will mobilize an investment of more than seven billion euros, which will be supported by subsidies and financed by equity and debt. The creation of this European battery champion will support Europe to address the challenges of the ener-gy transition in mobility, ensure its security of supply of a key com-ponent for the electric car industry.

ACC will be supported by a winning trio of partners that combine:

- A deep technological expertise in battery development with Saft, an affiliate of TotalEnergies, which has more than 100 years of ex-perience in the field of long-life batteries and battery systems.
- A leading global mobility player with Stellantis that has a clear mission to provide cutting-edge technology to ensure freedom of movement for all through distinctive, appealing, affordable and su-stainable mobility solutions.
- The research and development expertise of Mercedes-Benz, along with its support to the expansion of ACC's production facilities based on the brand's benchmark quality standards.

Wingamm: new Sales Manager

The Italian caravan and motorhome manufacturer, Wingamm, has appointed Marco Giannelli to its new role of Sales Manager, working alongside the CEO, Lorena Turri. Marco has extensive experience in the RV sector which goes back to the start of his career in several multinational companies, where he made a great contribution to the development and expansion of various leading German brands in the sector. His career includes experience in Europe for a French company, initially as Customer Service Manager, then Export Manager, and eventually as Sales Director on the Italian market for the colossus of motorhomes manufacturers. The new role assigned to Marco Giannelli is part of Wingamm's strategy of strengthening its position on the European market, where the demand for compact vehicles is growing. The current market production does not satisfy this need fully, so Wingamm says its strategy is to perform better in this sector. Wingamm vehicles are designed with compact construction and efficient thermal insulation that only a specialised brand like this, with its super insulating monocogue chassis design can achieve. "I'm delighted to become a part of the only 100% Italian brand in the motorhomes sector, " says Marco Giannelli.



MDC : first off-road camper importer to obtain RVMAP from Caravan Industry Association of Australia

MDC Camper Trailers & Offroad Caravans (MDC) recently became the first offroad camper trailer and hybrid caravan importer to obtain the voluntary RVMAP accreditation from Caravan Industry Association of Australia. MDC has been working with the Caravan Industry Association of Australia for over 12 months regarding its RVMAP accreditation application. *"As a company, MDC has always strived to provide the best possible products to market for the benefit of our customers, so achieving RVMAP accredited status really allows us to genuinely demonstrate this commitment", said Managing Director of MDC, Mr Vaughan Hindley. Caravan Industry Association of Australia CEO, Mr Stuart Lamont praised the team at MDC, after recently visited their Brisbane operation: <i>"RVMAP accreditation is not handed out lightly, with ongoing evidence of a business's commitment to supplying product which complies with relevant Australian Design Rules and other Federal construction*

compliance regulations required to be RVMAP accredited". To obtain RV-MAP accreditation, an extensive review of products and processes must be completed to the satisfaction of the RVMAP team of compliance engineers, over several inspections.





DexKo completes acquisition of Brink International

DexKo Global Inc. ("DexKo") has completed its acquisition of the European towbar manufacturer, Brink International. This strategic acquisition enables its subsidiary AL-KO Vehicle Technology Group ("AL-KO") to expand its product portfolio and international presence and to open up new target markets in order to continue the strong growth path of the group. Based in the Netherlands, Brink has 900 employees in eight countries and has a leading market position and is a premium brand. Together, Brink and AL-KO offer a highly developed product portfolio that ensures safety and performance. Brink's product portfolio includes fixed, detachable and retractable and the next generation towbars. The connection between towbars and trailer couplings is a natural extension for DexKo that expands its technological scope. With this new business unit, AL-KO will employ around 3,800 people at more than 40 locations worldwide.

Brink Group



UK: changes to rules on towing a trailer or caravan

The UK Government has announced some significant changes to its rules on towing a trailer or caravan with a car, which will be good news for the British caravan market.

Currently, there are limits on the weight you can tow with a standard



driving licence depending on when the person passed their driving test and got their licence. Significantly, this meant that anyone who had got their licence from 1 January 1997 was restricted to towing a trailer weighing less than the unladen weight of the car, up to a total maximum authorised mass (MAM) of 3,500kg for the car and trailer. For these people to be allowed to tow heavier trailers, an additional driving test was required. This represented a significant issue for caravan manufacturers as it restricted the size of caravans that younger drivers could tow. With the new rules, those who have licences issued from 1 January 1997 will be allowed to tow trailers up to 3,500 kg MAM when the law changes. An additional driving test is no longer required (or available).

Full details of the changes can be viewed at: https://www.gov.uk/ guidance/new-rules-for-towing-a-trailer-or-caravan-with-a-car-fromautumn-2021

The UK Government has also announced that the GB sticker required on the rear of UK vehicles travelling abroad will be replaced with a UK sticker from 28 September 2021.

THOR Industries acquires Airxcel

THOR Industries announced it has acquired Wichita, Kansas-based AirX Intermediate, Inc. ("Airxcel") with the transaction closing effective September 1, 2021.

Airxcel manufactures a comprehensive line of high-quality RV products which they sell to original equipment manufacturers (OEMs) as well as consumers via aftermarket sales through dealers and retailers. The purchase price is \$750 million, subject to standard post-closing adjustments, and was funded through a combination cash-on-hand and \$625 million from THOR's expanded Asset-Based Credit Facility (ABL).

Airxcel generated annual pro forma revenue of approximately \$680 million. The purchase price is approximately 7.6 x estimated, adjusted EBITDA for calendar year 2021. Approximately 80% of Airxcel's revenues are from OEM sales with the remaining 20% from aftermarket sales. Approximately 30% of Airxcel's OEM revenues were generated from sales to subsidiaries of THOR Industries, Inc. The acquisition is consistent with THOR's long-term strategic growth plan to grow sales and enhance consolidated gross margins. The acquisition is expected to be accretive to THOR's fiscal year 2022 earnings.

"We are excited to welcome Airxcel to the THOR Industries family. Airxcel has been a long-time business partner to THOR and the RV industry, supplying some of the highest-quality products over decades to the RV industry. There were a number of factors that made this acquisition a compelling and timely fit for THOR, including the strength

of their management team and dedicated workforce, the quality of their products and reputation for innovation, the long-standing relationships with both OEM and aftermarket customers and, in the face of so many supply chain challenges over the past year" said Bob Martin, President and CEO of THOR Industries.

"We believe the long-term growth potential for the RV industry remains very positive, and this acquisition reflects our confidence that the RV industry will continue to grow" continued Bob Martin.

"Importantly, the current management team at Airxcel will continue operating the business and serving their diverse customer base while gaining access to the financial strength of THOR to support their growth" said Bob Martin.

"We have had a long history as a key supplier to the RV industry and to THOR and its many brands specifically, and we are excited to become part of the THOR family of companies," said Airxcel's CEO Jeff Rutherford.

"Under THOR's ownership, Airxcel will contin-



ue its long-standing relationship with manufacturers and aftermarket providers throughout the RV industry without interruption, while continuing to develop, manufacture and sell high-quality, innovative RV product solutions," concluded Rutherford.

Airxcel manufactures and sells a comprehensive line of functionally critical, branded products to the RV industry including:

- Coleman-Mach rooftop air conditioners, heat pumps, thermostats and accessories
- Suburban furnaces, water heaters and cooking appliances
- MAXXAIR ventilation solutions
- Aqua-Hot hydronic heating systems
- Dicor roofing products, sealants, coatings, wheels and more
- Vixen Composites fiberglass reinforced plastic and custom composite panels
- CAN Italian cooking appliances, sinks and accessories
- Cleer Vision windows and tempered glass
 MCD roller shades
- United Shade window shades

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Dometic: two more brands in the outdoor sector

Dometic is acquiring two more brands in the outdoor market – Cadac International, the provider of premium barbecues and accessories, and Igloo, the provider of passive cooling boxes and drinkware products.

Cadac had net sales of approx. EUR 17 million in 2020, with a good operating margin. This transaction strengthens Dometic's product offering and distribution network for the growing vehicle based outdoor market. Cadac products are sold primarily across Europe through a network of more than 600 dealers and their own B2C e-channels. The company is privately owned and has approximately 40 full-time employees.

The acquisition of Igloo will significantly strengthen Dometic's offering and distribution network for the outdoor market in



North America. Dometic will acquire Igloo for USD 677 million, on a cash and debt free basis.

Net sales of Igloo for the previous 12 months were USD 401 million (a growth of 24%), with an EBITDA margin of 10.1%. Sales and cost synergies are expected to generate annual improvements on EBITDA of approximately USD 50 million, to be realized within five years. Igloo is a global provider of passive cooling boxes and drinkware products for the outdoor market. Founded in 1947, Igloo is perceived as one of the leading manufacturers in the world with an iconic brand, a wide product range and strong consumer orientation. With 92% of net sales in the US and products available in more than 90,000 retail stores globally, Igloo also has its own fast-growing direct to consumer sales channel. Igloo has 1,100 employees and is headquartered in Katy, Texas. The global market for cooling boxes and drinkware is a growing 8 billion USD market fueled by the outdoor trends visible across the world. Igloo has a clear number one position in this market in the US.



CIAA's 30th anniversary National Conference

The Caravan Industry Association of Australia has announced the dates for its 30th anniversary National Conference, sponsored by Dometic. It will take place from 28th March to 1st April 2022 at the RACV Royal Pines Resort on Australia's Gold Coast. Anybody interested in attending can register

their interest now at: https://caravanconference.com.au

The Association's annual National Conference is a popular event for the caravan industry in Australia and includes masterclasses and workshops, conference, awards, a trade exhibition and gala dinner.





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Report Düsseldorf - Caravan Salon 2021

CARAVAN SALON 2021

Exhibitors total	653
Visitors total	185,000
First-time visitors	41%

Chronicle of a predicted success

The German market is euphoric and the Caravan Salon played its usual and important role in facilitating business, networking and spreading the culture of open air tourism. A beautiful event with a revised but very effective layout, and an exhibition full of different types of models

CARAVANS

Words editorial staff

CARAVAN SALON

he Aboutcamp BtoB team did not want to miss the 60th edition of the Caravan Salon Düsseldorf in 2021. A year that was as rich as ever in both exhibitors and visitors, where the heavy absence of the Hymer Group was partially filled by larger-than-usual exhibition stands and a new layout.

Last year, the Caravan Salon Düsseldorf decided to leave Hall 17, the one historically dedicated to the Hymer brand, empty. This year, it definitely changed its strategy and placed the Frankia-Pilote group in hall 17 which, we understand, will now be its position for the future.

In the adjacent hall (16), the space left empty by the Laika brand was occupied by Rapido and Malibu, who had expanded their space at the exhibition. The same thing happened in halls 10 and 11,



where the Bürstner and Dethleffs brands historically exhibited. These now featured the brands from the Trigano group. The Knaus group is now firmly positioned in halls 1 and 4, while, as always, hall 9 is dedicated to the Hobby-Fendt group. Hall number 5 is the pavilion for the premium class, maxi motorhomes, while halls 15 and 12 are entirely dedicated to camper vans.

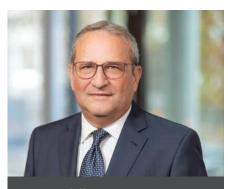
A highly appreciated novelty was the new layout of halls 13 and 14, which have become a real technical area. Tents, aftermarket accessories and camping equipment have been moved to Hall 3 in the Equipment & Outdoor and Travel & Nature area, to allow the big component manufacturers to have larger and better stands, with a more efficient and professional link between the two pavilions.

With 653 exhibitors from 31 countries in 13 exhibition halls and 185,000 visitors, this year's Caravan Salon exceeded expectations. Furthermore, the percentage of visitors who registered for the first time was very high (41%).

Exhibitors reported excellent business, useful and promising contacts made with caravanning enthusiasts and professional visitors. We monitored halls 13 and 14 closely, and the opinions were not all enthusiastic. Certainly, there were no product and technical area managers from the Hymer Group present as they did not even participate in the fair as visitors. And there were no buyers from outside Europe, such as Australians, Americans, South Koreans, or the Chinese. Nonetheless, most of the exhibitors in the world of OEM components said they were satisfied, because they still had numerous and fruitful B2B meetings.

Opinions that matter

Erhard Wienkamp, Managing Director Operative Trade Fair Business at Messe Düsseldorf, said: "The participation of 185,000 visitors clearly exceeded our expectations. With this unique combination of business platform and caravanning festival, Caravan Salon confirms its leading position in the industry. The mood at the fair and inside the pavilions was very good. We are also very happy to note that visitors have approved and complied with our anti Covid security protocol again".



Hermann Pfaff CIVD

Hermann Pfaff, CIVD President

"For its 60th anniversary CARAVAN SALON presented itself in top shape underpinning its status as the leading trade fair of the industry. At no other place can such a wide range of products, so many innovations and novelties be seen as in Düsseldorf. The ranges presented to visitors were not only versatile, informative and entertaining but also attractively staged. Gratifying here is not only the high turnout in total but also the fact that more and more newbies as well as many young families have visited the trade fair. Caravanning is the No. 1 form of holiday trending in 2021 and beyond. Individual, self-sufficient and flexible travelling has been very much "en vogue" not least since the COVID pandemic if not before. This means many exhibitors are returning home with order books filled as well as rarely before – and this across all product categories and vehicle classes. In brief: CARAVAN SA-LON 2021 was a huge success for all parties involved - trade fair company, exhibitors and visitors"

Holger Schulz, Hobby CEO

"We travelled to CARAVAN SALON in Düsseldorf with great anticipation. This year, we have brought along an especially large number of exciting innovations meeting with an overwhelming response with our customers. In the caravan segment our top-



of-the-range model Hobby Maxia is a real customer magnet like the Excellent Edition that targets modern families. In the motorhome segment demand for campervans continues unabated while the partially integrated Optima De Luxe with a new design is also enjoying very positive feedback. Our BEACHY displayed on beach sand is definitely a highlight of the trade fair and is also going down very well with visitors. Both in terms of business and the extensive media coverage, CARAVAN SALON 2021 is a resounding success for us".

Holger Siebert, CEO of Eura Mobil GmbH and Trigano Deutschland KG

"Despite the fact that production in all plants is running at full capacity until next summer, many customers were still able to



Holger Siebert Eura Mobil - Trigano

order their dream vehicle. Positive to note is that customers are informed about the international supply chain disruptions and therefore have understanding for the currently long delivery times".

Wolfgang Speck, CEO at Knaus Tabbert

"Caravanning has become mainstream and is one of THE forms of holiday-making right now. CARAVAN SALON has shown once



again that this industry is booming – and that Knaus Tabbert is booming. The many enthusiastic customers and our sales figures confirm the performance of our whole team and show us that we have taken the right path as innovation drivers".

Gerd Adamietzki, CSO at Knaus Tabbert



Gerd Adamietzki Knaus Tabbert "Messe Düsseldorf's well thought-out Hygiene and Safety Concept has also proven its worth again in this special year and enabled us to present our products – and we are delighted about this. After all, there's nothing like direct contact with customers and their personal feedback, and they are extremely important to us. We can look back on great and very successful days at the trade fair".

Bernd Wuschack, Manager Sales, Marketing and Customer Care at the Carthago Group "We rate this year's CARAVAN SALON as



extremely positive. The response especially to our novel products, Carthago chic c-line New Generation and Malibu Van diversity, was outstanding. Not only was the turnout high but visitors were also very disciplined again. As a result the mood at our stands was very pleasant for the entire duration of the fair and marked primarily by high-guality conversations. This is definitely also a consequence of increased online research activities that were rounded off by the personal visit to the trade fair: doing thorough research up front to then form that all-important personal impression to make a purchasing decision at the fair – this is the clear trend we identified".

Mike Reuer, CEO of Westfalia Mobil GmbH

"Even in times of filled order books CAR-AVAN SALON in Düsseldorf is one of the most relevant marketing instruments for us



Mike Reuer Westfalia Mobil

as manufacturers. This is why it is important to us to showcase and offer our campervans to the interested audience here. Our presence here is received very well and the consistently high visitor figures allow us to register further growing interest in our new and existing products as well as the Westfalia brand. Only when you can see, touch and experience things physically, can you really convince yourself of the merits and benefits of a product. This holds particularly true for vehicles premiered here. We and our dealers are highly satisfied with both attendance figures and the sales deals concluded at CARAVAN SALON".

Timo Schwickart, Senior Vice President Sales & Marketing AL-KO Vehicle Technology Group

"We have positioned ourselves as a high-performance company that lives and breathes customer focus with forward-looking technology and service leadership buzzing with energy," said Dr. Timo Schwickart, Senior Vice President Sales & Marketing AL-KO Vehicle Technology Group, summarising the trade fair successes: "We are delighted with the many projects and orders as well as the avid interest taken in the chassis and accessory innovations of our brands AL-KO, E&P, SAWIKO as well as Nordelettronica and CBE. As we had hoped, our exhibition stand proved an attractive communication centre for



AL-KO Vehicle Technology Group

our customers and the sector as a whole. I would like to particularly thank my whole team – on site and back at the homebase – for their huge efforts and their performance, and also Messe Düsseldorf, that made this accomplished re-start possible under the given conditions".

Alexander Wottrich, CEO of Truma Group

"CARAVAN SALON 2021 also proved extremely satisfactory for us and has clearly demonstrated that the caravanning world will be even more digital, global and fast-moving. Also and especially in pandemic times people are longing for more independence, freedom, nature, and time to disconnect. At Truma's exhibition stand in Hall 14 the camping community convinced itself



of the Truma iNet X System solution, which was among the highlights of this year's fair. The feedback was overwhelming because users understood the visionary approach of connected travelling from the outset. Correspondingly positive were the constructive talks with vehicle manufacturers who found particular praise for the interactive presentation of the Truma Sales Team. I am so proud of how the complete trade fair team familiarised visitors with our highlight, the Truma iNet X System".



Michael Haus, CEO Doréma Vorzelte GmbH

"We are very satisfied and have to say that visitor structure stands out in particular. The audience is very high-quality and ever so well prepared – customers contact us with concrete intentions to buy and we have wellfilled order books. Hall 3 was perfectly inte-



grated and registered very good footfall for the entire duration of the trade fair. Accessories always pull crowds. This CARA-VAN SALON was a resounding success for

us across the board".

Ute Dicks, General Manager of the German Hiking Association "Deutscher Wanderverband" (DWV)

"The joy felt in creating encounters again at the trade fair location Düsseldorf was enormous and it was important to us to support this. Congratulations, it has worked. Hiking and caravanning complement each other very well which is why the idea of Messe Düsseldorf to give this trend more exposure through a 10-day exhibition concept, was right. It allows us to share the versatile, hikeable destinations and ideas of the DWV with

a new target group. With even more outdoor ranges CARA-VAN SALON can develop into an optimal platform for the future and reach out to wide target groups".









Words Renato Antonini



Products and trends

© PANAMA – Sébastien Sassoulas

In a market like the German one, which is reaching very high peaks, there is room for everyone, and there was a really wide range of models of all different types exhibited at the Caravan Salon. But the campervan is undoubtedly the type most in the spotlight today: the public are looking for them and the manufacturers compete to propose the best solutions at the right price. Let's look at what are the dominant trends and focus on the most representative new models

ampervan, campervan and campervan again: it seems that the interest from the market is only for this type of vehicle. But is this really so? At the Caravan Salon, we saw many campervans, with all companies seeming to have a range of them in their catalogue, some manufacturers even have two or three. And the subtype of compact campervans is also grow-

ing, with a low roof that can be lifted when the vehicle is parked.

But, at the Düsseldorf fair, we also saw many other models of different styles - a sign that there is still public interest from the public and manufacturers for motorhomes, semi-integrated and overcabs, in addition to caravans, which on the German market still sell in important numbers. Most create vehicles on a common platform and differentiate the models of the various brands by working on the front, on the external graphics and on the interior furnishings. But there is still room for unique vehicles, which perhaps the public will like and set trends. Or maybe not... But there have always been times in industrial production when it is necessary to take risks.

Challenger 240 and Chausson 660

As always, within the Trigano Group, the task of proposing the most disruptive models is entrusted to the French division Trigano VDL and its two twin brands Challenger and Chauss-



on. This year, they took up a theme that has already been dealt with in the past by some brands, that of the two access doors to the passenger compartment. But they did it in an original way by combining it with a new storage solution. The rear garage is as high as the cabin and also serves as a pre-entrance, as it



is equipped with a real door. The pre-entry door becomes useful in winter and when it rains, to create a filter area between the exterior and the actual passenger compartment. The rear storage/ service area is next to the large kitchen (separated by a unique glass wall) and the bathroom with a rotating wall. The



front area is also unusual, with the drop-down bed (longitudinal) and a large and convivial living room equipped with an L-shaped sofa and two modular seating stools, in addition to the side cabinet with retractable TV.



Knaus E.Power Drive

Knaus experimented with electric propulsion to probe the possible paths of the future: E.Power Drive is made in collaboration with HWA AG and is based on a normal Knaus Van Ti 650 MEG Vansation model, but does without the traditional diesel engine. This vehicle is powered by a 180 kW electric motor, combined with a 35 kWh battery installed under the floor, near the rear axle. The

cruising speed is over 110 Km/h. The range (according to WLTP test) is 90 km and the charging time is three hours. But with the range extender the charging time is reduced to 35 minutes: the range extender is based on a compact and efficient Wankel rotary engine that drives a generator. On the dashboard of the Knaus E. Power Drive there are two large screens that display various information regarding vehicle operation, driving configuration and infotainment. However, we are in the presence of a vehicle that is not only experimental, but also transitional: for the future, Knaus technicians aim to provide energy via a hydrogen-powered fuel cell.



Rapido 854 F

Rapido also tried to work on the theme of a camper for a couple with a large rear living area and only two front travel seats (plus two additional seats that can be obtained from the living room). The 854F model has shorter dimensions than average for the current European standard (670 cm in length). It is characterized by the bathroom with a rotating wall, but above all by the rear lounge with a drop-down bed above it, in addition to the front one.



Compact campervans with pop-up roof

To expand their offerings at a time when demand is high in the market, some manufacturers have decided to enhance their presence in the campervan segment with compact models with a low roof (about 2 meters high) that can be raised when parked. It is a type of vehicle that has always existed, but which in recent years was no longer of great interest. Now the situation has changed, also because the valid but expensive base vehicles from Volkswagen and Mercedes have been joined by the Renault Trafic, popular on the French market, flanked by the Ford Transit Connect vans and the various models of the Citroen Spacetourer, Peugeot Traveler, Toyota Proace and Opel Vivaro / Zafira family. The Trigano Group had foreseen the growing interest in compact campervans with low pop-up roofs, and therefore presented new

products in this particular market segment at the Caravan Salon. They are made on the same platform, are very similar to each other and use the Ford Transit Custom base vehicle: the Duncan models are included in the Karmann Mobil range, but to be even more aggressive in the market, Trigano has also created a new brand, Panama (here on the left).

Variable bathroom

The bathroom with rotating wall is one of the popular introductions of the 2022 season. It is not a new solution and has been used for several years: the rotating wall in the bathroom allows you to move the sink to allow you to create a waterproof shower box separate from the other elements of the bathroom. But now this solution is adopted by many manufacturers in order to save space on board: it not only appears on semi-integrated and motorhomes, but also on many campervans.





Report Düsseldorf - Caravan Salon 2021

More and more campervans

The offer of classic campervans is increasing, with a standard roof and a height of around 260 cm. There are emerging brands and there are alternative mechanics. Just think of Yucon, Frankia's campervan line, a young brand that intensifies its offer with models based on Fiat and others based on Mercedes. But, obviously, there are more and more campervans with pop-up roofs: by now almost all European manufacturers offer a range with this solution that the public has liked and which has helped the market be more dynamic.

Mechanical bases

On the European market, the base vehicles in the 3500 kg class are expanding: the aggregation of Fiat, Peugeot and Citroën under a single group, Stellantis, has modified some structures. In addition to the well-known Fiat Ducato and Ford Transit, there is the Mercedes Sprinter, but the Peugeot Boxer and Citroën Jumper are also advancing, while Knaus is expanding its offer on a MAN TGE basis.



Hobby Beachy

A novelty in the caravan segment is the Hobby Beachy. This is not a sophisticated model equipped with the latest technological advances, but a caravan with the bare essentials and minimal do not have closing doors, the kitchen is not equipped with a hob and the bathroom is practically absent (a portable toilet placed in a compartment that also et). Much of the passenger compartment is occupied by a large living room, with opposing sofas which can be converted into a bed for 2-3 people. But the sinuous external shapes are immediately popular and trendy, the weight is reduced to the advantage of ease of towing and keeping the price low.





Top-of-the-range Trigano Campervan





The Trigano Group intensified its presence in the campervan segment with three new ranges placed at the high-end segment of the market. They are made on the same platform but offered under three different brands: Mobilvetta Admiral, Autostar Van Design Edition and Eura Mobil V series. These are campervan based on Fiat Ducato (599 and 636 cm) and are characterized by good thermal insulation and interior furnishings with a good design and particular solutions. Noteworthy is the bathroom with rotating wall (to make the shower compartment) and the kitchen with sliding shelves and pull-out baskets.

Knaus Boxdrive MAN

The already extensive range of Knaus campervans expands with the introduction of the new Boxdrive 600 XL, which is characterized by the unusual MAN mechanics and the high fiberglass roof. The length of 598 cm is standard, but the height reaches 309 cm: it is used inside to create a sliding bed above the living area. A solution that was already present on the Boxstar XL (on Fiat Ducato) and which is now proposed on this new base vehicle.





Knaus: ePower caravans

Knaus launched special versions of some Sport and Südwind models: the ePower range, characterized by the absence of gas on board. Everything works with electricity: the refrigerator is a compressor (more efficient than the absorption one), the hob is induction and the air conditioning is entrusted to an electrical appliance that works for cooling and heating. All this saves about 50 kg of weight. The Knaus ePower are aimed at users (about 80% of the total) who use the caravan in periods with a milder climate, usually between the Easter holidays and the month of October.

Compact motorhomes and semi-integrated

The topic of compact semi-integrated motorhomes is certainly not new, and the major manufacturing groups have been working on it for many years now. But something has changed, there is a renewed commitment on this topic due to the fact that if the market pushes towards campervans, it is equally true that many potential customers could be attracted to vehicles as large as a campervan but with greater internal habitability and better insulation. If the campervan could have been considered an alterna-



tive to the semi-integrated in the past, now it is the compact semi-integrated that becomes an alternative to the campervan. Recently, we have seen a great commitment from Challenger (X150 and S series) and Chausson (X550 and S series), but also Rapido (C series) and Knaus (Van TI). And there are no shortage of examples of compact, narrow-width motorhomes, such as the new Itineo Nomad and the renewed Knaus Van I.



Left: Knaus Van Ti 550 MF. Above: Challenger X150

to a refined design made up of a few

elements all of remarkable quality. It

was a sort of very elegant minimalism,

They weren't there

For the second consecutive time, the Erwin Hymer Group was not present at the Caravan Salon. The public and the experts were therefore unable to see the most interesting news of the many brands that belong to the German group (controlled, in turn, by the USA's Thor group). Among the most impactful models, we want to note the Bürstner Lyseo Gallery concept which was presented in July: it is a mix between a semi-integrated and an overcab with a dome above the cabin that rises to form an attic housing a comfortable double bed. Laika, on the other hand, premiered the new Kreos in Dusseldorf at an offshow event. This semi-integrated model shows the state of the art of design and luxury from the Italian house: excellent construction technique (25 cm double floor, 40 mm aluminum/XPS/aluminum walls) and excellent interior design.



Refined design for furnishings

Some manufacturers proposed truly excellent design solutions for their interior furnishings. They completely abandoned classic styles and turned

where, for example, you can notice the absence of handles for opening the roof lockers. For example, two manufacturers who have worked in this direction by offering excellent examples both in the motorhome and caravan segments were Adria (Sonic motorhome and Alpina caravan) and Hobby (semi-integrated Optima De Luxe and Maxia caravan). Above: Hobby Optima De Luxe Right: Adria Alpina

Report Düsseldorf - Michael Degen and Stefan Koschke



The Caravan Salon remains a point of reference

The problems related to the pandemic and the growth of virtual shows have not affected the value of a fair where the public and industry professionals can meet and see the new products. We have discussed this situation with the managers of the Messe Düsseldorf, Stefan Koschke and Michael Degen



ichael Degen, Executive Director Trade Fairs of Messe Düsseldorf says that the Caravan Salon is a very important fair in the panorama of events that take place each year at the Düsseldorf exhibition centre. He also confirmed that although the pandemic created difficulties, the exhibition centre coped well. Degen is sure of one thing: people have the desire to meet and touch the products with their own hands. Despite this, Stefan Koschke, Project Director Caravaning & Outdoor of Mes-

Words Antonio Mazzucchelli - photo Enrico Bona

se Düsseldorf, explained to us that the Caravan Salon also introduced virtual presentations as a necessary step to meet the professional people who are unable to travel due to the pandemic, particularly those who usually come from America, Asia and Australia. The Messe Düsseldorf is continuing with a digital transformation, but there will also be no shortage of investment in expanding and modernizing the exhibition spaces. They both agreed that the formula of the annual fair remains a winning one.

Michael Degen Executive Director Trade Fairs

Aboutcamp BtoB: Once again, the Caravan Salon confirmed itself as a trade fair of great importance, even during a pandemic. But how important is it in the range of trade fair events at the Messe Düsseldorf?

Michael Degen: The Caravan Salon is very important. We host two major shows for the leisure industry, the Caravan Salon and the Boat Show. These are particularly important shows for us when it comes to gaining popularity with the general public because they are very specific for the relevant industry. Sometimes, we have other shows which are important for specific industries, but none are as well-known as the Caravan Salon and the Boat Show. Everyone knows exactly what's going on at these shows, and that's important. We like to have that kind of popularity. We need everyone's support.

Aboutcamp BtoB: It is clear that trade fairs are experiencing a period of great transformation. On the one hand, the pandemic has led to the temporary suspension of many events, but on the other hand communications in general are changing, for BtoC and BtoB. What is your opinion of this - starting from the difficult period that you have faced due to Covid: how did you react and how have you been affected in terms of attendance?

Michael Degen: If there is any good news at all as a result of the pandemic, then it is probably that, after 18 months, we have found out that people want to meet in person again. They are tired of being on remote web sessions. Everyone tells us, "I'm starved of personal face to face communication!". At least this is a positive result - and, of course, very important for our business. Over the last 25 years, we've always been confronted with the question: now that there is internet, will people still need trade shows? It turns out that over the last 25 years, trade shows are really relevant for everyone and especially for those industries where it's very important to find out about a product. For example, you can't make a decision about buying a new caravan or a vehicle when you haven't seen it and touched it. Another example is a wine show: how can you judge the quality of a wine if you don't taste it? So, yes, at the moment it's been the worst experience we can have as a trade show organizing company, but we still feel optimistic for the future and that there will be a comeback. Most industry people want to meet face to face. We used to have international teams coming to meet at shows in Dusseldorf; for





Stefan Koschke Project Director Caravaning & Outdoor

Aboutcamp BtoB: How is the Caravan Salon going, and what feedback have you had from exhibitors?

Stefan Koschke: We have had really good feedback; exhibitors are happy, visitor numbers are good, and the quality of visitors is good, so that makes the exhibitors happy. Everyone on the fairground is laughing and enjoying meeting people again, not only on a B2C level, but also on a B2B level.

Aboutcamp BtoB: Without visitors coming from outside Europe, many of the component manufacturers have more limited business opportunities. Have you thought of a complementary strategy to compensate for this situation, such as digital events?

Stefan Koschke: Our Technology Days were conceived because it was not clear if people from North America, Australia and Asia could or could not come to the Caravan Salon. Unfortunately, it was not possible to come from Australia, and difficult to come from Asia and North America, so the idea to offer exhibitors the possibility to present their product news in a video session to different markets was very good. Lots of companies decided to do this, even though it was a risk to do something new, but they were very open to doing it.

Our main idea was that two years of people not travelling destroys contacts, so we wanted to bring them together again. This is an important point for us and it's also a chance for us in the future to have additional scenes for people who cannot travel and give them the possibility to present and make contacts. For the first time we had a matchmaking tool for the Caravan Salon and it's perfect as you can have these sessions for people in different time zones. The Matchmaking tool, after the presentations, is the best possible way to bring people together. This was a major new idea and we hope it works and creates business. We wanted to show what people missed as they didn't come.

Aboutcamp BtoB: Many camper and caravan manufacturers already have all production sold out until the end of next year. Why is it still important for them to participate in the Caravan Salon?

Stefan Koschke: Of course it's important to take part and show to potential customers what they are offering and what the latest news and innovations there are. This is a really important part of a trade fair, and for consumers, the biggest advantage is being able to see so much in one place, rather than driving hundreds of kilometers to

example, Australian buyers would meet their Canadian suppliers here in Dusseldorf, but we are not sure if this will still be the case over the next five to 10 years. Maybe there is a change in the trade business where the relevance of the regional shows is increasing, but we have an answer for that: All in Caravanning in China is a good example where we go to the markets with these shows... we don't expected that every Chinese person or company interested in caravanning will come to Dusseldorf, so we go there and take the industry to them.

Aboutcamp BtoB: When the Covid pandemic is over, will everything return to the way it was before? Or will exhibition companies have to face changes? Were there already any signs of changes before Covid? Will fairs have to find new <u>management and</u> communication strategies to survive?

Michael Degen: We have discussions and processes for when it comes to the influence of digital technology. Over the last five to six years we have been forcing the digital transformation process at the Messe Dusseldorf, and the influence of digital technology on the business, with face to face communication as the base for everything. But, of course, we have to create technology and some kind of support for customers and clients on the visitor side and the exhibitor side. The best example of this is a process that matches our web page for every show. In the period before the show starts you are able to find out which exhibitors you want to see, and also make an appointment between the two of you: Every trade show organizer is trying to gain relevance for the industry all year round, not only for the five or 10 days of the exhibition itself. At any time of the year you can go on the web page of the Caravan Salon, for example, when you need some specific industry news, so in a way it is a bit like the media industry. This is software that we already had in progress before the Covid situation.

Aboutcamp BtoB: If there are going to be any changes: what kind of fairs will change the most and which will continue more or less the same as today? What differences will there be between them in terms of the type of products, audiences they are targeting, and catchment areas?

Michael Degen: I believe this is all part of the Covid situation; if you have the best trade show that's the biggest and most relevant for the industry, everyone agrees that "this is my main event". We probably have some shows where we can expand the offering; for example, we have caravans and tourism, and at a certain point you have the chance to say: I have 200,000 visitors at the caravan show, why am I not including other elements of the leisure industry, such as boats, for example. But that's very dangerous, as although you might find exhibitors interested in having contact with 200,000 visitors, this would lead to a situation where the visitors, and then the exhibitors, would not be happy because it's too wide an offering. At least people are coming to the Caravan Salon to find out about caravans and vehicles, and that's the base for its success. In the short term there is always the possibility to expand the exhibition space and the financial results, but we have to concentrate on the focus of our visitors.

Aboutcamp BtoB: Which countries is Messe Düsseldorf investing in to develop the exhibition market, and which are the most promising?

Michael Degen: The most important is, of course, Asia and China. Historically, it was Russia, where 60 years ago, Messe Dusseldorf was the very first western trade show organizing company to go to Moscow. But, over the last 15 years, the Chinese market has the strongest relevance for us, and once we are in the position to have the leading, number one trade shows worldwide, we will try to export that concept to reach and set up certain live events in the main markets, such as China, India, Russia, Brazil or South America.

Aboutcamp BtoB: Messe Dusseldorf recently invested in

different dealers. So, one reason to participate in the Caravan Salon is to show the consumers what they want, and on the other side, the exhibitors have their only chance to show their complete portfolio. A lot of new people are coming into this sector and want to buy vehicles, so now is the time to present brands to them, so it's even more important than in previous years to be here and present yourself and your products.

Aboutcamp BtoB: The Erwin Hymer Group has made a strategic decision to participate in German caravanning fairs every two years and would like the fairs to be biennial. I guess you think differently ... why do you think it is important that the Caravan Salon remains an annual event?

Stefan Koschke: There are many reasons: there is a production cycle, so people want to see new products every year; it's very important that you can see new products live, rather than online as people will not buy it if they can't see it, feel it, and go in it. So, it's very important to have annual shows and, of course, there is also the situation where the exhibitors are sold out, but there is still the potential to buy next years models. You miss a lot of customers if you have no contact with them and a trade fair is the best place to have this contact in a good mood and be together in a good way. With 90% of all visitors being end consumers, they want a show every year and that's why we are doing this together with exhibitors, to create business for them. That's why we think it makes perfectly sense to have it every year. The Caravan Salon is an important part of sales strategies, so the producers need it and ask us for it. That's why we did it last year during the difficult times with the coronavirus, because the exhibitors also wanted it

Aboutcamp BtoB: There is also a marketing purpose for the Caravan Salon. You have a budget to do activities with the CIVD to help the industry grow and spread the culture of the open air tourism.

Stefan Koschke: Yes that's right. Caravan Salon is a very important marketing tool for the industry. In particular, it is possible to address new visitor target groups at the trade fair, and this leads to caravanning becoming even more popular among all levels of society.



new halls: would you make that decision again now after the heavy financial blow caused by the pandemic?

Michael Degen: Obviously we would probably have to make a slightly different decision now, but, on the other hand, we strongly believe in the long term existence of the trade show business. We take a long term perspective, so we need to modernize and set-up our business to save it for the next 30 years or longer.

Aboutcamp BtoB: What investments are you planning for the future?

Michael Degen: In strategic terms, we invest all the time in the service we provide, plus we invest in the digital transformation process for the digital world of today. Our investment in the halls will not be finished as long as trade shows are still relevant.

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Report Düsseldorf - ECF annual meeting

MELVI 2021

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The big names met in Düsseldorf

MELVI 20

ECF MELVI 2021 DÜSSELDORF

The 43rd ECF (European Caravan Federation) Annual General Meeting and the 26th Meeting of the European Leisure Vehicle Industry (MELVI) took place 29 August 2021 during the latest Caravan Salon in Düsseldorf

The European Leisure Vehicle Industry Meeting (MELVI) takes place annually, traditionally in May. The conference is hosted by a different ECF member every year. This prominent industry event is attended by approximately 150 high level executives from the entire European caravanning industry. The meeting features top-class speakers who talk about current topics relevant to the industry. This year's MELVI event was hosted by the German ECF Member Caravaning Industrie Verband e. V. (CIVD). After a break in 2020 due to the pandemic, the meeting was successfully held with 120 attendees.

The ECF is the umbrella organisation representing the national organisations of the European RV Industry. Membership of the ECF consists of 13 caravanning federations and numerous national members of the caravanning industry within the EU member states. These members are involved in the production, sales and the use of touring caravans, motor caravans and mobile homes (known as caravan holiday-homes in the UK) and the supply of specialist parts and services to the industry.

"This is the first ECF conference since the corona pandemic unexpectedly hit us all in March 2020. I'm sure nobody would have expected the dramatic impact of the virus on everybody's life at that time. We have all experienced several lockdowns, something we hadn't even heard of before. Factories and dealers had to close their doors to protect their workforce, thousands of vehicles could not be produced or delivered. As a result, forecasts needed to be reorganized, and there were supply chain problems which we still have today and will continue in the near future. Travels were forbidden and the borders were closed. Only two and a half caravanning trade shows took place last year. Also, the ECF Melvi meeting in Berlin 2020 and finally Berlin 2021 both felt victim

to the Coronavirus. Today, after one and a half year of ongoing web meetings, we are taking a big step towards normality and I'm very happy that so many of you are here and that we can meet in person again, " said Hermann Pfaff, ECF President when opening the meeting.

The sector is in good health

Looking at the latest figures available, from January to July 2021, the motorcaravan segment was extraordinarily successful again in 2021, growing by a strong 23%, despite or because of Corona, and reached a new high for the period with 127,734 new registrations.

New motorcaravan registrations rose in almost all European countries. In addition to Germany, the largest European market with 57,400 new motorhomes (+13.5%), new records were set in Belgium with 5,230 vehicles (+44.1%), Austria with 3,125 vehicles







Hermann Pfaff gives a tribute on behalf of ECF to Francois Feuillet for his 40 years in the industry.

Left: a moment of the gala dinner aboard a boat on the Rhine river Below: ECF thanks to Jan Peter Veeneman, former owner of Polyplastic and former chairman of ECF's Pan European Suppliers. (All photos by Enrico Bona)





(+90,7%), Denmark with 1,304 vehicles (56.9%), and Sweden with 3,790 vehicles (+45.8%). New registrations also rose in France (22,819 vehicles +29.8%), the second largest market, and in all the other European countries (excluding Norway).

In terms of caravan sales, the result is satisfactory overall with 54,381 new registrations. Germany remains the largest market with 17,557 new caravans, but decreased by -12,1% compared to the same period in 2020. In the United Kingdom, the second largest market, caravan registrations rose by 35.8% to 10,812 vehicles. France, with 4,622 caravans (+15.8%), and the Netherlands (6,608 vehicles) also rose, as did the Nordic markets of Sweden (plus 17.8 per cent), Denmark (plus 9.1 per cent) and Finland (plus 22.1 per cent).

"The latest data also underlines that motorcaravans in particular have taken advantage of the current situation. While the market in Germany managed a quick turnaround in 2020, the other European markets - which all had lockdowns of varying lengths - recovered more slowly in 2020. In the first half of 2021, many European leisure vehicle markets performed over 30 percent better. In addition, almost all markets succeeded in significantly increasing the registration volume compared to 2019", said Herman Pfaff.

There are no significant changes with registrations of used caravans and motorhomes. Compared to 2019, 2020 closed with a + 6.9% in motorhomes (353,956 vehicles) and -2.6% caravans (295,802 units). The used leisure vehicle market grew by only 1% in total. The data on market shares divided by vehicle types and European countries is very interesting. We are not authorized to publish these numbers owned by ECF, but we can reveal that at a European level the van is confirmed as the most requested type of leisure vehicle with almost 50% of the market. The semi-integrated style of motorhome is firmly in second place with about 33% of the market, while motorhomes are chosen by 11% of customers and a minority of just over 4% prefer overcabs. Looking at the markets of individual countries: the motorhome and the semi-integrated are very popular in the Nordic countries, while the van is king in Switzerland.

Forecast 2021



The driving licence is more an opportunity than a threat

Jost Krüger, General Secretary of the ECF



Since the introduction of the class B driving Dicence, the total weight increase for motor caravans due to safety and environment equipment and additional customer requirements amounts to about 300 kg. Leisure vehicle manufacturers have counteracted this trend with a tremendous amount of research and millions spent in investment in innovative and world-leading lightweight construction solutions. This has slowed down the trend of producing heavier caravans and motorcaravans, but has not stopped it.

The B96, for combinations up to 4.25 tonnes, is a caravan-friendly trailer driving licence that was introduced at the initiative of the CIVD and its European umbrella association, the European Caravan Federation (ECF), on the basis of the third Driving Licence Directive in 2013. A one-day training session at a driving school makes it possible to upgrade from 3.5 tonnes to a total combination weight of

4.25 tonnes without having to take any further tests. In Germany, a total of 52,400 B96 driving licences have been issued since 2013. The position of the caravanning industry is: an extension of the class B driving licence to at least 4.25 tonnes would be desirable for motorcaravans. The B96 should be integrated into the class B driving licence for car-trailer combinations.

"The European commission is now working on the issue of the driving licence and believe it is more an opportunity than a threat. At the moment we only have a few member states where the driver must have a certain age to drive a motorcaravan exceeding 3.5 tonnes with the standard driving license:

- France from 1975 no weight limit
- Sweden from 1996 no weight limit
- Germany from 1998 up to 7.5 tonnes
- UK from 1997 up to 8.25 tonnes

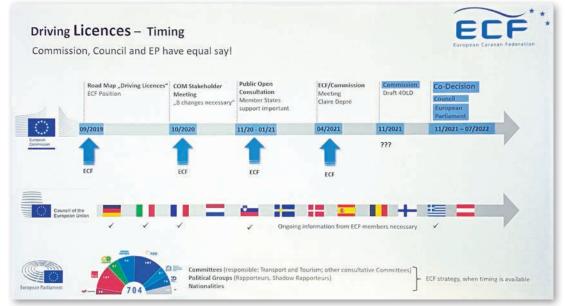
Concerning the driving license revisions, the story told us that the first one was published in 1980, then the second one was 11 years later, the third one was in 2006 and my guess is that the fourth directive will be published in 2023. Now the commission is reviewing the driving licences and we have already spoken with the European Commission. The dialogue with the Council of the European Union should be carried on together with the ECF member organizations and finally we will talk to the European Parliament".

ECF took part in the Open Public Consultation in January 2021 and presented a proposal in May 2021 to extend the weight limit of driving licence category B to 4.25 tons provided that the use is for private use. ECF justified this proposal as follows:

- 15% are above 3.5 tons. 2.2M motor caravans were on the road in Europe in 2019.
 From 1995 to 2020, the annual registration rose from 30,000 to 161,000 motor caravans. Approx. 85% of the more recently registered motor caravans are at the 3.5-ton thresholds. It is estimated that the number of motor caravans above 3.5 tons would rise significantly once the B driving licence is amended to 4.25 tons and allow to meet the growing demands of customers.
- The road safety of motor caravans is excellent. The BASt study (Federal Highway Research Institute, Germany) confirms a very positive result. In 2013, less than 0.3 percent of all accidents involved personal injury being caused by motor caravans.

Accidents involving motor caravans are not an urgent road safety problem when considering both the absolute number of accidents and the mileage-related accident risk.

- Actual accident figures prove the excellent road safety of motor caravans. In Germany, the accident statistics for motor caravans have been analysed on an annual basis by the Federal Highway Research Institute (BASt) since 1997. Similar to previous years, these statistics are at a very low level. In 2019, of a total of 439,990 motor vehicles involved in accidents with personal injury, 977 motor caravans were involved. The share all accidents involving personal injury being caused by motor caravans has once again declined slightly in the last decade and now amounts to 0.2%.
- European wide figures are not available. Motor Caravans enjoy a good safety record in many Member States so much so that many European Governments have not seen the need to itemise motor caravan accident statistics separately from cars and goods vehicles. This confirms the excellent safety record because they are not seen as a special risk.
- The number of driving licence holders without a suitable driving licence over 3.5 tons for private use is growing. In Member States without vested rights, there are already no suitable driving licences for private use over 3.5 tons. In member states, with preservation of vested rights, the holders of a suitable driving licence are now at least 40 years old. Many of those start thinking about motor caravan travel, especially in these times, when caravanning is one of the saftest forms of travel.
- The driving behaviour of motor caravan drivers has a direct influence on road



safety. Motor caravans are usually driven during the day, for private purposes and at "holiday speed". There is no evidence to suggest that motor caravans with a mass of 4.25 tons or 4.5 tons are significantly more difficult to drive than 3.5 tons vehicles.

- The dimensions (length, width, height) of motor caravans with 3.5 tons or 4.25 tons are identical. Even motor caravans with a total mass of 4.5 ton are usually identical to those of 3.5 ton. Motor caravans above 3.5 tons generally only have a modified chassis to allow for more consumer payload. The overall appearance (length, width, height) of 4.25 tons or 4.5 tons motor caravans is usually identical to that of 3.5 tons motor caravans.
- The masses of motor caravans are constantly increasing. In addition to increasing safety and environmental equipment -which is required by EU law, customers' ever-increasing demands for comfort are also leading to increasing vehicle masses. Whilst lightweight construction slows down this trend it is limiting consumer payloads which risks the potential of overloading.
- Alternatively fuelled motor caravans will need a further increased total mass of more than 4.25 tons to compensate the additional weight of the alternative propulsion system (batteries etc.). To date, almost all motor caravans run on Diesel. Unlike the passenger car market, light commercial base vehicles used for motor caravans will not offer, in the shortterm, appropriate solutions with regard to vehicle range and added weight. The necessary motor caravan payload will be minimised by the alternative propulsion system (e.g., batteries). Therefore, the already existing legal framework, Directive 2018/645/EU5, needs to be amended for private vehicles. As a matter of fact, shifting the B driving licence weight limit from 3.5 tons to 4.25 tons does not offer any advantage to privately used motor caravans if the 750 kg of new payload are attributed to the alternative propulsion only.
- Caravanning is good for the climate. In a new study, the greenhouse gas emissions of various forms of vacation have been analysed. According to the study, holidaying with a caravan or motor caravan emits less climate damaging emissions than air travel and hotel accommodation. Even rail travel does not necessarily have a much better climate balance. The study confirms, therefore, the findings of earlier studies conducted by the Ökolnstitut6,7 (Germany) and Osfoldforsking8 (Norway).
- Caravanning tourism brings an economic benefit of 23bn euros in turnover. Caravanning tourism is becoming increasingly import in European tourism. Tourists with motor caravans, caravans or tents generated a contribution of almost 23bn euros to the domestic economy in sales last year. The main driver is motor caravan tourism.

What can we suppliers do for you?

John-David Pozzi - ECF Pan European Suppliers Chairman



The images we are seeing are not the reality: we have here a product which is a truck that does not even exist. We are talking about the Tesla truck, which Elon Musk says will soon be available, but not yet. And the caravanning kit we see in the pictures costs \$10,000 and in 15 days, 1000 user spayed that amount. My point is that a vehicle like this one, or other similar ones, means that the RV industry will create a new mobile way of living for lei-

The Supplier Report by John-David Pozzi, was special and engaging. Here is the content of the speech from the words of the PES Chairman:

"The RV industry has a great time ahead of it, but it is not a time in business that we are used to seeing today. And I think even the naming of this convention itself, 'ECF', where 'C' is for caravan, is a question mark: not for today, not for tomorrow, but maybe for after tomorrow.



sure vehicles. This is something that is very important for the future, but I think it will not be with exactly the same vehicles and the supplyiers we are used to now. Is this negative? It is negative if we don't change and it is very positive if we do change. Because here we are not talking about 10/20,000 units but half/one million and more worldwide.



A lot of people say that we now have many new companies but we do not have enough stellplatz (campsites). We are facing a lack of opportunities to park but a lot of people think that our industry is full of gypsies and the vehicles are small, dirty and badly made. Comparing the images, the airlines communicate a way to travel which is not a reality. The issue is that in our industry we do not sell a dream and we are much more positive than our image suggests. One of our biggest problems, as suppliers, is that, like in a motorway accident, we are the ones at the back of the queue, a place that is most dangerous and deadly. I assume responsibility for what I'm saying and I think our solution is that, as a group, we need to become more efficient.

As a last image, I'm showing an old plan of the city of Milan from back in time a few centuries ago: it is a very lively city with its strong defences. Some fear dangers from outside of our industry but I don't even want to consider that because if we become more efficient, if we are able to supply, we are able to plan deliveries using statistics, if we implement marketing and communications, and if we look ahead, people from other businesses will not look at us like a bunch of uncapable people in a very promising industry and will not try to enter our business. I'm trying to say that we have very good companies with great skills, very professional and big. But a very wise man said to me once that the smallest companies are the ones that make an industry great, so we need to help also the smaller suppliers to grow: a vehicle, indeed, can only be sold if there is everything on it. So, the

more efficient we become, the stronger our walls will be, and the less interesting we will be for somebody from the outside. I have used very negative and fearful words, but my outlook is very positive. I see great times ahead and my question, as a representative of suppliers, is what can we do for you? Because the time, now, is right to think differently and take some courage. If we do this, everything will be sustainable and not in the sense of green but in the sense of our businesses."



Report Düsseldorf - ECF annual meeting

Safety Regulation: additional features

Hervé Gautier, ECF Technical Chairman

Maintroduced some delicate topics concerning the new safety regulations that have been approved by the EU.

The General Safety Regulation (GSR - Regulation (EC) No 661/2009) specifies the type-approval requirements for the general safety of motor vehicles, their trailers, and systems, components and separate technical units. All vehicles sold in the European Union must comply with these regulations.

On 27 November 2019, the EU introduced additional technical features to the General Safety Regulation (GSR), with the aim of drastically reducing the number of deaths, serious injuries and accidents. This result has to be achieved by introducing modern safety technologies as standard equipment in new vehicles. The general requirements apply to passenger cars, light commercial vehicles, buses, heavy commercial vehicles and recreational vehicles.

"As the ECF, we have had four meetings with the European Commission between February and June 2021 and contact with Swedish, Italian, Dutch, German and French authorities," said Hervé Gautier. "In addition to the safety devices, the regulation provides for side, front and rear impact tests to be carried out by the chassis manufacturer. But the pedestrian protection test seems to fall on the motorhome manufacturer in the case of Class A (Integrated) but not on vans, coachbuilt or semi-integrated. The publication of the General Safety Regulation (n.2) seems to be by the end of this year. And the date of application is in March 2023."

The additional technical features already approved are:

- ESS (Emergency Stop Signal): a light-signalling function which indicates to road users located behind the vehicle that the vehicle in front of them is being strongly braked with significant deceleration for the prevailing road conditions.
- ALC (Alcohol Interlock Installation Facilitation): systems designed to prevent driving under the influence of alcohol. The driver blows into a control device that determines the level of alcohol in his blood. If the limit is exceeded, the driver can no longer start the engine.
- DDR-AW (Driver Drowsiness and Attention Warning): system which assesses the driver's alertness and warns him if necessary. Various methods can be used to achieve this: the video monitoring can be evaluated to check that the course driven between



lane markings is maintained, steering movements can be monitored, or steering errors analysed in relation to indicator behaviour, time of day and speed.

- TPMS (Tire Pressure Monitoring System): The tire pressure monitoring system is installed in the vehicle. It can detect the tire pressure or pressure variations over time and transmit information to the driver while the vehicle is moving.
- AEBS (Emergency Braking System): a semi-automated braking system designed to help prevent collisions or to limit their consequences.
- ELKS (Emergency lane keeping systems): the system helps drivers stay safely within their lane or the road boundary, to avoid accidents.
- PCW (Pedestrian and Cyclist Collision Warning): highly developed turn assist systems detect cyclists and pedestrians who are near the vehicle and warn the driver to avoid an accident.
- EDR (Event Data Recorder): means a system designed for the sole purpose of recording and storing critical accident-related parameters and information shortly before, during and immediately after an impact.



"40 Years in the Leisure Vehicle Industry" François Feuillet

The most awaited presentation was, undoubtedly, that of François Feuillet, the 72 year old graduate of HEC who has been managing Trigano since 1981, having previously worked as an auditor (KPMG), financial director and general manager (Singer Group and Compagnie Française du Meuble). He left the position as Chairman of the Management Board in 2020 to Stéphane Gigou, remaining the majority shareholder in Trigano, member of the Executive Board and of the Strategic Committee.

In his 30-minute speech, he touched on all the highlights of his career at Trigano and the rise of this Group to become one of the most important companies in the world in the caravanning and leisure sector. It was a story full of personal anecdotes and memories that involved the entire audience who all got up on their feet at the end to pay homage to a great entrepreneur who also played a leading role in the ECF association, as one of its founders.

Instead of summarising François Feuillet's speech, instead our readers can have the opportunity to listen to it in its entirety, as it took place during the ECF meeting.

You can watch the full speech on the Aboutcamp BtoB Youtube page at this address: https://youtu.be/_M-_gMgGavo





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Report Parma - Il Salone del Camper 2021



Since the boom in interest in caravan and motorhome holidays experienced in 2020, 'camperism' has become a phenomenon. Families, the young and the old are looking for a recreational vehicle for a safe holiday. Visitor numbers to the Salone del Camper 2021 increased by 74 percent compared to the 2020 edition, confirming that the show is growing again

Words editorial staff

he Salone del Camper in Parma, which celebrated its 12th edition in 2021, was considered a test to see



whether the public's interest in open air tourism would result in a greater number of visitors.

Despite the pandemic in 2020, the Salone del Camper was one of a very limited number of exhibitions that actually went ahead. This year's show turned out to be very positive. The reorganization of pavilion 2 was appreciated by visitors as they were able to see companies from different sectors brought together in a more organic way to optimize their visit. In the end, nearly 100,000 visitors came to the show. This represents a huge growth in visitors of 74 percent compared to last year. This success is underlined

by the fact that in Parma there were also companies that had not attended the Caravan Salon in Düsseldorf, such as those of the Hymer group. There was a total of over 200 exhibitors from 15 countries and around 600 models exhibited in the five pavilions of Fiere di Parma.

A real community

Organized together with the APC - Associazione Produttori Caravan e Camper (Caravan and Camper Manufacturers Association) - the Parma Salone has been confirmed as the most important event in its sector in Italy, and the second internationally.

As well as the major brands that were at this event, there were also various entertainment activities organized which transformed the Salone into a real community, with thousands of people coming together to share a passion.

Open air tourism is experiencing a rebirth. This is reflected in the participation of the Salone in terms of attendance and also the interest from producers and exhibitors. The stands were set up with care in captivating and sometimes opulent ways to intrigue both the traditional visitors and the new ones.

The visitors included families as well as sportsmen looking for a versatile means to spend free time in nature and in total freedom.

In the nine days of the fair, 453 journalists, bloggers, influencers and youtubers were accredited, which resulted in 920 articles published, including numerous reports on the most important national television sta-

tions. Great success was also recorded by the social media campaign, with almost two million individual people reached, 212,000 interactions and a 13% growth in the number of fans since the beginning of the event. Finally, there was excellent feedback received

about the video playlist called Camper facile – A scuola di camper (Easy Camper – Camper School), which had 10,000 views.

Beyond all expectations

"An extraordinary balance sheet," commented Antonio Cellie, CEO of Fiere di Parma. "We close the 12th edition of the Salone del Camper with a result that goes beyond all expectations. It is the recovery show, which after the difficult but strongly desired 2020 edition, looks to the future







Report Parma - Il Salone del Camper 2021



with great optimism. This result rewards the work done and the belief that the growing trend of 'en plein air' tourism has transformed from a phenomenon into a structural one. A world of new enthusiasts has entered this sector and has no intention of abandoning it ".

The importance of the camper sector was also highlighted by the Minister of Tourism Massimo Garavaglia, who visited the fair to emphasise the importance of investing in the 'camperism' sector, which is becoming the driving force of the tourist recovery. He participated in a meeting with the APC and sector operators, in which the foundations for developing

The Italian Minister of Tourism Massimo Garavaglia and, below, the opening press conference



Below: Massimo Garavaglia between the general manager of APC Ludovica Sanpaolesi (left), and the President of APC Simone Niccolai (right)

this sector were laid out. The minister assured the interest in investing in this and for important resources to be made available to local authorities for new rest areas.

He asked the sector operators to define quality standards to invest adequately, with an offer that meets the expectations of tourists. This answer will not be long in coming, judging by the results obtained during B2B webinars carried out in preparation for the Salone del Camper with sector employees, municipalities and local authorities.

Sales and production record

The growth of caravanning, which recorded a record sales of recreational vehicles in 2021, will also have to be governed by the institutions. During the 2020/2021 season, 7,383 recreational vehicles were registered in Italy, an increase of 17.81% compared to the previous season.

The interest in open air tourism has also given impetus to the sector market, which has seen the Italian production of motorhomes exceed all previous records, with a 50% increase of 28,291 units produced. "The increase in demand highlighted in the last year," says Simone Niccolai, president of APC, "is reflected in the interest shown in the Salone del Camper, which has seen an increasing number of newbies visit the stands to learn more about world of itinerant vehicles ".



Antonio Cellie CEO of Fiere di Parma







SANDIUICH PANELS TOP DASSION

Born from the merger of two companies already active in the market of sandwich panels for the RV sector, Palomar currently produces various types of panels for walls, roofs and floors of campers, caravans and mobile homes. Different types of materials are used to form the sandwich, based on the customer's request. Palomar is currently spread across several factories, a short distance from each other, for a total of 11,000 square meters of operational area. In recent years, important investments have been made for the growth of the company, the expansion of the product range and the increase in production capacity. The new machinery allows us to benefit from the most advanced technology; the new spaces to streamline the process of handling materials and finished products. Today Palomar also produces heated floors for recreational vehicles.

Electric everything

The global drive to reduce CO2 and other emissions is proving a powerful incentive for industries to switch to electric solutions for their power needs. Of course, there is an assumption that most of that electricity will be from clean sources. The truth is that we're still some way from that goal but we are getting there: here are three caravans that rely on electricity for habitation or propulsion

In the EU for example, in 2019, according to Eurostat, renewable energy sources made up 34 % of gross electricity consumption in the EU-27. Of course, this figure will include some bio fuels, such as wood chip, but it is growing year by year. Indeed, it's more than doubled since 2004 and the EU could well meet its target of net zero carbon emissions by 2050. Against this backdrop the RV industry is taking a long hard look, both at its products, and the way they are made. The result is that we are beginning to see vehicles that rely solely on electricity for habitation, or propulsion, or both. In the next three articles we look at three very different products, each of which takes a bold step towards that all-electric future.



The big question is whether the market is now ready for the all-electric caravan. Knaus Tabbert certainly thinks so and has launched no less than 13 layouts in two model ranges – the Sport and the Südwind

uch has changed in our industry in the last few years to make the all-electric caravan an attractive



proposition. Firstly, more campsites than ever are offering 10 amp or 16-amp hook ups on their pitches, especially in mainland

Europe, where most of these caravans are expected to sell. It's not so long ago that 6 amps was the norm, with 10 amps if you were lucky.

Many of today's caravanners want all their home comforts whilst away and this has inevitably led to a demand for more power. At the same time campsites have been standardising on the European 16-amp rated CEE17 hook up connection and taking the opportunity to upgrade to 10 amps, if not the full 16. Secondly, weight has become much more of an issue, espe-

cially for the increasing numbers of those who passed their driving test after 1st January 1997. They are limited to train weight maximum of 3.5 tonnes and it's a figure that can easily be reached, especially if you have a heavy towcar. Weight is also a big issue for hybrid and all-electric towcars, many of which are not even homologated for towing. Thirdly, ease of use. Having to maul and change heavy gas bottles can be a positive chore, especially if you have to go a long way for a replacement. Also, the Covid pandemic has attracted many newcomers to our industry and, if we are to keep them, we need to make using a caravan as simple and easy as possible. Eliminating gas goes a good way towards that. Eliminating gas

Knaus' E.POWER caravans dispense with LPG in favour of a smart electric solution that won't trip the electrical supply to the pitch. The result is less weight, simpler operation, and less maintenance. It's perfect for today's world and the newcomers to our industry, attracted by the Covid induced boom.

Harvok's full electric caravans take the LPG free solution a step further by dispensing with the pitch supply in favour of solar panels and a large lithium battery bank. It's an idea that might not work so well in northern Europe but, in the outback of Australia and similar markets to which this product is aimed, it's a different proposition. For those not convinced there's even a 'try before you buy' option.

Dethleffs E.Home Coco concept caravan takes the biggest step of all by introducing electric propulsion. The idea is to reduce the load on the towcar and so extend its range. This is something that is really important with the all-electric cars that are set to become our future means of transport.

The additional equipment adds some 600 kg to the weight of the caravan although production versions are expected to be lighter. To convince sceptics that the idea is viable, Dethleffs staged a 380 km trial across the Alps and down to Riva on Lake Garda. The caravan was towed with an Audi e-tron and the combination made the journey with power to spare in the batteries of both vehicles. Of course, self-propelled trailers still have to be homologated into law, but Dethleffs' parent the Erwin Hymer Group is working on that with other interested parties.

With all that battery capacity on board it should be very easy to power the habitation side of the caravan, and even run air conditioning, for that occasional overnight stop. Exciting times ahead!

also means that the fridge can be a much lighter (and less expensive) compressor type. Two models are offered, 98 litres and 150 litres, depending on the available options. The water heater can be simpler, lighter and cheaper too. Knaus' solution is to use the Truma Therme, although it's just used in the 230-volt mode, rather than also taking heat from the blown air system. It's compact, efficient, lightweight and simple – just what the doctor ordered for this type of caravan. Cooking comes courtesy of a two-burner induction hob. Such devices are light, very efficient and easy to clean - perfect for any caravan where 230-volt power is available. With an all-electric caravan there is always a worry that the pitch fuse will be tripped through overloading. Knaus has thought of that one and has a two-pronged solution. The main consumer of electricity in a caravan is normally space heating. However, instead of a conventional heater, Knaus has chosen the Dometic FreshWell 3000, under bunk air conditioning unit, which can be used for both heating and cooling. When used for heating it is particularly efficient, producing nearly three times the energy (2500 watts) it consumes in electricity. This make it especially useful for those situations where the electrical supply may be limited. The heat output can be further boosted to 3000 wats by using the inbuilt 500-watt heater. The FreshWell comes with a remote control making it very easy to operate. The other prong of defence against tripping is the smart energy control system. All you have to do is set the fuse protection in amperes to that given on the pitch. It then ensures that the electrical devices are automatically controlled according to demand and the available power. To this end they may be regulated, prioritised, switched off or added, to keep the current draw within the set limit. With the best of planning there may always be the odd night where you want, or need, to camp without a hook up. Fortunately, Knaus has thought of this and come up with a rather novel solution, albeit it's a €399 option, and not offered as standard. In partnership with German power tool manufacturer Einhell, Knaus has produced a power package that runs on a 6Ah lithium

battery pack from a power tool. When no hook up is available power is fed from the battery into the 12-volt system. Apparently, there is enough power to supply the lighting, water pump and compressor fridge for one night, hence Knaus is referring to it as the 'one-night stand system'. When power is restored, the battery is automatically recharged. Another option for caravans up to a body length of 5 metres is electric floor heating. This could be a good choice for those wishing to use the caravan in sub-zero temperatures, when the air conditioning unit will struggle to produce any heat. Alternatively, the Truma E-Kit can be specified. This boosts the warm air system courtesy of two 900-watt electric elements.

Conclusion

Removing LPG not only makes for simpler operation and maintenance it creates more space and allows for a greater payload. It's also very much in tune with today's drive to reduce CO2 emissions. Knaus could be onto a winner with its E.POWER models. Time will tell.





If you live somewhere like Australia, with its abundance of strong sunshine and opportunities for wild camping, the idea of a solar-powered caravan that needs no LPG makes an awful lot of sense

in this scenario the challenge is to be able to harness and store enough electri-_cal power for all your needs - including cooking, refrigeration, air conditioning, and so on. It's a challenge that stirred the mind of an Australian caravan engineer who decided to focus on a high-tech battery and solar solution for caravans. His objective was that users should 'Never compromise on power, comfort and technology again'. As a result, Harvok Co. Ltd was established in 2018 in the Hubei province in China as a joint venture between Australia and China. The resulting Harvok Eco-Factory is both a centre of manufacturing and R&D, and is built to manufacture full electric motorhomes and caravans. The site covers some 130,000 sq m (32 acres) and is operated by Australians to a world

class standard. It is one of the largest sino-foreign venture RV manufacturers in China with production capabilities of 2000 plus units per year. As well as Australia, the company is also exploring international markets. Australian customers are served by Harvok Pty Ltd, a subsidiary of Harvok Co. Ltd. that operates from a brand new 3000 sq m warehouse in the Melbourne district of Dandenong South. Interestingly the Chinese factory has a 150-metre-long automated testing line with a rain penetration test, visual inspection and sterilisation system. In addition, 32,000 sq m (8 acres) of green land is set aside for camping trials. It is covered by more than 30 kinds of plants and 200 trees. Plans are also afoot to build a testing ground for road trials - indeed, the company has recently invested

some \$4m in test facilities. It seems Harvok is determined to find any issues before its user do! For off-road use all touring caravans are built on a rugged steel chassis with an electrophoretic coating to resist corrosion and rust. The suspension is rated at 3.6 tonnes and is coil sprung with twin nitro gas struts and 16-inch mud terrain tyres. An aluminium upper frame provides both strength and rot resistance. The floor is made from a single piece honeycomb composite for rigidity and to avoid rot. As you might expect the roof of the caravan is covered in solar panels. For ultimate toughness these are marine grade flex panels and come as standard with a rating of 1000 watts although up to 2000 watts is possible. In common with many modern cars, the main electrical system runs at 48 volts,





to better handle the various power requirements. This is then transformed into 12 volts or 230 volts as required. The lithium batteries are rated at 300 amp-hours, 48 volts, which gives up to 14.4 kWh of power. This should be enough for most needs, especially if the sun is also shining. (By way of comparison Tesla's Powerwall 2 home storage system is rated at 13.5 kWh). To turn all that power into a more practical 230 volts, a 3000-watt inverter is fitted. This allows for the use of a water heater, induction hob, refrigerator, washing machine, air conditioning, coffee machine, hair dryer and much more. Being able to use all these appliances whilst off grid, and without a generator, is something of a game changer for off-road caravans. A 1200-watt DC-DC charger is also fitted

to give a fast recharge when on the move. It does so by taking power from the towing vehicle's alternator and feeding it directly to the lithium batteries at a maximum current of 100 amps. Should a mains hook-up be available, for example when back home, a 30amp multi-stage charger ensures the lithium batteries can be topped up in a gentle way. Two internal layouts are available, each with a length of 19' 6" (5.8 m). One is a luxury two berth with a front bedroom, end washroom and rear door. The other a family friendly model with a front door and three bunk beds plus washroom at the rear. The power is controlled by a patented Smart Power Management System (SPMS) with a central panel for easy electronic management of things like the zoned lighting and electric awning.

The display panel also provides much useful information, such as the state of charge of the lithium batteries and the estimated the number of hours left. You can also see the amount of solar power being produced.

Conclusion

The Harvok full electric caravan is one serious piece of kit for a specialised market segment. Its beefy chassis removes the need for compromise on the weight of things like batteries and solar panels whilst providing a true off-road capability, albeit you need a decent tow vehicle to do the job. As technology advances, we may see this type of power solution appear in more general use, and even be used to propel the vehicle, be it a caravan or motorhome. It will be fascinating to see.

It was a few years in the making but, as previously reported in an Aboutcamp BtoB news item, a Dethleffs electrically powered caravan was successfully towed some 380 km across the Alps by an electrically powered car without recharging either. On reaching the destination, both car and caravan had some reserve in their batteries.

It was at the Caravan Salon Dusseldorf back in 2018 that we first saw the Dethleffs e.home Coco, electrically powered caravan. The idea was to enable caravan trips with electric cars without loss of range. To this end Dethleffs partnered with others in the Erwin Hymer Group and also transmission specialist ZF Friedrichshafen AG.

It is well known that many electric cars are not rated for towing and those that are can suffer significant reductions in range when towing. With electric cars set to become the norm it was clear that something had to be done for those who wanted to tow. The concept of the electrically driven caravan was therefore born.

At the time the considerable extra weight and complication of the e.home Coco over a standard caravan seemed contrary to its goal of assisting the towcar, but the developers were convinced they were on to something. That's when we first heard of plans for a 'big test', towing it over the Alps and down to Lake Garda.

The following year, 2019, the Coco was back at the CSD but with some significant modifications under the floor. The two 40 kWh batteries (more than many all-electric cars) were retained but the motor generators moved inboard and with a slightly lower



ocus on Electric caravans





rating of 29 kW each.

The extra weight over a standard caravan remained at 600 kg. The updated unit was declared ready for the 'big test'.

The next step was to choose a suitable towcar and, for this, the Audi e-tron was selected. The selected model has a maximum braked trailer weight of 1800 kg and a range of 393 km (WLTP). The route would therefore have been a challenge for the car solo without recharging, let alone towing a caravan. However, Udo Gillich, project manager for the e.home project at ZF, was optimistic: "We are very well prepared and have carried out many representative journeys in advance. Based on our calculations and our experience, it should work."

With all batteries fully charged the outfit set off from Dethleffs factory in Isny, southern Germany, one early morning in July. Performance details were recorded from around 800 sources and other journey data.

The positive effect of the electrically powered caravan was immediately apparent with acceleration like a solo vehicle, stable cornering due to the low centre of gravity, and excellent straight-line stability. The latter is aided by the fact that the towing linkage remains in tension, even when driving downhill.

Strong headwinds were encountered, putting in doubt the objective of reaching Lake Garda without re-charging. Nevertheless, the team pressed on with speeds up to 84 km/h on the autobahn and an overall average speed of 62.3 km/h.

The Fern pass was reached after 100 km,

which represented a little over one quarter of the total distance. At this point the charging status for the e.home caravan was 76.7 per cent and the Audi e-tron 71.2 per cent. By the time the Brenner pass was reached 200 km later, both the caravan and car batteries were still more than 50 percent charged. With just 180 km to go things were looking hopeful.

Six hours and twelve minutes after setting off, and with some and 380 kilometres of demanding alpine driving behind them, the e.home caravan team finally reached the centre of Riva on Lake Garda. Despite the headwinds, this was achieved without the need to recharge, even once. Indeed, there was residual energy in the batteries of both vehicles. Measurements showed that 82 kWh of energy had been consumed by the towing vehicle and 74 kWh by the e.home caravan.

The result represents a clear triumph for Dethleffs and it partners within the Erwin Hymer Group and ZF. According to Dethleffs MD Alexander Leopold "The ranges of the current electric vehicles and the current status of the European charging station infrastructure are designed for solo vehicles and do not take into account the requirements of towing operation, for example with a caravan. Dethleffs has always seen itself as a caravanning pioneer. We have therefore identified the challenges of electromobility early on and - together with our partners are developing solutions that will make this individual way of travelling possible in the future "

Stephan von Schuckmann, responsible for electrified drive technologies on the ZF board of management added "The e.home caravan is an attractive application that we support with our experience and our portfolio for the electrification of all vehicle types. This corresponds to our claim: 'We electrify everything'. In addition, the electric caravan is an application in which we can fully bring to bear our competence for system integration and comprehensive electric drive solutions, to achieve more efficiency and therefore longer ranges."

Of course, a few hurdles remain to be overcome before the concept can go into production. One of these is the additional weight of the running gear and batteries and Dethleffs plans to reduce this to about 400 kg through smaller batteries and other changes. Another hurdle is the formal recognition in law of the self-propelled trailer for road going use. To this end Erwin Hymer Group has been member of the BEM (Bundesverband für Elektromobilität, or Federal Association for Electro-mobility) since summer 2019. This body has the objective of improving the legal framework for the expansion of electro-mobility in Germany.

Conclusion

The development team have done an amazing job in bringing this concept to fruition. With the internal combustion engine set to be phased out for new cars this could be the only way many of us will be able to tow a caravan.



WHEN NATURE CALLS

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nterview with Stéphane Gigou

Words Antonio Mazzucchelli and Renato Antonini



The chosen one

An interview with Stéphane Gigou, the man that François Feuillet wanted as his successor for the management of Trigano, the company he led for 40 years and continues to retain the majority share of

s he promised, last year, François Feuillet handed over the control of Trigano to someone younger than him. François Feuillet, together with his family, retains the majority stake in Trigano (57.80%), and continues to be part of the Board of Directors and the Strategic Commission. He wanted a manager to trust as his successor at the head of the largest group in the industry in Europe.

The new chairman of the Board of Directors, Stéphane Gigou, is French but has lived in different parts of Europe. He has worked at various levels in the automotive sector, most recently as the head of Fiat Professional, the division of FCA (now in the Stellantis group) that produces the Ducato, the most widespread used base vehicle in the RV sector in Europe.

Aboutcamp BtoB interviewed Stéphane Gigou at the Salone del Camper, the Italian fair for the RV sector, which took place in Parma from 11 to 19 September. Here's how the new president of Trigano answered our questions.

Aboutcamp BtoB: What repercussions has the pandemic had on the RV sector and, in particular, the Trigano group?

Stéphane Gigou: I would say there are two aspects to consider. On one hand, the demand for campers has increased because customers see the recreational vehicle as a safe way, from a health point of view, to spend their holidays, in a protected and autonomously managed environment: like a health bubble. This has generated an explosion in demand, that had already been strong for several years, but has now accelerated. And, it should be remembered, few had foreseen this success a year and a half ago during the first lockdown: everyone said, "cancel everything, the world is over...", and instead the opposite happened.

This strong growth in demand is associated with the desire to get out into the open air after months of lockdown: people have remained at home and now want to rediscover nature, and we know that the search for closeness to nature is a top theme, it is part of the great "green" trend.

On the other hand, the industrial one, the pandemic has also highlighted many weaknesses of the economy and industry. We see how many companies, even entire sectors, are still totally upset. Just think of steel, for example, which seems to be in a war economy, but the same thing goes for wood, plastic, glass, electrical and electronic components... Our chassis suppliers have been out for weeks. This other side of the pandemic coin has led to the realization that perhaps we need to work differently, and in this respect, Trigano has shown great adaptability and remarkable flexibility that has allowed us to maximize the opportunity of the moment: if in the past, long-term production plans were made, now they continue to be made but we must be flexible so that we can modify them in real time and be able to keep production going using the material that arrives that day.

Aboutcamp BtoB: Regarding the difficulty in finding raw materials and high prices: in your opinion, how long will this situation last?

Stéphane Gigou: Nobody can say for sure. I think some issues are because of the current situaton and others more structural. Wood, for example, is an essential component of many products, and considering the challenges for the environment that we will have between now and 2050, will tend to be an increasingly demanded commodity, so will tend to maintain a strong demand curve. For other materials, however, there is

Stéphane Gigou

We asked Stéphane Gigou to describe his personal and professional experience. The result is a clear picture of a man and a manager with a strong international connections and with solid roots in the automotive sector.

"I am 48 years old, married and have three daughters. I'm French, but I studied in Italy," Stéphane Gigou explains. "I graduated in Economics from La Sapienza University in Rome. My wife is Italian, and my daughters have dual nationality. I was lucky enough to grow up in London, then lived in Sweden and in various other European countries. In reality, I feel much more a son of Maastricht than of a single country: when we were students those were the real issues, there was the referendum on the Maastricht Treaty, at the time we dreamed of a different Europe from the one we see today, I feel like a child of this dream of the early 1990's. But al point of view I started my business working in Renault, I also worked for several years in Renault Italy and 20 years ago I was part of the first Dacia team, where there was a significant challenge to win. Then eight years ago I joined FCA and I was in charge of the Tipo model project, then I headed up Fiat Professional. I've been in Trigano for a year"

a bubble, and things may change. Generally speaking, today we cannot make predictions, this is the truth. We are still in a phase of uncertainty.

Aboutcamp BtoB: What is the current financial situation of the Trigano group? *Stéphane Gigou:* Trigano works with its own funds. It has never based its growth and activities on financing. It is a very capitalized and strong company. Stocks are low and demand is strong, which is a positive sign. I think Trigano as a whole has managed production quite well this season. I can say that Trigano is a very solid reality in the RV sector and it can also be seen from the financial statements.

Aboutcamp BtoB: Have you planned any short-term investments?

Stéphane Gigou: We are always looking for external growth investments, both on the horizontal and vertical axis. Obviously we have limitations on the horizontal axis; the vertical one refers more to market opportunities and contexts that could lead us to do so.

Aboutcamp BtoB: Speaking of vertical integration, there has recently been an acquisition between groups that has caused a lot of talk: recreational vehicle manufacturers acquiring manufacturers of components for the first time. What do you think? Is this a strategy that concerns you or Trigano?

Stéphane Gigou: This is a very delicate issue as, today, we are in a market context where it is very difficult to get deliveries from suppliers, so a company could act on impulse and say: "I could do it better ... so I build it myself, without external suppliers". Trigano has integrated vertically on some activities: for example, we make a lot of mattresses and bed bases, so we know how to do this particular job. In other areas, however, we strongly believe in our suppliers and would like to continue working with them. But it is clear that if we fail to find a good balance in order to work together reliably, and with the right distribution of earnings, in the medium and long term, we will have to act in another way. Trigano has the strength to invest and develop activities by taking over from its suppliers. I repeat: today this is not our strategy, we will be forced to integrate some activities only if we do not find valid solutions in the interest of Trigano.

Aboutcamp BtoB: Speaking of non-European experiences, is the acquisition by Trigano of an American manufacturing company desirable? Some American companies are shopping for companies in Europe, and vice versa. Do you remain focused on Europe, or do you see the possibility of opening up to overseas opportunities?

Stéphane Gigou: Trigano has grown in sectors where it could obtain a leverage effect of scale and consumption, and this implies having a commonality of product, components and homologation rules. Going to markets where this scale no longer exists is not in Trigano's plans. My mandate is to have a company that is at the peak of competitiveness, if you want to be super competitive you must have a recipe. We know our European recipe. Having a distant reality, outside this logic, is not in Trigano's plans today. We are Europeans and we remain in Europe.

Aboutcamp BtoB: So you are not thinking about emerging markets, for example, Asia?

Stéphane Gigou: No, not for now.

Aboutcamp BtoB: And Eastern Europe? Stéphane Gigou: That is a geographical

area where we are already present. Some countries are very active - I am thinking of





Poland, the Czech Republic and Slovakia, but even Romania, with small numbers, is growing strongly. We are happy with the performance of some of our business units in these markets. These are expanding markets and the offer is being structured more and more.

Aboutcamp BtoB: What is your view on the changes in the mechanical bases and above all in the engines? Some European RV manufacturers are experimenting with alternative powertrains to diesel. How does Trigano Group see its future? Might there be a radical change that leads to a drop in public interest in motorhomes with traditional engines?

Stéphane Gigou: Trigano speaks only of what it knows how to do and what it knows how to sell. We are working on many issues, but we will talk about them when we have a finished product, that can sell at a competitive price. The market will evolve, of course, and we are working on it, but we will talk about it when we have the right solutions in terms of user experience and price. Trigano does not present any concepts, today we are in a phase in which customers are very sure of what they want to buy, we have to support them by providing the right vehicle for them. When we have something suitable to offer, we will do it.

Aboutcamp BtoB: We know that the Trigano firmly believes in exhibitions: it has promoted, sponsored and supported them even during complex times. What are your views on this?

Stéphane Gigou: We strongly believe in fairs. These events, which take place at the beginning of the commercial season, allow a large number of people to see the largest possible exhibition of vehicles, and this helps them choose. The more brands there are, the better it is for the customer who can see all the products at the same time and in the same place. Some believe that the fair is an event for "seniors", but it is exactly the opposite. At the latest RV sector exhibitions we have seen many new potential customers who come to the fair and discover the product, perhaps even with naivety ... I happened, for example, to hear a lady in one of our stands who noticed that "on campers there is also a bathroom". We believe that fairs are an essential moment for our business. The major trade fairs, such as Düsseldorf, Parma, Paris and Barcelona,

and even Bir-

mingham, which unfortunately will not be there this year, are key moments for us and for our customers. Obviously, they have an important cost for companies, but at Trigano we evaluate this cost on the whole of our business: participating and collecting orders brings greater benefits than being absent, saving money. Only at the fair can the customer enter the shower, try the bed, or see the depth of the wardrobe.

Aboutcamp BtoB: It seems that recently François Feuillet visited the group's factories a little less often. Does he take care of his vineyards a little more now, or is he still very busy managing and controlling the Trigano group?

Stéphane Gigou: Mr. Feuillet produces one of the best wines in France, this is true; in Trigano he works with me on the company's strategy and so far we have agreed on all issues. It is clear that if we were not in agreement, the last word would be up to him,



The "decision"

"Several years ago" declared François Feuillet, pictured here on the left with Stéphane Gigou "I announced my decision to leave my position as Chairman of the Management Board in 2020. Since this announcement, I had undertaken a lengthy search for the person with all necessary skills who would be an ideal choice to take over management of the Group and to guarantee sustainability of its business activities. The decision to recruit Stéphane Gigou was, consequently, well thought out". as the majority shareholder. To be able to do this work in an enlightened and correct way, François Feuillet must remain informed of what is happening in the business units. We have established that once a year he will accompany me on one of my visits to the various business units. François Feuillet has managed the company for 40 years and he knows many people in the various business units, people he likes to meet. Let's say that today we have found a good balance for teamwork, in which I am the Chief Operating Officer.

Aboutcamp BtoB: François Feuillet said that you are "a charismatic man with a clear vision". Who is François Feuillet to you?

Stéphane Gigou: François Feuillet is one of those leaders you rarely meet in life. In fact, it has happened to me twice in my career. A few years ago I met Sergio Marchionne, a manager with whom you could be more or less in agreement, also because of his rather direct and decisive ways, but at every meeting you could learn something. For me, François Feuillet is that kind of person. I am sincere, it is a privilege for me to work with him.

Aboutcamp BtoB: Is your vision of the group and companies always perfectly aligned with that of François Feuillet? How does the group you manage today differ from the past? Have there been any changes or will there be any?

Stéphane Gigou: I hope to be able to give the company greater dynamism. Trigano is already a dynamic company, but I would like to bring a different dynamic. For example, we have created the junior committee, made up of young people who potentially represent the future of the company: we meet periodically and we have given the committee tasks to perform, working on issues that are important for the future of the business. In the company, I took slightly different risks in terms of management, so in times of difficulty I was not afraid to store more, as the company was able to do this, and it was certainly useful also in the subsequent phase. However, I inherited an



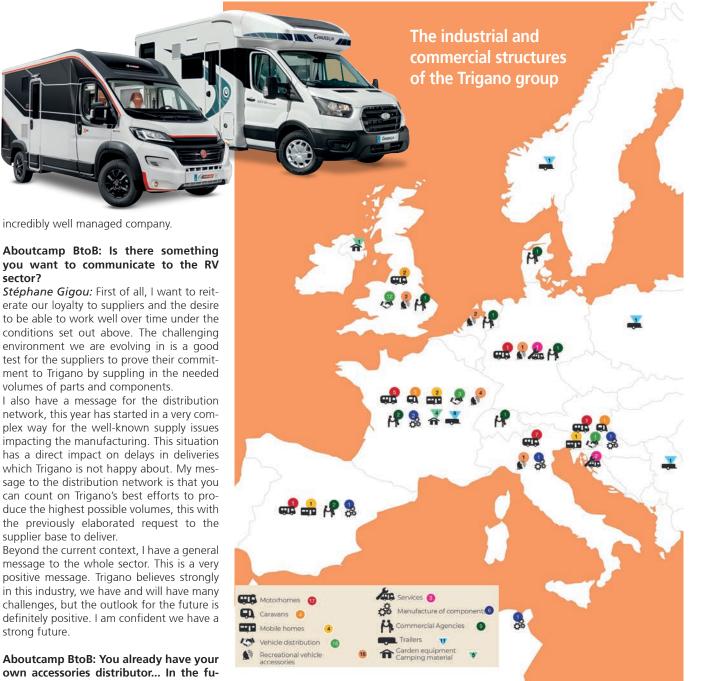
Trigano: 40 years run by François Feuillet

François Feuillet joined Trigano in 1981, after Crédit Lyonnais took control of the company in 1974 due to financial difficulties. Trigano was privatized in 1987 and went public in 1998: since then it has grown with almost annual acquisi-We recall, for example, the purchase of Caravans International, Arca and SEA in Italy (1999, 2001 and 2013), Benimar in Spain (2002), Autostar and Perigord VDL in France (1998 and 2004), but also Eura Mobil and Karmann Mobil in Germany (2005), up to Adria Mobil in Slovenia (2017). Today, Trigano is also engaged in the production of leisure equipment (trailers, camping equipment, garden equipment), but over 90% of the turnover derives from the RV sector: motorhomes, caravans, mobile homes, accesso-

ries, recreational vehicles for hire. These are the latest sales figures available (Annual Report 2020): 38,935 motorhomes, 12,371 caravans, 3,932 mobile homes. Trigano has approximately 9,000 employees and the company can count on 63 production sites. There are also 25 brands with which Trigano is present on the motorhome market. On 30 September 2020, the Supervisory Board of Trigano appointed Stéphane Gigou as a member and Chairman of the Board of Directors. Now the Board of Directors is made up of four members: Stéphane Gigou (President of the Executive Board), Michel Freiche (Managing Director), Marie-Hélène Feuillet and Paolo Bicci. The members of the holder, with 57.80% of the capital and 69.31% of the voting rights.

Trigano: all the brands of the group







incredibly well managed company.

Aboutcamp BtoB: Is there something you want to communicate to the RV sector?

erate our loyalty to suppliers and the desire to be able to work well over time under the conditions set out above. The challenging environment we are evolving in is a good test for the suppliers to prove their commitment to Trigano by suppling in the needed volumes of parts and components.

network, this year has started in a very complex way for the well-known supply issues impacting the manufacturing. This situation has a direct impact on delays in deliveries which Trigano is not happy about. My message to the distribution network is that you can count on Trigano's best efforts to produce the highest possible volumes, this with the previously elaborated request to the supplier base to deliver.

Beyond the current context, I have a general message to the whole sector. This is a very positive message. Trigano believes strongly in this industry, we have and will have many challenges, but the outlook for the future is definitely positive. I am confident we have a strong future.

Aboutcamp BtoB: You already have your own accessories distributor... In the future, could you also have a Trigano product distribution network, so as to bypass the traditional dealer?

Stéphane Gigou: Let's take Great Britain as an example, where Trigano has 14 points of sale in a network called Marguis: today, this network is the first distributor of the Hymer brands in the UK, so it distributes products competing with Trigano, and the Trigano brands are sold by Marquis but also from other independent dealers. This is possible due to the balance and equal treatment that Trigano guarantees to Marquis and other dealers. For us it's a recipe that works great and has no reason to be changed in the UK. So even where we have growth plans, as for example in France in retail, this distribution model for important dealers is not questioned, as long as they know how to guarantee the right customer experience.

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A new chapter unfolds

Rob Quine took over as MD of what was then The Explorer Group, in 2008. It was the time of the credit crunch and finances were very tight, but Rob set about streamlining production and improving efficiency. In 2017 Explorer became part of the Erwin Hymer Group with Rob staying on as MD of the UK operation

The company's roots go back to 1964 when a certain Siddle Cook started producing touring caravans with his son Ray. He needed a brand name and so reversed his own, and Elddis was born. Over the following decades the company developed a reputation for building award winning, but affordable, caravans and motorhomes. During this time the Compass, Buccaneer and Xplore names were also added to the portfolio. Today the Erwin Hymer Group UK employs some 550 people at its production facility in Consett, County Durham, and also looks after the marketing of other EHG brands within the UK.

Aboutcamp BtoB: The change of ownership from a private investment group to

the largest leisure vehicle manufacturer in Europe must have had a profound effect. Tell us about it.

Rob Quine: Our previous owners (the Constantine Group) had in fact owned the company since the mid-1990s – and they supported us tremendously during the various economic cycles in the 20+ years that followed. However, it was clear to them - and to us - that consolidation was coming within our industry, and that they did not have the resources nor inclination to participate in that future. Erwin Hymer Group approached them around the time of the UK BREXIT vote and, amongst other considerations, were looking to establish a manufacturing foothold in the UK to take them forward. Our positive sales performance since the launch of our fully

bonded construction in 2012 (SoLiD) meant that we were an obvious candidate, and the deal was therefore completed quite smoothly and quickly. Since then we have been fortunate to be part of, firstly, the largest leisure vehicle manufacturer in Europe and, since 2019, when Thor Industries acquired EHG, the largest RV manufacturer in the world. Clearly, it has been most beneficial that the larger group had been able to support us financially during recent years, as well as approving the most significant factory improvement project and expansion in our history - a complete redesign and restructuring of our Consett-based facility, with investment of over £15M.

Aboutcamp BtoB: It must be good to



Buccaneer is EHG UK's luxury brand





have the backing of a big organisation such as Thor/EHG but can you be really agile with design and other matters?

Rob Quine: What is important is that our products are designed and manufactured specifically for the needs of our local customers - and the UK customer is, in many respects, guite different to continental European customers. So, yes, we are able to tap into the wider group design and development capabilities (e.g. with regard to the future of electrically-powered leisure vehicles) whilst still being able to adapt to our home market. Our move into campervans is a perfect example. We were able to learn so much from the many years of experience which the EHG factories had built up about how to make the product - tapping into their proven methods and benefitting from cost savings with economies of scale. However, we were resolute that our UK-built campervans should be tailored to the UK market, with layouts and USPs we knew would sell. This strategy has allowed us to go from a standing start to the being one of the largest manufacturers of campervans in the UK, in just a couple of years.

Aboutcamp BtoB: In 2012 you switched the construction of both caravans and motorhomes to fully bonded, eliminating most mechanical fixings in the process. It

was a bold move - what benefits has it brought?

Rob Quine: It was indeed a bold move as I took the decision to transfer all our production over to this new method at the same time. However, in one move the elimination of most of the mechanical fixings and the way that we told this story, catapulted us to a much more prominent position in the UK market. I believe people understood the simplicity of the premise that you should never use a screw fixing, with its resulting hole, unless you absolutely have to. My main frustration now is that our industry's supply chain is still failing to design components for bonding as well as mechanical fixing, for those who wish to continue with the old way. However, SoLiD Construction, as we've called it, is just the foundation. We must continue to design and develop products that people want to buy - always trying to be the pioneers. I believe this design-led strategy has ultimately been the biggest driver in our success in recent years.

Aboutcamp BtoB: Covid has led to the cancellation of many important RV shows, including the big ones at Birmingham. What have you been doing to get your products in front of prospective purchasers?

Rob Quine: I understood the reasons to cancel the October 2020 and February 2021 Birmingham shows, but I was very unhappy with the decision to cancel the October 2021 show. The European shows have been able to take place and I did not see the need cancel again. In an effort to bridge the gap that this latest cancellation has left, we are using the 70+ brand new demo vehicles which we produced for a country-wide roadshow, assisting our dealer network to get as many new products in front of potential customers as possible. This has been very successful so far – with 2022 season retail sales well above what we would have expected in normal times.

Aboutcamp BtoB: The Covid pandemic has brought many first-time buyers to our industry. Do you think they'll stay once it's all over?

Rob Quine: The honest answer is no! – but I do expect a high proportion of new entrants to retain their leisure vehicle for some of their holidays going forward.

Aboutcamp BtoB: How do you see the medium to long term sales trends for RVs?

Rob Quine: Continuing recent trends, sales of motorised products, especially campervans, will continue to grow at a fast pace and

will overtake touring caravans in the UK in the not-too-distant future.

Aboutcamp BtoB: You have plenty of room for expansion at your current factory - what plans do you have for future investments?

Rob Quine: You are right that we have a large site (25 acres), and we are currently undertaking the single biggest investment project in our company's history, which will significantly change the way we operate in the future. Only one brand new building will be constructed – but within the existing footprint the whole of the rest of our site is being transformed. Completion has been delayed a little in the last 18 months, but the whole project should still be finished before the end of 2022. You're welcome to come back at that point and see what we've achieved. Until then I'd prefer to keep the changes under wraps.

Aboutcamp BtoB: How important do you think slide-out technology is to the future of RV's?

Rob Quine: I was very optimistic and positive about the prospect of slide-outs in the UK and Europe, and so eight years ago visited the USA to investigate further. We embarked upon a detailed development project with a supplier and made many prototypes on site here in Consett. I always believed that the best development outcome was to make a small vehicle larger, rather than to make a large vehicle even bigger. Slide-outs were everywhere in the USA, but their quality standards were low compared to Europe and their warranties short. Unfortunately, we couldn't find a way to install them consistently that would have allowed us to support the different warranty requirements in Europe. Slideouts are therefore not a short-term priority for us at the moment.

Aboutcamp BtoB: What are you doing to

take weight out of your RV's?

Rob Quine: This is one of the main development initiatives within EHG, and of course, is related to the challenges of electrification. Again, our supply chain has been very slow to wake up and join the party – but I expect that there will be some interesting developments in the coming years.

Aboutcamp BtoB: Elddis produced an all-electric caravan in 2009 but it didn't catch on. Knaus Tabbert is now doing the same with its E.POWER caravan. Perhaps you were just years ahead of your time? Do you think you'll bring the idea back? Rob Quine: No, not in the near future. The Xplore Electric was way ahead of its time, but I believe the project was effectively scuppered because of a negative response from two large UK clubs. They thought our vehicles would consume too much power on their sites and that we would be constantly tripping the fuses. I thought it was a real shame because I don't think that would have happened. As I see it the traditionalists won out. Maybe they will be more receptive a decade or so later?

Aboutcamp BtoB: You've been at the Consett production site for nearly 20 years now, what changes have you seen in that time?

Rob Quine: There have been many, many changes, too many to describe here. However, nothing has been as big as the rebuilding project that is happening at the moment. It will have a major and positive impact on our business.

Aboutcamp BtoB: What has been your most satisfying moment in business? And your worst? Rob Quine: The launch

of SoLiD Construction was probably the most satisfying moment – a culmination of a great deal of effort by a really good core of dedicated people. The worst times are when the economic cycle forces us to cut back our work force - and the worst of those was a year ago when the much-lauded furlough scheme was introduced. In those early days it was poorly constructed. The UK Government should have kept it simple by copying the best elements of the equivalent European scheme. The 'flexible furlough' scheme, now ended, was much better but it was only introduced in the summer of 2020. I believe that cost jobs, when the intention was to try to protect them!

Aboutcamp BtoB: How do you spend your leisure time?

Rob Quine: As much as I enjoy travelling further afield, I appreciate spending my leisure time in the North East, with its miles of beautiful countryside, dramatic coastline and renowned social scene. The team at EHG UK will tell you, 'It's a wonderful place to live and work!'

> EHG UK's pop top campervans are proving very fashionable











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Young, competent, passionate

The Head of Product Management at Laika, Michel Vuillermoz brings a lot of personal experience in the evaluation, use and promotion of recreational vehicles (RVs). The evolution of the new Kreos, which embodies the best design Laika values, bears his signature

> e comes from Aosta, Valle d'Aosta in Italy and is 39 years old. As well as a long experience as a journalist, Michel also has a Bi-national degree in Languages and Communication. He has over 10 years of knowledge of the world of recreational vehicles, both as a passionate connoisseur and user himself, and as a Marketing & Communications Manager at Erwin Hymer Group Italia for two years.

Since October 2020, Michel has been Head of Product Management of Laika Caravans. He immediately brought his mark to the brand, combining his personal experience with the tradition of the Tuscan manufacturer. The result of this approach is visible in the brand new Laika Kreos L 5009, which is full of innovative solutions and an all-Italian style that amazed the public and industry at the Salone del Camper. We met Michel Vuillermoz in Parma. Here's what he told us.

Aboutcamp BtoB: Your passion for motorhomes goes back a long way. Please tell us about your professional career and your role today at Laika.

Michel Vuillermoz: I still have somewhere in a drawer a notebook of drawings made when I was about six or seven years old of the Laika Lasercar, Arca America New Deal, etc... it was a bit as if I was already passionate about motorhomes at the time. Then I took a path, at school too, which led me to get closer and closer

to this world. This includes actual experience, as one morning in February 1989 my parents went out to buy a caravan and came back with a camper on a Fiat 238. I was lucky: the passion remained with me and in the end I combined it with work. I am Head of Product Management and work closely with the management team, in particular with Ute Hofmann, to define and develop product strategies. My career with the Erwin Hymer Group started in 2018, working in marketing and communication of EHG Italia, and I followed the development, together with my sales colleagues, of models and layouts dedicated to the domestic market, including the Buerstner 20 - 20 and the Dethleffs T 6812.

Aboutcamp BtoB: How has your experience as a motorhome user helped you in your role?

Michel Vuillermoz: For 11 years I worked as a journalist in this sector and have been an RV user for 32 years. Today I still drive my vehicle. I'm a fan of Scandinavia and using my vehicle in winter. I have been to the North Cape twice, in winter, with temperatures of -35 degrees. On these occasions of direct use you have experiences and are obliged to study how the vehicles are made to cope with various problems. When you test a vehicle in particularly severe conditions, you understand what works and what doesn't, and especially how it was designed. When you find yourself on the other side starting from the blank sheet, as has happened in the last 10 or 11 months with the camper van Ecovip and with the Kreos, you put all that accumulated know-how and your technical baggage as a user at the service of others: this is the starting point on which we, together with the technical office and prototyping teams, have developed the latest Kreos collection, which marks the birth of a new generation of Laika.

Aboutcamp BtoB: In your past life as a journalist you have been very critical of some models, and often not entirely satisfied with how the products were made. Now that you have moved on to the other side, do you find that there is a real difficulty, or even an impossibility, in putting ideas and projects into practice when moving from conception to the concrete stage of production?

Michel Vuillermoz: It is not impossible. It depends on the open-mindedness of the people who work with you and their desire to get involved and be open to new things, as well as the trust you can earn and the support you get for a project from the people who have entrusted you with this responsibility. In the Kreos, for example, the assembly of the floor is made in a totally different way from the past. Quality increases when a new solution minimizes assembly variables and simplifies the operator's work.

Aboutcamp BtoB: How does this desire to innovate combine with being within a very large group? What autonomy can you actually manage to have?

Michel Vuillermoz: We are part of a large group, we work in synergy on certain projects, but at the same time what matters is that each brand has its own autonomy and DNA. There is a great wealth and opportunity to be exploited in the most profitable and appropriate way.















Aboutcamp BtoB: But you also have brands in the group that use common platforms...

Michel Vuillermoz: The platforms are developed with continuous and joint work by the technical departments of all the brands of the Group, thus creating the conditions to really maximise the sharing of know-how and experience. It is an excellent starting point that allows you to make the most of everyone's specific knowledge and skills, which significantly shortens the time-tomarket and gives the opportunity to exploit continuously updating technologies. Let's think, for example, of technological or functional platforms: then, of course, all this finds its own scope of application depending on multiple and discriminating factors: among these, price range and construction type.

Aboutcamp BtoB: What were the drivers of the Kreos project?

Michel Vuillermoz: I wanted a vehicle that could tell, in every detail, our vision of a luxury camper, without ever falling into being a mere stylistic exercise. A vehicle capable of bringing together technique, ergonomics, elegance and practicality. The market is getting wider, we have many newcomers who come from domestic or hotel tourism. They must be able to find the same comfort, the same refinement, the same pleasantness of use as a hotel suite. It is therefore necessary to satisfy new needs with a constantly growing quality, passing from a semi-artisan world to one of an industrial nature. To achieve this it is necessary to think and reason in a different way, choosing appropriately what should be industrialized and what can benefit from the craftsmanship of specialized operators.

Aboutcamp BtoB: What are you particularly proud of about the Kreos project?

Michel Vuillermoz: The fact that it reflects the values of our brand, bringing with it the Italian taste, the desire to innovate, the use of high quality materials and that it is built using the most modern technologies available today in all areas. Let's look at the kitchen: Kreos chooses to offer domestic-type elements and equipment by transferring them to a camper without affecting its design or functionality. The dishwasher is just one example of the desire to provide a premium customer experience is in every detail, stylistic or functional. I am proud of this approach and, consequently, of the fact that Laika is a protagonist by proposing its own ideas. We have to thank the management for this who let us have great freedom and also supported our courageous choices. This product tells our vision of the luxury recreational vehicle: it does so in style, which started from the development of sketches made by one of the most famous Italian designers, both for interiors and exteriors. It is the same for ergonomics, knowing how it is more difficult

> to pursue a perfect balance of functionality and style in a conventional layout concept rather than giving free rein to creativity. That said, I have always admired the creativity of Guy Job, now retired.

Aboutcamp BtoB: When we interviewed him, he said the only thing he regrets is that he had never designed a vertical bed, which would save a lot of space...!

Michel Vuillermoz: A revolution in the use of space can be very effective, even without being very obvious. Our kitchen block on the Kreos, for example, is linear and 130 cm long to offer more space and ergonomics. We have a 70 cm corridor that allows you to pass without disturbing those who are at the stove and the kitchen is not 55 but 70 deep, like at home. A space that in terms of volume you would have also had with an "L" pattern, but disturbing the



entrance. Now you have a completely different look. Then there are elements such as the shower similar to a spa, the glove warming drawer positioned above the Alde boiler or the wine box in the garage: things that I am sure will be appreciated by the end customer.

Aboutcamp BtoB: Let's talk about the camper van. How difficult is it to design such a product?

Michel Vuillermoz: We needed to change our approach, because we are not masters of the overall dimensions. If one thing doesn't fit, you can't expand by three centimeters, so it is necessary to find the best possible compromise by making a synthesis of the elements that are considered fundamental, and reproducing them cleverly within a standard body. And, even on the outside, it is necessary to work on all possible details to highlight the brand identity. For those who have never had a recreational vehicle, aesthetically a camper van is hardly recognizable compared to a normal van. It is up to us to give it an identity of a home inside and car outside, without being able to intervene in the crucial points. What we can work on is the conception of space: now we have taken the field with the Ecovip camper van to a much higher level than that of Kosmo. The Ecovip name carries 30 years of history with it, so is a point of reference for the company and gives us a challenge: to exploit the spaces and volumes of a camper van and create within these, an almost semi-integrated design. For example, the table of the camper van can be folded down. If I also want to use the vehicle as a second car and I have a small child, I need to be able to remove the table to use Isofix for the child seat. By doing this, I can also put in a more comfortable sofa. All this must be combined with an "Ecovip look": the materials must be the same and maximum insulation must be guaranteed. But this can be seen in the EN1646 test. What you sow then you reap, and we now have a vehicle with a strong Ecovip identity, especially the 600 where there is the new Vario bathroom with a shower that can also be used outdoors.

Aboutcamp BtoB: How do you see the development of recreational vehicles in the coming years? In what direction are they going?

Michel Vuillermoz: A lot will change, especially what has not changed so far, starting from the mechanical base vehicles. We are now used to having hybrid cars, but the base vehicles have not yet reached this milestone. This is the first step that will affect us very closely. There are already countries where taxation is based on polluting emissions, and this is an important discriminant. We will have to deal with the powertrain revolution and everything that comes with it. We cannot grow the weight of vehicles and the electric ones have a considerable

weight, but it makes no sense to make a vehicle of this type with low autonomy and limited speed. I look favourably on hydrogen, but we have a refueling network to develop and at the moment mobility is not going in this direction. In California, five or six years ago it seemed done, but instead we are moving towards the all-electric. So, in the end, the hybrid seems to me the only way forward in the short term. This system must be brought to commercial vehicles in a profitable way. So far, we have seen very good solutions on petrol engines, but we still need diesel engines, at least for the engine braking. A generation of hybrid powertrains for

caravanning, as well as for medium and long-range transport, will be increasingly needed to get ready for 2035 with alternative powertrains that give us the same freedom that the car offered us a hundred years ago: not having to let the horses rest overnight, but fill up in five minutes and leave. We cannot give up on this: they are the rhythms of current life.

Aboutcamp BtoB: Mechanical base vehicles aside, what other trends do you think we will see?

Michel Vuillermoz: We will face different challenges. It will no longer be enough to propose an interior simply with the necessary elements, but it will be necessary to give it a domestic mood. Our customers renounce their house or a hotel and invest considerable sums, so, in return, demand a high-level experience. Multifunctional spaces must be ergonomic with such practicality and comfort to stand up to comparison with a domestic environment. And this is a huge challenge, because the regulations will be increasingly stringent in terms of safety, emissions and homologations. Then, a lot can and must be done to achieve an exploitation of spaces different from traditional standards. If we take a tour of the exhibition halls here, we find twin beds, central beds, some transversal beds, some front living rooms with large rear washrooms, or vans with rear tilting doors, the real functionality of which, however, must be understood. As you can see, there is ample scope for innovation, especially considering that the new customer does not come from experiences in a camper or boat, but from homes and hotels, from a domestic environment.

Aboutcamp BtoB: Will we see the Urban Vehicle developed at Laika, or within the Group, or on the market in general?

Michel Vuillermoz: It may be that you can see it in all areas: it is a product that has its own market and our Group started early



with the Crosscamp, a brand born in Isny, first exploiting the Toyota and Opel urban vehicles and then steadily growing. Our idea of offering a high-level experience is not limited to talking about Ecovip, Kreos or Kosmo, but is to transmit the values of the brand, which we now exhibit and propose through our vehicles, supporting and following the needs of a changing market. Nobody would have imagined a camper van Laika with a folding roof 15 years ago. For some years now, however, this solution has been part of our offer...

Aboutcamp BtoB: Today you have the new Kreos which embodies the concept of luxury and the Ecovips which are perfect as high-end vehicles. How does Kosmo integrate into this vision? Michel Vuillermoz: Kosmo is our entry step, it is a product that is giving us great satisfaction from a commercial point of view with the two variants Kosmo and Kosmo Emblema. Everything, then, is evolving and growing: Ecovip has increased technique and style, ideally replacing the previous Kreos 3000, while the new Kreos 5000 is positioned higher than its predecessor, bringing a breath of inventiveness, style and technological excellence. In the near future, we will confirm the same developments with the other collections as well. The values of the brand must be made explicit and translated into practice by the vehicles, taking advantage of what happens in the automotive sector. It is a path that embraces all these products, also because at the San Casciano plant we have Etrusco, an Italian brand that is giving us great satisfaction and presents here in Parma the new collection developed in Tuscany, strengthened by the German engineering, but with an increasingly Italian taste in exteriors, interiors and volumes. This is the entry step to the world of Made in San Casciano products. Those who choose Laika want and expect more: our mission is to go far beyond the legitimate requests and desires of our customers.

ace to face with Fred Bentley

Words Craig Ritchie and Antonio Mazzucchelli

The DexKo Formula



DexKo Global president and CEO Fred Bentley champions a vertical integration strategy that addresses the unique challenges and opportunities of today's business environment

Provide the second seco

The idea of assuming direct control of its supply chain was intended to provide the advanced chassis assembly manufacturer, with fabrication facilities in around the world, with production bases local to its core markets while assuring greater quality control. In fact, the strategy has protected the firm from the external headwinds that have rocked manufacturing concerns worldwide in recent years, including tariffs, supply chain backlogs and today's continuing logistics nightmares.

Beyond providing cost and supply certainty, DexKo's integration strategy has allowed

the company to grow its business footprint in a variety of complementary markets and geographies, serving a more diverse range of customers across a truly global footprint with a broad portfolio of respected brands. Having completed no less than 27 major acquisitions since 2012 – most recently including its purchase of National Trailer Parts Warehouse in mid-October and Brink International just two weeks earlier – the company today represents one of the great success stories in the recreational vehicle industry worldwide.

Fresh from having been itself acquired by Brookfield Business Partners in October (closing), DexKo is uniquely positioned to leverage its considerable strengths and further grow its stake in the chassis technology sector. President and CEO Fred Bentley spoke with AboutCamp BtoB's Craig Ritchie and Antonio Mazzucchelli about the benefits of DexKo's vertical integration strategy, and its impact on the challenges and opportunities presented by today's dynamic business environment.

Aboutcamp BtoB: Supply chain seems to dominate every conversation today, as it has since the beginning of the year. How has DexKo been weathering the storm?

Fred Bentley: Supply has been a challenge, no question about it. But I'm proud to say the DexKo team has done an incredible job of managing through it.

We have a strong, vertical manufacturing

model, which gives us more control over our supply chain as well as the ability to shorten lead times and respond more quickly in a highly dynamic market. We have developed a number of suppliers to support that high level of vertical integration. As a result, we have been less impacted by a lot of the issues around supply chain and logistics that others are facing.

Aboutcamp BtoB: That's quite interesting. So has there been no impact on the company's overbook and delivery schedule?

Fred Bentley: Overall it has been a comparatively minimal impact. We target to have a five-day lead time in our North American business. Right now, we're running one day past that. It's the flexibility of our system and our high level of vertical integration that allows us to react.

We watch the supply chain and logistics situations, and we monitor labor issues, which is pretty straightforward. We pay attention to where we manufacture product, and make sure that we are adjusting to be as effective as we can. We want to make sure that we continue to develop suppliers that can get us product when we need it. We want to focus our efforts on engineering to make better products while reducing costs.

Aboutcamp BtoB: Does vertical integration protect the company against some of the input cost increases that manufacturers have faced? The price of virtually all commodities have increased sharply year-over-year, to say nothing

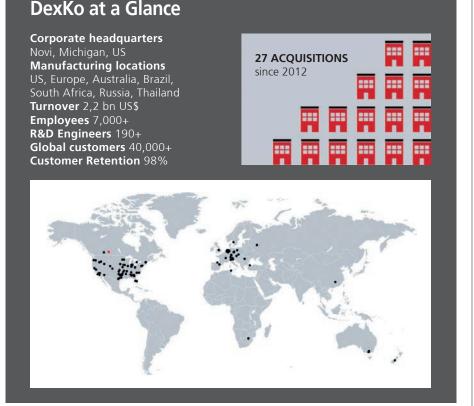
of the associated freight expense.

Fred Bentley: It does help. If we look at steel, for instance, there is a difference globally and we work to source effectively. But when you look at other input costs like components, greater integration does help because we're not nearly as reliant on components being brought in from outside the immediate area where we manufacture.

To me, the freight part of it is a more pressing issue than the material part. Fortunately, we do have our own fleet in North America and so that does minimize the impact of the logistic challenges we're seeing elsewhere. Most of that is outbound to our customers, and we are able to support a lot of what we deliver. We are working on finding alternative means for getting raw materials to us. Our team is doing a great job of identifying alternative sources to make sure that we're getting the components we need every day.

I'll also say that having a high level of vertical integration, and more concentrated supply chains, represents an advantage in terms of new product development. Product life cycles are shorter than they've ever been, and product development timelines are accelerating. That is much easier to manage when you don't have to factor in extra time to ship prototypes across oceans, perhaps multiple times as changes and revision are made.

Aboutcamp BtoB: One would have to imagine today's dynamic environment would present its share of opportunities to not just leapfrog competitors, but to develop all new ways of doing







business.

Fred Bentley: We have been very focused on our manufacturing model and being able to service customers by having the ability to be close to them and to react to their needs in a very short period of time. Giving them a high degree of customization while giving them great service a challenge we work on every day. That is really important to us.

In addition, M&A is one of our core processes, so we're always looking for opportunities. We have a very clear strategic evaluation process. And we're very disciplined when we look at companies. We're always looking to improve the offering that we have to our customers. It's just like we look at service to the customer and our manufacturing capability, so we're always looking at opportunities to grow DexKo.

Aboutcamp BtoB: And would DexKo also look at things like joint ventures or strategic alliances?

Fred Bentley: We tend to look more at acquisitions versus JVs or alliances. Being able to have control of a business tends to be more straightforward and less complicated. So, we prefer to approach things that way. You'll never hear me say never about something like that, but we lean more toward acquisitions.

Aboutcamp BtoB: Do you think we're going to see manufacturing begin to shift away from the just-in-time approach as a result of today's headwinds? Are you starting to see your customers investing more in maintaining their own inventory levels?

Fred Bentley: Inventory management is a balancing act. I believe successful companies will figure out a way to adjust their supply chain to have a good return on their capital. I also believe companies that just add inventory will struggle the next time there's a downturn.

Those aren't 100 percent absolutes, but you want an efficient supply chain that will ensure a steady supply or materials without tying up capital. I think everyone will evaluate their own situations coming out of this, but I think the answer of simply adding more inventories is probably not a good long-term idea.

Aboutcamp BtoB: We all know there are a number of first-time buyers now



entering the market, and that they have different values from previous buyer cohorts. Is that entering into conversations between DexKo and your customers?

Fred Bentley: Absolutely. As an example, we introduced our Vario X chassis, which reduces weight by 30 percent. What that allows our customers to do is to put more features in their vehicle, giving them a more interesting, feature-rich offering. Most of our products are things that are outside of the vehicle, so we help them by doing things like that – engineering to deliver greater value.

We can further help by making it easier to drive or tow a vehicle, with things like sway controls and maneuvering systems and other technologies that enhance the end-user experience. The more that we can do to improve the experience for the end-user, the better we're doing our job, and the more likely that end-user will become a camper for life.

Aboutcamp BtoB: Looking ahead, what are your thoughts on what we're likely to see in the RV market in the near future?

Fred Bentley: What the manufacturers of trailers, motorhomes and caravans have

done in recent years is just incredible, and today, the product offering is as good as it's ever been. RVs have added more amenities and features, they're more user-friendly, and they're far more connected so users can keep in touch with family and the office. This is really fantastic, and it's just going to get better and better.

The other thing the industry has done very well is to grow the customer base and attract new buyers. They builders have brought many younger users into the market with this whole concept of greater connectivity and allowing people more freedom. Their customer base has expanded, and they've done an incredible job with that.

Finally, I think the impacts of the pandemic will continue to bolster the industry. With all the restrictions on travel it brought, there was a unique opportunity to provide consumers with more freedom and again, I think the RV industry has done an incredible job with this. All that being said, I feel very bullish about the industry. And I think that the RV, motorhome and caravan manufacturers are doing an incredible job of continuing to expand the number of people who want to buy their product, which we're fortunate enough to benefit from as a result.





We manufacture fibre-reinforced plastic sheets (FRP/GRP), which are used in various applications such as the outer side wall, the roof, the floor, in the rear garage or as interior wall cladding.



LAMILUX X-treme The hail protection roof



HG4000 The high-gloss premium sidewall



Composite Floor The odourless floor highlight



LAMI Graph The decorative interior surface



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Polyplastic, by Lippert, supported Stella Vita, the first motorhome powered by solar energy, by devoloping special windows made with recycled plastic

Words Enrico Bona

Polyplastic, Lippert's company based in the Netherlands, specialises in the production of a range of products for the RV global market, including windows, sunroofs and hatches. It participated in the development of Solar Team Eindhoven's concept RV, Stella Vita, by providing special windows for this revolutionary vehicle: a motorhome to live and work in while travelling using the energy of the sun.



The design of Stella Vita is unique to the point of needing some special skills and production capabilities available thanks to the experience and the know-how of Polyplastic.

Stella Vita's windows are different to a normal RV or car: Polyplastic supported Solar Team Eindhoven by making the moulds and producing all Stella Vita's windows with a special kind of recycled plastic.

Using solar panels, Stella Vita is the world's first solar powered and totally self-sustaining motor home that generates enough power for its own mobility and to allow it to be lived in, including the use all accessories, like a shower, tv and kitchen.

This is a solar house on wheels, but when when stationary, its roof, covered in solar panels, slides up independently of any power. The pop-up roof solution makes the living space inside very comfortable and perfectly habitable by RV standards; also, when raised, extra solar panels fold out doubling the surface to 17.5 square metres.

On a sunny day, Stella Vita can travel up to 700 km and is self-sufficient and indepen-



dent, without burdening the environment. As a demonstration of its abilities, Stella Vita made its own European Solar Tour. Driven by 22 university students, it travelled from Eindhoven in the Netherlands to Tarifa in southern Spain. It intended to show the rest of the world what is already possible in terms of energy and mobility for a sustainable future. The European Solar Tour made 13 stops to visit companies, universities and governmental institutions to promote the solar energy transition. Polyplastic supported both the project and the tour, and was proud to be part of the acceleration of the transition to a sustainable future.

In partnership with

Contacts



Carlos Navarro promoted to CFO EMEA

A graduate of North Central College in Naperville, Illinois, and an MBA holder from Indiana University Northwest, Navarro started his career with Lippert in 2005 as a staff accountant, where he was quickly promoted to Assistant Controller in 2011. After his promotion to Controller, he then moved to Group Controller over Lippert's RV Products, Chassis, Axles, and Steel Fabrication businesses in 2013. Since 2018, Navarro has served as Lippert's M&A Director, and in his new role as CFO EMEA, he will oversee M&A activities outside of North America and lead in the execution of Lippert's Finance and Controlling functions in the EMEA region. He will report to Jim Menefee, Group President – EMEA.

"I am pleased to have Carlos in Italy to develop better business and financial processes that will support the future growth of Lippert EMEA," said Jim Menefee, "I have worked with Carlos in different capacities over the last several years, and he is always driving the business to improve to a higher level".

"I would like to thank the Lippert Executive Team for their continued belief in me as they continue to offer me new opportunities to grow and help the company," commented Navarro. "This opportunity affords me both professional and personal growth. I am extremely excited to drive business improvements in a fast-growing segment for Lippert and work with all of the wonderful team members globally".

Brian Hall, LCI Industries EVP and CFO, stated, "Carlos has always been the first to raise his hand and volunteer for the next oppor-

tunity, and he has been instrumental in shaping the Accounting and Finance Department to where it is today. All of us at Lippert appreciate that he was willing to move his family across the world to lead this very important seqment of our business. I am excited for the adventure he and his family are embarking upon, and I look forward to the many successes I know he will have in Europe."



Lippert acquires Furrion Holdings Limited



Lippert has completed the acquisition of Furrion Holdings Limited, a leading distributor of a large range of appliances and other products to OEMs and aftermarket customers in the recreational vehicle, specialty vehicle, utility trailer, horse trailer, marine, transit bus and school bus industries

Furrion has become a premier supplier of appliance, appliance accessories and audio-visual products since entering the RV industry in 2007 and is best known for innovating new appliance products and introducing state-of-the-art technologies into the recreation space. Furrion's robust catalog of electronics and appliances complement Lippert's OEM product roadmap by adding audio-visual components, observation camera systems, a full range of kitchen appliances, and energy and power management systems that will allow Lippert to offer a wider range of products to the industry.

"We are very excited to officially welcome Furrion to the Lippert family. To further facilitate successful integration of the Furrion team, we have made a number of a key leadership appointments to position us for growth," said Jason Lippert, President and CEO of Lippert. "First, we have named Andrew Mock as Senior Vice President of Furrion North America. Andrew has been with Lippert since 2014, and during that time, he has held many sales roles, most recently Vice President of Sales for Lippert's RV OEM Business".

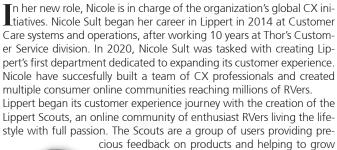
Lippert continued, "Darren Ho will remain the CEO of Furrion Asia. Darren will continue to oversee the development, sourcing, and fulfillment of Furrion products, while supporting Lippert's efforts to scale our business overseas and advance growth in our European and Australian markets. In addition to a great procurement and quality team, Darren has a strong team of industrial designers and engineers in Hong Kong who will support Furrion's innovative product development, to stay on the cutting edge of aesthetics and functionality, which will be essential for the long-term success of the Furrion brand."

Ryan Smith, Group President of Lippert OEM North America, commented, "Steven Bell will remain Chief Technology Officer of Furrion North America and Asia to drive innovation and technology throughout the Furrion brand, while bridging the technological gap between Furrion and Lippert products".

"Furrion is extremely excited to join the Lippert family," said Darren Ho, Furrion Asia CEO. "Furrion's success has been the result of its great team members and partners. As we move forward, we could not have found a more complementary partner to bring Furrion's products to the next level".

New Customer Experience Vice President launches the "Lippert Getaway" rally

The CX team, created by Nicole Sult, Lippert's new Vice President of Customer Experience (CX), has built a solid online community of Lippert product enthusiasts which gave birth to the successful "Lippert Getaway" rally that brought together end customers and members of the Lippert team in a technical, educational and entertaining event in Pigeon Forge, Tennessee



experience and interest in the RVing.

Lippert also created an online forum, "Scouts the Community", in order to connect thousands of RVers and build a community to share questions and answers about any topic related to the outdoor lifestyle.

The construction of all this customer experience apparatus supports Lippert's new brand promise: "Whenever, wherever, we make your experience better."

In addition, Lippert identified the rallies as the place to have the closest proximity to the end user. Its CX team has attended more than 20 rallies last year. In September 2021, Lippert hosted its first consumer rally, the "Lippert Getaway", held in Pigeon Forge, Tennessee, with over 350 attendees, mostly members of the Lippert Scouts, plus Lippert team members from Customer Experience, Customer Service, the Technical Institute,





Marketing, and Executive Leadership. They all gathered together for two full days of learning, listening, building relationships for a further growth of the industry and the brand.

During the rally, Lippert organized educational courses focused on technical training and problem solving onboard RVs and invited several of its brand ambassadors and influencers to give unmissable seminars about the RV lifestyle.

To complete this event, which was focused on a mix of technical training, fellowship, and entertainment, Lippert invited some of its own famous names in the RVing world to share their experiences, such as, Oils and Grace Tribe, Enjoy the Journey, Finding your Someday, Paws for Love, Wandering Weekends, and Restless Russels.

Being responsible for this event, Nicole Sult commented: "Our goal with the Lippert Getaway was to bring to life the feedback our Scouts have been sharing with us over the course of the last year and a half. We heard they wanted to meet each other, to meet us, and to learn more about their RVs. Lippert's Technical Institute created special sessions with hands on applications on how critical components on their rig function, the proper maintenance, and how they are assembled. I am grateful for all the team members of the Getaway Committee that helped make an unforgettable experience for our attendees. Without you, this couldn't have been possible!"

R-Bike accessories

A fter creating R-Bike, the innovative first modular bike rack system in the RV sector, initially for Fiat Ducato, Citroën Jumper and Peugeot Boxer, with further versions for Mercedes Sprinter, Ford Transit and Volkswagen Crafter introduced at the Caravan Salon 2021 in Düsseldorf, at the next CMT 2022 in Stuttgart, Lippert will showcase, as a world premiere, the first R-Bike accessories: the ski holder and racks.

The R-Bike, designed to easily and safely carry two e-bikes, is a revolutionary and flexible system that introduces a new concept of bike racks for the RV industry. They offer the customer the flexibility to use a range of accessories; R-Bike allows campervan owners the flexibility to transport everything they need, depending on the type and duration of the trip.

This bike carrier has unique and innovative features: it can be installed without drilling the body of the van, or the oval section of the aluminium tubes, a solution that offers greater structural solidity compared to round tubes, and the remarkable maxi-



Lippert at the Camper Van Week-End

In the forest of Chantilly, France, the Camper Van Week-End took place from 15 to 17 October: an event dedicated to vans where brands, designers and 'vanlife' followers gathered; Tommaso Gasparrini, Aftermarket Sales Manager at Lippert, tells us about Lippert's experience at Chantilly as the group, now more than ever, is investing in the growth of the van segment

Aboutcamp BtoB: Lippert attended the Camper Van Week-End. What was the reason for doing this, and what were the results?

Tommaso Gasparrini: It was definitely a positive experience. As we have said frequently, Lippert has decided to focus its attention on the development and explosion of the van market. In particular, compact vans are the segment of the market showing the signs of the strongest growth. France represents a very important European market in the RV world and the presence of Lippert at this event, in our opinion, is significantly important both for the fair itself, which is growing in importance, and for Lippert, so it can get closer and closer to the needs of the final consumer to get their feedback, which is so useful in the development of new products. This event takes place twice a year, with a winter and a summer edition, and Lippert has already confirmed its participation for the

mum load capacity up to 40 kg. In any configuration, it becomes an extremely versatile and multipurpose tool for the travels of campervan lovers who, typically, love a dynamic holiday style and, from now on, with just one tool, will be able to carry any equipment they want, from skis, to windsurf boards to storage boxes. next summer's edition as well.

Aboutcamp BtoB: What was the van set up that you had?

Tommaso Gasparrini: On our vehicle, set up by the Aftermarket Europa Lippert Team, we installed the 2.0 version of the Vela pop-up roof presented in Düsseldorf which is higher and with greater habitability than the average, plus the R-bike, which aroused strong interest and was appreciated by all for its tangible qualities of robustness and for its aesthetics that perfectly integrate with the lines of the Ducato. Its choice of colours were also appreciated with a combination of black and orange. The vehicle was also equipped with the Alanera step and the van bed, installed in the rear area: a manual sleeping system kit, divided into three sections to allow the bed to be folded on one side to leave the corridor free. The Schaudt control units are already supplied with the original equipment on the mechanics and Lippert also installed the Mito wall profile attachment, the Moon table leg, the Jolly extendable shelf in the kitchen area, the Skia cabin blind system (a first by Lippert for the Ducato), and Polyplastic windows with the Polyvision Curved model, with blinds.



Product news H.B. Fuller - Kömmerling

Adhesives at their best!

A comprehensive adhesives portfolio from H.B. Fuller for a reliable production planning enables constant production times as well as safe and optimized processes

Words Peter Hirtschulz

In today's modern production factories, as we know them all over the world, it is desirable, even necessary, to make the individual processes as plannable as possible. Modern 2-K Polyurethane adhesives can be adapted very well to the individual requirements of the customers or to their wishes. However, there are influences that have a big effect on adhesives, but which cannot be met by one adhesive alone. One major influence that plays a big role in the predictability of processes is temperature.

One very important adhesive application in modern RV design is the production of sidewall and roof sandwich panels. In principle there are three different adhesive technologies in use. H.B. Fuller is able to serve



all of them. Reactive Hotmelt widely used in the US, Liquid Moisture cure, the main technology in Europe and as a specialty, mainly for bigger Luxury vehicles, is standard 2-K Polyurethane. Reactive Hotmelt is applied at higher temperatures above 100° C, so the ambient room temperature in production isn't a big issue. Using Liquid Moisture cure products at different temperatures during the production, cannot be balanced and so customers often use different products to overcome the temperature effect. For the usage of 2-K Polyurethane H.B. Fuller has developed innovative products that can easily compensate existing temperature fluctuations on site.

The curing behavior of adhesives is linked to the ambient temperature. The pot life is determined at a standardized temperature in order to obtain a certain comparability with other adhesives. Or also to have an indication of the curing time in relation to the prevailing ambient temperatures in production. The reaction of polyurethane adhesives is faster at higher temperatures, which leads to a shorter pot life, and correspondingly slower at lower temperatures, which means a longer pot life (see Graphic 1).

Depending on the ambient temperature, the adhesive must be selected accordingly to ensure a certain process time. Since the ambient temperatures are not constant, several pot life variations may be necessary to achieve a safe process in production. To ensure a constant process time, it is necessary to use adhesives with different pot life/curing times. This means storing different pot life variants and deciding which is the most suitable variant for the process depending on the ambient temperature. This is a big challenge in terms of logistics and production

H.B. Fuller



Contacts

technology and can only be achieved with a great deal of effort.

In order to keep the desired process times as short as possible, "HBF" offers the possibility of using the 2-K PU as a 3-K PU. This can be realized in two different ways:

- by using two A-components with different pot lives. This enables a longer or shorter pot life by premixing a long and a short pot life in different mixing ratios (see Graphic 2);
- as an alternative to the method described above, an A-component with a long pot life can be used with the standard B-comp and the pot life can be adjusted by adding a third (booster) component (see Graphic 3).

Both of these variants can be adjusted very individually to the desired process times. Thanks to the predefined parameters in the application system, the pot life can also be changed quickly and allows the customer to adapt the production to various processing steps, where different curing times are needed.

Customer's Results and Benefits:

- High Flexibility
- Elimination of temperature impact
- Compensation of temperature fluctuation
- Constant guality of the PUR-system
- Individual adjustment of the process speed
- Possibility of flexible cycle times
- Low inventory management

This solution has been proven in practice for a manufacturer of sandwich panels. With the use of a 3-K-System that gives him the flexibility to adapt to various situations in the production. For example, the pot life was individually adapted to each sandwich element, which was stacked in the vacuum table for curing. For this purpose, a rather long pot life was first used for the first sandwich panel. For the other panels, the pot life was adjusted according

to the process sequence.

This enables a shorter curing process and thus an optimized process time. It is also possible to produce different sizes of sandwich panels in one process, in which the pot life is adapted to the panel size or to the application time of the adhesive. A longer pot life is used for the large panels and a correspondingly shorter pot life for the smaller panels. The 3-K polyurethane systems are also ideal for compensating the fluctuating ambient temperature, which affects the process time. Since very few production halls are heated, they are subject to temperature fluctuations (summer/winter, day/night), which affects the curing of the adhesives and thus the cycle time in production. These conditions can be counteracted by selecting pre-installed parameters on the gluing system. By adjusting the pot life to ambient temperature, a desired process time

is achieved, which in turn enables a reliable production process or manufacturing. Whether the client wants to contain temperature fluctuations for his process times or optimize safe, reliable processes in terms of cycle time. The 3-K polyurethane system offers any possibility to do so.

KÖMMERLING

It is H.B. Fullers aim to always focus on the customer's individual needs and to develop tailor made solutions. Thanks to the many years of experience and the high reputation on the market as a reliable and flexible supplier of adhesives the enterprise is able to offer high-performance system solutions that are individually tailored to the respective situation of the customer on site. H.B. Fuller strongly believes in the importance of long-term business relationships based on partnership and the company supports the customers from the project planning to implementation and beyond.

Ask H.B. Fuller today about how the company can help to improve your pro-

duction process with our innovative bonding solutions. H.B. Fuller promises to be always a reliable partner!

Graphic 3

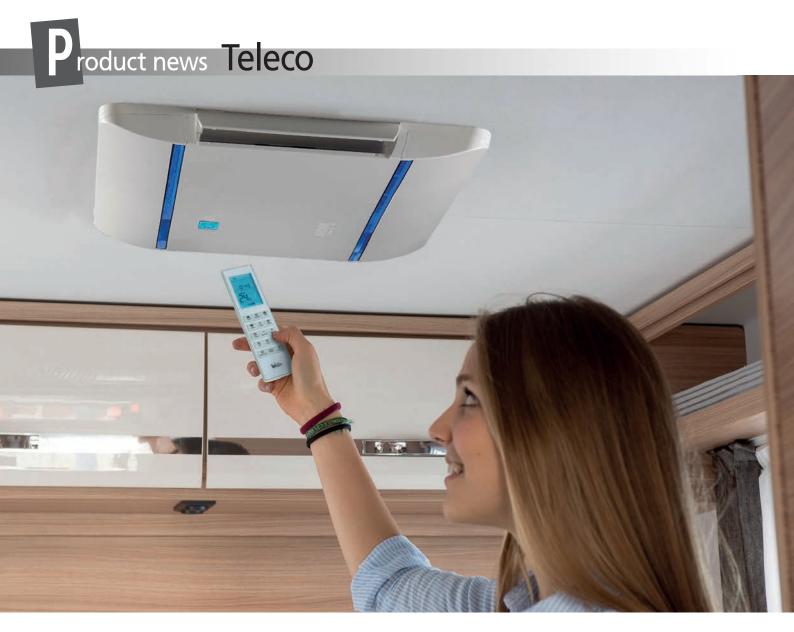
Company profile

H.B. Fuller

From a one-man wallpaper paste shop in Minnesota in 1887, H.B. Fuller has grown into a \$3 billion adhesives global leader today. Its recent acquisition of Royal Adhesives and Sealants, including the KÖMMERLING Chemische Fabrik GmbH business, created a unique powerhouse of RV adhesive and sealant expertise, supplying products for every conceivable RV application.

Kömmerling

Headquartered in Pirmasens, some 170 km south west of Frankfurt, and founded in 1897, Kömmerling is a leading international manufacturer of high-quality adhesives and sealants. In this capacity, it has been supplying the RV industry in Europe and beyond for more than 20 years. It became a member of H.B. Fuller's global network through the company's acquisition of Royal Adhesives & Sealants in October 2017.



Plus: the evolution of Silent

The new Silent Plus 5900H and Silent Plus 8100H models upgrade the previous models in the Silent range and offer improved technical and technological specifications: higher performance with a compact, thin internal diffuser

Words Giorgio Carpi



Piece Group presented its new Silent Plus range of air conditioners at the Düsseldorf and Parma exhibitions. The development of this new generation of products, which replace the Silent versions with higher performance, more ergonomic versions, took almost a year and a half. The Silent Plus 5900H replaces the old Silent 5400H, while the Silent Plus 8100H replaces the Silent 8400H and Silent 7400H. Both new models stand out for their advanced specifications and technologies. The design of the new internal diffuser which, like the e-Van models for campervans, is more compact and offers better forced ventilation management, is itself a major advance.

"One the most evident characteristics of the new models is the modern design of the internal unit, with its ultra-flat diffuser with streamlined profile on both sides, integrated lighting and talking display," says Raul Fabbri, one of the two founders and owners of Teleco and Telair, "but this is just one of the improvements they offer. For instance, the new optimised diffuser enabled us to increase ventilation power without increasing running noise. The air flow

Contacts





rate is now 450 m3/h."

The new diffuser is more compact than its predecessor. Measuring just 45x45 cm in comparison with the previous model's 51x52.5cm, it is easy to install in the interior corridor without interfering with the wall unit, wardrobe or cell doors. It also has a much lower profile, down to 4.2 cm from the Silent version's 6.2 cm, which considerably improves the ergonomics of the living space. As on the previous models, the Silent Plus also uses a high efficiency heat pump and offers excellent heating power with very low consumption, easily enough to heat the interior of a camper or caravan even with outdoors temperatures of 4°C.

"The new diffuser's filters are just as quick and easy to wash as the previous ones. And we have added a ventilation function, which is extremely handy when you simply want to fan the air inside the camper at ambient temperature, " says Raul Fabbri. "The new remote control has more modern styling, with a larger display and two fast buttons for selecting the cooling and heating function to bring the interior guickly up to the desired temperature. It also acts as a powerful LED torch, which is very convenient at night to avoid disturbing the other occupants. The display offers a full range of information on the ambient and setpoint temperatures. We have added the ventilation function, which was not previously available. And the side lights offer supplementary lighting in the interior, also controllable with the remote." The new models round out the TELECO/ TELAIR series of air conditioner solutions, with power levels ranging

from the e-VAN 5400H to the DualClima12500H, including the Silent Plus 5900H, e-VAN 7400H, Silent Plus 8100H and Dual-Clima 8400H. The product range now offers a full range of climate control solutions, running from compact campervans under 5 m in length up to large Premium class motorhomes of more than 10 m. The Silent Plus models also use R32 refrigerant gas, a development which Teleco has rolled out for all its air conditioners, starting in 2020. This gas offers very high performance with a smaller environmental footprint than other solutions. R32 has an ODP (Ozone Depletion Potential) of zero, while its GWP (Global Warming Potential) is around half that of R407C, adding up to a total 70% reduction in its environmental impact over conventional gases.

"This conversion, which reflects the company's philosophy of minimising our environmental impact by adopting solutions which improve the eco-sustainability of our products, was not as simple as it might seem. R32 gas works at a higher operating pressure, and we have had to upgrade all our systems with oversized lines and fittings, while the converted units were alsc subjected to lengthy and stringent testing. But the result is that now, if a gas leak occurs, the pollution is less than half that of R407C, which is still used by a number of air conditioner manufacturers, including for RVs."

says Raul Fabbri.





The Teleco team at the Caravan Salon Düsseldorf 2021

Technical features	Silent Plus 5900H	Silent Plus 8100H		
Cooling power	5900 BTU	8100 BTU		
Heating power	5600 BTU	8000 BTU		
Fan speed	3 + AUTO	3 + AUTO		
Power supply	230 V - 50 Hz 230 V - 50 Hz			
Max absorbed current	3 A 4,8 A			
Starting current	15 A (0,15s) 18 A (0,15s)			
Absorbed power - cooling	680 W	680 W 1050 W		
Absorbed power - heating	680 W	1050 W		
Required generator	2200 W	2200 W		
Operating temperatures	2÷43°C	43°C 2÷48°C		
Setpoint range temperatures	16÷31°C	31°C 16÷31°C		
Maximum air flow rate	400 m3/h	450 m3/h		
Weight	34 kg 35 kg			
External dimensions	239x980x650mm	239x980x650mm		
Internal dimensions	42x450x450mm	42x450x450mm		



Thetford launches PowerPods® to the aftermarket

In 2019, when we interviewed the CEO of Thetford, Stéphane Cordeille, he promised us game changing products. iNDUS was the first of those and PowerPods[®] are arguably the second

Words Terry Owen

I t's widely acknowledged that Thetford makes some of the best toilet fluids on the market but, as with any such fluid, dispensing can be a little messy. Some years ago, Thetford introduced dry granular formulations inspired by their highly effective liquids, and put them into single dose, water soluble sachets. They've since proved a big hit in many markets, but they do need to be kept in sealed container

and you might want to wash your hands after dispensing them.

Enter PowerPods[®]. These new pods build on technology used in the detergent industry for washing machine dosing. Each contains a super concentrated odour control liquid in a clear film coated pod of amazing physical strength. Nevertheless, once exposed to water the film, which is made of polyvinyl alcohol (PVA – see panel) quickly dissolves, releasing the contents to do their work.

THETE

The power of Thetford liquids

The idea is that you simply pop a pod into the waste cassette, add a couple of litres of water to activate the product, and you're ready to go. The tricky bit was ensuring that the contents did not dissolve the wrapping whilst, at the same time, performing to a very high level.

We took time out to visit Thetford's stand

PowerPods[®] at a glance

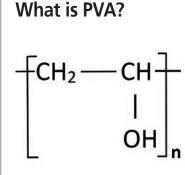
	PowerPods® Blue	PowerPods® Bio			
Liquid content per pod	24.5 ml	24.5 ml			
Recommended storage temperature	-5 °C to + 35 °C	-5 °C to + 35 °C			
Minimum storage temperature	- 20 °C	- 5 °C (may freeze below this)			
Box pouch contents	20 pods	20 pods			
Days of convenience	Up to 100	Up to 80			



Contacts







Note: The letter 'n' at the end of the above formula signifies that the sequence keeps repeating any number of times.

Polyvinyl alcohol (PVA) is a nontoxic polymer which is completely biodegradable, forming just water and carbon dioxide. It has excellent mechanical and thermal properties. It is also resistant to oil, grease and solvents. PVA has a high tensile strength and flexibility, as well as high oxygen and aroma barrier properties. It has a wide variety of uses including papermaking, textile production, PVA glue and 3D printing. It is also used in medical applications due to its biocompatibility and low toxicity. An early use of PVA film was in washing machine and dishwasher capsules. The reason it's taken Thetford a little longer to develop its product is due to the very different nature of the contents and the job they have to do.





at Dusseldorf to find out more. Marketing Manager, Norbert van Noesel, said "Compared to our sachets and other currently available single dose products, the Power-Pods® look much more attractive and modern. Due to innovative perfume lock technology, the fragrance is kept in the pods until it is needed, so there is hardly any smell in your washroom or on your hands. The PowerPods® represent the power of Thetford additives in a pod, offering outstanding performance!"

The pods are available in both green (septic tank safe) and blue (superior odour control) versions. The green pods, marketed as PowerPods® Bio, are based on new innovative micro-organism technology and positioned as the best performing green convenience product. They are packaged in a 20-dose box pouch with each providing up to four days of outstanding odour control. So, one pouch gives up to 80 days of convenience.

The blue capsules, marketed as Power-Pods® Blue, each last up to five days, and provide what Thetford describes as 'superior odour control'. This time, a 20-capsule pouch can provide up to 100 days of convenience. The fragrance used is the traditional Aqua Kem® Blue. Van Noesel: "The pod packaging is protecting both the product and the end user. Nevertheless, it quickly dissolves in the two to three litres

of cold water added to the waste-holding tank to release the product. In addition to superior odour control, these PowerPods® reduce gas build-up and liquefy waste for easier tank emptying."

PowerPods[®] Bio will be available in Europe from January 2022 and will replace the Aqua Kem[®] Green Sachets. PowerPods[®] Blue will eventually replace the blue sachets, although this may take some time.

Conclusion

PowerPods® represent another step in Thetford's journey towards ever greener credentials. The blue and green sachets, introduced in 2015, reduced weight but still shipped in a significant plastic container. It's fair to say their main purpose was convenience. A more significant step came in 2018 with the introduction of concentrated products. These offered a 59% reduction in bottle size and hence weight. But smaller bottles also meant less plastic and that had to be good. They also meant less packaging and transport, another plus for the environment.

This time, in the opinion of the author, the new PowerPods® represent another big leap. Why?. Because the wrapping completely dissolves in the treatment works leaving no plastic residue for the environment. They're also clean

What's more they save weight and, with a name like Thetford, you know they're going to work.

and odour free and very pleasant to use.

THETFORD ower of nature in a pod



Truma launches next generation Control System

With its CPU based hub, Truma iNet X System will be able to handle the much faster CAN bus, and almost any other technology that may come along. This is because software updates will always be able to keep it bang up to date. The philosophy fits perfectly with Truma's mantra 'Start smart. Be smart. Stay smart'

Words Terry Owen

Truma's iNet system, launched back in 2015, broke new ground, winning the European Innovation Award in 2016. Not only did it allow things like heating, lighting and air conditioning to be controlled from a convenient central panel, it also allowed those same functions to be controlled from anywhere via a smartphone app, as long as there is a minimum 2G signal at each end.

The reason iNet could work with such a basic signal is that it relied on text messaging to send commands. This is fine for a wide

variety of functions but, roll forward six years, and communication technology has come on leaps and bounds. 4G is now the norm with 5G being rolled out in many places.

What's more, the internet of things (IOT) is now truly here with just about everything being connected to the internet sooner or later. The new technology provides the opportunity for much more sophisticated control and the deployment of high bandwidth devices such as 4K CCTV cameras. The bottom line is that, with the Truma iNet X System, RV's can offer ever more comfort, safety and convenience.

To embrace this emerging world Truma has given iNet a complete makeover. Enter the

iNet X System, a brand-new system that Truma describes as 'blazing a trail into the future of travel'. Gone is the reliance on text messaging and in its place is a whole new range of advanced communication and control protocols.

Key to the new system is its open architecture and a new central op-







Control from a smartphone is also intuitive and easy

erating system. This makes it easy to add new devices when required as the software can be updated remotely, to ensure the system is always up to date. Control is via

an intuitive colour touchscreen panel or via a mobile phone app using the 4G network.

The Truma iNet X System comprises four basic modules – a standard panel, a Pro panel, a smartphone app and a communication Hub. To ensure a smooth and trouble-free take up, Truma is staging the roll out of the iNet X system and its functions.

The Truma iNet X Pro panel is being launched first, in new installations as a standalone control panel that connects directly to the appliances within the RV. It is already beginning to appear in selected models

Truma Open Innovation

In developing iNet X System, Truma has been, and continues to, consult closely with both customers and end users, in order to integrate their ideas into intelligent product solutions. It's something Truma calls its Open Innovation path, where the system solution is designed as an open interface solution for interaction with customers.

It's a fact that involving users in this way helps firms better address their customers' underlying needs. The result is reduced market risk at launch along with improved return on investment and a faster time to market.

from Knaus Tabbert (Weinsberg), Carthago (Malibu) and Trigano (CI, Roller Team and Benimar).

The standard panel will launch in 2022 for retro-fit applications although the iNet X panel can also be retrofitted – see later.

The communication Hub is the really clever bit and will launch in 2022, the exact date depending on supply chain constraints. You can think of it as a computer with significant memory and processing power that is

able to handle a wide variety of bus systems, including CAN bus. In this way it will be as future-proof as possible. The Hub will connect directly to the control panel (either standard or Pro) and greatly enhance its capabilities.

Eventually the plan is for the Hub to be able to work independently with human interface devices such as tablets, smartphones, semi-transparent touch-controlled windows and so on.

Touch screen technology

In choosing which technology to use for its control panels, Truma wanted something that was to be reliable, robust, and not prone to mis-keying - where a slight touch in the wrong place results in an unwanted reaction. It therefore went for the industry standard, resistive technology where signals

are generated as different layers in the screen touch one another when pressed.

This gives a tactile feel and means that





functions can be activated with virtually any object (finger, stylus, gloved hand, pen, etc.). The technology also has a low power consumption and is resistant to the effects of surface contaminants such as oil, grease and moisture.

The main alternative would have been to use capacitative technology such as is used in many smartphones but this was considered less robust in an RV environment.

Dealers should be aware that users may need to give a firm press for functions to operate, and advise them accordingly.

Truma iNet X Panel vs Truma iNet X Pro Panel

As you might expect the main difference between the two panels is capability. The Pro panel supports more functions and devices. Among other things, it is possible with the Pro variant to display and control information from the vehicle (e.g. water tanks, lights, battery sensor values, etc.) subject to matching communication protocols. In addition, the variant also supports more devices, such as the heating system Alde 3020.

Retrofit scenarios

End user with CP Plus panels can ask their dealers for an upgrade to the new iNet X panel. It does involve cutting a larger hole but a template for this is delivered with the panel. The upgrade opens up the RV to the Truma iNet X System with all its advantages, such as controlling third party devices and intelligent services such as predictive maintenance, all extendable through the iNet X Hub.

Conclusion

In the last couple of years there has been an explosion of touchscreen control and information panels for RV's. Proprietary systems aside, most of these use CI-BUS or LIN-BUS technology. However, as demands increase, these technologies will struggle to meet bandwidth requirements. Against this fast-moving background Truma has come up with a solution that will stand the test of time.

Left: confirming the pairing of the panel with a smartphone





Surprising surfaces

Don't just call it decorative paper. Each sheet made by Decor In is a crucial element for making the furnishing panels, the result of a focused study of up-to-the-moment trends and made with cutting-edge production techniques to reproduce various material effects even in 3D

Words Renato Antonini

perating in the RV sector since 2010, Decor In has acquired a leading role in the definition of vehicles despite only being a reference supplier to the finishers and not as a direct supplier to motorhome manufacturers. And all by making premium decorative papers. The importance of this type of decoration used in RV interiors in recent years is beyond doubt. What may think as simple paper for

the production of finished panels is actually a complex element under many points of view, in more than just appearance. The product can boldly characterise the interior of a motorhome, camper van or caravan and contribute to its success. Decor In production operates in several areas and the RV sector accounts for almost 15% of the turnover. The rest of the business is in furniture, constructions and naval contracts,

doors and finishing profiles. "The RV sector is strategic for us and we are planning to bolster our presence even further", explained Matteo Confalonieri, CEO of Decor In. "Our surfaces are perfect for covering poplar plywood, which is an ideal material for making recreational vehicle furniture due to its light-weight and strength. We make sheets of various thicknesses to optimise the surface quality of the plywood. They are printed with top-of-the-line water-based pigments and offer high UV stability, which is crucial for use on vehicles. And let's not forget that

Decor In uses eco-friendly cellulose-based products with very low emissions and that our products are also ecological at the end of their life."

Currently, the company mainly works within Europe in the RV sector, apart from a few orders from Australia. Decor In establishes various types of relationships with customers. For instance, customers can pick a décor from the many in the catalogue or, with the support of the in-house design department, they develop one to the customer's instructions. Decor In can also industrialise new decorative patterns developed by the customer and this is important because there is an increasing trend for high-end products, in various areas including the RV sector, towards specific requests coming directly from the manufacturer. This is where the flexibility of Decor In is at its best. After all, the company was founded in 2007 with the specific goal of creating a highly advanced industrial platform for customer services. This explains why there is a catalogue in addition to top-notch support for customers for developing and industrialising specific products.

Italian design

"Our in-house design office is constantly creating new ideas for decorative paper.



Contacts





We refer to the world of design for which Italian products are famed," explained Pasquale Gesualdi, Art Director at Decor In. "We draw inspiration from textiles, wood and stone. Studying the various target sectors is fundamental, and this is why we attend the main fairs, like the Salone del Mobile and Cersaie. We can reproduce and reinterpret any material. Currently, there is a strong trend towards the stone, while Canaletto walnut is making a comeback among woods. As a manufacturer of surfaces, Decor In can carry ideas and trends over from other sectors to the motorhome world, but can also develop tailor-made décors for the RV sector".

Sophisticated machines are used to "photograph" various materials in the Decor In design department to reproduce their colours, texture and special effects. Two printing processes are available: digital printing or industrial rotogravure printing. A customised line of décors can be created for runs exceeding 35,000 sqm on a six-monthly basis. These numbers are substantially low compared to the development of a new décor. This is where Decor In demonstrates tailoring capabilities that are particularly appreciated in the RV sector.

"We develop ideas and creativity even for specific requests at low costs, so Decor In be an important partner for companies operating in the RV sector", concluded Matteo Confalonieri. "We have fulfilled their requirements so far acting as suppliers to





the panel makers. In the future, our goal is to be more and more at the side of the RV manufacturers, to interpret and guide their choices, showing them that we can make even the most complex surfaces".

Dip Foil 3D HR and SilverCoat

Dip Foil HR is a new line of products made by Decor In, particularly suitable for use in the RV world. These decorative papers are extremely resistant to abrasion and micro-scratches, having level C scratch resistance (ranking as good according to UNI EN 15186:2012) and level D abrasion resistance (according to UNI EN 15185:2011). In addition to being remarkable durable, these papers have 3D effects that replicate the three-dimensionality of wood, including the surface grain. The 3D effect is increasingly popular in the RV sector and achieved through chemical embossing using a high-tech expanding product. The three-dimensional effect of the wood is adjusted during production to replicate the surface of the natural material, including hard and soft parts. Dip Foil 3D HR papers are produced in reels with three different heights (1240 mm, 1960 mm, 2140 mm) and lengths ranging from 1000 to 1300 running metres. The basis weight of the pre-impregnated substrates ranges from 60 to 130 g/sqm.

SilverCoat paper is a recent creation. It is basically the antibacterial version of Dip Foil 3D HR. It is a new product CATAS-certified based on silver ions. Surfaces made with SilverCoat are self-sanitising and bacteria are eliminated within 24 hours. This new anti-bacterial paper is used in the hotel and door sectors but also has an interesting application in the RV sector, particularly for rental vehicles. Decor In is a reliable creative partner in the RV sector, which is always evolving, both in terms of new products and installations.





Company Profile

Decor In is the result of 3 generations in decor printing and impregnation business. First step in decorative papers was moved by Giuseppe Confalonieri in 1947, starting from ink business, then to printing in the 70's and finally to impregnation in the 80's, going through graphics (for the creation of designs) and cylinders' engraving and recently digital printing. Decor In Printing realizes the ideas of its customers in order to meet the needs of interior designers and architects to "dress up" new and innovative designs. Advanced technology facilities can capture images directly from original materials, change subjects, separate layers, color and variations to reach the final stage of printing cylinders. Rotogravure printing meets the highest qualitative and quantitative parameters combined with the utmost flexibility. Digital printing offers an unlimited color variety and possibility of reproduction of small lots in the beginning phase of the new decor or for cases in which the small lot is needed because of special projects. The impregnation phase with thermo-curing resins selected and guaranteed by important international chemical companies enables a product of guality and reliability.



Company news Ama Composites

Investing in the future

The company is investing in next-generation materials and production processes that are a refreshing change for the RV sector. The focus on the camper van market is strong with LWRT lightweight panels and several pop-up roof solutions

Words Renato Antonini

ma Composites is investing in innovative materials and techniques to bolster its presence in the automotive sector as a whole and the RV sector in particular. The arrival of a new machine just a few days ago is opening up exciting new production scenarios. The Italian company has a well-established presence in the motorised recreational vehicle sector and is currently expressing its full potential in the camper van segment. The Ama Composites technology focuses on LWRT (Lightweight Reinforced Thermoplastics) to interpret a new way of building and carry the typical methods and materials of the automotive sector over to the RV world.

"After fifteen years in the RV industry, our mission is very much the same," said Marco Corradini, CEO of Ama Composites. "We want to bring innovation at many levels. We have always dedicated at least 3% of our turnover to R&D and we believe that LWRT is the ideal material to overcome the limitations of conventional construction methods in the RV industry. This technology is widely employed in the automotive sector and combines four key properties: lightness, dimensional stability, low cost and good appearance. LWRT technology can be used to make even large-size complex parts that become an integral part of motorhomes, campervans and caravans".

The investments for future growth are considerable. A new high-productivity LWRT stamping line will be operational already in December. This is an important machine used for productions for automotive applications and part of a very specific choice to promote



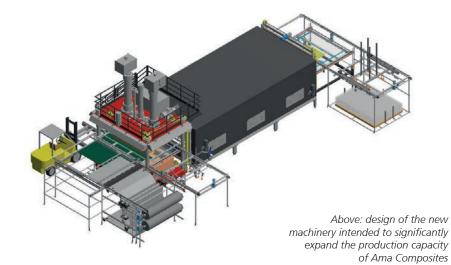
penetration in various areas, including light commercial vehicles, buses, industrial vehicles, motorhomes and campervans, but also ships. Other machines, like the new twinhead water-jet cutting robot cells, will be delivered in early 2022. A new dosing system for adhesives will also be adopted in 2022.

"We are still investing in the future," explained Marco Corradini. "We have set ourselves ambitious targets and we are confident that we will achieve them by the end of 2022. The new machine installed in our factory will give us a potential production capacity of at least three times today's."

An important part of Ama Composites' production in the RV sector is dedicated to the interior panels to be applied inside the metal body of camper vans. Products include the all-important lining panels installed in the rear of camper vans, where the bed is normally located, in addition to wheel arch covers (inside the passenger compartment) and lining panels for hinged rear doors and sliding side doors. The LWRT elements can be paired with finishing and insulation materials to offer RV manufacturers finished parts that do not need any additional manufacturing steps. One of the key features of LWRT parts is that they are lighter but just as strong (they are up to five times lighter than simple thermoformed parts and up to ten times lighter than the corresponding fibreglass moulded parts). They are also easy to clean and mould-proof.













Pop-up roofs

Pop-up roofs are a new area of interest for Ama Composites. A pop-up roof is a strongly characterising element of the latest camper van models that are becoming increasingly successful on the European market, with scope for further growth. Ama Composites has set up a specific production line at its branch in Ukraine for making pop-up roofs using GRIT (Gloss Resin Impregnated Thermoplastic) technology, with excellent results. Large parts are made using one-shot processes at low costs. The new plant in L'viv (formerly known as Leopolis) is part of the current investment plan. It has a covered area of 2500 square metres, to which an extension of a further 2500 square metres will soon be added. The factory is located in Ukraine not far from the Polish border to be close to the booming German market. Ama Composites can also offer various popup roof solutions, some of which combine various materials. For instance, pre-assembled LWRT panels can be bonded to the inside of the roof as lining and an integrated heating system, using the Amatherm technology developed by the company can be added, if required. The capability of Ama Composites to bring together different technologies, making specific couplings should not be underestimated, and nor should the ability to integrate parts of the electrical system or heating system into the mould. By combining different technologies, Ama Composites claims a potential weight reduction of 25-35% for its pop-up

roofs compared to traditional technologies. Finally, special exterior paint is offered as an alternative to the conventional exterior gelcoat. It is remarkably resistant to scratches, salt spray and UV rays. The pop-up roof range also features rooftop tents, a very special product in high demand in some markets, not only in Europe. Ama Composites has also been working in this area for several months now, producing the protective shell and structure of the rooftop tents with integrated lining, internal finishes and lateral closing systems.







mpany news Dimatec





Production and communications

Stocking up and reorganising the warehouse, improving customer service and creating a new communications plan are the guidelines that Dimatec has chosen to tackle complicated complex post-pandemic market

Words Renato Antonini, photo Enrico Bona

It has been a difficult time for everyone and it was no different for Dimatec, but the Italian company will close 2021 with a growing turnover and new investments to cope with the raw material procurement problems gripping the global market. Dimatec acted in advance and stocked up significantly as not to be caught off guard by the supply crisis.

"We have almost tripled our stocks to minimise delays in the delivery of goods," explained Pascal Sanguinet, Dimatec Sales Manager. "We have also reorganised the warehouse and are still working on optimising the placement of goods. So far, we have managed to gain 150 pallet spots, but we want to improve further. We had already installed a robotic machine for managing the vertical warehouse and we have purchased other machines, including one for encoding the weight-to-volume ratio." Dimatec is continuing to invest in optimising logistics and offering new products, like the new light clusters presented at the Caravan Salon in Düsseldorf. The company has an extensive product catalogue as well as the design skills and production flexibility needed to create customised products to specifications.

"More and more European RV manufacturers are asking for exclusive products to stand out from the competition", said Alexander Vohwinkel, Key Account Manager at Dimatec. "We can meet these requirements at a low cost because we work on a standard base. We take our catalogue products and modify them to make them unique with specific characteristics for that particular customer. It takes us just a few weeks to design and produce interior lights, spotlights and ceiling lights. Obviously, we need a little longer, say a few months, to make

Small useful products

Some of the new products launched by Dimatec are small in size and simple in appearance but meet the current needs of users at a very attractive cost level for RV manufacturers. For instance, almost all USB hubs now have dual ports as standard, specifically a type-A USB port and the smaller type-C port. A new USB port designed for external wall mounting has also been created. It is not recessed and this prevents the manufacturer from having to drill holes in the wooden panel of the furniture to insert the element and there is no need to provide a space behind it to house the body of the port itself. The new mini USB port is a further expression of this need for simplification. It has a smaller body than the standard one because it only accommodates a normal type A 2.4 A port. Particularly noteworthy is a wall-mounted reading lamp with warm light and an articulated silicone-coated arm. Equipped with a touch switch, it has an extension of 36 cm and integrates a USB port.







Contacts

exterior light clusters. I think it's also fair to point out that Dimatec has always been proactive in creating cutting-edge products that are ahead of their time. We innovative as well as customise".

There are several examples of this approach in Dimatec's experience over the recent years. As far as design is concerned, worth mentioning is the Dimatec "total black" range of spotlights and ceiling lights launched in 2014 that anticipate the current trend for lighting elements with black stems and bezels. Products of this type are featured in the company's current catalogue. The external awning light is another example. Dimatec developed an exterior light in 2011 in collaboration with one of Europe's leading manufacturers. The product had an innovative design that fulfilled its lighting function but stood out for its particular shape, capable of characterising a part of the vehicle on which it was mounted. Lights of this type have been improved over time, with the integration of the drip tray, for instance, and are still among the most popular Dimatec products in Europe.

"We work closely with customers to achieve these results and with component suppliers to understand where the market is heading, to optimise requirements and costs and to balance customer requirements with technical feasibility and price levels", explained Alexander Vohwinkel.

Dimatec works alongside manufacturers on three main product lines: taps and fittings, interior lighting and exterior lighting. The catalogue spans from simple, low-cost items to complex products, like the front light clusters for motorhomes that are inserted into a front end that is not part of the original chassis. Parts like these require considerable design efforts and a complex type-approval process. Dimatec is wellknown to manufacturers throughout Europe and has recently appointed a distributor in the United States. The company is currently seeking partners to enter more faraway markets, primarily Australia and New Zealand.









Assistance, training and communication

The Dimatec headquarters in Guanzate (near Lake Como) is home to a large meeting room where training courses were held for technical staff, with detailed explanations of the various products, in the pre-Covid days. It all changed with the lockdown but Dimatec was able to handle the situation successfully.

"We created online courses for the Truma and Alde networks," says Pascal Sanguinet, Dimatec Sales Manager. "This is further proof of our ability to meet new needs and adapt to new technologies. The experience will certainly be repeated, given the good results achieved."

Furthermore, new technologies are also used to improve communication, both to the public and the sales network and manufacturers. The new website has just been launched and is an important step in the company's new communications strategy.

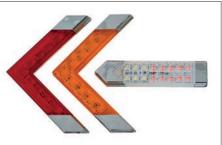
"Dimatec is engaging with the market through a new communication concept with the new website offering different levels of access to customers", explained Pascal Sanguinet. "For instance, RV builders will be able to access a reserved area to manage numerous documents."

Finally, with the change of the company's management plan, which will be active from 2022, Dimatec will take a further step forward in customer service. There will be a much more efficient routing of the service process to the RV manufacturers and the after-market network. The already existing ISO 9001 certification will be extended to the service organisation.

Arrow-shaped rear light cluster

The Arrow Light was presented at the 2021 Caravan Salon. It consists of a set of modular exterior lights that togeth-





er create a distinctive arrow-shaped design. The arrow pattern is also used in the new multi-function light cluster, which combines the brake light, direction indicators, taillight and rear fog light in a single unit.

ompany news Filippi 1971

50 years of challenges: the spirit of a legacy

The Berbenno company celebrates its first 50 years by looking at the successes achieved, but above all at the resilience it has been able to demonstrate in difficult times, as well as the ability to reinvent itself, always setting new goals. Today it is a world-renowned company in the production of semi-finished and finished products for the furnishing of RVs

THE .

Words Renato Antonini

fiftieth anniversary from its foundation is always an important point of arrival for a company: it tells about a maturity achieved with strength, courage and resourcefulness of the people who created it and made it grow. Filippi 1971 has reached this important milestone, the year of foundation being an integral part of the name itself and symbolizing half a century of activity.

Foundation and development

Many years ago, Ernesto Filippi and his wife Vittoria set up a small turning shop in Berbenno, in the Imagna Valley, a mountainous area in northern Italy in the Bergamo district. It was July 17, 1971. The company, which was then called Filippi Ernesto snc, grew with the production of semi-finished products in solid wood: until the mid-90s it was engaged in the supply of lathe-worked elements, such as table and chair legs, tailor-made for internationally renowned furniture companies.

"My grandparents were able to seize the opportunities of an avant-garde furniture sector in Italy, becoming suppliers for top-quality companies, - says Francesca Filippi, granddaughter of the founders and current Sales and Marketing Manager of Filippi 1971 - but they also had one practical spirit: by exploiting processing waste, they were the first to create wooden curtain rings. Millions and millions of these rings came out of the Berbenno factory every year. Even then, the company had an ante-litteram idea of sustainability that continues today".

For the company these were years of hard work but also of excellent results, until at the end of the 1990s a great crisis in the wood-furniture supply chain came unexpectedly.

The RV revolution

"Those were difficult years - the brothers Gino and Salvatore Filippi, respectively President and CEO of Filippi 1971, as well as sons of the founders, explain to us - but fortunately the critical phase lasted only a few years".

At the beginning of the New Millennium, in fact, the company saw a possibility of an outlet in the RV sector. But this meant changing production processes considerably, passing from the production of elements created on the lathe to the more sophisticated laminated plywood panels.

"We had great courage - continue Gino and Salvatore Filippi - we threw ourselves into a new adventure with the desire of giving continuity to our company reinventing ourselves". A new plant was built and new machinery purchased: in mid-2001 the production of laminated panels began. The company, which in those years was called Filippi Legnami (still keeping some business in the timber trade), took all the necessary steps to enter the sector head-on at an international level: in 2003 the first participation in the Caravan Salon in Düsseldorf, which worked as a springboard







Contacts



VittEr[®]: high performance material

In 2016 the R&D department of Filippi 1971 created VittEr[®], a new generation compact laminate for the interior and outdoor design. VittEr® is a very resistant waterproof and fireproof paper-based full-color material, available from 2 to 30 mm, that does not require edging. The layers can be customized as desired and the top surfaces can be customized with digital printing. VittEr[®] is FSC[®]-certified, it is formaldehyde-free and it is suitable for direct contact with food. Perfect in the kitchen and bathroom areas, it is a surprisingly versatile material with the additional characteristic of being antibacterial, thanks to the production with silver ions.

Fun fact: the name VittEr[®] is the acronym of the first names of the company founders, Vittoria and Ernesto.

towards the markets of Australia and New Zealand. After the experience with these distant markets, supplies to European companies arrived as well, thanks also to the appreciation for the Italian poplar plywood used. A new phase of development began in 2013 thanks also to the cooperation with the entrepreneur Giorgio Levoni: the product range was expanded and both melamine panels and digital printing were introduced to be able to offer customization to the clientele. The joinery department was opened in 2017: the company was no longer just a manufacturer of laminated panels, but also an integrated partner for RV builders, being able to supply complete furniture kits. Shortly thereafter, the production of curved doors began in the expanded joinery department, further widening the offer. In a surprising crescendo, in recent years Filippi 1971 has also given life to two decidedly advanced projects: the creation of the VittEr® compact laminate (see Box) and the opening of a Research and Development department dedicated to the processing of advanced composite materials serving the RV and the boat

industry, as well as the design field.

"In a few years the company has grown in size and turnover, - explains Ivo Bolis, Sales Manager of Filippi 1971 - because it had the courage to expand its offer and invest in new areas. Today 70% of our growing turnover derives from the RV sector".

The capacity for innovation is not limited to the RV world: the continuous process of renewal of the company, with a precise business project followed by the architecture studio Basaglia + Rota Nodari, has led Filippi 1971 to approach the world of design furniture by collaborating with architects and designers, creating the Vit-



tEr Design[®] by Filippi 1971 brand.

"We will exhibit at the 2023 edition of the Salone del Mobile in Milan - says Francesca Filippi in her role also as Project Manager in the design furniture sector - and I am proud to announce that the VittEr Design[®] by Filippi 1971 brand has been included in the ADI Design Index 2021 ("Research for the company" category) and will compete in the 2022 edition of the Compasso d'Oro, the most recognized award in the design field, aiming to acknowledge and promote quality industrial design projects and products". The first collection of POP & Déco furniture was made predominantly in VittEr®: the products stand out, as requested by the Permanent Design Observatory, "for originality and functional and typological innovation, for the production processes adopted, for the materials used, for the formal synthesis achieved", without forgetting the "particular attention paid to products that express respect for the environment". Ultimately, another important step forward for a company that, in its fifty years of history, has been able to demonstrate an extraordinary dynamism.

The new branch in Australia

Australia: a love that never fades, indeed, a relationship that is consolidated. Australia was among Filippi 1971's first export markets already in the early 2000s, and the relationship with Australian companies continues today. And this is why Filippi 1971 Pty, the company's Australian branch based in Melbourne, was opened in May 2021. It operates in the distribution of laminated panels and design components for the RV sector, under the expert guidance of Nick Calandriello, a professional who has been working in the sector for years.



C ompany news Sguinzi



Innovation and transparency

Automotive industry production logics have been driving the activities of Sguinzi for over half a century and the company has successfully entered the RV sector with innovative doors, windows and roof lights, operating either independently or establishing co-design partnerships with customers

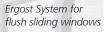
S guinzi may have been working in the RV sector for a few years, but has already established a name of itself for high-quality products and the ability to develop projects independently capitalising on over fifty years of experience in the automotive sector. Sguinzi is one of the biggest Italian players in the production of doors and windows for a variety of different vehicles. Based just outside Milan, the company supplies components for light commercial vehicles, such as Fiat Ducato, lveco Daily and Renault Master, earth-moving machinery and many types of special vehicles. Founded in 1963,

the company has always been in the Sguinzi family and is now being run by the third generation. "We have always worked in the automotive sector making doors, windows, portholes and hatches", explained Stefano Lovati, COO of Sguinzi and grandson of the founder. "Our products are fitted on buses and light commercial vehicles, as well as military vehicles, farming and earthmoving machinery, cable cars and snow groomers. We recently approached the RV sector and several manufacturers soon recognised the potential of a company with an automotive background like ours".

Words Renato Antonini, photo Enrico Bona

Invisible hinge for the garage door









Contacts





New ideas for the RV sector

Sguinzi makes all types of vehicle windows and doors, using mainly aluminium for the frames and glass for the glazing. The company has been a long-time supplier of Fiat and lveco for commercial vehicles and buses and an integral part of their supply chain. A plan was launched to diversify production by exploring other areas, including the RV sector, in 2016.

"We were managing a generational change at that time and the bus sector was experiencing a crisis", explained Giovanni Cozzi, former general manager of Squinzi and now strategic advisor to the Board of Directors. "Diversification was imperative for us. The RV sector was showing signs of growth, so we chose to tentatively approach this world as 'observers'. From the get-go, we realised that our experience in the automotive sector could bring real innovations but that to do so we needed to think out of the box. We set out to whet the appetite of potential customers with solutions that were new to the sector, bolstered by the fact that professional designer Stefano Lovati, co-founder of the award-winning industrial design firm Altromodo Design, had joined us".

Stefano Lovati, a company shareholder and newly appointed Chief Operating Officer, is the creator of Sguinzi's innovative products for motorhomes and caravans. The first step of Sguinzi in the RV world was the design and production of a motorhome garage door. This apparently simple item was treated in an original way precisely to break the



mould of pre-established logic. The result was the door with invisible hinges. It was patented and is still successfully used today. Following that initial approach, requests started flowing in and Squinzi started to make living pod doors as well. Then came the orders for two complex motorhome cab components: a driver's side door and sliding windows. The first steps had been taken and Squinzi became an important partner of major players in the sector, first and foremost Trigano Group, and as a supplier for Laika for the Erwin Hymer Group. The Panorama doors for the Adria Astella luxury caravan range (maxi and mini versions) and panoramic glass roofs for the Trigano camper van range (fixed and opening) are just some of the highly innovative products that Sguinzi has developed and is currently manufacturing. Equally noteworthy are the living pod doors with two windows (top and bottom) and EDI electric doors. Squinzi holds patents for invisible hinges and the Ergost system for flush windows with a safety lock for the ergonomically simplified opening of sliding windows in motorhome cabs.

Superior quality production and customer service

Today, the RV sector accounts for 35% of the business volume for Sguinzi. All components are manufactured either in-house or through partnerships with top-level subcontractors (working to Sguinzi's specifications and using the company's dies). They include glass and aluminium frames, but also complex elements, such as handles

Doors for RVs living area

and locks. Glazing transparency, brilliance and durability are factors of excellence for which Sguinzi products are famed. A new concept was presented at the Caravan Salon in Düsseldorf to improve products for the RV sector consisting of a sheet of plastic paired with tempered glass that was only slightly heavier than standard glazing, but with much greater thermal insulation capacity.

"We tip-toed towards the RV sector choosing not to launch demanding commercial challenges", Stefano Lovati, COO of Sguinzi, added. "We made use of our expertise in the automotive field, our technological content and our ability to dialogue with customers in co-design activities. Our customers realised that they could also entrust us with the appearance of the product and that we could supply considerable production flexibility, being able to handle runs from 10 to 100,000 pieces".

Results like these can also be achieved by having an in-house design office, consolidated logistics and a well-stocked spare parts warehouse. Importantly, Sguinzi is IATF-certified, which guarantees the highest quality in the automotive sector.

"We believe that production capacity must always be accompanied by punctual customer service but that a well-stocked spare parts warehouse, containing parts for products made even many years ago is equally important", Giovanni Cozzi concluded. "Product quality, innovation and excellence in customer service is what characterises Squinzi today."





Entrance door and handles

Company news E-Trailer

Intelligent sensing

E-Trailer BV was founded in Delft 2015 and has quickly become recognised as a supplier of digital sensing solutions to OEMs and the aftermarket. Collaboration partners include some of the best-known RV manufacturers in Europe

Words Terry Owen

Trailer has developed a portfolio of wireless sensors that can make all RVs 'smart' and future ready, by providing information to enhance driving safety and comfort. The sensors include items like tyre pressure, noseweight, gas level, water level, temperature, levelling, and so on.

How does E-Trailer work?

At the heart of the system is the E–Connect base station with which the sensors communicate. Connection to the base station is via Bluetooth or a hard-wired connection. For sale to end users Bluetooth is standard as it greatly simplifies installation. However, OEMs usually prefer hard-wired versions (where appropriate), as they are easy to fit during construction, whilst eliminating the need for sensor batteries.

Sensors can be supplied as standalone items or with the base station. If required, this has the ability to communicate via its CI bus interface to the OEM's own master panel, where fitted. Alternatively, E-Trailer's sensors can be connected directly to the master panel. Branding can either be E-Trailer's or that of the OEM. E-Trailer reckons it can integrate everything based on the OEM's requirements and can handle all common protocols such as CAN-Bus, LIN-Bus, Bluetooth and so on.

Presently the base station connects to a smartphone app just via Bluetooth. However, it will soon be able to connect via the mobile phone network using 4G, or falling back to 2G, if 4G is not available. This will give the user a continuous connection and the ability to perform many functions remotely. These include track and trace (in case the vehicle gets stolen), monitoring of all sensor values, and (soon) control of heating and air conditioning.

Proven reliability for Bluetooth

Bluetooth communications can become flaky, especially in a complex environment like an RV. The company acknowledges that some early devices had issues but these have all been ironed out. The base station is in its third generation and is fitted with a powerful Bluetooth chip that eliminates any problems. Thousands of systems have now been sold without any issues.

Dealers and distributors

E-Trailer's first route to market in 2017 was the Dutch dealer and distributor network. Their smart sensors quickly became available as a standard option in the caravans and motorhomes of one of the largest dealers in the Netherlands.

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With the support of a private investor, E-Trailer is accelerating its growth and is already active in eleven countries outside the Netherlands and including Germany, France, Belgium, Switzerland, Scandinavia, the UK, South Korea and Australia.



Supply to OEMs

E-Trailer's OEM market is growing strongly as manufacturers realise the company offers a simple bolt-on solution for many of their sensing needs. E-Trailer says this has become something of a hot topic at the moment. To this end it is actively working with OEMs to offer solutions for their sensing requirements. As a result, it has become a strategic partner of many well-known brands, including Hobby, where E-Trailer's vehicle levelling, and gas level measurement sensing, is offered as a factory fit option on all its RVs.

Other OEMs include some five brands within the Erwin Hymer Group where various E-Trailer combinations are offered as aftermarket options through licensed dealers. E-Trailer says OEMs like to work with them because they have proven products and can respond quickly to their needs.

Certification and approvals

E-Trailer is proud that its products meet all latest European standards including: E-Mark, ISO:9001, KTW-BWGL, EMC and so on. KTW-BWGL a is drinking water standard as defined by the German Federal Environment Office. This covers the hygiene requirements for plastics and silicones that come into contact with drinking water, such as in E-Trailer's water level sensor. According to the CIVD this is the first such sensor for the RV industry to be certified to the new standard.

public might react to their ideas.

The feedback was very positive, and E-Trailer was born. Following a year

of intense development work during

2016 a public launch took place in

March 2017.



Proud to be Dutch

E-Trailer is proud of its Dutch origins and the fact that it remains based in Delft, in the heart of the Netherlands, next to Delft University of Technology, where it all started.

What's more, final assembly, testing and calibration all take place in Delft. In this way the company can be sure that customers will receive a top-quality product that will work reliably 'out of the box'.

Future developments

More OEMs are coming on board all the time and will be including E-Trailer as part of their standard offering during the next 12 months. At the same time E-Trailer is continuing to expand its product offering and add new sensors. In 2022 we can expect to see sensing and control developments in the areas of heating and air conditioning, and security. E-Trailer is also open to ideas from OEMs who may want a specific function measuring, or to develop a product in a particular way. It is now looking for more collaborations with OEMs to 'make every RV connected'.



cluding 'Camping & Caravanning Start-

up of the Year, 2017' in the Netherlands,

'Practical Caravan accessory of the year,

2019' (UK) and the 'Blogger's favourite'

The current range of sensors includes:

European Innovation Award 2020.

In six short years these two young lads from Delft have made quite an impact on the RV industry, driven on by a total belief in their product. Make no mistake they're going places, and we'll hear much more about their products in the future.

aboutcampB to B

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LIONTRON[®], the expert team for mobile energy solutions in recreational vehicles, exclusively presents the world's most powerful under-seat battery and a new LED touch display solution

Words Peter Hirtschulz

The German company LIONTRON® is known for its leading market position in LiFePO4 batteries. These batteries are a fully-fledged lead-acid battery replacement with all the advantages of lithium iron phosphate technology: substantial weight reduction, enormous energy reserves and stable voltage even under extreme loads, with maximum service life. A 5-year manufacturer's warranty and a 10-year after-sales warranty for the individual parts of the battery make the product unique in the market.

World premiere: 300 Ah under-seat battery

The latest development from LIONTRON[®] is an under-seat battery with an output of 12.8 V and 300 Ah. With the new 12.8 V 300 Ah variant, LIONTRON[®] is pushing the limits of what is possible. This applies to both the power output and the dimensions of the battery, which now completely utilises the space underneath the seat. This power battery achieves the highest possible energy self-sufficiency for motorhomes. In terms of

performance, the new battery is designed for a 200 amp continuous draw and 250 amp (short-term) peak draw.

With the new 300 Ah under-seat battery from the LIONTRON® LX series, the company remains true to its innovative concept of developing battery systems for motorhomes with the lowest possible weight, extremely high performance and space-saving accommodation. LIONTRON® is one of the pioneers in under-seat batteries. For the first time, this concept was turned into reality in 2019. Previously, the 150 Ah and 200 Ah variants were offered. These batteries are not only particularly compact and flat, but the poles are also positioned for easy access. Another advantage is that the passenger seat does not have to be removed for installation. The battery is pushed under the seat from the front. This is not possible with the new Ah 300 ver-

> sion. The dimensions are also flat and compact, but due to the complete and customised use of space, the seat must be removed for installation.

In general, LIONTRON[®] under-seat batteries are designed for all common Ducato seat variants, including members of

the PSA Group such as Peugeot, Citroen and Opel.







New separate, LED touch display solution

Until recently, customers preferred the APP-based display of battery values. However, the latest trend is that customers are increasingly asking for a separate, wired display solution. The reasons for the new trend are many, including fear of mobile phone radiation as well as greater convenience of being able to view data right on the spot without using a mobile phone. In response to customer demand, LIONTRON® has

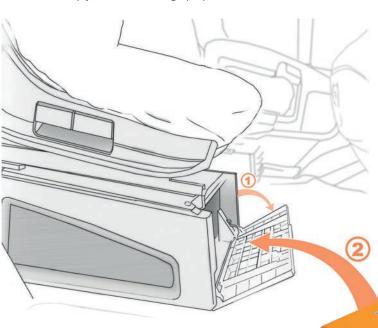


developed a new LED touch display that is

relatively small but nevertheless clearly displays all data. The round display with a diameter of only a few centimeters shows the voltage (V), the current (A) and the state of charge (SoC). The SoC value indicates the still available capacity of a battery in relation to the nominal value.

The concept of the LIONTRON® batteries is as simple as the technical explanation described. All components of the LiFePO4 battery, such as the individual cells, the circuit boards and the battery management system (BMS) are screwed together and not soldered, riveted or welded. The great advantage of this design is that the battery can be converted or repaired at any time within a very short time with minimal effort. LIONTRON® attaches great importance to the environment and the avoidance of electronic waste.

A special component of the new display solution is an adapter board that is integrated between the BMS and the Bluetooth dongle so that the system can be used hybrid: On the one hand, with a wired display and, on the other hand, via Bluetooth using the LION-TRON[®]-Multi-APP, where up to four batteries can be displayed simultaneously. Because although demand for the wired solution has risen sharply, there is still a high proportion of APP users.



With the new 12.8 V 300 Ah variant, LIONTRON® is pushing the limits of what is possible: this applies to both the power output and the dimensions of the battery, which now completely utilises the space underneath the seat

Strong like a lion

This is the slogan of the young company LIONTRON®, referring to the quality of its products as well as its market position. Founded in 2019, the company has become the market leader for lithium batteries in all performance classes within two years.

With a market share of 70 to 80 percent and currently almost 100,000 batteries sold annually, LIONTRON® is the qualitative and quantitative market leader in the field of lithium batteries. The young company now relies on the sales support of 1,200 sales partners throughout Europe - with an upward trend and the ambition of a global presence.

The basis for this development is not only high-quality lithium batteries in all classes up to high-end traction batteries for mobile use, but also other innovative mobile and stationary energy storage solutions. In doing so, the company pays particular attention to uncompromising quality and, when designing, to exemplary environmentally friendly and service-oriented product designs.

As an additional feature, a so-called multiplexer is being planned. With this external component, it is possible to display up to four batteries on the LED display. Furthermore, an interface is planned that will allow also other systems to be connected and used. Thus to read out the battery data, via an On Duty or Victron system, which can determine and visualise the battery level, for example. The aforementioned options were previously only possible via the APP.

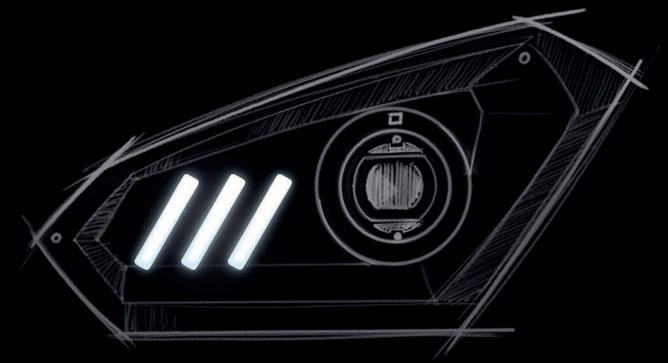
LIONTRON[®], market leader in Europe

LIONTRON[®] has become the European market leader with its LiFePO4 rechargeable batteries, the lithium iron phosphate batteries, the very innovative technology associated with them and the exemplary, service-friendly and very environmentally friendly product and company philosophy. In figures, this means: with a market share of 70 to 80 percent and currently almost 100,000 batteries sold annually, LION-TRON[®] is the qualitative and quantitative market leader in the field of lithium batteries.

Even if manufacturers are still hesitant to install LIONTRON® batteries in their vehicles as original equipment, presumably for financial reasons, end customers have already recognised the advantages. The number of sales partners is also rising steadily throughout Europe. There are currently 1,200 LIONTRON® support points. LIONTRON® is particularly strong in Germany, Austria, Switzerland, the Czech Republic and the Netherlands. Since July, the network in France has been closely knit. But the development of LIONTRON® is also being followed with interest in the rest of Europe.

Interest will continue to grow when the two new products are expected to be launched on the market in spring 2022.

Anyone who wants to see the new under-seat battery generation and the LED touch display solution before the official market launch and exchange ideas with the developers will have the opportunity to do so from 15 to 23 January at CMT 2022, the major leisure and tourism trade fair in Stuttgart. LIONTRON[®] will be there in Hall 7, Stand F 42. Of course, the internet at www.liontron.com also provides information about the latest developments from LIONTRON[®].



LEDayFlex III: unlimited style

It is not only in the automotive sector that headlamps make a significant contribution to the design of the vehicle and shape the respective brand face on the road. The latest LED technologies and a striking appearance can also increase safety in road traffic. For this reason, the internationally positioned automotive supplier HELLA has developed the new LEDayFlex III combination lamp especially for motorhomes and other specialist customer groups

Words Peter Hirtschulz

boutcamp BtoB had an interview with Johann Rudi, Global Product Manager Product Line Front Lighting at HELLA. He talks about what distinguishes the modular lighting system and how manufacturers of motorhomes can use it to create an individual lighting signature.

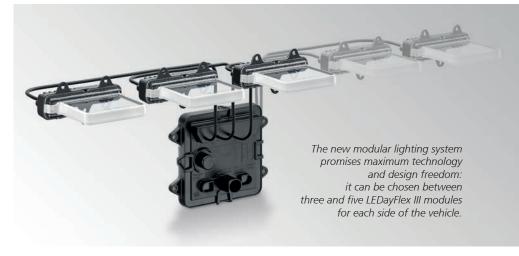
Aboutcamp BtoB: The LEDayFlex product family has been available from HEL-LA for more than 10 years. What makes LEDayFlex III stand out and why should manufacturers upgrade to the technology?

Johann Rudi: Even if the LEDayFlex III is based on the I. and II. generation, it is a completely new design, especially developed for modern vehicles. Following on from the second generation, it combines the LED light functions daytime running light, position light and now also direction indicator in one module. In general, the trend is to integrate all three functions in one product. We wanted to bring this feature to RV manufacturers as well. Another plus point of the new generation: the LEDayFlex III offers a state-of-theart design that also reflects current trends in the automotive industry.

Aboutcamp BtoB: What is the special design highlight of this product?

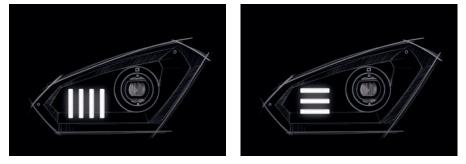
Johann Rudi: The product was derived from

the idea of being able to flexibly integrate floating light elements into a vehicle front, as seen in current passenger cars. With our innovative EdgeLight technology we were able to realize this vision. The light is transported and bundled through a light guide, creat-

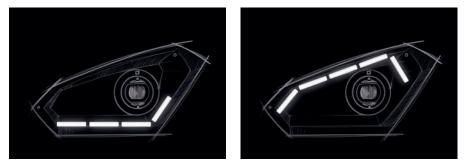


Contacts





The new LEDayFlex III combination lamp was developed especially for universal front lighting



Individuality and creativity: the modules can be harmoniously integrated into any headlamp

ing a very homogeneous appearance. These Edge lights emerge through the front of the vehicle creating the special floating effect.

Aboutcamp BtoB: What attachment options are offered to vehicle manufacturers in terms of design?

Johann Rudi: Whether horizontally, vertically or diagonally - the modules can be flexibly aligned within the system limits. Due to a wide-ranging homologation, we offer a flexible product, which allows an individual appearance.

Aboutcamp BtoB: Are there really no limits to the arrangement of the modules? Johann Rudi: We have developed a product which has the aim to realize most diverse design options through flexible arrangements. We must therefore always stay within these legal limits, especially since we have integrated the safety-critical direction indicator light function. We are happy to advise our customers on these issues and are able to val-

idate their design in this respect.

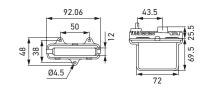
Aboutcamp BtoB: In the automotive sector, dynamic direction indicators have already arrived as attractive features in the compact class. Does the LEDayFlex III also cover this function?

Johann Rudi: Yes, absolutely. On request, the direction indicator is also available with a dynamic wiping function. Initially, this is only provided for the equipment variant with four modules. In the long term, however, this will be extended to other possible combinations.

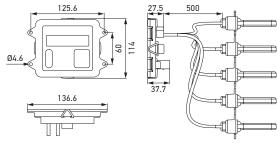
Aboutcamp BtoB: Can the LEDayFlex III be used in vehicles all over the world?

Johann Rudi: We are currently focusing on the European market with the ECE variant. SAE and CCC versions are also planned, but must meet the respective country-specific requirements.

Aboutcamp BtoB: Which headlamps can



Dimensional sketches of the LEDayFlex III module



Dimensional sketches of the control unit

be combined with the LEDayFlex III?

Johann Rudi: The clear advantage of the new LEDayFlex III is that it can be combined with any HELLA headlamp module for high beam and low beam, for example with the modules from the 90 mm series. And right from the start: we also have some exciting new modules in development that will optimally complement the LEDayFlex III in the future in addition to our existing modules.

Aboutcamp BtoB: Can the LEDayFlex III be integrated into the normal chassis of the motorhome sector?

Johann Rudi: Thanks to their clear shape, the modules can be harmoniously integrated into any headlamp. This allows infinite scope for individuality and creativity. In addition, the LEDayFlex III is designed to be compatible with all standard chassis. However, we at HELLA are always on hand to provide our customers with advice and support during the integration process.

More info at www.hella.com/ledayflex3

Company Profile

HELLA GmbH & Co. KGaA, Lippstadt, is a global, family-owned company listed on the stock exchange, with over 125 locations in some 35 countries. With currency and portfolio-adjusted sales of \notin 6.5 billion in fiscal year 2020/2021 and more than 36,000 employees, HELLA is one of the world's leading automotive suppliers. HELLA specialises in innovative lighting systems and vehicle electronics and has been an important partner to the automotive industry and aftermarket for more than a century. Furthermore, in its Special Applications segment, HELLA develops, manufactures and sells lighting and electronic products for specialist vehicles.

EdgeLight technology provides a clear signature thanks to the edge that radiates light

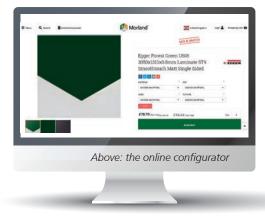


Fit Out Products for converters

Morland Fit Out Products enable small to medium size vehicle convertors to achieve a high end professional look to the furniture in a vehicle conversion. Customisation is standard, so the consumer can tailor the interior to their own tastes. This is achieved via lightweight timber-based furniture plywood, wrapped aluminium profiles and ancillaries delivered direct from Morland on a short lead time. To make this process as cost effective and efficient as possible, Morland is now seeking new distribution partners in outlying parts of Europe and worldwide

Words John Rawlings

In 2022, Morland Fit Out Products (Morland) will celebrate its 50th year of supplying the caravan industry with lightweight timber-based furniture board and fittings. As you would expect it has a lot of experience and knowledge of the market for fit out products. In 2012, Morland developed its own brand of lightweight furniture boards to target the popular VW campervan conversion market. Being specifically for campervans, and the demands of that environment, the decorative face is a tough scratch-resistant laminate, not the paper finish used in caravans. The poplar core is 9 ply to give extra screw retention. The top and bottom veneer on the plywood is hardwood to boost the impact resistance of the panel. Everything is from a certified, sustainable source. These products proved successful, so Morland the manufacturer decided to vertically integrate and become Morland the distributor. It opened a warehouse to stock the product so it could be supplied on a "next day" basis. Morland has developed an efficient distribution process to deliver to van convertors in the UK and Benelux, France and Germany. To capitalise on the take-up for its online shop, Morland developed a mobile-first interface that is second to none. Product range availability is shown by a real-time stock system, and prices and offers are live. Orders









can be placed 24/7, with updates on delivery tracking also available. Free samples can also be ordered online to check decors against other design elements. An online configurator gives the freedom to customise an interior with a choice of 1000 laminate finishes that can delivered in two weeks. Like Mini proved with its car configurator, campervan customers like to make their vans unique.

"The UK has a vibrant campervan scene with an individualistic approach to the fit out," says Andrew Warren, Commercial Director at Morland. "We have capitalised on that demand and developed a sophisticated product range where anyone can chose from over 2,000 finishes to create their own unique interiors," continued Andrew.

In 2019, Morland created a range of aluminium profiles to allow the small to medium size convertor to introduce curves into their furniture construction without the cost of tooling. It now offers three aluminium profiles in five decors that co-ordinate with the furniture boards. Planning is underway for the 2022/3 range, including a toilet door and shower cubicle system for high roof van conversions that include a wetroom.

Current distribution system

Being based in the UK means Morland can



offer UK customers next day delivery direct from their warehouse in Welshpool, in Wales. In 2019, Morland appointed Cosy Campers as its distributor in Dublin to supply converters in Ireland. Irish customers can obtain free samples and see all the products on the Morland website, but are transferred to Cosy Campers' site when they wish to order. To supply France, Germany and the Benelux countries, Morland opened a warehouse in Rotterdam in 2020. It plans to have French/Dutch/German language online shops and the distribution network to deliver in these areas. Elsewhere, Morland is looking for partners to:

- provide a "voice" in the local language
- reduce delivery costs
- offer a collect service

Attracting new distributors

With sales of van conversions growing more rapidly than ever, the number of new van converters entering the market in every country is also growing. As a result, Morland is now looking to appoint new distributors in various parts of Europe, and worldwide, in order to keep the distribution process as cost effective and efficient as possible for customers.

"We expect the market for campervans to continue to develop for many years to come, so believe that anyone becoming a distributor for Morland's products now will be able to capitalise on this growth in their own market areas, " said Andrew Warren.

"We can offer our distributors in new territories a 'plug and play' storefront to deliver furniture boards to converters that is proven and effective, " said Andrew Warren. "Whether we do that with a wholly-owned facility of our own, like the one in Rotterdam or via a third party as we have done in Ireland is open for discussion. We are completely open to hearing from anyone who may be interested in working with us," Andrew continued.

Any distributors interested in learning more about working with Morland should email info@morlandeu.com

About Morland Fit Out Products

Morland started supplying the caravan industry with laminated wall and ceiling boards in 1972 under the name Morland Decorative Panels. Since then, its production and warehousing facility in Welshpool in Wales (UK) has expanded to cover an area of 150,000 ft². Morland completes its own machining, cutting, drilling and finishing. It operates to the ISO 9001:2000 quality management system. It has an environmental policy that prohibits the use of illegally logged timber and supports sustainable forestry. Morland has FSC and PEFC Certification for the purchase, processing, sales and distribution of certified timber. It actively supports sustainable practices to protect resources for the future. Morland is part of the Interior Products Group Ltd which was founded in 1967 by John Morris, whose grandson now runs the business. It has two business areas: commercial wallcoverings/surfaces which operates globally under the names of Newmor Wallcoverings and Morland Fit Out Products.



C ompany news Plasnor

Success through innovative plastic solutions

Plasnor, a specialist in extrusion and thermoforming, being still a young company in the caravanning industry, offers interesting manufacturing concepts with customised task solutions for manufacturers of motorhomes and caravans. In doing so, the company builds on young, innovative ideas on the one hand and nearly 50 years of experience with a worldwide customer network on the other

Words Peter Hirtschulz

The combination of innovative ideas and many years of experience are the basis for a successful company in the caravanning industry. Reasons for this are, according to Juan Antonio Agirre, Plasnor's General Manager, the market requirements in the caravanning industry as: functionality and aesthetics, lightweight solutions, sustainability, recyclable materials and "all-inone" solution providers.

Agirre states: "Our strength is to deliver our products matching customers integration needs for a 'ready to assemble' status. Further we are an experienced partner for co-designing of parts, for aluminium mould manufacturing, for plastic sheet extrusion and vacuum thermoforming as well. All this expertise together will bring lightweight, sustainable, recyclable solution-packages to the RV market, always keeping our products looking great".

The company

Plasnor is a privately owned family company committed to the essential part of their competitive edge: the human team and the know-how of those on it. Constantly working on achieving the mission and strategy: to be a point of reference in the main production areas of activity, plastic sheet extrusion and vacuum thermoforming.

The company has two production plants in the Basque Country (Spain) covering a surface area of more than 11,000 m², properly conditioned to carry out production of the main processes. Since 1974, Plasnor has over 47 years of experience in manufacturing plastics. Throughout its history, the company has followed a strategy to diversify sectors, which has allowed it to adapt to each moment's needs. With an export rate of 70 percent of ist sales to five continents. For years, Plasnor has been focusing on a strategy of internationalisation and diversification of markets, which has made their products present and competitive world-wide.

Plasnor's clients include leading companies in the most cutting edge industries. The company's objective is to consolidate longtermed relationships with it's customers, to work on projects together that allow being more a partner rather than "only" a customer and supplier.







The company considers being customer-orientated as mandatory and stands out thanks to the flexibility and capacity when providing services. The objective is always to provide a high quality service to satisfy the individual customers needs.

At Plasnor, the R+D+i is considered as an essential part of the company's strategy in focusing on the future, and a necessary factor for continued improvement. This includes an own R+D department and collaborations on different European projects to develop products with well-reputated technology-centres.

The RV industry

Plasnor has a strong approach on the RV industry. The company wants to be present for the RV industry as an enterprise providing taylor-made solutions by bringing in all experiences generated on it's principal markets. As there are:

- Expertise on plastic extrusion and lamination for all kind of cabinet door panelling.
- Combined formula: extrusion and vacuum

thermoforming.

- Wide technical background experience gathered on the automotive industry trajectory: as material selection, outdooring resistance, colour stability, ready-to-install parts.
- In-house design and mould manufacturing.
- Customer oriented R+D+i project development team.

In order to present this range of services and products Plasnor has been exhibiting at Caravan Salon 2021 for the second consecutive year. The presentation in Düsseldorf performed a strong conviction towards this caravanning industry with the main exhibition program, where not only consumers check what product is new on the market, but also main RV building companies could see innovative ideas and products to be introduced into their vehicles.

The solution package that Plasnor offers is based on a complete chain of plastic transformation processes. For the optimal implementation of the aforementioned services and products the following manufacturing process and range of products are offered:

- Sheet extrusion of ABS, ABS/PMMA, ABS/ PC, HIPS, PS/PE, PMMA
- Vacuum thermoforming for any type of parts and sizes.
- Complex assemblies /ready-to-install components
- Dedicated designer team on the Technical office for a Taylor made customer experience on part conception and design.
- An own Aluminium mould manufacturing unit.
- Dedicated laboratory for colour matching

Thus Plasnor delivers from embossed ABS sheets for RV door makers, acrylic shower cabinet walls, complete exterior bumpers for the OEM companies and up to cabinet door panel laminates. But the product Plasnor offers is related not just to a standard product catalogue, it is giving individually advanced plastic solutions to the industry.

After all the Plasnor credo remains, success through innovative ideas (created in partner-ship) based on a long-termed market and production experience.









Dossier Most successful inventions

Words Terry Owen





RV heating systems - part 2

In this second part of our feature on the evolution of RV heating systems we highlight North America and Australasia. We also look at crossover products from the automotive industry along with role of technology. We end with a glimpse into the future

North America

The RV scene in the USA and Canada has always been very different from that in Europe. For a start, caravans get called 'travel trailers' and motorhomes 'coaches' or 'truck campers'. As well as tending to be much larger than their European cousins they tend to get used somewhat differently.

Americans like their hot water in quantity and the demand is often met with a tankless heater offering instant hot water. There are too many brands to mention each one individually so here we look at some of the more popular names.

One very popular brand is Aqua Hot (part of the Airxcel Group since 2019) and producing a wide range of combi heaters powered by diesel or propane, supplemented with electric elements. All are capable of producing continuous hot water without needing a storage tank. With power ratings from 17,000 - 65,600 BTU (5 - 19 kW) these are beefy units with dry weights 50 - 195 lb (23 - 84 kg) to match. *(Image 1).*

Another popular brand is Atwood, who became well known for their 6- and 10-gallon propane-fired water heaters, amongst other products. Atwood was purchased by Dometic in 2014. The water heaters live on under the Dometic brand. *(Image 2).*

Atwood also became well known for its warm air heaters. In the US these are often referred to as furnaces. There are two basic types. The direct discharge type blows air directly from the unit's faceplate whereas the ducted type distributes the warm air through ducts in the ceiling or floor. Atwood's furnaces continue under the Dometic brand with ratings up to around 41,000 BTU (12 kW). (Image 3).

Suburban began manufacturing RV heating systems in the 1960's from its base in Dayton, Tennessee, becoming part of the Airxcel family in 1997. Today it offers a wide range of propane powered space and water heaters along with cooking appliances. Its water heaters include tank capacities of 4 to 16 USG (15 to 60 litres) whilst tankless models provide up to 60,000 BTU (17.6 kW) of continuous hot water. *(Image 4).*

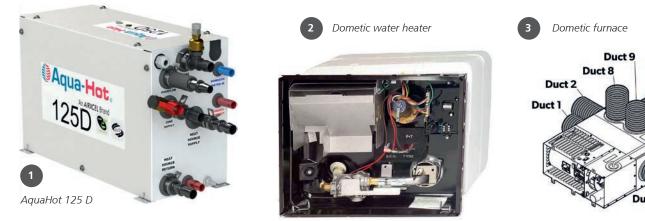
Space heaters take the form of traditional furnaces with no less than five series on offer. Capacities range from 16,000 to 40,000 BTU

Duct 3

Duct 6

Duct 4

Duct 5





Suburban water heater

(4.7 to 11.7 kW).

Other players include Elwell with its Timberline heating system. Aimed at class B and C motorhomes, the heater is powered by diesel or gasoline and uses glycol to transfer heat to blown air heat exchangers and a water heater. (*Image 5*).

Also on the scene, is ITR (International Thermal Research) with its Oasis diesel powered systems. Aimed at larger motorhomes these too are glycol based. The smallest boiler (Zephyr) weighs in at 48 lb (22 kg) dry and produces some 33,000 BTU (10 kW) for distribution to heat exchanger fans. It can also give continuous hot water at 1.0 USG (3.8 litres) per minute. At the other end of the scale is the mighty Oasis NE-S with 85,000 BTU (25 kW) and 3.0 USG hot water per minute. *(Image 6).*

Against this background Alde has been making inroads with its fully hydronic system based on the Compact 3020 boiler. With 18,700 BTU (5.5 kW) of propane heating and up to 1.9 kW of electric power, its small size and 14 kg dry weight make it a very attractive proposition. Those who want continuous hot water can specify the Flow option, which adds just 5 lb (2.3 kg) and delivers 0.9 USG (3.5 litres) per minute. *(Image 7)*.

In recognition of the demand for instantaneous water heaters, Truma launched the AquaGo in 2014. It provides an infinite supply of constant temperature hot water from its 60,000 BTU (17.6 kW) propane burner. The AquaGo is technically a hybrid device as it contains a small tank to help with instant delivery and temperature stabilisation. (Image 8).

Elwell Timberline heater

As well as being suitable for new installations, the AquaGo is designed as a direct replacement for the standard 6-gallon water heaters that have dominated the US market for many years. New installations can be specified with the Comfort Plus model, which adds a recirculation pump to the hot water circuit. This ensures that hot water is available at each tap as you turn it on. You don't have to wait for it to be pumped from the boiler.

The AquaGo sells alongside four versions of Truma's highly successful Combi heater. This can combine electric heating with propane to give blown air and hot water. It's claimed to be the only forced air furnace available with an electric heat option. (*Image 9*).

Australasia

Where diesel powered heaters are concerned the market in Australia and New Zealand is dominated by Eberspächer and Webasto, which are seen as premium brands. Eberspächer is marketed there by Dometic.

Next to these come the Chinese 'Belief' and Russian 'Autoterm' brands. Belief air heating products have been sold in Australia for about six years and have proved reliable, with outputs of up to 4 kW. (*Image 10*). The Russian-made Autoterm brand offers a small range of diesel air heaters with powers up to 4 kW. There is also a 5 kW hydronic diesel-powered heater designed to pre heat the engine or provide warm air via a heat ex-

CONTRACTOR OF CONT

ITR Oasis NE-S

changer. (Image 11).

Those looking for LPG powered space heaters will find ready availability of Truma's Vario heat models, which can be supplemented by the addition of an electrically powered booster if required.

For water heating the Suburban brand offers its Nautilus on demand heater and the full range of Truma products is available. The Swift Appliance group manufacture in Australia and offer a 20/28 litre gas and electric water heater with a stainless-steel tank. (Image 12).

There is also the Chinese made Camec brand with a design echoing some American models.

The automotive influence

Eberspächer, Webasto and others

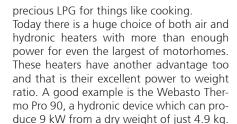
The idea of water and air heaters powered by petrol or diesel goes back to the 1930's with the development of engine-independent heaters for passenger cars by Webasto. After the war production increased with companies such as Eberspächer, joining in. At this stage the main purpose of the heaters was to avoid cold starts and supply warm air to passenger compartments. However, it was quickly realised that they could also be used to drive or supplement the heating systems used in campers and boats. Using a readily available fuel that the vehicle needed anyway made a lot of sense and preserved







Autoterm diesel hydronic heater



(Image 13). Combi type units are also available with water heating included. An example is Webasto's Dual Top range. It comes with an 11-litre boiler and can be mounted inside or outside the vehicle. The electric option adds an extra 2 kW of power giving a total of 8 kW. It weighs in at 24 kg. (Image 14).

Eberspächer counters with its Airtronic blown air heaters. *(Image 15)*.

It also offers the Combitronic air and water heater. This is driven by a hydronic heater with a calorifier for sanitary hot water and a fan matrix for warm air. It has an output of 5 kW and can be used with petrol or diesel fuel. Alde too gets in on the automotive platform with an engine heat exchanger that allows heat from the engine to enter its system and so warm the whole RV, not just the cabin.

The influence of technology

Advances in heater design have come about through two major factors. The first

is experience. Each generation learns from the previous one and designs improve with time. The second is advances in technology that permit developments which were never possible previously.

An early technology influence on design was the advances in electronic circuitry which allowed for electronic ignition, along with better control and monitoring. These did away with the need for a pilot light or unreliable piezo push button ignition. What's more, electronic flame detection could quickly shut off the gas supply in the event of flame failure. In short, electronic control brought with it improved safety, reliability, and end user convenience.

Another influence was the continuing development of high-performance plastics. Years ago, metal was the material of choice for heater casings and the like because of its ability to withstand heat. However, as plastics improved, they slowly began to displace metal. Not only did this offer an important reduction in weight, plastic also made it possible to produce one-piece mouldings and other shapes that were not so easy with metal.

An early example is Truma's E heater series. It launched with metal casing in 1975 (*Image 16*) but today's smaller and lighter successor, the VarioHeat, uses plastic. (*Image 17*).

Whilst improvements in heat exchanger design played a role in this development, advances in plastic technology were also key. Arguably the biggest influence of technology on RV heater design has been the more recent implementation of technology borrowed from the world of computers. An early adopter was Whale in 2013 with its revolutionary iVan system. This employs a smartphone-like control panel in conjunction with Wi-Fi to control the water and space heating systems.

The use of Wi-Fi greatly reduces the amount of wiring required whilst the central control panel simplifies operation and cuts down on the number of components needed. However, despite the advantages of Wi-Fi, the RV industry has decided that the answer for rock solid connectivity with a minimum of wiring, lies with bus systems. Hence, we have seen the development and adoption of the CI-BUS, of which much has been written in this magazine and elsewhere.

A further major development has been the ability to control RV heating (and other systems) from anywhere using a smartphone. One of the early players here was Truma with its iNet system. Launched in 2016, it earned the industry's European Innovation Award for that year. The beauty of the iNet system is that it uses simple text messaging to underpin its operation. This means it works anywhere there is a 2G phone signal; 3G, 4G and 5G are simply not required.

Since then, many other systems and technologies have appeared. The net result is that the end user has a degree of control unimaginable a few years ago.



Webasto Thermo Pro 90









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Truma's E heater from 1975

The role of the climate chamber

Climate chambers have been around for years but their appearance in our industry was driven by the new insulation grading systems for caravans and motorhomes (EN 1645/6) introduced from model year 1999. For winter use, caravans are now classified according to being able to maintain an internal temperature of 20°C with an outside temperature of either 0°C or -15°C (- 5°C for motorhomes).

The slightly less stringent requirement for motorhomes is an acknowledgement that heating a cab with its single-glazed glass windows can be difficult. The ratings thus reflect not just the level of insulation but also the performance of the heating system.

Whilst it is possible to arrive at a rating for an RV using calculations alone, the PR advantages of proving it using a cold chamber are obvious. What's more, with the help of thermal imaging cameras, any weak points in the insulation can be quickly identified. (Image 18 and 19).



Today's Truma VarioHeat

A glimpse into the future

17

RVs of the future are expected to get smaller and lighter, and become increasingly powered by electricity alone. The all-electric motorhome is already a reality and, together with hybrid-powered vehicles looks set to dominate in the years to come.

LPG as a heating fuel will slowly wane due to its inconvenience and CO2 emissions. It will be largely replaced by electricity although some motorhome appliances may switch to diesel, where this is used as an engine fuel. One school of thought suggests that LPG might be replaced by bio-ethanol. The latter is carbon neutral and is easier to transport and store. Time will tell.

These changes pose significant challenges for RV heating companies. The days of the heavy and bulky combi units may be numbered for all but the larger RV's. Instead, we may see de-centralised systems based on individual components, connected together but physically apart, secreted away wherever there is space. This approach means such components can be individually sized according to the needs of the vehicle, potentially saving weight. (Image 20).

Such systems lend themselves to hydronic operation, where a fluid can efficiently transport heat (or cooling) around a vehicle. To this end both Eberspächer and Webasto may be a little ahead of the game here. They already have lightweight electric heaters designed for the direct heating of fluids for plug in hybrids and pure electric vehicles. These heaters convert electricity into heat without loss.

The Eberspächer product relies on positive temperature coefficient technology (PTC) to prevent overheating. This is where the resistance of the heating element increases with temperature, so regulating the power drawn. (*Image 21*).

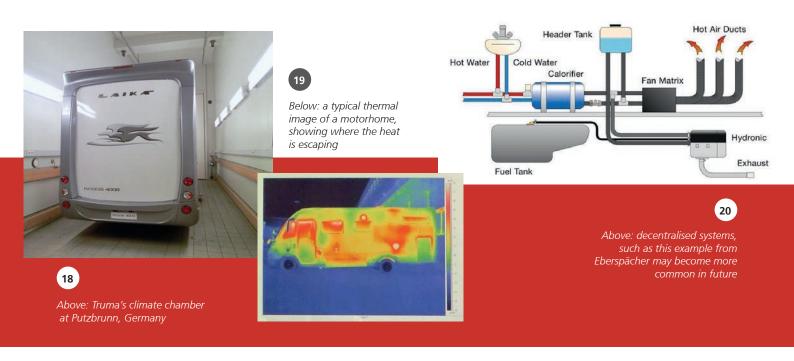
Webasto has a different technology. It says the heating layer of its device is 'rapidly and precisely adjustable' and that it 'avoids interfering short term power spikes and converts then directly into heat'. It claims this is a clear advantage over PTC heaters. (Image 22).

The fact remains that both heaters are highly efficient at converting electricity into useable heat and do so in a compact, lightweight device that could be ideal for use in RV's of the future.

Infrared heating

Infrared heating works by using radiation to transmit heat. We've all experienced it when we walk out into warm sunshine. The radiation involved is not the harmful ionising type, but sits just below that of red light, hence the name infra-red or, infrared, as it's more commonly referred to. Infrared heaters have been around for a long time, first coming to prominence for the industrial curing and drying of paints during the second world war.

As well as being a natural form of heat, infrared heating can be very efficient. That's because it heats just the objects in its path and not the air in between. These objects can then re-radiate the heat to others that might not be directly in the path of the heater. The



Oossier Most successful inventions







result of this efficiency is that infrared heating solutions often use less power than others. Infrared heaters can be formed into a wide variety of shapes including very thin and light panels. This makes them ideal for all-electric RV's – a fact that was recognised by Dethleffs in their all-electric concept RV, the e.home, first shown at Dusseldorf in 2017. It used infrared heating panels built into the floor, walls and furniture. *(Image 23).*

Phase change heat storage

The Dethleffs e.home also used something called phase change technology. This allows materials to absorb and store heat above a certain temperature and to release it when the temperature drops.

Phase change material have the advantage of a much higher energy density storage capability than those that don't change phase. Also, the stored heat is released at an almost constant temperature. It's the technology that's used in those small hand-warming bags you might take to a football match. A liquid is triggered into crystallising and, in doing so, heat is steadily released. The process is reversed by heating the crystals until they become liquid again. *(Image 24)*.

Heat pump technology

We already have heat pump technology in RV's in the form of those reversible air conditioning units that can extract heat from the outside air and pump it into the RV. It may enter at high level, which is less than ideal, given that heat rises but it can still make quite a difference. For example, the Dometic, Truma and others each produce under-bench and roof-mount models that can output 1.7 to 3.0 kW in heat pump mode. *(Image 25)*.

The advantage of heat pumps is their sheer efficiency. For every 1 kW of electricity used, approximately 3 kW is produced. Given that all-electric RV's are on the way, this has to be a great way to heat them. On the other hand, heat pumps don't work when the ambient temperature drops below freezing so some form of supplementary heating may be needed.

Another issue is weight, as compressors and drive motors are inevitably heavy items. However, compressor technology is improving and, in the next few years, we may well see hot water and climate control systems based on heat pump technology.

The hydrogen revolution

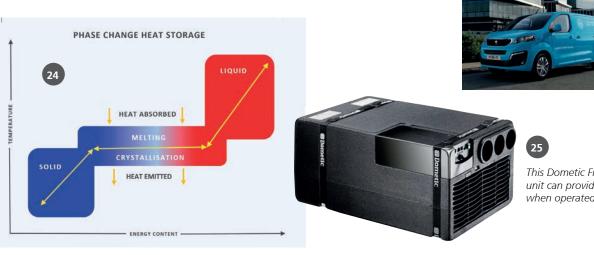
(Image 26). Vehicles powered by batteries alone are all very well but batteries tend to be expensive, heavy and space consuming. What's more, lithium batteries also consume one of the earth's scarcest resources - cobalt. Whilst technology advances will no doubt help to overcome some of these issues, there are those who think the long-term future lies with hydrogen power.

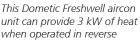
A vehicle fitted with a fuel cell and hydrogen tanks can produce its own electricity meaning that a much smaller battery is needed, just to smooth out the demands on the fuel cell. Such vehicles do exist but the cost of production and the lack of a hydrogen infrastructure have held them back so far.

If hydrogen technology catches on it raises the prospect of space and water heating powered by a good, independent, supply of electricity, or even by directly burning hydrogen. There is also the prospect of hydrogen replacing LPG for cooking. Swapping from LPG to hydrogen is not the easy switch you think it might be. Hydrogen burners need lots of fine nozzles rather than fewer larger ones. This is to prevent blow-back where the gas burns from the mixing jet rather than the burner itself.

Another factor is that hydrogen has a significantly higher flame speed than LPG and a greater flammability range. The traditional flame failure devices that rely on ionisation within the gas flame, don't work with hydrogen. Couple these issues with the fact that hydrogen is likely to burn at a higher temperature, and significant engineering challenges emerge for appliance design.

We are already seeing plans for wind farms and solar arrays to use excess energy to produce hydrogen through the electrolysis of water. This 'green' hydrogen could be the key to powering the RV's of the future.





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Words Craig Ritchie

September RV shipments set three all-time records

A new survey completed by the RV Industry Association (RVIA) has revealed that September 2021 wholesale RV shipments in the US set three all-time records

otal RV shipments for September 2021 were determined to be 55,014 units, representing a 32.2% yearover-year increase over the 41,600 units shipped during September 2020. It also set a new record for the highest number of shipments for any previous September, surpassing the previous mark of 43,598 set in 2017 by over 26%.

Indeed, the more than 55,000 RVs shipped in September 2021 set a record for the highest ever single-month shipment, representing a 1% increase over the previous record set in March of this year.

Increases were seen in both towable and motorised categories. Towable RVs accounted for 50,696 of all units shipped, for a 33.4% year-over-year gain over September 2020 numbers. Motorhome shipments grew by 19.6% year-over-year, to 4,318 units, while Park Model units ended the month 3.2% below September 2020 levels with 301 wholesale shipments.

The September surge also drove quarterly shipping volumes to record levels. The 152,370 RVs shipped in the third quarter or 2021 exceeds the previous quarterly record of 151,760 units set in the second quarter of this year to set a new all-time high. It also comes in at a level 23% above third-quarter shipments in calendar year 2020.

RVIA president and CEO Craig Kirby said the record-setting performance speaks to the combined efforts of the US RV industry to overcome the ongoing supply chain and logistics headwinds that have plaugues all manufacturing sectors. *"With research showing more and more people are camping than ever before, RV manufacturers and suppliers continue to meet the sustained demand from consumers looking to get outdoors and experience the many physical and mental benefits of living an active outdoor lifestyle,"* he said.

In a separate report, RVIA has indicated that wholesale shipments are projected to reach an all-time high in 2021 and coninue trending upward into 2022. The latest forecast for year-end 2021 RV shipments ranges between 567,000 and 587,400 units with a most likely year-end total of 577,200 units, a 34% gain over 2020's year-end total of 430,412 units. It would be a 14.4% increase over the current comparable record high of 504,600 set in 2017.

Industry growth is expected through 2022 with shipments ranging between 586,300 and 614,100 units with a most likely total

Total Shipments Monthly vs. Last Year

Wholesale RV Shipments									
	SEPT 2020	SEPT 2021	YOY Last Year	CUM. 2020	CUM. 2021	YOY To Date			
Towables									
Travel Trailers (ALL)	29,476	40,254	36.6%	208,397	319,724	53.4%			
Travel Trailers - 5th Wheel	7,564	9,405	24.3%	56,415	81,237	44.0%			
Folding Camping Trailers	641	642	0.2%	4,667	5,855	25.5%			
Truck Campers	309	395	27.8%	2,291	3,399	48.4%			
All Towable RVs	37,990	50,696	33.4%	271,770	410,215	50.9%			
Motorhomes									
Conventional (Type A)	1,048	1,257	19.9%	8,625	11,685	35.5%			
Van Campers (Type B)	600	1,245	107.5%	4,671	9,920	112.4%			
Mini (Type C)	1,962	1,816	-7.4%	15,125	20,817	37.6%			
All Motorhomes	3,610	4,318	19.6%	28,421	42,422	49.3%			
Total RV Shipments	41,600	55,014	32.3%	300,191	452,637	50.8%			

of 600,200 units, a four percent rise over 2021.

"Faced with many of the same kinds of supply chain and labor issues plaguing most industries over the past year, the RV industry has overcome these challenges and produced a record number of RVs month after month, " said Jeff Rutherford, president and CEO of Airxcel and RVIA chairman. "This forecast shows that while RV manufacturers and suppliers will continue to face these challenges, they will also continue to produce a record number of RVs to meet the record demand from RV consumers."



RVDA honours 21 RV builders with DSI Awards

The Virginia, US-based Recreational Vehicle Dealers Association (RVDA) recently named 21 RV manufacturers as recipients of its 27th annual Quality Circle Awards.

The annual award program recognizes RV builders who achieve superlative performance in overall dealer satisfaction as measured through dealership surveys. For its 2021 program, the RVDA collected sales, warranty and service data from 520 separate dealerships in the US and Canada, representing 2,672 brand ratings, an average of

more than five per dealer.

2020 Quality Circle Award recipients include: Airstream, Alliance RV, CrossRoads RV, Cruiser RV, East to West, Forest River, Grand Design RV, Gulf Stream Coach, Heartland RV, Highland Ridge RV, Intech RV, Keystone RV, KZ RV, Lance Camper, Leisure Travel Vans/Triple E, Newmar,

Pleasure-Way, Renegade RV, Tiffin, Venture RV and Winnebago.

"The DSI results highlight top-rated manufacturers in several important areas of dealer and customer support," said RVDA chairman Chris Andro. "Thanks to all the dealers who responded to the survey and congratulations to the manufacturers earned Quality Circle Awards this year."

The official award presentations will be made on November 11 at the annual RVDA International Convention and Expo, held in Las Vegas.

Toronto RV Show and Sale cancelled for 2022 due to lack of dealer inventory

While a number of RV shows across North America are returning to strong crowds this year reflecting high consumer demand for RVs, one major event has recently cancelled for 2022 – not because Covid-19, but due to a lack of available inventory among exhibiting dealerships.

The Ontario RV Dealers Association (OR-VDA), organizers of the popular Toronto RV Show and Sale, has confirmed that the group's flagship consumer event – scheduled to have been held at the Congress Centre near the Toronto airport in January – has been postponed until 2023.



"The ORVDA has taken the difficult, responsible decision to cancel the January 2022 Toronto RV Show and Sale," confirmed the group in a communication to industry stakeholders. "Access to inventory remains a challenge and many dealers have reported their inventory is pre-sold well into December, a situation they anticipate will extend into Spring 2022."

"Interest in RVing remains strong, and OR-VDA is optimistic that our shows will return in fall 2022 to serve expanded audiences who have discovered the exhilaration of the RV lifestyle."

At press time, Toronto's other major spring RV show -- the Spring Camping and RV Show, scheduled to be held at The International Centre in early March – remains on track to proceed on schedule as an in-person event.

The Toronto RV Show and Sale, scheduled to be held at the Toronto Congress Centre in January, has been cancelled due to a lack of inventory among exhibiting dealers

New Glen Raven plant, distribution centre on track for 2023 opening

S unbrella fabric manufacturer Glen Raven Custom Fabrics says it is on track to open its new 315,000 square-foot yarn spinning plant in Norlina, North Carolina this spring.

The massive facility – currently under construction alongside the company's existing 190,000 square-foot yarn plant – represents the second phase of a multi-year, \$250 million facility expansion that will more than double production capacity and create more than 200 new jobs.

Glen Raven's Norlina facility produces yarns that are used in a number of Sunbrella performance fabrics for shade and upholstery applications.

In addition to the production plant, a new distribution centre also under construction, with a targeted completion date of spring 2023. "We've been able to move swiftly to continue executing on our capacity expansion plans," said Glen Raven president and COO, Dave Swers. "The new distribution center will complement and add capacity to Glen Raven's current network through new equipment and processes that will improve our overall efficiency. We are also adding additional finishing capacity, and making investments to both expand and improve our inspection and sampling capabilities."





eport South American RV market

Latin America: land of RVs?

The data shows that just before the pandemic, the motorhome market saw a significant increase compared to previous years, a trend that was particularly noticeable in countries such as Argentina and Brazil

Wen in Latin America, against all odds, the recreational vehicle market has increased. The pandemic was a cause of this sudden new trend in open-air tourism, driven by the most significant countries of Argentina and Brazil. Travelling in an RV for a few weeks of holiday offers that condition now in demand and recommended by experts: social distancing – a trend that follows what has happened in some European countries.

Travelling aboard an RV guarantees greater safety for the family: social distance can be maintained and the hygiene of the surfaces and objects they touch is under control. The economic factors of choosing an RV have taken a back seat, while the reasons for making the decision to drive a camper are increasing; in the case of Brazil, according to some market studies, the saving of costs of an overnight stay in a hotel when compared to renting a motorhome, fluctuates between 25% and 35%. However, it is still early to say if we are facing a turning point in the motorhome market, or if it is just a temporary condition.

The trend seems to be clear now, particularly in countries such as Argentina and Brazil where most of the recreational vehicle market focuses on van conversions, followed by motorhomes, caravans and pick-up units. In other Latin American countries, after careful research and contacting manufacturers such as Sicsa (Mexico), Camper Travel and Kunstmann Outdoors (Chile), Interno Campers (Peru) and TerraAventura (Uruguay), we found that demand and offers of recreational vehicles have not yet reached a level of a real market in conventional terms.

Brazil

There are two main areas visited by Brazilian campers. One is the Serra do Rio Rastro, a mountainous area located in the southeast of the federal state of Santa Catarina, in the south of Brazil. Along the SC438 road you can see memorable landscapes for hundreds and hundreds of kilometres, while the

SC390, also known by the nickname of "carretera asombrosa", which means the "spectacular road", lets you understand the beauty of nature. Another itinerary that will remain forever in the memories of any tourist who also likes history, is the "Estrada Real", a 1,600 km route traced by the Portuguese in the 17th century. A road that connects the states of Minas Gerais, Rio de Janeiro and San Paolo. Three

cities that still cover an indisputable importance in South America.

In 2020, the recreational vehicle market in Brazil showed expansion, although in reality the first signs had already been glimpsed at the end of 2018 when the annual turnover of new vehicles had reached €12 million. Estrella Mobil, one of the largest motorhome manufacturers in Brazil, has seen growth of 80% in the last year. Contrary to expectations during the pandemic, the public saw that traveling by motorhome was a viable alternative and offers many benefits.

Another major Brazilian manufacturer, such as Grupo FAN, which was just founded in 2019, has confirmed an increase in demand







for its Legend brand of motorhomes from two to six vehicles sold per month. In recent years, the range of campers has

evolved a lot, especially in the category of vans built on the basis of the Renault Master, Mercedes Sprinter and Iveco Daily. These craftsmen also manufacture excellent semi-integrated and living units to be mounted on pick-ups, for the pleasure of the most adventurous travellers.

The most important association in Brazil for open air tourism, Macamp (www.macamp. com.br, also available in an App), provides its members with a large amount of information on over 4,000 campsites and areas available throughout the country, inde-



Area: 8,515,767 km2 (3,287,956 sq mi) Population 2019 estimate: 210,147,125 Population density: 25/km2 (64.7/sq mi) GDP (nominal) 2021 estimate Total: \$1.491 trillion - Per capita: \$7,010 Official language: Portuguese Currency: Real

RVs on web

Estrella Mobil Motorhome: www.estrella-mobil.com.br

Globe Custom: www.globecustoms.com.br

MaCamp Campismo: www.macamp.com.br



pendently from sports or recreational activities, as well as a section with advice and a forum for those campers who want to enter this world. In the portal you can also find offers of accessories and a market of used motorhomes.

The association also organizes the Motorhome Expo, which for obvious reasons last year was suspended and rescheduled from 9 to 12 December this year. According to the organizers of this fair, the growth of the sector in Brazil is expected to be 15%.

The most important manufacturers, whom we were able to contact for a short interview, clearly confirmed that orders are on the rise.

Bruna Nunes is the press office manager of Estrella Mobil Motorhome in Sao Paulo, a company with 20 years of experience that has found inspiration from the European market, as stated by engineer Julio Lemos.

After two years of research on construction technologies, in 2018 the company produced its first motorhome, the Rigel model, based on a Mercedes-Benz Sprinter. In 2019 the second model, Hadar, was born, this time based on a Renault Master.

"In 2020 we sold 20 vans," says Bruna Nunes, "and launched the third model, the Capela, a semi-integrated based on the Mercedes-Benz and Iveco Daily, but we also got our hands on the new line of special veReport South American RV market





hicles such as the Mercedes-Benz Unimog 4x4 and 6x4. This year we have already launched the fourth model, called Comet, based on the Citroën Jumpy van. Based on our forecasts and the enquiries received to date, we will sell 50 units, and in 2022 we will reach 120". In Brazil, the recreational vehicle market is mostly made up of campervans which people prefer for three reasons: good performance, rear-wheel drive (most vehicles use rear-wheel drive) and also be-







cause there are many service centres throughout the Brazilian territory.

"As for the lveco Daily mechanical base, unfortunately, it is little used in Brazil," continues Bruna Nunes "but we do not exclude that in the short term future we could create new models with the Italian manufacturer," he continued.

For interior furnishings, Estrella Mobil technicians refer to European design and use marine eco-leather, marine multilaminate and vinyl flooring as materials. The imported accessories are also from Europe: Dometic and Webasto are the main suppliers. 97% of the vans are Mercedes Benz Sprinters. On average, the final price of an Estrella campervan is around €56,400 which includes the value of the equipped vehicle, but for smaller ones, prices start at €26,700 depending on the model of van and specification.

Another major Brazilian RV manufacturer, Global Custom Motorhome of Uberlandia (Minas Gerais region), reported the same positive experience: in 2020, it sold 30 motorhomes and by 2021 it will increase to 50. Customers request a vehicle that is able to tackle difficult roads and is easy to drive, which is why the choice falls on camper vans. The furniture is all designed and manufactured using the experience of the Brazilian company itself, using lightweight and high quality local materials, while the support structure is made of aluminium. The dinette is upholstered in premium quality leather and the accessories are all Brazilian-made and suitable













for a 12 V system: the refrigerators are the Consul brand, the kitchens are Venax and the air conditioner is LG with smart inverter, wiring and inverters. The price range varies between \pounds 22,500 and \pounds 77,500 for the top version.

Argentina

With a 2.8 million km² surface area (eight times the size of Germany), this South American country offers an enviable variety of landscapes, from farmhouses in the Rioja countryside of the North West, to the Iguazu Falls shared with Brazil, to the torrid but historical expanses of northern Tucuman that witnessed the birth of the Argentine re-

public.

There is also the famous "Ruta 40" that runs along the Andes mountain chain connecting the town of Capo Virgenes to the far south, ending after 5194 kms in the arid lands on the border with Bolivia.

A second tourist favourite starts from the city of Buenos Aires and opens towards the south, with the Atlantic coast and over 1200 kms of beaches, with various types of campsites and different rates.

However, for any European camper, Patagonia is undoubtedly the most loved region, starting with the temperate climate and ending with the incredible natural landscapes enriched in some places by German



and English architecture.

In Argentina, the recreational vehicle market does not yet have a consolidated audience, but in the last year, there has been interest from people who bought a camper or caravan on the e-commerce portal "Mercado Libre": this confirmed a sharp increase in the number of purchases of recreational vehicles, +50% compared to the same month of the previous year.

AICACYP, one of the major associations created in 1939, offers a wide range of information in its portal of the numerous activities available on some of the campsites: from sport fishing, trekking, quad excursions, archery and so on. It is a very professional institution, which takes care of organizing the "Expo Aicacyp Aire Libre" fair every year, including an area reserved for recreational vehicles in its pavilions. Unfortunately, for the first time in 20 years, the fair was suspended due to the pandemic and the 22nd edition will take place in September 2022.

Towards the end of 2019, to open the campervan market in Argentina, there was a strong signal launched by FIAT, headed in Argentina by the brand manager Fabricio Bondi. Thanks to a collaboration with the Buenos Aires Secretary for Tourism, they proposed to import the Fiat Ducato to build motorhomes, food trucks and minibuses, thanks to the local artisan workforce. But a few months after the vehicles were launched at the International Tourism Fair (FIT) in October 2019, the pandemic arrived in the city of Buenos Aires.

Miguel Silva, head of the FCA Group press office for Latin America, told our editorial

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staff said that at the moment the project is on stand-by pending the evolution of the situation.

The situation of the manufacturer, Caravana Motorhome, on the other hand, was different, as it was able to face this important challenge born from the new trend in the RV market.

It's a company with 15 years of experience. Within a few years, it has been able to create RVs with international standards, with the help of major European partners. Its catalogue ranges from semi-integrated motorhomes to Mercedes Sprinter-based vans imported from Germany, while the living unit is built entirely in the Buenos Aires factory.

Since the start of the pandemic, Caravana Motorhome has seen a 500% increase in the sale of motorhomes. According to the data provided by the company, until 2019 the production was only 12 vehicles per year, while from 2020 it increased to 60 vehicles/year and orders have been confirmed until 2024. These are small numbers when compared with other markets, but they are data that in the current Latin American economic context show a positive trend in the recreational vehicle sector. About 99 % of Caravana Motorhome's production focuses on over cab motorhomes and the rest are vans. Most of the components such as windows, rooflights, doors and air conditioners are imported, supplied by Dometic. While for the heating system they rely on Webasto and the American TMC system is used for the bathrooms. As for vehicle prices, campervans start at €55,000 and reach €75,000, while over cabs start at €80,000 for the ba-



sic version and reach €100,000 for the most equipped version.

A very similar situation is presented by the Argentine manufacturer, Royal Home, which has its roots further back in time, having started the business in 1978.

"Last year there was a strong increase in the demand for our motorhomes," says Jesica

Masi, partner of the company, "and this year the trend will continue due to the pandemic," she added.

In this case the base vehicle used is the Mercedes-Benz Sprinter 516. The whole living accommodation is made with a monocoque structure in reinforced plastic and fibreglass, and the 60 mm thick laminated floor structure offers excellent thermal and acoustic insulation. The other common denominator is the accessories, which are also by Dometic and include a refrigerator, a boiler, the heating system, windows and rear cameras. Inside there are two separate beds or a double bed in the back, the bathroom and the shower in front of the kitchen. The living room consists of a sofa and table while the two swivel seats in the cabin complete the living area.









> Innovation, quality, safety...

Accessories for motorhomes, caravan, van and minivan





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Thule Bike Racks



Thule Sports Gear - Ladders -Roof Rack System



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Thule Bike Racks for Caravans



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