

INFORMER

THE FELBERMAYR GROUP MAGAZINE 1/2022



RENTABLE

FELBERMAYR LAUNCHES A WEBSITE
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PREMIÈRE

BRIDGE REMOVAL AND
INSTALLATION IN ONE STEP

AT A HIGH LEVEL

ROCKFALL PROTECTION
IN THE DANUBE VALLEY

PHOTO: DOMARIN

UPLIFTING

**MAJORITY SHARE ACQUIRED IN HYDRAULIC
ENGINEERING AND SHIPBUILDING COMPANY**



Stormy times

Dear Ladies and Gentlemen,

Whether used literally or proverbially, the phrase "stormy times" currently applies in both senses.

After all, with Corona, delivery failures, the shortage of skilled workers, accompanied by exorbitant price increases as well as climate change and little chance of peace in Ukraine in the near future, these stormy times cannot come to an end soon enough. Longer-term plannable conditions will therefore not come within reach for some time yet.

The decisive criterion for us as a heavy lift service provider and construction company is currently the rising energy and raw material

prices. Nevertheless, in close coordination with our customers and the contractors in the supply chain, we are still managing to match demand and proposal accordingly and to complete projects with the quality we are used to. Numerous successful projects in this issue of the Informer again provide impressive proof of this.

Nevertheless, policy-makers are being called upon to counteract the price increases, with some of which being hardly comprehensible within the scope of the possibilities of a free market economy. On the other hand, particularly in Austria, the tax burden on employees

must be reduced so that life remains affordable and performance pays off in the form of higher net incomes.

It should be noted, however, that this should be considered whingeing of the highest order compared to what is happening in the European war zone. I am convinced that thanks to our loyal customers, partners and our dedicated team, we will also master these stormy times with flying colours.

With this, I wish you a wonderful summer, relaxing days with your families and stay healthy.

Warm regards,

DI Horst Felbermayr

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SPECIAL TRANSPORT Transporting a locomotive

At the end of April, Felbermayr cooperated with its subsidiary Haeger & Schmidt to transport a locomotive from the Albern port to the wind tunnel for the RTA, a vehicle test facility in Vienna. The locomotive was first transported by barge from Antwerp to the port in Albern by Haeger & Schmidt. The Felbermayr Lanzendorf branch took over at the Albern port and used two mobile cranes in a tandem lift on a low loader to transship the locomotive. With a total height of six metres and a total weight of 155 tonnes, the locomotive was then transported to the wind tunnel. A route concept had to be drawn up for this, as the dimensions of the transported goods meant that the direct



route from the port to the wind tunnel of around 20 kilometres was not possible and so the distance ended up being around 100 kilometres taking four days. Furthermore, the railway had to be crossed

twice on the transport route. This had to be registered around 16 weeks in advance in order to arrange for the overhead wires to be switched off or traffic lights removed, as well as for preparatory work.

COMEBACK Felbermayr successful at the Breakbulk Europe and Baukongress trade fairs

At the Breakbulk Europe in Rotterdam and the Baukongress in Vienna, we were able to take to the stage at two trade fairs again this spring after a two year break due to the pandemic. Felbermayr presented its services for transport and lifting technology, as well as for construction at both trade fairs.

Our **attendance at Breakbulk Europe** and therefore the world's largest trade fair for project cargo and heavy lift cargo, Felbermayr had a large trade audience in May. Felbermayr's multimodal project transport were particularly in demand. In this regard, information was provided

about the joint venture in Antwerp port in addition to the heavy lift terminals in Krefeld, Linz and Vienna/Albern. As reported, Felbermayr in cooperation with its subsidiary Haeger & Schmidt Logistics and the Belgian terminal provider PSA Breakbulk NV, was awarded the contract for developing heavy lift cargo activities.



With a total of around 10,000 visitors, Breakbulk restarted successfully after a two year, COVID-imposed break.

Felbermayr specialised civil engineering also received a great deal of interest when it comes to climate change challenges.



In 100% female hands: perfect support and organisation at Baukongress.

The **Baukongress in Vienna** welcomed more than 2,000 visitors at the end of April. Along with the regional business, Felbermayr Bau mainly exhibited as a niche provider in hydraulic engineering, as well as with construction services in environmental technology. In addition to our landfill construction range,



In a good mood at Baukongress: Managing Director Stefan Hielle having a conversation.



FLYING HIGH

Practical training for specialists who work at heights in the company headquarters

The annual Felbermayr specialised civil engineering safety training took place at the Felbermayr company headquarters in early March this year. This comprised safety training with the company doctor and the safety specialist, as well as a refresher on the lifesaving and rescue course in the foyer at the headquarters. Part of the practical course included training on the

personal protective equipment to prevent falling. The specialised civil engineering employees performed exercises such as climbing a rope and selecting suitable rescue methods in the foyer at the headquarters. The rope harness for the exercises was attached to the steel lattice formwork on the first floor of the building for this.



HITTING THE HEIGHTS WITH EASE

Electric platform used for historic New Cathedral in Linz

In April, Felbermayr supplied a cherry picker for use as height access for restoration work at the historic New Cathedral in Linz, Austria. The restoration company carried out the work in the oldest part of the New Cathedral, known as the apse chapel, on an "F-12 articulated telescopic platform" at a height of around twelve metres. Given the dimensions involved, a battery-powered articulated telescopic work platform with white tyres for vulnerable floors was the ideal piece of equipment for this particular job.

HAGN UMWELTECHNIK [ENVIRONMENTAL TECHNOLOGY] Dredging along the River Spree

Since 2019, the Felbermayr subsidiary, Hagn Umwelttechnik, had been in charge of the dredging operations along the River Spree – the works were completed at the end of June. A total of around 11,000 cubic metres of sediment was removed on site using suction excavators and dewatering hoses. The next step was to expand the "Little Spree" river over a distance of about 5,400 metres with a flowing wave using long-shaft dredging – this involved excavating about 60,000 cubic metres of material as well as recycling the soil, installing a filter and riprap, and covering the topsoil. In addition, a 5,000-metre construction road was built and ten drainage sites were constructed and partially deconstructed.



LIFTING TECHNOLOGY
Cranes deployed for chimney removal work

As part of the demolition work being carried out on a voestalpine power plant at the Linz site, the Felbermayr branch office in Linz was tasked in mid-March with carrying out the crane work required for dismantling a chimney and a "DeNox system" for reducing nitrogen oxides. A total of three Felbermayr cranes were used. To dismantle the chimney at a height of around 120 metres, the LTM 1500-8.1 with its 50 metres of main boom, 91 metres of luffing jib and 135 tonnes of counterweight was used. Two other cranes were deployed on site for the dismantling work on the DeNox plant situated in front of the chimney and for the cutting work carried out from the work basket.



CONSTRUCTION PROJECT
General contractor duties at transformer station

Felbermayr-Bau in Wels, or more specifically the Structural, Industrial and Power Station Construction division, was hired at the end of August 2021 to handle the general contractor duties for the expansion of an existing switchgear plant in Ohlsdorf, a municipality in the district of Gmunden in the Traunviertel region of Austria. The project was completed in mid-2022 after several months of construction work. The general contractor duties carried out by Felbermayr on site included earthwork and concrete construction. The joinery and plumbing work as well as the work on the facade were carried out by subcontractors.

SELF-SUPPORTING
Lifting lever vessel bed for industrial column transportation

Felbermayr transport and lifting technology transported two reactor columns from Linz to Burghausen in the middle of March. The job was processed and coordinated by the Felbermayr branch in Linz. Due to the size of the columns, they were manufactured in the production halls at the Felbermayr heavy lift terminal in Linz. A lifting lever vessel bed from the Felbermayr branch in Lauterach was then used to transport the two reactor columns. In order to prevent the maximum transportation weight being exceeded, one 39 metre long column was transported in a self-supporting

way in the lifting lever vessel bed. The second column half was 30 metres and was transported using the same vehicle combination with continuous supports. The closest Felbermayr branch in Braunau unloaded at the destination. A self-driving industrial roller from the Felbermayr subsidiary Wimmer was used to move the components to their

installation location in the Burghausen plant. The two column halves were then raised by two mobile cranes and assembled on the foundation.



NETZWERK METALL Felbermayr supports metal workers

Felbermayr transport and lifting technology has been a new sponsor of the Austrian association, Netzwerk Metall since 1st May. As a new member, we will intensify our relationship with the current 65 member companies step by step. This also includes transferring our expertise when it comes to safety-related aspects and using rented height access technology devices efficiently. Furthermore, Felbermayr can use the responses of the member companies to make internal processes even more user friendly and adapt the processes in work platform, crane and lift truck leasing further for example.



From left to right: Clemens Felbermayr (Sales Management Felbermayr Transport- und Hebetechnik), Thomas Weber (General Management Netzwerk Metall), Wolfgang Schellerer (General Management Felbermayr Transport- und Hebetechnik).



SPECIALISED CIVIL ENGINEERING Rockfall protection for the Brenner motorway

Felbermayr-Spezialtiefbau FST in Stams was commissioned to construct rockfall protection structures on the A13 Brenner motorway in the vicinity of the "Luegbrücke" bridge. Due to the enormous risk of rockfall in the construction area and the local conditions, project-specific special solutions were required for rockfall protection along the approximately two-kilometre-long motorway bridge. Once the protective construction measures had been completed, work could begin on the essential bridge renovation and stabilisation work in an orderly and, above all, safe manner. The renovation work is expected to be completed by the end of the year.

A GEM IN A MINIATURE FORMAT New 150-tonne truck with compact dimensions

In Liechtenstein, the Felbermayr subsidiary Bau-Trans recently put an LTM 1150-5.3 into operation. The special feature of this mobile crane from Liebherr is its compact dimensions. These make the 150-tonne comparable to a 130-tonne crane. The "Ecomode" feature reduces fuel consumption by automatically regulating the engine speed. In addition, aluminium rims bring a weight saving of 400 kilograms.

The truck-mounted crane with a standard 66-metre telescope is mainly used for the erection of construction cranes and high-voltage pylons as well as the installation of mountain railways and for industrial work.



PHOTOS: MARKUS WEICKINGER, MARKUS WINKLER (2), ROGER BECK



LARGE-SCALE OPERATION

Cable excavator deployed for ecosystem

To preserve the natural ecosystem, Felbermayr's hydraulic engineering team removed sediment build-up from the inlets of Vienna's Danube Island at the beginning of the year. Several items of special equipment were used, such as a large-capacity push barge, which was

coupled to a hopper barge with a capacity of 300 cubic metres and the "Theresa" push-boat. A 200-tonne Liebherr cable excavator with a 40-metre boom and a ten-cubic-metre clamshell shovelled the mud out from a depth of twelve metres. Hydraulic excavators with "long reach

equipment" were provided for assistance. According to Division Manager Hans Wolfsteiner and his team, this important contribution to environmental protection has resulted in the removal of around 30,000 cubic metres of fine sediment from the inlets.

MAKE WAY FOR THE F-63

Replacing a logo at a height of 30 metres

At the beginning of June, our long-standing partner was sent on a mission above the rooftops of Vienna. The company building has an advertising space that needed to be covered with a new canvas and logo. The platform department in Vienna provided an "F-63 truck-mounted telescopic working platform" with a lateral reach of 30 metres for the work at a height of around 30 metres. The operation had to be postponed several times due to the strong wind, as safety is always the top priority when using height access equipment. At the beginning of June, the weather conditions were ideal for the logo replacement work and specialists were able to mount the logo. And just like that, the new advertisement was in place. Thank you very much for your cooperation.



First-class warehouse at the Duisburg steel logistics hub

At the beginning of February, the new trimodal steel logistics hub of Haeger & Schmidt Logistics (HSL) started its operational business activities. Last year, the company invested about twelve million euros in the new building complex located on the Stahlinsel (Steel Island) in Duisburg, Germany.

At the official launch, Horst Felbermayr, managing owner of the Austria-based Felbermayr Group, to which HSL belongs, said: "By opening this state-of-the-art warehouse, we are further expanding our range of services as a trimodal full-service logistics provider. This will increase our capabilities in the distribution of high-quality steel products enormously. Together with our other multimodal port terminals in Krefeld, Linz and Vienna/Albern and the joint venture with PSA Beakbulk in Antwerp, which has been up and running since last year, this site expansion represents a significant expansion of our service offering as well."

The centrepiece of the trimodal multifunctional hub is the heatable 9,000 square metre steel hall with a capacity of around 60,000 tonnes for high-quality steel products. "The response we've had from the market is excellent. More than half of the storage space has already been booked," reveals HSL Managing Director Heiko Brückner. Two half-train tracks, each consisting of 210 metres



To the website



The new 9,000-square-metre steel warehouse provides space for around 60,000 tonnes of steel products. An overhead crane with a lifting capacity of 40 tonnes facilitates transshipping operations.

of rails, lead into the hall for block train dispatch. In addition, the new-build will be connected to the large existing hall by means of a covered water connection and coil ferry.

Regarding the strategic orientation, Brückner explains: "With this new-build, HSL is setting the course for significant growth in the area of high-quality steel products at the Duisburg site. The investment allows us to go deeper into the logistics chain and offer steel logistics

from a single source." The modern hub terminal offers numerous time and quality benefits for both the stable export business and the import business, which is increasingly gaining momentum.

HSL CFO Per Nyström has already received positive feedback: "The combination of trimodality and extensive dispatch and storage facilities under one roof is in demand. We are closing a gap in the market and 'indoor steel handling' is opening up a new customer base for us."

With the arrival of the overhead crane with its lifting capacity of 40 tonnes in mid-January 2022, the steel warehouse is now equipped to transship and dispatch these heavy goods.



The new logistics hub offers heated storage for high-quality steel products.



The Domarin fleet comprises around 50 floating units.

Majority stake in hydraulic engineering company

At the beginning of May, Felbermayr acquired a majority stake in the well-established and owner-managed Domarin Group. The Domarin sites and the hydraulic engineering and shipbuilding areas remain unaffected by this, as does the company name of the successful Bavarian company.

The success story of the Bavarian company, known for its authentic quality, began with the foundation of Domarin in 1986. Only ten years after the company was founded by Johann Brunner, it moved into shipbuilding in addition to hydraulic engineering with the takeover of a shipyard in Erlenbach/Main.

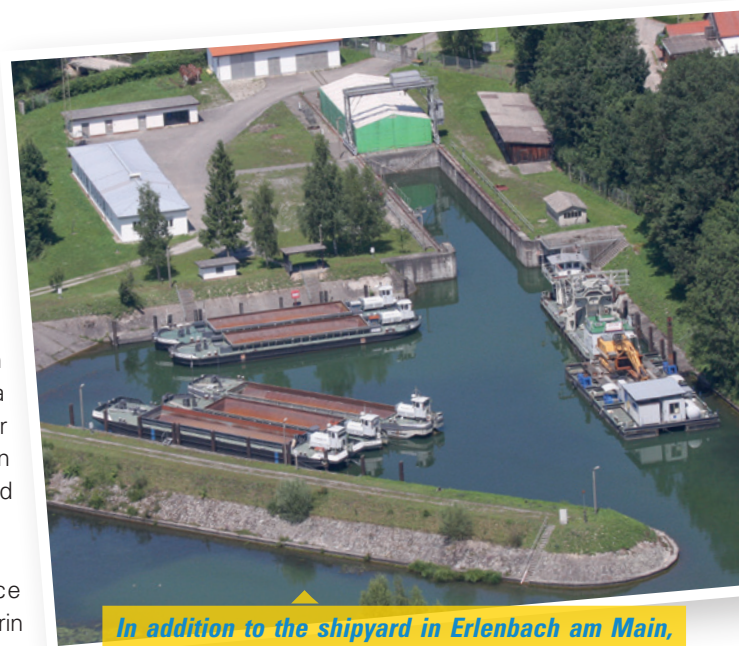
For Johann Brunner, who is handing over his majority stake in preparation for company succession, the decisive criteria in particular were a solid basis of trust and a secure future for his employees: "We have been working successfully with Felbermayr for many years now and we know and value each other," states Johann Brunner and goes on to say: "The similarities in the company culture and the resulting appreciation shown towards the employees was also a major reason for the decision to sell to Felbermayr."

"For us as a family business, the fact that our bid for a majority shareholding in Domarin has been accepted is a great sign of confidence on the part of the fantastic entrepreneur Johann Brunner," states Horst Felbermayr, owner and CEO of the family-owned company of the same name.

From an operational point of view, Felbermayr's construction division will benefit in many ways. Managing Director Stefan Hielle comments: "With our niche strategy, we are taking a big step forward in the construction sector and in hydraulic engineering in particular. In addition, the shipyard in Erlenbach provides us with a source of technical know-how for our own fleet expansion and can act as a service provider for inland shipping companies."

The decades of experience and knowledge of the Domarin employees, as well as around 50 floating units, consisting of push boats, self-propelled barges, open barges and pontoons, are a major expansion of this niche segment for Felbermayr. "For us, this is an ideal addition. As a result, we can now be a much stronger player in the German market as a hydraulic engineering company," states Stefan Hielle enthusiastically.

In the future, the name Felbermayr will therefore also be more frequently



In addition to the shipyard in Erlenbach am Main, Domarin also operates a site in Bergham am Inn, Germany, with a dock for smaller units.

encountered as a hydraulic engineering company on the inland waterways of the Danube, Main and Rhine, which lent their name to the company Domarin. Currently, this can already be seen in the upgrade of the Danube between Straubing and Vilshofen – this is already being carried out in a working group for the Danube regions (ARGE) established by the two companies. ■



Together with his successful team, Stephan Kulawik (2nd from the right) is spurring Felbermayr work platform/lift truck rental on in North Rhine-Westphalia.

Felbermayr platform rental growing in Germany

Felbermayr started renting out platforms in Germany at the start of the year. From the existing Felbermayr site in Krefeld, platform rental is currently expanding, especially in North Rhine-Westphalia. This Felbermayr sector with more than 3,000 work platforms and lift trucks in seven countries around Europe is therefore gaining traction in Germany.

We currently have more than 60 work platforms and lift trucks at the Krefeld site," says Stephan Kulawik who is the divisional manager responsible for Felbermayr platform rental in Germany. Kulawik also cannot fail to mention that the fleet is growing almost daily and will already double in the near future. This does not include the more than 100 devices that came along with the work platform rental company SGL that was taken over at the start of the year and has sites in the metropolitan areas of Hanover and Goslar.

hard to convince them. He is supported in developing organisations and rental networks by 54 year old industry expert Thorsten Tyrann, who has decades of experience in height access technology just like Kulawik.

The desire for expansion is being slightly curbed by a lack of employees: "We are urgently looking for employees, as are all other sectors. Specifically, we need drivers, field service employees and mechanics," reports Kulawik with a worried look on his face.

However, when asked about strategic further development, Kulawik's well known optimism returns quickly: "In the coming year, we're going to bridge the gap between Hanover and the east of Germany, more precisely: Dresden and Oberlausitz." From the six Felbermayr crane hire sites there, the Felbermayr work platform/lift truck rental range will be added to form a complete product range. "Our colleagues at these branches are already preparing themselves for the new challenge," says Kulawik happily and is confident of having the required devices delivered in time. ■

PHOTOS: STEPHAN KULAWIK

Positive interim result

Expansion plans are currently benefiting from the economic development in Germany. According to Kulawik: "We can feel the high level of demand and are providing the right answers with our service-oriented range of devices and services." But he also does not hide the fact that the quality and reliability of the Felbermayr brand is not yet fully known in Germany. This applies particularly to craftspeople such as painters and decorators, building cleaners, electricians and landscape gardeners. We have to work



Felbermayr's work platform rental park in Germany is modern, new and versatile.

Work platform/lift truck rental is easier than ever before

Felbermayr has launched the new rent.FELBERMAYR.cc website for quick and easy rental of work platforms, lift trucks and mini-cranes. This was a significant step towards digitising sales processes and improved the personal contact options even more.

Consistent with our modern fleet with devices that are on average less than four old, rent.FELBERMAYR.cc brings us even closer to our customers and makes online rental requests even more precise, said Felbermayr Sales Manager Clemens Felbermayr happily. For Felbermayr, it is a given that the web application functions work in exactly the same way on smartphones and tablets as on a static PC. For example, technical data can also be viewed directly on the mobile.

According to the Divisional Manager for work platform/lift truck rental, Robert Bauer, the main benefits of rent.FELBERMAYR.cc are the high level of user friendliness and the time savings for the customer: "The customer should be able to concentrate on their construction project and so we're making renting as easy as possible for them." For example, Bauer values the option to be able to send a photo of the building site along with the rental request. "A picture is worth 1,000 words and this also applies to renting work platforms, lift trucks and mini-cranes," says Bauer from practical experience, as this is how the dispatcher can form a concrete impression of the problem and possibly even avoid



Sales Manager Clemens Felbermayr and Divisional Manager Robert Bauer agree that, in addition to online sales channels, personal consultation will continue to play an important role in work platform and lift truck rental in the future.

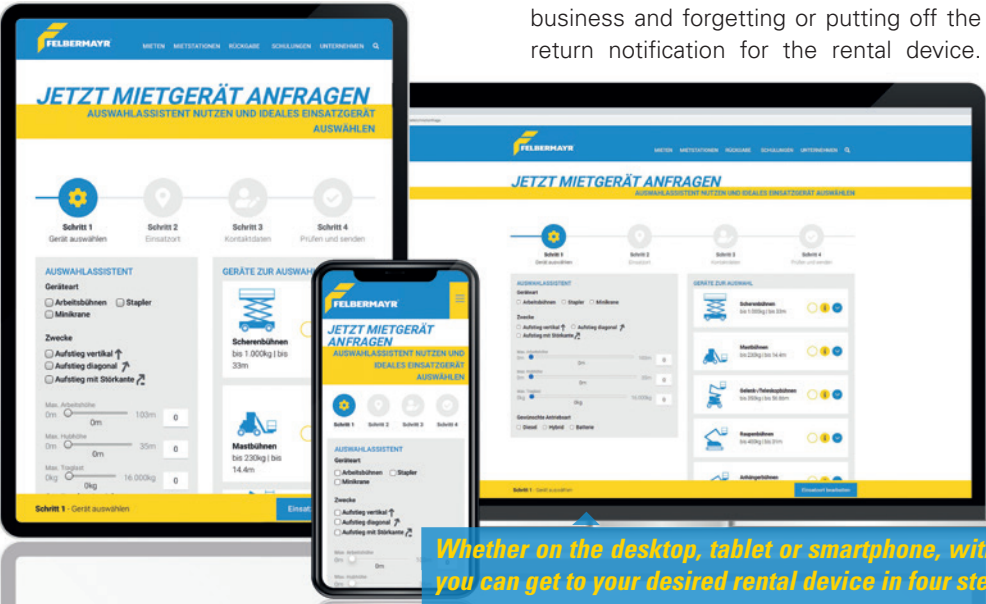
long explanations over the phone and an on-site inspection. We can therefore react much faster and the customer has the most suitable device quickly.

Lower costs thanks to online return

Another important feature for Bauer is the "Return at the click of a mouse," as unnecessary costs were often incurred due to being distracted by day to day business and forgetting or putting off the return notification for the rental device.

This can now be done anywhere at any time thanks to the return function on rent.FELBERMAYR.cc. The time of receiving the notification is used for calculation. And this is done in four simple steps, just like the rental request.

"We are convinced that rent.FELBERMAYR.cc provides a practical bridge from requests by phone to digitising the rental process. The customer can decide which option they wish to take, as the website also enables the field service employee responsible to be found quickly. They remain available for advice and consultation over the phone or on-site," said Felbermayr and also agrees with Bauer when it comes to the degree of digitisation: "Digitisation is good and important but personal contact will remain vitally important for rental devices with a safety aspect." The Felbermayr specialist consultants with their expertise will therefore remain a vital pillar in Felbermayr device rental in the future and impress with their service quality and competence.



Whether on the desktop, tablet or smartphone, with rent.FELBERMAYR.cc you can get to your desired rental device in four steps.



Rapid construction progress thanks to precise planning

Felbermayr has received an order from Liebherr, a company specialising in construction machinery in Austria, to build a new distribution centre in Puch/Urstein, south of Salzburg. Felbermayr received the go-ahead for the extensive project in November of last year. And some nine months later, Felbermayr has already completed the project.

More than 60 years ago, the Liebherr-Werk Bischofshofen GmbH site was founded with its headquarters in Bischofshofen. However, six decades of continuous growth in the production, distribution and servicing of construction machinery have brought the Bischofshofen site in Salzburg's Pongau district to the limits of its capacity. For this reason, the company is investing around 26 million euros in the construction of a new distribution centre for Liebherr Österreich Vertriebs- und Service GmbH.

Tight schedule

A three-hectare site near Puch/Urstein with ideal access to the A10 Tauern motorway was chosen as the location. In November 2021, the earthmoving work began. Felbermayr was awarded the contract for this work, as well as for moving the prefabricated and semi-prefabricated partition walls and for the in-situ concrete and screed work. A total of around 14,000 cubic metres of soil were moved during these works. "In order to meet our client's high quality demands and at the same time

keep to the tight schedule, precise planning and teamwork were required right from the start. This was the only way we could ensure that the general contractor duties could be carried out so quickly," stresses site manager Robert Grundner.

In fact, the pace set by the Felbermayr team to date is impressive. Work on building sections B and C began at the end of November. This was followed in January by the work on building section A. This is a building complex with a basement, a ground floor, three upper floors and an

PHOTO: MARKUS LACKNER



For the construction of the new Liebherr site in Puch/Urstein, Felbermayr Structural Engineering used classic formwork construction with in-situ concrete as well as prefabricated and semi-prefabricated concrete parts.

attic storey. The basement will house the building services at a later date.

Building section B is another building complex that has a ground floor and

three upper floors, but no basement. In the end, both buildings together will provide around 4,800 square metres of state-of-the-art office, meeting and seminar rooms as well as a canteen with a dining hall. In building section C, on the other hand, a hall for maintenance and service work is being constructed on a floor area measuring approximately 110 by 30 metres. Once the suspended ceiling has been installed and an upper floor constructed, the hall will have a total area of around 4,700 square metres. The second level created by the suspended ceiling will serve as a storage area. The Felbermayr team managed to complete its part of the work on building section B as early as April. And the work on the other two building sections also progressed swiftly. In June, the third floor slab was laid in building section A and in July, a monolithic floor slab was laid in the hall, which was then polished off.

This extremely swift construction progress is also made possible by the state-of-the-art technology and construction methods used. In addition to the in-situ concrete work, during which around 6,900 cubic metres of concrete were processed, the Felbermayr team also made use of the aforementioned prefabricated and semi-



Site Manager Robert Grundner

prefabricated concrete parts. The motto for the prefabricated parts: Deliver, assemble, done! "It sounds fast – and it is," says Grundner, who is pleased with the swift construction progress, but also the quality of the work: "I am always impressed myself when I see the progress of the construction work in Puch/Urstein. And I'm proud that we will probably be able to finish the job as early as September," says Grundner. A fact that will also please the client, as the opening of the distribution site in Puch/Urstein will free up around two hectares at the production site in Bischofshofen for the production of wheel loaders.



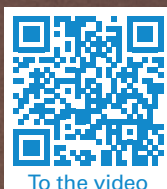
The contract also included the construction of three assembly pits with a total length of around 50 metres.





BINDING

With "BladeS" from Goldhofer, Felbermayr now has the latest transport technology at its disposal. This makes the rotor blade itself the binding element between the tractor and the trailing unit. As a result, the routing turns into a reducing element and, in theory, loads of any length can be transported.



To the video

At the end of the 1990s, wind turbines had an output of around 0.5 megawatts, whereas today's modern turbines reach more than ten times that amount – meaning that one turbine can generate the annual electricity consumption of around 2,500 households.



New logistics concept for wind turbines of larger power classes

It is more than two decades since wind energy began to blaze its successful trail as a sustainable form of power generation. The design of wind turbines has changed significantly during this time, accompanied by major changes in transport logistics. For the first time this March, Felbermayr transported the latest generation of wind vanes using a special vehicle – the "BladeS" from Goldhofer.

The rotor blade is accommodated at the trailing unit by means of a turntable. This means that tight curve radii can also be achieved.



Roland Füreder began his apprenticeship at Felbermayr back in 2005 and since then his work has focussed heavily on transporting wind turbines. Today, the 33-year-old is largely responsible for the successful transport logistics of wind power components at Felbermayr. He knows exactly what developmental advances wind turbines have made over this period: "Until the mid-2000s, turbines were usually erected with a hub height of up to 100 metres. The rotor blades were up to just 35 metres long at that time. Modern rotor blades measure over 80 metres. That is a whole different story," explains Füreder.

Trailing concept for rotor blades

Giant rotor blades like these can no longer be transported with the telescopic trailers that were conventionally used in the past, which is why Felbermayr has invested in the "BladeS" transport system from Goldhofer. With this transport method, the rotor blade root is connected to the frame located on the gooseneck. The rotor blade tip, on the other hand, rests on the turntable of the trailing axle module, which is only securely connected to the tractor via the freight itself. Rotor blades of "any length" can be safely transported in this way.

The system constitutes an investment in the future - because the development of wind turbine manufacturers can be best described as heading in the direction of "bigger, taller, stronger". Rather than roughly one megawatt of power, onshore wind turbines currently achieve five megawatts and more. And instead of a hub height of 100 metres, modern turbines reach heights in excess of 150 metres, whilst rotor

diameters have increased from around 70 to over 160 metres during this time.

Wind turbines of larger power classes (i.e. with a total height of a stunning 230 metres) are currently state of the art.



Project Manager Roland Füreder

Dual transports as the norm

The massive dimensions of the wind turbines and their components have also brought about decisive change across the entire transport logistics, as Füreder points out: "The height of the components and the length of the rotor blades in particular demand a completely different logistics chain than just a few years ago. Component

transport exclusively by road is now almost impossible. What is required is a logistics chain of waterway and road haulage."

The visionaries at Felbermayr spotted this development back in the 1990s. Felbermayr is ideally prepared for future challenges, thanks to the trimodal logistics centres in Linz, in the ports of Krefeld and Albern, and most recently in Antwerp. And because the logistics centres are not only able to transship but also store the plant components, the specialists from Felbermayr additionally make a significant contribution to project optimisation. "We can temporarily store the turbine components and deliver them just-in-time when they are needed at the wind farm. And our route divisors, our state-of-the-art transport equipment and - not least - our escorts and drivers make sure that there are no traffic jams on the road; meaning we offer a full range of services for the transport of wind turbines," reports Füreder.

But being a leader in wind power logistics is one thing. Staying ahead, on the other hand, means learning and developing constantly. Füreder on this: "We are in constant exchange with wind turbine manufacturers and vehicle manufacturers, which is why we know what transport challenges lie ahead. Armed with our expertise gained in practice, this allows us to make our contribution to the development of transport solutions such as the "BladeS".

With the "BladeS" system, the cargo becomes the binding element between the tractor and the trailing unit.



Project logistics for sustainable fuels

Employees in the Felbermayr projects department received an order in 2019 to check the possibilities to transport and install a reactor and a stripper column to manufacture „green fuels“. The journey went from the Black Sea port of Constanța in Romania to the OMV refinery in Schwechat close to Vienna. The order with demanding project logistics moved to the critical stage in April this year.



PHOTO: DANIEL NEAGU

As always with these large projects, it all began with a feasibility study that was followed up with comprehensive detailed plans. "Planning is the most important thing in projects of this size. The visible part of this type of transport is just the spectacular finale of an extensive amount of preparatory work," explains project manager Michael Lehner who has been part of the large Felbermayr family for 14 years.



Project Manager Michael Lehner

You can't leave anything to chance, especially with goods of this size that are also of considerable value, in order to be able to deliver on time. The manufacturer first sent the gigantic reactor, which is around 37 metres long and has a weight of 190 tonnes, and the equally impressive column, which is more than 44 metres long and has a weight of 120 tonnes, by sea from Italy to the most important Romanian port in the Black Sea. The Felbermayr specialists took care of onward transport from there.

Project logistics with dual transport methods

The gigantic container was handled on a heavy lift cargo barge and transported to the Felbermayr logistics centre at the Albern port in Vienna. The heavy duty freight then took the final 2.5 kilometre journey to the installation location in the refinery. The reactor and the column were handled by two LTM 1750-9.1 telescopic mobile construction cranes with a load capacity of up to 750 tonnes and an LTM 1400-7.1 with a load capacity of up to 400 tonnes. Transshipping was performed in a tandem lifting procedure on PST self-propelled units with 18 axle lines from the vehicle manufacturer Goldhofer.

The calculated journey time of around 1.5 hours already showed the challenges that the transport team had to overcome on this journey. The crane work at the installation location also required extreme concentration from all involved. "As is so often the case when working with industrial systems, the following was the case: not much space for a great deal of equipment," said Lehner.

For this reason, selecting the right crane equipment for final installation of the two oversized containers was extremely important. For the final step, in addition to the LTM 1750-9.1 that was mainly responsible for installing the column, the Felbermayr team therefore sent the LR 1750 lattice boom crawler crane with a load capacity of 750 tonnes to assemble the reactor. Both cranes were assisted by a 500 tonner that was



To the video



A 500 tonner was used as a follow-on crane to align the container.

used as a follow-on crane when aligning the container among other things.

"The on-site conditions forced us to equip the LR 1750 with the supports available for this crane instead of with crawler chassis. This was therefore used in the rather unusual configuration as a pedestal crane," explained Lehner as another interesting project detail. "Overall," Lehner concluded, "these industrial projects are appealing to all involved, as no one project is like another. It's a special challenge that requires creative solutions over and over again. And that's exactly what we do here at Felbermayr."



The self-propelled heavy duty modules known as PST for short also enable safe transport with oversized cargoes in narrow spaces.

Bridge replacement with pull-push convoy

In 2021, Felbermayr received an order to remove the old and install the new railway bridge over the river Peene near to Demmin in Germany. The Felbermayr specialists from the Engineered Solutions department trod completely new paths in April this year.

Replacing the old railway bridge near to Demmin in Mecklenburg-West Pomerania is a central project in the modernisation of the railway connection between Berlin and Stralsund. However, replacing the bridge was a herculean task and required the corresponding amount of engineering creativity from the Felbermayr team. "This project was extremely complex, as we had to tread complete new paths. At the end, we found a unique solution never before seen in the world for this type of bridge replacement", according to divisional manager Kees Kompier.

When building or replacing bridges that go over waterways, numerous pontoons are

used. Therefore, when replacing a bridge, the old bridge is floated out and then new, pre-assembled bridge floated in. "This procedure," continues Kees Kompier, "was not practical for this project. We therefore drew up an innovative concept in which we did not have to use conventional technology. Furthermore, it is then possible to remove the old bridge and install the new one in one go."

Kees Kompier makes it sound so matter-of-fact but in reality, it was as complex an engineering feat as it was fascinating: a heavy load stack system was used to lift the old bridge structure

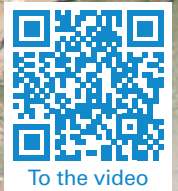
that is around 54 metres long to the level of the 770 tonne and 84 metre long new bridge that was stored on the northern bank of the Peene. The new bridge superstructure was then moved up to the old bridge using an SPMT. The two bridges were then connected to each other by a team of welding specialists. The exciting phase of the bridge replacement then started. On the northern bank, hydraulic strand jacks were used to pull the complete structure that was now almost



Engineered Solutions divisional manager Kees Kompier (left) develops creative solutions using heavy load equipment together with Technical Manager Roel Arts.



The bridge was able to be replaced in one step by using slide bearings, SPMTs, as well as pushing technology and strand jacks modified to form a pulling system.



140 metres long and weighed around 1050 tonnes over slide bearings on the north side of the Peene while the pushing system pushed the colossus in 5.7 metre steps over the river from the south side. It was basically a heavy load pull and push convoy with colossal forces.

Once the old bridge was far enough on the south side, it was also placed

on rolling SPMT modules using a transport frame structure. After this decidedly complex and innovative transport job, the final installation of the new bridge superstructure seemed rather routine. After the two bridges had been separated again, the new-build was placed on the bridge abutments using a heavy load pile lift system.

After the track works were complete, rail traffic was able to start again on this railway section on time at the start of July. "I'm really proud of having managed to implement this solution successfully along with my team from Felbermayr Engineered Solutions. We found the most intelligent and time saving solution possible," finishes Kees Kompier.



Due to permanent frost and dew changes, the rock face on the popular Danube cycle path in Upper Austria became unstable.

A specialised civil engineering approach to ensuring safety on the Danube cycle path

Felbermayr Specialised Civil Engineering was commissioned with rock consolidation work and the construction of a rockfall protection system to protect cyclists on the popular Danube cycle path near the village of Aschach an der Donau following a rockfall incident. The work, which took several months, was completed at the end of March.

The Danube cycle path is a popular destination for thousands of cyclists every year. However, the dreamlike scenery can also harbour unexpected hazards from above for walkers and cyclists, namely unpredictable incidents of rockfall and falling stones. Due to heavy storms, there was an incident of rockfall on the section of the Danube cycle path near the village of Aschach an der Donau last summer, which made it impossible to use the path safely. The affected section of the Danube cycle path was closed immediately. Geological surveys were carried out by experts before the consolidation work began in order to investigate the causes and determine the potential danger. Once the geological surveys had been carried out, the danger from above had to be minimised immediately and the highest possible level of safety ensured. This is a special construction project for experts only.

The specialists from Felbermayr Specialised Civil Engineering were awarded the contract for the rock consolidation work due to their expertise in carrying out extremely difficult construction projects on steep rock formations. "In order to ensure the greatest possible level of safety during the work, the authorities required us to secure the rock face with a rockfall protection net from above first, before a rockfall protection system could be erected near the ground," says site manager Markus Lederer from Felbermayr Specialised Civil Engineering.

1,000 square metres of rockfall protection nets

As the section of the cycle path had been closed since the rockfall incident and a

major cycling event was due to take place at the beginning of April, there was a lot of time pressure when it came to the rock consolidation work. The goal was to reopen the path to the public quickly, but most importantly safely, and to have the cycling event take place along the section of the route as planned.

"In phase one, rockfall protection nets were fitted to the rock directly using 80 anchors over an area of just under 1,000 square metres. The nets were fixed at a height of about 120 metres above the cycle path. A total of nine men, secured with ropes to anchors on the steep cliff, were deployed to carry out this risky construction project," says Lederer, adding that "the installation of these kinds of nets is a frequently used measure to protect underlying paths and roads". In phase two, a rockfall protection system was also constructed in the lower area of the rock formation with a height of six metres. The entire 120-metre-long fence was secured to the rock with around 120 anchors ranging from three to eight metres in length. "The resistance of the rockfall protection is 3,000 kilojoules. This means that the rockfall protection could intercept a ten-tonne truck at ninety kilometres per hour," says Lederer.

Helicopters, lifting technology and heroes

In order to perform the difficult tasks at heights of more than 100 metres above the cycle path, specially trained height specialists from Felbermayr Specialised Civil Engineering were deployed. Aided by special equipment such as drilling trucks, helicopters for transporting material, hand drills and



A workstation 100 metres above the ground: For the height specialists from Felbermayr Specialised Civil Engineering, this is a day-to-day job.

various small devices, they did an outstanding job from a technical as well as a physical and psychological point of view. The Felbermayr Platform Department in Wels also supplied a 28-metre and 40-metre telescopic platform so that the team from Felbermayr Specialised Civil Engineering had access to safe lifting technology. Telescopic platforms have a large lateral reach and are also the ideal piece of equipment for use in places that are difficult to access and have obstacles. In addition to the time pressure, the process of storing and securing the material on the steep rock at a great height on the plateau posed a further challenge. The winter weather with its wind and poor visibility made the job of transporting materials by helicopter even more difficult. Nevertheless, after several months of work, the specialised civil engineering team was successful in eliminating the danger from above and the cycle path was opened to the public just in time for the upcoming cycling event and the start of the cycling season. "With the greatest possible level of safety", as Lederer says, because there can never be a 100 per cent guarantee of safety in such exposed areas. ■



Modern branches for efficient work

The Felbermayr group of companies currently provides its services from 77 sites in 19 European countries. The branches that provide the employees with the required framework conditions form the basis of this. The Felbermayr GmbH team is always responsible for this in close cooperation with the relevant operational areas and the holding company.

The real estate crew is currently working "on several building sites at the same time" in order to renovate, extend and build new Felbermayr sites.

After the mega project that was the new-build of the company headquarters in Wels, as well as building the "LM17" in Linz in 2021, projects in Germany, Austria and Romania are currently advancing. Commercial administration and renting the properties to external companies are also managed by this efficient team.

Industrial flat share

The completion of the combined hall and office building in Linz (LM17), which was handed over in December 2021 was met with great happiness. Despite the extensive dismantling work and COVID-related delays, the individual rental spaces were handed over to the relevant customers on time. Known as an "Industrial flat share" because the basis for starting the project was queries from partners of many years and company

neighbours of the Felbermayr subsidiary IS Baubetrieb. The neighbouring companies had reached the limit of their storage capacities. Therefore, the Felbermayr GmbH employees sat down at the table with the subsidiary, IS Baubetrieb that specialises in ancillary construction trades and four other companies in order to make joint plans based on individual requirements. This resulted in a storage and assembly hall measuring 3,000 square metres with an adjacent office building of more than 600 square metres. The cooperation was perfected by interlocking the value chain. The stored parts from WFL,

the manufacturer of multifunctional turning, drilling and milling machines, are machined in the metalworking or stainless steel workshop at IS Baubetrieb "just in time" and can then be painted on-site.

This both increases efficiency and halves the storage capacities.



Property in Romania

The acquisition of a 5,000 square metre commercial property in Sibiu, a Felbermayr romania site that is around 300 kilometres north-west of Bucharest, represents a huge potential for increasing efficiency. Therefore, the administration and technical departments that were previously in different locations were able to be merged into one site.

The 700 square metre hall that was originally built as an HGV garage in 2019 and that has



With the acquisition of an existing property in Sibiu, the Romanian Felbermayr subsidiary was able to cover its ideal requirements.

two assembly pits, a modern office building and expansive storage areas provides ideal prerequisites for the lifting technology specialist. There is plenty of space for 30 employees, 120 work platforms and a dozen cranes. An additional benefit for operations and for the employees is the motorway exit that is just 400 metres away and the airport that is just a few minutes away by car.

New in Austria and southern Germany too

There is also good news from the Felbermayr site in Klagenfurt. Temporary premises were set up there in order to be able to start demolishing the outdated building on the site. A 750 square metre garage, a storage hall with 1,850 square

metres of floor space and a 600 square metre office building will be built by summer 2023.

Things are also moving in the Bavarian location of Osterhofen, where work has already begun and the ground-breaking ceremony took place on 4th July. A 1,500 square metre hall and a 1,000 square metre office building are being built here. The employees at the Felbermayr subsidiary Hagn Umwelttechnik, who will move there from the rented site in Hengersberg can look forward to this.

The Felbermayr site in Linz is also being modernised with a new-build platform workshop complete with flying roof, which is due for completion in summer 2023.



Groundbreaking ceremony in Osterhofen (From left to right): Klaus Großschartner (Wondrak Planning Office), Elisabeth Felbermayr-Schierl (Authorised Signatory, Felbermayr GmbH), Stefan Hielle (Managing Director, Hagn UT), Simone Klämpfl (Business Manager, Hagn UT), Liane Sedlmeier (Mayor of Osterhofen), Horst Felbermayr (Managing Director, Felbermayr Holding), Bernd Sibler (District Administrator), Benedikt Linimayr (Authorised Signatory, Felbermayr GmbH), Sandro Schieck (Authorised Signatory, Hagn UT), Thomas Meister (Site Management, Hagn UT).

CAREERS

New employees in #teamdermöglichkeiten

Felbermayr is known as the #teamdermöglichkeiten (team of opportunities) and therefore offers talented employees fantastic opportunities for advancement. There are also interesting prospects for new employees. Here, we're going to introduce you to new colleagues with cross-departmental functions.



Holger Kunz

Holger Kunz took over **management of the Felbermayr Germany branch in Krefeld** from Jürgen Schüring in September last year. Jürgen took his well-deserved retirement at the end of March. Holger Kunz, who enjoys travelling in his spare time, has worked in the heavy transport industry for 17 years. Among other things, he was an authorised signatory at one of our competitors in Germany.



Stefan Hütten

Born in the Rhineland, Stefan Hütten has been supporting the Haeger & Schmidt group since the middle of April. In his function as **Chief Business & Corporate Development Officer**, he will support the activities in the group and develop them further. The father of two worked for various logistics companies over the course of his career up to now and has well-founded knowledge and experience in the port, heavy lift cargo and multimodal logistics sectors.



Jörg Hesselink

Jörg Hesselink has been working in hydraulic engineering at various Felbermayr subsidiaries since 2013. He has worked as **technical divisional manager for hydraulic engineering and the shipyard operator Domarin** since June this year. As reported, Felbermayr took a majority share in this company in May. At the moment, Hesselink is mainly working on integrating the Domarin shipyard in Erlenbach into the Felbermayr structure. The trained bricklayer relaxes by working in the garden or going for a walk with his wife and dog.



Günther Luger

Günther Luger took over **management of the new construction site in Raab in Upper Austria** in January. Born in Upper Austria, he completed his polytechnic degree in civil engineering in Linz in 1991 and has more than 30 years of experience in the sector. His current task is expanding the branch that already employs 40 people. The father of three enjoys spending his free time cycling or, as a passionate footballer, supporting his son on the field.



Rainer Bauer, Reinhold Wersching

After 25 years, Reinhold Wersching, who founded WEST-ASPHALT that specialises in exterior design and paving work in 1997 is handing over management to **Rainer Bauer** who was born and bred in Wels. Bauer completed his polytechnic degree in civil engineering and joined WEST-ASPHALT straight after his national service. He has now been working as a site manager at WEST-ASPHALT since 2001. Bauer is still currently being inducted as **branch manager at WEST-ASPHALT**, and Wersching will remain available for consultation and support for the coming year. However, he is already looking forward to a time when he can tackle all those things that have not yet come about. The passionate diver is drawn to spending his free time under water all year long.



Florian Dietrich

After his apprenticeship as a draughtsman, Florian Dietrich took his HGV driving test and had fun in the transport industry. That is how Florian Dietrich's career started and he is now the successor to Heinz Hunziker as a **technical director at Felbermayr in Switzerland**. Thanks to his training as a dispatcher and being a qualified head of operations for road transport and logistics, he brings the expertise required to meet his target of expanding Felbermayr's commitment to Switzerland. Dietrich also likes to move in private: the nature lover enjoys exploring on foot, by bicycle or on skis in winter, and is a passionate motor sports fan.



SPORTY Ruhr2NorthSea-Challenge overcome successfully

With the slogan "Seven in one fell swoop," René Kohlhouse, Martin Rindsfuser, Manuel Kessler, Anika Meyer and Thomas Meyer, Wolfgang Lepak and Heiko Brückner from the Felbermayr subsidiary Haeger und Schmidt overcame the Ruhr2NorthSea-Challenge successfully in the middle of

June. They cycled 317 kilometres in thirteen hours in one go. It started in Duisburg at four o'clock in the morning. With beautiful weather, the day ending in Bensen on the North Sea coast was an absolute highlight. Another highlight is the average speed of 26 kilometres per hour.

RETIREMENTS

Entering a well-earned retirement

Many thanks and recognition due to each of our colleagues who will shortly be retiring.

Josef Ammann – Transport/Bau-Trans/Lauterach · **Jusuf Beric** – Danner/Vorchdorf · **Anton Böhm** – Transport/Bau-Trans/Lauterach · **Zygmunt Brodziak** – office manager/Felbermayr Polska Sp. z o.o./Wroclaw · **Andreas Brutz** – Crane operator/Spreetal · **Ramic Covic** – Civil engineering/Wels · **Rita Dimmer** – Accounting/Haeger & Schmidt/Duisburg · **Manfred Drabent** – Crane operator/Spreetal · **Heinz Feichtenböck** – Glazier/IS Baubetrieb/Linz · **Liliana Filipowicz** – Administration/Felbermayr Polska Sp. z o.o./Wroclaw · **Pal Fodor** – Crane/Linz · **August Fortmüller** – Transport/Graz · **Josef Gärtner** – Hydraulic engineering/

Hagn UT/Hengersberg · **Ernst Helmhart** – WEST-ASPHALT/Wels · **Hermann Hans** – Waste management/Wels · **Josef Hetzenauer** – Heavy installation/Wörgl · **Mirsad Hibic** – Heavy installation/Linz · **Axel Hillner** – Hydraulic engineering/Hagn UT/Hengersberg · **Heinrich Huber** – MTA/Wels · **Heinz Hunziker** – Branch management/Mägenwil · **Ismail Karaman** – MTA/Wels · **Wolfgang Kases** – Crane/Thaur · **Karl Heinz Kastner** – Transport/Linz · **Karl Koch** – Hydraulic engineering/Hagn UT/Hengersberg · **Jürgen Kramer** – Installation/Wimmer Machinery Transport/Sulzemoos · **Günter Latzer** – Crane/Linz · **Hannes Lindenhofer** – Crane/Linz · **Marko Maric** – HIK/Wels · **Gerhard Matheis** – WEST-ASPHALT/Wels · **Michael Mayrhofer** – Crane/Linz · **Rasid Mujkanovic** – HIK/Wels · **Markus Naderer** – Tiler/IS Baubetrieb/Linz · **Ewald Nussendorfer** – HIK/Wels · **Helmut Öhlinger** – Transport/Wels · **Harald Peter** – Crane/Graz · **Josef Pichler**

– FST/Salzburg · **Erwin Pleyer** – Landfill construction/Hagn UT/Hengersberg · **Ernst Preyer** – Workshop/Lanzendorf · **Friedrich Rametsteiner** – Managing director/Wels · **Renaldo Richter** – Crane operator/Spreetal · **Karl Riegler** – Crane/Lanzendorf · **Richard Rosenauer** – Workshop/Wels · **Dorin Sabou** – Project/Wels · **Vinzenz Schnabl** – Crane/Graz · **Torsten Schubert** – Crane operator/Dresden · **Jürgen Schüring** – Branch management/Krefeld · **Engelbert Schuss** – FST/Stams · **Kurt Sommer** – HIK/Wels · **Thomas Teply** – Heavy installation/Lanzendorf · **Wilhelm Terhorst** – Hydraulic engineering/Hagn UT/Hengersberg · **Gerhard Übleis** – MTA/Wels · **Imre Volosinovszki** – Heavy installation/Bau-Trans Budapest · **Hubert Wabersitzky** – Hydraulic engineering/Hagn UT/Hengersberg · **Reinhard Welther** – Hydraulic engineering/Hagn UT Hengersberg · **Dietmar Winkler** – Civil engineering/Haag · **Ismet Zulkic** – HIK/Wels

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Prize question:

What is the address of the new website for Felbermayr work platform, lift truck and mini-crane rental?

1st prize:

A Nooteboom Mega Windmill Transporter on a scale of 1 : 50.



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ES3214E	3,17 m	32,00 m	750 kg
ES2825RTP	3,17 m	28,00 m	1.000 kg
ES2814E	3,17 m	28,00 m	750 kg
ES2223RTP	3,00 m	22,00 m	750 kg
ES2212E	2,99 m	22,00 m	750 kg