

INFORMER

THE FELBERMAYR GROUP MAGAZINE 1/2018

HIGH-FLYER

TANDEM LIFT
FOR MUSEUM SHIP

TUNNEL VISION

SPECIALIST CIVIL ENGINEERING
FOR BUNKER FACILITY

BELOW GROUND

HEAVY CARGO LOGISTICS
FOR SEMMERING BASE TUNNEL





Dear customers, employees and partners.

The football world cup has showed us how life can go. Politics instrumentalises the sport and uses it for "demonstrations of support" at the highest level.

No matter what your opinion is. After the world cup, the important topics are the same as before. And thus, we are still talking about the lack of specialist workers and – looking to Austria – about the proposed "12 hour workday" for employees.

When it comes to the lack of specialist workers, we put great efforts into advancing our apprenticeship training. With sound support, these trainees are supposed to become our know-how carriers of the future.

For the past has shown that long-standing employees are the best knowledge mediators and that – with their skills – significantly contribute to the company's continuous development.

When it comes to raising the maximum number of work hours per day to twelve, we don't make a secret of the fact that we support the industry's requests towards modernising work time. Even though we cannot convey all arguments at this point, we would like to point out that this request of a legalisation is already made possible by existing agreements with employees. Thus, for example, another cost-intensive journey could be avoided due to minor finishing

work on the following day. Of course, this also brings advantages in terms of customer satisfaction and thus also a strengthening of the economic location and a more flexible division of leisure time for the employees.

And free time is also a good cue to continue with good wishes for the remaining summer time. Enjoy your time and – if you haven't yet been – your coming vacation. We are looking forward to seeing you again and thank you for the interest in our company and the many orders, your work or dedication as a supplier. We are successful together and would like it to stay that way.

DI Horst Felbermayr

Horst Felbermayr

Content



03 NEWS

Current Felbermayr Holding topics



12 COMPONENTS LIFTED INTO PLACE

Heavy cargo logistics for Semmering Base Tunnel



17 INFRASTRUCTURE

Train station conversion in Wernstein am Inn

08 SPECIALIST CIVIL ENGINEERING

Tunnel construction for documentation centre

14 LIFTING TECHNOLOGY

Crane operation for museum boat

18 PORTRAIT

A work platform's C.V.

10 POSTER

Multimodal heavy haulage

16 CIVIL ENGINEERING

Power station construction on the Traun River

19 PERSONNEL

News from our employees



TITELFOTO Shore rehabilitation in Passau

Due to strong currents, scouring occurred in the shore area of the Danube along some six kilometres in Passau. In early June, Felbermayr's Hydraulic Engineering Department, on behalf of the waterway and shipping authority, started with their rehabilitation. For this purpose, a total of 14,000 tonnes of armourstones were hauled to the transshipping site in Erlau from the quarry some 30 kilometres away. There, they were transferred to a self-propelled barge named Horst Felix and transported some 16 kilometres upstream to the damaged sites. The installation of the granite rocks weighing up to 60 kilograms was executed directly from the boat's work deck. For this purpose, an excavator with an operating weight of some 80 tonnes and a five cubic metre bucket was used. Thanks to the experienced team, work only took a few weeks.



Felbermayr's Managing Director Wolfgang Schellerer (left) receives the award from FACC CEO Robert Machtlinger.

AWARD-WINNING Felbermayr receives award for "Special Performance"

Late last year, Felbermayr's Project Department transported two so-called auto-clave for the aerospace company FACC in the Innviertel region (see poster on page 10). For the high quality of its complete solution, Felbermayr received the "Special Performance Award" in early July, a great honour for Felbermayr's Man-

aging Director Wolfgang Schellerer and a confirmation of his employees' performance. FACC works with some 600 international suppliers. The prize was handed out in the course of its annual supplier awards aimed at honouring the best among them for their extraordinary service.



VERY HIGH VOLTAGE Crane job for space-optimising overhead power line

Following three years of development, the construction of a pilot line in Saxony-Anhalt is currently in full swing. The special feature of this new type of 300-KV very high voltage power line called Compact-

line is its particularly space-saving design. Most of its pylons are at most 36 metres (instead of 60 metres before) tall and the corridor width is also reduced from 72 to 60 metres. This results in significant bene-

fits for the landscape. Mobile cranes were used to ramp up the pylons. Lifting was executed by means of a tandem lift. The lines are scheduled to be commissioned this summer.





REHABILITATION OF A BOAT LOADING STATION
Hydraulic Engineering Department and Crane Rentals working together

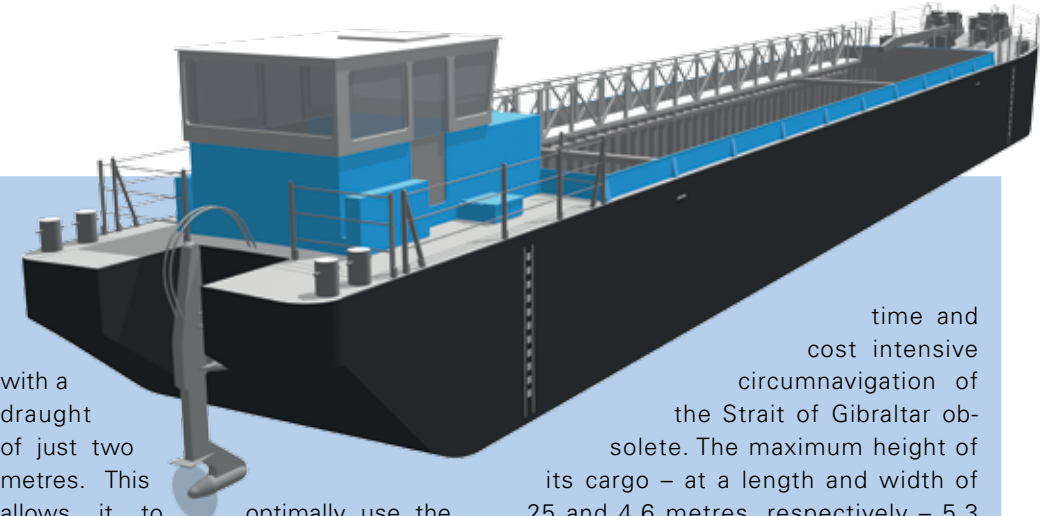
In the course of a large-scale shutdown of the Borealis site in Linz, the steel and plant engineering company Pro Steel renewed the roof construction of the boat loading station. Felbermayr's Hydraulic Engineering Department

provided two interconnected pushed barges and installed a scaffold on top. After that, the construction was positioned under the boat loading station's projecting roof. This was necessary to be able to execute the re-

quired assembly tasks for the new roof. To lift the old roof elements out and the new ones into place, a mobile crane and a telescoping crane with 200 tonnes of maximum load capacity were used.

BY WATER
Haeger & Schmidt receives new pushed barge for heavy cargo

A pushed barge designed to be used in the French canal system will be launched this summer. The vessel is 39.2 metres long and 5.08 metres wide. These unique dimensions and its shape significantly reduces its draught. For instance, it is able to transport a 320-tonne transformer



with a draught of just two metres. This allows it to optimally use the French inland canals. It also makes the

time and cost intensive circumnavigation of the Strait of Gibraltar obsolete. The maximum height of its cargo – at a length and width of 25 and 4.6 metres, respectively – 5.3 metres.

NEW ADDITION TO THE FLEET
Felbermayr invests in waste management

The Waste Management Department, a part of the Environmental and Resource Division, has at its disposal several dozen

waste logistics vehicles. Recently, it modernised its fleet with many skip and roll-off tippers as well as overhead loaders.

The lorries are mostly used for container transports in the central region of Upper Austria.



PHOTOS: MARKUS LACKNER (2), HAEGER & SCHMIDT LOGISTICS

CNC MACHINE PUT ON ITS FOUNDATIONS 72-tonne giant lifted into place

In early January, Felbermayr transported a 72-tonne CNC machine from its Linz-based manufacturer to its destination in the Werfen municipality in Salzburg Province. Arrived there, the transport vehicle had to cross a stream at the consignee ESW's (Sulzau-Werfen Iron Works) premises via a bridge crossing system. This was necessary because the bridge would not have been able to support the vehicle's total weight. Thanks to the bridge crossing system's use, however, it was possible to transmit the load into the foundation's abutments. After that, the team only had to level out a height difference of some 60 centimetres at the en-



trance to the factory hall, using a ramp. Then, a lifting frame was used to finally put the 72-tonne precision tool onto its foundations. Four so-called stamps with a maximum lifting power of 125 tonnes

were used in the process. Including the lifting system's assembly and disassembly, the whole operation took about one week. The CNC machine is used to produce steel forming rollers for the steel industry.



HYDRAULIC ENGINEERING Equipment provided for bridge project

Felbermayr's Hydraulic Engineering Department is currently involved in the construction of a motorway bridge east of Bratislava. In its course, two stilted dredger pontoons including excavator with 100 tonnes of operating weight, a motor vessel as well as a motor hopper barge for hydrau-

lic dredging were provided. For the creation of sheet piles and steel construction work, a work platform with 1,000 tonnes of carrying capacity and hydraulic support system is also being used. The job's purpose is the creation of two sheet pile boxes protected by armourstones. These are

used to build the bridge piers for a new Danube bridge. Following this work, two pushed barges with a length of 76 metres are provided to serve as an access bridge for further construction work. The project is part of a motorway project which is supposed to markedly relieve the urban area of Bratislava.



HEAVY HAULAGE
New heavy duty tractor units added to fleet

In May, Felbermayr received two new Mercedes-Benz heavy duty tractor units. Their 630 bhp engines make the Actros SLT 8x6 trucks real powerhouses. Thanks to a so-called Turbo-Retarder Clutch, wear-free starting is now possible even with towing weights of up to 250 tonnes. In addition, the heavy duty tractor units are also equipped with the updated PowerShift 3 power shift unit with the “heavy” programme specially designed for heavy haulage.



From left to right: Ing. Thomas Brunmair (Felbermayr Sales Manager), DI Horst Felbermayr (Managing Director of Felbermayr Holding), Johannes Heuberger (Truck Sales at Pappas Linz), Franz Bauer (Key Account Management at Mercedes-Benz Trucks).

LIFTING TECHNOLOGY
120 tonne bridge lifted into place

As part of the bicycle path network in the Upper Austrian Phyrn-Eisenwurzen tourism region, the so-called Teichlsteg closes the gap between the municipalities of Klaus and Sankt Pankraz. Even though

“Steg” (German for “footbridge” or “catwalk”) is a rather modest description for the 94-metre-long steel lattice bridge weighing in at some 120 tonnes. The lifting job executed in early May was performed

with an LR1600 crane with 78-metre main boom. The crane was ballasted with 150 tonnes of rotating cabin ballast as well as 65 tonnes of central ballast and 150 tonnes of suspended ballast.

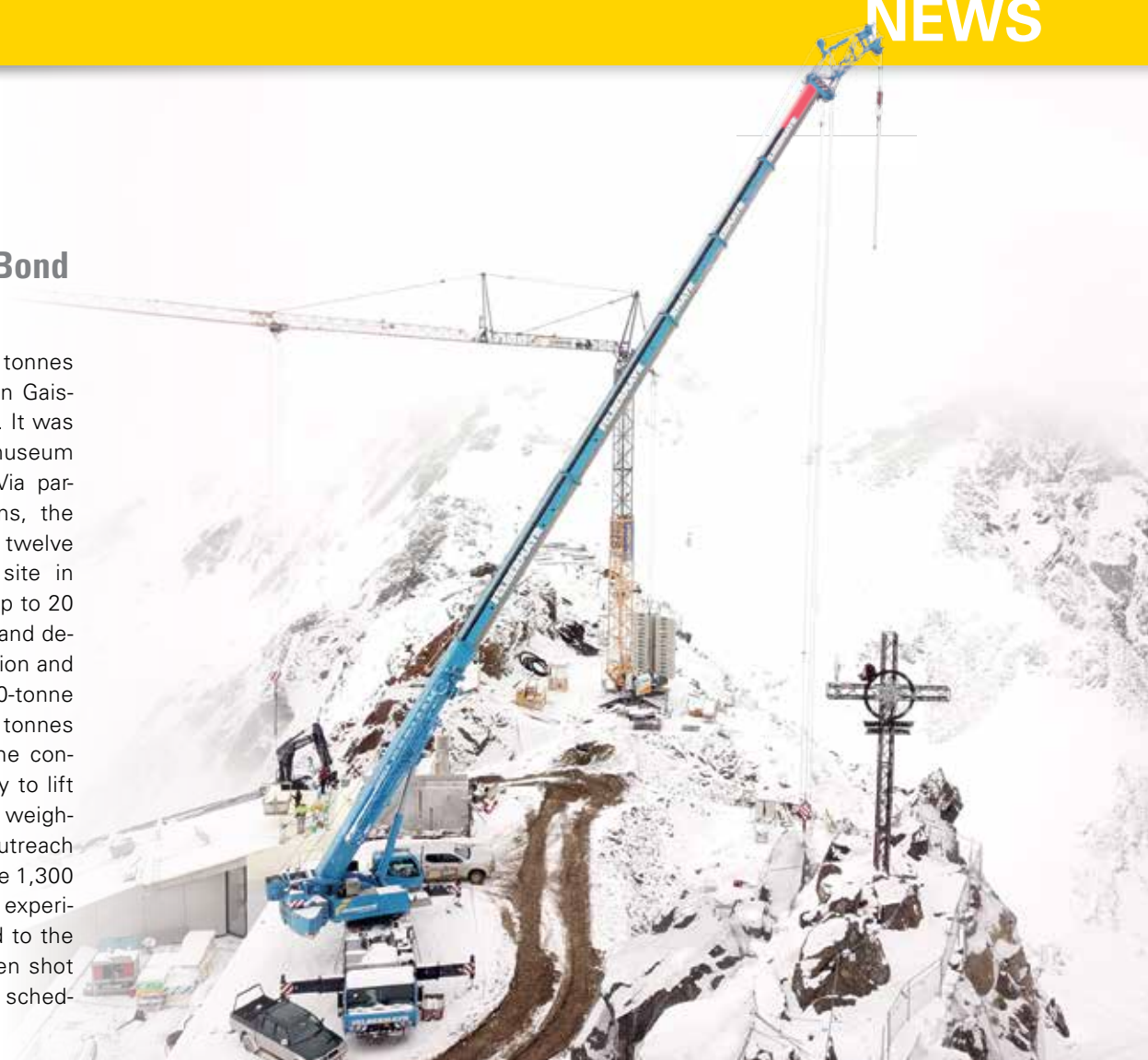


PHOTOS: MERCEDES-BENZ, MICHAEL LEHNER

LICENCE TO DRIVE SLOWLY

Steep drive for James Bond museum

A sky-blue mobile crane with 130 tonnes of load capacity could be seen on Gaislachkogel close to Sölden in April. It was used to build a James Bond museum 3,056 metres above sea level. Via partially unpaved roads and ski runs, the machine had to negotiate some twelve kilometres to the construction site in high-alpine terrain. Gradients of up to 20 per cent added to the difficulties and demanded high levels of concentration and care from the operator of the 60-tonne vehicle. Furthermore, some 40 tonnes of ballast had to be hauled to the construction site. This was necessary to lift into place the concrete elements weighing in at several tonnes at an outreach of 40 metres. Encompassing some 1,300 square metres, the James Bond experience is, among others, dedicated to the film "Spectre". Parts of it had been shot in Sölden in 2015. The museum is scheduled to open this summer.



BUILDING CONSTRUCTION

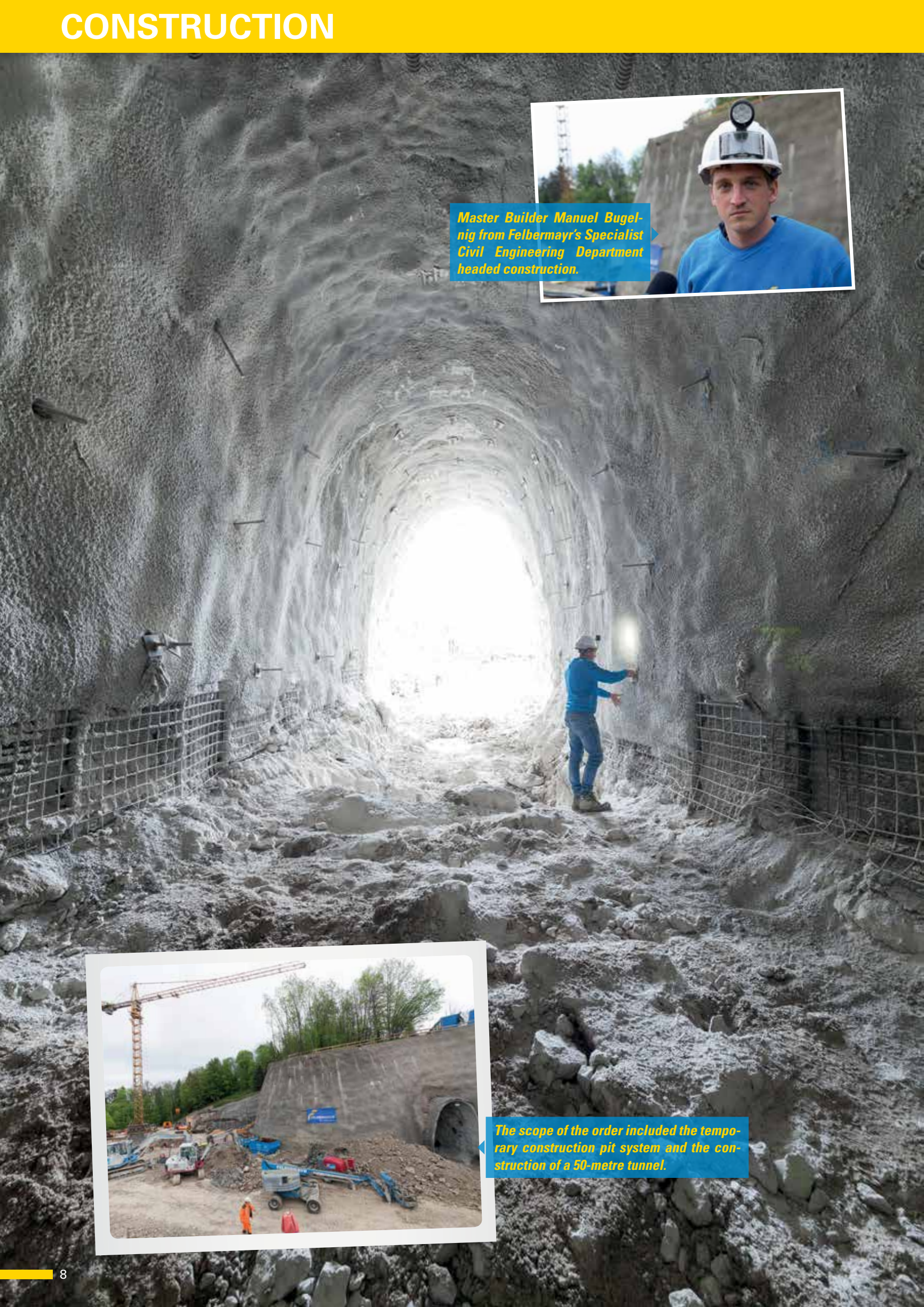
Conversion of listed building

In July, Felbermayr's Building Construction Division completed the conversion and extension of a listed building in Linz. In the process, two top floors were completely gutted and the attic floor was extended. Over the course of one and a half years, the job included all mason, screed and plaster work. In addition, all steel construction work for the extension of the 600 square metre attic floor was executed by Felbermayr. 25 new flats will be created on a total of 2,000 square metres. Originally, the building had housed a leather factory. Located on the ground floor are the premises of an international auction house.





Master Builder Manuel Bugelnig from Felbermayr's Specialist Civil Engineering Department headed construction.



The scope of the order included the temporary construction pit system and the construction of a 50-metre tunnel.

Felbermayr's Specialist Civil Engineering Department builds on historic soil

In September of 2017, Felbermayr's Specialist Civil Engineering Department started working on the extension of the Dokumentation Obersalzberg museum in Berchtesgaden. Construction work included the temporary construction pit system of the new documentation centre and the creation of an approx. 50-metre-long tunnel to access a round tour of the bunker facility.

Declared the "Fuehrer's off-limits area" in 1933, Obersalzberg houses the Dokumentation Obersalzberg museum since 1999 which documents the history of National Socialism in the Second World War and its crimes. As a result of continuously growing visitor numbers, its operators decided to extend the documentation centre. In September of 2017, Felbermayr's Specialist Civil Engineering Department began work on the temporary construction pit system.

Temporary building pit supporting system, rockfall protection and tunnel construction

For the purpose of the conceptual expansion of the documentation centre, it planned the integration of a round tour through the former bunker facility. This required an approximately 50-metre-long tunnel to be built. "Rock formations of different hardness in the mountain presented a challenge to our diggers," reported the responsible Construction Manager Manuel Bugelnig from Felbermayr's Specialist Civil Engineering Department and



Both blasting driving and classic excavator driving were used.

adds that "we had to use both blasting driving and excavator driving." Creating the tunnel's profile in accordance with the architectural specifications also proved difficult. They purported the tunnel portal to start with a diameter of seven metres and the tunnel gradually narrowing to a diameter of just three metres before meeting the bunker facility 50 metres into the mountain. Some 1,500 cubic metres of rock have been excavated for the tunnel.

This equals some 300 lorry loads. In this case, however, the rock was not transported off and disposed of but crushed on location and used to backfill the new construction.

For the temporary construction pit system, some 1,200 tonnes of jetcrete, 8,000 linear metres of anchors and 50 tonnes of reinforcements were installed. Additionally, 1,000 square metres of rockfall grids were installed as a protective measure against possible rockfall. In the course of construction, an aircraft bomb from an air raid in April of 1945 was found. Luckily, the bomb could be defused and removed by the Mine Disposal Unit.

The opening of the documentation centre whose exhibition space is now four times as large, is scheduled for 2020.



Hitler's bunker facility at Obersalzberg was built between 1943 and 1945 and equipped with a ventilation system that was supposed to withstand toxic gas attacks.



MULTIMODAL HEAVY HAULAGE

In late November, Felbermayr transported two so-called autoclaves from Aschach an der Donau to two sites belonging to the aerospace firm FACC in the Innviertel region. Pre-transport for this dual transport was performed by water by Felbermayr's subsidiary Haeger & Schmidt Logistics



Heavy cargo logistics for semmering base tunnel

Early this year, Felbermayr was tasked with transporting some 100 individual components belonging to a 2,500-ton tunnel boring machine. The heavy haulage transports started in France and terminated at the construction site in Styria. In March, Felbermayr's subsidiary Wimmer Maschinentransporte brought the components into the tunnel.

At a length of some 13 kilometres, the Fröschnitzgraben section will become the longest part of the Semmering Base Tunnel. The access tunnel leading to the construction site in the cavern descends some 400 metres vertically and has a diameter of about ten metres. It is used to advance the tunnel in the direction of Mürzzuschlag by means of blasting. Heading in the Gloggnitz direction is taken care of by two tunnel boring machines.

Dual heavy haulage

Some 100 transports weighing in at a total cargo weight of approximately 2,500 tons were required to haul the first of two tunnel boring machines from Le Creusot (F) to the construction site in Steinhaus am Semmering (A). "Following a road section leading to the Straßbourg port, our subsidiary Haeger & Schmidt took over the cargo," reports Roland Füreder from Felbermayr's He-

avy Haulage Department. After that and using a barge, the components were transported to the heavy cargo terminal in Linz, where they were stored temporarily, via the Rhine-Main-Danube Canal. This was followed by further road transport to the construction site at the Semmering pass which were concluded in February. This was mainly done using modular heavy load trailers with so called THP axles. The cutter head, at 115 tons the heaviest part, was transported on 14 axle modules.



Components for a tunnel boring machine were delivered to the Linz-based heavy cargo terminal by boat, stored there temporarily and transported to the construction site in a just-in-time fashion.

PHOTO: ROLAND FÜREDER



Lifting the components weighing in at up to 100 tonnes, the employees with Felbermayr's subsidiary Wimmer Maschinen-transporte did a great job.

Bringing the parts underground

400 metres of elevation separate the tunnel boring machines' origin in Le Creusot and their destination at Fröschnitzgraben 828 metres above sea level. The Wimmer Maschinentransporte team had to overcome the same challenge once more. Not horizontally, but vertically. And that is what made the whole thing so difficult. Wimmer Maschinentransporte's Managing Director Holger Stegmann: "Although there was a shaft lift, it was only approved for loads of up to 90 tons. The heaviest part we had to bring into the tunnel weighed more than 100 tons, however. The solution was to remove all unnecessary parts of the lift. In the end, there was not much left of the shaft lift apart from its base frame," Stegmann illustrates the result.

The transport of individual parts from the storage site to the shaft lift was performed using two so-called Sefiros (self-propelled industrial rollers). At the storage site, the components were transshipped using a mobile crane. "For the hydraulic shifting of the components weighing in at many tons into the lift we built a twelve-metre-long skidway," Stegmann explains. Following their "descent", the parts were once again taken out of the lift using another skidway. To negotiate the last few metres to the tunnel boring machine's installation site,

the parts were transshipped by means of a Sefiro. Thus, the prerequisites for the tunnel boring machine's final assembly were established in late February.

Commissioning of the Semmering Base Tunnel is scheduled for 2026. The 27-kilometre railway tunnel is supposed to

take the load off the historic Semmering mountain route as well as significantly reduce travel times and thus allow for a better connection to Southern Austria. Internationally, this route will strengthen the European north-south-axis when it comes to passenger and goods transport.



Due to its low loading height of just 630 millimetres and a lifting height of up to 1,040 millimetres, the self-propelled transporter "Sefiro" is ideal to pick up and manipulate loads of several hundred tonnes.

Crane operation for historic barge

In mid-April, two mobile cranes working in tandem lifted the boat MS Österreich onto the slipway of the Fußach (A) shipyard. The technical preparations took several months. The lifting operation itself was over in two hours. The demanding crane job was implemented by Felbermayr's subsidiary Bau-Trans.

For a long time, MS Österreich's fate was in the air. The boat put into service in 1928 had been decommissioned in 2009. Due to high restoration costs, even scrapping it was an option at one time. But then, in 2015, Initiative zur Rettung der Österreich ("Initiative for the rescue of the vessel Österreich") managed to acquire the boat. This led to the restoration of important parts of the boat in the following years.

Tandem lift to place boat on slipway

With a length of 55 metres, a width of ten and a height of eight, the former luxury boat taking people across Lake Constance weighed in at 160 tonnes. In order to lift the boat from the dry dock onto the slipway, two mobile cranes with maximum load capacities of 750 and 500 tonnes were used. "Transport-

ting the two cranes required some 20 journeys," Stütler explains the extent of the operation. The actual crane operation was preceded by a projecting phase lasting several months. "In its course, we coordinated dates, acquired permits for the crane transports, coordinated with the boat designers regarding possible installations that needed to be made before the lift, calculated lifting points on the boat as well as defined

In mid-April, two mobile cranes working in tandem lifted the boat MS Österreich onto the slipway of the Fußach (A) shipyard.





Special lifting equipment was designed to ensure the load's equal distribution on the boat.



Bau-Trans Project Manager Jürgen Stütler coordinated the job

and manufactured suitable lifting equipment," says Stütler, illustrating some of the details.

In mid-April the time had finally come to lift the boat from the dry dock onto the slipway. "At an outreach of 22 metres, we needed to lift a load of 160 tonnes which requires a hefty amount of power," says Bau-Trans' Project Manager in charge Jürgen Stütler, justifying the use of two large cranes. The hook block of the stronger truck crane (an LTM 1750) was connected to the boat's bow while an LTM 1500 was used at the stern. Ballast weighing 204 and 165 tonnes, respectively, weighed the cranes down. The lifting operation itself was over in a mere two hours. Coordinating the two cranes was the hardest part. For in the course of the tandem lift, the water vessel had to be rotated by 90 degrees in the air to lift it between the two cranes and place it onto the slipway, Stütler

reports. After that, it had to be rotated back to its original position to be able to lower it onto the slipway in parallel to the latter. Thanks to good preparations and the crane operators' dexterity, everything worked smoothly, however.

Subsequent installation

In order to not unnecessarily increase the boat's weight, several heavy parts

such as generators, engines and the bow thruster were only installed after the lift operation was completed. This reduced the weight to be lifted by some 120 tonnes. The boat was then successfully launched in late April. Interior fit-out and installation work is to follow. By the end of the year, the Österreich is supposed to be launched on Lake Constance under the name MS Österreich.

Curriculum vitae of a floating lady

Pre-assembled at the Korneuburg shipyard, the "Österreich" is finished and put into service on **29 July 1928**. The first large diesel engine ship of its kind back then, it was the pride of the Austria fleet and nicknamed "luxury liner".

In **1944** the German navy confiscated the ship and used it as a test vessel for torpedo launches. After the war, it was confiscated by the French occupying forces and further used for torpedo tests.

Plundered and unable to sail, the Österreich was moved back to Bregenz in **1948**.

After that, the war relic was restored. Attended by President Dr Theodor Körner, it started its second maiden voyage on **25 July 1953**.

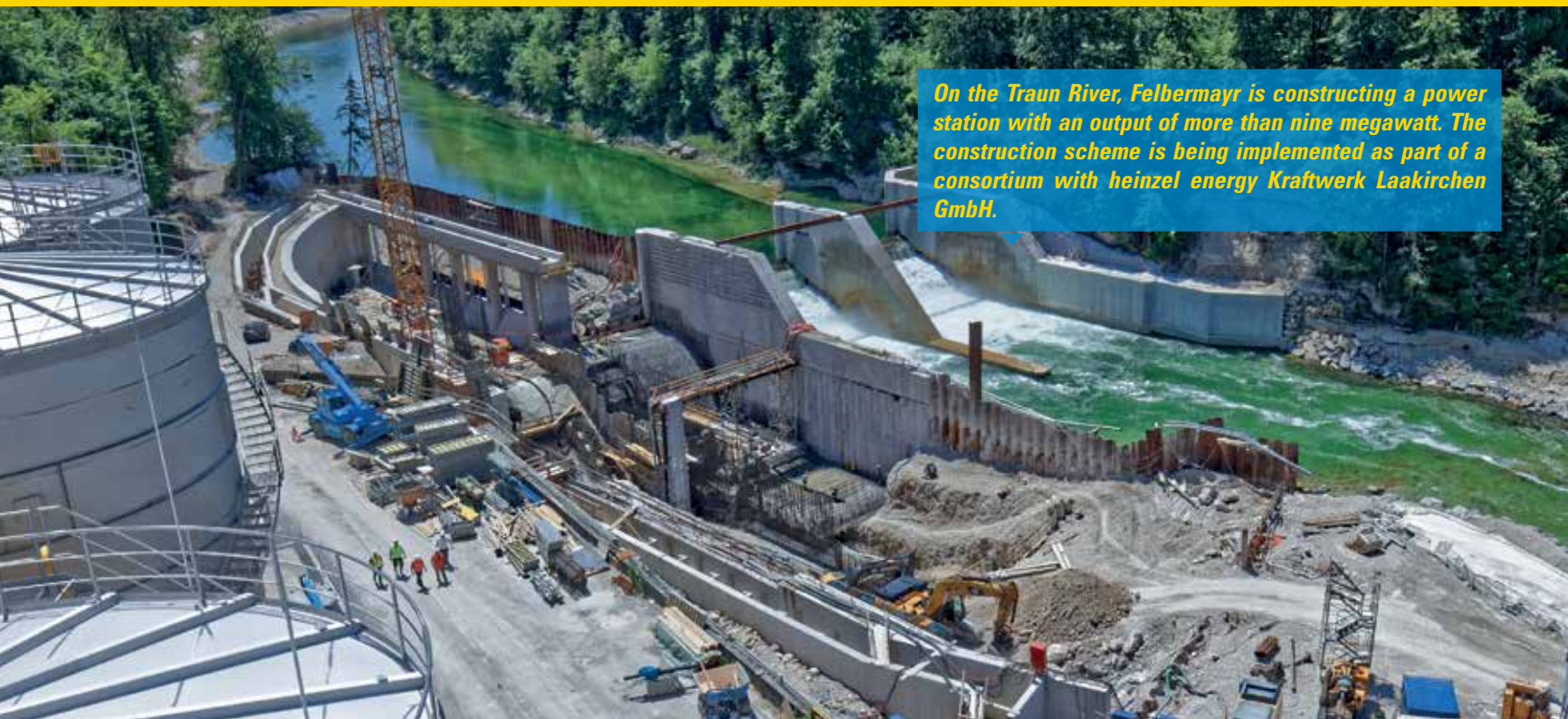
By **2009** the Österreich had once again become unable to sail and it was put out of service.



In **2015** Verein Freundeskreis Motorschiff Österreich e. V. Hard was able to acquire the boat.

In August **2016** the volunteer association started restoring it.

90 years after its first launch, the boat is supposed to be launched once again in its original state in **2018** – serving as a floating museum in Art Deco style, a style characterised by clear shapes that peaked in the 1920s.



On the Traun River, Felbermayr is constructing a power station with an output of more than nine megawatt. The construction scheme is being implemented as part of a consortium with heinzel energy Kraftwerk Laakirchen GmbH.

Power station construction on the Traun River

Construction of the replacement of the Danzermühl Traun River power station in Laakirchen (A) will take more than two years. Work on the project built by a civil engineering consortium got underway in March of 2017. Additionally to the economic advantages, the new construction also has advantages for the environment. The client is heinzel energy Kraftwerk Laakirchen GmbH.

We are bang on schedule," says Felbermayr's Area Manager Volker Brand. As a construction engineer, he is mostly responsible for the power station project's technical matters. Thus, he is proud of the fact that construction work is advancing on schedule despite geological difficulties.

Construction progress on schedule

Demolition work on the existing barrage has started in spring of 2017. The new weir system was built subsequently. The latter was completed as planned in late 2017. Recess work on the Traun River's downstream from the power station (to raise its drop height) as well as concrete work on the fish ladder were completed in the winter months. Enclosure work for the power house's construction was also completed already. "We are currently working

on completing the concrete work on the scour and concreting at the power house is done simultaneously," Brand says. Steel hydraulics construction work is completed in stages in coordination with the concreting phases. The screen system at the power house inlet, for instance, was installed recently. "We plan to install the turbines at the end of the year," says Brand, stressing yet another milestone of the power station construction project. Water is supposed to flow through the inlet channel and into the turbines for the first time in spring of 2019. The station is scheduled for completion and commissioning in summer of 2019.

Benefits of the new replacement construction

The decision to replace the 130-year-old power station was preceded by extensive investigations in order to ensure

that it represented the current state of the art in both ecological and economic terms. To increase the drop height, for instance, the Kohlwehr barrage further downstream was demolished. This results in a 2.5-fold increase in electricity production and an extension of the Traun River's flow length. This yields significant benefits for the river which carries crystal-clear water from the mountains of the Salzkammergut region which, in turn, benefits fish and other small organisms. Furthermore, a fish ladder in vertical slot design allows the aquatic creatures to pass the Traun River power station without being harmed. Economically, the increased utilisation of the available water allows for a possible annual power generation of some 45 gigawatt hours. This roughly corresponds to the annual power demand of 10,000 households.

Construction work for Wels - Passau high-performance route

Work on the modernisation of the Upper Austrian railway system between Wels and Passau are supposed to be mostly completed by 2021. The conversion of the Wernstein train station including comprehensive improvements to the traffic ways represents the last milestone. Felbermayr's Infrastructure Construction Department is significantly involved in the work increasing traffic safety and railway passenger comfort.

The construction site in Wernstein am Inn encompasses some two kilometres of railway tracks. "For this project, we will move a total of 70,000 cubic metres of material," says Construction Manager Alois Lüftinger about the job which has commenced in December 2017 in cooperation with a consortium partner.

Construction during ongoing operations

"This construction job was made even more difficult by the fact that railway operations had to be kept running. "For instance, we installed provisional bridges supported by jetcrete and micro piles. Rock and material removal for the underpasses can thus be performed underneath," Lüftinger explains. These subsections were executed using

hydro chisels and blasting. The modernisation of the railway section also included the widening of the railway embankment as the tracks were located too close to one another in the two-way traffic area. The suction effect created by the high-speed trains would be too high, Lüftinger reports and adds that substructure work was also necessary for the track facilities and platforms. Additionally, a canal with a diameter of 1.5 metres and a length of 300 metres has to be built too. Riprap and preload filling for the diversion of the new country road were also included in Felbermayr's Infrastructure Construction Department's scope of services.

More railway traffic safety

"Essentially, construction work is divided into four stages," Lüftinger explains.

A new underpass is constructed south of Wernstein, the train station is comprehensively converted with the goal of making it barrier-free and the country road in the area of the so-called Lindenschach Valley is redirected to guide traffic under the railway route. Additionally, a double-tier culvert is being built. On the one hand, there will be a pedestrian underpass and on the other, a stream will be guided underneath. On top of that, there will be another culvert for pedestrians and bicycle riders which means that three railway crossings can be removed. This makes the traffic ways safer, waiting times at the crossings become a thing of the past and the efficiency of railway traffic is markedly increased. Completion is scheduled for 2021. ■



A work platform's CV

In July, the so-called T 900 HF made Felbermayr's sky blue fleet the world's first to feature a highlight in terms of height access technology. The following report provides information on the background behind this new development with a work height of 90 metres.

Before attempting to develop such a device, one must be sure that it is economically feasible, of course," says Dr. Nico Krekeler with platform manufacturer Ruthmann from North Rhine-Westphalia who developed the boom lift with a work height of 90 metres and a side reach of 42 metres. On the one hand, studies help to determine the market potential, but on the other hand, discussions with rental companies are indispensable.

of more than 100 metres," says the Head of Felbermayr's Platform Department based in Lanzendorf close to Vienna, Thomas Daxelmüller. What they were missing was a device with a much larger lateral reach that would allow them to, for instance, bridge construction pits. But also overcoming interfering edges at height was an important input by Daxelmüller that was incorporated into the new boom lift's development.



Thanks to "multi edge beam technology", the cantilevers maintain their stability while wall thicknesses can be reduced.

Technical development

More power at equal weight: That was the challenge the platform manufacturer's developing engineers in Germany's North-West wanted to solve. Dr. Krekeler: "To achieve this, we used our proven multi-edged beam technology. This makes it possible to reduce the telescope booms' wall thicknesses while achieving the same stiffness." This simultaneously allows for a significant weight loss. An important prerequisite to be able to mount the platform system on a standard 5-axle lorry chassis with a permissible laden weight of 48 tonnes. The team also used the multi edge beam technology to answer the call for more lateral reach to maintain the cantilever's stability despite the reduced weight. A "quantum leap", according to Dr. Krekeler, is the "Dynamic Reach System" or DRS. This patented system was first used in the T 900 HF and offers higher reach through real-time on-board calculation. Compared to other devices in this performance class currently available on the market, this increases the reach by ten metres. All in all, more than 1.5 years of development were required to bring the T 900 HF to series maturity. Daxelmüller is convinced that "it will be a success" and already has concrete rental orders in his backlog.



The platform system was mounted on a standard Scania chassis.

Only this makes it possible to evaluate the requirements of the platform users and to implement them in relation to the technical feasibility, says Dr. Krekeler, who developed the machine with a team of some 40 engineers, technicians and programmers as well as a hydraulics department.

What does the market need?

"We had already been equipped really well with our some 2600 platforms which allow us to reach working heights

Adding to this is the possibility to reduce the working platform's weight to under 48 tonnes. "This avoids time-consuming permit processes and support vehicles," argues Daxelmüller, adding that this also makes the device more flexible. Which, in turn, increases its usage rate.



RETIREMENTS

Well-earned retirement

A big thank you and much appreciation to those employees who retired recently.

Horst Aerts – Port Logistics/Haeger & Schmidt Logistics/Duisburg · **Hubert Auer** – Platforms/Linz · **Miroslav Bijelic** – MTA/Wels · **Franz Brunbauer** – Installation/Linz · **Ilija Gavran** – Tiefbau/Wels · **Günther Kaiser** – Waste Management/Wels · **Johann König** – Civil Engineering/Wels · **Klaus Müller** – Cranes/Wels · **Elek Nemeth** – Heavy Assembly/Bau-Trans/Lauterach · **Theodor Ne-splak** – Landfill Construction/Hagn Umwelt-technik/Sulzemoos · **Dietmar Pilz** – Cranes/Bau-Trans/Lauterach · **Leopold Pleiner** –

Building Construction/Wels · **Slavko Rakic** – Heavy Assembly/Wels · **Luka Rogic** – Fleet/Linz · **Reinhold Sahl** – Port Logistics/Haeger & Schmidt Logistics/Duisburg · **Walter Sal-zer** – Façades/Sareno · **Michael Schuster** – Port Logistics/Haeger & Schmidt Logistics/Duisburg · **Franz Sonnleitner** – Civil Engi-neering and Building Construction/IS Baube-trieb/Linz · **Friedrich Stöckelmayer** – MTA/Wels · **Franz Stöttinger** – Cranes/Wels · **Manfred Unterberger** – Harbour Transship-ment/Linz · **Klaus-Peter Vogel** – Assembly/Wimmer Maschinentransporte/Sulzemoos · **Marek Wilczek** – Heavy Haulage/Wroclaw · **Franz Winkler** – Heavy Haulage/Wels · **Man-fred Wirges** – Ship Management/Haeger & Schmidt Logistics/Duisburg · **Stanislaw Ziemianek** – Façades/Sareno/Ulrichsberg.



SNOWBOARD

Meringer at Junior World Championships in New Zealand



Jacob Meringer will be one of the contenders at the Snowboard Junior World Championships in early September in New Zealand. The 17-year-old snowboard prodigy has been supported by Felbermayr for two years as a sponsor and has already won many national and international events. Being chosen to represent his country at the World Championships by the Austrian Ski Association marks another milestone for the Graz-based athlete.

CUSTOMER ORIENTED

New Sales Manager for Felbermayr Transport and Lifting Technology

To further boost its sales activities, Clemens Felbermayr was charged with the firm's sales management earlier on this year. Felbermayr has been with the company since 2002 and, after completing his commercial apprenticeship, has been working successfully in project develop-ment and heavy haulage scheduling. Fur-thermore, the 33-year-old has successfull-y supported the company's Key Account Management Department. We wish Mr Felbermayr all the best in his new role.

PRIZE QUESTION READ AND WIN

Prize question:

Which Felbermayr subsidi-ary has lifted the "MS Ös-terreich" onto the Fußach (A) shipyard's slipway in April?

You can find the answer in this issue. From all those sending in the correct answer, we draw 15 winners who will receive non-cash prizes. Please send the correct answer to

us via e-mail to informer@felbermayr.cc or fax to +43 7242 695-144. The entry deadline is October 31, 2018. All decisions are final and not subject to legal appeal.



1. prize:
A Volvo FH Heavy Haulage ZGM with Goldhofer 3/5-axle flat-bed trailer
Scale 1 : 50.

Media owner and publisher: Felbermayr Holding GmbH · Machstraße 7 · A-4600 Wels · Tel.: +43 7242 695-0 · www.felbermayr.cc
e-mail: office@felbermayr.cc · **Responsible for the content:** Horst Felbermayr · **Editorial work and concept:** Markus Lackner
Layout: Markus Weickinger · **Free subscription:** You have not yet subscribed to the »INFORMER«? You would like to receive it entirely free of charge twice a year and have it delivered directly to your door or would like to order it for someone else? Go to www.felbermayr.cc/informer
For the sake of linguistic simplification, all statements in this document are to be understood as gender neutral. · **Printed in:** July 2018 · All information is supplied without guarantee and subject to change as well as setting and printing errors.

Data protection information: If you receive this publication unsolicited and personalised, this means that we have identified you as an interest-ed party on the basis of your professional activity. Data processing is carried out on the basis of our data protection declaration. This is available under the following link: www.felbermayr.cc/de/datenschutz. Should you no longer require your free subscription, you can cancel it at the next possible date: Felbermayr Holding GmbH · Machstraße 7 · A-4600 Wels · E-mail: informer@felbermayr.cc · Telephone no.: +43 7242 695-0

SCHWARZMÜLLER
INTELLIGENTE FAHRZEUGE



Passt auf alle Fälle.

Auf Schwarz Müller Tieflader passt einfach alles. Denn mit mehr als 25 Ausstattungsoptionen haben wir für jeden Einsatz das passende Fahrzeug. Und wenn das noch nicht reicht, bauen wir nach individuellen Vorgaben. Damit Ihr Tieflader exakt auf Sie zugeschnitten ist.

www.schwarzmueller.com

ENERGIZE YOUR PERFORMANCE*

PULSEO
GENERATION

- Elektrisch
- Leise
- Für jedes Gelände

HA20, die erste Elektro-Hebebühne der Generation PULSEO, bewegt sich leise, im Innen- und Außeneinsatz, auch in schwierigem Gelände und mit Rücksicht auf die Umwelt.

www.pulseo-generation.com

*Steigern Sie Ihre Leistung

Das Haulotte Verkaufsteam freut sich auf Ihre Anfragen und Wünsche:

 Verkaufsleitung Thomas Dohmen Tel. +49 171 8713630	 Verkauf Nord/Ost Jörg Niederhofer Tel. +49 170 7956650
 Verkauf Mitte Neu ab 2018	 Verkauf Süd Sven Willmann Tel. +49 151 52867961

haulotte.de

Haulotte
EQUIPMENT

HAULOTTE HUBARBEITSBÜHNEN GMBH, Ehrenkirchener Straße 2, 79427 Eschbach, Deutschland
Tel.: +49 7934 5067-0 - Fax: +49 7634 5067-119 - info-gmbh@haulotte.com

COMPACT EFFICIENT VERSATILE MANITOU



MT 420 H
New Buggy

Discover the MT 420. With a width of only 1.49 meters it offers compactness and efficiency at the same time.

Its lifting height of 4.30 meters and lifting capacity of up to two tons makes it a real all-round talent at every construction site.

www.manitou.com

MANITOU
HANDLING YOUR WORLD