INFORMER

THE FELBERMAYR GROUP MAGAZINE, 2/2019

DUAL
HEAVY TRANSPORT WITH 160 TONNES

ROCKY
ROCKFALL PROTECTION FOR THE DEEPEST GORGE IN THE ALPS

HOME WORK
GROUNDING-BREAKING FOR THE NEW FELBERMAYR COMPANY HEADQUARTERS

To the video

PHOTO: MARKUS LACKNER

Digitalisation

Dear Ladies and Gentlemen,

After many years of uncertainty about a new location for our company headquarters, the decision has been made. The grounding-breaking ceremony took place in Wels-Oberthan in the middle of September. And as you read these lines, the foundation work will already be complete and our new headquarters will be growing in height at the start of the new year.

On the other hand, less growth will bring us business. If we believe the forecast and do not close our eyes to the decline in orders that has already occurred within the industry, then we must prepare ourselves for a phase with suppressed economic growth. But we trust in the markets and will adapt to the requirements of the new general conditions. This also includes an increase in efficiency through the further optimisation of processes. A keyword here is "digitalisation". For example, we are already well on the way towards paperless accounting. In terms of customer satisfaction, we are also working on creating added value for our clients.

But not everything should be or must be digital just because it is modern. In doing so, we want to restrict this to measures that are useful, but also leave no stone unturned when it comes to increasing efficiency through standardised processes. So, we consider digitalisation as a means to an end.

And with our new company headquarters, the use of new technologies is also an area of activity that we are driving forwards with the highest priority through the cost-optimised control of processes.

As a result, we are striving to link the analogue world to the digital world in the context of our customers, employees and suppliers – in the context of networking online and offline, whilst also ensuring that the people are still at the focal point of everything we do in the future too.

With that we would like to wish you a Merry Christmas and a good start to a peaceful New Year. But above all else, health and energy for achieving your goals.

Warm regards,

Horst Felbermayr

Horst Felbermayr

Content

PHOTOS: MARKUS LACKNER, ÖBB |AUSTRIAN FEDERAL RAILWAYS|/LUKAS WILLE, BENESCH, STÖGMÜLLER

LIFT TRUCK LEASING

Austria's largest high-bay warehouse telehandler in action

The telehandler with a 35 metre lift height and a maximum payload of six tonnes, used for the erection of this high-bay warehouse is as unique as the high-bay warehouse itself. It is the most powerful machine currently available in Austria. This rotor-stacker from Magni was delivered in the spring and was used straight away for the erection of one of the highest high-bay warehouse systems in Austria.

In addition, special high-bay scissors lifts with a max. working height of 33 metres were also used for the erection of the high-bay warehouse and were even able to squeeze into the tight aisles.

Incidentally, with a height of 45 metres, the high-bay warehouse in Wels is one of the highest in Austria. Kellner und Kunz, the wholesale dealer for fastening technology from the Reca group, was the customer for the rental contract which also included the mobile cranes used.

POWER STATION CONSTRUCTION

General contractor duties for hydropower

The work for the new construction of the hydropower station at Rittmühlwehr an der Alm in Upper Austria started in March. The general contractor duties such as earthworks, concrete construction and the erection of sheet pile walls were assigned to Felbermayr technical civil engineering. At first 30,000 cubic metres of crushed stone were excavated out of the underwater area of the future power station in order to reach a gross drop height of four metres. 170 tonnes of reinforcement and 1,900 cubic metres of concrete were installed for the actual concrete construction. An approx. 120 metre long fish bypass was created as an ecological measure. In addition, four platforms up to a metre in height were also erected in the underwater area to optimise the flow and to create spawning grounds. The major construction work will be completed in December. With around 500 kilowatts of power, the power station will be able to provide around 650 households with environmentally friendly electrical power once commissioned.

PHOTOS: MARKUS LACKNER

Three bore holes were made to tap into the spring. Each of these ran 200 linear metres horizontally through the rock bringing the drinking water to the surface.

INNOVATIVE

Specialised civil engineering for fresh water power station

In the Tyrolean uplands a fresh water power station is currently being erected by the Obermieming-Untermieming-Fiecht water community to enhance the drinking water supply and to generate electrical power. Rockfall protection fences and safety nets were first erected to safeguard the working area which is at risk of rockfalls. After that, the portal wall for the spring tapping and the spring construction was secured by means of sprayed concrete and rock anchors. The work was finalised for the Felbermayr specialised civil engineering team with the 200 metre deep drilling of the guide bores for the spring tapping. The tapping itself was carried out in October, confirming the calculations from the planners and hydrologists and enabling the water-bearing rock strata to be reached.

BAU-TRANS

Bridge trailer for industrial containers in use

In July, the sister company of Felbermayr transport and lifting technology transported a 105 tonne and 23 metre long feed water tank from Bludenz in Vorarlberg to Nettingsdorf in Upper Austria.

Due to the dimensions involved, the transport was carried out on a so-called bridge trailer. Because of the overall transport length of around 60 metres as well as a width of almost six metres, numerous traffic control measures had to be implemented. Including the tractor unit and the bridge trailer, the transport reached a total weight of 227 tonnes. This resulted in numerous structural calculations being required for bridges.

At the destination, the feed water tank was set down horizontally on the foundation at a height of 25 metres with the help of a 750 tonne telescopic crane (LTM 1750). Lift trucks and lifting platforms from the Felbermayr rental fleet were used for the final installation tasks.

PHOTOS: FST, BAU-TRANS, FOKE

STRUCTURAL ENGINEERING

Revitalising apartment buildings

In August of last year, a project to revitalise twelve apartment buildings from the 80s was started in the Bindermichl-Keferfeld area of Linz. The general contractor duties were carried out by Felbermayr structural engineering on behalf of WAG (residential housing association). The job encompassed the revitalisation of twelve apartment buildings and the expansion of the top floor with a total of 2,500 square metres. This allowed the number of rental apartments to be increased from 116 to 140 residential units. Amongst other measures, the elevator shaft and the stairwell were raised in height in order to meet the modernisation requirements and the needs of contemporary housing. Furthermore, railings and floor coverings on existing balconies were renovated and modernised. The correct disposal of the construction waste arising was fully taken over by Felbermayr waste management. The main work was concluded in October. The first three houses are already occupied. People will be moving into the remaining units over the next few months.

ENVIRONMENTALLY FRIENDLY

"Cleanest" crane commissioned

An "emissions level 5" mobile crane with particle filter has been working at Bau-Trans Liechtenstein for a few months now. The crane from manufacturer Liebherr is an LTM 1060-3.1 and also has a remote radio control system, and the "Variobase®" electronic support monitoring system, making the crane operation also significantly safer. In addition, there is a monitoring camera on the 48 metre long telescopic mast ensuring that there is continuous visual contact with the load.

With the use of this crane, Felbermayr also meets the on-going challenges of environmental protection and the reduction of hazardous substances even on construction sites. For example in Switzerland and in Liechtenstein, construction site machinery with more than 18 kilowatts of power (25 PS) have used particle filters to reduce hazardous substances for more than ten years already due to legal regulations. However, most of these were previously manually retrofitted and are very maintenance intensive in use.

HAEGER & SCHMIDT

Felbermayr subsidiary wins major order and opens sales office in Hamburg

In future, inland shipping will take care of around 1,000 heavy transport operations which until now have left the Liebherr Mining Equipment site in Colmar, France each year by road. Specifically, this represents up to 100 tonnes of heavy components for hydraulic excavators and dump trucks, that from now on will no longer be transported on the roads but rather will be delivered on the Rhine to the ports at Antwerp and Zeebrugge. According to the customer Liebherr, one of the advantages is the reduction of the ecological footprint because inland shipping is significantly more environmentally friendly than road transport.

To utilise synergies Haeger & Schmidt and their parent company Felbermayr wish to intensify their cooperation. To help with this a common sales office was opened in Hamburg at the start of December. The primary goal of this is to further increase the quality of support for customers in the north of Germany. Furthermore, this should also enable an improvement in the costs and environment economy with transport from the north to the south of Europe thanks to better utilisation of the transport capacity.

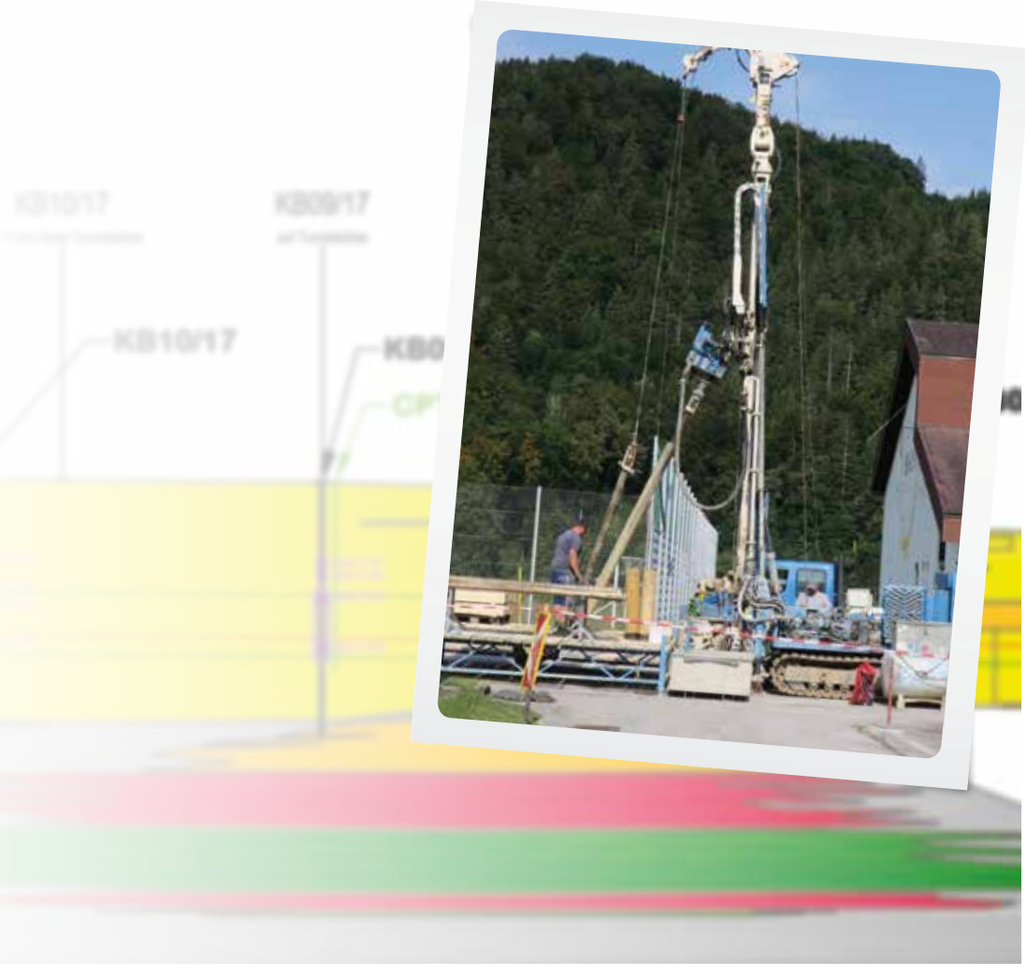
PHOTOS: MARKUS LACKNER, ROGER BECK, HAEGER & SCHMIDT

NETWORK

GT BUSINESS DAYS 2019

Around 1,000 guests came to the annual GT Gerätetechnik event. The "GT Business Days" took place at the start of September at the main Wels site. The two companies GT Gerätetechnik and Felbermayr have been business partners in the machinery rental market for a long time now. Alongside the culinary buffet and good wine, visitors to the event were able to enjoy the end of the communicative first day with musical accompaniment from DJ Franz. The following day started with an informative specialist lecture on the causes of damage by Melanie Fischer from Bilfinger Industrial Service. Then special guests Municipal Leader Andreas Rabl and Andreas Szigmund, Chairman of the Executive Board of Invest AG, carried out the traditional beer-tapping. But even that's not enough. CEO Horst Felbermayr and Thomas Egger, Head of Sales for GT Gerätetechnik, fought it out in an exciting race with Andreas und Maximilian Kofler on Mega Karts and motorbikes. The band "Zöd voi" provided a rhythmic division with which to bring the evening to a pleasant close.

From left to right: The "hosts" Christian Nimmervoll and Gerhard Hunger (GF, GT Gerätetechnik) as well as "petrol-heads" Andreas and Maximilian Kofler, with CEO Horst Felbermayr (Felbermayr Holding) and Thomas Egger (Head of Sales for GT Gerätetechnik)



GEOTECHNICS

Underground investigation for local bypass

To examine the underground situation, Felbermayr's geotechnics department has investigated the potential route for the local bypass in Weyer (Upper Austria). In doing so around 600 linear metres of core samples were taken in total. Some of these individual bore holes reached over 40 metres in depth. Two crawler-type drilling rigs were used for this. The use of these heavy machines required a particularly cautious approach by the specialists as the work was primarily carried out in dense, built-up urban areas.

Furthermore around 200 linear metres of dynamic probing and pressure soundings were carried out to determine the substrate characteristics. The majority of the bore holes were enhanced to become so-called inclinometer measurement stations in order to document future movements in the ground structure. Laboratory testing and geophysical test series were likewise part of the job.

PHOTOS: GT GERÄTETECHNIK, FST

EMPLOYEE CAMPAIGN

"Team of opportunities"

You can find more information on the team of opportunities here:

Due to expansive development and a generally tight labour market, the deficit of specialists has also reached Felbermayr. In order to counter this, an employer branding campaign was started this year. The motto: Team of opportunities. In order to reach future employees using the most varied of media, outdoor advertising, cinema advertising, TV advertising and social media have all been integrated into the campaign.

In doing so, technical and commercial job profiles were communicated.

The "Jugend & Beruf" [trade fair for young people and careers] in Wels at the start of October was also an important point of contact for thousands of potential candidates. Many young people could literally form an image of the training opportunities and the various different careers at Felbermayr whilst there: So, alongside a virtual reality area, a photo booth provided a fascinating insight into the work at Felbermayr, complete with fun-factor.

With the hashtag #teamdermöglichkeiten [team of opportunities] Felbermayr employees could also provide information about their duties in the company and thus provide interesting impressions.

NEW-BUILD

Almbrücke bridge at Hallein lifted in

To lift in a total of six bridge support structures, the Tauern motorway (A10) was closed in both directions at Hallein in the middle of September. To do so, the 72 tonne and 45 metre long steel beams were initially loaded at a pre-assembly station approx. 600 metres away from the construction site and were then transported to the construction site. The loading involved two 200-tonners in tandem operation. Two mobile cranes each with maximum loads of 350 tonnes and with 90 tonnes of ballast, were used to lift in the bridge structure. The lift was carried out at night in order to minimise traffic disruption as much as possible. Two of the 2.2 metre high and 2.3 metre wide structures could be lifted in each night. The elements were set down one after another lengthways on the abutments. The subsequent work on the support structure and surface took two months. After that, the bridge at Villach is to be built anew. The work is part of the project to renovate the Tauern motorway.

PHOTOS: MARKUS LACKNER (2), MARKUS WEICKINGER, MICHAEL GÜTTLER

Rockfall protection for the deepest gorge in the Alps

In a cooperative joint venture, Felbermayr specialised civil engineering is working until the end of October on rockfall protection measures in the Salzburg Liechtensteinklamm gorge. This is necessary because of an approximately 300 tonne rockfall.

The rockfall destroyed large sections of the path system.

Reinforced concrete bars were anchored in the rock to prevent a new rockfall.

Around 200,000 people visited the Liechtensteinklamm gorge each year – until spring 2017 when a rockfall deposited around 300 tonnes of rock in the gorge. In doing so, a portion of the tourist paths was destroyed. Thanks to the energetic, in the most literal sense of the word, actions of workers from Felbermayr specialised civil engineering, the gorge has been cleared again.

Rockfall protection measures

A total of 58 individual measures were established in the gorge, which is up to four kilometres long and up to 300 metres deep. "These included steel nets lying directly against the rock face as well as rockfall protection nets mounted on supports and reinforced concrete bars anchored in the rock, intended to prevent rock material breaking away", explains Felbermayr's construction manager Johann Bugelnig. The material logistics are also difficult. Bugelnig explains further: "We have a large storage area near the gorge, but nonetheless all of the material had to be flown in with the helicopter, starting from the anchors, through the drilling devices and on to the nets and the cement required".

Extraordinary efforts

"Our workers have special alpine training", explains Bugelnig. This is absolutely essential, explains Bugelnig, as some of the heavy work has to be carried out approximately 200 metres up on bare rock and under the most difficult of climate conditions. "The gorge has its own weather system", Bugelnig knows. So "outside" it can be the most beautiful of summer days, whilst rainfall from previous days results in torrents of water running down the rock walls in the gorge for several days afterwards, driving temperatures all the way down. You have to surpass yourself every day, says one of the workers before negotiating the rock wall, doubly-secured, ready to tackle the next work. For the rockfall protection, the rock anchors are manufactured beforehand with the corresponding individual foundations and then the supports can be flown in and fitted to the vertical wall. "In this way, rockfall protection nets with a length totalling 1200 metres and heights of more than five metres, are created", reports Bugelnig.

At the end of October, the majority of the restoration work was completed by Felbermayr. "The six months of work was an on-going battle against time and the forces of nature, and it was a hard battle to win. But, thanks to the good cooperation of everyone involved it was possible in the end", says a delighted Bugelnig. As a result it will be possible to explore the natural treasure of the Liechtensteinklamm gorge again on safeguarded paths from next spring. ■

To the video

A total of around 10,000 square metres of rockfall protection nets were installed by Felbermayr.

PHOTOS: MARKUS LACKNER

Dual transport with obstacles

An industrial column more than 34 metres in length was transported by the Felbermayr project department from Steinhaus near Wels to Gendorf in Bavaria in the middle of October. At 160 tonnes, the weight was also a significant consideration, so that a combination of road and water were the only feasible transport modes. However, feasible is not the same as simple – there were numerous obstacles along the way for the high-tech steel colossus.

I cannot recall having driven through Austria with 24 axle lines", begins Jürgen Steinbrecher from the Felbermayr department, starting out with the task. As the project engineer in the so-called THP department, almost all of the difficult projects of the last twenty years have crossed his desk, before being put into practice. "And practice is also often the problem", Steinbrecher knows. And that was the case this time too. After a preparation period of three quarters of a year everything seemed clear: The route was measured, static calculations for bridges were implemented, the use of the cranes to transship the industrial column was coordinated and all of the traffic diversions had been synchronised in time. But then with the over 55 metre long transport and the pull and push tractor system already parked and ready to leave the shipper's site, suddenly another construction site appeared on the first leg of the route between Steinhaus near Wels and the Felbermayr heavy lift terminal in Linz. Only a very small window of opportunity was available in order to minimise the disruption to private traffic. With a transport width of 4.4 metres things can become tight very quickly and it can take a long time, too long, to rectify the problem. "Luckily we have always been able to find practical solutions with the help of Asfinag (Austrian publicly owned corporation for the country's highways and motorways), and it was the same again this time", says Steinbrecher, even though huge efforts would be required to overcome this type of hurdle considering the complete logistics chain and the challenges associated with this.

Under way on ship and road

"Because of the reactor weight of 160 tonnes and a few inclines with around ten percent gradient, we decided to use a pull and push tractor system", reports Steinbrecher. For the best possible traction, the two ca. 600 hp HGVs were each ballasted to 35 tonnes. "If the roads had been wet, we would have had to have employed a further push tractor", continues Steinbrecher. The first leg from Steinhaus near Wels to the Felbermayr heavy lift terminal in Linz was largely covered by motorway. However, cherry pickers, ladders and elevated work platforms were constant companions for the retinue in order to be able to check clearance profiles under bridges and to be able to drive underneath power lines safely.

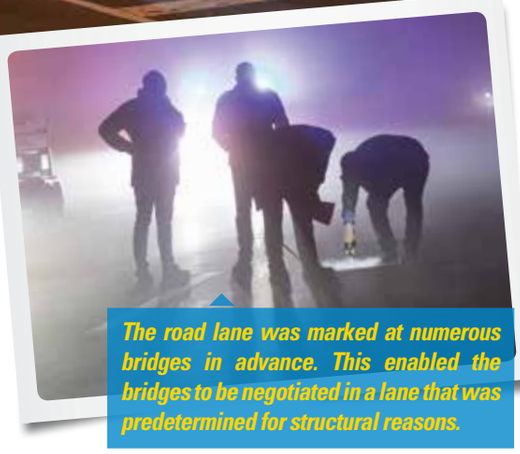
PHOTOS: MARKUS LACKNER

The transport often had to be "broken" in order to overcome hairpin bends. This involves a 180 degree change of direction whereby the pulling unit becomes the pushing unit.

Arriving in Linz, the reactor was transshipped from the 24-axle low loader to a barge. The transport continued approximately ninety kilometres upstream to Passau (D).

For the ship journey to Passau, the container was transshipped in the Felbermayr heavy lift terminal in Linz.

There the container was transshipped with a port crane and a 500 tonne crane from the ship to the low loader which in the meantime had been reduced to twenty axles. "The reduction of the axles was possible in Germany due to static conditions", explains Steinbrecher adding that this also simplified the continuing progress due to a reduced curve radius. Nonetheless the measures required for the remaining 80 kilometres from Passau to the destination in Gendorf were still considerable. In many places, steel plates had to be laid in order to protect underground pipelines and road verges, rail tracks had to be crossed, signs removed, stopping restrictions established and about a dozen times the transport entourage was interrupted as planned, which was the equivalent of a change of direction for the transport, as otherwise it would no longer have been possible to continue. Finally, it reached the destination of Gendorf in Bavaria within the planned period of just seven transport days. In the meantime 250 kilometres have been covered with numerous individual decisions that we were able to master together thanks to an experienced team of around 20 workers and other cooperating companies.



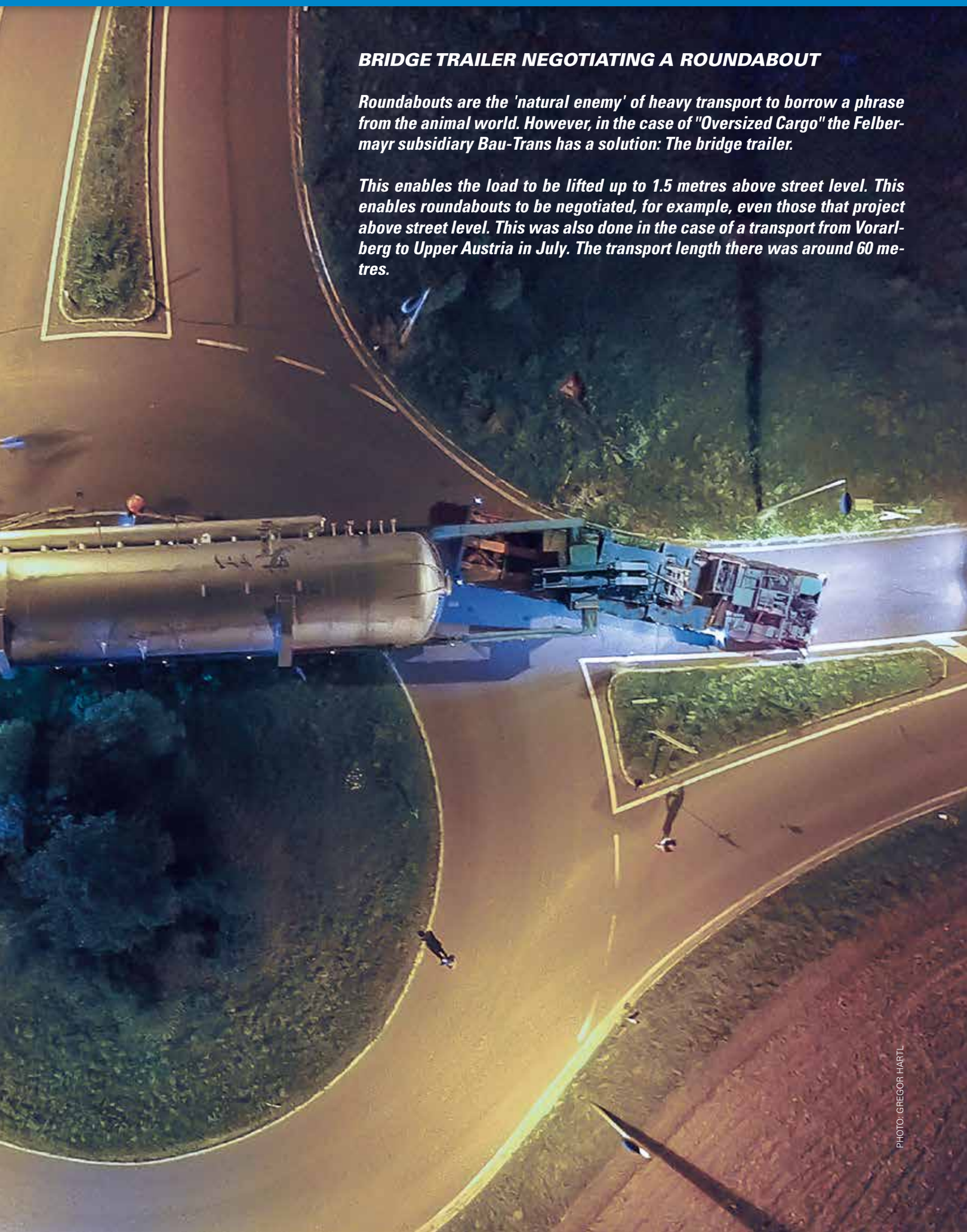
The road lane was marked at numerous bridges in advance. This enabled the bridges to be negotiated in a lane that was predetermined for structural reasons.

The grand finale - the installation on the foundations of the approximately 34 metre long container with a diameter of around four metres, with the use of two Felbermayr cranes, made by Liebherr, with 750 and 400 tonnes maximum load respectively. ■

In the port at Passau the 34 metre long cargo was carefully "re-bedded" with port cranes and a 500-tonner.

To the gallery

FELBERMAYR®



BRIDGE TRAILER NEGOTIATING A ROUNDABOUT

Roundabouts are the 'natural enemy' of heavy transport to borrow a phrase from the animal world. However, in the case of "Oversized Cargo" the Felbermayr subsidiary Bau-Trans has a solution: The bridge trailer.

This enables the load to be lifted up to 1.5 metres above street level. This enables roundabouts to be negotiated, for example, even those that project above street level. This was also done in the case of a transport from Vorarlberg to Upper Austria in July. The transport length there was around 60 metres.

PHOTO: GREGOR HARTL

Drinking water pipeline renovated in "record time"

The approximately four kilometre long drinking water pipeline between the districts of Schwaighof and Hof in the Wagrain municipality, had become outdated. Renovation was required – in the frost-free period between May and October. The workers from the Felbermayr Spittal an der Drau branch took on the challenge and were able to report that the construction work was complete a full four weeks ahead of schedule.

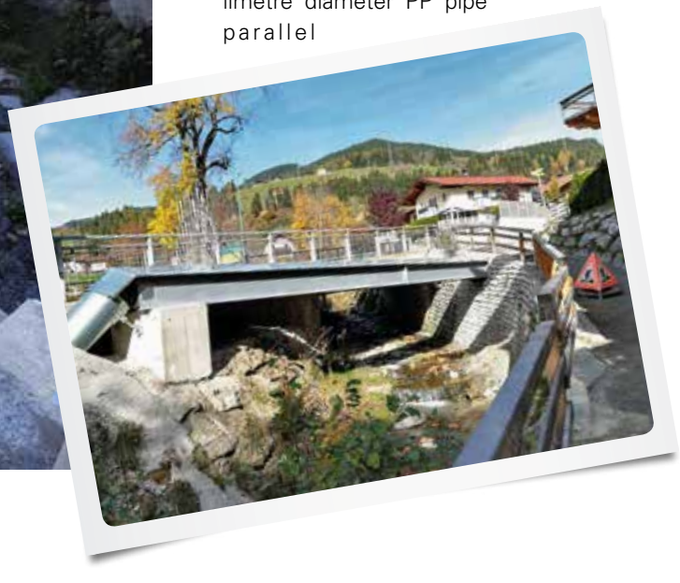
We dreaded the winter", says Ferdinand Wirnsberger, Branch Manager in Spittal an der Drau. This was part of the reason why he felt that it would be difficult to coordinate the water, the earthworks and the threatening frost around the construction site. But thanks to the skilled workers and a unified effort, the renovation of around four kilometres of drinking water pipeline from Schwaighof to Hof and an approximately 400 metre long supply line at the Marbach springs (DN 300/DN 400 cast pipe) between the spring collection shaft and the main spring collection shaft, was accomplished despite this being hard to imagine within the tight time constraints.

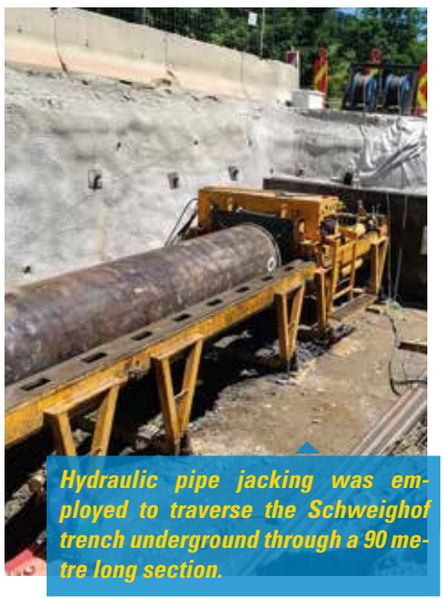
A pipe bridge was created to allow the water pipeline to cross the Peinbach river in Wagrain.

Cast pipe instead of plastic

It was around 40 years ago that the PVC pipe was laid between the towns of Schwaighof and Hof for the drinking water supply. In addition to the service life, the plastic tubing was also subjected to an exposed alpine terrain, making replacement necessary. "We confident that we will be able to achieve a longer service life with the cast pipes now being installed", says Wirnsberger explaining that the pipes laid on behalf of the Upper Enns water association have a connection with very high compressive and tensile strength.

The laying of the five metre long pipe with a diameter of forty centimetres was partially carried out in difficult terrain. In addition, it was also necessary to negotiate a bridge and use pipe jacking to traverse the so-called Schwaighof trench below ground level. "To negotiate the bridge we initially erected a steel structure with a 630 millimetre diameter PP pipe parallel to the existing bridge", explains Wirnsberger. Then a water pipe with a diameter of 400 millimetres was slid through this. After that the annular gap was filled with foam for insulation.





Hydraulic pipe jacking was employed to traverse the Schweighof trench underground through a 90 metre long section.

Then the underground experts had to take over for the negotiation of the Schwaighof trench as it was to be traversed underground rather than overground. "This trench is used to drain flood run-off and will be further developed in the near future with torrent and avalanche barriers", reports Wirnsberger. This was also the reason why we had to cross the trench 1.5 metres below its base. "This was only possible with the use of a hydraulic pipe jacking system", says Wirnsberger explaining that initially a six metre long pipe with a diameter of eighty centimetres was driven through a distance of ninety metres underground, little-by-little welded and advanced through the soil displaced by a screw conveyor up to the surface.

PHOTOS: FELBERMAYR

In the course of the pipeline renovation, the pipes from the Marbach source to the distribution shaft were also renewed. The use of cast pipes and a reinforced pipe guide should also provide long-term protection from environmental influences.

A slide valve and a drainage line had to be installed in the existing line during the operation in order to allow subsequent maintenance work.

Only once this was done, could the actual water-bearing cast pipe be introduced on skids. The rest was routine – or rather: Pipeline construction site, with logistics challenges due to the lack of available space, starting with excavation work and finishing with asphalting works all along a busy main road.

The three from the construction site: Construction manager Ferdinand Wirnsberger (centre) with the foremen Mark Wieland (left) and Manuel Lindner.

Marbach spring

A further portion that had to be renovated was just 400 metres long, from the Marbach spring to the distribution shaft for the municipalities of Flachau, Sankt Johann im Pongau and Eben im Pongau. Nonetheless, it took from September to November to make this section fit for the future. One of the reasons for this was the approximately 130 litres of water flowing through this every second and the associated diligence and necessary heavy equipment: "We had to prepare around 1,000 cubic metres of material to create the stonework to protect the new pipe", explains Wirnsberger. Because of the topographical conditions with inclines of up to thirty percent, an excavator with a thirty tonne working weight was used for this. Because the excavation work was carried out in the immediate vicinity of the existing drinking water supply for the approx. 16,000 residents of the municipalities of Flachau, Sankt Johann im Pongau and Eben im Pongau, it was "delicate work" according to Wirnsberger. ■

The crane had to drive several metres with the load suspended during the bridge exchange.

PHOTO: ÖBB / LUKAS WILLE

235 tonne bridge lifted

It was "new" for "old" at the end of August in the Gailtal valley near Arnoldstein. In doing so a 124 year old railway bridge was replaced with a new one. A crawler crane from Felbermayr crane hire was used for the sensational lift.

The work of the Austrian federal railway (ÖBB) modernising the Gailtal valley railway will continue until the middle of December. In addition to the electrification of the line and the adaptation of the infrastructure, the Gail bridge will also be renewed. This was necessary as it would otherwise be impossible to install the overhead lines. The ÖBB have also stated that there is also no space for a walkway to carry out maintenance work. So, the replacement of the bridge was inevitable. However, the hydrology of the Gail does not permit any structural measures on the river bed and so the new bridge must span the river freely suspended, just as the old one did. This is only possible with a corresponding steel structure and requires the use of a large crane to lift it into place.

Steel colossus for bridge lift

47 HGV transports were required to bring the crawler crane, with its 790 tonnes working weight, to the construction site in the Carinthian Gailtal valley. "An erection crane with a maximum payload of 220 tonnes from the Graz branch was used to assemble the crane with its 750 tonne lifting power" explains Michael Lehner from the Felbermayr project department. The assembly process took just three days until the steel colossus was ready for the lift with its 56 metre long main jib and a total of 515 tonnes of ballast. First, the 190 tonne old bridge was lifted out as a single piece. "In order to be able to do this with just one crane, a 15 metre long crossbeam was required", explains Lehner, adding that the bridge was attached to the crossbeam at four defined points. This was the only way that it was possible to lift out the steel relic from the age of the Austro-Hungarian monarchy safely and without any swinging motions, and then to set it down on a pre-prepared manipulation area after a 90 degree turn of the crane jib. This was achieved with a 32 metre crane job radius. To make this possible, a ballast car with 300 tonnes was suspended by means of a derrick jib in addition to a slewing platform ballast of 170 tonnes.

235 tonnes on the hook

The new bridge was delivered in four parts. The 220 tonne crane was used to pre-assemble the bridge. The new railway crossing has been designed as a steel framework bridge, just as the old one was, however with a length of 50 metres it is twelve metres shorter than the old bridge, but at 235 tonnes it is 84 tonnes heavier. The higher weight results from the width of seven metres and the solid construction which has also been designed for higher speeds. The old bridge was just five metres wide. It is also worth noting that the lift had to be carried out under the most difficult space conditions. In addition, the bridge exchange had to be carried out in just one day in order to ensure that railway operations were disrupted as little as possible, reports Lehner, delighted that the bridge was finally able to be set down on the abutments within the planned time and with millimetre accuracy. ■

When setting down on the abutments the crane and the crane operator work with millimetre accuracy.

To the video

Felbermayr Divisional Manager Volker Brand heads up the construction site.

The approximately 36 metre long enclosure should make the access to the Malta storage power plant safer in the future.

High mountain construction site for avalanche gallery

At the start of August Felbermayr technical civil engineering started with the erection of an avalanche gallery at the eastern portal for the pumped-storage power plant in Reißeck in Carinthia. The construction project was required as result of numerous avalanches.

The approximately three kilometre long tunnel can be reached via the road to the Reißeck elevated lake plateau and serves as access to the Reißeck pumped-storage power plant. There are regular avalanches at the so-called lower east tunnel portal for the main tunnel. In the interests of safety the customer, the Hydro Power association, decided to increase the safety of the portal.

Construction site at 2300 metres above sea level

"We are working at an altitude of around 2300 metres above sea level", remarks the Felbermayr Divisional Manager responsible Volker Brand. This also explains the difficulty of the construction project. So, there was a requirement for special solutions to bring in the construction machinery. For example, the heavy machinery had to be transported to the construction site with a special low loader as otherwise the access tunnel would not have been passable.

The logistics for the construction materials were also impressive. So, around seventy tonnes of steel and 700 cubic metres of concrete were prepared for the erection of the approximately 36 metre long avalanche gallery and the half-metre thick, reinforced concrete roadway, reports Brand, adding that a total of ca. 200 HGV transports were required to provision the construction site.

Even the work itself was something quite out of the ordinary. Around 400 cubic metres of rock were removed with the hydraulic chisel, in order to create the space for the avalanche gallery construction on the side of the mountain. "This material was prepared on site and was then used to backfill the construction once the concrete works were complete", reports Brand. A total of approximately 1200 square metres of formwork were installed. The avalanche gallery is approximately 36 metres long and has a clearance height of five metres and a width of five metres. As such it can be considered an extension of the so-called lower main tunnel. The work will be completed in mid November, so in good time for the onset of winter. In addition to this, 400 linear metres of steel snow bridges, with heights of up to four metres, will be erected at the western portal. Felbermayr will be on site with the specialised civil engineering division for this. ■

The tunnel portal is often threatened by avalanches.

PHOTOS: MARKUS LACKNER, VOLKER BRAND (2)

Heavy goods logistics for clean energy

Another significant step has been taken towards the use of renewable energy with the completion of the Edmundshof wind farm in the Burgenland. Felbermayr transport and lifting technology were tasked with the heavy goods logistics for the 16 systems. The order was completed at the end of April.

Currently around 150 percent of the annual electrical power demand in the Burgenland is covered through renewable energy. A significant portion of this is accounted for by wind power. Photovoltaic systems and biomass also contribute to a lesser extent. This energy balance will be further improved with the 16 new wind turbines in the Edmundshof wind farm.

230 transports for 16 systems

"As early as January we had already started with the project planning for this comprehensive order" says Patrick Pühringer from Felbermayr's special transport department. Then at the end of April the first transport rolled out of the departure points in Denmark, Germany and Czech to head for Edmundshof. "Everything was delivered 'just-in-time' direct to the construction site", reveals Pühringer noting that this would be around 230 transports. Alongside standard equipment such as platform trailers and low-bed transporters, lift tower adapters and telestep trailers were also used for the wind turbines. The 62 metre long blades were transported with so-called superwing carriers, reports Pühringer adding that these blades are around four metres wide and three metres high. With these transporters, the blade weight of around 15 tonnes is borne by three axles as well as by the so-called offset on the tractor end. The machine housing was the heaviest component to be transported with a weight of 72 tonnes.

Giant crane with 1000 tonnes of lifting force

Four crawler cranes from Liebherr were used for the assembly of the systems – two LR 1750s as well as the heaviest crane in the Felbermayr fleet, an LR 11000 with a maximum load of 1000 tonnes. This powerhouse was used for the larger systems with a hub height of 149 metres. It was equipped with a 156 metre long main jib and twelve metre long tip for this. The two LR 1750s took care of the smaller systems with their classical wind farm equipment - a 147 metre long main jib and a six metre long mast tip. The fourth large crane, an LR 1600, was used for the pre-assembly work. All in all, around 180 heavy lifts were required for the assembly of the 16 systems. The order was completed at the end of June, after just three months of construction time. The wind farm opened in September. Thanks to the 16 systems, environmentally friendly electrical power can be harvested for around 36,000 homes. ■

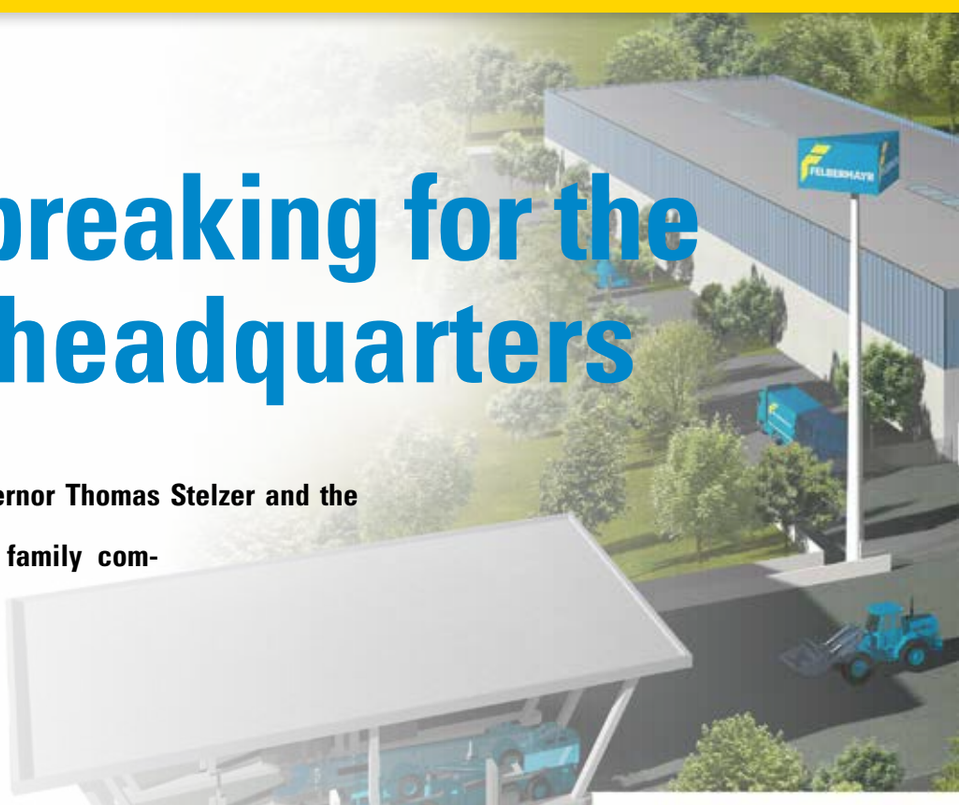
To the video

The wind vanes were mounted at a height of 149 metres thanks to the 156 metre jib length and twelve metre long tip of the LR 11000.

The 62 metre long blades were transported with "Superwing carriers".

PHOTOS: GÜNTER BRANDSTETTER

Grounding-breaking for the new group headquarters



Together with the Upper Austrian State Governor Thomas Stelzer and the Municipal Leader Andreas Rabl, the Wels family company Felbermayr celebrated the official ground-breaking for the erection of the new company headquarters in Wels-Oberthan on the 17th of September.

For senior partner and construction client Horst Felbermayr, the ground-breaking was the end of many long years of searching for the right location: "We were looking for a long time, had to overcome many hurdles and also make some compromises", says Mr Felbermayr. But now the time has come to look forwards. "Today I am delighted to be able to give the starting signal for future generations", declared the 74-year-old chairman of the board happily.

His eponymous son, CEO of the company group, is also enthusiastic to lead the company into an even more modern future. The new-build should primarily enable internal processes and pathways in the company to be optimised and the communications improved.

The appeal of the new company property will be underscored through having its own employee facilities: An employee restaurant, a fitness area and a childcare facility are planned here. "This will create an ideal working environment for balancing work and family", says group CEO Horst Felbermayr, delighted.

The project in detail

The construction project has a very ambitious schedule. Completion is planned for the second quarter of 2021. With that, Felbermayr will migrate from the current site

To the video

From left to right: Benedikt Linimayr [DI] (authorised company representative, Felbermayr GmbH) | Harald Benesch [Arch. DI] | Stefan Hielle (Managing Director, Felbermayr construction services) | Wolfgang Schellerer (Managing Director, Felbermayr transport and lifting technology) | Thomas Stelzer [LH Mag.] | Mayor Dr. Andreas Rabl | Elisabeth Felbermayr-Schierl [MBA] (authorised company representative, Felbermayr GmbH) | Horst Felbermayr (CEO and Chairman of the Supervisory Board) | Horst Felbermayr [DI] (Managing Director, Felbermayr Holding)

PHOTOS: ROLAND PELZL

In the spring of 2021, the new company headquarters should be ready to move in after just one and a half years of construction time.

The entrepreneurial Felbermayr family. From left to right: Andrea Felbermayr (wife of Horst Felbermayr and Managing Director of Felbermayr Holding), Horst Felbermayr (Managing Director of Felbermayr Holding), Horst Felbermayr (Senior Partner and Chairman of the Supervisory Board), Elisabeth Felbermayr-Schierl, (authorised company representative, Felbermayr GmbH), Gisela Felbermayr (Senior Partner and Member of the Supervisory Board)

in the Wels industrial area in the Voralpenstraße to Wels-Oberthan. So, in just one and a half years the new company headquarters should be available for the 700 employees, with 100,000 square metres of space.

The Wels architect's office "benesch, stögmüller architekten" are responsible for the architecture and general planning of the new Felbermayr group headquarters. The concept from the architects was based on three hall structures at right angles to the Voralpenstraße [street] with an administration and social building in front, to the south. The central workshop with an area of 9000 square metres is the heart of the hall complex. Repairs, assembly and conversion work will be carried out here. Vehicles, cranes, special equipment, the building yard, the tyre store and technical aids will be accommodated in the accompanying halls. The built-up area will stretch to 40,000 square metres. An underground garage for approx. 400 cars will provide adequate parking facilities.

Generous green areas in front of and between the administration and the social building will be provided as a peaceful common area and will allow the expansive traffic areas behind it to almost disappear. These outdoor facilities as well as the civil engineering work and the shell construction will be carried out internally by the Felbermayr construction services business unit and the transport and lifting technology business unit. ■

The two architects Harald Benesch and Richard Stögmüller planned the new company headquarters.

According to State Governor Thomas Stelzer it was a great signal for the city that Felbermayr are building here.

For Municipal Leader Andreas Rabl, the ground-breaking was a day of celebration as it meant that Felbermayr was staying in Wels.

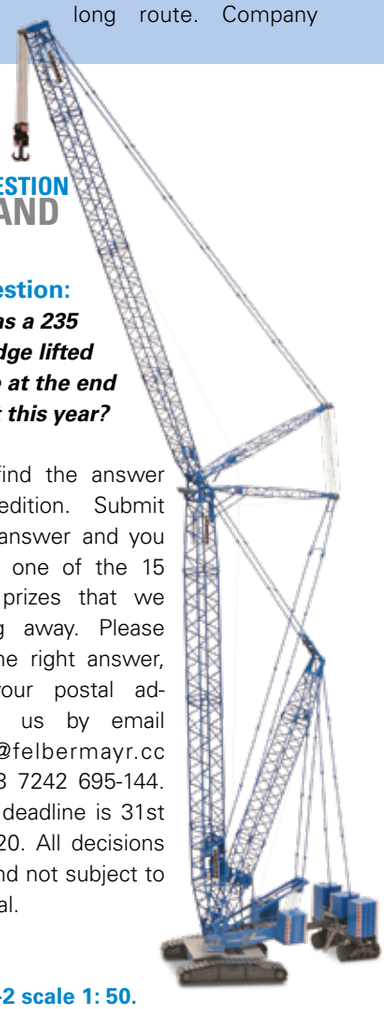
Stephan Rabitsch on the way to second place in the international tour of Upper Austria cycle race.

CYCLING
SEASON SUCCESSFULLY COMPLETED

After around 100 days of racing, the Felbermayr Simplon Wels team can once again look back on a successful racing season. In 2019 the cycling professionals from Wels managed 18 podium places and 16 top-10 places. The team was particularly successful in the Rhone Alpes Isere Tour in France where Matthias Krizek was able to take the wining spot. A further highlight of the year was the winning of the Sprint-Trikos by Matthias Krizek at the Tour of the Alps, the toughest international cycle race in Austria with around 13,600 metres of altitude to be overcome. At the largest local cycling event, the Welser Innenstadtkriterium, Krizek took third place in front of 8,000 enthusiastic spectators. In addition, Florian Kierner took third stage place at the CRO Race 2019. After three consecutive victories at the international tour of Upper Austria cycle race, Rabitsch from the Felbermayr Simplon Wels team was satisfied with second place this year, trailing first by just 13 seconds. Andreas Grossek, head of racing, is convinced that this success was only possible through the ideal cooperation of the light blue racing team.

RAPID
FELBERMAYR RUNNING IN HIGH GEAR

From work clothing straight into sportswear and on to the running track. At the Linz Sparkasse's night run, a Felbermayr team with sport-mad runners proved that force does not come only from machines but rather the power is also in the workers. True to the company motto "Power in motion", all of the participants made it safely and quickly to the finish line of the 5.2 kilometre long route. Company directors Andrea and Horst Felbermayr were there too with starting numbers 1358 and 1359, presenting not just a good example but recording good times too! The night run brought to a close a total of 3 fun runs that the Felbermayr running team currently competes in.



PRIZE QUESTION
READ AND WIN

Prize question:
Where was a 235 tonne bridge lifted into place at the end of August this year?

You can find the answer in this edition. Submit the right answer and you could win one of the 15 non-cash prizes that we are giving away. Please send in the right answer, quoting your postal address, to us by email informer@felbermayr.cc or fax +43 7242 695-144. The entry deadline is 31st March 2020. All decisions are final and not subject to legal appeal.

1st prize:
A LR1750-2 scale 1: 50.

SPONSORING
MERINGER HAS BIG PLANS

Jacob Meringer started the new season full of energy and tackled many new goals – Meringer had never before had so many Europa Cup commitments in his schedule as in this coming season. The sports enthusiast will also be standing at the starting line with his race board outside Europe too, in Georgia, representing the yellow F of his sponsor. Meringer has set his sights on a podium place at the 2020 junior championships. Alongside the Europa Cup, the defence of the national championship title and a possible jump from the C squad to the B squad is planned. This would enable the sportsman to take another step closer to his goal of becoming a professional snowboarder.

PHOTOS: REINHARD EISENBAUER, FELBERMAYR (2), JACOB MERINGER

ANNIVERSARY

MANY THANKS TO OUR LONG-SERVING EMPLOYEES

15 YEARS

Michael Ahlborn – FST Stams · Stephan Beck – Cranes, Thaur · Roland Berger – FST Salzburg · Cazim Besirovic – Klagenfurt · Reiko Beuschold – Wimmer machinery transportation, Krefeld · Raimund Brecher – FST Stams · Martin Burger – Wimmer machinery transportation, Sulzemoos · Erwin Bürgler – FST Stams · Josef Camlek – Cranes, Lanzendorf · Helmut Doriguzzi – FST Stams · Roman Dvořák – Felbermayr Slovakia, Bratislava · Gerhard Eisenmann – Workshop, Wörgl · Thomas Eitzinger – Cranes, Graz · Christian Erhart – FST Stams · Marco Fischermann – Wimmer machinery transportation, Krefeld · Christian Freibott – Hagn environmental technology, Sulzemoos · Florian Gasser – FST Stams · Norbert Glatz – Klagenfurt · Dietmar Haas – Port transshipping, Linz · Manfred Hackl – Cranes, Wels · Daniel Hammerle – FST Stams · Wolfgang Hundstorfer – Workshop, Wels · Heimo Kollegger – Cranes, Graz · Josef Kollross – FST Stams · Sasa Kovacevic – In-situ transport, Lanzendorf · Roland Koziolek – Wimmer machinery transportation, Sulzemoos · Michael Kranebitter – Cranes, Thaur · Djordje Krstic – Cranes, Lanzendorf · Markus Lackner – Marketing, Wels · Juraj Macák – Felbermayr Slovakia, Bratislava · Branko Marceta – MTA Wels · Michael Mair – FST Stams · Puskaric Marijan – Reinhold Meister Hydraulic engineering, Hengersberg · Anton Mayr – Construction, Spittal · Josef Melmer – FST Stams · Gábor Mozsdényi – Bau-Trans, Budapest · Susanne Müller – Platforms, Lanzendorf · Csaba Musicz – Transport, Lanzendorf · Helmut Öhlinger – Heavy transport, Wels · Steve Pfaffner – Installations, Bau-Trans, Lauterach · David Podiwinsky – Cranes, Lanzendorf · Otto Ratzinger – Platforms, Linz · Günter Schauer – MTA Wels · Anton Schell – FST Stams · Helmut Schell – Structural engineering, Wels · Christoph Schöberl – Cranes, Lanzendorf · Kathrin Schörkhuber – Port transshipping, Linz · Engelbert Schuss – FST Stams · Anja Schwab – Projects, Wels · Peter Silbersdorff – Felbermayr Slovakia, Bratislava · Sinisa Sipljanovic – Cranes, Lanzendorf · Mario Tilg – FST Stams · Reinhold Tilg – FST Stams · László Városi – Bau-Trans, Budapest · Milan Vavrinčík – Felbermayr Slovakia, Bratislava · Gerhard Weiskopf – FST Stams · Gerald Windisch – Transport, Lanzendorf · Anja Würflinger – Cranes, Lanzendorf · Gerhard Stefan Zarl – Klagenfurt · Evelyn Zinauer – Platforms, Graz

20 YEARS

Michael Altschäffl – Hagn environmental technology, Sulzemoos · Thomas Aufinger – Cranes, Wörgl · Oswald Harald Bauer – Workshop, Wels · Florian Ehmeier – Projects, Wels · Thorsten Friedrich – Hagn environmental technology, Sulzemoos · Reinhard Girnuweit – Wimmer machinery transportation, Sulzemoos · Adam Gombar – Transport, Bau-Trans, Lauterach · Marcel Hubeny – ITB Prague · Heinrich Huber – MTA Wels · Daniela Kirsch – HSW Logistics · Michael Koller – Cranes, Thaur · Markus Miedl – Hagn environmental technology, Sulzemoos · Sándor Náhol – Bau-Trans, Budapest · Hubert Nimmervoll – Cranes, Linz · Dirk Oppermann – Haeger & Schmidt Logistics · Lubomír Pavelka – ITB Prag · Gerda Prechtl – Hagn environmental technology, Sulzemoos · Katharina Rohrhofer – Transport, Lanzendorf · Nikolaus Ruhland – Projects, Wels · Günther Schauberger – Wimmer machinery transportation, Sulzemoos · Michael Sievert – Felbermayr Germany, Krefeld · Christian Wallner – Cranes, Lanzendorf

25 YEARS

Mario Böhm – Haeger & Schmidt Logistics · Marcus Christ – Haeger & Schmidt Logistics · Franke Falk – Reinhold Meister Hydraulic engineering, Hengersberg · Thomas Grabuschnigg – ITB Lanzendorf · Hans Peter Hassler – Haeger & Schmidt Logistics · Günter Hörtenhuber – Waste management, Wels · Martin Humer – Accounting/IT, Wels · Rene Lasthofer – Projects, Wels · Michael Liebezeit – Wimmer machinery transportation, Krefeld · Stanisa Lukic – Workshop, Wels · Siegfried Nothaft – Hagn environmental technology, Sulzemoos · Günther Wimmer – Projects, Wels · Günter Zehetmair – Waste management, Wels · Alfred Zehetner – MTA Wels

30 YEARS

Andrea Bressem – Haeger & Schmidt Logistics · Rita Dimmer – Haeger & Schmidt Logistics · Ingo Joraschkowitz – Haeger & Schmidt Logistics · Michael Kucharski – Haeger & Schmidt Logistics · Wojciech Łuczański – ITB Wroclaw · Iris Radzimski – Haeger & Schmidt Logistics · Günter Rohland – Haeger & Schmidt Logistics

35 YEARS

Petra Beldovics – Cranes, Linz · Bettina Evers – Haeger & Schmidt Logistics

40 YEARS

Lilianna Filipowicz – ITB Wroclaw · Claudia Hütwohl – Haeger & Schmidt Logistics · Ralf Körner – Haeger & Schmidt Logistics · Bernd Koslowski – Haeger & Schmidt Logistics · Thea Santl – Hagn environmental technology, Sulzemoos

55 YEARS

Elfriede Spindler – Hagn environmental technology, Sulzemoos

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