INFORMER

FELBERMAYR GROUP MAGAZINE 1/2015

THREE CHEERS
LARGE COMPONENTS FOR FERTILISER FACTORY

BLACK LABOUR
GANTRY CRANE FOR COAL STORAGE

INNOVATIVE
SEALING FOR SEWAGE SLUDGE DUMP

PHOTOS: STEFAN OLÁH

OPENING:
A PREMIÈRE AT VIENNA'S HEAVY LOAD CENTRE

Regulation frenzy!

INDIVIDUAL RESPONSIBILITY instead of bureaucracy

Dear readers,

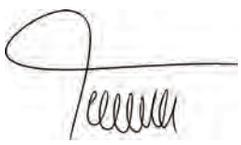
Politicians claim to create jobs and unleash the economy. What really happens is something else: Every day brings new laws and regulations. The result is a corset banning companies and employees from thinking and acting on their on responsibility. Moreover, the solutions and guidelines the politicians put forward are mostly impracticable and destroy painstakingly generated tax money – a fact we ourselves had to painfully experience, for instance in the context of the airport area in Wels. There, exemplary infrastructure including motorway access and railway terminal was constructed a long time in advance. Then, a few „curlews" started blocking the path of the economy that was willing to compromise and prevented economic development in the centre of Wels. For despite the fact that the area had been zoned twice for being used as an industrial building area by the City Politics of Wels, the zoning was overturned by the provincial government.

As a result of such undesirable developments, the state reaches ever deeper in to the pockets of high performers. And when everything else fails, they lure the citizens and business owners that they previously robbed back to the ballot box with government aids and subsidies. This line of action is insulting and discriminates against all top performers and hard-working citizens.

Common sense and logical thinking must regain importance. Bureaucracy, regulation frenzy and „hammock mentality" must be pushed out of the spotlight.

Let's work together to make sure jobs remain valuable - performance must pay off once again!

In this sense, we wish you lots of fun while reading this issue and thank our clients and our hard-working employees for their efforts.



DI Horst Felbermayr

Best regards,

Horst Felbermayr

Content

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PHOTOS: HARTWIG ZÖGL, MARKUS LACKNER, STEFAN OLÁH, EVA KELETY, STEEGMEDIA

TILTING THE ODDS

A transport system for wind turbine blades

Construction sites at high elevations, tight corners and alpine terrain with steep inclines require lots of time and make transporting long rotor blades difficult. Furthermore, conventional transport demands high investments in the expansion of the road infrastructure. These challenges can now be mastered much more efficiently thanks to wind turbine blade adapters. This special device allows wind turbine blades to be raised from a horizontal position by up to 70 degrees and swivelled by +/- 170 degrees in a continuously variable way using a wireless remote control unit. Special couplings allow mounting on THP axles that are commonly used for heavy haulage. But also so-called self propelled modular transporters (SPMTs) can be used as transport vehicles. Thus, even the steepest inclines can be tackled with wind turbine blades weighing up to 25 tons. A counter weight delivers additional flexibility depending on the respective blade rotation and tilt. It can be hydraulically shifted on the shifting table using the wireless remote control and thus guarantees the transport vehicle's optimal stability.

RACINGLY FAST

Building construction project for a fast food chain

In just four weeks of construction, Felbermayr's building construction department erected the building shell for a fast food restaurant in Linz. The structure encompassing some 500 square metres was built by means of pre-manufactured concrete parts using wooden planks. The intermediary walls were bricked up on location and subsequently plastered. Linz airport's approach path posed additional difficulties for the staff. Truck-mounted cranes with their long extension arms could only be used for a limited time to lift the wooden planks into place. This meant that time delays were inevitable; but the wintry weather conditions, too, sometimes worked against the staff and made the timely completion difficult. In the end, however, they managed to keep to the schedule and thus, the building shell could be handed over to the client in December of last year.

SPECIAL TRANSPORT

Dredging in the Danube Canal

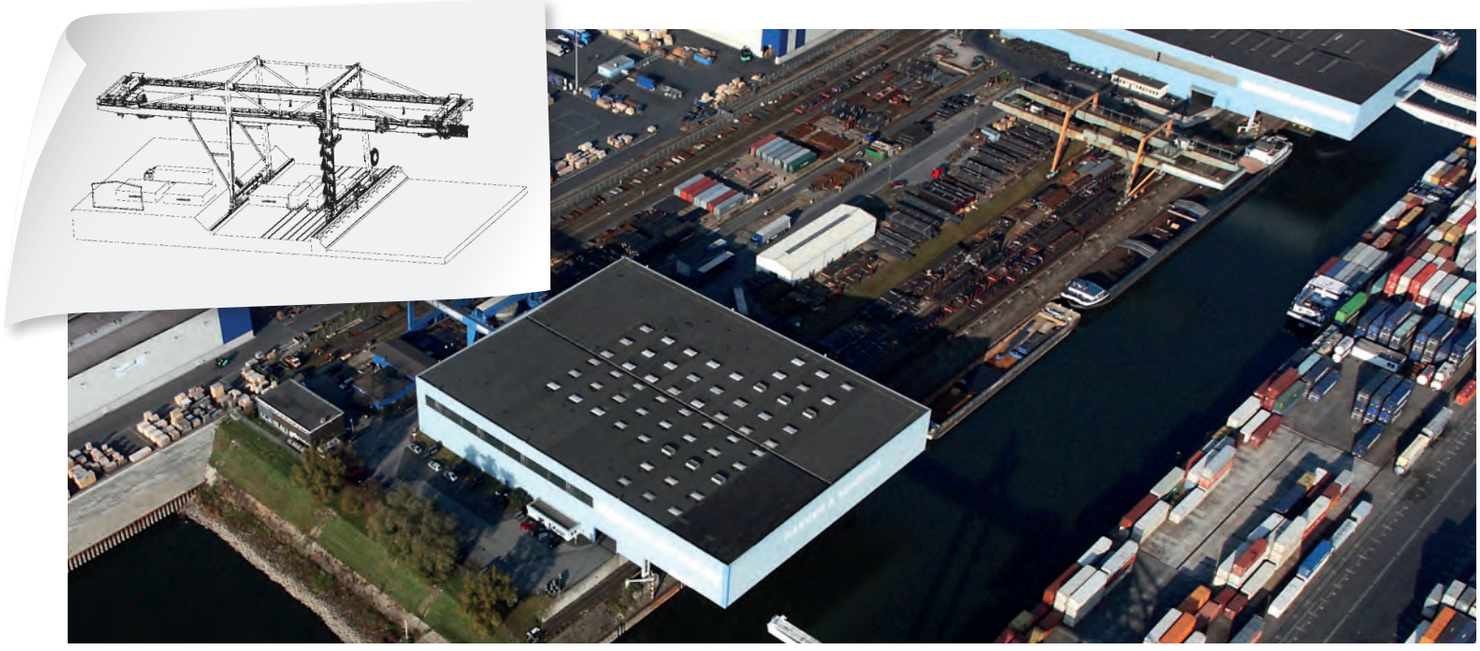
The Danube Canal's shores had been heavily washed out at the confluence of the Wien River. The heavy load vessel Horst Felix was used for the rehabilitation in early March. In the process, the self-propelled barge, together with a GPS-controlled excavator, could play its strengths in hydraulic engineering to the fullest. Being more than ten metres wide, the Horst Felix would actually not have been allowed to sail into the Danube Canal. Due to the reason that the vessel had the ideal characteristics for the 80-ton excavator used for the rehabilitation of the shore, a special permit was obtained from the highest shipping authority. In total, some 2,000 armour stones were used for the rehabilitation of the shore. In order to perform the task with the requested accuracy, a GPS-controlled excavator was used. Using this technology, one can lay stones with an accuracy of some 20 centimetres under water. The rehabilitation measures became necessary due to heavy swell caused by the confluence of the Wien River into the Danube Canal. According to the competent municipal department however, the ship reversing area also contributed significantly to the shores being washed out.

PHOTOS: MARKUS LACKNER, F-WASSERBAU, SCHEUERLE

CONSTRUCTION SITE SIGN	
Construction scheme:	Thermal rehabilitation, Kasernstraße 46 / Reifgasse 7–9, 3500 Krems
Client:	WEG Kasernstraße 46/Reifgasse 7–9
Specifier/ planner:	GEDESAG Gemeinnützige Donau-Ennstaler Siedlungs-Aktiengesellschaft
Project support:	Wolfgang Riss
Project management Sareno:	Stefan Pfleger-Lindorfer
ETICS surface area:	2,900 square metres
Insulation system:	EPS-F 0.033 W/(mK) 10 cm
Plugging:	Baumit adhesive anchors 55 (concrete)
Plaster:	Capatect SH 20 textured plaster
Start of construction on full heat insulation:	05/2014
Completion:	11/2014

SARENO
Art at the construction site

What to do with the wall mosaic? Gemeinnützige Donau-Ennstaler Siedlungs-Aktiengesellschaft (GEDESAG) asked itself this question when it came to the thermal rehabilitation of the residential complex at Kasernstraße 46 / Reifgasse 7-9 in Krems. After all, the picture would simply disappear under the thermal insu lation. GEDESAG had the idea that saved the day! The façade and wall design technology Synthesa PhotoVision allows for the photo-realistic reproduction of wall pictures, mosaics or sgraffiti directly on the plaster surface of an ETICS. In the process, a motif printed on a textile lattice is being embedded in a weather-resistant, transparent coating. This technology can also be put into practice on other plaster surfaces. Both the client and the residents were equally surprised by the result. Sareno's construction manager Stefan Pfleger-Lindorfer who managed the thermal rehabilitation of the structure is convinced of the technology's variability: Using PhotoVision, one cannot only reproduce existing façade pictures but also create entirely new motifs. This opens a whole range of artistic façade design possibilities. The residential complex Kasernstraße 46 / Reifgasse 7-9 in Krems belongs to Gemeinnützigen Donau-Ennstaler Siedlungs-Aktiengesellschaft (GEDESAG). In 2014, it was completely rehabilitated. GEDESAG manages 10,000 residential units in 87 municipalities in Lower Austria.



STEEL ISLAND DUISBURG
Investment in new crane equipment

The existing "crane 3" belonging to Haeger & Schmidt International GmbH in Duisburg will be completely renewed in the fourth quarter of 2015. At 40 tons, the new construction built by KÜNZ boasts a working load 25 per cent higher before and is equipped with state-of-the-art technology. Furthermore, the new crane has been designed with more width and will also allow for trimodal use with ships, three freight tracks and the road alike. The new crane will further improve the location's service quality. The overall investment volume amounts to some 3.5 million Euros. The Haeger & Schmidt International Terminal at Duisburg port mainly focusses on the conventional handling of steel products and the stuffing of steel products into containers and proves its worth as a transport hub impressively by moving more than 750,000 tons of goods annually. Together, two modern dry handling halls and an open area offer 21,000 square metres of space for the trimodal handling of goods. The port processes more than 600 inland and coastal trading vessels annually and some 1,000 containers are stored there per month. In addition, it provides possibilities for the handling of the most diverse packaged goods and even heavy cargo components.

PHOTOS: HAEGER & SCHMIDT INTERNATIONAL GMBH, SARENO

TRANSPORTATION AND LIFTING TECHNOLOGY

Service work on boiler plant for pulp production

Sappi, according to the company the world's largest manufacturer of paper, has produced high-quality paper for the printing industry at its Gratkorn plant for some 20 years. In February, Felbermayr Transportation and Lifting Technology started a transport order for the renewal of a boiler plant for the manufacture of pulp. 18 transports with pipe bends for the ventilation plant were executed in the course of the project. The Lenzing Technik factory in Lenzing was the starting point. The components were some four metres wide and high, measured eight metres in length and weighed some ten tons. Low-bed and mega trailers were used as transport vehicles. Furthermore, numerous platforms and lifts trucks as well as a mobile crane and a telescoping crane with 200 tons of maximum working load were used at the construction site between March and July. An LTM1400 was used for the task of lifting the four modules of the boiler plant, each weighing 27 tons, off and into place. The use of this crane with its maximum working load of 400 tons was required due to an outreach of 30 metres. For this task, the crane was equipped with 140 tons of ballast and a rocker.

MASTERLY

Dyke construction at the Danube

Between Niederalteich and Winzer in the Free State of Bavaria, the Felbermayr subsidiary Reinhold Meister Wasserbau executed one of the largest dyke rehabilitation measures along the Danube. In the course of the project, the Danube dyke was secured on a length of 3.5 kilometres using new sheet piling. Construction started in September 2014 and was completed in May. Due to existing thin diaphragm walls, concrete cores needed to be removed or loosened up using the "Kelly method" and the double auger head method in some sections. Subsequently, the sheet piling measuring up to 14.5 metres in length could be rammed into the ground. In order to install the sheet piling as gently as possible, high-performance vibrators were used in sensible areas. By the way: Reinhold Meister Wasserbau has installed more than 32,000 tons of sheet piling in the last two years. This makes the company the market leader in this segment in Germany.

EXCHANGE OF EXPERIENCES

Assembly Meeting at Wimmer

In mid-January, the 1st Felbermayr Assembly Meeting was held at Felbermayr's subsidiary Wimmer. Some 30 employees from twelve locations used the chance to meet colleagues on location in Feldgeding in Bavaria. The focus was on solutions for the further optimisation of synergies as well as the latest trends in the handling of heavy cargo components. The topics ranged from orders for the assembly of machine tools to the establishment of foundations for industrial columns weighing more than 1,000 tons by means of crane or lift frame. For the head of Wimmer and the meeting's initiator Holger Stegmann, the event turned out to be a great success and highlighted a number of new approaches to optimise deployments. By the way - Wimmer, a company specialising in international industry services in the field of erecting and dismounting machines, also operates in the areas of transport, cranes and storage.

PHOTOS: WIMMER, STEEGMEDIA, F-GRAZ

BUILDING CONSTRUCTION
52 flats for a housing association

Until the end of next year, Felbermayr's building construction department will build 52 residential units for the housing association Gemeinnützige Welser Heimstättengenossenschaft. Work on the objects built using minimum-energy solid construction methods began in spring 2014 and are divided into three construction sections with four residential buildings and two semi-detached houses. On top of visitors' and secondary parking spaces, every flat comes with a parking space in the underground car park. The foundations of underground car park and houses were made with concrete plug piles.

TUNNEL REHABILITATION
Experience and know-how for Klammstein power plant

Together with pipe supplier Etertec, Felbermayr's line rehabilitation department rehabilitated the inlet tunnel of Klammstein power plant at Gasteiner Ache River (A). The 2.5-km-long tunnel measuring 2.5 metres in diameter was rehabilitated by means of the relining method. Using this method, a pipe with a smaller diameter was installed in the existing tunnel. After some ten weeks, rehabilitation work on the 2.5-kilometre-long tunnel could be completed. 450 GRP pressure pipes ranging between 2 and 6 metres in length were laid in the course of the innovative rehabilitation process. In an astonishingly short time, the power plant's inlet was thus rehabilitated and simultaneously optimised which means that - thanks to increased flow rates - the plant's performance could be increased.

PHOTOS: STEEGMEDIA, ZUCHNA.AT, F-HOCHBAU

The men who have shaped ten years of BauTrans Liechtenstein: Roger Beck and Peter Ospelt.

ROYAL
Lifting technology for can factory

In the past twelve years, Roger Beck, together with his staff, has moved some 1,200 tons of steel for a can factory in Switzerland at Widnau in the Rhine Valley. About a dozen platforms and cranes with working loads of up to 130 tons were used for the purpose. The heaviest component to be lifted into place was a 42-metre-long, approx. 4-m-wide bridge weighing 49 tons. This steel component forms the structural connection between the can storage and filling station. BauTrans' fleet in the sixth-smallest nation in the world currently includes 5 cranes and 14 work platforms. In addition to construction sites in Liechtenstein, customers are served in Eastern Switzerland from the Rhine Valley to the Canton of Graubünden and beyond. The branch was founded ten years ago by Peter Ospelt who was succeeded in his function as branch manager by Roger Beck in 2012. The company headquarters running under the name BauTrans AG is located in the capital Vaduz.

ARTISTICALLY VALUABLE
Lifting technology for the Song Contest

When the Wiener Stadthalle event centre staged the finals of the Eurovision Song Contest on the 23rd of May, 400 security staff and 300 police officers took care of security. However, Felbermayr, together with Bilfinger Gerätetechnik, was also involved in the major event of European dimensions and provided some two dozen cranes, work platforms and forklifts for stage construction. From 250-ton cranes to battery-operated telescopic forklifts for inside use to a 57 metre high self-propelled platform. The confined spatial conditions presented difficulties during this operation. For instance, the devices needed for stage construction needed to be provided within precise time frames. Nevertheless, more than 20 sky-blue machines were used at a time in the Stadthalle event centre in peak periods.

PHOTOS: F-LANZENDORF, BT-VADUZ

Large Components for Fertiliser Factory Transported

In close collaboration with its subsidiary BauTrans Hungary, Felbermayr executed the transport of three large components for a fertiliser factory in Petfürdö. The departure point for the heavy cargo transport in early March was the city of Gönyű some 100 kilometres to the north.

In order to prevent traffic obstructions to the greatest extent possible, the transports were done during the night.

Felbermayr's subsidiary BauTrans Hungary planned the traffic-directing measures and was also heavily involved in the operational part of the transport.

Due to ever growing population figures, the demand for fertilisers is also on the rise. This is a fact the Hungarian fertiliser manufacturer Nitrogénmüvek Zrt capitalises on through the extension of its production facilities. DB Schenker, a logistics company specialising in logistics services, commissioned the heavy cargo transport. Günter Kaspar from Felbermayr's heavy cargo transport department explains that it was this company the components were taken over from at the Belgian port of Antwerpen and transported to the Hungarian Danube port Gönyű by means of inland vessel. Another ship loaded with some smaller parts weighing up to 20 tons arrived at Gönyű via the Danube port Constanta in Romania.

32 Tons of Axle Load

At a length of 26.17 metres, a diameter of some 6 metres and weighing 120 tons, the so-called dryer shell was not only the largest but also the heaviest of the three large components. A 14-axle flat bed trailer with special THP/ST axles was used for its transport. "This axle type features a solid construction which means that every axle can be loaded with up to 32 tons", Kaspar explains and adds that one tractor and one pusher truck were used for the task of transporting this component. This component was followed by the "scrubber", a part measuring some 20 metres in length and 7 metres in diameter weighing approx. 55 tons. At a length of some 20 metres and a diameter of approx. 6.5 metres, the "filler bin" weighed in at some 30 tons and was transported by means of a six-axle flat bed trailer. Two mobile cranes with 400 and 300 tons of maximum lifting capacity respectively were used for the task of lifting the components onto the flat bed trailers. Lifting was executed by means of a tandem lift.

Four Nights for 140 Kilometres

"Due to the fact that we reached a transport height of 8.5 metres, a number of power lines needed to be cut as early as in the first night", Kaspar illustrates the time-consuming activities. The 50-km-section from Gönyű to Bakonysarkany parkolo alone took 8 hours. A railway crossing at Nagyszentjanos resulted in a major delay. This crossing could only be passed as late as 1:30 a.m. due to the fact that railway traffic needed to be diverted and all gates and power lines had to be removed. "However, thanks to BauTrans Hungary's meticulous planning, everything worked perfectly", Kaspar admiringly highlights his Hungarian colleagues' work and notes that it would not have been possible to execute this from Wels. During the 2nd night, the 100-strong transport team was confronted with numerous gas lines that needed to be covered using steel plates. Traffic lights, overhead signs and power lines, too, needed to be removed temporarily. Prior to arriving at the intermediary destination Csor, a federal road was to be circumnavigated due to bridge constructions that proved too low. This resulted in tight corners on back roads that - due to insufficient width - had to be covered with steel plates. In the 3rd night, the team once more encountered a bridge that it could not pass underneath due to its insufficient height. The convoy had to leave the main road and turn onto a makeshift road that had been built in advance. "On this five-kilometre-long gravel track, we were not allowed to exceed 20 kilometres per hour and had to keep a minimum distance of 200 metres between the vehicles", Kaspar describes the time-consuming conditions. Asked if he wasn't concerned about the structural integrity of the road, Kaspar replies with a clear "no". For the makeshift road had been inspected for its suitability in advance by means of strength drilling. Before the third leg could be completed at Ösi, a last railway crossing with catenaries installed too low had to be passed. However, the passing of a bridge really made things thrilling again. "The access ramp was too steep; without constructional measures, we would have become grounded", Kaspar explains. The problem was solved by flattening the road surface using gravel and a special concrete mix. Additionally, steel plates were laid to improve weight distribution. "This worked perfectly", Kaspar happily sums up the measures that had been planned in advance. Apart from some tree-cutting that became necessary due to insufficient clearance, the fourth and last leg did not require any additional measures. Thus, the factory was reached on schedule after four night trips and some 140 covered kilometres. Subsequently, the components only needed to be placed on their foundations and integrated into the production process. After the planned commissioning in 2016, the components are supposed to increase the daily output of the 40-year-old ammoniac plant from 1,000 tons to 1,650 tons. However, the plant's modernisation is also planned to reduce its energy consumption. ■

The "Filler Bin" weighed in at 30 t.

PHOTOS: FERENC MARK TOTH

FELBERMAYR®

PHOTO: MARKUS LACKNER

A PREMIÈRE:
In early May, the Felbermayr heavy cargo port saw the first tandem lift using a crawler crane and a trestle crane. In the course of this première, a 226-ton pressure device measuring some 25 metres in length was lifted onto a ship. Its destination is a Russian chemical company.

Lifting the 132-metre-long crane bridge into place required highest levels of concentration and much practical know-how from the banksman and the crane operators alike.

Master-Class Crane Trio

In mid-November 2014, an LR1750 as well as an LG1750 were used for the task of lifting a 600-ton gantry crane. The coal storage of voestalpie Stahl GmbH in Linz provided the stage for the crane trio.

With the installation of "crane 313", the third gantry crane for the purpose of supplying the coke oven plant is being prepared for its commissioning. Contrary to the first two cranes, crane 313 will be the first to be completely pre-assembled on the ground. "This is easier and, more importantly, safer since this significantly reduces assembly work at height", Peter Niedermair-Auer from Felbermayr's project department reports. The idea came from Steeltec and was implemented by Mr. Josef Knauder, the chief of construction management.

Tandem Lift for Crane Assembly

To allow for the use of the cranes LG1750 and LR1750 with a final construction weight of 850 and 950 tons respectively, the platform must also conform with the corresponding criteria. "For this purpose, a level surface was created using a gravel bed and the required load distribution was subsequently reached by means of steel plates", Niedermair-Auer explains. This makes sure that the crane is absolutely level. By the way - the two 1750 cranes were equipped with a 63-metre main extension arm with derrick system to lift the gantry crane into place. The necessary counter weight was reached using 170 tons of revolving platform ballast, 45 tons of central ballast and 300 tons of suspended ballast. For the actual crane operation, the 500-ton load was first lashed down at the two cranes, lifted by 20 metres and horizontally rotated by 90 degrees.

PHOTOS: MARKUS LACKNER

The crane components measuring up to 50 metres in length were delivered to Felbermayr's heavy cargo port and transported to the construction site by means of a self-propelled unit and a telescoping flat bed trailer.

In order to reach its final position, the LR1760 and its hanging load were traversed by 70 metres.

Supported by the LR1280, the 90-ton carriage was placed on the crane bridge.

The practical implementation was preceded by elaborate crane studies.

"Then, a 90-ton pendulum support was mounted onto one side", Niedermair-Auer explains the process. This increased the load on the hook of the crawler crane from the original 270 tons to 360 tons.

By the way - an additional Liebherr crane with the name LR1280 and a maximum working load of 280 tons was deployed for the purpose of installing this carriage which will allow for smooth travel of the gantry crane.

Trip with Suspended Load

Thanks to its hydraulic support, the LG1750's stand was thoroughly secured during the lifting operations. Its maximum outreach was 28 metres and its maximum load was limited during the entire process to some 270 tons including bottom hook block and load-bearing equipment.

However, traversing the LR1750 made hearts beat faster: "To reach its final position, the crawler crane with its suspended load had to be traversed by 75 metres", Niedermair-Auer reports. Such manoeuvres need to be executed with utmost care for even slight oscillation can have grave consequences. Hours later it became evident - the calculations had been correct and the crane operators' skills outstanding and the lifting operation could be completed correctly and to the full satisfaction of all those involved. Thus, the new installation method for such gantry cranes has proven itself and stands exemplary for future operations. ■

Sewage Sludge Dump Becomes Local Recreation Area

In 2009, the Felbermayr subsidiary Hagn-Umwelttechnik began the rehabilitation measures at the sewage sludge dump in the north of Munich. In the course of the project, new sealing is installed in an area of some 17 hectares. This will prevent the build-up of seepage water in the future. One the one hand, these measures make the costly maintenance of the drainage system obsolete and, one the other hand, create a valuable local recreation area.

A layer of Bentokies forms the actual seal for the the seven-layer sealing structure.

Construction manager Thomas Henninger of Hagn Umwelttechnik.

The mixing plant for the Bentokies is also located in the intermediary storage facility.

Until 2005, the sewage sludge from the two Munich treatment plants was stored at the northern dump and subsequently sealed with a layer of virgin and surface soil as well as clay. At the bottom, an asphalt tub was used for sealing. However, since the clay layer had been partly broken up by vegetation and seepage water had increasingly gotten into and thus overburdened the drainage system, rehabilitation measures according to the current state of technology became inevitable.

Innovative Dump Sealing

"35 pieces of heavy equipment are currently in use", says construction manager Thomas Henninger of Hagn Umwelttechnik. The offer ranges from articulated dump trucks with a capacity of 20 cubic metres to 15-ton rollers, GPS-controlled excavators and caterpillars as well as mobile crushers for the creation of required drainage material on site. A mixing plant for the production of Bentokies was also erected. "This material is at the heart of the seven layers forming the new dump sealing", Henninger explains. Bentokies consists of a clay mineral mix occurring in nature that is being refined using gravel. The material is impervious to water and possesses good swelling capacities. "Thus, cracks resulting from ground movement can be filled automatically without requiring the use of machinery", Henninger explains the benefits of this innovative building material. The first of seven layers on top of the dump, however, is an equalising and base layer made from sewage sludge ash. On top of this is laid a capillary-breaking layer made from mineral material and on top of that the actual sealing made from two layers of Bentokies. A drainage layer made from gravel which discharges the arriving surface water in a controlled way is laid on top of this layer. The revegetation layer follows and builds upon the drainage layer and consists of highly compressed gravel which functions as a barrier for plant roots as well as virgin and surface soil. "This layer thickness was chosen to prevent roots from once again breaking through the sealing", Henninger explains. Most of the materials used are so-called substitute dump construction material such as used track ballast, construction waste and road scarification material. This is possible due to the fact that the sealing layer reliably seals everything underneath. Greening constituted the last work step. In its course, the area's subsequent use as local recreation area is being comprehensively incorporated.

The structure's tightness is being tested with a water column device.

Follow-Up Care

Completion is planned for 2017. After that, it will take another few years until the majority of the seepage water has been discharged from the dump body through the drainage system. From that point onwards, it will be possible to markedly reduce the extensive treatment in the neighbouring waste water treatment plant. Accruing surface water will be channelled all the way to purpose-built seepage basins via the trenches accompanying the dump's path network. According to Munich's municipal sewage department, however, a few decades will pass before the dump can be cleared for use as a local recreation area by the citizens. By that time, though, the 30-m-high hill's visual appearance will belie its past. Tree species typical for the location will share the space with bushes and rough pastures. Recreation-seekers will thus be able to enjoy an uprated view of the neighbouring football stadium and the Alps - a former sewage sludge dump will have evolved into a cultivated landscape. This not only makes the rehabilitation of the sewage sludge dump a technically challenging project but also yields additional benefits for fauna and flora in the shape of refuges and territorial gains. ■

Domestic shrubs and plants are planted in a part of the dump.

PHOTOS: MARKUS LACKNER

Rockfall Protection for “Urfahrwänd”

Due to strong temperature changes, rockfall occurred in the area of the so-called “Urfahrwänd” rock faces close to Linz in Mid-March. Several head-sized rocks got loose and fell - over the bicycle path - onto the busy federal road. On the very next day, Felbermayr’s special civil engineering department started with the implementation of comprehensive rockfall protection measures.

The “Urfahrwände” tower up to 250 metres above the Danube. For millions of years, the river has cut its bed deeper and deeper into the so-called Moldanubic Platform. This partly resulted in steep crags and breaks in walls that endanger traffic on the federal road and bicycle path. Due to this, comprehensive rock consolidation measures have been implemented at this highly frequented traffic route in the past on behalf of the Ottensheim road maintenance authority. This time, the rocks came loose - an occurrence that could hardly have been predicted - due to a change from frosty to thawing weather conditions, as Felbermayr construction manager Maximilian Amenitsch reports: “We arrived at the scene on the very same day and have removed the rocks at a height of some 120 metres. Thus, we could rule out that more rocks would come loose and could lift the total closure of the federal road.”

A total of 72 running metres of rockfall protection were installed at a height of four metres.

PHOTOS: MARKUS LACKNER

The drill rig features a reach of 32 metres and can be operated via a remote control unit.

In the course of the findings report carried out by a geologist, however, another rock formation that was in danger of losing its self-support was identified which made the installation of additional rockfall protection fences necessary. The type and scope of the measures was determined together with an expert advisor during an on-site inspection. A total of some 100 running metres of rockfall protection fence was to be installed. Work commenced with the placing of the anchors for the installation of the supports. "We have placed some 70 anchors", says Amenitsch and explains that the anchors reach up to six meters into the rock. And this is more than necessary for the four-metre-high rock protection fence is supposed to withstand an energy input of 1,000 kilojoule. Amenitsch makes an impressive comparison when he says that "this equals the energy produced by a luxury vehicle (weighing 3 tons) driving into the fence at 90 km/h".

A mobile crane from the Felbermayr branch in Linz assisted with the installation of the supports and fences. Installing the supports and nets weighing up to 250 kg in the rock could hardly have been done any other way. "Working in the wall is difficult enough as it is. It requires total concentration on professional execution and aspects relevant to safety for you only need to make one false step and you're gone", Amenitsch comments with appreciation on his staff's work in the rocky terrain.

The supports were set at intervals of nine metres.

Special precautionary measures also resulted in a traffic volume of some 24,000 motor vehicles per day passing the construction site. In order to ensure safe working conditions, the federal road was closed one carriageway at a time when extensive mechanical work was carried out. The understanding of the road users was exemplary, too. "Overall everything worked very well and one cannot blame car drivers for trying to take a shortcut through the pedestrian underpass to save time", Amenitsch jokingly sums up and is happy about the successful completion of the construction site in early May. ■

PHOTOS: MARKUS LACKNER

Successful cooperation: from left to right: Mag. Fritz Lehr (managing director of Port of Vienna), Mag. Fritz Lehr (managing director of Port of Vienna), Mag. Renate Brauner (finance and economics councillor and deputy mayor of Vienna,), Komm.-Rat Peter Hanke (managing director of Wien Holding), DI Horst Felbermayr (managing director of Felbermayr Holding) as well as Wolfgang Schellerer (managing director of Felbermayr Transport and Lifting Technology).

Opening of heavy-load centre

Adding to the heavy-load ports in Linz an der Donau and Krefeld am Rhein, Felbermayr now also runs the heavy-load centre at Wien Holding's Albern Port. Just when it was opened in June, a 382-ton component was lifted from a ship onto a flat bed transport vehicle.

In cooperation with the Port of Vienna, Felbermayr Transport and Lifting Technology began work on the Port of Vienna's extension in 2014. Its completion in early 2015 helps both the Port of Vienna and Felbermayr itself handling the rising demand for the handling of components of increasing weight in an even better way. "We are happy to run this location together with the Port of Vienna," Felbermayr Holding's head Horst Felbermayr comments on these trendsetting collaborations. For Felbermayr Transport and Lifting Technology's managing director Wolfgang Schellerer, its connection to both motorway and railway are of particular importance: "This move is a consistent continuation of our philosophy of multi-modal heavy load transports. Thus, we can now also handle and store components weighing several hundreds of tons in the east of Austria." A fact that also perfectly fits in with the strategic goals of the Port of Vienna: Fritz Lehr, the economic director of the Port of Vienna is pleased to say that "the perfectly connected area 4,000 square metres in size and the highly modern equipment provided by the high & heavy specialists from Felbermayr allow particularly heavy lifting and thus also the handling of super-sized loads."

Lifting première

The media watched the first lift at the new heavy-load centre with great interest. For at a weight of 382 tons and a length of more than 24 metres, the column to be handled presented no routine job – even for Felbermayr Transport and Lifting Technology's men with all their experience with heavy loads. A crawler crane with a kerb weight of 780 tons was used to lift the component on an 18-axle flat bed lorry. Subsequently, the steel giant was transported to OMV's refinery by means of a technically elaborate transport and there placed on its foundations using a tower lift, which took several days. ■

The heavy-load centre offers a 4,000-square-metre storage- and handling area.

PHOTOS: EVA KELETY

Sensational result

Team Felbermayr wins the key stage at the Tour of Austria

After Matthias Krizek of Team Felbermayr Simplon Wels had taken second place in the road race at the Austrian Championships and after his teammate Gregor Mühlberger had won the 6th International Upper Austrian Tour, mid-July brought along the next sensational result: After an unbelievable finish, Felix Großschartner left the competion in the dust on the key stage of the Tour of Austria and reached the finish line 33 seconds in front of the second-placed rider. Thus, he won the title of "King of Mount Glockner 2015" for the sky-blue bicycle racing team and RSW (Radsport Wels) defends its title as the most important talent factory for professional U-23 cyclists in the Alpine Republic of Austria.

The Felbermayr express rides from victory to victory.

RETIREMENTS

Well-earned retirement

We would like to express our gratitude and appreciation to those employees who have recently retired. It's them who have – some of them for decades – supported the growth of the group and significantly contributed to its development.

Ivo Baric – Building construction/Wels, **Marko Budimir** – Heavy loads/Wels, **Ludwig Ecker** – Piece goods/Wels, **Rudolf Eder** – Workshop/Wels, **Walter Steiner** – Workshop/Wels, **Margit Fröstl** – Accounting/Wels, **Irma Haselmajer** – Administration platform/Lanzendorf, **Willibald Heissenberger** – Administration platform/Lanzendorf, **Djordjica Nikolic**– Cleaning/Lanzendorf, **Gottfried Hrast** – Cranes/Linz, **Horst Kubsch**– Fleet/Linz, **Konrad Lang** – Construction west/Salzburg, **Johann Lettenbichler** – Area management Wörgl/Tyrol, **Josef Madlmair** – Heavy loads/Wels, **Rudolf Moser** – Hydraulic engineering/Wels, **Gerhard Peissl**–Cranes/Wels,**HelmutPühringer**– Projects/Wels, **Friedrich Silberbauer** – Carpentry/IS Baubetrieb, **Armin Lehnen** – Disposition/Haeger & Schmidt, **Jürgen Kirsch** – Handling/Haeger & Schmidt, **Delev Delio** – Workshop/Bulgarien, **Karl Grünwald** – Dump construction ans hydraulic engineering/Hagn Umwelttechnik, **Peter Guddat** – Dump construction Hagn Umwelttechnik, **Friedrich Zoidl** – Production/Sareno, **Elfriede Winter** – Invoicing/Hilden, **Wolfgang Knittel** – Cranes/Bautzen, **Harry Falk** – Cranes/Bautzen, **Bernd Ziesch** – Cranes/Bautzen, **Joachim Mielsch** – Cranes/Bautzen, **Rainer Peschel** – Cranes/Bautzen, **Pyszard Pestrycowski** – ITB/Wroclaw

Prize draw

Prize question: ***"In what year did Felbermayr's subsidiary Hagn Umwelttechnik begin work on the rehabilitation measures for a sewage sludge dump in the north of Munich?"***

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 find further information at **www.felbermayr.cc/informer** - click and take a look! Please send in the correct answer via **Fax +43 7242 695-144** or e-mail **informer@felbermayr.cc**. The entry deadline is the **30th of November 2015**. All decisions are final and not subject to legal appeal.

1st prize: A 1:50 scale model of the LR 1600.
This model is a special edition brought out by manufacturer NZG.

PHOTOS: RSW-RADSPORT, NZG

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