

INFORMER

THE FELBERMAYR GROUP MAGAZINE 1/2010



CRANES MEET

180 M LONG BRIDGE LIFTED
INTO PLACE

HIGH-VOLTAGE LINES

CONCRETE FOUNDATIONS LAID

PETROL IN THE BLOOD

SENSATION IN LE MANS

ON THE ROSTRUM: TURBINE TRANSPORT IN ROMANIA



Dear readers,

Looking back, the beginning of the year was a bumpy ride in our sector, and a longer, colder winter by European standards meant that several expected orders proved elusive. We used this time to ensure that we had the organisations and staff in place to rise to future challenges. As spring arrived and the sun's rays grew stronger, the rising temperatures were accompanied by a rise in the economic barometer. We are delighted to report that despite somewhat frosty conditions early on, we were able not only to retain our existing staff but even expand our workforce

to 1,917. This was because of numerous national and international projects and orders carried out for our customers. We will report on some of these on the following pages. All the others would be worthy contenders for inclusion, but that would have made the magazine too big to handle. Suffice it to say that the positive financial results for the first six months have only been made possible by the continuous development of all our subsidiaries. In some regions, this has been difficult due to current government changes and the associated halts in investment. But in the long term,

even in these places the commitment and enthusiasm of all involved has ensured that the wheels are once again in motion and an economic upturn is taking place.

Things are also taking off at management level – a report on the resultant changes also follows. But some things we can say right here and now: the Felbermayr fleet will continue to manoeuvre flat out through the mountains and valleys of the economy, for the benefit of both our customers and our employees. We therefore look forward to continued co-operation and success.

Yours sincerely,

Horst Felbermayr

Horst Felbermayr DI

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The transport of a generator, weighing in at around 345 tonnes, by a 32-axle goose-neck trailer to the Mellach power station in Styria, Austria, began in mid-August. The load was transported by rail over 700 kilometres through Hegyeshalom (Hungary) and Szentgotthard to Werndorf in Styria. Here the many tonnes of high-tech components were transferred to a low-loader and transported to the power station by road. By the time the power station opens at the end of 2011, Felbermayr will have transported 5,000 more tonnes of freight to Mellach.

PHOTOS: MARKUS LACKNER (3), WWW.IMAGINESTUDIO.RO



From L to R: Wolfgang Schellerer, Horst Felbermayr, Gisela Felbermayr, DI Horst Felbermayr, Christoph Nüssler, Ing. Mag. Peter Stöttinger

The new management in the Transport and Lifting Technology division

With 37 branches in 14 countries of Europe, the Felbermayr group of companies is currently in a good position internationally. In order to ensure the appropriate distribution of responsibilities, this has required in particular an expansion of the Transport and Lifting Technology management team. Supported by a team of area managers and a workforce of over 1,900, this will guarantee strong presence with our customers and the competent completion of all our orders.

When he took over his parents' business in 1967, Horst Felbermayr together with his wife Gisela laid the foundations for the present-day international family firm. Now, 43 years on, the company operates in the fields of Transport and Lifting Technology, Construction, Civil Engineering and Specialised Civil Engineering, with a thousand-vehicle fleet. The Construction division is managed by his son of the same name. The senior manager has now decided to step back from the day-to-day operations of the Transport and Lifting division. Managing director Horst Felbermayr has stood down from the day-to-day operations of the Transport and Lifting division and handed over to a new management team.

The Management

When he became manager of the Felbermayr Transport department in 1988, Wolfgang Schellerer began his ascent of the career ladder in the family firm. As a result, Schellerer has played a vital role in the company's development. In 2007 he was appointed manager of the Felbermayr Transport and Lifting Technology division; from this position he was soon elected spokesman of the Board of Directors. Peter Stöttinger has worked for the company for 19 years. The only interruption to his glowing career here was to complete his studies in economics. In 2005 he began the development of the Project Management division in Wels. In

spring 2010 he was appointed to the Board of Directors together with Christoph Nüssler. Nüssler started at Felbermayr 14 years ago. At that time he began development of the first branch in Germany, laying the foundation for the successful expansion west of Austria. In 2002 he moved to Lauterach in Vorarlberg to manage the recently-acquired company of BauTrans, where he has been Managing Director since 2007. A university of applied sciences graduate in Transport Management, his contribution to the success of this company and his comprehensive technical expertise will ensure that his glowing career continues apace following the reorganisation of the management. ■



LONG LINES Gas pipeline transport

From the end of February to July, employees of the Detmold (Germany) branch of Felbermayr worked on the laying of pipes for the Opal (Ostsee Pipeline Anbindungsleitung = Baltic Link) pipeline. The job essentially involved the transportation of pipes, each more than 18 metres in length, but Felbermayr was also responsible for the transportation of the 65-tonne pipe-laying crane. With a diameter of 1.4 metres and unit weight of 15 tonnes each, the pipes were loaded with vacuum lifting gear and distributed along the 65-kilometre line to the east of Berlin by means of special all-terrain vehicles.



VIENNESE WALTZ USING A SUCTION DREDGER IN VIENNA

The new technology of the suction dredger means that the Felbermayr Waste Management division can now carry out excavation works much more efficiently than previously. But the suction dredger really comes into its own where space is limited and when there are large distances to be covered, effortlessly achieving what was long considered impossible. A classic example of this was its recent use in Vienna's central district. The suction dredger was used to shift 150 tonnes of mixed building rubble and subsoil in just five working days. For the client this meant a reduction in the overall construction time of three weeks together with reduced costs.



DOWN-TO-EARTH DAM RENOVATION

As part of a flood protection programme, the Felbermayr Civil Engineering division was instructed in September to undertake the renovation and expansion of the dam for the Traun power station in Breitenbach. A total of around 8,000 cubic metres of earth were moved for the raising and expansion of the dam to a length of 1.3 kilometres. But the construction of a side sluice involving the removal of 31,000 cubic metres of material formed the majority of the earthmoving work. The dam was also provided with a diaphragm wall to provide the necessary waterproof seal. A flood defence route was also built along the eight-metre-wide crest of the dam. Great care was taken to restore the natural environment around the site and take account of the ecological requirements; measures included moving native trees and rootstocks and establishing biotopes.

HOME GAME Industrial property construction



Construction engineers Hago, based in Wels, were instructed to build a 2,000 square metre property. Five hundred cubic metres of ready-mixed concrete were needed for the monolithic industrial building and the filling of the wall cavities. The construction works for the 8 m high building, which houses both industrial space and offices in 3,000 cubic metres, were completed in June, with the site finishing works by the Felbermayr Civil Engineering division set for final completion in September.



From L to R: Laurentiu Cozmean (Area Sales Manager – Petrom), Steen Frederiksen (Manager – OMV Commercial Road Transport Geschäft), Socol Gheorghe (Mayor – Dragomiresti), Horst Felbermayr (Managing Director – Felbermayr), Rainer Schlang (Marketing Director – Petrom)

CO-OPERATION

The first »Euro Truck« station in Romania opens

With the opening of the first Euro filling station in Romania, between OMV and its Romanian subsidiary once again demonstrated their excellent co-operation with Felbermayr. The filling station is located on the site of the logistics park where the Felbermayr Bucharest subsidiary has its premises and, in addition to the Euro Truck Card System, is also part of the Europe-wide Routex association.



STRAIGHT TO THE POINT TRANSPORTING ROLL HOUSINGS FOR STEEL WORKS

Two 140-tonne roll housings, eleven and twelve metres in length, were transported from Pilsen (Czech Republic) to Udine (Italy) in May. The logistics concept for the undertaking was drawn up by the Felbermayr branch in Venice. The components were first loaded onto a twenty-axle rail low-loader with charge carriers. Lifting gear was specially made to ensure the permissible transport height was not exceeded. There was only a few centimetres »clearance« between the rails and the lower edge. The route led from Linz to Villach and the Thörl Maglern station, where the roll housings, transported individually, were transferred to a twelve-axle semi low-loader. This stage was carried out using two Liebherr mobile cranes, each with a maximum load capacity of 200 tonnes, lifting in tandem. The roll housings were then transported overnight on to Udine.

HIGH VOLTAGE TRANSFORMER TRANSPORTATION FOR THE KAPRUN POWER STATION

Mid-April saw the successful completion of the transportation of the first of two transformers to the storage power station at Kaprun (Austria). The 220-tonne voltage transformer began its voyage from the Siemens works in Weiz, where it was collected by the Felbermayr ITB division for transport by rail to Maishofen. The transformer was taken the remaining 26 kilometres by SPMT. Special equipment was designed to tackle the twenty kilometres to the building site and the twelve percent gradients found there, enabling a tractor unit to be used to support the thousand HP power pack. Three of the last six kilometres led through the Schrahnbach tunnel. The cramped conditions made this section of a journey a particular challenge. The second transformer was set to make the journey to the turbine house in August.



PREMIERE

Lifting technology for a waste incineration plant in Brno

Telescopic platforms with working heights of up to forty metres and mobile cranes were used for the modernisation of the waste incineration plant in Brno. This project was carried out by the new Brno branch established in spring of this year. The aim of the project was the expansion and modernisation of the waste incineration plant originally commissioned in 1989.





NEWS IN BRIEF

LIFTING TECHNOLOGY From January to August, cranes and platforms of the Lanzendorf branch near Vienna were used for the construction of the Irsching (Germany) power plant **SPECIAL CIVIL ENGINEERING** In mid-July, the »FST« division began rock stabilisation works along the motorway between Bamberg and Bayreuth (Germany). The works were completed by the end of August. **TRANSPORT** A 133-tonne generator was transported from Erfurth (Germany) to the port of Aken (Germany) and loaded onto a river barge.

STEEL HISTORIC ORE CRANE DISMANTLED

A bridge crane for conveying coke and coal to the blast furnace was dismantled by Felbermayr Cranes in Linz (Austria) in April. The crane, originally erected at the Voestalpine steelworks in 1940, was dismantled with a Liebherr crawler crane with a 280-tonne load capacity and an LTM 1500 with a 500-tonne load capacity. The bridge crane had been removed in advance from its chassis on each side by flame cutters. During this operation the 72-tonne central part was secured by the two cranes. The thirty-tonne running gear sections were lowered to the ground by an LTM 1200. The crane's throughput had been 500 tonnes of coal per hour. It was dismantled and replaced because of the increased breakdown rate and associated running costs. The new crane's throughput is 700 tonnes of material per hour.

UP HILL AND DOWN DALE 2,500 kilometres to Russia



In March, the Russian Felbermayr subsidiary, Europe-Lloyd, transported four columns for an oil refinery in Tuapse on the Black Sea. The starting point for the 2,500-kilometre journey was the Aksai region on the Volga. The dimensions – six metres' width, 15 and 4.5 metres in length and height – made it necessary to raise power lines and temporarily remove traffic signs. But the only answer to a weak bridge and certain high-voltage lines was to go round them, which led to substantial diversions. The last 200 kilometres led along narrow mountain roads, which in some sections were not even as wide as the load being transported. Comprehensive planning meant that the problems were recognised in advance and the police controlled the traffic to enable the convoy of up to five vehicles to progress at a good pace.



ART AS GOOD AS REAL

Artificial turf has been around for decades, but it is rarely good enough for football. The Felbermayr Construction division has now developed a system, »Felbermayr MXSi 40« which not only comes very close to emulating the properties of its natural forerunner, but even succeeds it in terms of care and maintenance as well as its technical sporting properties. The system has an elastic base layer and is infilled with layers of quartz sand and rubber granules. A qualification test in line with the ÖISS guidelines is proof of the artificial turf's properties as an ideal playing surface. But this is not all – Felbermayr has also developed all-weather alternatives to natural turf for other purposes.



BRAINWORK CRANES IN OPERATION AT A REFINERY

The replacement of the 190-tonne column head at the crude oil distillation plant in Oberrhein (Germany) was one of the most spectacular activities at the Miro oil refinery. The manufacture of the equipment at the Felbermayr production plant in Linz was impressive in itself, as the components were 25 metres high with a diameter of 7.8 metres. The next logical step was to load the column head onto a ship in the Felbermayr heavy goods port and transport it via the Danube, the Rhine-Main-Danube Canal and the Rhine to the port not far from the refinery. But before the new column head could be placed in position at a height of 55 metres, the old head, which had been eroded over the years, had to be dismantled, lowered and transported away. An LR 1600 with a load-bearing capacity of 600 tonnes was used for this and the lifting of the new column head. The replacement, made by Liebherr, was brought in by 38 lorry loads. This is not hard to imagine, considering that the one-hour lifting operation required 535 tonnes of ballast. There was cause for celebration at Felbermayr not only because of the successful completion of the project, but also due to the safety competition won by the company, in which more than one hundred suppliers involved in the renewal took part.



CROATIA Replacement transmis- sion for wind energy plant

A successful first was achieved by an LG 1550 lattice boom crane above the town of Senj in Croatia. For the replacement of a defective transmission at a height of around eighty metres, the crane was fitted with a 56-metre main boom and a 63-metre luffing jib. A superstructure ballast of one hundred tonnes provided the necessary counterweight for bringing the 47-tonne generator safely down to the ground. The crane stayed in Croatia for further lifting assignments. The client for the first job by the Felbermayr subsidiary in Zagreb (Hungary) was the wind systems manufacturer Vestas.



CIVIL ENGINEERING Reservoir renovation at Traun power plant

The Pucking power plant has been in operation for 27 years. During a routine inspection at the end of last year, Energie AG staff discovered a leak to a sealing element in the reservoir and that the dam was at risk of losing water. While it was possible to repair the left bank using gravel infill secured in place by armourstones, on the right bank a new diaphragm wall was needed, to be erected in parallel with the existing one, together with scour protection. The necessary rubble course required the use of up to 24 tippers per day for a period of more than one month. These were used to transport the rocks to the construction site from quarries up to 30 kilometres away. The job was carried out by the Felbermayr Civil Engineering division working together with Felbermayr Lifting Technology. The site was successfully closed in late March at the end of around three months' activity, enabling the reservoir to be refilled ready for operation of the power plant with its two Kaplan turbines. The Energie AG power plant is now once again running at full capacity to produce electricity for 62,000 households.



With 44 axle lines, the transport operation extended to a length of 110 metres, requiring careful route planning. But even so, static calculations were needed for 34 bridges.

Gas turbine transported by rostrum trailer

The transportation of a 302-tonne gas turbine in Romania was begun in January. The task was carried out by employees of branches in Bucharest, Linz and Wels. The transport operation from Constanta to Brazi was successfully completed by the middle of April.

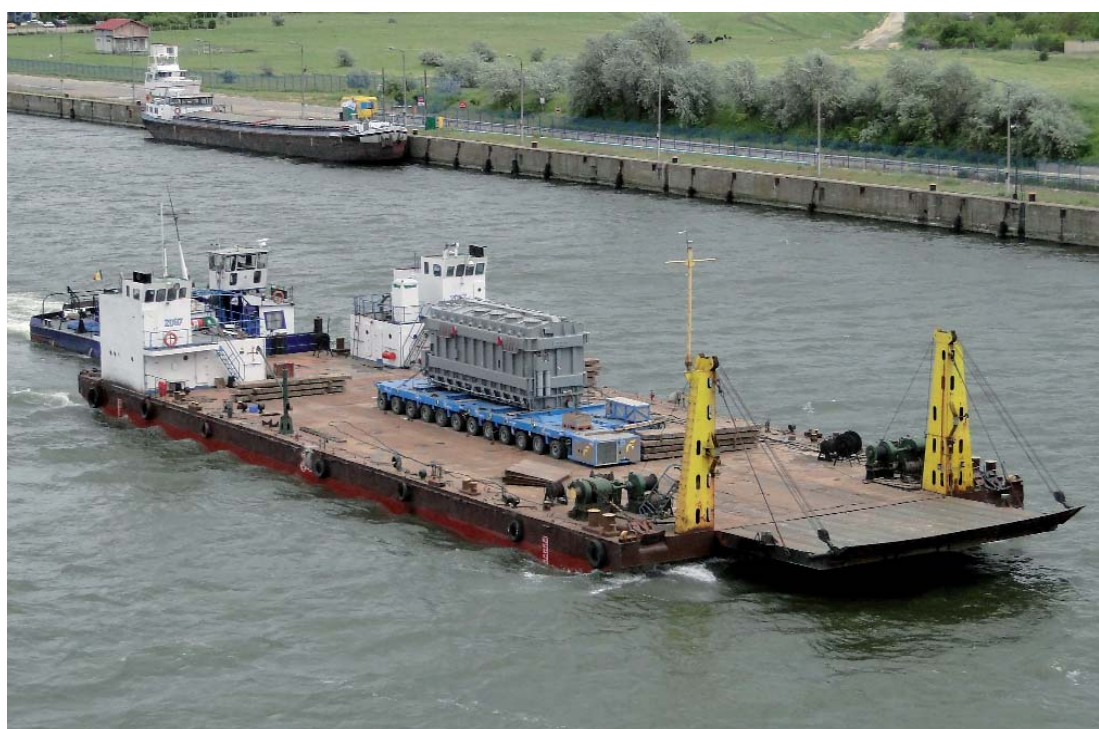
We had to negotiate a total of around 350 kilometres with the 302-tonne turbine», says Daniel Costea of the Felbermayr site in Bucharest. Starting at the port of Constanta port, the route went to Oltenita via the Danube and continued to the gas and steam power station in Brazi.

Transportation by water

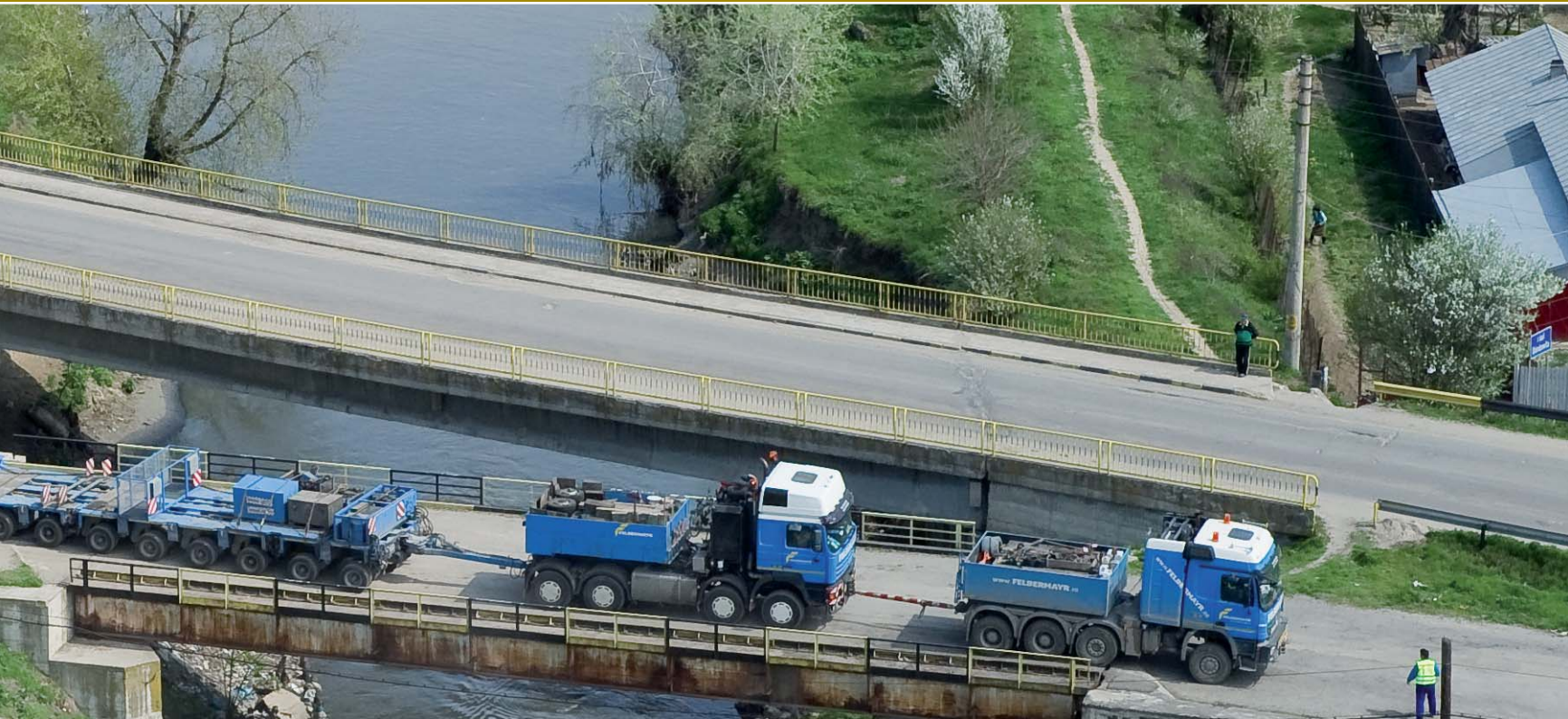
The turbine was initially handled on the SPMT in Constanta port and then rolled onto a flat deck pontoon. It was then brought to the town of Oltenita around 210 kilometres away via the Danube. According to Costea this was the most economical solution given the dimensions of the turbine: »With a width and height of around six metres and a length of almost 13 metres, it made sense to avoid road transport.«

Taking a detour

From the town of Oltenita, seventy kilome-



The cargo, totalling 50,000 tonnes, was carried on the first leg of its journey on a flat deck pontoon. The route led from Constanta to Oltenita, where the components were transferred to the rostrum trailer.



tres south of Bucharest, the gas turbine was transported using what is known as a rostrum trailer. »That was necessary in order to keep the transport height as low as possible,« says Costea, explaining the reason for this transport mechanism which was mounted on 22 axles front and back for optimum weight distribution. The power required was supplied by two tractor units and a pusher, giving a combined output of around 2,000 HP. The total transported weight of the 100-metre long combination, including the gas turbine, was 650 tonnes. No wonder that the obstacles along the way included not only innumerable power lines and traffic signs, but also bridges whose load-bearing capacity had to be checked. »Static calculations were needed for a total of 34 bridges,« says Costea. But fortunately all crossings were adequate, the transport manager is pleased to report, and no technical bridge support measures proved necessary. One peculiarity of the Romanian road network is the frequency of pedestrian bridges, which cross the direct route from Bucharest to Ploiesti every few

In order to halve the weight of the 650-tonne load when crossing a bridge in two sections, the rostrum trailer effectively straddled the two parts.



kilometres. At a height of 4.2 meters, they proved insurmountable obstacles to the transport operation with a height of over six metres, and had to be bypassed. A total detour of almost 200 kilometres had to be accounted for. The power station in Brazi, a few kilometres to the south of Ploiesti, was reached after three days and the gas turbine was ready to be installed.

Other loads to transport

In addition to the main task, a number of

transformers, heating modules and other »oversized cargos« weighing 50,000 tonnes in total had to be transported to the power plant site. Further highlights of the Felbermayr undertaking were the transportation of a further gas turbine and a steam turbine, which was successfully completed by the end of June. Petrom forecasts that the power plant will be fully operational by 2012. With an output of 860 megawatts, it is set to generate more than eight percent of the electricity produced in Romania. ■



Daniel Costea of the Bucharest branch co-ordinated the transportation and was also the co-ordinator for all the countries involved in the operation.





Showcase bridge construction

At the beginning of April this year, Felbermayr put on a show of muscle for the construction of a 180-metre long bridge to the north-west of Bucharest.

We accepted the order on 22nd March at 16:00, and five days later we had already begun unloading the crane parts we needed,« says Felbermayr operations manager Wolfgang Rauchenecker of the speed of developments in constructing a bridge in Romania. Quick decisions were also called for with regard to the weather, as the lifting works had to be finished before the snow began to thaw, or the volumes of water would prevent the necessary operations involving the crane on the river bed.

Six cranes for 242 tonnes

The venue for the meeting of the cranes was between the towns of Cateasce and Leoldeni, about eighty kilometres to the north-west of Bucharest. »An existing bridge there was showing signs of age, making it suitable only for loads of no more than one tonne,« says Felbermayr employee Gabriel Puscoiu, who made an essential contribution to the success of the operation. But as there were no other bridges over the river within a radius of forty kilometres, a new one had to be

built. In order to bridge the necessary span of 180 metres, a Romanian steel fabricator was instructed to make three elements, each sixty metres in length. At 242 tonnes each, the weight of the steel structural elements soon made it clear that it would not be a simple venture, but one which could only be effected with large cranes. The huge time pressure meant that the Felbermayr employees had very little time for thinking. But the concept soon became clear and the team decided to use two 500-tonne mobile cranes to lift the first element; these were ordered

Three bridge elements, each 60 metres long, weighing 242 tonnes, were lifted into place for the construction of a bridge over the Arges river.

The LR1750 (seen on the right) was erected in the SLD configuration and handled a gross weight of around 900 tonnes including 535 tonnes of ballast. Even more impressive, although a little lighter, was the LR1600 with a total weight of 400 tonnes, about 255 tonnes of which was attributable to the ballast.



In addition to the bridge lifting operations, an LTM 1220 with 220 tonnes maximum load-bearing capacity was also used as an erection crane for the two crawler cranes.



from Felbermayr's Bucharest branch. One of the cranes was positioned on a platform of made ground prepared for it in the middle of the river bed. The second was on the right bank where the bridge element was being stored. The lift was completed about three hours after attaching the load, and the sixty metres long, eleven metres wide reinforced concrete component was positioned on its abutment and bridge pier. The local conditions meant that three cranes working simultaneously were needed to lift the left element. The LR 1750 took up position in the middle of the river and with a jib length of 74 metres had a load of fifty tonnes on the hook. An LR 1600 positioned on the left bank and an LTM 1220 worked together to lift the remaining 192 tonnes. Despite the lack of wind, it was still not an easy job for the crane drivers to lift the 242-tonne element into place. They were guided in their work by the precise instructions of the signaller. »We are a practised team, who have spent the last year and a half erecting wind power plants together; each one of us knows what we are doing,« says Rauchenecker of the excellent co-operation among the multicultural team. Over Easter the team had a compulsory break, then on 6th April, work continued with the dismantling of the LR 1600 which was no longer needed. Before this could be done, the auxiliary crane had to be brought to the other side of the river. The nearest bridge with sufficient load capacity was around

forty kilometres away, which meant a detour of eighty kilometres. In addition, the cranes were only permitted to travel at night. The grand finale was performed by the LR 1750 and the LTM 1500 in a duet. The LR 1750 was positioned on the left bank of the river, and the LTM 1500 took up position on the temporary »peninsula« on the river bed. To enable it to complete the final lift, the crawler crane had to travel a few metres with a suspended load, despite a boom length of 84 metres, and the mobile crane had to be moved three times. The lifting works were finished by the end of the sixth day and the dismantling of the two remaining cranes could begin.

Logistics for giant cranes

Around 200 transport operations were needed for the transport of a total of six cranes to and from the site. »We used a total of twenty sets of heavy transport equipment,« says Rauchenecker proudly of this feat of logistics. Rauchenecker himself is aiming high in the near future, devoting his time to the erection of wind turbines: »That is what makes this job interesting – it's always so varied,« says the 33-year old self-styled »Care-taker of Eastern Europe« from the Innviertel region of Austria, who has worked at various construction sites in Romania and Bulgaria over the last five years. ■

In order to enable the crawler crane to be moved with a suspended load, bongossi boards were used on the ground. Weighing 1,300 kilograms per cubic metre, this wood is heavier than water. The bongossi tree grows in western Africa and reaches heights of around 45 metres.





To enable the concrete foundations to be laid, sheet pile cofferdams were set up, using a digger with a ram attachment.

High pressure for high voltage

In contract section 3, employees of the Salzburg branch are currently constructing the foundations for the pylons along a twelve-kilometre stretch of the »Salzburg line«. The work began in September 2009, and the foundations of the 51 pylon locations were completed by the end of April 2010. This brings the Verbund-Austrian Power Grid AG's 380 kV high voltage ring a large step nearer to completion.

Since September, the employees of the Felbermayr Construction branch in Salzburg have been working hard on the construction of the twelve-kilometre stretch. »A total of over twelve kilometres of construction and access roads had to be built for the construction of the individual pylon points,« says construction supervisor Josef Klampfer. An average of around four to five teams are working at the same time, concentrating on preparatory work, formwork, con-

creting and earthmoving. The teams are reorganised and deployed as required.

Good organisation

The working procedures change constantly due to factors such as the weather and ground conditions, and are made more difficult by limitations such as working beneath the existing 220-kilovolt line. The procedures have to be planned in advance and constantly adapted to the con-

ditions encountered. This requires good co-ordination of the work, so that the project moves forward smoothly and does not stall. » The high degree of flexibility and considerable motivation of the foreman Johann Guggenberger and his employees ensure that the work is of the highest possible standard,« says construction supervisor Klampfer. While the advance preparation teams are primarily responsible for excavating and securing the excavations, the construction of the

foundations and fair-faced bases is a job for the formwork and concreting teams. After completion of the concreting, the earthwork team backfills the excavations and installs the earthing system.

Demanding work

In contract section 3, a total of 40 single-block, three Waler and eight bored pile foundations are being built. The single-block and bored pile foundations each consist of four single foundations with square dimensions of 3.50 to 5.00 metres. The excavations for the individual foundations are secured with timber pilings. Depending on the type of foundation, the excavation is between 3.25 and 5.00 metres deep. After completion of the excavations, a prefabricated reinforcement cage is fitted and foundation base 3 is concreted. The challenge in concreting base 3 is that, during concreting, the timber pilings have to be pulled out sufficiently to allow the foundations to be concreted directly against the ground. Depending on the type of foundation, a total of up to 175 cubic metres of concrete are used in the construction of base 3. After one to two days, the »pylon podium« is mounted onto base 3 and precisely aligned by our consortium partner, GA Austria GmbH. Then foundation base 2 is encased, reinforced and concreted. The pylon feet are concreted into foundation base 2 and connected to base 3 by the reinforcement. A total of up to 75 cubic metres of concrete is built into base 2 at each pylon point. The »fair-faced bases«, with a diameter of one metre or 1.30 metres, are then produced; these are normally built up to approximately 60 centimetres above the top ground surface. For the three Waler foundations, approx. 280 cubic metres of concrete and around 22 tonnes of rein-



A single-block foundation actually consists of four foundations, each with three base levels. The first of these can extend up to five metres below ground level. The pylon feet are concreted into the second base level (visible in the picture). Finally the fair-faced concrete base, which extends above ground level, is laid.

forcement are installed at each pylon point. For the eight bored pile foundations, a total of 104 large bored piles were produced with a total length of 1,620 metres. The pylons are manufactured as bolted, hot-dip

galvanised and coated steel-mesh latticed framework structures with two or three arm levels. The truck-mounted cranes of the Braunau branch are used for the installation of the pylons, which are up to 64 metres high and weigh up to 80 tonnes.

Crucial phase

»The crucial phase in the construction of the Salzburg line is from the start of September 2010. This is when new pylons have to be produced, existing pylons have to be removed and the cable winch for the new 380 kV line has to be produced – all at the same time,« says the construction supervisor. On completion of the individual sections, the construction roads will be removed and the area restored to its original condition. From January 2011, after the commissioning of the line in December 2010, the decommissioned high-voltage lines will be dismantled.



The fitters were assisted in the pylon construction works by a rough-terrain crane with a 45-tonne maximum loading capacity.

Passive building design for the future

Opened in June, the new care home for the elderly in Wels Vogelweide is the first old people's home in Upper Austria to be built on fully passive principles. Sareno – a Felbermayr subsidiary specialising in thermal insulation – was responsible for the design of the shell.

With its »passive house declaration«, the energy capital of Wels stated its undertaking that all properties managed and maintained by the city or Holding Wels GmbH (and its holding companies) will in future be constructed or renovated only using passive construction methods.

Passive house standards pay for themselves

The new care home for the elderly in the district of Vogelweide, built by the charitable Wels care home association and run by the



The two-layer installation of the insulation requires a high level of expertise with relation to the adhesive, insulation material and plugging.

City of Wels, is the first care home for the elderly in Upper Austria to be designed and built fully on passive house principles. The construction was monitored in an advisory capacity by the Upper Austrian regional energy agency OÖ Energiesparverband ESV and is a showcase project for the region – intended to demonstrate today what should become the standards of tomorrow. The passive house technology used here gives the home an energy value of 7.5 kilowatt hours per square metre per annum. Of the total construction costs of EUR 16.8 million, around EUR 1.32 million is attributable to energy-saving measures such as the ground floor curtain wall façade, the Capatect insulation system with 22 or 28 centimetres of Lambdapor insulation to the upper storeys,



A »flagship project« for the very latest in thermal insulation – the old people's home in Wels.

the controlled ventilation system, the ground collector for heating incoming air, the two-stage heat recovery system, a comprehensive 250 square metre solar heating plant and, last but not least, the 22.5 kWh photovoltaic system.

High requirements

The substantial insulation thicknesses for a passive house placed high demands on both manufacturers and installers. As Sareno site manager Herbert Wöss says, »With large-scale projects



The mineral wool fire protection strip prevents the spread of fire and stops the dangerous dripping of molten insulation system components.



Lamdapor of 22 and 28 centimetre thickness was used for the insulation of the upper storeys, with reinforcement from Capatect 190 adhesive and filler compounds, finished with Capatect CarboPor textured finish, grain size 30.

like this one we are always pleased when we can rely on our suppliers, as is the case here with Capatect. The Lambdapor insulation supplied by Steinbacher was factory-made with tongue and groove joints to give full protection against any heat escaping. For the finishing coat we used the carbon fibre reinforced CarboPor textured finish from Capatect, which was developed especially for these insulation systems.«



BauTrans gets Angelika moving

When drilling work for the Pfänder tunnel was completed in mid-November last year with the cutting of the second tunnel, it was all systems go for Vorarlberg company BauTrans – even the dismantling and return transport of the equipment to tunnelling specialists Herrenknecht in Germany presented a substantial challenge.

She's a very heavy lady – weighing in at 2,200 tonnes, the tunnelling machine, affectionately known as Angelika after the patron saint of the tunnel, is a match even for the transport and lifting equipment of the Lauterach company BauTrans. »Twenty four lorry loads were needed for the transport of our 300-tonne capacity caterpillar crane alone,« says BauTrans company secretary Josef Ammann, describing the least of their logistical challenges. The orange BauTrans fleet then got to grips with the largest individual part of the Herrenknecht tunnelling machine, the cutting wheel. In order to get this 200-tonne precision part with a diameter of 12 metres down to transportable size, it first had to be dismantled in one piece from the 200 metre long tunnelling machine.

Major challenges

Specialist knowledge of the limited storage space at the building site was also necessary: »During the dismantling of the

tunnelling machine at the southern entrance to the Pfänder tunnel, there was no space for interim storage,« Ammann explains. Ultimately more than 100 heavy loads had to be transported »just in time« 250 km to the Herrenknecht factory in Schwanau (Germany). With transport operations of this magnitude, it is not a matter of simply turning the ignition key and driving off, as numerous authorisations are necessary – which all adds to the challenges faced by the BauTrans team. For the larger transport operations, such as the drilling head gear weighing 100 tonnes and six metres wide, »route scouts« are sent on ahead. »They have to check the routes carefully for the radii of the bends and obstructions such as roadworks and bridges with low load capacities«, explains Ammann, who also tends to frown whenever roundabouts are mentioned.

The deadlines were met

Excellent co-operation between the Pfänder tunnel joint venture company's work-

men and the specialists at Herrenknecht, who ensured that all the geological conditions were right for the tunnelling operations, meant that the schedule was adhered to. This meant that the site, with the exception of the crawler crane, was fully cleared by the end of January. Both tunnels are planned to be fully operational by June 2013, finally completing the bypass route round Bregenz.



The heart of the tunnelling machine: a cutting wheel with a diameter of twelve metres, weighing 200 tonnes.



THANKS TO OUR SPONSORS

Petrol in the blood

For four years, the Felbermayr Proton has been fighting to improve its times on the race tracks of the world. The highlight every year is the »24 Hours of Le Mans«, where this year we celebrated a victory.

It all began in the 1970s with touring car racing,« says Horst Felbermayr, who is still to this day under the spell of motor sports. This was an essential factor in the company giving its name to the GT2 class team. There is very little sterility to be found in his assessment. »It is a field where skill still counts,« says the boss of around 1,900 employees. Victory or defeat essentially depend on and the courage and technical abilities of the driver.

Victory in their class at Le Mans

The Porsche 911 GT3 RSR continued its success story from the start of the legendary 24 Hours of Le Mans in mid-June. The race started in four classes, with the GT2 class most closely approximating to touring cars of up to 500 HP. The Felbermayr Proton team started the race in this class with two cars. One of these was driven by works drivers Marc Lieb, Richard Lietz and Wolf Henzler. They were the ones who had also secured the prestigious place for the Porsche 911 GT3 RSR as the most successful racing car of the 2009 season, gaining first place in the GT2 class. The

second car was under the control of Horst Felbermayr and his son together with Slovak Miroslav Konopka, who drove their 911 to eighth place. With a total of 16 taking part in this class, it represents an outstanding result for the private team, thanks not least to the contribution of Porsche racing engineer



The two Horst Felbermayrs and Slovak team member Miroslav Konopka (centre) celebrate the team's 8th place.

Norbert Singer and team manager Michael Ried with his twenty-strong team. Porsche motorsports boss Hartmut Kristen was also delighted with the victory. The 78th outing of the 24-hour endurance test will in his opinion go down in history as an extremely fiercely-fought race. The sports boss was also



The fastest from L to R: Wolf Henzler, technical team leader Michael Ried, Marc Lieb, Richard Lietz

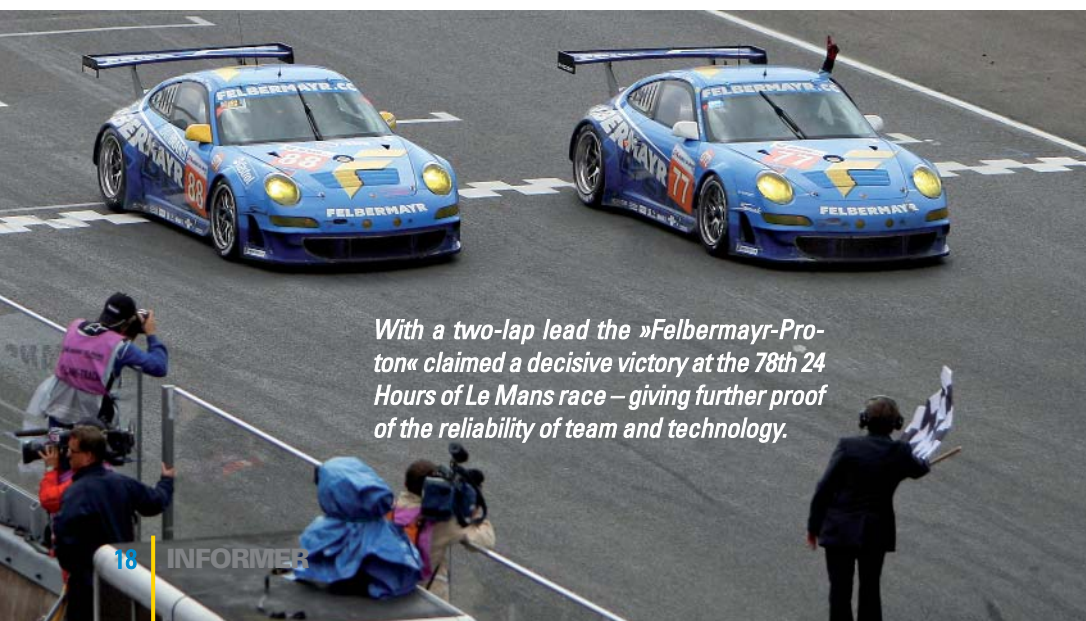
particularly delighted with the »Michelin Green X Challenge assessment«, which was also won by the Felbermayr team and confirms the reputation of the 911 as a very reliable sports car.

Like father, like son

Horst Felbermayr's son of the same name and present-day Managing Director of the Felbermayr Construction division got the bug at an early age: »At the tender age of three I was behind the wheel of a go-kart powered by a lawn-mower motor.« This was followed by four years as the driver of a Rotax 125 CC racing kart. He then stepped back from the steering wheel for a few years: »My education took priority,« says the Director's son. But he was unable to resist the call of powerful engines for long, and at age twenty he joined the Porsche Club where he drove production cars on the racetracks before his first FIA GT race in 1998. Four years later, he achieved second place twice at Oschersleben. After several more years of motor racing success, he was surprised and delighted in 2005 to achieve third place in the 24-hour race in Spa. »I undertook that race with my father and Gerold Ried and his son Christian,« says Horst Felbermayr.

Teamwork is the key to success

»Le Mans 2010« was one of the senior boss's greatest successes: »None of it would have been possible without our excellent team behind us, not to mention our sponsors,« he says, drawing parallels with his own company. »In business, too, I am able to rely on the commitment of my staff, especially on race weekends when I am not there,« says Felbermayr with a grin.



With a two-lap lead the »Felbermayr-Proton« claimed a decisive victory at the 78th 24 Hours of Le Mans race – giving further proof of the reliability of team and technology.



Wolfgang Pühringer

DIVISION MANAGER GRAVEL AND LANDFILL

Since March, Wolfgang Pühringer has been responsible for the further expansion of the Gravel and Landfill department of the Felbermayr Civil Engineering division. In addition to his professional experience, he is a Higher Technical Institute graduate and sworn authorised inspector in the construction industry with comprehensive expertise in many areas of the construction sector.



Branko Borcic

NEWCOMERS NEW BRANCHES

Based at the **office in Zagreb**, since April Branko Borcic has been responsible for the marketing activities of Felbermayr Transport and Lifting Technology in Croatia. Branko has ten years' experience in special transport and heavy transport operations and the use of cranes, and hopes that early entry into the EU for Croatia will lead to an improvement in the country's economy. The new **branch in Brno**



Michal Prusa

is being built up by Michal Prusa. Together with a staff of thirteen, he is responsible for all Transport and Lifting Technology services as well as Crane and Platform Hire in the Czech Republic. A mechanical engineering graduate and former project and assembly manager for an international company, Prusa can draw on a wealth of technical and specialist knowledge. He will be working closely with the sales office of the ITB division in Prague to strengthen the company's market presence in the Czech Republic.



Konrad Vollmann

COMPANY REPRESENTATION WIDER SPHERE OF COMPETENCE

Konrad Vollmann's dynamism and commitment and his continuous, successful development of the branch in Graz are the essential reasons underlying his appointment. Vollmann has been manager of the Graz branch since January 2007 and is head of the Styria region.

RETIREMENTS

Well-earned retirements

Many thanks and well-deserved appreciation are extended to all those who have recently retired. These are people who have contributed, some of them for decades, to the growth of the Group and have made their mark on its development.

Wilfried Albrecht – Civil Engineering, Wels · **Uzair Azemi** – Civil Engineering, Salzburg · **Sandor Bajusz** – BauTrans, Lauterach · **Rudolf Dürregger** – Civil Engineering, Salzburg · **Günter Gaubinger** – Heavy Transport, Wels · **Astrid Harreither** – Administration, Wels · **Ivan Krusic** – BauTrans, Lauterach · **Alfred Lach** – Cranes, Klagenfurt · **Rasid Lelic** – Port, Linz · **Grażyna Pruchnicka** – Administration, Wrocław · **Radoslaw Radojkovic** – Gravel, Wels · **Albert Rauch** – Heavy Transport, Wels · **Peter Schneek** – Civil Engineering, Wels · **Franz Schwarz** – Civil Engineering, Wels · **Josef Sulzberger** – Civil Engineering, Salzburg · **Sandor Szalay** – Heavy Transport, Lanzendorf · **Imre Szemerédi** – BauTrans, Budapest · **Peter Tauchner** – Cranes, Lanzendorf · **Kurt Zirknitzer** – FST, Salzburg · **Alois-Franz Zwidl** – Civil Engineering, Wels

Competition



1st prize

A 1:59 scale model of a construction equipment combination. This faithful reproduction model is a special limited edition in the Felbermayr colours, made from diecast aluminium.

Prize question:

For how many pylon sites along the »Salzburg line« did Felbermayr lay the foundations?

You can find the answer in this booklet. We will draw winners of the 15 non-cash prizes from amongst the correct entries. For further information, please see www.felbermayr.cc/informer – Click to enter! Please send us the correct answer by fax +43 7242 695-144 or e-mail informer@felbermayr.cc. The closing date for entries is 30. 11. 2010. There is no legal recourse.

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Zusatzequipment

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