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Dear customers,
Esteemed partners

The adoption of the second Performance and Financing Agreement (LuFV II) has made available financial resources for the sustainable repair and maintenance of federal railway tracks. This provides both a sound basis and planning security for the future organisation and the focus of your business activities. With combined efforts, we now have to mobilise the required capacities at DB Netz AG and in the private sector. This is why Deutsche Plasser’s field staff is busily providing our customers with advice and support on how to maintain and preventively service their machines. As your partner, we are optimally equipped to perform the coming revisions and winter overhauls in the best possible way. This involves both the Leverkusen-Opladen maintenance workshop and sensible and efficient stock-keeping of spare parts and wearing parts allowing us to react quickly to any request.

If DB Netz AG took advantage of the opportunity arising from this planning security to schedule works mainly during the week and, consequently, to reduce weekend operations to an acceptable level, this would benefit you as an employer as it would make it easier to find skilled employees. From your own experience you might know that the willingness to work at weekends instead of spending time with the family or enjoying leisure activities is further decreasing.

Now, we must mobilise every machine and take action with absolute efficiency. We will provide you with all the support required. I am convinced that we will benefit from this opportunity together.

Sincerely
Peter Josef Flatscher
Managing Director, Deutsche Plasser
Wednesday morning: In the workshop at the Munich headquarters of Deutsche Plasser, work has already been started. In the offices, the staff of the Technical Customer Service is prepared to start their working day. What will it bring?

For Manuela Wein, Angelika Lang and Veronika Kindl this is clear: they will continue yesterday’s work, i.e. editing service reports, preparing invoices and updating the service technician database. It might be daily routine, but that does not make it less important.

Closing completed orders carefully provides the best basis for future tasks. This applies to Silvia Pripfl’s work, as well. As an assistant, she is responsible for a large part of the “paperwork” such as corresponding with customers, handling warranty issues, organising customer service conventions, evaluating data, preparing lists, and scheduling trainings.

Kornelia Eisele coordinates with customers the repair of components such as hydraulic motor pumps or electromechanical transducers. Moreover, she prepares cost estimates and draws up documents for billing.

Incoming orders

New enquiries and orders are constantly made by phone, email or fax. They range from questions on minor technical problems and enquiries regarding retrofitting, to major repairs or calls for help, their urgency varying between “immediately” and “within the next few days”. Consequently, assessing and prioritising is among the first and most important tasks of the staff of the Technical Customer Service.

Every order is a new opportunity to prove to our customers that, at Deutsche Plasser, they are in safe hands. This is true for long-term projects allowing easy planning but particularly applies to cases in which saving time means saving money. Here, our Technical Customer Service plays a vital role. This becomes obvious when spending one day at the side of this team headed by André Halbertschlager and the head of the Service Centre, Hubert Stiegler.

We take care of it!
Customer Service. How important and complex is the enquiry? How much time is left to deal with it?

**It’s all about exact coordination**

In most cases, the measures to be taken can be planned in advance. For instance, projects such as machine overhaul or retrofitting can have a lead time of up to one year. Dieter Neumann, Christian Faradi, Christoph Babinski and Peter Hocheder are in charge of these projects. One of them will be responsible for the job and start by coordinating the project with all departments involved. A typical order would, for example, be retrofitting a 09-3X tamping machine with a new modulation of the rotation speed. This involves contacting the Plasser & Theurer Design Department in Linz to find out if this is technically feasible, preparing a technical order based on which the Purchasing Department can order the components and software elements needed, and drawing up a technical description for the customer. Once all details have been agreed upon with the customer and the machine has possibly been inspected, the member of staff responsible for this project will organise the entire retrofitting process. This means, he acts as

**The Team of the Technical Customer Service of Deutsche Plasser**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role/Responsibilities</th>
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<tbody>
<tr>
<td>Hubert Stiegler</td>
<td>Head of the Service Centre</td>
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<tr>
<td>André Halbertschlager</td>
<td>Deputy Head of the Technical Department</td>
</tr>
<tr>
<td>Dieter Neumann,</td>
<td>Coordination of the departments of the Service Centre and of the workshops (as deputy); quality assurance</td>
</tr>
<tr>
<td>Christian Faradi</td>
<td></td>
</tr>
<tr>
<td>Christoph Babinski</td>
<td>technical support, project coordination, work scheduling</td>
</tr>
<tr>
<td></td>
<td>(mainly tamping machines, ballast ploughs, MTW, etc.); program control (P400-P700, P-IC, Klöckner PS412)</td>
</tr>
<tr>
<td>Peter Hocheder</td>
<td>technical support, project coordination, work scheduling</td>
</tr>
<tr>
<td></td>
<td>(mainly heavy-duty machines, RM, relaying trains, etc.); program control (P-IC, IPC-Klöckner, Klöckner PS412)</td>
</tr>
<tr>
<td>Andreas Stögbauer</td>
<td>documentation, CAD, database maintenance, Intranet, proAlpha</td>
</tr>
<tr>
<td>Manuela Wein,</td>
<td>service engineers administration, service reports, billing</td>
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<tr>
<td>Angelika Lang</td>
<td></td>
</tr>
<tr>
<td>Veronika Kindl</td>
<td></td>
</tr>
<tr>
<td>Kornelia Eisele</td>
<td>commercial handling of repairs of external suppliers</td>
</tr>
<tr>
<td></td>
<td>(e.g. hydraulic components) and repairs in the electronic workshop in Munich and transducer repairs in the Leverkusen maintenance workshop</td>
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a link between the Sales Department, customer, Design Department, service technicians, maintenance workshop, etc.

**Flexible deployment of service technicians**

When it comes to the work schedule of our service technicians, planning is crucial. Deutsche Plasser employs 22 service technicians in Germany and 3 in Poland, stationed at 23 locations. Ensuring that they are coordinated optimally is among the Technical Customer Service’s major tasks. In particular, this responsibility lies with Dieter Neumann and Christian Faradi. These two experts control the jobs assigned to the service technicians not only for customers, but also for the Leverkusen/Opladen maintenance workshop and the Repair Engineering Department in Munich. Additionally, instruction and further training of the service technicians is scheduled in accordance with their workload.

**When the unexpected occurs**

Careful planning is crucial for the Technical Customer Service to be able to fulfill our customers’ wishes to their full satisfaction and in due time. However, there are things that can’t be planned. Shortly after 11.00 o’clock this Wednesday morning, there is an incoming call from a machine operator of a 09-475/4S. He is irritated, and that is understandable as his machine is not working. But why? He is immediately put through to Christoph Babinski who calms him down while accessing the information stored on this machine. Thanks to the documentation on all of our customers' machines he has all information on the machine’s general condition at a glance. Now, he can ask specific questions and it soon becomes clear that the problem must lie with the versine transducer.

Christoph Babinski assures the machine operator that this problem will be solved relatively fast. He will take care of it and call him back in a few minutes ...

Mr Babinski knows that not all types of transducers are always held in stock at Deutsche Plasser. There are too many different types and, besides, each transducer needs a specific parametrisation. Therefore, he immediately contacts the Spare Parts Department to find out how long it will take to supply, program and deliver the transducer. He then checks the work schedule of the service technicians ... Who is close enough to the work site to install the transducer today? The answer is found quickly and a message is sent to the service technician informing him of this job out on the line. It is confirmed immediately.

Within a few minutes, Christoph Babinski has all the information needed to contact the machine operator again. “Will you still be at the work site at 6 pm today?” “Of course!”

At Deutsche Plasser’s Munich headquarters over 40,000 original spare parts and wearing parts are always in stock. Normally the parts are delivered within 24 hours from ordering. On 7 days of the week.

The documentation on the machines is immediately updated with new and relevant information from the reports of the service engineers. This is why we are able to answer enquiries quickly and efficiently.

During the weekly meeting, the tasks on the to-do list are coordinated. Additionally, topics and tasks beyond the current day to day business are discussed. This enables us to respond to long-term trends quickly.
This has been an easy problem that could be solved rather quickly. It gets more complex if the causes of the standstill cannot be detected as easily as in the case just described or if the machine must be repaired in the workshop. However, technical competence, the strong network of all departments involved and careful documentation of all orders allow finding a solution within the shortest possible time.

And now to the weekly meeting ...
Again, it is one of those Wednesdays on which the Technical Customer Service can hardly complain about lack of work. Nevertheless, the weekly meeting is held. In this meeting, the entire team gathers with the departments for billing, repairs and spare parts sales represented by one member of staff each to coordinate the tasks on the to-do list. Additionally, topics and tasks beyond the current day to day business are discussed. This regular exchange of information is of utmost importance as it enables dealing with long-term developments.

Careful documentation simplifies work
Once the meeting has ended, the team goes about their daily business again. For Andreas Stögbauer this means highly concentrated work: he is responsible for the machine documentation. The service technicians prepare a detailed report on every order once it has been completed. This report must be approved by the customer and is then sent electronically to the Service Technicians Administrative Department for processing and billing. Reports informing of changes made on a machine are sent to Andreas Stögbauer who will update the documentation on the respective machine accordingly. For the Technical Customer Service of Deutsche Plasser, this work flow is essential to ensure excellent quality and enable swift handling. When the next call regarding this machine is received, your partner at the customer service will have all current data to help quickly and efficiently.

Preparing for the next day
But before it’s time to call it a day, there is another important task to be done. The work schedule for the next day must be checked again and it must be ensured that all service technicians have been informed about the jobs assigned to them.

For one of them, calling it a day is not yet an option. He is on his way to a work site where a 09-475/4S is waiting for a new versine transducer. He will arrive there at about 6 pm...
Keep your heart ticking

Our new offer for the overhaul of your tamping units

The core component of your tamping machine, the tamping unit, is subjected to excessive stresses thousands of times a year. Depending on the operating conditions, it therefore shows a particular wear behaviour. To ensure that the demands on working quality are met by the machine during its entire service life, repairs or complete overhauls of the unit are required from time to time – in addition to regular servicing. This also enables the machine to work both sustainably and efficiently. In achieving this, we want to support you even more.

- NEW TAMPING UNIT
- SPARE PARTS KIT
- GENERAL OVERHAUL USING ORIGINAL SPARE PARTS
- REPAIR TO THE EXTENT REQUIRED

F I R S T - H A N D S E R V I C E

- Individual programme comprising four options
- Fixed prices
- Package offers for original spare parts
- Extended warranty
- Improved quality thanks to standardised processes
- Safety during a longer period of operation
We offer an extensive programme for the overhaul of the units comprising four options. Regardless of the option chosen, we will actively support you. Our offer comprises: Fixed prices without additional costs charged afterwards (valid for general overhauls with original spare parts) and extended warranty. Because what we know for sure is that our tamping units perform high-quality work, even under the most difficult conditions. About 30 billion tamping insertions worldwide speak for themselves. Our major goal is ensuring both your satisfaction and the availability of our products for as long as your machine will be in operation.

**OUR OFFER**

Regardless of the maintenance strategy your company has chosen, we want to support you with our four options. Depending on the offer chosen, we will provide you with:

- standardised original parts lists, of the manufacturer, of the parts to be used,
- standardised processes for the works to be performed,
- standardised tolerances and a uniform welding procedure for reconditioning,
- service technicians for installation and commissioning (depending on the option chosen)
- a continuous improvement process with data analysis and processing,
- international experts and continuous further training.

Exact analysis of your requirements and a uniform standard for producing and processing components have enabled us to make this offer.

Together with the manufacturer, we can offer your benefits – fixed price, cost reduction, extended warranty – thanks to:

- larger batches of new parts,
- clustering individual processing steps in centres of competence,
- standardised processes for reconditioning,
- reduced working time due to the use of more new parts and our parts management across Europe.
Get to know our offer in detail.

NEW TAMING UNIT*

**Services:** A newly manufactured tamping unit will be used; installation and commissioning will be performed by a service technician; once a year or after a maximum number of 250,000 and 500,000 tamping insertions, a check will be carried out by a service technician.

**Benefits:** Maximum quality and precision, work unit in the same condition as a unit used in new machines, quality reserve for a long period of operation.

**Warranty:** Warranty will be limited to 24 months. However, it shall end prior to this deadline as soon as 500,000 tamping insertions have been made.

GENERAL OVERHAUL USING ORIGINAL SPARE PARTS*

**Services:** The entire unit will be overhauled completely following a process standardised across Europe; specified parts will be exchanged; installation and commissioning will be performed by a service technician; once a year or after a maximum number of 250,000 tamping insertions, a check will be carried out by a service technician.

**Benefits:** Fixed price, significant extension of the service life thanks to the use of original spare parts, higher quality and precision thanks to increased use of new parts.

**Warranty:** Warranty will be limited to 12 months. However, it shall end prior to this deadline as soon as 250,000 tamping insertions have been made.

REPAIR TO THE EXTENT REQUIRED*

**Services:** Your unit will be repaired as agreed upon; depending on their condition, different components will be reconditioned in our centres of competence.

**Benefits:** Reuse of a large part of the components, complemented by original spare parts.

**Warranty:** Warranty will be limited to 6 months. However, it shall end prior to this deadline as soon as 150,000 tamping insertions have been made.

SPARE PARTS KIT*

**Services:** Package solution matching your machine model, well-balanced composition based on long-time wear studies.

**Benefits:** Installation of original spare parts, longer service life and higher precision, special price for repair packages.

**Warranty:** Standard warranty conditions for original spare parts.

*Currently, this offer is only available in Europe.
Team of trainers is growing

The training centre of Deutsche Plasser is constantly expanding its training offer. This goes hand in hand with a growing team. Besides Antonio Intini, Dirk Schmidt has been teaching in Bingen since January 2014. Soon, Paul Weltz will start as a trainer in Bingen.

Mr Schmidt is a master electrician and has been with Deutsche Plasser for many years. In numerous field service operations he has gained a high level of expertise in all services offered by the company. Mr Weltz is master tradesman in industry specialised in track maintenance. Before joining Deutsche Plasser, he worked at DB Training GmbH as a trainer. Among others, his teaching activities focused on master craftsman training, inspection using DB regulations, track basics and measuring technology. On 1st January 2016, he will start to work at Bingen Training Centre.

Stressing the benefits of the new team, Mr Intini, Head of the Training Centre, said:

"Mr Schmidt and Mr Weltz not only expand our capacities but also bring great expertise and a wealth of experience. This will benefit our customers."

15 years of Allianz pro Schiene

250 guests from politics, member associations and numerous supporting companies celebrated the 15th birthday of Allianz pro Schiene in Berlin on 17th June 2015. What started on a mild summer night in 2000 with an idea of a small group of people has, in the meantime, become a renowned alliance for rail traffic based in Berlin.

The alliance aims at strengthening the rail infrastructure in Germany and actively represents its interests towards policy makers. Different working groups focus on various goals including:

- increasing investments in the rail
- simplifying vehicle homologation
- reducing noise pollution

Allianz pro Schiene is supported by numerous renowned sponsors. Deutsche Plasser is one of them. Allianz pro Schiene offers the railway industry a unique network that is all about the rail. In addition to the working groups, various events provide opportunities to further develop professionally and to establish and maintain contacts.

On behalf of Deutsche Plasser, Peter Josef Flatscher, Managing Director, and Michael Bittmann, Assistant to the Managing Director, congratulated Allianz pro Schiene on its anniversary.

On behalf of Deutsche Plasser, Peter Josef Flatscher, Managing Director, and Michael Bittmann, Assistant to the Managing Director, congratulated Allianz pro Schiene on its anniversary.
Unimat-3D in operation

A new training dimension

This late summer, the new Unimat-3D turnout tamping simulator was installed, thoroughly tested and put into operation at Bingen Training Centre. First internal training sessions were already held and received enthusiastic responses from the participants.

The workstation for the operation of the lifting and lining unit is simulated as well.
The new simulator at Deutsche Plasser’s training centre is the first only track and turnout tamping simulator in the world. It complements the wide range of training services offered by Deutsche Plasser and enables, together with the well known 09-3D simulator, comprehensive high quality instruction and further training for operators of Plasser & Theurer machines.

Simulation of all workplaces
Using the Unimat 3-D, the works performed at the three workplaces of a turnout tamping machine can be simulated: tamping, operating the lifting and lining unit, and operating the front wagon. The operator’s working environment in the work cabin of the machine is reproduced realistically. This contributes to a sustainable training.

Diverse training scenarios
Diverse scenarios are used during training ranging from plain line tamping to complex tasks such as turnout tamping. Step by step, the technical principles required to operate a universal tamping machine made by Plasser & Theurer are taught and trained immediately in practical operation.

At the end of each scenario, the simulator analyses the operation and outputs key figures allowing the trainer and the participants to evaluate the simulated performance together. This provides a valuable basis to further develop the machine operator’s expertise. Moreover, using the simulator, the same track section can be tamped several times under the same conditions. This makes it possible to learn step by step how to tamp the track optimally.
Close to reality
When designing the simulator, its developers aimed at reproducing the actual working conditions as closely to reality as possible. For this purpose, a high-performance computer system has been used. In total, five computers are used to simulate the three cabins and twelve displays of the real machine. All in all, about 17 million pixels are calculated in real-time. Visualisation is possible both in 2D and 3D. Three-dimensional representation enables the training to be performed under conditions close to reality. In particular, the programmers focused on the external view of the virtual machine. At any time, the trainee can switch to this view to learn more about how the machine works.

This training concept is complemented by the PLC program of a real machine. All necessary actuators are simulated and produce the same signals for control as a real machine. Thus, the PLC functions as if it was installed in a real machine.

Simulators significantly reduce the training period
Experiences gained from the 09-3D tamping simulator prove that using modern 3D technology in combination with a realistic working environment can reduce the training period for machine operators significantly. While training during work site operation takes up to two years, using tamping simulators enables trainees to reach a comparable level of expertise within two to six weeks depending on their previous knowledge. And it involves no risk of damaging the track or the machine.
First training sessions
Given these experiences, the expectations placed in the new turnout tamping simulator are just as great as the confidence of the trainers to meet them. As internal training sessions were successfully held, first external training sessions will now follow. The team of trainers of Deutsche Plasser is looking forward to entering the next training dimension together with the trainees.
About 80 international guests accepted the invitation of Deutsche Plasser and participated in the company’s second in-house exhibition held in the Leverkusen-Opladen maintenance workshop. The company presented an overview of its range of services and interesting innovations.

First-hand information

Peter Josef Flatscher, Managing Director of Deutsche Plasser, welcomed the guests to the in-house exhibition at the Leverkusen-Opladen maintenance workshop.

Plasser & Theurer machines waiting for inspection.
Having been in operation for five years, the maintenance workshop showed itself at its best and presented diverse information stands on the company’s range of services and the 09-3D mobile tamping simulator. Additionally, various machines of customers could be inspected in the workshop.

In his welcoming speech Peter Josef Flatscher, Managing Director of Deutsche Plasser, recalled the first five years of the maintenance workshop. The continuously rising occupancy and the positive feedback from customers prove the path chosen. Mr. Flatscher expressed sincere thanks for this trust placed in the company.

**New electronic workshop**
Moreover, the new electronic workshop could be visited. It allows transducers and pendula to be maintained directly in the Leverkusen-Opladen maintenance workshop. As a result, these components no longer have to be sent to Munich. By the end of May 2015, more than 100 transducers and pendula have already been maintained here. The highly positive feedback from customers proves this forward-looking decision.

**Reconditioning of tamping units**
Another focus was placed on the reconditioning of tamping units, in particular, the presentation of a new washing and paint stripping plant at the head office in Munich. It enables faster processing and further increases the overhaul quality.

The in-house exhibition provided the opportunity for many interesting expert discussions.

The 09-3D mobile tamping simulator was a major crowd puller.

Various machines such as the Unimat 09-4x4/4S could be inspected.

Dirk Thormann, head of the maintenance workshop in Opladen, chatting with guests.
The hybrid drive system for Plasser & Theurer machines

The EU Climate Goals 2030 comprise a comprehensive climate and energy package. Therefore, railway administrations such as Deutsche Bahn (German Railway) develop strategies for a sustainable network management.

To help customers work cost-efficiently and act flexibly under these conditions, Plasser & Theurer has developed a new drive system allowing the machine to be powered either via a diesel engine or via an electric motor. It uses the electrical energy of the contact wire both for travelling and working. As a result, the local CO₂ emission is nearly zero and in connection with the extensive noise protection measures the ecological framework conditions for infrastructure maintenance can be met.

Cost-efficiency for the operator
Rising fuel prices, low work shift returns and high staff costs – this is the reality many contractors have to face. The hybrid machine enables the operator to reduce the total costs for the long term: whenever current can be collected from the overhead line, the diesel main engine will be switched off. Consequently, not only fuel consumption but also time and cost intensive refuelling are reduced.

The new drive concept allows the machine to be powered either via a diesel engine or via an electric motor using the electrical energy of the contact wire.
Moreover, the lower mileage of the diesel engine leads to a significant extension of the service intervals which, in turn, further lowers the costs.

**The hybrid drive system E³**
The drive concept of the machine includes a diesel engine plus an additional electric motor for power supply via the overhead line. It is driven hydrostatically via one drive shaft each to the pump distributor gear which generates the hydraulic pressure for all systems, from the drive to the work units. Whenever current can be collected from the overhead line, the entire machine can be powered electrically both during work and transfer. When travelling through insulated sections, there is no need to stop the machine or to interrupt the work sequence. A fully automatic control sequence triggering the change of drive starts the diesel engine, regulates the smooth transition between electronic motor and diesel engine and then switches off the electric drive. As soon as the system notes that current can be collected again, it automatically switches back to electric drive.

**Indirect brake system with energy recovery.**
The hybrid drive system enables a braking effect to be achieved due to the moment of the electric motor working as a generator during braking. The electricity generated can be fed back to the grid. If this is not possible, the energy can be reduced via a braking resistor mounted on the roof. As less wear is caused, both scenarios lead to a longer service life of the brakes.

**Generator set for work breaks**
To ensure ecological operation of the on-board network during standstill, a generator set with a separate diesel engine is mounted on the machine. It supplies the machine’s electrical consumers such as lighting, ventilation, computer etc. with power when current collection from the overhead line is not possible.

**Hybrid drive for three well-proven machines**
The first two machines with hybrid drive, the 09-4X Dynamic Tamping Express E³ and the BDS 2000 E³, have been put into operation by Franz Plasser Vermietung von Bahnbaumaschinen GmbH in August 2015. The third machine, a universal turnout tamping machine, is manufactured for Krebs Gleisbau and will be operated in Switzerland for the first time.

The work technologies remain unchanged. Therefore, top quality continues to be offered – however, with a smaller “ecological wheelprint“. It goes without saying that all three machines are suited for line category C2.

**Deutsche Plasser looks forward to maintaining the machines**
As a result of the new drive system, the service life of different components changes. This affects the machines’ service and maintenance intervals. A constant exchange with the manufacturer ensures that our experts are always informed of latest developments. The service team of Deutsche Plasser has familiarised itself with Plasser & Theurer's new hybrid machines. Thus, it is perfectly prepared for future maintenance and service requirements. Therefore, Deutsche Plasser will develop and implement the best possible service and maintenance plans – also for the operation of hybrid machines.
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Experience the combination of classic and digital magazine design. Turn the pages in our app and experience our machines and services in videos and image galleries. In the kiosk on your iPad, Android tablet or Windows unit you can read the current as well as previous editions.

www.deutsche-plasser.de/en/media-centre/update.html