NETSHAPE

Hatebur magazine for horizontal cold and hot forming – **2/2011**

Unytite, Japan: Jun Hashimoto, CEO

CEO'S VOICE

Dear Business Friends,

After the recent financial and economic crisis, automotive production is now running in top gear again. In Germany, for example, more passenger cars are now being produced than in the peak year of 2007. With the hesitation which is appropriately typical of the investment-intensive engineering industry, our company has fought its way through the, for us, difficult year of 2010, applying temporary measures but without any loss of expertise. It was possible to revitalize organized projects and start deliveries to our customers which had been delayed due to earlier financial restraints. We were also once again in a position of being able to accept new orders.

We are putting all our energies into taking measures to outflank the present difficulties in order to meet the current challenge of the overvalued Swiss franc. Furthermore, the Swiss National Bank is providing us with support by guaranteeing that it will set a ceiling for our currency in relation to the euro at a rate of at least 1.20. We now hope that the renewed "crisis" will not be able to exert too much pressure on economic growth. At Hatebur, we are continuing to follow the path of accelerating the innovation of products with the focus on technology.

In this issue of NETSHAPE, you will find, amongst other things, the profile of a Japanese customer and partner of many years standing who is engaged in international operations involving non-automotive components. We also report on the spare parts business which forms an important part of our After Sales Service. For Hatebur, this is an important mainstay of our business which accounts for more than a third of our total sales and guarantees the availability of machines for our customers in their production process.

Our machines are being constantly improved in important areas. These solutions can usually be retrofitted. In this issue, we show an example for the AMP 70. I hope you enjoy reading this edition of the magazine.

CONTENTS

TITLE PAGE
Jun Hashimoto,
CEO of Unytite Co., Ltd.

LEGAL INFORMATION

NETSHAPE – Hatebur magazine for horizontal cold and hot forming

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WALL CALENDAR 2012 – AVAILABLE FOR THE NEW YEAR DUE TO POPULAR DEMAND

For the coming year, Hatebur is again producing a wall calendar with pictures from Switzerland. After many of our customers missed having the calendar in 2011, we are pleased to be able to issue the calendar once again for 2012. These will be delivered to the agencies in December and can then be personally handed over to customers from there. Companies with direct contact with Hatebur Reinach will receive the calendar through the post.

Switzerland shown in picture form will decorate the walls of many offices next year.

HOTMATIC 75 – REVISED BROCHURE SOON AVAILABLE

The brochure for the HM 75 has been revised in the last few months and shows the machine in the current technical version, accompanied by new pictures. It will soon be available in German and English. Other language versions will be created and printed on demand.

Rework performed on a Hotmatic AMP 50.

MOBILE FINISHING – IN USE ON SITE

Hatebur-Lumag Services AG provides a mobile finishing service on site at the customer's premises. The range of services extends from surface milling of complete contact surfaces and bearing surfaces to reworking shearing slide, driveshaft and crankshaft bearing seats through to ejector bores. A precision boring unit is available for this service which is operated by trained staff from Hatebur-Lumag Services.

UNYTITE –
USING HATEBUR MACHINES IN UNUSUAL APPLICATIONS

Jun Hashimoto, Christine Steiner Unytite, Hatebur AG

Unytite is celebrating its 65th anniversary this year. The internationally oriented company, with its headquarters in Kobe, owns 13 Hatebur forming machines, with the last one being installed in October 2011. They not only produce bearings and parts for the automotive industry, but the shipping industry, bridge builders and the steel industry are also supplied with parts by Unytite. The company philosophy emphasizes an attitude of openness to different cultures and markets.

The headquarters of Unytite

THE HISTORY OF UNYTITE

Unytite was established in May 1946. Hisashi Hashimoto, the founder, started with the production and sale of studs. The business developed with the supply of large screws which were used for the reconstruction of buildings, ship structures, ship engines, etc. after the Second World War. In the 1960s, large screws and heavy machinery were standardized and products were sold throughout Japan.

In August 1965, the company name was changed to Unytite and, in the 1970s, the company began to export its large screws, mainly to America.

In order to increase sales in Japan and to keep up with the developments taking place in overseas markets, four new factories were built in the late 1960s:

- February 1966: The Kakogawa factory is opened in the town of Kakogawa in the prefecture of Hyogo for the production of cold-formed screws.
- In November 1969, production is started in the ward of Hogo, in Kobe town, with the production of special screws in small batch sizes and an extremely wide range of different types.
- March 1970: Die Wadayama factory in the town of Asago, in the prefecture of Hyogo, starts the production of large screws.
- In July 1970, the Akashi factory in the ward of Nishi, in Kobe town, starts manufacturing with the production of forged nuts.

In addition to the investments in new factories, investment was also directed towards the acquisition of machinery. Efficient forging machines were imported from Europe and the production of precision-made screws was started. The first machine from Hatebur was an AMP 30 which was installed in 1966 and has only recently been taken out of operation. At that time, this was only the fifth forging machine which Hatebur had exported to Japan. There then followed twelve more machines of the types AMP 20, AMP 30 and AMP 50 for Unytite. The 13th machine, an AMP 30S, was not installed until just recently, in October 2011. Although it replaces an older machine, it is at the same time also an investment in the future.

The bay bridge between San Francisco and Oakland contains parts which were produced on a Hatebur forming machine. (Photo: Caltrans)

With the new machine, 40 different components are produced in two shifts (one eight hour and one ten hour shift daily), with a quantity of 40,000 components per batch. In addition, the new machine should also improve the working practices for the operating staff.

In 1981, Unytite had the main office building, a factory and test building built in the industrial park in Nishi ward, in Kobe town. Both of the factories in Kakogawa and Kobe were torn down on the old sites and reconstructed and integrated in Nishi ward. Project and Production Planning were also introduced at this location at the same time. Unytite started the production and sale of hexagon head screws and tension control bolts in 1982.

The concept of the groundbreaking fastening system was developed in 1985. Unytite not only manufactured screws but also started the development and design of fastening systems for a wide range of applications. From this initiative, the polygon locknut was developed, which eventually led to the introduction of automation and, consequently, the shortening of working hours in structural and civil engineering.

This screw connection, which at that time was quite novel, enabled a precise tightening torque with integrated locking function and was used, for example, in tunnel build-

The site of the Shinagawa line of the new Metropolitan Express Highway in Tokyo which will be completed by 2013.

ing in large quantities. The appreciation of the yen against the dollar in 1985 greatly changed the environment of the screw product industry. Shipbuilders, who were at that time the principal customers of Unytite, specialized in high-quality ship building with value added features. A new generation of screw connections with a defined pretension was in demand, which offered these conditions, for example:

– Corrosion resistance
– Light construction
– High-tensile titanium metal alloy for screws and nuts (e.g. for the deep sea submarine Shinkai 6500)

"In 1993, Urs Tschudin from Hatebur encouraged me to supply components for the automotive industry."

Jun Hashimoto, CEO of Unytite

– Stud bolts/nuts for the rotating parts of gas turbines in power generation

These are forged and precision-machined, consisting of high-tensile and heat-resistant special material. The specifications in this area are multi-faceted and a high level of quality is essential.

The second principal plant was built in 1987 in order to strengthen the subsequent machining of the products.

GLOBALIZATION: ENTRY INTO OVERSEAS MARKETS AND THE FOUNDING OF UNYTITE INC.

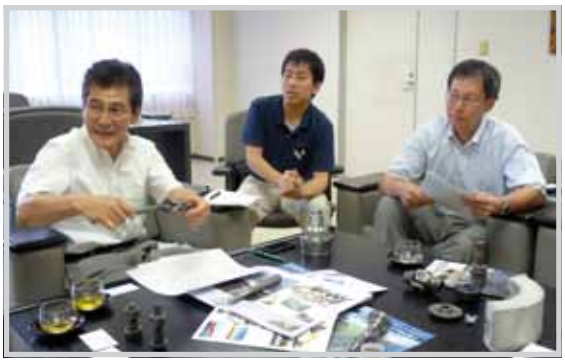
Undertaking overseas operations started as early as 1964. Hisashi Hashimoto, the founder and former president, spent two months visiting screw producers and machine manufacturers. During this time, he recognized the technological differences between Europe and the United States. He was particularly impressed by the production of high-quality screws through the use of modern machinery. He therefore wanted

The Unytite staff are very proud of their new Hotmatic from Hatebur.

to see the machinery in his own factories modernized. He wanted his products to also be accepted in overseas markets, especially in the USA. After his return to Japan, he changed the name of his company to Unytite in August 1965 in order to position the company internationally. At the same time, he expressed his intentions for the future development of the business. Investments in modern European forging machines exceeded 100 million yen as early as 1966. Due to the modernization of the production methods, a very high level of product quality was achieved.

The export of screws increased continuously. Although the company had to overcome the consequences of economic fluctuations (e.g. the dollar shock, the introduction of unrestricted foreign exchange rates, etc.), overseas exports achieved as much as 40 per cent of total sales turnover during the most successful times. For a long time, Unytite supplied nuts which were produced on Hatebur machines.

The machines proved to be extremely reliable, meaning that Unytite still continues to turn to Hatebur machines. However, due to the appreciation of the yen against the US dollar after the Plaza accord in 1985, the proportion of components exported was reduced almost back to zero. In 1988, Unytite considered giving up the export business. The only possibility for continuing to supply American customers with their own products was to start to produce the parts abroad (in Asia or in the USA). The dream of the founder was to have an internationally oriented company. Unytite therefore decided to produce parts locally for overseas customers in the local currency, thereby ensuring the continuation of supply. The decision to build a production factory in the United States was taken, and building started in Illinois in 1989. Because customers demanded flexible geometries and a high level of quality, Hashimoto invested in AMP 20 and AMP 30 machines from Hatebur in the USA.



Jun Hashimoto, CEO of Unytite, Atsushi Hashimoto, Toshiro Onishi (from left to right).

The sales operations in the United States made great progress and the products were used, for example, for:

- Air Force One Hangar in Washington DC
- NASA JFK Space Center, launch complex in Cape Canaveral, Florida
- The Olympic Stadium in Atlanta, Georgia
- Various stadiums, incl. MLB or NBA
- Large hotels in Las Vegas
- Bridge building, such as the San Fransisco Oakland Bay bridge across the San Fransisco bay (a bridge with a total length of 9 km which is presently being replaced by a new construction).

Nut for duodeca-rotary stud bolt

From 1995, with its fasteners, Unytite was operating in a saturated environment, so the management looked for a new key area in the production of automotive parts.

Japanese automotive manufacturers were forced by US trade restrictions to increase the proportion of components which were manufactured locally. As a result of the limited size of the forming machines, Unytite supplied parts for the drive train or transmission components, but no more screws. The proportion of turnover in the sale of automotive parts grew disproportionately (30 per cent of the total sales turnover). At that time, it was Urs Tschudin from Hatebur who persuaded Jun Hashimoto to supply components for the automotive industry.

"Hatebur machines are very reliable and so we also continue to buy Hotmatic machines."

Jun Hashimoto, CEO of Unytite

In addition to the founding of the factory in the USA, Unytite established a local production company in China in Guangdong in 2006. Another forging factory was built in 2011 and the production of large screw parts and forgings will commence in 2012.

COOPERATIVE OPERATIONS IN CHINA: FOSHAN UNY PRECISION CORPORATION AND THE FOSHAN UNY FORGING COMPANY

The reason for the creation of production capacities in China was not because it was possible to achieve a lower price level thanks to the lower wage costs. Unytite wanted to cover the future large demand of the Chinese market. In addition, the entry of Unytite customers into the Chinese market was also an important factor for the decision. Unytite wanted to serve these companies locally. Furthermore, the local procurement of components was an additional advantage for the Chinese production company.

Investment is attractive when the business develops in the direction of the forecast for the growth figures. But the production plant in China (alongside Japan and the USA) can also be an attractive factor for the global supply of products. The selection and flexibility for the sale, development and production of parts can be expanded to a staggering degree by this strategy.

Multinational staff, with a mixture of different cultures, customs and training backgrounds, provide an important connection with the Japanese employees and thereby promote their internationalization. Unytite expects that the next generation of employees will start their working life in a spirit of openness and flexibility.

Automotive forging: the torque converter

Automotive forging: a yoke joint assy (left) and a ring gear shaft (right)

BUSINESS STRATEGY

Based on the historical background of Unytite, customers are expecting to see products which exhibit a variety of different forms, materials and quality characteristics. In order to satisfy these demands, the use of a range of different production methods is also required. In addition to the use of the Hatebur forming machine in the horizontal process, horizontal production is also employed for cold forming operations. Grinding, polishing and finishing, etc. is also performed in-house. This allows specialized knowledge in production engineering to be continuously increased. This capability makes Unytite, with their many integrated yet also diverse processes, quite unique in the forging and fastener industry.

"Compounds" has been established as a new keyword by the managers of Unytite. Previously, products were manufactured by a cold or hot forming operation. After the hot forming process, the forging was calibrated when cold in order to reach the finished form. The value of the product was increased.

Following the combined method of manufacture, combined products are already in development today. In a move away from the manufacture of an individual component for which form, dimensions or mechanical component parts are determined by specifications or drawings, Unytite is now aiming to supply compounds which include functions or characteristics.

In parallel with increasing the added value, it became necessary to improve the quality of the human contribution to the operation. In addition to the growth in sales, the volume of production was also increased. In Hashimoto's view, the extension of working hours or pressure on the workforce does not improve productivity. The method of working that was previously used was changed and the performance per employee increased. The extra energy gained as a result was put to use for training and further education. The liberated staff were now available to perform new tasks. Thanks to this injection of motivation, the same number of employees achieved an increase in work and production output.

The management believe that it is important that employees are able to realize their potential through the work itself. He is convinced that work performed well makes a contribution to society and the result arising from this is a strengthening of personal character, the surrounding region and society in general. Employees should therefore approach new challenges with a positive attitude and be open-minded towards different cultures and markets.

Thanks to new technical developments and being able to satisfy market demands and customer requirements which are continuously changing, Unytite is succeeding in being one of the leading companies in the very highly competitive market for screws, nuts and specialized connection elements.

Anniversary

Unytite celebrates its 65 year anniversary this year in its various subsidiaries with both current staff and retired previous employees. Family members can visit the factories and it is hoped that this means they will gain a better understanding of the company. In this way, they provide encouragement to the employees in developing new business ideas and in contributing to a feeling of continued involvement in the management itself.

1ST METAL FORMING SYMPOSIUM IN RUSSIA – FROM THE RAW MATERIAL TO THE FINISHED PART

and Klaus Schreiner, Christine Steiner

For several decades, Hatebur has maintained contact with companies involved in the forming industry. Our Ferrostaal AG agency, with its headquarters in Moscow, helps to make the machines and services offered by Hatebur familiar in the countries of the Russian Federation. So far, the companies operating in massive forming are not organized as associations and, as a result, it is difficult for the sector in Russia to obtain information about research results, new developments, suppliers, publications, etc.

The idea for a symposium arose in numerous discussions with specialists from the forging metal processing industries in Russia. It was evident from these discussions that there is a great need for an exchange of specialist information and incentives from suppliers, accompanied by the desire to establish personal contacts.

"I would especially like to mention the excellently prepared documentation and the professional presentations."

Roman Bykov, PhD, Sales Director East Markets SECO/WARWICK Thermal S.A.

AT THE METALLOBRABOTKA IN MOSCOW

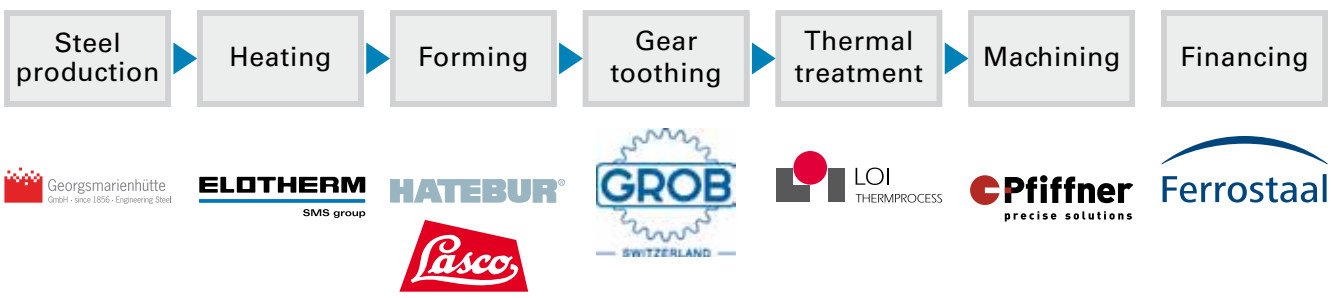
The Metalloobrabotka machine tool trade fair is held every year and, over the course of a week, provides metal processing companies (machine manufacturers as well as suppliers) with a platform to exhibit their systems, machines and tools to interested members of the public in the Expocenter in Moscow.

Hatebur wanted to take advantage of this trade fair in order to organize a forming technology symposium for Russia as an accompanying event. The idea was to offer the attendees during the symposium an overview on the topic of forming technology, including the associated upstream and downstream processes, under the title of "From the raw material to the finished product".

EIGHT SPONSORS

Together with the company Ferrostaal (the Hatebur representative in Russia), Hatebur started making the preparations more than a year ago. The aim was to organize a one-

The participating companies held presentations to demonstate their part in the process chain.



The attendees at the first forming symposium in Russia in the beautiful auditorium.

day symposium together with sponsors (companies from the metal-processing industry with an interest in the market in Russia). Thanks to Hatebur's good contacts, eight companies were found who made a financial contribution towards the costs, presented addresses of possibly interested parties and undertook a part of the program by presenting a lecture.

MORE THAN 100 REGISTRATIONS

From a list of almost 1000 addresses, around 600 companies in Russia, the Ukraine and Belarus were contacted by letter and invited to attend. Fortunately, 110 representatives registered for the symposium that was held on 24th May 2011. In the evening, a convivial exchange of ideas between the attendees rounded the day off during a boat trip on the river Moskva.

IMAGE BOOST AND NEW INTERESTED PARTIES FOR THE FUTURE

The initial outlay was well worth it: The symposium was rated a great success both by the guests and by the sponsors. This shows the positive feedback from many attendees. It is therefore planned to hold the symposium again every two years. The occasion provides Hatebur with the opportunity to expand its market in Russia and enhance existing contacts.

During the evening boat trip, the attendees admired the Cathedral of Christ the Saviour (Chram Christa Spasitelja).

Klaus Schreiner, Norbert Joehl and Thomas Freiermuth gave a presentation on the machines and services of Hatebur at the symposium.

AFTER SALES SERVICE –
SUCCESS WITH THE SPARE PARTS SERVICE

and Christine Steiner

Early one morning, Ingo Gerspach hears his telephone ring as soon as he enters his office. A customer from Germany urgently requires a spare part. During the night shift, there was a fault on his Coldmatic AKP 3-5. The machine is now at a standstill, even though it should actually be running at full production. The ASE team spends the next half hour locating the correct parts and organizing the packing, dispatch and delivery of the spare parts. As early as in the late afternoon, another call is received from the customer: The machine is running again!

The team, with René Brunner, Beat Seiler, Alexander Dobson and Vanes Stabellini (from left, not in the picture: Chunhong Lu-Moos) takes charge of providing advice and clarification on complex inquiries.

How many people work in the department and how is it structured?

Hansjörg Gebhard (GH): In the After Sales Service – and by that we mean all services which we offer to our customers after the sale of a machine – we have 31 people working. These 31 people are organized into six groups. The groups include, amongst others, the spare parts service, repairs, material requirements planning, and goods-in and dispatch.

What are the main tasks of the staff in the various groups?

Martin Fünfgeld (GF): In the administrative dispatch department, three colleagues take care of all tasks involved in the dispatch of the spare parts. Prior to shipping, the goods are made ready and the invoicing is initiated. The work also includes general clarifications concerning transportation and customs regulations, which can be demanding and complex, depending on the recipient country.
In a second area, five colleagues receive the customer orders and inquiries, whether in

writing or over the phone. These five colleagues fill the orders themselves, but orders which require intensive consultation or further clarification are forwarded to the technical department of the spare parts service.
Our six colleagues in the technical department of the spare parts service create comprehensive quotes (for example, for modifications), take care of the clarifications and technical advice, and work out modifications.

What requirements and previous training must people already possess if they would like to work with you?

GH: All Hatebur employees are characterized by having a good level of specialist training and they all require the right sort of attitude for working in the spare parts and service departments. A good knowledge of English is also an essential requirement in order to be able to carry out their day-to-day work successfully. We also require specialists with training in shipping, with experience in international transport systems and in customs clearance processing.

GF: In consulting with our customers, our advice is based on solid technical basic training. Having spent so many years working together with our customers, our colleagues have also developed a kind of intuitive understanding which enables them to explore their needs and requirements more specifically. Good customer advice must also be guaranteed when circumstances may become a little hectic in a busy environment. A high level of preparedness to involve oneself at all times is therefore also important.
In addition to excellent technical training, our colleagues in the technical spare parts department also require, wherever possible, experience in control engineering and regulation technology (hydraulic and pneumatic systems) and in electrical engineering. Experience as a mechanic or a course in technical further education is an advantage, as every additional area of training can be of

Jeanne Willig, Hidir Oezmen and Martine Caggegi (from left to right) organize the dispatch of the required spare parts, clarify the appropriate shipping instructions and customs regulations and go through this routine to dispatch dozens of packages all around the world every week.

benefit to the whole team. It is difficult to find specialist staff who can cover all the aspects involved in our work. Our fellow workers therefore all have particular specialties and, when a new position is filled, care is taken to ensure that areas where knowledge within the group is lacking receive appropriate attention.

Have the requirements and the mode of operation changed for people in the last few years?

GH: Due to time pressure, a modification nowadays often has to be carried out at the customer's site in four weeks, whereas a few years ago, more than twice that amount of time was available. In the past, experience in mechanics was sufficient for a successful operation at Hatebur, but nowadays this is not enough because technological development demands a lot of expertise in electronics, hydraulics and pneumatics, since the machines are now constructed as more complete units. This makes the material very sophisticated.
The main task of the After Sales Service is to be able to cover the requirements of our customers. What is demanded is:
– Availability of the parts
– A high level of flexibility and deployment readiness
– Wide-ranging expertise from the After Sales Service and our internal specialist groups.

How do you ensure that employees have the latest information about the machines and the spare parts?

GH: New employees receive a thorough introduction from their managers and fellow colleagues. In the process, they also visit assembly plants and accompany mechanics in order to become familiar with practical operations. "On-the-job" learning takes place later, i.e. they gather new knowledge based on current orders, use internal sources, participate in tool training sessions or collect more specific information from internal specialists.

Can you tell us something about the extent of the work and the volume of orders in the department?

GH: The stock of spare parts comes to approx. 24 million Swiss francs (manufacturing costs). Due to new types of machine, the stock level has grown continuously (by about 30 per cent in the last ten years), and customers no longer want to keep everything in stock themselves. The spare parts business at Hatebur is very important for the company, with the proportion accounting for 30 per cent of the total sales on average. More than 80 per cent of sales from the After Sales Service area is achieved through the spare parts business.

The friendly voices on the telephone belong to Stefan Bernet, Ingo Gerspach, Brigitte Utinger, Urs Schnell and Gerard Blum (from left to right).

Hatebur machines consist of thousands of parts. How can the customer know that he is ordering the correct part?

GF: There are cases of damage where it is clear which part has to be replaced. These parts can be defined by the customer using the spare parts catalog and ordered directly without inquiry. Where possible, our employees from the After Sales Service also offer setting parts which are required for fitting around the defective part. This ensures that additionally required materials are supplied at the same time with the part which is to be replaced in order that the fitting and replacing operation is made easier for the internal mechanic or for the Hatebur mechanic. However, it is often necessary for the customer to send photos of the faulty parts or describes them in exact detail by telephone. This is relatively easy in Germany and can be efficiently processed. In the case of overseas customers, things are a little more difficult since language, time difference and differences in expertise and customs make it difficult to hold a detailed discussion and provide help by telephone.

Do you see a clear strategy or change which the department must make in the next few years, and/or will make anyway?

GH: Things are clearly developing towards even higher technical requirements. We are setting ourselves the objective of dealing with these professionally. By asking the right questions during the first contact, the intention is to handle the process more efficiently and directly in the case of complex problems and, by consulting with the right specialist from the start, further inquiries should be reduced to a minimum.

GF: In order to be fully prepared for future requirements, Hatebur even today places great value on the following aids:

– A parts list is produced for every machine. The list records every part which leaves the factory. This means a lot of time and effort is being put into maintaining the electronic data. However, it is a benefit for the customer as well as for the Hatebur employee because, by using this method, incorrect deliveries can, to a large extent, be prevented.
– Since the customer merely quotes the item number of the part required, a check must be made when the order is taken to clarify which type of machine in which version is in use at the customer's site. For older machines, it is also important to check whether new or improved parts can be used or whether a modification is available. On a daily basis, employees

A section of the large spare parts stores from Hatebur in Reinach.

therefore refer back to the drawings of all versions and variants which are all available in their original form.
– Since it may be the case that different versions are available for one particular order item, the spare parts employee must allocate the part correctly and update it accordingly in the electronic documentation. It is therefore no wonder that approx. 10 per cent of the employees spend their time updating data and, as a result, an extensive and important database is available for both external and internal workers.

What are the greatest challenges encountered in your everyday work?

GF: The aim of supplying the customer with the correct parts as quickly as possible. The availability of the spare parts is the most important factor, in addition to a rapid response time and a fast delivery.

Which products are regularly asked for?

GH: We concentrate in particular on the replacement units which contain preassembled components. In this way, the customer can simply replace their defective unit with a unit that has been used but which has been reconditioned by Hatebur and they then return their unit to us for reconditioning for use by other customers. With this system, companies can save on costs (replacement units only cost approx. 70 per cent of the price for a new part) and yet they still receive a unit which, technically, is as good as new. Another benefit is the short time it then takes to replace the part, which is a big plus for the customer.

What are three of the outstanding services which you supply that distinguish Hatebur from the competition?

GH: On the one hand, certainly our very large stock of spare parts which guarantees a high level of availability. This helps us to achieve our aim of supplying European customers with the parts they require within 24 hours, and non-European customers within 48 hours.
On the other hand, the machine parts lists which, when used in our internal process, ensure that the right parts for the right machine are shipped to the customer.
One service which is already greatly appreciated by many customers is call-off orders which are used in particular for tool blocks, die blocks and punch holders and parts to be held in stock at Hatebur for up to two years without additional charge. The invoice is not issued until the goods are called off for delivery, even though the part is actually already owned by the customer since the time when the official order was first received. A beneficial solution for the customer!

Martin Fünfgeld and Hansjörg Gebhard (from the left) check a connecting rod which is to be replaced.

NON-WEARING CLUTCH FOR THE AMP 70 – HIGHER AVAILABILITY AND REDUCED MAINTENANCE COSTS

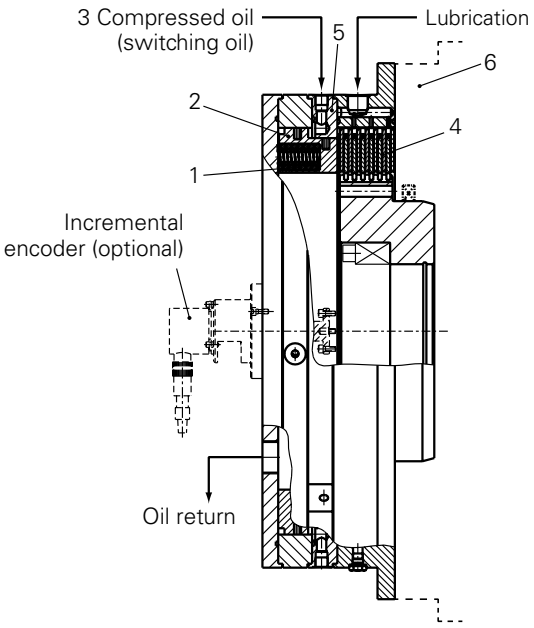
Christoph Pergher, Christine Steiner Christoph Pergher

The technology of the Ortlinghaus hydraulic clutch and brake system which has been successfully in use for many years is now also employed for the Hatebur Hotmatic AMP 70. The positive experiences encountered when used on its "big sister", the Hotmatic HM 75, are now, after some rework, applied for the flywheel shaft compound. This solution is already immediately available for new machines and retrofits as a replacement for the existing pneumatic system.

On the Hotmatic AMP 70, the flywheel shaft assembly is already being reworked and equipped with the hydraulic clutch and brake system made by Ortlinghaus.

During preventative maintenance operations, the hydraulic clutch on an HM 75 was opened and inspected. During the inspection, no wear outside the tolerance values was found. For this reason, we assume that the minimum service life of ten years, which is usual for a hydraulic clutch and brake, also applies in the case of a reconditioned Hotmatic AMP 70. But this has yet to be confirmed in actual practice.

Hydraulic flywheel shaft using the example of a Hotmatic HM 75.



The functional principle using the brakes as an example. (© Ortlinghaus-Werke GmbH)

PRECONDITIONS FOR A RECONDITIONING OPERATION

Reconditioning operations are possible in the standard model in the case of a reinforced flywheel shaft bearing system, from machine 470068 (year 1997). Reconditioning is of course also possible on older machines but requires a little more time and effort.

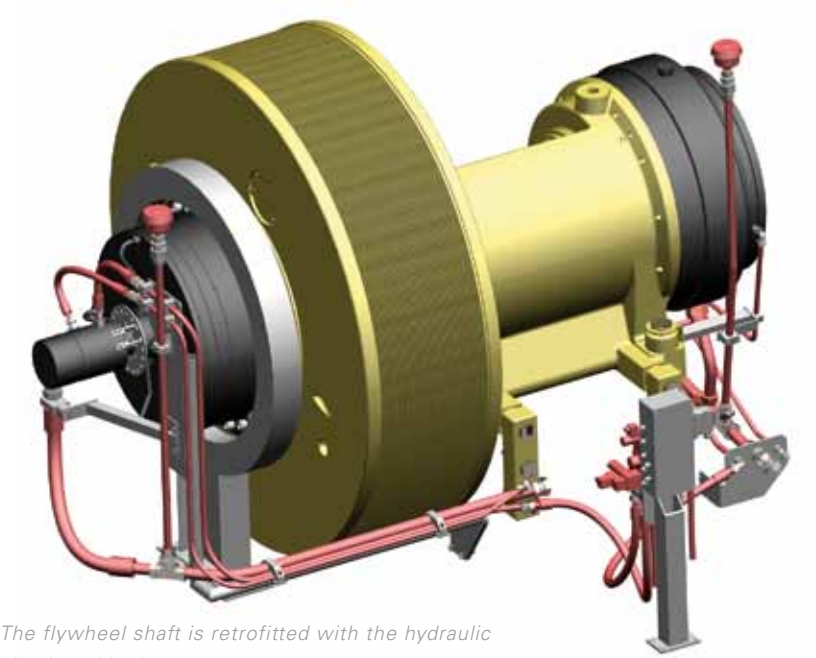
TIME AND EFFORT SPENT ON CONVERSION

Despite the conversion, no rework is necessary on the flywheel and pinion shaft. The foundation must be slightly adapted to the new conditions resulting from the additional hydraulic unit.

The control system is included according to the best available technology and as a result, improves the safety of the machine operator. This is an important point for the Hatebur developers for all adaptations and reconditioning operations performed on the machines.

FEATURES OF THE RECONDITIONING

- Clutch and brake are operated hydraulically.
- Sintered metal pads with cooling/lubrication by hydraulic oil allow a lower level of wear, which reduces maintenance costs considerably.
- The high level of robustness against thermal overload is the result of the active cooling.
- Pads which are not fouled by oil create constant torques for clutch and brake, which is the basis for a stable braking angle and a high level of availability.
- The reconditioned machines are distinctive due to their modern modular control system.
- The water-cooled hydraulic unit can be set up in the basement.
- Clutch and brake structurally identical to a Hotmatic HM 75. Only the torque was adapted to the requirements of the Hotmatic AMP 70 through a reduction in the number of plates.



The flywheel shaft is retrofitted with the hydraulic clutch and brake system.

HATEBUR IN THE FAR EAST –
OUR SUBSIDIARIES INTRODUCE THEMSELVES

Reinhard Bührer, Takeshi Imada, Christine Steiner Reinhard Bührer, Takeshi Imada

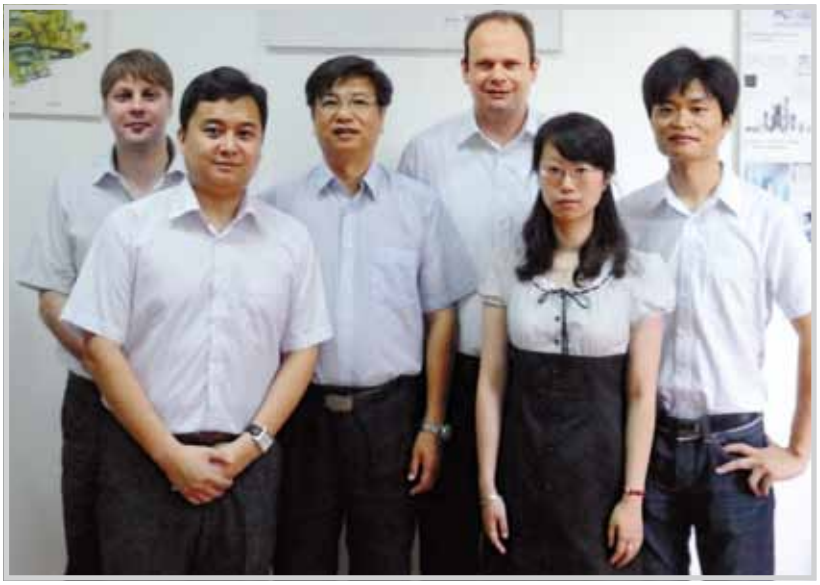
Hatebur (Shanghai) Technology Co. Ltd. was founded on 1st January 2008. Previously, Hatebur had been represented in China for more than 20 years by different trading organizations. As early as 13 years prior to that time, the Hatebur subsidiary Japan K.K. started its operations in 1995. Through their market presence in both countries over many years, Hatebur is extremely well-known and it was only logical to strengthen and extend their position by establishing their own sales and service organizations.

From a central location in Shanghai, a city of the modern world and an economic metropolis with more than 24 million inhabitants, a motivated team works closely together with the specialists in Switzerland to support customers with questions about machines, tools and processes. In Tokyo as well, in addition to their specialist expertise and many years of experience, the particular strength of the local team lies in their understanding of the cultural differences between East and West. As a result, specific questions and problems can be competently and professionally discussed and answered in the respective national language.

At present, Hatebur (Shanghai) Technology Co. Ltd. offers assistance to a total of 16 customers in China and provides support for more than 20 Hatebur forming machines which, day after day, produce parts for the automotive and roller bearing industries, amongst others. Another AMP 50XL and AMP 20S will also soon be installed.

In the meantime, the team of seven employees at Hatebur Japan K.K. jointly look after customers at more than 30 companies, including Toyota, NGK, Daido, Aichi, etc. In the last 50 years, more than 100 machines have been sold to Japanese customers, with many of them still producing parts after such a long time.

A close customer relationship and an efficient After Sales Service are important functions of our subsidiaries in China and Japan. They provide assurance for the success of our customers in their daily endeavor of improving processes and increasing productivity. Additional account is taken of this demand with the creation of a Service Center Asia, even extending beyond the borders of China and Japan.



The team from Hatebur (Shanghai) Technology Co. Ltd.: Daniel Dietrich, Andy Liang, Yu Zhenghua, Reinhard Bührer, Stella Shi, Jeff Shen (from the left)

THE TEAM IN SHANGHAI, CHINA

Yu Zhenghua (General Manager) has been familiar with Hatebur technology for more than 16 years. With his extensive marketing and specialist knowledge, he has helped to build up Hatebur Shanghai and is responsible for looking after the sales side of our local customer operations.

Jeff Shen (Service Engineer) has been working for our plants in China as a Service Technician since 2008. He supports our customers' operating and maintenance staff, offering professional advice in technical matters and, where required, also during on-site repair and service deployments.

Stella Shi (Secretary) has been in the team since 2008 and is responsible for the accounts department and for providing support in back office operations. She coordinates our marketing activities and our participation at trade fairs.

Andy Liang (Sales Engineer) has strengthened our team since 2011. With his service experience gained from his previous employment, he supports the Sales and Customer Service activities.

Daniel Dietrich (Manager Service Center Asia) is an experienced Hatebur Service Technician of many years standing and moved to take up residence in Shanghai in 2011. He has been entrusted with the task of strengthening and further extending our Customer Service activities in Asia.

Reinhard Bührer (Sales Director Asia/Pacific) has been in the team in Shanghai since 2010 and coordinates customer-related activities in the Asian market.

THE TEAM IN TOKYO, JAPAN

The management of Hatebur Japan K.K. is under the control of **Takeshi Imada.** He joined the Hatebur team in 2010. With his experience as a salesman and his bachelor's degree in mechanical engineering, he is well equipped for successfully performing his tasks.

Hiroshi Kawamura was newly appointed as Service Manager at Hatebur Japan in March 2011. He has completed a degree in mechanical engineering and gained experience though working with Swiss coating machines.

Another new team member (since April 2011) is **Seiji Miyata,** who works as a service engineer. He brings with him a lot of experience as a service engineer and technology developer.

Rie Ishikawa has been employed as a secretary since February 2007. She is responsible for the administrative tasks of the subsidiary.

Yukiko Kobayashi joined the team in February 2011, and she works closely together with Rie Ishikawa.

Nobukazu Kitabatake has been working for Hatebur for more than 30 years. He was previously Representative Director and is now a Technical Advisor.

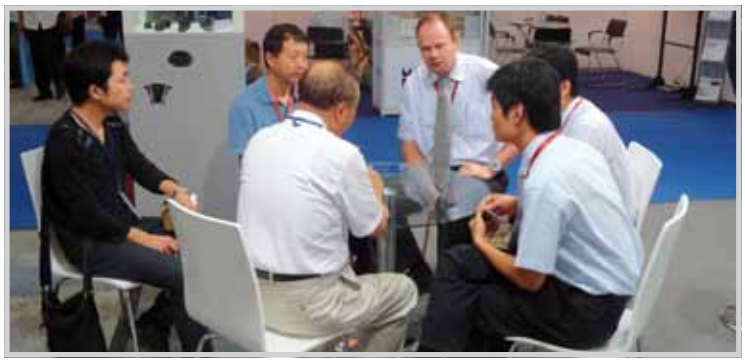
Takashi Kaiya works as Area Manager for Nagoya. He also has more than 20 years of experience working with Hatebur machines.

The team at Hatebur Japan K.K. (from top to bottom and from left to right): Seiji Miyata and Nobukazu Kitabatake, Takashi Kaiya and Rolf Hagin, Rie Ishikawa and Yukiko Kobayashi, Hiroshi Kawamura and Takeshi Imada

TRADE FAIRS/EVENTS

ACTIVITIES IN CHINA

From 23rd to 26th August, the ChinaForge Fair 2011 took place in Shanghai in parallel to the MetalForm China. Hatebur (Shanghai) Technology Co. Ltd. again welcomed customers and other interested parties to its own stand and was able to make new contacts.



ACTIVITIES IN BRAZIL

An employee from Hatebur and our representative from Precimac Lfda. welcomed Brazilian trade fair visitors during the 31st Senafor in Porto Alegre (5th – 7th October).

VISIT HATEBUR

■ **IN GERMANY**

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