

# CUSTOMER SUPPORT



Our “Spirit of Manufacturers” competitiveness is not limited to products but extends to customer support. This is because our products are capital goods which are expected to meet the demanding needs of customers. Our customer support is based on the commitment to ensure that our customers can use their machines in complete confidence and at a minimum cost.

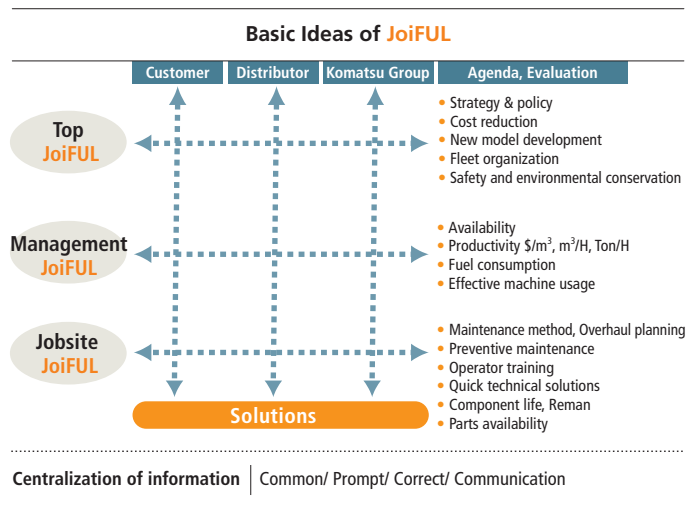
## 1. Mining Equipment

From coal to diamonds, our machines work in all kinds of mines around the world, which – most likely – operate round the clock. Productivity is the key to success of our customers, and thus we stand by them, making sure that Komatsu machines perform to the expectations of customers, whether they are deployed at temperatures of minus 50 Celsius in Siberia or above 50 right on the equator.

### JoiFUL Program: Working together for success

For large-scale mining operations, Komatsu offers the JoiFUL (Joint Follow-Up Log) program, in which Komatsu Group companies, distributors and customers regularly meet to dis-

cuss ways of improving operating efficiency and reducing operating costs of deployed machines. In the meetings, all parties identify problems, define solutions, set the deadlines for follow-up work, and confirm the results mutually for successful mining operations.





### VHMS & WebCARE: Deploying IT applications to optimize productivity

Our Vehicle Health Monitoring System (VHMS) monitors the conditions of main components such as engines, transmissions and hydraulic units of our mining equipment and provides real-time and stored information. The information is analyzed and used for machine maintenance, trouble shooting and preventive maintenance. The maintenance crew can access this information which is obtained from the sensors mounted at main components by directly hooking their laptop computers to the VHMS controller on the machine or via telecommunications satellites (optional). In the latter case, they can access real-time information of the machine in operation.

Designed for comprehensive analyses of the machines, WebCARE is a database on the web for VHMS and other monitored data. This database is accessible by Komatsu's divisions which work together to provide technical support to distributors. It is also accessible by registered distributors and helps them, for example, develop optimal maintenance schedules in

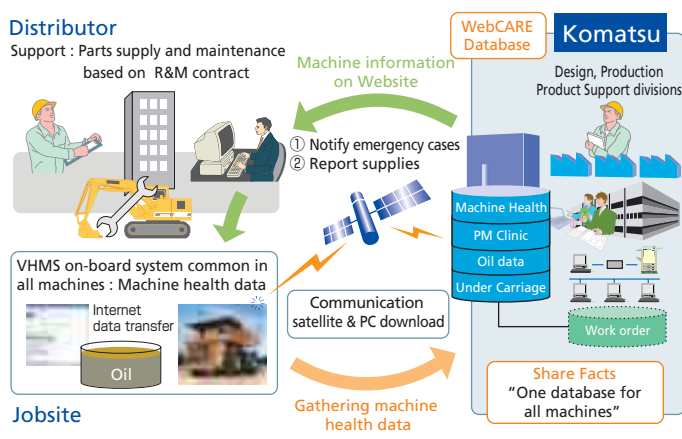
addition to producing weekly reports for their customers concerning machine health evaluations and operating conditions.



Installed in the mining equipment, the VHMS controller stores data which is being downloaded to a laptop computer.

VHMS and WebCARE are available to six large dump truck models, three large hydraulic excavator models, two large wheel loader models, and two large bulldozer models. Some 600 units of Komatsu mining equipment are equipped with VHMS around the world today. By taking advantage of these two systems, Komatsu and distributors, as a single team, work to facilitate the reduction of repair expenses for customers' machines, helping them improve their operating costs and maximize their productivity.

### Overview of VHMS & WebCARE



### Supporting gold mining in Siberia

The Krasnoyarsk territory, located in the center of Siberia, covers several climate zones, including tundra, taiga and arctic desert and is rich in subterranean resources, such as coal and gold.

Komatsu has sold 32 units of the HD785 dump truck to ZAO Polyus, the gold mining division of Norilsk Nickel (MMC) JSC, the largest producer of platinum group metals in Russia. Twenty-two units have been delivered to Polyus' Olimpiada gold mine which produced 23 tons in 2004. The mine is in operation round the clock with two shifts of workers.



To support non-stop operation of this mine located about 600 kilometers north of Krasnoyarsk, Komatsu Moscow Office stations Sergey Lyalin as jobsite manager. While he supports Polyus mechanics with repair and operator trainings, he also works with the distributor of Komatsu machines in parts supply. To prevent mechanical trouble, he supervises the PM Clinic service, a periodic diagnosis program for equipment, the VHMS and WebCARE program, and develops proposals for the timing of overhauling and other recommendations.

**Demonstrating the integrated strength of Komatsu technologies of Japan, Europe and the US for coal production in Siberia**

Yakutugol Company is the largest coal mining company of the Republic of Sakha in the Far East region. The company produced 8.5 million tons of coal, almost exclusively from its Nerungrinsky open pit mine in 2004, consisting of 5.3 million tons of coaking coal and 3.2 million tons of steam coal.

Since 1979 Komatsu has continued to deliver a large amount of mining equipment from Japan, including bulldozers, dump trucks and wheel dozers. In more recent years, the Komatsu Group has supplied 22 units of the 830E dump truck made by Komatsu America Corp. (KAC), two units of the PC5500 hydraulic excavator made by Komatsu Mining Germany GmbH (KMG) and six units of the D275A bulldozer from Japan. In October 2004, we received an order for 6 units of the 830E and 2 units of the PC8000 hydraulic excavator.

Also in October 2004, the Komatsu Group held the first JoiFUL meeting with this customer, and has held the meetings every month since then. To ensure the non-stop operation of Komatsu machines, the Komatsu Group has formed an exclusive support team with David Pearce from KMG as jobsite manager under coordination of the Moscow Office of Komatsu Ltd. Consisting of four other members from Komatsu in Japan, KAC, KMG and Cummins Inc., our strategic U.S. partner of engine research, development and production, the team super-

vises the operation and maintenance (preventive, predictive and proactive) as well as trouble shooting and repair of the machines.

**Showcasing the success of IT applications in Indonesia**

PT Adaro, the largest coal mining company of Indonesia, produces exceptionally clean coal known as “Envirocoal” in South Kalimantan Province, Indonesia.

PT Pamapersada Nusantara (PAMA), Indonesia’s largest contractor for mine companies operating in Indonesia, works for this mine owned by PT Adaro. Since its establishment in 1992, PAMA has purchased over 1,000 units of our mining equipment through our 32-year partner, distributor PT United Tractors Tbk. Working with United Tractors for the above mine, Komatsu has signed the Repair & Maintenance (R&M) contract and introduced the VHMS for 14 units of the HD785 dump truck.



JoiFUL meeting held with United Tractors and PAMA in Jakarta, Indonesia

For the R&M contract between United Tractors and PAMA, Komatsu began research on the site in September 2003 and set the following three objectives: 1) to introduce preventive maintenance know-how, 2) to determine and apply optimal overhaul timings of main components, and 3) to set the work load designed to predict the lifetime of components more accurately.

Compared to the conventional overhauling which requires a long period of machine downtime, we were able to overhaul



the components at optimal timings as planned, maintaining the operating efficiency of well above 90% for 14 HD785 dump trucks owned by PAMA, while PT Adaro secured a cost-effective production volume. We have also attained the parts availability of over 90% at the Reman center which overhauls and supplies the components, while reducing the excessive inventory of parts.

United Tractors, Singapore-based Komatsu Asia Pacific Pte Ltd, our regional headquarters for Asia and Oceania, and Komatsu in Japan, are working together as a team to support PAMA by analyzing operating data, solving technical problems, developing overhaul plans and so forth.

#### **Komatsu Australia: Going B2B**

Komatsu Australia Pty. Ltd. (KAL) launched a business-to-business (B2B) system in early 2003 and has since extended its reach particularly to major mining clients, such as Rio Tinto, BHP Billiton and Anglo operating in Australia and New Zealand. Through this on-line parts ordering system based on web interface ([www.komatsu.com.au](http://www.komatsu.com.au)), registered customers can directly access KAL's database for price and availability of parts and place their orders from their nearest parts warehouse by individual part number. They can also place orders simply by clicking on the detailed plan views of all components and their individual parts



A customer accesses KAL's online parts-ordering system from his desktop PC.

according to machine model, because the system gives registered customers access to the official Komatsu parts books.

This system benefits both customers and KAL. In addition to reduced downtime of their machines and enhanced convenience, customers express that they have also been able to make substantial improvements in administrative productivity. For Komatsu Australia, parts people are now better focused on value-adding activities for customers, such as proposing best applications of attachments and preparing optimal spare parts.

#### **2. Construction Equipment**

##### **KOMTRAX: Offering effective support to customers and distributors in China**

Our proprietary KOMTRAX asset management system for customers' equipment transmits mechanical information every hour concerning machine location, daily and cumulative hours of operation, fuel consumption, radiator temperature and replacement schedule for oil and filter, in addition to real-time alerts when abnormal conditions, such as clogging of filters, are detected.

In China under the leadership of Komatsu (China) Ltd. (KC), Komatsu has led the construction equipment industry in providing new support programs by taking advantage of the KOMTRAX system. KOMTRAX has been installed on our hydraulic excavators as a standard feature since February 2004. KC created the KOMTRAX Monitoring Center with three full-time staff members in March 2004 and has commenced comprehensive support to customers and distributors. As of April 30, 2005, we offer services based on KOMTRAX information to over 3,600 machines throughout China. We also provide KOMTRAX users with a more convenient information system which allows them to access information concerning their machine conditions from their cellular phones in addition to personal computers.

KC has given KOMTRAX trainings to its distributors throughout China, and they have established support programs based on



daily information from the KOMTRAX system. In addition to trouble shooting and repairs based on the information, they develop periodic inspection plans and provide inspection according to service meter readings, ensuring their customers that they can use their machines with peace of mind. Komatsu is also using real-time service meter readings for prompt assessment of market changes and incorporating it to further improve sales and production planning.

**Parts Supply Structure: Reorganizing global supply chain management**

Construction equipment is also capital goods required to work in demanding conditions. Like mining equipment, the downtime of machines is a very serious problem for customers. While the total number of parts for Komatsu machines, including older models, reaches 1.3 million, we handle some 300,000 items to keep at hand to support our customers' efficient work. During the year under review, we embarked on the restructuring of our parts depots worldwide in order to ensure next morning delivery of parts, while promoting optimal inventories of the Komatsu Group, including our distributors.

In the world's largest market of North America, we conventionally supplied parts to all our distributors across the country from the Parts Center in Ripley, Tennessee. Komatsu America Corp. (KAC), our regional headquarters for the Americas, has been working to establish sub-depots in strategic areas. In January 2004, KAC established a sub-depot by consigning the storage and retrieval of parts to a distributor based in Pittsburgh, Pennsylvania. KAC is planning to open its own depot in Las Vegas, Nevada in June 2005. By the end of 2005, KAC is planning to open depots in Colorado, Minnesota, and Oregon. Ultimate plans call for two more depots, one each in Texas and Florida. With seven sub-depots and the Parts Center, KAC plans to ensure next morning delivery of parts nationwide.

In Europe, following the consolidation of European marketing capabilities to Komatsu Europe International N.V. (KEISA), our regional headquarters for Europe, in November 2003, KEISA commenced the Komatsu Europe Parts Operation (KEPO) in January 2004 by consolidating former parts depots according to machine types in Hannover, Germany and Noventa, Italy and Vilvoorde, Belgium to Vilvoorde Parts Depot. As part of this move, KEISA unified its parts ordering system, simplifying order placement processing on the part of distributors and extending the next morning delivery zone, while reducing distributors' inventories. KEISA has also completed expansion of its warehouse for parts, reinforcing its capabilities to supply parts to 60 countries in Europe including eastern Europe, the Middle East and Africa.

Also in China, where we can expect steady, long-range market growth, we have opened parts depots to establish 24-hour delivery in a greater area as soon as possible.



Komatsu Europe Parts Operation (KEPO)



### 3. Human Resource Development

#### Global Training Institute: Facilitating the training of customer support managers

Our construction and mining equipment is used worldwide, and thus it has become ever more important for us to demonstrate the Quality and Reliability in customer support at the jobsites of our customers and/or distributors around the world. To this end, we offer our original 13-week Global Training Institute (GTI) to foster the growth of candidates for key managerial positions of our customer support operation which underlines the Win-Win-Win (customer-distributor-Komatsu) relationship. GTI covers 120

subjects, which include not only customer support tools but also management policy, strategies, quality assurance, marketing and leadership.

Our equipment is also developed and manufactured around the world, and thus GTI courses are held in Japan, Italy, Germany and the United States to provide hands-on machine training of different types of equipment. On February 28, 2005, we kicked off the second GTI in Japan with 14 selected participants from 11 companies in 10 countries, including one person from PT United Tractors Tbk, our Indonesian partner.

#### Participating in GTI

“I have already learned so many things from the five-week intensive program in Japan. Particularly, I have acquired some useful service management skills, and I am most impressed by Kaizen continuous improvement based on the cycle of Plan, Do, Check and Act phases. This approach for continuous improvement should be very useful and effective for me when I go back to work in Indonesia.

Another big plus for me is that in a very friendly and open atmosphere I have gotten to know other Komatsu people from around the world with different cultures and work experiences. I now feel that we will be able to continue to work together as one special team by exchanging ideas and helping each other even after we go back to our companies.”



**Heri Puji**

Senior Service Engineer  
Customer & Product Support  
Komatsu Asia & Pacific Pte Ltd



**Widjaja Kartika**

Deputy General Manager  
Mining Division  
PT United Tractors Tbk

“This is a very special moment for me thanks to Komatsu. I feel very privileged, as the first member from UT, an independent distributor of Komatsu in Indonesia, to participate in GTI with Komatsu people from around the world. In addition to extensive technical information about Komatsu machines, I have gained a very clear understanding of Komatsu’s long-term business strategies.

As I serve mining contractors from different countries working in Indonesia, having global perspectives is very important for my job. In this program, we have learned a lot from one another as we have shared our different experiences in solving problems. Having met everyone in person, it will be easier for me to call them directly for advice and suggestions in the future.

Komatsu and UT have built up a solid partnership of trust over the years, generating synergy for mutual growth. Through programs such as this, we can look forward to a new vector of synergy.”