Komatsu established in 1921, is a diversified provider of industrial-use products and services. While remaining an international leader in the field of construction and mining equipment, the Komatsu Group engages in other businesses, such as utility equipment (compact machines), forest machines, industrial machinery, logistics and other solutions-based operations.

By upholding “Quality and Reliability” as the most important management policy, Komatsu is resolutely committed to providing safe, innovative products and services that best meet the needs and expectations of its customers around the world.

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Products and Applications

Construction and Mining Equipment

- **Hydraulic excavators**
  Suitable for excavating tightly packed earth and used for a wide range of land excavation such as civil engineering, pipe jacking and mining. Designed particularly for work in confined zones, minimal rear-swing radius and small rear-swing radius models are also available for wheel-type hydraulic excavators.

- **Wheel loaders**
  Used for loading excavated earth and rocks, ranging from small wheel loaders for civil engineering to super-large ones for mining.

- **Bulldozers**
  Designed for excavating earth and hauling excavated rocks as well as capable for leveling earth.

- **Motor graders**
- **Vibratory rollers**
  Motor graders are designed for preparing the substrate of roads and other flat earth as well as leveling aggregate. Vibratory rollers are used for compacting roadbed.

### Products and Applications

**Hydraulic excavators**

- **PC01**
  - Bucket capacity: 0.008m³
  - Operating weight: 300kg
- **PC8000**
  - Bucket capacity: 42m³
  - Operating weight: 720,000kg

**Wheel loaders**

- **WA10**
  - Bucket capacity: 0.16m³
  - Operating weight: 1,065kg
- **WA1200**
  - Bucket capacity: 20m³
  - Operating weight: 210,200kg

**Bulldozers**

- **D21A**
  - Blade capacity: 0.57m³
  - Operating weight: 3,940kg
- **D575A Super Dozer**
  - Blade capacity: 69m³
  - Operating weight: 152,600kg

**Notes:**
1. These products are manufactured at Komatsu and its subsidiaries all around the world. Please refer to the production items for each company on pages 28-31.
2. The machines shown are examples of typical models. Some machines are available only in particular countries or regions.
• Dump trucks
• Articulated dump trucks
• Crawler carriers

Designed for hauling construction materials and excavated earth and rocks, they range from 25ton-class mechanical-drive dump trucks used for quarrying to 300 ton-class electrical-drive dump trucks for mining. In addition to rigid dump trucks, articulated dump trucks and crawler carriers are available, which feature excellent performance of low ground pressure on rough roads.

Utility Equipment (Compact Machines)

• Mini excavators
  Mini excavators can be used in various ways such as digging and loading earth into a dump truck. Its tight swing radius is best suited for working in a confined area.

• Skid steer loaders
  Skid steer loaders can dig and move landscaping and building materials, clean roads, grind asphalt, clear the road from snow and serve many other purposes.

• Backhoe loaders
  Backhoe loaders are versatile, multipurpose machine that can be used as an excavator and as a loader.

• Mini wheel loaders
  Mini wheel loaders can be used in snow removal, agriculture and farming.

• Forklift trucks
  Designed for use in material handling. Internal combustion and electric forklift trucks are available.

Forest Machines

Forest machines are heavy machines typically used in felling trees or machines that haul the logs to a roadside landing.

• Harvester
  Harvester are either wheeled or tracked, and fitted with a harvester head capable of delimbing, measuring, and felling the trees. The head has complex features, such as grasping, feeding, measuring and cutting the trees.

• Forwarder
  Forwarders carry logs from the stump to a roadside landing.

• Feller-bunchers
  Feller-bunchers are used to fell the trees fast and efficiently.

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Products and Applications

Recycling Equipment

- Mobile crushers
- Mobile wood tub grinders
- Mobile soil recyclers
- Mobile screens

Designed for on-site recycling of construction waste such as concrete debris, stones, damaged soil and felled trees for reuse as construction materials. Mobile crushers are also used for crushing stones at quarry sites.

[On-site Recycling Method]
The on-site recycling method enables reuse and recycle at construction sites by turning trees into chips for mulching, and crushing stones and improving soil for reuse as roadbed material. The combined use of mobile crushers and mobile screens makes a flexible and high-performance screening system.

Other Specific Equipment

Develops and sells application-specific equipment and new products tailored for a variety of work undertaken by customers, such as equipment for demolition, metal recycle and slag handling.

- Demolition
  Super-long boom and arm for demolition
- Metal recycle
  Magnet and lifting cab
- Steel plant
  Radio control and heat resistance spec [D155AX]
- General Construction
  Super-long front
- Airport
  Towing tractor [WT500E]

Tunneling Machines

- Shield machines
- Tunnel boring machines (TBMs)
- Small-diameter pipe jacking machines (“Ironmole”)

Designed for excavating tunnels for roadways, railways and combined use. “Ironmole” is designed for excavating earth and burying drain and other pipes by the non-open excavation method.

Engines, Components and Casting Products

- Diesel engines
  Diesel engines for power generators, trains, ships, construction equipment and industrial machinery.
  Offers the frontier engine technology “ecot3” compliant to Tier 3 emission standards.
- Hydraulic equipment
- Casting products
  Components for construction and mining equipment, such as transmissions, hydraulic cylinders and axles, and steel castings and cast iron products made with technological expertise.

“ecot3” engine (EGR*-type) [SAA6D140E]
“ecot3” engine (Non-EGR*-type) [SAA6D107E]

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2. The machines shown are examples of typical models. Some machines are available only in particular countries or regions.
Metal Forging and Stamping Presses

• **Large presses**
  Designed for use in forming automobile roofs and doors. Manufactures AC Servo presses and mechanical presses. Large presses are represented by a tandem press of wide applications and a transfer press of high productivity.

• **Small and medium-sized presses, Forging presses**
  Designed for use in sheet metal forming and casting. High-precision presses featuring the AC Servo motor drive are also available.

Sheet-Metal Machines

Offerings include shears to cut sheet metals, press brakes to shape sheet metals as well as fine plasma and laser cutting machines to curve-cut sheet metals.

Machine Tools

Offerings include transfer machines, crankshaft millers and grinding machines to manufacture engine parts, machining centers, wire saws to slice silicon ingots, and components for liquid crystal manufacturing equipment.

Others

• **Defense-related equipment**
  Manufactures armored vehicles and ammunitions for the Ministry of Defense, Japan.

  Light armored vehicle

• **Excimer lasers**
  Light sources for leading-edge semiconductor lithography tools that require high resolution.

  Excimer laser

• **Thermoelectric modules**
  Thermoelectric semiconductor devices capable of high-precision temperature control by switching polarity for heating and cooling. Used for temperature control of laser diodes in fiber optic communication networks.

  Thermoelectric modules

• **Packing and transport**
  CSS-Net offers electronic parts books, service manuals and other materials which are needed for after-sale services, such as ordering spare parts and requesting repairs. Designed to share information among Komatsu Group companies on the Internet, this service takes advantage of cloud computing. This service is also available for customers.

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  CSS-Net
In the construction and mining equipment business, Komatsu is not only engaged in the manufacture and sale of new equipment around the world, but also promoting various types of business that contribute to productivity enhancements and problem solutions on the part of its customers.

Utilization of Information and Communication Technology

**KOMTRAX (Komatsu Machine Tracking System)** for construction equipment

KOMTRAX is a machine tracking system whose terminals are installed on construction equipment to transmit information concerning the location, cumulative hours of operation and operating condition of vehicles. By proactively using information gained from KOMTRAX-equipped machines, Komatsu is making a contribution in respect to after-sale support activities for our customers’ machines throughout their lifetime, resulting in enhanced availability and lowered maintenance cost.

**KOMTRAX Plus** machine management system for mines

KOMTRAX Plus is a fleet management system for large equipment for use in mining, which enables to obtain detailed information concerning the conditions of machines via satellite communications. Komatsu and distributors can analyze “vehicle health” and other operating conditions and provide the information to jobsite using the Internet from a remote location on a near-real time basis. As a result, customers can receive vehicle maintenance on an appropriate timing to avoid major technical trouble, and thus reduce their maintenance expenses and downtime costs.

How KOMTRAX works

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**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 discuss 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.

**Comprehensive Compensation Plan “Komatsu All Support”**

Komatsu provides the comprehensive compensation plan “Komatsu All Support” to customers. This packaged plan not only sets a fixed monthly fee for maintenance expenses through the repair and maintenance contract but also supports customers against such risks as theft and accidents, thus enabling them to reduce their machine management costs.

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Note: “Komatsu All Support” is provided only in Japan.
Autonomous Haulage System (AHS)

AHS is a high-speed fleet management system based on 930E super-large dump trucks. AHS makes contributions to mining operation by improving its safety and productivity, while enhancing the operating rate and reliability of dump trucks. As a result, it is able to reduce owning and operating costs in total. Dump trucks, equipped with a high-precision GPS, an obstacle detection sensor and a wireless network system made by Modular Mining Systems, Inc., are controlled from the fleet control operations center for unmanned hauling. Information on target course and speed is sent from the fleet management system to dump trucks via the wireless network system, and dump trucks run on the target course at the target speed by assessing their position via GPS.

Loading machines, such as hydraulic excavators and wheel loaders, are also equipped with GPS for the fleet management system to determine the position of their buckets, and the system automatically guides the dump trucks to the designated loading position. The system also sends information concerning a route to the unloading site to ensure safe and precise unloading.

The fleet management system also prevents collisions between dump trucks and manned machines, such as service vehicles, bulldozers and motor graders, working inside the mine. If another vehicle or person should come close to the AHS-controlled area, the obstacle detection sensor of dump trucks detects it and the concerned dump truck will make an emergency stop to ensure safety.

Blade Control System Based on 3D Position Information

Komatsu’s blade control system measures the position of blades of bulldozers and motor graders as 3D information to the millimeter level by using Global Navigation Satellite Systems and TS (Total Station) type. This system compares the position information of blades and 3D construction design data, and automatically controls the blades precisely according to the design, thereby eliminating the need for setting up construction guide poles, surveying and subsequent modification work. Because this system improves the operating rate of construction equipment, it shortens the construction period substantially, thus reducing CO2 emissions as well. Jobsite safety is also enhanced with no need for surveying and resetting up guide poles while machines are working.

Holding Auctions for Used Equipment

Komatsu, through Komatsu Used Equipment Corp. (KUEC), is aggressively engaging in the used equipment business as part of the life cycle business of construction equipment. Komatsu Used Equipment holds auctions at KUEC yards which represent Japan’s largest scale. The company also holds Internet auctions on its URECA membership website, providing convenience for many customers.