

# KOMATSU

## Haulage solutions

Load haul dump (LHD) and haulage trucks



## Harnessing the power of industrial technology to support a sustainable, prosperous future for all



### **You move the minerals. We make the machines.**

The essential minerals you produce power modern technology, facilitate community growth and move society forward. But these minerals are hard to find and tougher to mine. Your customers trust you to deliver these resources, so you need an equipment, service and technology provider you can rely on to help keep your operation productive and efficient. Together we can focus on operating safely, productively and responsibly.

# LHDs and haulage trucks that go beyond the surface to meet your underground hard rock needs

## Boost productivity

The underground hard rock environment puts your equipment through enough challenges, so your LHDs and haulage trucks don't need to complicate things further. We've listened to our valued customers and engineered machines that meet these challenges and excel. The optimum sweet spot of a solid design with robust features makes these LHDs and haulage trucks productive, which is why many mines worldwide rely on them. A solid design for easy maintenance and longevity and robust features promotes efficient material moving.

## Control operating costs

Our LHDs and haulage trucks are built for easy serviceability and fuel efficiency. These rugged machines are driven by a powerful powertrain designed for high productivity and low operating costs. A ground-level maintenance design offers your service crew an easy and safe way to access vital components and parts, make essential repairs, and troubleshoot to avoid future issues and downtime. Simple, rugged designs are manufactured to help you consistently reduce TCO throughout the equipment lifespan.



## Boost operator performance

Customers like you have told us what they need and want for operators in an LHD and haulage truck, and these cabins are a great example of that collaboration. Your operators are a key cog in your operation's wheel; that's why these machines are focused on ergonomics. These workhorses feature entry paths and cabin designs that make it easy to enter and exit, helping avoid falls and head bumps.

## Built for hard rock

LHDs and haulage trucks are a mainstay of any hard rock operation, and we understand that efficiency, reliability and performance are important to you. So, we offer a lineup of solid machines — with both diesel and hybrid options — designed for the tough environments you face.

**LHD and haulage truck designs and innovations originate from you, our valued customers.**

## UGHR haulage



**Meet the haulage lineup that will help you boost performance**

### WX03

The WX03 is a reliable 3 tonne LHD for narrow vein applications. This small-class LHD features a high-strength steel frame design with a heavy-duty, all-mechanical powertrain. While its size is suited to smaller tunnels, the operator has a protected and comfortable space to sit.



### WX04

Based on the 4LD legacy, the updated WX04 is a reliable 4 tonne LHD for narrow vein applications. The WX04 is the only machine in this class to feature an enclosed air-conditioned operator cabin helping the operator be more productive.



### WX07

The WX07 has been developed for you from the ground up with a whole new chassis, new powertrain and optimized ergonomic operator cabin with enhanced visibility to help boost productivity. The WX07 is ideal for narrow vein mines, particularly operations using cut-and-fill methods.



### WX18H

The WX18H LHD features an SR hybrid drive system built to help you control costs and clear an underground hard rock path toward zero emission and electrification. By capturing energy, this innovative hybrid machine provides the equivalent of one 300 kW (402 HP) engine being boosted by another 400 kW (536 HP) engine.



### WX22H

The WX22H features an SR hybrid drive system for reduced fuel consumption and other innovative features so your mine operations can run more efficiently. This machine is built using a heavy-duty design for fewer failures and more uptime. Plus, the bucket design allows easy filling and low wear.



### HX07

As the smallest Komatsu haulage truck, the HX07 6.6 tonne truck is ideal for small tunnel openings and most narrow vein applications. The turning radius and compact form make this workhorse ideal for hard rock mining operations that require a smaller haulage truck to navigate tight turns and spaces.



### HX16

The HX16 15.98 tonne truck is designed to operate in narrow vein applications where the tunnel width is 3.5 m. Features includes load-sensing variable displacement hydraulics that reduce heat and fuel costs, while improving the life of the hydraulic components.



# SR hybrid drive LHDs built for high performance, low cost

Our hybrid LHDs feature an electric SR hybrid drive. Compared to other LHDs in their class, these machines offer faster acceleration, reduced fuel consumption, lower heat generation and best-in-class breakout and rimpull — all of which contribute to the lowest total operating costs of any LHD in their class.



### Here's how it works

During propulsion, diesel energy is converted to electricity. Energy flows from the generator to the motors mounted on each of the wheels, setting in motion SR hybrid advantages:

- Every time the machine slows during the cycle, the wheel motors turn into generators and energize the Kinetic Energy Storage System (KESS).
- During acceleration, both the diesel engine and the energy stored in the KESS can provide the equivalent of one 300 kW (402 HP) engine being boosted by another 400 kW (536 HP) engine.
- Using SR electric drive hybrid technology, these LHDs consume up to 30 percent less fuel than diesel machines.
- This hybrid technology reduces the need for ventilation and can help you drive toward zero emissions and electrification of your mining operation.

### Cost-effective hybrid LHDs

Komatsu hybrid LHDs are an excellent option for mines looking to unlock today's hybrid technology potential. SR hybrid drive is built to help you reduce costs through reduced fuel consumption and achieve your underground hard rock

mining goals of zero emission and electrification, too. With less fuel being consumed, your mine operations can run more efficiently. Less fuel burn also means less ventilation required. The SR hybrid drive systems in our hybrid LHDs have fewer operating mechanical parts subject to wear and tear.

### Efficient hybrid LHDs

These workhorses are engineered to help make your mining operations more efficient and effective, with longer-life mechanical parts contributing to higher uptime. The SR hybrid drive LHDs use proprietary KESS technology to capture and reuse energy that would normally result in heat added to the environment. This energy recovery delivers several advantages, such as higher acceleration, engineered to contribute to greater cycle performance. Plus, less need for ventilation promotes zero harm, helping to protect your most valuable assets — your people.

## LHDs with valued features

### Choose an LHD suited for your mine

No matter what class of LHD you need, you have a choice of Komatsu machines to suit your mine's operations, space restrictions and productivity needs.

- All these LHDs are engineered to consistently haul your ore efficiently and effectively to help you achieve productivity and profitability
- Komatsu four-wheel drive diesel LHDs range from 3 to 7 tonnes with two hybrid machines with an 18- and 22-tonne capacity, giving you a wide range of choices depending on your load-and-haul needs and restrictions
- Every model offers many valuable standard features with available options (that vary by model) to customize your equipment

### Features that accelerate productivity

Just some of the key features of every Komatsu LHD include:

- Hydraulic systems with piston pumps for cooler operation and longevity
- Centralized lubrication that gets grease to the right places
- Collet-style pins for ease of maintenance and increased life between replacement (diesel models only)
- Severe duty electric system — quality MIL spec components
- Hot component isolation, as well as interlocks and safety systems, to help protect person and machine
- Ergonomically designed large operator compartment offers excellent visibility and easy to operate controls

### Move the most tons per hour

All our LHDs consistently move the most tons per hour as possible within the allowable working space, moving your muck pile faster so your mine can be more productive and profitable. At Komatsu, we're committed to continuous improvement, so you can be confident that these machines feature the latest industry innovations.





### LHD innovations come from the details

Our LHDs feature many innovations that come from digging deeper, deep enough to execute on the fine details that make things work and turn good ideas into great machines. You'll see a lot of that attention to detail today in our hybrid and diesel LHDs. But there's a lot of fine precision and meticulous work behind these products that are not obvious, making them truly innovative in our industry.

### Cast Z-link boom

The innovative and proprietary design of the Komatsu Z-link and cast boom crosstube offers higher meantime between failures and greater longevity for your vital LHD fleet.

### Ground-level maintenance design

Get exceptional serviceability with vital maintenance components accessible from the ground level. Ensure fast, efficient repairs with added protection for your service crew.

### Rugged steel frame

Every Komatsu LHD has a rock-solid and strong steel frame designed for the rigors of underground hard rock mining, which minimizes any incidental damage, extends life and lowers TCO.

### Continuous operation is important

We've listened to our customers who value the need to keep minerals moving through long shifts. Along with all the robust features our LHDs have to offer, you'll also find several models have been enhanced with significantly increased fuel capacity. Larger fuel tanks enable longer operational cycles without stopping to refuel, helping to keep your mine as productive as possible.

### High-traction powertrain

Heavy-duty, all-mechanical powertrains integrate proven components that deliver efficient power to the ground and maximized tractive effort for optimized loading and low operating costs.

### Kinetic Energy Storage System (hybrid models only)

Hybrid LHDs feature KESS technology that converts diesel energy into electricity during propulsion. KESS supplies stored energy along with diesel for dual sources of efficient power and superior acceleration.

### Optimized bucket

An aggressive bucket design for easy filling reduces mucking time. These purpose-built buckets minimize wear and tear for long life. Several bucket options are also available for your unique mucking needs.

# Haulage trucks you can rely on to drive productivity and performance

## Built for exceptional reliability

Our underground haulage trucks feature strong steel frame structures built for long life, heavy-duty mechanical powertrains with well-proven components, and load-sensing hydraulic systems with piston pumps for cooler and dependable operation. These and many other dependability-boosting features help ensure reliable performance and mechanical availability for increased uptime.



## Designed for hauling productivity

With load capacities that range from 6.6 to 16 tonnes, our mine haulage trucks are high-duty cycle loaders known for their long life and high productivity. These dependable workhorses combine power and efficiency with impressive breakout power. Your operation will benefit from innovation features like:

- A four-wheel-drive system that delivers efficient power to the ground and traction, as well as fast tramming speeds and cycle times
- Centralized lubrication that delivers grease efficiently and an optional automatic lubrication system that keeps your trucks hauling longer and harder
- Easy-to-use controls for quick training and operator adoption

## Engineered for uptime and easy maintenance

We've worked with our customers to ensure their maintenance requirements and lifecycle longevity needs are met with these haulage trucks. Serviceability features like ground-level maintenance and ergonomic design promote zero harm and make it easy for your crew to perform. Hydraulic system piston pumps run cool for longer life and fuel efficiency too.

## Haulage truck features

Mining operators expect continuous fleet improvements as the mining industry evolves, and Komatsu is committed to listening to our customers so our machines can meet your needs. Both our HX07 and HX16 haulage trucks deliver features that can help you hit your production target while keeping your costs down.

## Operator-focused design

Komatsu haulage trucks are engineered for operator care. ROPS/FOPS-certified canopies, fail-safe braking system, operation interlocks, hot component isolation, three-point mounting, and slip resistant steps are designed to protect your operators and crew.

## Ground-level maintenance

Benefit from ease of serviceability with vital maintenance components accessible from the ground level. We've worked with our customer to engineer haulage truck designed for fast, efficient repairs while helping you drive toward zero harm to your service crew.

## Engineered for longevity

These trucks are designed for reliability and long component life. Longevity features include a heavy-duty all-mechanical powertrain, rugged steel frame, severe duty electrical system and centralized lubrication that gets grease to the right places.

## Upgrades and options

Customize the HX07 or HX16 to your operational needs. Available upgrades include a fire suppression system (manual, automatic), centralized auto-lubrication system, fire extinguisher and a spare rim/wheel.

## Rugged steel frame

Structural integrity comes from the rugged steel frame structures and the solid design built for the rigors of hard rock mining. Collet-style pins offer ease of maintenance and boost longevity. A heavy-duty mechanical powertrain helps delivers exceptional performance underground.

## Engineered to produce

These trucks are built from the ground up for excellent productivity. Efficient power to the ground and maximized tractive effort delivers faster hauls. Robust design means fewer failures and more uptime.



## Equipping the world to empower a sustainable future together

Although we've been historically known for our superior equipment, we also provide comprehensive service solutions and fleet management technology. Committed to enhancing your entire ownership experience, we leverage the intelligence of big data to deliver actionable insights and provide the technology needed to make sure you have the service, tech tools and parts you need to reduce downtime.

### Komatsu: Leading the way forward

Tomorrow's mining will demand ever-evolving technology in order to lower costs, raise productivity and drive zero harm. With virtual work sites throughout the world, we're able to develop and deploy the right technology at the right time.



---

Product designs, specifications and/or data in this document are provided for informational purposes only and are not warranties of any kind. Product designs and/or specifications may be changed at any time without notice. The only warranties that apply to sales of products and services are Komatsu's standard written warranties, which will be furnished upon request.

Komatsu and other trademarks and service marks used herein are the property of Komatsu Ltd., Komatsu America Corp., Komatsu Mining Corp., or one of their affiliates, or the respective owners or licensees.

**KOMATSU**

[komatsu.com](https://www.komatsu.com)

