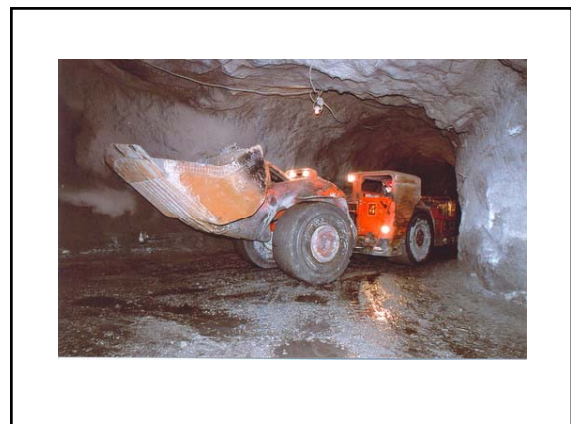
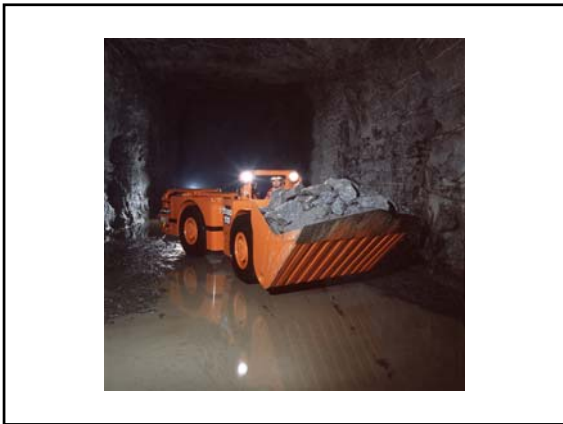
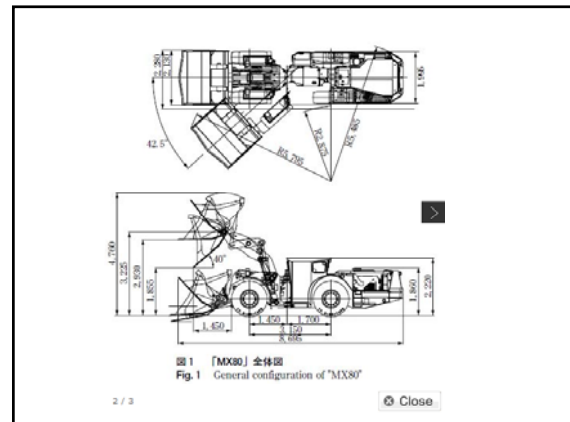
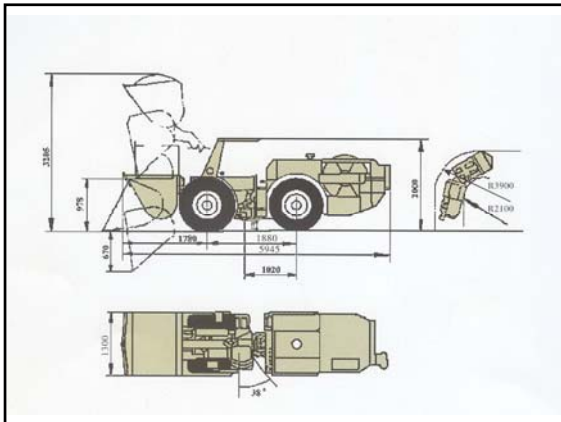


図3 容易な点検・整備  
Fig. 3 Easy checks and maintenance







A **load haul dump truck (LHD)**, is a specialized loading machine that are used to scoop extracted ore, such as coal, with a bucket, load it into the cart, and dump it in the bottom of the mine to undergo primary crushing before being hoisted to the surface out of the mine.

- Battery operated
- Diesel operated
- Electric operated

- Based on available size of bucket
- Based on the width and height of LHD

- **Load Capacity** 10 tonnes / 11.02
- **Machine Length** 9 780 mm / 385 in
- **Machine Width** 2 000 mm / 78.74 in
- **Machine Height** 1 950 mm / 76.77 in

LHD LHD consists of two parts connected by an articulation point; this gives them a high level of manoeuvrability in narrow mine drifts.

- Bucket, (0.8 to 10 m<sup>3</sup>)
- Engine,
- Long and narrow profiler,
- Diesel exhaust treatment device,
- Tires and tire accessories,
- ventilation systems.

## LHD

- The standard for LHD is a diesel engine with horsepower ranging from 78 to 145
  - A ventilation system
  - catalytic fume diluter
  - Automatically shuts off
- Smaller LHDs are outfitted with electric motors.

- Rubber tires and four-wheel drives.
- Narrow and low-profile
- Central articulation
- Bidirectional operation
- Side-seated operator
- rugged design and construction
- tramming position.

- LHD vehicles are mounted on rubber tires and propelled by four-wheel drives.
- Narrow and low-profile envelope sizes accommodate the constraints imposed by underground clearance restrictions.
- Central articulation is achieved through hinge pins connecting the two main frames. Combined with power steering, this feature provides high maneuverability and a sharp turning radius.
- Bidirectional operation with the same number of speeds forward and reverse allows loads to be hauled in either direction with the same efficiency.
- Side-seated operator positioning provides equal visibility and comfort while traveling in either direction.
- Underground LHD vehicles have rugged design and construction in comparison to what might be acceptable for surface-type equipment operating in material handling applications.
- In the tramming position, the loaded bucket is supported on the main frame of the vehicle, not on the hydraulic cylinders.

- LHDs are usually 8 to 15 meters long;
- weight 20 to 75 tons,
- Run on electrical or diesel power
- low speed of about 20-30 km/h

- **Manual operation**
- **Line of sight remote control**
- **Tele-remote control**
- **Fully automated operation**
- **Semi-automatic operation**

## LPDT

- low-profiles and sharp turning radius
- Loaded and unloading points
- Capacities 2.5 to 75 tons.

- Tip dumpers
- Telescoping dumpers
- Push-plate

- Telescoping dumpers are compact and do not require vertical dumping. The truck has a two stage box that can accommodate up to 20 tons. The movement of the telescoping bed allows the rock to be loaded or discharge
- Loading
- Accumulates of material
- Dumping cycle
- Push plate

**WEIGHTS WITH OPTIONAL FOPS/ROPS CAB**

Payload.....12.0 tons ..... 10.9 tonnes  
 Machine weight, approx. ....11.6 tons ..... 10.5 tonnes

**OVERALL DIMENSIONS**

Length.....23'-8" ..... 7 215 mm  
 Width.....6'-0" ..... 1 830 mm  
 Height over dump body sides.....6'-2" ..... 1 880 mm

**TURNING RADIUS AT 45°**

Inside.....9'-2" ..... 2 795 mm  
 Outside.....16'-4" ..... 4 980 mm

**SAE DUMP BODY VOLUME\***

Struck.....6.8 yd<sup>3</sup> ..... 5.2 m<sup>3</sup>  
 Heaped.....7.9 yd<sup>3</sup> ..... 6.0 m<sup>3</sup>

*\*Other box sizes available on request*

**DISCHARGING**

Maximum dumping angle ..... 70°