

TIP OF THE WEEK

MODEL ALL EQUIPMENT FEATURE Earthmoving Fundamentals

What topics are covered in the Earthmoving Principles modules?

These modules, available on the Komatsu Learning Management System (LMS) website, introduce and outline basic Earthmoving Principles. They are intended to aid the user with better customer communication and understanding of common industry practices. The topics are as follows:

- **Module 1:** Introduction to Geology
- **Module 2:** Introduction to Blasting
- **Module 3:** Haul Road Management
- **Module 4:** Introduction to Surface Mining
- **Module 5:** Introduction to Haul Trucks
- **Module 6:** Introduction to Wheel Loaders
- **Module 7:** Introduction to Shovels / Backhoes
- **Module 8:** Introduction to Bulldozers
- **Module 9:** Introduction to Mineral Processing
- **Module 10:** FAS Form

Haul Road Management

1. Haul Roads: **Rolling Resistance Example**



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Introduction to Blasting

Purpose of Explosives:

- **Break Rock to optimize:**
 - Digging
 - Loading
 - Hauling
 - Crushing
- **Move Rock**
 - Lower face profile to dig
 - Explosive casting of overburden



What are the key features of these modules?

The Earthmoving Principles modules include the following details:

- **Concise Voice Guided Audio**
- **Wide Variety of Topics**
- **Applicable to both the Construction and Mining Industries**
- **Suitable for a Vast Audience Base**

Introduction to Hydraulic Shovels & Backhoes

2. Key Performance Parameters: **Hydraulic Excavator**

Bench Height

For Stable Material:

- Bench height ≈ Stick length
≈ Body Height

For Unstable Material:

- Bench height < Stick length



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