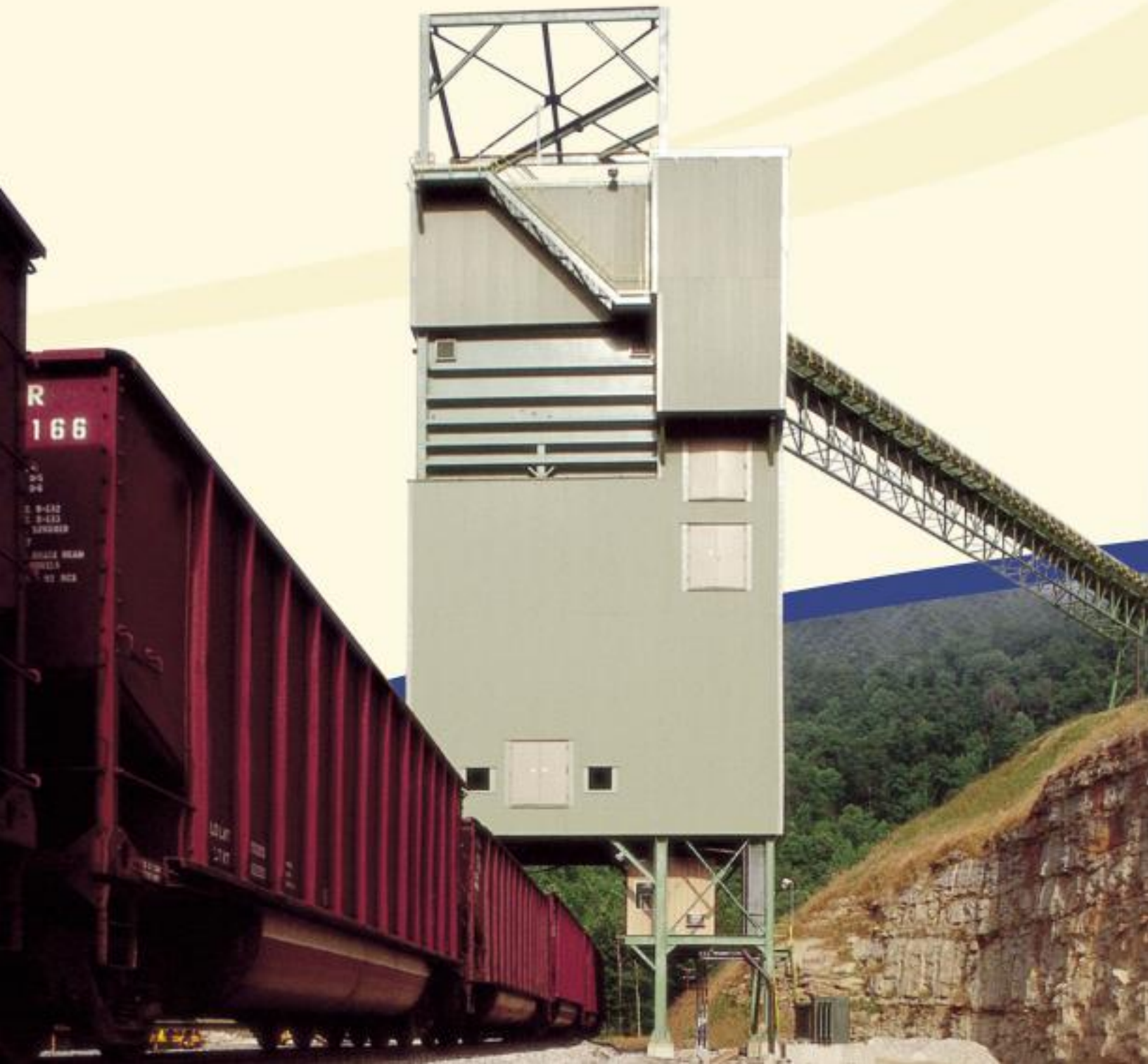




Rail Car Loadout Systems

Beyond Weighing Technology

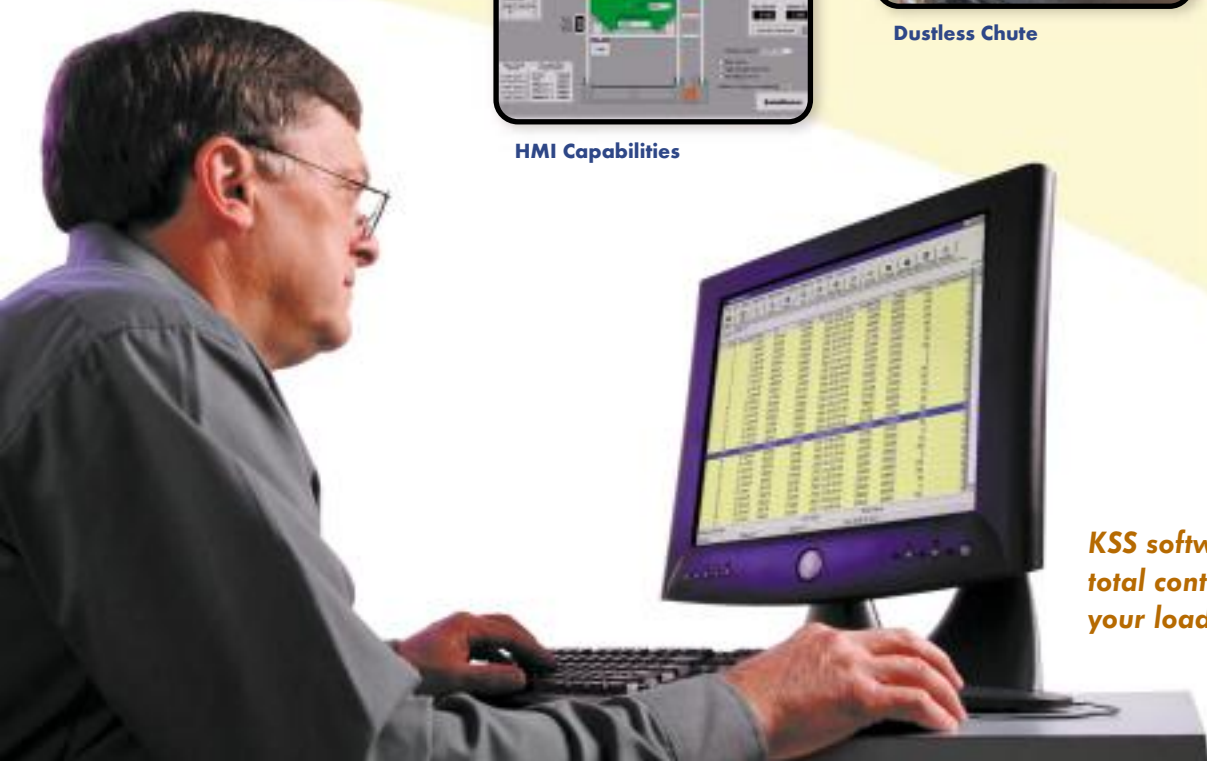




The World Leader in Rail Car Loadout Systems

▶ **Kanawha Scales & Systems (KSS)** is the world's leading manufacturer and supplier of high-speed rail car loadout systems. Since the introduction of batch loadout technology to the coal industry in the late 1970's, Kanawha Scales & Systems has designed, built and installed over 80% of all loadout systems worldwide.

Clients who establish a relationship with Kanawha Scales & Systems are assured of receiving well-conceived, intricately planned and thoroughly tested systems. KSS provides the experience, flexibility, and state-of-the-art technology that only a world leader can deliver for batchweigh and coal loading systems. We offer peace of mind and confidence that our system and support will consistently exceed your expectations.



HMI Capabilities



Dustless Chute



Triple Truck Loadout

KSS software allows you total control to manage your loadout operations.

The Industry Innovator

Kanawha Scales & Systems has been responsible for most of the industry's innovations since the advent of loadout technology. A continuous pursuit of excellence in product development and testing, coupled with bold vision, has created:

- **Dustless Gates**
- **User friendly loadout software based on Microsoft Windows**
- **Histograms for monitoring both operator and system performance**
- **Integration of radio frequency tag technology**
- **Ability to edit on-line without interrupting the loading operation**
- **Application specific design for dustless loadout chutes**
- **Electronic file and EDI transfer of loadout manifest**
- **Electronic fax capability built into software**
- **Optional reclaim controls and blending**
- **Built-in rail car database**
- **Built-in road / junction database**
- **Multiple batch ability**
- **Sophisticated reporting capability**
- **Flexible integration of PLC and HMI platforms**
- **UHMW slide bar design for gate support. Reduces maintenance and extends life by elimination of cam followers**
- **Comprehensive support services**

► **Customized solutions**
24 hour technical support

Key System Components

Dustless Gates

KSS has perfected a truly dustless and easily serviceable control gate. Double-blade slide-gate design assures quick response and reaction to control signals for the most accurate cut off target weight possible, assuring consistent batches, car after car.



Load Cells

Specially designed, self-aligning, mounting arrangement utilizes a dual ended shear beam load cell and parallel link suspension providing the highest weighing accuracy.



PLC Control

Programmable Logic Controllers, coupled with a color graphics operator interface panel, can control reclaim, blending and other associated systems from the loadout control room.



Dustless Chute

Kanawha Scales & System's unique design on the telescoping, traversing chute has solved the age-old problem of "belching" and "dusty" chutes.



Computer System

The use of a high speed, state of the art computer utilizing Microsoft's Windows provides user-friendly screens with powerful pull down menus.



Automatic Car Identification

Automatic input of rail car serial numbers are accomplished by integration of patent-
ed RF tag reader systems.



Calibration System

Built in certified test weights, traceable to NIST standards allow for easy testing from the control panel, assuring accurate weighing performance for every train.



Typical Loadout Configuration

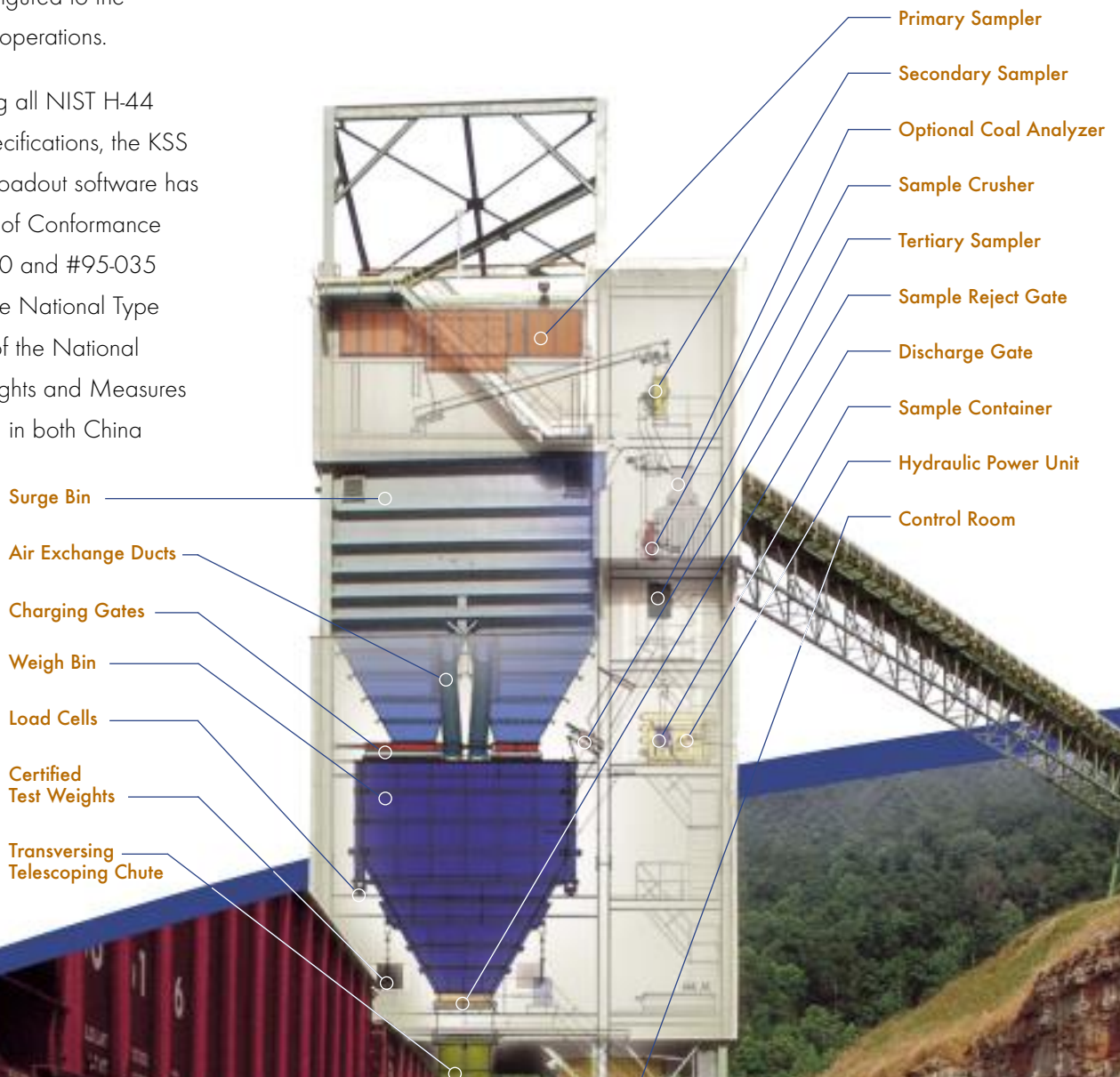
Kanawha Scales & Systems designs your entire loadout from the ground up, customized to meet your specific needs. While each loadout is unique, the basic components are configured to the requirements of your operations.

In addition to meeting all NIST H-44 requirements and specifications, the KSS loadout system and loadout software has received Certificates of Conformance #95-095 (BWS-9000 and #95-035 (BWC-8000) from the National Type Evaluation Program of the National Conference On Weights and Measures and pattern approval in both China and Australia.



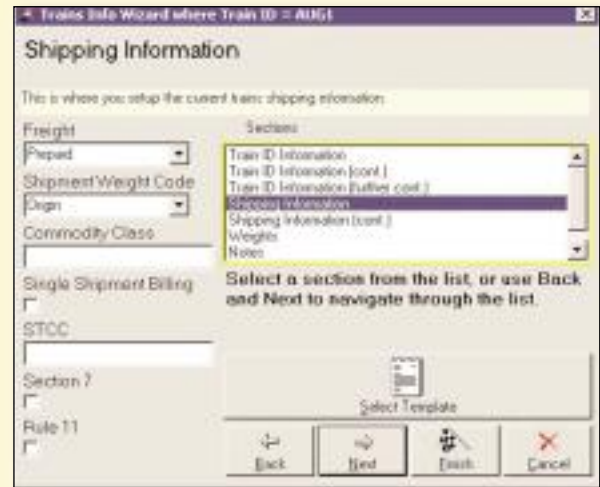
Custom Configuration

All components are configured to meet your specific needs.



Sophisticated Reporting Capabilities

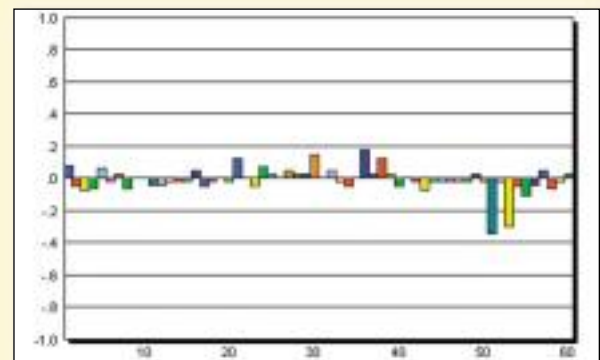
BatchMaster® offers sophisticated manifest detail and reporting of information that is unmatched in the industry. Manifest data can be configured to report a variety of information. **BatchMaster**® also features a histogram profile that offers a real-time analysis of loading performance. This KSS innovation is an invaluable tool in effectively evaluating overall system performance.



Setup Wizard

Seq#	Level	Profile	ID	Bin Size	Bin Len	Load Time	Loaded Bin	Target	Difference	Weight Adjustment
1	1	01040	01040	20000	270	04:30:15.00	20700	20000	700	
2	1	01050	01050	20000	250	04:21:05.00	19900	20000	-100	
3	1	01060	01060	20000	300	04:30:15.00	19900	20000	-100	
4	1	01070	01070	20000	200	04:30:15.00	20300	20000	300	
5	1	01080	01080	20000	200	04:30:15.00	20300	20000	300	
6	1	01090	01090	20000	200	04:30:15.00	20300	20000	300	
7	1	01100	01100	20000	200	04:30:15.00	20300	20000	300	
8	1	01110	01110	20000	200	04:30:15.00	20300	20000	300	
9	1	01120	01120	20000	200	04:30:15.00	20300	20000	300	
10	1	01130	01130	20000	200	04:30:15.00	20300	20000	300	
11	1	01140	01140	20000	200	04:30:15.00	20300	20000	300	
12	1	01150	01150	20000	200	04:30:15.00	20300	20000	300	
13	1	01160	01160	20000	200	04:30:15.00	20300	20000	300	
14	1	01170	01170	20000	200	04:30:15.00	20300	20000	300	
15	1	01180	01180	20000	200	04:30:15.00	20300	20000	300	
16	1	01190	01190	20000	200	04:30:15.00	20300	20000	300	
17	1	01200	01200	20000	200	04:30:15.00	20300	20000	300	

Main BatchMaster® Screen

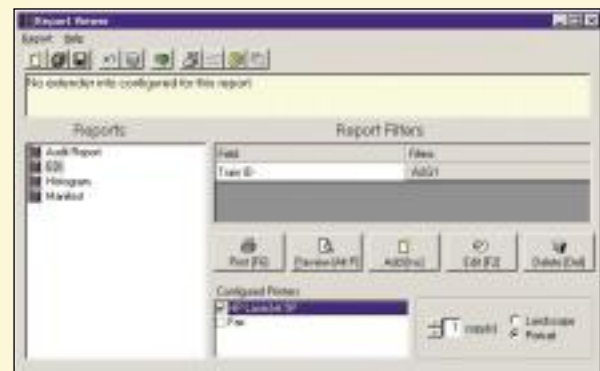


Typical Histogram

The 'Edit Railcar' window shows fields for Seq #, Profile, ID, Gross Allowable, Tare, Load Time, and a comment field. The 'Edit Preacts' window shows a list of preacts with columns for Sino, Charge Preacts, and Full. It also includes fields for Zero Range(ZRD), Stilling Up Toner (sec), Stilling Down Toner (sec), and Max Batch.

Edit Railcar

Edit Preacts



Report Viewer

A Company of Excellence

Founded in 1954, Kanawha Scales & Systems (KSS) has grown into one of the largest independent scale suppliers in the world. KSS remains committed to comprehensive client support and total solutions to industries worldwide. KSS is a market leader, serving companies requiring the most sophisticated integrated weighing technology.

As a recognized leader in weighing equipment sales and service, our products, services and people deliver enhanced performance and continuous technological innovations around the globe.

▶ ***Kanawha Scales & Systems is your technology solution for today's weighing demands!***

Versatility & Flexibility

KSS Products

- Truck Scales
- Custom Weighing Scales
- Railroad Scales
- Crane Scales
- Belt Conveyor Scales
- Check Weighing Scales
- Counting Scales
- Drumming Scales
- Bench Scales
- General Warehouse Scales
- Batching Scales
- Data Collection and Vehicle Tracking Systems
- Truck Loading Systems

KSS Services

- Blending & Beltline Control Systems
- Complete Preventive Maintenance Programs
- Software Engineering & Development
- Mechanical & Structural Design Engineering
- Hydraulics Design Engineering
- General Facility or Operations Control & Monitoring
- Railroad Loadout Controls
- Truck & Belt Conveyor Scale Installation, Maintenance, Repair
- Truck Scale Data Collection and Management Systems
- Online Coal Analysis Systems



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