



# BUCYRUS *Advantage*

When you purchase Bucyrus parts for your Bucyrus or Marion machines, you maximize the value of your investment in one of the world's finest mining machines. Bucyrus' quality assurance programs, which include certification to ISO 9001:2000, assures that parts meet or exceed worldwide quality standards for fit, form and function.

## 495HR & 495HF Electric Rope Shovels

### Reliability and Product Enhancements For Increased Machine Productivity:

Bucyrus' continuous improvement initiative is chaired weekly by the President of Bucyrus. This initiative has led to a wide array of creative ideas and solutions for applying our machines to today's demanding mining environments. Bucyrus' leading position in bringing technology to market has once again proven to be a valuable asset to our customers. Here are a few reasons why our 495 is fast becoming the market leader.

### Unique Bucyrus Offerings:

#### Electrical

- AC IGBT "fuseless" electric drive system
- AC brushless motors
- MIDAS, AccuLoad, and *AccessDirect*; operational data acquisition, storage, transmittal, retrieval and analysis systems

#### Structures

- Extensive use of Finite Element Analysis in structural design
- Third party structural design verifications
- Thermally stress relieved major structures
- Profile and toe grinding techniques in selective high stress areas
- White painted structural interiors for ease of field inspection
- Built-in interior boom ladders facilitate in-the-air inspections
- Cold weather steels on outside skin plates of all major structures

#### Planetary Drives

- For swing, hoist, and propel motions

#### Swing

- Four swing pinions drive into the swing rack for reduced tooth loading and prolonged life
- Positioning of pinions results in even load distribution over full swing rack circumference. Swing rack rotation for even wear is not required.
- Swing scrapers remove material buildup from the track keeping ring gear free of dirt and damage

#### Crowd

- Rope crowd reduces front end weight and vibration which supports extended boom suspension life
- Tubular dipper handle for torsion free structural loading
- Hydraulic/worm drive crowd rope adjuster is accessible from machinery house roof
- Adjustment free saddle block system

#### Cab ("Super Cab")

- State-of-the-art operators cab with dual access/egress doors, exceptional workface and truck visibility and ergonomic design for operator comfort and safety.

#### Bolts

- SuperBolt nuts utilized for ease in tightening large bolts

#### Dipper (FastFil™ or Straight-Sided)

- Thermally stress relieved door, body bowl, and back
- Tilted latch bar to reduce heeling and increase track clearance
- Built-in 12 ton jack screw for safe fulcrum and easy adjustments

#### Safety

- Stored Energy Warning signs applied throughout, at appropriate locations
- Forty-five degree rear facing boarding stairs supplied as standard equipment
- Optional second boarding means is available
- Second operators cab access door is provided for safety egress
- Non-skid grating and roof surfaces
- Caterpillar handrail mounting clamps help eliminate vibration induced weld cracks

These are only a few of the enhancements that Bucyrus' 495 series shovels carry to help make them the most productive shovels available today.