Main Features and Benefits:

- **Large Capacity Coal Scraper Bowl** – Coal Bowls are longer and higher than standard scraper bowls, which allows Wheel Tractor-Scrapers to haul 38 m (50 yd) of low density loose coal. The bowls are designed and built to specifically deliver in coming loose coal to the stockpile and reserve stock piled coal to the feeder system.

- **Compaction** – Coal bowl scrapers are effective in compacting coal, which reduces the risk of spontaneous combustion of coal in the stockpile by eliminating the air spaces.

- **Tractor Serviceability Improvement** – The fuel, water and engine oil are relocated at ground level on the right hand side of the machine for easy access.

- **Brakes** – Have been changed from an air actuated drum shoe brake to a hydraulic actuated tractor wet disc brake and a scraper dry caliper.

- **Tire Spin Reduction** – This feature will allow the machine to control the slip of the tractor tires only. When Tire Spin Reduction is selected the machine will control wheel spin on the tractor by keeping the slip in the optimal range for loading by adjusting engine rpms with no additional operator input.

- **Engine Over Speed Protection** – In the event of an engine over speed situation, the compression brake or brakes will automatically engage with no operator input. The machine determines the over speed condition based on rate of acceleration and applies compression brakes automatically.

- **Advanced Cushion Hitch** – With similar technology as the Cat® Advanced Ride Management seat suspension, this software allows the cushion hitch to prevent end stroke by having the ability to predict end stroke events and manage the rate of dampening. This results in reduced hitch maintenance and improved operator ride in rough conditions.

- **High Pressure Steering** – K Series steering system design requires significantly less steering effort. The reduced steering effort will allow for decreased operator fatigue and a more efficient operator resulting in possible higher rates of production late in the work cycle.

- **Auto Stall** – In cold weather conditions the machine will use the Auto Stall feature to help warm up the transmission oil faster resulting in the machine shifting out of torque converter drive (2nd gear) faster than on previous models.

- **Differential Lock Engagement Protection** – This standard feature allows the machine to prevent the operator from engaging the differential lock when damage could occur.

- **Cab Improved** – The K Series cab interior improves operator comfort and visibility. The overall interior is 21% larger than the G Series Cab.

- **Machine Speed Limit** – This feature is designed to take the place of top gear selection. If the machine top speed needs to be limited the operator can select the top speed through the display or the top speed can be set in ET. This will allow the machine to find the correct gear that works best for the engine and transmission. In most cases, allowing the engine and transmission to select the correct gear to pull the load results in a lower engine load factor and lower fuel burn verses using top gear selection that required the machine to run at engine speeds at or close to high idle.

- **Ground Speed Control** – Ground Speed Control sets the desired top speed by the operator if job site conditions or segment speed limits require a speed less than full run out. Machine Speed Limit is intended for use when top speed needs to be limited for longer durations and Ground Speed Control is intended for use when the top speed needs to be reduced for shorter segments or intermediate periods of time. The operator can set the desired top speed and the machine will find the correct gear that works best for the engine and transmission. In most cases, allowing the engine and transmission to select the correct gear to pull the load will result in a lower engine load factor and lower fuel burn verses top gear selection.

- **Fuel Economy Mode** – This is a two part feature when selected, the first part of the feature lowers the transmission shift points allowing shifting to take place at lower rpms to aid in fuel savings. The second part of the Fuel Economy Mode allows the machine, when operated at engine rpms less than full throttle, to automatically vary the power distribution between the tractor and the scraper, allowing the machine to utilize the more efficient tractor power train vs. the full time torque converter drive scraper power train.

- **Sequence Assist (Optional Attachment)** – This option uses cylinder position sensors to automate bowl, apron and further implement controls throughout the four core work cycles: Dig, Haul, Unload and Return. When utilized it can reduce up to 14 individual operator commands per cycle. Sequence Assist simplifies control over the implements, reduces joystick usage, automatically controls cushion hitch, transmission hold and ejector.
## 637K Wheel Tractor – Coal Bowl Scraper

### Specifications

#### General Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Tractor</th>
<th>Scraper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Tank Refill Capacity: Scraper</td>
<td>1400 L</td>
<td>24.5 L</td>
</tr>
<tr>
<td>Overall Width</td>
<td>3.94 m</td>
<td>3.51 m</td>
</tr>
<tr>
<td>Overall Shipping Height</td>
<td>4.15 m</td>
<td>450 mm</td>
</tr>
<tr>
<td>Scraper Capacity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Struck</td>
<td>31 m³</td>
<td>450 mm</td>
</tr>
<tr>
<td>Heaped</td>
<td>38 m³</td>
<td>450 mm</td>
</tr>
<tr>
<td>Rated Load</td>
<td>34,472 kg</td>
<td>535 mm</td>
</tr>
<tr>
<td>Width of Cut</td>
<td>3.51 m</td>
<td>11'6&quot;</td>
</tr>
<tr>
<td>Maximum Depth of Cut</td>
<td>450 mm</td>
<td>17.7&quot;</td>
</tr>
<tr>
<td>Maximum Depth of Spread</td>
<td>535 mm</td>
<td>21.1&quot;</td>
</tr>
<tr>
<td>Top Speed (Loaded)</td>
<td>55.8 km/h</td>
<td>55.8 km/h</td>
</tr>
<tr>
<td>180° Curb-to-Curb Turning Width</td>
<td>12.98 m</td>
<td>42'7&quot;</td>
</tr>
</tbody>
</table>

#### Tires:

- **Tractor**: 37.25R35**E3
- **Scraper**: 37.25R35**E3

#### Engine Model:

- **Tractor**: Cat C18 ACERT™
- **Scraper**: Cat C9.3 ACERT

#### Rated Engine RPM:

- **Tractor**: 1,900 rpm
- **Scraper**: 2,150 rpm

#### Flywheel Power:

- **Tractor**: 425 kW / 570 hp
- **Scraper**: 216 kW / 290 hp

- Cat C9.3 ACERT and Cat C18 ACERT engines meet U.S. EPA Tier 4 Final/ EU Stage IV engine emission standards.

#### Cab

- ROPS/FOPS meet ISO standards
- The exterior sound power level for the standard machine (ISO 6393:2008) is 118 dB(A).

### Safety Criteria Compliance Standards

- **Rollover Protection Structure (ROPS)**: ISO 3471:2008 for up to 21,282 kg (46,919 lb)
- **Falling Object Protective Structure (FOPS)**: ISO 3449:2005 Level II
- **Brakes**: ISO 3450:2011
- **Steering System**: ISO 5010:2007
- **Seat Belt**: SAE J386:FE2006
- **Reverse Alarm**: ISO 9533:2010

### Travel Speeds (Runout)

<table>
<thead>
<tr>
<th>Gear</th>
<th>Tractor</th>
<th>Scraper</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>5.5 km/h</td>
<td>3.4 mph</td>
</tr>
<tr>
<td>Second</td>
<td>10.0 km/h</td>
<td>6.2 mph</td>
</tr>
<tr>
<td>Third</td>
<td>12.4 km/h</td>
<td>7.7 mph</td>
</tr>
<tr>
<td>Fourth</td>
<td>16.9 km/h</td>
<td>10.5 mph</td>
</tr>
<tr>
<td>Fifth</td>
<td>22.7 km/h</td>
<td>14.1 mph</td>
</tr>
<tr>
<td>Sixth</td>
<td>30.6 km/h</td>
<td>19.0 mph</td>
</tr>
<tr>
<td>Seventh</td>
<td>41.95 km/h</td>
<td>25.7 mph</td>
</tr>
<tr>
<td>Eighth</td>
<td>55.8 km/h</td>
<td>34.7 mph</td>
</tr>
<tr>
<td>Reverse</td>
<td>9.9 km/h</td>
<td>6.2 mph</td>
</tr>
</tbody>
</table>

### Implement Cycle Times

<table>
<thead>
<tr>
<th>Time</th>
<th>Bow Raise</th>
<th>Bowl Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>3.5 seconds</td>
<td>3.5 seconds</td>
</tr>
<tr>
<td>Scraper</td>
<td>4.0 seconds</td>
<td>3.8 seconds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Apron Raise</th>
<th>Apron Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>8.5 seconds</td>
<td>8.5 seconds</td>
</tr>
<tr>
<td>Scraper</td>
<td>8.5 seconds</td>
<td>8.5 seconds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Bail Raise</th>
<th>Bail Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>1.5 seconds</td>
<td>2.1 seconds</td>
</tr>
<tr>
<td>Scraper</td>
<td>1.5 seconds</td>
<td>2.1 seconds</td>
</tr>
</tbody>
</table>

### Service Refill Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>Tractor</th>
<th>Scraper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crankcase</td>
<td>52 L</td>
<td>13.7 gal</td>
</tr>
<tr>
<td>Transmission System:</td>
<td>110 L</td>
<td>29 gal</td>
</tr>
<tr>
<td>Cooling System:</td>
<td>75 L</td>
<td>19.8 gal</td>
</tr>
<tr>
<td>Fuel Tank</td>
<td>1400 L</td>
<td>370 gal</td>
</tr>
<tr>
<td>Hydraulic System</td>
<td>142 L</td>
<td>37.5 gal</td>
</tr>
<tr>
<td>Diesel Exhaust Fluid:</td>
<td>30.5 L</td>
<td>8 gal</td>
</tr>
<tr>
<td></td>
<td>22 L</td>
<td>5.8 gal</td>
</tr>
</tbody>
</table>
Dimensions

<table>
<thead>
<tr>
<th>Dimension Description</th>
<th>mm</th>
<th>in</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Width – Overall Machine</td>
<td>3937</td>
<td>155</td>
</tr>
<tr>
<td>2 Width – Tractor</td>
<td>3499</td>
<td>137.8</td>
</tr>
<tr>
<td>3 Width – Rear Tire Centers</td>
<td>2462</td>
<td>96.9</td>
</tr>
<tr>
<td>4 Width – Inside of Bowl</td>
<td>3404</td>
<td>134</td>
</tr>
<tr>
<td>5 Width – Outside Rear Tires</td>
<td>3636</td>
<td>143.2</td>
</tr>
<tr>
<td>6 Height – Overall Shipping</td>
<td>4140</td>
<td>163</td>
</tr>
<tr>
<td>7 Height – Top of Cab</td>
<td>3733</td>
<td>147</td>
</tr>
<tr>
<td>8 Ground Clearance – Tractor</td>
<td>664</td>
<td>26.1</td>
</tr>
<tr>
<td>9 Front of Tractor to Front Axle</td>
<td>3612</td>
<td>142.2</td>
</tr>
<tr>
<td>10 Axle to Vertical Hitch Pin</td>
<td>509</td>
<td>20</td>
</tr>
<tr>
<td>11 Height – Scraper Blade Maximum</td>
<td>538</td>
<td>21.2</td>
</tr>
<tr>
<td>12 Wheelbase</td>
<td>9576</td>
<td>377</td>
</tr>
<tr>
<td>13 Length – Overall Machine (Standard)</td>
<td>15480</td>
<td>609.5</td>
</tr>
<tr>
<td>14 Rear Axle to Rear of Machine</td>
<td>2424</td>
<td>95.4</td>
</tr>
</tbody>
</table>

STANDARD EQUIPMENT

POWER TRAIN – TRACTOR
- Cat C18 ACERT engine with MEUI™
- Compression engine brake
- Electric start, 24V
- Air cleaner, dry type with precleaner
- Fan, hydraulic
- Ground level engine shutdown
- Radiator, aluminum unit core, 9 fins per inch
- Guard, crankcase
- Starting aid, ether
- Braking system:
  - Primary and secondary, wet disc, hydraulic actuated
  - Parking, hydraulic-released, spring-applied
- Throttle lock
- Transmission:
  - 8-speed planetary power shift
  - ECP control
  - APECS software
  - Programmable top gear selection
  - Transmission hold
  - Differential lock
  - Guard, power train
  - Standard tire spin reduction
  - Ground speed control
  - Machine speed limit
  - Differential lock protection

POWER TRAIN – SCRAPER
- Cat C9.3 ACERT engine
  - High pressure common rail fuel
  - Constant lift engine brake
- Electric start, 24V
- Air cleaner, dry type with precleaner
- Fan, mechanical driven
- Ground level engine shutdown
- Radiator, aluminum unit core, 9 fins per inch
- Starting aid, ether
- Braking system:
  - Primary and secondary, dry caliper, hydraulic actuated
- Transmission:
  - 4-speed (torque converter drive)
  - Planetary power shift

ELECTRICAL – TRACTOR
- Alternator, 150 Amp
- Batteries (4), 12V, 1,000 CCA, maintenance free, high output
- Electrical system, 24V
- Lighting system:
  - Headlights, LED
  - Turn signals with hazard function, LED floodlights, (2) cutting edge (1) bowl, halogen side vision (2)
- Starting/charging receptacle

ELECTRICAL – SCRAPER
- Alarm, backup
- Batteries (4) 12V, 1,000 CAA, maintenance free, high output
- Alternator, 65 Amp
- Electrical system, 24V
- Lighting system:
  - Brake lights, LED
  - Turn signals with hazard function, LED

OPERATOR ENVIRONMENT – TRACTOR
- HVAC system, heat, AC, defrost
- Thermostat control of HVAC system
- Coat hook
- Lunchbox platform with holding strap
- Diagnostic connection (2)
- 12V power ports (2)
- Differential lock (1)
- Dome courtesy light
- Horn, electric
- T-handle implement control
- Mirror, rearview
- Radio ready
- ROPS/FOPS cab, pressurized

(continued on next page)
STANDARD EQUIPMENT (continued)

OPERATOR ENVIRONMENT – TRACTOR (continued)
- Keypad switches:
  - Throttle lock
  - Wipers/washers
  - Hazard lights
  - Retarding level select
  - Work lights on, off
  - Information mode on Messenger Display
- Safety tab rocker switches
- Seat belt, static two-piece
- Seat, Cat Advanced Ride Management (ARM), Cat Comfort Series 3, rotates 30 degrees
- Steering wheel, tilt, telescoping, padded
- Windows, right side emergency egress
- Windows, sliding
- Windows, laminated, zipped in
- Windshield wipers, front and rear windows, includes washers
- Door lock
- Messenger Display

Gauges, warnings include:
- Coolant temperature
- Engine oil temperature
- Hydraulic oil temperature
- Fuel level
- Park brake
- Implement lockout
- Brake system
- Throttle lock
- System voltage
- Secondary steering
- Bail down
- Ejector auto
- Differential lock
- Apron float
- Transmission hold
- Cushion hitch
- High beam lights
- Action lamp
- Engine speed, rpm
- Gear selection

OTHER STANDARD EQUIPMENT – TRACTOR
- Advanced cushion hitch
- Accumulators (cushion hitch) with Canadian Registration Number (CRN)
- Fast oil change
- Fenders, non-metallic
- Heater, engine coolant 120V
- Rims (2)
- Tow hooks, front
- Vandalism locks
- Scraper fenders
- Fast oil change
- Rims (2)
- Steering locks

FLUIDS
- Extended Life Coolant to –37° C (–34° F)

OTHER STANDARD EQUIPMENT – SCRAPER
- Coal Bowl
  - 31 m³ (41 yd³), struck
  - 38 m³ (50 yd³), heaped
- Vandalism locks
- Scraper fenders
- Fast oil change
- Rims (2)
- Hydraulic position sensing cylinders (bowl lift and apron)

OPTIONAL ATTACHMENTS

STEERING ARRANGEMENTS
- Secondary Steering Arrangement

INTEGRATED TECHNOLOGIES
- Sequence Assist Arrangement
- Advanced Tire Spin Reduction

OTHER ATTACHMENTS
- Camera arrangement – WAVS
- Cab beacon
- Air horn
- Air horn and beacon
- Wiring group

SERVICE INSTRUCTIONS
- Film arrangement – U.S. (ANSI)
- Film arrangement – International (ISO)