MOUNTING AND DISMOUNTING

- Mount or dismount the machine only at locations that have steps and/or handholds. Before you mount the machine, clean and inspect the steps and handholds. Make all necessary repairs.
- Always face the machine whenever you get on or off the machine.
- Maintain three-point contact with the steps and with the handholds. (Three-point contact can be 2 feet and 1 hand or 1 foot and 2 hands).
- DO NOT mount or dismount a moving machine. Never jump off the machine. Do not carry tools or supplies when you try to mount the machine or when you try to dismount the machine.

<table>
<thead>
<tr>
<th>Was procedure step completed properly?</th>
<th>√</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluator Comments</td>
<td></td>
</tr>
</tbody>
</table>

BEFORE STARTING THE MACHINE

- Inspect the condition of the seat belt and mounting hardware
  Regardless of appearance, replace the seat belt after three years of use
- Adjust the seat so that full pedal travel can be achieved with the operator’s back against the back of the seat
- Make sure the machine is equipped with a lighting system that is adequate for the job conditions
  Make sure all machine lights are working properly
- Before you start the engine and before you move the machine, make sure that no one is underneath the machine, around the machine, or on the machine

<table>
<thead>
<tr>
<th>STARTING THE MACHINE - PERMISSIVES SCREEN (LEFT OPERATOR SCREEN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Stop is checked</td>
</tr>
<tr>
<td>1 Start within 2 minutes is checked</td>
</tr>
<tr>
<td>2 Starts within 5 minutes is checked</td>
</tr>
<tr>
<td>Drive Ready is checked</td>
</tr>
<tr>
<td>Drive Cabinet Temperature is checked</td>
</tr>
<tr>
<td>Phase Sequence is checked</td>
</tr>
<tr>
<td>Auxiliary Ground Fault is checked</td>
</tr>
<tr>
<td>Incomplete Start-up Sequence is checked</td>
</tr>
<tr>
<td>Joystick Calibrated is checked</td>
</tr>
<tr>
<td>Joysticks in Neutral is checked</td>
</tr>
<tr>
<td>Hoist Released is NOT checked</td>
</tr>
<tr>
<td>Crowd Released is NOT checked</td>
</tr>
<tr>
<td>Swing Released is NOT checked</td>
</tr>
<tr>
<td>Propel Released is NOT checked</td>
</tr>
<tr>
<td>Boarding Ladder is checked</td>
</tr>
<tr>
<td>Press the Drive Power ON button</td>
</tr>
<tr>
<td>Monitor air pressure using status screen on left hand operator display</td>
</tr>
<tr>
<td>Address all CDA faults</td>
</tr>
<tr>
<td>Sound the signal horn making sure ALL personnel are clear of machine</td>
</tr>
<tr>
<td>Ensure joysticks are in neutral, select DIG mode</td>
</tr>
<tr>
<td>Press control RESET</td>
</tr>
<tr>
<td>RELEASE the brakes using the control screen</td>
</tr>
<tr>
<td>Briefly actuate swing, crowd, hoist controls - verify motion is operational</td>
</tr>
<tr>
<td>Perform pre-op check of propel motion before operating propel</td>
</tr>
<tr>
<td>Verify hoist and crowd limits are set properly and operational</td>
</tr>
</tbody>
</table>
**Start-Up & Shutdown Procedures 7495**

<table>
<thead>
<tr>
<th>Normal Shutdown Procedure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start-Up</strong> &amp; <strong>Shutdown Procedures</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Was procedure step completed properly?</strong></td>
<td>√</td>
</tr>
<tr>
<td>Park machine on firm SAFE ground away from any possible damage areas, falling rocks, flooding, etc.</td>
<td></td>
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<tr>
<td>Place dipper on ground and return joysticks to neutral</td>
<td></td>
</tr>
<tr>
<td>Make sure all brakes are set</td>
<td></td>
</tr>
<tr>
<td>Press the Control Stop Button</td>
<td></td>
</tr>
<tr>
<td>Press the Drive Power Off. This shuts down the drive</td>
<td></td>
</tr>
<tr>
<td><strong>DO NOT use the emergency stop for normal shutdown, this will set all the brakes.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Shutdown</strong></td>
<td></td>
</tr>
<tr>
<td>Pressing any one of the Emergency Stop buttons will stop the machine under operations emergency conditions</td>
<td></td>
</tr>
<tr>
<td>This button causes electrical and immediate mechanical braking simultaneously</td>
<td></td>
</tr>
<tr>
<td>If machine is in motion, power will remain on the motions in order to provide electrical braking for a few seconds</td>
<td></td>
</tr>
<tr>
<td>If the machine is in motion or stopped, this button will power the DC bus to approximately zero voltage quickly after the time delay</td>
<td></td>
</tr>
<tr>
<td>Pressing the Emergency Stop button when any drive is in motion may result in component damage</td>
<td></td>
</tr>
<tr>
<td><strong>Restarting After An Electrical Fault</strong></td>
<td></td>
</tr>
<tr>
<td>Before any/all motion can be reset, the following conditions must be met:</td>
<td></td>
</tr>
<tr>
<td>For hoist/propel motion the hoist/propel transfer switch is in the position called for by the operator’s mode selector switch</td>
<td></td>
</tr>
<tr>
<td>Joystick for motion being reset must be in NEUTRAL</td>
<td></td>
</tr>
<tr>
<td>Motion mechanical brake selector button must be in SET position</td>
<td></td>
</tr>
<tr>
<td>For hoist or crowd travel limits, the motion will first slow down and then will stop, but the controls will remain active. Reversing the joystick will remove the fault and allow continued operation.</td>
<td></td>
</tr>
<tr>
<td>For a boom jacking fault, ALL motions will stop but the controls will remain active. Reversing the crowd joystick will remove the fault and allow continued operation. For HydraCrowd equipped machines this takes approximately 3 seconds before the retract motion begins to respond. GENTLY retract the dipper handle until boom is completely lowered. You can then resume normal operation.</td>
<td></td>
</tr>
<tr>
<td>If boarding ladder and/or stairs are pulled down while the machine is in operation, an alarm message will be sent to the operator and swing and propel motions will be shut down. Hoist and crowd motions will remain active. Once ladder and/or stairs are back in positions, motions may be restarted by pressing the control reset button.</td>
<td></td>
</tr>
<tr>
<td>For most other faults, the machine will be shut down and brakes set. In these situations, the controls cannot be reset until the fault has been corrected by an electrician.</td>
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</tbody>
</table>

**Notes:**

<table>
<thead>
<tr>
<th>Inspected by:</th>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
</table>

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