**Overhead Crane Machine Safety**

**Technical Features Overview**

**CRANEVISION™ – SNAG DETECTION**
- **Description:** Detect snag condition – Issue stop command to the motors.
- **Safety Focus:** Feature can prevent adverse load motion under some (not all) snagging conditions.

**CRANEVISION™ – SIDELOAD DETECTION**
- **Description:** Detect side load condition – prevent hoisting when side loaded.
- **Safety Focus:** Prevent the crane from hoisting if the load is not centered under the hook. This will prevent the load from shifting/swinging when it is picked up off the ground.
- **Maintenance Focus:** Prolong the life of the wire rope and hoist drum by preventing side loading.

**CRANEVISION™ – AUTOCENTERING**
- **Description:** Automatically center the bridge and trolley over the load during hoisting.
- **Safety Focus:** Facilitate safely centered hoisting.
- **Personnel Focus:** Makes centering the load before a pick easier and automatic for the operator than manual centering.

1. **EXPERTOPERATOR™ PANEL (EO)**
2. **BRIDGE LASER (SM)**
3. **TROLLEY LASER (SM)**

**SAFEMOVE™**
- **Description:** Programmed zones that the crane cannot enter (e.g., machine equipment, operator platforms)
- **Safety Focus:** Prevent collisions between the crane/load and surrounding infrastructure.
- **Maintenance Focus:** Reduce maintenance on items/infrastructure that is frequently damaged by collisions.

**EXPERTOPERATOR™**
- **Description:** Software modifies operator commands to be safer.
- **Safety Focus:** Reduce load swing by 85 - 95%.
- **Maintenance Focus:** Prolong the life of motors/drives because crane moves more smoothly & efficiently.
- **Personnel Focus:** Crane easier to operate. Novice operators can perform as well as experienced operators.
- **Efficiency Focus:** Positioning efficiency can increase by 10 - 40%.
**Load Swing & Productivity Reports**

**Typical Load Swing Reduction & Positioning Efficiency Data**

<table>
<thead>
<tr>
<th>Operator</th>
<th>Experience</th>
<th>Operator Comments</th>
<th>EC™ Enabled</th>
<th>Collisions or Near Misses</th>
<th>Move Time (min:sec)</th>
<th>Pendent Button Press/Release Count</th>
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<tr>
<td>A</td>
<td>Moderate</td>
<td>&quot;It's great, made it a lot easier.&quot;</td>
<td>1</td>
<td>No</td>
<td>07:11</td>
<td>4</td>
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<tr>
<td>B</td>
<td>Novice</td>
<td>&quot;It was easier to anticipate stopping.&quot;</td>
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<td>06:59</td>
<td>12</td>
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<tr>
<td>C</td>
<td>Expert</td>
<td>&quot;Incredible, quickly builds confidence.&quot;</td>
<td>2</td>
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<td>04:36</td>
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<tr>
<td>D</td>
<td>Novice</td>
<td>&quot;It felt much safer.&quot;</td>
<td>2</td>
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<td>E</td>
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<td>&quot;The stopping distance remains just limited swing when reached. Less stress to constantly monitor the load.&quot;</td>
<td>3</td>
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**Performance Indicators**

- **Load Swing (Manual):** 2.40 ft
- **Load Swing (EO):** 0.24 ft
- **% Reduction:** 85.0%

- **Industry:** Primary Metals
- **Capacity:** 25-Ton
- **Use:** Material Handling

- **Positioning Time (Manual):** 195 s
- **Positioning Time (EO):** 137 s
- **% Reduction:** 31%