### Engine
- Volvo TAD572 VE, Tier 4f, MSHA Certified
- 4 cycle, inline 4 cylinder, liquid cooled, electronic controlled
- Vertical canister style lube and main fuel filters and fuel/water separation with manual feed pump attached to engine
- Water in fuel indicator and alarm

**Gross Rating:** 215 hp @ 2200 rpm (160kW)
**671 ft lb Torque @ 1100-1500 rpm (910Nm)

**Net Rating:** 195 hp @ 2200 rpm (145kW)

### Controls
- Two electronic joysticks (hoist and bucket, telescope and swing)
- One rocker switch (tilt) control
- Joysticks mounted on arm pods
- Quick change joystick pattern switch located on instrument panel
- Joysticks are self-centering; when controls are released, power for movement disengages and swing and tilt brake set automatically

### Fuel tank capacity:
- 90 gallon (341 L)

### Operator Cab
- All-weather cab
- Tinted safety glass windows
- Acoustical lining
- Four-way adjustable seat
- AM/FM radio
- Filtered fresh air heater
- Defroster
- Air conditioner
- Front window slides to overhead position
- Rearview mirror on left side
- Seat belt
- Swing lights
- Cab tilt angle is infinitely adjustable from level to 23° upward
- Pressure cab with Heppa Filter
- Cab cage with protective rock guard
- Camera system with three external cameras

### Boom
- Two piece triangular telescoping boom
- Adjustable boom rollers with eccentric shafts
- 270° boom tilt
- 74° boom pivot angle

### Hydraulic System
- One load-sensing, axial piston pump; oil flow 0-110 GPM (0-416 L/min)
- Tandem gear pump (steering, brake/pilot) 10 GPM (38 L/min), 6 GPM (23 L/min)

**System monitor**
- Electronic monitor in cab indicates
  - Low hydraulic fluid level
  - High hydraulic fluid temperature
  - System working pressure
  - System pilot pressure

### SYSTEM SPECIFICATIONS

#### Six cylinders
- One tool: 5.0” ID, 3.0” rod, (127 mm x 76 mm) 25.9” (658 mm) stroke
- Two hoist cylinders: 4.25” ID, 3.0” rod, (108 mm x 76 mm) 53.43” (1357 mm) stroke
- One telescope: 4.5” ID, 3.25” rod, (114 mm x 83 mm) 136” (3.37 m) stroke
- Two single-acting axle oscillation cylinders: 4.528” ID, 4.528” rod (115 mm x 115 mm), 6.25” (159 mm) stroke

#### Three hydraulic motors
- Swing, 68 hp (51 kW)
- Tilt, 28 hp (21 kW)
- Propel, 113 hp (84 kW)

#### Operating pressures:
- Hoist: 4,900 psi (331 BAR)
- Tilt: 2,400 psi (165 BAR)
- Swing: 4,500 psi (310 BAR)
- Tool: 4,900 psi (331 BAR)
- Telescope: 3,300 psi (228 BAR)
- Propel: 4,900 psi (331 BAR)
- Pilot System: 550 psi (38 BAR)
- Braking & Steering: 2,400 psi (165 BAR)

#### Oil Capacity
- Reservoir system 61 gallon (231 L)
- Pressurized reservoir with visual oil level gauges

#### Filtration System
- 10 micron return filter
- 10 micron pilot filter
- Fin and tube-type oil cooler with thermal by-pass and relief valves
- Pressure-compensated, load-sensing valves with circuit reliefs in all circuits

### Undercarriage
- Full-time 4 x 4 drive with 2-speed Powershift transmission
- Rigid mount rear axle
- Oscillating front steer axle with automatic lock-out cylinders
- Four-wheel enclosed sealed wet-disc brakes
- Access ladders on both sides and both ends of machine
- Locking toolboxes on each side

**Maximum Travel Speed:** 11 mph (17.7 kph)
**Maximum Gradeability:** 47%
**Min. Turning Radius (curb-curby):** 38 ft (11.6 m)
**Tires:** 16.00 x 25 (28 ply)
**Specifications**

- **Approximate working weight:** 77,500 lb (35,153 kg)
- **Rated Boom In:** 23,210 lbs (103 kN)
- **Rated Boom Out:** 27,357 lbs (122 kN)
- **Rated Ripper Tooth Force:** 19,888 lbs (89 kN)
- **Boom Rotating Torque:** 18,375 ft lb (24913 Nm)

**Dimensions**

<table>
<thead>
<tr>
<th>47’ Boom</th>
<th>52’ Boom</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>36’ 9” (11.2)</td>
</tr>
<tr>
<td>Overall length (boom level) with scaling hook</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>34’ 7” (10.5)</td>
</tr>
<tr>
<td>Overall length (boom level) without scaling hook</td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>13’ 8” (4.2)</td>
</tr>
<tr>
<td>Overall height (boom level)</td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>13’ 4” (4.1)</td>
</tr>
<tr>
<td>Width of upper structure</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>10’ 0” (3.0)</td>
</tr>
<tr>
<td>Swing clearance, rear of upper structure</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>13’ 2” (4.0)</td>
</tr>
<tr>
<td>Top of cab guard to groundline (cab level)</td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>13’ 6” (4.1)</td>
</tr>
<tr>
<td>Top of cab guard to groundline (cab at full tilt)</td>
<td></td>
</tr>
<tr>
<td>FA</td>
<td>25°</td>
</tr>
<tr>
<td>Cab tilt</td>
<td></td>
</tr>
<tr>
<td>G1</td>
<td>5’ 2” (1.6)</td>
</tr>
<tr>
<td>Clearance, upper structure to groundline</td>
<td></td>
</tr>
<tr>
<td>G2</td>
<td>5’ 4” (1.6)</td>
</tr>
<tr>
<td>Clearance, counterweight to groundline</td>
<td></td>
</tr>
<tr>
<td>J2</td>
<td>12’ 6” (3.8)</td>
</tr>
<tr>
<td>Nominal distance between centers of front and rear axles</td>
<td></td>
</tr>
<tr>
<td>K1</td>
<td>13’ 1” (4.0)</td>
</tr>
<tr>
<td>Width of chassis, tool boxes in inner position</td>
<td></td>
</tr>
<tr>
<td>K2</td>
<td>13’ 6” (4.1)</td>
</tr>
<tr>
<td>Width of chassis, tool boxes in outer position</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1’ 4” (0.4)</td>
</tr>
<tr>
<td>Ground clearance</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>11’ 7” (3.5)</td>
</tr>
<tr>
<td>Wheel centerline to centerline</td>
<td></td>
</tr>
</tbody>
</table>

**Function Forces**

- **Rated Boom In:** 23,210 lbs (103 kN)
- **Rated Boom Out:** 27,357 lbs (122 kN)
- **Rated Ripper Tooth Force:** 19,888 lbs (89 kN)
- **Boom Rotating Torque:** 18,375 ft lb (24913 Nm)

**Swing**

- Priority swing circuit with axial piston motor
- Planetary transmission

**Swing Speed:**

**Swing Brake**

- Automatic spring-set/hydraulic release wet-disc parking brake
- Dynamic braking is provided by the hydraulic system

**Weight**

- Approximate working weight:
  - 77,500 lb (35,153 kg)