**Engine**

- Volvo TAD551 VE, Tier III (optional TAD571 VE Tier 4f), 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:** 172 hp @ 2000 rpm (128kW)
- 590 ft lb Torque @ 1100-1500 rpm (800Nm)

**Net Rating:** 152 hp @ 2000 rpm (113kW)
- Variable viscous fan clutch system
- Vertical stacked hydraulic oil cooler, charge air cooler and radiator
- Block heater

**Maximum slope:** 30°
- 24 volt starter
- 100 amp alternator
- Two SAE #C31-S 1000 CCA batteries
- Two-stage dry type air cleaner with centrifugal pre-cleaner and safety element
- Vacuum valve and service indicator

**Fuel tank capacity:** 82 gallons (310 L)

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**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
- Self-centering joysticks; when controls are released, power for movement disengages and swing and tilt brake set automatically
- Two electric foot pedals (with handles) control crawler travel speed and direction, crawler steering and crawler brakes
- Toggle switch on arm pod allows selection of two crawler speed ranges

**Operating Pressures:**
- Hoist: 4,900 psi (331 BAR)
- Tilt: 4,900 psi (331 BAR)
- Swing: 3,000 psi (207 BAR)
- Tool: 4,900 psi (331 BAR)
- Telescope: 4,900 psi (331 BAR)
- Propel: 4,900 psi (331 BAR)
- Pilot System: 550 psi (38 BAR)

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**Boom**

- Two piece triangular telescoping boom
- Adjustable boom rollers with eccentric shafts
- 220° continuous boom tilt
- 105° boom pivot angle
- Auxiliary hydraulics

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**Hydraulic System**

**Pumps**

- One load-sensing, axial piston pump; oil flow 0-100 gpm (0-378 L/min)
- Gear pump, 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**

**Four Cylinders**

- One tool: 5.0” ID, 3.0” rod (127 mm x 76 mm), 25.9” (658 mm) stroke
- Two hoist: 3.50” ID, 2.559” rod (89 mm x 65 mm), 31.0” (787 mm) stroke
- One telescope: 3.5” ID, 2.559” rod (89 mm x 65 mm), 11’ (3.35 m) stroke

**Four Hydraulic Motors**

- Swing: 51 hp (38 kW)
- Tilt: 50 hp (37 kW)
- Two propel motors, 120 hp (89 kW) each

**Filtration System**

- Reservoir system 65 gallons (246 L)
- Pressurized reservoir with visual oil level gauges
- Pressure-compensated, load-sensing valves with circuit reliefs in all circuits

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**Crawler Drive**

- Dual range, high torque piston motor powers each track
- Three-stage planetary drive with integral speed limiting valve and automatic spring-set/hydraulic release wet-disc parking brake

**Travel Speed:** on flat, level surface:
- High Speed: 3.4 mph (5.5 km/h)
- Low Speed: 1.9 mph (3.1 km/h)
- Automatic two-speed control shifts crawler drive into low speed under difficult travel conditions
- Manual override switch for loading the machine for transport

**Gradeability:**

- 58%, limited by engine lubrication requirements

**Drawbar Pull**

- 38,324 lbs (170 kN)

**Individual Track Control**

- Tracks counter-rotate to pivot machine about the swing centerline
- Electronically operated travel alarm signals crawler movement in either direction
Dimensions

A Overall length with attachment open: 23'11" (7.3)
A1 Overall length without attachment: 21'10" (6.6)
B Overall height with attachment open: 10'9" (3.3)
B1 Overall height without attachment: 10'5" (3.2)
C1 Width of upperstructure: 9'0" (2.7)
D Minimum clearance, upperstructure to undercarriage: 5" (130 mm)
E Swing clearance, rear of upperstructure: 7'6" (2.3)
F Top of cab guard to groundline: 10'5" (3.2)
G Clearance, upperstructure to groundline: 3'5" (1.0)
J1 Axis of rotation to centerline of drive sprockets: 47" (1.2)
J2 Nominal distance between centerlines of drive sprockets and idlers: 92" (2.3)
J3 Axis of rotation to end of track assembly: 510" (1.3)
J4 Nominal overall length of track assembly: 119" (3.0)
K Width of crawler (standard): 86" (2.2)
      Width of crawler (optional): 82" (2.1)

N Ground clearance (per SAE J1234): 18" (454 mm)
V Track gauge, roller centerline to roller centerline: 66" (2.0)
Y Width of crawler track assembly (standard): 236" (600 mm)
      Width of crawler track assembly (optional): 197" (500 mm)
AA Maximum radius at groundline (Scaling Hook): 284" (7.2)
      Maximum radius at groundline (S-29 Hammer): 31" (0.8)
AB Maximum depth: 1911" (6.1)
AH Minimum radius at groundline: 10'11" (3.3)
AK Boom pivot to groundline: 58" (1.7)
AL Boom pivot to axis of rotation: 111" (2.8)
AP Attachment tooth radius (Scaling Hook): 310" (1.2)
      Attachment bit radius (S-29 Hammer): 70" (2.1)
AQ Boom pivot angle: 30° Up and 75° Down
AS Attachment pivot angle: 165°
AU Maximum telescoping boom length (boom pivot to attachment pivot): 231" (7.0)
AV Minimum telescoping boom length (boom pivot to attachment pivot): 121" (3.7)
AW Telescoping boom travel: 110° (3.4)
AX Boom tilt angle (continuous): 360°
BA Maximum radius of working equipment: 1290" (8.6)
BB Maximum height of working equipment: 12010" (7.0)
BD Minimum clearance of attachment with pivot at maximum height: 152" (4.6)
BF Minimum clearance of attachment at maximum boom height: 98" (2.5)
BG Maximum height of working equipment with attachment below groundline: 142" (4.3)
BH Radius of attachment tooth at maximum height: 216" (6.6)

Swing

• Priority swing circuit with axial piston motor
• Planetary transmission

Swing speed: 8.0 rpm

Swing Brake

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

Function Forces

Rated Boom Force: 22,075 lbs (98.2 kN)
Rated Ripper Tooth Force: 25,405 lbs (113 kN)
Boom Rotating Torque: 25,800 ft lb (34,980 Nm)
Boom Rotating Speed: 7.0 rpm

Weight

• Approximate working weight with hammer, fuel tank half full and no operator

<table>
<thead>
<tr>
<th>Pad Size</th>
<th>Weight</th>
<th>Bearing Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.7&quot; 500 mm</td>
<td>43,862 lbs (19,895 kg)</td>
<td>85 psi (586kPa)</td>
</tr>
<tr>
<td>236&quot; 600 mm</td>
<td>44,327 lbs (20,106 kg)</td>
<td>101 psi (696kPa)</td>
</tr>
</tbody>
</table>

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