**Engine**
- Volvo TAD551 VE, Tier III (optional TAD571 VE, Tier 4f), 4 cycle, inline 4 cylinder, liquid cooled, electronic controlled.
- Vertical canister style lube filter and main fuel filters and fuel/water separation with manual feed pump attached to engine.
- Water in fuel indicator and alarm.

**Gross Rating:** 173 hp @ 2200 rpm (129kW)
590 ft lb Torque @ 1100-1500 rpm (800Nm)

**Net Rating:** 153 hp @ 2200 rpm (114kW)
- Variable viscous fan clutch system.
- Vacuator valve and service indicator.
- Two-stage dry type air cleaner with centrifugal pre-cleaner and safety element.
- Block heater.

**Maximum slope:** 30°
- 24 volt starter.
- 100 amp alternator.
- Two SAE #C31-S 1000 CCA batteries.
- 100 amp alternator.
- Two hoist cylinders: 4.25" ID, 3.15" rod (108 mm x 80 mm), 310° (787 mm) stroke.
- Two piece triangular telescoping boom.

**Hydraulic System**
- One load-sensing, axial piston pump; oil flow 0-110 gpm (0-435 L/min)
- Two hoist cylinders: 4.25" ID, 3.15" rod (108 mm x 80 mm), 310° (787 mm) stroke.
- One telescope: 5.0" ID, 4.528" rod (69 mm x 65 mm), 126° (3.81 m) stroke.
- One tool: 5.0" ID, 4.528" rod (69 mm x 65 mm), 126° (3.81 m) stroke.

**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.

**Filtration System**
- Oil Capacity: 82 gallons (310 L)
- Filtration System
  - Three Hydraulic Motors
    - Swing, 64 hp (48 kW)
    - Tilt, 50 hp (37 kW)
    - Propel, 113 hp (84 kW) each

**Boom**
- Two piece triangular telescoping boom.
- Adjustable boom rollers with eccentric shafts.
- 360° continuous boom tilt.
- 105° boom pivot angle.
- Auxiliary hydraulics.

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

**Operating Pressures:**
- Hoist: 4,900 psi (331 BAR)
- Swing: 4,900 psi (331 BAR)
- Tilt: 4,900 psi (331 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)
- Braking & Steering: 2,400 psi (165 BAR)
- Blade & Stabilizers: 4,000 psi (270 BAR)

**Oil Capacity**
- Reservoir system 65 gallons (246 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**
- Both axles are equipped with internal wet-disc type service brakes.
- The steering axle is fitted with oscillation lock cylinders.

**Tires:** 10 x 20 Super-Lug
- (Optional foam filled or solid)

**Axles:** ZF Model 3070 (FTF 2090)

**Transmission:** ZF Model HL 290

**Drive Motor:** Rexroth A6 Series, 160cc/Rev

**Minimum Turning Radius:** 255° (7.75 m)
- Variable displacement high torque piston motor powers the 2-speed power shift transmission.
- Speed mode selection can also be done while moving.
- Electronically operated travel alarm signals excavator movement.

**Travel speed on flat surface - MPH (kmh):**

<table>
<thead>
<tr>
<th>Gear</th>
<th>Creeper Mode</th>
<th>Standard Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Gear</td>
<td>1.8 mph (2.9 kmh)</td>
<td>5.7 mph (9.2 kmh)</td>
</tr>
<tr>
<td>Second Gear</td>
<td>6.3 mph (10.1 kmh)</td>
<td>12 mph (19.3 kmh)</td>
</tr>
</tbody>
</table>
**Dimensions**

| A | Overall length with attachment open (Travel Position): 26’0” (7.9) |
| A1 | Overall length without attachment (Travel Position): 23’10” (7.3) |
| B | Overall height with attachment open (Travel Position): 23’10” (7.3) |
| B1 | Overall height without attachment (Travel Position): 11’2” (3.4) |
| C1 | Width of upperstructure: 9’0” (2.7) |
| D | Swing clearance, rear of upperstructure: 3’ (0.9) |
| E | Top of cab guard to groundline: 11’1” (3.4) |
| F | Overall width of undercarriage: 9’1” (2.8) |
| G | Overall width outrigger (up position): 8’4” (2.5) |
| H1 | Height of optional folding lift yoke lowered: 1’9” (0.5) |
| H2 | Height of pin of optional folding lift yoke: 3’7” (1.1) |
| H3 | Overall height of optional folding lift yoke: 4’0” (1.2) |
| H4 | Height to pin of optional rigid lift yoke: 2’8” (0.8) |
| H5 | Overall height of optional rigid lift yoke: 3’0” (0.9) |
| J1 | Axis of rotation to centerline of drive sprockets: 3’6” (1.1) |
| J2 | Wheelbase of undercarriage: 8’9” (2.7) |
| J3 | Axis of rotation to front of undercarriage: 7’0” (2.1) |
| J4 | Nominal overall length of undercarriage: 12’3” (3.7) |
| J5 | Axis of rotation to front option attachment pin: 6’9” (2.1) |
| J6 | Axis of rotation to rear option attachment pin: 4’9” (1.4) |
| J7 | Outrigger length, attachment pin to pad in up position: 2’7” (0.8) |
| J8 | Outrigger length, attachment pin to pad in down position: 3’3” (1.0) |
| J9 | Blade length, attachment pin across blade in up position: 3’4” (1.0) |
| J10 | Overall width of undercarriage: 9’1” (2.8) |
| J11 | Overall width outrigger (down position): 8’4” (2.5) |
| J12 | Overall width blade: 90’ (6.3) |
| J13 | Overall width blade to groundline: 9’1” (2.8) |
| J14 | Outrigger length, attachment pin to pad in up position: 2’7” (0.8) |
| J15 | Outrigger length, attachment pin to pad in down position: 3’3” (1.0) |
| J16 | Blade length, attachment pin across blade in up position: 3’4” (1.0) |
| J17 | Overall width of undercarriage: 9’1” (2.8) |
| J18 | Overall width outrigger (down position): 8’4” (2.5) |
| J19 | Overall width blade: 90’ (6.3) |
| J20 | Overall width blade to groundline: 9’1” (2.8) |

**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 36” (914 mm) excavating bucket, fuel tank half full: 46,580 lbs (21,128 kg)
- Outriggers: 2,720 lbs (1,234 kg)
- Blade: 1,529 lbs (671 kg)

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It is Gradall Policy to continually improve its products. Therefore design, materials and specifications are subject to change without notice and without incurring any liability on units already sold. Units shown may have optional equipment.

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Form No. 11841  12/19
Printed in USA