# XL 3300 V
## HYDRAULIC EXCAVATOR

### SPECIFICATIONS

**Engine**
- Volvo 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 air cleaner with high-efficiency pre-cleaner
- Vacuum valve
- Remote service indicator

**Fuel tank capacity:** 99 gal (375 L)

### 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 (Gradall, SAE, Deere)
- Self-centering joysticks and pedals; when controls are released, power for movement disengages and swing and tilt brake set automatically
- Tilting/telescoping steering column
- Hydraulic foot pedal controls braking functions
- Travel speed is regulated with an electronic foot pedal control
- Switch on the FWD/REV selector provides 1st/2nd gear selection
- Independent rocker switches control stabilizers, axle oscillation, park brake and hazard lights
- Switch on column provides marker lights, high/low headlights and direction indicators

**Engine Controls and Instrumentation**
- Key ignition/starter switch; throttle and main battery disconnect switch
- Air cleaner condition indicator
- Electronic monitor indicates fuel level, low battery charge, lube oil pressure, high coolant temperature, engine rpm and engine hours
- Fuel saving auto idle feature sends engine rpm to idle when control circuits are in neutral for seven seconds

### Hydraulic System

**Pumps**
- 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 cylinder: 4.25” ID, 3.0” rod (108 mm x 76 mm), 25.9” (658 mm) stroke
- Two hoist cylinders: 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), 12’6” (3.81 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, 51 hp (38 kW)
- Tilt, 21 hp (16 kW)
- Propel, 113 hp (84 kW)

**Operating Pressures:**
- Hoist.................................4,900 psi (331 BAR)
- Tilt.................................2,500 psi (172 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)
- Braking & Steering........2,400 psi (165 BAR)
- Blade & Stabilizers.....4,000 psi (207 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
**GRADALL Model XL 3300 V Excavator**

### Rated Lift Capacity - LB (KG)

<table>
<thead>
<tr>
<th>LOAD POINT HEIGHT</th>
<th>LOAD RADIUS</th>
<th>Over End</th>
<th>Over Side</th>
<th>Over End</th>
<th>Over Side</th>
<th>Over End</th>
<th>Over Side</th>
<th>Maximum Radius</th>
<th>Over End</th>
<th>Over Side</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Above Ground Level</strong></td>
<td>15' 0&quot; (4.6 m)</td>
<td>6630 (350)</td>
<td>6630 (350)</td>
<td>4455 (2020)</td>
<td>4455 (2020)</td>
<td>22' 7&quot; (6.9 m)</td>
<td>3690 (1675)</td>
<td>3690 (1675)</td>
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<tr>
<td>10' 0&quot; (3.0 m)</td>
<td>7870 (3570)</td>
<td>7870 (3570)</td>
<td>5050 (2290)</td>
<td>5050 (2290)</td>
<td>24' 0&quot; (7.3 m)</td>
<td>3705 (1680)</td>
<td>3705 (1680)</td>
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</tr>
<tr>
<td>BOOM LEVEL 8' 6&quot; (2.6 m)</td>
<td>8095 (3670)</td>
<td>8095 (3670)</td>
<td>5160 (2340)</td>
<td>5160 (2340)</td>
<td>24' 2&quot; (7.4 m)</td>
<td>3725 (1690)</td>
<td>3725 (1690)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5' 0&quot; (1.5 m)</td>
<td>8150 (3695)</td>
<td>8150 (3695)</td>
<td>5245 (2380)</td>
<td>5245 (2380)</td>
<td>24' 2&quot; (7.4 m)</td>
<td>3775 (1710)</td>
<td>3775 (1710)</td>
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<tr>
<td><strong>At Ground Level</strong></td>
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</tr>
<tr>
<td><strong>Below Ground Level</strong></td>
<td>15' 0&quot; (4.6 m)</td>
<td>6285 (2850)</td>
<td>6285 (2850)</td>
<td>5565 (2525)</td>
<td>5565 (2525)</td>
<td>4230 (1920)</td>
<td>4230 (1920)</td>
<td>21' 2&quot; (6.4 m)</td>
<td>3950 (1790)</td>
<td>3950 (1790)</td>
</tr>
<tr>
<td>10' 0&quot; (3.0 m)</td>
<td>3855 (1750)</td>
<td>3855 (1750)</td>
<td>4095 (1855)</td>
<td>4095 (1855)</td>
<td>17' 1&quot; (5.2 m)</td>
<td>3850 (1745)</td>
<td>3850 (1745)</td>
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</tbody>
</table>

**NOTE:** The above loads are in compliance with the SAE standard J1097 DEC2005. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

The rated lift capacity is based on the machine being equipped with 6,000 lb (2724 kg) counterweight, standard boom, standard tires, no auxiliary hydraulics and no bucket.

**NOTE:** Bucket adjustment values are 87% of the actual bucket weights.

The load point is located on the bucket pivot point, including loads listed for maximum radius.

Do not attempt to lift or hold any load greater than these rated values at specified load radii and heights. The weight of slings and any auxiliary devices must be deducted from the rated load to determine the net load that may be lifted.

**ATTENTION:** All rated loads are based on the machine being stationary and level on a firm supporting surface. The user must make allowance for particular job conditions such as soft or uneven ground, out of level conditions, side loads, hazardous conditions, experience of personnel, etc. The operator and other personnel must read and understand the operator manual before operating this machine. Rules for safe operation of equipment must be adhered to at all times.
Dimensions

A Overall length with bucket open (travel position): 24'3" (7.4)
A1 Overall length without bucket (travel position): 20'11" (6.4)
A3 Overall length with bucket open (shipment position): 24'6" (7.5)
A4 Overall length with bucket closed (shipment position): 21'9" (6.6)
A5 Overall length without bucket (shipment position): 21'3" (6.5)

B Overall height with bucket open (travel position): 12'10" (3.9)
B1 Overall height without bucket (travel position): 11'10" (3.6)
B2 Overall height with bucket open (shipment position): 11'6" (3.5)
B3 Overall height without bucket (shipment position): 10'11" (3.3)

C1 Width of upperstructure: 8'6" (2.6)

D Minimum clearance, upperstructure to undercarriage: 3" (78 mm)

E Swing clearance, rear of upperstructure: 7'6" (2.3)
F Top of cab to groundline: 10'7" (3.2)
G Clearance, upperstructure to groundline: 4'2" (1.3)
J1 Axis of rotation to centerline of fixed axle: 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)
K Overall width undercarriage: 8'6" (2.6)
K1 Overall width outrigger (up position): 8'4" (2.5)
K2 Overall width blade: 8'6" (2.7)
L Overall width outrigger (down position): 10'8" (3.3)
N Ground clearance (per SAE J1234): 11" (275 mm)
N1 Ground clearance (outrigger option): 12" (300 mm)

Z Blade above ground (option): 1'8" (505 mm)
Z1 Depth below ground level of blade (option): 7" (166 mm)
Z2 Depth below ground level of outrigger (option): 6" (142 mm)
AA Maximum radius at groundline: 27'3" (8.3)
AB Maximum digging depth: 185' (5.6)
AC Maximum depth of 8' level cut at depth "AC": 166' (5.0)
AD Minimum radius of 8' level cut at depth "AC": 65' (2.0)
AF Maximum depth of vertical wall which can be excavated: 23' (0.7)
AG Minimum level cut radius with bucket flat on groundline: 10'11" (3.3)
AH Minimum radius at groundline: 5'10" (1.8)
AK Boom pivot to groundline: 65' (2.0)
AL Boom pivot to axis of rotation: 11'1" (356 mm)
AP Bucket tooth radius: 3'10" (1.2)
AQ Boom pivot angle: 30° up and 75° dn
AS Bucket pivot angle: 165°
AU Maximum telescoping boom length (boom pivot to bucket pivot): 22'3" (6.8)
AV Minimum telescoping boom length (boom pivot to bucket pivot): 11'3" (3.4)
AW Telescoping boom travel: 110° (3.4)
AX Bucket tilt angle (both sides of center): 110°
BA Maximum radius of working equipment: 280' (8.5)
BB Maximum height of working equipment: 22'8" (6.9)
BC Maximum bucket tooth height: 20'10" (6.3)

Specifications subject to change without notice.
Metric units are meters (m) unless noted.
Machines shown may have optional equipment.
Optional Equipment

- Vandalism protection kit including window covers
- Strobe light
- ROPS protective cab

Attachments

- Quick change and reversible buckets fabricated using steel plate with high strength, low alloy cutting edges and wear strips
- Standard attachments available for wide range of applications
- Capacities shown are in heaped cubic yard

Excavating Bucket

<table>
<thead>
<tr>
<th>Code</th>
<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8045-6020</td>
<td>24&quot; (610mm)</td>
<td>3/8</td>
<td>0.31</td>
</tr>
<tr>
<td>8045-6021</td>
<td>30&quot; (762mm)</td>
<td>1/2</td>
<td>0.41</td>
</tr>
<tr>
<td>8045-6022</td>
<td>36&quot; (914mm)</td>
<td>5/8</td>
<td>0.54</td>
</tr>
<tr>
<td>8045-6023</td>
<td>42&quot; (107cm)</td>
<td>3/4</td>
<td>0.64</td>
</tr>
<tr>
<td>8045-6024</td>
<td>48&quot; (1.22 m)</td>
<td>1</td>
<td>0.76</td>
</tr>
<tr>
<td>8065-6117</td>
<td>48&quot; (1.5 m)</td>
<td>1.5</td>
<td>1.15</td>
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</table>

Trenching Bucket

<table>
<thead>
<tr>
<th>Code</th>
<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8065-6104</td>
<td>15&quot; (381mm)</td>
<td>1/5</td>
<td>0.15</td>
</tr>
<tr>
<td>8065-6012</td>
<td>21&quot; (533mm)</td>
<td>1/4</td>
<td>0.19</td>
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Pavement Removal Bucket

<table>
<thead>
<tr>
<th>Code</th>
<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8065-6102</td>
<td>40&quot; (10 m)</td>
<td>1262</td>
<td>573</td>
</tr>
<tr>
<td>8065-6115</td>
<td>18&quot; (0.457 m)</td>
<td>929</td>
<td>421</td>
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<tr>
<td>8065-6116</td>
<td>24&quot; (0.610 m)</td>
<td>1219</td>
<td>533</td>
</tr>
<tr>
<td>8065-6114</td>
<td>28&quot; (0.711 m)</td>
<td>1310</td>
<td>594</td>
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Ditching Bucket

<table>
<thead>
<tr>
<th>Code</th>
<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8065-6040</td>
<td>30&quot; (0.762 m)</td>
<td>3/8</td>
<td>0.31</td>
</tr>
<tr>
<td>8065-6007</td>
<td>60&quot; (1.52m)</td>
<td>7/8</td>
<td>0.73</td>
</tr>
<tr>
<td>8065-6006</td>
<td>66&quot; (1.68m)</td>
<td>1</td>
<td>0.76</td>
</tr>
<tr>
<td>8065-6002</td>
<td>72&quot; (1.83 m)</td>
<td>1 1/8</td>
<td>0.87</td>
</tr>
<tr>
<td>8065-6118</td>
<td>72&quot; (1.6 m)</td>
<td>1.6</td>
<td>1.22</td>
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</table>

Dredging Bucket

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<thead>
<tr>
<th>Code</th>
<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8065-6013</td>
<td>72&quot; (1.83m)</td>
<td>1 1/8</td>
<td>0.87</td>
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</table>

Grading Blade

<table>
<thead>
<tr>
<th>Code</th>
<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8065-6024</td>
<td>8&quot; (2.4 m)</td>
<td>630</td>
<td>285</td>
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Boom Extension

<table>
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<tbody>
<tr>
<td>8065-5028</td>
<td>4&quot; (1.2 m)</td>
<td>1,090</td>
<td>495</td>
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Tree Limb Shear

<table>
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<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8045-5052</td>
<td>1,948</td>
<td>1.948</td>
<td>884</td>
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Fixed Thumb Grapple

<table>
<thead>
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<th>Size</th>
<th>Capacity</th>
<th>Gross Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8075-5023</td>
<td>1,574</td>
<td>1.574</td>
<td>714</td>
</tr>
</tbody>
</table>

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