**SPECIFICATIONS**

**Engine**
- Volvo TAD572/E Tier 4f 5.1L diesel with selective catalytic reduction and cooled EGR technology

**Gross Rating:** 215 hp @ 2300 rpm, 660 ft lb torque @ 1200-1700 rpm

**Net Rating:** 198 hp @ 2300 rpm
- Four cycle, inline four cylinder, liquid cooled
- Turbo charge air after-cooled
- Off-road certified, electronically controlled, grid heater
- Vertical canister style lube and main filters attached to engine
- Volvo remote mount vertical style fuel/water separator with water in fuel indicator, alarm and manual feed pump
- Block heater

**Air Filter**
- Two-stage Donaldson PSD PowerCore with high efficiency pre-cleaner, vacuum value and remote service indicator

**Electrical System**
- 24 volt, 110 amp alternator with integral voltage regulator, two SAE #C31-S 1000 CCA batteries

**Fuel Tank Capacity:** 100 gal (378 L)

**Urea Tank Capacity:** 11.9 gal (45 L)

**Chassis Cooling Package**
- Three aluminum bar-plate type coolers stacked vertically
- Air to air intake charge air cooler, radiator and transmission cooler
- All coolers backed by a molded fan shroud, engine mounted fan ring and 26.8" 9-blade fan driven by a Volvo electronically controlled variable speed fan drive

**Gear Speeds**

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>REV</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPH</td>
<td>65</td>
<td>155</td>
<td>227</td>
<td>349</td>
<td>466</td>
<td>660</td>
<td>63</td>
</tr>
<tr>
<td>Km/hr</td>
<td>104</td>
<td>250</td>
<td>365</td>
<td>561</td>
<td>750</td>
<td>966</td>
<td>110</td>
</tr>
</tbody>
</table>

**Drivelines**
- Spicer 710 Series with "half round" yokes

**Transfer Case**
- (6 x 4) Cushman Model 479-1, 1:1 ratio, pneumatic engage for remote propel
- (6 x 6) Cushman Model 479A-1, 1:1 ratio, pneumatic engage for remote propel and front drive

**Upperstructure Controls**
- Two electronic joysticks (hoist and bucket, telescope and swing)
- One rocker switch (tilt) control
- Joysticks mounted on arm pods, adjustable for individual operator comfort and convenience
- Quick change joystick pattern switch (Gradall, SAE, Deere) located on instrument panel
- Two foot pedals for remote control of undercarriage steering
- Travel and digging brakes
- Self-centering joysticks and pedals, when controls are released, power for movement disengages and swing and travel brakes set automatically

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

**Upperstructure Cab**
- All-weather cab isolated from frame on rubber mounts
- Tinted safety glass windows
- Skylight
- Acoustical lining
- Four-way adjustable seat
- Dome light
- Filtered air heater and defroster
- AM/FM radio
- Air conditioning
- LED work light package
- Heat source provided by a fast response, closed circuit hydraulic heater with 20,000 BTU/Hr. capacity
- Front window slides to overhead storage
- Mirrors on right and left sides
- Windshield wiper and washer
- Operator's seat belt

**Hydraulic System**
- One load-sensing axial piston pump, 0-77 gpm (0-291 L/min) total
- One gear pump (pilot and cooling), 11 gpm (41 L/min)

**Filtration System**
- 10 micron pilot filter
- 5 micron return filter with magnet
- 10 micron pilot filter
- Fin and tube-type oil cooler with thermostatically controlled cooling fan
- Pressure-compensated, load-sensing valves with circuit reliefs in all circuits

**SYSTEM SPECIFICATIONS**

**Four Double Acting Cylinders**
- Two hoist cylinders: 3.5” x 2.56” rod x 31” stroke (89 mm x 65 mm x 787 mm)
- One tool cylinder: 4.25” bore x 3.0” rod x 25.9” stroke (108 mm x 76 mm x 658 mm)
- One telescope: 3.5” ID x 2.559” rod x 11” stroke (89 mm x 65 mm x 3.34 m)

**Three Hydraulic Motors**
- Swing, 51 hp (38kW)
- Tilt, 21 hp (16 kW)
- Remote drive, 110 hp (82 kW) total

**Operating Pressures**
- Hoist…………………………4,800 psi (331 BAR)
- Tilt……………………………2,500 psi (172 BAR)
- Swing……………………….4,200 psi (290 BAR)
- Tool……………………………4,800 psi (331 BAR)
- Telescope……………………4,800 psi (331 BAR)
- Remote Propel………………4,800 psi (331 BAR)
- Pilot system………………….550 psi (38 BAR)

**Oil Capacity**
- Reservoir 50 gallons (189 L)
- System 65 gallons (246 L)
- Pressurized reservoir with visual oil level gauge

**Filtration System**
- 5 micron return filter with magnet
- 10 micron pilot filter
- Fin and tube-type oil cooler with thermostatically controlled cooling fan
- Pressure-compensated, load-sensing valves with circuit reliefs in all circuits
**Undercarriage**
- 4 x 2 or 4 x 4
- Wheelbase: 160" (4.06m)
- Width: 102" (2.6m)

**Transmission**
- Allison 3500 RDS 6-speed automatic

**Frame**
- 48" (1.2m) wide, welded plate design
- 65 ksi material

**Gross Vehicle Axle Weight Rating:**
- Rear Axle: 425/65R22.5 LR (L) on/off hydraulic traction tread
- Front Axles: 385/65R22.5 LR (L) on/off hydraulic high speed
- Rear: Meritor “P” Series
- 4 x 4: Meritor Model MFS-16-122A, 25,250 lb (11,453 kg) 65 ksi material
- Width: 48" (1.2m) wide, welded plate design
- Wheelbase: 160" (4.06m)
- 4 x 2: Meritor Model MX19-145, 19,000 lb (8,618 kg) rating, 7.17 ratio

**Rear Axle**
- Meritor Model RS25-160, 25,250 lb (11,453 kg) rating, 7.17 ratio
- Single reduction with driver controlled differential lock in front/rear
- Inter-axle differential with lock

**Suspension**
- Front: Eight leaf spring with automatic lock-out cylinders
- Rear: Solid mount

**Brakes**
- 4 x 4 Front: Meritor “Q” Series
  - Cam-Master Size: 16.5" x 5" (419 mm x 127 mm)
  - Automatic slack adjusters
- 4 x 4 Front: Meritor “Q” Series
  - Cam-Master Size: 16.5" x 6" (419 mm x 127 mm)
  - Automatic Slack Adjusters
- 4 x 4 Front: Meritor “P” Series
  - Series Cam-Master Size: 16.5" x 7" (419 mm x 178 mm)
- 4 x 4: Meritor Model MX19-145, 19,000 lb (8,618 kg) rating, 7.17 ratio

**Steering**
- Ross, integral hydraulic power steering
- Gear-type power steering pump
- Four-quart power steering reservoir with filter
- 10 micron pre-filter

**Wheels**
- Hub piloted disc
- 10-stud, 11.25" (286 mm) bolt circle

**Tires**
- 4 x 4 front: 425/65R22.5 LR (L) on/off hydraulic traction tread
- 4 x 2 front: 385/65R22.5 LR (L) on/off hydraulic high speed
- 4 x 2 and 4 x 4 rear: 11R24.5 LR (L) on/off hydraulic traction tread

**Standard Chassis Equipment**
- LED headlights
- LED tail lights
- LED back-up lights and alarm
- LED brake lights
- LED identification lights front and rear
- LED directional lights
- LED four-way hazard lights
- Instrument panel lights
- Windshield wiper/washer
- West Coast style mirror system with plain and convex mirrors
- Front and rear tow hooks
- Desiccant type air dryer with automatic purge valve and thermostatically controlled heater

**Chassis Cab**
- One-person cab
- Left-hand mount
- Isolated from frame on rubber mounts
- Acoustical lining
- Sun visor
- Air conditioning

**Gauge Clusters**
- Oil pressure
- Coolant temperature
- Air tank pressures
- Fuel pressure
- DEF level

**Swing**
- Internal swing gear
- 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 provided by hydraulic system

**Hydraulic Remote Control**
- Upperstructure powered by chassis hydraulics through hydraulic motor and transfer case
- Travel and steering pedals in upperstructure cab
- Digging braces and front axle lockout cylinders set automatically with travel pedal in neutral
- Parking brake controlled by toggle
- Electrically operated alarm mounted on undercarriage signals remote control movement in either direction, reverse movement when driven from undercarriage cab

**Function Forces**

**Rated Boom Force**: 21940 lb (976kN)

**Rated Bucket Breakout Force**: 17990 lb (80kN)

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The rated lift capacity is based on the machine being equipped with 6,000 lb (2720 kg) counterweight, standard boom, standard tires, no auxiliary hydraulics and no bucket. The load point is located on the bucket pivot point, including load 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. All rated loads are based on the machine being stationary and level on a firm supporting surface. For safe working loads, the user must make allowance for his 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 fully acquaint themselves with the Operator’s Manual furnished by the manufacturer before operating this machine. Rules for safe operation of equipment must be adhered to at all times.
### Dimensions

<table>
<thead>
<tr>
<th></th>
<th>4 x 2</th>
<th>4 x 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>27&quot; (6.4)</td>
<td>27&quot; (6.4)</td>
</tr>
<tr>
<td><strong>A1</strong></td>
<td>23&quot; (5.8)</td>
<td>23&quot; (5.8)</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>11&quot; (2.8)</td>
<td>12&quot; (3.0)</td>
</tr>
<tr>
<td><strong>B1</strong></td>
<td>11&quot; (2.8)</td>
<td>11&quot; (2.8)</td>
</tr>
<tr>
<td><strong>C1</strong></td>
<td>8&quot; (2.0)</td>
<td>8&quot; (2.0)</td>
</tr>
<tr>
<td><strong>C2</strong></td>
<td>8&quot; (2.0)</td>
<td>8&quot; (2.0)</td>
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<tr>
<td><strong>D</strong></td>
<td>2(^\circ) (45 mm)</td>
<td>2(^\circ) (45 mm)</td>
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<tr>
<td><strong>E</strong></td>
<td>7&quot; (1.8)</td>
<td>7&quot; (1.8)</td>
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<tr>
<td><strong>F</strong></td>
<td>10&quot; (254 mm)</td>
<td>11&quot; (280 mm)</td>
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<tr>
<td><strong>G</strong></td>
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<td>54&quot; (1.4)</td>
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<tr>
<td><strong>H</strong></td>
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<td>47(^\circ) (1.2)</td>
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<td><strong>L</strong></td>
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<td><strong>N</strong></td>
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<td>10(^\circ) (254 mm)</td>
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<td><strong>P</strong></td>
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<td>28&quot; (701 mm)</td>
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<tr>
<td><strong>R</strong></td>
<td>13(^\circ) 4(^\circ) (4.1)</td>
<td>13(^\circ) 4(^\circ) (4.1)</td>
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<tr>
<td><strong>S</strong></td>
<td>36&quot; (916 mm)</td>
<td>36&quot; (916 mm)</td>
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<tr>
<td><strong>V1</strong></td>
<td>6&quot; 6(^\circ) (2.0)</td>
<td>6&quot; 6(^\circ) (2.0)</td>
</tr>
<tr>
<td><strong>V2</strong></td>
<td>7&quot; 0(^\circ) (2.1)</td>
<td>7&quot; 0(^\circ) (2.1)</td>
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<tr>
<td><strong>AA</strong></td>
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<td>27&quot; 2(^\circ) (8.3)</td>
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<tr>
<td><strong>AB</strong></td>
<td>18&quot; 4(^\circ) (5.6)</td>
<td>18&quot; 1(^\circ) (5.5)</td>
</tr>
<tr>
<td><strong>AC</strong></td>
<td>16&quot; 6(^\circ) (5.0)</td>
<td>16&quot; 3(^\circ) (4.9)</td>
</tr>
<tr>
<td><strong>AD</strong></td>
<td>6&quot; 3(^\circ) (1.9)</td>
<td>6&quot; 3(^\circ) (1.9)</td>
</tr>
<tr>
<td><strong>AF</strong></td>
<td>1&quot; 10(^\circ) (0.6)</td>
<td>1&quot; 10(^\circ) (0.6)</td>
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<tr>
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<th>4 x 4</th>
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<tr>
<td><strong>AG</strong></td>
<td>11&quot; 0(^\circ) (3.3)</td>
<td>10&quot; 11(^\circ) (3.3)</td>
</tr>
<tr>
<td><strong>AH</strong></td>
<td>6&quot; 0(^\circ) (1.8)</td>
<td>5&quot; 4(^\circ) (1.6)</td>
</tr>
<tr>
<td><strong>AK</strong></td>
<td>6&quot; 6(^\circ) (2.0)</td>
<td>6&quot; 10(^\circ) (2.1)</td>
</tr>
<tr>
<td><strong>AL</strong></td>
<td>23&quot; (596 mm)</td>
<td>23&quot; (596 mm)</td>
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<tr>
<td><strong>AP</strong></td>
<td>46(^\circ) (1.2)</td>
<td>46(^\circ) (1.2)</td>
</tr>
<tr>
<td><strong>AQ</strong></td>
<td>30(^\circ) Up &amp; 75(^\circ) Down</td>
<td>30(^\circ) Up &amp; 75(^\circ) Down</td>
</tr>
<tr>
<td><strong>AS</strong></td>
<td>165(^\circ)</td>
<td>165(^\circ)</td>
</tr>
<tr>
<td><strong>AV</strong></td>
<td>11&quot; 3(^\circ) (3.4)</td>
<td>11&quot; 3(^\circ) (3.4)</td>
</tr>
<tr>
<td><strong>AW</strong></td>
<td>11&quot; 0(^\circ) (3.0)</td>
<td>11&quot; 0(^\circ) (3.0)</td>
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<tr>
<td><strong>AX</strong></td>
<td>110(^\circ)</td>
<td>110(^\circ)</td>
</tr>
<tr>
<td><strong>BA</strong></td>
<td>28&quot; 1(^\circ) (8.6)</td>
<td>28&quot; 1(^\circ) (8.6)</td>
</tr>
<tr>
<td><strong>BB</strong></td>
<td>22&quot; 7(^\circ) (6.9)</td>
<td>22&quot; 11(^\circ) (7.0)</td>
</tr>
<tr>
<td><strong>BC</strong></td>
<td>20&quot; 8(^\circ) (6.3)</td>
<td>21&quot; 0(^\circ) (6.4)</td>
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<tr>
<td><strong>BD</strong></td>
<td>15&quot; 5(^\circ) (4.7)</td>
<td>15&quot; 9(^\circ) (4.8)</td>
</tr>
<tr>
<td><strong>BE</strong></td>
<td>10&quot; 5(^\circ) (3.3)</td>
<td>10&quot; 9(^\circ) (3.3)</td>
</tr>
<tr>
<td><strong>BF</strong></td>
<td>10&quot; 1(^\circ) (3.1)</td>
<td>10&quot; 4(^\circ) (3.2)</td>
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<tr>
<td><strong>BG</strong></td>
<td>14&quot; 11(^\circ) (4.5)</td>
<td>15&quot; 2(^\circ) (4.6)</td>
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<td><strong>BH</strong></td>
<td>23&quot; 11(^\circ) (7.3)</td>
<td>23&quot; 11(^\circ) (7.3)</td>
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<tr>
<td><strong>BJ</strong></td>
<td>17&quot; 3(^\circ) (5.3)</td>
<td>17&quot; 3(^\circ) (5.3)</td>
</tr>
</tbody>
</table>

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
- Tilt steering column

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

Weight

- Approximate working weight, including 30" (762 mm) bucket, fuel tank half full.
  - 4 x 2: 40,930 lb (18,566 kg)
  - 4 x 4: 41,720 lb (18,924 kg)

Excavating Bucket

<table>
<thead>
<tr>
<th>Model</th>
<th>yd³</th>
<th>m³</th>
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<tbody>
<tr>
<td>8045-6020</td>
<td>3/8</td>
<td>0.31</td>
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<tr>
<td>8045-6021</td>
<td>1/2</td>
<td>0.41</td>
</tr>
<tr>
<td>8045-6022</td>
<td>5/8</td>
<td>0.54</td>
</tr>
<tr>
<td>8045-6023</td>
<td>3/4</td>
<td>0.64</td>
</tr>
<tr>
<td>8045-6024</td>
<td>1</td>
<td>0.76</td>
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Trenching Bucket

<table>
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<th>Model</th>
<th>yd³</th>
<th>m³</th>
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</thead>
<tbody>
<tr>
<td>8065-6104</td>
<td>1/5</td>
<td>0.15</td>
</tr>
<tr>
<td>8065-6012</td>
<td>1/4</td>
<td>0.19</td>
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</table>

Pavement Removal Bucket

<table>
<thead>
<tr>
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<th>yd³</th>
<th>m³</th>
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</thead>
<tbody>
<tr>
<td>8065-6102</td>
<td>3/8</td>
<td>0.3</td>
</tr>
<tr>
<td>8065-6115</td>
<td>7/8</td>
<td>0.73</td>
</tr>
<tr>
<td>8065-6116</td>
<td>1</td>
<td>0.76</td>
</tr>
<tr>
<td>8065-6114</td>
<td>1 1/8</td>
<td>0.87</td>
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Ditching Bucket

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<th>m³</th>
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<tbody>
<tr>
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<td>3/8</td>
<td>0.3</td>
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<tr>
<td>8065-6007</td>
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<td>0.73</td>
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<tr>
<td>8065-6006</td>
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<tr>
<td>8065-6002</td>
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<td>0.87</td>
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Dredging Bucket

<table>
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<th>yd³</th>
<th>m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>8065-6013</td>
<td>1 1/8</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Grading Blade

| Model    | 8065-6024 | 8" (20.3 cm) | 1 1/8 | 0.87|

Boom extension

| Model    | 8065-5028 | 4" (12.2 cm) | 1.090 lbs (495 kg) |

Tree Limb Shear

| Model    | 8045-5052 | 1,948 lbs (884 kg) |

Fixed Thumb Grapple

| Model    | 8075-5023 | 1,574 lbs (714 kg) |

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.

Gradall

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