

SPECIFICATIONS

Upperstructure 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 attached to engine. Vertical canister style main fuel filter and fuel/water separation with manual feed pump attached to engine. Water in fuel indicator and alarm.

Gross Rating: 173HP @ 2200 RPM (129kW) 590 ft lb Torque @ 1100-1500 RPM (800Nm)

Net Rating: 153 HP @ 2200 RPM (114kW)

Variable viscous fan clutch system. Vertical stacked hydraulic oil cooler, charge air cooler and radiator.

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. Evacuator valve and service indicator.

Fuel tank capacity: 82 gallons (310 L).

Hydraulic System

PUMPS

One load-sensing, axial piston pump; oil flow 0-110 GPM (0-416 L/min).

Pilot 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

- 1 tool: 5.0" ID, 3.0" rod, (127 mm x 76 mm), 25.9" (658 mm) stroke.
- 2 hoist: 4.25" ID, 3.0" rod, (108 mm x 76 mm). 53.43" (1357 mm) stroke.
- 1 telescope: 4.5" ID, 3.25" rod, (127 mm x 83 mm) 13'6" (3.94 m) stroke.

Four Hydraulic Motors

Swing, 68 hp (51 kW); tilt, 28 hp (21 kW); 2 propel motors, 120 hp (89 kw) each.

Operating Pressures:

4,900 psi	(331 BAR)
2,400 psi	(165 BAR)
4,500 psi	(310 BAR)
4,900 psi	(331 BAR)
3,300 psi	(228 BAR)
4,900 psi	
550 psi	(38 BAR)
	2,400 psi 4,500 psi 4,900 psi 3,300 psi 4,900 psi

Oil Capacity

System 95 gallon (360 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.

Operator Cab

All-weather cab with tinted safety glass windows, acoustical lining, four-way adjustable operator's seat, AM/FM radio, filtered fresh air heater, defroster and A/C. Front window has heat resistant glass. Rearview mirrors on right and left sides. Standard equipment includes operator's seat belt and swing lights.

Crawler Drive

Track Width: 31.5" (800 mm)

Track Length: (sprocket - idler)

149.5" (3795 mm)

Average Ground Pressure:

8.18 psi (0.58 kg/cm²)

Dual range, high torque piston motor powers each track. Planetary crawler drive with integral park brake. Automatic two-speed control shifts crawler drive into low speed under difficult travel conditions. Manual override selector switch to lock travel in low speed.

Travel speed on flat, level surface High Speed 2.40 mph (3.9 km/h) Low Speed 1.22 mph (2.0 km/h)

Maximum Drawbar Pull

58,700 lb (261 kN)

Gradeability

88%, limited by engine lubrication requirements.

Controls

Two electronic joysticks (hoist and bucket, telescope and swing), one rocker switch (tilt) control upperstructure. Joysticks mounted on arm pods, independently adjustable for individual operator comfort and convenience. 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.

Two electric foot pedals (with handles) control crawler travel speed and direction, crawler steering and braking. Toggle switch on arm pod allows selection of two crawler speed ranges.

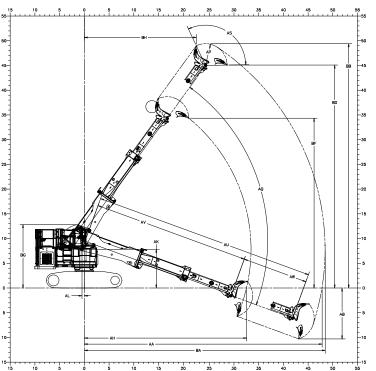
Engine Controls and Instrumentation

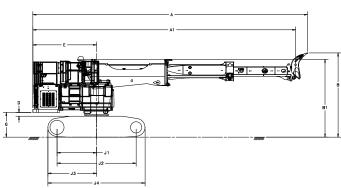
Key operated ignition/starter switch, throttle and main battery disconnect switch. Air cleaner condition indicator. Electronic monitor indicates fuel level, low battery charge, lube oil pressure, high coolant temperature, engine rpm and engine hours. Fuel saving auto idle feature sends engine rpm to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

Swing

Approximate Working Weight:

77,000 lb (34,927 kg).





Dimensions

- A Overall length (boom level) with attachment: 43' 3" (13.2)
- A1 Overall length (boom level) without attachment: 41' 3" (12.6)
- **B** Overall height (boom level) with attachment open: 13' 3" (4.0)
- **B1** Overall height (boom level) without attachment: 12' 3" (3.7)
- C1 Width of upperstructure: TBD
- **D** Minimum clearance, upperstructure to undercarriage: 7" (178 mm)
- **E** Swing clearance, rear of upperstructure: 10'0" (3.1)
- F Top of cab guard to groundline (cab level): TBD
- **G** Clearance, upperstructure to groundline: 3' 10" (1.2)
- H1 Height of optional folding lift yoke, lowered: TBD
- $\textbf{H2} \hspace{0.2cm} \textbf{Height to pin of optional folding lift yoke: TBD} \\$
- **H3** Overall height of optional folding lift yoke: TBD
- H4 Height to pin of optional rigid lift yoke: TBD
- H5 Overall height of optional rigid lift yoke: TBD
- J1 Axis of rotation to centerline of drive sprockets: 6' 3" (1.9)
- J2 Nominal distance between centerlines of drive sprockets and idlers: 12' 5" (3.8)
- J3 Axis of rotation to end of track assembly: 7' 8" (2.3)
- J4 Nominal overall length of track assembly: 15' 4" (4.7)
- **K** Width of crawler: 11' 1" (3.4)
- N Ground clearance: 26" (664 mm)
- V Track gauge, roller centerline to roller centerline: 8' 6" (2.6)
- Y Width of crawler track assembly: 31.5" (800 mm)

- AA Maximum radius at groundline (scaling hook): 48' 1" (14.7)
- **AB** Maximum depth: 10' 4" (3.1)
- AH Minimum radius at groundline: 32' 10" (10.0)
- AK Boom pivot to groundline: 7' 10" (2.4)
- AL Boom pivot to axis of rotation: 6" (140 mm)
- AP Attachment tooth radius (Scaling Hook): 4' 5" (1.3)
- AQ Boom pivot angle: 54° Up & 20° Down
- AS Attachment pivot angle: 114°
- **AU** Maximum telescoping boom length (boom pivot to attachment pivot): 44' 9" (13.6)
- **AV** Minimum telescoping boom length (boom pivot to attachment pivot): 31' 6" (9.6)
- AW Telescoping boom travel: 13' 3" (4.0)
- AX Bucket tilt angle (continuous): 360°
- **BA** Maximum radius of working equipment: 48' 9" (14.9)
- **BB** Maximum height of working equipment: 49' 5" (15.1)
- **BD** Minimum clearance of attachment, with pivot at maximum height: 45' 1" (13.8)
- **BF** Minimum clearance of attachment at maximum boom height: 34' 4" (10.5)
- **BG** Maximum height of working equipment, with attachment below groundline: 12' 10" (3.9)
- BH Radius of attachment tooth at maximum height: 22' 8" (6.9)

Metric units are meters (m) unless noted

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Function Forces

Rated Boom Force: 23,206 lb (103 kN)

Rated Ripper Tooth Force: 19,888 lb (89 kN)

Boom Rotating Torque: 18,375 ft lb (24913 Nm)

Boom Rotating Speed: 5.3 RPM

Weight

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

Pad Size	Weight	Bearing Pressure
31.5"	79,000 lb	11.6 psi
800 mm	(35.970 kg)	(79.9 kPa)

3.3 APIVI

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.