**Engine**
- Volvo TAD515 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:** 172 hp @ 2000 rpm (128kW)
**Net Rating:** 152 hp @ 2000 rpm (114kW)
**Fuel tank capacity:** 82 gallons (310 L)
**Maximum slope:** 30°

**Operating Pressures:**
- Hoist: 4,900 psi (331 BAR)
- Tilt: 3,000 psi (207 BAR)
- Swing: 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 (207 BAR)

**Oil Capacity**
- Reservoir system 65 gallons (246 L)
- Pressurized reservoir with visual oil level gauges

**Filtration System**
- Air cleaner condition indicator
- Key operated ignition/starter switch, throttle and main battery disconnect switch
- Air cleaner pre-cleaner and safety element
- 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

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

**Pumps**
- One load-sensing, axial piston pump: oil flow 0-100 gpm (0-378 L/min)
- Tandem gear pump (steering, brake/pilot) 10 gpm (38 L/min), 6 gpm (23 L/min)

**Electrical System**
- Three Hydraulic Motors
  - Swing, 51 hp (38 kW)
  - Tilt, 50 hp (37 kW)
  - Propel motor, 113 hp (84 kW) each

**System Specifications**
- Vertical stacked hydraulic oil cooler, charge air cooler and radiator
- Self-centering joysticks; when controls are released, power for movement disengages and swing and tilt brake set automatically
- Two-stage dry type air cleaner with centrifugal pre-cleanser and safety element
- Two SAE #C31-S 1000 CCA batteries
- 24 volt starter, 100 amp alternator
- Block heater
- Water in fuel indicator and alarm

**Controls**
- Self-centering joysticks; when controls are released, power for movement disengages and swing and tilt brake set automatically
- Variable viscous fan clutch system
- Vacuator valve and service indicator
- Two electronic joysticks (hoist and bucket, swing and tilt)
- Joysticks mounted on arm pods
- Joystick mounted on arm pods
- One rocker switch (tilt) control
- Two single-acting axle oscillation cylinders:
  - Hoist: 6.25” (159 mm), 25.9” (658 mm) stroke
  - Swing: 6.3” (160 mm), 31.0” (787 mm) stroke
- Two hoist cylinders: 3.50” ID, 2.559” rod (89 mm x 65 mm), 11° (3.35 m) stroke
- One telescoping: 3.5” ID, 2.559” rod (89 mm x 65 mm), 11° (3.35 m) stroke
- One tool: 5.0” ID, 3.0” rod (127 mm x 76 mm)
- Two hoist cylinders: 3.50” ID, 2.559” rod (89 mm x 65 mm), 11° (3.35 m) stroke
- One telescoping: 3.5” ID, 2.559” rod (89 mm x 65 mm), 11° (3.35 m) stroke
- Two single-acting axle oscillation cylinders: 4.528” ID, 4.528” rod (115 mm x 115 mm), 6.25” (159 mm) stroke

**Undercarriage**
- Both axles are equipped with internal wet-disc type service brakes
- The steering axle is fitted with oscillation lock cylinders
- Front window has heat resistant glass
- Rearview mirrors on right and left sides
- Seat belt
- Swing lights
- Speed mode selection can also be done while moving

**Oil Capacity**
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- Pressurized reservoir with visual oil level gauges

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### Dimensions

A Overall length with attachment open (Travel Position): 24'0" (7.3)

A1 Overall length without attachment (Travel Position): 21’10” (6.7)

B Overall height with attachment open (Travel Position): 11'6" (3.5)

B1 Overall height without attachment (Travel Position): 11'2" (3.4)

C1 Width of upperstructure: 9’0” (2.7)

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

E Swing clearance, rear of upperstructure: 7’6” (2.3)

F Top of cab guard to groundline: 11'1” (3.4)

G Clearance, upperstructure to groundline: 4’2” (1.3)

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: 34” (1.0)

K Overall width of undercarriage: 8’6” (2.6)

K1 Overall width outrigger (up position): 8’4” (2.5)

K2 Overall width blade: 8’6” (2.6)

L Overall width outrigger (down position): 10’6” (3.3)

M Ground clearance (per SAE J1234): 11” (275 mm)

N Ground clearance (outrigger option): 12” (300 mm)

O Blade above ground (option): 18” (505 mm)

P Maximum lift of blade (option): 7’0” (166 mm)

Q Maximum lift of outrigger (option): 6’0” (142 mm)

Q1 Maximum radius at groundline (Scaling Hook): 28’2” (8.6)

Q2 Maximum radius at groundline (S-29 Hammer): 31’5” (9.6)

R Minimum radius at groundline: 10’5” (3.2)

S Boom pivot to groundline: 6’5” (2.0)

T Boom pivot to axis of rotation: 11’1” (3.4)

U Boom pivot angle: 30° Up and 75° Down

V Minimum telescoping boom length (boom pivot to attachment pivot): 23’1” (7.0)

W Maximum telescoping boom length (boom pivot to attachment pivot): 12’1” (3.7)

X Telescoping boom travel: 11’0” (3.4)

Y Boom tilt angle (continuous): 360°

Z Maximum radius of working equipment: 29’0” (8.8)

AA Maximum depth: 19’2” (5.8)

AB Maximum radius at groundline (Scaling Hook): 28’2” (8.6)

AC Maximum radius at groundline (S-29 Hammer): 31’5” (9.6)

AH Minimum radius at groundline: 10’5” (3.2)

AK Boom pivot to groundline: 6’5” (2.0)

AL Boom pivot to axis of rotation: 11’1” (3.4)

AP Attachment tooth radius (scaling hook): 3’10” (1.2)

AQ Boom pivot angle: 30° Up and 75° Down

AS Attachment pivot angle: 165°

AU Maximum telescoping boom length (boom pivot to attachment pivot): 23’1” (7.0)

AV Minimum telescoping boom length (boom pivot to attachment pivot): 12’1” (3.7)

AW Telescoping boom travel: 11’0” (3.4)

AX Boom tilt angle (continuous): 360°

BA Maximum radius of working equipment: 29’0” (8.8)

BB Maximum height of working equipment: 23’7” (7.2)

BD Minimum clearance of attachment with pivot at maximum height: 15’11” (4.9)

BF Minimum clearance of attachment at maximum boom height: 10’5” (3.2)

BG Maximum height of working equipment with attachment below groundline: 14’11” (4.5)

BH Radius of attachment tooth at maximum height: 21’6” (6.6)

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

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.

### 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 36” (914 mm) excavating bucket, fuel tank half full: 42,294 lbs (19,184 kg)
- **Outriggers:** 2,720 lbs (1,234 kg)
- **Blade:** 1,480 lbs (671 kg)