XL 5220 V
MINE SCALING MACHINE

SPECIFICATIONS

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 (129 kW)
590 ft lb Torque @ 1100-1500 rpm (800Nm)

Net Rating: 153 hp @ 2200 rpm (114 kW)

- 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

Fuel tank capacity: 82 gallons (310 L)

Operator Cab
- All-weather cab
- Tinted safety glass windows
- Acoustical lining
- Four-way adjustable seat
- AM/FM radio
- Filtered fresh air heater
- Defroster
- Air conditioner
- Front window slides to overhead storage
- Rearview mirrors on right and left sides
- Swing lights
- Non tinted sky light
- Windshield wiper and washer

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
- Two electric foot pedals (with handles) control crawler travel speed and direction, crawler steering and crawler brakes
- 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

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

Hydraulic System

Pumps
- One load-sensing, axial piston pump; oil flow 0-110 gpm (0-435 L/min)
- 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
- One tool: 5.0” ID, 3.0” rod (127 mm x 76 mm), 25.9” (658 mm) stroke
- Two hoist: 4.75” ID, 3.35” rod (121 mm x 85 mm), 31.0” (787 mm) stroke
- One telescope: 3.75” ID, 2.75” rod (95 mm x 70 mm), 14’ (4.27 m) stroke

Four Hydraulic Motors
- Swing, 68 hp (51 kW)
- Tilt, 50 hp (37 kW)
- Two propel motors, 120 hp (89 kW) each

Operating Pressures:
- Hoist.........................4,900 psi (331 BAR)
- Tilt.........................4,900 psi (331 BAR)
- Swing......................4,500 psi (310 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)

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

Crawler Drive
- Dual range, high torque piston motor powers each track
- Three-stage planetary drive with integral speed limiting valve and automatic spring-set/hydraulic release wet-disc parking brake

Travel Speed: on flat, level surface:
- High Speed: 3.4 mph (5.5 km/h)
- Low Speed: 1.9 mph (3.1 km/h)
- Automatic two-speed control shifts crawler drive into low speed under difficult travel conditions
- Manual override switch for loading the machine for transport.

Gradeability:
- 58%, limited by engine lubrication requirements

Drawbar Pull
- 38,324 lbs (170 kN)

Individual Track Control
- Tracks counter-rotate to pivot machine about the swing centerline
- Electronically operated travel alarm signals crawler movement in either direction
### Dimensions

- **A** Overall length with attachment open: 28'4" (8.6)
- **A1** Overall length without attachment: 26'3" (8.0)
- **B** Overall height with attachment open: 10'9" (3.3)
- **B1** Overall height without attachment: 10'5" (3.2)
- **C1** Width of upperstructure: 9'0" (2.7)
- **D** Minimum clearance, upperstructure to undercarriage: 5" (130 mm)
- **E** Swing clearance, rear of upperstructure: 6'6" (2.6)
- **F** Top of cab guard to groundline: 10'5" (3.2)
- **G** Clearance, upperstructure to groundline: 3'5" (1.0)
- **J1** Axis of rotation to centerline of drive sprockets: 5'1" (1.7)
- **J2** Nominal distance between centerlines of drive sprockets and idlers: 11'0" (3.4)
- **J3** Axis of rotation to end of track assembly: 6'10" (2.1)
- **J4** Nominal overall length of track assembly: 13'8" (4.2)
- **K** Width of crawler (standard): 10'6" (3.2)
- **L** Width of crawler (optional): 9'10" (3.0)

Ground clearance (per SAE J1234): 18" (454 mm)

- **V** Track gauge, roller centerline to roller centerline: 7'10" (2.4)
- **Y** Width of crawler track assembly (standard): 31'5" (800 mm)
- **AA** Maximum radius at groundline (Scaling Hook): 34'10" (1.0)
- **AB** Maximum depth: 26'2" (8.0)
- **AH** Minimum radius at groundline: 14'9" (4.5)
- **AK** Boom pivot to groundline: 5'6" (1.7)
- **AL** Boom pivot to axis of rotation: 1'11" (685 mm)
- **AP** Attachment tooth radius: 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): 29'6" (9.0)
- **AV** Minimum telescoping boom length (boom pivot to attachment pivot): 15'6" (4.7)
- **AW** Telescoping boom travel: 140° (4.3)
- **AX** Boom tilt angle (continuous): 360°
- **BA** Maximum radius of working equipment: 35'4" (10.8)
- **BB** Maximum height of working equipment: 26'0" (7.9)
- **BD** Minimum clearance of attachment with pivot at maximum height: 18'5" (5.6)
- **BF** Minimum clearance of attachment at maximum boom height: 11'5" (3.5)
- **BG** Maximum height of working equipment with attachment below groundline: 14'2" (4.3)
- **BH** Radius of attachment tooth at maximum height: 27'1" (8.2)

### Swing

- **Priority swing circuit with axial piston motor**
- **Planetary transmission**

**Swing speed:** 70 rpm

**Swing Brake**

- **Automatic spring-set/hydraulic release wet-disc parking brake**
- **Dynamic braking is provided by the hydraulic system**

### Weight

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

<table>
<thead>
<tr>
<th>Pad Size</th>
<th>Weight (lbs)</th>
<th>Bearing Pressure (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>236&quot; 600 mm</td>
<td>58,032 lbs (26,322 kg)</td>
<td>93 psi (641 kPa)</td>
</tr>
<tr>
<td>315&quot; 800 mm</td>
<td>59,162 lbs (26,835 kg)</td>
<td>71 psi (489 kPa)</td>
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### Function Forces

- **Rated Boom Force:** 24,941 lbs (111 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