## Dimensions

- **(A) Operating height** 4026 mm
- **(B) Height with operator cab** 2065 mm
- **(C) Angle of Departure** 25°
- **(D) Ground clearance** 406 mm
- **(E) Wheelbase** 1150 mm
- **(F) Length without attachment** 2754 mm
- **(G) Length with standard bucket** 3474 mm
- **(H) Rollback at ground position** 30°
- **(I) Dump height with standard bucket** 2447 mm
- **(J) Height to bucket hinge pin** 3149 mm
- **(K) Dump reach at maximum height** 800 mm
- **(L) Dump angle at maximum height** 42.0°
- **(M) Rollback fully raised at maximum height** 97°
- **(N) Bucket width, 68-inch** 1727 mm
- **(N) Bucket width, 74-inch** 1880 mm
- **(N) Bucket width, 80-inch** 2032 mm
- **(O) Turning radius with standard bucket** 2106 mm
- **(P) Track, 12 x 16.5, 12-ply, Heavy duty tyres** 1507 mm
- **(Q) Width over tyres, 12 x 16.5, 12-ply, Heavy duty** 1832 mm
## Machine Rating

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift breakout force</td>
<td>2135 daN</td>
</tr>
<tr>
<td>Tilt breakout force</td>
<td>2268 daN</td>
</tr>
<tr>
<td>Rated operating capacity</td>
<td>1220 kg</td>
</tr>
<tr>
<td>Tipping load</td>
<td>2440 kg</td>
</tr>
<tr>
<td>Axle torque</td>
<td>9278 Nm</td>
</tr>
</tbody>
</table>

## Function Time

<table>
<thead>
<tr>
<th>Function</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise lift arms</td>
<td>3.9 s</td>
</tr>
<tr>
<td>Lower lift arms</td>
<td>2.6 s</td>
</tr>
<tr>
<td>Bucket rollback</td>
<td>1.7 s</td>
</tr>
<tr>
<td>Bucket dump</td>
<td>2.3 s</td>
</tr>
</tbody>
</table>

## Weights

<table>
<thead>
<tr>
<th>Weight Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>3777 kg</td>
</tr>
<tr>
<td>Shipping weight</td>
<td>3540 kg</td>
</tr>
</tbody>
</table>

## Engine

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make / Model</td>
<td>Kubota / V3307-DI-TE3</td>
</tr>
<tr>
<td>Fuel</td>
<td>Diesel</td>
</tr>
<tr>
<td>Cooling</td>
<td>Liquid</td>
</tr>
<tr>
<td>Power at 2400 RPM</td>
<td>55.4 kW</td>
</tr>
<tr>
<td>Rated speed (SAE JI 995)</td>
<td>2400 RPM</td>
</tr>
<tr>
<td>Torque, maximum 1600 RPM (SAE JI 995 Gross)</td>
<td>264 Nm</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>4</td>
</tr>
<tr>
<td>Displacement</td>
<td>3331 cm³</td>
</tr>
<tr>
<td>Bore</td>
<td>94 mm</td>
</tr>
<tr>
<td>Stroke</td>
<td>120 mm</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Gear pump pressure</td>
</tr>
<tr>
<td>Crankcase ventilation</td>
<td>Closed breathing</td>
</tr>
<tr>
<td>Air filter</td>
<td>Dry replaceable cartridge with safety element</td>
</tr>
<tr>
<td>Ignition</td>
<td>Diesel-compression</td>
</tr>
<tr>
<td>Starting aid</td>
<td>Glow Plugs</td>
</tr>
</tbody>
</table>

## Electrical

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternator</td>
<td>Belt driven — 90 A — open</td>
</tr>
<tr>
<td>Battery</td>
<td>12 V — 950 cold cranking A at -18°C — 180 min reserve capacity</td>
</tr>
<tr>
<td>Starter</td>
<td>12 V — gear reduction type — 3.0 kW</td>
</tr>
</tbody>
</table>
Hydraulic System

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump type</td>
<td>Engine driven, gear type</td>
</tr>
<tr>
<td>Pump capacity (@ 91% efficiency) at 3294 RPM</td>
<td>87.1 L/min</td>
</tr>
<tr>
<td>Pump capacity (@ 91% efficiency with highflow option) at 3294 RPM</td>
<td>115.5 L/min</td>
</tr>
<tr>
<td>System relief at quick couplers</td>
<td>23.8–24.5 MPa</td>
</tr>
<tr>
<td>Control valve</td>
<td>Three-spool, open-centre type with float detent on lift and electrically controlled auxiliary spool</td>
</tr>
<tr>
<td>Hydraulic filter</td>
<td>Full-flow replaceable — 10 µm synthetic media element</td>
</tr>
<tr>
<td>Fluid lines</td>
<td>SAE standard tubelines, hoses, and fittings</td>
</tr>
</tbody>
</table>

Hydraulic Cylinders

<table>
<thead>
<tr>
<th>Cylinder Type</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift cylinder (2)</td>
<td>Double-acting</td>
</tr>
<tr>
<td>Lift cylinder bore</td>
<td>76.2 mm</td>
</tr>
<tr>
<td>Lift cylinder rod</td>
<td>44.5 mm</td>
</tr>
<tr>
<td>Lift cylinder stroke</td>
<td>633.2 mm</td>
</tr>
<tr>
<td>Tilt cylinder (2)</td>
<td>Double-acting with cushioning feature on dump and rollback</td>
</tr>
<tr>
<td>Tilt cylinder bore</td>
<td>76.2 mm</td>
</tr>
<tr>
<td>Tilt cylinder rod</td>
<td>41.4 mm</td>
</tr>
<tr>
<td>Tilt cylinder stroke</td>
<td>355 mm</td>
</tr>
</tbody>
</table>

Drive System

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>Infinitely variable tandem hydrostatic piston pumps, driving two fully reversing hydrostatic motors</td>
</tr>
<tr>
<td>Final drive chains</td>
<td>Pre-stressed #120 HSOC endless roller chain (no master link) and sprockets in sealed chaincase with oil lubrication. (Chains do not require periodic adjustments.) Two chains per side with no idler sprocket.</td>
</tr>
<tr>
<td>Main drive</td>
<td>Fully hydrostatic; four-wheel drive</td>
</tr>
<tr>
<td>Axle size</td>
<td>70.1 mm, heat treated. Axle tubes welded to chaincase. Labyrinth axle seal protection.</td>
</tr>
<tr>
<td>Wheel bolts</td>
<td>Eight 9/16–inch wheel bolts fixed to axle hubs</td>
</tr>
</tbody>
</table>

Traction

<table>
<thead>
<tr>
<th>Tyre Type</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard tyres</td>
<td>12 x 16.5, 12–ply, Bobcat heavy duty</td>
</tr>
<tr>
<td>Heavy duty offset tyres (option)</td>
<td>12 x 16.5, 12–ply, Bobcat heavy duty, offset rims</td>
</tr>
<tr>
<td>Float tyres (option)</td>
<td>33 x 15.5-16.5, 12–ply, Bobcat superflotation, offset rims</td>
</tr>
<tr>
<td>Severe duty tyres (option)</td>
<td>12 x 16.5, 12–ply, Bobcat severe duty</td>
</tr>
<tr>
<td>Poly fill tyres (option)</td>
<td>12 x 16.5, 12–ply, Bobcat severe duty, poly filled</td>
</tr>
<tr>
<td>SolidFlex tyres (option)</td>
<td>12 x 16.5, Bobcat solid flex</td>
</tr>
<tr>
<td>Max. travel speed (low range)</td>
<td>11.4 km/h</td>
</tr>
<tr>
<td>Max. travel speed (high range - option)</td>
<td>19.8 km/h</td>
</tr>
</tbody>
</table>
## Fluid Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaincase reservoir capacity</td>
<td>39.2 l</td>
</tr>
<tr>
<td>Cooling system capacity without heater</td>
<td>11.4 l</td>
</tr>
<tr>
<td>Engine oil with filter capacity</td>
<td>11.4 l</td>
</tr>
<tr>
<td>Fuel tank capacity</td>
<td>103.3 l</td>
</tr>
<tr>
<td>Hydraulic reservoir capacity</td>
<td>10.2 l</td>
</tr>
<tr>
<td>Hydraulic / Hydrostatic system capacity</td>
<td>45 l</td>
</tr>
</tbody>
</table>

## Fluid Specifications

**Engine coolant**
- Propylene glycol/water mix (53% – 47%) with freeze protection to −37°C
  - 5 l can - 6904844A, 25 l container - 6904844B, 209 l drum - 6904844C, 1000 l tank - 6904844D
- Propylene glycol concentrate coolant
  - 5 l can - 6987646A, 25 l container - 6987646B, 209 l drum - 6987646C, 1000 l tank - 6987646D

**Engine oil**
- Oil must meet API Service Classification of CL4 or better.
- Recommended SAE viscosity number for anticipated temperature range.

* Can be used only when available with appropriate diesel rating. For synthetic oil use the recommendation from the oil manufacturer.

**Hydraulic fluid**
- Bobcat Superior SH, 5 l can - 6904842A, 25 l container - 6904842B, 209 l drum - 6904842C, 1000 l tank - 6904842D
- Bobcat Bio Hydraulic, 5 l can - 6904843A, 25 l container - 6904843B, 209 l drum - 6904843C, 1000 l tank - 6904843D
  - Motor oil is not an acceptable alternative fluid.

## Controls

**Engine**
- Hand lever throttle

**Starting**
- Key-type starter switch and shutdown or optional keyless start. Glow plugs automatically activated by Standard or Deluxe instrument panel.

**Front auxiliary (standard)**
- Electrical switch on right-hand steering lever

**Rear auxiliary (optional)**
- Electrical switch on left-hand steering lever

**Loader hydraulics tilt and lift**
- Separate foot pedals, optional Advanced Control System (ACS), Advanced Hand Control (AHC) or Selectable Joystick Control (SJC)

**Service brake**
- Two independent hydrostatic systems controlled by two hand-operated steering levers

**Secondary brake**
- One of the hydrostatic transmissions

**Parking brake, standard**
- Mechanical disc, hand-operated rocker switch on dash panel

**Parking brake, two-speed option**
- Spring applied pressure release multi-disk brake activated by rocker switch

**Vehicle steering**
- Direction and speed controlled by two hand levers

**Auxiliary pressure release**
- Pressure is relieved through the coupler block. Push in and hold for 5 s.
Instrumentation

The following loader functions are monitored by a combination of gauges and warning lights in the operator’s line of sight. The system alerts the operator of monitored loader malfunctions by way of audible alarm and visual warning lights.

**Standard Instrument Panel**

- **Gauges**
  - Engine temperature
  - Fuel
- **Indicators**
  - Bobcat Interlock Control System
  - Engine preheat
  - Two speed
  - Turn signals
- **Warning lights**
  - Engine temperature
  - Fuel level
  - General warning
  - Seat belt
  - Seatbar down
  - Engine malfunction
  - Hydraulic system malfunction
  - Lift and tilt valve, hydraulics lock-out
  - Parking brake
  - Hydraulic oil temperature
  - Engine oil pressure
  - Hydraulic oil pressure
- **Buttons**
  - Work lights and road lights
  - High flow auxiliary hydraulics
  - Auxiliary hydraulics
  - Information
    - Hour meter (default)
    - Engine rpm
    - Battery voltage
    - Service codes
    - Service reminder (maintenance clock)
  - Traction lock override
  - Press to operate loader
- **Rocker switch**
  - Parking brake
- **Alarm**
  - Beep when error, warning or shutdown condition exists

**Full-Color Deluxe Instrument Panel (Option)**

Same gauges, warning lights and other features as Standard Instrument Panel, plus:

- **Gauges**
  - Engine oil pressure / temperature
  - Hydrostatic charge pressure
  - Hydraulic oil temperature
  - Battery
- **Additional features**
  - Keyless start with password capability
  - Digital clock, date and time
  - User name and hourmeter
  - Attachment control information
  - Current job hours
  - High Flow lockouts
  - Multi-language display
  - Help screens
  - Diagnostic capability
  - Engine/hydraulic systems shutdown function
  - Password lockout
• Icons
  o Active warnings
  o Vitals
    o engine speed
    o oil pressure
    o temperature
    o system voltage
    o hydraulic charge pressure
    o oil temperature
  o Service
  o Main screen
  o Attachments
  o Security
  o Display
• Buttons
  o Left scroll
  o Enter
  o Right scroll
Serviceability

Access is available to the following through the rear door/tailgate and rear screen:

- Air filter
- Alternator
- Battery
- Cooling system (engine oil and hydraulic oil coolers) for cleaning
- Engine oil and fuel filters
- Engine oil drain and dipstick
- Hydraulic oil fill and filter (access at the upper right side of the machine)
- Starter

Axle hubs provide protection for the axle seals
Bob-Tach™ pivots have replaceable wear bushings
Easy access to all lift arm grease points
Rod end of the tilt cylinder has a replaceable bushing
Tailgate has an optional lock for vandal-proofing
Tailgate is equipped with door-stop to hold door open while servicing
Tip-up operator cab gives access to certain hydraulic system components

Standard Features

- High-back cushion suspension seat
- Automatically activated glow plugs
- Auxiliary hydraulics: variable flow/maximum flow
- Bob-Tach™ frame
- Bobcat Interlock Control System (BICS)
- Deluxe operator cab*
  - Includes interior cab foam, side, top and rear windows, Deluxe wire harness, dome light, and electrical power port, cup holder, storage place, horn
- Electrically activated proportional front auxiliary hydraulics
- Engine/hydraulics system shutdown
- Hydraulic bucket positioning (including ON/OFF switch)
- Instrumentation
- Lift arm support
- Operating lights, front and rear
- Parking brake
- Seat belt
- Seat bar
- 12 x 16.5, 12–ply, Heavy duty tyres
- CE certification
- Turbo-charger with approved spark arrestor
- Warranty: 12 months or 2000 hours

* Roll Over Protective Structure (ROPS) – meets requirements of SAE-J1040 and ISO 3471; Falling Object Protective Structure (FOPS) - meets requirements of SAE-J1043 and ISO 3449, Level I
Options

- Factory Options
  - Two speed
  - High-Flow hydraulics
  - Deluxe instrument panel
  - Cab enclosure with heat
  - Air conditioning
  - Power Bob-Tach™
    - 33 x 15.5-16.5, 12–ply, Superflotation tyres, offset rims
    - 12 x 16.5, 12–ply, Heavy duty tyres, offset rims
    - 12 x 16.5, 12–ply, Severe duty tyres
    - 12 x 16.5, 12–ply, Severe duty tyres, poly filled
    - 12 x 16.5, Solid flex tyres
  - Advanced Control System (ACS)
  - Advanced Hand Controls (AHC)
  - Selectable Joystick Controls (SJC)

- Dealer Installed Options
  - Block heater kit
  - Pre-cleaner HP aspiration kit
  - Deluxe instrument panel
  - Catalytic purifier kit
  - Radio kit
  - Back up alarm kit
  - Bucket positioning kit
  - Fire extinguisher kit
  - Rotating beacon kit
  - Road kit
  - Single point lift kit
  - Fresh air heater kit
  - Front door kit
  - Plumbing kit for fresh air heater
  - Keyless kit
  - Power Bob-Tach™ kit
  - Air conditioning kit
  - 200/300 lbs counterweight kit
  - Lexan rear window kit
  - Special applications front door kit
  - Four-point lift kit
  - 7 and 14-pin electrical attachment control kit (7–pin kit standard with S650H)
  - FOPS kit **
  - Rear auxiliary hydraulic kit

** Falling Objects Protective Structure (FOPS) – meets requirements of SAE-J1043 and ISO 3449, Level II
Attachments

For specific model availability, see Bobcat Product Price List.

- Angle broom*†
- Auger
- Backhoe
- Bale forks
- Box blade
- Brushcat rotary cutter
- Buckets
- Chipper*
- Combination bucket
- Concrete pump*
- Cutter crusher*
- Digger
- Dozer blade*
- Dumping hopper
- Farm grapple
- Flail cutter
- Grader*
- Hydraulic breaker**
- Industrial grapple
- Landplane
- Landscape rake
- Mixing bucket
- Mower
- Over-the-tyre tracks
- Pallet fork – hydraulic
- Pallet fork – standard
- Planer*†
- Rear stabilisers
- Scarifier
- Snow blade
- Snow blower*
- Snow V-blade
- Sod layer*
- Soil conditioner*
- Spreader
- Stump grinder*
- Super scraper
- Sweeper†
- Three-point hitch
- Tiller
- Tilt-Tatch™
- Tracks, steel
- Tree transplanter*
- Trench compactor
- Trencher
- Utility forks
- Utility frame
- Vibratory roller
- Water kit
- Wheel saw*
- Whisker broom

*Attachment control kit required.
**When operating the loader with this attachment, a Special Applications Kit must be used.
†Optional water kit.
### Environmental

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator $L_{PA}$ (98/37 &amp; 474-1)</td>
<td>85 dB(A)</td>
</tr>
<tr>
<td>Noise level $L_{WIA}$ (EU Directive 2000/14/EC)</td>
<td>101 dB(A)</td>
</tr>
<tr>
<td>Whole body vibration (ISO 2631–1)</td>
<td>0.90 ms(^{-2})</td>
</tr>
<tr>
<td>Hand-arm vibration (ISO 5349–1)</td>
<td>1.40 ms(^{-2})</td>
</tr>
</tbody>
</table>

### Safety

- **Bobcat Interlock Control System (BICS), standard**
  - Requires the operator to be seated in the loader with the seat bar in place and the engine running. After the operator presses the “Press to Operate Loader” button, the loader’s hydraulic lift and tilt functions and traction drive can be operated.

- **Lift arm bypass control, standard**
  - Used to lower the lift arms in the event that the lift arms cannot be lowered during normal operating conditions.

- **Seat belt, standard**
  - Should always be worn when operating the loader. Three-point shoulder belt provides restraint for high range speeds.

- **Seat bar, standard**
  - Secondary operator restraint, also serves as an arm rest.

- **Operator cab, standard**
  - An enclosed operator cab with side screens with a minimal inside cab width of 838 mm. Meets SAE-J1040 and ISO 3471 for Roll Over Protective Structure (ROPS) and SAE-J1043 and ISO 3449 Level I * for Falling Objects Protective Structure (FOPS). Level II ** option is available.

- **Lift arm support, standard**
  - Use for servicing when lift arms are raised.

- **Parking brake, standard**
  - Always set brake when leaving loader.

- **Grab handles, standard**
  - Should always be used when entering/exiting loader.

- **Safety tread, standard**
  - Slip resistant tread on lift arms and main frame to be used when entering/exiting loader.

- **Attachment steps, standard**
  - Should always be used when entering/exiting loader.

- **Rear window, standard**
  - For emergency exit.

- **Front and rear working lights, standard**
  - Use for indoor and low light operation.

- **Backup alarm, optional**
  - For use in areas with high traffic

- **Lift kits, optional**
  - Lift kits are available so loader may be lifted into remote areas.

- **Special applications kit, optional**
  - Restricts objects and material from entering cab openings.

- **Operator’s handbook, standard**
  - Weather-resistant operator handbook attached to the inside of the cab, providing operational instructions and warnings decals with pictorials and international symbols.

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* **Level I** — Acceptance is intended for protection from falling bricks, small concrete blocks, and hand tools encountered in operations such as highway maintenance, landscaping, and other construction site services.

** **Level II** — Acceptance is intended for protection from falling trees or rocks for machines involved in site clearing, overhead demolition, or forestry.