

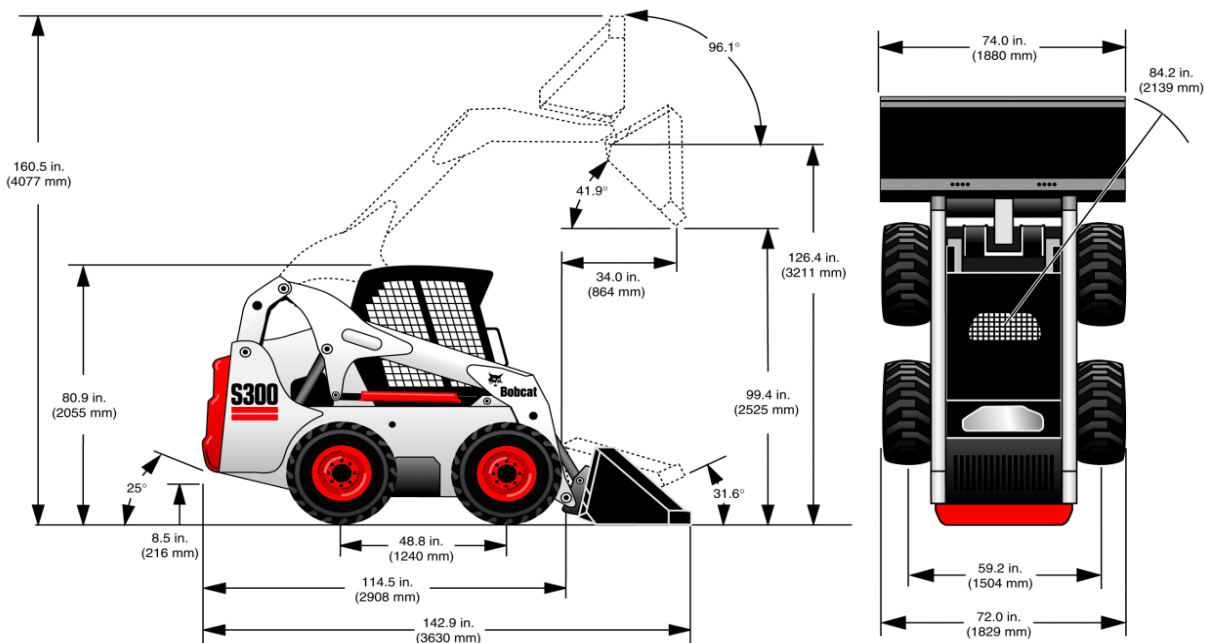


S300/S300H Skid-Steer Loaders

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5259 11001 — 5259 12199
16/11/2004

Dimensions



- Angle of departure
- Carry position
- Dump angle at maximum height
- Dump height with standard bucket
- Dump reach at maximum height
- Ground clearance
- Height to bucket hinge pin
- Height with operator cab
- Length without attachment
- Length with standard bucket
- Operating height
- Rollback at ground
- Rollback fully raised at maximum height
- Wheelbase
- Turning radius with standard bucket
- Width over tyres, 12-16.5
- Width over tyres, 33 x 15.5-16.5
- Track, 12-16.5 tyres
- Track, 33 x 15.5-16.5 tyres
- Width over bucket, 68-inch
- Width over standard bucket, 74-inch
- Width over bucket, 80-inch

- 25°
- 246 mm
- 41.9°
- 2525 mm
- 864 mm
- 216 mm
- 3211 mm
- 2055 mm
- 2908 mm
- 3630 mm
- 4077 mm
- 30°
- 96.1°
- 1240 mm
- 2139 mm
- 1829 mm
- 1880 mm
- 1504 mm
- 1486 mm
- 1727 mm
- 1880 mm
- 2032 mm

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Machine Rating

Lift breakout force	28024 N
Tilt breakout force	30426 N
Rated operating capacity (ISO 5998)	1400 kg
Tipping load (ISO 8313)	2800 kg
Axle torque	8077 Nm

Function Time

Raise lift arms	4.4 s
Lower lift arms	3.2 s
Bucket rollback	1.9 s
Bucket dump	2.5 s

Weights

Operating weight, S300	3801 kg
Operating weight, S300H	3821 kg
Shipping weight	3249 kg

Engine

Make / Model	Kubota / V3300-DI-T turbo
Fuel	Diesel
Cooling	Liquid
Power at 2400 RPM	58 kW
Rated speed (EEC 80/1269, ISO 9249)	2400 RPM
Torque, maximum (ISO 9249) at 1400 RPM	287 Nm
Number of cylinders	4
Displacement	3.32 l
Bore	98 mm
Stroke	110 mm
Fuel consumption	10 l/h (Estimated fuel consumption is based on testing by Bobcat Company in high duty-cycle digging applications.)
Lubrication	Pressure system with filter
Crankcase ventilation	Open breathing
Air filter	Dry replaceable cartridge with safety element
Ignition	Diesel-compression
Starting aid	Intake air heater

Electrical

Alternator	Belt driven — 90 A — open
Battery	12 V — 950 cold cranking A at -18°C — 180 min reserve capacity
Starter	12 V — gear reduction type — 3 kW

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Hydraulic System

Pump type	Engine driven, gear type
Pump capacity	78.4 l/min
Pump capacity (with high flow option)	116.2 l/min
System relief at quick couplers	227.5 bar
Control valve	Three-spool, open-centre type with float detent on lift and electrically controlled auxiliary spool
Hydraulic filter	Full-flow replaceable — 3 µm synthetic media element
Fluid lines	SAE standard tubelines, hoses, and fittings

Hydraulic Cylinders

Lift cylinder (2)	Double-acting
Lift cylinder bore	76.2 mm
Lift cylinder rod	41.4 mm
Lift cylinder stroke	636.0 mm
Tilt cylinder (2)	Double-acting with cushioning feature on dump and rollback
Tilt cylinder bore	76.2 mm
Tilt cylinder rod	38.1 mm
Tilt cylinder stroke	383.5 mm

Drive System

Transmission	Infinitely variable tandem hydrostatic piston pumps, driving two fully reversing hydrostatic motors
Final drive chains	Pre-stressed #100 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.
Main drive	Fully hydrostatic; four-wheel drive
Axle size	70.1 mm, heat treated
Wheel bolts	Eight 9/16-inch wheel bolts fixed to axle hubs

Traction

Tyres	12-16.5 — 12-ply — Bobcat heavy duty
Travel speed — low range	11.6 km/h
Travel speed — high range	20.1 km/h

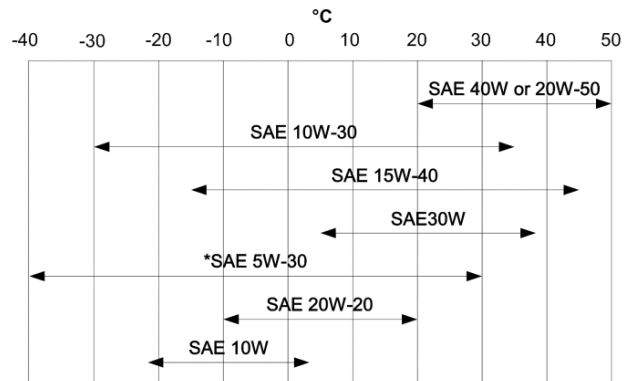
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Fluid Capacities

Chaincase reservoir capacity	41.6 l
Cooling system capacity	16.3 l
Engine oil with filter capacity	13.2 l
Fuel tank capacity	94.6 l
Hydraulic reservoir capacity	17.8 l
Hydraulic / Hydrostatic system capacity	49.2 l

Fluid Specifications

Engine coolant	Bobcat PG Coolant 5 L can - 6904844A 25 L container - 6904844B 209 L drum - 6904844C 1000 L tank - 6904844D
Engine oil	Oil must meet API Service Classification of CD, CE, CF4, CG4, 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
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Controls

Engine Starting	Hand lever throttle Key-type starter switch and shutdown. Intake air heater 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 or optional Advanced Control System (ACS)
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

Controls

<p>Parking brake, two-speed option</p> <p>Vehicle steering</p> <p>Auxiliary pressure release</p>	<p>Spring applied pressure release multi-disk brake activated by rocker switch</p> <p>Direction and speed controlled by two hand levers</p> <p>Pressure is relieved through the coupler block. Push in and hold for 5 s.</p>
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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 coolant temperature
 - Fuel
 - Hour-meter
- Indicators
 - Attachment Control Device
 - BICS functions
 - Intake air heater
- Warning lights
 - Advanced Control System (ACS)
 - Engine air filter
 - Engine coolant temperature
 - Engine oil pressure
 - Fuel level
 - General warning
 - Hydraulic filter
 - Hydraulic oil temperature
 - Hydrostatic charge temperature
 - Seat belt
 - System voltage

Deluxe Instrument Panel (Option)

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

- Bar-type gauges
 - Engine oil pressure
 - System voltage
 - Hydrostatic charge pressure
 - Hydraulic oil temperature
- Additional features
 - Keyless start with password capability
 - Digital clock
 - Job clock
 - Attachments information
 - Digital tachometer
 - High flow lockouts
 - Multi-language display
 - Help screens
 - Diagnostic capability
 - Engine/hydraulic systems shutdown function

S300/S300H Skid-Steer Loaders — 16/11/2004**Serviceability**

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

- Air cleaner
- Alternator
- Battery
- Cooling system (engine oil and hydraulic oil coolers easily separable for cleaning)
- Engine oil and fuel filters
- Engine oil drain and dipstick
- Hydraulic oil fill (access at the 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

- Two-speed travel
- High-back cushion suspension seat
- Automatically activated air intake heater
- Auxiliary hydraulics: variable flow/maximum flow
- Bob-Tach™ frame
- Bobcat Interlock Control System (BICS)
- Counterweights: four axle weight sets and two tailgate plate weights
- Deluxe operator cab*
Includes interior cab foam, side, top and rear windows, accessory wire harness, dome light, and electrical power port
- CE certification
- 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
- Tyres — 12-16.5 — 12-ply — Bobcat heavy duty
- 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**

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Options

- Factory Options
 - Deluxe instrument panel
 - Cab enclosure with heat
 - Air conditioning
 - Power Bob-Tach™
 - Heavy duty tyres with offset rims — 12-16.5 — 12-ply
 - Severe duty foam-filled tyres — 12-16.5 — 12-ply
 - Super float tyres — 31 x 15.5-15 — 12-ply
 - Severe duty tyres — 12-16.5 — 12-ply
 - Segmented tyres — industrial type — 8.25-15
 - Segmented tyres — 12-16.5
 - Urethane track package to fit 12-16.5 tyres
 - Wheel spacer kit for steel tracks — 1.5-inch
 - Advanced Control System (ACS)
 - Advanced Hand Controls (AHC)
 - Selectable Joystick Controls (SJC)
- Dealer Installed Options
 - Cab enclosure kit
 - Special applications kit
 - Deluxe instrument panel
 - Catalytic purifier kit
 - Bob-Tach™ frame
 - Back up alarm kit
 - Lift arm spacer — 1-inch
 - Steel track package to fit 12-16.5 tyres
 - Door switch sensor kit
 - Fresh air heater kit
 - Front door kit
 - Plumbing kit for fresh air heater
 - Suspension seat, vinyl or fabric
 - Replacement operator cab structure
 - Power Bob-Tach™ kit
 - Air conditioning kit
 - Four-point lift kit
 - 7 and 14-pin electrical attachment control kit
 - Attachment control kit, 7-pin (standard with S300H)
 - Attachment control kit, 14-pin
 - FOPS kit **
 - Rear auxiliary hydraulic kit

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

S300/S300H Skid-Steer Loaders — 16/11/2004**Attachments**

For specific model availability, see Bobcat Product Price List.

- Angle blade
- Angle broom*†
- Auger
- Backhoe
- Box blade
- Brushcat rotary cutter
- Buckets
- Chipper*
- Combination bucket
- Concrete pump*
- Cutter crusher*
- Digger
- Dozer blade*
- Dumping hopper
- Farm grapple
- Grader*
- Hydraulic breaker**
- Industrial grapple
- Landplane
- Landscape rake
- Mixing bucket*
- Pallet fork – hydraulic
- Pallet fork – standard
- Planer*
- Rear stabiliser
- Scarifier
- Snow blower*
- 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
- Water kit
- Wheel saw
- Whisker broom
- Vibratory roller

*Attachment control kit required.

**When operating the loader with this attachment, a Special Applications Kit, which includes a 12 mm Lexan front door with 6 mm top and rear windows, must be used.

†Optional water kit.

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Environmental

Noise level L_{pA} (EU Directive 2000/14/EC) 85 dB(A)
 Noise level L_{WA} (EU Directive 2000/14/EC) 105 dB(A)
 Whole body vibration (ISO 2631-1) 0.99 ms^{-2}
 Hand-arm vibration (ISO 5349-1) 2.05 ms^{-2}

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 work lights, standard	Use for indoor and low light operation.
Back-up 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 handbook, standard	Weather-resistant operator handbook attached to the inside of the cab, providing operational instructions and warnings decals with pictorials and international symbols.

* 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.