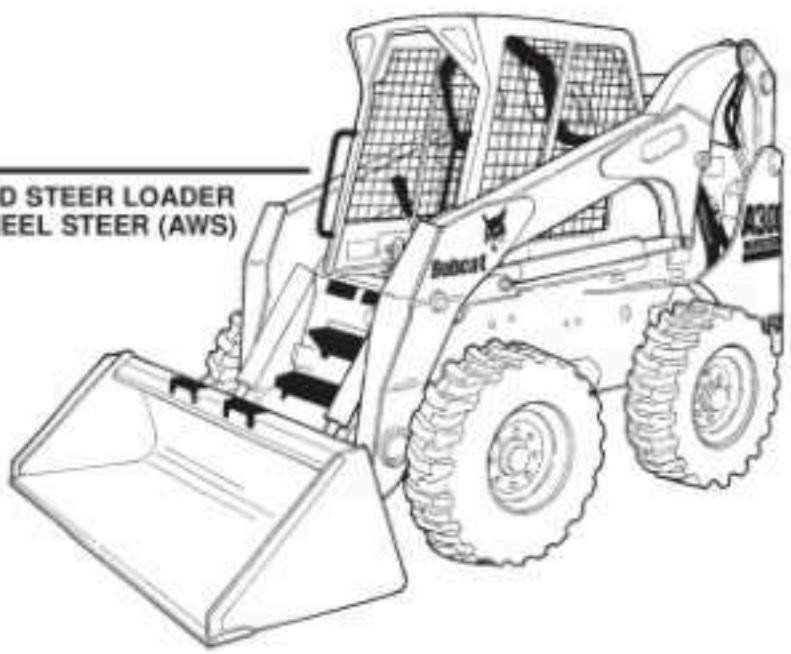
A300 TURBO

Bobcat®

Operation & Maintenance Manual

S/N 521111001 & Above
S/N 521211001 & Above

BOBCAT SKID STEER LOADER
With ALL WHEEL STEER (AWS)



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6901755 (6-02) Revised (3-03) (3)

An Ingersoll-Rand business

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CALIFORNIA
PROPOSITION 65 WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

REFERENCE INFORMATION

Write the correct information for YOUR Bobcat loader in the spaces below. Always use these numbers when referring to your Bobcat loader.

Loader Serial Number ..... _____
Engine Serial Number ..... _____
_____
_____
_____

NOTES: _____
_____
_____
_____
_____
_____

YOUR LOADER DEALER: _____
ADDRESS: _____
PHONE: _____

Bobcat Company
P.O. Box 128
Gwinner, ND 58040–0128

Bobcat Europe
J. Huysmanslaan 59
B–1651 LOT
BELGIUM

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ENGINE SPEED CONTROL

The speed control lever is at the right side of the operator's right leg (Item 1) **[A]**.

Move the lever forward to increase engine speed. Move backward to decrease engine speed.

There is also an accelerator pedal. Set the minimum engine speed using the speed control lever (Item 1) **[A]** then use the accelerator (Item 2) **[A]** to increase engine speed.

TWO–SPEED CONTROL (OPTION – Early Models) (Standard – Later Models)

The two speed option allows you to reduce cycle times when there is a long travel distance between the dig site and the dump site. You can also use the two speed when traveling from one job site to another at faster speeds.

Press the top of the switch (Item 1) **[B]** of the left joystick for high range. Fasten the shoulder belt when operating in High Range speed.

Press bottom of switch for low range.

When the Two–Speed Control is in high range and AWS Mode is selected, only the front wheels angle when steering; the rear wheels remain straight ahead.

INCHING CONTROL

The Inching Control allows the loader to be maneuvered at slow travel speed for installing attachments, loading or unloading.

Press the button (Item 2) **[B]** on the left joystick once to engage the Inching Control.

Press again to disengage.

PARKING BRAKE

Press the top of the switch (Item 1) **[C]** to engage the parking brake. The traction drive system will be locked.

Press the bottom of the switch (Item 2) **[C]** to disengage the parking brake. The traction drive system will be unlocked.

NOTE: The TRACTION light on the left instrument panel will remain OFF until the engine is started, the PRESS TO OPERATE LOADER Button is pressed and the parking brake is disengaged.

STEERING MODE SELECTION

The loader can be operated in one of two modes:

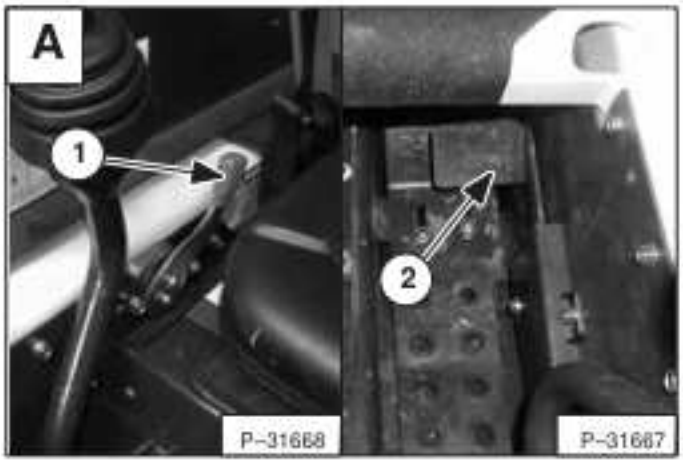
Skid Steer Mode (Item 3) **[C]** – Press the bottom of the switch to select Skid Steer Mode.

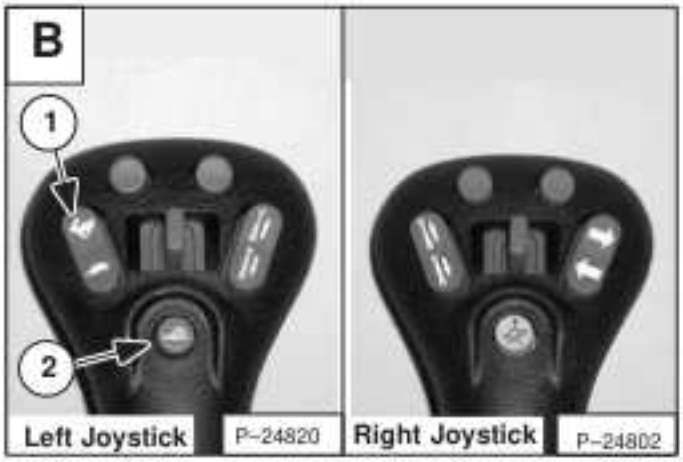
In Skid Steer Mode the wheels are aligned straight ahead and the wheels rotate in opposite directions to 'skid' the loader for turning.

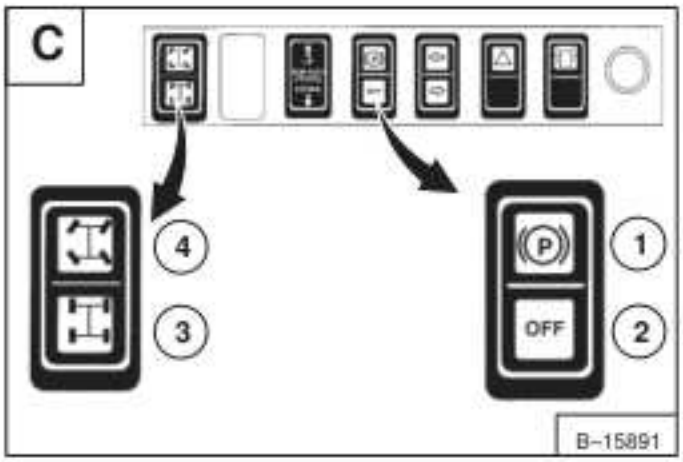
All Wheel Steer Mode (Item 4) **[C]** – Press the top of the switch to select All Wheel Steer Mode.

In All Wheel Steer Mode the front wheels will angle the direction the joystick is moved and the rear wheels will angle the opposite direction. The front and rear wheels will follow the path of the others for turning in a gradual circle.

Only the front wheels angle when operating in High Range speed.







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AIR CLEANER SERVICE (Cont'd)

Replacing Filter Element (Cont'd)

Inner Filter

Only replace the inner filter element under the following conditions:

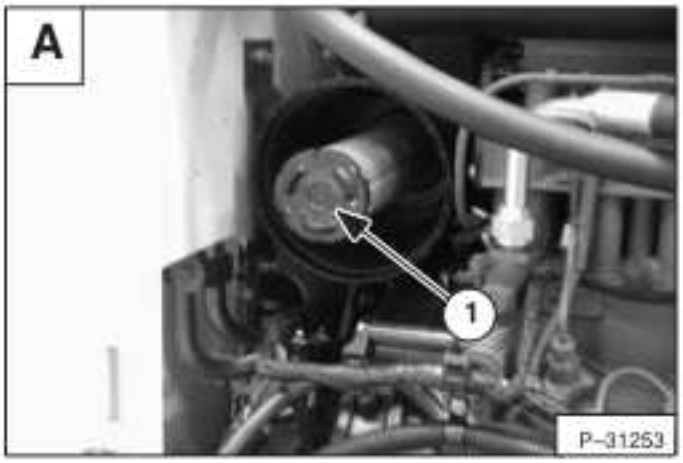
- Replace the inner filter element every *third* time the outer filter is replaced.
- After the outer element has been replaced, start the engine and run at full RPM. If the HOURMETER / CODE DISPLAY shows [**01–17**] (**Air Filter Plugged**), replace the inner filter element.

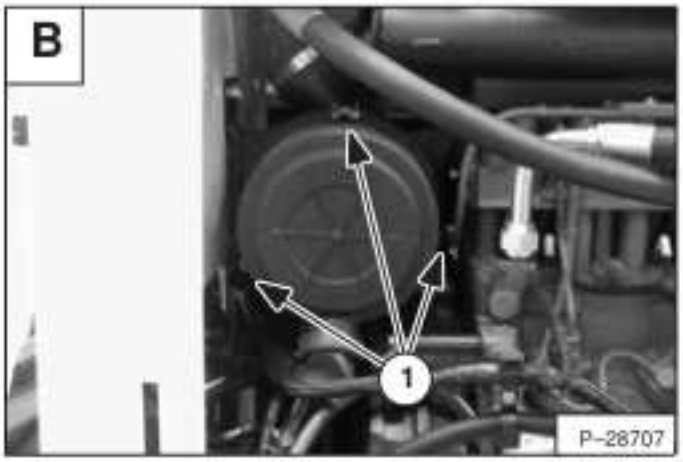
Remove the inner filter element (Item 1) **[A]**.

NOTE: Make sure all sealing surfaces are free of dirt and debris.

Install the new inner element.

Install the dust cover and fasten the clamps (Item 1) **[B]**.





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SKID STEER LOADER SPECIFICATIONS (Cont'd)

Performance

Rated Operating Capacity (SAE)	3000 lbs. (1361 kg)
Tipping Load (SAE)	6000 lbs. (2722 kg)
Operating Weight (SAE)	8350 lbs. (3788 kg)
Travel Speed: Single Speed Loader Two–Speed Loader (Opt.) Low / High Inching Speed	 7.0 MPH (11,3 km/hr) 7.0 MPH (11,3 km/hr) / 12.4 MPH (19,9 km/hr) 4.0 MPH (6,4 km/hr)
SAE Breakout Force Lift	6600 lbf. (2994 kg)
SAE Breakout Force – Tilt	7150 lbf. (3243 kg)
Axle Torque	6200 lbf. (8406 kg)

Engine / Electrical

Make / Model	Deutz/BF4M1011F Turbo–Charged
Fuel / Cooling	Diesel / Oil
Horsepower (SAE Net)	73 HP (54 kW)
Maximum Governed RPM	2350 RPM
Torque @ 1800 RPM (SAE Net)	176 LBF–FT (239 Mn)
Number of Cylinders	4
Displacement	178 cu. in. (2,92 L)
Bore / Stroke	3.59 / 4.41 inches (91 / 112 mm)
Lubrication	Pressure System with Filter
Crankcase Ventilation	Closed Breathing
Air Cleaner	Dry replaceable paper cartridge with safety element
Ignition	Diesel Compression
Engine Coolant	Oil
Starting Aid	Glow Plugs
Alternator	Belt driven; 90 amps, Open
Battery	12 Volt; 1000 cold cranking amps @ 0° F (–18° C) 180 minute reserve capacity
Starter	12 volt; gear type; 3.62 HP (2,7 kW)
Low Idle Speed	1125 – 1175 RPM
High Idle Speed	2537 – 2693 RPM

Hydraulic System

Pump Type	Engine driven, gear type
Pump Capacity	20.0 GPM (75,7 L/min)
System Relief At Quick Couplers	3000 PSI (206 BAR)
Hydraulic Filter	Full flow replaceable, 3 micron synthetic media element
Control Valve	3–Spool, open center type with float detent on lift and electrically controlled auxiliary spool

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BEFORE OPERATING THE BOBCAT LOADER

Safety Alert Symbol

This symbol with a warning statement means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

WARNING

Operator must have instructions before operating the machine. Untrained operators can cause injury or death.

W-2001-0502

The Bobcat loader and attachment must be in good operating condition before use.

Check all of the items on the Bobcat Service Schedule Decal under the 8–10 hour column or as shown in this Manual.

IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

SAFE OPERATION NEEDS A QUALIFIED OPERATOR *

A QUALIFIED OPERATOR MUST DO THE FOLLOWING:

- **UNDERSTAND THE WRITTEN INSTRUCTIONS, RULES AND REGULATIONS**
  - The written instructions from Bobcat Company include the Delivery Report, Operation & Maintenance Manual, Operator's Handbook, Safety Manual and machine signs (decals).
  - Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.

WARNING

Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause injury or death.

W-2044-1285

- **HAVE TRAINING WITH ACTUAL OPERATION**
  - Operator training must consist of a demonstration and verbal instruction. This training is given by your Bobcat dealer before the product is delivered.
  - The new operator must start in an area without bystanders and use all the controls until he can operate the machine and attachment safely under all conditions of the work area. Always fasten seat belt before operating.
  - Operator Training Courses are available from your Bobcat dealer in English and Spanish. They provide information for safe and efficient equipment operation. Safety videos are also available.
  - Service Safety Training Courses are available from your Bobcat dealer. They provide information for safe and correct service procedures.
- **KNOW THE WORK CONDITIONS**
  - Know the weight of the materials being handled. Avoid exceeding the Rated Operating Capacity of the machine. Material which is very dense will be heavier than the same volume of less dense material. Reduce the size of load if handling dense material.
  - The operator must know any prohibited uses or work areas, for example, he needs to know about excessive slopes.
  - Know the location of any underground lines. Call local utilities or the TOLL FREE phone number found in the *SAFETY INSTRUCTIONS* Section of this manual.
  - Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, hearing protection or special applications kit are required for some work. See your dealer about Bobcat Safety equipment.

* For an operator to be qualified, he must not use drugs or alcoholic drinks which impair his alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he can safely operate a machine.

SI02-0502

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