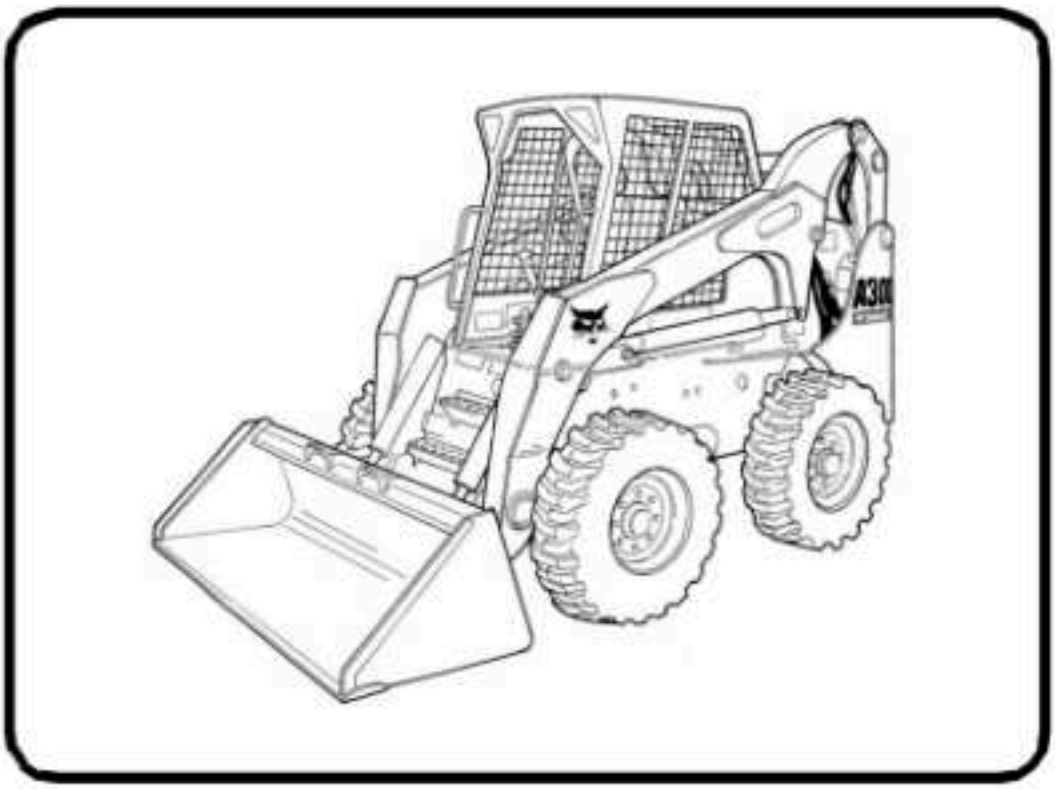
Bobcat®

Operation & Maintenance Manual
A300 All Wheel Steer

S/N 539911001 & Above
S/N 540011001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS)

6904170 (10-07) Revised (5-08) (10)

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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 BOBCAT DEALER:

_____

ADDRESS:

_____

PHONE:

_____

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

Bobcat Company Europe
Drève Richelle 167
B-1410 WATERLOO
Belgium

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FOREWORD

This Operation & Maintenance Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Bobcat Loader. READ AND UNDERSTAND THIS OPERATION & MAINTENANCE MANUAL BEFORE OPERATING YOUR Bobcat Loader. If you have any questions, see your Bobcat dealer. This manual may illustrate options and accessories not installed on your loader.

BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED V

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Auxiliary Hydraulics Operation (VARIABLE FLOW)

Figure OI-31

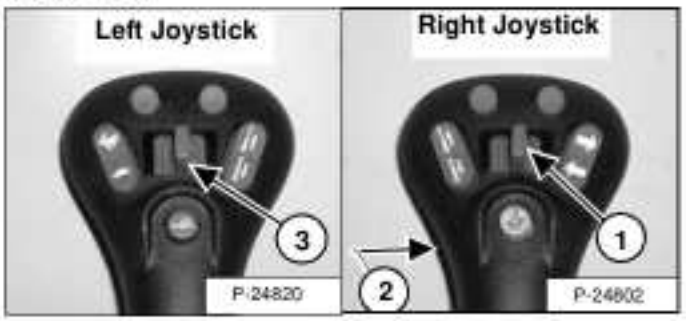
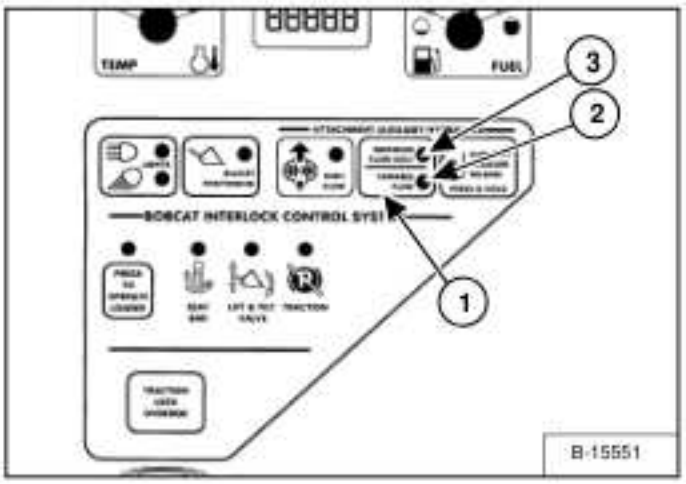


Figure OI-32



VARIABLE FLOW allows for slow-to-fast movement of auxiliary functions. If you move the auxiliary switch (Item 1) **[Figure OI-31]** half-way, the auxiliary functions move at approximately one-half speed.

Press the auxiliary hydraulics button (Item 1) **[Figure OI-32]** once.

The light (Item 2) **[Figure OI-32]** will be ON.

Auxiliary Hydraulics Operation (MAXIMUM FLOW ONLY)

MAXIMUM FLOW ONLY allows for fast movement only. If you move the auxiliary switch (Items 1 or 3) **[Figure OI-31]**, the auxiliary functions move at fast speed; release the switch to stop auxiliary functions.

Press the auxiliary hydraulics button (Item 1) **[Figure OI-32]** a second time.

The light (Item 3) **[Figure OI-32]** will be ON.

FRONT Auxiliary Hydraulics Operation (VARIABLE FLOW)

Press the auxiliary hydraulics button once (Item 1) **[Figure OI-32]** (VARIABLE FLOW).

Push the switch (Item 1) **[Figure OI-31]** to the right or left to change the fluid flow direction of the front quick couplers. (EXAMPLE: Open and close grapple teeth.)

FRONT Auxiliary Hydraulics Operation (MAXIMUM FLOW)

Press the auxiliary hydraulics button twice (Item 1) **[Figure OI-32]** (MAXIMUM FLOW).

FRONT Auxiliary Hydraulics Operation (CONTINUOUS FLOW)

After selecting *VARIABLE FLOW* or *MAXIMUM FLOW ONLY*, press the front switch (Item 2) **[Figure OI-31]** to give the front quick couplers a constant flow of fluid with the female coupler being pressurized. (EXAMPLE: Operate a backhoe.) To set reverse flow (male coupler pressurized), hold the auxiliary switch (Item 1) **[Figure OI-31]** to the left, press *VARIABLE FLOW* or *MAXIMUM FLOW ONLY* - and then press the front switch (Item 2) **[Figure OI-31]**. Reverse flow can be used only with augers, power rakes, sweepers, tillers, and vibratory rollers.

To release from continuous operation, press the front switch (Item 2) **[Figure OI-31]** a second time.

⚠ WARNING

AVOID INJURY OR DEATH

Diesel fuel or hydraulic fluid under pressure can penetrate skin or eyes, causing serious injury or death. Fluid leaks under pressure may not be visible. Use a piece of cardboard or wood to find leaks. Do not use your bare hand. Wear safety goggles. If fluid enters skin or eyes, get immediate medical attention from a physician familiar with this injury.

W-2072-0807

To disengage, press the auxiliary hydraulics button (Item 1) **[Figure OI-32]** a third time.

Both lights (Items 2 & 3) **[Figure OI-32]** will be OFF.

NOTE: When the operator is seated and raises the seat bar, the Auxiliary Hydraulic System (Front *and* Rear) will deactivate.

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LUBRICATING THE LOADER

Lubrication Locations

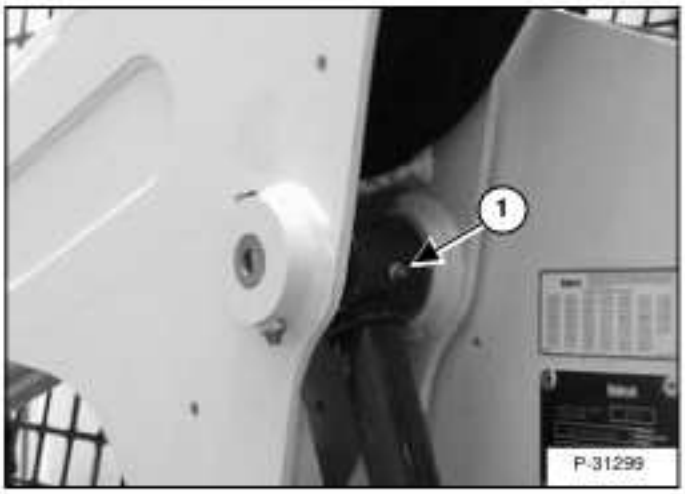
Lubricate the loader as specified for the best performance of the loader. (See SERVICE SCHEDULE on Page PM-7.)

Record the operating hours each time you lubricate the Bobcat Loader.

Always use a good quality lithium based multi-purpose grease when you lubricate the loader. Apply the lubricant until extra grease shows.

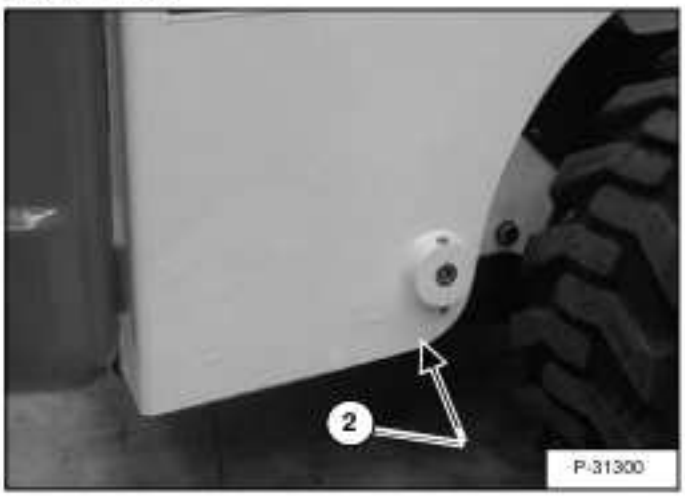
Lubricate the following:

Figure PM-87



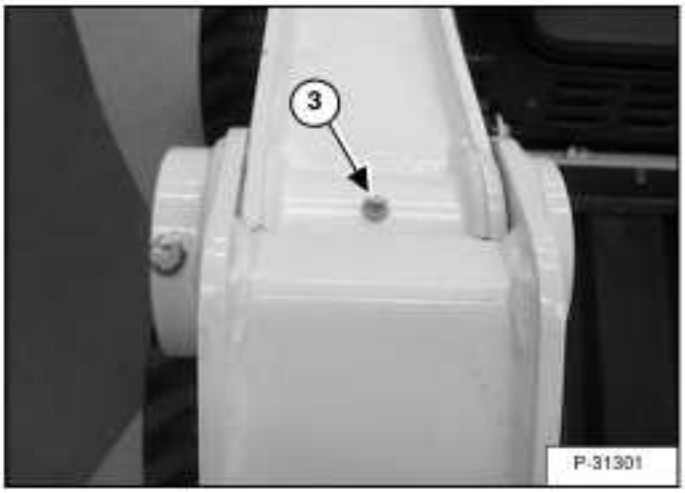
1. Rod End Lift Cylinder (Both Sides) **[Figure PM-87]**.

Figure PM-88



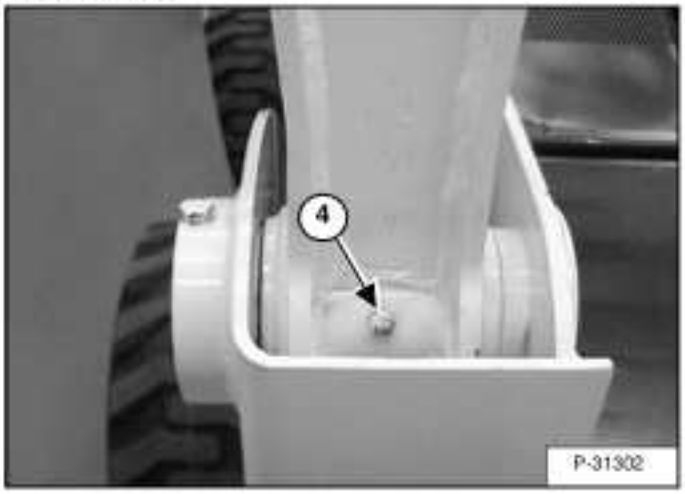
2. Base End Lift Cylinder (Both Sides) **[Figure PM-88]**.

Figure PM-89



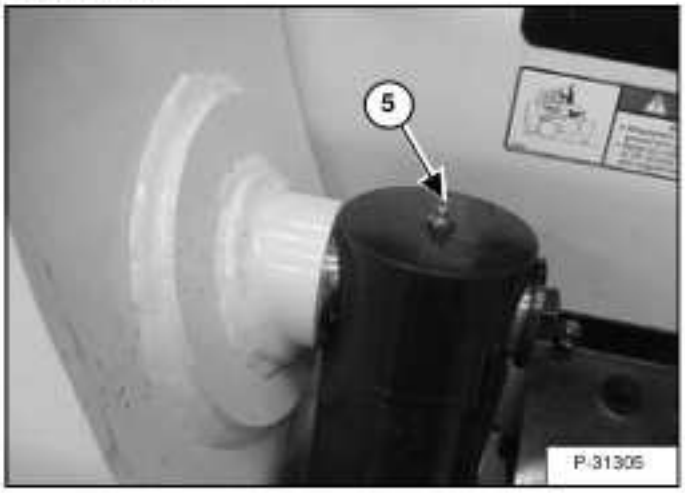
3. Lift Arm Pivot Pin (Both Sides) **[Figure PM-89]**.

Figure PM-90



4. Lift Arm Link Pivot (Both Sides) **[Figure PM-90]**.

Figure PM-91



5. Base End Tilt Cylinder (Both Sides) **[Figure PM-91]**.

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(A300) LOADER SPECIFICATIONS (CONT'D)

Hydraulic System

Pump Type	Engine driven gear type
Pump Capacity - Standard	20.7 GPM (78,4 L/min.) @ 2967 pump RPM @ 91% efficiency
Pump Capacity - High-Flow Option	36.7 GPM (138,9 L/min.) @ 2967 pump RPM @ 91% efficiency
System Relief at Quick Couplers	3250 - 3350 PSI (224 - 231 bar)
Filters	Full flow replaceable, 3-micron synthetic media element
Steering Filter	In Line replaceable filter.
Hydraulic Cylinders	Double-acting; tilt cylinders have cushioning feature on dump and rollback
Bore Diameter: Lift Cylinder (2) Tilt Cylinder (2) Steering Cylinder (4) Rod Diameter: Lift Cylinder (2) Tilt Cylinder (2) Steering Cylinder (4) Stroke: Lift Cylinder (2) Tilt Cylinder (2) Steering Cylinder (4)	3.00 (76,2) 3.00 (76,2) 2.00 (50,8) 1.62 (41,1) 1.50 (38,1) 1.00 (25,4) 25.46 (647,0) 15.10 (384) 4.86 (123)
Control Valve	3-Spool, open center type with float detent on lift and electrically controlled auxiliary spool
Fluid Lines	SAE Standard tubelines, hoses and fittings
Fluid Type	BOBCAT FLUID, Hydraulic/Hydrostatic 6903117 - (2.5 Gal.) 6903118 - (5 Gal.) 6903119 - (55 Gal.)
Hydraulic Function Time: Raise Lift Arms Lower Lift Arms Bucket Dump Bucket Rollback Wheel Cycle (Left to Right)	 4.5 Seconds 3.5 Seconds 2.6 Seconds 2.1 Seconds 1.4 Seconds

Electrical

Alternator	Belt driven, 90 amps, open frame
Battery	12 volts, 950 cold cranking amps @ 0° F (-18° C), 180 Minute reserve capacity at 25 amps
Starter	12 volts, gear type, 4.02 HP (3,0 kW)
Instrumentation	**Gauges:** Hourmeter, Fuel, Engine Coolant Temperature. **Warning lights:** Fuel Level, Engine Preheat, System Voltage, Seat Belt, Engine Coolant Temperature, Engine Oil Pressure, Hydrostatic Charge Pressure, Hydraulic Oil Temperature, Engine Air Filter and Hydraulic Filter. **Other:** Audible Alarm, BICS Function, Lights, Opt./Accessory Switches. **Optional Deluxe Instrumentation:** Same gauges and warning lights as standard instrumentation. Additional bar-type gauges for: Engine Oil Pressure, System Voltage, Hydrostatic Charge Pressure and Hydraulic Oil Temperature. Additional Features Included: Keyless Start, Clock, Job Clock, Help Screens, and Diagnostic Capability.

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Safe Operation Is The Operator's Responsibility

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 running the machine. Untrained operators can cause injury or death.

W-2001-1285

IMPORTANT

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

I-2019-0284

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

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 the Operation & Maintenance Manual.

Safe Operation Needs A Qualified Operator

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

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.

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 or she 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 (ROC) of the machine. Material which is very dense will be heavier than the same volume of less dense material. Reduce the size of the load if handling dense material.
- The operator must know any prohibited uses or work areas, for example, he or she 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 *Before Operation* Section of this manual.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, respiratory equipment, hearing protection or Special Applications Kits are required for some work. See your Bobcat dealer about Bobcat Safety Equipment for your model.

SI SSL-1007

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