# 453

Bobcat®

# Operation & Maintenance Manual

**S/N 515012400 & Above**
**Europe Only S/N 515112400 & Above**



**EQUIPPED WITH**

**BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)**

6900784 (4-00) Revised (10-04)

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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

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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.

BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED . . . . . V

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### Lift Arm Operation

The left pedal controls the lift arms. Push on the bottom (heel) (Item 2) **[Figure OI-14]** of the pedal to raise the lift arms.

Push on the top (toe) (Item 3) **[Figure OI-14]** of the pedal to lower the lift arms.

### Lift Arm Float Position

Push the top (toe) (Item 3) **[Figure OI-14]** of the pedal all the way forward until it locks into *float* position.

Use the *float* position of the lift arms to level loose material while driving backward.

Push the bottom (heel) of the lift pedal to unlock from the *float* position.

### Tilt Operation

The right pedal controls the action of the bucket.

Push the top (toe) (Item 4) **[Figure OI-14]** of the pedal to tilt the bucket forward.

Push the bottom of the pedal (heel) (Item 5) **[Figure OI-14]** to tilt the bucket backward.

## Bucket Position Valve Operation (If Equipped)

The function of the bucket position valve is to keep the bucket in the same approximate position it is placed in, before beginning the upward lift cycle.

Bucket positioning functions automatically during the upward lift cycle only.

The bucket positioning function can be turned OFF with the bucket level switch. (See "INSTRUMENT PANEL" on page OI-3.).

## Auxiliary Hydraulics (If Equipped)

Figure OI-15




Auxiliary hydraulics **[Figure OI-15]** are not standard, but can be a Factory Option or installed as a Field Accessory.

**⚠ WARNING**

**AVOID BURNS**

**Hydraulic fluid, tubes, fittings and quick couplers can get hot when running machine and attachments. Be careful when connecting and disconnecting quick couplers.**

W-2220-0396



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**Figure PM-46**




Remove the filter element (Item 1) **[Figure PM-46]**.

Clean the surface of the filter housing where the filter element seal contacts the filter housing.

Put grease on the seal of the filter element, install the element and hand tighten only.

Lower the operator cab.

Start the engine and operate the loader through the hydraulic and hydrostatic functions. Stop the engine. Check the fluid level and add fluid to the reservoir as needed.

### Removing The Hydraulic/Hydrostatic Fluid

See "SERVICE SCHEDULE" on page PM-5 for the service interval to replace the fluid. The fluid must also be replaced if it becomes contaminated and after any major repairs.

Stop the engine. Open the rear door.

Remove the fill cap/dipstick.

**Figure PM-47**




Loosen the nut (Item 1) **[Figure PM-47]** which fastens the fill tube to the loader frame.

Loosen the clamp at the fill tube, turn the fill tube down to drain the fluid from the reservoir **[Figure PM-47]**.

After the fluid is removed, put the fill tube in the correct position, tighten the hose clamp and tighten the bolt.

Replace the hydraulic filter element.

Add hydraulic/hydrostatic fluid to the reservoir. (See "Capacities" on page SPEC-6.)

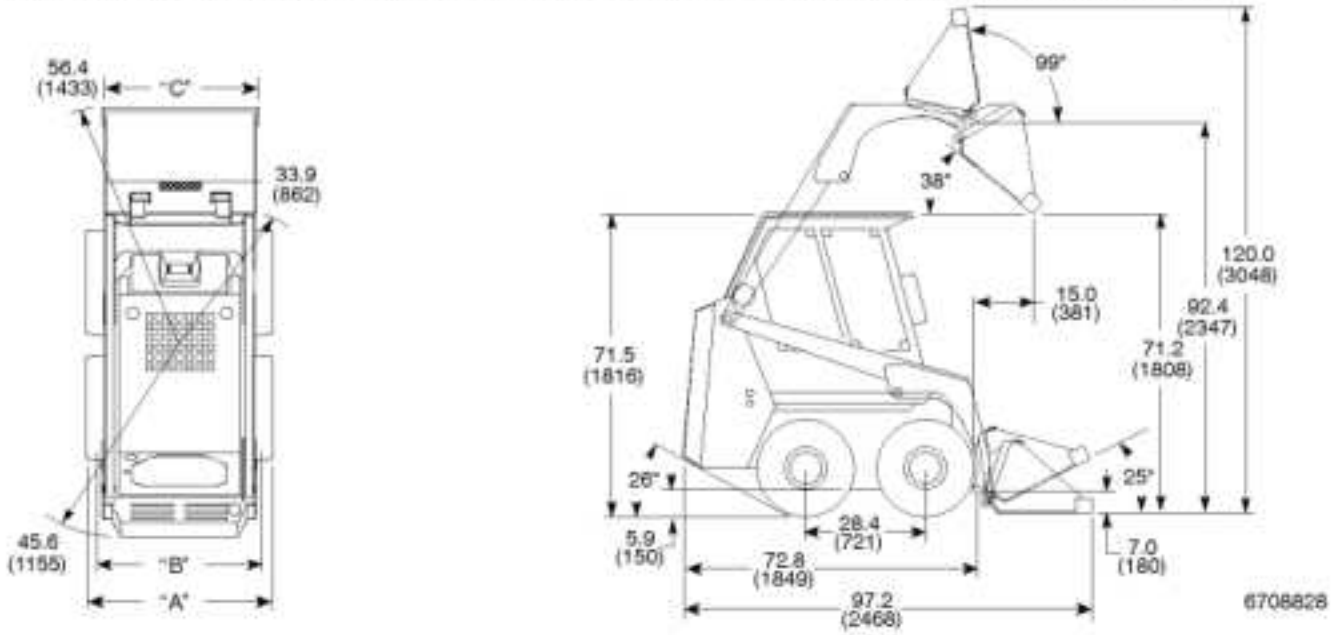
Do Not over-fill the reservoir.



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## SKID STEER LOADER

- Dimensions are given for loader equipped with standard tires and dirt bucket and may vary with other bucket types. All dimensions are shown in inches. Respective metric dimensions are given in millimeters enclosed by parentheses.
- Where applicable, specification conform to SAE or ISO standards and are subject to change without notice.




"A" STD. TIRES - 35.4 (900) FLOTATON - 43.3 (1100)
"B" STD. TIRES - 29.4 (747) FLOTATION - 34.8 (884)
"C" 36 in. BUCKET WIDTH - 35.46 in. (901 mm) 44 in. BUCKET WIDTH - 44.5 in. (1130 mm)

**Changes of structure or weight distribution of the loader can cause changes in control and steering response and can cause failure of the loader parts.**

## SPECIFICATIONS

### Performance

| | 453 |
|---|---|
| Rated Operating Capacity (SAE) | 600 lbs. (272 kg) |
| Tipping Load (SAE Rating) | 1431 lbs. (649,1 kg) |
| Operating Weight | 2501 lbs. (1134,5 kg) |
| SAE Breakout Force - Lift | 1300 lbf. (5782 N) |
| - Tilt | 1000 lbf. (4448 N) |
| Axle Torque | 1550 ft.-lbs. (2102 Nm) |
| Travel Speed | 0-5.2 MPH (8,4 km/hr.) |



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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 (R.O.C.) 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, hearing protection or Special Applications Kits are required for some work. See your Bobcat dealer about Bobcat Safety Equipment for your model.

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