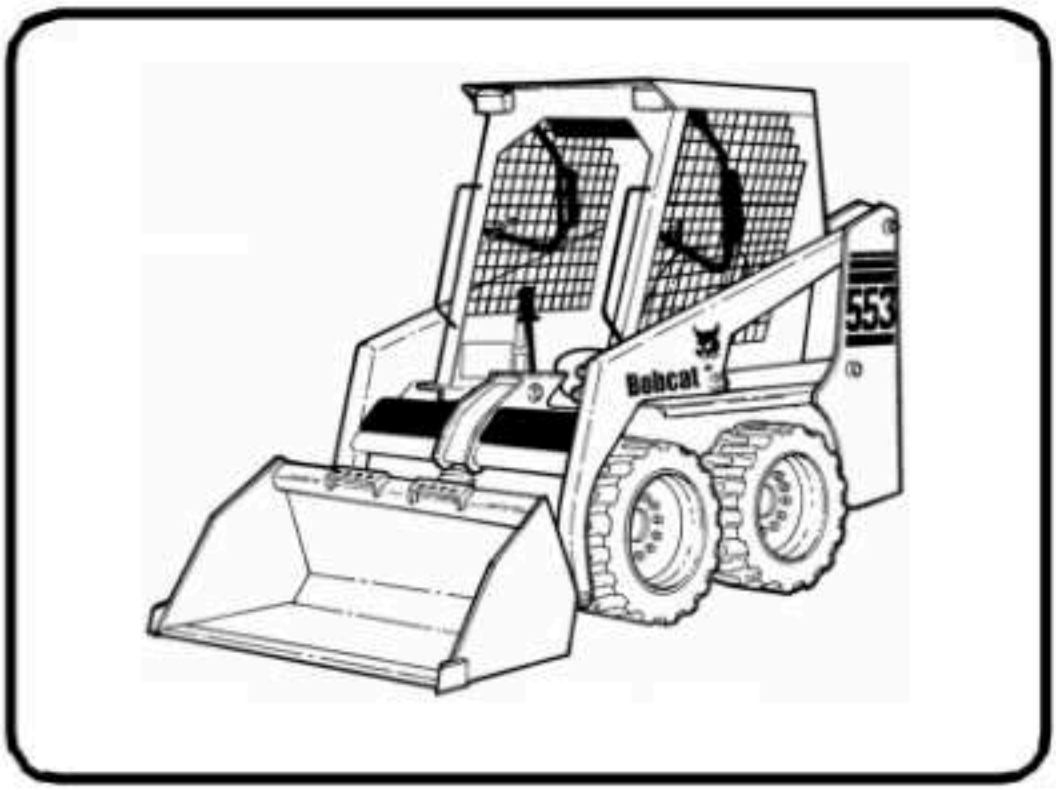
Bobcat®

Operation & Maintenance Manual
553 Skid-Steer Loader

S/N 539112001 & Above
S/N 539412001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS)

6904701 (2-07) Revised (5-07) (2)

Printed in U.S.A.

© Bobcat Company 2007

MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD III

SAFETY & TRAINING RESOURCES XI

OPERATING INSTRUCTIONS OI-1

PREVENTIVE MAINTENANCE PM-1

SYSTEM SETUP & ANALYSIS SA-1

MACHINE SIGN TRANSLATIONS MST-1

SPECIFICATIONS SPEC-1

WARRANTY WARRANTY-1

ALPHABETICAL INDEX INDEX-1

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

MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >

FOREWORD

This Operation & Maintenance Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Machine Name. 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

DELIVERY REPORT. VI

FEATURES, ACCESSORIES AND ATTACHMENTS VIII
- Attachments IX
- Buckets Available. IX
- Options and Accessories VIII
- Special Applications Kit X
- Special Applications Kit Inspection And Maintenance X
- Standard Items. VIII

LOADER IDENTIFICATION VII

REGULAR MAINTENANCE ITEMS V

SERIAL NUMBER LOCATIONS VI
- Engine Serial Number VI
- Loader Serial Number VI

MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >

HYDRAULIC CONTROLS

Description

Two foot pedals control the hydraulic cylinders for the lift and tilt functions.

Put your feet on the pedals and KEEP THEM THERE any time you operate the loader.

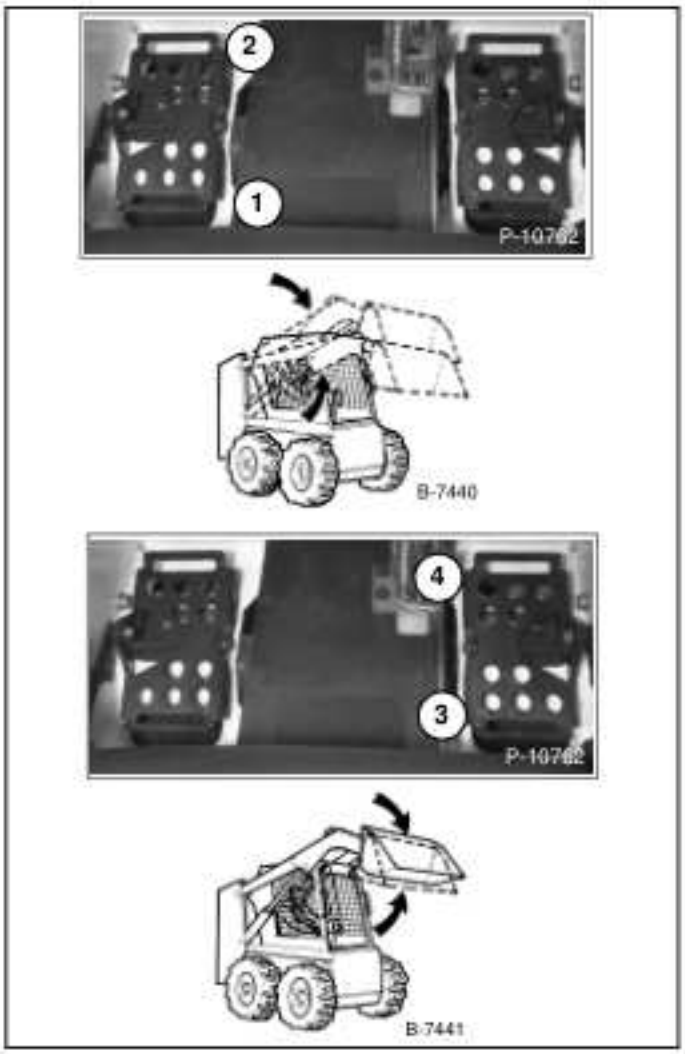
Foot Pedals

⚠ WARNING

Keep both feet on pedals while operating machine. Failure to do so can cause serious injury.

W-2002-1285

Figure OI-17



Lift Arm Operation

Left Pedal

Push the heel (Item 1) **[Figure OI-17]** of the pedal to raise the lift arms.

Push the toe (Item 2) **[Figure OI-17]** of the pedal to lower the lift arms.

Lift Arm Float Position

Left Pedal

Push the toe (Item 2) **[Figure OI-17]** of the pedal all the way forward until it locks into the float position.

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

Raise the lift arms to disengage the float position.

Tilt Operation

Right Pedal

Push the heel (Item 3) **[Figure OI-17]** of the pedal to tilt the bucket backward.

Push the toe (Item 4) **[Figure OI-17]** of the pedal to tilt the bucket forward.

Hydraulic Bucket Positioning

This machine may be equipped with Hydraulic Bucket Positioning.

The function of bucket positioning 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 position switch. (See Left Panel on Page OI-3.)

MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >

LUBRICATING THE LOADER

Lubrication Locations

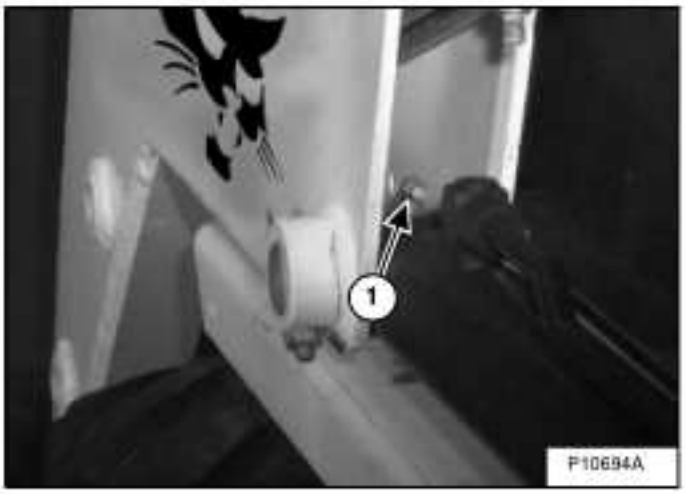
Lubricate the loader as specified for the best performance of the loader. (See SERVICE SCHEDULE on Page PM-5.)

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 until extra grease shows.

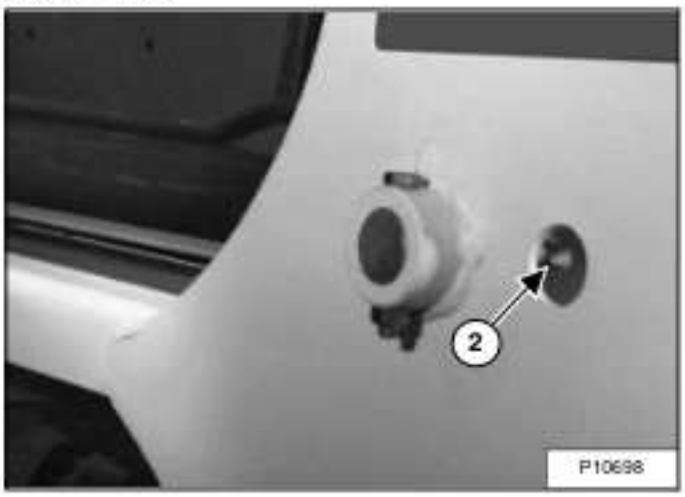
Lubricate the following locations on the loader:

Figure PM-54



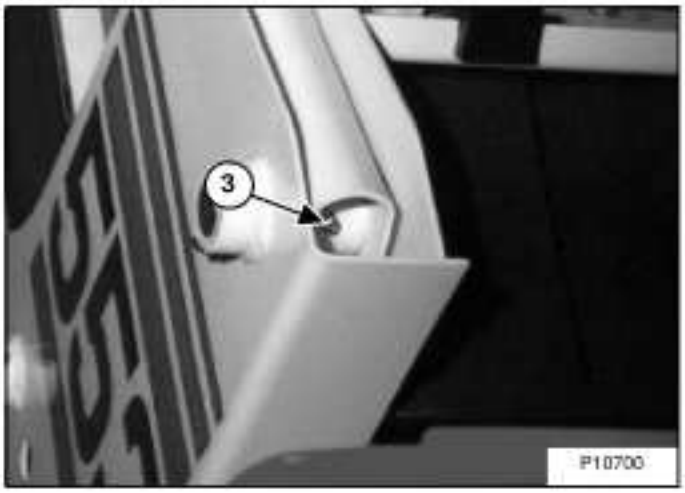
1. Rod End Lift Cylinder (Both Sides) **[Figure PM-54]**.

Figure PM-55



2. Base End Lift Cylinder (Both Sides) **[Figure PM-55]**.

Figure PM-56



3. Lift Arm Pivot Pin (Both Sides) **[Figure PM-56]**.

Figure PM-57



4. Base End Tilt Cylinder **[Figure PM-57]**.

MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >

(553) LOADER SPECIFICATIONS (CONT'D)

Performance

Rated Operating Capacity (SAE)	950 lb. (431 kg)
Tipping Load (ISO Rating)	1930 lb. (875 kg)
Operating Weight	3765 lb. (1708 kg)
SAE Breakout Force - Lift	1950 lbf. (8674 N)
- Tilt	1800 lbf. (8007 N)
Axle Stall Torque	2650 lbf.-ft. @ 4350 PSI (3593 N•m @ 300 bar)

Controls

Vehicle Steering	Direction and speed controlled by two steering levers
Loader Hydraulics - Lift and Tilt	Controlled by separate foot pedals
Front Auxiliary	Controlled by lateral movement of Right Hand steering lever
Engine	Hand lever throttle; Key-Type starter switch and shutdown
Starting Aid	Glow Plugs - Activated by rocker switch in instrument panel
Service Brake	Two independent hydrostatic systems controlled by two hand operated steering levers
Parking Brake (Standard)	Mechanical Disc, foot operated pedal (Early Models); electric switch (Later Models) in instrument panel

Engine

Make / Model	Kubota / D1105-E2B
Fuel / Cooling	Diesel / Liquid
Horsepower (SAE Net)	25.0 HP (18,6 kW) @ 3000 RPM
Low Idle	1125 - 1175 RPM
High Idle	3125 - 3175 RPM
Torque (SAE Net)	52 lbf.-ft. (70,5 N•m) @ 2100 RPM
Number of Cylinders	3
Displacement	68.5 cu. in. (1,1 L)
Bore / Stroke	3.07 in. / 3.09 in. (78 mm / 78,4 mm)
Lubrication	Gear Pump Pressure System with Filter
Crankcase Ventilation	Open Breathing
Air Cleaner	Dry replaceable paper cartridge with separate safety element
Ignition	Compression - Diesel
Engine Coolant	Propylene glycol / water mixture (53% PG / 47% water)
Starting Aid	Glow Plugs

MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >

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.

SI SSL-0307

MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >

DANGER (6702301)



DANGER (6702302)



DANGER (6717343)



MidWestTech | Bobcat 553 Skid-Steer Loader Operation & Maintenance Manual | Publicati... Order the manual at mid-west-tech.com >