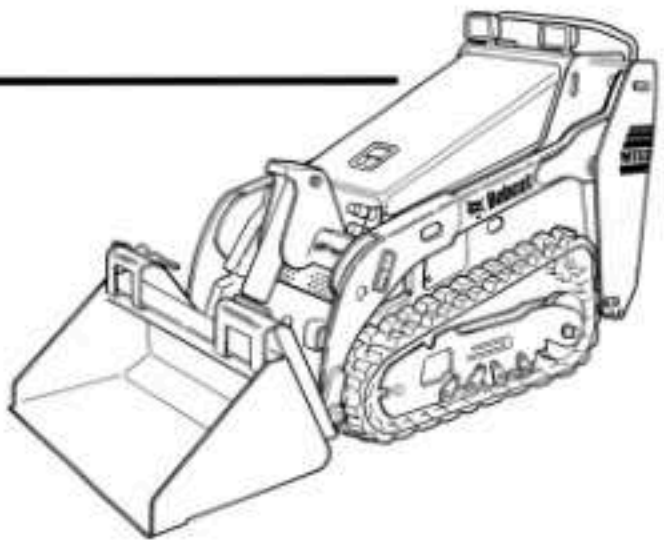
MT52

Bobcat®

Operation & Maintenance Manual

S/N 523611001 & Above
S/N 523711001 & Above



An Ingersoll-Rand business

6902524 (6-04) Revised (10-04) (E)

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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 BOBCAT® DEALER:

_____

ADDRESS:

_____

PHONE:

_____

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

Bobcat Company Europe
J. Huysmanslaan 59
B-1651 LOT
Belgium

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FOREWORD

BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED V

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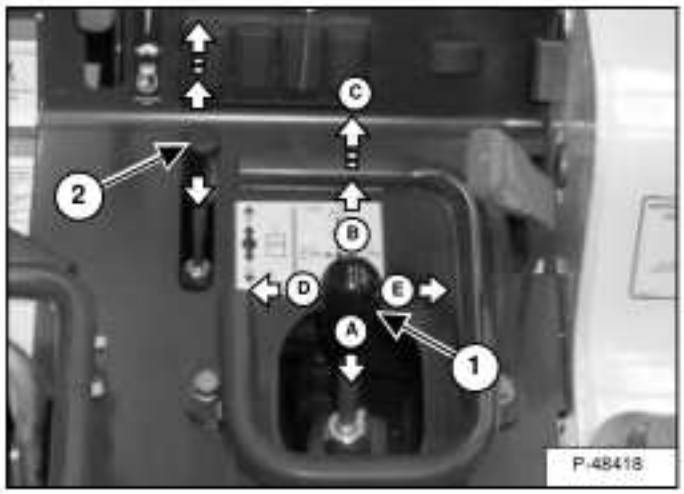
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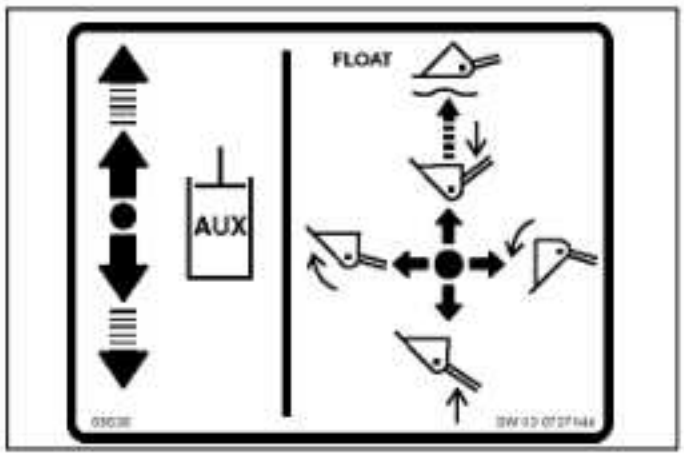
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HYDRAULIC CONTROLS

Figure OI-10





The hydraulic control lever (Item 1) **[Figure OI-10]** controls the movement of the lift arms and the attachment tilt.

Lift Arm Operation

A - Raise Lift Arms

B - Lower Lift Arms

C - Lift Arms in Float Position

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

NOTE: Lift Arm Lever must be in neutral position to start engine.

Tilt Operation

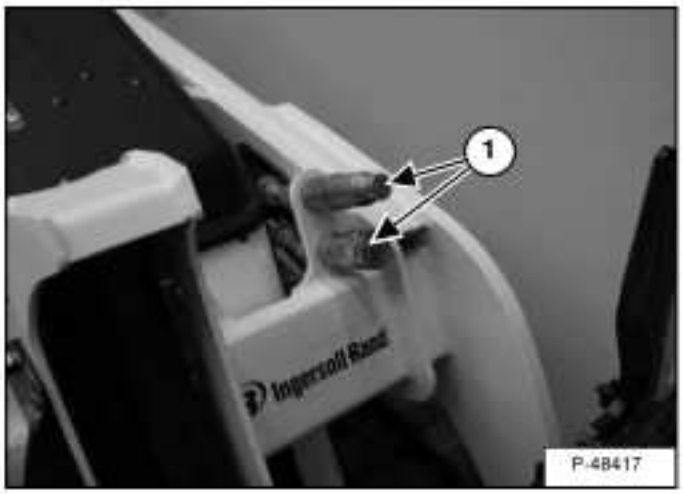
D - Tilt Attachment Backward

E - Tilt Attachment Forward

NOTE: The hydraulic control lever and the auxiliary control lever (Items 1 and 2) [Figure OI-10] must be in neutral for the engine to start.

Front Auxiliary Hydraulics

Figure OI-11



Your Bobcat loader is equipped with front auxiliary hydraulics (Item 1) **[Figure OI-11]** which provides hydraulic power for attachments. The front auxiliary hydraulics are operated by the auxiliary control lever (Item 2) **[Figure OI-10]**.

Continuous Flow:

Push the auxiliary lever (Item 2) **[Figure OI-10]** all the way forward or all the way backward until it locks for continuous operation of an attachment such as a tiller or trencher.

NOTE: Auxiliary Lever must be in neutral position to start engine.

⚠ 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

Releasing Hydraulic Pressure (Loader and Attachment)

Loader:

- Move the auxiliary control lever (Item 2) **[Figure OI-10]** forward and backward to release hydraulic pressure.

Attachments:

- Follow procedure above to release pressure in loader.
- Connect male coupler from attachment to female coupler of loader then repeat procedure above. This will release pressure in the attachment.
- Connect the female coupler from the attachment to the male coupler of the loader.

Hydraulic pressure in the auxiliary hydraulic system can make it difficult to engage quick couplers to an attachment.

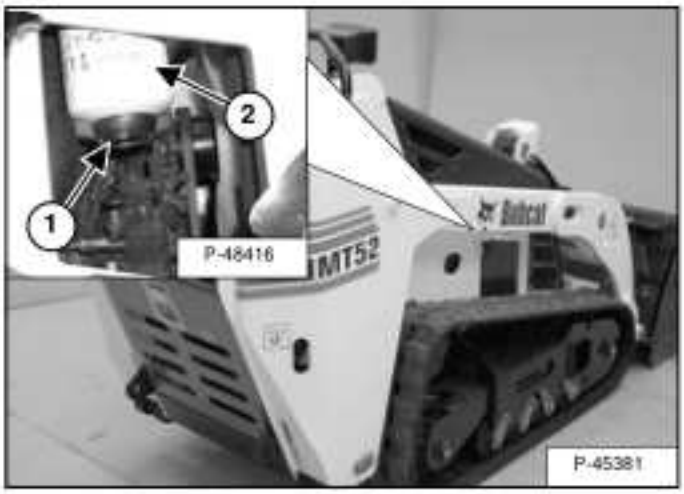
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Fuel Filter

See SERVICE SCHEDULE on Page PM-5, for the service interval for removing water from, or replacing the fuel filter.

Removing Water

Figure PM-14



Loosen the thumb nut and open the access cover on the right side of the machine **[Figure PM-14]**.

Loosen the drain (Item 1) **[Figure PM-14]** at the bottom of the filter to remove water from the filter. Tighten the drain.

Replacing Filter

Remove the filter (Item 2) **[Figure PM-14]**.

Clean the area around the filter housing. Put clean oil on the seal of the new filter. Install the fuel filter and hand tighten.

Remove the air from the fuel system.

Removing Air From The Fuel System

After replacing the filter or when the fuel tank has run out of fuel, the air must be removed from the fuel system before starting the engine.

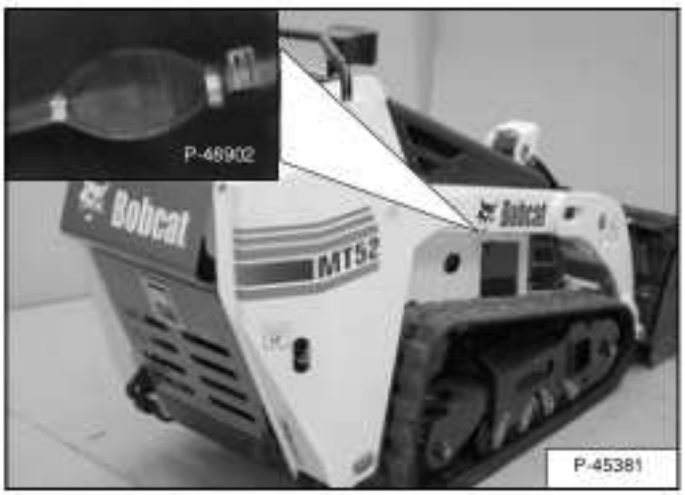
⚠ WARNING

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-2072-0496

Engine and muffler must be cool before beginning.

Figure PM-15



Loosen the thumb nut and open the access cover on the right side of the machine **[Figure PM-15]**.

Operate the hand pump (priming bulb) (Inset) **[Figure PM-15]** until the hand pump feels solid.

Start the engine. It may be necessary to operate the hand pump again to get the engine started.

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LOADER SPECIFICATIONS (MT52) (CONT'D)

Performance

Rated Operating Capacity (SAE)	520 lbs. (236 kg)
Tipping Load (ISO)	1584 lbs. (719 kg)
Operating Weight	2506 lbs. (1137 kg)
SAE Breakout Force - Lift	1490 lbf. (6628 N)
SAE Breakout Force - Tilt	1490 lbf. (6628 N)
Travel Speed Forward Reverse	 0 - 3.5 MPH (0 - 5.6 km/hr) 0 -1.5 MPH (0 - 2.4 km/hr)

Controls

Vehicle Steering	Direction and speed controlled by one multifunction handle
Loader Hydraulics - Lift and Tilt - Front Auxiliary (Std.)	 Controlled by joystick Controlled by fore & aft movement of hand lever
Auxiliary Pressure Release	Controlled by fore & aft movement of hand lever
Engine	Hand lever speed control; key-type starter switch
Service Brake	Two independent hydrostatic circuits controlled by one multifunction handle
Secondary Brake	One of the hydrostatic transmissions
Parking Brake (Std.)	Hand lever operation

Engine

Make/Model	Kubota D722-EB
Fuel/Cooling	Diesel/Liquid
Horsepower, Net (SAE)	18.8 HP (14 kW)
Maximum Governed RPM	3600 RPM
Torque, Net	32.4 lbf.-ft. (43.9 Nm) @ 2600 RPM
Number of Cylinders	3
Displacement	44.0 cu. in. (0,72 L)
Bore/Stroke	2.64/2.68 (67,0 mm / 68,0 mm)
Lubrication	Gear Pump Pressure System with Filter
Crankcase Ventilation	Open
Air Cleaner	Dry replaceable paper cartridge with safety element
Ignition	Diesel-Compression
Engine Coolant	Propylene Glycol / Water Mixture
Starting Aid	Glow Plug, key switch activated

Electrical

Alternator	Belt driven, 40 amps, open
Battery	12 Volt, 530 cold cranking amps @ 0° F (-18° C), 75 Minute reserve capacity
Starter	12 Volt, gear type, 3.62 HP (2,7 kW)
Instrumentation	**Gauges:** Hourmeter, Fuel Level, Engine Coolant Temperature, Voltmeter **Warning lights:** Engine Oil Pressure, Hydraulic Oil Temperature **Other:** Lights, Opt./Accessory Switches or Indicators

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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 Mini 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 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. 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.
- Safety Videos, which provide general information regarding safe and efficient equipment operation, are available from your Bobcat dealer.

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 or hearing protection are required for some work. See your Bobcat dealer about Bobcat Safety Equipment.

SI ML-1203

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