320
320L

Bobcat®

Operation & Maintenance Manual

S/N 224511001 & Above



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REFERENCE INFORMATION

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

Bobcat Excavator Serial Number _____

Engine Serial Number _____

_____

_____

NOTES _____

_____

_____

_____

_____

YOUR BOBCAT® EXCAVATOR 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

This manual gives the owner/operator necessary operating, and preventive maintenance instructions for the Bobcat Excavator.

Read this manual completely and know the Bobcat Excavator before operating and servicing it. All references to left or right on the excavator are given in relation to the operator's left or right hand while in the operator's seat.

For further information, see your Bobcat Excavator dealer. Parts Manuals, Service Manuals and extra Operation & Maintenance Manuals are also available.

The Bobcat Compact Excavator Operator Training Course is available from your Bobcat dealer.

BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED V

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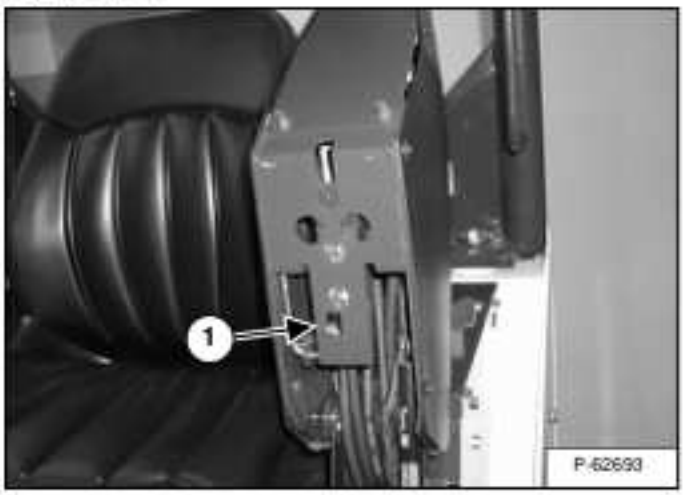
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Control Lever (Joystick) Lock

Figure OI-37



The control lock switch (Item 1) **[Figure OI-37]** disengages the hydraulic control functions from the control levers (joysticks) when either console is raised.

NOTE: If the engine stops, the boom/bucket (attachments) can be lowered to the ground using hydraulic pressure in the accumulator.

The control console(s) must be in the locked down position, and the key switch in the ON position.

Use the control lever to lower the boom.

Figure OI-38



Lower the control console(s) to engage the hydraulic control functions of the control levers (joysticks) **[Figure OI-38]**.

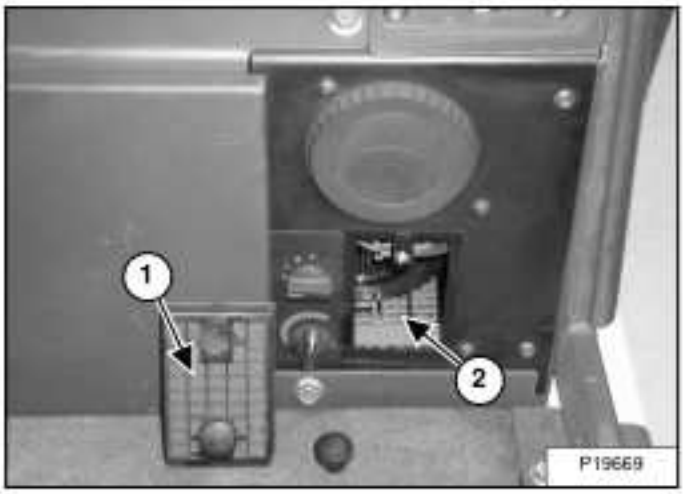
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HEATER AIR FILTERS

Recirculation Filter

The recirculation filter must be cleaned regularly. The filter is located at the left of the operator seat.

Figure PM-9



The recirculation filter is located on the front of the heater panel (Item 1) **[Figure PM-9]**.

Remove the knobs and remove the filter. Wash the filter with a mild detergent and water. Dry the filter before installing. Install the filter and tighten knobs.

Fresh Air Filter

The fresh air filter must be cleaned regularly.

The fresh air filter is located on the bottom of the heater, (Item 2) **[Figure PM-9]**.

Remove the filter. Wash the filter with a mild detergent and water. Dry the filter before installing. Install the filter and secure.

FUEL SYSTEM

Fuel Specifications

Use only clean, high quality diesel fuel, Grade No. 2 or Grade No. 1.

The following is a suggested blending guideline which should prevent fuel gelling problems during freezing temperature.

Temp. F° (C°)	No. 2	No. 1
+15° (9°)	100%	0%
Down to -20° (-29°)	50%	50%
Below -20° (-29°)	0%	100%

See your fuel supplier for local recommendations.

⚠ WARNING

Stop and cool the engine before adding fuel. NO SMOKING! Failure to obey warnings can cause an explosion or fire.

W-2063-0887

⚠ WARNING

Always clean up spilled fuel or oil. Keep heat, flames, sparks or lighted tobacco away from fuel and oil. Failure to use care around combustibles can cause explosion or fire which can result in injury or death.

W-2103-1285

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SPECIFICATIONS (CONT'D)

Performance

Operating weight (Canopy w/ 20 inch Bucket & Rubber Tracks)	3484 lb. (1580 kg)
Operating weight (Cab w/ 20 inch Bucket & Rubber Tracks)	3694 lb. (1675 kg)
If Equipped with Steel Tracks - add	117 lb. (53 kg)
Travel Speed (320 equipped with two speed travel/ 320L equipped with single speed travel only.)	(320/320L) Low 0.97 mph (1,56 km/hr.) (320 only) High 1.89 mph (3,04 km/hr.)

Engine

Make/Model	Kubota D722-E2B
Fuel/Cooling	Diesel/Liquid (Antifreeze mixture)
Horsepower (SAE Net)	15.7 HP (11,7 kW) @ 3000 RPM
High Idle S/N 224511001 - 224512000 S/N 224512001 And Above	 3270 RPM (Maximum) 3150 RPM (Maximum)
Low Idle S/N 224511001 - 224512000 S/N 224512001 And Above	 1275 - 1375 RPM 1275 - 1375 RPM
Number Of Cylinders	Three
Lubrication	Pressure System with Filter
Air Cleaner	Dry replaceable cartridge

Controls

Steering	Two hand levers or foot pedals
Hydraulics	Two hand operated levers (joysticks) controls boom, bucket, arm and upperstructure slew. One hand operated lever controls blade.
Brakes Travel Service & Parking Swing Service Holding	 Hydraulic lock in motor circuit Hydraulic lock on motor Locking Pin

Drive System

Travel Motor	Each track is independently driven by an Axial Piston Motor
Type of Reduction	Two-stage planetary gear reduction

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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 Excavator 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 Lift 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 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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