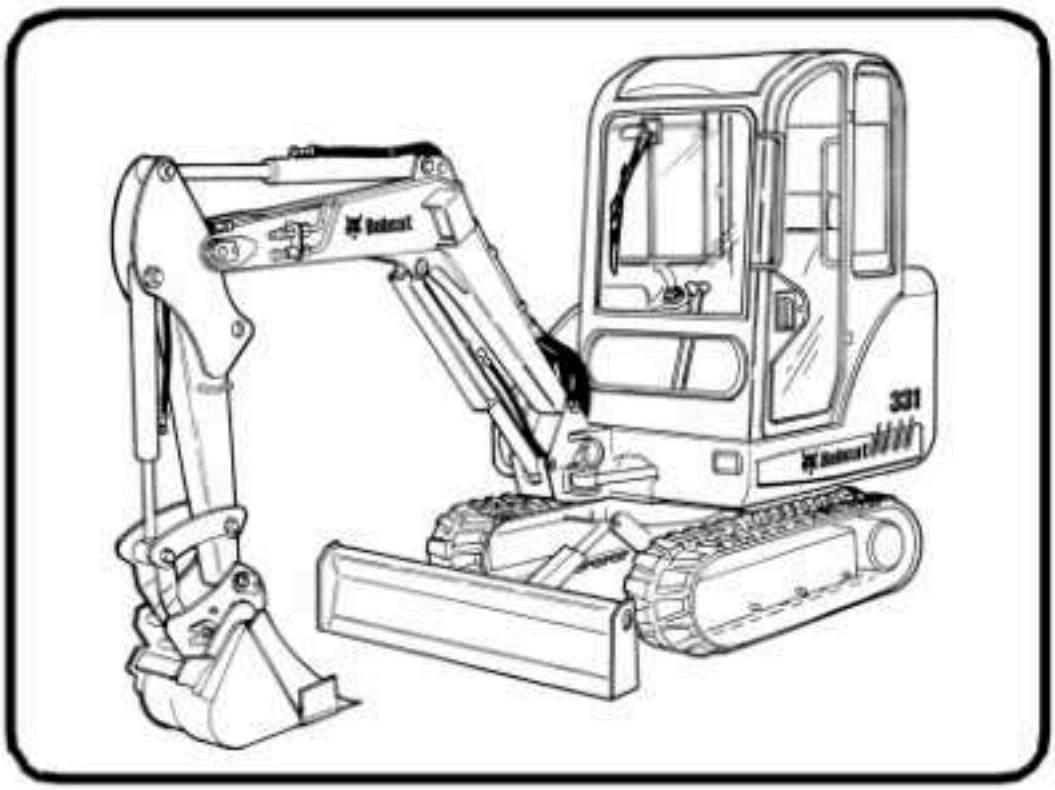
Bobcat®

Operation & Maintenance Manual
331 / 331E / 334 Compact Excavator

331 - S/N AACS11001 & Above
331 - S/N A9K511001 & Above
331E - S/N A9K911001 & Above
334 - S/N A9K711001 & 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
Drève Richelle 167
B-1410 WATERLOO
Belgium

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FOREWORD

This Operation Y Maintenance Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Bobcat Excavator. READ AND UNDERSTAND THIS OPERATION & MAINTENANCE MANUAL BEFORE OPERATING YOUR MACHINE. If you have any questions, see your Bobcat dealer.

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BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED

ISO 9001:2000 is a set of international standards that control the processes and procedures which we use to design, develop, manufacture, distribute, and service Bobcat products.

British Standards Institute (**BSI**) is the Certified Registrar Bobcat chose to assess the Company's compliance with the ISO 9001:2000 set of standards. The BSI registration certifies that the two Bobcat manufacturing plants and the Bobcat corporate offices (Gwinner, Bismarck & West Fargo) in North Dakota are in compliance with ISO 9001:2000. Only certified assessors, like BSI, can grant registrations.

ISO 9001:2000 means that as a company we say what we do and do what we say. In other words, we have established procedures and policies, and we provide evidence that the procedures and policies are followed.

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.

REGULAR MAINTENANCE ITEMS

	ENGINE OIL FILTER (6 Pack) 6675517		BATTERY 6670251
	FUEL FILTER 6667352		FLUID, Hydraulic / Hydrostatic 6903117 - (2.5 Gal.) 6903118 - (5 Gal.) 6903119 - (55 Gal.)
	AIR FILTER, Outer 6666333		RADIATOR CAP 6646678
	AIR FILTER, Inner 6663334		PROPYLENE GLYCOL ANTI-FREEZE, Premixed [-34° F (-37°C)] 6724094
	PRIMARY HYDRAULIC FILTER 6661248 CASE DRAIN HYDRAULIC FILTER 6516722		PROPYLENE GLYCOL ANTI-FREEZE, Concentrate 6724354
MOTOR OIL 6903105 . . . . SAE 15W/40 CE/SG (12 qt.) 6903106 . . . . SAE 15W/40 CE/SG (1 Gal.) 6903113 . . . . . SAE 15W/40 CE/SG (2.5 Gal.) 6903107 . . . . SAE 10W/30 CE/SG (12 qt.) 6903108 . . . . SAE 10W/30 CE/SG (1 Gal.) 6903112 . . . . . SAE 10W/30 CE/SG (2.5 Gal.)		6903109 . . . . . SAE 30W CE/SG (12 qt.) 6903110 . . . . . SAE 30W CE/SG (1 Gal.) 6903111 . . . . . SAE 30W CE/SG (2.5 Gal.)	

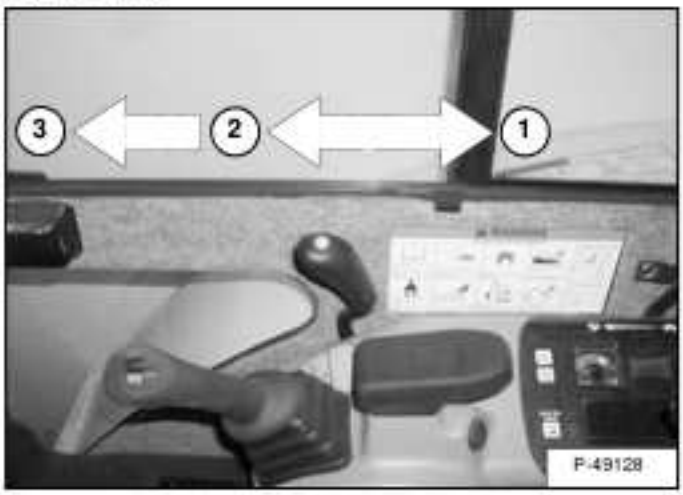
NOTE: Always verify Part Numbers with your Bobcat dealer.

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BLADE CONTROL LEVER

Raising And Lowering Blade

Figure OI-41



Pull the lever backward to raise the blade (Item 1) **[Figure OI-41]**.

Push the lever forward to lower the blade (Item 2) **[Figure OI-41]**.

Push the lever (Item 3) **[Figure OI-41]** forward until the lever is in the locked position to put the blade in the *float* position.

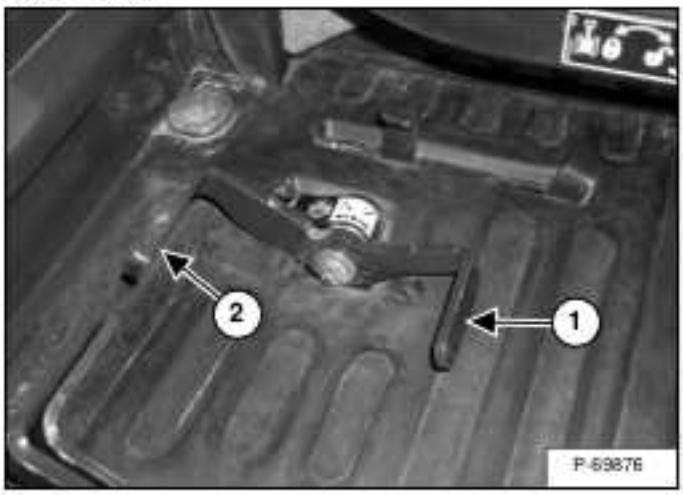
Pull the lever backward to unlock from the *float* position.

NOTE: Keep blade lowered for increased digging performance.

BOOM SWING PEDAL

Operation

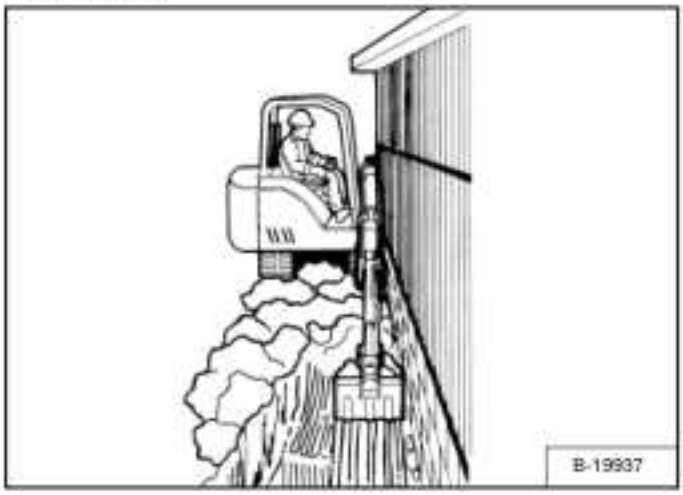
Figure OI-42



Release the pedal lock and pivot the heel of the pedal to the rear (Item 1) **[Figure OI-42]**.

Push the toe of the pedal (Item 2) to swing the boom to the right; push the heel (Item 1) **[Figure OI-42]** to swing the boom to the left.

Figure OI-43



NOTE: The purpose of the boom swing pedal is to offset the boom with respect to the upperstructure for digging close to a structure [Figure OI-43].

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LUBRICATION OF THE HYDRAULIC EXCAVATOR

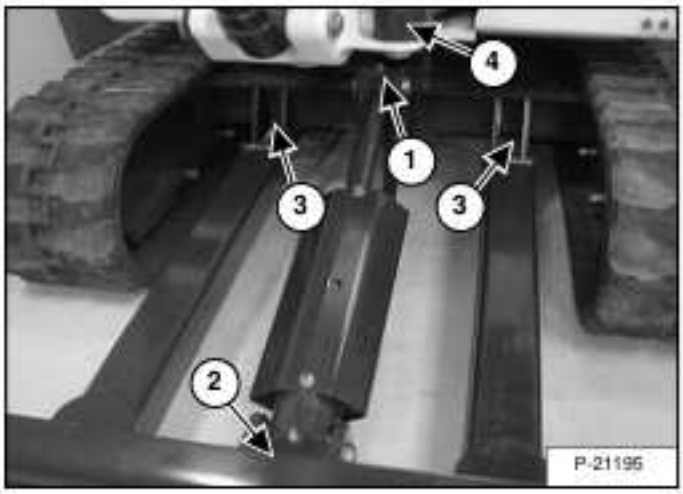
Lubrication Locations

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

Always use a good quality lithium based multipurpose grease when lubricating the machine. Apply the lubricant until extra grease shows.

Lubricate the following locations on the excavator EVERY 8-10 HOURS:

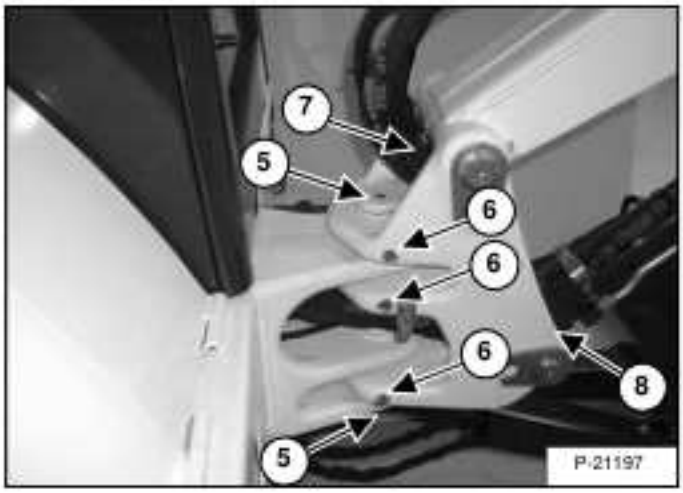
Figure PM-59



Ref Description (# of Fittings)

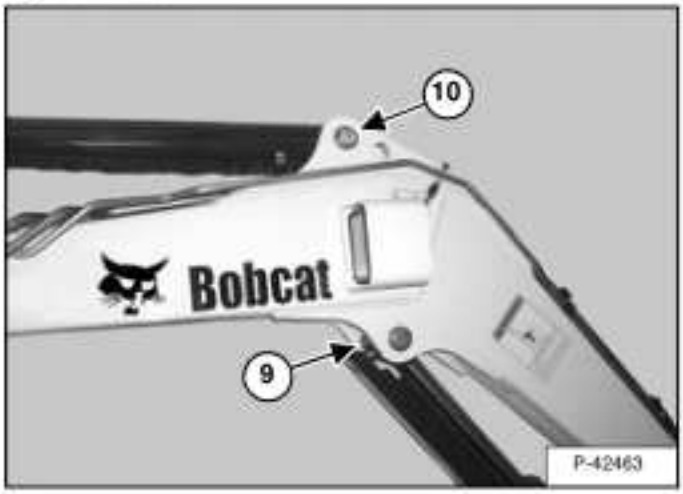
1. Blade Cylinder Rod End (1) **[Figure PM-59]**
2. Blade Cylinder Base End (1) **[Figure PM-59]**
3. Blade Pivots (2) **[Figure PM-59]**
4. Boom Swing Cylinder Rod End (1) **[Figure PM-59]**

Figure PM-60



5. Boom Swing Pin (2) **[Figure PM-60]**
6. Boom Swing Pivot (3) **[Figure PM-60]**
7. Boom Pivot (1) **[Figure PM-60]**
8. Boom Cylinder Base End (1) **[Figure PM-60]**

Figure PM-61



9. Boom Cylinder Rod End (1) **[Figure PM-61]**
10. Arm Cylinder Base End (1) **[Figure PM-61]**

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EXCAVATOR SPECIFICATIONS (CONT'D)

Undercarriage

Crawler Track Design	Sealed track rollers with boxed section track, Roller frame, Grease type track adjuster
Width of crawler	59.8 in. (1520 mm)

Capacities

Fuel Tank	12.3 Gal. (46,6 L)
Hydraulic Reservoir Only (Center of Sight Glass)	Tank Cap. 3.8 Gal. (14,4 L)
Hydraulic System (with Reservoir)	11.6 Gal. (44,0 L)
Cooling System	4.5 Gal. (17.0 L)
Engine Oil and Filter	7.5 qt. (7,1 L)
Final Drive (each)	0.55 qt. (0,5 L)

Tracks

Type	Rubber	Steel
Width	12.6 in. (320 mm)	12.6 in. (320 mm)
Number Of Shoes	Single Assembly	41
Number of Track Rollers (per side)	4	4

Ground Pressure

331: S/N AACS11001 & Above	Rubber Track Steel Track	4.57 PSI (0,315 bar) 4.66 PSI (0,321 bar)
331: S/N A9K511001 & Above	Rubber Track Steel Track	4.50 PSI (0,310 bar) 4.58 PSI (0,316 bar)
331 With Long Arm: S/N AACS11001 & Above	Rubber Track Steel Track	4.80 PSI (0,331 bar) 4.90 PSI (0,338 bar)
331 With Long Arm & 334: S/N A9K511001 & Above, S/N A9K711001 & Above	Rubber Track Steel Track	4.73 PSI (0,2326 bar) 4.83 PSI (0,333 bar)
331 With Extendible Arm: S/N AACS11001 & Above	Rubber Track Steel Track	4.89 PSI (0,337 bar) 4.97 PSI (0,343 bar)
331 With Extendible Arm & 331E: S/N A9K511001 & Above S/N A9K911001 & Above	Rubber Track Steel Track	4.82 PSI (0,332 bar) 4.90 PSI (0,338 bar)

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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, 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 EXC-1007

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