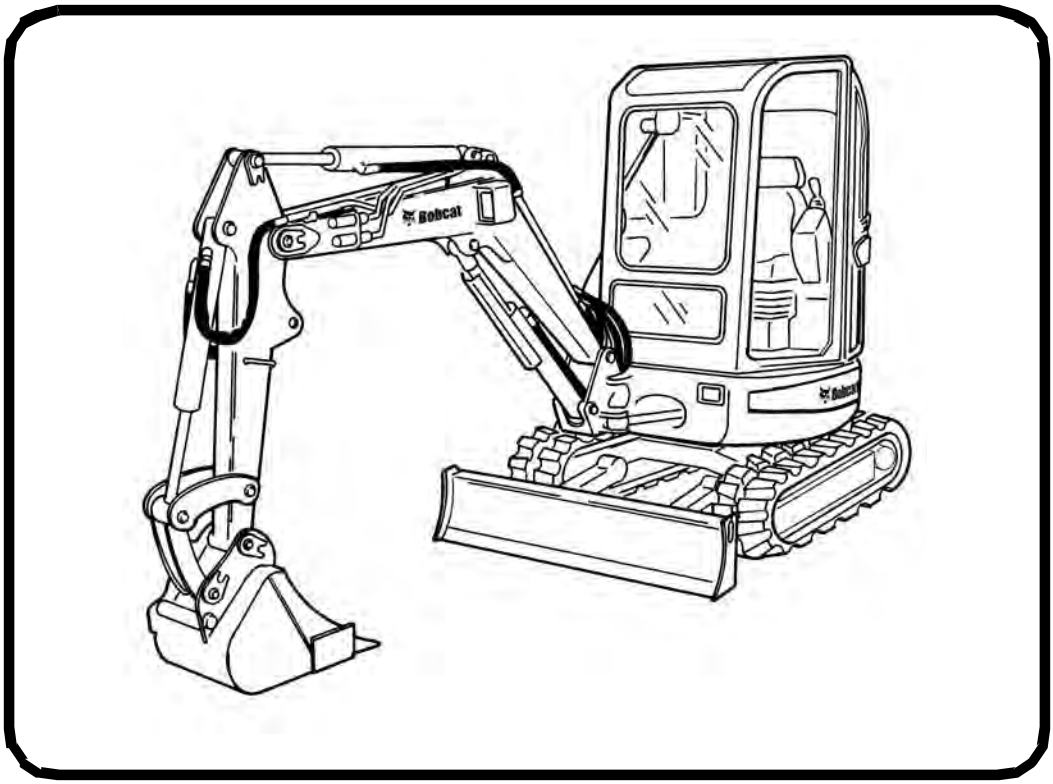
Bobcat®

Service Manual
425, 428 Compact Excavator

425 S/N AACJ11001 & Above
425 S/N A9K311001 & Above
428 S/N A9K411001 & Above



6986952 (5-09)

Printed in U.S.A.

MAINTENANCE SAFETY

WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0807

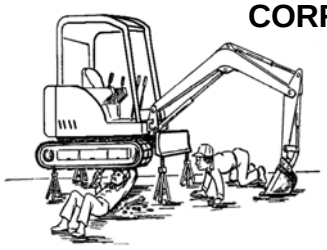
Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

CORRECT

P-90216

Never service the Bobcat Excavator without instructions.

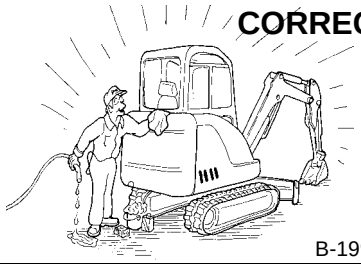
CORRECT



B-19964

Use the correct procedure to lift and support the excavator.

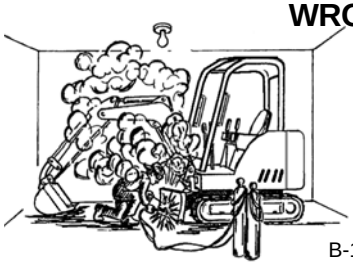
CORRECT



B-19959

Cleaning and maintenance are required daily.

WRONG



B-19965

Have good ventilation when welding or grinding painted parts.

Wear dust mask when grinding painted parts. Toxic dust and gas can be produced.

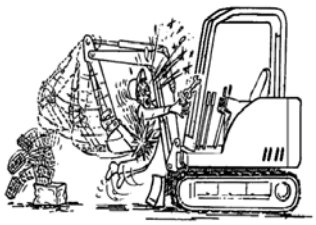
WRONG

B-19960

Vent exhaust to outside when engine must be run for service.

Exhaust system must be tightly sealed. Exhaust fumes can kill without warning.

WRONG

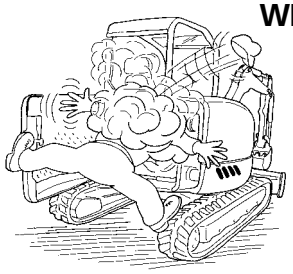


B-19966

Always lower the bucket and blade to the ground before doing any maintenance.

Never modify equipment or add attachments not approved by Bobcat Company.

WRONG



B-19962

Stop, cool and clean engine of flammable materials before checking fluids.

Never service or adjust machine with the engine running unless instructed to do so in the manual.

Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate the skin or eyes.

Never fill fuel tank with engine running, while smoking, or when near open flame.

WRONG

B-19958

Keep body, jewelry and clothing away from moving parts, electrical contact, hot parts and exhaust.

Wear eye protection to guard from battery acid, compressed springs, fluids under pressure and flying debris when engines are running or tools are used. Use eye protections approved for type of welding.

Keep tailgate closed except for service. Close and latch tailgate before operating the excavator.

WRONG

B-19798

Lead-acid batteries produce flammable and explosive gases.

Keep arcs, sparks, flames and lighted tobacco away from batteries.

Batteries contain acid which burns eyes or skin on contact.

Wear protective clothing. If acid contacts body, flush well with water. For eye contact flush well and get immediate medical attention.

Maintenance procedures which are given in the Operation & Maintenance Manual can be performed by the owner/operator without any specific technical training. Maintenance procedures which are **not** in the Operation & Maintenance Manual must be performed **ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL. Always use genuine Bobcat replacement parts.** The Service Safety Training Course is available from your Bobcat dealer.

MSW28-0409

ALPHABETICAL INDEX

Continued On Next Page

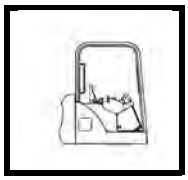
CONTENTS

FOREWORD

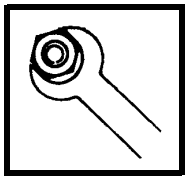
This manual is for the Bobcat excavator mechanic. It provides necessary servicing and adjustment procedures for the Bobcat excavator and its component parts and systems. Refer to the Operation & Maintenance Manual for operating instructions, starting procedure, daily checks, etc.

A general inspection of the following items must be made after the excavator has had service or repair:

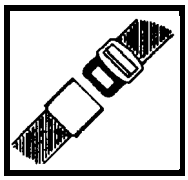
1. Check that the ROPS/TOPS/FOPS is in good condition and is not modified.



2. Check that ROPS/TOPS mounting hardware is tightened and is Bobcat approved.

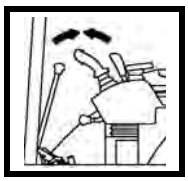


3. The seat belt must be correctly installed, functional and in good condition.



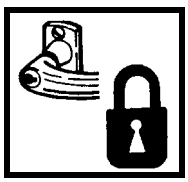
4. Machine signs (decals) must be legible and in the correct location.

5. Travel levers, control levers and foot pedals must return to neutral. Check that the pedal locks are in working order.



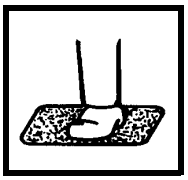
6. Check for correct function of the work lights.

7. Enclosure door latches must open and close freely.

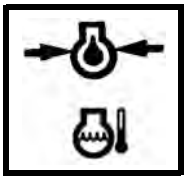


8. Attachment locking pins must function correctly and be in good condition.

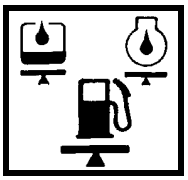
9. Safety treads must be in good condition.



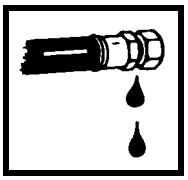
10. Check for correct function of indicator lamps.



11. Check hydraulic fluid level, engine oil level and fuel supply.

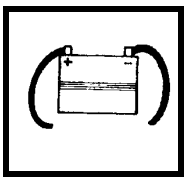


12. Inspect for fuel, oil or hydraulic fluid leaks.

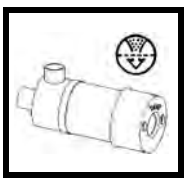


13. Lubricate the excavator.

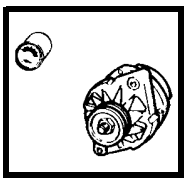
14. Check the condition of the battery and cables.



15. Inspect the air cleaner for damage or leaks. Check the condition of the element.

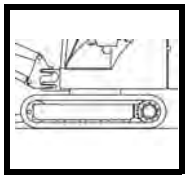


16. Check the electrical charging system.

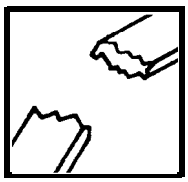


FW EXC-0509 SM

17. Check tracks for wear and tension. Use only approved tracks.



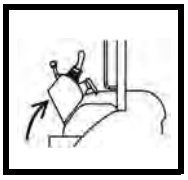
18. Inspect for loose or broken parts or connections.



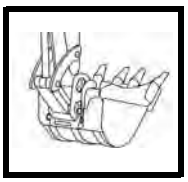
19. Check for any field modification not completed.

20. Operate the machine and check all functions.

21. Check the control console interlocks for correct function.

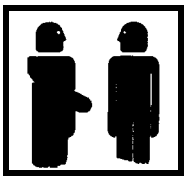


22. Inspect the X-Change™ for wear or damage. Repair or replace damaged parts.



23. Check function or condition of all equipped options and accessories (examples: special applications kit, motion alarm, etc.).

24. Recommend to the owner that all necessary corrections be made before the machine is returned to service.



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.

Safety Alert Symbol

This symbol with a warning statement means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0903

IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

DANGER

The signal word DANGER on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.

D-1002-1107

WARNING

The signal word WARNING on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

W-2044-1107

The following publications provide information on the safe use and maintenance of the Bobcat machine and attachments:

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the machine is in safe operating condition.
- The Operation & Maintenance Manual delivered with the machine or attachment contains operating information as well as routine maintenance and service procedures. It is a part of the machine and can be stored in a container provided on the machine. Replacement Operation & Maintenance Manuals can be ordered from your Bobcat dealer.
- Machine signs (decals) instruct on the safe operation and care of your Bobcat machine or attachment. The signs and their locations are shown in the Operation & Maintenance Manual. Replacement signs are available from your Bobcat dealer.
- An Operator's Handbook fastened to the operator cab. It's brief instructions are convenient to the operator. The handbook is available from your dealer in an English edition or one of many other languages. See your Bobcat dealer for more information on translated versions.
- The AEM Safety Manual delivered with the machine gives general safety information.
- The Service Manual and Parts Manual are available from your dealer for use by mechanics to do shop-type service and repair work.
- The Compact Excavator Operator Training Course is available through your local dealer or at **www.training.bobcat.com** or **www.bobcat.com**. This course is intended to provide rules and practices of correct operation of the Bobcat excavator. The course is available in English and Spanish versions.
- Service Safety Training Courses are available from your Bobcat dealer or at **www.training.bobcat.com** or **www.bobcat.com**. They provide information for safe and correct service procedures.
- The Bobcat compact excavator Safety Video is available from your Bobcat dealer or at **www.training.bobcat.com** or **www.bobcat.com**.

SI EXC-0308 SM

The dealer and owner / operator review the recommended uses of the product when delivered. If the owner / operator will be using the machine for a different application(s) he or she must ask the dealer for recommendations on the new use.

Call Before You Dig
Dial 811 (USA Only)
1-888-258-0808 (USA & Canada)

When you call, you will be directed to a location in your state / province, or city for information about buried lines (telephone, cable TV, water, sewer, gas, etc.).

Cutting or drilling concrete containing sand or rock containing quartz may result in exposure to silica dust. Do not exceed Permissible Exposure Limits (PEL) to silica dust as determined by OSHA or other job site Rules and Regulations. Use a respirator, water spray or other means to control dust. Silica dust can cause lung disease and is known to the state of California to cause cancer.

FIRE PREVENTION

Maintenance

The machine and some attachments have components that are at high temperatures under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.

Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.

The operator's area, engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.

All fuels, most lubricants and some coolants mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Operation

Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

Electrical

Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed.

Battery gas can explode and cause serious injury. Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

Hydraulic System

Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.

Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

Fueling

Stop the engine and let it cool before adding fuel. No smoking! Do not refuel a machine near open flames or sparks. Fill the fuel tank outdoors.

Starting

Do not use ether or starting fluids on any engine that has glow plugs. These starting aids can cause explosion and injure you or bystanders.

Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting.

Spark Arrestor Exhaust System

The spark arrestor exhaust system is designed to control the emission of hot particles from the engine and exhaust system, but the muffler and the exhaust gases are still hot.

Check the spark arrestor exhaust system regularly to make sure it is maintained and working properly. Use the procedure in the Operation & Maintenance Manual for cleaning the spark arrestor muffler (if equipped).

SI EXC-0308 SM

FIRE PREVENTION (CONT'D)

Welding And Grinding

Always clean the machine and attachment, disconnect the battery, and disconnect the wiring from the Bobcat controllers before welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the machine when welding.

Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.

Dust generated from repairing nonmetallic parts such as hoods, fenders or covers can be flammable or explosive. Repair such components in a well ventilated area away from open flames or sparks.

Fire Extinguishers

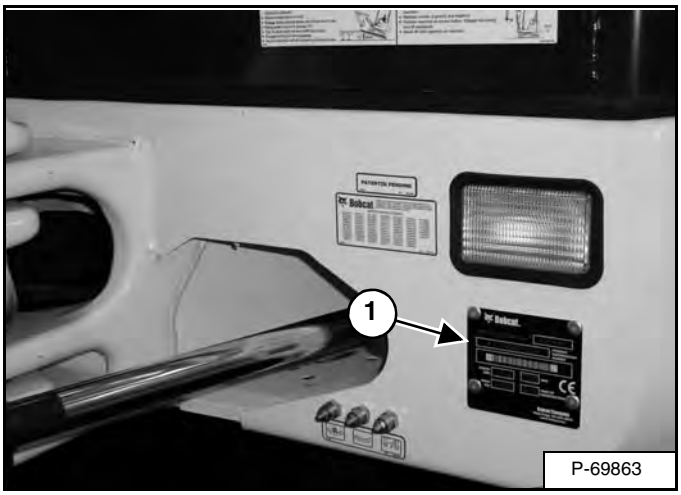
Know where fire extinguishers and first aid kits are located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

SERIAL NUMBER LOCATIONS

Always use the serial number of the excavator when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation.

Excavator Serial Number

Figure 1



The excavator serial number plate (Item 1) is located on the frame of the machine in the location shown **[Figure 1]**.

Explanation of Excavator Serial Number:

XXXX XXXXX

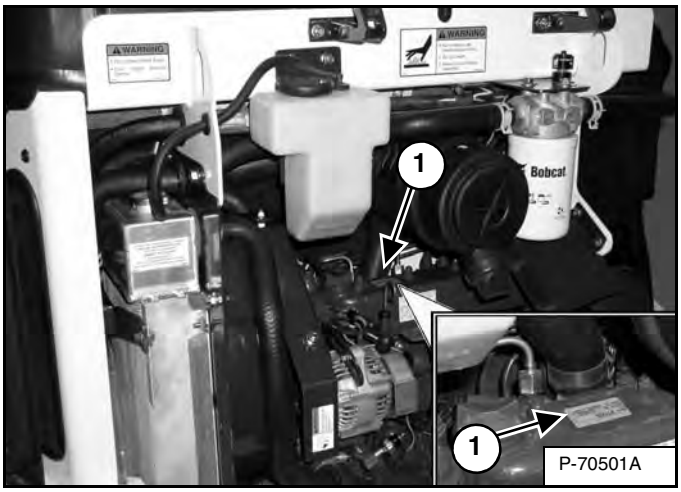
- XXXXX — Module 2. - Production Sequence (Series)
- XXXX — Module 1. - Model / Engine Combination

1. The four digit Model/Engine Combination Module number identifies the model number and engine combination.

2. The five digit Production Sequence Number identifies the order which the excavator is produced.

Engine Serial Number

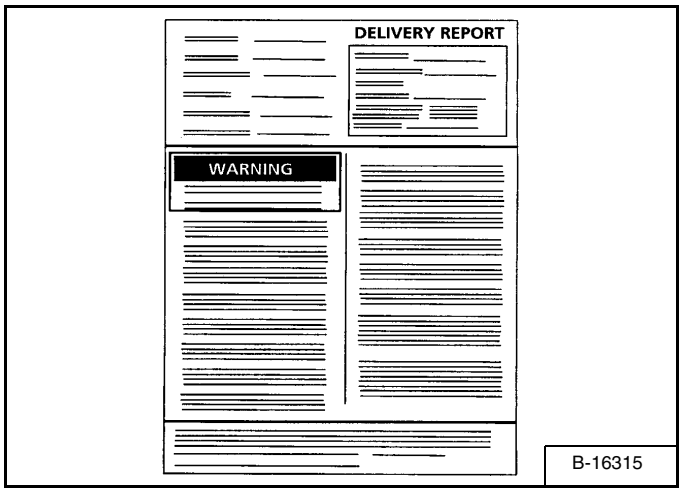
Figure 2



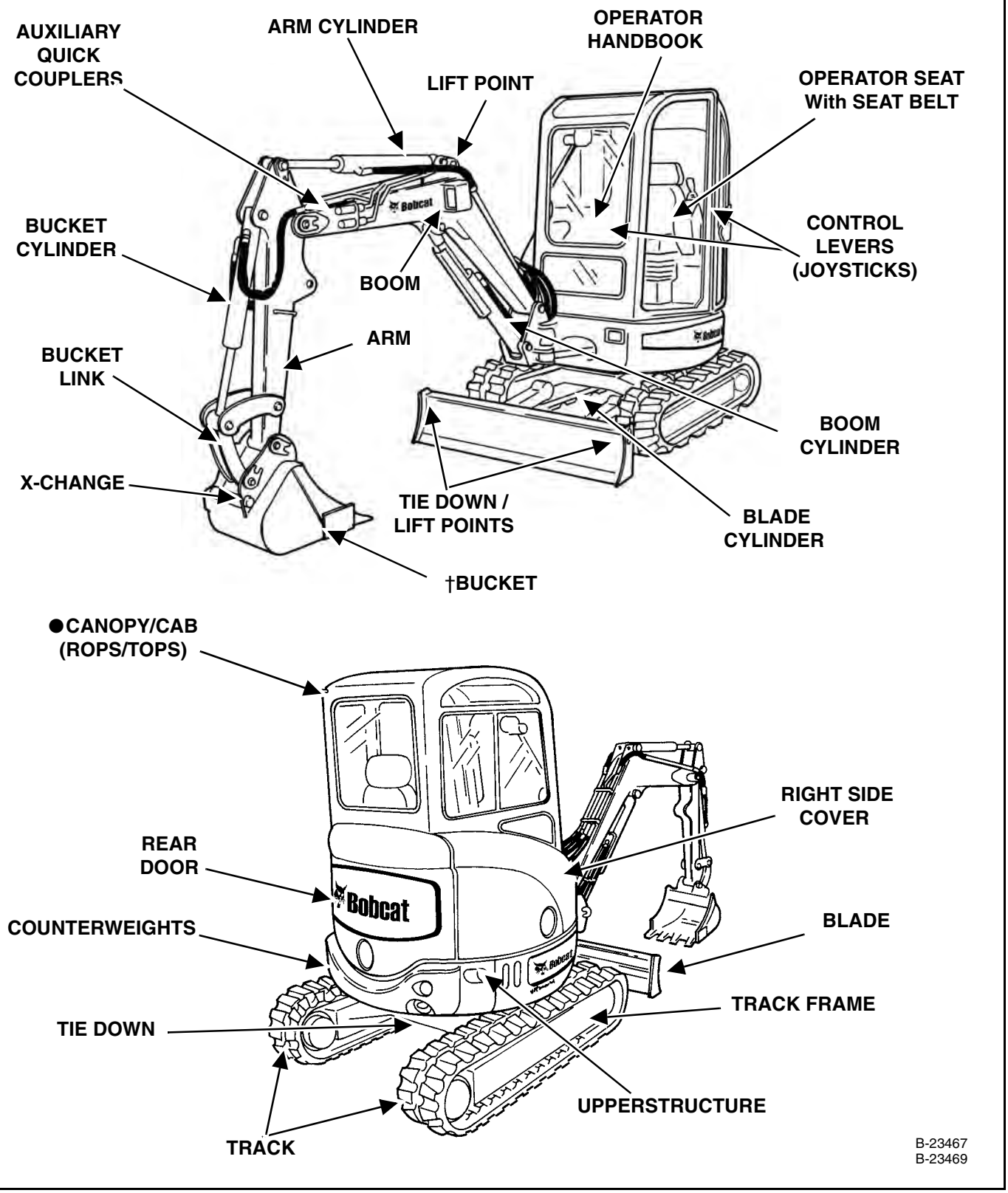
The engine serial number (Item 1) is located on the engine in the location shown **[Figure 2]**.

DELIVERY REPORT

Figure 3



The delivery report must be filled out by the dealer and signed by the owner or operator when the Bobcat Excavator is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely **[Figure 3]**.



† BUCKET - Several different buckets and other attachments are available from the Bobcat Excavator.

● ROPS, TOPS - (Roll Over Protective Structure / Tip Over Protective Structure) as standard equipment. The ROPS/TOPS meets SAE J1040, ISO 3471 and ISO 12117.

Continued On Next Page

TIGHTEN ALL HARDWARE PER SIZE TO GRADE 5 TORQUE (SEE STANDARD TORQUE SPECIFICATIONS FOR BOLTS, SECTION SPEC-01) UNLESS OTHERWISE SPECIFIED.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE AND STANDARD ITEMS MAY VARY.

LIFTING AND BLOCKING THE EXCAVATOR

Procedure

Always park the machine on a level surface.

Figure 10-10-1

Raise one side of the machine (approximately 4 in.) using the boom and arm as shown in **[Figure 10-10-1]**.

Raise the blade fully and install jackstands under the blade and the track frame. Lower the boom until all machine weight is on the jackstands.

Stop the engine.

⚠ WARNING

Put jackstands under the blade and rear corners of the undercarriage before working under the machine. Failure to block up the machine may allow it to move or fall and result in injury or death.

W-2218-1195

⚠ WARNING

AVOID INJURY

Keep fingers and hands out of pinch points when checking the track tension.

W-2142-0903

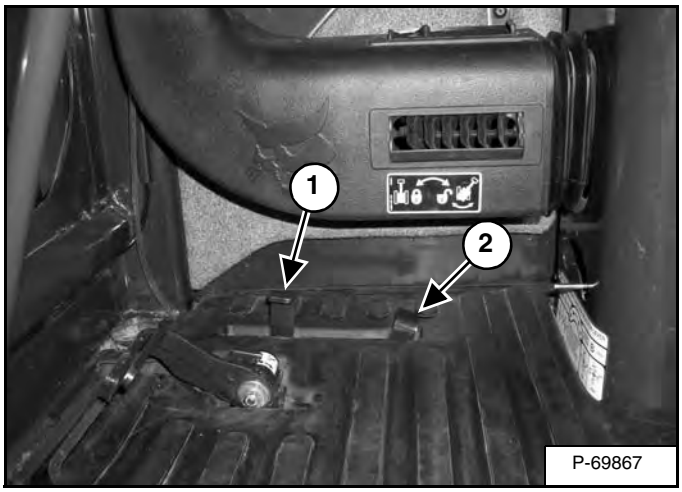
⚠ WARNING


Bobcat®

UPPERSTRUCTURE SLEW LOCK

Operation

Figure 10-11-1



Push down on the front (Item 1) **[Figure 10-11-1]** of the foot pedal to engage the upperstructure swing lock.

Push down on the rear (Item 2) **[Figure 10-11-1]** to disengage the upperstructure slew lock.

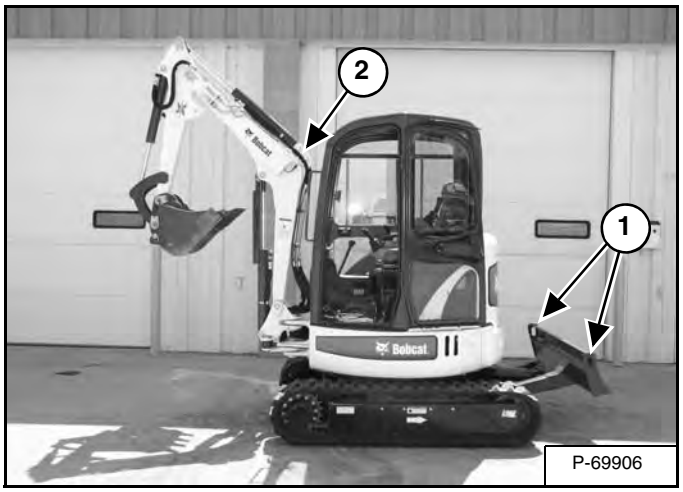
NOTE: Upperstructure must be in the straight forward or straight rearward position for upperstructure to lock.


Bobcat®

LIFTING THE EXCAVATOR

Procedure

Figure 10-12-1



Fully extend the cylinders of the bucket, arm, and boom so that the excavator is in the position as shown **[Figure 10-12-1]**.

Raise the blade all the way.

Put all the control levers in neutral.

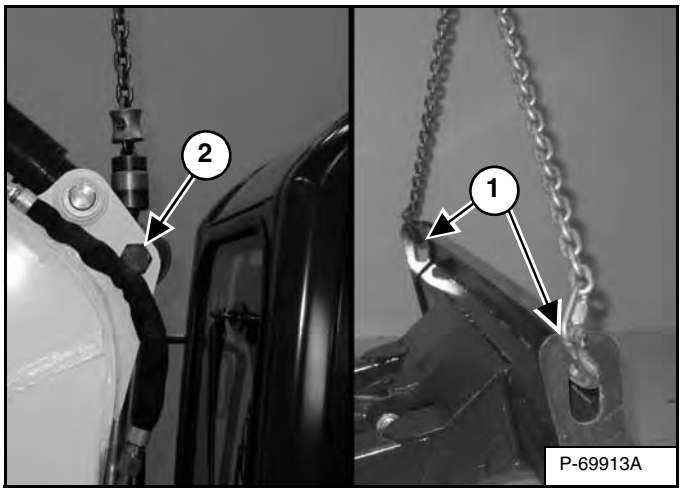
⚠ WARNING

AVOID INJURY OR DEATH

- **Use a lifting fixture with sufficient capacity for the weight of the excavator plus any added attachments.**
- **Maintain center of gravity and balance when lifting.**
- **Do not swing boom or upperstructure. Engage the upperstructure slew lock.**
- **Never lift with operator on machine.**

W-2202-0607

Figure 10-12-2



Fasten chains to the ends of the blade (Item 1) **[Figure 10-12-1]** and **[Figure 10-12-2]** and up to a lifting fixture above the canopy/cab. The lifting fixture must extend over the sides of the canopy/cab to prevent the chains from hitting the ROPS/TOPS.

Install a 1 in. (25 mm) bolt and nut (Grade 5 or 8) through the holes at the boom (Item 2) **[Figure 10-12-1]** and **[Figure 10-12-2]**. Fasten a chain from the bolt to the lift fixture.


Bobcat®

OPERATOR CAB (ROPS / TOPS)

Description

The excavator has an optional operator cab (ROPS/TOPS) (Roll Over Protective Structure/Tip Over Protective Structure). The ROPS/TOPS meets SAE J1040, ISO 3471 and ISO 12117.

An enclosed cab (ROPS/TOPS) is an Option or can be installed as a Field Accessory.

Both the cab and canopy provide operator protection if the excavator is tipped over. The seat belt must be worn for ROPS /TOPS protection.

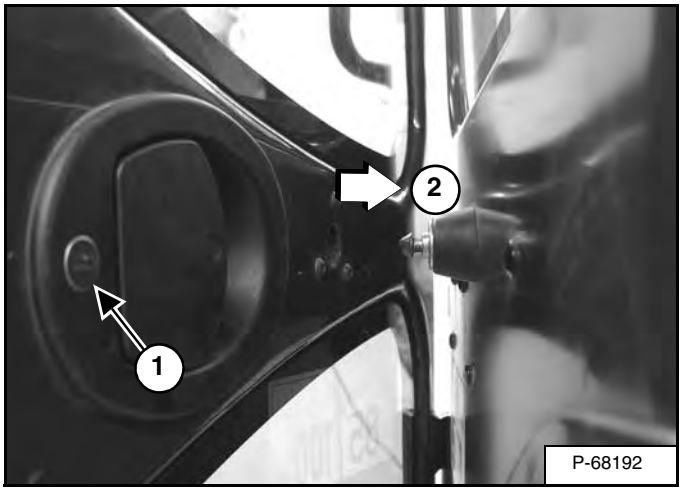
⚠ WARNING

Never modify operator cab by welding, grinding, drilling holes or adding attachments unless instructed to do so by Bobcat Company. Changes to the cab can cause loss of operator protection from rollover and falling objects, and result in injury or death.

W-2069-0200

Cab Door

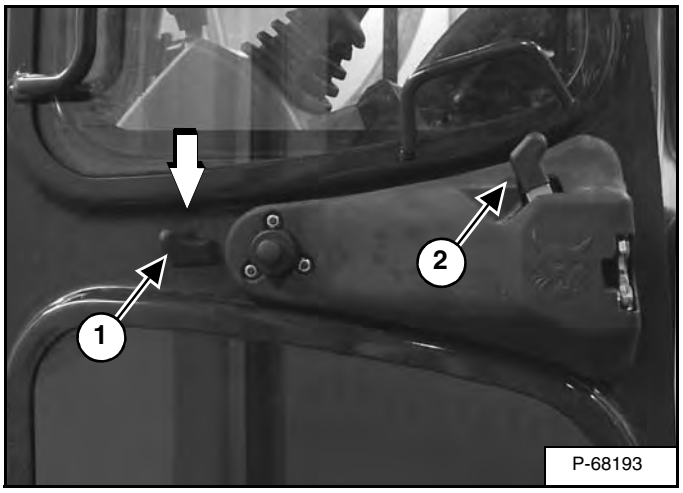
Figure 10-20-1



The cab door can be locked (Item 1) **[Figure 10-20-1]** with the same key as the starter switch.

Push the door all the way open (Item 2) **[Figure 10-20-1]** until the latch engages to hold the door in the open position.

Figure 10-20-2



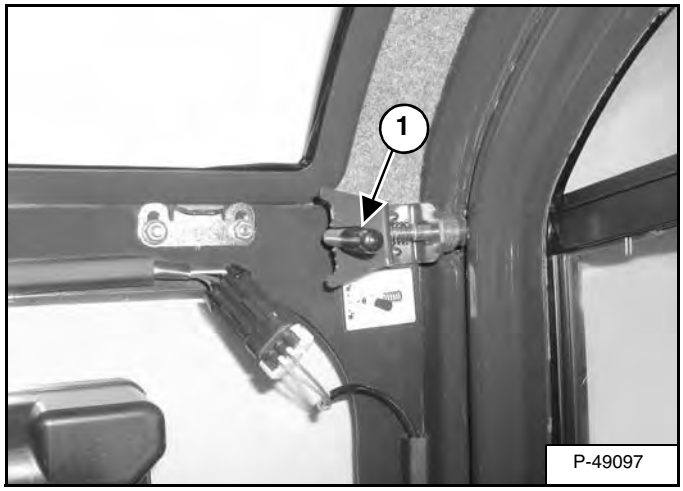
When the door is in the open position, push down on the latch (Item 1) **[Figure 10-20-2]** and close the door.

From inside the cab, open the door using handle (Item 2) **[Figure 10-20-2]**.

Front Window

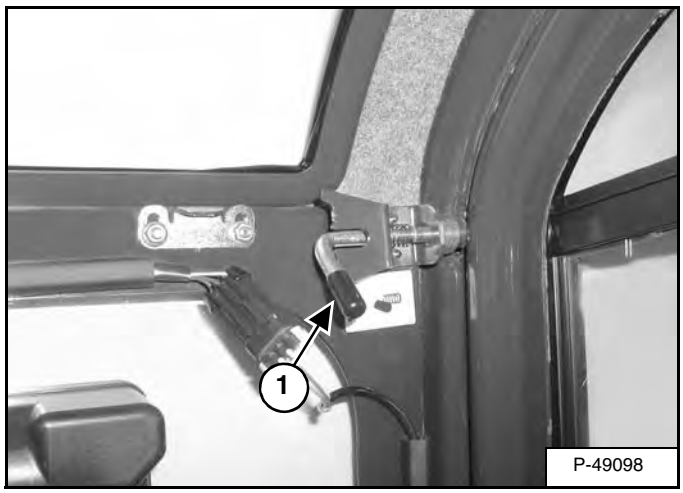
Opening The Front Window

Figure 10-20-3



Retract the two top window latch pins (Item 1) **[Figure 10-20-3]**.

Figure 10-20-4



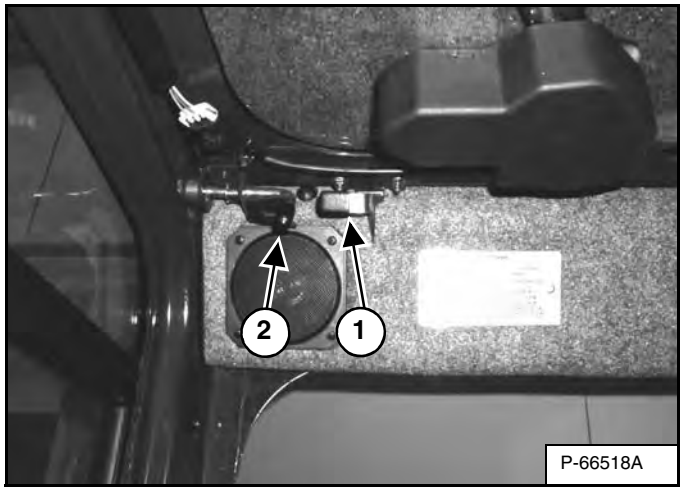
Turn the two top latches (Item 1) **[Figure 10-20-4]** to the unlocked position.

Figure 10-20-5

Use both window grab handles to pull the top of the window in **[Figure 10-20-5]**.

Continue moving the window in and up over the operator's head until the window is fully raised.

Figure 10-20-6



When the window is fully raised, the latch (Item 1) will close on the bracket. Turn the two top latches (Item 2) **[Figure 10-20-6]** to the locked position.

Closing The Front Window

Support the window while releasing both window latch pins and placing the pins in the unlocked position **[Figure 10-20-6]**.

Support the window using the left grab handle and pull down on the latch (Item 1) **[Figure 10-20-5]** to release the window.

Use both window grab handles to pull the window down **[Figure 10-20-5]**.

Rotate the top latches (Item 1) **[Figure 10-20-4]** to the locked position (Item 1) **[Figure 10-20-3]**.

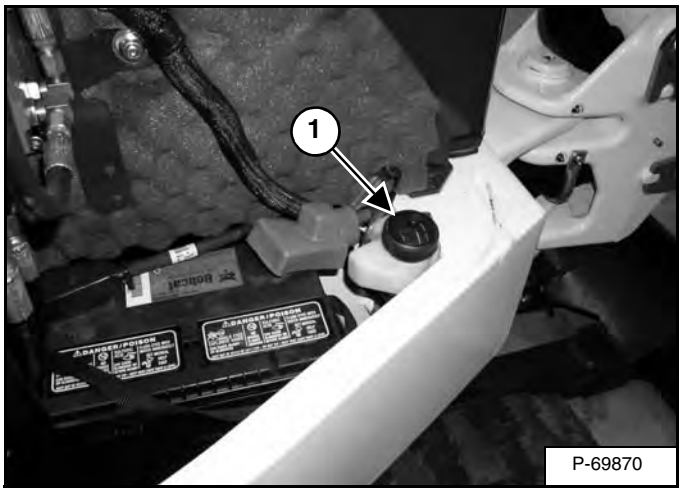
Front Wiper

Figure 10-20-7

The front window is equipped with a wiper (Item 1) **[Figure 10-20-7]** and washer.

Window Washer Reservoir

Figure 10-20-8

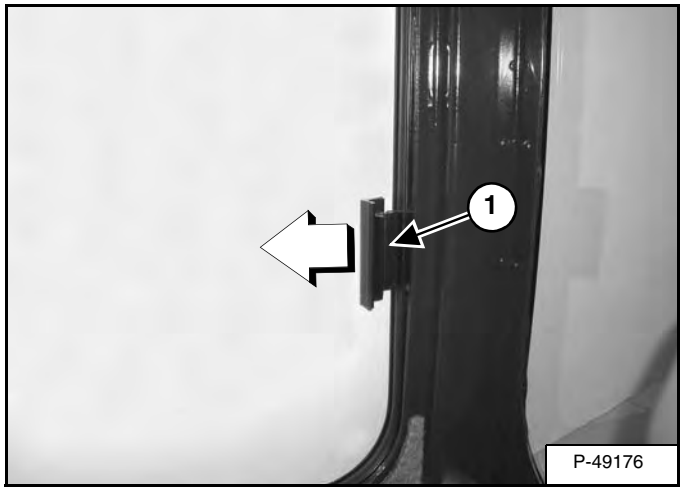


The window washer reservoir (Item 1) **[Figure 10-20-8]** is located under the right side cover.

Right Side Window

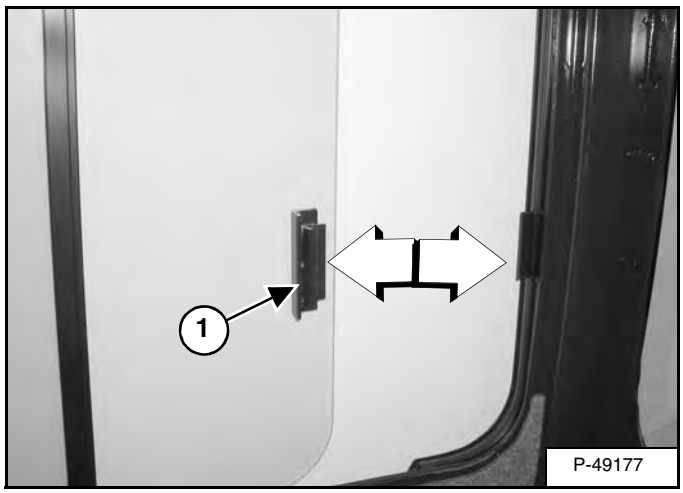
Opening The Right Rear Window

Figure 10-20-9



Pull forward on the latch / handle (Item 1) **[Figure 10-20-9]**.

Figure 10-20-10



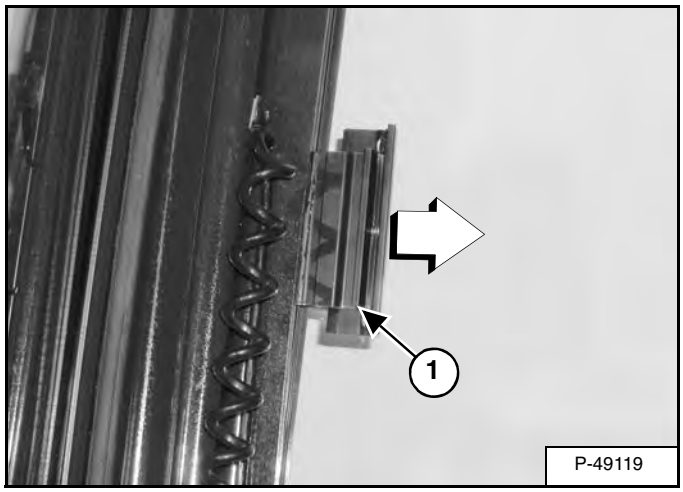
Pull the latch / handle (Item 1) **[Figure 10-20-10]** forward to open the window.

Closing The Right Rear Window

Push the handle back to close the window.

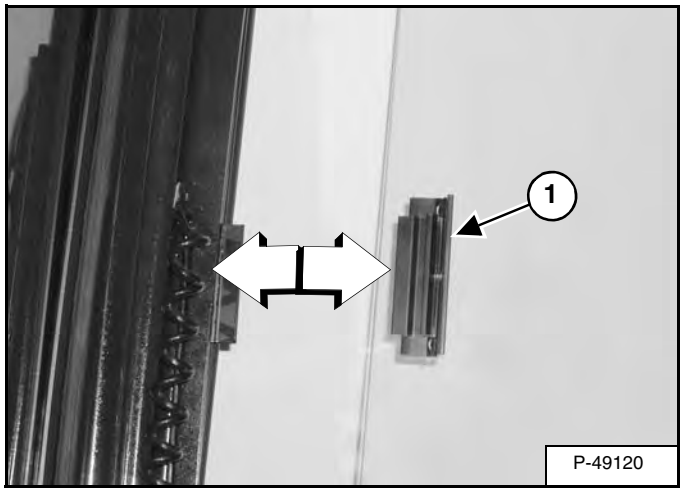
Opening The Right Front Window

Figure 10-20-11



Pull back on the latch / handle (Item 1) **[Figure 10-20-11]**.

Figure 10-20-12



Pull the latch / handle (Item 1) **[Figure 10-20-12]** back to open the window.

Closing The Right Front Window

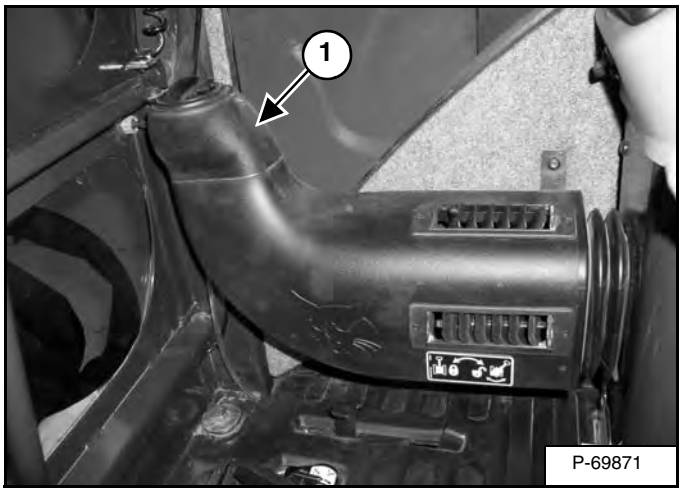
Push the handle forward to close the window.

Heating, Ventilation, and Air Conditioning Duct

NOTE: The air conditioner duct can be ordered and used on heater models.

There are two HVAC ducts that the operator can choose to install.

Figure 10-20-13



The small duct (Item 1) **[Figure 10-20-13]** is standard for heater use.

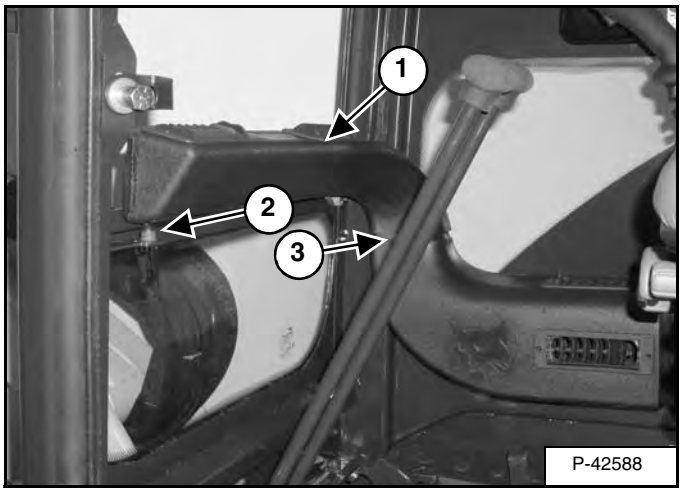
The large duct (Item 1) **[Figure 10-20-14]** is standard for models that have air conditioner available.

NOTE: This duct (Item 1) [Figure 10-20-14] can be removed for improved operator visibility.

Installation

Remove the screw and pull straight up to remove the duct (Item 1) **[Figure 10-20-13]**.

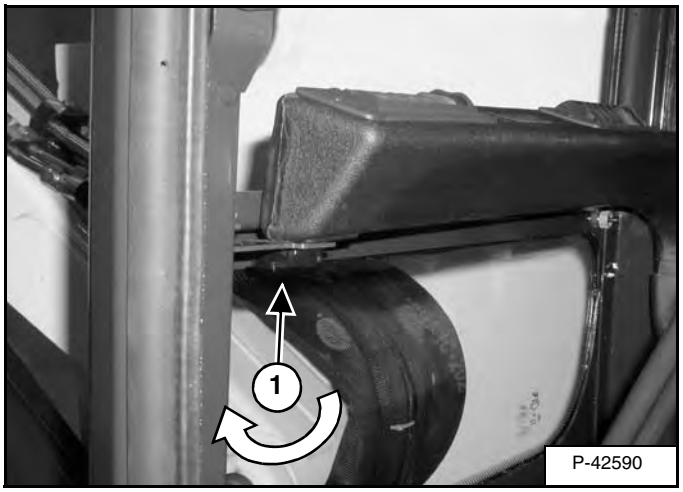
Figure 10-20-14



Place the air conditioning duct (Item 1) on the housing and over the locking stud (Item 2) **[Figure 10-20-14]**.

Reinstall the screw (Item 3) **[Figure 10-20-14]**.

Figure 10-20-15



Fully seat the duct and rotate the lock (Item 1) **[Figure 10-20-15]**.


Bobcat®

TRANSPORTING THE EXCAVATOR ON A TRAILER

Loading And Unloading

When transporting the machine, observe the rules, motor vehicle laws, and vehicle limit ordinances. Use a transport and towing vehicle of adequate length and capacity.

Secure the parking brakes and block the wheels of the transport vehicle.

Align the ramps with the center of the transport vehicle. Secure the ramps to the truck bed and be sure ramp angle does not exceed 15 degrees.

Use metal loading ramps with a slip resistant surface.

Use ramps that are the correct length and width and can support the weight of the machine.

The rear of the trailer must be blocked or supported when loading or unloading the excavator to prevent the front of the transport vehicle from raising.

Determine the direction of the track movement before moving the machine (blade forward).

Engage the slew lock.

Figure 10-30-1

Move the machine forward onto the transport vehicle **[Figure 10-30-1]**.

Do not change direction of the machine while it is on the ramps.

Lower the boom, arm, bucket, and blade to the transport vehicle.

Stop the engine and remove the key (if equipped).

Put blocks at the front and rear of the tracks.

Fastening

Figure 10-30-2

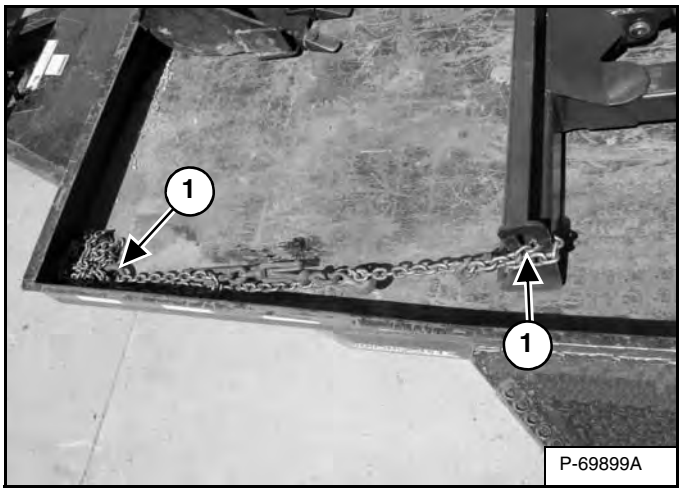
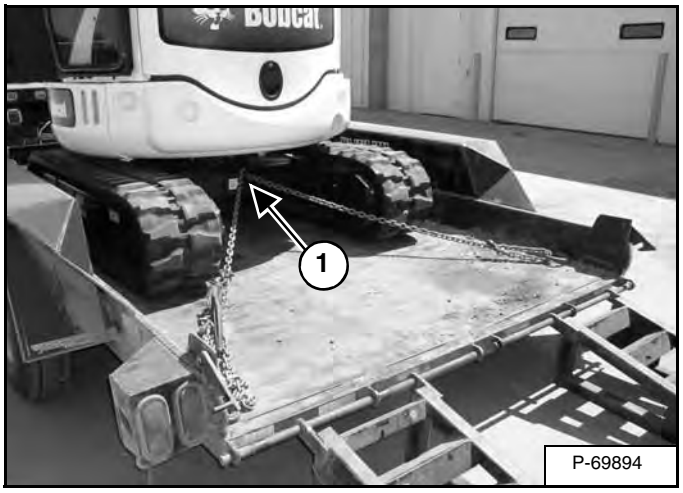


Figure 10-30-3



Fasten chains to the front corners of the blade (Item 1) **[Figure 10-30-2]** and to the tie down loop at the rear of the track frame (Item 1) **[Figure 10-30-3]** to prevent it from moving when going up or down slopes or during sudden stops.

Use chain binders to tighten the chains and then safely tie the chain binder levers to prevent loosening.

⚠ WARNING

AVOID SERIOUS INJURY OR DEATH

Adequately designed ramps of sufficient strength are needed to support the weight of the machine when loading onto a transport vehicle. Wood ramps can break and cause personal injury.

W-2058-0807


Bobcat®

TAILGATE

Opening And Closing

WARNING

AVOID INJURY OR DEATH

Never service or adjust the machine when the engine is running unless instructed to do so in the manual.

W-2012-0497

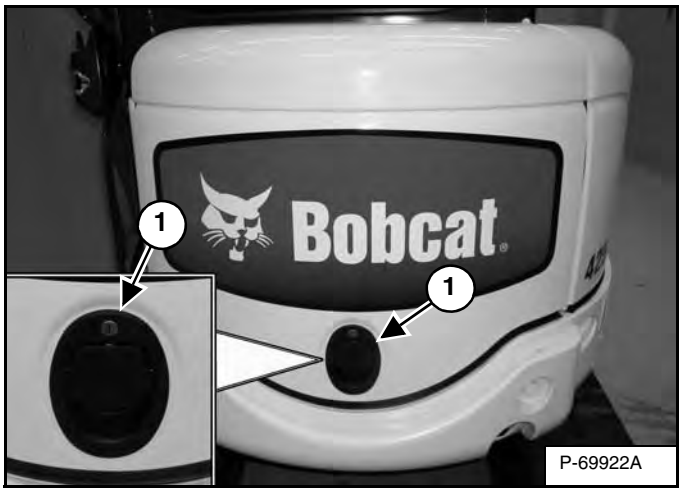
WARNING

Keep the rear door closed when operating the machine. Failure to do so could seriously injure a bystander.

W-2020-1285

Opening

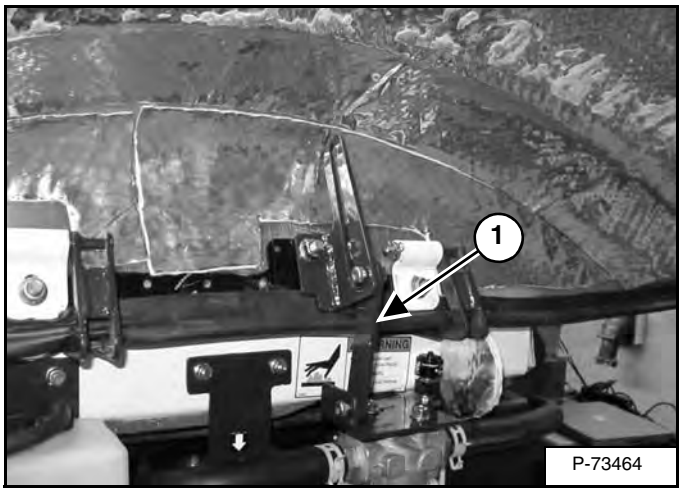
Figure 10-40-1



Pull outward on the latch (Item 1) **[Figure 10-40-1]** and lift the tailgate up.

NOTE: The tailgate can be locked using the start key.

Figure 10-40-2



Hold the tailgate up and pull outward on the latch (Item 1) **[Figure 10-40-2]**. Slowly lower the tailgate until the latch is locked and holds the tailgate open.

Closing

Lift up slightly on the tailgate and push inward on the latch (Item 1) **[Figure 10-40-2]**. Slowly lower the tailgate until the tailgate is fully closed.


Bobcat®

RIGHT SIDE COVER

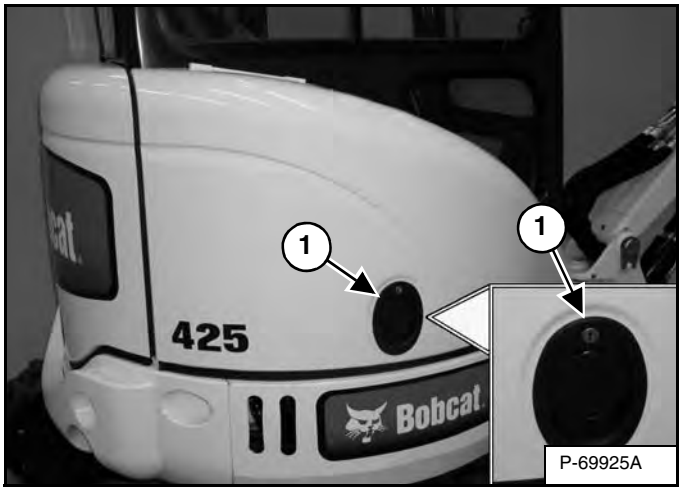
Opening And Closing

WARNING

AVOID INJURY OR DEATH
Never service or adjust the machine when the engine is running unless instructed to do so in the manual.
W-2012-0497

Opening

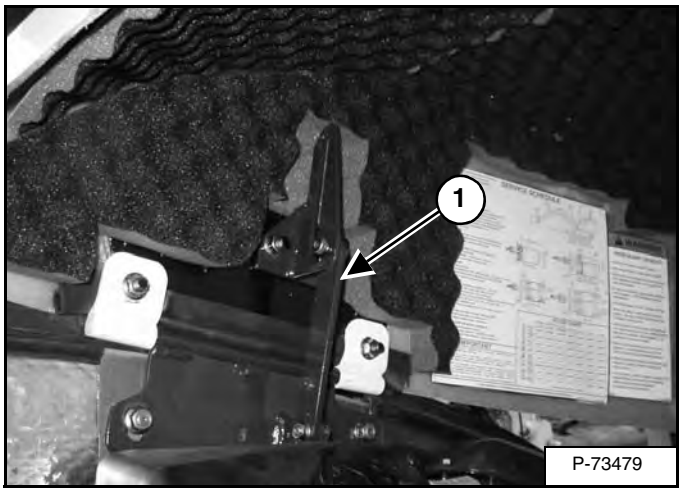
Figure 10-41-1



Pull outward on the latch (Item 1) **[Figure 10-41-1]** and lift the side cover up.

NOTE: The side cover can be locked using the start key.

Figure 10-41-2



Hold the side cover up and pull outward on the latch (Item 1) **[Figure 10-41-2]**. Slowly lower the side cover until the latch is locked and holds the side cover open.

Closing

Lift up slightly on the side cover and push inward on the latch (Item 1) **[Figure 10-41-2]**. Slowly lower the side cover until the side cover is fully closed.


Bobcat®

SERVICE SCHEDULE

Chart

Maintenance work must be done at regular intervals. Failure to do so will result in excessive wear and early failures. The service schedule is a guide for correct maintenance of the Bobcat Excavator.

⚠ WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0903

SERVICE SCHEDULE		HOURS					
ITEM	SERVICE REQUIRED	8-10	50	100	250	500	■ 1000
Engine Coolant	Check coolant level. Add premixed coolant as needed.						
Engine Oil	Check the engine oil level and add as needed.						
Hydraulic Fluid, Hoses and Tubelines, Reservoir Breather Cap	Check the hydraulic fluid level and add as needed. Check for damage and leaks. Repair or replace as needed.						
Engine Air Filter and Air System	Check condition indicator and empty dust cup as needed. Check air system for leaks.						
Tracks	Check and adjust track tension as needed.						
Indicators and Lights	Check for correct operation of all indicators and lights.						
Operator Canopy/Cab	Check condition. Check mounting hardware.						
Seat Belt	Check condition. Check mounting hardware.						
Safety Signs and Safety Treads	Check for damaged signs (decals) and safety treads. Replace any signs or safety treads that are damaged or worn.						
Pivot Points	Grease all machinery pivot points.						
* Cab Heater Air Filter	Clean the filter as needed.						
Console Lockout	Check console lockout for proper operation.						
X-Change	Lubricate and inspect for damage or loose parts.						
Swing Circle and Pinion	Grease two fittings.						
Fuel Tank & Filter	Drain water and sediment from fuel tank and fuel filter.						
Battery	Check battery, cables, connections and electrolyte level. Add distilled water as needed.						
Spark Arrestor Muffler	Clean the spark chamber.						
Fuel Filters	Replace fuel filter.		●				
Travel Motor	Check the oil level in both travel motors.						
Inline Fuel Filter	Replace inline fuel filter.						
Engine Oil and Filter	Replace oil and filter. Use CD or better grade oil and Bobcat filter.		▼				
Alternator Belt	Check condition of belt and adjust as needed.			^			
Radiator, Oil Cooler	Clean debris from the radiator fins.						
Primary Hydraulic Filter and reservoir breather	Replace the primary hydraulic filter and reservoir breather.			^			
Case Drain Filter	Replace the case drain filter.			^			
Alternator & Starter	Check the alternator and starter connections.			^			
Engine Valves	Check and adjust the engine valve clearance.						
Hydraulic System	Replace the hydraulic fluid and filters. Clean the reservoir.						
Travel Motor	Replace the lubricant in both travel motors.			^			
Coolant	Drain and flush the cooling system. Replace the coolant.	Every 2 years					

*** If Equipped**
● Change after the first 50 hours, then as scheduled.
▼ First oil and filter change must occur at 50 hours; then as scheduled.
^ Check after the first 100 hours, then as scheduled.
■ Or every 12 months.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