

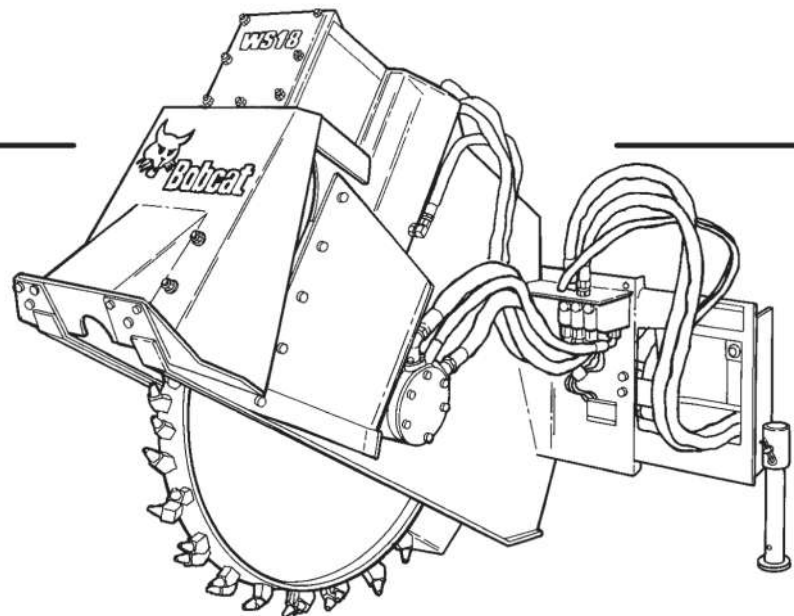
**Wheel  
Saw  
WS18  
WS24**



**Bobcat®**

**Service  
Manual**

**S/N 991800101 & Above  
S/N 991900101 & Above**





# MAINTENANCE SAFETY



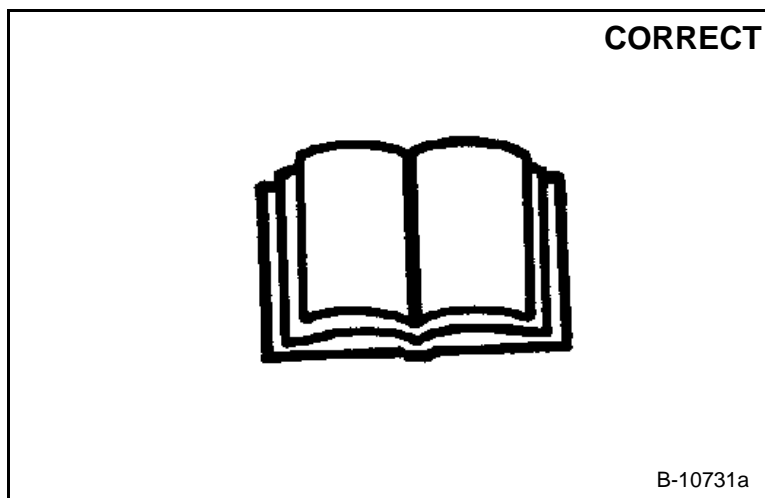
## WARNING









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-2003-0903



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



-  Never service attachments without instructions. See Operation & Maintenance Manual and Attachment Service Manual.
-  Cleaning and maintenance are required daily.
-  Never service or adjust attachment with the engine running unless instructed to do so in manual.
-  Always lower the attachment to the ground before lubricating or servicing.
-  Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate skin or eyes.
-  Stop, cool and clean engine of flammable materials before checking fluids.
-  Keep body, loose objects and clothing away from moving parts, electrical contacts, hot parts and exhaust.
-  Safety glasses are needed for eye protection from electrical arcs, battery acid, compressed springs, fluids under pressure and flying debris or when tools are used. Use eye protection approved for type of welding.



**Bobcat®**

## ALPHABETICAL INDEX

|  |       |       |
|--|-------|-------|
| ATTACHMENT CONTROL DEVICE WS-18                                    | ....  | 30-01 |
| ATTACHMENT CONTROL DEVICE WS-24                                    | ....  | 30-01 |
| CUTTING WHEEL  | ..... | 30-01 |
| DEPTH ADJUSTMENT FRAME   | ..... | 30-01 |
| ELECTRICAL SCHEMATIC WITH<br>7 PIN HARNESS                         | ..... | 40-01 |
| ELECTRICAL SCHEMATIC WITH 7 PIN<br>HARNESS WITH 14 PIN HARNESS KIT | ..... | 40-01 |
| GLOSSARY OF HYDRAULIC SYMBOLS                                      | ..... | 40-01 |
| HUB  | ..... | 30-01 |
| HYDRAULIC CONTROL VALVE  | ..... | 20-01 |
| HYDRAULIC CYLINDER   | ..... | 20-01 |
| HYDRAULIC MOTOR  | ..... | 20-01 |
| HYDRAULIC SCHEMATIC  | ..... | 40-01 |
| INSPECTION   | ..... | 10-01 |
| LUBRICATION  | ..... | 10-01 |
| PARTS IDENTIFICATION WS-18   | ..... | iv    |
| PARTS IDENTIFICATION WS-24   | ..... | v     |
| SERIAL NUMBER LOCATION   | ..... | iii   |
| SIDE SHIFT FRAME   | ..... | 30-01 |
| SPECIFICATIONS WS-18   | ..... | 40-01 |
| SPECIFICATIONS WS-24   | ..... | 40-01 |
| TRENCH CLEANER   | ..... | 30-01 |
| TRENCH CLEANER ADJUSTMENT  | ..... | 10-01 |
| TROUBLESHOOTING  | ..... | 10-01 |



**Bobcat®**

# CONTENTS

|                                     |       |
|-------------------------------------|-------|
| SERIAL NUMBER LOCATION .....        | iii   |
| PARTS IDENTIFICATION .....          | v     |
| SAFETY AND MAINTENANCE .....        | 10-01 |
| HYDRAULIC SYSTEM .....              | 20-01 |
| MAIN FRAME .....                    | 30-01 |
| SPECIFICATIONS AND SCHEMATICS ..... | 40-01 |

**SAFETY AND  
MAINTENANCE**

**HYDRAULIC  
SYSTEM**

**MAIN  
FRAME**

**SPECIFICATIONS  
AND  
SCHEMATICS**

**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.

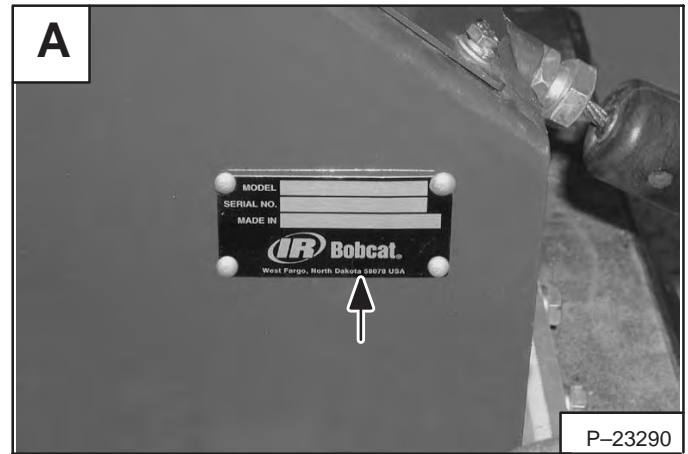


**Bobcat®**

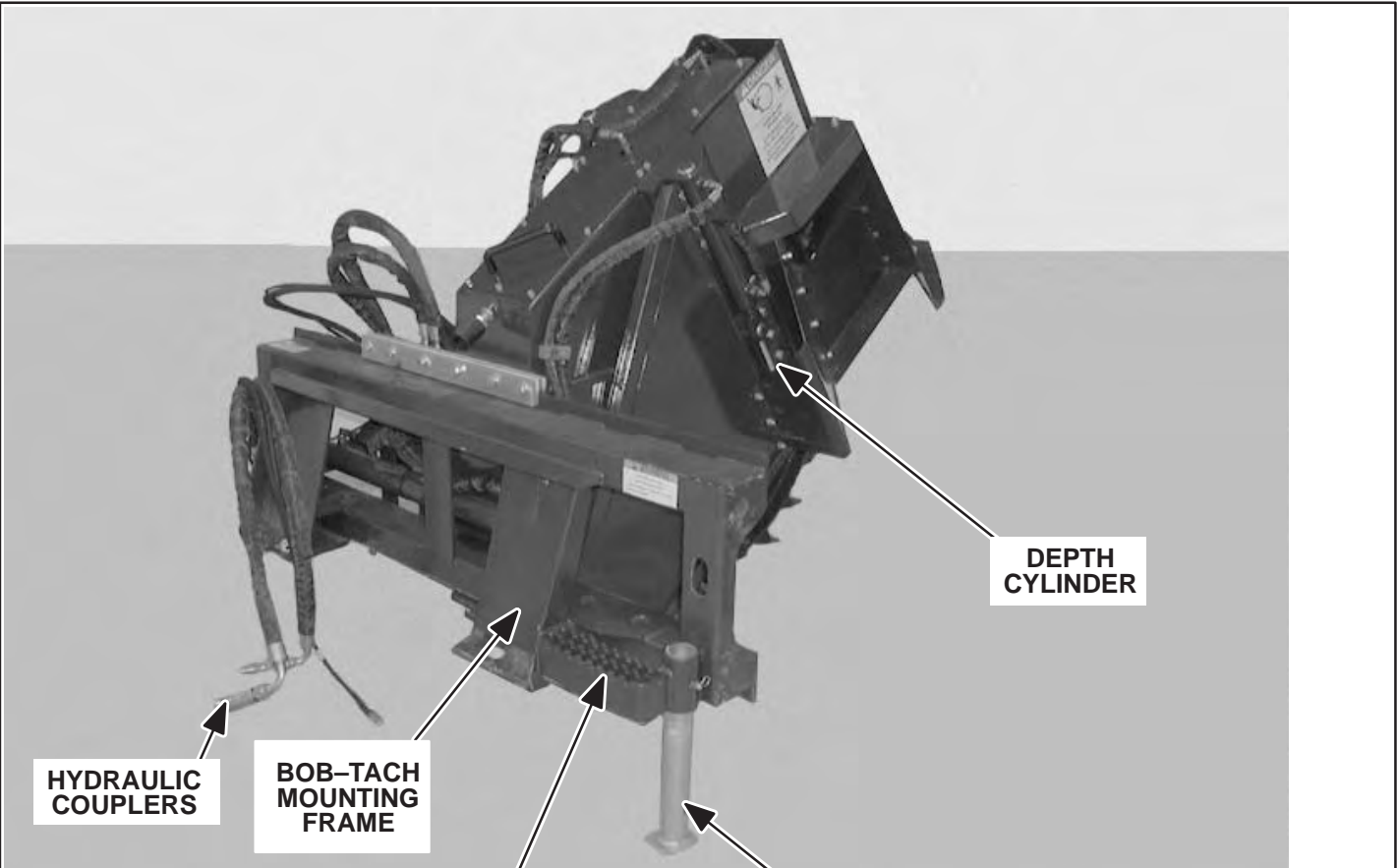


## SERIAL NUMBER LOCATION

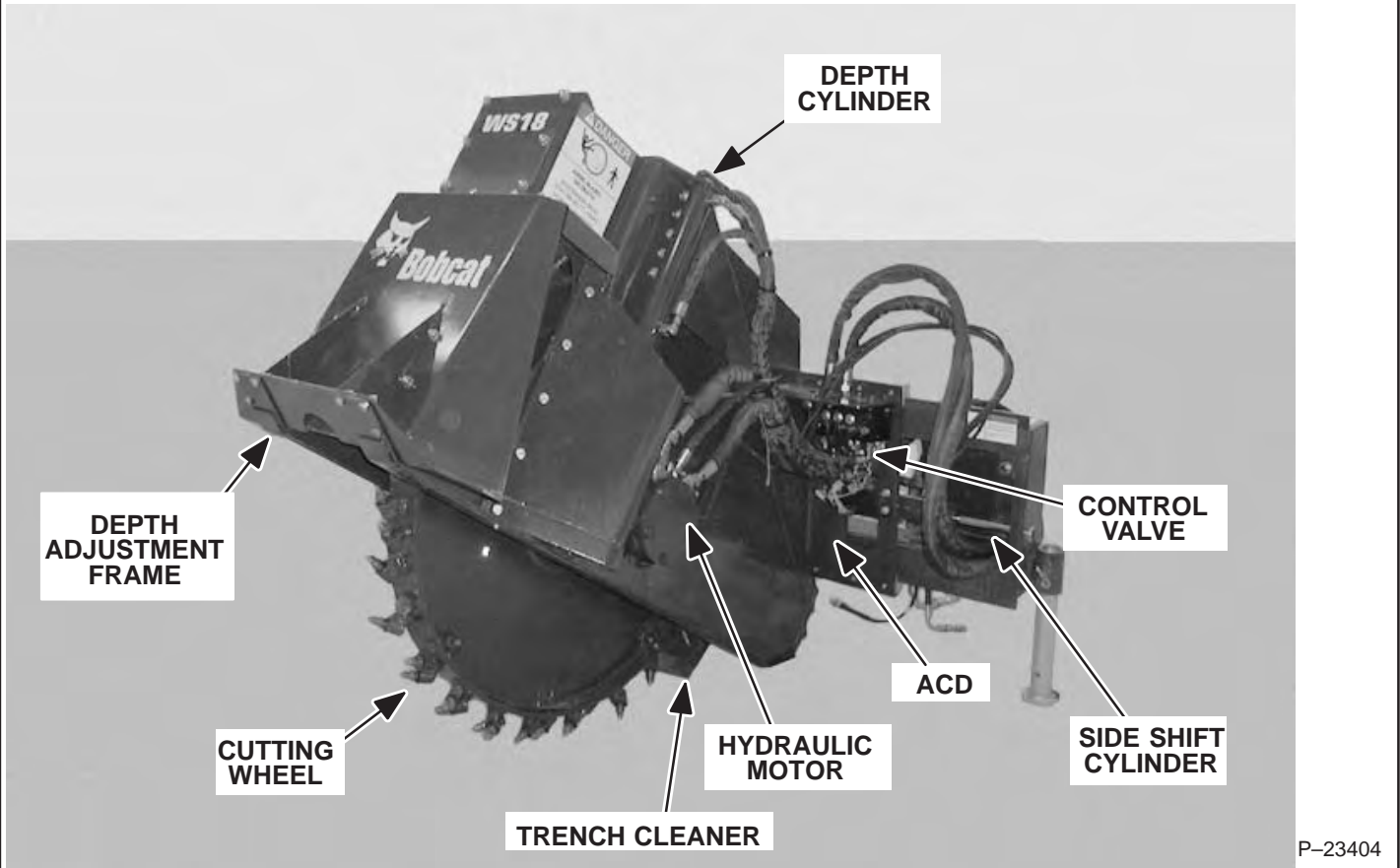
Always use the serial number of the machine when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation [A].



PARTS IDENTIFICATION – WS18

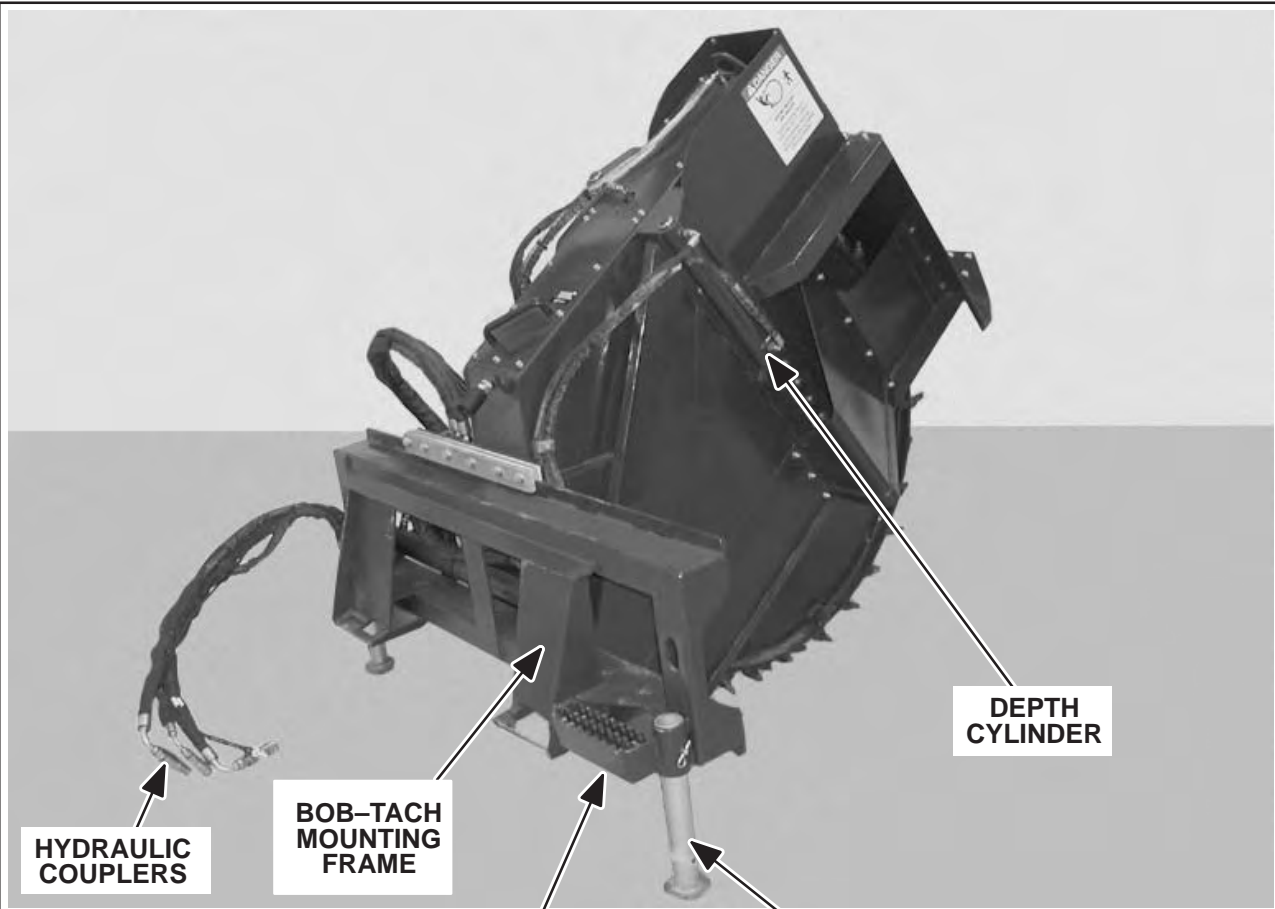


P-23406



P-23404

PARTS IDENTIFICATION – WS24



HYDRAULIC COUPLERS

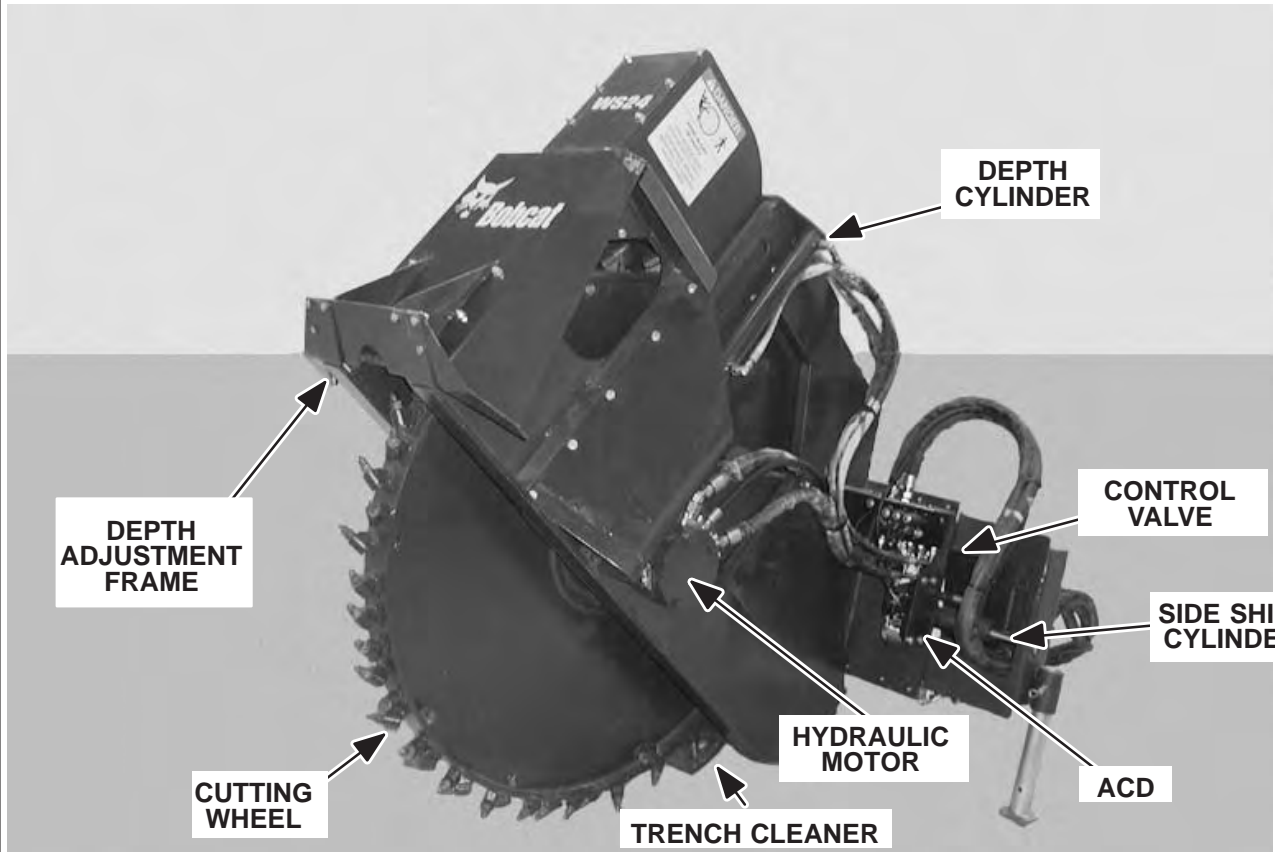
BOB-TACH MOUNTING FRAME

STEPS

SUPPORT STANDS

DEPTH CYLINDER

P-23208



DEPTH ADJUSTMENT FRAME

CUTTING WHEEL

TRENCH CLEANER

HYDRAULIC MOTOR

DEPTH CYLINDER

CONTROL VALVE

SIDE SHIFT CYLINDER

ACD

P-23209



**Bobcat®**

**SAFETY AND MAINTENANCE**

**PAGE  
NUMBER**

**INSPECTION**

Hand Lever Bob-Tach Inspection ..... 10-10-2  
Hardening The Wheel And Carbide Holders ..... 10-10-5  
Power Bob-Tach Inspection ..... 10-10-3  
Spoil Deflectors Inspection And Replacement ..... 10-10-6  
Trench Cleaner Inspection And Cleaning ..... 10-10-7  
Tool Bit Inspection And Replacement ..... 10-10-4  
Wear Plates Inspection And Replacement ..... 10-10-5  
Wheel Saw Mount Inspection ..... 10-10-4

**TRENCH CLEANER ADJUSTMENT ..... 10-10-8**

**TROUBLESHOOTING ..... 10-10-1**



**Bobcat**®

## TROUBLESHOOTING

### **WARNING**

Instructions are necessary before operating or servicing machine, Read Operation & Maintenance Manual, 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. Failure to follow instructions can cause injury or death.

W-2003-0199

If the Wheel Saw is not working correctly, check the hydraulic system of the loader thoroughly before making any repairs on the Wheel Saw. Wheel Saw problems can be affected by a hydraulic system that is not operating to specifications.

If the loader operation is found to be correct, use the following troubleshooting chart to locate and correct problems with the Wheel Saw.

| PROBLEM  | CAUSE  | CORRECTION   |
|--|--|--|
| Wheel Saw will not rotate.                           | Auxiliary hydraulics not activated.                                  | Activate auxiliary hydraulics.   |
|  | Hydraulic couplers not fully connected.                              | Check hydraulic connections.   |
|  | Wheel Saw bits are contacting the ground when start-up is attempted. | Raise the Wheel Saw off the ground before engaging auxiliary hydraulics.           |
|  | Electrical solenoids on Wheel Saw disconnected or defective.         | Check all electrical connections. Repair and/or replace solenoids.                 |
|  | Control Valve on Wheel Saw damaged or defective.                     | Repair and/or replace control valve.   |
| Wheel Saw loses power.                               | Trying to cut at too fast a travel speed                             | Move loader forward at a slower rate.  |
|  | Loss of hydraulic flow.  | Make sure High Flow hydraulics are activated.                                      |
|  | Loader relief valve not set to specification.                        | Check loader relief valve setting.   |
|  | Hydraulic pump flow insufficient.                                    | Check hydraulic pump flow.   |
| Wheel Saw will not side shift.                       | Debris obstructing side shift function.                              | Check area around side shift cylinder for any obstructions.                        |
|  | Electrical solenoids on Wheel Saw disconnected or defective.         | Check all electrical connections. Repair and/or replace solenoids.                 |
|  | Control Valve on Wheel Saw damaged or defective.                     | Repair and/or replace control valve.   |
| Wheel Saw depth frame will not lower or raise.       | Debris obstructing depth frame movement.                             | Clean all areas around depth frame.  |
|  | Electrical solenoids on Wheel Saw disconnected or defective.         | Check all electrical connections. Repair and/or replace solenoids.                 |
| Wheel Saw trench cleaner will not lower.             | Debris obstructing trench cleaner movement.                          | Remove the cover. Clean track of debris and obstructions.                          |
|  | Electrical solenoids on Wheel Saw disconnected or defective.         | Check all electrical connections. Repair and/or replace solenoids.                 |
|  | Trench not allowing trench cutter to lower.                          | Cut at least 12" (305 mm) of trench before attempting to lower the trench cleaner. |
| Trench has excessive debris after cutting operation. | Wheel Saw trench cleaner not lowering completely into trench.        | See trench cleaner will not lower information above.                               |
| Cutting Bits wear unevenly.                          | Bits are not rotating in their housings.                             | See bit replacement page 10-10-4.  |
| Wheel Saw vibrates.                                  | Wheel Saw frame not positioned firmly on work surface.               | The wheel saw frame should be fully lowered on the work surface.                   |
|  | Not enough loader weight on the Wheel Saw.                           | Raise loader front wheels slightly off of the ground to add additional weight.     |

## INSPECTION

### Hand Lever Bob-Tach Inspection

Move the Bob-Tach levers to engage the wedges [A]. The levers and wedges must move freely.

The wedges must extend through the holes in the attachment mounting frame (Item 1) [A].



## WARNING

Bob-Tach wedges must extend through the holes in attachment. Lever(s) must be fully down and locked. Failure to secure wedges can allow attachment to come off and cause injury or death.

W-2102-0497

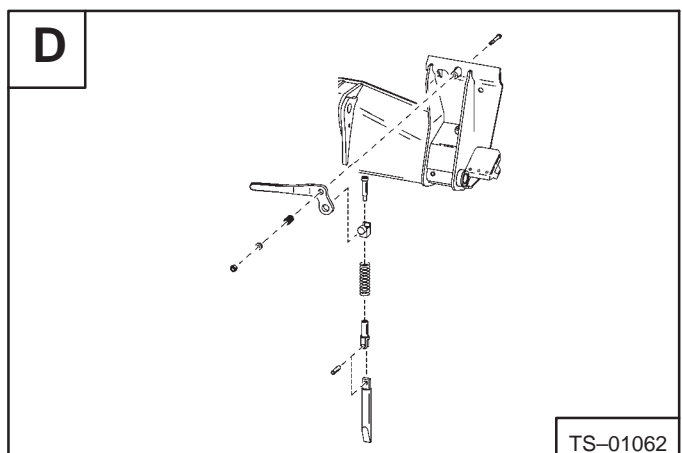
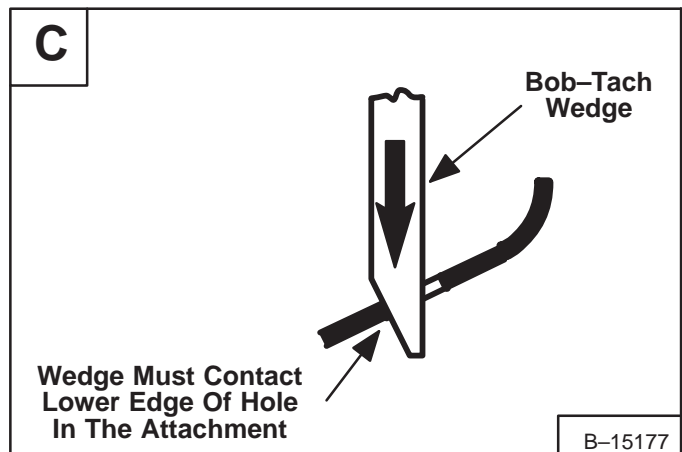
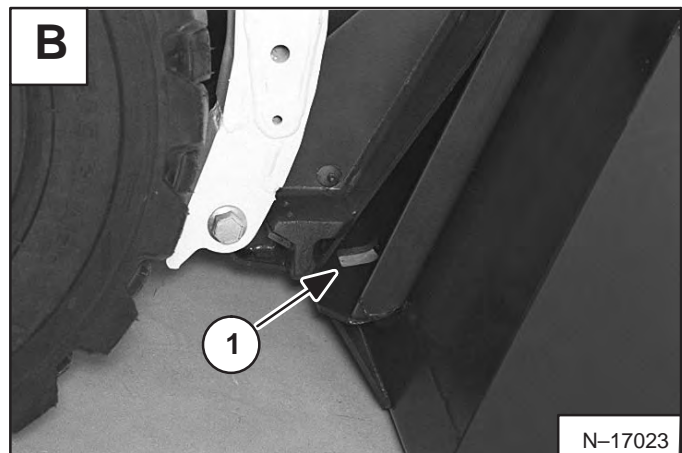
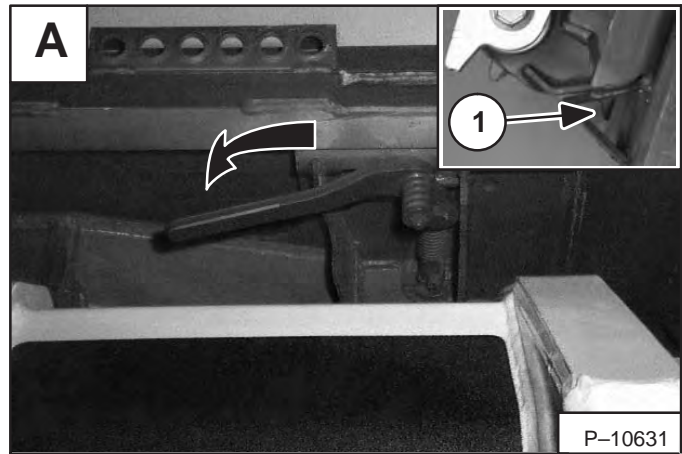
The spring loaded wedge (Item 1) [A] must contact the lower edge of the hole in the attachment (Item 1) [B] and [C].

If the wedge does not contact the lower edge of the hole [B] and [C], the attachment will be loose and can come off the Bob-Tach.

Inspect the mounting frame on the attachment and the Bob-Tach, linkages and wedges for excessive wear or damage [D]. Replace any parts that are damaged, bent, or missing. Keep all fasteners tight.

Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

Lubricate the wedges (See the correct loader Operation And Maintenance Manual for *LUBRICATION OF THE BOBCAT LOADER*).

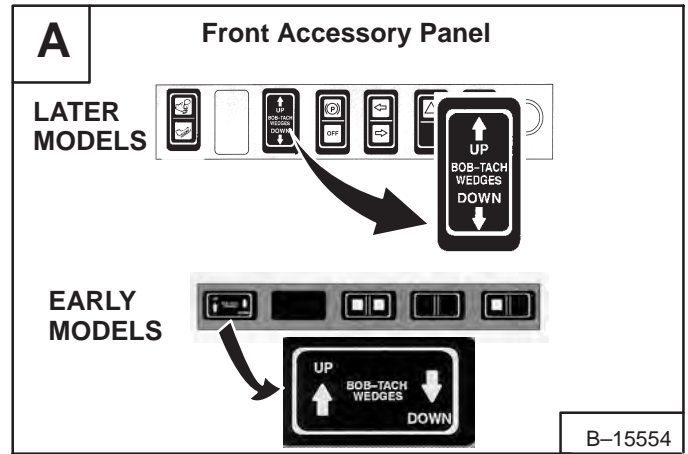




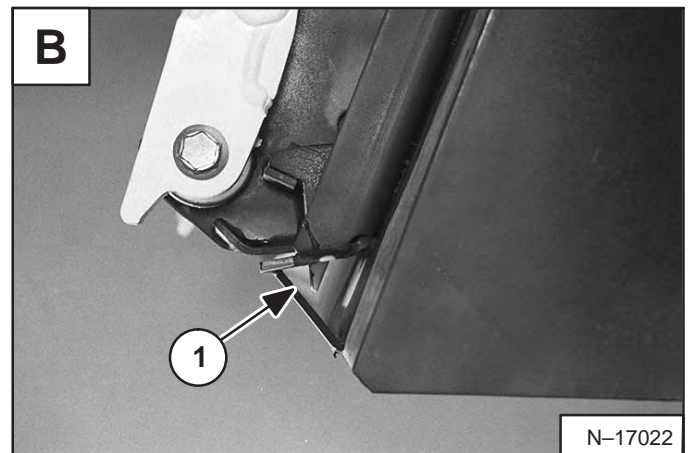
## INSPECTION (Cont'd)

### Power Bob-Tach Inspection

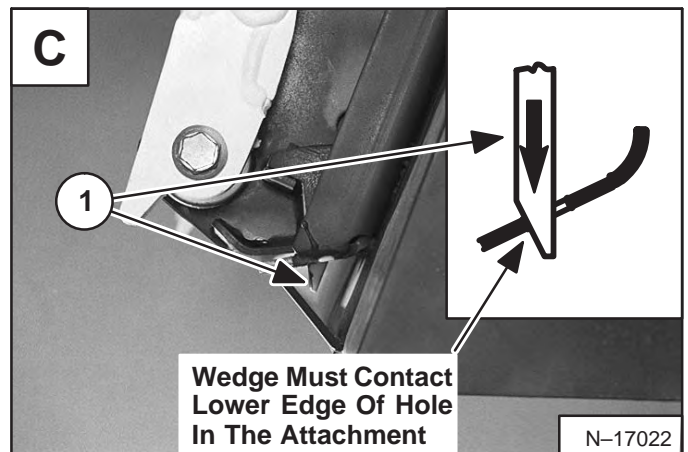
Push and hold the Bob-tach “wedges up” switch [A] until wedges are fully raised. Push and hold the Bob-tach “wedges down” switch [A] until the wedges are fully down. the wedges must move freely.



The wedges must extend through the holes in the attachment mounting frame (Item 1) [B] and must contact the lower edge of the hole in the attachment [B] and (Item 1) [C].

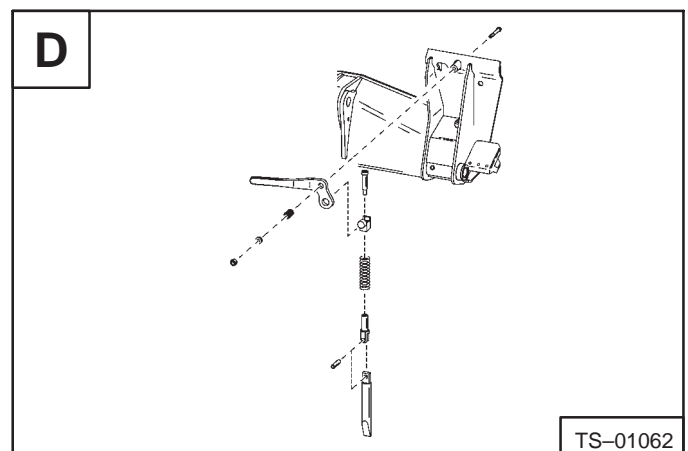


If the wedge does not contact the lower edge of the hole [C], the attachment will be loose and can come off the Bob-tach.



Inspect the mounting frame on the attachment and the Bob-tach, linkages and wedges for excessive wear or damage [D]. Replace any parts including decals and lever that are damaged, bent, or missing. Keep all fasteners tight. Inspect the hoses and fittings for leaks.

Look for cracked welds. Contact your bobcat dealer for repair or replacement parts.



## INSPECTION (Cont'd)

### Wheel Saw Mount Inspection

Inspect the Bob-Tach wedge mounts (Item 1) [A], mounting flange (Item 2) [A] and all welds on the Wheel Saw mount for wear and damage each time the Wheel Saw is removed from the loader.

### Tool Bit Inspection and Replacement

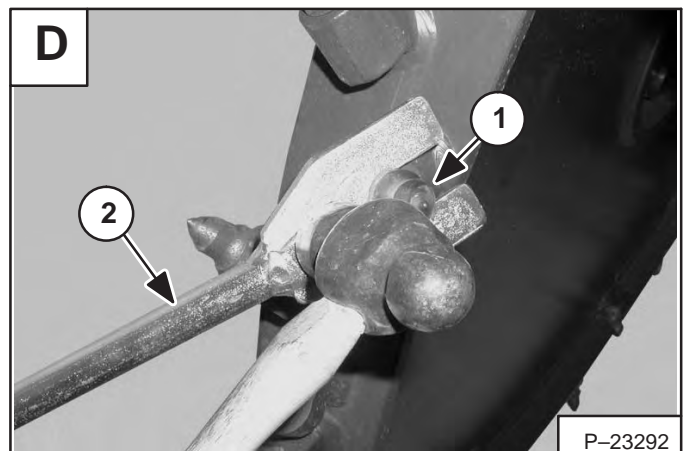
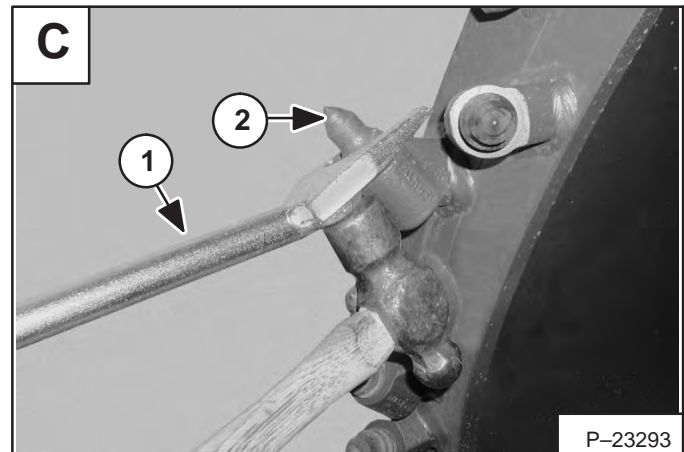
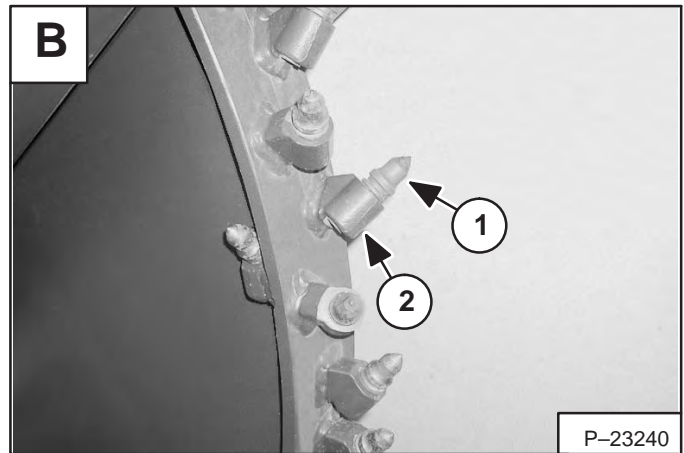
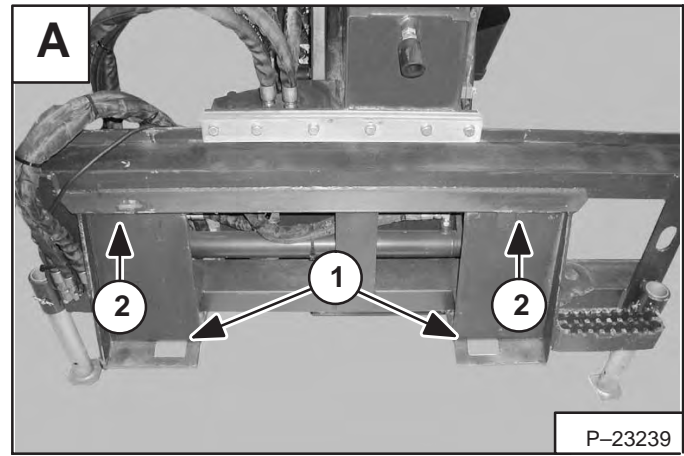
The tool bits will be hot if the wheel saw has just been used, allow the tool bits to cool before inspection.

Lower the wheel saw fully to the ground. Stop the loader and exit the loader. Disconnect the auxiliary hydraulic hoses before inspecting the tool bits.

**NOTE: During normal use, the bits located on the outer edge will wear out the quickest. Check the bits every three hours of operation.**

The carbide tool bits (Item 1) [B] must be free rotate in their holders (Item 2) [B].

If the tool bits (Item 1) [B] become seized in the holders (Item 2) [B] it will cause premature tool bit wear. Tap the edges of the holders to loosen dirt and foreign particles. If the bit will still not turn, remove the bit.



## WARNING

Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

W-2019-1285

Do not strike the cutter bit with a hammer. The hard bit can shatter and cause serious injury. Use the correct bit installation tool.

W-2114-1191

Use the MEL1302 Bit Removal and Installation Tool (Item 1) [C] (supplied with the wheel saw) and a hammer to remove the tool bits (Item 2) [C]. Place the tool under the tool bit flange and strike the tool with the hammer to remove the bits.

Clean the debris from inside the holder and from the outside surface of the bit before reinstalling the bit. Make sure the bit turns freely after it has been reinstalled.

To install the tool bits (Item 1) [D], place the tool (Item 2) [D] above the tool bit flange and strike the tool with the hammer.

**NOTE: Do not strike the tool bit with the hammer. The hard tool bit tip can shatter and cause injury. Always use the removal and installation tool to remove and install the tool bits.**

**NOTE: Do not lubricate the tool bits and/or the holders. Lubricant will cause dust and dirt to stick to the bit and holder and cause the tool bit to seize.**

**Dear**

**Thanks very much for your visiting and  
patience.**

**Want to get more information,**

**Please click here, Go back to the page.**

**After your payment, you will have instant access to  
your download.**

**The Download Link will also be sent to your e-mail.**

**You will get the complete manual**

**Have any questions**

**please write to me**

**[admin@servicemanualperfect.com](mailto:admin@servicemanualperfect.com)**