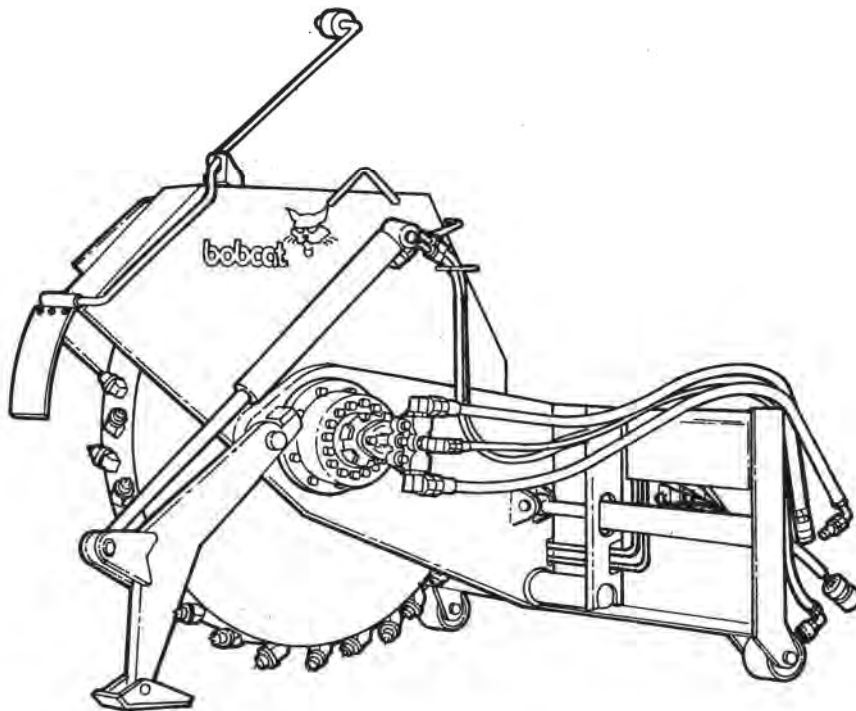




WHEEL SAW

WS 12 (S/N 561500101 & Above)
WS 18 (S/N 561600101 & Above)

Service Manual



MELROE
INGERSOLL-RAND

6900894 (9-99)
1 of 2



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MAINTENANCE SAFETY



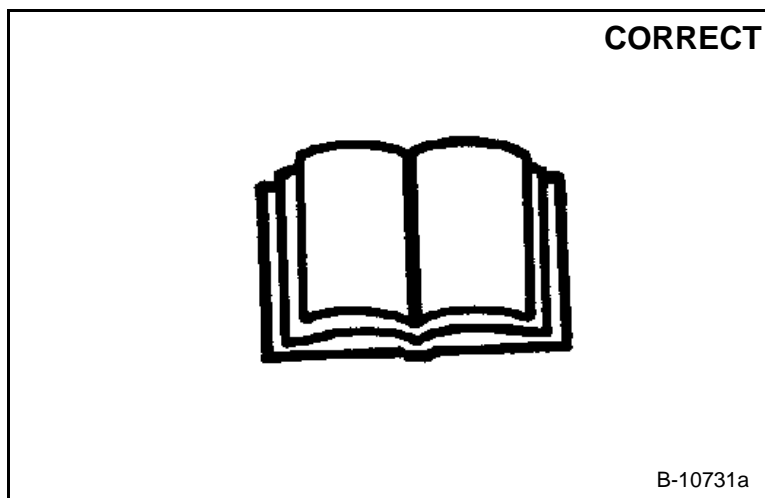
WARNING









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®

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**PREVENTIVE
MAINTENANCE**

**HYDRAULIC
SYSTEM**

MAIN FRAME

**SPECIFICATIONS
AND
SCHEMATICS**

**CALIFORNIA
PROPOSITION 65 WARNING**

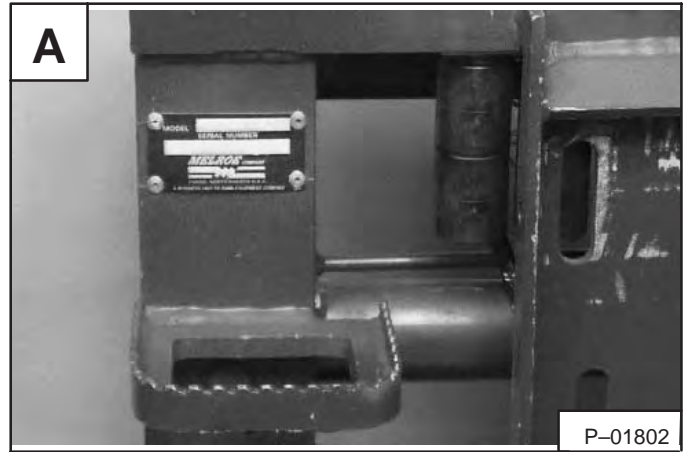
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.



SERIAL NUMBER LOCATION

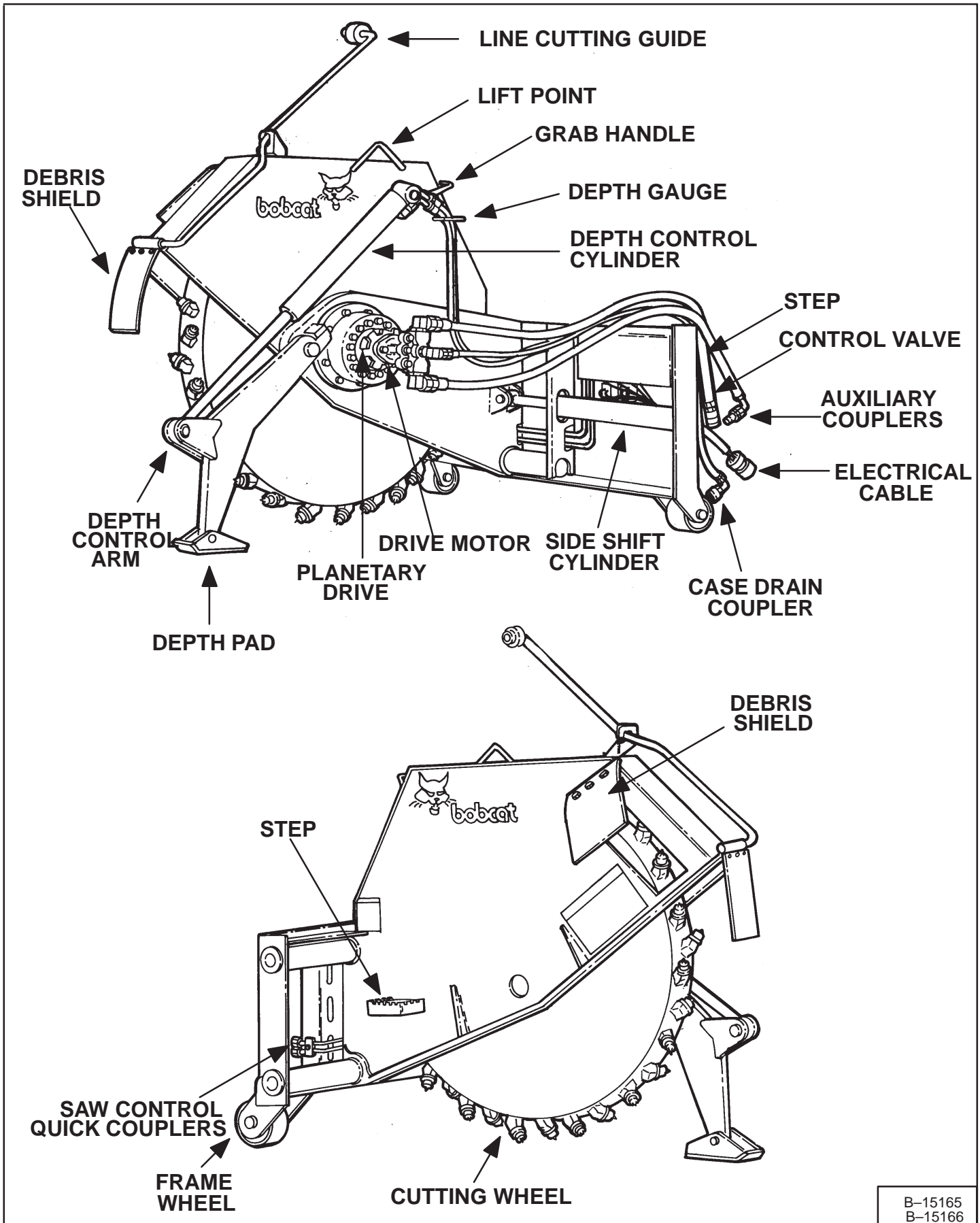
It is important to make the correct reference to the serial number (Item 1) **[A]** of the Wheel Saw when making repairs or ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation.

The Wheel Saw serial number plate is located on the back of the side shift frame in the left corner.



IDENTIFICATION

NOTE: WS 18 Shown



B-15165
B-15166

PREVENTIVE MAINTENANCE

PREVENTIVE MAINTENANCE

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TROUBLESHOOTING



WARNING

Instructions are necessary before operating or servicing machine. Read and understand the 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. Untrained operators and 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 machine 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. Connect a flow meter to the loader to check the hydraulic pump output, relief valve setting and tubelines to check flow and pressure. (See the loader Service Manual for the correct procedure to connect the flow meter.)

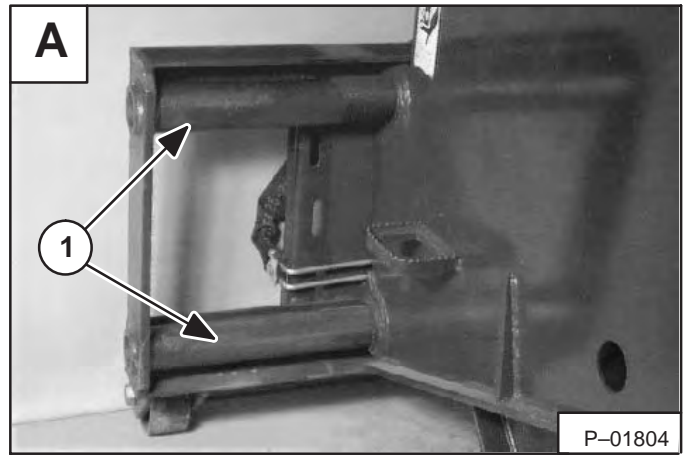
Use the following troubleshooting chart to locate and correct problems which most often occur with the Wheel Saw.

PROBLEM	CAUSE	CORRECTION
Wheel Saw loses power.	Wheel Saw control valve solenoid failure.	Remove/clean or replace solenoid cartridge or replace O-rings.
	Auxiliary system relief pressure too low.	Check and replace any relief valve. Check settings.
	Loader/auxiliary pump failure.	Replace auxiliary pump.
Auxiliary power fails to disengage.	Auxiliary mode switch failure. Wheel Saw control valve solenoid failure.	Check/replace switch and control valve solenoid.
Wheel continues to rotate with power disengaged.	Residual system pressure sufficient for drive motor creep.	Add supplemental load check to pressure line of drive motor in the direction of flow.
Wheel Saw drive motor leaks at shaft seal.	Excess motor case drain pressure.	Replace motor shaft seal and check coupler connection on loader.

LUBRICATION

The side shift bars (Item 1) [A] need to be cleaned periodically.

Keep the side shift bars greased on a daily basis.



CUTTING WHEEL

Replacing Carbide Bits

Use MEL1302 Bit Removal and Installation Tool to replace the worn or damaged carbide bits on the cutting wheel.

The tool for installing and removing the carbide tips is stored on the back on the Bob-Tach mounting frame [B].

Lower the lift arms fully and tilt the wheel forward until it rests on the ground.

Stop the engine and engage the parking brake.

NOTE: During normal use, bits located on the outer sides of the cutting wheel will wear out the quickest. Check the bits every 3 hours of operation.

The carbide bits must rotate freely in the holder.

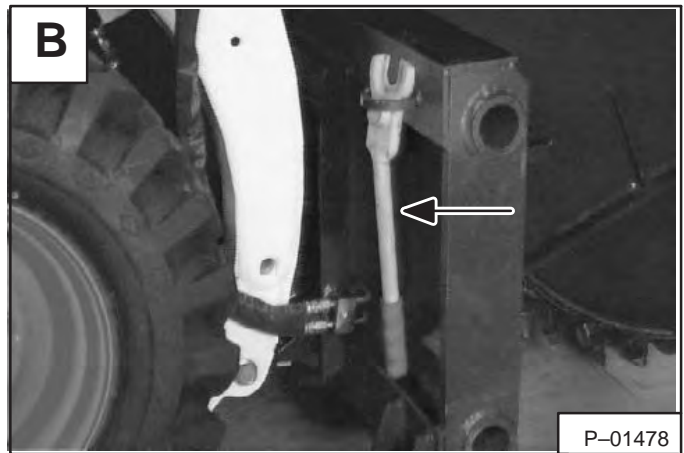
If the bit does not rotate freely in the holder, tap the holder to loosen dirt or foreign particles from the bit.

Install the removal/installation tool under the flange of the bit as shown for removal [C].

Use a hammer to free the bit from the holder [C].

Place the removal/installation tool above the flange on the bit as shown for installation [D].

Use a hammer to hit the tool to drive the bit into the holder [D].

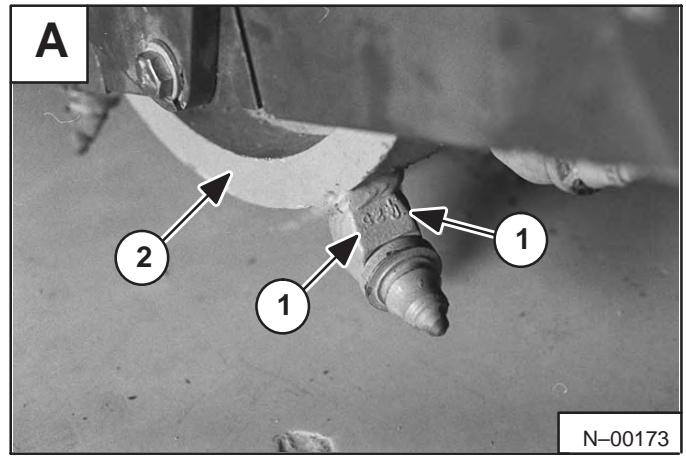


CUTTING WHEEL (Cont'd)

Hardening The Wheel And Carbide Holders

Hardening the surfaces of the carbide holders and the edge of the wheel will improve the surface life of the equipment. Harden the surfaces as follows:

Apply hard surface welding along the contact edges of the carbide tip holders (Item 1) **[A]** and along the edge of the wheel (Item 2) **[A]** to minimize wear.





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HYDRAULIC SYSTEM



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