

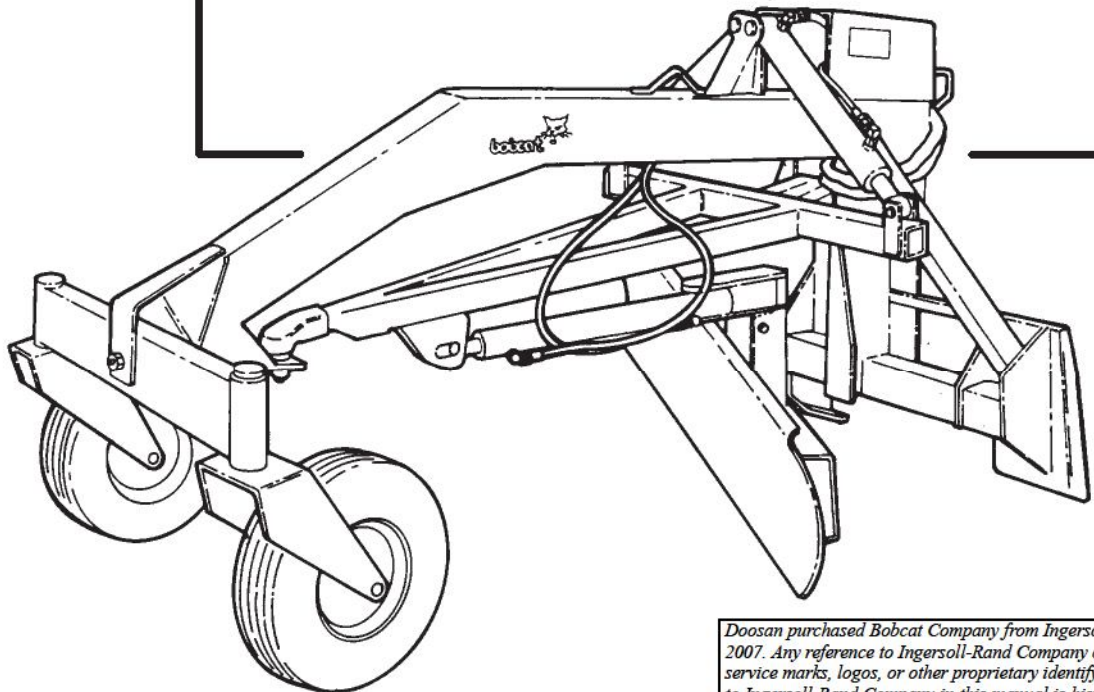


**Bobcat®**

**GRADER**

# Service Manual

**S/N 231511101 & Above  
S/N 378700101 & Above  
S/N 802700101 & Above**



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# MAINTENANCE SAFETY



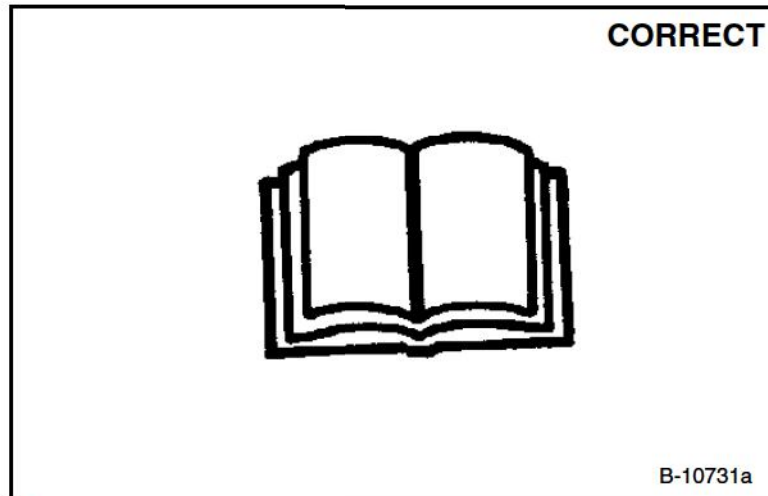
## WARNING









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.

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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.

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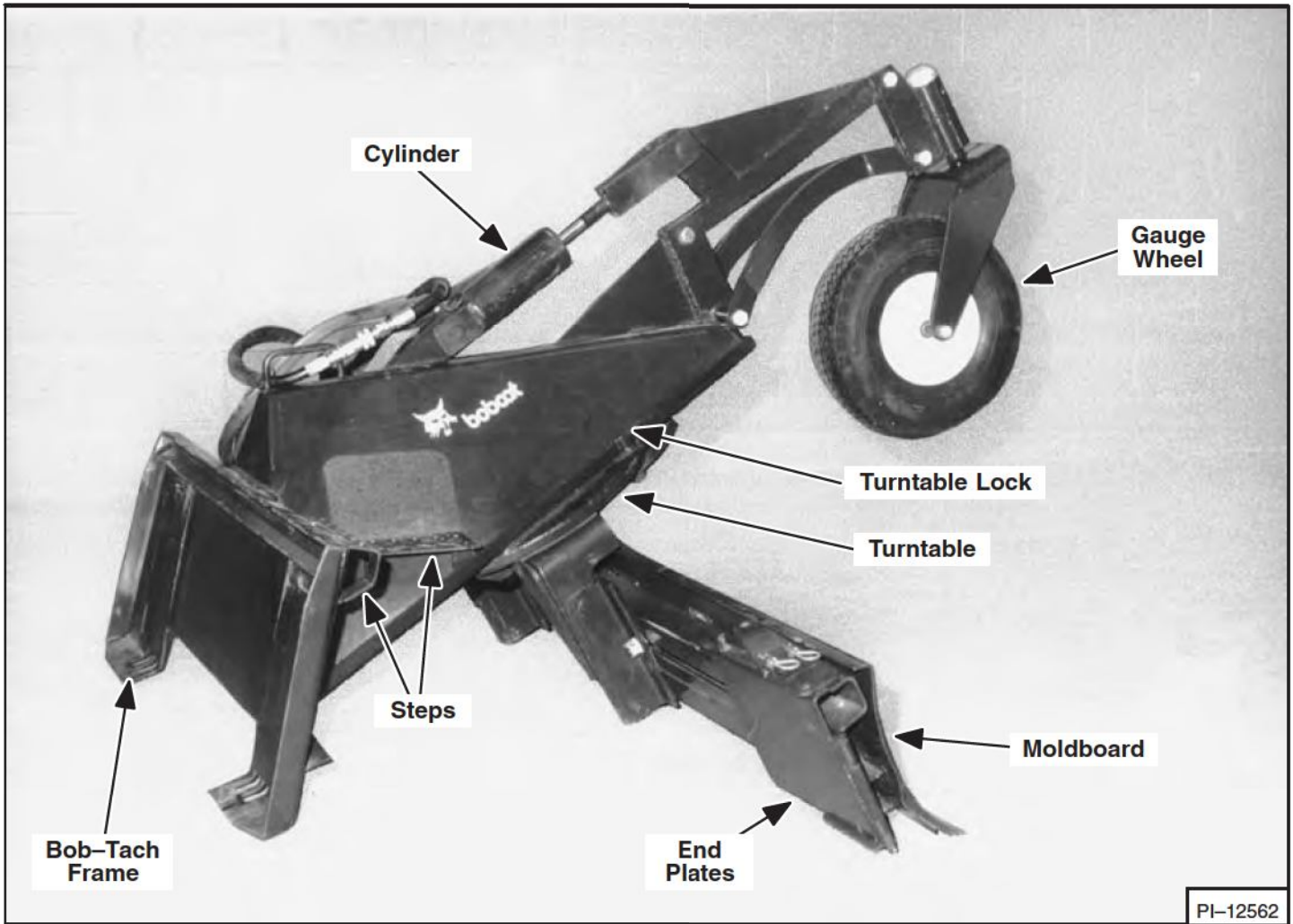
## SERIAL NUMBER LOCATION

It is important to refer to the serial number of the Grader when making repairs or ordering parts [A] & [B]. 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 specific service work.



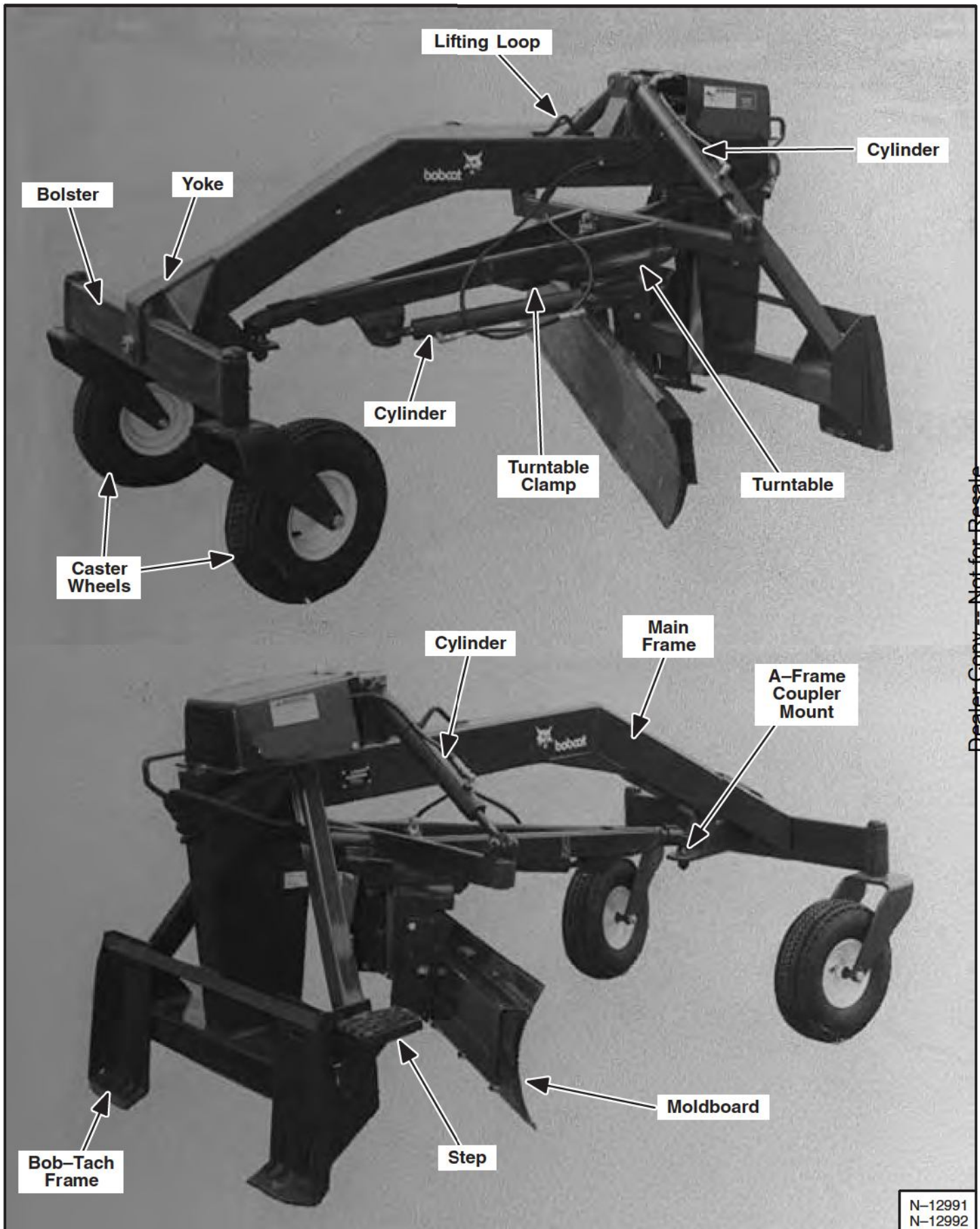
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IDENTIFICATION (S/N 378700101 & Above)



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IDENTIFICATION (S/N 802700101 & Above) And (S/N 231511101 & Above)



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# PREVENTIVE MAINTENANCE

## Page Number

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**PREVENTIVE  
MAINTENANCE**

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## LUBRICATION

Lubricate the grader with a high quality multi-purpose lithium base grease. Apply the lubricant until the extra grease shows.

Add lubricant to the following grease fittings **EVERY 8–10 HOURS:**



### S/N 378700101 & Above

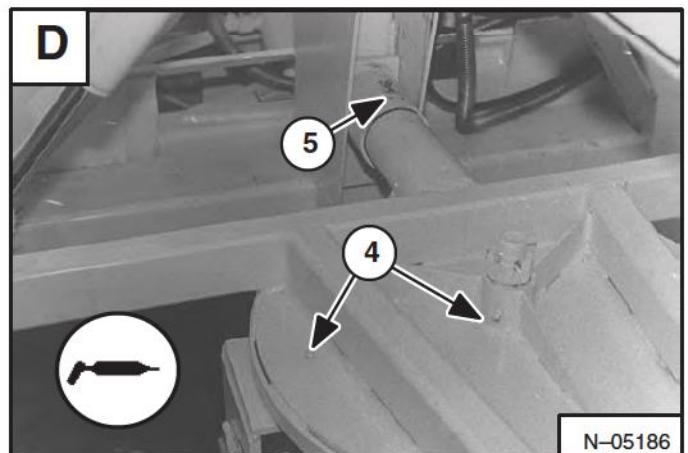
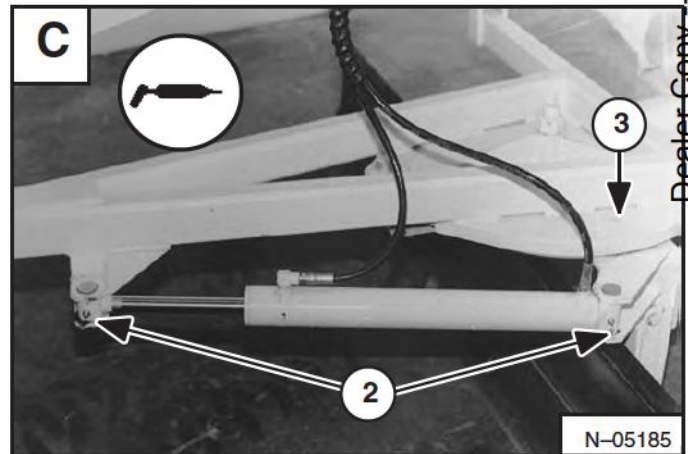
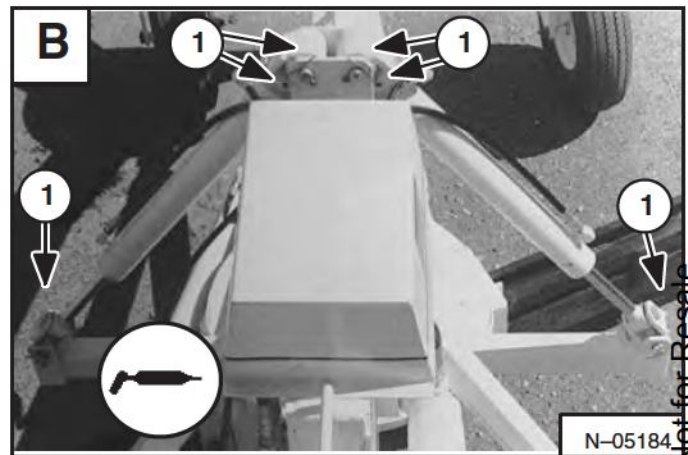
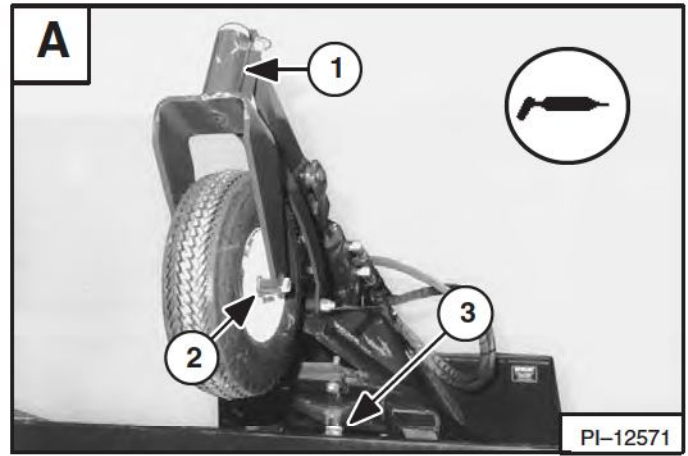
1. Caster Wheel Spindle Bearing [A].
2. Wheel Bearing [A].
3. Turntable Spindle [A].

### S/N 802700101–802700871

1. Hydraulic Cylinder Ends (older graders only) [B].

2. Hydraulic Cylinder Ends (older graders only) [C].
3. Turntable [C].

4. Turntable [D].
5. Sliding Pipe [D].

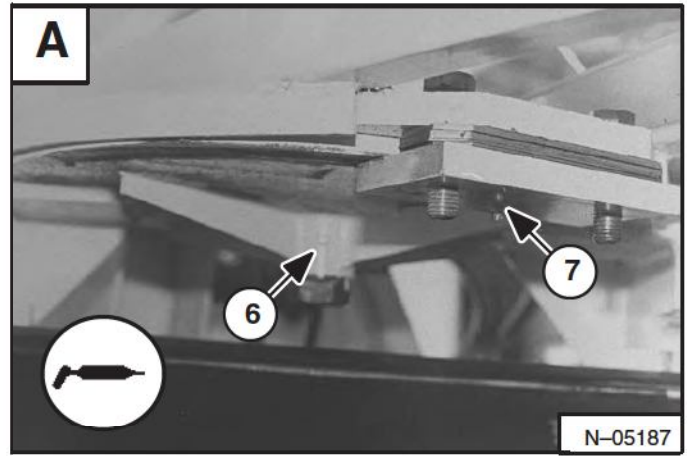


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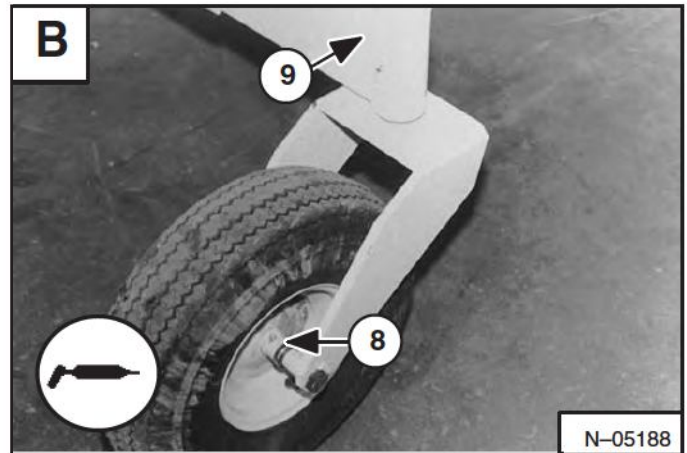
**LUBRICATION (Cont'd)**

**S/N 802700101–802700871 (Cont'd)**

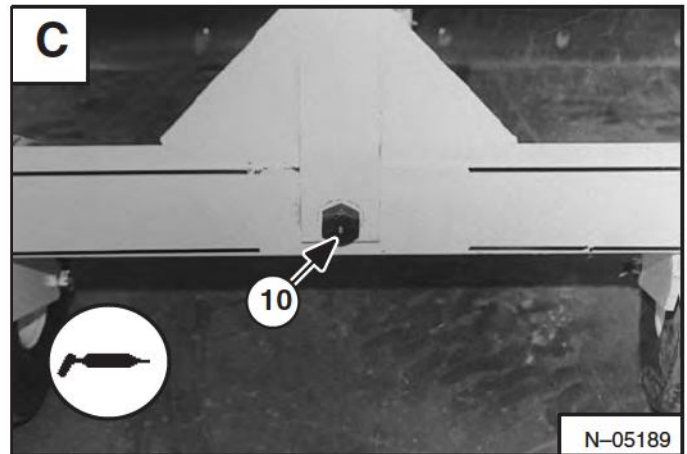
- 6. Turntable [A].
- 7. Turntable Clamp [A].



- 8. Wheel Bearings (both sides) [B].
- 9. Caster Wheel Spindle Bearings (both sides) [B].



- 10. Bolster Bolt [C].

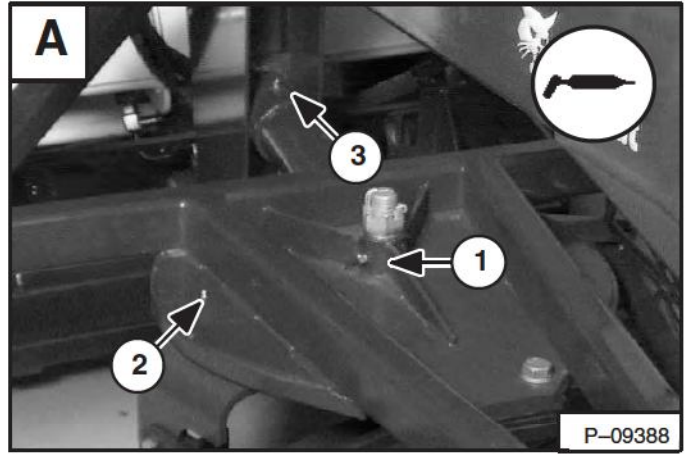


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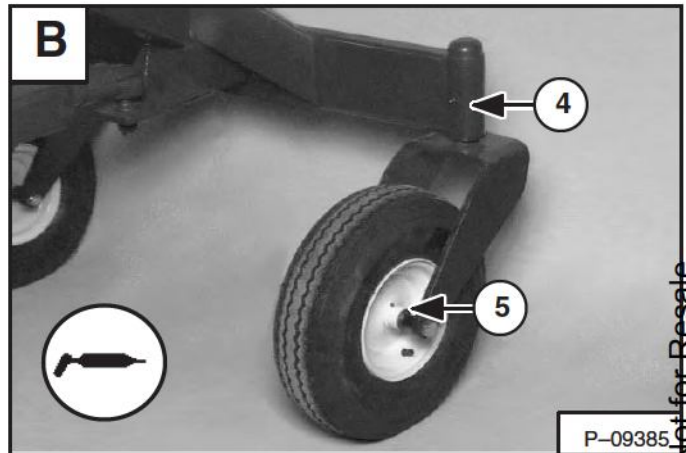
## LUBRICATION (Cont'd)

S/N 802700872 & Above And S/N 231511101 & Above

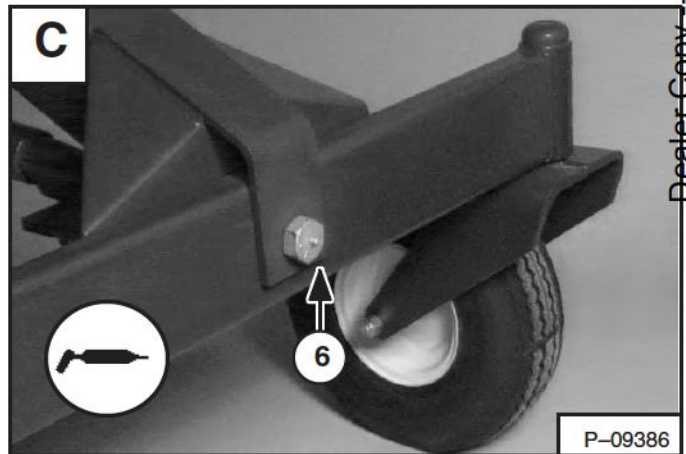
1. Turntable Pivot [A].
2. Turntable Plate (two fittings)[A] (early models only).
3. Vertical Slide [A].



4. Caster Wheel Spindle Bearings (both sides) [B] (early models only).
5. Wheel Bearings (both sides) [B].



6. Bolster Bolt [C].

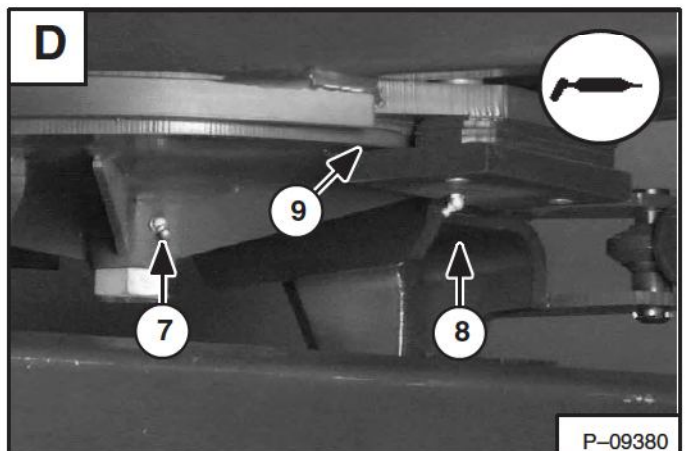


7. Turntable Pivot [D].
8. Turntable Clamp [D].

Check the clearance (Item 9[D]) between the bottom of the turntable and turntable clamp.

If the clearance is over 0.0312 inch (0,8 mm), remove the two bolts and clamp.

Remove or add the shim(s) as needed. Replace the clamp and tighten the bolts.



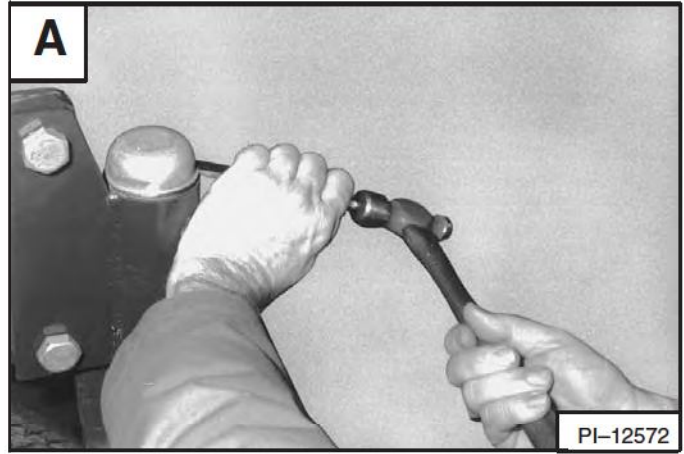
## INSPECTION AND ADJUSTMENT

### S/N 378700101 & Above

The following items must be checked and performed after the **FIRST 8–10 HOURS** of operation and **EVERY 50 HOURS** after that.

Lower the moldboard to the ground so the caster wheel is off the ground. Stop the engine.

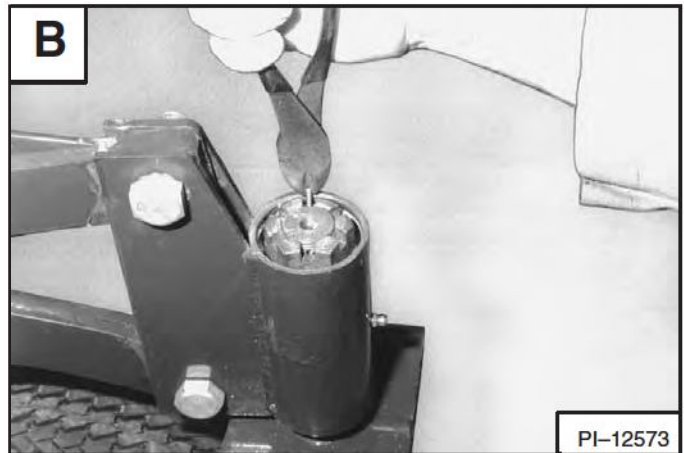
Check the caster wheel spindle for excess play. To reduce the end play, remove the dust cap [A].



Remove the cotter pin [B].

Tighten the castle nut to remove the end play.

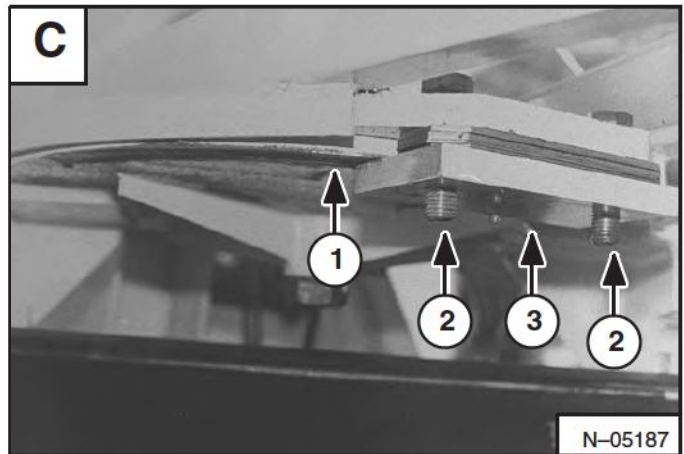
Replace the cotter pin and dust cap.



Check the clearance (Item 1) [C] between the bottom of the turntable and the turntable clamp.

If the clearance is over 0.0312 inch (0,8 mm), remove the two bolts (Item 2) [C] and clamp (Item 3) [C].

Remove or add shim(s) as needed. Replace the clamp and tighten the bolts.



### S/N 802700101–802700871

The following items must be checked and performed after the **FIRST 8–10 HOURS** of operation and **EVERY 50 HOURS** after that.

Raise the front of the grader. Put a jackstand under the A-frame coupler mounting. Stop the engine.

Check the caster wheel spindles for excess end play. To reduce the end play, remove the dust cap [D].



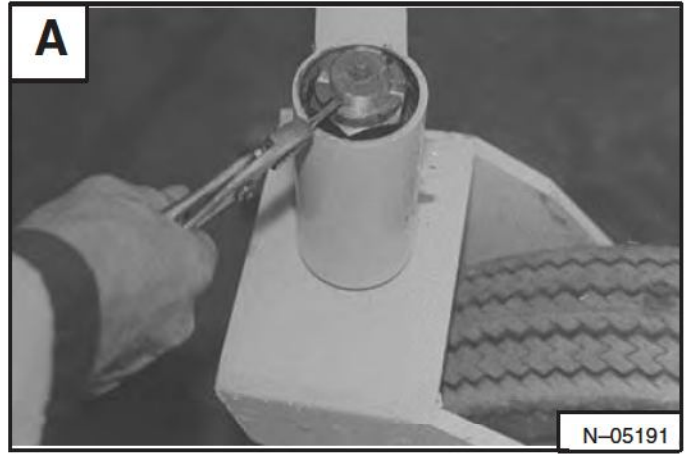
**INSPECTION AND ADJUSTMENT (Cont'd)**

**S/N 802700101–802700871 (Cont'd)**

Remove the cotter pin [A].

Tighten the castle nut to remove the end play.

Replace the cotter pin and dust cap.



Check the bolster-to-yoke clearance. If the bolster is loose in the yoke, remove the cotter pin.

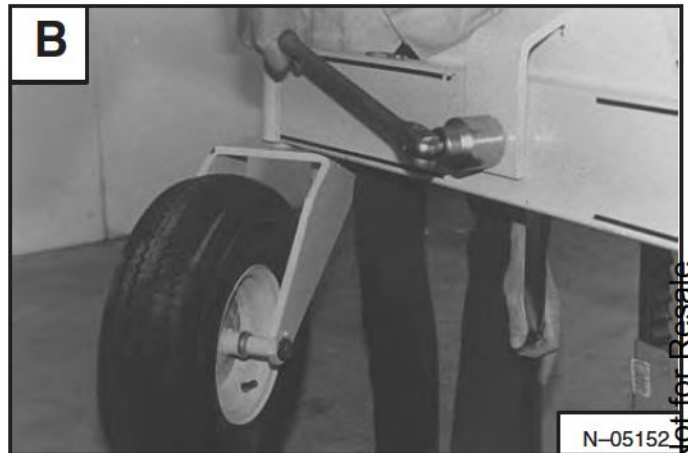
Tighten the castle nut [B].

Replace the cotter pin.

Check the tension at the turntable center bolt.

Disconnect the base end of the pivot cylinder.

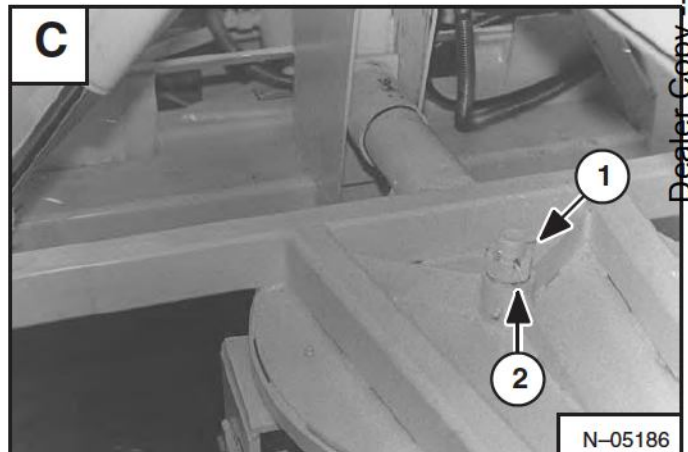
Pivot the turntable by pushing on one end of the moldboard. The turntable should pivot with some difficulty when pushed by hand.



To adjust, remove the cotter pin (Item 1) [C].

Tighten the castle nut (Item 2) [C].

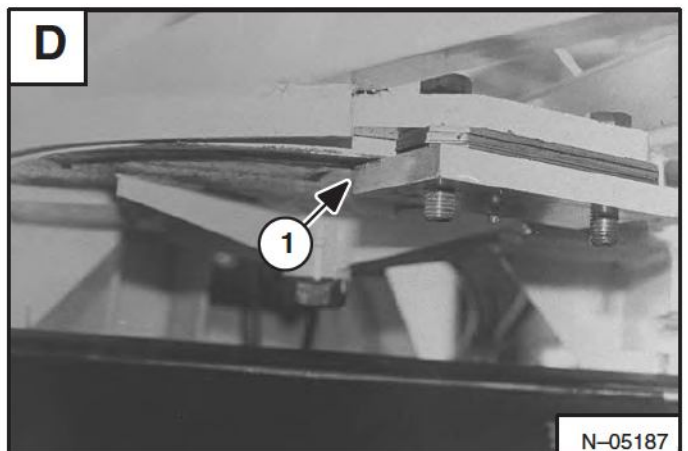
Replace the cotter pin. Connect the base end of the pivot cylinder.



Check the clearance (Item 1) [D] between the bottom of the turntable and turntable clamp.

If the clearance is over 0.032 inch (0,8 mm), remove the two bolts and clamp.

Remove or add shim(s) as needed. Replace the clamp and tighten the bolts.





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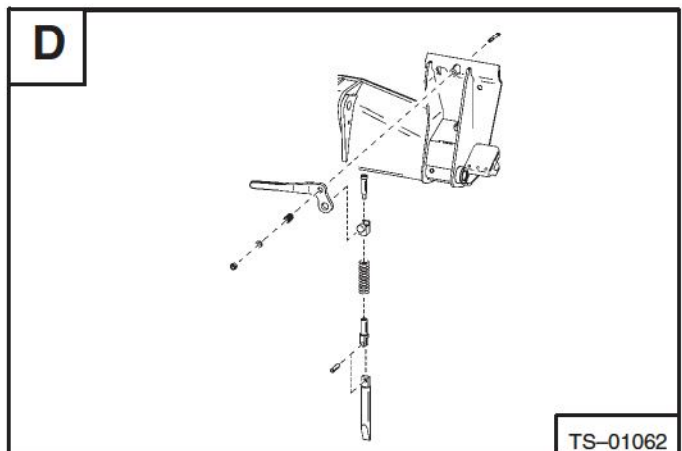
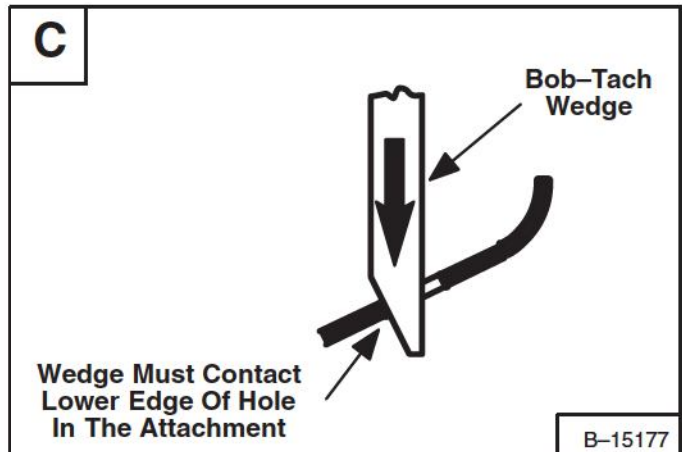
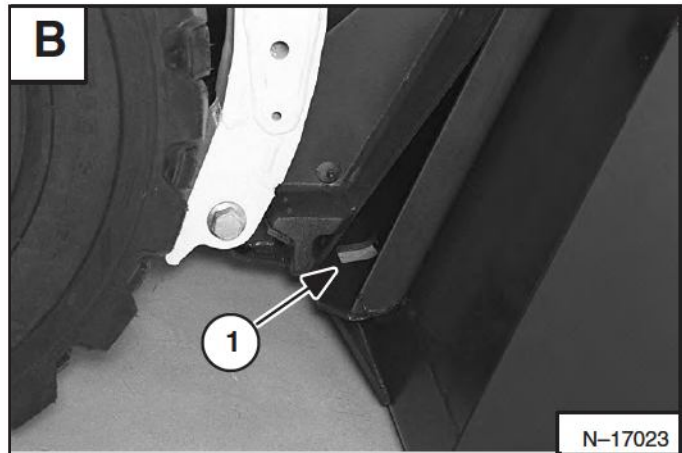
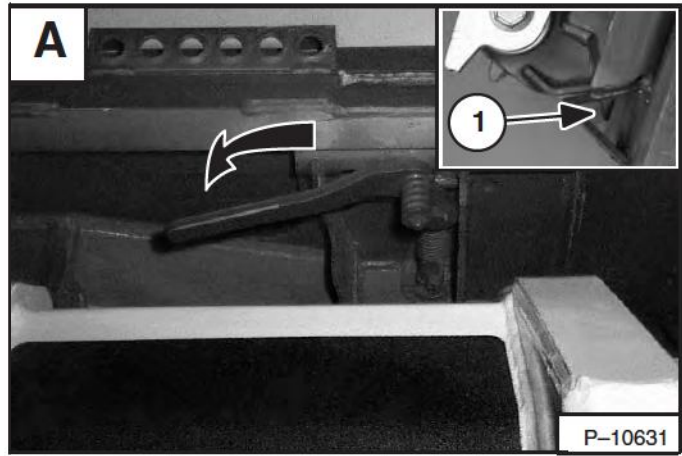
**Thank you so much for reading**

## INSPECTION AND ADJUSTMENT (Cont'd)

### 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 & Maintenance Manual for *LUBRICATION OF THE BOBCAT LOADER*.)

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