

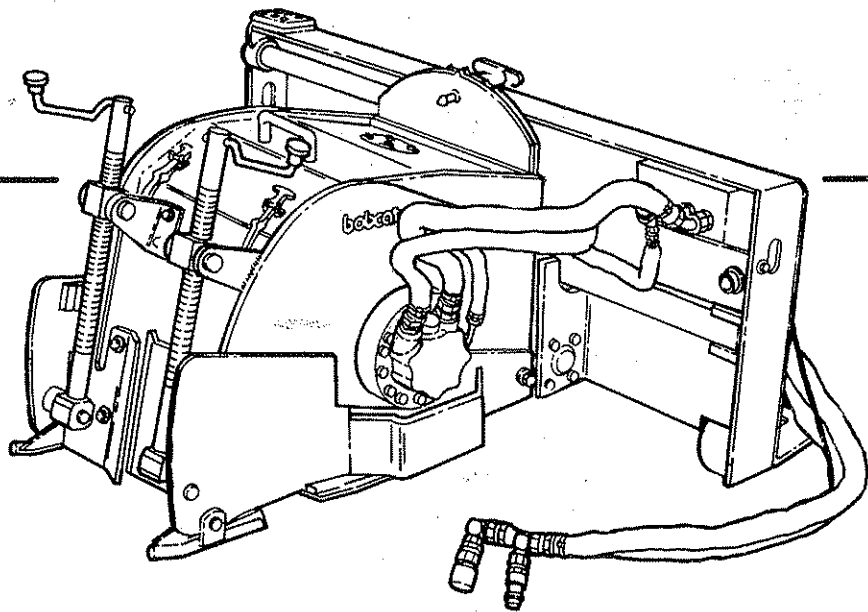


Bobcat®

**STANDARD
FLOW
PLANER**

Operation & Maintenance Manual

S/N 231200101 & Above



An **IR** Ingersoll-Rand business

Printed in U.S.A.

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CONTENTS

FOREWORD	iii
SAFETY	vii
OPERATING INSTRUCTIONS	1
PLANER MAINTENANCE	31
SPECIFICATIONS	41

FOREWORD

SAFETY

**OPERATING
INSTRUCTIONS**

**PLANER
MAINTENANCE**

SPECIFICATIONS

REFERENCE INFORMATION

Write the correct information for YOUR Planer in the spaces below. Always use these numbers when referring to your Planer.

Planer Serial Number

NOTES: _____

YOUR LOADER PLANER DEALER: _____

ADDRESS: _____

PHONE: _____

Bobcat Company
P.O. Box 128
Gwinner, ND 58040-0128

Bobcat Company Europe
J. Huysmanslaan 59
B-1651 LOT
Belgium



Bobcat Company is ISO 9001 certified

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

ISO 9001 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.

FOREWORD

FOREWORD

This Operator's Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Planer. **READ AND UNDERSTAND THIS OPERATOR'S MANUAL BEFORE OPERATING YOUR PLANER.** If you have any questions, see your Bobcat loader dealer.

SERIAL NUMBER LOCATION v

ATTACHMENT DELIVERY REPORT v

PARTS IDENTIFICATION AND MACHINE SIGNS (DECALS) vi

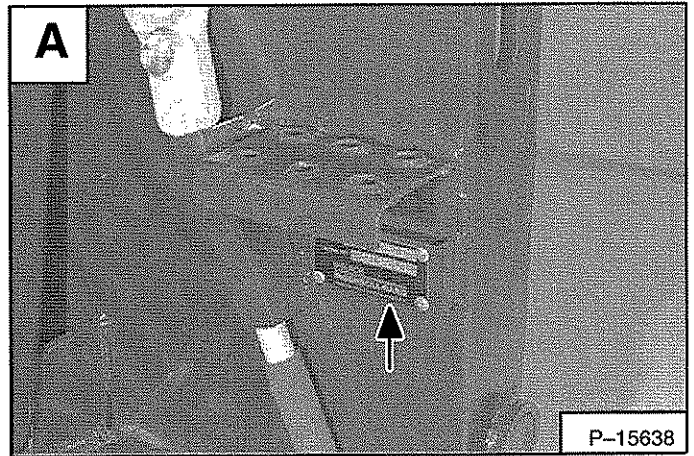
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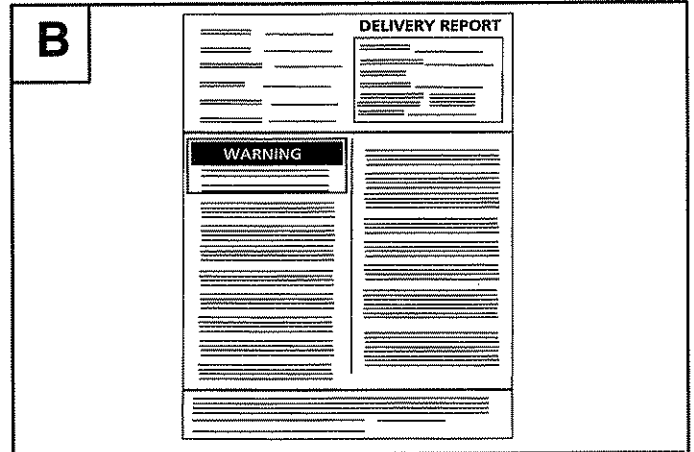
SERIAL NUMBER LOCATION

Always use the serial number of the Planer 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].



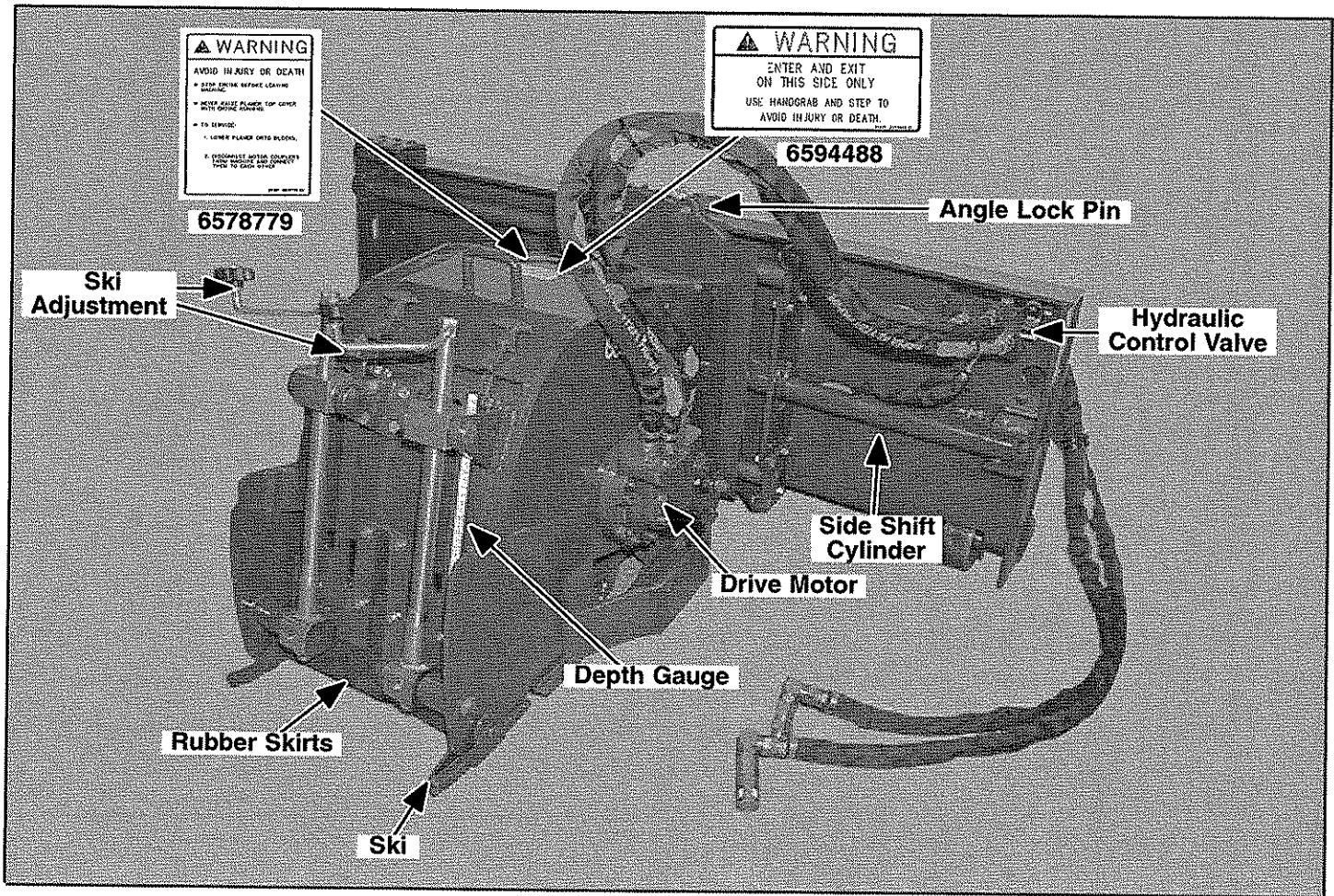
ATTACHMENT DELIVERY REPORT

The Delivery Report must be filled out by the dealer and signed by the owner or operator when the Planer is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely [B].



A black and white image of a form. The form is divided into several sections. At the top right, there is a section titled 'DELIVERY REPORT' with several lines of text and a signature line. Below this, there is a section titled 'WARNING' with a bold header and several lines of text. The rest of the form consists of multiple lines of text, likely for additional notes or information. In the top left corner of the image, there is a white box with the letter 'B'.

PARTS IDENTIFICATION AND MACHINE SIGNS (DECALS)






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SAFETY INSTRUCTIONS

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.	

Carefully follow the operating and maintenance instructions in this manual.


The Bobcat product 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 *

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 can operate the machine and attachment safely under all conditions of the work area. Always fasten seat belt before operating the loader.
 - Loader Operator Training Courses are available from your Bobcat dealer in English and Spanish. They provide information for safe and efficient equipment operation. Loader 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 Operating 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 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 *SAFETY INSTRUCTIONS* Section of this manual.
 - Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, hearing protection or special applications kit are required for some work. See your dealer about Bobcat Safety equipment.
- * For an operator be qualified, he must not use drugs or alcoholic drinks which impair his alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he can safely operate a machine.

 WARNING
Operator must have instructions before operating the machine. Untrained operators can cause injury or death.
W-2001-0502

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

SIA30-0502



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OPERATING INSTRUCTIONS

ENTERING AND EXITING THE LOADER	12
G SERIES LOADERS WITH DELUXE INSTRUMENT PANEL	
Attachment Information	25
Service Codes	27
LOADER OPTIONS	3
OPERATING THE PLANER	
Adjusting The Planer Cutting Angle	20
Cutting Asphalt	22
Cutting Concrete	22
Planing Next To Structures Or Obstructions	23
Planing A General Area	22
Planer Cutting Procedure	21
OPERATING THE PLANER (If Equipped With Manual Ski Adjust)	
Auxiliary Hydraulic Controls	13
Drum Rotation	13
Planer Cutting Procedure	16
Side Shifting The Planer	14
Ski Height Adjustment	15
OPERATING THE PLANER (If Equipped With Hydraulic Ski Adjust)	
Auxiliary Hydraulic Controls	17
Drum Rotation	18
Planer Cutting Procedure	19
Side Shift Operation	18
Ski Adjustment	18
OPTIONAL EQUIPMENT	
Planer Guide Rod	29
Planer Spray Nozzle Kit	29
Quick-Tach Water Kit	29
Hydraulic Ski Adjust Kit	29
PARKING THE BOBCAT LOADER	24
STANDARD FLOW PLANER INSTALLATION AND REMOVAL	
Attachment Control Electrical Harness	9
Flush Face Couplers	8
Installing The Hose Guide	3
Installing The Planer	4
Relieving Hydraulic Pressure	10
Removing The Planer	11
TRANSPORTING THE STANDARD FLOW PLANER	
Fastening The Planer To The Transport Vehicle	28
Lifting The Planer	28

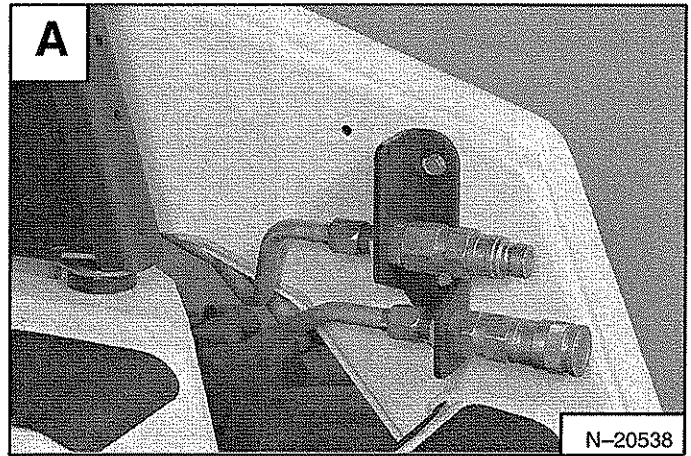
**OPERATING
INSTRUCTIONS**



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LOADER OPTIONS

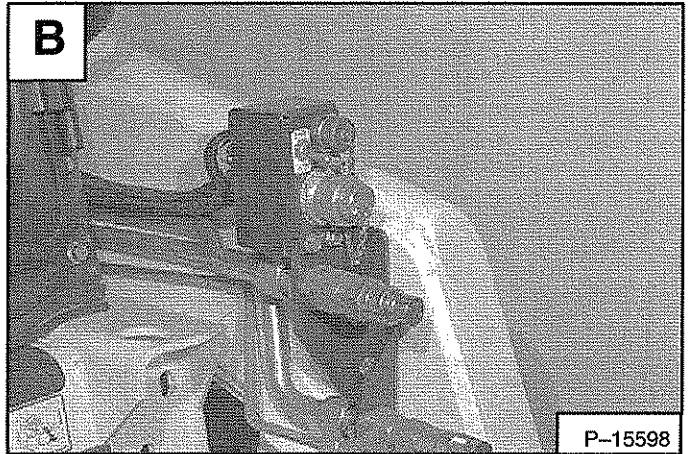
The loader must be equipped with front auxiliary hydraulics [A].



If the planer is equipped with the hydraulic ski adjust kit, the loader must be equipped with front auxiliary hydraulics and the attachment control harness [B].

The warranty is void if this attachment is used on a non-approved carrier. See your Bobcat dealer for an updated list of approved carriers.

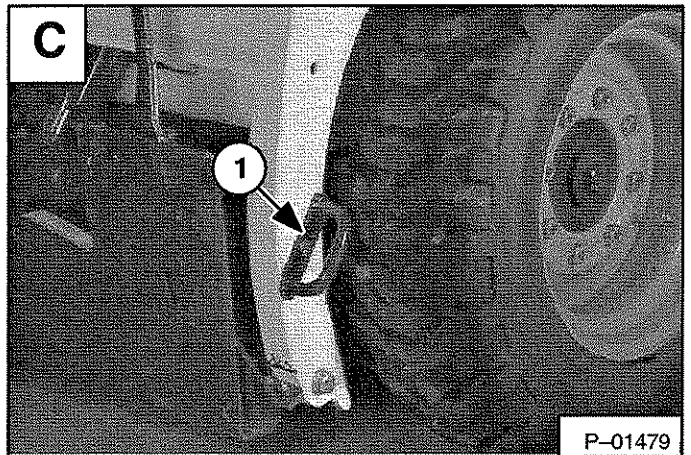
The following loaders are approved for use with the standard flow planer; 753, 763, 773, 863, 864 and 873.



STANDARD FLOW PLANER INSTALLATION AND REMOVAL

Installing The Hose Guide (All Loaders Except 873)

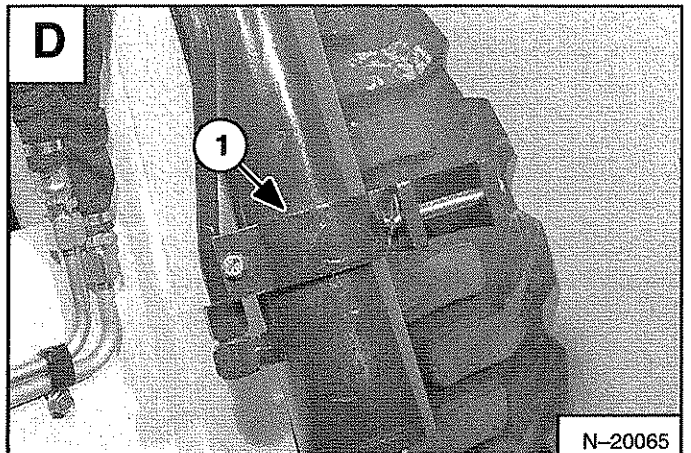
Install the hose guide (Item 1) [C] on the left lift arm with the correct length bolt, washer and nut for your model loader. Bolt lengths are 3, 3-1/2 and 4 inches.



Installing The Hose Guide (873 Loaders)

Install the hose guide (Item 1) [D] on the left tilt cylinder.

NOTE: Hose guides are not supplied with the surface planer. See your Bobcat dealer for hose guides.



STANDARD FLOW PLANER INSTALLATION AND REMOVAL (Cont'd)

Installing The Planer

Always inspect the Bob-Tach and Planer mount before installation. (See *BOB-TACH Inspection* Page 34 and *Planer Mount Inspection* Page 36.)

For loaders equipped with the Hand Lever Bob-Tach:

Pull the Bob-Tach levers (Item 1) [A] all the way up.

Enter the loader.

Fasten the seat belt, lower the seat bar and start the engine.

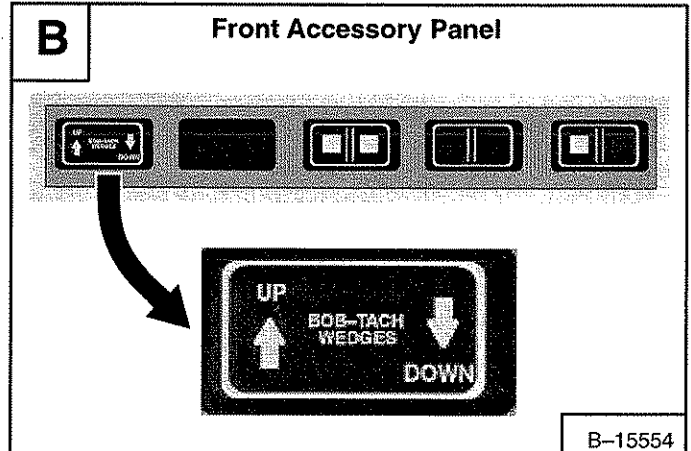
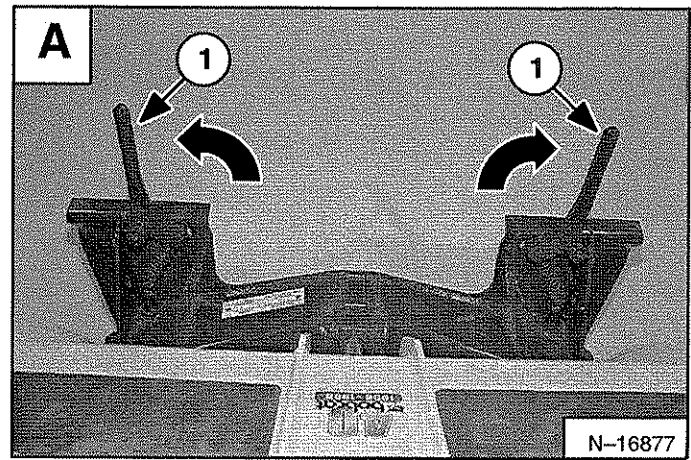
Release the parking brake.

For loaders equipped with the Power Bob-Tach:

Enter the loader.

Fasten the seat belt, lower the seat bar and start the engine. Release the parking brake.

Push and hold the BOB-TACH WEDGES UP switch [B] (front accessory panel) until the wedges are fully raised [A].



! WARNING

Bob-Tach levers have spring tension. Hold lever tightly and release slowly. Failure to obey warning can cause injury.

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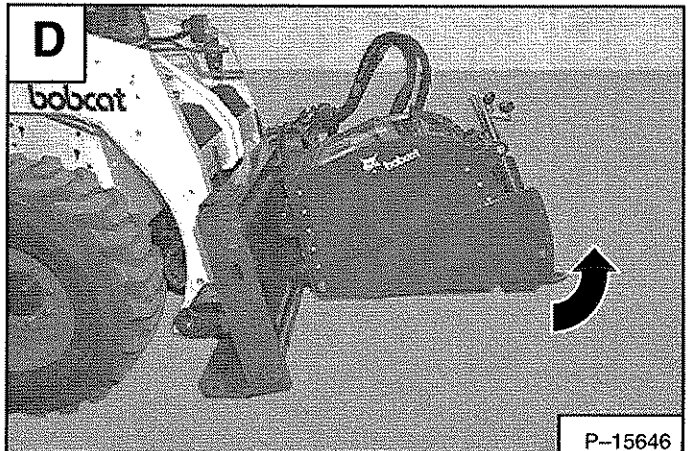
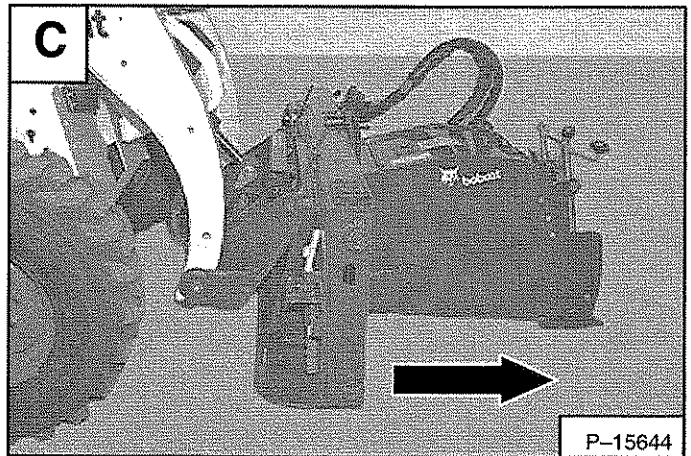
For all loaders:

Tilt the Bob-Tach forward.

Drive the loader forward until the top edge of the Bob-Tach is completely under the top flange of the planer [C].

Be sure the Bob-Tach levers do not hit the planer.

Tilt the Bob-Tach backward until the planer is slightly off the ground [D].



STANDARD FLOW PLANER INSTALLATION AND REMOVAL (Cont'd)

Installing The Planer (Cont'd)

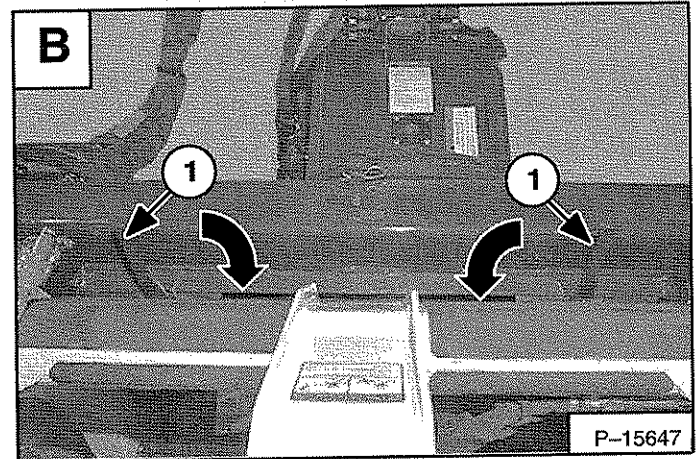
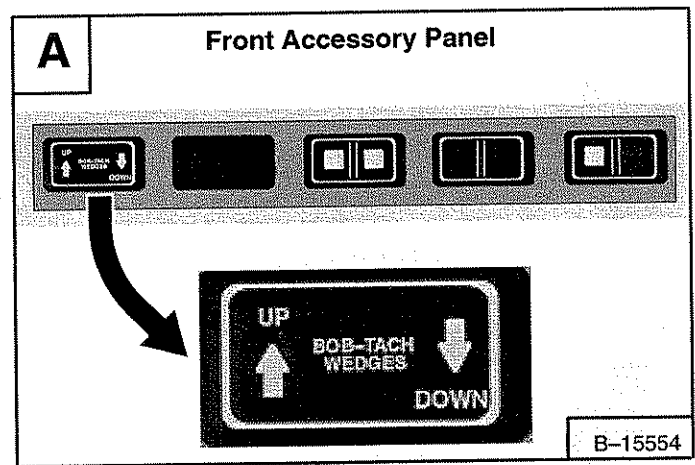
For loaders equipped with the Power Bob-Tach:

Push and hold the BOB-TACH WEDGES DOWN switch [A] (Front Accessory Panel) until the wedges are fully extended through the mounting frame holes (See photos [A] & [B] on Page 6). Stop the engine and exit the loader.

For loaders equipped with the Hand Lever Bob-Tach:

Stop the engine and exit the loader.

Push down on the Bob-Tach levers (Item 1) [B] until they are fully engaged in the locked position.



WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock. The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- *(Advanced Hand Controls)* Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated. The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

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STANDARD FLOW PLANER INSTALLATION AND REMOVAL (Cont'd)

Installing The Planer (Cont'd)

The levers will contact the frame as shown (Item 1) [A] when locked.

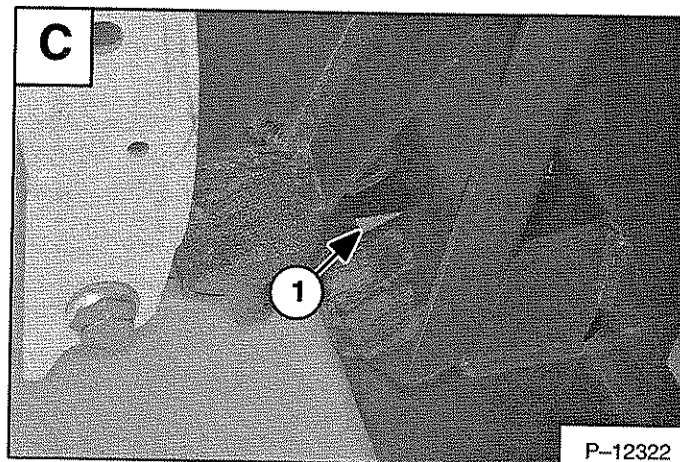
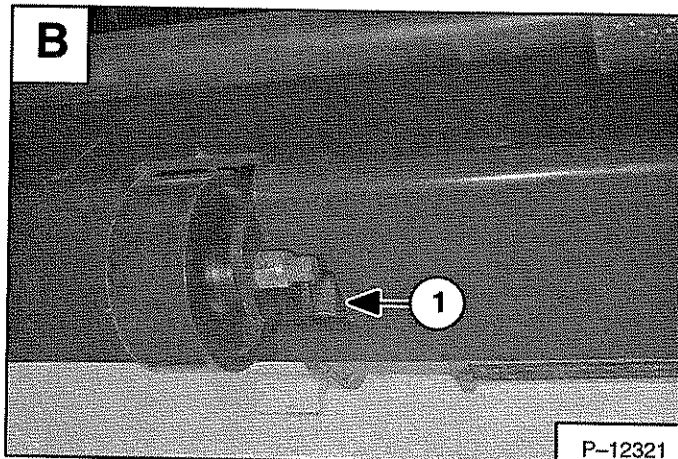
If the levers do not engage in the locked position, see your Bobcat loader dealer for maintenance.

The wedges (Item 1) [B] must extend through the holes (Item 1) [C] in the mounting frame of the Standard Flow Planer, securely fastening the Standard Flow Planer to the Bob-Tach. The wedge is shown extending through the hole in the Standard Flow Planer [B].

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

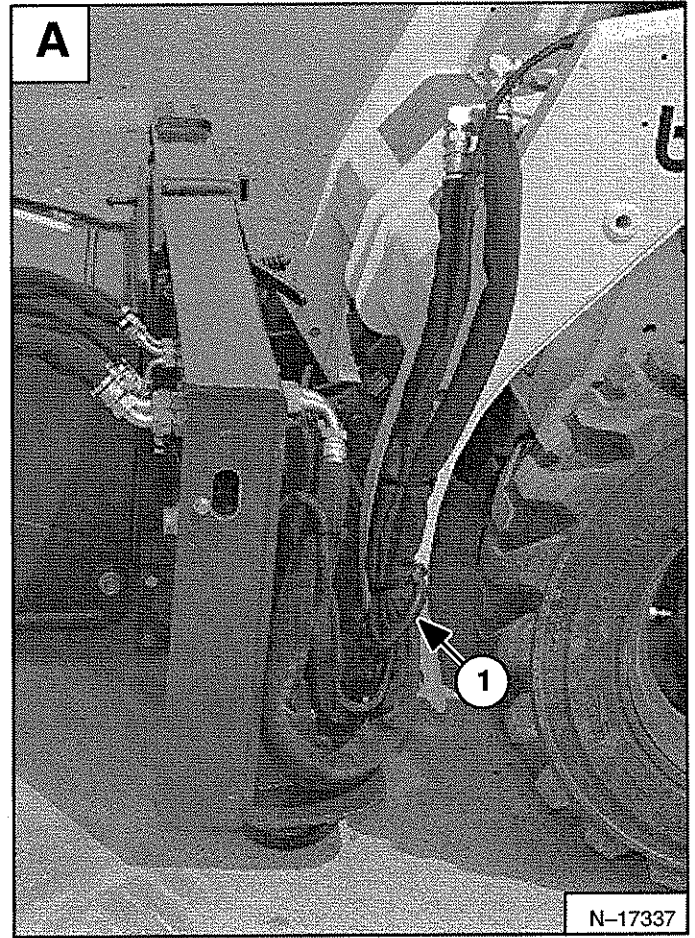


STANDARD FLOW PLANER INSTALLATION AND REMOVAL (Cont'd)

Installing The Planer (Cont'd)

On Model 753, 763, 773, 863 and 864 loaders, route the Planer hydraulic hoses through the hose guide (Item 1) [A].

For Model 873 loaders, route the hoses through the hose guide shown on Page 3 [C].

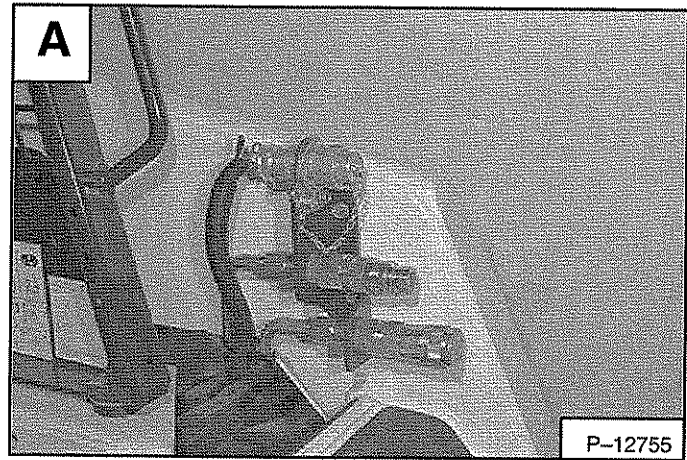


STANDARD FLOW PLANER INSTALLATION AND REMOVAL (Cont'd)

Flush Face Couplers

New attachments and new loaders are factory equipped with flush face couplers. If installing the Planer on a loader equipped with poppet style couplers, the couplers on either the loader or Planer will have to be changed to match the other. See your Bobcat loader and attachment dealer for parts information.

NOTE: Make sure the quick couplers are fully engaged. If the quick couplers do not fully engage, check to see that the couplers are the same size and type. See Page 10 to relieve hydraulic pressure.



IMPORTANT

Thoroughly clean the quick couplers before making connections. Dirt can quickly damage the system.

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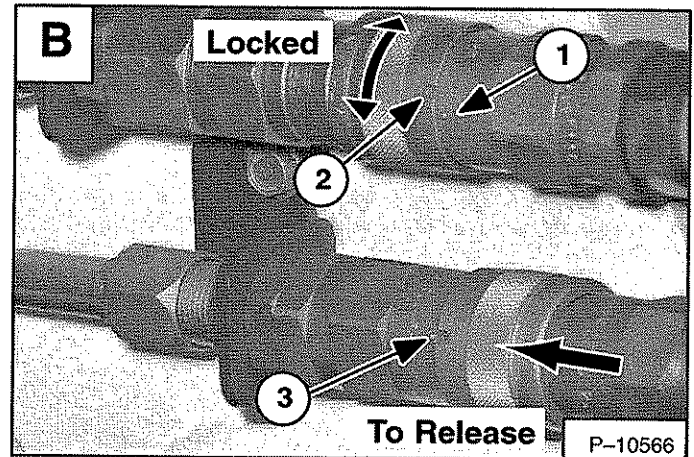
To Connect: Relieve hydraulic pressure. (See Page 10.) Remove any dirt or debris from the surface of both the male and female couplers, and from the outside diameter of the male coupler. Visually check the couplers for corroding, cracking, damage, or excessive wear, if any of these conditions exist, the coupler(s) must be replaced [A].

Install the male coupler into the female coupler. Full connection is made when the ball release sleeve slides forward on the female coupler and the sleeve is rotated so that the locking pins (Item 1) [B] and the groove (Item 2) [B] do NOT align (Locked Position). This will prevent accidental disconnection.

NOTE: If the locking pins and grooves (Item 3) [B] are aligned, accidental disconnection *is* possible.

To Disconnect: Relieve hydraulic pressure. (See Page 10.) Rotate the ball release sleeve so that the grooves are aligned with the pins (Item 3) [B] in the female coupler.

Hold the male coupler. Retract the sleeve on the female coupler until the couplers disconnect.



STANDARD FLOW PLANER INSTALLATION AND REMOVAL (If Equipped With Hydraulic Ski Adjust) (Cont'd)

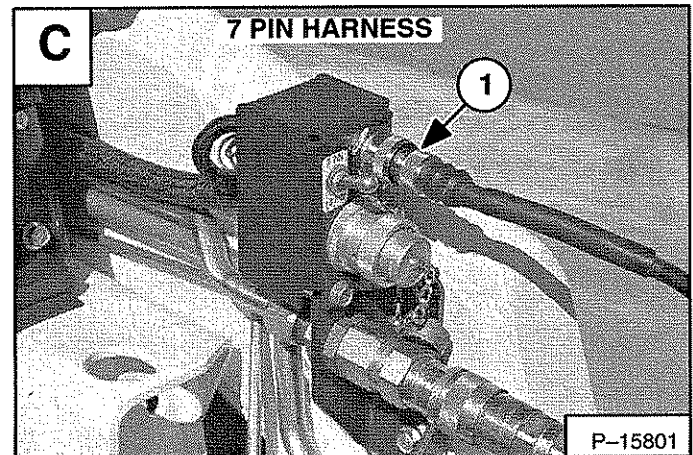
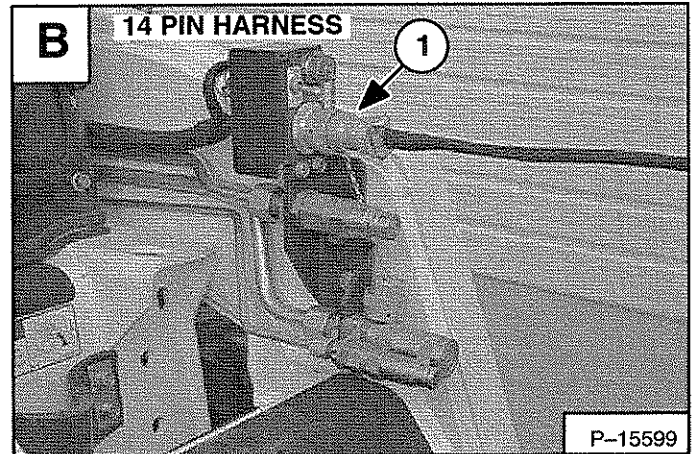
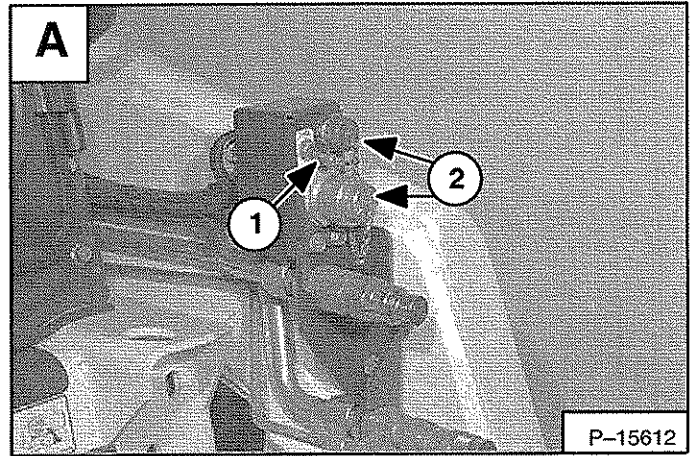
Attachment Control Electrical Harness

Move the switch (Item 1) [A] to the correct 7 pin or 14 pin position, depending on which wire harness is installed on the planer.

NOTE: When the attachment is removed from the loader, place the switch in the 7 pin position.

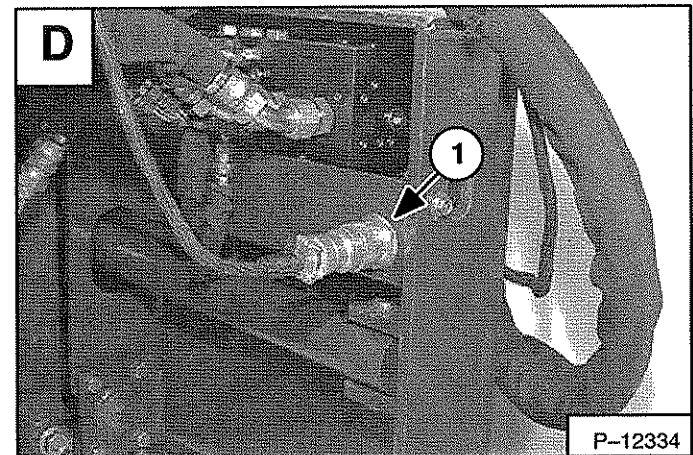
Remove the correct electrical harness connector cover (Item 2) [A] from the electrical connector on the loader harness by pushing in and turning.

Connect the planer harness (Item 1) [B] or [C] to the electrical connector on the loader harness.



When the planer is not in use, the electrical harness on the planer can be attached on the storage connector (Item 1) [D] located on the planer frame.

NOTE: Kits are available to convert the new attachments with 7 pin connectors to 14 pins connectors to be used with older loaders. See your bobcat dealer for available kits.



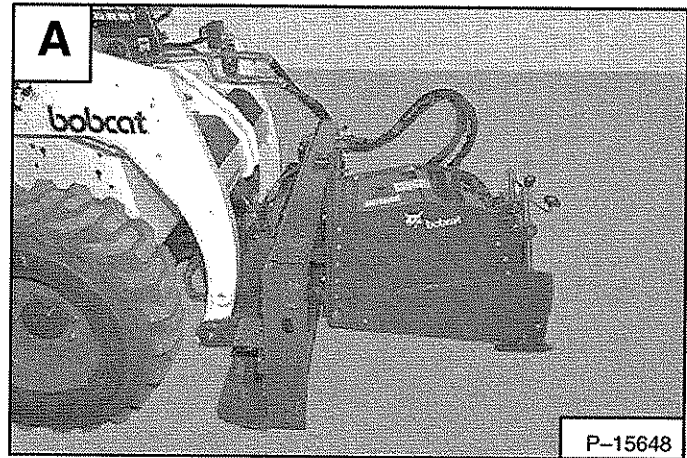
STANDARD FLOW PLANER INSTALLATION AND REMOVAL (Cont'd)

Relieving Hydraulic Pressure

Hydraulic pressure in the auxiliary hydraulic system can make it difficult to connect or disconnect the auxiliary hydraulic lines from the quick couplers. Use the following procedure to relieve hydraulic pressure from the auxiliary circuit.

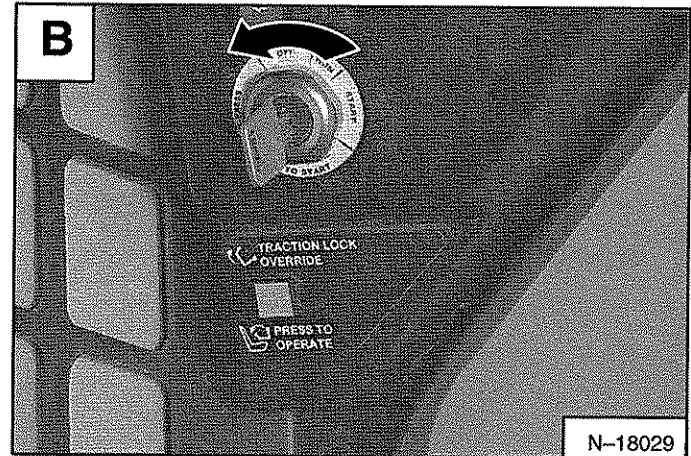
Fully extend the skis (See Page 15) and put the planer flat on the ground [A].

NOTE: The Planer drum will momentarily rotate when hydraulic pressure is relieved.



Key Activated – Early Models [B]:

With the engine running, turn the key switch [B] quickly to the left (counterclockwise) past the OFF position. Hold the key in this position for five seconds after the engine comes to a complete stop. This relieves pressure that can be trapped in the front auxiliary circuit.



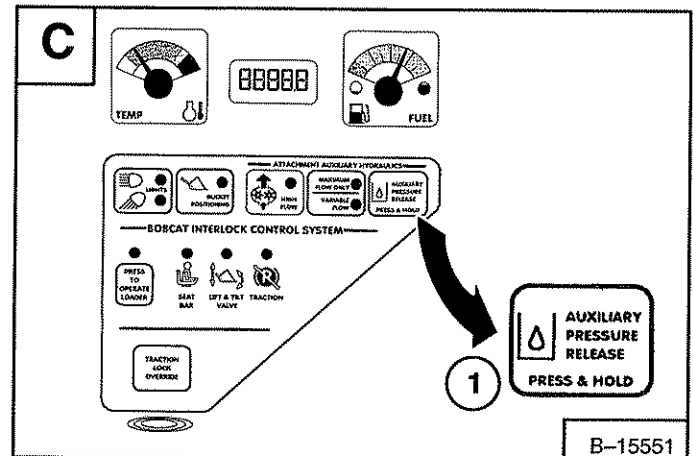
Button activated – Later Models [C]:

Loader:

- With the engine running, press the AUXILIARY PRESSURE RELEASE Button (Item 1) [C]. Hold it for two seconds. The engine will stop and release hydraulic pressure.
- For models 751, 753, 763 and 773 only: Pressing the AUXILIARY HYDRAULIC RELEASE Button after pressing the RUN/ENTER Button, when the engine is stopped, will also release hydraulic pressure.

Attachments:

- Follow the procedure above to release pressure in loader.
- Connect the male coupler from the attachment to the female coupler of the loader, then repeat the above procedure. This will release pressure in the attachment.
- Connect the female coupler from the attachment to the loader.



STANDARD FLOW PLANER INSTALLATION AND REMOVAL (Cont'd)

Removing The Planer

Relieve hydraulic pressure in the auxiliary circuit. (See Page 10.)

Disconnect the auxiliary hoses. (See Page 8)

Disconnect the electrical harness (if equipped with hydraulic ski adjust). (See Page 9)

For loaders equipped with the Power Bob-Tach:

Enter the loader, fasten the seat belt, lower the seat bar and start the engine.

Push and hold the BOB-TACH WEDGES UP switch [A] (Front Accessory Panel) until the wedges are fully raised [B].

For loaders equipped with the Hand Lever Bob-Tach:

Pull the Bob-Tach levers (Item 1) [B] all the way up.

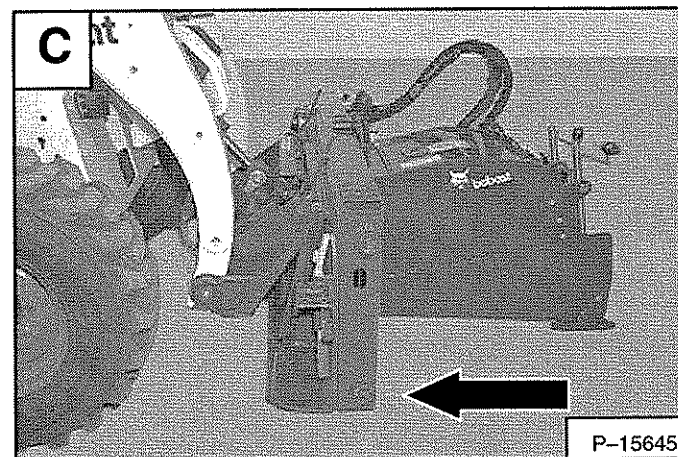
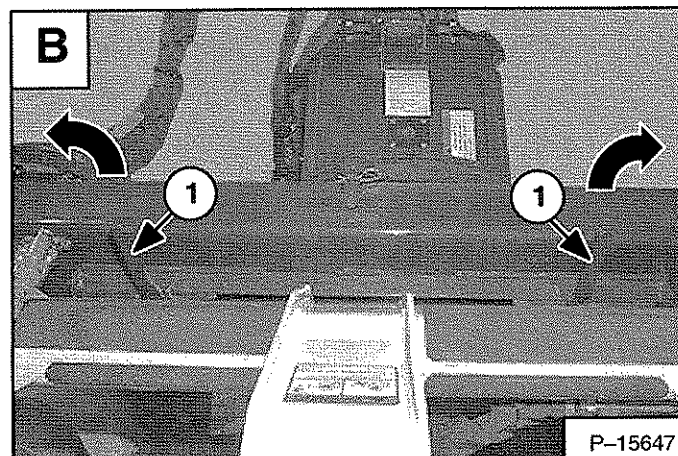
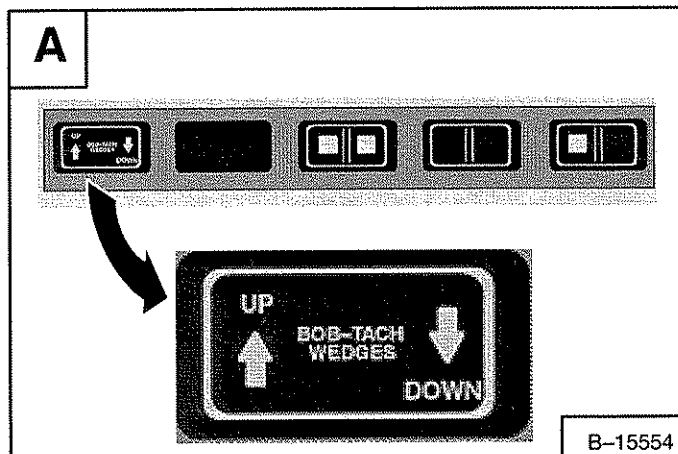
Enter the loader, fasten the seat belt, lower the seat bar and start the engine.

Release the parking brake.

For all model loaders:

Tilt the Bob-Tach forward while backing away from the Standard Flow Planer [C].

NOTE: In muddy conditions or to prevent the Planer from freezing to the ground, put the Planer on planks or blocks before removing from the loader.



⚠ WARNING

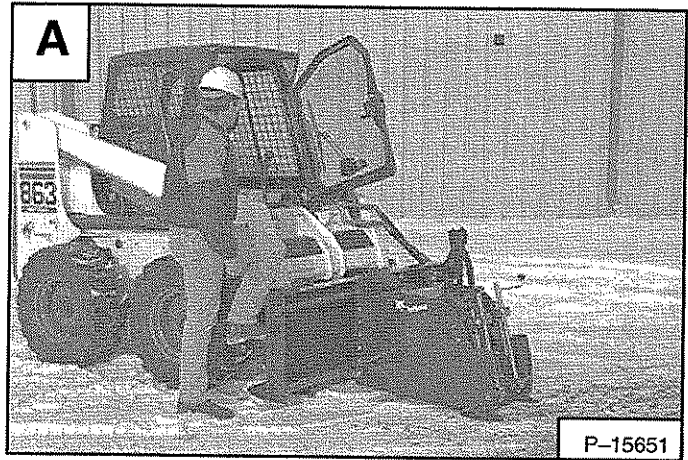
Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock.
The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- *(Advanced Hand Controls)* Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated.
The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

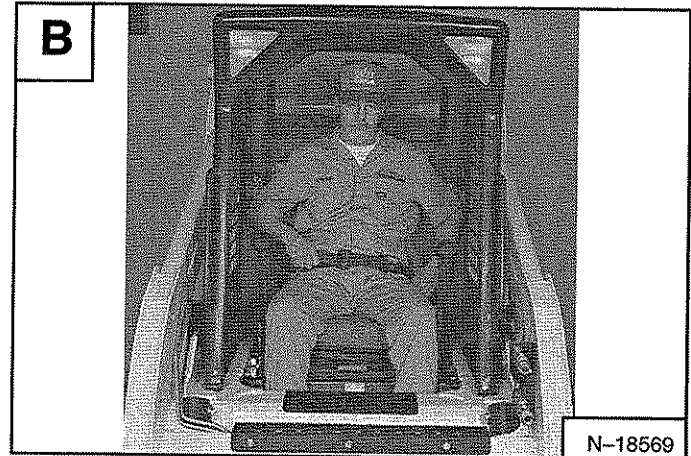
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ENTERING AND EXITING THE LOADER

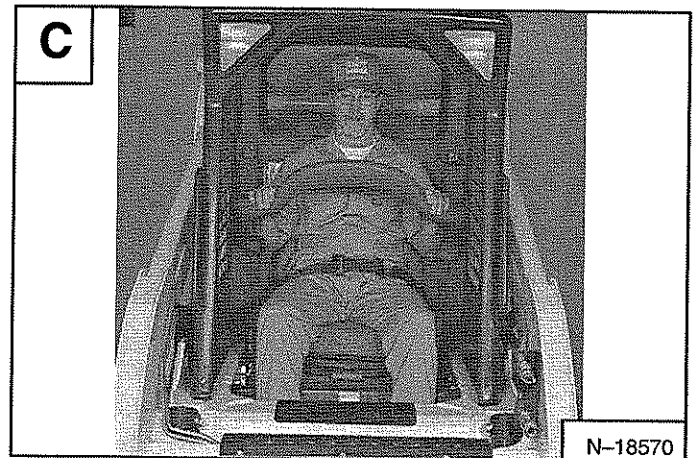
Use the planer steps, grab handles (on cab) and the safety treads (on top of the loader lift arms and frame) to enter and exit the loader [A].



Get in the operator seat. Fasten the seat belt and adjust it so the buckle is centered between your hips [B].



Lower the seat bar [C].



WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock.
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OPERATING THE PLANER (If Equipped With Manual Ski Adjust)

Auxiliary Hydraulic Controls

Drum Rotation

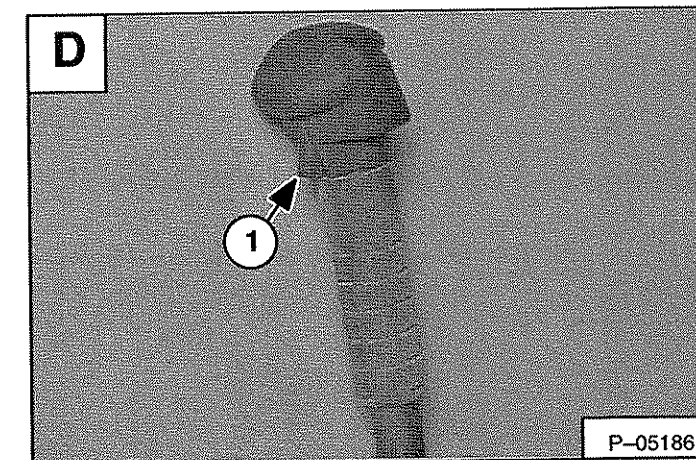
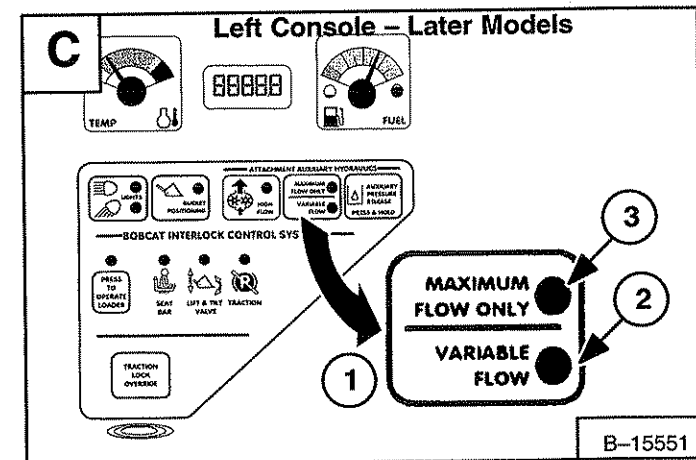
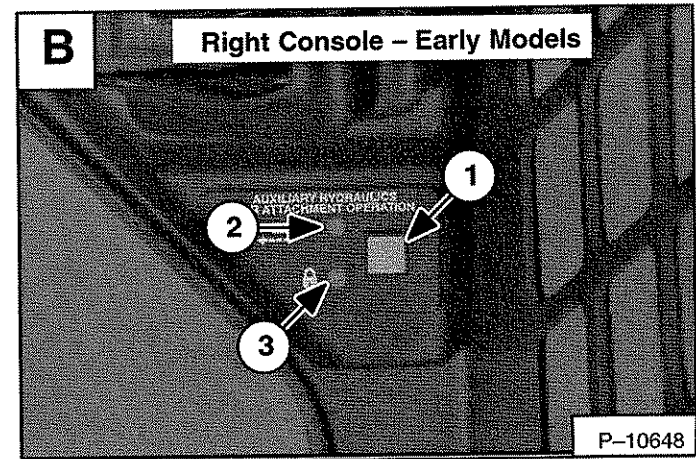
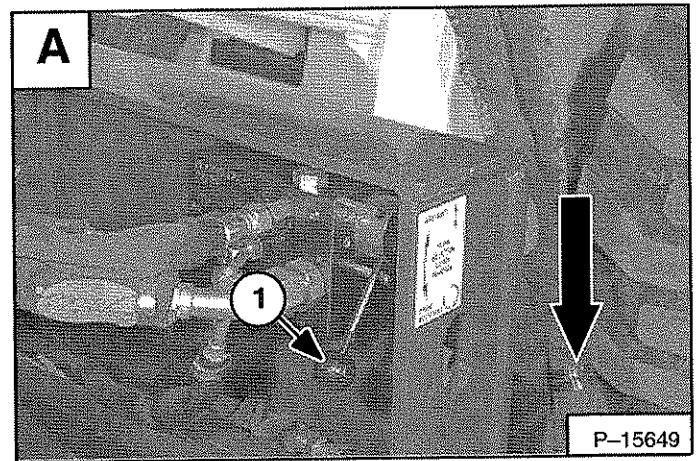
To engage the drum, move the valve lever (Item 1) [A] in the down (drum rotation) position.

The auxiliary hydraulics must be activated prior to planer operation.

With the operator in the operators seat of the loader, the seat belt fastened and the seat bar lowered, start the engine.

To activate the front auxiliary hydraulics, press the auxiliary hydraulic switch (Item 1) [B] & [C] twice. Both light (Items 2 & 3) [B] & [C] will be illuminated.

Pressing the switch (Item 1) [B] & [C] a third time will disengage the front auxiliaries.



IMPORTANT

If the high-flow switch is in the ON position, High-Flow Hydraulics will flow through the front auxiliary quick coupler. Damage to unapproved attachments can result. Leave the switch OFF for Standard Flow Planer operation.

I-2196-0200

Press the front switch (Item 1) [D] on the right handle and drum rotation will start.

Stop the engine and exit the loader when changing the planer valve position.

! WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock. The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- *(Advanced Hand Controls)* Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated. The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

W-2323-0698

OPERATING THE PLANER (If Equipped With Manual Ski Adjust) (Cont'd)

Auxiliary Hydraulic Controls (Cont'd)

Side Shifting The Planer

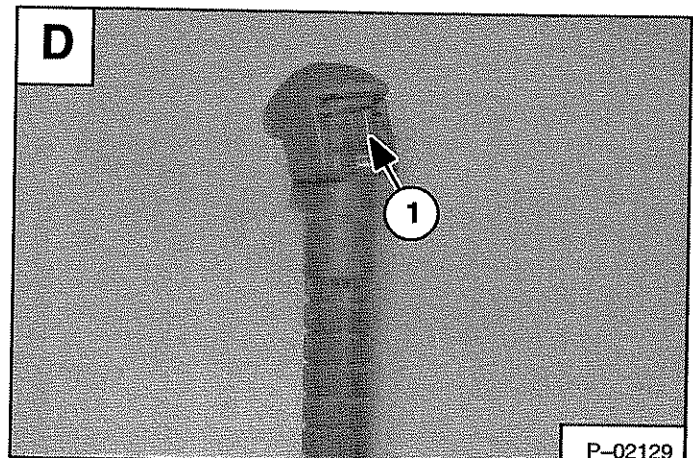
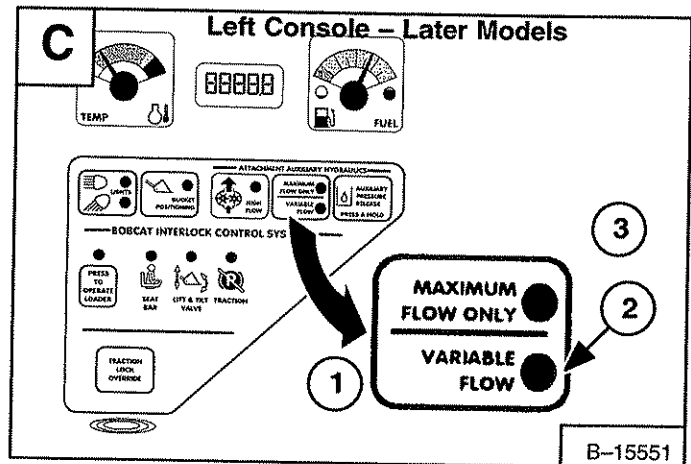
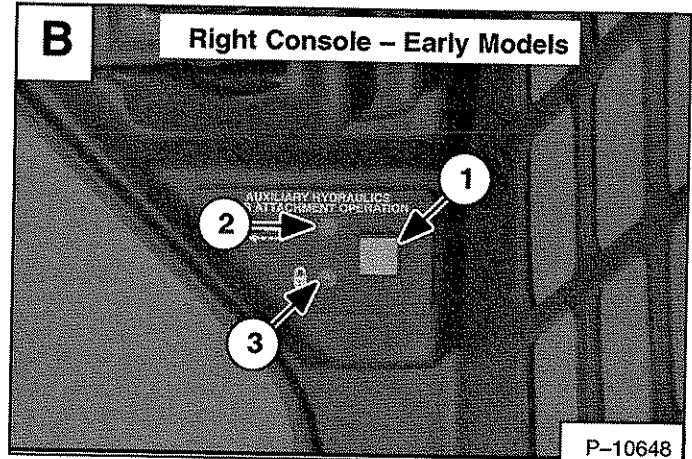
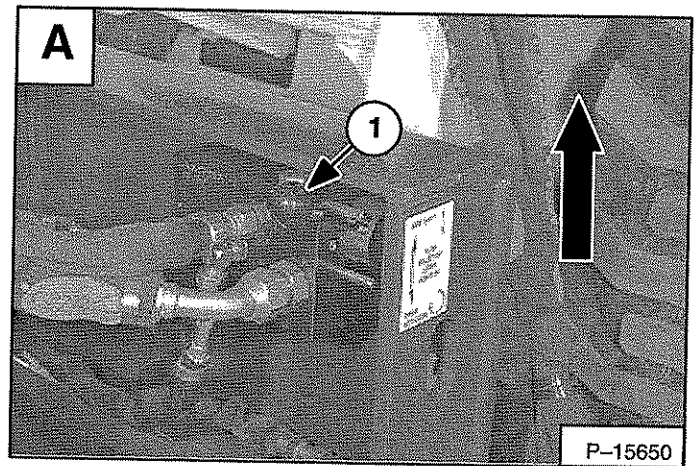
To side shift the planer, move the valve lever (Item 1) [A] in the up (side shift) position.

The auxiliary hydraulics must be activated prior to planer operation.

With the operator in the operators seat of the loader, the seat belt fastened and the seat bar lowered, start the engine.

To activate the front auxiliary hydraulics, press the auxiliary hydraulic switch (Item 1) [B] & [C] twice. Both light (Items 2 & 3) [B] & [C] will be illuminated.

Pressing the switch (Item 1) [B] & [C] a third time will disengage the front auxiliaries.



IMPORTANT

If the high-flow switch is in the ON position, High-Flow Hydraulics will flow through the front auxiliary quick coupler. Damage to unapproved attachments can result. Leave the switch OFF for Standard Flow Planer operation.

I-2196-0200

Press the switch (Item 1) [D] to the left to shift the planer to the left. Press the switch to the right to shift the planer to the right.

Stop the engine and exit the loader when changing the planer valve position.

! WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock. The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- *(Advanced Hand Controls)* Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated. The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

W-2323-0698

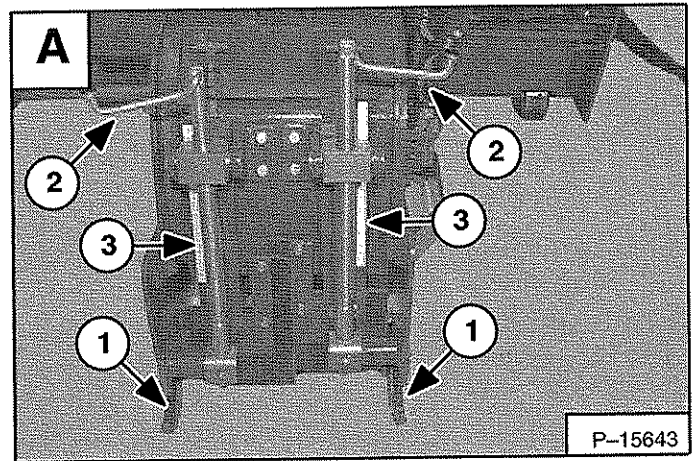
OPERATING THE PLANER (If Equipped With Manual Ski Adjust) (Cont'd)

Ski Height Adjustment

Always stop the engine before adjusting the ski height.

The skis (Item 1) [A] can be adjusted from 0–6.0 inch. Turn the handles (Item 2) [A] counterclockwise to raise the skis (deeper cut) or clockwise to lower the skis (shallow cut).

Use the depth gauges (Item 3) [A] mounted on the planer as a reference to adjust the cutting depth.



WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock.
The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- *(Advanced Hand Controls)* Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated.
The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

W-2323-0698

OPERATING THE PLANER (If Equipped With Manual Ski Adjust) (Cont'd)

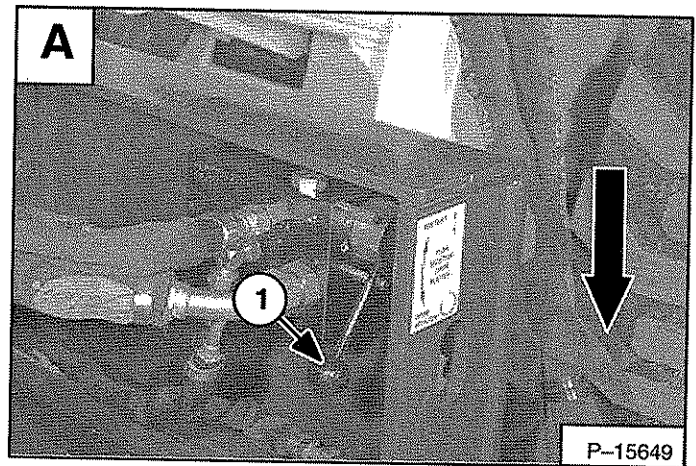
Planer Cutting Procedure

(For adjusting the Planer cutting angle, See Page 20.)

Adjust the skis to the desired cutting depth. (See Page 15.)

Place the valve lever (Item 1) [A] in the down (drum rotation) position.

Enter the loader, fasten the seat belt, lower the seat bar, start the engine and release the park brake.



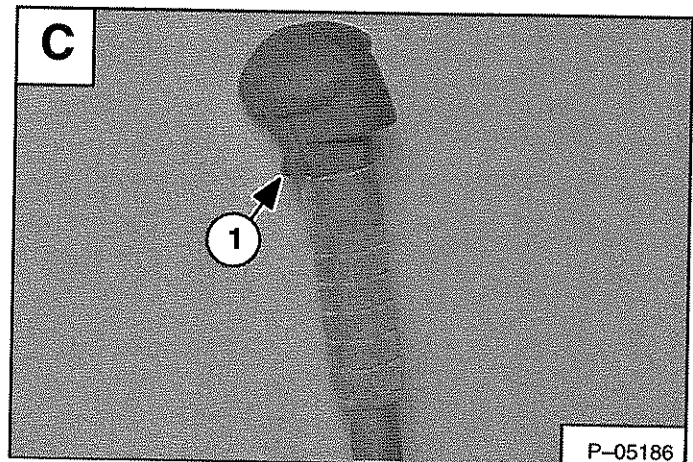
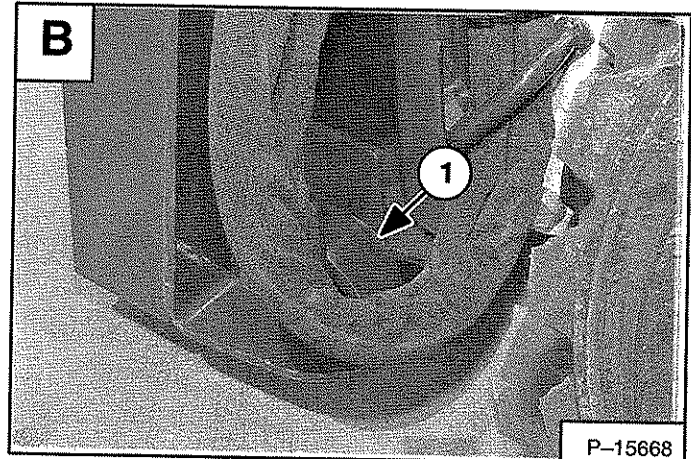
Tilt the Planer fully backward and lower the lift arms until the Planer stabilizer wheels (Item 1) [B] are on the surface.

NOTE: Be sure the Planer drum teeth DO NOT make contact with the work surface at this time.

Activate the auxiliary hydraulics. (See Page 13.)

Increase the engine speed to full RPM.

Press the front switch (Item 1) [C] on the right steering lever once (with two lights illuminated on the auxiliary hydraulic switch). The drum will rotate.



WARNING

AVOID INJURY OR DEATH

Never operate the Planer on an elevated surface. Operate only on the surface that the carrier machine is driving on.

W-2180-0395

OPERATING THE PLANER (If Equipped With Hydraulic Ski Adjust)

Auxiliary Hydraulic Controls

Auxiliary Hydraulics

The auxiliary hydraulics must be activated prior to planer operation.

With the operator in the operators seat of the loader, the seat belt fastened and the seat bar lowered, start the engine.

Early Models:

To activate the front auxiliary hydraulics, press the auxiliary hydraulic switch (Item 1) [A] twice. Light (Item 2) [A] will be illuminated.

Pressing the switch (Item 1) [A] a third time will disengage the front auxiliaries.

Later Models

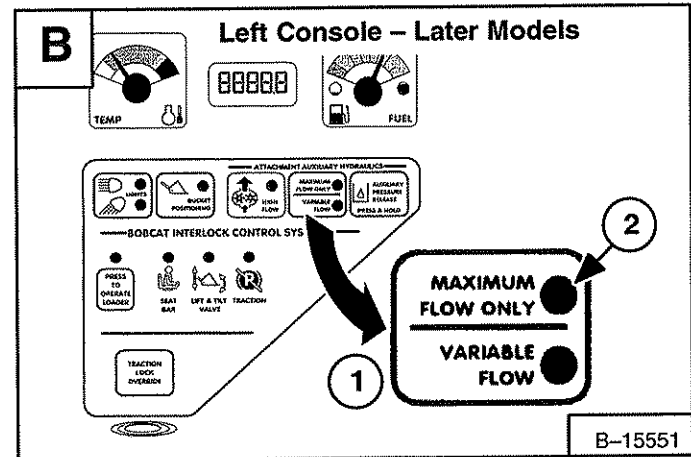
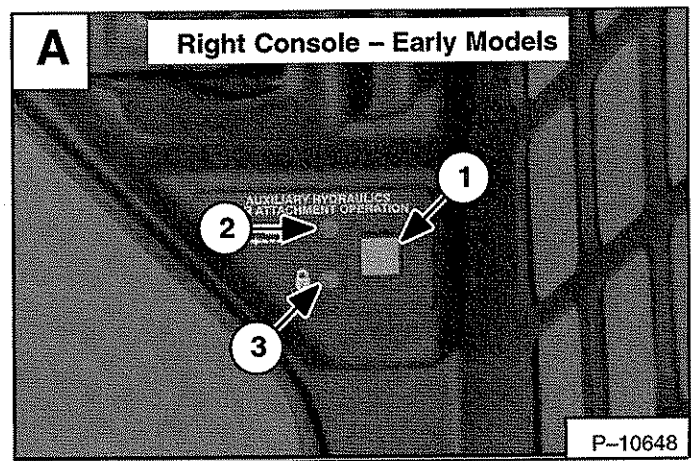
To activate the front auxiliary hydraulics, press the auxiliary hydraulic switch (Item 1) [B] twice. The light (Item 2) [B] will be illuminated.

Pressing the switch (Item 1) [B] a third time will disengage the front auxiliaries.

IMPORTANT

If the high-flow switch is in the ON position, High-Flow Hydraulics will flow through the front auxiliary quick coupler. Damage to unapproved attachments can result. Leave the switch OFF for Standard Flow Planer operation.

I-2196-0200



OPERATING THE PLANER (If Equipped With Hydraulic Ski Adjust) (Cont'd)

(See Page 25 for additional information for G Series Loaders)

Drum Rotation

Press the front switch (Item 1) [A] on the right steering lever once (with two lights illuminated on the auxiliary hydraulic switch) the drum will rotate.

Press the front switch (Item 1) [A] a second time and the drum rotation will stop.

Side Shift Operation

Press the switch (Item 2) [A] (on the left steering lever) to the right, to move the Planer drum and housing to the right. Press the switch (Item 2) [A] to the left, to move the Planer drum and housing to the left.

Ski Adjustment

Each ski can be adjusted up or down to control the depth the Planer will cut.

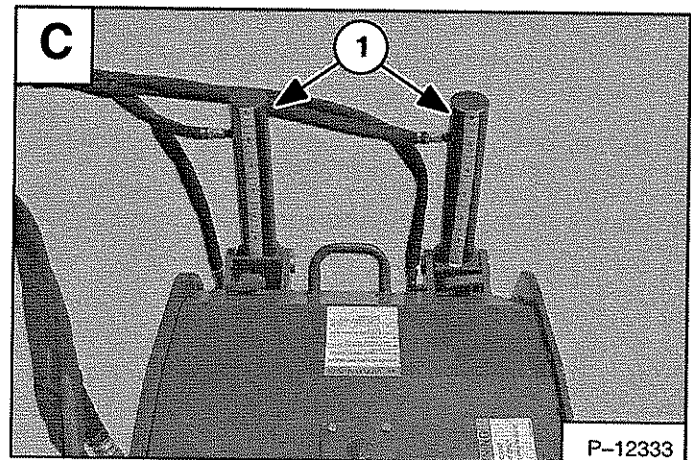
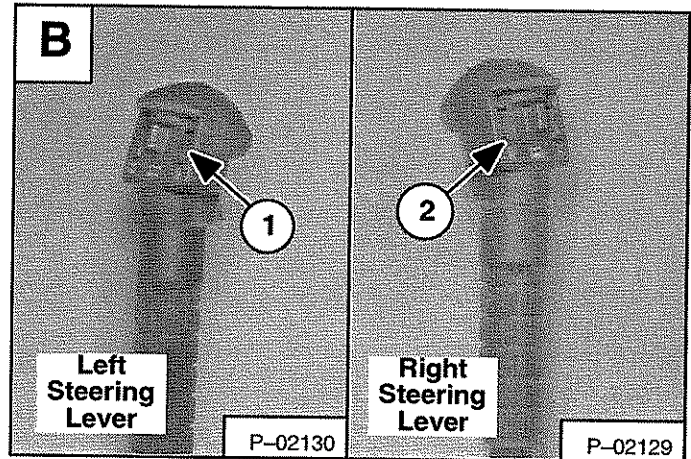
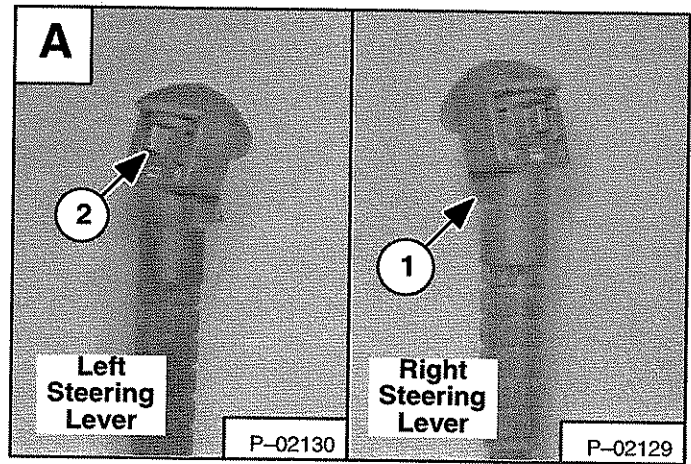
Left Ski

Press the top of the switch (Item 1) [B] to raise the left ski. Press bottom of switch to lower.

Right Ski

Press the top of the switch (Item 2) [B] to raise the right ski. Press bottom of switch to lower.

Use the depth gauges (Item 1) [C] mounted on the Planer housing as a reference to adjust cutting depth. These depth gauges are only approximate and actual depth measurements should be taken periodically at the work site.



OPERATING THE PLANER(If Equipped With Hydraulic Ski Adjust) (Cont'd)

Planer Cutting Procedure

(For adjusting the planer cutting angle – See Page 20.)

Tilt the Planer fully backward and lower the lift arms until the Planer stabilizer wheels (Item 1) [A] are on the surface.

NOTE: Be sure the Planer drum teeth DO NOT make contact with the work surface at this time.

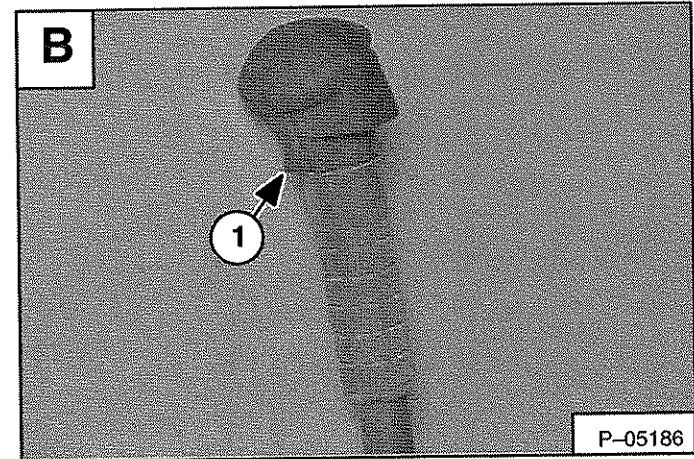
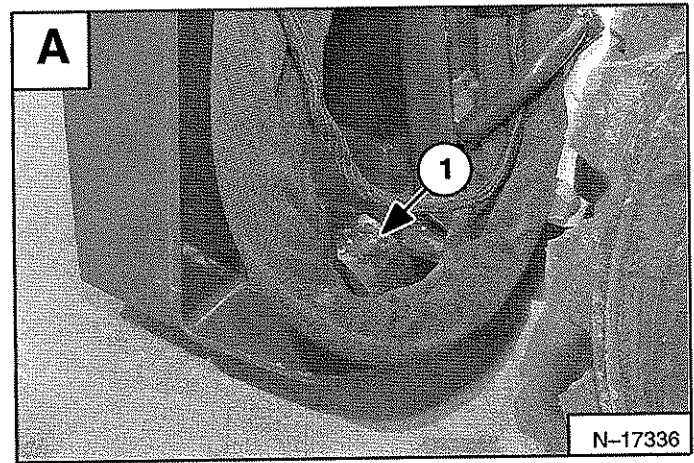
Press the front switch (Item 1) [B] on the right steering lever once (with the auxiliary hydraulics activated). The drum will rotate.

NOTE: See Page 17 for activating high flow hydraulics and auxiliary hydraulic switch.

Increase the engine speed to full RPM.



Adjust the ski's to the desired cutting depth. (See Page 18.)



OPERATING THE PLANER (Cont'd)

Adjusting The Planer Cutting Angle

The planer can be angled to a maximum of 15° degrees right or left as needed.

Always stop the engine before unlocking the Planer angle pin.

WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- *(Foot Pedal Controls)* Move pedals until both lock.
- *(Mechanical Hand Controls)* Move the hand controls until both lock. The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- *(Advanced Hand Controls)* Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated. The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

W-2323-0698

Remove the retaining pin (Item 1) [A].

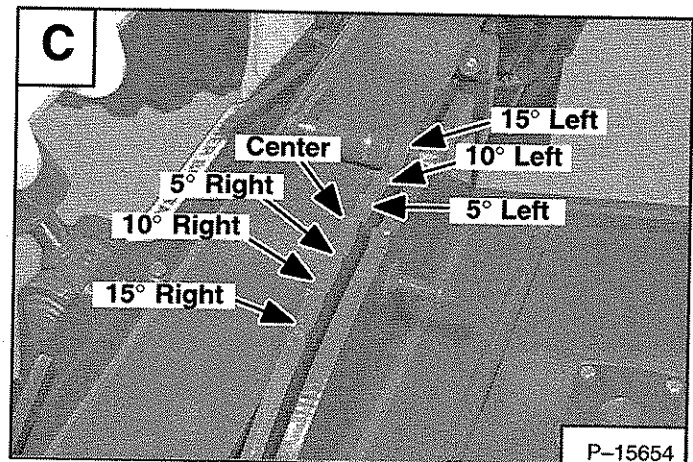
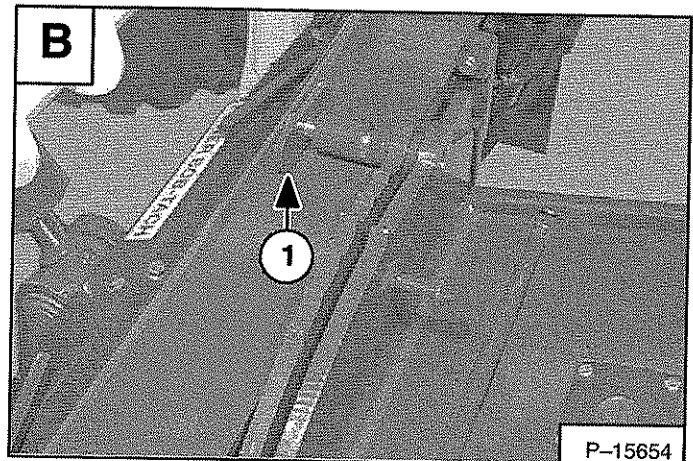
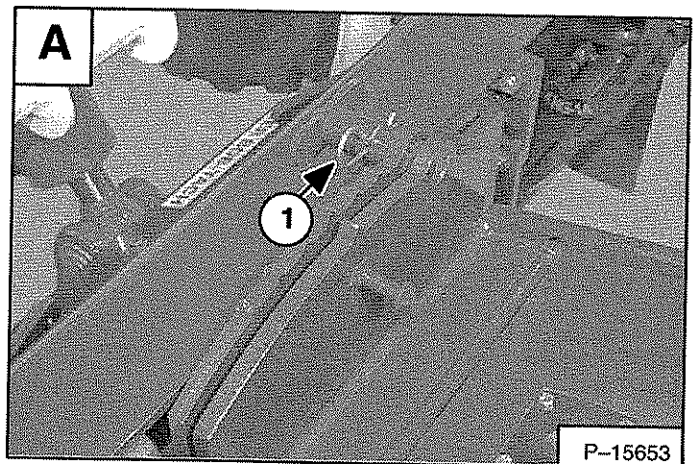
Pull the lock pin to (Item 1) [B] toward the loader.

Adjust the left and right ski to achieve desired operating angle.

To lock the Planer into the center (0 degree) position, level the Planer with the skis.

Push the lock pin away from the loader and install the retaining pin.

The pointers on the gauge indicates 5°, 10° or 15° right or left. Use the middle point to center the Planer. Moving the Planer to the last point provides a maximum angle of 15° right or left [C].

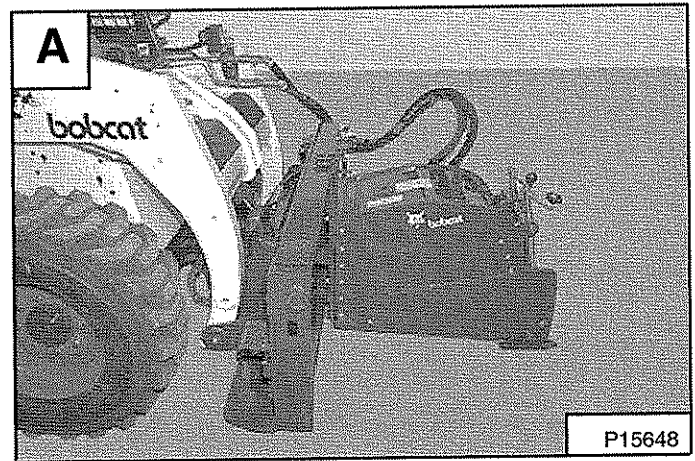


OPERATING THE PLANER (Cont'd)

Planer Cutting Procedure

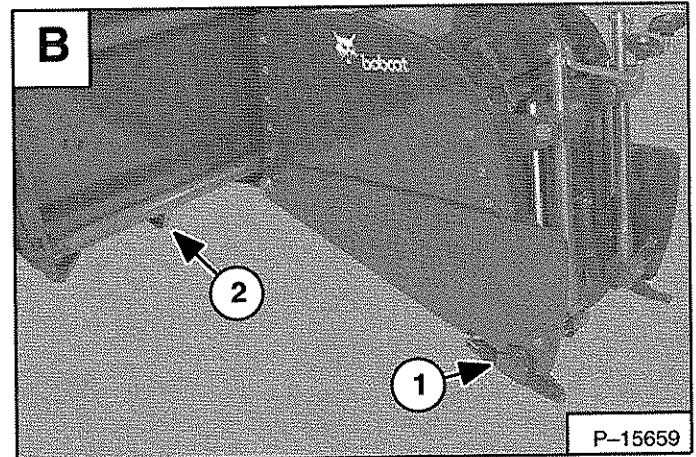
Keep both hands on the steering levers. When the rotating drum contacts the work surface it will suddenly shift the loader position. Be prepared to make a loader position correction to keep the Planer cutting on the correct course.

Slowly tilt the Planer forward into the work surface until both skis contact the work surface [A].



The planer skis (Item 1) [B] must both be on the work surface and the stabilizer wheels (Item 2) [B] must be off the work surface at all times while the planer is cutting.

Excessive vibration usually indicates the planer skis are not properly contacting the work surface. Lower the lift arms and tilt the planer forward as needed to maintain constant contact with the work surface.

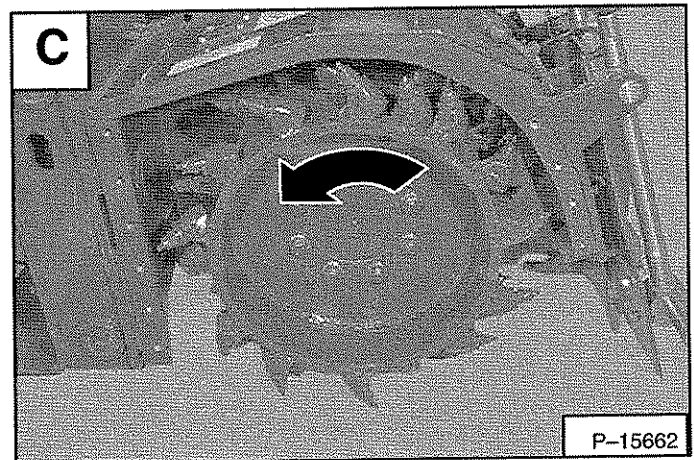


The Planer drum rotates in the direction of the arrow [C].

NOTE: Right Ski and Right Side Plate removed for clarity.

Drive forward into the material that is to be planed. The Planer undercuts the material, breaking it out in an upward direction.

The travel speed of the loader affects the cutting performance and appearance of the work surface. Slower loader travel speeds will create a smoother surface. Faster loader travel speeds will create a rougher surface. Adjust travel speed and cutting depth until the desired cutting results are obtained.



OPERATING THE PLANER (Cont'd)

Cutting Concrete

The recommended cutting depth per pass should be 2.0 inches (50 mm) or less. To achieve desired cutting depth make multiple passes.

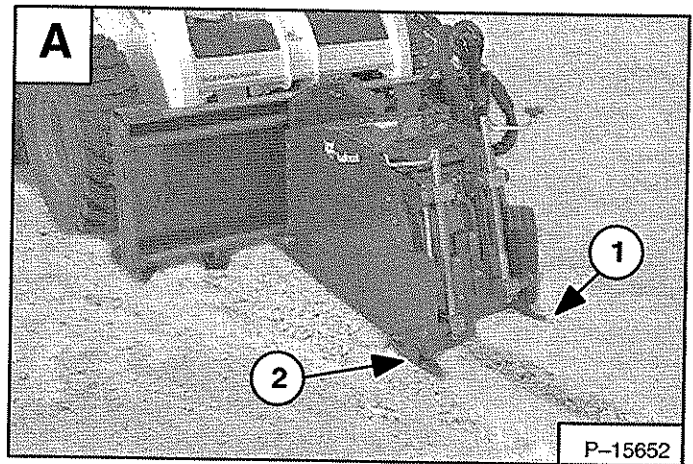
Cutting Asphalt

Cutting at full depth is possible. The performance of the Planer cutting the asphalt will best determine the cutting depth. The age of the asphalt, the size of the aggregate and the temperature of the asphalt will all affect how deep of a cut that can be made, and at what travel speed.

Planing A General Area

Mill your first pass at the desired depth. Now return to the original starting point, align the ski so it just overlaps the edge of the previous cut, do not adjust the ski (Item 1) [A]. This will keep the cutting depth the same as the first pass.

Adjust the ski on the milled surface (Item 2) [A] so the Planer housing remains level providing a level cut.



OPERATING THE PLANER (Cont'd)

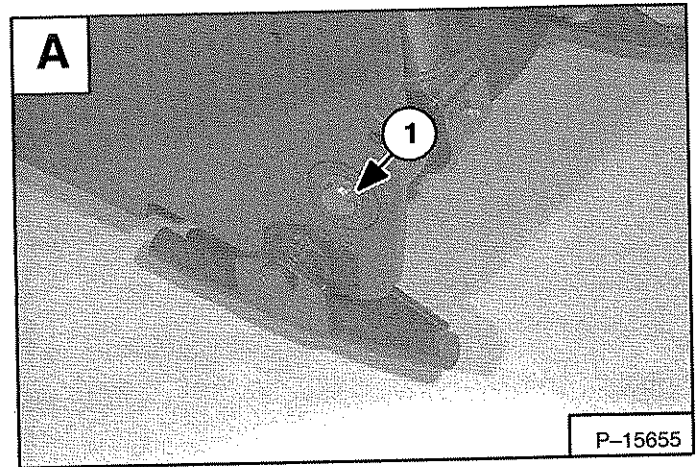
Planing Next To Structures Or Obstructions

Planing flush to a wall or obstruction is achieved by removing the right hand ski mount and the right side cover.

Tilt the Planer back, put blocks under the drum, and lower drum to the blocks. Stop the engine.

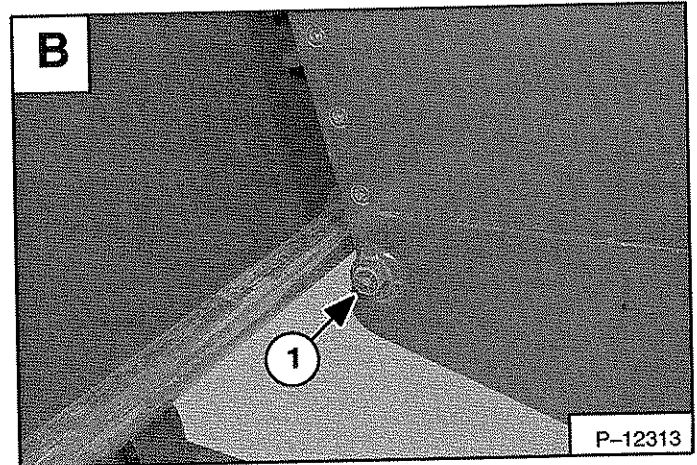
Remove the snap ring (Item 1) [A] and remove the right side plate from the pivot pin.

Lower the front of the side plate to the ground.



Remove the rear bolt (Item 1) [B] from the right hand ski mount.

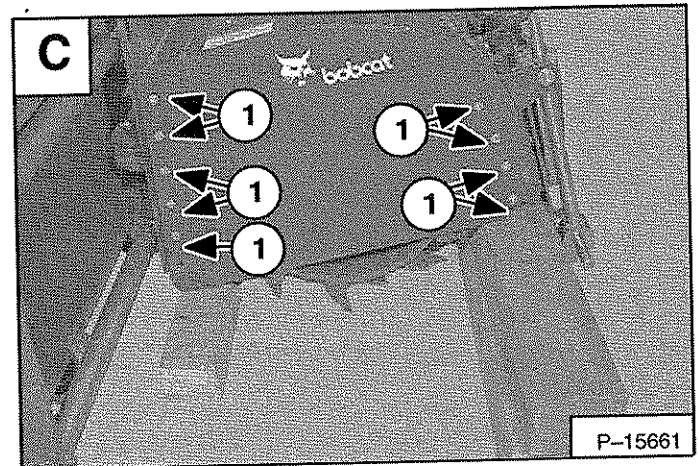
Remove the right hand ski mount from the Planer.



Put blocks under the side cover [C] during removal.

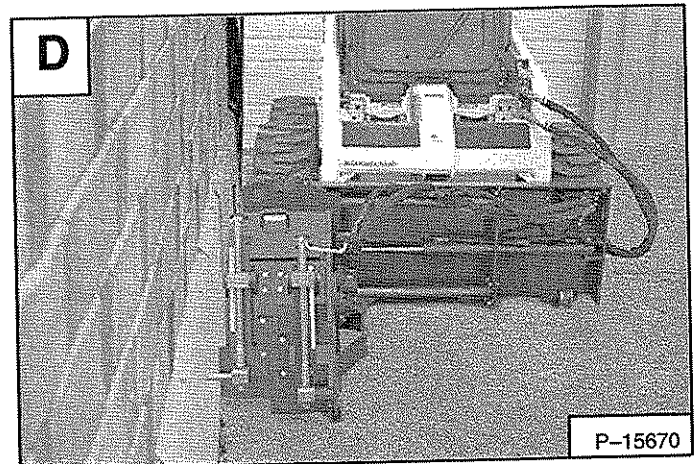
Remove the nine side cover mounting bolts [C].

Remove the side cover (Item 1) [C] from the Planer frame.



Side shift the Planer fully to the right [D].

Position the loader and Planer next to the wall or obstruction and plane in a forward direction.



PARKING THE BOBCAT LOADER

Stop the Bobcat loader on level ground.

Lower the lift arms fully and put the planer flat on the ground [A].

Pull the engine speed control lever all the way backward. Turn the key switch to the OFF position.

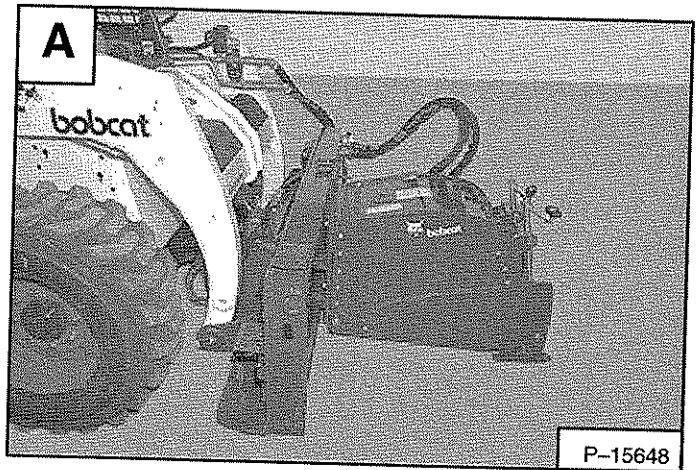
Engage the parking brake.

(Foot Pedal Controls) Move pedals until both lock.

(Mechanical Hand Controls) Move the hand controls until both lock.

(Advanced Hand Controls) Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated.

Unbuckle the seat belt. Remove the key from the switch to prevent operation of the loader by unauthorized personnel.



WARNING

Before you leave the operator's seat:

- Lower the lift arms, put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise seat bar.
- (Foot Pedal Controls) Move pedals until both lock.
- (Mechanical Hand Controls) Move the hand controls until both lock.
The seat bar system must lock the lift and tilt controls in neutral when the seat bar is up. Service the system if hand controls do not lock correctly.
- (Advanced Hand Controls) Move the hand controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated.
The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.

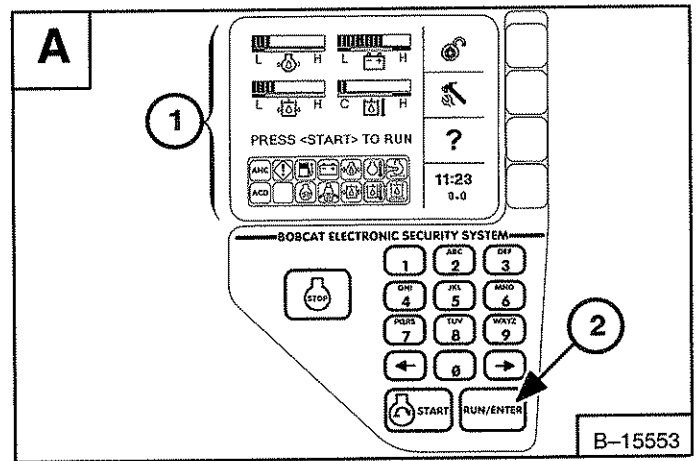
G SERIES LOADERS WITH DELUXE INSTRUMENT PANEL

Attachment Information

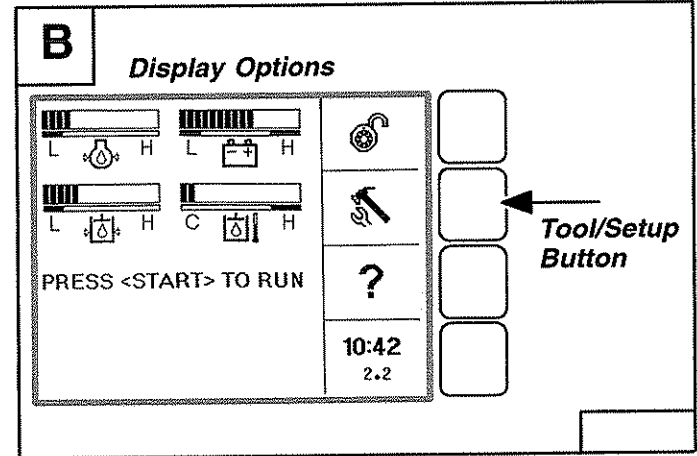
The right hand deluxe instrument display panel (Item 1) [A] has built in information on the operation and controls of the attachments.

Do not start the engine.

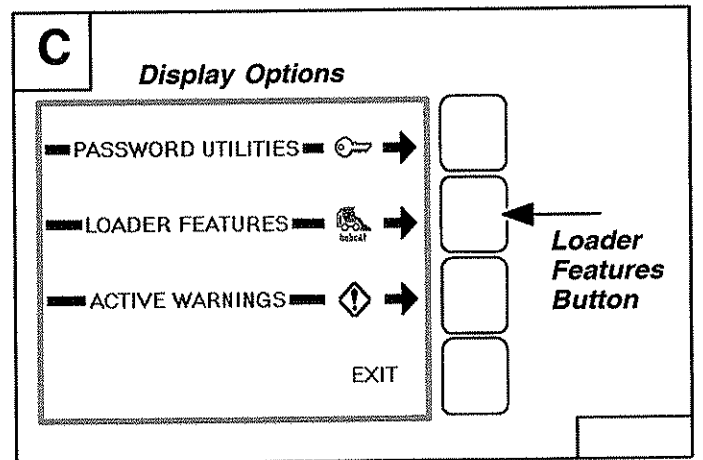
Turn the display panel *on* by **pressing** the **RUN/ENTER** button (Item 2) [A]. Use the display screen to show the different attachment functions.



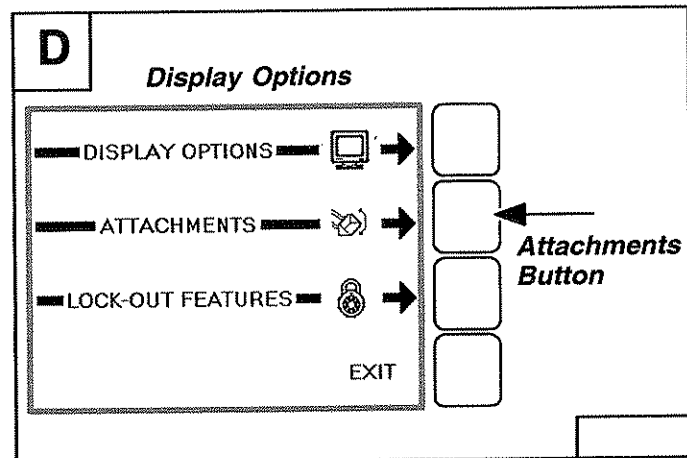
To access this information, **Press** the **TOOL/SETUP** button [B]. (The next display screen will be shown.)



Press the **LOADER FEATURES** button [C].



Press the **ATTACHMENTS** button [D].



G SERIES LOADERS WITH DELUXE INSTRUMENT PANEL (Cont'd)

Attachment Information (Cont'd)

The *attachment information screen* will be displayed [A]. Press the **RUN/ENTER** (yellow) button (on the bottom of the instrument panel) to go to the next screen.

The attachments are listed in alphabetical order. Press the **arrow up** (Item 1) [B] and the **arrow down** (Item 2) [B] buttons to scroll to the information about your attachment.

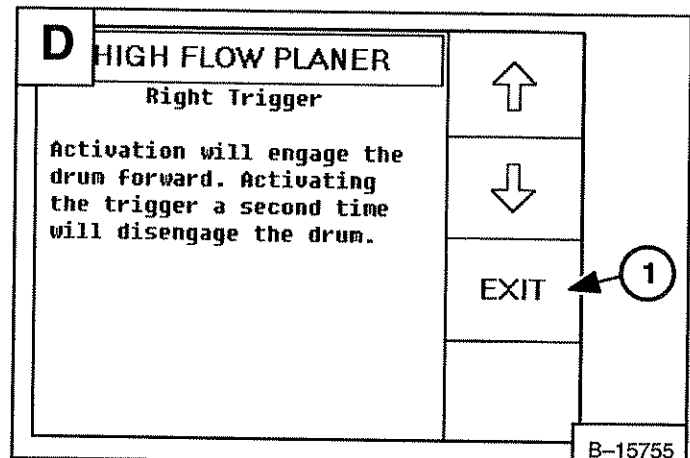
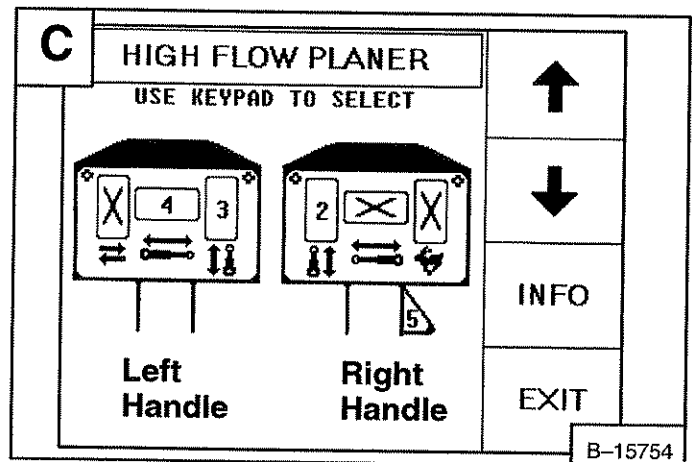
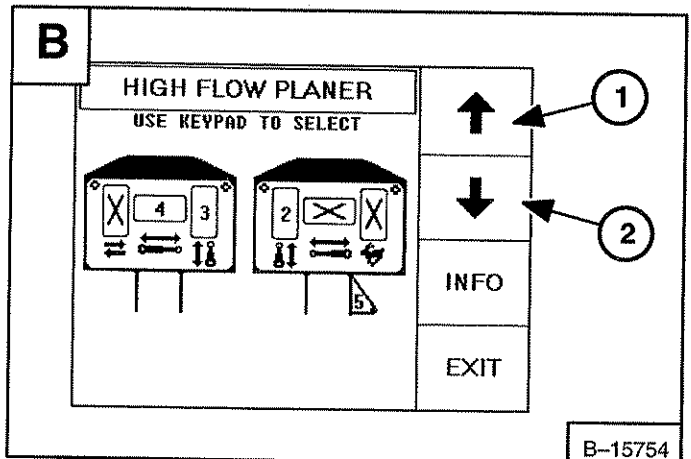
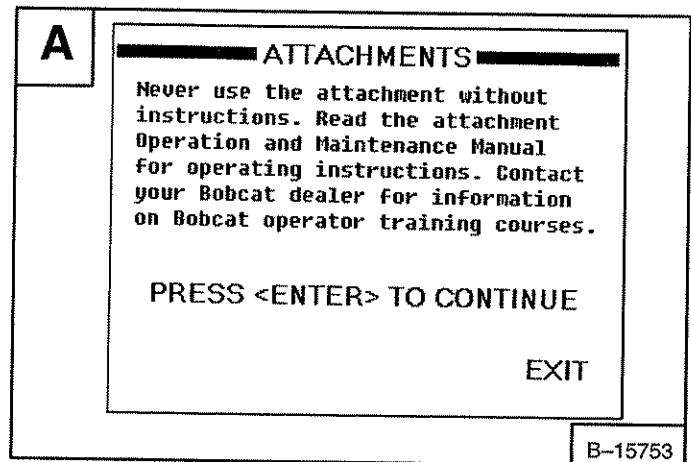
(The planer is used as an example.)

Once the attachment selection has been made, the attachment screen displays the left and right steering control handles [C].

Only the handle switch(es) that are used for operating this attachment are numbered [C].

To view the functions of each switch, press the number of the switch in question on the numerical key pad that is directly below the display panel. (Example: For switch #4, press the **key pad #4**. For switch #5, press the **key pad #5**.)

The screen will describe what attachment functions the steering control switch operates. Press the **exit** button (Item 1) [D] to go back to the previous screen.



G SERIES LOADERS WITH DELUXE INSTRUMENT PANEL (Cont'd)

Attachment Information (Cont'd)

Pressing the **INFO** button (Item 1) [A] will activate the screen that provides information on the selected attachment.

The information screen describes what capabilities the attachment has. (Example: Side Shifting, Angling, Rotation.)

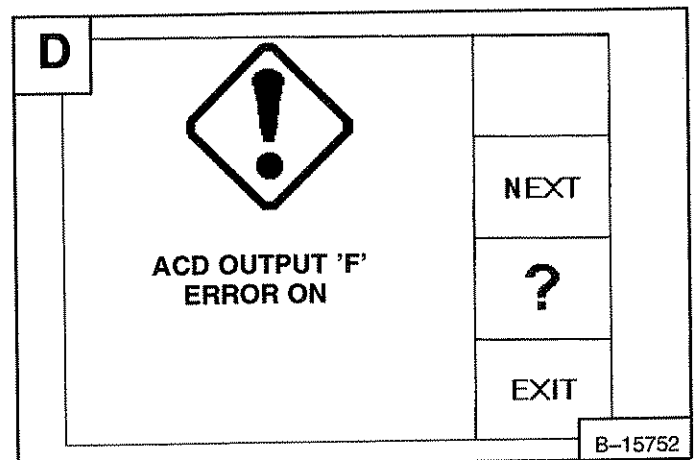
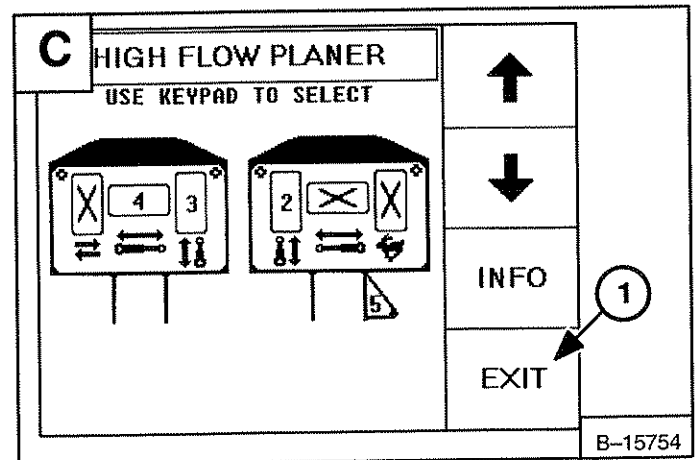
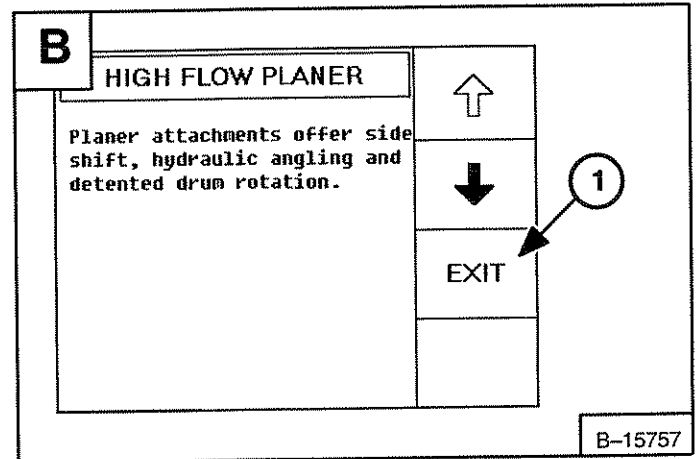
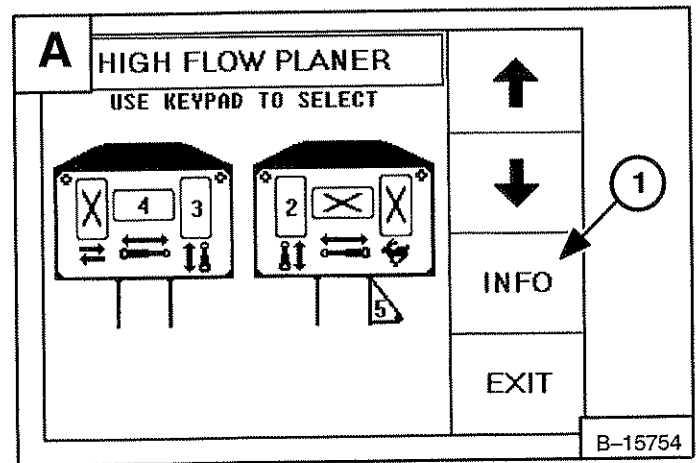
Press the **EXIT** button (Item 1) [B] to return to the previous screen.

After all information has been viewed, Press the **EXIT** button (Item 1) [C] to return to the main display panel screen.

Shortcut: Press the "0" (zero) key to get back to the home screen immediately.

Service Codes

If you encounter service codes on the display panel [D] (and you hear three beeps), see the **Electrical System Service Manual** for detailed service information on these problems.

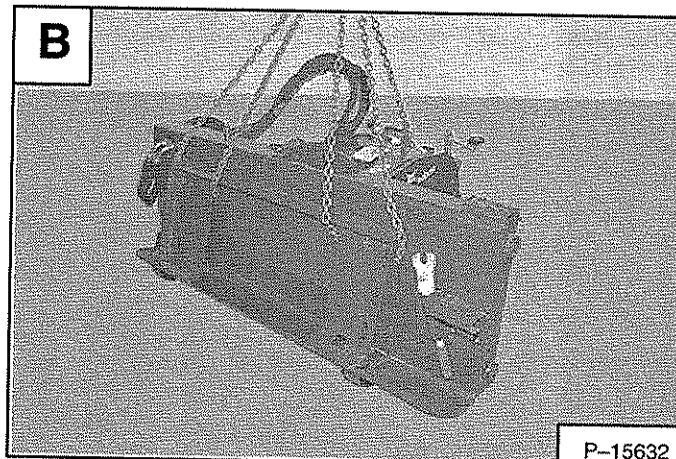
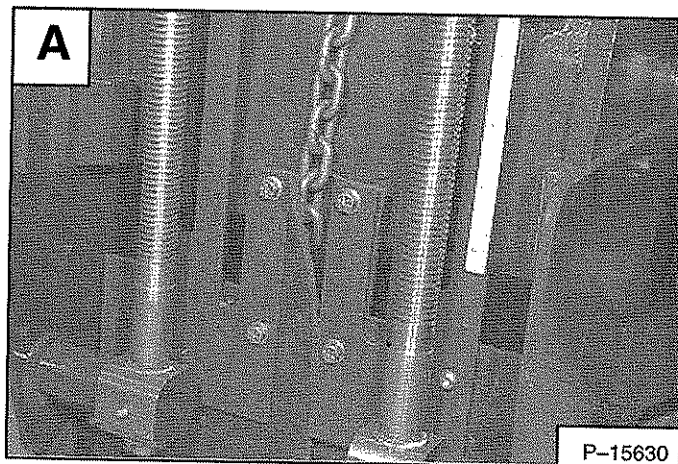


TRANSPORTING THE STANDARD FLOW PLANER

Lifting The Planer

NOTE: Use chains that are in good condition and of adequate size to lift the attachment [A] & [B].

Fasten the chains to the Planer [A] & [B].



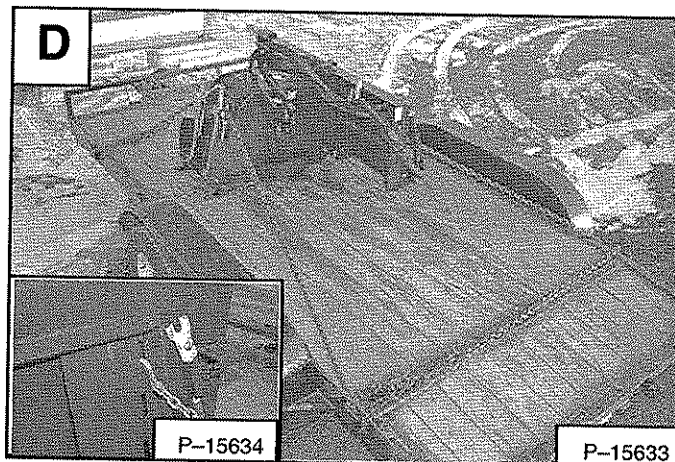
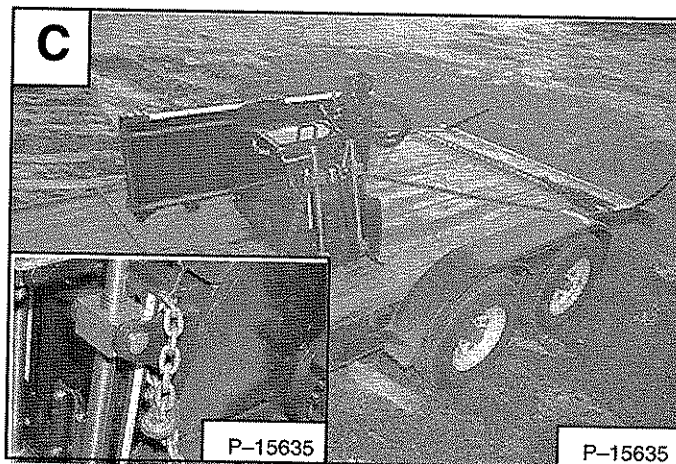
Fastening The Planer To The Transport Vehicle

Fasten the chains to the Planer [C] & [D].

Use chain binders to prevent the Planer from moving during transport.

Secure the hydraulic hoses to the Planer.

See the correct loader operation and maintenance manual for TRANSPORTING THE BOBCAT LOADER to properly chaining the loader to the transport vehicle.

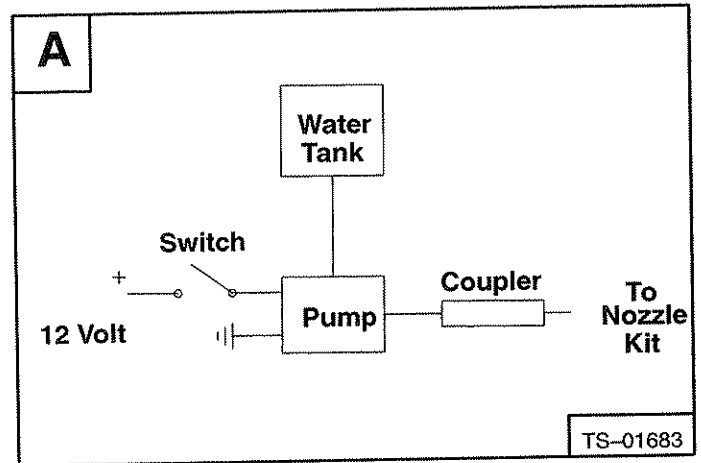


OPTIONAL EQUIPMENT

Quick-Tach Water Kit

Quick-Tach water kits are rear mounted on the Bobcat loader and provide water to the Planer spray nozzle kit mounted on the Planer.

The illustration shows a typical arrangement and routing of the water kits (See your local dealer) [A].

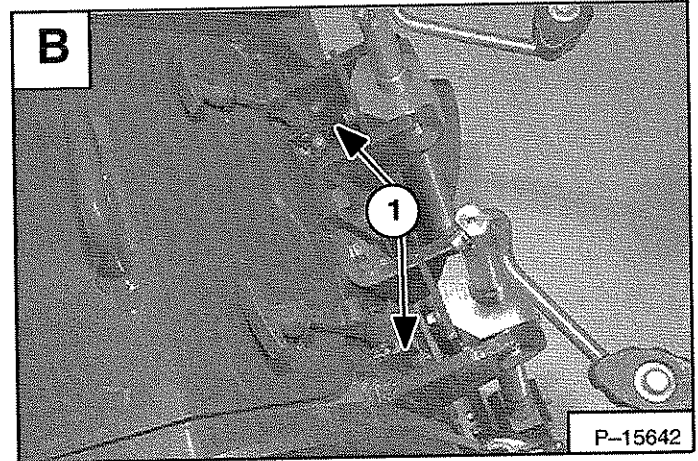


Planer Spray Nozzle Kit

The Planer spray nozzle kit directs a fine mist of water on the Planer drum to reduce dust emissions.

Order the kit from your Bobcat loader dealer.

Remove the two covers (Item 1) [B] and install the nozzles on the Planer. (See the nozzle kit installation instructions for further details.)

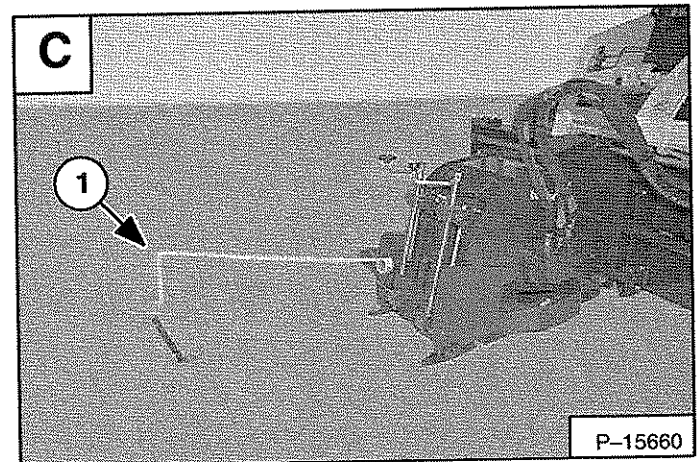


Planer Guide Rod

The guide helps the operator follow the desired cutting course.

Order the kit from your Bobcat loader dealer.

Install the guide bracket (Item 1) [C] to the Planer.

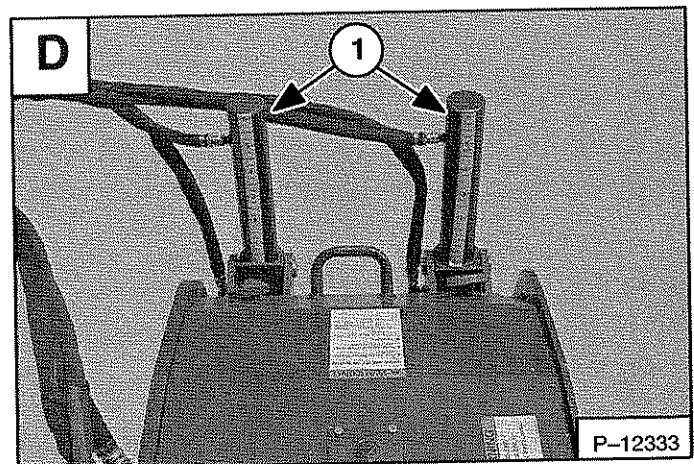


Hydraulic Ski Adjust Kit

The planer can be converted from manual ski adjust to hydraulic ski adjust.

Order the kit from your Bobcat loader dealer.

Install the hydraulic cylinder (Item 1) [D] and other additional components supplied in kit to the Planer.





Bobcat®

PLANER MAINTENANCE

DRUM	
Checking The Carbide Bits	39
Removal And Installation	40
Replacing The Carbide Bits	39
INSPECTION	
Hand Lever Bob-Tach Inspection	34
Power Bob-Tach Inspection	35
Planer Mount Inspection	36
Rubber Skirt Inspection	36
LUBRICATION	
Lubrication Points	36
RUBBER SKIRTS	
Replacement	37
SKIS	
Ski Bushing Replacement	37
Ski Mount Bushing Replacement	38
Ski Mount Removal And Installation	38
Ski Replacement	37
TROUBLESHOOTING	33

**PLANER
MAINTENANCE**

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 this manual must be performed **ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL**. Always use **genuine Bobcat replacement parts**.



Bobcat®

TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Planer cut is inadequate.	Carbide bits worn or missing.	Replace the carbide bits.
Noisy motor (with load).	Vibration; loose bolts.	Check torque.
External oil leaks.	Motor case pressure too high.	Check the case drain line.
	Defective assembly.	Check case drain line for blockage.
	Damaged O-rings.	Replace O-rings as needed.
Planer will not side shift.	Valve lever not in the side shift position.	Move valve lever to side shift position.
	Not enough hydraulic pressure.	Test loader hydraulics for flow and pressure.
	Planer housing seized or rusted in place.	Remove rust or material interference.
Drum motor with load does not turn.	Hydraulic pressure is low.	Check relief valve setting.
	Internal hydraulic leaks.	Check motor.
Noisy motor (with no load).	Humming; worn bearings.	Replace bearings.
Loaded motor does not turn at normal speed.	Not enough hydraulic flow.	Check pump flow and rotation speed.
	Internal leaks.	Check cylinder block and valve block assembly.
		Check motor.
Drum motor does not rotate.	Front auxiliary hydraulics not engaged.	Engage the loader front auxiliary.
	Couplers are reversed.	Switch couplers.
	Excessive hydraulic leakage.	Check hoses and motor block.
	Hydraulic leaks.	Check cylinder block and valve block assembly.
	No hydraulic flow.	Check pump drive and pump inlet.
	No hydraulic pressure.	Valves damaged or corroded.
Planer does not mill to correct depth.	Carbide bits worn depth.	Replace the carbide bits depth.
	Decals misplaced or missing.	Replace with new decals.
	Skis worn.	Replace skis.

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

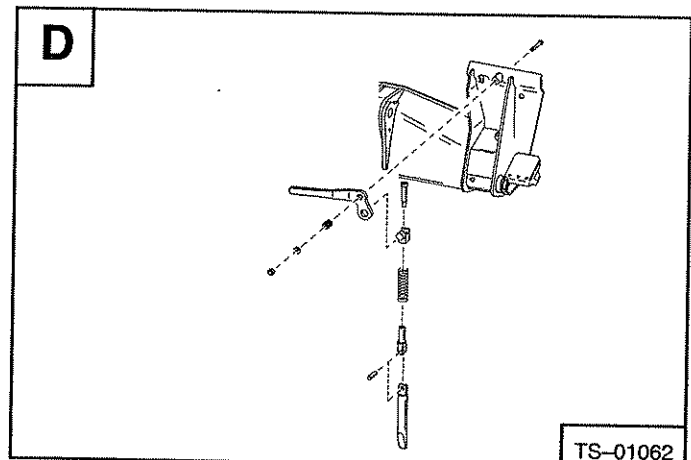
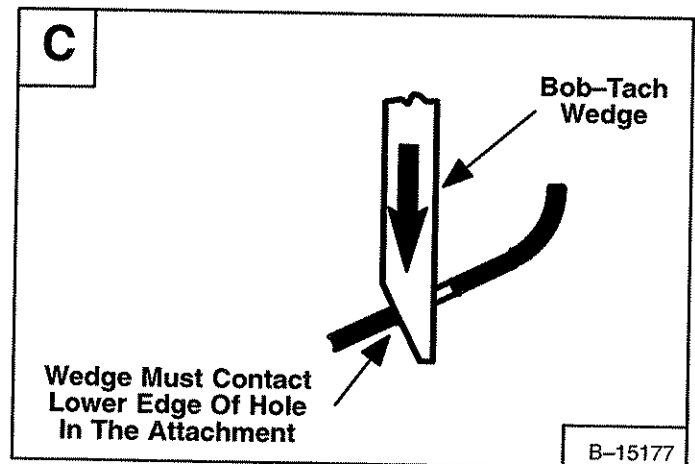
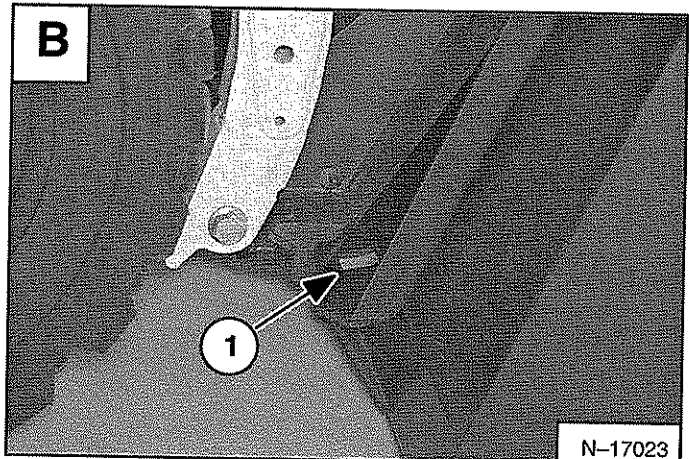
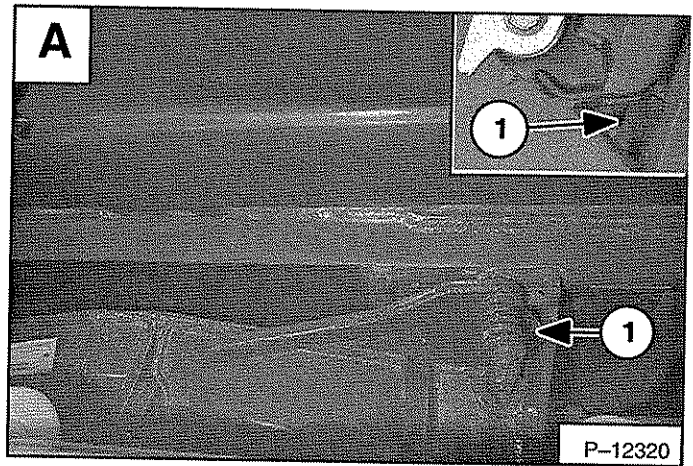
The spring loaded wedge (Item 1) [A] must contact the lower edge of the hole in the attachment (Item 1) [B] and [C].

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 Service 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.

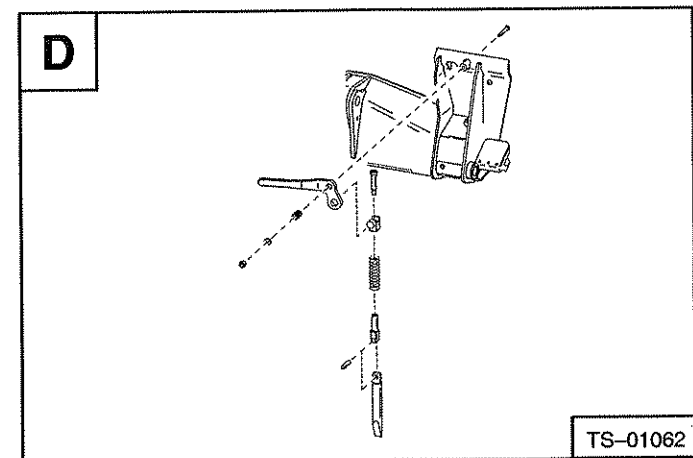
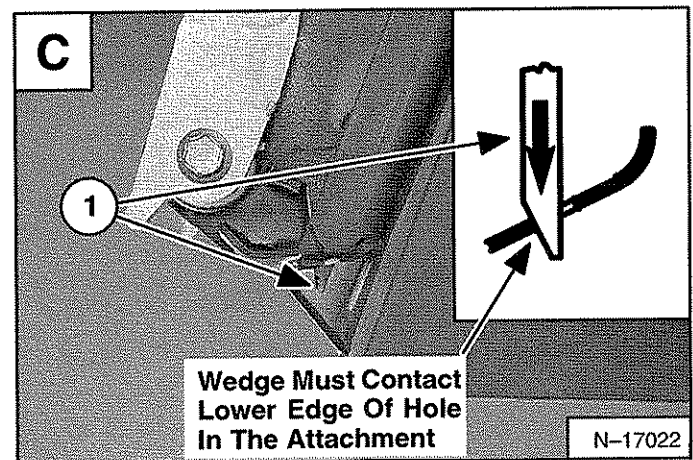
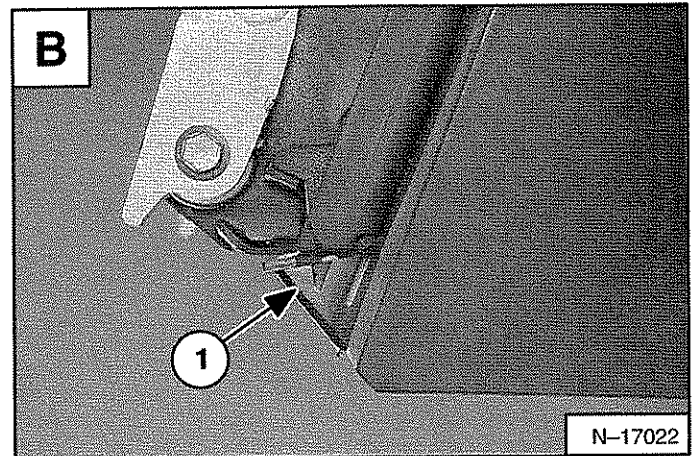
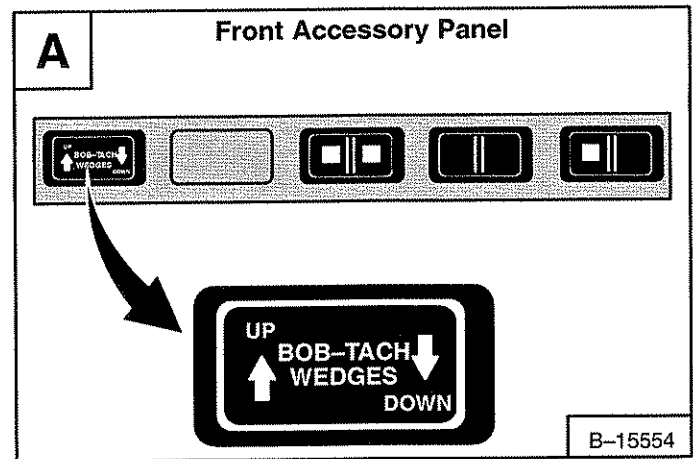
The wedges must extend through the holes in the attachment mounting frame (Item 1) [B] and must contact the lower edge of the hole in the attachment [B] and (Item 1) [C].

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.

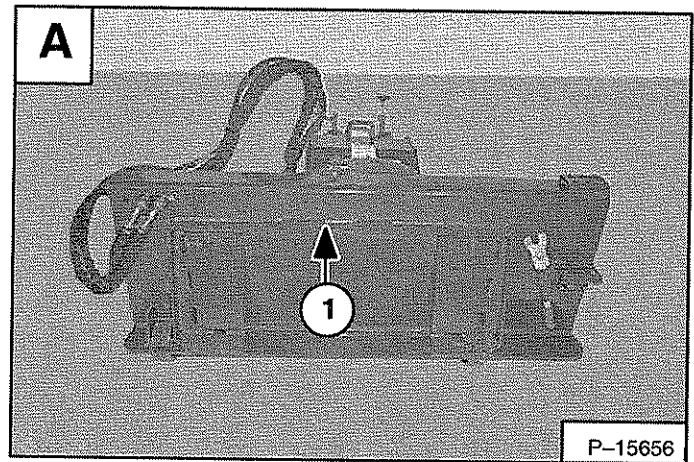
Lubricate the wedges. (See the correct loader Service Manual for *LUBRICATION OF THE BOBCAT LOADER*.)



INSPECTION (Cont'd)

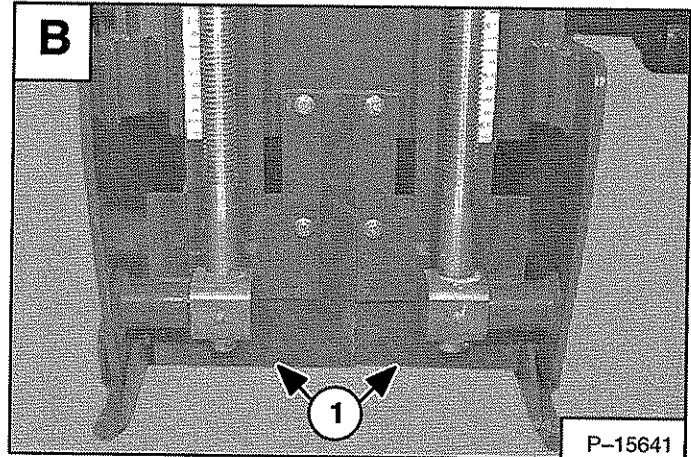
Planer Mount Inspection

Inspect the Planer mounting flange (Item 1) [A] and all welds on the Planer mount for wear and damage each time the Planer is removed from the loader.



Rubber Skirt Inspection

Make sure the rubber skirts (Item 1) [B] are in good condition to provide protection from flying debris.



LUBRICATION

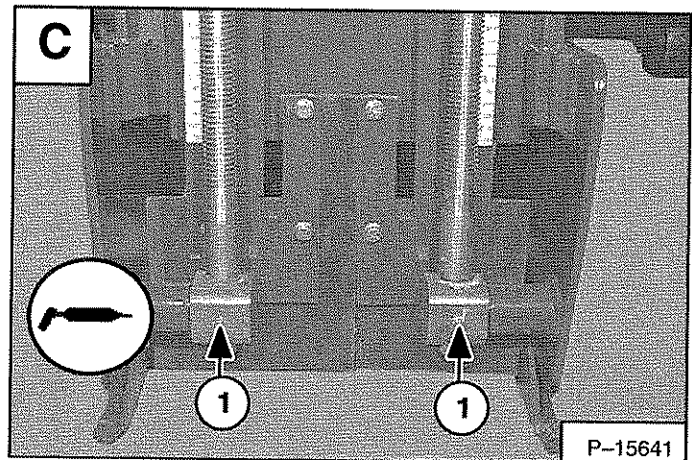
Lubrication Points

Always use a good quality lithium base grease when lubricating the planer. Apply the lubricant until extra grease shows.

IMPORTANT

Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

I-2067-0499



Lubricate the two adjusting rod fittings (Item 1) [C] every 8-10 hours:

RUBBER SKIRTS

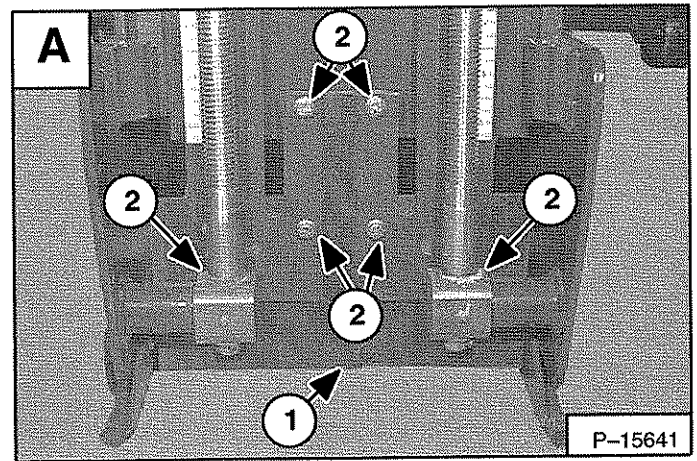
Replacement

Replace the rubber skirts (Item 1) [A] if worn or damaged.

Remove the ten mounting bolts (Item 2) [A] and nuts, from the skirt mounting brackets, there are four mounting bolts and four bushings which are located behind the rubber skirts.

Installation: Apply LOCTITE 242 or equivalent. Tighten the mounting bolts to 25 ft.-lbs. (34 Nm) torque.

Remove and replace the skirts (Item 1) [A].

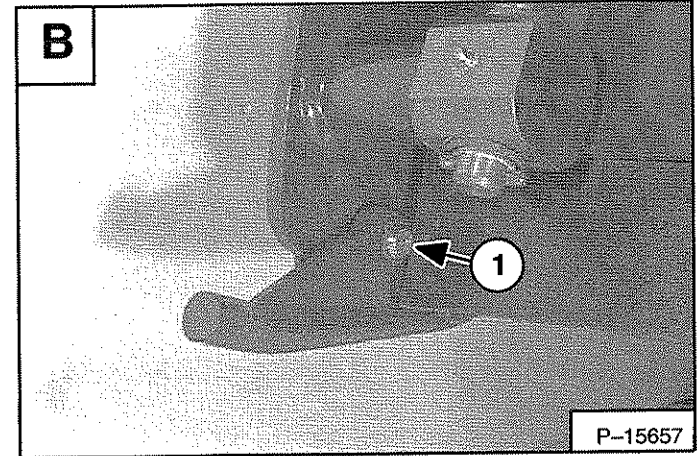


SKIS

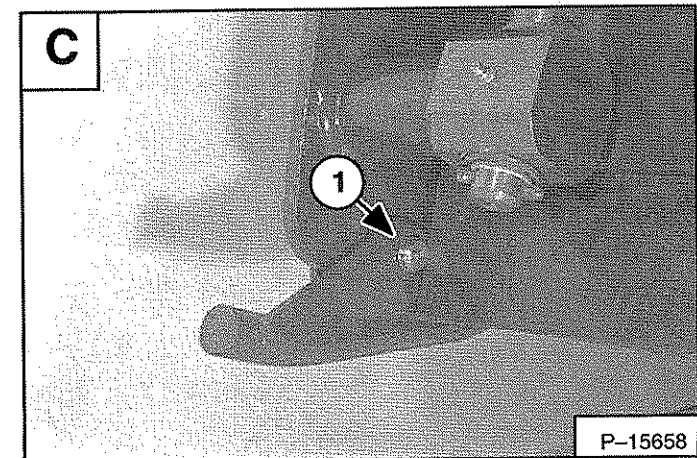
Ski Replacement

Remove the snap ring (Item 1) [B].

NOTE: Check the condition of the skis periodically.



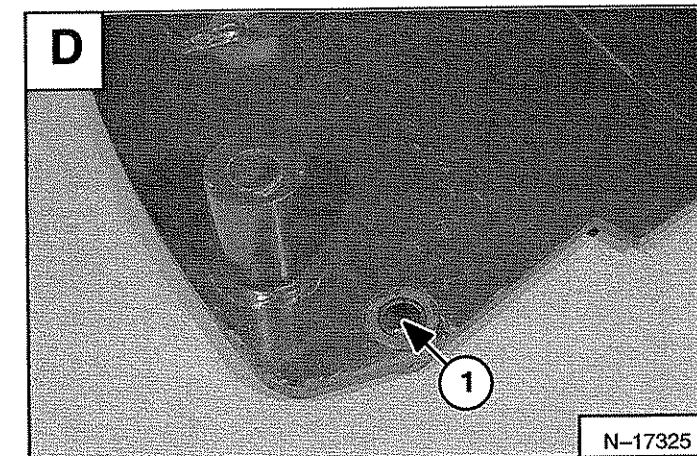
Remove the pin (Item 1) [C] and remove the ski.



Ski Bushing Replacement

Check the bushing (Item 1) [D] on the ski and replace if worn.

Press bushing from ski and install a new bushing.



SKIS (Cont'd)

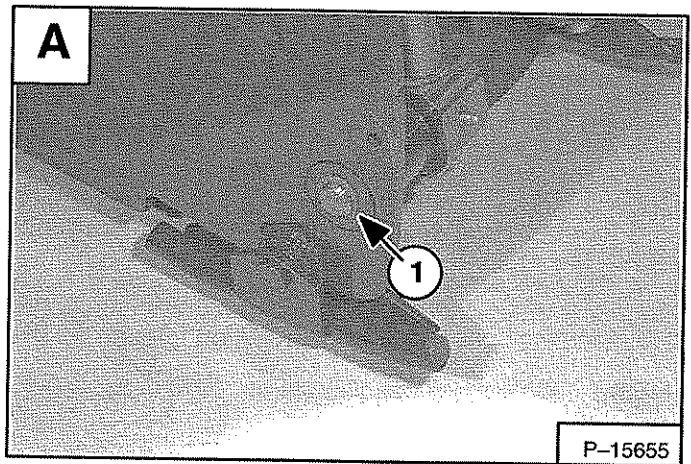
Ski Mount Removal And Installation

Use the following procedure for either the right or left ski:

Tilt the Planer back, put blocks under the drum, and lower drum to blocks.

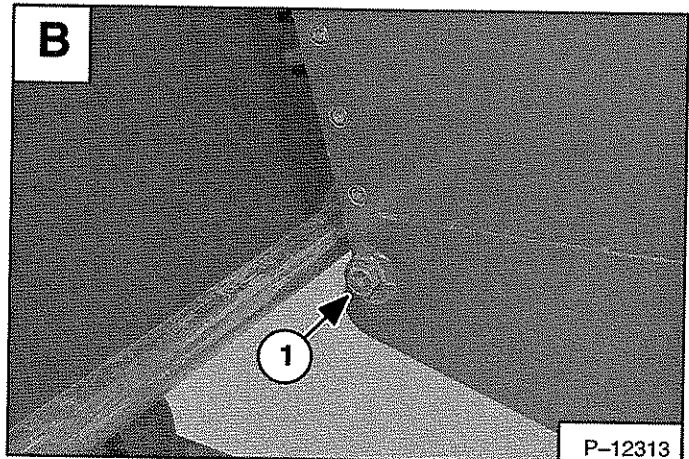
Remove the snap ring (Item 1) [A] and remove the pin from the ski mount.

Lower the front of the ski mount to the ground.



Remove the rear bolt (Item 1) [B] from the ski mount.

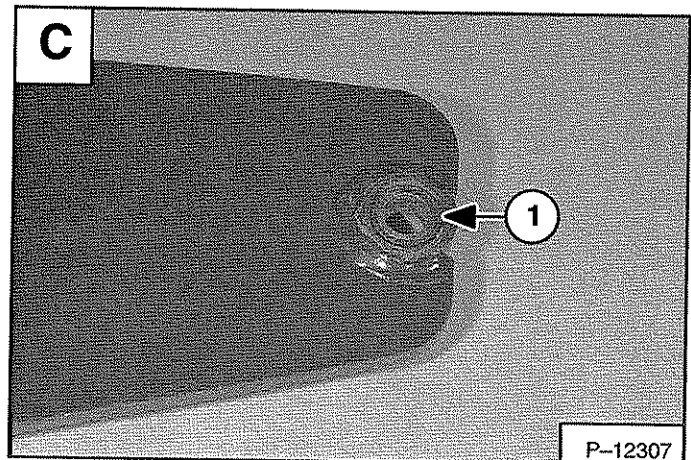
Installation: The ski mount mounting bolt should be tightened so the ski mount can slide up and down freely.



Ski Mount Bushing Replacement

Check the bushing (Item 1) [C] on the rear mounting bolt and replace if worn.

Press the bushing from the ski mount and install a new bushing.



DRUM

Checking The Carbide Bits

Check the bits every three hours of operation.

The bits must be free to rotate in their holders. If the bit will not rotate, uneven and rapid wear will result.

REPLACING CARBIDE BITS

Lower the lift arms fully and tilt the Planer forward until the skis contact the surface.

! WARNING

AVOID INJURY OR DEATH
DO NOT open cover while running. You could be drawn into the machine.

W-2181-0395

Stop the engine and engage the parking brake.

Unfasten the seat belt, raise the seat bar and exit the loader.

! WARNING

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

Unlatch the two cover latches (Item 1) [A].

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

The tool MEL1302 (which is stored on the Planer frame), is used for the following procedure:

Bit Removal And Installation Tool

Install the tool on the flange as shown, and use a hammer to remove the bit from the holder [B].

Put the tool on the bit as shown, and install the bit into the holder with a hammer [C].

IMPORTANT

Engage drum at low idle speed after the drum has been rotated by hand.

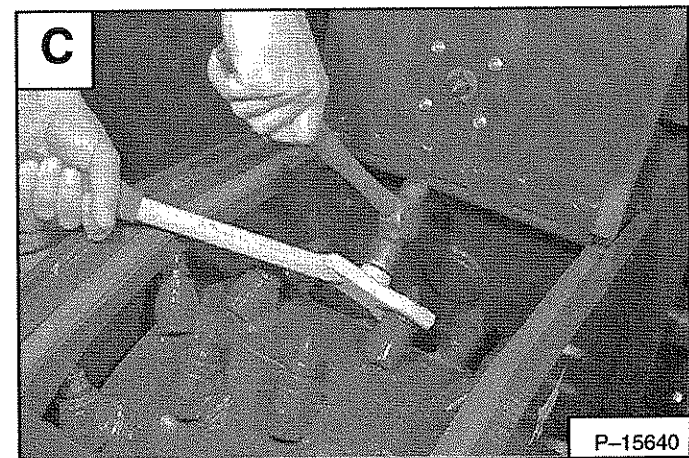
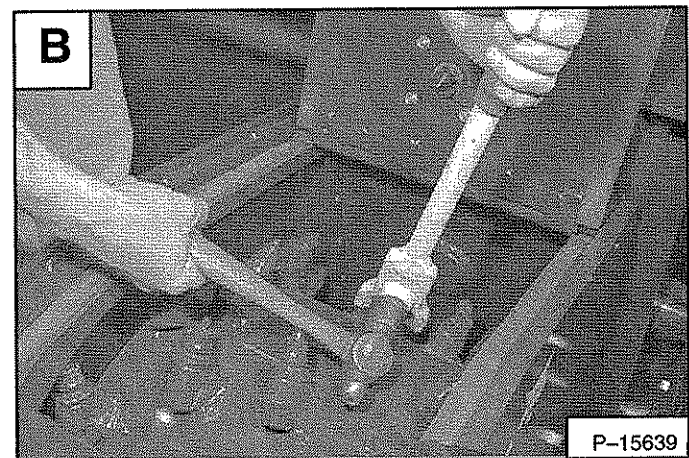
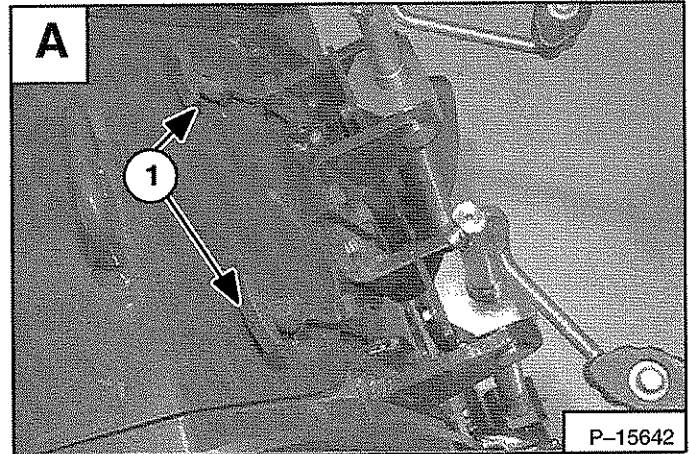
I-2068-0395

! 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



DRUM (Cont'd)

Removal And Installation

Remove the right ski mount from the Planer. (See 38 for correct procedure.)

Start the loader. Tilt the Planer fully back so the drum and skis are off the ground.

Side shift the Planer fully to the right.

Raise the skis fully.

Tilt the Planer forward so that the drum touches the ground.

Stop the engine and engage the parking brake.

Open the top cover on the Planer.

Put blocks under the side cover to support the side cover during removal.

Remove the nine side cover mounting bolts (Item 1) [A].

Installation: Tighten the mounting bolts to 65–70 ft.-lbs. (88–95 Nm) torque.

Remove the side cover from the Planer frame [B].

Remove the eight drum mounting nuts (Item 1) [C].

NOTE: When installing a new drum, put the machined side of the drum against the drive motor mounting hub.

Release the parking brake and start the engine.

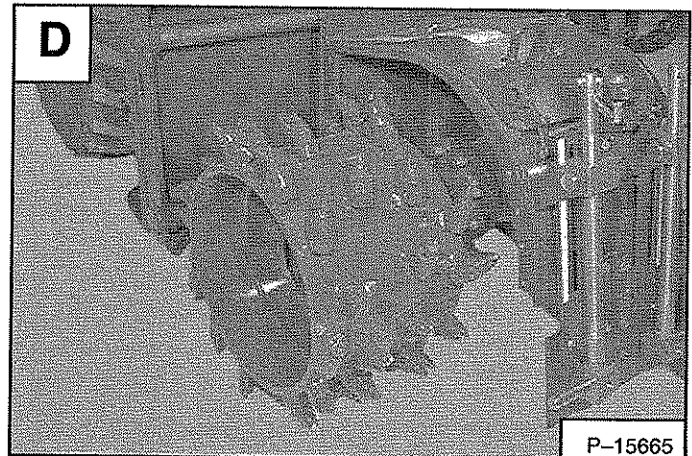
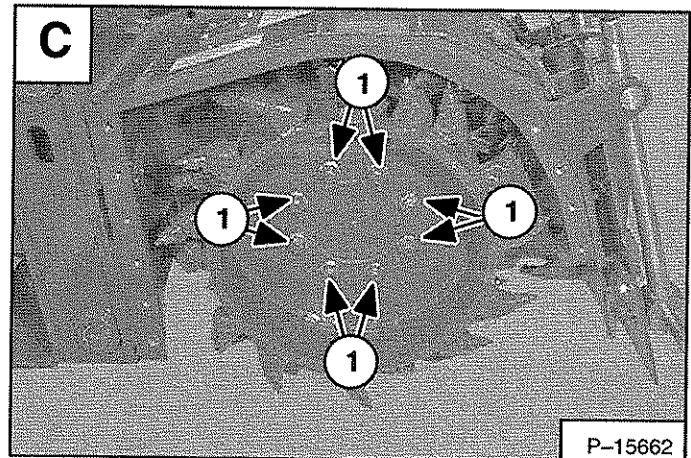
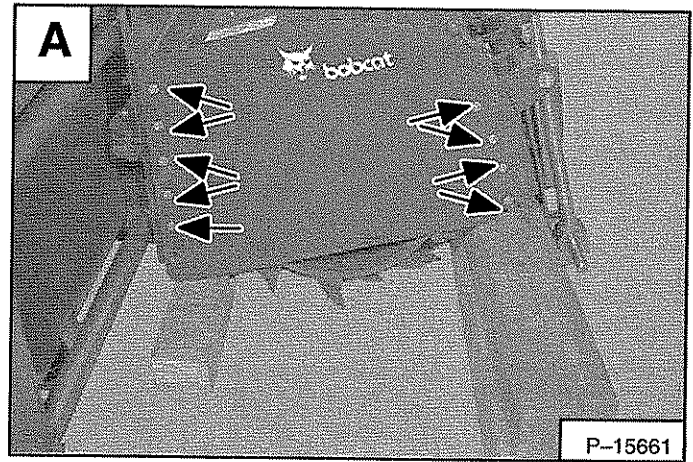
NOTE: Do not engage the drum.

Side shift the Planer frame to the left until the drum and frame are away from each other [D].

Installation: Put a new drum in the mounting position as shown [D]. Side shift the Planer frame to the right until the drum and the frame contact, align bolt holes in drum with mounting bolts on Planer.

NOTE: Stay away from the drum and mounting frame when side shifting the Planer. Stop the loader engine before aligning the drum bolt holes.

Installation: Tighten the drum mounting nuts to 240 ft.-lbs. (325 Nm) torque.



SPECIFICATIONS

ADDITIONAL PUBLICATIONS	48
ELECTRICAL SCHEMATIC – 7 PIN HARNESS (If Equipped With Hydraulic Ski Adjust)	46
ELECTRICAL SCHEMATIC – 7 PIN HARNESS WITH 14 PIN ADAPTER HARNESS (If Equipped With Hydraulic Ski Adjust)	47
HYDRAULIC SCHEMATIC (With Manual Ski Adjust)	44
HYDRAULIC SCHEMATIC (If Equipped With Hydraulic Ski Adjust)	45
SPECIFICATIONS	43

SPECIFICATIONS

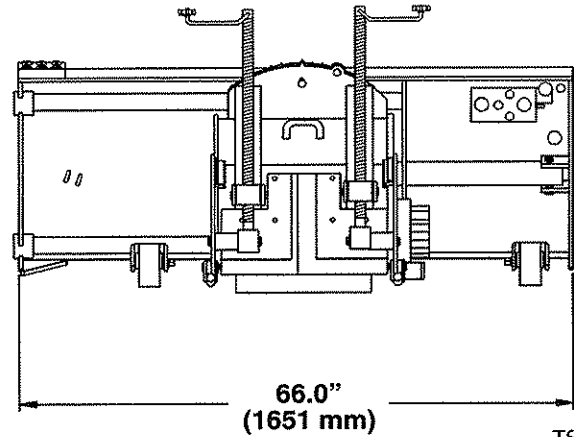
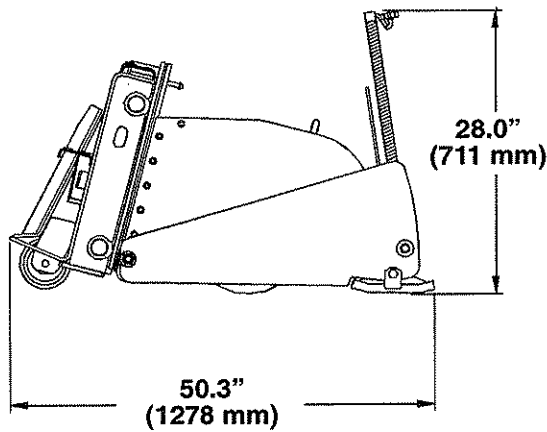


Bobcat®

SPECIFICATIONS

• All dimensions are shown in inches. Respective metric dimensions are given in millimeters enclosed by parentheses.

• Where applicable, specifications conform to **SAE and ISO** standards and are subject to change without notice.

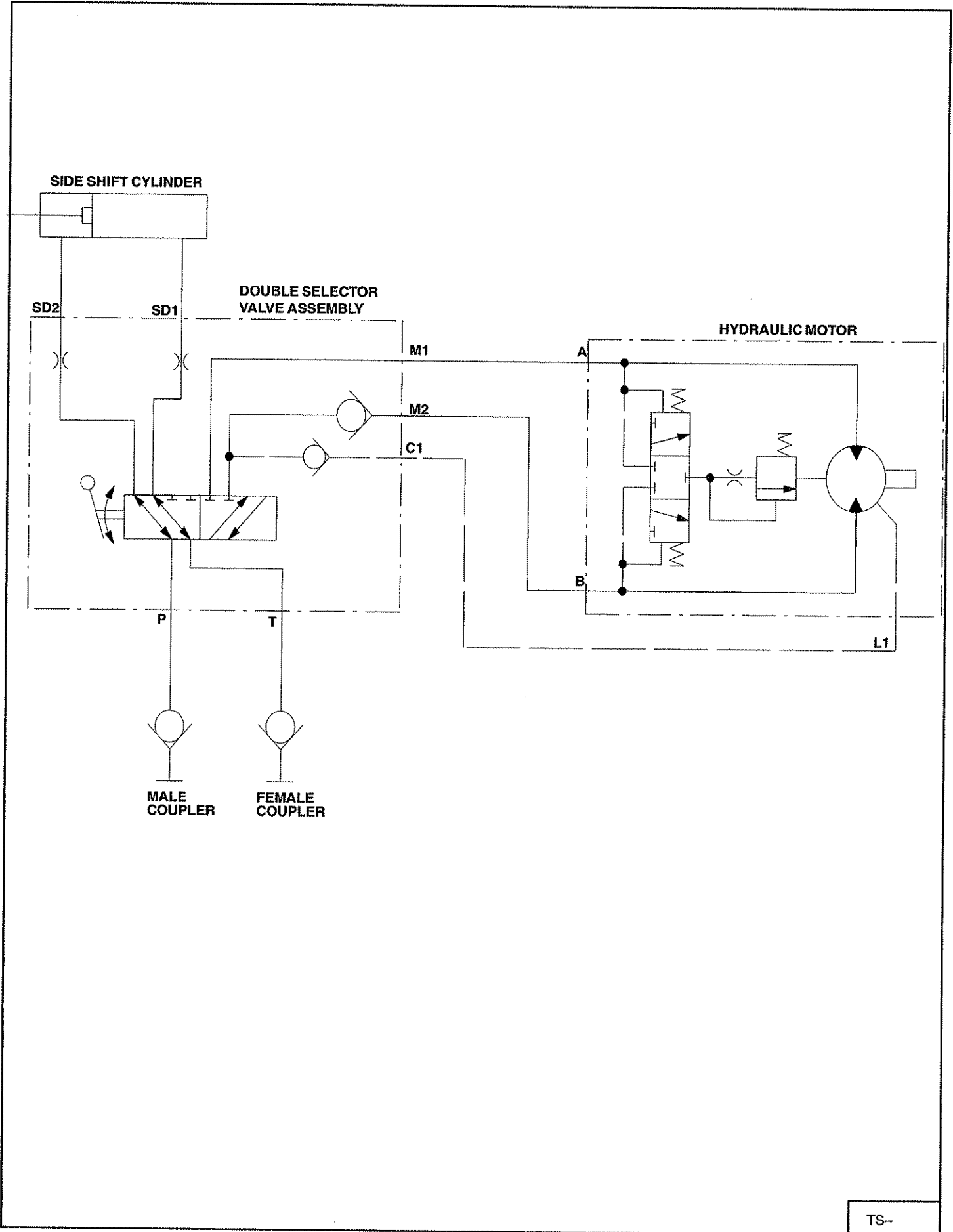


TS-02031

14 Inch Planer	
Overall Width	66.0" (1651 mm)
Overall Length	50.3" (1278 mm)
Overall Height	28.0" (711 mm)
Attachment Weight (w/14" Drum)	1520 lbs. (689 kg)
Side Shift Cylinder Stroke	26.0" (660 mm)
Drum Cutting Angle	$\pm 15^\circ$ right $\pm 1^\circ$ left
Cutting Depth	0-60" (0-152 mm)
Drum Diameter	17.750" (451 mm)
Tool Bit Diameter	23.750" (603 mm)
Planing Distance Next To Curb	Flush

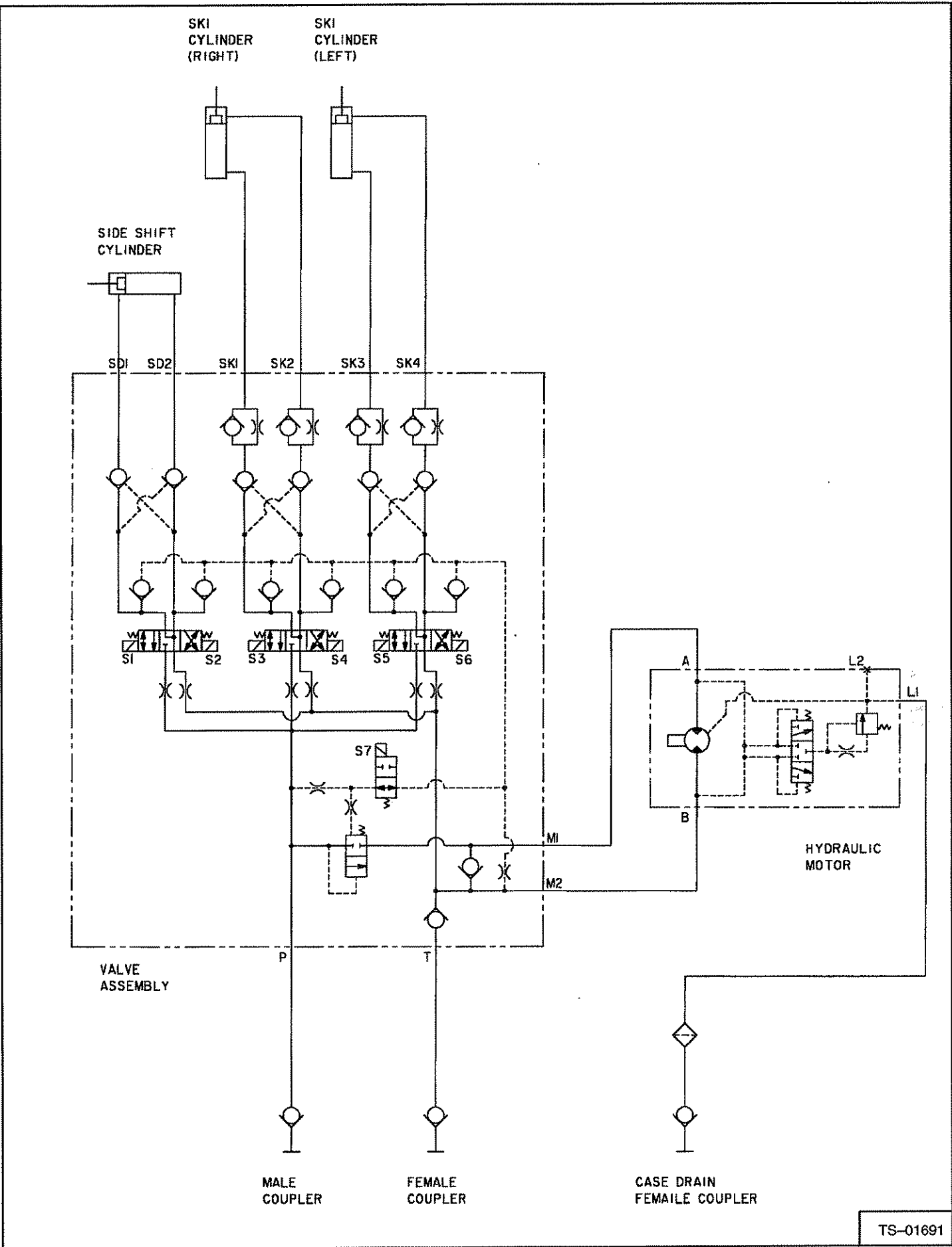
	No. Of Bits	Cutting Width	Cutting Depth	Weight
14" All purpose	46	14.0" (356 mm)	0-6" (0-152 mm)	240 lbs. (107 kg)
12" All purpose	40	12.0" (305 mm)	0.6" (0-152 mm)	212 lbs. (96 kg)
8" All purpose	34	8.0" (203 mm)	0-6" (0-152 mm)	172 lbs. (78 kg)
6" All purpose	32	6.0" (153 mm)	0.6" (0-152 mm)	165 lbs (75 kg)
2.5" Slot cutting	21	2.5" (64 mm)	0-6" (0-152 mm)	90 lbs. (41 kg)

HYDRAULIC SCHEMATIC (With Manual Ski Adjust)



TS-

PLANER HYDRAULIC SYSTEM (If Equipped With Hydraulic Ski Adjust)

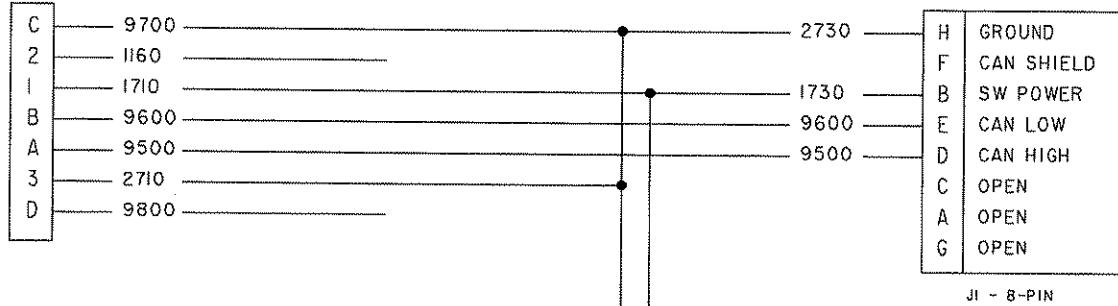


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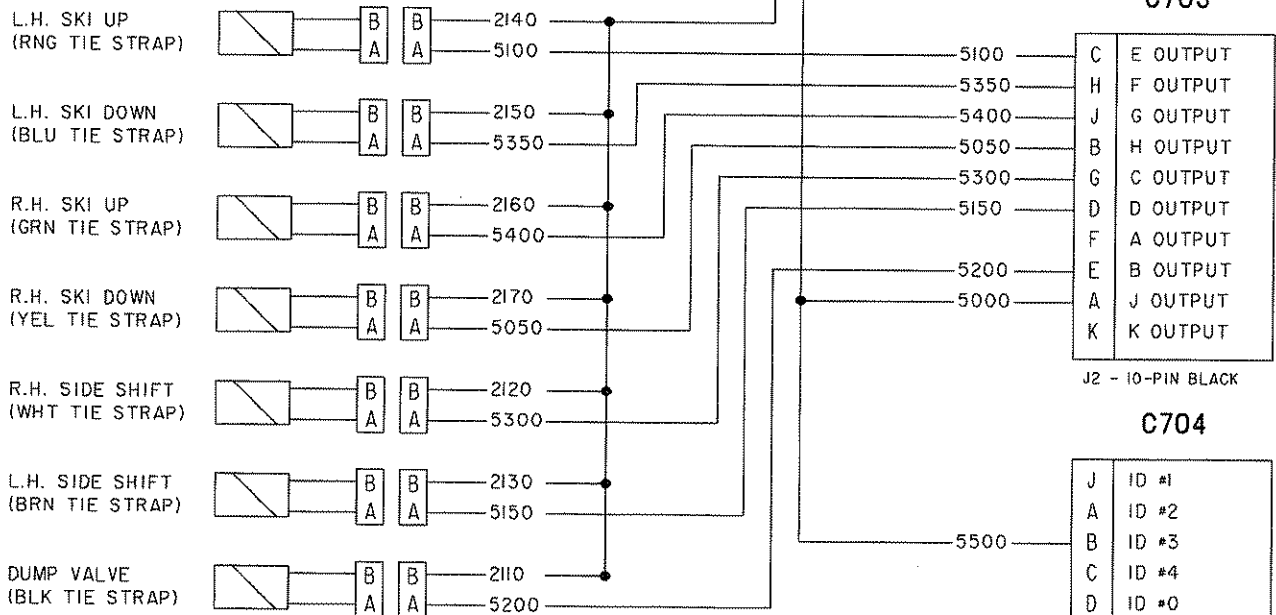
PLANER ELECTRICAL SCHEMATIC – 7 PIN HARNESS (If Equipped With Hydraulic Ski Adjust)

PLANER ELECTRICAL SCHEMATIC – WITH 7 PIN CONNECTOR

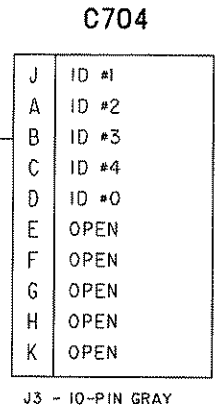
PLANER HARNESS 6726641



BOOM-MOUNTED ACD CONNECTORS



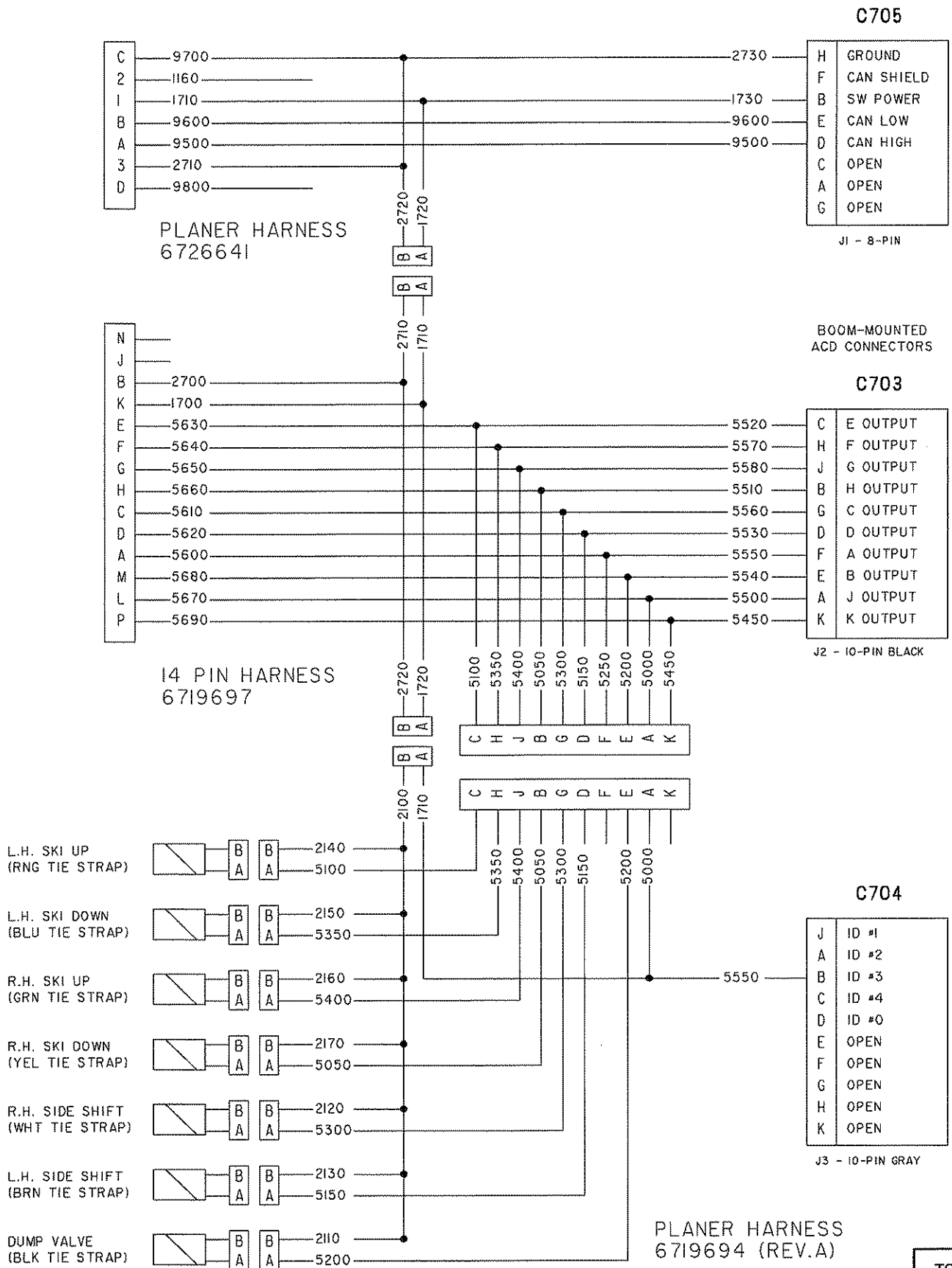
PLANER HARNESS 6719694 (REV.A)



TS-02072

PLANER ELECTRICAL SCHEMATIC – 7 PIN HARNESS WITH 14 PIN ADAPTER HARNESS (If Equipped With Hydraulic Ski Adjust)

PLANER ELECTRICAL SCHEMATIC - 7 PIN HARNESS WITH THE 14 PIN HARNESS KIT



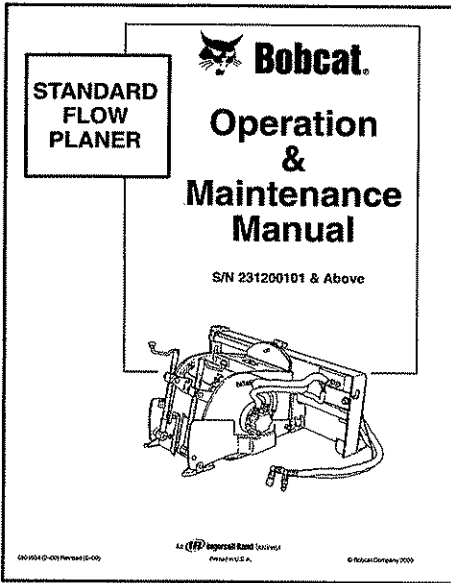
TS-02073



ADDITIONAL PUBLICATIONS

The following publications are also available for your Bobcat Planer Attachment. You can order them from your Bobcat dealer.

For the latest information on Bobcat products and the Bobcat Company, visit our website at www.bobcat.com



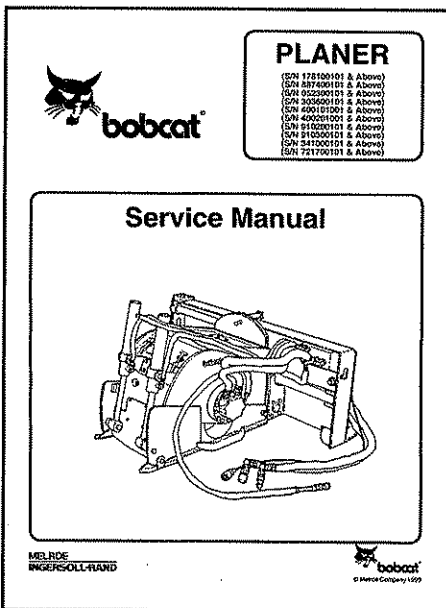
—complete instruction on the correct operation and the routine maintenance of the BOBCAT Planer.

OPERATION & MAINTENANCE MANUAL 6901034

PLANER ATTACHMENT OPERATOR TRAINING COURSE 6900637

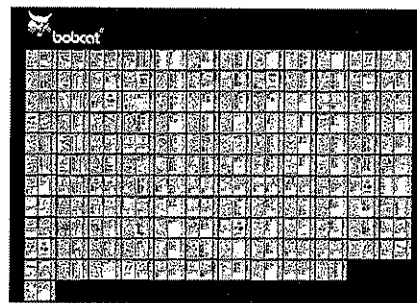


—Introduces operator to step-by-step basics of the Planer Attachment operation.



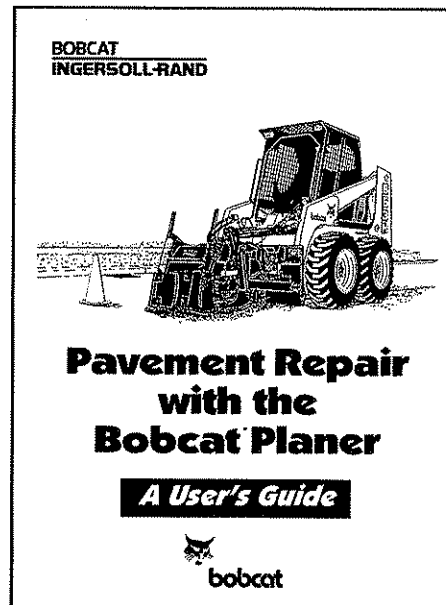
—complete maintenance and overhaul instructions for your BOBCAT Planer.

SERVICE MANUAL 6900886



PARTS MICROFICHE

—Up-to-date PARTS information is also available. See your BOBCAT dealer.



A USER'S GUIDE

WARRANTY

Bobcat Attachments

Bobcat Company warrants to its authorized dealers and authorized dealers of Bobcat Equipment Ltd., who in turn warrant to the original owner, that each new Bobcat attachment will be free from proven defects in material and workmanship for twelve (12) months after delivery by the authorized Bobcat dealer to the original buyer.

During the warranty period, the authorized Bobcat dealer shall repair or replace, at Bobcat Company's option, without charge for parts and labor, any part of the Bobcat product which fails because of defects in material or workmanship. The owner shall provide the authorized Bobcat dealer with prompt written notice of the defect and allow reasonable time for replacement or repair. Bobcat Company may, at its option, require failed parts to be returned to the factory. Travel time of mechanics and transportation of the Bobcat product to the authorized Bobcat dealer for warranty work are the responsibility of the owner. The remedies provided in this warranty are exclusive.

This warranty does not cover replacement of scheduled service items and high wear items. The owner shall rely solely on the warranty, if any, of the respective manufacturers thereof. This warranty does not cover damages resulting from abuse, accidents, alterations, use of the Bobcat product as an attachment on any equipment not approved by Bobcat Company, air flow obstructions, or failure to maintain or use the Bobcat product according to the instructions applicable to it.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND CONDITIONS, EXCEPT THE WARRANTY OF TITLE. BOBCAT COMPANY DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL BOBCAT COMPANY OR THE AUTHORIZED BOBCAT DEALER BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, LOSS OR INTERRUPTION OF BUSINESS, LOST PROFITS, OR LOSS OF MACHINE USE, WHETHER BASED ON CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY, STATUTE OR OTHERWISE, EVEN IF BOBCAT COMPANY OR THE AUTHORIZED BOBCAT DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE TOTAL LIABILITY OF BOBCAT COMPANY AND THE AUTHORIZED BOBCAT DEALERS WITH RESPECT TO THE PRODUCT AND SERVICES FURNISHED HEREUNDER SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCT UPON WHICH SUCH LIABILITY IS BASED.



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