

JOHN DEERE
WORLDWIDE CONSTRUCTION
AND FORESTRY DIVISION

Utility Backhoes
PRO850, PRO900, PRO911

OMKV18678 A2

OPERATOR'S MANUAL



JOHN DEERE

North American Version
Litho in U.S.A.

INTRODUCTION

Thank You for Purchasing a John Deere Product

We appreciate having you as a customer and wish you many years of safe and satisfied use of your machine.

IMPORTANT: Avoid damage! This text is used to tell the operator of actions or conditions that might result in damage to the machine.

NOTE: Information is given throughout the manual that may help the operator with the operation or service of the machine.

Using Your Operator's Manual

This manual is an important part of your machine and should remain with the machine at all times.

Reading your operator's manual will help you and others avoid personal injury or damage to the machine. Information given in this manual will provide the operator with the safest and most effective use of the machine. Knowing how to operate this machine safely and correctly will allow you to train others who may operate this machine.

This manual and safety signs on your machine may also be available in other languages (see your Authorized John Deere Skid Steer Dealer to order).

Sections in your operator's manual are placed in a specific order to help you understand all the safety messages and learn the controls so you can operate this machine safely. You can also use this manual to answer any specific operating or servicing questions. A convenient index located at the end of this book will help you to find needed information quickly.

The machine shown in this manual may differ slightly from your machine, but will be similar enough to help you understand our instructions.

RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the machine will travel when going forward. When you see a broken line arrow (----->), the item referred to is hidden from view.

Before delivering this machine, your dealer performed a predelivery inspection to ensure best performance.

Special Messages

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.



CAUTION: Avoid injury! This symbol and text highlight potential hazards or death to the operator or bystanders that may occur if the hazards or procedures are ignored.

PRODUCT IDENTIFICATION

Record Identification Numbers

Backhoes for Skid Steers

PRO850 Serial No. (KVP850X400101 -)

PRO900 Serial No. (KVP900X400101 -)

PRO911 Serial No. (KVP950X400101 -)

If you need to contact an Authorized Service Center for information on servicing, always provide the product model and identification numbers.

You will need to locate the identification numbers for the product. Record the information in the spaces provided below.



KV1342

DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

SERIAL NUMBER (A):

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>

TABLE OF CONTENTS

Safety	1
Installing	6
Removing	10
Operating	12
Replacement Parts	20
Service Intervals	21
Service Lubrication	22
Service Lubrication	23
Service	24
Troubleshooting	25
Storage	26
Assembly	27
Specifications	41
Warranty	47
Index	48

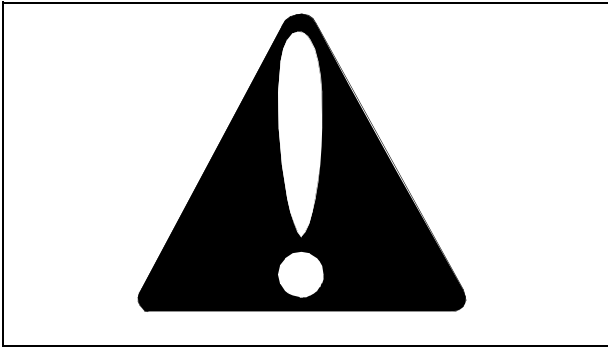
All information, illustrations and specifications in this manual are based on the latest information at the time of publication. The right is reserved to make changes at any time without notice.

COPYRIGHT© 2002
Deere & Co.
All rights reserved
Previous Editions
COPYRIGHT©

OMKV18678 A2 - English

SAFETY

Understanding The Machine Safety Labels



Safety-Alert Symbol

The machine safety labels shown in this section are placed in important areas on your machine to draw attention to potential safety hazards.

On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards.

The operator's manual also explains any potential safety hazards whenever necessary in special safety messages that are identified with the word, CAUTION, and the safety-alert symbol.

WARNING



M79126/ KV1342

- Seat mounting must be checked at regular intervals.
- Tighten if necessary.
- If cracks or rust occur replace this seat immediately.

WARNING - Danger



KV1343/ M97934

- DO NOT allow riders in the bucket.
- Never stand or lean anywhere on skid steer or linkage will crush you.

DANGER - Avoid Crush Injury or Death



M97930/ KV1342

- Operate backhoe controls from backhoe seat only.
- Secure backhoe to skid steer with tie down yoke assembly.

SAFETY

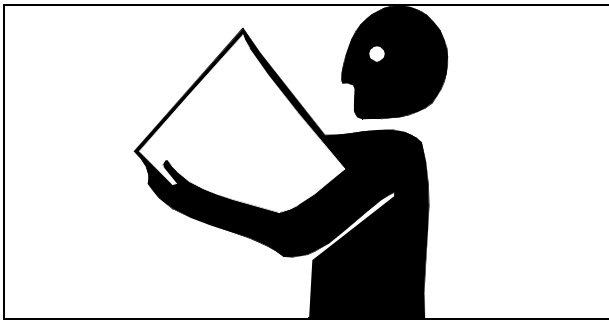
CAUTION - Help Avoid Injury



M97931/ KV1342

- Read Operator's Manual.
- Avoid overhead and underground powerlines.
- Keep bystanders away from maximum swing reach area and stabilizers.
- Do not operate skid steer and backhoe using two operators.
- Lock backhoe swing and boom with lockpins when not in use or when transporting.
- Lower stabilizers and bucket before leaving seat.
- Keep all shields in place.

Operator Training Required



MIF

- Study the Skid Steer Operator's Manual. Know the location and function of all controls. Know how to operate the skid steer before using this attachment.
- Study operating section of this manual before operating a backhoe attachment. Know location and function of all controls.
- Operate machine in an open, unobstructed area under the direction of an experienced operator.
- Operator experience is required to learn the moving,

stopping, turning, and other operating characteristics of the machine.

- Learn the use of all controls.

Operate Safely

- Inspect the machine and attachment before you operate. Be sure all hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.
- Clear work area of objects that might be thrown. Keep people and pets out of the work area. Stop machine if anyone enters the area.
- Do not operate backhoe unless it is properly installed on the skid steer.
- Only operate backhoe from backhoe operator's seat.
- Do not operate skid steer control levers from backhoe operator's seat.
- If you hit an object, stop the machine and inspect machine for damage. Make repairs before you operate again. Keep machine properly maintained and in good working order.
- Do not leave machine unattended while it is running.
- Operate only during daylight or with adequate artificial light.
- Watch for overhead wires. Never touch wires with any part of the skid steer boom or attachment.
- Do not let anyone ride on the backhoe or skid steer.
- Do not let an untrained person operate machine.
- Do not dig under stabilizers. Soft ground or sandy soil can cave-in.
- Before digging, contact your local utility companies (gas, electric, telephone, water, and sewer) to find out where utilities are buried.
- Always check to the sides and rear of the skid steer before backing up.

Park Skid Steer and Backhoe Safely

Before leaving backhoe seat:

- Always lower stabilizers and bucket to the ground, or put backhoe in the transport position if you are going to move skid steer and backhoe.
- Lock the swing lever (PRO900 and PRO911 Only).

Install swing lock pin and if transporting backhoe, install

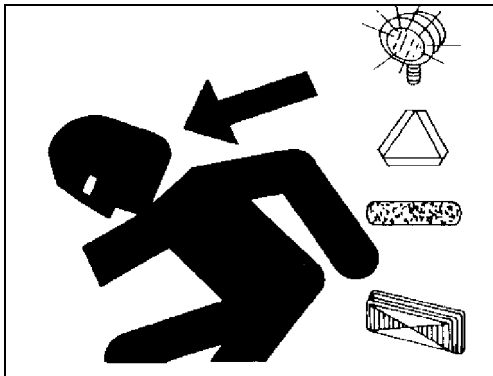
SAFETY

boom lock pin.

Before leaving skid steer seat:

- Stop machine on a level surface, not on a slope.
- Engage park brake.
- STOP the engine.
- Remove the key.
- Before you leave the operator's seat, wait for engine and all moving parts to STOP.

Transport Backhoe Safely



MIF

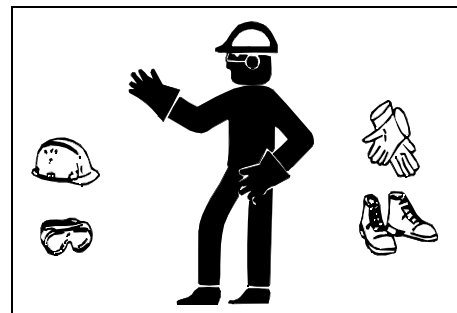
- Use warning lights, turn signals, and other safety devices. Slow moving machines on public roadways are difficult to see, especially at night.
- Follow local regulations. Extra flashing warning lights and SMV (Slow Moving Vehicle) sign may be required.
- During transport, keep as far to the right as possible. Do not exceed safe controllable speed.
- Lock backhoe in transport position.
- Visibility is restricted when transporting a skid steer with an attached backhoe.
- Check backhoe often during transport to ensure bucket is curled, stabilizers are raised, and extender cylinder (Model 911) is fully retracted.

Avoid Tipping

- Always drive skid steer with backhoe in the TRANSPORT position. (See Transporting Backhoe in the OPERATING section.)
- Do not drive where machine could slip or tip.
- Stay alert for holes and other hidden hazards in the terrain. Avoid rocks, roots and ditches.
- Keep away from drop-offs.

- Slow down before you make a sharp turn or operate on a slope.
- Drive up and down a hill - not across. Be careful when you change direction on a slope.
- Do not stop when going up or down hill. If machine stops going up hill, engage the park brake, start engine, and back down slowly.

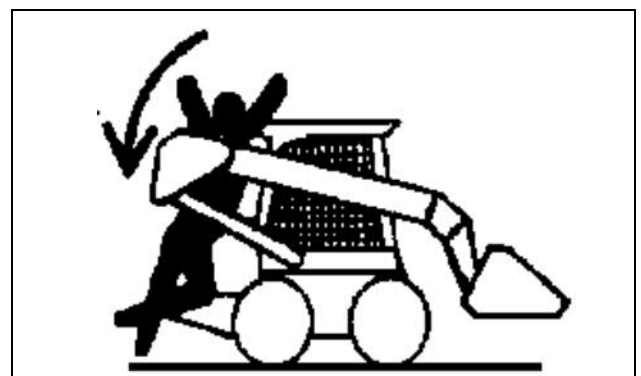
Wear Appropriate Clothing



MIF

- Wear close fitting clothing and safety equipment appropriate for the job.
- Always wear safety goggles or safety glasses with side shields when operating the machine.
- Wear a suitable protective device such as earplugs. Loud noise can cause impairment or loss of hearing.
- Do not wear radio or music headphones. Safe service and operation requires your full attention.

Practice Safe Maintenance



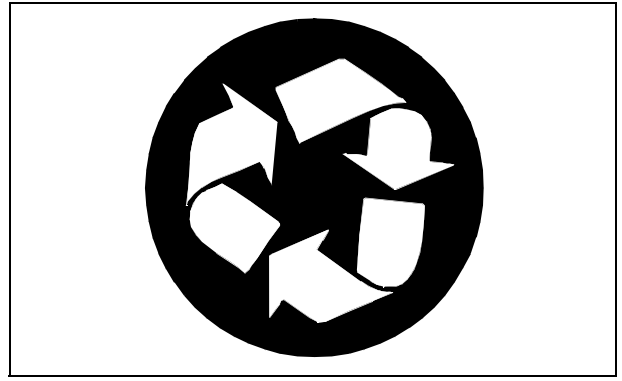
M71840A

- Do not work under a raised boom unless it is resting on boom locks and attachment has been removed. When lowered, boom arms will move near engine hood and frame; never stand or lean on skid steer where linkage can crush you.

SAFETY



MIF



MIF

- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service, or adjust machine while it is moving. Keep safety devices in place and in working condition. Keep hardware tight.
- Keep hands, feet, clothing, jewelry, and long hair away from any moving parts, to prevent them from getting caught.
- Lower attachment to the ground before servicing machine. Disengage all power and stop the engine. Lock park brake and remove the key. Let machine cool.
- Before servicing the machine, carefully release pressure from any components with stored energy, such as hydraulic components.
- Keep all nuts and bolts tightened.
- Securely support any machine elements that must be raised for service work.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Replace all worn or damaged safety and instruction decals.
- To prevent fires, remove any buildup of grease, oil, or debris from the machine, especially the engine compartment.
- Do not modify machine or safety devices. Unauthorized modifications may impair its function and safety.
- Do not wear radio or music headphones while servicing the machine. Safe service requires your full attention.

Handling Waste Product and Chemicals

Waste products, such as, used oil, fuel, coolant, brake fluid, and batteries, can harm the environment and people:

- DO NOT use beverage containers for waste fluids - someone may drink from them.
- See your local Recycling Center or John Deere dealer to learn how to recycle or get rid of waste products.
- A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques. The seller of the chemical products used with your machine is responsible for providing the MSDS for that product.

Avoid High Pressure Fluids



MIF

- Hydraulic hoses and lines can fail due to physical damage, kinks, age, and exposure. Check hoses and lines regularly. Replace damaged hoses and lines.
- Hydraulic fluid connections can loosen due to physical damage and vibration. Check connections regularly. Tighten loose connections.
- Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.
- Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.
- If an accident occurs, see a doctor immediately. Any

SAFETY

fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A. Information may be obtained in the United States and Canada only by calling 1-800-822-8262.

INSTALLING

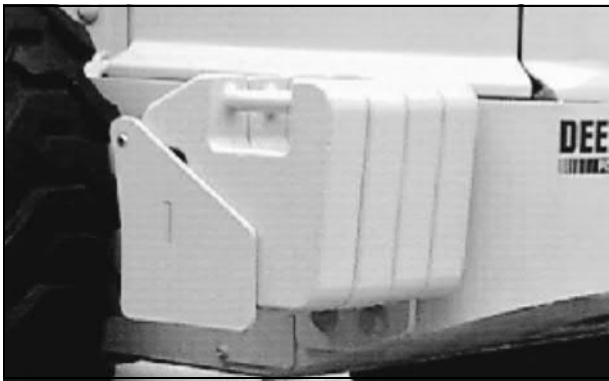
Ballasting Requirements



CAUTION: Avoid injury! To maintain steering control and stability, always use the required rear ballast.

Rear ballast consists of a total of eight 20 kg (44 lb) Quik-Tatch weights mounted behind the rear skid steer tires. Rear ballast is required for the following skid steer/backhoe combinations as follows:

- Models 240 and 250 skid steers with PRO900 or PRO911 backhoes.



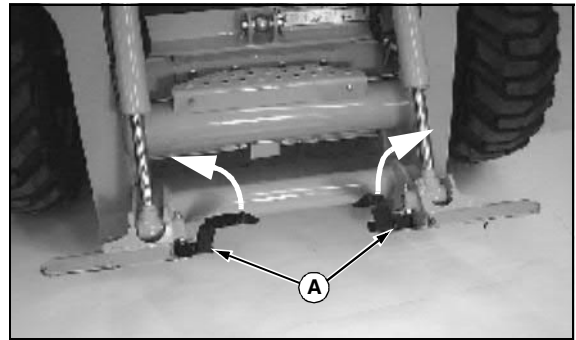
M99298

Install rear weight brackets and weights using the installation instructions supplied with the weight bracket kit. Ballasting kits are available at your authorized John Deere skid steer dealer.



CAUTION: Avoid injury!

- **DO NOT** try to latch or unlatch handles from cab.
- Be careful not to pinch hands between latch handle and step or latch handle and attachment.



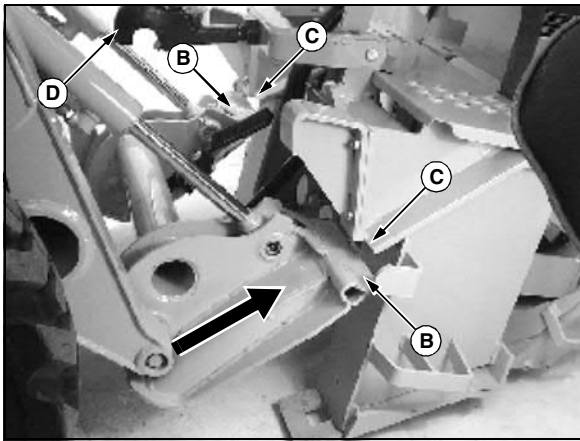
M99332

2. Lift both latch handles (A) up to the unlatched position. Be sure the latch handles are all the way up so the lock pins are fully retracted.
3. Enter skid steer, fasten seat belt, and start the engine. Disengage park brake.
4. With the boom lowered, drive the skid steer forward so it is aligned with the backhoe. Stop the skid steer.

Installing Backhoe to Skid Steer

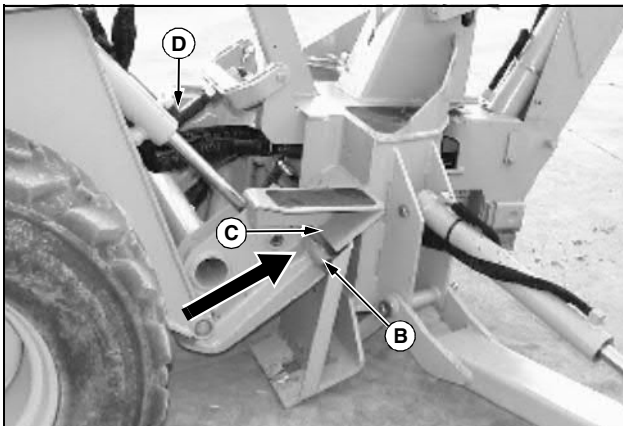
1. Park machine safely. (See Parking Safely in the SAFETY section.)

INSTALLING



M99334

Picture Note: PRO850 Backhoe



KV1344

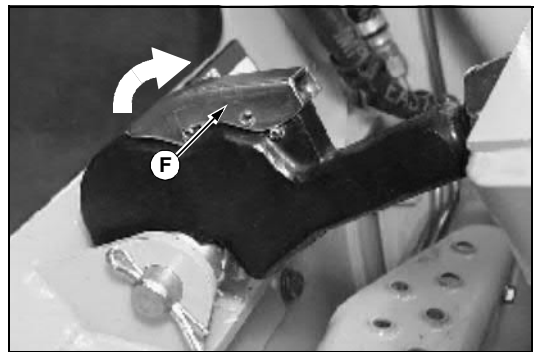
Picture Note: PRO900 and PRO911 Backhoes

5. Tilt the Quik-Tatch™ attaching plates (B) forward.
6. Drive forward slowly and guide top edges of attaching plates under upper flange (C).
7. Tilt attaching plates partially rearward until backhoe is hooked on plates.
8. Raise boom slightly so hitch (D) is higher than ball on skid steer backhoe bracket.
9. Tilt attaching plates rearward as far as possible. Bottom surface of attaching plates must be tight against backhoe.
10. Lower boom completely so hitch rests on ball.
11. Engage the park brake and stop the engine.
12. Remove seat belt and exit the skid steer.

IMPORTANT: Avoid damage! Hitch tightness must be checked regularly to maintain proper backhoe support and prevent premature wear of the hitching assembly:

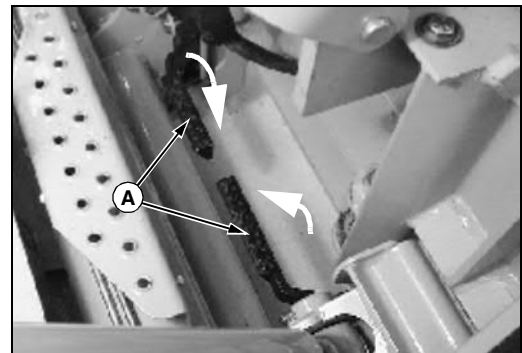
- Check hitch-to-yoke tightness after first 1 hour of operation each time backhoe is installed.
- Check hitch-to-yoke tightness every 10 hours thereafter.

If hitch length is not adjusted properly, hitch may be difficult to latch or remove. See **Adjusting Hitch Length** in the **SERVICE** section.



M99335

13. Lift upward on hitch lock lever (F) to seat hitch onto ball. Release the lock lever and make sure hitch is secure.



M99337

14. Push latch handles (A) downward completely to engage lock pins.

15. Enter skid steer, fasten seat belt, start engine, and disengage park brake switch.



CAUTION: Avoid injury! Injury to a bystander can occur if the attachment is not properly secured to the Quik-Tatch.

An operator must continuously be aware of all bystanders at the worksite.

16. Activate the lift cylinders to raise attachment and extend Quik-Tatch cylinders to tilt attachment at a slight downward

INSTALLING

angle so that the bottom of the Quik-Tatch is visible.



CAUTION: Avoid injury! Be sure pins and latch handles are secure before operating boom and Quik-Tatch cylinder controls. If attachment is not securely latched, remove it and repeat the installation.

17. Visually inspect the attachment mechanism to verify that pins are fully engaged in slots on the back of the attachment.

18. Park machine safely. (See Parking Safely in the SAFETY section.)

19. Remove seat belt and exit skid steer.

20. Connect auxiliary hydraulic lines. (See Attaching Auxiliary Hydraulic Lines in the INSTALLING section.)

Attaching Auxiliary Hydraulic Lines



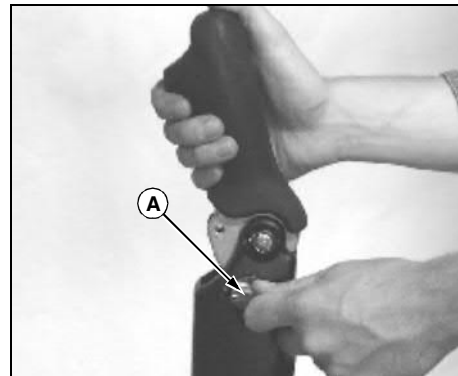
CAUTION: Avoid injury!

Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting or connecting hydraulic and other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

Relieve hydraulic pressure before connecting or disconnecting auxiliary hydraulic lines

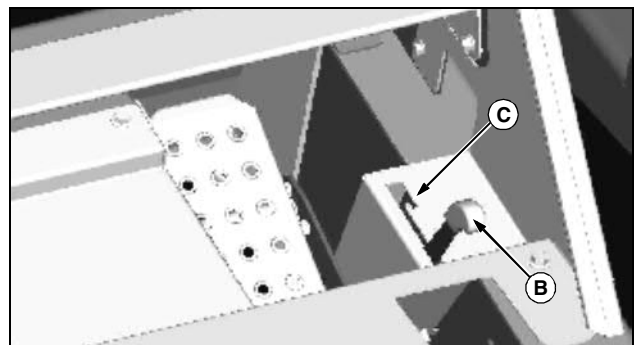
Relieving Auxiliary Hydraulic Line Pressure

1. Sit in operator's seat. Fasten seat belt.
2. Turn key switch to the run position. Do not start engine.
3. Unlock controls from neutral position:



KV15239

- For hand/foot control skid steers, turn key (A) to the right.



KV0415

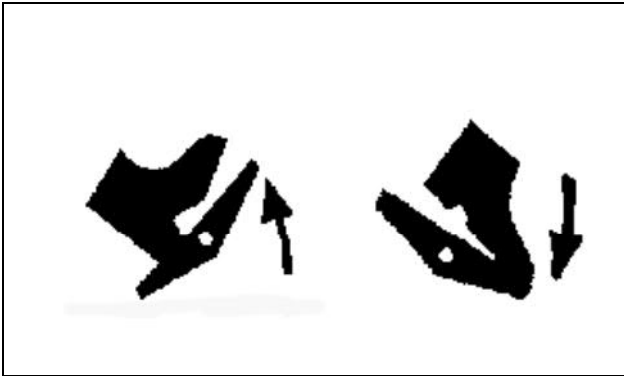
- For hand control skid steers, push the auxiliary foot pedal lockout handle (B) forward and rest in notch (C).



KV16895

4. Actuate auxiliary control several times:
 - For hand/foot control skid steers, cycle the right handle to the left and right.

INSTALLING

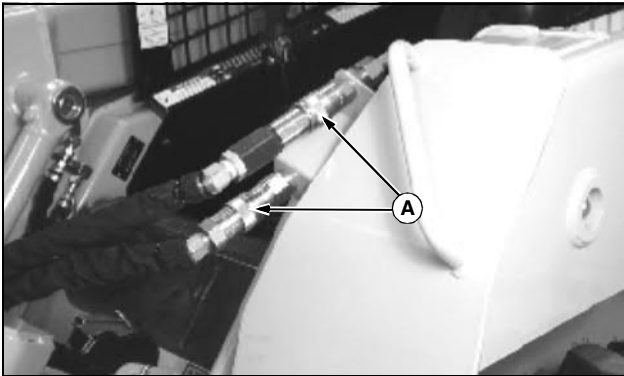


KV1116

- For hand control skid steers, cycle the right foot pedal to the front and rear.

5. Sitting in the backhoe operator's seat, raise and lower stabilizers.
6. Raise, lower, and swing the boom.
7. Extend and retract dipperstick.
8. Place backhoe in the TRANSPORT position.
9. Exit backhoe.
10. Enter skid steer.
11. Pull auxiliary boom hydraulics out of the DETENT position, and stop the skid steer engine.
12. Exit skid steer.
13. Install the boom and swing lock pins.
14. Check skid steer hydraulic fluid level after testing hydraulic system. (See your skid steer operator's manual.)

Attaching Backhoe Hydraulic Lines



M97923

1. Connect the backhoe hydraulic hoses to the skid steer hydraulic couplers (A) at left side of machine.
2. Push couplers together with a firm continuous motion until couplers lock into place.
3. Test the hydraulic system. (See Test Backhoe Hydraulic System in this section.)

IMPORTANT: Avoid damage! Inspect all lines and hoses for freedom of movement.

Test Backhoe Hydraulic System

1. Remove the boom and swing lock pins from backhoe and place them in the storage location.
2. Enter skid steer, fasten seat belt, and start the engine.
3. Lock the park brake and put auxiliary boom hydraulics in the DETENT position so there is oil flow to the backhoe.
4. Remove seat belt and exit the skid steer.

REMOVING

Preparing Backhoe for Removal

1. Put backhoe in TRANSPORT position. (See Transporting Backhoe in the OPERATING section.)

NOTE: Backhoe storage site should be a firm, level surface for ease of removal.

2. Drive skid steer to backhoe storage site. Maneuver backhoe into final position.

3. Stop engine, engage park brake, remove seat belt, and exit skid steer.



KV1345

4. Lower both stabilizers until pads (A) are approximately 30 cm (12 in.) above ground level.

5. Enter skid steer.

6. Engage park brake, stop engine, and remove key.

7. Exit the skid steer.

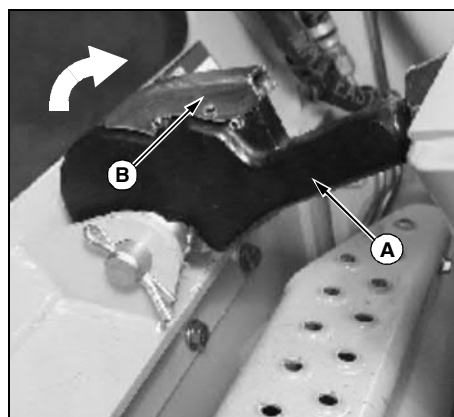
8. Check the following:

- Make sure boom and swing lock pins are installed.
- PRO900 and PRO911 Only – Make sure swing lever lock is engaged.

Removing Backhoe

1. Prepare the backhoe for removal operations. (See Prepare Backhoe for Removal in this section.)

2. Enter skid steer, fasten seat belt, and start the engine.



M99335

3. Using the skid steer bucket control, tilt the backhoe forward or rearward slightly until no hitch pressure exists on ball. Hitch (A) should be moveable on ball.

4. Engage park brake and stop engine.

NOTE: Reconnecting to skid steer hydraulic couplers will be difficult if auxiliary system pressure is not relieved before disconnecting backhoe hydraulic hoses.

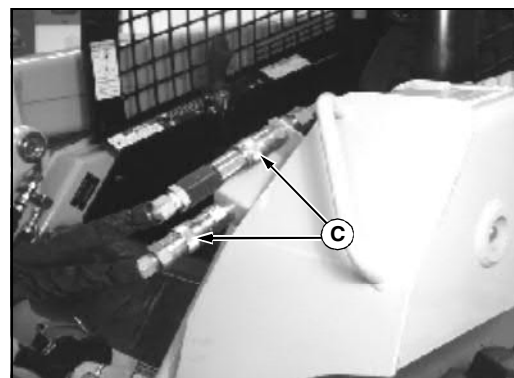
5. Relieve auxiliary hydraulic line pressure. (See Relieving Auxiliary Hydraulic Line Pressure in the INSTALLATION section.)

6. Remove seat belt and exit the skid steer.

7. Lift upward on hitch lock lever (B) and remove hitch from ball.



CAUTION: Avoid injury! Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting or connecting hydraulic and other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.



M97923

8. Disconnect hydraulic couplers (C).



Suggest:

If the above button click is invalid.

Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading

REMOVING

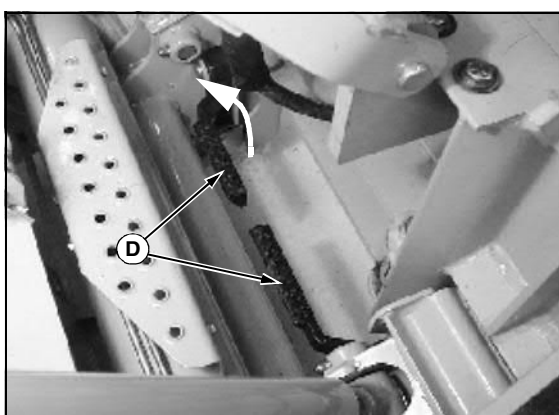
IMPORTANT: Avoid damage! Connect the two hydraulic lines from the backhoe to each other.

This will ensure connectors stay clean and allows hydraulic fluid to circulate due to thermal expansion.

9. Connect the pressure hose female coupler to the return hose male coupler to keep couplers clean.



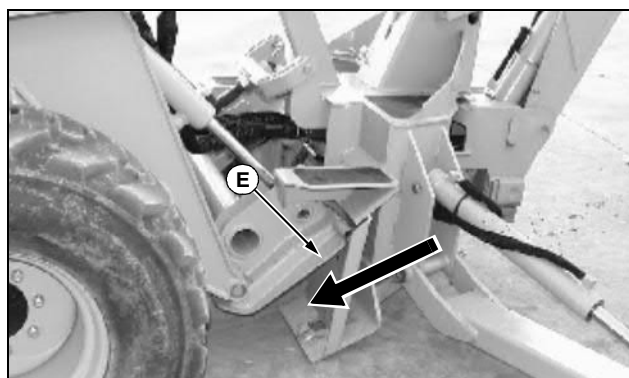
CAUTION: Avoid injury! Do not try to latch or unlatch handles from cab. Be careful not to pinch hands between latch handle and step or latch handle and attachment.



M99337

10. Pull latch handles (D) all the way upward to the UNLATCHED position.

11. Enter skid steer, fasten seat belt, and start the engine.

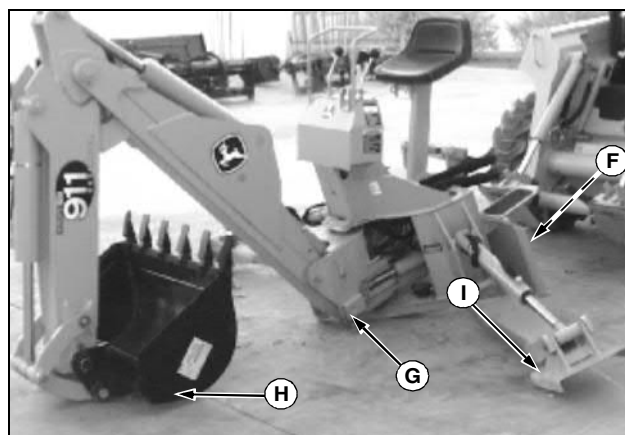


KV1344

12. Using the boom and bucket controls, lower the boom and slowly tilt attaching plates (E) forward until backhoe bucket is resting on the ground.

13. Tilt the attaching plates further forward while backing away from the backhoe.

14. Park machine safely. (See Parking Safely in the SAFETY section.)



KV1346

15. Make sure rear mainframe (F), boom base (G), and bucket (H) are resting firmly on the ground. Make sure stabilizer pads (I) are not supporting any weight.

16. Pivot the backhoe operator's seat forward to the STORAGE position.

17. If storing backhoe for an extended period of time, see the STORING MACHINE section.



CAUTION: Avoid injury!

When the attachment is removed, you must also remove any ballast that was added to the machine.

18. Remove any added ballast from machine.

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>