

10XH High Pressure Washer



JOHN DEERE

OPERATORS MANUAL 10XH High Pressure Washer

OMTY21618 Issue I4 English

John Deere Merchandise Division

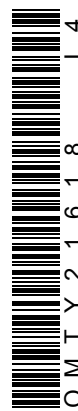
OMTY21618 Issue I4

(This manual replaces OMTY21618 L3)

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ENGLISH



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Introduction

THANK YOU for purchasing a John Deere product.

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the machine or implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the Specification or Identification Numbers

section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

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

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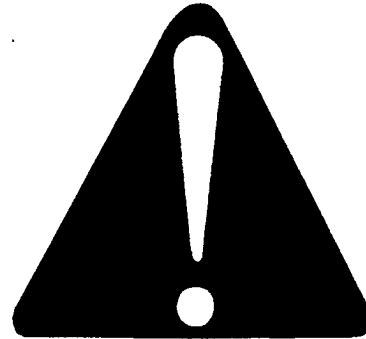
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Moline, Illinois
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A John Deere ILLUSTRATION® Manual

Safety

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



DX,ALERT

-19-03MAR93

T81389 -UN-07DEC88

UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



DX,SIGNAL

-19-03MAR93

TS187 -19-30SEP88

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



DX,READ

-19-03MAR93

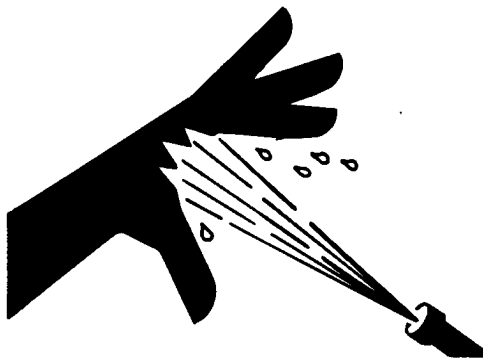
TS201 -UN-23AUG88



PROTECT AGAINST HIGH PRESSURE SPRAY

Spray from high pressure nozzles can penetrate the skin and cause serious injury. Keep spray from contacting hands or body.

If an accident occurs, see a doctor immediately. Any high pressure spray 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.



DX,SPRAY -19-16APR92

TS1343 -UN-18MAR92

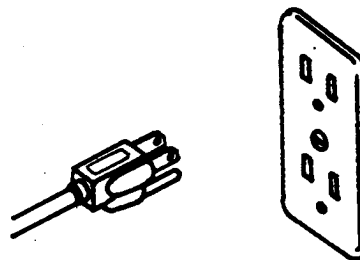
GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with local codes and ordinances.

DANGER - Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product--if it will not fit, have a proper outlet installed by a qualified electrician.

GROUND FAULT CIRCUIT INTERRUPTER PROTECTION

This pressure washer is provided with a Ground Fault Circuit Interrupter (GFCI) built into the power cord. This device provides additional protection from the risk of electric shock. Should replacement of the plug or power cord become necessary, use only identical replacement parts that include GFCI protection.



TY,101SA,C -19-17FEB92

TY16001 -UN-17JAN92

TY3525 -UN-07SEP88



EXTENSION CORDS

Extension cords are not recommended for use on the 10XH High Pressure Washer. If the use of an extension cord is unavoidable, it must be plugged into a GFCI found in circuit boxes or protected receptacles.

Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-pole cord connectors that accept the plug from the washer. Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with outdoor appliances; store indoors while not in use". Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cord before using and replace if damaged. Do not abuse extension cord and do not yank any cord to disconnect. Keep cord away from heat and sharp edges. Always disconnect the extension cord from the receptacle before disconnecting the product from the extension cord.

WARNING: To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.

On extension cords up to 50 ft. (15.24 m), wire gauge must be at least 14 AWG. Cords that are 50 to 100 ft (15.24 to 30.48 m) must be at least 12 AWG gauge. Use of smaller gauge cords will cause electric motor stalling or circuit breaker stoppage.

TY21618,SAF,A -19-10NOV94



IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of injury, read this operator's manual completely. When using this product the following basic precautions should always be followed:

1. Read all the instructions before using the product.
2. This product is equipped with a Ground Fault Circuit Interrupter (GFCI) in the power cord to reduce the risk of electrical shock. If replacement of the plug or cord is needed, use only identical replacement parts.
3. Follow the grounding instructions included in this manual.
4. High pressure water spray can cut skin. Do not direct spray at persons. Keep operating area clear of all persons. Warn children that the water spray can cut. Supervise children closely.
5. Dirt and debris removed by spray can cause eye injury. Wear eye protection.
6. Wet surfaces can be slippery. Wear shoes and keep both feet on the ground. Do not climb on items being cleaned. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
7. When the spray trigger is released, water pressure is trapped in the discharge hose. Release trapped pressure by triggering the spray gun after the washer is turned off.
8. Do not operate the washer when fatigued or under the influence of drugs or chemicals. Stay alert. Watch what you are doing.
9. Follow the maintenance instructions specified in this manual.

SAVE THESE INSTRUCTIONS

TY21618,SAF,B -19-10NOV94



CLEANING DETERGENT PRECAUTIONS

Know the detergent being used. Be prepared to tell a physician exactly what you are using in the event of an emergency. Read all chemical labels and follow all instructions exactly regarding preparation, use, safety, transportation, and disposal. Keep all chemicals out of the reach of children, pets, and livestock.

NEVER spray combustible liquids of any kind.

Do not use highly corrosive chemicals or acid-type cleaners with this washer.

TY,93SA,G -19-08MAR92

SAFETY SIGN



Location: Under Handle

TYB2215 -19-07NOV94

TY21618,SAF,AB -19-10NOV94



WARNING



RISK OF ELECTROCUTION. DO NOT REMOVE THIS TAG.

1. CONNECT ONLY TO A PROPERLY GROUNDED OUTLET. DO NOT REMOVE GROUND PIN.
2. INSPECT CORD BEFORE USING. DO NOT USE IF CORD IS DAMAGED.
3. KEEP ALL CONNECTIONS DRY AND OFF THE GROUND.
4. DO NOT TOUCH PLUG WITH WET HANDS.
5. THIS PRODUCT IS PROVIDED WITH A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) BUILT INTO THE POWER CORD PLUG. IF REPLACEMENT OF PLUG OR CORD IS NEEDED, USE ONLY IDENTICAL REPLACEMENT PARTS.
6. DO NOT USE AN EXTENSION CORD WITH THIS MACHINE.
7. READ THE OPERATOR'S MANUAL BEFORE USING.

**FAILURE TO FOLLOW THE ABOVE
INSTRUCTIONS COULD RESULT
IN A SEVERE ELECTRICAL SHOCK.**

Location: Power Cord

TY21618,SAF,C -19-10NOV94

TYB2112 -19-07NOV94



⚠ WARNING



RISK OF ELECTROCUTION. DO NOT REMOVE THIS TAG.

1. CONNECT ONLY TO A PROPERLY GROUNDED OUTLET. DO NOT REMOVE GROUND PIN.
2. INSPECT CORD BEFORE USING. DO NOT USE IF CORD IS DAMAGED.
3. KEEP ALL CONNECTIONS DRY AND OFF THE GROUND.
4. DO NOT TOUCH PLUG WITH WET HANDS.
5. THIS PRODUCT IS PROVIDED WITH A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) BUILT INTO THE POWER CORD PLUG. IF REPLACEMENT OF PLUG OR CORD IS NEEDED, USE ONLY IDENTICAL REPLACEMENT PARTS.
6. DO NOT USE AN EXTENSION CORD WITH THIS MACHINE.
7. READ THE OPERATOR'S MANUAL BEFORE USING.

FAILURE TO FOLLOW THE ABOVE INSTRUCTIONS
COULD RESULT IN A SEVERE ELECTRICAL SHOCK.

Location: Right-Hand Side

TYB2216 -19-07NOV94

TY21618,SAF,AD -19-10NOV94

⚠ CAUTION

1. To reduce the risk of injury, read operator's manual carefully before using.
2. Spray gun can kick back. Hold with both hands.
3. Risk of eye injury. Always wear eye protection.
4. See the operator's manual for proper chemical usage.

IMPORTANT:

- For indoor and outdoor use.
- Store indoors.
- Avoid pump damage. Protect from freezing.
Do not run for more than 3 minutes with spray gun not triggered.
- If connected to a circuit protected by fuses, use time-delay fuses only.

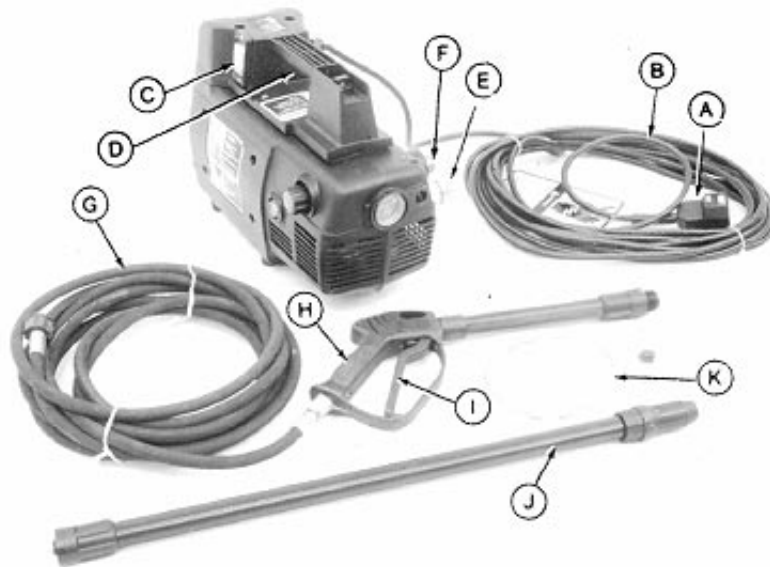
**CONNECT TO AN
INDIVIDUAL
BRANCH CIRCUIT ONLY.**

TYB2113 -19-01NOV94

TY21618,SAF,D -19-10NOV94

Controls

CONTROLS



A—Ground Fault Circuit
Interrupter
B—Power Cord

C—On/Off Switch
D—Handle
E—Water Inlet Fitting

F—High Pressure Outlet
G—Discharge Hose
H—Gun

I—Gun Trigger
J—Nozzle Wand
K—Chemical Hose

TY16005
-UN-17JAN92

TY21618,CLS,A -19-10NOV94

Preparing the Washer

INLET WATER SUPPLY REQUIREMENTS

1. An inlet water supply pressure of 20 psi or greater is generally required in order to produce a flow of three gallons per minute (GPM) or higher to the washer. Non-pressurized water supply systems (i.e. static draw situations) must also be capable of supplying three GPM. In static draw situations, water flow rate (GPM) can be increased by elevating the water supply tank or changing to a larger inside diameter water supply hose. Attempting to operate the washer with less than a three GPM water supply will cause rapid wear of packings, valves, and bearings that will dramatically shorten life. Symptoms of inadequate water supply are pump shuddering and flattening of the supply hose to the washer.

2. Inlet water flow rate can be measured by timing the flow of water into a five gallon bucket. A five gallon pail will be filled in 100 seconds or less when the water flow rate is three GPM or more.

3. Adding on extensions to the supply hose will reduce water flow rates. Check for adequate water flow rate each time an extension is added. Water flow rates can be increased by using the largest possible internal diameter supply hose.



TY14625 -UN-23FEB89

TY21618,PW,A -19-10NOV94

ELECTRICAL REQUIREMENTS

CAUTION: To avoid electrical shock, connect the washer to a properly grounded electrical receptacle. Do not use an adapter or remove third (ground) prong.

Make certain the connection between the washer power cord and receptacle is kept dry.

The following electrical requirements must be met:

1. The electrical supply must provide a minimum of 110 to 120 volts. With the washer operating, line voltage must not drop below 108 volts.

IMPORTANT: Operating the washer with low line voltage may damage electrical components and cause motor to stall.

2. The 10XH High Pressure Washer is equipped with a Ground Fault Circuit Interrupter in the power cord to reduce the risk of electrical shock. However, the GFCI will not protect against all faults, short circuits, or overloads.

IMPORTANT: The GFCI **MUST** be reset each time the washer is unplugged and plugged in again.

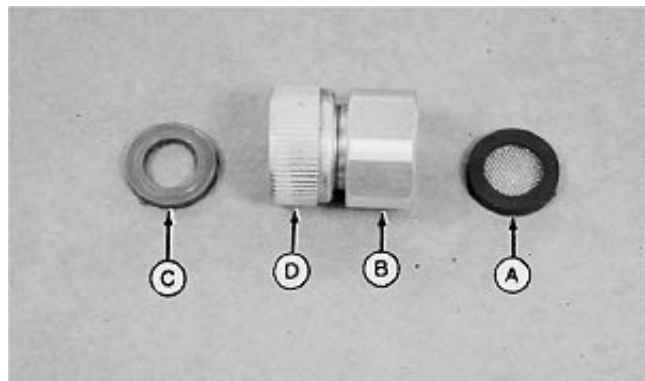


TY16001 -UN-17JAN92

TY21618,PW,B -19-10NOV94

SETTING UP WASHER

1. Place hose washer with screen (A) into the hex end (B) of brass hose coupler.
2. Place standard hose washer (C) into the knurled end (D) of brass hose coupler.



TYB1736 -UN-13DEC93

TY,PTW,B -19-16DEC93

Preparing the Washer

3. Check internal inlet filter (A). Be sure it is not damaged or plugged. Insert the screen, making sure that all seals are in place. Install coupling (B) with hex end toward pressure washer and tighten.



TY21618,PW,C -19-10NOV94

IMPORTANT: If washer is to be connected to a well water system, use TY8342 water inlet filter (A). This will increase sand filtering capability and avoid damage to the pump.

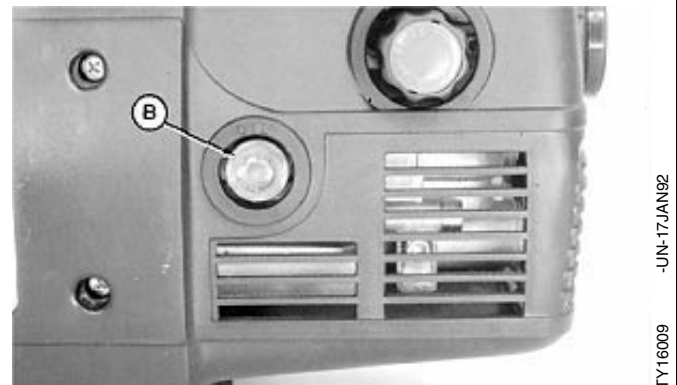


TY21618,PW,AA -19-10NOV94

4. Remove shipping plug and install vented plug (A) on pump.



5. Check oil in pump. With washer on level surface, the oil should fill the oil level sight glass (B). If necessary, top with HY-GARD™ or SAE 30 non-detergent oil.

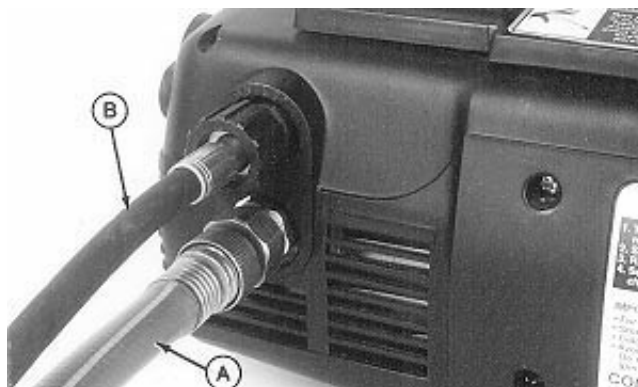


TY21618,PW,D -19-10NOV94

Preparing the Washer

6. Install inlet water hose (A) and high pressure discharge hose (B) and hand tighten.

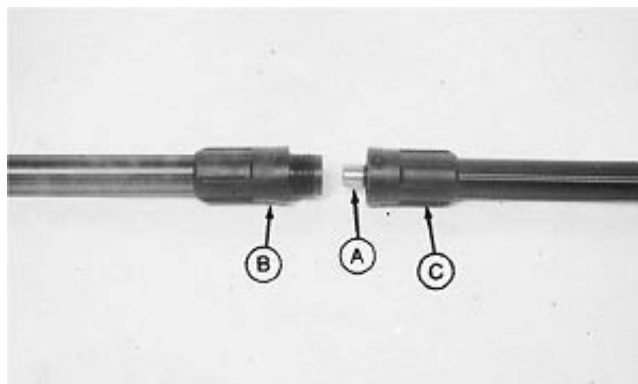
7. Use TEFLON™ pipe tape and install gun to discharge hose. Tighten until O-ring is slightly compressed.



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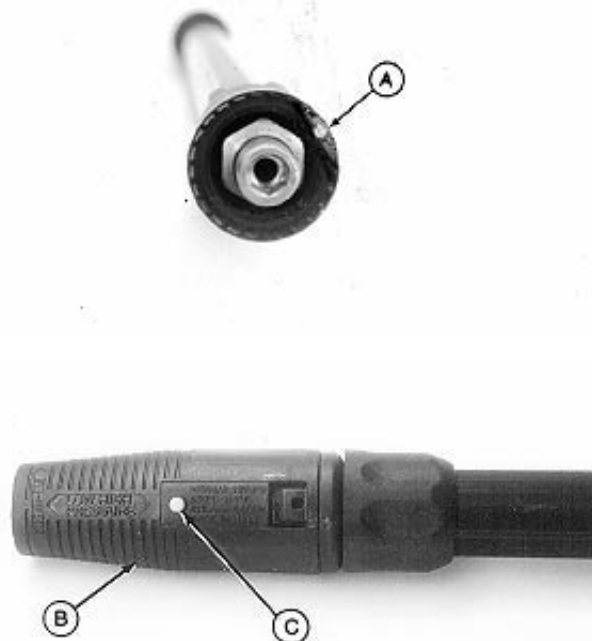
8. Insert inner tube of nozzle wand (A) into gun (B). Turn threaded collar (C) on wand down on gun threads to attach wand.

NOTE: When changing accessories, the wand is disconnected here and the accessory is connected at this point.



TY21618,PW,AD -19-10NOV94

NOTE: Washer wand has blue dot (A) on threads of nozzle wand coupler. Alternate style washer wand (B) has blue dot (C) on nozzle.



TY21618,PW,AE -19-10NOV94

PRIMING PUMP

1. With motor off, open water supply and squeeze spray gun trigger. Allow water to run through gun for at least two minutes, until a smooth, steady stream flows from nozzle.
2. Start motor and squeeze and release gun trigger several times until a smooth, steady stream flows from nozzle.
3. If spray is unsteady or makes "popping" noises, remove nozzle wand or disconnect discharge hose from pump. Start and stop motor several times until flow is steady.



TYB2119 -UN-04NOV94

TY21618,PW,F -19-10NOV94

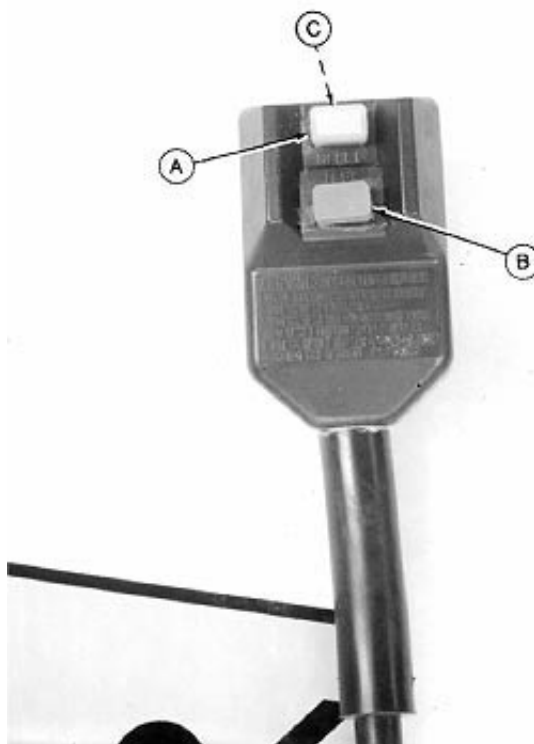
TESTING GROUND FAULT CIRCUIT INTERRUPTER (GFCI)

CAUTION: Ground Fault Circuit Interrupter (GFCI) **MUST** be tested before each use of the washer.

If the results in each one of the following steps are not as described, shut washer off immediately. DO NOT operate until the washer has been inspected by a qualified electrician or your John Deere dealer.

1. Plug GFCI into grounded receptacle. Connect high pressure outlet hose and turn on water supply.
2. Press and release "RESET" button (A) to verify power to the washer.
3. Press "TEST" button (B). Red indicator bar (C) on reset button should appear. (Power to the washer should be interrupted).
4. Press and release the "RESET" button. Power should be restored to the washer.

NOTE: GFCI test instructions are also found on the front of the GFCI.



TY16010 -UN-17JAN92

TY21618,PW,J -19-10NOV94

Operating the Washer

OPERATING WASHER

IMPORTANT: DO NOT allow washer to run in bypass (trigger released) for more than 3 minutes or pump failure due to overheating may occur.

The washer ON/OFF switch (A) is a rocker switch that includes a circuit breaker for protection against motor electrical overload.



TY21618,OW,A -19-10NOV94

TYB2121 -UN-04NOV94

ADJUSTING NOZZLE WAND PRESSURE

CAUTION: High pressure spray can cause serious injury. Keep clear of spray and nozzle. Do not direct discharge spray at persons. Wear eye protection.

Engage safety lock (A) when not using gun.

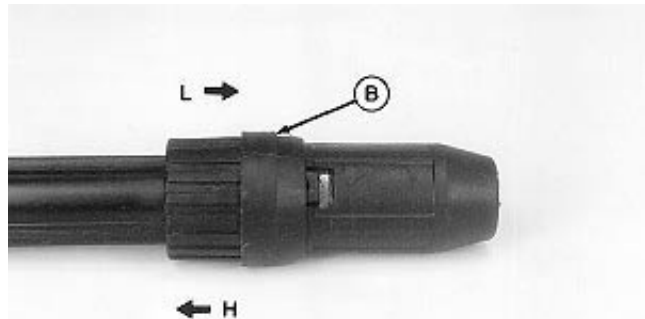
Do not adjust spray with gun trigger engaged.

IMPORTANT: Do not direct pressure washer spray at the washer.

The nozzle wand is a variable pressure nozzle. Spray controls for the two styles of nozzle wand are operated identically.

1. For a detergent or low pressure spray, slide collar (B) forward. Nozzle will produce a low pressure spray.
2. For a high pressure spray, slide the collar rearward.

In the high pressure spray position, water pressure can be varied by turning the pressure adjusting knob (C) clockwise to increase pressure and counterclockwise to decrease pressure.



TY21618,OW,B -19-10NOV94

TY16012 -UN-17JAN92

TYB2122 -UN-04NOV94

TYB2123

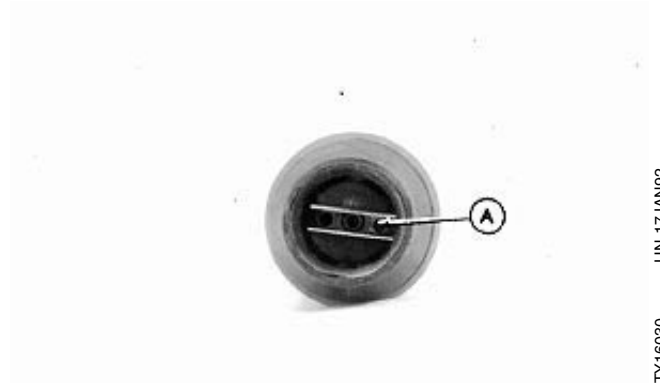
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ADJUST SPRAY PATTERN

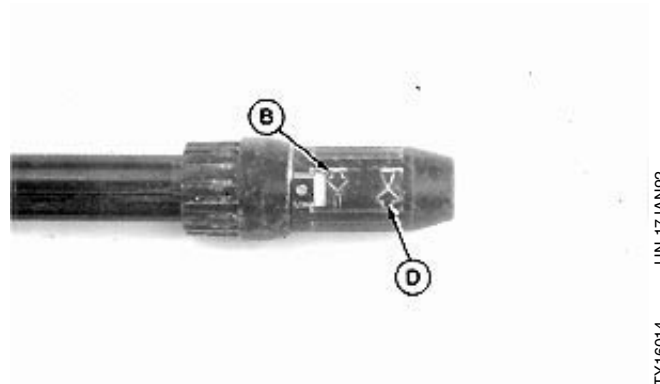
The spray pattern can be adjusted in either low pressure or high pressure positions. Adjustments are the same for both styles of nozzle wand.

1. For a narrow stream (A), turn the nozzle end clockwise (B) (arrows highlighted for photo purposes).

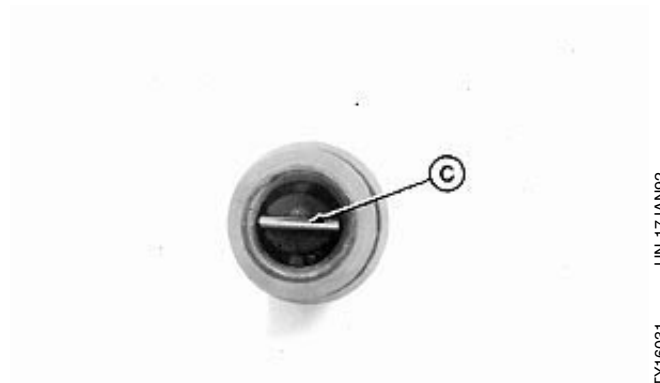
2. For a fan spray (C), turn nozzle end counterclockwise (D).



TY16030 -UN-17JAN92



TY16014 -UN-17JAN92



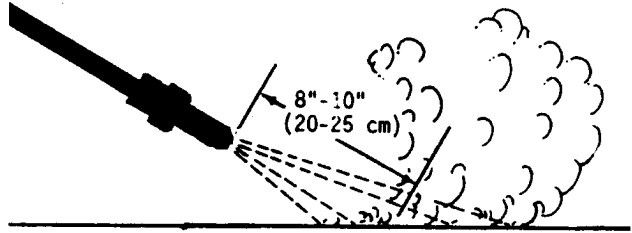
TY16031 -UN-17JAN92

TY21618,OW,CC -19-10NOV94

CLEANING HORIZONTAL SURFACES

Move nozzle wand from side-to-side. Direct spray at an angle to force debris ahead and away from the cleared area.

Depending on the material to be removed and nozzle pressure, hold nozzle end 8 to 10 inches (20 to 25 cm) from the surface and use slow, overlapping strokes. If debris is easy to remove, move nozzle back to cover more area for faster cleaning.



TY16015 -UN-17JAN92

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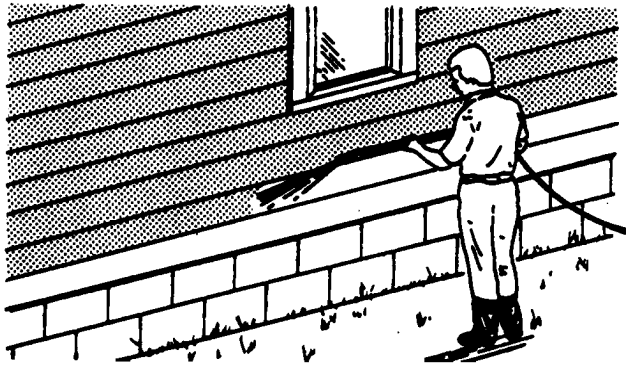
CLEANING VERTICAL SURFACES

IMPORTANT: Remember that the washer can deliver a high pressure spray that can break glass and gouge soft wood and other materials.

When cleaning building interiors or exteriors without detergents, work from top to bottom. This will help eliminate streaks. In interiors, start with the ceiling first, then the walls and the floor last.

Clean around windows carefully. If glass panes are not well-caulked and puttied, the high pressure spray could break the glass.

Never spray directly overhead. Always spray ahead to avoid dripping or falling debris.



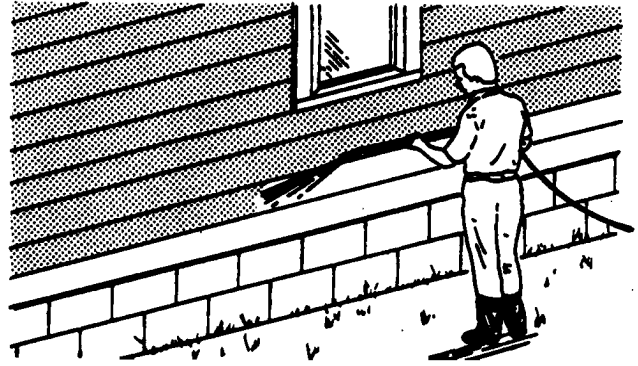
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TY,101OP,G -19-08MAR92

REMOVING PAINT

IMPORTANT: Remember that high pressure spray can gouge soft woods and other materials, as well as loosen grout.

1. Place nozzle end in high pressure position and very narrow spray pattern.
2. Direct spray at a 45° angle about 4 to 12 inches (10 to 30 cm) from surface.
3. Spray in a back and forth motion; try to get beneath the loose and bubbled paint.
4. Do not be concerned with the paint that remains. It should be sufficiently bonded so as not to cause repainting problems.
5. Some remaining paint may curl up at the edges. These edges should be scraped with a steel brush or scraper just before painting.



TY13745 -UN-23FEB89

TY21618,OW,D -19-10NOV94

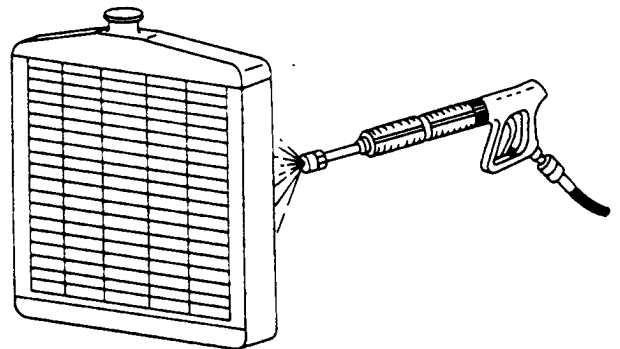
CLEANING RADIATOR FINS

IMPORTANT: Some engine and radiator manufacturers may not permit cleaning radiators with a high pressure washer. See equipment Operator's Manual.

1. Use clean water without detergent.

IMPORTANT: Spray straight into the radiator to prevent bending fins.

2. If possible, direct spray in the direction opposite to normal air flow through the radiator.



TY15477 -UN-28APR89

TY21618,OW,E -19-10NOV94

CHEMICAL USAGE GUIDE



CAUTION: Use detergents and chemicals carefully. Read labels thoroughly and follow all instructions for preparation, use, safety, transportation and disposal. Be prepared to tell a physician exactly what chemicals you are using in the event of an emergency. Keep all chemicals out of reach of children.

Be aware that two chemicals or detergents can be mixed on the sprayed surface. In this regard, some chemicals may give off harmful fumes or start an unpredictable chemical reaction when mixed with another chemical.

NEVER SPRAY FLAMMABLE LIQUIDS such as gasoline, fuel oil, alcohol, naptha, etc.

The washers are designed to dispense John Deere approved cleaners and degreasers.

IMPORTANT: Using chemicals other than John Deere approved cleaners and degreasers is **NOT** recommended.

If the use of chemicals other than those approved by John Deere is desired, be sure to read and follow all chemical labels exactly regarding preparation, use, safety, transportation, and disposal. Keep in mind that the washer's chemical system further dilutes the chemical with water, and that some chemicals may not be concentrated enough to properly work with the system.

Some detergents may not give premix instructions and may require experimenting to determine proper dilution for your application.

If you are not familiar with the chemical or detergent, always test a small area of the surface to be cleaned for adverse reaction. Do this a day in advance. Thoroughly rinse area with water.

CHEMICAL SYSTEM

The chemical system consists of a chemical valve (A) and a chemical hose (B) with strainer (C). The system supplies low pressure soap at a ratio of approximately one part chemical to ten parts water. Actual ratio is dependent on viscosity of chemical.



TYB2272 -UN-04NOV94

TY21618,OW,G -19-10NOV94

CLEANING WITH CLEANING SOLUTION



CAUTION: Wear goggles, respirator, and protective clothing to help prevent injury from chemicals and spray.

IMPORTANT: DO NOT direct pressure washer spray at the washer.

1. Mix chemicals or detergent as instructed by the manufacturer.
2. Be sure that water supply is adequate and turned on fully.
3. Insert chemical hose into cleaning solution. Be sure that hose is clear and fully submerged in solution.

IMPORTANT: The chemical system will work only if the nozzle is in the low pressure position.

4. Slide nozzle collar forward into the low pressure position.
5. Start washer and squeeze gun trigger. If chemical does not spray within one minute, check to make sure the chemical hose is in the cleaning solution and is not plugged.
6. To help avoid streaking, apply solution to the lowest surface first, and move up, using long overlapping strokes. Allow solution to soak for several minutes.

IMPORTANT: Remember that high pressure spray can gouge soft woods, damage other materials and loosen grout.

7. Slide nozzle collar to the rear to place in high pressure position. With the nozzle approximately 6 to 10 inches (15 to 25 cm) and at an angle to the surface, power rinse the area from the top down.

TY21618,OW,H -19-10NOV94

SHUT-DOWN

IMPORTANT: To avoid chemical valve plugging, insert chemical hose into clean water, slide nozzle collar forward, and run at least one gallon of clean water through the chemical valve after each use of chemical system.

1. Turn unit off.
2. Turn off water supply.
3. Depress spray gun trigger momentarily to relieve pressure.
4. Unplug washer and disconnect and store hoses.

TY21618,QW,I -19-10NOV94

Troubleshooting

Symptom	Problem	Solution
Low Nozzle Pressure	Unit not properly primed.	Prime unit.
	Insufficient inlet water supply.	Check water supply requirements. (See Service Section.)
	Partially plugged water inlet screen.	Clean inlet screen. (See Service Section.)
	Partially plugged internal inlet filter.	Clean internal inlet filter.
	Nozzle set for low pressure.	Slide wand collar rearward.
	Worn nozzle.	Replace nozzle.
	Worn pump components.	See your John Deere dealer.
	Relief valve recirculating.	See your John Deere dealer.
No Pressure or Fluid at Nozzle.	Unit not properly primed.	Prime unit.
	Plugged water inlet screen.	Clean or replace inlet screen.
	Plugged internal inlet filter.	Clean or replace inlet filter.
	Closed water supply.	Turn on water supply. Check supply hose for leaks or blockage.
	Plugged nozzle.	Remove and clean nozzle with compressed air.
	Relief valve recirculating.	See your John Deere dealer.
Pump Surges or Fluctuates, Giving Low Nozzle Pressure	Pump unit not properly primed	Prime pump.
	Insufficient inlet water supply	Check water supply requirements.
	Plugged nozzle.	Remove and clean nozzle with compressed air.
	Internal pump problem	See your John Deere dealer.
	Relief valve recirculating	See your John Deere dealer.
	Air in system (after priming)	See your John Deere dealer.
Motor Will Not Come On When Switch is Pressed	No power at receptacle	Check electrical power fuse or circuit breaker.

Continued on next page

Symptom	Problem	Solution
	Motor overload protector (on/off switch) tripped	Allow motor to cool and try again. Check voltage requirements. See your John Deere dealer if condition persists.
	Switch malfunction	See your John Deere dealer.
	Faulty motor	See your John Deere dealer.
Motor Shuts Off - GFCI Trips	Power interruption	Reset GFCI. If problem continues, see your John Deere dealer or have electrical system checked by a qualified electrician.
	Electrical short in power cord or in washer	Reset GFCI. Try again. If problem persists, do not operate. See your John Deere dealer.
Motor Shuts Off—Trips On-Off Switch	Excessive discharge pressure caused by partially clogged nozzle.	Inspect and clean or replace nozzle.
	Low voltage.	Check electrical system requirements. Check extension cords for proper gauge.
	Internal pump malfunction	See your John Deere dealer.
Water Continues to Flow from Nozzle after Gun Trigger is Released.	Spray gun valve malfunction.	See your John Deere dealer.
Motor Hums—Does Not Turn.	Pump plungers—sticking to packings due to drying.	Use 5 mm hex wrench to manually turn and free pump. (See Service Section.)
	Motor malfunction	See your John Deere dealer.
Fan Spray is Uneven or Distorted.	Clogged nozzle	Clean nozzle. (See Service Section.)
	Clogged fan spray shutters.	Clean fan shutters.
Pump Oil is Milky or White.	Water in oil.	Change oil. Do not direct spray at washer.

TY21618,TS,A -19-10NOV94

Service

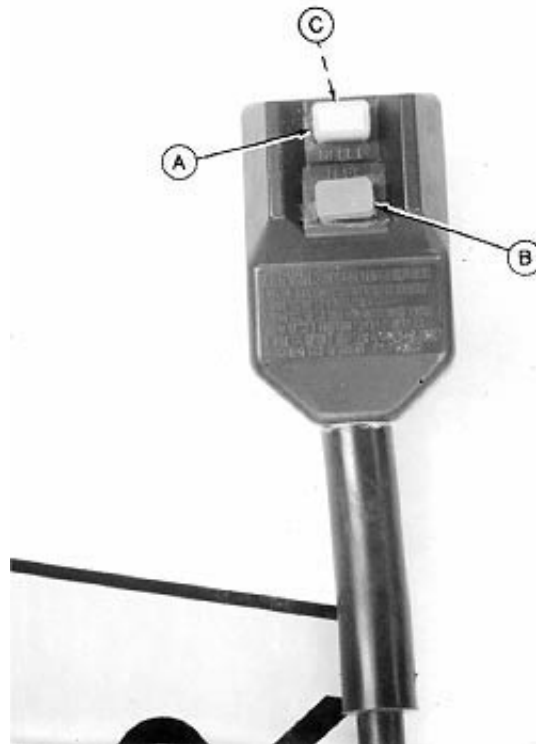
TESTING GROUND FAULT CIRCUIT INTERRUPTER (GFCI)

CAUTION: Ground Fault Circuit Interrupter (GFCI) **MUST** be tested before each use of the washer.

If the results in each one of the following steps is not as described, shut washer off immediately. **DO NOT** operate until the washer has been inspected by a qualified electrician or your John Deere dealer.

1. Plug GFCI into grounded receptacle. Connect high pressure outlet hose and turn on water supply.
2. Press and release "RESET" button (A) to verify power to the washer.
3. Press "TEST" button (B). Red indicator bar (C) on reset button should appear. (Power to the washer should be interrupted.)
4. Press and release the "RESET" button. Power should be restored to the washer.

NOTE: GFCI test instructions are also found on the front of the GFCI.



TY16010
-UN-17JAN92

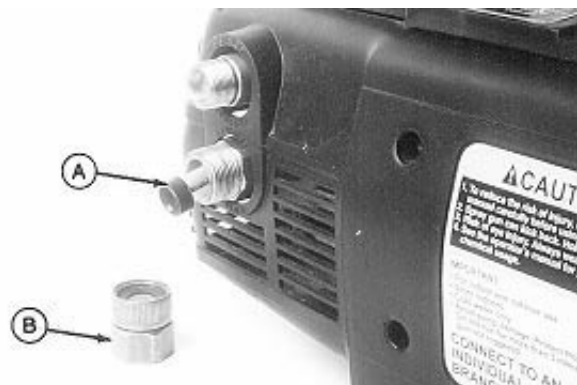
TY21618,SER,AA -19-10NOV94

CLEANING INLET WATER FILTER AND SCREEN

CAUTION: Disconnect power cord from electrical receptacle before cleaning inlet screen.

IMPORTANT: Do not operate washer with water inlet screen removed. Foreign material may enter and damage pump or valves.

Inspect the internal inlet filter (A) and water inlet screen (inside brass fitting [B]) periodically for build-up of scale, grit, and dirt. Clean as necessary. If they are corroded or broken, replace them.



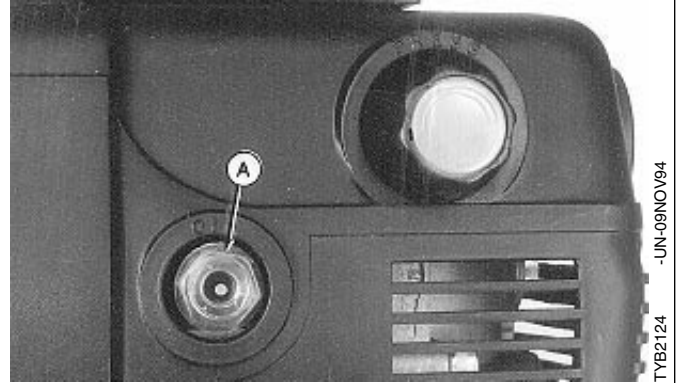
TYB2269
-UN-04NOV94

TY21618,SER,A -19-10NOV94

CHECKING WATER PUMP OIL LEVEL

IMPORTANT: If oil is white or foaming, water is in the oil reservoir. Change oil.

1. Put unit on level surface.
2. Oil should fill the sight glass (A).
3. Add oil if necessary with HY-GARD™ or SAE30 non-detergent oil. Do not overfill.



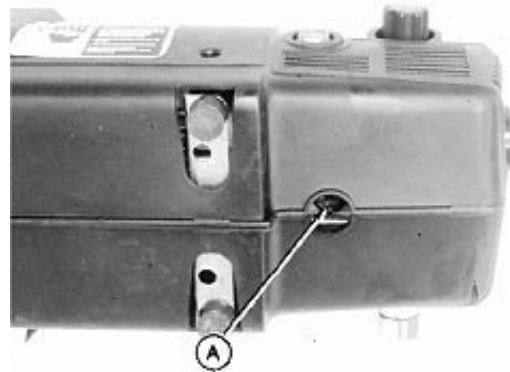
TY21618,SER,B -19-10NOV94

TYB2124 -UN-09NOV94

CHANGING WATER PUMP OIL

IMPORTANT: Change pump break-in oil after first 25 hours of operation and at 250 hour intervals thereafter.

1. Place unit on level surface.
2. Run unit for a few minutes to warm oil.
3. Stop washer. Use an 18 mm deep well socket to remove drain plug (A) to drain oil into container. Install plug. Do not pollute; dispose of waste oil properly.



TY21618,SER,BA -19-10NOV94

TY16033 -UN-17JAN92

4. Remove vented plug (A). Fill pump with 7 oz. (207 mL) HY-GARD® or SAE 30 non-detergent oil. Oil level should be at top of sight glass.



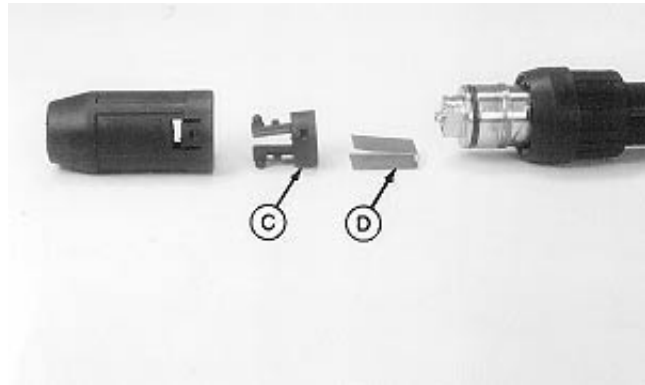
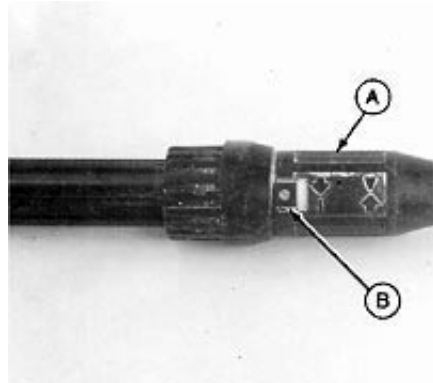
21618,SER,AZ -19-10NOV94

TYB2116 -UN-04NOV94

CLEANING ADJUSTABLE FAN SHUTTERS

CAUTION: Shutters metal edges are extremely sharp. Wear gloves.

1. Slide nozzle collar rearward.
2. Gently pry tabs (B) open.
3. Remove nozzle end (A) and clean regulator (C) and shutter (D).
4. Reinstall shutter assembly. Squeeze nozzle end tabs inward and slide nozzle end back over nozzle assembly.

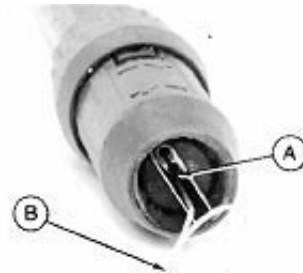


TY21618,SER,D -19-10NOV94

CLEANING NOZZLE

CAUTION: Nozzle wand must be disconnected from gun before servicing.

1. Rotate nozzle to expose orifice (A).
2. Insert nozzle cleaner (B) into orifice and turn.
3. Flush nozzle wand with water.
4. If nozzle can not be cleaned thoroughly, use a 2.0 mm hex wrench (C) to remove orifice. Insert wrench and turn counterclockwise.
5. Check orifice and clean or replace, if necessary.



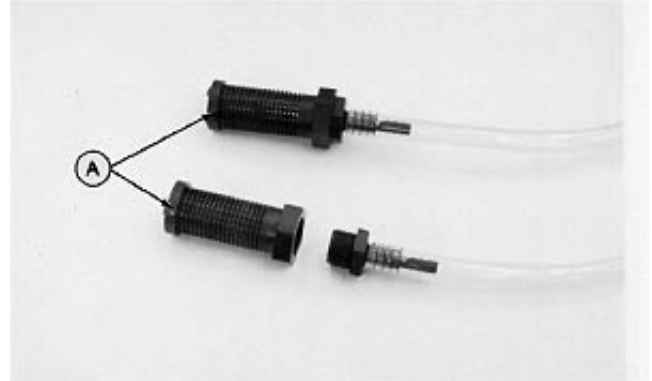
TY21618,SER,E -19-10NOV94

CLEANING CHEMICAL HOSE STRAINER

Check chemical hose strainer (A) for detergent or contaminant build-up.

Unscrew strainer from hose and back flush with clean water.

NOTE: If strainer frequently becomes plugged, check cleaning solution to be sure it is thoroughly mixed.



TY21618,SER,F -19-10NOV94

TY15485 -UN-20APR89

STORING WASHER

IMPORTANT: Protect washer from freezing temperatures. If unit will experience freezing conditions, pump must be filled with antifreeze to prevent cracking of pump manifold and relief valve due to water expansion. Draining alone will not remove all the water.



CAUTION: If the washer will be used where food is prepared, stored or consumed, or where sanitation is required, use a non-toxic antifreeze.

NOTE: This operation requires two people: one to operate washer and one to add antifreeze.

1. Install short piece (2 to 4 feet long) garden hose on water inlet.
2. Raise open end of hose above washer and insert funnel.

IMPORTANT: Be careful not to kink hose.

3. Fill hose with 50—50 mix of antifreeze.
4. While adding antifreeze, start washer, depress spray gun trigger, and let run for 15 seconds.
5. Release trigger for 15 seconds.

NOTE: Trigger must be released to pull antifreeze into relief valve.

6. Repeat cycle of 15 seconds trigger on, 15 seconds trigger off.

IMPORTANT: Dispose of sprayed solution safely according to instructions on the antifreeze container.

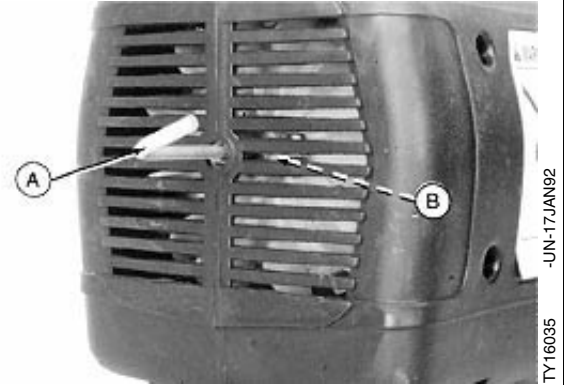


TY21618,SER,G -19-10NOV94

REMOVING WASHER FROM STORAGE

IMPORTANT: Before starting unit, thaw out any possible ice from wand, gun or hose.

1. With washer power cord unplugged, insert 5 mm hex wrench (A) into the end of the motor shaft (B) and rotate motor to verify that motor turns freely.
2. Connect and open water supply. Squeeze trigger on gun. Allow water to run (without engine running) until water runs out of pressure hose.
3. If unit was stored with antifreeze solution, purge solution from washer, before using. Dispose of sprayed solution safely according to instructions on the antifreeze container.



TY21618,SER,H -19-10NOV94

Specifications

SPECIFICATIONS

ITEM	SPECIFICATION
Water Pump	2.0 gpm (7.6 L/min) 1000 psi (69 bar) (6895 kPa) at pump 850 psi (58.6 bar) (5861 kPa) at discharge fitting
Electric Motor	120 volts, 12.5 amps, single phase, 60 Hertz, 1.5 hp (1118 W) 1725 rpm, thermal-protected auto reset.
Electrical Power Requirements	Voltage at power supply with washer running must be greater than 108 VAC.
Water Supply Requirements	Inlet water supply pressure—20 psi (1.4 bar) minimum Inlet water supply volume—3 gpm (11.4 L/m) minimum Inlet water supply hose—5/8 in. (15.9 mm) minimum I.D. 50 ft. (15.2 m) maximum length
Discharge Hose	23 ft. x 1/4 in. (7 m x 6.4 mm) 2175 psi (150 bar) working pressure, acid and oil resistant
Power Cord	35 ft. (10.7 m), 14 gauge, 3 conductor, water resistant, with ground fault circuit interrupter (GFCI).
Nozzle Wand	Nozzle size—.055 in. (1.4 mm) Wand length—27 in. (686 mm) Color of dot—Blue

TY21618,SPEC,A -19-10NOV94

RECORD SERIAL NUMBER

Write your model number, machine serial number (see serial number tag (A) in illustration) and date of purchase in the spaces provided below. Your dealer needs this information when ordering parts.

Model No. _____

Machine Serial No. _____

Date of Purchase _____
(To be filled in by purchaser)



TYB2128 -UN-04NOV94

TY21618,SPEC,AA-19-10NOV94

Accessories

HIGH PRESSURE HOSE

IMPORTANT:DO NOT use more than 1 extension hose. The higher restriction will cause relief valve to function all the time.

One additional pressure hose may be connected to the existing hose. This allows the operator to move around a greater distance without moving unit.



TY,101AC,I -19-17FEB92

TY14784 -UN-23FEB89

THE FOAMER

The foamer uses highly concentrated detergent to produce a thick foam that sticks and soaks into the surface on the material being cleaned.



TY,101AC,E -19-12MAR92

TY16026 -UN-17JAN92

WAND EXTENSION

The wand extension adds 18 inches between the gun and nozzle wand to help reach hard to reach places.



TY,101AC,F -19-12MAR92

TY16027 -UN-17JAN92

ANGLED NOZZLE WAND

The angled nozzle wand is used to clean vehicle undercarriages and other areas not readily accessible.



TY,101AC,G -19-12MAR92

TY16028 -UN-17JAN92

SANDBLAST ATTACHMENT

The attachment uses wet sand to strip paint and rust from metal parts, clean stains from concrete, remove graffiti from walls, etc.



TY,101AC,H -19-12MAR92

TY16029 -UN-17JAN92

HAND BRUSH



TY,101AC,D -19-12MAR92

TY16025 -UN-17JAN92

FLOOR AND WALL BRUSH



TY,101AC,C -19-12MAR92

TY16024 -UN-17JAN92

ROTATING BRUSH

Water pressure and flow act against gears to turn the brushes. When used with the chemical system, the brush scrubs the dirt away.



TY21618,AC,AA -19-10NOV94

TY16023 -UN-17JAN92

ROTATING NOZZLE

The rotating high pressure nozzle provides a pulsating spray that helps dislodge dirt and debris.



TY,101AC,A -19-12MAR92

TY16022 -UN-17JAN92

WATER FILTER—TY8342

Use when water supply is a rural well or a static draw to help filter incoming water.



TY21618,ACC,A -19-10NOV94

TYB1799 -UN-10JAN94

ALL-PURPOSE CLEANING

Use TY8308 John Deere All Purpose Cleaner concentrate for most cleaning jobs. Contains water-soluble solvents for soil penetration on vehicles and is safe to use on rubber and wax finishes.



TY,101OP,M -19-12MAR92

TY16018 -UN-17JAN92

SURFACE PREPARATION

Use TY8309 John Deere Surface Preparation to clean, remove mildew, and condition surfaces of all types of siding, farm buildings and mobile homes. It is safe to use on ferrous and non-ferrous metal surfaces and removes mildew stains and chalk build-up.



TY,101OP,N -19-12MAR92

TY16019 -UN-17JAN92

DEGREASING

Apply TY8310 John Deere Degreaser as directed by container label, allow to soak for a few minutes, then wash with all purpose cleaner. Rinse with clear water.

Cover sensitive parts such as air cleaner, electrical components, etc. when cleaning engines.



TY,101OP,O -19-12MAR92

TY16020 -UN-17JAN92

HY-GARD®

Use TY6354 John Deere HY-GARD® when adding or changing oil in pressure washer pump.



TY,ACC,A -19-16DEC93

TYB1710 -UN-30NOV93

SPRAY WAX

Mix TY8277 John Deere Spray Wax at a ratio of ONE ounce of wax to 1-1/2 gallon of water to give a long lasting finish to painted metal surfaces.



TY,ACC,B -19-16DEC93

TYB1706 -UN-30NOV93

RUST-INHIBITING ANTIFREEZE

Use TY8261 John Deere Rust Inhibiting Antifreeze to help prevent rust and corrosion from occurring on carbon steel and cast iron, while protecting from damage due to freezing.



TY,ACC,C -19-16DEC93

TYB1707 -UN-30NOV93

DETERGENT BOOSTER

Use TY8276 John Deere Detergent Booster at a ration of ONE part detergent booster to THREE parts TY8308 cleaner. Use with the Foamer for maximum cleaning power.



TYB1705 -UN-30NOV93

TY,ACC,D -19-16DEC93

John Deere Service Literature Available

PARTS CATALOG

The parts catalog lists service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.



DX,PARTS -19-03MAR93

TS189
-UN-17JAN89

OPERATOR'S MANUAL

The operator's manual provides safety, operating, maintenance, and service information about John Deere machines.

An extra copy of the operator's manual is available. The operator's manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)



DX,OM -19-03MAR93

TS190
-UN-17JAN89

FMO AND FOS MANUALS

These are basic manuals covering most types and makes of machinery. FMO manuals tell you how to OPERATE agricultural machinery; FOS manuals tell you how to SERVICE machine systems. Each manual starts with basic theory and is fully illustrated with colorful diagrams and photographs. Both the "whys" and "hows" of adjustments and repairs are covered in this reference library.



DX,FMOFOS -19-03MAR93

TS195
-UN-02DEC88

TECHNICAL AND SERVICE MANUALS

Technical and service manuals are service guides for your machine. Included in the manual are specifications, diagnosis, and adjustments. Also illustrations of assembly and disassembly procedures, hydraulic oil flows, and wiring diagrams.

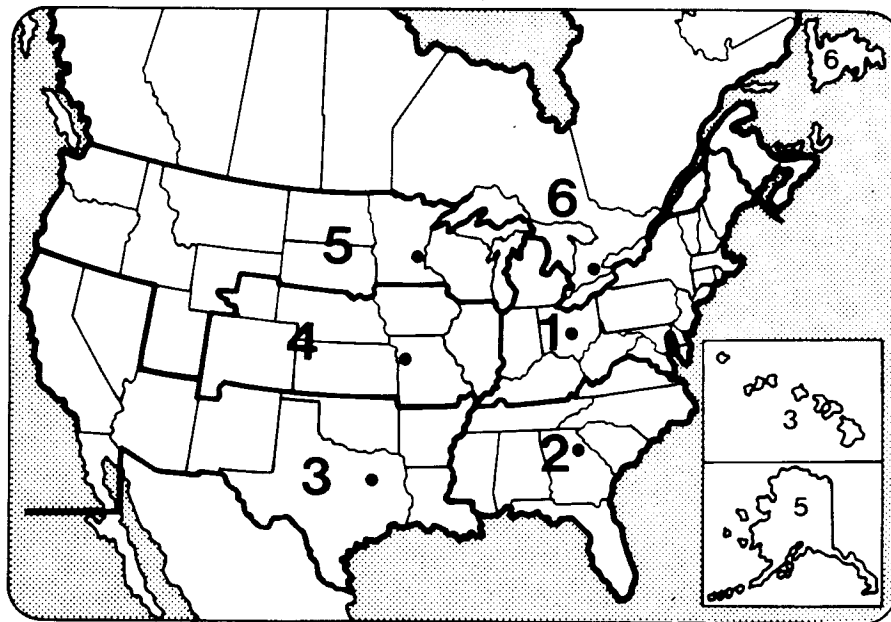
Component technical manuals are required for some products. These supplemental manuals cover specific components.



DX,TM -19-03MAR93

TS224
-UN-17JAN89

JOHN DEERE IS AT YOUR SERVICE WHEN YOU NEED IT



1. JOHN DEERE COMPANY
701 Georgesville Road
Columbus, OH 43228-2499
614-275-1500 (Fax. 614-275-1450)
612-887-6200 (Fax. 612-887-6385)

3. JOHN DEERE COMPANY
P.O. Box 540598
Dallas, TX 75354-0598
214-385-1701 (Fax. 214-663-2390)

5. JOHN DEERE COMPANY
2001 West 94th Street
Bloomington, MN 55431-3211

2. JOHN DEERE COMPANY
2001 Deere Dr.
Conyers, GA 30208
404-922-7040 (Fax. 404-388-2138)

4. JOHN DEERE COMPANY
3210 East 85th Street
Southeast Station
Kansas City, MO 64132-2586
816-361-4000 (Fax. 816-995-9381)

6. JOHN DEERE LIMITED
South Service Road at Hunter
Grimsby, Ontario, Canada L3M 4H5
905-945-9281 (Fax. 905-945-0341)

CUSTOMER SATISFACTION is important to John Deere. We take pride in providing superior service. We'll be around when you need us:

- We maintain a large and varied parts inventory to help minimize downtime.
- Precision tools and testing equipment enable technicians to locate and correct troubles.
- We hold regular training schools for service technicians so they know your equipment and how to maintain it.
- Our goal is to provide prompt, efficient service through competent dealerships.

COMPLAINT-RESOLUTION PROCEDURE

Your dealer is the best and fastest source to solving any problems you may experience with your product.

1. Be prepared with the following information:
 - Machine model and product identification number
 - Date of purchase
 - Nature of problem
2. Discuss problem with dealer service manager.
3. If unable to resolve, see the dealership manager. Explain the problem and request assistance.
4. If you have a persistent problem your dealership is unable to satisfy, ask your dealer to contact the John Deere territory aftermarket manager for resolution.
5. If a problem is not resolved to your satisfaction, contact the appropriate John Deere sales branch for your area and ask to speak with the division aftermarket manager. (See map.)

