

JOHN DEERE A25 AND A40 HIGH- PRESSURE WASHERS



JOHN DEERE

OPERATORS MANUAL JOHN DEERE A25 AND A40 HIGH- PRESSURE WASHERS

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To the Purchaser

This high-pressure washer was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, lubrication, or service. Read the Table of Contents to learn where each section is located.

 This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

In addition to the equipment furnished with your high-pressure washer, attachments are available to help you do a better job in special operating condi-

tions. These are described in the attachments section of this manual and can be purchased from your John Deere dealer.

“Right-hand” and “left-hand” sides are determined by facing the inlet hose end of the washer.

Record your high-pressure washer serial number in the space provided on page 14. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your high-pressure washer requires replacement parts, go to your John Deere dealer.

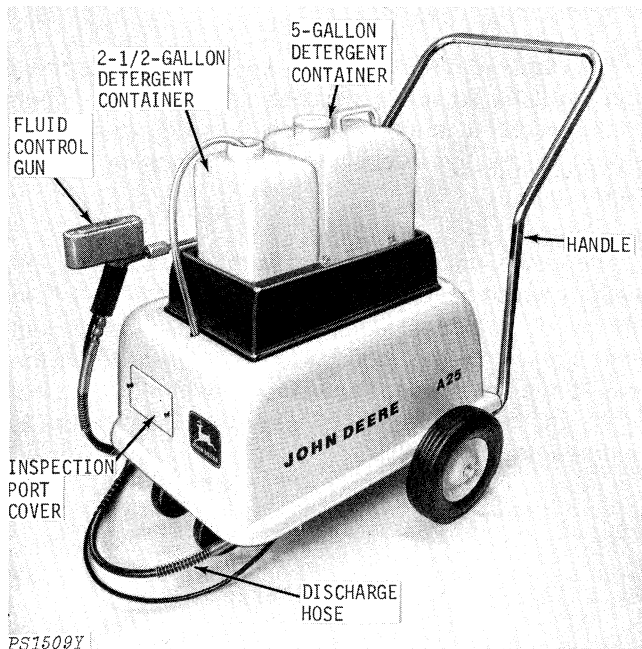
The warranty on this high-pressure washer is enclosed in this manual as an insert.



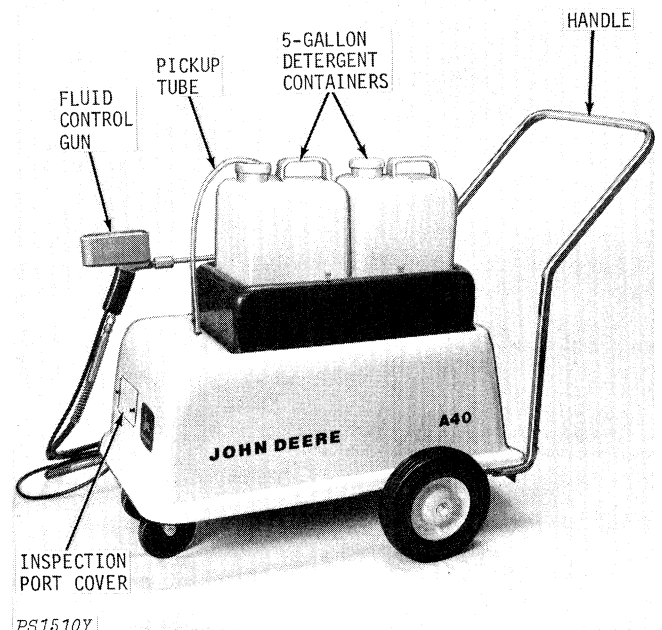


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John Deere A25 High-Pressure Washer



John Deere A40 High-Pressure Washer



Operation

HOW THE HIGH-PRESSURE WASHER WORKS

The John Deere A25 and A40 High-Pressure Washers are designed to make even the toughest cleaning jobs fast and easy to handle.

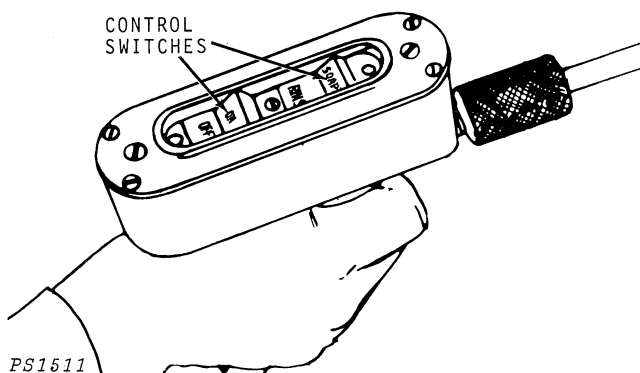
This washer automatically mixes detergent or other cleaning chemical contained in the detergent container with an outside water supply. This mixture is then applied at high pressure through the cleaning wand and spray nozzle to the surface to be cleaned.

After application of detergent or other chemical, clear water, again at high pressure, is applied as a rinse.

PLAN AHEAD —prevent accidents



FLUID CONTROLS



Both the A25 and A40 Washers are equipped with a 24-volt electric fluid control gun.

There is an “on-off” rocker switch and a “soap-rinse” rocker switch. Operations are easily controlled by the thumb or fingers in depressing the desired switch.

To wash, depress “soap” switch; then depress “on” switch. To rinse, depress “rinse” switch, then “on” switch. It is not necessary to use the on-off switch to change cycles while the machine is running.

The entire unit is equipped with a safety shut-off system which automatically shuts the washer off in the event of loss of electricity. The washer will not start again until the “on” switch is depressed all the way to the restart position. This prevents the hazard of an unattended “live gun” when electrical power is restored to the washer.

INCOMING WATER

In order to operate effectively, the incoming water volume must be three gallons per minute for the A25 Washer. The A40 Washer requires a water volume of five gallons per minute.

Test for volume by filling your 5-gallon detergent container from the end of the garden hose. If you are using the A25 Washer, the water should fill the detergent container in 100 seconds or less. If you are using the A40 Washer, the water should fill the container in 60 seconds or less.

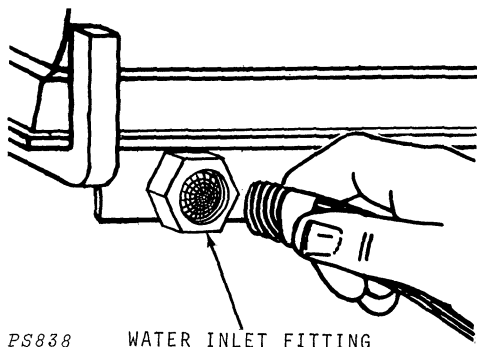
If your water supply does not fill the container within the correct time, a booster pump may have to be installed in your water system.

PRIMING THE HIGH-PRESSURE WASHER

Priming your high pressure washer is a simple procedure when you follow correct priming instructions. By following instructions, the pump life will be prolonged.

1. Select a good grade, water-tight hose (5/8" minimum). Connect it to a threaded hot or cold water tap. Fill the detergent container with water to about 3 to 4 inches from the top.

IMPORTANT: Remove the detergent pickup tube from the detergent container; then remove the detergent container from the washer to fill. This will prevent any spillage from contacting the electrical system—which could damage the motor or switches.

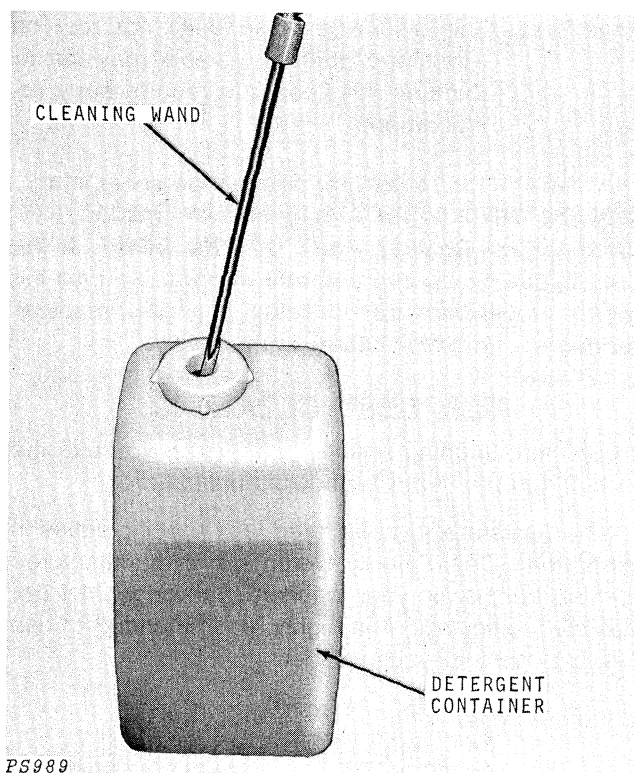


2. Connect water hose LOOSELY to the water inlet fitting at the rear of the machine. Turn the water on until it sprays out the loose fitting; then tighten securely. Doing this assures there is no air in the hose. Open the water faucet completely.

IMPORTANT: When using hot water, do not exceed water temperature of 160 degrees or damage to the pump may result.

3. Plug in service cord to properly grounded outlet. (See Electric Motor, page 5.) The A25 requires 115-volt A.C. The A40 requires 230-volt A.C. single-phase.

CAUTION: If an extension cord is needed, use only a 12-gauge, 3-wire extension for a distance up to 50 feet. For a distance greater than 50 feet, use a 10-gauge, 3-wire extension. Do not use more than 150 feet of extension cord.



4. With the detergent pickup tube out of the container, and the container off the machine, add detergent to the container. (See section on detergent proportioning for amount, page 4.) Insert cleaning wand close to the bottom of the container, depress "rinse" and "on" switches and use the high pressure to stir vigorously. Continue stirring until the container is nearly full; then depress "off" switch and remove the wand. Insert the pickup tube into the detergent container and place the container into the cavity on top of the machine.

5. Depress "soap" and "on" switches to prime the soap system. This may require switching from "soap" to "rinse" a few times.

NOTE: When switching from "rinse" to "soap", remember that it takes a moment or so to purge the discharge hose of clear water before your spray appears soapy.

BEFORE OPERATING

Make Sure—Your water tap is turned on completely. A pump starved for water will wear out quickly.

Make Sure—Washer is fully primed.

Make Sure—The detergent container has adequate fluid and the detergent is completely dissolved in the concentrate mixture.

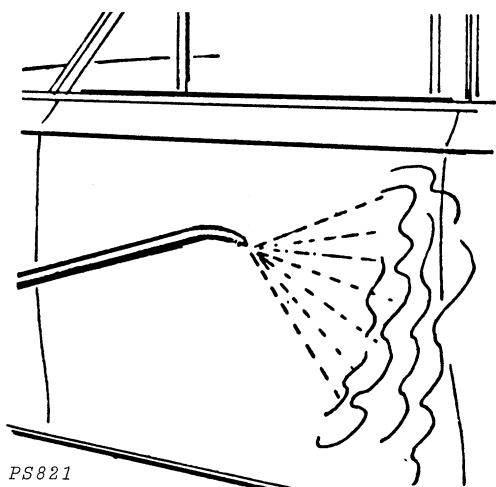
Make Sure—The discharge hose does not rest on any sharp objects, as this may cut or damage the hose and require early replacement.

CAUTION: To prevent possible personal injury, **DO NOT DIRECT THE SPRAY FROM THE WAND TOWARD ANY PART OF THE BODY.** If injured by the spray, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

FOR BEST CLEANING

For best cleaning results, make sure you use the correct detergent and method of application.

Detergents are manufactured with specific duties in mind. John Deere Spray Detergent is manufactured specially for use in your washer. (See page 11.) For maximum efficiency, it is highly recommended to use this detergent in your washer.



The correct method for using the high-pressure washer is fairly simple. It is most effective when you direct the fluid delivered from the nozzle as you would a cutting knife or scraper. You can adjust the wand through use of the knurled nut for best results. For example: When cleaning a floor, loosen the knurled nut, turn the wand 180° and sweep ahead of you from side to side as you would with a broom.

Hold the nozzle about 8 to 10 inches from the surface you are cleaning. Move closer for tough spots that require more force—just as you would bear down harder with a brush.

On vertical surfaces, wash from the bottom up, rinse from the top down.

DETERGENT PROPORTIONING

Correct Detergent Proportioning Is Important. Your high-pressure washer is factory-set to deliver 20 parts water to one part concentrate. This pre-set proportion delivers ultimate effectiveness at maximum economy.

Too little detergent will not deliver proper cleaning action. Too much detergent will take away from the economy of the washer.

As a guide to begin operation, use one of the following ratios:

Normal water . . . 2 pounds detergent to 5 gallons water
With water softener . . . 1 pound detergent to 5 gallons water
Extremely hard water . . . 3 to 4 pounds detergent to 5 gallons water

NOTE: These amounts are based on the factory-set detergent proportioning ratio of 20 parts water to one part concentrate.

Experience will determine the best proportion for local water conditions.

IMPORTANT: When using detergent, always add detergent to water instead of adding water to the detergent. This will insure a uniform mixture.

NOTE: See page 7 for adjusting detergent proportioner.



ELECTRIC MOTOR

The local power company should be consulted before adding an extra motor load to the electrical service. It should be determined with the power company:

1. That the operation of the extra motor load will not produce line disturbance in excess of that permitted, and
2. That its system will maintain the voltage within acceptable limits.

NOTE: An electrical motor can produce rated output only when adequate voltage is maintained at the motor terminals. The present wiring on the farm and the new wiring planned, together with the voltage regulation by the power company, will determine the voltage available to the motor terminals. There is allowable variation from the voltage specified on the motor name plate. Generally, this is within the range of ± 10 per cent. Thus, a motor rated at 230 volts can be expected to operate reliably on terminal voltage not lower than 207 volts or higher than 253 volts.

 **CAUTION:** If an electrical outlet is needed to plug in your washer, it should be installed by a qualified electrician. Be sure to have a safe installation. It should conform to the latest edition of the "National Electric Code" (NF PA No. 70), to REA requirements, to state and local Codes as may be applicable, and incorporate such significant safety features as follows:

The installation should be protected from rain, snow, dust and other foreign material, as well as damage from livestock, falling objects, etc.

Switches, push buttons, or other control devices should be located out of the reach of children.

The electrical supply circuit to each equipment installation should include an enclosed disconnecting means (such as safety switch or circuit breaker) which can be padlocked in the "off" position. Padlocking should guard against unauthorized persons or children operating the washer.

STORAGE

When storing the washer where freezing is possible, follow these steps for anti-freeze protection:

Empty the detergent container; then mix 50-50 solution of permanent anti-freeze and water (approximately 1 quart) in the container.

Turn off the water supply. Leave the supply hose connected to the machine.

Place the detergent pickup tube in the solution of anti-freeze and water.

Move the control switch to "soap"; then cycle the "on" and "off" switch several times.

The anti-freeze solution will be drawn into the detergent pickup tube, manifold and pump. If this does not occur, check to see that the unit was well-primed before turning off the water supply.

Disconnect the water inlet supply hose at the rear of the machine. Tilt the machine so water can drain from the inlet water connection and hose.

Safety Suggestions

 The major safety precautions with this high-pressure washer are concerned with the electrical system of the unit.

The male end of the service cord is equipped with a third or ground prong. Do not remove this third prong. Be sure to plug unit into an outlet that is properly grounded and will accommodate a 3-prong male plug.

If additional wiring is required, be sure to follow the recommendations under Electric Motor.

If an extension cord is needed, use only a 12-gauge, 3-wire extension for a distance up to 50 feet. For a distance greater than 50 feet, use a 10-gauge, 3-wire extension. Do not use more than 150 feet of extension cord.

Disconnect the service cord from the electrical outlet before removing the cover from the drive unit.

Be careful not to direct the spray (at close range) toward any part of the body.

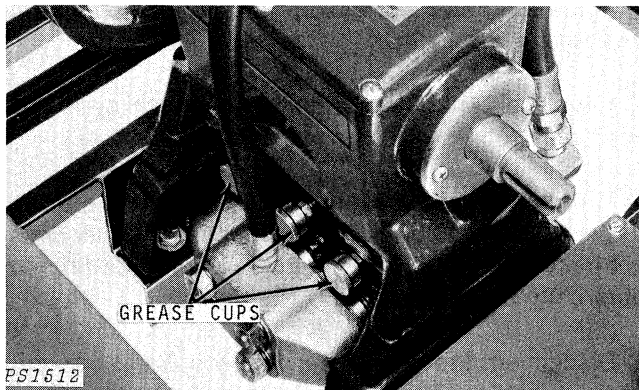


Lubrication

Economical and efficient operation of any machine is dependent upon regular and proper lubrication of all moving parts with a quality lubricant. Neglect leads to reduced efficiency, heavy draft, wear, breakdown, and needless replacement of parts.

PUMP

Grease Cups



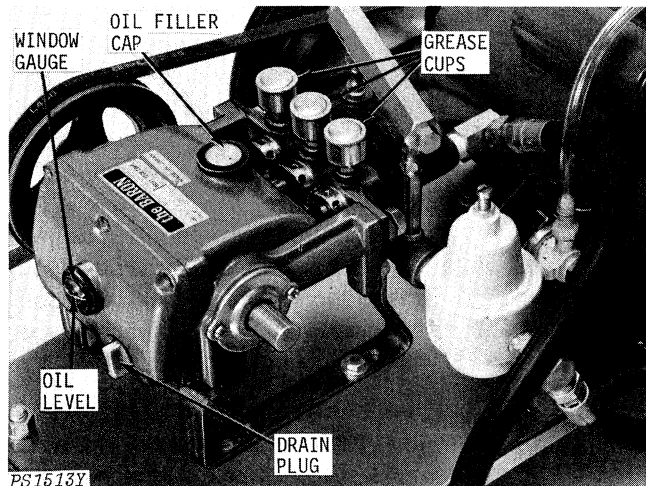
Grease Cups on A40 Washer

Every 50 hours of operation, turn the three grease cups down (clockwise) until a slight resistance is felt. This forces grease onto the plunger seals.

Keep the grease cups filled with John Deere Multi-Purpose lubricant or an equivalent SAE multipurpose-type grease.

Crankcase

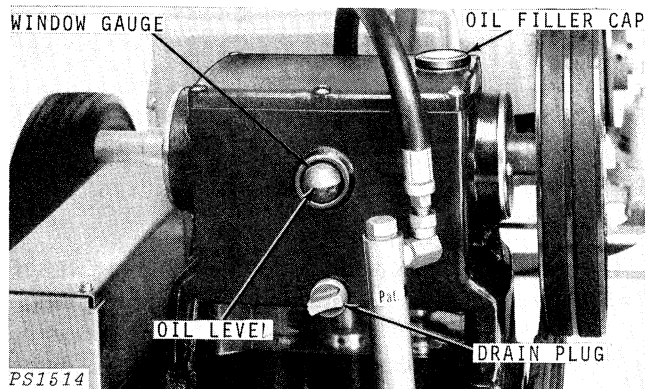
Your John Deere washer is shipped with oil in the pump crankcase. Make sure oil is at the proper level. This can be easily checked by looking at the oil level window gauge through the oil inspection port at the front of the washer.



Grease Cups and Crankcase on A25 Washer

The oil level should be at the center of the window gauge. If the oil level is below the center, remove the case top; then remove the oil filler cap and add a good grade of NON-DETERGENT SAE 30 Engine Oil until the level is at the center of the window gauge.

NOTE: John Deere Chain Saw Oil (PT551) may be used in the pump crankcase.



Crankcase on A40 Washer

Change the oil after the first 50 hours of operation and every 200 hours of operation thereafter. The oil can be drained by removing the drain plug on the bottom of the crankcase.



Service

ADJUSTING DETERGENT PROPORTIONER

For best results, this high-pressure washer is pre-set at the factory for maximum efficiency and economy of operation. Do not change this detergent adjustment unless you have extreme variance in detergent draw.

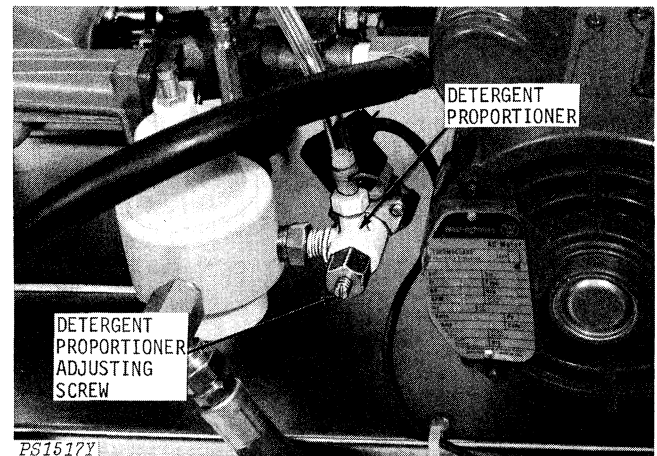
Determining the detergent draw may be done in the following manner:

1. Remove detergent containers.
2. Remove the three screws from each side of the case top.
3. Remove the split rubber grommet from the detergent pickup tube in the cavity in the case top. Lift off the case top, making certain the pickup tube is pushed down through the case while lifting case top off.

CAUTION: Do not allow water spray to contact exposed area. Do not touch electrical terminals. Keep hands away from drive belts.

4. Carefully measure one pint of water (equal to one pound of water) into a smaller container such as a coffee can. Insert the pickup tube into the container.
5. Depress the "SOAP" switch and the "ON" switch and time how long it takes to remove the water from the container. At 20:1 (factory setting) the unit should draw:

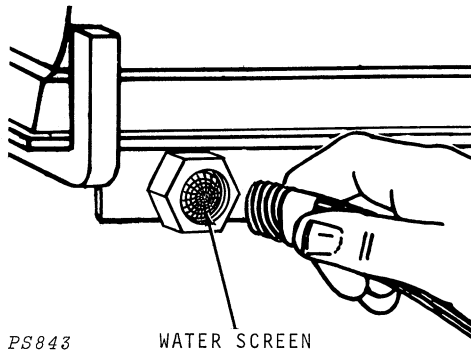
Model A25 1 pint liquid in 45 to 50 seconds
Model A40 1 pint liquid in 30 to 35 seconds



*Detergent Proportioner Adjusting Screw
(A25 Washer Illustrated)*

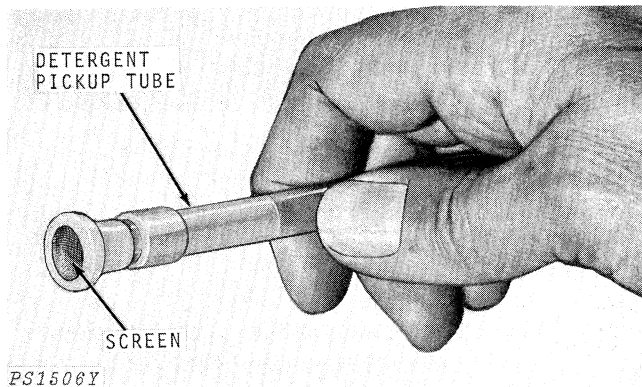
6. To change the detergent draw, follow these steps:
 - a. Turn the adjusting screw counterclockwise (out) to increase detergent draw (richer mixture).
 - b. Turn the adjusting screw clockwise (in) to decrease detergent draw (thinner mixture).
7. Reinstall the case top, split rubber grommet and detergent container.

WATER SCREEN



There is a cone-shaped screen in the inlet water fitting. This screen should be inspected periodically for build-up of scale, grit, etc. and cleaned if necessary. If the screen is removed, be sure to replace it with the cone end pointing out.

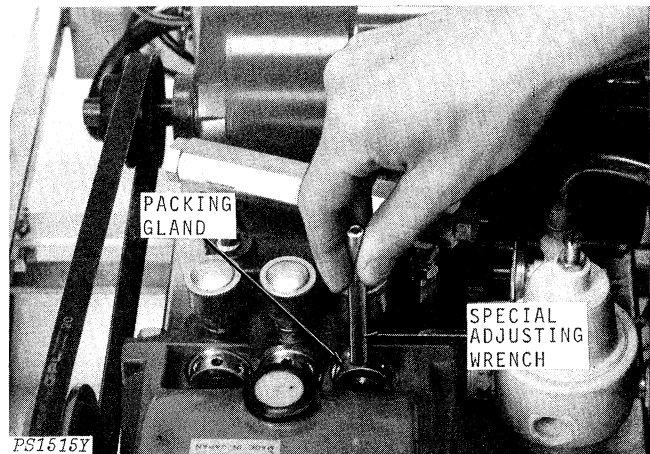
DETERGENT PICKUP TUBE SCREEN



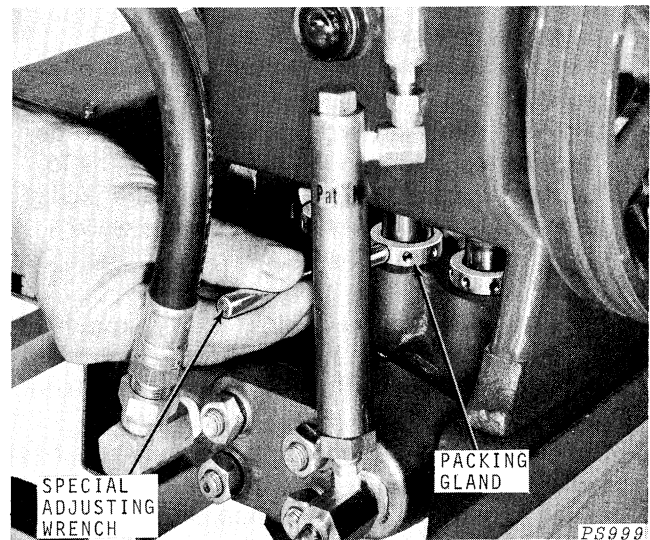
Remove the detergent pickup tube from the detergent container. Inspect the flat screen in the end of the tube. The screen must not be plugged. If it is plugged, the washer will draw little or no detergent. Clean the screen by removing the screen with holder and backflushing it with water.

If the screen is corroded or broken, replace it.

PUMP PLUNGER SEALS



Adjusting Plunger Seals on A25 Washer



Adjusting Plunger Seals on A40 Washer

The pump plunger seals may have to be tightened if the pump is fluctuating, pulsating, or leaking badly.

Tighten the seals by using the special wrench provided with your washer. Using the special wrench, tighten each packing gland by working the gland back and forth—gradually tightening until the gland is snug.

NOTE: A slight seepage around the plungers is desirable in that it will allow water to lubricate the back side of the seals resulting in longer seal life.



Trouble Shooting

Trouble	Possible Cause	Possible Remedy	Page
Draws detergent on rinse cycle.	Detergent proportioning solenoid valve not seating properly.	See your John Deere dealer	..
Will not draw detergent.	Detergent proportioner out of adjustment.	Adjust proportioner.	7
	Detergent proportioner coil burned out.	See your John Deere dealer.	..
	Detergent hose pinched.	Realign the hose.	..
	Detergent screen clogged.	Clean screen. (Located on end of pickup tube)	8
	Detergent pickup tube out of container.	Place pickup tube in container.	8
	Pump worn (low displacement).	See your John Deere dealer.	..
	Detergent container empty.	Fill detergent container.	3
	Water inlet screen clogged.	Clean or replace screen.	8
Draws too much deter- gent on "soap" cycle.	Detergent proportioner out of adjustment.	Adjust detergent proportioner.	7
	Water inlet valve coil burned out.	See your John Deere dealer.	..
Will not draw enough detergent on "soap" cycle.	Detergent proportioner out of adjustment	Adjust detergent proportioner	7
	Detergent pickup tube screen clogged.	Clean screen.	8
Low nozzle pressure.	Worn nozzle.	Replace nozzle.	..
	Low pump displacement.	See your John Deere dealer.	..
	Relief valve recirculating.	See your John Deere dealer.	..
	Unit not primed.	Prime unit.	3
No pressure or fluid at nozzle.	Plugged inlet screen.	Clean or replace screen.	8
	Detergent tank dry.	Fill detergent tank.	3
	Water tap not on.	Supply unit with adequate water volume.	3
	Plugged nozzle.	Remove nozzle and clean by blowing air back through nozzle.	..
	Relief valve fouled or out of adjustment.	See your John Deere dealer.	..
	Water inlet solenoid valve not operating.	See your John Deere dealer.	..

10 *Trouble Shooting*

Trouble	Possible Cause	Possible Remedy	Page
Units shuts off after continued use.	Automatic thermoguard cuts out.	Be sure unit has adequate ventilation. Make sure nozzle is not plugged. Check for low voltage. Check size of extension cord if extension cord is used. Make sure there is an adequate electrical power supply.	5
Unit will not start but water will flow through nozzle.	Loose connection between rocker switch and relay.	See your John Deere dealer.	..
	Switch not working.	See your John Deere dealer.	..
	Relay not working.	See your John Deere dealer.	..
	Motor will not run.	See your John Deere dealer.	..
	Defective 5- conductor wire.	See your John Deere dealer.	..
Unit will not start—no water through nozzle.	Loose connection between transformer and rocker switch or relay.	See your John Deere dealer.	..
	Loose connection between On-Off switch and Soap-Rinse switch.	See your John Deere dealer.	..
	Relay not working.	See your John Deere dealer.	..
	Motor will not run.	See your John Deere dealer.	..
	Defective 5- conductor wire.	See your John Deere dealer.	..
Pump fluctuates or pulsates.	Air in lines.	See your John Deere dealer.	..
	Pump valves not seating.	See your John Deere dealer.	..
	Pump grease cups empty.	Fill cups and tighten.	6
	Pump plunger seals loose.	Tighten packing gland.	8



Attachments

CHEMICALS



There is a wide variety of chemicals available from your John Deere dealer for use in this high-pressure washer.

John Deere Spray Detergent is a top-quality, heavy-duty detergent for general washing. It is excellent for removing heavy road, industrial, and agricultural scum. It will not harm paint or stainless steel and leaves a sparkling finish.

NOTE: Do not use the detergent in an area where it will run into a cesspool.

John Deere Degreasing Solvent is an emulsifiable solvent for use in loosening grease, tar, creosote, asphalt and other petroleum derived soils.

NOTE: The degreasing solvent can not be economically applied through your high-pressure washer. Excessive loss will occur due to the spray blow-off caused by the high pressure. Apply it with a separate, low-pressure sprayer.

John Deere Spray Wax is a liquid wax especially developed for use in high-pressure washers. It gives a tough, long-lasting finish to any painted metal finish.

AUXILIARY CONTAINER

An auxiliary detergent container can be valuable under certain conditions. For instance, when using Spray Wax, the wax solution can be mixed in the auxiliary container. Simply remove the pickup (soap) tube from the detergent container mounted on the washer and drop it in the auxiliary container to apply wax. Return the pickup tube to the main container when through.

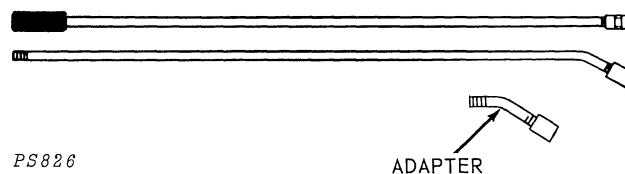
CLEANING WANDS

2- and 4-Foot Wands

The standard cleaning wand on these washers is two feet in length. An optional 4-foot wand is available.

8-Foot Wand

An 8-foot wand assembly is available. It consists of: one 4-foot straight section with knurled nut, one 4-foot extension with 15° bend, and one 15° adapter.

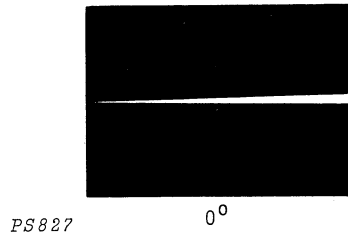


The 8-foot wand assembly can be converted to use as a 4-foot straight wand by inserting the 15° adapter into the end of the straight wand.

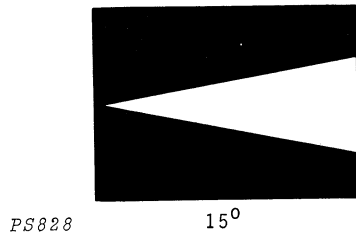
For an 8-foot reach, remove the 15° adapter and install the 4-foot wand extension (with the 15° bend) into the coupling on the straight 4-foot wand.

SPRAY NOZZLES

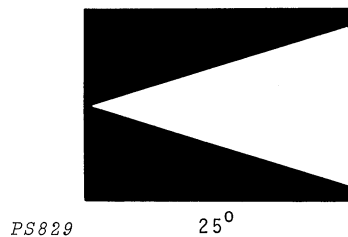
A wide variety of extra nozzles, in addition to the 40° spray nozzle provided with the washer, are available. The following are the characteristics of each:



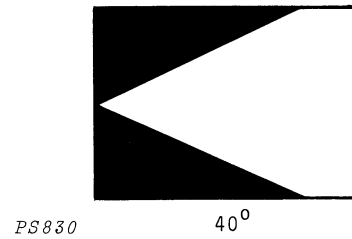
"0°" spray nozzle—actually "drills" dirt and grime from surfaces. Motors and air-conditioning coils, for example, might better utilize this nozzle.



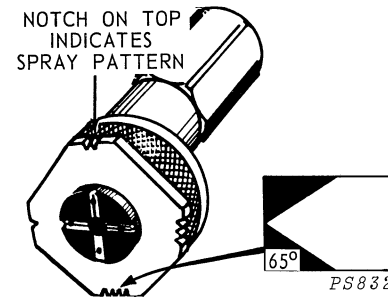
15° nozzle—used for stripping or cutting through heavy grease and mud on transmission housings, farm equipment, air conditioning coils, etc.



25° nozzle—acts much like a stiff bristle brush on soiled areas and removes greases, fats and other material tough to loosen.



40° nozzle—acts much like a brush, but with medium action. Cleans soil that is tough to remove.



A multi-jet spray nozzle is also available. This nozzle can be changed from one pattern to another by turning the nozzle head until the proper notches are lined up with the cleaning wand. One notch is 0°, two notches are 15°, three notches are 40°, and four notches are 65°. The 65° nozzle will allow large surfaces to be cleaned fast.

IMPORTANT! Be sure to get the correct nozzle for this machine. The wrong nozzle can result in either low nozzle pressure or overloading the electric motor.

NOTE: The correct multi-jet nozzle can be identified by examining the outer rim of the jet insert. The A25 Washer jet will have a 5-digit number by each port; the last two digits should be 55. The last two digits for the A40 Washer multi-jet nozzle should be 85.



Assembly

Remove the unit from the carton and check that no transportation damages have occurred.

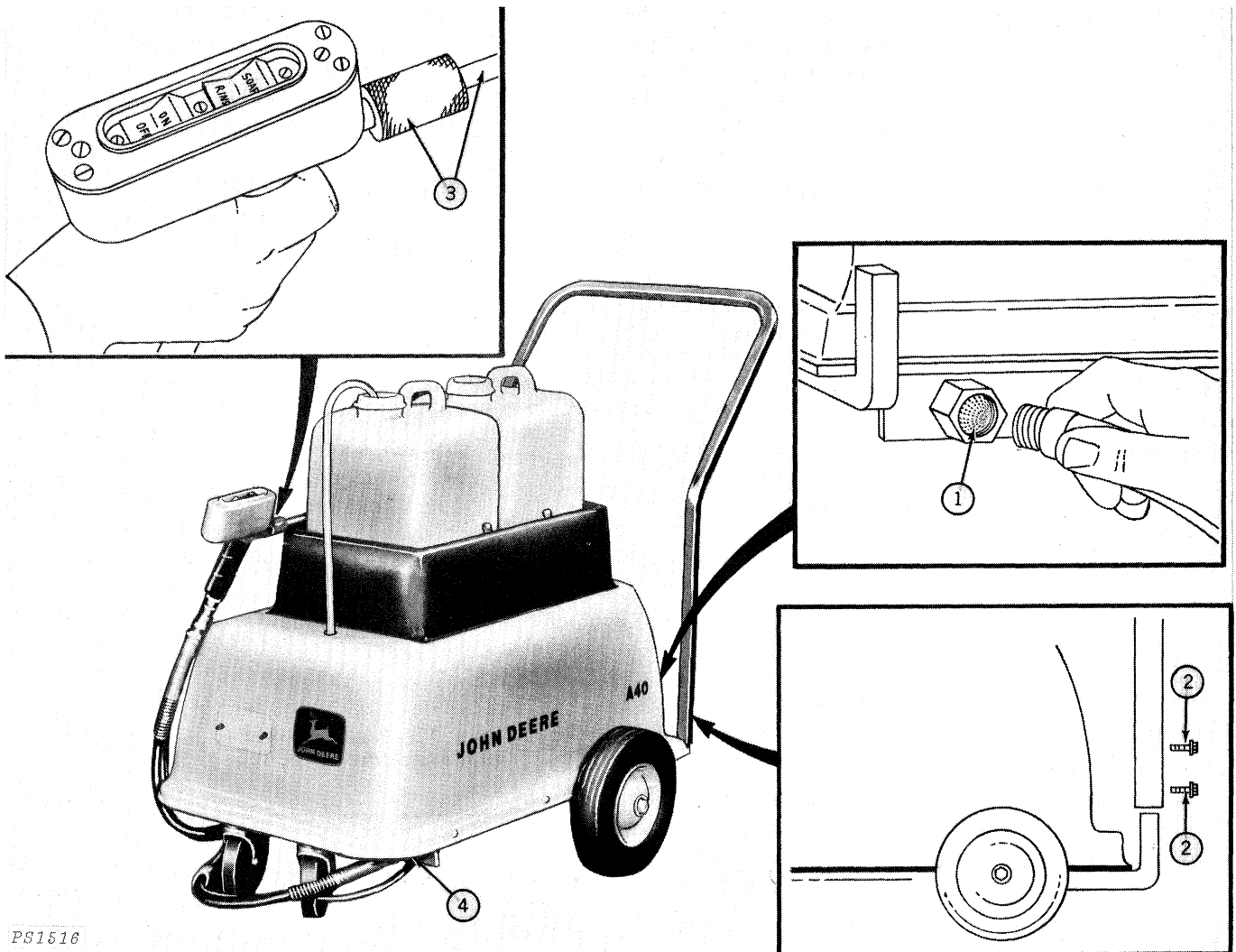
1. Inspect incoming water fitting at rear of washer. Make sure screen (which prevents sand and scale from entering the lines) is in correct position. Install screen with the cone end pointing towards the faucet.

2. Slip handle over stubs at rear right-hand and rear left-hand of machine. Secure with four screws.

3. Attach cleaning wand to fluid control gun and tighten securely with knurled nut.

4. Attach discharge hose to discharge hose fitting.

NOTE: Check the oil level in the pump crankcase (see page 6.)





Specifications

	Model A25	Model A40
Electric motor	115-volt, 17-amp, 1-1/2 horsepower	230-volt, 17-amp, single-phase, 3 horsepower
Pump	2-1/2 gallon-per-minute, 3-plunger, positive displacement belt-driven	4 gallon-per-minute, 3-plunger, positive displacement belt-driven
Cleaning wands	2-foot length (std.), 4-foot length (opt.); also 8-foot as- sembly consisting of: 4-foot straight section, 4-foot curved extension, and 15° adapter	2-foot length (std.), 4-foot length (opt.); also 8-foot as- sembly consisting of: 4-foot straight section, 4-foot curved extension, and 15° adapter
Spray nozzles	40° (std.); also 0°, 15°, and 25° single-jet nozzles; 0°, 15°, 40°, 65° multi-jet nozzle	40° (std.); also 0°, 15°, and 25° single-jet nozzles; 0°, 15°, 40°, and 65° multi-jet nozzle
Detergent containers	One 5-gallon and one 2-1/2- gallon polyethylene	Two 5-gallon polyethylene
Case	A.B.S. plastic	A.B.S. plastic
Wheels	10-inch, semi-pneumatic, heavy-duty and heavy- duty 5" casters.	10-inch, semi-pneumatic, heavy-duty and heavy- duty 5" casters.
Weight	Approximately 145 pounds	Approximately 272 pounds

(Specifications and design are subject to change without notice.)

SERIAL NUMBERS

The serial number is located in the center of the frame at the rear of the machine.

When ordering parts, always bring with you the model and serial number as given on the serial number plate. By doing so, you will assist your John Deere dealer in giving you prompt, efficient service. For your convenience, a space is provided to the right for recording this information.

JOHN DEERE A25 and A40 HIGH-PRESSURE WASHERS

MODEL _____

SERIAL NO. _____

DATE PURCHASED _____

(To be filled in by purchaser)

MEMORANDA

MEMORANDA

Service to keep you on the job

We, at your John Deere dealer's, pride ourselves in having what it takes to help keep you on the job...

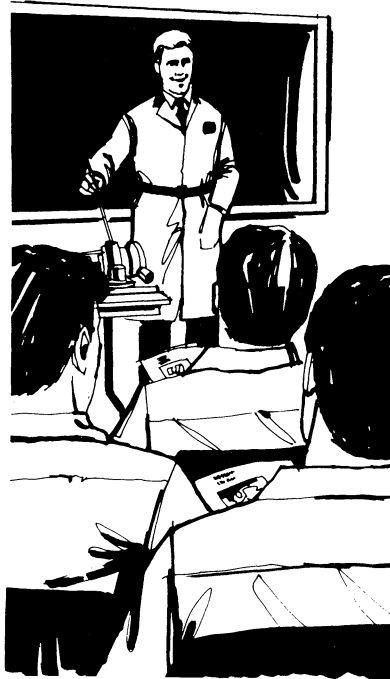
John Deere Parts.

We help minimize downtime by putting the right parts in your hands in a hurry. That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.



The right tools.

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly... to save you time and money.



Well-trained mechanics.

School is never out for John Deere servicemen. Training schools are held regularly to be sure our personnel know your equipment and how to maintain it. Result? Experience you can count on!



Prompt service.

Our goal is to provide prompt, efficient care when you want it and where you want it. We can make repairs at your place or at ours, depending on the circumstances. See us. Depend on us.

John Deere Service Superiority: We'll be around when you need us

