



John Deere

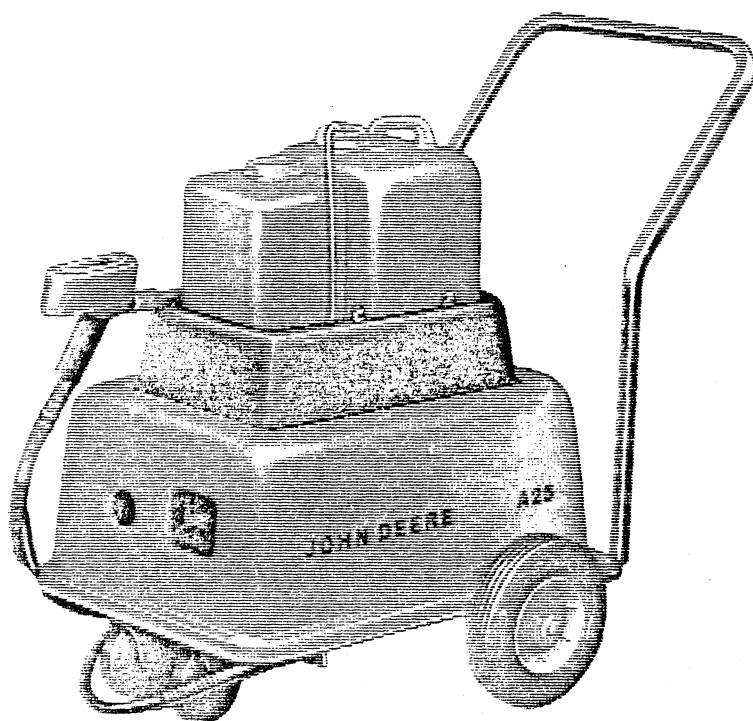
A25 and A40

High-Pressure Washers

Operator's Manual

OM-TY7501

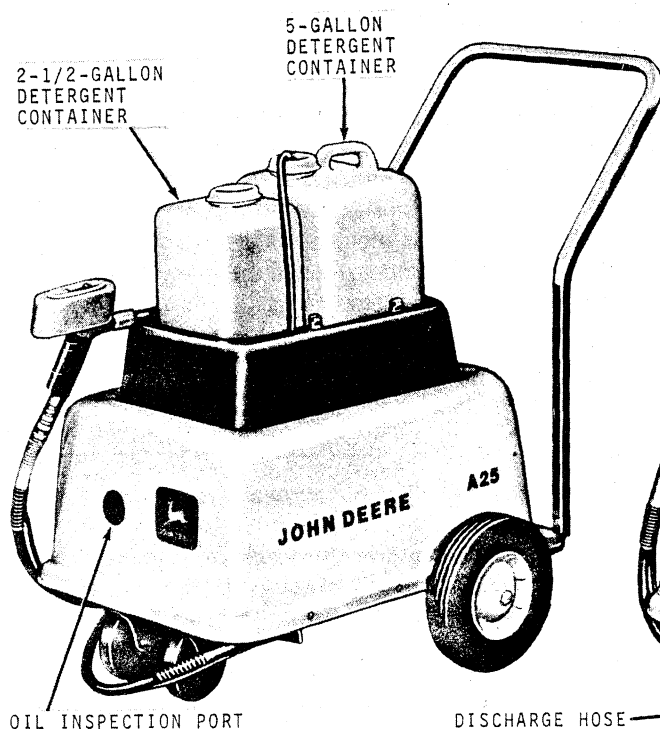
Issue J1



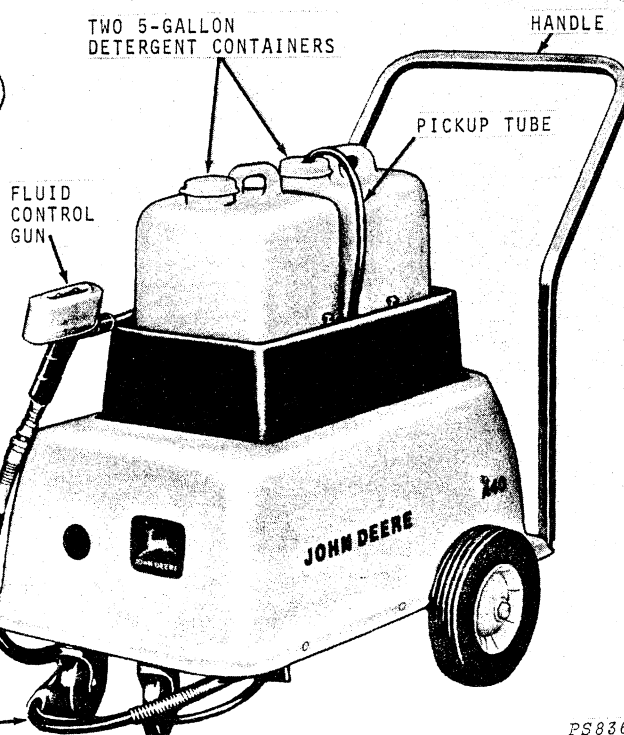


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John Deere A25 High-Pressure Washer



John Deere A40 High-Pressure Washer

PS836



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.

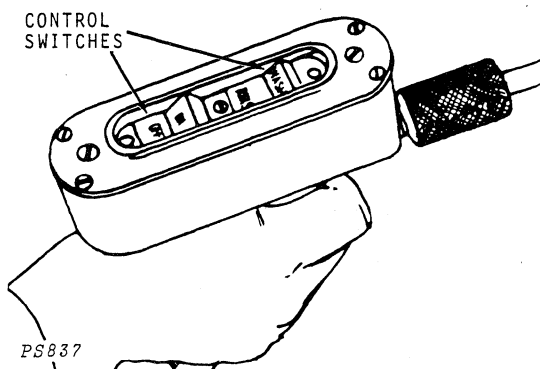
This washer automatically mixes detergent or other cleaning chemical contained in the detergent container with an outside water supply. This mixture is then applied at high pressure through the cleaning wand and spray nozzle to the surface to be cleaned.

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 "wash-concentrate-rinse" rocker switch. Operations are easily controlled by the thumb or fingers in depressing the desired switch.

To wash, depress "wash" 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.

For extra tough cleaning jobs, depress the control switch to "concentrate" position, and the washer will apply chemical from the container—undiluted by outside water.

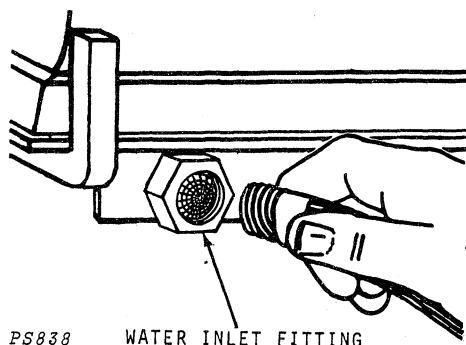
IMPORTANT: When the switch is in the "concentrate" position, the A25 Washer will operate two minutes on a full, 5-gallon container of concentrate, and the A40 Washer will operate 1-1/4 minutes on a full, 5-gallon container of concentrate. If the Washer is operated after the concentrate is gone, it may require repriming.

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.

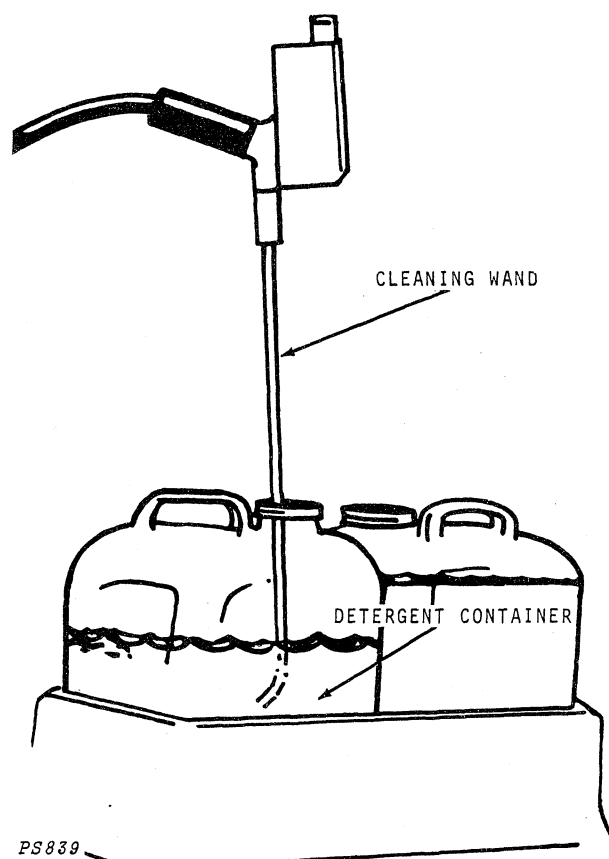
IMPORTANT: When using hot water, do not exceed water temperature of 160 degrees.



2. Connect water hose loosely to the water inlet fitting at the rear of the machine (male: hose end—female: fitting end). 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; then insert the soap pickup tube into the detergent container.

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. If an extension cord is needed, use only a 12-3 extension.

4. Depress "rinse" switch and the "on" switch. The "rinse" system is now completely primed. Depress "off" switch.



5. Remove pickup tube from container. 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.

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

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

BEFORE OPERATING

Make Sure—Your water tap is turned on completely. A pump starved for water will wear out quickly, and may draw soap on the "rinse" cycle.

Make Sure—Washer is fully primed.

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

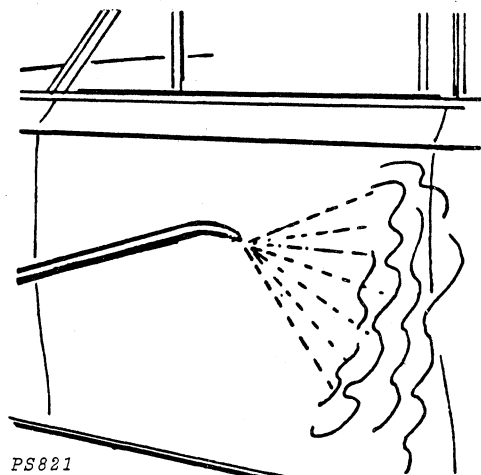
Make Sure—Detergent pickup tube is removed before inlet water hose is disconnected. (This will assure no siphoning out of concentrate through the inlet fitting.)

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

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 10.) 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 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 to insure uniform mixture.

NOTE: See page 6 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

After use, and for storing washer where freezing is possible, follow these steps for anti-freeze protection:

Mix 50-50 solution of permanent anti-freeze and water (approximately 1 pint).

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

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

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

The anti-freeze solution will be drawn into the 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 12-3 extension.

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.



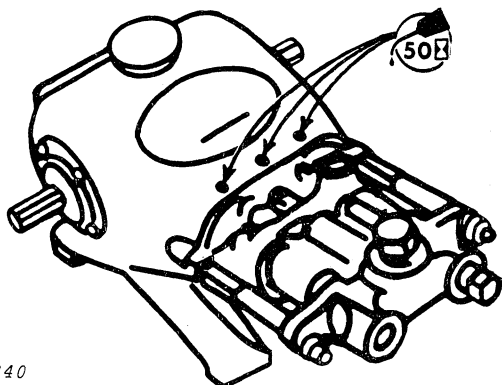
Lubrication

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.

SYMBOL



Oil every 50 hours of operation with John Deere Torq-Gard Engine Oil or an equivalent SAE 30 oil.

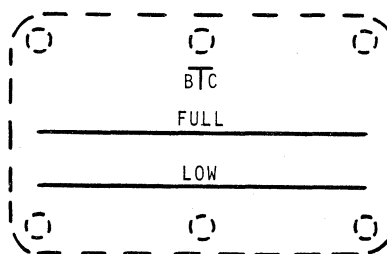


PS840

Lubricate drive shaft by putting 5 drops of SAE 30 oil in each of the three port holes.

Change oil after 200 hours of operation or monthly.

CRANKCASE



PS841

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 gauge through the oil inspection port at the front of the washer. If the oil level is at the "low" mark, remove protective case cover, remove oil cap and add John Deere Torq-Gard Engine Oil or an equivalent SAE 30 oil until level is at "full" mark.

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 incoming water pressure.

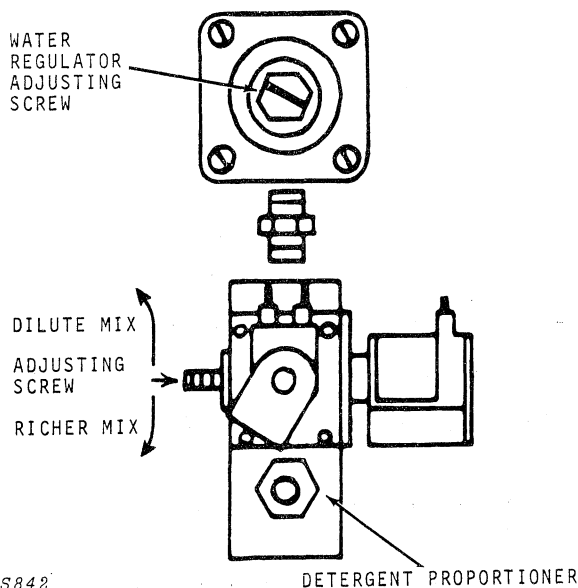
1. Remove detergent container.
2. Remove the three screws from each side of the case top.
3. Lift off the case top, making certain the pickup tube is pushed down through the case while lifting case off.

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 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



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

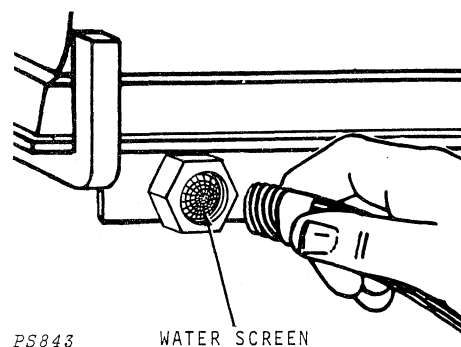
ADJUSTING WATER REGULATOR

Occasionally variations in incoming water pressure can not be corrected by adjusting the detergent proportioner. For instance, if pressure is less than 30 psi, the washer may draw from the detergent container while on "rinse" cycle. If pressure is more than 70 psi, the washer may not draw enough from the detergent container while on "soap" cycle.

To adjust the water regulator, follow steps 1, 2 and 3 under ADJUSTING DETERGENT PROPORTIONER (page 6), then:

4. Loosen the lock nut on screw on top of water regulator.
5. Turn the adjusting screw clockwise (in) to INCREASE incoming water pressure.
6. Turn the adjusting screw counterclockwise (out) to decrease incoming water pressure.
7. Tighten the lock nut.

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.



Trouble Shooting

Trouble	Possible Cause	Possible Remedy	Page
Draws detergent on rinse cycle.	Inlet screen plugged.	Clean or replace inlet screen.	7
	Low or erratic water pressure to unit.	Correct water supply to unit with adequate pressure and volume of water.	..
	Low water volume to unit.	Correct water supply to the unit with adequate volume of water.	..
	Regulator out of adjustment.	Adjust regulator.	7
	Obstruction between water inlet and pump.	Clean or replace clogged items.	7
	Rinse solenoid not activated.	Check electrical supply to solenoid coil. (See your John Deere dealer.)	..
	Solenoid valve dirty.	Clean or replace parts. (See your John Deere dealer.)	..
Will not draw detergent.	Extremely high inlet water pressure and/or regulator out of adjustment.	Adjust regulator.	7
	Rinse solenoid open (electrically) or foreign material holding valve open.	Check electrical circuitry and clean valve. (See your John Deere dealer.)	..
	Detergent adjustment too far open.	Readjust soap adjust screw.	6
	Detergent hose pinched.	Realign the hose.	..
	Detergent screen clogged.	Clean screen. (Located on end of soap hose inside of foot valve.)	..
	Pump worn (low displacement).	Service the pump. (See your John Deere dealer.)	..
	Foot valve stuck.	Clean or replace foot valve.	..
Low nozzle pressure.	Worn nozzle.	Replace nozzle.	..
	Low pump displacement.	Repair or replace pump. (See your John Deere dealer.)	..
	Relief valve recirculating.	Check relief valve adjustment or clean relief valve. (See your John Deere dealer.)	..
	Unit not primed.	Prime unit.	3

Trouble	Possible Cause	Possible Remedy	Page
No pressure or fluid at nozzle.	Plugged inlet screen.	Clean or replace screen.	7
	Detergent tank dry.	Fill detergent tank.	3
	Water tap not on.	Supply unit with adequate water and water pressure.	..
	Plugged nozzle.	Remove nozzle and clean by blowing air back through nozzle.	..
	Relief valve fouled or out of adjustment.	Adjust relief valve and clean. (See your John Deere dealer.)	..
	Solenoids not operating.	Check electrical supply to solenoids and clean. (See your John Deere dealer.)	..
Unit 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 (size 12-3). 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.	Replace switch. (See your John Deere dealer.)	..
	Relay not working.	Replace relay. (See your John Deere dealer.)	..
	Motor will not run.	Check and/or replace motor. (See your John Deere dealer.)	..
	Defective 5- conductor wire.	Replace wire assembly. (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 Wash-Rinse switch.	(See your John Deere dealer.)	..
	Relay not working.	Replace relay. (See your John Deere dealer.)	..
	Motor will not run.	Check and/or replace motor. (See your John Deere dealer.)	..
	Defective 5- conductor wire.	Replace wire assembly. (See your John Deere dealer.)	..



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.

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

IMPORTANT: The degreasing solvent should not be applied through your high-pressure washer. Apply it with a separate, low-pressure sprayer.

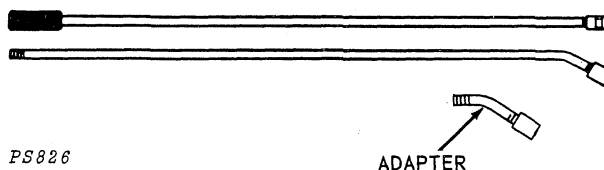
John Deere Spray Wax is a liquid wax especially developed for use in high-pressure washers. It gives a tough, long-lasting finish to any painted metal finish.

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

Standard cleaning wand on this high-pressure washer is two feet. Additional wands are available:



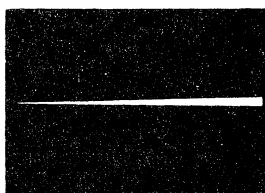
The conventional 4-foot wand is easily interchangeable with the 2-foot wand. To install, loosen the knurled nut, remove the 2-foot wand and install the 4-foot wand with its own knurled nut.

When using only a 4-foot straight wand, a 20° adapter must be inserted in the end of the wand.

For an even longer reach, remove the 20° adapter and install the 4-foot wand with the 20° bend into the coupling on the straight 4-foot wand to give an 8-foot reach.

SPRAY NOZZLES

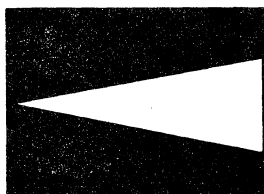
A wide variety of extra nozzles, in addition to the 40° spray nozzle provided with the washer, are available. The following are the characteristics of each:



PS827

0°

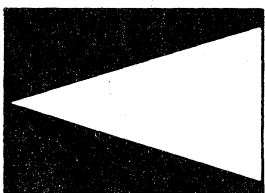
"0°" spray nozzle—actually "drills" dirt and grime from surfaces. Motors and air-conditioning coils, for example, might better utilize this nozzle.



PS828

15°

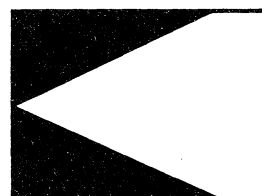
15° nozzle—used for stripping or cutting through heavy grease and mud on transmission housings, farm equipment, air conditioning coils, etc.



PS829

25°

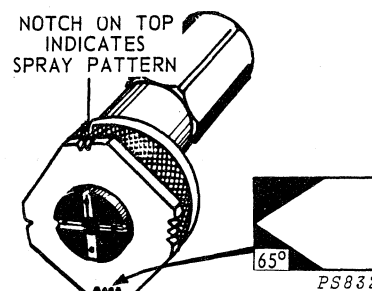
25° nozzle—acts much like a stiff bristle brush on soiled areas and removes greases, fats and other material tough to loosen.



PS830

40°

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



PS832

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.



Assembly

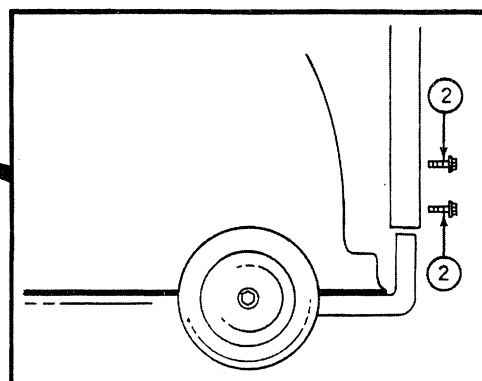
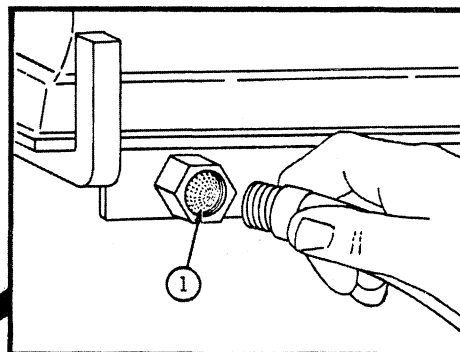
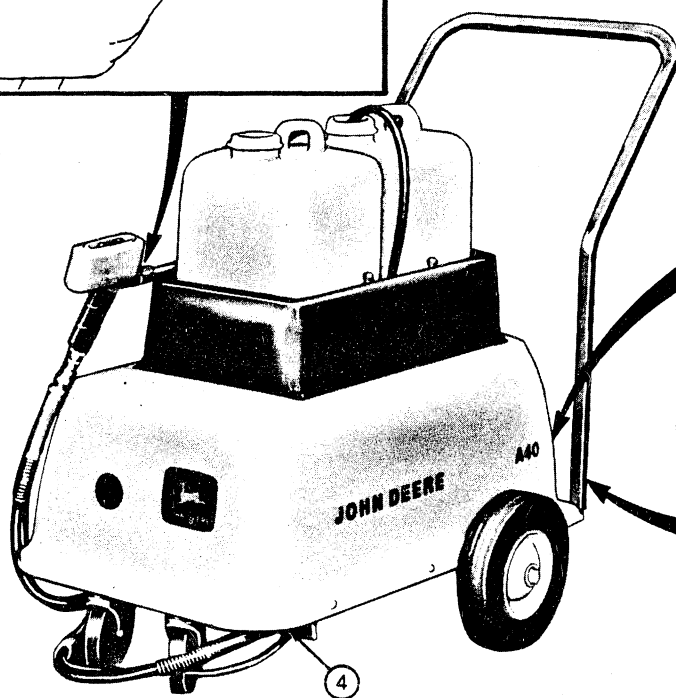
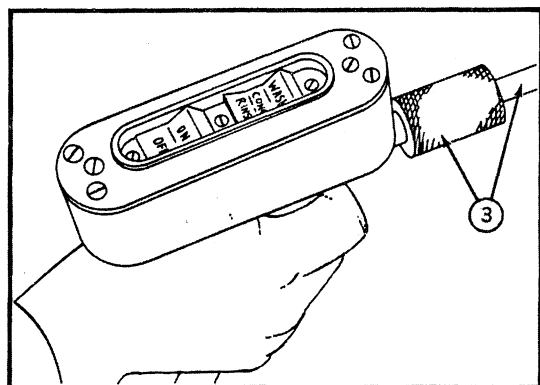
Remove the unit from the carton and check that no transportation damages have occurred.

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.





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-cylinder, positive displacement belt-driven	4 gallon-per-minute, 3-cylinder, positive displacement belt-driven
Cleaning wands	2-foot length (std.); also 4-foot straight and 4-foot curved	2-foot length (std.); also 4-foot straight and 4-foot curved
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**

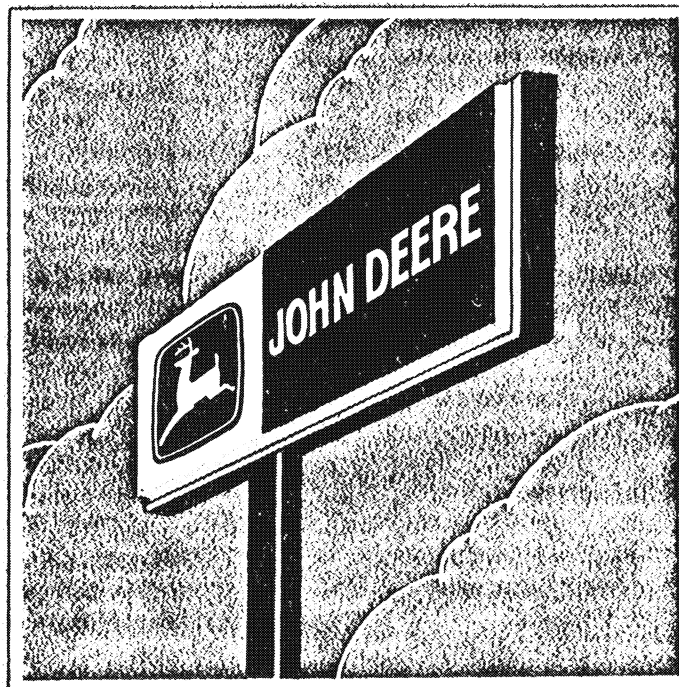
MODEL _____

SERIAL NO. _____

DATE PURCHASED _____

(To be filled in by purchaser)

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