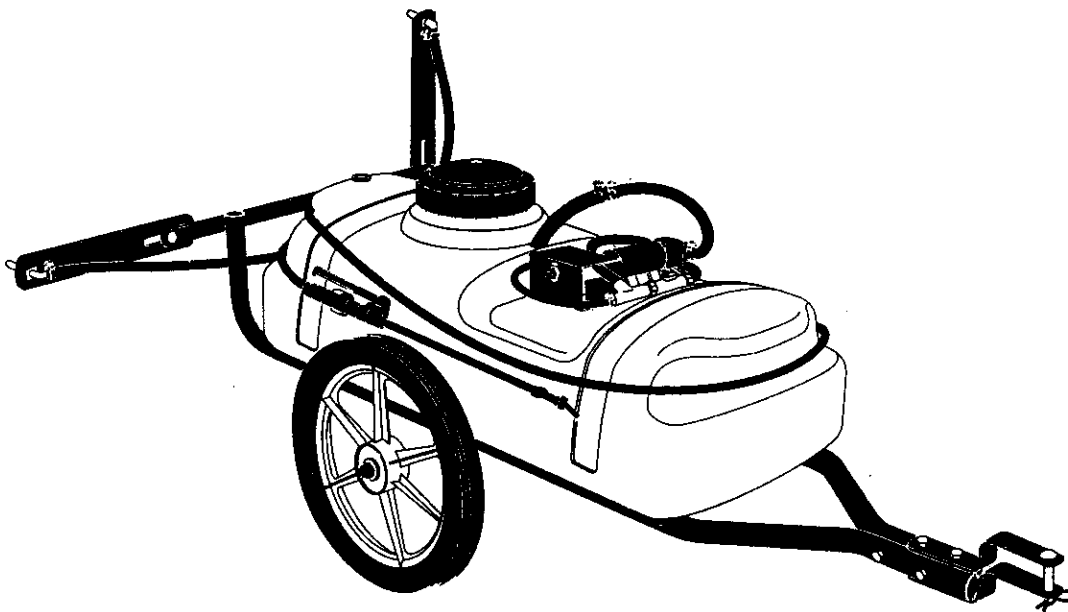


Owner's Manual

**CRAFTSMAN<sup>®</sup>**

**15 GALLON 35 PSI SPRAYER**

**Model No. 486.24531**



**CAUTION:**

Before using this product,  
read this manual and follow  
all Safety Rules and  
Operating Instructions.

- Safety
- Assembly
- Operation
- Maintenance
- Parts

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

PRINTED IN U.S.A.

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## WARRANTY

### LIMITED ONE YEAR WARRANTY ON

For one year from the date of purchase, when this sprayer is maintained and lubricated according to the operating and maintenance instructions in the owner's manual, Sears will repair any defect in material or workmanship free of charge. If this sprayer is used for commercial or rental purposes, this warranty applies for only 90 days from the date of purchase.

This warranty does not cover repairs necessary because of operator negligence or abuse, including the failure to maintain the equipment according to instructions contained in the owner's manual.

WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.

This warranty applies only while this product is in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Sears, Roebuck and Co. D/817 WA. Hoffman Estates, Chicago, IL 60179

<p>The model number and serial numbers will be found on a decal attached to the sprayer.</p> <p>You should record both the serial number and the date of purchase and keep in a safe place for future reference.</p>	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">MODEL NUMBER:</td> <td style="border: none;">486.24531</td> </tr> <tr> <td style="border: none;">SERIAL NUMBER:</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">DATE OF PURCHASE:</td> <td style="border: none;">_____</td> </tr> </table>	MODEL NUMBER:	486.24531	SERIAL NUMBER:	_____	DATE OF PURCHASE:	_____
MODEL NUMBER:	486.24531						
SERIAL NUMBER:	_____						
DATE OF PURCHASE:	_____						



## SAFETY



Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times, when using power equipment.

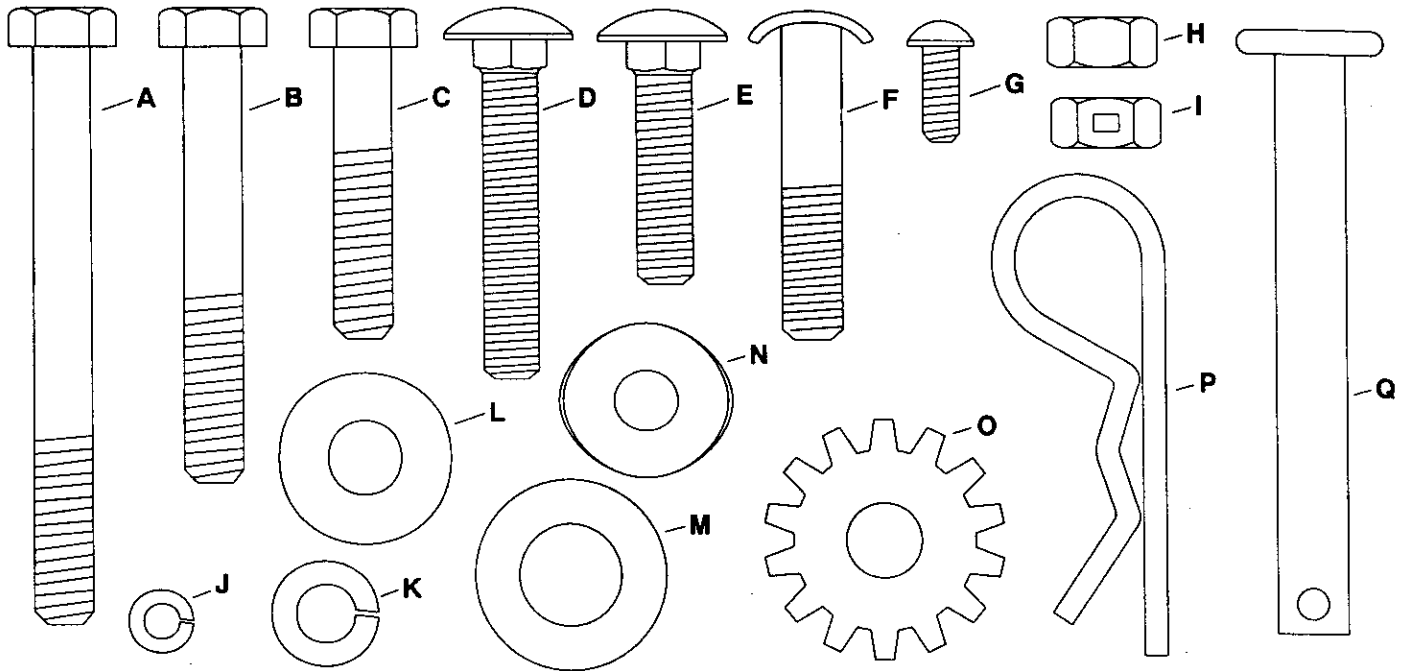
- Read this owners manual carefully before attempting to assemble or operate this sprayer.
- Read your vehicle owners manual for operating and safety rules before using this equipment.
- Never allow children to operate this sprayer, and do not allow adults to operate without proper instructions.
- Do not allow anyone to ride on or sit on this sprayer.
- Do not allow passengers on the towing vehicle.
- Keep the area of operation clear of all persons, particularly small children. Also keep area clear of pets.
- Read the chemical label carefully for instructions and caution notes on handling and mixing of chemicals.
- Wear eye and hand protection and wear protective clothing when handling and applying lawn chemicals.
- Do not spray on windy days.
- Attachment of this sprayer may affect your tractor's braking and stability. Be aware of your tractor's capabilities. Refer to the safety rules in the vehicle owner's manual concerning safe operation on slopes. Be aware of changing conditions on slopes. **STAY OFF OF STEEP SLOPES.**
- Operate at reduced speed on rough terrain, along ditches and on hillsides to prevent loss of control.
- Follow maintenance and lubrication instructions as outlined in this manual.



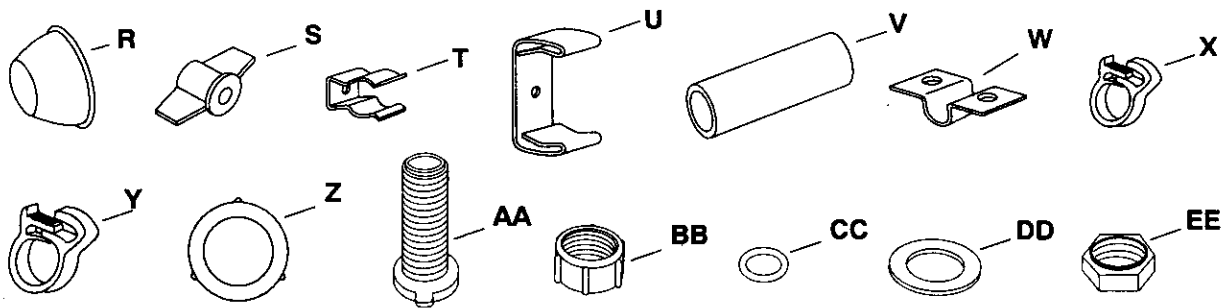
Look for this symbol to point out important safety precautions. It mean--**Attention!! Become alert!! Your safety is involved.**

# HARDWARE PACKAGE CONTENTS

## SHOWN FULL SIZE



## NOT SHOWN FULL SIZE

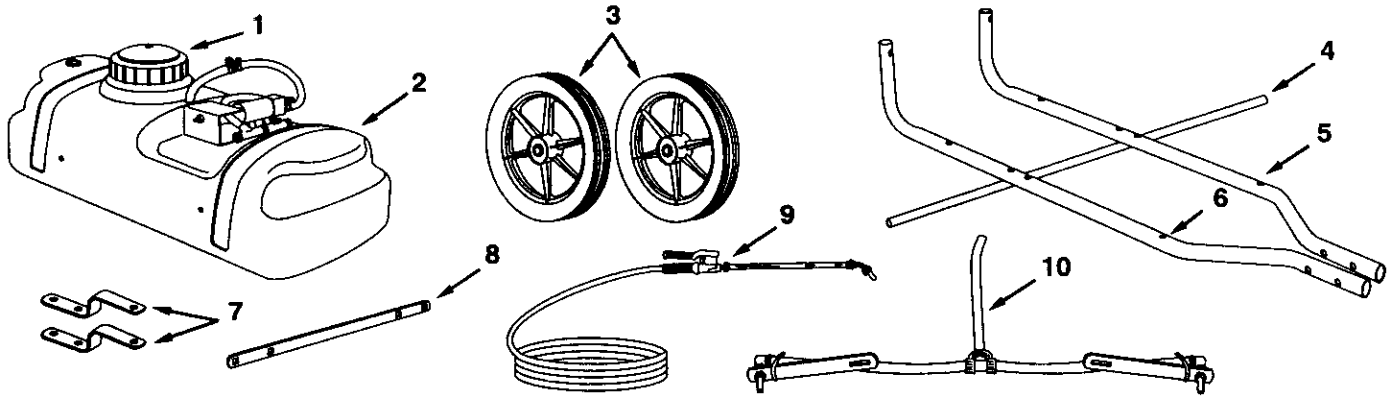


KEY	QTY.	DESCRIPTION	KEY	QTY.	DESCRIPTION
A	2	Bolt, Hex 5/16" x 3"	P	1	Hair Cotter Pin
B	2	Bolt, Hex 5/16" x 2-1/4"	Q	1	Hitch Pin
C	4	Bolt, Hex 5/16" x 1-1/2"	R	2	Hub Cap
D	2	Bolt, Carriage 5/16" x 1-3/4"	S	2	Knob
E	2	Bolt, Carriage 5/16" x 1-1/4"	T	1	Spray Gun Clip, Small
F	4	Boit, Curved Head, 5/16" x 1-5/8"	U	1	Spray Gun Clip, Large
G	2	Screw, #10 x 1/2"	V	2	Spacer
H	6	Hex Nut, 5/16"	W	2	Axle Clamp
I	4	Hex Lock Nut, 5/16"	X	1	Hose Clamp, 1/4"
J	2	Lock Washer, #10	Y	2	Hose Clamp, 3/8"
K	16	Lock Washer 5/16"	Z	1	Gasket, 3/4" Garden Hose
L	2	Flat Washer, 5/16"	AA	1	Drain Body
M	4	Flat Washer, 1/2"	BB	1	Nylon Cap
N	4	Washer, Bowed	CC	1	O-Ring
O	2	Washer, 5/16" Tooth Lock	DD	1	Nylon Washer, 11/16"
			EE	1	Nylon Nut

# ASSEMBLY

## CARTON CONTENTS

- |               |                     |                       |
|---------------|---------------------|-----------------------|
| 1. Lid        | 4. Axle             | 7. Hitch Brackets (2) |
| 2. Tank       | 5. Hitch Tube, L.H. | 8. Boom Mount Bracket |
| 3. Wheels (2) | 6. Hitch Tube, R.H. | 9. Spray Gun Assembly |
|               |                     | 10. Boom Assembly     |



## REMOVAL OF PARTS FROM CARTON

- Remove all parts and hardware packages from the carton. Lay out all parts and hardware and identify using the illustrations on pages 3 and 4.

## TOOLS REQUIRED FOR ASSEMBLY

- (2) 1/2" Wrenches
- (1) Screwdriver
- (1) Pliers
- (1) Hammer

- Assemble the hitch tubes to the tank using four 5/16" x 1-1/2" hex bolts, 5/16" lock washers and bowed washers. **Do not tighten yet.** See figure 2.
- Fasten the hitch tubes together at the front using two 5/16" x 3" hex bolts, four 5/16" lock washers and two 5/16" hex lock nuts. **Do not tighten yet.** See figure 2.

- Assemble the axle clamps to the hitch tubes using four curved head bolts, 5/16" lock washers and 5/16" hex nuts. **Do not tighten yet.** See figure 1.

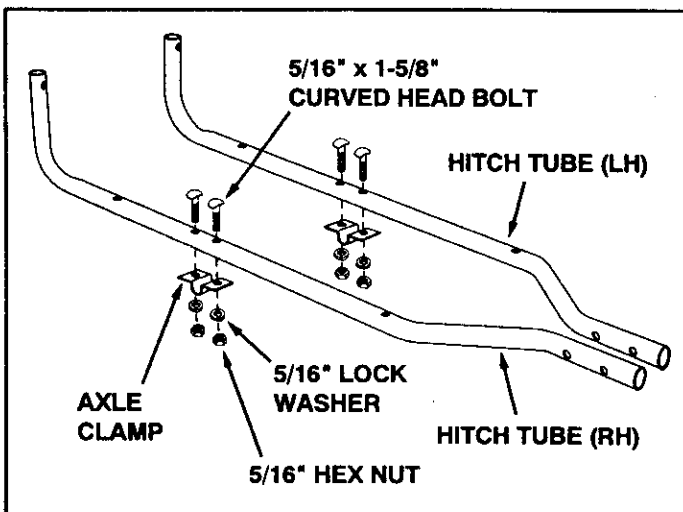


FIGURE 1

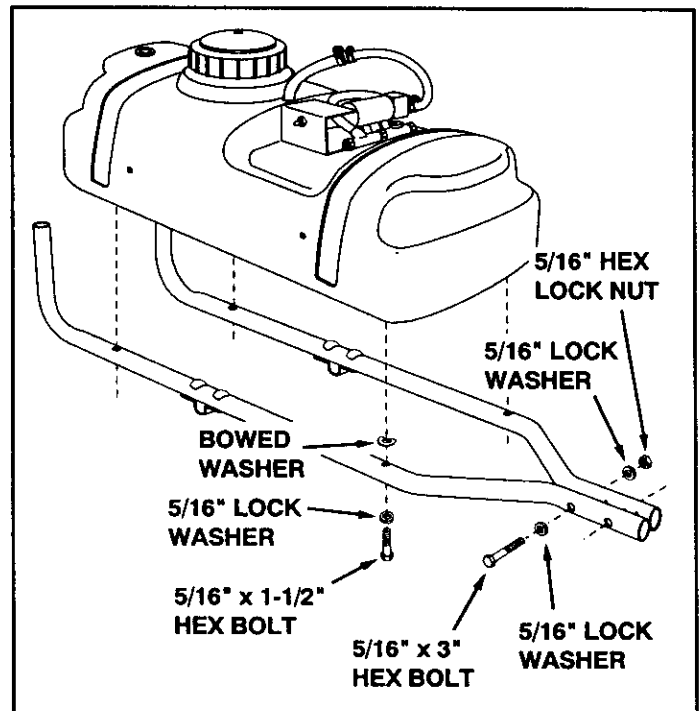


FIGURE 2

- Assemble the two hitch brackets to the front of the hitch tubes using two 5/16" x 2-1/4" hex bolts, 5/16" lock washers and 5/16" hex lock nuts. **Do not tighten yet.** See figure 3.
- Assemble the hitch pin to the hitch brackets and secure it with the 1/8" hair cotter pin. See figure 3.

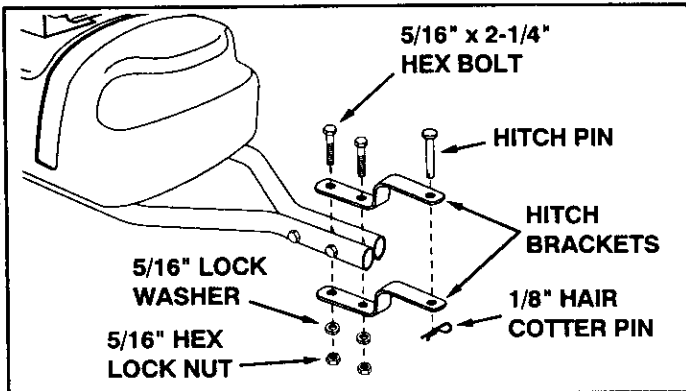


FIGURE 3

- Assemble the boom mount bracket to the rear of the hitch tubes using two 5/16" x 1-3/4" carriage bolts, 5/16" lock washers and 5/16" hex nuts. **Do not tighten yet.** See figure 4.

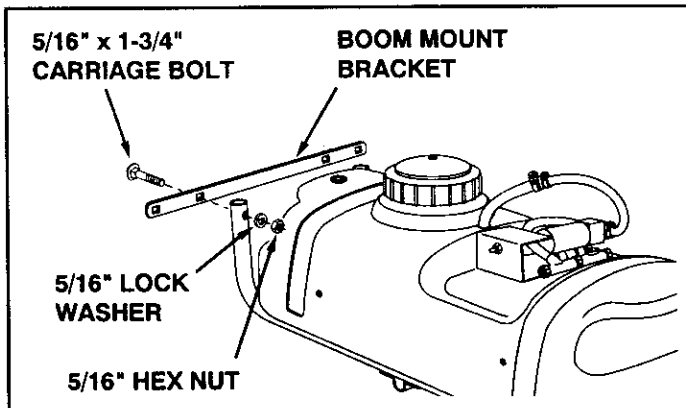


FIGURE 4

- Slide the axle through the two axle brackets. Assemble a spacer, a 1/2" flat washer, a wheel and another 1/2" flat washer onto the axle. Lightly tap a hub cap onto the end of the axle. Repeat on other end of axle. See figure 5.

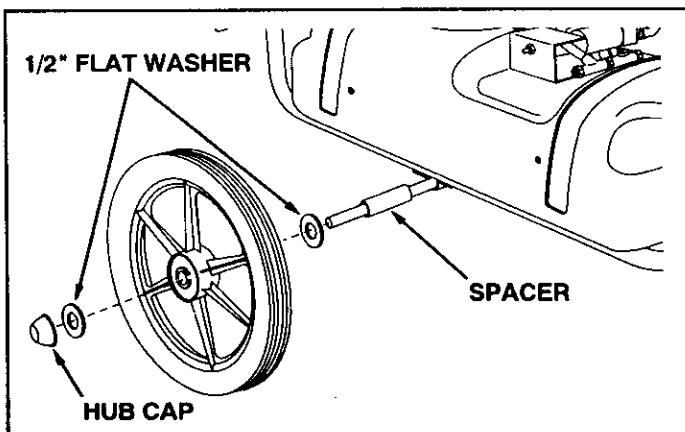


FIGURE 5

- **Tighten** the four bolts which fasten the hitch tubes to the bottom of the tank. See figure 2.
- **Tighten** the four hex nuts which fasten the axle brackets to the hitch tubes. See figure 1.
- **Tighten** the two bolts which fasten the front of the hitch tubes together. See figure 2.
- **Tighten** the two bolts which fasten the hitch brackets to the hitch tubes. See figure 3.
- **Tighten** the two bolts which fasten the boom mount bracket to the rear of the hitch tubes. See figure 4.

- Install the drain in the rear of the tank as shown in figure 6. Place a 3/4" garden hose gasket onto the drain body and insert the drain body out through the hole in rear of the tank. Outside the tank, assemble the nylon washer and then the nylon nut onto the drain body. Tighten the nut securely enough to prevent leaking, being careful not to damage the plastic parts. Place the O-ring inside the nylon cap and screw the cap onto the end of the drain body.

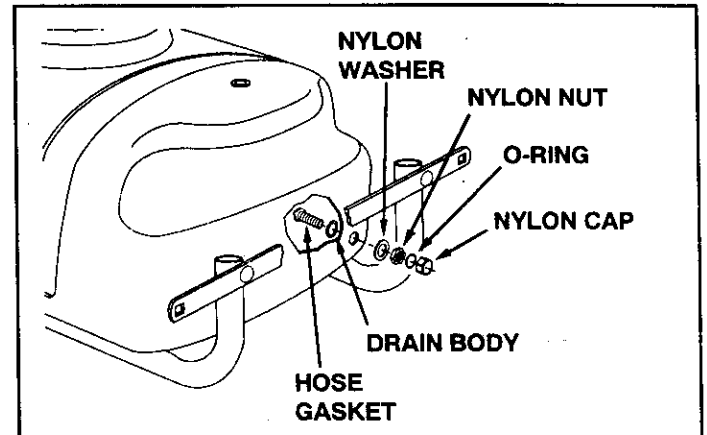


FIGURE 6

- Assemble the boom bars to the boom mount bracket using two 5/16" x 1-1/4" carriage bolts, tooth lock washers (between the bar and bracket), 5/16" flat washers and knobs. The boom connecting hose should extend upward. See figure 7.

**NOTE:** Make sure the nozzles are adjusted so that the openings face straight down when the boom bar is in the horizontal operating position.

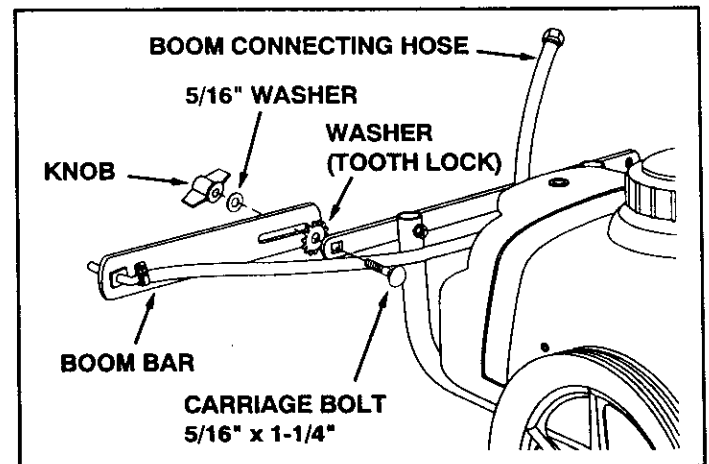


FIGURE 7

- Assemble the large and small spray gun clips to the side of the tank using two #10 x 1/2" screws and #10 lock washers. See figure 8.

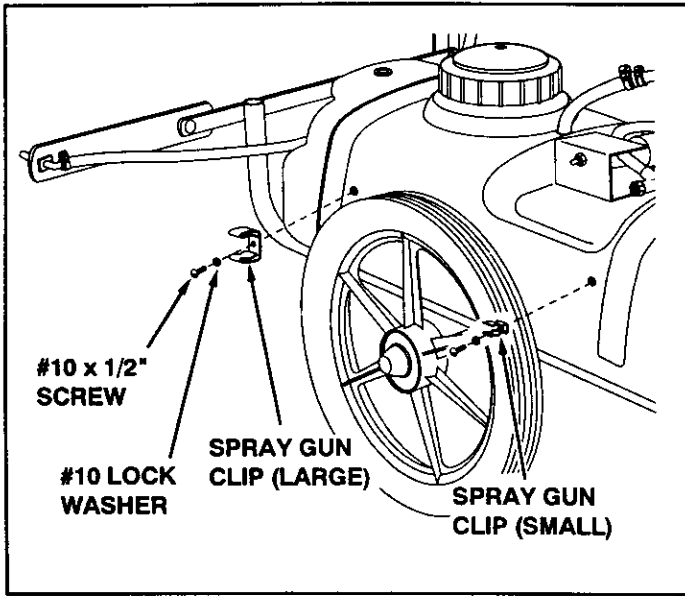


FIGURE 8

- Slide a 3/8" hose clamp onto the boom connecting hose. Place the end of the hose through the conduit clamp (attached to the pump) and then slide a second 3/8" hose clamp onto the hose. Leave hose clamps loose for now. See Figure 9.
- Push the hose onto the hose adapter in the end of the "On-Off" valve. Tighten the hose clamp around the hose and adapter. See figure 9.
- Position the valve and hose clamp up against the conduit clamp. Slide the other hose clamp against the other side of the conduit clamp. Tighten the clamp without collapsing the hose. See figure 9.
- Slide the 1/4" hose clamp onto the spray gun hose and then push the hose onto the hose adapter on the 1/4" tee fitting. Tighten the hose clamp around the hose and adapter. See figure 9.
- Wrap the hose around the top of tank and snap the spray gun into the clips on the front of the tank. (The large clip holds the spray gun handle and the small clip holds the wand.) Refer to figure 8.

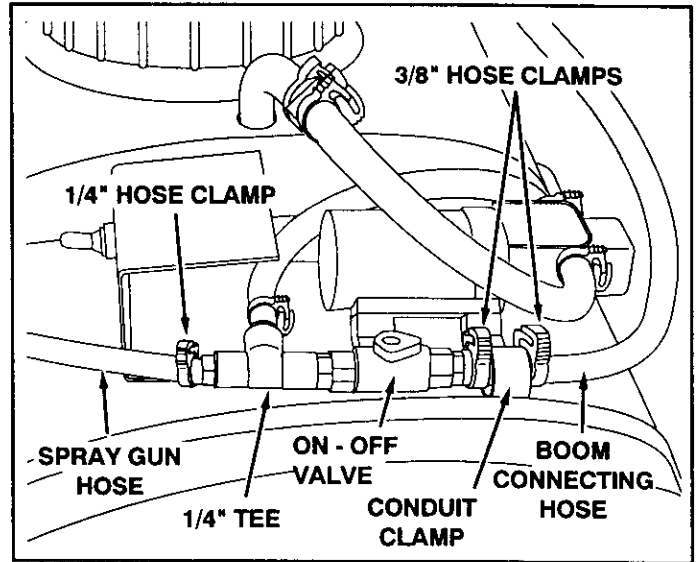


FIGURE 9 VIEWED FROM FRONT

- Attach the sprayer to the tractor hitch and connect the wiring to the tractor battery. The red wire must be connected to the positive post on the battery or to the "HOT" connection on a tractor switch or ammeter. The brown wire may be grounded or connected to the negative battery post. See figures 10 and 11.

**IMPORTANT:** This sprayer should be connected to 12 volt batteries only!

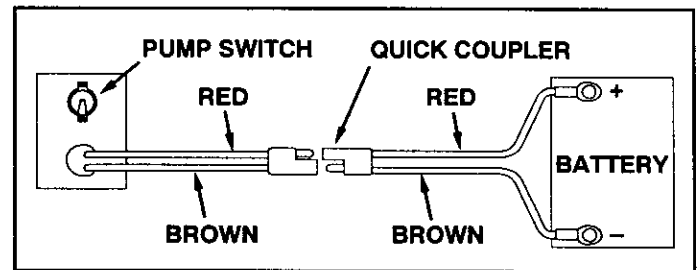


FIGURE 10

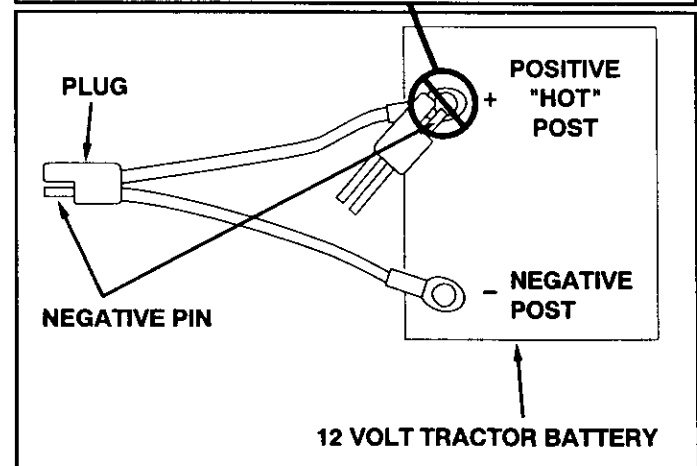
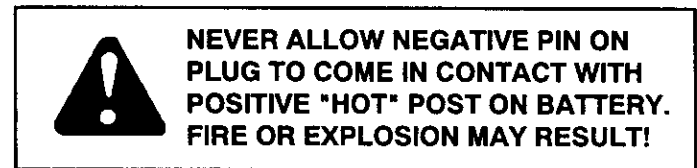


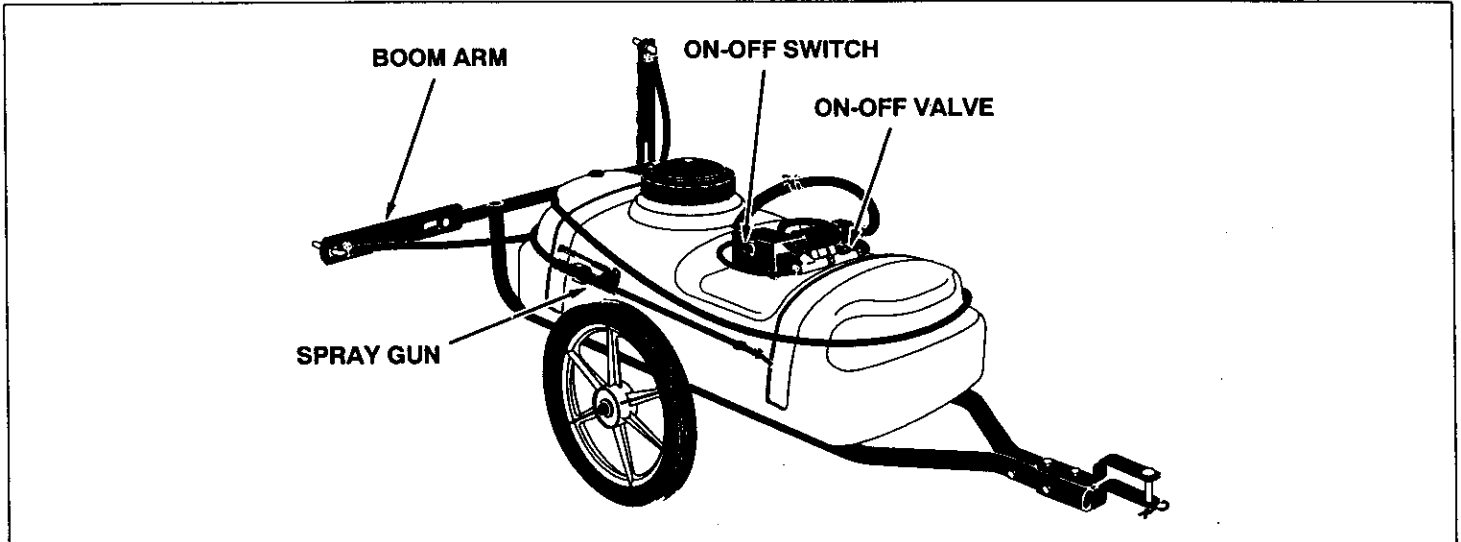
FIGURE 11

# OPERATION

## KNOW YOUR SPRAYER

Read this owner's manual and safety rules before operating your sprayer.

Compare the illustration below with your sprayer to familiarize yourself with the various controls and their locations.



**ON-OFF SWITCH** Turns pump/motor on or off.

**ON-OFF VALVE** Turns the flow on or off from the pump to the boom nozzles.

**BOOM ARM** Swivels up and down and adjusts in and out to obtain proper nozzle positioning.

**SPRAY GUN** Unhooks from tank for spraying shrubs, small trees or areas inaccessible to the towed sprayer.

### BEFORE STARTING

It is important to test the boom and spray gun with plain water before attempting actual spraying. This will enable you to check the sprayer for leaks and to set the spray pattern and nozzle pressure. If a leak should occur, thread tape may be used to better seal the fitting.

### PUMP PRESSURE SWITCH

The pump is equipped with a pressure switch. The pressure switch senses outlet pressure of the pump and will turn off the electrical power to the pump at a predetermined high pressure point (35 PSI). If the flow demand is very low, the pump may reach this high pressure point and the switch will cause "cycling" (the pump cycles on and off rapidly). This is not a problem unless the pump is subject to continuous cycling within one second intervals for long periods of time.

### ON-OFF ADJUSTMENT OF BOOM NOZZLES

The sprayer is equipped with an "On-Off" valve for the boom which allows the flow to the boom nozzles to be shut off.

### ADJUSTING SPRAY GUN NOZZLE

Turn the nozzle on the spray gun to adjust the spray from a cone shaped fine mist to a straight stream. Maximum gun pressure is attained with the ON-OFF valve shut off.

### SETTING THE BOOM FOR SPRAYING

The correct positioning of the boom places the nozzles approximately 40" apart and 14" above the ground. This gives a spray width of approximately 80" with a slight center overlap. See figure 12.

- Slide the boom bars out to the ends of the slots.
- Swivel the boom bars until the nozzles are approximately 14" above the ground.
- Make sure the nozzles are adjusted so that the openings point straight down.

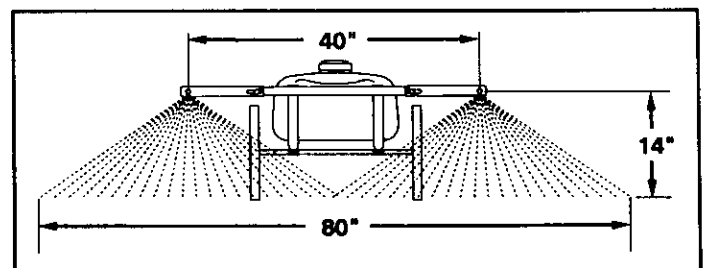


FIGURE 12

## HOW TO USE YOUR SPRAYER

- Determine the approximate square footage of the area to be sprayed. Use this amount to estimate the number of gallons that will be required, based on product recommendations. This can help avoid unneeded solution left in the tank.
- Determine the application rate (gallons per 1,000 sq. feet or gallons per acre) based on the chemical manufacturers recommendations.
- Use the tip chart on page 9 to determine what ground speed will achieve the recommended application rate.
- To determine the throttle setting for attaining the desired ground speed, mark off 100, 200 and 300 feet intervals. The speed chart at the bottom of page 9 indicates the number of seconds it takes to travel these distances. Set the throttle and, with a running start, travel the distances in the number of seconds indicated by the speed chart. Once you have determined the throttle and gear settings needed, mark the throttle location so that you can easily resume the same speed after stopping.
- Add the chemical solution to the tank, following the product instructions.

- Drive to the starting place for spraying.
- Set the boom in position for spraying.
- Set the throttle at the position determined in the 4th step. Reach back and flip the pump/motor switch to the "ON" position to start spraying.
- Stay clear of flowers, shrubs and evergreen trees when spraying weed control solutions to prevent contact of the solution with these sensitive plants.

### ATTENTION!

Do not allow chemicals to sit in pump for extended times of idleness. Some chemicals will damage the pump valve if allowed to soak untreated for a length of time. Always flush the pump with water after each use. See the instructions for cleaning the tank in the maintenance section for flushing and disposal of chemicals.



**CAUTION: WEAR EYE PROTECTION, GLOVES AND PROTECTIVE CLOTHING WHEN HANDLING AND WORKING WITH LAWN CHEMICALS.**

## MAINTENANCE/STORAGE

### CUSTOMER RESPONSIBILITIES

- Read and follow the maintenance schedule and the maintenance procedures listed in this section.

MAINTENANCE SCHEDULE Fill in dates as you complete regular service.	Service Dates											
	Before each use	After each use	Every season	Before storage								
Check for loose fasteners	X											
Clean tank		X										
Lubrication			X									

### CHECK FOR LOOSE FASTENERS

- Before each use make a thorough visual check of the snow thrower for any bolts and nuts which may have loosened. Retighten any loose bolts and nuts.

### CLEANING TANK

- After use, fill the tank part way with water, start the sprayer and allow clear water to be pumped through the plumbing system and out through the boom assembly and the handgun. Use the handgun to thoroughly wash all internal parts of the tank, the outside of the tank and the boom.
- Refill the tank about half full with plain water and a chemical neutralizer and repeat the cleaning instructions above. Flush the entire sprayer with the neutralizing agent. Follow the chemical manufacturers instructions for disposal of all wash or rinsing water.

### LUBRICATION

- Oil the wheels at least once a season.

### CLEANING STRAINERS

- Periodically clean the strainer in the end of the intake hose at the bottom of the tank. Remove the nylon swivel nut from the hose, pull out the screen and flush it with clear water.
- Periodically clean the strainers in the boom nozzles. Remove the nozzle, pull out the screen and flush it with clear water.

### STORING

- Drain all water out of the sprayer, paying special attention to the pump and handgun. These items are especially prone to damage from chemicals and freezing weather.
- The sprayer should be winterized before storage by pumping a 50-50 solution of water and R. V. anti-freeze through the entire plumbing. Proper care and maintenance will prolong the life of the sprayer.



### U.S. GALLON TIP CHART

Tip No.	Spray Width Inches	Pressure PSI	Tip Capacity US Gallons Per Minute	GALLONS PER ACRE (BASED ON WATER)						
				1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
#3	80"	25	.36	53	26.5	17.7	13.3	10.6	7.1	5.3
Tip No.	Spray Width Inches	Pressure PSI	Tip Capacity U.S. Gallons Per Minute	GALLONS PER 1000 SQ. FT. (BASED ON WATER)						
				1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
#3	80"	25	.36	1.22	0.6	0.41	0.31	0.24	0.16	0.12

### IMPERIAL GALLON (LITER) TIP CHART

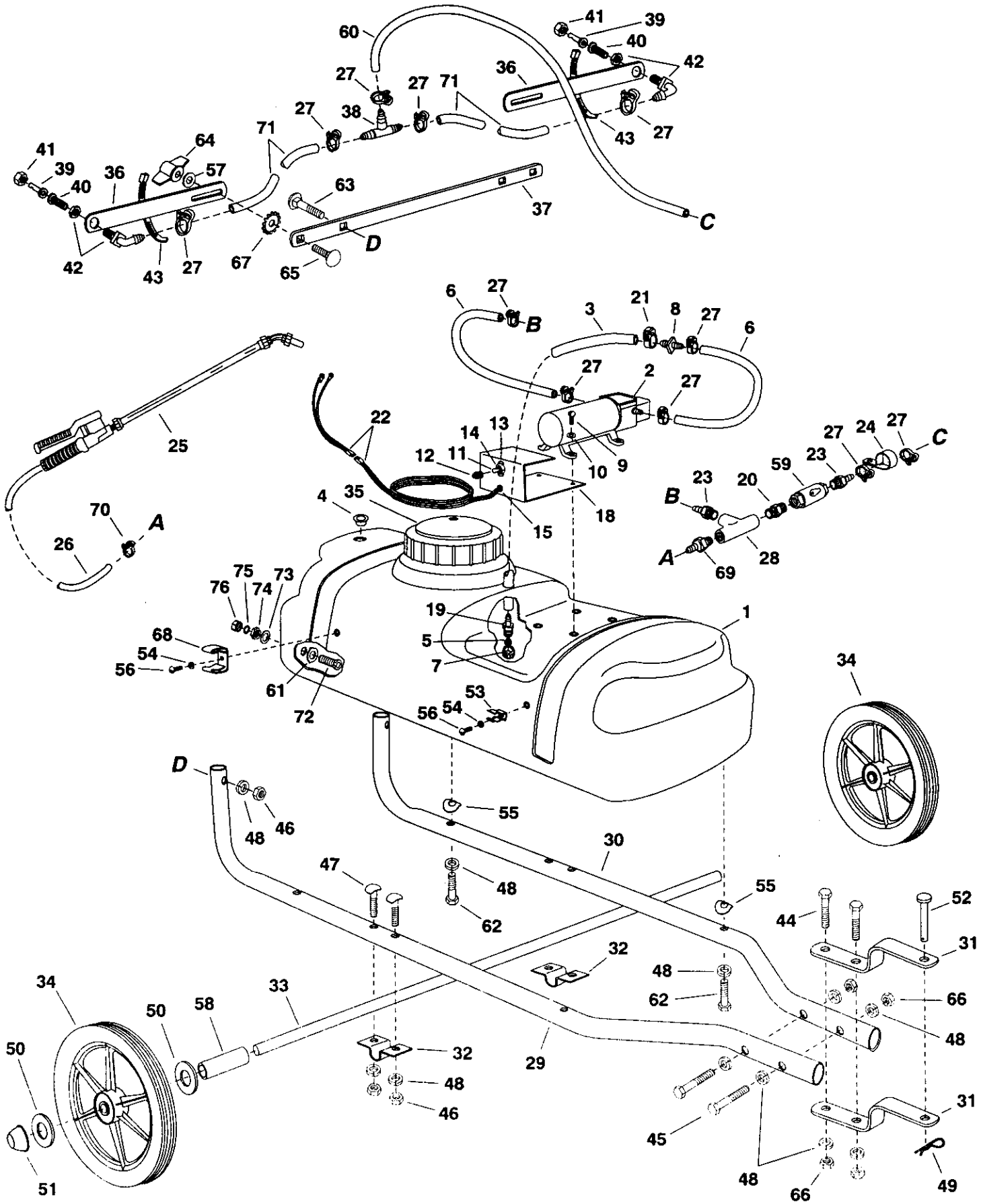
Tip No.	Spray Width Inches (mm)	Pressure PSI (Bar)	Tip Capacity Imperial Gallons per minute (liters per minute)	IMPERIAL GALLONS (Liters) PER ACRE (BASED ON WATER)						
				1 MPH 1.6 K/H	2 MPH 3.2 K/H	3 MPH 4.8 K/H	4 MPH 6.4 K/H	5 MPH 8 K/H	7.5 MPH 12 K/H	10 MPH 16 K/H
#3	80" (2032 mm)	25 (1.75)	.30 (1.36)	44.2 (201.0)	22.1 (100.5)	14.8 (67.8)	11.1 (50.5)	8.9 (40.5)	5.9 (26.8)	4.4 (20.0)
Jet Size	Spray Width Inches (mm)	Pressure PSI (Bar)	Tip Capacity Imperial Gallons per minute (liters per minute)	IMPERIAL GALLONS (Liters) PER 1000 SQ. FT. (BASED ON WATER)						
				1 MPH 1.6 K/H	2 MPH 3.2 K/H	3 MPH 4.8 K/H	4 MPH 6.4 K/H	5 MPH 8 K/H	7.5 MPH 12 K/H	10 MPH 16 K/H
#3	80" (2032 mm)	25 (1.75)	.30 (1.36)	1.0 (4.54)	0.50 (2.27)	0.34 (1.55)	0.26 (1.18)	0.20 (0.91)	0.14 (0.64)	0.10 (0.54)

### GROUND SPEED CHART

M.P.H. (K/H)	Time Required in Seconds to Travel a Distance of:		
	100 ft (30.5 M)	200 ft (61 M)	300 ft (91.5 M)
1.0 (1.6)	68	136	205
2.0 (3.2)	34	68	102
3.0 (4.8)	23	45	68
4.0 (6.4)	17	34	51
5.0 (8.0)	14	27	41
6.0 (9.7)	11	23	34
7.0 (11.3)	9.7	19	29
8.0 (12.9)	8.5	17	26
9.0 (14.5)	7.6	15	23
10.0 (16.1)	6.8	14	20

# PARTS

## REPAIR PARTS FOR 15 GALLON SPRAYER MODEL 486.24531



## REPAIR PARTS FOR 15 GALLON SPRAYER MODEL 486.24531

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	47752	1	Tank (15 Gal.)	40	45029	2	Strainer, Screen Type
2	47001	1	Pump and Motor	41	45037	2	Nut, Screen Body
3	45022	1	Hose, 1/2" ID (14" Lg.)	42	47396	2	Elbow, Plastic 11/16" Thd.
4	46287	1	Caplug Plug	43	726-0178	2	Nylon Tie
5	45024	1	Strainer, Cap Type 1"	44	43224	2	Bolt, Hex 5/16-18 x 2-1/4"
6	47002	2	Hose, 3/8" ID (10" Lg.)	45	46782	2	Bolt, Hex 5/16-18 x 3"
7	45032	1	Nut, Swivel 3/4" Garden Hose	46	43083	6	Nut, Hex 5/16-18 Thread
8	47005	1	Reducer, Hose Mender 1/2" x 3/8"	47	44947	4	Bolt, Curved Head 5/16-18 x 1-5/8"
9	47078	4	Screw, Pan Hd. 10-24 x 3/4" Lg.	48	43086	16	Lock Washer, 5/16"
10	43910	4	Washer, Flat #10 SAE	49	43343	1	Pin, Hair Cotter #4 (1/8")
11	45084	1	Switch, On - Off	50	R19171616	4	Washer, 17/32" x 1"
12	45082	1	Boot, Rubber Switch	51	44663	2	Hub Cap (1/2" Push Nut)
13	45080	1	Plate, On - Off Switch	52	47623	1	Hitch Pin
14	45048	1	Nut, Hex 15/32-32 Thd.	53	45180	1	Clip (Small), Spray Gun
15	45087	1	Bushing, Strain Relief	54	736-0722	2	Lock Washer, #10
16	45085	1	Terminal, .25 Male Tab (not shown)	55	44695	4	Washer, Bowed
17	45086	1	Terminal, .25 Female Tab (not shown)	56	45040	2	Screw, Phillips Hd. #10-24 x 1/2"
18	23889	1	Bracket, Switch Mounting	57	43081	2	Washer, 5/16" Std. Wrt.
19	46276	1	Adapter, 3/4" GH x 1/2" Barb	58	46578	2	Spacer
20	47411	1	Nipple (nylon) 1/4"	59	47416	1	Valve, Nylon 1/4"
21	45025	1	Clamp, 1/2" Hose	60	47421	1	Hose, 3/8" ID (28" Lg.)
22	45018	1	Connector with Wire	61	45072	1	Gasket, 3/4" Garden Hose
23	47412	2	Adapter (nylon) 1/4" x 3/8"	62	43085	4	Bolt, Hex 5/16-18 x 1-1/2"
24	47413	1	Clamp, Conduit	63	44215	2	Bolt, Carriage 5/16-18 x 1-3/4"
25	47406	1	Spray Gun	64	712-0421	2	Knob
26	47393	1	Hose, 1/4" ID (12' 6" Lg)	65	43682	2	Bolt, Carriage 5/16-18 x 1-1/4"
27	45026	11	Clamp, 3/8" Hose	66	43064	4	Nut, Hex Lock 5/16-18 Thd.
28	47415	1	Tee, Nylon 1/4" NPT.	67	44732	2	Washer, Tooth Lock 5/16"
29	47624	1	Hitch Tube, R.H.	68	47397	1	Clip (Large), Spray Gun
30	47625	1	Hitch Tube, L.H.	69	47414	1	Adapter, 1/4" NPT x 1/4" Barb
31	23014	2	Hitch Bracket	70	47405	1	Clamp, 1/4" Hose
32	24586	2	Clamp, 1/2" Axle	71	47392	2	Hose, 3/8" ID (20" Lg.)
33	24584	1	Axle, 1/2"	72	47399	1	Drain Body
34	46575	2	Wheel	73	47398	1	Washer, Nylon
35	46700	1	Lid	74	47402	1	Nut, Nylon 11/16" Thd.
36	24122	2	Boom Bar	75	47400	1	O-Ring, 5/8" OD
37	24585	1	Bracket, Boom Mount	76	47403	1	Cap, Nylon 11/16" Thd.
38	47394	1	Tee, Plastic 3/8" Hose		47794	1	Owners Manual
39	45028	2	Nozzle, SS Floodjet				

**For in-home major brand repair service:**

Call 24 hours a day, 7 days a week

**1-800-4-MY-HOME<sup>SM</sup>** (1-800-469-4663)

**Para pedir servicio de reparación a domicilio – 1-800-676-5811**

In Canada for all your service and parts needs call – **1-800-665-4455**  
Au Canada pour tout le service ou les pièces

**For the repair or replacement parts you need:**

Call 7 am – 7 pm, 7 days a week

**1-800-366-PART** (1-800-366-7278)

**Para ordenar piezas con entrega a domicilio – 1-800-659-7084**

**For the location of a Sears Parts and Repair Center in your area:**

Call 24 hours a day, 7 days a week

**1-800-488-1222**

**For information on purchasing a Sears Maintenance Agreement  
or to inquire about an existing Agreement:**

Call 9 am – 5 pm, Monday – Saturday

**1-800-827-6655**



The Service Side of Sears<sup>SM</sup>