

**WSP24** 

Walk Behind Sweeper



The Power of Combined Excellence



Sweepster Serial Number\_

Manual Number: 51-4144 Release Date: February 2008 Serial Number 0807001 and up Notes

# TABLE OF CONTENTS

| INTRODUCTION                       | 4     |
|------------------------------------|-------|
| SAFETY STATEMENTS                  | 4     |
| GENERAL SAFETY PRECAUTIONS         | 5-6   |
| SAFETY SIGNS & LABELS              | 7     |
| ENGINE OPERATION                   | 8     |
| OPERATION                          | 9-12  |
| SERVICE & REPAIR - GENERAL         | 12    |
| STORAGE                            | 12    |
| TECHNICAL SPECIFICATIONS           | 13    |
| TROUBLESHOOTING                    | 13    |
| MAINTENANCE                        | 14    |
| WSP24 SALEABLE KITS AND ASSEMBLIES | 16-19 |
| ACCESSORIES                        | 20    |
| WARRANTY                           | 21    |

### **INTRODUCTION**

### **SAFETY STATEMENTS**

#### **Purpose of Sweeper**

This sweeper is designed solely for the use in cleanup, maintenance and similar operations. Use in any other way is considered contrary to the intended use. Compliance with and strict adherence to operation, service and repair conditions, as specified by the manufacturer, are also essential elements of the intended use.

#### **Contacting Sweepster**

If you have any questions about information in this manual or need to order parts, please call, write, fax or e-mail SWEEPSTER.

Sweepster 2800 North Zeeb Road Dexter, Michigan 48130 Phone: (734)-996-9116 - (800)-456-7100 Fax: (734) 996-9014 e-mail: sweepster@paladinbrands.com

For help with installation, operation or maintenance procedures, contact our Technical Service Department. Direct product questions and parts orders to our Sales Department.

When ordering parts or accessories, be prepared to give the following information:

- Sweeper model, serial number and date of purchase
- Prime mover, make and model
- Part number, description and quantity

#### **Terms Used in Manual**

*Right-hand, left-hand, front* and *rear* are determined from the operator's perspective facing forward in the normal operating position.

#### Warranty

To validate the warranty for this unit, fill out the warranty card or warranty pages located in the back of this manual. Then send this information to SWEEPSTER.



THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

THIS STATEMENT IS USED WHERE MINOR INJURY COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

NOTICE

THIS STATEMENT IS USED WHERE EQUIPMENT OR PROPERTY DAMAGE COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



THIS SYMBOL BY ITSELF OR USED WITH A SAFETY SIGNAL WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

### **GENERAL SAFETY PRECAUTIONS**

#### WARNING

Ω

# READ MANUAL PRIOR TO

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual as well as all manuals related to this equipment and the prime mover thoroughly before beginning installation, operation, or maintenance. FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE PRIME MOVERS MANUAL.

WARNING

#### READ AND UNDERSTAND ALL SAFETY STATEMENTS

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing or operating this equipment.

#### KNOW YOUR EQUIPMENT

Know your equipment's capabilities, dimensions and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to assure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn and hard to read.

### **GENERAL SAFETY PRECAUTIONS**

#### WARNING



#### PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles or a face shield when driving pins in or out or when operation causes dust, flying debris, or any other hazardous material.



#### LOWER OR SUPPORT RAISED EQUIPMENT

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or onto blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.

### WARNING

# USE CARE WITH HYDRAULIC FLUID PRESSURE

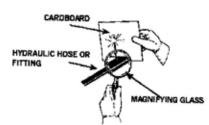
Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your prime movers operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research immediately to determine proper treatment.



### GENERAL SAFETY PRECAUTIONS CONTINUED

 Wear safety glasses, protective clothing, and use a sound piece of cardboard or wood when searching for hydraulic leaks.
DO NOT USE YOUR HANDS! SEE ILLUSTRATION.



#### WARNING

#### DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any ROPS (Roll Over Protection System) equipment or device. Any modifications must be authorized in writing by the manufacturer.

#### WARNING

#### SAFELY MAINTAIN AND REPAIR EQUIPMENT



- Do not wear loose clothing, or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tool for the job at hand. Make sure they are in good condition for the task required.

### GENERAL SAFETY PRECAUTIONS CONTINUED

• Wear the protective clothing equipment specified by the tool manufacturer.

#### WARNING



#### SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements. See your prime movers manual for these instructions.

- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with this attachment in a raise position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

# 



#### FALL HAZARD DO NOT OPERATE NEAR UNGUARDED EDGES.

- This sweeper is NOT intended for roof top use.
- When operating sweeper, adhere to all government rules, local laws and other professional guidelines for your sweeping application.

### **SAFETY SIGNS & LABELS**



# **SAFETY SIGNS & LABELS**

There are several specific signs on this sweeper. The exact location of the hazards and description of the hazards are reviewed.

#### Placement or replacement of Safety Signs

- 1. Clean the area of application with nonflammable solvent, and then wash the same area with soap and water.
- 2. Allow the surface to fully dry.
- 3. Remove the backing from the safety sign, exposing the adhesive surface.
- Apply the safety sign to the position shown in the diagram above and smooth out any bubbles.

#### Instructions

- 1. Keep all safety signs clean and legible.
- 2. Replace all missing, illegible, or damaged safety signs.
- 3. Replacement parts, for parts with safety signs attached, must also have safety signs attached.
- 4. Safety signs are available, free of charge, from your dealer or from SWEEPSTER.

# **ENGINE OPERATION**

#### NOTICE - THE MOTOR IS DELIVERED WITHOUT OIL AND GASOLINE.

#### Oil Filling:

Place the motor in a horizontal position. Remove the plug and fill with oil right to the edge. (figure 1)

#### Fuel

Use lowest available octane unleaded fuel. When filling, place the machine in a horizontal position. **Always** replace old fuel. **Always** stop the motor when fueling. **Never** fill up with fuel on a hot motor.

Never use gasoline mixed with oil.

#### **Operation - Start and Stop**

#### **Cold Motor**

Activate the motor choke. Set the throttle control on full speed. (figure 2)

First, pull the starting rope a couple of times, shortly, until if feels tight. Pull the starting rope slowly to the point where it feels tight, place your left hand on the motor in order to hold back, and pull the starting rope hard once. When the motor runs, deactivate the choke.

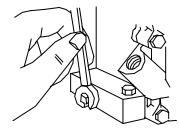
NOTICE - NEVER LET THE STARTING ROPE WIND AGAIN BY ITSELF. Follow it all the way back with your hand. If the motor will not run in spite of several attempts this may be caused by the fact that there is too much fuel in the cylinder/carburator, and that the spark plug has become moist. Remove the plug and wipe it off.

#### Stop the Motor:

Set the throttle control in position "STOP". Set the throttle lever to idle and let the motor run for 12-20 seconds before the lever is moved to stop. **Never** leave the sweeper without stopping the motor.

NOTICE - Do not turn off the motor by switching on the choke, as this may result in damage to the motor.





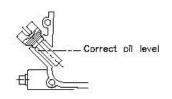
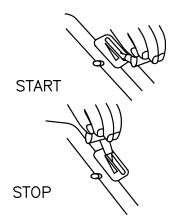


figure 1





### **OPERATION**



A SWEEPER IS A DEMANDING MACHINE. Only fully trained operators or trainee operators under supervision of a fully trained person should use this machine.

Before operating sweeper:

•Learn sweeper controls in an off-road location.

•Be sure that you are in a safe area, away from traffic or other hazards.

•Check all hardware making sure it is tight.

•Replace any damaged or fatigued hardware with properly rated fasteners.

•Check tire pressure before sweeping.

•Remove from the sweeping area all property that could be damaged by flying debris.

•Be sure all persons not operating the sweeper are clear of the sweeper discharge area.

•Always wear proper apparel such as a long sleeved shirt buttoned at the cuffs; safety glasses, goggles or a face shield; ear protection; and a dust mask.

While operating sweeper:



#### FALL HAZARD DO NOT OPERATE NEAR UNGUARDED EDGES.

•This sweeper is NOT intended for roof top use.

•When operating sweeper, adhere to all government rules, local laws and other professional guidelines for your sweeping application.

•Minimize flying debris - use the slowest rotating speed that will do the job.

•Keep hands, feet, hair and other loose clothing away from all moving parts.

•Before leaving the operator's position for any reason, STOP ENGINE.

**NOTICE - AVOID TRANSMISSION DAMAGE.** Do not shift while in motion.

### **OPERATION**



- Leave the brush hood (shield) and all other shields and safety equipment in place when operating the sweeper.

•When sweeping on rough terrain, reduce speed to avoid "bouncing" the sweeper. Loss of control can result.

•Never sweep toward people, buildings, vehicles or other objects that can be damaged by flying debris.

•Only operate the controls while the engine is running.

•While you operate the sweeper slowly in an open area, check for proper operation of all controls and all protective devices. Note any repairs needed during operation of the sweeper. Report any needed repairs.

#### Before Each Use

Perform daily maintenance as indicated in Maintenance Schedule.

Run the sweeper at a low idle. Check for proper brush rotation and drive engagement.



**AVOID SERIOUS INJURY.** Check for large objects that could harm the operator or others if thrown by the sweeper. Remove these items before operating.

## **OPERATION**

### **OPERATION**

#### During Use

#### Directing Debris

Avoid excessive downward pressure on the brush sections to prevent excessive wear. A two to four inch wide pattern is sufficient for most applications.

Direct debris by angling the brush head in that direction.

Observe wind direction. Sweeping with the wind makes sweeping more effective and helps keep debris off the operator.

The terms *swing* and *angle* are used interchangeably.

#### Brush Head Angling

- 1. Push the locking handle down.
- 2. Position the brush head at the desired angle.
- 3. Release the locking handle.

#### Sweeping

To sweep:

- Swing the brush head assembly the direction that you want to direct debris. (See Brush Head Angling)
- 2. Start the engine at idle.
- 3. Engage the brush drive. (Left control lever)
- 4. Increase engine rpm to sweeping speed.
- 5. Engage the traction drive. (Right control lever)
- **NOTICE AVOID SWEEPER DAMAGE.** Reduce travel speed to avoid hitting immovable objects.

#### **Operating Tips**

NOTICE - AVOID SWEEPER DAMAGE. Do not ram into piles

#### Brush, Engine & Travel Speeds

Vary brush, engine and travel speeds to match sweeping conditions.

#### Large Areas

When sweeping a large area, such as a parking lot, make a path down the middle and sweep to both sides. This reduces the amount of debris that the sweeper must sweep to one side.

#### <u>Snow</u>

Fast brush speeds and slow travel speeds are needed to sweep effectively. For wet and/or deep snow, increase to almost full throttle. This helps keep snow from packing up inside the brush hood.

In deep snow you may need to make multiple passes to get down to a clean surface.

To keep snow from blowing back onto a swept area, always sweep so the wind is at your back.

#### Dirt & Gravel

To keep dust at a minimum, plan sweeping for days when it is overcast and humid or after it has rained. Also, sweep so the wind blows at your back.

Low brush speeds and moderate travel speeds work best for cleaning debris from hard surfaces. Brush speeds that are too fast tend to raise dust because of the aggressive sweeper action.

To sweep gravel, use just enough brush speed to "roll" the gravel, not throw it.

#### **Heavy Debris**

Travel slowly - 1-2 mph.

Sweep a path less than the full width of the sweeper.

# **OPERATION - CONTINUED**

#### WARNING



#### G SAFELY OPERATE EQUIPMENT

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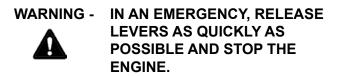
- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with this attachment in a raise position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

The sweeper moves forward by quickly pushing down the top right lever. (figure 1a)

The sweeper moves backwards by quickly pulling the bottom right lever. (figure 1b)

The bushes are activated by quickly pushing down the left lever. (figure 1c)

The sweeper is equipped with an instant shutoff, when you release the levers, the brush and machine stop.



#### Height Adjustment of Caster Wheels & Brushes

Once the brushes get worn it is necessary to adjust the height of the brushes, i.e. how close they are to the surface to sweep. This adjustment takes place by moving the plastic rings of the brush caster wheels.

Remove the caster wheels and remove one plastic ring from the bottom (figure 2). Mount the wheel again (figure 3). This lifts up the caster wheel and the brushes will come closer to the surface. Finally, mount the plastic ring, sleeve and locking ring (figure 4).

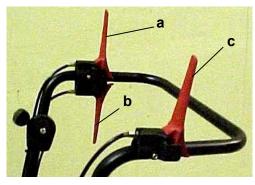


figure 1





figure 2

figure 3



figure 4

# **OPERATION - CONTINUED**

#### Swing the Brush

The brush can be swung 20° to either side. Press the steering knuckle arm for the brush, turn the brush and let go of the handle, so that the catch will fall correctly into place. (figure 1)



figure 1

Find information about the engine in the Motor manual instruction.

#### WARNING!



EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA DUST ALONG WITH OTHER HAZARDOUS DUSTS MAY CAUSE SERIOUS OR FATAL RESPIRATORY DISEASE.

It is recommended to use dust suppression, dust collection and if necessary personal protective equipment during the operation of any attachment that may cause high levels of dust.

| SERVICE | & REPAIR - | <b>GENERAL</b> |
|---------|------------|----------------|
|         |            |                |

Repair or adjust the sweeper in a safe area, away from traffic and other hazards.

Before adjusting or servicing remove spark plug wire from spark plug.



NOTICE

**Do not store the sweeper with weight on the brush.** Weight will deform the bristles, destroying the sweeping effectiveness.

**Do not store polypropylene brushes in direct sunlight.** The material can deteriorate and crumble before the bristles are worn out.

Keep polypropylene brush material away from intense heat or flame.

| Worn Section Standard |         |          | Reference     |         |              |
|-----------------------|---------|----------|---------------|---------|--------------|
|                       |         |          |               | Infor   | mation       |
| Section OD,           | Ring ID | Section  | Exposed       | Bristle | Exposed      |
| New                   | _       | OD, Worn | Bristle, Worn | Length  | Bristle, New |
| 24                    | 6.38    | 17       | 3.8           | 8.50    | 7.5          |
| 26                    | 8.00    | 18       | 4.0           | 9.00    | 8.0          |
| 32                    | 10.00   | 22       | 5.0           | 11.00   | 10.0         |
| 36                    | 10.00   | 24       | 6.0           | 13.00   | 12.0         |
| 36                    | 10.63   | 25       | 6.0           | 12.69   | 11.4         |
| 46                    | 19.38   | 34       | 6.0           | 13.31   | 12.1         |

# **TECHNICAL SPECIFICATIONS**

| Overall Width  | 30.7 Inches |
|----------------|-------------|
| Sweeping Width | 23.6 Inches |
| Weight         | 127 Lbs     |
| Brush Diameter | 11.8 Inches |

| Noise Level | Noise Level | Vibration Level       |
|-------------|-------------|-----------------------|
| 2000/14/EC  | Operator    | Handlebar             |
| 103,0 dB(A) | 95,5 dB(A)  | 7,8 m/s <sup>-2</sup> |

# TROUBLESHOOTING

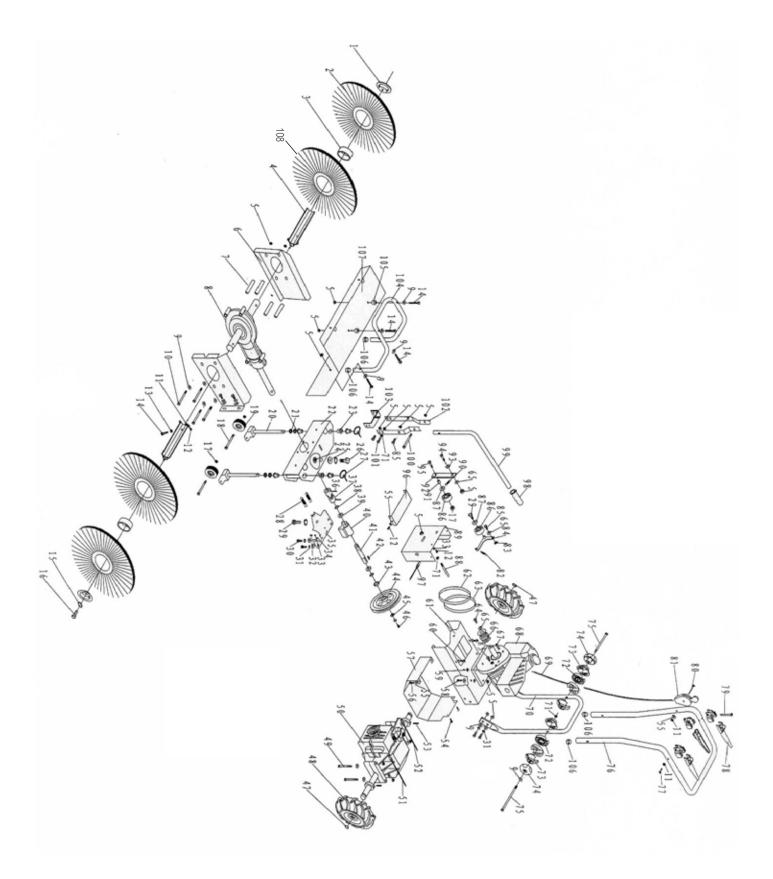
| The engine does not start              | Ensure that the spark plug is not defective                      |
|----------------------------------------|------------------------------------------------------------------|
|                                        | Ensure that the spark plug cap is fitted correctly               |
| The engine runs irregularly            | Ensure that the choke is deactivated                             |
|                                        | Ensure that there are no impurities in the fuel                  |
| The brushes will not rotate            | Check whether the belt coupling is<br>adjusted correctly         |
|                                        | Check whether the V-belt is defective                            |
| The machine will not run               | Make sure that the belt coupling is<br>adjusted correctly        |
|                                        | Check whether the V-belt is defective                            |
| The machine does not sweep effectively | Check whether the brush distance to the surface is set correctly |

## **MAINTENANCE**

#### **MAINTENANCE SCHEDULE**

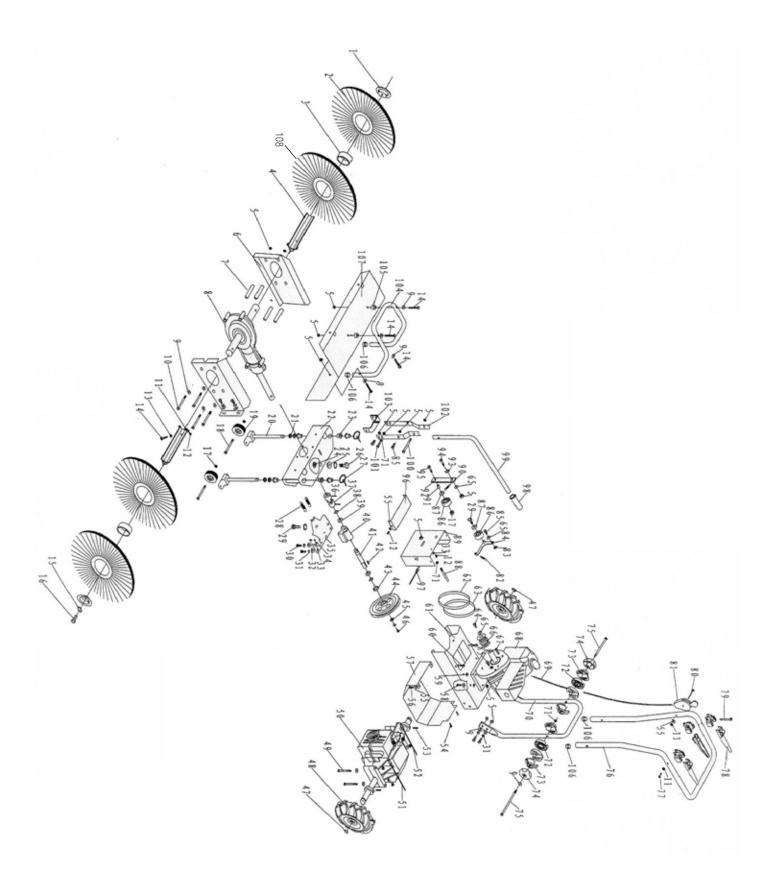
| PROCEDURES                                       | BEFORE<br>EACH<br>USE | <u>25</u><br>HOURS | <u>100</u><br>HOURS | AFTER<br>EACH<br>USE |
|--------------------------------------------------|-----------------------|--------------------|---------------------|----------------------|
| Hardware - Inspect & Tighten                     | $\checkmark$          |                    |                     |                      |
| Engine & Air Filter - Check & clean if necessary | $\checkmark$          |                    |                     |                      |
| Oil, Engine - Check Level                        | $\checkmark$          |                    |                     |                      |
| Wash Unit - Remove Grease & Debris               |                       |                    |                     | $\checkmark$         |

# **NOTES**



### SALEABLE KITS AND ASSEMBLIES

| Kit #   | Description                               | Drawing Number |
|---------|-------------------------------------------|----------------|
| 07-7388 | Kit Replacement Brush                     |                |
|         | a. Brush sections Straight 350 x 3, 14 ea | a 2            |
|         | b. Brush section sloped 350 x 3, 2 ea     | 108            |
|         | c. Caster wheel, 2 ea                     | 19             |
| 07-7389 | Caster Spacers, 22 ea                     | 21             |
| 07-7390 | Assembly Handle Adjustment                |                |
|         | a. Flat washer M8, 1 ea                   | 9              |
|         | b. Nut M8, 1 ea                           | 13             |
|         | c. Plastic holder, 2 ea                   | 72             |
|         | d.Plastic block, 2 ea                     | 73             |
|         | e. Hand wheel, 1 ea                       | 74             |
|         | f. Bolt M8 x 100, 1 ea                    | 75             |
| 07-7391 | Assembly Caster Wheel & Fork              |                |
|         | a. Caster wheel, 1 ea                     | 19             |
|         | b. Wheel fork, 1 ea                       | 20             |
|         | c. Caster spacers, 11 ea                  | 21             |
|         | d. Plastic bushing, 3 ea                  | 23             |
|         | e. Circlip, 1 ea                          | 27             |
| 07-7392 | Assembly Brush Drive Bearing Assen        | nbly           |
|         | a. Circlip, 4 ea                          | 38             |
|         | b. Bearing, 2 ea                          | 39             |
|         | c. Bearing housing, 1 ea                  | 40             |
|         | d. Transmission shaft, 1 ea               | 41             |
|         | e. Key, 1 ea                              | 42             |
| 07-7393 | Assembly Brush Idler                      |                |
|         | a. Nut M8, 1 ea                           | 5              |
|         | b. Nut M10, 1 ea                          | 17             |
|         | c. Washer, Flat M8, 1 ea                  | 9              |
|         | d. Idler pulley, 1 ea                     | 86             |
|         | e. Bearing, 1 ea                          | 87             |
|         | f. Spring, 1 ea                           | 90             |
|         | g. Bushing, 1 ea                          | 91             |
|         | h. Bracket, 1 ea                          | 92             |
|         | i. Washer, flat M10, 1 ea                 | 93             |
|         | j. Bolt M8 x 25, 1 ea                     | 94             |
|         | k. Bolt M10 x 40, 1 ea                    | 95             |



### SALEABLE KITS AND ASSEMBLIES

| Kit #   | Description              | Drawing Number |
|---------|--------------------------|----------------|
| 07-7394 | Assembly Drive Idler     |                |
|         | a. Bolt M10 x 20, 1 ea   | 29             |
|         | b. Washer flat M8, 1 ea  | 9              |
|         | c. Spring, 1 ea          | 82             |
|         | d. Washer flat, 1 ea     | 83             |
|         | e. Arm, 1 ea             | 84             |
|         | f. Washer flat M10, 1 ea | 93             |
|         | g. Idler pulley, 1 ea    | 86             |
|         | h. Bearing, 1 ea         | 87             |
| 07-7395 | Assembly U-Joint         |                |
|         | a. Multi joint, 1 ea     | 37             |
|         | b. Pin round, 2 ea       | 38             |
| 07-7396 | Assembly Brush Gearbox   |                |
|         | a. Nut M8, 4 ea          | 9              |
|         | b. Bushing gearbox, 4 ea | 7              |
|         | c. Washer flat M8, 4 ea  | 83             |
|         | d. Bolt M8 x 65, 4 ea    | 10             |
|         | e. Gearbox, 1 ea         | 8              |

#### Individual Saleable Parts

| 06-0497 | Pulley Brush Drive | 44 |
|---------|--------------------|----|
| 07-7397 | Tire & Wheel       | 48 |
| 05-1487 | Gearbox Drive      | 50 |
| 07-7398 | Cable Forward      | 52 |
| 07-7402 | Cable Reverse      | 53 |
|         |                    |    |
| 06-0498 | Belt 1             | 62 |
| 06-0499 | Belt 2             | 63 |
| 06-0500 | Pulley Drive       | 66 |
| 07-7399 | Handle Clutch      | 78 |
| 07-7400 | Throttle Control   | 81 |
| 07-7401 | Core               | 4  |

# **OPTIONS**



Hopper 07-7405



Snow Blade 07-7406

### WARRANTY

### **Limited Warranty**

Except for the Excluded Products as described below, all new products are warranted to be free from defects in material and/or workmanship during the Warranty Period, in accordance with and subject to the terms and conditions of this Limited Warranty.

1. <u>Excluded Products</u>. The following products are <u>excluded</u> from this Limited Warranty:

(a) Any cable, part that engages with the ground (i.e. sprockets), digging chain, bearing, teeth, tamping and/or demolition head, blade cutting edge, pilot bit, auger teeth and broom brush that either constitutes or is part of a product.

(b) Any product, merchandise or component that, in the opinion of Paladin Light Construction<sup>1</sup>, has been (i) misused; (ii) modified in any unauthorized manner; (iii) altered; (iv) damaged; (v) involved in an accident; or (vi) repaired using parts not obtained through Paladin Light Construction.

2. <u>Warranty Period</u>. The Limited Warranty is provided only to those defects that occur during the Warranty Period, which is the period that begins on the <u>first to occur</u> of: (i) the date of initial purchase by an end-user, (ii) the date the product is first leased or rented, or (iii) the date that is six (6) months after the date of shipment by Paladin Light Construction as evidenced by the invoiced shipment date (the "<u>Commencement Date</u>") and ends on the date that is <u>twelve (12) months</u> after the Commencement Date.

3. <u>Terms and Conditions of Limited Warranty</u>. The following terms and conditions apply to the Limited Warranty hereby provided:

(a) <u>Option to Repair or Replace</u>. Paladin Light Construction shall have the option to repair or replace the product.

(b) <u>Timely Repair and Notice</u>. In order to obtain the Limited Warranty, (i) the product must be repaired within thirty (30) days from the date of failure, and (ii) a claim under the warranty must be submitted to Paladin Light Construction in writing within thirty (30) days from the date of repair.

(c) <u>Return of Defective Part or Product</u>. If requested by Paladin Light Construction, the alleged defective part or product shall be shipped to Paladin Light Construction at its manufacturing facility or other location specified by Paladin Light Construction, with freight PRE-PAID by the claimant, to allow Paladin Light Construction to inspect the part or product.

Claims that fail to comply with any of the above terms and conditions shall be denied.

#### LIMITATIONS AND EXCLUSIONS.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY BASED ON A COURSE OF DEALING OR USAGE OF TRADE.

IN NO EVENT SHALL PALADIN LIGHT CONSTRUCTION BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES.

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