

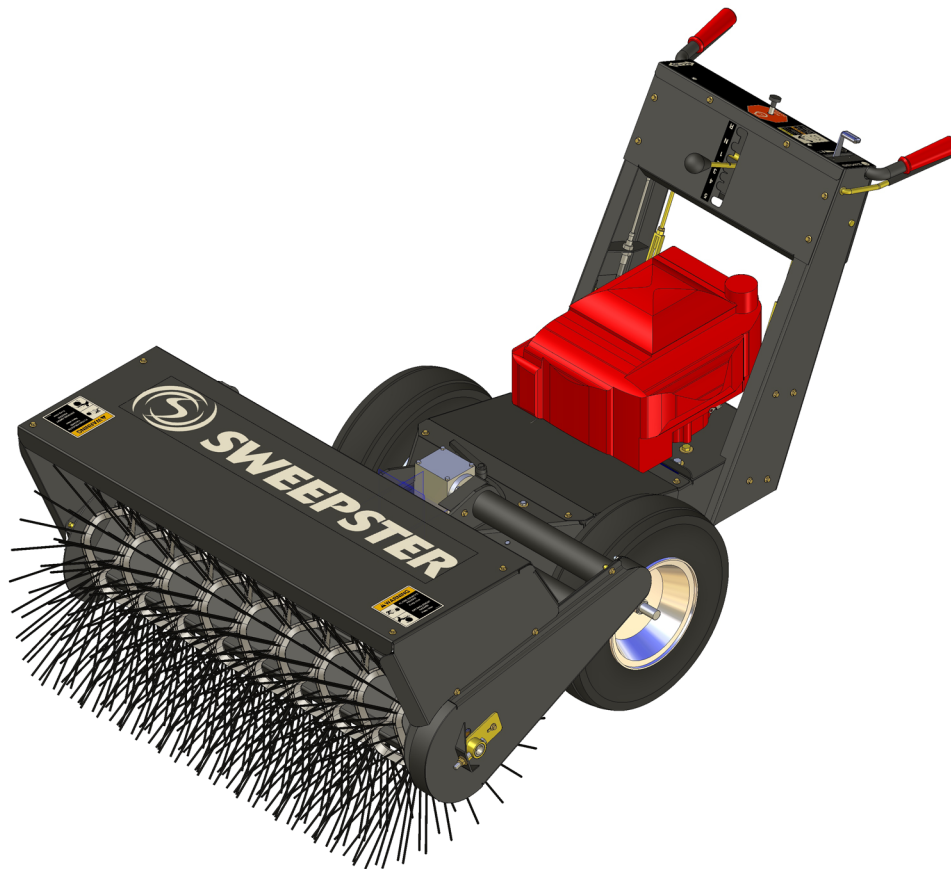


WSP36 Series

Multi-Speed Walk Behind Sweeper



PALADIN LIGHT CONSTRUCTION



Sweepster Serial Number _____

Manual Number: 51-4008
Release Date: March 2006

Notes

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INTRODUCTION

SAFETY STATEMENTS

Purpose of Sweeper

This sweeper is designed solely for the use in construction cleanup, road 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 (either the operator's seat or standing behind a walk-behind unit), 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.

DANGER



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

WARNING



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

CAUTION



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



READ MANUAL PRIOR TO INSTALL

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.

WARNING



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



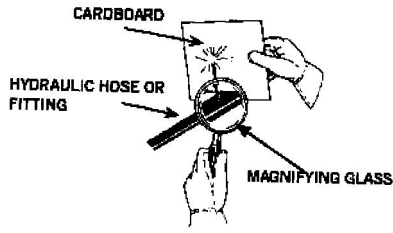
USE CARE WITH HYDRAULIC FLUID PRESSURE

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



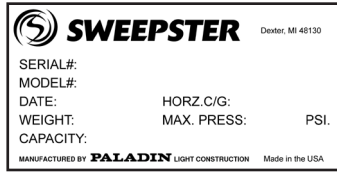
SAFELY OPERATE EQUIPMENT

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.

SAFETY SIGNS & LABELS

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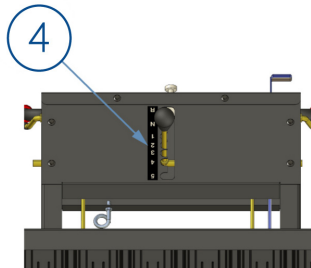
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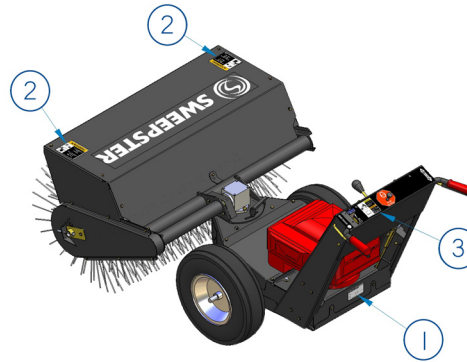
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50-0757



50-0758



Item	Part	Qty	Description
1.	50-0634	1	Label, Serial Number
2.	50-0726	2	Label, Warning, Flying Objects & Entanglement
3.	50-0757	1	Label, Handle
4.	50-0758	1	Label, Shift Pattern

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.
4. 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.

OPERATION

CAUTION



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:

- 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.

OPERATION

WARNING -



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.

WARNING



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

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.

OPERATION

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

Brush Head Angling

1. Lift and rotate the locking handle counter-clockwise to loosen. (figure 1)
2. Position the brush head at the desired angle.
3. Lift and rotate the locking handle clockwise to tighten.

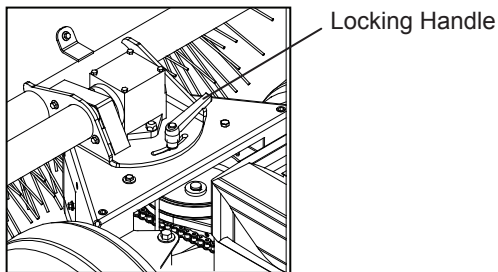


figure 1

Sweeping

To sweep:

1. Swing the brush head assembly the direction that you want to direct debris. (See Brush Head Angling)
2. Start the engine at idle and select forward drive speed. (1st-4th gear, 5th gear is for transport only.)
3. Engage the brush drive. (Left control lever)
4. Increase prime mover 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.

OPERATION

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.

Snow

Fast brush speeds and slow travel speeds are needed to sweep effectively. Start at 3/4 throttle and the lowest gear of the prime mover. 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



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.

Traveling Around the Work site

1. Start engine at idle.
2. Select a gear with the appropriate travel speed for the conditions.
3. Push down on handles to raise the brushes off the ground and engage the traction drive control lever (right side).
4. To stop, release the traction drive control lever.

SERVICE & REPAIR - GENERAL

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

Before adjusting or servicing, push down emergency shut off switch and remove spark plug wire from spark plug.

STORAGE

NOTICE

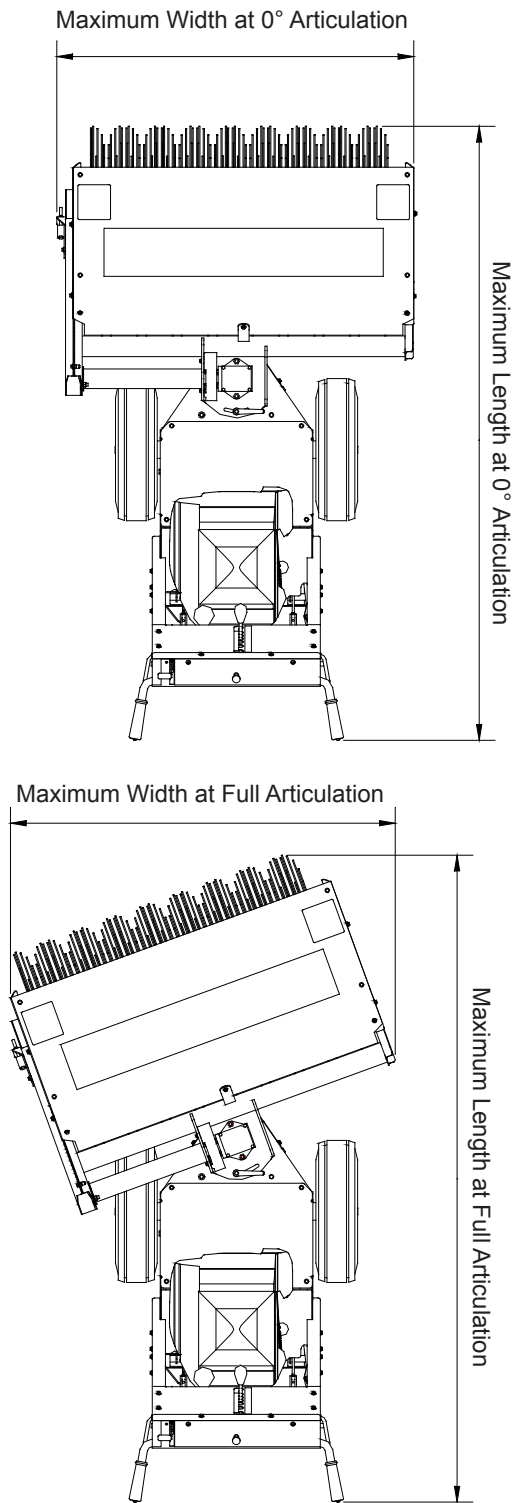
Do not store the sweeper with weight on the brush. Weight will deform the bristles, destroying the sweeping effectiveness.

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.

PRODUCT INFORMATION

Specifications and Model Views



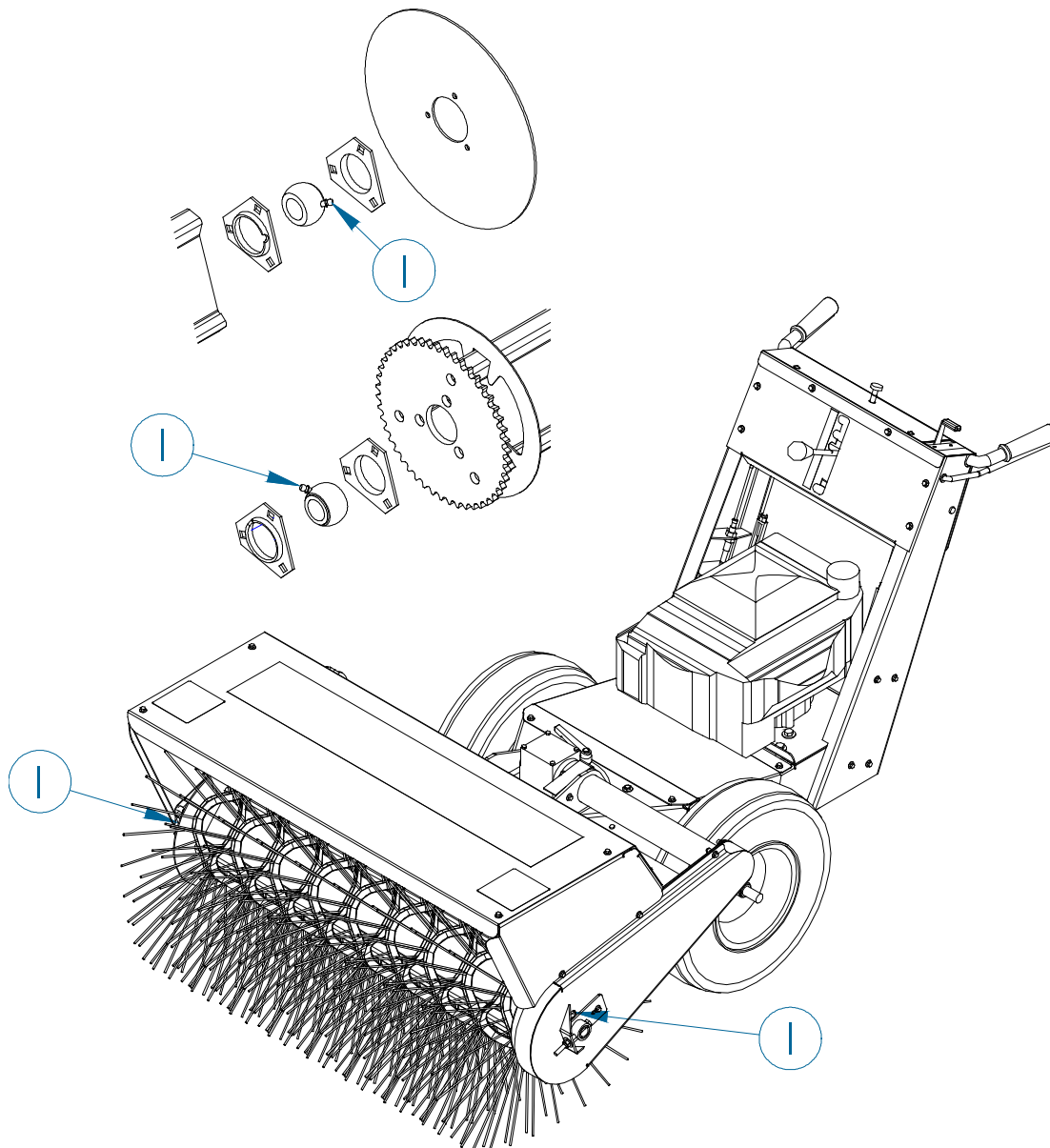
Approximate Weight	295 lbs
Maximum Length at 0° Articulation	70.3 inches
Maximum Width at 0° Articulation	41 inches
Maximum Length at Full Articulation	74 inches
Maximum Width at 0° Articulation	44 inches
Sweeping Width at 0° Articulation	36 inches
Sweeping Width at Full Articulation	32.6 inches

LUBRICATION POINTS

The following grease fittings should be greased before each use. See figure for locations.

1. Core bearing (2 fittings)
(Brush may need to be rotated to align zerk with access hole.)

NOTICE - NO LUBRICATION IS REQUIRED FOR GEARBOX (05-1439) AND TRANSAXLE (05-1423). THESE ARE PRE-LUBRICATED FROM THE FACTORY. DAMAGE WILL OCCUR AND WILL VOID THE WARRANTY.



MAINTENANCE

MAINTENANCE SCHEDULE

<u>PROCEDURES</u>	<u>BEFORE EACH USE</u>	<u>25 HOURS</u>	<u>100 HOURS</u>	<u>AFTER EACH USE</u>
Hardware - Inspect & Tighten	✓			
Engine & Air Filter - Check & clean if necessary	✓			
Grease Fittings - See (Lubrication Points)		✓		
Oil, Engine - Check Level	✓			
Brush Drive Chain - Adjust & Lubricate		✓		
V-Belt Inspection		✓		
Wash Unit - Remove grease and debris				✓

BRUSH CORE REMOVAL

1. Stop engine, push emergency switch and remove spark plug wire.
2. Support body in pivot area with a 10 inch minimum support (figure 1).
3. Remove M6 bolts securing core adjustment weldments to the brush frame.
4. Remove left and right core adjustment screws.
5. Remove left and right core adjustment weldments.
6. Push core shaft to right until flush with bearing on sprocket of core.
7. Remove chain guard.
8. Remove chain.
9. Remove core.

BRUSH CORE INSTALLATION

1. Place core in brush frame.
2. Install chain.
3. Push core shaft to right until flush with bearing on sprocket.
4. Install chain guard.
5. Push core shaft to left.
6. Install core adjustment weldments and adjustment bolts, then M6 bolts.
7. While rotating brush, adjust final drive chain tension.
8. Be sure both left and right adjustments are equal.
9. Tighten all hardware.
10. Remove support from body.
11. Re-connect spark plug wire, run and test.

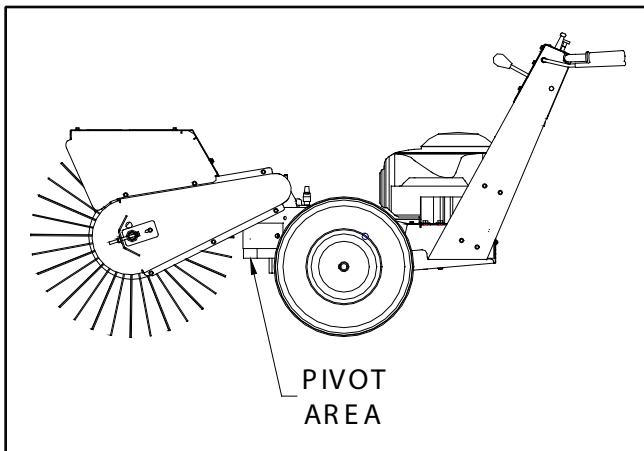


figure 1

REPLACING BRUSH SECTIONS

1. Remove core from brush head assembly following brush core removal instructions.
2. Remove retaining plate from the core assembly.
3. Remove old sections.
4. Install new sections by doing the following:
 - a. Number the tubes on the core as 1,2 and 3 (figure 1).
 - b. Slide the first section onto the core with the drive pins on either side of tube 1. Make sure that the drive pins angle up (figure 1).
 - c. Place the second section on the core with the drive pins on either side of tube 2. Be sure the drive pins angle down (figure 2).
 - d. Put the third section on with the drive pins around tube 3. Be sure the drive pins angle up.
 - e. Slide sections on until the core is full, making sure to alternate the tubes used and the direction of the drive pins.
5. Re-attach the section retainer plate with previously removed hardware.
6. Follow brush core installation instructions

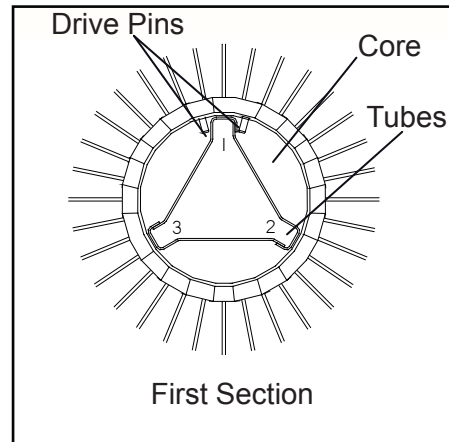


figure 1

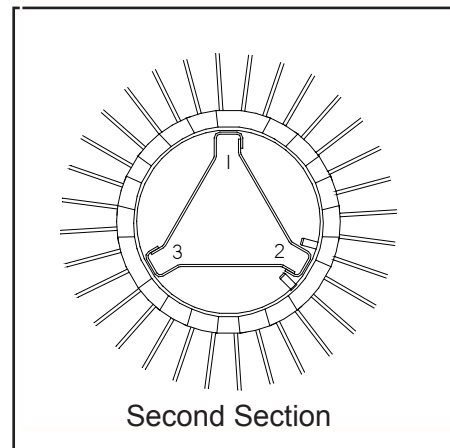
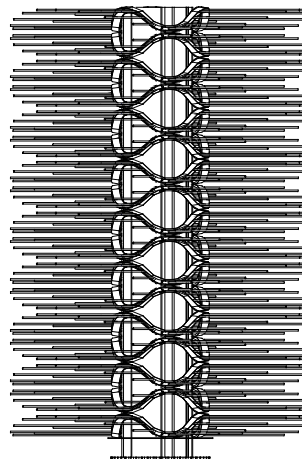
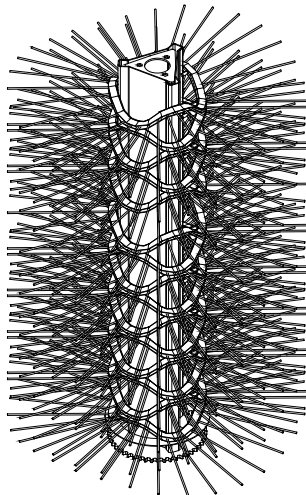


figure 2



BRUSH SPEED CHANGE

1. Stop engine, push emergency switch and remove spark plug wire.
2. Remove top cover.
3. Move brush drive V-belt to upper (faster rpm) or lower (slower rpm) set of grooves on engine, idler and jack shaft pulleys.
4. Re-install cover.
5. Connect spark plug wire.

TRANS AXLE DRIVE BELT REPLACEMENT

1. Stop engine, push emergency switch and remove spark plug wire.
2. Remove both top and bottom covers.
3. Remove front body cover.
4. Remove hardware for band brake.
5. Slide brush drive belt off engine pulley.
6. Remove and replace V-belt.
7. Re-install band brake hardware.
8. Re-install covers.
9. Adjust trans axle drive lever for proper engagement.

BRUSH DRIVE BELT REPLACEMENT

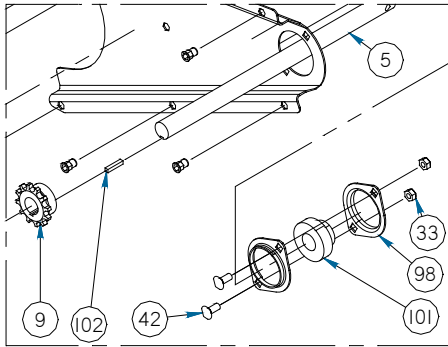
1. Stop engine, push emergency switch, remove spark plug wire.
2. Remove both top and bottom covers.
3. Release tension on chain idler.
4. Remove hardware for brush drive pulley.
5. Slide brush drive pulley towards engine and remove V-belt.
6. Install new V-belt onto brush drive pulley.
7. Slide brush drive pulley back into position.
8. Verify chain is in correct position on brush drive sprocket. If necessary remove front body cover to assist in chain repositioning.
9. Replace hardware for brush drive pulley.
10. Re-tension chain.
11. Make sure brush drive pulley spins freely after tightening.
12. Place V-belt on low or high speed pulley grooves of brush drive pulley, idler and engine pulley.
13. Re-install both covers.
14. Verify that all hardware is tight and replace spark plug wire.
15. Adjust brush drive lever for proper engagement.

TROUBLESHOOTING

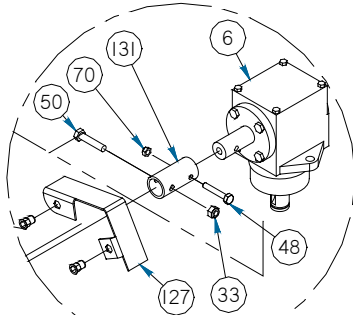
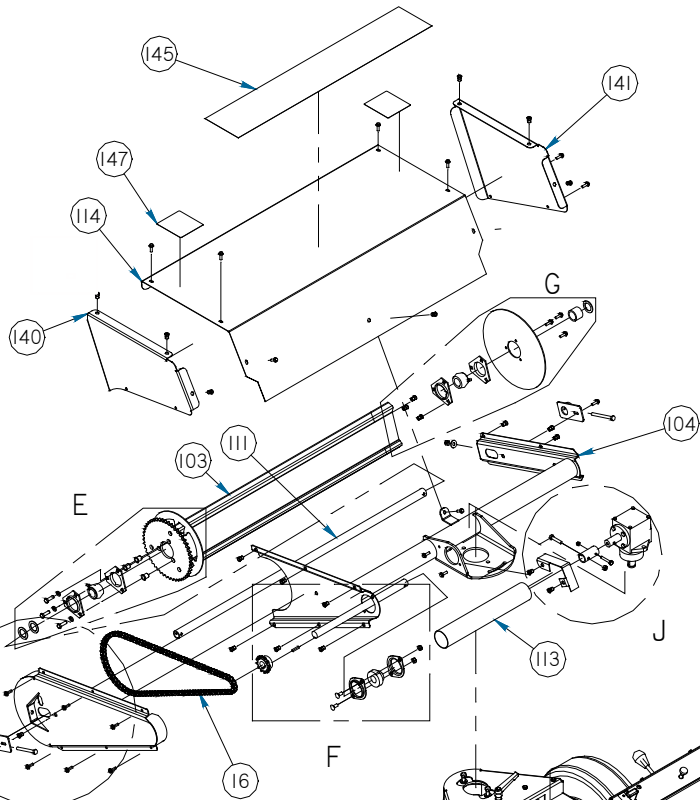
Problem	Possible Cause	Possible Solution
Brush slows or stops when sweeping	Idler not engaging	Adjust turnbuckle
	Filter plugging	Change or clean air filter
	Travel speed too fast	Travel no more than 5 mph (8 kph) while sweeping (1-3 mph recommended)
	Trying to sweep too much material at once	Make several passes with sweeper
Brush head assembly “bounces” during sweeping	Travel speed too fast and/or brush speed too slow	Find correct combination of ground and brush speeds: do not travel at more than 5 mph (8 kph)
Brush wears into cone shape	Improper tire size or under inflation	Check tire sizes and rating: make corrections as necessary
Traction drive slips	Idler not working	Adjust turnbuckle
	Belt worn	Replace belt

Item	Part	Qty	Description
5.	05-1437	1	Shaft, Drive, Brush Head
6.	05-1439	1	Gearbox, Peerless, Right Angle, 7/8 Shaft
9.	06-0257	1	Sprocket, with Keyway
16.	06-0483	1	Chain, #40, 101 Links, Plus Master
30.	07-1714	3	Screw, HHC, Gr8, 5/16-18 x 1
33.	07-1810	3	Nut, Hex, Lock, Straight, Gr8, 5/16-18
36.	07-2952	20	Screw, HFH, CL10.9, M6-1 x 20
37.	07-3270	2	Nut, Hex, Nylock, Gr8, 5/16-18
38.	07-3273	3	Washer, Lock, Split, Medium, 5/16
39.	07-3275	2	Washer, Flat, Gr8, 5/16
42.	07-3280	2	Bolt, Carriage, Gr5, 5/16-18 x 3/4
48.	07-3639	2	Screw, HHC, Gr8, 1/4-20 x 1 1/2
50.	07-3647	1	Screw, HHC, GR8, 5/16-18 x 1 1/2
52.	07-3652	2	Screw, HHC, Gr8, 5/16-18 x 3 1/2
63.	07-4090	3	Washer, 1 1/2 x 1 x .075
70.	07-5824	2	Nut, Hex, Lock, Straight, Gr8, 1/4-20
98.	08-0005	2	Flange, Bearing, 2 Hole
99.	08-0194	2	Bearing, 1RD, Oilite, 47mm, with Zerk
101.	08-0199	1	Bearing, 7/8 RD, with Collar
102.	13-0518	3	Key, 3/16 x 1
103.	13-14267	1	Core
104.	13-14453	1	Weld, Frame, Brush Head, 3 Ft.
105.	13-14458	1	Weld, Cover, Drive, Brush Head
111.	13-14512	1	Tube, Core
113.	13-14565	1	Tube, Round, 2 1/4 x 16ga x 13.78
114.	13-14566	1	Sheet, Hood
115.	13-14573	1	Plate, Retainer, Section
127.	13-15099	1	Cover, Gearbox, Coupler
129.	13-15131	1	Tube, Round, 1 3/8 x 5/32 x 1.03
131.	13-15133.	1	Coupling, Shaft, 7/8, with Holes
134.	13-15292	2	Weld, Core, Adjustment
140.	13-15321	1	Sheet, Hood, End, Left
141.	13-15322	1	Sheet, Hood, End, Right
145.	50-0252	1	Label, Logo, Large, White
147.	50-0726	2	Label, Warning, Flying Objects & Entanglement

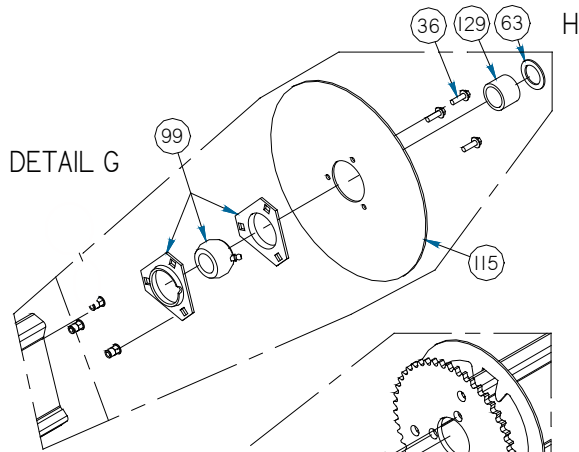
BRUSH HEAD ASSEMBLY



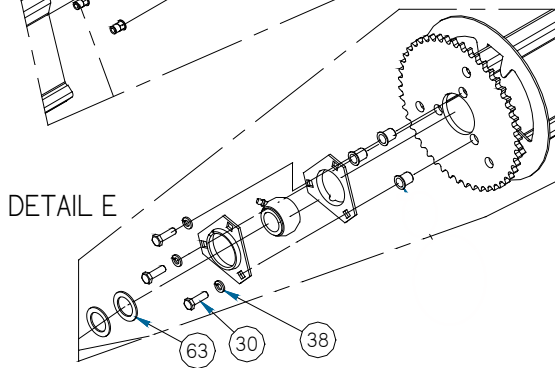
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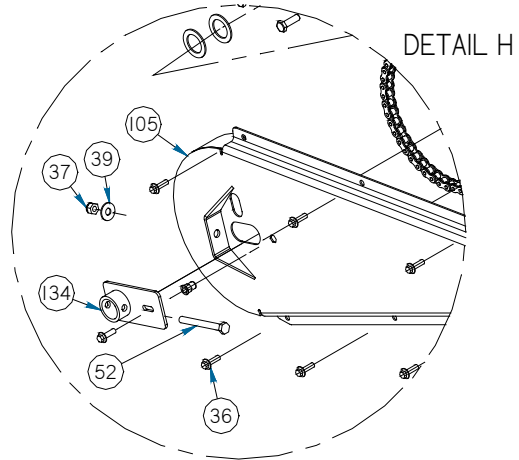
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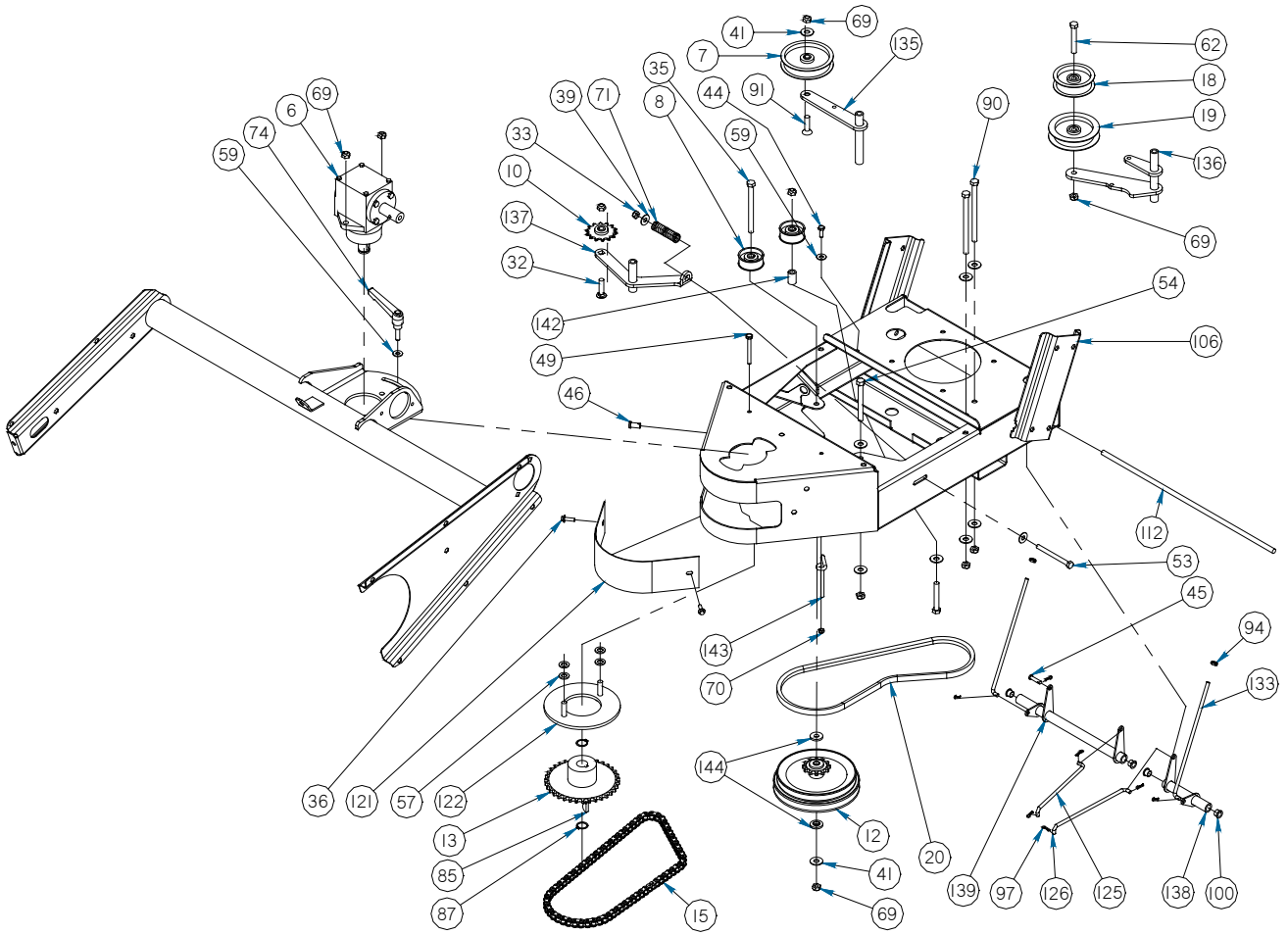
DETAIL E



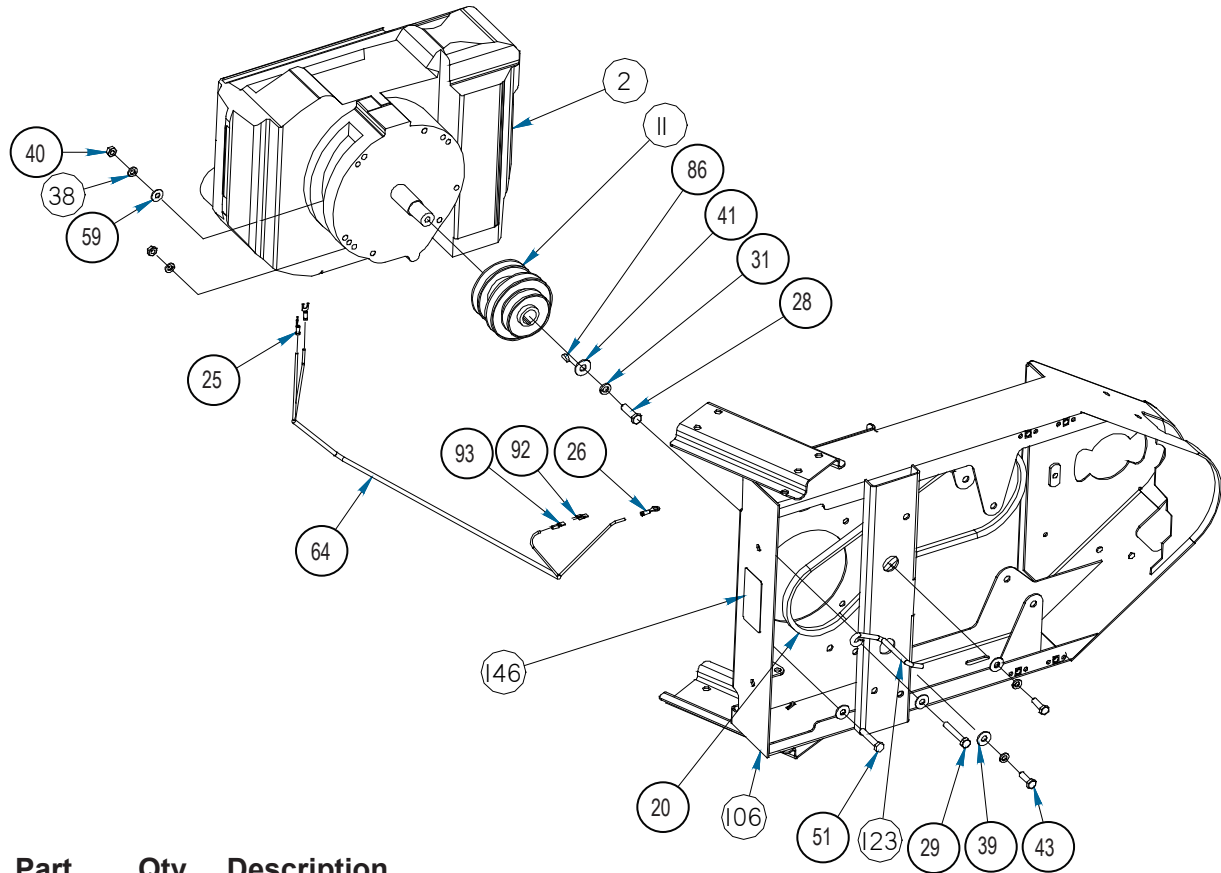
DETAIL H

Item	Part	Qty	Description
6.	05-1439	1	Gearbox, Peerless, Right Angle, 7/8 Shaft
7.	06-0009	1	Pulley, Idler, 3 3/4 x 7/8 x 3/8
8.	06-0171	2	Pulley, Idler, 2 x 7/8 x 3/8
10.	06-0477	1	Sprocket, Idler, Chain, #40-14 Tooth, with 3/8 Hole
12.	06-0479	1	Pulley, Brush Drive
13.	06-0480	1	Sprocket, Brush Drive
15.	06-0482	1	Chain, #40, 77 Links, Plus Master
18.	06-0486	1	Pulley, Idler, 3 1/4 x 7/8 x 3/8
19.	06-0487	1	Pulley, Idler, 4 x 3/4 x 3/8
20.	06-0489	1	V-Belt, Pulley
32.	07-1730	1	Bolt, Carriage, Gr5, 3/8-16 x 1 1/2
33.	07-1810	1	Nut, Hex, Lock, Straight, Gr8, 5/16-18
35.	07-2488	1	Screw, HHC, Gr8, 3/8 x 4 1/2
39.	07-3275	1	Washer, Flat, Gr8, 5/16
41.	07-3279	9	Washer, Flat, Gr8, 3/8
44.	07-3432	1	Screw, HHC, Gr8, 1/4-20 x 3/4
45.	07-3514	1	Pin, Clevis, 1/4 x 3/4
36.	07-2952	2	Screw, HFH, CL10.9, M6-1 x 20
46.	07-3534	1	Pin, Clevis, Gr2, 3/8 x 3/4
49.	07-3642	1	Screw, HHC, Gr8, 1/4-20 x 2 1/2
53.	07-3652	1	Screw, HHC, Gr8, 5/16-18 x 3 1/2
54.	07-3661	1	Screw, HHC, Gr8, 3/8-16 x 3 1/2
57.	07-3745	4	Washer, Flat, CL8.8, M10
59.	07-4032	3	Washer, Flat, Gr8, 1/4
62.	07-4053	2	Screw, HHC, Gr8, 3/8-16 x 2 1/2
69.	07-5370	10	Nut, Hex, Lock, Gr8, 3/8-16
70.	07-5824	1	Nut, Hex, Lock, Gr8, 1/4-20
71.	07-6590	1	Spring, Compression, .105 Wire, 3/4 x 2 1/2
74.	07-6732	1	Handle, M8-1.25 x 30mm
85.	07-6916	1	Key, Woodruff, #807, 1/4 x 7/8
87.	07-6918	2	Ring, Snap
90.	07-6926	2	Screw, HHC, Gr8, 3/8 x 5 1/2
91.	07-6933	1	Screw, Gr5, 3/8-16 x 1 1/2
94.	07-7015	2	Nut, Hex, Gr2, 1/4-20, LH
97.	07-7048	7	Clip, Hairpin, .059 Wire, for 1/4-5/16 Shaft
100.	08-0196	4	Bushing, Flange, 3/8 x 1/2 x 5/8
106.	13-14480	1	Weld, Body
112.	13-14532	1	Rod, 3/8 x 19
121.	13-14909	1	Plate, Cover, Front, Body
122.	13-15035	1	Weld, Ring, Swing
125.	13-15080	1	Rod, Linkage, Trans Axle Drive
126.	13-15081	1	Rod, Linkage, Brush Drive
133.	13-15140	2	Rod, Linkage, Lower
135.	13-15293	1	Weld, Idler, Arm, Drive
136.	13-15294	1	Weld, Idler, Arm, Brush
137.	13-15295	1	Weld, Idler, Arm, Chain
138.	13-15296	1	Weld, Tube, Control, Left
139.	13-15297	1	Weld, Tube, Control, Right
142.	13-15516	1	Tube, Round, 5/8 x 11ga x 1
143.	13-15580	1	Rod, Belt Guide, Brush Drive
144.	13-15760	2	Spacer, Idler, Pulley

BODY ASSEMBLY

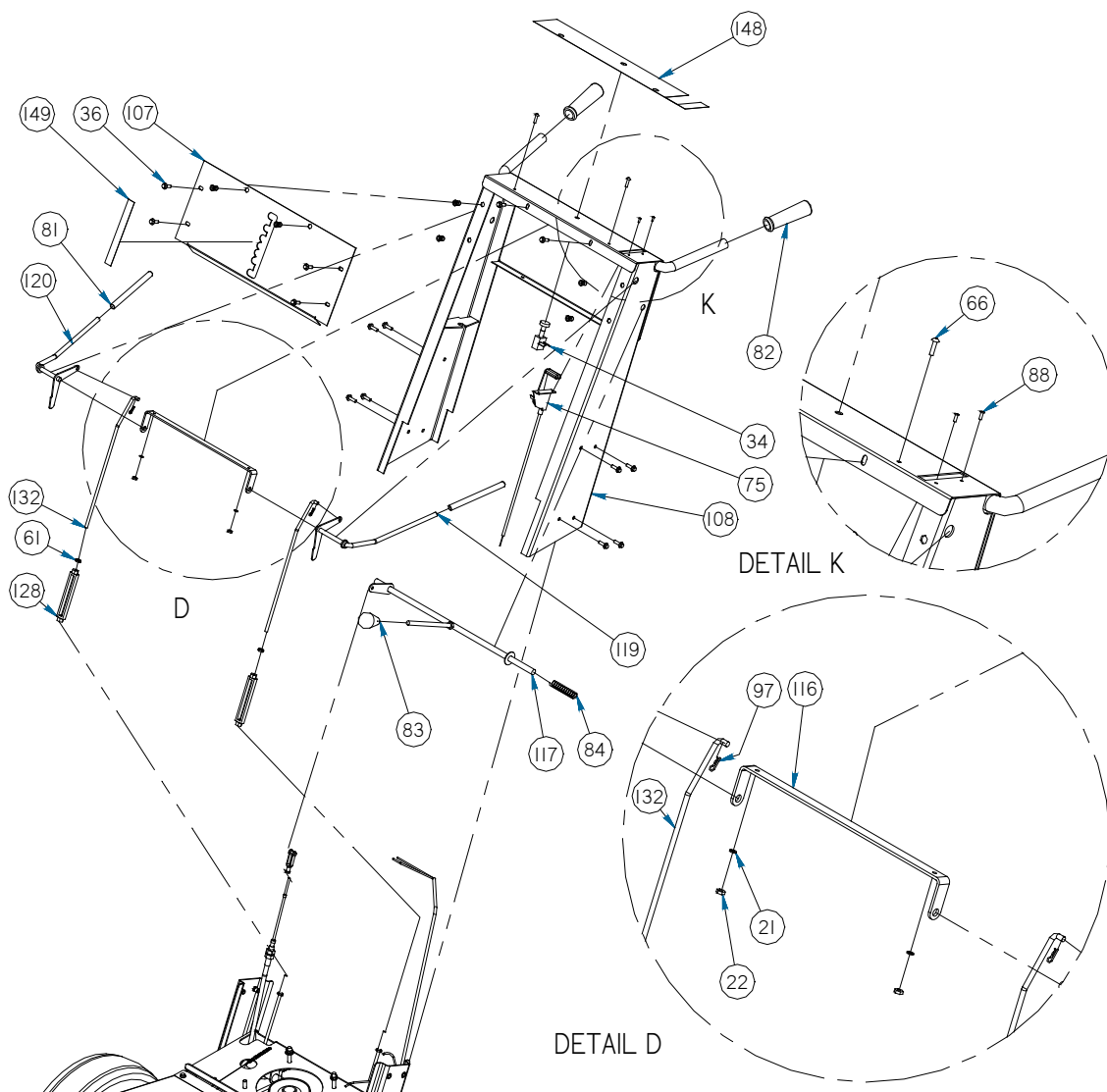


ENGINE ASSEMBLY



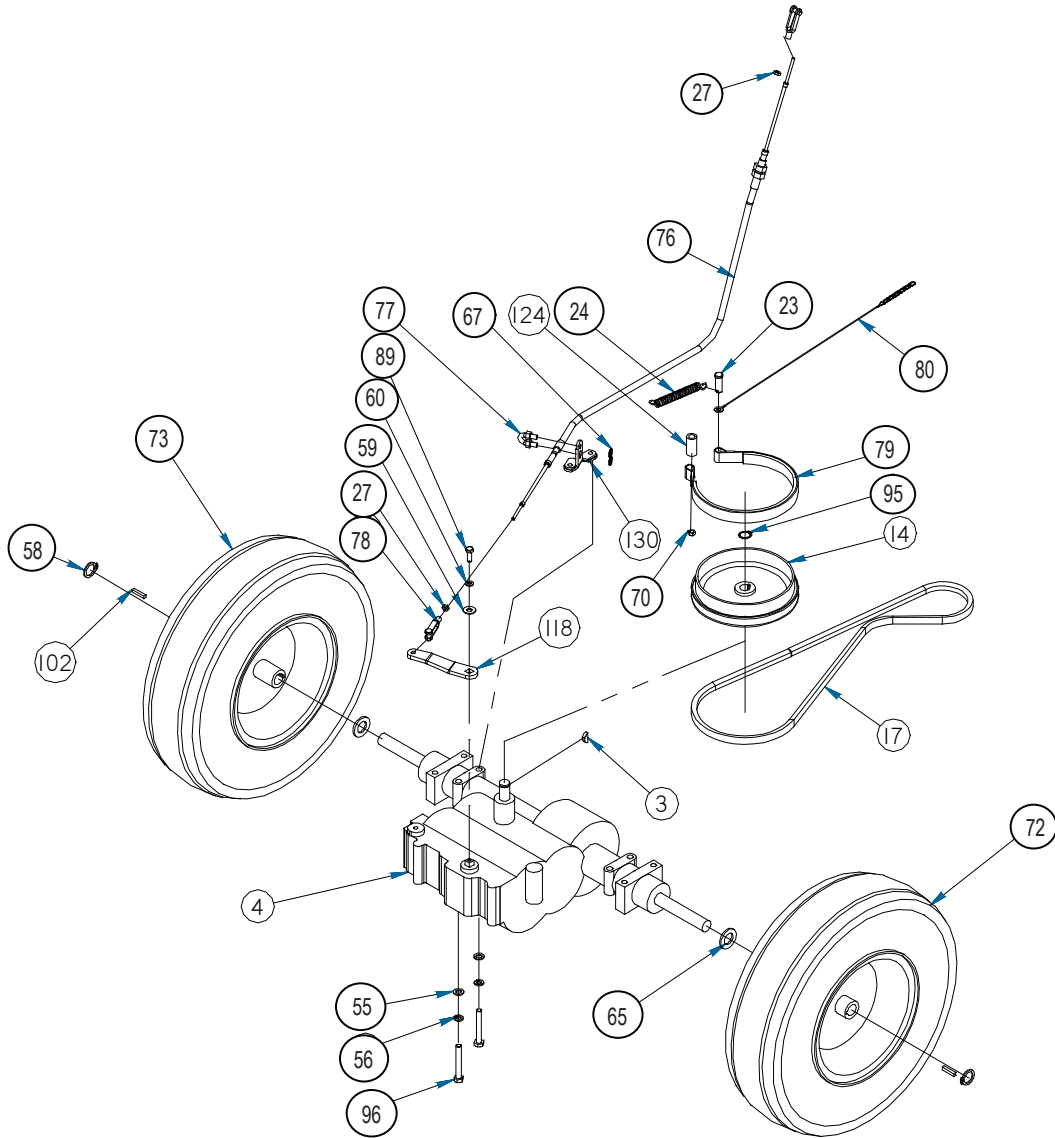
Item	Part	Qty	Description
2.	03-9587	1	Engine, Honda, 5.5 HP, GXV160
11.	06-0478	1	Pulley, Engine
20.	06-0489	1	V-Belt, Pulley
25.	07-0926	2	Terminal, Spade, 6, 16-14
26.	07-0928	1	Terminal, Ring, 5/16, 16-14
28.	07-1255	1	Screw, HHC, Gr8, 3/8-24 x 1 1/4
29.	07-1698	1	Screw, HHC, Gr8, 5/16-18 x 2
31.	07-1718	1	Washer, Lock, Split, Medium, 3/8
38.	07-3273	4	Washer, Lock, Split, Medium, 5/16
39.	07-3275	4	Washer, Flat, Gr8, 5/16
40.	07-3278	2	Nut, Hex, Gr8, 5/16-18
41.	07-3279	1	Washer, Flat, Gr8, 3/8
43.	07-3331	2	Screw, HHC, Gr8, 5/16-24 x 1
51.	07-3648	1	Screw, HHC, Gr8, 5/16-18 x 1 3/4
59.	07-4032	1	Washer, Flat, Gr8, 1/4
64.	07-4149	3ft	Wire, 14ga
86.	07-6917	1	Key, Woodruff, 4mm x 16mm
92.	07-6941	1	Terminal, Adapter, 2 Male, 1 Female
93.	07-6942	1	Terminal, Connector, Female, 16-14
106.	13-14480	1	Weld, Body
123.	13-15072	1	Rod, Belt, Guide, Engine
146.	50-0634	1	Label, Serial Number

HANDLE ASSEMBLY



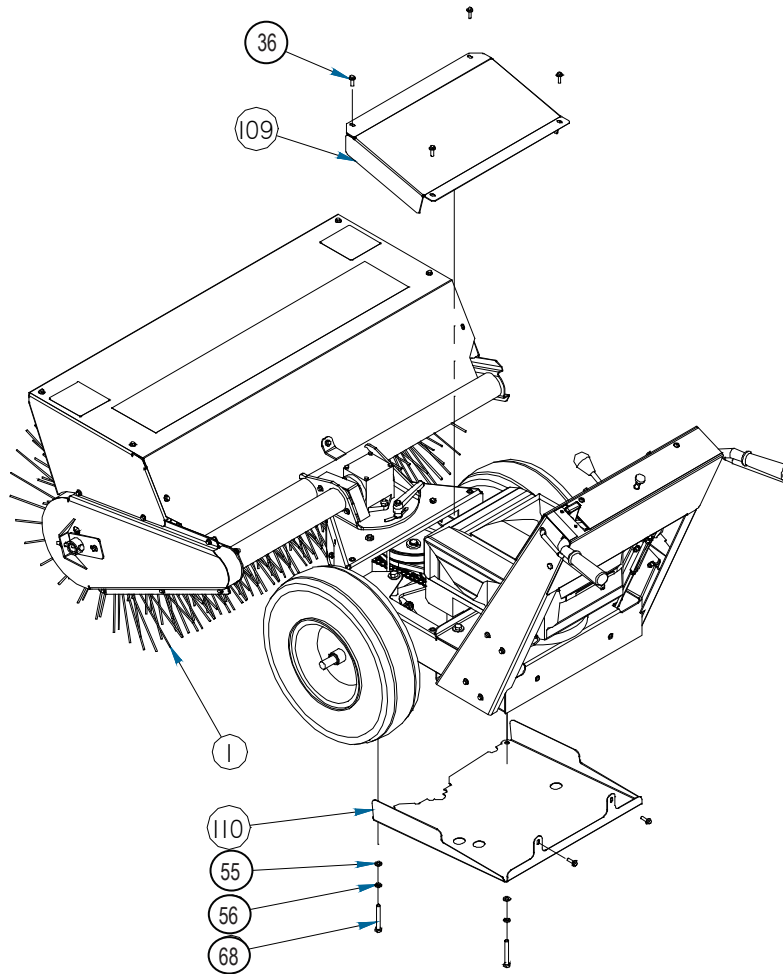
Item	Part	Qty	Description	Item	Part	Qty	Description
21.	07-0140	2	Washer, Lock, Gr2, #10	97.	07-7048	2	Clip, Hairpin, .059 Wire, for 1/4-5/16 Shaft
22.	07-0141	2	Nut, Hex, Gr2, 10-24	107.	13-14485	1	Sheet, Handle. Front
34.	07-1928	1	Switch, Stop, Push/Pull	108.	13-14487	1	Weld, Handle
36.	07-2952	14	Screw, HFH, CL10.9, M6-1 x 20	116.	13-14719	1	Bracket, Engagement, Handles
61.	07-4039	2	Nut, Hex, Gr8, 1/4-20	117.	13-14771	1	Weld, Shift Lever
66.	07-4831	2	Screw, BHC, 10-24UNC, 2B x 3/4	119.	13-14865	1	Weld, Lever, Engagement, Left
75.	07-6840	1	Throttle, with Detent and Cable	120.	13-14867	1	Weld, Lever, Engagement, Right
81.	07-6911	2	Handle, Cover, Black, 3/8 x 8	128.	13-15130	2	Turnbuckle, Body Only, 1/4-20 x 4
82.	07-6912	2	Handle, Grip, Red, 7/8	132.	13-15139	2	Rod, Linkage, Upper
83.	07-6914	1	Knob, Shifter, 3/8-16, Threaded Hole	148.	50-0757	1	Label, Handle
84.	07-6915	1	Spring, Compression	149.	50-0758	1	Label, Shift Pattern
88.	07-6919	2	Rivet, Pop, Gr2, 1/8 x .188-.250				

TRANS AXLE ASSEMBLY



Item	Part	Qty	Description	Item	Part	Qty	Description
3.	05-0851	1	Key, Woodruff, 3/16 x 3/4	72.	07-6722L	1	Wheel, with Tire, Left
4.	05-1423	1	Trans axle, 5 Speed	73.	07-6722R	1	Wheel, with Tire, Right
14.	06-0481	1	Pulley, V, 6 1/2 x 3/4	76.	07-6841	1	Cable, Control, 3/16 x 46
17.	06-0484	1	V-Belt, Pulley	77.	07-6842	1	U-Bolt, 1/4-28 x .59 x .97
23.	07-0193	1	Pin, Clevis, Gr2, 3/8 x 1 1/8	78.	07-6843	2	Yoke, Adjustment, 10-32 UNF
24.	07-0324	1	Spring, Tension, 1/2 x 3	79.	07-6900	1	Brake, Band, for 6 Inch Drum
27.	07-1185	2	Nut, Hex, Gr2, 10-32	80.	07-6907	1	Cable, Brake, with Chain
55.	07-3736	2	Washer, Flat, CL8.8, M8	89.	07-6925	1	Screw, HHC, Gr8, 1/4-28 x 3/4
56.	07-3738	2	Washer, Lock, Split, Medium, M8	95.	07-7016	1	Ring, Clip, SH-62
58.	07-3938	2	Ring, Snap, .75 x .078	96.	07-7017	2	Screw, HHC, CL10.9, M8-1.25 x 60mm
59.	07-4032	1	Washer, Flat, Gr8, 1/4				
60.	07-4038	1	Washer, Lock, Split, Medium, 1/4	102.	13-0518	2	Key, 3/16 x 1
65.	07-4165	2	Washer, Flat, CL8.8, M18	118.	13-14777	1	Plate, Lever, Shift
67.	07-4905	2	Washer, Star, Lock, 1/4	124.	13-15073	1	Bushing, 5/8 x 11ga x 1.25
70.	07-5824	1	Nut, Hex, Lock, Gr8, 1/4-20	130.	13-15132	1	Weld, Bracket, Shift Cable, Lower

FINAL SHIELD ASSEMBLY



Item	Part	Qty	Description
1.	01-5009C	18	Section, 24, Poly, Convoluted, Heavy Fill
	01-0984	18	Section, 24, Poly/Wire, Convoluted
36.	07-2952	6	Screw, HFH, CL10.9, M6-1 x 20
55.	07-3736	2	Washer, Flat, CL8.8, M8
56.	07-3738	2	Washer, Lock, Split, Medium, M8
68.	07-5287	2	Screw, HHC, CL10.9, M8-1.25 x 65mm
109.	13-14489	1	Cover, Top
110.	13-14491	1	Cover, Bottom, Rear

BOLT TORQUE SPECIFICATIONS

Bolt Torque Specifications

Body Size Grade 5	Ft-lbs		Body Size Class 8.8	Ft-lbs
1/4 - 20	6 ± 1		M6 - 1.0	5 ± 1
- 28	7 ± 1		n/a	-
5/16 - 18	13 ± 3		n/a	-
- 24	14 ± 3		n/a	-
3/8 - 16	23 ± 5		M8 - 1.25	14 ± 3
- 24	26 ± 5		- 1.0	-
7/16 - 14	37 ± 8		M10 - 1.5	29 ± 6
- 20	41 ± 9		- 0.75	-
1/2 - 13	56 ± 11		M12 - 1.75	50 ± 10
- 20	63 ± 12		- 1.0	-
9/16 - 12	82 ± 14		M14 - 2.0	80 ± 14
- 18	91 ± 16		- 1.5	-
5/8 - 11	113 ± 20		M16 - 2.0	125 ± 22
- 18	127 ± 23		- 1.5	-
3/4 - 10	201 ± 26		n/a	-
- 16	223 ± 29		n/a	-
7/8 - 9	321 ± 41		M20 - 2.5	244 ± 31
- 14	355 ± 46		- 1.5	-
1 - 8	483 ± 62		M24 - 3.0	422 ± 54
- 12	528 ± 68		- 2.0	-

Body Size Grade 8	Ft-lbs		Body Size Class 10.9	Ft-lbs
1/4 - 20	9 ± 2		M6 - 1.0	8 ± 1
- 28	10 ± 2		n/a	-
5/16 - 18	18 ± 4		n/a	-
- 24	20 ± 4		n/a	-
3/8 - 16	32 ± 7		M8 - 1.25	20 ± 4
- 24	37 ± 8		- 1.0	-
7/16 - 14	52 ± 11		M10 - 1.5	40 ± 8
- 20	58 ± 12		- 0.75	-
1/2 - 13	80 ± 16		M12 - 1.75	69 ± 14
- 20	90 ± 18		- 1.0	-
9/16 - 12	115 ± 20		M14 - 2.0	110 ± 20
- 18	128 ± 23		- 1.5	-
5/8 - 11	159 ± 28		M16 - 2.0	173 ± 31
- 18	180 ± 32		- 1.5	-
3/4 - 10	282 ± 36		n/a	-
- 16	315 ± 41		n/a	-
7/8 - 9	454 ± 59		M20 - 2.5	337 ± 44
- 14	500 ± 65		- 1.5	-
1 - 8	681 ± 88		M24 - 3.0	583 ± 75
- 12	746 ± 97		- 2.0	-

Foot-pounds may be converted to Newton Meters by multiplying by 1.35582.

Foot-pounds may be converted to Inch-pounds by multiplying by 12.

If the nut and screw are not the same grade, the lower grade will always be used.

NOTE - Nylock nuts are utilized when greater resistance to vibrating loose is required, and greater operating temperatures are not a factor. In addition, like lock nuts, nylock nuts have a safety feature that if the bolt does vibrate loose, the nut will remain on the screw. Install nylock nuts to the standard torque shown above.

GLOSSARY

angle or angle assembly - portion of the sweeper that allows the brush head assembly to angle.

brush head assembly - assembly that includes the core, hood, and brush frame.

brush pattern - area of dirt removed from sweeping surface; with a properly adjusted sweeper; the pattern is the same width for the entire length.

caution - indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

core - weldment that holds brush sections.

danger - indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

front - side that is in front when facing the normal forward direction of travel of the machine.

hood - brush shield.

important - indicates supplementary information.

in. - inch.

kph - kilometers per hour.

lb - pounds.

left-hand - side that is on left when facing the normal forward direction of travel of the machine.

mm - millimeters.

mph - miles per hour.

notice - indicates a hazardous situation, if not avoided, will result in property damage only.

psi - pounds per square inch.

PTO - power take off; shaft on the prime mover used to drive attachments.

qty - quantity.

rpm - revolutions per minute.

rear - side that is in the rear when facing the normal forward direction of travel of the machine.

retainer - removable plate or set of plates that keep sections on the core.

right-hand - side that is on the right when facing the normal forward direction of travel of the machine.

section - single brush wafer.

section set - replacement brush wafers.

warning - indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

weld - weldment.

windrow - pile of debris.

zerk - grease fitting.

WARRANTY

Warranty Registration

Return form to 1-734-996-9014



PALADIN LIGHT CONSTRUCTION

Warranty Registration Form and Delivery Inspection Report

IMPORTANT! Warranty Void if card is not returned with 10 days.
All Applicable sections must be filled in.

This section to be filled out and signed by Dealer at time of delivery.

Warranty Registration

Customer's Name _____	Dealer's Name _____
Address _____	Address _____
City _____ State _____ Zip _____	City _____ State _____ Zip _____
Phone _____	CHECK ONE:
Loader / Tractor Model _____	Construction Use _____
Delivery Date _____	Agricultural Use _____
Model or Part # _____	Landscape Use _____
Serial # _____	Other: _____

Dealer Inspection (check items applicable)

- | | |
|---|---|
| <input type="checkbox"/> All Decals installed (see operator's manual) | <input type="checkbox"/> Review Operating and Safety Instructions |
| <input type="checkbox"/> Hydraulic fittings tight and free of leaks | <input type="checkbox"/> Guards and covers in place and secure |
| <input type="checkbox"/> Fasteners tight | <input type="checkbox"/> Does Product Function Properly |

I have thoroughly instructed the buyer on the above described equipment. This review included: The Operator's manual content, equipment care, adjustments, safe operation and applicable warranty policy.

Date _____ Dealer's Rep. signature _____

This section to be completed and signed by the customer

	1 Excellent	2 Good	3 Average	4 Unsatisfactory	5 Poor
QUALITY ASSURANCE RATING					
Question:					
Quality of Product: Appearance					
Construction					
Quality of Service					
Value (Priced Fairly)					
Does it perform as claimed					

The above described equipment and Operator's Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date: _____ Owner's signature _____

NOTE! Make one copy each for the dealer's and owner's records. Mail original to Sweepster.

Comments: _____

Sweepster, Inc
 2800 N. Zeeb Rd.
 Dexter, MI 48130-9499
 800-456-7100
 fax 734-996-9014

WARRANTY



SWEEPSTER ATTACHMENTS LLC

Limited 12 Month Warranty

Thank you for purchasing a Sweepster Attachments, LLC. product. Warranty protection is valid only when this Warranty Registration is completed and signed by the customer and dealer, and mailed to Sweepster Attachments, LLC. I hereby acknowledge that I have received a copy of the owners Limited Warranty and I accept the terms therein.

For a period of 12 months from the date of delivery of product to the original user, Sweepster Attachments, LLC. warrants each product to be free from manufacturing defects, subject to the limitations contained in this policy.

This warranty does not apply to defect caused, in whole or in part, by unreasonable use while in the possession of the user, including, but not limited to: failure to properly set up product; failure to provide reasonable and necessary maintenance; normal wear; routine tune ups or adjustments; improper handling or accidents; operation at speed or load conditions contrary to published specification; improper or insufficient lubrication; improper storage. This warranty is also not a guarantee that performance of each product will meet the expectations of the purchaser.

Sweepster Attachments, LLC. shall not be liable for consequential damages of any kind, including, but not limited to: consequential labor costs or transportation charges in connection with the replacement or repair of defective parts; lost time or expense which may have accrued because of said defects. In no event shall Sweepster Attachments, LLC.'s total liability hereunder exceed the product purchase price.

Sweepster Attachments, LLC. makes no warranty with respect to trade accessories or any component or accessory of the product which was not manufactured by Sweepster Attachments, LLC. including any purchased components of any kind. These are subject to the warranties of their respective manufacturers. The warranty will be considered void if the product or any part of the product is modified or repaired in any way not expressly authorized by Sweepster Attachments, LLC. or if closed components are disassembled prior to return. Closed components include, but are not limited to: gearboxes, hydraulic pumps, motors, cylinders, and actuators.

Our obligation under the warranty is expressly limited, at our option, to the replacement or repair at Sweepster Attachments, LLC or at a service facility designated by us, or such part or parts as inspection shall disclose to have been defective. We are not responsible for unauthorized repairs or replacements. Any implied or statutory warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty. We make no other express or implied warranty, nor is anyone authorized to make any on our behalf. This warranty cannot be extended, broadened, or changed except in writing by an authorized officer of Sweepster Attachments, LLC.