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PULL-TYPE BRUSH SYSTEM WITH OPTIONS

OPERATOR'S INSTRUCTIONS
AND PARTS MANUAL

=T.I.P. Inc.=

GROOM-IT Brush System

Congratulations on your purchase of the T.I.P. Groom-It Brush System! You can rest assured that you have one of the highest quality turf brush systems on the market today. With proper care and maintenance, your Groom-It will provide you with years of reliable service. If you have any questions about the Groom-It, or any of our other turf care products, feel free to call us or drop us a line. We would be delighted to serve you in the future. Thank you for your patronage.

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=T.I.P. Inc.= **Limited Warranty**

T.I.P. Inc. warrants that the equipment it manufactures will be free from defects in materials and workmanship for a period of one year from delivery date. This warranty is extended to the Original Purchaser only, and is non-transferrable.

Should a defect in materials or workmanship be experienced within the warranty period, T.I.P. Inc. shall, at its discretion, furnish F.O.B Custer, WI, new or remanufactured parts to replace the non-conforming parts. T.I.P. Inc. shall not cover any labor costs incurred by the purchaser to replace said parts.

This warranty is limited to new equipment, parts or accessories that are manufactured by T.I.P. Inc., provided that the equipment is used and maintained according to the instructions in the manual, and the Original Purchaser has completed, signed and returned the enclosed Warranty Registration form to T.I.P. Inc. within 30 days after the delivery of said equipment. This warranty does not apply to damage or deterioration to the equipment resulting from, but not limited to; natural wear and tear, abuse of goods, presence of abrasives, chemical action, improper installation, misuse, vandalism, or acts of God. This warranty does not apply to goods manufactured by others, beyond the warranties stated by the manufacturers for those goods.

The limited warranty expressed hereunder, is exclusive, and T.I.P. Inc. makes no other representations, warranties, or guarantees, neither expressed nor implied, as to merchantability or the fitness of said equipment for any particular use or purpose, or that the equipment or installation of equipment when placed into operation will comply with applicable national, state, and local health and safety laws. T.I.P. Inc. shall not be liable for any consequential or indirect damages including, but not limited to, loss of anticipated profits or production, increase of cost of operation, loss due to spoilage of material, damage caused directly or indirectly to other property or goods, or penalties or fines arising from non-compliance.

SAFETY

GROOM-IT Brush System

UNDERSTAND AND FOLLOW SAFETY INFORMATION

ALL OPERATORS should read and understand all safety information and operating instructions for the Groom-It, and learn how to use the controls properly. Be aware of safety words such as CAUTION, WARNING and DANGER. These words alert you to important safety information. Do Not let anyone operate without proper instruction.

Make sure that ALL OPERATORS can recognize and understand all safety warning labels on the machine. Keep all safety labels in good condition, and replace those that are missing or damaged. Replacement safety labels are available from your dealer.

PROPER SETUP

Make sure that machine is properly and securely coupled to the tow vehicle before operation. Verify that the 12volt DC electrical connection is hooked securely and in the proper polarization. Visually inspect the location of all electrical lines on machine to avoid pinching in metal parts or contact with actuator during operation.

DURING OPERATION

Operate the Groom-It only when all safety guards are in place. Before moving machine, check to make sure that no one is in the immediate vicinity. Never allow anyone to ride machine at any time. Always be aware of pinch points and falling objects, specifically when flipping the hitch or when using the Groom It Plus or Scratch It options.

Wear close fitting clothing and safety gear appropriate for the operating conditions. Be aware that rocks or other debris could fly out from under the machine.

The operation of the machine requires the full attention of the operator. Do not wear radio or other music headphones while operating this machine.

SAFE MAINTENANCE

Never lubricate, service or adjust machine while it is running. Keep hands, feet and clothing from power driven components. Disengage all power from machine before servicing. If machine is still connected to tow vehicle, be sure tow vehicle is turned off and secured against rolling.

Securely support all parts of machine that must be raised for service work. Keep machine in good working order by replacing worn or broken parts. Be sure to remove all excess grease, oil and dirt. Properly dispose of all waste materials.

TRANSPORTATION

The Groom-It is designed for off road use only, and should not be towed on public roadways. Maximum tow speed for machine is 15mph. If it becomes necessary to tow machine on roadways, do so only on a highway approved trailer.

SET-UP

GROOM-IT Brush System

ASSEMBLY

If your Groom-It came delivered on a pallet, first remove machine and all parts from the pallet. Connect the wishbone draw bar hitch assembly to the top frame of the machine using the two 3/4 x 3 inch bolts, washers and lock nuts provided. Place bolt through the frame upright, the washer, and finally the hitch assembly. **MAKE SURE** the washer is in between the frame upright and the hitch assembly. Place locknut on the bolt and tighten until snug to allow for easy movement of the hitch assembly. Pin turnbuckle assembly in place between the wishbone hitch assembly and the Groom-It frame. Slide outer hitch assembly over wishbone assembly and pin together at desired length with the spring pin included.

Place black control box on outer hitch assembly just ahead of the spring pin, and secure in place with bolts and bracket provided. Plug 2-prong connector into mating connector on the electric actuator. Unroll wire on hand held remote and plug into the socket on top of the control box.

CONNECTION TO TOW VEHICLE

Connect the pin-type hitch to your tow vehicle using a pin that is the appropriate diameter, and secure to ensure pin does not come out during operation.

The Groom-It utilizes the 12volt DC electrical supply from the tow vehicle to operate the electric wheel lift actuator. Connect the alligator clips from the machine to the battery of the tow vehicle, being sure to connect the red clip to the positive side of the battery, and the black to the negative. Be sure that clips and wires are properly secured so they will not vibrate loose or lose contact during operation.

CAUTION!

Avoid direct contact with the battery terminals and the un-insulated portion of the alligator clips. Electrical shock could result.

LEVELING MACHINE

With Groom-It attached to tow vehicle, park in a flat, level area. Lower brushes until the wheels are clear of the ground. Loosen the jam nut on the Turnbuckle assembly, and adjust the turnbuckle until all the brushes have equal pressure on the ground. Retighten the jam nut.

OPERATOR'S INSTRUCTIONS

GROOM-IT Brush System

- This machine is designed specifically for use on natural and synthetic turf grass areas. It is not to be used on any roadways.
- NOT INTENDED FOR HIGHWAY USE.
- 12 volt DC connections only.
- Before performing any service on brush, be sure to disconnect from battery, this will isolate unit from tow vehicle.
- In very dusty conditions be sure to wear proper respiratory protection.
- Only operate during daylight hours.
- Never allow anyone to ride on machine.
- Follow the safety instructions in your tow vehicle operator manual.

Review and follow all safety information before operating the Groom-It. Be sure all Set-Up procedures have been completed.

OPERATION

Verify that electrical connections are made with the tow vehicle and that the hitch pin is secured in place and locked.

After you reach the location where the sweeping is to be done, lower the using the remote operated hand switch. Pull the Groom-It over the surface you wish to brush. Groom-It can be raised or lowered while in motion. Suggested operating speed during brushing is approx. 4 to 6 mph. When not brushing, raise Groom-It off of the ground.

The hitch may be "Flipped" over, making it possible to pull the Groom-It in the opposite direction. This feature is to help minimize any "Set" the brushes might take being pulled in one direction, thus lengthening brush life.

To flip the hitch, remove the two clevis pins securing the turnbuckle assembly. Flip the hitch assembly over, and replace the turnbuckle on the opposite side using the clevis pins. No leveling readjustment should be necessary. Be sure to use proper lifting techniques.

STORAGE

Before storing the Groom-It, clean off all dirt and residue from the entire machine, especially the brushes.

Always store the Groom-It with the wheels lowered completely and the brushes off the ground. Use the Quick Set hitch to keep the Groom-It level, so brushes don't rest on the ground. To uncouple brush from tow vehicle, remove pin from hitch receiver, lower parking jack.

MAINTENANCE

Before attempting any maintenance remove watches and jewelry.

Inspect all wire and wiring connections.

Use proper lifting and supporting devices when performing any maintenance.

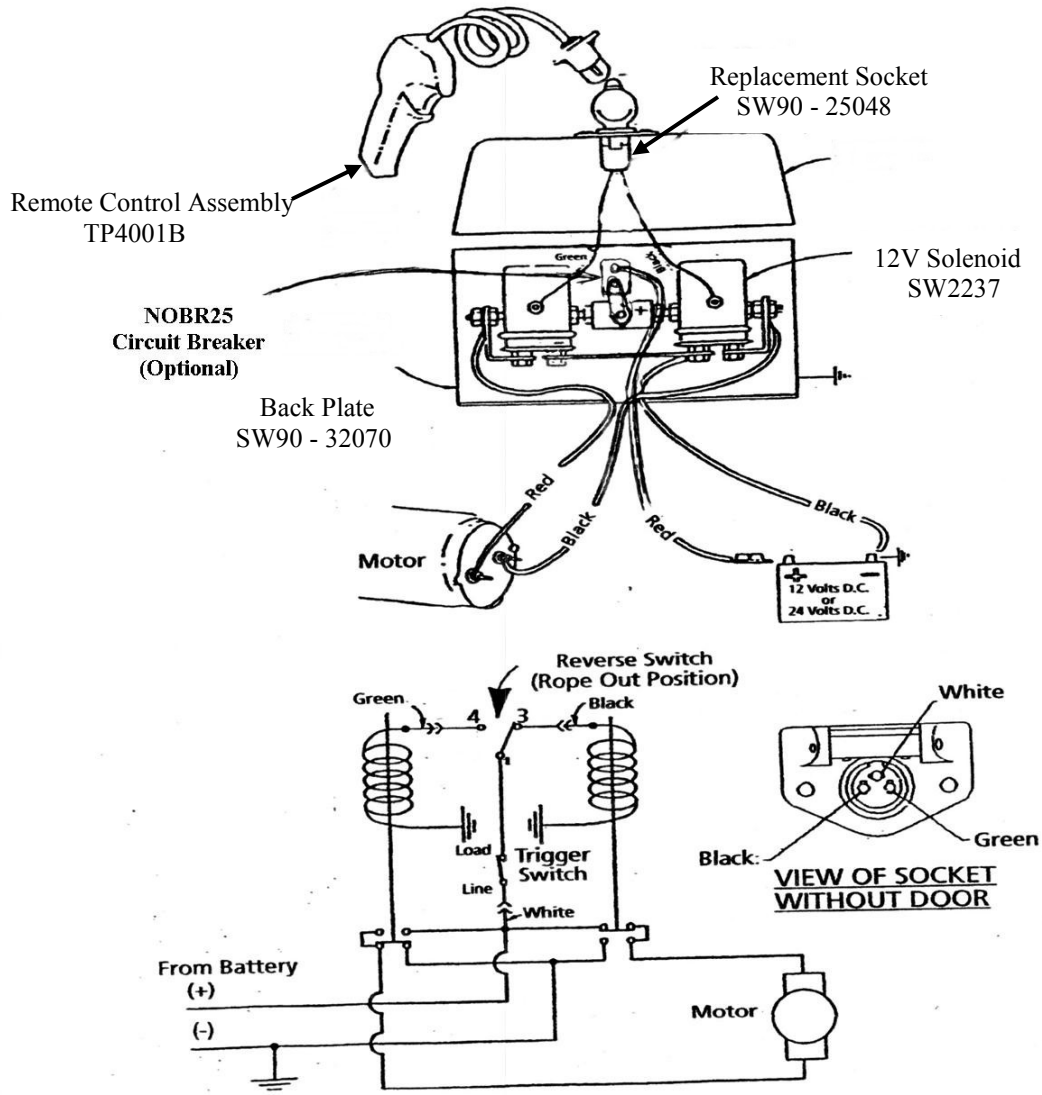
Grease wheels before each use. Sand and other contaminants can cause damage if wheels are not greased. Wipe off excess. Check tires for wear or damage.

Inspect brushes for excessive wear and missing bristles every 25 hours of use. Check for loose brushes and tighten or replace if necessary. Inspect the rest of the machine for loose bolts and for damaged wires. Repair if necessary.

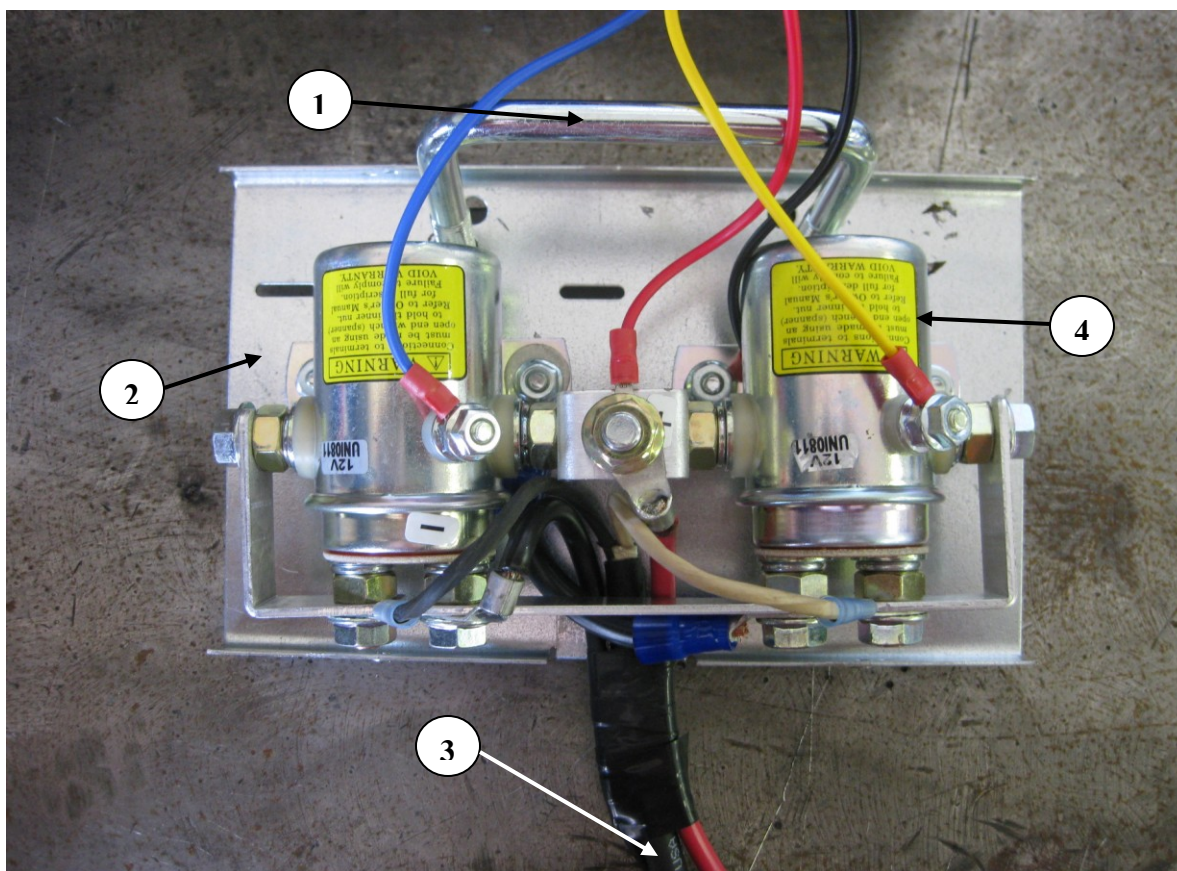
Wiring Diagram #1

To Raise and lower brush
Select the proper function with
the thumb switch, squeeze trigger.

Groom-It
Wiring Diagram

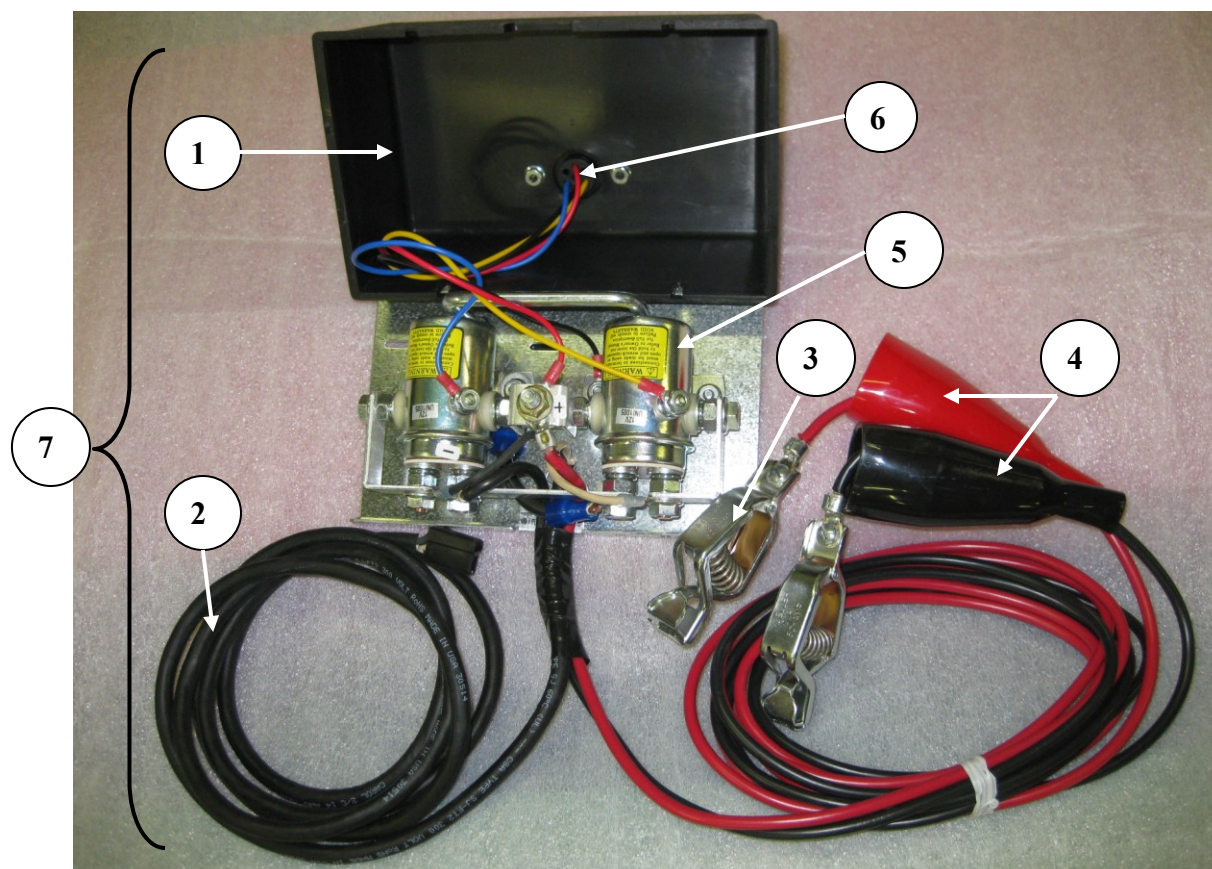


Wiring Diagram #2



Ref	Part#	Description	Qty
1	TP1001A	5/16" U Bolt for 3" x 2" Box Tube	1
2	SW90 – 32070	Back Plate	1
3	WA189101361	14/2 SJ Service Cord (7.5ft)	1
4	SW2237	12V Solenoid	2

TP4001A Kit



Ref	Part#	Description	Qty
1	SW90 – 31079	Cover	1
2	WA189101361	14/2 SJ Service Cord (7.5ft)	1
3	MC7236K15	Alligator Clip – Heavy Duty	2
4	MC7236K211	Insulator Sleeve – Red – Large	1
	MC7236K212	Insulator Sleeve – Black – Large	1
5	SW2237	12V Solenoid	2
6	SW90 – 25048	Socket with Wiring	1
7	TP4001AKIT	Entire Control Box w/ Wiring (Everything shown in picture above except U-Bolt)	1

GROOM-IT PLUS Option

Wing Extensions for GROOM-IT Brush System

Review and follow all safety information before operating the Groom-It Brush System.

INSTALLATION

If the Groom-It Plus did not come already installed on your Groom-It brush, follow these instructions. Place the two wings on either side of the Groom-It main frame. Clip all the tie straps that are holding the bolts and the green pin in place, and raise the pin tube so it is standing vertical. With the Groom-It on a level surface and sitting directly on it's brushes (wheels raised all the way up), align the Groom-It Plus wings so they are centered on the ends of the Groom-It and tight to it. The quick release mounting tabs on the Groom-It Plus should be on top of the Groom It frame. Drill 4 holes through the mounting tab holes and through the Groom-It frame. Secure the mounting tabs with four 5/16 x 3" bolts and lock nuts provided. Repeat for the other side.

SET-UP

After the Groom-It Plus wings are mounted, raise the Groom-It all the way off the ground once again. With the Groom-It Plus wings lowered, level the wings by adjusting the turnbuckle on the cable stay. The wings should be horizontal or slightly below horizontal, but not dragging on the ground when the machine is raised.

OPERATION

The Groom-It Plus wings should be in the horizontal position only when you are in the area that brushing is to occur. When the machine is in transit or in storage, the wings should be pinned in their vertical position. To lower the wings, hold the wing with one hand, and pull the green Transport Pin with the other hand. Gently lower the wing to it's horizontal position. Replace the transport pin into the pin tube for safe keeping.

CAUTION!

DO NOT let the Groom-It Plus wings drop to their horizontal positions. ALWAYS lower the wings fully by hand. Allowing the wings to drop could damage the cable stay and turnbuckle assemblies. The cable stay is designed to lift the wing off of the ground when the Groom-It is raised by its wheels. It is not intended to take the force of a falling wing.

When brushing is complete, raise the Groom-It Plus wings to their vertical position, and secure in place with the green transport pin. Do not transport machine from one location to another with Groom-It Plus wings in horizontal position.

STORAGE/TRANSPORTATION

The Groom-It Plus should always be pinned in the vertical position when being stored or transported from one location to another. Before storing the Groom-It Plus, clean all dirt and residue from the machine, especially the brushes.

MAINTENANCE

Inspect brushes for excessive wear and missing bristles every 25 hours of use. Check for loose brushes and tighten or replace if necessary. Inspect the rest of the machine for loose bolts.

SCRATCH-IT Option

Synthetic Turf Rake

for GROOM-IT Brush System

Review and follow all safety information before operating the Groom-It Brush System.

INSTALLATION

To install the Scratch-It turf rake to the Groom-It rake, simply align the 2-inch angle mounting brackets on top of the side frame rails on the Groom-It, and fasten in place with the four U-bolts and mounting plates provided. Be sure to mount the Scratch-It far enough forward to allow the height adjusting bolts to make contact with the Groom-It frame. Be aware that the Scratch-It can not be mounted on a machine that has the Groom-It Plus wing option already installed on it.

SET-UP

With the Scratch-It properly installed, place the Groom-It on a level area and lower the machine onto it's brushes. There are several adjustments on the Scratch-It to help optimize the raking action. Each row of tines can be tilted forward or back by changing the bolt positions on the end of the rows. The height of the Scratch-It can be adjusted by raising or lowering the height adjustment bolts. Likewise, the height the entire assembly can be adjusted by changing the pivot point bolt to the alternate hole. Experiment with these adjustments until the set-up works best for you.

OPERATION

When using the Scratch-It option with your Groom-It, operate the machine as you would otherwise. If you prefer to brush without using the rake attachment, just flip the Scratch-It over on top of the Groom-It. When you want to use it again, simply flip it back.

CAUTION!

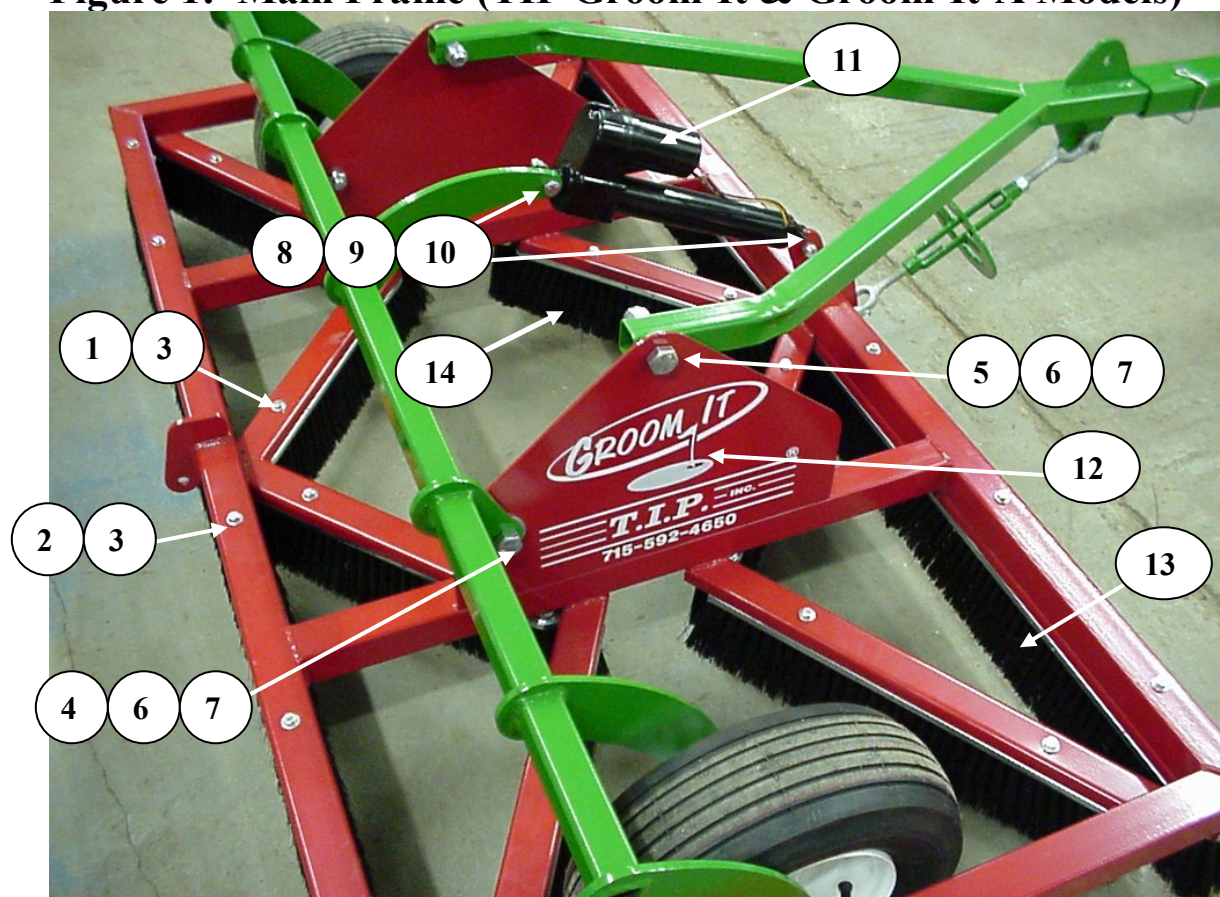
When the Scratch-It option is mounted on the Groom-It, the Quick Flip Hitch feature does not function. Do not attempt to pull the Groom-It from the reverse direction, especially with the Scratch-It in the down position. Damage may result.

STORAGE/TRANSPORTATION

It is recommended that the Scratch-It rake attachment is flipped over to the UP position before transporting the Groom-It over any distance, or when storing the Groom-It with the Scratch-It attached. Before storing, be sure to clean all dirt and residue from the machine.

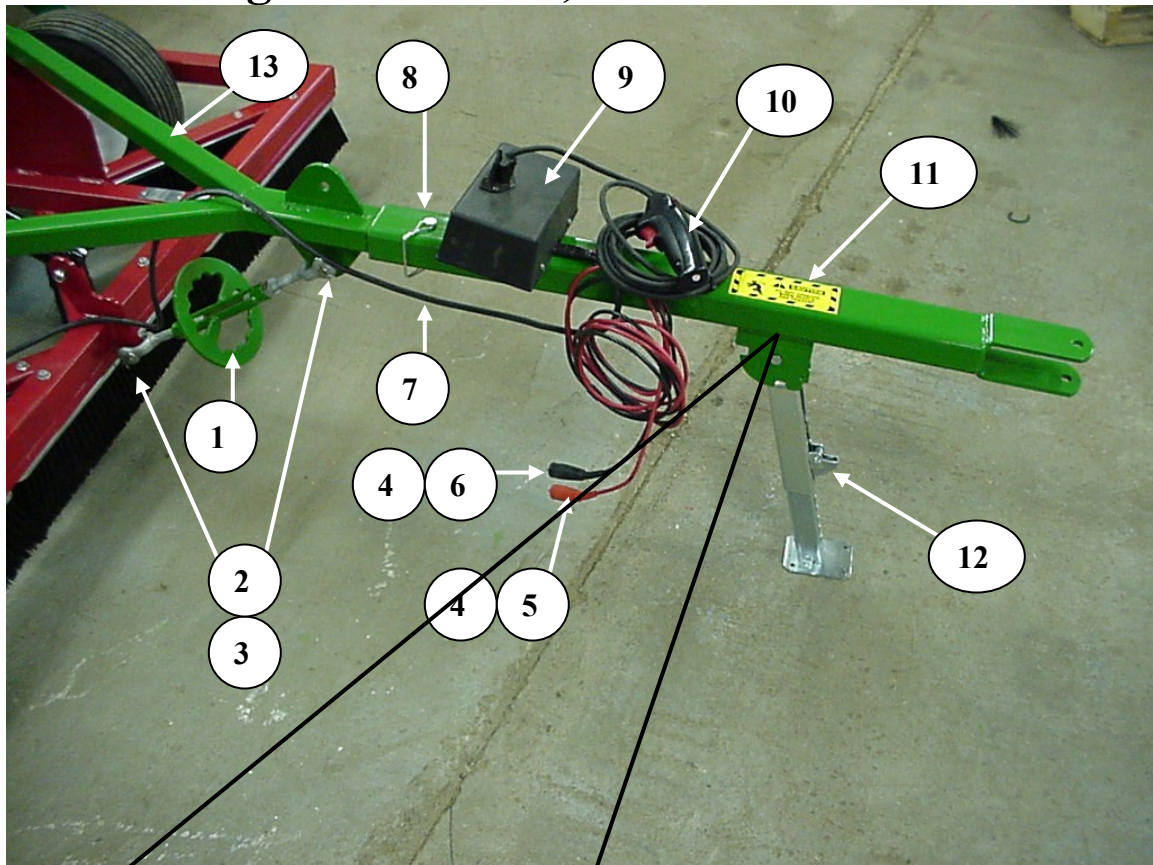
MAINTENANCE

Inspect rake tines for any excessive wear. Replace if necessary.

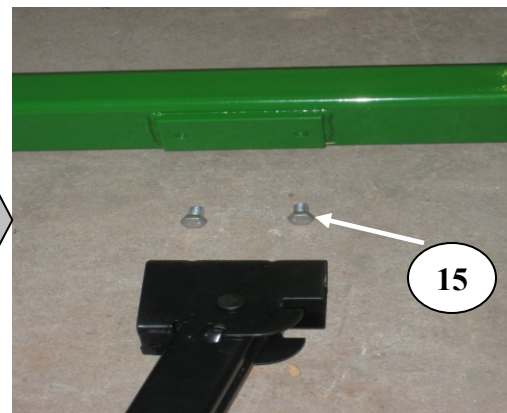
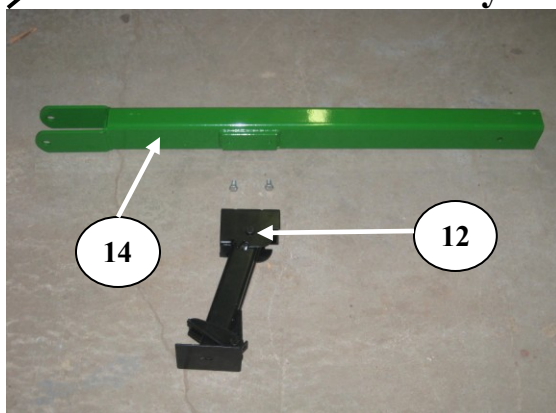
Figure 1: Main Frame (TIP Groom-It & Groom-It-A Models)

Ref	Part#	Description	Qty
1	FN22159	Short Lag Screw	16
2	FN22167	Long Lag Screw	12
3	FN33004	Flat Washer for Lag Screws	28
4	FN13361	3/4 x 2" Bolt	2
5	FN13365	3/4 x 3" Bolt	2
6	FN33018	3/4" Flat Washer	4
7	FN37039	3/4" Nylock Nut	4
8	FN13213	1/2 x 2-1/2" Bolt	2
9	FN37030	1/2" Nylock Nut	2
10	FN36310	1/2" Nut	1
11	BLK2XG05	Linear Actuator, 12v Electric	1
12	SP100	Groom-It Decal	2
13	MB230246	Polypropylene Brush, 24" Black/Tip Groom It	10
14	MB230186	Polypropylene Brush, 18" Black/Tip Groom It	4
	TB12007323	Polyester Crimped Brush, 24" White/Tip Groom It-A	10
	TB12007322	Polyester Crimped Brush, 18" White/Tip Groom It-A	4

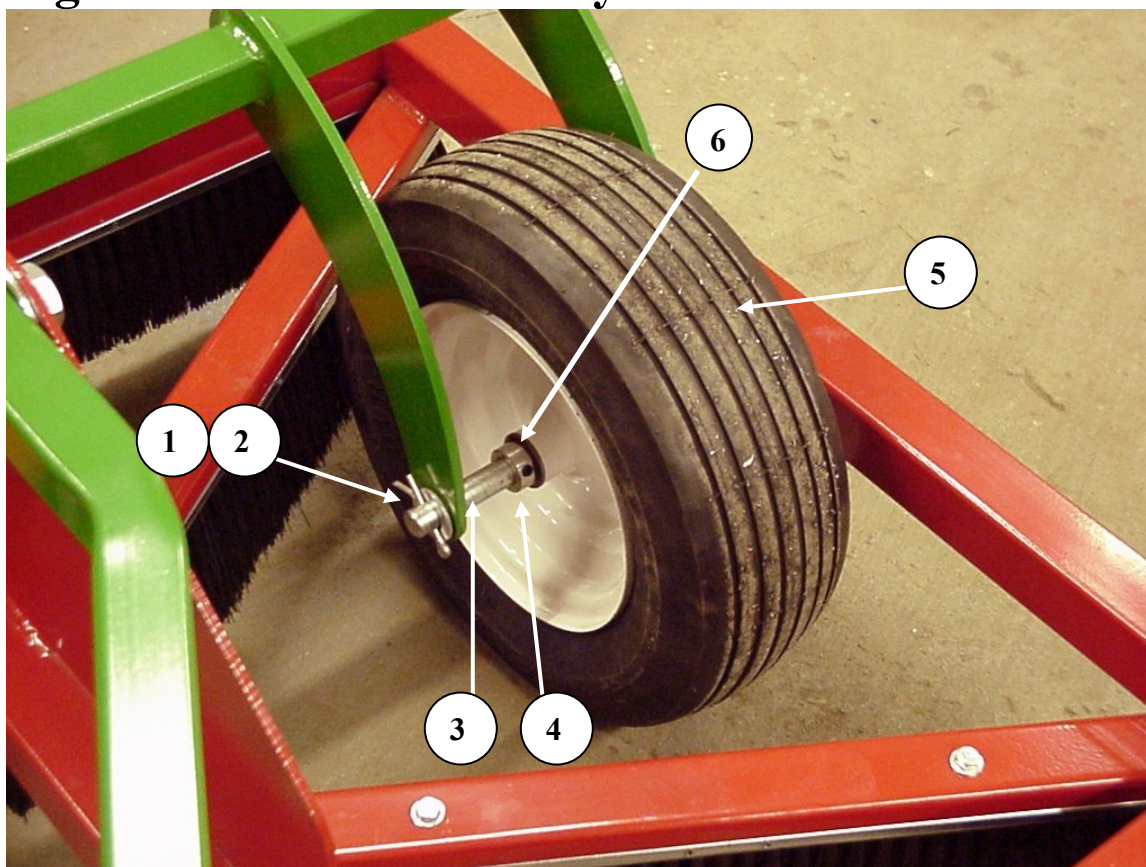
Figure 2: Hitch, Electrical



New Hitch Assembly



Ref	Part#	Description	Qty
1	GITBUCKLE	Turnbuckle Leveling Adjuster Assy.	1
2	FN66117	Clevis Pin, ½ x 2- ¼ "	2
3	FN45281	Hitch Pin Clip for Clevis Pin	2
4	MC7236K15	Alligator Clip	2
5	MC7236K211	Insulator Sleeve, Red	1
6	MC7236K212	Insulator Sleeve, Black	1
7	WA189101361	14-2 Service Cord, Sold Per Foot	7.5
8	FN0120679	Tongue Adjustment Locking Pin	1
9	TP4001A	Solenoid Up-Down Controller	1
10	TP4001B	Remote Hand Switch w/ 15ft Cord	1
11	SP102	Decal, Caution, Do Not Operate	1
12	GW3491-0142	Quick Set Jack	1
13	GIHITCH	Hitch Wishbone Assembly	1
14	GITONASSY	Outer Hitch Assembly	1
15	FN13102	3/8" x 5/8" Jack Attachment Bolt	2

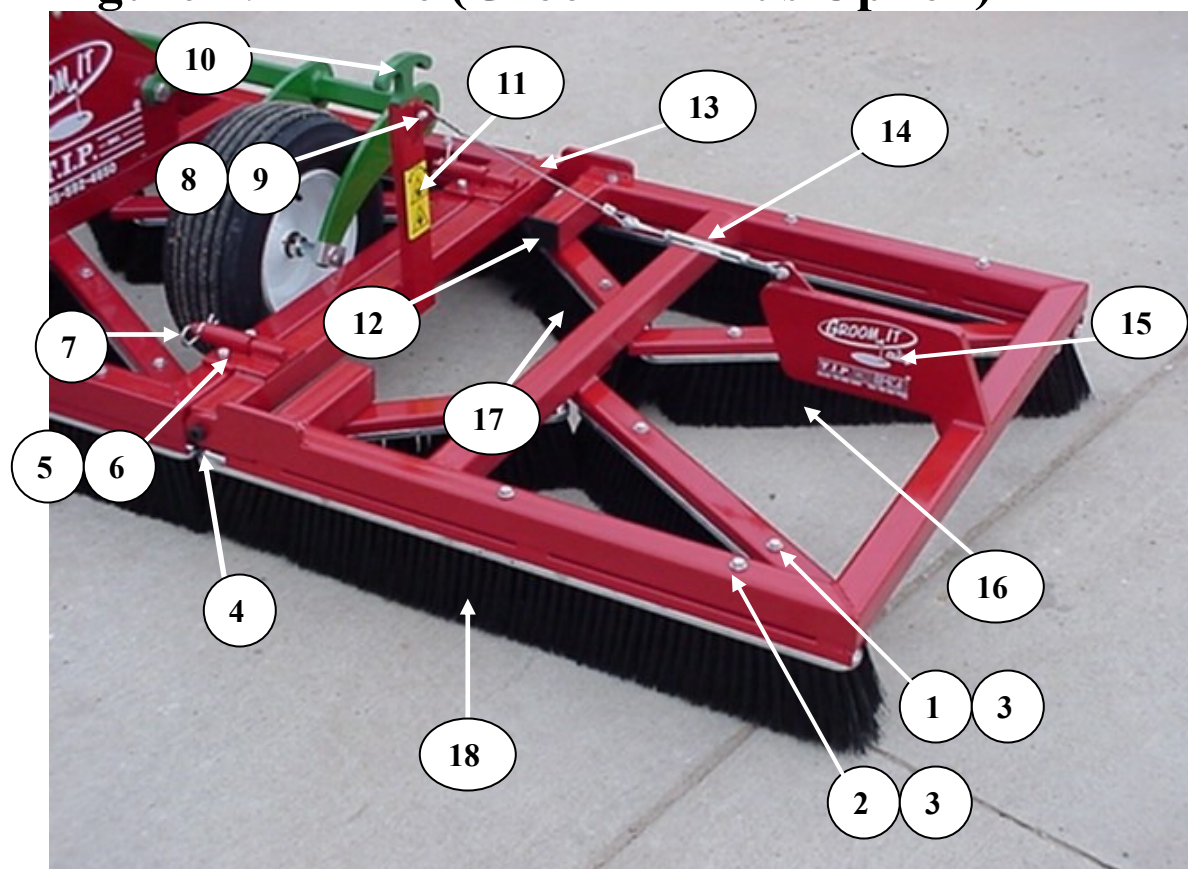
Figure 3: Wheel Assembly

Ref	Part#	Description	Qty
1	FN65126	Cotter Pin	2
2	FN33092	$\frac{3}{4}$ " Flat Washer	2
3	TP4017A	Axle, Zinc Plated	2
4	TOSC-12	Set Collar, $\frac{3}{4}$ "	4
5	TP4025	Tire/Wheel Assy – Less Bushing	2
6	TP4026	Replacement Bushing for Wheel Assy	4

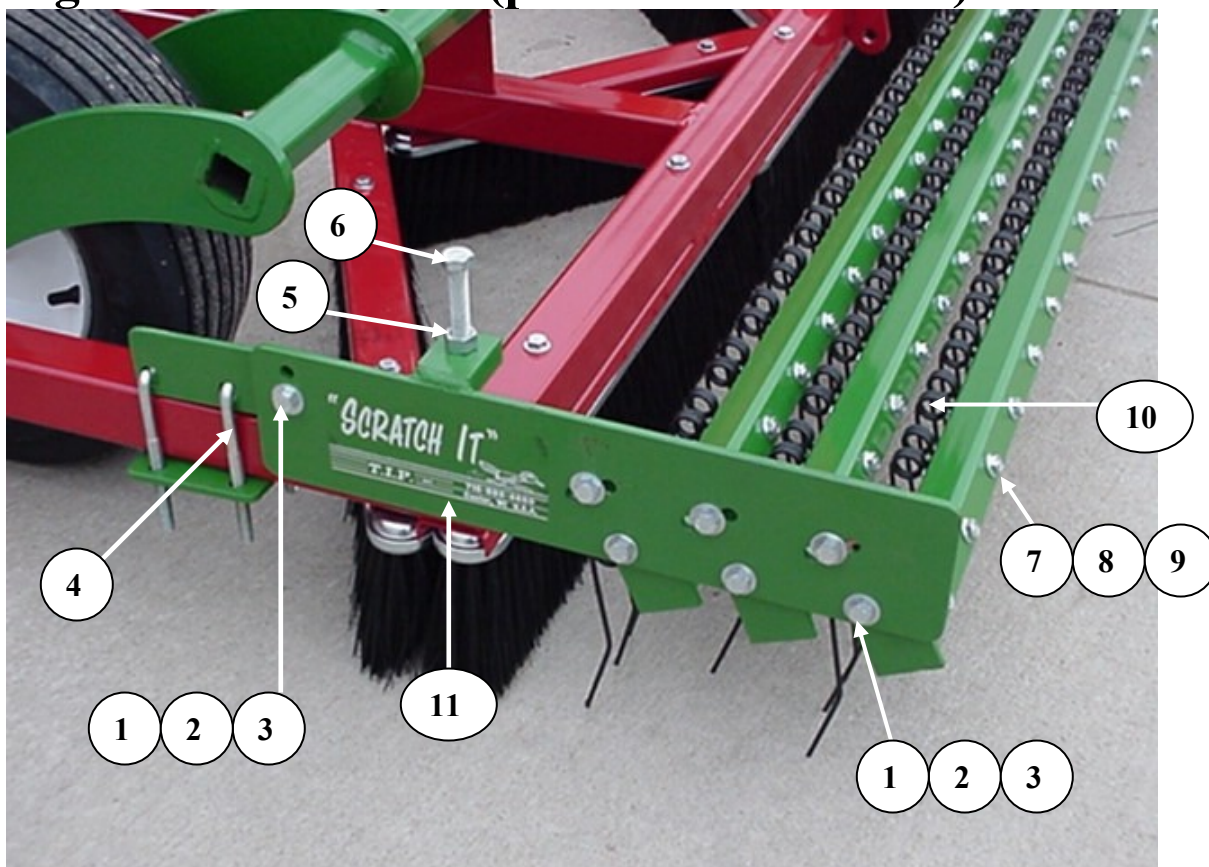
MAINTENANCE:

Grease each wheel daily and check tire pressure.

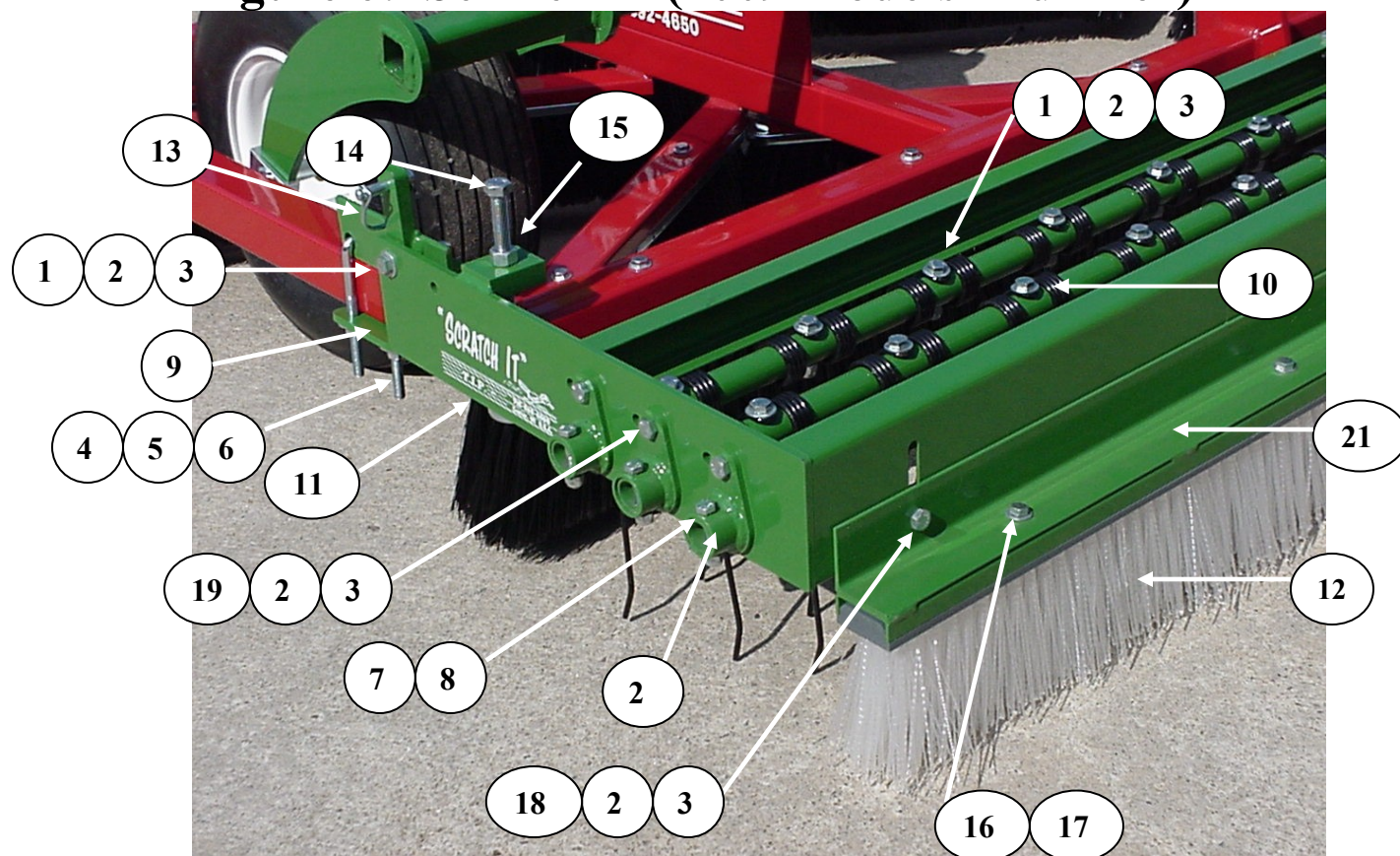
To change tire, block up unit; remove pin #1 and washer #2. Loosen #4 collar, pull axle #3 out. This will allow wheel assembly to be removed from frame. Check bushing and axle pin. To re-assemble do the opposite.

Figure 4: Frame (Groom-It-Plus Option)

Ref	Part#	Description	Qty
1	FN22159	Short Lag Screw	16
2	FN22167	Long Lag Screw	12
3	FN33004	Flat Washer for Lag Screws	28
4	FN26367	Shoulder Screw	4
5	FN13365	3/8 x 3" Bolt	8
6	FN37024	3/8" Nylock Nut	8
7	FN45282	Hitch Pin Clip #6	4
8	FN13005	1/4 x 1" Bolt	2
9	FN36302	1/4" Nut	4
10	TP5017	Transport Pin	2
11	SP104	Decal, Falling Wing Warning	2
12	TP1000	End Plug, Black 2"	4
13	TP50**	Cable Assy. (Call for Details)	2
14	TP5021	Turnbuckle, 4"	2
15	SP103	Groom-It Plus Decal	4
16	MB230246	Polypropylene Brush, 24" Black	4
17	MB230186	Polypropylene Brush, 18" Black	4
18	MB230360	Polypropylene Brush, 36" Black	4
	TB12007322	Polyester Crimped Brush, 18" White/Artificial	4
	TB12007323	Polyester Crimped Brush, 24" White/Artificial	4
	TB12007458	Polyester Crimped Brush, 36" White/Artificial	4

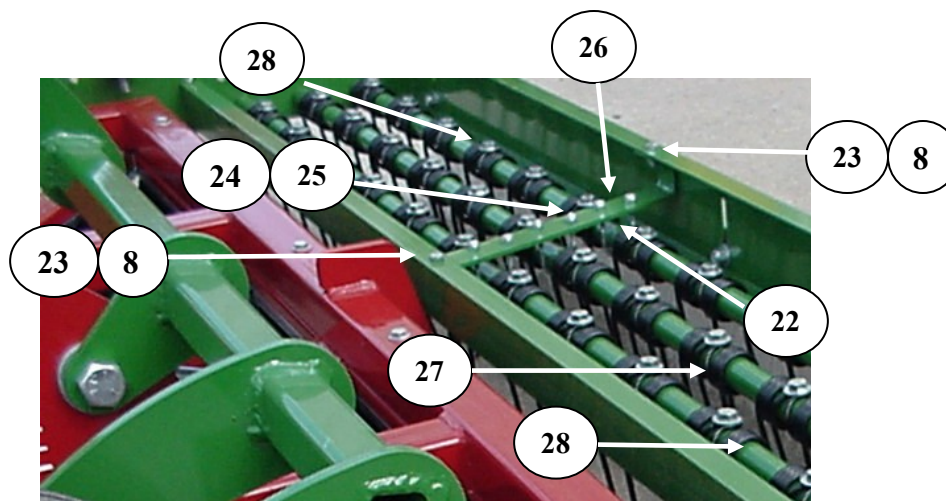
Figure 5: Scratch-It (prior to 2009 model)

Ref	Part#	Description	Qty
1	FN13107	3/8 x 1-1/4" Bolt	14
2	FN33008	3/8" Flat Washer	30
3	FN37024	3/8" Nylock Nut	14
4	MC3060T45	U-Bolt	4
5	FN36310	1/2" Nut	2
6	FN10893	Height Adjustment Bolt	2
7	FN13061	5/16 x 2" Bolt	72
8	FN33006	5/16" Flat Washer	72
9	FN37339	5/16" Flange Nut	72
10	USJD-2K	Rake Tine	72
11	SPSCRATCHIT	Decal, Scratch It	2

Figure 6: Scratch-It (2009 models and after)

Ref	Part#	Description	Qty
1	FN13110	3/8 x 1-3/4" Bolt	41
2	FN33006	5/16" Flat Washer	54
3	FN37024	3/8" Nylock Nut	50
4	MC3060T45	3/8" x 2" x 4-5/8" U-Bolt	4
5	FN33008	3/8" Flat Washer	8
6	FN36306	3/8" Nut	8
7	FN13061	5/16" x 2" Bolt	6
8	FN37021	5/16" Nylock Nut	8
9	TR116	Clamp Plate	2
10	USNI-3	NI-3 Rake Tine	39
11	SPSCRATCHIT	Decal, Scratch It	2
12	TB12007323	Polyester Crimped Brush, 24" White	3
13	FN0120678	1-3/4" x 3/8" Snapper Pin	2
14	FN10893	1/2" x 4-1/2" Height Adjustment Bolt	2
15	FN36310	1/2" Nut	2

Ref	Part#	Description	Qty
16	FN22159	5/16" x 1-1/2" Lag Bolt	6
17	FN33004	1/4" Flat Washer	6
18	FN13103	3/8" x 3/4" Bolt	3
19	FN13110	3/8" x 1" Bolt	6
20	TR2150	Tine Tube Mount	6
21	TR4021	Brush Mount	1



Ref	Part#	Description	Qty
22	FH2190132	1/4" x 1-1/8" x 2-1/4" U- Bolt	3
23	FN36302	5/16" x 1" Bolt	2
24	FN37018	1/4" Nylock Nut	6
25	FN13055	1/4" Nut	6
26	TR2200	Tube Brace	1
27	TR2151	Center Tine Tube	1
28	TR2152	Offset Tine Tube	2

MAIL THIS WARRANTY CARD TODAY

IF IT IS NOT REGISTERED IN THE HOME OFFICE OF
T.I.P. INC.

ANY CLAIM YOU HAVE UNDER THE WARRANTY
WILL NOT BE HONORED....

DON'T DELAY

PLEASE COMPLETE THE WARRANTY REGISTRATION
AND RETURN IMMEDIATELY.

CUT HERE

T.I.P. INC.
1619 COUNTY K
CUSTER, WI 54423
PHONE 715-592-4650 • FAX 715-592-5063

WARRANTY REGISTRATION

NAME: _____

ADDRESS: _____

CITY/STATE/ZIP CODE: _____

DEALER'S NAME: _____

DEALERS ADDRESS: _____

CITY/STATE/ZIP CODE: _____

DATE OF PURCHASE: _____

S/N _____

MODEL# _____

I HAVE READ AND FULLY UNDERSTAND ALL
SAFETY DIRECTIONS AND AGREE TO TRAIN ALL PERSONNEL
OPERATING THIS MACHINE.

SIGNATURE: _____

DATE: _____



1619 County K
Custer, WI 54423

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