

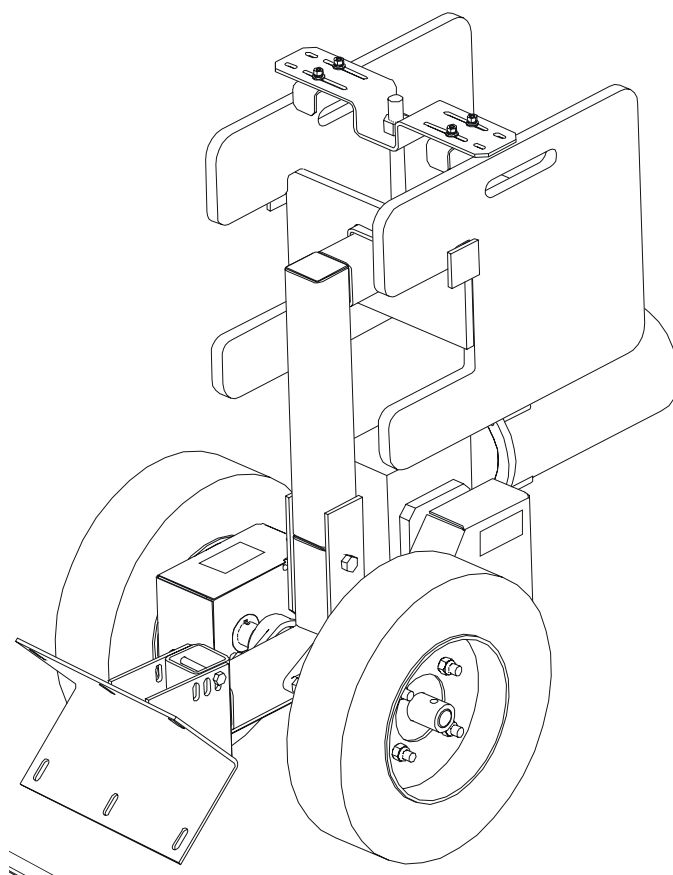
Sweep Tractor Assembly Instructions

PNEG-1058
04/04/03
Rev. No. 0

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04-04-03
Revision: 0

Sweep Tractor Assembly Instructions

Assembly & Installation Manual



PNEG-1058

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Personnel operating or working around this equipment should read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment. Any misuse of the equipment may void the warranty.

SAFETY GUIDELINES

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below.

Please read the manual and pay attention to these sections. Failure to read this manual and it's safety instructions is a misuse of the equipment and may lead to serious injury or death.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



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



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



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

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

NOTE indicates information about the equipment that you should pay special attention to.

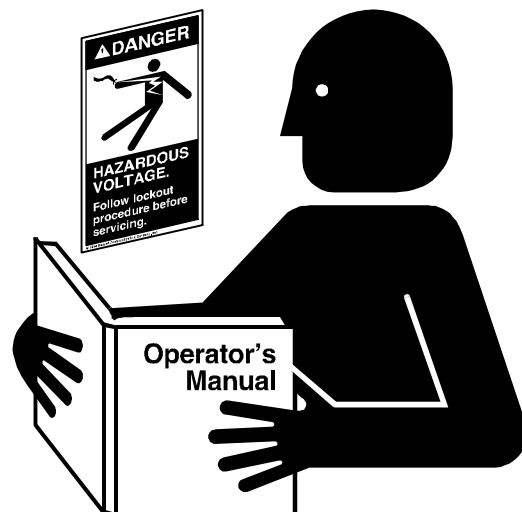
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and safety signs on your equipment. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.



PRACTICE SAFE MAINTENANCE

Understand service procedures before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is in operation. Keep hands, feet, and clothing from rotating belt and idlers.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any build up grease, oil, or debris.



Safety

WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

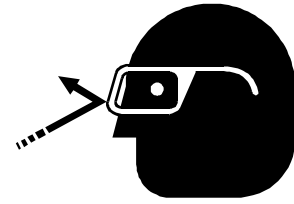
Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

A respirator may be needed to help prevent breathing potentially toxic fumes and dust.

Wear hard hat and steel toe boots to help protect your head and toes from falling debris.

Eye Protection



Gloves



Steel Toe Boots



Respirator



Hard Hat

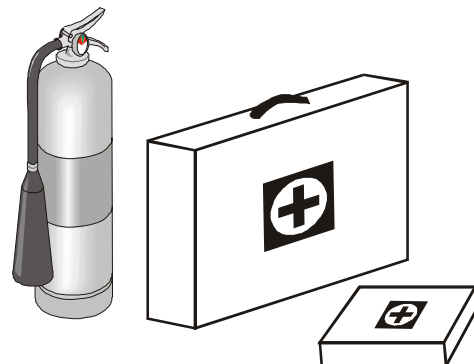


PREPARE FOR EMERGENCIES

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



SAFETY GUIDELINES

1. General Safety Guidelines

- A. **DO NOT** make any alterations to the equipment. Such alterations may produce a very dangerous situation, where **SERIOUS INJURY** or **DEATH** may occur.
- B. This equipment shall be installed in accordance with any regulations or installation codes that are required by law. Authorities having jurisdiction should be consulted before installations are made.
- C. Untrained operators subject themselves and others to **SERIOUS INJURY** or **DEATH**. **NEVER** allow untrained personnel to operate this equipment.
- D. Keep children and other unqualified personnel out of the working area at **ALL** times.
- E. **NEVER** start equipment until **ALL** persons are clear of the work area.
- F. Be sure **ALL** operators are adequately rested and prepared to perform **ALL** functions of operating this equipment.
- G. Keep hair, loose clothing, and shoestrings away from rotating and moving parts. **NEVER** wear loose fitting clothing when working around augers.
- H. **NEVER** allow any person intoxicated or under the influence of alcohol or drugs to operate the equipment.
- I. **NEVER** allow anyone inside a bin, truck, or wagon which is being unloaded by an auger or conveyor. Flowing grain can trap and suffocate in seconds.
- J. Make sure someone is nearby who is aware of the proper shutdown sequence in the event of an accident or emergency.
- K. **NEVER** work alone.
- L. **ALWAYS** think before acting. **NEVER** act impulsively around the equipment.
- M. Make sure **ALL** equipment is locked in position before operating.
- N. Keep hands and feet away from the auger intake and other moving parts.
- O. **NEVER** attempt to assist machinery operation or to remove trash from equipment while in operation.
- P. Use ample overhead lighting after sunset to light the work area.
- Q. **ALWAYS** lockout **ALL** power to the equipment when finished unloading.
- R. Keep area around intake free of obstacles such as electrical cords, blocks, etc. that might trip workers.

Safety

2. Personal Protective Equipment

A. The proper personal protective equipment should be worn at **ALL** times by anyone in the work area.



2-B

B. **ALWAYS** wear safety glasses when in the work area.



2-C

C. The operator should **NEVER** wear jewelry.



2-D, E

D. Loose clothing should not be worn. Any clothing that becomes loosened should be tucked in tightly.

E. Loose or dangling shoe strings should be tucked in.



2-F

F. Long hair should be tied up and/or back.

3. In an Emergency Shutdown the Power Source.

4. Hazards

A. Keep clear of all augers. DO NOT ENTER the bin!

B. If you must enter this bin:

1. Shut off and lock out all power.
2. Use safety harness and safety line.
3. Station another person outside the bin.
4. Avoid the center of the bin.
5. Wear proper breathing equipment or respirator.

C. Failure to heed these warnings will result in serious injury or death.

D. Be cautious of Pinch Points. A *Pinch Point* a narrow area between two surfaces that is likely to trap or catch objects and so is a potential safety hazard.

5. Shields and Guards

A. **ALWAYS** keep **ALL** shields and guards in place during operation.

We will replace any missing shields or guards free of charge!

See (page vi) for more information on our Safety First program.

Safety **1st**

6. Operator Qualifications

- A. The User/Operator must be competent and experienced to operate auger equipment. Anyone who works with or around augers must have good common sense in order to be qualified. These persons must also know and meet all other qualifications, such as:
1. Any person who has not read and/or does not understand all operation and safety procedures is not qualified to operate any auger systems.
 2. Certain regulations apply to personnel operating power machinery. Personnel under the age of 18 years may not operate power machinery, including augers. It is your responsibility, as owner and/or supervisor, to know what these regulations are in your area or situation.
 3. Unqualified or incompetent persons are to remain out of the work area.
 4. O.S.H.A. (Occupational Safety & Health Administration) regulations state: "At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved." (Federal Occupational Safety & Health Standards for Agriculture. Subpart D, Section 19287.57 (a) (6)).

Safety

6. Operator Qualifications (*cont.*)

- B. As a requirement of OSHA, it is necessary for the employer to train the employee in the safe operating and safety procedures for this auger. We included this sign-off sheet for your convenience and personal record keeping. All unqualified persons are to stay out of the work area at all times. It is strongly recommended that another qualified person who knows the shutdown procedure is in the area in the event of an emergency. A person who has not read this manual and understands all operating and safety instructions is not qualified to operate the machine.

DATE	EMPLOYER'S SIGNATURE	EMPLOYEE'S SIGNATURE
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Safety 1st

Our equipment is built to provide many years of dependable service to our customers through durable craftsmanship.

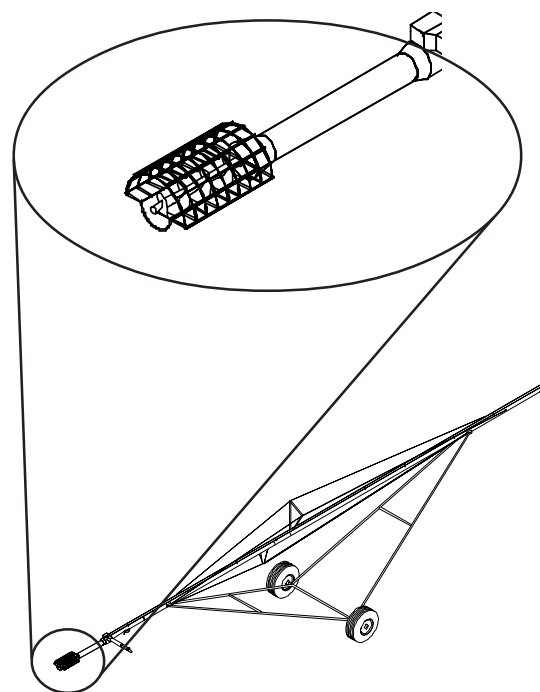
One of the most important aspects of our engineering is **SAFETY**1st design throughout all product lines. At our company - safety is NO ACCIDENT!

That is why we have implemented a **SAFETY**1st program. Should you ever need guards, shields, safety decals or owner/operator manuals, simply contact us or your local dealer, and we will supply you with them **FREE OF CHARGE!**

While it is our main goal for our company to be a world leader in manufacturing, it is always our first priority to keep our customers safe.

If you need any of the above listed safety items or have any safety questions, please contact the manufacturer or your local dealer.

*We replace missing guards and shields
FREE OF CHARGE!*



1. General Information

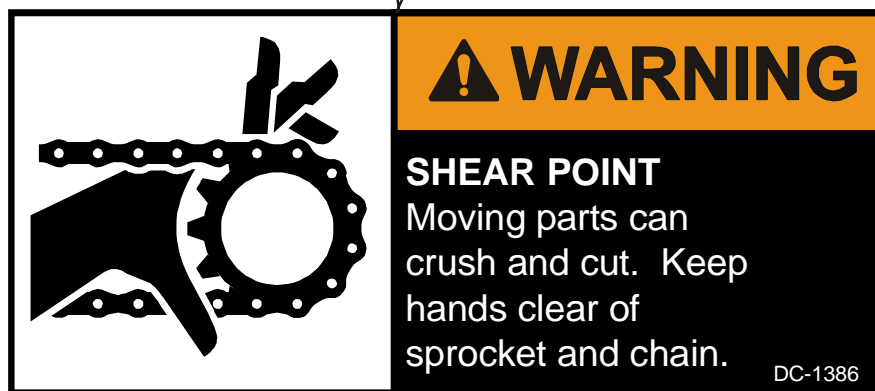
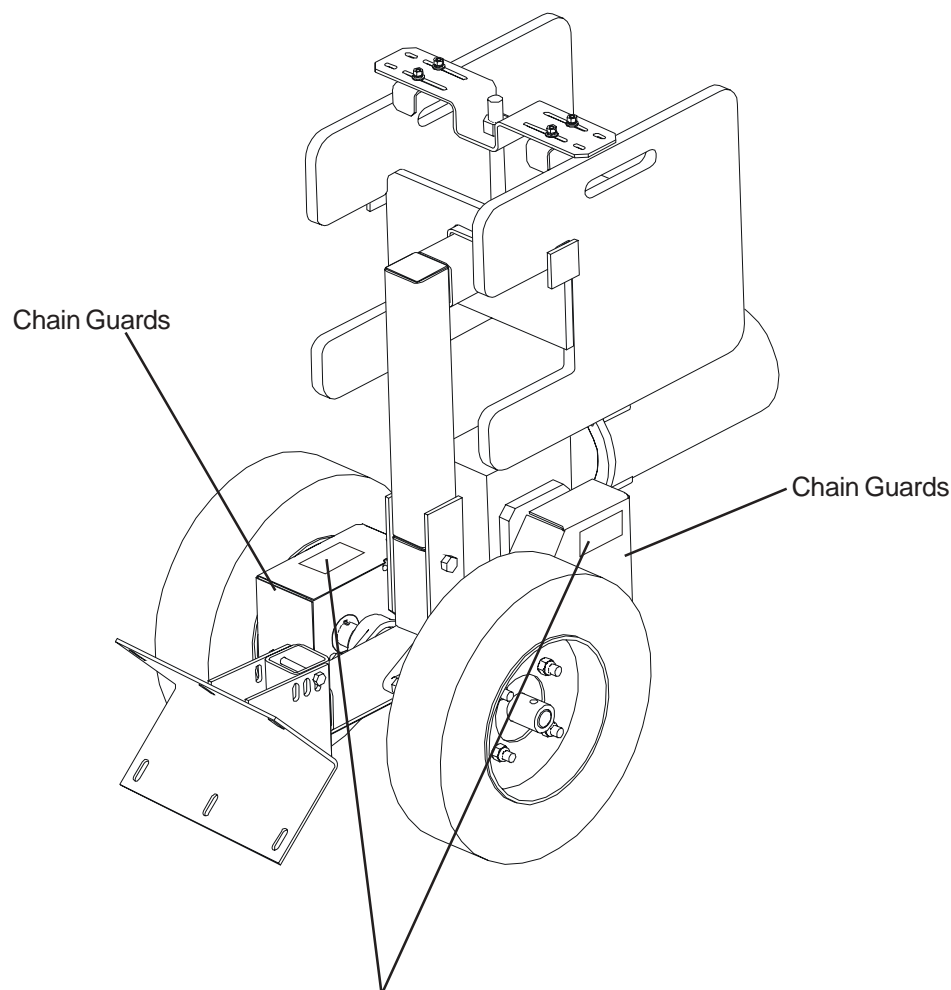
- A. We reserve the right to improve our product whenever possible and practical to do so. We reserve the right to change, improve, and modify products at any time without obligation to make changes, improvements, and modifications on equipment sold previously.
- B. The Sweep Tractor has been designed and manufactured to give years of dependable service. The care and maintenance of this machine will affect the satisfaction and service obtained. By observing the instructions and suggestions we have recommended, the owner should receive competent service for many years. If additional information or assistance should be required, please contact the factory or your local dealer.
- C. **Receiving Merchandise and Filing Claims**
 - 1. When receiving merchandise, it is important to check both the quantity of parts and their descriptions with the packing list enclosed within each package. All claims for freight damage or shortage must be made by the consignee within ten (10) days from the date of the occurrence of freight damage. The consignee should accept the shipment after noting the damage or loss.

For Claims Contact:

**The GSI Group Inc.
1004 East Illinois Street
Assumption, IL 62510
Tele: (217) 226-4421
Fax: (217) 226-4420**

SAFETY DECALS

Check components shown below to insure that the safety decals are in place and in good condition. If a decal cannot be easily read for any reason or has been painted over, replace it immediately. Contact your dealer or the manufacturer to order a replacement decal free of charge.

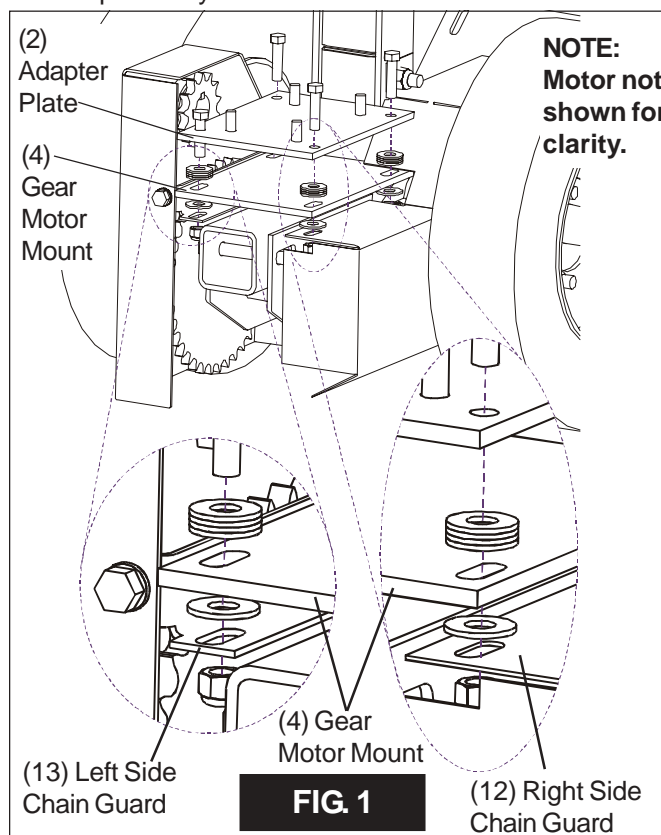


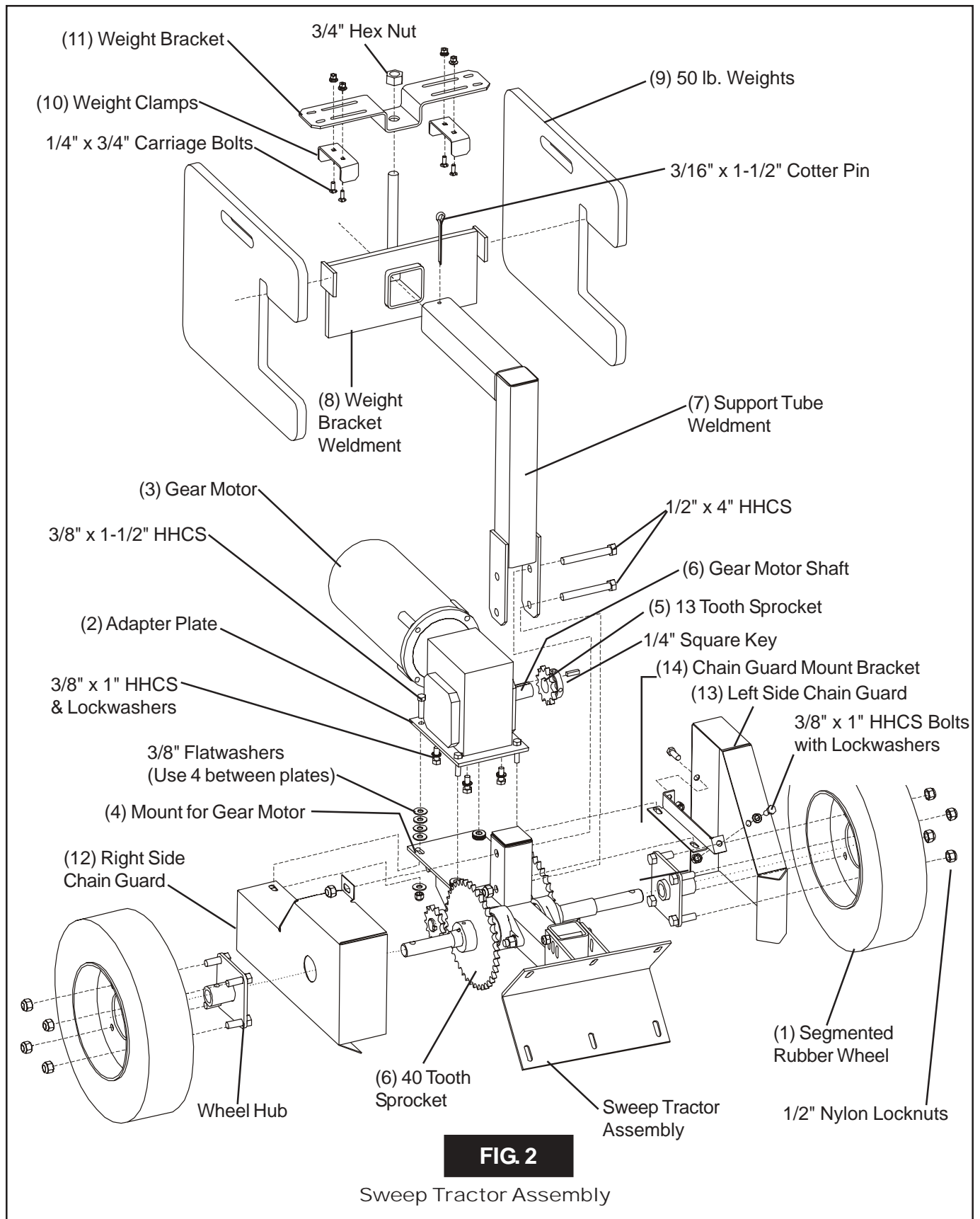
DC-1386 Decals located on outside of chain guards.

SWEEP TRACTOR ASSEMBLY INSTRUCTIONS

A. Sweep Tractor Assembly (See Fig. 2 on page 2)

1. Remove wheel hubs from axle. (Assembled for shipping only.)
2. Bolt the adapter plate (2) to the gear motor (3) using four 3/8" x 1" hex head capscrews with four 3/8" lockwashers.
3. Install right side chain around the right side sprockets.
4. Slide right side chain guard (12) onto the axle.
5. Bolt the adapter plate (2) to the gear motor mount by placing a 3/8" x 1-1/2" through the left side slots in the adapter plate (2), four flat washers, gear motor mount (4), one flat washer, the right side chain guard (12), and finally, a hex nut. Repeat this with the left side slots in the adapter plate (13), but replace the right side chain guard with the left side chain guard mount bracket (14). (See Fig. 1)
6. Attach the other right side chain guard flange & support tube weldment (7) to the sweep tractor assembly using (2) 1/2" x 4" hex head capscrews and nuts.
7. Assemble 13 tooth sprocket (5) to gear motor shaft (6) using a 1/4" key x 1" long. Align 13 tooth sprocket (5) with 40 tooth sprocket (6) before tightening the sprocket setscrews.
8. Install chain around the sprockets. Use slots in gear motor mount to tighten the chain. Once chain is tight, completely tighten bolts that hold gear motor to mount from step 5.
9. Bolt the left side chain guard (13) to the mount bracket (14) using (2) 3/8" x 1" HHCS & lock washers.
10. Replace wheel hubs onto the axle.
11. Assemble segmented rubber wheel (1) to hubs with 1/2" nylon locknuts (four for each wheel.)
12. Slide the weight bracket weldment (8) onto the support tube weldment (7) and secure with a 3/16" x 1-1/2" cotter pin.
13. Place the 50 lb. weights (9) on the weight bracket weldment (8).
14. Loosely attach the weight clamps (10) to the weight bracket (11) using two 1/4" x 3/4" carriage bolts, 1/4" lockwasher, & 1/4" flat washer. Do not tighten yet to allow for adjustment later on.
15. Attach the weight bracket (11) to the weight bracket weldment (8) with a 3/4" hex nut. Tighten the nut so the weight bracket is securely against the top of the 50 lb. weights (9).
16. Slide the weight clamps (10) out against the sides of the 50 lb. weights (9) and tighten to secure the weights in place. (See Fig. 1.)
17. Electric wiring for motor and controls shall be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and a state codes.
18. Run wiring for motor forward to the sweep shield along sweep mount tube. Attach the wiring to the mount sufficiently to keep wiring from contacting sweep tractor wheels.
19. At the center of the bin the wiring for the tractor may either be connected with the sweep flight motor wiring or a separate wire may be run to the outside of the bin. If the tractor wiring is connected to the wiring for the sweep flight motor, then the tractor will turn on and off with the sweep. If a separate wire is run to the outside of the bin, then the tractor can be operated independently.



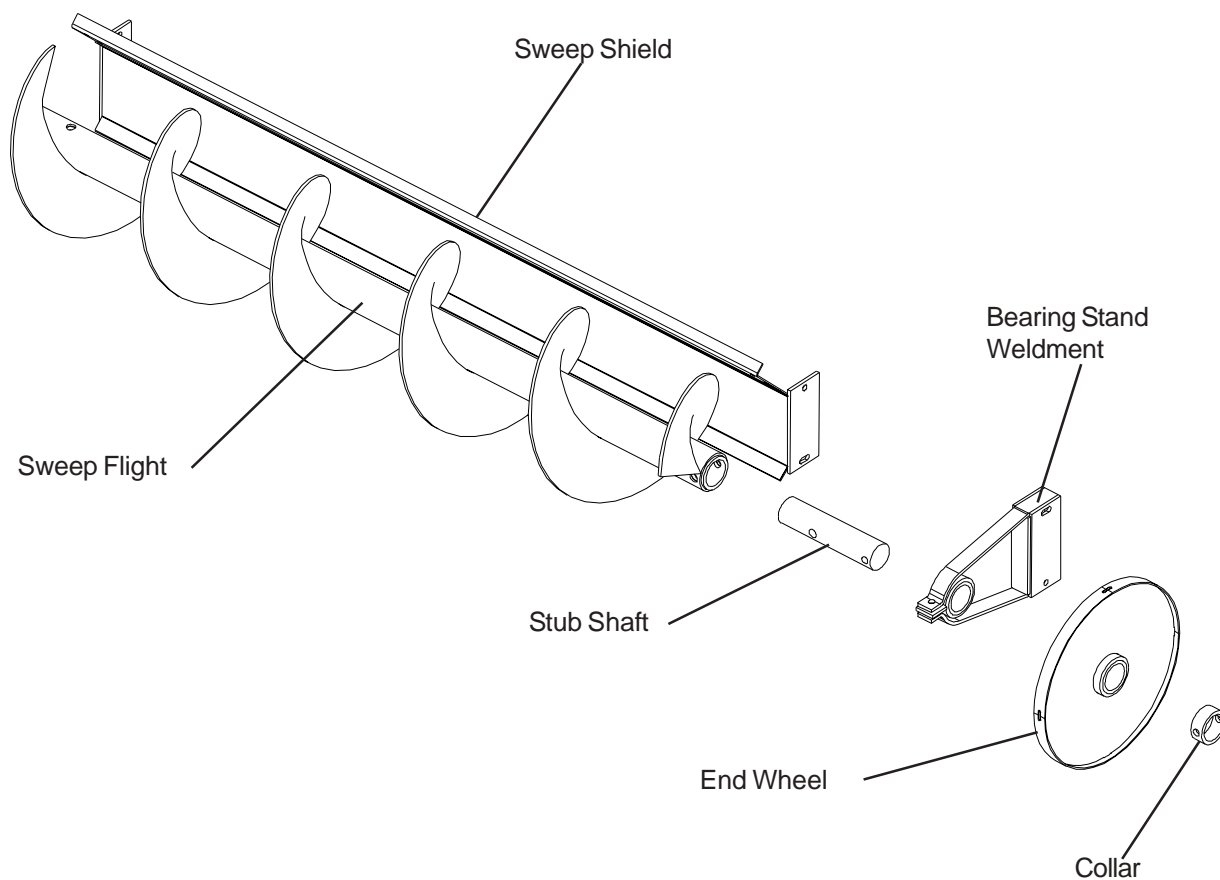


B. End Wheel Assembly

NOTE

If installing sweep tractor to an existing sweep, the current end wheel components must be removed.

1. Connect stub into flighting using a 5/8" x 4" long hex head capscrew and 5/8" nylon locknut.
2. Install bearing stand onto the stub shaft and bolt it to the sweep shield using a 3/8" x 3" hex head capscrew, a 3/8" x 3" long carriage bolt, flatwasher, and nylon locknut.
3. Install the end wheel and collar onto the end of the stub shaft. Lock the collar in place with a 1/2" x 3-1/2" long hex head capscrew and 1/2" nylon locknut.

**FIG. 2**

End Wheel Assembly

C. Sweep Tractor to Shield Assembly

1. Position sweep tractor against the sweep shield approximately 3' from the end wheel.
2. Use the bracket on the sweep tractor to mark the location where the holes need to be drilled into the sweep shield. You may need to adjust the bolts on the sweep tractor bracket to match the same height and angle on the sweep shield.
3. After marking the hole location, drill four (4) 7/16" holes and then attach the sweep tractor to shield using (4) 3/8" x 1" hex head capscrews, (4) flatwashers, and four (4) 3/8" nylon locknuts.
4. Install electric wiring for motor and controls.

▲ CAUTION

All electrical wiring shall be installed by a qualified electrician and must meet the standards set by the National Electric Code and all local and state codes.

5. Run wiring for motor forward to the sweep shield along sweep mount tube. Attach the wiring to the mount sufficiently to keep wiring from contacting sweep tractor wheels.
6. Attach the wiring to the sweep shield and run to the center of the bin.
7. At the center of the bin, the wiring may either be connected with the sweep flight motor or a separate wire may be ran to the outside of the bin. If the wiring is connected to the wiring of the sweep flight motor, then the tractor will turn on and off the sweep. If a separate wire is ran to the outside of the bin, the sweep tractor can operate independently from the sweep.

Adjustment bolts for adjusting the angle and height of the bracket
(3/8" x 1" HHCS with flat washer's Nylon Locknut)

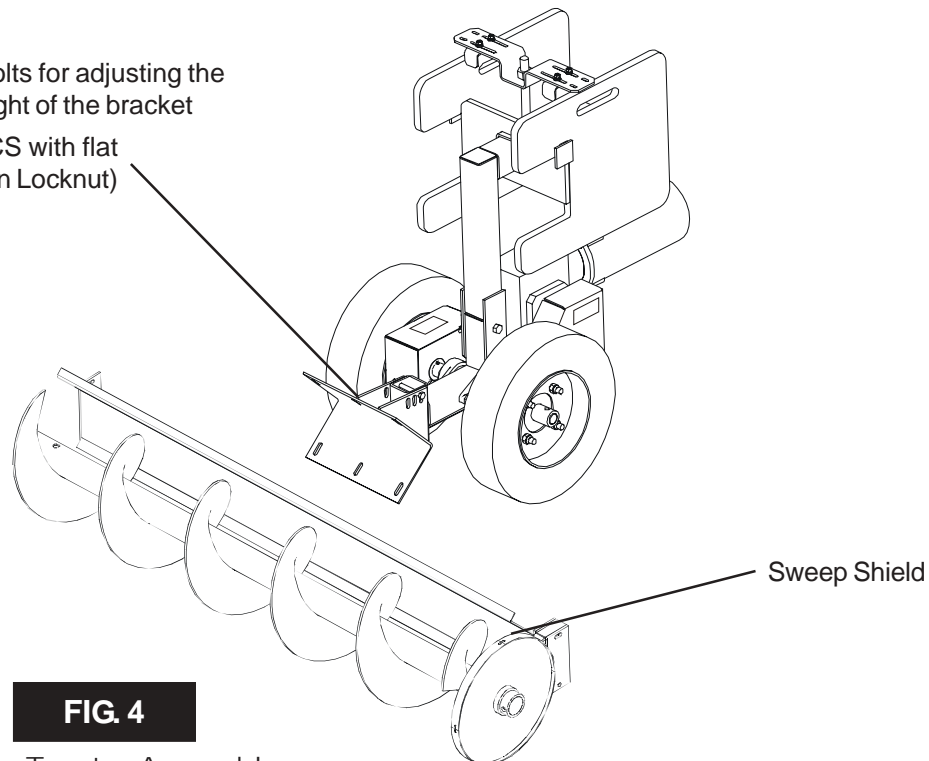


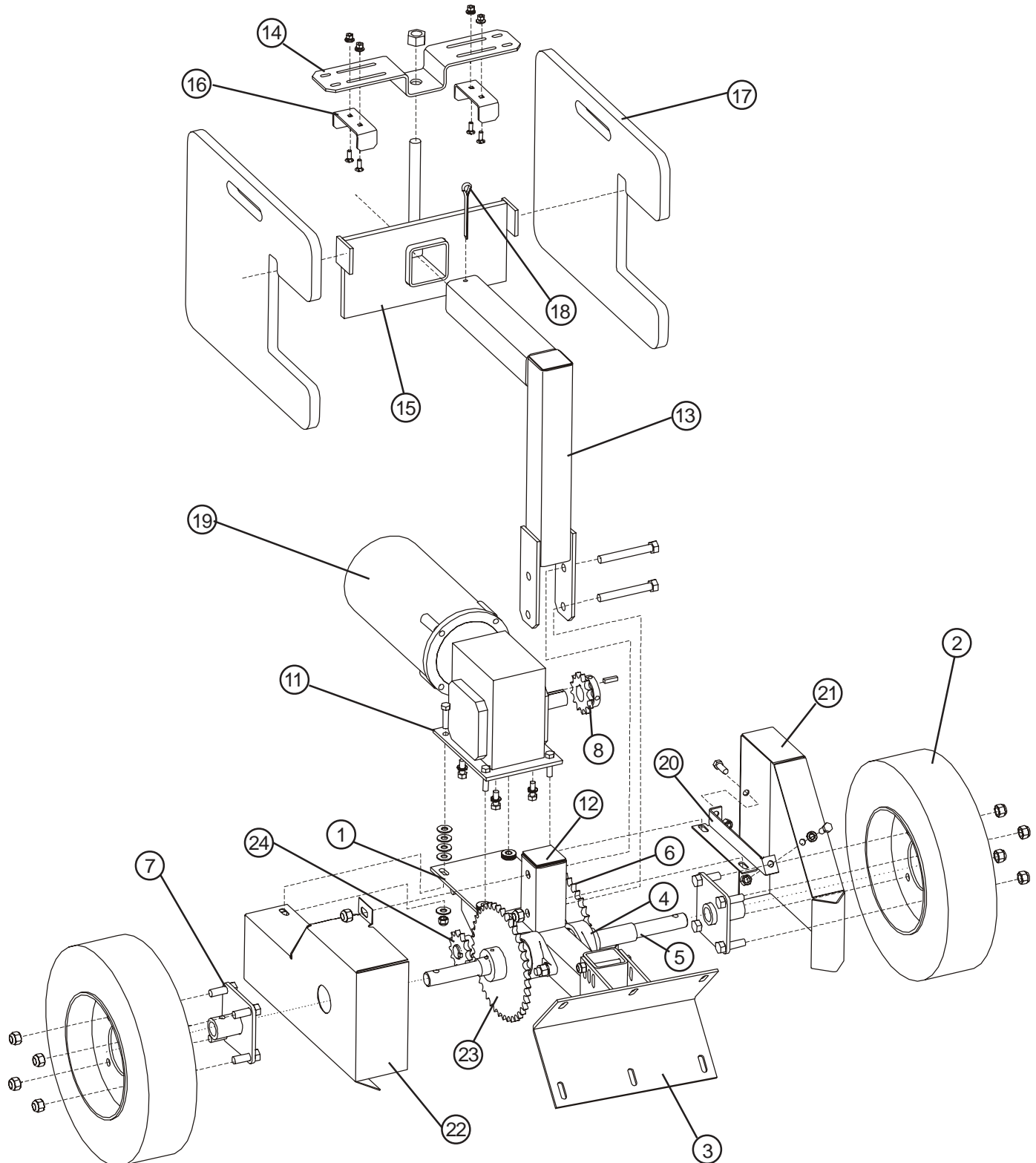
FIG. 4

Shield to Tractor Assembly

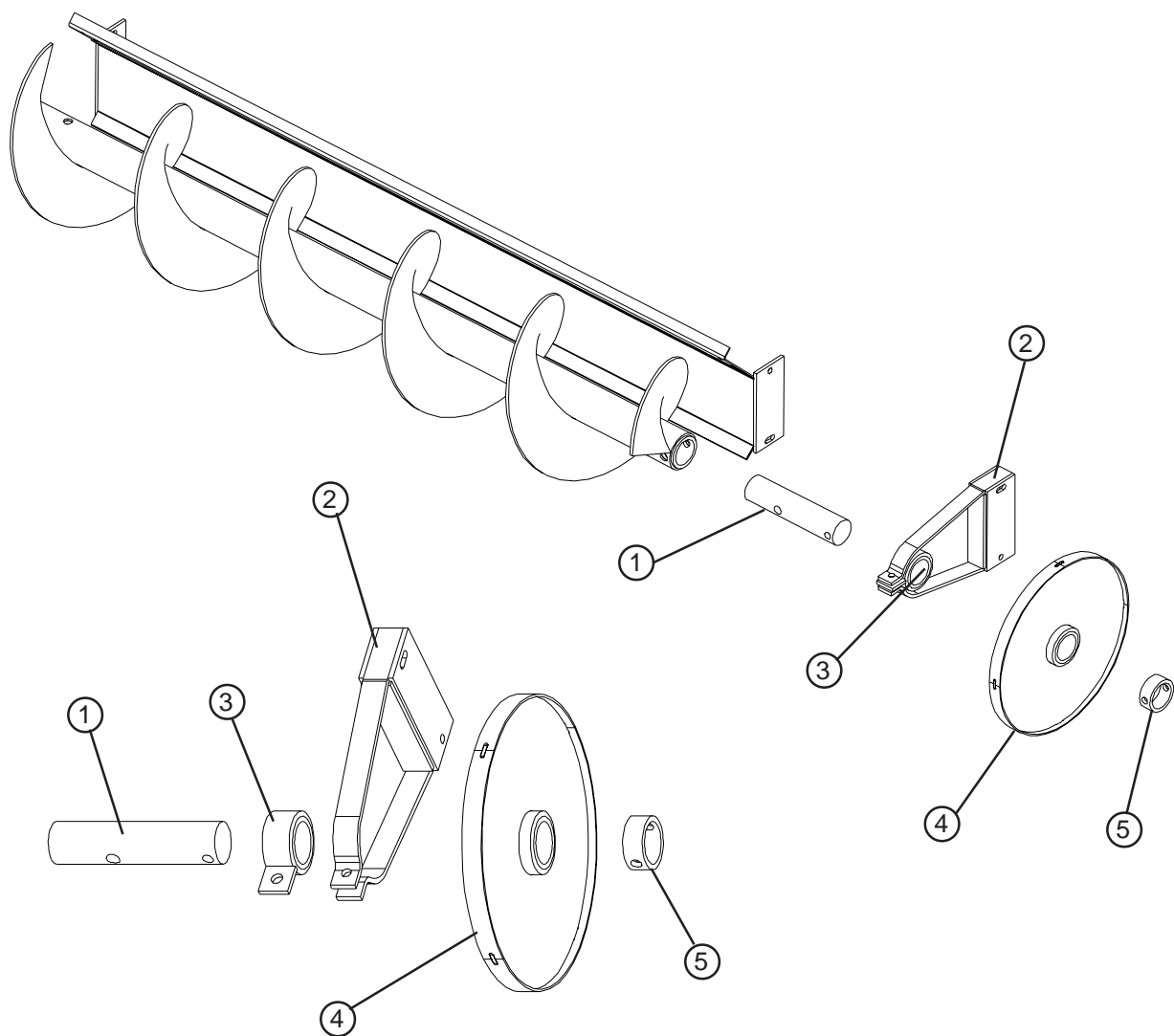
GK4995 - SWEEP TRACTOR PARTS

12" Tractor Drive Parts		
Ref #	Part #	Description
1	GK4967	Mounting Bracket for Gear Motor
2	GK2344	Segmented Rubber Wheel
3	GK4975	Shield Attachment Bracket
4	GK1049	1" Bore Bearing (2-Hole Flange)
5	GK4977	Wheel Shaft
6	GK4979	Sprocket # 50 - 40 Tooth with 1" Bore
7	GK4974	Wheel Hub
8	GK4978	Sprocket # 50 - 13 Tooth with 1-1/8" Bore
NS	GK5490	Chain RC-50 - 50 Pitch w/ Connecting Link
NS	GK4980	Chain RC-50 - 58 Pitch w/ Connecting Link
11	GK4950	Adapter Plate
12	GK4976	Gear Motor Mounting Bracket
13	GK5412	Weight Support Stand
14	GK5416	Weight Clamp Bar
15	GK5417	Weight Bracket Weldment
16	GK5418	Weight Clamp Bracket
17	GK5432	50 lb. Weight Painted
18	S-8312	3/16" x 1-1/2" Zinc Cotter Pin
19	GK5481	Gear Motor (1/2 hp, 3PH, TEFC)-208 - 230/460V
	GK4985	Gear Motor (1/2 hp, 1PH, TEFC)-115/208 - 230V
	GK6386	Gear Motor (1/2 hp, 1PH, X-Proof)-115/208 - 230V
	GK6387	Gear Motor (1/2 hp, 3PH, X-Proof)-208 - 230/460V
	GK6388	Gear Motor (1/2 hp, 3PH, TEFC)-575V
	GK4985	Gear Motor (1/2 HP, single phase TEFC)
20	GK5509	Guard: Chain Mount Bracket
21	GK6373	Tractor Drive Shield
22	GK6374	Tractor Chain Guard
23	GK2356	40 Tooth Sprocket Weldment #50 1-1/4" Bore
24	S-6297	13 Tooth Sprocket Keyed #50 1" Bore

GK4995 - SWEEP TRACTOR PARTS



END WHEEL PARTS



Sweep Tractor End Wheel Part List		
1	GK4952	Stub Shaft for End Wheel
2	GK2172	Bearing Stand Weldment
3	GK2163	Bearing Retainer Weldment w/ Bronze Bushing
4	GK4954	End Wheel
5	GK4951	Collar for End Wheel Stub Shaft

WARRANTY

THE COMPANY WARRANTS ALL PRODUCTS MANUFACTURED TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USAGE AND CONDITIONS FOR A PERIOD OF TWELVE (12) MONTHS AFTER RETAIL SALE TO THE ORIGINAL END USER OF SUCH PRODUCTS. OUR ONLY OBLIGATION IS, AND PURCHASER'S SOLE REMEDY SHALL BE TO REPAIR OR REPLACE, AT THE COMPANY'S OPTION AND EXPENSE, PRODUCTS THAT, IN THE MANUFACTURER'S SOLE JUDGEMENT, CONTAIN A MATERIAL DEFECT DUE TO MATERIALS OR WORKMANSHIP. ALL DELIVERY AND SHIPMENT CHARGES TO AND FROM THE FACTORY WILL BE PURCHASER'S RESPONSIBILITY. EXPENSES INCURRED BY OR ON BEHALF OF THE PURCHASER WITHOUT PRIOR WRITTEN AUTHORIZATION FROM AN AUTHORIZED EMPLOYEE OF THE COMPANY SHALL BE THE SOLE RESPONSIBILITY OF THE PURCHASER.

EXCEPT FOR THE ABOVE EXPRESS LIMITED WARRANTIES, THE COMPANY MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH (i) PRODUCT MANUFACTURED OR SOLD BY THE COMPANY OR (ii) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF THE COMPANY REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCT OR PRODUCTS.

IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOSS OF ANTICIPATED PROFITS OR BENEFITS. PURCHASER'S SOLE AND EXCLUSIVE REMEDY SHALL BE LIMITED TO THAT STATED ABOVE, WHICH SHALL NOT EXCEED THE AMOUNT PAID FOR THE PRODUCT PURCHASED. THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER. WE SHALL HAVE NO OBLIGATION OR RESPONSIBILITY FOR ANY REPRESENTATIVE OR WARRANTIES MADE BY OR ON BEHALF OF ANY DEALER, AGENT OR DISTRIBUTOR OF THE COMPANY.

THE COMPANY ASSUMES NO RESPONSIBILITY FOR FIELD MODIFICATIONS. MODIFICATIONS TO THE PRODUCT NOT SPECIFICALLY COVERED BY THE CONTENTS OF THIS MANUAL WILL NULLIFY ANY PRODUCT WARRANTY THAT MIGHT HAVE BEEN OTHERWISE AVAILABLE. THE USE OF OUR EQUIPMENT TO HANDLE MATERIALS OTHER THAN FREE FLOWING, NONABRASIVE AND DRY MATERIALS, AS INTENDED, WILL RESULT IN THE VOIDING OF THIS LIMITED WARRANTY.

THE FOREGOING WARRANTY SHALL NOT COVER PRODUCTS OR PARTS WHICH HAVE BEEN DAMAGED BY NEGLIGENT USE, MISUSE, ALTERATION, OR ACCIDENT. ANY NEGLIGENT USE, MISUSE, ALTERATION, OR DAMAGE DUE TO ACCIDENT, AS DETERMINED BY A COMPANY REPRESENTATIVE, MAY VOID THE WARRANTY. THIS WARRANTY COVERS ONLY PRODUCTS MANUFACTURED BY THE COMPANY. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. WE RESERVE THE RIGHT TO MAKE DESIGN OR SPECIFICATION CHANGES AT ANY TIME, BEARING NO RESPONSIBILITY TO MAKE SIMILAR DESIGN OR SPECIFICATION CHANGES ON PREVIOUSLY SOLD MERCHANDISE.

PRIOR TO INSTALLATION, PURCHASER HAS THE RESPONSIBILITY TO RESEARCH AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES WHICH MAY APPLY TO THE LOCATION AND INSTALLATION.

07/21/98

This Equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installation occurs.



1004 East Illinois Street
Assumption, IL 62510
217-226-4421 Phone
