WALKER

Two-Stage Snow Blowers Operator's Manual

Safety, Assembly, Operating, and Maintenance Instructions

42" Model

P/N: 6670-1
S/N: 21210627 and up

50" Model

P/N: 6670-20
S/N: 21210627 and up

Please Read and Save These Instructions
For Safety, Read All Safety and Operation Instructions Prior to Operating Machine

Effective Date: 08.01.14

Foreword

Thank you...for purchasing a Walker snowblower. Every effort has been made to provide you with the most reliable product on the market, and we are sure you will be among our many satisfied customers. It for any reason this product does not perform to you expectations, please contact us at (970) 221-5614. Every customer is important to us. Your satisfaction is our goal.

Please... read this manual thoroughly! This manual is to be used in conjunction with this mower owner's manual and the engine manufacturer's manual for the specific engine on the mower model you are using. Before you operate your new snowblower, please read this entire manual.

Some of the information is crucial for proper operation and maintenance of this product – it will help protect your investment and ensure that the snowblower performs to your satisfaction. Some of the information is important to your safety and must be read and understood to help prevent possible injury to your operator or others. If anything in this manual is confusing or hard to understand, please call your service department, at (970) 221-5614, for clarification before operating or servicing this product.

This manual covers the Model 6670-1 & 6671-20 Snowblowers.

All shields and guards must be in place for the proper and safe operation of these snowblowers. Where they are shown removed in this manual, it is for illustration purposes only. **Do not operate this product unless all shields and guards are in place.**

Walker Mfg. Co. is continually striving to improve the design and performance of its products. We reserve the right to make changes in specifications and design without thereby incurring any obligation relative to previously manufactured products.

Sincerely
WALKER MANUFACTURING COMPANY

Bob Walker, President

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INTRODUCTION

TO THE PURCHASER

All products are designed to give safe, dependable service if they are operated and maintained according to instructions. **Read and understand this manual before operation.**

This manual has been prepared to assist the owner and operators in the safe operation and suitable maintenance of the equipments. The information was applicable to products at the time of manufacture and does not include modifications made afterwards.

Read and understand this operator's manual before attempting to put an equipment into service. Familiarize yourself with the operating instructions and all the safety recommendations contained in this manual and those labeled on the equipments and on the tractor. Follow the safety recommendations and make sure that those with whom you work follow them.

Illustrations

The illustrations may not necessarily reproduce the full detail and the exact shape of the parts or depict the actual models, but are intended for reference only.

Direction Reference

All reference to right and left, forward or rearward, are from the operator's seat, facing the steering wheel.

To assist your dealer in handling your needs, please record hereafter the model number and serial number of your equipment and tractor. It is also advisable to supply them to your insurance company. It will be helpful in the event that an equipment or tractor is lost or stolen.

TRACTOR IMPLEMENT

MODEL: _____

SERIAL NUMBER: _____

DATE OF PURCHASE: _____

DEALER NAME: _____

SAFETY PRECAUTIONS

SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.

DANGER : Indicates an immediately 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.

IMPORTANT : Indicates that equipment or property damage could result if instructions are not followed.

NOTE : Gives helpful information.

All products are designed to give safe, dependable service if they are operated and maintained according to instructions. **Read and understand this manual before operation**. It is the owner's responsibility to be certain anyone operating this product reads this manual, and all other applicable manuals, to become familiar with this equipment and all safety precautions. Failure to do so could result in serious personal injury or equipment damage. If you have any questions, consult your dealer.

BEFORE OPERATION

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are generally attracted to machines and the work being done. Never assume children will remain where you last saw them.

1. Keep children out of the operating area and under the watchful eye of another responsible adult.
2. Be alert and turn machine off if children enter the work area.
3. Before and when backing, look behind for small children.
4. Never carry children while operating the machine. They may fall off and be seriously injured or interfere with the safe operation of the machine.
5. Never allow children to play on the machine or attachment even when they are turned off.
6. Never allow children to operate the machine even under adult supervision.
7. Use extra care when approaching blind corners, shrubs, trees, or other obstructions that might hide children from sight.

NOTICE

A safe operator is the best assurance against accidents. All operators, no matter how experienced they may be, should read this operator's manual and all other related manuals before attempting to operate an equipment. Please read the following section and pay particular attention to all safety recommendations contained in this manual and those labeled on the equipment and on the tractor.

THE SNOWBLOWER

Before Operation

1. Read and understand this operator's manual and tractor operator's manual. Know how to operate all controls and how to stop the unit and disengage the controls quickly.

2. Never wear loose, torn, or bulky clothing around the tractor and the snowblower. It may catch on moving parts or controls, leading to the risk of accident.

3. Before and during the snow season, thoroughly inspect the area where the equipment is to be used and remove all objects that may be thrown or cause damage to the equipment.

4. Set transmission to neutral and disengage clutch and shift into neutral before starting the engine.

5. Do not operate equipment in wintertime without wearing adequate winter garments.

6. Never attempt to make any adjustments while engine is running. Read this manual carefully to acquaint yourself with the equipment as well as the tractor operator's manual. Working with unfamiliar equipment can lead to accidents. Be thoroughly familiar with the controls and proper use of the equipment.

7. Replace all missing, illegible, or damaged safety and warning decals. See list of decals in the operator's manual.

8. Do not modify or alter this equipment or any of its components, or any equipment function without first consulting your dealer.

9. Keep safety decals clean of dirt and grime.

10. Use of tire chains and rear counterweights is recommended. Weights provide the necessary balance to improve stability, traction and steering. Use only those recommended by your dealer.

SNOWBLOWER OPERATION

1. In case of a belt-driven equipment, make sure drive belt is routed properly before operation.
2. Before leaving the tractor unattended, take all possible precautions. Park the tractor/snowblower on level ground, place the transmission in neutral, set the parking brake, disengage the driving system , lower the equipment to the ground, place all levers in neutral, shut off the engine and remove the ignition key.
3. Before starting the snowblower, remove any ice that has accumulated in the auger/fan.
4. Watch carefully for foreign objects that could enter the blower while operating.
5. Be sure the clutch switch/lever is in OFF position before starting engine.
6. Do not put hands or feet near rotation parts. Keep clear of discharge opening at all times.
7. Exercise extreme caution when operating on or crossing a gravel drive, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
8. Adjust collector housing height to clear gravel or crushed rock surface.
9. Park the tractor/snowblower on level ground, place the transmission in neutral, set the parking brake, disengage the driving system , lower the equipment to the ground, shut off the engine, remove the ignition key and allow the rotating parts to stop BEFORE unclogging the collector/fan housing or chute, and making any repairs, adjustments or inspections. Use only a 36" long piece of wood to unclog blower.
10. If the snowblower starts to vibrate abnormally, stop the engine immediately and check for cause. Excessive vibration is generally a sign of trouble.
11. Do not run the engine indoors except when starting engine and transporting attachment in or out of building. Carbon monoxide gas is colorless, odorless and deadly.
12. Do not attempt to operate on steep slopes.
13. Never operate snowblower without guards, and other safety protective devices in place.
14. Never operate snowblower near glass enclosures, automobiles, window wells, embankments, etc., without proper adjustment of snow discharge angle.
15. Never operate machine at high transport speeds on a slippery surface.
16. Use extra caution when backing up.
17. Do not direct discharge at bystanders or animals. Ejected objects may cause injury.
18. Disengage power to auger/fan when transporting or when not in use.
19. Never operate the snowblower without good visibility and lighting.
20. Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable noises.

THE TRACTOR

General Information

1. Read the operator's manual carefully before using tractor. Lack of operating knowledge can lead to accidents.
2. Do not permit anyone but the operator to ride on the tractor. There is no safe place for extra riders.

Operating the Tractor

1. Never run the tractor engine in a closed building without adequate ventilation, as the exhaust fumes are very dangerous.
2. Never allow an open flame near the fuel tank or battery.
3. Make sure the belt shield is installed when using a belt-driven equipment and always replace the belt shield if damaged.
4. Park the tractor/snowblower on level ground, place the transmission in neutral, set the parking brake, disengage the driving system , lower the equipment to the ground, place all levers including auxiliary control levers in neutral, shut off the engine and remove the ignition key BEFORE leaving the tractor.
5. Never park the tractor on a steep slope.
6. Do not attempt to operate on steep slopes.
7. Use of tire chains and rear counterweights for better traction and stability is recommended.
8. Always drive the tractor at speeds compatible with safety, especially when operating over rough ground, crossing ditches, or when turning.
9. Handle fuel with care as it is highly flammable.
10. Use approved fuel container.
11. Never add fuel to a running engine or a hot engine.
12. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors. Replace fuel cap securely and wipe up spilled fuel.
13. Never allow anyone to operate the snowblower until they are thoroughly familiar with basic tractor and snowblower operation.
14. Make sure the tractor is counterweighted as recommended by your dealer. Weights provide the necessary balance to improve stability, traction and steering.
15. Always make sure all snowblower components are properly installed and securely fastened BEFORE operation.

During Operation

1. Do not allow anyone to ride on the tractor/snowblower at any time. There is no safe place for passengers on this equipment. The operator MUST sit in the tractor seat.
2. Eye and hearing protection is recommended when operating the snowblower.
3. Operate only during daylight hours, or when the area is well lit with bright artificial light.
4. Park the tractor/snowblower on level ground, place the transmission in neutral, set the parking brake, disengage the driving system , lower the equipment to the ground, place all levers including auxiliary control levers in neutral, shut off the engine and remove the ignition key BEFORE leaving the operator's seat.
5. Inspect the snowblower after striking any foreign object to assure that all snowblower parts are safe and secure and not damaged.

MAINTENANCE

ALWAYS USE GENUINE PARTS WHEN REPLACEMENT PARTS ARE REQUIRED

1. Park the tractor/snowblower on level ground, place the transmission in neutral, set the parking brake, disengage the driving system , lower the equipment to the ground, place all levers including auxiliary control levers in neutral, shut off the engine and remove the ignition key and allow the rotating parts to stop BEFORE making any snowblower adjustments.
2. To avoid injury, do not adjust, unclog or service the snowblower with the tractor engine running. Making sure rotating components have completely stopped before leaving the operator's seat.
3. Keep the tractor/snowblower clean. Snow and ice build-up can lead to malfunction or personal injury from thawing and refreezing in garage.
4. Always wear eye protection when cleaning or servicing the snowblower.
5. Securely support tractor or any machine elements with stands or suitable blocking before working underneath. Do not rely on hydraulically supported devices for your safety. They can settle suddenly, leak down, or be accidentally lowered.
6. Make sure all shields and guards are securely in place following all service, cleaning, or repair work.
7. Do not modify or alter this equipment or any of its components or operating functions. If you have questions concerning modifications, consult with your dealer.

TRANSPORT

1. If the tractor/equipment is to be driven on public roads, it must be equipped with an SMV (Slow Moving Vehicle) sign. Check local traffic codes that may apply to unit usage on public roads and highways in your area.
2. Be alert for all other traffic when driving the tractor/equipment on public roads or highways.

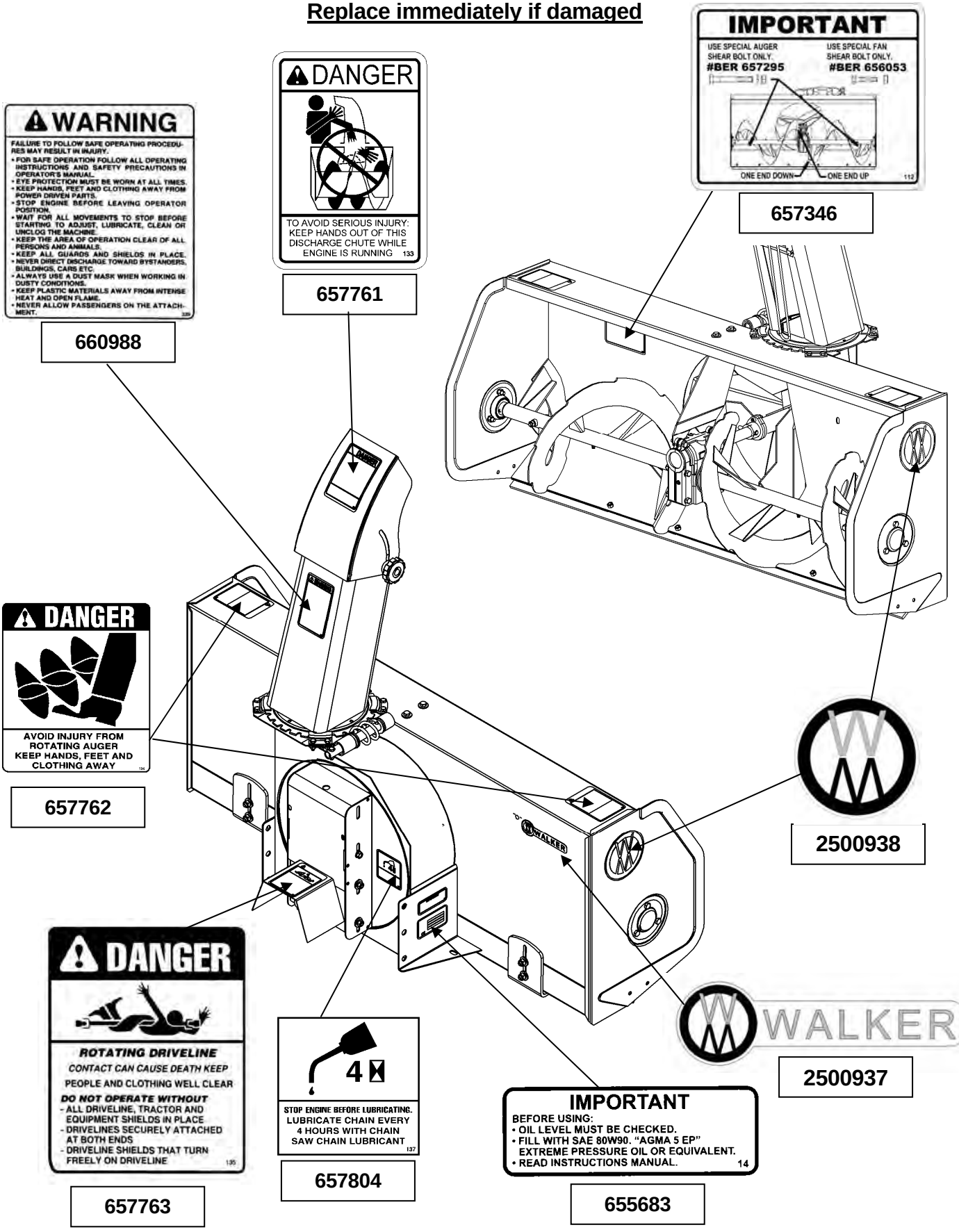
STORAGE

Before storing the snowblower, certain pre-cautions should be taken to protect it from deterioration.

1. Clean the snowblower thoroughly.
2. Make all the necessary repairs.
3. Replace all safety signs that are damaged, lost, or otherwise become illegible. If a part to be replaced has a sign on it, obtain a new safety sign from your dealer and install it in the same place as on the removed part.
4. Repaint all parts from which paint has worn or peeled.
5. Lubricate the snowblower as instructed under **"Lubrication"** section.
6. When the snowblower is dry, oil all moving parts. Apply oil liberally to all surfaces to protect against rust.
7. Store in a dry place.

DECALS

Replace immediately if damaged



HITCH INSTALLATION – TRACTOR SIDE

Before installing this hitch make sure engine is off and parking brake is set.

Attaching Quick Hitch to Tractor

1. Lightly grease the deck support arm shaft (fig.1, item 1) on the tractor.
2. Engage adaptor frame tube sockets (fig.1, item 2) onto the tractor support arms (fig.1, item 1) and slide on as shown in figure 2. Continue to slide on until you can install a hitch pin (fig.3, item 1) through the hole in each end of the support arm shafts.

IMPORTANT: If tractor body needs to be raised, the PTO shield must be in closed or down position and the equipment must be in the lowered position. The only time the PTO shield needs to be open or raised is when connecting or disconnecting the driveline for the snowblower or the rotary broom.

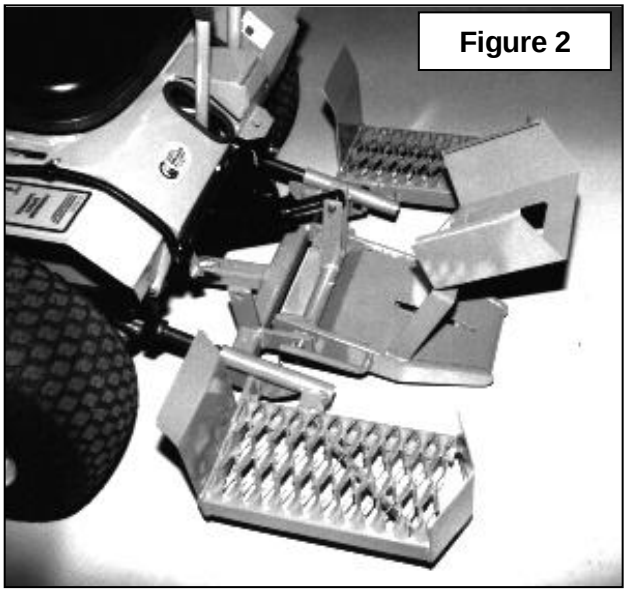


Figure 2

Adjustment

Loosen the 3/4" jam nut (fig.4, item 1) or (fig.1, item 3). Adjust the 3/4" hexagon bolt (fig.4, item 2) until it contacts the cross-member of the tractor frame, and securely tighten the 3/4" nut to prevent the bolt from moving.

IMPORTANT:This adjustment is needed only once if the same tractor and adaptor are used together. If you plan to mix tractors and adaptors, this adjustment will be required each time you mount an equipment adaptor. Wiring

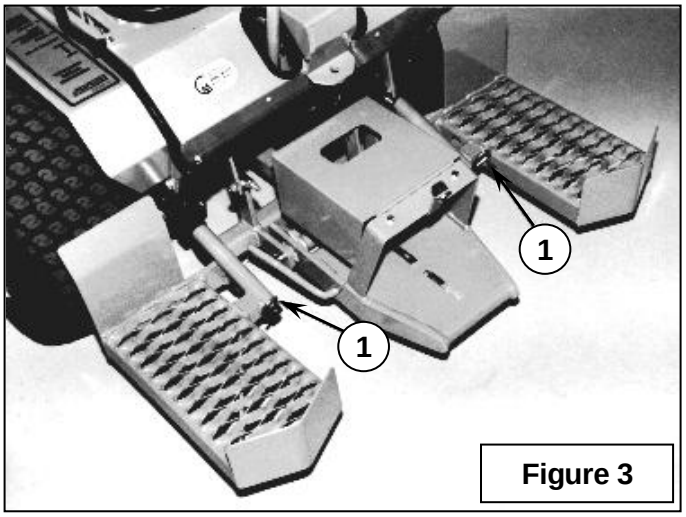


Figure 3

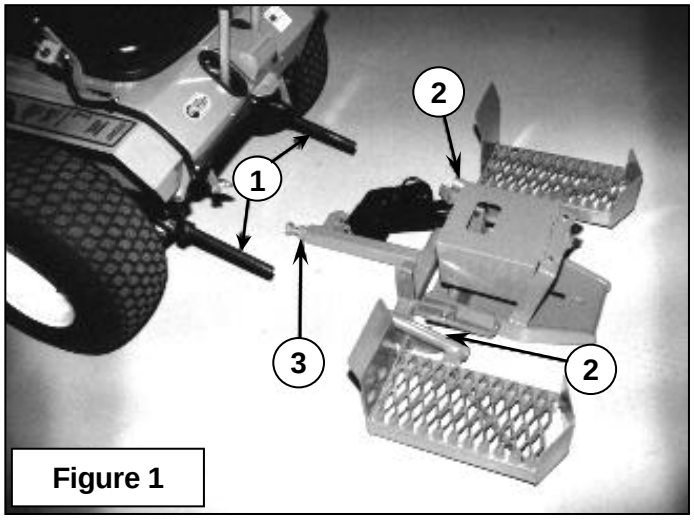


Figure 1

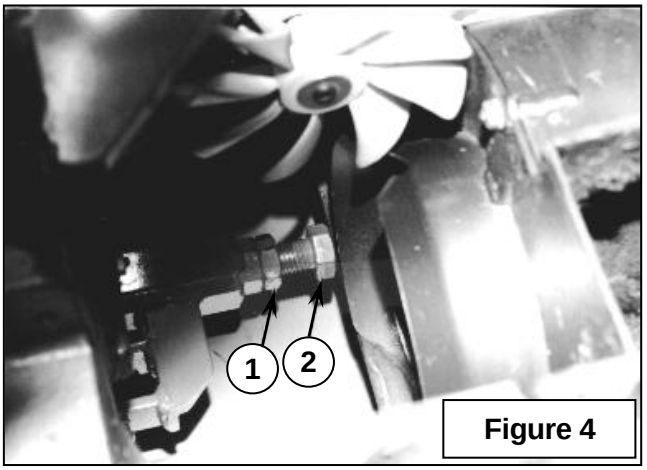


Figure 4

3. **Figure 5:** Drill five 13/64” (5 mm) dia. holes in the tractor: two in the forward speed control arm and three in the body as.
4. **Figure 6:** Attach the toggle switch mounting bracket (item 1) on the forward speed control arm using two 10—24 x 1/2” bolts and kept nut. At this time, you need to connect the green ground wire from the wiring harness to a bolt of the switch mounting bracket.
5. **Figure 6:** Install the wiring harness to the tractor body as shown using three wiring clamps (item 2), three 10— 24 x 3/8” bolts and kept nuts.
6. Attach the toggle switch to the mounting bracket, placing the switch terminals toward the front of the tractor.
7. Connect the harness red wire to the free connector of the PTO clutch switch red wire.
8. Complete the wiring by connecting the wiring harness to the toggle switch and to the actuator motor.
9. **Figure 7:** Check wiring diagram and correct if necessary.

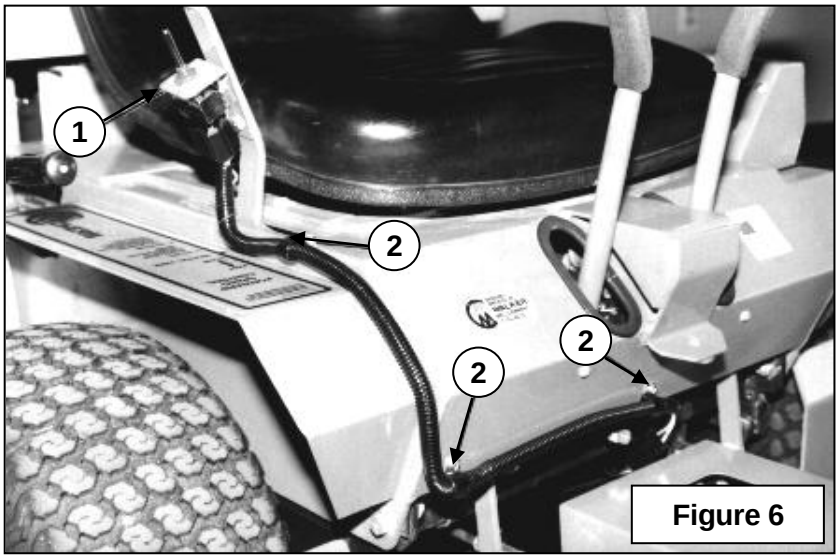


Figure 6

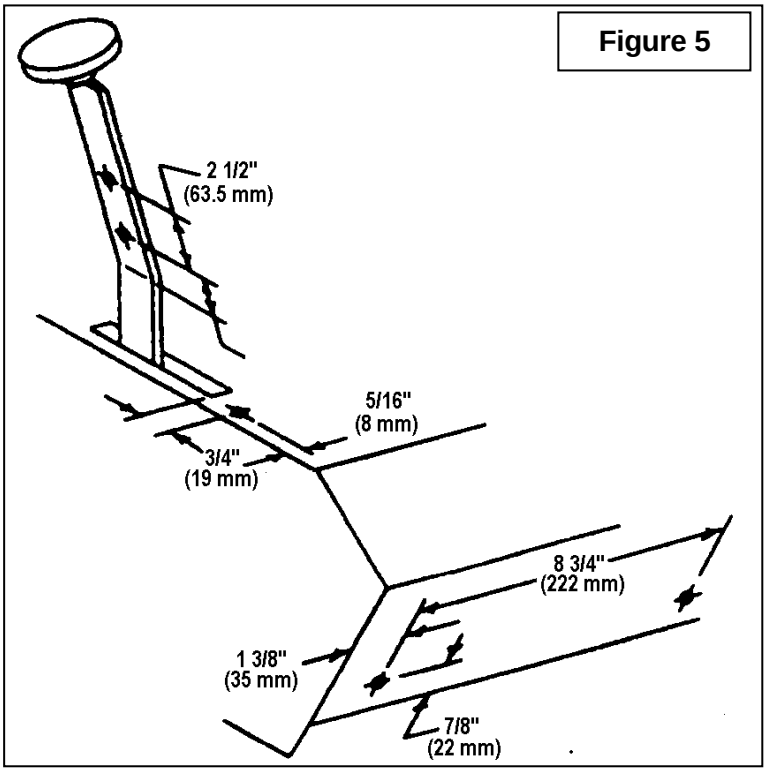


Figure 5

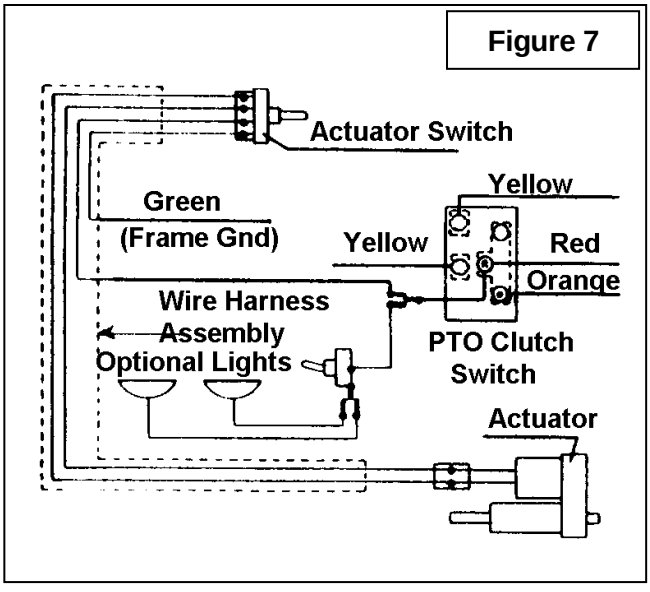


Figure 7

ASSEMBLY

SNOWBLOWER ASSEMBLY

The snowblower is assembled at the factory, however snowblower kits must be assembled. Use the present manual and lay out all parts for assembly. Separate bolts and nuts into various sizes. After assembly, torque all the bolts according to the Torque Specification Table enclosed at the end of the manual. To assemble, place snowblower on a flat and leveled surface, the auger facing the ground.

Snowblower Preparation

(Figure 8)

1. Install the hand guard (item 1) on the chute, with the top portion inside the chute and the bottom section outside the chute base ring. Place two 1/4" x 3/4" bolts with the head on the outside of the chute, through the chute then through the hand guard and secure with a flat washer, lockwasher and nut. Tighten securely.

2. Remove the rotation support (item 2) from the chute base lip and discard the bolt.

3. Place the plastic anti-friction ring (item 3) over the chute base (placing marker on upper side and towards center of fan housing). Only one position provides a perfect fit. Apply grease on top of this ring where it will contact the chute base.

4. Insert the 1 5/16" (33 mm) plastic bushing (item 4) in the tube weldment (item 5).

5. Insert the other 1 5/16" plastic bushing (item 6) in the rotation support (item 2) and place this over the shaft on the rotation worm (item 7).

6. Install the rotation worm assembly through the tube weldment (item 5) with the attaching plate of the support (item 2) on the underside of the chute base lip.

7. Install the chute over the anti-friction ring and secure with four retaining plates (item 8), using two 1/4" x 1/2" bolts (item 9), lockwashers and nuts in each of three standard retaining plates, and two 1/4" x 3/4" bolts (item 10), lockwashers and nuts in the rear right retaining plate, which also secures the support (item 2). Tighten securely.

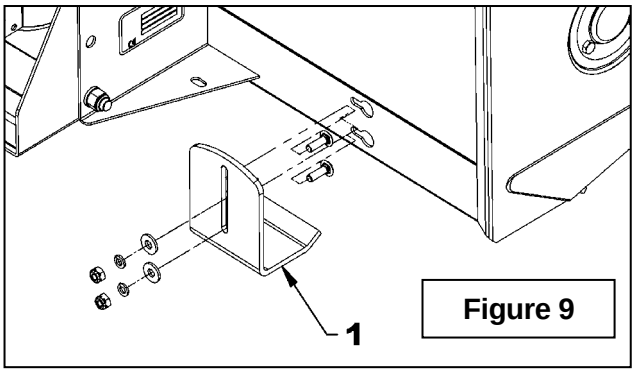


Figure 9

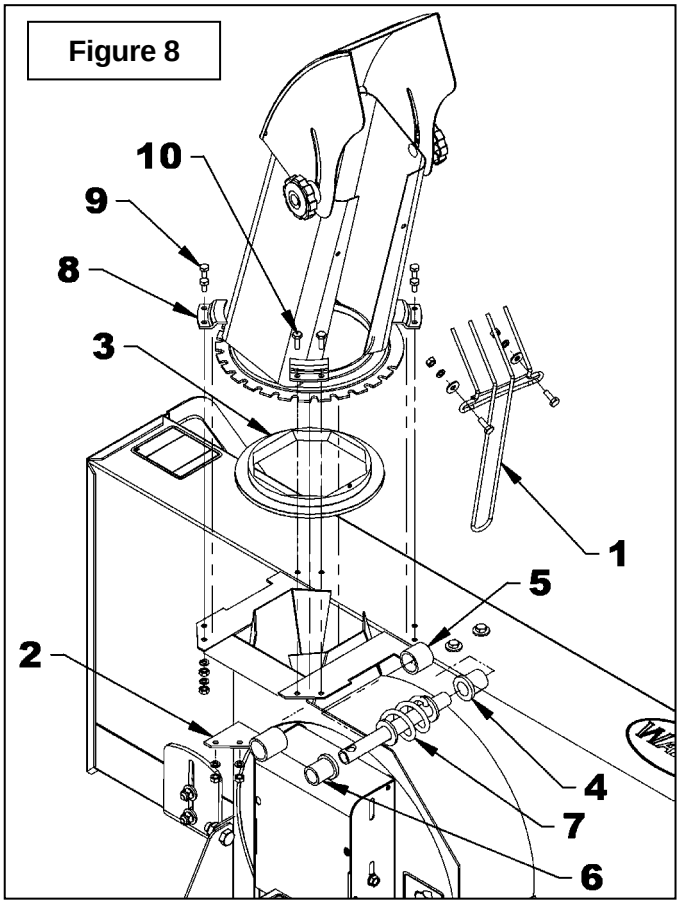


Figure 8

8. Insert two 5/16" x 1" carriage bolts through each of the skid shoes (Fig. 9, item 1) from inside the bend. Place a flat washer, lockwasher and nex nut loosely on each bolt and place the bolt heads through the round holes in the outer ends of the bottom angle of the snowblower body. Slide the square shank portion of the bolt head into the slot. Tighten securely.

IMPORTANT: On asphalt roadways, adjust the skid shoes to allow 3/16" to 1/4" (4.5 mm to 6.5 mm) clearance between the cutting edge and the surface. On gravel surface, allow 1/2" to 5/8" (13 mm to 15.9 mm) clearance, depending on the size of the gravel.

Attaching Blower to Tractor

(Figures 10-11-12-13)

1. **Figure 10:** Remove the paint from inside the drive shaft yoke and install a 1/4" x 1/4" x 1 1/4" key (not included) in the reduction shaft keyway.
2. **Figure 10:** Slide the drive shaft yoke (item1) over the reduction shaft.
3. **Figure 10:** Secure the yoke to the reduction shaft with a 1/4" x 2 1/2" bolt and nylon lock nut (not included). Tighten the bolt and the 3/8" x 1/4" allen setscrew securely over the key in the yoke.
4. **Figure 11:** Hook the reduction box cover (item 1) on the snowblower and secure the cover with two 5/16"NC x 1/2" serrated flange bolts (item 2). Tighten securely.
5. **Figure 11:** Attach the female portion of the hitch (item 3) to the snowblower using one 1/2" x 1 1/4" bolt in the upper hole of each side (item 4), placing the bolt head on the inside, then secure with a lockwasher and nylon insert locknut on the outside. Then use one 1/2" x 1 1/4" bolt, lockwasher and nylon insert locknut in the bottom holes of each side (item 4). Tighten bolts securely.

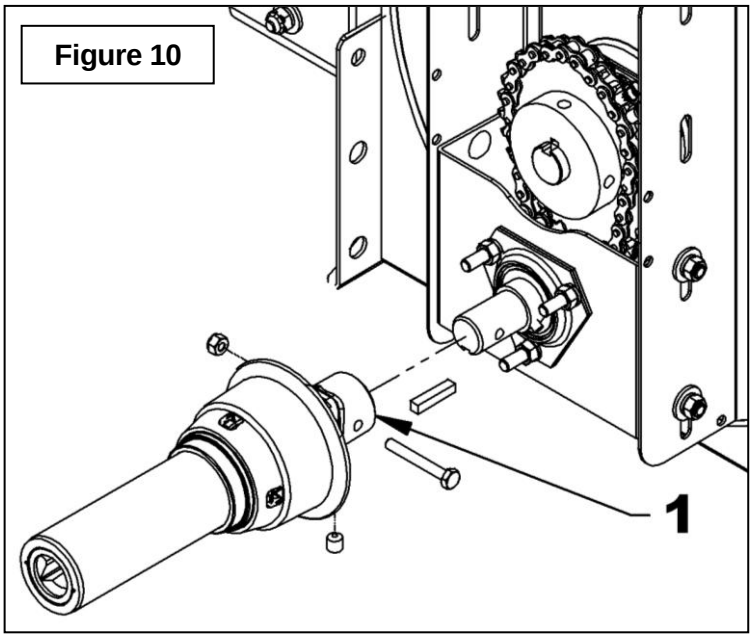


Figure 10

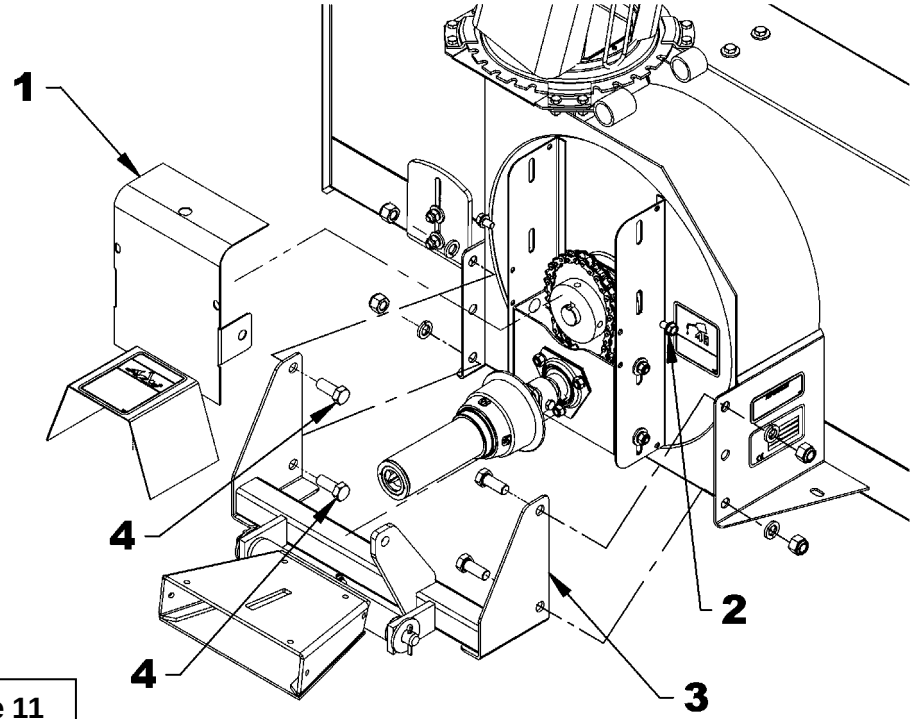


Figure 11

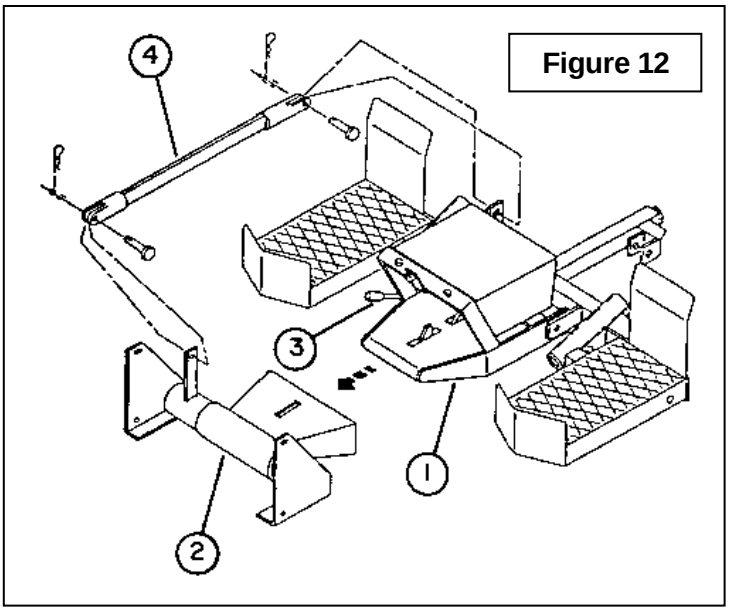
6. **Figure 12:** Insert the male quick hitch section (item 1) into the female hitch (item 2) and lock in place by moving lever (item 3) to lock position (fully forward), and secure latch with linchpin.
7. Grease the drive shaft sliding surfaces and slide the male shaft inside the female tube.
8. Attach the driveline quick lock coupler to the tractor PTO.

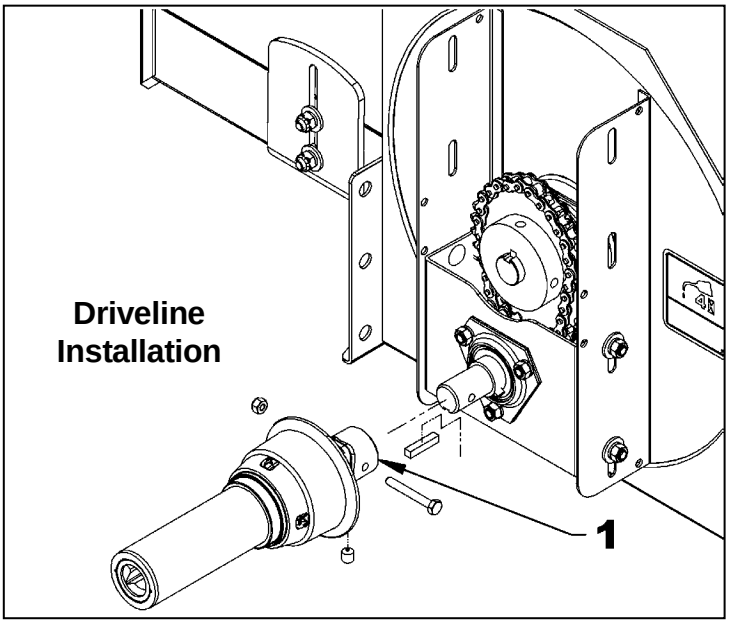
WARNING: This shaft turns at high RPM. If the collar is not locked to the shaft at the tractor end, or if the yoke at the blower end is not secured properly, the drive shaft can fly loose with great force, capable of causing serious injury or death.

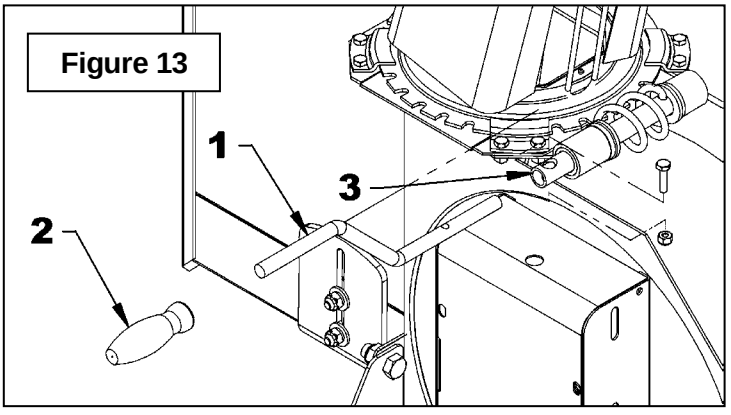
9. **Figure 12:** Attach parallel bar (item 4) to female hitch and to implement adaptor using the two clevises and hairpins.
10. **Figure 13:** Insert the rotation handle (item 1) into the rotation worm (item 3). Align holes and lock in place with a 1/4" x 1" hex. bolt and nylon lock nut.
11. **Figure 13:** Install the plastic handle (item 2) on the chute rotation handle (item 1).

Removing Snowblower from Tractor ***(Figure 12)***

1. Select a level surface, set parking brake and remove ignition key.
2. **Figure 12:** Remove hairpin from parallel bar at adaptor end, and remove parallel bar (item 4) from implement adaptor.
3. Disconnect driveline from tractor PTO shaft.
4. **Figure 12:** Remove linchpin from quick hitch latch and place quick hitch lever (item 3) rearward to unlock position.
5. Carefully remove quick hitch from snowblower.







Installation of Electric Chute Rotation Kit 9475 (Option)

(Figure 14 and Electrical diagram)

1. Insert 1 11/16" (43 mm) plastic bushing (item 1) in rotation bracket (item 2).
2. Install the worm adaptor (item 3) on the motor shaft and attach motor (item 4) to electric motor support (item 2) using three 1/4" x 2" bolts, spacer rings (item 7) and 1/4" nylon insert lock nut (item 13). Secure the motor on shaft with two allen setscrews 1/4" NF x 1/4" (item 8). Tighten securely.
3. Insert longest tube end of rotation worm (item 5) over worm adaptor (item 3) and into plastic bushing in electric motor support. Align holes and secure with a 10-24 NC x 1" capscrew (item 10) and a nylon lock nut (item 11). Tighten securely.
4. Install the chute over the anti-friction ring and place the four retaining plates (item 6). Secure with two 1/4" x 3/4" bolts (item 14), 5/16" flat washers (item 15), lockwashers (item 16) and nuts (item 17), in the rear left retaining plate which also secures the electric motor support assembly on the underside of chute base lip. Attach the three remaining plates with six 1/4" x 1/2" bolts, lockwashers and nuts. Torque to 9-11 lbs-ft (12-15 N-M).
5. Drill a 1/2" (13 mm) hole in tractor for control switch. Drill a .593" (15 mm) hole at least 2 1/2" (63.5 mm) from control switch hole for fuse holder. The two holes must be drilled in an appropriate location and must not interfere with existing controls or electrical system.
6. Solder one 18" (457 mm) wire to side terminal of fuse holder and the other 18" (457 mm) wire with eyelet to bottom terminal.
7. Install switch and fuse holder. Thread rubber protector over switch.
8. Connect the eyelet of the 18" (457 mm) wire to **"B"** terminal of control switch.
9. Connect one end of the 17" (432 mm) wire to **"E"** terminal on control switch and the other end to a suitable ground on tractor frame.
10. Connect one end of a 5" (127 mm) wire to **"A"** terminal and other end to **"D"** terminal on control switch.
11. Connect one end of other 5" (127 mm) wire to **"C"** terminal and other end to **"F"** terminal on control switch.
12. Attach eyelet of the double wire to **"A"** and **"F"** terminals of switch.
13. Connect fused wire to wire from tractor ignition switch **"AC"** terminal using the connector tap.
14. Connect free end of double wire to electric motor. Cut this wire at a convenient location for blower removal. Install the connector to the motor half of the wire.
15. Secure wires away from moving parts using the provided tie wraps.

Electrical Diagram

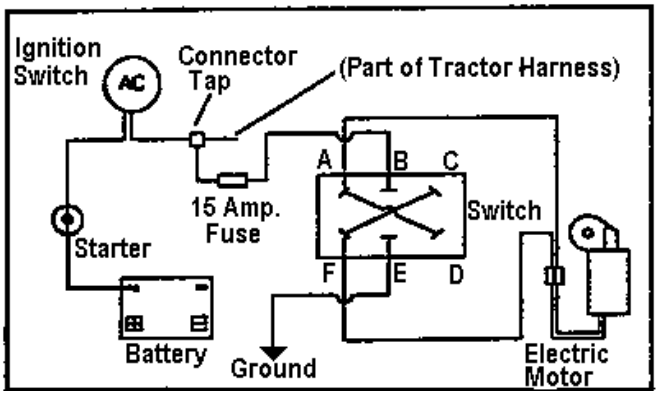
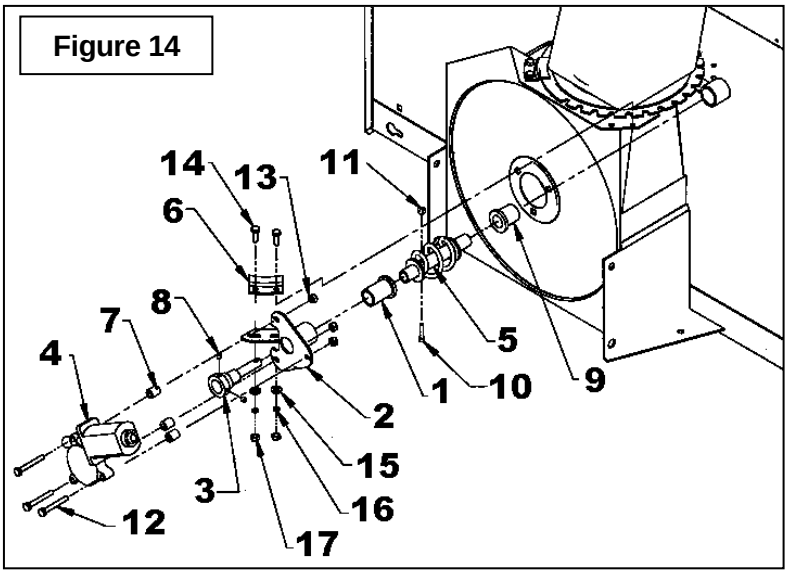


Figure 14



Installation of Electric Deflector Kit 9370 (Option)

(Figure 15 and Electrical Diagram)

1. Remove manual adjustment knob and bolts from sides of deflector and replace them with two 5/16” x 3/4” carriage bolts. Secure with the original nylon flat washers and supplied nylon nuts. Leave approximately 1/16" (1.6 mm) play.
2. Drill two 9/32" (7mm) dia. holes in chute as shown in figure 15.
3. Attach (item 1) the actuator to the chute with two 1/4" x 1 1/2" (10-24 NC) shoulder screws (item 3), two spacers (item 2), two flat washers (item 4) on the outside and 10-24 NC nylon hex. nut (item 5). Place screws in the actuator and thread the spacers on the screws so that the screws do not protrude the nuts once threaded.

NOTE: Refer to Electrical diagram.

4. Solder one 18” (457 mm) wire to fuse holder side terminal and the other 18” (457 mm) wire with eyelet to the bottom terminal.
5. Install control switch and fuse holder. Thread rubber protector over switch.
6. Connect eyelet of 18” (457 mm) wire to **"b"** terminal of control switch.
7. Connect one end of the 17” (432 mm) wire to **"e"** terminal on control switch and other end to a suitable ground on tractor frame.
8. Connect one end of the 5” (127 mm) wire to a terminal and other end to **"d"** terminal on control switch.
9. Connect one end of other 5” (127 mm) wire to **"c"** terminal and other end to **"f"** terminal on control switch.
10. Attach eyelet end of the 102” (2.59 m) double wire to **"a"** and **"f"** terminals on control switch.
11. Connect fused wire to wire from tractor ignition switch **"AC"** terminal using connector tap.
12. Connect free end of the double wire to the electric motor. Cut this wire at a convenient location for blower removal. Install the wire connectors with one male and one female connector to the motor half of the wire.
13. Secure wires away from moving parts using the provided tie wraps and adhesive clips.

Electrical Diagram

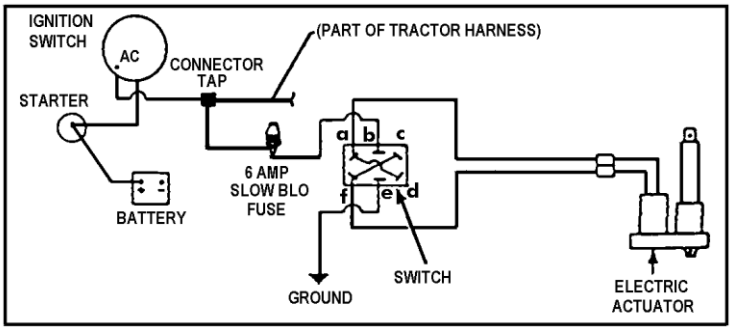
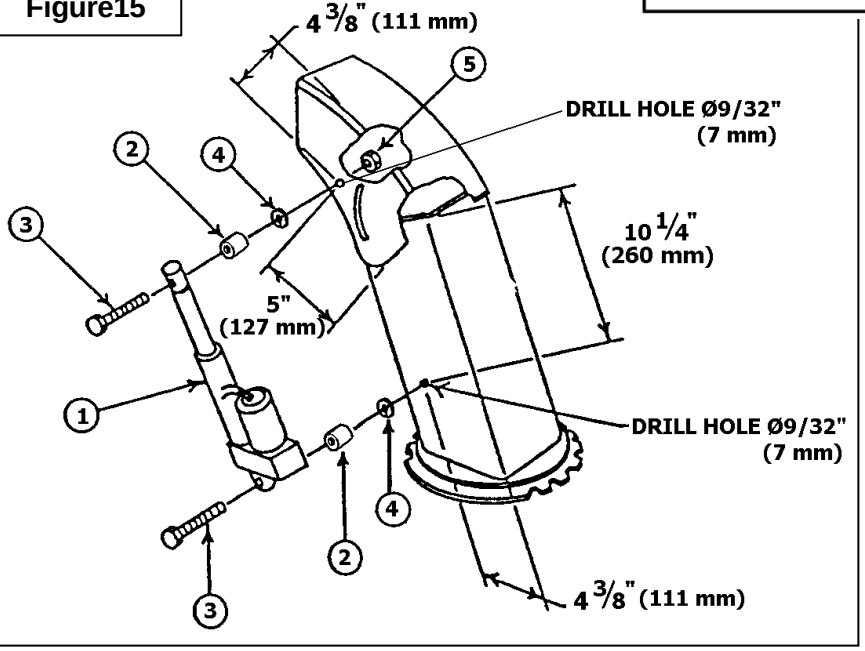


Figure15



OPERATION

GENERAL PREPARATION

1. Read this Operator's Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
2. Make sure the snowblower is clear of snow before engaging the driveline.
3. Make sure that the auger and fan operate freely.
4. Make sure there is no oil leakage on worm gearbox. Maintain proper oil level with extreme pressure oil, AGMA 5EP or SAE 90.
5. Adjust skid shoes so that the snowblower runs level.
6. Wear proper winter attire when using this equipment.

OPERATING CONTROLS

Deflector Adjustment

Adjust deflector angle according to the distance the snow must be thrown. To adjust, loosen the two knobs, adjust to the desired angle then tighten knobs securely.

Engine Speed

Use only moderate engine speed when engaging tractor PTO. Engaging at high speed will shorten the driveline life. For maximum power, operate the engine at or near full throttle.

Manual Rotation

Adjust chute orientation by turning the rotation handle.

Increasing Traction and Stability

The use of tire chains and counterweights is recommended for extra traction and stability, especially when operating in snow and/or on slippery surfaces. See your dealer for details.

WARNING : To ensure safety, make sure tractor engine and snowblower come to a complete stop and tractor PTO is disengaged BEFORE making any adjustments.

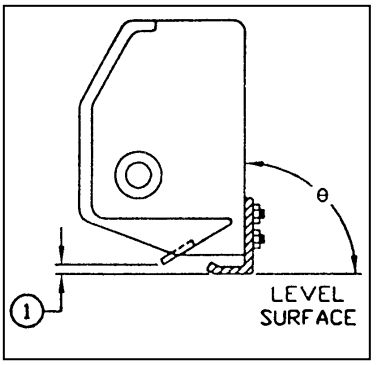
PTO

The snowblower is driven from the tractor PTO. It is engaged by pulling up the tractor PTO switch. To disengage, push down the PTO switch to the "OFF" position.

Snowblower Pitch Adjustment

The snowblower must be installed on subframe and leveled to the ground BEFORE making adjustment.

The snowblower pitch angle (θ) can be adjusted by loosening bolts (Fig. 11, items 5 and 6) of *"**Attaching Blower to Tractor**"* section, setting the desired angle and tightening the bolts. **The pitch angle (θ) should be set to maximum (greater than 90°).**



Skid Shoes Adjustment

Adjust the snowblower so that the skid shoes run level and according to the surface conditions so that stones are not thrown with the snow. Adjust both skid shoes to the same height to keep the cutting edge level and adjust upwards for smooth surfaces.

Loosen skid shoe bolts and adjust according to instructions below, and securely tighten bolts:

Clearance between cutting edge and surface

- Level paved surface: Adjust to 1/16" to 1/8" (2 to 5 mm)
- Uneven or gravel surface: Adjust to 1/2" to 5/8" (13 to 16 mm).

SNOW REMOVAL METHODS

When removing snow, do not use the snowblower as a dozer blade to push snow. Let the snowblower work its way through deep drifts. If the speed of your tractor is too fast, the snowblower may become overloaded and clog. For best results, raise the snowblower and remove a top layer of snow. A second pass with the snowblower will remove the remaining snow.

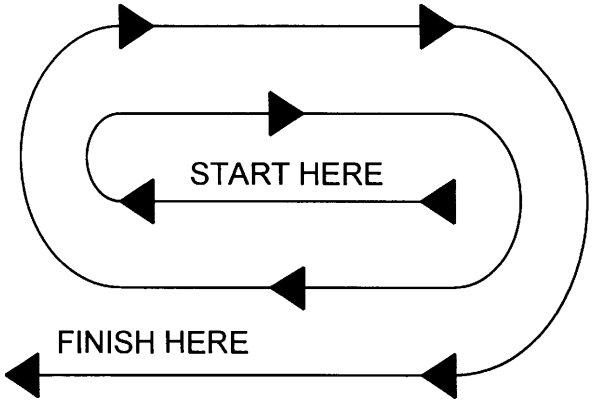
IMPORTANT: Use full RPM power when removing wet, sticky snow. Low RPM power will tend to clog the chute.

WARNING: Do not use hands or feet to unclog chute. Do not attempt to clear clogged chute of snow while tractor engine is running. If the chute clogs, disengage the drive shaft, shut off the tractor engine, remove the ignition key, wait for all movement to stop, and then clear the snow from the chute.

A definite pattern of operation is required to thoroughly clean the snow area. These patterns will avoid throwing snow in unwanted places as well as eliminating a second removal of snow

PATTERN 1

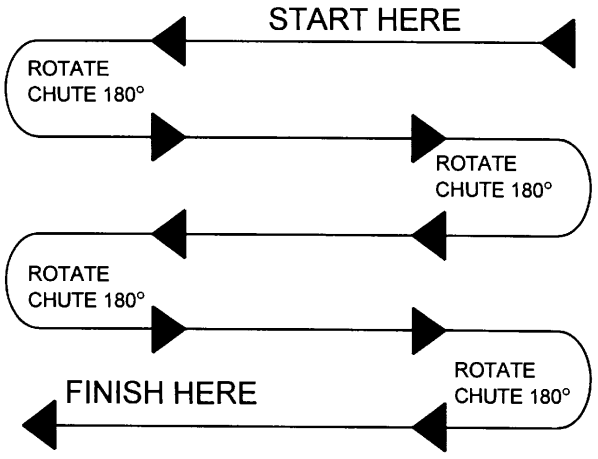
DISCHARGE SNOW BOTH SIDES



Where it is possible to throw the snow to the left and right (above), as on a long driveway, it is advantageous to start in the middle. Plow from one end to the other, throwing snow to both sides without changing the direction of the discharge guide

PATTERN 2

DISCHARGE SNOW THIS SIDE ONLY



If the snow can only be thrown to one side of the driveway or sidewalk (above), start on the opposite side. At the end of the first pass, rotate the discharge guide 180 degrees for the return pass. At the end of each succeeding pass, rotate the discharge guide 180 degrees to maintain direction of throw in the same area..

MAINTENANCE

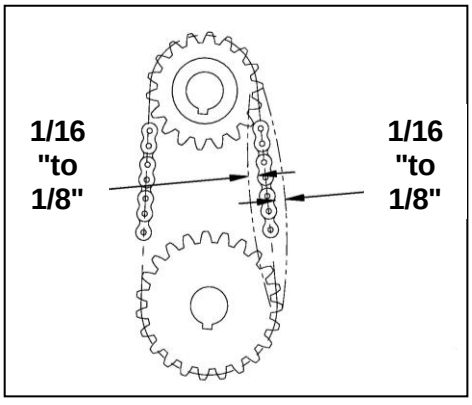
ALWAYS USE GENUINE PARTS WHEN REPLACEMENT PARTS ARE REQUIRED

WARNING:

- **Before cleaning, adjusting or repairing the snowblower: bring the tractor to a complete stop, lower the implement shut off the engine and remove the ignition key.**
- **Never park the tractor inside a building where an open flame or sparks are present. Allow the engine to cool down before storing in any enclosure.**
- **Provide adequate blocking before working under the snowblower when in raised position.**

Drive Chain Tension Adjustment

1. Remove the driveline guard.
2. Loosen the four bolts securing the reduction box assembly to the snowblower frame.
3. Tighten the drive chain by lowering the reduction box assembly in order to leave a deflection of between 1/16" and 1/8".
4. Tighten the four bolts securing reduction box and reinstall the driveline guard.

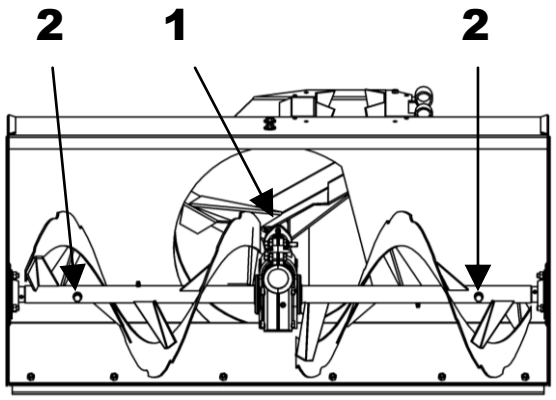


Reduction Sprocket Removal

Thread locker was applied on all setscrews during assembly at the factory. Apply heat before attempting removal. When installing, apply a drop of thread sealant on the setscrews of both the large sprocket and the two bearing collars.

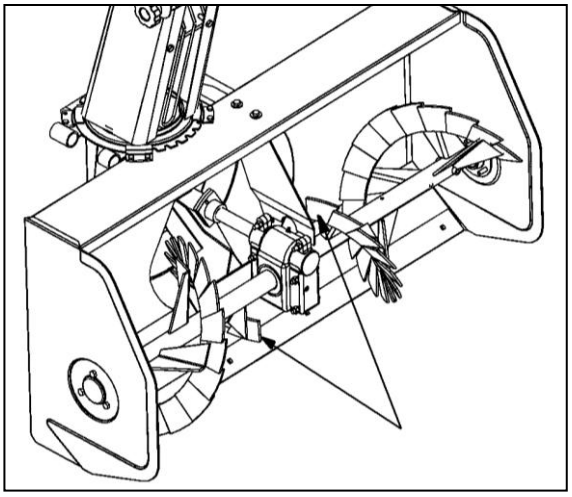
Shear Bolts

1. Always use a special grade 5 shear bolt (656053) on fan (item 1) and grade 5 two grooved shear bolts, silver plated (657295) on the auger (item 2) as shown on decal (657346) .
2. Check shear bolts at frequent intervals for proper tightness to make sure the snowblower is in safe working condition. Torque must be at 9 lbs-ft (12 N-M).



Auger Repositioning

After shear bolt breakage on one of the augers, make sure to reposition the augers as shown on the figure.



MAINTENANCE

LUBRICATION

Use a good grease gun and lubricate as follows:

DESCRIPTION	INTERVAL	LUBRICATION REQUIRED
Driveline	8 hours	Grease each universal joint
	24 hours	Separate the sliding parts and cover each one of them with grease
Driving chain	4 hours and after each operation	Lubricate with chain saw lubricant
Auger	24 hours of operation or once a year whichever comes first	Grease fitting on each auger section
Gearbox	every month	Check oil level. If needed, add AGMA 5EP extreme pressure oil, SAE 80W90 gear oil or equivalent.

INTRODUCTION

All parts are illustrated in "exploded views" which show the individual parts in their normal relationship to each other. Reference nums are used in the illustrations. These nums correspond to those in the "Reference Num" (REF) column, and are followed by the description and quantity required.

O/L - "Obtain Locally" in the part number column indicates common hardware that is available at your local hardware supply.

All reference to right and left, forward or rearward, is from the operator seat facing the equipment while in operation.

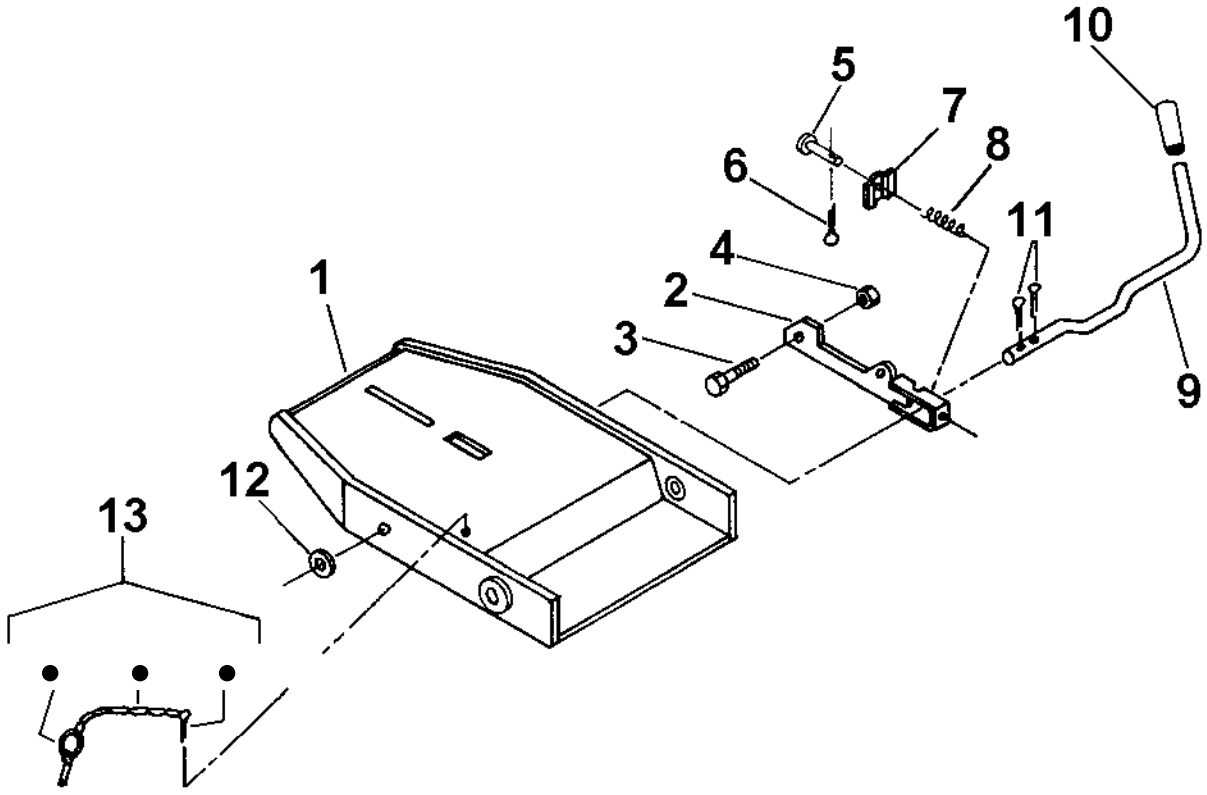
Orders must give the complete description, correct part num, the total amount required, the serial num, the method of shipment and the shipping address.

The manufacturer reserves the rights to change, modify, or eliminate from time to time, for technical or other reasons, certain or all data, specifications, or the product or products themselves, without any liability or obligation.

The parts listed here are available through your local dealer.

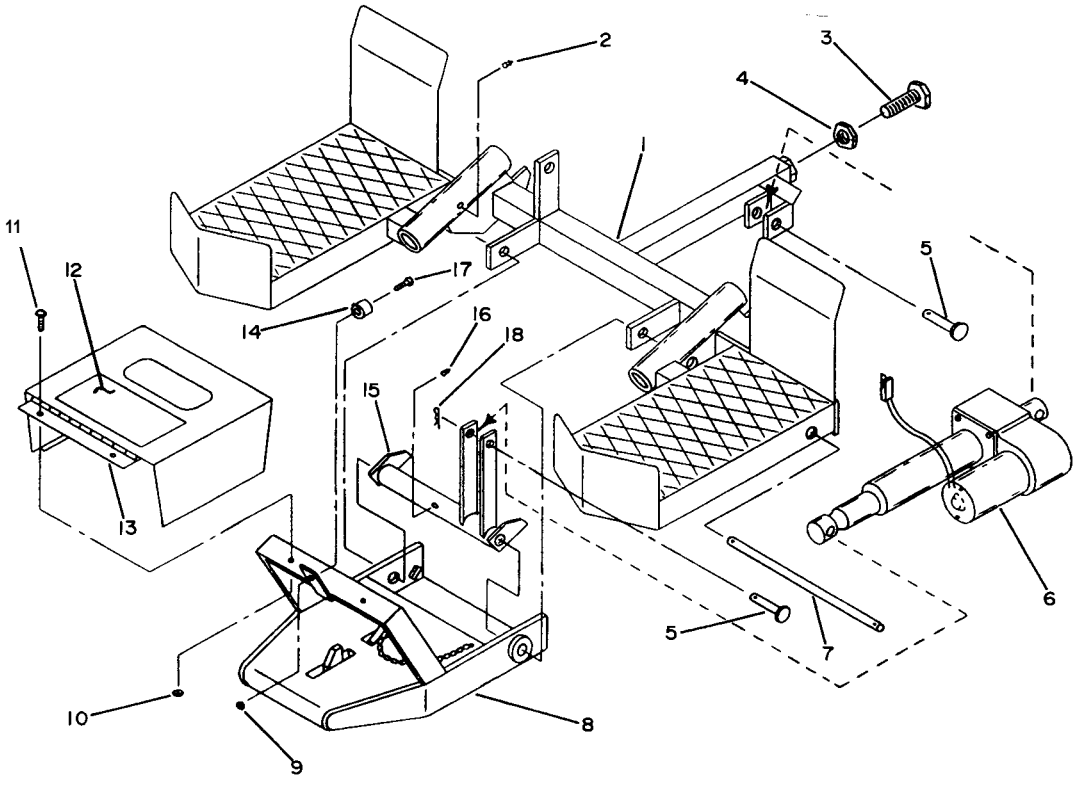
MALE QUICK HITCH ASSEMBLY - 6625

REF.	DESCRIPTION	QTY	PART NUMBER
1	Male quick hitch	1	660980
2	Quick hitch latch	1	657382
3	Hex. bolt 3/8” NC x 1 1/2”	1	0100040
4	Nylon lock nut 3/8” NC	1	1000006
5	Pin 1/4” dia x 1 5/8”	1	657384
6	Cotter pin 5/64" dia. x 1"	1	1500032
7	Spring plate	1	657383
8	Spring	1	657385
9	Attaching lever	1	657381
10	Plastic handle	1	656797
11	Cotter pin 1/8” dia x 1”	2	1500016
12	Flat washer 1/2" (9/16” hole) PTD	1	1400006
13	Safety chain ass'y	1	657632

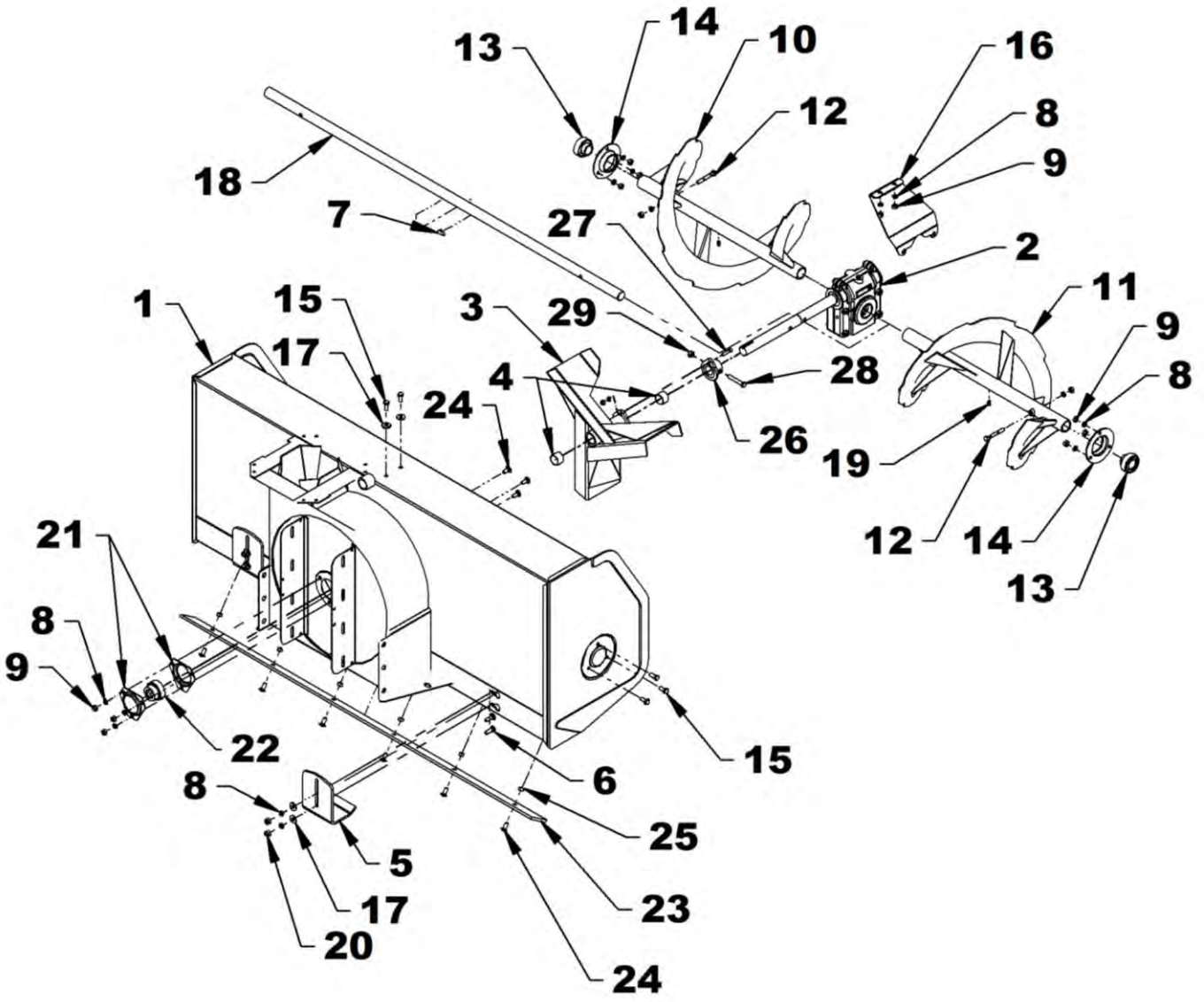


MALE QUICK HITCH SYSTEM

REF.	DESCRIPTION	QTY	PART NUMBER
1	Adaptor	1	6620-27
2	Grease fitting 45°.	2	5830-3
3	Hex. bolt 3/4”	1	F212
4	Jam nut 3/4”	1	F213
5	Clevis pin	2	6621-1
6	Actuator motor	1	6621
7	Pivot shaft	1	6620-17
8	Hitch	1	6620-24
9	Keps nut 10-24	1	F002
10	Keps nut 1/4-20	2	F005
11	Bolt 1/4-20 x 1/2"	2	F036
12	Decal	1	6620-29
13	PTO shield	1	6620-28
14	Bushing	1	5588
15	Actuator pivot	1	6620-16
16	Grease fitting	1	5830
17	Bolt 10-24 x 5/8"	1	F027
18	Cotter pin	4	F068
	Not illustrated:		
	- Wiring harness	1	6622
	- Toggle switch	1	6623
	- Actuator boot	1	6623-1
	- Bolt 10-24 x 3/8"	3	F025
	- Bolt 10-24 x 1/2"	2	F026
	- Harness clamp	3	5832



SNOWBLOWER ASSEMBLY– 6670-1 & 6671-20



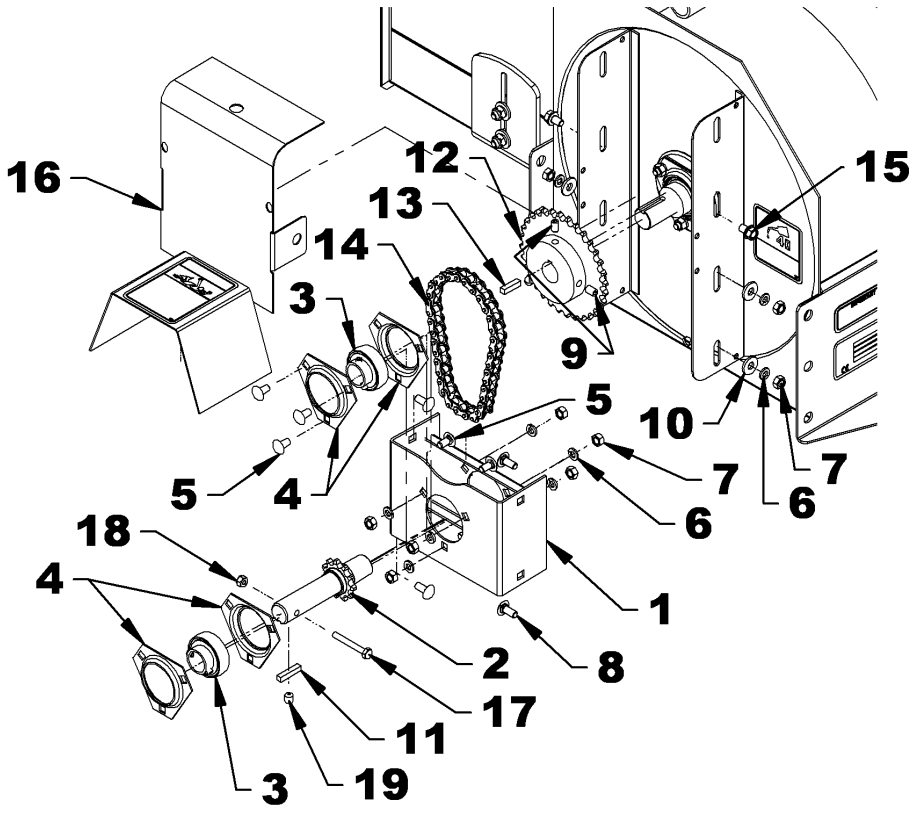
PARTS

SNOWBLOWERS ASSEMBLY – 6670-1 & 6671-20

REF.	DESCRIPTION	QTY	PART NUMBER 6670-1	6671-20
1	Frame	1	669690	669692
2	Gearbox (cw)	1	4500035	4500035
	Seal kit	1	665775	665775
3	Fan assembly including bushings 4300055	1	657327	657327
4	Bushing (Oilite)	2	4300055	4300055
5	Skid shoes	2	669674	669674
6	Carriage bolt 5/16" NC x 1"	4	0300003	0300003
7	Key woodruff	1	655967	655967
8	Lockwasher 5/16"	15	1200003	1200003
9	Hex. nut 5/16" NC	11	0900002	0900002
10	Auger L.H.	1	666732	666738
11	Auger R.H.	1	666731	666737
12	Shear bolt 5/16" NC x 2 1/4" w/ lock & nut, gr5, PTD	2	657295	657295
13	Bearing with set screw	2	665494	665494
14	Bearing flange	2	657334	657334
15	Hex. Bolt 5/16" NC x 3/4"	8	0100018	0100018
16	Gear box support bracket	1	657332	657332
17	Flat washer 5/16" (3/8" dia.hole) PTD	6	1400003	1400003
18	Output shaft	1	657286	660390
19	Grease fitting 1/4" NF	2	654106	654106
20	Hex. nut 5/16" NC, PTD	4	0900002	0900002
21	Bearing flange	2	656589	656589
22	Bearing with locking collar	1	665495	665495
23	Cutting edge	1	657350	659862
24	Carriage bolt 5/16" NC x 3/4"	9	0300002	0300002
25	Stover nut 5/16" NC	6	1100002	1100002
26	Shear plate	1	655874	655874
27	Shear bolt 1/4" NC x 1 1/4" w/ lock & nut gr.5 PTD gr8	1	656053	656053
28	Hex. bolt 5/16" NC x 2", gr.8 PTD	1	0100024	0100024
29	Nylon insert nut hex. 5/16"NC PTD	1	1000005	1000005

REDUCTION BOX ASSEMBLY

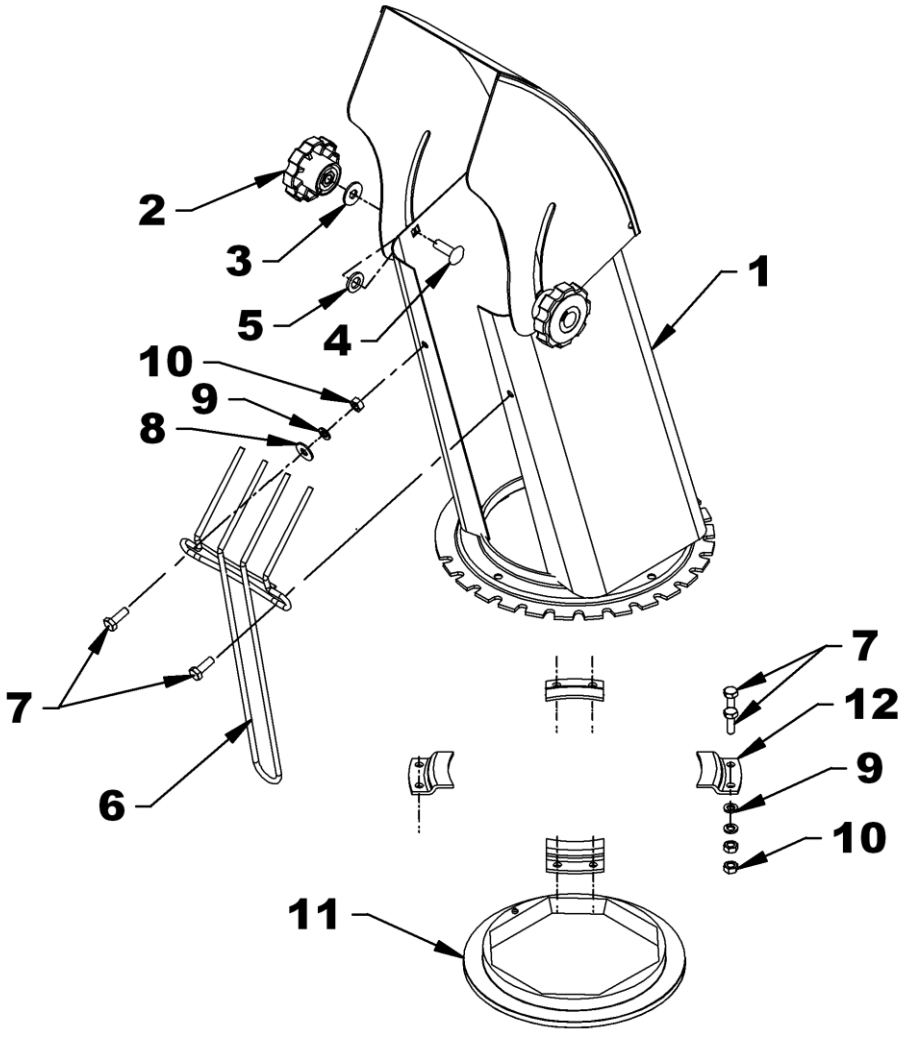
REF.	DESCRIPTION	QTY	CODE
	Reduction box ass'y inc. bearing & sprocket	1	657353
1	Reduction box	1	657355
2	Drive shaft with sprocket (H40C11)	1	657250
3	Bearing 1" bore with set screw	2	665494
4	Bearing flange	4	656589
5	Carriage bolt 5/16"NC x 5/8"	6	0300001
6	Lockwasher 5/16", PTD	10	1200003
7	Hex. nut 5/16", PTD	10	0900002
8	Carriage bolt 5/16"NC x 3/4", PTD	4	0300002
9	Allen setscrew 5/16"NC x 5/16"	2	0500009
10	Flat washer 5/16" (3/8" hole) PTD	4	1400003
11	Key 1/4" x 1/4" x 1 1/4" (not included)	1	654643
12	Sprocket (H40B32)	1	656543
13	Key 1/4" x 1/4" x 1"	1	655379
14	Chain #40 x 38 links L.L. with connecting link	1	656570
	Connecting link	1	656178
15	Serrated flange bolt 5/16"NC x 1/2", PTD	2	0200065
16	Driveline guard	1	669612
17	Hex. bolt 1/4"NC x 2" (not included)	1	0100010
18	Nylon locknut 1/4"NC (not included)	1	1000003
19	Allen setscrew 3/8"NC x1/4"	1	0500030



PARTS

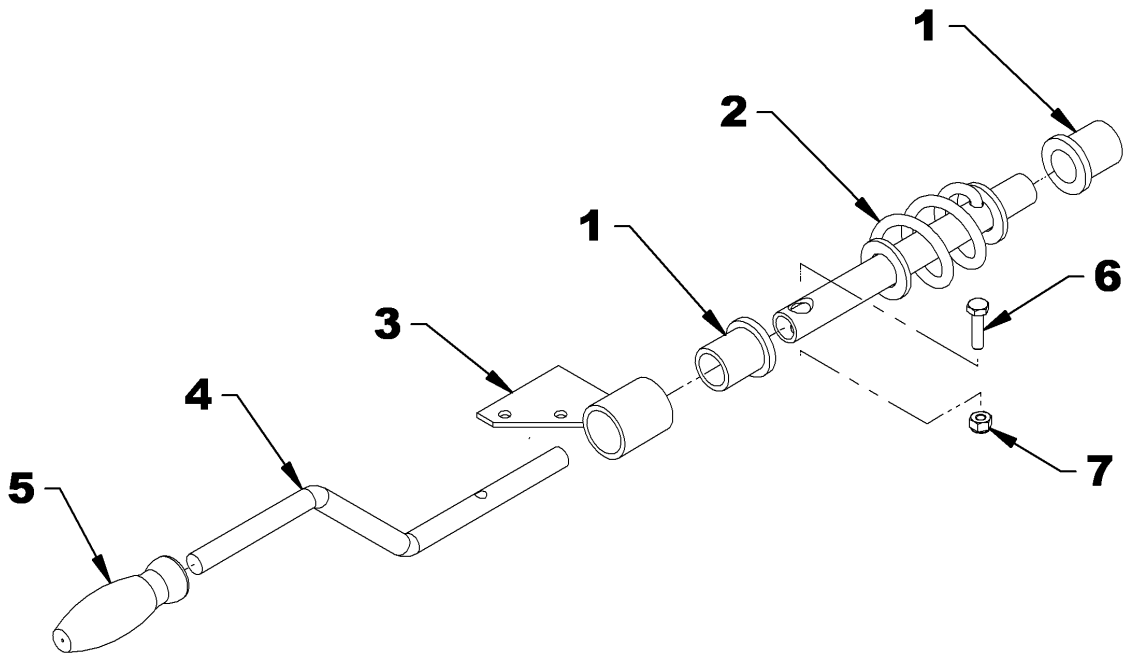
CHUTE WITH DEFLECTOR

REF.	DESCRIPTION	QTY	CODE
1	Chute ass'y ccw, w/ knobs & decals	1	667384
2	Knob 5/16" NC (nut included)	2	657309
3	Flat washer nylon 11/32" dia. hole	2	658467
4	Carriage bolt 5/16" NC x 1" PTD	2	0300003
5	Flat washer nylon 7/16" dia. hole	2	658468
6	Hand guard	1	657308
7	Hex. Bolt 1/4" NC x 3/4", gr5 PTD	10	0100003
8	Flat washer 1/4" (5/16" hole), PTD	2	1400002
9	Lockwasher 1/4", PTD	10	1200002
10	Hex. nut 1/4" NC PTD	10	0900001
11	Chute Rotation bushing	1	657338
12	Retaining plate	4	657333



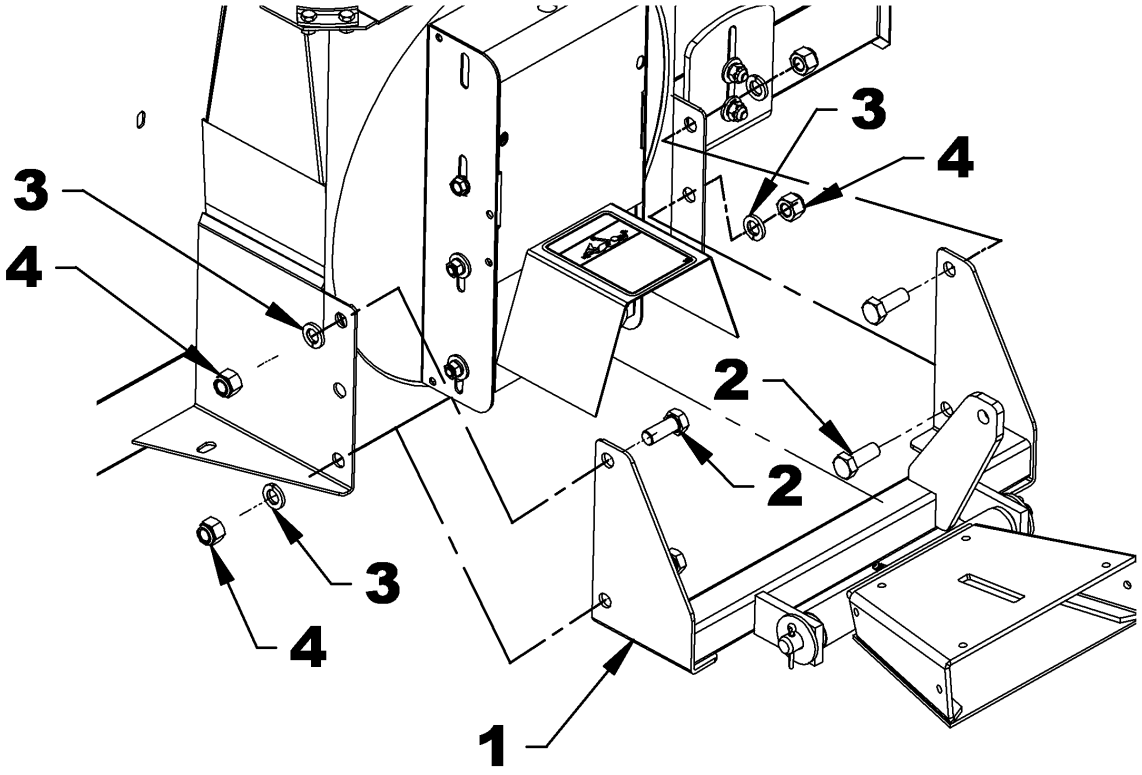
MANUAL CHUTE ROTATION SYSTEM

REF.	DESCRIPTION	QTY	PART NUMBER
1	Plastic bushing 1 5/16" (33 mm)	2	657335
2	Rotation worm (cw)	1	657733
3	Rotation support	1	657493
4	Rotation handle	1	661035
5	Plastic handle	1	656797
6	Hex. bolt 1/4" NC x 1"	1	0100004
7	Nylon lock nut 1/4" NC	1	1000003



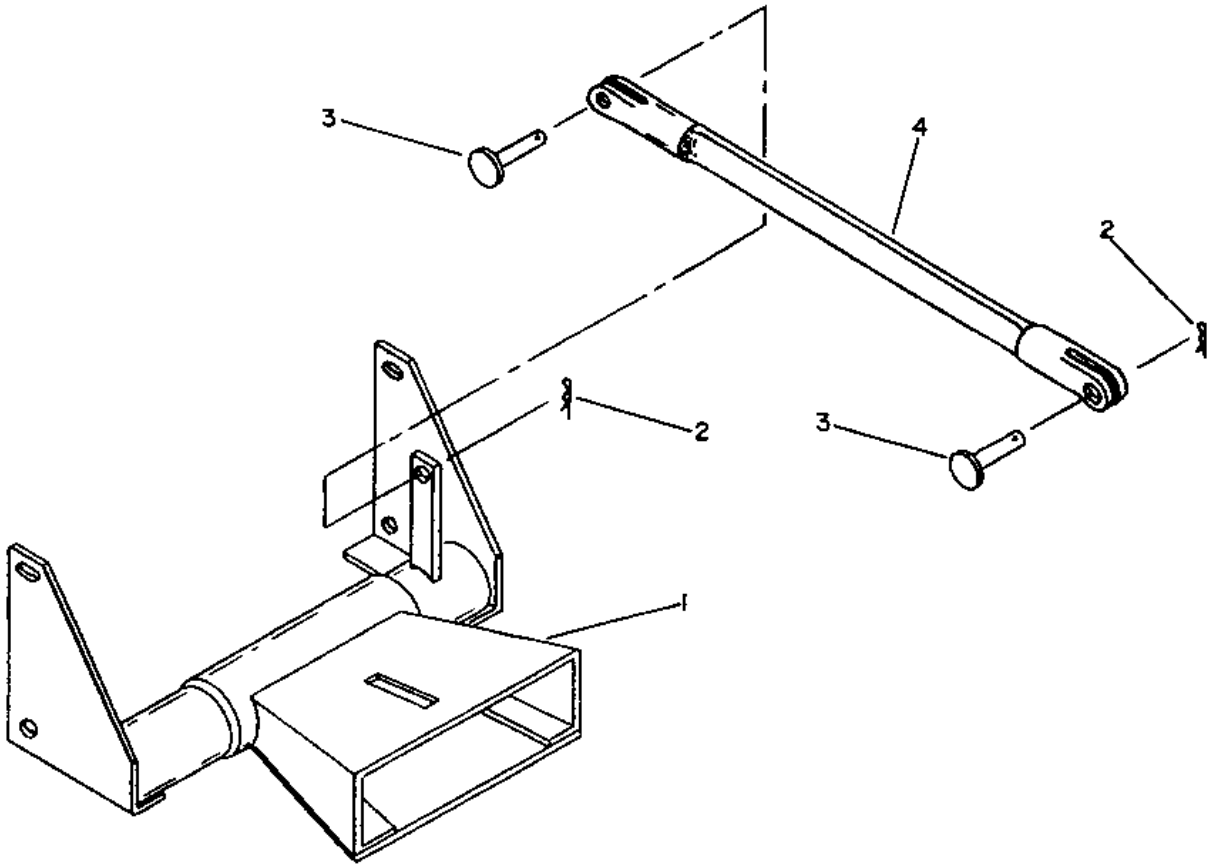
FEMALE QUICK HITCH

REF.	DESCRIPTION	QTY	PART NUMBER 6670-1	6671-20
1	Quick hitch, female part	1	669691	669693
2	Hex. bolt 1/2" NC x 1 1/4"	4	0100069	0100069
3	Lockwasher 1/2"	4	1200006	1200006
4	Hex. nylon insert locknut 1/2" NC	4	1000011	1000011



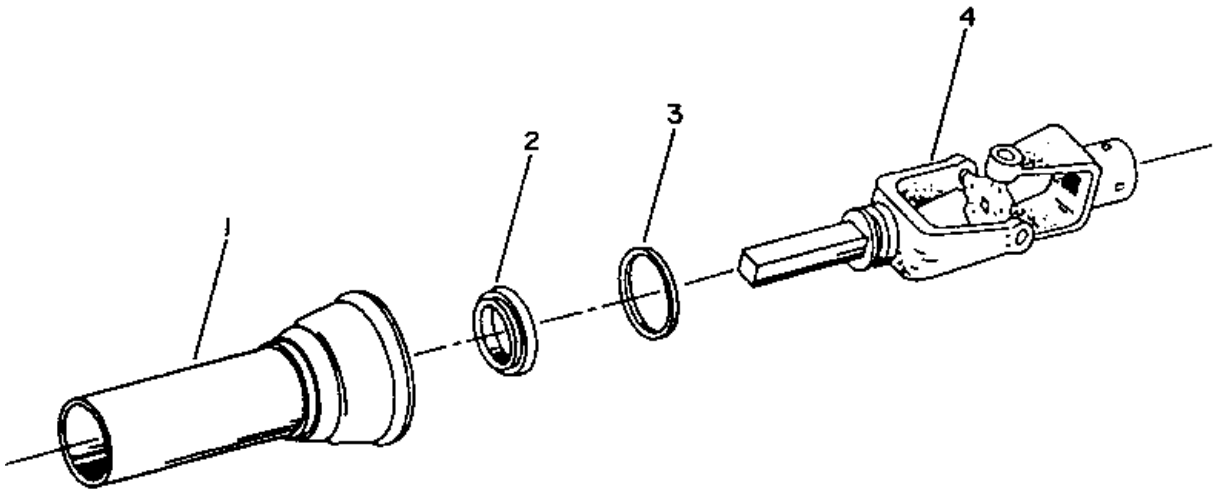
FEMALE QUICK HITCH ASSEMBLY FOR 6670-1

REF.	DESCRIPTION	QTY	PART NUMBER
1	Quick hitch assembly, female part, for 6670-1	1	669691
2	Cotter pin	2	F068
3	Clevis pin	2	6621-1
4	Parallel bar	1	6670-2



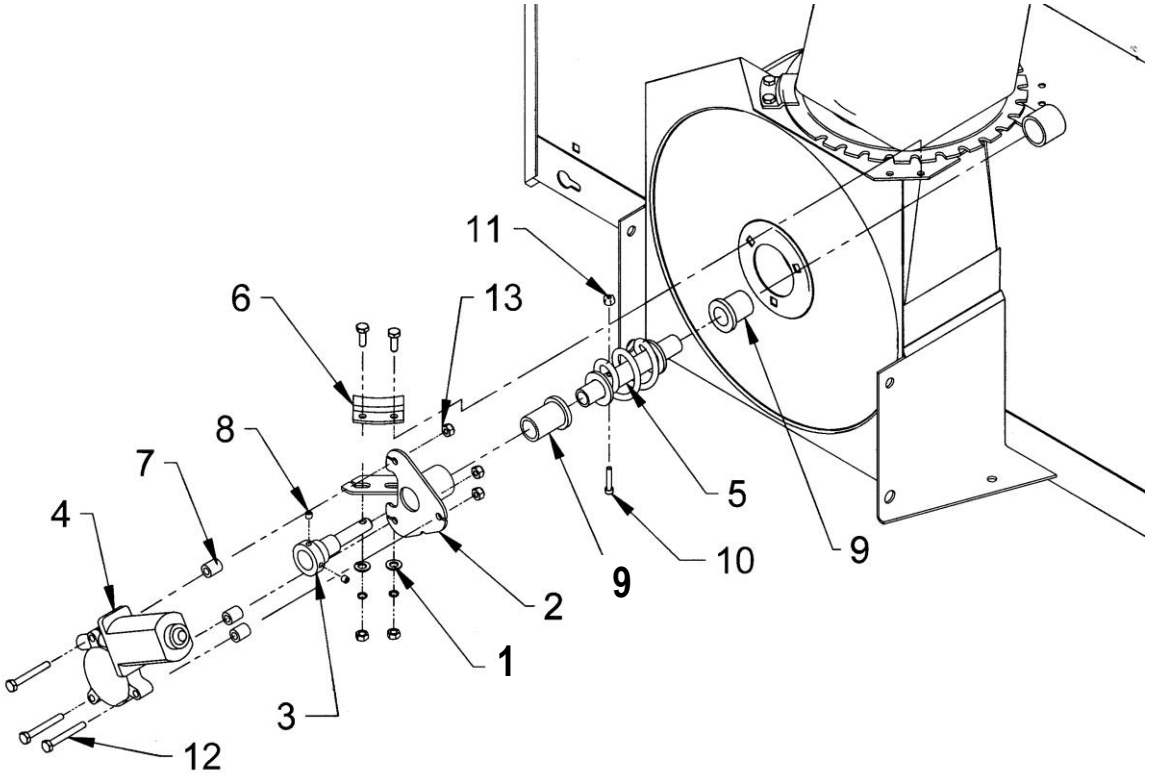
DRIVELINE MALE PORTION ASSEMBLY 6671

REF.	DESCRIPTION	QTY.	PART NUMBER
1	Outer shield	1	6671-1
2	Nylon bearing	1	6671-2
3	Bearing retainer	1	6671-3
4	Male shaft and yoke assembly	1	6671-4



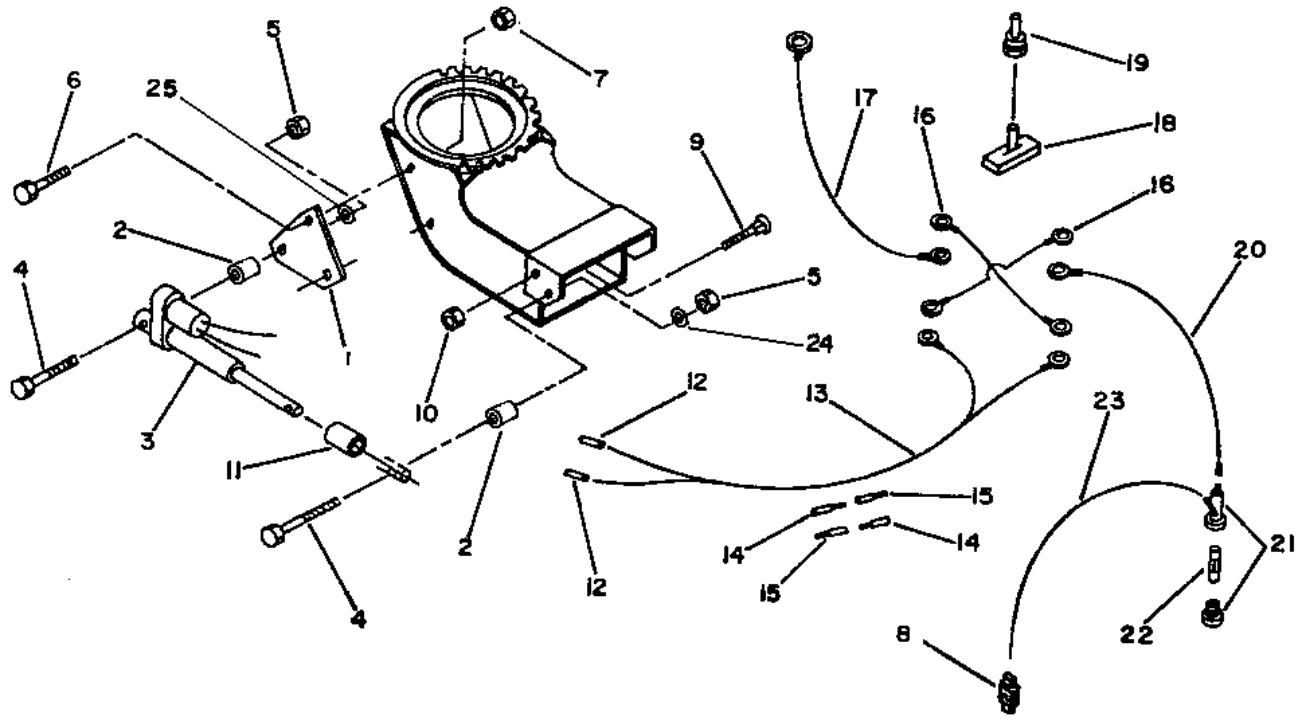
ELECTRIC CHUTE ROTATION KIT – 9475 (OPTION)

REF.	DESCRIPTION	QTY	PART NUMBER
1	Flat washer 4/4" (5/16"hole), PTD	2	1400002
2	Electric motor support CCW	1	664827
3	Worm adaptor	1	662459
4	Electric motor	1	662455
5	Rotation worm	1	660246
6	Retaining plate (not included in 9475 kit)	4	657333
7	Spacer ring	1	666691
8	Setscrew 1/4" NF x 1/4"	2	0500003
9	Plastic bushing 1 5/16"	2	657335
10	Socket head capscrew 10-24 NC x 1", PTD	1	0800009
11	Nylon insert lock nut 10-24 NC, PTD	1	1000002
12	Bolt hex. 1/4" NC x 2", PTD	3	0100010
13	Nylon insert lock nut 1/4" NC, PTD	3	1000003
	Not illustrated:		
	- Wire 16GA X 5"lg 1 thread, black	2	655441
	- Wire ass. 16GA X 17"lg black	1	655442
	- Wire double 16GA X 102"lg	1	662468
	- Wire 16GA X 18"lg ass. black	1	660692
	- Wire 16GA X 18"lg 1 thread, black	1	660323
	- Rubber cap for switch	1	658666
	- Switch	1	658778
	- Tap connector	1	656665
	- Fuse 15 amp.	1	660687
	- Fuse support	1	658665



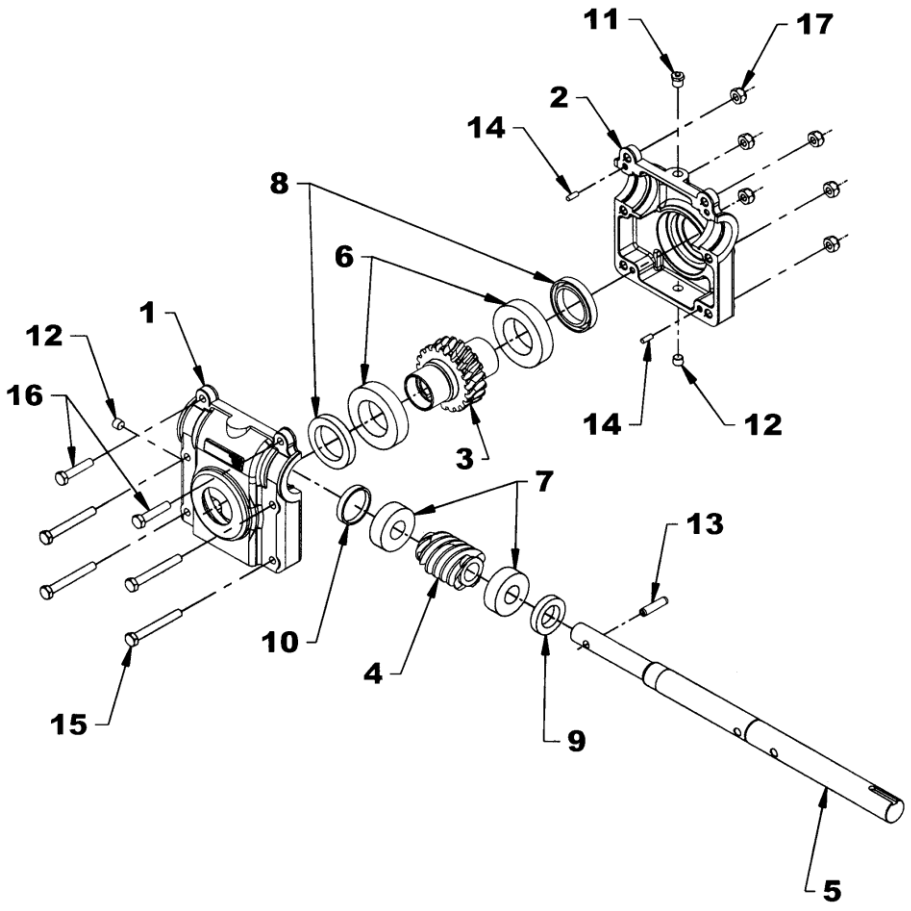
ELECTRIC DEFLECTOR – 9370 (OPTION)

REF.	DESCRIPTION	QTY	PART #
1	Support plate	1	665773
2	Spacer	2	665774
3	Actuator	1	656848
4	Shoulder screw 1/4" x 1 1/2" (10-24 NC)	2	3200010
5	Nylon hex. nut (10-24 NC)	2	1000002
6	Hex. Bolt 1/4" NC x 3/4"	2	0100003
7	Serrated flange nut 1/4" NC	2	0900058
8	Connector tap	1	656665
9	Carriage bolt 5/16" NC x 3/4" (snowblower)	2	0300002
	Carriage bolt 5/16" NC x 3/4" (debris blower)	1	0300002
10	Nylon nut 5/16" NC (snowblower)	2	1000005
	Nylon nut 5/16" NC (debris blower)	1	1000005
11	Stopper sleeve	1	661102
12	Connector	2	656664
13	Double wire ass'y 102"	1	660695
14	Connector female	2	657853
15	Connector male	2	655217
16	Wire ass'y 5"	2	655441
17	Wire ass'y 17"	1	655442
18	Control switch	1	658778
19	Rubber toggle protector	1	658666
20	Wire ass'y 18"	1	660692
21	Fuse holder	1	658665
22	Fuse 6 amp.	1	657285
23	Wire 16 ga x 18"	1	660323
24	Flat washer #8 (3/16" hole)	1	1400001
25	Flat washer #12 (1/4" hole)	1	1400016



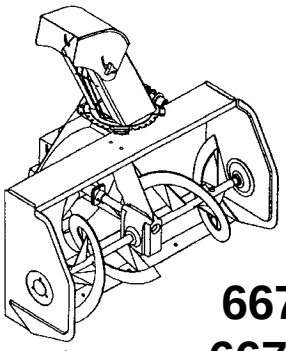
WORM GEARBOX (4500035)

REF.	DESCRIPTION	QTY	PART #
	Casing kit (item 1 and 2)	1	4500021
1	Left casing	1	------
2	Right casing	1	------
	Worm and gear kit (item 3 and 4)	1	Not available
3	Gear	1	------
4	Worm	1	------
5	Driving shaft	1	4500036
6	Bearing	2	661147
7	Bearing	2	663234
	Seal kit (item 8 and 9)	1	665775
8	Seal	2	------
9	Seal	1	------
10	Cap	1	661150
11	Breather 1/8" NPT, 5 PSI, PTD	1	654927
12	Plug 1/8" NPT, PTD	2	656090
13	Spring pin 5/16" dia. x 1 1/4" lg.	1	663243
14	Dowel pin 3/16" dia. x 1/2" lg.	2	663245
15	Hex. bolt 5/16" NC x 2 1/2" lg., PTD	4	0100026
16	Hex. bolt 5/16" NC x 1 1/2" lg., PTD	2	0100021
17	Nylon insert locknut 5/16" NC, PTD	6	1000005



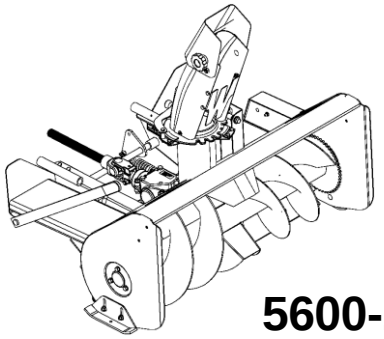
AVAILABLE EQUIPMENT

42" (1.07 m) & 50" (1.27 m)
TWO STAGE SNOWBLOWERS



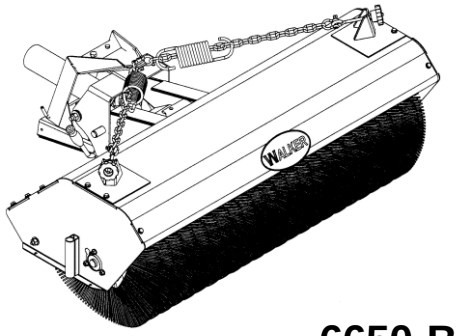
6670-1
6671-20

36" (.91 m) ONE STAGE
SNOWBLOWER



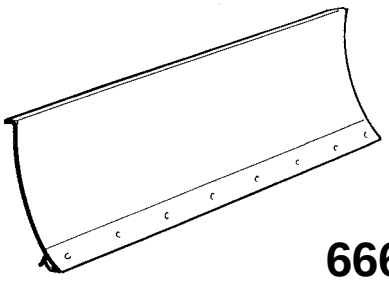
5600-20

46" (1.17 m) & 60" (1.52 m)
ROTARY BROOMS



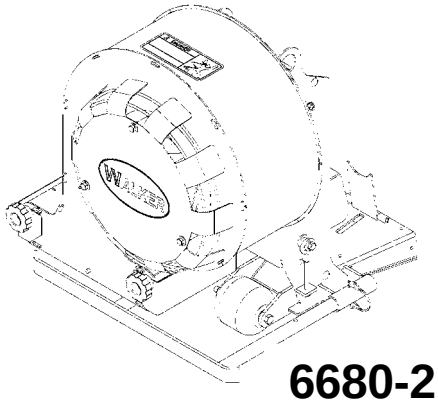
6650-B
H20

46" (1.17 m) & 60" (1.52 m)
BLADES



6660
6661-20

DEBRIS BLOWER



6680-21

TORQUE SPECIFICATION TABLE

GENERAL SPECIFICATION TABLE

Use the following torques when special torques are not given

NOTE:These values apply to fasteners as received from supplier, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly sidulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE: MANUFACTURING MARKS WILL VARY.													
		Torque				Torque				Torque			
BOLT SIZES		Pounds-Foot		Newtons-Meter		Pounds-Foot		Newtons-Meter		Pounds-Foot		Newtons-Meter	
Inches	Millimeters	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
1/4	6.35	5	6	6.8	8.13	9	11.0	12.2	14.9	12	15	16.3	30.3
5/16	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8	9.53	20	23	27.1	31.2	35	42.0	47.5	57.0	45	54	61.0	73.2
7/16	11.11	25	30	40.7	47.4	54	64.0	73.2	86.8	70	84	94.9	113.9
1/2	12.70	45	52	61.0	70.5	80	96.0	108.5	130.2	110	132	149.2	179.0
9/16	14.29	65	75	88.1	101.6	110	132.0	149.2	179.0	160	192	217.0	260.4
5/8	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358.0
3/4	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8	22.23	160	200	216.8	271.0	400	480	542.4	650.9	600	720	813.6	976.3
1	25.40	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5
1 1/8	25.58	-	-	-	-	800	880	1084.8	1193.3	1280	1440	1735.7	1952.6
1 1/4	31.75	-	-	-	-	1120	1240	1518.7	1681.4	1820	2000	2467.9	2712.0
1 3/8	34.93	-	-	-	-	1460	1680	1979.8	2278.1	2380	2720	3227.3	3688.3
1 1/2	38.10	-	-	-	-	1940	2200	2630.6	2983.2	3160	3560	4285.0	4827.4

METRIC BOLT TORQUE SPECIFICATIONS

		Coarse thread					Fine Thread				
Size of screw	Grade No.	Pitch (mm)	Pounds-Foot		Newtons-Meter		Pitch (mm)	Pounds-Foot		Newtons-Meter	
			MIN.	MAX.	MIN.	MAX.		MIN.	MAX.	MIN.	MAX.
M6	4T (4) 7T (7) 8T (8) (11)	1.0	3.6 5.8 7.2	5.8 9.4 10	4.9 7.9 9.8	7.9 12.7 13.6	-	- - -	- - -	- - -	- - -
M8	4T 7T 8T	1.25	7.2 17 20	14 22 26	9.8 23 27.1	19.0 29.8 35.2	1.0	12 19 22	17 27 31	16.3 25.7 29.8	23.0 36.6 42
M10	4T 7T 8T	1.5	20 34 38	25 40 46	27.1 46.1 51.5	33.9 54.2 62.3	1.25	20 35 40	29 47 52	27.1 47.4 54.2	39.3 63.7 70.5
M12	4T 7T 8T	1.75	28 51 57	34 59 66	37.9 69.1 77.2	46.1 79.9 89.4	1.25	31 56 62	41 68 75	42 75.9 84	55.6 92.1 101.6
M14	4T 7T 8T	2.0	49 81 96	56 93 109	66.4 109.8 130.1	75.9 126 147.7	1.5	52 90 107	64 106 124	70.5 122 145	86.7 143.6 168
M16	4T 7T 8T	2.0	67 116 129	77 130 145	90.8 157.2 174.8	104.3 176.2 196.5	1.5	69 120 140	83 138 158	93.5 162.6 189.7	112.5 187 214.1
M18	4T 7T 8T	2.0	88 150 175	100 168 194	119.2 203.3 237.1	136 227.6 262.9	1.5	100 177 202	117 199 231	136 239.8 273.7	158.5 269.6 313
M20	4T 7T 8T	2.5	108 186 213	130 205 249	146.3 252 288.6	176.2 277.8 337.4	1.5	132 206 246	150 242 289	178.9 279.1 333.3	203.3 327.9 391.6

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