



SAFETY FIRST!

Before operating this equipment, read this Owner's Manual and the separate manual supplied by the engine manufacturer.

Models

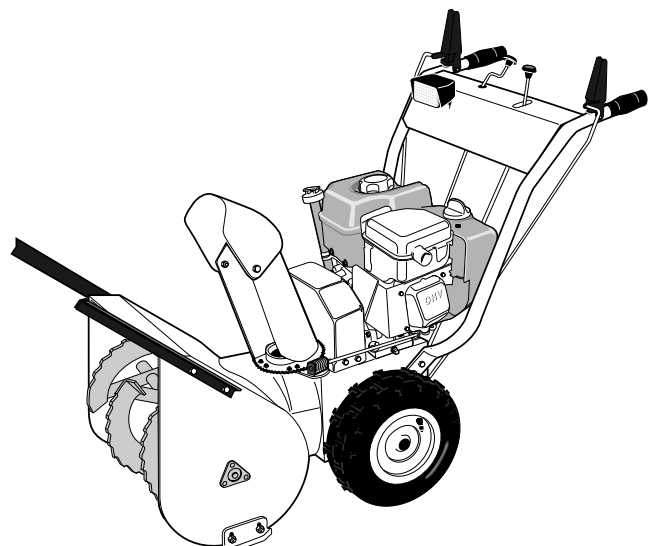
42051 - 9.5HP / 26" Auger

42052 - 11 HP / 30" Auger

OWNER'S MANUAL

Snow Thrower

- Safety
- Assembly
- Features and Controls
- Operation
- Maintenance
- Parts List



(11HP Model shown)

GARDEN WAY INCORPORATED

Dear Owner:

Thank you for purchasing this product. The unit was carefully designed and manufactured to provide excellent performance if properly operated and maintained.

Review this manual frequently to familiarize yourself with the unit, its features and its safe operation. *Be sure that you and any other operators carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.* This Manual is considered a permanent part of the unit and it must stay with the unit if the unit is resold.

The warranty statement is included in the literature package. Read it carefully. Also, please complete and return the postpaid owner registration card included with this Manual. The purpose of the card is to register each unit and owner at the factory to provide product updates.

If you have any problems or questions concerning the unit, contact your local authorized dealer or the Factory (see back page of this Manual).

We want to ensure your complete satisfaction at all times.

See Back Cover for Customer Service Information

Safety Alert Symbol



This is a safety alert symbol. It is used in this manual and on the unit to alert you to potential hazards. When you see this symbol, read and obey the message that follows it. Failure to obey safety messages could result in personal injury or property damage.



WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

This machine meets voluntary safety standard B71.3 – 1995, which is sponsored by the Outdoor Power Equipment Institute, Inc., and is published by the American National Standards Institute.

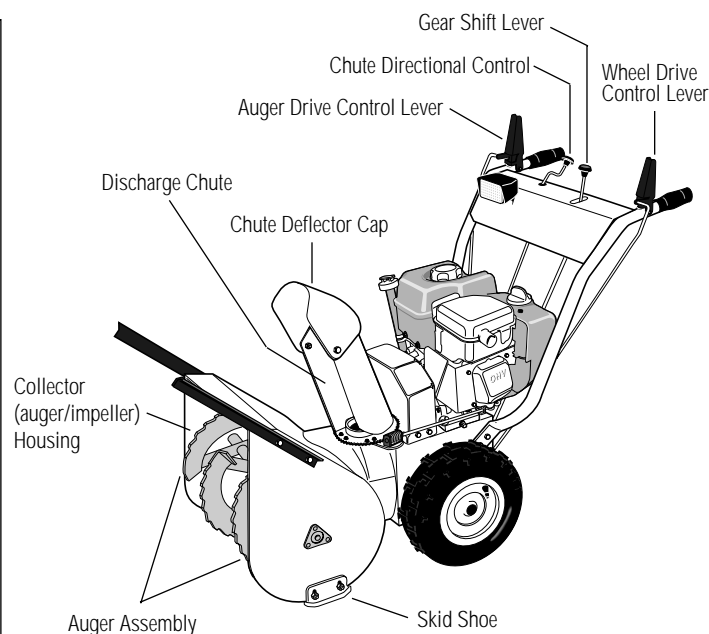
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SPARK ARRESTER WARNING TO RESIDENTS OF CALIFORNIA AND SEVERAL OTHER STATES

Under California law, and under the laws of several other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels on any forest, brush, hay, grain, or grass covered land; or land covered by any flammable agricultural crop without an engine spark arrester in continuous effective working order.

The engine on the unit is an internal combustion engine which burns gasoline, a hydrocarbon fuel, and must be equipped with a spark arrester muffler in continuous effective working order. The spark arrester must be attached to the engine exhaust system in such a manner that flames or heat from the system will not ignite flammable material. Failure of the owner/operator of the unit to comply with this regulation is a misdemeanor under California law (and other states) and may also be a violation of other state and/or federal regulations, laws, ordinances or codes. Contact your local fire marshal or forest service for specific information about which regulations apply in your area.



Training



1. Read this Owner's Manual and the separate Engine Owner's Manual carefully before operating the unit. Be completely familiar with the controls and the proper use of the unit. Know how to stop the unit and disengage the controls quickly. A replacement manual is available by contacting the factory.
2. Never allow children to operate the unit. Never allow adults to operate the unit without proper instruction.
3. Keep the area of operation clear of all persons, particularly small children and pets. Keep bystanders at least 25 feet away from the area of operation.
4. Exercise caution to avoid slipping or falling, especially when operating in reverse.
5. Familiarize yourself with all of the safety and operating decals on the unit and on any attachments or accessories.
6. Do not run the engine in an enclosed area. Engine exhaust contains carbon monoxide gas, a deadly poison that is odorless, colorless, and tasteless. Do not operate the unit near buildings, windows, or air conditioners.

7. Keep hands or any other part of the body or clothing away from the inside of the collector (auger/impeller) housing, the discharge chute opening, or moving parts.
8. Do not operate the unit if you are under the influence of alcohol, medication, or when tired or ill.

Preparation

1. Wear approved safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the unit.
2. Do not wear loose-fitting clothing, such as scarves, which could be caught by moving parts. Tie up or restrain long hair.
3. Before starting the engine, check the tightness of all screws, nuts, bolts, and other fasteners. Replace or clean any damaged or unreadable safety and operating labels.
4. Wear adequate winter outer garments when operating the unit. Wear footwear that will improve footing on slippery surfaces.
5. Use extra care when handling gasoline or other fuels. Gasoline and its vapors are highly flammable and explosive. To help prevent a fire or explosion:

- a. Store gasoline only in an approved gasoline storage container, safely out of the reach of children.
 - b. Never remove the fuel fill cap on the fuel tank, or add fuel while the engine is running or hot.
 - c. Keep matches, smoking materials, open flames, and sparks away from the fuel tank and gasoline storage container.
 - d. Fill the fuel tank outdoors and with extreme care. Never fill the fuel tank indoors.
 - e. Replace the fuel fill cap on the fuel tank, the cap on the gasoline storage container, and clean up fuel spills before starting the engine.
 - f. Leave 1-1/2 inch (3.81 cm) of air space at the top of the fuel tank to allow for fuel expansion.
 - g. Do not store unit or gasoline storage container where there is a danger of an open flame or spark, or where ignition sources are present such as hot water and space heaters, furnaces, clothes dryers, stoves, electric motors, etc.
6. For units equipped with electric-start:
 - a. Only use a 3-pronged, UL rated and approved, outdoor use power cord. Do not use any adapters on the cord.

Section 1: Safety

- b. The 120V A.C. starter is equipped with a three-wire power cord and plug and is designed to operate on 120V A.C. household current. The starter must be properly grounded at all times to avoid the possibility of injury or death from electrical shock. Determine that your house wiring is a Ground Fault Interrupted (G.F.I.) three-wire grounded system, or ask a licensed electrician if you are not sure. If your house wiring system is not a G.F.I. three-wire grounded system, DO NOT use the electric starter under any condition. If your house wiring system is grounded but a G.F.I. three-prong wall receptacle is not available at the location your starter will be used, one should be installed by a licensed electrician.
- c. Inspect the power cord for damage before use. If it is damaged, do not use it.
- d. Stand on dry ground when handling the power cord. Do not handle the power cord with wet hands or wet gloves. Do not use the electric starter if it is raining.
- e. Connect the cord to the electric starter first, and then plug the cord into a properly grounded outlet (this lessens the chances of sparks from occurring near the engine).
- f. Do not abuse the power cord. Do not pull the unit by the cord. Do not pull the cord to disconnect it from the outlet. Keep the cord away from sharp edges, oil, and excessive heat.
- g. Store the power cord in a secure place, safely out of the reach of children.
7. Adjust the skid shoes and scraper blade so the collector (auger/impeller) housing clears gravel or crushed rock surfaces.
8. Never attempt to make any adjustments while the engine is running (except when specifically recommended by the manufacturer).

Operation

1. The operator of the unit is responsible for the safety of all persons in the operating zone of the unit.
2. Before starting the unit, disconnect the spark plug wire and check the collector (auger/impeller) housing and discharge chute to make sure they are free of ice.
3. Disengage all clutches before starting the engine.
4. Let the unit adjust to outdoor temperature before use.
5. Check the operation of the controls before using the unit. Do not operate the unit unless all controls are operating properly.
6. Never carry passengers on the unit. They could fall off and be seriously injured, or they could interfere with safe operation.
7. Keep hands, other body parts, and clothing away from any moving or rotating parts. Keep clear of the intake and discharge openings at all times.
8. Before starting the engine, inspect the area where the unit is to be used and remove all sleds, boards, doormats, wire, bottles, cans, or other debris.
9. Keep children out of the area of operation and under the watchful eye of an adult not operating the unit. Never assume that children will remain where you last saw them.
10. If the unit makes an unusual noise or vibration, immediately shut the engine off, wait for all moving parts to stop, disconnect the spark plug wire from the spark plug and perform the following steps:
 - a. Inspect for damage.
 - b. Replace or repair any damaged parts.
 - c. Check for and tighten any loose parts.

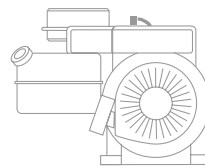


11. Stop the engine and disconnect the spark plug wire whenever you leave the operating position, before unclogging the collector (auger/impeller) housing or discharge chute, and when making any repairs, adjustments, or inspections. Use only a wooden stick (at least 3 feet long) to clear away any blockage.
12. When cleaning, repairing, or inspecting, make certain the auger, impeller and all moving parts have stopped. Disconnect the spark plug wire from the spark plug and secure the wire away from the spark plug.
13. Keep all guards, covers, shields and safety devices in place and in good working condition. Do not attempt to defeat the purpose of any safety device.
14. Exercise extreme caution on slopes.
15. Do not attempt to clear steep slopes.
16. Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes.
17. Always observe the terrain. Watch for and avoid obstacles. Stay away from holes, ditches, soft or steep embankments and other potentially dangerous terrain. Deep snow can hide obstacles and drop-offs.
18. Do not use the unit near drop-offs, ditches, or embankments. If a wheel goes over an edge, or if an edge caves in, the unit could overturn.
19. Never operate the unit at high transport speeds on slippery surfaces. Wet surfaces reduce traction and stability.
20. Look behind and use care when operating the unit in reverse. If you have to pull the unit backward, disengage the auger and wheel drives. Always check behind for hazards.
21. Be extremely careful when using the unit near blind corners, shrubs, trees, and other objects that may obscure vision.

22. Be extremely careful when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic. Remove any hearing protection.
23. Do not overload the machine capacity by attempting to clear snow at too fast a rate.
24. After striking a foreign object, stop the engine, remove the wire from the spark plug, thoroughly inspect the unit for any damage, and repair the damage before restarting and operating the unit.
25. Use only attachments and accessories that are approved for use with the unit (such as wheel weights, counterweights, cabs, and the like). Contact an authorized dealer or the factory if you are not sure about the use of any attachment or accessory.
26. Operate the unit only in daylight or in good artificial light. Always be sure of your footing, and keep a firm hold on the handlebars. Walk; never run.
27. Do not tamper with the engine governor settings. The governor controls the maximum safe engine operating speed and protects the engine and moving parts from damage. Contact your local engine dealer for service if a problem exists.
28. Disengage the auger drive when the unit is being transported or is not in use. Disconnect the spark plug wire from the spark plug to prevent accidental starting.
29. Do not touch the muffler or other engine parts which may be hot from operation. Wait for parts to cool completely before inspecting, cleaning or repairing the unit.
30. Never operate the unit near buildings, glass enclosures, automobiles, window wells, drop-offs, etc., without first properly adjusting the discharge angle and direction. Keep children and pets away.
31. Never direct discharge at persons, animals, vehicles or buildings. Never allow anyone in front of the unit when the engine is running.
32. Disengage the auger and wheel drives if you are approached by any child, inattentive person or pet.
33. Run the unit for a few minutes after use to prevent freeze-up. Remove any snow from the unit (snow can melt, re-freeze and jam the unit).

Maintenance and Storage

1. When the unit is stopped for servicing, inspection, storage, or to change an attachment or an accessory, disconnect the spark plug wire from the spark plug and secure the wire away from the plug. Allow the engine to cool before making inspections, adjustments or performing any maintenance.
2. Maintain the unit and all attachments and accessories in safe working condition.
3. Never perform any maintenance while the engine is running, or when the spark plug wire is connected to the spark plug.
4. Do not store the unit or fuel container inside an enclosure where there is an open flame or spark, or where ignition sources are present, such as: hot water and space heaters, furnaces, clothes dryers, stoves, electric motors, etc.



5. Allow the engine to cool before storing in any enclosure.
6. Store gasoline in a cool, well-ventilated area, safely away from any spark- or flame-producing equipment.
7. Store gasoline only in an approved gasoline storage container, safely out of the reach of children.
8. Use only original equipment replacement parts. Parts manufactured by others could present a safety hazard even though they may fit on the unit.

9. Store the unit where children will not have access to it. Always disconnect the spark plug wire from the spark plug to prevent accidental starting. On units equipped with the electric starting, store the power cord in a secure place, safely out of the reach of children.
10. Check the tightness of the auger shear bolts and other fasteners at frequent intervals to be sure the unit is in safe working condition. Torque shear bolts to 11 ft. lbs. (15 Nm).
11. Maintain or replace safety and instruction decals as needed if they are damaged or illegible.
12. Refer to the separate Engine Owner's Manual for complete engine operating and maintenance information.
13. Refer to the "storage" instructions in this Manual and in the Engine Owner's Manual if the unit is to be stored for an extended period.

Safety Decals

For your personal safety and the safety of others, a number of safety message decals have been affixed to your unit. Keep them clean and legible at all times. Contact your local service dealer or the factory for replacements if any decals are damaged or missing.

Refer to the parts listing for decal locations, part numbers, and ordering instructions.

⚠ WARNING

To prevent personal injury or property damage, do not start the engine until all assembly steps are complete and you have read and understand the safety and operating instructions in this manual.

NOTE: Left and right sides of the unit are determined from the operator position, facing the direction of forward travel.

A. Inspect Unit

Inspect the unit and shipping crate for damage immediately after delivery. Contact the carrier (trucking company) if you find or suspect damage. Inform them of the damage and request instructions for filing a claim. To protect your rights, put your claim in writing and mail a copy to the carrier within 15 days after the unit has been delivered. Contact the Factory if you need assistance.

Tools/Materials Required for Assembly

- (1) Scissors or knife (to cut plastic ties)
- (1) *5/16" wrench
- (1) *3/8" wrench
- (2) *7/16" wrenches
- (2) *1/2" wrenches
- (1) *9/16" wrench
- (1) Phillips head screwdriver (medium)
- (1) Needle-nosed pliers (medium)
- (1) Automotive-type tire pressure gauge
- (1) Funnel
- (1) Clean, high-quality motor oil. Refer to the separate Engine Owner's Manual for the exact oil specifications and amount needed for your engine.

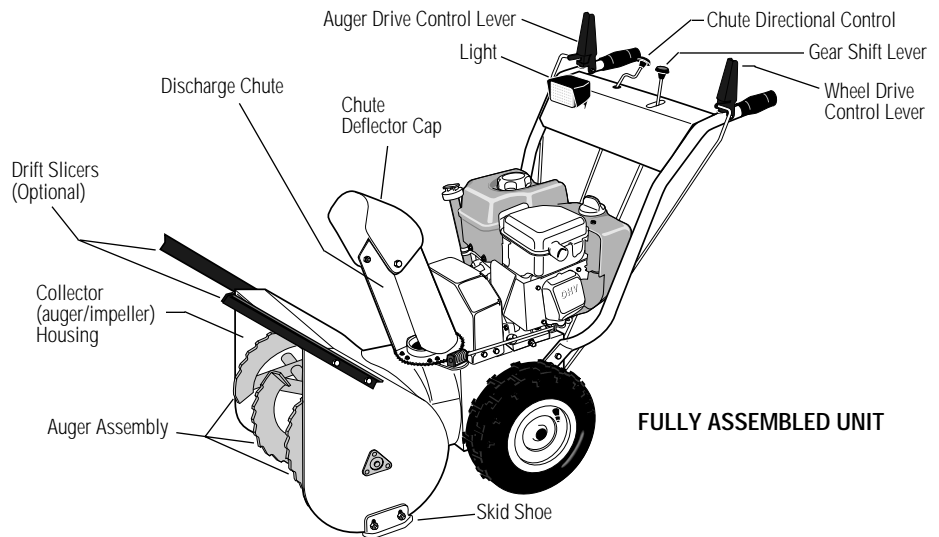
* Adjustable wrenches may be used.

IMPORTANT: Motor oil must be added to the engine crankcase before the engine is started. Follow the instructions in this Section.

B. Unpack Unit

Follow these steps to unpack your unit.

1. After removing cardboard carton, remove discharge chute (O, Figure 2-4) assembly (with attached hardware) from inside cardboard sleeve.



FULLY ASSEMBLED UNIT

2. Cut plastic ties securing handlebar ends to chassis and remove handlebars. Remove any protective wrapping on handlebars.
3. Cut the four plastic ties (two on auger shaft and two on wheel axle) that secure the unit to the shipping pallet.
4. Move unit onto a clean, level surface. **The unit is heavy. To move the unit off the shipping pallet, use caution and obtain the help of at least one assistant.**
5. The hardware bag should contain the following items:

Description	Qty.
Engine Stop Switch Key	1
Plastic Cable Tie	3
Hex Hd. Flange Screw, 3/8-16 x 3/4 ..	4
Hex Hd. Screw, 1/4-20 x 3/4.....	2
Locknut, 1/4-20	2
Phillips Hd. Screw, #10-24 x 3/8	2
Locknut, #10-24	2
Cotter Pin	1
Electric Start Power Cord	1
*Shear Bolt, 5/16-18 x 1-3/4	2
*Locknut, 5/16-18	2

* These are replacement parts (Figure 2-1) that should be kept with this manual (if the auger jams, the shear bolts are designed to break to prevent damage to the auger drive). See Section 5 for replacement information.

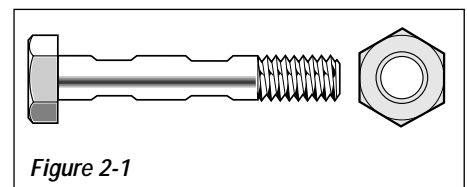


Figure 2-1

C. Remove Drift Slicers (if equipped)

1. Remove the four screws (B, Figure 2-2) and locknuts (two on each side) that secure the drift slicers (A) and remove them from both sides of the collector (auger/impeller) housing.

NOTE: For shipping purposes, the drift slicers are mounted backwards.

2. Place the drift slicers and hardware aside. The drift slicers can be attached after the unit is assembled (see last step of these assembly instructions).

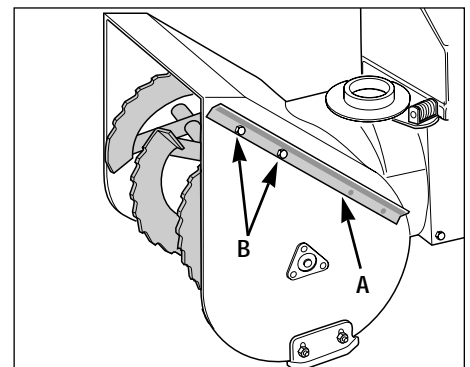


Figure 2-2

D. Install Handlebars

1. Use the four 3/8-16 x 3/4" hex flange screws to attach the handlebars to the sides of the chassis.
 - a. Install a screw in the upper mounting hole (C, Figure 2-3) on each side. Leave screws loose enough to allow handlebar to pivot.
 - b. Install a screw (D) in the lower mounting hole on each side.
 - c. Using light pressure, press down on the left side handlebar and tighten the two screws. Repeat on the right side.
2. There are four pre-installed screws (E, Figure 2-3) on the inside of the handlebars that secure the control panel. Tighten each screw securely.

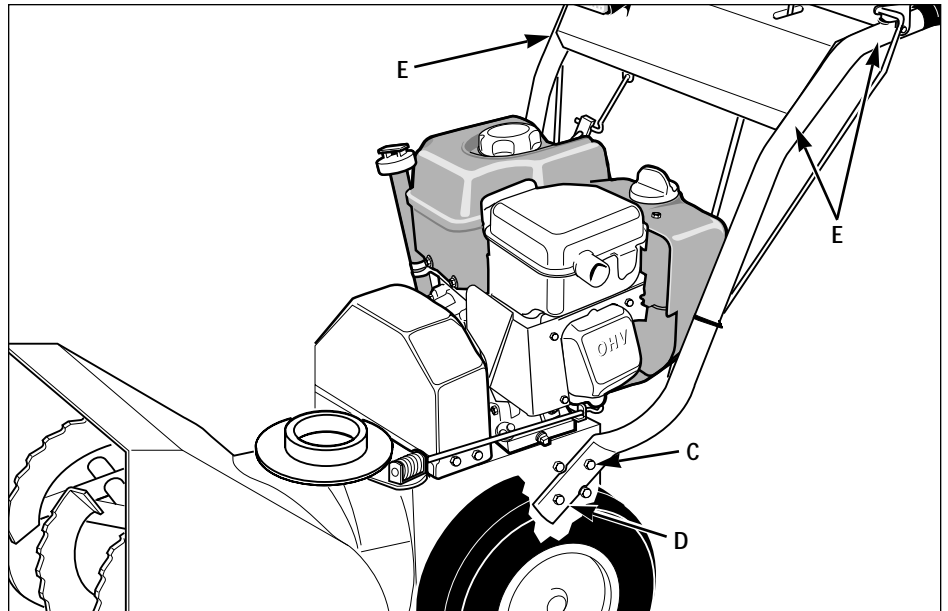


Figure 2-3

E. Install Discharge Chute

1. Remove the cardboard shield from the discharge chute mount opening.
2. Loosen (do not remove) the left and right-side sets of plastic shims (G, Figure 2-4) and plastic hold-down clips (H) on the toothed flange (J) of the discharge chute assembly. Remove and save the remaining (front) hold-down clip, shim and mounting hardware.
3. From either side of the unit, slide the discharge chute onto the chute mounting flange (K, Figure 2-4), making sure that the plastic shims (G) are above the flange and the plastic hold-down clips (H) are below the flange. Tighten the clip mounting hardware securely (if necessary, rotate the discharge chute to the right to tighten the left-side clip).
4. Hook the front hold-down clip (H, Figure 2-4) under the mounting flange (K) and place the front plastic shim (G) on top of the hold-down clip, between the top of the flange and the toothed chute flange. Secure with the mounting hardware previously removed.
5. Remove the plastic tie that secures the worm gear assembly (L, Figure 2-4) to the mounting bracket.

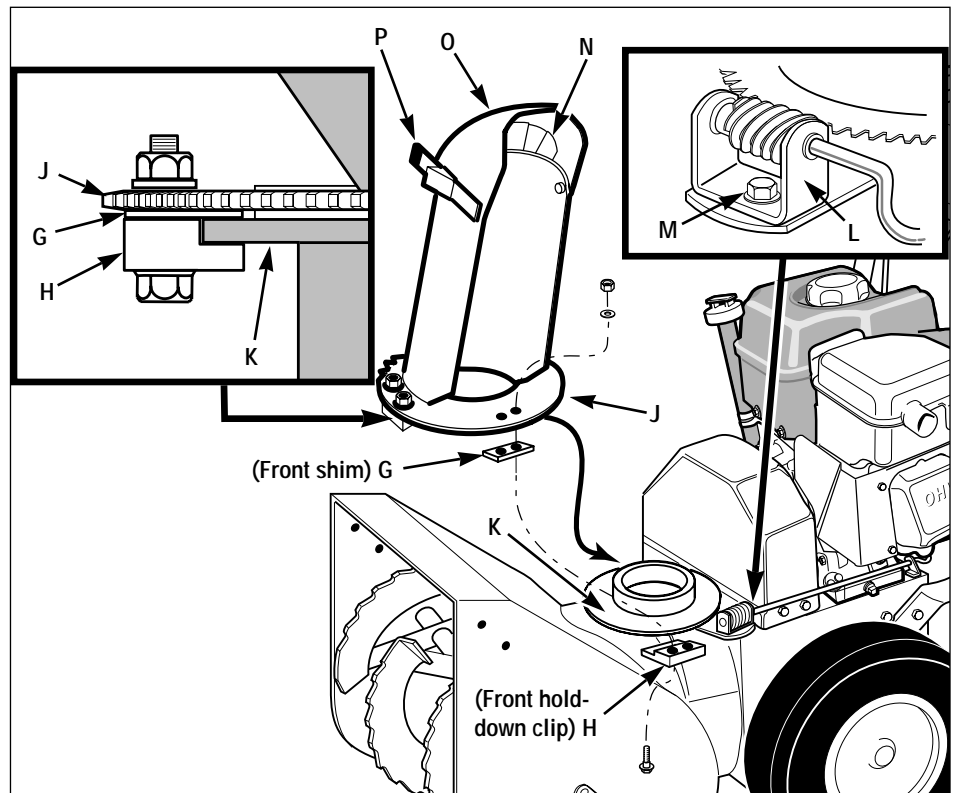


Figure 2-4

Section 2: Assembly

6. Remove the washer and locknut from the screw (M, Figure 2-4) in the worm gear assembly (L). Position the worm gear assembly on the mounting bracket as follows:
 - a. Engage the worm gear threads 1/2-way with the teeth on the flange of the discharge chute base (rotate chute as needed).
 - b. The length of the worm gear should be centered with the teeth on the flange of the discharge chute base.
 - c. Reinstall the washer and locknut on the screw (M) and tighten securely.
7. Insert the flexible fins on the plastic snow deflector (N, Figure 2-4) inside the chute deflector cap (O). Close the deflector cap by pulling the lever (P) outward and moving the deflector cap down. Release the lever to secure the deflector cap in one of the discharge angle selector holes.

F. Attach Chute Control Rod

1. Remove the plastic tie that secures the auger drive control rod (AA, Figure 2-5) to the right handlebar. Next, remove the plastic tie that secures the chute crank rod (short rod with plastic swivel blocks) to the auger drive control rod.
2. Pull the chute crank rod (Z, Figure 2-5) up through the top of the control panel.
3. Attach the chute control rod sections (S and U, Figure 2-5) as follows:
 - a. Insert the angled end of the chute control rod, (U, Figure 2-5 inset) into the hole in the swivel block (V) that is attached to the end of the chute crank rod (S).
 - b. Insert a cotter pin (W) through the hole in the chute control rod (U) and spread the ends of the cotter pin.
4. Position the chute control rod support bracket (Y, Figure 2-6) against the underside of the handlebar console as shown. Secure the bracket with the two #10–24 x 3/8" Phillips pan head screws and #10–24 locknuts supplied.
5. Rotate the chute control crank (Z, Figure 2-5). The discharge chute should turn freely, but with enough resistance to prevent free rotation of the discharge chute during snow removal operation. Adjust the worm gear assembly bracket (L, Figure 2-4) as necessary to prevent binding.

G. Attach Auger Drive Control Rod

1. Remove the plastic tie that secures the auger drive control arm (AD, Figure 2-7) to the transmission shift arm (AB).
2. The auger drive control rod (AA, Figure 2-7) has been pre-adjusted at the factory. To avoid misadjustment, do not rotate the jam nut (AT, Figure 2-7) while completing the following steps.
3. Hold jam nut (AT) in place with a 7/16" wrench and use another 7/16" wrench to thread the adjusting thimble (AS) downward a total of 12 turns.
4. Raise Auger Drive Control Lever (X, Figure 2-5) all the way up. Then hook the spring (AC, Figure 2-7) at the lower end of the auger drive control rod (AA) into the hole in the auger drive control arm (AD).
5. Thread the adjusting thimble (AS, Figure 2-7) upward until it contacts the jam nut (AT). Using two wrenches, tighten the jam nut against the adjusting thimble.
6. Check that the spring (AC) is under the correct amount of tension by performing Steps 2 through 5 of *Auger Drive Belt(s) Adjustment* in Section 5 of this manual.

H. Attach Wheel Drive Control Rod

1. Remove the plastic tie that secures the wheel drive control rod (AE, Figure 2-7) and the gear shift control rod (AF) to the left handlebar.
2. Hook the spring (AG, Figure 2-7) at the lower end of the wheel drive control rod (AE) into the hole in the wheel drive control arm (AH). If necessary, raise the wheel drive control arm (AH) while attaching the spring.
3. Check that the spring (AG) is under the correct amount of tension by performing Steps 1 through 4 of *Wheel Drive Disc Adjustment* in Section 5.
4. The wheel drive control rod has been pre-adjusted at the factory. When the engine is started, as described in the *Operation* section, you will be given a functional check to make sure the wheel drive control rod is properly adjusted.

I. Attach Gear Shift Control Rod

1. Place the Gear Shift Select Lever (T, Figure 2-5) in the No. 5 position.
2. Gently push the transmission shift arm (AB, Figure 2-8) fully downward.
3. Align the holes in the transmission shift arm (AB) and the lower end of the gear shift control rod (AF). If the holes do not align, follow the *Gear Shift Rod Adjustment* procedure in Section 5.
4. Use two 1/4-20 x 3/4 hex head screws and 1/4-20 locknuts (Figure 2-8) to attach gear shift control rod (AF) to transmission shift arm (AB).

Section 2: Assembly

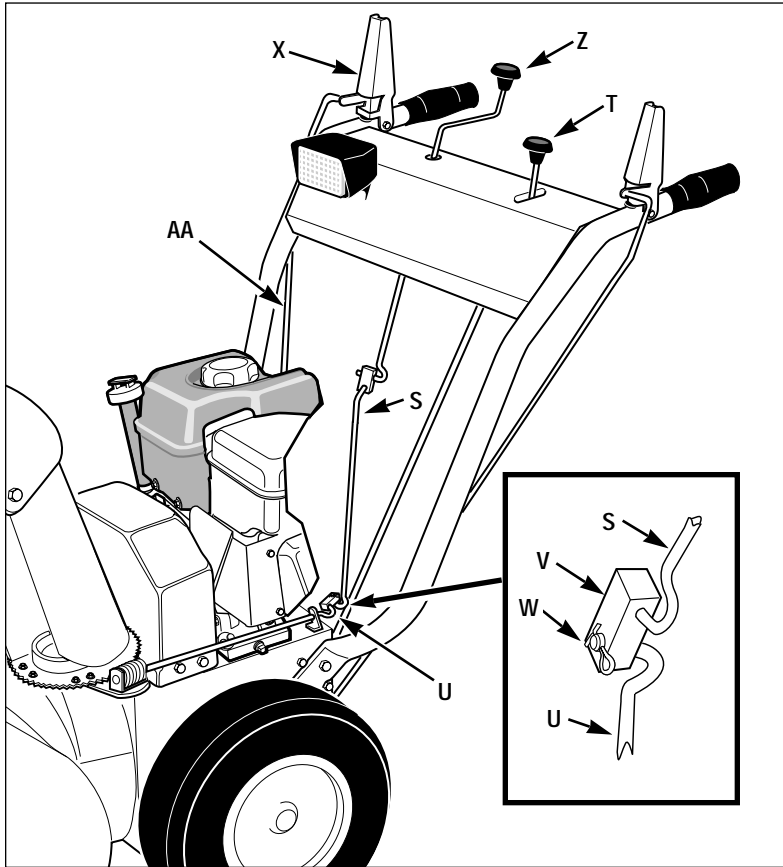


Figure 2-5

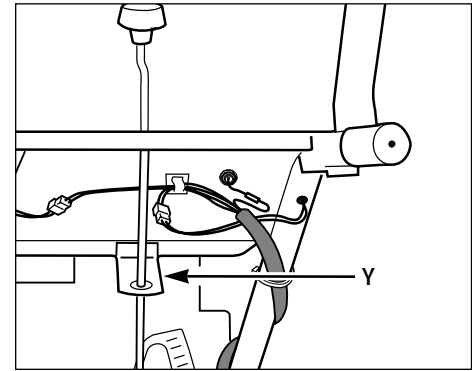


Figure 2-6

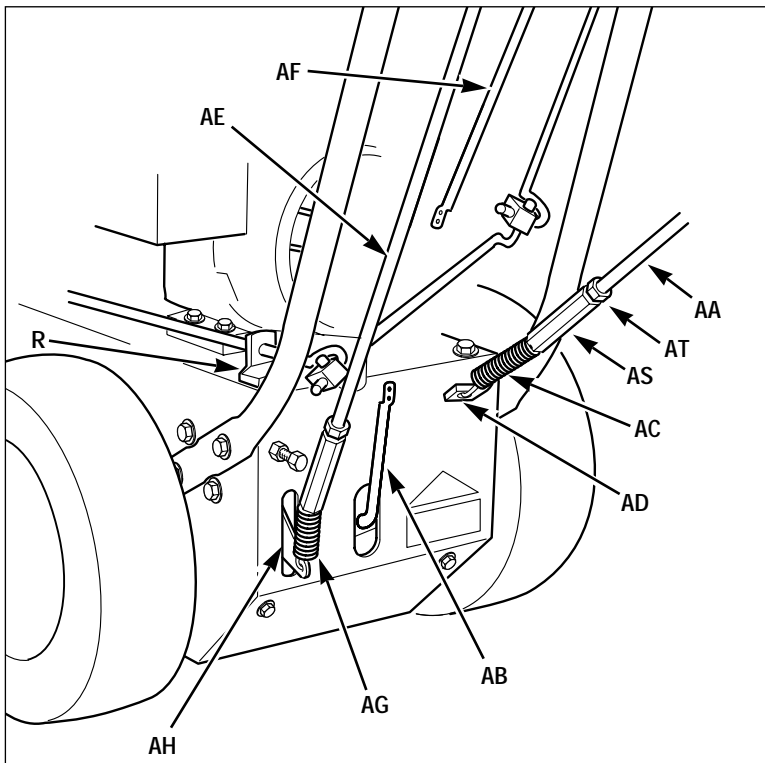


Figure 2-7

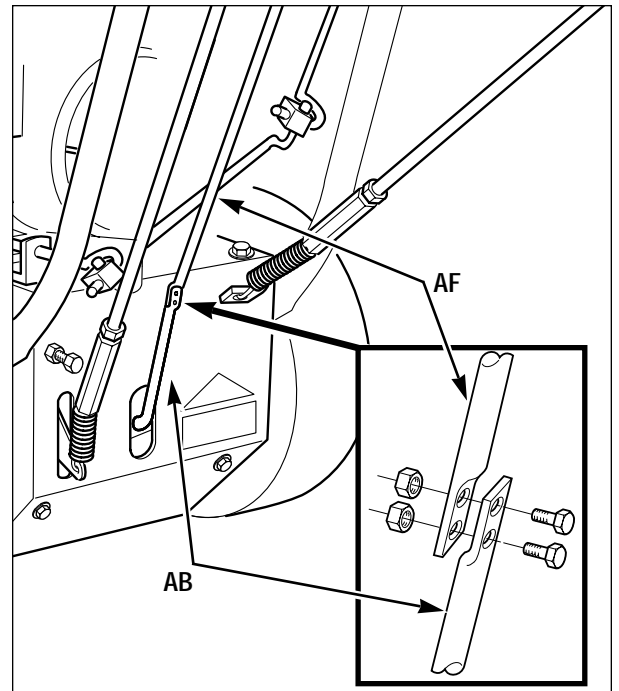


Figure 2-8

Section 2: Assembly

J. Connect Wiring for Handlebar Warmers and Light

1. Gently unwind the electrical wiring harness (A, Figure 2-9) from its shipping position and route it back toward the right-side handlebar.
2. Without over-stretching the wiring harness, loop it up and around the handlebar as shown in Figure 2-9.
3. Connect the double-stranded black and red wires leading from each handlebar to the matching wires leading from the wiring harness. The plastic connectors can only be plugged in one way.
4. Connect the single black wire leading from the light to the single black wire leading from the wiring harness.
5. Remove excess slack from the wiring harness and insert the wires into the two wire clips shown in Figure 2-9. On the right-side of the engine, tuck the wire harness in between the starter box and the side of the engine (see inset, Figure 2-9).
6. Using the plastic wire ties (B, Figure 2-9) provided, loosely secure the wiring harness to the handlebar.

K. Add Motor Oil to Crankcase

CAUTION

Do not start engine until engine crankcase has been filled with motor oil. Failure to follow this instruction will result in serious engine damage.

1. Be sure that the engine is level before checking or adding oil.
2. Unscrew dipstick. Fill oil at the dipstick opening with fresh oil. See the Engine Owner's Manual for correct oil specifications and quantity required. Do not use SAE 10W40.
3. Wait a few minutes after filling, allowing oil to settle. Insert dipstick and tighten securely. Remove dipstick and check oil level. Oil level on dipstick should always be at the "FULL" mark. Adjust oil level as necessary. Reinsert and tighten dipstick.

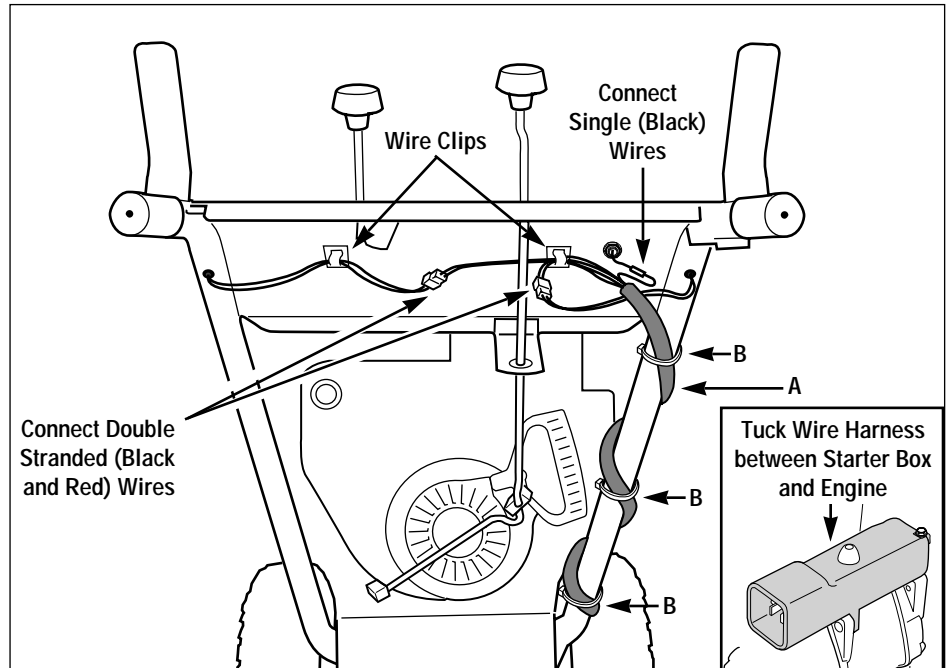


Figure 2-9

L. Check Auger Gear Case Oil Level

The auger gear case was filled at the factory with the correct amount of SAE 90 gear oil. This level should be checked before using the unit. Refer to *Lubrication* in the Maintenance section of this manual for complete information.

M. Check Tire Pressure

Check the air pressure in both tires using an automotive-type tire pressure gauge. Inflate tires evenly to 8-12 psi (55-82 kPa).

N. Install Drift Slicers (if equipped)

The drift slicers (C, Figure 2-10) are designed for use in deep snow. Their use is optional for normal snow conditions.

NOTE: For shipping purposes, the drift slicers are installed backward.

To install the drift slicers:

1. Position the drift slicers as shown, (C, Figure 2-10) to the outside of the collector (auger/impeller) housing.
2. Attach the drift slicers with the four 5/16-18 x 3/4 screws and locknuts (D) provided with the drift slicers.

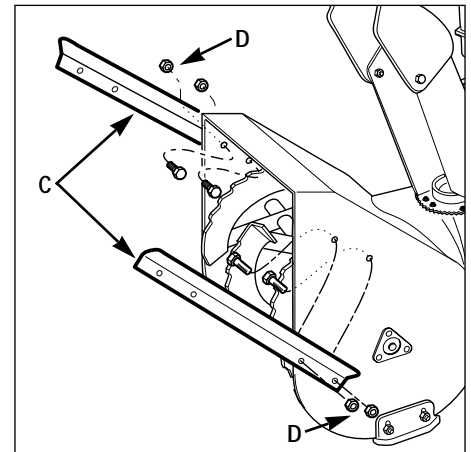


Figure 2-10

Features and Controls

⚠ WARNING

Before operating your machine, carefully read and understand all safety, controls, and operating instructions in this manual, the separate Engine Owner's Manual and on the decals on the machine.

Failure to follow these instructions can result in serious personal injury.

IMPORTANT: Refer to the separate Engine Owner's Manual for detailed information about the controls on the engine.

Wheel Drive Control Lever (A, Fig. 3-1)

This lever controls the engagement of the wheel drive. When the lever is down against the handlebar and the engine is running, the wheels will rotate. See Section 5 of this manual for adjustment information.

Auger Drive Control Lever (B, Fig. 3-1)

This lever controls the engagement of the auger drive. When the lever is down against the handlebar and the engine is running, the auger (R, Figure 3-4) and impeller (S) will rotate. See Section 5 of this manual for adjustment information.

Gear Shift Lever (C, Fig. 3-1)

This lever controls the selection of travel speeds: five forward and two reverse. See Section 5 of this manual for adjustment information.

Discharge Chute Control Rod (D, Fig. 3-1)

This lever controls the direction of the discharge chute. Approximately ten turns of this crank moves the discharge chute all the way from one side to the other.

Discharge Chute Deflector Cap and Lever (E & F, Fig. 3-2)

The discharge chute deflector cap (E) controls the vertical angle of the snow discharge. To adjust the discharge angle, move the discharge cap by pulling lever (F) outward and moving the discharge deflector cap up or down. The discharge chute deflector cap should usually be adjusted to a low angle, especially in windy conditions.

Fuel Shut-Off Valve (G, Fig. 3-3)

The fuel shut-off valve controls fuel flow from the fuel tank to the carburetor. Turn valve 1/4 turn clockwise to OFF (closed) position when storing or transporting unit.

Turn valve 1/4 turn counterclockwise to ON (open) position before starting engine.

Throttle (H, Fig. 3-3)

The throttle controls the speed of the engine and is used to stop the engine. NOTE: The engine lubrication and cooling systems operate best at full throttle.

Primer Button (J, Fig. 3-3)

The primer button pumps small amounts of gasoline into the engine to improve cold weather starting.

Recoil Starter (K, Fig. 3-3)

Used for pull-starting the engine.

Stop Switch Key (L, Fig. 3-3)

This key-like device is used to stop the engine (the Throttle, as described above, can also be used to stop the engine). Push the key in before starting the engine. Pull it out to stop the engine. Do not twist the key.

Electric Starter (M, Fig. 3-3)

The electric starter uses 120VAC house current to start the engine. Use only the electric cord provided with the unit to connect to house current.

Choke Knob (N, Fig. 3-3)

The choke knob controls the air/gasoline mixture that is fed into the engine. Use the CHOKE setting when starting the engine and the RUN setting during operation. A warm engine may not require choking when starting.

Skid Shoes (O, Fig. 3-4)

The skid shoes control the distance between the collector (auger/impeller) housing/scrapper blade and the ground. This distance should be adjusted to clear any uneven or gravel surfaces. Refer to Section 5 for adjustment information.

Scraper Blade (P, Fig. 3-4)

The scraper blade (P) clears snow close to the pavement. Refer to Section 5 for adjustment information.

Light (T, Fig. 3-2)

The light is powered by the engine and stays on during engine operation.

Handlebar Warmers

The handlebar warmers are activated when the engine is running. The handlebar grips will warm gradually to the touch.

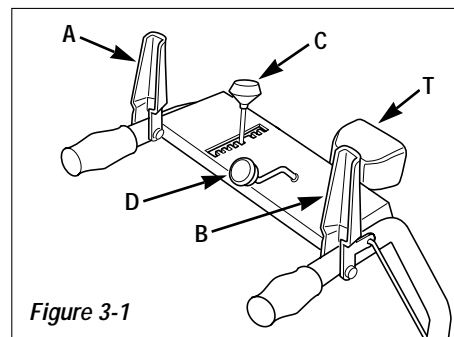


Figure 3-1

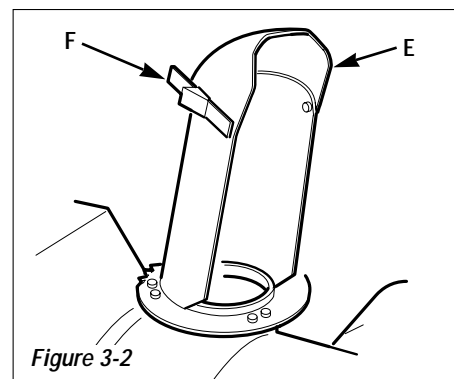


Figure 3-2

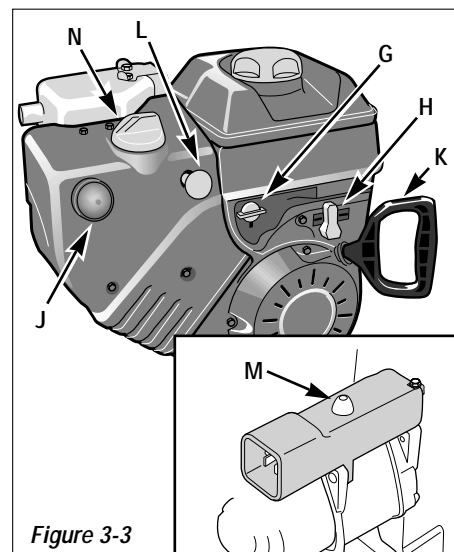


Figure 3-3

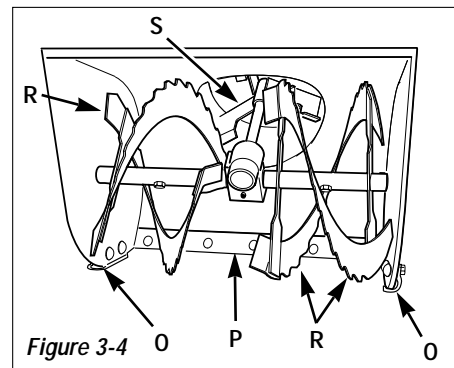


Figure 3-4

PRE-OPERATION CHECKLIST

Perform the following checks with the engine stopped and the spark plug wire disconnected from the spark plug.

1. Review Section 1: *Safety* and Section 3: *Features and Controls* in this manual.
2. Check for loose or missing hardware. Tighten or replace as needed.
3. Visually check inside the collector (auger/impeller) housing and the discharge chute and remove any debris.

⚠ CAUTION

Do not start engine until engine crankcase has been filled with oil. Failure to follow this instruction will result in serious engine damage.

4. With the unit on level ground, check the engine oil level according to the instructions in the engine manual. The oil level should be at the "FULL" mark on the dipstick.

⚠ DANGER

GASOLINE IS HIGHLY FLAMMABLE AND ITS VAPORS ARE EXPLOSIVE.

- Follow the gasoline safety rules in this manual (Section 1) and in the separate *Engine Owner's Manual*.
- Failure to follow gasoline safety instructions can result in serious personal injury and property damage.

5. Turn off engine and let it cool for at least 2 minutes before removing the gasoline fill cap. Remove the fill cap and check the level of gasoline in the fuel tank according to the instructions in the engine manual.

Use fresh, clean, unleaded gasoline (refer to engine manual for additional gasoline information). Do not overfill fuel tank. Fill to approximately 1-1/2 inches below top of neck to allow for fuel expansion. **DO NOT MIX OIL WITH GASOLINE!** Tighten the gasoline fill cap securely.

6. The unit should be adjusted so the collector (auger/impeller) housing and

the scraper blade (A, Figure 4-1) are 1/8" above the surface to be cleared. If clearing gravel or uneven surfaces, increase the clearance so gravel or other foreign objects are not scooped up into the auger.

To adjust the collector housing height/scraper blade height:

- a. Move the unit onto a level surface.
 - b. Loosen the four screws securing the two skid shoes (B, Figure 4-1).
 - c. Adjust the skid shoes (B) until they are in the correct position to support the collector (auger/impeller) housing and the scraper blade (adjust skid shoes equally to prevent uneven snow removal).
 - d. Tighten the four screws.
 - e. The scraper blade (A, Figure 4-1) can also be adjusted. Adjust the scraper blade at the four carriage bolts (C, Figure 4-1). Adjust the bottom edge of the scraper blade so it is parallel to the bottom edge of the auger.
7. Use the lever on the Discharge Chute Deflector Cap (D, Figure 4-3) to adjust the deflector cap to the desired angle of discharge. Usually keep the angle of the deflector cap low, especially in windy conditions.
 8. Rotate the Discharge Chute Control Rod (E, Figure 4-3) and check for binding. Leave the discharge chute pointing straight ahead.
 9. Check the Auger Drive and Wheel Drive control levers (F and G, Figure 4-3) for freedom of movement.
 10. Check the tire pressure. Inflate both tires evenly to 8 to 12 PSI (55 to 82 Kpa).
 11. Apply silicone spray on the inside of the discharge chute, the chute discharge deflector cap, the collector (auger/impeller) housing, and on the augers. This will help prevent snow from sticking (do not allow silicone spray on rubber or plastic: damage can result).
 12. Reconnect the spark plug wire (see engine manual) to the spark plug.

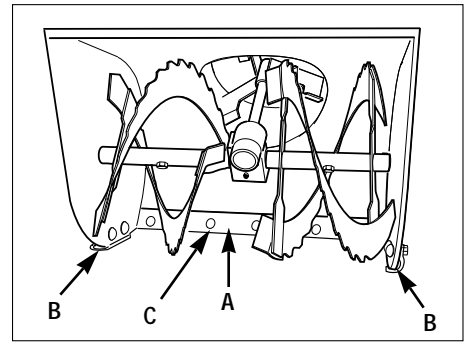


Figure 4-1

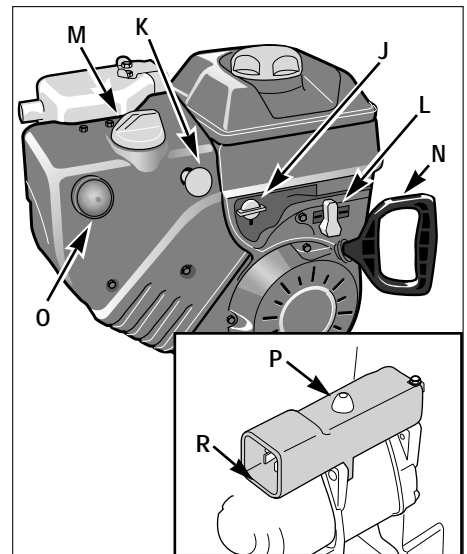



Figure 4-2

STARTING THE ENGINE

1. Complete the *Pre-Operation Checklist*. Read the engine manual before starting the engine.
2. Move the unit outside to a well-ventilated, level area. Put the Gear Shift Lever (H, Figure 4-3) into the desired gear position. Use the slowest (1) forward and reverse (R1) speed setting when first using the unit.
3. Rotate the Fuel Shut-Off Valve (J, Figure 4-2) 1/4 turn counterclockwise to the ON (open) position.
4. Move the Throttle Lever (L, Figure 4-2) to the FAST  position.
5. Insert the Stop Switch Key (K, Figure 4-2) all the way into the switch. (The key was included in the hardware bag with other loose parts.)
6. Turn Choke Knob (M, Figure 4-2) to CHOKE setting (a warm engine may not require choking when restarting).

7. Push the Primer Button (O, Figure 4-2) three times (cover hole in center of bulb when pushing).
8. To start engine with recoil starter:
 - a. Before pulling recoil starter (N, Figure 4-2), be sure there are no obstacles behind you.
 - b. Pull recoil starter handle rapidly to overcome engine compression, prevent kick-back and start engine. Maintain control of rope so it slowly returns into the starter mechanism. Repeat pulling until engine starts. If engine fails to start, repeat starting instructions beginning with Step 3.
 - c. Let engine warm up. Rotate Choke Knob (M, Figure 4-2) toward RUN setting a little at a time over several seconds in warm weather, or minutes in cold weather. Let engine run smoothly before each change. Operate engine with choke in RUN.
 - d. Allow unit to adjust to outside temperature before clearing snow.
8. To start engine with electric starter:

⚠ WARNING

TO PREVENT ELECTRIC SHOCK:

- Do not use the 120VAC electric starter in the rain.
- Do not stand in water or on damp surfaces when using the electric starter or when connecting power cord.
- Connect the power cord only to a properly grounded, 120VAC wall outlet.
- Review electric start safety messages in the Engine Owner's Manual and in Section 1 of this Manual.

- a. Plug power cord supplied with unit into the electric start switch box (R, Figure 4-2) on the engine.
- b. Plug the other end of the power cord into a properly grounded, 3-pronged 120VAC wall outlet.

IMPORTANT: To prolong starter life, use short starting cycles (five seconds maximum, then wait one minute).

- c. Push the starter button (P, Figure 4-2) on the switch box. When the engine starts, release the button.

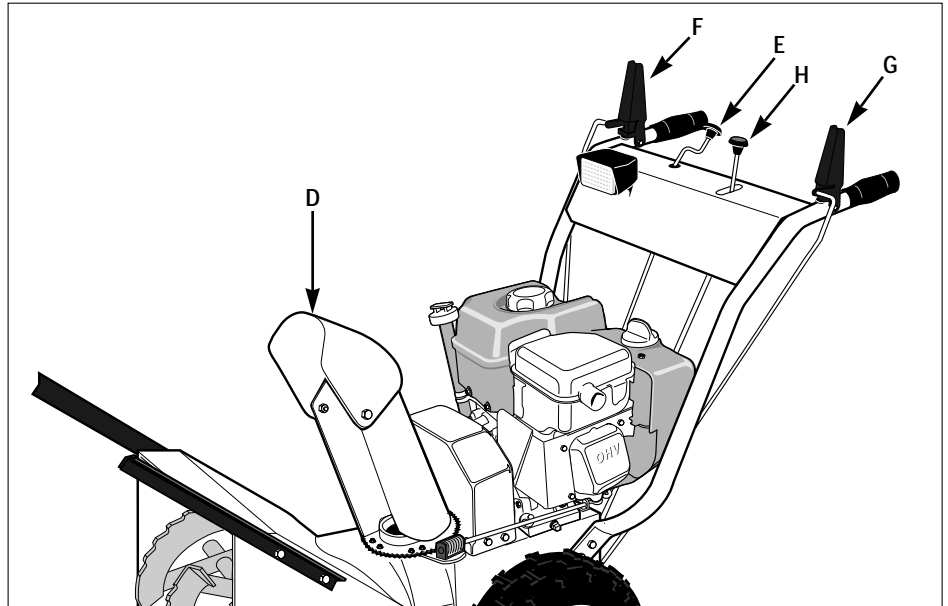


Figure 4-3

Disconnect power cord from wall outlet and then from engine. (Store power cord in a secure place, safely out of the reach of children.) If engine fails to start, repeat starting instructions beginning with Step 3.

NOTE: The starter is thermally protected. If overheated from continuous use, it will stop automatically and can be restarted only when it has cooled to a safe temperature (a wait of approximately 5-10 minutes is required).

- d. Let engine warm up. Rotate Choke Knob (M, Figure 4-2) toward RUN setting a little at a time over several seconds in warm weather, or minutes in cold weather. Let engine run smoothly before each change. Operate engine with choke in RUN.
- e. Allow unit to adjust to outside temperature before clearing snow.

STOPPING

Emergency stopping

1. Release both control levers (F and G, Figure 4-3).
2. Move the Throttle Lever (L, Figure 4-2) to the STOP position or pull the engine Stop Switch key (K, Figure 4-2) out.

⚠ WARNING

Do not attempt to stop engine by moving Choke Control to CHOKE. Backfire, fire or engine damage could occur.

Normal (non-emergency) stopping

1. Release both control levers (F and G, Figure 4-3). Wait for the unit to come to a complete stop.
2. Move the Throttle Lever (L, Figure 4-2) into the SLOW "☛" position. Allow the engine to idle for several minutes to melt any snow on the engine. Then move throttle to STOP position.
3. Pull engine Stop Switch key (K, Figure 4-2) out. To prevent unauthorized use of unit, remove key and store it in a safe place.
4. Rotate Fuel Shut-Off Valve (J, Figure 4-2) 1/4 turn clockwise to OFF (closed) position.
5. Disconnect the spark plug wire from the spark plug.
6. To help prevent possible freeze-up of controls:
 - a. Wipe all snow and moisture from vicinity of controls.
 - b. Move Throttle Lever back and forth several times and leave in STOP position.
 - c. Rotate Choke Knob several times and leave in CHOKE position.

Section 4: Operation

AUGER DRIVE ENGAGEMENT

WARNING

Stop the engine and remove the spark plug wire from the spark plug before removing any debris from the collector (auger/impeller) housing.

1. Remove any debris from inside the collector (auger/impeller) housing.
2. Adjust the discharge chute deflector cap (D, Figure 4-3) angle with adjustment lever. The deflector cap should usually be adjusted to a low angle, so it is not pointing at any persons, animals, buildings or vehicle, especially in windy conditions.

NOTE: If the auger does not start or stop rotating as described in Steps 3 and 4 below, an adjustment is required. Refer to *Auger Drive Belt Adjustment* in the Maintenance section.

3. Engage the auger drive by squeezing the Auger Drive Control Lever (F, Figure 4-3) against the handlebar. The auger should immediately begin to rotate.
4. Disengage the auger drive by releasing the Auger Drive Control Lever (F). The auger should stop within five (5) seconds.

WHEEL DRIVE ENGAGEMENT

1. Clear all obstructions from in front of the unit.
2. Stand behind the unit in the operating position.
3. Move the Gear Shift Lever (H, Figure 4-3) into the first "1" gear position.

NOTE: If the wheels do not start or stop rotating as described in Steps 4 and 5 below, an adjustment is required. Refer to *Wheel Drive Disc Adjustment* in the Section 5 of this manual.

4. Engage wheel drive by squeezing the Wheel Drive Control Lever (G, Figure 4-3) against the handlebar. The unit should immediately move forward.
5. Disengage the wheel drive by releasing the Wheel Drive Control Lever. The wheels should stop.

NOTE: To move the unit without throwing snow, engage only the Wheel Drive Control Lever.

AUGER DRIVE/WHEEL DRIVE INTERLOCK FEATURE

The auger drive/wheel drive interlock feature allows the auger and the wheels to be operated with just one hand, thus freeing the other hand to operate the Discharge Chute Control Rod. To engage both functions, squeeze both the Auger Drive and the Wheel Drive levers all the way down. Holding just the Wheel Drive Control Lever will keep both levers down in the drive position. To disengage, release the Wheel Drive Control Lever.

NOTE: If the Auger Drive Control Lever does not disengage when you release the Wheel Drive Control Lever, an adjustment is required. Refer to *Auger Drive Belt Adjustment* in the Section 5.

SHIFTING GEARS

1. Release both the auger and wheel drive control levers (F and G, Figure 4-3). Wait for the unit to come to a complete stop.

CAUTION

Transmission damage could occur if the Gear Shift Lever is moved when the unit is in motion. Carefully follow the shifting instructions.

2. Move the Gear Shift Lever (H, Figure 4-3) into the desired position.
3. Re-engage the control levers (F and G), as required.

NOTE: There should be full forward travel in gear position "5" and full reverse travel in gear position Reverse "R2". If not, refer to *Gear Shift Rod Adjustment* in Section 5.

Reverse

The two reverse settings are used to maneuver the snow thrower. Observe the "WARNING" statement before operating the snow thrower in reverse.

WARNING

Use extreme caution when operating the unit in reverse. Clear all obstacles away from the unit before operating in reverse. Be prepared for the unit to move toward you when the Gear Shift Lever is in the reverse position.

TRANSPORTING THE UNIT

Release the Auger Drive Control Lever to disengage the auger drive whenever the unit is being moved to and from the work site.

The unit is extremely heavy. Have at least one other person help you when loading or unloading the unit into a truck or trailer. Use ramps when loading or unloading the unit onto a trailer or truck. Securely tie the unit to prevent shifting while in transit.

SNOW THROWING TIPS

WARNING

Thoroughly inspect the area where the unit will be used before the first snowfall. Remove all doormats, sleds, boards, wires and other debris to prevent injury from thrown objects.

- Remove snow as soon as possible after a snowfall.
- Run the engine at full throttle (the "5" position).
- Apply silicone spray onto the inside of the collector (auger/impeller) housing, the discharge chute, the deflector cap, and also on the augers to help prevent snow from sticking. (Do not spray silicone on rubber or plastic: damage will result).
- Direct discharge downwind.
- If a smooth area is being cleared, adjust the skid shoes so the scraper blade is approximately 1/8" (3mm) from the ground.
- If a rough or gravel area is being cleared, adjust the skid shoes so the scraper blade clears the rough or gravel surface.
- Use slow travel speeds for safety and to prevent overloading the unit.

⚠ WARNING

Do not use your hands or feet to dislodge snow from inside the collector (auger/impeller) housing or the discharge chute. Any contact with the moving parts will cause serious injury.

Stop the engine and remove the spark plug wire from the spark plug and use a long (at least 3-feet [100CM] long) wooden stick to unclog these areas.

SNOW THROWING PATTERNS

Use the snow clearing pattern shown in Figure 4-4 when snow can only be thrown to one side. Begin throwing snow closest to the side opposite where it can be thrown and direct the discharge away from that side. When turning the unit around after each pass, rotate the discharge chute as you proceed so snow continues to be thrown in the proper direction.

Use the snow clearing pattern shown in Figure 4-5 to throw snow to both sides. When turning the unit, rotate the discharge chute as necessary to throw snow in the proper direction.

As you turn, rotate the discharge chute so that the snow is always thrown in this direction.

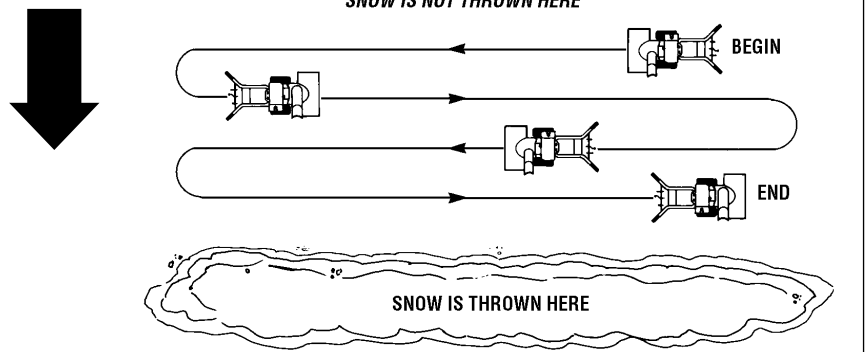


Figure 4-4

The discharge chute stays the same direction except when turning. Snow is thrown to each side.

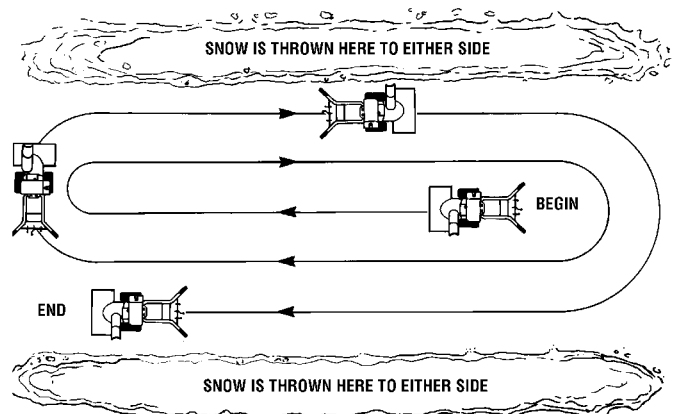


Figure 4-5

⚠ WARNING

Moving parts on the unit can cause serious personal injury.

Shut off the engine, let all moving parts stop completely, disconnect the spark plug wire and prevent it from touching the spark plug before performing any maintenance or service procedures.

ENGINE MAINTENANCE

IMPORTANT: Refer to the Engine Owner's Manual for complete engine maintenance information.

Engine Oil

- Check the engine oil level each time before starting the unit and after each 5 hours of operation. With the engine on level ground, the oil level should be at the "FULL" mark on the dipstick. Refer to the engine manual for oil specifications and complete instructions.
- Change the engine oil according to the maintenance intervals and instructions in the engine manual.

TIP: When changing engine oil, fold a piece of cardboard or aluminum foil into a shallow "V", and position it so the oil will drain through it into the container.

To check the engine oil level:

1. Move the unit to a level surface. Stop the engine, wait for all parts to stop moving and disconnect the spark plug wire from the spark plug.
2. Remove the oil dipstick and wipe the dipstick with a clean cloth.
3. Screw the oil dipstick back into the oil fill hole. Remove the dipstick and check the oil level – it should be up to the "FULL" mark on the dipstick. If low, add oil by using the oil dipstick as a guide. Refer to engine manual for detailed instructions.

Ignition System

The engine has an electronic ignition system which does not use points or a condenser. The spark plug is the only item requiring maintenance in this system.

Spark Plug

Annually or every 100 hours of operation, remove and inspect the spark plug. Replace the spark plug if the electrode is pitted or burned or if the porcelain is cracked. Refer to the engine manual for correct spark plug specifications and servicing instructions.

NOTE: Use of an incorrect plug can damage the engine.

Carburetor

The carburetor has been adjusted at the factory and should not require additional adjustment. Refer to the engine manual or contact your dealer for additional carburetor information.

LUBRICATION

At the beginning and end of each season or after every 25 hours of operation, lubricate the unit as recommended below. The engine must be stopped and the spark plug wire disconnected before performing any lubrication.

1. Lightly oil both the discharge chute cap pivot points (A, Figure 5-1).
2. Lightly oil the discharge chute control rod pivot points where the control rod enters the control panel bearing (B, Figure 5-3), the support tab (C) and the support on the left rear of unit housing (D, Figure 5-4).
3. Remove the left wheel (E, Figure 5-1). Clean the wheel shaft and apply multi-purpose grease to the wheel shaft. Reinstall the wheel.
4. Apply oil to the bearings on the sides of the auger shaft (F, Figure 5-1).
5. Clean dirt and old grease from the flange at the bottom of the discharge chute (G, Figure 5-1). Apply multi-purpose grease to the worm gear (H) and to the toothed portion of flange and the flange.
6. Lightly lubricate the handlebar control levers at pivot points (J, Figure 5-3) with oil or a non-silicone spray. Do not get oil or lubricating spray on levers.

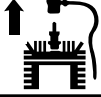
7. Lightly oil the pivot points on the gear shift control lever (K, Figure 5-3).
8. Remove the two shear bolts (L, Figure 5-5) from the auger shaft, then lubricate the four auger grease fittings (M, Figure 5-5) using a grease gun. Rotate auger three or four times. Reinstall shear bolts, torque to 11 ft-lbs (15Nm).
9. Check the auger gear case oil level :
 - a. Place the unit on a smooth, level surface. Unscrew the plug (N, Figure 5-5) from the front of the gear case.
 - b. Inspect plug hole. Oil should just begin to seep out of the hole. Add SAE 90 gear oil if necessary until oil just begins to flow out of hole. Let the excess oil drain out of the gear case.
 - c. Reinstall the plug (N).
10. Remove bolts (O, Figure 5-4) securing bottom cover to unit. Remove bottom cover. Put gear shift lever in highest speed setting and apply a coating of multi-purpose grease to the shafts (P and R, Figure 5-2). Prevent grease from contacting rubber drive wheel (S) or drive disk (T). If grease should contact these parts, wipe clean to avoid slippage and assure proper operation. Move shift lever between high speed and reverse settings to spread grease along shafts. Replace bottom cover.

WHEEL DRIVE DISC ADJUSTMENT

Due to wear, the wheel drive control disc may begin to slip when wheel drive lever is engaged. To adjust wheel drive disc:

1. With the engine stopped and the spark plug wire disconnected, pull the wheel drive control arm (V, Figure 5-4) down completely.
2. Put the gear shift lever (AC, Figure 5-1) in the No. 3 position.
3. Measure and note the distance between the coiled ends of the spring (W, Fig. 5-4).

WARNING



Before inspecting, cleaning or servicing the machine, shut off engine, wait for all moving parts to come to a complete stop, disconnect spark plug wire and move wire away from spark plug. Failure to follow these instructions can result in serious personal injury or property damage.

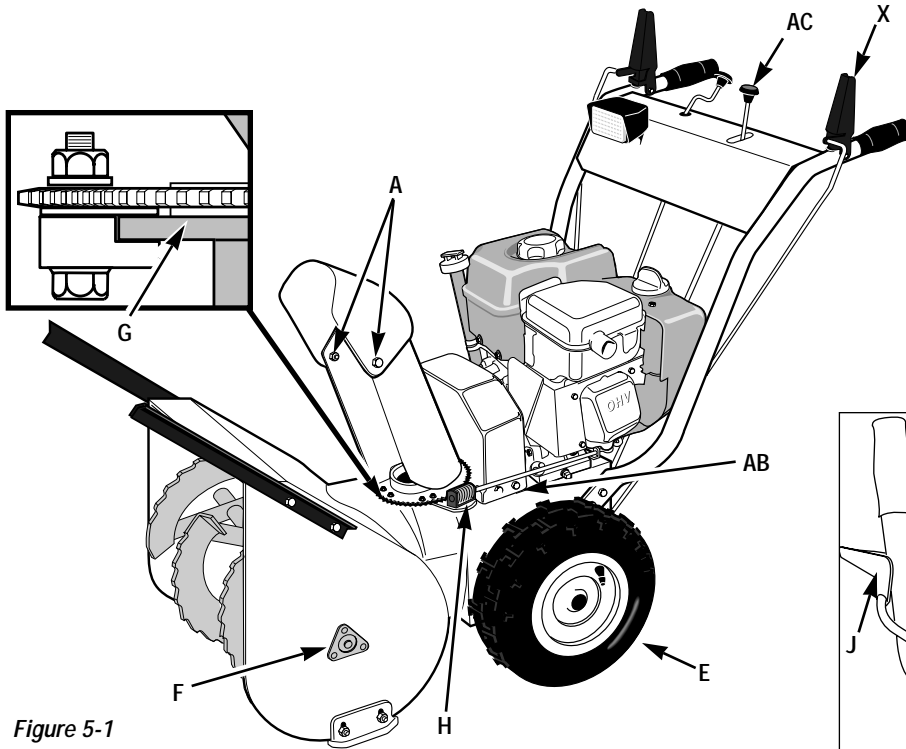


Figure 5-1

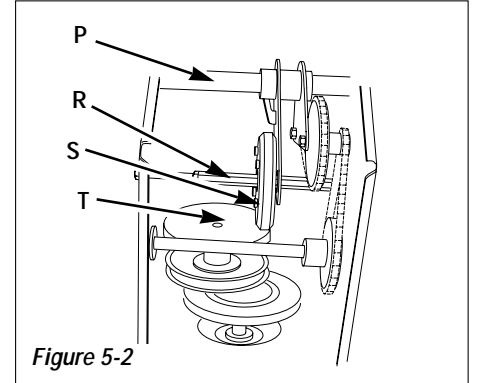


Figure 5-2

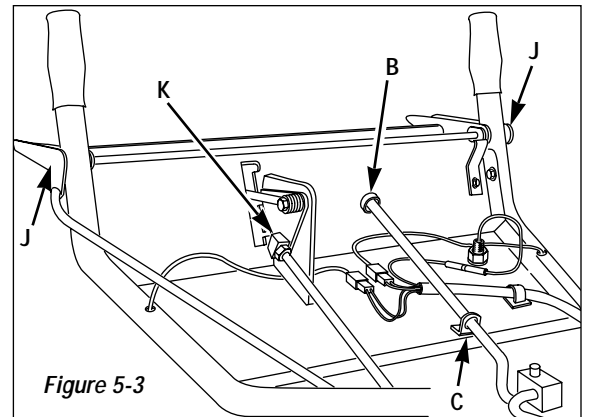


Figure 5-3

- Squeeze wheel drive control lever (X, Figure 5-1) against handlebar. Measure between the coiled ends of the stretched spring (W, Figure 5-4), making sure you measure between the same coils used in step 3. The spring length should now measure 1/2" (13mm) longer than the measurement taken in step 3. If it does not, loosen jam nut (Y, Figure 5-4) and turn adjuster (Z, Figure 5-4) to increase or decrease the spring length. (1-1/4 turns of the adjuster equals 1/16" [1.5mm] of spring extension.) Hold the adjuster and tighten the jam nut (Y) when the correct spring length is obtained. Re-check measurements and adjust if needed. If after completing this adjustment the wheels do not drive adequately, refer to *Drive Disc Clearance Adjustment* in this Section. Then repeat this adjustment.

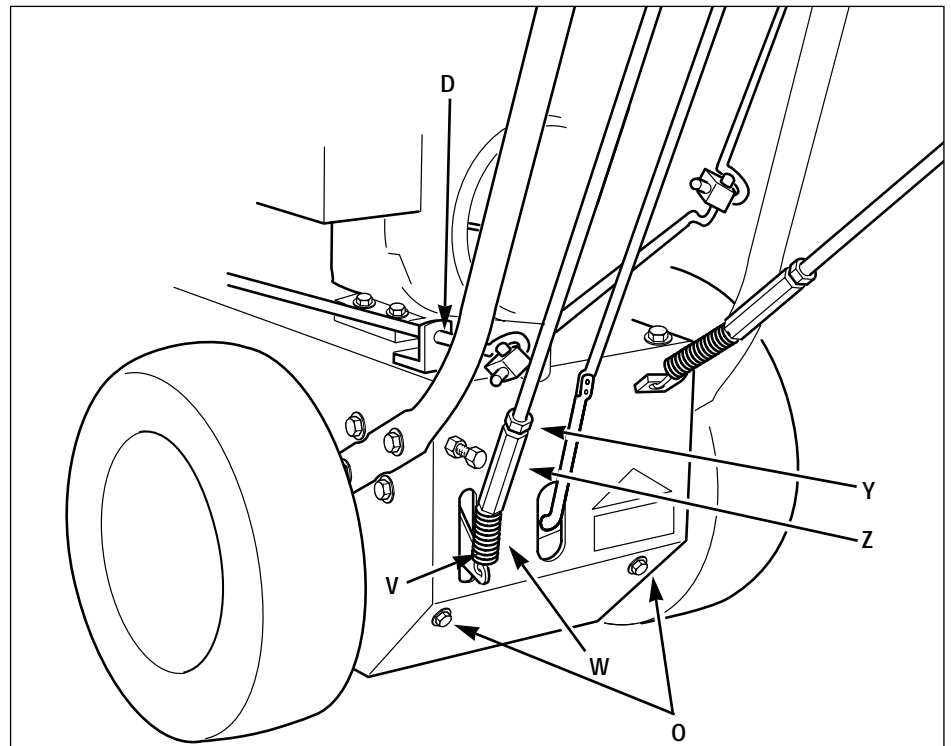


Figure 5-4

Section 5: Maintenance

⚠ WARNING



Before inspecting, cleaning or servicing the machine, shut off engine, wait for all moving parts to come to a complete stop, disconnect spark plug wire and move wire away from spark plug.

Failure to follow these instructions can result in serious personal injury or property damage.

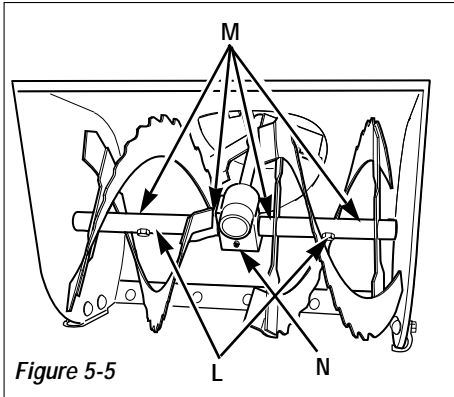


Figure 5-5

AUGER DRIVE BELT AND WHEEL DRIVE BELT REPLACEMENT

NOTE: The auger drive belt (there is one auger drive belt on the 9.5HP model and two auger drive belts on the 11HP model) must be removed before removing the wheel drive belt. The illustration (Figure 5-6) shows two auger drive belts (AD), ignore the second belt if the unit is not so equipped.

Removal

1. With the engine stopped and the spark plug wire disconnected, remove the screws and washers (AB, Figure 5-1) and remove the belt cover from the unit.
2. Remove the two screws, flat washers and lockwashers securing belt guide (AC, Figure 5-6) to the engine. Remove the belt guide.
3. Loosen jam nut (BA, Figure 5-6) and remove bolt (BB).
4. Release tension on the idler (AF, Figure 5-6). Remove the auger drive belt(s) (AD) from the auger drive pulley (AE).
5. Remove the auger drive belt(s) from the lower drive pulley (AO, Figure 5-9) and remove belt(s) from unit. NOTE: If you are not replacing the wheel drive belt (AG), then proceed to *Installation*.

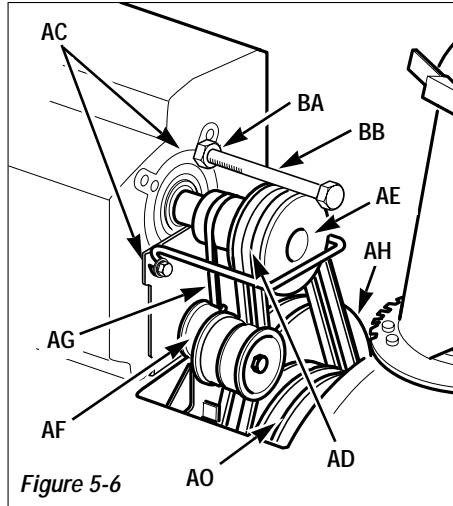


Figure 5-6

6. Remove wheel drive belt (AG, Figure 5-6) from lower drive pulley (AH). Squeeze wheel drive control lever against handlebar (X, Figure 5-1) to increase gap between lower pulleys as needed.
7. Remove the wheel drive belt from unit.

Installation

1. Position wheel drive belt (AG, Figure 5-6) into lower drive pulley (AH) closest to the engine.
2. Place the belt into the groove closest to the engine of the engine pulley (AE).
3. Position auger drive belt(s) (AD, Figure 5-6) down through gap. Position the belt(s) into the lower drive pulley (AO).
4. Position the auger drive belt(s) (AD, Figure 5-6) into engine pulley (AE).
5. Position belt guide (AC, Figure 5-6) back on engine and secure with two screws and washers removed earlier.
6. Reinstall bolt (BB, Figure 5-6), leaving 1/16" (1.5mm) clearance between underside of bolt head and front edge of pulley (AE). Tighten jam nut (BA) against engine crankcase.
7. If the wheel drive belt has been replaced, then perform the wheel drive disc adjustment (see *Wheel Drive Disc Adjustment*).

8. If the auger drive belt(s) have been replaced, then perform the *Auger Drive Belt Adjustment* as described in this section.

9. Reinstall the belt cover.

SHEAR BOLTS

⚠ CAUTION

Using anything but original equipment shear bolts could result in damage to the unit. Use factory-specified auger shaft shear bolts when replacing shear bolts.

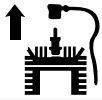
Special shear bolts (L, Figure 5-5) secure the augers to the auger shaft and are designed to break (shear) if the auger jams. This prevents damage to other, more vital parts. Inspect shear bolts before each use and replace them if they are worn or broken. Torque shear bolts to 11 ft-lbs (15 Nm).

AUGER DRIVE BELT(S) ADJUSTMENT

Due to wear, the auger drive belt(s) may begin to slip when the auger drive lever is engaged. To adjust the auger drive belt(s):

1. Perform the brake arm adjustment as described in this section. Leave the spark plug wire disconnected while performing this adjustment.
2. If assembling a new unit, raise the wheel drive control lever (AP, Figure 5-7) and the auger drive control lever (AL).
3. Pull the auger drive control arm (AJ, Figure 5-8) down completely.
4. Measure and note distance between coiled ends of spring (AK, Figure 5-8).
5. Squeeze auger drive control lever (AL, Figure 5-7) against handlebar. Measure between the coiled ends of the stretched spring (AK, Figure 5-8), making sure you measure between the same coils used in step 4.

WARNING



Before inspecting, cleaning or servicing the machine, shut off engine, wait for all moving parts to come to a complete stop, disconnect spark plug wire and move wire away from spark plug.

Failure to follow these instructions can result in serious personal injury or property damage.

The spring length should now measure 9/16" – 11/16" (14–17mm) longer than the measurement taken in Step 4. If it does not, loosen the jam nut (AM, Figure 5-8) and turn the adjuster (AN) to increase or decrease the length of the spring. Hold the adjuster and tighten the jam nut (AM) when the correct spring length is obtained. Re-check the measurements and adjust if needed.

NOTE: 1-1/4 turns of the adjuster equals 1/16" (1.5mm) of spring extension.

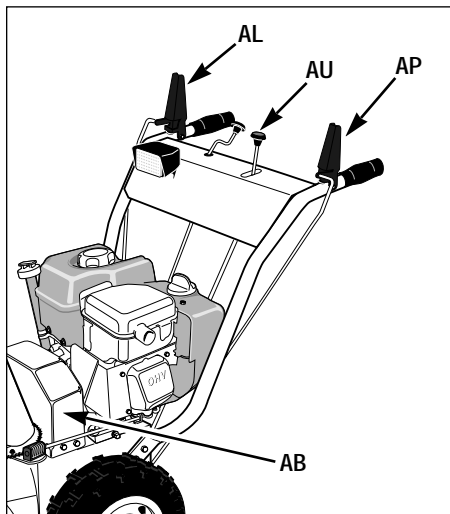


Figure 5-7

GEAR SHIFT ROD ADJUSTMENT

1. With the engine stopped and the spark plug wire disconnected, move the gear shift lever (AU, Figure 5-7) to position No. 5. Remove the hairpin cotter and the flat washer from the pivot block (N, Figure 5-10). Disconnect the pivot block (N) from the gear shift lever plate (AV, Figure 5-10).
2. Pull the gear shift control rod (AA, Figure 5-8) down completely.
3. While holding the gear shift control rod (AA, Figure 5-8) down, loosen the jam nut (ZZ, Figure 5-10) and thread the pivot block (N) up or down as needed so it fits into the hole in the gear shift lever plate (AV, Figure 5-10).
4. Reinstall the pivot block (N, Figure 5-10) into the gear shift control lever hole and secure with the washer and hairpin cotter. Secure the jam nut (ZZ, Figure 5-10) against the pivot block (N).
5. Move the gear shift control lever (AU, Figure 5-7) through the full range of travel. Check for binding. Refer to the *Drive Disc Clearance Adjustment* instructions, if needed.

DRIVE DISC CLEARANCE ADJUSTMENT

If the gear shift rod lever does not move freely through all the gear positions, adjust clearance (AY, Figure 5-9) as follows:

1. With the engine stopped and the spark plug wire disconnected, loosen jam nut (AW, Figure 5-8). Rotate adjusting screw (AX) until rubber drive wheel (T, Figure 5-9) contacts metal drive disc (U, Figure 5-9).
2. Turn the rubber drive wheel (T, Figure 5-9) and the metal drive disc (U) to find the point of minimum clearance (AY). (This is where both the drive wheel [T] and metal disc [U] are touching.)
3. Adjust the discs at the point of minimum clearance. Loosen adjusting screw (AX, Figure 5-8) 1/2 turn. Secure the adjusting screw (AX) in place, while tightening the jam nut (AW).
4. Check the clearance (AY, Figure 5-9) by moving gear shift lever (AU, Figure 5-7) through all positions. Repeat Step 3 as necessary.

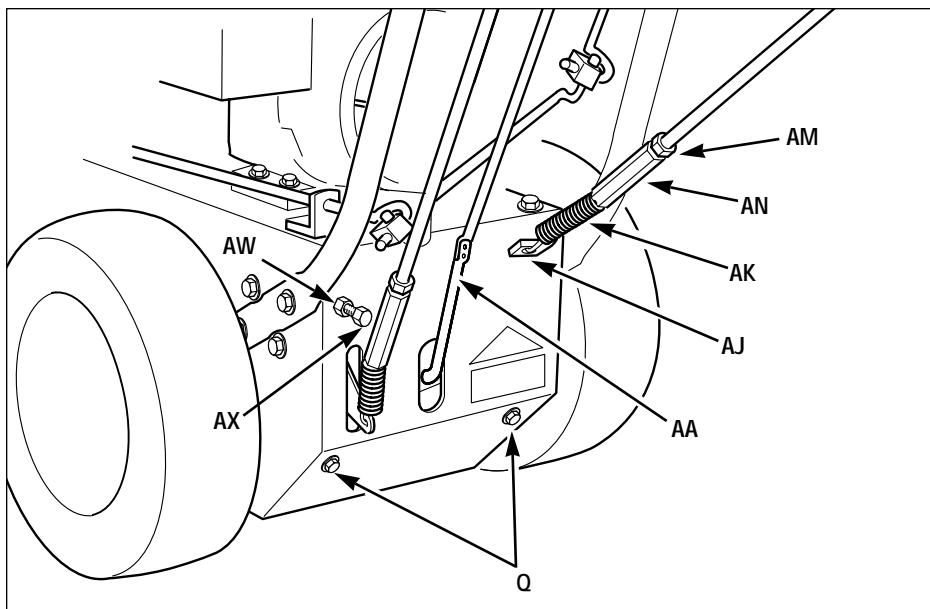


Figure 5-8

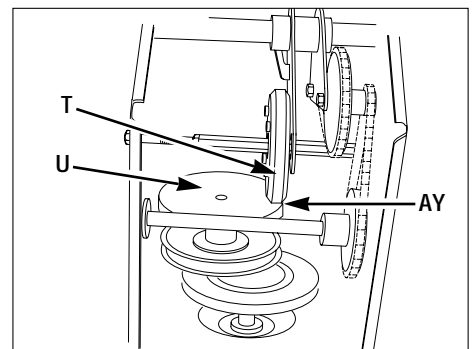


Figure 5-9

BRAKE ARM ADJUSTMENT

The brake arm adjustment is set at the factory to 1/16" - 1/8" for proper belt/brake clearance. Due to wear, this may need adjustment.

Section 5: Maintenance

WARNING



Before inspecting, cleaning or servicing the machine, shut off engine, wait for all moving parts to come to a complete stop, disconnect spark plug wire and move wire away from spark plug.

Failure to follow these instructions can result in serious personal injury or property damage.

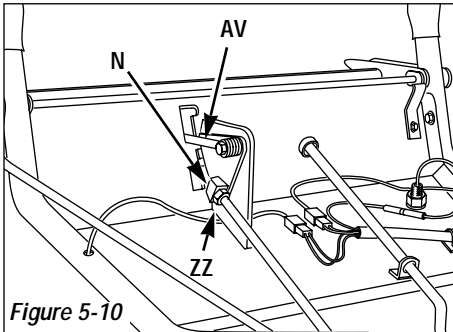


Figure 5-10

To adjust brake arm:

1. With engine stopped and spark plug wire disconnected, remove screws and washers (AB, Figure 5-1) and remove belt cover from unit.
2. Squeeze the auger drive control lever (AL, Figure 5-7) against handlebar.
3. Using a flashlight, look down through the pulleys and belts (Figure 5-6). Check gap between brake arm (A, Figure 5-11) and belt (B). The gap should measure between 1/16" and 1/8" (1.5–3 mm).
4. To adjust gap: Loosen nut (C, Figure 5-11). Hold bolt (D) in place and rotate nut (E) until proper clearance is obtained. Secure nut (C).
5. Reinstall the belt cover.

SKID SHOES/SCRAPER BLADE

The unit should be adjusted so the collector (auger/impeller) housing and the scraper blade (N, Figure 5-12) are 1/8" (3 mm) above the surface to be cleared. If the unit is used to clear gravel or uneven surfaces, this adjustment should be increased so gravel or other foreign objects are not scooped into the auger. To adjust the collector housing/scraper blade height:

1. Move the unit onto a level surface.
2. With the engine stopped and the spark plug wire disconnected, loosen the hardware securing the skid shoes (M, Figure 5-12).
3. Adjust skid shoes until they are in the correct position to support collector (auger/impeller) housing and scraper

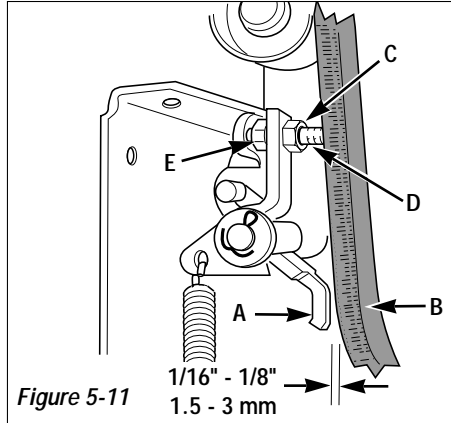


Figure 5-11

blade (adjust both skid shoes equally to prevent uneven snow removal).

4. Tighten the hardware to lock the skid shoes (M, Figure 5-12) into the proper position.
5. The scraper blade (N, Figure 5-12) can also be adjusted. Adjust scraper blade (N) at carriage bolts. Adjust bottom edge of scraper blade so it is parallel with bottom edge of auger.

SLIP DIFFERENTIAL ADJUSTMENT

1. With the engine stopped and the spark plug wire disconnected, remove hub cap (AQ, Figure 5-13) at end of wheel shaft on right side of unit.
2. Remove outer (AR, Figure 5-13) and inner jam nuts (AS) and both pairs (four single disc springs) of disc springs (AT). Inspect springs and replace them if they are worn.
3. Reinstall disc springs (AT, Figure 5-13) and inner jam nut (AS). Tighten jam nut (AS) by hand until it contacts the disc spring, then tighten (AS) 1 to 1-1/4 turns more. DO NOT force nut more than 1-1/4 turns or differential will not work (unit will be difficult to turn).
4. Secure the inner nut (AS, Figure 5-13) in place, while tightening the outer nut (AR).
5. Reinstall cover (AQ, Figure 5-13).

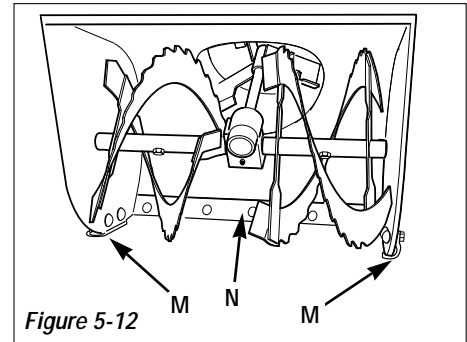


Figure 5-12

OFF-SEASON STORAGE

When storing the unit for more than 90 days, follow these procedures to help keep the unit in good condition for future use:

- Clean dirt, grime and grease from the unit and engine.
- Perform routine lubrication as instructed earlier in this section.
- Service the engine according to the *Storage* instructions in the engine manual. Add a fuel stabilizer to the fuel tank, according to the instructions provided with the stabilizer. Change the engine oil.
- On units so equipped, rotate the fuel shut-off valve to the "OFF" position.
- Thoroughly inspect the unit for any loose, damaged, or missing parts. Repair or replace the parts as necessary. Check all nuts, bolts and other fasteners for tightness and tighten as necessary.
- Touch-up scratches and chipped paint to prevent corrosion.
- Store the unit on a level surface, out of the reach of children.

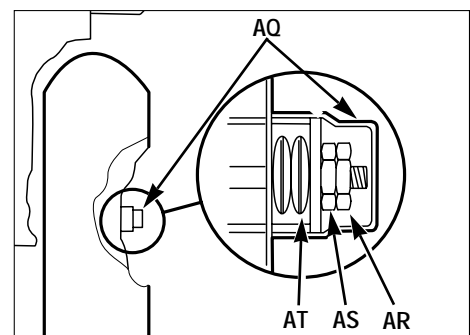
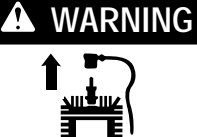


Figure 5-13

Section 5: Maintenance

	<p>WARNING Before inspecting, cleaning or servicing the machine, shut off engine, wait for all moving parts to come to a complete stop, disconnect spark plug wire and move wire away from spark plug.</p> <p>Failure to follow these instructions can result in serious personal injury or property damage.</p>
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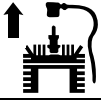
TROUBLESHOOTING

TROUBLE	POSSIBLE PROBLEM	SOLUTION
Engine won't start	<ol style="list-style-type: none"> 1. Choke knob in incorrect position 2. Engine throttle lever in incorrect starting position 3. Engine not primed enough (when cold) 4. Engine primed too much (when cold) 5. Spark plug wire disconnected 6. Fouled or faulty spark plug 7. Gasoline tank empty 8. Fuel shut-off valve is closed 9. Carburetor "varnished" from old gas 	<ol style="list-style-type: none"> 1. Move choke knob to CHOKE position 2. Move throttle lever to correct starting position 3. Push primer button several more times 4. Put choke knob in RUN position, move throttle lever to idle position, attempt to start engine, then proceed with normal starting procedure. DO NOT re-prime! 5. Connect spark plug wire 6. Remove, clean, inspect, re-gap or replace spark plug 7. Fill gasoline tank 8. Open fuel shut-off valve 9. Contact authorized dealer
Engine difficult to start	<ol style="list-style-type: none"> 1. Incorrect choke knob setting 2. Throttle lever in incorrect position 3. Fuel shut-off valve closed 4. Engine not primed enough 5. Stale gasoline in tank 6. Fouled or faulty spark plug 	<ol style="list-style-type: none"> 1. Put choke knob in correct setting 2. Move throttle lever into FAST position 3. Open fuel shut-off valve 4. Push primer button several more times 5. Drain gasoline from tank, refill with fresh gasoline 6. Remove, clean, inspect, re-gap or replace spark plug
Engine idles rough	<ol style="list-style-type: none"> 1. Faulty or fouled spark plug 2. Incorrect choke setting 	<ol style="list-style-type: none"> 1. Remove, clean, inspect, re-gap or replace spark plug 2. After engine starts, gradually rotate choke knob to RUN position
Engine overheats	<ol style="list-style-type: none"> 1. Dirty air screen 2. Low engine oil level 3. Dirty cooling fins 4. Loose spark plug 	<ol style="list-style-type: none"> 1. Remove all debris from air screen 2. Check oil, add as necessary 3. Clean cooling fins 4. Tighten plug
Auger drive lever does not actuate auger	<ol style="list-style-type: none"> 1. Tension too low on spring at lower end of auger drive control rod 2. Broken auger shear bolts 3. Loose or broken spring 4. Auger frozen 	<ol style="list-style-type: none"> 1. Increase tension on spring 2. Replace auger shear bolts 3. Replace spring 4. Allow auger to thaw

(continued)

Section 5: Maintenance

⚠ WARNING



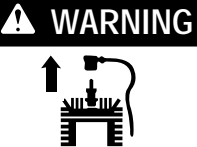
Before inspecting, cleaning or servicing the machine, shut off engine, wait for all moving parts to come to a complete stop, disconnect spark plug wire and move wire away from spark plug.

Failure to follow these instructions can result in serious personal injury or property damage.

TROUBLESHOOTING (continued)

TROUBLE	POSSIBLE PROBLEM	SOLUTION
Auger drive control lever does not engage auger drive	<ol style="list-style-type: none"> 1. Broken square key on engine drive pulley 2. Broken woodruff key on input shaft 	<ol style="list-style-type: none"> 1. Replace key 2. Replace key
Auger spins with drive lever disengaged	<ol style="list-style-type: none"> 1. Tension too high on spring at lower end of auger drive control rod 	<ol style="list-style-type: none"> 1. Decrease spring tension
Wheel drive control lever does not turn wheels	<ol style="list-style-type: none"> 1. Tension too low on spring at lower end of wheel drive control rod 2. Broken wheel drive chain(s) 3. Drive disk out of adjustment 4. Broken or excessively worn wheel drive belt 5. Broken square key on engine pulley 	<ol style="list-style-type: none"> 1. Increase spring tension 2. Replace chain(s) 3. Re-adjust drive disc 4. Replace wheel drive belt 5. Replace key
Wheels turn with wheel drive control lever disengaged	<ol style="list-style-type: none"> 1. Tension too high on spring at lower end of wheel drive control rod 2. Drive disk out of adjustment 	<ol style="list-style-type: none"> 1. Decrease spring tension 2. Adjust drive disc
Snow thrower does not throw snow well	<ol style="list-style-type: none"> 1. Discharge chute, impeller or auger clogged with snow, slush or ice 2. Snow sticks to auger or chute 3. Incorrect gear setting 4. Loose auger drive belt(s) 	<ol style="list-style-type: none"> 1. Stop engine, disconnect spark plug wire, use a long stick to unclog chute, auger and/or impeller 2. Spray auger and chute with silicone lubricant 3. When snow throwing, generally use faster speeds – use slower speeds with heavier snow 4. Adjust auger drive belt(s)
Snow thrower does not clear snow	<ol style="list-style-type: none"> 1. Skid shoes set too high 2. Scraper blade adjusted incorrectly 	<ol style="list-style-type: none"> 1. Adjust skid shoes until scraper blade is evenly adjusted 1/8" (3 mm) above surface being cleared (or higher on gravel or rough ground) 2. Adjust scraper blade until blade is evenly adjusted above surface being cleared
Snow thrower makes sloping cut in snow	<ol style="list-style-type: none"> 1. Skid shoes not set at equal height 2. Scraper blade adjusted incorrectly 	<ol style="list-style-type: none"> 1. Adjust skid shoes to equal height 2. Adjust scraper blade ends equally
Electric start motor won't crank engine	<ol style="list-style-type: none"> 1. Power cord unplugged from outlet 2. Faulty power cord or plug 3. Overheated starter 	<ol style="list-style-type: none"> 1. Plug power cord into outlet 2. Replace power cord 3. Allow starter motor to cool 5-10 minutes before trying to start engine again

Section 5: Maintenance

 <p>WARNING</p>	<p>Before inspecting, cleaning or servicing the machine, shut off engine, wait for all moving parts to come to a complete stop, disconnect spark plug wire and move wire away from spark plug.</p> <p>Failure to follow these instructions can result in serious personal injury or property damage.</p>
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REQUIRED MAINTENANCE SCHEDULE

This table describes service guidelines only and does not provide complete service information. For complete service information, contact your local authorized dealer.

Required Maintenance Schedule	Before Each Use	After Each Use	Every 25 Operating Hours or Annually	Every 50 Operating Hours or Annually	Annually	Comments
Check engine oil level	✓ (1)					See Engine Manual
Check all hardware for tightness	✓					
Check Auger Drive Lever Operation	✓					
Check Wheel Drive Lever Operation	✓					
Lubricate handlebar control levers and linkages		✓				
Remove snow, slush and ice from snow thrower		✓				
Change engine oil			✓ (1)			See Engine Manual
Check tire pressure and condition			✓			
Check auger gear box oil level			✓			
Check belts for wear			✓			
Cooling air screen			✓			See Engine Manual
Check, clean, re-gap or replace spark plug					✓ (2)	See Engine Manual
Apply oil to drive chains—wipe excess				✓		
Check belts for wear, damage, and adjustment					✓	
Adjust brake arm					✓	
Grease auger					✓	
Remove rust and touch-up					✓	

(1) Change oil after the first two hours of operation.

(2) Annually or after every 100 operating hours.

Specifications, Optional Kits and Accessories

SPECIFICATIONS/OPTIONAL KITS AND ACCESSORIES

Specifications

Below is a list of specifications for your snow thrower. The information is the most current at the time this manual was printed.

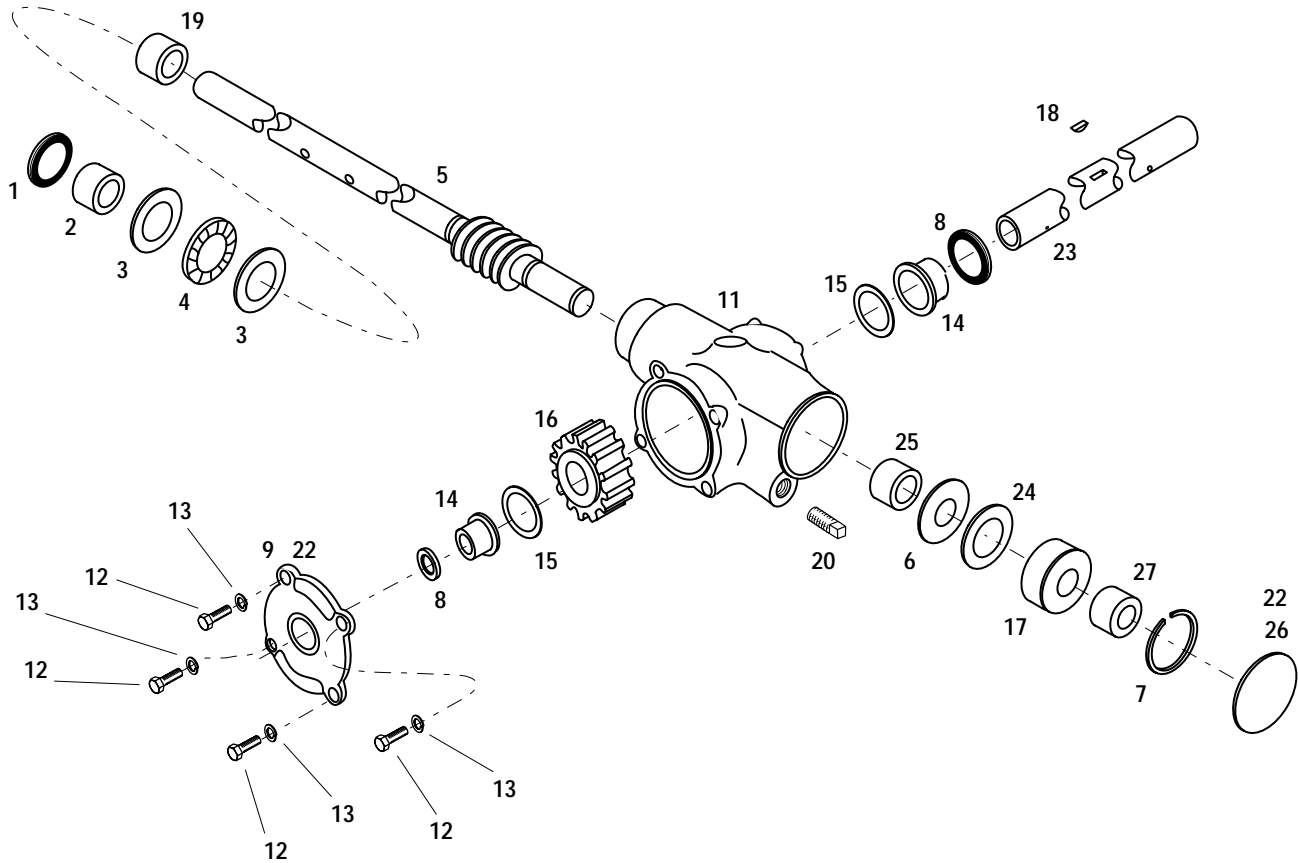
Engine Model	9.5HP - Briggs & Stratton 11HP - Briggs & Stratton
Engine Type	4-cycle, horizontal shaft
Engine Motor Oil	Refer to Engine Owner's Manual
Wheel Drive	5 speeds Forward, 2 Reverse
Clearing Width	9.5HP Model - 26" 11HP Model - 30"
Gear Case Oil	SAE 90-weight Gear Oil
Tire Air Pressure	8-12 PSI (55-82 Kpa)

Optional Kits and Accessories

The items listed below are available for your snow thrower. The information is the most current available at the time this literature was printed. To order the kits, contact your dealer or call the Factory.

Kit	Description
Tire Chain Kit	Includes tire chains for added traction.
Drift Slicer Kit	Includes drift slicers and mounting hardware
Cab Kit	Includes three-sided protective cab, framework and hardware.

DRAWING NO. 1

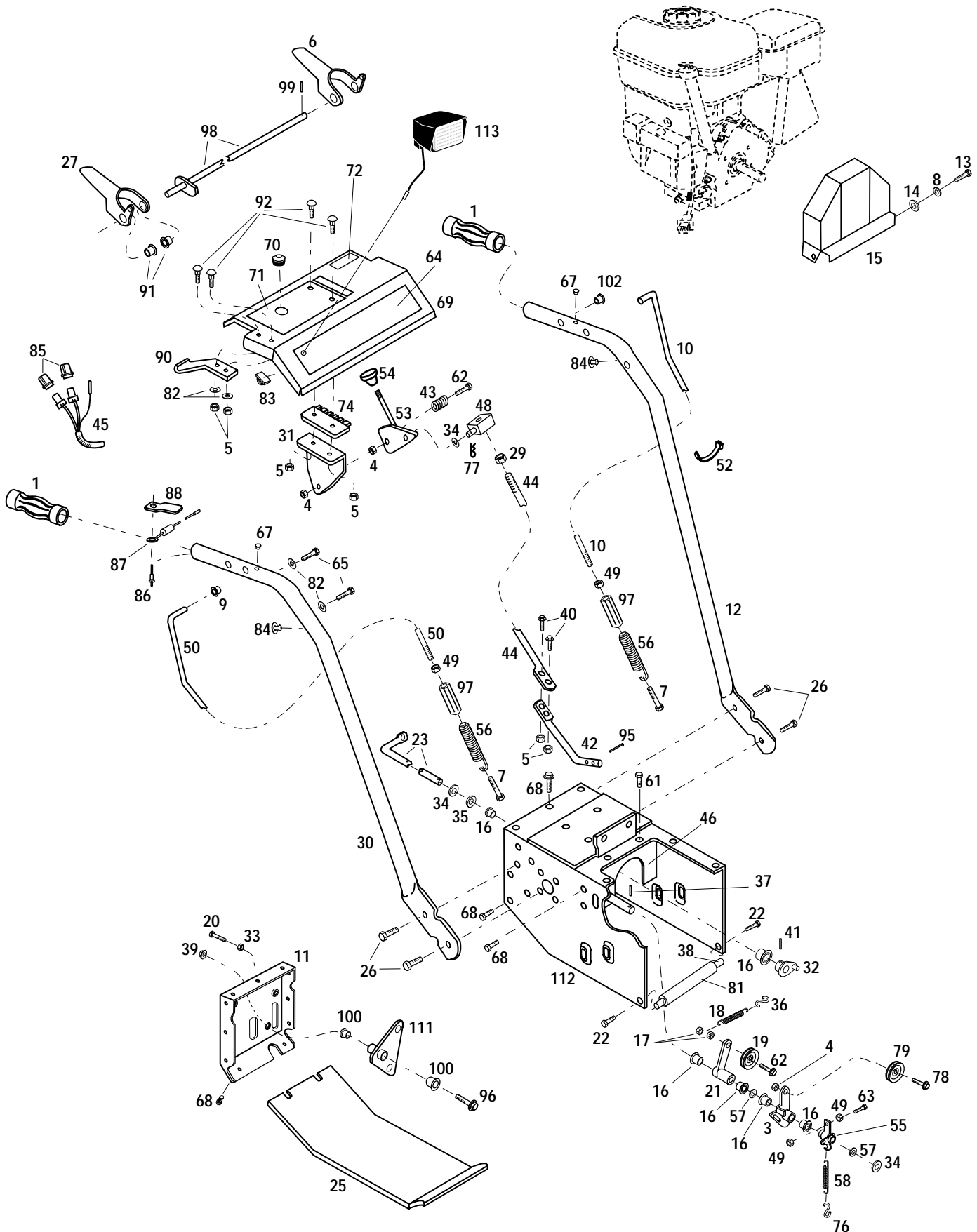


Ref. #	Part #	Description	Qty.	Ref. #	Part #	Description	Qty.
1	1185224	Oil Seal.....	1	16	1720933	Worm Gear, 20T.....	1
2	1185374	Needle Bearing.....	1	17	1720763	Spacer.....	1
3	1185841	Thrust Race.....	2	18	1100276	Woodruff Key, 1/4 x 7/8.....	1
4	1185431	Roller Thrust Bearing.....	1	19	1741774	Spacer.....	1
5	1739790	Impeller Shaft.....	1	20	1105620	Square Head Plug, 1/4-18 NPT.....	1
6	1185842	Washer.....	1	22	†	Sealant.....	N/I
7	1118726	Internal Retaining Ring.....	1	23	1720894	Auger Shaft (A).....	1
8	1773207	Oil Seal.....	2		1916963	Auger Shaft (B).....	1
9	1773170001	Flanged Cover.....	1	24	1185840	Thrust Race.....	1
11	1735894001	Gear Case.....	1	25	1741775	Spacer.....	1
12	1741832	Hex Hd. Cap Screw, 1/4-20 x 5/8.....	4	26	1112634	Welch Plug.....	1
13	1100241	Lock Washer, 1/4.....	4	27	1185568	Needle Bearing.....	1
14	1185728	Flange Bearing.....	2	101	1700182	Gear Lube, EP 90, 8 oz.	N/I
15	1185815	Thrust Race.....	2				

(A) For Model 42051
 (B) For Model 42052

N/I Item not included with unit. Order separately.
 † Use General Electric SILMATE #RTV 1473 or equivalent. Obtain locally.

DRAWING NO. 2



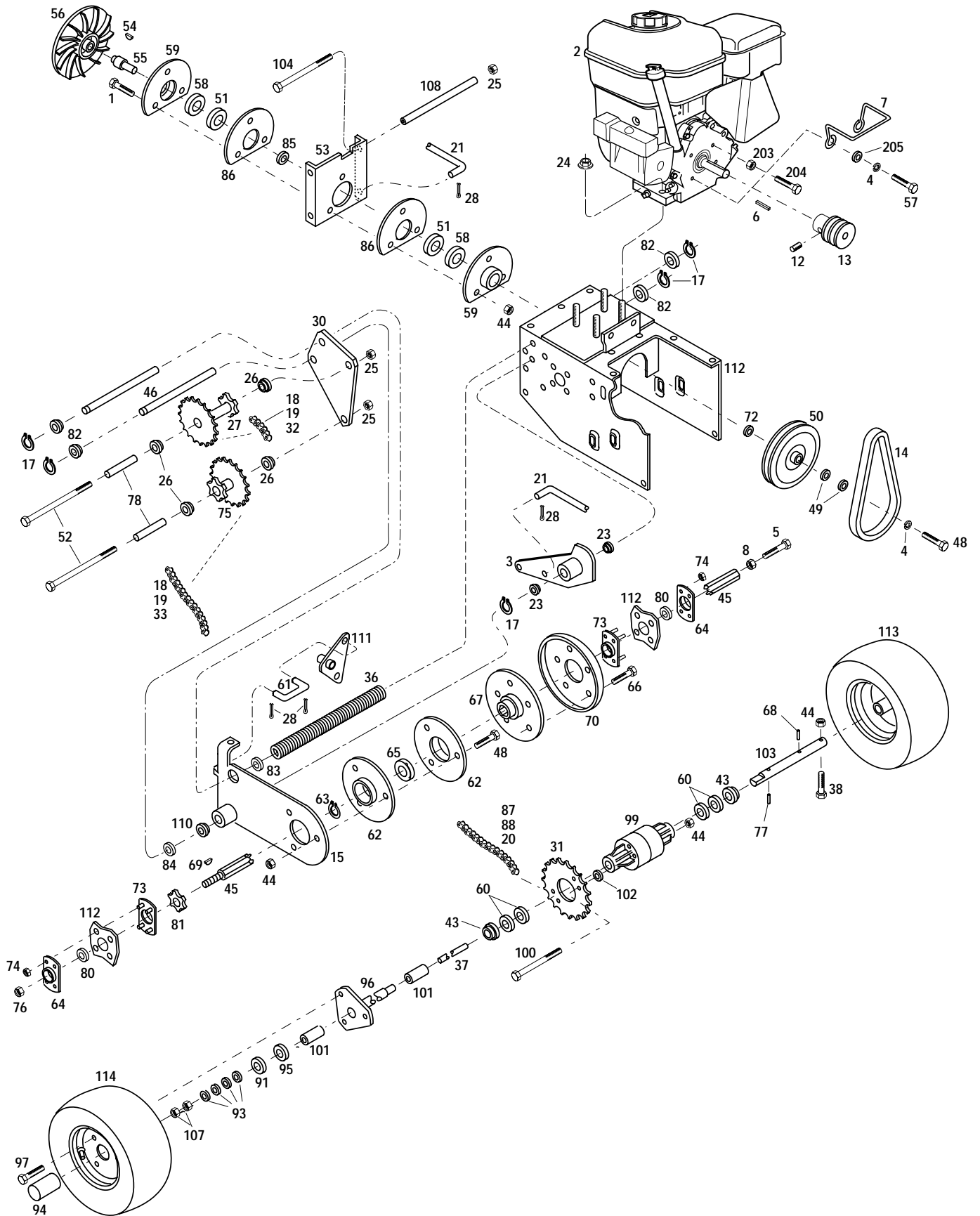
Ref. #	Part #	Description	Qty.	Ref. #	Part #	Description	Qty.
1	1745576	Handle Grip.....	2	52	1735531	Plastic tie.....	5
3	1739937	Idler Arm.....	1	53	1760255	Shift Control Arm.....	1
4	1733398	Lock Nut, 3/8-16.....	3	54	1757842	Knob.....	1
5	1734398	Lock Nut, 1/4-20.....	6	55	1739941	Brake Arm.....	1
6	1764738	Left Control Handle.....	1	56	1765535	Extension Spring.....	2
7	1765534	Fillister-Head Bolt, 5/16-18 x 1.....	2	57	1107385	Flat Washer, 1/2".....	2
8	1100242	Lock Washer, 5/16.....	2	58	1740990	Extension Spring.....	1
9	1728072	Push Nut.....	2	61	1186327	Flange Screw, 5/16-18 x 1/2.....	2
10	1764741	Wheel Drive Clutch Rod.....	1	62	1100086	Hex Hd. Cap Screw, 3/8-16 x 1-3/4.....	2
11	1760258010	Back Plate.....	1	63	1772011	Hex Hd. Cap Screw, 1/4-20 x 1.....	1
12	1757831010	Left Handlebar.....	1	64	1918881	Logo Decal.....	1
13	1100044	Hex Hd. Screw, 5/16-18 x 3/4.....	2	65	1754128	Thread-Forming Screw, 1/4-20 x 5/8.....	4
14	1100255	Flat Washer, 5/16.....	2	67	1750796	Wear Button.....	2
15	1740030	Belt Cover.....	1	68	1724491	Thread-Forming Screw, 5/16-18 x 3/4.....	13
16	1715716	Bushing.....	6	69	1918476	Console (Incl. Ref. 71).....	1
17	1185506	Self-Locking Jam Nut, 3/8-16.....	2	70	1185585	Flip Grommet.....	1
18	1740011	Extension Spring.....	1	71	1917457	Instructions Decal.....	1
19	1729440	Idler Pulley.....	1	74	1764711	Shift Quadrant.....	1
20	1186334	Flange Screw, 5/16-18 x 1-3/4.....	1	76	1742250	S-Hook.....	1
21	1739935	Idler Arm.....	1	77	1703011	Cotter Spring.....	1
22	1186329	Flange Screw, 5/16-18 x 3/4.....	2	78	1982612	Hex Hd. Screw, 3/8-16 x 2.....	1
23	1757841	Control Arm.....	1	79	1745499	Idler Pulley (A).....	1
25	1739838010	Bottom Cover.....	1		1916956	Idler Pulley (B).....	1
26	1186345	Flange Screw, 3/8-16 x 3/4.....	4	81	1746607	Plastic Tubing.....	1
27	1764739	Right Control Handle.....	1	82	1107381	Flat Washer, 1/4.....	6
29	1186231	Hex Nut, 3/8-16.....	1	83	1724879	Cord Clip.....	2
30	1757832010	Right Handlebar.....	1	84	1773905	Bushing.....	2
31	1760196	Control Bracket.....	1	85	1748836	Connector Body.....	2
32	1739932	Control Arm.....	1	86	1186424	Pop Rivet, 1/8.....	2
33	1186258	Jam Nut, 5/16-18.....	1	87	1773904	Resistor.....	2
34	1890234	Flat Washer, 1/2.....	3	88	1746516	Clamp.....	2
35	1706782	Bowed Washer.....	1	90	1764733	Flat Spring.....	1
36	1740989	S-Hook.....	1	91	1755779	Flange Bearing.....	2
37	1100356	Cotter Pin, 3/32 x 1.....	1	92	1115931	Round Head Screw, 1/4-20 x 5/8.....	4
38	1739756	Cross Member.....	1	95	1100346	Cotter Pin, 3/32 x 3/4.....	2
39	1186393	Flange Nut, 3/8-16.....	1	96	1763219	Shoulder Bolt.....	1
40	1100805	Hex Hd. Cap Screw, 1/4-20 x 3/4.....	2	97	1764740	Adjusting Nut.....	2
41	1743493	Drive Pin, 1/8 x 3/4.....	1	98	1764737	Control Rod.....	1
42	1760253	Lower Control Rod.....	1	99	1737015	Roll Pin, 1/8 x 5/8.....	1
43	1713167	Compression Spring.....	1	100	1715538	Nyliner Flange Bushing.....	2
44	1760254	Upper Control Rod.....	1	102	1714243	Flange Bearing.....	2
45	1918905	Wiring Harness.....	1	103	1900706	Troy-Bilt Red Spray Paint, 13 oz.....	N/I
46	1754272	Support Assembly.....	1	104	1735222	Troy-Bilt Black Spray Paint, 13 oz.....	N/I
48	1727053	Pivot Block.....	1	111	1760218	Speed Control Arm.....	1
49	1186229	Hex Nut, 1/4-20.....	4	112	---	Frame (see pgs. 28-29).....	1
50	1764743	Auger Control Rod.....	1	113	1918428	Light Kit.....	1

(A) For Model 42051

(B) For Model 42052

N/I Item not included with unit. Order separately.

DRAWING NO. 3

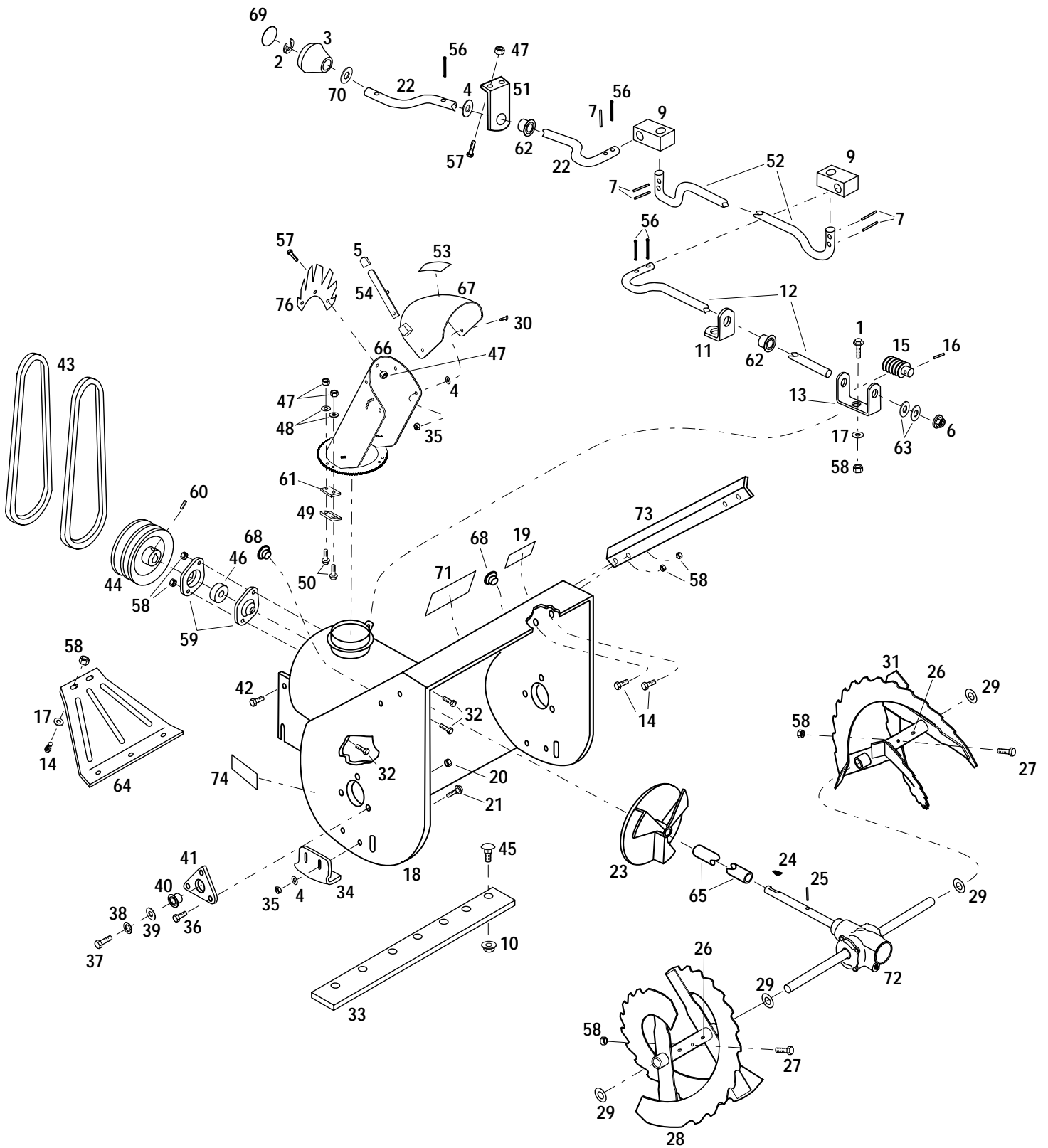


Ref. #	Part #	Description	Qty.	Ref. #	Part #	Description	Qty.
1	1100045	Hex Hd. Screw, 5/16-18 x 1	3	62	1739485	Bearing Retainer	2
2	*	Briggs & Stratton Engine	1	63	1736561	Snap Ring	1
3	1745485	Control Arm	1	64	1720811	Bearing Flange	2
4	1100242	Lock Washer, 5/16	3	65	1741733	Ball Bearing	1
5	1903416	Shoulder Bolt, 3/8-16 x 1-1/2	1	66	1186327	Flange Screw, 5/16-18 x 1/2	5
6	1187474	Square Key, 1/4 x 2-1/4	1	67	1739490	Friction Disc Hub	1
7	1749177	Belt Guide	1	68	1185376	Drive Pin, 3/16 x 1-1/2	1
8	1917742	Bushing	1	69	9361	Woodruff Key	1
12	9677	Set Screw, 5/16-18 x 5/8	2	70	1720859	Molded Friction Disc	1
13	1917406	Engine Sheave	1	72	1709224	Special Washer	1
14	1751601	V-Belt	1	73	1720810	Bearing Flange Assembly	2
15	1760260	Drive Support (Incl. Ref. 110)	1	74	1772333	Lock Nut, #10-24	8
17	1118808	Retaining Ring	5	75	1745497	Sprocket Assembly, 9T/30T	1
18	0182087	Offset Link (Half Link)	2	76	1185496	Jam Nut, 1/2-13	1
19	1185013	Connecting Link, #41	2	77	1758305	Drive Pin	1
20	1739454	Final Drive Chain #40 (Requires Refs. 87 & 88)	1	78	1739476	Spacer	2
21	1745437	Control Link	1	80	1185808	Ball Bearing	2
23	1714299	Flange Bushing	2	81	1745495	Sprocket, 9T	1
24	1186391	Flange Lock Nut, 5/16-18	4	82	1714233	Nylon Bushing	4
25	1186393	Flange Lock Nut, 3/8-16	3	83	1705093	Special Flat Washer	1
26	1739458	Flange Bearing	4	84	1107386	Flat Washer, 5/8	1
27	1745498	Sprocket Assembly, 9T/17T	1	85	1745489	Spacer	1
28	1100346	Cotter Pin, 3/32 x 3/4	6	86	1745490	Bearing Retainer	2
30	1739497	Support Plate	1	87	1185026	Connecting Link	1
31	---	Sprocket, 30T (see Ref. 99)	1	88	1120213	Offset Link (Half Link)	1
32	1745880	Drive Chain (Requires Refs. 18 and 19)	1	91	1756230	D-Hole Drive Washer	1
33	1745879	Drive Chain (Requires Refs. 18 and 19)	1	93	1746743	Disc Spring	4
36	1741647	Compression Spring	1	94	1756231	Dust Cap	1
37	1746744	Axle Shaft	1	95	1746739	Friction Disc	1
38	1755894	Hex Hd. Screw, 5/16-18 x 1-3/4	1	96	1758300	Flange & Axle Tube Assembly	1
43	1739471	Flange Bushing, 7/8	2	97	1716223	Lug Bolt	3
44	1732499	Lock Nut, 5/16-18	11	99	1758898	Differential Assembly (Incl. one Ref. 31 and four ea. Refs. 44, 100, 102)	1
45	1916885	Hex Shaft	1	100	---	Hex Hd. Bolt, 5/16-18 x 4-1/2 (see Ref. 99)	4
46	1745860	Shaft Support	2	101	1745883	Nylon Bushing	2
48	1100044	Hex Cap Screw, 5/16-18 x 3/4	4	102	---	Spacer (see Ref. 99)	4
49	9929	Special Flat Washer	2	103	1758302	Axle Shaft	1
50	1745488	Wheel Drive Sheave	1	104	1754303	Hex Head Screw, 3/8-16 x 8-1/2	1
51	1743433	Ball Bearing	2	107	1186233	Jam Nut, 1/2-13	2
52	1110644	Cap Screw, 3/8-16 x 3-1/2	2	108	1754301	Tubular Spacer	1
53	1754302	Drive Disc Support	1	110	1739460	Flange Bearing	2
54	1185885	Woodruff Key, 3/16 x 5/8	1	111	1760218	Speed Control Arm	1
55	1745535	Spindle	1	112	1918852010	Frame	1
56	1720918	Drive Plate	1	113	1757886	Wheel & Tire Assembly	1
57	1100005	Hex Head Screw, 5/16-24 x 1	2	114	1757880	Wheel & Tire Assembly	1
58	1718781	Shim	A/R	203	1186211	Hex Nut, 5/16-24	1
59	1739488	Bearing Retainer	2	204	1916959	Hex Hd. Cap Screw, 5/16-24 x 4-1/2	1
60	1740002	Flat Washer, 7/8	4	205	1100255	Flat Washer, 5/16	2
61	1760252	Connecting Link	1				

*Purchase engine parts from the nearest authorized engine dealer. Refer to engine for type and code.

A/R – As Required

DRAWING NO. 4



Ref. #	Part #	Description	Qty.	Ref. #	Part #	Description	Qty.
1	1186329	Flange Bolt, 5/16-18 x 3/4	1	41	1720922	Bearing Support.....	2
2	1185403	Retainer, 3/8	1	42	1185798	Flange Bolt, 3/8-16 x 1/2.....	2
3	1757843	Knob	1	43	1772310	V-Belt (A)	1
4	1107383	Flat Washer, 3/8.....	7		1772310	V-Belt (B)	2
5	1737499	Grip.....	1	44	1725282	Auger Sheave (A)	1
6	1185984	Flange Nut, 3/8-16	1		1917403	Auger Sheave (B).....	1
7	1177625	Roll Pin, 1/8 x 3/4	5	45	1186097	Carriage Bolt, 5/16-18 x 5/8.....	7
9	1714782	Swivel Block	2	46	1741640	Ball Bearing	1
10	1186391	Flange Nut, 5/16-18	7	47	1772333	Lock Nut, #10-24.....	11
11	1754424	Crank Support	1	48	1103959	Flat Washer, #10.....	6
12	1756141	Chute Control Shaft	1	49	1724869	Hold-Down Clip	3
13	1735869	Gear Support	1	50	1752461	Sems Screw, #10-24 x 7/8.....	6
14	1100044	Hex Head Cap Screw, 5/16-18 x 3/4	6	51	1757840010	Chute Control Support	1
15	1724870	Worm Gear	1	52	1757824	Chute Crank Rod.....	1
16	1724885	Drive Pin, 3/32 x 3/4.....	1	53	1750692	Warning Decal	1
17	1100255	Flat Washer, 5/16.....	3	54	1723643001	Adjusting Lever.....	1
18	1774145	Collector Housing Assembly (Incl. Ref. 19) (A).....	1	56	1185147	Cotter Pin, 3/32 x 1/2.....	4
	1917463	Collector Housing Assembly (Incl. Ref. 19) (B).....	1	57	1737940	Truss-Head Bolt, #10-24 x 3/8.....	5
19	1750691	Warning Decal	1	58	1732499	Lock Nut, 5/16-18.....	11
20	1734398	Lock Nut, 1/4-20	6	59	1185838	Flange Bearing	2
21	1186126	Carriage Bolt, 3/8-16 x 3/4	4	60	1737419	Set Screw, 5/16-18 x 3/4	2
22	1757836	Chute Control Crank	1	61	1752460	Shim	4
23	1745799001	Impeller Fan.....	1	62	1714243	Nylon Bushing	2
24	1200033	HyPro Key, 3/16 x 3/4.....	1	63	1737957	Nylon Washer	2
25	1185348	Roll Pin, 1/4 x 1-1/4.....	2	64	1754572001	Housing Support	1
26	1185803	Grease Fitting.....	4	65	1753357	Sleeve.....	1
27	1735625	Shear Bolt Kit (Incl. one ea. shear bolt and Ref. 58 lock nut).....	1	66	1771718010	Discharge Chute Assembly.....	1
28	1918439001	26" Auger, R.H. (A)	1	67	1759140	Discharge Cap (Incl. Ref. 53).....	1
	1918443001	30" Auger, R.H. (B)	1	68	1750969	Button Plug.....	2
29	1185816	Special Washer, 1-1/64	6	69	1758058	Spun Silver Inlay.....	1
30	1100068	Hex Head Cap Screw, 3/8-16 x 3/4	2	70	1890945	Flat Washer, 3/8.....	1
31	1918438001	26" Auger, L.H. (A).....	1	71	1918881	Housing Logo Decal	1
	1918442001	30" Auger, L.H. (B).....	1	72	1739793	Gear Case Assembly (A)	1
32	1186098	Carriage Bolt, 5/16-18 x 3/4	2		1916969	Gear Case Assembly (B)	1
33	1758136001	Scraper Blade (A)	1	73	10771	*Drift Slicer (complete kit).....	1
	1916971001	Scraper Blade (B)	1	74	1918899	Auger Width Decal (A)	1
34	1728567010	Skid Shoe	2		1918900	Auger Width Decal (B)	1
35	1733398	Lock Nut, 3/8-16	6	76	1771274	Chute Deflector	1
36	1111599	Hex Head Cap Screw, 1/4-20 x 5/8	6	106	97092	Loctite #242, .02 oz.....	N/I
37	1100053	Hex Head Cap Screw, 1/2-13 x 3/4	2				
38	1100245	Lock Washer, 1/2.....	2				
39	1100257	Flat Washer, 1/2.....	2				
40	1185846	Flange Bearing.....	2				

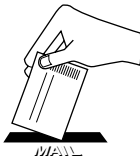
(A) For Model 42051
(B) For Model 42052

* Drift Slicers are an optional item for Model 42051.
N/I - Item not included with unit. Order separately.
A/R - As Required

CUSTOMER SERVICE INFORMATION

Owner Registration Card

Please fill out and mail the enclosed owner registration card. The purpose of this card is to register each unit at the factory so that we can provide you with warranty benefits and informational bulletins.



Warranty Service

The warranty statement is included in the unit's literature package.

Model/Serial Numbers

A Model/Serial Numbers decal is located on the back of the unit. For ready reference, record these numbers in the spaces below.

Date of Purchase: _____

Model Number: _____

Serial Number: _____

Authorized Dealer Information

If you purchased your unit from an authorized dealer, record the dealer's address and phone number below for ready reference:

Dealer Name: _____

Address: _____

Phone: _____

IMPORTANT:

Left and right sides of the unit are determined by standing behind the unit, in the operator's position, and facing in the direction of forward travel.

NOTICE:

We reserve the right to change specifications, add improvements or discontinue the manufacture of any of our equipment without notice or obligation to purchasers of our equipment.

Customer Service and Technical Service

If you have questions or problems with the unit, contact your local dealer or the Factory. (When calling or writing, provide the Model/Serial Numbers of the unit.)



Replacement Parts

Factory specified replacement parts are available from your authorized dealer or directly from the factory. When ordering parts, be sure to provide the following:

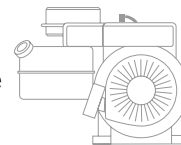


- Model/Serial Numbers of the unit.
- Part number of the part needed.
- Part Description.
- Quantity needed.

NOTE: All replacement parts must conform to our rigid quality specifications. Although some replacement parts we provide may vary slightly in shape, color or texture from the original parts, any variations will not affect the fit or performance of these parts on your unit.

Engine Service and Repair

For engine service or repair, contact your nearest authorized engine dealer (look in the Yellow Pages under "Engines-Gasoline").



The engine is warranted by the engine manufacturer. Any unauthorized work performed on the engine during the warranty period may void this warranty. For complete details on the engine warranty, refer to the Engine Owner's Manual.

WARNING

We urge using only genuine replacement parts, which meet all the latest requirements. Replacement parts manufactured by others could present safety hazards, even though they may fit on the unit.

For customer assistance, contact your nearest authorized dealer or:

GARDEN WAY INCORPORATED • 1 Garden Way • Troy, New York 12180

Customer Service: 1-800-437-8686 • Technical Service: 1-800-520-5520 • Parts Service: 1-800-648-6776

• FAX: (518) 233-4622 • WEBSITE: www.troybilt.com

Outside the United States and Canada:

Customer Service: (518) 233-4807 • Technical Service: (518) 233-4808 • Parts Service: (518) 233-4806 • FAX (518) 233-4622

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