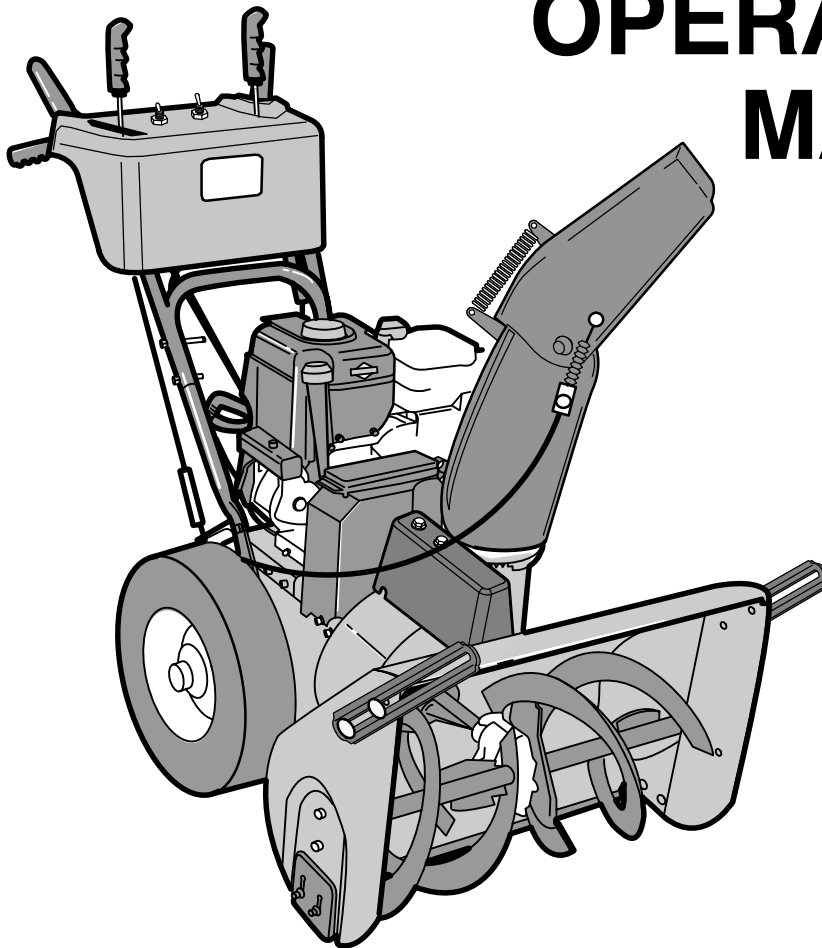


ST1332 Snow Thrower

OPERATOR'S MANUAL



F FRONTIER
EQUIPMENT™

INTRODUCTION

Congratulations on your purchase of a Frontier Snowthrower. It has been designed, engineered and manufactured to give you the best possible dependability and performance. However, like all mechanical products, your machine will occasionally require adjustment and maintenance. This handbook should be read before operating or performing and adjustments on your machine.

The instructions in this Owner's Manual are written for a person with some mechanical ability. Like most service books, not all the steps are described. Steps on how to loosen or tighten fasteners are steps anyone can follow with some mechanical ability. Read and follow these instructions before you use the unit.

Know your product:: If you understand the unit and how the unit operates, you will get the best performance. As you read this manual, compare the illustrations to the unit. Learn the location and the function of the controls. To help prevent an accident, follow the operating instructions and the safety rules. Keep this manual for future reference.

IMPORTANT: Many units are not assembled and are sold in cartons. It is the responsibility of the owner to make sure the assembly instructions in this manual are exactly followed. Other units are purchased in an assembled condition. On assembled units, it is the responsibility of the owner to make sure the unit is correctly assembled. The owner must carefully check the unit according to the instructions in this manual before it is first used.

The warranty, found in this manual, details the coverage and limitations of this product. **Registration of the warranty is necessary and must be preformed by the dealer within sixty (60) days from the date of retail sale or delivery.** The Warranty Registration Form is located on the Frontier website.

RESPONSIBILITY OF THE OWNER

The responsibility of the owners to follow the instructions below.

1. Carefully read and follow the rules for safe operation.
2. Follow all the assembly instructions.
3. Inspect the unit.
4. Make sure that the operator of the unit knows how to correctly use all standard and accessory equipment.
5. Operate the unit only with guards, shields, and other safety items in place and working correctly.
6. Correctly adjust the unit.
7. Service the unit only with authorized or approved replacement parts.
8. Complete all maintenance on the unit.



PRODUCT INFORMATION

The owner must be certain that all the product information is included with this unit.

This information includes the *INSTRUCTION BOOKS*, the *REPLACEMENT PARTS* and the *WARRANTIES*. This information must be included to make sure state laws and other laws are followed.

**Read And Keep This Book For
Future Reference. This Book Contains Important Information On:
*SAFETY, ASSEMBLY, OPERATION AND MAINTENANCE.***




RULES FOR SAFE OPERATION

  This manual contains safety information to make you aware of the hazards and risks associated with snow throwers, and how to avoid them. The snow thrower is designed and intended for removal of snow, and should not be used for any other purpose. It is important that you read and understand these instructions, and anyone operating the equipment read and understand these instructions.

WARNING


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

A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

-  **DANGER** indicates a hazard which, if not avoided, **will result in death or serious injury.**
-  **WARNING** indicates a hazard which, if not avoided, **could result in death or serious injury.**
-  **CAUTION** indicates a hazard which, if not avoided, **might result in minor or moderate injury.**
CAUTION, when used **without** the alert symbol, indicates a situation that **could result in damage to the equipment.**






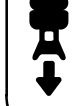







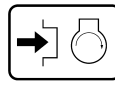




















Hazard Symbols and the meanings

These symbols are used on your equipment and defined in your operating manual. Review and understand the meanings. The use of one of these symbols combined with a signal word will alert you to potential hazards and how to avoid them.

	Safety Alert – Identifies safety information about hazards that can result in personal injury.
	Operator's Manual – Read and understand before performing any activity or running equipment.
	Rotating auger
	Fire
	Rotating impeller
	Explosion
	Toxic fumes
	Shock
	Rotating gears
	Hot Surface
	Thrown objects
	Keep a safe distance from the equipment.

Operating Symbols and their meanings

These symbols are used on your equipment and defined in your operating manual. It is important that you review and understand the meanings. Failure to understand the symbols might result in harm to you.

	Oil		Forward
	Fuel		Neutral
	On Off		Reverse
	Primer bulb		Ignition On
	Throttle		Ignition Off
	Choke off		Ignition Key
	Choke on		Push to engage electric start
	Stop		Electric Start
	Slow		Engine Start
	Fast		Engine Run
	Engage		Engine Off
	Traction		Engage
	Auger Collector		Disengage
	Auger Clutch		Discharge Chute
	Drive Clutch		Chute Deflector
			LEFT
			RIGHT
			UP
			DOWN

RULES FOR SAFE OPERATION



DANGER

Avoid death or serious injury from rotating auger.
Keep hands, feet and clothing away.
Unclogging discharge chute is a hazardous activity.

- Never attempt to clear auger of debris or clogged snow while equipment is engaged or engine is running. Clogged or blocked augers store energy and can rotate unexpectedly, **EVEN WITH ENGINE OFF**.
- Stop engine and disconnect spark plug wire when performing maintenance on equipment.
- Never leave the equipment unattended while engine is running. Always disengage the auger and traction controls, stop engine, and remove keys.
- Keep children, pets, and others out of the area during operation. Children are often attracted to the equipment. Be mindful of all persons present.
- Keep all loose clothing far away from front of snow thrower and auger. Scarfs, mittens, dangling drawstrings, loose clothes and pants can quickly become caught in the rotating device and dismemberment will occur. Tie up long hair and remove jewelry.
- The snow thrower is intended to remove snow only. Do not use for other purposes other than what is intended.
- Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
- Do not use the snow thrower on surfaces above ground level such as roofs of residences, garages, porches or other such structures or buildings.



DANGER

Objects can be picked up by auger and thrown from chute.
Never throw snow toward people or cars, and never allow anyone in front of the snow thrower.

- Be aware of your environment while operating equipment. Running over items such as, gravel, doormats, newspapers, toys, and rocks hidden under snow, can all be thrown from chute or jam in the auger.
- Always be aware of the direction the snow is being thrown. Nearby pedestrians, pets or property may be harmed by objects being thrown.
- Familiarize yourself with the area you plan to work. Mark off boundaries of walkways and driveways to prevent property damage, or throwing objects.
- Take caution when snow throwing in unfamiliar areas. Stay alert for hidden hazards and traffic.
- After striking a foreign object, turn engine OFF, wait for moving parts to cease movement, and check immediately for damage. If damaged, repair before starting and operating snow thrower.
- With engine OFF, wait for moving parts to stop and always use a stick to clear discharge chute.
- If unit vibrates abnormally, turn engine OFF. Vibration is generally a warning of trouble. See an authorized dealer if necessary for repairs.



WARNING

Rotating gears can contact or entangle hands, feet, hair, clothing, or accessories.
Traumatic amputation or severe laceration can result.

- Always operate equipment with all guards in place.
- Keep hands and feet away from rotating gears.
- Tie up long hair and remove jewelry.
- Do not wear loose-fitting clothing, dangling drawstrings or items that could become caught.



DANGER

Discharge chute contains rotating impeller to throw snow.
Never clear or unclog discharge chute with your hands, or while engine is running.
Fingers can quickly become caught and traumatic amputation or severe laceration can result.

- Unclogging the discharge chute is a hazardous activity. Clogged or blocked augers store energy and can rotate unexpectedly.
- Never place hands in or near discharge chute.
- With engine OFF, wait for all moving parts to cease movement, then with a stick, clear the chute. Even with engine off, parts may rotate and dismemberment can occur.
- Clogged snow can hide other obstructions in the chute and cause damage to the equipment, impeller or auger. Take precautions when restating the equipment after snow removal.



WARNING

Engines give off carbon monoxide, an odorless, colorless, poison gas.
Breathing carbon monoxide can cause nausea, fainting or death.

- Start and run engine outdoors.
- Do not start or run engine in enclosed area, even if doors or windows are open.

RULES FOR SAFE OPERATION



WARNING

Gasoline and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death.

WHEN ADDING FUEL

- Turn engine OFF and let engine cool at least 2 minutes before removing gas cap.
- Fill fuel tank outdoors or in well-ventilated area.
- Do not overfill fuel tank.
- Keep gasoline away from sparks, open flames, pilot lights, heat, and other ignition sources.
- Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.

WHEN STARTING ENGINE

- Make sure spark plug, muffler, fuel cap and air cleaner are in place.
- Do not crank engine with spark plug removed.
- If fuel spills, wait until it evaporates before starting engine.
- If engine floods, set choke to OPEN/RUN position, place throttle in FAST and crank until engine starts.

WHEN OPERATING EQUIPMENT

- Do not choke carburetor to stop engine.

WHEN TRANSPORTING EQUIPMENT

- Transport with fuel tank EMPTY.

WHEN STORING GASOLINE OR EQUIPMENT WITH FUEL IN TANK

- Store away from furnaces, stoves, water heaters or other appliances that have pilot light or other ignition source because they can ignite gasoline vapors.



WARNING

Starting engine creates sparking. Sparking can ignite nearby flammable gases. Explosion and fire could result.

- If there is natural or LP gas leakage in area, do not start engine.
- Do not use pressurized starting fluids because vapors are flammable.



WARNING

Running engines produce heat. Engine parts, especially muffler, become extremely hot.

Severe thermal burns can occur on contact.

Combustible debris, such as leaves, grass, brush, etc. can catch fire.

- Allow muffler, engine cylinder and fins to cool before touching.
- Remove accumulated combustibles from muffler area and cylinder area.
- Install and maintain in working order a spark arrester before using equipment on forest-covered, grass-covered, brush-covered unimproved land. The state of California requires this (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal land.



WARNING

Unintentional sparking can result in fire or electric shock.

Unintentional start-up can result in entanglement, traumatic amputation, or laceration.



BEFORE PERFORMING ADJUSTMENTS OR REPAIRS

- Disconnect spark plug wire and keep it away from spark plug.

WHEN TESTING FOR SPARK

- Use approved spark plug tester.
- Do not check for spark with spark plug removed.

RULES FOR SAFE OPERATION

IMPORTANT



WARNING: Always disconnect the spark plug wire and place it where it cannot make contact with spark plug to prevent accidental starting during: Preparation, Maintenance, or Storage of your snowthrower.



Safe Operation Practices for Snowthrowers As Recommended By: American National Standards Institute.



WARNING:



Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. WASH HANDS AFTER HANDLING.

IMPORTANT: Safety standards require operator presence controls to minimize the risk of injury. Your snowthrower is equipped with such controls. Do not attempt to defeat the function of the operator presence control under any circumstances.

Training

1. Read the operating and service instruction manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
2. Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
3. Keep the area of operation clear of all persons, particularly small children and pets.
4. Exercise caution to avoid slipping or falling especially when operating in reverse.

Preparation

1. Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
2. Disengage all clutches before starting the engine (motor).
3. Do not operate the equipment without wearing adequate winter outer garments. Wear footwear that will improve footing on slippery surfaces.
4. Handle fuel with care; it is highly flammable.

- a. Use an approved fuel container.
 - b. Never remove fuel tank cap or add fuel to a running engine (motor) or hot engine (motor).
 - c. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
 - d. Replace fuel cap securely and wipe up spilled fuel.
 - e. Never store fuel or snowthrower with fuel in the tank inside of a building where fumes may reach an open flame or spark.
 - f. Check fuel supply before each use, allowing space for expansion as the heat of the engine (motor) and/or sun can cause fuel to expand.
5. For all units with electric starting motors use electric starting extension cords certified CSA/UL. Use only with a receptacle that has been installed in accordance with local inspection authorities.
 6. Adjust the snowthrower height to clear gravel or crushed rock surface.
 7. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
 8. Let engine (motor) and snowthrower adjust to outdoor temperatures before starting to clear snow.
 9. Always wear 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 snowthrower.

Operation

1. Do not operate this machine if you are taking drugs or other medication which can cause drowsiness or affect your ability to operate this machine.
2. Do not use this machine if you are mentally or physically unable to operate this machine safely.
3. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
4. Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic.
5. After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, thoroughly inspect snowthrower for any damage, and repair the damage before restarting and operating the snowthrower.
6. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.

RULES FOR SAFE OPERATION

7. Stop the engine (motor) whenever you leave the operating position, before unclogging the auger/impeller housing or discharge chute and when making any repairs, adjustments, or inspections.
8. When cleaning, repairing, or inspecting, make certain the auger/impeller and all moving parts have stopped and all controls are disengaged. Disconnect the spark plug wire and keep the wire away from the spark plug to prevent accidental starting.
9. Take all possible precautions when leaving the snowthrower unattended. Disengage the auger/ impeller, stop engine (motor), and remove key.
10. Do not run the engine (motor) indoors, except when starting the engine (motor) and for transporting the snowthrower in or out of the building. Open the outside doors; exhaust fumes are dangerous (containing CARBON MONOXIDE, an ODORLESS and DEADLY GAS).
11. Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
12. Never operate the snowthrower without proper guards, plates or other safety protective devices in place.
13. Never operate the snowthrower near enclosures, automobiles, window wells, drop-offs, and the like without proper adjustment of the snow discharge angle. Keep children and pets away.
14. Do not overload the machine capacity by attempting to clear snow at too fast a rate.
15. Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing up.
16. Never direct discharge at bystanders or allow anyone in front of the unit.
17. Disengage power to the collector/impeller when snowthrower is transported or not in use.
18. Use only attachments and accessories approved by the manufacturer of the snowthrower (such as tire chains, electric start kits, ect.).
19. Never operate the snowthrower without good visibility or light. Always be sure of your footing and keep a firm hold on the handles. Walk; never run.
20. Do not over-reach. Keep proper footing and balance at all times.
21. Exercise caution if operating on steep sloping surfaces.
22. This snowthrower is for use on sidewalks, driveways and other ground level surfaces.
23. Do not use the snowthrower on surfaces above ground level such as roofs of residences, garages, porches or other such structures or buildings.

Maintenance And Storage

1. Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
2. Never store the snowthrower with fuel in the tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine (motor) to cool before storing in any enclosure.
3. Always refer to operator's guide instructions for important details if the snowthrower is to be stored for an extended period.
4. Maintain or replace safety and instruction labels, as necessary.
5. Run the snowthrower a few minutes after throwing snow to prevent freeze-up of the auger/impeller.

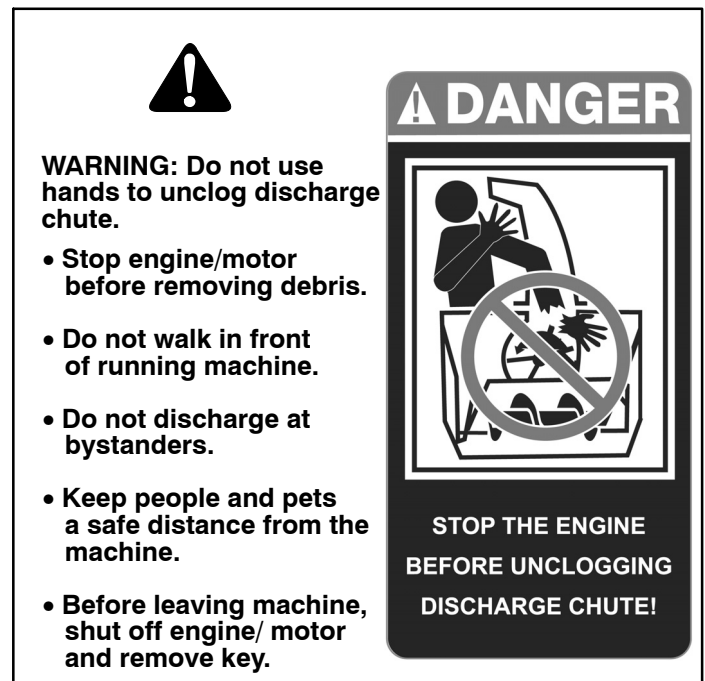



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SAFETY DECALS

 **WARNING:** If safety decals are damaged or missing, replace immediately. 

 **Look for this symbol to indicate important safety precautions. This symbol indicates: “Attention! Become Alert! Your Safety Is At Risk.”**

Before operation of your snowthrower, read the safety decals as shown on your snowthrower. The cautions and warnings are for your safety. To avoid a personal injury or damage to your snowthrower, understand and follow all safety decals. If you have any questions regarding the meaning or how to comply with the instructions, do not operate until you understand the purpose for the warning or danger given in the safety decal. If you do not understand

the meaning, then thoroughly read all safety and operation instructions in this Owner’s Manual or contact your local dealer.

If any safety decals become worn or damaged and cannot be read, order replacement decals from your local dealer.

Identifying Your Snowthrower

The snowthrower has two (2) identifying numbers: (1) unit model number: (2) unit serial number. The two preceding numbers are required to insure that the proper replacement parts are obtained when required. If you have any questions concerning parts, service, or technical data, contact the dealer where the unit was purchased. For complete warranty information refer to the warranty in the Owner’s Information section of this manual.

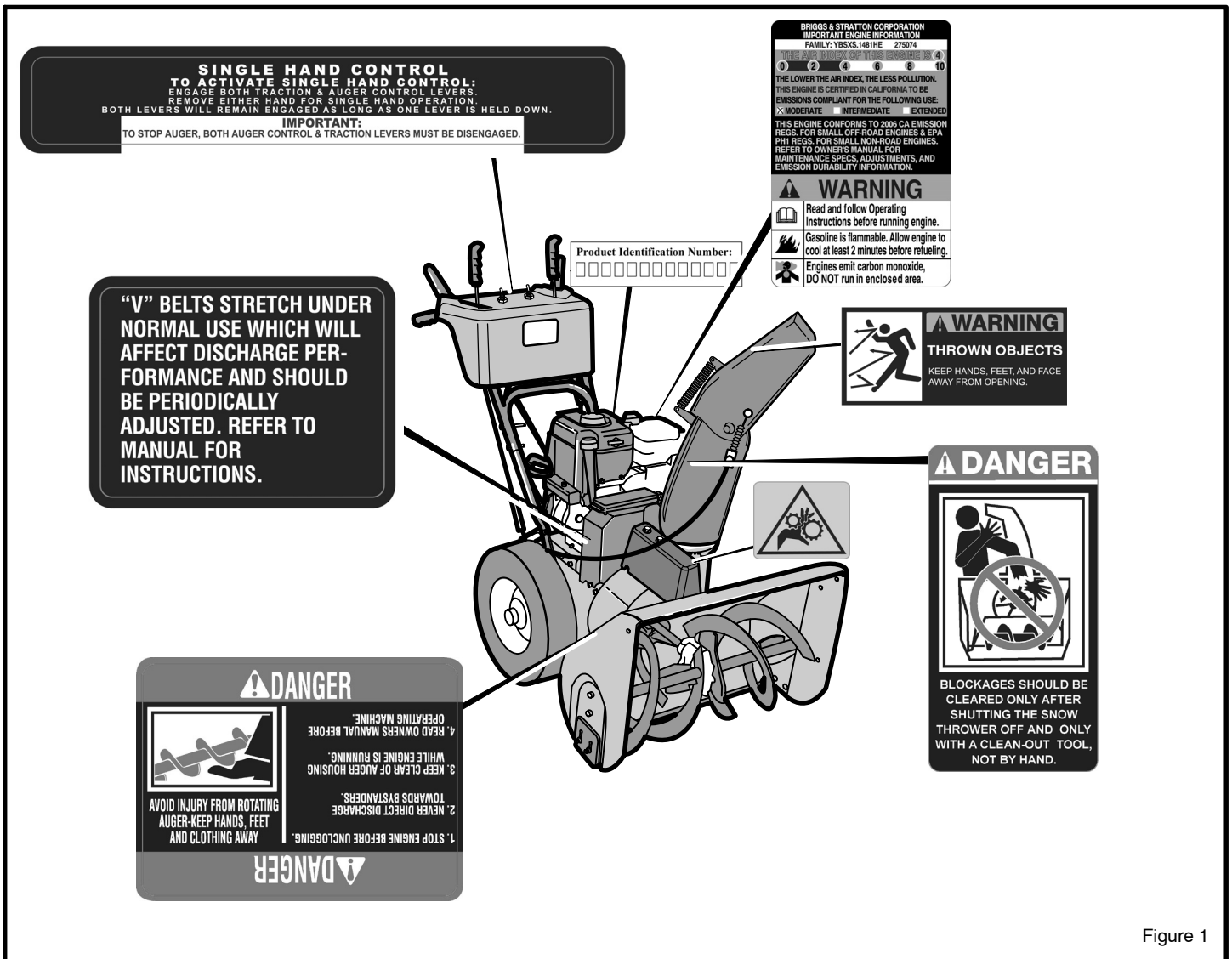


Figure 1

OWNER'S INFORMATION

THREE YEAR LIMITED WARRANTY

Murray warrants to the original purchaser of this Frontier Branded Snowthrower that this unit shall be free from defects in material and workmanship under normal use and service for a period of **Three (3) Year** from the date of purchase; however, this warranty does not cover accessories (such as electric starters) and Normal Wear Parts (except as noted below) as the companies that manufacture these items furnish their own warranties and provide service through their authorized field service facilities. For additional information, see the warranties covering these particular parts. If you are uncertain whether your unit contains or is equipped with one or more of these parts, consult your dealer prior to purchase. Subject to the terms and conditions noted in this Limited Warranty, we shall, at our option, repair or replace at no cost to the original purchaser any part covered by this Limited Warranty during the applicable warranty period.

Normal Wear Parts are defined as drive belts, augers, shear pins, tires and headlights. These parts are warranted to be free from defects in material and workmanship as delivered with the product. Any claim for repair or replacement of Normal Wear Parts must be made within thirty (30) days of the date of purchase. No claims involving damage caused from material use, abuse or misuse will be honored.

This Murray **Three (3) Year Limited Warranty** for your Frontier Branded Snowthrower is your exclusive remedy; however, this warranty is void or does not apply to any unit that has been tampered with, altered, misused, abused. If used for commercial and/or professional (non-homeowner) uses, the duration of this warranty is ninety (90) days after the date of purchase. Your warranty does not cover minor mechanical adjustments which are not due to any defect in material or workmanship. For assistance in making such adjustments, consult your Operator's Manual.

The engine on this Frontier Branded Snowthrower is warranted to the original purchaser for a **Three (3) Year Limited Warranty** by the equipment manufacturer. See your engine manual for information regarding the warranty policy and items covered under warranty. See your authorized John Deere/Frontier Dealer for service or replacement parts. **MB**

To make a claim under this Murray **Three (3) Year Limited Warranty** for your Frontier Branded Snowthrower, return the unit (or if authorized in advance, the defective part) along with your proof of purchase to an Authorized John Deere/Frontier Dealer near you. To locate the nearest Authorized John Deere/Frontier Dealer, check the Yellow Page listings in your local telephone directory. If you return the entire unit, John Deere/Frontier will repair all warranty items. If authorize to return the defective part only, John Deere/Frontier will either replace or repair the part. This Murray **Three (3) Year Limited Warranty** for your Frontier Branded Snowthrower gives you specific legal rights, and you may also have other rights which vary from state to state. **This Limited Warranty is given in lieu of all other expressed and implied warranties including the implied warranty of merchantability and warranty of fitness for a particular purpose.** If you need additional information on this written warranty or assistance in obtaining service, contact you local John Deere/Frontier Dealer.

FOR YOUR RECORDS

DATE PURCHASED: _____

MODEL NO: _____

SERIAL NO: _____

STORE WHERE PURCHASED: _____

ADDRESS: _____

CITY: _____ STATE: _____

TELEPHONE : _____

Record this information about your unit so that you will be able to provide it in case of loss or theft.

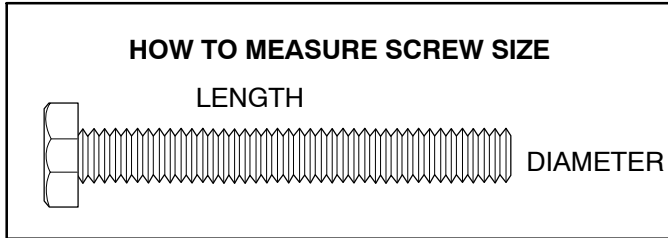
ASSEMBLY

TOOLS REQUIRED FOR ASSEMBLY

- 1 – Knife
- 2 – 1/2" wrenches (or adjustable wrenches)
- 2 – 9/16" wrenches (or adjustable wrenches)
- 2 – 3/4" wrenches (or adjustable wrenches)
- 1 – 3/8" wrenches (or adjustable wrenches)
- 1 – Pair pliers or screw driver (to spread cotter pin)

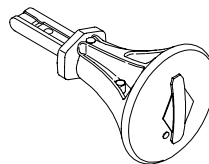
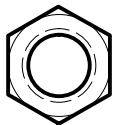
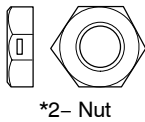
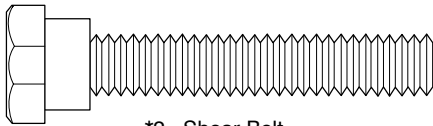
CONTENTS OF SHIPPING CARTON

- 1 – Snowthrower
- 1 – Container of Fuel Stabilizer (Located in Parts Bag)
- 1 – Parts Bag



WARNING: Always wear safety glasses or eye shields while assembling snowthrower.

PARTS BAGS CONTENTS:



ASSEMBLY

Figure 2 shows the snowthrower in the shipping position.

Figure 3 shows the snowthrower completely assembled.

Reference to right and left hand side of the snowthrower is from the operator's position at the handle.

UNPACKING

1. Locate the two tear tabs at the bottom of the carton.
2. Pull the tear tape no more than twelve inches (30.48cm.) at a time. Re-grasp tape next to the carton and pull again. Repeat until all the tape is torn off.
3. After the tape has been completely removed from the carton, remove the carton from the base. Cut all four corners and fold the sides toward the center for easy disposal.
4. Remove the plastic bag that covers the unit.
5. Locate and remove the parts bag.

NOTE: Set the fuel stabilizer aside until adding gasoline to the fuel tank. We recommend that fuel stabilizer is added to the fuel each time that gasoline is added to the fuel tank.

6. For shipping purposes, the **height adjust skids** are attached to the pallet. Remove the **screw** that secures each **height adjust skid** to the pallet. (See Figure 2).
7. Roll the snowthrower off the carton by pulling on the lower handle.

CAUTION: DO NOT back over cables.

8. Remove the packing material from the handle assembly.
9. Cut ties securing the clutch control cables to the lower handle.

NOTE: If the cables have become disconnected from the clutch levers, reinstall the cables as shown in Figure 4.

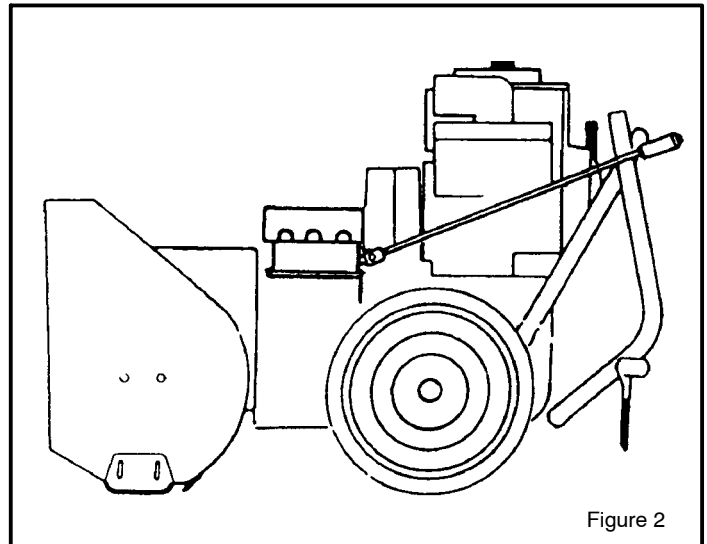


Figure 2

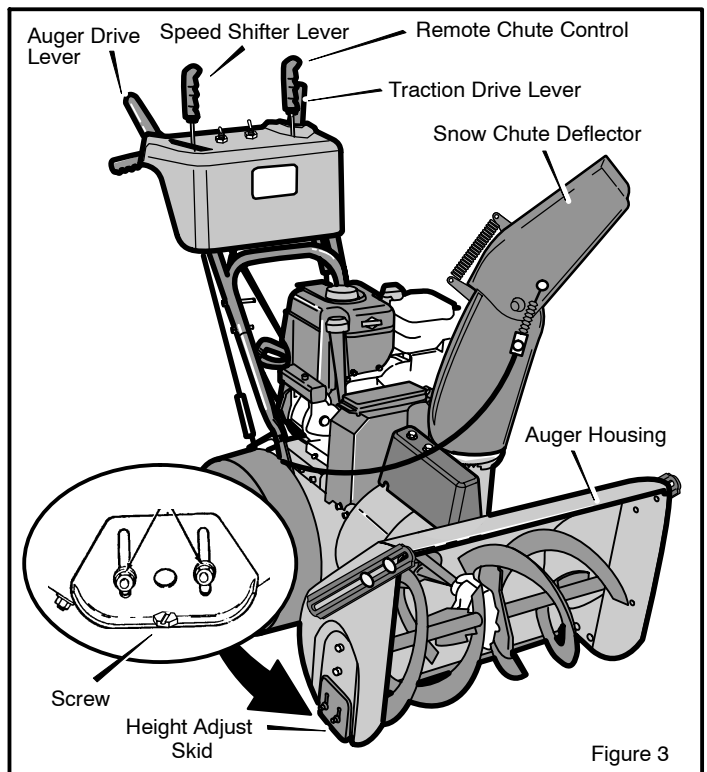


Figure 3

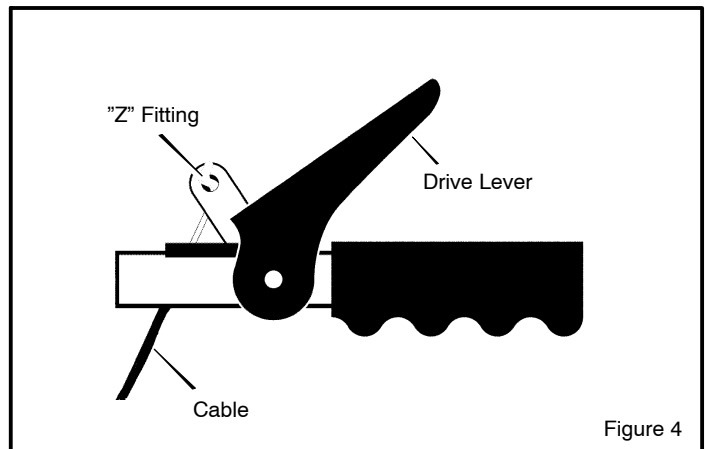


Figure 4

ASSEMBLY

UPPER HANDLE ASSEMBLY

1. Cut tie holding shift rod to lower handle and move shifter to the neutral position.
2. The fasteners that secure the **upper handle** to the **lower handle** are mounted in the handles. Loosen, but do not remove these fasteners (see See Figure 5).
3. The remaining fasteners are mounted in either the **upper handle** or the **lower handle**. To allow the handle to be raised to the operating position, remove these fasteners.
4. Raise upper handle to the operating position. The **upper handle** must be to the outside of the **lower handle**.

NOTE: Make sure the cables are not caught between the upper and lower handles.

NOTE: If the cables have become disconnected from the drive levers, reinstall the cables as shown in Figure 6.

5. Install the fasteners that were removed in step 3. DO NOT tighten until all bolts are in place.
6. Tighten all handle bolts.

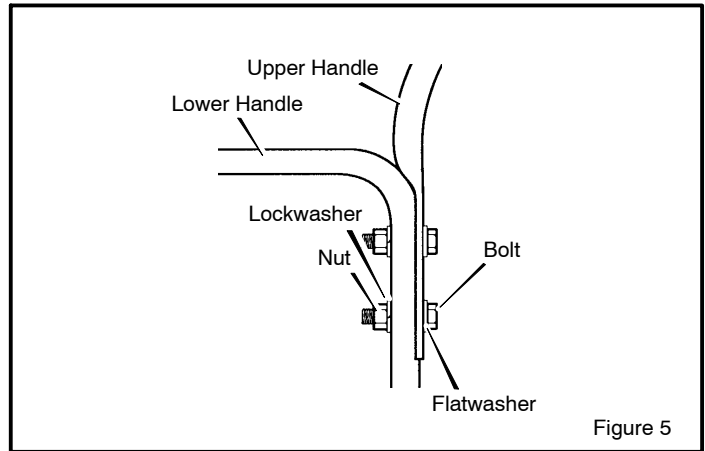


Figure 5

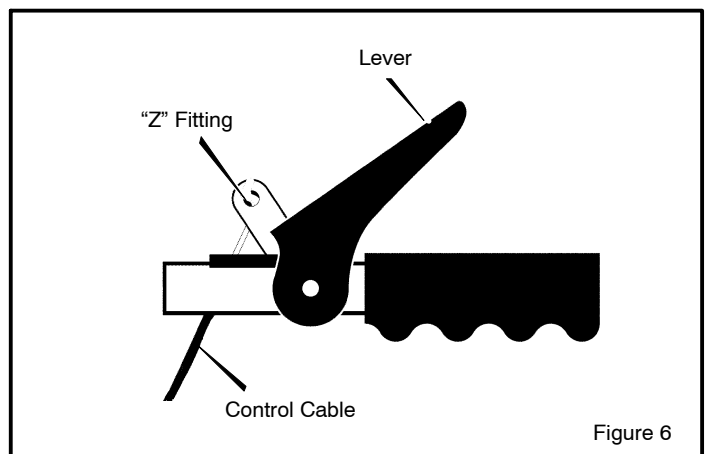


Figure 6

CHECK THE CABLES

If control cables have become unattached from motor mount frame, reconnect cables as shown in Figure 7.

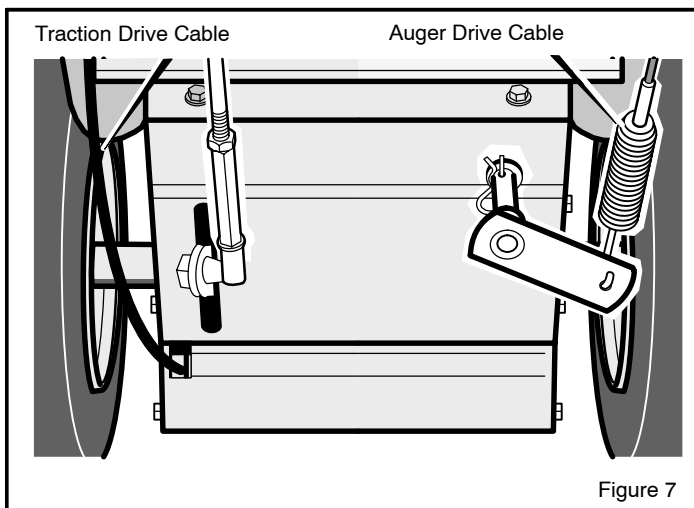


Figure 7

HOW TO SET THE LENGTH OF THE CABLES

The cables were adjusted at the factory and no adjustments should be necessary. However, after the handles are put in the operating position, the cables can be too tight or too loose. If an adjustment is necessary, see "How To Check And Adjust The Cables" in the Maintenance section.

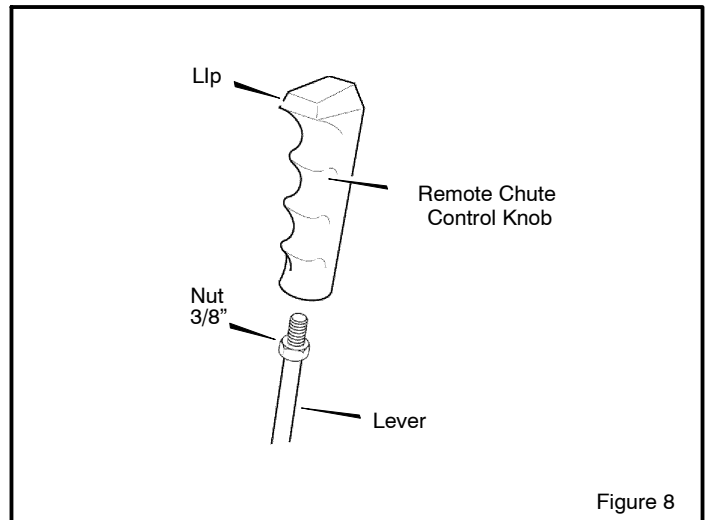
ASSEMBLY

REMOTE CHUTE CONTROL KNOB

1. Assemble the **remote chute knob** onto the **lever** until snug against the **nut** (see Figure 8).
2. Make sure **lip** on the **remote chute knob** is pointed toward the engine.
3. Tighten the **nut** against the bottom of the **remote chute knob**.

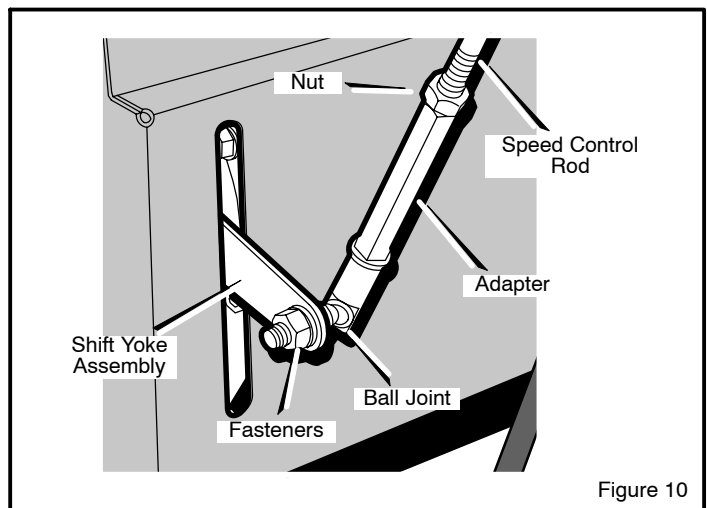
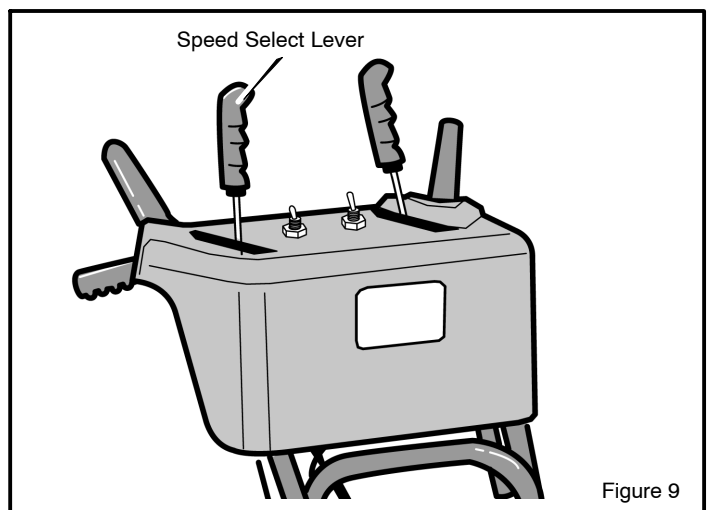
SPEED SELECT KNOB

1. Thread the knob onto the lever as far as possible. Make sure that the knob points forward (See Figure 8).
2. Tighten the jam nut against the knob securely.



HOW TO INSTALL THE SPEED CONTROL ROD

1. Put the **speed select lever** to the NEUTRAL position. See Figure 9.
2. Attach the **ball joint**, located on the bottom end of the **speed control rod**, to the **shift yoke assembly**. See Figure 10. The **fasteners** (washer and nut) are in the parts bag.
3. The length of the **ball joint** and **speed control rod** have been pre-adjusted at the factory. If an adjustment is required, loosen the **nut**. Remove the **fasteners** to disconnect the **ball joint** from the **shift yoke assembly**. To lengthen or shorten the **speed control rod**, turn the **adapter** to obtain the correct length.
4. Make sure the **speed select lever** functions correctly. Move the **speed select lever** through all speeds.

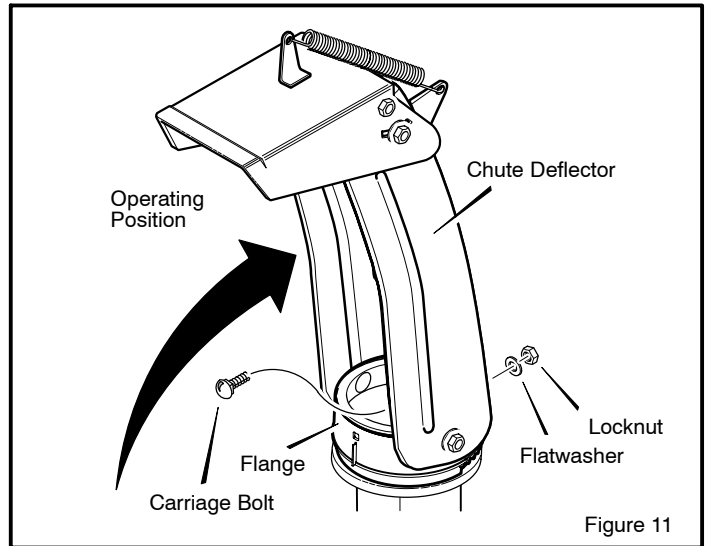


ASSEMBLY

SNOW CHUTE ASSEMBLY

1. Remove back carriage bolt (See Figure 11).
2. Tilt chute back into operating position.
3. Replace carriage bolt from inside of chute.
4. Replace flatwasher and nylon locknut on outside of flange.
5. Tighten carriage bolt securely.

NOTE: check all carriage bolts in flange for tightness. DO NOT overtighten.



CHECK THE TIRES

The tires were over inflated for shipment. Check the tire pressure in the tires. See the sidewall of the tire for the proper inflation.

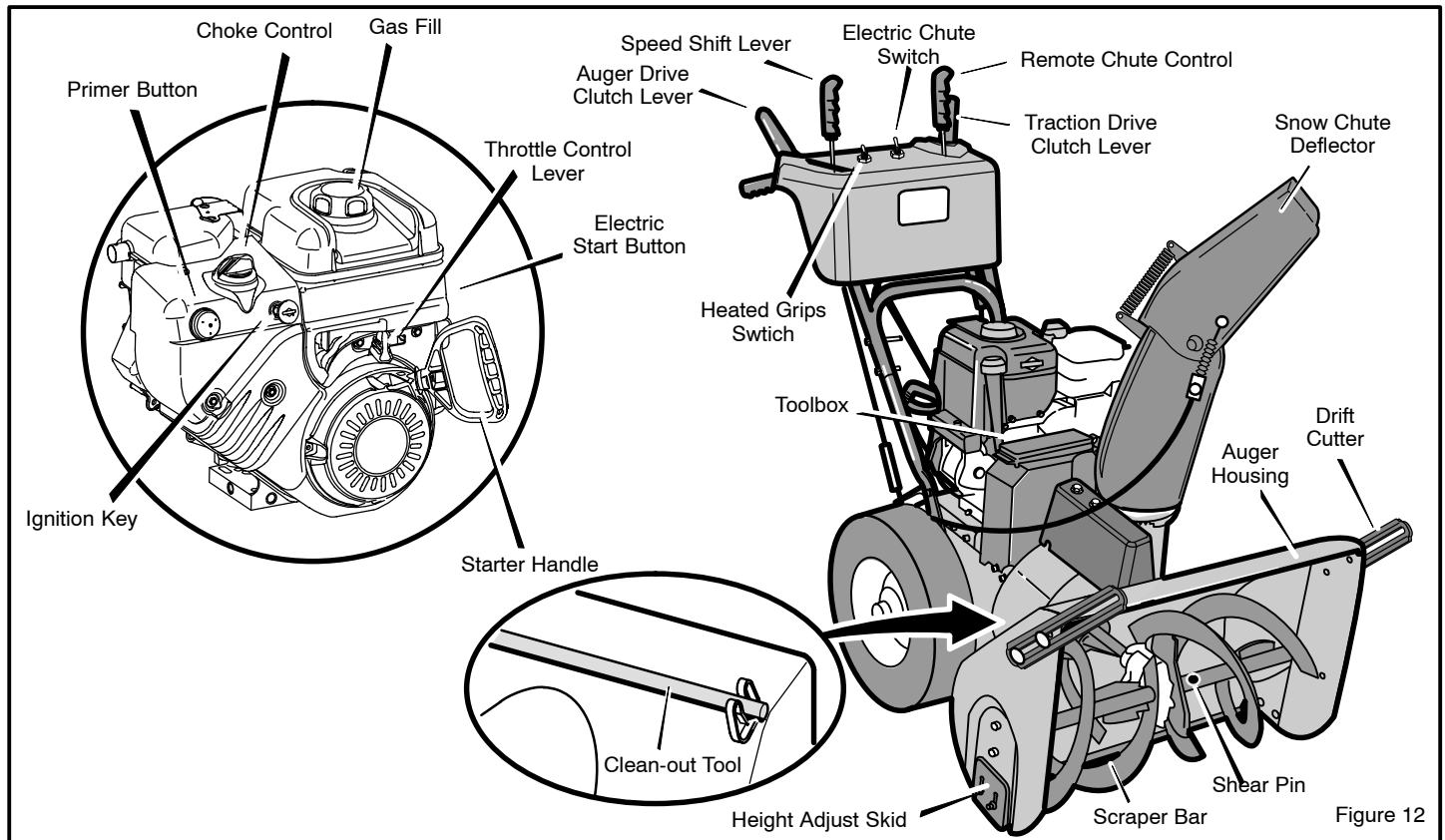
IMPORTANT! BEFORE YOU START OPERATING

- Check the fasteners. Make sure all fasteners are tight.
- On electric start models, the unit was shipped with the starter cord plugged into the engine. Before operating, unplug the starter cord from the engine.

NOTE: This snowthrower was shipped WITH OIL in the engine. See “Before Starting Engine” instructions in the Operation section of this manual before starting engine.

OPERATION

Get to know your snowthrower and its controls. Be sure you (or any other operator) have read and understood the Operation Precautions listed on page 2 of this manual.



ENGINE AND SNOWTHROWER OPERATING CONTROLS

The engine operating controls and their functions are as follows:

ENGINE CONTROLS

Throttle Control Lever – Controls the engine speed.

Choke Control– Use to start a cold engine.

Electric Start Button– Used to start the engine using the 120 volt electric starter.

Prime Button – Used to inject fuel directly into carburetor manifold to insure fast starts in cool weather.

Ignition Key – Must be inserted to start engine. Pull out to stop. Do not turn ignition key.

Starter Handle – Starts the engine manually.

SNOWTHROWER CONTROLS

Speed Shifter Lever – Selects the forward and reverse speed.

Auger Drive Clutch Lever – Used to engage and disengage the auger and impeller. To engage push down, to disengage release.

Traction Drive Clutch Lever – Used to propel snowthrower forward or reverse. Push down to engage, release to disengage.

Snow Chute Deflector – Changes the direction the snow is blown.

Remote Chute Control – Push remote lever forward to discharge snow down. Pull remote lever back to discharge snow high and far.

Electric Chute Switch – Changes the direction of snow throwing through the discharge chute.

Discharge Chute – Changes the height and direction the snow is thrown.

Heated Grips Switch – Turns on the heated grips.

Height Adjust Skid– Used to adjust ground clearance of auger housing (see To Adjust Skid Height in the Adjustment/Repair section of this manual).

Toolbox – Spare shear pins and spacers are located in toolbox.

Shear Pin – Shear pins are designed to break (to protect the machine) if an object becomes lodged in the auger housing.

Drift Cutters – Cuts a path through snow higher than the auger housing.

Clean-Out Tool – Use the clean-out tool to remove snow and debris from the discharge chute and the auger housing.

OPERATION



The operation of any snowthrower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before beginning snowthrower operation. We recommend standard safety glasses or Wide Vision Safety Mask for over spectacles.

SNOWTHROWER OPERATION

The most effective use of the snowthrower will be established by experience, taking into consideration the terrain, wind conditions and building location which will determine the direction of the discharge chute.

NOTE: Do not blow snow towards a building as hidden objects could be blown with sufficient force to cause damage.

TO STOP YOUR SNOWTHROWER

1. To stop throwing snow, release the **auger drive lever**. See Figure 13.
2. To stop the wheels, release the **traction drive lever**.
3. To stop the engine, push the **throttle control lever** to off and pull out the **ignition key**.

TO CONTROL SNOW DISCHARGE

1. Move the **electric chute switch** to set the direction (left to right) of the snow throwing.
2. Push the **remote chute lever** forward to discharge the snow down. Pull the **remote chute lever** back to discharge the snow high and far.

HOW TO MOVE FORWARD AND BACKWARD

1. To move the snow thrower forward, engage the **traction drive lever (left hand)**. As the snow thrower starts to move forward, push the **shift lever** to the desired speed. Maintain a firm hold on the handles and guide the snow thrower along the clearing path. Do not attempt to push the snow thrower.
2. To move the snow thrower backward, pull the **shift lever** to the reverse position.

TO THROW SNOW

1. Push down the auger driver lever (**right hand**). See Figure 13.
2. Release to stop throwing snow.

NOTE: When clearing wet, heavy snow, it is recommended that the ground speed of the unit be reduced, maintain full throttle and do not attempt to clear the full width of the unit.

For additional operating instructions see "Operating Tips" in this section of the manual.

MTF-051059L

IMPORTANT: Be sure front of unit is clear of bystanders or obstacles before operating.



WARNING: Read Owner's Manual before operating machine. This machine can be dangerous if used carelessly.

Never operate the snowthrower without all guards, covers, and shields in place.

Never direct discharge towards windows or allow bystanders near machine while engine is running.

Stop the engine whenever leaving the operating position.

Disconnect spark plug before unclogging the impeller housing or the discharge chute and before making repairs or adjustments.

When leaving the machine, remove the ignition key.

To reduce the risk of fire, keep the machine clean and free from spilled gas, oil and debris.

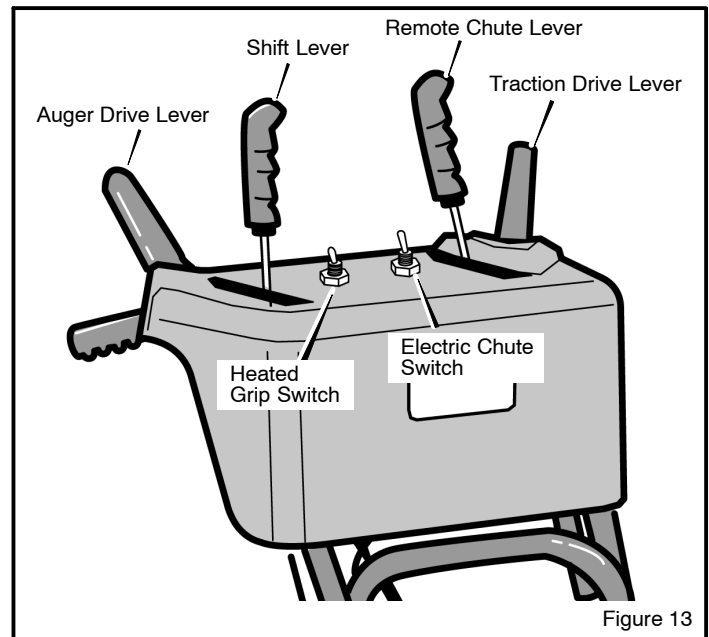


Figure 13



WARNING: Never run engine indoors or in an enclosed, poor ventilated area. Engine exhaust contains CARBON MONOXIDE, an ORDERLESS and DEADLY GAS.

Keep hands, feet, hair and loose clothing away from any moving parts on engine and snowthrower.

Temperature of muffler and nearby areas can exceed 150° F (66° C). Avoid these areas.

DO NOT allow children or young teenagers to operate or be near snowthrower while it is operating.

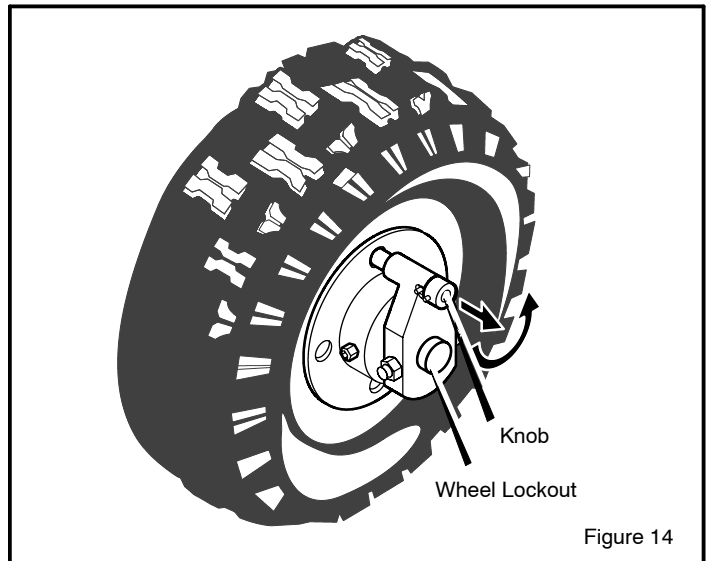
OPERATION

HOW TO USE THE WHEEL LOCKOUT

Each wheel is secured to the axle with a lockout pin. See Figure 14. The unit was shipped with the lockout pin in the locked position. For ease of maneuverability, disconnect the lockout pin as follows.

1. Pull the **knob** out to disengage the lockout pin.
2. To lock in the disengaged position, turn the **knob** 1/4 turn (90 degrees).

NOTE: Check tire pressure. See side of tire for maximum inflation. Do not exceed listed maximum pressure.

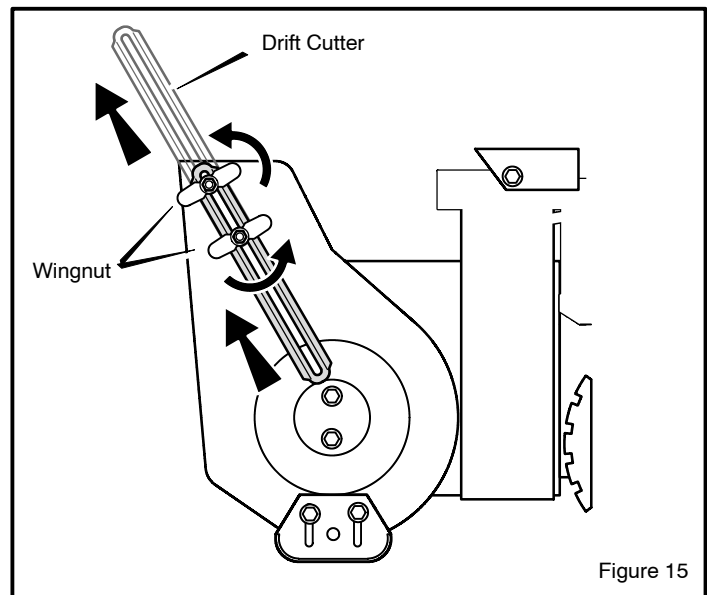


HOW TO SET THE DRIFT CUTTERS

(OPTIONAL ACCESSORY ON SOME MODELS)

Drift cutters are used to cut a path through snow deeper than the auger housing.

1. Loosen the **wingnuts** that secure the **drift cutters** to the auger housing (see Figure 15).
2. Raise the **drift cutters** to the desired height.
3. Tighten the **wingnuts**.



HOW TO USE THE HEATED GRIPS



Heated grips are designed for use when the temperature is below 32 degrees. Do not turn on electric grips if temperature is above 32 degrees.

When the temperature falls below 32 degrees, use the heated grips to keep your hands warm. Move the **heated grip switch** to the ON position (see Figure 13). It will take a couple of minutes for the grips to become warm. Because heated grips can become very warm, we recommend that you wear gloves. If you notice that the grips are too warm, turn off heated grips.

OPERATION

BEFORE STARTING ENGINE

Check the oil

NOTE: The engine was shipped from the factory filled with oil. Check the level of the oil. Add oil as needed.

1. Make sure the unit is level. Use a high quality detergent oil classified "For Service SG, SH, SJ, SL, or higher".
2. Remove the oil fill cap/dipstick and wipe with a clean cloth (see Figure 16).
3. Insert the oil fill cap/dipstick and turn clockwise to tighten.
4. Remove the oil fill cap/dipstick and check the oil.

NOTE: Do not check the level of the oil while the engine runs.

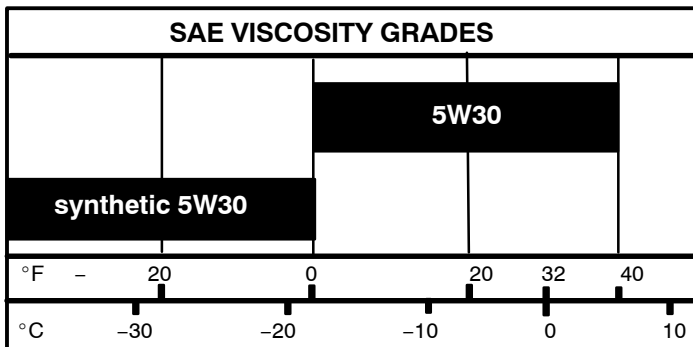
5. If necessary, add oil until the oil reaches the FULL mark on the oil fill/cap dipstick (see Figure 16). Do not add too much oil.
6. Tighten the fill cap/dipstick securely each time you check the oil level.

NOTE: For extreme cold operating conditions of 0°F (-18°C) and below, use a synthetic 5W30 motor oil for easier starting.

NOTE: S.A.E. 5W30 motor oil may be used to make starting easier in areas where the temperature is 20°F (-7°C) to 0°F (-18°C). Synthetic 5W30 is acceptable for all temperatures. DO NOT mix oil with gasoline.

NOTE: SEE CHART FOR OIL RECOMMENDATION

TEMPERATURE	TYPE OF OIL
0°F (-18°C) and above	S.A.E. 5W30
0°F (-18°C) and below	synthetic 5W30



FILL GAS

This engine is certified to operate on gasoline. Exhaust Emission Control System: EM (Engine Modifications)

1. Fill the fuel tank with fresh, clean, unleaded regular, unleaded premium, or reformulated automotive gasoline with a minimum of 85 octane along with a fuel stabilizer (follow instructions on fuel stabilizer package). **DO NOT**

use leaded gasoline. We recommend that fuel stabilizer be added to the fuel each time that gasoline is added to the fuel tank.

NOTE: Winter grade gasoline has higher volatility to improve starting. Be certain container is clean and free from rust or other foreign particles. Never use gasoline that may be stale from long periods of storage in the container.

CAUTION: DO NOT use gasoline containing any amount of alcohol as it can cause serious damage to the engine or significantly reduce the performance.

2. Check to make sure that spark plug is tightened securely into engine and spark plug wire is attached to spark plug. If torque wrench is available, torque plug to 18–23 ft-lbs.



WARNING: Gasoline is flammable. Always use caution when handling or storing gasoline. Do not add gasoline to the fuel tank while snow blower is running, hot, or when snow blower is in an enclosed area. Keep away from open flame, electrical sparks and DO NOT SMOKE while filling the fuel tank. Never fill the fuel tank completely; but fill the fuel tank to within 1-1/2 inch (3.8 mm) from the top to provide space for the expansion of the fuel. Always fill fuel tank outdoors and use a funnel or spout to prevent spilling. Make sure to wipe up any spilled fuel before starting the engine.

Store gasoline in a clean, approved container, and keep the cap in place on the container. Keep gasoline in a cool well ventilated place; never in the house. Never buy more than a 30 day supply of gasoline to assure volatility. Gasoline is intended to be used as a fuel for internal combustion engines; therefore, do not use gasoline for any other purpose. Since many children like the smell of gasoline, keep it out of their reach because the fumes are dangerous to inhale, as well as being explosive.

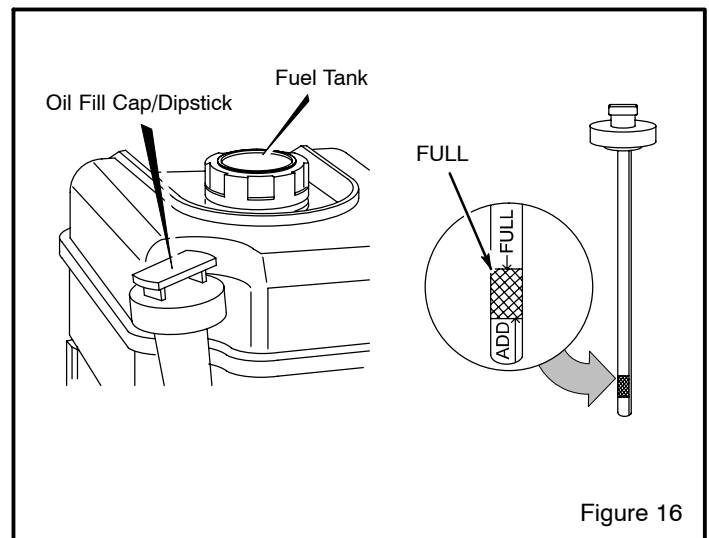


Figure 16

BEFORE STOPPING THE ENGINE

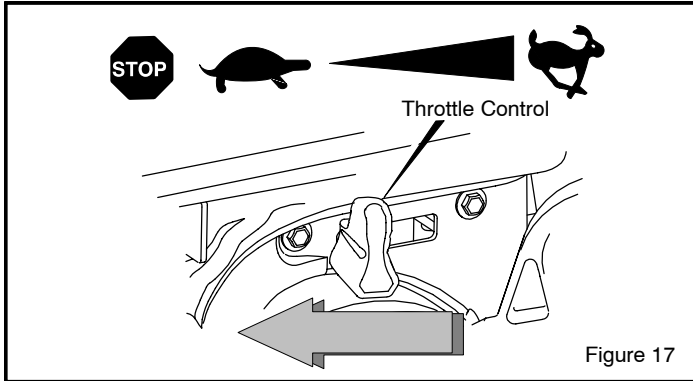
Run the engine for a few minutes to help dry off any moisture on the engine.

OPERATION

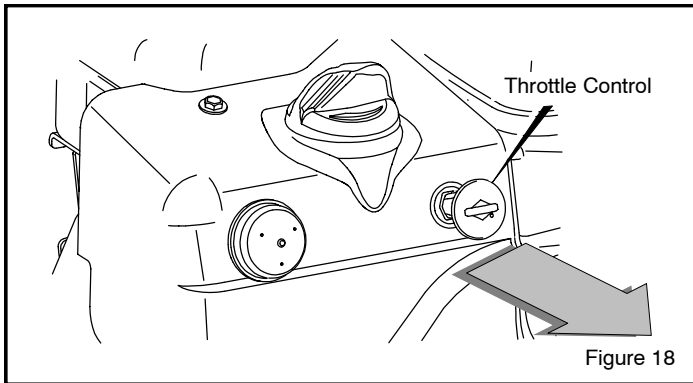
TO STOP ENGINE

CAUTION: To stop the engine, do not move the choke control to CHOKE position. Backfire or engine damage can occur.

1. Move throttle control to SLOW, then to STOP (Figure 17).



2. Pull out safety/ignition key (Figure 18).



TO START ENGINE

Be sure that engine has sufficient oil. Use a high quality detergent oil classified "For Service SG, SH, SJ, SL, or higher".

The snow thrower engine is equipped with a 120 volt A.C. electric starter and recoil starter. Before starting the engine, be certain that you have read the following information.

If engine floods, set the choke to the OPEN/RUN position and crank until the engine starts.

WARNING: Rapid retraction of the starter cord (kickback) will pull your hand or arm toward the engine faster than you can let go of the starter cord.

- When starting the engine, slowly pull the starter cord until resistance is felt. Then, rapidly pull the starter cord.
- Make sure components; such as impellers, pulleys or sprockets, are securely attached.



WARNING: The electric starter is equipped with a three-wire power cord and plug designed to operate on 120 volt AC house hold current. The power cord must be properly grounded at all times to avoid the possibility of electric shock which can cause injury to the operator. Follow all instructions carefully as set forth below:

Make sure your house has a three-wire grounded system. If you are not sure, ask a licensed electrician. If your house does not have a three-wire grounded system, do not use this electric starter under any condition.

If your house has a three-wire grounded system but a three hole receptacle is not available to connect the electric starter, have a three-hole receptacle installed by a licensed electrician.



WARNING: To connect a 120 volt power cord, always connect the power cord first to the switch box located on the engine and then plug the other end into a three-hole grounded receptacle.

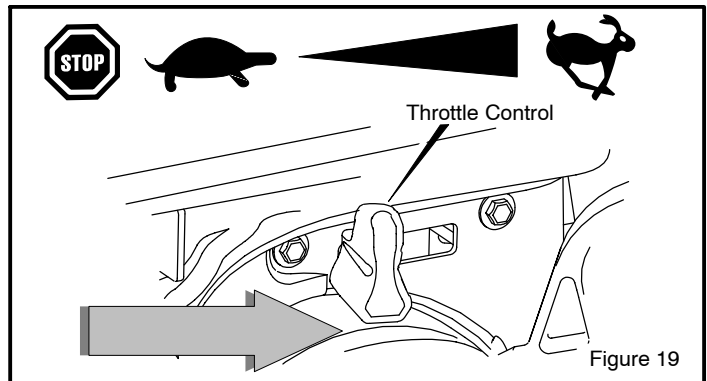


WARNING: To disconnect the power cord, always unplug the end connected to the three-hole grounded receptacle first.

COLD ENGINE START

(Engine has not been run recently.)

1. Be sure auger drive clutch lever and traction drive clutch lever are in the disengaged (RELEASED) position.
2. Move throttle control to "FAST" position. Operate the engine with the throttle control in FAST position (Figure 19). Before engaging auger drive clutch lever allow engine to idle for five minutes to allow engine oil to warm. Failure to allow engine oil to warm can cause damage to engine.



3. Insert key into ignition slot. Make sure it snaps into place (Figure 20). Do not turn key.
4. Rotate choke knob to the CHOKE position.
5. Push the primer button as follows:
Above 50° F (10° C), DO NOT PRIME.
From 50° F (10° C) to 15° F (-10° C), PUSH TWO TIMES.
Below 15° F (-10° C), PUSH FOUR TIMES.

OPERATION

NOTE: Cover the vent hole when as you push the primer. Remove your finger from the primer vent hole between pushes.

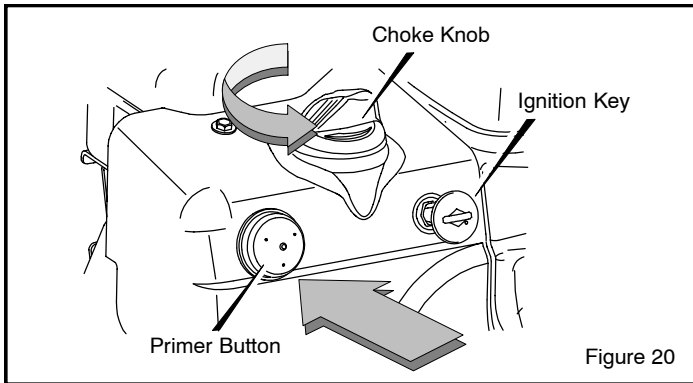


Figure 20

6. **(RECOIL START)** Slowly pull the **recoil starter handle** until resistance is felt and then pull rapidly to start the engine (Figure 21). Do not allow the **recoil starter handle** to snap back. Slowly return the **recoil starter handle**.

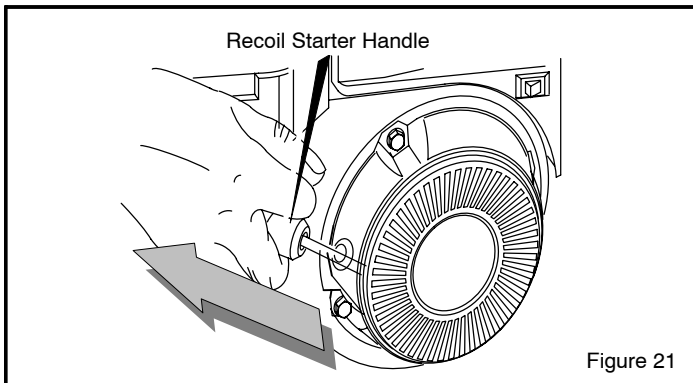


Figure 21

7. **(ELECTRIC START)** Connect the power cord to the engine and depress the starter button (Figure 22). To prolong the life of the starter, do not crank for more than 5 seconds at a time. Wait one minute between starts to allow the starter motor to cool.

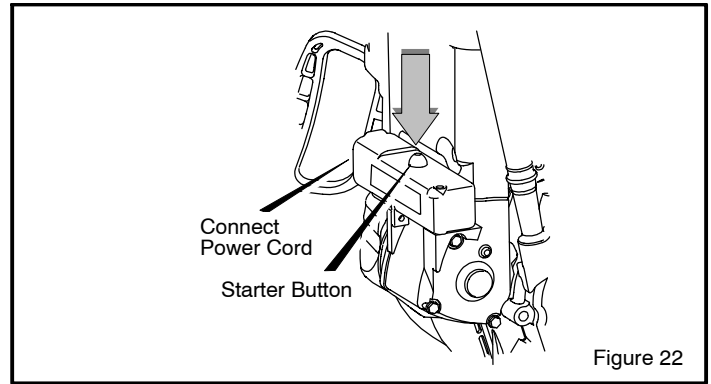


Figure 22

8. If the engine does not start in 5 or 6 tries, See **Difficult Starting** in the "Troubleshooting Table".
9. As engine warms up move choke lever to "1/2 choke" position. When engine does not run smoothly, move choke lever to the off position.

NOTE: Allow the engine to warm up for several minutes before blowing snow in temperatures below 0°F (-18° C).

10. **(Electric Start)** First disconnect power cord from receptacle. Then, disconnect the power cord from the **switch box**.

If after following the preceding instructions, your engine fails to start, have the engine checked by a John Deere/Frontier dealer.

NOTE: Do not lose the safety/ignition key. Keep the safety/ignition key in a safe place. The engine will not start without the safety/ignition key.

WARM ENGINE START (RECOIL STARTER)

If restarting a warm engine after a short shutdown, leave choke at "OFF" and do not push the primer button. If the engine fails to start, follow the Cold Start instructions.

OPERATION

FROZEN STARTER

If the starter is frozen and will not turn engine:

1. Pull as much rope out of the starter as possible.
2. Release the starter handle and let it snap back against the starter. Repeat until the engine starts.

Warm engines will cause condensation in cold weather. To help prevent possible freeze-up of recoil starter and engine controls, proceed as follows after each snow removal job.

1. With engine off, allow engine to cool for several minutes.
2. Pull starter rope very slowly until resistance is felt, then stop. Allow the starter rope to recoil. Repeat three times.
3. With the engine not running, wipe all snow and moisture from the carburetor cover in area of control levers. Also move choke knob and starter handle several times.
4. With engine not running, wipe all snow and moisture from carburetor cover in area of control levers. Also move control levers backward and forward several times.



WARNING: Never run engine indoors or in enclosed, poorly ventilated areas. Engine exhaust contains **CARBON MONOXIDE, AN ODORLESS AND DEADLY GAS**. Keep hands, feet, hair and loose clothing away from any moving parts on engine and snow thrower.

- Engine parts, especially the muffler, become extremely hot. Severe thermal burns can occur on contact. Allow the engine to cool before touching.
- Never allow children to operate the snow thrower. Never allow adults to operate the snow blower without proper instruction.
- Keep the area of operation clear of all persons, particularly small children and pets.
- Never leave the snow blower unattended while the engine is running. Anyone operating the engine or equipment must carefully read and understand the operating instructions.

IMPORTANT: After each use of the snow blower, stop the engine, remove the safety/ignition key, remove all accumulated snow from the snow blower and wipe clean. Store the snow blower in a protected area.

NOTE: Never cover snow blower while engine and exhaust area are still warm.

HOW TO CLEAR A CLOGGED DISCHARGE CHUTE



WARNING: Hand contact with the rotating impeller inside the discharge chute is the most common cause of injury associated with snow blowers. **NEVER USE YOUR HAND TO CLEAN OUT THE DISCHARGE CHUTE.**

To Clear The Chute:

- **SHUT OFF THE ENGINE!**
- Wait 10 seconds to be sure that the impeller blades have stopped rotating.
- Always use a clean-out tool, not your hands.

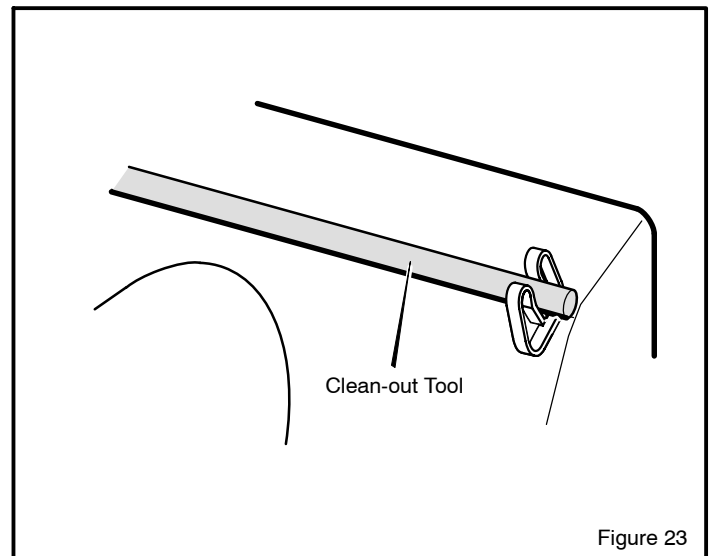
A clean-out tool is attached to either the handle or the top of the auger housing (see Figure 23). Use the clean-out tool to remove snow from the auger housing.

How To Use The Clean-Out Tool

- Release the auger drive lever.
- Pull out the safety key.
- Disconnect spark plug wire.
- Do not place your hands in the auger or discharge chute. Use a clean-out tool to remove snow or debris.



WARNING: Blockage must be cleared only after shutting off the snow blower and only with a clean-out tool, not by hand.



OPERATION

OPERATING TIPS

1. For optimum snow blower efficiency, adjust ground speed, not the throttle. REMEMBER – if the wheels slip, forward speed will be reduced. The engine is designed to deliver optimum performance at full throttle and must be run at this power setting at all times.
2. Most efficient snowblowing is accomplished when snow is removed immediately after it falls.
3. For complete snow removal, slightly overlap each swath previously taken.
4. Snow should be discharged downwind whenever possible.
5. For normal usage, set the skids one–eighth inch (3 mm) below the scraper bar. For extremely hard–packed snow surfaces, the skids may be adjusted upward to insure cleaning efficiency.
6. On gravel or crushed rock surfaces, the skids should be set at 1–1/4 inch (32 mm) below the scraper bar (see To Adjust Skid Height, in the Adjustment/Repair section in this manual). Rocks and gravel must not be picked up and thrown by the machine.
7. After the snowblowing job has been completed, allow the engine to idle for a few minutes, to melt snow and ice accumulated on the engine.
8. Clean the snow thrower thoroughly after each use.
9. Remove ice and snow accumulation and all debris from the entire snow thrower, and flush with water (if possible) to remove all salt or other chemicals. Wipe snow thrower dry.
10. Before starting snow blower, always inspect augers and impeller for ice accumulation and/or debris, which could result in snow blower damage.
11. Check oil level before every start. Make sure the oil is at the FULL mark on the oil fill cap/dipstick.

SERVICE RECOMMENDATIONS

SERVICE RECOMMENDATIONS									
PROCEDURE		FIRST 2 HOUR	BEFORE EACH USE	OFTEN	EVERY 5 HOURS	EVERY 10 HOURS	EVERY 25 HOURS	BEGINNING EACH SEASON	BEFORE STORAGE
S N O W T H R O W E R	Tighten all screws and nuts	√		√				√	
	Auger Drive Belt *	√					√		
	Adjust Traction Drive Belt †	√				√ †	√ †	√	
	Lubricate Auger Shaft	√				√		√	
	Lubricate Chute Rotation Gear	√					√	√	
E N G I N E	Oil, Check		√		√			√	
	Oil, Change	√					√	√	

* Adjust after 2 to 4 hours of use.

† Adjust after First 10 hours and then Every 25 hours of use.

The warranty on this snowthrower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain snowthrower as instructed in this manual. The following **Service Recommendations** is supplied to assist operator to properly maintain snowthrower. This is a check list only. Adjustment referred to will be found in Adjustments/Repairs section of this manual.

AFTER EACH USE

1. Check for any loose or damaged parts.
2. Tighten any loose fasteners.
3. Check and maintain the auger.
4. After each use, remove all snow and slush off the snowthrower to prevent freezing of auger or controls.
5. Check controls to make sure they are functioning properly.
6. If any parts are worn or damaged, replace immediately.

MAINTENANCE

Some adjustments will need to be made periodically to properly maintain your snowthrower.

All adjustments in the MAINTENANCE section of this manual should be checked at least once each season.

SNOWTHROWER

The following adjustment should be performed more than once each season.

Auger and Traction Drive Belts should be adjusted after the first 2 to 4 hours of use, again about mid-season and twice each season thereafter (See To Adjust Belts paragraph in the MAINTENANCE section).

AS REQUIRED

Auger Gear Box

The auger gear box is lubricated at the factory and should not require additional lubrication.

If for some reason the lubricant should leak out, or if the auger gear box has been serviced, add Lubriplate GR132 Grease or "Deere Multi-Purpose Lithium Grease". Maximum 3-1/4 ounces, (92 grams) should be used.

Remove filler plug D (Figure 24 and Figure 25), once a year. If grease is visible, do not add. If grease is not visible, use a piece of fine wire, like a dipstick to check if there is grease in the gear box. Mobilux EP1 and Shell Aldania EP1 are suitable equivalents.

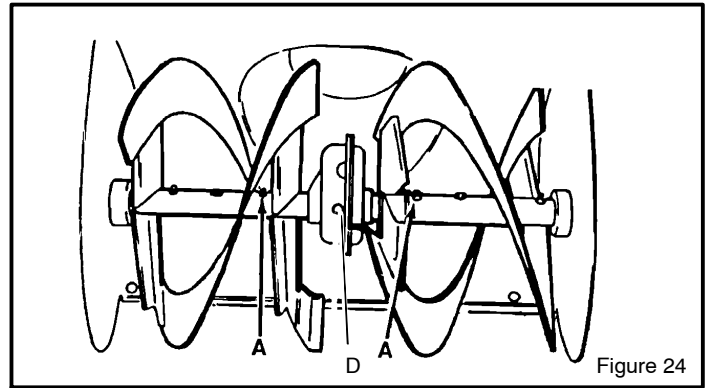


Figure 24

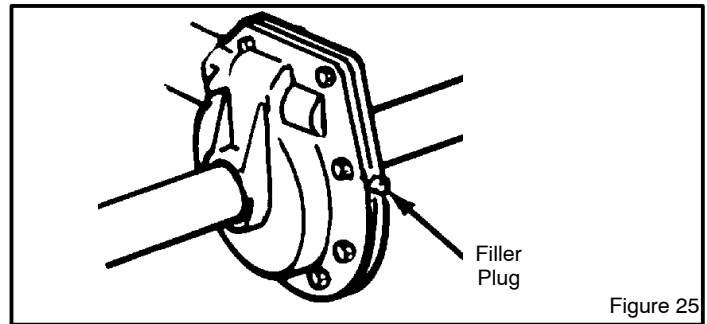


Figure 25

LUBRICATION

Bearings and bushings

All bearings and bushings are lifetime lubricated and require no maintenance.

LUBRICATION – EVERY 10 HOURS

1. **Auger Shaft** – Using a hand grease gun, lubricate the auger shaft zerk fittings (A) every ten (10) operating hours. Each time a shear bolt is replaced, the auger shaft MUST be greased (Figure 24). (See To Replace Auger Shear Bolt in the MAINTENANCE section).
2. For storage or when replacing shear bolts, remove shear bolts and lubricate auger shaft zerks. Rotate augers several times on the shaft and reinstall the shear bolts.

LUBRICATION – EVERY 25 HOURS

Chute Rotation Gear

Lubricate the **chute rotation gear** with automotive type oil. (see Figure 26).

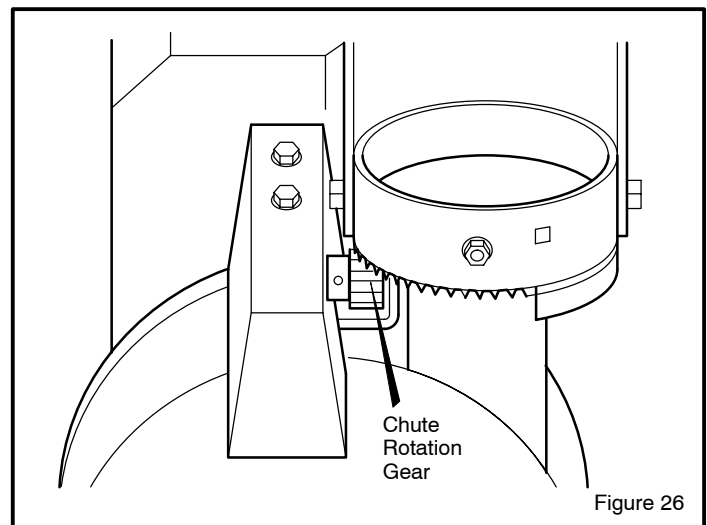


Figure 26

MAINTENANCE

ENGINE

Check Crankcase Oil Level before starting engine and after each 5 hours of continuous use (see Figure 27). Add proper motor oil as required.

NOTE: Overfilling the engine can affect performance. Tighten the oil fill cap securely to prevent leakage.

Change Oil every 25 hours of operation or at least once a year, even if the snowthrower is not used for twenty-five hours. Use a clean, high quality detergent oil. Fill the crank case to FULL line on dipstick (see Figure 27). Be sure original container is marked: A.P.I. service "SF" or higher. Do not use SAE10W40 oil (as it may not provide proper lubrication). See Chart for oil recommendations.

To Drain Oil – Position snowthrower so that the oil drain plug is lowest point on engine. Remove oil drain plug and oil fill cap and drain oil into a suitable container (Figure 28).

NOTE: Oil will drain more freely when warm.

Replace oil drain plug and tighten securely. Refill crank case with proper motor oil or as indicated in the preceding paragraphs of this section.

TEMPERATURE	TYPE OF OIL
0°F (-18° C) and above	S.A.E. 5W30
0°F (-18° C) and below	synthetic 0W30

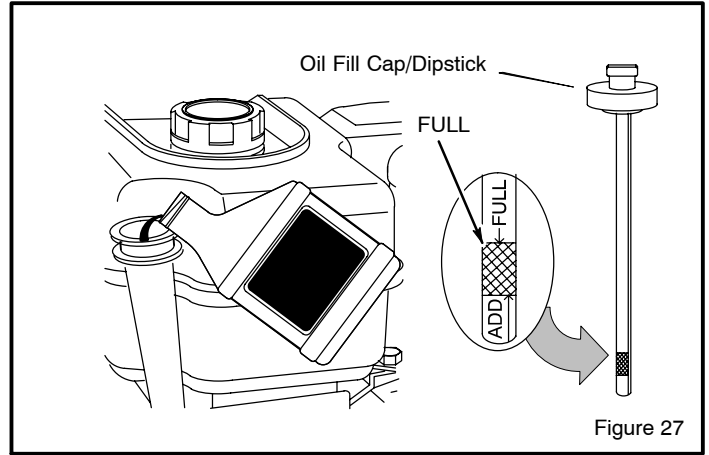
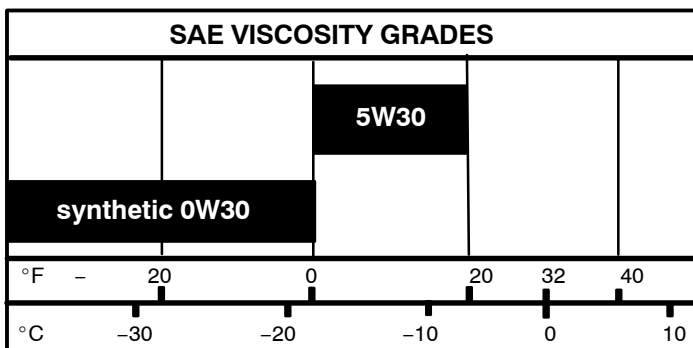


Figure 27

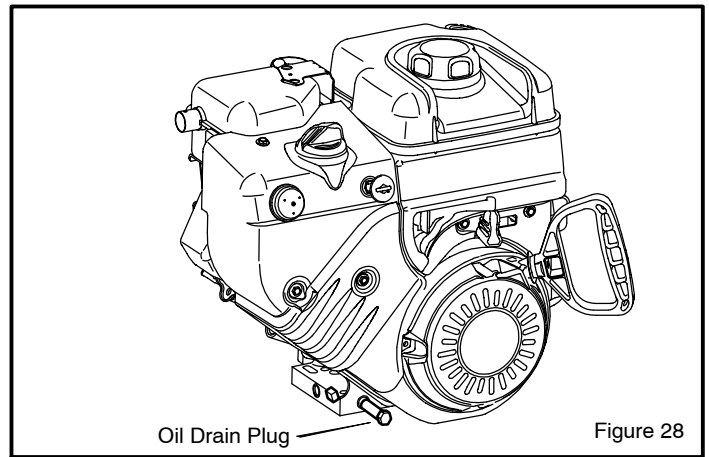


Figure 28

MAINTENANCE



WARNING: Always turn unit off, remove ignition key and disconnect the spark plug wire before making any repairs or adjustments.

AUGER HOUSING HEIGHT ADJUSTMENT

TO ADJUST SCRAPER BAR

After considerable use, the metal scraper bar will have a definite wear pattern. The scraper bar in conjunction with the skids should always be adjusted to allow one-eighth of an inch (3 mm) between the scraper bar and the sidewalk or area to be cleaned.

To adjust the scraper bar, proceed as follows:

1. Position the snowthrower on a level surface.
2. Loosen the carriage bolts and nuts securing the scraper bar to the auger housing.
3. Adjust the scraper bar to the proper position. Tighten the carriage bolts and nuts, insuring that the scraper bar is parallel with the working surface.
4. For extended operation, the scraper bar may be reversed. If the scraper bar must be replaced because of wear, remove the carriage bolts and nuts and install a new scraper bar.

TO ADJUST SKID HEIGHT

This snowthrower is equipped with two height adjust skids, secured to the outside of the auger housing. These elevate the front of the snowthrower.

When removing snow from a hard surface area such as a paved driveway or walk, adjust the skids up to bring the front of the snowthrower down.

When removing snow from rock or uneven construction, raise the front of the snowthrower by moving the skids down. This will help to prevent rocks and other debris from being picked up and thrown by the augers.

To adjust skids, proceed as follows:

1. Place a block (equal to height from ground desired) under scraper bar near but not under skid.
2. Loosen skid mounting nuts (Figure 29) and push the skid down until it touches the ground. Retighten mounting nuts.
3. Set skid on other side at same height.

NOTE: Make sure that snowthrower is set at same height on both sides.



WARNING: Be certain to maintain proper ground clearance for your particular area to be cleared. Objects such as gravel, rocks or other debris, if struck by the impeller, may be thrown with sufficient force to cause personal injury, property damage or damage to the snowthrower.

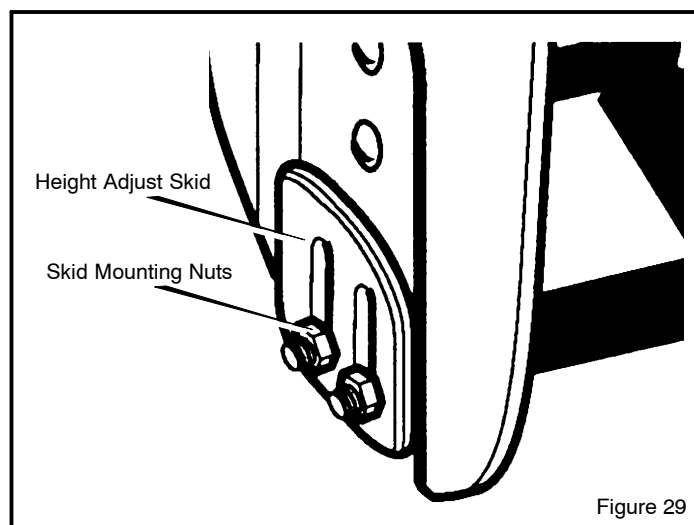


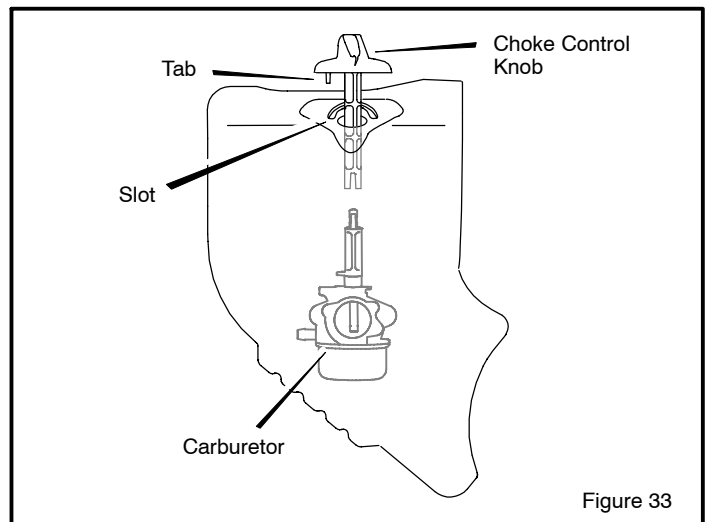
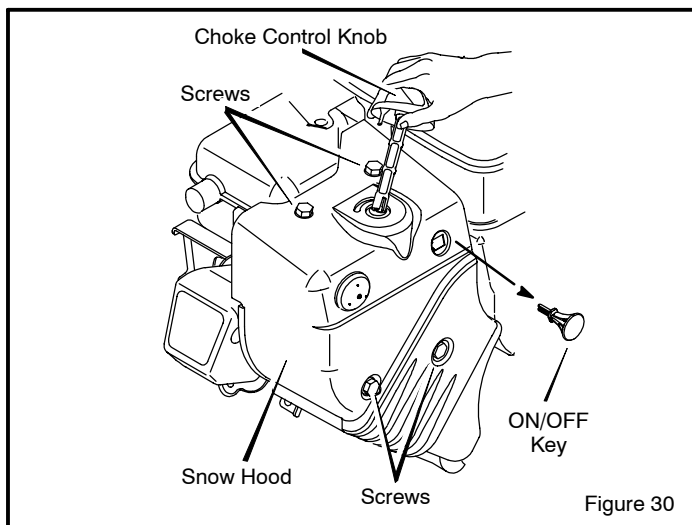
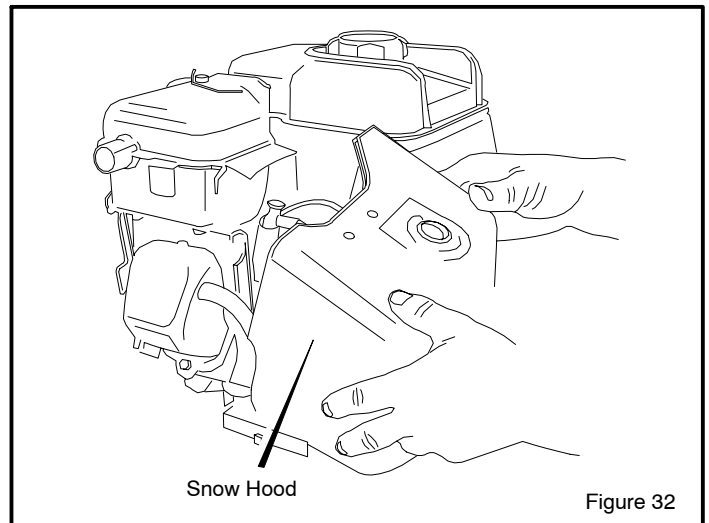
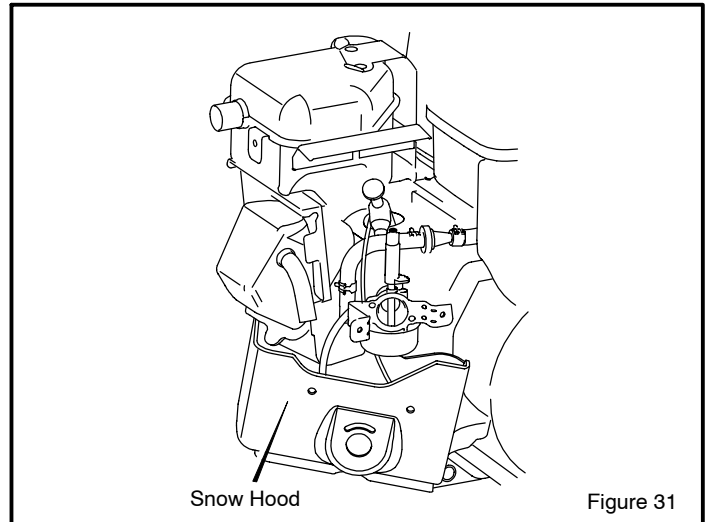
Figure 29

MAINTENANCE

HOW TO REMOVE THE SNOW HOOD

To access the spark plug, the snow hood must be removed as follows:

1. Remove the choke control knob (see Figure 30).
2. Remove the ON/OFF key.
3. Remove the four mounting screws.
4. Slowly remove the snow hood (see Figure 31). Make sure that the primer button hose and the ignition wire are not disconnected.
5. To install the snow hood, first make sure that the primer button hose and the ignition wire are connected.
6. Mount the snow hood to the engine and secure with the four mounting screws (see Figure 32).
7. Align the tab on the choke control knob with the slot in the snow hood (see Figure 33).
8. Connect the choke control knob with the choke shaft. Make sure the choke control knob is properly installed. If the choke control knob is not installed correctly, the choke will not operate.



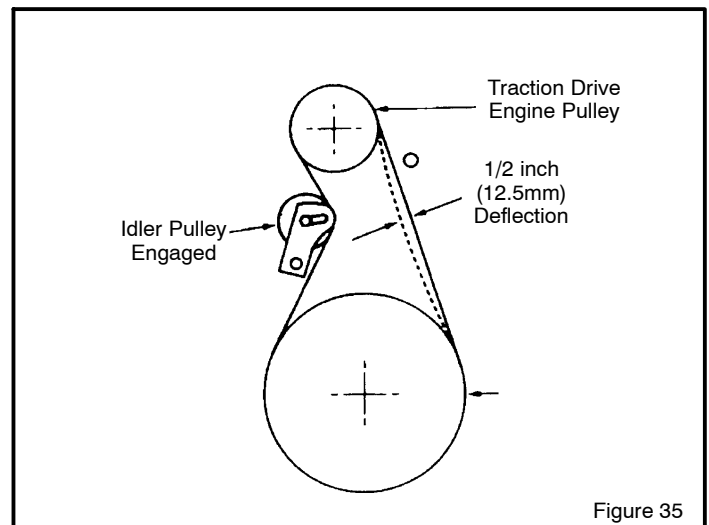
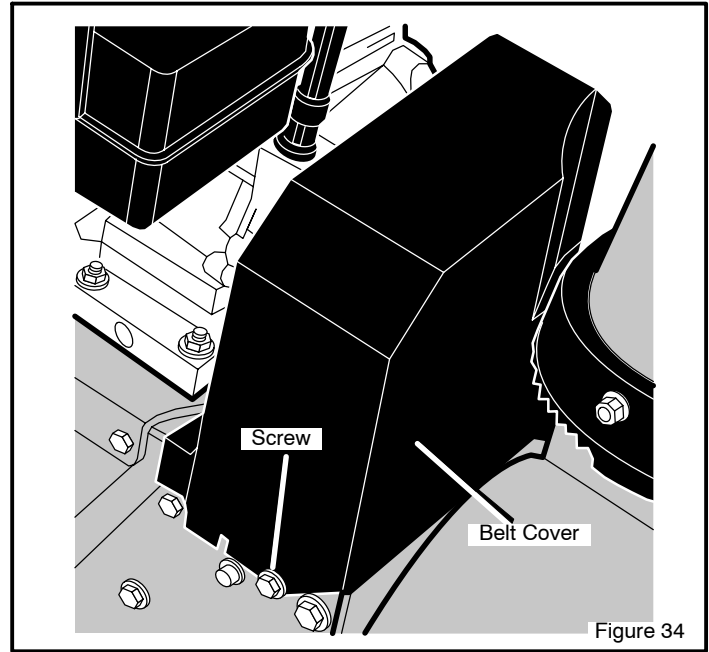
MAINTENANCE

BELT ADJUSTMENT

Traction Drive Belt

After approximately ten hours of operation, a new belt will stretch and require an adjustment of the belt tension. Also, if your snow thrower experiences a loss of power under heavy load, check the condition of the traction drive belt. If it is damaged or loose, replace it (see “How To Replace The Belts” in this section of the manual).

1. Disconnect spark plug wire.
2. Unlock both left and right wheel locks. See “How To Use The Wheel Lockout” in the Operation section.
3. Remove **screw** from **belt cover**. Remove **belt cover** (see Figure 34).
4. Loosen nut on traction idler pulley and move traction idler pulley towards belt about 1/8 inch (3 mm) (see Figure 40).
5. Tighten nut.
6. Have someone engage traction drive clutch. Check tension on belt (opposite idler pulley). The belt should deflect about 1/2 inch (12.5 mm) with moderate pressure (Figure 35). You may have to move idler pulley more than once to obtain the correct tension.
7. Reinstall belt cover.
8. Attach the spark plug wire. Before operation, check the belt tension as follows:
 - a. Unlock both left and right wheel locks. See “How To Use The Wheel Lockout” in the Operation section.
 - b. Move the shift lever to NEUTRAL position.
 - c. DO NOT engage the traction drive lever.
 - d. Start the engine.
 - e. Slowly move the shift lever forward. Watch the axles for rotation. If the axles rotate, the traction drive belt is too tight.
 - f. If the belt is too tight, again adjust the belt. After each adjustment, check the belt tension before operating.
9. In correct adjustment, the snow thrower will not experience a loss of power under heavy load and the drive will automatically disengage when the traction drive lever is released.



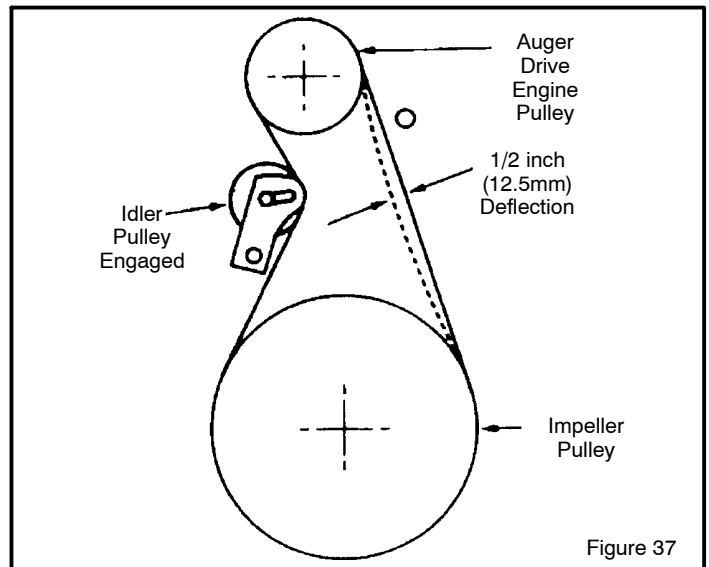
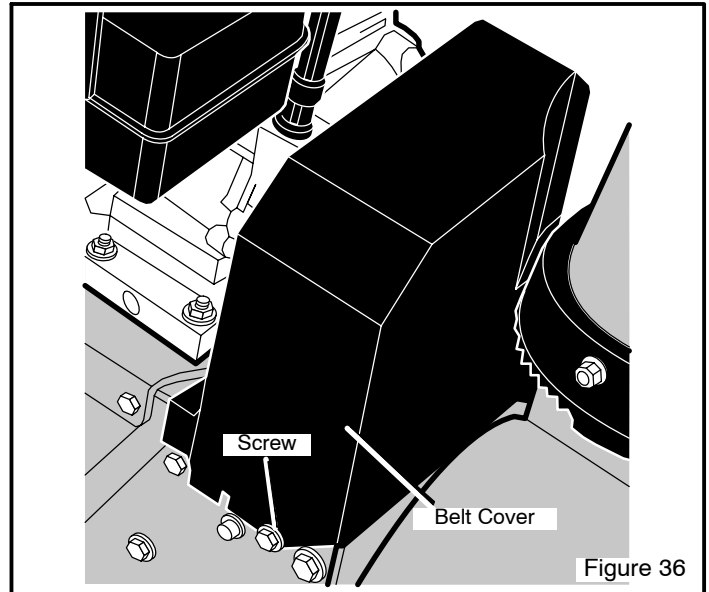
MAINTENANCE

BELT ADJUSTMENT

Auger Drive Belt

If your snowthrower will not discharge snow, check the control cable adjustment. If it is correct, then check the condition of the auger drive belt. If it is damaged or loose, replace it (see Belt Replacement in this section of the manual).

1. Disconnect spark plug wire.
2. Remove **screw** from **belt cover**. Remove **belt cover** (see Figure 36).
3. Loosen nut on auger idler pulley and move auger idler pulley towards belt about 1/8 inch (3 mm) (see Figure 40).
4. Tighten nut.
5. Have someone engage auger drive clutch. Check tension on belt (opposite idler pulley). Belt should deflect about 1/2 inch (12.5 mm) with moderate pressure (see Figure 37). You may have to move idler pulley more than once to obtain the correct tension.
6. Reinstall belt cover.
7. Whenever belts are adjusted or replaced, the cables will need to be adjusted. (See Cable Adjustment in this section of the manual).
8. Attach the spark plug wire.



MAINTENANCE

HOW TO REPLACE THE BELTS

The drive belts are of special construction and must be replaced with original factory replacement belts available from your nearest authorized service center.

Some steps require the assistance of a second person.

How To Remove the Auger Drive Belt

If the auger drive belt is damaged, the snow thrower will not discharge snow. Replace the damaged belt as follows.

1. Disconnect the spark plug wire.
 2. Loosen the **bolts** on each side of the **bottom panel** (see Figure 38).
 3. Remove the **bottom panel**.
 4. Remove **screw** from **belt cover**. Remove the **belt cover** (see Figure 36).
 5. Loosen the **auger belt guide**. Pull the **auger belt guide** away from the **auger drive pulley** (see Figure 40).
 6. Pull the **idler pulley** away from the **auger drive belt** and slip the **auger drive belt** off of the **idler pulley**.
 7. Remove the **auger drive belt** from the **engine pulley**. To remove the **auger drive belt**, the **engine pulley** may have to be partially rotated.
 8. Remove the top four **bolts** that hold together the **auger housing** and the **motor box**. Loosen the bottom two **bolts**. The **auger housing** and the **motor box** can now be split apart for removal of the belt (see Figure 39).
 9. Remove the old **auger drive belt** from the **auger drive pulley**. Replace the **auger drive belt** with an original factory replacement belt available from an authorized service center (see Figure 40).
 10. Install the new **auger drive belt** onto the **auger drive pulley**.
- NOTE: To assemble the auger housing to the motor box, have someone hold the auger clutch lever in the ENGAGED position. This will move the idler arm and pulley enough to allow the auger drive pulley to move back into position.**
11. Assemble the **auger housing** to the **motor box** with the four **bolts** that were removed in step 8. Tighten the bottom two **bolts**.
 12. Install the **auger drive belt** onto the **engine pulley**.
 13. Slip the **auger drive belt** under the **idler pulley**.
 14. Adjust the **auger drive belt**. See “How To Adjust The Auger Drive Belt” in the Maintenance section.

15. Adjust the **auger belt guide**. See “How To Adjust The Belt Guide” in the Maintenance section.
16. Install the **belt cover**. Tighten **screw** (See Figure 36).
17. Check the adjustment of the cables. See “How To Check And Adjust The Cables” in the Maintenance section.
18. Install the **bottom panel** (see Figure 38).
19. Tighten the **bolts** on each side of the **bottom panel**.
20. Connect the spark plug wire.

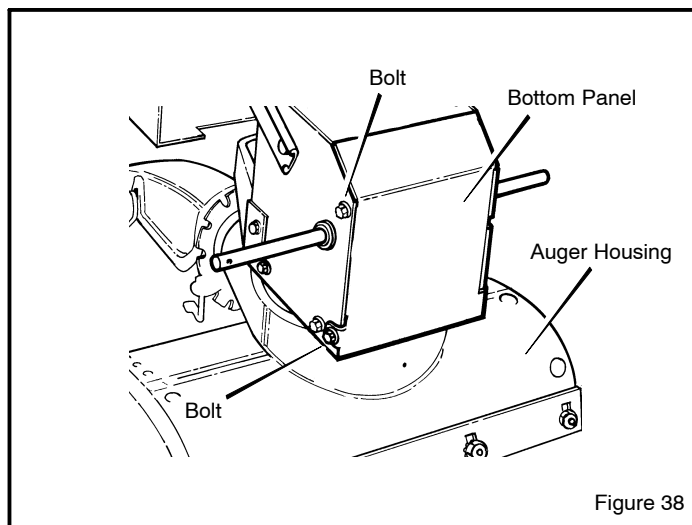


Figure 38

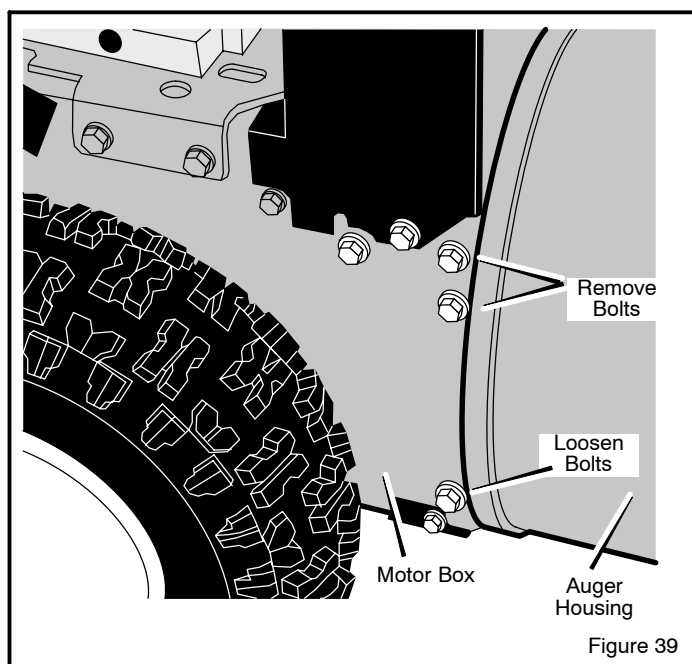


Figure 39

MAINTENANCE

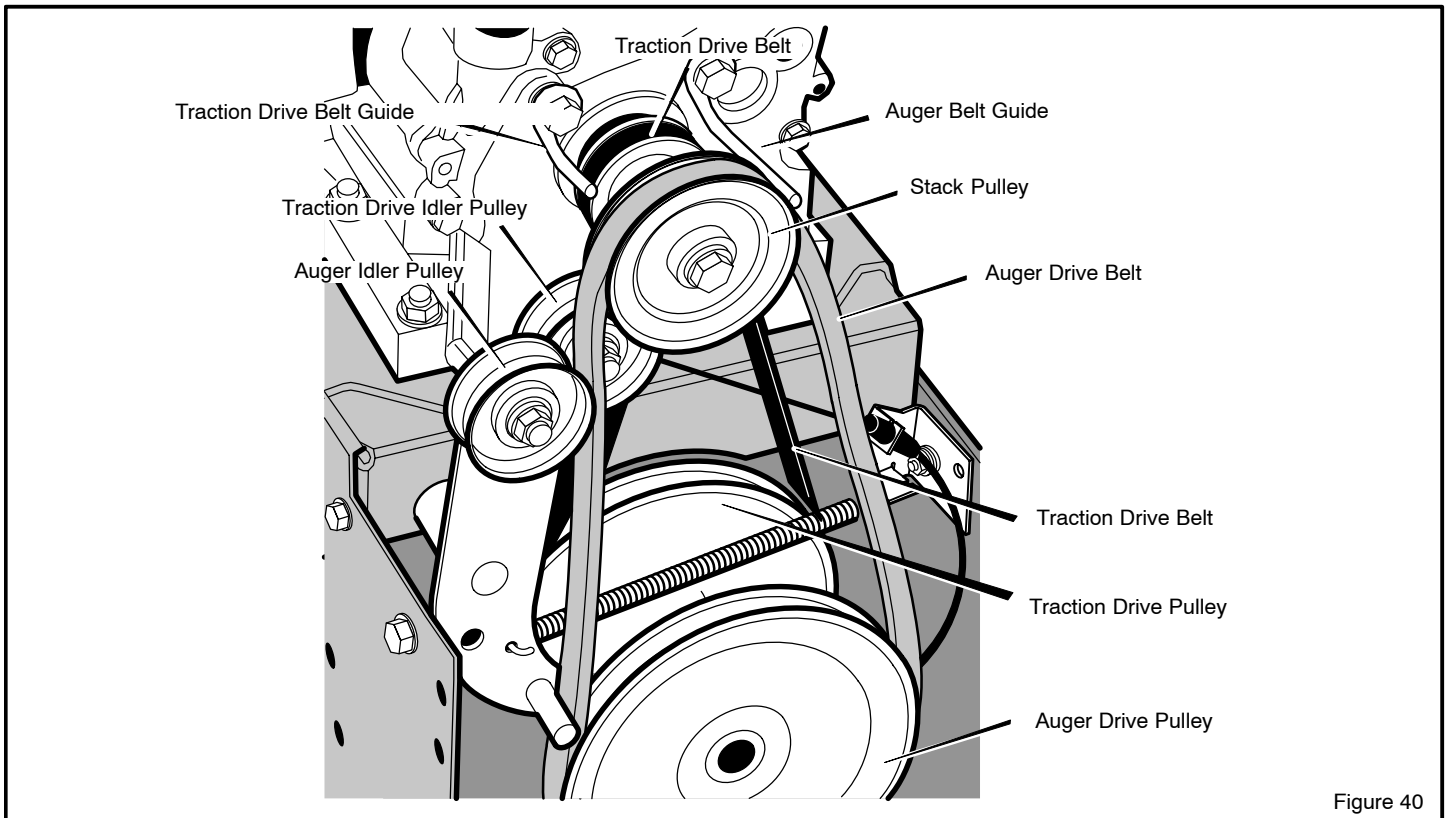


Figure 40

How To Remove the Traction Drive Belt

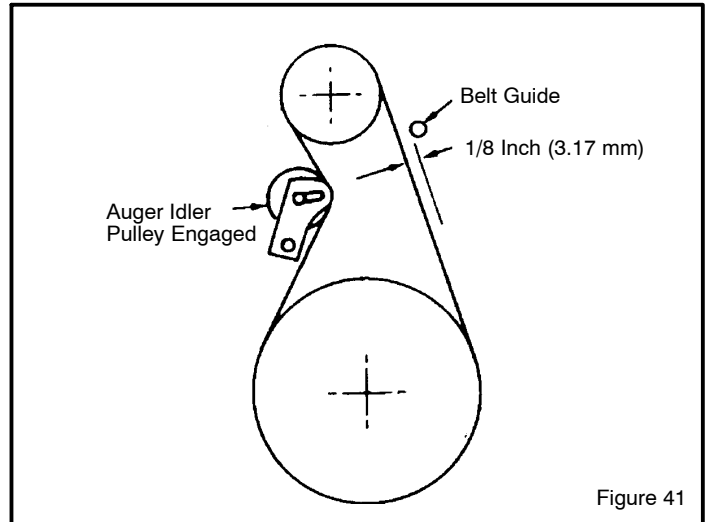
If the snow thrower will not move forward, check the traction drive belt for wear or damage. If the traction drive belt is worn or damaged, replace the belt as follows.

1. Disconnect the spark plug wire.
2. Remove the auger drive belt. See "How To Remove The Auger Drive Belt" in the Maintenance section.
3. Loosen the **traction drive belt guide(s)**. Pull the belt guide(s) away from the **traction drive belt**.
4. Loosen the nut on the **drive idler pulley** (see Figure 40). Move the **pulley** the maximum distance away from the **traction drive belt** and then tighten the nut on the **pulley**.
5. Remove the old **traction drive belt** from the smaller **stack pulley**. Then, remove the **stack pulley** and old **traction drive belt**. Replace the **traction drive belt** with an original equipment replacement belt available from a John Deere/Frontier dealer.
6. Install the new **traction drive belt** onto the **traction drive pulley** and onto the engine shaft..
7. Install the **stack pulley** onto the engine shaft. Then, mount the **traction drive belt** onto the smaller **stack pulley**. Tighten the **stack pulley** securely to the engine shaft.
8. Install and adjust the **auger drive belt**. See "How To Remove The Auger Drive Belt" in the Maintenance section.
9. Adjust the **auger belt guide**. See "How To Adjust The Belt Guide" in the Maintenance section.
10. Install the **bottom panel** (see Figure 38).
11. Tighten the **bolts** on each side of the **bottom panel**.
12. Install the **belt cover**. Tighten **screw** (see Figure 36).
13. Check the adjustment of the cables. See "How To Check And Adjust The Cables" in the Maintenance section.
14. Connect the spark plug wire.

MAINTENANCE

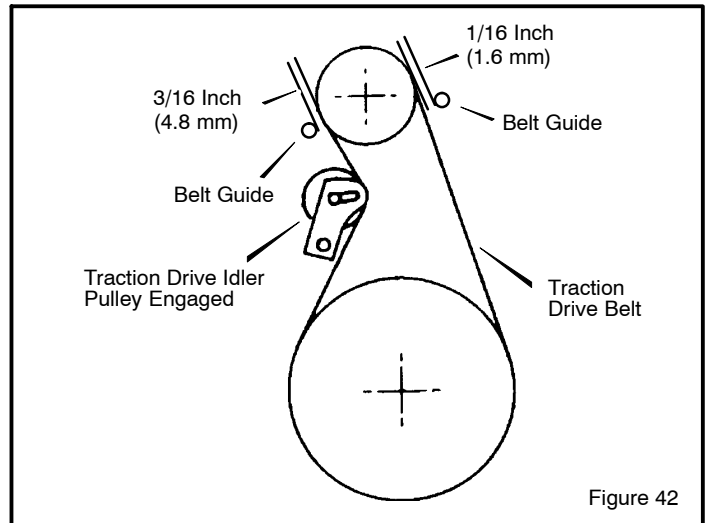
AUGER BELT GUIDE ADJUSTMENT

1. Remove spark plug wire.
2. Have someone engage auger drive.
3. Measure the distance between the belt guide and belt. The distance should be 1/8 inch (3.175 mm) for guide. See Figure 41.
4. If adjustment is necessary, loosen belt guide mounting bolt. Move belt guide to the correct position. Tighten mounting bolt.
5. Reinstall belt cover.
6. Reconnect spark plug wire.



TRACTION DRIVE BELT GUIDE ADJUSTMENT

1. Remove spark plug wire.
2. Have someone engage the traction drive.
3. Measure the distance between the two **belt guides** and **traction drive belt**. Set the distance for the two **belt guides** as shown in Figure 42.
4. If adjustment is necessary, loosen belt guide mounting bolt. Move belt guide to the correct position. Tighten mounting bolt.
5. Reinstall belt cover.
6. Reconnect spark plug wire.



MAINTENANCE

HOW TO CHECK AND ADJUST THE CABLES

The cables are adjusted at the factory and no adjustment should be necessary. If the cables have become stretched or are sagging adjustment will be necessary.

Whenever belts are adjusted or replaced, the cables will need to be adjusted.

To check for correct adjustment, unhook "Z" fitting at clutch lever (see Figure 43)

1. Move clutch lever to the full forward position (just contacting plastic bumper). Holding cable tight, note position of fitting to hole in clutch lever.
2. The center of the "Z" fitting should be between the centre and top of the hole in the clutch lever. Adjust either the auger drive cable or the traction drive cable as follows.

Auger Drive Cable Adjustment



WARNING: Drain the gasoline outdoors, away from fire or flame.

1. Remove the gas from the gas tank. Stand the snow thrower up on the front end of the auger housing.
2. Push cable through spring to expose the threaded portion of the cable (see Figure 44).
3. Hold square end of threaded portion with pliers and adjust locknut in or out until correct adjustment is reached. Pull cable back through spring and connect cable.

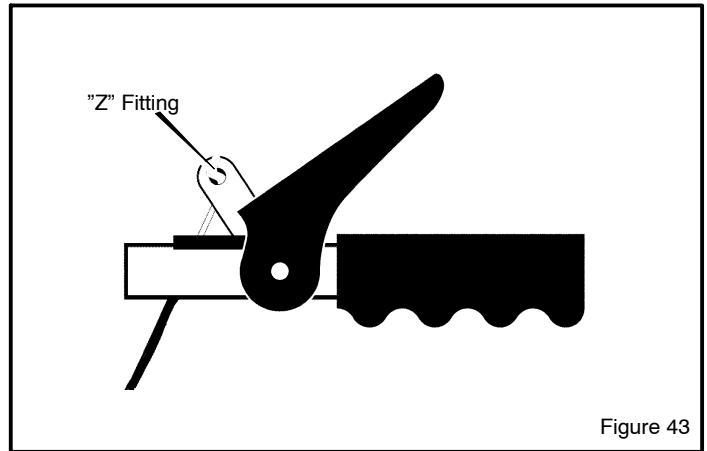


Figure 43

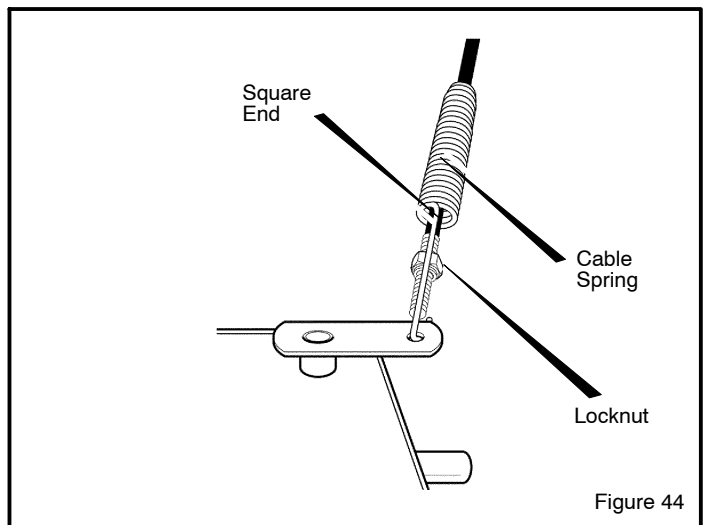


Figure 44

MAINTENANCE

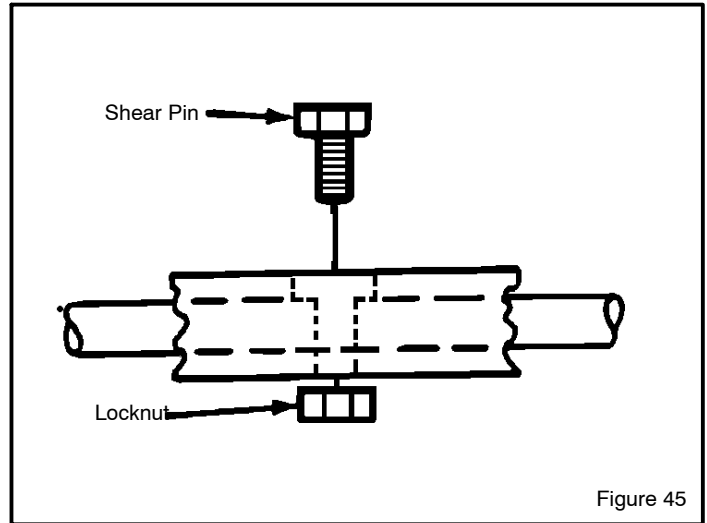
AUGER SHEAR BOLT REPLACEMENT

The augers are secured to the auger shaft with special bolts that are designed to break if an object becomes lodged in the auger housing. Use of a harder bolt will reduce the protection provided by the shear bolt. To replace a broken shear bolt, proceed as follows:



WARNING: To insure safety and performance levels, only original replacement shear bolts should be used.

1. Move throttle to STOP, disengage all controls, disconnect the spark plug lead wire, and insure all moving parts have stopped.
2. Lubricate the auger shaft zerk fittings (see Lubrication Points in the Maintenance section of this manual).
3. Align the hole in the auger with the hole in the auger shaft. Install new shear bolt and locknut provided. (See Figure 45)

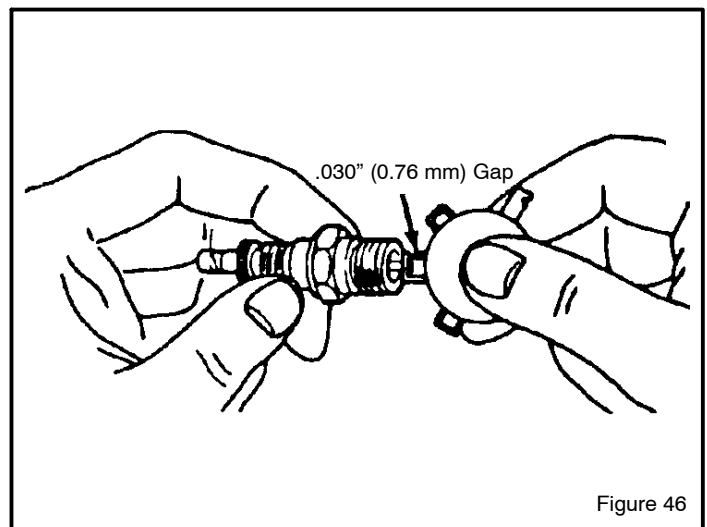


SPARK PLUG

Check the **spark plug** every twenty-five (25) hours. Replace the **spark plug** if the electrodes are pitted or burned or if the porcelain is cracked.

1. Clean spark plug and reset gap periodically.
2. Clean area around spark plug base before removal, to prevent dirt from entering engine.
3. Replace spark plug if electrodes are pitted or burned or if porcelain is cracked.
4. Clean spark plug by carefully scraping electrodes (do not sandblast or use wire brush).
5. Be sure spark plug is clean and free of foreign material. Check electrodes gap with a wire feeler gauge and reset gap to 0.030" (0.76 mm) if necessary. If a new spark plug is needed, refer to Engine Repair Parts section of this manual for proper replacement spark plug.
6. Before installing spark plug, coat threads lightly with graphite grease to insure easy removal.

7. Tighten plug firmly into engine. If torque wrench is available, torque plug to 18–23 ft–lbs.



STORAGE

OFF SEASON STORAGE



WARNING: Never store the engine, with fuel in the tank, indoors or in a poor ventilated enclosure where fuel fumes could reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer, etc.

Handle gasoline carefully. It is highly flammable and careless use could result in serious fire damage to your person and/or property.

Drain fuel into approved containers outdoors, away from open flame.

If the snowthrower is to be stored for thirty (30) days or more at the end of the snow season, the following steps are recommended to prepare your snowthrower for storage.

NOTE: Gasoline must be removed or treated to prevent gum deposits from forming in the tank, filter, hose, and carburetor during storage.

1. To remove gasoline, run engine until tank is empty and engine stops.

If you do not want to remove the gasoline, add fuel stabilizer to any gasoline left in the tank to minimize gum deposits and acids. If the tank is almost empty, mix stabilizer with fresh gasoline in a separate container and add some to the tank. ALWAYS FOLLOW INSTRUCTIONS ON STABILIZER CONTAINER. THEN RUN ENGINE AT LEAST 10 MINUTES AFTER STABILIZER IS ADDED TO ALLOW MIXTURE TO REACH CARBURETOR. STORE SNOWTHROWER IN SAFE PLACE.

2. You can help keep your engine (4-cycles only) in good operating condition by changing oil before storage.
3. Lubricating the piston/cylinder area. This can be done by first removing the spark plug and squirting clean engine oil into the spark plug hole. Then cover the spark plug hole with a rag to absorb oil spray. Next, rotate the engine by pulling the starter two or three times. Finally, reinstall spark plug and attach spark plug wire.
4. Thoroughly clean the snowthrower.

5. Lubricate all lubrication points (see "Lubrication" in the Maintenance section).
6. Insure that all nuts, bolts, and screws are securely fastened. Inspect all visible moving parts for damage, breakage, and wear. Replace if necessary.
7. Touch up all rusted or chipped paint surfaces; sand lightly before painting.
8. Cover the bare metal parts of the blower housing auger, and the impeller with rust preventative.
9. If possible, store your snowthrower indoors and cover it to give protection from dust and dirt.
10. On models with folding handles, loosen the fasteners that secure the upper handle. Rotate the upper handle back.
11. If the machine must be stored outdoors, block up the snowthrower and insure the entire machine is off the ground. Cover the snowthrower with a heavy tarpaulin.

REMOVING THE SNOWTHROWER FROM STORAGE

When removing the snowthrower from storage, follow the steps below.

1. Put the upper handle in the operating position, tighten the knobs that secure the upper handle.
2. Fill the fuel tank with a fresh fuel.
3. Check the spark plug. Make sure the gap is correct. If the spark plug is worn or damaged, replace before using.
4. Make sure all fasteners are tight.
5. Make sure all guards, shields, and covers are in place.
6. Make sure all adjustments are correct.

TROUBLE SHOOTING CHART

PROBLEM	LOOK FOR	REMEDY
Difficult starting	Defective spark plug.	Replace defective spark plug.
Engine runs erratically	Blocked fuel line.	Clean fuel line.
	Empty gas tank.	Check fuel supply,
	Stale gasoline.	Add fresh gasoline with fuel stabilizer.
	Water or dirt in fuel system.	Remove carburetor bowl to drain fuel tank. Refill with fresh fuel. CAUTION: Do not remove carburetor bowl when the engine is hot.
Engine stalls	Unit running on CHOKE.	Set choke lever to RUN position.
Loss of power	Gas cap vent hole is plugged.	Remove ice and snow from cap. Be sure vent hole is clear.
Electric Grips do not heat; Electric Chute does not rotate	Blown fuse	Check the fuse. Replace the fuse with a 7.5 amp automotive type fuse. See the Wiring Harness parts list page for the location of the fuse.
Excessive vibration	Loose parts or damaged impeller.	Stop engine immediately and remove spark plug wire. Tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a competent repairman.
Unit fails to propel itself	Drive belt loose or damaged.	Replace drive belt. Refer to Drive Belt Replacement in Maintenance section of this manual.
	Incorrect adjustment of traction drive cable.	Adjust traction drive cable. Refer to Cable Adjustment in Maintenance section of this manual.
Unit fails to discharge snow	Auger drive belt loose or damaged.	Replace or adjust auger drive belt. Refer to Drive Belt Replacement and Drive Belt Adjustment in Maintenance section of this manual.
	Auger control cable not adjusted correctly.	Adjust auger control cable. Refer to Cable Adjustment in Maintenance section of this manual.
	Broken shear bolt.	Replace shear bolt. Refer to Auger Shear Bolt Replacement in Maintenance section of this manual.
	Discharge chute clogged.	Stop engine immediately and disconnect spark plug wire. Refer to the first Warning in Snowthrower Operation in Operation section of this manual. Clean discharge chute and inside of auger housing.
	Foreign object lodged in auger.	Stop engine immediately and disconnect spark plug wire. Refer to the third Warning in Snowthrower Operation in Operation section of this manual. Remove object from auger.

Identifying Your Snowthrower

Your new Snowthrower has two (2) identifying numbers: (1) unit model number: (2) unit serial number. The two preceding numbers are required to insure that the proper replacement parts are obtained when required. If you have any questions concerning parts, service, or technical data, contact your nearest John Deere/Frontier dealer.

For complete warranty information refer to the warranty in the Owner's Information section of this manual.

NOTES

NOTES

REPLACEMENT PARTS

WE RECOMMEND JOHN DEERE/FRONTIER quality parts and lubricants available at your John Deere/Frontier dealer.

PART NUMBERS MAY CHANGE. When you order replacement parts, use the part numbers listed below and on the following pages. If a part number changes, your John Deere/Frontier dealer will have the latest part number.

WHEN YOU ORDER PARTS, your John Deere/Frontier dealer must have your snowthrower model and serial number and your engine model number. This is the model and serial number that you recorded in the “Owner’s Information” section of this Owner’s Manual.

QUICK REFERENCE PART NUMBERS

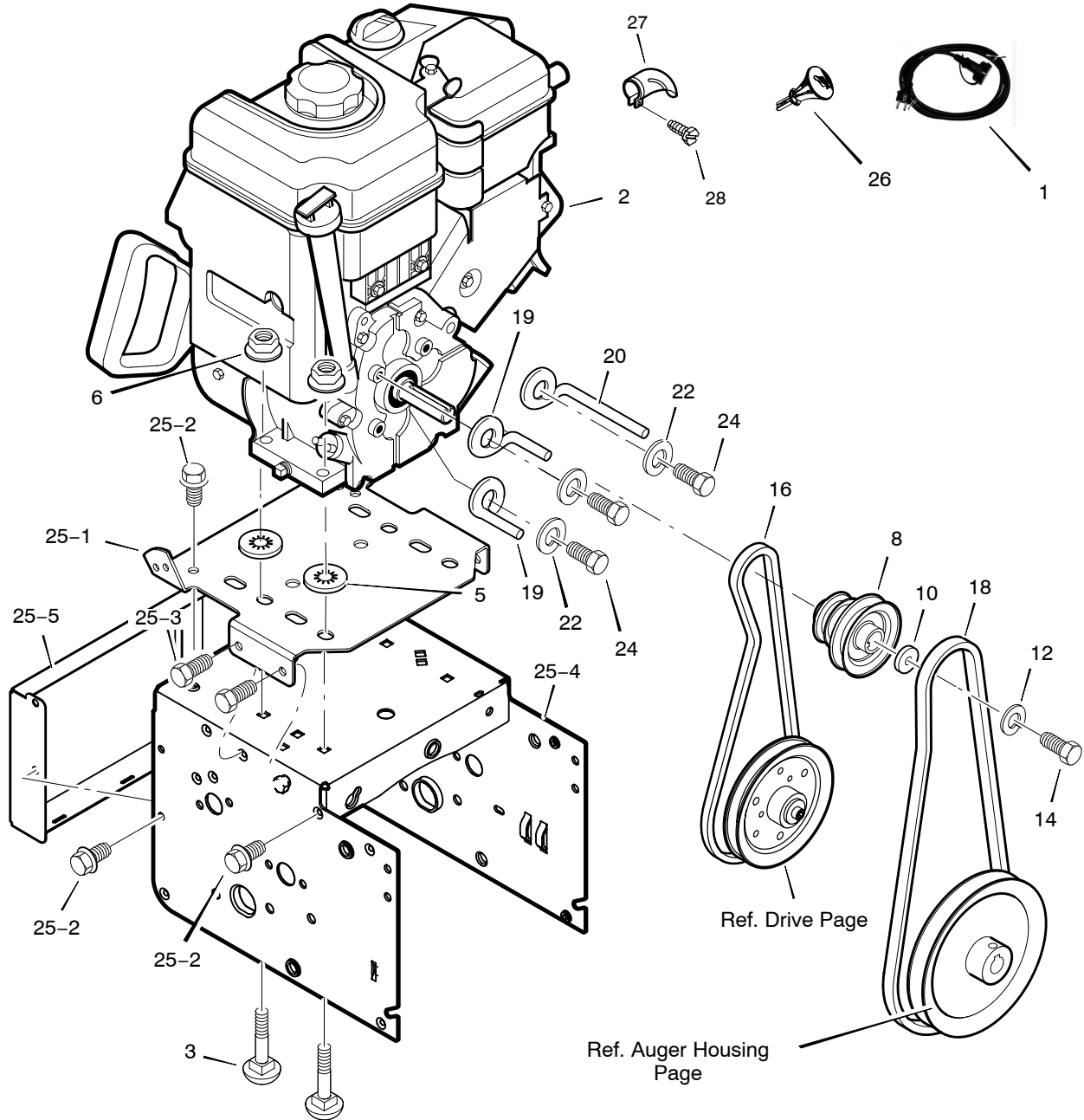
The following is a list of replacement parts that you may need for routine service and maintenance. If you do not see the replacement part you need in the following chart, then check the full list of replacement part illustrations following this page.

ITEM	PART NUMBER *
Belt, Drive	MT37x127
Belt, Auger	MT585416
Scraper Blade	MT760666E701
Spark Plug	Champion RC12YC

* **Part Numbers are subject to change without notice.**

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D ENGINE

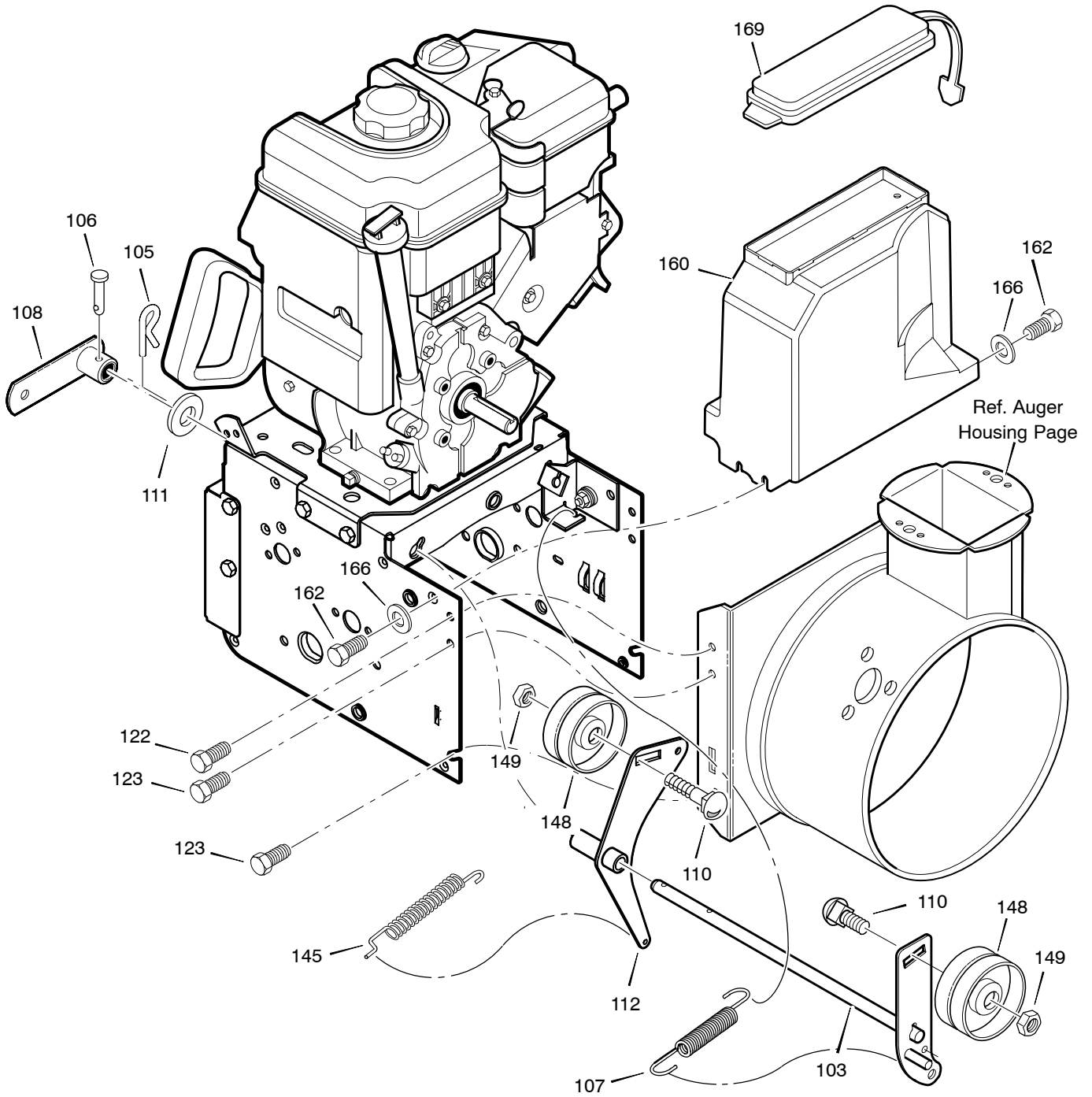


Key No.	Part No.	Description
1	MT6219	CORD, STARTER
2	-----	ENGINE
3	MT002x97	BOLT, CARRIAGE 5/16-18
5	MT028x76	RETAINER, PUSH
6	MT710026	NUT, HEX 5/16-18
8	MT1501109	PULLEY, ENGINE
10	MT717x170	WASHER
12	MT71063	WASHER .38ID
14	MT001x20	SCREW, 3/8-24X1.00
16	MT37x127	BELT, HYDRO DRIVE
18	MT585416	BELT, AUGER V 4L
19	MT1501368	GUIDE, BELT
20	MT1501201	GUIDE, BELT

Key No.	Part No.	Description
22	MT71060	WASHER, SPTLK .31X.58X.08
24	MT710097	SCREW, 5/16-24X 0.75
25	-----	FRAME ASSEMBLY
25-1	MT1501062E511	PLATE, ENGINE MOUNT
25-2	MT310169	SCREW, TAP 1/4-20 X .63
25-3	MT25x020	SCREW, TAP 5/16-18 X .50
25-4	MT1501295E511	FRAME, MOTOR BOX
25-5	MT1501333E511	PANEL, BACK - HYDRO
26	MT1501214	KEY, ENGINE
27	MT226462	DEFLECTOR, MUFFLER
28	MT810140	SCREW
--	MTF-051059L	OWNER'S MANUAL

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D FRAME



FRONTIER MODEL ST1332

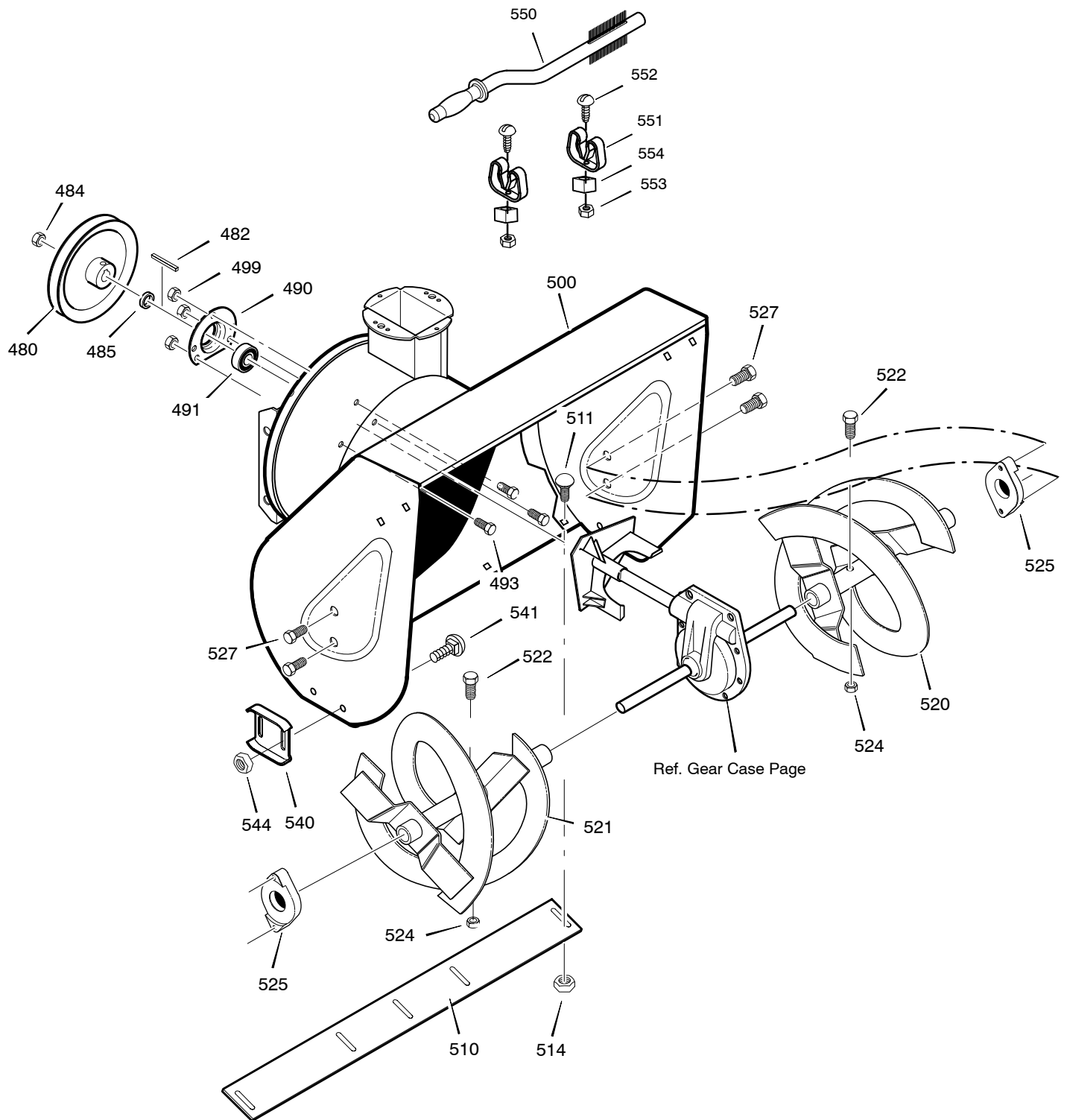
FACTORY MODEL 632130x16D FRAME

Key No.	Part No.	Description
103	MT1501369 YZ	IDLER ASSEMBLY, AUGER
105	MT711682	PIN, HAIR .38DIAx1.64LG
106	MT761761	PIN, CLEVIS 3/16" DIA
107	MT165x159	SPRING, TENSION
108	MT761675 YZ	ASSY., SPRING ATTACH
110	MT585781	BOLT, 3/8-16x1.25 CARR.
111	MT711617	WASHER, FLAT
112	MT1501370 YZ	BRACKET, IDLER
122	MT25X020	SCREW, TAP 5/16-18 X .50
123	MT25X021	SCREW, TAP 5/16-18 X .75
145	MT165x155	SPRING, CLUTCH
148	MT1502120	PULLEY, IDLER
149	MT590	NUT, JAM 3/8-16
160	MT1502182	COVER, BELT
162	MT26x306	SCREW, TAP
167	MT71067	WASHER, FLAT
169	MT760539	LID, TOOL BOX

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D

AUGER HOUSING



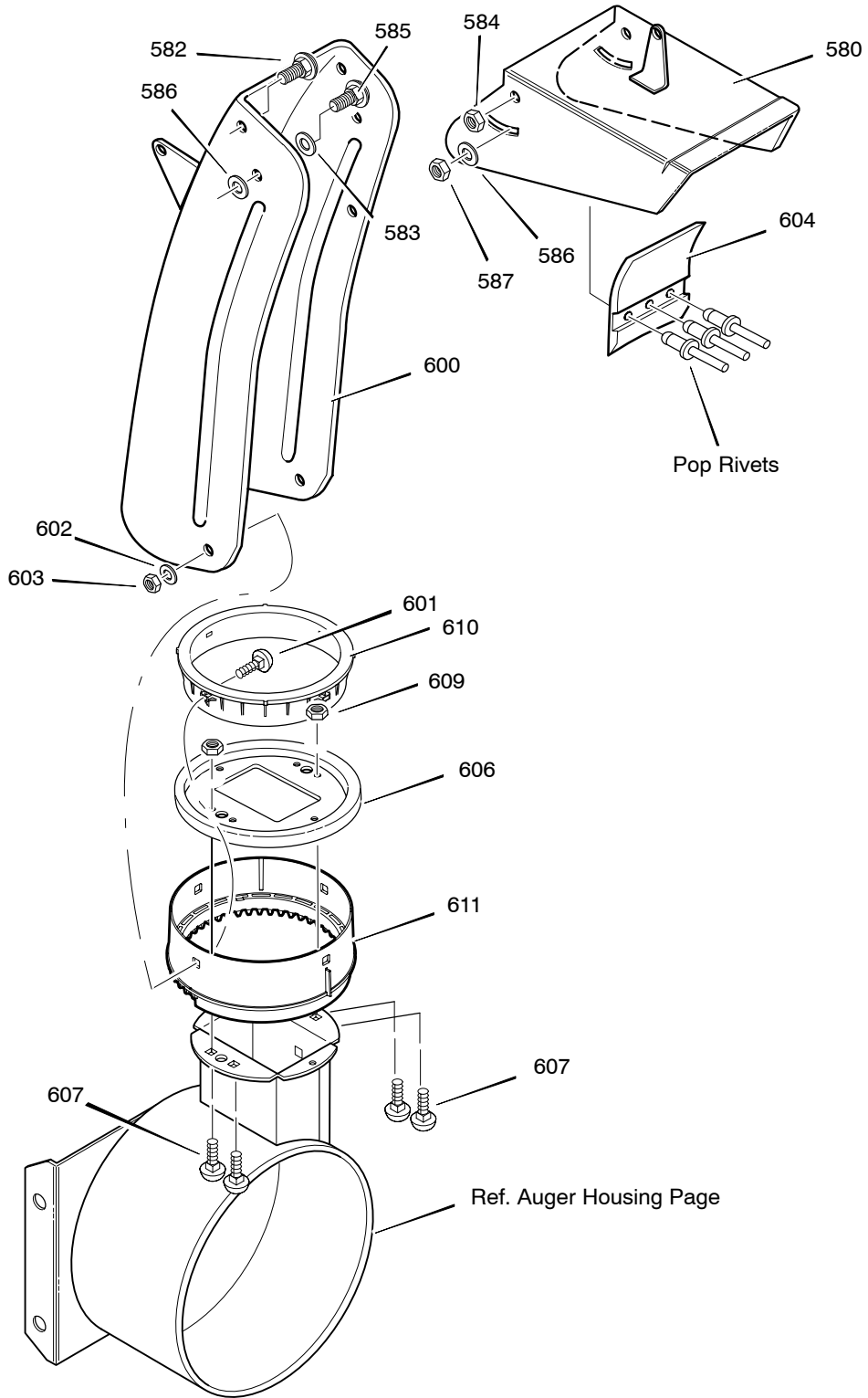
FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D AUGER HOUSING

Key No.	Part No.	Description
480	MT583146	PULLEY, 4L 8.40 OD
482	MT2001022	KEY, SQUARE 3/16 X 3/4
484	MT15x112	NUT, 1/2-20
485	MT1501158	SPACER, FRICTION PULLEY
490	MT582957 YZ	RETAINER, BALL BRNG
491	MT1501389	BEARING, BALL
493	MT001X92	BOLT, HEX 5/16-18X .50
499	MT710026	NUT, 5/16-18 HEXWDFLLK
500	MT1501721E511	HOUSING, ASSY
510	MT760666E701	BLADE, SCRAPER
511	MT001x45	BOLT, 5/16-18X.62
514	MT710026	NUT, 5/16-18
520	MT1501602E701	AUGER, ASSY, LH
521	MT1501595E701	AUGER, ASSY, RH
522	MT578647	SCREW, 5/16-18
524	MT71391	NUT, 5/16-18
525	MT53757	BEARING, FLANGE
527	MT25X021	SCREW, 5/16-18X .75
540	MT1502093E701	SKID, HEIGHT ADJUST
541	MT908156	BOLT, 5/16-18 X .50
544	MT710026	NUT, 5/16-18
550	MT1501576	BRUSH, CLEANOUT
551	MT1501672	CLIP, RETAINER
552	MT06x115	SCREW
553	MT15x146	NUT
554	MT578063	BLOCK
--	MT1501217	KIT, SHEAR BOLT

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D DISCHARGE CHUTE



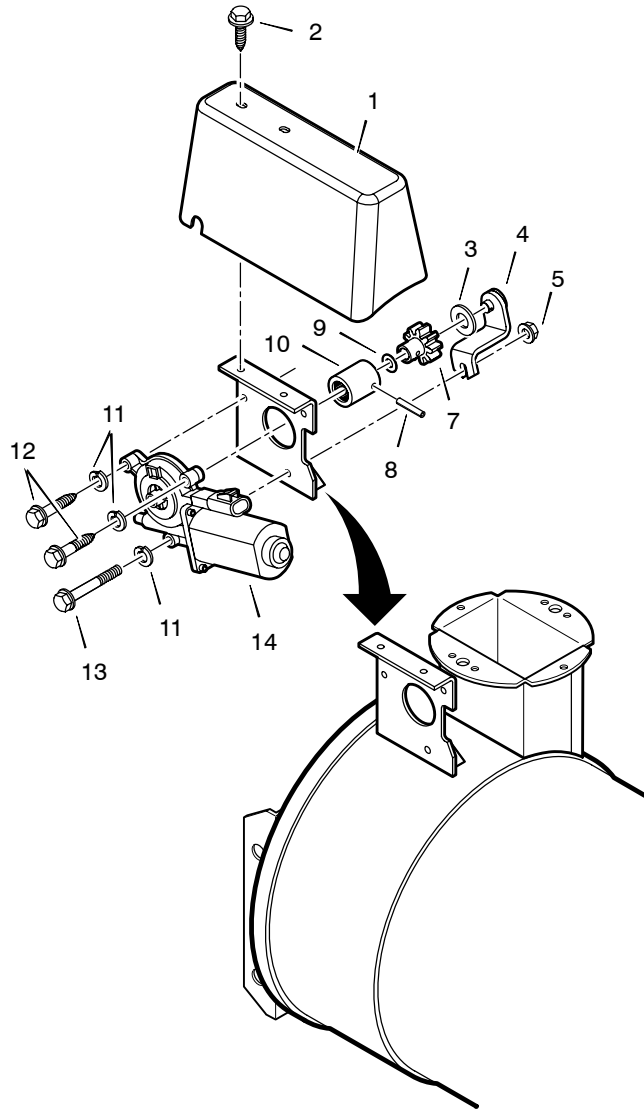
FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D DISCHARGE CHUTE

Key No.	Part No.	Description
580	MT761168E701	CHUTE, UPPER W/REMOTE
582	MT578088	SCREW, 5/16-18 X.75
583	MT12021	PLASTIC WASHER
584	MT71038	NUT
585	MT578088	SCREW, 5/16-18 X.75
586	MT6711	PLASTIC WASHER
587	MT71038	NUT
600	MT761169E701	CHUTE, LOWER W/REMOTE
601	MT2x100	BOLT
602	MT71071	WASHER, FLAT
603	MT71038	NUT
604	MT762322	FLAP
606	MT1501932 YZ	CHUTE COLLAR
607	MT02x101	BOLT
609	MT15x145	NUT
610	MT337227	RETAINER, RING INNER
611	MT1501476	RETAINER, RING OUTER

FRONTIER MODEL ST1332

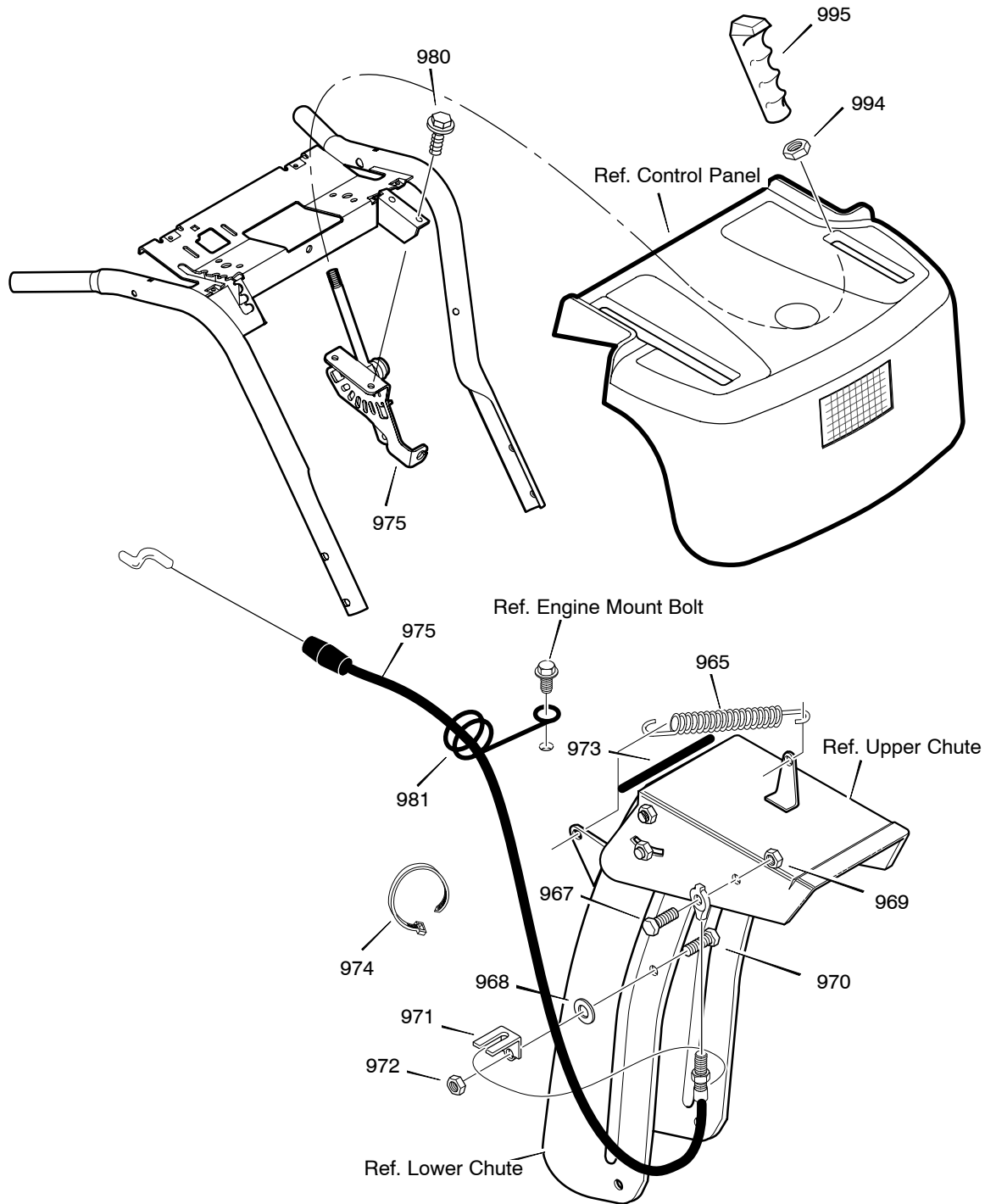
FACTORY MODEL 632130x16D CHUTE ROTATION MOTOR



Key No.	Part No.	Description
1	MT1501347	COVER, MOTOR
2	MT26x263	SCREW
3	MT17x185	WASHER
4	MT1501396	BRACE, CHUTE GEAR
5	MT15x143	NUT
7	MT1501067	GEAR
8	MT032x75	PIN, SPRING
9	MT1501430	RING, RETAINER
10	MT1501341	ADAPTER
11	MT018x30	WASHER
12	MT26x310	SCREW
13	MT001x94	BOLT, HEX
14	MT1501340	MOTOR, ELECTRIC

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D REMOTE CONTROL



Key No.	Part No.	Description
965	MT318468	TENSION SPRING
967	MT310088	BOLT, SHOULDER
968	MT73787	FLATWASHER
969	MT15x143	NUT
970	MT313676	SCREW, 5/16-18 X 0.75
971	MT306447 YZ	BRACKET, CABLE CHUTE
972	MT71391	NUT, 5/16-18

Key No.	Part No.	Description
973	MT1001221	TRIM STRIP, BLACK
974	MT071372	TIE, CABLE
975	MT1501393	CABLE, CHUTE DEFLECTOR
980	MT760858	SCREW
981	MT780220	WIRE FORM, CHUTE CABLE
994	MT71045	NUT, 3/8-16
995	MT306689	KNOB, SHIFT

FRONTIER MODEL ST1332

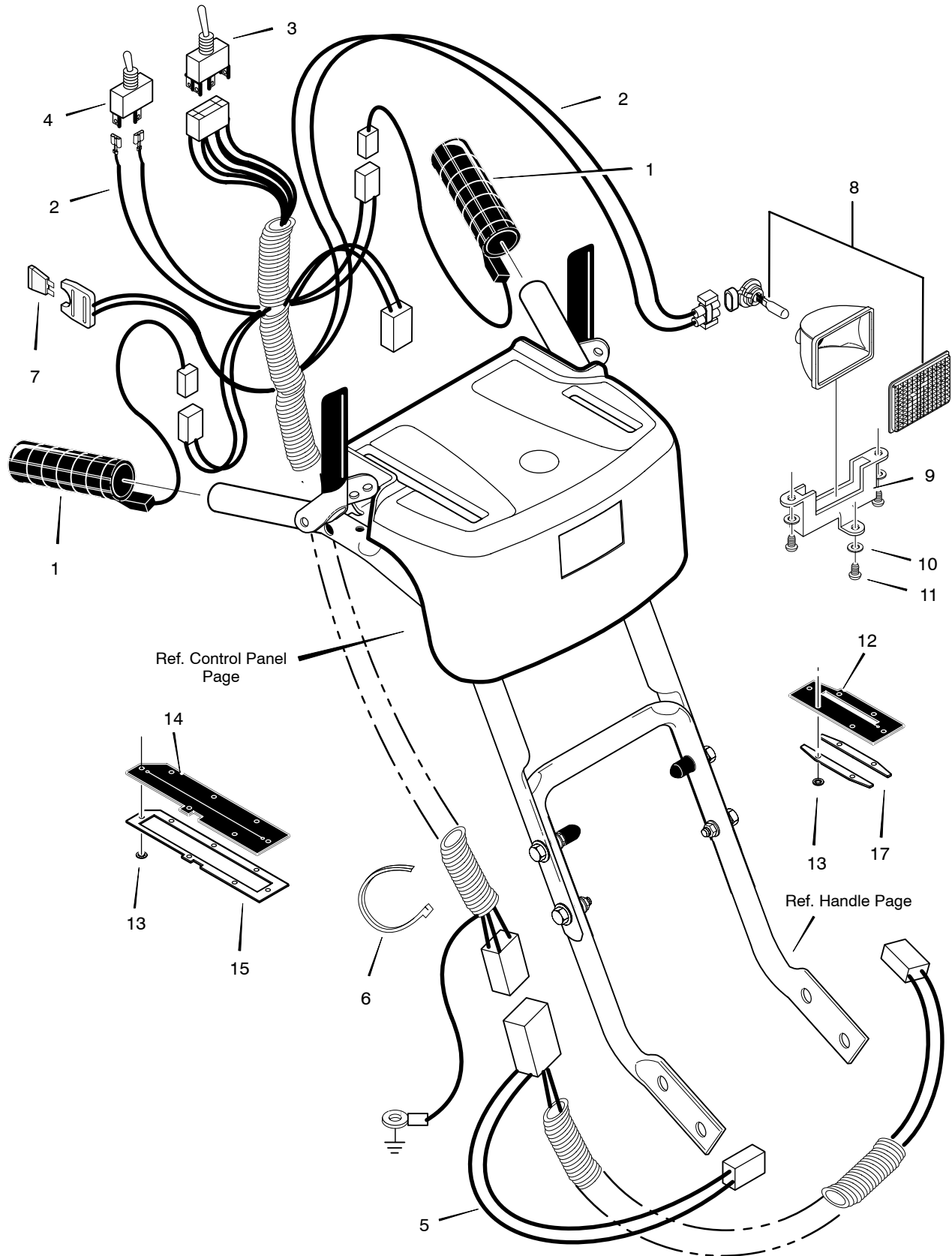
FACTORY MODEL 632130x16D HANDLE

Key No.	Part No.	Description
720	MT1501381E701	ASSY., HANDLE
723	MT01x129	BOLT
724	MT7288	SCREW
725	MT71072	WASHER
726	MT71062	WASHER
727	MT71044	NUT
728	MT7289	STOP, PLASTIC
739	MT4049	BUMPER
740	MT1501363	CABLE, DRIVE
741	MT1501451	CABLE, AUGER
744	MT1673	SPRING, AUGER CLUTCH
745	MT15x116	NUT, HEX - 1/4-20
750	MT1501449E701	HANDLE, LOWER
751	MT25x021	SCREW
752	MT71060	WASHER
753	MT1501465	ASSEMBLY, ROD
756	MT308146	BOOT, SPRING
759	MT579860	SPOOL, CABLE
760	MT71042	NUT, 5/16-24
762	MT310169	SCREW 1/4-20X0.63
764	MT1501367 YZ	BRACKET, CONTROL
765	MT15x145	NUT, HEX - 1/4-20
770	MT1501375 YZ	BRACKET, SHIFT
771	MT1x157 YZ	SCREW
772	MT164x39	SPRING
774	MT71046	NUT, HEX, 3/8-16
785	MT71045	NUT, HEX, 3/8-16
786	MT17x217	WASHER
787	MT306689	GRIP, LEVER
790	MT578926E701	ROD, ASSY LH
791	MT578924E701	ROD, ASSY RH
795	MT579002	BRACKET, CAM
796	MT002x53	SCREW
798	MT71038	NUT, NYLOCK
799	MT8417	CAM LOCK
800	MT584673	PIN, SPRING PIVOT
801	MT73664	NUT, PUSH ON
802	MT71081	PIN, COTTER
803	MT71071	WASHER

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D

WIRING



FRONTIER MODEL ST1332

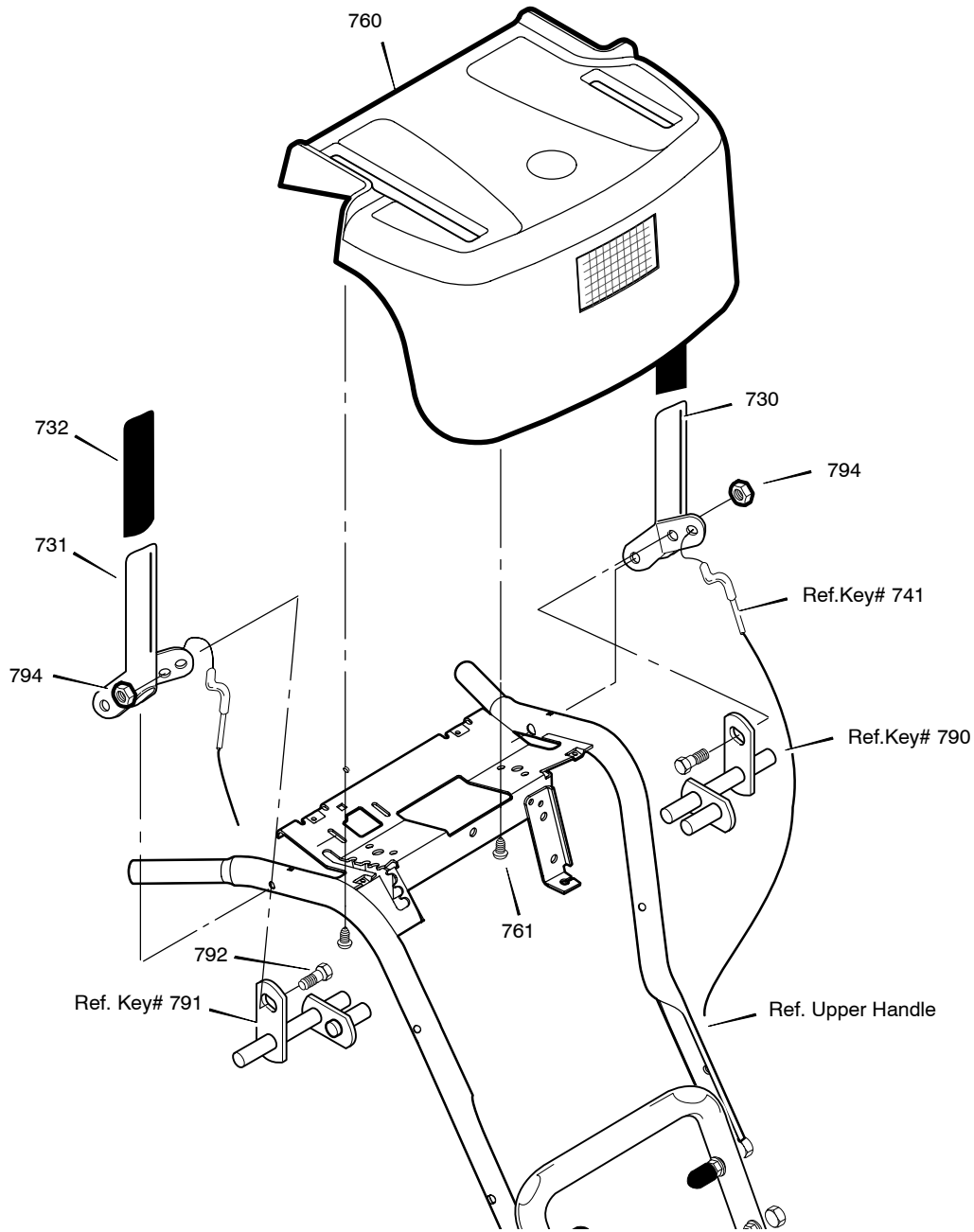
FACTORY MODEL 632130x16D WIRING

Key No.	Part No.	Description
1	MT1501352	GRIP, HEATED
2	MT1501351	WIRE HARNESS, UPPER
3	MT1501348	SWITCH, CHUTE ROTATION
4	MT1501349	SWITCH, HEATED GRIP
5	MT1501350	WIRE HARNESS, LOWER
6	MT071372	TIE, CABLE
7	-----	FUSE, 7.5 AMP AUTOMOTIVE
8	MT762343	HEADLIGHT ASSEMBLY *
9	MT1501412	BRACKET
10	MT901736	WASHER, FLAT
11	MT901696	SCREW #8 X .50
12	MT1501543	COVER, CHUTE LEVER
13	MT028x79	NUT, PUSH
14	MT1501542	COVER, SPEED LEVER
15	MT1501544	FRAME, SPEED LEVER
17	MT1501545	FRAME, CHUTE LEVER

* For replacement bulb, use Standard GE or Phillips #894.

FRONTIER MODEL ST1332

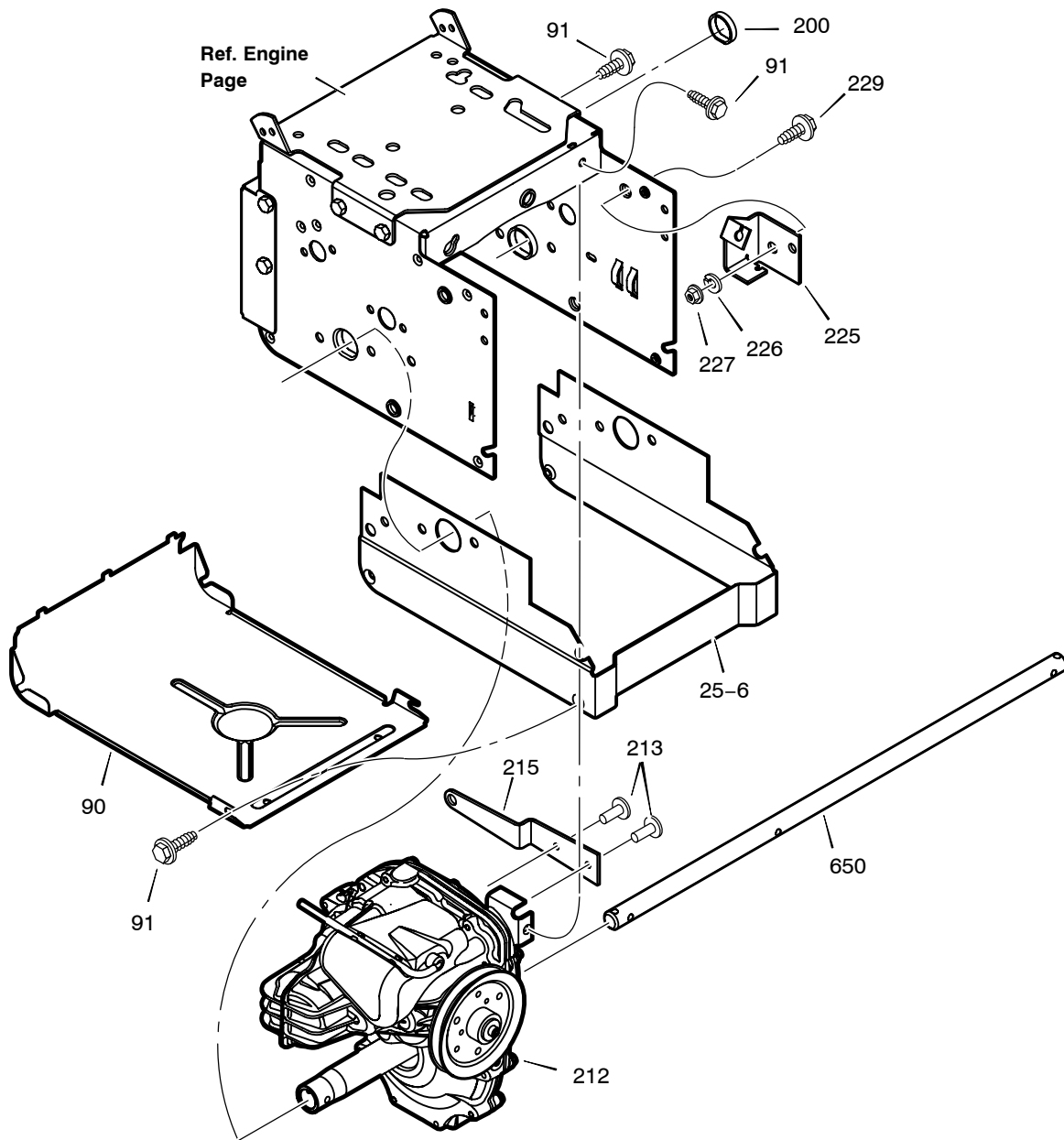
FACTORY MODEL 632130x16D CONTROL PANEL



Key No.	Part No.	Description
730	MT1501358E701	CLUTCH HANDLE LH
731	MT1501357E701	CLUTCH HANDLE RH
732	MT337380	GRIP, CLUTCH LEVER
760	MT1501989	PANEL, CONTROL W/LIGHT
761	MT316042	SCREW
792	MT905531	BOLT, 1/4-20 X 0.50
794	MT908913	NUT, 1/4-20

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D HYDRO DRIVE

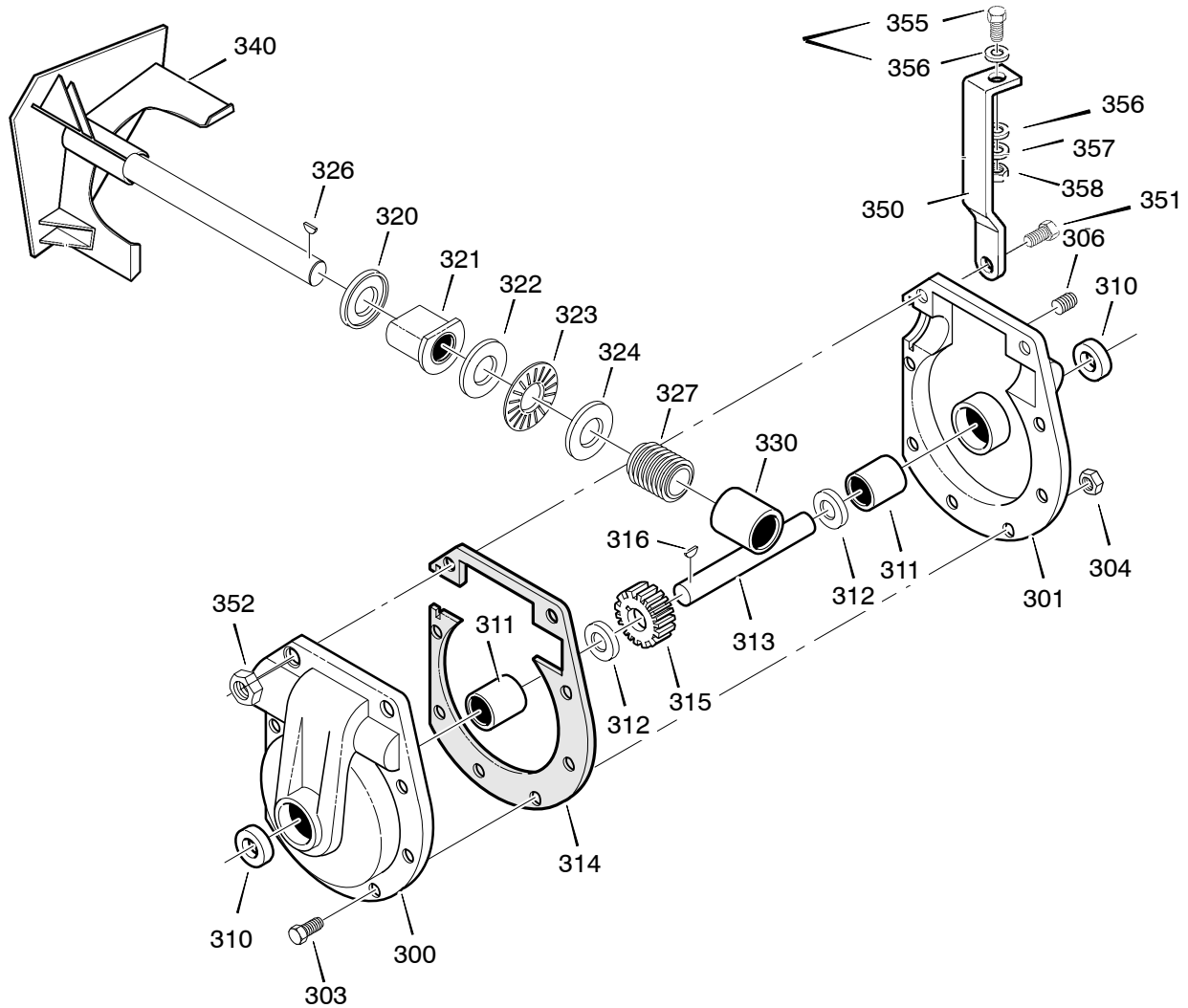


Key No.	Part No.	Description
90	MT1501311E701	COVER, BOTTOM
91	MT310169	SCREW, 1/4-20 X 0.62
25-6	MT1501334E511	FRAME, EXTENSION - HYDRO
200	MT1501496	PLUG, HEYCO
212	MT1501353 *	TRANSMISSION, HYDRO (314-0410) *
213	MT021x11	RIVET, BLIND
215	MT1501366	ARM, CONTROL EXTENSION
225	MT1501361	BRACKET, DRIVE CABLE
226	MT71063	WASHER
227	MT71045	NUT, HEX JAM - 3/8-16
229	MT025x19	SCREW
650	MT1501566	AXLE, WHEEL

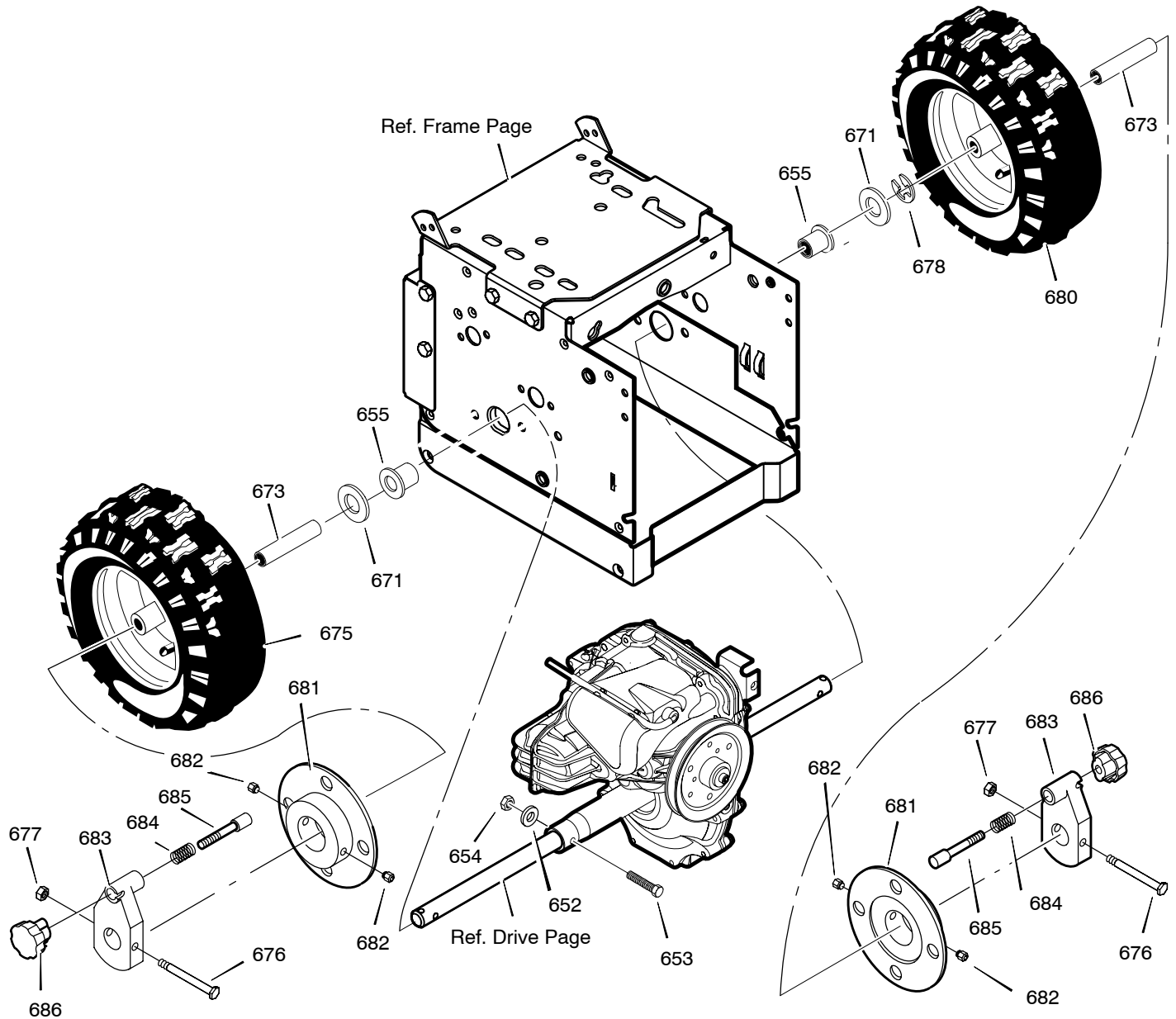
* For service on the HYDRO-GEAR Transmission
CONTACT: Your local HYDRO-GEAR Authorized service dealer.

FRONTIER MODEL ST1332

FACTORY MODEL 632130x16D GEAR CASE

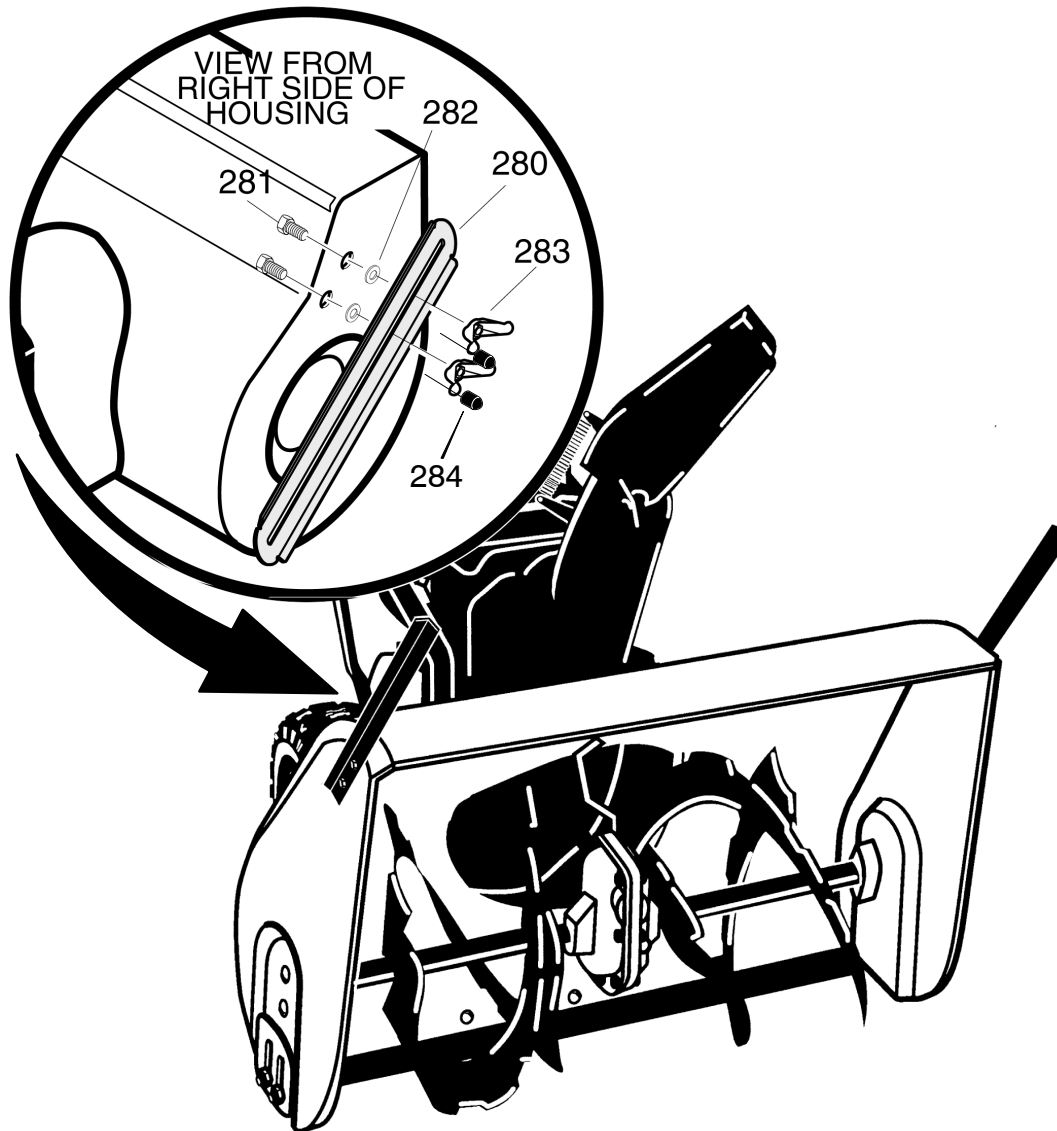


Key No.	Part No.	Description	Key No.	Part No.	Description
300	MT896	CASE, GEAR, RH	323	MT50684	BEARING, ROLLER
301	MT895	CASE, GEAR, LH	324	MT48275	WASHER, FLAT
303	MT910828	SCREW, 5/16-24 x 1.00	326	MT50795	KEY
304	MT71100	NUT, 5/16-24	327	MT53732	WORM
306	MT53749	PLUG, PIPE 0.25-18	330	MT53731	BEARING, SLEEVE
310	MT780151	SEAL, OIL	340	MT1501148E701	IMPELLER
311	MT53743	BEARING, SLEEVE	350	MT1442 YZ	BRACE, GEAR BOX
312	MT53748	WASHER, FLAT	351	MT1441	SCREW, 5/16-24 x 1.75
313	MT1403	SHAFT, AUGER OUTPUT	352	MT71100	NUT, HEX 5/16-24
314	MT897	GASKET, GEAR BOX	355	MT302636	SCREW, 5/16-18 x 1.25
315	MT53730	WORM GEAR	356	MT71071	WASHER, FLAT
316	MT73905	KEY, WOODRUFF #91	357	MT71060	WASHER, SPTLK
320	MT53737	RING, QUAD 0.924 ID	358	MT15x144	NUT, REGHEX 5/16-18
321	MT583126	BEARING, FLANGE	--	MT333431	10oz TUBE LUBRIPLATE
322	MT48275	WASHER, FLAT			

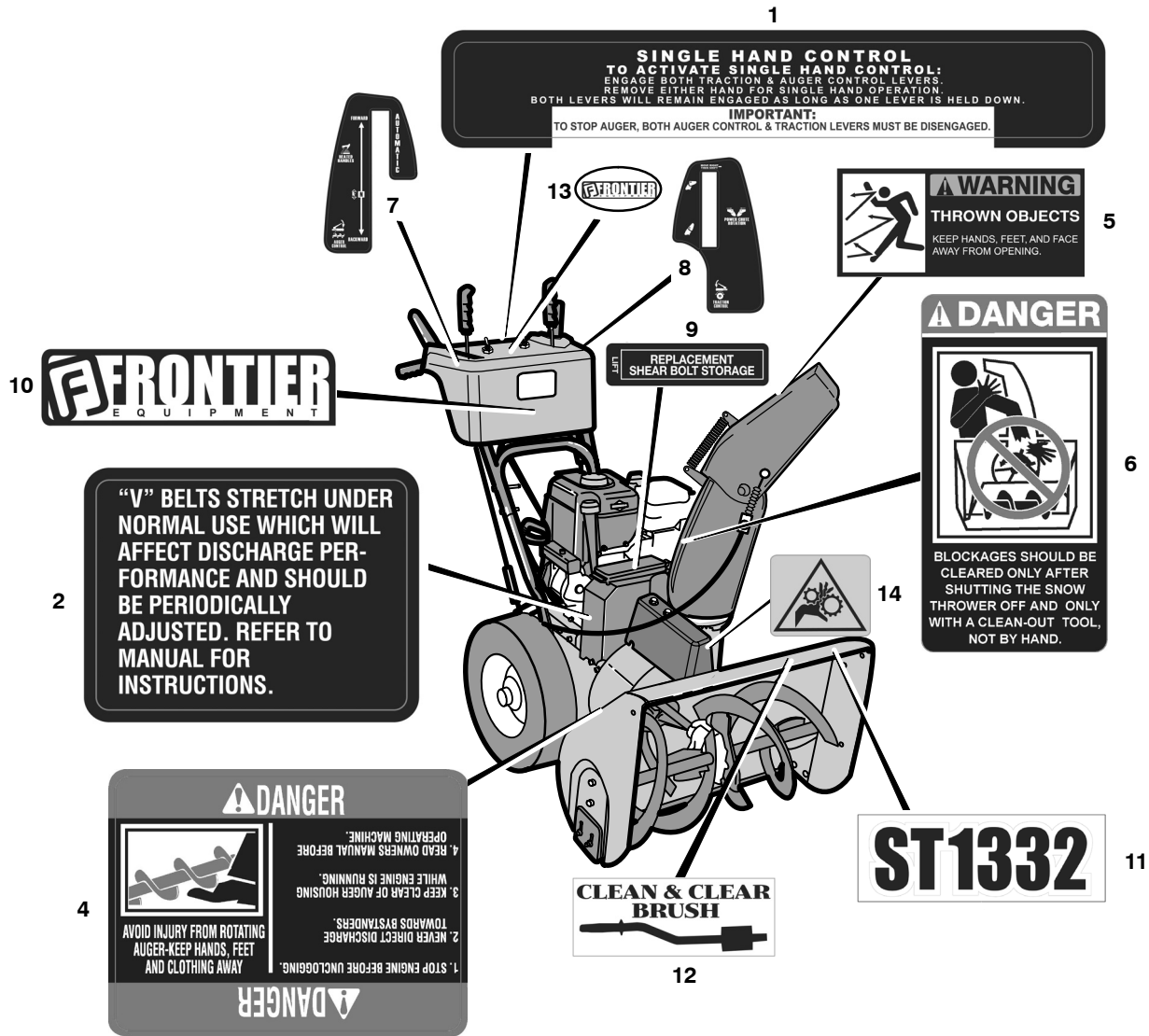


Key No.	Part No.	Description	Key No.	Part No.	Description
652	MT3943	SPACER	678	MT239	RING, RET
653	MT01x193	SCREW, 1/4-20X1.75	680	MT1501825	TIRE & RIM, LEFT
654	MT15x145	NUT, 1/4-20	681	MT1501032E701	DISC, WHEEL
655	MT1501114	BEARING, AXLE	682	MT2001066	SCREW
671	MT017x83	FLATWASHER	683	MT1501930	HUB, WHEEL LOCK
673	MT1501138	BUSHING, WHEEL	684	MT164X34	SPRING *
675	MT1501824	TIRE & RIM, RIGHT	685	MT1501856 YZ	PIN, LOCK *
676	MT73839	SCREW, 1/4-20X2.25	686	MT1501855	KNOB *
677	MT15x145	NUT, 1/4-20			

* These parts are included with key 683. They are not compatible with model year 2003 machines. Order new Hub, Wheel Lock for upgrade.



Key No.	Part No.	Description
280	MT762348E701	DRIFT CUTTER
281	MT340720	BOLT
282	MT12021	WASHER
283	MT711604	WINGNUT
284	MT11261	STOP, PLASTIC



Key No.	Part No.	Description
1	MT48x5294	DECAL, SINGLE HAND CONTROL
2	MT7390	DECAL, V-BELTS
4	MT48x5967	DECAL, ROTATING AUGER
5	MT48x5578	DECAL, THROWN OBJECT
6	MT48x5965	DECAL, UNCLOGGING CHUTE
7	MT48x5300	DECAL, SPEED CONTROL
8	MT48x5297	DECAL, REMOTE CHUTE CONTROL
9	MT760983	DECAL, SHEAR BOLTS
10	MT1501548	LOGO NAMEPLATE, FRONTIER
11	MT48x5299	DECAL, ST1332
12	MT48x5599	DECAL, CLEAN & CLEAR BRUSH
13	MT48x5604	DECAL, FRONTIER -CIRCLE
14	MT48x5582	DECAL, PINCH POINT - ELECTRIC CHUTE
--	MTF-0410122L	OPERATOR'S MANUAL

SPECIFICATIONS ST1332

Engine	Briggs & Stratton Intek Snow OHV
Horsepower	13 hp
Starter	Electric / Recoil
Fuel Capacity	4 quarts
Drive System	Hydrostatic
Speeds	Variable Fwd/Rev
Tire Diameter	16"
Traction Control	Wheel Lock
Clearing Width	32"
Housing Height	23.5"
Auger Diameter	16"
Auger Type	Steel / Saw Tooth
Impeller Diameter	12"
Chute Rotation	Electric
Chute Turning Radius	190°
Deflector Control	Remote
Weight	307 lbs
Warranty - Engine	3 years
Warranty - Machine	3 years

