

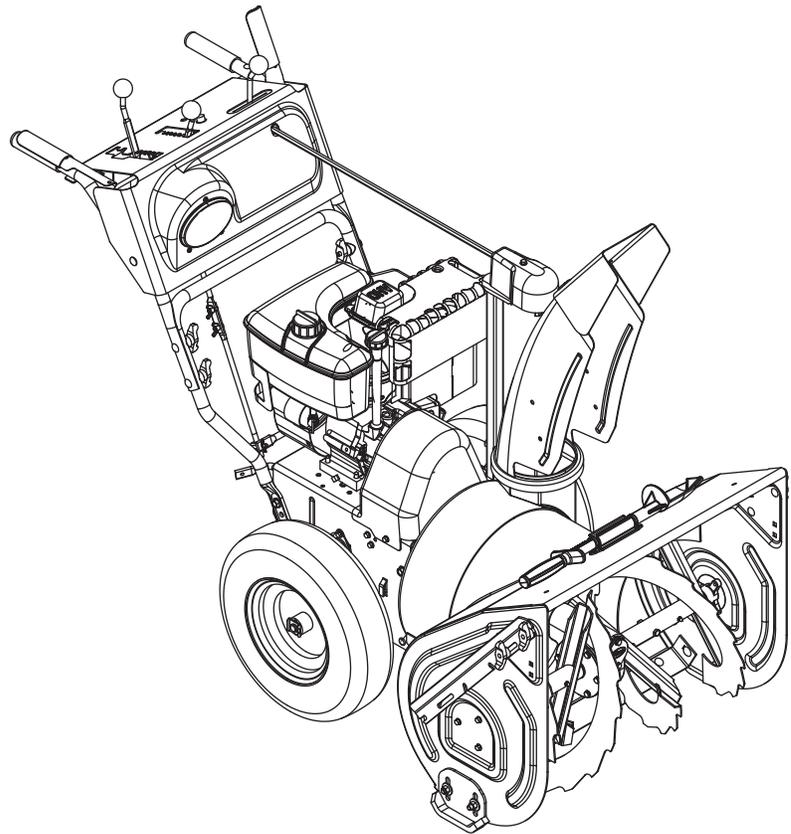


Sno-Thro[®]

Owner/Operator Manual

Models

- 926016 – ST11528DLE
- 926017 – ST9526DLE
- 926021 – ST9526DLET
- 926022 – ST11528DLET
- 926023 – ST1332DLET
- 926500 – ST1332DLE
- 926501 – ST1336DLE



GB ENGLISH
F FRANÇAIS



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INTRODUCTION

MANUALS

Before operation of unit, carefully and completely read your manuals. If used improperly, this unit could be dangerous and cause personal injury or property damage. The contents will provide you with safety instructions for the safe use of your unit during normal operation and maintenance.

All reference to left, right, front, or rear are given from operator standing in operation position and facing the direction of forward travel.

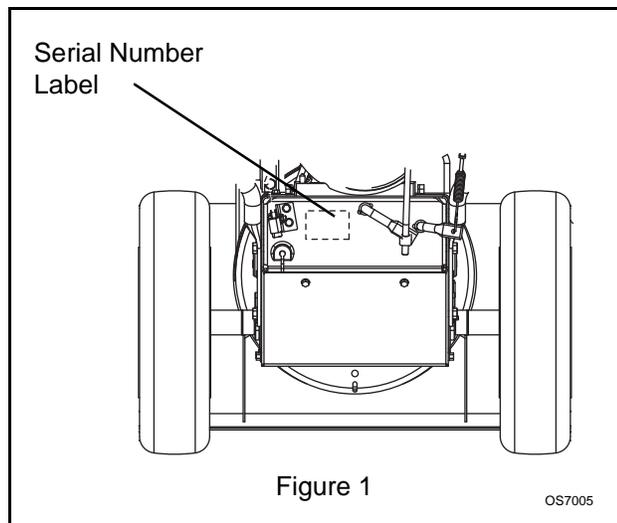
ENGINE MANUAL

The engine on this unit is covered by a separate manual specific to the engine. This manual is included in the literature package that shipped with the unit. Refer to this manual for engine service recommendations. If the engine manual is not available, contact the engine manufacturer for a replacement manual.

MODEL AND SERIAL NUMBERS

When ordering replacement parts or making service inquiries, know the Model and Serial numbers of your unit and engine.

Numbers are located on the product registration form in the unit literature package. They are printed on a serial number label, located on the frame of your unit.



- Record Unit Model and Serial numbers here.

- Record Engine Model and Serial number here.

PRODUCT REGISTRATION

The Ariens dealer must register the product at the time of purchase. Registering the product will help the company process warranty claims or contact you with the latest service information. All claims meeting requirements during the limited warranty period will be honored, whether or not the product registration card is returned. Keep a proof of purchase if you do not register your unit.

Customer Note: If the dealer does not register your product, please fill out, sign, and return the product registration card to Ariens or go to www.ariens.com.

UNAUTHORIZED REPLACEMENT PARTS

Use only Ariens replacement parts. The replacement of any part on this vehicle with anything other than an Ariens authorized replacement part may adversely affect the performance, durability, or safety of this unit and may void the warranty. Ariens disclaims liability for any claims or damages, whether warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts. To locate your nearest Ariens Dealer, go to www.ariens.com on the internet.

DISCLAIMER

Ariens reserves the right to discontinue, make changes to, and add improvements upon its products at any time without public notice or obligation. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your unit.

DELIVERY

Customer Note: If you have purchased this product without complete assembly and instruction by your retailer, it is your responsibility to:

1. Read and understand all assembly instructions in this manual. If you do not understand or have difficulty following the instructions, contact your nearest Ariens Dealer for assistance. Make sure all assembly has been properly completed.

NOTE: To locate your nearest Ariens Dealer, go to www.ariens.com on the Internet.



WARNING: Improper assembly or adjustments can cause serious injury.

2. Understand all Safety Precautions provided in the manuals.
3. Review control functions and operation of the unit. Do not operate the Sno-Thro unless all controls function as described in this manual.
4. Review recommended lubrication, maintenance and adjustments.
5. Review Limited Warranty Policy.
6. Fill out a Product Registration Card and return the card to the Ariens Company or go to www.ariens.com.

SAFETY



WARNING: To avoid injury to hands and feet, always disengage clutches, shut off engine, and wait for all movement to stop before unclogging or working on snow thrower.

Hand contact with the rotating impeller is the most common cause of injury associated with snow throwers. Never use your hand to clean out the discharge chute.

Keep hands and feet away from auger and impeller.

SAFETY ALERTS



Look for these symbols to point out important safety precautions. They mean:

Attention!



Personal Safety Is Involved!

Become Alert!

Obey The Message!

The safety alert symbols above and signal words below are used on decals and in this manual. Read and understand all safety messages.



DANGER: IMMINENTLY HAZARDOUS SITUATION! If not avoided, WILL RESULT in death or serious injury.



WARNING: POTENTIALLY HAZARDOUS SITUATION! If not avoided, COULD RESULT in death or serious injury.



CAUTION: POTENTIALLY HAZARDOUS SITUATION! If not avoided, MAY RESULT in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTATIONS

NOTE: General reference information for proper operation and maintenance practices.

IMPORTANT: Specific procedures or information required to prevent damage to unit or attachment.

PRACTICES AND LAWS

Practice usual and customary safe working precautions, for the benefit of yourself and others. Understand and follow all safety messages. Be alert to unsafe conditions and the possibility of minor, moderate, or serious injury or death. Learn applicable rules and laws in your area. Always follow the practices set forth in this manual.

REQUIRED OPERATOR TRAINING

Original purchaser of this unit was instructed by the seller on safe and proper operation. If unit is to be used by someone other than original purchaser; loaned, rented or sold, ALWAYS provide this manual and any needed safety training before operation.

SAFETY DECALS AND LOCATIONS

ALWAYS replace missing or damaged Safety Decals. Refer to figures below for Safety Decal locations.

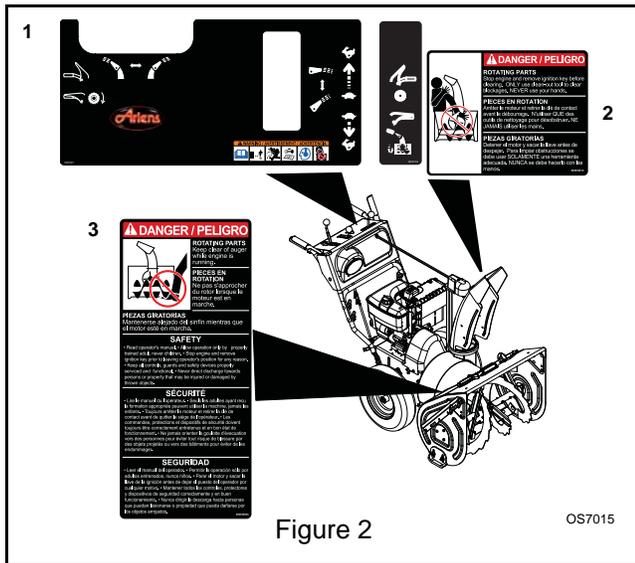


Figure 2

OS7015

2. DANGER!



OS6610

ROTATING PARTS! ONLY use clean-out tool to clear blockages. NEVER use your hands. **High speed impeller rotates below discharge opening. Wait for all moving parts to stop before removing clogs or servicing.**

3. DANGER!



OS2080

ROTATING PARTS.

Keep clear of auger while engine is running.

- Read Operator's Manual.
- Allow operation only by properly trained adult, never children.
- Stop engine and remove ignition key prior to leaving the operator's position for any reason.
- Keep all controls, guards and safety devices properly serviced and functional.
- Never direct discharge towards persons or property that may be injured or damaged by thrown objects.

1. WARNING!



OL1801

Read Owner/Operator Manual.



OL4370

Keep people away from unit while operating. Keep children out of work area and under watchful care of a responsible adult.



OL0910

Never direct discharge towards persons or property that may be injured or damaged by thrown objects.



OL4010

Stop engine, remove key, read manual before making any repairs or adjustments.



OL4690

Wear appropriate hearing protection.



ONLY use clean-out tool to clear blockages. NEVER use your hands.

SAFETY RULES

Read, understand, and follow all safety practices in Owner/Operator Manual before beginning assembly or operating. Failure to follow instructions could result in personal injury and/or damage to unit.

ALWAYS remove key and/or wire from spark plug before assembly, maintenance or service. Unintentional engine start up can cause death or serious injury.

Complete a walk around inspection of unit and work area to understand:

- Work area
- Your unit
- All safety decals

ALWAYS check overhead and side clearances carefully before operation. ALWAYS be aware of traffic when operating along streets or curbs.

Keep children and people away. Keep children out of work area and under watchful care of a responsible adult.

NEVER allow children to operate or play on or near unit. Be alert and shut off unit if children enter area.

DO NOT allow adults to operate unit without proper training. Only trained adults may operate unit. Training includes actual operation.

Keep area of operation clear of all toys, pets, and debris. Thrown objects can cause injury.

Check for weak spots on docks, ramps or floors. Avoid uneven work areas and rough terrain. Stay alert for hidden hazards.

DO NOT operate near drop-offs, ditches, or embankments. Unit can suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.

Falling snow, fog, etc. can reduce vision and cause an accident. Operate unit only when there is good visibility and light.

NEVER operate unit after or during the use of medication, drugs or alcohol. Safe operation requires your complete and unimpaired attention at all times.

NEVER allow anyone to operate this unit when their alertness or coordination is impaired.

DO NOT operate unit without wearing adequate winter outer garments. Wear adequate safety gear, including safety glasses with side shields, and protective gloves. Wear proper footwear to improve footing on slippery surfaces.

DO NOT wear loose clothing or jewelry and tie back hair that may get caught in rotating parts.

Protect eyes, face and head from objects that may be thrown from unit. Wear appropriate hearing protection.

Avoid sharp edges. Sharp edges can cut. Moving parts can cut off fingers or a hand.

ALWAYS keep hands and feet away from all rotating parts during operation. Rotating parts can cut off body parts.

NEVER place your hands or any part of your body or clothing inside or near any moving part while unit is running.

ALWAYS keep hands away from all pinch points.

DO NOT touch unit parts which might be hot from operation. Allow parts to cool before attempting to maintain, adjust or service.

Never direct discharge towards persons or property that may be injured or damaged by thrown objects. Use extreme caution on gravel surfaces. Stay alert for hidden hazards or traffic. Adjust Runners so Scraper Blade does not contact gravel.

DO NOT throw snow any higher than necessary.

Deflected materials can cause injury and property damage.

Always stand clear of the discharge area when operating this unit.

Fumes from engine exhaust can cause injury or death. DO NOT run engine in an enclosed area. Always provide good ventilation.

ALWAYS disengage attachment, stop unit and engine, remove key and allow moving parts to stop before leaving operator's position.

ROTATING AUGER CAN CAUSE SERIOUS INJURY. NEVER ATTEMPT TO UNCLOG OR CLEAN UNIT WHILE ENGINE IS RUNNING.

Read, understand, and follow all instructions in the manual and on the machine before starting.

Understand:

- How to operate all controls.
- The functions of all controls.
- How to STOP in an emergency.

Before starting engine, disengage control(s).

ALWAYS allow unit and engine to adjust to outdoor temperatures before clearing snow.

DO NOT overload the machine capacity by attempting to operate or to clear snow at too fast a rate.

Slow down and turn corners slowly.

Do not operate in reverse unless absolutely necessary. ALWAYS back up slowly. Always look down and behind before and while backing.

Disengage attachment drive when traveling from one work area to another.

Abnormal Vibrations are a warning of trouble. Striking a foreign object can damage unit. Immediately stop unit and engine. Remove key and wait for all moving parts to stop. Remove wire from spark plug. Inspect unit and make any necessary repairs before restart.

Before cleaning, removing clogs or making any inspections, repairs, etc.: disengage clutch(es), stop unit and engine, remove key, allow moving parts to stop. Allow hot parts to cool.

Run unit a few minutes after clearing snow to prevent freeze-up of attachment.

Disengage attachment when not in use. Disengage all clutches before starting engine. Adjust runners to clear gravel or crushed rock surfaces safely.

Never leave a running unit unattended. ALWAYS shut off engine before leaving unit. ALWAYS remove key to prevent unauthorized use.

Never carry passengers.

Check clutch and brake operation frequently. Adjust and service as required. All motion of drive wheels and auger/impeller must stop quickly when control levers are released.

DO NOT operate on steep slopes. DO NOT clear snow across the face of slopes. Keep all movement on slopes slow and gradual. DO NOT make sudden changes in speed or direction. Use a slow speed to avoid stops or shifts on slopes. Avoid starting or stopping on a slope.

DO NOT park unit on a slope unless absolutely necessary. When parking on a slope always block the wheels.

ALWAYS shut off engine, remove key, and close fuel shut-off valve or drain fuel when transporting unit on a truck or trailer.

Use extra care when loading or unloading unit onto trailer or truck.

Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged.

DO NOT transport machine while engine is running.

Keep unit free of ice or other debris. Clean up oil or fuel spills.

This product is equipped with an internal combustion type engine. DO NOT use unit on or near any unimproved, forest-covered or brush covered land unless exhaust system is equipped with a spark arrester meeting applicable local, state or federal laws. A spark arrester, if it is used, must be maintained in effective working order by operator.

Fuel is highly flammable and its vapors are explosive. Handle with care. Use an approved fuel container.

NO smoking, NO sparks, NO flames. ALWAYS allow engine to cool before servicing.

NEVER fill fuel tank when engine is running or hot from operation.

NEVER fill or drain fuel tank indoors.

Replace fuel cap securely and clean up spilled fuel.

Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.

When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.

Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.

If fuel is spilled on clothing, change clothing immediately.

Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.

Explosive Gases from battery can cause death or serious injury. Poisonous battery fluid contains sulfuric acid and its contact with skin, eyes or clothing can cause severe chemical burns.

No flames, No sparks, No smoking near battery.

ALWAYS wear safety glasses and protective gear near battery.

DO NOT TIP battery beyond a 45° angle in any direction.

ALWAYS keep batteries out of reach of children.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Follow First Aid directions for contact with battery fluid.

- External Contact: Flush with water.
- Eyes: Flush with water for at least 15 minutes and get medical attention immediately!
- Internal Contact: Drink large quantities of water. Follow with Milk of Magnesia, beaten egg or vegetable oil. Get medical attention immediately!
- In case of internal contact, DO NOT induce vomiting!

Before tipping unit up onto housing, remove fuel so no spills will occur and remove battery. Ensure unit is secure and will not tip over during maintenance.

ALWAYS keep protective structures, guards, and panels in good repair, in place and securely fastened. NEVER modify or remove safety devices.

DO NOT change engine governor settings or over-speed engine.

Fumes from engine exhaust can cause injury or death. DO NOT run engine in an enclosed area. Always provide good ventilation.

ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion.

Keep all hardware properly tightened. Check shear bolts frequently.

Maintain or replace safety and instruction labels, as necessary.

NEVER store unit with fuel in fuel tank, inside a building where any ignition sources are present such as hot water heaters, space heaters, or clothes dryers. Allow the engine to cool before storing in any enclosure.

Shut off fuel and allow engine to cool completely before storing in closed area or covering unit.

For extended storage, clean unit thoroughly. See Engine Manual for proper storage.

Use only attachments or accessories designed for your unit.

Check components frequently. If worn or damaged, replace with manufacturer's recommended parts.

ASSEMBLY

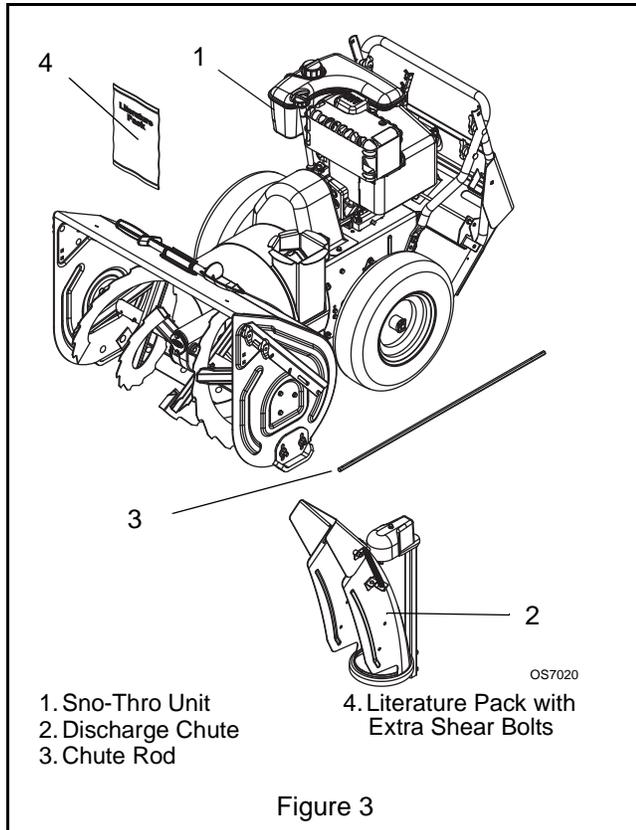


WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.



WARNING: Dropping or tipping over boxed unit could result in personal injury or damage to unit.

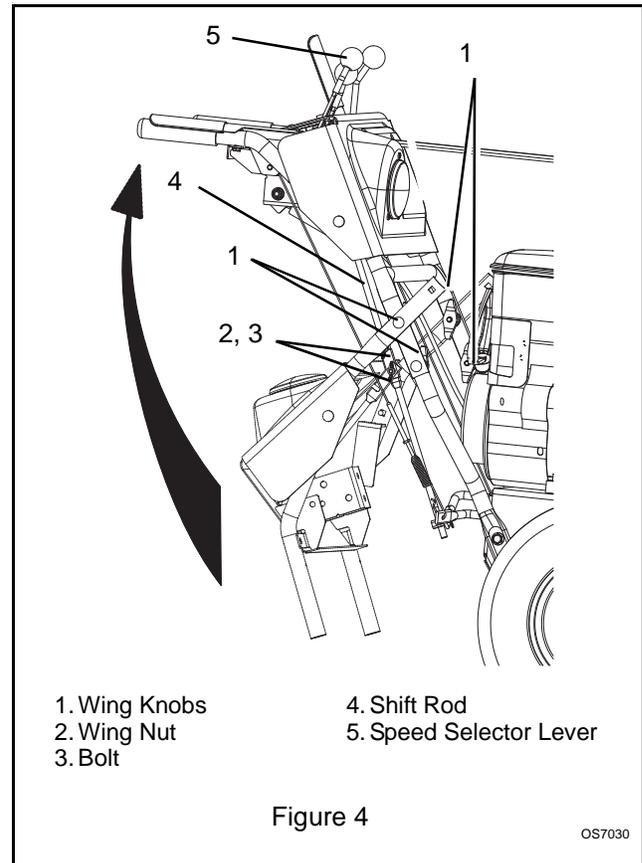
PACKAGE CONTENTS



5. Install and tighten all wing knobs and wing nuts on the handlebar assembly and shift rod.

NOTE: The handlebar has two height positions. Adjust the handlebar height to provide better operator comfort. See *Handlebar Height* on page 22

NOTE: Model 926023 ships with the handlebar assembly detached from the unit. Slide the handlebar assembly into position and fasten with wing nuts.



ASSEMBLY

Tools Required:

- Pliers
- Open-End Wrenches: 3/8, 7/16, 1/2, 9/16 in. and/or Adjustable Wrench
- Tire Gauge

Unfold Handlebar (Figure 4)

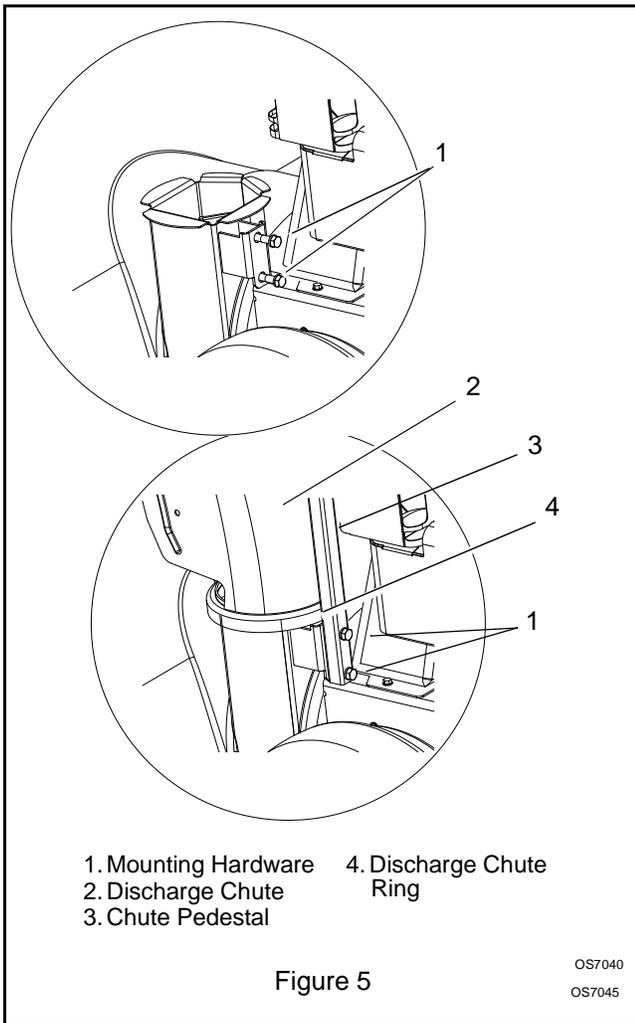
1. Remove the lower and loosen the upper wing knobs on the handlebar assembly.
2. Loosen the wing nuts on the shift rod.
3. Put the speed selector lever in the first forward position
4. Rotate the handlebars into operating position.

Install Discharge Chute and Discharge Chute Crank 921002, 003, 004921301

(Figure 5)

1. Grease underside of discharge chute ring (if not already greased).
2. Remove mounting hardware from auger housing.
3. Install discharge chute over opening in the auger housing. Finger tighten the mounting hardware removed in step 2.

NOTE: Leave discharge chute pedestal loose to help install the chute rod and connect it to the control assembly.



4. Remove the cover from the gear assembly on the discharge chute.
5. Release the lock teeth on the gear assembly with your finger and rotate the discharge chute 90° left.
6. Remove and save the hairpin from the control assembly underneath the control panel.

NOTE: Do not remove the pin installed on the chute rod.

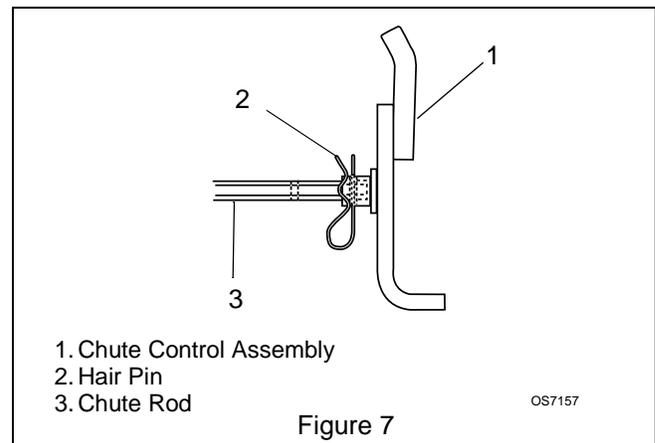
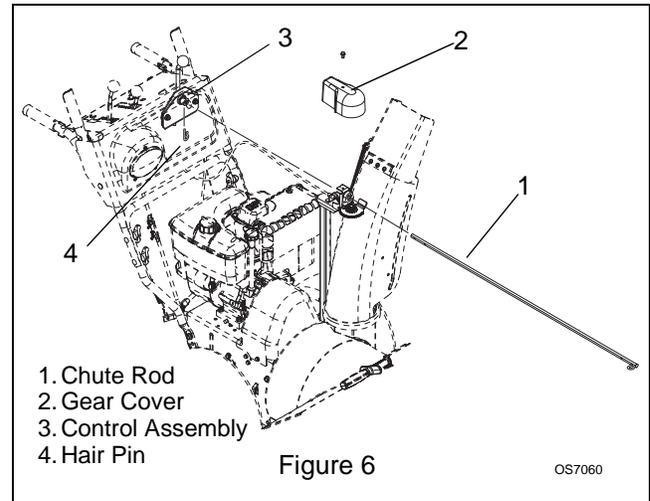
NOTE: To ensure the discharge chute follows its full range of travel, make sure the control lever is pushed all the way to the left before installing and pinning the chute rod.

7. Align the holes on the end of the chute rod with the mark on the gear assembly and slide the end without a pin through the gear assembly, through the hook on the chute lock cable and into the hex hole in the control assembly.

IMPORTANT: The hook will prevent the control cable from contacting the engine or muffler guard. If the hook gets damaged, loosely tie the cable to the control rod.

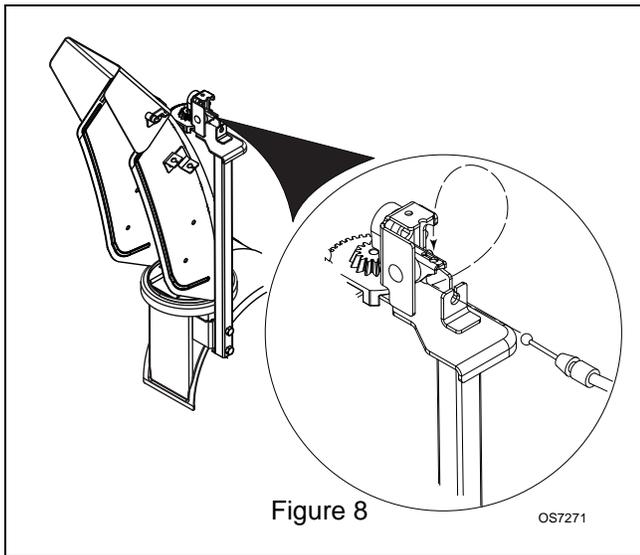
NOTE: After the chute rod has been inserted through the hex hole in the control assembly, placing the unit in the service position (see *Service Position* on page 19) will ease alignment and installation of the hair pin.

8. Secure the chute rod to the control assembly with the hair pin removed in step 6 using the end hole location as shown in Figure 7. Insert the hair pin with the loop end to the left of the chute rod so the control assembly follows a full range of travel.



9. Insert the chute lock cable fitting into the bracket on the chute pedestal, and then connect the chute lock cable to the lock teeth by fitting the cable ball end into the slot on the lock teeth. See Figure 8.

NOTE: Press down on lock teeth with your finger to align the cable ball end with the slot (Figure 8).



10. Replace the gear cover removed in step 4.

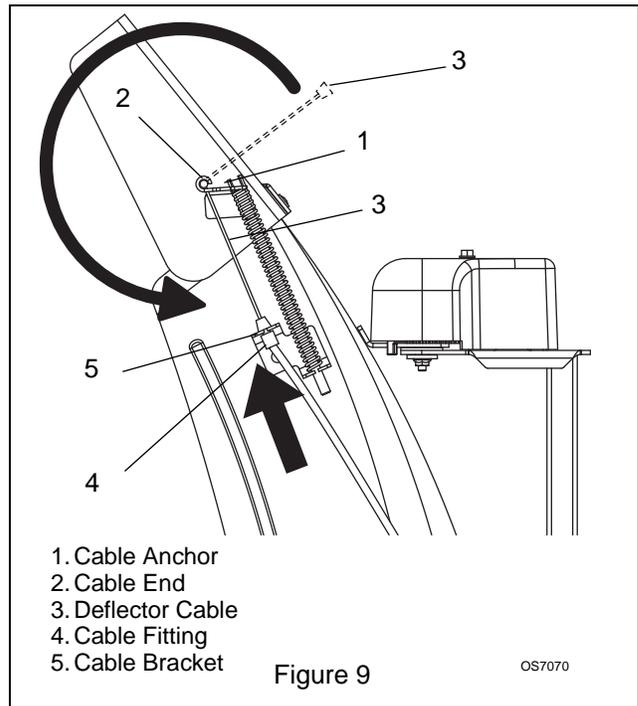
IMPORTANT: Rotate the discharge chute to the left when tightening the pedestal hardware to ensure clearance between the discharge chute and the belt cover.

11. Tighten pedestal hardware to 15 – 31 lbf-ft (20 – 42 N•m).
12. Make sure the discharge chute rotates left and right when you push the discharge chute control lever left and right.

Deflector Remote

Connect the cable end to the cable anchor on the discharge deflector before clipping the cable to the cable bracket on the discharge chute.

1. Route deflector remote cable along the left side of the chute pedestal.
2. Insert the barrel on the cable end into the bracket on left side of chute deflector (Figure 9).
3. Hold seal out of the way while routing the cable through the bracket on the left side of the discharge chute, and then push the cable fitting into the bracket.
4. Push the seal securely over the end of the cable fitting to prevent water from entering the cable.
5. Check deflector travel. Adjust nut on cable end under handlebar to obtain full travel, if necessary.



Connect Battery (926023, 500, 501)

1. Remove wing nuts from battery cover.
2. Install wire lead to battery terminal.
3. Install battery cover and tighten wing nuts.

Check Function of Dual Handle Interlock

Without the engine running, press down (engage) both clutch levers. Release attachment clutch lever. Attachment clutch should remain engaged until traction clutch lever is released, then both clutches *must* disengage. If they do not, contact your Dealer for repairs.

Check Tire Pressure (926016, 017, 500, 501)

Check tire pressure and adjust to the pressure listed on tire sidewall.



CAUTION: Avoid injury! Explosive separation of tire and rim parts is possible when they are serviced incorrectly:

- Do not attempt to mount a tire without the proper equipment and experience to perform the job.
- Do not inflate the tires above the recommended pressure.
- Do not weld or heat a wheel and tire assembly. Heat can cause an increase in air pressure resulting in an explosion. Welding can structurally weaken or deform the wheel.
- Do not stand in front or over the tire assembly when inflating. Use a clip-on chuck and extension hose long enough to allow you to stand to one side.

Check Track Tension (926021, 022, 023)

Check tracking of unit with the differential locked, and tension of tracks (see *Track Tension Adjustment (926021, 022, 023)* on page 29).

Check Auger Gearcase Oil

Check oil level in auger gearcase (see *Check Auger Gearcase* on page 20).

Check Engine Crankcase Oil

IMPORTANT: The engine is shipped with 5W-30 oil in crankcase. Refer to Engine Manual for detailed instructions.

Fill Engine Fuel Tank

Refer to Engine Manual for proper fuel type and tank capacity.

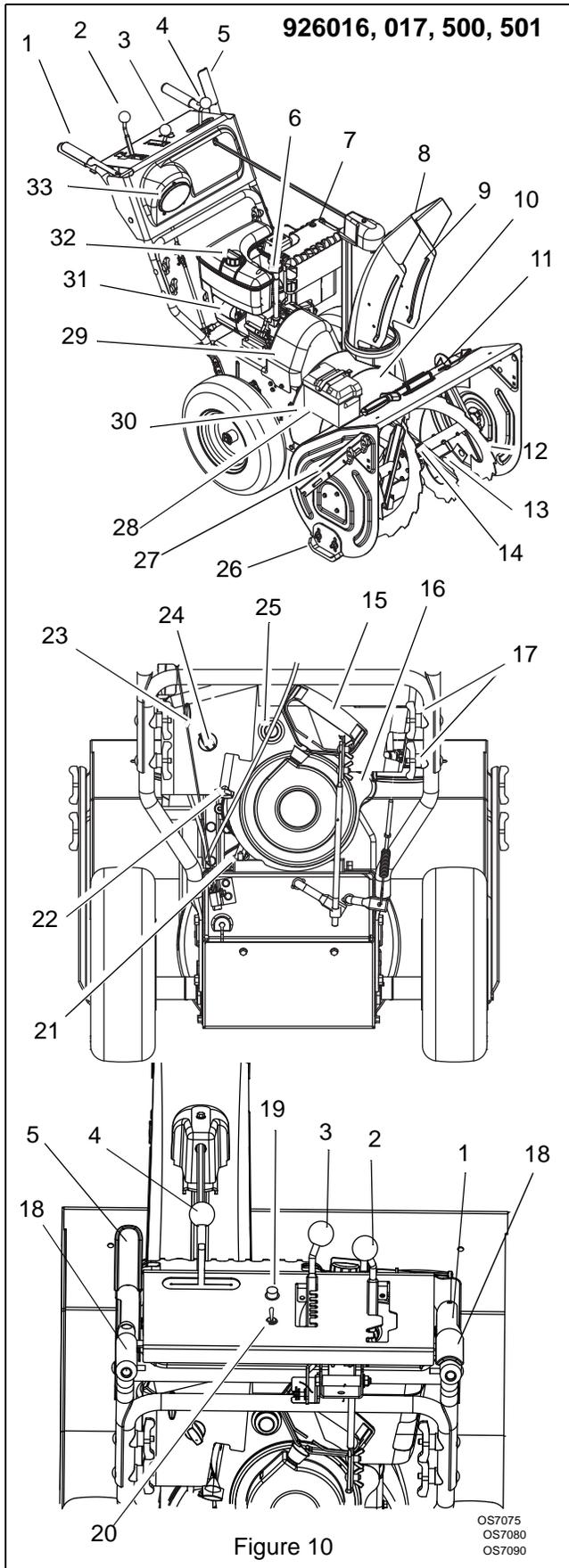
Check Function of all Controls

Ensure unit runs and performs properly. Refer to *OPERATION* on page 13.

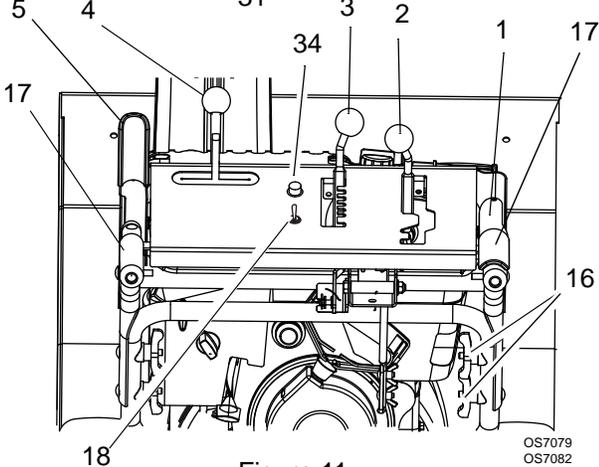
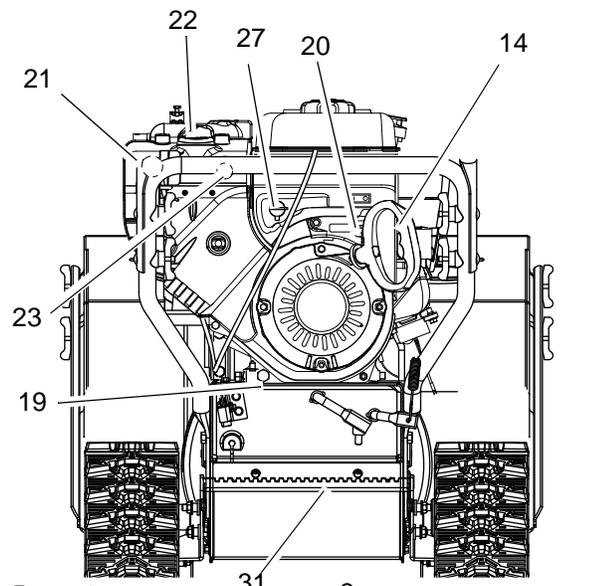
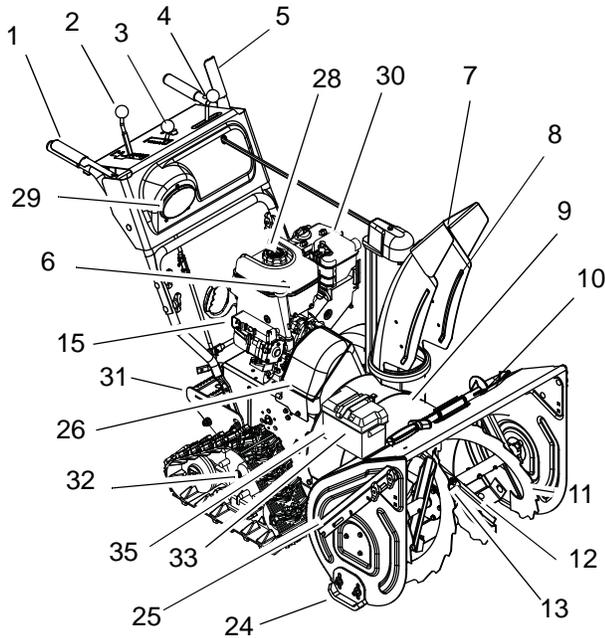
Run-in Attachment Belt

1. Start unit in a well-ventilated area according to *Starting and Shut Off* on page 17.
2. Engage attachment clutch lever and run attachment for about 15 minutes.
3. Stop unit, wait for all moving parts to stop, and remove spark plug wire.
4. Adjust belt finger, if necessary. See *Check Belt Finger Clearance* on page 26
5. Adjust clutch idler according to *Attachment Clutch/Brake Adjustment* on page 24.

CONTROLS AND FEATURES



926021, 022, 023



1. Attachment Clutch Lever
2. Speed Selector
3. Deflector Remote Control
4. Chute Control
5. Traction Drive Clutch Lever
6. Oil Fill/Dipstick
7. Discharge Chute Deflector
8. Discharge Chute
9. Impeller
10. Clean-out Tool
11. Auger
12. Scraper Blade
13. Auger Gearcase
14. Recoil Starter Handle
15. Electric Starter
16. Wing Knobs
17. Heated Handles
18. Heated Handles Switch
19. Oil Drain Plug
20. Throttle (Engine Stop)
21. Push/Pull Safety Key
22. Choke Control Knob
23. Primer Bulb
24. Runner
25. Drift Cutter
26. Belt Cover
27. Fuel Shut-Off Valve
28. Fuel Tank and Cap
29. Headlight
30. Muffler Guard
31. Height Adjuster Foot Pedal
32. Differential Lock Knob
33. Battery Cover and Battery (926023)
34. Ignition Key (926023)
35. Solenoid Compartment (926023)

Figure 11

OS7079
OS7082
OS7090

OPERATION



WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.



WARNING: To avoid injury to hands and feet, always disengage clutches, shut off engine, and wait for all movement to stop before unclogging or working on snow thrower. Keep hands and feet away from auger and impeller.

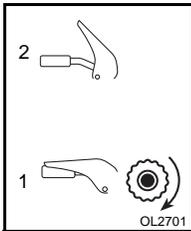
CONTROLS AND FEATURES

See Figure 10 for all Controls and Features locations.

Dual Handle Interlock

When Attachment Clutch and then Traction Drive Clutch are engaged, the Attachment Clutch will remain engaged (lever down) if released. To stop attachment, release Traction Drive Clutch and both clutches will disengage.

Traction Drive Clutch - Left Hand Lever

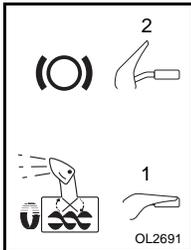


Squeeze the Traction Drive Clutch Lever against the Handlebar (1) to engage wheel drive for propelling unit. Forward speed will vary according to snow depth and moisture content.

Release lever (2) to stop movement.

NOTE: When traveling to or from the area to be cleared, press down on the handlebars enough to raise the front of the unit slightly off the surface. Engage the traction drive clutch without engaging the attachment drive clutch.

Attachment Clutch - Right Hand Lever



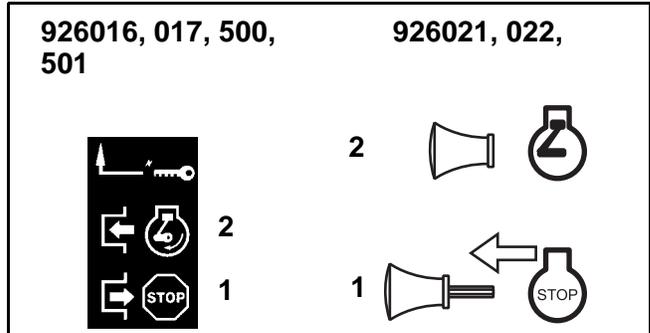
Squeeze Attachment Clutch Lever against handlebar (1) to engage attachment. Release both clutch levers (2) to disengage power and apply brake to attachment.

IMPORTANT: If the belt squeals when the attachment clutch lever is engaged, the impeller may be frozen in the auger housing. Immediately

release the attachment clutch lever and move the unit into a heated area to thaw.

NOTE: If belt squeals when impeller turns freely, see *Attachment Clutch/Brake Adjustment* on page 24.

Ignition Switch (Push/Pull Safety Key)

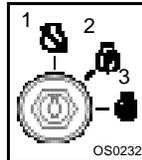


Key Switch has two positions:

1. "Stop" - pulled out
2. "Run" - pushed in

NOTE: DO NOT twist key after it is inserted.

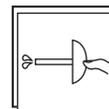
Ignition Switch (12V start on dash panel) (926023, 500, 501)



The ignition switch is operated by a removable key. It has three positions:

1. Stop
2. Run
3. Start

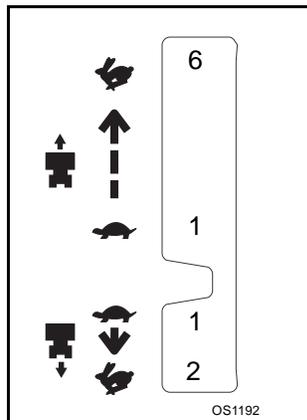
Primer Bulb



Pushing the primer bulb in adds fuel for easier engine start. Refer to *Starting and Shut Off* on page 17.

Speed Selector

Position the Speed Selector in the appropriate speed notch to control forward and reverse travel.



Forward:

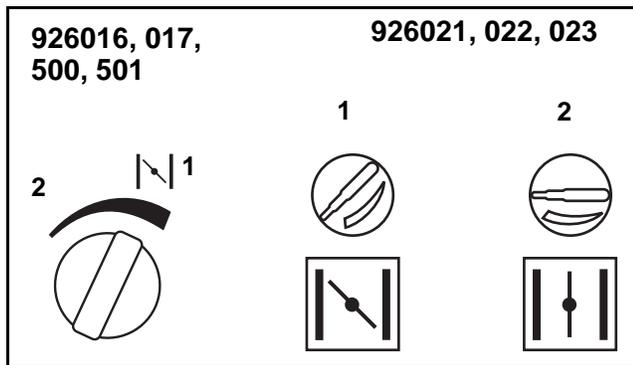
- (6) Fastest
- (1) Slowest

Reverse:

- (1) Slow
- (2) Fast

IMPORTANT: DO NOT change motion from forward to reverse with clutch engaged. Forward speed can be changed without declutching.

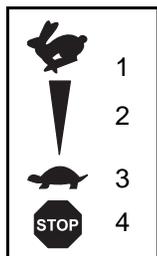
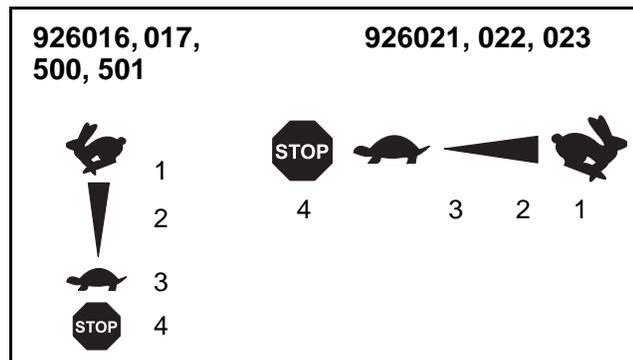
Choke Control Knob



1. Choke Closed position: chokes off air to engine for easier start.
2. Choke Open position: allows for normal operation.

IMPORTANT: Gradually open choke after engine starts.

Throttle



The throttle controls the engine speed. To increase or decrease the engine speed, adjust to:

1. Fast (normal or warm starts)
2. Part-Throttle
3. Slow (cold weather starts)
4. Stop (engine is off) (Not on 12V models)

Electric Starter120V

The electric starter will start a properly choked and cranked engine when the key is turned (12V) or starter button (120V) is pushed. Refer to *Starting and Shut Off* on page 17.

Recoil Starter Handle

When pulled, handle will turn engine over.

IMPORTANT: DO NOT let handle snap back against starter.

Snow Clean-Out Tool

(Figure 12)



WARNING: Hand contact with the rotating impeller is the most common cause of injury associated with snow throwers. Never use your hand to clean out the discharge chute.

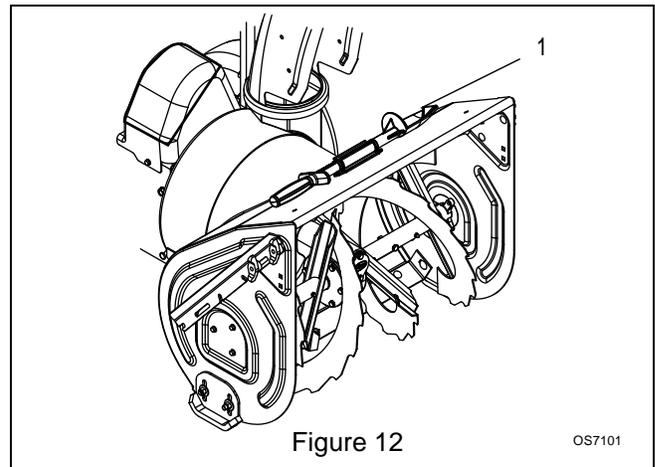


Figure 12

OS7101

To clear the discharge chute:

1. Shut off the engine.
2. Wait 10 seconds and make sure impeller blades have stopped rotating.
3. Remove the snow clean-out tool (1) from the auger housing and use it to remove the clog from the discharge chute.
4. Replace the snow clean-out tool on the auger housing.

Deflector Remote

Place deflector into position before operation. DO NOT throw snow any higher than necessary.

Place deflector remote in a forward notch to throw snow lower. Place deflector remote in a rearward notch to throw snow higher.

Discharge Chute

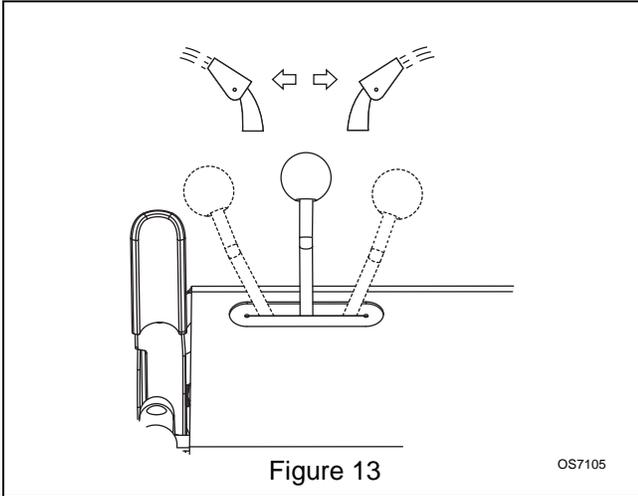
Discharge chute rotates 200°.

ALWAYS position discharge chute in safe direction and angle, away from operator and bystanders, before starting engine.

Discharge Chute Control

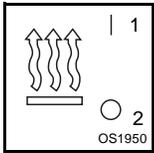
IMPORTANT: If chute does not stay in set position, adjust as directed in *SERVICE AND ADJUSTMENTS* on page 22, or repair before operation.

Rotate the Chute with Discharge Chute Control.



IMPORTANT: DO NOT force frozen chute controls. If frozen, take to warm place until controls are free.

Heated Handles



Turn the heated handles switch to the ON (1) position to activate. Turn the switch to the OFF (2) position to deactivate.

Differential Lock (926021, 022, 023)

(Figure 14)

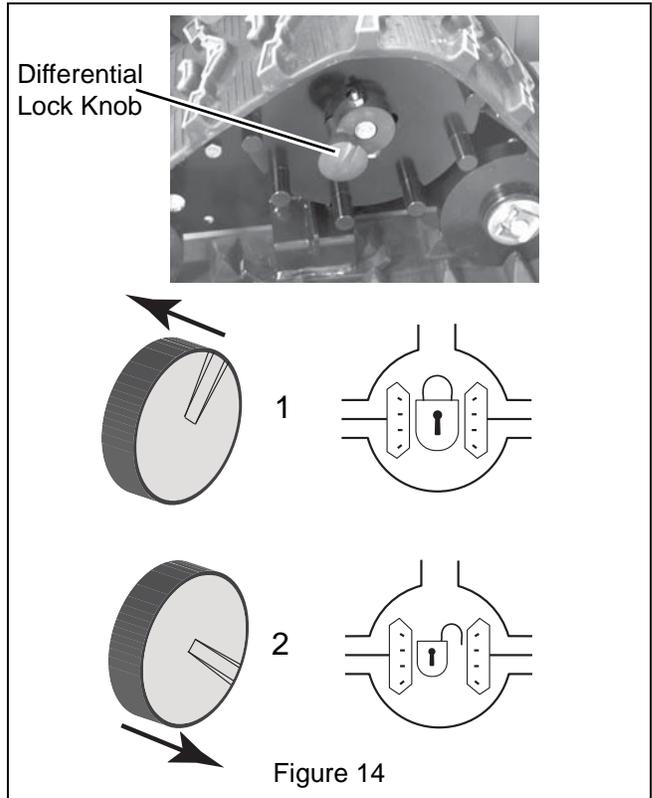
The differential can be locked for maximum traction or unlocked to allow for easier turning. The differential lock knob is located on the right Track Assembly. With the differential locked power is applied equally to both tracks.

To engage the differential lock:

Pull and turn knob to LOCKED (1) position and release (knob will snap in place when positioned correctly).

To release the differential lock:

Pull and turn knob to the UNLOCKED (2) position and release (knob will be positioned out slightly from unit when positioned correctly).



Scraper Blade

The scraper blade allows the back of the housing to keep better contact with the surface being cleared. It also prevents damage to the housing from normal wear.

IMPORTANT: DO NOT allow Scraper Blade to wear too far or Auger/Impeller housing will become damaged.

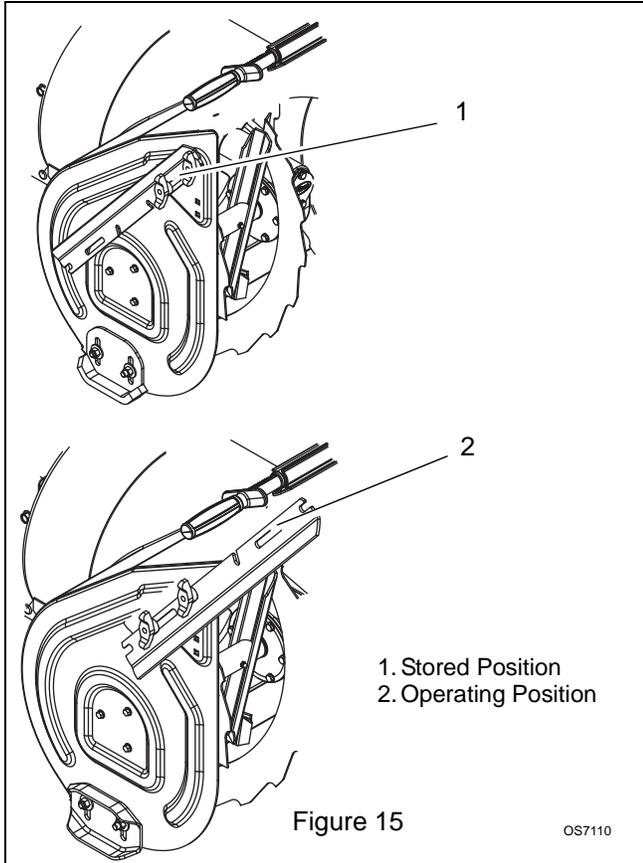
Runners

The runners control the distance between the scraper blade and the ground. Adjust runners equally to keep blade level with the ground. Refer to *Pre-Start* on page 17 for recommended settings.

Drift Cutters

(Figure 15)

Drift cutters break up snow drifts that are taller than the auger housing and direct the snow into the auger. Store the drift cutters on the auger housing when not in use. Install them as shown below so they are taller than the snow to be cleared.



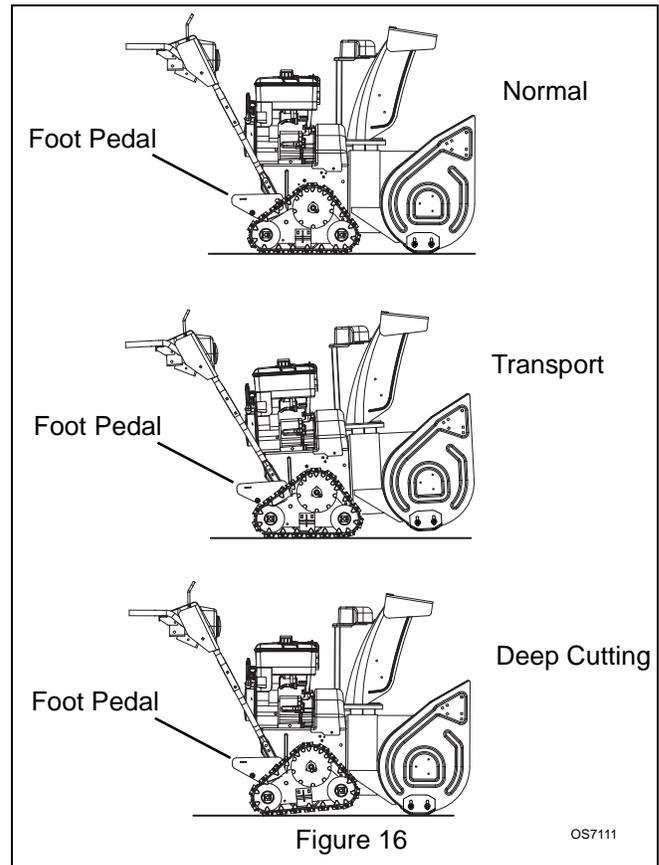
Track Angle (926021, 022, 023)

(Figure 16)

The track angle can be adjusted to position the auger housing for level clearing, deep cutting or transport.

Depress the Foot Pedal and press down on the handlebars to move the auger housing into an up position.

Lift up on the handlebars and tap the Foot Pedal to move the auger housing into a down position.



FILLING FUEL TANK

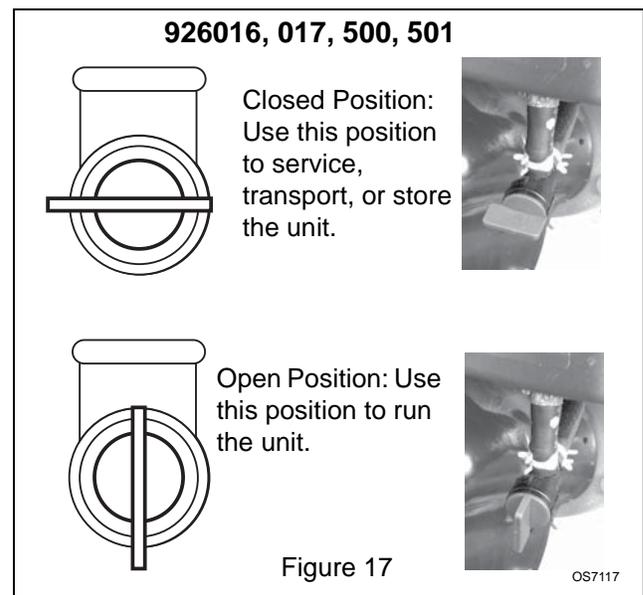


WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

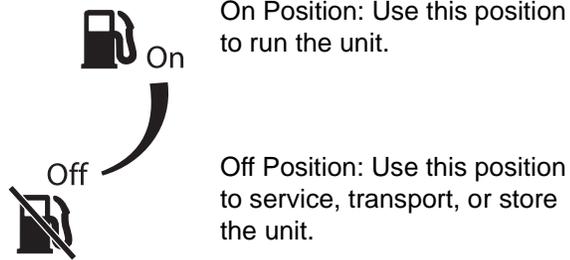
Fuel Shut-Off Valve

IMPORTANT: The fuel shut-off valve **MUST** be in the closed position prior to transporting the unit.

The fuel shut-off valve has two positions:



926021, 022, 023



On Position: Use this position to run the unit.

Off Position: Use this position to service, transport, or store the unit.

Figure 18

To add fuel to fuel tank:

1. ALWAYS place unit in open or well-ventilated area.
2. Stop engine and allow to cool.
3. Clean Fuel Cap and surrounding area to prevent dirt from entering Fuel Tank.
4. Remove Cap.

IMPORTANT: DO NOT use gasohol or gasoline containing alcohol. See Engine Manual for correct type and grade of fuel.

5. Fill fuel tank to within 1/2 in. (1.2 cm) below bottom of filler neck with unleaded gasoline.

NOTE: Tank capacity is 1 gallon (3.8 liters).

6. Replace Fuel Cap and tighten.
7. ALWAYS clean up any spilled fuel.

PRE-START

1. Frozen Impeller

IMPORTANT: Before starting engine, check impeller to be sure it is not frozen.

To check impeller:

1. With ignition key switch in "Stop" position, squeeze Attachment Clutch Lever to Engaged position.
2. Pull Recoil Starter Handle.
3. If Impeller is frozen, (cannot pull Starter Handle) move unit to a heated area and thaw to prevent possible damage.

2. Check Function of Clutches

If clutches do not engage or disengage properly, adjust or repair before operation. See *Attachment Clutch/Brake Adjustment* on page 24 and *Traction Drive Clutch Adjustment* on page 27).

3. Check Dual Handle Interlock

Without the engine running, press down (engage) both clutch levers. Release attachment clutch lever. Attachment clutch should remain engaged until traction clutch lever is released, then both clutches *must* disengage.

If clutches do not engage or disengage properly, adjust or repair before operation (see *Attachment Clutch/Brake Adjustment* on page 24 and *Traction Drive Clutch Adjustment* on page 27).

4. Check Axle Lock (926021, 022, 023)

Use the axle lock knob to lock or unlock the right side differential. Lock the differential to engage both tracks and increase traction; unlock the right side to allow for easier turning of the unit (see *Differential Lock* (926021, 022, 023) on page 15).

5. Check Runners

Check and adjust Runners (*Runners* on page 22). Allow 1/8 in. (3 mm) between scraper blade and hard, smooth surface(s). Allow 1-1/4 in. (30 mm) between scraper blade and uneven or gravel surfaces.

6. Check Engine Fuel & Crankcase Oil



WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

Check and add fuel if required. Check that the engine crankcase oil is full using dipstick. Refer to Engine Manual for detailed instructions.

TO STOP IN AN EMERGENCY

Immediately release both control levers to stop unit in an emergency. Stop engine, remove key and wait for all rotating parts to stop before leaving operator's position.

STARTING AND SHUT OFF



WARNING: FAILURE TO FOLLOW INSTRUCTIONS could result in personal injury and/or damage to unit. DO NOT attempt to start your unit at this time. Read entire Owner/Operator Manual and the Engine Manual first.

IMPORTANT: Allow unit and engine to adjust to the outdoor temperature before clearing snow. Before shut-off, run the attachment a few minutes to prevent impeller freeze-up.

NOTE: Try out each control without the engine running to see how it works and what it does.

Manual Start

1. Turn discharge chute straight ahead.
2. Make sure that the traction clutch and attachment drive clutch levers are fully disengaged.
3. Push Primer Bulb 2 or 3 times for cold engine.

NOTE: When temperature is below -15° F (-26° C) additional priming may be needed.

4. If engine is cold, apply choke. See Engine Manual for detailed instructions.

NOTE: A warm engine requires less choking than a cold engine.

5. Set throttle to proper starting position.
6. Turn on engine shut-off switch ("ON").
7. Insert key into ignition switch.
12V - Turn key to RUN position.
120V - Push key into RUN position. DO NOT twist key after it is inserted.
8. Grasp starter handle and pull rope out slowly until it pulls harder. Let rope rewind slowly.
9. Pull rope with a rapid continuous full arm stroke. Let rope rewind slowly.

IMPORTANT: DO NOT let Starter Handle snap against Starter.

10. Repeat steps 7 and 8 until engine starts. (If engine does not start, refer to *TROUBLESHOOTING* on page 31.)
11. Adjust choke as needed.
12. Set throttle to Part Throttle or Slow position for adaptation to outside temperature or travel. Set throttle to Fast position for normal operation.

Electric Start (120V)

1. Connect extension cord to starter.

IMPORTANT: Prevent damage to unit. Know voltage of your starter and only use matching outlets.

2. Plug extension into 120V 3-wire, grounded outlet.
3. Turn discharge chute straight ahead.
4. Make sure that the traction clutch and attachment drive clutch levers are fully disengaged.
5. Push Primer Bulb 2 or 3 times for cold engine.

NOTE: When temperature is below -15° F (-26° C) additional priming may be needed.

6. Insert key into ignition switch on engine and push into "Run" position. DO NOT twist key after it is inserted.
7. If engine is cold, apply choke. A warm engine requires less choking than a cold engine. See Engine Manual for detailed instructions.
8. Set throttle to proper starting position.
9. Turn on engine shut-off switch ("ON").
10. Press starter button on engine until engine starts.

IMPORTANT: DO NOT operate starter more than 15 seconds per minute, as overheating and damage can occur. (If engine does not start, refer to *TROUBLESHOOTING* on page 31.)

11. Adjust choke as needed.
12. Disconnect power cord from outlet, then starter.
13. Set throttle to Part Throttle or Slow position for adaptation to outside temperature or travel. Set throttle to Fast position for normal operation.

Electric Start (12V)

1. Turn discharge chute straight ahead.
2. Make sure that the traction clutch and attachment drive clutch levers are fully disengaged.
3. Push Primer Bulb 2 or 3 times for cold engine.

NOTE: When temperature is below -15° F (-26° C) additional priming may be needed.

4. If engine is cold, apply choke. See Engine Manual for detailed instructions.

NOTE: A warm engine requires less choking than a cold engine.

5. Set throttle to proper starting position.
6. Turn ignition key to the START position until engine starts and release into the RUN position.

IMPORTANT: DO NOT operate starter more than 15 seconds per minute, as overheating and damage can occur. (If engine does not start, refer to *TROUBLESHOOTING* on page 31.)

7. Adjust choke as needed.
8. Set throttle to Part Throttle or Slow position for travel or adaptation to outside temperature. Once achieved, set throttle to Fast position for normal operation.

Shut Off

1. Release Traction Drive Clutch Lever and allow unit to come to a complete stop.
2. Run Impeller a few minutes after use to prevent freeze-up of Impeller.
3. Release Attachment Clutch Lever and wait for all moving parts to come to a complete stop.
4. Move Throttle to the "Stop" position.
5. Turn off engine shut-off switch ("OFF").
6. Remove key.

SNOW REMOVAL

IMPORTANT: Allow unit and engine to adjust to the outdoor temperature before clearing snow.

NOTE: Attachment clutch should be engaged before wheel drive clutch when throwing snow.

1. Select Speed Control position and direction.
2. Engage Attachment Clutch - Right Hand Lever.
3. Engage Traction Drive Clutch - Left Hand Lever.

IMPORTANT: DO NOT overload unit capacity by attempting to clear snow at too fast a rate. Use slow speed to clear deep or hard packed snow.

Tips for Operation

Snow is best removed as soon as possible after snow fall.

To clear an area, run unit in an overlapping series of paths. For large areas, start in the middle and throw snow to each side, so snow is not cleared more than once.

ALWAYS direct snow away from area to be cleared and with direction of the wind.

TRAVELING

To travel from one work area to another:

1. Set Throttle to Slow or Part-Throttle position.

2. 926016, 017, 500, 501: Press down on handlebars enough to raise front of unit slightly off surface.
926021, 022, 023: Place the unit in the transport position (see *Track Angle (926021, 022, 023)* on page 16).
3. Engage wheel or track drive clutch without engaging attachment drive clutch.

TRANSPORT

ALWAYS shut off engine, remove key, and close fuel shut-off valve when transporting unit on a truck or trailer.

Use extra care when loading or unloading unit onto trailer or truck.

Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged. DO NOT transport machine while engine is running.

MAINTENANCE

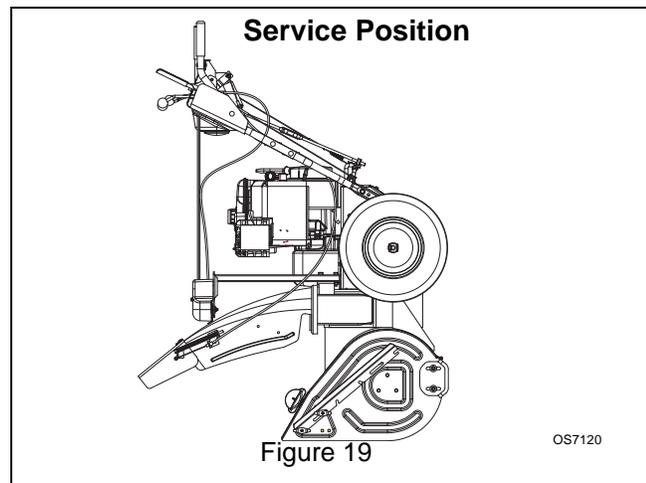
Ariens Dealers will provide any service or adjustments which may be required to keep your unit operating at peak efficiency. Should engine service be required, contact an Ariens dealer or an authorized engine manufacturer's service center.

 **WARNING: AVOID INJURY.** Read and understand the entire *Safety* section before proceeding.

SERVICE POSITION

 **WARNING:** Before tipping unit up onto housing, remove fuel so no spills will occur and remove battery (if equipped). Ensure unit is secure and will not tip over during maintenance.

Place unit on a flat level surface. Tip unit forward onto front of auger housing for service. Ensure unit is secure and will not tip over. Strap and clamp onto bench if needed.



MAINTENANCE SCHEDULE

The chart below shows the recommended maintenance schedule that should be performed on a regular basis. More frequent service may be required.

MAINTENANCE SCHEDULE				
Service Performed	Each Use	Every 5 hrs.	Every 25 hrs.	Yearly
Check Dual Handle Interlock	•			
Check Fasteners	•			
Check Clutch Operation	•			
Check Clutch Spring Adjustments		*	•	
Clean Engine	•			
Check Engine Oil	•	•		
Change Engine Oil		**	**	•
Check Tire Pressure			•	
Check Auger Gearcase			•	•
General Lubrication			•	•
Battery Maintenance			•	•

* After first five hours of operation.

** 926016, 017, 500, 501: After first two hours of operation, thereafter every 25 hours. 926021, 022, 023: After first five hours of operation, thereafter every 50 hours.

CHECK DUAL HANDLE INTERLOCK

Without the engine running, press down (engage) both clutch levers. Release attachment clutch lever. Attachment clutch should remain engaged until traction clutch lever is released, then both clutches *must* disengage.

CHECK FASTENERS

Make sure all hardware is tightened properly.

CHECK CLUTCH OPERATION

Auger / impeller must stop within 5 seconds when attachment clutch/impeller brake lever is released.

Wheels must stop quickly when traction drive clutch lever is released.

If clutches do not engage or disengage properly, adjust or repair before operation. See *Attachment Clutch/Brake Adjustment* on page 24 and *Traction Drive Clutch Adjustment* on page 27.

CHECK CLUTCH SPRING ADJUSTMENT

Make sure the attachment clutch and traction drive clutch are adjusted to the range specified in *Check Clutch Spring Adjustment* on page 20.

CLEAN ENGINE

Refer to Engine Manual for detailed instructions.

CHECK ENGINE OIL

The engine crankcase oil should be checked every 5 hours of operation. Oil level **MUST** be maintained in safe operating range on dipstick at all times or engine damage will result (See Engine Manual).

Park unit on a level surface. Refer to Engine Manual for detailed instructions.

CHANGE ENGINE OIL

Models 926016, 017, 500, 501: Change oil after first 2 hours of operation, thereafter change oil every 25 hours (more often if required). Models 926021, 022, 023: Change oil after first 5 hours of operation, thereafter change oil every 50 hours (more if required). Refer to Engine Manual for detailed instructions.

Run engine just prior to changing oil. Warm oil will flow more freely and carry away more contamination. Remove the oil drain plug from the rear of the unit and tip the unit back to help drain all the oil.

CHECK TIRE PRESSURE

Keep tires at pressure listed on the tire sidewall. See *Check Tire Pressure (926016, 017, 500, 501)* on page 9.

CHECK AUGER GEARCASE

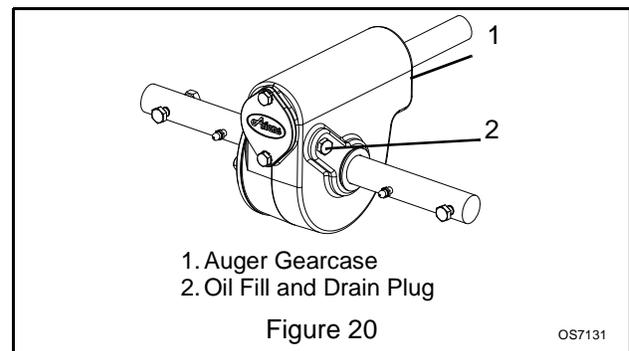
IMPORTANT: Proper oil level must be maintained.

Gear cases are filled to the correct level at the factory. Unless there is evidence of leakage, no additional lubricant should be required. Check oil level each season or every 25 hours of operation.

To ensure adequate lubricant level:

1. Remove filler plug (Figure 20). Lubricant must be at least up to bottom of lubricant filler hole with unit resting on a level-surface.
2. Add lubricant if required. Allow oil to drain to level of plug and replace plug.

IMPORTANT: Use only Ariens special gear lubricant L-2 (Part Number 00008000). Gearcase filler plug may require an application of Loc-Tite® 565 thread sealant with repeated servicing.



GENERAL LUBRICATION

IMPORTANT: Wipe each fitting clean before and after lubrication. Do not wipe gearcase filler plug; wiping the gearcase filler plug may remove thread sealant and cause leaks.

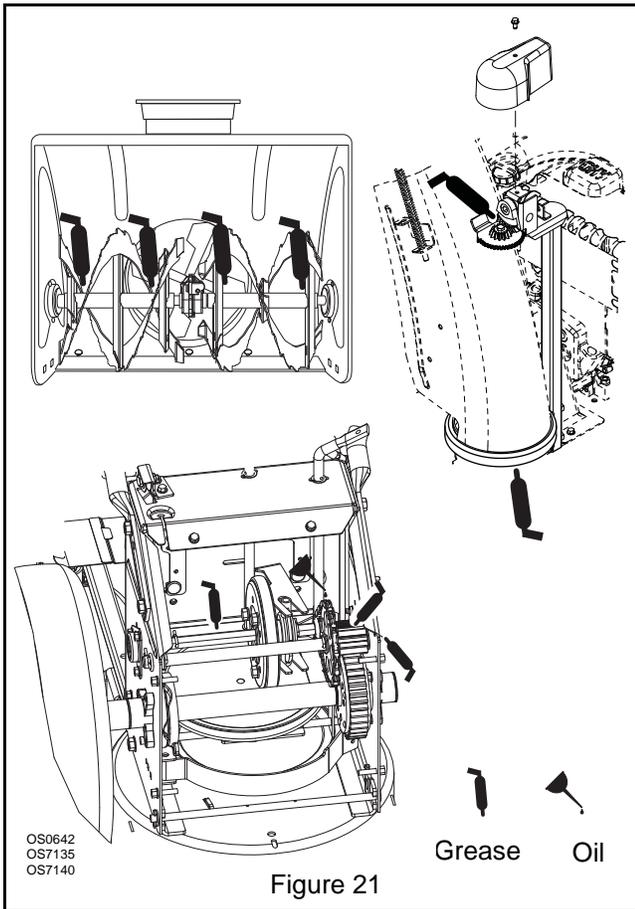
IMPORTANT: DO NOT allow grease or oil to get on friction disc, friction plate or belts.

NOTE: Apply Ariens Hi-Temp Grease or equivalent to the lubrication fittings. See *SERVICE PARTS* on page 30.

Sno-Thro should be lubricated (Figure 21) at beginning of season or every 25 operating hours.

Auger Shaft

NOTE: To grease auger shaft, remove shear bolt nuts, and shear bolts. Apply grease at the grease zerks and then turn the auger shaft. Replace shear bolts per instructions in *Shear Bolts* on page 22.



CLEAN BATTERY 926023, 500, 501



WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

IMPORTANT: Battery is maintenance-free. Do not tamper with or attempt to open battery. See *SERVICE AND ADJUSTMENTS* on page 22 for charging procedures.

Terminals

Keep battery and its terminals clean.

IMPORTANT: Remove battery from unit before cleaning.

Remove corrosion from battery terminals and cable connections with a wire brush, then wash with a weak baking soda solution.

After cleaning, apply a thin coat of grease or petroleum jelly to terminals and cable ends to retard corrosion.

SERVICE AND ADJUSTMENTS



WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

SCRAPER BLADE

IMPORTANT: Damage to auger/impeller housing will result if blade wears down too far.

Scraper blade is adjustable to compensate for wear.

To adjust scraper blade:

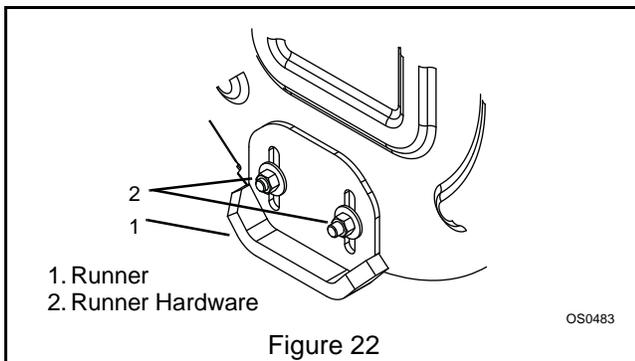
1. Tip unit back onto handlebar, support housing and loosen nuts retaining blade
2. Adjust runners to fully raised position (housing closest to ground).
3. Reposition scraper blade flush with runners and tighten lock nuts.

RUNNERS

Runners should be adjusted as conditions require (Figure 22).

1. Position unit on a hard, flat, smooth level surface.
2. Adjust runners by inserting a spacer of desired thickness under center of scraper blade, loosen runner hardware, slide runners to flat surface. Allow 1/8 in. (3 mm) between scraper blade and hard smooth surfaces. Allow 1-1/4 in. (30 mm) between scraper blade and uneven or gravel surfaces. Retighten hardware.

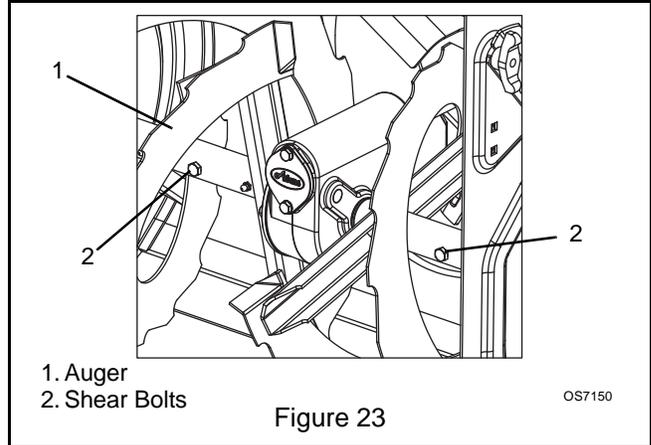
NOTE: Keep housing level by adjusting runners equally.



SHEAR BOLTS

IMPORTANT: Use only Ariens shear bolts for replacement. Use of any other type of shear bolt may result in severe damage to unit. See *SERVICE PARTS* on page 30.

Occasionally a foreign object may enter the auger/impeller housing and jam the auger, breaking shear bolts (Figure 23) which secure the auger to the shaft. This allows auger to turn freely on the shaft preventing damage to gear drive.



For Replacement:

1. Align shear bolt holes in auger with shear bolt holes in the shaft.
2. Drive shear bolt through hole (if shear bolt was broken this will drive remaining part from shaft).
3. Secure shear bolt with nut.

HANDLEBAR HEIGHT



CAUTION: AVOID INJURY. Adjust the attachment clutch, speed selector and traction clutch after changing the handlebar height. See *Attachment Clutch/Brake Adjustment* on page 24, *Speed Selector Adjustment* on page 24 and *Traction Drive Clutch Adjustment* on page 27.

To raise or lower the handlebar:

1. Remove hair pin holding chute rod to control assembly.
2. Place unit in service position (see *Service Position* on page 19).
3. Remove bottom cover.
4. Remove top mounting bolts from the handlebars and adjust the handlebar up or down as needed until the handlebar mounting holes align with holes in unit frame.
5. Secure handlebar to frame with hardware removed in step 4 using the different hardware locations shown in Figure 24.

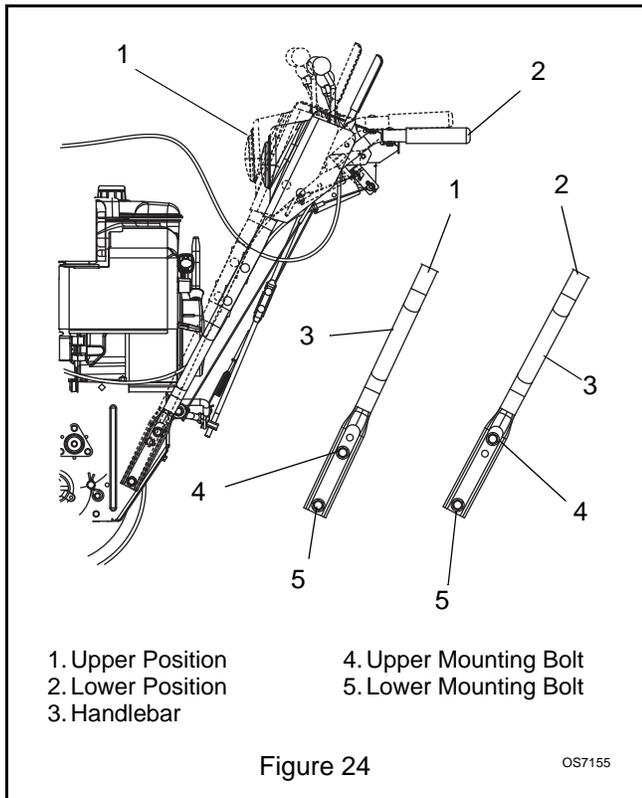


Figure 24

OS7155

NOTE: Insert the hair pin with the loop end on the left side of the chute rod so the control lever will cover its full range of travel.

- Align correct chute rod holes in chute control assembly as shown in Figure 25, and then secure chute rod in position with hair pin remove in step 1.

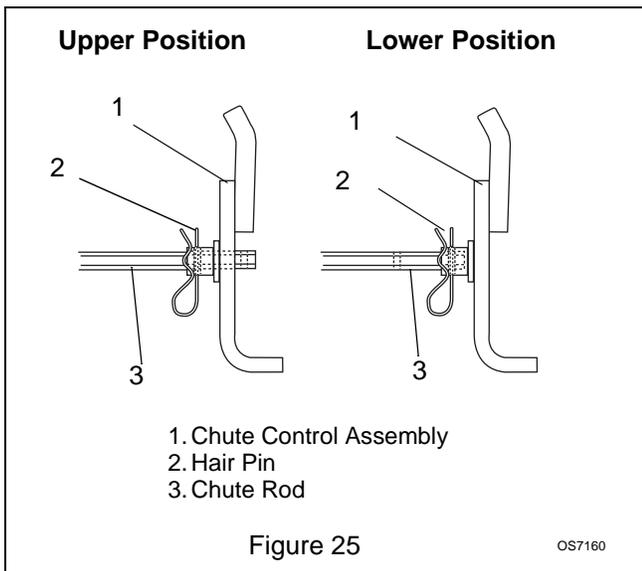


Figure 25

OS7160

- Check and adjust attachment clutch, speed selector and traction clutch. See *Speed Selector Adjustment* on page 24 and *Traction Drive Clutch Adjustment* on page 27.
- Re-install bottom cover.

DEFLECTOR REMOTE

Deflector must stay in selected position while throwing snow.

If deflector does not stay in set position:

- Tighten nut beneath control panel to increase pressure on deflector control (Figure 26).

If deflector does not follow full range of travel:

- Push deflector remote all the way forward.
- Loosen adjusting nuts on cable support bracket underneath the dash panel (Figure 26).
- To adjust the deflector lower:
Slide cable down. Tighten bottom nut.
- To adjust deflector higher:
Slide cable up. Tighten top nut.
- Check travel and repeat adjustment as necessary.

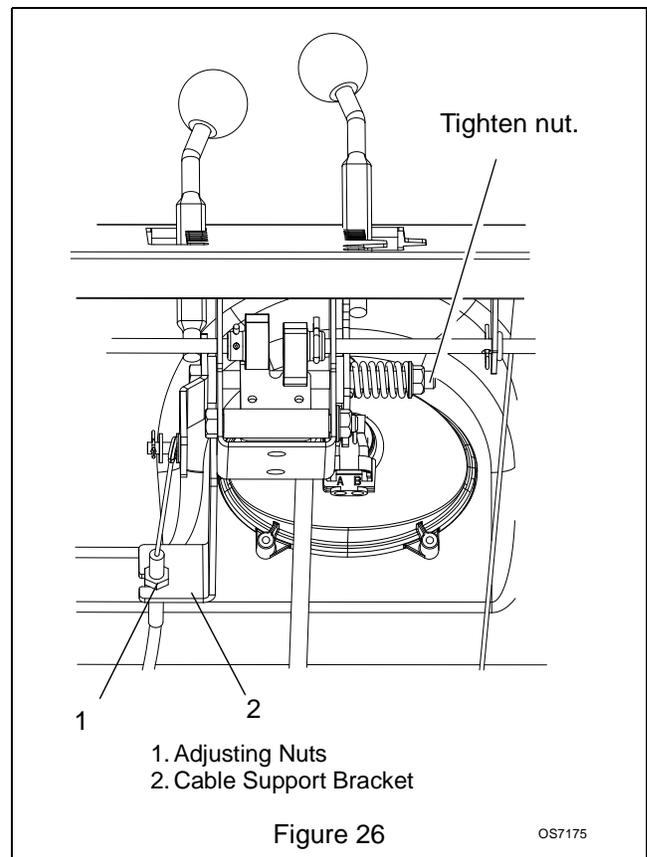


Figure 26

OS7175

DISCHARGE CHUTE

If chute does not stay in position while throwing snow or if chute does not rotate freely, adjust the cable under the control panel so the chute lock fingers engage or disengage the locking gear.

If chute does not stay in position:

Loosen the cable by loosening the lower adjustment nut, and then tightening the upper adjustment nut against the bracket (Figure 27).

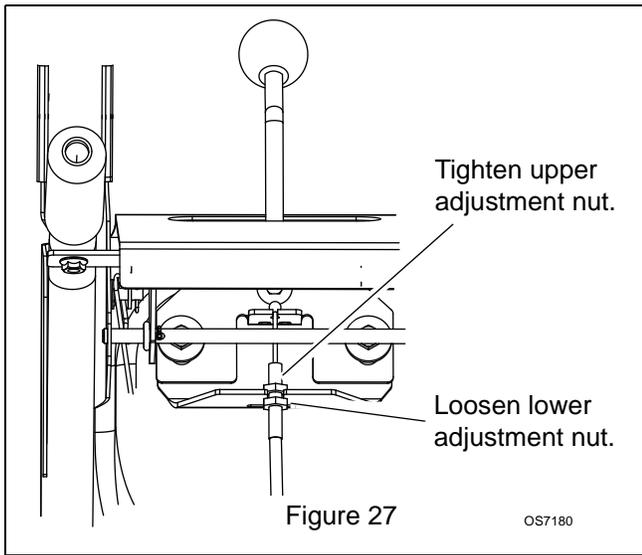


Figure 27

OS7180

If chute does not rotate freely:

Tighten the cable by loosening the upper adjustment nut, and then tightening the lower adjustment nut against the bracket (Figure 28).

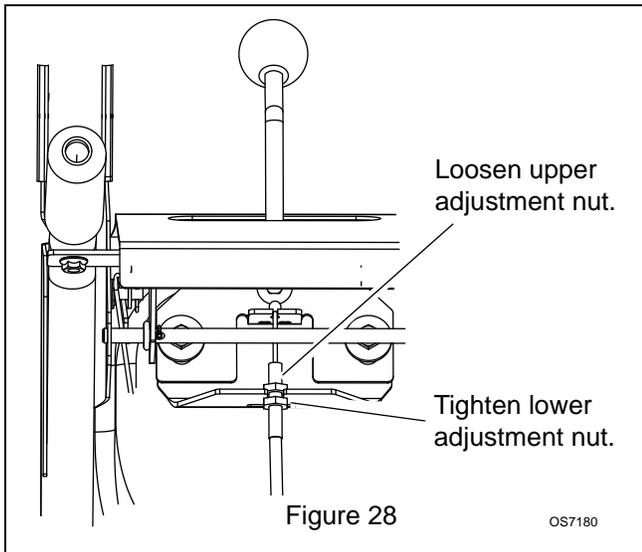


Figure 28

OS7180

SPEED SELECTOR ADJUSTMENT

To adjust (Figure 29):

1. Place unit into service position.
2. Disconnect adjustment pivot pin from speed selector lever by removing hair pin.
3. Place the speed selector in the fastest forward speed position.
4. Turn the speed selector lever straight down towards the ground as far as it will go.
5. Thread the adjustment pivot pin along the shift rod until it aligns with the mating hole on the speed selector lever. Insert the pivot pin into hole.
6. Secure adjustment pivot pin with hairpin.
7. Make sure the speed selector shifts into each speed position.

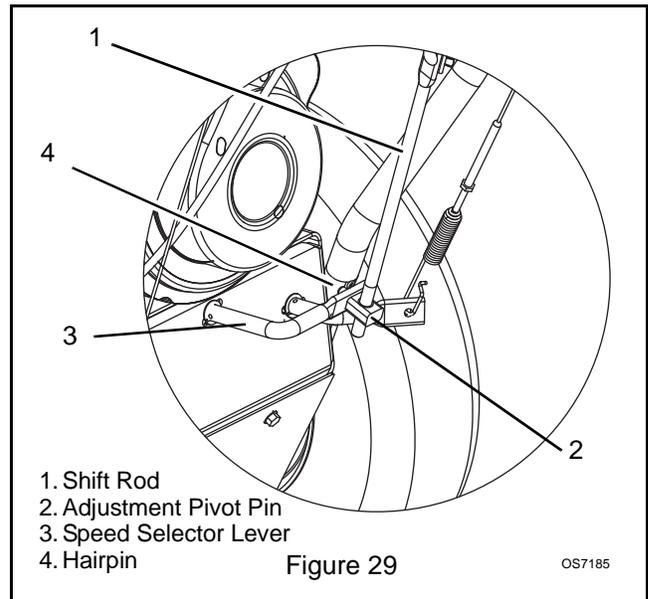


Figure 29

OS7185

ATTACHMENT CLUTCH/BRAKE ADJUSTMENT

(Figures 30, 31 and 32)

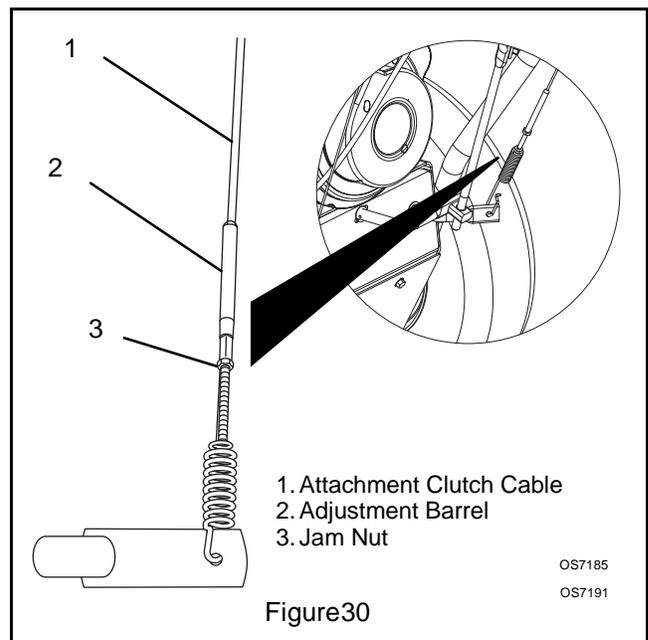


IMPORTANT: IMPROPER ADJUSTMENT

could result in unexpected movement of auger and impeller causing death or serious injury. Auger / impeller must stop within 5 seconds when Attachment Clutch/Impeller Brake lever is released.

Remove Attachment Cable Slack

1. Remove the belt cover.
2. Loosen jam nut on cable adjustment barrel, and then turn the adjustment barrel up or down to lengthen or shorten cable and remove all cable slack. See Figure 30.



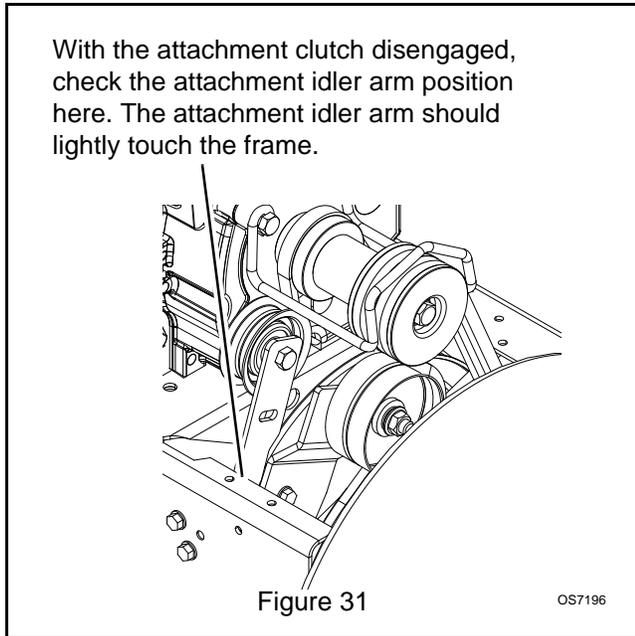
1. Attachment Clutch Cable
2. Adjustment Barrel
3. Jam Nut

Figure30

OS7185

OS7191

3. With the attachment clutch disengaged, check that the attachment idler arm lightly touches the frame. See Figure 31.

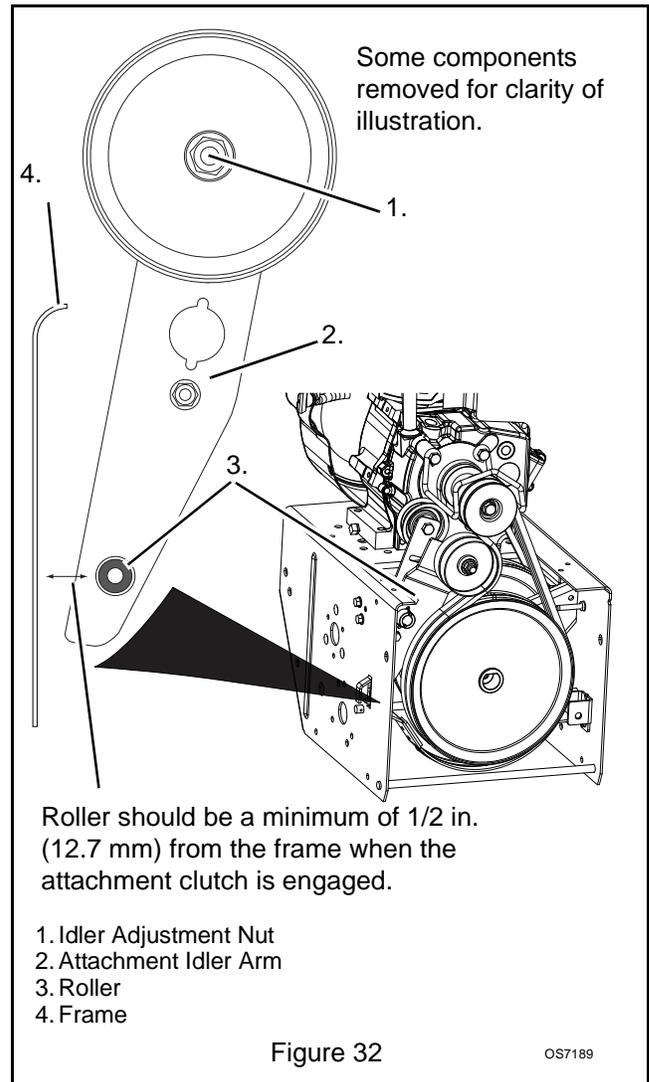


4. Tighten jam nut on the adjustment barrel.

Check Attachment Idler Arm Roller Clearance

NOTE: It will be difficult to check the measurement inside the frame. Use a 1/2 in. (12.7 mm) minimum spacer as a gauge to check the clearance between the roller and the frame.

1. With the clutch lever engaged, check the clearance between the frame and plastic roller on the lower end of the attachment idler arm. See Figure 32.
- If roller is 1/2 in. (12.7 mm) or more from frame, go to *Adjust the Attachment Clutch Cable Spring Extension* on page 25.
 - If roller is less than 1/2 in. (12.7 mm) from frame, loosen idler adjustment nut and move idler closer to the belt. Tighten adjustment nut and recheck the roller clearance.



Adjust the Attachment Clutch Cable Spring Extension

1. Check the attachment clutch cable spring extension.

Measure the length of the attachment clutch cable spring with the clutch lever disengaged. Then measure the attachment clutch spring with the clutch lever engaged. See Figure 33.

 - If spring extension is within the specified range, go to *Check Attachment Brake* on page 26.
 - If spring extension is outside of specified range, go to step 2.

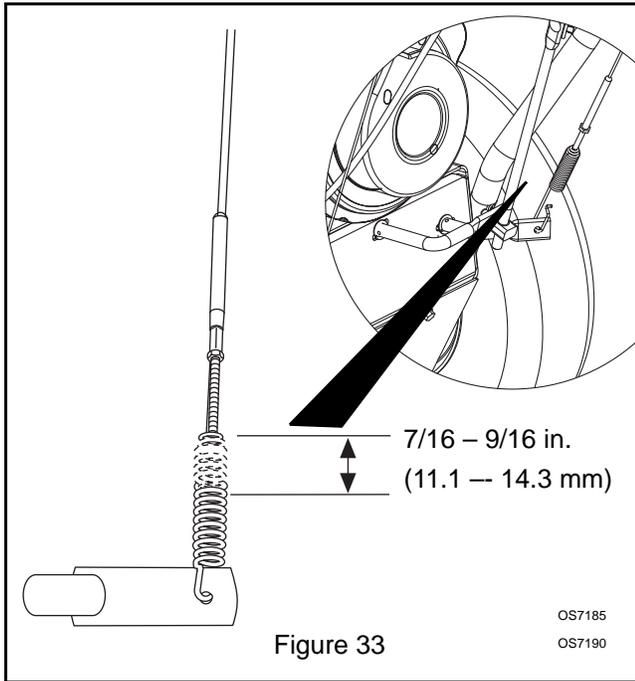


Figure 33

2. Adjust attachment idler position. See Figure 34.

- a. Loosen idler adjustment nut.
- b. To increase spring extension, move idler closer to belts and tighten adjustment nut. Return to Step 1.
- c. To decrease spring extension, move idler away from belts and tighten adjustment nut. Return to Step 1.

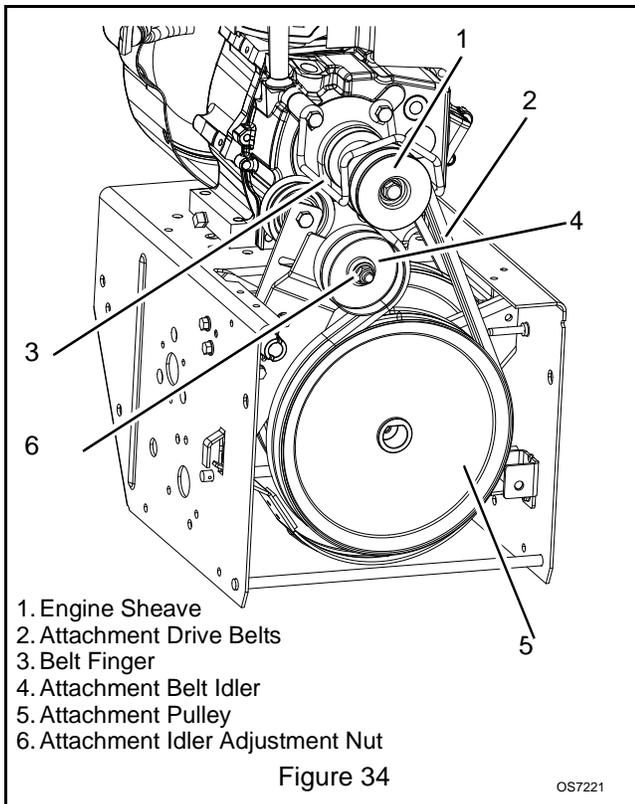


Figure 34

Check Attachment Brake

See Figure 35.

1. With the clutch lever disengaged, brake pad must contact attachment belts. With clutch lever engaged, brake pad must be more than 1/16 in. (1.6 mm) from belts. If there is more than 1/16 in. (1.6 mm) gap, go to *Check Belt Finger Clearance* on page 26. If there is less than 1/16 in. (1.6 mm) gap, go to Step 2.

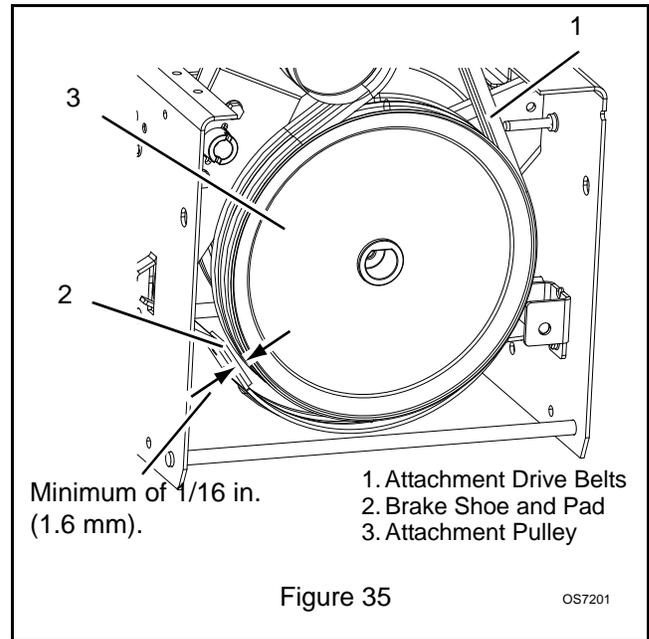


Figure 35

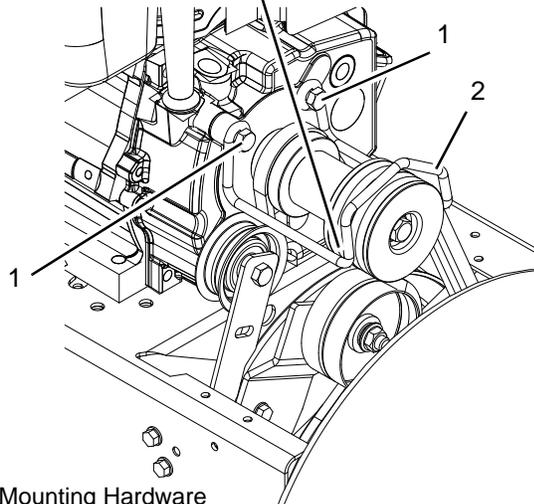
2. If there is less than 1/16 in. (1.6 mm) gap between brake pad and belts, follow these steps:
 - a. To increase brake pad gap, loosen idler adjustment nut, and move idler away from belt. Position idler to achieve a 1/16 in. (1.6 mm) minimum brake pad gap and a 1/2 in. (12.7 mm) minimum gap between the plastic roller and the frame.
 - b. Check the clutch cable spring extension and adjust as necessary to achieve a 7/16 - 9/16 in. (11.1 - 14.3 mm) spring extension.
 - c. If the cable needed adjustment, recheck gaps described in step 2a. Repeat steps as necessary until brake clearance, roller gap and spring extension are within specified ranges.

IMPORTANT: If adjustments cannot be brought into specified ranges see your Dealer for repairs.

Check Belt Finger Clearance

1. With clutch lever engaged, the belt finger located opposite the belt idler must be less than 1/8 in. (3 mm) from belts, but not touching the belts.
To adjust belt finger, loosen the bolts and move the finger to the proper position. Tighten the bolts and recheck the belt finger clearance.

Check belt finger clearance here. With the attachment clutch engaged, there should be less than 1/8 in. (3 mm) clearance between the belts and the belt finger. The belt finger should not touch the belts.



- 1. Mounting Hardware
- 2. Belt Finger

Figure 36

OS7196

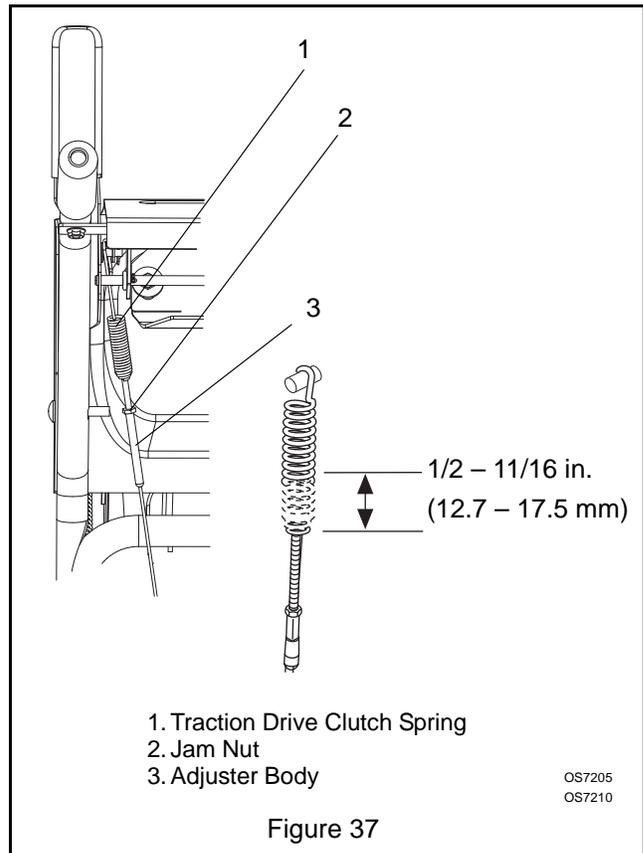
- 2. Replace the belt cover.

TRACTION DRIVE CLUTCH ADJUSTMENT

If drive slips, adjust traction clutch to compensate for friction disc wear.

To adjust traction clutch:

1. Place speed selector in fastest forward speed.
2. Place unit in service position.
3. Measure the length of the traction drive clutch spring at the top of the traction cable. See Figure 37.
4. Engage and hold the traction drive clutch lever and measure the spring again. The spring should be 1/2 – 11/16 in. (12.7 – 17.5 mm) longer when the lever is engaged.



- 1. Traction Drive Clutch Spring
- 2. Jam Nut
- 3. Adjuster Body

Figure 37

OS7205
OS7210

5. Adjust spring extension.
 - a. With the traction drive clutch lever disengaged, loosen the jam nut on the cable adjuster.
 - b. Turn the adjuster body up the cable for more spring extension.
 - c. Turn the adjuster body down the cable for less spring extension.
 - d. Finger tighten the jam nut, and then hold the adjuster body with pliers and tighten the jam nut with wrench.
6. Measure the extension of the traction drive clutch spring.
7. Repeat step 5 until traction drive clutch spring lengthens 1/2 – 11/16 in. (12.7 – 17.5 mm) when the traction drive clutch lever is engaged.
8. With the clutch disengaged, check that there is more than 1/32 in. (0.8 mm) clearance between friction disc and drive plate assembly.

IMPORTANT: If spring length cannot be adjusted within specified range, see your Dealer for repairs.

ATTACHMENT DRIVE BELTS REPLACEMENT

Remove old attachment drive belts:

1. Shut off engine, remove key, disconnect spark plug wire and allow unit to cool completely.
2. Remove belt cover (Figure 38).

- Remove hair pin under the control panel connecting the discharge chute rod from the chute rotation lever and slide the discharge chute rod forward.

IMPORTANT: Disconnect chute lock cable and deflector cable, if equipped.

- Remove belt finger (Figure 39).

IMPORTANT: Use care when rotating the belt fingers. DO NOT bend belt fingers out of shape.

- Remove attachment drive belts from engine sheave (it may be necessary to turn engine sheave using recoil starter handle).

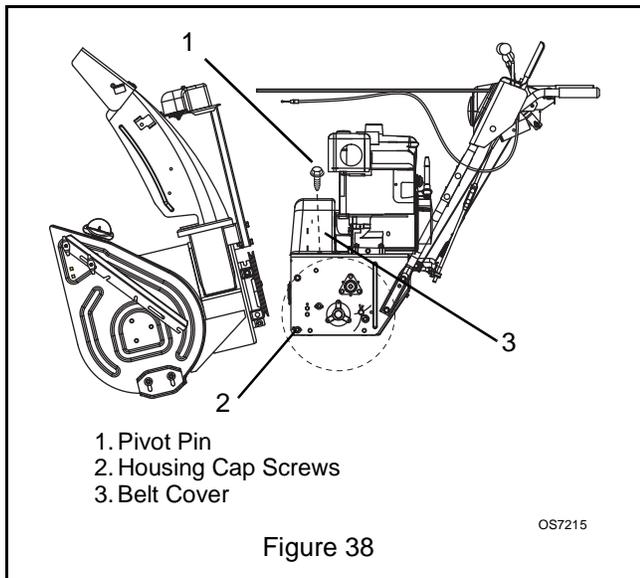
IMPORTANT: To avoid bending bottom cover when tipping unit apart, support handlebars firmly or tip unit up on housing and remove bottom cover by removing six cap screws before separating unit.

- Support Sno-Thro frame and housing.



CAUTION: Always support Sno-Thro frame and blower housing when loosening the cap screws holding them together. Never loosen cap screws while unit is in service position.

- Remove hex bolts securing housing to frame. Tip housing and frame apart on pivot pins (Figure 38).
- Remove attachment drive belts from attachment pulley (hold brake away from belts).

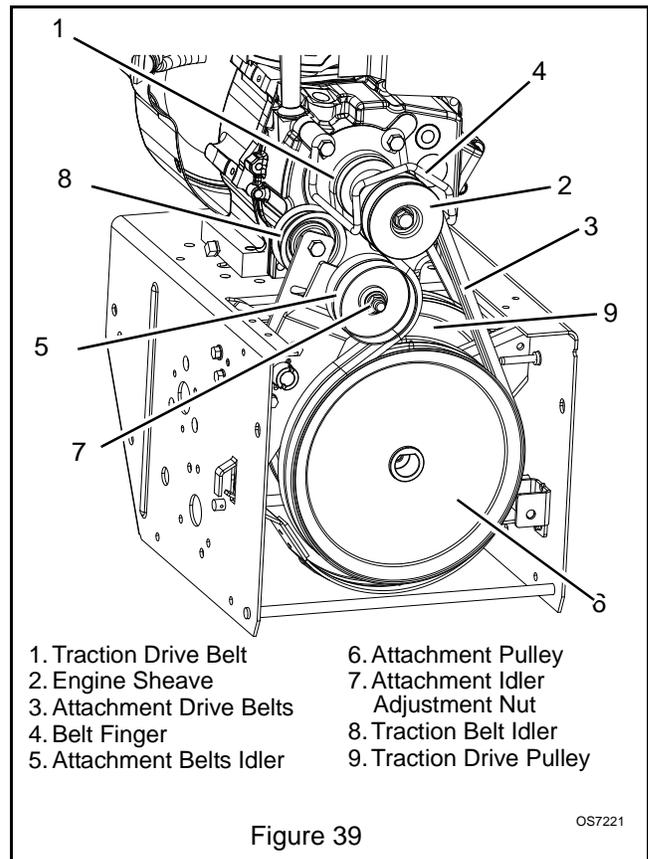


Install new attachment drive belts:

- Place new attachment belts onto attachment pulley.

NOTE: Holding down the attachment clutch lever will make it easier to reconnect the housing and frame.

- Tip housing and frame back together and secure with hex bolts.
- Place belts onto engine sheave.
- Reposition and secure belt fingers.



IMPORTANT: With clutch lever engaged, belt finger on the side opposite the belt idler should be less than 1/8 in. (3 mm) from belts, but not touching the belts. Adjust belt finger as necessary.

- Check adjustment. See *Check Belt Finger Clearance* on page 26



WARNING: AUGER / IMPELLER MUST STOP within 5 seconds when attachment clutch lever is released or unit damage or serious injury may result.

- Reconnect chute crank and secure with spring clip. Reconnect chute lock cable and deflector cable.
- Replace belt cover.

TRACTION DRIVE BELT REPLACEMENT

NOTE: Replacement will be easier with housing and frame tipped apart and bottom cover off.

- Remove attachment drive belts (see *Attachment Drive Belts Replacement* on page 27).
- To gain belt clearance, back out the stop bolt from the frame until the drive plate assembly can swing past it (Figure 40).
- Pull idler away from traction drive belt and remove belt from idler pulley, engine sheave and driven pulley (it may be necessary to turn engine pulley using recoil handle).

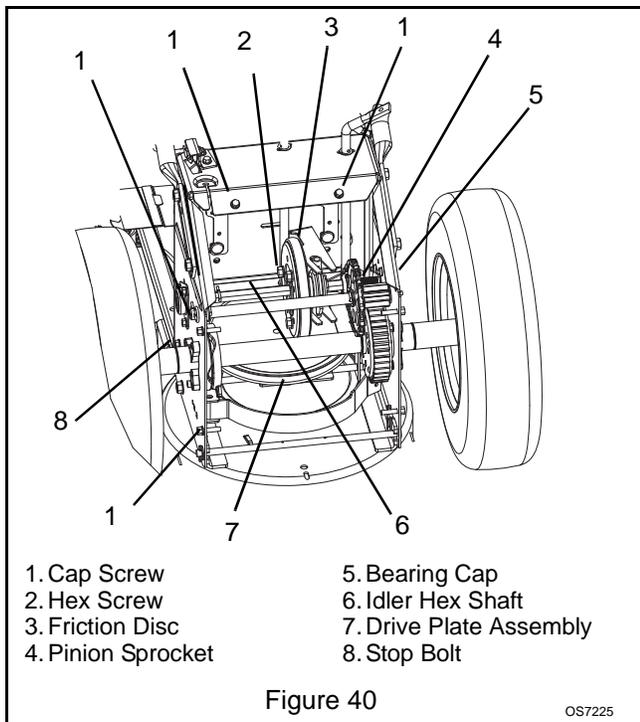
4. Install new traction drive belt onto attachment pulley and engine sheaves.
5. Pull the drive plate assembly toward the friction disc and tighten the stop bolt.

NOTE: Make sure the drive plate assembly return spring remains connected to the frame.

6. Replace attachment drive belts (*Attachment Drive Belts Replacement* on page 27).

FRICTION DISC REPLACEMENT

1. Place unit into service position.
2. Remove bottom cover by removing six hex bolts.
3. With axle locked, hold one wheel so friction disc will not rotate and remove three cap screws holding friction disc to carrier.
4. Remove both wheels.
5. Remove right and left bearing flanges from frame.
6. Slide hex shaft to the left enough to remove pinion sprocket from hex shaft.
7. Slide hex shaft to the right enough to remove friction disc.
8. Slide new friction disc onto hex shaft.
9. Install pinion sprocket and chain on hex shaft, then replace bearing flanges.
10. Hold wheel so friction disc will not rotate and secure new friction disc to carrier with three hex screws removed in step 2.
11. Replace wheels.
12. Replace bottom cover.
13. Adjust traction drive clutch (see *Traction Drive Clutch Adjustment* on page 27).



BATTERY (926023, 500, 501)

Charging

1. Place unit on a level surface and shut off engine.
2. Disconnect negative (-) cable first, then positive (+) cable.
3. Loosen wing nut and remove battery. Place battery on bench or other well-ventilated place.
4. Connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead to negative (-) terminal.
5. Charge the battery at two and a half amps for ten hours.
6. Reinstall battery into unit and connect positive (+) cable first, then negative (-) cable.

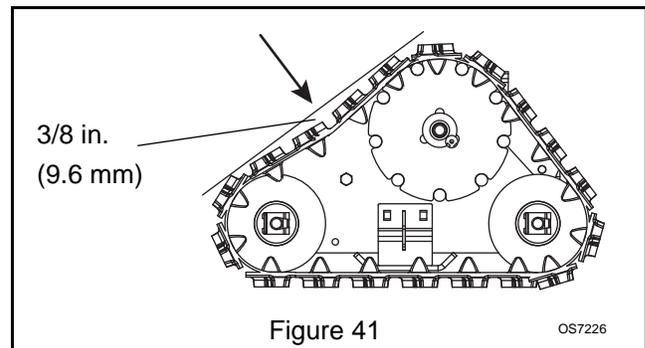
Replacing

Use U1R or U1L; 240 CCA minimum @ 0°F type batteries.

TRACK TENSION ADJUSTMENT (926021, 022, 023)

Check the track tension by applying pressure on the track midway between the upper and rear track rollers. Deflection should be approximately 3/8 in. (9.6 mm). See Figure 41.

If deflection is excessive, tighten the track tension.



If unit pulls to the left or right when a straight path is desired adjust the track tension. If the unit is pulling to the left, tighten the left track adjuster. If the unit is pulling to the right, tighten the right track adjuster.

To adjust (Figure 42):

1. Loosen the outer jam nut.
2. Tighten the adjuster nut to tighten the track tension.
Loosen the adjuster nut to reduce track tension.
3. Tighten the jam nut.
4. Check that unit tracks straight with no pulling to either side.

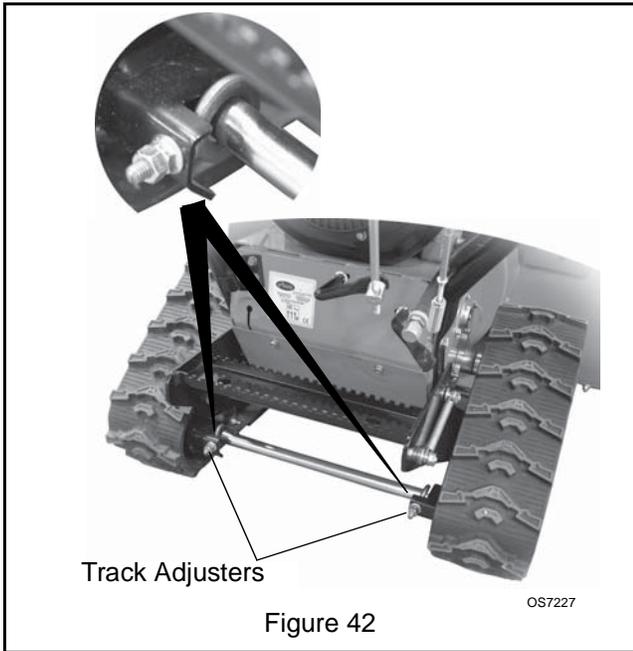


Figure 42

STORAGE

WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

SHORT TERM

IMPORTANT: NEVER spray unit with high pressure water or store unit outdoors.

Run with attachment clutch engaged a few minutes after each use to free unit of any loose or melting snow.

Close fuel shut-off valve.

Inspect unit for visible signs of wear, breakage or damage.

Keep all nuts, bolts and screws properly tightened and know unit is in safe working condition.

Store unit in a cool, dry protected area.

LONG TERM

Clean unit thoroughly with mild soap and low pressure water and lubricate (see Maintenance). Touch up all scratched painted surfaces.

Remove weight from wheels by putting blocks under frame or axle.

Fuel System

Gasoline left in the fuel system for extended periods without a stabilizer will deteriorate, resulting in gum deposits in the system. These deposits can damage the carburetor and the fuel hoses, filter and tank. Prevent deposits from forming in the fuel system during storage by adding a quality fuel stabilizer to the fuel. Follow the recommended mix ratio found on the fuel stabilizer container.

To treat the fuel system for storage:

1. Add fuel stabilizer according to manufacturers's instructions.
2. Run engine for at least 10 minutes after adding stabilizer to allow it to reach the carburetor.

NEVER store the engine with fuel in the fuel tank inside of a building with potential sources of ignition.

SERVICE PARTS

Order the following parts through your Dealer:

Part No.	Description
00036800	Ariens Hi-Temp Grease (3, 3 oz. cartridges)
21533500	Spark Plug (926016, 017, 500, 501)
21534100	Spark Plug (926021, 022, 023)
07200429	Impeller Belt (926500, 501)
07200430	Impeller Belt (926016, 017, 021, 022, 023)
07200110	Traction Belt (926016, 017, 021, 022, 023)
07200111	Traction Belt (926500, 501)
00170800	Friction Disc
51001500	Shear Bolt Kit

ACCESSORIES

See your authorized Ariens dealer to add the additional accessories available to your Sno-Thro.

Part No.	Description
72406500	Front Weight Kit

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	CORRECTION
Engine will not crank/start.	<ol style="list-style-type: none"> 1. Fuel tank is empty. 2. Fuel shut-off valve closed. 3. Build up of dirt and residue around governor/carburetor. 4. Key Switch not in run position. 5. Ignition switch starter circuit not functioning. 6. Battery discharged, wires loose. 7. Fuse on wiring harness blown. 8. Electric starter not functioning. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. Open fuel shut-off valve. 3. Clean area around governor/carburetor. 4. Put Key Switch into run position. 5. Check for a bad starter or connections. 6. Check battery and connections. 7. Replace fuse. 8. Check for a bad starter or connections.
Engine stops.	<ol style="list-style-type: none"> 1. Out of fuel. 2. Fuel shut-off valve closed. 3. Mechanical jam in blower rake or impeller. 4. Polluted fuel supply. 5. Faulty spark plug. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. Open fuel shut-off valve. 3. Turn off engine, remove key, and wait for all moving parts to stop. Check for and remove obstruction and repair before restart. 4. Replace with clean fuel. 5. Replace or clean spark plug.
Engine problems.	<ol style="list-style-type: none"> 1. See Engine Manual. 	
Does not operate in Forward / Reverse.	<ol style="list-style-type: none"> 1. Friction disc not adjusted properly. 2. Traction belt not functioning. 3. Speed selector not adjusted properly. 	<ol style="list-style-type: none"> 1. Repair or replace friction disc. See <i>Friction Disc Replacement</i> on page 29 2. Repair or replace traction drive belt. See <i>Traction Drive Belt Replacement</i> on page 28 3. Adjust speed selector. See <i>Speed Selector Adjustment</i> on page 24
Small rubber beads collect in frame	<ol style="list-style-type: none"> 1. Friction disc wear. 	<ol style="list-style-type: none"> 1. Normal friction disc wear. Chunks or large pieces of rubber mean friction disc should be checked and replaced as necessary.
Unit throws snow poorly or does not throw snow.	<ol style="list-style-type: none"> 1. Shear bolts broken. 2. Attachment clutch/brake not adjusted properly. 3. Auger is frozen in place. 4. Ice or debris is obstructing auger. 5. Attachment drive belts slipping, worn or damaged. 	<ol style="list-style-type: none"> 1. Replace shear bolts (see <i>Shear Bolts</i> on page 22). 2. Adjust attachment clutch/brake (see on page 24). 3. Move unit to a warm place to thaw. 4. With the engine off and auger disengaged, check for obstructions and remove. 5. Adjust or replace attachment drive belts (see <i>Attachment Drive Belts Replacement</i> on page 27).

SPECIFICATIONS

Model Number	926016	926017	926021	926022
Description	ST11528DLE	ST9526DLE	ST9526DLET	ST11528DLET
Engine -	Tecumseh OH318SA	Tecumseh OH318SA	Tecumseh OH318SA	Tecumseh OH318SA
Power Max - HP (kW)	11.5 (8.6)	9.5 (7.0)	9.5 (7.0)	11.5 (8.6)
Maximum RPM	3600 ± 150			
Displacement - in. (cc)	19.4 (318)	19.4 (318)	19.4 (318)	19.4 (318)
Electric Start	120V			
Fuel	See Engine Manual			
Tank Capacity - qt (Liters)	4 (3.8)			
Snow Clearing Width - in. (cm)	28 (71.2)	26 (66.0)	26 (66.0)	28 (71.2)
Chute				
Rotation Angle	200°			
Rotation Control at Handlebar	Yes			
Remote Deflector Control	Yes			
Impeller				
Diameter - in. (cm)	14 (35.6)			
Speed - RPM-Max (min ⁻¹)	1209			
Auger				
Diameter - in. (cm)	16 (40.6)			
Speed - RPM- Max (min ⁻¹)	121			
Auger Brake	Yes			
Attachment Clutch	Yes			
Drive	Disc-O-Matic			
Speeds	6 Forward and 2 Reverse			
Lock Out Differential	Auto Differential	Auto Differential	Manual, Axle	Manual, Axle
Pneumatic Tires - in. (cm)	16/4.8 x 8 (40.6/12.2 x 20.3)	16/4.8 x 8 (40.6/12.2 x 20.3)	Track	Track
Size and Weight				
Length - in. (cm)	61.5 (156)	61.5 (156)	61.5 (156)	61.5 (156)
Height - in. (cm)	45 (114.3)	45 (114.3)	45 (114.3)	45 (114.3)
Width - in. (cm)	30.5 (77.5)	28.5 (72.4)	28.5 (72.4)	30.5 (77.5)
Weight - lbs (Kg)	293 (132.9)	282 (127.9)	331 (150.1)	341 (154.7)

SPECIFICATIONS

Model Number	926023	926500	926501
Description	ST1332DLET	ST1332DLE	ST1336DLE
Engine -	Tecumseh OH358SA	Tecumseh OH358SA	Tecumseh OH358SA
Power Max - HP (kW)	13.0 (9.7)	13.0 (9.7)	13.0 (9.7)
Maximum RPM	3600 ± 150		
Displacement - in. (cc)	21.8 (358)	21.8 (358)	21.8 (358)
Electric Start	12V	12V	12V
Fuel	See Engine Manual		
Tank Capacity - qt (Liters)	4 (3.8)	4 (3.8)	4 (3.8)
Snow Clearing Width - in. (cm)	32 (81.3)	32 (81.3)	36 (91.4)
Chute			
Rotation Angle	200°		
Rotation Control at Handlebar	Yes		
Remote Deflector Control	Yes		
Impeller			
Diameter - in. (cm)	14 (35.6)		
Speed - RPM-Max (min ⁻¹)	1209		
Auger			
Diameter - in. (cm)	16 (40.6)		
Speed - RPM- Max (min ⁻¹)	121		
Auger Brake	Yes		
Attachment Clutch	Yes		
Drive	Disc-O-Matic		
Speeds	6 Forward and 2 Reverse		
Lock Out Differential	Manual, Axle	Auto Differential	Auto Differential
Pneumatic Tires - in. (cm)	Track	16/6.5 x 8 (40.6/16.5 x 20.3)	16/6.5 x 8 (40.6/16.5 x 20.3)
Size and Weight			
Length - in. (cm)	61.5 (156)	61.5 (156)	61.5 (156)
Height - in. (cm)	45 (114.3)	45 (114.3)	45 (114.3)
Width - in. (cm)	34.5 (87.6)	34.5 (87.6)	38.5 (97.8)
Weight - lbs (Kg)	376 (170.6)	335 (151.9)	356 (161.5)



Ariens Limited



Warranties

2-Year Limited Lawn and Garden Consumer Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that Ariens and Gravely brand consumer products manufactured by Ariens Company will be free from defects in material and workmanship for a period of two (2) years after the date of purchase, and that Ariens will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge to the **original purchaser** (labor and parts), except as noted below.

The two-year duration of this warranty applies only if the product is put to ordinary, reasonable, and usual personal, family, or household uses. If the product is put to any business, commercial, or industrial use such as, but not limited to, commercial landscaping, mowing or snow removal services, or golf course or park maintenance, or agricultural or farmstead use, then the duration of this warranty is ninety (90) days after the date of purchase, or one (1) year after the date of purchase if the product is labeled as a Professional/Commercial Product. The duration of this warranty shall be ninety (90) days after the date of purchase if any product is rented or leased.

2-Year Limited Lawn and Garden Commercial Warranty

The Ariens Company (Ariens) warrants to the **original purchaser** that all Gravely Pro and ProMaster products manufactured by Ariens will be free from defects in material and workmanship for a period of two (2) years after the date of purchase or 1000 hours of use, whichever comes first. An authorized Gravely dealer will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge to the **original purchaser** (labor and parts), except as noted below.

The duration of this warranty shall be ninety (90) days after the date of purchase or 1000 hours of use, whichever comes first, if any product is rented or leased.

3-Year Limited Sno-Thro Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that Sno-Thro products manufactured by Ariens Company will be free from defects in material and workmanship for a period of three (3) years after the date of purchase, and will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge to the **original purchaser** (labor and parts), except as noted below.

The three-year duration of this warranty applies only if the product is put to ordinary, reasonable, and usual personal, family, or household uses. If the product is put to any business, commercial, or industrial use, then the duration of this warranty is ninety (90) days after the date of purchase, or one (1) year after the date of purchase if the product is labeled as a Professional/Commercial Product. The duration of this warranty shall be ninety (90) days after the date of purchase if any product is rented or leased.

DURA-CLEAN™ Auger Limited Lifetime Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that the rubber components of the DURA-CLEAN™ Auger manufactured by Ariens Company will be free from defects in material and workmanship and will not wear out for the life of the Sno-Thro, except as noted below.

Ariens Company will provide for the replacement of any of the rubber components of the DURA-CLEAN™ Auger found upon examination by the Ariens Company to be defective or worn out. Replacements will be supplied free of charge. Labor is not included after two (2) years from the date of purchase of the Sno-Thro.

The lifetime limited warranty shall apply if the product is put to ordinary, reasonable, and usual personal household use. If the product is put to any business, commercial, industrial, rental, or leased use, the warranty shall be against defects in material and workmanship for ninety (90) days following the date of purchase.

Exceptions, Limitations, Exclusions

These warranties are subject to the following conditions, limitations, and exclusions:

To obtain warranty service, the following conditions must be met:

- The purchaser must perform the maintenance and minor adjustments explained in the owner's manual.
- The purchaser must promptly notify Ariens Company or an authorized Ariens service representative of the need for warranty service.
- The purchaser must transport the product to and from the place of warranty service.
- Warranty service must be performed by a respective Ariens or Gravely authorized service representative.
- To find an Ariens or Gravely authorized service representative, contact Ariens at:

655 W. Ryan St, P.O. Box 157

Brillion, WI 54110-0157

(920) 756 - 2141

www.ariens.com

www.gravely.com

This warranty is subject to the following limitations:

- Genuine Ariens or Gravely brand service parts and accessories not purchased with the product covered by this warranty, but which are later purchased and used with that product, are warranted to be free from defects in material and workmanship for a period of ninety (90) days after date of purchase, and Ariens Company will repair or replace any such part or accessory free of charge, except for labor, during that period.
- Batteries are warranted only for a period of twelve (12) months after date of purchase, on a prorated basis. For the first ninety (90) days of the warranty period, a defective battery will be replaced free of charge. If the applicable warranty period is more than 90 days, Ariens Company will cover the prorated cost of any defective battery, for up to twelve (12) months after the date of purchase.

Ariens may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating Ariens to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

LIMITATION OF REMEDY AND DAMAGES

Ariens Company's liability under this warranty, and under any implied warranty that may exist, is limited to repair of any defect in workmanship, and repair or replacement of any defective part. Ariens Company shall not be liable for incidental, special, or consequential damages (including lost profits). Some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

The following items are excluded from this warranty:

- Engines and engine accessories are covered only by the engine manufacturer's warranty and are not covered by this warranty.
- Peerless gearboxes and/or transmissions are covered only by Peerless' warranty and are not covered by this warranty.
- Hydro-Gear transmissions and/or Hydro-Gear drive components are covered only by the Hydro-Gear warranty and are not covered by this warranty.
- Parts that are not genuine Ariens or Gravely brand service parts are not covered by this warranty.
- Except as specifically warranted, normal maintenance, services, and normal replacement items, such as spark plugs, oil, oil filters, air filters, mufflers, belts, tires, shoes, runners, scraper blades, shear bolts, mower blades, mower vanes, headlights, light bulbs, knives, etc. are not covered by this warranty except as noted below.
- Mufflers, belts, and tires on consumer lawn and garden products are warranted to the **original purchaser** for two years.
- Friction discs, idlers, cables, and electrical components on Sno-Thros put to usual personal household use are warranted to the **original purchaser** for two years.
- Any defect which is the result of misuse, alteration, improper assembly, improper adjustment, neglect, or accident is not covered by this warranty.
- This warranty applies only to products purchased in the United States (including Puerto Rico) and Canada. In all other countries, contact place of purchase for warranty information.

DISCLAIMER OF FURTHER WARRANTY

Ariens Company makes no warranty, express or implied, other than what is expressly made in this warranty. If the law of your state provides that an implied warranty of merchantability, or an implied warranty of fitness for particular purpose, or any other implied warranty, applies to Ariens Company, then any such implied warranty is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



Ariens Company
655 West Ryan Street
Brillion, WI 54110-1072
920-756-2141
Fax 920-756-2407
www.ariens.com

 **WARNING** 

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