



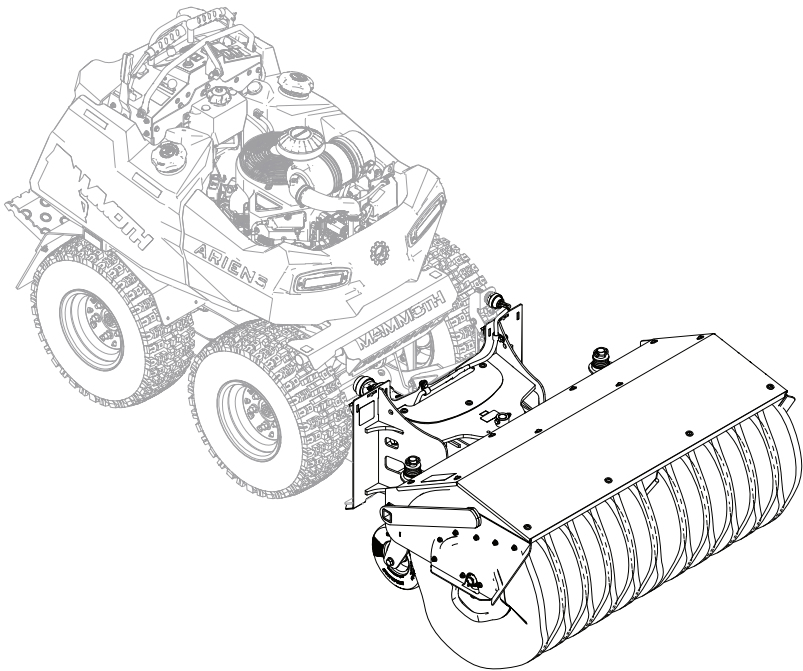
44" Brush Attachment

Operator's Manual
Manuel du Utilisateur

ARIENS
THE KING OF SNOW

Model

851004 – 44" Brush Attachment
(SN 000101 +)



EN ENGLISH

FR FRANÇAIS

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WELCOME

Congratulations on your purchase and welcome to the Ariens family! Every machine in the Ariens lineup is designed for long-lasting and unsurpassed performance. We are confident your machine will be part of your family for many years to come.

Have Questions or Need Assistance?

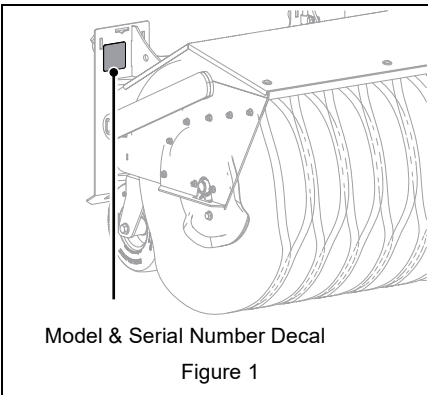
www.ariens.com

A parts manual for your unit is available for free download or purchase at www.ariens.com.

REGISTER YOUR PRODUCT!

It is extremely important to register your product at time of purchase. Product registration activates the warranty and establishes a communication link from AriensCo.

Locate the model and serial number decal on your unit and register those numbers online at www.ariens.com. See Figure 1 for decal location. Be aware that the original selling dealer may have already completed product registration on behalf of the original purchaser.



Record model number here.

Record serial number here.

MANUALS

Before operating or servicing the unit, carefully and completely read the manuals provided with the unit. They contain safety instructions and important information about unit controls.

The engine on this unit is covered by a separate manual. Refer to the engine manual for engine service recommendations. Contact the engine manufacturer for a replacement manual if necessary.

Your dealer must review important information in this manual with you before or upon delivery of the unit. It is your responsibility to read and understand all safety precautions and instructions in the manuals. If you do not understand or have difficulty following the instructions, contact your Ariens dealer for assistance. To locate your nearest Ariens dealer, go to www.ariens.com.

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 in this manual may be optional. Some illustrations may not be applicable to your unit.

SAFETY

Read these safety rules and follow them closely. Failure to follow these rules could lead to loss of control of unit, severe personal injury or death to you or bystanders, or result in damage to property or the machine.

PRACTICES & LAWS

Practice usual and customary safe working precautions. Learn applicable rules and laws in your area. Always follow the practices set forth in this manual.

EMISSION CONTROL SYSTEM

This equipment and/or its engine may include exhaust and evaporative emissions control system components required to meet U.S. Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB) regulations. Tampering with emission controls and components by unauthorized personnel may result in severe fines or penalties. Emission controls and components can only be adjusted by an Ariens dealer or an authorized engine manufacturer's service center. Contact your Ariens Equipment Retailer concerning emission controls and component questions.

REQUIRED OPERATOR TRAINING



Read and understand the Operator's Manual and decals on the unit. This information is for your safety and the proper use of your equipment.

Failure to follow these

instructions and warnings may cause death or serious injury. If you have purchased this product from an Ariens dealer, the dealer can provide you with training.

Familiarize yourself and any other operators with all controls and the safe use of the features of this unit. If you loan, rent or sell this product to others, provide them with all manuals.

If you have any questions, please call our customer support line at 920-756-4688 or contact us at www.ariens.com. Do not use this equipment if, after reading the Operator's Manual and the on-board decals, you have any questions about the safe use of this product.



WARNING: AVOID INJURY.

This machine is capable of amputating hands and feet and throwing objects. Failure to observe the safety instructions in the manuals and on decals could result in serious injury or death.

SAFETY ALERT SYMBOL



This is the safety alert symbol. It means:

- **ATTENTION!**
- **YOUR SAFETY IS INVOLVED!**

When you see this symbol:

- **BECOME ALERT!**
- **OBEY THE MESSAGE!**

SIGNAL WORDS

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

1. Danger



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

2. Warning



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

3. Caution



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

4. Notice

NOTICE: Indicates information or procedures that are considered important but not hazard related. If not avoided property damage could result.

5. Important

IMPORTANT: Indicates general reference information worthy of special attention.

SAFETY DECALS

The safety decals on your machine are visual reminders of the important safety information in this manual. All messages on your unit must be fully understood and carefully followed. Safety decals on the machine are explained below.

ALWAYS replace missing or damaged safety decals. Replacement decal part numbers are found in the parts manual for your machine and may be ordered from your dealer.

See Figure 2 for safety decal locations.

Safety Decal Locations

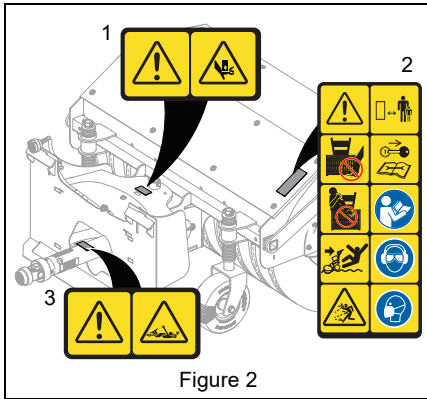


Figure 2

Safety Decal Descriptions

1. WARNING!



WARNING!



Always keep hands and feet away from all pinch points.

2. WARNING!



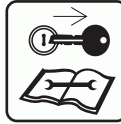
WARNING!



Keep children and others away from unit while unit is in operation.



Keep clear of brush while engine is running.



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



NEVER use your hands to clear blockages.



Read and understand the operator's manual before operating unit.



Operating on irregular terrain could cause the brush to dig in and drive the machine rearward.



Wear appropriate hearing and eye protection.



Discharge Hazard - NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



Wear a dust particle mask while operating in dusty conditions.

3. WARNING!



WARNING!



Contact or entanglement with rotating drive parts can cause serious injury or death. Keep body, hands, hair and loose clothing away from rotating drive parts.

SAFETY RULES

The following safety instructions are based on the B71.3 specifications of the American National Standards Institute, and other applicable standards in effect at the time of production.

Training

Read, understand and follow all instructions on the unit and in the manual(s) before operating this unit. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.

NEVER allow children to operate or play on or near the equipment. NEVER allow adults to operate the equipment without proper instruction.

Keep the area of operation clear of all persons, particularly small children. Be alert and shut off unit if children enter area.

Exercise caution to avoid slipping or falling, especially when operating in reverse.

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 the unit to understand the unit, your work area and all safety decals.

Understand how to operate all controls, the functions of all controls and how to STOP in an emergency.

Preparation

ALWAYS check overhead and side clearances carefully before operation.

ALWAYS be aware of traffic when operating near streets or along curbs.

Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, toys, wires and other foreign objects.

Check parking brake operation frequently. Adjust and service as required.

Inspect unit before each use for missing or damaged decals and shields, correctly operating safety interlock system. Replace or repair as needed.

Ensure Safety Interlock System is functioning properly. DO NOT operate unit if safety interlock is damaged or disabled.

Be sure all drives are in neutral and parking brake is engaged before starting engine. Steering control levers must be in neutral and PTO disengaged. Only start engine from the operator's position.

Operate unit only when standing in operator zone.

Handle fuel with care; it is highly flammable.

- Use an approved fuel container.
- NEVER add fuel to a running engine or hot engine.
- Fill fuel tank outdoors with extreme care. NEVER fill fuel tank indoors.
- NEVER fill containers inside a vehicle 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 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 refueling is complete. DO NOT use a nozzle lock-open device.
- Replace gasoline cap securely and wipe up spilled fuel.
- If fuel is spilled on clothing, change clothing immediately.

Adjust the auger / impeller housing height to clear gravel or crushed rock surface.

NEVER attempt to make any adjustments while the engine is running (except when specifically recommended by manufacturer).

ALWAYS allow unit and engine to adjust to outdoor temperature before operating.

Operation

Disengage all controls before starting engine.

Adjust brush contact before operating.	NEVER direct the discharge toward people or areas where injury or property damage can occur from thrown objects. Keep children and others away.
NEVER leave a running unit unattended. ALWAYS stop engine and remove key before leaving unit to prevent unauthorized use.	Be aware of the discharge direction and do not point it at anyone. Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator.
DO NOT put hands or feet near or under rotating parts. Keep clear of the discharge area at all times.	Never engage PTO when attachment, is not in use. Always turn off power to attachment when not in active use such as traveling or crossing driveways.
Moving and/or rotating parts can cut off body parts such as fingers or a hand. NEVER place your hands, other body part or clothing near any moving parts while unit is running.	Park unit on a flat level surface, lower implements, disengage drives, engage parking brake, disengage PTO, shut off engine and allow moving parts to stop before leaving the operator's position.
ALWAYS keep hands away from all pinch points.	DO NOT overload the unit capacity by attempting to operate at too fast a rate.
DO NOT touch parts which might be hot from operation. Allow parts to cool before attempting to maintain, adjust or service.	NEVER operate the unit at high transport speeds on slippery surfaces. Look behind and use care when operating in reverse.
Thrown objects can cause injury. Check for weak spots on docks, ramps or floors. Avoid uneven work areas and rough terrain and stay alert for hidden hazards.	DO NOT operate in reverse unless absolutely necessary. ALWAYS back up slowly and look down and behind before and while backing.
Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic.	Never carry passengers and keep pets and bystanders away. Stop machine if anyone enters the area.
After striking a foreign object, stop the engine, remove the wire from the spark plug, thoroughly inspect the unit for any damage, and repair the damage before restarting and operating the unit.	Disengage attachment when not in use and when traveling from one work area to another.
If the unit should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.	This product is equipped with an internal combustion 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 used, must be maintained in effective working order by operator.
Stop the engine whenever you leave the operating position and when making any repairs, adjustments or inspections.	ALWAYS be sure of your footing, and keep a firm hold on the handles.
When cleaning, repairing or inspecting the unit, stop the engine and make certain that all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent someone from accidentally starting the engine.	NEVER operate unit after or during the use of medication, drugs or alcohol. Safe operation requires complete and unimpaired attention at all times.
DO NOT run the engine indoors, except when starting the engine and for transporting the unit in or out of the building. Open the outside doors; exhaust fumes are dangerous.	NEVER allow anyone to operate this unit when their alertness or coordination is impaired.
NEVER operate the unit without proper guards, and other safety protective devices in place and working.	NEVER touch a hot engine or muffler.
ALWAYS stand clear of the discharge area when operating this unit.	Avoid contact with sharp edges; sharp edges can cut.
	Do not throw snow higher than necessary.

Know the weight of loads. Limit loads to those you can safely control and the unit can safely handle.
Turn off switches to disengage the spreader and sprayer pump when not operating.
Stop on level ground, lower implements, disengage spreader and sprayer pump, engage parking brake, shut off engine before leaving the operator's position for any reason.
Slow down and use caution when making turns and crossing roads and sidewalks. Disengage spreader and sprayer pump if not operating.

Batteries
Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.
Reverse connections may result in sparks which can cause serious injury. ALWAYS connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead to negative (-) terminal.
ALWAYS disconnect negative (-) cable FIRST and positive (+) cable SECOND. ALWAYS connect positive (+) cable FIRST, and negative (-) cable SECOND.
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. Use insulated tools.
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.

Maintenance and Storage
Park unit on a flat level surface. Never allow untrained personnel to service machine.
Secure unit so it will not tip over during maintenance.
Before cleaning, removing obstructions or making any inspections, repairs, etc., stop engine, remove key, allow moving parts to stop and hot parts to cool.

Check hardware at frequent intervals for proper tightness to be sure the unit is in safe working condition.
Check PTO and drive control operation frequently.
DO NOT change engine governor settings and DO NOT over-speed engine.
Adjust and service as required. Motion of drive wheels and attachment must stop quickly when PTO is disengaged and drive control is returned to neutral.
ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion.
Keep unit free of ice or other debris. Clean up oil or fuel spills.
ALWAYS block wheels and know all jack stands are strong and secure and will hold weight of unit during maintenance. Use jack stands to support components when required.
Carefully and slowly release any pneumatic or hydraulic pressure from components with stored energy.
ALWAYS keep body and hands away from pin holes or nozzles which eject hydraulic fluid under pressure.
ALWAYS keep protective structures, guards, and panels in good repair and secured in place. NEVER modify or remove safety devices.
NEVER store the unit with fuel in the fuel tank inside a building where ignition sources are present such as hot water heaters, space heaters or clothes dryers. Close fuel valve and allow the engine to cool completely before storing in any enclosure or covering the unit.
ALWAYS refer to operator's manual for important details if the unit is to be stored for an extended period.
Maintain or replace safety and instruction labels as necessary.
Remove attachments from tractor before lifting. Attachments must be lifted separate from tractor.
Run the unit a few minutes after removing snow to prevent freeze-up.

Springs may contain stored energy. Use caution when disengaging or removing springs and/or spring-loaded components.

Before working on this machine, be sure the valve system, brine tank and hopper have been thoroughly rinsed according to the recommendations of the chemical manufacturer.

Personal Protection

Wear proper footwear to improve footing on slippery surfaces. NEVER wear open sandals or canvas shoes during operation.

Wear adequate safety gear, including safety glasses with side shields and protective gloves.

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

NEVER attempt to clear obstructions or clean unit while engine is running. Rotating attachments can cause serious injury.

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

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 unit.

Slope Operation

Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope or if you feel uneasy on it, do not operate.

DO NOT operate on slopes of more than 20°. This maximum degree of operation is without attachments.

Operate across slopes, not up and down.

DO NOT operate on slopes steeper than you can feel secure about the traction of the tires and the stability of the tractor.

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.

Operation on slopes may lead to loss of steering control. When operating on slopes be prepared to react to an emergency situation:

- Return steering levers to neutral position.
- Immediately set parking brake.
- Turn off PTO and engine.

DO NOT try to stabilize the machine by putting your foot on the ground.

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.

Do not bypass transmission or allow transmission to free-wheel when on a slope.

Fuel

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

Fuel is highly flammable and its vapors are explosive. Handle with care. Use only an approved gasoline container with an appropriately-sized dispensing spout.

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 fuel containers inside a vehicle or on a 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 trailer and refuel it on the ground. If this is not possible, then refuel 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.

Transporting

Use extra care when loading or unloading unit onto trailer. Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged. DO NOT transport unit while engine is running.

Tie the machine down securely using straps, chains, cable, or ropes. Both front and rear straps should be directed down and outward from the machine.

Use full width ramps when loading machine.

Accessories

Use only attachments recommended by AriensCo that are appropriate to your use and can be used safely in your application.

Chemical Safety

Chemicals used in this machine may be hazardous to apply and produce gasses that are hazardous if inhaled or with contact to your skin.

Caustic liquid or chemical burns could occur if chemicals are not used properly.

Read and follow all the instructions and warnings from manufacturer for all chemicals used.

Become familiar with and follow all warnings, recommendations, instructions and procedures for: first aid measures, safe use, mixing, handling, applying, spills clean-up, storage and disposal of all chemicals.

Wear all personal protective equipment as recommended on the manufacturer's label of any chemicals. Personal protective equipment may include safety glasses or goggles and/or face shields, chemical resistant gloves, and rubber boots, and a respirator.

Obtain the proper training before using or handling any chemicals. Follow all local, state and federal requirements for the handling and spreading of chemicals.

Be sure to verify there is an adequate supply of clean water and soap nearby and immediately wash off any chemicals that may contact you.

Handle chemicals in a well-ventilated area.

Keep clean water available for immediate rinsing off and clean-up of any spilled chemicals.

Hydraulic fluid can result in severe burns. Fluid in hydraulic system can penetrate skin and result in serious injury or death.

Be sure to stop the engine before doing any work on hydraulic parts.

Keep body and hands away from pin holes or nozzles which expel hydraulic fluid when under pressure. Use paper or cardboard, not hands, to search for leaks.

Ensure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to system.

CONTROLS & FEATURES

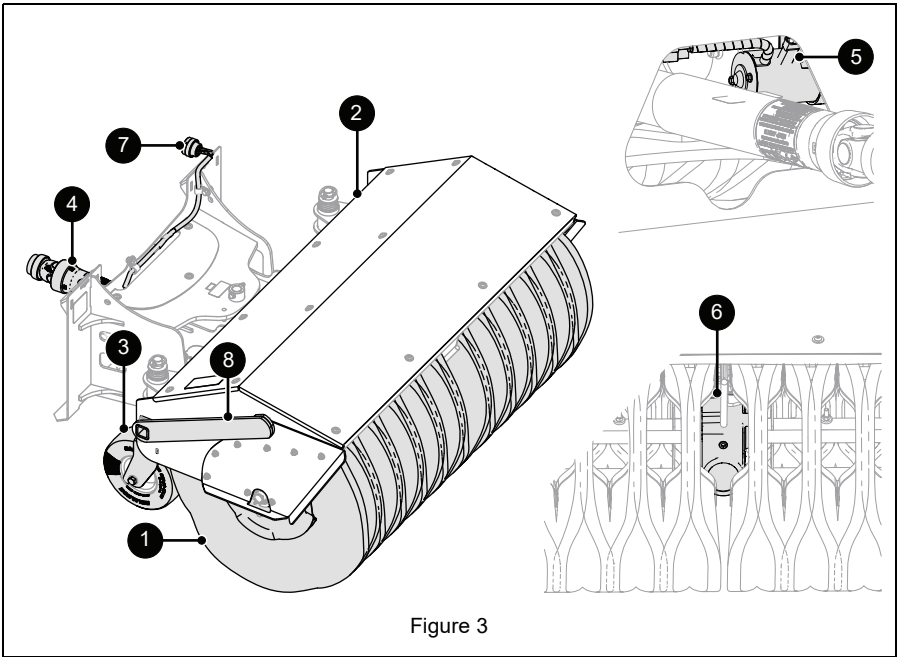


Figure 3

1. Brush
2. Brush Guard
3. Caster Wheel (2)
4. Attachment Drive Shaft
5. Brush Angle Actuator
6. Gearcase
7. Attachment Harness Connector
8. Attachment Support Stand (2)



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

See Figure 3 for all controls and features locations.

BRUSH

Contacts clearing surface.

BRUSH ANGLE ACTUATOR

Controls clearing angle of brush.

ATTACHMENT HARNESS CONNECTOR

Connects brush control wire harness to tractor socket.

ATTACHMENT SUPPORT STAND

Supports weight of attachment when it is removed from tractor.

BEFORE OPERATION



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

Refer to Mammoth Tractor Operator's Manual for tractor-specific pre-operation information and procedures.

SET BRUSH CONTACT

To compensate for brush wear, check brush height and adjust if necessary before each use.

Check Brush Contact

See Figure 4.

1. Raise brush so bristles are not contacting the ground.
2. Start brush at slow speed and lower brush until casters are on the ground.
3. Operate brush in a stationary position for 30 seconds. See *Start Brush* on page 13.
4. Lift brush and slowly move unit backwards.
5. Push PTO switch to stop brush.
6. Stop engine.
7. Check swept area. Swept area should measure 5 cm – 10.2 cm (2" – 4") long across brush width.

If clearing width is excessive, raise brush. If clearing width is insufficient, lower brush. See *Adjust Brush Height* on page 10.

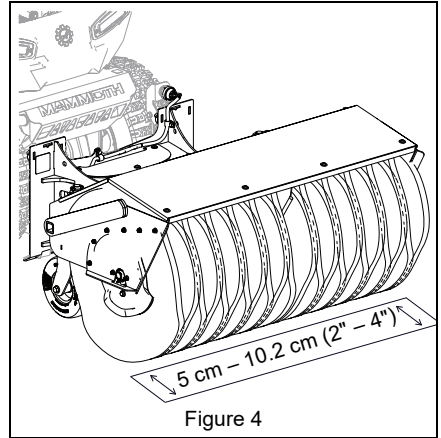


Figure 4

Adjust Brush Height

See Figure 5.

1. Start engine move brush to a flat, level surface and engage parking brake.
2. Raise brush attachment high enough to provide clearance for caster wheel to be adjusted. See *Set Brush Angle and Height* on page 13.
3. Place a sturdy block under brush.
4. Lower brush until it is supported by block.
5. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
6. Remove lynch pin and caster wheel assembly.

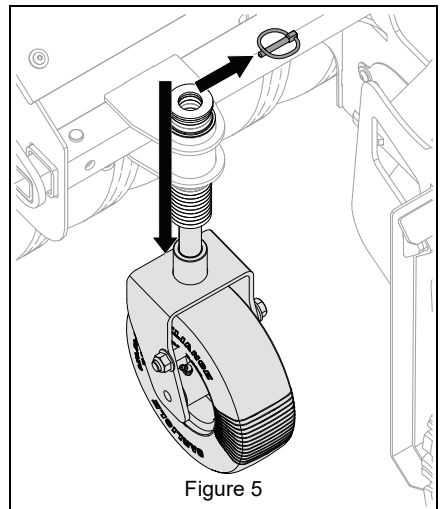


Figure 5

7. Apply a light coating of grease to caster wheel shaft. See *Lubricate Unit* on page 17.

See Figure 6.

IMPORTANT: Spacers on each caster wheel must be adjusted equally.

8. Move spacers on caster wheel above and below brush mount bracket to achieve desired brush height.

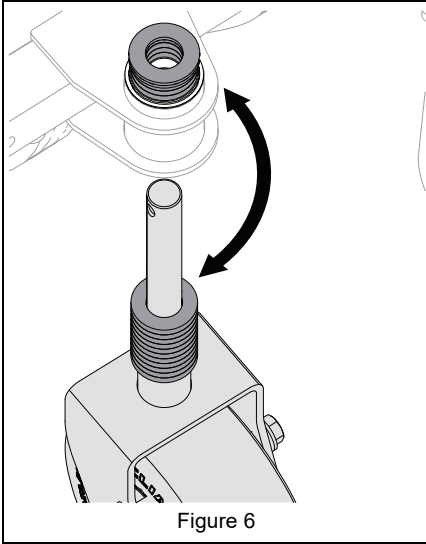


Figure 6

9. Reinstall lynch pin.
10. Repeat on other side of brush.

For Best Sweeping Results

- Run in an overlapping series of paths.
- Start in the middle of large areas and sweep snow to each side.
- ALWAYS direct discharge with wind direction.
- Snow is most easily removed as soon as snow falls.

OPERATION



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

Refer to Mammoth Tractor Operator's Manual for tractor-specific operation information and procedures.

INSTALL / REMOVE BRUSH ATTACHMENT



WARNING: AVOID INJURY.
Keep body parts away from pinch points when installing and removing attachments.

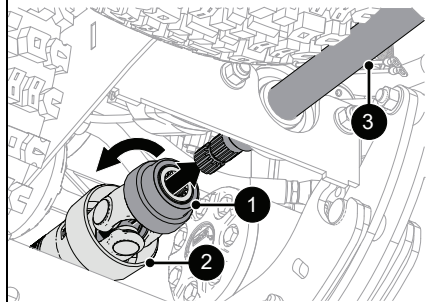
Install Attachment

NOTICE: For maximum stability always lower support stands when brush is not attached to tractor. See *Adjust Attachment Support Stand* on page 20.

See Figures 7 and 8.

1. Place steering levers in neutral position and engage parking brake.
2. Position attachment drive shaft so it is perpendicular to hitch plate.
3. Disengage parking brake and drive forward slowly until tractor hitch tabs and attachment latch points are aligned and nearly in contact.
4. Place steering levers in neutral position and engage parking brake. Stop engine, remove key and wait for moving parts to stop.
5. Extend attachment driveshaft, pull back spring lock feature, and attach driveshaft to tractor PTO shaft.

Bottom Tractor Frame Removed for Clarity

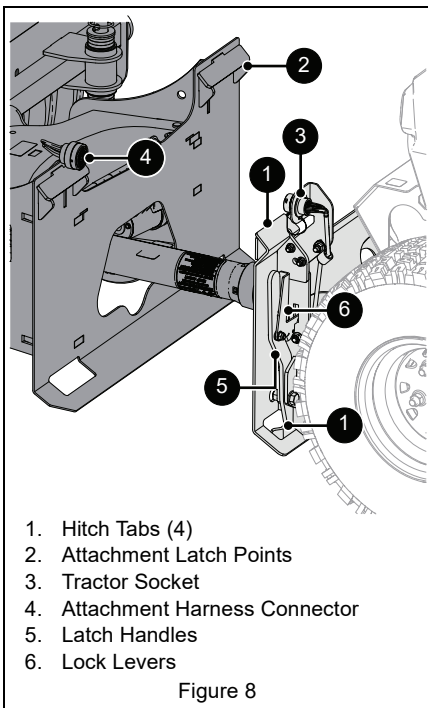


1. Spring Lock Feature
2. Attachment Driveshaft
3. Tractor PTO Shaft

Figure 7

See Figure 8.

6. Start the tractor engine.
7. Lower tractor hitch below the attachment latch points and drive forward slowly until tractor hitch contacts attachment.
8. Raise tractor hitch until attachment is fully seated onto the lower hitch tabs.

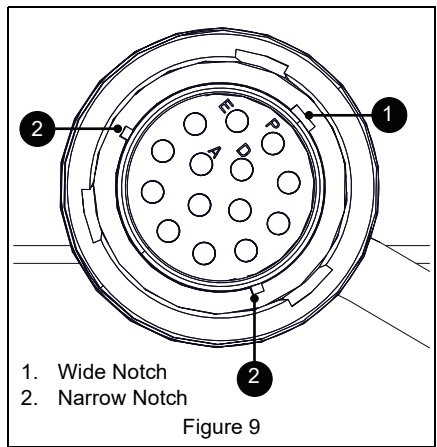


9. Place steering levers in neutral position and engage parking brake.
10. Stop engine, remove key and wait for moving parts to stop.
11. Rotate latch handles inward until locks are fully engaged.

See Figure 9.

NOTICE: AVOID DAMAGE. Align notches before attempting to connect attachment harness connector to tractor socket.

12. Remove debris caps, align notches and connect by twisting the locking collar onto the tractor socket.



13. Adjust support stands to the raised position. See *Attachment Support Stand* on page 10.

Remove Attachment

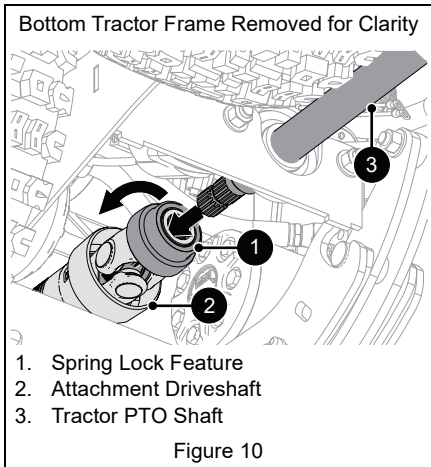
NOTICE: For maximum stability always lower support stands when brush is not attached to tractor. See *Adjust Attachment Support Stand* on page 20.

See Figure 8.

1. Place steering levers in neutral position and engage parking brake.
2. Adjust support stands to the lowered position. See *Attachment Support Stand* on page 10.
3. Squeeze lock handles to disengage locks and rotate latches outward.
4. Lower attachment to the ground.
5. Stop the tractor engine.

NOTICE: AVOID DAMAGE. Harness must be disconnected from attachment before driving tractor away.

6. Disconnect attachment harness connector from tractor socket and reinstall debris caps.
7. Pull back spring lock feature on attachment driveshaft and remove driveshaft from tractor PTO shaft. See Figure 10.

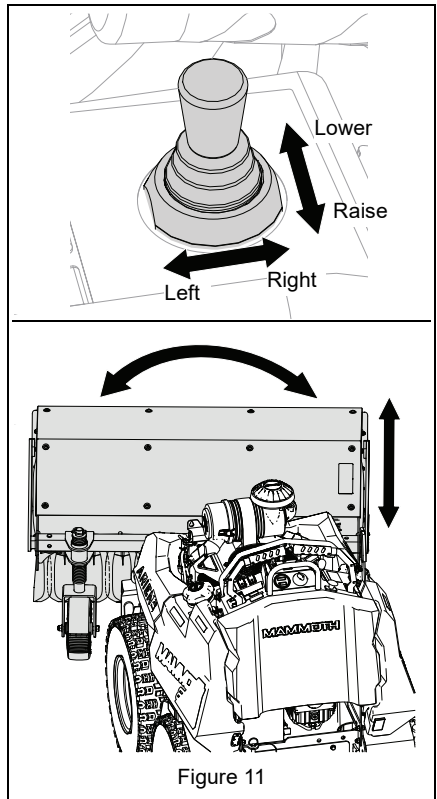


8. Start the tractor engine.
9. Ensure that reverse path is clear, disengage parking brake and carefully back tractor away from attachment, lowering tractor lift to unseat brush from tractor hitch.

Set Brush Angle and Height

See Figure 11.

Move control lever forward or backward to lower or raise brush. Move control lever left or right to set brush angle.



START BRUSH

1. Start the engine.
2. Engage operator presence control.
3. Pull PTO switch to engage brush.

IMPORTANT: PTO will not engage unless power brush is attached.

4. Move steering levers in desired position to drive unit.
5. Adjust brush angle and height as desired. See *Set Brush Angle and Height* on page 13.

STOP BRUSH

1. Push PTO switch to stop brush when clearing is complete.
2. Raise brush head slightly and drive unit to storage area.
3. Stop the engine.

REMOVE BRISTLE CARRIER

NOTICE: For maximum stability always lower support stands when brush is not attached to tractor. See *Adjust Attachment Support Stand* on page 20.

1. Remove attachment. See *Remove Attachment* on page 12.
2. Place steering levers in neutral and engage parking brake.
3. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
4. Remove hardware retaining access plates and remove access plates. See *Check Brush Gearcase Oil* on page 18.

See Figure 12.

5. Remove and retain hardware securing gearcase shaft to attachment drive shaft.
6. Remove and retain snap ring.
7. Disconnect drive shaft from attachment.

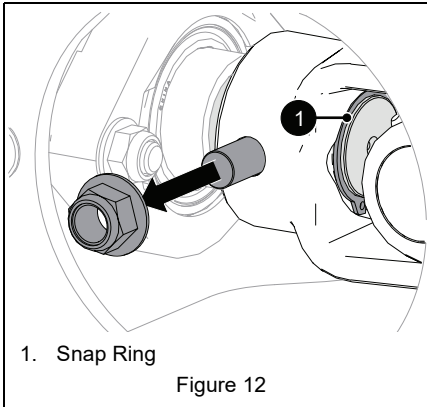
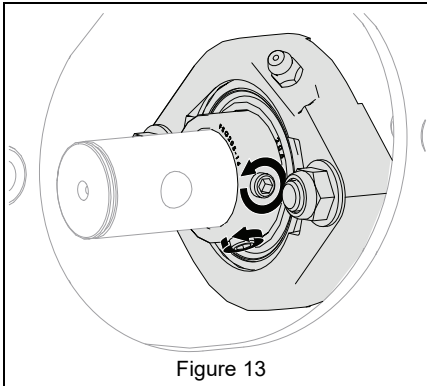
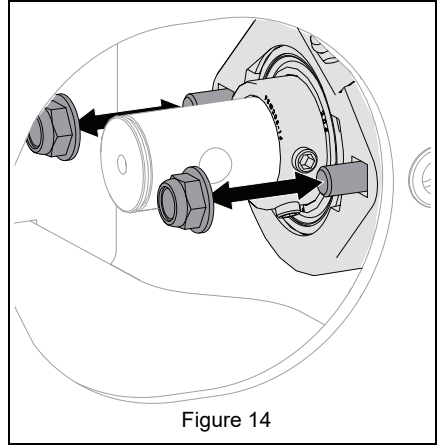


Figure 12

8. Loosen the two set screws located on the carrier bearing. See Figure 13.



9. Remove and retain carrier bearing hardware and remove bearing. See Figure 14.



10. Start the tractor engine.
See Figures 8 and 9.
11. Disengage parking brake and drive forward slowly until tractor hitch tabs and attachment latch points are aligned and nearly in contact.
12. Lower tractor hitch below the attachment latch points and drive forward slowly until tractor hitch contacts attachment.
13. Raise tractor hitch until attachment is fully seated onto the lower hitch tabs.
12. Place steering levers in neutral position and engage parking brake.
13. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
14. Rotate latch handles inward until locks are fully engaged.
15. Adjust support stands to the raised position. See *Attachment Support Stand* on page 10.
16. Start the tractor engine.
17. Lower attachment to the ground.
18. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
19. Remove and retain hardware securing gearcase support bracket to center plate. Remove bracket. See Figure 15.

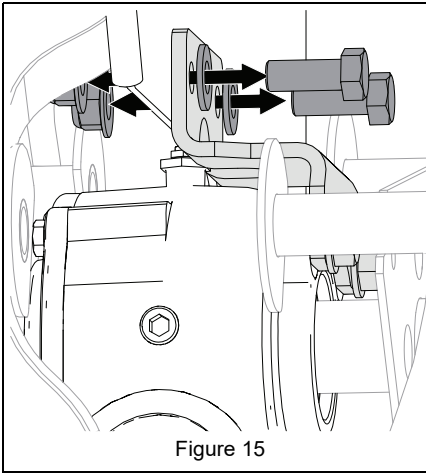


Figure 15

See Figure 16.

20. Remove and retain hardware securing carrier bearing to side mount plate.
21. Repeat step 20 on opposite side of brush.

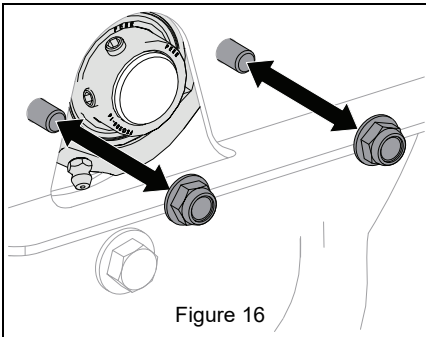


Figure 16

22. Start the tractor engine.
23. Ensure that reverse path is clear, disengage parking brake, raise attachment and slowly back up with tractor to release brush carrier and gearcase.
24. Place steering levers in neutral and engage parking brake.
25. Stop engine and remove key.

INSTALL BRISTLE CARRIER

NOTICE: For maximum stability always lower support stands when brush is not attached to tractor. See *Adjust Attachment Support Stand* on page 20.

1. Start the tractor engine.
2. Disengage parking brake and drive forward slowly until attachment housing and bristle carrier are aligned.

3. Place steering levers in neutral and engage parking brake.
4. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
5. Insert gearbox shaft into hole in housing and align side carrier bearing mount holes with side housing holes. See Figure 17.
6. Secure bearings to side mounts using original hardware.

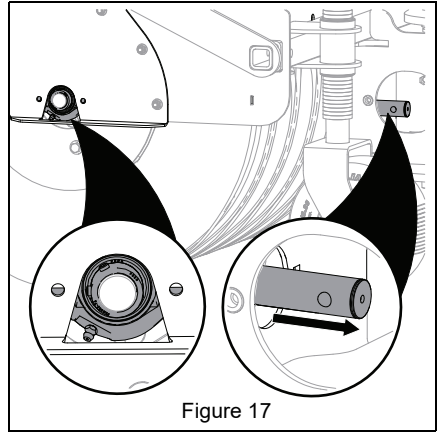


Figure 17

7. Reinstall gearcase support bracket using original hardware. See Figure 18.

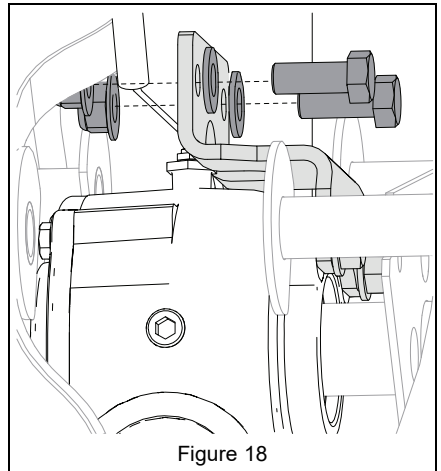


Figure 18

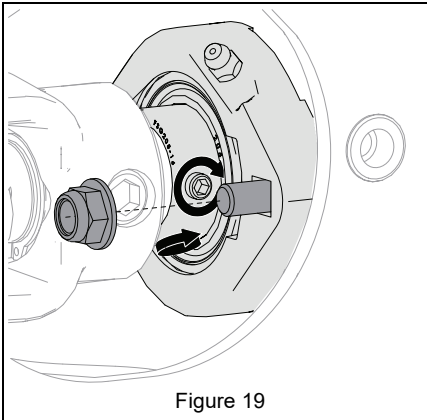
8. Start the tractor engine.
9. Raise attachment and adjust support stands to the lowered position. See *Attachment Support Stand* on page 10.

See Figures 8 and 9.

10. Squeeze lock handles to disengage locks and rotate latches outward.
11. Ensure that reverse path is clear and carefully back tractor away from attachment, lowering tractor lift to unseat brush from tractor hitch.
12. Place steering levers in neutral and engage parking brake.
13. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.

See Figure 19.

14. Secure carrier bearing to attachment frame using original hardware.
15. Connect driveshaft to gearcase shaft using original hardware and reinstall snap ring.
16. Tighten the two set screws located on the carrier bearing.



17. Reinstall access plates using original hardware.
18. Install attachment. See *Install / Remove Brush Attachment* on page 11.

MAINTENANCE



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

Proper maintenance can prolong the life of the system. The following chart shows the recommended service schedule.

Your Ariens dealer can provide service and adjustments to keep your system operating at peak efficiency. Refer to Mammoth Tractor Operator's Manual for tractor-specific maintenance information and procedures.

NOTICE: For maximum stability always lower support stands when brush is not attached to tractor.

MAINTENANCE SCHEDULE

Service Performed	Each Use	Every 25 hrs.	Every 100 hrs.	Every 500 hrs.	Annually
Clean Unit *	•				
Change Gearcase Oil				•	
Check Fasteners	•				
Check Brush Wear	•				
Lubricate Unit		•			•
* See <i>Short-Term Storage</i> on page 21.					

SERVICE PARTS

Refer to the parts catalogue to purchase service parts for your unit.

CHECK FASTENERS

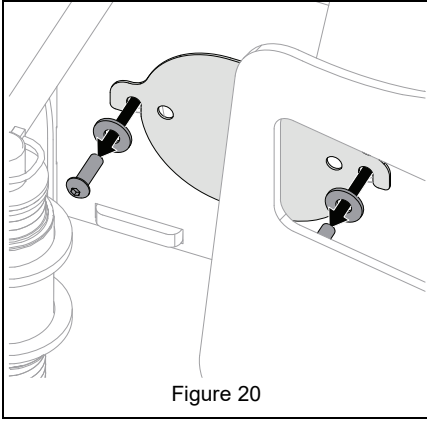
Check for loose hardware.

CHECK BRUSH

Check bristle disks for wear and replace as needed. Refer to the parts catalogue to purchase parts for your unit.

SERVICE ACCESS

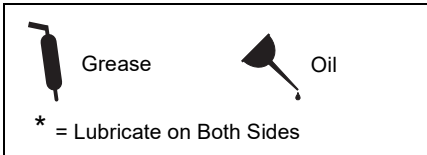
1. Remove hardware retaining access plate(s) on left and / or right side of unit and remove access plate(s). See Figure 20.



2. Reinstall access plate(s) using original hardware.

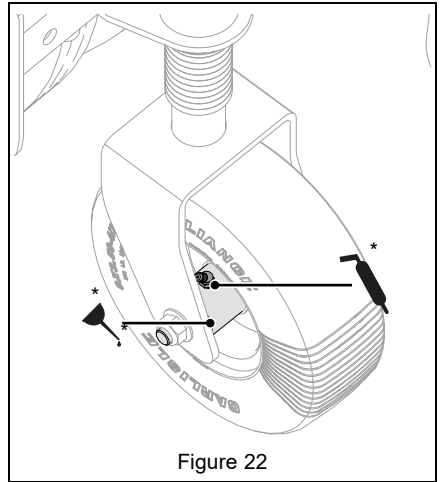
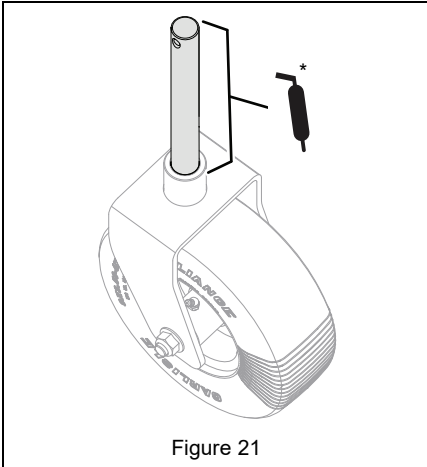
LUBRICATE UNIT

Use the following key for all lubrication procedures.



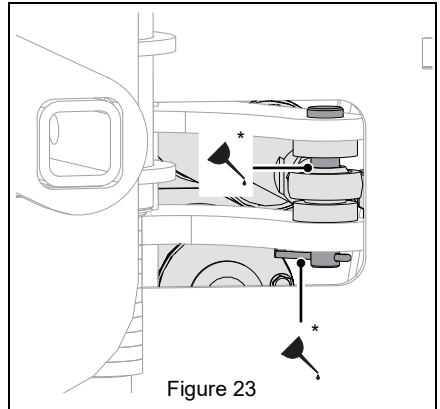
Caster Forks

See Figure 21 and 22.



Actuator Pins and Pivot Points

See Figure 23.



Drive Shaft

See Figure 24.

1. Remove access plates. See *Check Brush Gearcase Oil* on page 18.
2. Apply grease at the two u-joints located on the front and rear of the driveshaft.
3. Apply grease to the fitting located on the flange bearing.
4. Apply a light coat of grease to driveshaft splines.

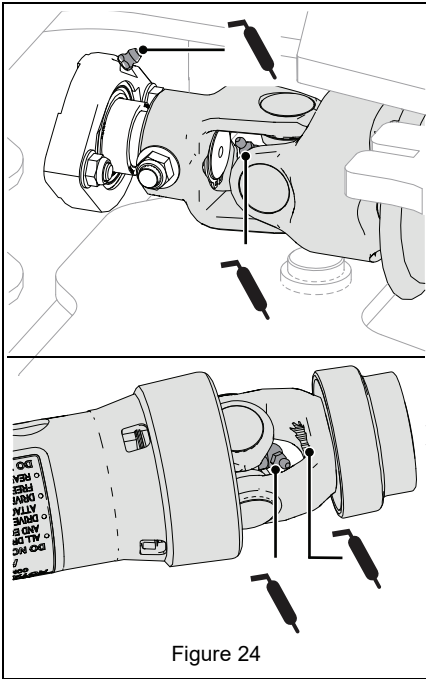


Figure 24

5. Reinstall access plates using original hardware. See *Check Brush Gearcase Oil* on page 18.

Brush Shaft

1. Apply grease to fittings located on brush shaft bearings. See Figure 25.

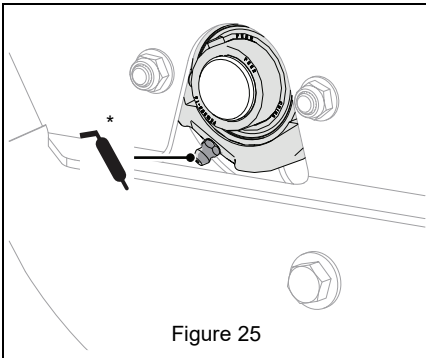


Figure 25

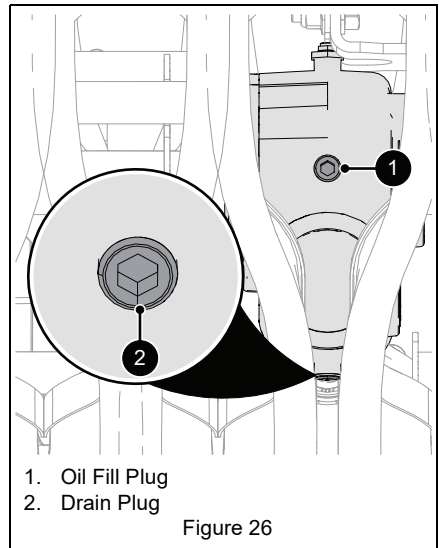
CHECK BRUSH GEARCASE OIL

Checking gearcase oil level requires draining gearcase oil and refilling with recommended oil and amount. See *Change Gearcase Oil* on page 18.

CHANGE GEARCASE OIL

Gearcase does not require regular service, however, if gearcase lubricant is low, drain and refill. Fill with 275mL (9.25 oz) synthetic polyglycol 460 oil (Ariens p/n 04966600) only. See Figure 26.

1. Remove bristle carrier. See *Remove Bristle Carrier* on page 14.
2. Remove bristle disks. See *Remove Bristle Disks* on page 19.
3. Position a suitable container below gearcase to catch drained oil.
4. Remove drain plug and drain gearcase. Wait until all fluid has drained.
5. Reinstall drain plug.
6. Remove fill plug from gearcase.
7. Fill gearcase with 275 mL (9.25 oz) of synthetic polyglycol 460 and reinstall fill plug.



1. Oil Fill Plug
2. Drain Plug

Figure 26

8. Reinstall bristle disks. See *Install Bristle Disks* on page 19.
9. Reinstall bristle carrier. See *Install Bristle Carrier* on page 15.

BRISTLE REPLACEMENT

NOTICE: For maximum stability always lower support stands when brush is not attached to tractor. See *Adjust Attachment Support Stand* on page 20.

Remove Bristle Disks

1. Remove bristle carrier. See *Remove Bristle Carrier* on page 14.

See Figure 27.

2. Stand brush head on end and remove end plate hardware. Remove end plate and retain parts for reinstallation.

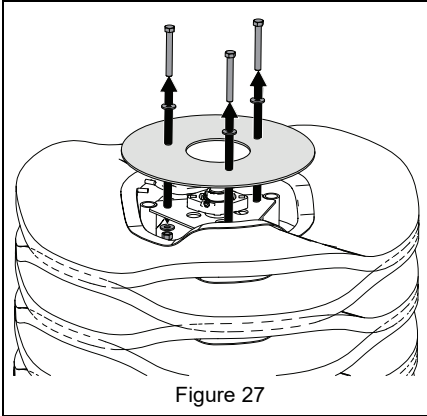


Figure 27

3. Remove disks from top half of brush head and discard.

Install Bristle Disks

1. Install 11 bristle disks on top half of brush head. For each disk, align locator pins clockwise from previous to evenly load carrier. See Figures 28 and 29.

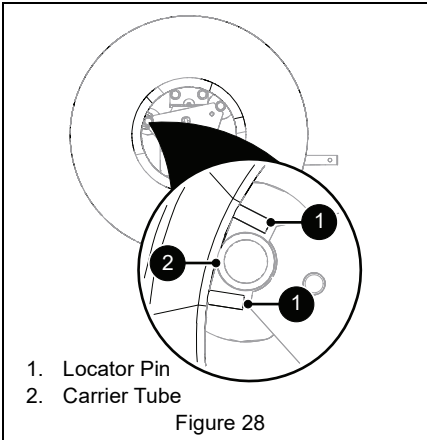


Figure 28

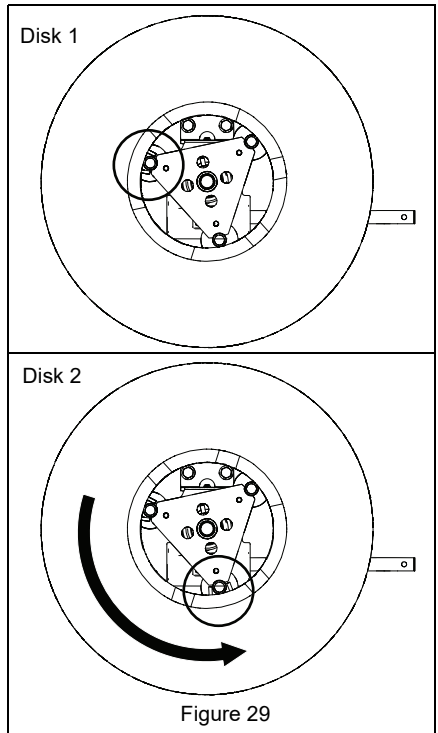


Figure 29

See Figure 30.

NOTICE: As bristle disks are added to the carrier, bristles must contact at high points of wave. **DO NOT** compress disks.

IMPORTANT: To prevent streaking, ensure bristles are in the correct orientation.

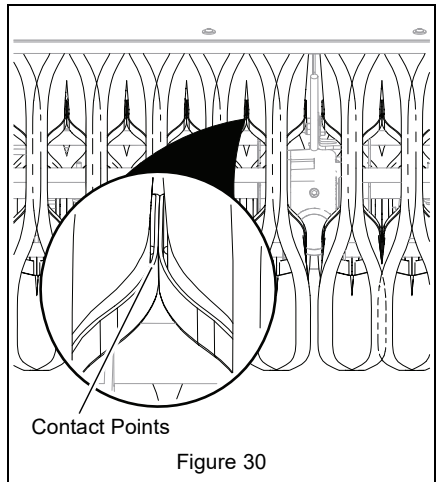


Figure 30

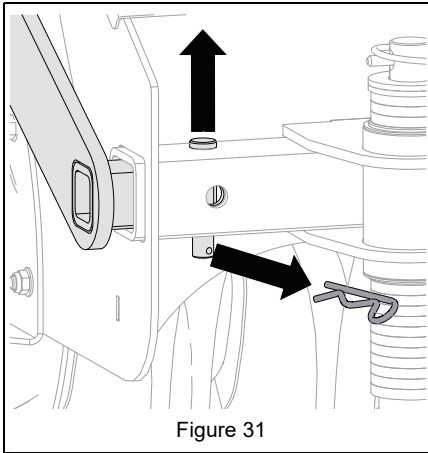
2. Reinstall end plate and secure with original hardware.
3. Turn brush head on other end and repeat remove / install process. See *Remove Bristle Disks* on page 19 and *Install Bristle Disks* on page 19.

ADJUSTMENTS

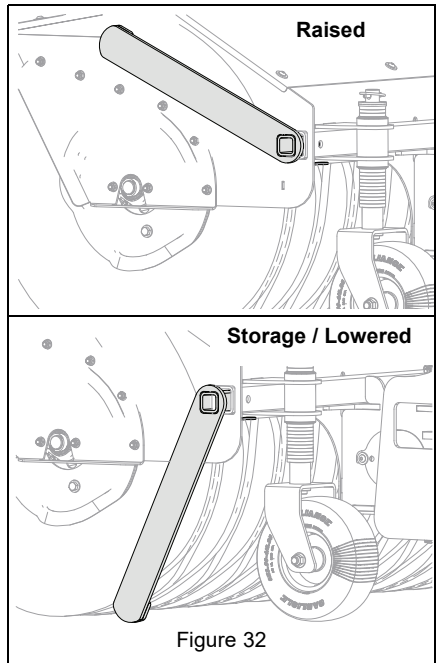
ADJUST ATTACHMENT SUPPORT STAND

NOTICE: For maximum stability always lower support stands when brush is not attached to tractor.

1. Remove lynch pin and clevis pin. Retain pins for reinstallation. See Figure 31.



2. Slide support stand out of bracket. See Figure 32.
3. Adjust support stands to the raised or lowered position.
4. Reinsert support stand in bracket and reinstall pins.
5. Repeat steps 1 – 4 on other side of brush.



STORAGE



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

Refer to Mammoth Tractor Operator's Manual for tractor-specific storage information and procedures.

SHORT-TERM STORAGE

1. Tighten all hardware to specifications.
2. Inspect unit for visible signs of wear or damage. Repair as needed.
3. Clean brush attachment thoroughly with mild soap and low-pressure water to remove any corrosive material and prevent corrosion buildup.
4. Apply a light layer of oil or anti-corrosion compound on bare metal areas.
5. Store unit in a cool, dry, protected area.
Do not store unit outdoors.

LONG-TERM STORAGE

1. Perform short-term storage procedure.
2. Lubricate as directed in *Maintenance* on page 16.
3. Touch up all scratched painted surfaces.
4. Store unit in a cool, dry, protected area.
Do not store unit outdoors.

TROUBLESHOOTING

Problem	Probable Cause	Correction
Unit sweeps poorly.	Debris is caught in brush.	Stop engine, remove key and wait for all moving parts to stop. Check for and remove obstruction before restarting.
	Bristle disks are worn.	Replace bristle disks. Refer to the parts catalogue for your unit.
Blade angle actuator does not operate	Attachment harness connector disconnected from tractor socket.	Connect attachment harness connector to tractor socket.
	Blown fuse or other electrical problem on tractor.	Inspect and replace fuse or repair tractor wiring if necessary. Refer to Mammoth Tractor Operator's Manual for tractor-specific troubleshooting.
	Faulty clearing angle actuator.	Replace clearing angle actuator. Contact your Ariens dealer.
U-joint is noisy.	U-joint may be dry.	Lubricate U-joint. See <i>Lubricate Unit</i> on page 17.
	Worn U-joint.	Replace worn parts. Refer to the parts catalogue for your unit.
Clearing angle adjustment slow or noisy.	Blade angle pivot pins corroded or lacking lubrication.	Apply grease or oil to pivot pins. See <i>Lubricate Unit</i> on page 17.
Caster wheels do not pivot as designed.	Debris in casters.	Clean debris from casters.
	Excessive friction in casters.	Lubricate casters. See <i>Lubricate Unit</i> on page 17.

SPECIFICATIONS

Model Number	851004
Brush	
Clearing Width – cm (in)	111.8 (44)
Brush Diameter – cm (in)	63.5 (25)
Brush Rotation Speed – RPM	233
Brush Rotation Angle	40° Total (20° left / right)
Size and Weight	
Length – cm (in)	106.7 (42)
Height – cm (in)	67.3 (26.5)
Width – cm (in)	121.9 (48)
Weight – kg (lb)	197.3 (435)



ARIENS®

Outdoor Power Equipment Limited Warranty

AriensCo warrants to the **original purchaser** that Ariens brand products purchased on or after 1/1/2021 will be free from defects in material and workmanship for the time period noted in the chart below. Equipment put to personal use around a single household or residence is considered "Residential Use." Equipment put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered "Commercial Use." If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

An authorized Ariens 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 (labor and parts) to the original purchaser; except as noted below. Pick-up and delivery are at the owner's expense.

The warranty code is found on the model and serial number identification label on the unit.

Warranty Code	Product Group	Warranty Period
AA	Serialized Attachments	1 Year.
CH	Zenith Mowers (Non-European Models)	4 Years or 750 Hours.*
CQ	Zenith Mowers (European Models)	2 Years.
HD	LM-Series Walk-Behind Mowers	3 Years Residential Use. 90 Days Commercial Use.
HE	Edge Mowers	2 Years or 150 Hours.*
HF	Ikon-XD Mowers	3 Years or 300 Hours.*
HH	Apex Mowers	4 Years or 500 Hours.*
PA	921-Series Brushes	3 Years Residential Use. 90 Days Commercial Use.
PB	926-Series Brushes	3 Years Residential Use. 1 Year Commercial Use.
SA	Professional Sno-Thro	3 Years Residential Use. 1 Year Commercial Use.
SB	Compact, Deluxe and Platinum Sno-Thro and Path-Pro	3 Years Residential Use. 90 Days Commercial Use.
SC	S18	2 Years Residential Use. 90 Days Commercial Use.
SD	Deluxe and Platinum EFI Sno-Thro	3 Years Residential Use. 90 Days Commercial Use.
SE	920-Series Classic Sno-Thro, Crossover	3 Years Residential Use. 90 Days Commercial Use.
SF	Mammoth Tractor	2 Years or 500 Hours.*

* Whichever comes first.

Special Extensions

The chart below details special **extensions** to warranty terms. Warranty terms are total time periods covered. If any product is rented or leased, there are no extensions to the 90-day warranty.

Warranty Code	Warranty Term Extension	Warranty Period
SA	Cast Iron Auger Gear Case	5 Years.
SB, SD	Cast Iron Auger Gear Case	5 Years Residential Use. 1 Year Commercial Use.

Exclusions and Limitations

The charts below detail special **exclusions and limitations** to this warranty.

Warranty Term Exclusions	Warranty Period
Air filters, auger paddles, brake arms, brake linings, brake shoes, brushes, cutters, fuel filters, halogen headlights, knives, halogen light bulbs, lubricants, mower blades, oil, oil filters, spark plugs, scraper blades, shear bolts and skid shoes.	Components are not covered under warranty.

Hydro-Gear Transaxle Limitation
See Hydro-Gear warranty. The warranty is administrated by AriensCo. Refer to www.ariens.com for warranty statement.

Warranty Term Limitations	Warranty Period
Cloth, Plastic and Rubber Components. Mufflers, Tires and Belts.	Components are covered for manufacturer's defect only, not wear.
Parker Actuators	1 Year.

Exclusions – Items Not Covered by This Warranty

- Parts that are not genuine Ariens service parts are not covered by this warranty and may void the warranty if the parts result in premature wear or damage to the product.
- Damages resulting from the installation or use of any part, accessory, or attachment which is not approved by AriensCo for use with product(s) identified herein are not covered by this warranty.
- Any misuse, alteration, improper assembly, improper adjustment, neglect, or accident which requires repair is not covered by this warranty.
- Repairs or adjustments required due to failure to use fresh fuel or failure to properly prepare the unit for periods of non-use.
- **Use of gasoline blends exceeding 10% ethanol voids any and all warranties.**
- **Any tampering with the hour meter voids any and all warranties.**
- Products are designed to the specifications in the area that the product was originally distributed. Different areas may have significantly different legal and design requirements. This warranty is limited to the requirements in the area in which the unit was originally distributed. AriensCo does not warrant this product to the requirements of any other area. Warranty service is limited to service within the area originally distributed.
- In countries other than the United States and Canada, contact the AriensCo dealer for warranty policies that govern within your country. Rights may vary from country to country and within any one country.

Evaporative Emissions Control Warranty Exception

As required by the California Air Resources Board (CARB) and the US Environmental Protection Agency (EPA) the evaporative emissions control system is warranted to the ultimate purchaser, and any subsequent owner, for two years.

The CARB and EPA evaporative emissions control system warranty is described in a separate evaporative emission control warranty statement.

Battery Warranty

Battery warranty is one year. Units used for rental or lease have no exceptions to the 90-day warranty. Total battery claim reimbursement will not exceed 45.00 USD.

Engines

The chart below details engine warranty information. Engine warranty terms may vary from the specific terms of this warranty. If inconsistent, the terms of the engine warranty shall apply to the engine and its component parts.

Engine Manufacturer	Detail
Ariens AX	Ariens-branded engines are warranted by the manufacturer and the warranty is administrated by AriensCo. Refer to the engine manual or www.ariens.com for warranty statements.
Briggs & Stratton, Kawasaki, Kohler	Covered by the engine manufacturer's warranty. Refer to the engine manufacturer's warranty statements.

Parts and Accessories

Service replacement parts and non-serialized accessories are warranted for 90 days from date of purchase. Labor is not included.

Customer Responsibilities

Register the product immediately at the time of sale. If the dealer does not register the product, the customer must register the unit on-line at www.ariens.com.

To obtain warranty service, the **original purchaser** must:

- Ensure that the maintenance and adjustments explained in the Operator's Manual are routinely completed.
- Promptly notify AriensCo or an authorized Ariens service representative of the need for warranty service.
- Transport the product to and from the place of warranty service at owner's expense.
- Have the warranty service performed by an authorized Ariens service representative.

To find an authorized dealer use the dealer locator on our websites, or contact us by mail or phone.

Globally (Except Australia or New Zealand):	Australia:	New Zealand:
AriensCo 655 W. Ryan Street Brillion, WI 54110 Phone: (920) 756 - 4688 www.ariensco.com	Masport Australia Pty Ltd 27 Commercial Drive Dandenong South Victoria 3175 Australia Phone: 1300 366 225 www.masport.com.au	Masport Ltd 320 Ti Rakau Drive East Tamaki Auckland 2013 New Zealand Phone: 0800 627 7678 www.masport.co.nz

Disclaimer

AriensCo may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating the AriensCo 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

AriensCo 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. AriensCo 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.

AriensCo shall not be held liable for damages, including premature wear and tear, or injuries caused by installation of unauthorized parts and accessories or for parts and accessories not installed by an authorized Ariens dealer.

Australian Consumer Law

The following applies solely to warranties subject to Subsection 102(1) of the Australian Consumer Law: Our goods come with guarantees that cannot be excluded by the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

Disclaimer of Further Warranty

AriensCo 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 AriensCo, 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 region to region.



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THE KING OF SNOW

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Brillion, WI 54110

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WARNING: Cancer
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