APEX

ARIENS®

OPERATOR'S MANUAL
MANUEL DU UTILISATEUR

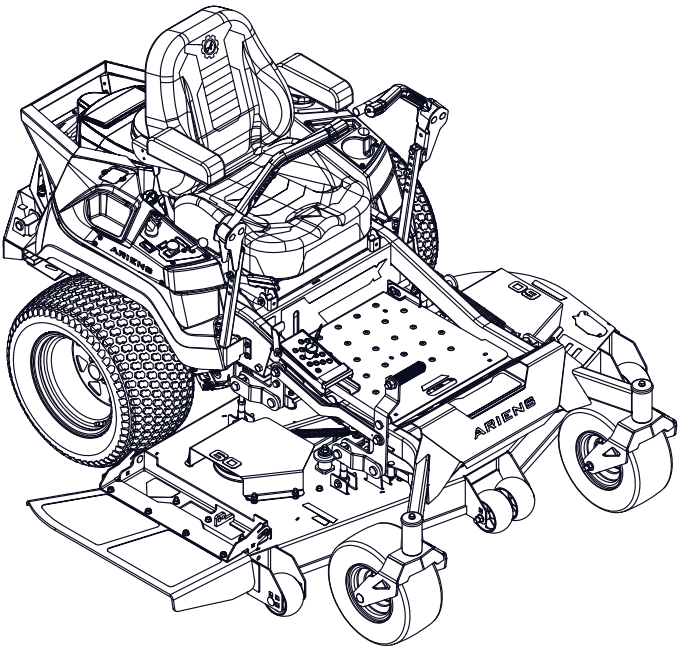
MODELS

991159 – APEX 52
(SN 095000 +)

991163 – APEX 60
(SN 095000 +)

991296– APEX 48
(SN 095000 +)

991590– APEX 60
(SN 095000 +)



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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.

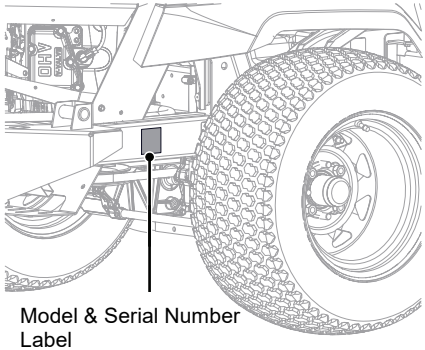
Have Questions or Need Assistance?
www.ariens.com

A service manual and parts manual for your unit are 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.



Model & Serial Number Label

Figure 1

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 cutting 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.

Safety Decal Locations

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.

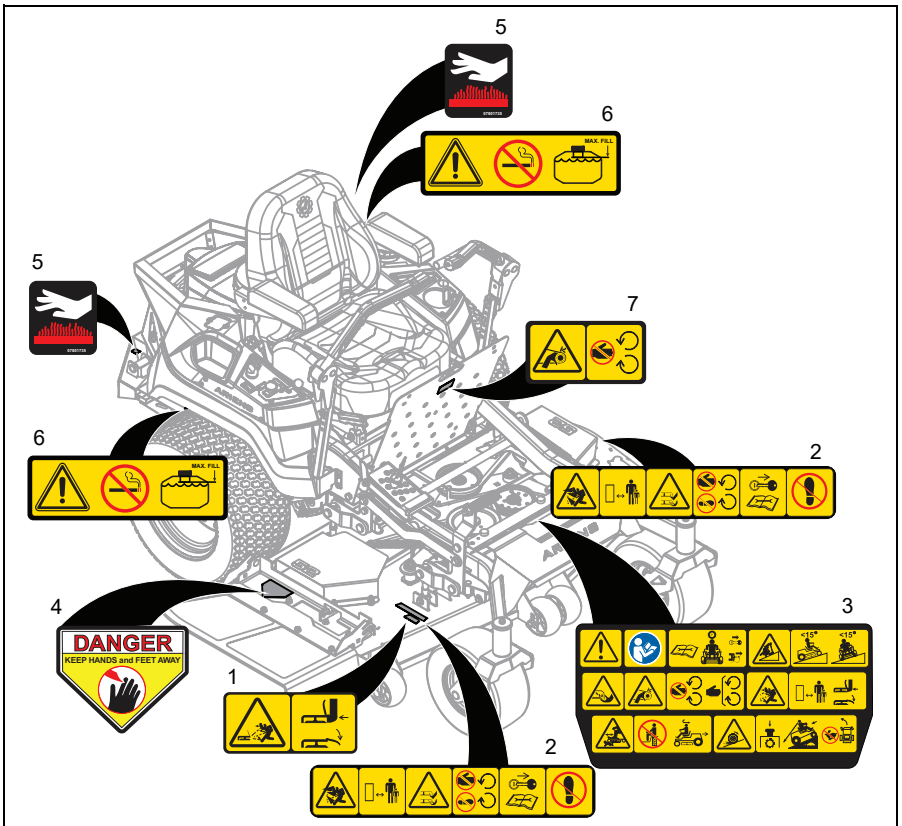


Figure 2

Safety Decal Descriptions

1. DANGER!



Discharge Hazard - NEVER operate unit without discharge chute in operating position. Thrown objects can cause injury or damage.



DO NOT operate mower unless all guards are in operating position or bagger is attached.

2. DANGER!



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



Amputation Hazard - NEVER stick hands or feet under deck or shielded areas.



Shut off engine, remove key, and read manual before servicing or making adjustments to unit.



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



Keep feet and hands away from all rotating or moving parts.



DO NOT step or stand in this area.

3. DANGER!



DANGER!



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

3. Amputation Hazard



To avoid amputation hazard DO NOT put hands near rotating blades.



To avoid amputation hazard DO NOT put hands near moving belts.



Keep hands away from all rotating or moving parts.

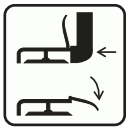


Keep all guards and shields in place.

3. Discharge Hazard



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



DO NOT operate mower unless all guards are in operating position or bagger is attached.



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

3. Tipping Hazard



Avoid tipping hazard.



DO NOT operate on slopes over 15°.



DO NOT operate on slopes over 15°.

3. Service Hazard



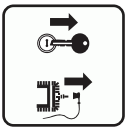
Before servicing unit do the following:



Read owners manual before servicing or making adjustments to unit.



Set parking brake.



Remove key and disconnect spark plug before servicing or making adjustments to unit.

3. Bystander Hazard



DO NOT operate the unit in the presence of bystanders.



DO NOT carry passengers.

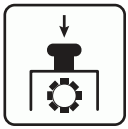


Look behind when operating the unit in reverse.

3. Loss of Traction Hazard



If loss of traction is experienced do the following:



Disengage PTO.



Proceed off slope slowly.



DO NOT try to turn or speed up.

4. DANGER!



ALWAYS keep hands and feet away from discharge chute.

5. HOT PARTS!



DO NOT touch parts which are hot from operation. ALWAYS allow parts to cool.

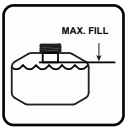
6. DANGER!



DANGER!



No smoking.



IMPORTANT: DO NOT overfill. Fill fuel tank to below bottom of filler neck.

WARNING: Overfilling may cause severe damage to evaporative system!

- NEVER fill fuel tank when engine is running, hot or unit is indoors. NEVER overfill fuel tank.
- Replace fuel cap securely and clean up spilled fuel.

7. DANGER!



To avoid amputation hazard DO NOT put hands near moving belts.



Keep hands away from all rotating or moving parts.

SAFETY INSTRUCTIONS

The following safety instructions are based on the B71.1 specifications of the American National Standards Institute and ISO 5395 in effect at the time of production.

Safe Practices for Ride-On Mowers

If used improperly, this machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death. Use only for purposes intended as set forth in the Operator's Manual. Other use is improper and may cause serious injury or death.

General Information
Read, understand, and follow instructions and warnings in this manual and on the machine, engine and attachments.
Only allow operators, who are responsible, trained, familiar with the instructions, and physically capable to operate the machine.
DO NOT carry passengers and keep people or pets away from the mowing area.
DO NOT operate the machine while physically or mentally impaired, feeling tired, ill or under the influence of alcohol or drugs.
Follow the manufacturer’s recommendation for wheel weights or counterweights.
DO NOT touch parts which are hot. Allow parts to cool.

Preparation Before Operating
Inspect unit before each use for missing or damaged decals and shields, correctly operating safety interlock system, ROPS and deterioration of grass catchers. Replace or repair as needed.
Clear the operating area of all objects which could be thrown by or interfere with operation of the machine.
Keep the area of operation clear of all bystanders, particularly small children. Stop the machine and attachment(s) if anyone enters the area.
DO NOT operate the machine without the entire grass catcher, discharge chute, or other safety devices in place and functioning properly. Check frequently for signs of damage, wear or deterioration and replace as needed.

NEVER tamper with safety devices. Check their proper operation regularly. NEVER do anything to interfere with the intended function of a safety device or to reduce the protection provided by the safety device.

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

Wear appropriate personal protective equipment such as safety glasses, hearing protection, and substantial footwear. DO NOT mow barefoot or while wearing sandals.

Operating

Improper use of power equipment can cause serious permanent injury or death to the operator or a bystander. Understand:

- How to operate all controls
- The functions of all controls
- How to STOP in an emergency
- Braking and steering characteristics
- Turning radius and clearances

If the operator or the mechanic cannot read the manual, it is the owner’s responsibility to explain it to them.Manuals are available in other languages at www.ariens.com.

Only run the engine in well ventilated areas. Exhaust gases contain carbon monoxide, an odorless deadly poison.

Only operate the machine in daylight or good artificial light.

Avoid holes, ruts, bumps, rocks and other hazards. Uneven terrain could overturn the machine, or cause operator to lose their balance, footing and/or control of the mower.

DO NOT put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.

Avoid slippery surfaces. ALWAYS be sure of your footing.

Stop engine before removing grass catcher or unclogging chute.

DO NOT direct discharge material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces. DO NOT mow into roads or across sidewalks.

DO NOT leave a running machine unattended. ALWAYS park on level ground, disengage the attachment, set parking brake, stop engine and remove key (if applicable) before leaving the operator's position.

DO NOT mow in reverse unless absolutely necessary. ALWAYS look down and behind before and while backing.

Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, DO NOT operate the machine; seek shelter.

If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.

ALWAYS check overhead and side clearances carefully before operation. Keep in mind that your mower deck may be wider than your track width.

Children Specific

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. NEVER assume that children will remain where you last saw them.

Keep children out of the operating area and under the watchful care of a responsible adult other than the operator.

Do not carry children, even with the blade(s) shut off. Children could fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past could suddenly appear in the mowing area for another ride and be run over or backed over.

DO NOT allow children under the age of 18 to operate any outdoor power equipment.

Slope Specific

Slopes are a major factor related to accidents. Operation on slopes requires extra caution. If you feel uneasy on a slope DO NOT mow it. Use the parking brake for emergency stops.

DO Not operate on slopes of more than 15°.

Do not mow within 1.2 M (4 feet) of a drop off. Do not mow within 1.2 M (4 feet) of a pond or other waterway.

The primary hazard of slope operation is loss of control and/or roll over.

Mow up and down slopes, NEVER across. Exercise caution when changing direction on slopes. Use caution while operating near dropoffs.
Avoid mowing wet grass. Wet surfaces can cause a loss of traction and control.
DO NOT operate machine under any condition where traction, steering, or stability is in question. Tires could slide even if the wheels are stopped.
Always keep the machine in gear when going down slopes. Do not coast downhill.
Avoid starting and stopping on slopes. Avoid making sudden changes in speed or direction. Make turns slowly and gradually.
Use extra care while operating machine with a grass catcher or other attachment(s). They can affect the stability of the machine.

Fire and Fuel Specific
Extinguish all cigarettes, cigars, pipes and other sources of ignition.
Use only an approved fuel container.
DO NOT remove fuel cap or add fuel with the engine running or while hot.
DO NOT refuel indoors or in enclosed spaces.
DO NOT store the machine or fuel container, or refuel, where there is an open flame, spark, or pilot light such as on a water heater or other appliance.
If fuel is spilled, DO NOT attempt to start the engine and avoid creating any source of ignition until fuel vapors have dissipated.
To help prevent fires: keep machine free of grass, leaves, or other debris build up; clean up oil or fuel spillage and remove any fuel soaked debris; allow engine to cool before storing.
Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.

Hauling
Use a single full-width ramp for loading and unloading a machine for transport. Secure with appropriate straps.

Towing
Follow the manufacturer’s recommendation for weight limits for towed equipment and towing on slopes.

Service
Keep machine in good working order. Replace worn or damaged parts.
Use caution when servicing blades. Wrap the blade(s) or wear gloves. Replace damaged blades. DO NOT repair or alter blade(s).
Disconnect spark plug wire(s) and the negative battery cable before making any repairs.
Use only attachments recommended by AriensCo that are appropriate to your use and can be used safely in your application.
The use of non-genuine replacement parts or accessories could adversely affect machine operation and safety.
DO NOT change engine governor setting or overspeed the engine.

CONTROLS AND FEATURES

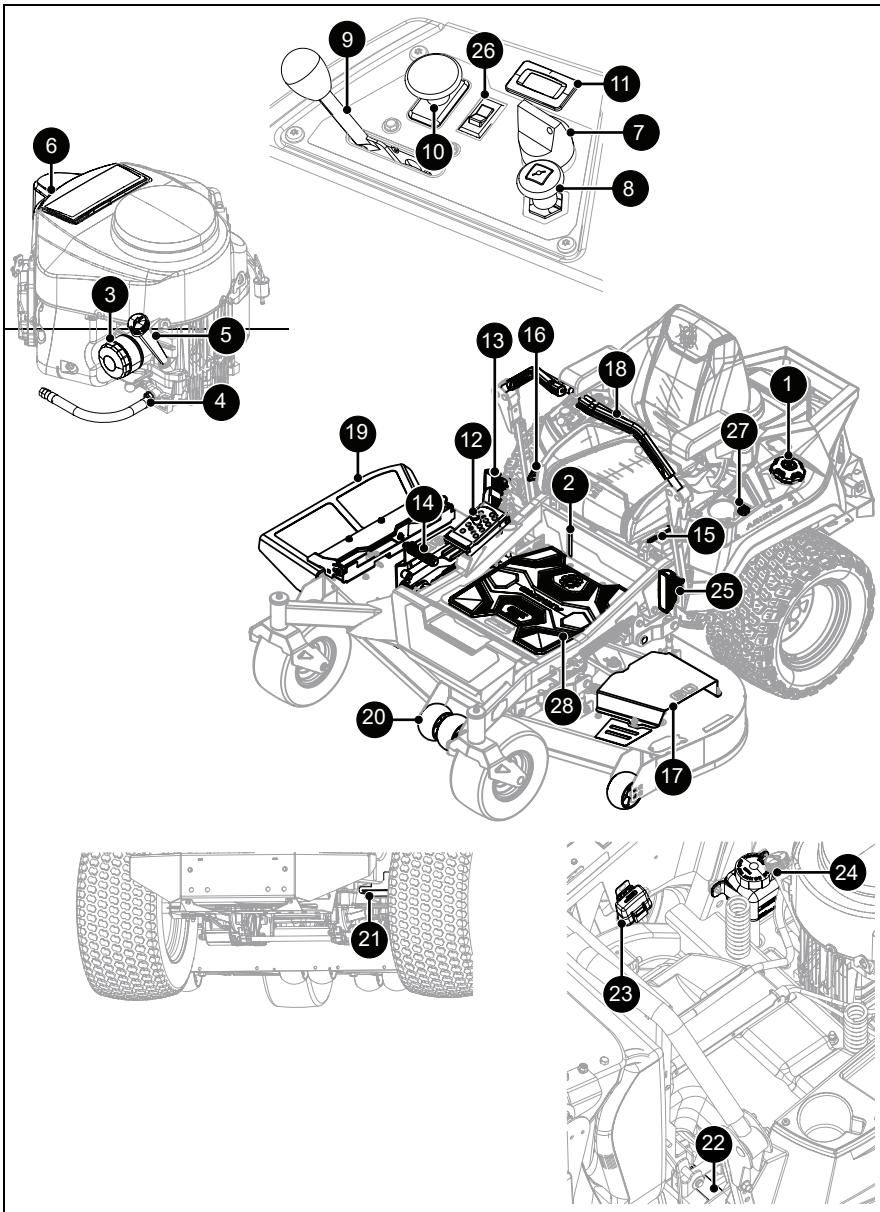


Figure 3

1. Fuel Tank and Cap
2. Fuel Level Window
3. Oil Filter
4. Oil Drain
5. Engine Oil Dipstick
6. Air Filter
7. Ignition Key
8. Choke Control Knob
9. Throttle Control Lever
10. Power Take-off (PTO) Knob
11. Hour Meter
12. Height-of-Cut Adjustment System
13. Transport Lock Release Lever
14. Deck Lift Pedal
15. Seat Adjustment Lever
16. Parking Brake Lever
17. Belt Cover (2)
18. Steering Lever (2)
19. Discharge Chute
20. Anti-Scalp Wheel (6)
21. Transaxle Bypass Lever (2)
22. Battery (Under Seat)
23. Fuse Box
24. Hydraulic Oil Expansion Tank (2)
25. Headlight (Model 991590)
26. Headlight Switch (Model 991590)
27. USB Port (Model 991590)
28. Floor Mat (Model 991590)

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

See Figure 3 for all controls and features locations.

IGNITION KEY

See Figure 4.

Controls power to the engine. The key cannot be removed when in run position.

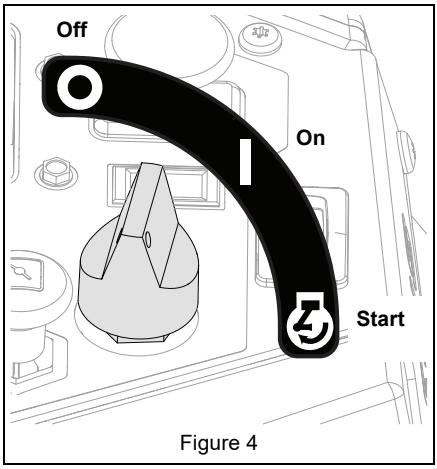


Figure 4

CHOKE CONTROL KNOB

See Figure 5.

Controls airflow to the engine.

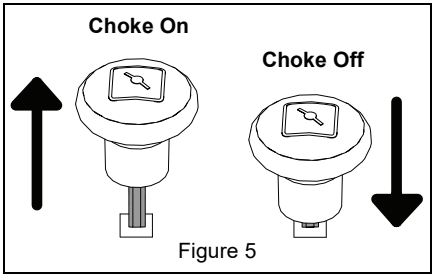


Figure 5

THROTTLE CONTROL LEVER

See Figure 6.

Controls engine speed.

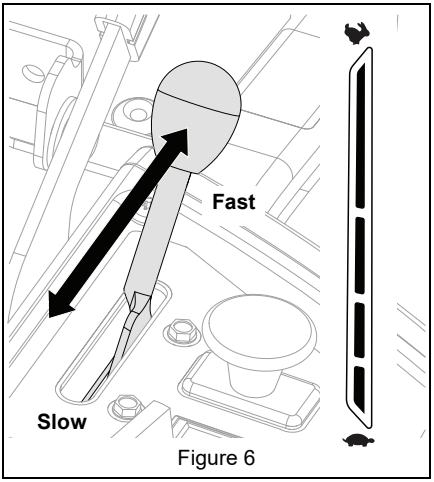


Figure 6

POWER-TAKE-OFF (PTO) KNOB

See Figure 7.

Controls power to mower blades. The engine will not start with the PTO knob in the on position.

WARNING: AVOID INJURY. Blades will not *immediately* stop after pushing PTO knob down to off position.

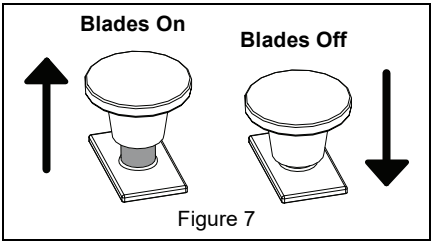


Figure 7

HOUR METER

Measures engine runtime and cannot be reset.

HEIGHT-OF-CUT ADJUSTMENT SYSTEM

Sets the height of cut.

DUAL PORT USB 12V CHARGER

Model 991590

12v charging port with inputs for one USB-A and one USB-C compatible device.

TRANSPORT LOCK RELEASE LEVER

See Figure 8.

Releases deck from transport lock position.

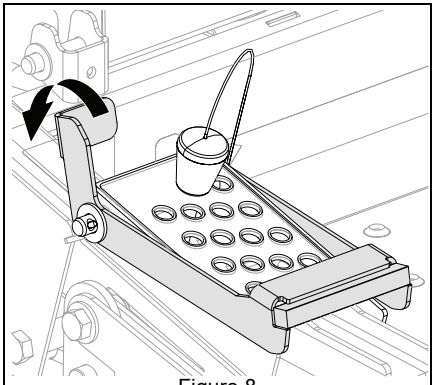


Figure 8

DECK LIFT PEDAL

Raises mower deck to change height-of-cut setting.

SEAT ADJUSTMENT LEVER

Unlocks seat to allow operator to move seat forward or backward and then lock in desired position.

PARKING BRAKE LEVER

See Figure 9.

Controls the parking brake. The engine will not start with brake in the off position.

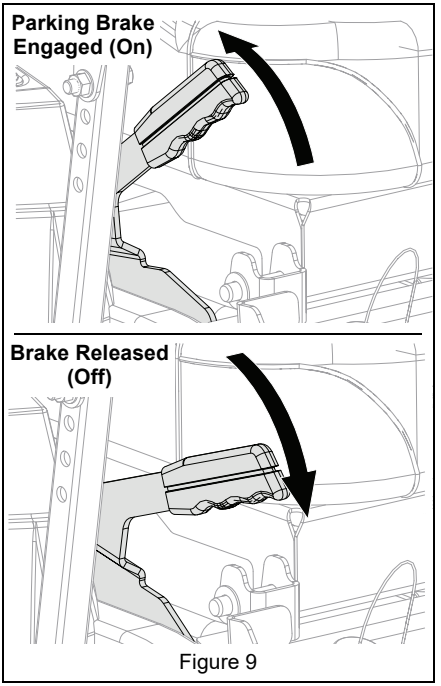


Figure 9

SAFETY INTERLOCK SYSTEM

Monitors the interaction of various unit features for operator safety.

STEERING LEVERS

Control the direction and speed of unit. To stop unit, return both steering levers to neutral.

TRANSAXLE BYPASS LEVERS

Control the transaxles so unit may be moved with the engine off.

ANTI-SCALP WHEEL

Help prevent the deck from contacting the ground and scalping the lawn when passing over a high spot.

HEADLIGHT SWITCH

Model 991590

Turns headlight on and off.

OPERATION

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

IMPORTANT: All references to left, right, front or rear are given from the perspective of operator in operator's position, facing the direction of forward travel.

EMERGENCY STOPPING

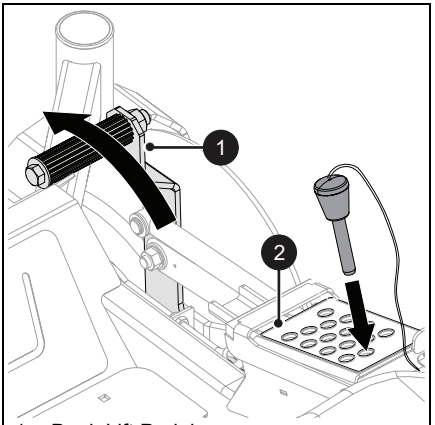
1. Move steering levers to neutral position.
2. Engage parking brake.
3. Push PTO knob down to off position.
4. Turn ignition key to off position and remove key from ignition.

BEFORE OPERATING UNIT

1. Check fuel level and add fuel if needed.

IMPORTANT: Use fresh unleaded fuel with an octane rating of at least 87. DO NOT use E85 blended fuels; the engine is not E20 / E30 / E85 compatible. The maximum recommended ethanol content is 10%. Ariens recommends using a quality fuel stabilizer in all fuel. See *Short-Term Storage* on page 25.

2. Check engine oil level and add oil if needed. Refer to engine manual.
3. Check condition of air cleaner. Refer to engine manual.
4. Check function of the Safety Interlock System by performing the tests in *Check Safety Interlock System* on page 17. Contact your Ariens dealer for repair if any of the tests fail.
5. Set cutting height. See Figure 10.
   a. Push mower lift pedal forward until transport lock engages.
   b. Insert adjustment pin through desired setting in height-of-cut adjustment system.
   c. Push mower lift pedal slightly forward, release transport lock and slowly release pedal until it contacts adjustment pin and stops.



1. Deck Lift Pedal
2. Height-of-Cut Adjustment System

Figure 10

START THE ENGINE

1. Push PTO knob down to off position.
2. Move steering levers to neutral position.
3. Engage parking brake.
4. If engine is cold, pull choke knob up to on position. If engine is warm or hot, turn choke off.
5. Set throttle to slow speed.
6. Insert ignition key and turn to start position. Release key when engine starts.

IMPORTANT: Do not operate the starter for more than 10 seconds at a time. If the engine does not start, allow a 60-second cool down period between starting attempts.

7. If choke is on, wait a few seconds after engine starts and then push choke knob down to off position.

IMPORTANT: Make sure choke is completely off. Engine will not run smoothly using partial choke.

OPERATE UNIT

1. Release parking brake.
2. Set throttle control lever to fast position.

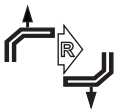
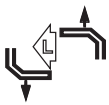
IMPORTANT: Engaging the PTO knob with the throttle lever set lower than fast position can cause excessive belt wear. ALWAYS use fast position when engaging the PTO.

3. Pull PTO knob up to on position.

IMPORTANT: Never engage the PTO if the mower is plugged with grass or other material. This may cause damage to the electric clutch.

WARNING: AVOID INJURY. Move the steering levers slowly and keep the throttle at slow speed until you learn how to operate the unit.

4. Move steering levers to begin mowing.

Direction of Travel	Lever Position
Forward	Push both levers forward from neutral position. 
Reverse	Pull both levers backward from neutral position. 
Right Turn	Push left lever farther forward than the right lever. 
Left Turn	Push right lever farther forward than the left lever. 
Stop	Return both levers to neutral position. 

IMPORTANT: Aggressive turning can scuff or damage lawns. Always keep both wheels rotating when making sharp turns. DO NOT make turns with inside wheel completely stopped. For minimum turning radius, slowly reverse inside wheel while moving outside wheel slowly forward.

For Best Mowing Results

- Cut grass when it is dry.
- Keep mower blades sharp.
- Keep mower deck properly leveled.
- Do not set height of cut too low. For very tall grass, mow twice.
- Do not travel too fast.
- Mow with the engine set at full throttle.
- When mulching, only remove 1/3 of grass length per cutting. Do not cut more than 2.5 cm (1") at any one time.
- Discharge clippings into areas already cut.
- Vary cutting pattern with each mowing.
- Do not allow grass or debris to collect inside of mower deck. Clean after each use.

STOP THE ENGINE

WARNING: AVOID INJURY. Wait for all moving parts to stop before leaving operator's position.

1. Move steering levers to neutral position and rotate outward.
2. Engage parking brake.
3. Push PTO knob down to off position.
4. Set throttle to slow speed.
5. Turn ignition key to off position and remove key from ignition.

MOVE UNIT MANUALLY

Bypass the transaxles to move the unit with the engine off.

IMPORTANT: There is one transaxle bypass lever on each side of unit. Ensure that both levers are fully in front or rear position.

1. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
2. Pull both transaxle bypass levers out into bypass position. See Figure 11.

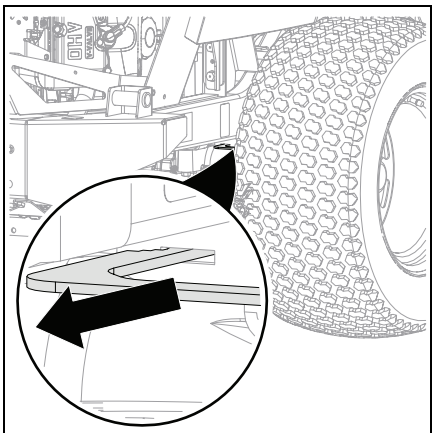


Figure 11

3. Release parking brake and push unit to desired location.
4. Engage parking brake.

5. Return transaxle bypass levers to operating position. See Figure 12.

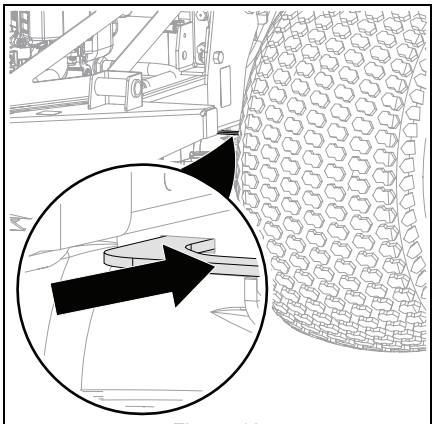


Figure 12

TRANSPORT UNIT

1. Push deck lift pedal completely forward to engage transport lock. Release pedal.
2. Move unit to transport vehicle.
3. Stop engine, engage parking brake and remove key from ignition.
4. Secure mower frame to transport vehicle.

NOTICE: NEVER secure unit to vehicle from rods or linkages that could be damaged.

RELEASE TRANSPORT LOCK

1. Push deck lift pedal forward and lift transport lock release lever.
2. Slowly return mower lift pedal to resting position.

MAINTENANCE

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

Your Ariens dealer can provide service and adjustments to keep your unit operating at peak efficiency.

Contact an authorized engine manufacturer's service center for engine service.

MAINTENANCE SCHEDULE

Service Performed	Each Use	Every 25 hrs.	Every 50 hrs.	Every 100 hrs.	Every 400 hrs.
Clean Engine of Any Grass or Debris	•				
Clean Mower Deck of Any Grass or Debris	•				
Check Safety Interlock System	•				
Check Hydraulic System	•				
Check Parking Brake	•				
Check Engine Oil *	•				
Change Engine Oil *					
Check Tire Pressure	•				
Check Mower Blades	•				
Check Battery		•			
Clean Battery		•			
Check Air Filter *			•		
Check Fasteners			•		
Lubricate Unit			•		
Clean Engine Cooling System*				•	
Check Belts				•	
Change Hydraulic Oil and Filter **					•

* Refer to engine manual for instructions

** Change after first 75 hours of operation

SERVICE PARTS

See your Ariens dealer to purchase service parts for your unit.

Description	Qty.	Part No.
Transaxle Drive Belt	1	07225600
Mower Belt – Right 48"	1	07200805
Mower Belt – Left 48"	1	07200815
Mower Belt – Left 52"	1	07200816
Mower Belt – Right 52"	1	07200806
Mower Belt – Left 60"	1	07200817
Mower Belt – Right 60"	1	07200807
Mower Blade –48"	3	00450200
Mower Blade – 52"	3	03253800
Mower Blade – 60"	3	03253900
Seat Switch	1	03654200
Hydraulic Oil – 32 oz (1 Qt.)	AR	00057100
Hydraulic Oil Filter	2	21545100
Fuel Filter	1	21548101
Engine Oil Filter	1	21548100
Air Filter	1	21548000
Muffler Gasket	1	00191627
Relay	1	04438400
Fuel Stabilizer – 118 ml (4 oz.)	AR	04730400

SERVICE POSITION

Before starting any of the following maintenance procedures:

1. Park unit on a flat, level surface.
2. Stop engine, remove key and wait for all moving parts to stop and for hot parts to cool.
3. Engage parking brake.
4. Chock wheels. Strap and clamp unit onto lift, if used.
5. Place steering levers in neutral position and rotate outward.
6. Disconnect spark plug cables from engine.
7. Rotate seat forward. See Figure 13.

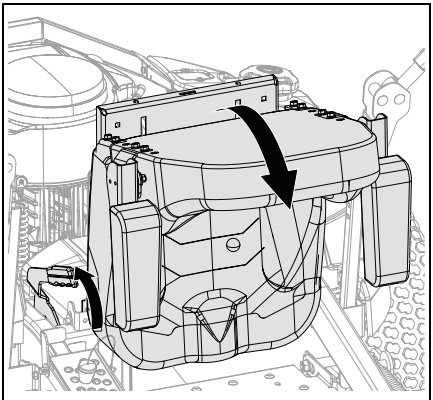


Figure 13

IMPORTANT: Reconnect spark plug wires after maintenance.

CHECK SAFETY INTERLOCK SYSTEM

Check function of the Safety Interlock System by performing the tests below. Contact your Ariens dealer for repair if any of the tests fail.

Test	Steering Levers	PTO	Parking Brake	Result
Starting Interlock				
1	Neutral	Off	On	Engine starts.
2	Forward, Neutral, Reverse	On	On or Off	Engine does not start.
3	Forward, Neutral, Reverse	On or Off	Off	Engine does not start.
Operating Interlock (Engine On)				
4 *	Forward, Neutral, Reverse	On	On or Off	Engine shuts off.
5 *	Forward, Neutral, Reverse	On or Off	Off	Engine shuts off.
* When operator lifts off seat.				

CHECK PARKING BRAKE

1. Place unit in service position. See *Service Position* on page 16.
2. Bypass transaxles. See *Move Unit Manually* on page 14.
3. Push unit forward.
   - If unit does not move forward, no further action is needed.
   - If unit easily moves forward, adjust the brake lever. Refer to your unit's Service Manual.

CHECK ENGINE OIL

NOTICE: Engine oil level must be maintained at correct level or engine damage may occur. Refer to engine manual.

CHECK TIRE PRESSURE

See *Specifications* on page 26 for recommended tire pressure.

WARNING: AVOID INJURY. Explosive separation of tire and rim parts is possible.

- DO NOT inflate tires above the recommended pressure.
- DO NOT inflate tires with a compressor; use a hand pump.
- DO NOT stand in front of tire assembly when inflating. Use a clip-on chuck and extension hose long enough to allow you to stand to one side.

CHECK FASTENERS

Check for loose or missing hardware.

LUBRICATE UNIT

1. Apply oil to all pivot points and pin connections.

Lubricate Seat

See Figure 14.

1. Place unit in service position.
2. Apply grease to seat tracks through slots under seat plate.

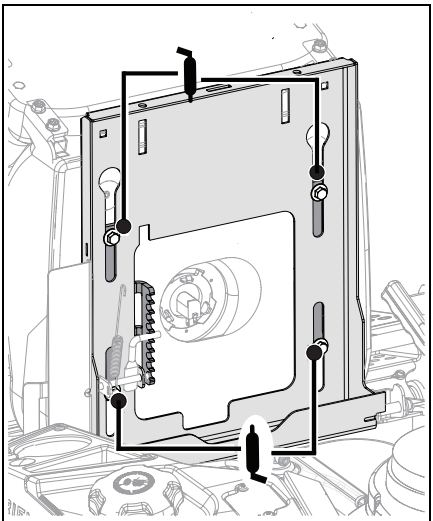


Figure 14

3. Return seat to operating position and slide seat back and forth to spread grease along tracks.

CHECK MOWER BLADES

Check blades for wear and damage. Replace or sharpen as needed.

CAUTION: AVOID INJURY. Use sturdy gloves or padding to protect hands when working with mower blades.

Rotation of one blade rotates the other blades.

CAUTION: Unbalanced blades cause excessive vibration and eventual damage to unit. Balance blades before reinstalling on unit.

NEVER weld or straighten blades.

CHECK BATTERY

WARNING: Battery posts, terminals and related accessories contain lead. Wash hands after handling.

Clean Battery

CAUTION: AVOID DAMAGE. DO NOT allow tools to contact metal surfaces when removing positive battery cable.

1. Disconnect battery cables, negative cable first.
2. Clean terminals and battery cable ends with a wire brush.
3. Coat terminals with dielectric grease or petroleum jelly.
4. Reinstall battery cables, positive first.

CHECK MOWER BELTS

Check belts for wear and replace as needed.

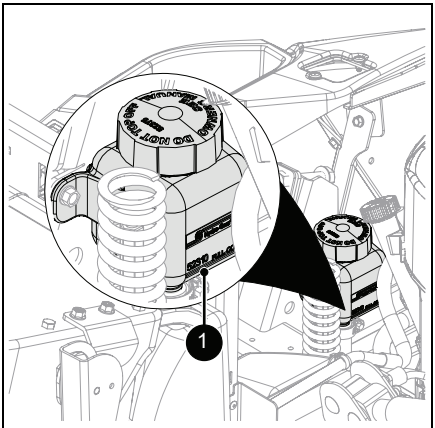
CAUTION: Keep body parts away from idler when releasing idler spring tension.

CHECK HYDRAULIC SYSTEM

Check Hydraulic Oil Level

1. Place unit in service position. See *Service Position* on page 16.
2. Check oil level in expansion tanks. Oil should reach the cold fill indicator mark. See Figure 15.

IMPORTANT: Engine should be cold when checking initial oil level.



1. Cold Fill Line

Figure 15

3. Operate engine for 1 minute and recheck oil levels.
4. Add hydraulic oil, if needed.
   a. Remove expansion tank caps.
   b. Fill expansion tanks with 15W-50 Full-Synthetic Hydraulic Fluid until oil reaches the cold fill indicator mark. See Figure 15.
   c. Reinstall expansion tank caps.

Change Hydraulic Oil and Filter

1. Operate unit for a few minutes to warm hydraulic oil.
2. Stop engine, remove key and wait for all moving parts to stop and for hot parts to cool.
3. Position container under oil filter to catch used oil.

See Figure 16.

4. Remove filter guard and oil filter from transaxle.
5. Remove the vent / fill plug from the fill port and allow transaxle to drain completely.

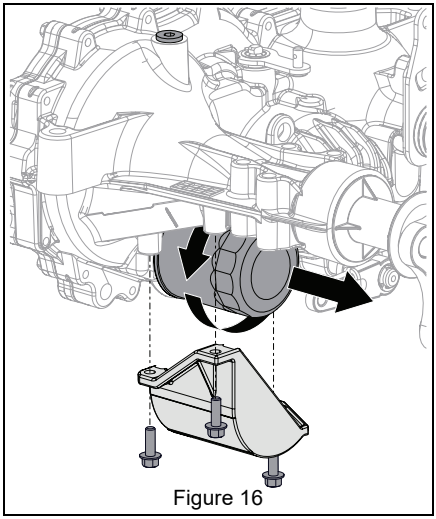


Figure 16

6. Wipe filter-mounting surface clean.
7. Lubricate rubber gasket on new oil filter with clean hydraulic oil.
8. Spin filter onto filter housing until it makes contact, and then turn filter 3/4 turn to tighten.
9. Reinstall filter guard and torque to 7.3 N•m (65 lb-in). DO NOT overtighten.
10. Add 15W-50 Full-Synthetic Hydraulic Fluid until oil appears at the bottom of the fill port (1892.7 mL (64 fl. ounces) per transaxle).
11. Reinstall the vent / fill plug and torque to 20.3 N•m (180 lb-in).
12. Add hydraulic oil to expansion tank until oil reaches cold fill indicator mark.
13. Repeat steps 3 – 12 for other transaxle.
14. Purge hydraulic system. See *Purge Hydraulic System* on page 19.

Purge Hydraulic System

Purge air from hydraulic system after draining oil or changing the filter.

WARNING: AVOID INJURY. This adjustment requires operating the engine. Use extreme care to avoid contact with moving parts and hot surfaces. Be sure rear of unit is well supported and secure before starting engine.

1. Park unit facing a wall or chock wheels.
2. Release parking brake.
3. Support unit so drive wheels are off the ground.
4. Bypass transaxles. See *Move Unit Manually* on page 14.
5. Start the engine and slowly move steering levers forward and backward 5 or 6 times.
6. Return transaxle bypass levers to operating position. See *Move Unit Manually* on page 14.
7. Slowly move steering levers forward and backward 5 or 6 times.
8. Stop engine, lower unit to ground and check oil level. Add oil if needed.
9. Repeat steps 1 – 8 until transaxles operate smoothly in forward and reverse at normal speed without excessive noise.

ADJUSTMENTS

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

ADJUST SEAT

See Figure 17.

1. Pull seat adjustment lever up to unlock seat.
2. Move seat to desired position.
3. Release seat adjustment lever to lock seat in place.

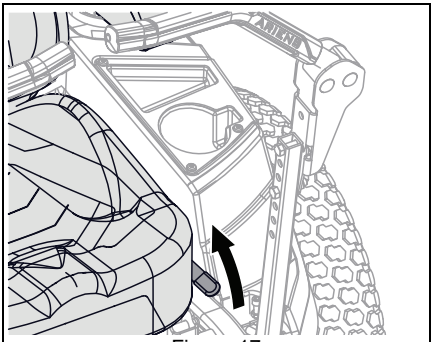


Figure 17

ADJUST STEERING LEVERS

Adjust Height

The steering lever height may be adjusted for operator comfort. See Figure 18.

1. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
2. Remove steering lever hardware and remove steering lever from lower control arm.
3. Position steering lever at desired height and align with lower control arm. Secure with original hardware.

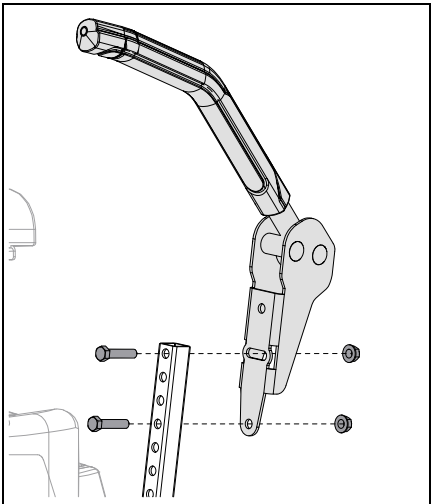


Figure 18

4. Turn eccentric spacer so levers are at the same height and have a 1.3 cm – 2.5 cm (1/2" – 1") gap between lever ends. See Figure 19.

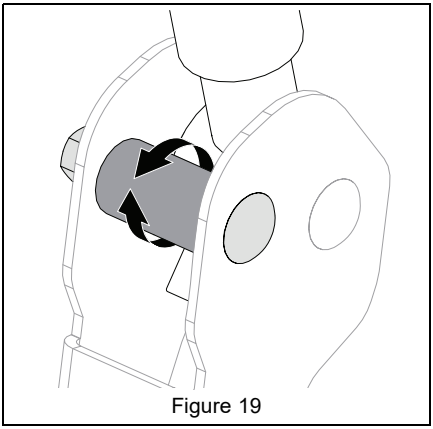


Figure 19

If there is more than 3.2 mm (1/8") between the horizontal alignment of the steering levers, align the levers.

5. Loosen mounting hardware, align levers and tighten hardware. See Figure 20.

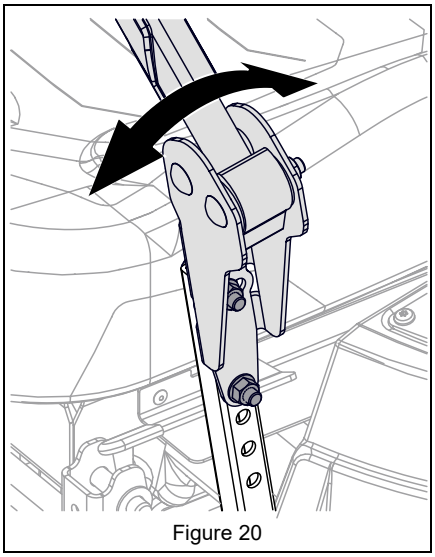


Figure 20

Adjust Forward Position

The steering lever forward position may be adjusted for operator comfort.

1. Stop engine, remove key and wait for moving parts to stop and for hot parts to cool.
2. Loosen mounting hardware on steering lever assemblies.
3. Place steering levers in desired position:
   - Gently push levers forward for greater distance from operator.
   - Gently pull levers back for closer distance to operator.
4. Tighten hardware.

ADJUST UNIT TO DRIVE STRAIGHT

Adjust Tire Pressure

1. Place unit in service position. See *Service Position* on page 16.
2. Check tire pressures. If needed, adjust to recommended pressures. See *Specifications* on page 26.
3. Check tracking.
   - If unit does not track straight, increase tire pressure to the drive wheel of the side it moves toward.

IMPORTANT: DO NOT exceed maximum tire pressure listed on tire sidewall.

- If increasing tire pressure does not correct tracking, adjust the limiter bolts as directed below.

Adjust Limiter Bolts

See Figure 21.

Limiter bolts can be adjusted to increase or decrease drive wheel speeds. To adjust:

1. Loosen jam nut.
   - Turn limiter bolt counterclockwise to increase maximum drive wheel speed on that side.
   - Turn limiter bolt clockwise to reduce maximum drive wheel speed on that side.
2. Tighten jam nut.

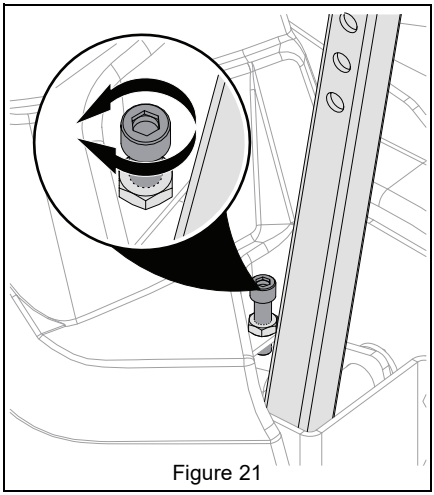


Figure 21

3. Align steering levers. See *Adjust Steering Levers* on page 20.

ELECTRICAL SERVICE

See Controls and Features on page 9 for fuse box location.

Replace Fuse

See Figure 22.

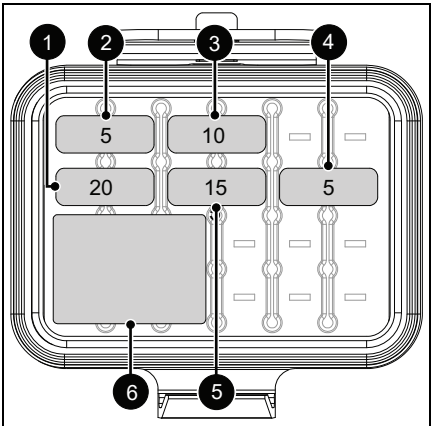
IMPORTANT: To avoid damaging the circuit, replace fuses with fuses of the same amperage rating. Determine the cause of electrical failure and repair before replacing failed electrical components.

1. Place unit in service position. See *Service Position* on page 16.
2. Remove fuse box cover.
3. Remove defective fuse.
4. Determine cause of fuse failure and repair condition.
5. Install new fuse.
6. Replace fuse box cover. Ensure cover snaps tightly in position.

Replace Relay

NOTICE: Relays are interchangeable. Use only quality replacement parts. See *Service Parts* on page 16.

1. Place unit in service position. See *Service Position* on page 16.
2. Remove fuse box cover.
3. Remove defective relay.
4. Determine cause of relay failure and repair condition.
5. Install new relay.
6. Replace fuse box cover. Ensure cover snaps tightly in position.



1. Regulator Fuse 20A
2. Controls Fuse 5A
3. PTO Fuse 10A
4. Starter Fuse 5A
5. Auxiliary Fuse 15A
6. Run Relay

Figure 22

TROUBLESHOOTING

Problem	Probable Cause	Correction
Engine does not start.	Safety Interlock System is not engaged or is faulty.	Check Safety Interlock System. See *Check Safety Interlock System* on page 17.
	Fuel tank is empty.	Fill fuel tank. See *Before Operating Unit* on page 13.
	Fuel supply is contaminated.	Replace with clean fuel.
	Battery is discharged.	Charge battery. Refer to your unit's Service Manual.
	Connection between battery and battery cables is poor.	Tighten and/or clean battery and battery cables. See *Clean Battery* on page 18.
	Spark plug wire(s) are loose or spark plug(s) are faulty.	Connect spark plug wire(s) or replace spark plug(s). Refer to engine manual.
	Electrical system is faulty.	Contact your Ariens dealer.
	Engine is faulty.	Contact your Ariens dealer.
Engine runs rough.	Choke control knob is in on position.	Move knob to off position.
	Air filter cartridge is plugged.	Clean or replace air filter cartridge. Refer to engine manual.
	Engine is faulty.	Contact your Ariens dealer.
Engine overheats.	Engine oil level is low.	Add engine oil. Refer to engine manual.
	Cooling fins are plugged.	Clean engine. Refer to engine manual.
	Engine is faulty.	Contact your Ariens dealer.
Unit does not drive.	The transaxles are bypassed.	Engage levers. See *Move Unit Manually* on page 14.
	Transaxle drive belt is faulty.	Contact your Ariens dealer.
	Transaxles are faulty.	Contact your Ariens dealer.
PTO malfunctions.	Operator presence switch is not engaged.	Activate switch by sitting on operator seat.
	Operator presence switch is faulty.	Contact your Ariens dealer.
	PTO belt is faulty.	Replace belt. Refer to your unit's Service Manual.
	PTO switch, wiring, connectors or clutch are faulty.	Contact your Ariens dealer.
Unit moves with engine off and parking brake engaged.	Parking brake needs adjustment.	Adjust parking brake lever. Refer to your unit's Service Manual.
	Parking brake is faulty.	Contact your Ariens dealer.
Unit does not drive straight.	Tire pressure is incorrect.	Check tire pressure. See *Specifications* on page 26.
	Steering levers need adjustment.	See *Adjust Steering Levers* on page 20.
Unit creeps when steering levers are in neutral position.	Transmission and/or linkage need adjustment.	Contact your Ariens dealer.

TROUBLESHOOTING		
Problem	**Probable Cause**	**Correction**
Poor cutting quality.	Mower blades not level or mower deck pitch is incorrect.	Level and adjust pitch of mower deck. Refer to your unit's Service Manual.
	Mower blades are dull or faulty.	Sharpen or replace mower blades. Refer to your unit's Service Manual.
	Mowing speed is too fast.	Drive slower when cutting grass.
	Belt tension or condition is poor.	Replace mower belts. Refer to your unit's Service Manual.
	Cutting height is too low.	Do not set height of cut too low. For very tall grass, mow twice.
Blades do not stop within 5 seconds.	Clutch brake plates worn.	Reverse clutch brake plates. If clutch brake plates have already been reversed, replace clutch. Refer to your unit's Service Manual.

STORAGE

SHORT-TERM STORAGE

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

1. Allow unit to cool and clean with mild soap and water.
2. Tighten all hardware to correct specifications.
3. Inspect unit for visible signs of wear or damage. Repair as needed.
4. Prepare fuel system for storage.

NOTICE: Ariens recommends using a quality fuel stabilizer in all fuel. Gasoline left in the fuel system without a stabilizer, even for short periods of time, deteriorates and leaves gummy deposits in the system that may damage the carburetor and fuel hoses, filter and tank. For the best effectiveness, add stabilizer to all fuel containers whenever purchasing fuel. Add the stabilizer to the container before adding fuel.

   a. Add fuel stabilizer (see *Service Parts* on page 16) or equivalent according to manufacturer's instructions to the fuel tank and any fuel containers with remaining fuel.
   b. Run engine outdoors for at least 5 minutes to allow stabilizer to reach the carburetor.

5. Turn ignition key to off position and remove from ignition.
6. Store unit in a cool, dry, protected area. DO NOT store unit outdoors.

LONG-TERM STORAGE

1. Perform short-term storage procedures.
2. Lubricate as directed in *Maintenance* on page 15.
3. Touch-up all scratched painted surfaces.
4. Remove and charge battery. Refer to your unit's Service Manual. Store battery in a cool, dry, protected area.
5. Store unit in a cool, dry, protected area. Do not store unit outdoors.

START-OF-SEASON PREPARATION

1. Before adding fuel for the first time after long-term storage, add fresh, stabilizer-treated fuel to fuel tank and any fuel containers with remaining fuel.
2. Charge and install the battery.

ACCESSORIES

See your Ariens dealer for a complete list of compatible accessories and attachments for your unit.

Description	Part No.
Mulch Kit – 60"	79109800
Mulch Kit – 52"	79220200
Mulch Kit – 48"	79109600
Hitch Kit	70764300
Headlight Kit	70764400
Light Operator Seat Spring Kit	79107000
Flex Fork Suspension Kit	79109000
Striper Kit	79206700
Operator Controlled Discharge Baffle Kit	79110000
22" Rear Tweel Kit	79109900
Rollover Protection Structure (ROPS) Kit	89101100
Seat Isolator Kit	79110500
Bagger Attachment Kit	79107800
USB Port Kit (Models 991159, 991163, 991296)	79111200

Bagger Kits*

2-Bin Bagger	89100800
• Kit for 48" Decks	79109200
• Kit for 52" Decks	79109300
• Kit for 60" Decks	79109400

*Bagger kits are ordered in two parts; the 2-Bin Bagger Kit and the kit matching the deck size of the unit. Both parts are required for a complete kit.

SPECIFICATIONS

Model Number	**991159**	**991163**
Description	APEX 52	APEX 60
Engine	Kawasaki FR691V	Kawasaki FR730V
Engine Displacement – cm^3 (in^3)	726 (44.3)	
Maximum RPM – No Load	3600 ± 100	
Oil Capacity	Refer to engine manual.	
Liquid or Air Cooled	Air	
Transmission		
Type	Hydro-Gear ZT-3100	
Oil	15W-50 Full-Synthetic Hydraulic Fluid (P/N 00057100) or equivalent	
Hydraulic Oil Filter	Yes	
Drive		
Forward Maximum – km/h (mph)	12.9 (8)	
Reverse Maximum – km/h (mph)	6.4 (4)	
Turning Radius	Zero	
Brakes	Parking	
Electrical		
Starter	Electric	
Battery	12 Volt 12A-190 CCA (U1 Replaceable)	
PTO (Power Take-off)	Electric PTO Clutch / Brake	
Fuel		
Fuel Tank Capacity – Liter (gal)	19.3 (5.1)	
Type	See Engine Manual	
Size and Weight		
Length – cm (in)	200.7 (79)	
Width – cm (in)	170.2 (67)	190.5 (75)
Height – cm (in)	119.4 (47)	
Weight – kg (lbs)	370.1 (816)	376.5 (830)
Tires		
Front Tire Size – in	13 x 6.5-6	
Rear Tire Size – in	22 x 10.5-12	22 x 12-12
Recommended Front Tire Pressure – kPa (psi)	137.9 – 172.4 (20 – 25)	
Recommended Rear Tire Pressure – kPa (psi)	82.7 – 103.4 (12 – 15)	
Mower Deck		
Cutting Height – cm (in)	3.8 – 12.7 (1.5 – 5.0)	
Cutting Height Increments	0.635 (0.25)	
Cutting Width – cm (in)	132.1 (52)	152.4 (60)
Mower Deck Lift	Mechanical Pin Lock	

SPECIFICATIONS		
Model Number	**991296**	**991590**
Description	APEX 48	APEX 60
Engine	Kawasaki FR691V	Kawasaki FR730V
Engine Displacement – cm^3 (in^3)	726 (44.3)	
Maximum RPM – No Load	3600 ± 100	
Oil Capacity	Refer to engine manual.	
Liquid or Air Cooled	Air	
Transmission		
Type	Hydro-Gear® ZT-3100	
Oil	15W-50 Full-Synthetic Hydraulic Fluid (P/N 00057100) or equivalent	
Hydraulic Oil Filter	Yes	
Drive		
Forward Maximum – km/h (mph)	12.9 (8)	
Reverse Maximum – km/h (mph)	6.4 (4)	
Turning Radius	Zero	
Brakes	Parking	
Electrical		
Starter	Electric	
Battery	12 Volt 12A-190 CCA (U1 Replaceable)	
PTO (Power Take-off)	Electric PTO Clutch / Brake	
Fuel		
Fuel Tank Capacity – Liter (gal)	19.3 (5.1)	
Type	See Engine Manual	
Size and Weight		
Length – cm (in)	200.7 (79)	
Width – cm (in)	160 (63)	190.5 (75)
Height – cm (in)	119.4 (47)	
Weight – kg (lbs)	352.9 (778)	384 (847)
Tires		
Front Tire Size – in	13 x 6.5-6	
Rear Tire Size – in	22 x 10-12	22 x 12-12
Recommended Front Tire Pressure – kPa (psi)	137.9 – 172.4 (20 – 25)	
Recommended Rear Tire Pressure – kPa (psi)	82.7 – 103.4 (12 – 15)	
Mower Deck		
Cutting Height – cm (in)	3.8 – 12.7 (1.5 – 5.0)	
Cutting Height Increments	0.635 (0.25)	
Cutting Width – cm (in)	121.9 (48)	152.4 (60)
Mower Deck Lift	Mechanical Pin Lock	

Outdoor Power Equipment Limited Warranty

AriensCo warrants to the **original purchaser** that Ariens brand products purchased on or after 09/01/2022 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, CQ	ZENITH Mowers	4 Years or 750 Hours.*
CL	ARROW Mowers	5 Years or 1000 Hours.* No Hour Limit for First 2 Years.
HD	RAZOR Walk-Behind Mowers	3 Years Residential Use. 90 Days Commercial Use.
HE	EDGE Mowers	2 Years or 150 Hours.*
HF	IKON Mowers	3 Years or 300 Hours.*
HH	APEX Mowers	4 Years or 500 Hours.*
HI	RAZOR Walk-Behind Mowers	4 Years Residential Use. 90 Days Commercial Use.
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	Detail
SA	Cast Iron Auger Gear Case	5 Years.	Warranty is for parts only after the initial warranty period. Components are covered for manufacturer’s defect only, not wear.
SB, SD	Cast Iron Auger Gear Case	5 Years Residential Use. 1 Year Commercial Use.	
CL	Mower Deck Shell and Main Frame	Lifetime Limited.	

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 65.00 USD.

Transmissions

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

Transmission Manufacturer	Detail
Hydro-Gear Transaxle	See Hydro-Gear warranty. The warranty is administrated by AriensCo. Refer to www.ariens.com for warranty statement.
Parker Hannifin Drive & Valve Systems	Parker Transaxles, Pumps, Wheel Motors and Valves* are warranted for the length of equipment warranty period. Refer to Warranty Code chart above. Warranty is administered by AriensCo.

* Parker Actuators see Limitations chart above.

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.ariens.com	Roy Gripske & Sons Pty Ltd 11 Sodium Street Narangba Queensland 4504 Australia Phone: (61130) 036 3004 www.rgs.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.

ARIENS®

655 WEST RYAN ST.
BRILLION, WI 54110

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