



# LAWNAIRE WITH EASY STEER TECHNOLOGY

## MODELS:

**554910A**

LAWNAIRE V *with* EST - HONDA

**554913A**

LAWNAIRE IV *with* EST - HONDA

**554914B**

LAWNAIRE IV *with* EST - B&S

**554916B**

LAWNAIRE V *with* EST - B&S



MAN 4168066

Rev. B 06-2013



**OP / PARTS MANUAL**

**CALIFORNIA**

**Proposition 65 Warning**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

**⚠ WARNING**

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

**Californie Proposition 65 Avertissement**

Les échappements des moteurs diesel et certains de leurs composés sont reconnus par l'Etat de Californie pour être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

**⚠ AVERTISSEMENT**

L'émission du moteur de ce matériel contient des produits chimiques que l'Etat de Californie considère être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

**California Advertencia  
de la Proposicion 65**

El estado de California hace saber que los gases de escape de los motores diesel y algunos de sus componentes producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

**⚠ ADVERTENCIA**

El estado de California hace saber que los gases de escape de este producto contienen productos químicos que producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

**CALIFORNIA**

**Proposition 65 Warning**

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

**WASH HANDS AFTER HANDLING.**

# Lawnaire IV & V with EST

## IMPORTANT MESSAGE

Thank you for purchasing this Schiller Grounds Care, Inc. product. You have purchased a world class product, one of the best designed and built anywhere.

This machine comes with a Technical Manual containing safety, operation, parts, maintenance and service information. The useful life and good service you receive from this machine depends to a large extent on how well you read and understand this manual. Treat your machine properly, lubricate and adjust it as instructed, and it will give you many years of reliable service.

Your safe use of this Schiller Grounds Care, Inc. product is one of our prime design objectives. Many safety features are built in, but we also rely on your good sense and care to achieve accident-free operation. For best protection, study the manual thoroughly. Learn the proper operation of all controls. Observe all safety precautions. Follow all instructions and warnings completely. Do not remove or defeat any safety features. Make sure those who operate this machine are as well informed and careful in its use as you are.

See a Schiller Grounds Care, Inc. dealer for any service or parts needed. Schiller Grounds Care, Inc. service ensures that you continue to receive the best results possible from Schiller Grounds Care, Inc. products. You can trust Schiller Grounds Care, Inc. replacement parts because they are manufactured with the same high precision and quality as the original parts.

Schiller Grounds Care, Inc. designs and builds its equipment to serve many years in a safe and productive manner. For longest life, use this machine only as directed in the manual, keep it in good repair and follow safety warnings and instructions. You'll always be glad you did.

**Schiller Grounds Care, Inc.**  
**One Bob Cat Lane**  
**Johnson Creek, WI 53038-0469**

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## NOTICE !!!

Unauthorized modifications may present **extreme** safety hazards to operators and bystanders and could also result in product damage.

Schiller Grounds Care, Inc. strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Schiller Grounds Care, Inc.'s Engineering Department. Any Schiller Grounds Care, Inc. product that is altered, modified or changed in any manner not specifically authorized after original manufacture—including the addition of “after-market” accessories or component parts not specifically approved by Schiller Grounds Care, Inc.—will result in the Schiller Grounds Care, Inc. Warranty being voided.

Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Schiller Grounds Care, Inc. will be considered the responsibility of the individual(s) or company designing and/or making such changes. Schiller Grounds Care, Inc. will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.



This symbol means:  
**ATTENTION!**  
**BECOME ALERT!**

Your safety and the safety of others is involved.

### Signal word definitions:

The signal words below are used to identify levels of hazard seriousness. These words appear in this manual and on the safety labels attached to Schiller Grounds Care, Inc. machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

#### **DANGER**

**DANGER** indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

#### **WARNING**

**WARNING** indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

#### **CAUTION**

**CAUTION** indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

#### **CAUTION**

**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage.

### *Schiller Grounds Care, Inc.*

One Bobcat Lane  
Johnson Creek, WI 53038 U.S.A.  
Phone: 920-699-2000  
Fax: 920-699-3683

MODEL NUMBER

SERIAL NUMBER

**MODEL NUMBER:** This number appears on sales literature, technical manuals and price lists.

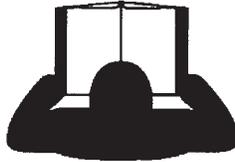
**SERIAL NUMBER:** This number appears only on your mower. It contains the model number followed consecutively by the serial number. Use this number when ordering parts or seeking warranty information.

## PREPARING FOR SAFE OPERATION

### Operator preparation and training

#### Read the Operation & Safety Manual

- If an operator or mechanic cannot read, it is the owner's responsibility to explain this material to them. If any portion of this material is unclear, contact your factory representative for clarification.
- Become familiar with the safe operation of the equipment, operator controls and safety signs. Know how to stop the engine and attachments quickly in an emergency. Do not operate or allow another person to operate this machine if there are any questions about safety.
- All operators and mechanics should be trained. The owner is responsible for training the users.
- Wear appropriate clothing, including long trousers and safety goggles or safety glasses with side shields when operating. Wear substantial footwear. Do not operate barefoot or wearing open sandals. Long hair, loose clothing or jewelry may get tangled in moving parts.
- Wear appropriate hearing protection.
- Never allow children, unskilled or improperly trained people to operate this equipment. Local regulations can restrict the age of the operator.
- Keep warning labels and this operator's manual legible and intact. Replacement labels and manuals are available from the factory
- Do not operate machine while under the influence of drugs or alcohol or any other condition of impairment.
- The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.



### Site preparation and circumstances

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Clear the area to be aerated of objects such as rocks, toys, wire or other debris that may be picked up or thrown by the machine.
- Be sure the area is clear of pets and people, especially young children. Never assume they will remain where you last saw them. Stop the machine if any enter the area.
- Operate only in daylight or in good artificial light.

### Machine preparation

- Check operator presence interlock system and brake operation. Adjust or have any problems repaired before using.
- Do not tamper with or defeat safety devices. Keep guards, shields and interlock safety devices in place and in proper working condition. They are for your protection.
- Keep all fasteners such as nuts, bolts and pins well secured.
- Visually inspect tines, tine bolts and the drum assembly for wear or damage. Replace worn or damaged tines and bolts.
- Verify that machine and attachments, if any, are in good operating condition.
- Do not engage tines until ready to aerate.

**OPERATING SAFELY****In general**

- Use extra care when loading or unloading the machine into a trailer or truck.
- Slow down and use caution when making turns and crossing roads and sidewalks. Stop tines if not aerating.
- Do not run the engine in an enclosed area where dangerous carbon monoxide fumes can collect.
- Stop operation if someone approaches.
- Keep all guards in place when operating.
  
- Do not turn sharply. Use extreme caution when pulling machine towards you.
  
- Use counter-weight(s) or wheel weights when suggested in the operator's manual.
  
- Never leave a running machine unattended. Always release drive and stop engine before leaving the operator's position.

**Starting**

- Start only according to instructions in this manual or on the machine.
- Before attempting to start the engine, make sure:
  - the traction clutch is disengaged.
  
- When starting the engine, make sure hands and feet are clear of the blades.
  
- Do not change engine governor settings or overspeed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.

**Interrupting operation**

- Before leaving the operator's position:
  - Park on level ground.
  - Disengage the traction clutch.
  - Shut off the engine.
  
- Raise the tine:
  - when not aerating;
  - for transport;
  - when crossing surfaces other than grass.
  
- Disengage the traction clutch, stop the engine, :
  - before refueling;
  
- Disengage the traction clutch, stop the engine, allow the tines to come to a complete stop, and disconnect the spark plug wire:
  - before clearing blockages;
  - before checking, cleaning or working on the machine;
  - before having maintenance or repairs performed;
  - after striking a foreign object. Inspect the machine for damage and have repairs made before restarting;
  - if the machine begins to vibrate abnormally: shut off machine immediately. Inspect and have repairs made as needed before restarting;
  
  - except for repairs or adjustments as specifically noted, such as for carburetor adjustment, where the engine must be running. Keep hands and feet clear of moving parts in these circumstances.
  
- Reduce the throttle setting during engine shut-down and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of operation.

### MANEUVERING SAFELY

#### In general

- Slow down before turning.
- Be aware when approaching blind corners, shrubs, trees, tall grass or other objects that may obscure vision.



#### Slope Operation

- Slopes are a major factor in loss-of-control and tip over accidents that sometimes lead to severe injury or death. All slopes require extra caution.
- Before operating on slopes, evaluate the risks involved.
- Do not operate on slopes if uneasy or uncertain. Ultimate responsibility for safe operation on slopes rests with the operator.
- Do not operate steep slopes.  
A slope is too steep if:
  - The machine must be crabbed (turned partially sideways uphill) to drive across the slope.
  - The machine turns downhill going across the slope.
  - You are uneasy about being on the slope
- With walk behind machines, operate across slopes, not up and down.
- Avoid starting or stopping on a slope. If wheels lose traction, disengage the traction clutch and proceed slowly straight down the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Do not turn on slopes unless necessary, and then turn slowly and downhill when possible.
- Do not operate near dropoffs, ditches or embankments. The machine could suddenly turn over if a wheel runs over the edge or an edge caves in.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.

### MAINTENANCE AND STORAGE SAFETY

#### In general

- Maintain machine according to manufacturer's schedule and instructions for maximum safety and best results.
- Park machine on level ground.
- Never allow untrained personnel to service machine.
- Guards should only be removed by a qualified technician for maintenance or service. Replace when work is complete.
- Adjust or repair only after the engine has been stopped and the tines have quit rotating.
- Replace parts if worn, damaged or faulty. For best results, always replace with parts recommended by the manufacturer.
- Disconnect spark plug wire(s) before making any repairs.
- Do not dismantle the machine without releasing or restraining forces which may cause parts to move suddenly.
- Provide adequate support, e.g. jackstands for lifted machine or parts if working beneath.
- Do not put hands or feet near or under rotating parts.
- Clean up spilled oil or fuel thoroughly.
- Replace faulty mufflers.
- To reduce fire hazards, keep the engine, muffler, and fuel storage area free of grass, leaves, debris buildup or grease.

## Tines

- Tines are sharp and can cut. Use extra caution when handling. Wear appropriate personal protective equipment.
- Only replace tines. Never straighten or weld them.
- Keep other persons away from tines.

 **WARNING**



 **WARNING**



## Fuel

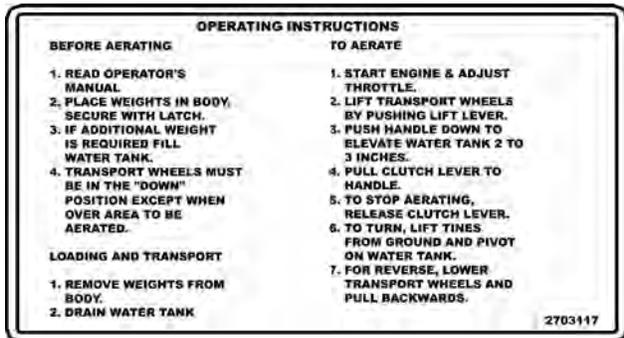
- Petrol (Gasoline) and diesel fuels are flammable; petrol (gasoline) vapors are explosive. Use extra care when handling.
- Store only in containers specifically designed for fuel.
- When refueling or checking fuel level:
  - Stop the engine and allow to cool;
  - Do not smoke;
  - Refuel outdoors only;
  - Use a funnel;
  - Do not overfill;
  - If fuel is spilled, do not attempt to start the engine until the spill is cleaned up and vapors have cleared.
  - Replace caps on fuel containers and tanks securely.

Sparks from static electricity can start fires or cause explosions. Flowing fuel can generate static electricity. To prevent static electricity sparks:

- Keep fuel containers electrically grounded.
- Do not fill containers in a vehicle or on a truck or trailer bed with a plastic liner. Fill containers on the ground away from the vehicle.
- When practical, remove gas powered equipment from the truck or trailer and refuel it on the ground. If equipment must be refueled on the truck or trailer, refuel from a portable container rather than a dispenser nozzle.
- Keep the dispenser nozzle in contact with the rim of the fuel tank or container opening until fueling is complete. Do not use a nozzle lock-open device.

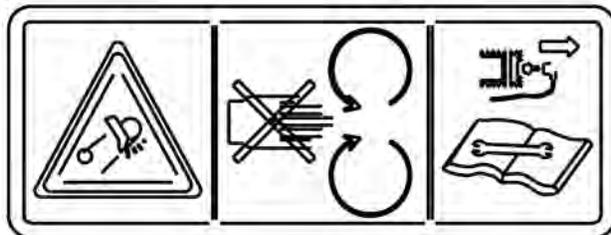
## Storage

- Stop the engine and allow to cool before storing
- Drain the fuel tank outdoors only.
- Store fuel in an approved container in a cool, dry place
- Keep the machine and fuel containers in a locked storage place to prevent tampering and to keep children from playing with them.
- Do not store the machine or fuel container near appliances with an open flame such as a water heater or other appliance with a pilot light.
- Keep petrol (gasoline) storage area free of grass, leaves and excessive grease to reduce fire hazard.
- Clean grass and debris from cutting units, drives, mufflers and engine to help prevent fires.



### Operating Instructions

This decal can be found on top of the handlebar assembly. It tells the operator the steps involved; prior to aerating; loading and transporting and how to aerate.



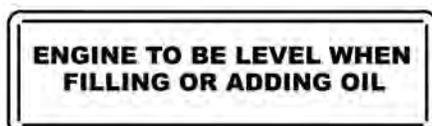
### Warning Hands In Moving Components

This decal is located on the main frame and provides the operator with three message warnings.

(1) The symbol on the left shows the possible result of working on machinery with safety shields removed. Hands and fingers may become entangled in belts. **DO NOT** operate the unit without safety shields in place.

(2) The center symbol warns the operator and/or bystanders to keep hands out of moving components.

(3) The right symbol instructs the operator to read the service section of the operators manual. Disable spark plug wire before performing any service or maintenance on the unit.



### Engine Oil Level

This decal is located on the main frame, in front of the engine. It tells the operator to have the engine level prior to checking the oil level.



### Danger Hands And Feet

This decal is located on the main frame and informs the operator of areas which are capable of serious injury.

The symbol shows fingers being cut or severed. **DO NOT** place hands, feet, fingers or toes under aerator while operating the unit.



### Throttle Control

This decal is located on the handlebar next to the engine throttle control. It tells the operator which direction to move the engine throttle for the desired engine speed. The throttle control decal uses the turtle to represent slower engine speeds, and the rabbit to represent faster engine speeds.



### Handle Warning-Lawnaire IV Only

This decal is located on the lower end of the handlebars. It informs the operator that the folding handlebars need to be securely locked in place prior to aerating.

# ASSEMBLY/SET-UP INSTRUCTIONS

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## Lawnaire IV & V with EST

**GENERAL NOTE: FRONT, REAR, RIGHT HAND AND LEFT HAND REFERENCES BELOW ARE WITH RESPECT TO AN OPERATOR AT THE CONTROLS.**

### UNPACKING

1. Cut the banding securing the aerator to the pallet.
2. Grab handle **A** and pull handle over to other side of unit.

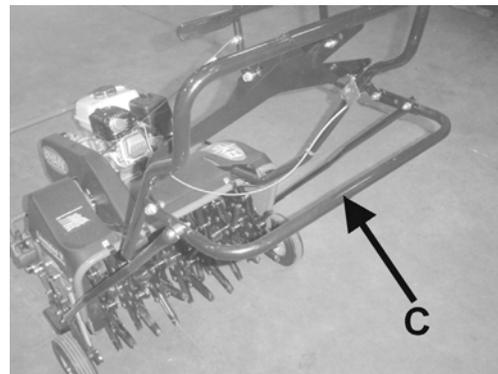
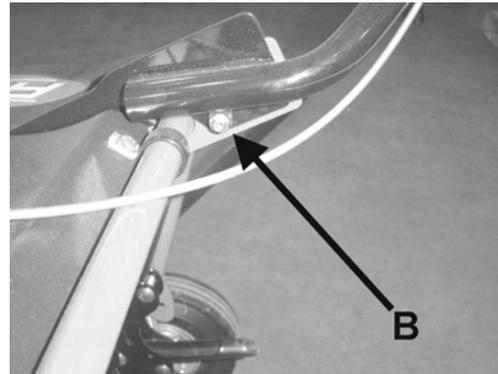
#### **⚠ WARNING**

Banding is under tension and may snap back when cut. Wear eye protection and stay clear when cutting the band.



### FOR LAWNAIRE V MODELS

1. Bolt the handle **B** in place, as shown.
2. Pull up on the transport lift handle **C** to raise the aerator to the transport position.
3. Carefully roll the unit off the pallet.

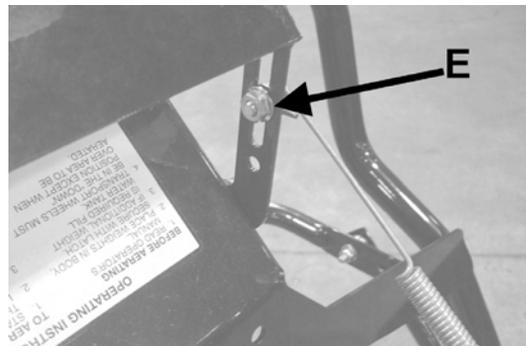
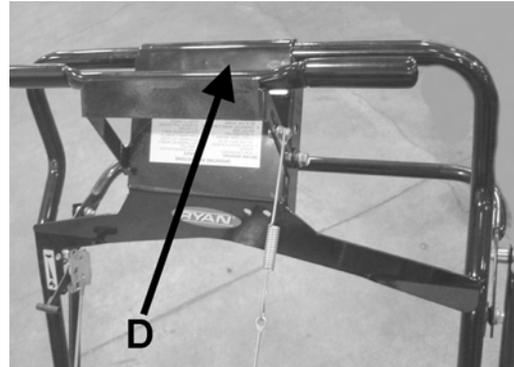


### CHECKING THE CLUTCH CABLE

The clutch cable is adjusted prior to shipping; however, it should be checked before the unit is put into service.

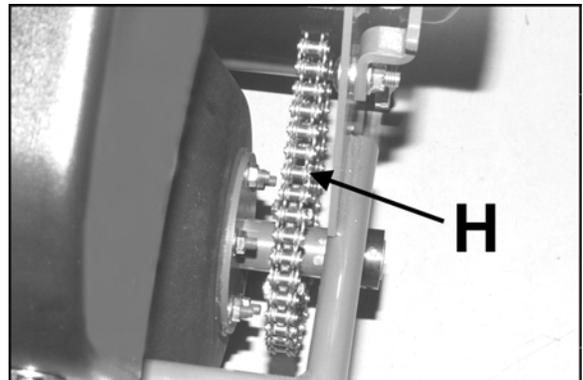
1. Pull the clutch control handle **D** back and down and make sure the idler engages the belt.
2. Release the clutch control handle **D** and make sure the belt disengages completely.
3. If adjustment is necessary, loosen nut **E** on the clutch spring hardware and adjust its position in the slot of the clutch lever.

**NOTE:** Spring extension should not exceed .25 inch



### FINAL PREPARATIONS

1. Check the engine oil level. Top off if necessary. See engine manual for oil requirements.
2. Lubricate the roller chain **H** with Lubriplate #13563 or equivalent.
3. Fill the gas tank with fresh, clean gasoline.



## HANDLE CONTROLS

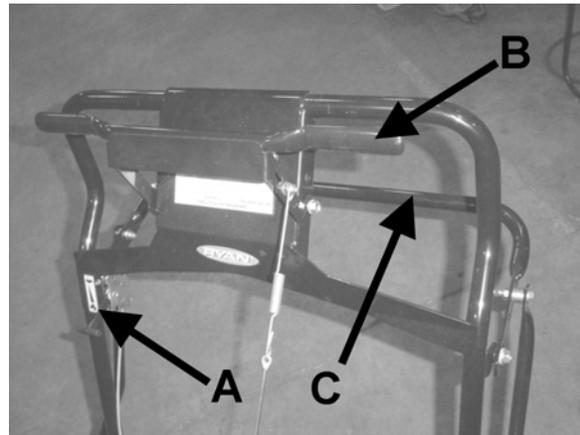
**Transport Lift Handle C** - Pushing down on the handle lowers the tines for aerating. Pulling the handle up raises the tines so the aerator can be moved or transported without incurring damage to the unit or the turf.

**Clutch Control Handle (Bail) B** - Engages aerator drive clutch. Pull on the handle to engage the clutch. Release the handle to disengage.

### **⚠ WARNING**

Releasing the clutch on an incline will allow the unit to roll down the incline.

**Throttle Control A** - The throttle control, located on the handle, adjusts the engine speed. Pushing the control forward increases the speed; pulling the control back reduces the speed.

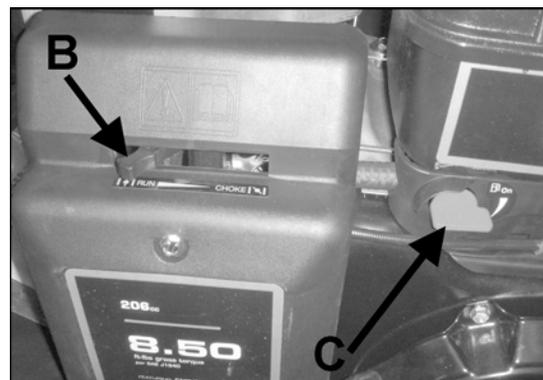
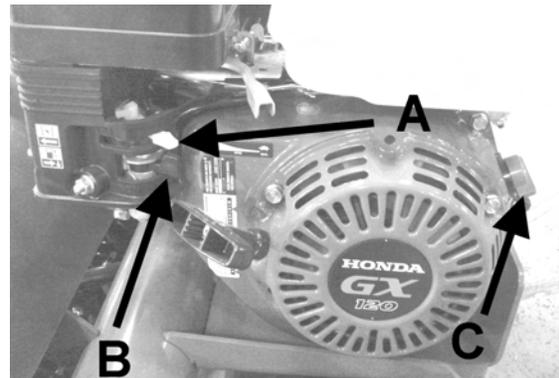


## Honda Engine Controls

The engine is equipped with a choke **A**, a fuel valve **B** and an On/Off switch **C**. The fuel valve and the On/Off switch must both be in the "ON" position to start the engine. Turn the On/Off switch to "OFF" to stop the engine. Using the choke will help start a cold engine. After the engine starts, adjust the choke for best running results. Once the engine warms, the choke should not be needed.

## Briggs & Stratton Engine Controls

The engine is equipped with an On/Off control **A**, a choke control **B** and fuel shut-off valve **C**. The fuel valve and On/Off control must both be in the "ON" position for the engine to be started. Turning the On/Off control to the "OFF" position will stop the engine. Using the choke control will help start a cold engine. After the engine starts, adjust the choke for best running results. Once the engine warms up, the choke should not be needed.

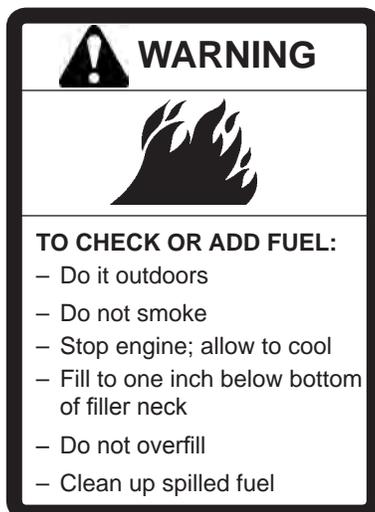


### PRE-OPERATION CHECK LIST (OPERATOR'S RESPONSIBILITY)

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>___ Review and follow all safety rules and safety decal instructions.</li><li>___ Check that all safety decals are installed and in good condition. Replace if damaged.</li><li>___ Check to make sure all shields and guards are properly installed and in good condition.</li><li>___ Check that all hardware is properly installed and secured.</li><li>___ Check to be sure engine is free of dirt and debris. Pay particular attention to the cooling fins, governor parts and muffler. Clean air intake screen. Check air cleaner; service if necessary.</li></ul> | <ul style="list-style-type: none"><li>___ Inspect area and remove stones, branches or other hard objects that might be thrown, causing injury or damage.</li><li>___ Clean area around oil fill dipstick. Remove dipstick and check to be sure oil is in operating range (between marks on dipstick). Add oil if necessary but <b>Do Not Overfill</b>. Install dipstick assembly firmly until cap bottoms out on tube. Dipstick assembly must always be secured into fill tube when engine is running.</li><li>___ Check all lubrication points and grease as instructed in manual.</li></ul> |
|--|---|

### FUELING

- Fill fuel tank with good quality, clean, unleaded regular gasoline (petrol). Use the octane level recommended by the engine manufacturer.
- Use a funnel to avoid spilling.



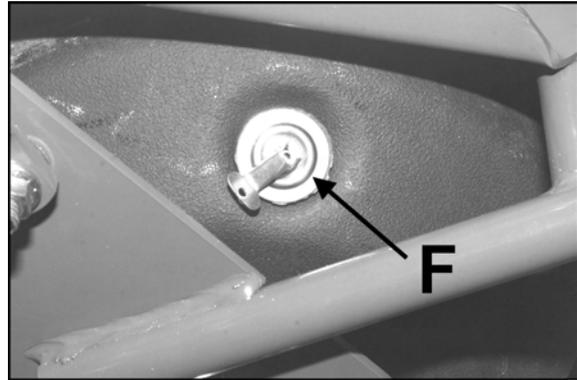
### BEFORE STARTING THE ENGINE

- Be familiar with all controls, how each functions and what each operates.
- Check the oil with the engine level and add if necessary. Open the fuel valve.
- **Choke:** For cold starts, set the throttle lever to the half-open position and pull the choke out to the ON position. For warm starts set the throttle to the half-open position and the choke to the OFF position.

## AERATING

**NOTE:** For best performance and maximum tine penetration, the lawn should be thoroughly watered the day before aeration.

1. Rotate the water drum on the front of the unit until the filler plug **F** is positioned at the top. Remove the plug, fill the drum with water and replace the plug.
2. Move the engine On/Off switch to the "ON" position and then pull the recoil starter and choke as required to start the engine.
3. Lift the transport lift handle if necessary to make sure the tines are not touching the ground, advance the throttle, slowly pull back on the clutch handle control and transport the aerator to the work area.



**NOTE:** Never cross hard objects or surfaces (such as sidewalks, driveways, stepping stones, etc.) with tines in the down position.

4. Upon reaching the work area, release the clutch control handle and adjust the throttle speed for aerating.
5. Push down on the transport lift handle, lowering the aerating tines to the turf.
6. Pull back slowly on the clutch control handle to start aerating.

**NOTE:** For maximum tine penetration into turf, apply downward pressure on the handle, until drum is off the ground.

7. At the end of each aerating pass, release the clutch control handle, lift up on the handle assembly and pivot the unit on the water drum. Resume aerating.
8. When finished aerating, lift up on the transport lift handle to move the unit into transport position.
9. Drain the water drum when finished with aerating.

### MAINTENANCE

#### **⚠ WARNING**

#### Tines:

- Replace damaged or broken tines.
- Do not weld or straighten tines.
- Clean tines after use, inside and out.
- Apply a light coat of oil to tines to prevent rust.

#### Tine Wheels:

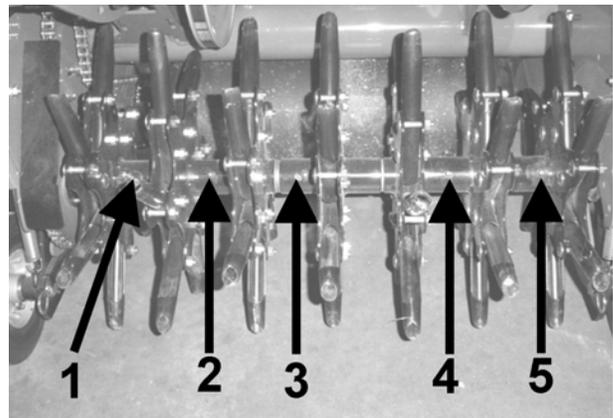
- Grease Bearings in **1-5** at the start of the season and every 25 hours .

#### Engine:

- With the engine in a level position check oil levels in the engine and gear reduction case. Add if required. (See engine operation manual for details.)
- Inspect air cleaner element. Clean or replace as necessary.

#### Lubrication:

- Grease the idler pivot and wheel bearings at the start of the season and every 25 hours.
- Keep roller chain clean and in proper running order. Lubricate with Lubriplate #13563 or equivalent at start of the season and every 25 hours.



### ADJUSTMENTS

#### **⚠ WARNING**

#### Clutch Adjustments:

- The clutch cable spring should be extended 1/8" - 1/4" (3 - 6mm) when the clutch is engaged.

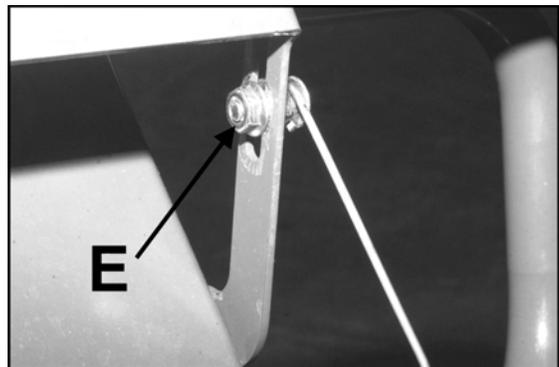
**TO ADJUST:** Loosen the nut E at the clutch cable mounting point on the clutch control handle. Adjust the position as needed.

#### Chain:

- The roller chain should have 1/8" - 1/4" (3 - 6mm) deflection at the center point between the upper idler and water drum sprockets.

**TO ADJUST:** Loosen the mounting bolt on one of the movable idler sprockets and slide in its slot until the desired tension is reached. Tighten the bolt. Note there are two (2) movable sprockets. If one does not provide sufficient take-up, use the other.

**NOTE:** Do not over tighten the chain. Excessive



chain tension will reduce chain and bearing life. It can also lead to fatigue failure of the frame.

## TRANSPORTING

If a tote trailer will be used to transport the unit, the two cast weights must be removed from the aerator frame and a locking shaft installed in their place.

Removing the cast weights and draining the water drum will decrease the weight for easier loading on a vehicle or trailer.

To remove the weights, pull up on the latch **A** securing the weights **B** and slide the weights out.

When manually transporting the machine for short distances:

- Pull up on the transport lift handle so that the tines are raised.
- Pull back on the clutch control handle (bail) to engage the drive. The water drum will propel the machine forward.

### **CAUTION**

Use caution when removing the cast weights. Each weight is approximately 22 lbs.

**NOTE:** Be sure to close the fuel shut off valve before transporting the unit.

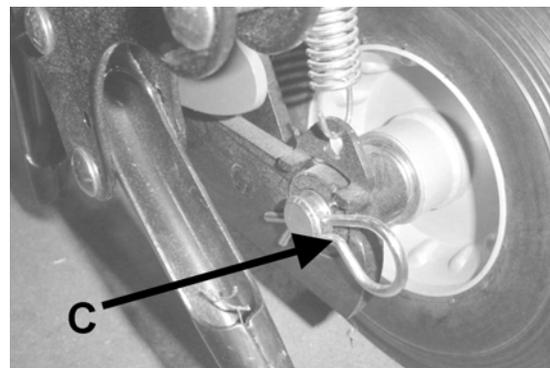
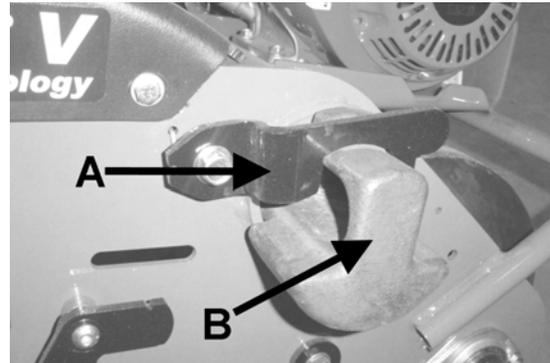
## REMOVABLE TRANSPORT WHEELS

The rear wheels of the Lawnaire V EST are removable for transporting the aerator through fence gates.

With the wheels removed the Lawnaire V will pass through a 32 inch opening.

With the engine off, lower the aerator so the tines are on the ground and the wheels are off the ground. Remove hair pins **C** from the axles. Slide wheels and axles out of transport frame.

Lift up on the aerator handle so the tines are off the ground. With the tines off the ground, push the aerator through the gate on the front drum. Once on the other side of the gate, reinstall the wheels.



### STORAGE INSTRUCTIONS

#### **⚠ WARNING**

To prevent possible explosion or ignition of vaporized fuel, do not store equipment with fuel in tank or carburetor in an enclosure with open flame (for example, a furnace or water heater pilot light).

**Before the equipment is put into storage for any period exceeding 30 days, the following steps should be taken.**

1. Drain all fuel from the fuel tank and fuel lines.
2. Start the engine and run until all the fuel is used from the carburetor float bowl.
3. While the engine is still warm, drain the crankcase oil and refill with the proper weight oil corresponding to the season the equipment will next be used.
4. Remove the spark plug and squirt a small amount of engine oil into the cylinder. Turn the engine over a few times to distribute the oil.
5. Drain the water drum.

**NOTE:** Always drain the water drum for winter storage. Freezing water can rupture the drum.

6. Grease the clutch pivot fitting, tine wheel and wheel bearings.
6. Lubricate the chain.

**To put the equipment into service after an extended period of storage:**

1. Check for loose parts and tighten if necessary.
2. Check for cracked or broken tines and replace as necessary.
3. Fill the fuel tank with clean, fresh fuel.
4. Check the engine and gear reduction case oil levels with the engine in a level position.
5. Start the engine.
6. Check for fuel leaks.
7. Check clutch control operation to make sure the unit stops when the clutch control is released.

# SPECIFICATIONS

# Lawnaire IV & V with EST

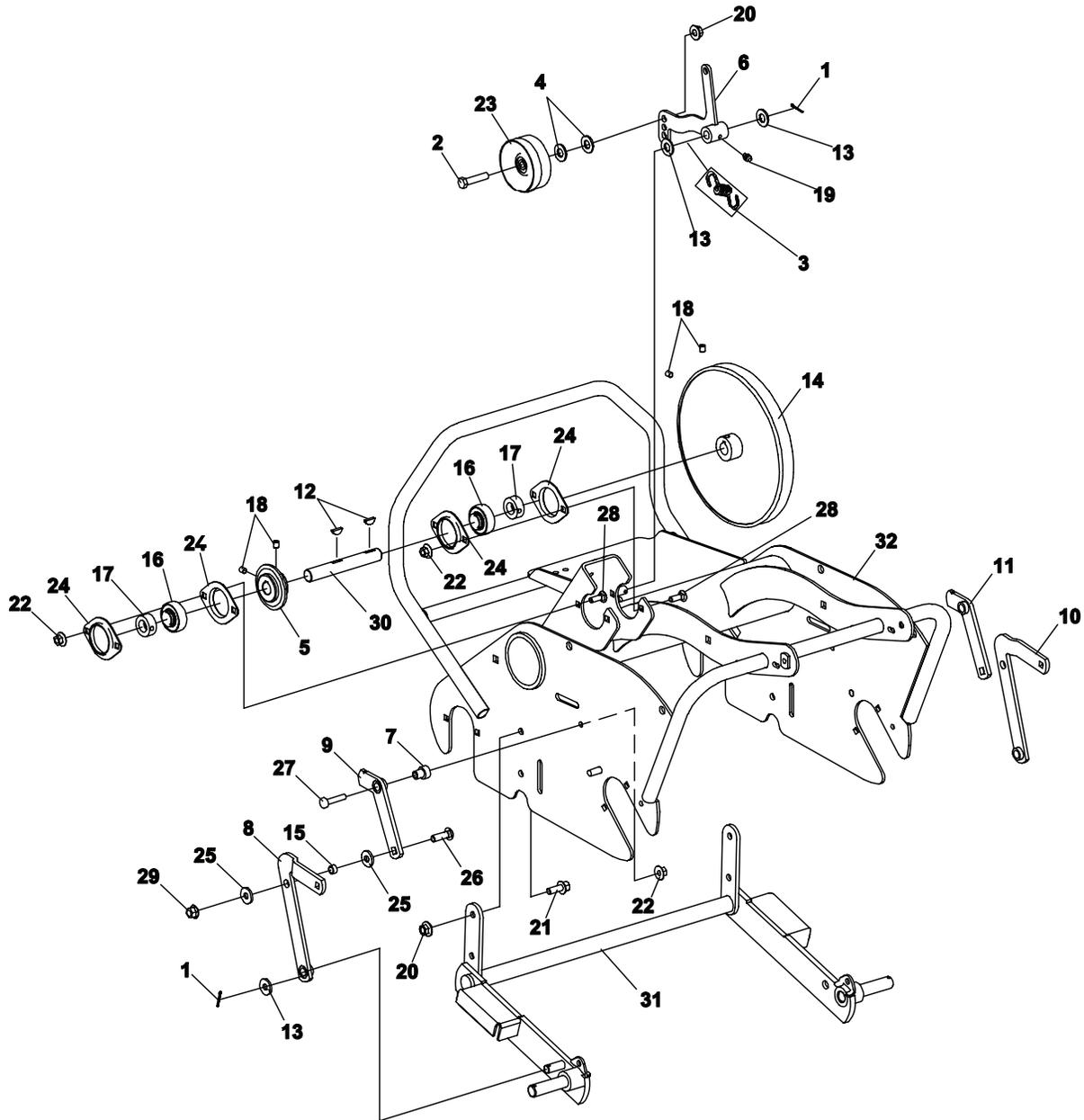
<b>LAWNAIRE IV</b>	<b>LAWNAIRE V</b>
<b>Dimensions:</b>	
Width.....	28" (711 mm)
Length.....	51" (1295 mm)
Length (handle folded).....	46" (1168 mm)
Height (transport).....	47.5" (1206 mm)
Height (handle folded).....	30" (762 mm)
<b>Net Weight:</b>	
Dry, w/o acc. weight.....	240 lbs. (109 Kg)
Dry, w/ acc. weight.....	279 lbs. (126 Kg)
With water tank full and acc. weight.....	280 lbs. (127 Kg)
<b>Speed:</b>	
Transport.....	3.6 mph (5.8 kph.)
Aerate.....	up to 3.5 mph (5.6 kph)
<b>Drive:</b>	
Primary.....	V Belt, 4L section
Secondary.....	#40 plated roller chain
<b>Wheels:</b>	
Front.....	11" (279 mm) Dia. water tank 5.2 gal. (19.7 L) max. capacity
Rear.....	8 x 2.50 semi-pneumatic tires with 3/4" ball bearings
<b>Aeration:</b>	
Tines....	3/4" (19 mm) formed from .08" hardened chrome molybdenum alloy steel, 30 per unit
Penetration Depth.....	2 3/4" (70 mm) max.
Swath Width.....	19" (483 mm)
Hole Pattern.....	3 3/4" x 7" (95 x 178 mm) on center
Production.....	Up to 28,975 sq. ft. / hour Up to 2692 m <sup>2</sup> / hour
<b>Engines:</b>	
<b>Model 554910A &amp; 544913A</b>	
Model.....	HONDA GX120K1HX 4 cycle.... 7.2 cu.in. (118 cc).....*3.5 HP (2.6 KW)
Starter.....	Recoil, on/off switch
Governor.....	3200 RPM, no load
Idle Speed.....	1400 + 100 RPM
Fuel Tank.....	3.4 qt. (3.2 L)
Gear Reduction.....	6 to 1
<b>Model 544914B &amp; 544916B</b>	
Model.....	#12S4520131F8, Type 0141, Trim .01 Briggs & Stratton 4 cycle...12.5 cu.in. (206cc)..*6.0HP (4.5KW) Starter.....Recoil, on/off switch
Governor.....	3200 RPM +/- 100 RPM, no load
Idle Speed.....	2000 RPM
Fuel Tank.....	3.2 qt. (3.0 L)
Gear Reduction.....	6 to 1
* as tested by manufacturer @ 3600 R.P.M.	



# FRAME GROUP

Lawnaire  
IV & V  
with EST

FIGURE 1



# Lawnaire IV & V with EST

## FRAME GROUP

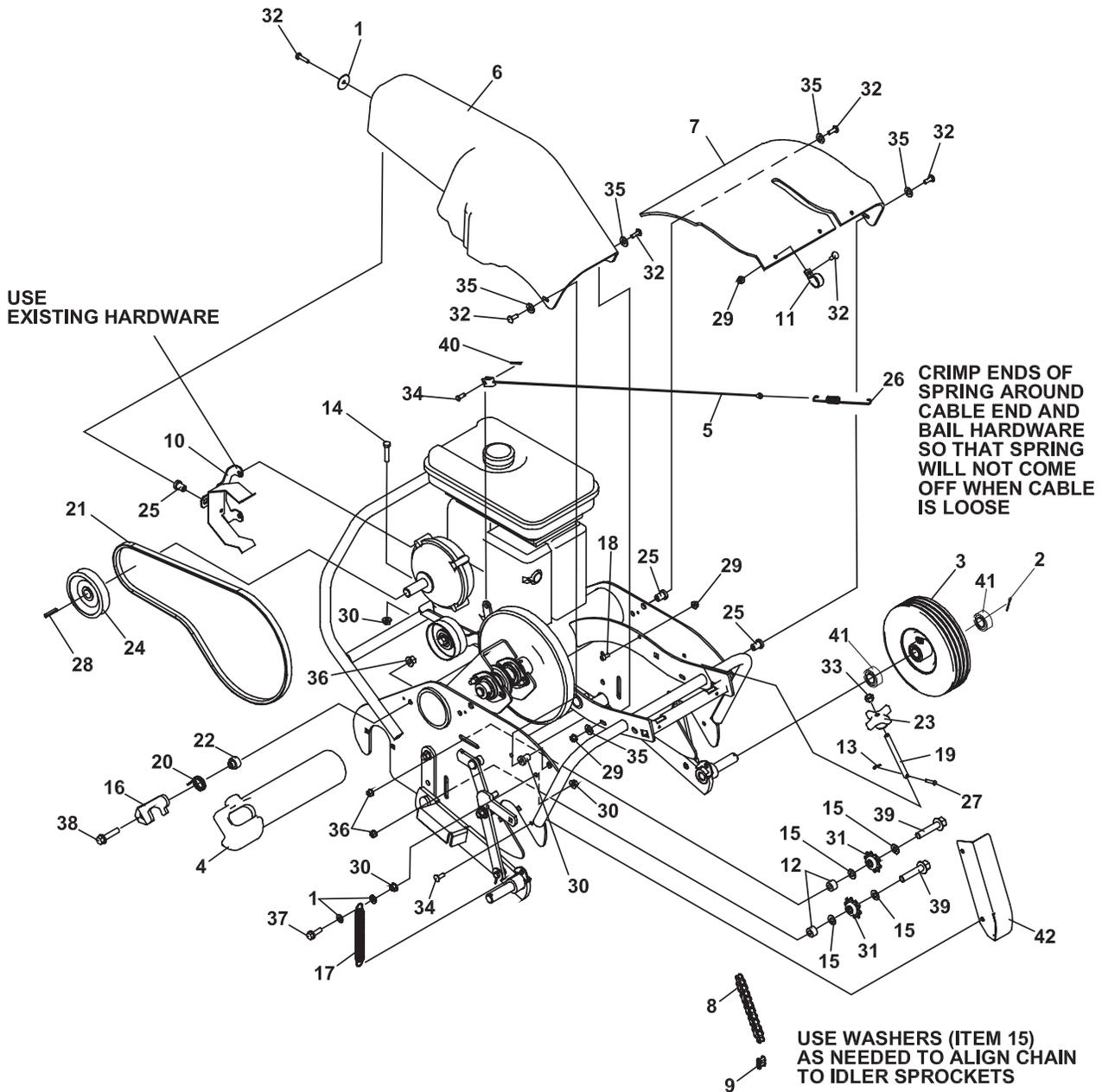
### FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	64140-9	COTTER PIN, 12 x 1.12 YS	3				
2	64262-018	BLT-FLG HD 3/8-16X1-3/4	1				
3	4137227	SPRING-TORSION	1				
4	64163-61	WASHER	2				
5	841261	SPROCKET, 16T, 1/2P	1				
6	2703341.7	BELLCRANK AY, IDLER	1				
7	2703519	BUSHING, SH .33X.75X.88	2				
8	2703756.7	LINK AY, LOWER LEFT	1				
9	2703757.7	LINK AY, UPPER LEFT	1				
10	2703758.7	LINK AY, LOWER RIGHT	1				
11	2703759.7	LINK AY, UPPER RIGHT	1				
12	64164-19	KEY WOODRUFF.19X.75 #9	2				
13	64163-67	WASHER-.516X1X12GA	4				
14	521609	PULLEY, DRIVEN 10"	1				
15	518438	BUSHING	2				
16	521856	BEARING,BALL	2				
17	521857	COLLAR,BRG LOCKING	2				
18	64044-18	SCREW-SET 5/16-18 x 5/16	4				
19	85010N	ZERK, 1/4-28	1				
20	64141-4	NUT-WLF 3/8-16	5				
21	64139-24	BLT-WLF 3/8-16 X 1	4				
22	64141-6	NUT, 5/16-18	8				
23	548942	PULLEY, PLAIN IDLER 3.25"	1				
24	548962	HOUSING,BEARING	4				
25	64163-31	WSHR,.38 1.00.12 YS FLAT	4				
26	64018-7	BOLT-CRG 3/8-16X1-1/4	2				
27	64218-07	SCRW,.31-18 1.50	2				
28	64018-9	BLT-CRG 5/16-18X3/4	4				
29	64268-03	NUT-FL NYLN LOCK 3/8-16	2				
30	2703101	SHAFT, LA5 JACK	1				
		(USED ON LA V MODELS)					
	2702738	SHAFT, LA4 JACK					
		(USED ON LA IV MODELS)					
31	2703019.7	FRAME, TRANSPORT LA5	1				
		(USED ON LA V MODELS)					
	2702877.7	FRAME, TRANSPORT LA4					
		(USED ON LA IV MODELS)					
32	4164732.2	FRAME AY, LAWNAIRE V	1				
		(USED ON LA V MODELS)					
	4164731.2	FRAME AY, LAWNAIRE IV					
		(USED ON LA IV MODELS)					

# MAIN GROUP-LAWNLAIRE IV

# Lawnaire IV & V with EST

FIGURE 2



# Lawnaire IV & V with EST

## MAIN GROUP LAWNAIRE IV

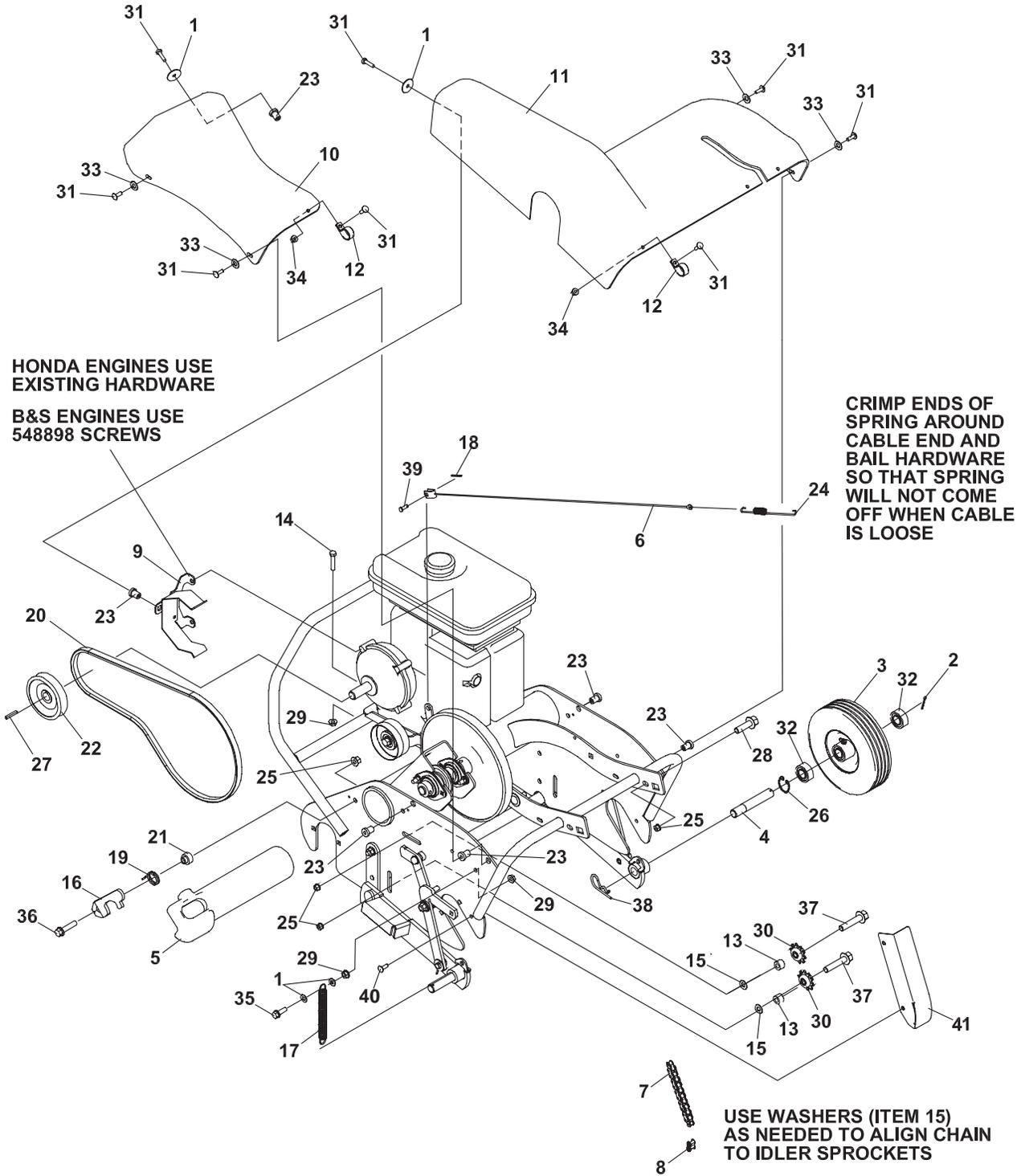
FIGURE 2

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	64163-29	WASHER-21/64 X 1 X 11GA	5				
2	64140-9	COTTER PIN, 12 x 1.12	2				
3	4124192	WHEEL, 8X2.5 SEMI-PNEUM	2				
4	2703148	WEIGHT, LAWNAIRE	2				
5	4117195	CABLE, CLUTCH	1				
6	2703444	COVER, DRIVE LA4	1				
7	2703445	COVER, TINE LA4	1				
8	2703611	CHAIN, #40 124P W/CONN	1				
9	4113841	LINK, #40 CHAIN NICKEL	1				
10	2703616.7	BRACKET AY, COVER	1				
11	48228-1A	CLIP-CABLE INSULATED	3				
12	822474	SPACER	2				
13	64140-19	PIN,COTTER 5/64 X 1/2	2				
14	64139-23	BLT-WLF 3/8-16 X 1-3/4	4				
15	64163-61	WSHR .81X.406X16GA	A/R				
16	4109880.7	LATCH, WEIGHT	2				
17	4113746	SPRING, EXT .687 X 6.0	2				
18	64189-20	SCREW, 1/4 -20 X 3/4	2				
19	4114101	ROD, ADJUSTMENT	2				
20	4114111	SPRING, TORSION 1.19	2				
21	4114319	BELT, 4L-480 KEVLAR	1				
22	4114608	BUSHING, SH .390 ID X .71	2				
23	4115632	KNOB, 2.5" .38-24	2				
24	521608	PULLEY,4 IN DIA	1				
25	522516	MOUNT, ISOLATION (KC)	4				
26	4118356	SPRING, EXTENSION	1				
27	64188-66	PIN,CLVIS.19DIA X 1.0LG	2				
28	64164-11	KEY-3/16X3/16X1-1/4 SQ	1				
29	64229-01	LOCKNUT-NYLON 1/4-20	6				
30	64141-6	NUT, 5/16-18	8				
31	548960	SPROCKET,IDLER	2				
32	64123-114	BOLT-HEX 1/4-20X1	8				
33	64151-3	NUT,.38-24 HX CRWNLOCK	2				
34	64188-65	PIN,CLEVIS .25 .68 PS	1				
35	64163-03	WSHR-.256IDX.62ODX18GA	5				
36	64268-03	NUT-FL NYLON LOCK 3/8-16	4				
37	64123-47	BLT-HEX 5/16-18X1-1/4	2				
38	64262-018	BLT-FLG HD 3/8-16 X 1-3/4	2				
39	64262-014	BLT-FLG HD 3/8-16 X 2	2				
40	64140-16	COTTER PIN-5/64X3/4	1				
41	523263	BEARING - 3/4 X 1-3/8	4				
42	4113972.7	COVER, CHAIN LAWNAIRE	1				

# MAIN GROUP-LAWNAIRE V

FIGURE 3

Lawnaire  
IV & V  
with EST



# Lawnaire IV & V with EST

## MAIN GROUP-LAWNAIRE V

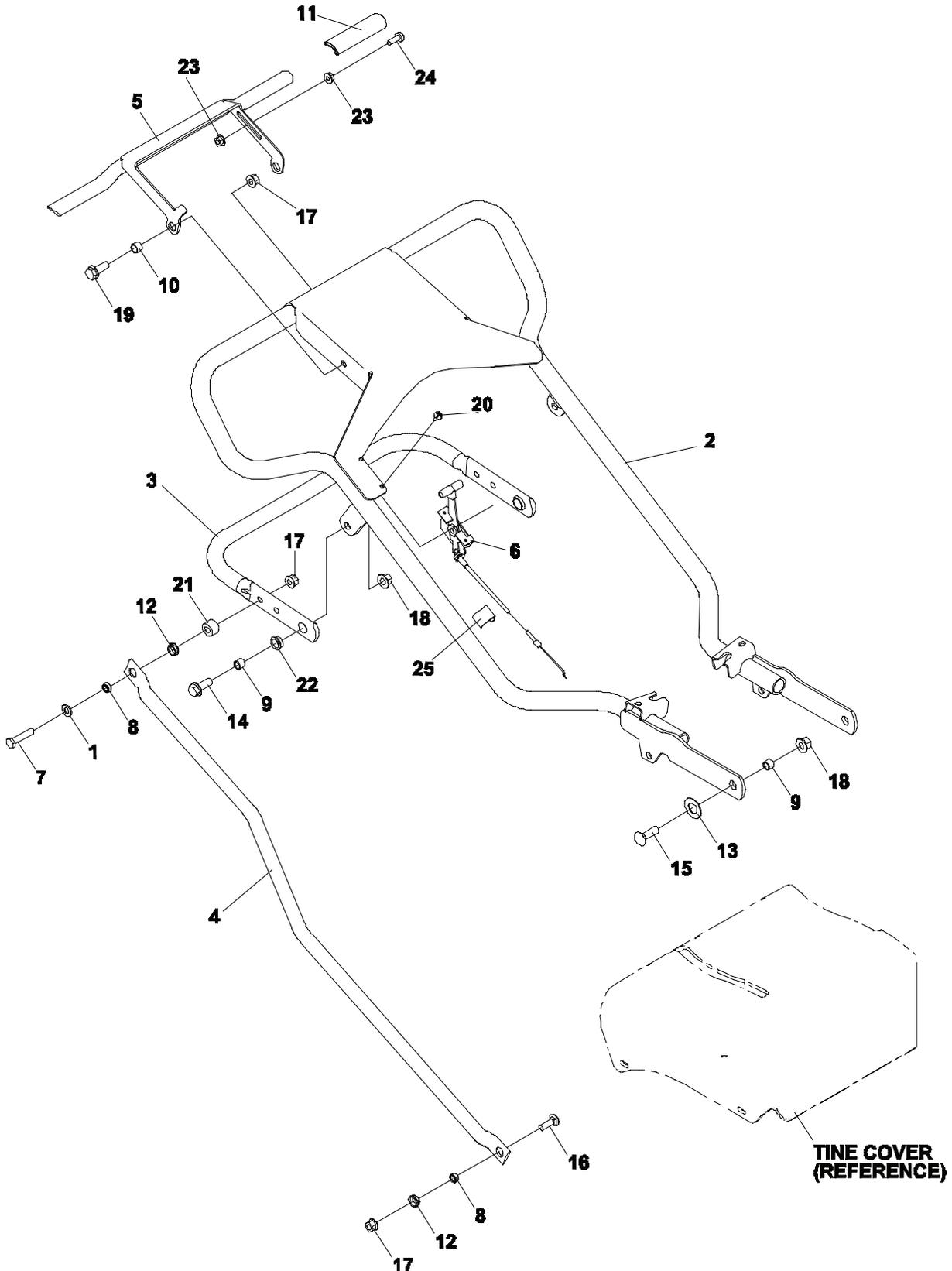
FIGURE 3

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	64163-29	WASHER-21/64 X 1 X 11GA	6				
2	64140-9	COTTER PIN, 12 x 1.12	2				
3	4124192	WHEEL, 8X2.5 SEMI-PNEUM	2				
4	2703026	AXLE, TRANSPORT WHEEL	2				
5	2703148	WEIGHT, LAWNAIRE	2				
6	4117195	CABLE, CLUTCH	1				
7	2703611	CHAIN, #40 124P W/CONN	1				
8	4113841	LINK, #40 CHAIN NICKEL	1				
9	2703616.7	BRACKET AY, COVER	1				
10	2703660	COVER, SPROCKET LA5	1				
11	2703661	COVER, DRIVE AND TINE	1				
12	48228-1A	CLIP-CABLE INSULATED	4				
13	822474	SPACER	2				
14	64139-23	BLT-WLF 5/16-18 X 1-3/4	4				
15	64163-61	WSHR .81X.406X16GA	2				
16	4109880.7	LATCH, WEIGHT	2				
17	4113746	SPRING, EXT .687 X 6.0	2				
18	64140-16	COTTER PIN-5/64X3/4	1				
19	4114111	SPRING, TORSION 1.19	2				
20	4114319	BELT, 4L-480 KEVLAR	1				
21	4114608	BUSHING, SH .390 ID X .71	2				
22	521608	PULLEY,4 IN DIA	1				
23	522516	MOUNT, ISOLATION (KC)	6				
24	4118356	SPRING, EXTENSION	1				
25	64268-03	NUT-FL NYLN LOCK 3/8-16	6				
26	64144-02	SNAP RING 3/4	2				
27	64164-11	KEY-3/16X3/16X1-1/4 SQ	1				
28	64262-011	BOLT-FLG HD 3/8-16 X 1	2				
29	64141-6	NUT, 5/16-18	8				
30	548960	SPROCKET,IDLER	2				
31	64123-114	BOLT-HEX 1/4-20X1	10				
32	523263	BEARING-3/4X1 3/8	4				
33	64163-03	WSHR-.256IDX.62ODX18GA	4				
34	64229-01	LOCKNUT-NYLON 1/4-20	4				
35	64123-47	BLT-HEX 5/16-18X1-1/4	2				
36	64262-018	BLT-FLG HD 3/8-16 X 1-3/4	2				
37	64262-014	BLT-FLG HD 3/8-16 X 2	2				
38	64168-4	COTTER-HAIRPIN	2				
39	64188-65	PIN-CLEVIS 1/4 X .62	1				
40	64189-20	SCREW, 1/4 -20 X 3/4	2				
41	4113972.7	COVER, CHAIN LAWNAIRE	1				

# HANDLE GROUP

FIGURE 4

Lawnaire  
IV & V  
with EST



# Lawnaire IV & V with EST

## HANDLE GROUP

FIGURE 4

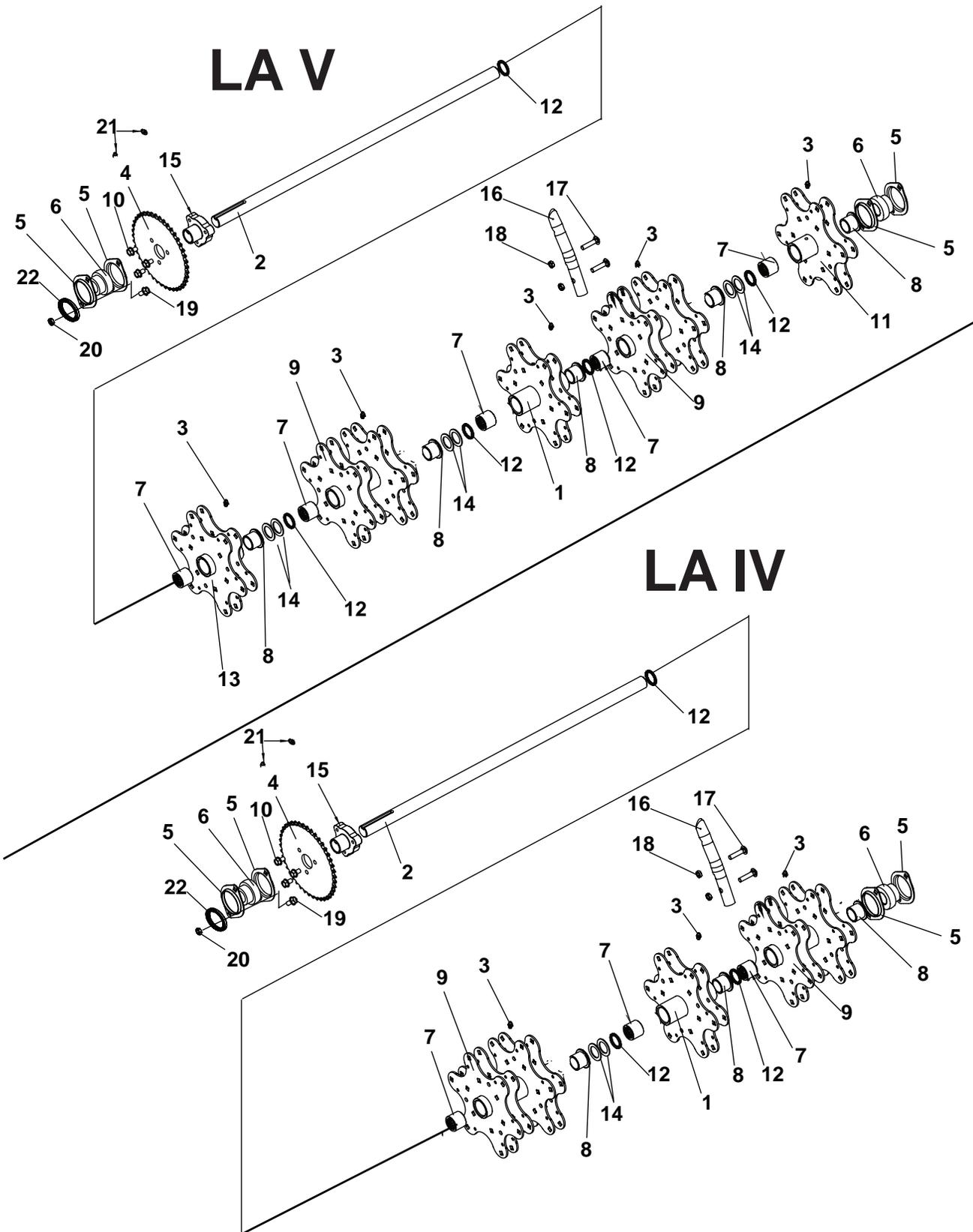
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	64163-95	WSHR, .31.69.06 YS FLT	2				
2	4138395	S-LA5 HANDLE W/DECALS (USED ON LA V MODELS)	1				
	4138395	S-LA4 HANDLE W/DECALS (USED ON LA IV MODELS)					
3	2703060.7	HANDLE, HEIGHT ADJ. LA V 1 (USED ON LA V MODELS)	1				
	2703059.7	HANDLE, HEIGHT ADJ LA IV (USED ON LA IV MODELS)					
4	2703067.7	TUBE, CONTROL	2				
5	4164738.7	BAIL AY, LA V	1				
6	2703185	CNTRL AY, THROTTLE 43 (USED ON HONDA MODELS ONLY)	1				
	4163186	CNTRL AY, THROTTLE B&S (USED ON B&S MODELS ONLY)					
7	64123-69	BOLT-5/16-18X1-1/2 HEX	2				
8	517226	BRG,SLV .33 .50 .20	4				
9	518438	BUSHING.39IDX.50ODX.35	4				
10	521679	BUSHING	2				
11	523139	GRIP,HANDLE	2				
12	4116398	BUSHING .50IDX.13 THK	4				
13	64163-93	WASHER	2				
14	64139-24	BLT-WLF 3/8-16 X 1	2				
15	64018-7	BOLT-CRG 3/8-16X1-1/4	2				
16	64018-15	BLT-CRG 5/16-18X3/4 G5	2				
17	64268-02	NUT-FL NYLN LCK 5/16-18	6				
18	64268-03	NUT-FL NYLN LCK 3/8-16	4				
19	64262-007	BLT-FLG HD 5/16-18 X 1	2				
20	64152-18	TSCRW,#8-18.50 SLF-DRL (USED ON HONDA MODELS ONLY)	2				
	64197-023	SCREW-8-32 X 3/8 S-TAP (USED ON B&S MODELS ONLY)					
21	822474	SPACER	2				
22	830165	BUSHING	2				
23	64141-2	NUT-WLF 1/4-20	2				
24	64218-04	SCREW, 1/4 -20 X 3/4	1				
25	78007N	THROTTLE CABLE CLIP (USED ON LA V MODEL ONLY)	1				

\* NOT ILLUSTRATED

# TINE WHEEL GROUP

Lawnaire  
IV & V  
with EST

FIGURE 5



# Lawnaire IV & V with EST

## TINE WHEEL GROUP

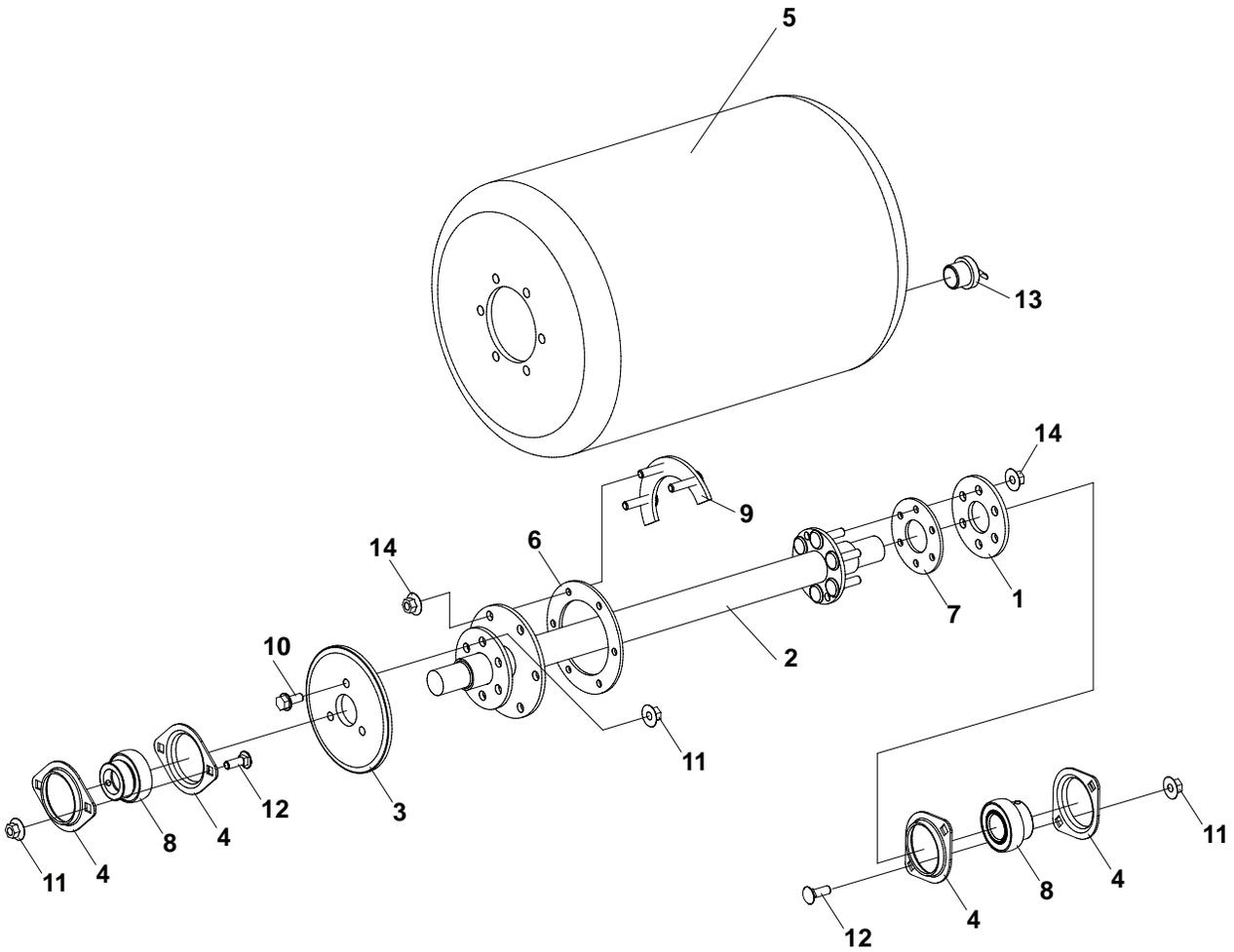
### FIGURE 5

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4168461	WLDMT-TINE,CENTER (INCLUDES ITEMS 3,7,8 & 12)	1	12	4167899	SEAL-1.0 X 1.312 X 0.125 (QTY 5 ON LA V) (QTY 3 ON LA IV)	
2	4167887	SHAFT-TINE,29.5 (USED ON LA V MODEL ONLY)	1	13	4168460	WLDMT-TINE,SINGLE-L (INCLUDES ITEMS 3,7,8 & 12) (USED ON LA V MODELS ONLY)	1
	4167881	SHAFT-TINE 22 (USED ON LA IV MODELS ONLY)					
3	85010N	ZERK-1/4-28 STR SF TH (QTY 5 ON LA V) (QTY 3 ON LA IV)		14	64163-64	WASHER-.531 x 2.00 x .125 (QTY 8 ON LA V) (QTY 4 ON LA IV)	
4	2703160	SPROCKET-#40 42 TOOTH	1	15	4167879	MOUNT-SPROCKET	1
5	2703508	FLANGE, BEARING 2.04 ID	4	16	522361	TINE, CORING 3/4 (QTY 42 ON LA V) (QTY 30 ON LA IV)	
6	545786	BEARING, BALL	2				
7	4167900	BEARING-1 X 1.313 X 1.063 (QTY 5 ON LA V) (QTY 3 ON LA IV)		17	64018-34	BLT-CAR 5/16-18 X 1-1/2 (QTY 84 ON LA V) (QTY 60 ON LA IV)	
8	4129801	FLANGE BUSHING (QTY 5 ON LA V) (QTY 3 ON LA IV)		18	64151-15	NUT-HEX 5/16-18 CTRLCK (QTY 84 ON LA V) (QTY 60 ON LA IV)	
9	4168463	WLDMT-TINE,DOUBLE (INCLUDES ITEMS 3,7,8 & 12)	2	19	64018-9	BLT-CRG 5/16-18X3/4 G5	4
10	64139-08	BLT-WLF 5/16-18 X 3/4	3	20	64141-6	NUT-WLF 5/16-18	4
11	4168462	WLDMT-TINE,SINGLE-R (INCLUDES ITEMS 3,7,8 & 12) (USED ON LA V MODELS ONLY)	1	21	64044-2	SET SCREW-5/16-18X3/8	2
				22	521854	LOCK COLLAR	2

# DRUM GROUP

FIGURE 6

Lawnaire  
IV & V  
with EST



**Lawnaire  
IV & V  
with EST**

**DRUM GROUP**

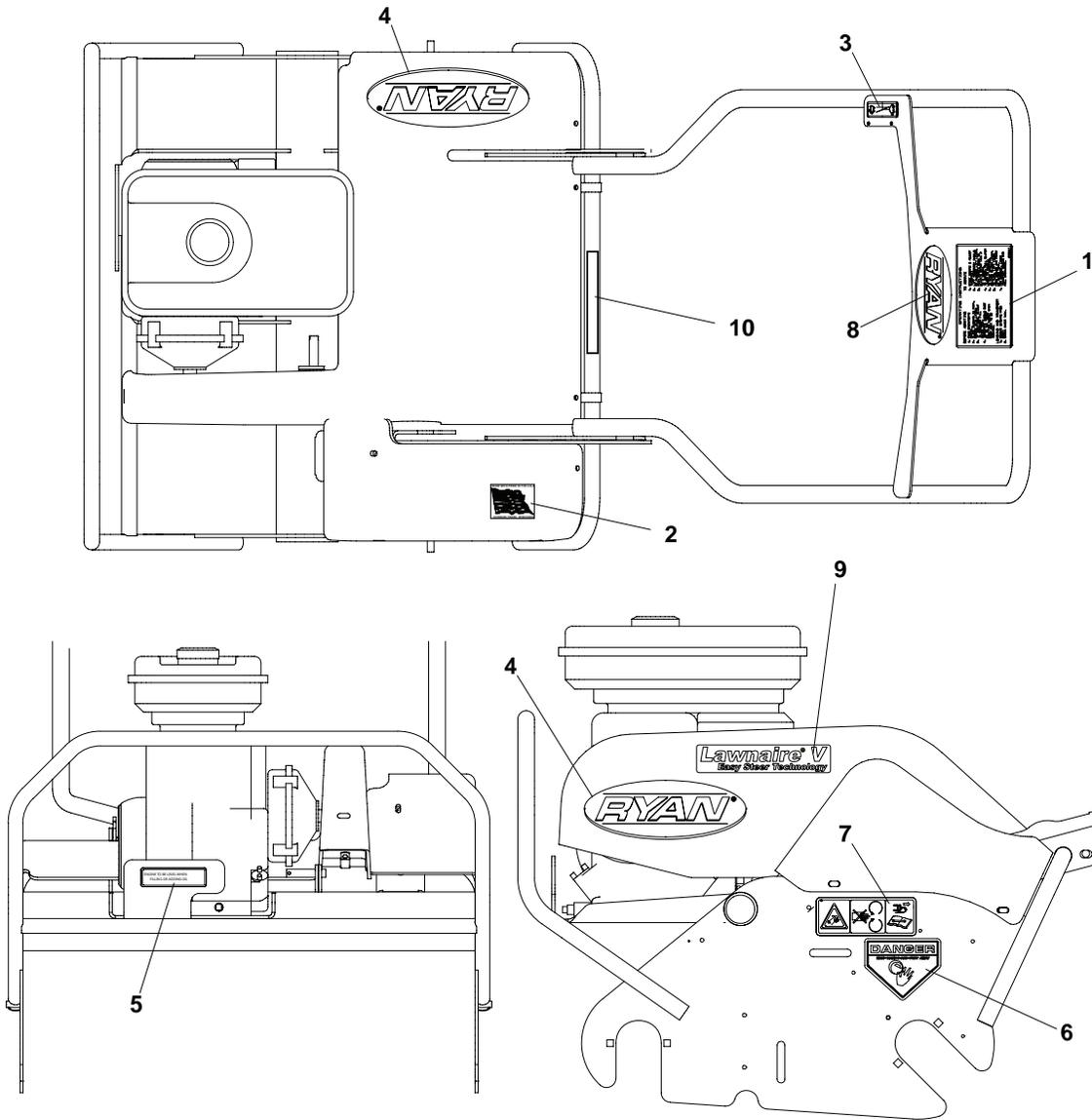
**FIGURE 6**

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	2702741.7	PLATE, FLANGE	1				
2	2703108.7	DRIVE AY, LA5 DRUM (USED ON LA V MODELS)	1				
	2703102.7	DRIVE AY, LA4 DRUM (USED ON LA IV MODELS)					
3	2703157	SPROCKET, 30T .50P	1				
4	2703508	FLANGE, BEARING 2.04 I.D.	4				
5	2703785	DRUM, WATER LA5 (USED ON LA V MODELS)	1				
	2703783	DRUM, WATER LA4 (USED ON LA IV MODELS)					
6	522480	GASKET, 4.50 DIA.	1				
7	522481	GASKET, 3.00 DIA.	1				
8	545786	BEARING ASSEMBLY	2				
9	545887	RING AY, SPLIT	2				
10	64139-08	BOLT-5/16-18X3/4 WLF	3				
11	64141-6	NUT, 5/16-18	7				
12	64018-9	BLT-CRG 5/16-18X3/4 G5	4				
13	821274	PLUG, DRAIN	1				
14	64025-02	NUT-HEX 5/16-18	12				

# DECAL GROUP

# Lawnaire IV & V with EST

FIGURE 7



# Lawnaire IV & V with EST

## DECAL GROUP

FIGURE 7

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	2703117	DECAL, OP INSTR LA IV & V	1				
2	4116761	LABEL-MADE IN USA	1				
3	4115768	DECAL, HAND THROTTLE	1				
4	4161123	LABEL-RYAN	2				
5	521787	DECAL,OIL ENGINE LEVEL	1				
6	835892	DECAL,DANGER HNDS&FT	2				
7	840697	DECAL,WARNING BELT	1				
8	4169357	LABEL-RYAN EST HANDLE	1				
		(USED ON LA V MODELS)					
	4169358	LABEL-LA IV EST HANDLE					
		(USED ON LA IV MODELS)					
9	4168234	LABEL-LA V EST	2				
		(USED ON LA V MODELS)					
	4169179	LABEL-LA IV EST					
		(USED ON LA IV MODELS)					
10	4109022	LABEL-HANDLE LOCK	1				
		(USED ON LA IV MODELS)					

**SCHILLER GROUNDS CARE, INC.**  
**ONE BOB-CAT LANE**  
**P.O. BOX 469**  
**JOHNSON CREEK, WI 53038**  
**920-699-2000**  
**[www.schillergc.com](http://www.schillergc.com)**



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