

# **TECHNICAL MANUAL**

**Safety, Operations, Maintenance, Parts**

**LAWNIRE® IV**

**MODELS 544863B STANDARD**

**MODELS 544881A COMMERCIAL**

## GENERAL INFORMATION

To make sure you are fully aware of safety and service information, the following two symbols are used throughout this manual.



This "HAZARD" symbol is used to alert you to information about unsafe actions or situations, and will be followed by the word DANGER, WARNING, or CAUTION. Used with the word DANGER it will describe immediate hazards that may result in severe personal injury or death. With the word WARNING it will describe unsafe actions or situations that may cause severe injury, death and/or major equipment or property damage. With the word CAUTION it will describe unsafe actions or situations that may cause injury, and/or minor equipment or property damage.

### NOTICE

This NOTICE symbol is used to alert you to information that describes procedures or tips that will help you operate and maintain your equipment properly.

## IMPORTANT!

THIS MANUAL WILL AID YOU IN THE SAFE OPERATION AND PROPER MAINTENANCE OF YOUR EQUIPMENT. ANYONE WHO WILL BE OPERATING THE EQUIPMENT SHOULD READ THE MANUAL THOROUGHLY BEFORE ATTEMPTING OPERATION.

IF ANY PORTION OF THIS MANUAL IS NOT CLEARLY UNDERSTOOD, CONTACT AN AUTHORIZED DEALER FOR CLARIFICATION.



## WARNING

**The information and instructions included in this manual alert you to certain things you should do very carefully. If you don't, you could:**

- hurt yourself or others
- hurt the next person who operates the equipment
- damage the equipment.

**This manual contains essential operation and safety information and must remain with the unit at all times, within easy access of any operator.**

Additional operator's manuals are available through your dealer.

## IMPORTANT!

THIS EQUIPMENT SHOULD NOT BE MODIFIED OR ADDED TO WITHOUT THE MANUFACTURER'S AUTHORIZATION.

Contact your dealer for correspondence with the factory.



## WARNING

**Altering this equipment in any manner which adversely affects the operation, performance, durability or use may cause hazardous conditions.**

## PRODUCT REFERENCE

Information in this manual may refer to a specific product, brand name, number or tool. Unless specifically stated otherwise, an equivalent product may be used.

## ILLUSTRATIONS & SPECIFICATIONS

All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing. Textron Golf, Turf and Specialty Products reserves the right is to make changes at any time without notice.

## PRODUCT REGISTRATION

Textron Golf, Turf and Specialty Products makes every effort to keep owners informed of all safety related information. Therefore, changes in address and/or ownership should be reported to the manufacturer.

Your dealer has REGISTRATION CHANGE forms which will be filled out and filed by the dealer for his records, and a copy will be sent to the manufacturer.

For the location of the dealer nearest you, call 1-800-228-4444 (for dealer information only) or you may write directly to:

Textron Golf, Turf and Specialty Products  
Warranty Dept.  
P.O. Box 82409  
Lincoln, Nebraska 68501-2409

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## MODEL NUMBER AND SERIAL NUMBER LOCATION

The units model number and serial numbers are printed on the Nameplate/Identification decal located on the left side of the aerator frame. See Figure 1.

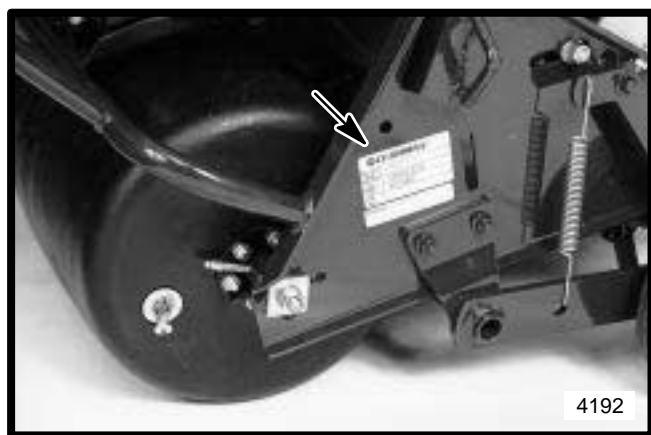


Figure 1. Model Number And Serial Number

## SPECIFICATIONS

### Engine

#### Lawnaire IV Model 544863B

Briggs & Stratton 3.5 HP, 4 cycle, #093452, Type 0141, Trim .01, with 6 to 1 gear reducer. Recoil starter and rotary stop switch. Governor set at 3600 ± 100 RPM No load, idle speed 2000 RPM. 4 qt. (3.8 L) metal fuel tank.

#### Lawnaire IV Model 544881A

Honda, GX120 K1HX, 4 HP, 4 cycle, with 6 to 1 gear reducer. Recoil start and rotating on/off switch. Governor set at 3600 RPM. No load,

idle speed 1400 ± 100 RPM.  
0.66 gal. (2.5L) metal fuel tank.

### Clutch

Belt tightener type – controlled from handle.

### Chassis

Welded steel construction.

### Drive

Primary: V belt w/ idler clutch.  
Secondary: #40 sealed roller chain to tine assembly.  
Transport: #40 sealed roller chain to water tank.

### Axles

5/8" (16 mm) diameter with needle bearings.

### Lubrication

Pressure lubrication fittings.

### Reduction

Speed reduction to aerating tine wheel 8.75 to 1.

### Speed

Transport: 190 f.p.m. (58 m.p.m.)  
Aerating: 225 f.p.m. (69 m.p.m.)

### Wheels

One water tank front 11" (279 mm) diameter, 6.6 gal. (25 L) capacity maximum.  
2 semi-pneumatic rear 8 x 1.75 with sealed ball bearings.

### Tines

3/4" (19 mm) coring tines, formed from 0.080" thick chrome-molybdenum alloy steel, hardened for long life. 30 tines per unit.

### Aerating Width

19" (483 mm)

### Aerating Depth

2 3/4" (70 mm) maximum

### Aerating Pattern

3 3/4 x 7" (95 x 178 mm) on center

### Controls

Two levers, clutch/throttle and transport lever on handle.

### Net Weight

188 lbs. (85.2 Kg) dry, w/o weight.  
224 lbs. (101.5 Kg) dry, with weight.  
274 lbs. (124.1 Kg) with water tank full and weight installed.

### Dimensions

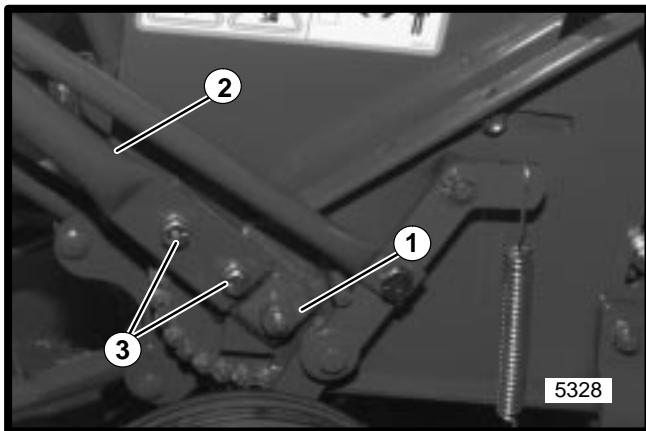
Width 28" (813 mm); height in aerating position 38" (965 mm); height in transport position 47" (1,194 mm); length 48" (1,219 mm).

## SET-UP



### WARNING

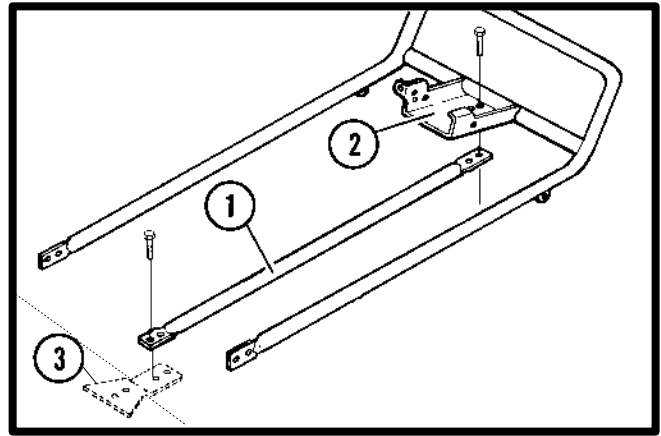
- To prevent possible injury to yourself or others, stay clear when cutting banding. Banding is under tension and can snap back when cut.
1. Cut banding and remove hardware bag, handle assembly and center support from pallet.
  2. Attach left side of handle assembly to aerator (curved portion of handle pointing up) using two 3/8-16 x 3/4" screws and lockwashers. Do not tighten hardware at this time.
  3. Be sure square washer on the tine axle is in proper position (as shown in Figure 2) before installing right side hardware. Attach right side of handle to aerator using one 3/8-16 x 3/4" screw and lockwasher in lower hole, and one 3/8-16 x 1 1/4" screw and lockwasher in remaining hole. Attach tine cover to 1 1/4" screw with flatwasher and locknut. Do not tighten hardware at this time.



**Figure 2. Handle Attachment**

1. Tine Axle Square Washer
2. Handle Assembly
3. Mounting Hardware

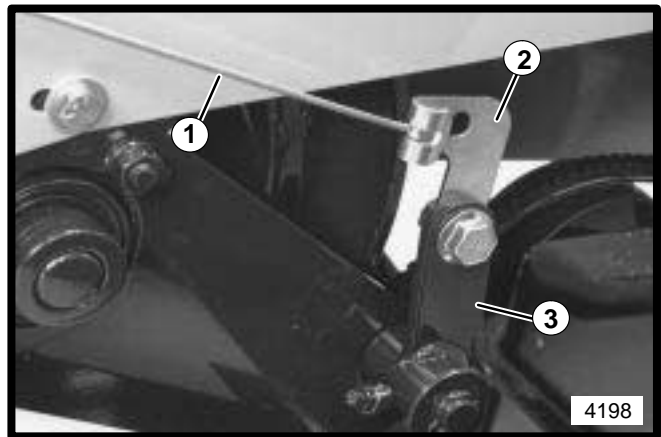
4. Position center support (as shown in Figure 3) and attach to bracket on handle using two 3/8-16 x 3/4" screws with locknuts. Attach the opposite end of the center support with two 3/8-16 x 3/4" screws and locknuts to the bottom side of the tab on aerator frame located just below the fuel tank.



**Figure 3. Handle Assembly**

1. Center Support
2. Handle Bracket
3. Aerator Frame Tab

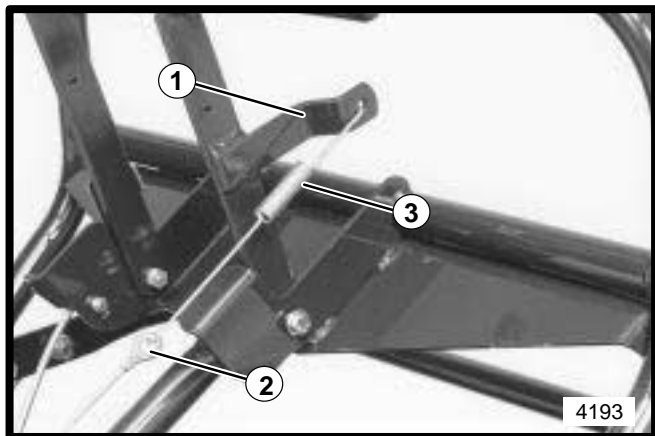
5. Secure tine cover to center support using one 5/16-18 x 1 1/2" screw, washer, lockwasher and locknut. Tighten all hardware installed in previous steps at this time.
6. Attach ball end of clutch control cable to cable clamp on bellcrank. See Figure 4.



**Figure 4. Clutch Cable Attachment**

1. Clutch Control Cable
2. Cable Clamp
3. Bellcrank

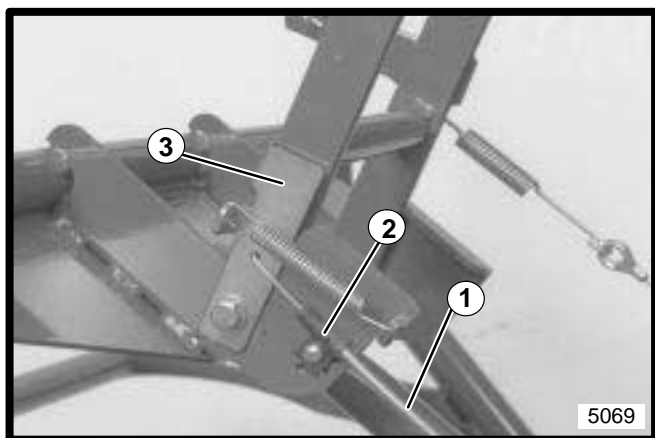
7. Attach one end of spring to the clutch control handle and the opposite end to the eye of the clutch control cable. See Figure 5.



**Figure 5. Clutch Cable Attachment**

1. Clutch Control Handle
2. Clutch Cable Eye
3. Spring

8. Adjust the position of the cable clamp (See Figure 4) so that when the clutch handle is pulled back and the idler engages the belt, the clutch spring (See Figure 5) is extended 3/8" (10mm). Release the clutch and make sure the belt disengages completely.
9. Unwrap throttle cable from engine. Hook cable end into throttle lever on right side of clutch control handle. Install cable clamp as shown in Figure 6, but DO NOT tighten clamp.



**Figure 6. Throttle Cable Attachment**

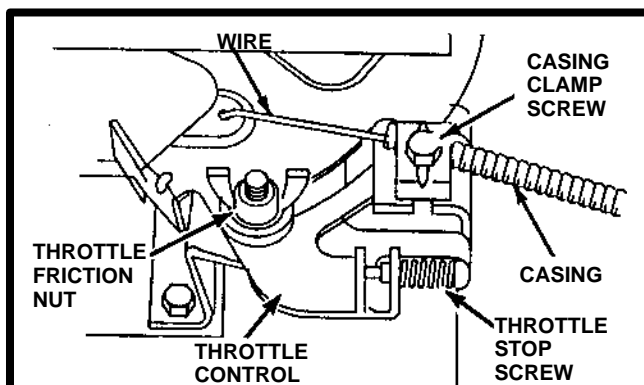
1. Throttle Cable
2. Cable Clamp
3. Throttle Lever

#### **BRIGGS AND STRATTON ENGINE**

10. Make sure throttle friction wing nut is loosened to allow free movement of throttle control.

#### **Remote adjustment throttle control.**

Loosen casing clamp screw on control plate. Pull clutch handle all the way rearward. Move casing and wire to end of travel to move throttle control to FAST position. Tighten casing clamp screw. See Figure 7.

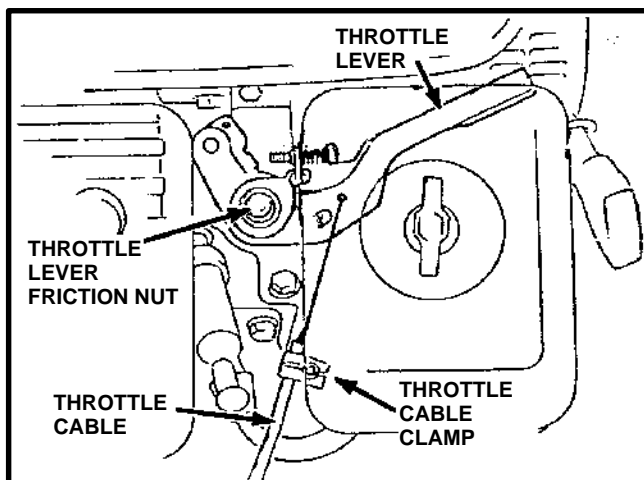


**Figure 7. Remote Throttle Control**

#### **HONDA ENGINE**

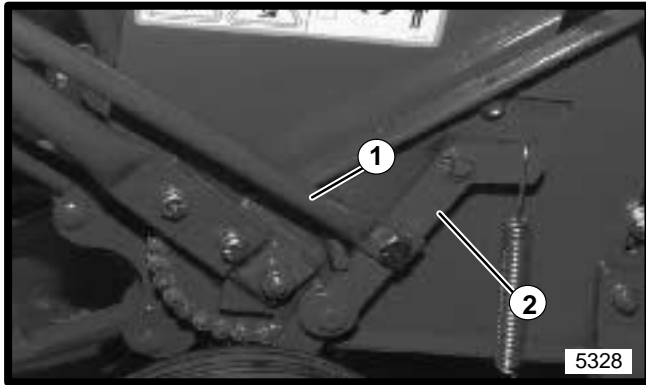
#### **Remote adjustment throttle control.**

Make sure throttle lever friction nut is loosened enough to allow free movement of throttle lever. Pull clutch handle all the way rearward and push the throttle cable forward until the throttle lever on the engine is fully advanced. Tighten cable clamp securely.



**Figure 8. Honda Remote Throttle Control**

11. Secure all cables to the center support of the handle using the two tie straps provided.
12. Attach height adjustment tubes to height adjustment links. A nylon bearing is taped into the lower end of each tube. Secure both sides with shoulder bolts, lockwashers and nuts. See Figure 9.



**Figure 9. Height Adjustment Tube Attachment**  
**1. Height Adjustment Tube**  
**2. Height Adjustment Link**

13. Cut banding securing aerator to pallet. Pull up on height control handle to raise aerator to the transport position. Carefully remove aerator from pallet.

## CONTROLS

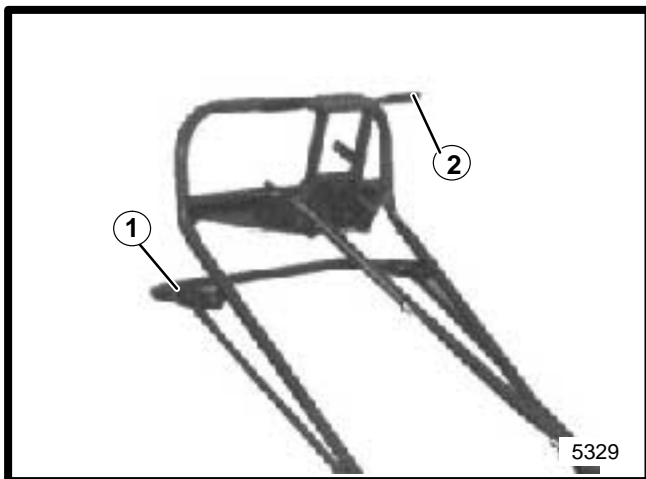
**Height Control Handle:** Controls transport wheels. Pushing down on handle will lower tines. Pulling handle up will raise tines. See Figure 10.

**Clutch Control Handle:** Engages belt tightener clutch and controls engine throttle. Pulling back on handle engages clutch while increasing engine speed. Handle is spring loaded, by releasing handle, the clutch is disengaged, and engine speed is reduced. See Figure 10.



### WARNING

- Releasing the clutch on an incline will cause freewheeling which will allow unit to roll back down the incline.

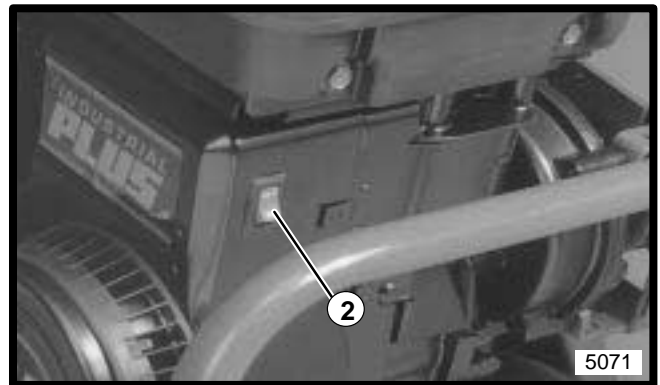
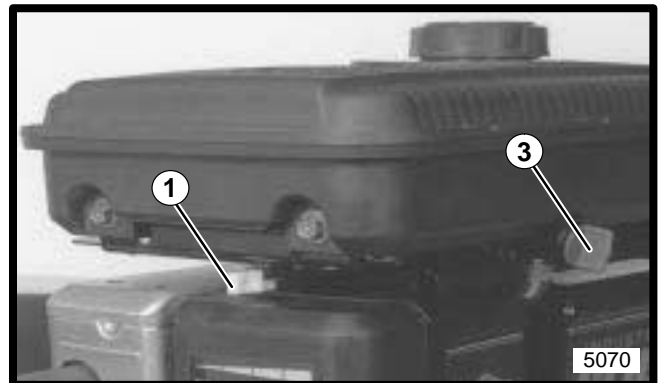


**Figure 10. Handle Controls**  
**1. Height Control Handle**  
**2. Clutch Control Handle**

### NOTICE

- The Lawnaire IV is available with either a 3.5 HP Briggs & Stratton engine or a 4 HP Honda engine.

**Briggs & Stratton Engine Controls:** The engine is equipped with an On/Off control, a choke control and fuel shut-off valve. On/Off control must 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 engine starts, adjust choke for best running results. Once engine warms, the choke should not be needed. Refer to Figure 11.



**Figure 11. Briggs & Stratton Engine Controls**  
**1. Choke Control**  
**2. On/Off Control**  
**3. Fuel Shut-off valve**

**Honda Engine Controls:** The engine is equipped with a Choke, Fuel Valve and On/Off switch. Fuel Valve, and On/Off switch must both be in "ON" position to start engine. Turn On/Off switch to "OFF" to stop engine. Using the choke will help start a cold engine. After engine starts, adjust choke for best running results. Once engine warms, the choke should not be needed. Refer to Figure 12.

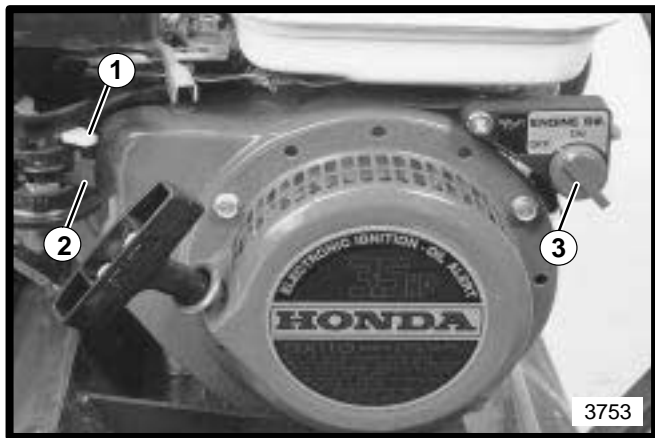


Figure 12. Honda Engine Controls

1. Choke
2. Fuel Valve
3. On/Off Switch

**NOTICE**

- The Honda engine is equipped with a low oil sensor to prevent engine damage. When it senses a low oil condition (ie. operating on an exceptionally steep slope) the engine shuts down. Condition must be corrected before engine can be restarted (see engine operator's manual for more information).

## OPERATION

### Pre-Operation Check

Visually check all moving parts and all fasteners, if loose or broken, tighten or replace. Check for broken or bent tines, replace if necessary.

Lubricate all fittings after every four hours of aerating, using a pressurized gun with a standard lithium base lubricant. Wipe off fittings before and after lubricating.

Check engine crankcase and gear reduction case oil levels with engine resting in a level position. Add oil if necessary.

Follow the recommendations of the engine manufacturer for the correct type and amount of oil. Fill the fuel tank according to engine manufacturer specifications.



**WARNING**

- Gasoline is extremely flammable and highly explosive under certain conditions. Always stop the engine and do not smoke or allow open flames or sparks when refueling. BE SURE to reinstall fuel cap after refueling.

- NEVER start or run the engine inside where exhaust fumes can collect. Carbon monoxide present in the exhaust is an odorless and deadly gas.
- DO NOT operate equipment without shields in place. DO NOT make adjustments or perform any maintenance while the engine is running.
- Before operating, check the area and remove any object which may present a safety hazard or damage the equipment.
- This unit is not designed to be used on steep slopes. To prevent injury and/or damage to equipment use extreme caution when operating near terraces or hilly terrain. Travel up and down slopes at a 45° angle rather than across, to prevent unit from tipping over. DO NOT release clutch handle on a slope, this will cause free wheeling, allowing unit to roll back down the slope.

**NOTICE**

- Never cross hard objects or surfaces (sidewalks, driveways, stepping stones, etc.) with tines in down position.
- Always drain water tank for winter storage. Freezing water may rupture the tank.

### Aerating

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

Rotate water tank on front of unit until filler plug is positioned at the top. Remove plug, fill tank with water and replace the plug. Plug is located on left side of unit. See Figure 13.

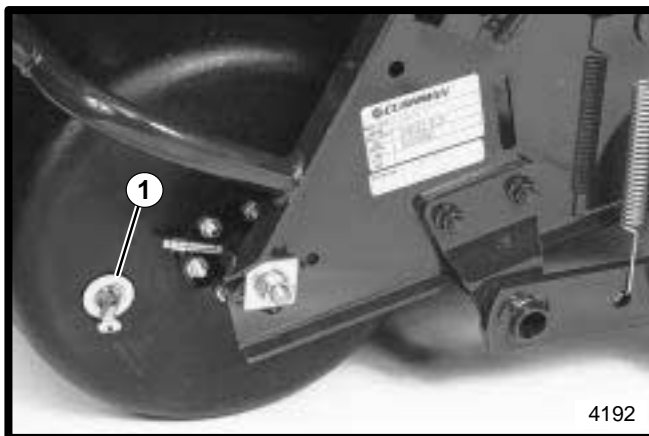


Figure 13. Tank Filler Location  
1. Tank Filler Plug

Move On/Off lever to "ON" position, pull recoil starter and choke as required to start engine.

Make sure the transport wheels are in the down position (tines not touching ground), slowly pull back on clutch handle and transport aerator to work area.

Upon reaching the work area, release clutch control handle, push down on height control handle lowering aerating tines to the turf.

Pull back slowly on the clutch handle to start aerating.

For maximum tine penetration into turf, apply downward pressure on handle.

At the end of aerating run, release clutch handle and lift up on height control handle. Apply just enough pressure on clutch handle to aid in turning aerator around and repeat aerating pass.

When finished aerating, lift up on height control handle to move wheels into transport position.

Drain water tank when finished with aerating.

## SERVICE



### WARNING

- **When replacement parts are required, use genuine RYAN parts or parts with equivalent characteristics including type, strength, and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.**
- **Any warning decal that becomes illegible should be replaced immediately.**
- **Do not operate equipment without shields in place. Do not make any adjustments or perform any maintenance while the engine is running.**

Thoroughly clean all tines inside and out when aerating is completed and apply a light coat of oil to prevent rust on tines.

Check engine and gear reduction case oil level with engine resting in a level position.

Inspect air filter element and replace if necessary.

Wipe off lubrication fittings before and after each lubrication. Always lubricate aerator each time it is put into service.

Keep drive belt free of oil and dirt.

Check roller chains for tightness and wear. Apply a light coat of no. 30 oil or penetrating chain lubricant to keep the chain clean and in proper running order.

Idler sprockets are adjustable. Loosen nut and screw holding idler sprocket to frame then slide sprocket in slot to desired position. Tighten hardware.

### NOTICE

- Excessive roller chain tightness will shorten the life of the bearings. Chain should have movement of 1/8" to 1/4" (3mm to 6mm) up and down at center point between both sprockets.

## STORAGE INSTRUCTIONS



### WARNING

- **To prevent possible explosion or ignition of vaporized fuel, do not store equipment with fuel in tank or carburetor in enclosure with open flame. (Example: 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 fuel tanks and fuel lines.
2. Start engine and run until all fuel is used from carburetor float bowl.
3. While engine is still warm, drain the crankcase oil and replace with the proper weight oil corresponding to the season the equipment will next be used.
4. Remove the spark plug and squirt a small quantity of engine oil into the cylinder. Turn the engine over a few times to distribute that oil.
5. Drain water tank.
6. Lubricate all lubrication fittings.

To put equipment into operation after an extended storage:

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



## TOUCH UP PAINT

### **Ransomes Green** (medium green)

16 oz. (0.5L) spray ..... order no. 838140

1 qt. (0.95L) can ..... order no. 838141

### **Safety Yellow**

16 oz. (0.5L) spray ..... order no. 833252

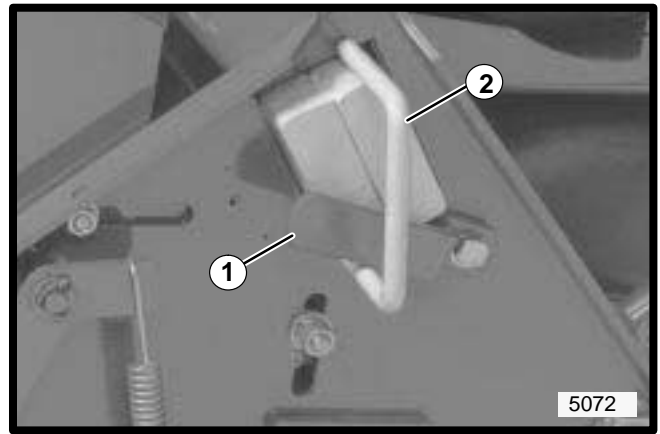
1 qt. (0.95L) can ..... order no. 833251

## TRANSPORTING

If tote trailer is used, weight from aerator frame bar must be removed and locking shaft installed through aerator frame.

Removal of weight bar from unit and draining water tank, will decrease the weight for easier loading on vehicle or trailer.

Remove weight bar by turning lever to the up position and sliding weight bar out. Take care, the bar weighs approximately 20 lbs.



**Figure 14**

- 1. Lever**
- 2. Weight**


Close fuel shut off valve before transporting unit.

## TORQUE SPECIFICATIONS HEX HEAD CAP SCREWS

The torque values shown should be used as a general guideline when specific torque values are not given.

### U.S. Standard Hardware



Grade	Shank Size (Diameter in inches, fine or coarse thread)													
		1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8		
SAE grade 5 *	ft.-lb.	9	18	31	50	75	110	150	250	378	583	782		
	N-m	12	24	42	68	102	150	203	339	513	790	1060		
SAE grade 8 **	ft.-lb.	13	28	46	75	115	165	225	370	591	893	1410		
	N-m	18	38	62	108	156	224	305	502	801	1211	1912		
Flangelock Screw w/ Flangelock Nut	ft.-lb.		24	40										
	N-m		33	54										

\* Grade 5 marking –  Minimum commercial quality (Lower quality not recommended).

\*\* Grade 8 marking – 

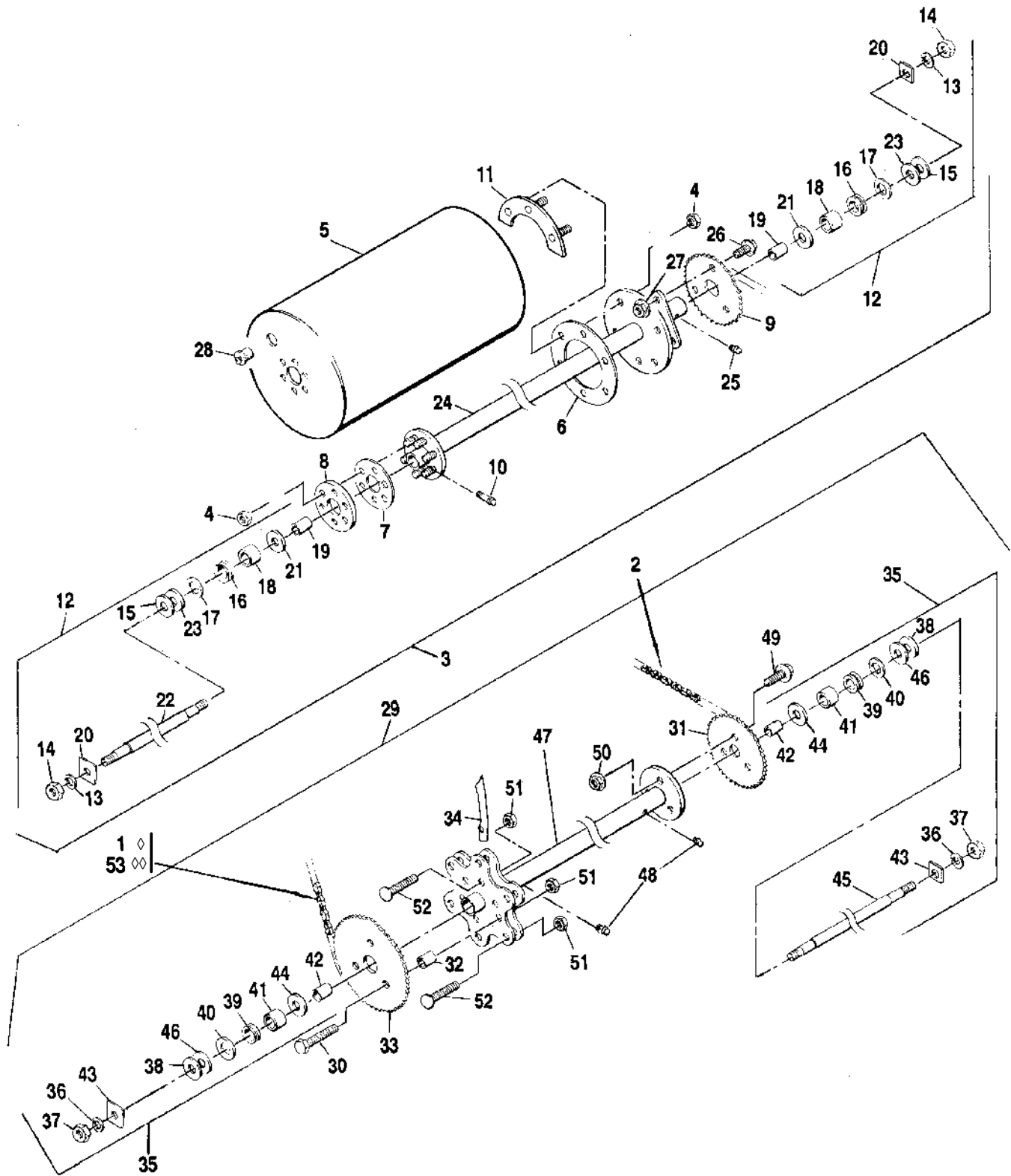
### Metric Standard Hardware

Grade	Shank Size (Diameter in millimeters, fine or coarse thread)														
		M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27
Grade 8.8*	N-m	2	4	7	11	18	32	58	94	144	190	260	368	470	707
	ft.-lb.	1.5	3	5.2	8.2	13.5	24	43.5	70.5	108	142	195	276	353	530
Grade 10.9**	N-m	3	6	10	16	25	47	83	133	196	269	366	520	664	996
	ft.-lb.	2.2	4.5	7.5	12	18.8	35.2	62.2	100	147	202	275	390	498	747
Grade 12.9 ***	N-m	3.6	7	11	20	29	58	100	159	235	323	440	628	794	1205
	ft.-lb.	2.7	5.2	8.2	15	21.8	43.5	75	119	176	242	330	471	596	904

\* Grade 8.8 marking –  \*\* Grade 10.9 marking –  \*\*\* Grade 12.9 marking – 

## NOTES

# AERATING AND DRIVE GROUP



## AERATING AND DRIVE GROUP

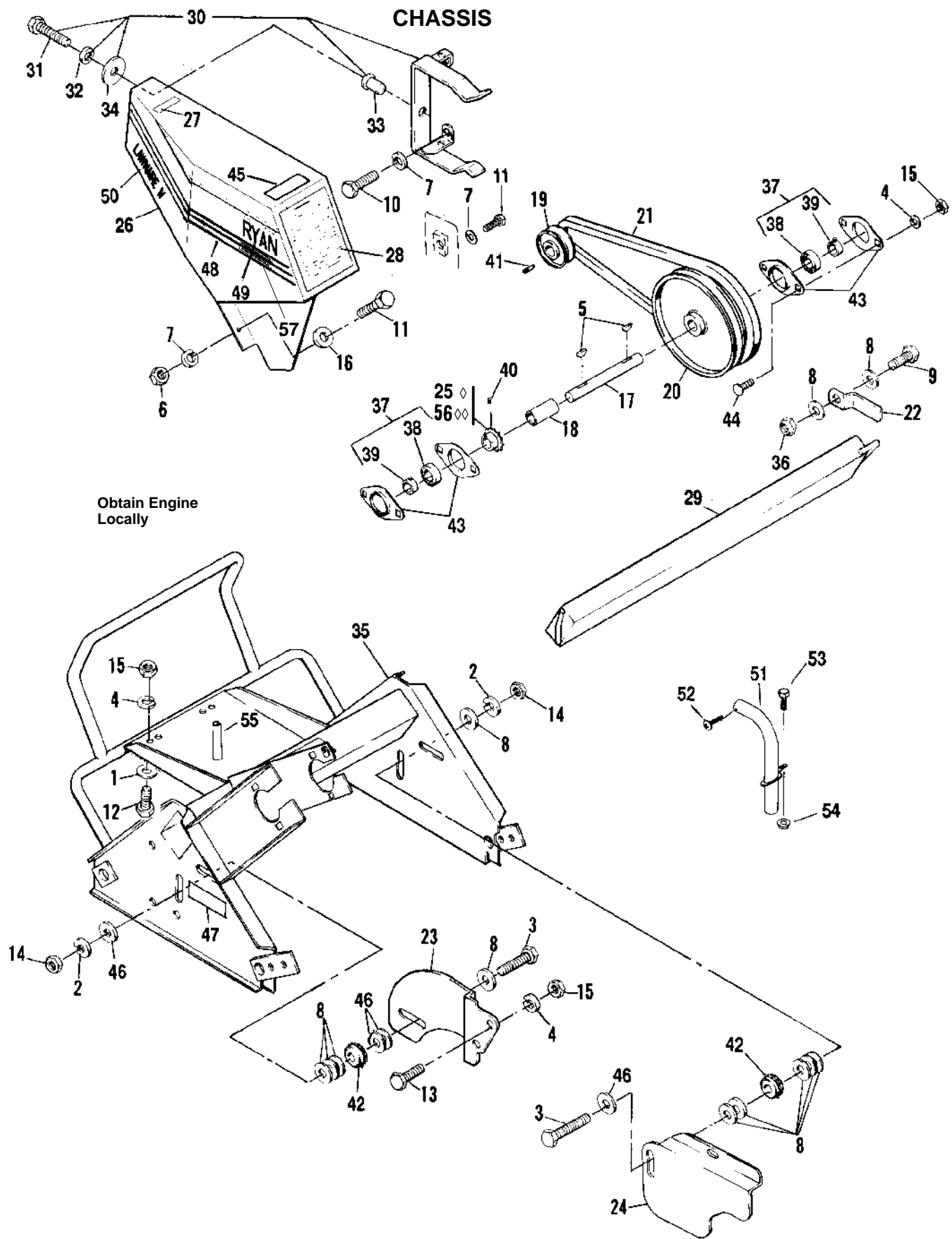
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1◇	540291	Chain, #40 sealed roller	1	27	548911	•Nut, flangelock 5/16–18	3
*	522122	•Link, connector	1	28	821274	•Plug, drain	1
2	547889	Chain, #40 sealed roller	1	29	547921	Tine wheel assembly, complete	1
*	522122	•Link, connector	1	30	306501	•Screw, 5/16–18 x 1 1/2	3
3	547920	Tank assembly, complete	1	31	521582	•Sprocket	1
4	306932	•Nut, 5/16–18	12	32	521588	•Bushing	3
5	522414	•Tank, water	1	33	522229	•Sprocket, drive	1
6	522480	•Gasket, 4 1/2" diameter	1	34	522361	•Tine, 3/4" (19 mm)	30
7	522481	•Gasket, 3" diameter	1	35	547855	•Kit, needle bearing	1
8	522586	•Plate, cap, 3" diameter	1	36	303269	••Lockwasher, 7/16	2
9	522674	•Sprocket, tank	1	37	304364	••Nut, lock 7/16–14	2
10	523912	•Fitting, lubrication	1	38	515891	••Spacer, large	As Req'd
11	545887	•Ring, split	2	39	523241	••Seal, v–ring	2
12	547855	•Kit, needle bearing	1	40	523829	••Washer, thrust	2
13	303269	••Lockwasher, 7/16	2	41	523832	••Bearing, needle	2
14	304364	••Nut, lock 7/16–14	2	42	523885	••Bushing	2
15	515891	••Spacer, large	As Req'd	43	523890	••Washer, square	2
16	523241	••Seal, v–ring	2	44	523939	••Shim, small	As Req'd
17	523829	••Washer, thrust	2	45	523947	••Shaft, axle	1
18	523832	••Bearing, needle	2	46	548478	••Shim, large	As Req'd
19	523885	••Bushing	2	47	547871	•Wheel, tine	1
20	524807	••Washer, square	2	48	548224	•Fitting, lube	2
21	523939	••Shim, small	As Req'd	49	548604	•Screw, flangelock, 5/16–18 x 3/4	3
22	523947	••Shaft, axle	1	50	548911	•Nut, flangelock 5/16–18	3
23	548478	••Shim, large	As Req'd	51	800290	•Nut, lock 5/16–18	63
24	547873	•Tube, drive	1	52	800606	•Bolt, carriage, 5/16–18 x 1 1/2	60
25	548224	•Fitting, lubrication	1	53◇◇	547888	Chain, #40 sealed (74 links with connector)	1
26	548604	•Screw, flangelock, 5/16–18x3/4	3				

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

\* Not illustrated.

◇ For units produced after 10-09-95.

◇◇ For units produced prior to 10-09-95.



## CHASSIS

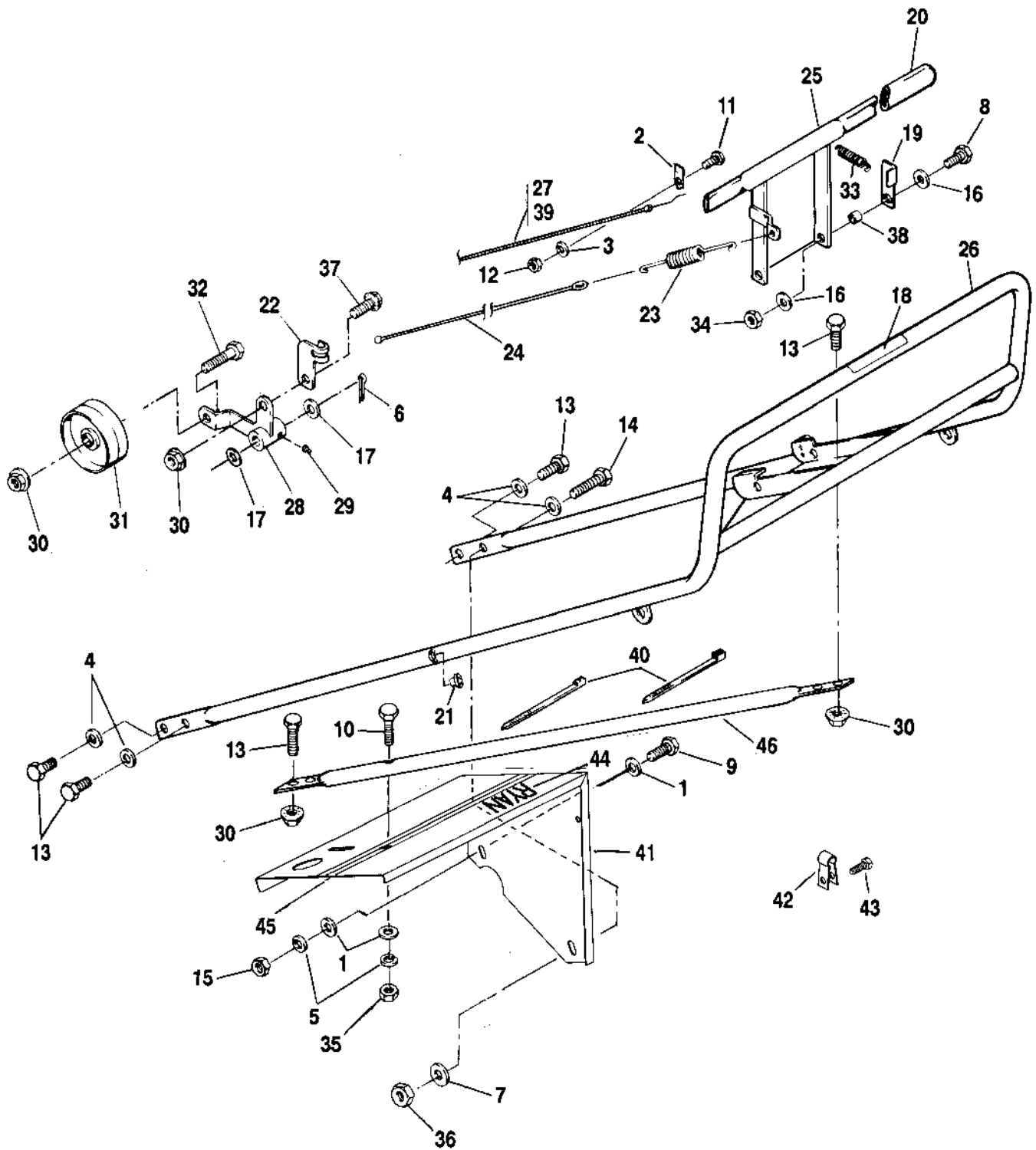
Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	4	30	545904	Stop assembly	1
2	120177	Lockwasher, 3/8	2	31	306409	•Screw, 1/4–20 x 7/8	1
3	131794	Screw, 3/8–16 x 2	2	32	306488	•Lockwasher, 1/4	1
4	306325	Lockwasher, 5/16	10	33	522516	•Mount, isolation	1
5	306367	Key, #9 woodruff	2	34	548175	•Washer, 1/4	1
6	306375	Nut, 1/4–20	1	35	547676	Frame,	1
7	306396	Lockwasher, 1/4	3	36	548052	Nut, lock 3/8–16	1
8	306405	Washer, 3/8	14	37	548101	Bearing, ball w/collar	2
9	306414	Screw, 3/8–16 x 1	1	38	521856	•Bearing	1
10	306418	Screw, 1/4–20 x 1 1/8	2	39	521857	•Collar, locking	1
11	300646	Screw, 1/4–20 x 3/4	2	40	548201	Screw, set 5/16–18	1
12	306501	Screw, 5/16–18 x 1 1/2	4	41	548366	Key	1
13	306322	Screw, 5/16–18 x 7/8	2	42	548960	Sprocket, idler	2
14	306562	Nut, 3/8–16	2	43	548962	Flange, bearing	4
15	306932	Nut, 5/16–18	10	44	800557	Bolt, carriage 5/16–18 x 3/4	4
16	103867	Washer, 11/32	1	45	840697	Decal, warning	1
17	521585	Shaft, jack	1	46	548164	Washer, 3/8	5
18	521589	Bushing	1	47	869081	Decal, danger	2
19	521608	Pulley, engine	1	48	838494	Decal, stripe, 20'(6.1M) . As Req'd.	
20	521609	Pulley	1	49	524281	Decal, Ryan	1
21	521613	Belt, 17/32 x 9/32 x 47" O.D.	1	50	524362	Decal, Lawnaire, IV	1
22	522355	Latch, weight	1	51	540235	Tube, exhaust	1
23	523352	Guard, chain (left)	1	52	800149	Screw, #10–16 x 3/8, tapping	1
24	523359	Guard, chain (right)	1	53	306834	Screw, 3/8–16 x 3/4	1
25◇	841261	Sprocket (16 teeth)	2	54	548804	Nut, 3/8–16	2
26	545797	Shield	1	55	831004	Weatherstrip, 25' (7.6M) As Req'd.	
27	521787	•Decal, warning	1	56◇◇	523603	Sprocket (12 teeth)	1
28	522131	•Decal, operating instructions	1	57	844847	Decal, TEXTRON	2
29	545844	Weight	1				

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

◇ For units produced after 10-09-95.

◇◇ For units produced prior to 10-09-95.

# CONTROLS AND HANDLE GROUP



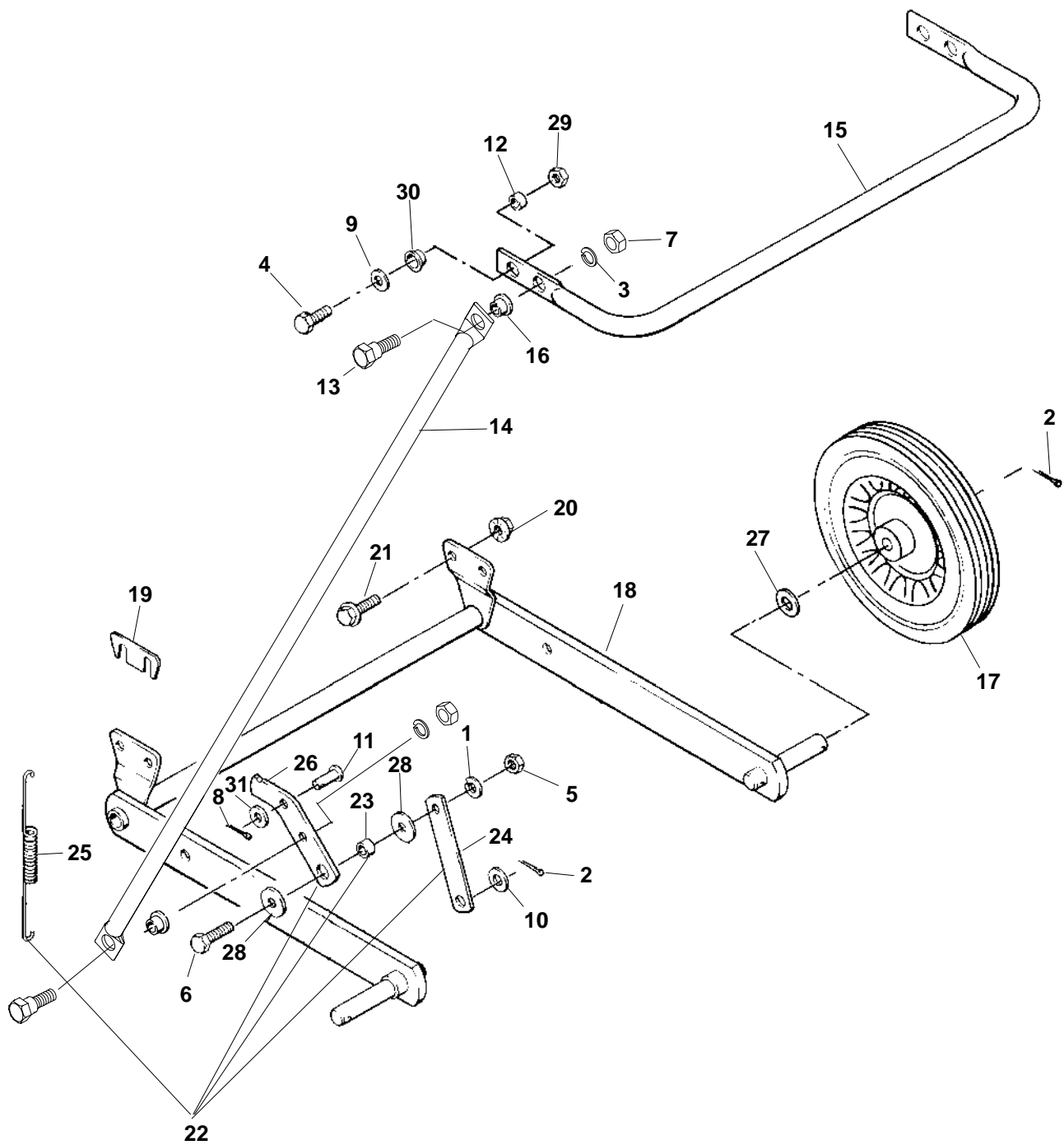


## CONTROLS AND HANDLE GROUP

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16 .....	3	24	547445	Cable, clutch .....	1
2	111898	Clamp .....	1	25	547646	Handle, clutch .....	1
3	120052	Lockwasher, #10 .....	1	26	540311	Handle, aerator .....	1
4	120177	Lockwasher, 3/8 .....	4	27	547735	Cable, throttle (Honda) .....	1
5	306325	Lockwasher, 5/16 .....	2	28	547854	Bellcrank .....	1
6	306328	Pin, cotter 3/32 x 3/4 .....	1	29	548225	Fitting, lubrication .....	1
7	306405	Washer, 3/8 .....	1	30	548804	Nut, flangelock 3/8-16 .....	6
8	306409	Screw, 1/4-20 x 7/8 .....	2	31	548942	Pulley, idler .....	1
9	306322	Screw, 5/16-18 x 7/8 .....	1	32	551094	Screw, 3/8-16 x 1 3/4 .....	1
10	306501	Screw, 5/16-18 x 1 1/2 .....	1	33	602937	Spring .....	1
11	306514	Screw, #10-24 x 1/2 .....	1	34	800059	Nut, lock 1/4-20 .....	2
12	306531	Nut, #10-24 .....	1	35	800290	Nut, lock 5/16-18 .....	1
13	306834	Screw, 3/8-16 x 3/4 .....	6	36	800292	Nut, 3/8-16 .....	1
14	306835	Screw, 3/8-16 x 1 1/4 .....	2	37	800385	Screw, flangelock 3/8-16 x 3/4 ..	1
15	306932	Nut, 5/16-18 .....	1	38	817019	Bushing .....	2
16	308090	Washer, 1/4 .....	4	39	540218	Cable, throttle (B&S) .....	1
17	548157	Washer, 33/64 .....	3	40	320107	•Tie, plastic .....	2
18	521712	Decal, operating .....	1	41	524467	Cover, tine .....	1
19	523000	Lever, throttle .....	1	42	515755	Clip .....	1
20	523139	Grip, handle .....	2	43	300646	Screw, 1/4-20 x 3/4 .....	1
21	523363	Bushing, snap .....	2	44	524281	Decal, RYAN .....	1
22	524808	Clamp, cable .....	1	45	838494	Decal, stripe, 20'(6.1M) . As Req'd.	
23	523898	Spring .....	1	46	524476	Support, center .....	1

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

HEIGHT ADJUSTER & TRANSPORT FRAME

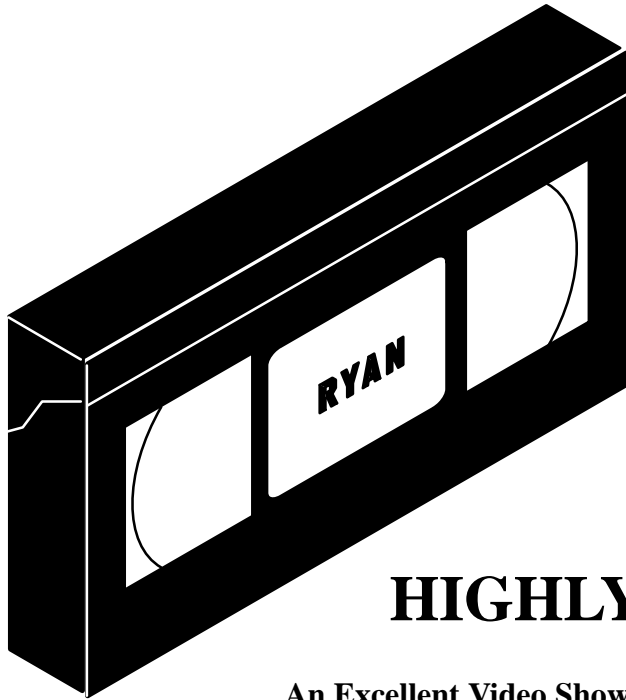


### HEIGHT ADJUSTER & TRANSPORT FRAME

Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	120177	Lockwasher, 3/8	2	17	545931	Wheel	2
2	304636	Pin, cotter 1/8 x 1	2	18	547675	Frame, transport	1
3	306325	Lockwasher, 5/16	2	19	522440	•Spacer	2
4	306414	Screw, 3/8-16 x 1	2	20	548804	•Nut, 3/8-16 flangelock	4
5	306562	Nut, 3/8-16	2	21	800385	•Screw, flangelock, 3/8-16 x 3/4	4
6	306835	Screw, 3/8-16 x 1 1/4	2	22	547707	Link Kit	1
7	306932	Nut, 5/16-18	2	23	521679	•Bushing	2
8	306956	Pin, cotter 1/8 x 3/4	2	24	522343	•Link, height adjustment	2
9	306981	Washer, 3/8	4	25	523366	•Spring	2
10	548157	Washer, 33/64	3	26	523423	•Link, height adjustment	2
11	516634	Pin, clevis	2	27	548165	Washer, 21/32	2
12	518438	Bushing	2	28	604174	Washer, 3/8	4
13	524633	Screw, shoulder, 5/16-18	1	29	800292	Nut, lock 3/8-16	2
14	524638	Tube, control	2	30	830165	Bushing	2
15	524649	Handle, height adjustment	1	31	548164	Washer, 3/8	2
16	524643	Bearing, split	4				

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.





# LAWNAIRE IV AND LAWNAIRE V VIDEO

**EASY TO FOLLOW  
OPERATION AND MAINTENANCE  
VIDEO TAPE**

## HIGHLY RECOMMENDED!

**An Excellent Video Showing:**

- **Pre-operational Checks**
- **Engine Start-up**
- **Aeration**
- **Loading and Unloading**
- **Daily and Periodic Maintenance**
- **Storage Procedures for the Lawnaire IV and Lawnaire V Aerators**

**VHS Format**

**14 Minute Running Time**

**Cost \$10.00**

### ORDER INFORMATION

**Ship to: Attn.** \_\_\_\_\_

**Company Name:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**City, State, Zip:** \_\_\_\_\_

Part No.	Description	Qty.	Each	Total
E260030	LAWNAIRE IV & LAWNAIRE V VIDEO		10.00	
	\$2.50 Shipping and Handling Per Tape		2.50	
<b>Total Enclosed</b>				

**Make checks payable to Textron Turf Care and Specialty Products**

**Return to: Textron Turf Care and Specialty Products**

**Attn: Nichole Deschler**

**1721 Packard Avenue**

**Racine, WI 53403-2564**

(Please allow 2 weeks for delivery)



# TEXTRON TURF CARE AND SPECIALTY PRODUCTS WARRANTY

Textron Turf Care And Specialty Products warrants for one (1) year each new **Ransomes/Cushman/Ryan** unit or serialized accessories except for the Envirojet high pressure injection system components which are warranted for one (1) year or 200 hours whichever occurs first, according to the following terms:

This warranty extends to the original retail purchaser only and commences on the date of original retail purchase. Accordingly this warranty is not transferable to any subsequent purchasers.

Any part of the **Ransomes/Cushman/Ryan** unit or serialized accessory manufactured by Textron Turf Care And Specialty Products and found in the reasonable judgement of Textron Turf Care And Specialty Products to be defective in material or workmanship **will be repaired or replaced by** an authorized **Ransomes/Cushman/Ryan** dealer without charge for parts and labor.

The **Ransomes/Cushman/Ryan** unit or serialized accessory including any defective part must be returned to an authorized **Ransomes/Cushman/Ryan** dealer within the warranty period. The expense of returning the **Ransomes/Cushman/Ryan** unit or serialized accessory to an authorized dealer for warranty service and the expense of returning it back to the owner after repair or replacement will be paid for by the owner. Textron Turf Care And Specialty Products's responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any **Ransomes/Cushman/Ryan** unit or serialized accessory.

Proof of purchase will be required by the authorized **Ransomes/Cushman/Ryan** dealer to substantiate any warranty claim. All warranty work must be performed by an authorized **Ransomes/Cushman/Ryan** dealer.

Textron Turf Care And Specialty Products makes no warranty with respect to engines, tires, batteries, regulators, starter-generators, electric motors, or other parts not of their manufacture as such parts are usually warranted separately by their respective manufacturers.

This warranty does not include service items subject to normal wear, such as filters, spark plugs, ignition points, brake and clutch linings, belts, light bulbs, fuses, bearings, electrical contacts, etc.

This warranty does not cover any **Ransomes/Cushman/Ryan** unit or serialized accessory that has been subject to misuse, neglect, negligence, or accident, or that has been operated or maintained in any way contrary to the operating or maintenance instructions as specified in the **Ransomes/Cushman/Ryan** Operator's Manual. The warranty does not apply to any **Ransomes/Cushman/Ryan** unit or serialized accessory that has been altered or modified so as to adversely affect the units operation, performance or durability or that has been altered or modified so as to change its intended use. In addition, the warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories which in the reasonable judgement of Textron Turf Care And Specialty Products are either incompatible with the **Ransomes/Cushman/Ryan** unit or adversely affect its operation, performance or durability.

Textron Turf Care And Specialty Products reserves the right to change or improve the design of any **Ransomes/Cushman/Ryan** unit or serialized accessory without assuming any obligation to modify any unit previously manufactured.

**ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE ARE EXPRESSLY EXCLUDED. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ANY ACTION FOR BREACH OF WARRANTY MUST BE COMMENCED NO LATER THAN ONE YEAR FROM THE DATE OF DELIVERY.**

**TEXTRON TURF CARE AND SPECIALTY PRODUCTS'S OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS, AND TEXTRON TURF CARE AND SPECIALTY PRODUCTS'S OBLIGATION DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION.**

**TEXTRON TURF CARE AND SPECIALTY PRODUCTS ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE FOR GASOLINE, EXPENSE OF RETURNING THE RANSOMES/CUSHMAN/Ryan UNIT TO AN AUTHORIZED DEALER AND EXPENSE OF RETURNING IT BACK TO THE OWNER. MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, TRAILERING OR TOWING CHARGES, RENTAL OF A LIKE UNIT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LODGING, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF UNIT, LOSS OF TIME OR INCONVENIENCE.**

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

RANSOMES • CUSHMAN • RYAN  
P.O. BOX 82409  
Lincoln, Nebraska 68501-9971

# WARRANTY SERVICE

To make a claim under warranty, contact an authorized **Ransomes/Cushman/Ryan** dealer immediately upon realizing a problem exists. We recommend having the warranty work performed by the dealer who originally sold you the unit; however, warranty work can be sought from any authorized **Ransomes/Cushman/Ryan** dealer. Remember, your **Ransomes/Cushman/Ryan** unit must be delivered to an authorized **Ransomes/Cushman/Ryan** dealer within the warranty period, and all warranty work must be performed only by an authorized **Ransomes/Cushman/Ryan** dealer. Proof of purchase will be required by the dealer to substantiate any warranty claim.

## EXAMPLES OF ITEMS NOT COVERED UNDER WARRANTY

Provisions of the warranty will not apply to:

Normal service requirements arising during the warranty period, such as carburetor or ignition adjustment and cleaning or wear of a drive belt, brake, clutch linings or starter brushes.

Normal service work over and above the repair and replacement of defective parts.

Unit subject to misuse, neglect, negligence, or accident.

Units that have been altered or modified so as to adversely affect their operation, performance or durability or to change their intended use.

Repairs made necessary by the use of parts or accessories which are either incompatible with the unit or adversely affects the operation, performance or durability.

Units not operated or maintained in accordance with the instructions in the **Ransomes/Cushman/Ryan** Operator's Manual.

Normal cleaning, adjusting or replacing of such items as filter, spark plugs, ignition points, light bulbs, fuses or starter drive.

Periodic checking or adding of lubricant to the unit or service check-up, tune-up or diagnosis.

**Expense of delivering the unit to the dealer and expense of returning the unit back to the owner, mechanic's travel time, trailering or towing charges, or rental of a like unit during the time warranty repairs are being performed.**

**Engines, tires, batteries, regulators, starter-generators and electric motors manufactured by other than Textron Turf Care And Specialty Products are not covered under this warranty as such parts are usually warranted by their respective manufacturers.**

**This warranty applies only to the original retail purchaser. Second-owner or subsequently owned units are not covered under warranty.**

## OWNER'S OBLIGATION AND RESPONSIBILITY

Normal maintenance service and replacement of service items are the responsibility of the owner and as such are not considered defects in material or workmanship within the terms of the warranty. Individual operating habits and usage contribute to the need for maintenance service.

See your **Ransomes/Cushman/Ryan** dealer for proper maintenance and care of your unit. Proper maintenance and care will assist in keeping your overall operating cost at a minimum.

To validate a warranty claim, it is the owner's responsibility to maintain all components in proper adjustment and service the unit as specified in the **Ransomes/Cushman/Ryan** Operator's Manual. It is the owner's responsibility to provide proper lubrication for all components and to provide correct recommended fuel for the unit. It is the owner's responsibility to maintain the battery liquid level and charge as specified, as well as maintaining the correct pressure in the tires of this unit.













## WARNING



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

### Advertissement



### Advertencia

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

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.