
RYAN®

LAWNNAIRE® 28

MODEL 544874C

OPERATOR'S, PARTS & SERVICE MANUAL

BOB-CAT • BUNTON • CUSHMAN • JACOESEN • RANSOMES • RYAN

TEXTRON

TURF CARE AND SPECIALTY PRODUCTS

Part No. 524805 Rev. 1

1 GENERAL INFORMATION

1.1 GENERAL INFORMATION



IMPORTANT!

THIS MANUAL WILL AID YOU IN THE SAFE OPERATION AND PROPER MAINTENANCE OF YOUR EQUIPMENT. READ MANUAL THOROUGHLY BEFORE ATTEMPTING OPERATION. IF ANY PORTION IS NOT CLEARLY UNDERSTOOD, CONTACT AN AUTHORIZED DEALER FOR CLARIFICATION.

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



This symbol is used throughout the manual to alert you to information about unsafe actions or situations, and will be followed by the word DANGER, WARNING, or CAUTION. DANGER indicates immediate hazards that may result in severe injury or death. WARNING indicates unsafe actions or situations that may cause severe injury, death and/or major equipment or property damage. CAUTION indicates unsafe actions or situations that may cause injury, and/or minor equipment or property damage.

NOTE: This appears next to information or instructions which will help you operate and maintain your equipment the right way.



WARNING

The information and instructions included in this manual alert you to certain things you should do very carefully. If you do not, 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 manuals are available through your dealer.

IMPORTANT!

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



WARNING

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

Direct any inquiries to:

Textron Turf Care and Specialty Products
Attn: Director of Engineering Services
P.O. Box 82409
Lincoln, NE 68501-2409 USA

SPECIFICATION INFORMATION

All information contained in this manual is the latest available at the time of printing. Textron Turf Care and Specialty Products reserves the right to make changes at any time without notice.

Whenever a name brand product is specified, an equivalent product may be used unless stated otherwise.

CHANGE OF OWNERSHIP OR ADDRESS

Textron Turf Care and Specialty Products makes every effort to keep owners informed of all safety related information. Therefore, changes in ownership and/or address 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.

DEALER INFORMATION

For your nearest dealer location write to:

Textron Turf Care and Specialty Products
Attn: Sales Coordinator
P.O. Box 82409
Lincoln, NE 68501-2409 USA

In the USA and Canada call 1-800-228-4444 (dealer information only).

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2 IDENTIFICATION

2.1 IDENTIFICATION

The model number and model year designation as well as the unit's serial number are all stamped on the identification decal attached to the frame (See FIGURE 1).

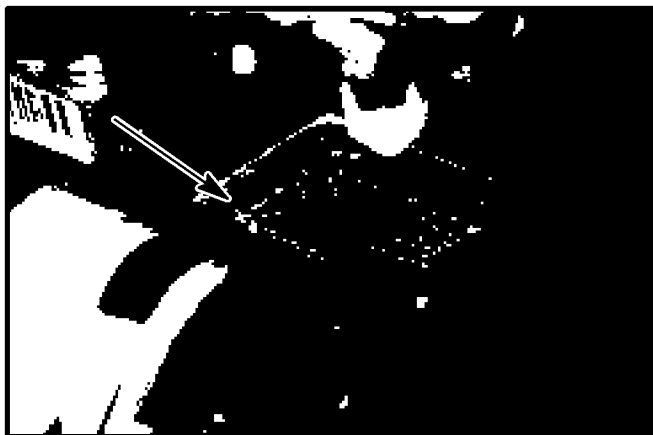


FIGURE 1
Identification Decal

2.2 SPECIFICATIONS

Features Tricycle front wheel for easy maneuverability

Rubber isolated handlebars and spring assist lift for easy, comfortable operation

Sealed precision ball bearings in tine arms and linkage

Aerating Width 28" (711mm)

Coring Depth 2 1/2" (64mm)

Coring Diameter 3/4" (19mm)

Coring Pattern 3 1/2 x 5" (89 x 127mm)

Speed Up to 24,000 sq. ft. / hr.
(2,230 M² / hr.)

Tines Eight (8) 3/4" (19mm) heat treated tines on four (4) tine arms

Engine ... 4 cycle 7.5 H.P. Briggs & Stratton Vanguard
Model 138432, Type 0035, Trim E1
13.1 cu. in. (215 cc) w/recoil starter.
Governor set at 3600 ± 100 rpm, no load

Drive V-Belt / Roller chain, beveled gear differential

Weight 400 lbs. (183 Kg.)

Dimensions Height 41" (1,041mm)
Length 57" (1,448mm)
Width 34" (864mm)

Tires Front 2.80 / 2.50-4
Rear 4.10 / 3.50-4

2.3 TOUCH UP PAINT

Ransomes Green

16 Oz. (0.5 L) spray, order Part No. 838140

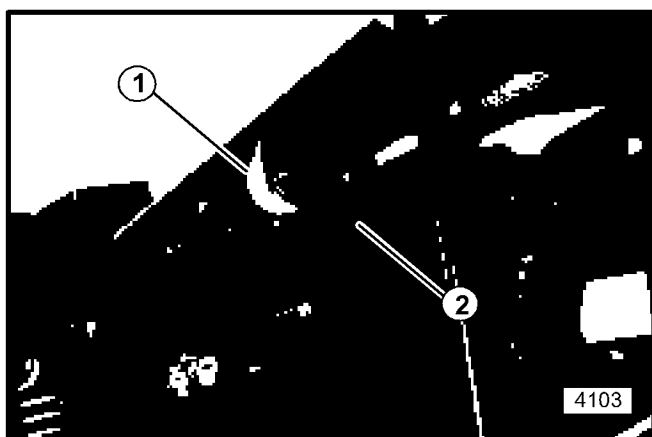
1 qt. (0.95 L) can, order Part No. 838141

3.1 SET-UP

**WARNING**

To prevent possible injury to yourself or bystanders, use caution when cutting banding. Banding is under tension and can snap back when cut.

1. Cut the banding and remove the handle and the aerator from the shipping pallet.
2. Unhook the two side latches. Pivot the hood forward to remove it from the aerator.
3. Remove the two loose parts bags tied to the unit. These bags contain the hardware required for set-up and an extra set of tines.
4. Apply a solution of soap and water to the rubber isolators on the handle and, while holding the clutch and latch rods up in their approximate position, slide the handle into the handle mounts (See FIGURE 2).

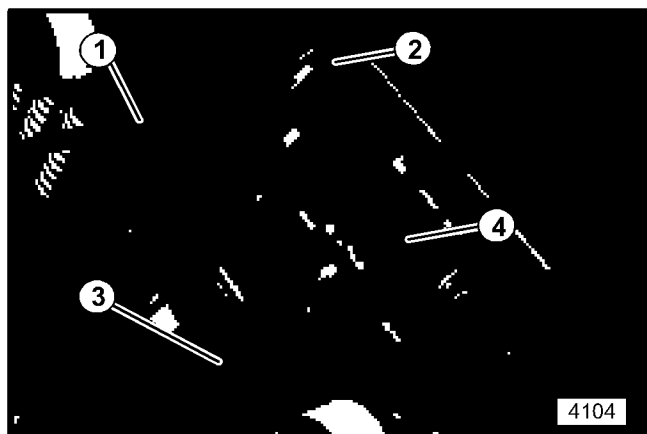
**FIGURE 2****Handle Installation**

1. Rubber Isolator
2. Handle Mount

The outside flange of the handle mount may be loosened if required to allow the handle to be inserted to the proper position.

5. Secure the handle with two (2) 3/8-16 x 2 1/2" screws with locknuts (from hardware bag).
6. Cut the plastic tie from the clutch lever on top of the handle. Connect the clutch lever rod to the linkage

bellcrank and secure it with the 5/16" washer and cotter pin from the hardware bag (See FIGURE 3).

**FIGURE 3****Clutch and Latch Rods**

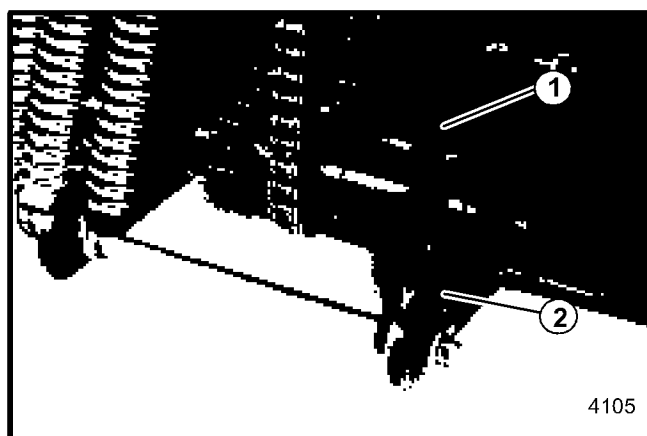
(handle cover has been removed for photo)

1. Clutch Rod
2. Linkage Bellcrank
3. Latch Rod
4. Latch

7. Unhook the spring from the latch. Slide the hole in the end of the latch rod over the pin on the latch and secure with the 1/2" washer and cotter pin. Reconnect the spring to the latch (See FIGURE 3).

Cut the safety tie from the latch after the rod and spring have been attached.

8. Push the latch lever (on the handle) to raise and lower the unit. Adjust the clevis at the bottom of the vertical adjustment rod if necessary so that the latch drops into the notch easily when the unit is lowered.

**FIGURE 4****Latch Adjustment**

1. Vertical Control Rod
2. Clevis

3 SET-UP

9. Operate the clutch lever to check for positive belt engagement. If belt needs adjustment, refer to Drive Belt Adjustment, step 11 on page 10.
10. Set throttle control lever on the handle to second detent near idle position. Start the engine and set throttle lever on the engine at idle speed. Route the cable through the cable stop, throttle arm hole and insert the inner cable into the block clamp on the throttle arm of the engine (See FIGURE 5). Tighten set screw in block clamp.

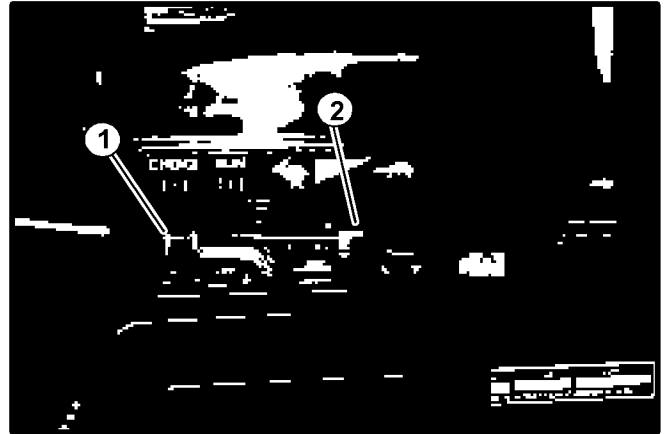


FIGURE 5

Throttle Cable Hook-Up

1. Cable Stop

2. Block Clamp

11. Move the throttle control lever to FAST while watching the throttle arm. The throttle arm should move to the fast position, engine speed should be 3700 RPM. If not, loosen the cable housing clamp and adjust the cable in or out as required. When the throttle handle is pulled fully toward the rear, the engine should stop.

4.1 ENGINE CONTROLS

The engine is equipped with an choke control, oil sensor, fuel shut-off valve and engine shut-off switch (See FIGURES 6, 7 & 8).

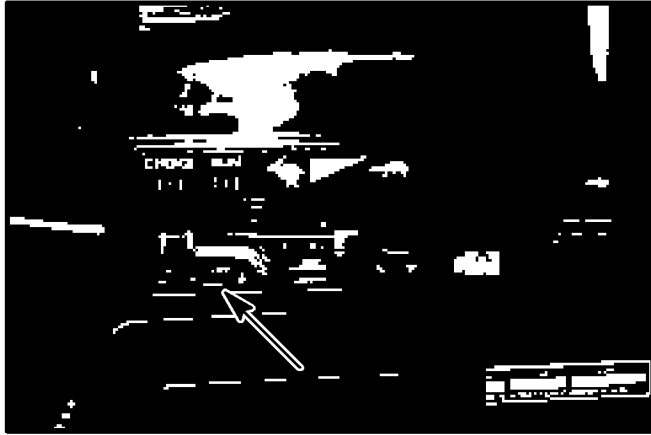


FIGURE 6
Choke Control

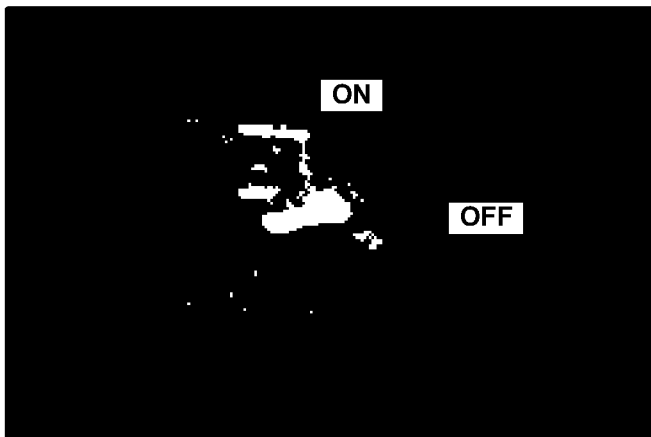


FIGURE 7
Fuel Shut-Off Valve



FIGURE 8
Engine Shut-Off Switch

Choke: Choke as required to start the engine. (Slide control – See FIGURE 6.)

Fuel Shut-Off Valve: Turn the valve lever to ON (horizontal position) to allow fuel to flow from the tank to the engine. (FIGURE 7).

Fuel Gauge: The engine is equipped with a fuel level indicator on the gas tank.

Engine Shut-Off Switch: This switch is located under the hood, on the right side of the engine toward the front of the unit. This switch needs to be in the 'ON' position to start the engine. (FIGURE 8).

4.2 AERATOR CONTROLS

Dog Clutch Lever (See FIGURE 9) controls the drive mechanism. Push the lever down to engage the dog clutch, pull up to disengage. The aerator drive will not operate unless the dog clutch is engaged.

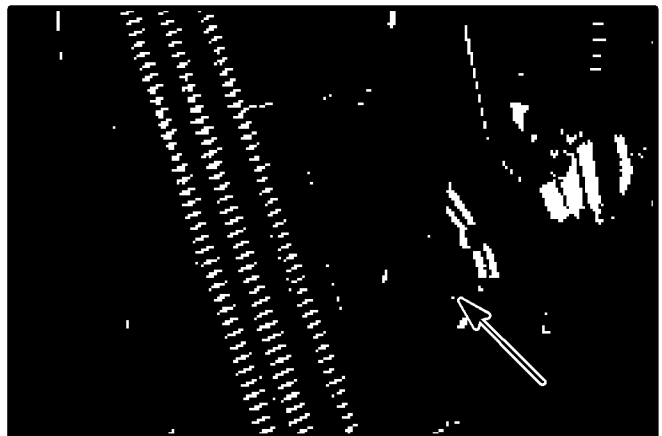


FIGURE 9

Dog Clutch Lever

Latch Lock Lever (See FIGURE 10) locks the aerator in the up or down position.

To lower the unit and engage the aerator, push the Latch Lock Lever and push down on the handlebar.

To raise the unit and disengage the aerator, push the Latch Lock Lever and pull up on the handlebar.

4 CONTROLS

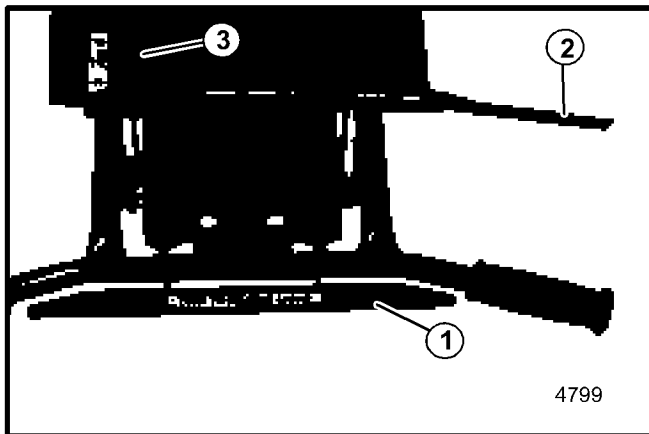


FIGURE 10

Handlebar Controls

- 1. Latch Lock Lever**
- 2. Clutch Lever**
- 3. Throttle Lever**

Clutch Lever (See FIGURE 10) engages the unit drive.

Pull back on the Clutch Lever with the unit **RAISED** to transport the unit without operating the aeration mechanism.

Pull back on the Clutch Lever with the unit **LOWERED** to move the unit forward and begin aerating.

5.1 PRE-OPERATION CHECK

Visually check the unit for loose, broken or missing parts and/or fasteners. Replace or tighten as necessary.

Make sure the tines are in usable condition. Replace any bent, broken or worn tines.

Lubricate all lubrication fittings before each days use or after every eight hours of operation (See SERVICE section).

Check engine crankcase oil level while engine is in a level position. Fill as necessary (See SERVICE section).

Fill fuel tank according to ENGINE MANUFACTURER'S 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 while refueling.

DO NOT 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 the unit without an approved cap on fuel tank.

5.2 AERATING

For best performance and maximum tine penetration, the lawn should be thoroughly watered the day before aeration. Compacted soil conditions will cause the unit to bounce, resulting in possible damage to the tines and undue stress to the unit.



WARNING

DO NOT operate the unit unless all shields are in place.

DO NOT make any adjustments or perform any maintenance while the engine is running.

Before operating, check the area to be aerated and remove any objects that may be a safety hazard or cause damage to the unit.

DO NOT place hands or feet beneath the unit at any time.

NOTE: Never cross hard objects or surfaces (sidewalks, driveways, stepping stones, etc.) with aerator in LOWERED position.

5.3 OPERATION TIP

Walk through the area to be aerated and mark with flags immovable objects, such as sprinkler heads and water mains.

Be sure the unit is RAISED, and the fuel shut-off valve on the bottom of the fuel tank is open.

1. Set the throttle control lever to a "middle" position. Place engine switch in the 'ON' position. Pull recoil starter and choke if necessary to start engine.
2. Slowly pull back on the clutch lever and adjust the throttle for a comfortable transport speed. Transport the unit to the work area.
3. Upon reaching the work area, release the clutch lever. Lower the aerator, push the throttle lever all the way forward to FAST and pull the clutch lever back to start aerating.

Aerate across slopes or on steeper grades at a 45° angle up and down the slope.

The unit is designed to make turns while aerating. If the tines damage the turf while making turns, push down on the handlebars while turning to help eliminate the problem.

4. Release the clutch lever and raise the aerator when aerating is completed.



WARNING

When replacement parts are required, use genuine RYAN parts. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.

Any warning decal that becomes unreadable should be replaced immediately.

DO NOT operate the unit unless all shields are in place.

DO NOT make any adjustments or perform any maintenance while the engine is running.

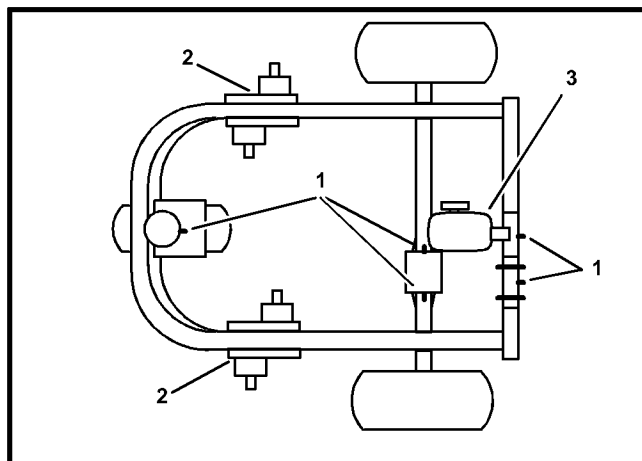


FIGURE 11

Lubrication Chart

- 1. Lubrication Fittings
 - Front Wheel Pivot (1)
 - Pivot Axle (5)
 - Differential (2)
- 2. Reversing Gear Box
- 3. Transmission

6.1 CLEANING

After each day's aerating, remove and thoroughly clean the tines. Apply a light coating of oil to the tines to prevent rust. Replace bent, broken or worn tines and reinstall the tines on the unit.

After the engine has cooled, clean the unit with water.

Keep the belts free of oil and dirt.

6.2 LUBRICATION

Lubrication Fittings; The Lawnaire 28 has eight (8) lubrication fittings (See FIGURE 11 for locations).

Use a pressure lubrication gun with a standard lithium based lubricant to lubricate all eight (8) fittings after every eight hours of operation. Wipe each fitting before and after lubricating.

Reversing Gear Boxes (See FIGURE 11 for location); lubrication filled gear boxes should require no additional lubrication, add lithium based gun lubricant if required.

Transmission (See FIGURE 11 for location); Remove plug, fill to bottom of plug opening with 80–90W gear lube.

6.3 TRANSPORTING

Close the fuel shut-off valve before transporting.

Loading; When using ramps to load the unit for transporting, be sure all three wheels are supported by ramps.

Unloading; When using ramps to unload the unit, engage the dog clutch (lever down) to keep the unit from rolling down the ramp too quickly.

6.4 TIRE PRESSURE

NOTE: Improper inflation will shorten tire life considerably.

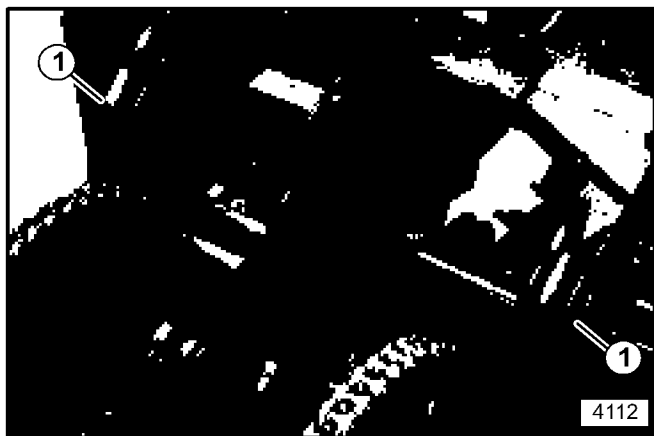
Check tire pressure before each days operation. Keep all three tires inflated to 14–16 PSI (97–110 kPa).

**WARNING**

Use caution when inflating a tire, or bringing a low tire up to recommended pressure. Use a pressure gauge to check the pressure in a partially inflated tire before connecting an air hose. Due to the low air volume requirements of small tires, over-inflation may be reached in a matter of two or three seconds, which may cause the tire to explode.

6.5— BELT REMOVAL AND INSTALLATION

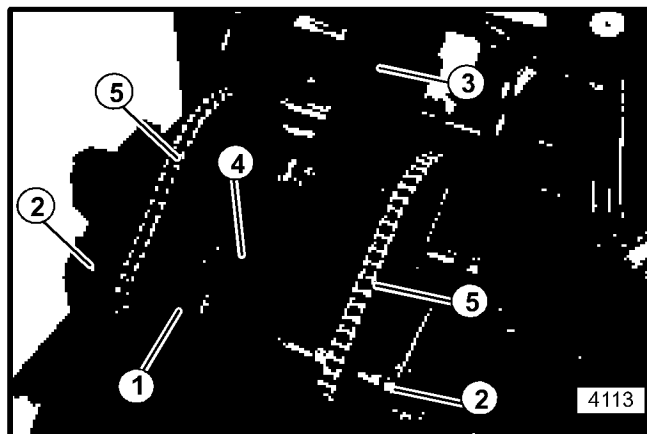
1. Remove the shield covering the aerator mechanism.
2. Remove the two screws securing the ends of the pulley shaft (See FIGURE 12).

**FIGURE 12****Pulley Shaft**

1. Pulley Shaft Screws
(each end of shaft)

3. Remove the hardware from the idler shaft pillow blocks (See FIGURE 13). Move the idler shaft back

(toward the rear of the unit) to release the tension on the idler drive belt and aerator chains.

**FIGURE 13****Aerator Drive**

1. Idler Shaft
2. Idler Shaft Pillow Blocks
3. Drive Belt
4. Idler Drive Belt
5. Aerator Chains

4. Remove the LEFT aerator chain.
5. Remove both the Idler Drive Belt and the Drive Belt.
6. Put on new belts and reinstall the two screws securing the ends of the pulley shaft.
7. Make sure the RIGHT aerator chain is properly meshed with the sprocket on the idler shaft and reinstall the pillow block on the RIGHT side of the idler shaft. DO NOT tighten the pillow block hardware.
8. Time the aerator by positioning the inner two crank arms level and to the back of the unit (the outer two crank arms will be level and to the front). See FIGURE 14.

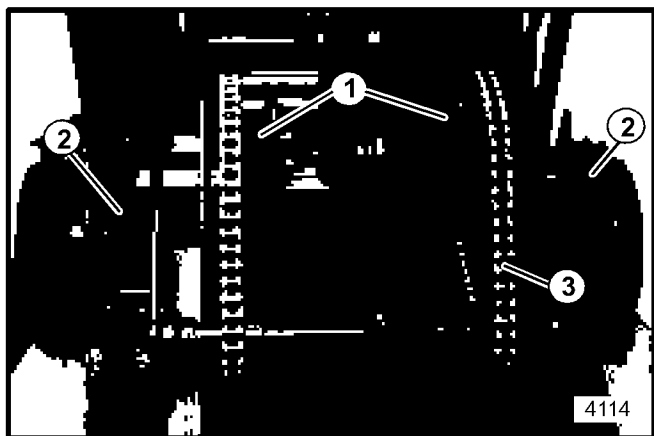


FIGURE 14

Aerator Timing

1. Inner Crank Arms (Back)
2. Outer Crank Arms (Front)
3. LEFT Aerator Chain

9. Install the LEFT aerator chain and the pillow block at the LEFT side of the idler shaft (a pry bar may be necessary to align the holes in the pillow block flange and the frame).
10. Tighten the hardware on both pillow blocks.
11. **Drive Belt Adjustment;** Pull back on the clutch lever to engage the drive belt. Adjust the nut on the Drive Belt Adjustment Screw (See FIGURE 15) until there is a 3/16" (5mm) deflection by four pounds of force on the side of the drive belt opposite the transmission (See FIGURE 16).

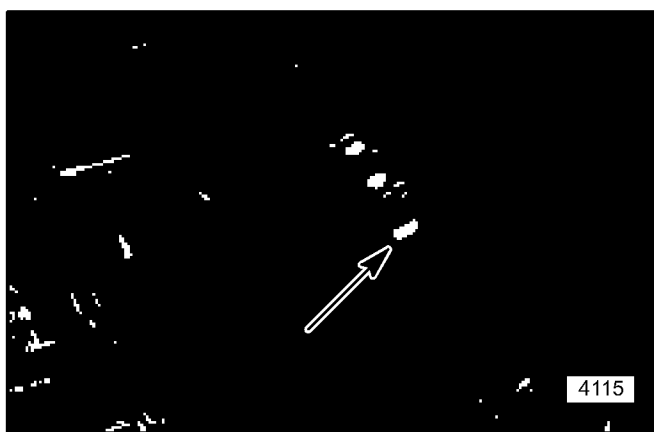


FIGURE 15

Drive Belt Adjustment Screw

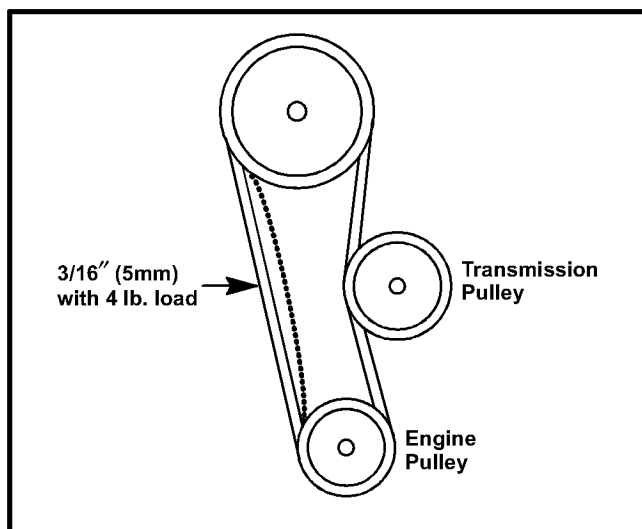


FIGURE 16

Drive Belt Adjustment

12. Reinstall shields before operating the unit.

6.6 TRANSMISSION REMOVAL

1. Remove the shield covering the aerator mechanism.
2. Loosen primary drive chain adjustment screw (See FIGURE 17).

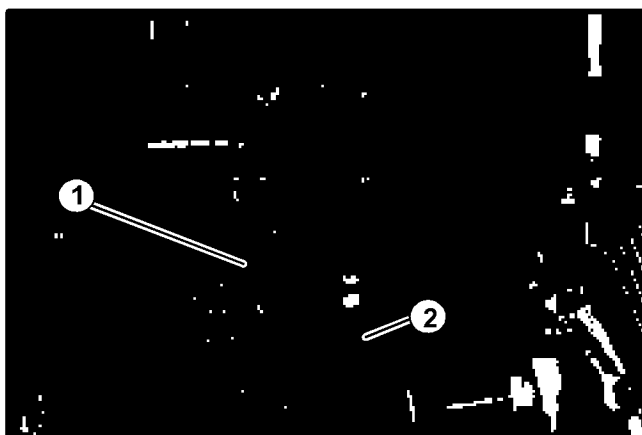


FIGURE 17

Primary Drive Chain

1. Primary Drive Chain
2. Primary Drive Chain Adjustment Screw
3. Open the connector link of the primary drive chain and remove the chain from the unit.
4. Disconnect the drive belt adjustment screw from the bellcrank (Refer to FIGURE 15) and detach the tension spring from the top of the transmission (See FIGURE 18).



FIGURE 18

Transmission

- 1. Tension Spring
- 2. Transmission Mounting Screws
- 3. Clutch Mounting Bracket

5. Take out the two transmission mounting screws and remove the transmission with the clutch mounting bracket (See FIGURE 18).
6. Remove the clutch mounting bracket from the transmission.
7. Remove the screw securing the dog clutch sprocket to the output shaft and pull the sprocket from the shaft.

6.7 TRANSMISSION SERVICE

1. With the transmission taken out of the unit, Remove the belt pulley and key from the input shaft.
2. Remove one of the drain plugs and drain the oil from the transmission case.
3. Remove the hardware holding the two case halves together, and tap the tabs on the case with a soft hammer (lead, leather, plastic etc.) to break the seal and separate the case halves.
4. Remove both the input and output shafts (with gears) from the case halves (See FIGURE 19). Note the position of the spacer at the end of the output shaft for reassembly.

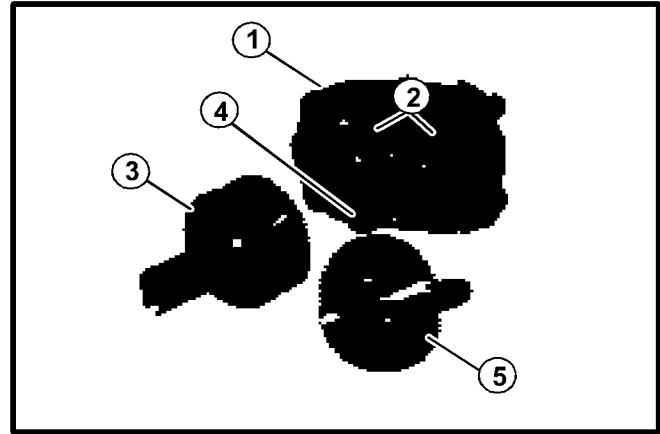


FIGURE 19

- 1. Case Half
- 2. Ball Bearings
- 3. Output Shaft w/gears
- 4. Spacer
- 5. Input Shaft w/gears

5. Remove the ball bearings and oil seal from each case half. Install new ball bearings in both case halves but DO NOT install new oil seals at this time.

Input Shaft

6. Remove gears, key and spacer from the input shaft (See FIGURE 20).

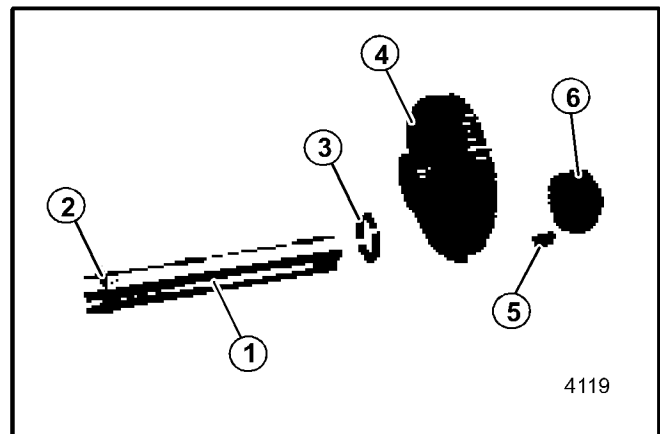


FIGURE 20

Input Shaft

- 1. Input Shaft
- 2. Snap Ring
- 3. Spacer
- 4. Large Double Gear
- 5. Key
- 6. Small Gear

7. 1. Check shaft for wear and replace if necessary. If replacing shaft, install existing snap ring on new shaft. Check for, and remove any burrs on key ways in the shaft.

SERVICE 6

8. Replace the press-in bushings in the large double gear (be sure the oil holes in the bushings align properly), or, replace the gear if necessary.
9. Reinstall the spacer on the shaft next to the snap ring, then the large double gear with the smaller end next to the spacer, followed by the key and small gear with the flat end of the small gear facing the large gear (Refer to the order shown in FIGURE 20).

Output Shaft

10. 2. Remove both of the gears and key from the shaft (See FIGURE 21).

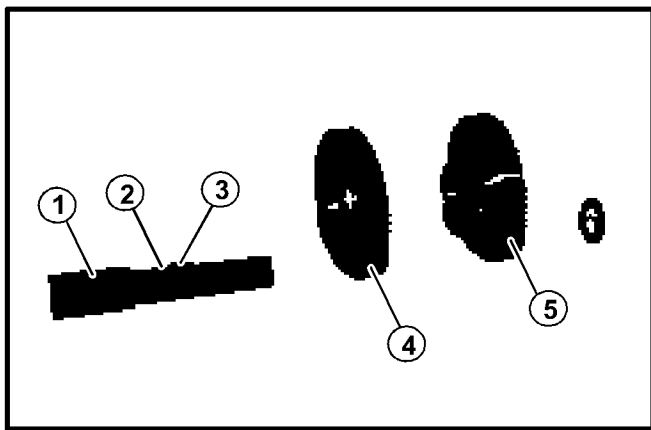


FIGURE 21

Output Shaft

- | | |
|-----------------|----------------|
| 1. Output Shaft | 4. Single Gear |
| 2. Snap Ring | 5. Double Gear |
| 3. Key | |

11. Check the shaft for wear and replace if necessary. If replacing shaft, install existing snap ring on new shaft. Check for, and remove any burrs on key ways in the shaft.
12. Replace the press-in bushings in the double gear (be sure the oil holes in the bushings align properly), or, replace the gear if necessary.
13. Reinstall the key and single gear on the output shaft. The end of the gear with the higher step should face the snap ring (Refer to FIGURE 21).
14. Install the double gear on the shaft with the small end facing the single gear.
15. Install the spacer on the shaft next to the double gear. Be sure the spacer at the end of the output shaft stays in position while installing gears in case halves.
16. Install both shafts with gears into one of the case halves. Rotate one shaft to make sure the other turns and keys are in proper location.
17. Apply Loctite 515, or equivalent, to the mating edges of the case halves. Be sure the case alignment spacers are in place in the upper and lower middle holes and put the two halves of the case together.
18. Install the clutch bracket and hardware (with screw heads on the input shaft side). Torque the hardware to 16 ± 2 ft. lbs. (22 N·m).
19. Apply some 30W oil to the lips of the oil seals and install one on each side of the transmission.
20. Reinstall pulley and sprocket.
21. Position the transmission in its mounting location. Remove one of the filler plugs and fill the case to the bottom of the filler hole with 80–90W gear lube. Reinstall the filler plug.
22. Mount the transmission back on the unit and reconnect the drive belt adjustment screw and tension spring.
23. Align the belt pulley by loosening the set screw and moving the pulley on its shaft until it aligns with the drive belt. Tighten the set screw.
24. Check the drive belt tension and adjust if necessary (See drive belt adjustment).
25. Reinstall the primary drive chain and chain adjustment screw. Adjust screw to obtain $1/8 - 1/4$ " (3 – 6mm) deflection in the chain at the center point of the chain's span between the two sprockets.

NOTE: Excessive roller chain tension will shorten bearing life.

26. Reinstall shields before operating the unit.

6.8— REVERSING GEAR BOX REMOVAL

1. Remove the shield covering the aerator mechanism.
2. Remove the return links connecting the tine arms to the vertical links by unscrewing the hardware and separating the two halves (See FIGURE 22). Note the position of the washers for reinstallation.

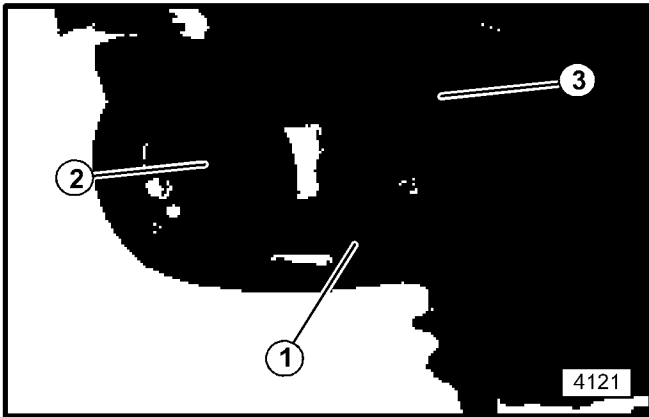


FIGURE 22

Return Link

1. Return Link

2. Vertical Link

3. Tine Arm

3. Remove the four (4) screws holding the reversing gear box to the mounting plate and remove the reversing gear box with the vertical links still attached.
4. Loosen the two (2) screws securing the vertical link to the reversing gear box shaft. Remove the vertical link by sliding it off of the shaft

Reinstallation

5. When work on the reversing gear box is complete, reinstall by reversing the preceding procedure.

When reassembled, the tine arms should be vertical side-to-side. If they are not, loosen the set screws in the crankshaft bearing lock collar (See FIGURE 23) and slide the bearing in or out on the shaft until the tine arm is vertical.

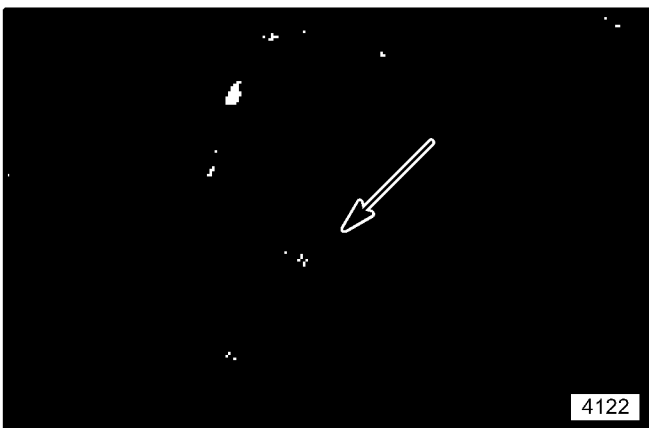


FIGURE 23

Crankshaft Bearing Lock Collar

6. Rotate the crankshaft by hand to make sure the tine arms do not bind.

6.9— REVERSING GEAR BOX SERVICE

1. Remove the gear box from the unit.

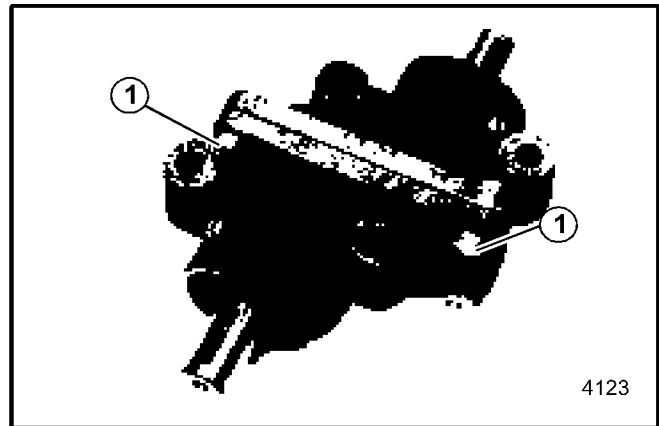


FIGURE 24

Reversing Gear Box

1. Hardware

2. Remove the hardware holding the two case halves together.
3. Remove the oil seals from each end of the gear box and separate the two halves.
4. Use a soft hammer (lead, plastic, leather, etc.) to remove the shaft from each case half.
5. Separate all of the components (press the bearings off of the shaft and out of the case half if they need to be replaced). Clean the components and check for wear, replace parts as required (See FIGURE 25).

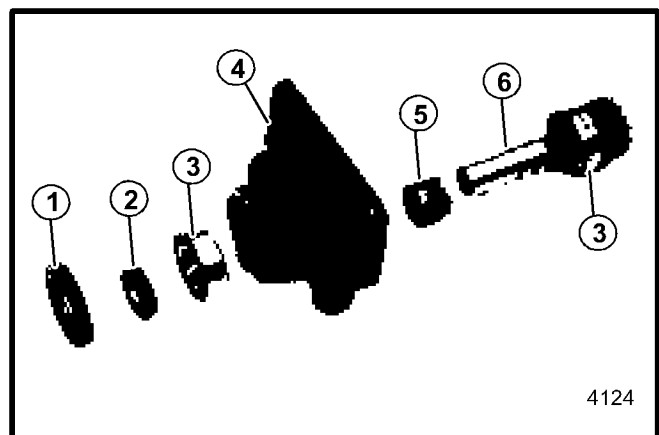


FIGURE 25

Case Half Components

1. Oil Seal

4. Case Half

2. Spacer (outer)

3. Bearing

5. Spacer (inner)

6. Gear Shaft

SERVICE 6

6. Press new bearings onto shafts if required, install inner spacers and insert shafts into case halves.
7. Install outer bearing and spacer. Apply 30W oil to the lips of the oil seals and install one on each half of the gear case.
8. Reinstall the vertical links on the gear box shafts. Be sure that the link is oriented so that the wear strip will face forward when the gear box is remounted (See FIGURE 26).

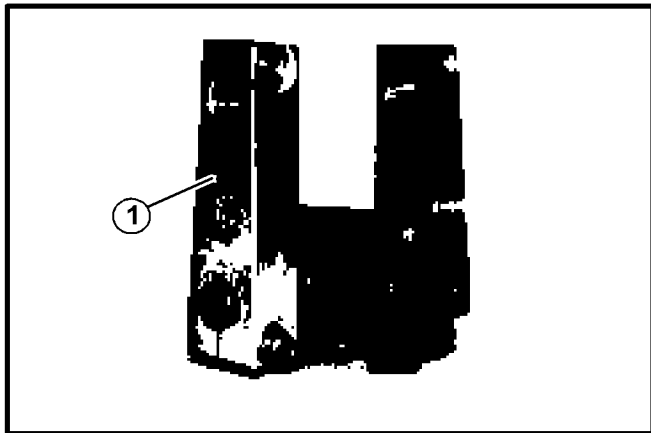


FIGURE 26

**Vertical Link Installation
(early style link shown)
1. Wear Strip**

9. Insert two screws through one of the case halves and install a new gasket over the screws.
10. Place the two halves on a flat surface with the gears facing each other and the flat (mounting) side down. Turn the vertical links so that they are both pointing

straight up (See FIGURE 27). Be sure the gear teeth mesh and put the two case halves together. Install all of the hardware but DO NOT tighten.

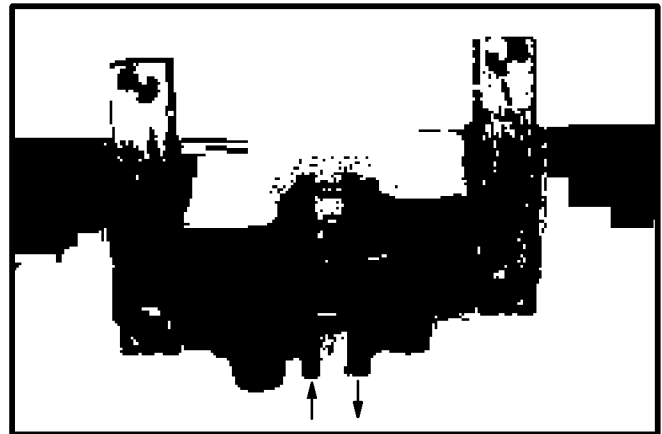


FIGURE 27

Gear Box Assembly

11. Slide the case halves against each other (See Arrows in FIGURE 27) to eliminate backlash (play between the shafts) and tighten the hardware. Torque hardware to 30 ft. lbs. (41 N·m).

NOTICE

- Shafts must rotate 180° from original position shown without binding.
12. Pump lithium based gun lubricant in one plug hole until it starts to come out of the other.
 13. Apply thread sealant to the threads of the plugs and reinstall the plugs.
 14. Reinstall gear box.

7.1 STORAGE



WARNING

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

Perform the following steps if the unit is to be stored for longer than thirty (30) days.

1. Drain the fuel from the tank and fuel lines.
2. Start the engine and run it until all of the fuel in carburetor bowl is used.
3. While the engine is still warm, drain the oil from the crankcase and replace it with the proper weight of oil corresponding to the season the unit will next be used.
4. Remove the spark plug and squirt a small quantity of oil into the cylinder. Pull the starter a few times to distribute the oil in the cylinder.
5. Lubricate all lubrication fittings.

To put the unit back into operation after extended storage:

- Tighten any loose parts or hardware.
- Replace any cracked, bent, broken or worn tines.
- Fill the fuel tank.
- Check the engine oil level (with the engine in a level position).
- Start the engine and check for fuel leaks.
- Check clutch lever operation to make sure the unit stops when it is released.

TORQUE CHART 8

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.-lbs.	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.-lbs.	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.-lbs.		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*	ft.-lbs.	1.5	3	5.2	8.2	13.5	24	43.5	70.5	108	142	195	276	353	530
	N·m	2	4	7	11	18	32	58	94	144	190	260	368	470	707
Grade 10.9**	ft.-lbs.	2.2	4.5	7.5	12	18.8	35.2	62.2	100	147	202	275	390	498	747
	N·m	3	6	10	16	25	47	83	133	196	269	366	520	664	996
Grade 12.9 ***	ft.-lbs.	2.7	5.2	8.2	15	21.8	43.5	75	119	176	242	330	471	596	904
	N·m	3.6	7	11	20	29	58	100	159	235	323	440	628	794	1205

* Grade 8.8 marking – 

** Grade 10.9 marking – 

*** Grade 12.9 marking – 

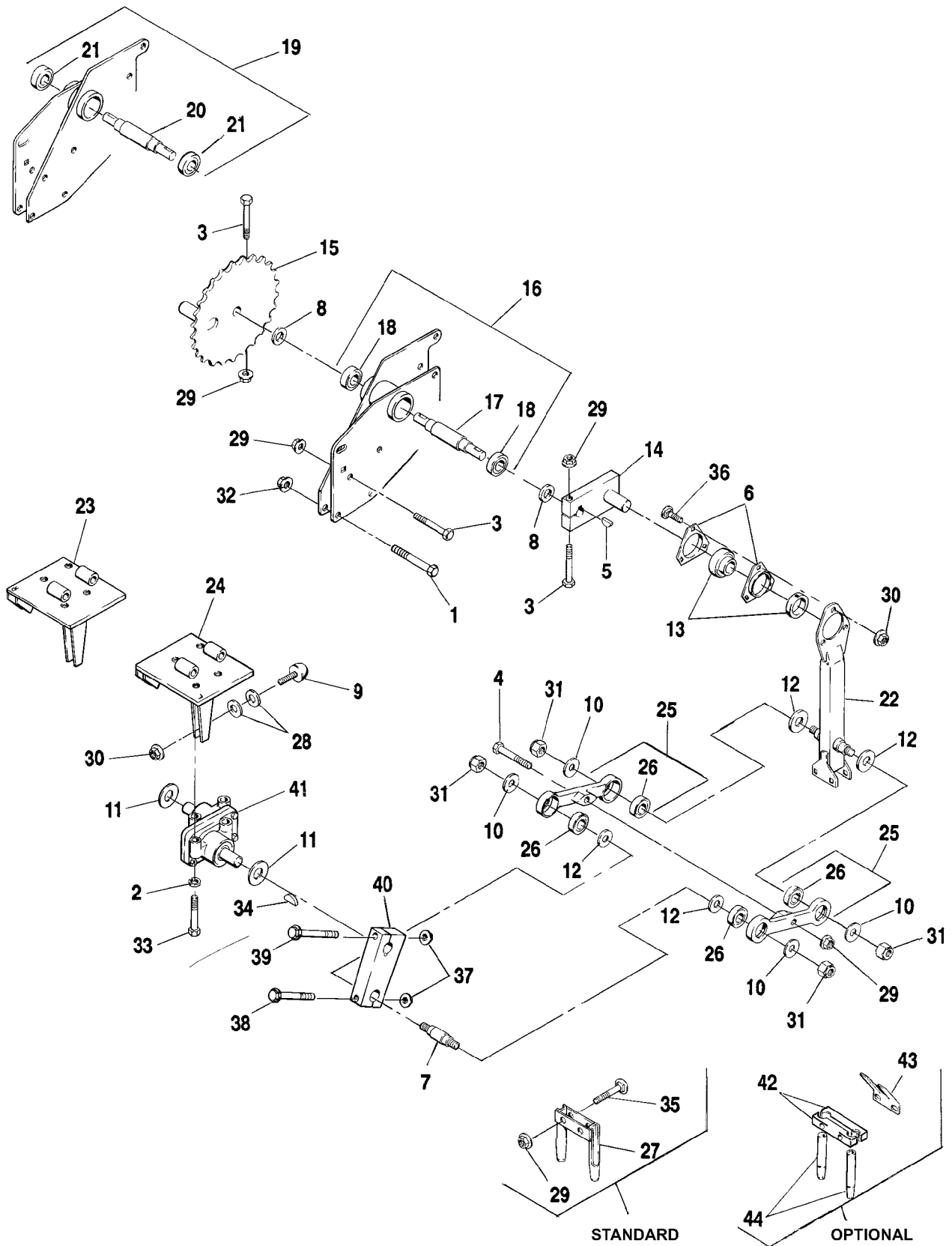
PARTS ILLUSTRATIONS



Ref. No.	Part No.	Description	No. Req'd	Notes
1	103867	Washer, 5/16	4	
2	306325	Lockwasher, 5/16	1	
3	306423	Screw, 5/16–18 x 1 1/2	4	
4	306861	Screw, 5/16–24 x 5/8	1	
5	517100	Pulley, 4" dia.	1	
6	524621	Guide, belt	1	
7	524759	Decal, Notice oil backflow	1	
8	548367	Key, 1/4" x 1"	1	
9	548911	Nut, 5/16–18	4	
10	800555	Screw, set, 5/16–18 x 5/8	2	
11	800960	Screw, 5/16–24 x 1/2	1	
12	844229	Plate, spacer	2	

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

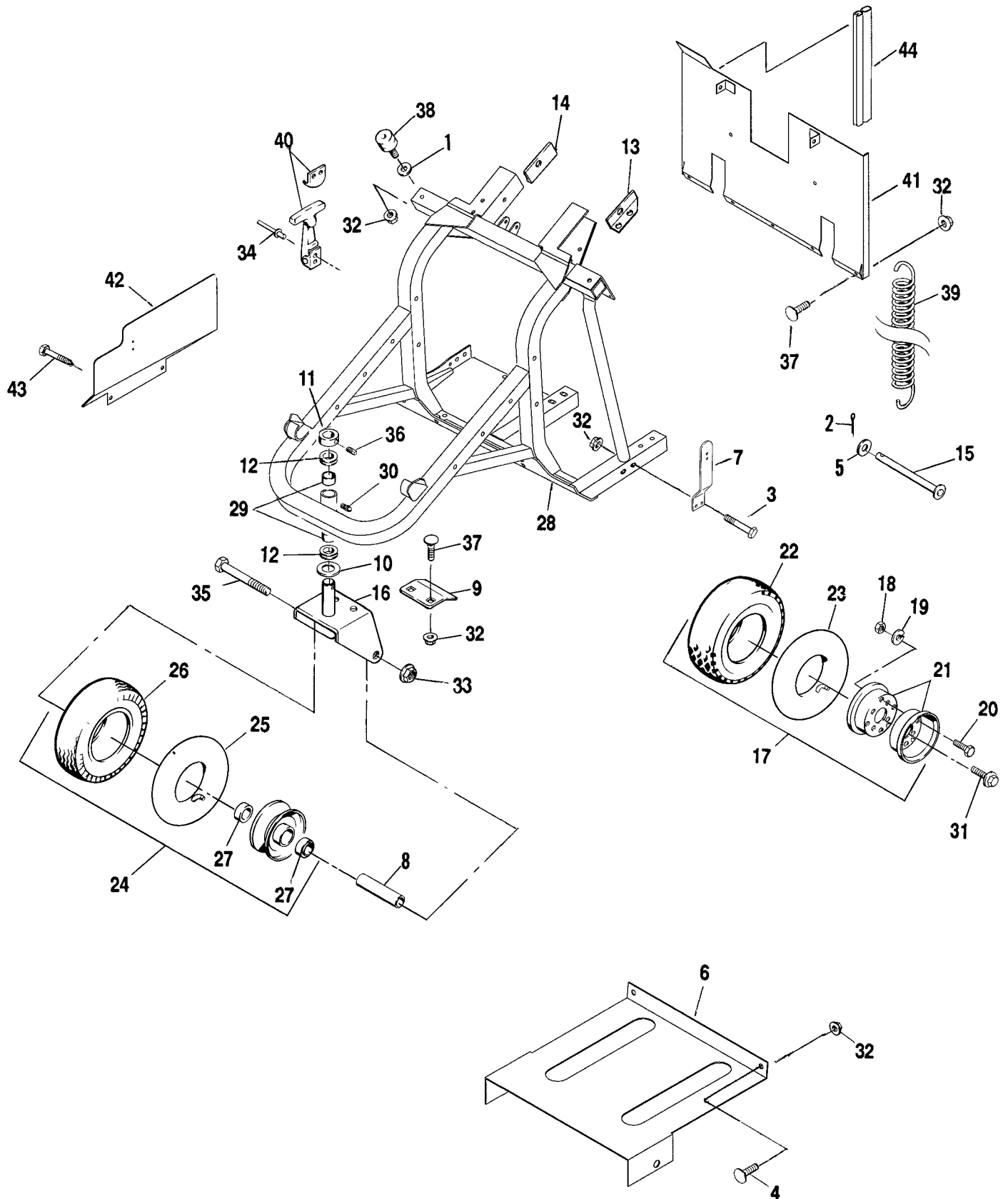
9.2 AERATOR HEAD



Ref. No.	Part No.	Description	No. Req'd	Notes
1	131981	Screw, 1/2–13 x 2 1/2	4	
2	303269	Lockwasher, 7/16	8	
3	306836	Screw, 3/8–16 x 2 1/4	14	
4	306837	Screw, 3/8–16 x 3 1/4	4	
5	307662	Key, woodruff	4	
6	522723	Flange, bearing	8	
7	522724	Pin, vertical link	4	
8	522740	Spacer	4	
9	523126	Bumper, rubber	4	
10	523222	Washer, thrust	16	
11	523240	Washer, thrust	4	
12	523249	Washer, dust	16	
13	545786	Bearing w/collar	4	
14	545992	Crank Arm	2	
15	545993	Sprocket, crank	2	
16	547504	Housing, bearing (LEFT)	1	
17	522735	•Crankshaft	1	
18	523127	•Bearing, ball	2	
19	547505	Housing, bearing (RIGHT)	1	
20	522735	•Crankshaft	1	
21	523127	•Bearing, ball	2	
22	547509	Arm, tine	4	
23	547587	Mount, gearbox (RIGHT)	1	
24	547629	Mount, gearbox (LEFT)	1	
25	547655	Link, return	8	
26	832498	•Bearing, ball	2	
27	547709	Tine, aerating (side eject)	4	
28	548159	Washer, 5/16	8	
29	548804	Nut, flangelock 3/8–16	26	
30	548911	Nut, flangelock 5/16–18	32	
31	800198	Nut, conelock 1/2–20	16	
32	800379	Nut, flangelock 1/2–13	4	
33	319773	Screw, 7/16–14 x 2 1/2 Gr. 5	8	
34	800519	Key woodruff	4	
35	800530	Bolt, carriage 3/8–16 x 2 1/2	8	
36	800557	Bolt, carriage 5/16–18 x 3/4	12	
37	800698	Nut, flangelock 3/8–16	8	
38	800712	Screw, flangelock 3/8–16 x 2	4	
39	800713	Screw, flangelock 3/8–16 x 2 1/4	4	
40	869067	Link, vertical (two bolt design)	4	
41	889469	Gearbox, reversing	2	
42	522757	Holder, 3/4" tine	8	
43	522971	Deflector, core	4	
44	523326	Tine, 3/4" (19 mm)	8	

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

9.3 FRAME, WHEELS & TIRES



Ref. No.	Part No.	Description	No. Req'd	Notes
1	103867	Washer, 5/16	4	
2	306328	Pin, cotter 3/32 x 3/4	1	
3	306424	Screw, 5/16-18 x 2	4	
4	306450	Screw, 5/16-18 x 3/4	2	
5	308091	Washer, 1/2	1	
6	524431	Shield, dirt	1	
7	522967	Bracket, hood latch	1	
8	523053	Spacer	1	
9	523094	Scraper, front wheel	1	
10	523240	Washer, thrust	1	
11	523325	Collar	1	
12	523815	Seal, V-ring	2	
13	524001	Angle, handle mount LH	1	
14	524002	Angle, handle mount RH	1	
15	547499	Rod, spring	1	
16	547507	Yoke, front axle	1	
17	547623	Wheel, rear (complete)	2	
18	306320	•Nut 5/16-24	4	
19	306325	•Lockwasher, 5/16	4	
20	306861	•Screw, 5/16-24 x 5/8	4	
21	517332	•Wheel Half	2	
22	523264	•Tire, 4.10 / 3.50-4 (2 ply)	1	
23	548546	•Tube, 4.10 / 3.50-4	1	
24	547625	Wheel, front (complete)	1	
25	523261	•Tube, 2.80 / 2.50-4	1	
26	523262	•Tire, 2.80 / 2.50-4 (4 ply)	1	
27	523263	•Bearing, ball	2	
28	540220	Frame, main	1	
29	523430	•Bushing, bronze	2	
30	807442	•Fitting, lubrication	1	
31	548604	Screw, flangelock 5/16-18 x 3/4	8	
32	548911	Nut, flangelock 5/16-18	16	
33	800379	Nut, flangelock 1/2-13	1	
34	800390	Rivet, pop	4	
35	800537	Screw, 1/2-13 x 4 1/4	1	
36	800554	Screw, set Sq. Hd. cap 1/4-20 x 5/8	2	
37	800557	Bolt, carriage 5/16-18 x 3/4	5	
38	829148	Isolation mount	2	
39	832525	Spring, extension	3	
40	888102	Latch, hood	2	
41	540217	Shield	1	
42	524432	Panel, side	1	
43	548013	Screw, tapping	2	
44	830918	Seal, push-on, 25'(7.6M)	As Req'd	

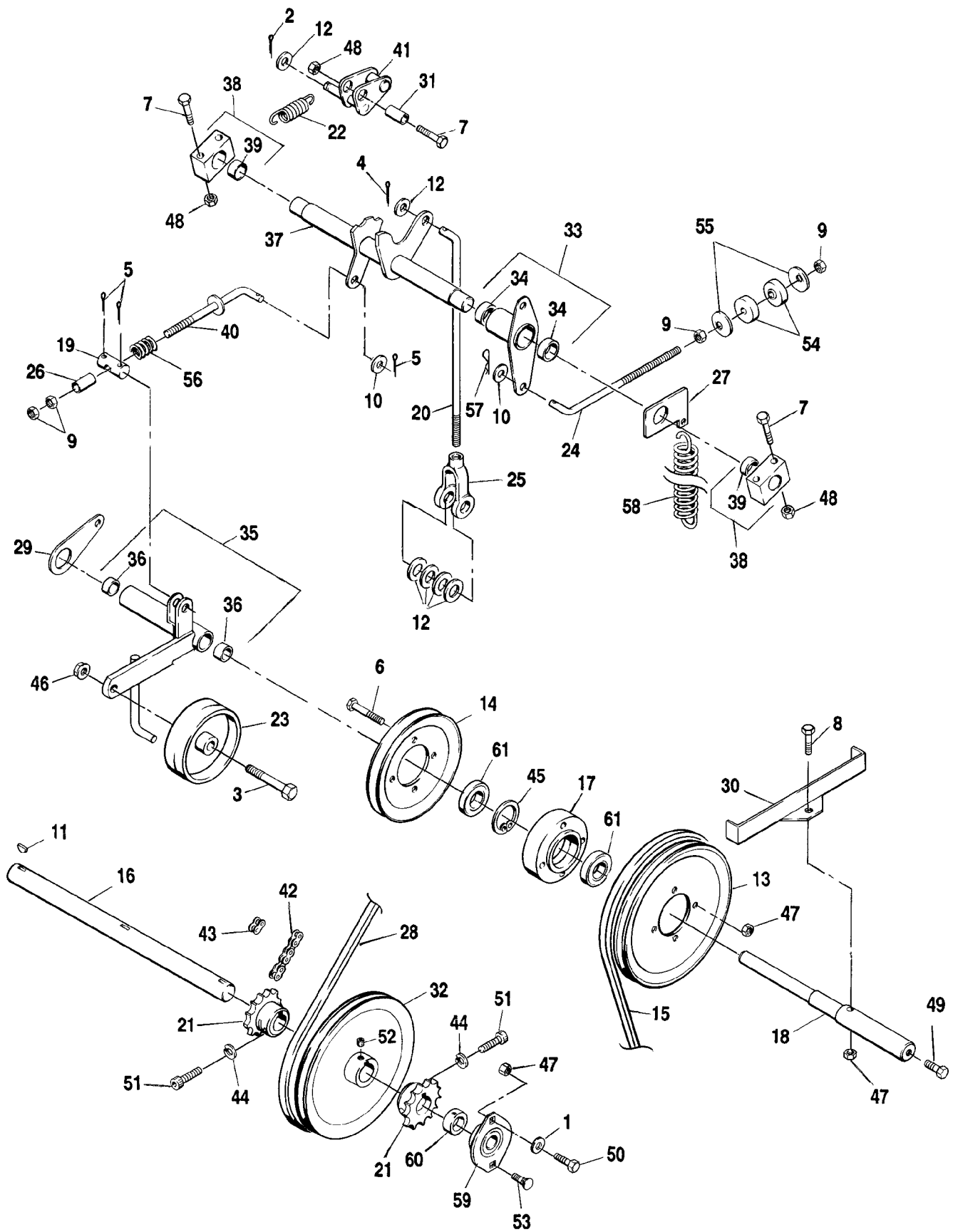
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.



Ref. No.	Part No.	Description	No. Req'd	Notes
1	103867	Washer, 5/16	7	
2	120052	Lockwasher, #10	3	
3	306328	Pin, cotter 3/32 x 1	2	
4	301431	Screw, 3/8-16 x 2 1/2	2	
5	306450	Screw, 5/16-18 x 3/4	4	
6	306514	Screw, #10-24 x 1/2	3	
7	306531	Nut, #10-24	3	
8	308091	Washer, 1/2	1	
9	320107	Tie Strap	1	
10	515268	Bushing	4	
11	522727	Grip, handle	2	
12	522730	Cushion, rubber	2	
13	523158	Sleeve, handle mount	4	
14	524482	Rod, clutch	1	
15	523267	Isolator, handle	2	
16	523306	Decal, lift	1	
17	523309	Decal, clutch	1	
18	524281	Decal, RYAN (white)	3	
19	547503	Handlebar	1	
20	547520	Cover, handlebar	1	
21	523307	•Decal, operating	1	
22	523308	•Decal, safety warning	1	
23	523310	•Decal, throttle	1	
24	540222	Hood	1	
25	835892	•Decal, safety warning	2	
26	547567	Bar, lockout (latch lever)	1	
27	547583	Handle, clutch	1	
28	547620	Rod, lockout	1	
29	547621	Support, shield	1	
30	540395	Control, throttle	1	
31	548911	Nut, flangelock 5/16-18	10	
32	800019	Screw, PTH 1/4-20 x 1/2	2	
33	800024	Screw, PTH 1/4-20 x 1 1/2	4	
34	800059	Locknut, 1/4-20	6	
35	800177	Screw, PTH 5/16-18 x 3/4	8	
36	800290	Locknut, 5/16-18	4	
37	800292	Locknut, 3/8-16	2	
38	814924	Clamp	1	
39	821893	Trim, push-on (12')	As Req'd	
40	829148	Mount, isolation	2	
41	838494	Decal, Red & White stripe 2.38" x 20 ft. . .	As Req'd	
42	838789	Decal, LAWNIAIRE 28 (white)	2	
43	524798	Decal, caution	1	
44	844847	Decal, TEXTRON	3	

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

9.5 AERATOR DRIVE

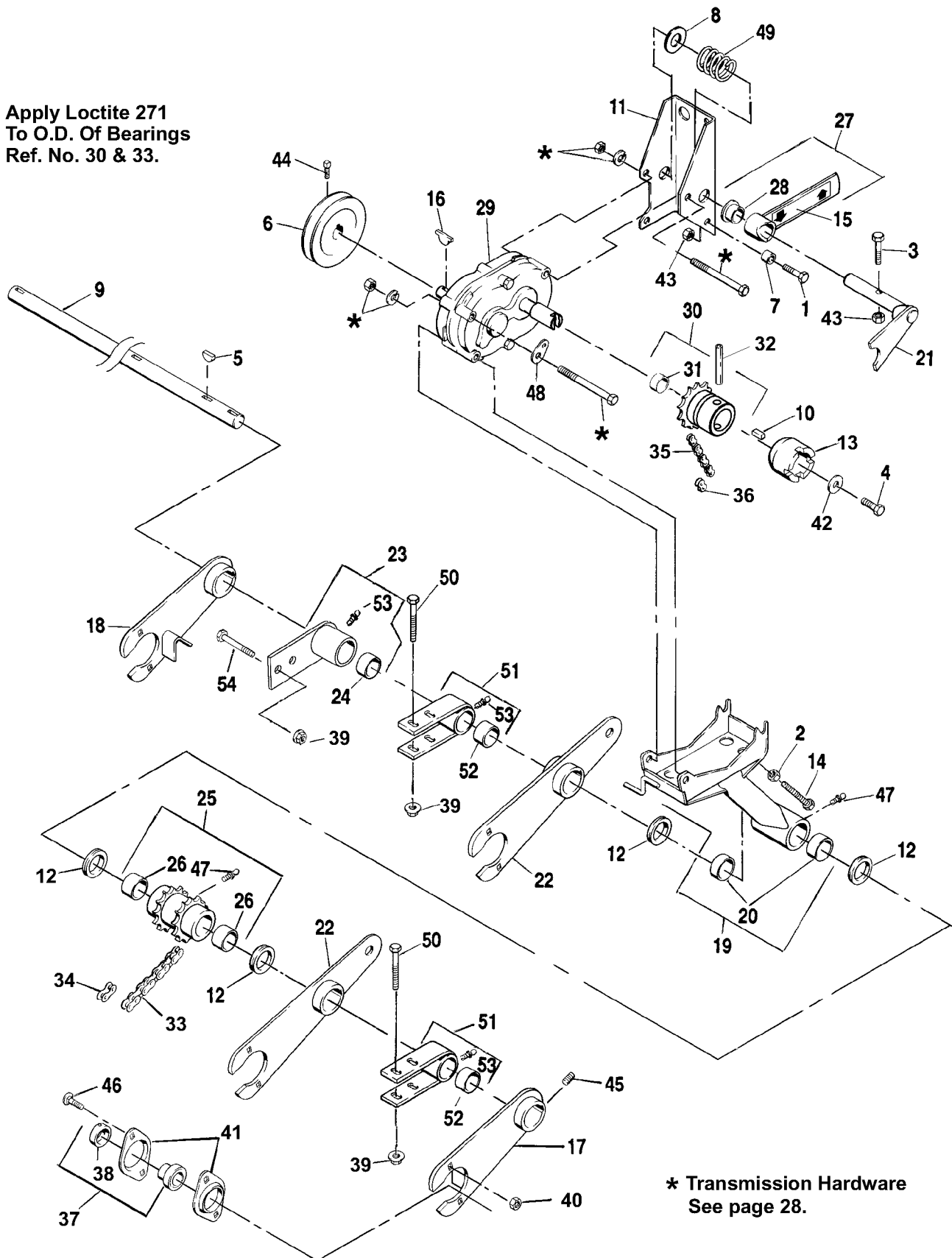


Ref. No.	Part No.	Description	No. Req'd	Notes
1	103867	Washer, 5/16	2	
2	120219	Pin, cotter 3/32 x 1	1	
3	131794	Screw, 3/8-16 x 2	1	
4	304636	Pin, cotter 1/8 x 1 1/8	4	
5	306328	Pin, cotter 3/32 x 3/4	3	
6	306423	Screw, 5/16-18 x 1 3/4	4	
7	130167	Screw, 5/16-18 x 2	5	
8	306423	Screw, 5/16-18 x 1 1/2	1	
9	306562	Nut, 3/8-16	4	
10	306981	Washer, 3/8	2	
11	307662	Key, woodruff #15	3	
12	308091	Washer, 1/2	6	
13	522717	Pulley, 8" (203mm)	1	
14	522720	Pulley, 6" (152mm)	1	
15	522729	V-Belt, (engine to rear jackshaft)	1	
16	522746	Jackshaft (front)	1	
17	522760	Hub, pulley	1	
18	522771	Jackshaft (rear)	1	
19	522793	Pin, belt tightener	1	
20	522827	Rod, linkage	1	
21	522889	Sprocket, 15 tooth	2	
22	522943	Spring, extension	1	
23	522973	Pulley, idler	1	
24	523011	Rod, adjustment	1	
25	523154	Yoke	1	
26	523221	Spacer, idler linkage	1	
27	523226	Plate, spring mount	1	
28	523268	V-Belt, (rear jackshaft to front jackshaft)	1	
29	523280	Bracket, spring latch	1	
30	523405	Guide, belt (upper)	1	
31	523485	Bushing, latch	1	
32	545991	Pulley, front jackshaft	1	
33	547501	Bellcrank, linkage	1	
34	515376	•Bushing	2	
35	547516	Arm, idler	1	
36	523160	•Bushing	2	
37	547582	Shaft, pivot	1	
38	547608	Block, pivot	2	
39	523160	•Bushing	1	
40	547619	Rod, idler	1	
41	547739	Latch, lockout	1	
42	547877	Chain, #50 sealed (54 links w/connector)	2	
43	522123	•Link, connector	2	
44	548183	Lockwasher, 5/16	2	
45	548326	Lockring	1	
46	548804	Nut, flangelock 3/8-16	7	
47	548911	Nut, flangelock 5/16-18	8	
48	800290	Locknut, 5/16-18	5	
49	800385	Screw, 3/8-16 x 3/4	2	
50	800453	Screw, 5/16-18 x 7/8 Gr. 8	2	
51	800513	Screw, soc. hd. 5/16-18 x 1 1/4	2	
52	800556	Screw, set 3/8-16 x 3/8	2	
53	306450	Bolt, carriage 5/16-18 x 3/4	2	
54	810157	Bushing, rubber	2	
55	810758	Retainer, bushing	2	
56	814499	Spring, compression	1	
57	822529	Pin, hair	1	
58	830389	Spring	1	
59	832405	Bearing, ball	2	
60	832440	Collar, locking	2	
61	832499	Bearing, ball	2	

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

9.6 TRANSPORT DRIVE

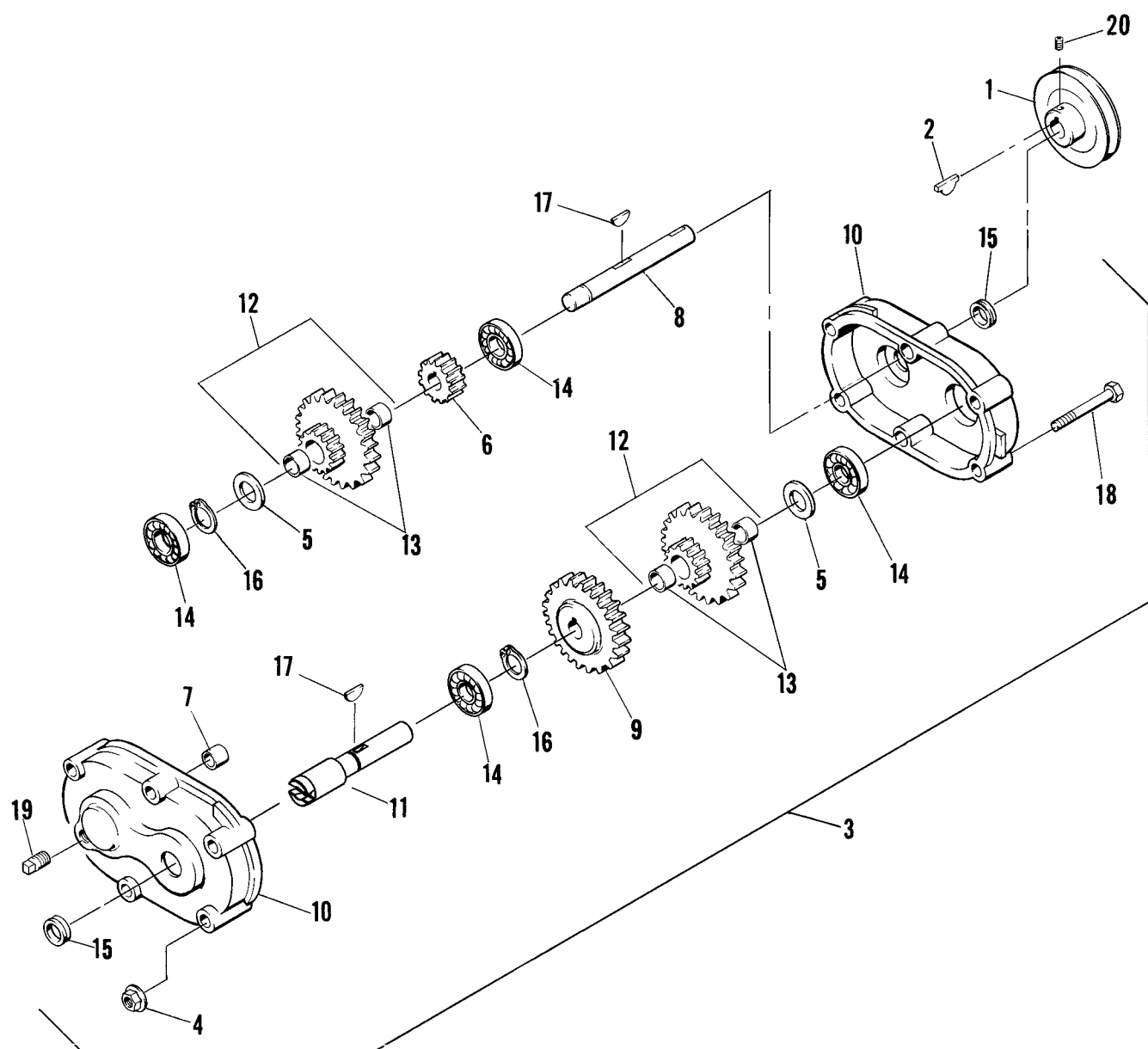
Apply Loctite 271
To O.D. Of Bearings
Ref. No. 30 & 33.



Ref. No.	Part No.	Description	No. Req'd	Notes
1	300646	Screw, 1/4–20 x 3/4	1	
2	306320	Nut, 5/16–24	1	
3	306810	Screw, 1/4–20 x 1 1/2	1	
4	306861	Screw, 5/16–24 x 5/8	1	
5	307662	Key, woodruff #15	4	
6	517137	Pulley, 4" (102mm)	1	
7	518438	Bushing	1	
8	522226	Washer, special	2	
9	522828	Shaft, pivot	1	
10	522881	Key, 3/16 x 3/16 x 1/2	1	
11	523153	Bracket, clutch	1	
12	523241	Seal, V-ring	4	
13	523250	Hub, dog clutch	1	
14	523265	Screw, 5/16–24 x 2 1/2	1	
15	523311	Decal, dog clutch	1	
16	523941	Key, high-pro	1	
17	545995	Arm, wheel (LEFT)	1	
18	545996	Arm, wheel (RIGHT)	1	
19	545997	Mount, transmission	1	
20	523484	•Bearing, bronze	2	
21	545998	Fork, dog clutch	1	
22	545999	Arm, differential	2	
23	540216	Clamp, pivot	2	
24	522722	•Bushing	1	
25	547545	Sprocket, double	1	
26	522722	•Bushing	2	
27	547635	Handle, dog clutch	1	
28	523260	•Bearing, 3/4" flange	1	
29	540402	Transmission, complete	1	
30	540287	Sprocket, dog clutch	1	
31	841332	•Bearing	1	
32	800902	•Pin, roll 5/16 x 1 1/2	1	
33	547878	Chain, sealed roller #40 (50 links w/connector)	1	
34	522122	•Link, connector	1	
35	547879	Chain, sealed roller #40 (60 links w/connector)	1	
36	522122	•Link, connector	1	
37	548101	Bearing Assembly	4	
38	521857	•Collar, locking	1	
39	548804	Nut, flangelock 3/8–16	6	
40	548911	Nut, 5/16–18	8	
41	548962	Housing, bearing	8	
42	603620	Washer, dog clutch	1	
43	800059	Locknut, 1/4–20	2	
44	800555	Screw, set 5/16–18 x 5/8	2	
45	800556	Screw, set 3/8–16 x 3/8	2	
46	800557	Bolt, carriage 5/16–18 x 3/4	8	
47	807439	Fitting, lubrication	3	
48	811677	Bracket, return spring	1	
49	813011	Spring, dog clutch	1	
50	306836	Screw, 3/8–16 x 2 1/4	4	
51	547544	Clamp, pivot	2	
52	522722	•Bushing	1	
53	548224	•Fitting, lube	3	
54	306414	Screw, 3/8–16 x 1	2	

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

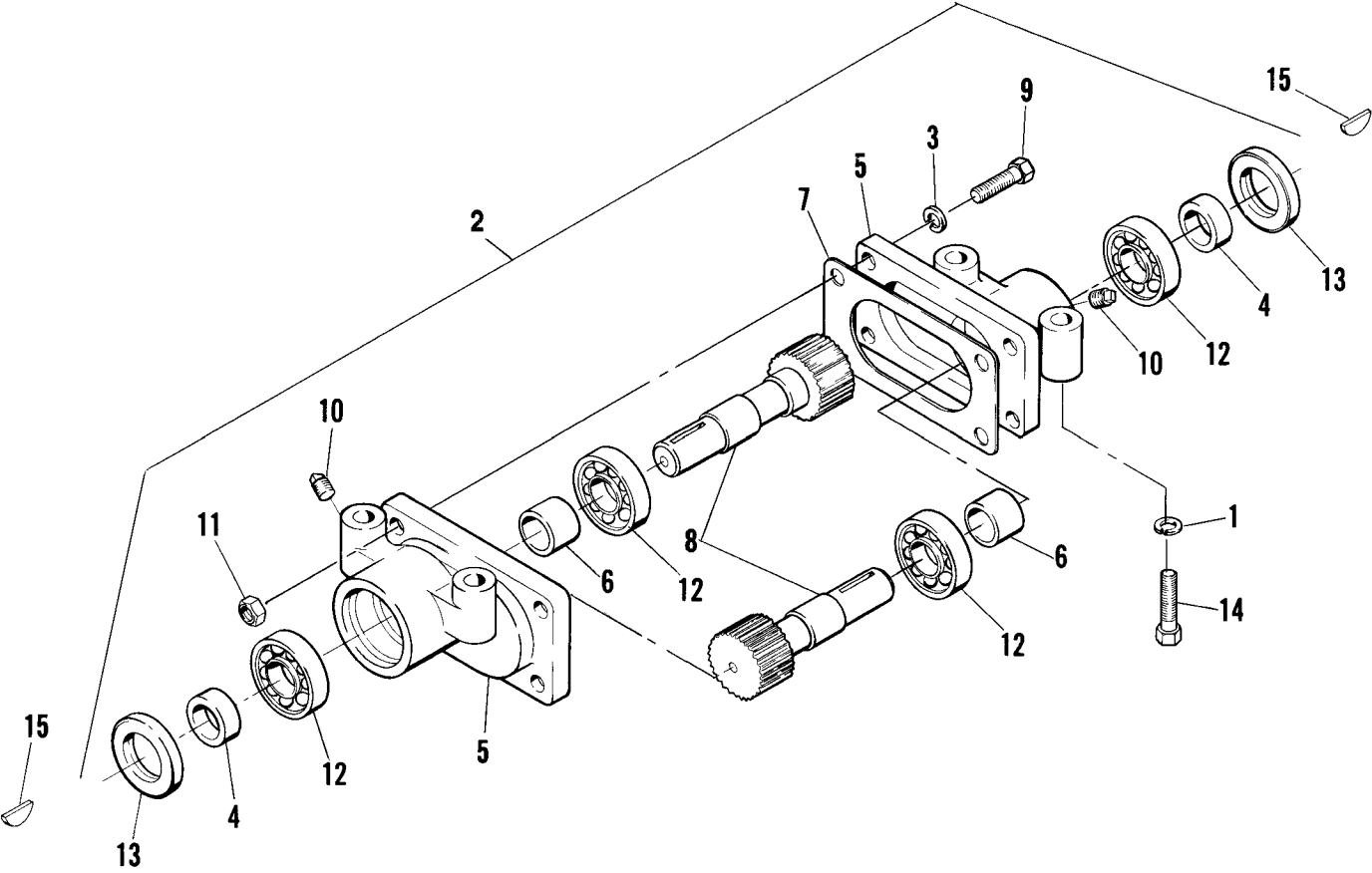
9.7 TRANSMISSION



Ref. No.	Part No.	Description	No. Req'd	Notes
1	517137	Pulley, 4" (102mm)	1	
2	523941	Key, Hi-pro	1	
3	540402	Transmission (complete)	1	
4	548911	•Nut, 5/16–18 flangelock	6	
5	516700	•Spacer	2	
6	516724	•Gear, 20 tooth	1	
7	517226	•Bushing	2	
8	518826	•Shaft, input	1	
9	518827	•Gear, 56 tooth	1	
10	522638	•Gear Case Half	2	
11	524620	•Shaft, output	1	
12	546708	•Gear, double	2	
13	515511	••Bushing	2	
14	548119	•Bearing, ball	4	
15	548274	•Seal, oil	2	
16	548324	•Lockring	2	
17	548369	•Key, woodruff 3/16 x 5/8	2	
18	548958	•Screw, 5/16–18 x 3 1/2	6	
19	800120	•Plug, pipe 3/8–18	2	
20	800555	Screw, set 5/16–18 x 5/8	2	

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

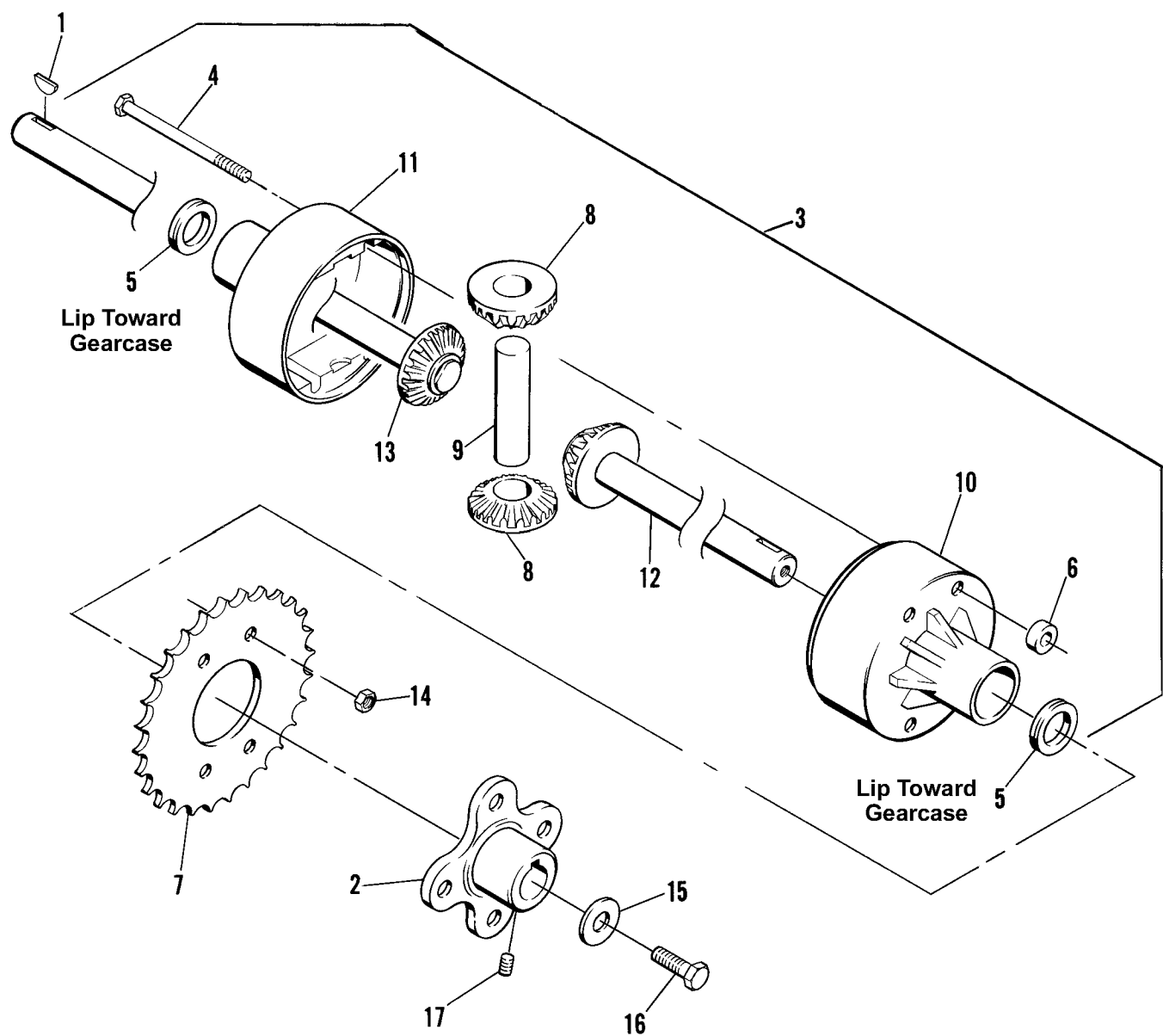
9.8 REVERSING GEAR BOX



Ref. No.	Part No.	Description	No. Req'd	Notes
1	303269	Lockwasher, 7/16	8	
2	889469	Gearbox, reversing (complete)	2	
3	120177	•Lockwasher, 3/8	4	
4	522747	•Spacer	2	
5	522807	•Gear Case Half	2	
6	522991	•Spacer	2	
7	522992	•Gasket	1	
8	523104	•Shaft, rocker	2	
9	548798	•Bolt, 3/8–24 x 1 1/4	4	
10	800227	•Plug, sq. hd.	2	
11	800531	•Locknut, 3/8–24	4	
12	815093	•Bearing, ball	4	
13	887272	•Seal, oil	2	
14	800444	Screw, 7/16–14 x 2 1/2 Gr. 8	8	
15	800519	Key, woodruff	2	

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

9.9 DIFFERENTIAL



Ref. No.	Part No.	Description	No. Req'd	Notes
1	306367	Key, woodruff	2	
2	516944	Hub, axle	2	
3	547658	Differential (complete)	1	
4	316909	•Screw, 5/16–18 x 4 1/4	4	
5	523242	•Seal, V-ring	2	
6	523258	•Spacer, sprocket	4	
7	523259	•Sprocket	1	
8	523512	•Gear, transfer	2	
9	523513	•Cross Axle	1	
10	547748	•Housing (sprocket side)	1	
11	547749	•Housing (non-sprocket side)	1	
12	547750	•Axle w/gear (sprocket side)	1	
13	547751	•Axle w/gear (non-sprocket side)	1	
14	800290	•Locknut, 5/16–18	4	
15	603620	Washer, special 1" O.D.	2	
16	800385	Screw, 3/8–16 x 3/4	2	
17	800555	Screw, set 5/16–18 x 5/16	4	

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

TEXTRON TURF CARE AND SPECIALTY PRODUCTS WARRANTY

Textron Turf Care And Specialty Products warrants for one (1) year each new 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 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 dealer without charge for parts and labor.

The unit or serialized accessory including any defective part must be returned to an authorized dealer within the warranty period. The expense of returning the 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 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 unit or serialized accessory.

Proof of purchase will be required by the authorized dealer to substantiate any warranty claim. All warranty work must be performed by an authorized 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 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 Operator's Manual. The warranty does not apply to any 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 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 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 OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS, AND TEXTRON TURF CARE AND SPECIALTY PRODUCTS 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 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.

Textron Turf Care and Specialty Products
P.O. Box 82409
Lincoln, Nebraska 68501-9971

10-99

WARRANTY SERVICE

To make a claim under warranty, contact an authorized 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 dealer. Remember, your unit must be delivered to an authorized dealer within the warranty period, and all warranty work must be performed only by an authorized 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 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 dealer for proper maintenance and care of your unit. Proper maintenance and care will assist in keeping your overall operating cost at a minimum.

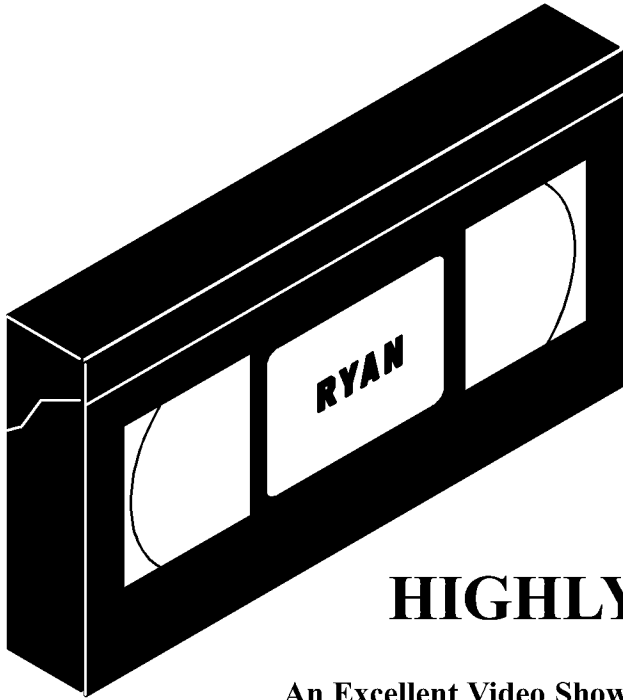
To validate a warranty claim, it is the owner's responsibility to maintain all components in proper adjustment and service the unit as specified in the Operator's Manual. It is the owner's responsibility to provide proper lubrication for all components and to provide correct recommended fuel for the 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.

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TEXTRON

TEXTRON TURF CARE AND SPECIALTY PRODUCTS