

JACOBSEN®

OPERATOR'S MANUAL WITH PARTS LIST

Greens King® 422

22" GREENS MOWER
Product No. 62244
Serial No. 2915 and Up

22" GREENS MOWER
Product No. 62248
Serial No. 1601 and Up

GRASS CATCHER
Product No. 68116


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★ DONT MAIL ★

Litho in U.S.A. 294

Part No. 366814



WARNING: *If incorrectly used this machine can cause severe injury. Those who use and maintain the machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust or service the machine.*

1. Safety is dependent upon the awareness, concern and prudence of those who operate or service the machine.
2. It is your responsibility to read this manual and all manuals associated with this equipment (i.e. engine, accessories and attachments)
3. Learn the proper use of the machine and the purpose of all the controls and gauges before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
 The safety alert symbol is used throughout the manuals to alert you to potential hazards. Failure to read and obey the safety instructions can result in serious injury and property damage.
4. Never allow anyone to operate or service the machine or its attachments without proper training and instructions.
5. Wear all the necessary protective clothing and personal safety devices to protect your head, eyes, ears, hands and feet. Operate the machine only in daylight or in good artificial light.
6. Thoroughly inspect the area where the equipment is to be used. Beware of overhead obstructions (low tree limbs, electrical wires, etc.) and also underground obstacles (sprinklers, pipes, tree roots, etc.). Enter a new area cautiously. Stay alert for hidden hazards.
7. Never operate equipment with loose, damaged or missing components or without decals, guards, shields, or other protective devices in place.
8. The unit should be stopped and inspected for damage immediately after striking an obstruction and the damage repaired before resuming operation.
9. Do not disconnect or bypass any switch. Replace a defective switch immediately. Keep all switches clean and properly adjusted.
10. Carbon monoxide in the exhaust fumes can be fatal when inhaled, never run the engine inside a building without proper ventilation.
11. Handle fuel with care - it is highly flammable. Never fill the fuel tank with the engine running.
12. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease. Allow the engine to cool before storing in any enclosure and always remove the spark plug wire from the spark plug.
13. Disengage all drives and set parking brake before attempting to start the engine (motor).
14. Use extreme caution and reduce speed when working on steep slopes. Operate the machine across the face of steep slopes, never up and down the face.
15. To prevent loss of control, do not start or stop suddenly, reduce speed when making sharp turns. Use extreme caution when changing direction on slopes.
16. Always be sure of your footing; keep a firm hold on the handle and walk; never run. Plan the operation so that it is not necessary to pull the unit rearward towards you, particularly on a downgrade.
17. Before making adjustments, cleaning, repairing, or inspecting the unit, disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.

 **CAUTION:**

1. Before leaving operator's position for any reason:
 - a. Disengage all drives.
 - b. Set parking brake.
 - c. Shut off engine.
2. Wait for all movement to stop before making any adjustments or servicing the machine.
3. Keep the area of operation clear of all bystanders.

FOREWORD

By following the operating, maintenance and adjustment instructions in this manual, you will prolong the life of your machine and maintain its maximum efficiency.

If additional information or service is needed contact your Jacobsen Turf Equipment Dealer. Dealers are kept informed of the latest servicing methods for this equipment and can provide prompt and efficient service in the field or at their service stations. They carry Jacobsen service parts or can secure them from the factory.

Use of other than original Jacobsen parts and accessories or Jacobsen authorized parts and accessories will void the warranty.

All information in this publication is based on the product information available at time of approval for printing.

Jacobsen reserves the right to make changes at any time without notice or obligation.

For pictorial clarity, some Illustrations and Figures in this manual may show shields, guards or plates open or removed. Under no circumstances should this equipment be operated without these devices securely in place.

The user cannot make any modifications or additions to this vehicle that would adversely affect its safety or performance without prior written authorization from Jacobsen.



WARNING

The Greens King 422 is equipped with an interlock system intended to protect the operator and others from injury by preventing the engine from starting unless the drive clutch lever is in the "Disengaged" position. In the interest of safe operating conditions, this machine must never be operated with the Interlock System disconnected or malfunctioning.

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DECALS

Familiarize yourself with the warning decals, they are critical to the safe operation of the mower. REPLACE DAMAGED DECALS IMMEDIATELY.

! CAUTION

- 1.KEEP ALL SHIELDS IN PLACE.
- 2.STOP ENGINE TO ADJUST AND OIL.
- 3.WHEN MECHANISM BECOMES CLOGGED DISENGAGE POWER AND STOP ENGINE BEFORE CLEANING.
- 4.KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER-DRIVEN PARTS.
- 5.READ MANUAL THOROUGHLY BEFORE OPERATING MACHINE.

J-T 365511 CA

! CAUTION

ALLOW ENGINE TO COOL FOR 2 MINUTES BEFORE REFUELING

! CAUTION

BE SURE THE TRACTION CLUTCH LEVER IS IN NEUTRAL BEFORE STARTING THE ENGINE.

TRACTION CLUTCH CONTROL



! WARNING

Do not engage traction clutch with engine running.

JT-366797 CA

! DANGER

To avoid serious bodily injury stop engine and disengage reels before working on mower or emptying baskets.



J-T3001235 CA

! PRECAUCION

1. No opere esta maquina sin previo entrenamiento, y sin haber leído el manual de instruccion y operacion.
2. Tenga todas las guardas en su lugar y piezas bien aseguradas.
3. Neutralice todas las velocidades y apague el motor antes de vaciar los recolectores de pasto, darle servicio, limpiar, ajustar y destrabar la maquina.
4. Mantenga las manos, los pies y ropa suelta lejos de piezas en movimiento.
5. No deberan transportar pasajeros si no existe un asiento para ellos.
6. Si no sabe leer ingles, pída que alguien le lea las calcomanias de avisos y las manuales de instruccion y operacion.

SPECIFICATIONS

1.0 ENGINE:

Product 62244..... Honda GX-120 K1QX 4-Cycle
4 HP (2.98 kW) at 4000 RPM
Speed..... High Idle - 3000 ±100 RPM
Low Idle - 1700 ± 100 RPM
Fuel..... Regular Grade (Unleaded)
Fuel Tank..... 0.66 Gallon

Use clean, fresh, regular unleaded gasoline, 86 octane minimum. When using blended fuel, do not use a blend with more than 10% ethanol.

Under no circumstances should you use a blend with methanol.

1.1 MOWER:

Bedknives..... Hardened carbon steel,
quick drop out, free pivot
High Profile..... 1/4" (6.4 mm) thick, yields
5/32" (3.9 mm) cut
Low Profile..... 13/64" (5.2 mm) thick, yields
7/64" (2.8 mm) cut (standard)
Tournament..... 0.175" (4.45 mm) thick, yields
5/64" (1.98 mm) cut
Cutting Frequency.... 0.169" (4.3 mm)
Height of Cut..... 5/64" to 7/16" (2.0 to 11.1 mm)
Reel..... 11 Blades, 5" (127 mm) Dia.
Hardened high manganese, carbon
steel
Reel Clutch..... Cog-type
Traction Clutch..... Cog-type
Width of Cut..... 22" (55.9 cm)

1.2 TRACTION AND DIFFERENTIAL

Drive Clutch..... Disc pressure plate type
Traction Reduction Ratio.. 21.8:1
Traction and Reel Drive.... (3) synchronous polyurethane
belts with Kevlar chord
Transport Wheels..... (2) bidirectional, pneumatic
11 x 4 Goodyear Softrac
Differential..... Full automotive type, housed
in traction drum
Rear Drive Drum..... Machined aluminum alloy
2 sections: 7.75 in. (O.D.) x
10.94 in. (197 mm x 277.8 mm)
Travel Speed..... 3.2 mph (5.14 km/h) @ 3000
rpm

1.3 WEIGHT:

Weight..... 238 lbs. (101.2 kg) with catcher,
roller, kick stand and weight bars

1.4 ACCESSORIES:

Contact your Jacobsen Turf Equipment Dealer for a complete listing of accessories and attachments.

Orange Paint (12 oz. spray)..... 554598
Gas Can (2-1/2 Gal)..... 554948
Gas Can (5-1/4 Gal)..... 554949
180 Grit Lapping Compound (10 lb. pail)..... 182479
Turf Groomer..... 68605
Grass Catcher..... 68116
Grooved Roller..... 68527
Solid Roller/Scraper..... 68530
Grooved Roller (Machined)..... 68614
Brush..... 68611
Fine Bristle Brush..... 68610
Guide Wheels..... 68612

TO ORDER PARTS

1. Write your full name and **complete** address on the order.
2. Explain where and how to make shipment.
3. Give product number, name and serial number that is stamped on the nameplate or serial plate of your product.

Record the number below for ready reference.

Serial No. _____

4. Order by quantity desired, the Part Number, and description of the part as given in the parts list.

5. Send or bring the order to your nearest Authorized Jacobsen Turf Equipment Dealer.
6. Inspect all shipments on receipt. If any parts are damaged or missing, file a claim with the carrier before accepting.
7. Do not return material to your Authorized Jacobsen Turf Equipment Dealer without a letter of explanation. Make a list of all returned parts, show your name and address, and include it with the shipment. Transportation charges must be prepaid.

OPERATION

2.0 GENERAL

CAUTION: Read this manual and the engine manual carefully in their entirety before putting the mower into operation. Keep hands away from the controls until you have learned the location and purpose of all the controls.

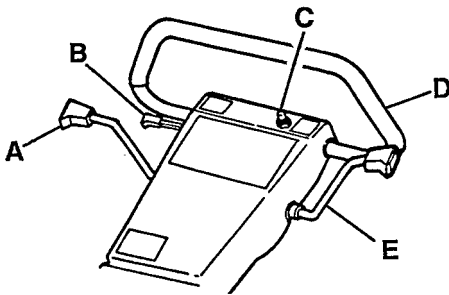
DANGER

To prevent serious injury, keep hands and feet away from reel blades at all times.

1. Add a front roller or a Turf Groomer (Section 1.4) .
2. The bedknife was backed away from the reel to prevent damage during shipping and should be re-adjusted as described in Section 3.5.
3. Add fresh fuel (Section 1.0). Add engine oil up to the full level mark on the dipstick.

2.1 OPERATOR CONTROLS

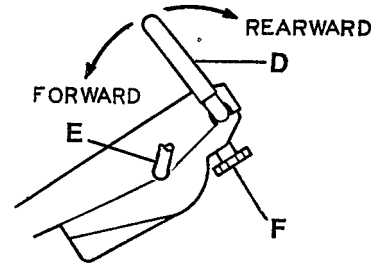
Figure 2A



- A. Parking Brake** - Used whenever the mower is left unattended or as a service brake while transporting.
- B. Throttle** - Controls the speed of the engine. Push lever forward to increase engine speed.
- C. Ignition Switch** - This machine has two controls, the "Ignition Switch" (C) and the "Engine Switch" (located on the engine - see 2.3-2).
- a. Both switches must be "on" to start the engine. Both switches must be "off" during maintenance.
 - b. Jacobsen recommends leaving the engine switch "on" and controlling the on/off function with the ignition switch only during normal operation.
- D. Steering Loop** - The angle of the loop can be adjusted with knob (F). Turn knob clockwise to bring the loop forward or counterclockwise to bring the loop rearward.

Refer to Section 3.4 to change the position of the handle bar.

Figure 2B



E. Drive Clutch Lever - The lever controls power to both the reel and traction drive. To engage the drive system, push the lever forward or pull the lever rearward to disengage. The lever can be feathered to allow the unit to be run slowly while maneuvering.

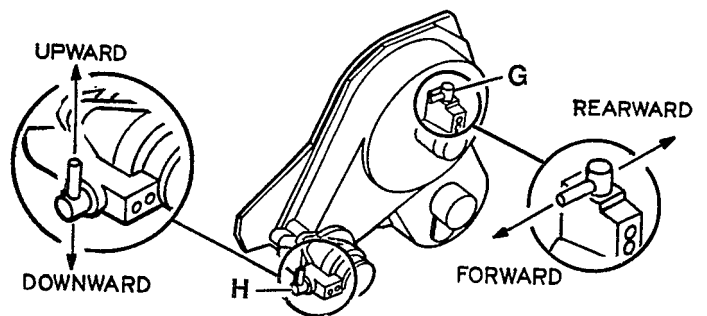
2.2 CLUTCH CONTROLS

WARNING

To prevent bodily injury or property damage, never engage the reel or traction clutch levers while the engine is running or the drive clutch lever is engaged.

- G. Traction Clutch Lever** - Point lever forward to disengage traction drive and allow drum to "free-wheel". Point lever rearward to engage.
- H. Reel Clutch Lever** - Point lever upward to engage the reel drive mechanism. Point lever downward to disengage the reel to transport or adjust.

Figure 2C



2.3 ENGINE CONTROLS (Not Shown)

1. Refer to the engine manual for more detailed information.
2. Engine switch is part of the "Oil Alert System" module. The Oil Alert System is used to prevent engine damage if the crankcase oil level falls below a safe limit.

The oil level must be kept at its maximum full range on the dipstick to prevent the oil alert system from giving false indications when the machine is tipped back.

2.4 STARTING/STOPPING ENGINE

1. Check oil level and fuel supply then open fuel shut-off valve.
 - a. Move the choke lever to the "Close" position.
 - b. Move throttle control (B) to 1/2 throttle.
 - c. Make sure the ignition switch (C) and engine switch are "on".
2. Make certain the drive lever (E) is disengaged and the parking brake (A) is "on".
3. Start the engine. Do not allow the cord to "snap" back into the starter.
4. When engine starts, move choke lever to the "Open" position. Intermittent choking may be required while engine is cold.
5. Allow engine to warm up gradually.
6. To stop the engine, disengage the drive lever (E) then turn the Ignition switch (C) to "off".

2.5 TRANSPORT WHEELS

WARNING

To prevent bodily injury, disengage the drive lever, stop the engine, disengage the reel clutch lever before installing or removing the transport wheels.

1. Place kick stand against the ground and pull back on the handle until the mower rests on the stand.
2. To remove the wheels, pull retaining clip (J) outwards and pull the wheel off the hub.
3. To install the wheel, pull retaining clip (J) outwards, place either wheel on the hub and turn the wheel backwards until studs (L) line up with holes (K). Push the wheel in and release clip (J).

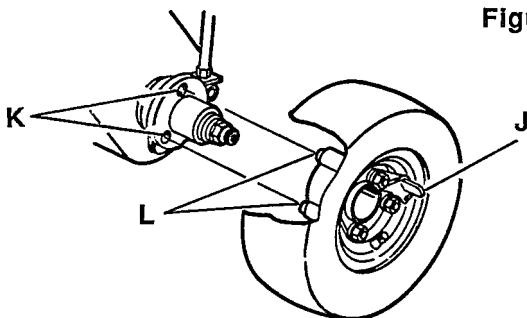


Figure 2D

4. Always disengage reel lever (H - Figure 2C), prior to transporting the mower more than a few feet.
5. Push the mower forward off the kick stand, start the engine and engage the drive lever (E - Figure 2A).

6. When using a vehicle to transport the mower, disengage drive lever, stop engine, apply parking brake and close fuel shut-off valve.

2.6 MOWING



CAUTION: Never allow the reel to turn when not cutting grass. Excessive friction and heat will develop between the bedknife and reel, and damage the cutting edge.

1. Disengage drive lever and stop engine. Place mower on kick stand to remove the transport wheels.
2. Check the cutting height, Refer to Section 3.6.
3. Engage the reel and traction levers (G and H - Figure 2C) and push mower off the kick stand. Start the engine.
4. Position mower slightly off the green.
 - a. Push handle down to lift the mower head above the grass then engage the drive lever.
 - b. As the mower crosses the edge of the green, set the mower down and proceed across the green in a straight line.
 - c. When the opposite side of the green is reached, lift the mower head without disengaging the drive lever and proceed off the green to turn around or simply declutch and turn around.



WARNING

To prevent bodily injury or property damage, never engage the reel or traction clutch levers while the engine is running or the drive clutch lever is engaged.

5. To turn around quickly, with very few steps, turn slightly (approximately 30°) right or left, and when the mower has moved approximately 1/2 it's own width, swing it around quickly.
6. To assure complete, even cutting, overlap swaths by 1" (25mm) or 2" (50mm), then make one or more passes around the perimeter of the green to clean any ragged edges and separate the putting green surface from the apron.

2.7 WEIGHT BARS

1. The Greens King 422 was designed to be used with a Jacobsen Turf Groomer. The weight bars located above the grass deflector, should be removed when using a Groomer.
2. When using a front roller only, the weights can be removed to compensate for soft greens and other mowing conditions.

ADJUSTMENTS

WARNING


Whenever performing maintenance other than carburetor adjustments, remove the spark plug wire and place the wire away from the plug to prevent accidental starting and bodily injury.

3.0 GENERAL

1. A lifting hook has been provided between the engine and the clutch mechanism so the mower can be safely hoisted onto a workbench. Refer to Illustration 2, Item 67.
2. Do not wear loose fitting clothing or jewelry when adjusting or repairing the vehicle's mechanical or electrical components.

3.1 DRIVE BELTS

1. The drive belts are a patented design, Kevlar chord, synchronous belts that transmit power through the teeth of the belt rather than thru tension as required by a "V" belt.

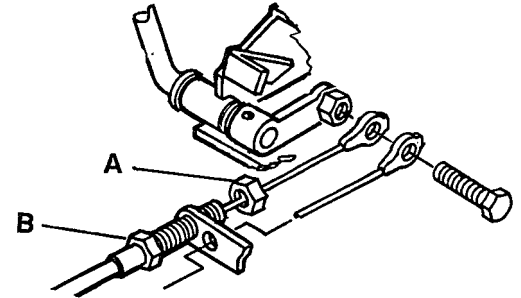
 **CAUTION:** To prevent permanent damage to the belt do not twist, fold, bend or overtighten the belt.

2. Overtightening the belt will cause premature belt failure and abrasive wear of the pulley and bearings. Twisting and bending the belt will permanently damage the chord fibers of the belt.
3. Refer to Illustration 4. Belts can be adjusted by repositioning bearing bracket as required. (Item No. 1)
 - a. Tension the clutch-to-reel belt (Item 9) and the reel-to-jackshaft belt (Item 13) from 3/16 to 1/4" (4.76 to 6.35 mm) deflection with a 1-1/2 to 3-1/2 lbs. (.68 to 1.58 Kg) load applied at midspan.
 - b. Tension the jackshaft-to-drum belt (Item No. 10) from 1/16 to 1/8" (1.58 to 3.17 mm) deflection with a 1-1/2 to 3-1/2 lbs. (.68 to 1.58 Kg) load applied at midspan.

3.2 BRAKE

1. Minor brake adjustments are made at the handle. Remove front cover, loosen nut (A), turn nut (B) to adjust the brake cable then tighten nut (A).
2. If adjustments can not be made at the handle, remove the transport wheels and make the adjustment at the brake band.

Figure 3A

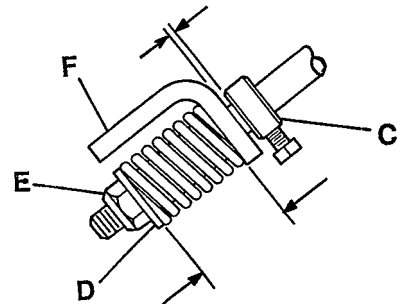


3.3 DRIVE LEVER

Check the adjustment of the clutch each time you readjust the position of the handle bar. (See section 3.4)

1. Loosen collar (C) and engage the drive lever. Adjust nut (E) to compress the spring to 1-5/16" (33 mm).
2. Reposition collar (C) to leave a gap of 5/16" (7.9 mm) between the collar and bracket (F).
3. When the lever is disengaged there should be no gap between collar (C) and bracket (F). The spring should extend to 1-5/8" (41.3 mm).

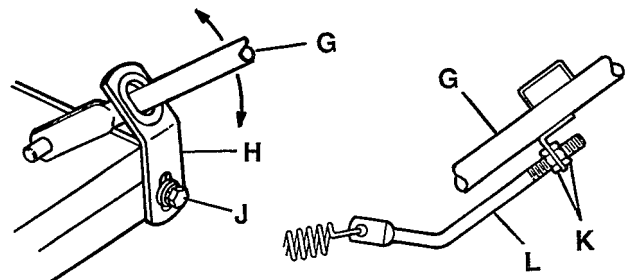
Figure 3B



3.4 HANDLE BAR

1. To adjust the angle of the handle bar (G), loosen screw (J) on both sides of the mower and adjust the handle bar to the desired position, tighten screw.
2. Check and readjust the drive lever as described in section 3.2.
3. After adjusting the handle bar, loosen either nut (K) and adjust the rod (L) so that the handle bar just rests on the bottom of the slot in bracket (H) and the handle can be lifted with just five pounds of force.

Figure 3C



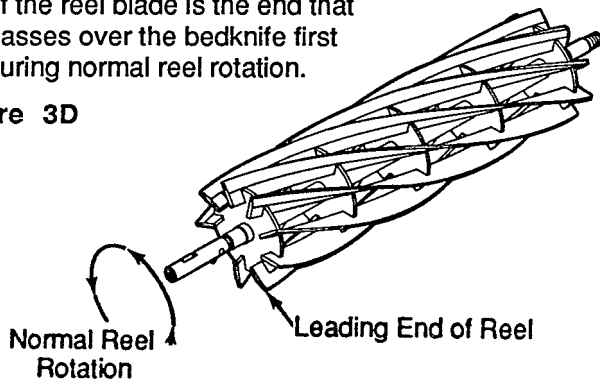
ADJUSTMENTS

3.5 BEDKNIFE-TO-REEL

Prior to making the adjustment, it is important to determine if the reel and bedknife are in good working condition.

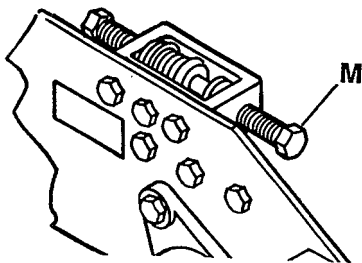
1. The bedknife and backing must be properly secured. Tighten all the bedknife mounting screws.
2. Check for damage to the bedknife and reel blades. A good square edge on the reel and bedknife must be maintained to assure good cutting quality. (Refer to Section 4. 4 .
3. In order for the proper shearing action to take place, a very even adjustment must be maintained across the entire length of the reel and the bedknife.
 - a. A loosely adjusted reel will not cut grass, or cut poorly and will lose its sharp cutting edge in a short period of time.
 - b. An overly tight adjustment will cause premature wear, engine loading and component failures.
 - c. Uneven adjustment will eventually create a cone shaped reel.
4. Start adjusting at the leading end of the reel and follow with the trailing end. The leading end of the reel blade is the end that passes over the bedknife first during normal reel rotation.

Figure 3D



5. While rotating the reel in reverse, turn the front adjusting nut (M) clockwise to bring the bedknife closer to the reel and counterclockwise to back the bedknife away from the reel.

Figure 3E



6. After adjusting the trailing end of the reel, recheck the adjustment at the leading end.
 - a. When the reel is properly adjusted to the bedknife, you should be able to turn the reel over freely and hear a very light whispering sound.

- b. The reel should cut a piece of newspaper along the full length of the reel when the paper is held at 90° to the bedknife.
7. A .001" to .002" feeler gauge can also be used to make the adjustment. Dry, sparse grass conditions require this clearance to prevent heat buildup and damage to the reel and bedknife.

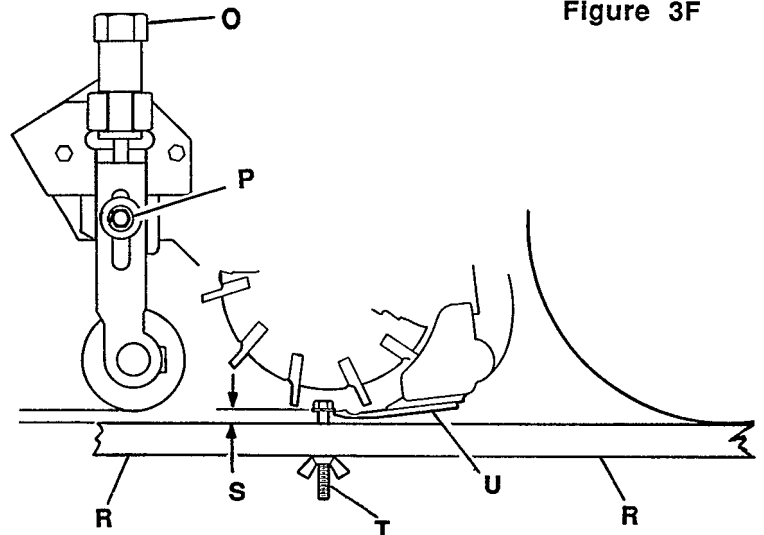
When cutting high quality grass with a good moisture content, a closer clearance (near zero) provides a better cut and also increases the life of a sharp reel and bedknife.

3.6 CUTTING HEIGHT

NOTE: Make sure the bedknife is properly adjusted before setting the cutting height. (Refer to Section 3.5).

1. Push the kick-stand down and tip mower back on its handle. Do not leave the mower tipped back for an extended length of time or oil may migrate into the combustion chamber.
2. Loosen lock nuts (P) on both adjusting brackets just enough to allow the adjuster (O) to raise the front roller or turf groomer. Raise both sides an equal amount.
3. Set gauge screw (T) to the desired cutting height (S). Measure from the gauge bar (R) to the underside of the screw head (T) then tighten wing nut to lock the adjustment.
4. Place gauge bar between front roller and traction roller, near the outer end of the rollers.
5. Slide screw head over bedknife (U) and adjust knob (O) to close the gap between the roller and the gauge bar. Tighten nut (P).
6. Repeat Steps 4 and 5 on the opposite end of the reel.
7. After tightening lock nuts (P), recheck and readjust the cutting height if necessary.

Figure 3F



MAINTENANCE



WARNING

To prevent bodily injury, before performing maintenance other than carburetor adjustments on the engine, remove the spark plug wire and place the wire away from the plug to prevent accidental starting. Disengage drive lever, reel and traction clutches.

4.0 PROCEDURE

1. The long, trouble-free life of your machine depends on the maintenance it receives.
2. Inspect your machine on a regular basis and replace worn or damaged parts before operating machine or before actual breakdown occurs.
 - a. Keep the mower clean and all moving parts properly adjusted.
 - b. Keep shields in place and all hardware securely tightened.
 - c. Keep transport tires properly inflated.
3. Use the illustrations in the Parts Section as reference for the disassembly and reassembly of components.
Clean and lubricate individual components as required.
4. Retouch scratched or worn painted surfaces with Jacobsen "Orange" paint. See section 1.4.

4.1 ENGINE

1. Refer to the Engine Manual for all maintenance and adjustment information.
2. Check and clean the spark plug every 100 hours or 6 months of use.
3. When the oil level is low and the machine is tipped back to make quick turns, the oil alert system on the engine may give the operator a sensation of having carburetor problems.

Keep the oil level at its maximum range on the dipstick to prevent false readings.

4.2 TIRES

1. Keep tires properly inflated to reduce the amount of wear and prolong the life of the tire. Pressure should be checked while the tires are cool.
6 - 8 psi - (41.3 - 55.1 kPa)



CAUTION: *Unless you have the proper training, tools and experience, DO NOT attempt to mount a tire on a rim. Improper mounting can produce an explosion that may result in serious injury.*

4.3 BEDKNIFE ADJUSTER

1. Turn bolt (A) clockwise to increase and counterclockwise to decrease the spring load on the bedknife.
2. For most applications compress the spring to 1.00" (25.4 mm).
3. Once the spring is totally collapsed the bedknife cannot be moved without backing off the rear bolt (A) before adjusting the front bolt (B).

4.4 BACKLAPPING AND GRINDING

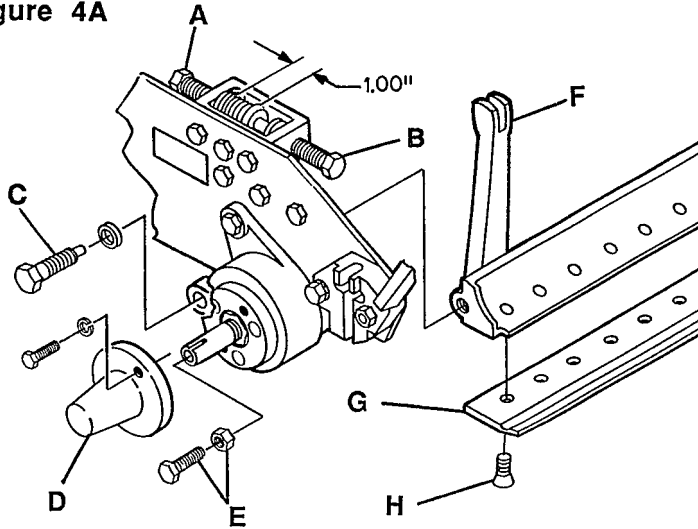
Check for damage to the bedknife and reel blades. A good square edge on the reel and bedknife must be maintained to assure good cutting quality.

1. Determine if backlapping or grinding will restore the proper cutting edge.
2. If wear or damage is beyond the point where the reel or bedknife can be corrected by the lapping process, they must be reground. Refer to the "Grinding Instructions for Jacobsen Reel Mowers" available through your Jacobsen Dealer.
3. Adjust the bedknife as described in Section 3.4 then remove shaft cover (D) and assemble a 3/8-24 bolt and locknut (E) to the end of the shaft.
 - a. Apply lapping compound with a long handle brush along the entire length of the reel, a 180 grit compound is recommended. See section 1.4.
 - b. Continue lapping and at the same time make a fine adjustment on the reel and bedknife until there is a uniform clearance along the full length of the cutting edges.
4. Carefully and thoroughly remove all lapping compound from reel and bedknife *before running the reel in forward direction.*

4.5 BEDKNIFE BACKING ASSEMBLY

1. To remove the assembly (F), back off the front bolts (B) rear bolts (A) a few turns to remove all of the spring load.
2. Remove bolts (C) and carefully remove the assembly (F) from the frame.
3. To reassemble the bedknife shoe, feed the arms between the spring and front bolt (B). Install backing bolts (C) and readjust the bedknife to the reel.

Figure 4A

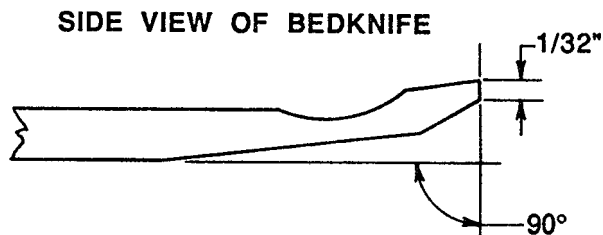


4.6 REPLACING BEDKNIFE

1. Back the bedknife away from the reel. Remove and discard all bedknife mounting screws (H).
2. Assemble new bedknife (G) using new mounting hardware.
3. For optimum performance use a bedknife grinder to touch-up the blade then reassemble and adjust the bedknife to the reel.

When grinding the bedknife a minimum of $1/32$ " (0.79 mm) front face is recommended.

Figure 4B

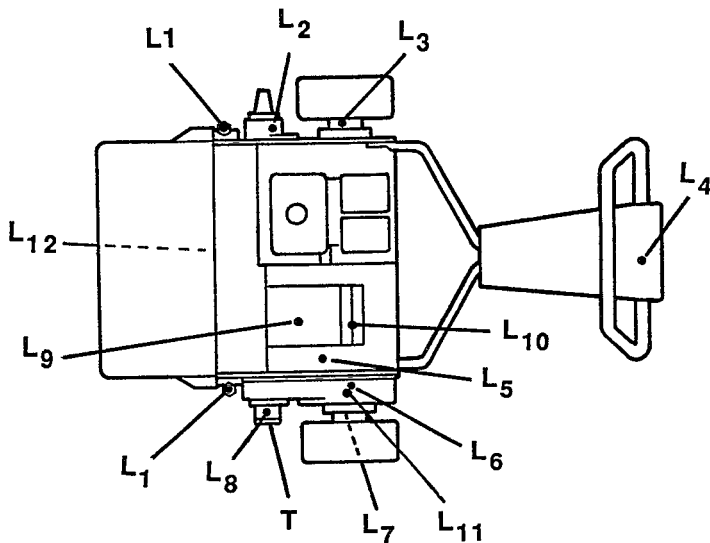


LUBRICATION

5.0 LUBRICATION

1. The Greens King 422 was designed for minimum lubrication. Over greasing any of the following points will produce high loads on the bearings and engine; thereby reducing the performance of the machine.
2. Always clean the grease fitting before and after lubricating.
3. Use a high quality lithium based grease. Apply grease with a manual grease gun and fill very slowly. Do not use compressed air guns.

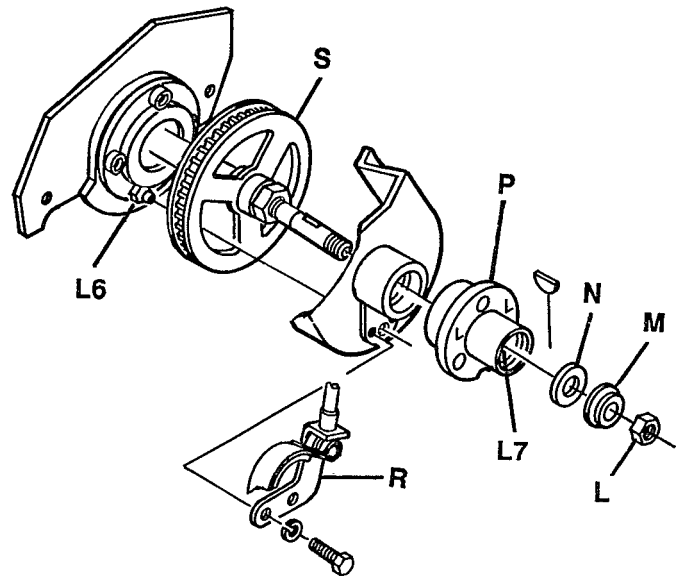
Figure 5A



★ - To lubricate points L6, 7 and 8:

1. Remove left transport wheel.
2. Remove nut (L) from end of shaft and pull wheel hub (P) off. Remove collar (M) and bushing (N) then pack bearing (G) with lithium grease.
3. Remove mounting bracket (R) to gain access to fitting (F). Turn the traction drum if pulley (S) is blocking the fitting then insert gun through hole and carefully apply grease.
4. Remove cover (T) and apply one pump of grease to fitting (H) on end of shaft.

Figure 5B



HOURS.....	Daily.....	20.....	50.....	100.....	300.....	Yearly
Air Filter.....	I.....					C
Engine Oil.....	I.....	R.....				R
Fuel Line.....						R - 2yrs
Fuel Strainer.....						C
Combustion Chamber.....						C
Reduction Gear Oil.....	I.....	R.....				R
Valve Clearance.....						A
Grease Fittings						
L1 - Height Adj.....						L
L2 - RT Reel Hub.....						L
L3 - RT Traction Hub.....						L
L4 - Tilt Control.....						L
L5 - Clutch Bearing.....						L
L6 - LT Traction Hub.....						L
★ L7 - Wheel Bearing.....						L
★ L8 - LT Reel Hub.....						L
★ L9 - Clutch Sleeve.....						L
L10 - Clutch Arm.....						L
L11 - Clutch Fingers.....						L
L12 - Roller.....						L
A - Add or Adjust C - Clean I - Inspect L - Lubricate R - Replace						

6.0 GENERAL

The Greens King 422 should be kept dry and protected during storage. Unnecessary exposure to the elements may deteriorate its appearance and shorten the usual service life.

6.1 ENGINE

1. Before storing the unit for an extended period (over 90 days), drain the fuel.
 - a. Remove, empty and clean the sediment cup.
 - b. Drain the carburetor and change the engine oil.
 - c. Service the air cleaner and spark plug.
2. To prevent the build up of gum residues and varnish films on the fuel lines, carburetor and injectors, Jacobsen recommends you fill the tank with stabilized fuel. Use an anti-oxidant fuel conditioner, such as STA-BIL®. Read and follow the instructions carefully.

Run the engine for about 5 minutes to distribute the treated fuel. Stop the engine close the fuel shut off valve and let the engine cool.
3. Remove the spark plug and pour about one ounce of SAE 30 Oil into the cylinder. Crank the engine slowly by hand to distribute the oil over the cylinder wall. Replace the spark plug.
4. Pull the starter rope slowly until resistance is felt. Continue pulling until the notch on the starter pulley aligns with the hole on the recoil starter. At this point, the intake and exhaust valves are closed.
5. Clean exterior of engine. Paint the exposed metal or coat it with a light coating of rust preventative oil. Use oil that complies with SAE #30 MIL-L-21260 Standards.

6.2 MOWER

1. Lubricate then clean the mower and tires thoroughly.
2. Wipe entire unit with clean cloth. Paint all scratches or other exposed surfaces subject to rust.
3. Back the bedknife away from the reel and apply a light coat of rust preventative oil on the reel blades and bedknife.
4. Store the mower on kickstand so the load is off the tires. The front roller or Turf Groomer should be resting on a board.

6.3 AFTER STORAGE

1. Clean all traces of oil from the reel and bedknife.
2. Check oil level in crankcase.
3. Make certain that the tires are properly inflated.
4. Remove the spark plug and wipe dry. Crank the engine (with spark plug removed), until excess oil has been expelled through the spark plug hole. Replace the plug and connect the ignition lead wires.
5. Before starting engine, move the mower outside. Never run the engine inside a building without proper ventilation, exhaust fumes can be fatal when inhaled.

Start the engine but do not operate at high speed immediately after starting. Allow time for it to become properly warmed and lubricated.

ILLUSTRATION 1

HANDLE

Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	123092	1	Handle Assembly	35	446130	8	Lockwasher, 1/4 Hvy
2	164065	1	Handle Loop Assembly	36	443102	6	Nut, 1/4-20
3	366792	4	Block - Handle	37	271918	1	Knob, Adjusting
4	434010	4	Screw, 1/4-20 x 1-3/4" Soc Hd Nylo	38	422502	1	Set Screw, 1/4-20 x 1/4" Soc Hd
5	366708	4	Bearing, Flange	39	465006	1	Steel Ball, 5/16
6	132673	1	Handle Assembly, Clutch	40	365291	1	Spring
7	132672	1	Handle Assembly, Brake	41	471210	1	Grease Fitting, 45°
8	366746	1	Knob, Clutch	42	363275	1	Switch, On/Off
9	366747	1	Knob, Brake	43	366775	1	Harness, Switch
10	366741	2	Cable, Brake	44	395371	1	Cover Handle Bottom
11	366743	1	Throttle Control	45	132675	1	Cover Assembly Top (Includes Items 59 ~ 62)
12	366768	1	Knob, Throttle	46	363962	1	Boot, Toggle
13	400108	2	Screw, 1/4-20 x 3/4	47	404014	3	Screw, 1/4-20 x 1/2" Truss Hd
14	454008	2	Spring Washer	48	400268	1	Screw, 3/8-16 x 1-3/4"
15	444812	1	Nut, 3/8-24 Flex-loc	49	443110	4	Nut, 3/8-16
16	271921	2	Lever, Brake Clutch	50	400188	1	Screw, 5/16-18 x 1"
17	461181	2	Groove Pin, 3/16 x 3/4 "A"	51	444718	1	Locknut, 5/16-18
18	310083	1	Ball Joint	52	340478	2	Stop, Handle
19	446142	4	Lockwasher, 3/8 Hvy	53	365660	2	Grommet
20	443112	2	Nut, 3/8-24	54	400264	2	Screw, 3/8-16 x 1"
21	366791	1	Rod, Clutch	55	354015	1	Rod
22	348197	1	Collar and Screw	56	366926	2	Spring
23	366800	1	Spring, Clutch	57	473137	3	Ties, Nylon
24	366799	1	Spring, Clutch	58	366815	1	Stop, Throttle
25	453011	2	Flat Washer	59	366769	1	Decal, Professional
26	365247	1	Rod End Male	60	340484	1	Decal, Panel
27	365270	1	Stud Adjusting	61	366770	1	Decal, Ignition
28	365259	1	Pin Pivot	62	366771	1	Decal, Throttle
29	241811	1	Pivot Block	63	366927	1	Conduit
30	366793	2	Bracket, Pivot	64	307456	1	Spring Cup
31	340493	1	Bracket, Switch	65	446148	2	Lockwasher, 7/16 Hvy
32	445667	1	Nut, 1/2-20				
33	400122	2	Screw, 1/4-20 x 2-1/4"				
34	400108	4	Screw, 1/4-20 x 3/4"				

ILLUSTRATION 1

HANDLE

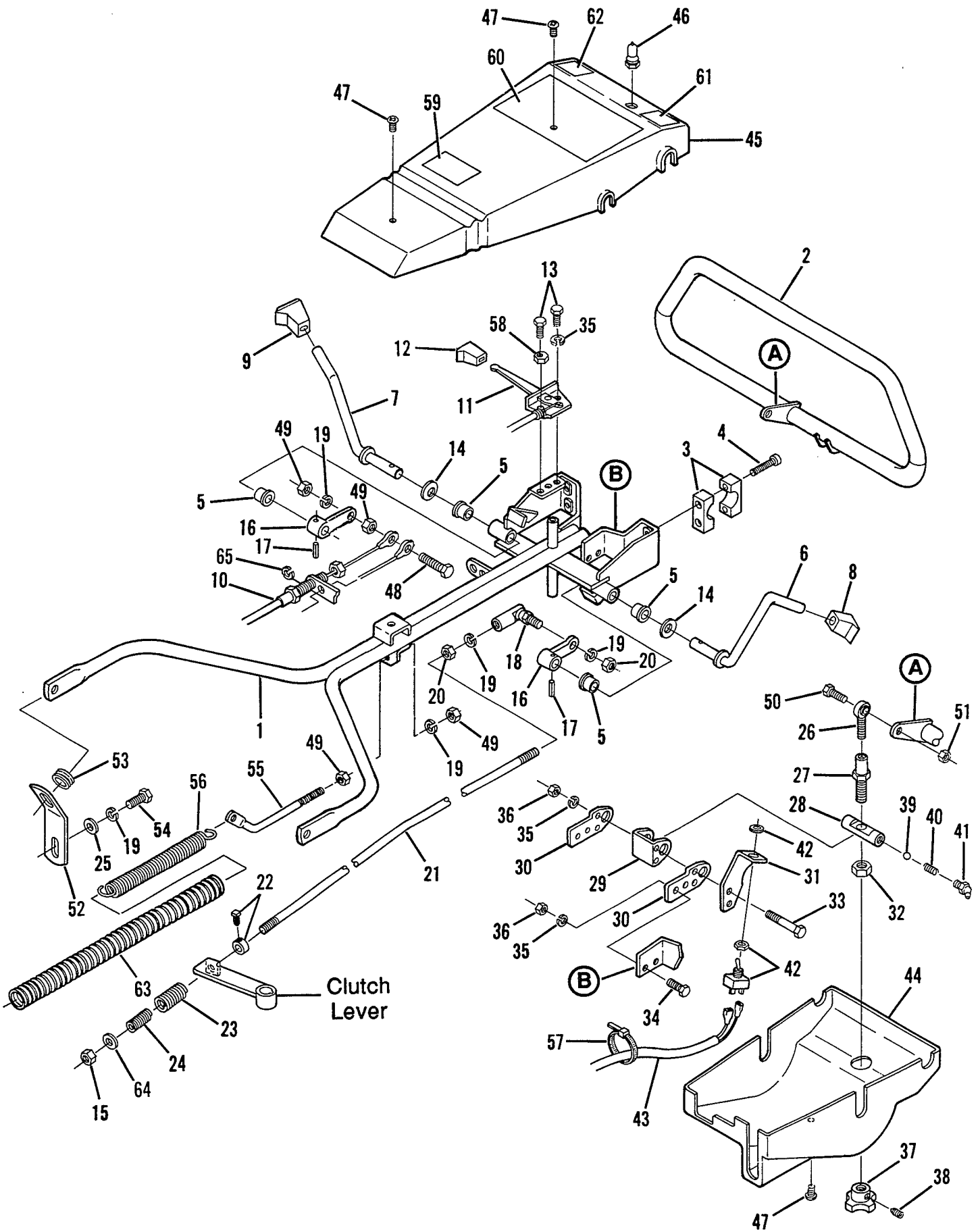


ILLUSTRATION 2

ENGINE and CLUTCH

Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	164055	1	Clutch Shaft	40	453011	2	Flat Washer, 3/8
2	555795	1	Disc, Clutch	41	366776	1	Wire Harness
3	366689	1	Washer	42	163865	2	Wire
4	241832	1	Disc, Sliding Clutch	43	163864	2	Connector
5	463113	1	Key, Morton	44	337993	1	Module
6	132656	1	Bearing Carrier (Includes Items 7, 8 and 58)	45	473137	1	Tie, Cable
7	366688	1	Bearing	46	503532	1	Engine, 4 H.P. Honda (Includes Items 61, 62 and 64)
8	366176	2	Bushing	47	320774	1	Key, Square
9	458113	2	Retaining Ring	48	132898	1	Clutch Body (Includes Items 49 ~ 51)
10	366685	1	Seal, Grease	49	410503	1	Set Screw, 5/16-18 x 7/8 Sq Hd
11	366686	1	Sleeve, Wear	50	445502	1	Nut, 5/16-18 Pal
12	366684	1	Bearing	51	340807	1	Bearing, Needle
13	366648	1	Seal, Grease	52	503637	1	Base, with Decals (Includes Items 74 and 65)
14	241831	1	Housing	53	400184	4	Screw, 5/16-18 x 3/4"
15	471214	1	Straight Grease Fitting	54	345666	4	Clamp
16	367082	1	Key, Square	55	441677	4	Carriage Bolt, 5/16-18 x 1-1/2"
17	340466	1	Pulley	56	132676	1	Clutch Cover (Includes Items 66, 69 ~ 72)
18	366653	1	Spacer	57	161688	1	Draw Latch
19	446142	3	Lockwasher, 3/8 Hvy	58	471214	2	Fitting, Grease
20	400262	1	Screw, 3/8-16 x 1"	59	409515	2	Screw, #6-32 x 5/16 Rd Hd
21	446136	13	Lockwasher, 5/16 Hvy	60		1	Serial Plate (Ref. Only)
22	400188	2	Screw, 5/16-18 x 1"	61	361707	1	Decal, Fuel
23	132661	1	Clutch Engaging Lever	62	363334	1	Decal, Caution
24	366725	2	Bushing, Flanged	63	366772	1	Decal, Product
25	132660	1	Shifter Bracket (Includes Items 24 and 58)	64	362764	1	Decal, Caution
26	132662	1	Clutch Lever	65	3001235	1	Decal, Danger
27	366813	1	Spring	66	366773	1	Decal, Jacobsen
28	412005	1	Set Screw, 1/4-20 x 1/2	67	340513	1	Hook, Lift
29	402016	2	Screw, #6 x 1-1/4"	68	364441	2	Washer
30	357958	1	Switch	69	366802	1	Hinge
31	453005	1	Flat Washer, #6	70	464841	3	Rivet, 3/16
32	446106	2	Lockwasher, #6	71	366801	1	Bracket, Angle
33	444304	2	Nut, #6	72	464842	3	Rivet, 1/8
34	463017	1	Key, Woodruff	73	343117	A/R	Washer
35	366798	1	Bracket	74	365511	1	Decal, Caution
36	366816	1	Spacer				
37	400190	3	Screw, 5/16-18 x 1-1/4"				
38	443106	5	Nut, 5/16-18				
39	400260	2	Bolt, 3/8-16 x 7/8"				

ILLUSTRATION 2

ENGINE and CLUTCH

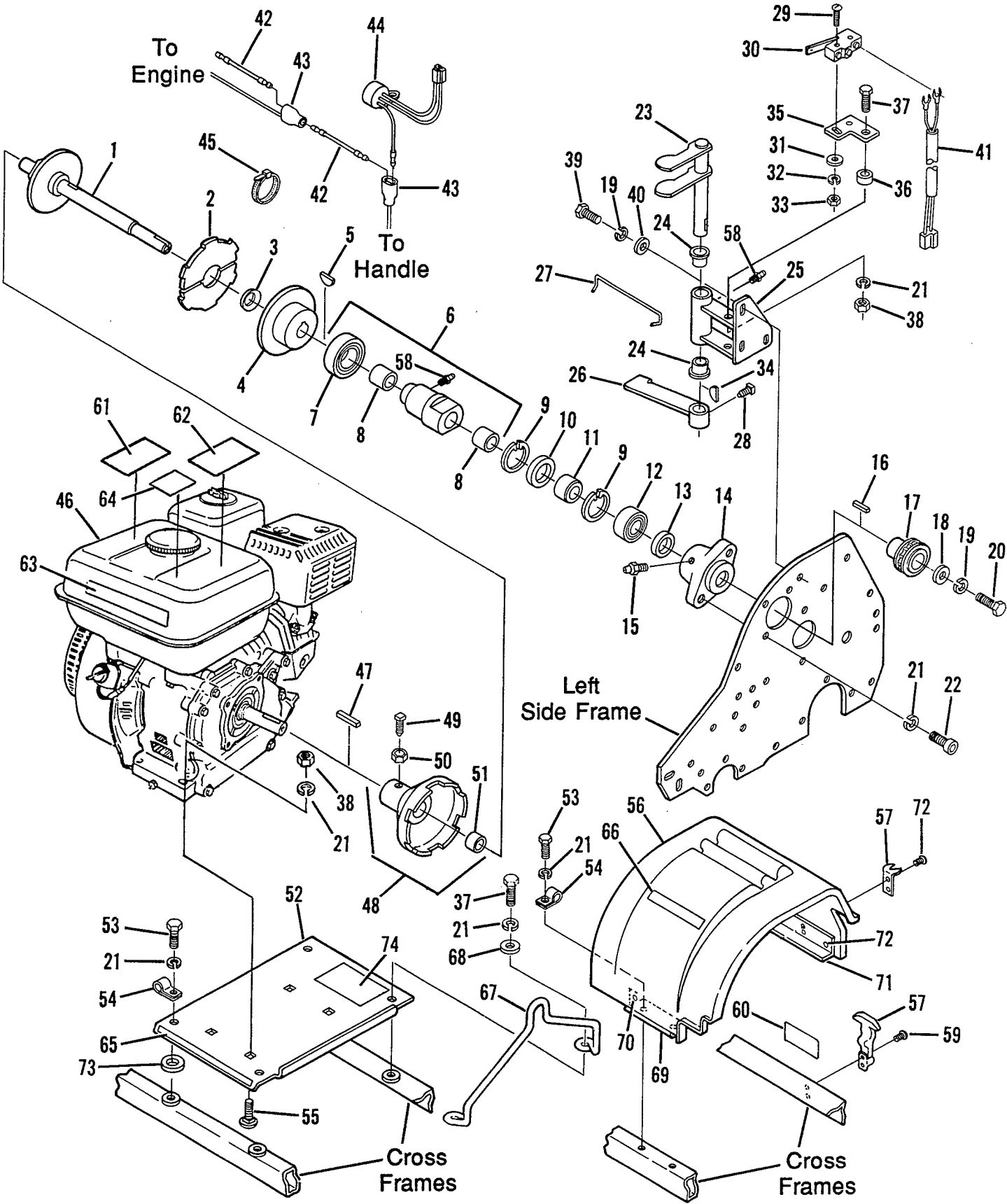


ILLUSTRATION 3

LOWER UNIT

Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	220315	1	Shoe, Bedknife Backing	43	471214	1	Straight Grease Fitting
2	★	1	Bedknife	44	545940	1	Bushing
3	123069	1	Rear Crossbar	45	434036	3	Screw, 5/16-18 x 1-1/4" Soc Hd
4	123071	1	Front Crossbar	46	446136	10	Lockwasher, 5/16 Hvy
5	395366	1	Side Frame, Right	47	241828	1	Bracket, Catcher R.H.
6	395365	1	Side Frame, Left	48	241827	1	Bracket, Catcher L.H. (Not Shown)
7	5000148	1	Reel	49	400190	2	Screw, 5/16-18 x 1-1/4"
8	132674	1	Stand	50	441677	2	Carriage Bolt, 5/16-18 x 1-1/2"
9	366796	2	Bracket	51	444718	2	Nut, 5/16-18 C'Lock
10	364164	1	Spring	52	241837	2	Bracket, Roller
11	400268	2	Screw, 3/8-16 x 1-3/4"	53	343616	2	Stud
12	400260	3	Screw, 3/8-16 x 7/8"	54	365009	2	Knob, Adjusting
13	446142	19	Lockwasher, 3/8 Hvy	55	471219	2	Straight Grease Fitting
14	443810	4	Nut, 3/8-16 Jam	56	352737	2	Set Screw, 1/4-20 x 7/8" Sq Hd
15	444850	3	Locknut, 3/8-16 Center Jam	57	443102	2	Nut, 1/4-20
16	2000025	2	Block, Bedknife Adj.	58	441674	2	Carriage Bolt, 5/16-18 x 1-3/4"
17	366726	4	Bolt, Adjusting	59	364441	2	Washer
18	366727	2	Rod	60	443106	2	Nut, 5/16-18
19	366653	4	Spacer	61	1000446	1	Bearing Housing (Includes Items 62 ~ 65 (Cup Portion of 63))
20	307456	4	Washer, Cup Spring	62	366650	1	Seal
21	366709	2	Spring	63	500534	1	Cup and Cone
22	400258	12	Screw, 3/8-16 x 3/4"	64	366649	1	Seal
23	402578	13	Screw, 1/4-20 x 1/2	65	545940	1	Bushing
24	400262	2	Bolt, 3/8-16 x 1 Slotted	66	400264	2	Screw, 3/8-16 x 1-1/4"
25	366745	2	Bolt, 3/8-16 x 1 Flat Hd	67	434037	3	Screw, 5/16-18 x 5/8 Soc Hd
26	447224	2	Lockwasher, Internal Tooth	68	366645	1	Spacer
27	443828	2	Nut, 5/8-18 Jam	69	164042	1	Bearing and Pulley Assembly (Includes Items 70~72)
28	443110	2	Nut, 3/8-16	70	365229	1	Bearing (with Seal)
29	365501	2	Bolt, Bedknife	71	366652	1	Bearing (No Seal)
30	454017	2	Cone Washer	72	458461	1	Snap Ring
31	340473	1	Cover	73	366646	1	Spacer
32	400104	2	Screw, 1/4-20 x 1/2	74	345556	1	Key, 1/8 x 1/8 x 1
33	446130	5	Lockwasher, 1/4 Hvy	75	340462	1	Spacer
34	367029	1	Nut, 3/4-16 Nyloc Jam	76	320774	2	Key, 3/16 x 3/16 x 1-1/4
35	164041	1	Carrier and Seal (Includes Item 36)	77	132651	1	Clutch Assembly
36	366648	1	Seal	78	366653	1	Washer
37	434028	3	Screw, 1/4-20 x 3/4" Soc Hd	79	366651	1	Bolt
38	364900	1	Nut	80	471214	1	Grease Fitting
39	363047	1	Spring	81	158568	1	Gauge Assembly
40	500534	1	Cup and Cone	82*	461339	2	Groove Pin
41	1000447	1	Bearing Housing (Includes Items 42 ~ 44 and Cup Portion of 40)	83*	366852	2	Spacer
42	366650	1	Seal				

★ - For Service of Low Profile, Order No. 503478 (Pkg. of 5)
 For Service of High Profile, Order No. 503477 (Pkg. of 5)
 For Service of Tournament Profile, Order No. 503479 (Pkg. of 5)

* Items 82 and 83 are not installed, only used on Scrapper.

ILLUSTRATION 3

LOWER UNIT

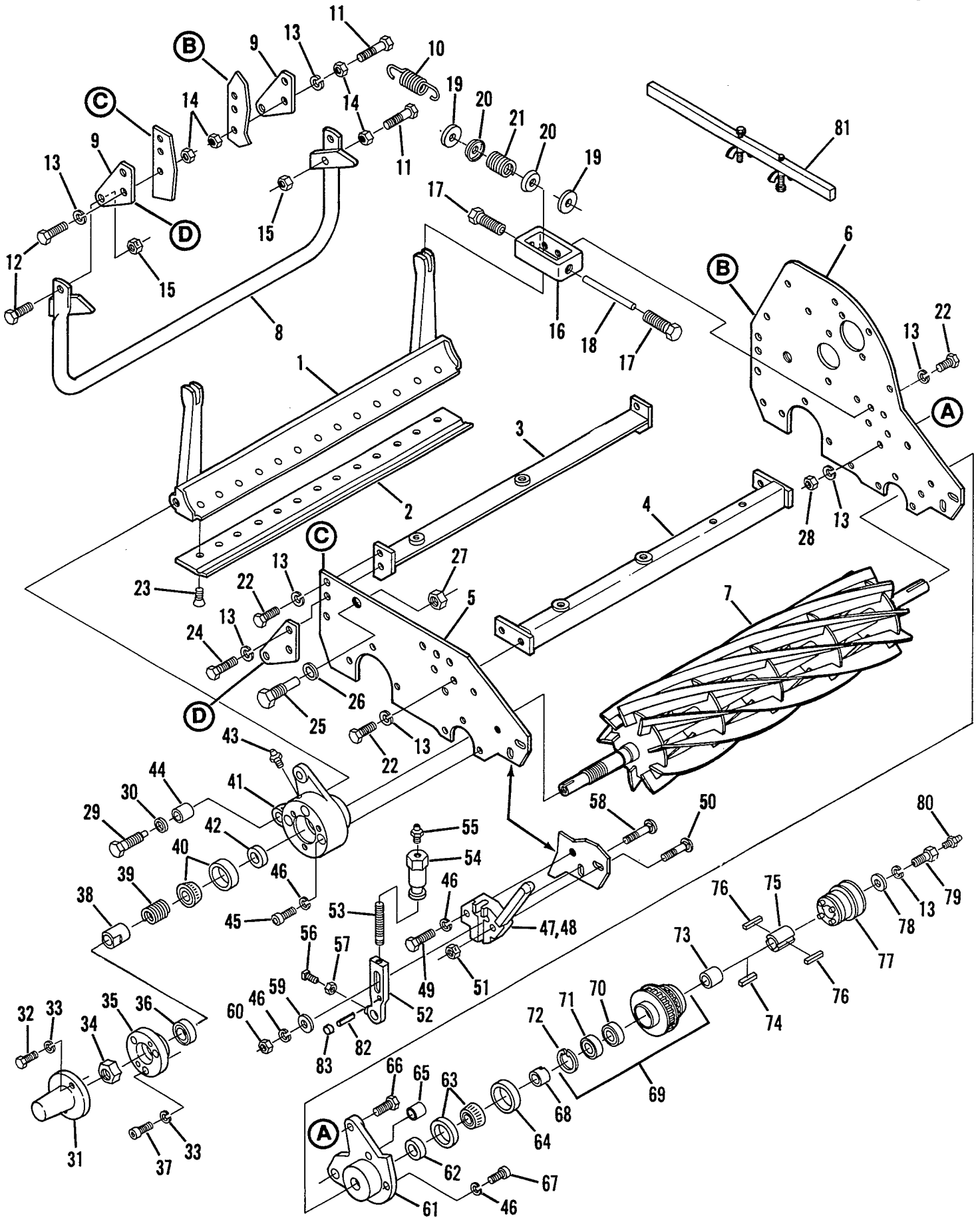


ILLUSTRATION 4

BELTS AND COVER

Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	132659	1	Bracket, Bearing	23	366707	1	Bearing, Ball
2	434031	1	Screw, 1/4-20 x 3/4" Soc Hd	24	366715	2	Spacer
3	441624	2	Carriage Bolt, 3/8-16 x 1"	25	220317	1	Housing, Shifter
4	446142	2	Lockwasher, 3/8 Hvy	26	446136	2	Lockwasher, 5/16 Hvy
5	443110	2	Nut, 3/8-16	27	400196	2	Screw, 5/16-18 x 2"
6	359864	3	Washer	28	366710	1	Cover
7	367553	1	Bearing, Needle	29	446130	11	Lockwasher, 1/4 Hvy
8	503686	1	Pulley, 18 Tooth (Includes Item 7)	30	400106	5	Screw, 1/4-20 x 5/8"
9	366882	1	Belt, 90 Tooth	31	340474	1	Shield, Grass
10	366881	1	Belt, 80 Tooth	32	132678	1	Bracket
11	367554	2	Bearing, Needle	33	366817	5	Plate
12	503685	1	Pulley, 80 Tooth (Includes Item 11)	34	340494	1	Stop
13	366666	1	Belt, 112 Tooth	35	345666	1	Clamp
14	1000056	1	Transport Clutch	36	445781	2	Nut, 5/16-18 Whiz Lock
15	366725	1	Bushing, Flanged	37	400114	4	Screw, 1/4-20 x 1-1/4"
16	3001273	1	Shaft	38	400112	2	Screw, 1/4-20 x 1"
17	503638	1	Cover, with Decals (Includes Items 41 ~ 43)	39	453023	4	Flat Washer, 1/4
18	3000660	2	Shifter Shaft	40	443102	5	Nut, 1/4-20
19	339910	2	"O" Ring	41	366797	1	Decal, Warning
20	343850	4	Ball, 1/4"	42	365512	1	Decal, Reel Clutch
21	343848	2	Spring	43	340830	1	Decal, Caution
22	422522	4	Set Screw, 3/8-16 x 1/2" Soc Hd	44	68116	1	Grass Catcher

ILLUSTRATION 4

BELTS AND COVER

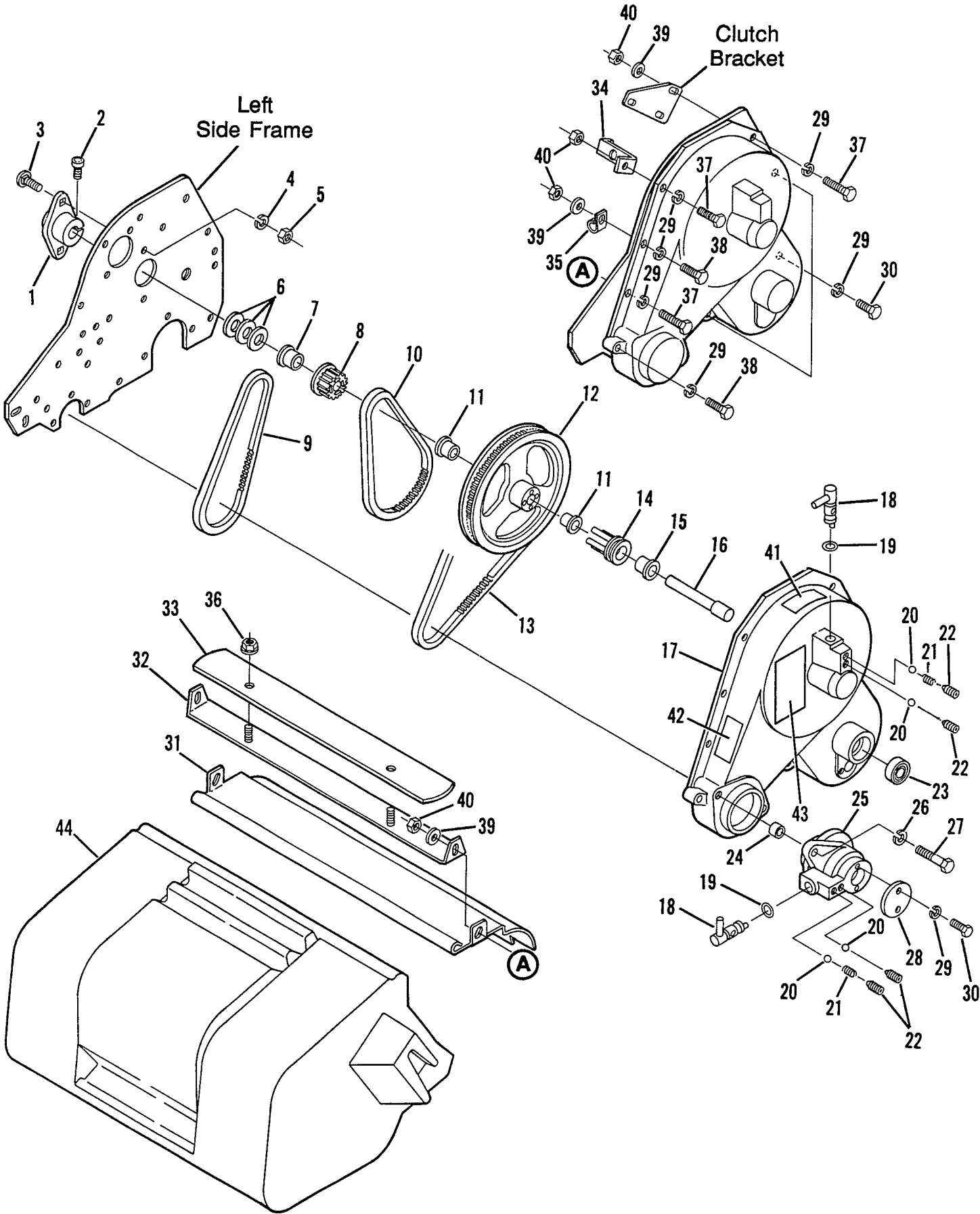


ILLUSTRATION 5

DIFFERENTIAL, ROLLER AND WHEEL

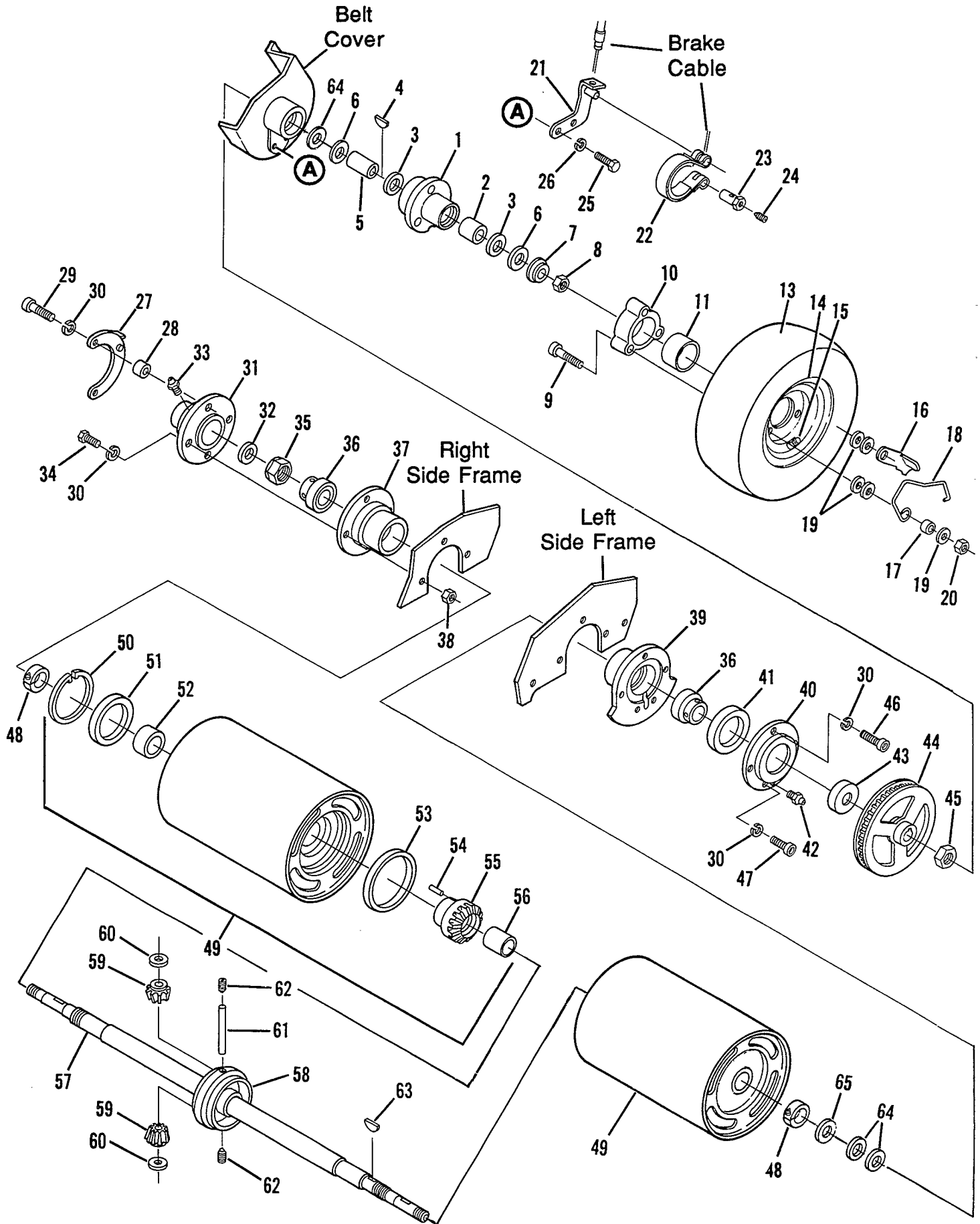
Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	340475	2	Hub, Wheel	33	471214	1	Straight Grease Fitting
2	338766	2	Bearing	34	400188	2	Screw, 5/16-18 x 1"
3	366705	4	Seal	35	445790	1	Nut, 1"-14 Nyloc
4	463007	2	Key, Woodruff	36	366693	2	Bearing
5	366717	2	Sleeve, Clutch	37	220319	1	Housing
6	366697	4	Bushing	38	443106	2	Nut, 5/16-18
7	366718	2	Collar, Latching	39	220318	1	Housing, Bearing
8	445791	2	Nut, 5/8-18 Hex Nyloc	40	164057	1	Cover (Includes Items 41 and 42)
9	434035	6	Screw, 5/16-18 x 2" Soc Hd	41	366702	1	Seal
10	1000388	2	Wheel Spacer (Includes Item 11)	42	471214	1	Straight Grease Fitting
11	3000801	2	Bushing	43	366696	1	Spacer
12				44	391055	1	Pulley
13	554847	2	Tire	45	367029	1	Nut, 3/4-16 Nyloc Jam
14	554848	2	Wheel	46	434004	3	Bolt, 5/16-18 x 1 Soc Hd
15	502864	2	Valve	47	434024	2	Bolt, 5/16-18 x 3/4 Soc Hd
16	366719	2	Latch, Wheel	48	366695	2	Collar, Locking
17	366716	6	Spacer	49▲	132655	2	Smooth Roller (Incl. Items 50 ~ 56)
18	366704	2	Spring	49★	132928	2	Roller (Incl. Items 50 ~ 56)
19	452004	18	Flat Washer, 5/16	50	458127	2	Ring, Truarc
20	444718	6	Locknut, 5/16-18 Center	51	366701	2	Seal
21	164063	1	Brake Mtg. Bracket L.H.	52	366698	2	Bushing, Drum
22	164056	2	Band, Brake	53	366700	2	Seal
23	366742	2	Pin, Brake Band	54	319085	2	Pin
24	415513	2	Set Screw, 1/4-20 x 1/2	55	241836	2	Gear, Differential
25	400108	2	Screw, 1/4-20 x 3/4"	56	366699	2	Bushing, Differential
26	446130	2	Lockwasher, 1/4 Hvy	57	395367	1	Shaft, Roller
27	132663	1	Brake Mtg. Bracket R.H.	58	241835	1	Differential
28	366737	2	Spacer	59	202947	2	Gear, Pinion
29	434032	2	Screw, 5/16-18 x 1-3/4 Soc Hd	60	308030	2	Washer, Thrust
30	446136	9	Lockwasher, 5/16 Hvy	61	308028	1	Shaft, Pinion
31	132658	1	Housing and Seal (Includes Items 32 and 33)	62	415563	2	Set Screw, 7/16-20 UNF
32	365753	1	Seal	63	463017	1	Key, #9 Woodruff
				64	361451	3	Washer
				65	366697	1	Spacer

▲ - Used on Product No. 62244

★ - Used on Product No. 62248

ILLUSTRATION 5

DIFFERENTIAL, ROLLER AND WHEEL



LIMITED WARRANTY

Product Nos. 62244 and 62248 – Greens King 422®

1. Warranty

Jacobsen Division of Textron Inc. (Jacobsen) warrants only to the original retail purchaser ("Warrantee") that this product shall be free from defects in material and workmanship for a period of one year from the date of the first retail purchase. (90 days if used for rental purposes)

2. Items Not Warranted

Jacobsen makes no warranties or representations with respect to repairs performed by anyone other than a Jacobsen Turf Equipment Dealer, or with respect to Engines or tires which are separately warranted by their respective manufacturers. Routine adjustments or normal maintenance items such as spark plugs, lubricants, filters and sharpening are not covered by this warranty.

3. Conditions Which Will Void Warranty

- A) The speed of the unit is increased beyond factory specifications or the product is modified in any way which would adversely affect its safety or performance;
- B) The unit is not maintained or serviced in accordance with the Jacobsen "Operator's Manual";
- C) The unit is abused, or is not used in its intended manner.

4. Exclusive Remedy

The warrantee's sole and exclusive remedy for breach of this warranty or any other defect or failure of the product, including any remedy provided by applicable federal or state law, statutory or common, is that Jacobsen will, at its sole option, repair or replace any defective parts and cover the cost of labor associated with such repair or replacement. Transportation costs are not covered by this warranty.

5. How to Obtain Warranty Service

If warranty repair is necessary, contact your nearest Jacobsen Turf Equipment Dealer. All defective parts must be returned to the Dealer and become the property of Jacobsen.

6. Disclaimer

- * *This warranty is made in lieu of all other warranties, implied or express, including any warranty of merchantability or fitness for a particular purpose.*
- * *Jacobsen further disclaims any liability for incidental, direct or consequential damages, to include but not limited to, personal injury or property damage, arising from a breach of this warranty or any other defect or failure of the product to the extent allowed by law.*

No agent, employee or representative of Jacobsen, or any other person, has any authority to bind Jacobsen to any other affirmation, representation, or warranty concerning the goods sold under this Warranty.

For further information, call (414) 637-6711 or write to Jacobsen, Division of Textron Inc. at:

Warranty Department
1721 Packard Avenue
Racine, Wisconsin 53403-2564

JACOBSEN **TEXTRON**

Jacobsen Division of Textron Inc.