



**MODELS:**

**TR-20H / TR-20B**  
**TURF RAKE**

**TR-20MH / TR-20MB**  
**TURF RAKE with MULTI-PURPOSE**

**TR-20RH / TR-20RB**  
**TURF RAKE with SPRING TINE REEL**

**TS-20H / TS-20B**  
**TURF SEEDER**



**SCHILLER**

**GROUNDS  
CARE**

**MAN C100618**  
**Rev. C 05-2016**

## **WARNING**

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

## **AVERTISSEMENT**

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

## **ADVERTENCIA**

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

### **CALIFORNIA**

#### **Proposition 65 Warning**

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

# TURF RAKE / SEEDER

## IMPORTANT MESSAGE

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

This product comes with Parts and Operator's Manuals. The useful life and good service you receive from this product depends to a large extent on how well you read and understand this manual. Treat this product properly and adjust it as instructed, and it will give you many years of reliable service.

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

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

**CLASSEN®**  
**SCHILLER GROUNDS CARE, INC.**  
**1028 STREET ROAD, P.O. BOX 38**  
**SOUTHAMPTON, PA 18966**  
**PHONE 877-596-6337 • FAX 215-357-8045**

<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
SAFETY.....	2-6
SET-UP INSTRUCTIONS.....	7
OPERATION .....	8-9
ADJUSTMENTS .....	10-11
MAINTENANCE .....	12
STORAGE / TIRE SCRAPER .....	13
ENGINE & RAKE ASSEMBLY.....	14-15
HANDLE ASSEMBLY .....	16-17
MAIN FRAME & WHEEL ASSEMBLY .....	18-19
LABELS.....	20-21
SEEDER BOX ASSEMBLY .....	22-23
RAKE BLADE ASSEMBLY .....	24
MULTI-PURPOSE ASSEMBLY (OPTIONAL).....	25
SLICER ASSEMBLY (OPTIONAL) .....	26
SPRING TINE REEL ASSEMBLY (OPTIONAL).....	27
WARRANTY .....	BACK PAGE

## NOTICE !!!

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

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

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



This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.



## ¡LEA EL INSTRUCTIVO!

Si no lee Ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.

**Schiller Grounds Care, Inc.**

1028 Street Road  
Southampton, PA 18966 U.S.A  
Phone: 215-357-5110  
Fax: 215-357-8045

MODEL NUMBER

SERIAL NUMBER



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

Your safety and the safety of others is involved.

## Signal word definitions:

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

### DANGER

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

### WARNING

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

### CAUTION

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

### CAUTION

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

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

**SERIAL NUMBER:** This number appears only on your unit. It contains the model number followed consecutively by the serial number. Use this number when ordering parts or seeking warranty information. Located behind rider pad on frame of unit.

### PREPARING FOR SAFE OPERATION

#### Operator preparation and training

##### Read the Operation & Safety Manual

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



#### Site preparation and circumstances

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

### MACHINE PREPARATION

- Check operator present interlock system and brake operation. Adjust or repair any problems before using.
- Do not tamper with or defeat safety devices. Keep guards, shields and interlock safety devices in place and in proper working condition. They are for your protection.
- Keep all fasteners such as nuts, bolts and pins well secured.
- Visually inspect blades, blade bolts and the aerating assembly for wear or damage. Replace worn or damaged blades and bolts.
- Verify that machine and attachments, if any, are in good operating condition.

## OPERATING SAFELY

### IN GENERAL

- Use extra care when loading or unloading the machine onto a trailer or truck. Do not use split ramps. Use full width ramps to load or unload unit.
- Watch out for traffic when near or crossing roadways.
- Do not run the engine in an enclosed area where dangerous carbon monoxide fumes can collect.
- Use extreme caution when reversing or pulling machine towards you.
- Never leave a machine unattended. Always set parking brake, stop engine and remove keys before dismounting.

### STARTING

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

## MANEUVERING SAFELY

### IN GENERAL

- Slow down before turning.
- Do not rake/seed in reverse unless absolutely necessary. Always look behind and down for small children and pets before and during backing.
- Be aware when approaching blind corners, shrubs, trees, tall grass or other objects that may obscure vision.

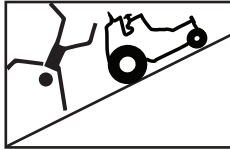
## INTERRUPTING OPERATION

- Before leaving the operator's position:
  - Park on level ground;
  - Release bail;
  - Shut off the engine.
- Release bail and wait until blades stop moving:
  - when not using;
  - for transport;
  - when crossing surfaces other than grass.
- Stop the engine, release bail and wait until the blade stops moving:
  - before refueling;
  - before making blade adjustment.
- Stop the engine, disengage the master clutch, and disconnect the spark plug wire(s) or remove the key:
  - before clearing blockages;
  - before checking, cleaning or working on the machine;
  - after striking a foreign object. Inspect the machine for damage and make repairs before restarting.
  - if the machine begins to vibrate abnormally: Inspect and make repairs as needed before restarting;
  - except for repairs or adjustments as specifically noted, such as for carburetor adjustment, where the engine must be running. Keep hands and feet clear of moving parts in these circumstances.
- Reduce the throttle setting during engine shut-down and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of operation.

### OPERATING ON SLOPES

Slopes are a major factor in loss-of-control and tip over accidents that sometimes lead to severe injury or death. All slopes require extra caution.

#### **WARNING**



- Before operating on slopes evaluate the risks involved.
- Do not operate on slopes if uneasy or uncertain. Ultimate responsibility for safe operation on slopes rests with the operator.
- Do not rake/seed steep slopes:  
Slope is too steep if:
  - the machine must be crabbed (turned partially sideways uphill) to drive across the slope.
  - The machine turns downhill going across the slope.
- You are uneasy about being on the slope.
- Travel up and down slopes at a 45° angle rather than across, to prevent unit from tipping over..
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Do not turn on slopes unless necessary, and then turn slowly and downhill when possible.
- Stay away from slopes if the ground is loose or if caught in the rain during raking.
- Use lower speeds on a slope to avoid stopping or shifting.
- Use extra care with attachments. These can change the stability of the machine.
- Avoid driving over ruts, holes, rocks and roots whenever possible. Be alert to dips and rises. Uneven terrain can overturn a machine or cause it to slide.
- Do not rake/seed dropoffs, ditches or embankments. The machine could suddenly turn over if a wheel runs over the edge or an edge caves in.

### MAINTENANCE SAFETY IN GENERAL

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

#### Blades

#### **WARNING**



- The rake/seeder blades are sharp and can cut. Use extra caution when handling. Remove obstructions with care. Wrap the blade or wear gloves.
- Only replace blade. Never straighten or weld.
- Keep other persons away from blades.



### FUEL

#### WARNING



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

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

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

### STORAGE SAFETY

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



# TURF RAKE / SEEDER

## SET-UP INSTRUCTIONS

### ASSEMBLY / SET UP INSTRUCTIONS

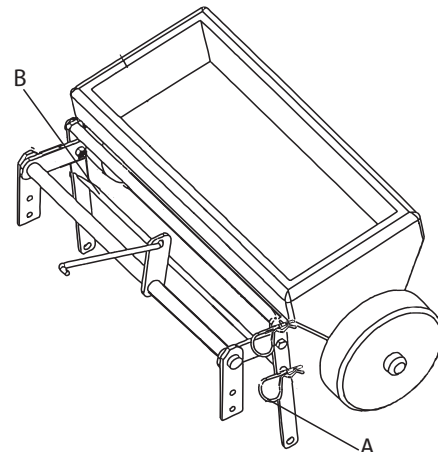
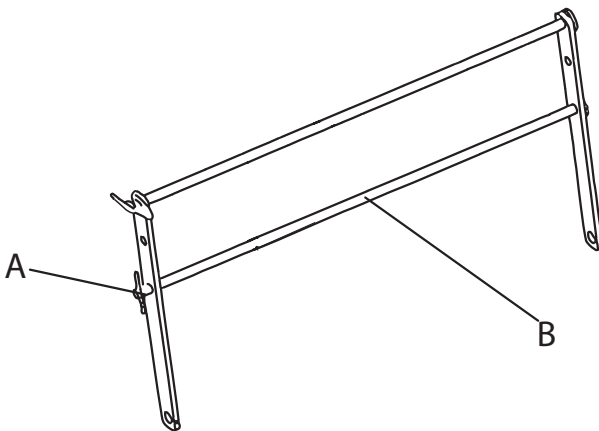
**NOTE:** Units ship with no gas or oil.

1. READ THE OPERATOR'S MANUAL BEFORE ASSEMBLY.
2. Cut banding and roll rake off pallet.
3. Unfold by pulling up on handle.
4. Slide lock rings down.
5. Add oil to the engine with the engine resting in a level position. Refer to the engine manufacturer's Owners manual for the correct type and amount of oil.
6. Fill the fuel tank according to the engine manufacturer specifications.

### SEED BOX INSTALLATION

For shipping purposes only, the seed box assembly is attached to the machine improperly. To set your machine up correctly for operation:

1. Remove hairpin clip (A) from lower connecting rod (B). Figure C
2. Slide lower rod out of stabilizing bracket on seed box.
3. Mount seed box so that the wheels of the seed box are resting on the front wheels of the machine.
4. Reinstall lower rod (B) and clip (A). Figure D

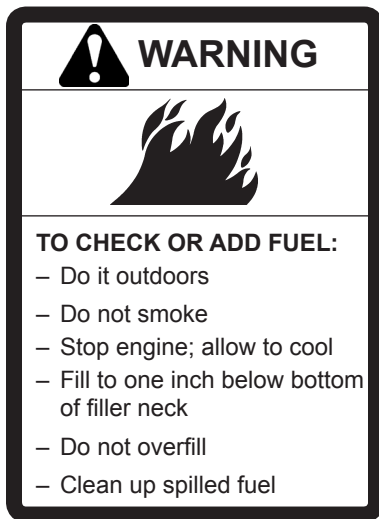


### PRE-OPERATION CHECK LIST (OWNER'S RESPONSIBILITY)

- \_\_\_ Review and follow all safety rules and safety decal instructions.
- \_\_\_ Check that all safety decals are installed and in good condition. Replace if damaged.
- \_\_\_ Check to make sure all shields and guards are properly installed and in good condition.
- \_\_\_ Check that all hardware is properly installed and secured.
- \_\_\_ Check that equipment is properly and securely attached to power unit.
- \_\_\_ Check to be sure engine is free of dirt and debris. Pay particular attention to the cooling fins, governor parts and muffler. Clean air intake screen. Check air cleaner; service if necessary.
- \_\_\_ Never allow riders.
- \_\_\_ Inspect area and remove stones, branches or other hard objects that might affect operation, cause injury or damage.
- \_\_\_ Clean area around oil fill dipstick. Remove dipstick and check to be sure oil is in operating range (between marks on dipstick). Add oil if necessary but **Do Not Overfill**. Install dipstick assembly firmly until cap bottoms out on tube. Dipstick assembly must always be secured into fill tube when engine is running.
- \_\_\_ Check all lubrication points and grease as instructed in manual.
- \_\_\_ Perform a functional check of the safety interlock system each time you operate the unit. (If present)

## FUELING

- Fill fuel tank(s) with good quality, clean, unleaded gasoline. Do not use hi-test fuel. Do not use fuel with more than 10% ethanol (E10).
- Use a funnel to avoid spillage.



## BEFORE STARTING THE ENGINE

1. Be familiar with the controls, how each functions, and what each operates. Read operator's a manual before using.
  2. With the machine on level ground, check engine oil level. Add oil if necessary, following the engine manufacturer's recommendations. Refer to engine manual supplied with machine.
  3. Open the fuel valve.
  4. Fill the fuel tank with the amount and type of fuel recommended by the engine manufacturer.
  5. Visually check all moving parts and all fastener, if loose or broken, tighten or replace. Check for broken or bent blades, replace if necessary.
- **Choke:** For cold starts, set the throttle lever to the half-open position and pull the choke out to the ON position. For warm starts set the throttle to the half-open position and the choke to the OFF position.

## STARTING THE ENGINE

1. Turn fuel cock to the "open" position.
2. Turn choke on (closed).
3. Turn ignition switch to "on".
4. Move throttle lever to high RPM setting. Do not exceed 3600 rpm.
5. Pull recoil starter rope until engine starts.
6. After engine is warm, turn off choke (open).
7. Allow engine to run one minute before using.
8. Check engine rpm setting before operating. DO NOT exceed 3600 rpm. .

## OPERATING

1. Put speed lever in neutral position.
2. Start the engine. CAUTION: To avoid injury, do not place your feet or other body parts under the blade while starting the engine.
3. Engage top bail.
4. Select forward or reverse with the speed lever.
5. Drive Turf Rake/ Seeder to the area to be raked or seeded.
6. Move height adjustment lever to the appropriate setting for the shaft assembly being used. (see "optional shaft assemblies" section .
7. Lift bottom bail to engage the main shaft.
8. Release bail to stop.
9. When finished, reverse steps 6 through 3, leaving the wheel drive handle on for transportation.

### OPTIONAL BLADE ASSEMBLIES

#### Changing Blade Assemblies

Within minutes your machine can be converted to a turf rake, turf seeder or turf slicer by purchasing the optional blade assemblies available complete with the side plates, bearings and drive pulley.

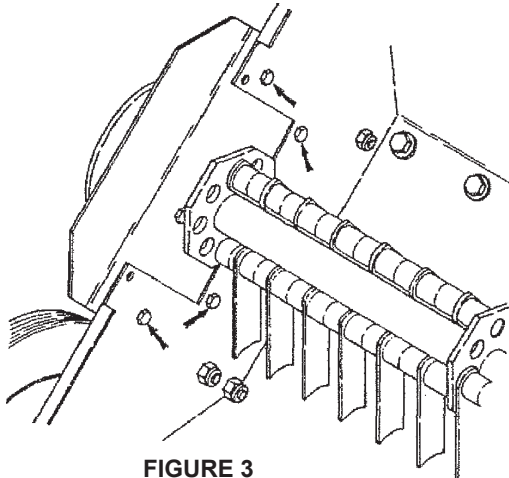


FIGURE 3

1. Set unit up on block allowing enough distance beneath machine to change blade assembly.
2. After re-moving the belt shield, remove the twelve bolts on the left side and three on the right side which hold the blade assembly to the main body (Figure 3).
3. Remove the belts from both sides and remove the entire blade assembly. There is no need to loosen any set screws.
4. Next install the optional blade assembly and fasten with six 1/4" x 5/8" bolts on each side. Tighten all bolts on both shields. Center the shaft and tighten the two set screws in each bearing using Pro Lock (nut type, medium strength).
5. When changing back to the original shaft it will not be necessary to loosen any set screws. Only the bolts in the belt shields and the eight bolts holding the shaft will be to be removed.



#### CAUTION



**BE CERTAIN THAT THE SET SCREWS ARE  
TIGHTENED PROPERLY IN BEARINGS AND  
PULLEY WHEN REASSEMBLING.**

#### Changing Blade Assemblies

1. Set unit up on block allowing enough distance beneath machine to change blade assembly.
2. After re-moving the belt shield, remove the twelve bolts on the left side and three on the right side which hold the blade assembly to the main body (Figure 3).
3. Remove the belts from both sides and remove the entire blade assembly. There is no need to loosen any set screws.
4. Remove the two drive pulleys and bearing plates from the main shaft (one on each side). Replace with new shaft. Reinstall the bearing plates and drive pulleys on the new shaft using Pro Lock (retaining 1, medium strength) on the set screws. The pulleys will be positioned on the shaft by bolts, the 1/4" lock washer, and the pulley retainer washer.
5. Route the belt behind the idler pulleys and roll the belts onto the lower pulleys, then reinstall the belt shields.

### Recommended Height Adjustments

#### Raking Assembly Height

When using the Turf Rake with its raking (flail) blade assembly adjust the raking height as follows.

Normal height is set by placing the Turf Rake on a hard surface making sure one satellite shaft is at dead bottom. Adjust the wheels so the raking fingers on the bottom shaft just touch the ground. DO NOT set the fingers so that they will penetrate the ground as this will counteract the centrifugal force of the fingers and prevent the from raking properly.

With repeated use, raking side of the fingers will begin to wear. To give the fingers a new square raking edge, remove the end plates and turn the entire main shaft assembly 180° and replace it on the Turf Rake. NOTE: Use Pro-Lock (retaining 1, medium strength) on the 7" pulley on the main shaft.

To prolong the life of the main shaft, extra holes are provided. If the circular holes holding the satellite shafts become distorted, rotate all four satellite shafts to the next set of holes.

When using the Turf Rake with it's raking (spring tine) assembly, adjust the raking height as follows:

Normal height is set by placing the Turf rake on a hard surface. Adjust the wheels so the spring blades just barely touch or are slightly above the ground. DO NOT set the spring blades so that they penetrate the ground. Doing this will cause premature damage to the spring blades.

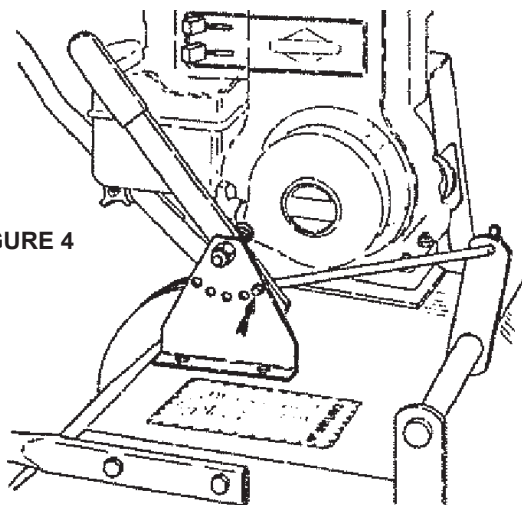


FIGURE 4

#### Seeding / Multipurpose Blade Assembly Height

The seeding/multipurpose blades are used for cutting grooves for over-seeding and can also be used for verticutting grasses. To set the height properly place unit on the lawn surface and adjust the wheel height up (see Fig. 4 ). Adjusting the wheel height up lowers the blades.

#### Seeding:

The proper height setting for over-seeding is approximately 1/4" into the ground. Adjust the wheel height up approximately one notch. If set deeper, grass seed being applied may not germinate.

For best results, over-seed in two passes of 1/2 application rate at right angles or in a criss-cross pattern. Water heavily immediately after seeding then lightly for 10-14 days keeping soil moist.

#### Slicing

The proper height setting for slicing or aerating is 1/2" to 3/4" into the ground. Adjust the wheel height up one or two notches.

For crawling grasses such as Zoysia, Bermuda, Bahia, etc. raise the wheels only one notch. Crawling grasses should not be sliced too deeply.

For single strand grasses like Bluegrass or Rye, rake/seed in perpendicular directions for more even slicing. For example, slice in a North-South direction on the first pass, switching to an East-West direction on the second pass.

As the seeder/multipurpose blades wear they may be rotated to provide a new cutting edge. The wheels may be raised to allow the blades to penetrate deeper into the ground.

### Slicer Blade Assembly Height

The slicer blade assembly is recommended for slicing, verticutting or aerating when a thinner blade is preferred. This is the recommended blade for use on golf course greens. To set the height properly place unit on the lawn surface and adjust the wheel height up (see Fig. 4). Adjusting the wheel height up lowers the blades.

The proper height setting for slicing or aerating is 1/2" to 3/4" into the ground. Adjust the wheel height up one or two notches.

For crawling grasses such as Zoysia, Bermuda, Bahia, etc. Raise the wheels only one notch.

Crawling grasses should not be sliced too deeply.

For single strand grasses like Bluegrass or Rye, rake/seed in perpendicular directions for more even slicing. For example, slice in a North-South direction on the first pass, switching to an East-West direction on the second pass.

As the slicer blades wear they may be rotated to provide a new cutting edge. The wheels may be raised to allow the blades to penetrate deeper into the ground.

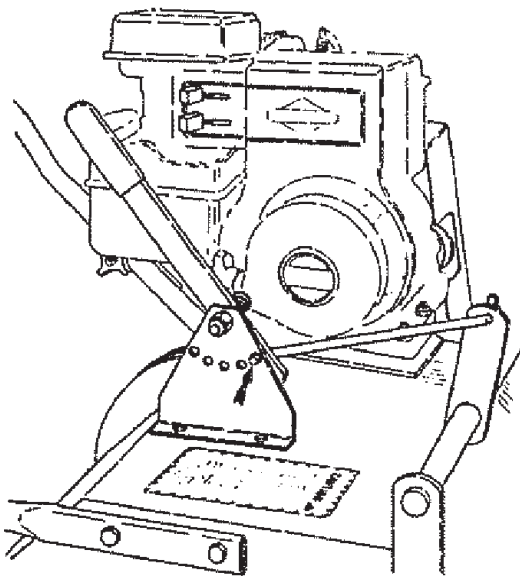


FIGURE 4

### **CHECK DAILY TO KEEP THE TURF RAKE / SEEDER IN GOOD OPERATING CONDITION, PER- FORM THE FOLLOWING:**

- When replacement parts are required, use genuine Classen parts or parts with equivalent characteristics including type, strength, and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.
- Keep all safety decals legible. Remove all grease, dirt and debris from decals. Any safety decal that becomes illegible should be replaced immediately (see 'Safety Decals' section). Safety decals can be affixed by peeling off the backing and applying to clear, dry surface. Smooth out to remove any air bubbles.
- Do not operate equipment without shield(s) in place. Do not make any adjustments or perform any maintenance while the engine is running.
- Do not make any adjustments or perform any maintenance while the engine is running.
- Check engine mounting bolts frequently to maintain proper tightness.
- Thoroughly clean off blades when application is completed and apply a light coat of oil to prevent rust on blades.
- Always lubricate rake each time it is put into service. Wipe off lubrication fittings before and after each lubrication. The number of lubrication fittings vary depending on model of rake.
- Keep belt free of oil and dirt.
- Check for worn or deteriorating components that could create a hazard. When new components are installed, be sure that current safety decals are affixed to the replaced components. Safety decals can be affixed by peeling off the backing and applying to clear, dry surface. Smooth out to remove any air bubbles.

### **Engine Maintenance**

- Refer to engine manufacturer's Owner's Manual.
- Check engine oil level with engine resting in a level position.
- Inspect air filter element and replace if necessary.
- If carburetor adjustment is necessary, stand to one side and keep feet and hands clear while making adjustments.

# TURF RAKE / SEEDER

## STORAGE / TIRE SCRAPER INSTALLATION

### STORAGE INSTRUCTIONS

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

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

To put rake into operation after an extended storage:

1. Check for loose parts and tighten if necessary.
2. Check for cracked or broken blades and replace.
3. Fill fuel tank.
4. Check engine and gear reduction case oil levels (with engine in a level position). (refer to Engine Manufacturer's Manual)
5. Start engine.
6. Check for fuel leaks.
7. Check operation of control handle(s) to make sure unit stops when lever is released..
8. Rake is equipped with fuel shut-off valve, close valve before transporting.

### TIRE SCRAPER INSTALLATION:

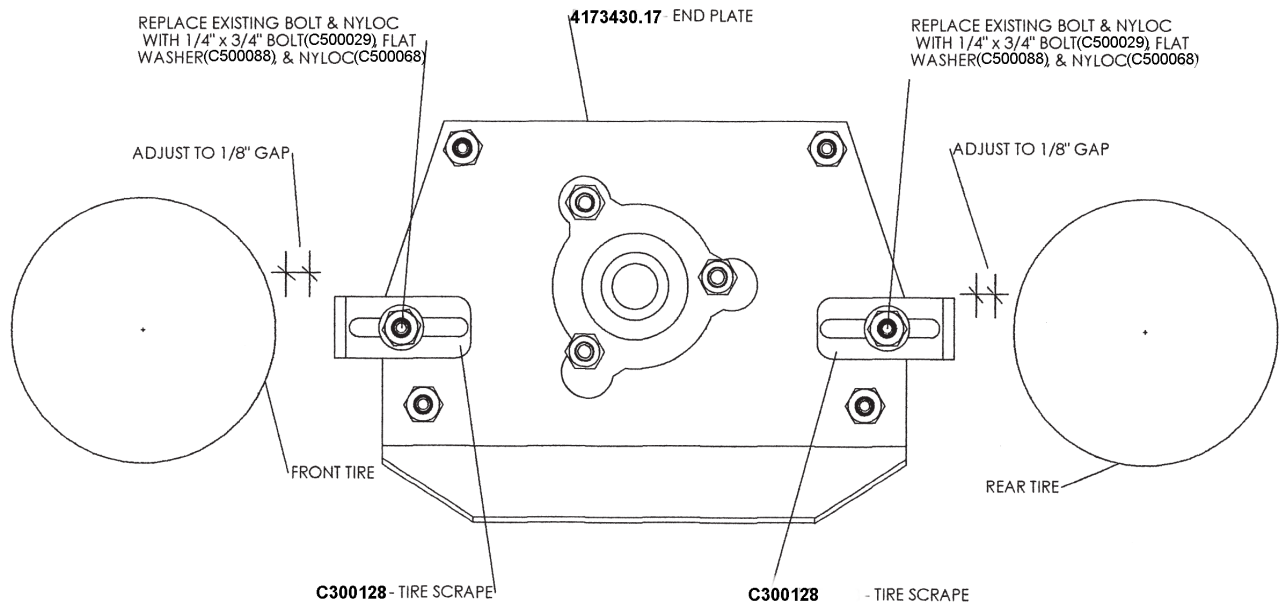
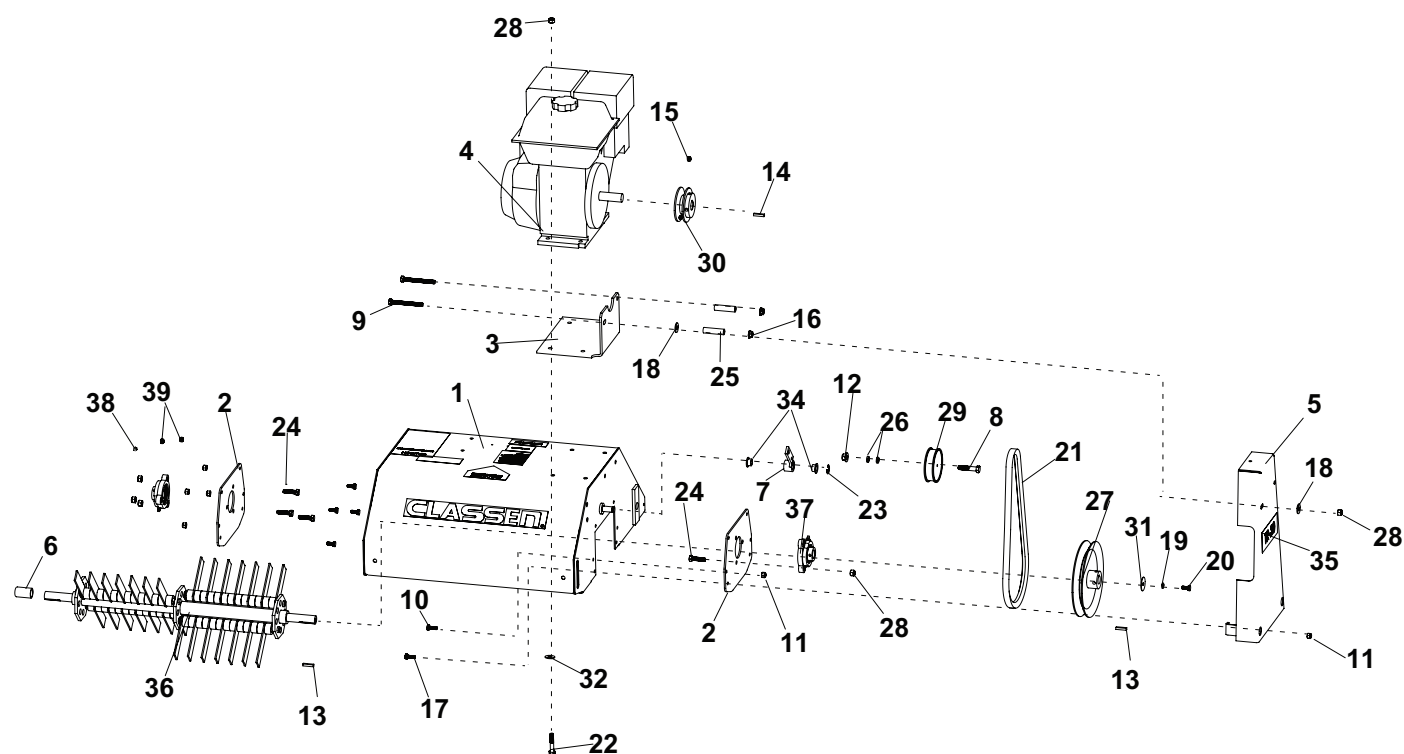




FIGURE 1



# TURF RAKE / SEEDER

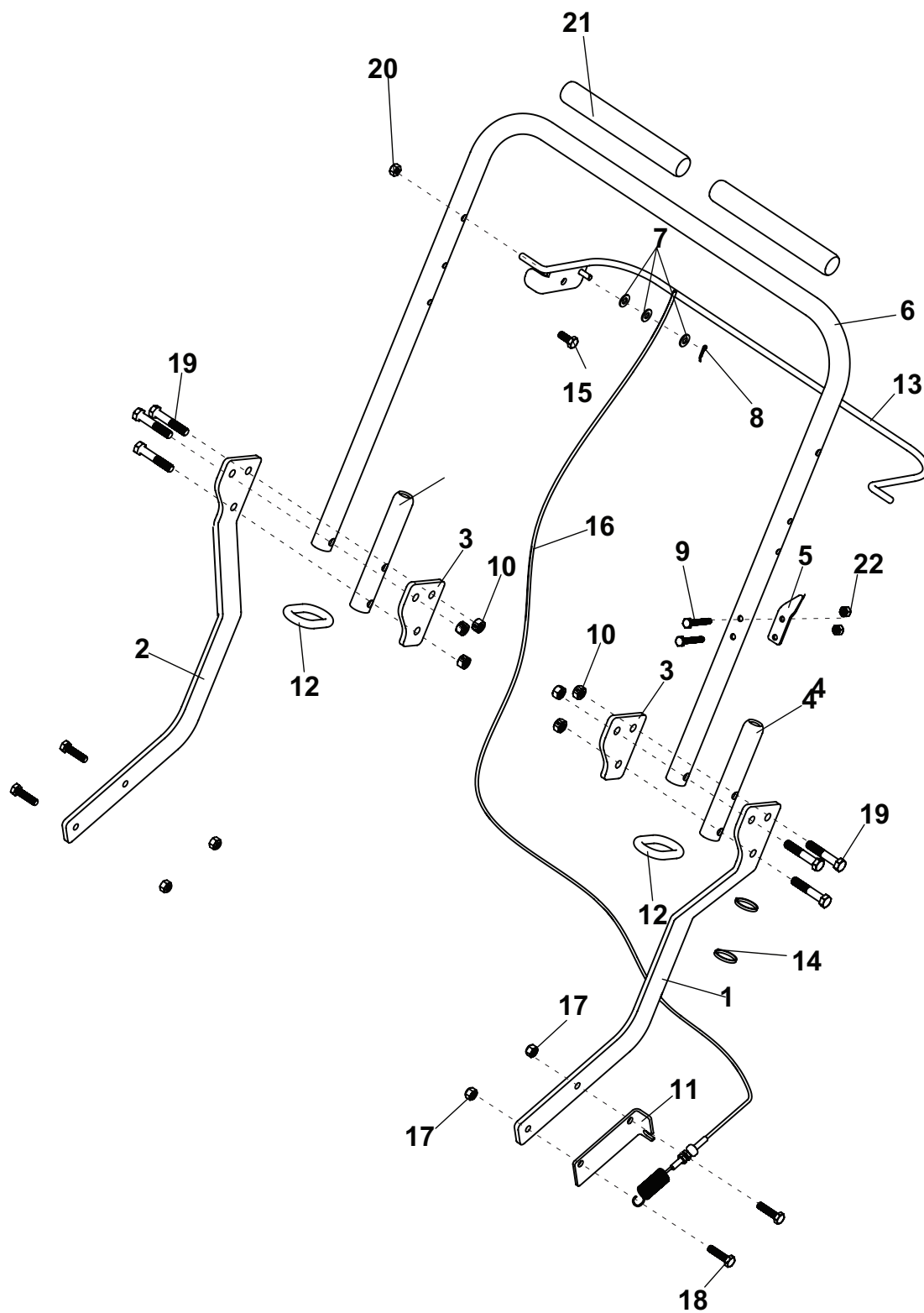
# ENGINE & RAKE ASSY

FIGURE 1

ITM	PART NO.	DESCRIPTION	QTY	ITM	PART NO.	DESCRIPTION	QTY
1	4173271.17	WELDMENT - RAKE BODY	1				
2	4173430.17	PLATE, END TR/TS	2				
3	C300012	PAD, ENGINE	1				
4	C100137	5.5 HP HONDA ENGINE	1				
	C100051	5.0 HP B&S ENGINE					
5	C400032	GUARD, BELT	1				
6	C100067	GUARD, SHAFT	1				
7	C400035	ARM W/ STEEL	1				
8	C500079	BOLT, 3/8-16 X 1-3/4	1				
9	C500086	BOLT, 5/16-18 X 3 TAP	2				
10	C500069	BOLT, 1/4-20 X 5/8	8				
11	C500068	NUT, 1/4-20 NYLOC	10				
12	C500081	NUT, 3/8-16 WHIZ LOCK	1				
13	C500011	KEY, 3/16 SQUARE X 1	2				
14	C500240	KEY, 3/16 SQUARE X 1 1/2	1				
15	C500064	SET SCREW, 5/16-18 X 3/8	2				
16	C500085	NUT, 5/16-18 WHIZ LOCK	2				
17	C500029	BOLT, 1/4-20 x 3/4	2				
18	C500083	WASHER, 5/16 FLAT	2				
19	C500070	WASHER, 1/4 SPRING LOCK	1				
20	C500071	BOLT, 1/4-28 X 5/8	1				
21	C100065	BELT, RAKE	1				
22	C500074	BOLT, 5/16-18 X 1-3/4	4				
23	C500078	E-RING, 1/2"	1				
24	C500073	BOLT, 5/16-18 X 1-1/4	6				
25	C300029	SPACER, 5/16 X 2	2				
26	C300030	BUSHING, STRUT	2				
27	C100058	PULLEY, DRIVE	1				
28	C500072	NUT, 5/16-18 NYLOC	16				
29	C100072	IDLER W/ FLANGES, FLAT	1				
30	C100038	SHEAVE W/OUT KEY,0	1				
31	C300025	"WASHER, PULLEY RETAINER	1				
32	C500115	WASHER, 5/16 LOCK	4				
34	C100052	BEARING, CONTROL	2				
35	C100075	DECAL, TR-20	1				
36	C600014	SUB-ASSY RAKE	1				
37	C100050	BEARING, FLANGE	2				
38	C500001	FITTING, GREASE	2				
39	C500063	SET SCREW, 1/4-28 X 1/4	4				

\* NOT ILLUSTRATED

FIGURE 2



# TURF RAKE / SEEDER

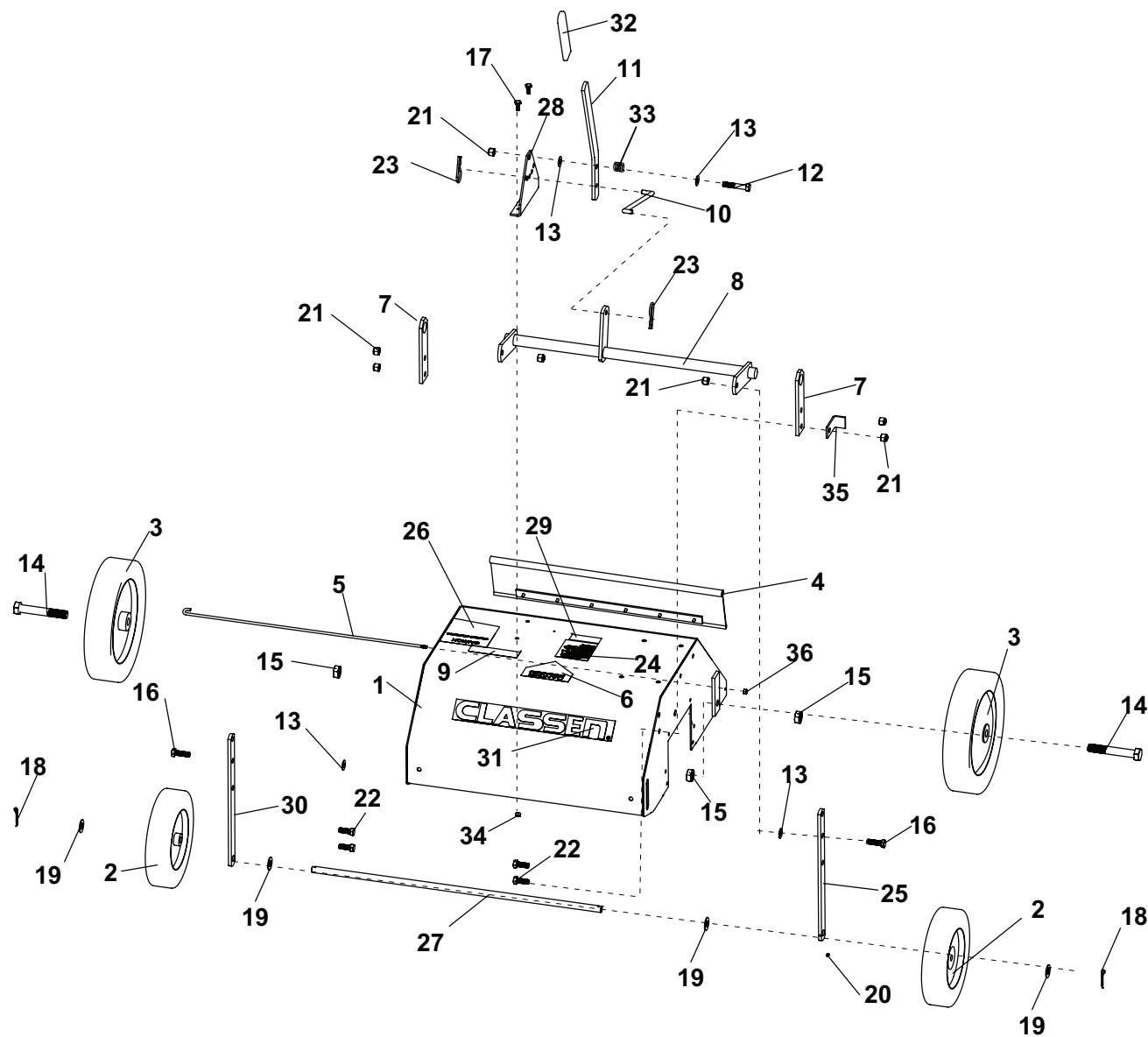
# HANDLE ASSY

FIGURE 2

ITM	PART NO.	DESCRIPTION	QTY	ITM	PART NO.	DESCRIPTION	QTY
1	4173268.17	LOWER HANDLE BRACE, LH	1				
2	4173269.17	LOWER HANDLE BRACE,RH	1				
3	4173278.17	HANDLE SUPPORT BRACKET	2				
4	4171952.17	HANDLE ATTACHMENT BAR	2				
5	4172558	HANDLE HOOK	1				
6	4173270.17	MAIN HANDLE	1				
7	C500088	WASHER, 1/4" FLAT	3				
8	C500087	PIN, 3/32 X 1/2 COTTER	1				
9	C500118	BOLT, 1/4-20 X 1-3/4	2				
10	C500041	NUT, 3/8-16 LOCK	6				
11	C300024	BRACKET, CLUTCH CABLE	1				
12	C100251	RING, HANDLE LOCK	2				
13	C400034	HANDLE, BAIL	1				
14	C100020	PLASTIC TIE	2				
15	C500140	BOLT, 5/16-18 x 3/4	1				
16	C100053	CABLE ASSEMBLY	1				
17	C500072	NUT, 5/16-18 NYLOC	4				
18	C500073	BOLT, 5/16-18 X 1-1/4	4				
19	C500091	BOLT, 3/8-16 x 2	6				
20	C500101	NUT, 5/16-18	1				
21	C100261	GRIP, 1 X 7-3/4 HANDLE	2				
22	C500068	NUT, 1/4-20 NYLOC	2				

\* NOT ILLUSTRATED

FIGURE 3



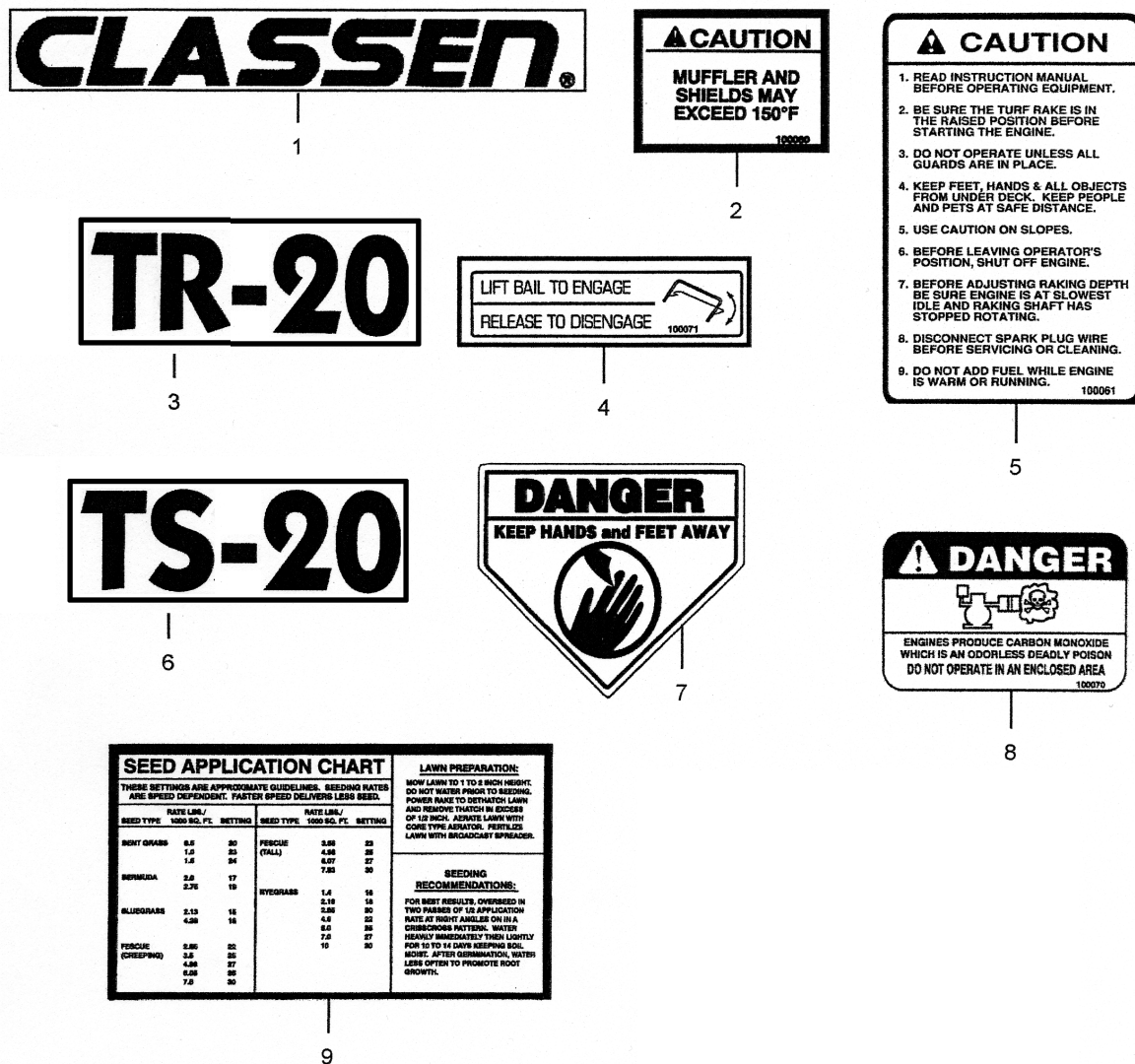
# TURF RAKE / SEEDER

# MAIN FRAME & WHEELS

ITM	PART NO.	DESCRIPTION	QTY	ITM	PART NO.	DESCRIPTION	QTY
1	4173271.17	WELDMENT - RAKE BODY	1				
2	C100064	WHEEL ASSY, 8" FRONT	2				
3	C100063	WHEEL ASSY, 10" REAR	2				
4	C300015	DRAG SHIELD	1				
5	C300028	ROD, #10-24 THREADED	1				
6	C100069	DECAL, DANGER	1				
7	C300018	MOUNT, HEIGHT ADJUST	2				
8	C400033	SHAFT, CRANK ASSEMBLY	1				
9	C100505	CARB APPROVAL DECAL	1				
10	C300026	ROD, HEIGHT ADJUSTMENT	1				
11	C300142	HEIGHT ADJ. LEVER	1				
12	C500091	BOLT, 3/8-16 x 2	1				
13	C500042	WASHER, 3/8" FLAT	4				
14	C500080	BOLT, 5/8-18 X 4	2				
15	C500077	.625-18 JAM NUT	4				
16	C500134	BOLT, 3/8-16 x 1-1/4	2				
17	C500069	BOLT, 1/4-20 X 5/8	2				
18	C500062	PIN, 1/8 X 1-1/4 COTTER	2				
19	C500034	WASHER, 1/2 FLAT	4				
20	C500066	SET SCREW, 10-32 X 1/4	1				
21	C500076	NUT, 3/8-16 NYLOC	7				
22	C500043	BOLT, 3/8-16 X 1	4				
23	C500092	PIN, HAIR PIN COTTER	2				
24	C100504	SPARK ARRESTOR DECAL	1				
25	C300035	SUPPORT, R.H. SEED BOX	1				
26	C100061	DECAL, TURF RAKE OP	1				
27	C300027	AXLE, FRONT	1				
28	C300017	PLATE, HEIGHT ADJUSTMENT	1				
29	C100071	DECAL, BAIL ENGAGEMENT	1				
30	C300034	SUPPORT, L.H. SEED BOX	1				
31	C100074	DECAL, CLASSEN	2				
32	C100007	GRIP, RUBBER	1				
33	C500065	SPRING, COMPRESSION	1				
34	C500068	NUT-1/4-20 NYLOC	2				
35	C300036	STOP, ENGAGEMENT ARM	1				
36	C500082	NUT-10-24 NYLOC					

\* NOT ILLUSTRATED

FIGURE 4





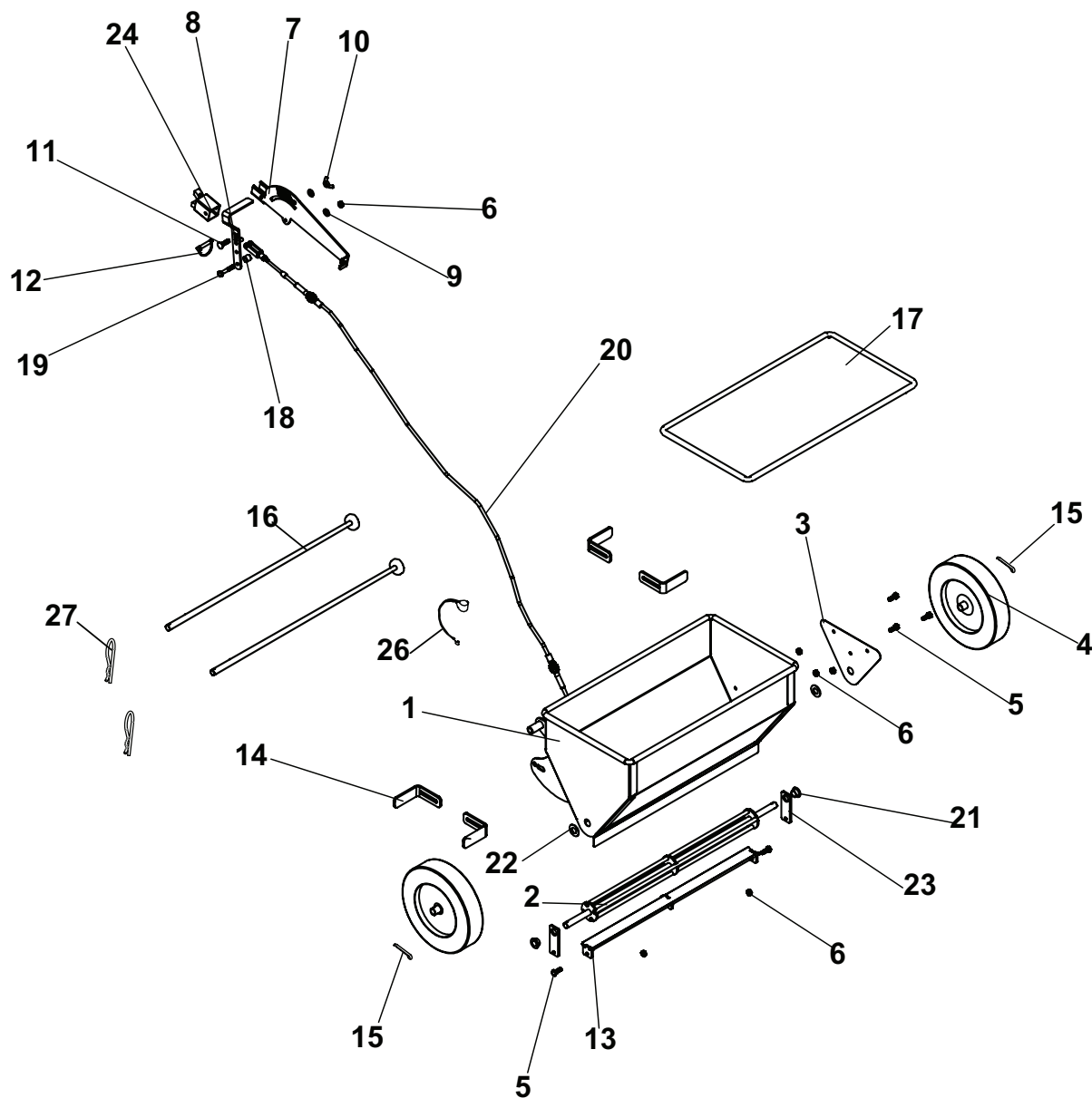
# TURF RAKE / SEEDER

## LABELS

FIGURE 4

ITM	PART NO.	DESCRIPTION	QTY	ITM	PART NO.	DESCRIPTION	QTY
1	4170316	DECAL, CLASSEN	2				
2	C100060	DECAL, CAUTION - MUFFLER/ SHIELDS	1				
3	C100075	DECAL, TR-20 (TURF RAKE ONLY)	1				
4	C100071	DECAL,-BAIL ENGAGEMENT	1				
5	C100061	DECAL, CAUTION - OPERATING INST.	1				
6	C100077	DECAL, TS-20 (TURF SEEDER ONLY)	1				
7	C100069	DECAL, DANGER, HANDS/FEET WAY	1				
8	C100070	DECAL, DANGER - CARBON MONOXIDE	1				
9	C100138	DECAL, SEED APPLICATION CHART (TURF SEEDER ONLY)	1				

FIGURE 5



# TURF RAKE / SEEDER

# SEEDER ASSY

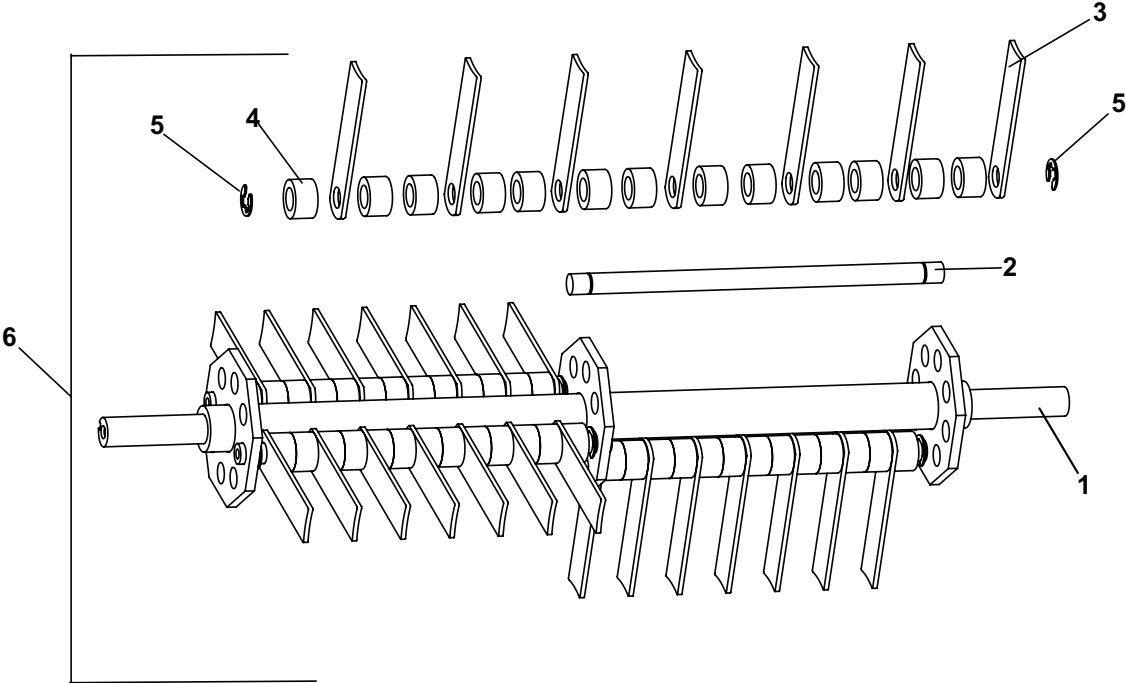
FIGURE 5

ITM	PART NO.	DESCRIPTION	QTY	ITM	PART NO.	DESCRIPTION	QTY
1	C400399	HOPPER WELDMENT	1				
2	C400400	SPREADER DRUM WELDMENT	1				
3	C400404	MAIN BODY LH CLOSURE PLATE	1				
4	C100355	WHEEL, 8" SEED BOX DRIVE	2				
5	C500029	BOLT, 1/4-20 x 3/4	5				
6	C500136	NUT, 1/4-20	6				
7	C400401	FLOW CONTROL	1				
8	C400406	FLOW CONTROL HANDLE WLDMNT	1				
9	C500088	WASHER, 1/4 FLAT	2				
10	C500119	NUT, 1/4-20 WING	1				
11	C500117	BOLT, 1/4-20 X 1 CARRIAGE	1				
12	C500201	PIN, 1/3 X 1-3/4 CLEVIS	1				
13	C400407	SEED GATE WELDMENT	1				
14	C300128	WHEEL SCRAPES	4				
15	C500016	PIN, 5/32" x 1-1/4" COTTER	2				
16	C400040	ROD, CONNECTING	2				
17	C100078	COVER, VINYL SEED BOX	1				
18	C400402	FLOW CONTROL HANDLE SPACER	1				
19	C500089	BOLT, 1/4-20 X 1-1/2	1				
20	C100624	SEEDER BOX ASSEMBLY	1				
21	C100052	BEARING, CONTROL	2				
22	C500034	WASHER, 1/2 FLAT	2				
23	C400408	SEED GATE FLAT	2				
24	C400405	FLOW CONTROL BRACKET	1				
25	C100074	DECAL, CLASSEN	1				
26	C100308	LANYARD, NYLON	1				
27	C500096	HAIRPIN, 5/32" X 3"	2				
28	C900055	COMPLETE SEEDER BOX ASSY (INCLUDES ITEMS 1-28)					

RAKE BLADE ASSEMBLY

TURF RAKE /  
SEEDER

FIGURE 6

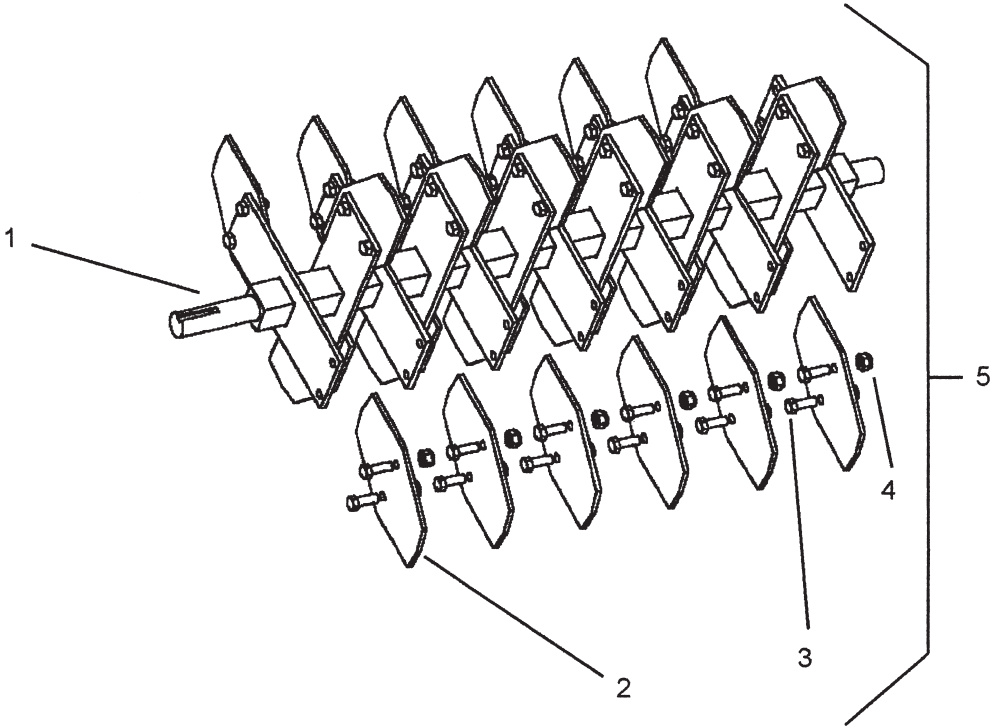


ITM	PART NO.	DESCRIPTION	QTY
1	C700008	SHAFT, RAKE MAIN	1
2	C300014	SHAFT, SATELLITE	4
3	C300019	BLADE (FINGER), RAKE	28
4	C100056	SPACER, FINGER	52
5	C500078	E-CLIP, 1/2"	8
6	C600014	MAIN SHAFT ASSEMBLY	1
7	C900003	COMPLETE MAIN SHAFT ASSEMBLY	1
INCLUDES: END PLATES, BEARINGS, PULLEY, KEY & FASTENERS (NOT SHOWN)			

# TURF RAKE / MULTI-PURPOSE BLADE ASSEMBLY (OPTIONAL)

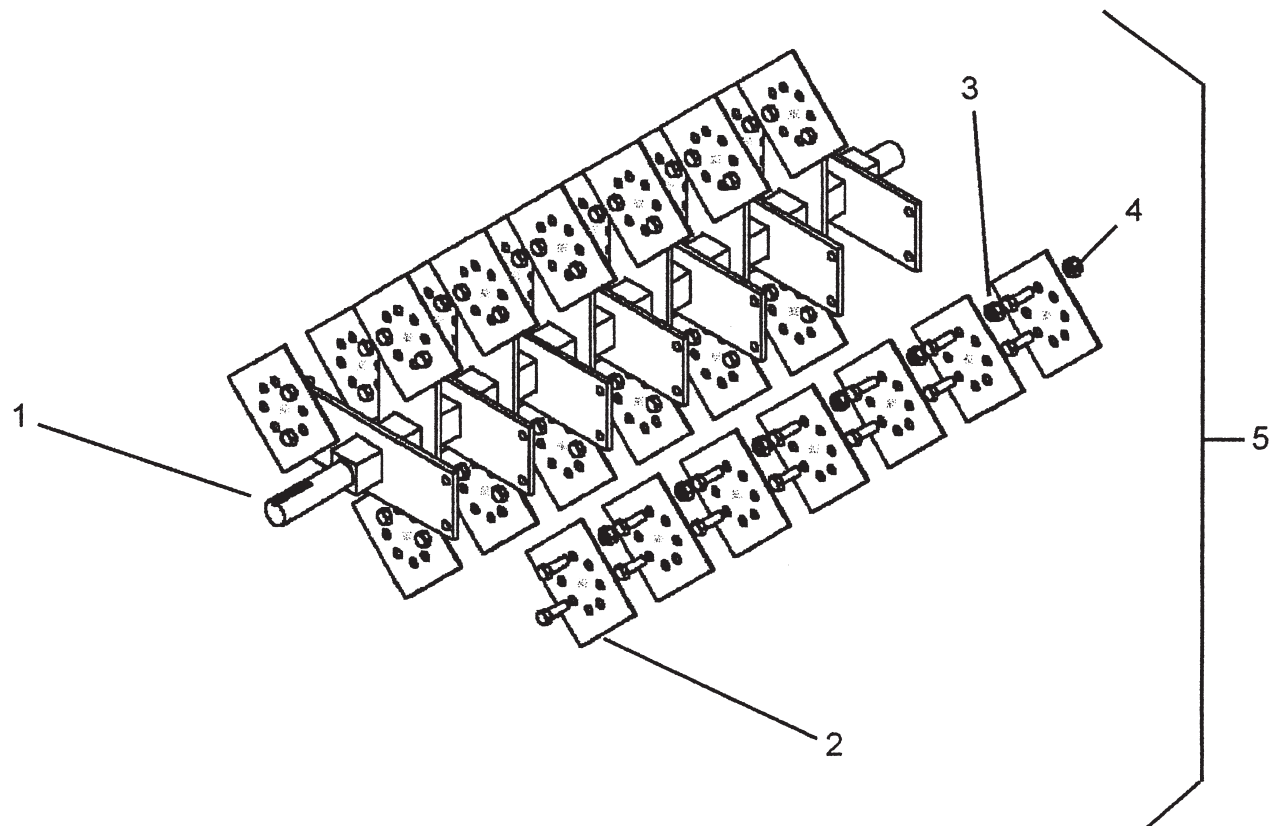
FIGURE 7

ITM	PART NO.	DESCRIPTION	QTY	ITM	PART NO.	DESCRIPTION	QTY
-----	----------	-------------	-----	-----	----------	-------------	-----



ITM	PART NO.	DESCRIPTION	QTY
1	C700025	SHAFT W/ BLADE HOLDERS,	1
2	C100310	BLADE W/ 5/16" HOLES,	26
3	C500216	BOLT, 5/16-18 X 3/4 GRADE 8	2
4	C500217	NUT, 5/16-18 TOP LOCK	52
5	C600030	SHAFT/BLADES SUB ASSY	1
6	C900026	COMPLETE MULTIPURPOSE ASSY	1
INCLUDES: END PLATES, BEARINGS, PULLEY, KEY & FASTENERS (NOT SHOWN)			

FIGURE 8



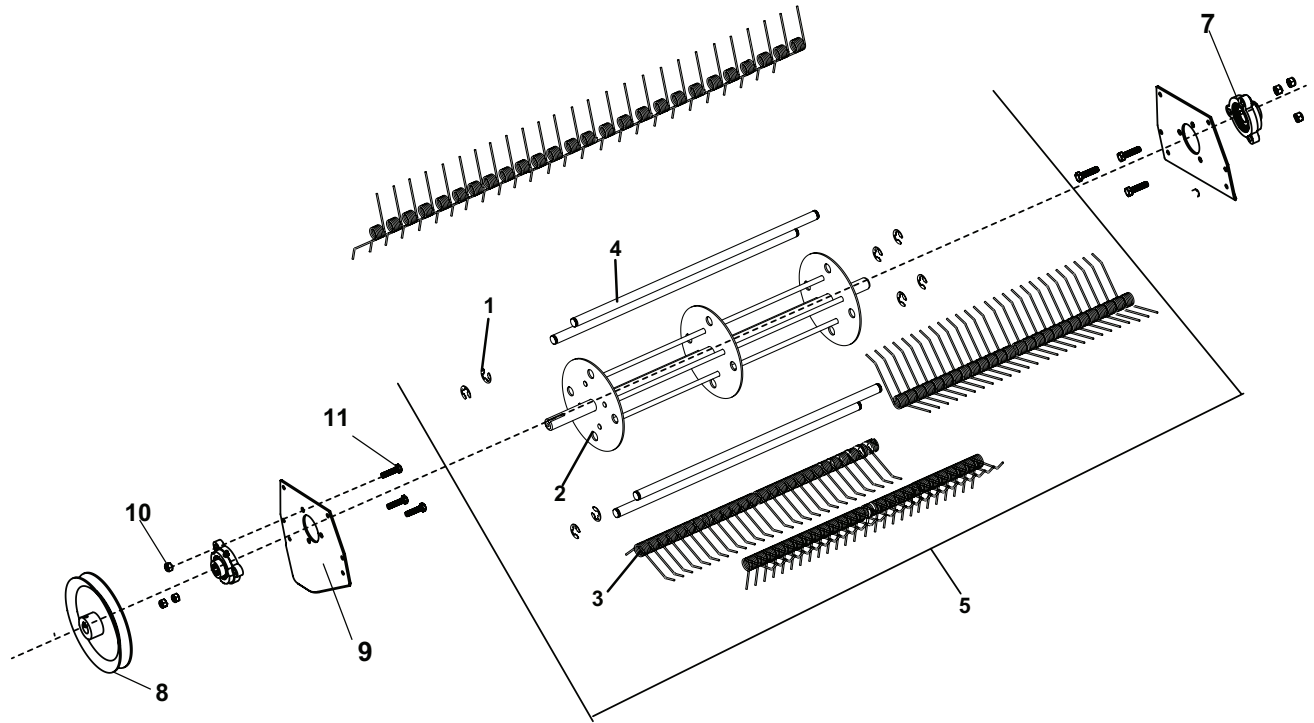
ITM	PART NO.	DESCRIPTION	QTY
1	C700025	SHAFT MULTIPURPOSE	1
2	C100427	BLADE, SLICER SQUARE	26
3	C500216	BOLT, 5/16-18 X 3/4 GRADE 8	52
4	C500217	NUT, 5/16-18 TOP LOCK	52
5	C600040	SHAFT/BLADES SUB-ASSEMBLY	1
6	C900027	COMPLETE MULTIPURPOSE ASSY	1
		INCLUDES SHAFT, BLADES, END PLATES, BEARINGS, PULLEY, KEY & FASTENERS (NOT SHOWN)	

# TURF RAKE / SEEDER

## SPRING TINE REEL ASSEMBLY (OPTIONAL)

FIGURE 9

ITM	PART NO.	DESCRIPTION	QTY	ITM	PART NO.	DESCRIPTION	QTY
-----	----------	-------------	-----	-----	----------	-------------	-----



ITM	PART NO.	DESCRIPTION	QTY
1	C100620	E-CLIP	8
2	4171066	SPRING MNTNG ROD & REEL	1
3	C100623	SPRING	104
4	4170956	ROD-SPRING MOUNTING	4
5	C600064	SPRING TINE REEL ASSY (INCLUDES ITEMS 1-4)	1
6	C900045	COMPLETE TINE REEL ASSEMBLY (INCLUDES ITEMS 5, 7-11)	1
7	C100050	BEARING, FLANGE	2
8	C100058	PULLEY, DRIVE	1
9	C300013	PLATE, END	2
10	C500072	NUT, 5/16-18 NYLOC	6
11	C500073	BOLT, 5/16 18 X 1-1/4	6





## 2 YEAR LIMITED SERVICE AND WARRANTY POLICY

---

Schiller Grounds Care, Inc.  
1028 Street Road • Southampton, PA 18966  
Telephone: 1-800-366-6268

### TWO YEAR LIMITED WARRANTY

Effective March 1, 2016

For the period of two years from the date of purchase, CLASSEN will repair or replace for the original purchaser free of charge, any part or parts found upon the examination of our factory authorized service station, or by the factory in Southampton, PA to be defective in material or workmanship. All transportation charges on parts submitted for repair or replacement under this warranty shall be borne by the purchaser.

This warranty does not include engines or engine parts, tires, batteries, or gearboxes that are covered under separate warranties furnished by their manufacturer or supplier, nor does it include normal maintenance parts, including but not limited to, spark plugs, points, filters, blades, and lubricants.

All service under this warranty will be furnished or performed by our factory authorized service stations.

There is no other expressed warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two years from the date of purchase and to the extent permitted by law, any and all implied warranties are excluded. The above remedy of repair and replacement of defective parts is the purchaser's exclusive remedy for any defect, malfunction or breach of warranty. Liability for incidental or consequential damages under any and all warranties is excluded to the extent permitted by law.

### NORMAL RESPONSIBILITIES OF THE SELLER AND THE USER

1. The Distributor or Dealer is responsible for the proper assembly and preparation of the product for delivery to the end user.
2. The User is responsible for reading the Manual and Instructions.
3. The User is responsible for proper operation and maintenance as described in the manual.
4. The User is responsible for the replacement of wear items such as blades, belts, tires, batteries, etc.
5. The User is responsible for damage due to improper operation and maintenance, as well as abuse.

All claims must be received by the factory 30 days after the end of the warranty period to receive warranty consideration.

**CLASSEN®**  
**SCHILLER GROUNDS CARE, INC.**  
**1028 STREET ROAD, P.O. BOX 38**  
**SOUTHAMPTON, PA 18966**  
**PHONE 877-596-6337 • FAX 215-357-8045**