

CLASSEN®

TURF RAKES / SEEDERS – PARTS MANUAL ORIGINAL LANGUAGE INSTRUCTIONS



TR-20HD TURF RAKE

TS-20HD TURF SEEDER

Schiller Grounds Care • 1028 Street Road • Southampton, PA 18966
Telephone 1.800.366.6268 • Teléfono + 877.596.6337

TABLE OF CONTENTS

SAFETY 3-4

MAINTENACE / STORAGE 5

PARTS SECTION..... 6

DECALS..... FIGURE 1 7

TR-20 MAIN FRAME ASSY FIGURE 2 8-9

TS-20 SEED BOX ASSY..... FIGURE 3 10

TR-20 RAKE BLADE ASSEMBLY FIGURE 411

TR-20M/TS-20M MULTIPURPOSE BLADE ASSEMBLY..... FIGURE 511

SEEDER TIRE SCRAP ASSEMBLY..... FIGURE 6 12

SEEDER BOX INSTALLATION FIGURE 7 12

NOTES 13

WARRANTY 14

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.

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

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

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



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 a hazardous situation which, if not avoided, **WILL** result in death or serious injury.

⚠ WARNING

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

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **COULD** 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.

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.
- Guards should only be removed by qualified maintenance technician for maintenance/service. Replace when work is complete.
- Adjust or repair only after the engine has been stopped and the blade has stopped moving.
- Disconnect spark plug wire(s) before doing any maintenance.
- Replace parts if worn, damaged or faulty. For best results, always replace with parts recommended by the manufacturer.
- Do not dismantle the machine without releasing or restraining forces which may cause parts to move suddenly.
- Provide adequate support, e.g. jack stands for lifted machine or parts if working beneath.
- Do not put hands or feet near or under rotating parts.
- Clean up spilled oil or fuel thoroughly.
- Replace faulty mufflers.
- To reduce fire hazards, keep the engine, muffler, and fuel storage area free of grass, leaves, debris buildup or grease.

Blades

The 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

- Petrol (gasoline) and diesel fuels are flammable; petrol (gasoline) vapors are explosive. Use extra care when handling.
- Store only in containers specifically designed for fuel.



- When refueling or checking fuel level:
 - Stop the engine and allow to cool;
 - Do not smoke;
 - Refuel outdoors only;
 - Use a funnel;
 - Do not overfill;
 - If fuel is spilled, do not attempt to start the engine until the spill is cleaned up and vapors have cleared.
 - Replace caps on fuel containers and tanks securely.

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

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

Storage 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 (petrol) storage area free of grass, leaves and excessive grease to reduce fire hazard.
- Clean grass and debris from cutting units, drives, mufflers and engine to help prevent fires.

Storage Instructions

WARNING

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

Daily Storage

1. Check engine oil level and air filter element daily.
2. Check oil level in gear case.
3. Close fuel valve at bottom of fuel tank.
4. Clean cutting blade (grass, dirt, etc.).

Extended Storage

Before the equipment is put into storage for any period exceeding 30 days:

1. Drain all fuel from fuel tank and lines (use a hose or fuel line, routed from fuel tank shut-off to proper container).
2. Start engine and run until all fuel is used from the carburetor float bowl.
3. While engine is warm, check the transmission oil and refill with the proper weight of oil corresponding to the season when the equipment will next be used.
4. Remove the spark plug and squirt a small quantity of engine oil into the cylinder. Turn the engine over a few times to distribute the oil.
5. Lubricate all lubrication fittings.
6. Clean and oil cutting blade to prevent rust.

To put equipment into operation after an extended storage:

1. Check for loose parts and tighten.
2. Check for cracked, broken or bent blades and replace.
3. Check that all safety decals are in place and legible.
1. Fill fuel tank with clean fresh fuel.
2. Check crankcase oil level, and start engine.
3. Check fuel system for fuel leaks.

WARNING

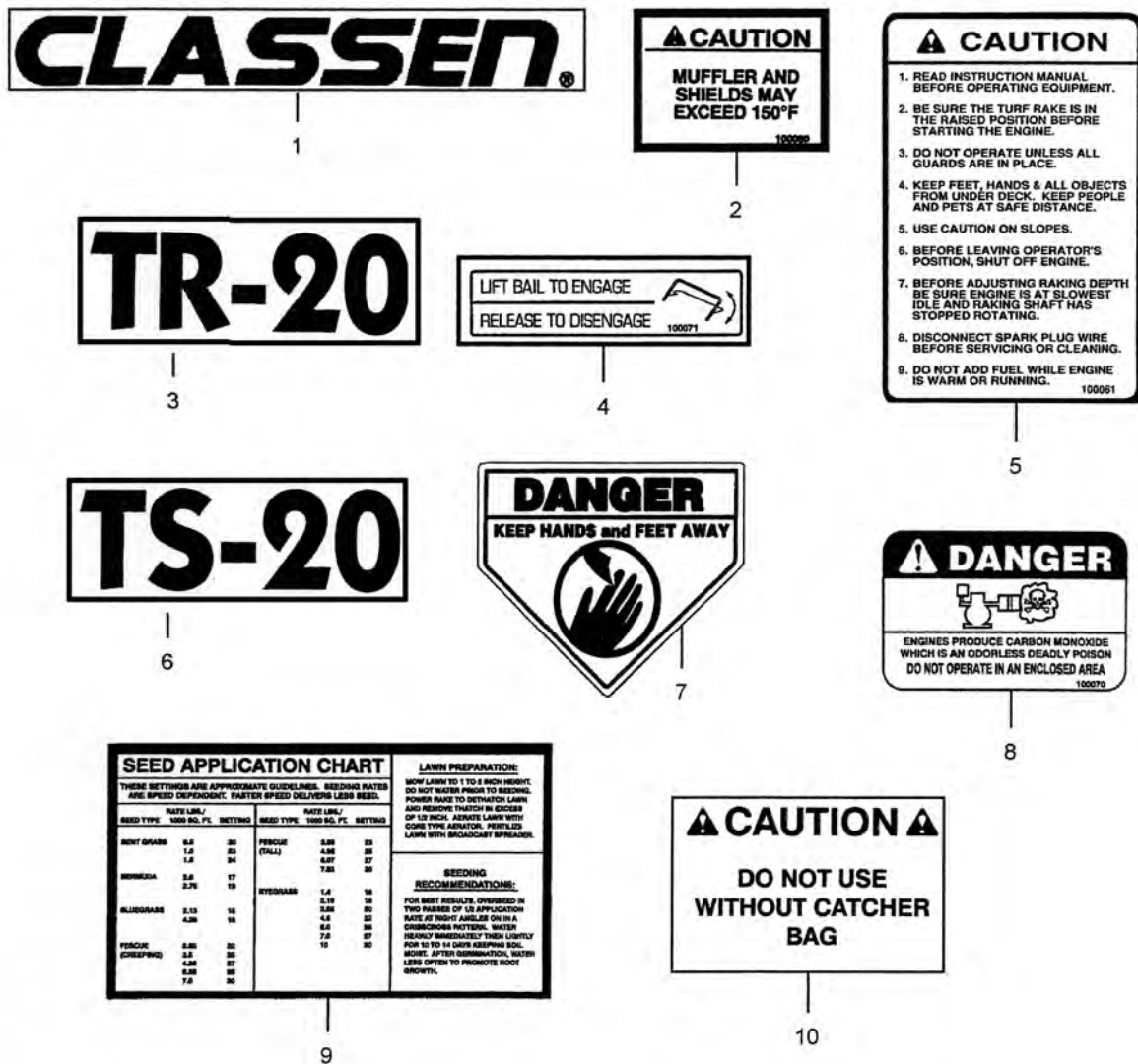
When replacement parts are required, use genuine **Schiller Grounds Care, Inc.** parts or parts with equivalent characteristics, including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders. Carbon monoxide present in the exhaust is an odorless and deadly gas. Never start or run the engine inside where exhaust fumes can collect. Provide enough fresh air to keep fumes from getting too strong. Replace any warning decal that becomes illegible immediately.

TR-20HD TURF RAKE

TS-20HD TURF SEEDER

PARTS MANUAL

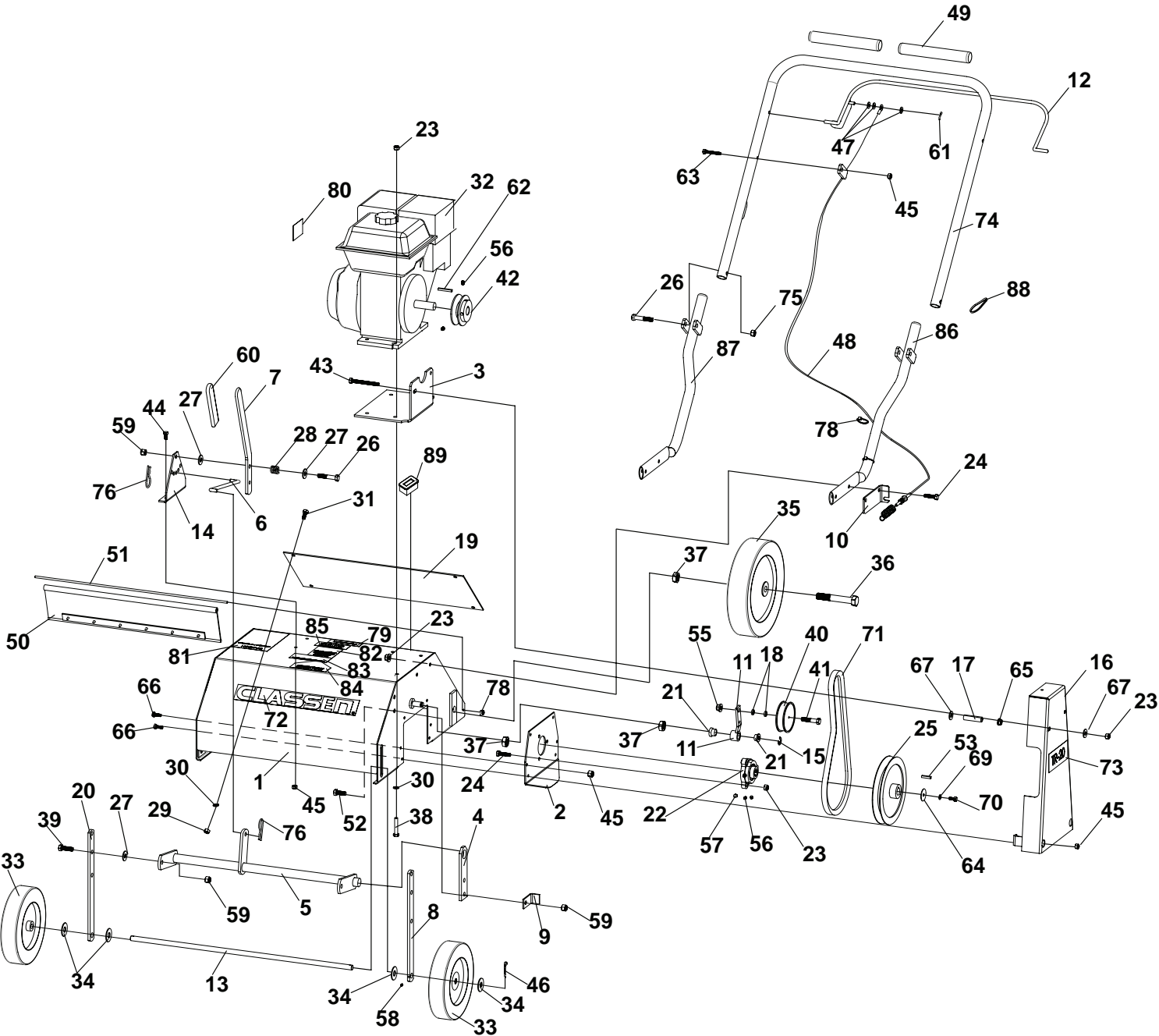
This manual covers units produced after 02/01/2012 to present.



ITEM	PART NO.	DESCRIPTION	QTY
1	C100074	DECAL, "CLASSEN"	2
2	C100060	DECAL, "CAUTION - MUFFLER AND 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 AND FEET AWAY"	1
8	C100070	DECAL, "DANGER - CARBON MONOXIDE"	1
9	C100138	DECAL, "SEED APPLICATION CHART" (TURF SEEDER ONLY)	1
10	C100228	DECAL, "CAUTION - CATCHER BAG (TURF RAKE ONLY)"	1
11	C100343	DECAL-HOME DEPOT TOOL RENTAL (NOT ILLUSTRATED)	2

TR-20 MAIN FRAME ASSEMBLY

FIGURE 2



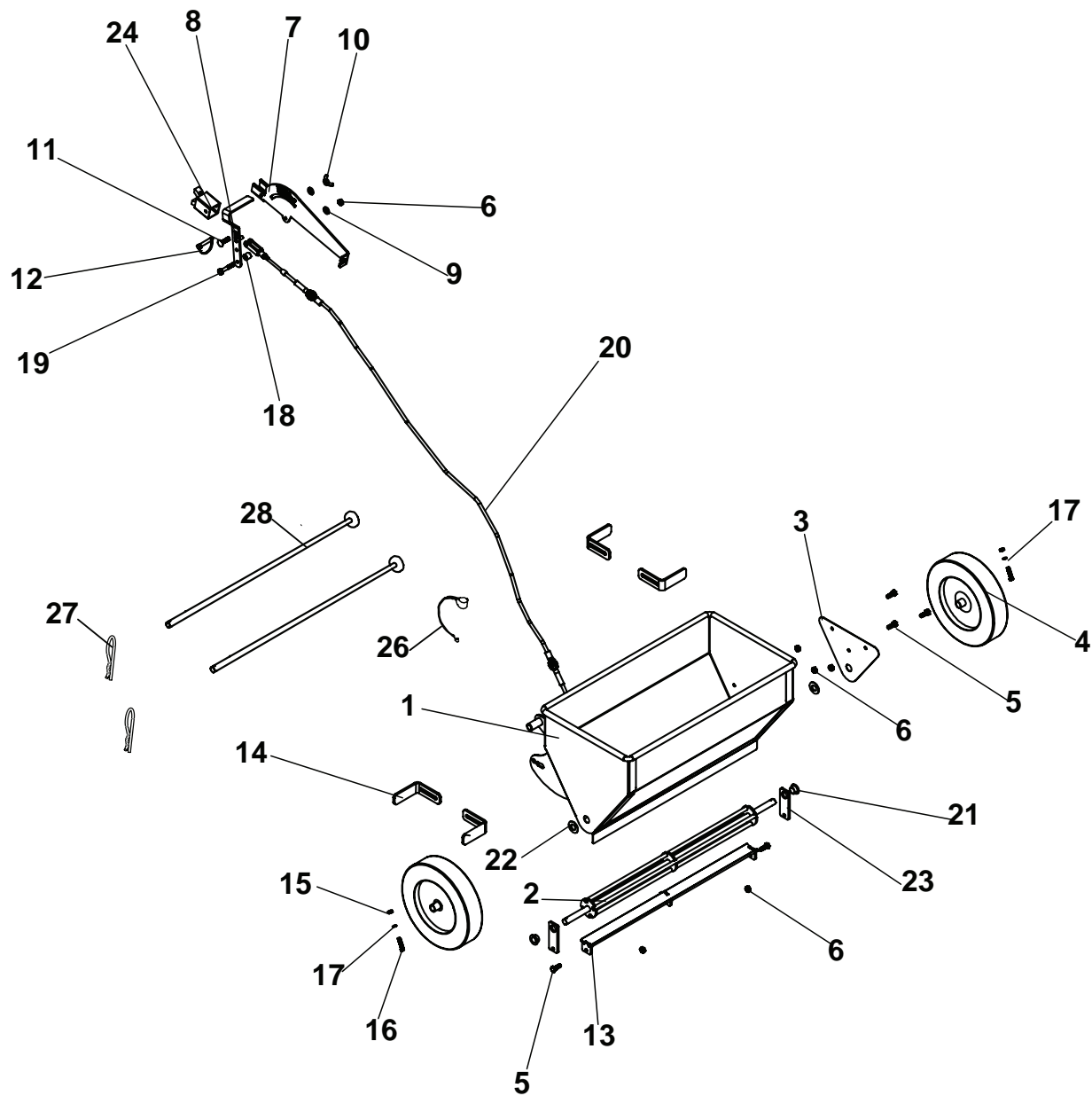
TR-20 MAIN FRAME ASSEMBLY

FIGURE 2

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	C400179	WELDMENT - RAKE BODY	1	46	C500062	PIN, 1/8 X 1-1/4 COTTER	2
2	C300013	PLATE, END	2	47	C500088	WASHER, 1/4 FLAT	3
3	C300012	PAD, ENGINE	1	48	C100053	CABLE ASSEMBLY	1
4	C300018	MOUNT, HEIGHT ADJUSTMENT	2	49	C100261	GRIP, 1 X 7-3/4 HANDLE	2
5	C400033	CRANK ASSEMBLY	1	50	C300015	DRAG SHIELD ASSEMBLY	1
6	C300026	ROD, HEIGHT ADJUSTMENT	1	51	C300028	ROD, 10-24 ALL THREAD	1
7	C300142	HEIGHT ADJ. LEVER	1	52	C500043	3/8" X 1" BOLT	4
8	C300035	SUPPORT, R.H. SEED BOX	1	53	C500011	KEY, 3/16 SQUARE X 1	1
9	C300036	STOP, ENGAGEMENT ARM	1	54	C500240	KEY, 3/16 X 1-1/2	1
10	C300024	BRACKET, CLUTCH CABLE	1	55	C500081	NUT, 3/8-16 WHIZ LOCK	1
11	C400035	ARM STEEL BUSHING, ENGAGEMENT	1	56	C500063	SET SCREW, 1/4-28 X 1/4	4
12	C400034	BAIL	1	57	C500001	GREASE FITTING, 1/4-28	2
13	C300027	AXLE, FRONT	1	58	C500066	SET SCREW, 10-32 X 1/4	1
14	C300017	PLATE, HEIGHT ADJUSTMENT	1	59	C500076	NUT, 3/8-16 NYLOC	7
15	C500078	E-RING	1	60	C100007	GRIP, RUBBER	1
16	C400032	GUARD, BELT	1	61	C500087	PIN, 3/32 X 1/2 COTTER	1
17	C300029	SPACER, 5/16 X 2	2	62	C500064	SET SCREW, 5/16-18 X 3/8	2
18	C300030	BUSHING, STRUT	2	63	C500118	BOLT, 1/4-20 X 1-3/4	1
19	C300072	PLATE, FRAME	1	64	C300025	WASHER, PLATED PULLEY RETAINER	1
20	C300034	SUPPORT, L.H. SEED BOX	1	65	C500085	NUT, 5/16-18 WHIZ LOCK	2
21	C100052	BEARING, CONTROL	2	66	C500029	BOLT, 1/4-20 X 3/4	2
22	C100050	BEARING, FLANGE	2	67	C500083	5/16" WASHER PLAIN	2
23	C500072	NUT, 5/16-18 NYLOC	16	68	C100067	GUARD, SHAFT	1
24	C500073	BOLT, 5/16-18 X 1-1/4	10	69	C500070	WASHER, 1/4 HEAVY SPRING LOCK	1
25	C100058	PULLEY, DRIVE	1	70	C500071	BOLT, 1/4-28 X 5/8	1
26	C500091	BOLT, 3/8-16 X 2.00	3	71	C100065	BELT, RAKE	1
27	C500042	3/8" WASHER PLAIN	4	72	C100074	DECAL, "CLASSEN"	2
28	C500065	SPRING, COMPRESSION	1	73	C100075	DECAL, TR-20	1
29	C500101	NUT, 5/16-18	4	74	C300143	MAIN HANDLE	1
30	C500115	WASHER, 5/16 LOCK	8	75	C500041	NUT, 3/8-16 LOCK	2
31	C500140	BOLT, 5/16-18 X 3/4	4	76	C500092	PIN, HAIR PIN COTTER	2
32	C100137	5.5 HP HONDA ENGINE	1	77	C500082	NUT, 10-24 NYLOC	2
33	C100064	WHEEL AND TIRE ASSEMBLY, 8" FRONT	2	78	C100020	TIE, PLASTIC	2
34	C500034	1/2" ZINC PLATED WASHER	4	79	C100071	DECAL, BAIL ENGAGEMENT	1
35	C100063	WHEEL AND TIRE ASSEMBLY, 10" REAR	2	80	C100070	DECAL, CARBON MONOXIDE	1
36	C500080	BOLT, 5/8-18 X 4	2	81	C100061	DECAL, TURF RAKE OPERATING	1
37	C500077	.625-18 JAM NUT	4	82	C100504	SPARK ARRESTOR DECAL	1
38	C500074	BOLT, 5/16-18 X 1-3/4	4	83	C100505	CARB APPROVAL DECAL	1
39	C500134	3/8" X 1.25" BOLT	2	84	C100069	DECAL, "DANGER"	1
40	C100072	IDLER W/ FLANGES, FLAT	1	85	C100055	DECAL, CLASSEN SERIAL NUMBER	1
41	C500079	BOLT, 3/8-16 X 1-3/4	1	86	C300144	LOWER HANDLE ASM LH	1
42	C100038	SHEAVE W/OUT KEY, 3.15 X .750 BORE	1	87	C300145	LOWER HANDLE ASM RH	1
43	C500086	BOLT, 5/16-18 X 3 TAP	2	88	C100251	LOCK RING, HANDLE	2
44	C500069	BOLT, 1/4-20 X 5/8	10	89	C100443	METER, HOUR HOME DEPOT	1
45	C500068	NUT, 1/4-20 NYLOC	13	90*	C100343	DECAL-HOME DEPOT TOOL RENTAL (*NOT ILLUSTRATED)	2

TS-20 SEED BOX ASSEMBLY

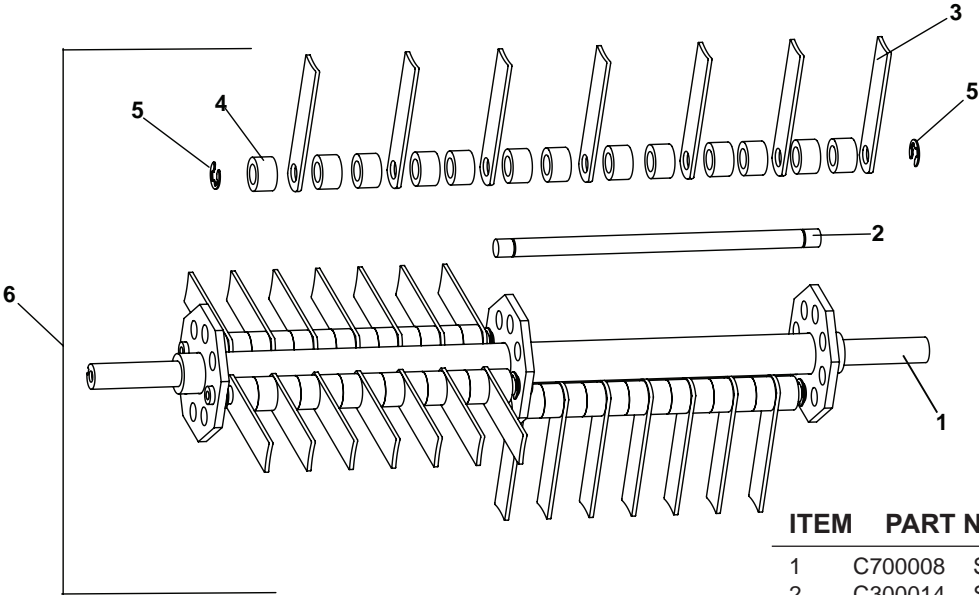
FIGURE 3



ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	C400399	HOPPER WELDMENT	1	18	C400402	FLOW CONTROL HANDLE SPACER	1
2	C400400	SPREADER DRUM WELDMENT	1	19	C500089	BOLT, 1/4-20 X 1-1/2	1
3	C400404	MAIN BODY LH CLOSURE PLATE	1	20	C100624	SEEDER BOX ASSEMBLY	1
4	C100355	WHEEL, 8" SEED BOX DRIVE	2	21	C100052	BEARING, CONTROL	2
5	C500029	BOLT, 1/4-20 x 3/4	5	22	C500034	WASHER, 1/2 FLAT	2
6	C500136	NUT, 1/4-20	6	23	C400408	SEED GATE FLAT	2
7	C400401	FLOW CONTROL	1	24	C400405	FLOW CONTROL BRACKET	1
8	C400406	FLOW CONTROL HANDLE WELDMENT	1	25	C100074	DECAL, CLASSEN (NOT SHOWN)	1
9	C500088	WASHER, 1/4 FLAT	2	26	C100308	LANYARD, NYLON	1
10	C500119	NUT, 1/4-20 WING	1	27	C500096	HAIRPIN, 5/32" X 3"	2
11	C500117	BOLT, 1/4-20 X 1 CARRIAGE	1	28	C400040	ROD, CONNECTING	2
12	C500201	PIN, 1/3 X 1-3/4 CLEVIS	1	29	C900055	COMPLETE SEEDER BOX ASSEMBLY (INCLUDES ITEMS 1-28)	1
13	C400407	SEED GATE WELDMENT	1				
14	C300128	WHEEL SCRAPES	4				
15	C100145	NUT, #10-24 HEX	2				
16	C500262	BOLT, 3/16 X 3/4	2				
17	C500263	WASHER, #10-24 LOCK	2				

TR-20 RAKE BLADE ASSEMBLY

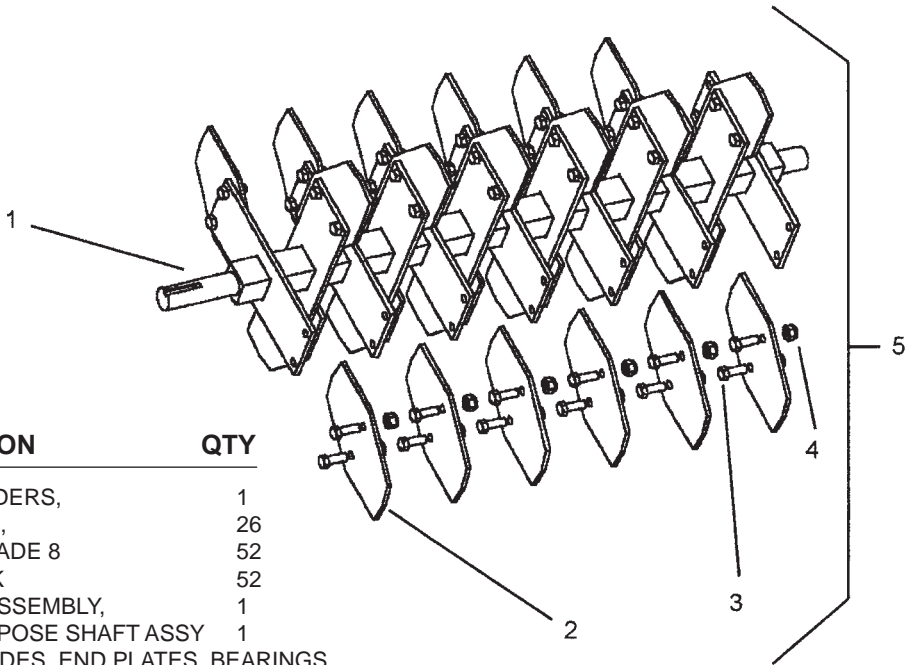
FIGURE 4



ITEM	PART NO.	DESCRIPTION	QTY
1	C700008	SHAFT, RAKE MAIN	2
2	C300014	SHAFT, SATELLITE	1
3	C300019	BLADE (FINGER), RAKE	1
4	C100056	SPACER, FINGER	1
5	C500067	ROLL PIN, 1/8 X 7/8	1
6	C600014	MAIN SHAFT ASSEMBLY	1
7	C900003	MAIN SHAFT ASSEMBLY INCLUDES: END PLATES, BEARINGS, PULLEY, KEY & FASTENERS (NOT SHOWN)	1

TR-20M / TS-20M
MULTIPURPOSE BLADE ASSEMBLY

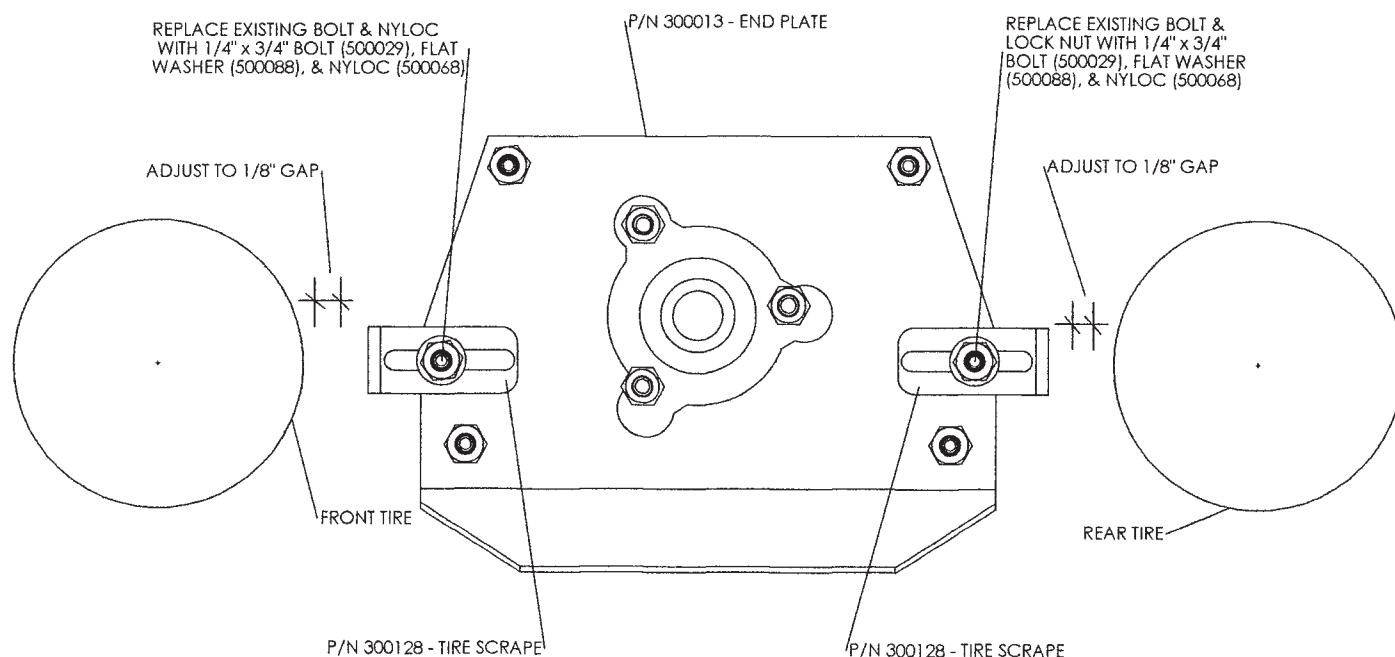
FIGURE 4



ITEM	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	52
4	C500217	NUT, 5/16-18 TOP LOCK	52
5	C600030	SHAFT/BLADES SUB-ASSEMBLY,	1
6	C900026	COMPLETE MULTIPURPOSE SHAFT ASSY INCLUDES:SHAFT, BLADES, END PLATES, BEARINGS, PULLEY, KEY & FASTENERS (NOT SHOWN)	1

SEEDER TIRE SCRAPE ASSEMBLY

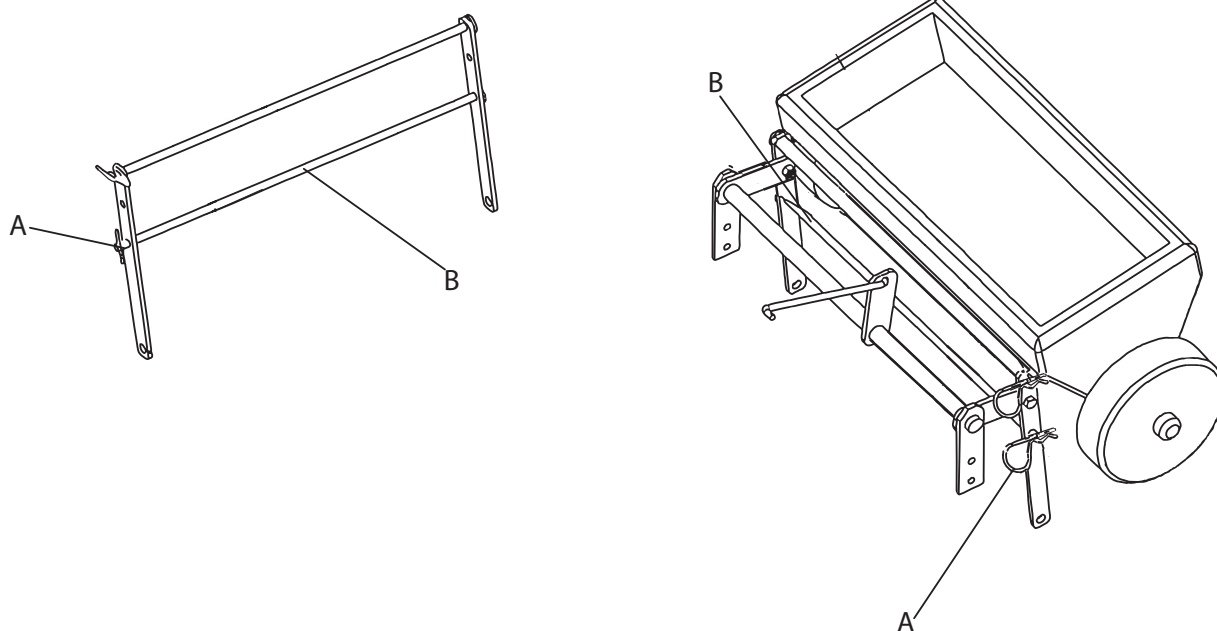
FIGURE 6



SEED BOX INSTALLATION

FIGURE 7

For shipping purposes only, the seed box assembly is attached to machine improperly. To set your machine up correctly to operate the seed box, Remove hairpin clip (A) from lower connecting rod (B). Slide lower rod out of stabilizing bracket on seed box. (When mounted properly, the wheels of seed box should be resting on front wheels of machine.) Reinsert lower rod (B) and clip (A).



NOTES: _____

[illegible]



Schiller Grounds Care, Inc.

1028 Street Road • Southampton, PA 18966

Telephone: 1-800-366-6268

TWO YEAR LIMITED WARRANTY

Effective April 1, 2007

For the period of two years from the date of purchase, Schiller Grounds Care, Inc. 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 Norfolk, Nebraska, 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.

See the complete line of Turf Care Products from

CLASSEN[®]

COMPACT AERATORS

CA-18H
CA-18B

STAND ON AERATOR

SA-25

SPLIT DRIVE AERATORS

TA-25D
TA-17D

TURF AERATORS

TA-19D
TA-19B
TA-26D

RECIPROCATING AERATORS

RA-21H
RA-21B
RAS-21H
RAS-21B

TOW/3PT AERATORS

48RT
60RT

TURF SEEDERS

TS-20H
TS-20B
TSS-20H
TSS-20B

TRAILERS

AST

TURF RAKES

TR-20H
TR-20B
TRS-20H
TRS-20B
TR-20RH
TR-20RB

SOD CUTTERS

SC-18/5.5
SC-18/8.0

HYDRO-DRIVE SOD CUTTERS

SCHV-18/5.5
SCHV-18/8.0

Classen reserves the right to make changes or add improvements to its products at any time without incurring any obligation to make such changes to products manufactured previously. Classen, or its distributors and dealers, accept no responsibility for variations which may be evident in the actual specifications of its products and the statements and descriptions contained in this publication.