

CLASSEN[®]

TRS-20HE / TRS-20BE TURF RAKE
(Serial No. 001000 & UP)

TSS-20HE / TSS-20BE TURF SEEDER
(Serial No. 001000 & UP)



PARTS MANUAL

P/N C100541

Schiller Grounds Care, Inc.
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OWNER'S RECORD

DATE PURCHASED

TRS-20/TSS-20 SEEDER MODEL NUMBER

ENGINE MODEL NUMBER

TRS-20/TSS-20 SERIAL NUMBER

ENGINE SERIAL NUMBER

INTRODUCTION

THANK YOU

Thank you for purchasing a CLASSEN TRS-20E/TSS-20E.

READ THIS MANUAL

Read this manual carefully in its entirety. It contains a parts list for your TRS-20E/TSS-20E. By following the assembly instructions you will prolong the life of your equipment and maintain its maximum efficiency. Failure to do so could result in personal injury or equipment damage. This manual should be considered a permanent part of your TRS-20/TSS-20 and should remain with it if you sell it.

WARRANTY

Refer to last page.

MEASUREMENTS

U.S. Units of measure are used in this manual.

SERIAL NUMBERS

Write frame and engine serial numbers, plus model numbers in "Owner's Record" section above. You may need these numbers when you order parts. The serial number sticker plate is located near the left rear corner of the TRS-20E/TSS-20E frame.

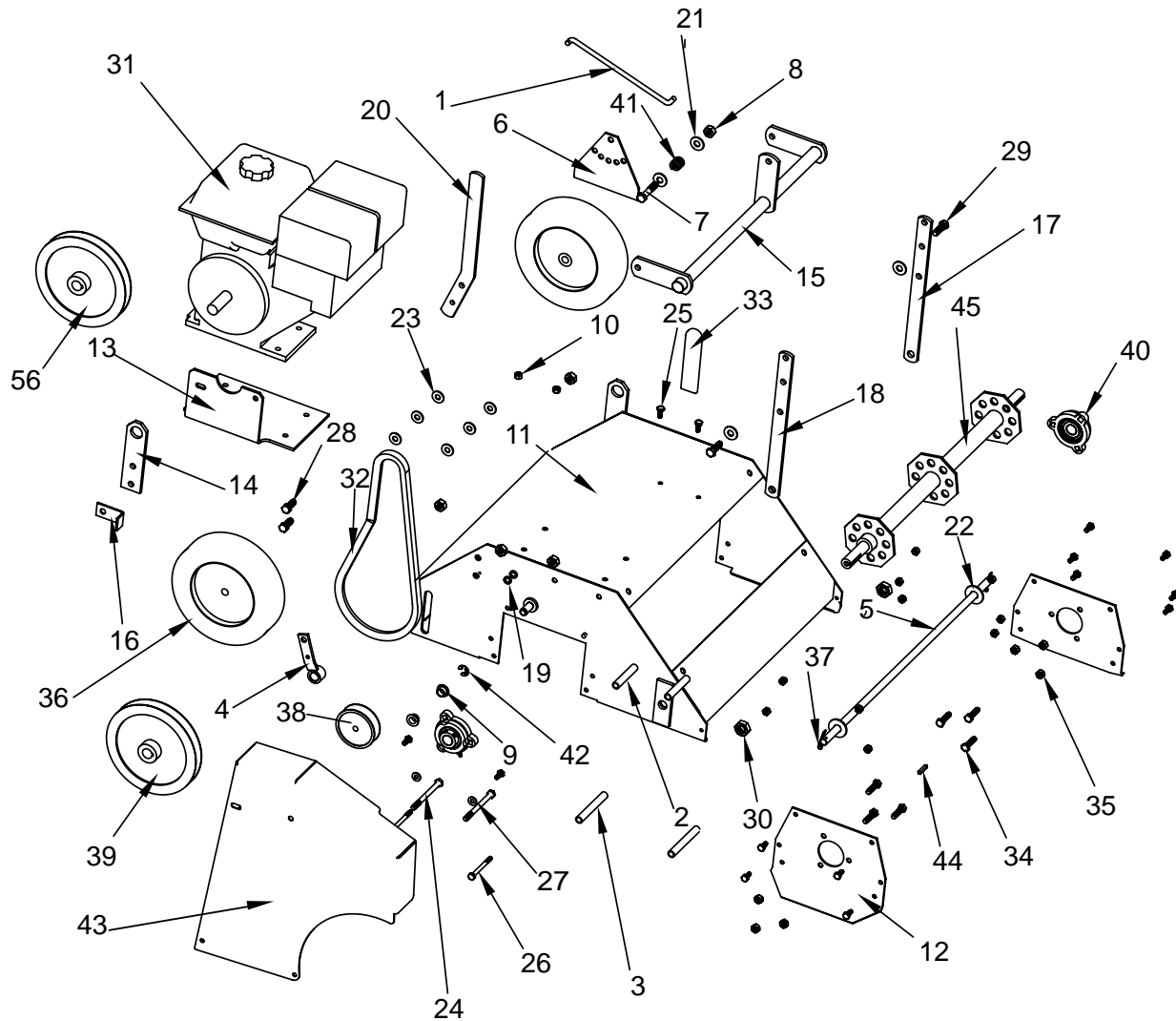
ORDERING PARTS

When ordering parts, always give the serial number and model of your TRS-20E/TSS-20E as well as the quantity, part number and description of the part needed.

DIRECTIONS

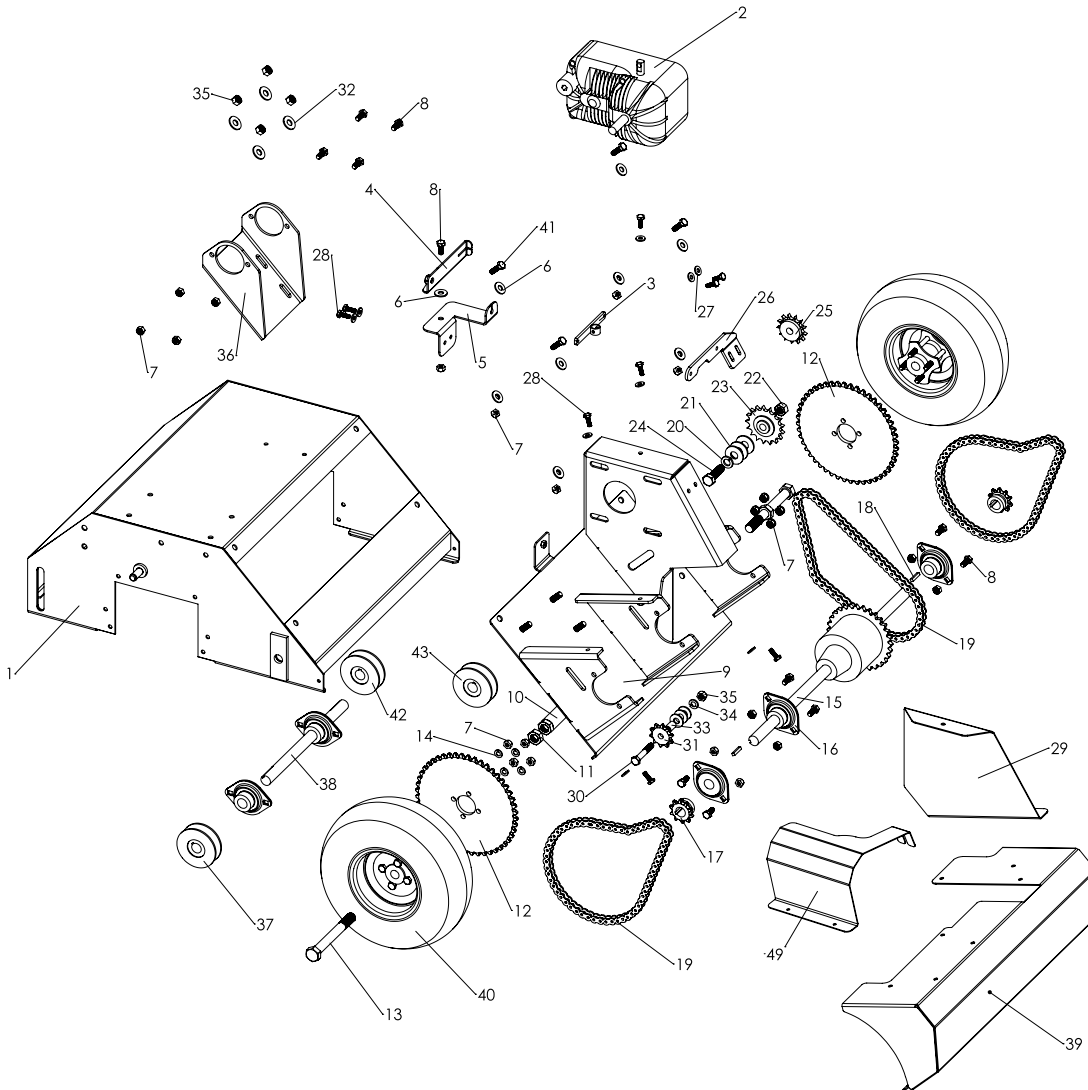
"Right Hand" and "Left Hand" sides of the TRS-20E/TSS-20E are determined by facing the "back" of the unit as you would operate the machine.

PARTS MAIN FRAME ASSEMBLY



ITEM	P/N	DESCRIPTION	QTY.	ITEM	P/N	DESCRIPTION	QTY.
1	C300026	ROD-HEIGHT ADJ.	1	30	C500077	5/8-18 JAM NUT	2
2	C400261	TOP BELT GUARD SPACER	2	31	C100137	5.5HP HONDA ENGINE	1
3	C400260	BOTTOM GUARD SPACER	2		C100051	ENINGE. B & S INTEK	
4	C400035	ENGAGEMENT ARM W/ BUSHING	1	32	C100065	RAKE BELT	1
5	C300027	FRONT AXLE	1	33	C100007	RUBBER GRIP	1
6	C300017	HEIGHT ADJUST PLATE	1	34	C500073	5/16-18 X 1 1/4 BOLT	6
7	C500091	3/8-16 X 2 BOLT	2	35	C500072	5/16-18 NYLOC	6
8	C500076	3-8-16 NYLOC	9	36	C100064	8" FRONT WHEEL & TIRE ASSEMBLY	2
9	C100052	BEARING CONTROL	2	37	C500092	HAIR PIN	2
10	C500068	1/4-20 NYLOC	12	38	C100072	FLAT IDLER W FLANGES	1
11	C400031	WELDMENT-RAKE BODY	1	39	C100058	7" PULLEY	1
12	C300013	END PLATE	2	40	C100050	FLANGE BEARING	2
13	C300012	ENGINE PAD	1	41	C500065	COMPRESSION SPRING	1
14	C300018	HEIGHT ADJ. MOUNT	2	42	C500078	E RING	1
15	C400033	CRANK ASSEMBLY	1	43	C400259	PULLEY GUARD	1
16	C300036	ENGAGEMENT ARM STOP	1	44	C500011	3/16 SQ X 1 KEY	1
17	C300035	RH SEED BOX SUPPORT	1	45	C700008	RAKE SHAFT	1
18	C300034	LH SEED BOX SUPPORT	1	46	C100340	DECAL, TRS-20 (NOT SHOWN)	1
19	C300030	STRUT BUSHING	2	47	C100341	DECAL, TSS-20 (NOT SHOWN)	1
20	C300142	HEIGHT ADJ. LEVER	1	48	C100069	DECAL, DANGER (NOT SHOWN)	1
21	C500042	3/8 FLAT WASHER	4	49	C100061	DECAL, CAUTION (NOT SHOWN)	1
22	C500034	1/2 FLAT WASHER	2	50	C100070	DECAL, DANGER CO2 (NOT SHOWN)	1
23	C500083	5/16 FLAT WASHER	6	51	C100060	DECAL, DANGER MUFFLER (NOT SHOWN)	1
24	C500243	5/16-18 X 4 BOLT	2	52	C100073	LUBRICATION TAG (NOT SHOWN)	1
25	C500069	1/4-20 X 5/8 BOLT	14	53	C100071	DECAL, BAIL ENGAGEMENT (NOT SHOWN)	1
26	C500244	1/4-20 X 4 1/2 BOLT	2	54	C100074	DECAL, CLASSEN (NOT SHOWN)	1
27	C500088	1/4 FLAT WASHER	2	55	C100342	DECAL, SPEED (NOT SHOWN)	1
28	C500043	3/8-16 X 1 BOLT	4	56	C100038	SHEAVE, W/OUT KEY 3.15X.75 BORE	1
29	C500134	3/8-18 X 1 1/4 BOLT	2				

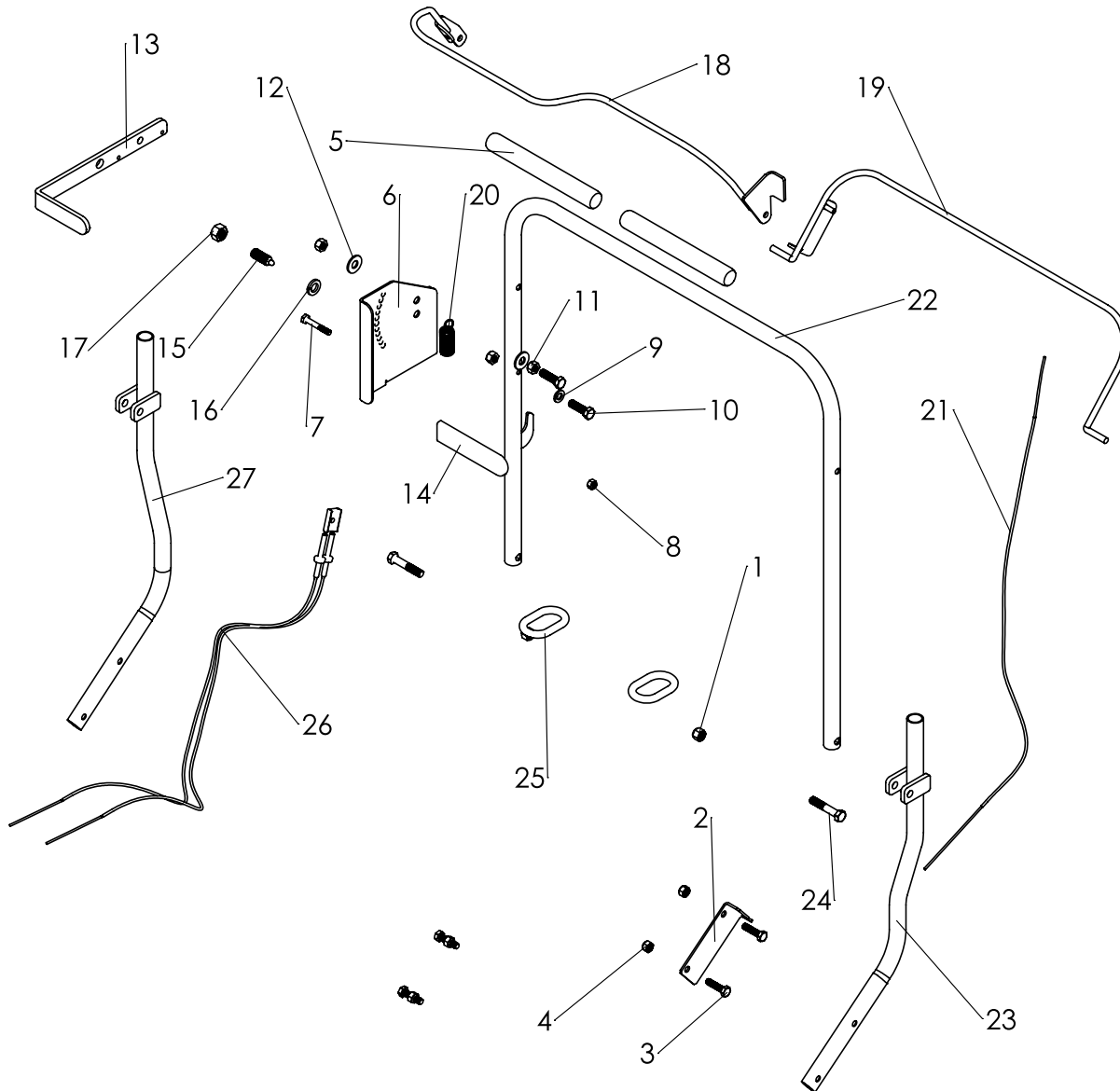
PARTS SELF PROPELLED ASSEMBLY



ITEM	P/N	DESCRIPTION	QTY.
1	C400031	RAKE BODY WELDMENT	1
2	C100311	HYDROSTAT	1
3	C400265	SHIFTER MOUNT	1
4	C400264	HYDROSTAT TOGGLE	1
5	C400263	NEUTRAL TOGGLE BRACKET	1
6	C500083	5/16 FLAT WASHER	9
7	C500101	5/16-18 NUT	23
8	C500140	5/16-18 X 3/4 BOLT	11
9	C400256	HYDRO DIFFERENTIAL MOUNT	1
10	C400240	BACK AXLE	1
11	C500077	5/8-18 JAM NUT	2
12	C200041	48 TOOTH SPROCKET	2
13	C500220	5/8-16 X 5 1/2 BOLT	2
14	C500115	5/16 LOCK WASHER	12
15	C100322	TRANSAXLE W SPROCKET	1
16	C100247	3/4 2-BOLT BEARING W. COLLAR	5
17	C200043	10 TOOTH PROCKET	2
18	C500011	3/16 X 1 SQ. KEY	2
19	C100324	CHAIN, 58 ROLLERS	3
20	C500006	1/2 LOCK WASHER	1
21	C500034	1/2 FLAT WASHER	3
22	C500106	1/2 - 13 NUT	1
23	C100043	#40X17X1/2 IDLER SPROCKET	1
24	C500174	1/2 - 13 X 1 3/4 BOLT	1
25	C500044	13 TOOTH SPROCKET	1

ITEM	P/N	DESCRIPTION	QTY.
26	C400262	CABLE MOUNT	1
27	C500088	1/4 FLAT WASHER	12
28	C500029	1/4-20 X 3/4 BOLT	12
29	C400266	PULLEY GUARD	1
30	C500154	3/8 - 16 2 1/2 BOLT	2
31	C200042	10 TOOTH IDLER SPROCKET	2
32	C500042	3/8 FLAT WASHER	10
33	C300110	1/2 X 5/8 SPACER	2
34	C500130	3/8 LOCK WASHER	2
35	C500129	3/8 - 16 NUT	6
36	C400258	BRACKET	1
37	C100509	BK52H PULLEY	1
38	C200055	HYDRO SHAFT	1
39	C400255	LARGE GUARD	1
40	C100316	REAR WHEEL	2
41	C500133	5/16 - 18 X 1 BOLT	4
42	C100510	MA25 X 3/4" PULLEY	1
43	C500511	AK39H PULLEY	1
44	C100548	C728 SPRING (NOT SHOWN)	1
45	C100549	6927 V-BELT (NOT SHOWN)	1
46	C100550	2190 GATES BELT (NOT SHOWN)	1
47	C200054B	15MM BUSHING (NOT SHOWN)	1
48	C100553	3/4" BUSHING (NOT SHOWN)	1
49	C400409	COVER, JACK SHAFT SELF PROPELL	1

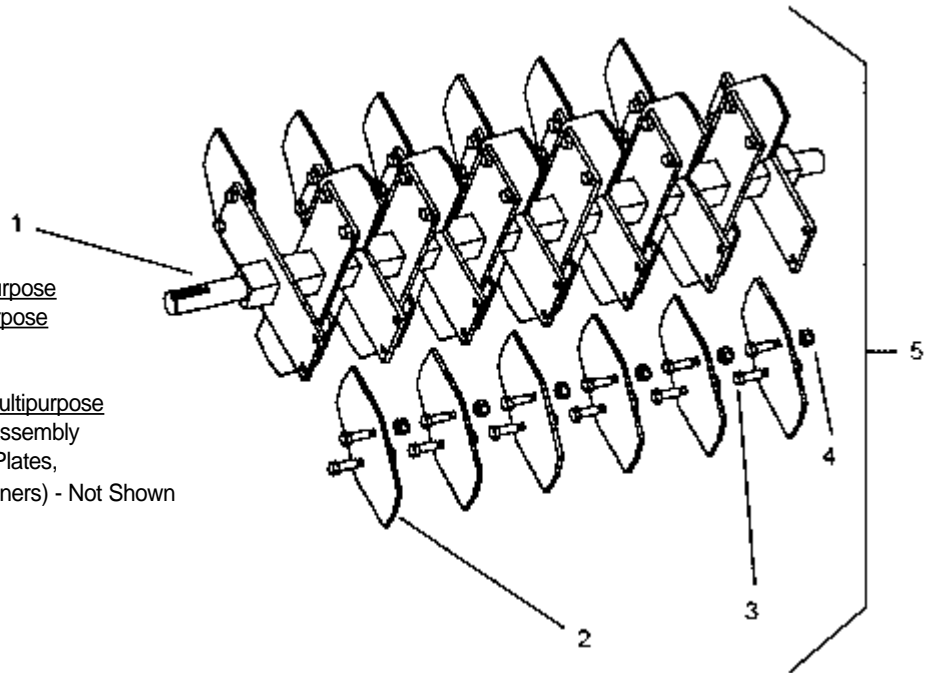
PARTS HANDLE ASSEMBLY



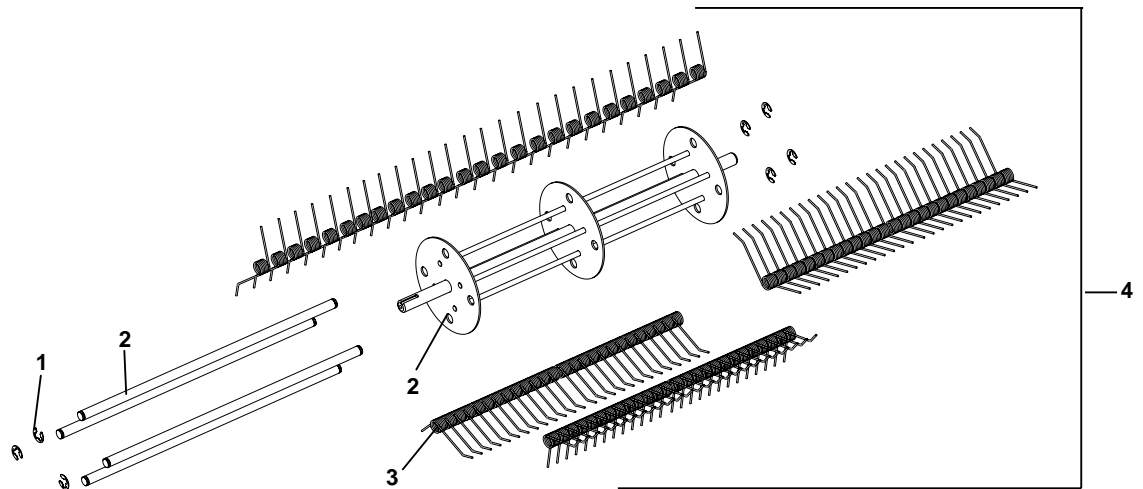
ITEM	P/N	DESCRIPTION	QTY.	ITEM	P/N	DESCRIPTION	QTY.
1	C500167	3/8 LOCK NUT	2	16	C500006	1/2 LOCK WASHER	1
2	C300024	BRACKET, CLUTCH CABLE	1	17	C500106	1/2 NUT	1
3	C500073	5/16 X 1 1/4 BOLT	4	18	C400254	NUETRAL BAIL	1
4	C500072	5/16 NYLOC NUT	4	19	C400034	BAIL WELDMENT	1
5	C100261	HANDLE GRIPS	2	20	C100035	SPRING	3
6	C300140	SPEED GUAGE LEVER	1	21	C100053	CLUTCH CABLE	1
7	C500118	1/4 X 1 3/4 BIOLT	1	22	C300143	MAIN HANDLE	1
8	C500068	1/4 NYLOCK NUT	1	23	C300144	LOWER HANDLE LH	1
9	C500130	3/8 LOCK WASHER	1	24	C500091	3/8 - 16 X 2 BOLT	2
10	C500134	3/8 X 1 1/4 BOLT	2	25	C100251	HANDLE LOCK RING	2
11	C500129	3/8 NUT	4	26	C100327	SHIFTER CABLE	2
12	C500042	3/8 FLAT WASHER	2	27	C300145	LOWER HANDLE RH	1
13	C300139	SPEED LEVER	1				
14	C100007	RUBBER GRIP	1				
15	C100326	PLUNGER	1				

SEEDER/MULTIPURPOSE BLADE ASSEMBLY

KEY	P/N.	QTY/PER MACHINE	DESCRIPTION
1	700025	1	Shaft w/ Blade Holders, Multipurpose
2	100310	26	Blade w/ 15/16" Holes, Multipurpose
3	500216	52	Bolt, 5/16-18 x 3/4 Grade 8
4	500217	52	Nut, 5/16-18 Tap Lock
5	600030	1	Shaft/Blades Sub-Assembly, Multipurpose
6	900026	1	Complete Multipurpose Shaft Assembly (Includes Shaft, Blades, End Plates, Bearings, Pulley, Key & Fasteners) - Not Shown

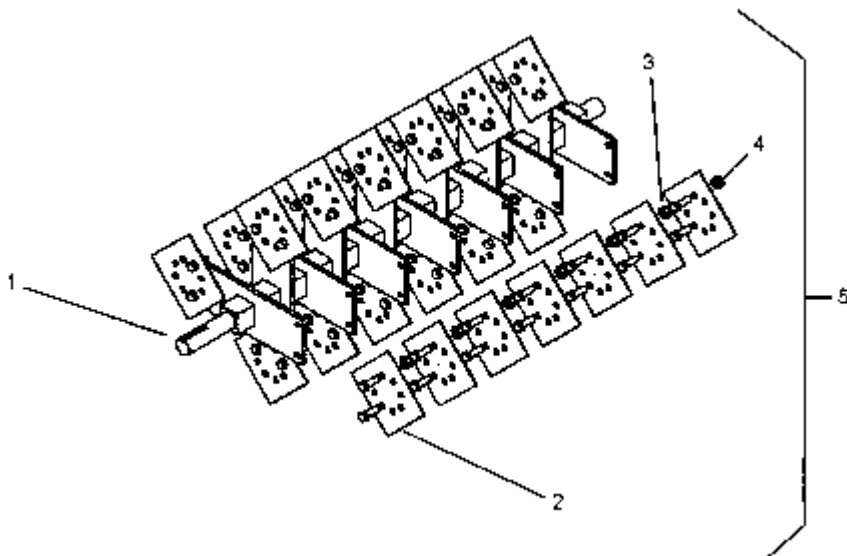


TR-20RE SPRING TINE REEL ASSY OPTIONAL



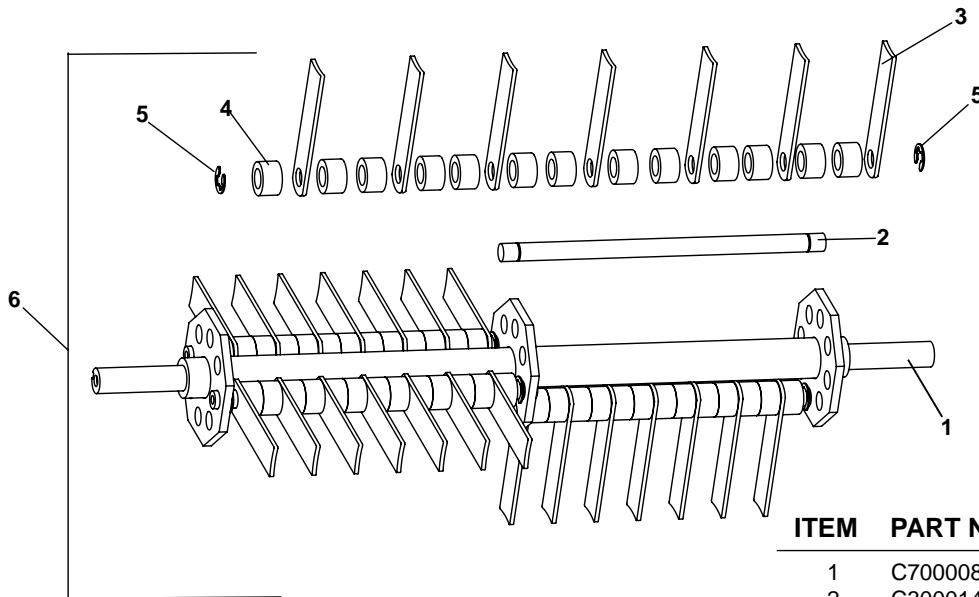
ITEM	P/N	DESCRIPTION	QTY.
1	C100620	E-Clip	8
2	C700033	Spring Mounting Rods & Reel Wldmnt	1
3	C100623	Spring	104
4	C600064	Spring Tine Reel Assy	1
5	C900045	Complete Spring Tine Reel Assembly	
Includes all items in item 4 plus:			
	C300013	End Plates	2
	C100050	Bearings	2
	C100058	Pulley	1
	C500011	Key .3/16 Square x 1 Machine	1
	C500071	Bolt 1/4-28 x 5/8	1
	C500064	Set Screw, 5/16-18 x 3/8	2
	C500063	Set Screw, 1/4-28 x 1/4	2
	C500001	Grease Fitting 1/4-28	2
	C300025	Washer, Pulley Retainer	1
	C500072	Nut, 5/16-18 Nyloc	3
	C500073	Bolt, 5/16-18 x 1 1/4	3
	C500137	Washer, 1/4 Lock	1

SLICER BLADE ASSEMBLY (OPTIONAL)



KEY	P/N.	QTY/PER MACHINE	DESCRIPTION
1	700025	1	Shaft w/ Blade Holders, Multipurpose
2	300032	26	Blade, Slicer Square
3	500180	52	Bolt, 1/4-20 x 3/4 Grade 8
4	500160	52	Nut, 1/4-20 Top Lock
5	600024	1	Shaft/Blades Sub-Assembly, Multipurpose
6	900016	1	Complete Slicing Shaft Assembly (Includes Shaft, Blades, End Plates, Bearings, Pulley, Key & Fasteners) - Not Shown

RAKE BLADE ASSEMBLY (OPTIONAL)



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	C500078	E-CLIP 1/2"	8
6	C600014	MAIN SHAFT ASSEMBLY	1
7	C900003	MAIN SHAFT ASSEMBLY INCLUDES: END PLATES, BEARINGS, PULLEY, KEY & FASTENERS (NOT SHOWN)	1

SAFETY DECALS

CLASSEN®

1

CAUTION
MUFFLER AND
SHIELDS MAY
EXCEED 150°F

2

TRS-20

3

LIFT BAIL TO ENGAGE
RELEASE TO DISENGAGE

4

CAUTION

1. READ INSTRUCTION MANUAL BEFORE OPERATING EQUIPMENT.
2. BE SURE THE TURF RAKE IS IN THE RAISED POSITION BEFORE STARTING THE ENGINE.
3. DO NOT OPERATE UNLESS ALL GUARDS ARE IN PLACE.
4. KEEP FEET, HANDS & ALL OBJECTS FROM UNDER DECK. KEEP PEOPLE AND PETS AT SAFE DISTANCE.
5. USE CAUTION ON SLOPES.
6. BEFORE LEAVING OPERATOR'S POSITION, SHUT OFF ENGINE.
7. BEFORE ADJUSTING RAKING DEPTH BE SURE ENGINE IS AT SLOWEST IDLE AND RAKING SHAFT HAS STOPPED ROTATING.
8. DISCONNECT SPARK PLUG WIRE BEFORE SERVICING OR CLEANING.
9. DO NOT ADD FUEL WHILE ENGINE IS WARM OR RUNNING.

5

TSS-20

6

DANGER
KEEP HANDS and FEET AWAY

7

DANGER

ENGINES PRODUCE CARBON MONOXIDE WHICH IS AN ODORLESS DEADLY POISON. DO NOT OPERATE IN AN ENCLOSED AREA.

8

SEED APPLICATION CHART				LAWN PREPARATION	
THOSE SETTINGS ARE APPROXIMATE GUIDELINES. RECOMMEND RATES ARE SPEED INDEPENDENT. FASTER SPEED DELIVERS LESS SEED.				MOW LAWN TO 1 TO 2 INCH HEIGHT. DO NOT MOW PRIOR TO SEEDING. FASTER RATE TO BETTER LAWN AND REDUCE THATCH IN EXCESS OF 1/2 INCH. ADJUST LAWN WITH CORRESPONDING FERTILIZER. LAWN WITH BROADCAST SPREADER.	
SEED TYPE	MIN. RATE (LBS./A.)	SETTING	SEED TYPE	MIN. RATE (LBS./A.)	SETTING
WHEAT GRASS	5.0	30	PERMANENT	5.0	30
	1.0	30	(TALL)	5.0	30
	1.0	30		5.0	30
BERMUDA	5.0	17		5.0	30
	2.0	10		5.0	30
FLORADA	5.0	10		5.0	30
	5.0	10		5.0	30
PERMANENT	5.0	30		5.0	30
FLORADA	5.0	30		5.0	30
FLORADA	5.0	30		5.0	30
FLORADA	5.0	30		5.0	30

9

CAUTION

DO NOT USE
WITHOUT CATCHER
BAG

10

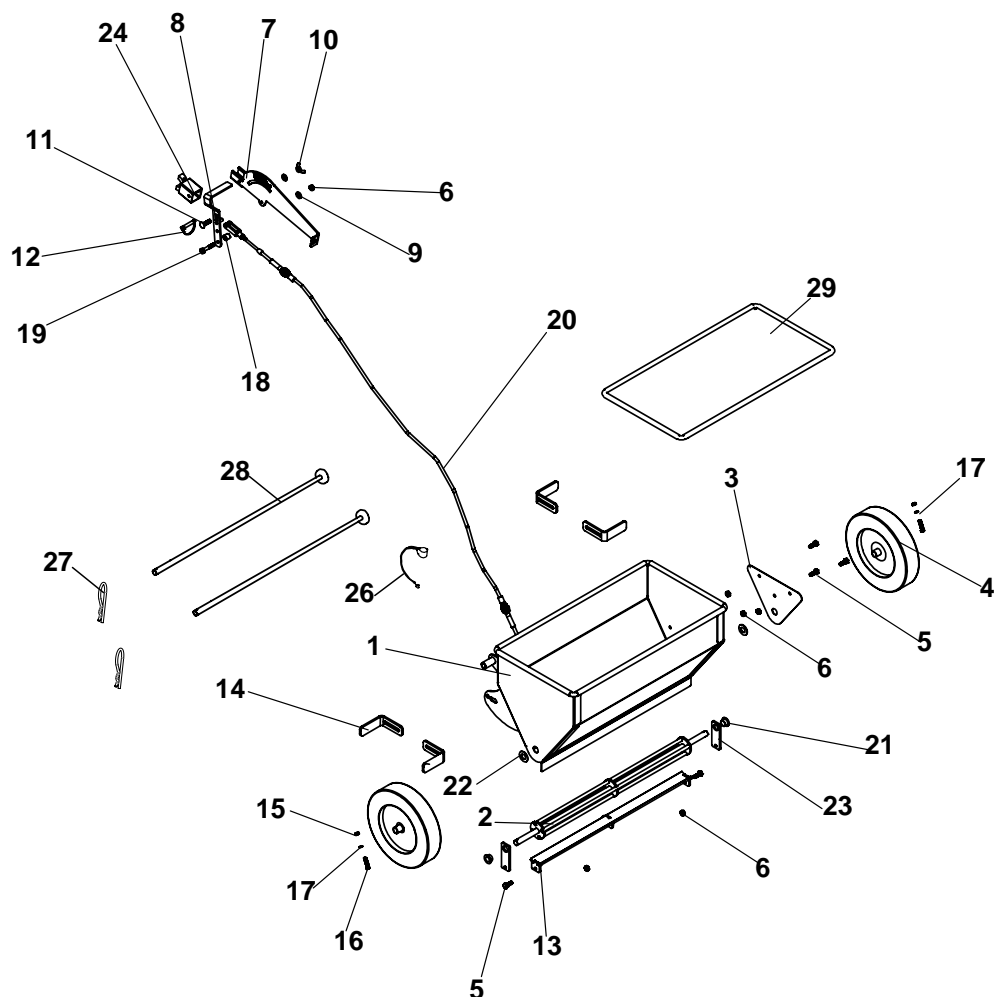


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KEY	P/N.	QTY/PER MACHINE	DESCRIPTION
1	100074	2	Decal, "Classen"
2	100060	1	Decal, "CAUTION - Muffler and Shields May Exceed 150°F"
3	100340	1	Decal, "TRS-20" (Turf Rake only)
4	100071	1	Decal, "Bail Engagement"
5	100061	1	Decal, "CAUTION - Operating Instructions"

KEY	P/N.	QTY/PER MACHINE	DESCRIPTION
6	100341	1	Decal, "TSS-20" (Turf Seeder only)
7	100069	1	Decal, "DANGER, Keep Hands and Feet Away"
8	100070	1	Decal, "DANGER - Carbon Monoxide"
9	100138	1	Decal, "Seed Application Chart" (Turf Seeder only)
10	100228	1	Decal, "CAUTION - Catcher Bag (Turf Rake only)"
11	100054	1	Manual, Operators/Parts (Not Shown)
12	100607	1	Decal, 12 Deg. Slope Warning
13	100268	1	Decal, CE Decal (Not Shown)

TSS-20 SEED BOX ASSEMBLY



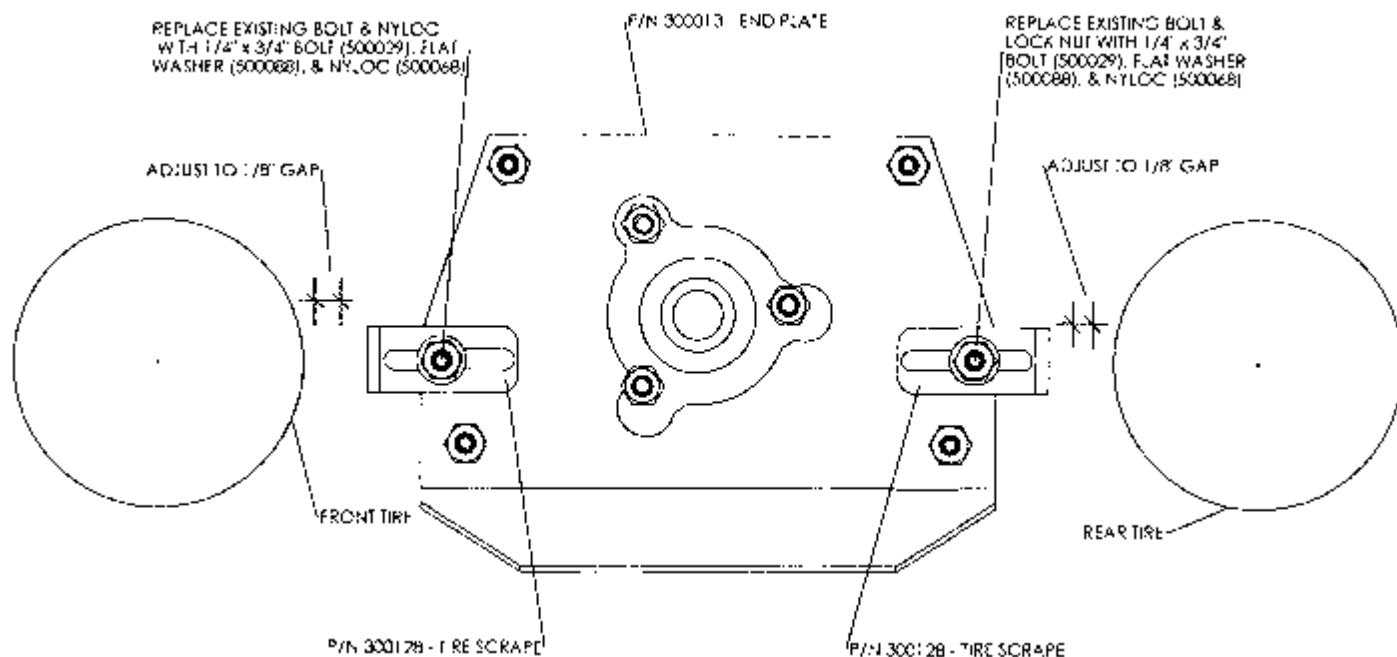
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	C400399	HOPPER WELDMENT	1	18	C400402	FLOW CONTROL HANDLE SPACER	1
2	C400400	SPREADER DRUM WELDMENT	1	19	C500089	BOLT, 1/4-20 X 1-1/2	1
3	C400404	MAIN BODY LH CLOSURE PLATE	1	20	C100624	SEEDER BOX ASSEMBLY	1
4	C100355	WHEEL, 8" SEED BOX DRIVE	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	C100078	COVER, VINYL SEED BOX	1
13	C400407	SEED GATE WELDMENT	1	30	C900055	COMPLETE SEEDER BOX ASSEMBLY (INCLUDES ITEMS 1-28)	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				

9

CE REQUIRED KITS (NOT SHOWN ON PARTS ILLUSTRATIONS)

KIT P/N	DESCRIPTION	COMMENT
C400205	EXPANDED METAL PULLEY GUARD	
C900054	TRS/TSS ADD. CE GUARD KIT, HARDWARE, DECALS	CONTAINS ALL PARTS NEEDED TO CONVERT NON-CE UNIT TO A CE UNIT
C300189	TSS/TRS CE HANDLE LEVER (C300171) KIT	Hardware: C500163 BOLT-CARR 5/16 X 3/4 (1), C500169 5/16 LOCK NUT (1)

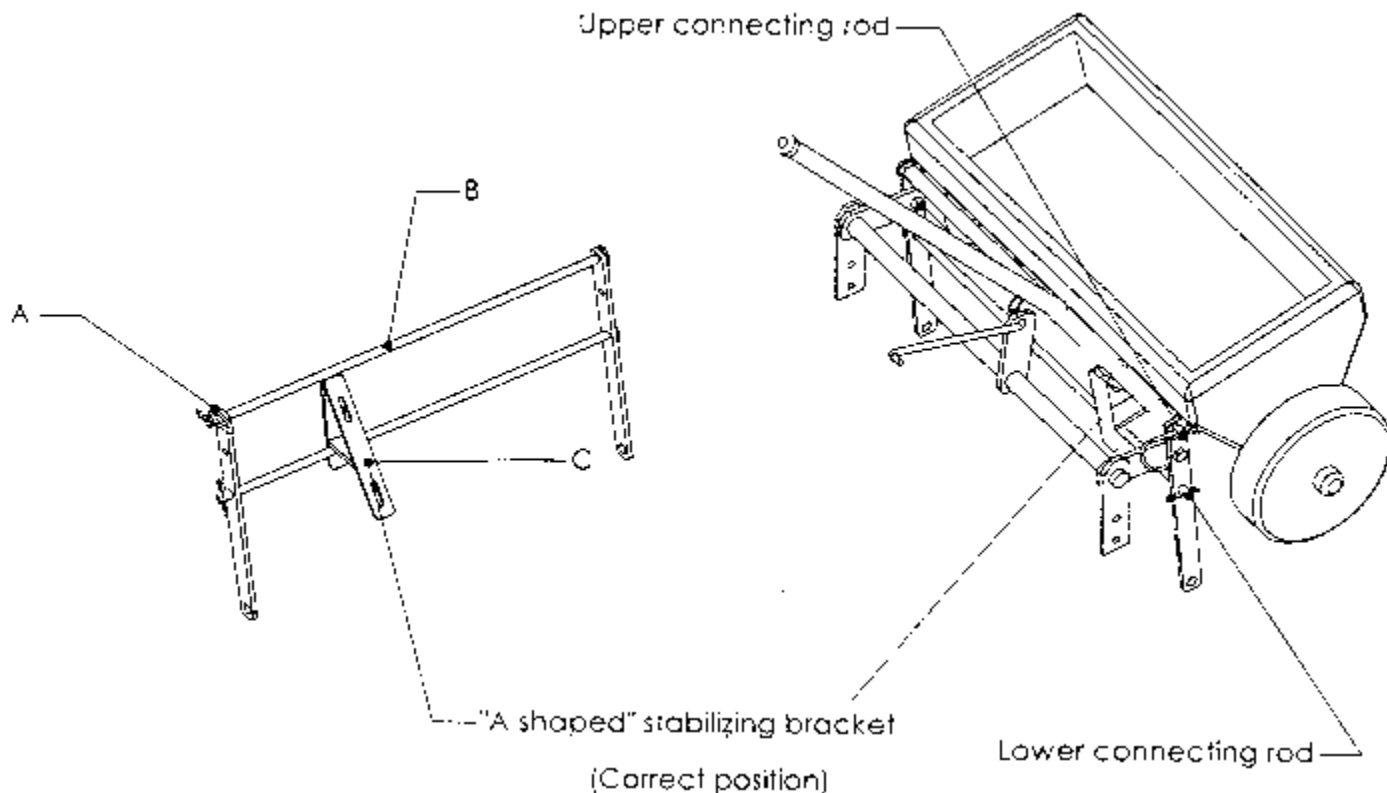
SEEDER TIRE SCRAPE INSTALLATION



SEED BOX INSTALLATION

For shipping purposes only, the seed box assembly is attached to machine improperly.

To set your machine correctly for operation, remove hairpin clip (A) from upper connecting rod (B). Slide upper rod out, allowing "A shaped" stabilizing bracket (C) on seed box to sit over lower connecting rod. (When mounted properly, wheels of seed box should be resting on front wheels of machine.) Reinsert rod and clip.





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, CLASSEN MFG., 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

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