

HYDRO OVERSEEDER

MODELS: HTS-20H Hydro Overseeder Honda GX270



Original Language Instructions

MAN 4170646

Rev A. 04-2014

ARTS MANUA

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

A WARNING

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

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.

HTS-20

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 machine comes with an Operation and Safety Manual, Parts and Service Manual, and Engine Manual. The useful life and good service you receive from this machine depends to a large extent on how well you read and understand these manuals. Treat your machine properly, lubricate and adjust it as instructed, and it will give you many years of reliable service.

Your safe use of this Classen product is one of our prime design objectives. Many safety features are built in, but we also rely on your good sense and care to achieve accident-free operation. For best protection, study the manuals thoroughly. Learn the proper operation of all controls. Observe all safety precautions. Follow all instructions and warnings completely. Do not remove or defeat any safety features. Make sure those who operate this machine are as well informed and careful in its use as you are.

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 machine only as directed in the manuals, 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 Southampton, PA 18966-4217

TABLE OF CONTENTS

FIGURES

PAGE

SAFETY.2, 3ASSEMBLY/SET-UP INSTRUCTIONS4STORAGE5SPECIFICATIONS6PARTS SECTION7HANDLE ASSEMBLYFIGURE 1DRIVE ASSEMBLYFIGURE 210, 11REEL ASSEMBLYREEL ASSEMBLYFIGURE 3HOPPER ASSEMBLYFIGURE 4

Operator's Manual 4170647



This Operator / Parts Manual is part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.

HTS-20

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

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

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.

Schiller Grounds Care, Inc. 1028 Street Road Southampton, PA 18966 U.S.A Phone: 215-357-5110 Fax: 215-357-8045 MODEL NUMBER

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.

HTS-20

MAINTENANCE SAFETY

In general

 Read and understand the manual before maintenance on machine.



- 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 a qualified technician for maintenance or service. Replace when work is complete.
- Adjust or repair only after the engine has been stopped and the tines have quit rotating.
- 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, e.g. jackstands 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

- and can
- Blades are sharp and can cut. Use extra caution when handling. Wear appropriate personal protective equipment.



- Only replace blades. Never straighten or weld them.
- 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 grouded.
- 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.



SET-UP INSTRUCTIONS / MAINTENANCE

SET-UP INSTRUCTIONS

NOTE: Units ship with no gas or oil.

- 1. Cut banding and roll seeder off pallet.
- Unfold by pulling up on handle 1. Slide lock rings 2 down to lock handle in upright position. Slide linkage coupler to the locked position.
- 3. Add oil to the engine crankcase with the engine resting in a level position. Refer to the engine manufacturer's Operator's manual for the correct type and amount of oil.
- 4. Fill the fuel tank according to the engine manufacturer specifications.

MAINTENANCE



Stop the engine and remove spark plug wire before performing any maintenance.

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.

Carbon monoxide present in the exhaust is an odorless and deadly gas. Never start or run the engine where exhaust fumes can collect. Provide enough fresh air to keep fumes from getting too strong. Replace any warning decals that become illegible immediately.

DAILY MAINTENANCE

Hardware

- Tighten any hardware (nuts, bolts, etc) that are found loose.
- Replace any broken or missing hardware (nuts, bolts, cotter pins, etc.).
- Check to see that set screws on pulley are tight.

Engine

See engine manual for oil change intervals and oil and gas specifications. See engine manual for air cleaner service intervals and servicing procedure.

Oil

See engine manual for air cleaner service intervals and servicing procedure.

Seeder

Service:

Stop engine and remove spark plug wire before servicing seeder.

Blades

- Check condition of guards for damage or wear.
- Replace broken, worn, or damaged tines. Do not weld or try to straighten tines.

HTS-20

Guards

- Check condition of guards for damage or wear.
- Replace broken, worn, or damaged shield plates.

Belts

- Check condition of belts for damage or wear.
- · Replace broken, worn, or damaged belts.

Belt Replacement

• Stop the engine and disconnect the spark plug wire before attempting to replace any belt.

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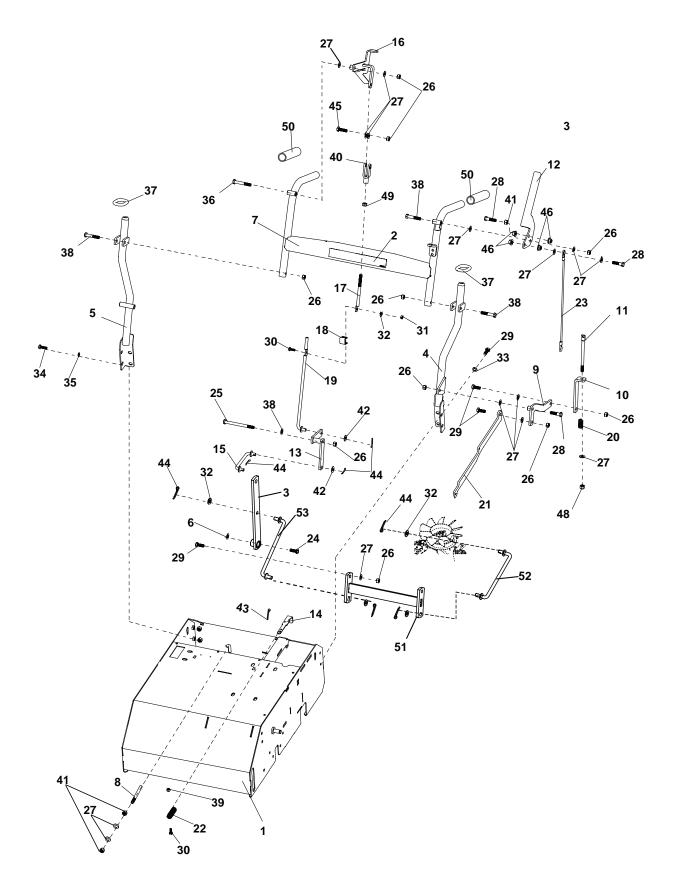
STORAGE INSTRUCTIONS		EXTENDED STORAGE			
 To prevent possible exploit vaporized fuel, do not stor in tank or carburetor in en (for example, a furnace or light). Daily Storage Check engine oil level and Chose fuel valve at bottom Clean cutting blade (grass) 	sion or ignition of re equipment with fuel aclosure with open flame r water heater pilot d air filter element daily. Se. n of fuel tank. s, dirt, etc.).	 Before the equipment is put into storage for any period exceeding 30 days: Drain all fuel from fuel tank and lines (use a hose or fuel line, routed from fuel tank shut-off to proper container). Start engine and run until all fuel is used from the carburetor float bowl. While engine is warm, drain the crankcase oil and refill with the proper weight of oil corresponding to the season when the equipment will next be used. 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. Lubricate all lubrication fittings. Clean and oil cutting blade to prevent rust. To put equipment into operation after an extended storage: Fill fuel tank with clean fresh fuel. Check crankcase oil level, and start engine. Check for loose parts and tighten. Check for cracked or broken blades and replace. 			

SPECIFICATIONS

HTS-20	
Dimensions:	<i>-</i>
Width	
Length	
Length (handle folded)	46" (1168 mm)
Height (transport)	45" (1143 mm)
Height (handle folded)	33" (838 mm)
Maximum gate Width	32" (813 mm)
Net Weight:	
Weight	300 lbs. (136 Kg)
Removable weights	N/A
Speed:	
Seed	
	Reverse1.5 m.p.h
Engine:	
Model HTS-20H	
Model	GX270
Honda, 9.0 h.p., 4 cycle	
Starter	Recoil, on/off switch
Governor	3600 RPM, no load
Fuel Tank	
Drive:	
MachineHy	
Primary	Sheaves and Belts
Wheels:	
Front & Rear	13 X 5.00-6
Seeding:	
Seeding Width	20"
Blade Depth	
Productivity	
Number of blades	

PARTS SECTION

FIGURE 1



HANDLE ASSEMBLY

FIGURE 1

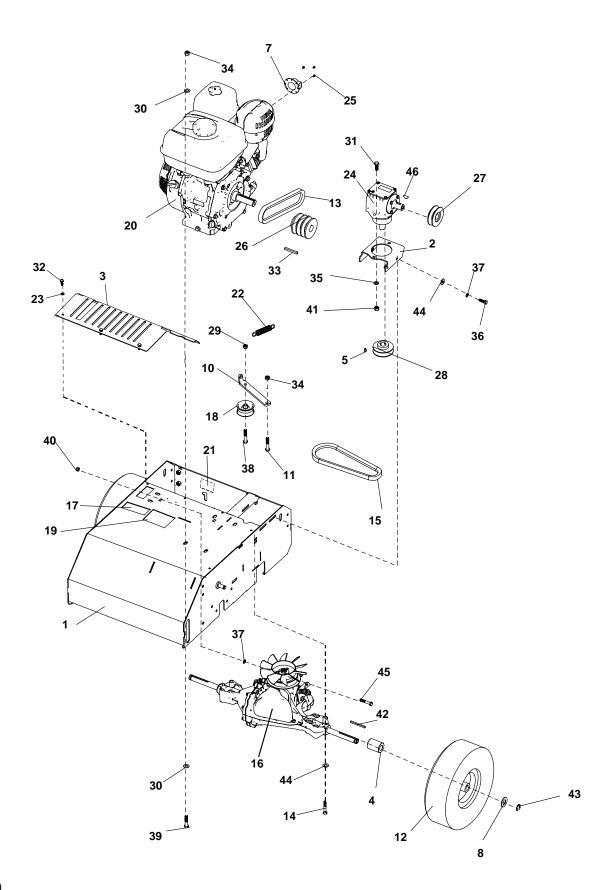
ITEM	PART NO.	DESCRIPTION	QTY	I1
1	4170714	S-MAIN BODY W/ LABS	1	3
2	4170717	DECAL, SM CLASSEN FLAT	1	3
3	C400476.17	SP LINKAGE CONN ARM	1	3
4	C400461.17	LFT LOWER HANDLE BAR	1	3
5	C400462.17	RT LOWER HANDLE BAR	1	4
6	C500034	BOLT, 1/2 FLAT	1	4
7	C400464.17			4
8	C400465.17		1	4
9		LFT LWR CONN WLDMNT	1	4
10		LFT LWR CONN ARM	1	4
11		LFT LOWER FLAT ROD	1	4
12	C400472.17	LFT CONTROL HANDLE	1	4
13	C400473.17		1	4
14	C400475.17		1	4
15	C400477.17		1	5
16		BLADE ENGMNT LEVER	1	5
17	C400482.17		1	5
18	C400483.7		1	5
19		SP LOWER CONN WLDMN		
20	4169763		1	
21	C400491.17		1	
22	4170082	C750 CENTURY SPRING		
23	4170084	TENSIONER CABLE	1	
24	C500149	TENSIONER CABLE BOLT, 1/2-13 x 2 BOLT, 3/8-16 X 4-1/2 NUT, 3/8-16 LOCK	1	
25	C500165	BOLI, 3/8-16 X 4-1/2	1	
26	C500041		11	
27	C500042	WASHER, 3/8" FLAT	17	
28	C500146	BOLT, 3/8-16 X 1-1/2 BOLT, 3/8-16 X 1 BOLT, 1/4-20 x 3/4	3	
29	C500043	BOLI, 3/8-16 X 1	8	
30	C500029	BOLI, 1/4-20 x 3/4	7	
31	C500139	NUT, 1/4-20 LOCK	1	
32	C500088	WASHER, 1/4" FLAT	5	
33	C500130	WASHER, 3/8 LOCK	4	
34	C500133	BOLT, 5/16-18 x 1	4	
35	C500115	WASHER, 5/16 LOCK	4	
				1

HTS-20=

ITEM	PART NO.	DESCRIPTION	QTY
36	C500020	BOLT, 3/8-16 x 2-1/2	1
37	C100251	RING, HANDLE LOCK	2
38	C500091	BOLT, 3/8-16 x 2	3
39	C500068	NUT, 1/4-20 NYLOC	1
40	C500026	CLEVIS YOKE, 3/8" FTH	1
41	C500129	NUT, 3/8-16	3
42	C500083	WASHER, 5/16 FLAT	2
43	C500016	PIN, 5/32" x 1-1/4" COTTER	R 1
44	4170473	PIN, 1/8 X 1 COTTER	7
45	C500134	BOLT, 3/8-16 x 1-1/4	1
46	C500081	NUT, 3/8-16 WHIZ LOCK	4
47	C500137	WASHER, 1/4 LOCK	5
48	C500076	NUT, 3/8-16 NYLOC	1
49	C500025	NUT, 3/8-24	1
50	4169758	FOAM HANDLE GRIP	2
51	C400467.17	SP TRANSFER WELDMEN	T 1
52	C400495.17	SP CONN ROD WELDM	1
53	C400474.17	SP CONN ROD WELDMEN	1

*NOT ILLUSTRATED

FIGURE 2



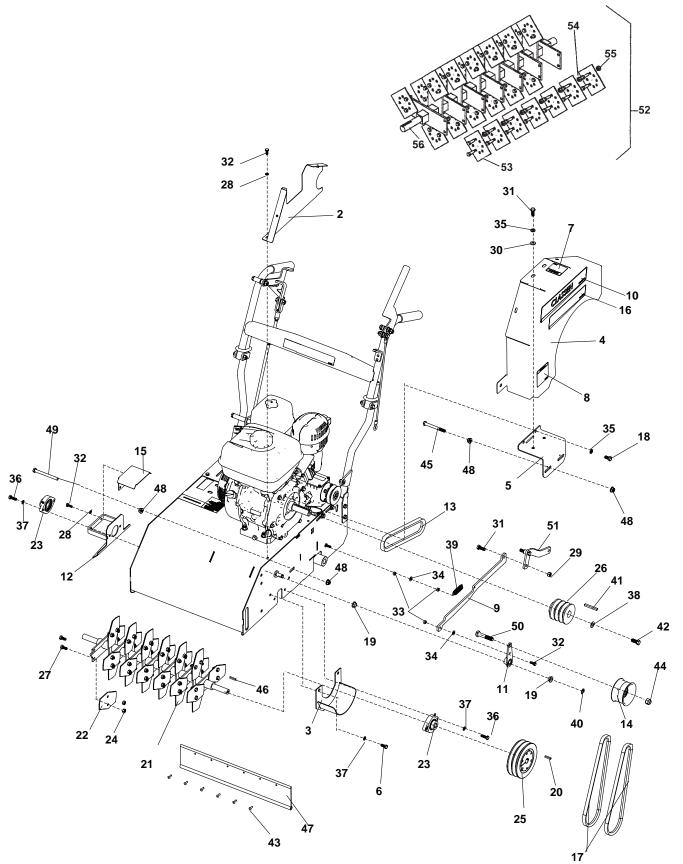
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FIGURE 2

ITE	M PART NO	D. DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4170714	S-MAIN BODY W/LABS	1				
2		RT ANGL GEARBOX TEN					
3	C400463.17	FRAME REAR ACCESS P	LATE 1				
4	C400457	REAR WHEEL SPACER	2				
5	64164-48	KEY, 5/32 X 3/16 X 5/8	1				
6*	C100060	DECAL, MUFFLER	1				
7	4170466	ENGINE EXHAUST DIVER	RTER 1		*NOT	ILLUSTRATED	
8	C400480	WASHER, WHEEL	2				
9*	C100070	DECAL, CARBON MONO	KIDE 1				
10	C400492.17	TRANSAXLE BELT PLATE	E 1				
11	C500146	BOLT, 3/8-16 x 1-1/2	1				
12	4169760	WHEEL & TIRE 13XX5.0X	62				
13	4169756	6927 GEARBOX V-BELT	1				
14	C500143	BOLT, 5/16-18 x 2-1/2	4				
15	4169755	A26 TRANSMISSION V-BE	ELT 1				
16	C100585	TRANSAXLE	1				
17	C100505	DECAL, CARB APPROVAI	_ 1				
18	C100010	PULLEY, IDLER	1				
19	C100504	DECAL, SPARK ARRESTO	DR 1				
20	4166074	ENGINE, HONDA GX270	1				
21	C100490	HYDRO MNL ROLL DECA	L 1				
22	4170427	SPRING, C-191	1				
23	C500137	WASHER, 1/4 LOCK	2				
24	4169765	GEARBOX, RT ANGLE	1				
25	265	SCREW, M4 X 8 THREAD	CUT 3				
26	4169748	PULLEY, MOTOR 3BK28 >	(1 1				
27	4169751	PULLEY, GEARBOX 3-1/8	X7/8 1				
28	4169754	PULLEY, GEARBOX 3 X 7	/8 1				
29	C500041	NUT, 3/8-16 LOCK	1				
30	C500042	WASHER, 3/8" FLAT	8				
31	C500043	BOLT, 3/8-16 X 1	2				
32	C500029	BOLT, 1/4-20 x 3/4	3				
33	64164-50	KEY, 1/4" SQ X 2.20" LON	G 1				
34	C500076	NUT, 3/8-16 NYLOC	4				
35	C500130	WASHER, 3/8 LOCK	2				
36	C500133	BOLT, 5/16-18 x 1	6				
37	C500115	WASHER, 5/16 LOCK	9				
38	C500091	BOLT, 3/8-16 x 2	1				
39	C500079	BOLT, 3/8-16 X 1-3/4	4				
40	C500101	NUT, 5/16-18	1				
41	C500129	NUT, 3/8-16	2				
42	64164-49	KEY, 3/16" SQ X 2-1/2"	2				
43	C500252	E-RING, 3/4"	2				
44	C500083	WASHER, 5/16 FLAT	2				
45	C500074	BOLT, 5/16-18 X 1-3/4	1				
46	121	KEY, 3/16" x 3/4" HALF MC	DON 1				

REEL ASSEMBLY

FIGURE 3



REEL ASSEMBLY

FIGURE 3

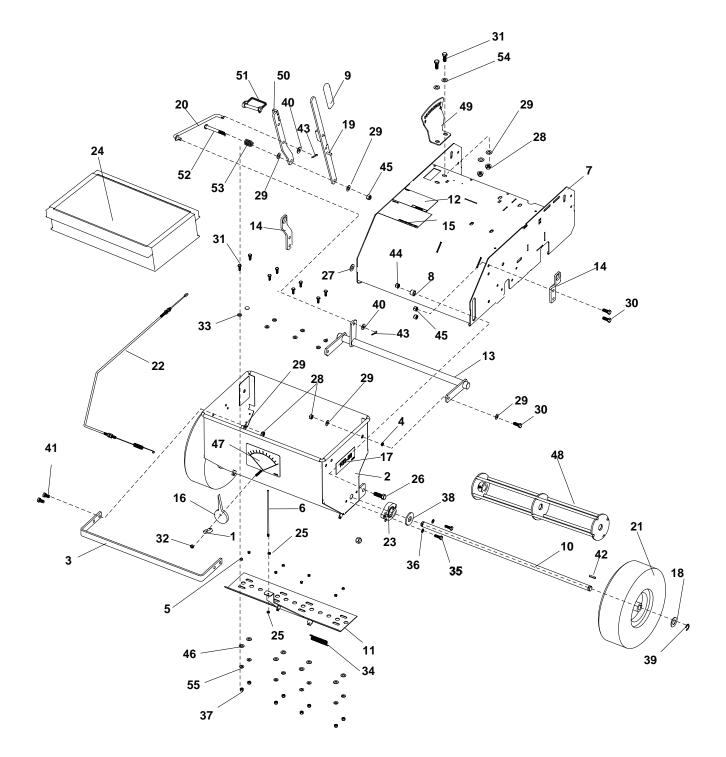
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ITE	M PART NO.	DESCRIPTION	QTY	ITEN	I PART NO.	DESCRIPTION	QTY
1	4170714	S-MAIN BODY W/ LABS	1	30	C100655	SPRING, SMALL	1
2	C400493.17	BELT SHIELD WLDMT	1		C500078	E-RING, 1/2"	1
3	C400453.17	LFT SHAFT COVER WLDM			64164-50	KEY, 1/4" SQ X 2.20" LONG	
4	4170715.17	FRONT BELT SHIELD	1		64123-11	BOLT, 7/16-20 X 1"	1
5	C400459.17	BELT CVR MOUNT WLDM			C500238	RIVET, 3/16 X 5/8 POP	6
6	C500140	BOLT, 5/16-18 x 3/4	1		64229-05	NUT-NYLON LOCK 1/2-13	1
7	4168760	LABEL WARNING - HAND	1		C500170	BOLT, 3/8-16 X 3-1/2	2
8	20942	LABEL, DANGER	1		C500011	KEY, 3/16 SQUARE X 1	1
9	C400491.17	BELT TENSIONER PLATE	1		C300015	FLAT, DRAG SHIELD	1
	4170118	DECAL, CLASSEN DOME	1		C500081	NUT, 3/8-16 WHIZ LOCK	6
11	C400498.17	ENGAGEMENT ARM	1		64123-139	BLT-HEX 3/8-16X4	1
	C400454.17	RIGHT SHAFT GUARD	1		C500135	BOLT, 1/2-13 x 2-1/2	1
	4169756	V-BELT 6927 GEARBOX	1		C400469.17	LFT LWR CONN ARM	1
	C100208	PULLEY, DOBL IDLER	1	01	0400403.17		1
	C400455.17	RT SHAFT GUARD COVER		OPT	IONAL SLICEF		
	C100489	DECAL HYDRO DRIVE	2		C600040	ASSY-SLICING BLADE	1
	4169757	BELT, 6941 REEL	2		(INCLUDES ITE		1
	C500177	BOLT, 3/8-16 X 3/4	2			110 00 00)	
	C100052	BEARING, CONTROL	2	53	C100427	BLADE, SLICER SQUARE	26
	C500011	KEY, 3/16 SQUARE X 1	1		C500216	BOLT, 5/16-18 X 3/4 GR 8	52
	C600030	BLADES SUB-ASSEMBLY,	1		C500217	NUT, 5/16-18 AUTO. LOCK	52
	C100310	BLADE W/ 5/16" HOLES	26		C700025	SHAFT W/ BLADE HOLDERS	
	4169759	BEARING, S2 BOLT 3/4	2	50	0100020	SHALL W BEADE HOLDENS	I
	C500217	NUT, 5/16-18 AUTO. LOCK					
	4169749	PULLEY, REEL 2BK52H	1				
	4169748	PULLEY, MOTOR 3BK28X1					
	C500216	BOLT, 5/16-18 X 3/4 GR 8	52				
	C500137	WASHER, 1/4 LOCK	2				
	C500041	NUT, 3/8-16 LOCK	1				
	C500042	WASHER, 3/8" FLAT	8				
	C500043	BOLT, 3/8-16 X 1	2				
	C500029	BOLT, 1/4-20 x 3/4	3				
	C500139	NUT, 1/4-20 LOCK	1				
	C500088	WASHER, 1/4" FLAT	1				
	C500130	WASHER, 3/8 LOCK	2				
	C500133	BOLT, 5/16-18 x 1	6				
	C500115	WASHER, 5/16 LOCK	9				
38	64163-115	7/16" SAE FLAT WASHER					

HTS-20=

HOPPER ASSEMBLY

FIGURE 4



HOPPER ASSEMBLY

FIGURE 4

ITEM	I PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
$\begin{array}{c}1\\1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\324\\25\\26\\27\\28\\29\\30\\31\\32\\33\\4\\35\\36\\37\\38\end{array}$		SEED HOPPER BOLT-ON BUMPER BUSHING, HEIGHT CNTRL BUSHING, SEED GATE GATE OPERATION FLAG S-MAIN BODY W/LABS BUSHING, SEED BOX GRIP, RUBBER SHAFT, KEYED SEED GATE WELDMENT LABEL - READ MANUAL HEIGHT CNTRL WLDMT HEIGHT CNTRL BRCKT DECAL - SEED CHART SEED FLOW SELECTOR DECAL, HTS-20 WASHER, WHEEL DEPTH ADJUST LEVER	$\begin{array}{c} 1 \\ 1 \\ 2 \\ 8 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1$	39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	C500252 C500083 C500177 C500011 4170473 64229-05 C500076 64240-07 C100726 C400456 C400487 C400489.17 4170081 C500159 C500065 C500137 4172199	E-RING, 3/4" WASHER, 5/16 FLAT BOLT, 3/8-16 X 3/4 KEY, 3/16 SQUARE X 1 PIN, 1/8 X 1 COTTER NUT-NYLON LOCK 1/2-13 NUT, 3/8-16 NYLOC WASHER, 3/8" NYLON DECAL - GATE OPENING SEED AGITATOR PLATE, DEPTH SELECTOF STOP, DEPTH ADJUST PIN / WIRE LOCK BOLT, 3/8-16 x 3 SPRING-SPEED STOP WASHER, 1/4 LOCK WASHER-6MM	2 1 4 2 1 2 4 8 1 1 1 2 4 8 1 1 1 2 8

from



COMPACT AERATORS CA-18H CA-18B

STAND ON AERATOR SA-25

SPLIT DRIVE AERATORS TA-25D TA-17D

> TURF AERATORS TA-19D TA-19B

RECIPROCATING AERATORS RA-21H RA-21B TURF SEEDERS TS-20H TS-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

TOW/3PT AERATORS 48RT 60RT

HYDRO OVERSEEDER HTS-20 SCHV-18/5.5-W SCHV-18/8.0-W

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