

CLASSEN[®]

HYDRO OVERSEEDER

MODELS:

HTS-20H

Hydro Overseeder Honda GX270



PARTS MANUAL

MAN 4170646

Rev A. 04-2014

Original Language Instructions

 **SCHILLER** GROUNDS CARE

OPERATOR'S MANUAL 4170647

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.

⚠ 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.

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

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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.

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

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.

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 unit. It contains the model number followed consecutively by the serial number. Use this number when ordering parts or seeking warranty information.

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**

- 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.

WARNING**Fuel****WARNING**

- 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.

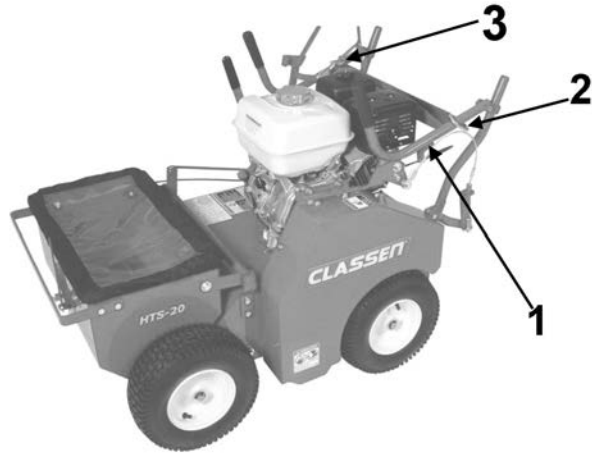
Sparks from static electricity can start fires or cause explosions. Flowing fuel can generate static electricity. To prevent static electricity sparks:

- 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 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

NOTE: Units ship with no gas or oil.

1. Cut banding and roll seeder off pallet.
2. 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



WARNING

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.

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.

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, drain the crankcase 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. Fill fuel tank with clean fresh fuel.
2. Check crankcase oil level, and start engine.
3. Check fuel system for fuel leaks.
4. Check for loose parts and tighten.
5. Check for cracked or broken blades and replace.

HTS-20	
Dimensions:	
Width.....	31" (787 mm)
Length.....	57" (1448 mm)
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.....	Forward...3 m.p.h
.....	Reverse...1.5 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.....	1.4 gal. (5.3 L)
Drive:	
Machine.....	Hydro Gear Transmission
Primary.....	Sheaves and Belts
Wheels:	
Front & Rear.....	13 X 5.00-6
Seeding:	
Seeding Width.....	20"
Blade Depth.....	10 position 0" -1.63"
Productivity.....	26,400 sq. ft / hour
Number of blades.....	double blade 26 total

HTS-20

**PARTS
SECTION**

HANDLE ASSEMBLY

HTS-20

FIGURE 1

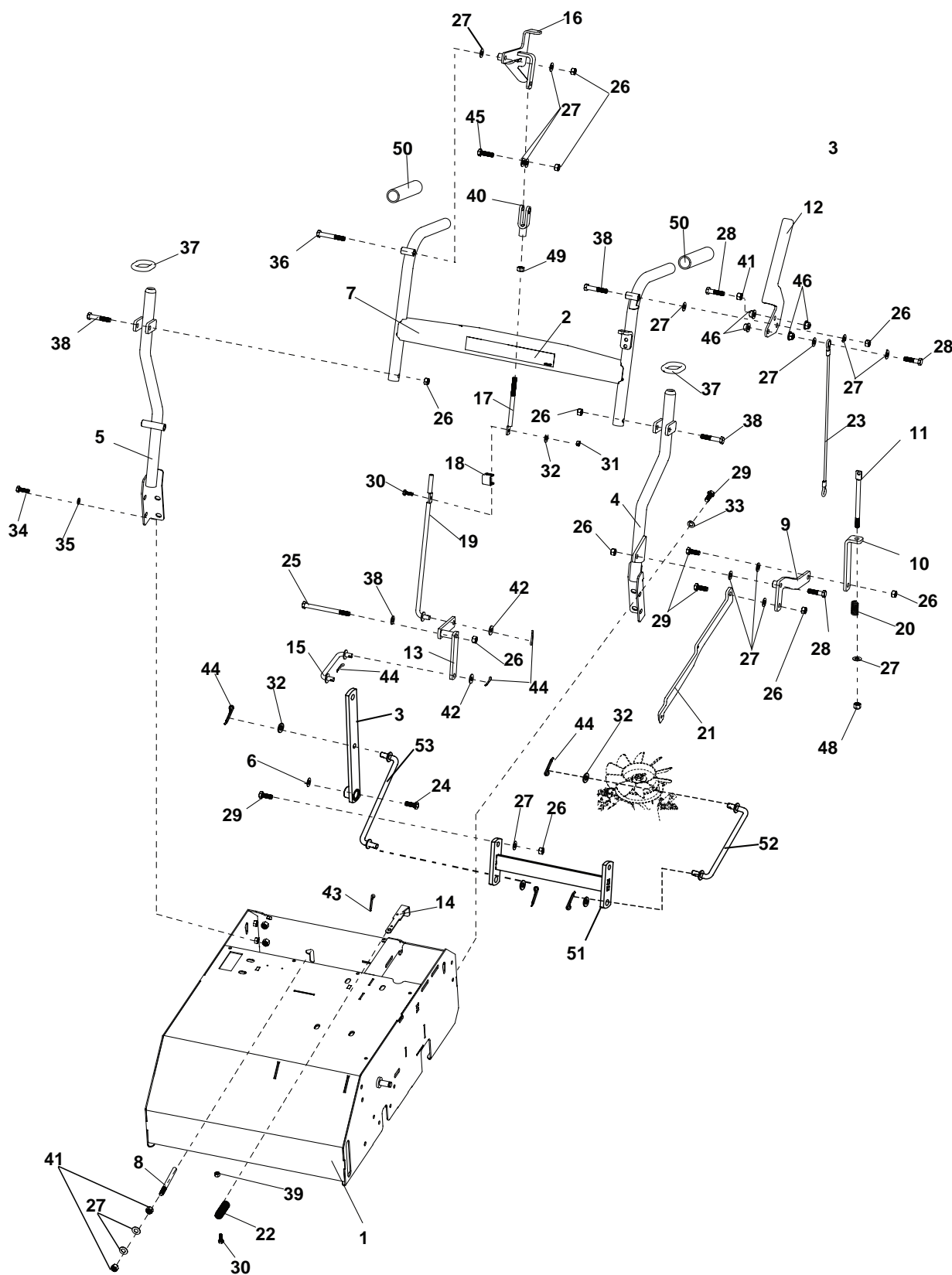


FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4170714	S-MAIN BODY W/ LABS	1	36	C500020	BOLT, 3/8-16 x 2-1/2	1
2	4170717	DECAL, SM CLASSEN FLAT	1	37	C100251	RING, HANDLE LOCK	2
3	C400476.17	SP LINKAGE CONN ARM	1	38	C500091	BOLT, 3/8-16 x 2	3
4	C400461.17	LFT LOWER HANDLE BAR	1	39	C500068	NUT, 1/4-20 NYLOC	1
5	C400462.17	RT LOWER HANDLE BAR	1	40	C500026	CLEVIS YOKE, 3/8" FTH	1
6	C500034	BOLT, 1/2 FLAT	1	41	C500129	NUT, 3/8-16	3
7	C400464.17	UPR HANDLE BAR WLDMT	1	42	C500083	WASHER, 5/16 FLAT	2
8	C400465.17	BRAKE ROD	1	43	C500016	PIN, 5/32" x 1-1/4" COTTER	1
9	C400469.17	LFT LWR CONN WLDMNT	1	44	4170473	PIN, 1/8 X 1 COTTER	7
10	C400470.17	LFT LWR CONN ARM	1	45	C500134	BOLT, 3/8-16 x 1-1/4	1
11	C400471.17	LFT LOWER FLAT ROD	1	46	C500081	NUT, 3/8-16 WHIZ LOCK	4
12	C400472.17	LFT CONTROL HANDLE	1	47	C500137	WASHER, 1/4 LOCK	5
13	C400473.17	RT LWR LEVER WLDMNT	1	48	C500076	NUT, 3/8-16 NYLOC	1
14	C400475.17	FREE WHEEL HANDLE	1	49	C500025	NUT, 3/8-24	1
15	C400477.17	RT LWR CONN WLDMNT	1	50	4169758	FOAM HANDLE GRIP	2
16	C400479.17	BLADE ENGMNT LEVER	1	51	C400467.17	SP TRANSFER WELDMNT	1
17	C400482.17	SP UPPER CONN ROD	1	52	C400495.17	SP CONN ROD WELDM	1
18	C400483.17	LINKAGE COUPLER	1	53	C400474.17	SP CONN ROD WELDMEN	1
19	C400484.17	SP LOWER CONN WLDMNT	1				
20	4169763	SPRING, LEFT CONTRL	1				
21	C400491.17	BELT TENSIONER LATE	1				
22	4170082	C750 CENTURY SPRING	1				
23	4170084	TENSIONER CABLE	1				
24	C500149	BOLT, 1/2-13 x 2	1				
25	C500165	BOLT, 3/8-16 X 4-1/2	1				
26	C500041	NUT, 3/8-16 LOCK	11				
27	C500042	WASHER, 3/8" FLAT	17				
28	C500146	BOLT, 3/8-16 X 1-1/2	3				
29	C500043	BOLT, 3/8-16 X 1	8				
30	C500029	BOLT, 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				

***NOT ILLUSTRATED**

FIGURE 2

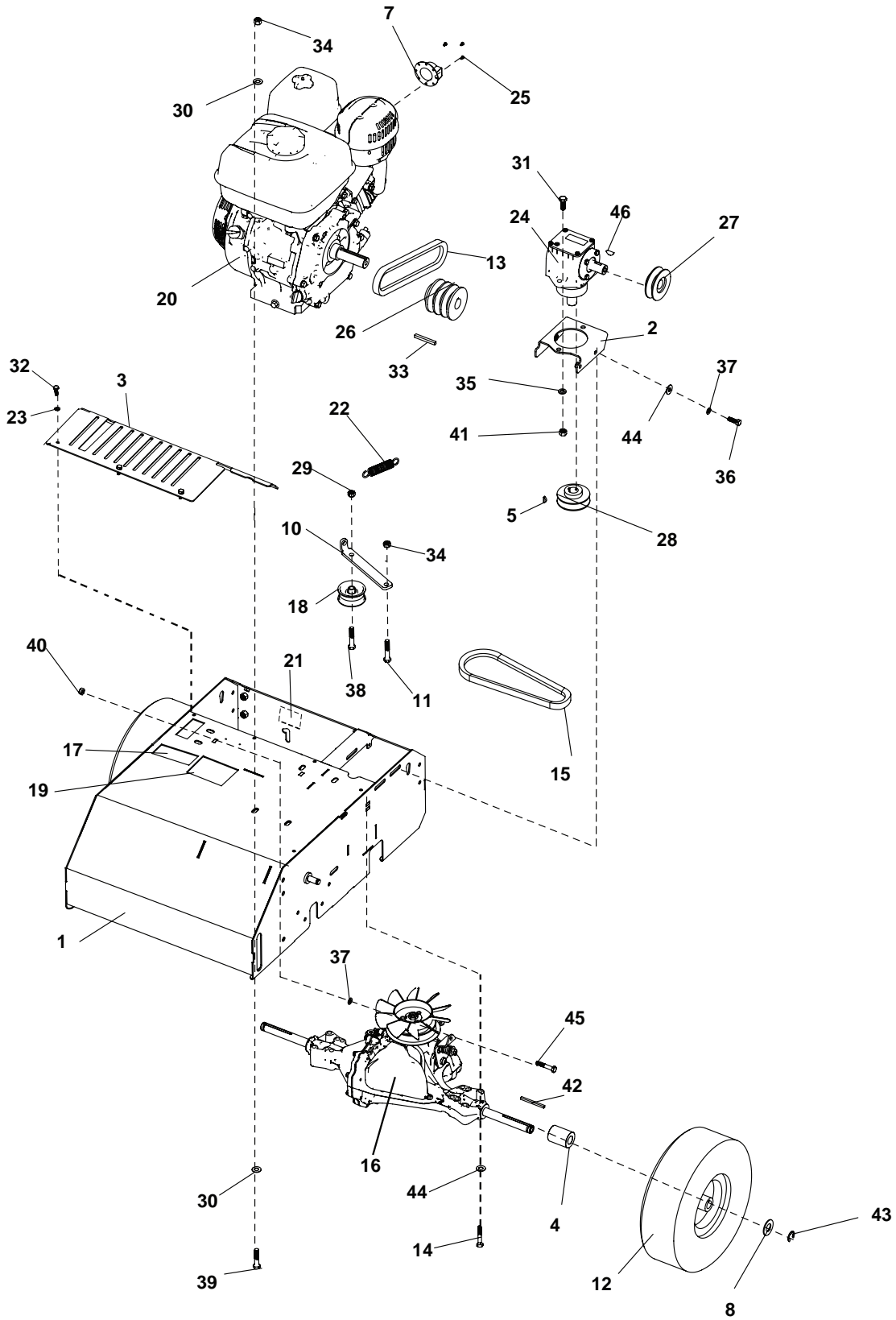


FIGURE 2

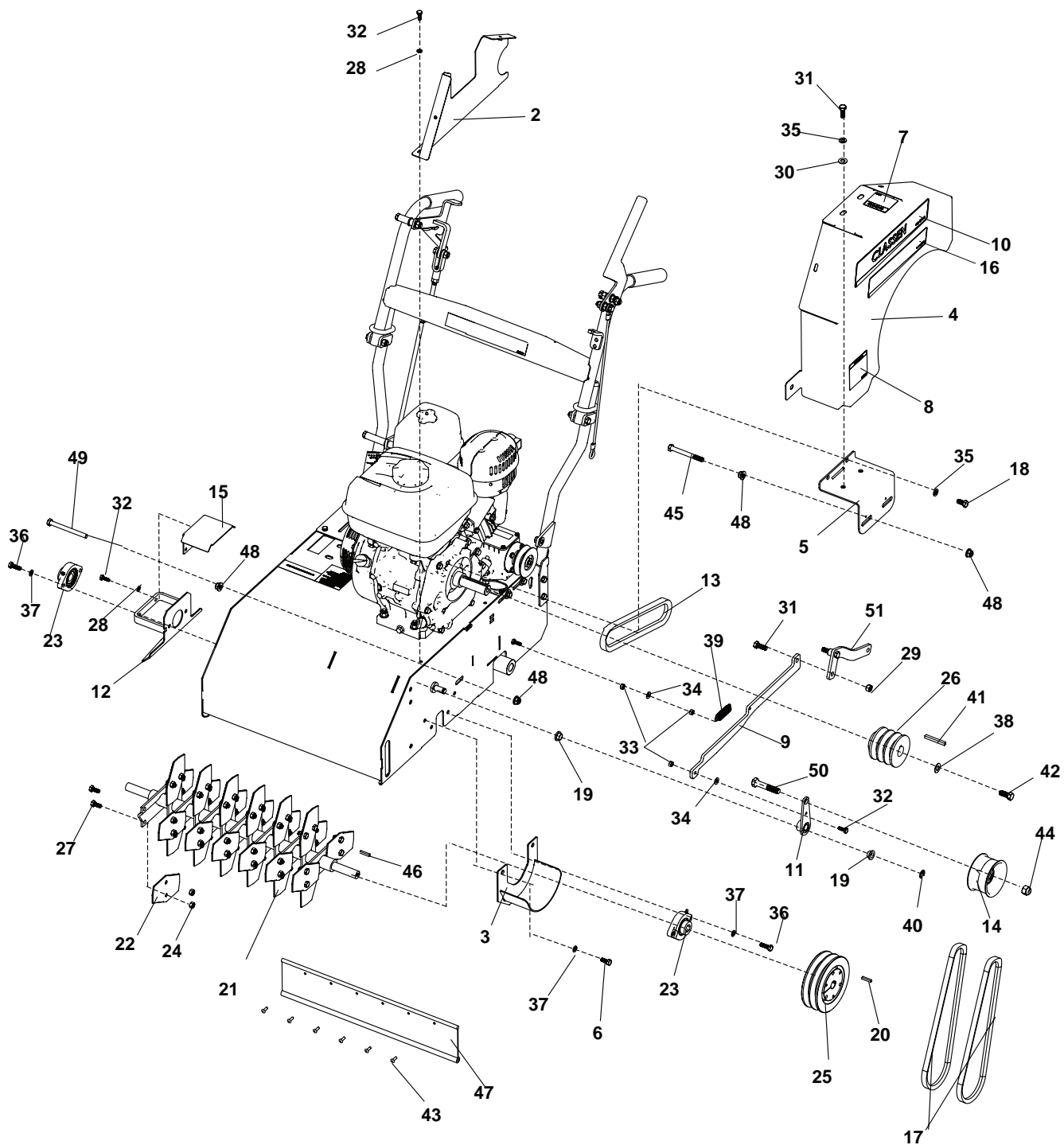
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	4170714	S-MAIN BODY W/LABS	1				
2	C400452.17	RT ANGL GEARBOX TENSION	1				
3	C400463.17	FRAME REAR ACCESS PLATE	1				
4	C400457	REAR WHEEL SPACER	2				
5	64164-48	KEY, 5/32 X 3/16 X 5/8	1				
6*	C100060	DECAL, MUFFLER	1				
7	4170466	ENGINE EXHAUST DIVERTER	1				
8	C400480	WASHER, WHEEL	2				
9*	C100070	DECAL, CARBON MONOXIDE	1				
10	C400492.17	TRANSAXLE BELT PLATE	1				
11	C500146	BOLT, 3/8-16 x 1-1/2	1				
12	4169760	WHEEL & TIRE 13XX5.0X6	2				
13	4169756	6927 GEARBOX V-BELT	1				
14	C500143	BOLT, 5/16-18 x 2-1/2	4				
15	4169755	A26 TRANSMISSION V-BELT	1				
16	C100585	TRANSAXLE	1				
17	C100505	DECAL, CARB APPROVAL	1				
18	C100010	PULLEY, IDLER	1				
19	C100504	DECAL, SPARK ARRESTOR	1				
20	4166074	ENGINE, HONDA GX270	1				
21	C100490	HYDRO MNL ROLL DECAL	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 X 1	1				
27	4169751	PULLEY, GEARBOX 3-1/8X7/8	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" LONG	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 MOON	1				

*NOT ILLUSTRATED

REEL ASSEMBLY

HTS-20

FIGURE 3



HOPPER ASSEMBLY

HTS-20

FIGURE 4

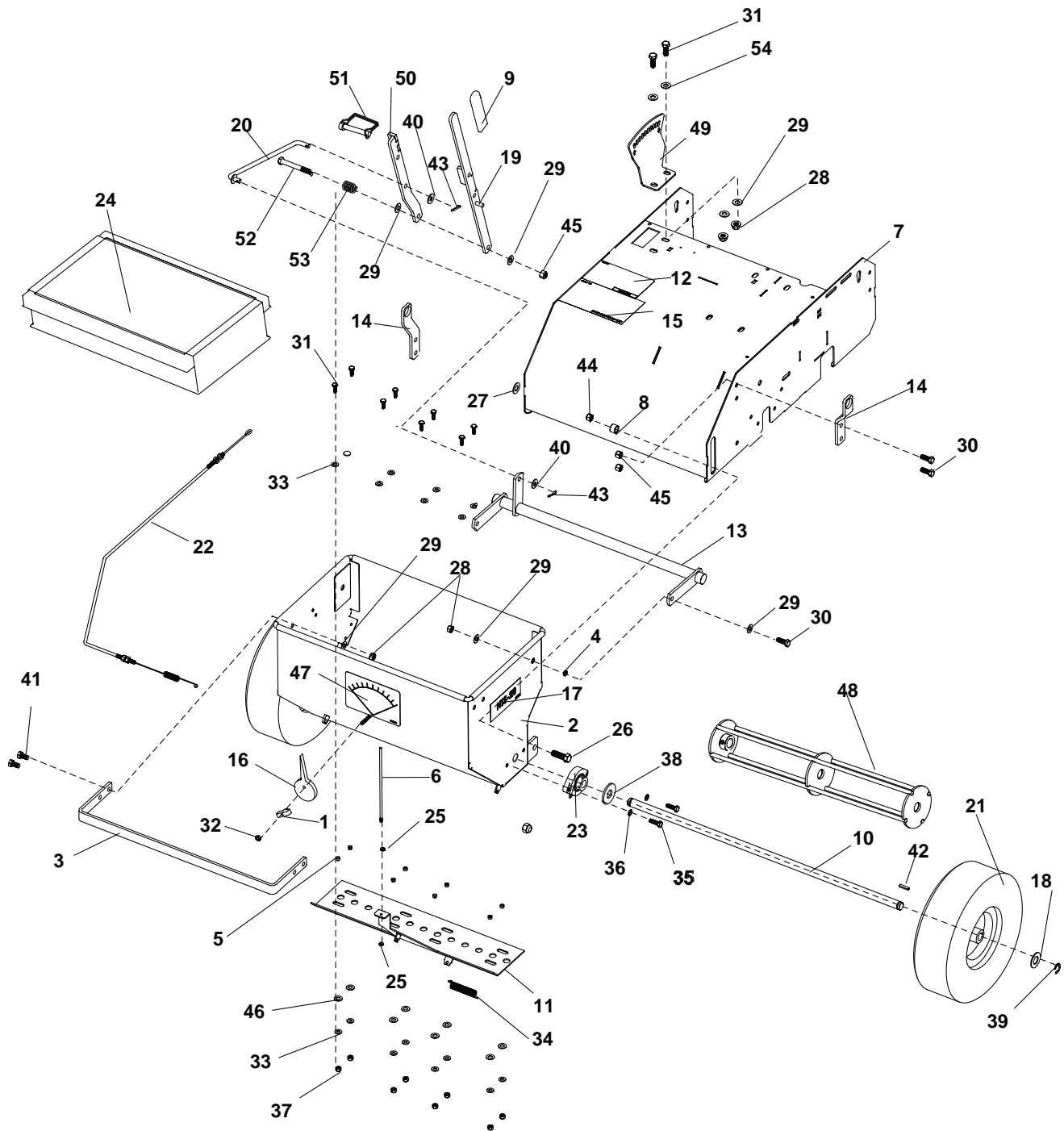


FIGURE 4

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	C400444.17	WING NUT, DEPTH GAUGE	1	39	C500252	E-RING, 3/4"	2
2	C400450.17	SEED HOPPER	1	40	C500083	WASHER, 5/16 FLAT	1
3	4170181.17	BOLT-ON BUMPER	1	41	C500177	BOLT, 3/8-16 X 3/4	4
4	4170182	BUSHING, HEIGHT CNTRL	2	42	C500011	KEY, 3/16 SQUARE X 1	2
5	4170183	BUSHING, SEED GATE	8	43	4170473	PIN, 1/8 X 1 COTTER	1
6	4170184.17	GATE OPERATION FLAG	1	44	64229-05	NUT-NYLON LOCK 1/2-13	2
7	4170714	S-MAIN BODY W/LABS	1	45	C500076	NUT, 3/8-16 NYLOC	4
8	4170185	BUSHING, SEED BOX	2	46	64240-07	WASHER, 3/8" NYLON	8
9	C100007	GRIP, RUBBER	1	47	C100726	DECAL - GATE OPENING	1
10	C400458	SHAFT, KEYED	1	48	C400456	SEED AGITATOR	1
11	C400460	SEED GATE WELDMENT	1	49	C400487	PLATE, DEPTH SELECTOR	1
12	4165977	LABEL - READ MANUAL	1	50	C400489.17	STOP, DEPTH ADJUST	1
13	C400466.17	HEIGHT CNTRL WLDMT	1	51	4170081	PIN / WIRE LOCK	1
14	C400468.17	HEIGHT CNTRL BRCKT	2	52	C500159	BOLT, 3/8-16 x 3	1
15	4169927	DECAL - SEED CHART	1	53	C500065	SPRING-SPEED STOP	1
16	C400478.17	SEED FLOW SELECTOR	1	54	C500137	WASHER, 1/4 LOCK	1
17	C100727	DECAL, HTS-20	2				
18	C400480	WASHER, WHEEL	2				
19	C400488.17	DEPTH ADJUST LEVER	1				
20	C400490.17	HEIGHT SLCTR WLDMT	1				
21	4169760	WHEEL & TIRE 13XX5.0X6	2				
22	4169762	CONTROL CABLE, HTS-20	1				
23	4169759	BEARING, 3/4" SHAFT	2				
24	C100078	COVER, VINYL SEED BOX	1				
25	C100145	NUT, #10-24 HEX	2				
26	C500150	BOLT, 1/2-13 x 1-1/2	2				
27	C500034	WASHER, 1/2 FLAT	1				
28	C500041	NUT, 3/8-16 LOCK	6				
29	C500042	WASHER, 3/8" FLAT	8				
30	C500043	BOLT, 3/8-16 X 1	6				
31	C500029	BOLT, 1/4-20 x 3/4	8				
32	C500139	NUT, 1/4-20 LOCK	1				
33	C500088	WASHER, 1/4" FLAT	16				
34	C100034	SPRING, CLUTCH CABLE	1				
35	C500133	BOLT, 5/16-18 x 1	4				
36	C500115	WASHER, 5/16 LOCK	4				
37	C500068	NUT, 1/4-20 NYLOC	8				
38	C500194	WASHER, 3/4 FLAT	2				

See the complete line of Turf Care Products

from

CLASSEN[®]

COMPACT AERATORS

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CA-18B

STAND ON AERATOR

SA-25

SPLIT DRIVE AERATORS

TA-25D
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TA-19B

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TOW/3PT AERATORS

48RT
60RT

HYDRO OVERSEEDER

HTS-20

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

SCHV-18/5.5-W
SCHV-18/8.0-W

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