

# TRUE-SURFACE® GREENS CARE COLLECTION OWNER'S MANUAL



***The Greens Care Collection  
is made to fit Toro, John  
Deere, Jacobsen, and  
Ransome triplex mowers.***

***Collect all 13 inserts!***

USA & Foreign Patents Passed & Pending



[www.true-surface.com](http://www.true-surface.com)  
1-800-443-8506 or +1-636-356-1210

**TRUE-SURFACE®**   
... makes true greens!™

# **TRUE-SURFACE® GREENS CARE COLLECTION**

Your investment deserves to be registered!

**DATE PURCHASED:** \_\_\_\_\_

**SERIAL NUMBER:** \_\_\_\_\_

**OPERATOR NOTES:** \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

To activate the warranty on your new Greens Care Collection, please fax or email the completed warranty registration in the back of this manual.

Fax: 1-636-356-1218

Email: [cassie@true-surface.com](mailto:cassie@true-surface.com)

For parts or service, please call 1-800-443-8506 and +1-636-356-1210.

## TRUE-SURFACE® GREENS CARE COLLECTION

Congratulations on the purchase of your True-Surface® Greens Care Collection from Turflite, Inc.

**Please review this owner's manual before unpacking the frames.**

It is imperative to complete the warranty form and return it to Turflite, Inc. via fax, email or USPS. Doing this will activate your product's five-year warranty and guarantee that we contact you for any warranty issues or updates.

**Maintenance** of the collection is minimal. Only 2 lubrication points are located on the Depth of Cut Adjusters. We recommend 1 pump per month with a **food grade, non-petroleum based grease (DO NOT USE HIGH TEMPERATURE GREASE)**. Wipe off all excess grease.

Clean sand and dirt from the Greens Care Collection using **Compressed Air**. Pressure washing units is not advised because it could damage the bearings.

This manual includes the following:

- Installation Instructions
- Parts Drawings and Numbers
- Model/Brand Mounting Kits
- Warranty and Safety Information

If you have technical questions or need to order parts, please call Turflite, Inc. at 1-800-443-8506 or 1-636-356-1210. Turflite, Inc. will try to ship parts orders received by Noon CST the same day via UPS Ground to anywhere in the continental United States.

### WE ARE YOUR SUPPORT!

Customer satisfaction is Turflite's top priority! When you call us during our regular business hours, you will always talk to a real person and never an automated operator. We value our customers and accommodate to each individual's needs. Yes, we do business all around the world, but we treat you like our hometown neighbor.

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Moscow Mills, MO 63362

Moscow Mills, MO 63362

[www.true-surface.com](http://www.true-surface.com)

**Thank you for choosing True-Surface®!**



### ***True-Surface® Greens Care Collection 5-Year Warranty***

To maintain superior warranty service, please call Turflite, Inc. before having work done. We maintain excellent customer service and quality products; keeping us informed of situations allows us to do so.

Within the industry, including the chat rooms of Turfnet and GCSAA, our company is known to be expedient in servicing our warranted products. Turflite, Inc.'s warranty policy is as follows:

Turflite, Inc. will either repair or replace any non-wear part of the True-Surface® Greens Care Collection which is defective in workmanship or material for a period of sixty (60) months from the date of delivery of the new product to the original end user determined by the **warranty registration**. These items will be repaired or replaced free of charge and freight free. Warranties on used or ex-demo equipment are limited to 90 days from date of purchase.

Turflite Inc. will cover parts subject to normal maintenance routines as specified in the product's Owner Manual and parts subject to wear and tear during the correct operation of the product. These parts include, but are not limited to; shafts, bearings, belts, blades, spikes, and bristles for a limited 90 days. The 90-day warranty on wear items specifically excludes used or ex-demo units.

Turflite, Inc. will not issue warranty credit for:

- any item that has been damaged by accident, lack of reasonable care and protection, or lack of suitable storage.
- parts that have been altered or modified by anyone other than Turflite, Inc.
- used parts that have been installed in place of failed parts.
- parts that have been installed incorrectly by the end user or its agents.
- parts that have not been maintained as per the Owner's Manual.
- service calls and overtime labor rates as Turflite, Inc. shall be contacted immediately upon encountering any problems.
- any consequential loss, damage, or costs to the equipment caused by (or incidental to) failure of any new part supplied with the original purchase or any new part supplied as a replacement for any failed part.

#### Warranty Claims:

The final purchaser of the True-Surface® Greens Care Collection must file a warranty claim with Turflite, Inc. The final purchaser must provide written evidence detailing the product's delivery date to that purchaser and the reasons why the purchaser believes that the product or part is defective in the categories of faulty material or workmanship. The purchaser is to deliver the faulty product or part to Turflite, Inc. at the purchaser's expense to be reimbursed by Turflite, Inc. if found to be the responsible party. Acceptance or rejection of the Warranty Claim is entirely at the discretion of Turflite Inc.

#### **Turflite, Inc.**

**712 Jefferson St, Ste. A**

**Moscow Mills, Mo 63362**

**1-800-443-8506 or +1-636-356-1210 ~ Please ask for the Warranty Department**

**[www.true-surface.com](http://www.true-surface.com)**

**TURFLINE, INC. reserves the right to make improvements in design or changes in specifications without prior notice and without prejudice or obligation to original design purchasers.**

No person or organization has the authority to modify the terms, conditions, or limitations of this Warranty without the written consent of Turflite, Inc.

## OPERATOR SAFETY

1. Never leave the operator's seat while units are running.
2. Never allow co-workers to remove the baskets or make any adjustment while the units are running. Keep co-workers at a distance while units are running.
3. Keep all extremities clear of all rotating components.
4. Wear protective gloves and clothing when handling and changing inserts.
5. Get help with heavy inserts: Greens Spiker, Star Slitter, and NV Roller. Be sure all guards are in place and secured.
6. Obey all safety precautions set forth by the manufacturer of your greens mower.

## MACHINE AND TURF PRECAUTIONS

1. Always be sure to rotate the parking stands into the "park" position before lowering the Greens Care Collection frame to the maintenance facility floor.
2. Be sure the parking stands are up in the "run" position before approaching the green.
3. Make certain the insert is installed correctly by confirming the drive key orientation (left or right) and the direction of the insert rotation: GCC-07R/L drives keys are stamped with either "L" for left hand thread or "R" for right hand thread. From the operator's seat on your triplex, if the motor is on the left side of the frame, then you will require a left-hand drive key. It is important pay attention to the Drive Key positions in order to run each insert properly.
4. Be sure both insert handles are locked in position by both spring plungers before operating.
5. Be sure the insert hood is set to the appropriate cutting insert and locked by all 4 spring plungers before operating.
6. Be sure the depth of cut desired for the insert has been checked and adjusted before approaching the green.
7. Check the following, and be sure all are secure: (a.) All Mounting Connections, (b.) All Lifting Devices, i.e. chains, hooks, etc.
8. Be sure all drive motors are installed and secured properly.



### *Certificate & Declaration of Conformity for CE Marking*

*Hereby, Turflite, Inc. declares that the True-Surface® Greens Care Collection and all of its components are in compliance with the essential requirements and other relevant provisions. The True-Surface® Greens Care Collection is classified within the following EU Directive: EU Machinery Directive 98/37/EC & 2006/42/EC, and further conform with the following EU*

*Harmonized Standards: EN 12100-1:2003 EN 12100-2:2003 EN ISO 214121-1:2007 EN ISO 4254-1:2005.*

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*Reproduction, transfer, distribution, or storage of part or all the contents in this document in any form without the prior written permission of Turflite, Inc. is prohibited.*

*US & Worldwide patents pending.*

*Turflite, Inc. operates a policy of ongoing development. Turflite, Inc. reserves the right to make changes and improvements to any of the products described in this document without prior notice.*



**Weight of the Greens Care Collection Frames and Inserts:**

Collection Frame – 46 lbs. (20.9 kg)

Vacu-Cutter™ – 17 lbs. (7.7 kg)

Vacu-Groomer™ – 13 lbs. (5.9 kg)

Vertical Mower – 17lbs. (7.7 kg)

Vacu-Brush™ – 10 lbs. (4.5 kg)

Vacu-Scarifier™ – 14 lbs. (6.4 kg)

Greens Spiker – 59 lbs. (26.8 kg)

Star Slitter – 45 lbs. (20.4 kg)

Deep Slicer – 12 lbs. (5.4 kg)

NV Roller – 74 lbs. (33.6 kg) & 38 lbs. (17.2 kg) removable weight

**Greens Care Collection Insert Depths:**

Insert	Usual Working Depth	Maximum Working Depth
Vacu-Cutter™	0-1/8" (0-3mm)	1/4" (6mm)
Vacu-Groomer™	0-3/32" (0-2mm)	3/32" (2mm)
Vertical Mower	0-1/8" (0-3mm)	9/16" (15mm)
Vacu-Brush™	zero	zero
Vacu-Scarifier™	5/16" (8mm)	3/8" (10mm)
Greens Spiker	1/2 - 3/4" (13-20mm)	1" (25mm) *If ground conditions are soft enough
Star Slitter	1/2 - 3/4" (13-20mm)	3/4" (20mm)
Deep Slicer	3/4" (20mm)	3/4" (20mm)
NV Roller	zero	zero

**Working Widths of the Greens Care Collection Inserts:**

Vacu-Cutter™ – 19 5/32" (486.66 mm)

Vacu-Groomer™ – 20 1/8" (511.30 mm)

Vertical Mower – 18 11/16" (474.66 mm)

Vacu-Brush™ – 19 7/8" (504.95 mm)

Vacu-Scarifier™ – 17 59/64" (455.17 mm)

Greens Spiker – 18 1/2" (469.9 mm)

Star Slitter – 18 3/8" (466.85 mm)

Deep Slicer – 18 3/8" (466.85 mm)

NV Roller – 19 3/4" (501.65 mm)

Customer Satisfaction: 5-Year Limited Warranty

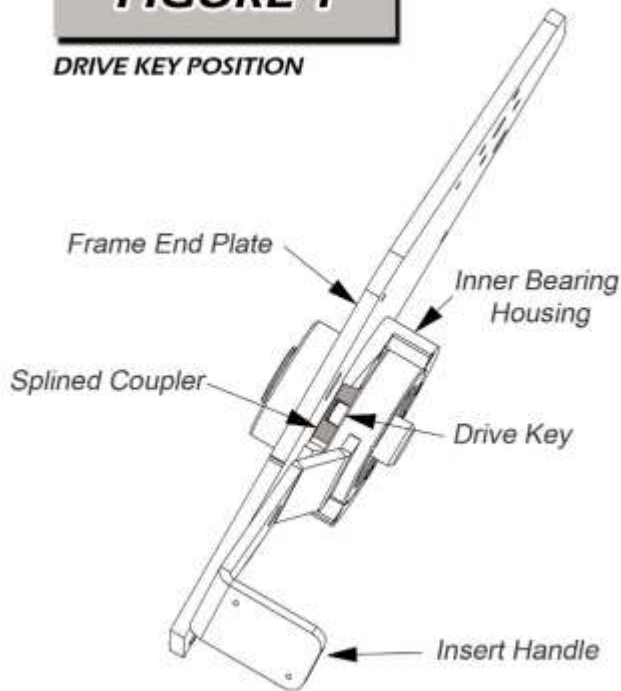
Distributors: Worldwide Distribution

US Patent Numbers: 8,316,628 & 7,624,560

Foreign Patents Pending

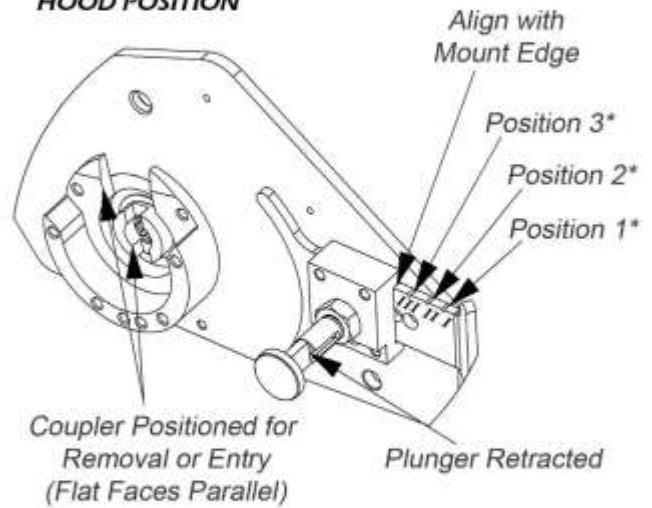
**FIGURE 1**

**DRIVE KEY POSITION**



**FIGURE 2**

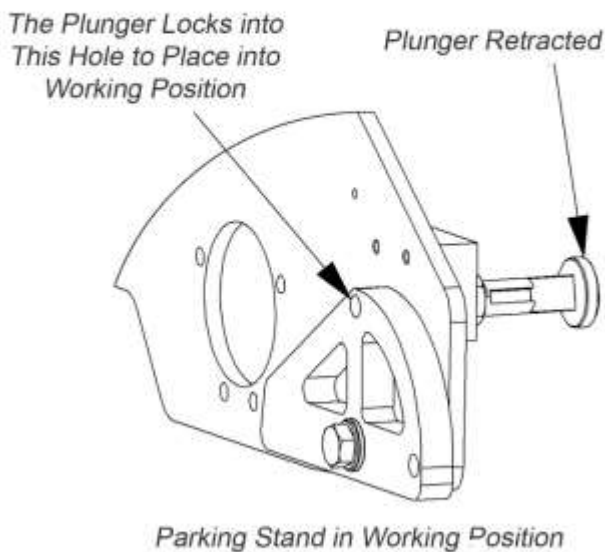
**HOOD POSITION**



\* Use the following inserts set at the corresponding positions:  
 Position 1: Vacu-Cutter™, Vacu-Brushes™, Vacu-Groomer™.  
 Position 2: Vacu-Scarifier™ & Vertical Mower.  
 Position 3: Greens Spiker, Star Slitter, & Deep Slicer

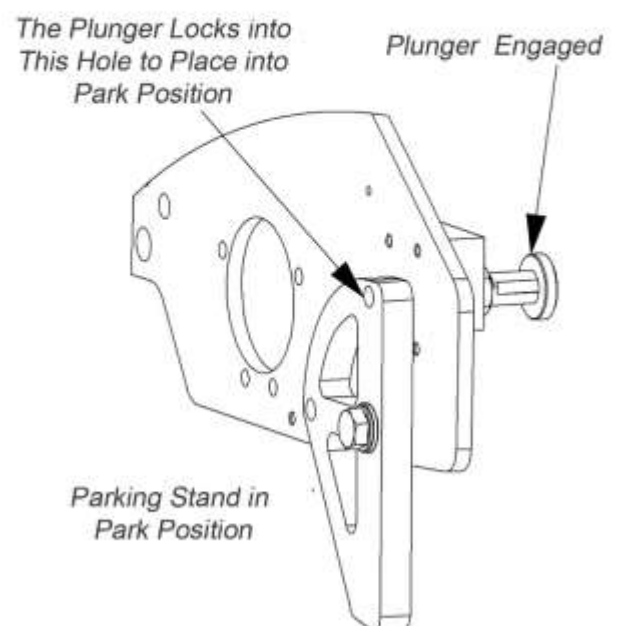
**FIGURE 3**

**PARKING STAND IN WORKING POSITION**



**FIGURE 4**

**PARKING STAND IN PARK POSITION**



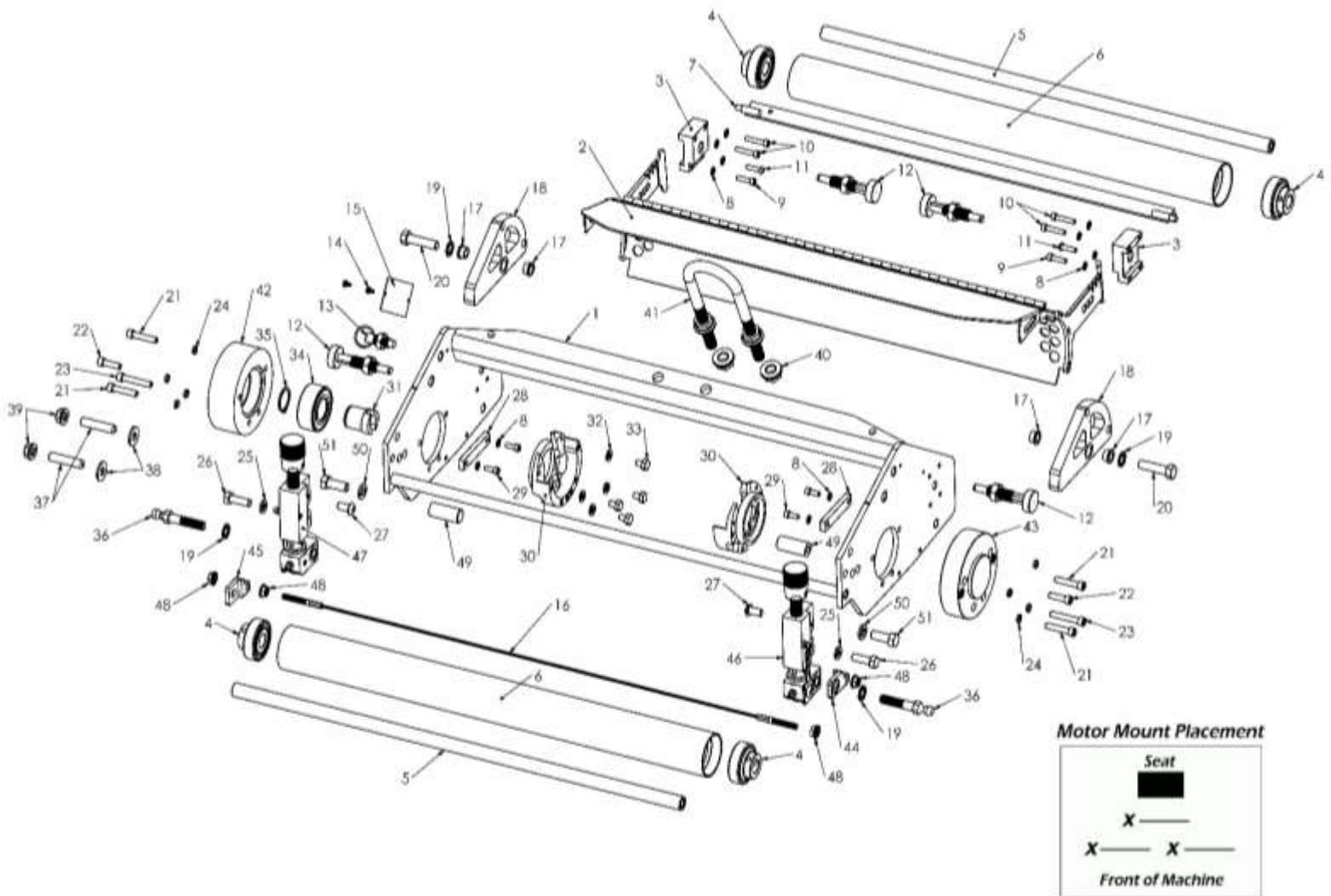
## **MOUNTING INSTRUCTIONS FOR GM3-3150 & 3250 TORO UNITS**

1. Remove clipping baskets/buckets. Disconnect pull arms, remove drive motors, and remove cutting units from the triplex/triple greens mower.
2. Remove all the components from the boxes; be sure the parking stands are in the “down” or “parked” position before setting on the floor or table to protect the Insert blades. Do this by pulling each plunger behind the hood out approximately  $\frac{1}{4}$ ” (6.4mm), allowing the stand to swing down. Then, release the plunger and rotate the stand until it locks in position (see Figures 3 & 4 on page 6).
3. Each unit will require the installation of a lift hook (37P-7090): Remove one flanged nut (H-1026) from each leg of the lift hook, insert the legs through the two  $\frac{1}{2}$ ” (12.7mm) holes in the frame cross-member, reinstall the nuts, and tighten.
4. The hook can be adjusted up or down along the threaded length to accommodate the clearances needed for the triplex/triple greens mower and the turf.
5. Slide units under the triplex/triple greens mower and allow the lift arm to pass through the lift hook on each. All unit positions are interchangeable except the Toro 3250 right side unit, which is location-specific to the right front only. This unit has a left-hand drive.
6. Attach the pull arm ball coupler sockets to the ball studs (21P-GCC-205) on the front of the Insert frame.
7. Loosen or remove the motor-attaching flange nuts from the motor studs, align the motor splines with the coupler splines, rotate, and slide into position. Be sure the motor flanges mount flush to the motor housing. Secure the flange nuts.
8. We recommend leaving the parking stands down until the green is reached. To retract the parking stands, pull both spring plungers back approximately  $\frac{1}{4}$ ” (6.4mm), rotate the parking stand up, and release the plunger; continue to rotate the parking stand until it locks into the working position (see Figures 3 & 4 on page 6).

**ROTATE THE PARKING STANDS DOWN INTO THE PARK POSITION BEFORE LOWERING THE UNITS ON THE FLOOR OF THE MAINTENANCE FACILITY FOR ANY REASON.**



## Toro GM3 – 3150 Schematic & Parts Listing

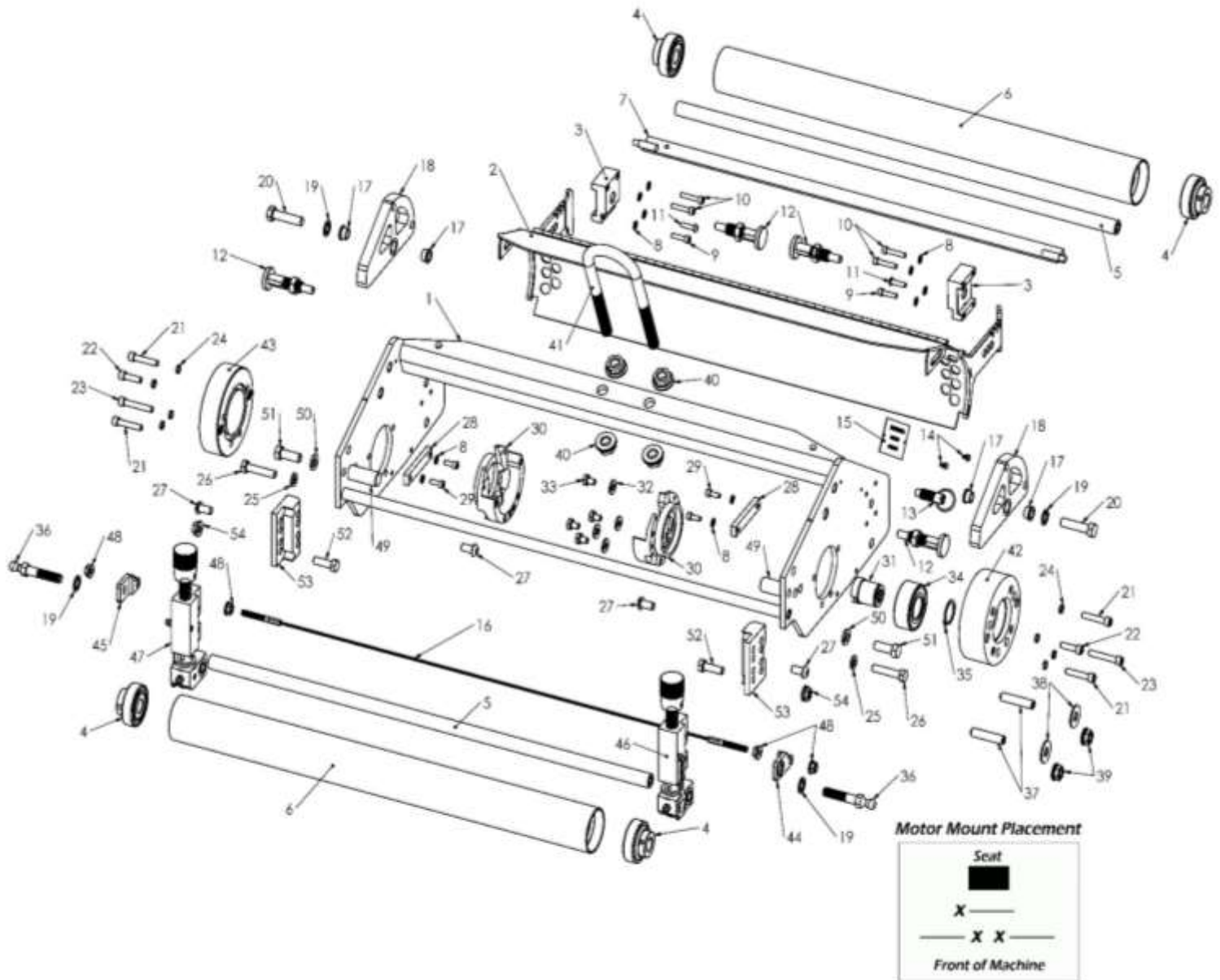


Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223	Rear Scraper	3
8	H	17	#10 Internal Tooth Lock Washer	36
9	H	16	#10-32 x 3/4" SS SHCS	6
10	H	24	#10-32 x 1" SS SHCS	12

## Toro GM3 – 3150 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
11	H	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
13	21A	GCC-233	Hood Lock Plunger (Includes H-27)	3
14	H	30	#7 x 1/4" Drive Screw	6
15	21S	SERIAL TAG	Serial Number Tag	3
16	21P	GCC-523	Cable Scraper	3
17	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
18	21P	GCC-13C	Parking Stand	6
19	H	6106	3/8" Internal Tooth Lock Washer	12
20	H	21	3/8"-24 x 1-1/2" Hex Bolt	6
21	H	19	1/4"-20 x 1-1/4" SHCS	12
22	H	20	1/4"-20 x 7/8" SHCS	6
23	H	31	1/4"-20 x 1-1/2" SHCS	6
24	30H	6110	1/4" Hi-Collar Lock Washer	24
25	30H	1013	5/16" Split Lock Washer	6
26	30H	1022	5/16"-24 x 1" Hex Bolt	6
27	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
28	21P	GCC-114	Hood Support	6
29	H	8005	#10-32 x 1/2" SS SHCS	12
30	21P	GCC-03	Inner Bearing Housing	6
31	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 35)	3
32	H	51	1/4" SAE Flat Washer	12
33	H	18	1/4"-20 x 3/8" Hex Bolt	12
34	21P	GCC-111	Drive Coupler Bearing	3
35	37P	1029	Snap Ring	3
36	21P	GCC-205	Ball Stud 10mm	6
37	H	1402	3/8"-16 x 1-3/4" Motor Stud	6
38	H	1019	5/16" USS Flat Washer	6
39	H	1183	3/8"-16 Smooth Flange Nut	6
40	H	1026	1/2"-13 Serrated Flange Nut	12
41	37P	7090	Toro Lift Hook - Straight	3
42	21P	GCC-02W-6	2 Bolt Wide Motor Mount	3
43	21P	GCC-283	3lb Counterweight	3
44	21P	GCC-ADJ-27L-CB	Counterbore Cable Scraper Mount - Left	3
45	21P	GCC-ADJ-27R-CB	Counterbore Cable Scraper Mount - Right	3
46	21A	GCC-ADJ Toro 1L	Depth Adjuster Assembly - Left	3
47	21A	GCC-ADJ Toro 1R	Depth Adjuster Assembly - Right	3
48	H	37	1/4"-20 Serrated Flange Nut	12
49	21P	GCC-005A	Basket Support Pin	6
50	H	1010	3/8" Split Lock Washer	6
51	H	1100	3/8"-16 x 1" Hex Bolt	6

## Toro 3250 Schematic & Parts Listing



Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223	Rear Scraper	3
8	H	17	#10 Internal Tooth Lock Washer	36
9	H	16	#10-32 x 3/4" SS SHCS	6
10	H	24	#10-32 x 1" SS SHCS	12

## Toro 3250 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY.
11	H	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
13	21A	GCC-233	Hood Lock Plunger (Includes H-27)	3
14	H	30	#7 x 1/4" Drive Screw	6
15	21S	SERIAL TAG	Serial Number Tag	3
16	21P	GCC-523	Cable Scraper	3
17	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
18	21P	GCC-13C	Parking Stand	6
19	H	6106	3/8" Internal Tooth Lock Washer	12
20	H	21	3/8"-24 x 1-1/2" Hex Bolt	6
21	H	19	1/4"-20 x 1-1/4" SHCS	12
22	H	20	1/4"-20 x 7/8" SHCS	6
23	H	31	1/4"-20 x 1-1/2" SHCS	6
24	30H	6110	1/4" Hi-Collar Lock Washer	24
25	30H	1013	5/16" Split Lock Washer	6
26	30H	29	5/16"-24 x 1-1/2" Hex Bolt	6
27	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	12
28	21P	GCC-114	Hood Support	6
29	H	8005	#10-32 x 1/2" SS SHCS	12
30	21P	GCC-03	Inner Bearing Housing	6
31	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 1029)	3
32	H	51	1/4" SAE Flat Washer	12
33	H	18	1/4"-20 x 3/8" Hex Bolt	12
34	21P	GCC-111	Drive Coupler Bearing	3
35	37P	1029	Snap Ring	3
36	21P	GCC-205	Ball Stud 10mm	6
37	H	1402	3/8"-16 x 1-3/4" Motor Stud	6
38	H	1019	5/16" USS Flat Washer	6
39	H	1183	3/8"-16 Smooth Flange Nut	6
40	H	1026	1/2"-13 Serrated Flange Nut	12
41	37P	7090	Toro Lift Hook - Straight	3
42	21P	GCC-02W-6	2 Bolt Wide Motor Mount	3
43	21P	GCC-283	3lb Counterweight	3
44	21P	GCC-ADJ-27L-CB	Counterbore Cable Scraper Mount - Left	3
45	21P	GCC-ADJ-27R-CB	Counterbore Cable Scraper Mount - Right	3
46	21A	GCC-ADJ TORCW 1L	Depth Adjuster Assembly - Left	3
47	21A	GCC-ADJ TORCW 1R	Depth Adjuster Assembly - Right	3
48	H	37	1/4"-20 Serrated Flange Nut	12
49	21P	GCC-005A	Basket Support Pin	6
50	H	1010	3/8" Split Lock Washer	6
51	H	1100	3/8"-16 x 1" Hex Bolt	6
52	H	1105	5/16" x 1-1/4" Hex Bolt	6
53	21P	GCC-ADJ-3250	Depth Adjuster Extension (Toro 3250)	6
54	H	1147	5/16"-18 Serrated Flange Nut	6

## **GREENS CARE COLLECTION MOUNTING INSTRUCTIONS FOR TORO TRIFLEX 3300/3400**

1. Use the reference numbers from the exploded view on page (14). You will need two each of items 12, 45, 46, 51, 52, 54, 55, 56, & 57 and one each of item 47, 53, 58, & 59.
2. Start with item 55, 56 & 58. Slide the bolt through the bushing and into the hole of item 58. Then slide the bolt from the inside to the outside of the frame endplate. Be sure that the L-Shaped Cutout of Item 58 is forward and against the inside face of the endplate.
3. Slide bushing (item 52) from the outside of the endplate into the hole directly below where the bolt (item 56) came through.
4. Slide item 51 over the bolt (item 56); these components are reversible. The thinner wall of item 51 that slips over the bolt (item 56) will be against the depth of cut adjuster.
5. Install the nut (item 54) onto the bolt (item 56) and leave loose. Thread the plunger (item 12) into item 51 so that the plunger passes through items 52 & 58 stop and tighten item 54 then resume installing the plunger (item 12) until resistance is felt or you see the bottom of item 51 being pulled away from the frame. Loosen ¼ turn, hold secure and tighten the jam nut. Note: The jam nut only needs to be snug – over tightening will damage the plunger.
6. Repeat 2 through 5 with item 59 for the opposite side of the frame.
7. Remove the bolts (item 57) from the rod (item 53) and with the plungers (item 12) retracted, offset items 58 & 59 from each other momentarily. Slide one end of the rod (item 53) into (item 58) from the inside until it is about 1” past item 58. Install the bolt (item 57) then align item 59 with item 58. Slide the rod (item 53) through item 59 as well and install the second bolt (item 57).
8. Hold a wrench on each bolt (item 57) and tighten securely.
9. With both plungers still retracted, items 58 & 59 should pivot from vertical to a forward horizontal position. This will allow access for the insert removal and installation. Return both items 58 & 59 to a vertical position and release the plungers into the slots. This position is the operating position.
10. Mount the stabilizer guide (item 47) to the frame cross bar with the bolts (item 45) and nuts (item 46) and tighten.
11. Basket mounting extension pins are mounted directly over the manufacturer’s basket hanger pins.
12. Locate items 14, 26, 64, 65, 66, 67, & 68.
13. Remove the bolts that currently secure the basket hanger pin and install extension receiver pocket (item 68) with bolts (item 66) and washers (item 26 & 67) directly over factory hangers; tighten. The pockets (item 68) are usable for either side.
14. The extension pins 64 & 65 are right and left side specific. From their point of insertion into the receiver, they should angle upward and towards the center of the cutter frame. Simply retract the plunger (item 14) and slide it into place and lock it into the mounting of extension pin.
15. Once the pockets are mounted, you will only need to remove the extensions to easily switch back to mowing. The receivers (item 68) can remain mounted.
16. Repeat for remaining two units.

## **INSTALLATION TO THE TORO TRIFLEX 3300/3400 GREENS MOWER**

1. Remove all the clipping baskets
2. Release the clamps on the motors, and then remove.
3. Release the two mounting clamps per each unit on the lifting arm, raise the arm up, and pull the cutting unit out from under the machine.
4. Position the Greens Care Collection (GCC) frame under the lifting arm. While keeping the clamps in an “open” position, slide the lifting arm down over items 53, 58, & 59. Hook the clamps to item 53 and lock it into place.
5. With the motor locking arms (items 48 & 49) pivoted fully against the GCC frame, install the drive motor – make sure to align the splines. When the motor is fully against the mount (item 39), carefully pull items 48 & 49 back away from the frame unit it locks into position to secure the motor.
6. Repeat steps 1-5 for all three units.
7. Replace all clipping baskets.
8. Note: The insert handles will interfere with the lift arms (items 58 & 59) when locked in the standard vertical position by the GCC-400 plunger (item 12). Instead, push the handles back to the frame cross bar and use GCC-233 (item 14) to secure the handle; the GCC-400 (item 12) will be used to secure the hood.

## **Toro 3300/3400 & 3320/3420 Counterbalance Adjustment**

## Toro 3300/3400 & 3320/3420



These two views show the TORO Triflex Counterbalance adjustment.

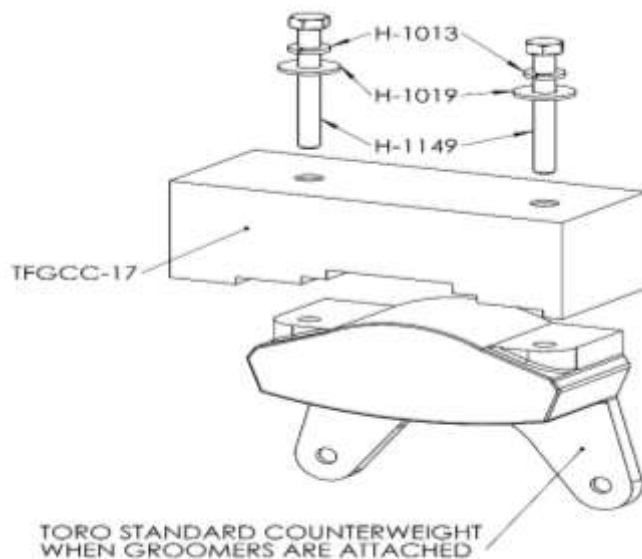
The view on the left shows the setting pin in the second (middle) position, with available increase or decrease in tension (lift) of the suspension arms.

The view on the right shows the retaining pin in the setting pin, as well as the torsion arm, note at the top of the plate the square hole. This is to insert a square drive tool such as a ratchet or break-over bar to release the tension from the retaining pin and adjust to a new position.

Positions range from resting the plate on top of the pin as shown in any of the available holes, or aligning the oval hole in the plate and passing the pin through it.

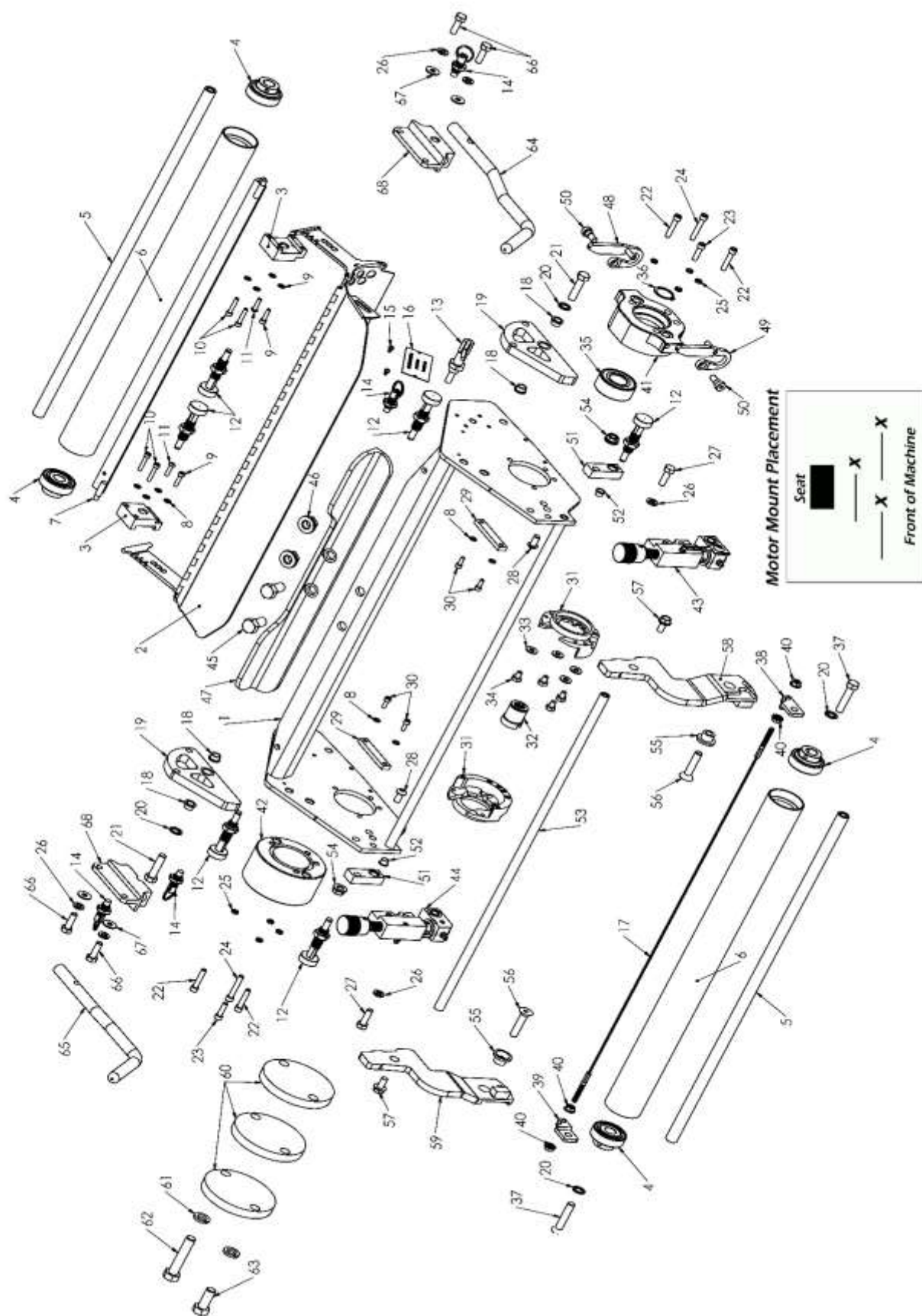
It may be more desirable in some cases using the Greens Care Collection to reduce the lift force and allow more downward force for more effective results.

## Toro 3320/3420 Groomer Attachment Counterweight Replacement



If using Toro Model 3320 or 3420 with Groomers attached to cutting reels, the top counterweight (TORO part number: 117-6774-03) on the mower frame will interfere with TFGCC-16 basket pin extension sleeve. In this case, you will need to replace counterweights. TFGCC-17 (replacement counterweight) can be supplied to replace Toro's top counterweight to avoid interference with TFGCC-16.





## Toro 3300/3400 & 3320/3420 Parts Breakdown

Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
2	21A	GCC-08 ELECTRIC	Insert Guard Hood Assembly (3320/3420) See Page 17 for Details. DISCONTINUED 8/10/17	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223	Rear Scraper	3
8	H	17	#10 Internal Tooth Lock Washer	36
9	H	16	#10-32 x 3/4" SS SHCS	6
10	H	24	#10-32 x 1" SS SHCS	12
11	H	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033) 3300/3400 Uses 18, 3320/3420 Uses 15	15 or 18
13	21A	GCC-400-90 ASM	Spring Plunger with Nut (Includes H-1033) 90 Degree L-Handle 3320/3420 Motor Side	3
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	12
15	H	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	H	6106	3/8" Internal Tooth Lock Washer	12
21	H	21	3/8"-24 x 1-1/2" Hex Bolt	6
22	H	19	1/4"-20 x 1-1/4" SHCS	12
23	H	20	1/4"-20 x 7/8" SHCS	6
24	H	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	36
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
29	21P	GCC-114	Hood Support	6
30	H	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
32	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 36)	3
33	H	51	1/4" SAE Flat Washer	12
34	H	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
37	H	2502	3/8"-24 x 1-3/4" Hex Bolt	6
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3

## Toro 3300/3400 & 3320/3420 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
40	H	37	1/4"-20 Serrated Flange Nut	12
41	21P	TFGCC-06	Motor Mounting Flange	3
42	21P	GCC-285	5lb Counterweight	3
43	21A	GCC-ADJ Toro TF/FW 1L	Depth Adjuster Assembly - Left	3
44	21A	GCC-ADJ Toro TF/FW 1R	Depth Adjuster Assembly - Right	3
45	H	0013	1/2"-13 x 1" Hex Bolt	6
46	H	1026	1/2"-13 Serrated Flange Nut	6
47	21P	TFGCC-09	Stabilizer Spring Contact Bar	3
48	31P	TFV5-005C-R Assy.	Motor Locking Arm - Right	3
49	31P	TFV5-005C-L Assy.	Motor Locking Arm - Left	3
50	H	2582	3/8" x 1/4" x 5/16"-18 Shoulder Bolt	6
51	21P	TFGCC-04	Lift Arm Pivot Stop Plunger Mount	6
52	21P	TFGCC-07	Lift Arm Pivot Stop Pin Bushing	6
53	31P	TFV5-002	Lift Bar	3
54	H	1016	3/8"-16 Serrated Flange Nut	6
55	21P	TFGCC-03	Lift Arm Pivot Bushing	6
56	H	1041	3/8"-16 x 1-3/4" Flat Head SCS	6
57	H	1067	5/16"-18 x 5/8" Serrated Flanged Head Bolt	6
58	21P	TFGCC-015L	Lift Arm - Left	3
59	21P	TFGCC-015R	Lift Arm - Right	3
60	21P	GCC-CW	Stackable Counterweight (3300/3400)	3
60	21P	GCC-CW	Stackable Counterweight (3320/3420)	9
61	H	14	1/2" Split Lock Washer	6
62	H	5009	1/2"-13 x 2-1/2" Hex Bolt (3320/3420)	6
63	H	1069	1/2"-13 x 1-1/2" Hex Bolt (3300/3400)	6
64	21P	TFGCC-13L	Basket Extension Pin - Left	3
65	21P	TFGCC-13R	Basket Extension Pin - Right	3
66	H	1105	5/16"-18 x 1-1/4" Hex Bolt	12
67	H	1008	1/4" USS Flat Washer	12
68	21P	TFGCC-16	Basket Pin Extension Sleeve	6

# Hood Latch Assemblies Schematic & Instructions

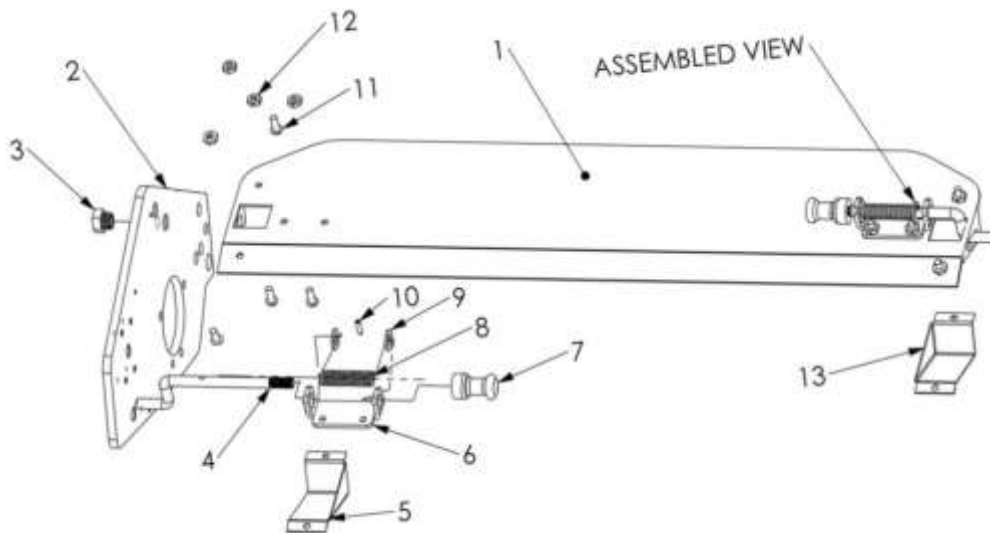
## Hood Latch Assemblies GCC-486L & GCC-486R:

The hood mounted latch is designed for Greens Care Collection Frames that are mounted on a Toro, John Deere, or Jacobsen ELECTRIC driven triplex greens mowers. The electric-driven motors are slightly larger and include more features than the hydraulic motors, and therefore interfere with the standard spring plunger we use for GCC Frames mounted to hydraulic driven triplex models. This method, once installed, will allow the user to interchange inserts without the need to remove the drive motors.

This latch will need to be mounted on the side of the hood that the motor is mounted to the frame. This is referred to as the "Drive-Side." All components shown, except for Reference #'s 5 & 13, are used for either side of the hood.

The method of assembly is reversed to create a reversed part.

Remove the standard plunger (GCC-400) from the frame end above the motor and install the end plate bushing (GCC-465).



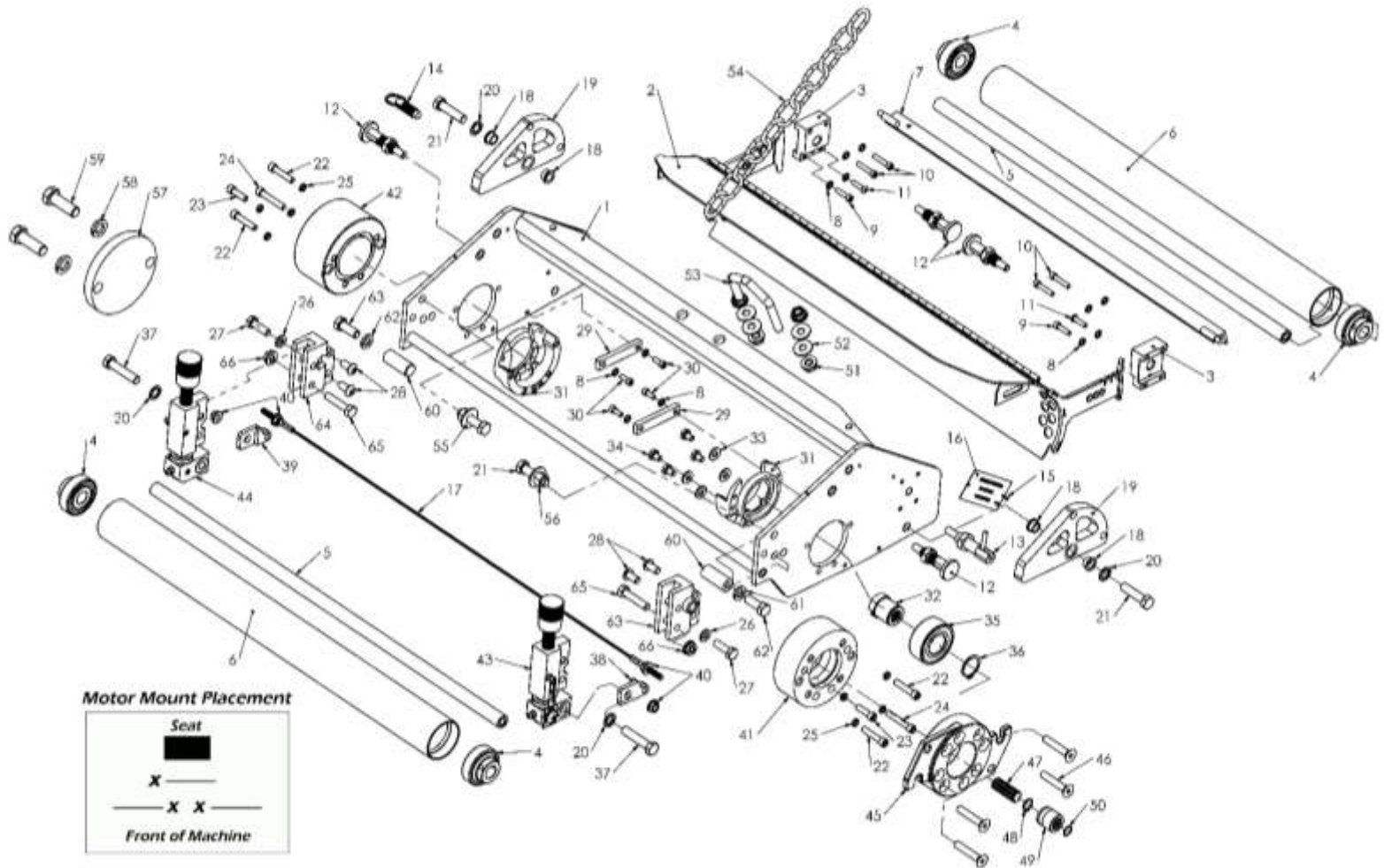
Item	Dept.	Part	Description
1	21A	GCC-08 ASM	GCC Hood - Not included
2	n/a	n/a	Frame End Plate - Not included
3	21P	GCC-465	End Plate Bushing
4	21P	GCC-462	Latch Pin
5	21P	GCC-464L	Latch Cover Left (GCC-486L Only)
6	21P	GCC-461	Latch Base
7	21P	GCC-466	Latch Knob
8	21P	GCC-463	Latch Spring
9	H	459	5/16 ID Socket Head Shim
10	H	458	1/8" x 7/16" Split Spring Pin
11	H	451	10-32 x 1/2 Round Head Screw
12	H	452	10-32 Nylon Insert Lock Nut
13	21P	GCC-464R	Latch Cover Right (GCC-486R Only)

## **MOUNTING INSTRUCTIONS FOR JOHN DEERE 2500/E MOWERS (Not using QA5 Cutting Reels)**

1. Remove the clipping baskets/buckets and basket/bucket frames from the John Deere cutting units. Basket frames will be necessary for the Greens Care Collection (GCC).
2. Remove the bolts and bushings that attach the lifting yoke to the cutting units. The bushings and yoke will be reused for mounting the GCC.
3. Loosen drive motor bolts and remove motors.
4. Remove GCC units from boxes, pivot parking stands into parked position by pulling each spring plunger located behind the Insert hood out approximately ¼" (6.4mm), allowing stand to swing down, release plunger, and rotate stand until plunger locks into position (see Figures 3 & 4 on page 6).
5. Mount the lift chain U-bolt and lift chain to each unit as shown (Items 51, 52, 53, 54) in assembly drawing, and tighten.
6. Slide the GCC units under the mower in their respective positions. Left and center units are interchangeable, but the right-side unit is location specific.
7. Remove the yoke-mounting bolts from frame ends, align lifting yoke, insert the saved bushings from the John Deere cutting units, replace bolts and nuts, and tighten.
8. Attach the lift chain to the lift arm. Adjust the length to provide adequate ground clearance – leave enough slack so that the units do not bind under the greens mower when they are raised or cannot follow the contour of the turf when in use.
9. Install the drive motor:
  - a. Hydraulic Drive Units: Make certain the male spline coupler (GCC-06JD/Jac5) and the internal female splined coupler (7704) are installed properly by rotating the motors to align the splines; slide and rotate into position. The motor flanges should mount flush to the motor housing. Tighten the mount bolts.
  - b. Electric Driven Units: Mount the electric units the same as the hydraulic, except that early John Deere Electric models only require the GCC-06JD/Jac5.
10. Install the clipping basket frame into the tube on either side of the Greens Care Collection frame, located in the depth of cut adjuster mounting blocks (GCC-ADJ-06JDL & GCC-ADJ-06JDR).
11. Check operation; install baskets.
12. Leave the parking stands down until the green is reached. To retract them, pull both spring plungers back approximately ¼" (6.4mm), rotate the parking stand up, and release plunger, continue to rotate the parking stand until it locks into the up position (see Figures 3 & 4 on page 6).
13. Items 57, 58, & 69 are a view of kit # 21A-GCC-175 and are not included with the standard John Deere 2500 Hydraulic or Electric units. Please see pages 22 & 23 for more details.

**ROTATE THE PARKING STANDS DOWN INTO THE PARK POSITION BEFORE LOWERING THE UNITS ON THE FLOOR OF THE MAINTENANCE FACILITY FOR ANY REASON.**

# John Deere 2500/E (not using QA5 Cutting Reels) Schematic & Parts Listing



Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	6
6	21P	GCC-222	Front/Rear Roller Tube	6
7	21A	GCC-223	Rear Scraper	3
8	H	17	#10 Internal Tooth Lock Washer	36
9	H	16	#10-32 x 3/4" SS SHCS	6
10	H	24	#10-32 x 1" SS SHCS	12
11	H	32	#10-32 x 3/4" Button Head Screw	6
12	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033) Electric Units Use 9	9 or 12
13	21A	GCC-400-90 ASM	Spring Plunger with Nut (Includes H-1033) 90 Degree L-Handle Electric Motor Side	3
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	3
15	H	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	H	6106	3/8" Internal Tooth Lock Washer	12



## John Deere 2500/E Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
21	H	21	3/8"-24 x 1-1/2" Hex Bolt	12
22	H	19	1/4"-20 x 1-1/4" SHCS	12
23	H	20	1/4"-20 x 7/8" SHCS	6
24	H	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	6
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	12
29	21P	GCC-114	Hood Support	6
30	H	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
32	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 36)	3
33	H	51	1/4" SAE Flat Washer	12
34	H	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
37	H	2502	3/8"-24 x 1-3/4" Hex Bolt	6
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
40	H	37	1/4"-20 Serrated Flange Nut	12
41	21P	GCC-02W-6	Motor Mounting Flange	3
42	21P	GCC-285	5lb Counterweight	3
43	21A	GCC-ADJ JD/TO 1L	Depth Adjuster Assembly - Left	3
44	21A	GCC-ADJ JD/TO 1R	Depth Adjuster Assembly - Right	3
45	37P	7036-3	JD 2500 Motor Mount Flange	3
46	H	1146	1-3/4" Flat Head SCS	12
47	21P	GCC-06JD/JAC5	Male Spline Coupler to Fit JD2500 & Jac5	3
48	21P	GCC-128	9/16 External Snap Ring	3
49	37P	7704	Internal Female Spline Coupler	3
50	21P	GCC-129	12mm Internal Snap Ring	3
51	H	1016	3/8"-16 Serrated Flange Nut	12
52	H	1019	5/16 USS Flat Washer	12
53	21P	GCC-207	Lifting U-Bolt for JD2500	3
54	21P	GCC-212	Lift Chain - 2/0 Passing - 11 Links	3
55	H	1006	3/8" USS Flat Washer	6
56	H	6102	3/8"-24 Nylon Lock Nut	6
57	21P	GCC-CW	1.75lb Stackable Counterweight (Available Upon Request, See Page 23 & 24 for Details)	N/A
58	H	0014	1/2" Split Lock Washer	6
59	H	027	1/2"-13 x 1-1/2" Hex Bolt (Use with 1 Stackable Counterweight)	6
60	21P	GCC-005A	Basket Rest Pin (Not Used on QA5)	6
61	H	1010	3/8" Split Lock Washer (Not Used on QA5)	6
62	H	1100	3/8"-16 x 1" Hex Bolt (Not Used on QA5)	6
63	21P	GCC-ADJ-06JD L	Left Adjuster Mount to Fit John Deere	3
64	21P	GCC-ADJ-06JD R	Right Adjuster Mount to Fit John Deere	3
65	H	1160	5/16"-18 x 1-1/2" Hex Bolt	6
66	H	1147	5/16"-18 Serrated Flange Nut	6

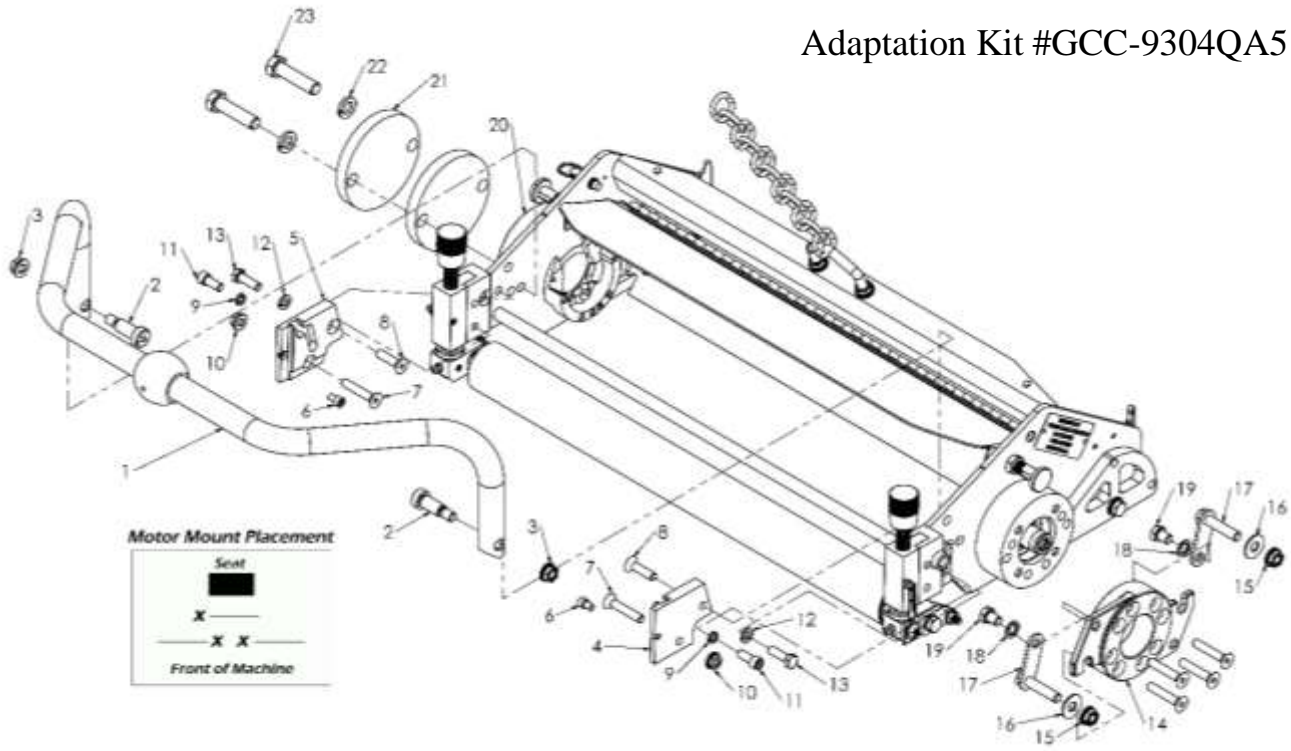
## **MOUNTING INSTRUCTIONS FOR JOHN DEERE 2500 QA5 MOWERS**

1. Remove the clipping baskets, loosen the motor studs and remove the motors. Disconnect the lift chains from the lift arm (chains are supplied with the GCC units). With a hex (ALLEN) wrench, remove the bolts above and below the swivel ball at the center of the lifting yoke, and separate the ball housing.
2. Remove the cutting reels from under the mower.
3. Locate the lifting brackets (GCC-207) and the lifting chains. One of each will be mounted through the two ½” holes in the frame with a nut and washer on either side and tightened.
4. Mount the lifting yokes (sent separately) to the inside of the GCC frame with the shoulder bolts provided and tighten. See Figure 5 on page 23.
5. Position units in their proper LEFT, RIGHT, and CENTER position.
6. Reassemble the ball housing around the GCC lifting yoke ball; replace the housing bolts and tighten.
7. Attach the lifting chain to the lift arm. You will need to determine which chain link to connect the lift arm in order to suit your needs for transport height and allow enough slack to follow your turf contour properly.
8. Locate the male spline (GCC-06JD/Jac5) and the female coupler (7704). First, insert the male spline into the drive coupler (GCC-06), and then add the female coupler (7704).
9. Align and rotate the motor into position; tighten the nuts over the motor.
10. Raise and lower the units to check the lift height or interference of any parts.
11. Rotate the parking stands to the park position (see figure 4 on page 6). Install the inserts – refer to page 35 for Insert installation instructions.
12. Reattach the clipping baskets.
13. At the green, raise parking stands, check and set cutting depth, and check operation of units.

**ROTATE THE PARKING STANDS DOWN INTO THE PARK POSITION BEFORE LOWERING  
THE UNITS ON THE FLOOR OF THE MAINTENANCE FACILITY FOR ANY REASON**

# John Deere 2500 QA5 (Quick Adjust) Schematic & Parts Listing

Adaptation Kit #GCC-9304QA5



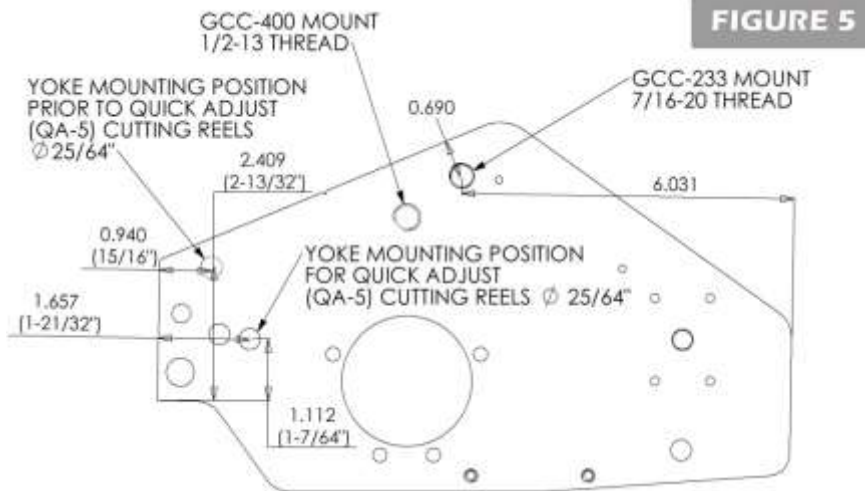
Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-8010 asm	Lifting Yoke Assembly	3
2	H	065	1/2 x 1 x 3/8" - 16 Shoulder Bolt	6
3	H	1016	3/8" - 16 Serrated Flange Nut	6
4	21P	GCC-113L	QA5 Basket Mount - Left	3
5	21P	GCC-113R	QA5 Basket Mount - Right	3
6	H	5005	1/4 - 28 x 1/4" Socket Head Cap Screw	6
7	H	1146	5/16 - 18 x 1 3/4" Flat Head Socket Screw	6*
*There are 6 additional H-1146 screws on the JD 2500 QA5 to the standard 12 on the JD 2500				
8	H	5004	5/16 - 24 x 1 1/4" Flat Head Socket Screw	6
9	H	V8001	5/16"- Hi Collar Lock Washer	6
10	H	1147	5/16 - 18" Serrated Flange Nut	6
11	H	5003	5/16 - 24 x 3/4" Socket head Cap Screw	6
12	H	1013	5/16" - Split Lock Washer (Standard on JD 2500)	6
13	H	1022	5/16 - 24 x 1" Gr 5 Hex Bolt (Standard on JD 2500)	6
14	37P	7036-3	John Deere 2500 Motor Flange	3
15	H	1183	3/8 - 16 Smooth Flange Nut	6
16	H	1006	3/8 - USS Flat Washer	6
17	21P	GCC-450	Male Stud Addapter	6
18	H	6106	3/8" Internal Tooth Lock Washer	6
19	H	5006	3/8 - 16 x 1/2" Gr 5 Hex Bolt	6
20	21P	GCC-285	5 lb Counter Weight (Standard on JD 2500)	3
21	21P	GCC-CW	1.75 lb Stackable Counter Weight - Refer to page 23	6
22	H	0014	1/2" Split Lock Washer	6
23	H	5009	1/2 - 13 x 2" Gr. 5 Hex Bolt	6

## JOHN DEERE 2500 QA-5 ADAPTATION KIT

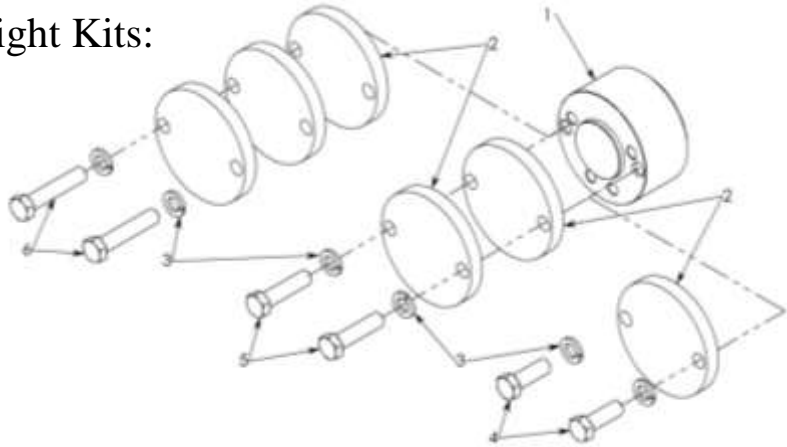
*PICTURED ON PAGE 21*

Use page 19 as a reference to all the components not shown exploded in the JD2500 QA-5 view on page 22. All the components listed for the standard JD2500 or JD2500E on pages 19 & 20 are used when adapting to fit a unit equipped with QA-5 cutting reels, except the following reference numbers: 21(2), 28, 55, 56, 60, 62, 63, & 65. These numbers are replaced by reference numbers: 2, 3, 6, 7, 8, 9, & 11 from the JD2500 QA-5 view on page 21. All the other parts listed are additional, except reference numbers 7, 14 & 20, which are only noted for reference purposes.

### John Deere Yoke Positions:



### True-Surface® Counterweight Kits:



Item No.	Dept. No.	Part No.	Description
1	21P	GCC-285	5 lb. Counter Weight
1	21P	GCC-283	3 lb. Counter Weight (Not Shown)
2	21P	GCC-CW	1.75 lb. Counter Weight
3	H	0014	1/2" Split Lock Washer
4	H	1069	1/2 - 13 x 1 1/2 Gr. 5 Hex Bolt
5	H	5007	1/2 - 13 x 2 Gr. 5 Hex Bolt
6	H	5009	1/2 - 13 x 2 1/2 Gr. 5 Hex Bolt

## True-Surface® Counter Kits Continued

Refer to the counterweight schematic on page 23:

21A-GCC-175 - 1.75 lb Counter Weight Kit Includes:				
Item No.	Dept. No.	Part No.	Description	QTY
2	21A	GCC-CW	1.75 lb Counter Weight	3
3	H	0014	1/2" Slit Lock Washer	6
4	H	1069	1/2 - 13 x 1 1/2 - Gr. 5 Hex Bolt	6
21A-GCC-350 - 3.5 lb Counter Weight Kit Includes:				
Item No.	Dept. No.	Part No.	Description	QTY
2	21A	GCC-CW	1.75 lb Counter Weight	6
3	H	0014	1/2" Slit Lock Washer	6
5	H	5007	1/2 - 13 x 2 Gr. 5 Hex Bolt	6
21A- GCC-525 - 5.25 lb Counter Weight Kit Includes:				
Item No.	Dept. No.	Part No.	Description	QTY
2	21A	GCC-CW	1.75 lb Counter Weight	9
3	H	0014	1/2" Slit Lock Washer	6
6	H	5009	1/2 - 13 x 2 1/2 Gr. 5 Hex Bolt	6

## True-Surface® Greens Care Collection Counterweight Chart

Model Mower	Counter Weight Needed	Qty per Frame	Additional Counter Weights Needed	Qty per Frame
Toro 3100	GCC-283	1		
Toro 3250	GCC-283	1		
Toro 3300/3400	GCC-285	1	GCC-CW	1
Toro 3320/3420	GCC-285	1	GCC-CW	3
John Deere 2500	GCC-285	1		
John Deere 2500E	GCC-285	1	GCC-CW	2
JD 2500 QA5	GCC-285	1	GCC-CW	2
JD 2500E QA5	GCC-285	1	GCC-CW	3
John Deere 2243	GCC-285	1		
Jacobsen 3/4	GCC-283	1		
Jacobsen 5/6	GCC-285	1		
Jacobsen E322	GCC-285	1	GCC-CW	2

## **MOUNTING INSTRUCTIONS FOR JACOBSEN GK III - IV, GK V-VI, E-PLEX AND RANSOME**

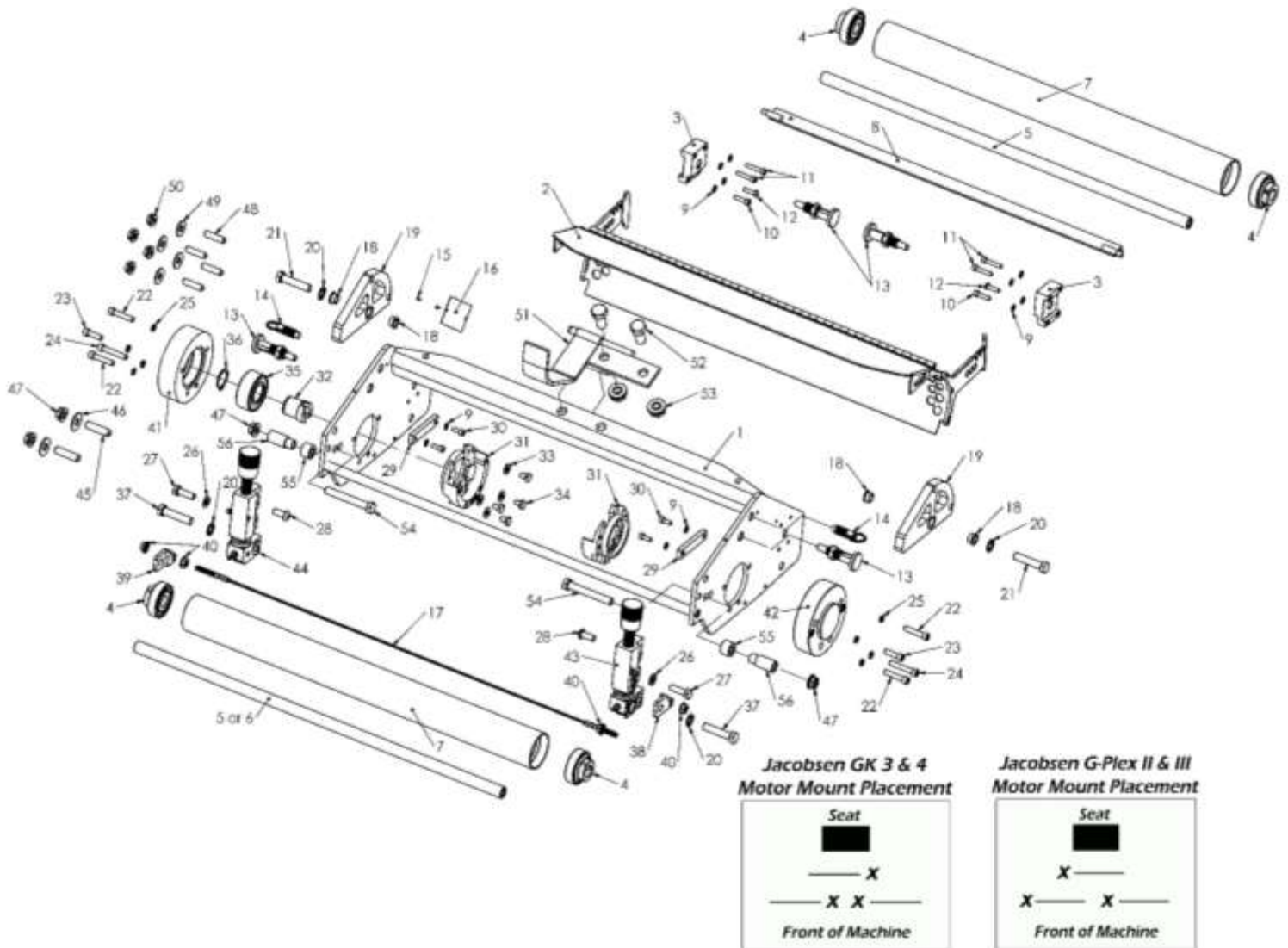
1. Remove the clipping baskets/buckets and cutting units from the mower by removing the bolts at each side of the cutter frame that attach lift/pull frame to cutting unit and remove the drive motors.
2. GCC frames will have all the hardware attached. Remove the frames from the box, lower the parking stands by pulling each plunger behind the hood out approximately ¼" (6.4mm), allowing the stand to swing down, release plunger, and rotate stand until it locks into park position (see Figures 3 & 4 on page 6).
3. Slide the units under the mower in their respective drive side positions. The Jacobsen III & IV's right and center units are the same, and the left unit is location specific. The E-Plex, GK V & VI, and Ransome's are interchangeable in all 3 locations.
4. Remove the flange nut and outer spacer bushing (GCC-216) from each connection point on the frame. Align mounting holes of lift/pull frame with lift bolts and insert the smaller diameter of spacer bushing (GCC-216) into mounting hole of lift/pull frame. Slide bolt completely through, re-install nut and tighten. NOTE: Spacer bushing GCC-216 is reversible. Depending on lift/pull frame width, some units will have the smaller diameter of GCC-216 facing in, and others will be facing out.
5. To install drive motors for GK III & IV, E-PLEX, & RANSOME: Remove the flange nuts from the mounting studs (2 or 4 per unit depending on the model). Align the motor splines into the drive coupler and slide the motor into the housing. Make sure the motor flanges mount flush to the motor housing. Replace flange nuts and tighten.
6. To install drive motors for GK V & VI: Remove the cotter pin from the motor lock arms. Rotate each arm out approximately 90 degrees; ensure that the male spline (GCC-06JD/Jac5) and female coupler (7704) are fully inserted. Slide the motor into the motor housing and rotate back and forth to align splines. Be sure the motor flanges mount flush to the motor housing. Be sure the anti-rotation pin aligns at the bottom of the motor, close the lock arms, and replace the cotter pin through both lock arms.
7. Check operation and replace clipping baskets.
8. We recommend leaving the parking stands down until the green is reached. To retract them, pull both spring plungers back approximately ¼" (6.4mm), rotate the parking stand up, and release the plunger; continue to rotate the parking stand until it locks into the up position (see Figures 3 & 4 on page 6).

**ROTATE THE PARKING STANDS INTO THE PARK POSITION BEFORE LOWERING THE  
UNITS TO THE FLOOR OF THE MAINTENANCE FACILITY FOR ANY REASON.**

\*Please note that the insert handles may interfere with the lifting yoke when fixed in the vertical position with GCC-400 (item 13). If this occurs, rotate the handles back until they touch the frame cross bar and secure with the GCC-233 (item 14).



# Jacobsen Greensking 3, 4 & G-Plex II, III Schematic & Parts Listing

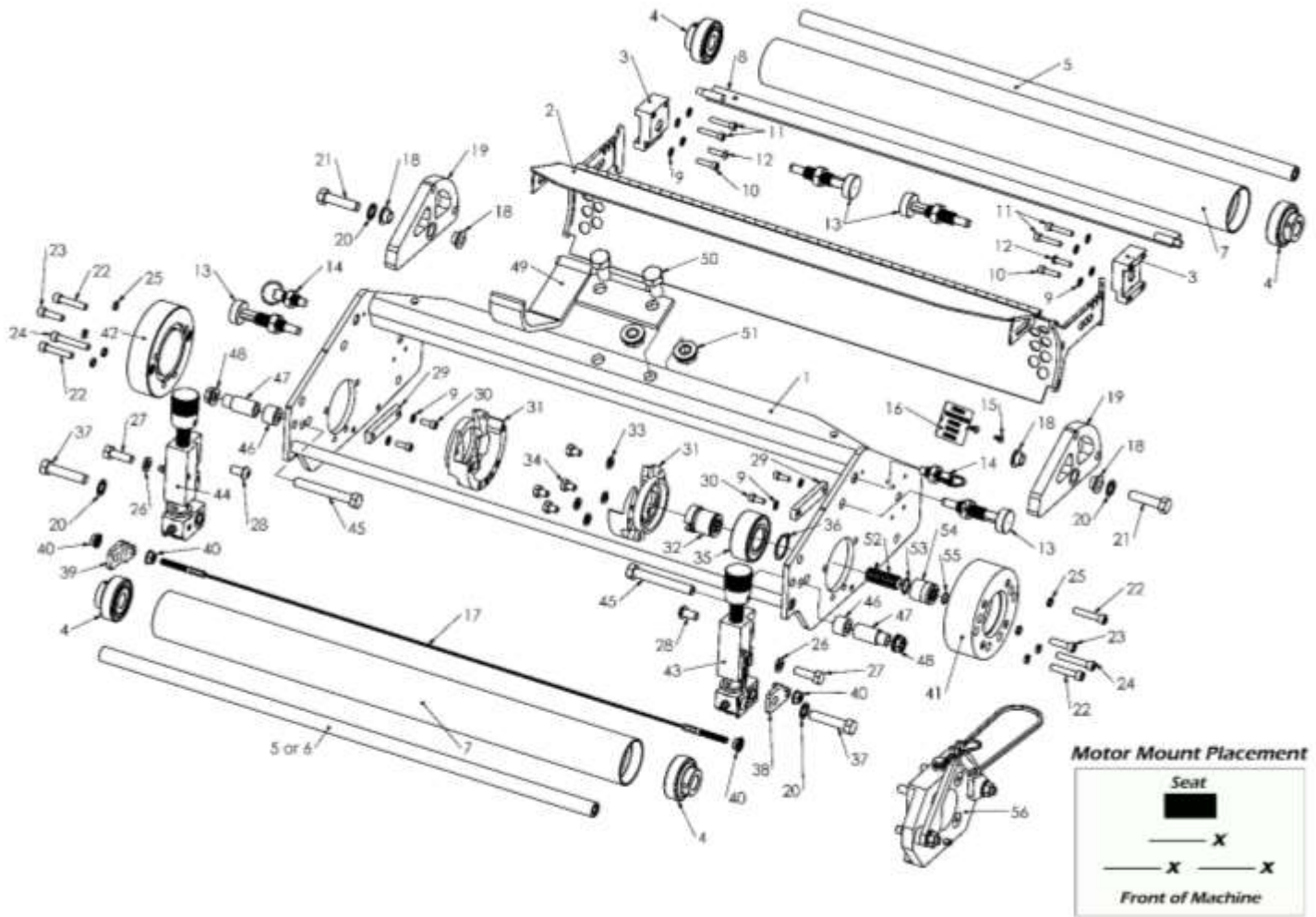


Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere. 6 Pcs Used After 5/22/19	3 or 6
6	21P	GCC-221 Jac/Ran	Front Roller Axle for Jacobsen/Ransome Models Prior to 5/22/19	0 or 3
7	21P	GCC-222	Front/Rear Roller Tube	6
8	21A	GCC-223	Rear Scraper	3
9	H	17	#10 Internal Tooth Lock Washer	36
10	H	16	#10-32 x 3/4" SS SHCS	6
11	H	24	#10-32 x 1" SS SHCS	12
12	H	32	#10-32 x 3/4" Button Head Screw	6
13	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	6

## Jacobsen Greensking 3, 4 & G-Plex II, III Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
15	H	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	H	6106	3/8" Internal Tooth Lock Washer	12
21	H	21	3/8"-24 x 1-1/2" Hex Bolt	12
22	H	19	1/4"-20 x 1-1/4" SHCS	12
23	H	20	1/4"-20 x 7/8" SHCS	6
24	H	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	6
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
29	21P	GCC-114	Hood Support	6
30	H	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
32	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 36)	3
33	H	51	1/4" SAE Flat Washer	12
34	H	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
37	H	2502	3/8"-24 x 1-3/4" Hex Bolt (Used After 5/22/19)	6
	H	28	5/16"-24 x 1-3/4" Hex Bolt (Used Prior to 5/22/19)	
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
40	H	37	1/4"-20 Serrated Flange Nut	12
41	21P	GCC-02N-6	Narrow Motor Mounting Flange	3
42	21P	GCC-283	3lb Counterweight	3
43	21A	GCC-ADJ Toro 1L	Depth Adjuster Assembly - Left (Used After 5/22/19)	3
	21A	GCC-ADJ Jac/Ran 1L	Jac/Ran Depth Adjuster Assembly - Left (Used Prior to 5/22/19)	
44	21A	GCC-ADJ Toro 1R	Depth Adjuster Assembly - Right (Used After 5/22/19)	3
	21A	GCC-ADJ Jac/Ran 1R	Jac/Ran Depth Adjuster Assembly - Right (Used Prior to 5/22/19)	
45	H	1402	3/8"-16 x 1-3/4" Motor Stud	6
46	H	1019	5/16 USS Flat Washer	6
47	H	1183	3/8"-16 Smooth Flange Nut	12
48	H	1403	5/16"-18 x 1-1/2" Motor Studs	12
49	H	1008	1/4" USS Flat Washer	12
50	H	3147	5/16"-18 Smooth Flange Nut	12
51	21A	GCC-10 ASM	Lift Bracket Assembly	3
52	H	0013	1/2"-13 x 1" Hex Bolt	6
53	H	1026	1/2"-13 Flange Nut	6
54	H	286	3/8"-16 x 2-3/4 Hex Bolt	6
55	H	GCC-217	Lift Bushing Standoff	6
56	H	GCC-216	Lift Bushing	6

## Jacobsen 5 & 6 Schematic & Parts Listing



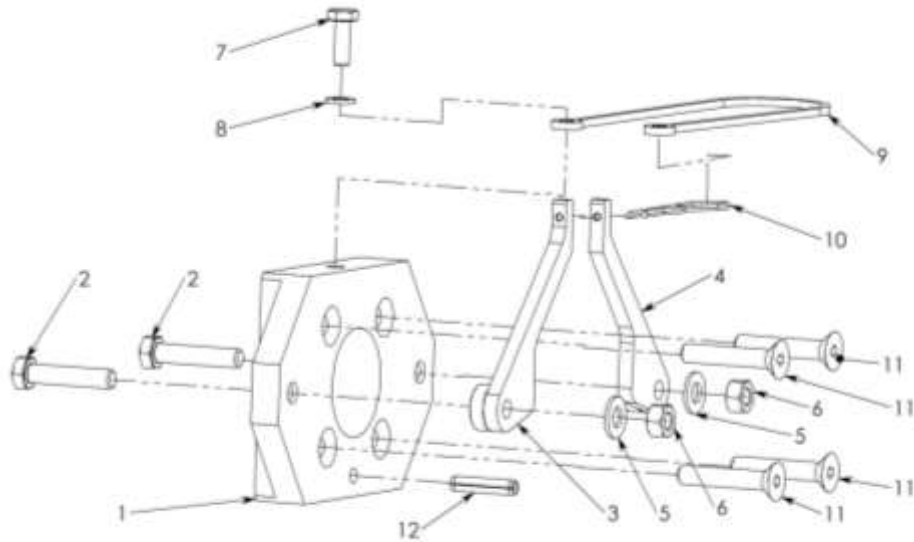
Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere. (6 Pcs Used After 5/22/19)	3 or 6
6	21P	GCC-221 Jac/Ran	Front Roller Axle for Jacobsen/Ransome (Models Prior to 5/22/19)	0 or 3
7	21P	GCC-222	Front/Rear Roller Tube	6
8	21A	GCC-223	Rear Scraper	3
9	H	17	#10 Internal Tooth Lock Washer	36
10	H	16	#10-32 x 3/4" SS SHCS	6
11	H	24	#10-32 x 1" SS SHCS	12
12	H	32	#10-32 x 3/4" Button Head Screw	6
13	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	12
14	21A	GCC-233	Hood Lock Plunger (Includes H-27)	6
15	H	30	#7 x 1/4" Drive Screw	6
16	21S	SERIAL TAG	Serial Number Tag	3
17	21P	GCC-523	Cable Scraper	3

## Jacobsen 5 & 6 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
18	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
19	21P	GCC-13C	Parking Stand	6
20	H	6106	3/8" Internal Tooth Lock Washer	12
21	H	21	3/8"-24 x 1-1/2" Hex Bolt	12
22	H	19	1/4"-20 x 1-1/4" SHCS	12
23	H	20	1/4"-20 x 7/8" SHCS	6
24	H	31	1/4"-20 x 1-1/2" SHCS	6
25	30H	6110	1/4" Hi-Collar Lock Washer	24
26	30H	1013	5/16" Split Lock Washer	6
27	30H	1022	5/16"-24 x 1" Hex Bolt	6
28	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
29	21P	GCC-114	Hood Support	6
30	H	8005	#10-32 x 1/2" SS SHCS	12
31	21P	GCC-03	Inner Bearing Housing	6
32	21P	GCC-06	Female Splined Coupler (Supplied with Snap Ring Item # 36)	3
33	H	51	1/4" SAE Flat Washer	12
34	H	18	1/4"-20 x 3/8" Hex Bolt	12
35	21P	GCC-111	Drive Coupler Bearing	3
36	37P	1029	Snap Ring	3
37	H	2502	3/8"-24 x 1-3/4" Hex Bolt (Used After 5/22/19)	6
	H	28	5/16"-24 x 1-3/4" Hex Bolt (Used Prior to 5/22/19)	
38	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
39	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
40	H	37	1/4"-20 Serrated Flange Nut	12
41	21P	GCC-02W-6	Wide Motor Mounting Flange	3
42	21P	GCC-283	3lb Counterweight	3
43	21A	GCC-ADJ Toro 1L	Depth Adjuster Assembly - Left (Used After 5/22/19)	3
	21A	GCC-ADJ Jac/Ran 1L	Jac/Ran Depth Adjuster Assembly - Left (Used Prior to 5/22/19)	
44	21A	GCC-ADJ Toro 1R	Depth Adjuster Assembly - Right (Used After 5/22/19)	3
	21A	GCC-ADJ Jac/Ran 1R	Jac/Ran Depth Adjuster Assembly - Right (Used Prior to 5/22/19)	
45	H	286	3/8"-16 x 2-3/4" Hex Bolt	6
46	21P	GCC-217	Lift Bushing Standoff	6
47	21P	GCC-216	Lift Bushing	6
48	H	1183	3/8"-16 Smooth Flange Nut	12
49	21A	GCC-10 ASM	Lift Bracket Assembly	3
50	H	0013	1/2"-13 x 1" Hex Bolt	6
51	H	1026	1/2"-13 Flange Nut	6
52	21P	GCC-06JD/Jac5	JD & Jac5 Male Spline Coupler	3
53	21P	GCC-128	Snap Ring 9/16" External	3
54	37P	7704	Internal Female Splined Coupler	3
55	21P	GCC-129	12mm 1/2" Internal Snap Ring	3
56	21A	GCC-1165	GK 5 Motor Mount Lock Kit (See Page 30)	3

## Jacobsen 5 & 6 Motor Mount Lock Kit

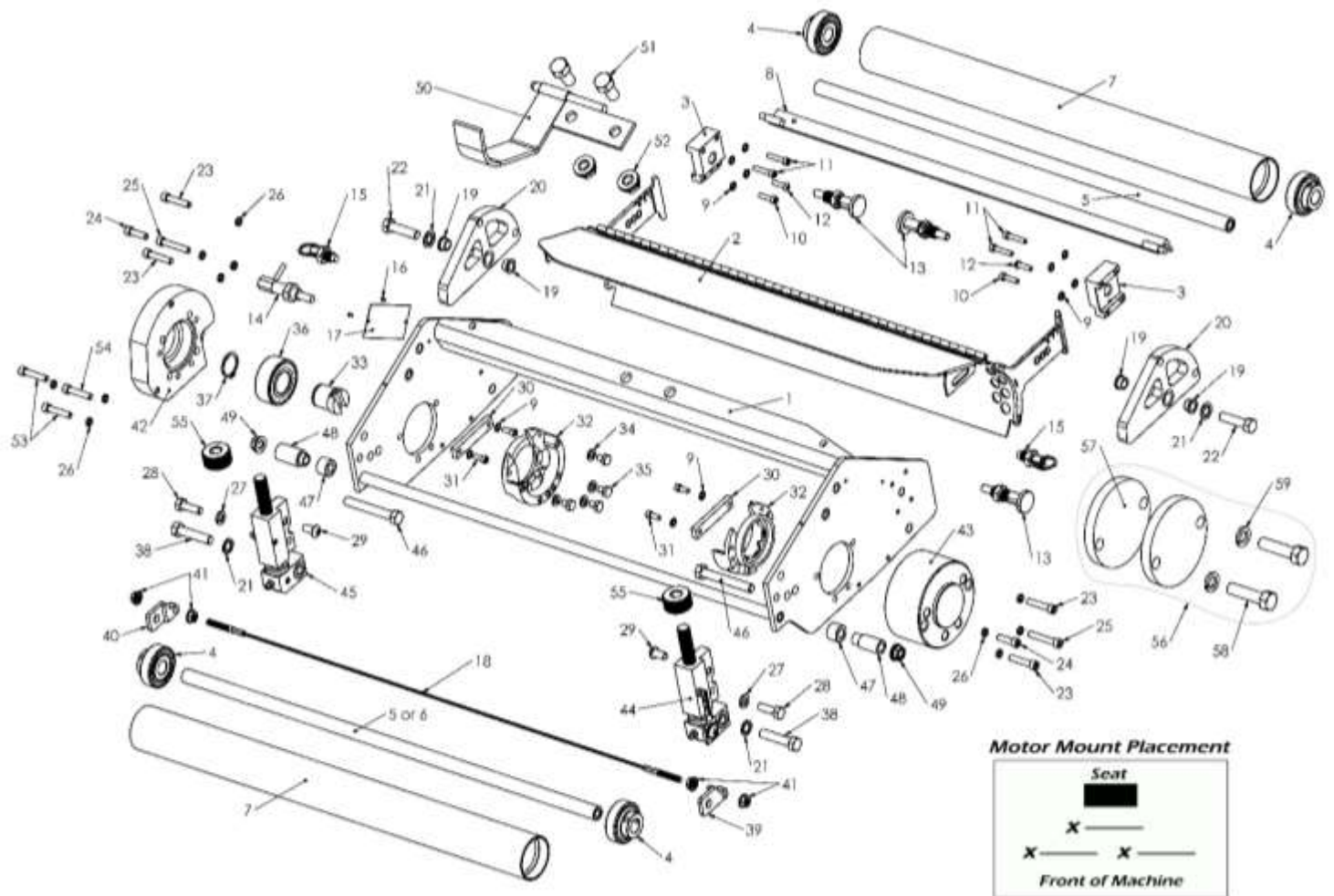
### 21A-GCC-1165 – Motor Mount Lock Kit Assembly



Item No.	Dept. No.	Part No.	Description	QTY
1	37P	6034JV	Greensking 5/6 Motor Adapter Flange	3
2	30H	3107	5/16 Bolt	6
3	30A	3003	Motor Mount Lock Arm RH	3
4	30A	3002	Motor Mount Lock Arm LH	3
5	30H	3158	5/16 Wave Washer	6
6	30H	3179	Nut 5/16 - 18 Lock	6
7	30H	1003	Bolt 1/4 - 20 x 3/4	3
8	30H	1007	Regular LW 1/4	3
9	30M	2528	Lanyard	3
10	30H	2580	Cotter Pin	3
11	30H	1146	Bolt 5/16 - 18 x 1 3/4 FH	12
12	37P	7178	Spring Pin 1/4 x 1 1/8	3



## Jacobsen Eclipse 322 Schematic & Parts Listing



Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	3
2	21A	GCC-08	Insert Guard Hood Assembly	3
3	21P	GCC-12	Hood Rail Mounting Block	6
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	12
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere. (6 Pcs Used After 5/22/19)	3 or 6
6	21P	GCC-221 Jac/Ran	Front Roller Axle for Jacobsen/Ransome (Used Prior to 5/22/19)	0 or 3
7	21P	GCC-222	Front/Rear Roller Tube	6
8	21A	GCC-223	Rear Scraper	3
9	H	17	#10 Internal Tooth Lock Washer	36
10	H	16	#10-32 x 3/4" SS SHCS	6
11	H	24	#10-32 x 1" SS SHCS	12
12	H	32	#10-32 x 3/4" Button Head Screw	6
13	21A	GCC-400 ASM	Spring Plunger with Nut (Includes H-1033)	9
14	21A	GCC-400-90 ASM	Spring Plunger with Nut (Includes H-1033) 90 Degree L-Handle for Motor Side	3
15	21A	GCC-233	Hood Lock Plunger (Includes H-27)	6
16	H	30	#7 x 1/4" Drive Screw	6
17	21S	SERIAL TAG	Serial Number Tag	3



## Jacobsen Eclipse 322 Parts Listing Continued

Item No.	Dept. No.	Part No.	Description	QTY
18	21P	GCC-523	Cable Scraper	3
19	21P	GCC-13 Bushing	Parking Stand Flanged Bushing	12
20	21P	GCC-13C	Parking Stand	6
21	H	6106	3/8" Internal Tooth Lock Washer	12
22	H	21	3/8"-24 x 1-1/2" Hex Bolt	12
23	H	19	1/4"-20 x 1-1/4" SHCS	12
24	H	20	1/4"-20 x 7/8" SHCS	6
25	H	31	1/4"-20 x 1-1/2" SHCS	6
26	30H	6110	1/4" Hi-Collar Lock Washer	33
27	30H	1013	5/16" Split Lock Washer	6
28	30H	1022	5/16"-24 x 1" Hex Bolt	6
29	21P	GCC-ADJ-12	5/16"-24 x 5/8" Button Head Screw	6
30	21P	GCC-114	Hood Support	6
31	H	8005	#10-32 x 1/2" SS SHCS	12
32	21P	GCC-03	Inner Bearing Housing	6
33	21P	GCC-06 E322	Female Splined Coupler (Supplied with Snap Ring Item # 37)	3
34	H	51	1/4" SAE Flat Washer	12
35	H	18	1/4"-20 x 3/8" Hex Bolt	12
36	21P	GCC-111	Drive Coupler Bearing	3
37	37P	1029	Snap Ring	3
38	H	2502	3/8"-24 x 1-3/4" Hex Bolt (Used After 5/22/19)	6
	H	28	5/16"-24 x 1-3/4" Hex Bolt (Used Prior to 5/22/19)	
39	21P	GCC-ADJ-27L	Cable Scraper Mount - Left	3
40	21P	GCC-ADJ-27R	Cable Scraper Mount - Right	3
41	H	37	1/4"-20 Serrated Flange Nut	12
42	21P	GCC-02-E322	E322 Motor Mount Flange	3
43	21P	GCC-285	5lb Counterweight	3
44	21A	GCC-ADJ JAC E322 1L	Jac E-322 Depth Adjuster Assembly - Left	3
45	21A	GCC-ADJ JAC E322 1R	Jac E-322 Depth Adjuster Assembly - Right	3
46	H	286	3/8"-16 x 2-3/4" Hex Bolt	6
47	21P	GCC-217	Lift Bushing Standoff	6
48	21P	GCC-216	Lift Bushing	6
49	H	1183	3/8"-16 Smooth Flange Nut	12
50	21A	GCC-10 ASM	Lift Bracket Assembly	3
51	H	0013	1/2"-13 x 1" Hex Bolt	6
52	H	1026	1/2"-13 Flange Nut	6
53	H	2016	1/4"-20 x 1-3/8" SHCS (Thick Motor Flange)	6
	H	20	1/4"-20 x 7/8" SHCS (Thin Motor Flange)	
54	H	19	1/4"-20 x 1-1/4" SHCS (Thick Motor Flange at Parking Stand)	3
	H	1505	1/4"-20 x 3/4" SHCS (Thin Motor Flange at Parking Stand)	
55	21P	GCC-ADJ-07E322	Lower Height Adjuster Knob	6
56	21A	GCC-350	3.5lb Counterweight Kit	3
57	21P	GCC-CW	Stackable Counterweight	6
58	H	0014	1/2" Split Lock Washer	6
59	H	5007	1/2"-13 x 2" Hex Bolt	6

### True-Surface® Depth of Cut Adjusters & Sight Gauge

The depth of cut adjuster is designed to be a reliable method of adjusting the depth of cut to precise increments. Made from stainless steel and quality zinc-plated components, the adjusters are equipped with lubrication points for rotating components. The predetermined “ZERO” settings and incremental markings provide fast and easy operation, setup, and change-over.

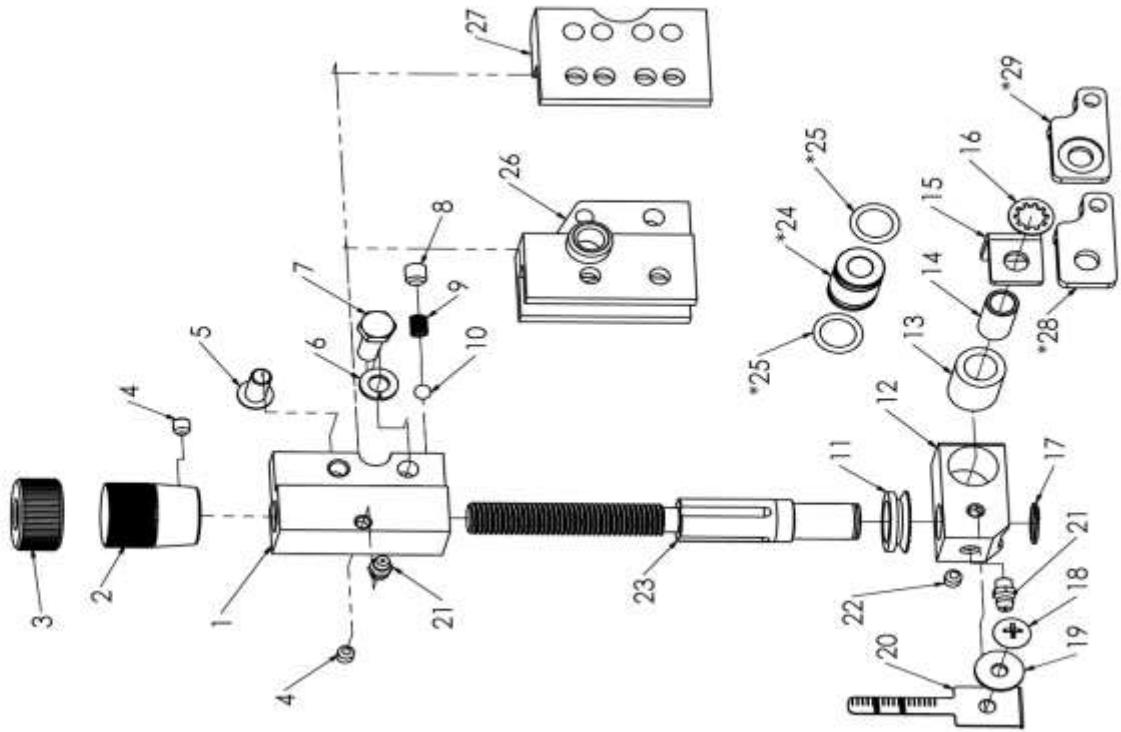
1. The depth adjuster’s “ZERO” setting is indicated on the depth gauge for both Vacu-Cutter™ and Vacu-Scarifier™ when aligned with the bottom of the depth adjuster mounting block.
2. The “ZERO” setting refers to the point at which the contact points of the front and rear roller and the Insert points are all on an equal plane.
3. Cutting depth: when the Insert points are set lower than the rollers. This can be achieved by rotating the adjuster knob counterclockwise to lift the front roller and to allow the frame and the Insert to move down into the turf.
4. The Vacu-Cutter™, Vacu-Groomer™, NV Roller, and the Vacu-Brushes™ will start at the line marked “**Vacu-Cutter™**.” Doing this will establish the “ZERO” setting for these units. From the “ZERO” setting, each ¼ turn of the adjuster knob will correlate with a click to hold it in position.
5. The Vacu-Scarifier™ has its own “ZERO” setting (labeled **Scarifier™** on the depth gauge).
6. The Vertical Mower™ “ZERO” setting is three lines (12 clicks) above the Vacu-Scarifier™ “ZERO” line when using New Vertical Mower blades. The zero setting will change over time if the blades wear down from continual use.
7. The Star Slitter, Greens Spiker, and Deep Slicer will start at maximum height, and will penetrate approximately 0.150” (4.0mm), 0.19” (5mm), 0.22” (6mm) respectively into the turf. This is the minimum depth.
8. Each click represents approximately 0.010” (.254 mm) change in cutting depth, which will equal 0.040” (1.02 mm) change in cutting depth for each full revolution.
9. Each complete revolution change is marked as a line on the depth gauge of the adjuster.
10. The standard part number for the depth of cut gauge is GCC-ADJ-08 and is used on most Toro and Jacobsen units. However, John Deere 2500 units and Toro 3250 units use the depth of cut gauge GCC-ADJ-08JD. These models are equipped with additional mounting blocks that extend the forward position of the adjuster: GCC-ADJ-06L & R for John Deere and GCC-ADJ-3250 for Toro 3250.

**Refer to page 34 for a schematic and parts listing.**

Quantities are for a set of 6 DOC Adjusters to fit 3 Frames

Item No.	Dept. No.	Part No.	Description	QTY.
1	21P	GCC-ADJ-06	Mounting Block	6
2	21P	GCC-ADJ-07	Adjustment Knob (Will Not Fit Jacobsen E322)	6
3	21P	GCC-ADJ-07E322	Adjustment Knob (Fits Jacobsen E322 Only)	6
4	21P	GCC-ADJ-15	1/4"-28 Set Screw	12
5	21P	GCC-ADJ-12	5/16"-24 x 5/8" Round Head Bolt (Use Qty. 12 for John Deere)	6
6	H	1013	5/16" Split Lock Washer	6
7	H	1022	5/16"-24 x 1" Hex Bolt	6
8	21P	ADJ-14	8mm Set Screw	6
9	21P	GCC-ADJ-13	Detent Spring	6
10	21P	GCC-ADJ-14	Detent Ball	6
11	21P	GCC-ADJ-16	Adjuster Shaft Seal	6
12	21P	GCC-ADJ-04	Roller Mount Block	6
13	21P	GCC-ADJ-09	Isolator (Obsolete)	6
14	21P	GCC-ADJ-10	S.S. Sleeve (Obsolete)	6
14	21P	GCC-ADJ-10	S.S. Sleeve (Obsolete)	6
15	21P	GCC-ADJ-10 Jac/Ran	Axle Rotation Stop (Used Prior to 3/11/19)	6
15	21P	GCC-ADJ-3414	3/8" Internal Tooth Lock Washer	6
16	H	6106	Washer	6
17	21P	GCC-ADJ-17	5/8" External Snap Ring	6
18	21P	GCC-ADJ-19	Depth Gauge Mount Screw	6
19	21P	GCC-ADJ-20	Depth Gauge Mount Washer	6
20	21P	GCC-ADJ-08	Depth Gauge	6
20	21P	GCC-ADJ-08JD	Depth Gauge (Fits John Deere and Toro 3250)	6
21	H	1681	Steel Grease Fitting	12
22	H	6014	Set Screw 1/4"-20 x 1/4"	6
23	21P	GCC-ADJ-03	Adjuster Shaft	6
24	21P	GCC-ADJ-25	Depth Adjuster Isolator Bushing	6
24	21P	GCC-ADJ-25 Jac/Ran	Depth Adjuster Isolator Bushing (Used on Jacobsen/Ransome Prior to 5/22/19)	6
25	21P	GCC-ADJ-26	O-Ring Isolator	12
26	21P	GCC-ADJ-06JD-L	Left Mounting Block (John Deere Only)	3
26	21P	GCC-ADJ-06JD-R	Right Mounting Block (John Deere Only)	3
27	21P	GCC-ADJ-3250	Block (Toro 3250 Only)	6
28	21P	GCC-ADJ-27L	Cable Scraper Mount Tab Left (Replaced GCC-ADJ-3414 on 3/11/19)	3
28	21P	GCC-ADJ-27R	Cable Scraper Mount Tab Right (Replaced GCC-ADJ-3414 on 3/11/19)	3
29	21P	GCC-ADJ-27L-CB	Counterbore Cable Scraper Mount Tab Left (Replaced GCC-ADJ-3414 on 3/11/19. Used on Toro GM3 - 3250)	3
29	21P	GCC-ADJ-27R-CB	Counterbore Cable Scraper Mount Tab Right (Replaced GCC-ADJ-3414 on 3/11/19. Used on Toro GM3 - 3250)	3

True-Surface® Greens Care Collection  
DEPTH OF CUT ADJUSTER



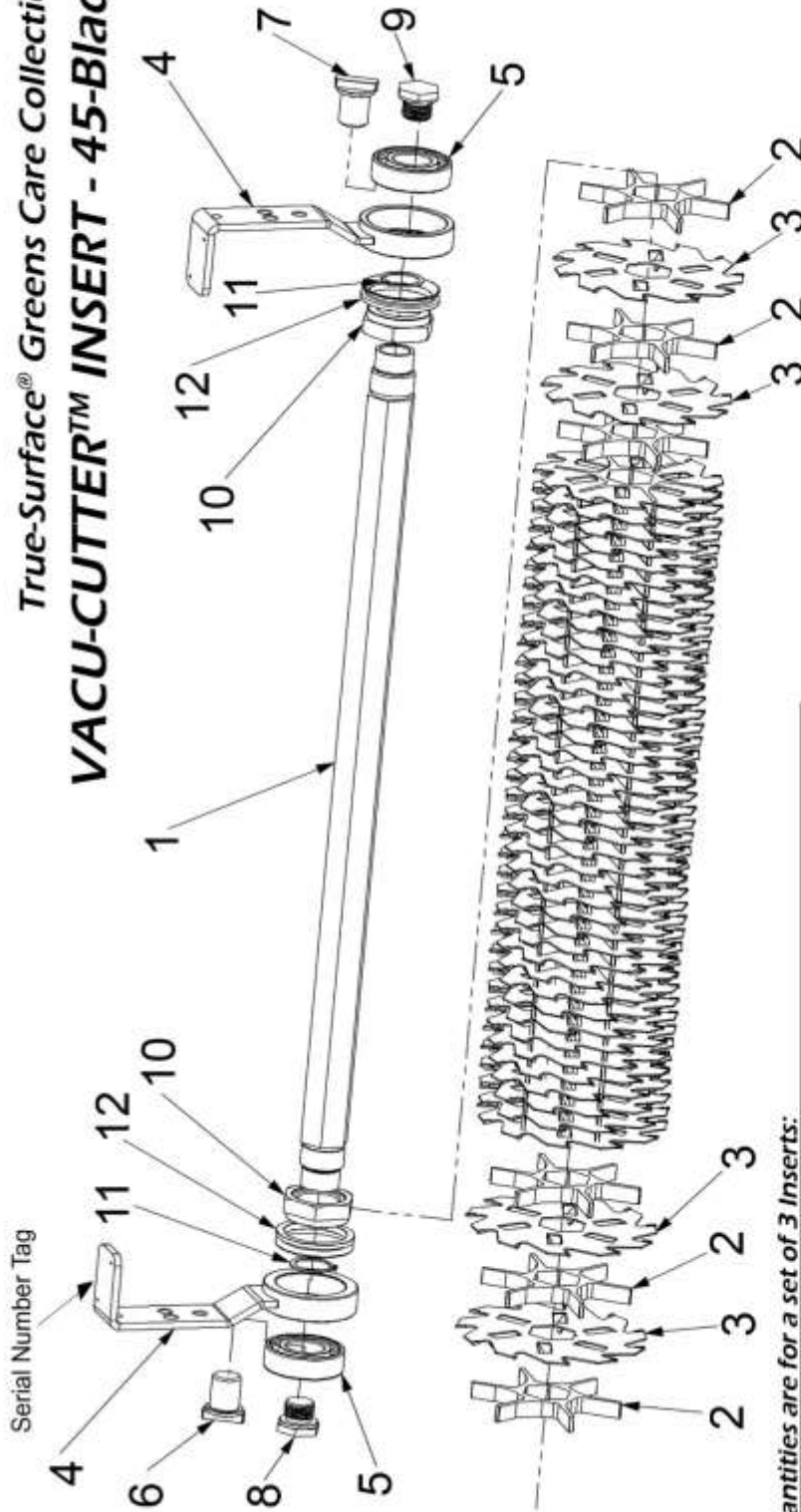
# GREENS CARE COLLECTION INSERT INSTALLATION AND REMOVAL

The Greens Care Collection (GCC) is a true “wrench/spanner free” interchange system. It is possible to exchange GCC inserts on most triplex/triple models with the frames still installed on the greens mower.

1. Assuming you are working on a bench, to exchange any of the inserts rest each roller on a  $\frac{3}{4}$ ”-1” (19mm – 25.4mm) strip of board to gain clearance under the insert, so they can be adjusted at any cutting depth.
2. Pull outward and rotate all four retractable spring plungers 90 degrees. This will release the insert handles and the hood rails.
3. Pull the insert handles forward, then retract the small lock spring plunger on each side. Lift the front of the hood, lock the spring plungers into position so that the hood is held in the up position, and slide the hood back as far as possible
4. View the drive motor side of the cutting unit. Align the square drive key between the insert handle and the frame, so it is angled slightly forward (12 degrees) (see Figure 1 on page 6).
5. Taking one handle in each hand, lift the unit out at a slight forward angle to the frame; be sure to use equal force on each end and keep it parallel with the frame while doing so.
6. Installation is the opposite. Align the Insert shaft drive key so that when looking down above the housing it will align with the drive coupler and the unit will rest into the bottom of the housings. Do this evenly to avoid a jam of the insert in the frame. Non-driven units: Star Slitter, Greens Spiker, and the NV Roller do NOT have a drive key that needs to be aligned.
7. Lower the hood top section and slide the hood assembly forward until indicator notches are aligned with rail mount block to match the Insert installed (see Figure 2 on page 6).
8. Turn the hood rail plungers another 90 degrees, and allow them to return through the rail, frame and parking stand. Position the stand so it will support the back of unit off the surface (see Figure 3 & 4 on page 6). Some slight sliding of the hood back and forth may be necessary to properly align plunger holes, so that plunger will slip into position.
9. Rotate the insert handle back to 90 degrees with frame and release the plungers on the frame, so they pass through the insert handles and into the slot on the underside of the top hood section.
10. When performing the above operations while mounted on a mower and the drive motor is installed, the motor will provide adequate resistance to the coupler, so that when it is rotated into removal/installation position, it will remain in the required position.
11. When changing without the motor installed, a simple square L-Key tool is supplied to insert into the coupler, if necessary, and allow it to rest on the bench to prevent rotation of the coupler during removal and installation of the insert.

NOTE: The serial number tag on the insert will always be installed on the right side of the insert from the factory as seen from sitting in the operator’s seat. If a power-driven insert is installed backwards, the drive key has the potential to unthread during operation, potentially causing damage to the GCC Frame. The drive keys and retaining studs are also stamped with left and right to indicate the correct orientation prior to insert installation.

True-Surface® Greens Care Collection  
**VACU-CUTTER™ INSERT - 45-Blade**



Quantities are for a set of 3 Inserts:

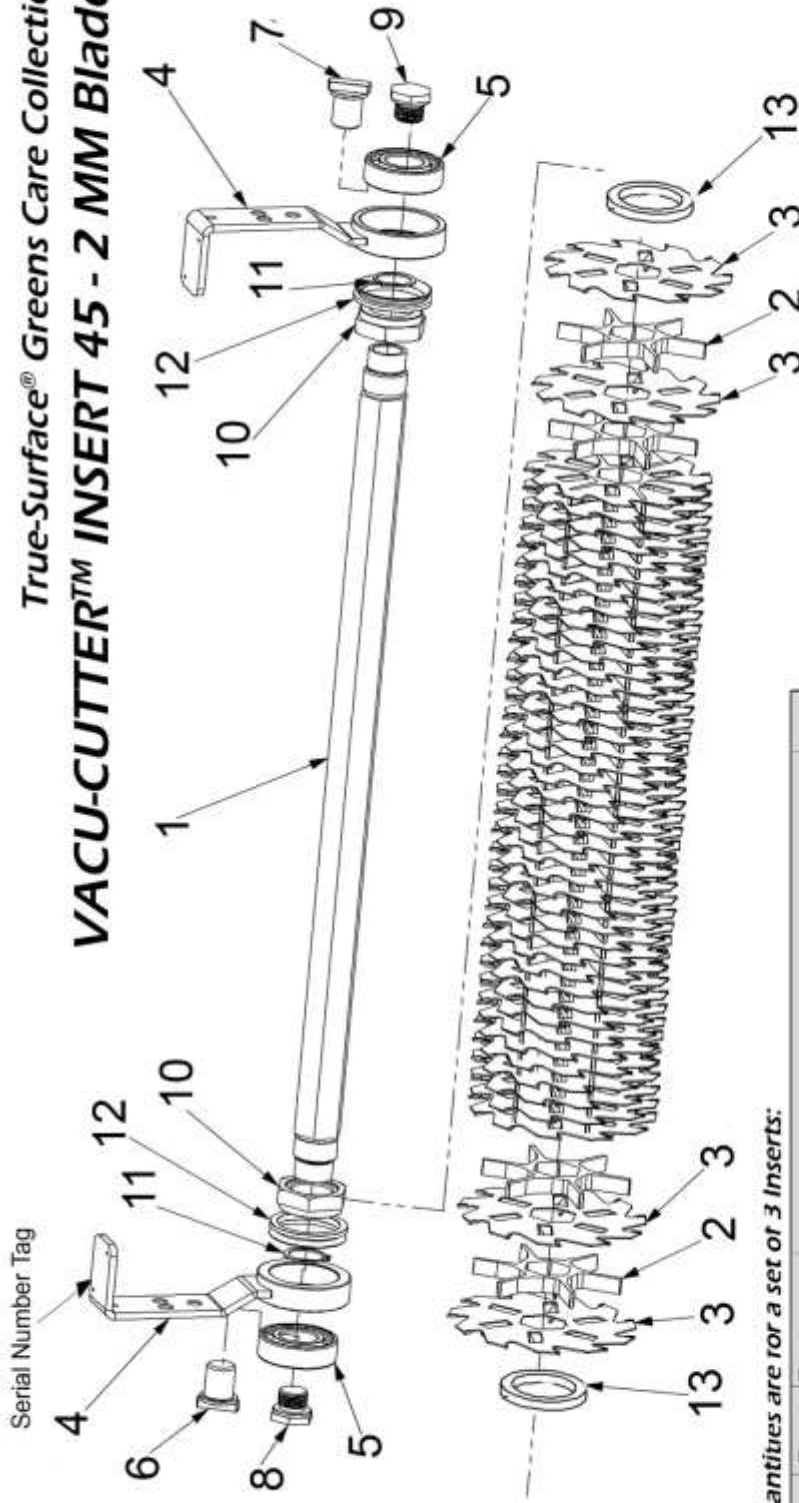
Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	138
3	21P	GCC-001	11-Point Vacu-Cut Blade (1 millimeter)	135
3	21P	GCC-002	11-Point Vacu-Cut Blade (1.5 millimeter)	135
4	21A	GCC-05	Ring & Handle Assembly	6
5	37P	1032	Cutter Shaft Bearing	6
6	21H	GCC-07R	Right Hand Thread Drive Key	*
7	21H	GCC-07L	Left Hand Thread Drive Key	*
8	21H	GCC-14R	Right Hand Thread Retaining Stud	*
9	21H	GCC-14L	Left Hand Thread Retaining Stud	*
10	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
11	37P	1029	Snap Ring	6
12	21P	GCC-36	Cutter Shaft Seal	6

\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH	0 RH 3 LH
Toro 3200-3250	2 RH 1 LH	1 RH 2 LH
Toro 3300-3420	0 RH 3 LH	3 RH 0 LH
John Deere 2243	1 RH 2 LH	2 RH 1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH	1 RH 2 LH
Jacobsen GK 3/4	1 RH 2 LH	2 RH 1 LH
Jacobsen GK 5/6	0 RH 3 LH	3 RH 0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH	0 RH 3 LH

"RH" denotes Right Hand & "LH" denotes Left Hand

True-Surface® Greens Care Collection  
**VACU-CUTTER™ INSERT 45 - 2 MM BLADES**



Quantities are for a set of 3 Inserts:

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	132
3	21P	GCC-003	11-Point Vacu-Cut Blade (2 millimeter)	135
4	21A	GCC-05	Ring & Handle Assembly	6
5	37P	1032	Cutter Shaft Bearing	6
6	21H	GCC-07R	Right Hand Thread Drive Key	*
7	21H	GCC-07L	Left Hand Thread Drive Key	*
8	21H	GCC-14R	Right Hand Thread Retaining Stud	*
9	21H	GCC-14L	Left Hand Thread Retaining Stud	*
10	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
11	37P	1029	Snap Ring	6
12	21P	GCC-36	Cutter Shaft Seal	6
13	21P	GCC-354	Ring End Spacer	6

\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH	0 RH 3 LH
Toro 3200-3250	2 RH 1 LH	1 RH 2 LH
Toro 3300-3420	0 RH 3 LH	3 RH 0 LH
John Deere 2243	1 RH 2 LH	2 RH 1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH	1 RH 2 LH
Jacobsen GK 3/4	1 RH 2 LH	2 RH 1 LH
Jacobsen GK 5/6	0 RH 3 LH	3 RH 0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH	0 RH 3 LH

\*RH\* denotes Right Hand & \*LH\* denotes Left Hand



Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	6
3	21P	GCC-001	11-Point Vacu-Cut Blade (1 millimeter)	261
3	21P	GCC-002	11-Point Vacu-Cut Blade (1.5 millimeter)	261
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
5	n/a	n/a	Serial Number Tag	3
6	37P	1032	Cutter Shaft Bearing	6
7	21A	GCC-05	Ring & Handle Assembly	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	37P	1029	Snap Ring	6
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	6
14	21P	GCC-354	Ring End Spacer	264

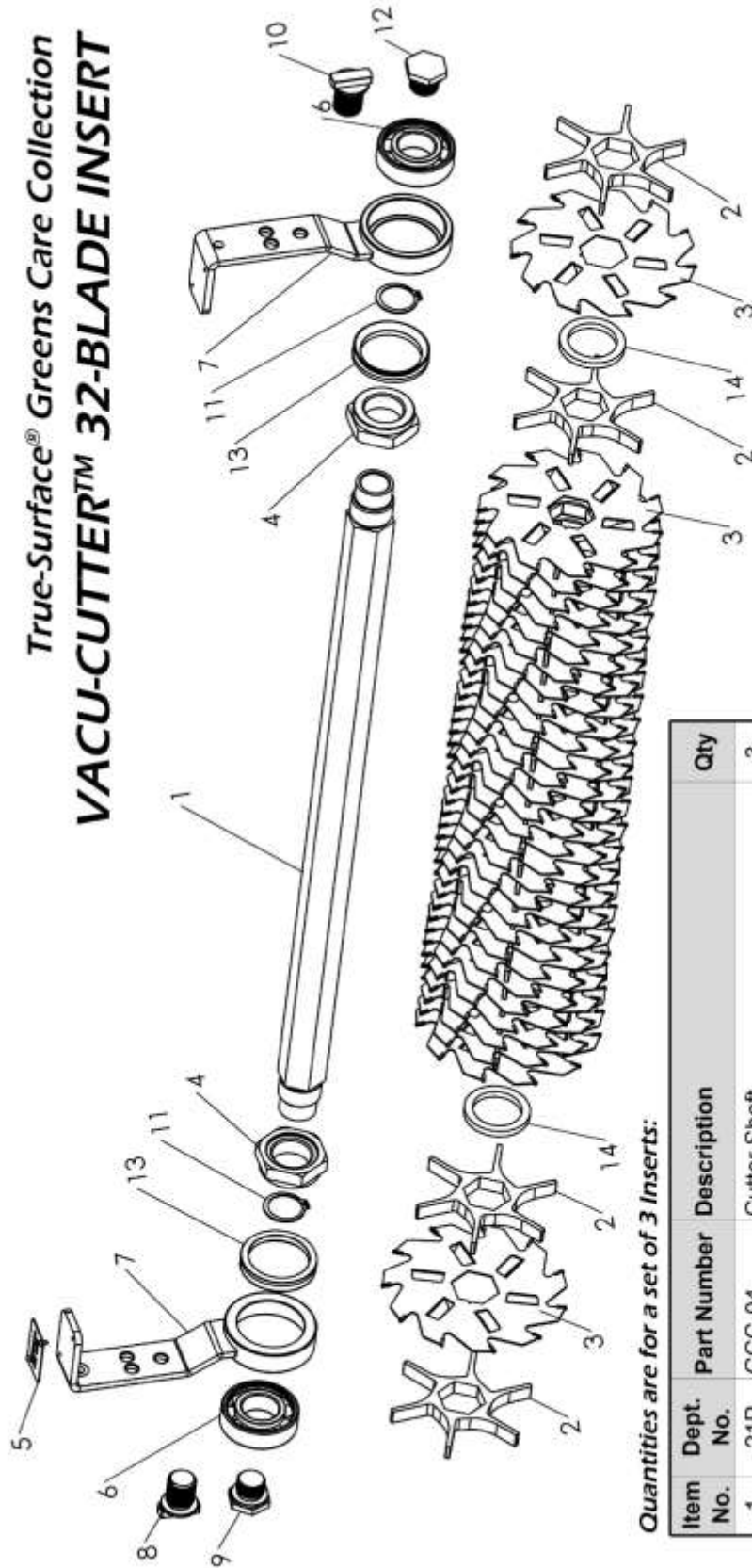
**\*Drive Key & Retaining Stud Quantities**

Drive Key & Retaining Stud Quantities		
Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH	0 RH 3 LH
Toro 3200-3250	2 RH 1 LH	1 RH 2 LH
Toro 3300-3420	0 RH 3 LH	3 RH 0 LH
John Deere 2243	1 RH 2 LH	2 RH 1 LH
John Deere 2500/ 2500E/QA5	2 RH 1 LH	1 RH 2 LH
Jacobsen GK 3/4	1 RH 2 LH	2 RH 1 LH
Jacobsen GK 5/6	0 RH 3 LH	3 RH 0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH	0 RH 3 LH

"RH" denotes Right Hand & "LH" denotes Left Hand



True-Surface® Greens Care Collection  
**VACU-CUTTER™ 32-BLADE INSERT**



Quantities are for a set of 3 Inserts:

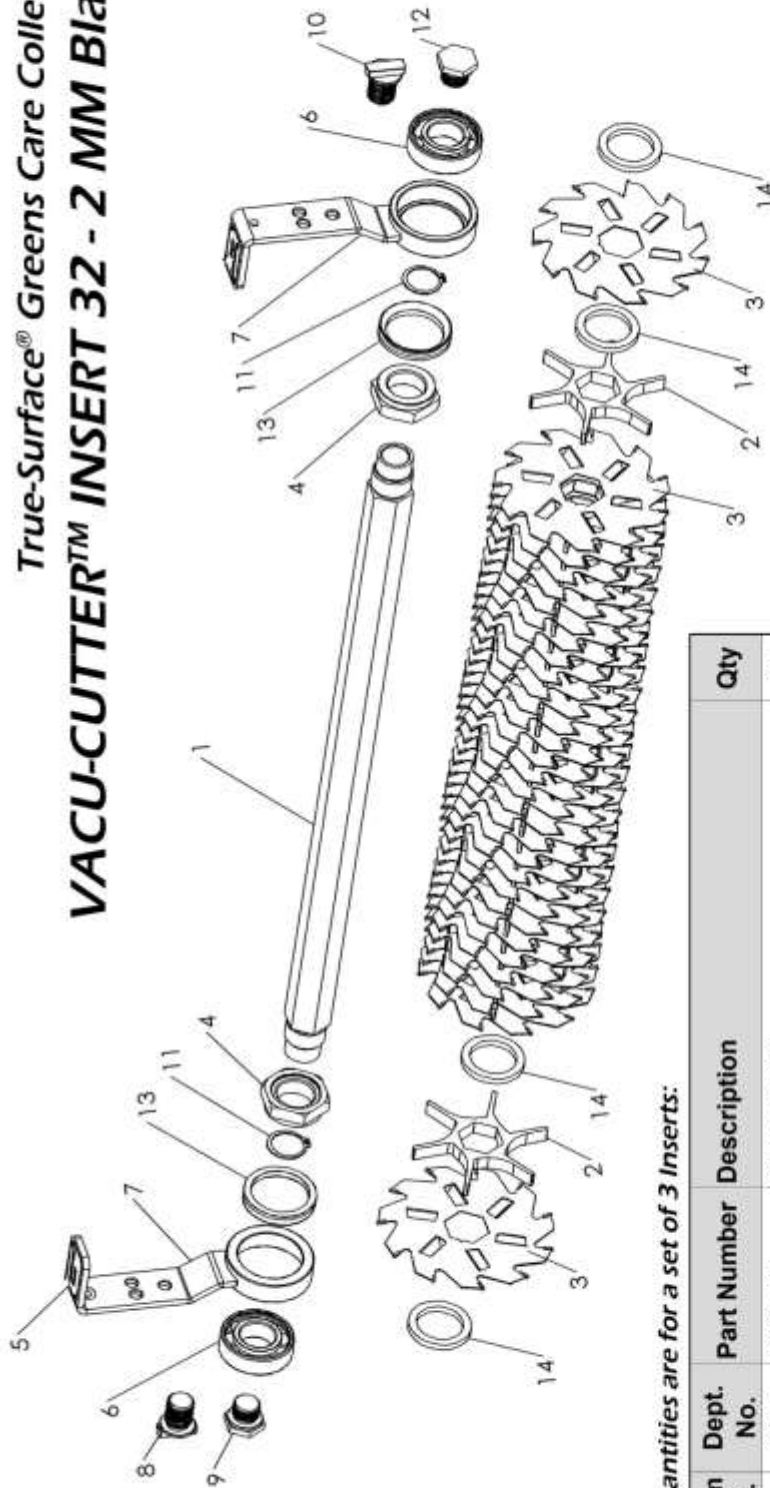
Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	99
3	21P	GCC-001	11-Point Vacu-Cut Blade (1 millimeter)	96
3	21P	GCC-002	11-Point Vacu-Cut Blade (1.5 millimeter)	96
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
5	n/a	n/a	Serial Number Tag	3
6	37P	1032	Cutter Shaft Bearing	6
7	21A	GCC-05	Ring & Handle Assembly	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	37P	1029	Snap Ring	6
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	6
14	21P	GCC-354	Ring End Spacer	93

\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH 0 RH 3 LH	3 LH
Toro 3200-3250	2 RH 1 LH 1 RH 2 LH	2 LH
Toro 3300-3420	0 RH 3 LH 3 RH 0 LH	0 LH
John Deere 2243	1 RH 2 LH 2 RH 1 LH	1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH 1 RH 2 LH	2 LH
Jacobsen GK 3/4	1 RH 2 LH 2 RH 1 LH	1 LH
Jacobsen GK 5/6	0 RH 3 LH 3 RH 0 LH	0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH 0 RH 3 LH	3 LH

\*RH\* denotes Right Hand & \*LH\* denotes Left Hand

True-Surface® Greens Care Collection  
**VACU-CUTTER™ INSERT 32 - 2 MM Blades**



Quantities are for a set of 3 Inserts:

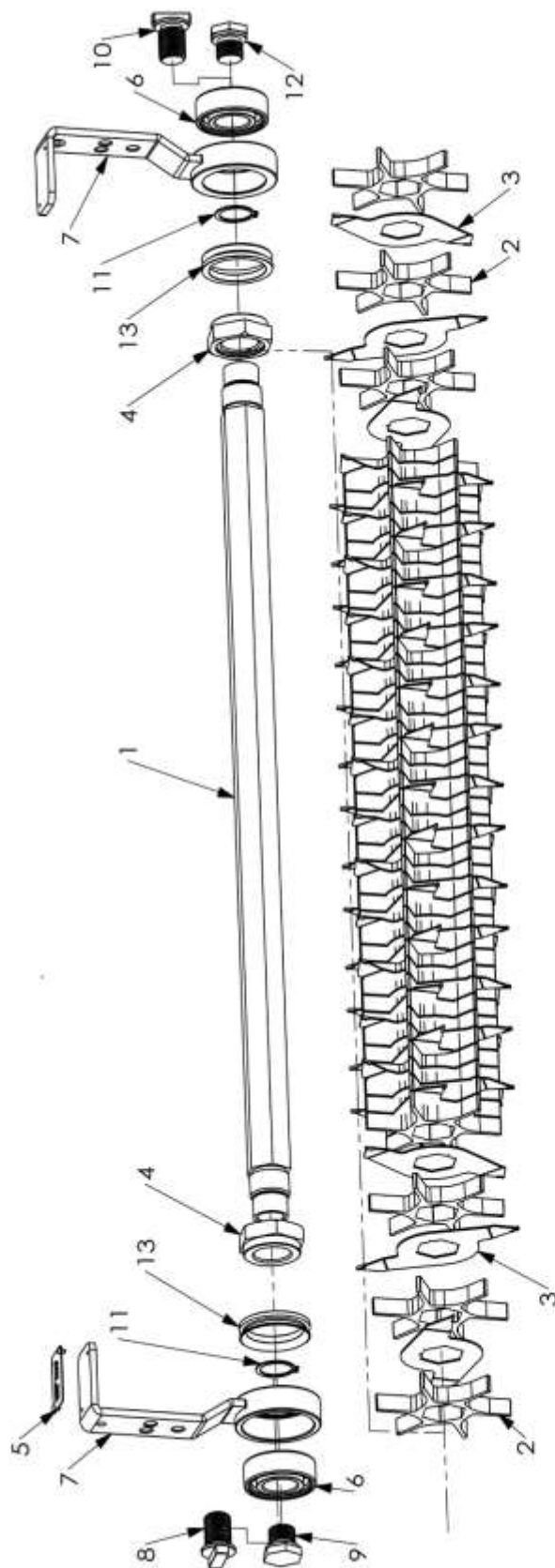
Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	93
3	21P	GCC-003	11-Point Vacu-Cut Blade (2 millimeter)	96
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
5	n/a	n/a	Serial Number Tag	3
6	37P	1032	Cutter Shaft Bearing	6
7	21A	GCC-05	Ring & Handle Assembly	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	37P	1029	Snap Ring	6
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	6
14	21P	GCC-354	Ring End Spacer	99

\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH 0 RH 3 LH	0 RH 3 LH
Toro 3200-3250	2 RH 1 LH 1 RH 2 LH	1 RH 2 LH
Toro 3300-3420	0 RH 3 LH 3 RH 0 LH	3 RH 0 LH
John Deere 2243	1 RH 2 LH 2 RH 1 LH	2 RH 1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH 1 RH 2 LH	1 RH 2 LH
Jacobsen GK 3/4	1 RH 2 LH 2 RH 1 LH	2 RH 1 LH
Jacobsen GK 5/6	0 RH 3 LH 3 RH 0 LH	3 RH 0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH 0 RH 3 LH	0 RH 3 LH

\*RH\* denotes Right Hand & \*LH\* denotes Left Hand

**True-Surface® Greens Care Collection**  
**VACU-GROOMER™ INSERT**



Quantities are for 3 units

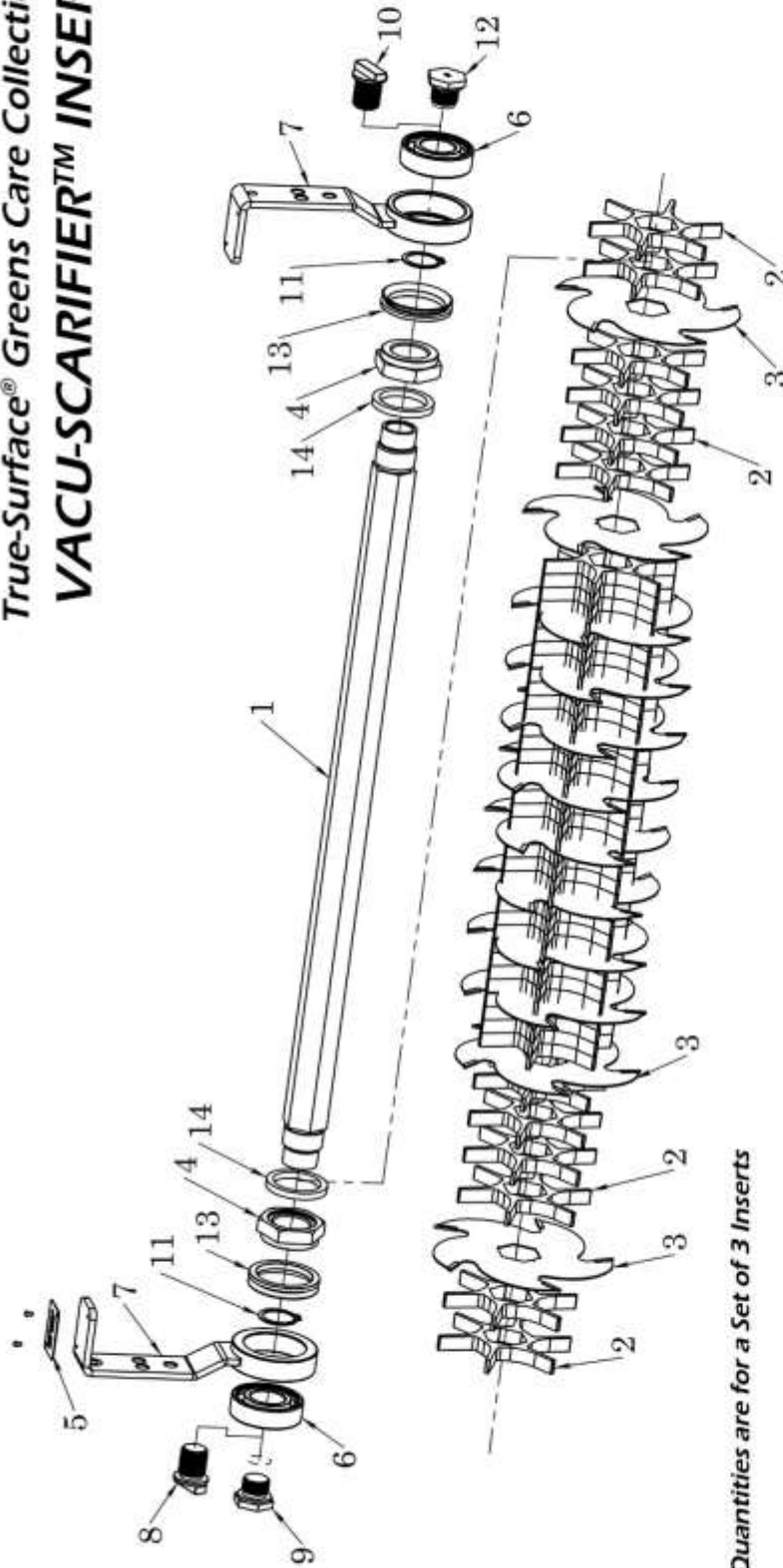
Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	138
3	21P	GCC-359	2-Point Vacu-Groomer Blade	135
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
5	n/a	n/a	Serial Number Tag	3
6	37P	1032	Cutter Shaft Bearing	6
7	21A	GCC-05	Bearing Ring & Handle	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	37P	1029	Snap Ring	6
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	6

\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH 0 RH 3 LH	3 LH
Toro 3200-3250	2 RH 1 LH 1 RH 2 LH	2 LH
Toro 3300-3420	0 RH 3 LH 3 RH 0 LH	0 LH
John Deere 2243	1 RH 2 LH 2 RH 1 LH	1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH 1 RH 2 LH	2 LH
Jacobsen GK 3/4	1 RH 2 LH 2 RH 1 LH	1 LH
Jacobsen GK 5/6	0 RH 3 LH 3 RH 0 LH	0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH 0 RH 3 LH	3 LH

\*RH\* denotes Right Hand & \*LH\* denotes Left Hand

True-Surface® Greens Care Collection  
**VACU-SCARIFIER™ INSERT**



Quantities are for a Set of 3 Inserts

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	144
3	21P	GCC-322	5-Point Vacu-Scarifier Blade	36
4	H	14	1 1/8-12 Shaft Nut/Seal Mount	6
5	n/a	n/a	Serial Number Tag	3
6	37P	1032	Cutter Shaft Bearing	6
7	21A	GCC-05	Ring & Handle Assembly	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14 R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	37P	1029	Snap Ring	6
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	6
14	21P	GCC-354	Ring End Spacer	6

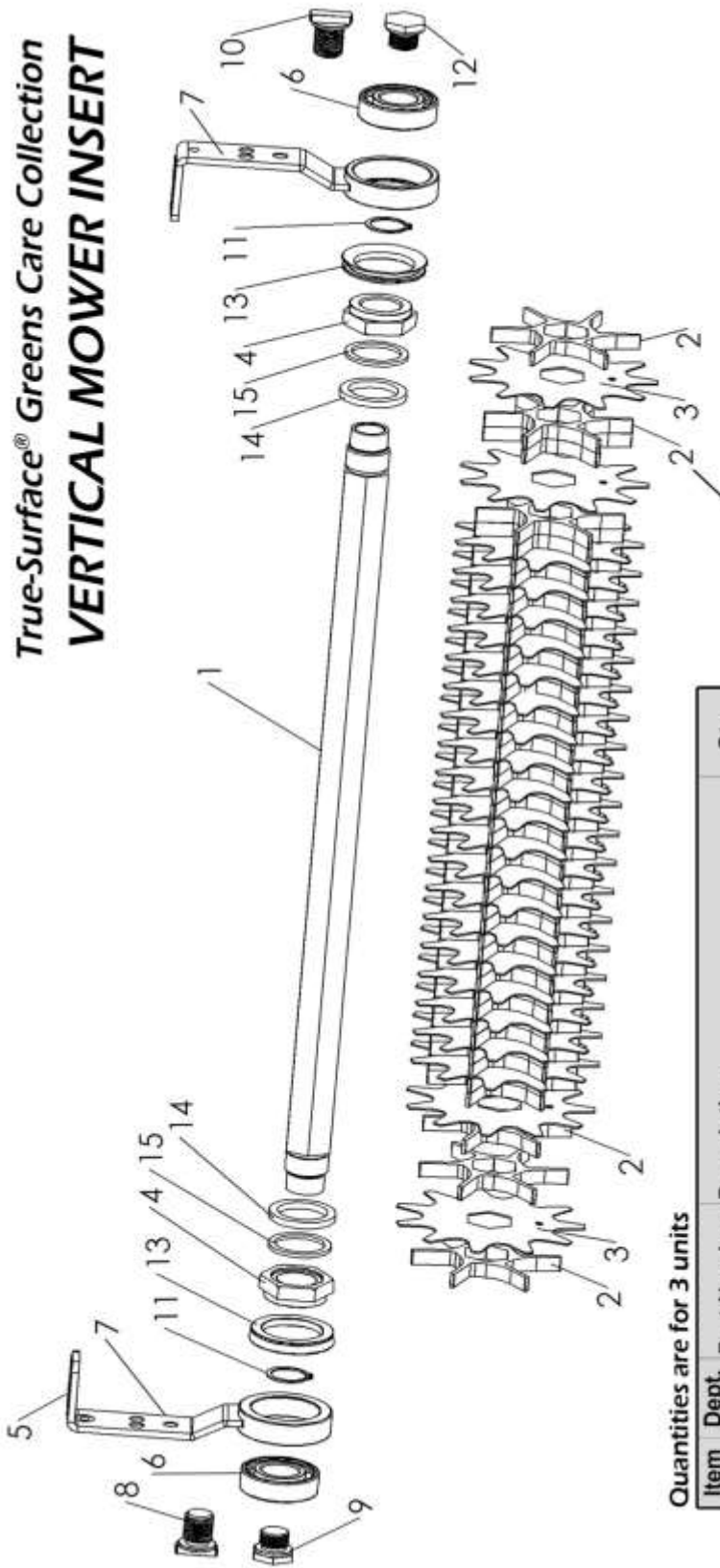
\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH 0 RH 3 LH	0 RH 3 LH
Toro 3200-3250	2 RH 1 LH 1 RH 2 LH	1 RH 2 LH
Toro 3300-3420	0 RH 3 LH 3 RH 0 LH	3 RH 0 LH
John Deere 2243	1 RH 2 LH 2 RH 1 LH	2 RH 1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH 1 RH 2 LH	1 RH 2 LH
Jacobsen GK 3/4	1 RH 2 LH 2 RH 1 LH	2 RH 1 LH
Jacobsen GK 5/6	0 RH 3 LH 3 RH 0 LH	3 RH 0 LH
Ransome/ Gplex	3 RH 0 LH 0 RH 3 LH	0 RH 3 LH

\*RH denotes Right Hand & \*LH denotes Left Hand

## 44-Blade & 23-Blade Vertical Mower Insert

### True-Surface® Greens Care Collection VERTICAL MOWER INSERT



23-Blade Insert has 2 spacers between each blade  
44-Blade Insert has 1 spacer between each blade

#### \*Drive Key & Retaining Stud Quantities

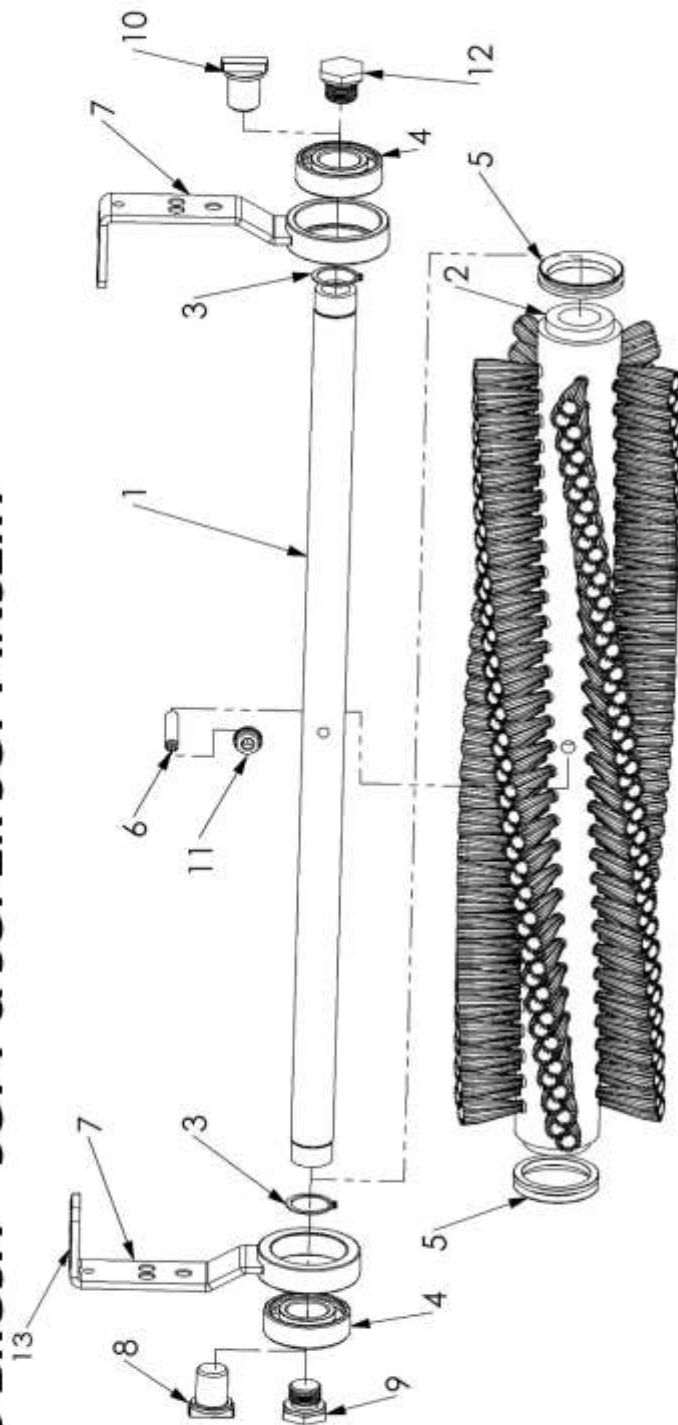
Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH 0 RH 3 LH	
Toro 3200-3250	2 RH 1 LH 1 RH 2 LH	
Toro 3300-3420	0 RH 3 LH 3 RH 0 LH	
John Deere 2243	1 RH 2 LH 2 RH 1 LH	
John Deere 2500/2500E/QA5	2 RH 1 LH 1 RH 2 LH	
Jacobsen GK 3/4	1 RH 2 LH 2 RH 1 LH	
Jacobsen GK 5/6	0 RH 3 LH 3 RH 0 LH	
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH 0 RH 3 LH	

\*RH\* denotes Right Hand & \*LH\* denotes Left Hand

#### Quantities are for 3 units

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer - *Set for 23-Blade Insert	138
2	21P	GCC spcr	Vacu-Fan Spacer - *Set for 44-Blade Insert	135
3	21P	GCC-339	Vertical Mower Blade - *Set for 23-Blade Insert	69
3	21P	GCC-339	Vertical Mower Blade - *Set for 44-Blade Insert	132
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
5	n/a	n/a	Serial Number Tag	3
6	37P	1032	Cutter Shaft Bearing	6
7	21A	GCC-05	Ring & Handle Assembly	6
8	21P	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14 R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	37P	1029	Snap Ring	6
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	6
14	21P	GCC-354	Ring End Spacer *23-Blade Insert Only	6
15	21P	GCC-276	12 Gauge Steel Spacer	6

# True-Surface® Greens Care Collection VACU-BRUSH™ SOFT & SUPER SOFT INSERT



Quantities are for 3 units

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-RBS	Vacu-Brush Shaft	3
2	21P	GCC-319soft	Soft Brush & Core Assm.	3
2	21P	GCC-319ssoft	Super Soft Brush & Core Assm.	3
3	37P	1029	Snap Ring	6
4	37P	1032	Cutter Shaft Bearing	6
5	21P	GCC-36	Cutter Shaft Seal	6
6	H	1403	5/16 - 18 x 1 1/2 Socket Set Screw	3
7	21A	GCC-05	Ring & Handle Assembly	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	H	1147	Nut 5/16 x 18 Flanged	3
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	n/a	n/a	Serial Number Tag	3

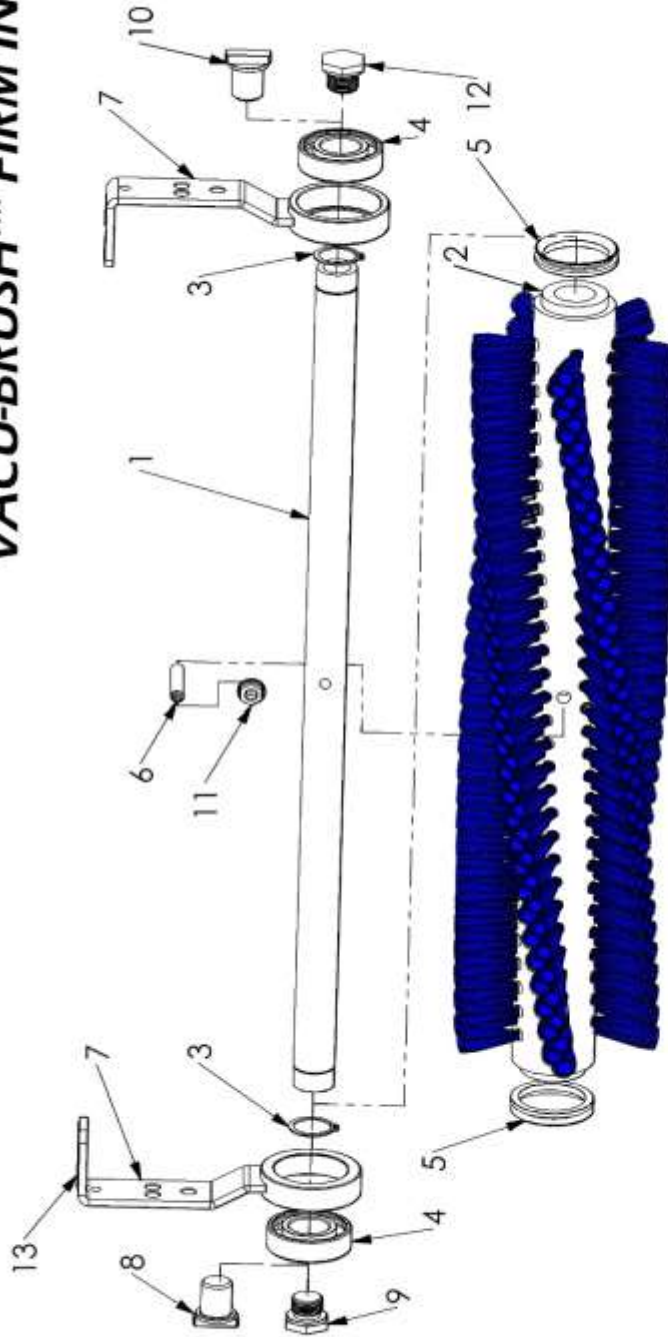
\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH 0 RH 3 LH	0 RH 3 LH
Toro 3200-3250	2 RH 1 LH 1 RH 2 LH	1 RH 2 LH
Toro 3300-3420	0 RH 3 LH 3 RH 0 LH	3 RH 0 LH
John Deere 2243	1 RH 2 LH 2 RH 1 LH	2 RH 1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH 1 RH 2 LH	1 RH 2 LH
Jacobsen GK 3/4	1 RH 2 LH 2 RH 1 LH	2 RH 1 LH
Jacobsen GK 5/6	0 RH 3 LH 3 RH 0 LH	3 RH 0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH 0 RH 3 LH	0 RH 3 LH

\*RH\* denotes Right Hand & \*LH\* denotes Left Hand



TrueSurface® Greens Care Collection  
**VACU-BRUSH™ FIRM INSERT**



Quantities are for 3 units

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-RBS	Vacu-Brush Shaft	3
2	21P	GCC-319firm	Firm Brush & Core Assm.	3
3	37P	1029	Snap Ring	6
4	37P	1032	Cutter Shaft Bearing	6
5	21P	GCC-36	Cutter Shaft Seal	6
6	H	1403	5/16 - 18 x 1 1/2 Socket Set Screw	3
7	21A	GCC-05	Ring & Handle Assembly	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	H	1147	Nut 5/16 x 18 Flanged	3
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	n/a	n/a	Serial Number Tag	3

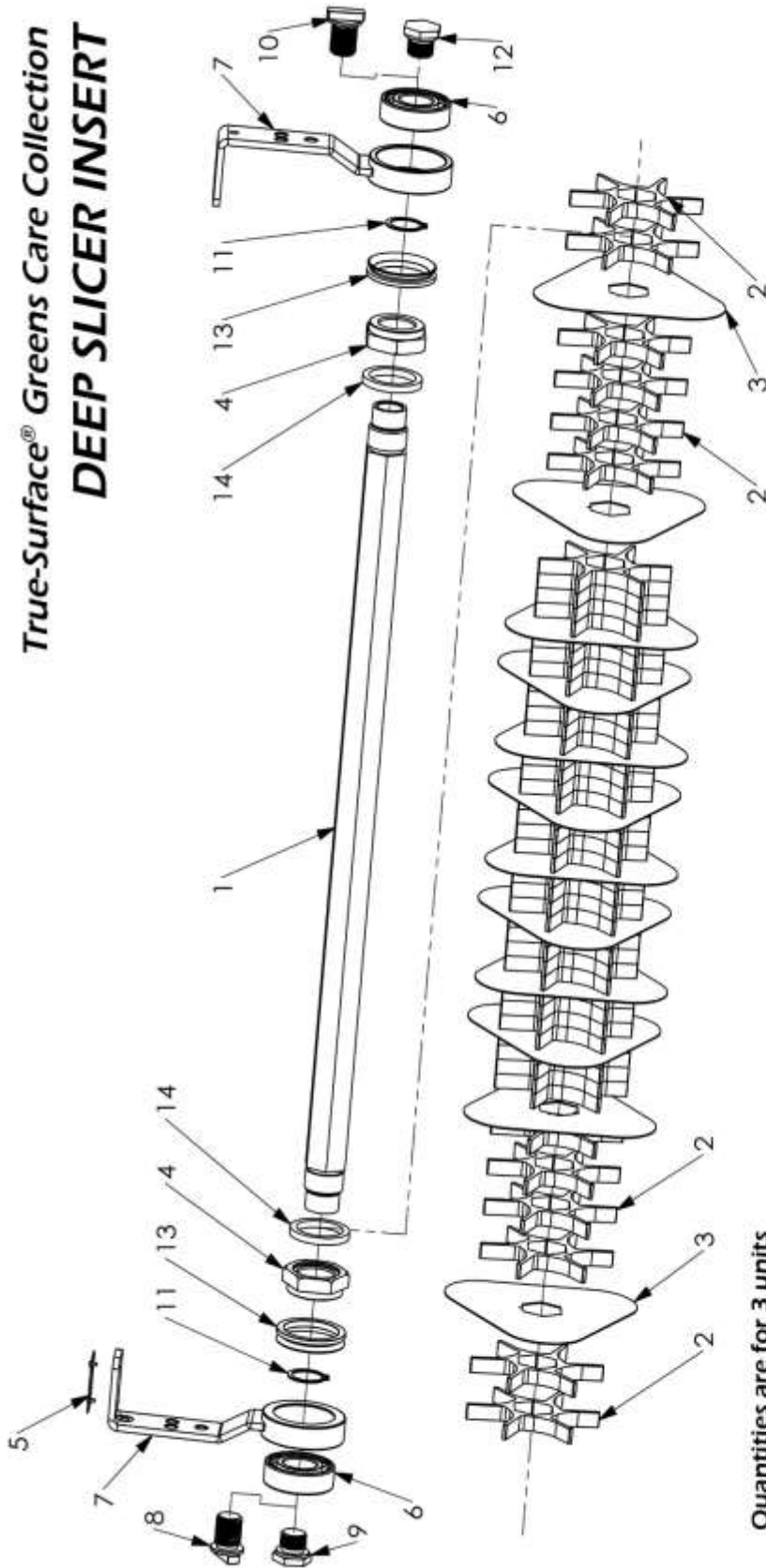
\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH 0 RH 3 LH	3 LH
Toro 3200-3250	2 RH 1 LH 1 RH 2 LH	2 LH
Toro 3300-3420	0 RH 3 LH 3 RH 0 LH	0 LH
John Deere 2243	1 RH 2 LH 2 RH 1 LH	1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH 1 RH 2 LH	2 LH
Jacobsen GK 3/4	1 RH 2 LH 2 RH 1 LH	1 LH
Jacobsen GK 5/6	0 RH 3 LH 3 RH 0 LH	0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH 0 RH 3 LH	3 LH

\*RH\* denotes Right Hand & \*LH\* denotes Left Hand



True-Surface® Greens Care Collection  
**DEEP SLICER INSERT**



Quantities are for 3 units

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer	144
3	21P	GCC-347	Deep Slicer Blade	36
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	6
5	n/a	n/a	Serial Number Tag	3
6	37P	1032	Cutter Shaft Bearing	6
7	21A	GCC-05	Ring & Handle Assembly	6
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-14 R	Right Hand Thread Retaining Stud	*
10	21H	GCC-07L	Left Hand Thread Drive Key	*
11	37P	1029	Snap Ring	6
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	6
14	21P	GCC-354	Ring End Spacer	6

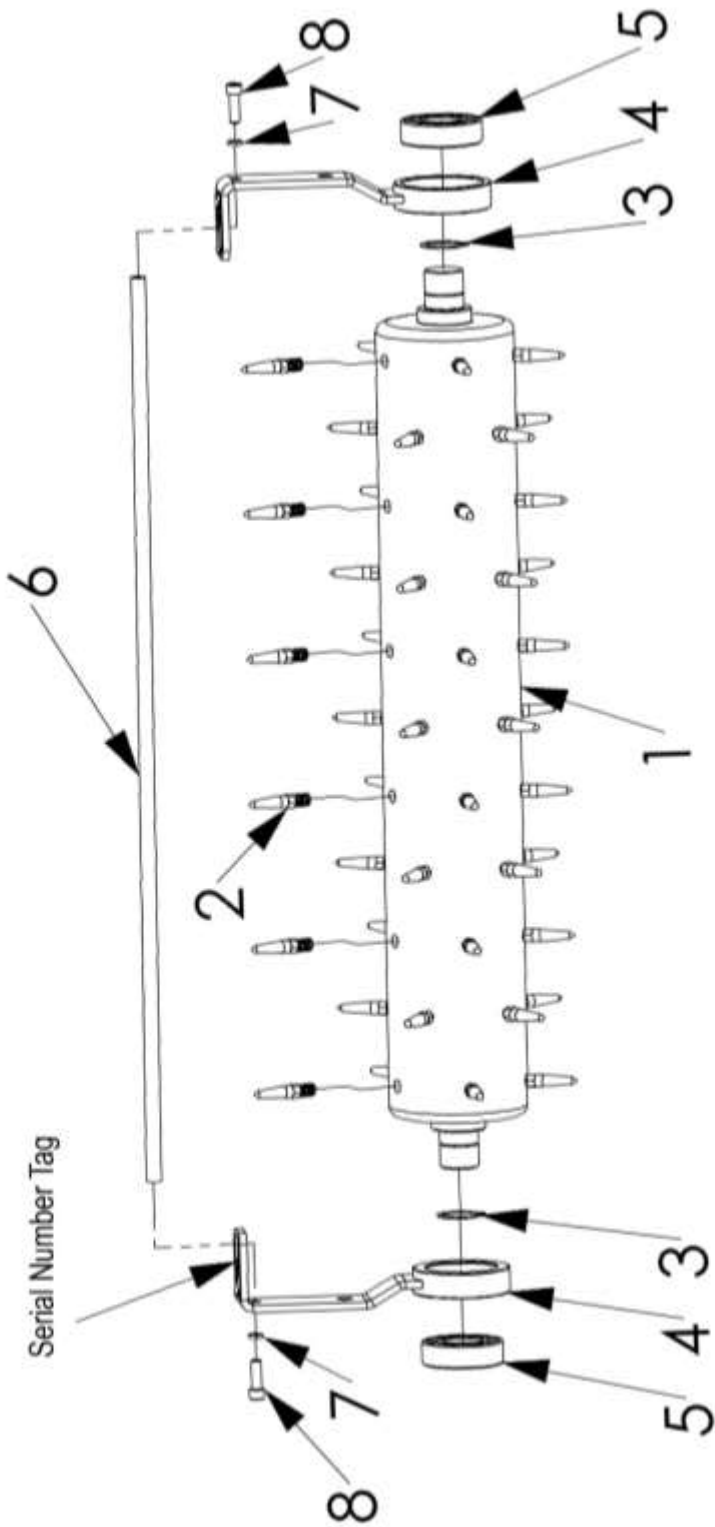
\*Drive Key & Retaining Stud Quantities

Model	Drive Key Qty	Retaining Stud Qty
Toro GM3-3150	3 RH 0 LH	0 RH 3 LH
Toro 3200-3250	2 RH 1 LH	1 RH 2 LH
Toro 3300-3420	0 RH 3 LH	3 RH 0 LH
John Deere 2243	1 RH 2 LH	2 RH 1 LH
John Deere 2500/2500E/QA5	2 RH 1 LH	1 RH 2 LH
Jacobsen GK 3/4	1 RH 2 LH	2 RH 1 LH
Jacobsen GK 5/6	0 RH 3 LH	3 RH 0 LH
Ransome/ Gplex/ Jacobsen E322	3 RH 0 LH	0 RH 3 LH

"RH" denotes Right Hand & "LH" denotes Left Hand

True-Surface® Greens Care Collection

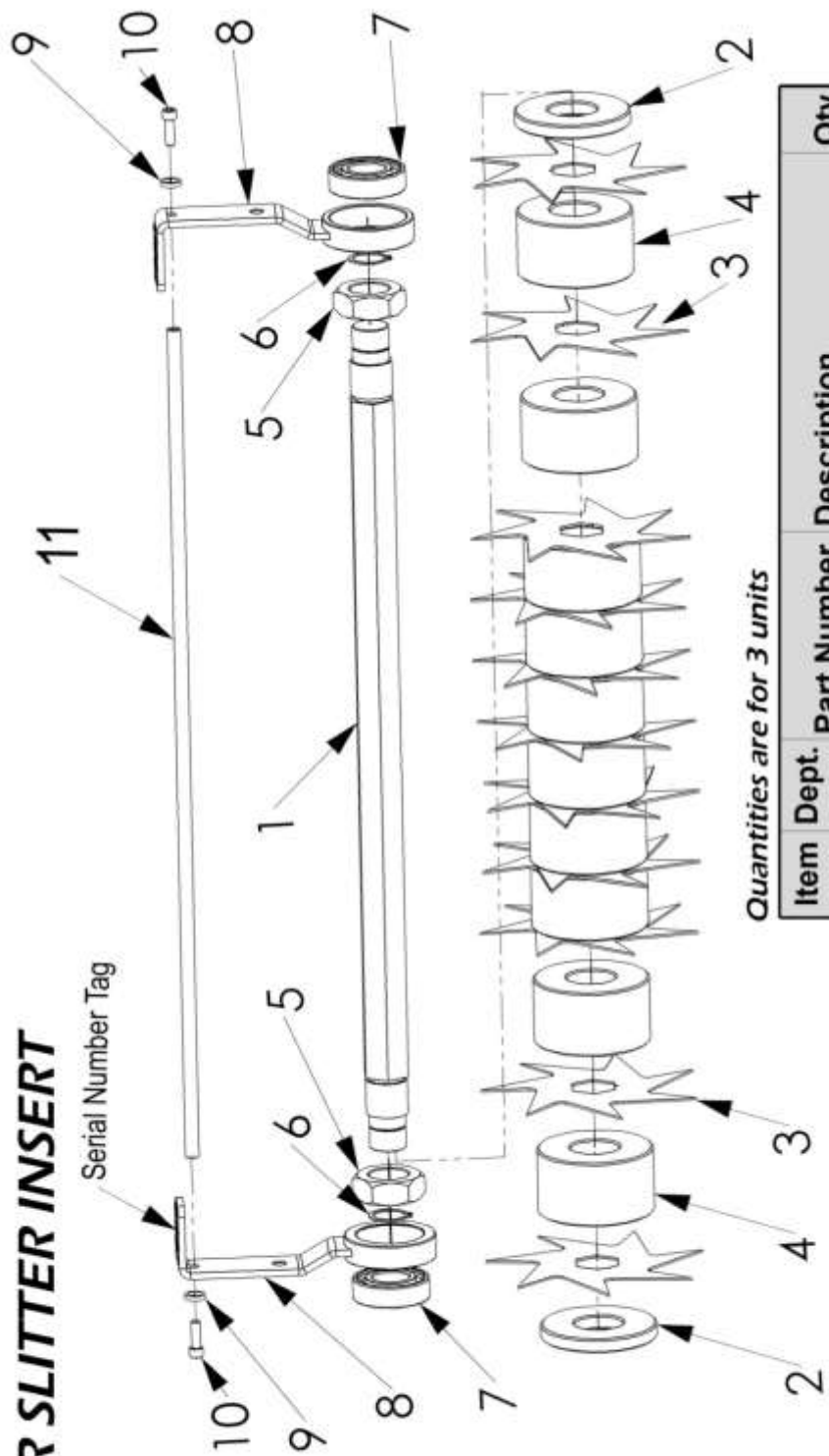
**GREENS SPIKER INSERT**



Quantities are for 3 units

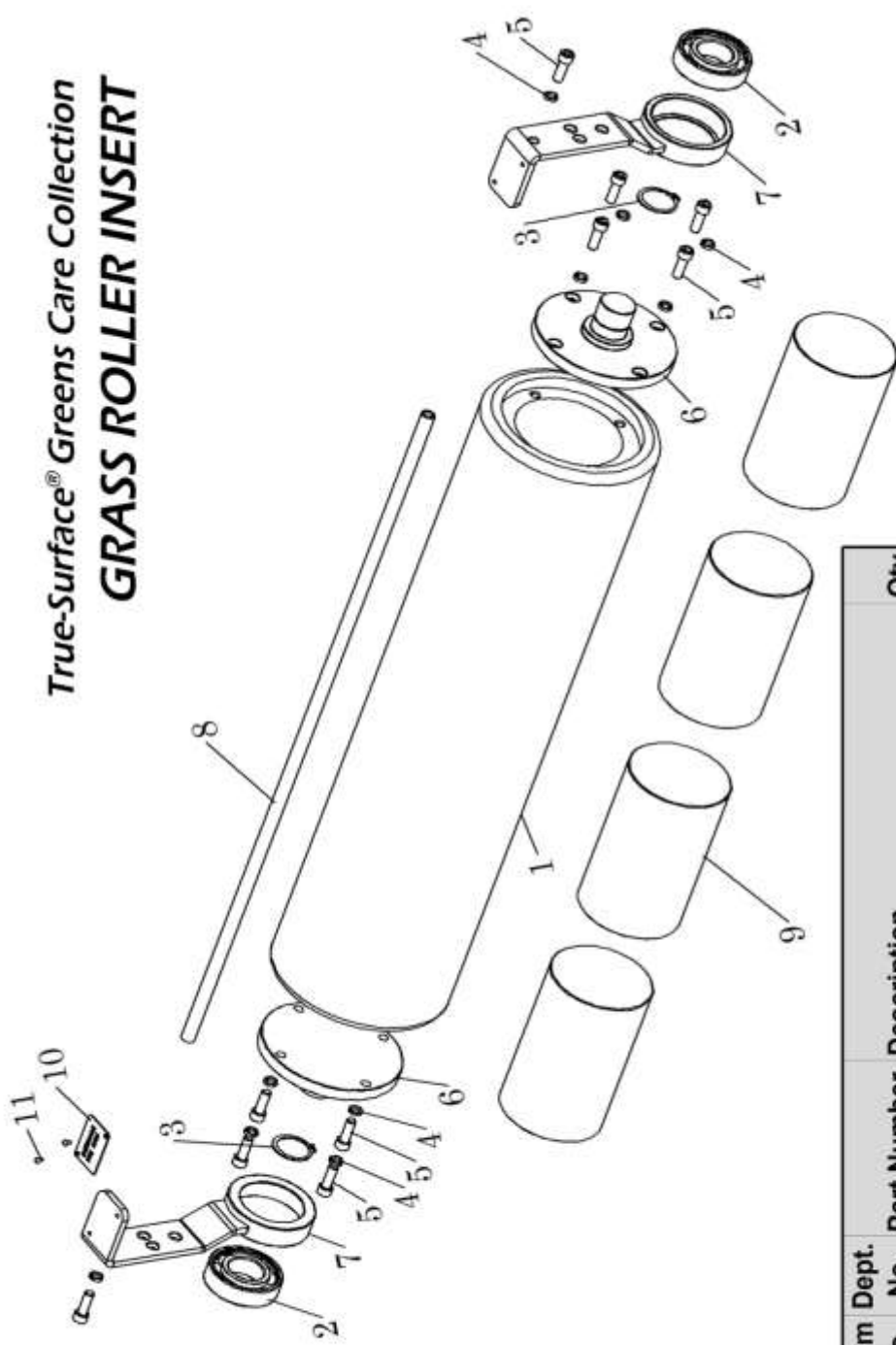
Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-348	Spiker Drum	3
2	21P	GCC-349	Spiker Points	165
3	37P	1029	Snap Ring	6
4	21A	GCC-05	Bearing Ring & Handle	6
5	37P	1032	Cutter Shaft Bearing	6
6	21P	GCC-107	Handle Retaining Rod	3
7	H	6110	1/4 Hi Collar LW	6
8	H	1505	1/4 - 20 x 3/4 SHCS	6

True-Surface® Greens Care Collection  
**STAR SLITTER INSERT**



Quantities are for 3 units

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-342	Star Slitter Shaft	3
2	21P	GCC-346	Steel End Spacer	6
3	21P	GCC-343	7-Point Star Slitter Blade	33
4	21P	GCC-345	Steel Main Spacer	30
5	H	14	1 1/8 - 12 Jam Nut	6
6	37P	1029	Snap Ring	6
7	37P	1032	Cutter Shaft Bearing	6
8	21A	GCC-05	Ring & Handle Assembly	6
9	H	6110	1/4 Hi Collar Lockwasher	6
10	H	1505	1/4 - 20 x 3/4 SHCS	6
11	21P	GCC-107	Handle Retain Rod	3



True-Surface® Greens Care Collection  
**GRASS ROLLER INSERT**

Item No.	Dept.	Part Number	Description	Qty
1	21P	GCC-108	Smoothing Roller Tube	3
2	37P	1032	Cutter Bearing	6
3	37P	1029	Snap Ring	6
4	H	6110	1/4 Hi Collar LW	30
5	H	1505	1/4 - 20 x 3/4 SHCS	30
6	21P	GCC-109	Smoothing Roller End Cap	6
7	21A	GCC-05 asm	Ring & Handle Assembly	6
8	21P	GCC-107	Bearing Handle Retainer	3
9	21P	GCC-110	Removable Weight (9 lb)	12
10	n/a	n/a	Serial Number Tag	3
11	H	3178	Drive Screw	6

# **GREENS CARE COLLECTION FRAME DRIVE END REVERSAL**

A drive-end reversal may be necessary on your Greens Care Collection frame when adapting it to fit another greens mower model. Please refer to the motor mount diagram located on the schematic for the model greens mower you are adapting to, and decide which units need a drive end reversal.

Please refer to the assembly page for the GCC frame unit as assembled or the model to which it will be adapted, and follow the instructions below:

- Remove bolts H-19, H-20, and H-31 from the drive, or motor side, and the counter weight, or non-drive, side of the frame.
- Remove counterweights, motor mounts, and inner bearing housings from the frame. Move them to the opposite side of the frame and replace.
- It is critical that when re-installing the inner bearing housings that the insert installation slot is angled slightly forward (approximately 15 degrees) and that bolts are re-installed in the same locations from which they were removed.
- Important: when tightening these bolts, do so in a crisscross fashion, similar to installing a wheel on a vehicle, so that the inner bearing housing and motor mount or counterweight align properly with each other as well as the frame.

## **INSERT DRIVE END REVERSAL**

If your power-driven insert\* requires a drive end reversal, you will need to change out the drive keys (part GCC-07R or GCC-07L) and the retaining studs (part GCC-14L or GCC-14R) according to the chart on your Insert Schematic Page. Refer to the Drive Key & Retaining Stud Quantities Chart on the insert schematics located on pages 36-49. This chart will help you determine how many of each will be required for your specific greensmower model.

The insert shafts are threaded with a standard right-hand thread in one end, and a standard left hand thread in the other so that when a motor is mounted to the right side of the frame (viewed from the operator's position, facing forward, with unit mounted to the machine) a right hand GCC-07R, when threaded into the shaft, will continuously tighten itself into the shaft as it is being used. The same holds true for when the motor is on the left side of the frame and the left hand GCC-07L is used.

Drive keys and retaining studs are installed with anti-seize when produced at our manufacturing facility. We recommend replacing them with the same for ease of dismantling.

Non-powered inserts\*\* are ground-driven and do not require drive keys. However, the Star Slitter Insert does require a specific travel direction; refer to the schematic on page 48. The illustration of the Star Slitter Insert shows the front or forward-facing section of the unit facing outward. If the design of the blade in the schematic is orientated to the unit on the machine, it should be clear what the forward direction of the Star Slitter is intended to be.

\*Power-Driven Inserts include: All Types of Vacu-Cutters, Vacu-Groomer, Vacu-Scarifier, Vertical Mower, All Types of Vacu-Brushes, & Deep Slicer

\*\*Non-Powered Inserts: Star Slitter, Greens Spiker & NV Roller

# GREENS CARE COLLECTION ADAPTATIONS

Love your Greens Care Collection (GCC), but now you need to attach them to a different greens mower... You're in luck, because the GCC can easily be adapted! With the purchase of a simple adaptation kit, you can change your Greens Care Collection to fit any Toro, Jacobsen, John Deere, and Ransome greens mowers!

The GREENS CARE COLLECTION frame and inserts are adaptable by simply changing the motor mount & lifting hardware on the frames and switching out the drive keys and retaining studs on the inserts. In some cases, you may also need to change the drive position of the frame. Instructions to perform this drive end reversal can be found on page 50.

## NOTE FOR ALL ADAPTAION KITS:

When adapting the GCC Frame from a Toro GM3 – Toro 3150 or a John Deere 2500 (not equipped with the QA5 Reels) and have a GCC Frame serial # GCC08-0730 or lower (purchased prior to February 2011), you will need to remove the welded basket pin (GCC-005A).

To remove the welded pin, grind the small flat weld on the outside of the frame flush to the surface. Next, tap the opposite end of the pin back and forth with a hammer to crack the remaining weld. Using a 5/16" diameter punch, drive the pin out. There is no need to fill in the hole, because it may be necessary if you decide to adapt your frames to a different model. It may be necessary to use a 3/8" drill or round file to remove remaining burrs for the installation of new hardware.

Units dated after February 2011 and have a serial # GCC08-0731 or higher will not need to perform the above procedure because the GCC-005A is bolted for easy removal.

## Toro Models Adapting to John Deere 2500

**Adaptation kit required: 21A-GCC-9304, 21A-GCC-9304E, or 21A-GCC-9304QA5**

**Please refer to the John Deere 2500 schematic found on page 19.**

To adapt your GCC from a Toro GM-3 – Toro 3150 to a John Deere 2500, a drive end reversal will be required for only 1 of the frames (right front). Please refer to page 50 for drive end reversal instructions. If you are adapting from a Toro 3200 or Toro 3250, a drive end reversal is not necessary.

1. Remove the lift hooks and the entire front roller assembly, including the depth of cut adjusters, from the GCC Frames.
2. Frames prior to July 2010 and have a serial number of GCC08-0570 or lower, require you to drill a hole in order to mount the John Deere lifting yoke. Mark the position as shown in figure 5 on page 23 and use a 25/64" drill to drill through. Frames with a serial number GCC08-0571 and higher already include the hole on the frame.
3. Attach the 21A-GCC-ADJ-06JD-L and 21A-GCC-ADJ-06JD-R depth adjuster mounts to the left and right side of the frame respectively. (Items 63 and 64)
4. Reinstall the front roller and depth adjuster into the mounts.
5. Remove the ball studs from the front rollers. Install the scraper 21P-GCC-233B (item 17) then install the bolts H-2502 (item 37) and tighten.
6. Replace the counterweights 21P-GCC-283 with new larger 21P-GCC-285 (item 42) counterweights. This also is the ideal time to reverse the drive end on one of the units. Refer to the drive end reversal instructions on page 50.

7. Replace the 21P-GCC-02W motor mounts with the new 21P-GCC-02W-6 (item 41) motor mounts. Press the 21P-GCC-06 (item 32) driver coupler and the 21P-GCC-111 bearing (item 35) out of the current mounts and install new mounts (Item 41) before attaching to the frame.
8. Attach the 37P-7036-3 John Deere motor flanges (item 43) to motor mounts.
9. Attach the 21P-GCC-207 (Item 53) lift chain U-bolt and the 21P-GCC-212 (Item 54) lift chain to the frame in place of the lift hook.
10. For hydraulic John Deere units: insert the 21P-GCC-06JD/Jac5 male spline (item 47) shaft into the drive coupler. Slide the 37P-7704 female spline coupler (item 49) over the male spline shaft. Install the motor. Note: Some early model electric John Deere units will not need the 37P-7704 female spline coupler (item 49)
11. Please refer to page 18 for instructions to attach the GREENS CARE COLLECTION to the triplex greens mower.

## Toro Models Adapting to Jacobsen GK 3 and 4

**Adaptation kit required: 21A-GCC-9302**

**Please refer to the Jacobsen GK 3 and 4 schematic found on page 26.**

To adapt your GCC from a Toro GM-3 – Toro 3150 to a Jacobsen Greensking 3 or 4, a drive end reversal will be required for 2 of the frames (right front & center). Please refer to page 50 for drive end reversal instructions. If you are adapting from a Toro 3200 or Toro 3250, a drive end reversal is only necessary on one unit.

1. Remove the lift hooks from the frames.
2. Replace the ball studs in the front roller with the H-2502 bolts. (Item 37)
3. Replace the current motor mounts with the 21P-GCC-02N-6 motor mounts (item 41) This is also an opportune time to reverse the drive ends; instructions can be found on page 50.
4. Refer to the “NOTE FOR ALL ADAPTATIONS” on page 51 explaining how to remove the GCC-005A basket pin.
5. Install the 21P-GCC-217 lift bushing standoff (item 55) on the immediate outside of the frame and the 21P-GCC-216 lift bushing (item 56) in conjunction with the Jacobsen lifting yoke; tighten. *Note: Lift bushing (item 56) is reversible to suit what type of lifting yoke is used on the machine.*
6. Attach the 21A-GCC-10 lifting bracket (item 51) to the frame as shown in the assembly view. Once installed, the hook portion of the bracket can be slid off for easier unit removal.
7. Please refer to page 25 for instructions on mounting the GREENS CARE COLLECTION to the triplex mower.

## Toro Models Adapting to Jacobsen GK 5 and 6

**Adaptation kit required: 21A-GCC-9307**

**Please refer to the Jacobsen GK 5 and 6 assembly found on page 28.**

To adapt your GCC from a Toro GM-3 –Toro 3150 to a Jacobsen Greensking 5 or 6, a drive end reversal is required for all 3 units. To adapt your GCC from a Toro 3200 or Toro 3250 to a Jacobsen Greensking 5 or 6, a drive end reversal will be required for 2 of the frames. Please refer to page 50 for drive end reversal instructions.

1. Remove the lift hooks from the frames.
2. Replace the ball studs in the front roller with H-2502 bolts. (Item 37)
3. Replace the current motor mounts with the 21P-GCC-02W-6 motor mounts (item 41). This would be the opportune time to reverse the drive ends as well.
4. Refer to the “NOTE FOR ALL ADAPTATIONS” on page 51 explaining how to remove the GCC-005A basket pin.



5. Install the 21P-GCC-217 lift bushing standoff (item 46) on the immediate outside of the frame, and the 21P-GCC-216 lift bushing (item 47) in conjunction with Jacobsen lifting yoke; tighten. *Note: Lift bushing (item 47) is reversible to suit what type of lifting yoke is used on the machine.*
6. Attach the 21A-GCC-10 lifting bracket (item 49) to frame as shown in the assembly view. Once installed, the hook portion of the bracket can be slid off for easier unit removal.
7. Insert the 21P-GCC-06JD/Jac5 male spline (item 52) into the 21P-GCC-06 coupler (item 36), and then add the 37P-7704 female coupler (item 54).
8. Please refer to page 25 for instructions on mounting GREENS CARE COLLECTION to the triplex mower.

## Toro Models Adapting to Jacobsen/Ransome G-Plex 2 and 3

**Adaptation kit required: 21A-GCC-9305**

**Please refer to Jacobsen GK 3 and 4 schematic found on page 26.**

To adapt your GCC from a Toro GM-3 – Toro 3150 to a Ransome or G-Plex II & III, a drive end reversal is not necessary. However, to adapt from a Toro 3200 or Toro 3250 you will need to perform a drive end reversal on the right frame. Please refer to page 50 for drive end reversal instructions.

1. Remove the lift hooks from the frames.
2. Replace the ball studs in the front roller with the H-2502 or H-28 bolts. (Item 37)
3. Replace the current motor mounts with the 21P-GCC-02N-6 mounts (item 41). This would be the opportune time to reverse the drive ends as well.
4. Install the 21P-GCC-217 lift bushing standoff (item 55) on the immediate outside of the frame, and the lift bushing (item 56) in conjunction with Jacobsen lifting yoke; tighten. *Note: Lift bushing (item 56) is reversible to suit what type of lifting yoke is used on the machine.*
5. Refer to the “NOTE FOR ALL ADAPTATIONS” on page 51 explaining how to remove the GCC-005A basket pin.
6. Install 1 plunger (item 14) to each frame opposite the currently mounted plunger. The outer/threaded body of each of the plungers will need to be flush to the inside of the frame, and then the jam nut secured. This will be the new locking location for the inserts to provide clearance for the lift yoke. The standard plungers (item 13) will still support the hood. If your hoods do not have this plunger mounting location, refer to Figure 5 on page 23. Turflite has a kit available to locate, drill and tap this hole.
7. Attach the 21A-GCC-10 lifting bracket (item 51) to the frame as shown in the assembly view. Once installed, the hook portion of the bracket can be slid off for easier unit removal.
8. Please refer to page 25 for instructions on mounting GREENS CARE COLLECTION to the mower.

## Any Model Adapting to Toro Triflex 3300/3400 or 3320/3420

**Adaptation kit required: 21A-GCC-9306 or 21A-GCC-9306E**

**Please refer to Toro TriFlex Schematic found on page 14.**

You will need to perform a drive end reversal on all 3 units if you are adapting from a Toro GM-3 – 3150, Ransome, G-Plex, or Jacobsen Eclipse 322. You will need to perform a drive end reversal on only 2 units if you are adapting from a Toro 3200, Toro 3250, or John Deere 2500/E/QA5. When adapting from a Jacobsen 3 or 4 you need to perform only 1 drive end reversal. And no drive end reversal is needed when you adapt from a Jacobsen 5 or 6. Please refer to page 50 for drive-end reversal instructions.

1. If your units have a 3 lb. counterweight (GCC-283), remove the counterweight. You will replace it with a 5 lb. counterweight later.

2. Remove all motor mounts currently attached and determine which units require a drive end reversal.
3. Remove the GCC-005A; refer to the NOTICE FOR ALL ADAPTATIONS on page 51 for removal instructions.
4. If adapting from a John Deere 2500 or Toro 3250 model, remove the adaptor block from between the frame and the depth adjuster and replace the depth adjuster directly to the frame with one button head screw (H-GCC-adj-12) and one 5/16-24 x 1" bolt (H-1022).
5. Remove the drive coupler bearing (GCC-111) and the drive coupler (GCC-06) together from the current housing and reinstall them into the TriFlex motor Flange (TFGCC-06).
6. Reassemble the new motor flange through the frame using the GCC-03 inner bearing housing with the handle retaining washer and bolts on the motor side. Make certain that the GCC-03 housings are positioned, so the entry slot of the inserts is angled approximately 15 degrees forward and that the bolts are re-installed in the same locations from which they were removed.
7. Attach the 5 lb. counterweight (GCC-285) to the opposite side with the remaining GCC-03 housing and in the same orientation as the motor side.
8. Attach additional counterweights if needed. See the counterweight cart on page 23 & 24.
9. Refer to page 12 for set up and mounting instructions.

# **TURFLINE, INC. WARRANTY REGISTRATION**

1-800-443-8506 ~ +1-636-356-1210

**MACHINE:** True-Surface® Greens Care Collection

**MODEL:** \_\_\_\_\_ **SERIAL NUMBER:** \_\_\_\_\_

## **DEALER PURCHASE INFORMATION**

The undersigned dealer warrants that the above described machine was carefully inspected, adjusted and prepared for delivery before deliver to the purchaser; that both the operation and maintenance of the machine were explained to the purchaser; that a copy of the Owner's Instructional Manual was given to the purchaser and his/her attention called to our warranty and any operating instructions included in the manual.

**DEALER:** \_\_\_\_\_ **STATE:** \_\_\_\_\_

**BY:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

## **COURSE INFORMATION**

The undersigned purchaser certifies that the operation and maintenance of the above described machine has been explained to him; acknowledges receipt of a copy of the Owner's Manual and our warranty policy printed inside the manual.

**COURSE NAME:** \_\_\_\_\_

**SUPERINDENT:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ **STATE:** \_\_\_\_\_ **ZIP:** \_\_\_\_\_

**EMAIL:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

## **PLEASE FAX, EMAIL OR MAIL A COPY TO:**

**Turflin, Inc.**  
**712 Jefferson Street, Suite A**  
**Moscow Mills, MO 63362**

**Fax: 636-356-1218**  
**Email: [cassie@true-surface.com](mailto:cassie@true-surface.com)**

# **NOTES**

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# **NOTES**



# Thank You For Choosing True-Surface®!

As the manufacturer of all True-Surface® Products, Turfline, Inc. promises to provide quality products along with quality service. No matter which True-Surface® product line you decide to purchase, there is no planned obsolescence. Even if you switch brands of greens mowers, there is always a kit that will adapt your product to fit the new mower. Additionally, we carry parts to fit even our oldest generation products. So, even if you've owned your True-Surface® product for over 20 years, we can still get you the parts you need.

Turfline, Inc. staff is made of real people who provide real service! When you call Turfline, Inc. during regular business hours your call will always be answered by a person, and NEVER an answering machine! Our sales force is trained and knowledgeable about all True-Surface® product features and technicalities and will make it a top priority to assist you with the True-Surface® Product Line.

**Turfline, Inc.**  
**712 Jefferson Street**  
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Updated April 2020

