

TRUE-SURFACE® TREKKER™ OWNER'S MANUAL



**True-Surface® Trekker™
Vibratory Greens Roller**

**True-Surface® Trekker™
Greens Care Collection**

**True-Surface® Trekker™
NV 3 x 3™**



www.true-surface.com
1-800-443-8506 or +1-636-356-1210

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

INFORMATION ABOUT YOUR TRUE-SURFACE® TREKKER™:

DATE PURCHASED: _____

SERIAL NUMBER: _____

OPERATION NOTES: _____

This page is for your reference only. To activate the warranty, please fill out and fax the warranty card located in the back of this manual.

For parts and/or service, please call 1-800-443-8506; or if you are calling internationally, please call +1-636-356-1210.

Most parts orders placed before Noon CST can be shipped the same day via UPS Ground Service.

Note: The True-Surface® Trekker™ Vibe V Vibratory Greens Roller & the True-Surface® Trekker™ Greens Care Collection are 2 separate units. The vibratory roller does not fit inside the Greens Care Collection frame.

WE ARE YOUR SUPPORT!

Customer satisfaction is Turflines 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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712 Jefferson Street
Moscow Mills, MO 63362

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Moscow Mills, MO 63362

Please feel free to contact us for assistance!



Certificate & Declaration of Conformity for CE Marking
Hereby, Turflines, 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® Trekker™ 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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US & Worldwide patents pending.

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

WARRANTY INFORMATION

For superior warranty service, please call Turflite, Inc. before having work done on alleged defective equipment. We strive to maintain excellent customer service and quality products; keeping us informed of concerns 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® Trekker™ Vibe V™ Vibratory Greens Roller, the True-Surface® Trekker™ Greens Care Collection, & the True-Surface® Trekker™ NV 3 x 3™ which is defective in workmanship or material for a period of twenty four (24) 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, rubber shock mounts (RSM's), 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® Trekker™ Vibe V™ Vibratory Greens Roller, the True-Surface® Trekker™ Greens Care Collection, & the True-Surface® Trekker™ NV 3 x 3™ 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 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.

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.

TRUE-SURFACE® TREKKER™
VIBE ∇ ™ VIBRATORY GREENS ROLLERS

Specifications:

Weight:	Average of 85 lbs per unit
Frame:	One piece welded assembly, formed steel frame
Roller Tube:	5.5" O.D. tube, .188" wall, 22.5" roller length 1018 mild steel
Roller Hub:	(2) Relubricatable flange mounted bushings 1.5" I.D.
Roller Shaft:	1" diameter 1045 mild steel, drilled and tapped for eccentric wts
Shaft Bearings:	Shielded type, maintenance free ball bearings.
Shaft Eccentric Speed	Designed to run at your walk behind greens mower's maximum RPM speed.
Front Roller:	22.25"
Front Roller Bearings	Sealed Stainless Steel Ball Bearings

Maintenance:

Maintenance of the rollers is minimal. One lubrication point is located on each of the flange bearings holding the main roller drum. Each bearing cavity is filled with a *food grade, non-petroleum based grease* at the factory. You will need to keep these bearings greased; we recommend a food grade grease. – **DO NOT USE HIGH TEMPERATURE GREASE** – to prevent any turf damage caused from grease dripping off the unit. However, any type of lithium-based grease is acceptable. Pump until grease is visible between the bearing and hub surfaces – most bearings will only require one or two pumps from a standard grease gun every 18-36 greens. When using the rollers for topdressing dispersion, you may need to purge the bearings in order to remove sand and grit. Wipe off all excess grease from around the bearing.

Check your belt condition and tension periodically.

Controllable Results:

Vibration allows you to stimp all greens within 2 to 4 inches by varying ground speed.

Customer Satisfaction: 2-Year Limited Warranty
Distributors: Worldwide Distribution

For sales and service, please feel free to contact Turflite, Inc.:

Toll Free: 800-443-8506
Phone: +1-636-356-1210
Fax: 636-356-1218
www.true-surface.com

Select-A-Vibe™ Dial Introduction



The True-Surface® VIBE ∇ ™ Vibratory Greens Rolling System allows flexibility with the new Select-A-Vibe™ dial. VIBE ∇ ™ owners now have the ability to experiment with a variety of vibration settings, hydraulic motor/engine speeds, and ground speeds – all of which will affect your greens’ end-results. Turflite, Inc. created the Select-A-Vibe™ to produce smooth, healthy, consistent greens by controlling various conditions through its five levels of vibration. You can now select your level of vibration with a simple click! Set the dial at setting number 1 for the least vibration, and increase your energy all the way to setting number 5. Simply follow the eight easy steps on the next page.

NOTE:

- Make sure the indicators are aligned at the same setting for each end to maintain even vibration across the roller length.
- Make sure to tighten the set screw after each adjustment.
- The ball spring plunger is set and secured at the factory setting and requires no further adjustment, nor does it need to be loosened to adjust the eccentrics. Should these eccentrics need to be removed for other services, be sure they are returned to the correct end of the shaft from where they were removed.

Select-A-Vibe™ Adjustment Procedure:

For the Belt Guard Side:

- Insert 3/16 L-Key allen wrench into the end of the shaft through the center slot on end of belt guard.
- Rotate the shaft with the L-Key to bring eccentric set screw into view through top slots.
- Insert 3/16 T-handle key into eccentric set screw and loosen 1/4-1/2 turn. This set screw is aligned with the “1” on the eccentric dial. The set screw aligned at the “5” on the dial is a preset ball plunger and should NOT be moved.
- While holding the T-handle in the set screw to prevent the eccentric from rotating, rotate the shaft with the L-Key to desired setting (you will feel the ball plunger “click” in and out of the shaft detents);
- Tighten eccentric set screw and remove tools.



Use the same procedure for the hydraulic motor side of the roller.

NOTE: Make sure *both* eccentrics are at the same setting.

**Hydraulic Motor Side B
Eccentric set at setting 3**



**Belt Guard Side A
Eccentric set at setting 3**

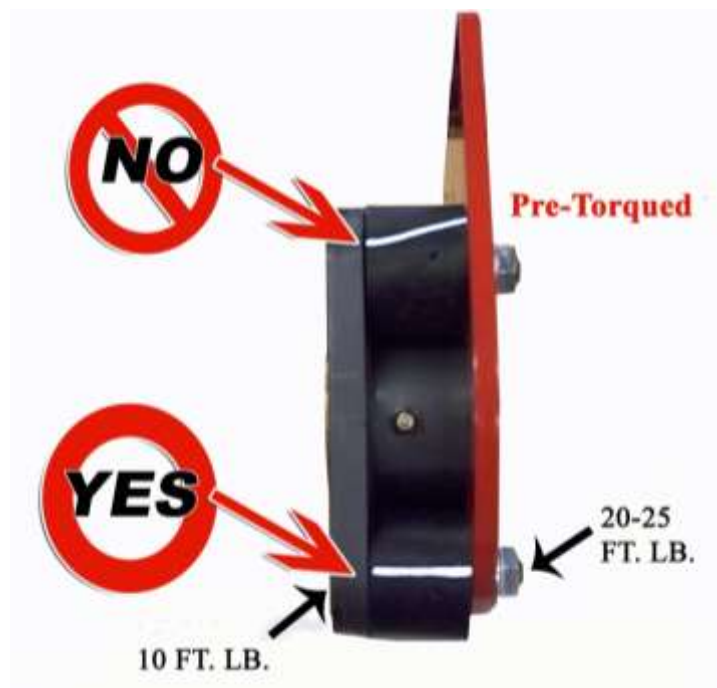


Note: Setting 1 is the lowest setting, and setting 5 is the highest setting available.

RUBBER SHOCK MOUNT (RSM) REPLACEMENT NOTICE

Once the frame end and roller have been removed from the unit, remove the serrated flange nuts from each of the RSM studs and remove the entire flange assembly. Remove each of the flat head screws securing the RSM to the flange, and remove. Install the new RSM and flat head screw. First mount the female side of the RSM to the flange with the 5/16" flathead countersunk screws and tighten. *NOTE: Tighten this screw by hand only to a maximum of 10ft. lbs. Over tightening may result in flange damage.*

Replace the entire assembly into end plate, (be sure that grease zerk is positioned to the rear of the unit for access). Replace all flange nuts and leave them loose. Replace the frame end, install the belt, adjust the belt tension, and then tighten the RSM nuts. Be sure when tightening the flange nuts, the RSM's DO NOT twist or distort – this can lead to premature RSM failure. Be sure to reinstall and secure the belt guard and all components before use.



BE A SAFE OPERATOR

- Think
- Maintain your equipment
- Use your equipment only for applications for which it was created

The *True-Surface® Trekker™ Vibratory Greens Rollers* were created to be used exclusively on walk behind greens mowers as a greens maintenance tool. Use of the rollers in an application other than the one intended will void its warranty and could possibly cause equipment damage and personal injury.

AVOID ACCIDENTS:

Most accidents, whether they occur in the industry, on the farm, at home, or on the highway are caused by human mistakes. Most accidents can be prevented by careful operation and prevention.

PULLEY NOTICE FOR THE TRUE-SURFACE® VIBE **V**TM TREKKERTM

Pulley Removal:

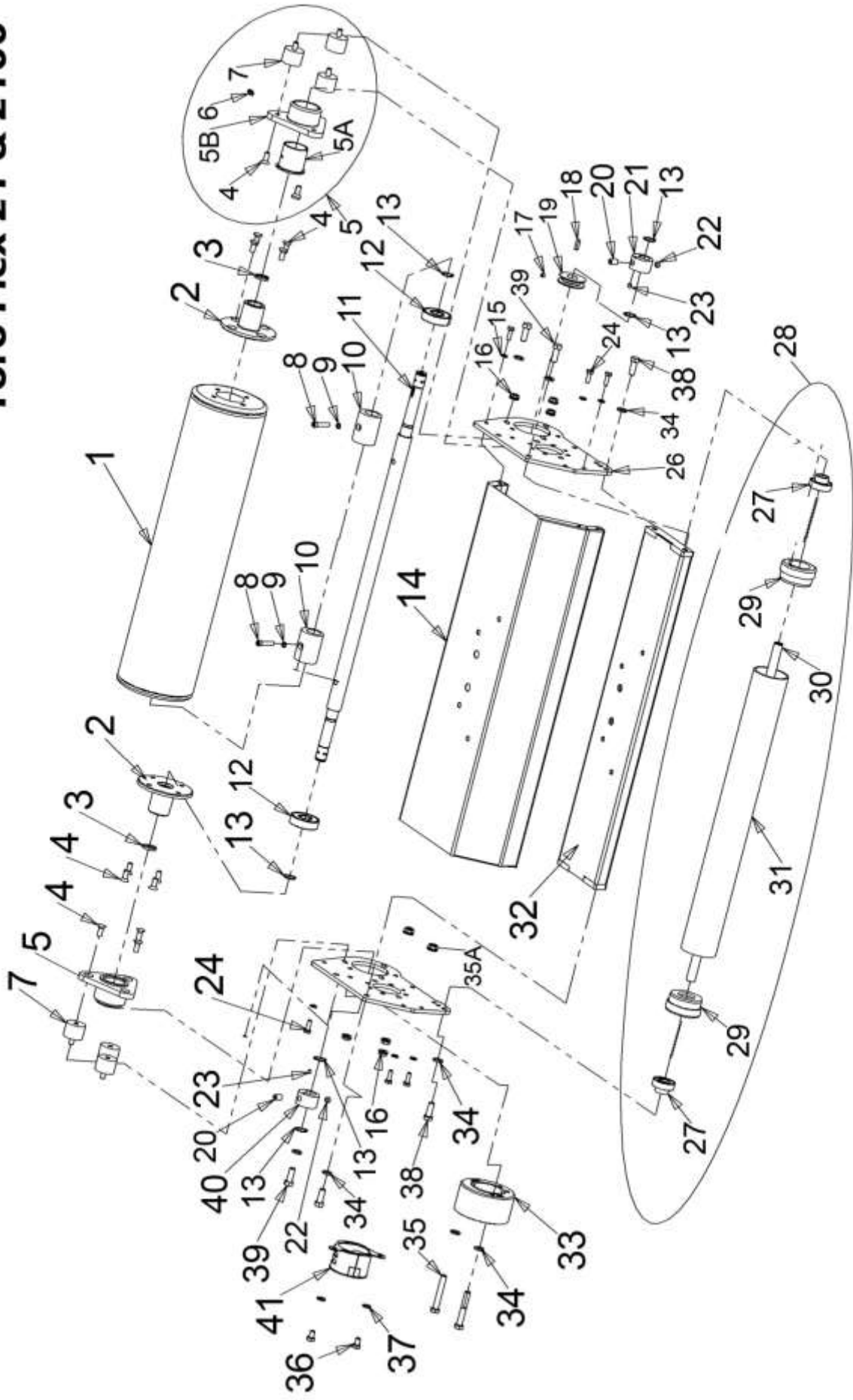
When it is time for a scheduled service or parts replacement, you may need to remove the 2” pulley (37P-1024) from the roller shaft. Care should be taken when removing and reinstalling this part to prevent possible pre-load on the shaft bearings (37P-1023) and premature bearing failure.

- When removing any pulley, make sure the securing element (i.e. set screw, lock collar, etc.) is loosened or removed.
- Second, clean as much dirt/rust as possible from the shaft in the direction that you will be moving the pulley, and lubricate with some type of penetrating fluid to assist in the movement of the pulley.
- Third, if the pulley will not move with sensible force, and/or a prying technique, use a gear puller of the proper size to remove the pulley. ***Always do your best to avoid beating or hammering to remove any pulley.***
- Fourth, as a last resort, apply heat to the pulley hub, close to the shaft. Heat will expand the pulley slightly and make removal easier. ***Always be careful when using heat; keep flammable objects and materials clear of the heat area.***
- Fifth, take steps to prevent any damage to the end of the shaft. Any impact on the end of the shaft can result in distortion that will interfere with the outbound eccentrics, snap rings and hex L-key installation and operation.

When reinstalling the pulley, clean the following areas: the shaft where the pulley will rest, the drive key, the key slots, inside the pulley, etc. Make certain to secure the pulley with the supplied set screw or lock collar.

When replacing the 2” pulley on the True-Surface® TrekkerTM Vibe **V**TM Vibratory Greens Roller, hammering the pulley in or out of position may cause pre-loading of the bearings. This pre-loading will lead to premature bearing failure, more costs, and additional down time. However, by taking precaution and following the above steps for removing the pulley, this can be avoided.

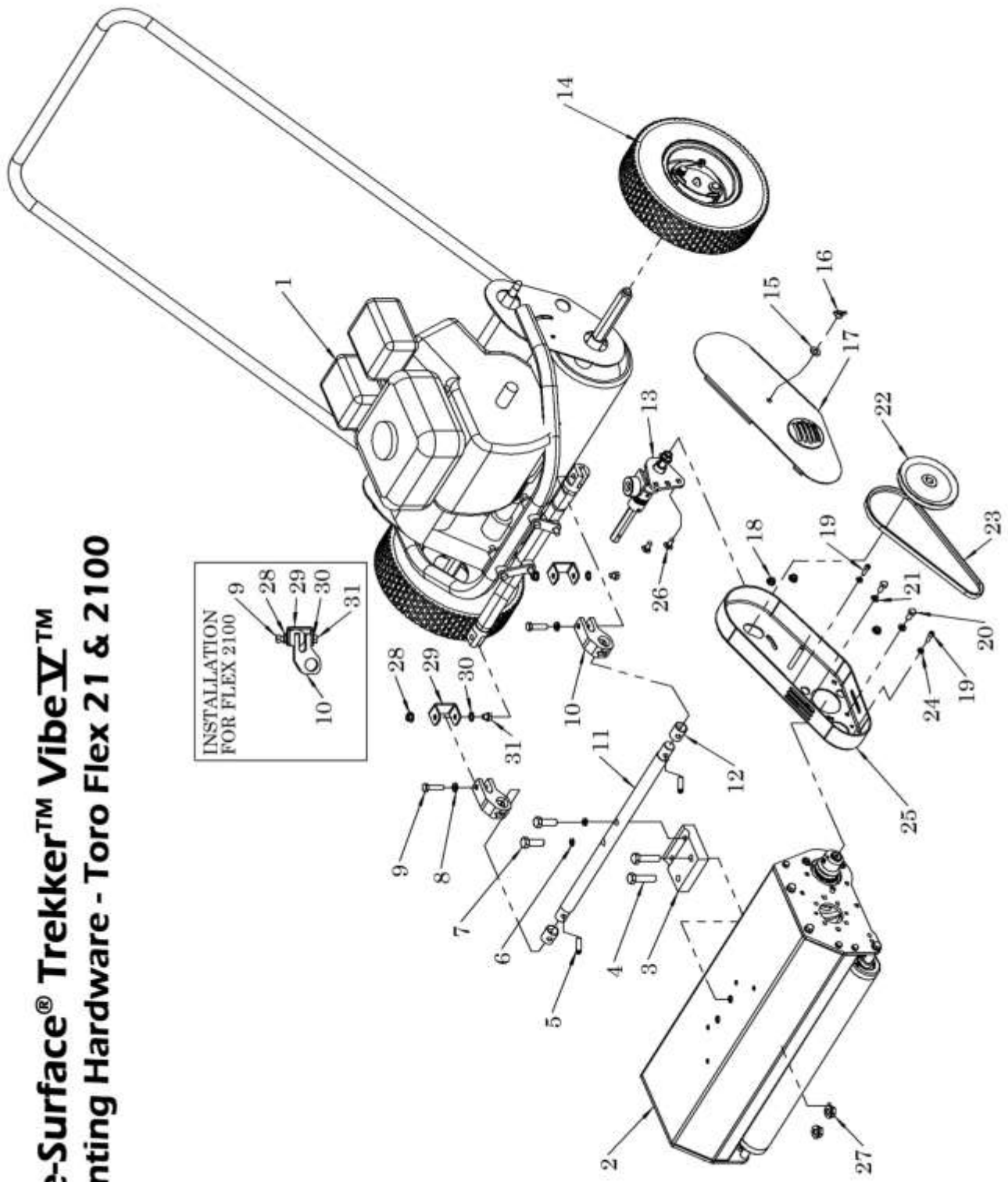
**True-Surface® Trekker™ Vibe V™
Toro Flex 21 & 2100**



TRUE-SURFACE® TREKKER™ VIBE V™
Exploded View Parts Listing to Fit the Toro Flex 21 & 2100

ITEM #	DEPT #	PART #	DESCRIPTION	QTY
1	30A	09-16	Roller Tube	1
2	37P	09-001	Hub Assembly (Includes #'s 3 & 4)	2
3	H	7410	Shaft Seal	2
4	H	1140	Flat Head Socket Screw 5/16-18 x 3/4"	14
5	31A	V7219-1	Flanged Bearing Assy (includes 4,5A,5B,6,7,16)	2
5A	37P	7928	Bronze Bushing	2
5B	37P	V7217	Nylon Flange	2
6	H	1681	1/4-28 steel Grease Fitting	2
7	31P	V7219RSM	Large Rubber Shock Mount	6
8	H	V8000	Socket Head Screw 5/16-18 x 3/4"	2
9	H	V8001	High Collar Lock Washer 5/16"	2
10	31A	VR-004	Inboard Eccentric Weight (Includes # 8 & 9)	2
11	31A	VR-001-1	Shaft Only Assembly	1
*	31A	VR-001-2	Shaft Assembly (Includes #'s 4,11,12,13,29)	1
12	37P	1023	Shaft Bearing (Includes 4 number 4 screws)	2
13	37P	1014	Shaft Snap Ring	6
14	37P	7003B	Roller Hood - Black	1
15	H	1007	Split Lock Washer 1/4"	4
16	H	1147	Serrated Flange Nut 5/16-18	6
17	H	6014	Set Screw Knurled Cup Point 1/4-20 x 3/16"	1
18	H	5087	Machine Key - SHORT 3/16" x 3/4"	1
19	37P	1024	2" Shaft Pulley (Includes #'s 17 & 18)	1
20	H	V8005	Ball Spring Plunger	2
21	31P	VR-003A-1	Outboard Eccentric Weight-Belt Side (Includes #'s 20,21,22,23)	1
22	H	V8002	Flat Point Set Screw 3/8-16 x 1/4"	2
23	H	V8003	Set Screw # 10-32 x 3/16"	2
24	H	1003	Gr. 5 hex Bolt 1/4-20 x 3/4"	6
26	37P	7011B	Roller End Plate - BLACK	2
27	21P	GCC-09B3R	Front Roller Bearing	2
28	31A	V7207NG	Solid Front Roller Assy. (includes #'s 27,29,30,31,34,38)	1
29	31P	V7206NG	Front Roller End Cap	2
30	31P	V7208	Front Roller Axle	1
31	31P	V7209NG	Front Roller Tube (Includes #'s 29,31)	1
32	37P	7004	Frame Assembly	1
33	21P	GCC-285	5 lb. Counterweight	1
34	H	1010	Split Lock Washer 3/8"	8
35	H	286	Gr. 5 Hex Bolt 3/8-16 x 2-3/4"	2
35A	H	1016	3/8-16 Serrated Flange Nut	2
36	H	V8004	Gr. 5 Hex Bolt 5/16-18 x 1/2"	4
37	H	1013	Split Lock Washer 5/16"	4
38	H	V1032	Gr. 5 Hex Bolt-FINE- 3/8-24 x 1"	2
39	H	1100	Gr. 5 Hex Bolt 3/8-16 x 1"	4
40	31P	VR-003B-1	Outboard Eccentric Weight-Non Drive Side (Includes #'s 20,21,,23,40)	1
41	31P	VR-002	Eccentric Shaft Cover	1

True-Surface® Trekker™ VibeV™ Mounting Hardware - Toro Flex 21 & 2100



TRUE-SURFACE® TREKKER™ VIBE V™
Mounting Hardware Parts Listing to Fit the Toro Flex 21 & 2100

ITEM #	DEPT #	PART #	DESCRIPTION	QTY
1	N/A	Toro Part	Toro Flex 21 Drive Unit	1
2	44F	TRK-FLX-5 V	Trekker Vibe 5 Roller to Fit Flex 21	1
3	44P	FLX-008	Mount Block Flex 21 Vibe V	1
4	H	FLX-028	Hex Bolt 1/2- 13 x 2	2
5	44P	FLX-026	Split Spring Pin 3/8 x 1-3/4	2
6	H	3184	1/2 Split Lockwasher	2
7	H	FLX-027	Hex Bolt 1/2 - 13 x 1-3/4	2
8	H	1010	Lockwasher ³ / ₈ Split	2
9	H	032	Bolt 3/8 - 16 x 1-1/2	2
10	44P	FLX-009	Roller Hitch - Flex 21 Vibe V	2
11	44P	FLX-001	Cross Bar - Flex 21	1
12	44P	FLX-016	Bronze Bushing - Flex 21	2
13	44A	FLX-2002	Drive Shaft & Housing Assembly - See Fig 2, Pg 13	1
14	44A	FLX-3000	Transport Hub Kit - See Page 13 Figure 1	1
15	H	1019	5/16 Flat Washer	1
16	44H	FLX-029	Wing Nut 3/8 - 16	1
17	44P	FLX-010	Belt Cover - Flex 21	1
18	H	1147	Serrated Flanged Nut 5/16 - 18	2
19	H	1505	1/4- 20 x 3/4 SHCS	2
20	H	1001	5/16 - 18 x 3/4 Hex Bolt	2
21	H	1013	5/16 Split Lockwasher	2
22	44P	FLX-015	3L x 5 Pulley - Flex 21 Vibe V	1
23	44P	FLX-025	3L Belt - Flex 21 Vibe V	1
24	H	1007	1/4 Split Lockwasher	2
25	44P	FLX-005	Belt Housing - Flex 21	1
26	H	FLX-035	5/16- 18 x 3/4 Carriage Bolt	2
27	H	1026	1/2- 13 Serrated Flange Nut	2
28	H	1016	3/8- 16 Serrated Flange Nut	2
29	44P	FLX-105	Toro Flex 2100 Roller Hitch Lock Strap	2
30	H	6106	3/8 - 16 Internal Tooth Lockwasher	2
31	H	5006	Hex Bolt 3/8-16 x 1/2	2

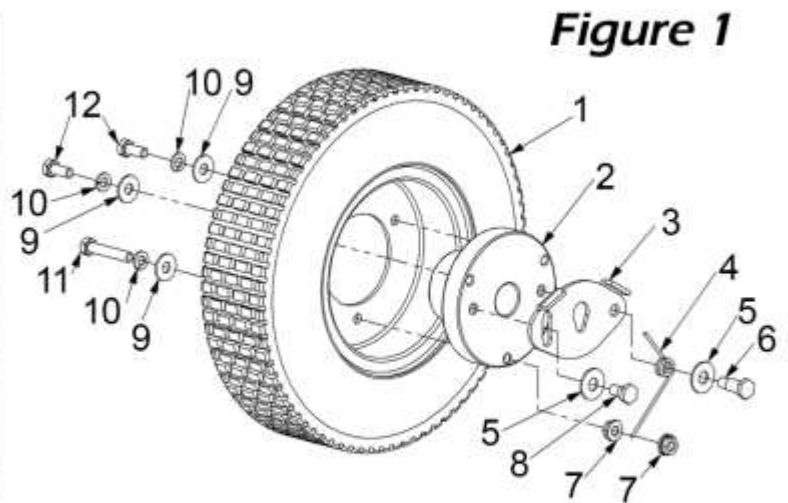
True-Surface® Trekker™ Vibe V™

Toro Flex 21 & 2100 Mounting Instructions – Refer to the schematic on page 10 and the parts listing on page 11.

1. Locate items 2-12 & 27. Mount them to the top of the VIBE-V roller, remove the two ½” flange nuts (item 27) from bolts (item 4) and slip them into the mounting holes of roller frame, replace nuts on the bottom and tighten. Please note that the Flex 2100 units will not contain item 8. Additionally, the Flex 2100 models will contain items 28-31.
2. Locate the belt housing (item 25) and remove the cover along with inner components. Remove marked, loose bolts on the pulley side of the roller frame (items 19 & 20), and the forward most RSM nut.
3. Align the marked holes of the housing (item 25); re-install all the bolts, and tighten.
4. Locate the drive housing (item 13). A complete breakdown of the drive shaft housing can be found in Figure 2 on page 13. Determine the hex shaft required for your mower: 5/8” or ¾” (item 18 in Figure 2 on page 13). Install the appropriate shaft into the Toro Flex 21 coupler (item 16 in Figure 2 on page 13) and secure with roll pin (item 17 in Figure 2 on page 13).
5. Remove the nuts (item 18) from carriage bolts (item 26) of drive housing and install it into the belt housing (item 25) with the top bolt passing through the small round hole with threads facing as shown. Install the lower bolt into the narrow slot with the threads facing the opposite direction.
6. Replace the nuts and leave slightly loose.
7. Install the 5” pulley (item 22) onto the drive shaft – the larger hub side first. Omit the Drive Key and Nut (items 2 & 4 on page 38) momentarily. Install the belt, set belt tension to approximately ½” with 2 lbs. of applied force and tighten the lower mounting bolt. *NOTE: Excess belt tension will cause premature RSM failure.*
8. Roll the belt off of the pulleys, remove the 5” pulley and tighten the upper bolt. Install the drive key (item 2 in Figure 1 on page 13), replace the pulley, install the nut and tighten. Roll the belt back into position.
9. Install the belt cover (item 17) and secure it with the washer and wing nut (item 15 & 16).
10. Remove the cutting unit from the traction unit by removing the two bolts similar to reference item #9 of the True-Surface Trekker Vibe V Toro Flex 21 exploded view on page 10, and sliding the cutting reel out from in front of the traction unit. The hex drive shaft and flexible coupler will slide apart. Traction unit will tip and be very unstable at this point, an assistant is recommended for the removal and reattachment of cutting and Trekker units.
11. Remove the bolts (item 9) from the roller hitches (item 10) and slide the roller into position. First, aligning the hex shaft with its coupler, and the hitches (item 10) slipping into the sway bar, overlapping the top of the sway bar. The bottom of the hitch fits into the mower slot. Install the bolts (item 9) and tighten.
12. For Flex 2100 models, the top tab of the hitch (item 10) slips into the mower slot. Lock the strap (item 29) around the mower’s receiver with the washer (item 30) and the bolt (item 31) screwed into the hitch and tighten. Install the nut (Item 28) completely onto bolt (Item 9) with the flange opposite of the bolt head and install the bolt into the hitch (Item 10). With the hitch pushed fully back into the notch of the mower receiver, tight the bolt (Item 9) completely first, then follow up by tightening the nut (Item 28) down against the strap (Item 29).
13. Run the unit and check operation.
14. If you are using transport tires, you will need to replace the drive hub of the wheel on the housing side with the Turflin offset wheel hub. Refer to the Figure 1 on page 13.

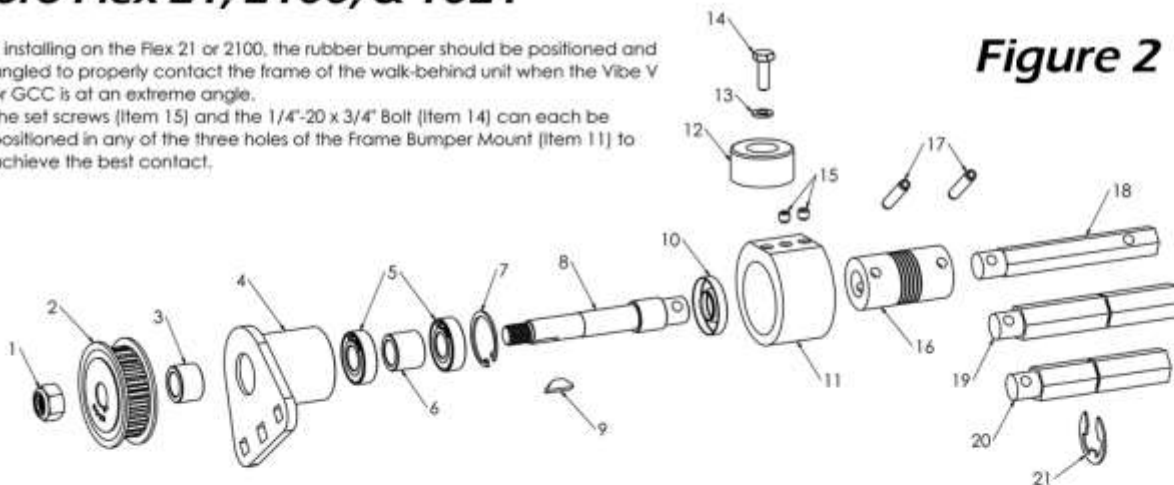
True-Surface® Trekker™ Transport Hub Kit - Toro Flex 21 & 2100

Item No.	Dept No.	Part Number	Description	Qty
1	n/a	Tire	Toro Wheel Assembly	1
2	44P	FLX-011	Transport Hub	1
3	44P	FLX-020	Transport Hub Lock	1
4	44P	FLX-021	Torsion Spring	1
5	30H	1019	$\frac{5}{16}$ " USS Flat Washer	2
6	H	031	Shoulder Bolt $\frac{5}{16}$ - 18 x $\frac{3}{8}$ x $\frac{3}{4}$	1
7	H	1147	Serrated Flanged Nut $\frac{5}{16}$ - 18	2
8	H	030	Shoulder Bolt $\frac{5}{16}$ - 18 x $\frac{3}{8}$ x $\frac{1}{4}$	1
9	H	1008	$\frac{1}{4}$ " USS Flat Washer	3
10	H	1013	$\frac{5}{16}$ Split Lock Washer	3
11	H	3107	Full Thread Bolt $\frac{5}{16}$ - 18 x 1 - $\frac{1}{2}$	1
12	H	1001	$\frac{5}{16}$ - 18 x $\frac{3}{4}$ Bolt	2
*	44A	FLX-3000	Complete Transport Hub Kit	1



True-Surface® Trekker™ Drive Shaft & Housing Assembly - Toro Flex 21, 2100, & 1021

If installing on the Flex 21 or 2100, the rubber bumper should be positioned and angled to properly contact the frame of the walk-behind unit when the Vibe V or GCC is at an extreme angle. The set screws (Item 15) and the 1/4"-20 x 3/4" Bolt (Item 14) can each be positioned in any of the three holes of the Frame Bumper Mount (Item 11) to achieve the best contact.



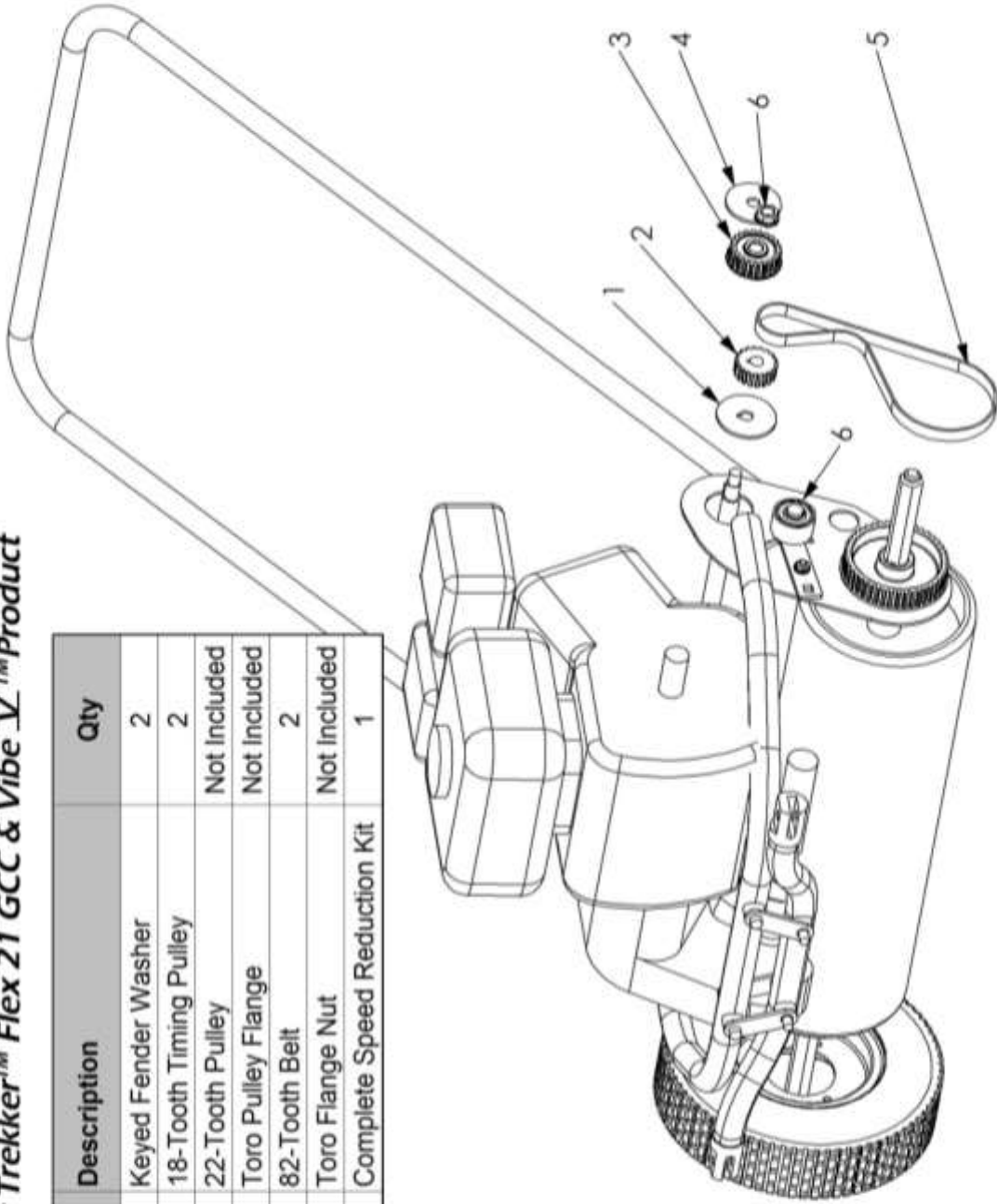
Toro Trekker Drive Kits 3/18/21				
ITEM #	DEPT #	PART #	DESCRIPTION	QTY
1	H	057	12MM x 1.75 Nylon Lock Nut	1
2	21P	FLX-048	22 Tooth Pulley	1
3	44P	FLX-051	Short Pulley Spacer	1
4	44P	FLX-058 Rev C	Bearing Housing Assembly	1
5	44P	FLX-053	Bearing	2
6	44P	FLX-050	Long Pulley Spacer	1
7	444P	FLX-056	1-1/4" Internal Snap Ring	1
8	44P	FLX-052	Drive Shaft	1
9	44P	FLX-047	Reel Drive Key	1
10	44P	FLX-054	Oil Seal	1
11	44P	FLX-058D	Frame Bumper Mount *Used only on Toro Flex 21 & 2100	1

Toro Trekker Drive Kits 3/18/21				
ITEM #	DEPT #	PART #	DESCRIPTION	QTY
12	44P	FLX-062	Rubber Bumper and Washer *Used only on Toro Flex 21 & 2100	1
13	H	1007	1/4" Split Lock Washer *Used only on Toro Flex 21 & 2100	1
14	H	1003	1/4"-20 x 3/4" Hex Bolt *Used only on Toro Flex 21 & 2100	1
15	H	6013	1/4"-20 x 1/4" Set Screw *Used only on Toro Flex 21 & 2100	2
16	44P	FLX-049	Coupler	1
17	H	055	1/4" x 1-1/4" Slotted Spring Pin	2
18	44P	FLX-059	Hex Drive Shaft 5/8" *Fits Toro Flex 21 Early Models	1
18	44P	FLX-060	Hex Drive Shaft 3/4" *Fits Toro Flex 21 Late Models and All Toro Flex 2100 Models	1
19	44P	FLX-218	Hex Drive Shaft *Fits Toro Flex 1021. Used only on Vibe V	1
20	44P	FLX-210	Hex Drive Shaft *Fits Toro Flex 1021. Used only on GCC	1
21	44P	FLX-217	Side Mount Retaining Ring *Used only on Toro Flex 1021	1

True-Surface® Trekker™ Speed Reduction Kit -Toro Flex 21 Only

Included with your Trekker™ Flex 21 GCC & Vibe V™ Product

Item No.	Dept No.	Part Number	Description	Qty
1	H	034	Keyed Fender Washer	2
2	44P	FLX-019	18-Tooth Timing Pulley	2
3	n/a	Toro Part	22-Tooth Pulley	Not Included
4	n/a	Toro Part	Toro Pulley Flange	Not Included
5	44P	FLX-043	82-Tooth Belt	2
6	n/a	Toro Part	Toro Flange Nut	Not Included
*	44A	FLX-3001	Complete Speed Reduction Kit	1



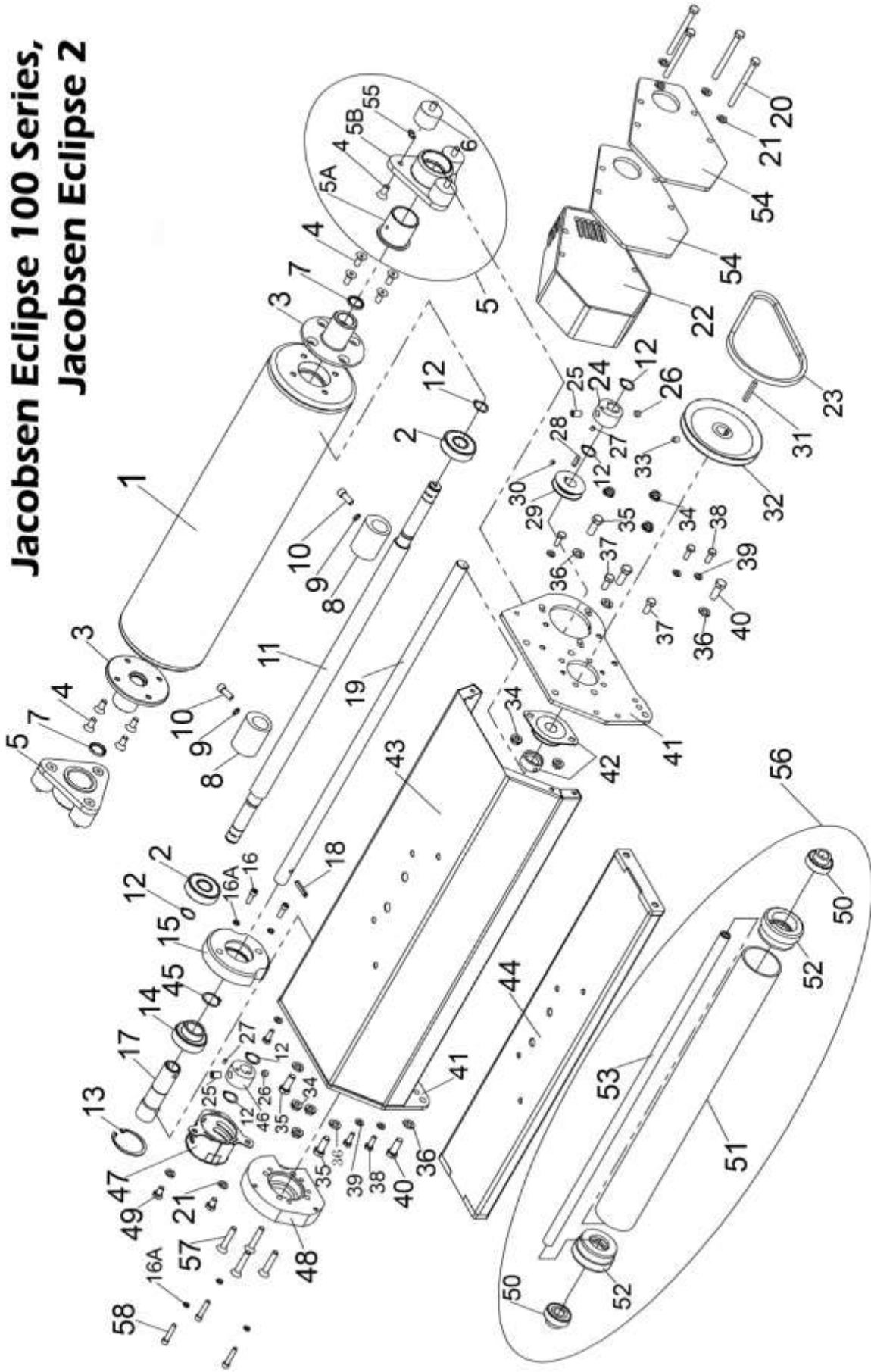
**Speed Reduction Kit Installation Instructions – True-Surface® Trekker™
Vibe V™ & True-Surface® Trekker™ Greens Care Collection**
Use for Toro Flex 21 Models Only

Refer to page the schematic and parts listing on page 14.

1. Remove the drive drum belt cover from one side of the traction unit.
2. Loosen the drive belt, and remove.
3. Remove the upper 22-tooth drive pulley (item 3).
4. Install the keyed flange (item 1) first, the 18-tooth pulley (item 2) second, and the non-keyed flange (item 4) last. Replace the nut and tighten.
5. Install the supplied 82-tooth belt (item 5); Set the tension with an idler and tighten.
6. Replace the belt cover.
7. Repeat for the opposite side.

By installing the supplied speed reduction kit, you will have more control of the machine and will possibly be able to run the unit at a lower engine RPM, resulting in more power available for the cutting unit.

**True-Surface® Trekker™ VibeV™
 Jacobsen Eclipse 100 Series,
 Jacobsen Eclipse 2**



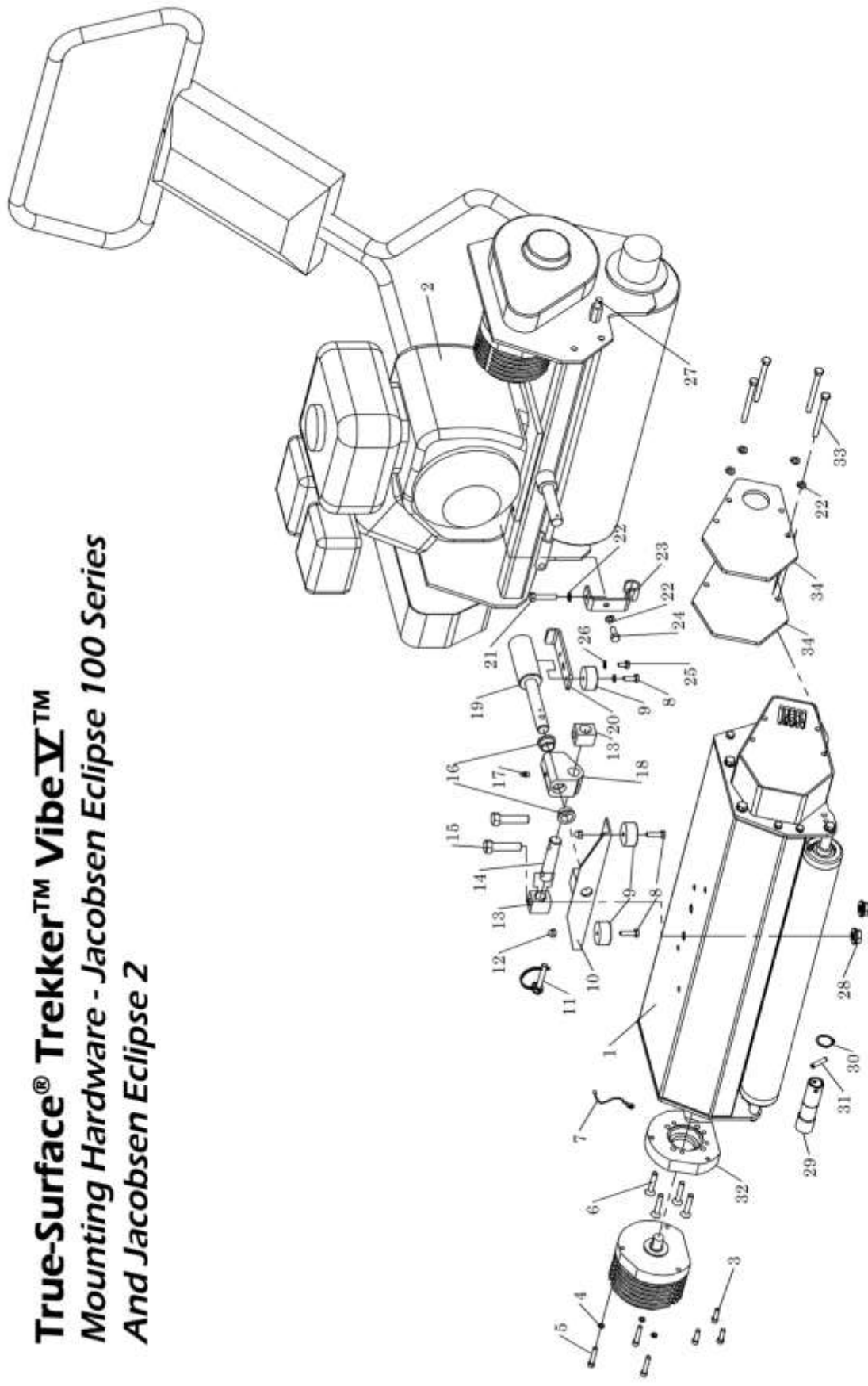
TRUE-SURFACE® TREKKER™ VIBE V™
Exploded View Parts Listing to fit the
Jacobsen Eclipse 100 Series and Eclipse 2

ITEM #	DEPT. #	PART #	DESCRIPTION	QTY.
1	30A	09-16	Roller Tube	1
2	37P	1023	Bearing for Shaft (includes 4 of # 4)	2
3	37P	09-001	Hub Assembly (includes 4 Of #4 & #7)	2
4	H	1140	Flat Head Socket Cap Screw 5/16-18 x 3/4"	14
5	31A	V7219-1	Flanged Bearing Assy. (includes #'s 4,5A,5B,6 &55)	2
5A	37P	7928	Bronze Bushing for V7219-1 Assy.	2
5B	37P	V7217	Nylon Flange	2
6	31P	V7219 RSM	Rubber Shock Mount for Vibe V	6
7	H	7410	Hub / Shaft Seal	2
8	31A	VR-004-1	Inboard Eccentric Weight (includes #'s 9 & 10)	2
9	H	V8001	5/16" High Collar Lock Washer	2
10	H	V8000	Socket Head Screw 5/16-18 x 3/4"	2
11	31A	VR-001-1	Shaft Only Assembly	1
*	31A	VR-001-2	Shaft Assembly (Includes #'s 2,4,11,12,29)	1
12	37P	1014	Snap Ring For Shaft	6
13	37P	1127	Bearing Snap Ring	1
14	37P	7101	Bearing With Set Screws	1
15	37P	7150-1	Bearing Housing	1
16	H	1505	Socket Head Cap Screw 1/4-20 x 3/4"	2
17	37P	7001-E322	Coupler for Eclipse Models (includes 18 & 45)	1
18	37P	7178	Split Spring Pin 1/4 x 1-1/8"	1
19	37P	7007	Spline Shaft - 3/4" Stainless Steel	1
20	H	1030	Gr. 5 Hex Bolt 5/16-18 x 3-1/2"	4
21	H	1013	Split Lock Washer 5/16"	6
22	31P	VR7002-1	Black Vented Belt Guard for Vibe V	1
23	37P	7121	3L x 20" Belt	1
24	31P	VR-003A-1	Outboard Eccentric Weight Belt Side (includes #'s 25,26,27)	1
25	H	V8005	Ball Spring Plunger	2
26	H	V8002	Flat Point Set Screw 3/8-16 x 1/4"	2
27	H	V8003	Set Screw #10 -32 x 3/16"	2
28	H	5087	Short Square Machine Key 3/16 x 3/4"	1
29	37P	1024	2" Shaft Pulley (Includes #'s 28 & 30)	1
30	H	6014	Knurled Cup Point Set Screw 1/4-20 x 3/16"	1
31	H	1025	Long Square Machine Key 3/16 x 1-1/4"	1
32	37P	7100	5" Pulley (Includes #'s 31 & 33)	1
33	H	6012	Knurled Cup Point Set Screw 5/16-18 x 3/8"	1
34	H	1147	Serrated Flange Nut 5/16-18	8
35	H	1100	Gr. 5 Hex Bolt 3/8-16 x 1"	4
36	H	1010	Split Lock Washer 3/8"	6
37	H	1001	Gr. 5 Hex Bolt 5/16-18 x 3/4"	2
38	H	1003	Gr. 5 Hex Bolt 1/4-20 x 3/4"	6
39	H	1007	Split Lock Washer 1/4"	6

TRUE-SURFACE® TREKKER™ VIBE V™
Exploded View Parts Listing to fit the
Jacobsen Eclipse 100 Series and Eclipse 2 Continued

ITEM #	DEPT. #	PART #	DESCRIPTION	QTY.
40	H	V1032	Gr. 5 Hex Bolt FINE 3/8-24 x 1"	2
41	37P	7011Black	Roller End Plate BLACK	2
42	37P	7102	3/4" Flush Mount Bearing (Includes locking collar)	1
43	37P	7003Black	Roller Hood BLACK	1
44	37P	7004	Frame Assembly	1
45	37P	1029	Snap Ring 63/64" x 0.042" thick	1
46	31P	VR-003B-1	Outboard Eccentric Weight-Motor Side (Includes 25,26,27)	1
47	31P	VR-002	Outboard Eccentric Shaft Cover	1
48	21P	GCC-02-E322	Eclipse Motor Mounting Flange	1
49	H	V8004	Gr. 5 Hex Bolt 5/16-18 x 1/2"	2
50	21P	GCC-09B3R	Front Roller Bearing	2
51	31P	V7209NG	Front Roller Tube (Includes # 52)	1
52	31P	V7206NG	Front Roller Endcap	2
53	31P	V7208	Front Roller Axle	1
54	31P	VR7CWB	Black Counterweight	2
55	H	1681	1/4-28 Steel Grease Fitting	2
56	31A	V7207NG	Solid Front Roller Assy. (Includes 36,40,50,51,52,53)	1
57	H	1146	Flat Head Socket Screw 5/16-18 x 1-3/4"	4
58	H	2016	Socket Head Cap Screw 1/4-20 x 1-3/8" (Thick Flange)	3
58	H	20	Socket Head Cap Screw 1/4-20 x 7/8" (Thin Flange)	3

True-Surface® Trekker™ Vibe™ V™
Mounting Hardware - Jacobsen Eclipse 100 Series
And Jacobsen Eclipse 2



TRUE-SURFACE® TREKKER™ VIBE V™
Mounting Hardware Parts Listing to fit the
Jacobsen Eclipse 100 Series and Eclipse 2

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	N/A	44F-TRK-JACECL-VIBE V	VIBE V FOR ECLIPSE (SEE PAGE 16)	1
2	N/A	N/A	Eclipse Series 100 or Eclipse II traction Unit	1
THE FOLLOWING PARTS MAKE UP KIT # 44A-ECL-2000				
3	H	20	1/4-20 x 7/8" S.H.C.S. (certain motor types)	3
4	H	6110	1/4" Hi-Collar Lockwasher	3
5	H	2016	1/4-20 x 1-3/8" S.H.C.S. (certain motor types)	3
6	H	1146	5/16-18 x 1-3/4" Flat Head Socket Screw	4
7	44P	ECL-15R	Grounding Wire (100 series roller)	1
8	H	1003	1/4-20 X 3/4" Gr. 5 Hex Bolt	3
9	44P	FLX-062	Bumper with Washer	3
10	44P	ECL-09	Pivot Limiter	1
11	H	66	5/16" Wire Loop Pin	1
12	H	1153	1/4-20 Nylon Locknut	2
13	44P	ECL-10	Bolster Pin Mount Block	2
14	44P	ECL-05	Bolster Pin	1
15	H	5009	1/2-13 x 2-1/2" Gr. 5 Hex Bolt	2
16	44P	ECL-11	3/4" I.D. Pivot Mount Bushing	2
17	H	1680	Grease Zert	1
18	44P	ECL-06	Roller Pivot Mount	1
19	44P	ECL-01	Basket Yoke Extension Pin	1
20	44P	ECL-02	Extension Pin Retaining Bracket	1
21	H	29	5/16-24 x 1-1/2" Gr.5 hex Bolt. (100 series)	1
22	H	1013	5/16 Split Lockwasher	5
23	44P	ECL-03	Stabilizer Hanger	1
24	H	1001	5/16-18 x 3/4" Gr. 5 Hex Bolt (Eclipse 2)	1
25	H	1579	1/4-20 x 1/2" Gr. 5 Hex Bolt	1
26	H	1007	1/4" Split Lockwasher	2
27	N/A	N/A	Mounting Point for Cutting Reel	
28	H	1026	1/2-13 Serrated Flange Nut	2
29	31P	V7001-E322	Eclipse Drive Coupler (Includes #'s 30 &31)	1
30	37P	1029	63/64" External Snap ring	1
31	H	055	1/4 x 1-1/4" Split Spring Pin	1
32	21P	GCC-02-E322	Eclipse Motor Flange	1
33	H	1030	5/16-18 x 3-1/2" Gr. 5 Hex Bolt	4
34	31P	VR7CWB	Counterweight--Black	2

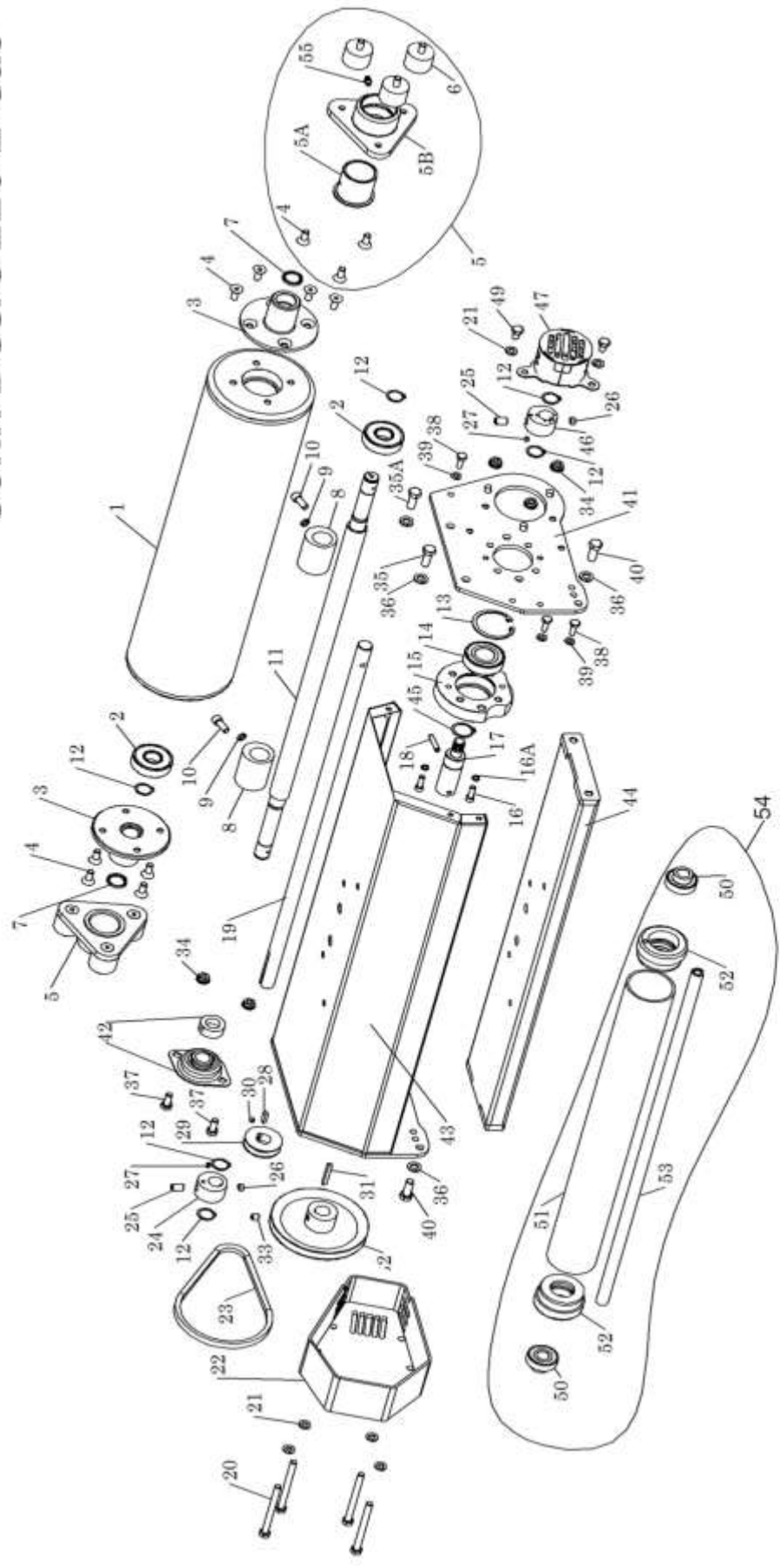
True-Surface® Trekker™ Vibe V™

*Jacobsen Eclipse 100 series and Eclipse 2 Mounting Instructions –
Refer to the schematic on page 19 and the parts listing on page 20*

Please note that during set up, you will need an assistant to support your traction unit securely, once you have removed the cutting reels.

1. Disconnect the drive motor and ground wire from the cutting reel. Please note the ground wire is only on the Jacobsen Eclipse 100 series.
2. Disconnect the stabilizer bar from the back of the cutting reel, and then remove the hairpin cotters from the main forward shaft, and side mounts (Item 27) of the traction unit to remove the cutting reel. Please note you will need an assistant to support the traction unit during this process.
3. Attach the stabilizer hanger (Item 23) to the front of frame.
 - a. **For Jacobsen Eclipse 100 series units:** Use bolt # 21 and remove the forward corner bolt from the engine base plate, and add the hanger #23 to this location with bolt # 21.
 - b. **For Jacobsen Eclipse 2 units:** Use bolt # 24 into a pre-tapped hole in the front face of frame and install the hanger. Once the hanger is installed, lift the stabilizer bar into the hanger. Please note that the hanger can remain mounted if you switch the unit back to the cutting reel for mowing.
4. Assemble items 8 - 19, with the exception of the rear bumper (Item 9), as shown on page 19, and bolt it to the roller. Next, slide items onto the frame pin via extension pin (Item 19) keeping the flat side of Item 19 down.
5. Attach the retainer (Item 20) to the bottom of the pin (Item 19) with the bumper (Item 9) directly above the back corner of the roller frame/hood. **NOTE: Retainer # 20 has 2 sets of holes, for the 100 series units, the tab must reach behind square frame. For ECLIPSE 2 units, the retainer tab only reaches behind the mounting plate that the factory pin is welded to.**
6. Attach the drive motor to roller frame using the bolts supplied. Note some models are equipped with a ¼” flange and some are equipped with a .80” Flange. For the ¼” flange, you will need to use bolts # 3 with lock washers # 4, and for the 0.80” flange, you will need to use bolts # 5 with lock washers # 4.
7. Align the motor shaft and key with the slot in the coupler. Slip the motor all the up to the mounting flange (Item 32) before applying any pressure with the bolts.
8. For best results, access the onboard parameters for the eclipse mower. Turn “OFF” the frequency of cut (F.O.C.), and set the reel speed to at least 2,000 rpm.
9. Start machine and check operation.

True-Surface® Trekker™ Vibe V™ John Deere 220 E-Cut



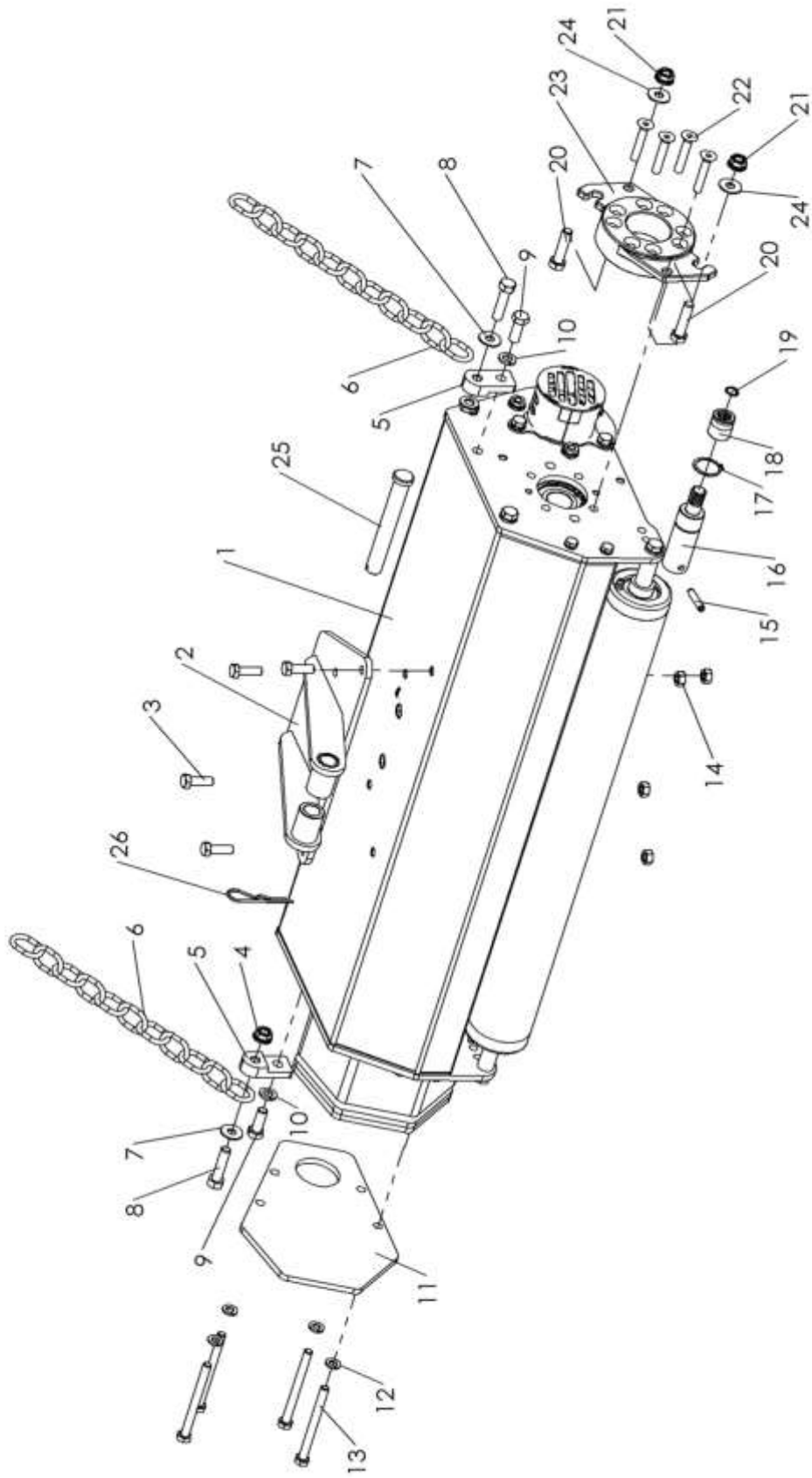
TRUE-SURFACE® TREKKER™ VIBE V™
Exploded View Parts Listing to fit the John Deere 220E-Cut

ITEM#	DEPT. #	PART #	DESCRIPTION	QTY.
1	30A	09-16	Roller Tube	1
2	37P	1023	Bearing for Shaft (Includes 4 of # 4)	2
3	37P	09-001	Hub Assembly (Includes 4 of #4 & 1 of #7)	2
4	H	1140	Flat Head Socket Cap Screw 5/16-18 x 3/4"	14
5	31A	V7219-1	Flanged Bearing Assy. (Includes #'s 4, 5A, 5B, 6, 34 & 55)	2
5A	37P	7928	Bronze Bushing for V7219-1 Assy.	2
5B	37P	V7217	Nylon Flange	2
6	31P	V7219 RSM	Rubber Shock Mount for Vibe V	6
7	H	7410	Hub / Shaft Seal	2
8	31A	VR-004-1	Inboard Eccentric Weight (Includes #'s 9 & 10)	2
9	H	V8001	5/16" High Collar Lock Washer	2
10	H	V8000	Socket Head Screw 5/16-18 x 3/4"	2
11	31A	VR-001-1	Shaft Only Assembly (Includes 9, 10, 12, 28)	1
*	31A	VR-001-2	Shaft Assembly (Includes #'s 2, 4, 9, 10, 11, 12, 29 & 30)	1
12	37P	1014	Snap Ring For Shaft	6
13	37P	1127	Bearing Snap Ring	1
14	37P	7101	Bearing With Set Screws	1
15	37P	7150-1	Bearing Housing	1
16	H	1505	Socket Head Cap Screw 1/4-20 x 3/4"	2
16A	H	6110	1/4" High Collar LockWasher	2
17	37P	7001JD25	Male Coupler for John Deere Models (Includes 18 & 45)	1
18	37P	7178	Split Spring Pin 1/4 x 1-1/8"	1
19	37P	7007	Spline Shaft - 3/4" Stainless Steel	1
20	H	1030	Gr. 5 Hex Bolt 5/16-18 x 3-1/2"	4
21	H	1013	Split Lock Washer 5/16"	6
22	31P	VR7002-1	Black Vented Belt Guard for Vibe V	1
23	37P	7121	3L x 20" Belt	1
24	31P	VR-003A-1	Outboard Eccentric Weight Belt Side (Includes #'s 25, 26, 27)	1
25	H	V8005	Ball Spring Plunger	2
26	H	V8002	Flat Point Set Screw 3/8-16 x 1/4"	2
27	H	V8003	Set Screw #10 -32 x 3/16"	2
28	H	5087	Short Square Machine Key 3/16 x 3/4"	1
29	37P	1024	2" Shaft Pulley (Includes #'s 28 & 30)	1
30	H	6014	Knurled Cup Point Set Screw 1/4-20 x 3/16"	1
31	H	1025	Long Square Machine Key 3/16 x 1-1/4"	1
32	37P	7100	5" Pulley (Includes #'s 31 & 33)	1
33	H	6012	Knurled Cup Point Set Screw 5/16-18 x 3/8"	1
34	H	1147	Serrated Flange Nut 5/16-18	8
35	H	1100	Gr. 5 Hex Bolt 3/8-16 x 1"	2
35A	H	1135	Gr. 8 Hex Bolt 3/8-16 x 1-1/4"	2
36	H	1010	Split Lock Washer 3/8"	6

TRUE-SURFACE® TREKKER™ VIBE V™
Exploded View Parts Listing to fit the
John Deere 220E-Cut Continued

ITEM#	DEPT. #	PART #	DESCRIPTION	QTY.
37	H	1001	Gr. 5 Hex Bolt 5/16-18 x 3/4"	2
38	H	1003	Gr. 5 Hex Bolt 1/4-20 x 3/4"	6
39	H	1007	Split Lock Washer 1/4"	6
40	H	V1032	Gr. 5 Hex Bolt FINE 3/8-24 x 1"	2
41	37P	7011Black	Roller End Plate BLACK	2
42	37P	7102	3/4" Flush Mount Bearing (Includes locking collar)	1
43	37P	7003Black	Roller Hood BLACK	1
44	37P	7004	Frame Assembly	1
45	37P	1029	Snap Ring 63/64" x 0.042" thick	1
46	31P	VR-003B-1	Outboard Eccentric Weight-Motor Side (Includes 25,26,27)	1
47	31P	VR-002	Outboard Eccentric Shaft Cover	1
49	H	V8004	Gr. 5 Hex Bolt 5/16-18 x 1/2"	2
50	21P	GCC-09B3R	Front Roller Bearing	2
51	31P	V7209NG	Front Roller Tube (Includes # 52)	1
52	31P	V7206NG	Front Roller End Cap	2
53	31P	V7208	Front Roller Axle	1
54	31A	V7207NG	Solid Front Roller Assy. (Includes 36,40,50,51,52,53)	1
55	H	1681	1/4-28 Steel Grease Fitting	2

**True-Surface® Trekker™ Vibe Σ ™
Mounting Hardware - John Deere 220 E-Cut**



TRUE-SURFACE® TREKKER™ VIBE V™
Mounting Hardware Parts Listing to fit the John Deere 220E-Cut

ITEM #	DEPT #	PART #	DESCRIPTION	QTY
1		N/A	Vibe 5 Roller Assembly	1
2	44P	JD220-006	Lift Bracket Assembly	1
3	H	1101	5/16-18 x 1" GR.5 Hex Bolt	4
4	H	1016	3/8-16 Serrated Flange Nut	2
5	44P	JD220-004	Lift Chain Mount	2
6	21P	GCC-212	Lift Chain 2/0 Passing, 11 Links	2
7	H	1006	3/8" USS Flat Washer	2
8	H	1072	3/8-16 x 1-1/2" GR. 5 Hex Bolt	2
9	H	1100	3/8-16 x 1-1/4" Gr.5 Hex Bolt	2
10	H	1010	3/8" Split Lockwasher	2
11	31P	VR7CWB	Counterweight	3
12	H	1013	5/16" Split Lockwasher	4
13	H	1080	5/16-18 x 4" GR. 5 Hex Bolt	4
14	H	3179	5/16-18 Nylon Lock Nut	4
15	H	7178	1/4 X 1-1/8" Split Spring Pin	1
16	37P	7001JD25	Male Splined Coupler	1
17	37P	1029	63/64" Ext. Snap Ring	1
18	37P	7704	Splined Coupler	1
19	21P	GCC-129	12 mm INT. Snap Ring	1
20	H	32	3/8-16 x 1-1/2" Full Thread Gr 8	2
21	H	1183	3/8-16 Smooth Flange Nut	2
22	H	1146	5/16-18 x 1-3/4 Flat Head SCS	4
23	37P	7036-3	John Deere Motor Flange	1
24	H	1019	Washer 5/16" USS Flat	2
25	H	JD220-009	5/8" x 4-1/2" Clevis Pin	1
26	H	JD225-008	1/8" dia. Hairpin Cotter	1

True-Surface® Trekker™ Vibe V

John Deere 220E-Cut Mounting Instructions – Refer to the schematic on page 25 and the parts listing on page 26.

Please note that during set up, you will need an assistant to support your traction unit securely, once you have removed the cutting reels.

1. Prepare the True-Surface® Trekker™ Vibe V Roller for installation by attaching the lift bracket (item 2) to top of the roller with the bolts provided, and tighten.
2. Attach the lift chain mounts (item 5) to each end of the roller as shown. Connect the chain by feeding the bolt (item 8) through the washer (item 7) and then the first link of the chain. Fully thread the bolt into the mount (item 5). Install the nut (item 4) and tighten. Be sure that the chain is free to swivel around the bolt.
3. Install the female coupler (item 18) onto the male coupler (item 16).
4. Remove the clevis pin (item 25), and you are ready re-installation.
5. On the cutting reel, loosen the motor mounting studs, and remove drive motor. Disconnect the stabilizing chains from connection points on the traction unit. Remove the central connection pin and basket attaching loop.
6. Find an assistant to help support the traction unit. With the traction unit being supported, side the entire cutting unit away from it.
7. Place the True-Surface® Trekker™ Vibe V Roller in front of traction unit, align the swivel joint between the bushings on lift bracket (item 2) and install the clevis pin (item 25) through it. Install the hairpin (item 26).
8. Attach the chains to the connection points on the traction unit and replace the washers and cotter pins. Connect the chain at a length that allows freedom of movement while in operation, but still provides desired lift when raising the unit from the turf while turning. Once your chain length is set, cut away any excess.
9. Align the drive motor splines into the coupler (item 18) slide the motor up to the flange (item 23), rotate into position on the mounting studs with the washers (item 24) to the outside, and tighten nuts.
10. Start unit and check operation. In the event that a Frequency of Cut has been programmed into the machine, check your owner's manual for instructions on how to set the reel speed to at least 2,000 rpm. As this speed is crucial to the proper operation of the rollers.

TRUE-SURFACE® TREKKER™ GREENS CARE COLLECTION (GCC)

Weight of Greens Care Collection Frames and Inserts:

GCC Frame: 51 lb (23.1 kg)	Greens Spiker: 59 lb (26.8 kg)
Vacu-Cutter™: 17 lb (7.7 kg)	Star Slitter: 45 lb (20.4 kg)
Vertical Mower: 17 lb (7.7 kg)	Deep Slicer: 12 lb (5.4 kg)
Vacu-Groomer™: 13 lb (5.9 kg)	*NV Roller: 115 lb (33.6 kg)
Vacu-Brush™: 10 lb (4.5kg)	<i>*Four 9lb (4.1 kg) internal removable weights available</i>
Vacu-Scarifier™: 14 lb (6.4 kg)	Badger Brush: 27 lb (12.4 kg)
Turf Rake: 11 lb (5 kg)	

Trekker™ Insert Depth	Usual Working Depth	Maximum Working Depth
Vacu-Cutter™	0-1/8" (0-3mm)	¼" (6mm)
Vertical Mower	0-1/8" (0-3mm)	¼" (6mm)
Vacu-Groomer™	0-3/32" (0-2mm)	3/32" (2mm)
Vacu-Brush™	Zero	Zero
Vacu-Scarifier™	5/16" (8mm)	3/8" (10mm)
Greens Spiker	½ - ¾" (13-20mm)	1" (25mm)*

*If ground conditions are soft enough

Working Widths of Trekker™ GCC Inserts:

Vacu-Cutter™: 19 5/32" (486.66 mm)	Star Slitter: 18 3/8" (466.85 mm)
Vertical Mower: 19 5/32" (486.66 mm)	Deep Slicer: 18 3/8" (466.85 mm)
Vacu-Groomer™: 20 1/8" (511.30 mm)	NV Roller: 20" (501.65 mm)
Vacu-Brush™: 19 7/8" (504.95 mm)	Badger Brush: 19 3/8" (492.13 mm)
Vacu-Scarifier™: 17 59/64" (455.17 mm)	Turf Rake: 19 3/4" (501.65mm)
Greens Spiker: 18 ½" (469.9mm)	

Maintenance:

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.

Customer Satisfaction: 2-Year Limited Warranty
Distributors: Worldwide Distribution

For sales and service, please feel free to contact Turflite, Inc.:

Toll Free: 800-443-8506
Phone: +1-636-3 56-1210
Fax: 636-356-1218
www.true-surface.com

OPERATOR SAFETY

1. Never leave the operators 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. Be sure the insert is installed correctly. Confirm the drive key orientation (left or right) and the direction of the insert rotation.
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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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.

FIGURE 1

DRIVE KEY POSITION

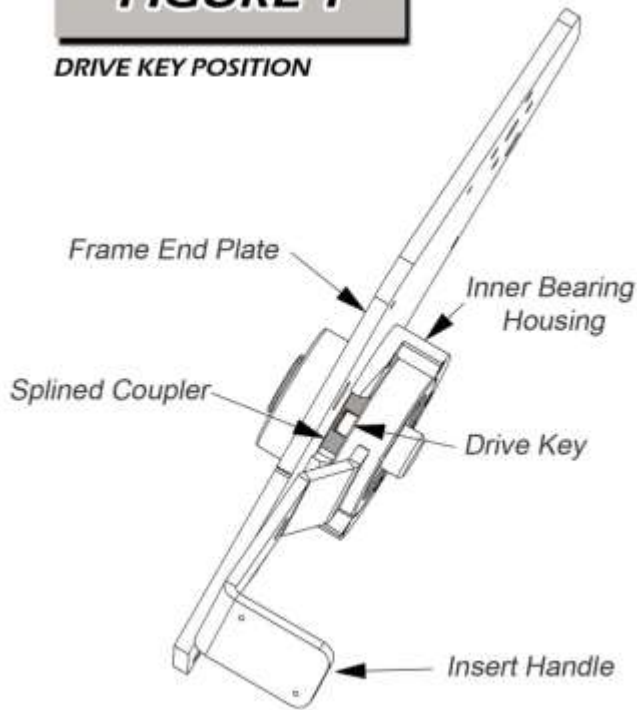
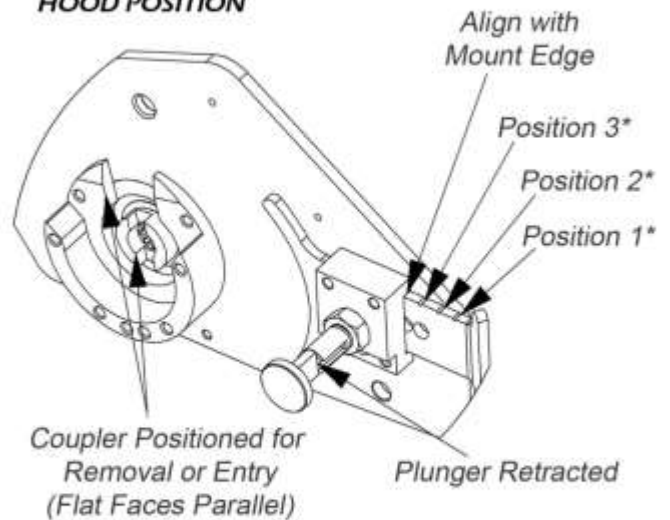


FIGURE 2

HOOD POSITION



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

FIGURE 3

PARKING STAND IN WORKING POSITION

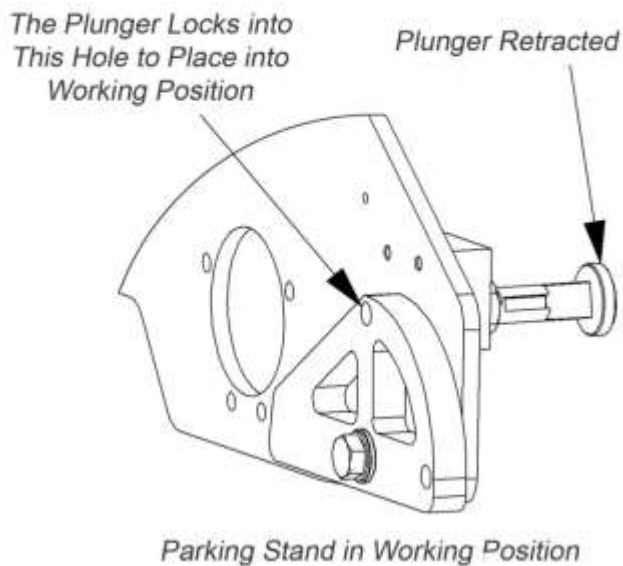
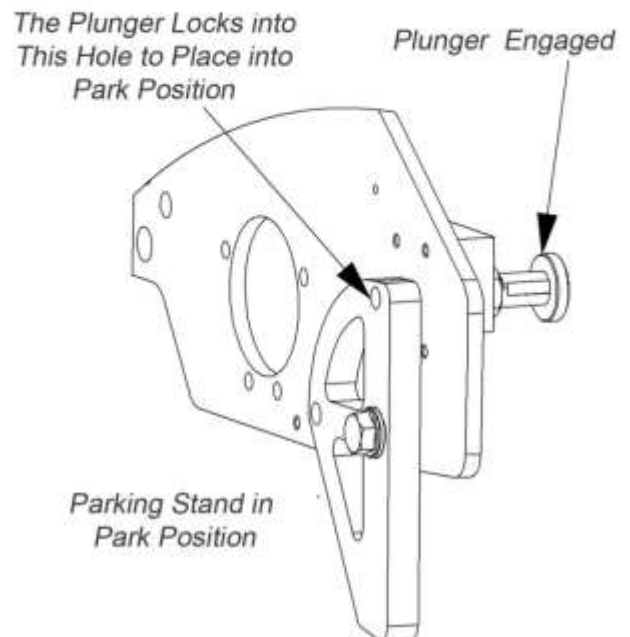


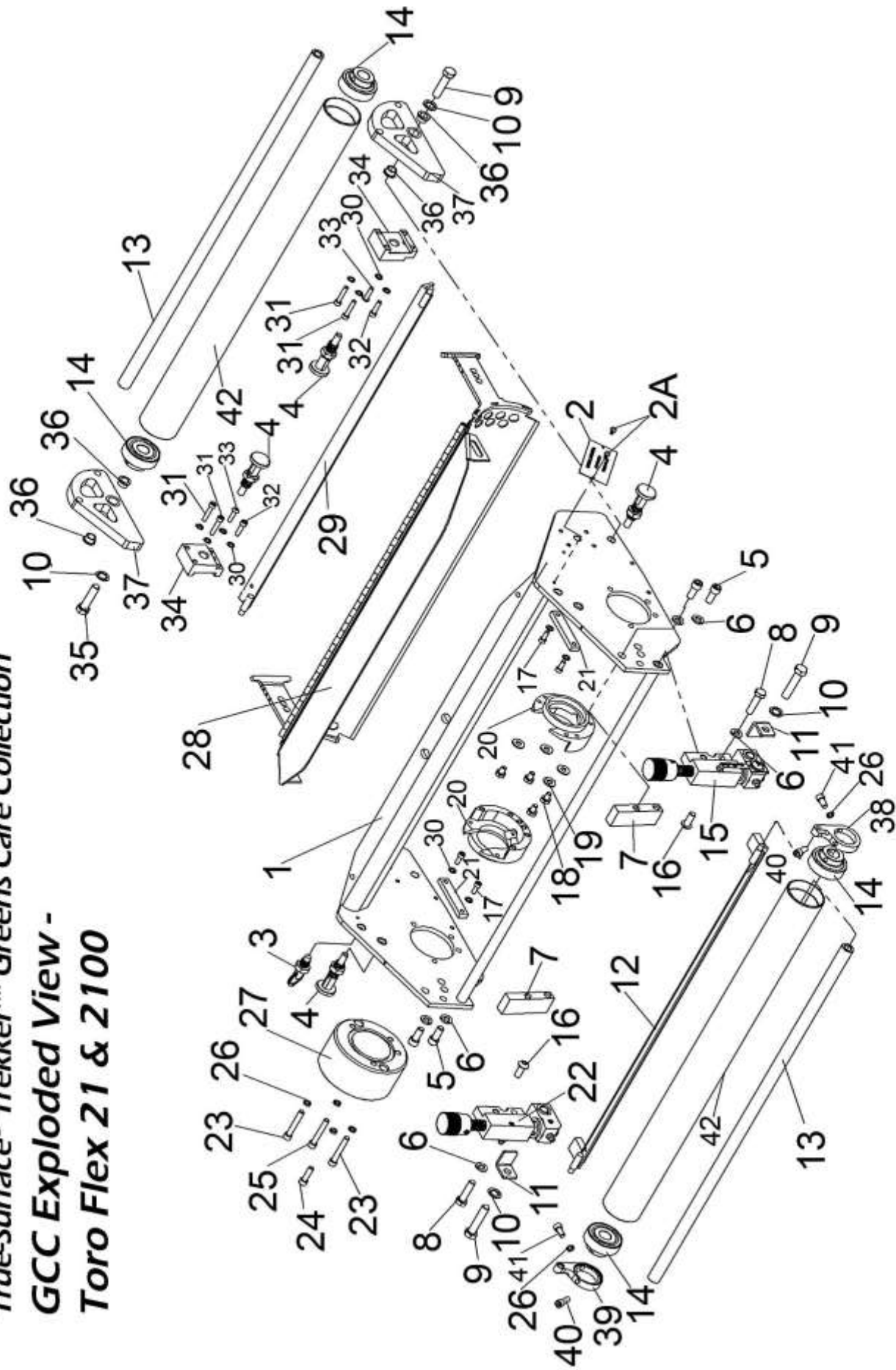
FIGURE 4

PARKING STAND IN PARK POSITION



True-Surface® Trekker™ Greens Care Collection

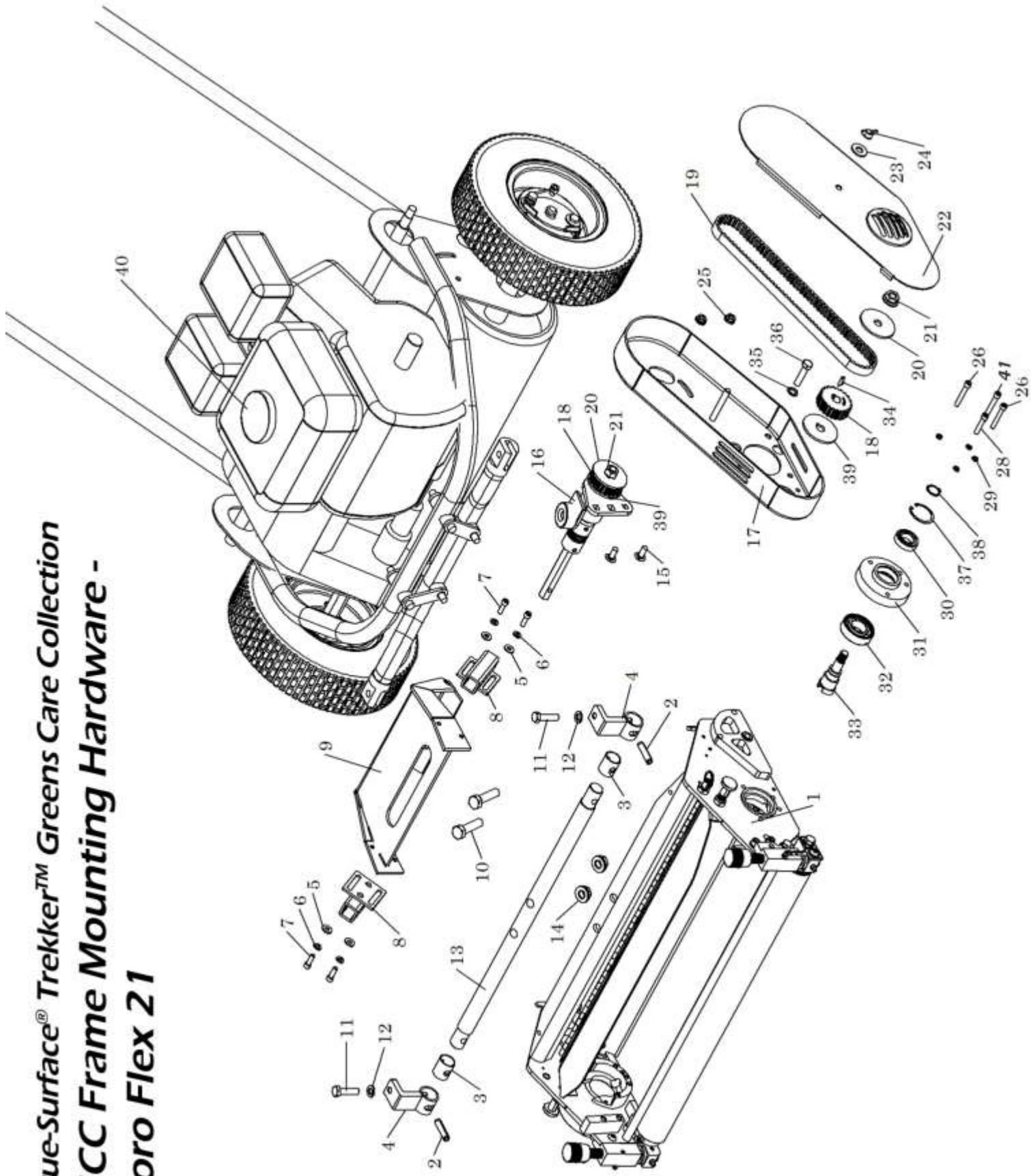
**GCC Exploded View -
Toro Flex 21 & 2100**



TRUE-SURFACE® TREKKER™ GCC
Exploded View to Fit the Toro Flex 21 & 2100

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	21P	GCC-Frame	GCC Basic Frame	1
2	21S	Serial Tag	Serial Number Tag	1
2A	H	30	#7 x 1/4" Drive Screw	2
3	21A	GCC-233	Hood Lock Plunger (Includes nut)	1
4	21A	GCC-400 asm	Spring Plunger with 1/2-13 Jam Nut	4
5	H	V8000	5/16-18 x 3/4 Socket Head screw	4
6	H	1013	5/16 Split Lockwasher	6
7	44P	FLX-101	Basket Stop	2
8	H	1022	5/16-24 x 1" Gr. 5 Hex Bolt	2
9	H	2502	3/8-24 x 1-3/4" Gr. 5 Hex Bolt	3
10	H	6106	3/8" Internal Tooth Lockwasher	4
11	21P	GCC-ADJ-3414	Axle Rotation Stop	2
12	21P	GCC-226	Front Scraper	1
13	21P	GCC-221 TORO/JD	Roller Axle For Toro & JD	2
14	21P	GCC-09-B3R	Roller Bearing Triple Seal	4
15	21A	GCC-ADJ-TORO 1L	Toro Depth Adjuster Left Side (page 54)	1
16	H	GCC-ADJ-12	5/16-24 x 5/8" Button Head Screw	2
17	H	8005	10-32 x 1/2" Socket Head Cap Screw	4
18	H	18	1/4-20 x 3/8" Gr. 5 Hex Bolt	4
19	H	51	1/4" SAE Flatwasher	4
20	21P	GCC-03	Inner Bearing Housing	2
21	21P	GCC-114	Hood Support	2
22	21A	GCC-ADJ-TORO 1R	Toro Depth Adjuster Right Side (page54)	1
23	H	19	1/4-20 x 1-1/4" Socket Head Screw	2
24	H	20	1/4-20 x 7/8" Socket Head Screw	1
25	H	31	1/4-20 x 1-1/2" Socket Head Screw	1
26	H	6110	1/4" Hi-Collar Lockwasher	6
27	21P	GCC-285	5 Lb. Counterweight	1
28	21A	GCC-08	Insert Hood Assembly	1
29	21A	GCC-223 Assem	Rear Scraper	1
30	H	17	# 10 Internal Tooth Lockwasher	12
31	H	24	10-32 x 1" S.S. Socket Head Cap Screw	4
32	H	16	10-32 x 3/4" S.S. Socket Head Cap Screw	2
33	H	32	10-32 x 3/4" Button Head Cap Screw	2
34	21P	GCC-12	Hood Rail Mounting Block	2
35	H	21	3/8-24 x 1-1/2" Gr. 5 Hex Bolt	1
36	21P	GCC-13	Parking Stand Flanged Bushing	4
37	21P	GCC-13C	Parking Stand	2
38	21P	GCC-220.375 L	Front Scraper Mount Left Side	1
39	21P	GCC-220.375 R	Front Scraper Mount Right Side	1
40	H	067	1/4-28 x 5/8" Socket Head Cap Screw	2
41	H	041	1/4-28 x 1/2" Socket Head cap Screw	2
42	21P	GCC-222	Front / Rear Roller Tube	2

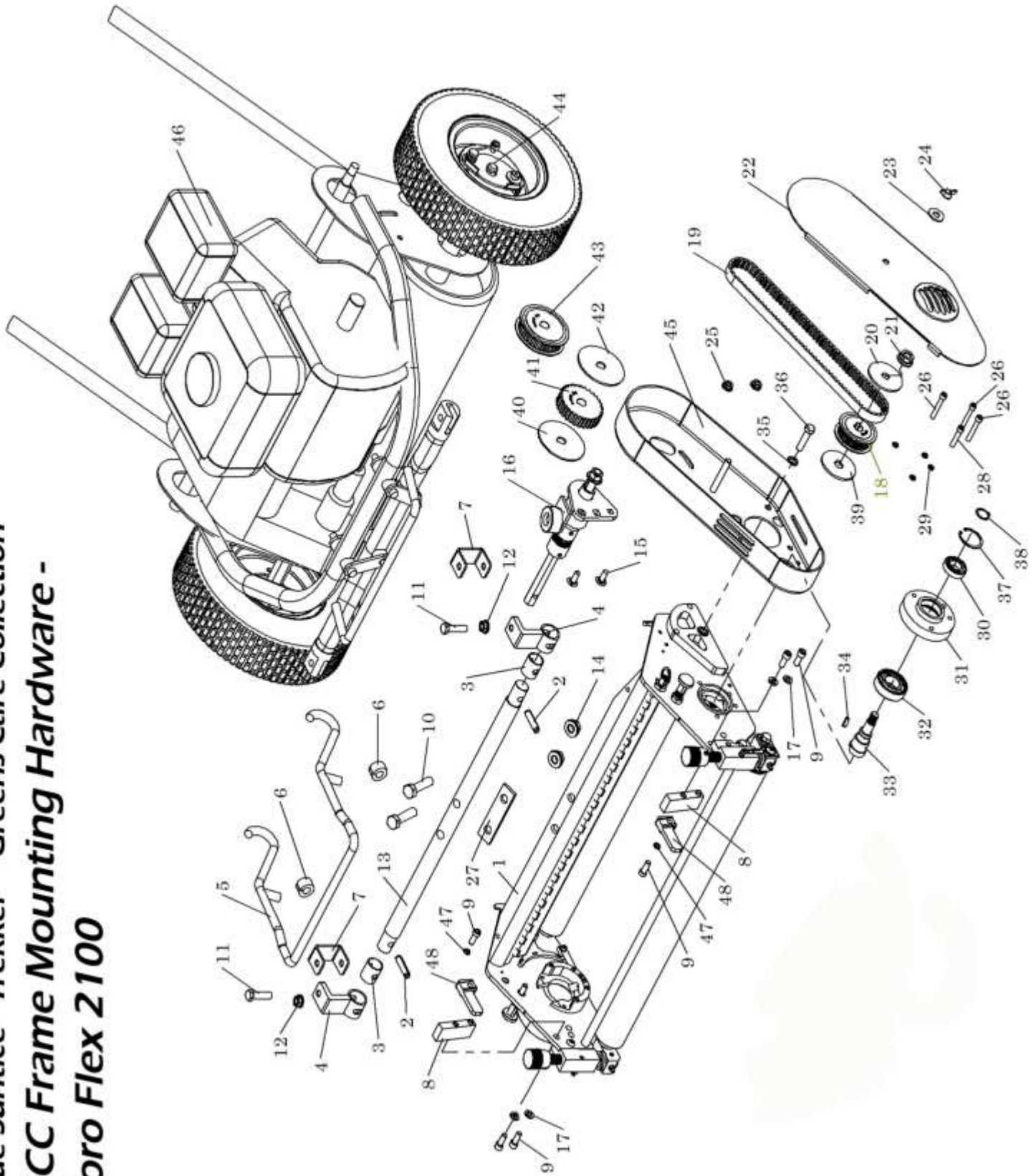
True-Surface® Trekker™ Greens Care Collection
GCC Frame Mounting Hardware -
Toro Flex 21



TRUE-SURFACE® TREKKER™ GCC
Frame Mounting Hardware to Fit the Toro Flex 21

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	21A	GCC-Frame	GCC frame assembly modified-See page 32	1
2	44P	FLX-026	Split spring pin - 3/8" x 1-1/2"	2
3	44P	FLX-016	Bronze Bushing - Flex 21/2100	2
4	44P	FLX-002	Lift Arm Assembly	2
5	H	5002	1/4" SAE Flat Washer	4
6	H	1007	1/4" Split Lock Washer	4
7	H	26	1/4" - 20 X 3/4" - Socket Head Cap Screw	4
8	44P	FLX-022	Basket Pocket Assembly	2
9	44P	FLX-017	Basket Bracket Assembly	1
10	H	028	1/2-13 x 2" Gr. 5 Hex Bolt	2
11	H	032	3/8-16 x 1-1/2" Gr. 8 Hex Bolt Full Thread	2
12	H	1010	3/8" Split Lock Washer	2
13	44P	FLX-001	Cross Bar	1
14	H	1026	1/2-13 Serrated Flange Nut	3
15	44H	FLX-035	5/16-18 X 3/4 carriage bolt	2
16	44A	FLX-1002	Drive Shaft & Housing Assy. - See Pg 13/ Fig 2	1
17	44P	FLX-005	Belt Housing	1
18	21P	FLX-048	22-Tooth Timing Pulley	2
19	44P	FLX-018	STS Timing Belt (728 mm)	1
20	21P	FLX-045	22 Tooth Pulley Outer Flange	2
21	H	057	12 mm Nylon Locknut	1
22	44P	FLX-010	Belt Cover	1
23	H	1019	5/16 USS Flatwasher	1
24	H	029	Wing Nut 3/8-16	1
25	H	1147	5/16-18 Serrated Flange Nut	2
26	H	31	1/4-20 x 1-1/2" Socket Head Screw	2
28	H	19	1/4" - 20 x 1 3/8 SHCS	1
29	H	6110	1/4" Hi-Collar Lock Washer	4
30	25P	TAS8002	Bearing	1
31	44P	FLX-007	Bearing Housing and Spacer	1
32	37P	1032	# 6205 Bearing	1
33	44P	FLX-006	Coupler Shaft	1
34	44P	FLX-047	Reel Drive Key	2
35	H	6106	3/8" Internal Tooth L.W.	1
36	H	2502	3/8-24 x 1-3/4" Gr. Five Hex Bolt	1
37	33P	NV0005	1-7/16" Internal Snap Ring	1
38	37P	1014	Shaft Snap Ring	1
39	44H	FLX-046	22-Pulley Inner Flange	2
40	N/A	N/A	Flex 21 Traction Unit	1
41	H	26	1/4-20 x 1-1/2" Socket Head Screw	1

True-Surface® Trekker™ Greens Care Collection
GCC Frame Mounting Hardware -
Toro Flex 2100



TRUE-SURFACE® TREKKER™ GCC
Frame Mounting Hardware to Fit the Toro Flex 2100

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	21A	GCC-Frame	GCC frame assembly modified- See page 32	1
2	44P	FLX-026	Split spring pin - 3/8" x 1-1/2"	2
3	44P	FLX-016	Bronze Bushing - Flex 21/2100	2
4	44P	FLX-002	Lift Arm Assembly	2
5	44P	FLX-100	Basket Bracket Extension Flex 2100 Rev-B	1
6	44P	FLX-106	Basket Extension Lift Bushing	2
7	44P	FLX-105	Hitch Lock Strap	2
8	44P	FLX-101	Basket Stop	2
9	H	V-8000	5/16-18 x 3/4 Socket Head Screw	4
10	H	028	1/2-13 x 2" Gr. 5 Hex Bolt	2
11	H	032	3/8-16 x 1-1/2" Gr. 8 Hex Bolt Full Thread	2
12	H	1183	3/8-16 Smooth Flg Nut	2
13	44P	FLX-001	Cross Bar	1
14	H	1026	1/2-13 Serrated Flange Nut	2
15	44H	FLX-035	5/16-18 X 3/4 carriage bolt	2
16	44A	FLX-1002	Drive Shaft & Housing Assy. - See Pg 13; Fig 2	1
17	H	1013	5/16-18 Split Lockwasher	4
18	21P	FLX-048	22-Tooth Timing Pulley	1
		FLX-048	Revision "B" Will NOT require #'s 20 & 39	
19	44P	FLX-103	STS Timing Belt (760 mm)	1
20	21P	FLX-045	22 Tooth Pulley Outer Flange	1
21	H	FLX-057	12 mm Nylon Locknut	1
22	44P	FLX-010	Belt Cover	1
23	H	1019	5/16 USS Flatwasher	1
24	H	029	Wing Nut 3/8-16	1
25	H	1147	5/16-18 Serrated Flange Nut	2
26	H	31	1/4-20 x 1-1/2" Socket Head Screw	2
27	44P	FLX-102	Cross Bar Spacer	1
28	H	2016	1/4-20 X 1-3/8" S.H.C.S. Ground to 1-5/16" Long	1
29	H	6110	1/4" Hi-Collar Lock Washer	4
30	25P	TAS8002	Bearing	1
31	44P	FLX-007	Bearing Housing and Spacer	1
32	37P	1032	# 6205 Bearing	1
33	44P	FLX-006	Coupler Shaft	1
34	44P	FLX-047	Reel Drive Key	2
35	H	6106	3/8" Internal Tooth L.W.	1
36	H	2502	3/8-24 x 1-3/4" Gr. Five Hex Bolt	1

TRUE-SURFACE® TREKKER™ GCC

Frame Mounting Hardware to Fit the Toro Flex 2100 Continued

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
37	33P	NV-0005	1-7/16" Internal Snap Ring	1
38	37P	1014	Shaft Snap Ring	1
39	44H	FLX-046	22-Pulley Inner Flange	1
40	44H	FLX-064	30-Tooth Pulley Inner Flange	1
41	44P	FLX-063	30-Tooth Pulley (Revision A)	1
42	44H	FLX-065	30-Tooth Pulley Outer Flange	1
43	44P	FLX-063	Revision "B" Will NOT require #'s 40 & 42	1
44	44A	FLX-3000	Transport Hub Kit - See Page 13	1
45	44P	FLX-005	Belt Housing	1
46	N/A	N/A	Flex 2100 Traction Unit	1
47	H	V8001	5/16 Hi-Collar Lock Washer	2
48	44P	FLX-107	Clipping Basket Lock Bar	2
49	H	26	1/4"-20 x 1-3/4" Socket Head Cap Screw	1

True-Surface® Trekker™ Greens Care Collection Frame

Toro Flex 21 & 2100 Mounting Instructions – For Flex 21 Models refer to the schematic on page 34 and parts listing on page 35. For Flex 2100 Models refer to the schematic on page 36 and the parts listing on pages 37 & 38.

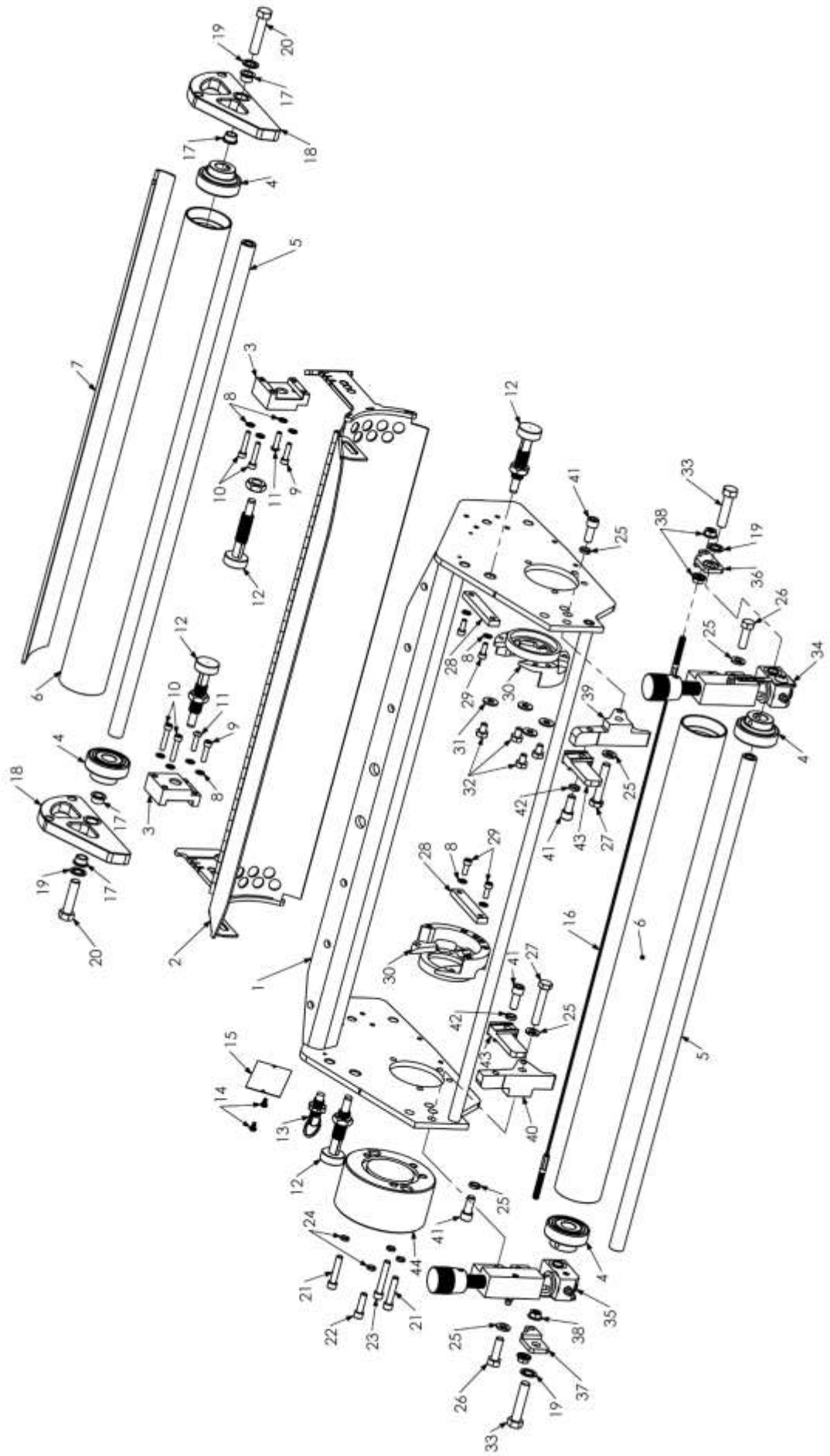
1. Unpack and locate the crossbar/basket bracket assembly (items 2-14).
2. Remove the two ½" flange nuts (item 14).
3. Set the crossbar/basket bracket assembly on the Greens Care Collection (GCC) frame and pass the bolts through the cross member.
4. Replace the ½" flange nuts and tighten.
5. Remove the bolts (items 26, 28, & 36) from the drive side of the GCC frame. The housing (item 31) with the shaft and bearings will be between the GCC frame and the belt housing (item 17).
6. Replace the bolts (items 26, 28, & 36) in the same location from which they were removed. Necessary holes in the belt housing are clearly marked. You will need to hold the housing (item 31) while holding the inner bearing housing of the GCC frame and the belt housing (item 17) to install the bolts.
7. Remove the housing cover (item 22) and its inner components. Align the housing to the side of the frame.
8. Leave the bolts (items 26, 28, & 36) loose and slide the parking stand into the park position. With the bushings inserted between the GCC frame and the belt housing (item 17), replace the bolt and the lock washer into the axle. Now, tighten all five bolts (items 26, 28, & 36).
9. Insert the Drive Key (item 34) into the coupler shaft (item 33).
10. Slide in order: the inner flange (item 39), the 22-tooth pulley (item 18), and the outer flange (item 20) onto the coupler shaft (item 33). Install the nut (item 21) and tighten.

11. Remove the same components (items 18, 20, 21, 39, and 34) from the drive assembly (item 16). The drive assembly schematic breakdown can be found in Figure 2 on page 13.
12. Remove the nuts (item 25) from the mounting bolts (item 15), affix to the back side of the belt housing (item 17). The upper mount bolt goes through the small hole and the lower bolt in the slot. Replace the nuts (item 25) and retighten using your hand.
13. Replace items 34, 39, 18, 20, & 21 to the coupler shaft and retighten.
14. Install the belt, set the tension, and tighten.
15. Determine whether your mower requires the 5/8" hexagon shaft or the 3/4" hexagon shaft. Install the round end into the flex coupler (item 16 in Figure 2 on page 13) and secure it with the roll pin.
16. Install the belt cover (item 22).
17. Remove the bolts from the machine cutting reel mounts.
18. Note: An assistant is required. Slide the cutting reel away from the traction unit – primarily sideways to avoid over-bending the shaft couplers; the hex drive shaft will slide apart. **Traction unit will be unstable and you will need an assistant to change out the cutting reel to the GCC.**
19. Slide the GCC under the traction unit. First, align the hex shaft, then insert the lift arm (item 4) into the sway bar of the mower. Replace the bolts (item 11) and tighten.
20. To fit the baskets, set the Depth of Cut Adjusters to the "Vacu-Cutter" setting on the Depth Gauge – this is our ZERO setting. Lay a 1 ½ - 2" thick block in front of the front roller.
21. Insert the basket into the pockets (item 8).
22. Loosen the bolts (item 7), adjust the pockets (item 8) so that they will hold the basket in this "set-up" position and tighten.

True-Surface® Trekker™ Greens Care Collection

GCC Exploded View -

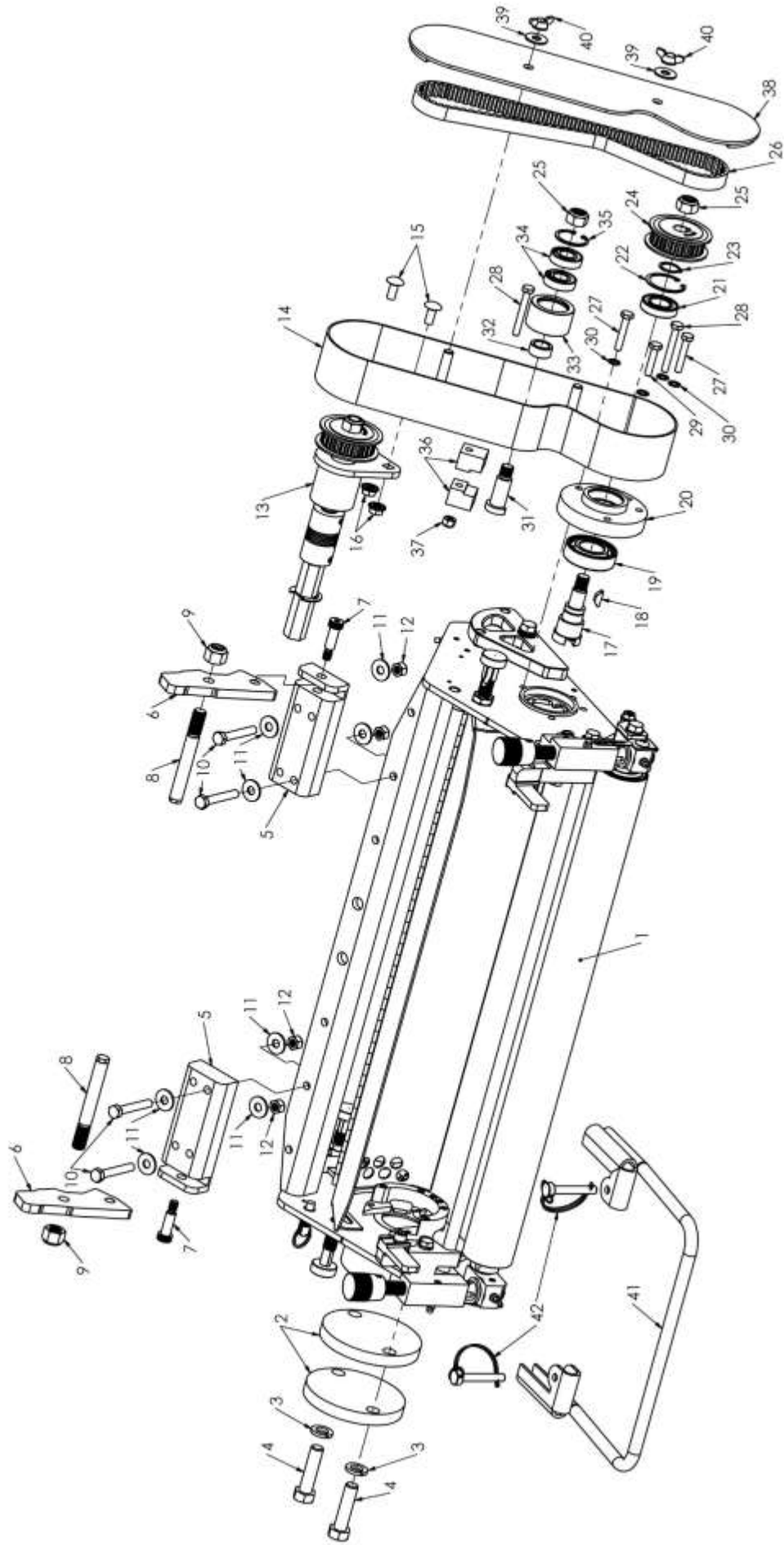
Toro Flex 1021



Toro Flex 1021 GCC Base Frame Parts List

Item No.	Dept. No.	Part No.	Description	QTY
1	21A	GCC-FRAMEASSEM	GCC Basic Frame	1
2	21A	GCC-08	Insert Guard Hood Assembly	1
3	21P	GCC-12	Hood Rail Mounting Block	2
4	21P	GCC-09 B3R	Front and Rear Roller Bearing - 3 Lip Seal	4
5	21P	GCC-221 Toro/JD	Roller Axle to Fit Toro or John Deere	2
6	21P	GCC-222	Front/Rear Roller Tube	2
7	21P	GCC-223F	Formed Rear Scraper	1
8	H	17	#10 Internal Tooth Lock Washer	12
9	H	16	#10-32 x 3/4" SS SHCS	2
10	H	24	#10-32 x 1" SS SHCS	4
11	H	32	#10-32 x 3/4" Botton Head Screw	2
12	21A	GCC-400	Spring Plunger with Nut (Includes H-1033)	4
13	21A	GCC-233	Hood Lock Plunger (Includes H-27)	1
14	H	30	#7 x 1/4" Drive Screw	2
15	21S	SERIAL TAG	Serial Number Tag	1
16	21P	GCC-523	Cable Scraper	1
17	21P	GCC-13	Parking Stand Flanged Bushing	4
18	21P	GCC-13C	Parking Stand	2
19	H	6106	3/8" Internal Tooth Lock Washer	4
20	H	21	3/8"-24 x 1-1/2" Hex Bolt	2
21	H	19	1/4"-20 x 1-1/4" SHCS	2
22	H	20	1/4"-20 x 7/8" SHCS	1
23	H	31	1/4"-20 x 1-1/2" SHCS	1
24	H	6110	1/4" Hi-Collar Lock Washer	4
25	H	1013	5/16" Split Lock Washer	6
26	H	1022	5/16"-24 x 1" Hex Bolt	2
27	H	28	5/16"-24 x 1-3/4" Hex Bolt	2
28	21P	GCC-114	Hood Support	2
29	H	8005	#10-32 x 1/2" SS SHCS	4
30	21P	GCC-03	Inner Bearing Housing	2
31	H	18	1/4"-12 x 3/8" Hex Bolt	4
32	H	51	1/4" SAE Flat Washer	4
33	H	2502	3/8"-24 x 1-3/4" Hex Bolt	2
34	21A	GCC-ADJ TF/FW 1L	Depth Adjuster Assembly - Left	1
35	21A	GCC-ADJ TF/FW 1R	Depth Adjuster Assembly - Right	1
36	21P	GCC-ADJ-27L-CB	Counterbored Cable Scraper Mount - Left	1
37	21P	GCC-ADJ-27R-CB	Counterbored Cable Scraper Mount - Right	1
38	H	37	1/4"-20 Serrated Flange Nut	4
39	44P	FLX-221L	Flex 1021 Basket Stop - Left	1
40	44P	FLX-221R	Flex 1021 Bakset Stop - Right	1
41	H	V8000	5/16"-18 x 3/4" SHCS	4
42	H	V8001	5/16" Hi-Collar Lock Washer	2
43	44P	FLX-107	Clipping Basket Lock Bar	2
44	21P	GCC-285	5 lb. Counterweight	1

True-Surface® Trekker™ Greens Care Collection
GCC Frame Mounting Hardware -
Toro Flex 1021



GCC - Toro Flex 1021 Parts List

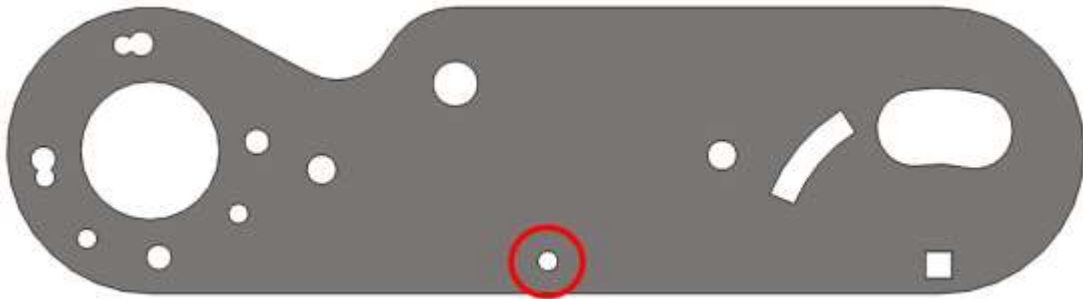
Item No.	Dept. No.	Part No.	Description	QTY
1	N/A	GCC-Frame Assembly	Flex 21, 2100, & 1021 Base Frame Assembly	1
2	21P	GCC-CW	1.75 lb Stackable Counterweight	2
3	H	0014	1/2" Split Lock Washer	2
4	H	5007	1/2"-13 x 2" Hex Bolt	2
5	44P	FLX-207	Lift Arm Base	2
6	44P	FLX-208	Flex 1021 Lift Arm	2
7	H	22	3/8" x 1" x 5/16"-18 Shoulder Bolt	2
8	44P	FLX-209	Lift Arm Pin	2
9	H	1073	1/2"-13 Nylon Lock Nut	2
10	H	2503	5/16"-18 x 2" Hex Bolt	4
11	H	1008	1/4" USS Flat Washer	8
12	H	3179	5/16"-18 Nylon Lock Nut	4
13	44A	FLX-1003	Flex 1021 Drive Kit - See page 13; Figure 2	1
14	44P	FLX-202	Belt Housing Assembly	1
15	44H	FLX-035	5/16"-18 x 3/4" Short Neck Carriage Bolt	2
16	H	1147	5/16"-18 Serrated Flange Nut	2
17	44P	FLX-006	Coupler Shaft	1
18	44P	FLX-047	Reel Drive Key	1
19	37P	1032	Cutter Shaft Bearing	1
20	44P	FLX-007	Belt Housing Spacer & Bearing Housing	1
21	29P	TAS8002	Coupler Shaft Bearing	1
22	33P	NV0005	1-7/16" Internal Snap Ring	1
23	37P	1014	Shaft Snap Ring	1
24	44P	FLX-048	22 Tooth Pulley	1
25	H	057	12mm x 1.75 Nylon Lock Nut	2
26	44P	FLX-216	Timing Belt	1
27	H	1179	1/4"-20 x 1-1/2" Hex Bolt	2
28	H	0016	1/4"-20 x 2" Hex Bolt	2
29	H	1178	1/4"-20 x 1-1/4" Hex Bolt	1
30	H	1007	1/4" Split Lock Washer	4
31	44P	FLX-206	Idler Pulley Shaft	1
32	44P	FLX-211	Idler Pulley Spacer	1
33	44P	FLX-205	Idler Pulley	1
34	44P	FLX-053	Idler Bearing	2
35	44P	FLX-056	1-1/4" Internal Snap Ring	1
36	44P	SHB-09A	Belt Housing Stabilizer	2
37	H	1153	1/4"-20 Nylon Lock Nut	1
38	44P	FLX-204	Belt Housing Cover	1
39	H	1019	5/16" USS Flat Washer	2
40	H	029	3/8"-16 Wing Nut	2
41	44P	FLX-215	Flex 1021 Basket Hanger Extension	1
42	H	66	5/16" Wire Loop Pin	2

Toro Flex 1021 GCC Mounting Instructions

Item Numbers referenced in the below installation instructions refer to the “GCC Frame Mounting Hardware – Toro Flex 1021” Schematic, unless otherwise indicated.

Please note that during setup, you will need assistance to support the traction unit securely once the cutting units have been removed.

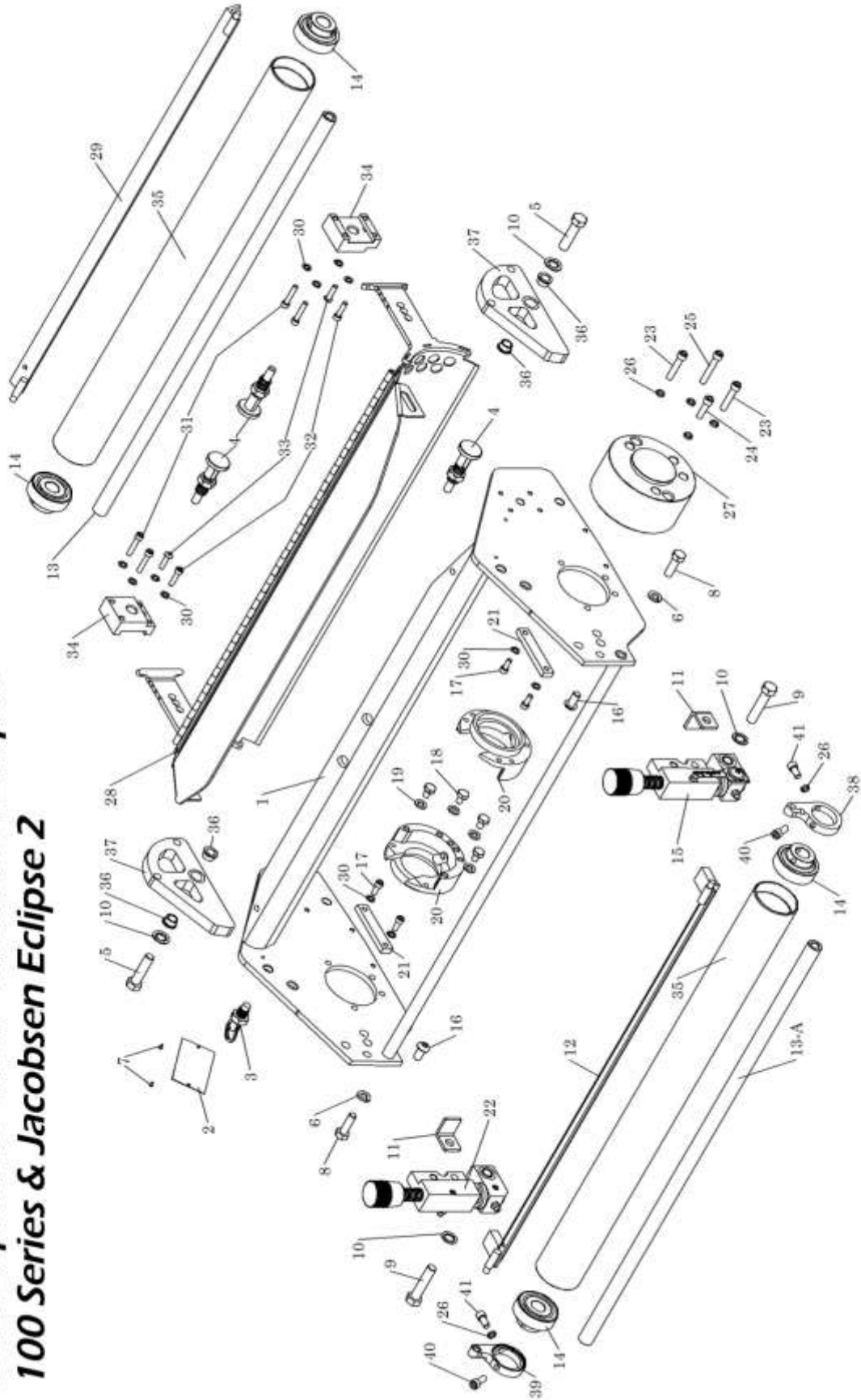
1. Unpack the components and familiarize yourself with the pieces and subassemblies.
2. Locate both lift arm assemblies (Items 5-12) and remove the loosely attached 5/16”-18 nylon lock nuts and corresponding washers.
3. While referencing the schematic and noting the orientation and position of the Flex 1021 Lift Arms (Item 6), place the assemblies on the frame cross bar, passing the 5/16”-18 x 2” hex bolts through the two outer most holes on both ends of the cross bar.
4. Fasten the assemblies in place with the nylon lock nuts and washers previously removed in Step 2.
5. Next, remove the 12mm x 1.75 Nylon Lock Nut (Item 25), the 22 Tooth Pulley (Item 24), and the Reel Drive Key (Item 18) from the GCC Unit.
6. Locate the Belt Housing (Item 14). Remove the Cover (Item 38) and loose components contained within the housing.
7. The four bolts marked with blue heads and associated washers can now be removed. Please note the location from which each bolt is removed as they will have to be reinstalled back into their original positions.
8. Align the blue holes of the Belt Housing up to the Belt Housing Spacer (Item 20) and loosely reinstall the bolts and washers removed in the previous step. The belt housing will only align with all four holes in one orientation.
9. Locate the Belt Housing Stabilizer Blocks (Item 36) and corresponding hardware. Remove the ¼”-20 x 2” hex bolt and feed it through the hole noted below.



10. Noting the orientation of the Stabilizer Blocks on the schematic, loosely install them on the ¼”-20 x 2” hex bolt followed by the ¼”-20 nylon lock nut (Item 37). Align both blocks so that they “grab” the vertical side plate of the GCC Frame.
11. With the Stabilizer Blocks positioned correctly, tighten the four bolts loosely installed in Step 8, then tighten the Stabilizer Blocks into place.
12. The components removed in Step 5, can now be reinstalled and fully secured to the Coupler Shaft (Item 17).
13. Next, locate the Flex 1021 Drive Kit (Item 13) subassembly. Remove the two Short Neck Carriage Bolts (Item 15) and corresponding Serrated Flange Nuts (Item 16).

14. Remove the 12mm x 1.75 nylon lock nut, the 22 Tooth Pulley, and the Drive Key from the Drive Kit subassembly.
15. With the pulley removed from the drive shaft, it can now be fed through the large slot on the back of the belt housing and loosely fastened with the hardware removed in the previous step. One carriage bolt will be installed into the square hole of the belt housing, the other will be installed into the remaining slot. Note that the Drive Kit subassembly should still be able to freely slide within the slots of the belt housing at this point.
16. Reinstall the components removed in Step 14 and fasten to the shaft using the 12mm nylon lock nut.
17. Locate and install the Timing Belt (Item 26), set the tension, and tighten using the two 5/16"-18 serrated flange nuts (Item 16). The flat side of the timing belt will be in contact with the Idler Pulley (Item 33). Tension can be set using a standard 3/8" drive socket and the center square hole of the Bearing Housing (Item 4 on the Flex 1021 Drive Shaft & Housing Assembly Schematic).
18. Reinstall the Belt Housing Cover (Item 38) and secure into place using the two 3/8"-16 wing nuts and corresponding washers.
19. With the help of an assistant, remove the cutting unit from the Flex 1021 Traction Unit referencing the Toro Flex 1021 Operator's Manual. The True-Surface GCC Unit will install directly in place of the cutting reel. Clamp the unit in place and reattach the hex drive coupler.
20. Locate the Basket Hanger Extension (Item 41) and remove two Wire Loop Pins (Item 42).
21. Slide the Basket Extension over Toro's and secure into place using the two Wire Loop Pins removed in the previous step. Reference the schematic for proper orientation.
22. Note that the Basket Extension will need to be removed when switching GCC Inserts.

**True-Surface® Trekker™ Greens Care Collection
GCC Exploded View - Jacobsen Eclipse
100 Series & Jacobsen Eclipse 2**

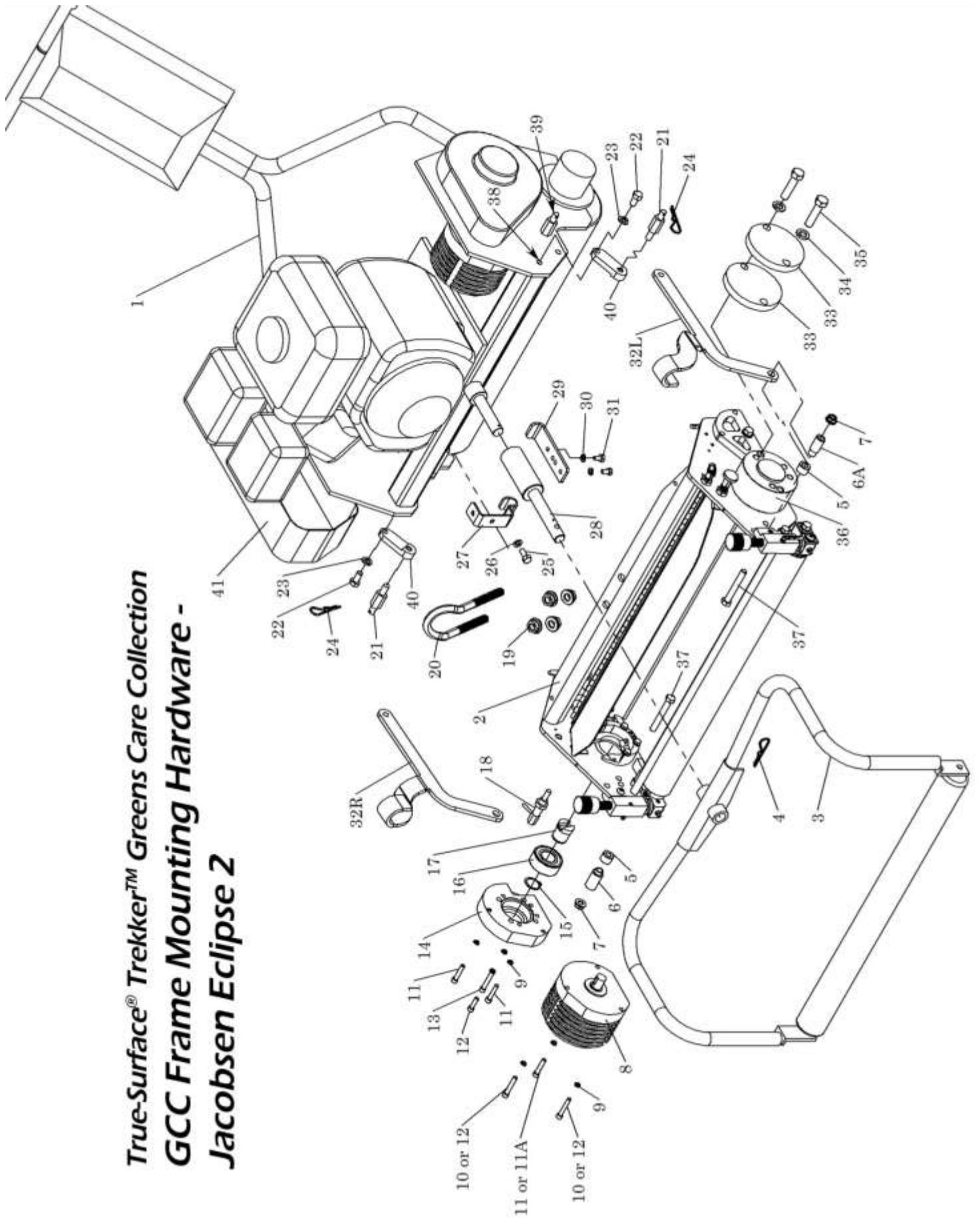


TRUE-SURFACE® TREKKER™ GCC

Exploded View to Fit the Jacobsen Eclipse 100 Series & Eclipse 2

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	21P	GCC-Frame	GCC Basic Frame	1
2	21S	Serial Tag	Serial Number Tag	1
3	21A	GCC-233	Hood Lock Plunger (Includes nut)	1
4	21A	GCC-400 asm	Spring Plunger with 1/2-13 Jam Nut	3
5	H	21	3/8-24 x 1-1/2" Gr. 5 Hex Bolt	2
6	H	1013	5/16 Split Lockwasher	2
7	H	30	# 7 drive screw	2
8	H	1022	5/16-24 x 1" Gr. 5 Hex Bolt	2
9	H	28	5/16-24 x 1-3/4" Gr. 5 Hex Bolt	2
10	H	6106	3/8" Internal Tooth Lockwasher	4
11	21P	GCC-ADJ-3414	Axle Rotation Stop	2
12	21P	GCC-226	Front Scraper	1
13	21P	GCC-221 TORO/JD	Roller Axle For Toro & JD	1
13A	21P	GCC-221 JAC/RAN	Roller Axle For Jacobsen	1
14	21P	GCC-09-B3R	Roller Bearing Triple Seal	4
15	21A	GCC-ADJ-Jac/Ran L	Depth Adjuster Left Side (page 54)	1
16	H	GCC-ADJ-12	5/16-24 x 5/8" Button Head Screw	2
17	H	8005	10-32 x 1/2" Socket Head Cap Screw	4
18	H	18	1/4-20 x 3/8" Gr. 5 Hex Bolt	4
19	H	51	1/4" SAE Flatwasher	4
20	21P	GCC-03	Inner Bearing Housing	2
21	21P	GCC-114	Hood Support	2
22	21A	GCC-ADJ-Jac/Ran R	Depth Adjuster Right Side (page 54)	1
23	H	19	1/4-20 x 1-1/4" Socket Head Screw	2
24	H	20	1/4-20 x 7/8" Socket Head Screw	1
25	H	31	1/4-20 x 1-1/2" Socket Head Screw	1
26	H	6110	1/4" Hi-Collar Lockwasher	6
27	21P	GCC-285	5 Lb. Counterweight	1
28	21A	GCC-08	Insert Hood Assembly	1
29	21A	GCC-223 Assem	Rear Scraper	1
30	H	17	# 10 Internal Tooth Lockwasher	12
31	H	24	10-32 x 1" S.S. Socket Head Cap Screw	4
32	H	16	10-32 x 3/4" S.S. Socket Head Cap Screw	2
33	H	32	10-32 x 3/4" Button Head Cap Screw	2
34	21P	GCC-12	Hood Rail Mounting Block	2
35	21P	GCC-222	Front / Rear roller Tube	2
36	21P	GCC-13	Parking Stand Flanged Bushing	4
37	21P	GCC-13C	Parking Stand	2
38	21P	GCC-220.375 L	Front Scraper Mount Left Side	1
39	21P	GCC-220.375 R	Front Scraper Mount Right Side	1
40	H	067	1/4-28 x 5/8" Socket Head Cap Screw	2
41	H	041	1/4-28 x 1/2" Socket Head cap Screw	2

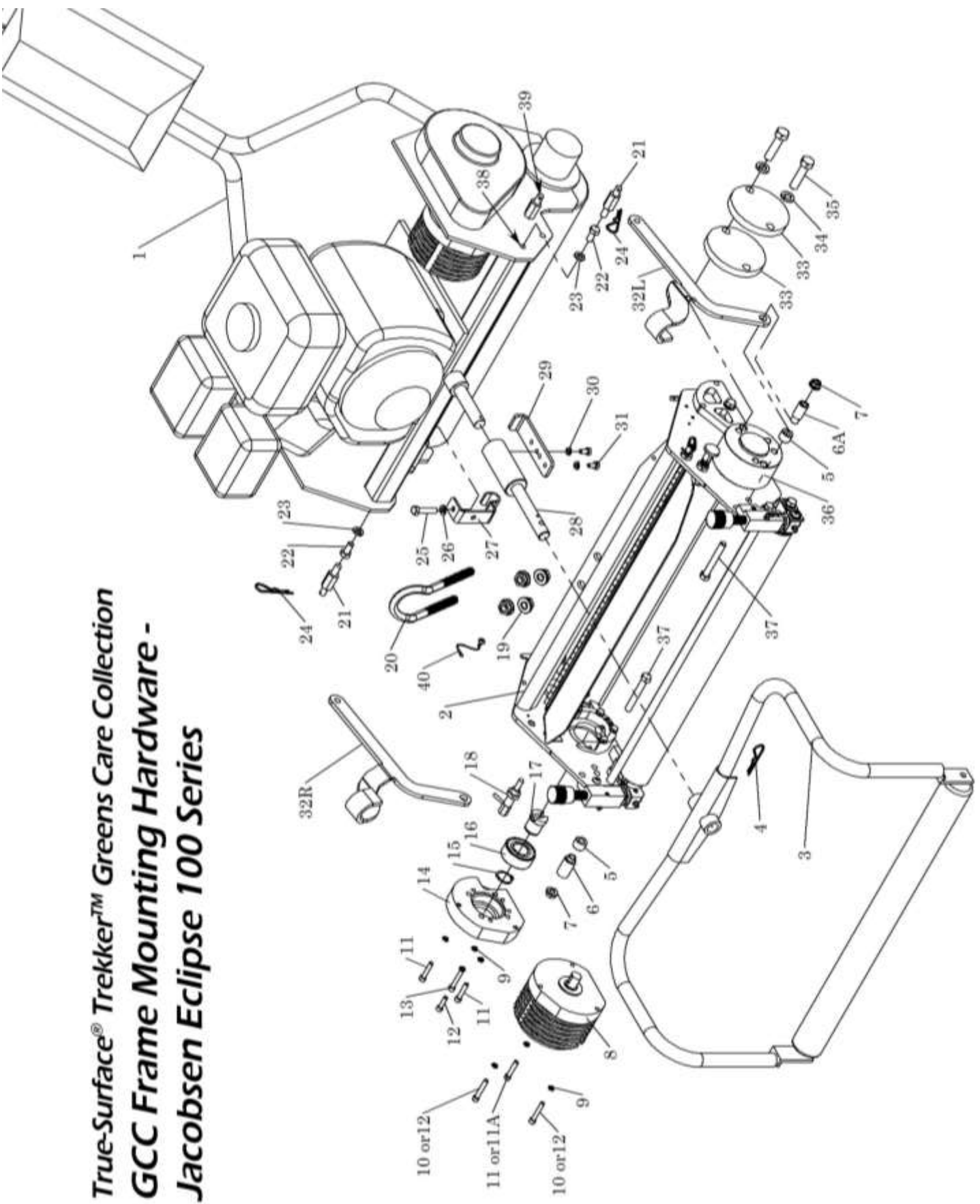
True-Surface® Trekker™ Greens Care Collection
GCC Frame Mounting Hardware -
Jacobsen Eclipse 2



TRUE-SURFACE® TREKKER™ GCC
Frame Mounting Hardware to Fit the Jacobsen Eclipse 2

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	N/A	N/A	Eclipse #2 Series 122F Traction Unit	1
2	N/A	N/A	GCC Basic Frame (See Page 40)	1
3	N/A	N/A	Jacobsen Basket Carrier Frame	1
4	N/A	N/A	Jacobsen Retaining pin	1
5	21P	GCC-217	Lift Bushing Standoff	2
6	21P	GCC-216 E322	Lift Bushing Motor Side	1
6A	21P	GCC-216	Lift Bushing	1
7	H	1183	3/8-16 Smooth Flange Nut	2
8	N/A	N/A	Electric Reel Drive Motor (Jacobsen)	1
9	H	6110	1/4" Hi-Collar Lock Washer	7
10	H	2016	1/4-20 x 1-3/8" Socket Head Cap Screw	2
11	H	19	1/4-20 x 1-1/4" Socket Head Cap Screw	3
11A	H	1505	1/4-20 x 3/4" Socket Head Cap Screw	1
12	H	20	1/4-20 x 7/8" Socket Head Cap Screw	3
13	H	31	1/4-20 x 1-1/2" Socket Head Cap Screw	1
14	21P	GCC-02-E322	Motor Mounting Flange	1
15	37P	1029	Extrenal Snap Ring (63/64")	1
16	21P	GCC-111	Drive Coupler Bearing	1
17	21P	GCC-06-E322	Female Keyed Coupler	1
18	21A	GCC-400-90	Spring Plunger 90 Degree w/Nut (H-1103)	1
19	H	1026	1/2-13 Serrated Flange Nut	4
20	37P	7090 BENT	Toro Lift Hook (Bent)	1
21	44P	ECL-04	GCC Attachment Arm Mounting Stud	2
22	H	1100	GR.5 Hex Bolt 3/8-16 x 1"	2
23	H	1010	3/8" Split Lockwasher	2
24	H	0021	Hairpin Cotter	2
25	H	1001	5/16-18 x 3/4" Gr. 5 Hex Bolt	1
26	H	1013	5/16 Split Lockwasher	1
27	44P	ECL-03	Stabilizer Hanger (REV A)	1
28	44P	ECL-01	Basket Yoke Extension Pin	1
29	44P	ECL-02	Extension Pin Retaining Bracket (REV A)	1
30	H	1007	1/4" Split Lockwasher	2
31	H	1579	1/4-20 x 1/2" Gr. 5 Hex Bolt	2
32	32L	N/A	Jacobsen Attachment Arm - Left Side	1
32	32R	N/A	Jacobsen Attachemnt Arm - Right Side	1
33	21P	GCC-CW	Stackable Counterweight	2
34	H	0014	1/2" Split Lockwasher	2
35	H	5007	1/2-13 x 2" Gr. Hex Bolt	1
36	21P	GCC-285	5 lb. Counterweight	1
37	H	286	3/8-16 x 2-3/4 Gr. 5 hex Bolt	2
38	N/A	N/A	Hole into frame. ADD # 40 UNDER BOLT	2
39	N/A	N/A	Jacobsen Forward arm mount	2
40	44P	ECL-12	Arm Mount Extension	2
41	N/A	N/A	Jacobsen Electronic Housing	1

**True-Surface® Trekker™ Greens Care Collection
GCC Frame Mounting Hardware -
Jacobsen Eclipse 100 Series**



TRUE-SURFACE® TREKKER™ GCC
Frame Mounting Hardware to Fit the Jacobsen Eclipse 100 Series

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	N/A	N/A	Eclipse 100 Series 122F Traction Unit	1
2	N/A	N/A	GCC Basic Frame (See Page 40)	1
3	N/A	N/A	Jacobsen Basket Carrier Frame	1
4	N/A	N/A	Jacobsen Retaining pin	1
5	21P	GCC-217	Lift Bushing Standoff	2
6	21P	GCC-216 E322	Lift Bushing - Motor Side	1
6A	21P	GCC-216	Lift Bushing	1
7	H	1183	3/8-16 Smooth Flange Nut	2
8	N/A	N/A	Electric Reel Drive Motor (Jacobsen)	1
9	H	6110	1/4" Hi-Collar Lock Washer	7
10	H	2016	1/4-20 x 1-3/8" Socket Head Cap Screw Used for 0.800 Thick Motor Flange	2
11	H	19	1/4-20 x 1-1/4" Socket Head Cap Screw. 1 Used For 0.800" Thick Motor Flange	3
11A	H	1505	1/4-20 x 3/4" Socket Head Cap Screw Used for Narrow 0.250 Thick Motor Flange	1
12	H	20	1/4-20 x 7/8" Socket Head Cap Screw. 2 Used for Narrow 0.250" Thick Flange	3
13	H	31	1/4-20 x 1-1/2" Socket Head Cap Screw	1
14	21P	GCC-02-E322	Motor Mounting Flange	1
15	37P	1029	Extrenal Snap Ring (63/64")	1
16	21P	GCC-111	Drive Coupler Bearing	1
17	21P	GCC-06-E322	Female Keyed Coupler	1
18	21A	GCC-400-90	Spring Plunger 90 Degree w/Nut (H-1103)	1
19	H	1026	1/2-13 Serrated Flange Nut	4
20	37P	7090 BENT	Toro Lift Hook (Bent)	1
21	44P	ECL-04	GCC Attachment Arm Mounting Stud	2
22	N/A	N/A	Factory 3/8 bolt: remove to install # 21	2
23	H	1010	3/8" Split Lockwasher	2
24	H	0021	Hairpin Cotter	2
25	H	29	5/16-24 x 1-1/2" Gr. 5 Hex Bolt	1
26	H	1013	5/16 Split Lockwasher	1
27	44P	ECL-03	Stabilizer Hanger	1
28	44P	ECL-01	Basket Yoke Extension Pin	1
29	44P	ECL-02	Extension Pin Retaining Bracket	1
30	H	1007	1/4" Split Lockwasher	2
31	H	1579	1/4-20 x 1/2" Gr. 5 Hex Bolt	2
32	32L	N/A	Jacobsen Attachment Arm - Left Side	1
32	32R	N/A	Jacobsen Attachemnt Arm - Right Side	1
33	21P	GCC-CW	Stackable Counterweight	2
34	H	0014	1/2" Split Lockwasher	2
35	H	5007	1/2-13 x 2" Gr. Hex Bolt	1

**TRUE-SURFACE® TREKKER™ GCC
Frame Mounting Hardware to Fit the
Jacobsen Eclipse 100 Series Continued**

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
36	21P	GCC-285	5 lb. Counterweight	1
37	H	286	3/8-16 x 2-3/4 Gr. 5 hex Bolt	2
38	N/A	N/A	Hole into frame. Remove # 22 & Install # 21	2
39	N/A	N/A	Jacobsen Forward arm mount	2
40	44P	ECL-15G	Grounding Wire	1

True-Surface® Trekker™ Greens Care Collection Frame

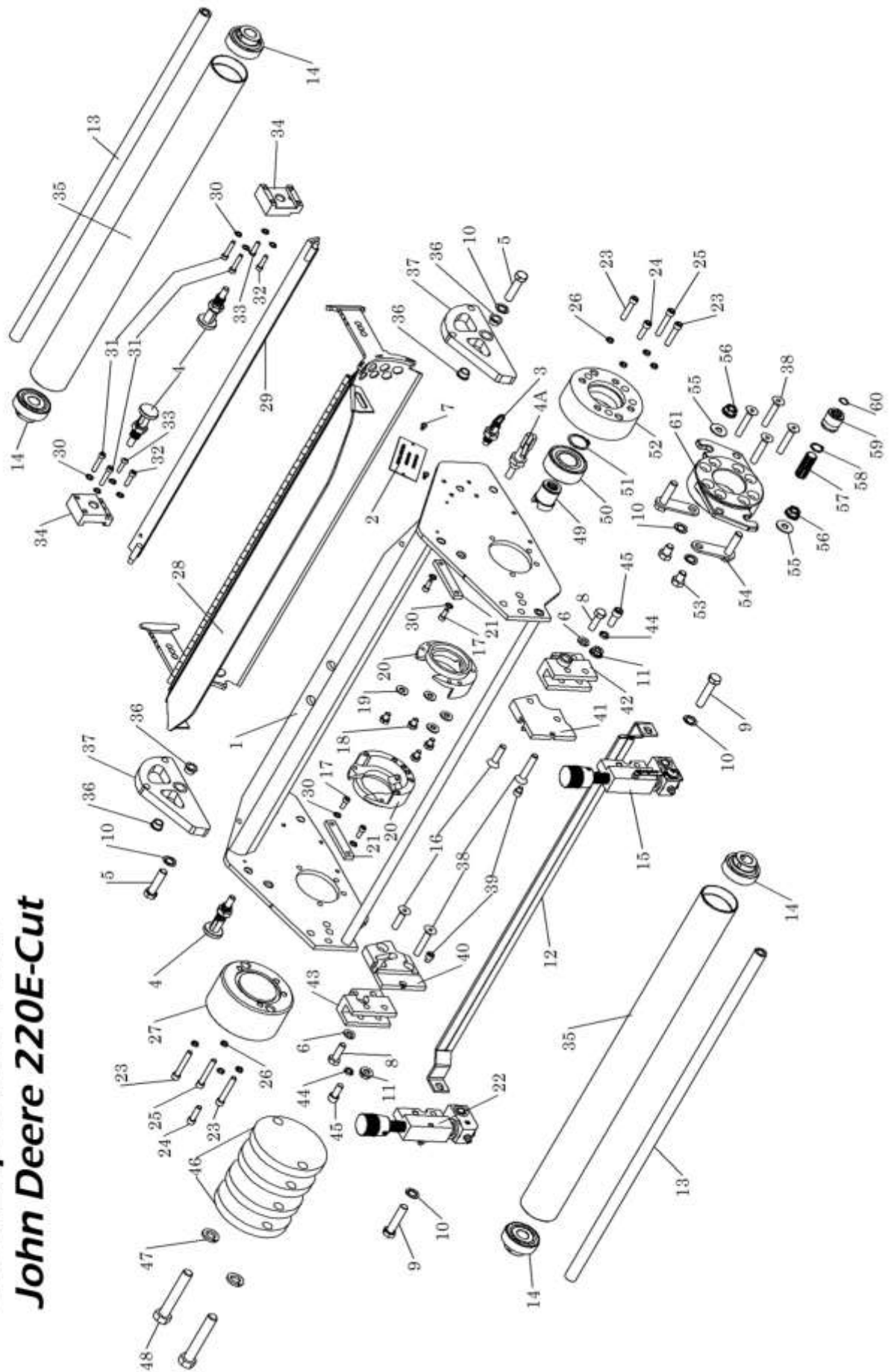
Jacobsen Eclipse 100 Series and Eclipse 2 Mounting Instructions – For the Jacobsen Eclipse 2 refer to the schematic on page 46 and the parts listing on page 47. For the Jacobsen Eclipse 100 Series refer to the schematic on page 50 and the parts listing on pages 51 & 52.

Please note that during set up, you will need an assistant to support your traction unit securely, once you have removed the cutting reels.

1. Remove the drive motor from the reel frame. (Disconnect the ground wire for the Jacobsen 100 series only)
2. Remove the hairpin cotter from the mounting pins (item 39) that connect the forward arms (Item 32L & Item 32R) to the frame, and the main forward shaft in the center.
3. Remove the hairpin from stabilizing arm on reel and remove the arm from the reel.
4. Slide the entire assembly (reel, arms and basket frame) forward.
5. Remove the forward arms from the cutting reel by removing the shoulder screw from each side of the frame. Replace the screws into reel frame for safe keeping.
6. Attach the forward arms (Items 32L & 32R) to the sides of the GCC frame into the hole furthest from the Depth of Cut Adjuster. Place the spacer (Item 5) between the arm and the GCC frame. Keep the lift bushings (Items 6 & 6A) on the sides shown with the narrow portion into the arms with the bolt (item 37) passing through them. Attach the nut (Item 7). Be sure to install the basket frame during the above process, as it may be difficult to install after arms are secured.
7. Item 38 refers to hole located on both the Eclipse 100 Series and Eclipse 2 traction unit.
 - a. For the Eclipse 2 unit remove the factory bolt to add the arm mount extension (Item 40). Reinstall the factory bolt. Install the GCC attachment arm mounting stud (Item 21) into the extension (Item 40) with the pin end facing out. *Note: There is a ledge on the extension (Item 40) that will align with the edge of the traction unit side plate to keep it from rotating out of position.*
 - b. For the Eclipse 100 Series, remove the 3/8 bolt that came installed on the traction unit and replace it with the GCC attachment arm mounting stud (Item 21).

8. Install the stabilizer hanger (Item 27) to the front of the GCC Frame.
 - a. For the Eclipse 2 units, there is a tapped hole in the forward face of the frame that bolt # 25 from Eclipse 2 schematic is used to bolt this in place. Stabilizer is then lifted and left to rest in the hook area.
 - b. For the Eclipse 100 series, Remove the forward bolt that secures the engine plate to the frame and fit the top hole of the stabilizer hanger (Item 27) in this position. Insert the longer replacement bolt (Item 25) and tighten.
9. Attach the extension pin (Item 28) by sliding it over the current pin with the flat portion down fully onto the factory shaft. Attach the retaining bracket (Item 29) to bottom of the extension pin. There are two sets of holes on the retaining bracket (Item 29):
 - a. For the Eclipse 2 units, the bracket (Item 29) will only reach to back of the plate that the factory pin is welded to.
 - b. For the Eclipse 100 series units attach the bracket so that it can reach behind the square tube frame on the traction unit.
10. Attach the lift hook (Item 20) to the GCC frame with the flange nuts (Item 19) above and below the frame. The length of hook can be adjusted to best suit the engagement needs when lifting unit from the turf.
11. Slide the GCC frame with the attachment arms, and basket frame onto the traction unit. First slide the basket frame over the extension pin (Item 28), then attach each arm into their new positions, and return hairpins and washers.
12. Align the motor into the drive coupler (Item 17) and secure to the mounting plate (Item 14). **NOTE: Due to the two different motor types, one with an approximate ¼” mounting flange and the other at 0.80” thick, bolts are supplied to accommodate either. For the thicker flange, use the sketch as shown. For the thinner flange, Item # 10 bolts at the motor location will be replaced by two of Item # 12, and # 11 will be replaced by Item # 11A.**
13. Re-attach the ground wire. (100 series only.)
14. Check operation.
15. **NOTE: FOR EFFECTIVE OPERATION OF THE GCC SYSTEM ON THE 100 SERIES OR ECLIPSE II, IT WILL BE NECESSARY TO ENTER THE PROGRAMMING MODE OF THE MACHINE AND TURN “OFF” THE F.O.C. (frequency of cut), AND SET THE MACHINE SO THAT THE REEL RUNS AT LEAST 2,000 R.P.M.. SETTING A MAXIMUM GROUND SPEED MAY BE BENEFICIAL IN SOME CASES ALSO.**

True-Surface® Trekker™ Greens Care Collection
GCC Exploded View -
John Deere 220E-Cut

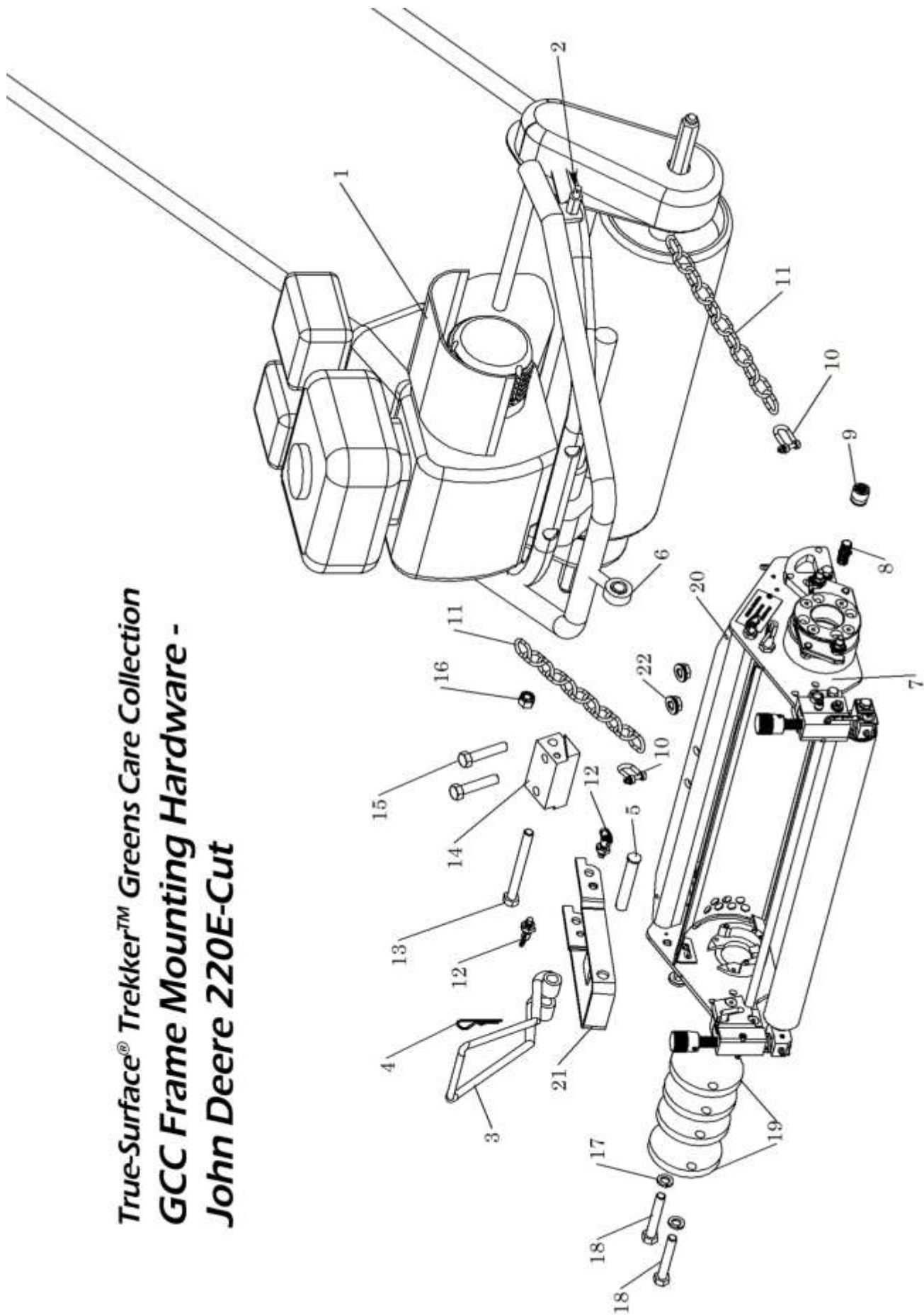


TRUE-SURFACE® TREKKER™ GCC
Exploded View to Fit the John Deere 220E-Cut

ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	21P	GCC-Frame	GCC Basic Frame	1
2	21S	Serial Tag	Serial Number Tag	1
3	21A	GCC-233	Hood Lock Plunger (Includes nut)	1
4	21A	GCC-400 asm	Spring Plunger with 1/2-13 Jam Nut	3
4A	21A	GCC-400-90 asm	Spring Plunger with 1/2-13 Jam Nut 90 degree	1
5	H	21	3/8-24 x 1-1/2" Gr. 5 Hex Bolt	2
6	H	1013	5/16 Split Lockwasher	2
7	H	30	# 7 drive screw	2
8	H	1022	5/16-24 x 1" Gr. 5 Hex Bolt	2
9	H	2502	3/8-24 x 1-3/4" Gr. 5 Hex Bolt	2
10	H	6106	3/8" Internal Tooth Lockwasher	6
11	H	1147	5/16-18 Serrated Flange Nut	2
12	21P	GCC-226	Front Scraper	1
13	21P	GCC-221 TORO/JD	Roller Axle For Toro & JD	2
14	21P	GCC-09-B3R	Roller Bearing Triple Seal	4
15	21A	GCC-ADJ JD/To 1L	Depth Adjuster Left Side (page 54)	1
16	H	5004	5/16-24 x 1-1/4" Flat Head Socket Screw	2
17	H	8005	10-32 x 1/2" Socket Head Cap Screw	4
18	H	18	1/4-20 x 3/8" Gr. 5 Hex Bolt	4
19	H	51	1/4" SAE Flatwasher	4
20	21P	GCC-03	Inner Bearing Housing	2
21	21P	GCC-114	Hood Support	2
22	21A	GCC-ADJ JD/TO 1R	Depth Adjuster Right Side (page 54)	1
23	H	19	1/4-20 x 1-1/4" Socket Head Screw	4
24	H	20	1/4-20 x 7/8" Socket Head Screw	2
25	H	31	1/4-20 x 1-1/2" Socket Head Screw	2
26	H	6110	1/4" Hi-Collar Lockwasher	8
27	21P	GCC-285	5 Lb. Counterweight	1
28	21A	GCC-08	Insert Hood Assembly	1
29	21A	GCC-223 Assem	Rear Scraper	1
30	H	17	# 10 Internal Tooth Lockwasher	12
31	H	24	10-32 x 1" S.S. Socket Head Cap Screw	4
32	H	16	10-32 x 3/4" S.S. Socket Head Cap Screw	2
33	H	32	10-32 x 3/4" Button Head Cap Screw	2
34	21P	GCC-12	Hood Rail Mounting Block	2
35	21P	GCC-222	Front / Rear roller Tube	2
36	21P	GCC-13	Parking Stand Flanged Bushing	4
37	21P	GCC-13C	Parking Stand	2
38	H	1146	5/16-18 x 1-3/4" Flat head Socket Screw	6
39	H	5005	1/4-28 x 1/4" socket head screw	2
40	21P	GCC-113R	QA-5 Basket Mount Right Side	1
41	21P	GCC-113L	QA-5 Basket Mount Left Side	1

JOHN DEERE 220E GCC LIST CONTINUED				
ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
42	21P	GCC-ADJ-06 JD-L	JD Depth Adjuster Mount Left Side	1
43	21P	GCC-ADJ-06 JD-R	JD Depth Adjuster Mount Right Side	1
44	H	V8001	5/16" Hi-Collar Lock Washer	2
45	H	5003	5/16-24 x 3/4" Socket Head Cap Screw	2
46	21P	GCC-CW	Stackable Counterweight	4
47	H	OO14	1/2" Split Lock Washer	2
48	H	5010	1/2-13 x 3" Gr. 5 Hex Bolt	2
49	21P	GCC-06	Female Splined Coupler	1
50	21P	GCC-111	Drive Coupler Bearing	1
51	37P	1029	Snap Ring 63/64" External	1
52	21P	GCC-02W-6	Motor Mopunting Flange	1
53	H	5006	3/8-16 x 1/2" Gr.5 Hex Bolt	2
54	21P	GCC-450	Male Stud Adaptor	2
55	H	1006	3/8" USS Flat Washer	2
56	H	1183	3/8-16 Smooth Flange Nut	2
57	21P	GCC-06JD/Jac5	Male Splined Coupler for JD2500 & GK-5	1
58	21P	GCC-128	9/16" External Snap Ring	1
59	37P	7704	Internal / Female Splined Coupler	1
60	21P	GCC-129	12mm Internal Snap Ring	1
61	37P	7036-3	JD 2500 Motor Mounting Flange	1

True-Surface® Trekker™ Greens Care Collection
GCC Frame Mounting Hardware -
John Deere 220E-Cut



TRUE-SURFACE® TREKKER™ GCC
Frame Mounting Hardware to Fit the John Deere 220E-Cut

ITEM #	DEPT #	PART #	DESCRIPTION	QTY.
1	N/A	N/A	John Deere 220E Traction Unit	1
2	N/A	N/A	Connection Point For Supporting Chains GCC-212	2
3	N/A	N/A	John Deere Basket Connecting Loop	1
4	N/A	N/A	John Deere Cotter Pin	1
5	N/A	N/A	John Deere Connection Pin	1
6	N/A	N/A	John Deere Reel Connection Ball	1
7	44F	TRK-JD220EC-GCC	GCC Frame Assembly For John Deere 220E (page 54)	1
8	21P	GCC-06JD/JAC5	Male Splined Coupler for JD2500 & Jac 5	2
9	37P	7704	Internal Female Splined Coupler	1
10	29P	TAS208	3/16 Chain Clevis/Shackle	2
11	21P	GCC-212	Lifting Chain	2
12	21A	GCC-233	Hood Lock with Nut	2
13	H	6104	1/2-13 x 5" Gr. 5 Hex Bolt	1
14	44P	JD220-003	Hitch Block	1
15	H	5009	1/2-13 x 2-1/2" Gr. 5 Hex Bolt	2
16	H	1073	1/2-13 Nylon Lock Nut	1
17	H	0014	1/2" Split Lockwasher	2
18	H	5010	1/2-13 x 3" Gr. 5 Hex Bolt	2
19	21P	GCC-CW	Stackable Counterweight	2
20	N/A	N/A	Attachment Point in GCC Frame for TAS208	2
21	44P	JD220-001	JD220 GCC Hitch Portion A	1
22	H	1026	1/2-13 Serrated Flange Nut	2

True-Surface® Trekker™ Greens Care Collection Frame

John Deere 220E-Cut Mounting Instructions – Refer to the schematic on page 57 and the parts listing on page 58.

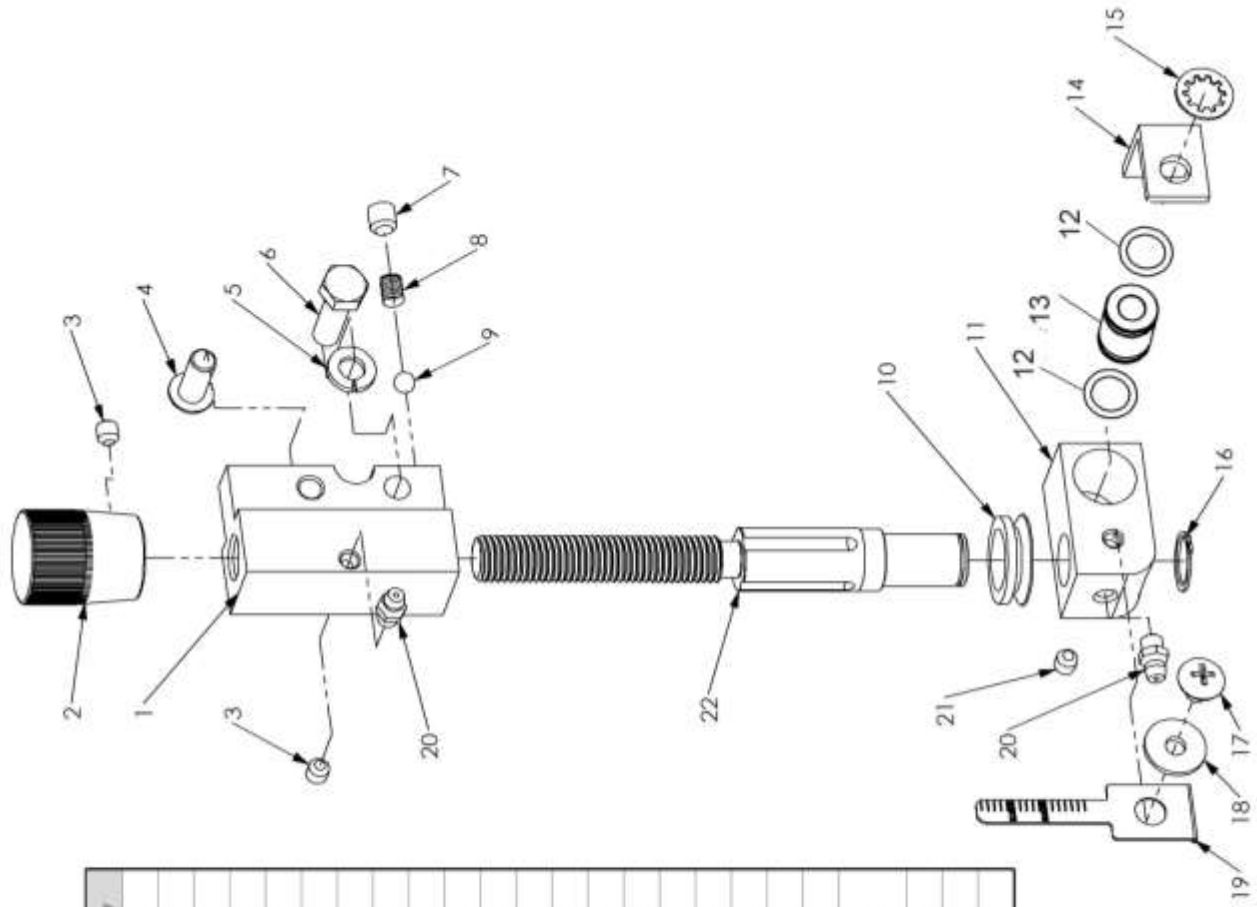
Please note that during set up, you will need an assistant to support your traction unit securely, once you have removed the cutting reels.

1. Prepare the GCC unit for installation by attaching the hitch block (Item# 14) to the top of the frame cross bar with the bolts (Item# 15) and tighten. Make certain that the Hitch Portion A (Item# 22) is facing the front of the GCC frame.
2. Connect the lift chains (Item# 11) to the frame with the clevis (Item# 10). Couplers #8 and #9 can be installed into drive coupler inside motor mounting flange.
3. Set the plungers (Item# 12) so that they engage the Hitch Portion A (Item# 21) with the Hitch Block (Item 14).
4. On the cutting reel, loosen the motor mounting studs, and the remove drive motor. Disconnect the stabilizing chains from the connection points on the traction unit and remove the central connection pin (Item# 5), and the basket attaching loop (Item# 3).
5. Find an assistant to hold the traction unit, while you slide the entire cutting unit away from it.
6. Place GCC frame (Item# 7) in front of traction unit, align the swivel joint into Hitch Portion A (Item# 21) and replace John Deere Basket attaching loop #3 and pin #5 as it was on the cutting unit. Re-install cotter pin #4. Attach chains to connection points on traction unit and replace washers, and cotter pins. Chain slack length will need to be determined, and set. Once this is done it may be advantageous to cut away excess for future installations.
7. Align drive motor splines into coupler #9 slide motor up to flange, rotate into position on mounting studs with washers to the outside of motor, and tighten nuts.
8. Start unit and check operation. In the event that a Frequency of Cut has been programmed into the machine, check your owner's manual for instructions on how to set the reel speed to at least 2,000 rpm. As this speed is crucial to the proper operation of the Greens Care Collection.
9. For installation and removal of the different the cutting inserts: lock the plungers (Item# 12) into the retracted position, remove the stabilizing chains, and tilt the traction unit back to allow the GCC frame to move forward. With the GCC frame forward you have access to open the hood and remove and insert the GCC cutting inserts.

True-Surface® Trekker™ Greens Care Collection

DEPTH OF CUT ADJUSTER

Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-ADJ-06	Mounting Block	1
2	21P	GCC-ADJ-07	Depth Adjuster Knob	1
3	H	GCC-ADJ-15	1/4 - 28 Set Screw	2
4	H	GCC-ADJ-12	5/16 - 24 3/4" Round Head Bolt	1
5	H	1013	5/16 Split Lock Washer	1
6	H	1022	5/16 - 24 x 1 Hex Bolt	1
7	21P	ADJ-14	Set Screw 8mm	1
8	21P	GCC-ADJ-13	Detent Spring	1
9	21P	GCC-ADJ-14	Detent Ball	1
10	21P	GCC-ADJ-16	Adjuster Shaft Seal	1
11	21P	GCC-ADJ-04	Roller Mount Block	1
12	21P	GCC-ADJ-26	GCC Depth Adj. O-Ring	2
13	21P	GCC-ADJ-25	SS Sleeve - John Deere & Toro	1
13	21P	GCC-ADJ-25JAC/R	SS Sleeve - Jacobsen Models	1
14	21P	GCC-ADJ-3414	Axle Rotation Stop	1
15	H	6106	3/8 Int. Tooth Lock Washer	1
16	21P	GCC-ADJ-17	5/8 External Snap Ring	1
17	H	GCC-ADJ-19	Depth Gauge Mount Screw	1
18	H	GCC-ADJ-20	Gauge Mount Washer	1
19	H	GCC-ADJ-08	Depth Gauge	1
19	H	GCC-ADJ-08 JD	Depth Gauge for John Deere 220E-Cut Only	1
20	H	1681	Steel Grease Fitting	2
21	H	6014	Set Screw 1/4-20x1/4	1
22	21P	GCC-ADJ-03	Adjuster Shaft	1



Please Note: The Depth of Cut Adjuster shown is for the left side of the cutter frame as viewed from the operator's operating position. Item Numbers 3, 4, 5, 6, 14, 15, 17, 18, 19, 20 & 21 are installed on the reverse side as shown to accommodate the right side of the frame.

True-Surface® Trekker™ Greens Care Collection

Depth of Cut Adjusters – Refer to page 56-70

The depth of cut adjuster is 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 of cut adjuster’s “ZERO” setting is indicated on the depth gauge for both the 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 “VCT”. 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 VSC on the depth gauge).
6. The Star Slitter, Greens Spiker, and Deep Slicer will start at maximum height, and will penetrate approximately 0.140” (3.56mm) into the turf at that point. This is the minimum depth.
7. Each click represents approximately 0.010” (.254mm) change in cutting depth, which will equal 0.040” (1.02mm) change in cutting depth for each full revolution.
8. Each complete revolution change is marked as a line on the depth gauge of the adjuster.

True-Surface® Trekker™ Greens Care Collection

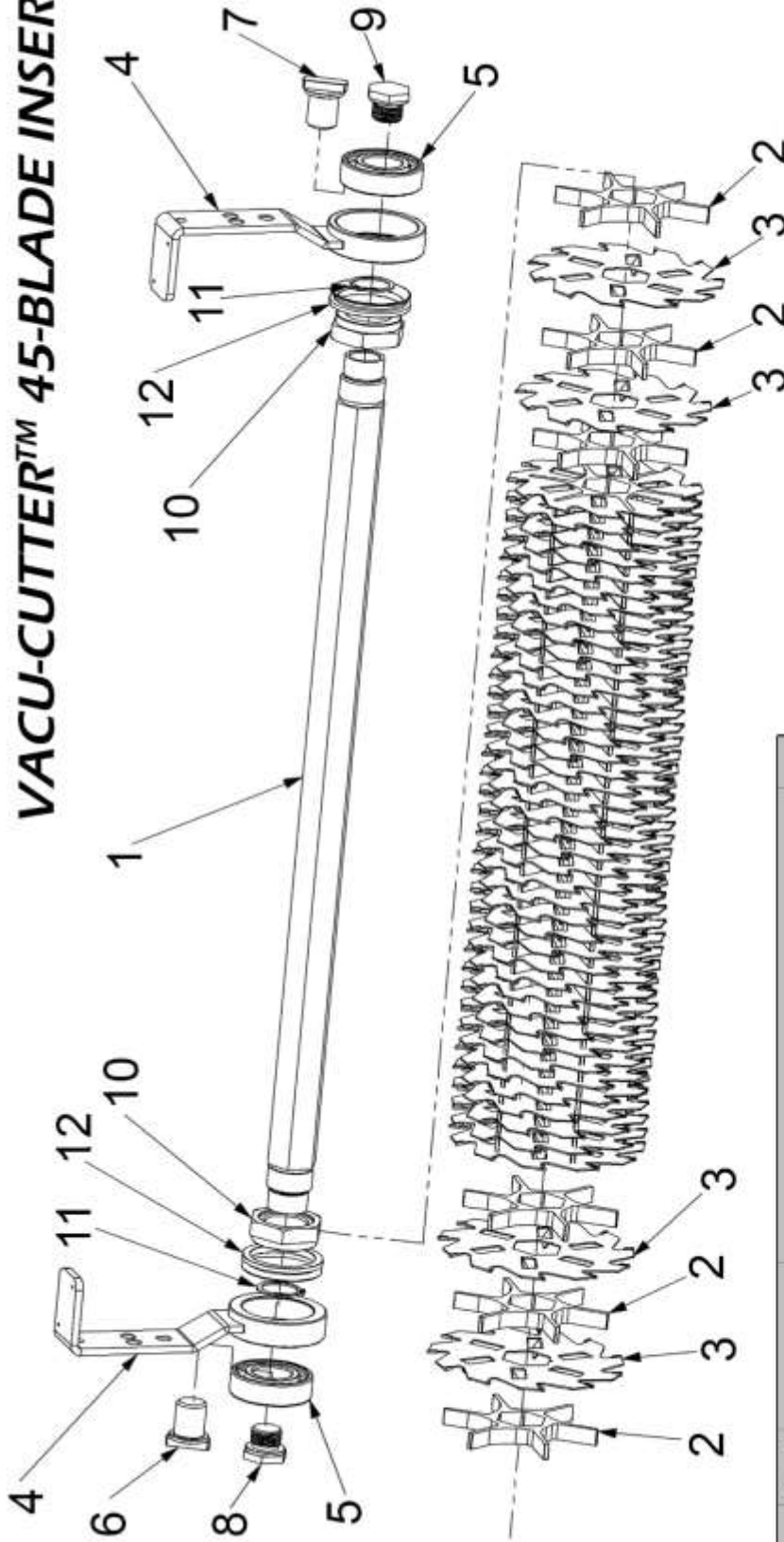
Insert Installation and Removal

Schematics of all the Trekker™ GCC Inserts are on pages 59-70

The Trekker™ Greens Care Collection (GCC) is a true “wrench/spanner free” interchange system. It is possible to exchange GCC inserts with the frames still installed on your walk behind greens mower.

1. Assuming you are working on a bench, to exchange any of the inserts, rest each roller on a ¾”-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, lift the front of the hood, and lock the small spring plunger into position so that the hood is held in the up position.
4. 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 31).
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 31).
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 31). 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 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 with the belt drive connected, there will be 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 out the insert while detached from the traction unit, vise grips can be attached to the base of the hex shaft near the flex coupler to prevent rotation if necessary.

True-Surface® Trekker™ Greens Care Collection
VACU-CUTTER™ 45-BLADE INSERT

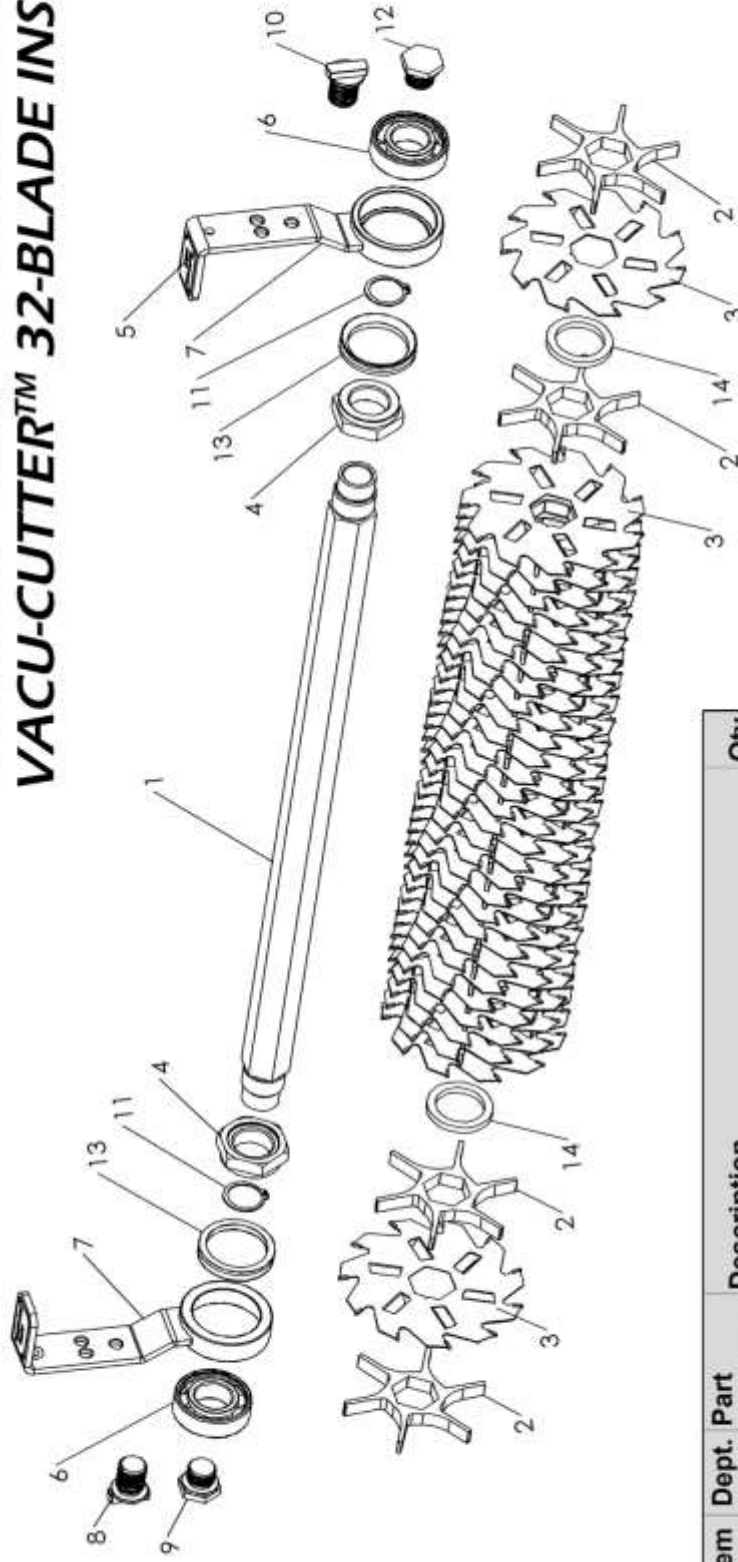


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Cutter Shaft	1
2	21P	GCC spcr	Vacu-Fan Spacer	46
3	21P	GCC-001	11-Point Vacu-Cut Blade (1 millimeter)	45
3	21P	GCC-002	11-Point Vacu-Cut Blade (1.5 millimeter)	45
4	21A	GCC-05	Ring & Handle Assembly	2
5	37P	1032	Cutter Shaft Bearing	2
6	21H	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	2
11	37P	1029	Snap Ring	2
12	21P	GCC-36	Cutter Shaft Seal	2

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobson Eclipse	1	0	0	1

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

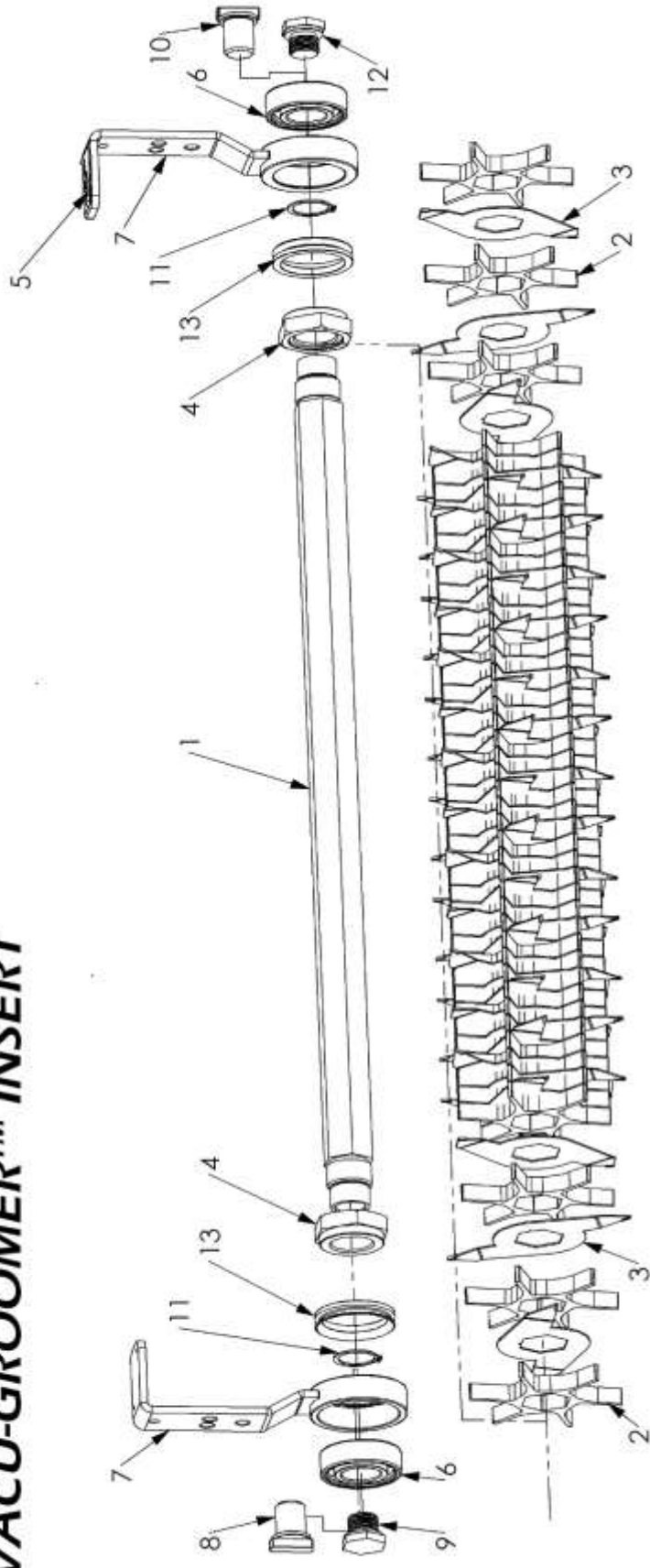


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Cutter Shaft	1
2	21P	GCC spcr	Vacu-Fan Spacer	33
3	21P	GCC-001	11-Point Vacu-Cut Blade (1 millimeter)	32
3	21P	GCC-002	11-Point Vacu-Cut Blade (1.5 millimeter)	32
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	2
5	n/a	n/a	Serial Number Tag	1
6	37P	1032	Cutter Shaft Bearing	2
7	21A	GCC-05	Ring & Handle Assembly	2
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	2
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	2
14	21P	GCC-354	Ring End Spacer	31

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

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

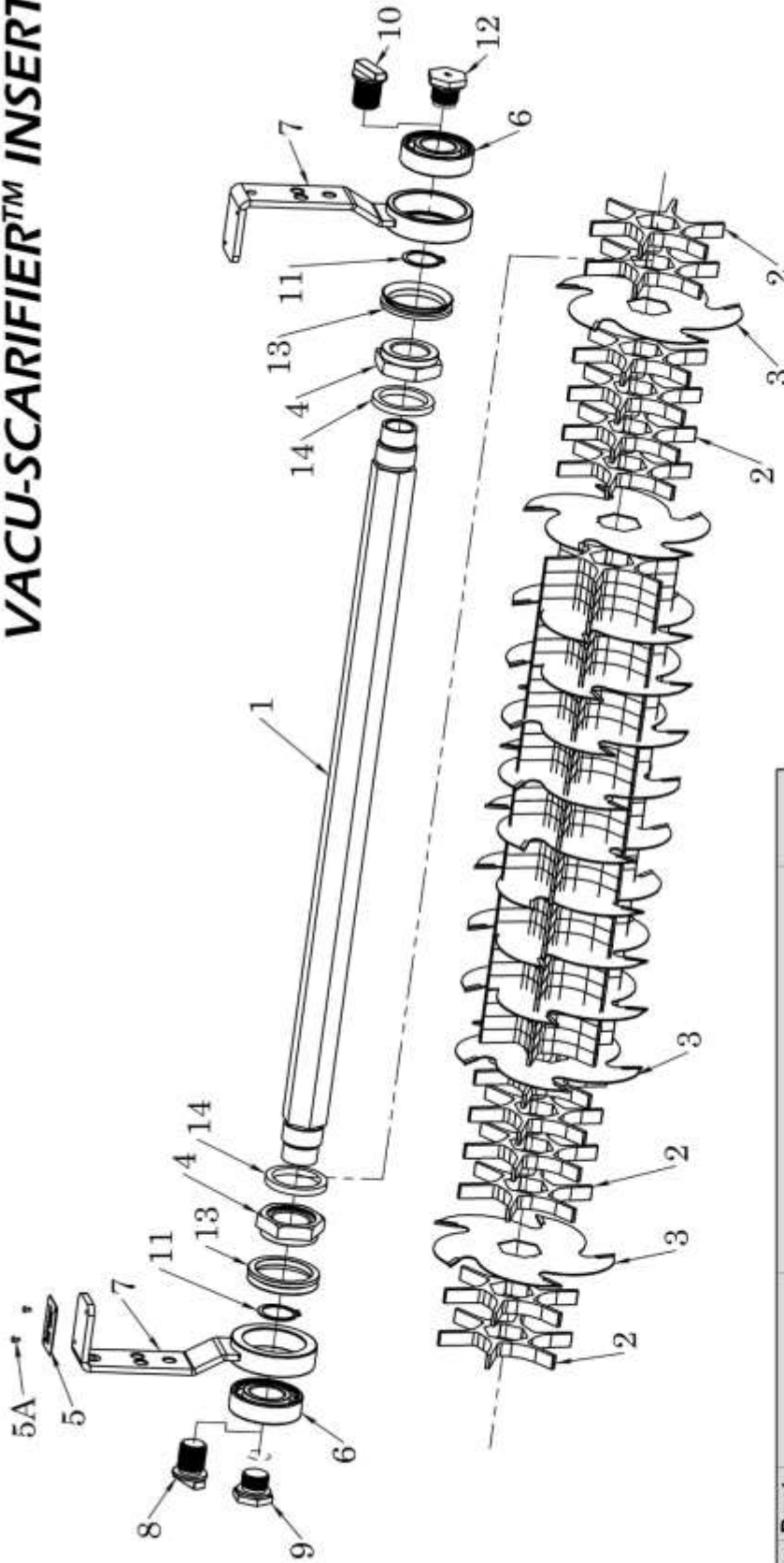


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	1
2	21P	GCC spcr	Vacu-Fan Spacer	46
3	21A	GCC-359	2-Point Vacu-Groomer Blade	45
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	2
5	n/a	n/a	Serial Number Tag	1
6	37P	1032	Cutter Shaft Bearing	2
7	21A	GCC-05 asm	Bearing Ring & Handle	2
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	2
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	2

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobson Eclipse	1	0	0	1

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

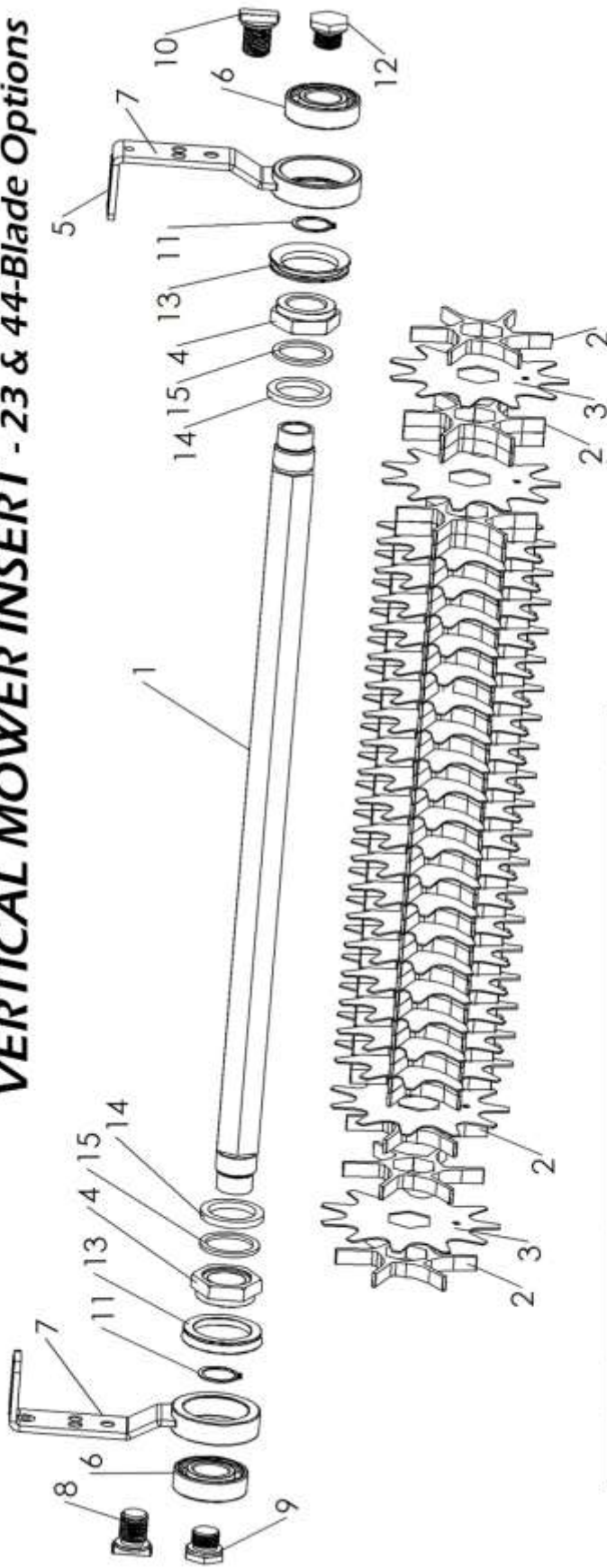


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	1
2	21P	GCC spcr	Vacu-Fan Spacer	48
3	21P	GCC-322	5-Point Vacu-Scarifier Blade	12
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	2
5	n/a	n/a	Serial Number Tag	1
6	37P	1032	Cutter Shaft Bearing	2
7	21A	GCC-05 asm	Ring & Handle Assembly	2
8	21A	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	2
12	21P	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	2
14	21P	GCC-354	Ring End Spacer	2

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

True-Surface® Trekker™ Greens Care Collection
VERTICAL MOWER INSERT - 23 & 44-Blade Options



* The 23-Blade Insert has 2 spacers between each blade (as shown in the schematic)

**The 44-Blade Insert only has 1 spacer between each blade

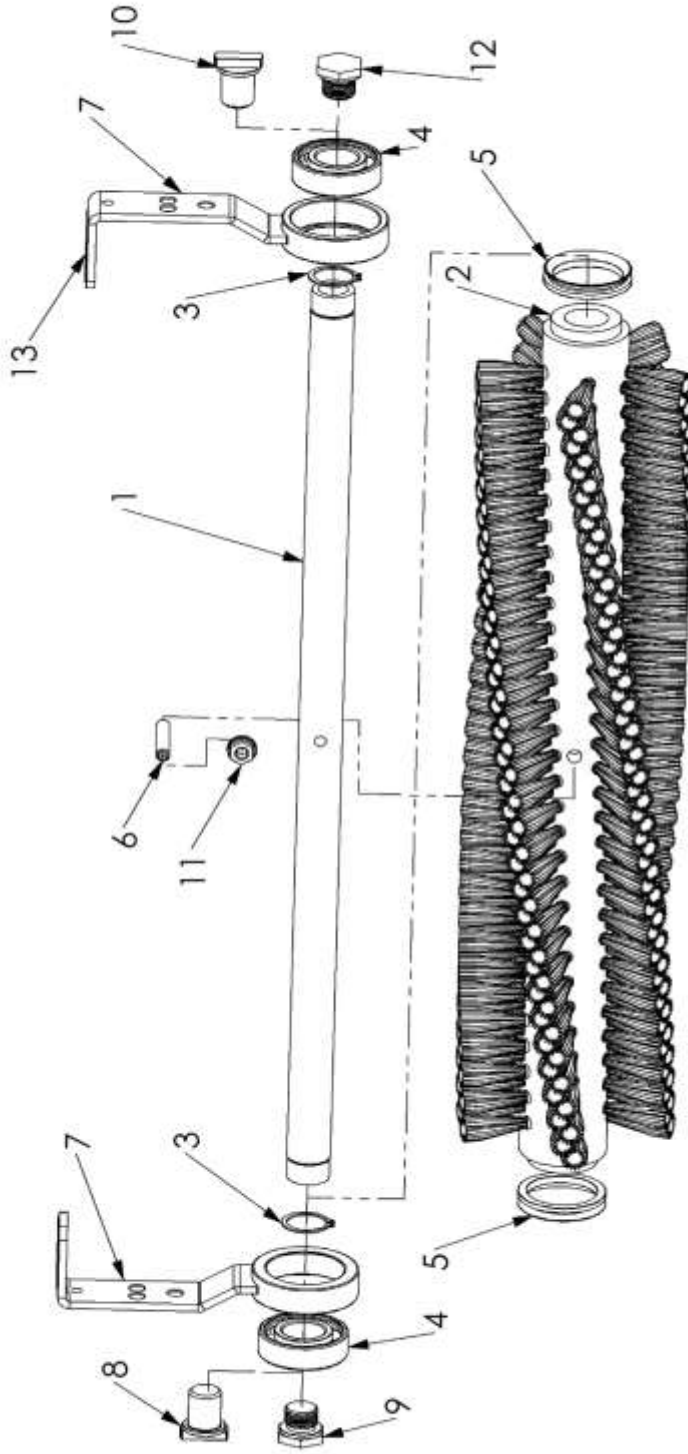
Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	3
2	21P	GCC spcr	Vacu-Fan Spacer - *Set for 23-Blade Insert	46
2	21P	GCC spcr	Vacu-Fan Spacer - *Set for 44-Blade Insert	45
3	21P	GCC-339	Vertical Mower Blade - *Set for 23-Blade Insert	23
3	21P	GCC-339	Vertical Mower Blade - *Set for 44-Blade Insert	44
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	2
5	n/a	n/a	Serial Number Tag	1
6	37P	1032	Cutter Shaft Bearing	2
7	21A	GCC-05	Ring & Handle Assembly	2
8	21P	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	2
12	21H	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	2
14	21P	GCC-354	Ring End Spacer *23-Blade Insert Only	2
15	21P	GCC-276	12 Gauge Steel Spacer	2

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

True-Surface® Trekker™ Greens Care Collection

VACU-BRUSH™ SOFT & SUPER SOFT INSERT

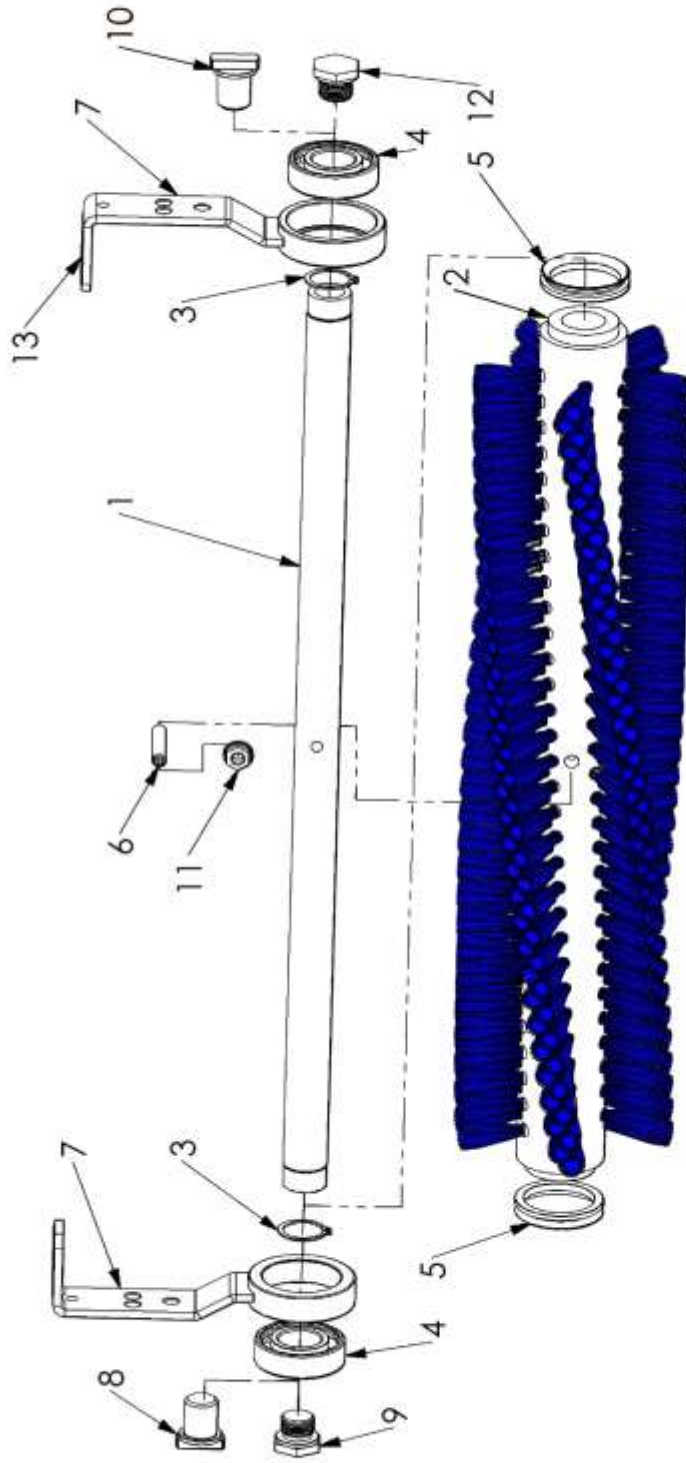


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-RBS	Vacu-Brush Shaft	1
2	21P	GCC-319soft	Soft Brush & Core Assm.	1
2	21P	GCC-319ssoft	Super Soft Brush & Core Assm.	1
3	37P	1029	Snap Ring	2
4	37P	1032	Cutter Shaft Bearing	2
5	21P	GCC-36	Cutter Shaft Seal	2
6	H	1403	5/16 - 18 x 1 1/2 Socket Set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

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

True-Surface® Trekker™ Greens Care Collection
VACU-BRUSH™ FIRM INSERT

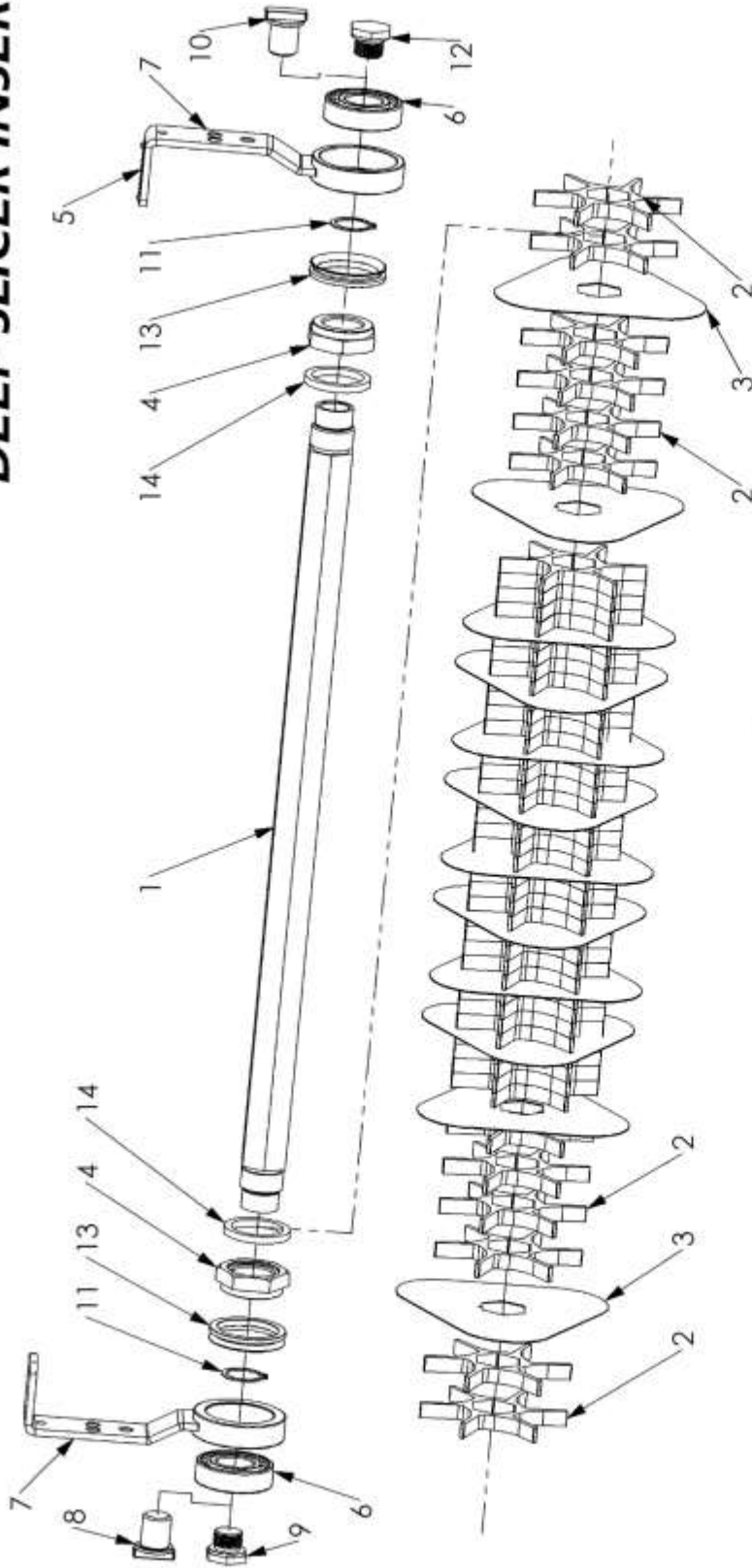


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-RBS	Vacu-Brush Shaft	1
2	21P	GCC-319firm	Firm Brush & Core Assm.	1
3	37P	1029	Snap Ring	2
4	37P	1032	Cutter Shaft Bearing	2
5	21P	GCC-36	Cutter Shaft Seal	2
6	H	1403	5/16 - 18 x 1 1/2 Socket Set Screw	1
7	21A	GCC-05 asm	Ring & Handle Assembly	2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

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty	Retaining Stud Qty
GCC-07R	0	1
GCC-14R	0	1
GCC-14L	0	1
Toro Flex 21/2100	1	0
Toro Flex 1021	0	1
John Deere 220E-Cut	0	1
Jacobsen Eclipse	1	0

True-Surface® Trekker™ Greens Care Collection DEEP SLICER INSERT

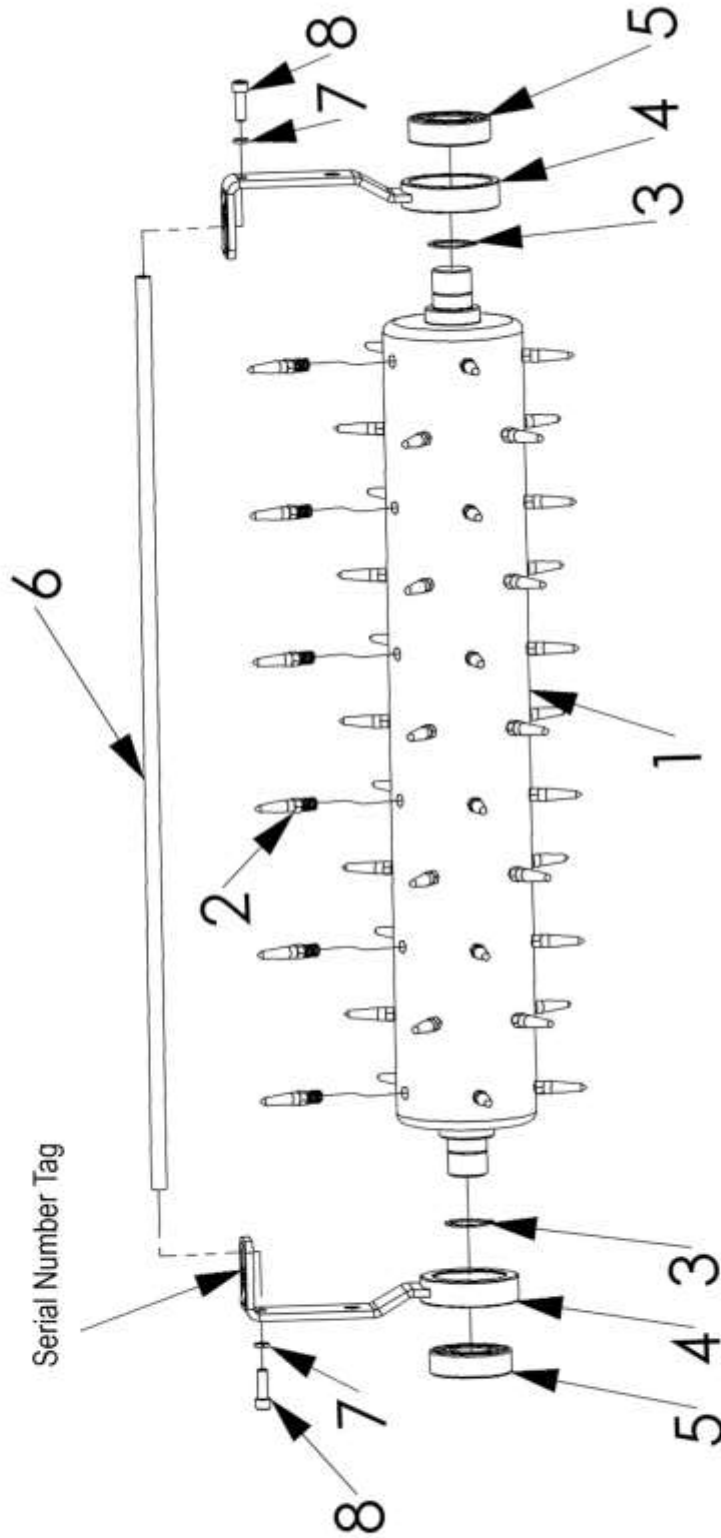


Item No.	Dept.	Part Number	Description	Qty
1	21P	GCC-04	Hex Driven Cutter Shaft	1
2	21P	GCC spcr	Vacu-Fan Spacer	48
3	21P	GCC-347	Deep Slicer Blade	12
4	H	14	1 1/8 -12 Shaft Nut/Seal Mount	2
5	n/a	n/a	Serial Number Tag	1
6	37P	1032	Cutter Shaft Bearing	2
7	21A	GCC-05 asm	Ring & Handle Assembly	2
8	21P	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	2
12	21P	GCC-14L	Left Hand Thread Retaining Stud	*
13	21P	GCC-36	Cutter Shaft Seal	2
14	21P	GCC-354	Ring End Spacer	2

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobson Eclipse	1	0	0	1

True-Surface® Trekker™ Greens Care Collection GREENS SPIKER INSERT

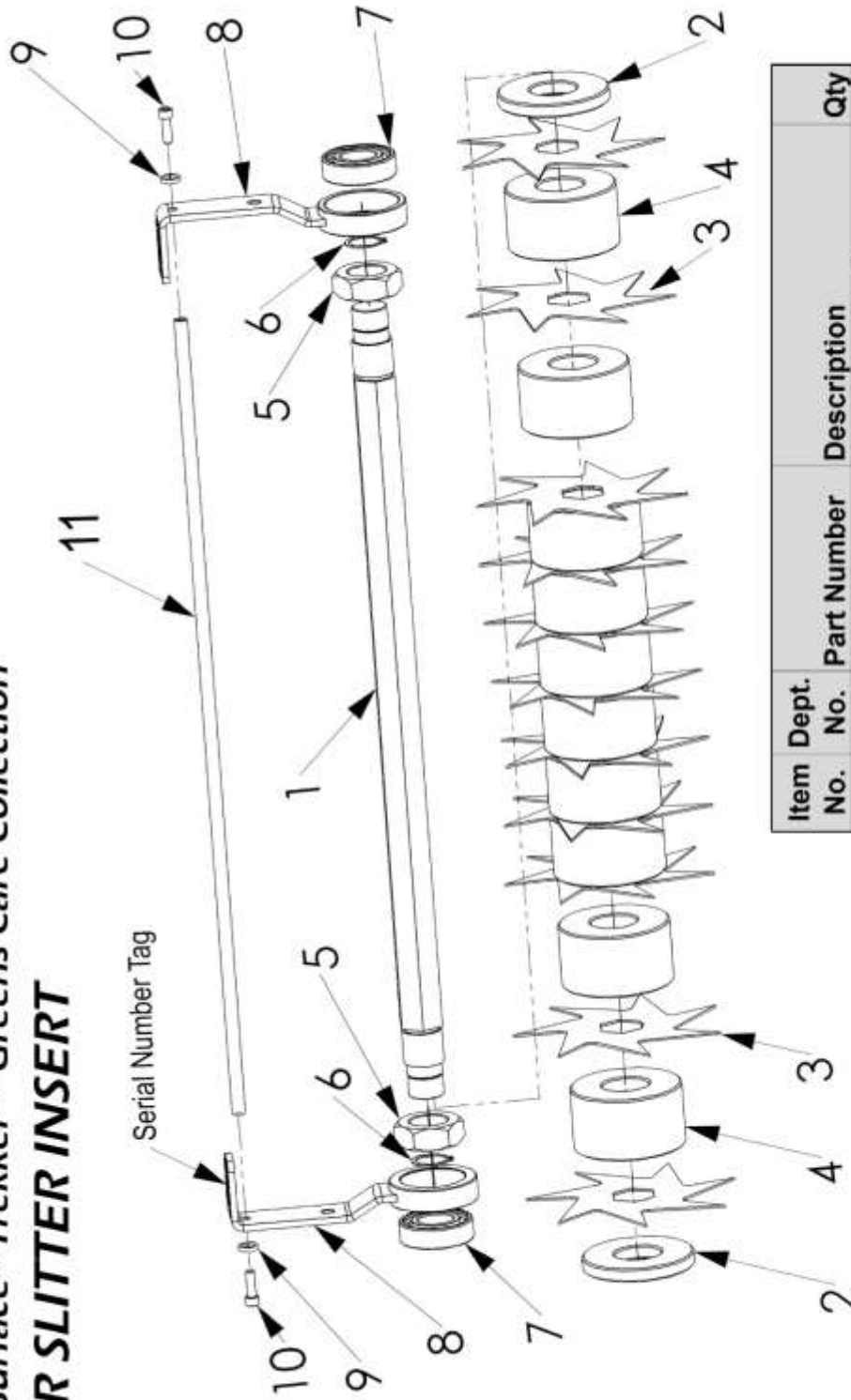


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-348	Spiker Drum	1
2	21P	GCC-349	Spiker Points	55
3	37P	1029	Snap Ring	2
4	21A	GCC-05 asm	Bearing Ring & Handle	2
5	37P	1032	Cutter Shaft Bearing	2
6	21P	GCC-107	Handle Retaining Bar	1
7	H	6110	1/4 Hi Collar LW	2
8	H	1505	1/4 - 20 x 3/4 SHCS	2

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

True-Surface® Trekker™ Greens Care Collection STAR SLITTER INSERT

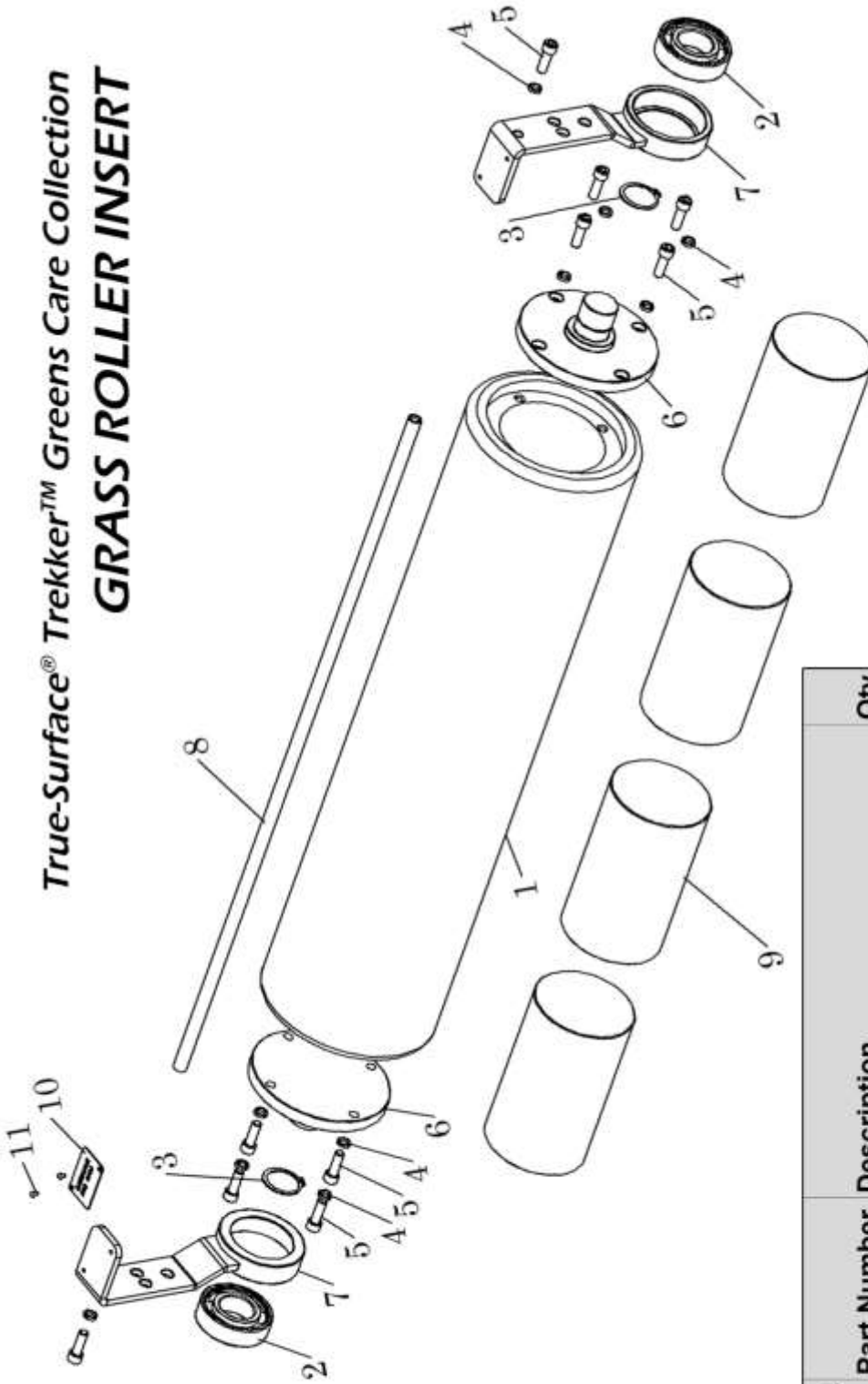


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-342	Star Slitter Shaft	1
2	21P	GCC-346	Steel End Spacer	2
3	21P	GCC-343	7-Point Star Slitter Blade	11
4	21P	GCC-345	Steel Main Spacer	10
5	H	14	1 1/8 - 12 Jam Nut	2
6	37P	1029	Snap Ring	2
7	37P	1032	Cutter Shaft Bearing	2
8	21A	GCC-05 asm	Ring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

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

True-Surface® Trekker™ Greens Care Collection GRASS ROLLER INSERT

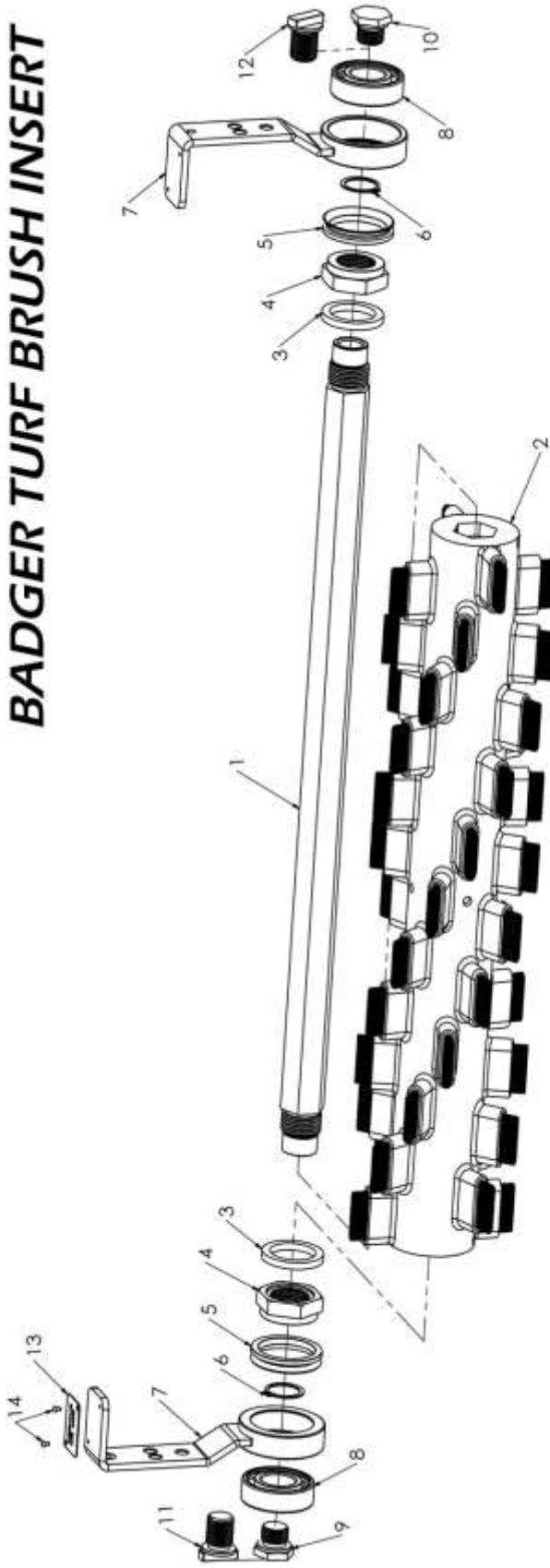


Item No.	Dept. No.	Part Number	Description	Qty
1	21P	GCC-108	Smoothing Roller Tube	1
2	37P	1032	Cutter Bearing	2
3	37P	1029	Snap Ring	2
4	H	6110	1/4 Hi Collar LW	10
5	H	1505	1/4 - 20 x 3/4 SHCS	10
6	21P	GCC-109	Smoothing Roller End Cap	2
7	21A	GCC-05 asm	Ring & Handle Assembly	2
8	21P	GCC-107	Bearing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

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

True-Surface® Trekker™ Greens Care Collection BADGER TURF BRUSH INSERT

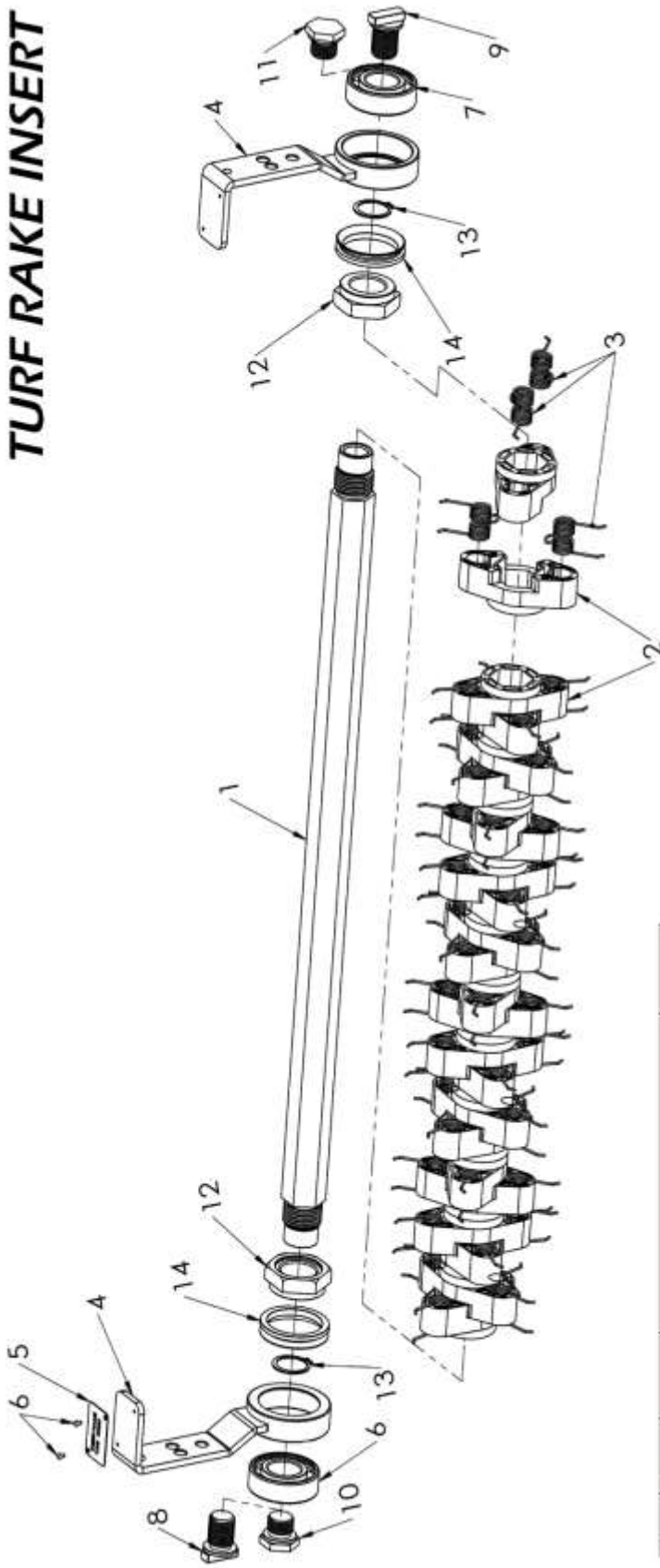


Item No.	Dept. No.	Part No.	Description	Qty
1	21P	GCC-04	Cutter Shaft	1
2	21P	GCC-320	Badger Turf Brush	1
3	21P	GCC-354	Ring End Spacer	2
4	H	14	1 1/8"-12 Shaft Nut/Seal Mount	2
5	21P	GCC-36	Cutter Shaft Seal	2
6	37P	1029	Snap Ring	2
7	21A	GCC-05	Ring & Handle Assembly	2
8	37P	1032	Cutter Shaft Bearing	2
9	21H	GCC-14R	Right Hand Thread Retaining Stud	*
10	21H	GCC-14L	Left Hand Thread Retaining Stud	*
11	21H	GCC-07R	Right Hand Thread Drive Key	*
12	21H	GCC-07L	Left Hand Thread Drive Key	*
13	n/a	n/a	Serial Number Tag	1
14	H	50	#2 Drive Screw	2

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobsen Eclipse	1	0	0	1

True-Surface® Trekker™ Greens Care Collection TURF RAKE INSERT



Item No.	Dept. No.	Part No.	Description	Qty
1	21P	GCC-04	Cutter Shaft	1
2	21P	GCC-622	Turf Rake Double Spring Holder	8
3	21P	GCC-623	Turf Rake Torsion Spring	16
4	21A	GCC-05	Ring & Handle Assembly	2
5	n/a	n/a	Serial Number Tag	1
6	H	50	#2 Drive Screw	2
7	37P	1032	Cutter Shaft Bearing	2
8	21H	GCC-07R	Right Hand Thread Drive Key	*
9	21H	GCC-07L	Left Hand Thread Drive Key	*
10	21H	GCC-14R	Right Hand Thread Retaining Stud	*
11	21H	GCC-14L	Left Hand Thread Retaining Stud	*
12	H	14	1 1/8" - 12 Shaft Nut/Seal Mount	2
13	37P	1029	Snap Ring	2
14	21P	GCC-36	Cutter Shaft Seal	2

Please Note: The drive key and retaining stud placement depends on the model of walk behind greens mower you are using. Please use the chart below to determine what part number you will need.

Walk Behind Model	Drive Key Qty		Retaining Stud Qty	
	GCC-07R	GCC-07L	GCC-14R	GCC-14L
Toro Flex 21/2100	0	1	1	0
Toro Flex 1021	0	1	1	0
John Deere 220E-Cut	0	1	1	0
Jacobson Eclipse	1	0	0	1

TRUE-SURFACE® TREKKER™

NV 3 x 3™ NON-VIBRATORY GREENS ROLLERS

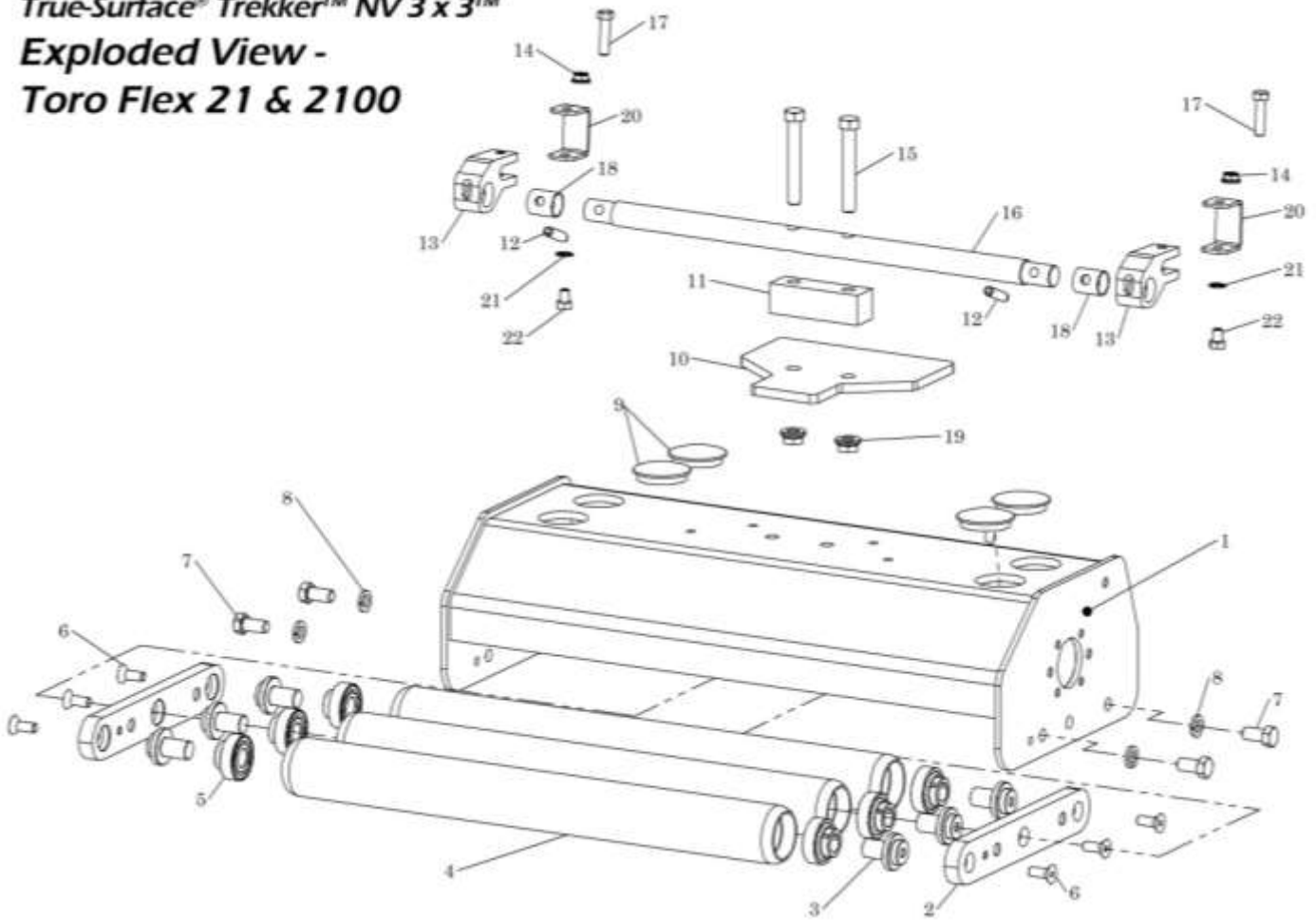
The True-Surface® NV 3x3™ is a non-vibratory greens roller that uses an innovative tri-rolling system to smooth the greens. Its universal design allows you to attach the roller to the Toro Flex 21, Toro Flex 2100, Jacobsen Eclipse 100 Series, Jacobsen Eclipse 2, and John Deere 220E-Cut Walk Behind Greens Mowers.

SPECIFICATIONS

- Roller Length: 22.250"
- Roller Weight: 140 lbs
 - Add 2 Additional Weights: 150lbs
 - Add 4 Additional Weights: 160 lbs
- 2 sealed, maintenance-free ball bearings per roller
- 20" roller working width
- 3 solid steel rollers Measures
 - 2.38" diameter each
- Triplex hydraulic motor attaches directly to roller for added weight and for motor security
- Steel Frame
 - .25" thick

NV 3 x 3 Greens Roller Schematics, Parts Listings and Instructions can be found on pages 80 – 86.

**True-Surface® Trekker™ NV 3 x 3™
Exploded View -
Toro Flex 21 & 2100**



REF. #	DEPT. #	PART #	DESCRIPTION	QTY.
1	33P	NV-001	Roller Frame	1
2	33P	NV-0011	Roller Bar (Rev C)	2
3	33P	NV-0026	Roller Axle	6
4	33P	NV-0004	Solid Roller (Rev C)	3
5	33P	NV-09	CSB 204-12 3/4" Bearing	6
6	H	6105	3/8-16 x 1" Flat Head Socket Set Screw	6
7	H	0013	1/2-13 x 1" Gr. 5 Hex Bolt	4
8	H	0014	1/2" Split Lockwasher	4
9	33P	NV-0015	Snap-in Black Plugs	4
10	37P	7802	Hood Protection Plate	1
11	44P	FLX-090	NV 3x3 Spacer Block	1
12	44P	FLX-026	Split Spring Pin 3/8" x 1-3/4"	2
13	44P	FLX-009	Roller Hitch Flex 21 / 2100	2
14	H	1183	3/8-16 Smooth Flange nut	2
15	H	5011	1/2-13 X 3-1/2" Gr. 5 Hex Bolt	2
16	44P	FLX-001	Cross Bar FLEX 21 /2100	1
17	H	O32	3/8-16 x 1-1/2" Gr. 8 Fully Threaded Bolt	2
18	44P	FLX-016	Bronze Bushing Flex 21 / 2100	2
19	H	1026	1/2-13 Serrated Flange Nut	2
20	44P	FLX-105	Hitch Lock Strap (2100 only)	2
21	H	6106	3/8" Internal Tooth Lockwasher (2100 only)	2
22	H	5006	3/8-16 x 1/2" Gr. 5 Hex Bolt (2100 only)	2

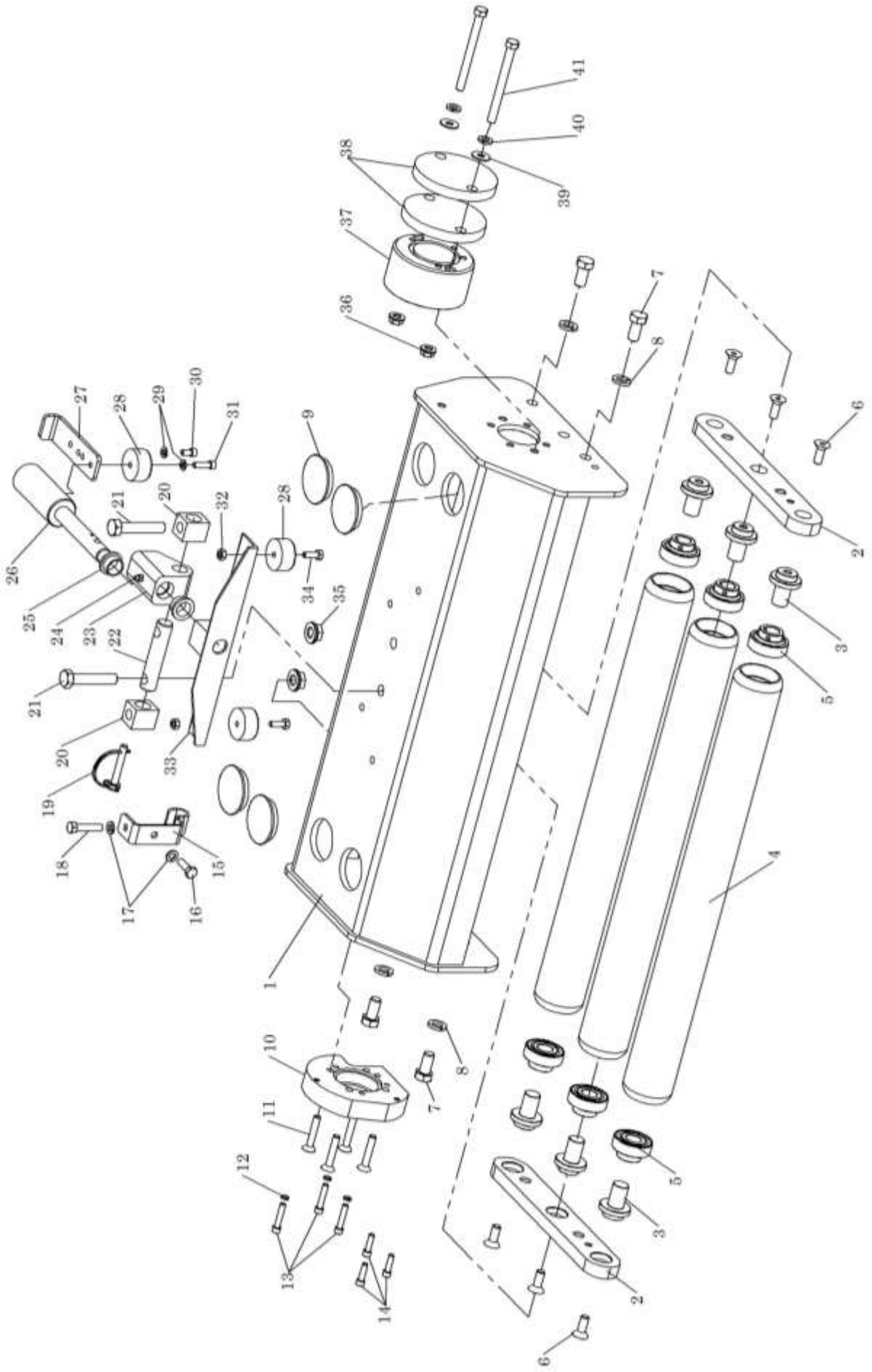
TRUE-SURFACE NV 3 X 3™ FLEX 21 & 2100 MOUNTING INSTRUCTIONS

1. Assemble the roller set to the roller frame by aligning all the holes and installing the four ½-13 bolts (Item 7).
2. Leave the bolts loose, and flip so that rollers are up.
3. Loosen all set screws on the roller bearings (Item 5) and then tighten the ½” bolts.
4. Visibly center all rollers and tighten the set screws.

Note: Toro Flex 21 & 2100 mounting hardware is shipped with the frame.

5. Remove the clipping basket from the mower, and then remove the two bolts attaching the cutting reel to the traction unit.
6. Have someone hold the traction unit upright while you slide the cutting reel away from the traction unit.
7. Remove as much of the drive coupler shaft as possible without using wrenches, as is not needed to operate the NV 3x3. (Removal of the flex coupler at the gearbox may be necessary to prevent damage if someone fails to keep the reel drive disengaged.)
8. Slide the NV 3x3 unit into position so that top of hitch (Item13) is in the slot of the mounting arm.
9. For Toro Flex 21 models: The Locking Bracket (Item 20) is not necessary. The Bolt (Item 17) will pass through a hole in the TORO arm and thread into bottom portion of hitch (Item13).
10. For Flex 2100 Models: Slip the locking bracket (Item 20) over all from the backside; install the bolt (Item 17) and locknut (Item 14) into the top, and bolt (Item 22) and lock washer (Item 21) from the bottom and tighten.
11. Unit is now ready to use. **BE SURE THAT WHEN USING, REEL DRIVE REMAINS DISENGAGED!!** Any remaining shaft can cause injury or damage if rotating around freely.

**True-Surface® Trekker™ NV 3 x 3™
Exploded View - Jacobsen Eclipse 100 Series & Jacobsen Eclipse 2**



**TRUE-SURFACE® TREKKER™ NV 3 x 3™ PARTS LISTING TO FIT
JACOBSEN ECLIPSE 100 SERIES AND JACOBSEN ECLIPSE 2**

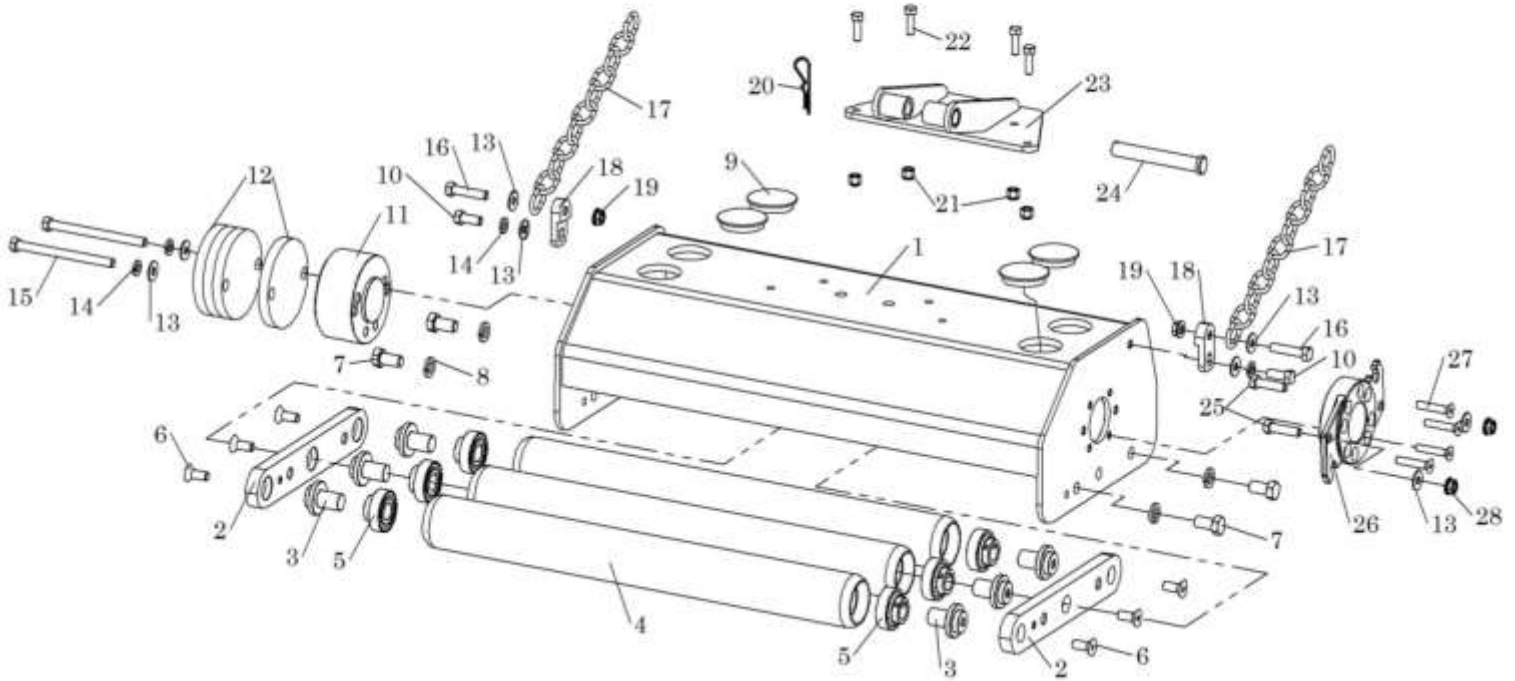
ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	33P	NV-001	Roller Frame	1
2	33P	NV-0011	Roller Bar (Rev C)	2
3	33P	NV-0026	Roller Axle	6
4	33P	NV-0004	Solid Roller (Rev C)	3
5	33P	NV-09	CSB204-12 3/4" Bearing	6
6	H	6105	3/8-16 x 1" Flat Head Socket Screw	6
7	H	0013	1/2-13 x 1" Gr. 5 Hex Bolt	4
8	H	0014	1/2" Split Lockwasher	4
9	33P	NV-0015	Snap-in Black Plugs	4
10	21P	GCC-02-E322	Eclipse Motor Flange	1
11	H	1146	5/16-18 x 1-3/4" Flat Hed Socket Screw	4
12	H	6110	1/4" Hi-Collar Lockwasher	3
13	H	2016	1/4-20 x 1-3/8" S.H.C.S. (Thick .800" Motor Flange)	3
14	H	20	1/4-20 x 7/8" S.H.C.S. (Thin .250" Motor Flange)	3
15	44P	ECL-03	Stabilizer Hanger	1
16	H	1001	5/16-18 x 3/4" Gr. 5 Hex Bolt (Eclipse II)	1
17	H	1013	5/16" Split Lockwasher	2
18	H	29	5/16-24 x 1-1/2" Gr. 5 Hex Bolt (Eclipse 100 series)	1
19	H	66	5/16" Wire Loop Pin	1
20	44P	ECL-10	Bolster Pin Mount Block	2
21	H	5009	1/2-13 x 2-1/2" Gr. 5 Hex Bolt	2
22	44P	ECL-05	Bolster Pin	1
23	44P	ECL-06	Roller Pivot Mount	1
24	H	1680	Grease Zert	1
25	44P	ECL-11	3/4" I.D. Pivot Mount Bushing	2
26	44P	ECL-01	Basket Yoke Extension Pin	1
27	44P	ECL-02	Extension Pin Retaining Bracket	1
28	44P	FLX-062	Bumper With Washer	3
29	H	1007	1/4" Split Lockwasher	2
30	H	1579	1/4-20 x 1/2" GR. 5 Hex Bolt	1
31	H	20	1/4-20 x 7/8" Socket Head Screw	1
32	H	1153	1/4-20 Nylon Lock Nut	2
33	44P	ECL-09	Pivot Limiter	1
34	H	1003	1/4-20 x 3/4" Gr. 5 Hex Bolt	2
35	H	1026	1/2-13 Serrated Flange Nut	2
36	H	1016	3/8-16 Serrated Flange Nut	2
37	21P	GCC-285	5 lb. Counterweight	1
38	21P	GCC-CW	Stackable Counterweight	2
39	H	1019	5/16" USS Flat Washer	2
40	H	1010	3/8" Split Lock Washer	2
41	H	3178	3/8-16 x 4" Gr. 5 Hex Bolt	2

TRUE-SURFACE NV 3 X 3™ JACOBSEN ECLIPSE 100 SERIES AND JACOBSEN ECLIPSE 2 MOUNTING INSTRUCTIONS

Note: You will need an assistant during the set up process. The NV 3 X 3 unit is heavy, and maneuvering the mower without the cutting reel attached is awkward.

1. Reference the NV schematic on page 82. Attach the roller assembly to the main frame by leaving the roller on a flat surface, and setting the frame over it. All of the bearing set screws are just snug so be careful when moving by the end plates.
2. After setting the frame over the rollers, install all 4 bolts (item 7) with lockwashers (item 8) to join the components, but do not tighten.
3. Turn unit upside down and loosen the set screws on all the NV-09 bearings (Item 5). There are 2 set screws per bearing
4. Tighten the bolts (item 7), then visually check the center alignment of each roller, and tighten all bearing set screws.
5. Attach the hitch assembly to the top of frame with 2 bolts (item 2); tighten the nuts underneath (item 35).
6. Remove the retainer plate, 1 bumper and bolts, Items 27,28,29,30,31 from the extension pin (item 26).
7. Turning to the mower, remove the cutting reel by removing first the drive motor, second the side arms by removing the hairpin from each connection point at the side of the mower frame, third disconnect the stabilizer bar from the cutting reel and fourth, remove the hairpin from the main connection pin. **Before sliding all this away from the drive portion of the mower, be sure to have someone hold the unit, or have the handle supported as it will not stand alone with cutting reel removed.**
8. Maneuver NV roller into place and slide extension pin onto frame pin. Secure with locking plate #27, bolts and bumper. **Plate # 27 needs to hook behind square part of mower frame for 100 series, and only behind the pin mounting plate on Eclipse II, there two positions available to accommodate this.**
9. Next install stabilizer hanger #15 to mower frame. For 100 series remove forward corner bolt from engine mounting plate, and replace with bolt # 18 and tighten so that hook faces back. On Eclipse II, use bolt # 16 and mount directly to the front of mower frame.
10. Hook can stay mounted when switching back to mowing.
11. Lay stabilizer bar into hook.
12. Attach Motor to mounting flange. There is no drive required, this keep the motor in a safe location. Two set of screws for mounting the motor are supplied # 14 or # 18 due to the possibility of a difference in the motor housing flange thickness.

True-Surface® Trekker™ NV 3 x 3™
Exploded View - John Deere 220E-Cut



ITEM#	DEPT#	PART#	DESCRIPTION	QTY.
1	33P	NV-001	Roller Frame	1
2	33P	NV-0011	Roller Bar (Rev C)	2
3	33P	NV-0026	Roller Axle	6
4	33P	NV-0004	Solid Roller (Rev C)	3
5	33P	NV-09	CSB204-12 3/4" Bearing	6
6	H	6105	3/8-16 x 1" Flat Head Socket Screw	6
7	H	0013	1/2-13 x 1" Gr. 5 Hex Bolt	4
8	H	0014	1/2" Split Lockwasher	4
9	33P	NV-0015	Snap-in Black Plugs	4
10	H	1100	3/8-16 x 1" gr. 5 hex Bolt	2
11	21P	GCC-258	5lb. Counterweight	1
12	21P	GCC-CW	Stackable Couterweight	4
13	H	1019	5/16 USS Flat Washer	8
14	H	1010	3/8" Split Lockwasher	4
15	H	3178	3/8-16 x 5" Gr. 5 Hex Bolt	2
16	H	1072	3/8-16 x 1-1/2" Gr. 5 Hex Bolt	2
17	21P	GCC-212	Lift Chain (11 links 2/0 Passing Link)	2
18	44P	JD220-004	Lift Chain Mount	2
19	H	1016	3/8-16 Serrated Flange Nut	2
20	44H	JD220-008	Hairpin Cotter 1/8"	1
21	H	3179	5/16-18 Nylon Locknut	4
22	H	1101	5/16-18 x 1" Gr. 5 Hex Bolt	4
23	44P	JD220-006	Lift Bracket Assembly	1
24	44H	JD220-009	5/8" x 4-1/2" Clevis Pin	1
25	H	32	3/8-16 x 1-1/2" Gr. 8 Hex Bolt Fully Threaded	2
26	37P	7036-3	John Deere Motor Flange	1
27	H	1146	5/16-18 x 1-3/4" Flat Head Socket Screw	4
28	H	1183	3/8-16 Smooth Flanged Nut	2

TRUE-SURFACE NV 3 X 3™

JOHN DEERE 220E-CUT MOUNTING INSTRUCTIONS

Note: You will need an assistant during the set up process. The NV 3 X 3 unit is heavy, and maneuvering the mower without the cutting reel attached is awkward.

1. Reference the NV schematic on page 85. Attach the roller assembly to the main frame by leaving the roller on a flat surface, and setting the frame over it. All of the bearing set screws are just snug so be careful when moving by the end plates.
2. After setting frame over rollers, install all 4 bolts #7 with lock washers #8 to join the components, but do not tighten.
3. Turn unit upside down and loosen all bearing #5 set screws (2 per bearing).
4. Tighten bolts #7, then check center alignment of each roller, (visually is sufficient) and tighten all bearing set screws.
5. Attach hitch assembly to the top of frame with 4 bolts #22, with nuts # 21 underneath and tighten.
6. Remove hairpin #20 and clevis pin #24.
7. Turning to the mower, remove then basket, then remove the cutting reel by removing first the drive motor, second, disconnect the stabilizing chains from the mower, chains are supplied with the NV 3 x 3. Finally, remove the connecting pin and basket hanger from the mower. **BEFORE REMOVING THIS LAST PIN, AND SLIDING THE CUTTING REEL AWAY FROM THE DRIVE PORTION OF THE MOWER, BE SURE TO HAVE SOMEONE HOLD THE UNIT, OR HAVE THE HANDLE SUPPORTED, AS IT WILL NOT STAND ALONE WITH CUTTING REEL REMOVED.**
8. Maneuver NV roller into place and position rod end of mower between arms of mounting plate #23. Install clevis pin # 24 and hairpin # 20. **BASKET HANGER IS NOT NEEDED.**
9. Attach stabilizing chains to mower and replace washers and hair pin. **CHAIN LENGTH WILL HAVE TO BE SET SO THAT ENOUGH LIFT IS CREATED WHEN PUSHING DOWN ON THE HANDLES TO MANUEVER THE UNIT WHILE LEAVING ENOUGH FLOATABILITY WHEN IN USE.**
10. Attach Motor to mounting flange. There is no drive required, this keep the motor in a safe location. Remove nuts #28 and washers #13 from studs #25. Install motor and replace these items and tighten.

TURFLINE, INC.

WARRANTY REGISTRATION

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

MACHINE: True-Surface® Trekker™ (circle one) Greens Care Collection or Vibe V or NV3x3

MODEL: _____ **SERIAL NUMBER:** _____

DEALER PURCHASE INFORMATION

The undersigned dealer warrants that the above described machine was carefully inspected, adjusted and prepared for delivery before delivery 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: 636-356-1210

Email: cassie@true-surface.com or chris@true-surface.com

NOTES

NOTES

Thank you for choosing True-Surface®!

As the manufacturer of all True-Surface® Products, Turflite, 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.

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

**Turflite, Inc.
712 Jefferson Street
Moscow Mills, MO 63362**

www.true-surface.com

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



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