

Bannerman

Diamond Edger



Model: B-DE-20

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Dear Owner,

Welcome to Bannerman, the Home of Sports Turf Magic.

Your new B-DE-20 Diamond Edger is designed to improve your total grooming performance. The ease of operation and low maintenance will give you many trouble free hours of operation. Please make certain that you read and understand the important instructions for the assembly, adjustments, operations, safety and the maintenance contained in this manual. If there are any instructions which you do not fully understand, contact your dealer or Bannerman Ltd. for clarification prior to using the unit.

When in need of replacement parts, specify the model and serial number of your equipment. The serial plate that identifies your model number and the serial number is located on the three point hitch mast. To give you many years of service, regular preventative maintenance is required. Should you require further assistance, please feel free to contact your local Bannerman dealer, or Bannerman directly at:

Bannerman Ltd.
41 Kelfield Street, Rexdale, ON M9W 5A3
Tel # 416-247-7875 - Fax # 416-247-6540
CDN 1-800-325-4871 - USA 1-800-665-2696
Email: info@sportsturfmagic.com
Website: www.sportsturfmagic.com

Warranty

Bannerman Ltd. warrants all **Bannerman B-DE-20 Diamond Edger**, when properly installed, to be free from defects in material and workmanship under normal use and service, for a period of 90 days. This warranty does not guarantee a particular service life of the products. Service life will vary with application, operating environment, level of maintenance and other factors beyond our control.

Bannerman Ltd.'s sole responsibility for the **Bannerman B-DE-20 Diamond Edger** or parts determined to be defective and covered by this warranty, is limited to repairing, or replacing the product or part.

Prior authorization from **Bannerman Ltd.** must be obtained, before replacing or returning part(s), or incurring any cost for labour. No charges for expense incurred in parts, labour or transportation, by unauthorized persons will be allowed under this warranty. **Bannerman Ltd.** reserves the right to request the return of any part or Bannerman assembly (with transportation charges prepaid) claimed to be covered under this warranty.

Bannerman Ltd. shall not be liable, in event, for proximate, incidental, consequential, special or other damages, including, but not limited to, damages for loss of production, loss of profit, loss of opportunity, or injury to persons or property arising out of any breach of this warranty.

There are no warranties, expressed or implied, including the warranty of merchantability, warranty of fitness for particular purpose, or any other warranty extending beyond that set forth above.

Work Safely - Follow These Rules!

A careful operator is the best insurance against an accident.

Be sure to pay proper attention to these instructions concerning your personal safety. Be sure to observe and follow these instructions.

Warning: Before handling any equipment, read this operation manual

1. Do not wear loose fitting clothing that may catch in moving parts.
2. Use extreme care when making adjustments.
3. Always use the proper tools or equipment for the job at hand.
4. When working under or around the tines, the frame must be supported.
5. When not in use the **Bannerman B-DE-20 Diamond Edger** three point hitch model attachment has jack legs that extend down, prior to lowering, and unhitching the **Bannerman B-DE-20 Diamond Edger**, lower the jack leg(s) and insert the jack safety pin(s). This will prevent the implement from tipping when detached from the tractor.

Diamond Edger

Edge your diamonds in less than two minutes!

The Bannerman B-DE-20 Diamond Edger can give your ball diamonds the finishing touch, just like the professional teams demand - and reduce the time, effort and labour to do the job. Once you get your diamonds into shape, it is simply a matter of redressing with your Bannerman Diamond Groomer (B-BP-4/6 Ballpark-4/6 or B-DM-6 Diamond Master) the surface before and after every game (or even between innings). You will be able to keep your diamonds in top-notch shape throughout the entire season with much less effort when compared to other methods.

General Information

Tractor Requirements: 17-35 horsepower tractor with Category 1 Three Point Hitch

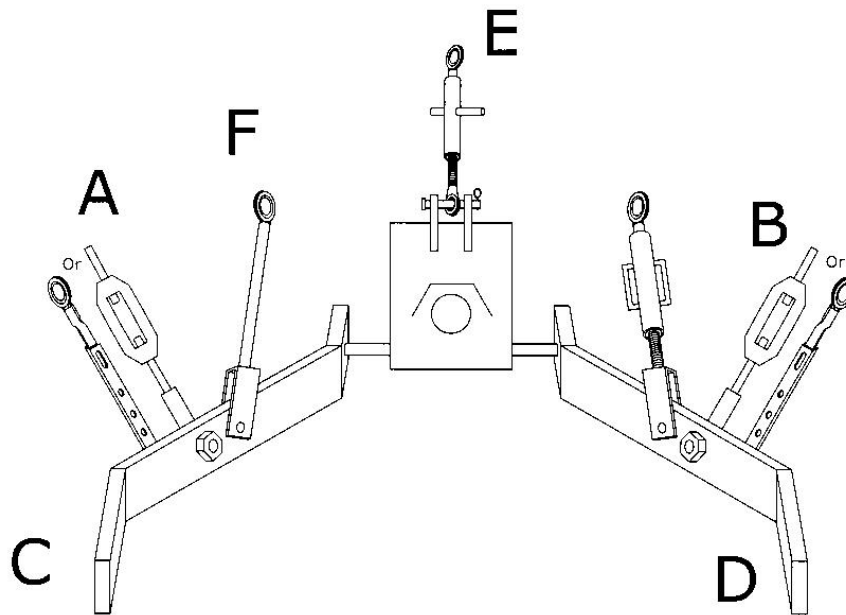
Weight: Approximately 250 lbs.

Speed of Operation: 3 to 4 M.P.H. (6 to 6.5 k.ph.)

Route of Operation: Forward direction only. Straight lines and turning are permitted.

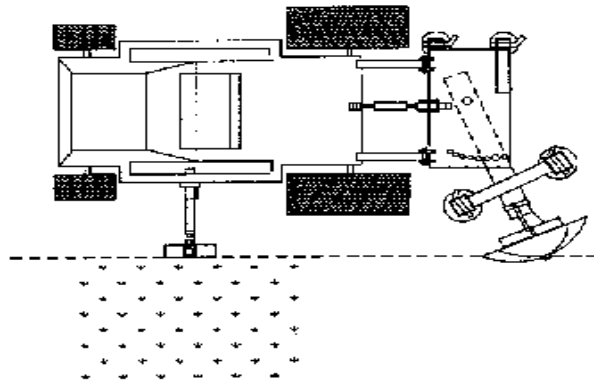
Hooking up the Three Point Hitch

1. Select a tractor with 18 horsepower or greater equipped with the standard Category "0" or "1" Three Point Hitch.
2. Free up all linkages, pivot ball joints with adequate caution to ensure proper movement of the linkage. This also ensures hook up is quicker & safer.
3. With both the tractor & edger on a level, firm surface, first measure the distance from the two rear Three Point Hitch arms "C" & "D" to the ground - with the arms in the lowest position, ground clearance should be no greater than 6" (15 cm). Adjustment to the vertical tractor lift links "F" & "G" may be necessary.
4. Safely reverse tractor to edger, and "shut-off" the tractor's engine. Connect the left hand tractor hitch arm "C" onto the edger, pick-up pin locate the lock snap pin into the pin hole.
5. Connect the right hand tractor hitch arm "D" onto the groomer, pick-up pin locate the lock snap pin into the pin hole.
6. Connect tractor adjustable top link "E" to tractor and to top hold in "A" frame of edger. Be sure snap pins are in cross holes of connecting pins, use hardened pins, **NOT** Bolts.
7. While the groomer is in raised position, level the groomer horizontally to the rear axle of the tractor.
8. Safely and slowly lower the groomer to the ground. When the groomer is resting on the ground, adjust the tractor top link "E", either in or out to ensure the mainframe is 90 degrees to the rear of the tractor. There should be 5/8" (16 mm) clearance from the tips of the ripper blades' teeth, to the level ground.
9. Lift the groomer for transport to approximately 18" (46 cm) of height and proceed to the baseball diamond infield surface to be groomed.



Note: Top Link "E" can be either manual adjustable or hydraulic type. Start tractor engine, raise groomer to height of 2 ft (60 cm) off of the ground. Ensure parking brake is on before leaving the tractor seat. With the unit raised up, adjust "Side Sway" turn buckles "A" & "B" to prevent "Side to Side" movement of the groomer. Be sure when adjusting side sway to centre the groomer to tractor to ensure groomer follows in a straight line of cultivation behind the tractor.

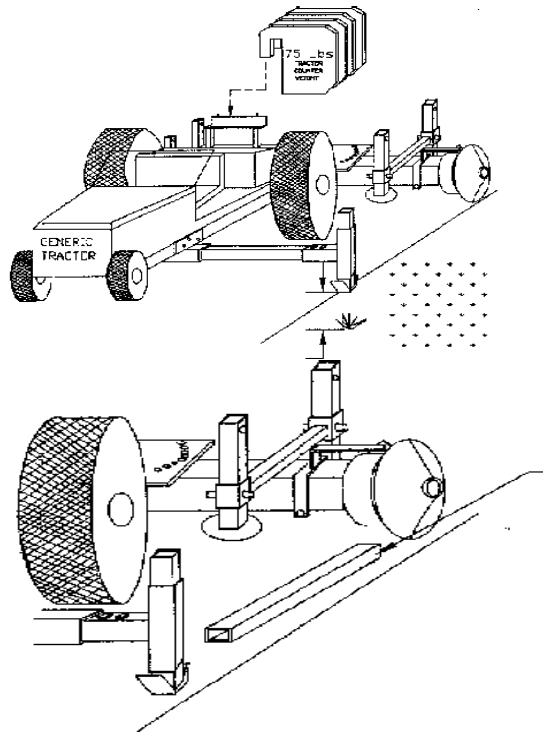
Mounting Instructions



Note: You may have to drill holes into/or modify the tractor frame to suit the mounting plate. Make sure that the edging guide shoe is free from the tires and at least 2 inches from the ground to compensate for uneven surfaces.

IMPORTANT

You must have at least 3 Counter weights of 75lbs. to produce superior edging operation.



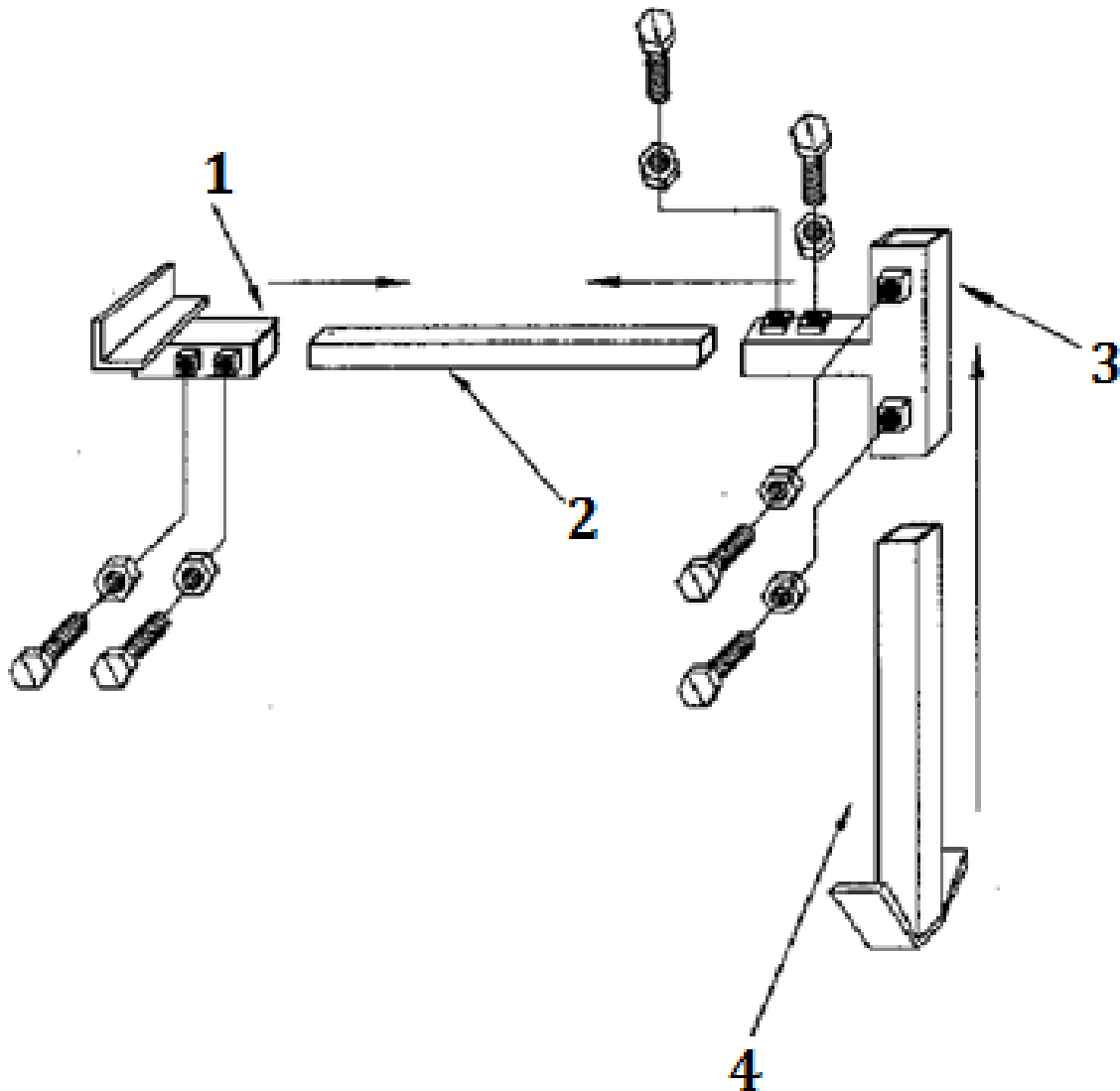
Check to make sure that the Diamond Edger does not hit the rear tires and that the legs are raised to the operating position and pull pins are secure before operation of the Diamond Edger.

Use a steel tube or wood plank to align the guide shoe with the edging disc. Make sure that the alignment tube/plank is parallel to the tractor tire to insure proper cutting alignment and action.

Guide Installation Instructions

Install #1 (Mounting Bracket) to the frame of the tractor. Drill holes, or modify bracket to suit the desired mounting area. The Mounting Bracket (#1) must be installed to the same side as the edging disc and be placed in the middle of the tractor. It should be clearly visible to the operator and be clear of the tractor wheels turning radius. Insert #2 (Telescopic Arm) into the Mounting Bracket (#1) and lock in desired position using the 1/2"-13 Bolts and 1/2"-13 Jam nuts provided. Fit #4 (Guide Shoe) into the #3 (Adjusting Tee Bracket) and secure using 1/2"-13 Bolts and 1/2"-13 Jam nuts provided. Be sure that the Guide Shoe (#4) is parallel with the tractor tire. Insert the Telescopic Arm (#2) into the Adjusting Tee Bracket (#3) and secure using the 1/2"-13 bolts and 1/2"-13 jam nuts provided.

** For securing bolts and nuts you will need 3/4" wrenches/sockets. **



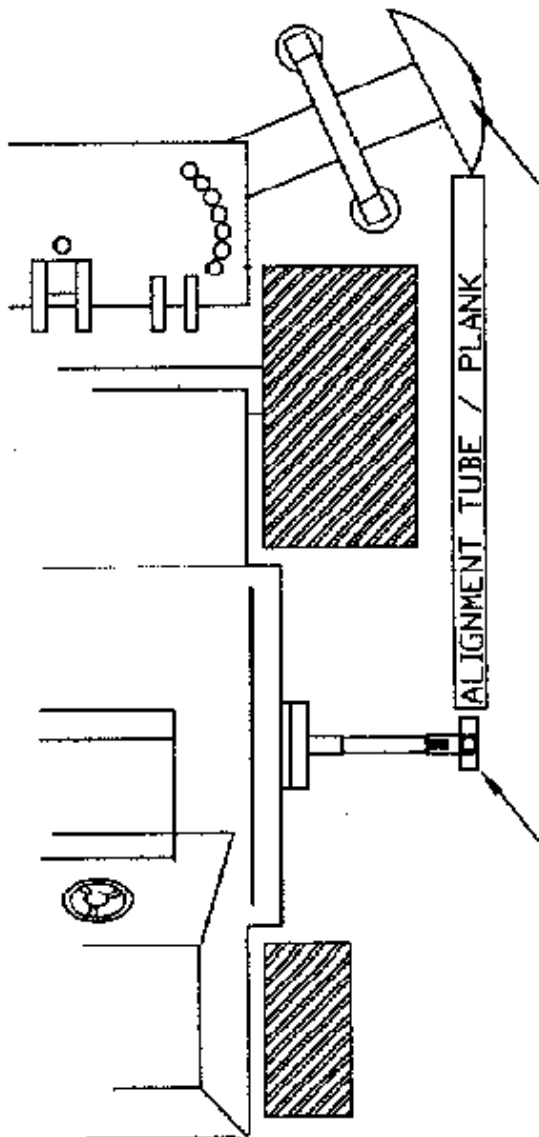
Fixed/Welded nuts may be found on the underside of the Mounting Bracket.

Guide Alignment Instructions

Depicts the use of a steel tube or wood plank in order to obtain alignment. It is important that the guide shoe and cutting disc is parallel and properly aligned, be sure that the tube/plank is parallel to the rear tire of the tractor. It is imperative that the edging disc guide be mounted in the middle of the tractor and on the same side as the edging disc. Be sure that the guide is in the operator's line of sight; it could result in difficulty following an edge and will produce a poor edging job.

Once in use be sure that there is a 3 to 4 inch clearance between the guide shoe and the surface to be edged to allow for possible ground height fluxuations.

These instructions should be followed carefully to prevent any unnecessary damage to the tractor and/or the diamond edger guide assembly.



Edging Disc

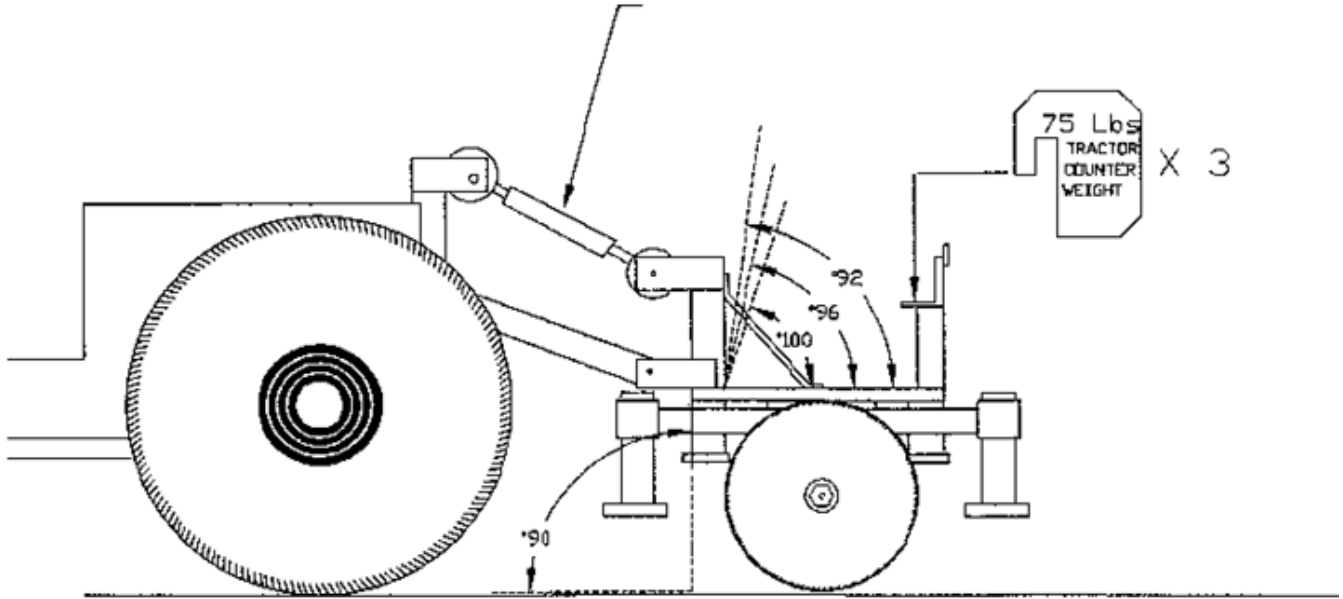
Make sure that the alignment Bar/Plank is parallel to the tractor

Guide Shoe

Be sure that both the Diamond Edger and the Edger Guide are free from tractor extremities while in motion (tires,etc.).

How to use the B-DE-20 Diamond Edger

Adjustable Top Link Cylinder can be adjusted by hydraulics or mechanically



Hydraulic Cylinder Top Link Option Benefit

At the starting position the Diamond Edger should be at a 90 degree angle to the tractor for optimum performance. With the hydraulic top link, the operator can manipulate the depth of the disc as well as the edging position. The Diamond Edger may have to be moved 1-10 degrees behind its 90 degree centre to edge terrain that may be impacted or very soft. **(Do not over extend the cylinder).**

Basic Maintenance

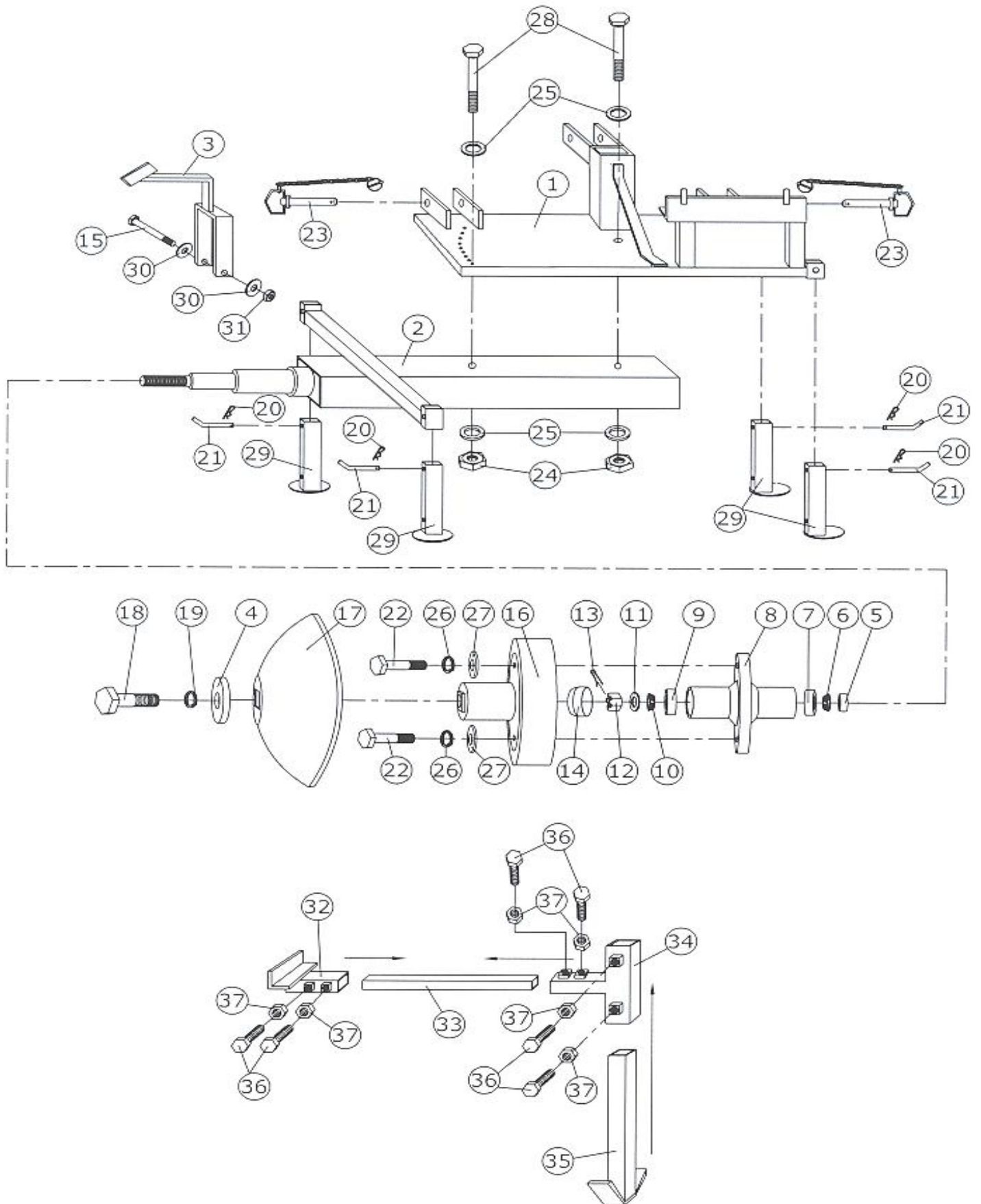
Daily:

Walk around the edger and visually check the frame and components for signs of wear or disfiguring. Any damaged part should be changed before operation. Lightly oil.

Weekly:

Check all securing bolts are present and are tight.

B-DE-20 Diamond Edger

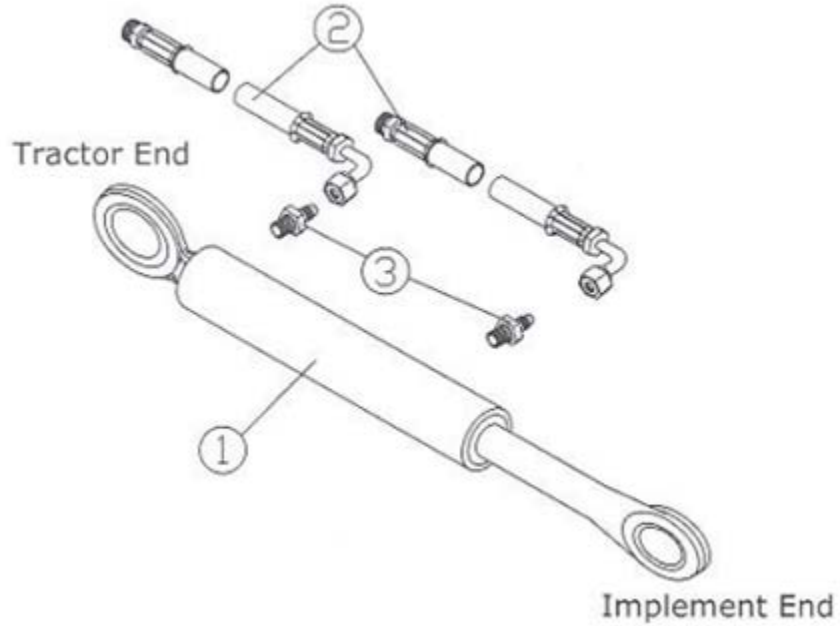


Parts Manual & Accessories

Item #	Part #	Description	Qty.
1	15400	Frame - Main	1
2	15401	Axle Assembly	1
3	15402	Scraper Assembly	1
4	15405	Washer - Disc Plate	1
5	15406	Seal Hub	1
6	15407	Bearing - Inner Cone	1
7	15408	Bearing - Inner Cup	1
8	15409	Hub - Wheel	1
9	15410	Bearing - Outer Cup	1
10	15411	Bearing - Outer Cone	1
11	15412	Washer- Retainer	1
12	15413	Nut- Castle 1"-12	1
13	15414	Pin - Cotter	1
14	15415	Cap - Dust	1
15	01033	Bolt – 3/8"-16x6.0"HHC	1
16	15417	Hub - Disc Mounting	1
17	15418	Disc - Cutting	1
18	15041	Bolt – 3/4" – 10x2" HHC	1
19	15042	Washer, Lock 3/4"	1
20	02060	Pin, Hitch	4
21	15049	Pin, Pull 3/8"	4
22	15302	Bolt-5/8"-18x3.5" HHC	6
23	15116	Pin, Tow w/ Chain	2
24	11250	Nut, 3/4" -16 Nylon Insert	2
25	06037	Washer, Flat 3/4"	4
26	15419	Washer, Lock 5/8"	6
27	04037	Washer – 5/8" Flat	6
28	15420	Bolt – 3/4"-16x6.0"HHC	2
29	08109	Stands	4
30	02024	Washer- 3/8" Flat	2
31	03022	Nut, Nylon Insert 3/8"-16	1
32	15421	Bracket – Guide Mounting	1
33	15422	Tube - Distance	1
34	15423	Tube – Clamping Tree	1
35	15424	Tube – Vertical Guide	1
36	03023	Nut – Jam 1/2" - 13	6
37	15113	Bolt –1/2"-13x1.25"HHC	6

Optional Equipment

B-H.C. Hydraulic Top Link Kit



Tractor Weights



Item #	Part #	Description	Qty.
1	15150	Hydraulic Cylinder	1
2	15151	Hydraulic Hoses (60")	2
3	15152	NPT to JIC Connectors	2
4	B-TW	Tractor Counter Weights	3