



DIAMOND EDGER Model: B-DE-20

**Operation & Parts Manual** 

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# Diamond Edger Model: B-DE-20

Dear Owner,

Welcome to Bannerman, the Home of Sports Turf Magic.

Your new **Bannerman Diamond Edger** is designed to assist with your ball diamond maintenance needs. The ease of operation and low maintenance will give you many trouble free years of use. Please make sure that you read and understand the important instructions for the assembly, adjustment, operations, safety, and maintenance contained in this manual. If there are any instructions which you do not fully understand, contact your dealer or Bannerman Ltd. for clarification before using the unit.

When in need of replacement parts, specify the model and the serial number of your new **B-DE-20 Diamond Edger**. 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 need any further assistance, please feel free to contact your local Bannerman dealer or Bannerman directly.

Regards,

George Bannerman

George Baum R

Corporate Secretary

## **Warranty Statement**

**Bannerman Ltd** warranties all **B-DE-20 Diamond Edgers**, when appropriately applied and installed, to be free from defects in material and workmanship under normal use and service, for 1 year from the date of use. We must receive the Warranty Card, and Declaration or Delivery Card filled out in its entirety, via mail, fax, or email within 15 days of the date of sale. It is the responsibility of the end user to make sure that the Warranty Card is filled out and submitted to **Bannerman Ltd**. 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 **B-DE-20 Diamond Edger**, or parts determined to be defective and covered by this warranty, is limited to repairing the product or part.

\*An allowance is to be applied to the labour cost for the removal and replacement.\*

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

**Bannerman Ltd** shall not be liable, in the event of proximate, incidental, consequential, special or other damages. This includes, but is not limited to, damages for loss of production, loss of profit, loss of opportunity, or injury to persons 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.

#### **GORDON BANNERMAN LIMITED**

41 Kelfield Street, Rexdale, Ontario, Canada, M9W 5A3

**CONTACT US:** 

CAN 1-800-325-4871 USA 1-800-665-2696 info@sportsturfmagic.com

## **Work Safely - Follow These Rules!**

#### -A careful operator is the best insurance against an accident-

Be sure to observe and follow these safety instructions.

#### Warning: Before handling any equipment, read this operation manual

- 1. Do not wear loose fitting clothing that may catch on moving parts
- 2. Use extreme care when making adjustments
- 3. Always use the proper tools or equipment for the job at hand
- 4. 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 **Diamond Edger**, lower the jack legs and insert the jack safety pins. This will prevent the implement from tipping when detached from the tractor.



# Follow Standard Tractor Safety Rules Warning: Gasoline/Petrol is highly flammable

- Do not smoke while refueling the engine
- Do not refuel while the engine is running
- Do not touch a hot exhaust
- Do not operate near children or animals
- Do not allow persons under the age of 16 years to operate the machine
- Do not operate machine while under the influence of alcohol or drugs
- Do not operate the machine on a steep gradient
- Keep hands and feet clear of moving parts at all times
- Wear protective safety clothing: safety footwear, ear protectors, gloves, goggles, etc.
- Always start this machine at idle speed
- Before beginning work, check the ground for obstructions such as underground cables, pipes, bricks, tree roots, etc.

# Diamond Edger Model: B-DE-20

### Description

#### 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 obtain your diamonds ideal appearance, maintenance is simply a matter of redressing the surface with your **Bannerman Diamond Groomer** (B-BP-4/6 Ballpark-4/6 or B-DM-6 Diamond Master). This can be done efficiently before and after every game, or even between innings.

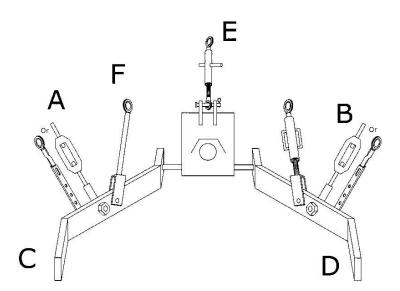
With the **Bannerman Diamond Edger**, you will be able to maintain your diamonds in top-notch shape throughout the entire season, with much less effort when compared to other methods.

## **Specifications**

Tractor Requirements:	23-35 horsepower tractor with Category 1 Three-Point Hitch		
Weight:	250 lbs. (113 Kg)		
Speed of Operation:	3 to 4 MPH. (6 to 6.5 km/h)		
Route of Operation:	Forward direction only. Straight lines and turns are permitted.		
Features & Equipment:	Standard Equipment  - Disc Cleaner - cleans off debris while moving  - Storage / Stand Legs  - Offset Weight Bar Frame  - Adjustable Guide Shoe  Optional Equipment  - B-H.C - Hydraulic Top Link  - 20" Diameter Flat Cutting Disc  - Set of 3 Ballast Weights		

## **Hooking up the Three Point Hitch**

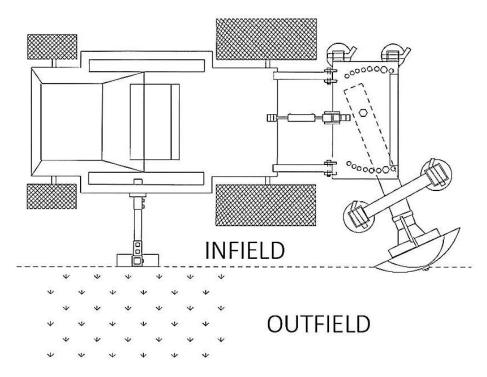
- 1. Select a tractor 23 horsepower or greater, equipped with the standard Category 1 Three-Point Hitch.
- 2. With adequate caution, free up all linkages and pivot ball joints to ensure proper movement of the linkage. This also ensures hook up is quicker & safer.
- 3. With both the tractor and edger on a level, firm surface, first measure the distance from the two rear Three-Point Hitch arms "C" and "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" and "G" may be necessary.
- 4. Safely reverse tractor to the edger, and shut off the engine. Connect the left-hand tractor hitch arm "C" to the edger and snap linchpin into the pin hole.
- 5. Connect the right-hand tractor hitch arm "D" to the edger and snap linchpin into the pin hole.
- 6. Connect adjustable top link "E" to the tractor and the top hole in the "A" frame of the edger. Be sure the snap pins are in the cross holes of the connecting pins Use hardened pins, **NOT** bolts.
- 7. While in a raised position, level the edger horizontally to the rear axle of the tractor.
- 8. Slowly and safely lower the edger to the ground. When the edger 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. Lift the edger for transport to approximately 18" (46 cm) and proceed to the baseball diamond infield surface to be edged.



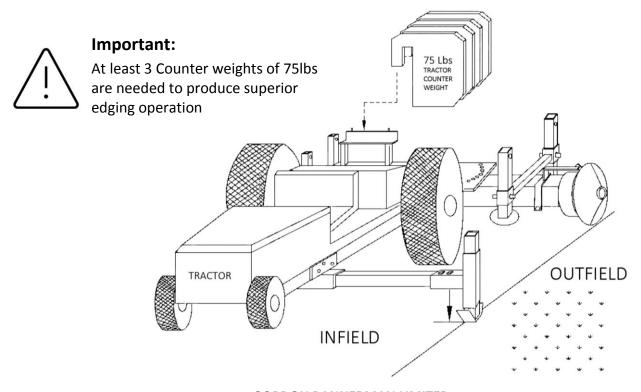
**Note:** Top Link "E" can be either manually adjustable or hydraulic type.

Start tractor engine, raise edger 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" and "B" to prevent side to side movement of the edger. When adjusting, be sure to center the edger to the tractor, ensuring a straight edged line.

## **Mounting Instructions**



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



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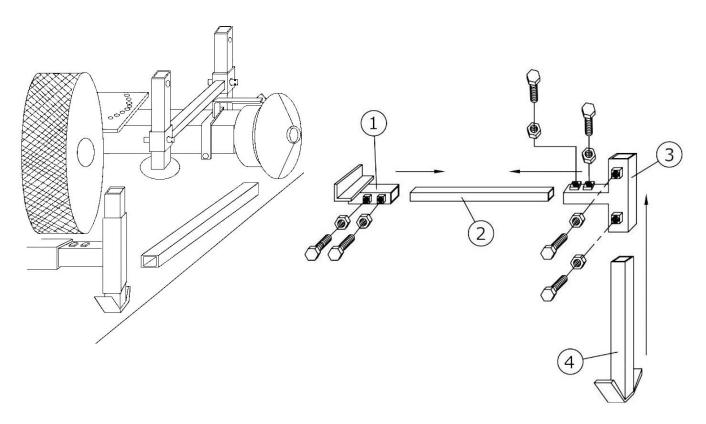
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#### **Guide Installation Instructions**



#### Note:

To ensure proper cutting alignment during use, use a steel tube or wood plank to align the guide shoe with the edging disc.



- 1. Install the mounting bracket (#1 in the diagram above) to the frame of the tractor. Drill holes, or modify bracket to suit the desired mounting area. The mounting bracket must be installed to the same side as the edging disc and placed in the middle of the tractor. It should be clear of the tractor wheels turning radius, and visible to the operator.
- 2. Insert the telescopic arm (#2) into the mounting bracket (#1) and lock in the desired position using the 1/2"-13 bolts and 1/2-13 jam nuts provided.
- 3. Fit the guide shoe (#4) into the adjusting tee bracket (#3), secure using 1/2"-13 bolts and 1/2"-13 jam nuts provided. Ensure that the guide shoe is parallel with the tractor tire.
- 4. 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.

**Note:** 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**

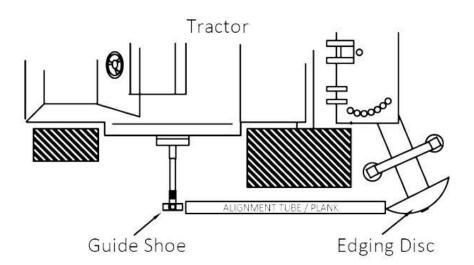
The diagram below depicts the use of a steel tube or wood plank in order to obtain proper alignment.

#### Please Note:



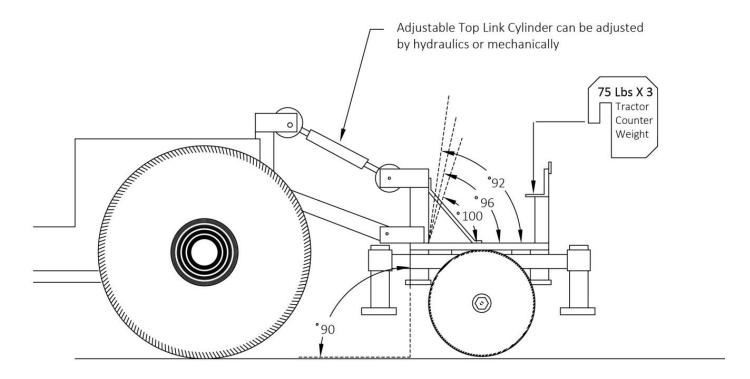
- It is important that the guide shoe and cutting disc are parallel and properly aligned to ensure that the tube/plank is parallel to the rear tire of the tractor.
- The edging disc guide must be mounted in the middle of the tractor and on the same side as the edging disc.
- Be sure that the guide is in the operator's line of sight. Poor visibility during use will result in difficulty following an edge, producing a poor edging job.
- Ensure 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 fluctuations.

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



## How to use the B-DE-20 Diamond Edger

Before operation of the **Bannerman Diamond Edger**, check to make sure that it does not hit the rear tires, the legs are raised to the operating position, and the pull pins are secured. While in motion, ensure that edger parts are free from tractor extremities and any debris.



### **Hydraulic Cylinder Top Link Option**

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 center to edge terrain that may be impacted or very soft. **Do not overextend the cylinder**.

#### **Basic Maintenance**

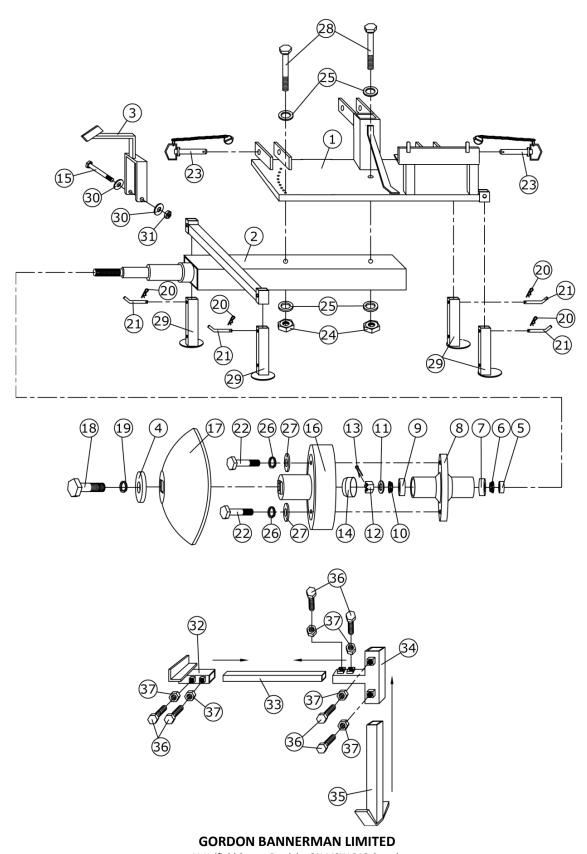


**Daily:** Walk around the edger and visually check the frame and components for signs of wear or disfiguration. Any damaged parts should be changed before any operation. Lightly oil.



Weekly: Check all securing bolts are present and are tight.

## **B-DE-20 Diamond Edger Parts Breakdown**



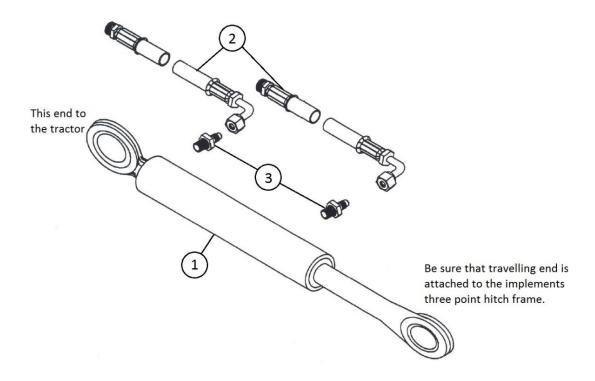
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# **B-DE-20 Diamond Edger Parts List**

Item #	Part #	Description	Qty.
1	15400	Frame - Main	1
2	15401	Axle Assembly	1
3	15402	Scrapper 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



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