

BaNNerman

Parks & Playground Seeder



Model: B-PPS-5

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March 7, 2011

Dear Owner,

Welcome to Bannerman, the Home of Sports Turf Magic.

Your new **B-PPS-5 Parks & Playground** is designed to improve your total seeding 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
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Warranty

Bannerman Ltd. warranties all **Bannerman B-PPS-5 Parks & Playground**, 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-PPS-5 Parks & Playground** 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 store the seeder on a kid or flat wood sheet to prevent damage to the spiker tines and the long tine rake tines.
6. Remove all seed from the hopper using a shop vacuum and rotate the calibration wheel with the seeder in the open position to remove seed in the bottom of the hopper.

Parks & Playground Seeder

The Bannerman B-PPS-5 Parks & Playground will reduce the time, effort and labour to do the job.

General Information

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

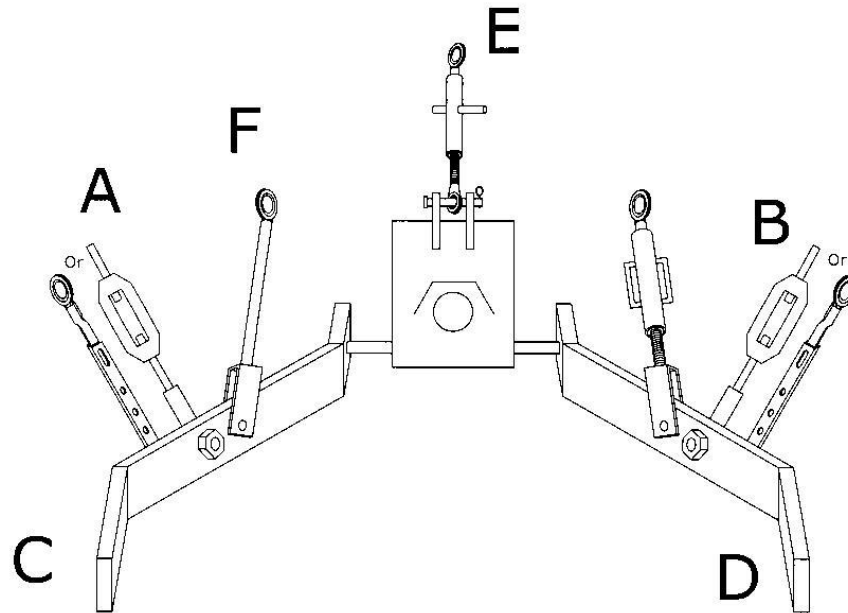
Weight: Approximately ____ lbs.

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 minimum 17 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 & seeder 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 seeder, 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 seeder, pick-up pin locate the lock snap pin into the pin hole.
6. Connect tractor adjustable top link "E" to the tractor and to the top hole in "A" frame of edger. Be sure snap pins are in cross holes of connecting pins, use hardened pins, **NOT** Bolts.
7. While the seeder is in raised position, level the seeder horizontally to the rear axle of the tractor.
8. Safely and slowly lower the seeder to the ground. When the seeder 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 spiker tines, to the level ground.
9. Lift the seeder for transport to approximately 18" (46 cm) of height and proceed to the field surface to be seeded.



Note: Top Link "E" can be either manual adjustable or hydraulic type. Start tractor engine, raise seeder 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 seeder. Be sure when adjusting side sway to centre the seeder to tractor to ensure seeder follows in a straight line of cultivation behind the tractor.

Basic Maintenance

Each Time before Use:

Grease the hitch pins prior to attaching the seeder to the tractor. Grease all fittings on the screw jacks (2 per jack)

Grease each fitting on the end bearings.

Lubricate the spoke wheel and drive chain with summer grade chain saw oil.

Each Time after use:

Open the slide chute in the seeder hopper, lift the unit free of the ground, rotate the calibrator wheel until all the seed is dispensed from the hopper, and use a shop vacuum to collect any remaining seed.

Tool Adjustments

The following guidelines below should be achieved while the unit is sitting level with the ground.

Spiker Wheel:

Two inches in the ground.

Seed hopper:

Three inches above the ground.

Long Tine Rake:

$\frac{3}{8}$ " - $\frac{1}{2}$ " in the ground.

Calibration Rates

- 1 Raise machine clear of the ground and pour 20 lbs. of seed in the hopper evenly distributed across the bottom end to end.
- 2 Set the guage dial on #6 place a plastic sheeting below the seeder. Open the chute control, and turn the calibrator wheel 50 complete turns counter-clockwise, the close the chute control. Weigh the collected seed in pounds. This weight is the pounds per 1000 square feet.
- 3 Repeat step 2 a total of three times to ensure that the rate is correct.

Note: To determine the number of pounds required by acre, multiply the number of pounds per 1000 square feet by 43.56.

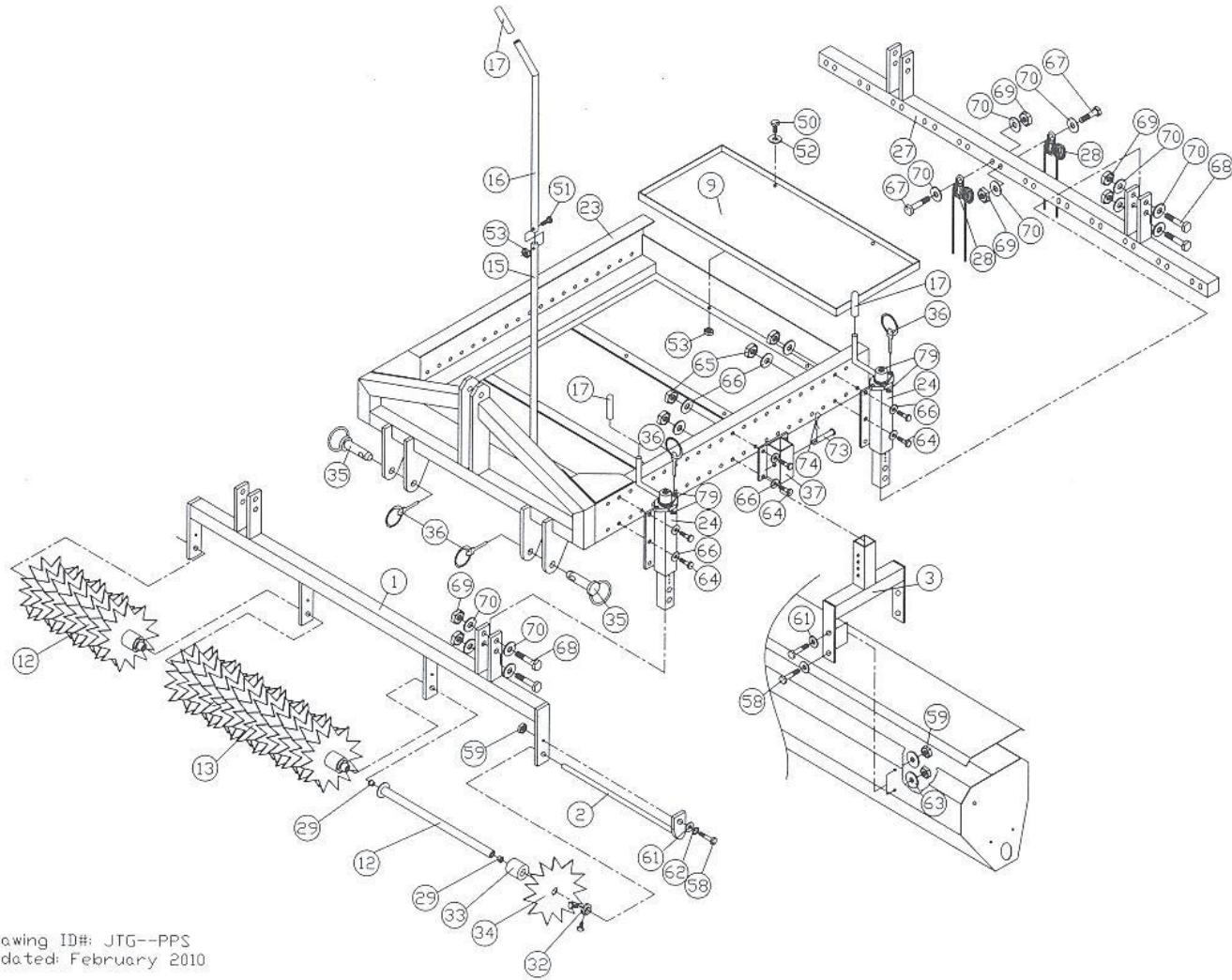
This is a detailed exploded view diagram of a mechanical assembly, likely a conveyor system or a material handling device. The diagram shows various components and their assembly relationships, indicated by dashed lines. The components are numbered as follows:

- 5:** A star-shaped component, possibly a sprocket or a drive member.
- 6, 7, 8:** Structural components, possibly guides or supports.
- 10:** Two U-shaped components, likely chains or guides.
- 14, 18, 20, 21:** Various structural and mounting components.
- 22, 25, 26:** Springs or tensioning components.
- 30, 31, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49:** A large number of small components, including pins, rollers, and structural elements.
- 54, 55, 56, 57, 58, 59, 60, 61, 71, 72, 75, 76, 77, 78:** Additional components, including a gear (71), a chain (72), and various fasteners and structural parts.
- 19:** A component at the bottom right, possibly a support or a guide.

The diagram illustrates the assembly of these components into a functional unit. The components are arranged in a way that shows their relative positions and how they fit together.

B-PPS-5 Parks & Playground

Parts Manual & Accessories



PARKS & PLAYGROUND SEEDER

Item No.	Part No.	Part Description	Qty.
1	14101	Frame - Spiker	1
2	14102	Shaft - Spiker Tine	1
3	14103	Hanger - Hopper	2
4	14104	Pivot BRKT - Ground Wheel	1
5	14105	Wheel - Ground	1
6	14106	BRKT - Wind Screen	1
7	14107	Clamp - Screen	1
8	14108	Screen - Rubber	1
9	14109	Platform	1
10	14110	Chain	1
11	14111	Sprocket - 15 Tooth	1
12	14112	Reel - Short Spiker	2
13	14113	Reel - Long Spiker	1
14	14114	Chain - Link Weld	1
15	14115	Handle - Lower Gate	1
16	14116	Handle - Upper Gate	1
17	14117	Grip - Hand	5
18	14118	Handle, Grab	1
19	14119	Guard, Chain	1
20	14120	Seed Box Assembly	1
21	14121	Hold Down	2
22	14122	Sprocket, 30 Tooth	1
23	15100	Frame - Main	1
24	15103	Screw Jack Assembly	4
25	15124	Chain - Coil (4-link)	1
26	15125	EXT. Spring	1
27	15300	Rake Bar	1
28	15301	Long Fluff Tine	24
29	08055	Bearing - Bronze	6
30	08061	Bearing - Jack Shaft	1
31	08062	Housing - Jack Shaft	1
32	08145	Collar - 1.5 Set	3
33	08148	Spacer - Spiker Blade	35
34	08149	Blade - B-400 Spiker	35
35	15116	Pin - Tow	2
36	15045	Pin - Lynch	6
37	15303	BRKT - Mounting	2
38	309	Bearing - Seed Box	2
39	314	Flow Shaft - Seed Box	1
40	315	Flow Plate - Bottom	1
41	316	Flow Plate - Top	1

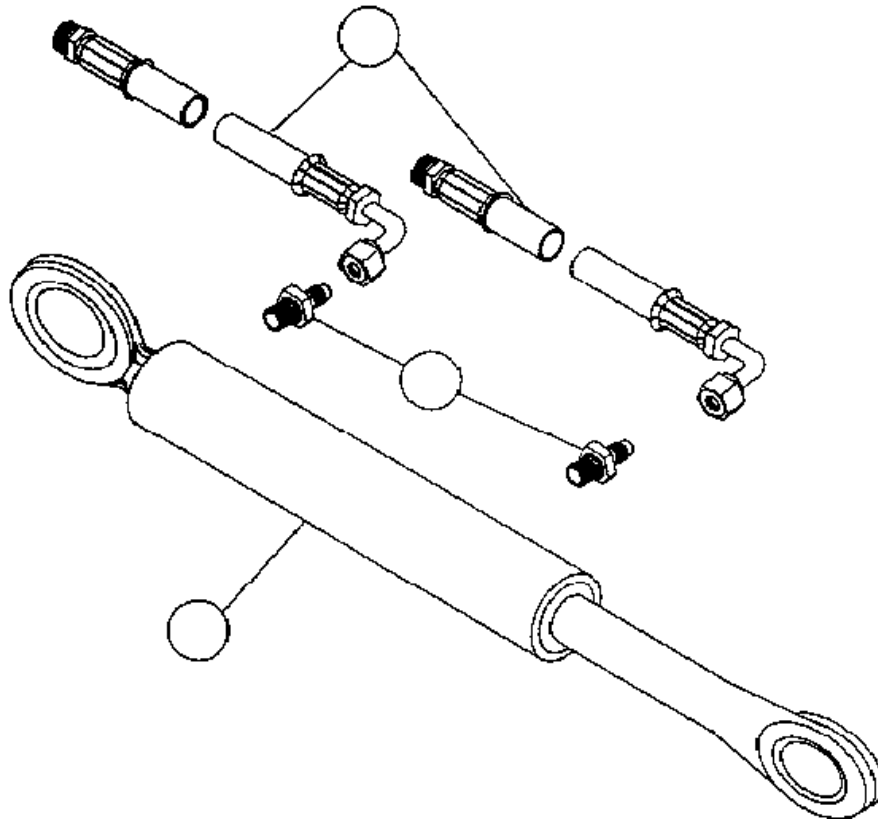
Item No.	Part No.	Part Description	Qty.
42	317	Spring - Seed Box	8
43	318	Hopper - Seed Box	1
44	319	Lid - Seed Box	1
45	324	Gauge - Metering	1
46	325	Nut, Seed Box Gauge	1
47	11230	Bolt, 10-24 X 0.5" HHC	3
48	02048	Nut, Nylon Insert 10-24	3
49	03007	Washer, #10 Flat SAE	3
50	03013	Bolt, 1/4"-20 X 0.75"HHC	4
51	01019	Bolt, 1/4"-20 X 1.5"HHC	1
52	02066	Nut, Nylon Insert 1/4"-20	5
53	03007	Washer, 1/4" Flat SAE	5
54	11236	Bolt, 5/16"-18 X 1.25"HHC	6
55	02004	Nut, Nylon Insert 5/16"-18	6
56		Nut, Free Running 5/16"-18	1
57	02005	Washer, 5/16" Flat SAE	12
58	03016	Bolt, 3/8"-16 X 1"HHC	10
59	03022	Nut, Nylon Insert 3/8"-16	10
60		Nut, Free Running 3/8"-16	1
61	02024	Washer, 3/8" Flat SAE	10
62	03049	Washer, 3/8" Lock	1
63	14124	Washer, 3/8" Fender	8
64	03020	Bolt, 1/2"-13 X 3"HHC	24
65	03024	Nut, Nylon Insert 1/2"-13	24
66	03032	Washer, 1/2" Flat SAE	48
67	15302	Bolt, 5/8"-11 X 3.5"HHC	24
68	15111	Bolt, 5/8"-11 X 3"HHC	8
69	09024	Nut, Nylon Insert 5/8"-11	32
70	04037	Washer, 5/8" Flat SAE	112
71	03064	Bolt, 5/16" Eye	1
72	00124	Bolt, 3/8" Eye	1
73	08535	Pin, Clevis	2
74	08174	Pin, Hitch	2
75	11284	Ring, Snap 3/4"	2
76	08031	Key, Woodruff	3
77	00831	Cold Shuts	1
78	08034	Washer, Special	2
79	02030	Grease Fitting	4

B-PPS-5 Parks & Playground Parts Manual & Accessories - Optional Equipment

B-H.C. Hydraulic Top Link Kit

At the starting position the Parks and Playground Seeder should be at a 90 degree angle to the tractor for optimum performance. With the hydraulic Top link, the operator can manipulate

(Do not over extend the cylinder).



Ref #	Part #	Description	Qty.
1	15150	Hydraulic Cylinder	1
2	15151	Hydraulic Hoses (60" Long)	2
3	15152	NPT to JIC Connectors	2