



Diamond Master Model no.: B-DM-6 Operation & Parts Manual

GORDON BANNERMAN LIMITED

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Warranty

Bannerman Ltd warranties all Bannerman B-DM-6 Diamond Master machines, when applied and installed, to be free from defects in material and workmanship under normal use and service for a period of 1 year from date of use. We must receive the Warranty Card and Declaration or Delivery Card filled out in its entirety, via post, fax, or email within 15 days of date of sale. It is the responsibility of the end user to make sure that the Warranty Card has been 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 responsibilities for the **B-DM-6 Diamond Master** 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 expense incurred in parts, labour or transportation by unauthorized persons will be allowed under this warranty. **Bannerman Ltd** reserves the right of any part or Bannerman assembly (with transportation prepaid) claimed to be covered under this warranty.

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

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GORDON BANNERMAN LIMITED

Diamond Master Leveler and Surface Restorer



The Diamond Master can give your Community ball diamonds a surface Like the professional teams demand – And reduce the job time, effort and labour to do the job.

With Diamond Master, once you get your Diamonds into shape, it is simply a matter To redress 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 horse power tractor with a Category 1 Three Point Hitch

Weight: 850 lbs

Speed of Operation: 3 to 4 m.p.h (6 to 6.5 k.p.h)

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

Basic Maintenance

Daily:

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

Leveler:

Oil pivots points (there are 8 in total)

Weekly:

Check all securing bolts are present and are tight. Grease all screw jacks.

Adjustment of Tools

The five standard tools are individually adjustable, and can be easily adjusted for each diamond's condition. There is a series of holes on the side of each screw jack. These are used to check to see that the tools are level and set at the proper height. The number of holes showing is used to determine the height. Two holes showing means that the second hole on the jack, counting up from the tool, is in line with the bottom of the jack's outer casting. Adjustments are easily made by removing the snap pin and turning the handle. The snap pin must be replaced after adjustment to keep the tool from moving.

Once the groomer is initially set up, fine tuning can be done by turning each screw jack on a given tool the same number of turns. Each tool could be lowered 1 ½ turns for a quick adjustment without looking at the number of holes. Remember that this assumes the tools were set level initially.

Note: The roller assembly must be the first tool adjusted when setting up the machine. This is due to the roller being the reference that all the other tools are positioned from.

Important: All settings of the groomer also depends on the length of the top link of the tractor. If the length of the top link is changed, this will change the settings of all the tools.

The initial set up of the groomer should have the three point hitch at an angle of approximately 90 degrees to the tractor.

If the groomer has previously been set up and you are re-attaching it to the tractor, the top link will have to be adjusted to its previous length. A quick way to do this is to put the groomer down on a level surface, such as a parking lot or shop floor, and adjust the top link until the ripper blade is ½" to 5/8" off the ground. Remember that this assumes that the machine was properly set up before its removal from the tractor.

Tool Settings & Adjustments

Roller Assembly – Adjust First

Original Setting: 6 Holes Showing

Function: Packs the material down for a firm finish. The roller is also the "reference" for the position of all the other tools. The roller height should be set first and then locked into place.

Adjustment: The roller should be at a setting that allows all the other tools to be moved up and down and still operate correctly. The original setting is best for this but may be lowered later to compensate for other tools wearing.

Ripper Blade

Original Setting: 1 Hole Showing

Function: Breaks up any slight mounding or highly compacted areas. Can be used to move large amounts of material from high areas to low areas. Speed should be reduced when there is an increased amount of material.

Adjustment: For normal operation the blade should have ½" to 5/8" clearance between the bottom of the blade and the ground. For hard pack diamonds, the blade should be lowered to break up the ground. The blade can also be lowered without adjusting any screw jacks by shortening the top link of the three point hitch. This is an advantage as this will also lift the brush from the ground to reduce wear during initial renovations.

Rake Assembly

Original Setting: 9 Holes Showing

Function: Breaks up any lumps and initiates the grooming process. Aside from vertical adjustment, the coiled tine head has three positions for the ground contact angle.

Adjustment: The tines need some tension to work properly. To set the rake, raise the groomer.

Tool Settings & Adjustments

Leveler Assembly

Original Setting: 6 Holes Showing

Function: Material loosened by the ripper and the rake is leveled by using a dual blade mounted on a parallel linkage system. This ensures a smooth and level playing field.

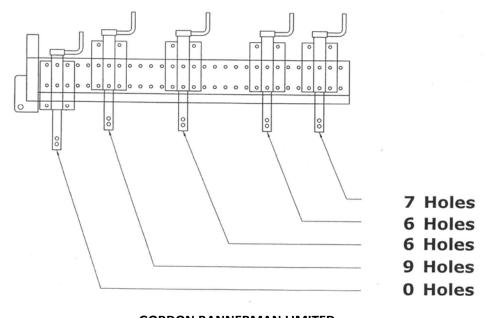
Adjustment: The leveler should have a 15 to 20 degree angle on the parallel linkage when sitting on a flat surface. The leveler may be difficult to adjust down if the location was from the point where it was not touching the ground. In this case, push the leveler back towards the roller to adjust.

Brush Assembly

Original Setting: 7 Holes Showing

Function: Applies the final cosmetic appearance. Adjusting brush pressure changes the final appearance of the infield.

Adjustment: The brush assembly should be raised during initial renovating to reduce wear. For applying the final cosmetic appearance, the brush should be lowered until the bristles just make light contact with the ground.



How to use the B-DM-6 Diamond Master

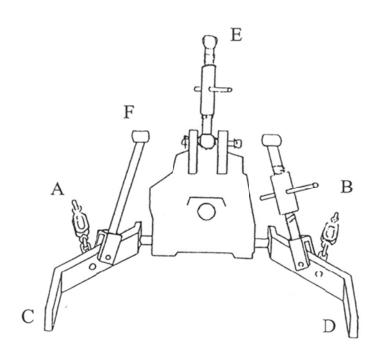
Approach the baseball diamond at a slow speed, approximately 3 to 5 m.p.h. Gently lower the groomer to the surface while on the move. Observe contact with the surface of the rake, leveler, roller and brush. To quickly engage the ripper blade to a depth of ¼" to 3/8" stop the tractor, shut off the engine, climb off the tractor, shorten the top link approximately ¼ to ½ and relock. When back in the tractor seat, start the engine and pull ahead, again observing the tools. All of the tools should be in contact with the surface.

Hooking up the Three Point Hitch

- 1. Select a tractor 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 the hook up is quicker and safer.
- 3. With both the tractor & groomer 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" (15cm). Adjustment to the vertical tractor lift links "F" & "G" may be necessary.
- 4. Safely reverse tractor to groomer, and "shut-off" the tractor's engine. Connect the left hand tractor hitch arm "C" onto the groomer 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 the tractor adjustable top link "E" to tractor and to the top hold in "A" frame of the groomer. Be sure snap pins are in cross holes of connecting pins, use hardened pins, NOT bolts. NOTE: Top Link "E" can be either manual adjustable or hydraulic type. Start tractor engine, raise groomer to height of 2ft (60cm) off 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 the tractor to ensure groomer follows in a straight line of cultivation behind the tractor.
- 7. While the groomer is in the 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" (16mm) 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.

Three Point Hitch Diagram



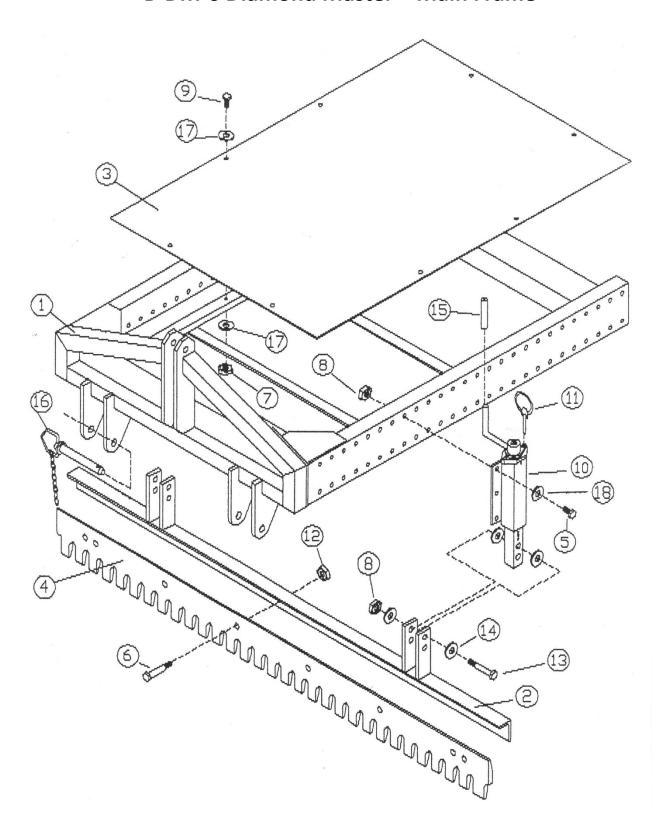
Diamond Master Model no.: B-DM-6

Parts Manual & Accessories



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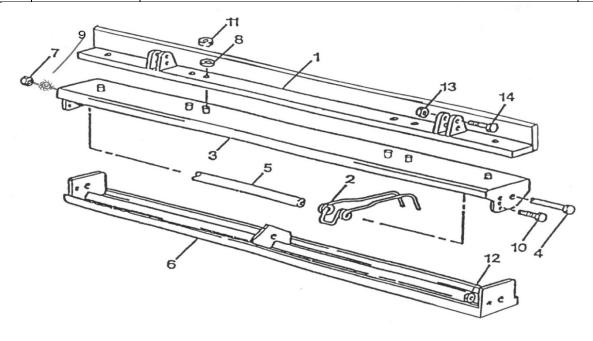
B-DM-6 Diamond Master – Main Frame



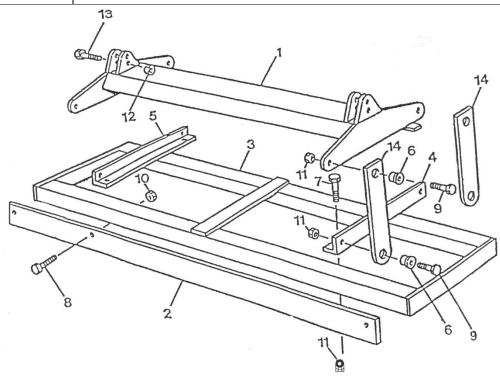
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	B-DM-6 Diamond Master - Main Frame		
	Part No	Description	Qty
1	15100	Frame, Main	1
2	15101	Frame, Ripper Blade	1
3	15102	Platform	1
4	15031	Ripper Blade	1
5	15113	Bolt, HHC 1/2" - 13 x 1- 1/4"	40
6	15032	Bolt, Blade (Comes with #12 Nut)	6
7	02004	Nut, Nylon Insert - 5/16" 18	8
8	03024	Nut, Nylon Insert - 1/2" - 13	40
9	03057	Bolt, HHC - 5/16 - 18 x 1	8
10	15103	Screw Jack Assembly	10
11	15045	Pin, Lynch	10
12	15033	Nut, Hex - 5/8" - 11	6
13	15110	Bolt, Shear	4
14	04037	Washer, Flat - 5/8"	32
15	15112	Grip, Hand	10
16	15116	Pin, Towing	2
17	02005	Washer, Flat - 5/16"	16
18	03032	Washer, Flat - 1/2"	40

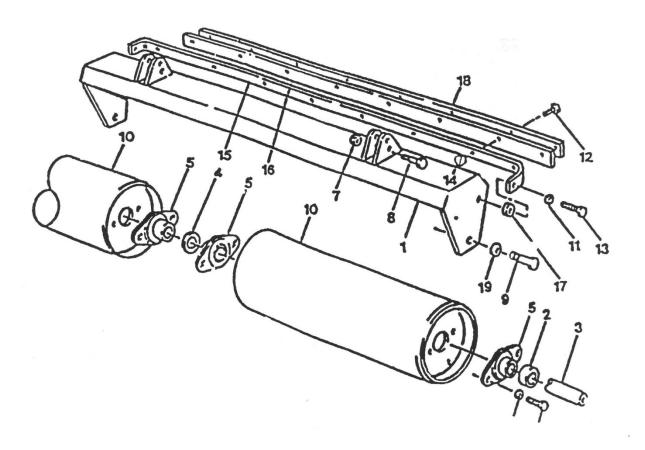
	B-DM-6 Diamond Master - Rake Assembly			
	Part No	Description	Qty	
1	15105	Rake Frame Angle	1	
2	15028	Coiled Tines - Standard	38	
2	15029	Coiled Tines - Heavy Duty	26	
3	15002	Rake Frame Top	1	
4	15003	Rod Tine Tube	1	
5	15004	Tine Tube	1	
6	15006	Rake Frame Bottom	1	
7	15039	Nut, Jam 1 1/2" - 20	1	
8	9016	Washer, Flat - 7/16"	8	
9	15043	Washer, Star External 1/2"	1	
10	3016	Screw, HHC - 3/8" - 16X1	2	
11	15047	Nut, Nylon Insert - 7/16 - 14	8	
12	3022	Nut, Nylon Insert - 3/8 - 16	2	
13	4038	Nut, Nylon Insert - 5/6 - 18	4	
14	15111	Screw, HHC - 5/8" - 18 X 1-1/2	4	



	B-DM-6 Diamond Master - Leveler Assembly		
	Part No	Description	Qty
1	15104	Leveler Suspension Frame	1
2	15014	Leveler Blade	2
3	15013	Leveler Frame	1
4	15012	Leveler Pivot Right Hand	1
5	15011	Leveler Pivot Left Hand	1
6	15034	Ferrule	8
7	11218	Screw, HHC - 1/2" - 13 X 1-1/2"	4
8	3016	Screw, HHC - 3/8" -16	10
9	11225	Screw, HHC - 1/2" - 13 X 1-3/4"	8
10	3022	Nut, Nylon Insert - 3/8" - 16	10
11	3024	Nut, Nylon Insert - 1//2" - 13	14
12	4038	Nut, Nylon Insert - 5/8" - 18	4
13	15111	Screw, HHC - 5/8" - 18 X 3-1/2	4
14	15010	Parallel Links	4

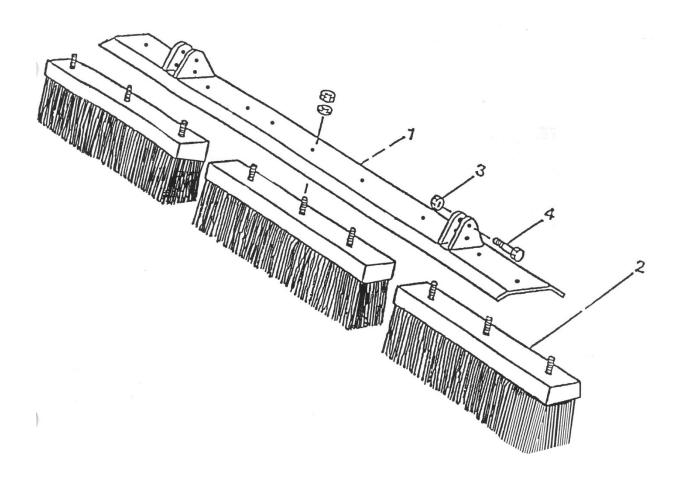


B-DM-6 Diamond Master - Roller Assembly

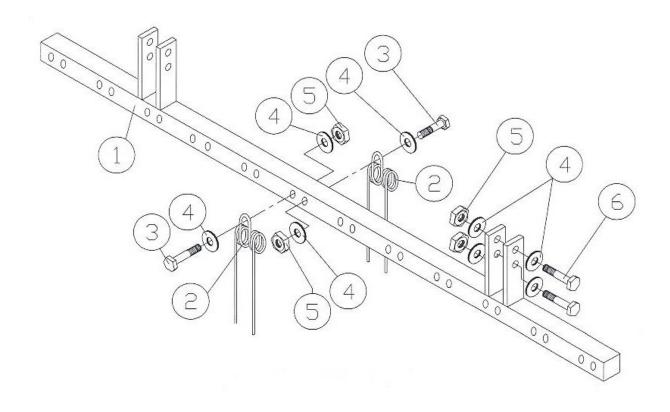


	B-DM-6 Diamond Master - Roller Assembly		
	Part No.	Description	Qty
1	15107	Roller Frame	1
2	15019	Roller Shaft Spacer	2
3	15025	Roller Shaft	1
4	02014-2	Washer	1
	15040	Washer Steel Spacer	8
5	15027	Flange Bearing	4
6	3016	Screw, HHC - 3/8" - 16 x1	8
7	4038	Nut, Nylon Insert - 5/8" - 18	4
8	15111	Screw, HHC - 5/8" - 18 X 3-1/2"	4
9	15041	Screw, HHC - 3/4" -10 X 2	2
10	15026	Roller Half	2
11	3032	Washer, Flat - 1/2" SAE	2
12	3057	Screw, HHC - 5/16" - 18 X 1-1/2"	8
13	11234	Screw, HHC - 1/2" - 13 X 2"	2
14	2004	Nut, Nylon Insert - 5/16" - 18	8
15	15016	Scraper, Frame	1
16	15024	Scraper, Rubber	1
17	3032	Washer, Flat - 1/2" SAE	6
18	15017	Scraper, Clamp	1
19	15042	Washer, Lock - 3/4"	2
20	03049	Washer, Lock - 3/8"	8
21	2024	Washer, Flat - 3/8"	8
,		Complete Roller Assembly Available Part No 15096	·

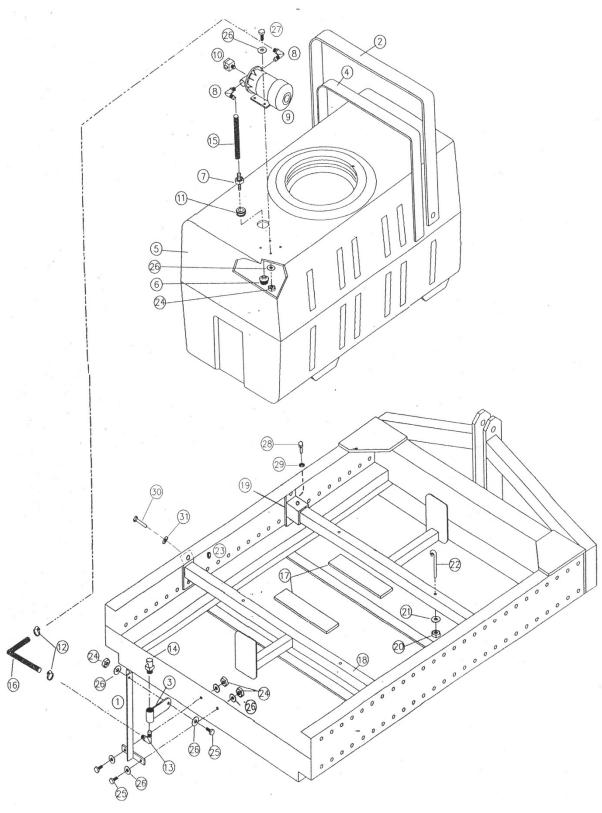
B-DM-6 Diamond Master - Brush Assembly			
	Part No.	Description	Qty
1	15108	Frame Brush	1
2	15030	Brush	3
3	4038	Nut, nylon Insert - 5/8" - 18	4
4	15111	Screw, HHC - 5/8" - 18 X 3-1/2"	4
5	15046	Screw, HHC - 3/8" - 16 X 2-3/4"	9
6	02024	Washer, Flat - 3/8" SAE	18
7	03022	Nut, Nylon Insert - 3/8" - 16	9



	B-DM-6 Diamond Master Long Tine Rake Assembly			
	Part No.	Description	Qty	
1	15300	Rake bar	1	
2	15301	Long Tine	24	
3	15302	Screw, 5/8" - 18 X 3 1/2"	24	
4	04037	Washer, Flat 5/8" SAE	56	
5	04038	Nut, Nylon Insert 5/8" - 11	28	
6	15111	Screw, HHC 5/8" - 11 X 3	4	



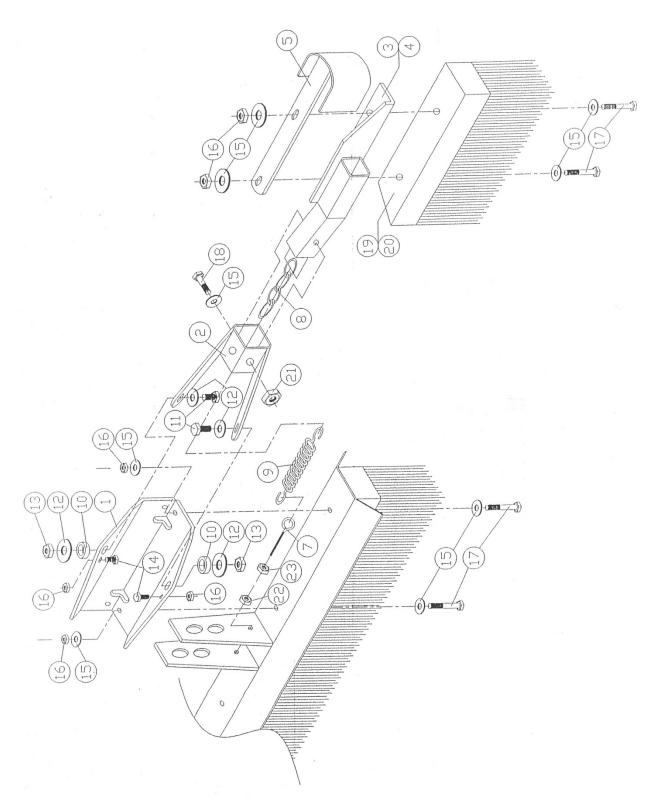
Diamond Master Water Tank Kit



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B-DM-6 Diamond Master B-W.T.DM Water Tank Kit			
	Part No.	Description	Qty
1	15201	Bracket - Nozzle Mounting	1
2	15202	Strap - Tank	2
3	15203	Bracket - Nozzle Coupling	1
4	15217	Pad - Rubber	2
5	15205	Tank - Water	1
6	15206	Screen - Filter	1
7	15207	Adapter - Barb	1
8	15208	Elbow - 90	2
9	15209	Pump, 12 Volt	1
10	15210	Switch - Pressure	1
11	15211	Grommet	1
12	15212	Clamp - Gear	2
13	15213	Elbow - 1/2" N.P.T.	1
14	15214	Nozzle - 4.0 GPM	1
15	15215	Hose - 1/2" x 24"	1
16	15216	Hose - 1/2" x 26"	1
17	15204	Pad - Tank Mounting	2
18	15220	Frame - Tank Mounting	2
19	15221	Bracket - Tank Mounting Pocket	2
20	2004	Nut, Nylon Insert 5/16" - 18	4
21	2005	Washer, 5/16" SAE	4
22	15218	Eye Bolt, 5/16" - 18	4
23	3024	Nut, Nylon Insert 1/2"-13	8
24	2066	Nut, Nylon Insert 1/4"-20	7
25	3055	Screw, HHC 1/4" - 20 X 1	3
26	3007	Washer, 1/4" SAE	10
27	1019	Screw, HHC 1/4" - 20 X 1-1/2"	4
28	3016	Screw, HHC 3/8" - 16	2
29	2033	Nut, HEX 3/8-16	2
30	15113	Screw 1/2" - 13 X 1-1/4"	8
31	3022	Washer, 1/2" SAE	8

B-DM-6 Diamond Master Wing Brush Kit



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B-DM-6 Diamond Master B-WB-KIT-SA Wing Brush Kit			
	Part No.	Description	Qty
1	15120	Brush Plate	2
2	15121	Pivot Plate	2
3	15061	Brush Bracket (LH)	1
4	15059	Brush Bracket (RH)	1
5	15122	Nose Guard	2
6	15123	Eye Bolt Bracket	2
7	03064	Eye Bolt Bracket	2
8	15124	Chain - 4 Link	2
9	15125	Srping, Wing Brush	2
10	15034	Bushing, 1/2" ID	4
11	11218	Bolt, HHC 1/2" - 13 X 1.5"	4
12	03032	Washer, 1/2" SAE	8
13	03024	Nut, Nylon Insert 1/2"-13	4
14	03016	Bolt, 3/8" - 18 X 1" HHC	4
15	02024	Washer, 3/8" SAE	20
16	03022	Nut, Nylon Insert 3/8" - 16	12
17	11212	Bolt, HHC 3/8" - 18 X 3.25"	8
18	11210	Bolt, HHC 3/8" X 2.5"	2
19	15053	Wing Brush, RH	1
20	15057	Wing Brush, LH	1
21	03062	Nut, Jam 3/8" - 16	2
22	02004	Nut, Nylon Insert 5/16" - 18	2
23	08078	Nut, Free Running 5/16" - 18	2



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