For use with the following starting serial numbers:ModelSerial NumberBDH1250BD12CBDH1400BD14C

### BDH Wide Series Disc Harrow



ATTENTION: ALL WARRANTY WORK MUST BE APPROVED BY BROWN MFG. CORP. BEFORE WORK BEGINS



### **Owner/Operator Manual**



6001 E. Hwy 27 - Ozark, AL 36360 334.795.6603 - Fax: 334.795.3029

www.brownmfgcorp.com

### Before operating vol



Before operating your machine, stop and read this owners manual. Do not attempt to operate the unit until you fully understand the material covered in this manual. Without the knowledge contained in this manual, injury or death can result.

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#### Cover

Pictured: Model BDH-1400 disc harrow.

#### Disclaimer

Due to engineering improvements and revision of product specifications, the information contained in this manual is subject to change without notice.

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### Warranty Statement

#### LIMITED WARRANTY

BROWN MANUFACTURING CORP. hereby warrants that Brown's products will be free from defects in material and workmanship under normal use according to the provisions and limitations herein set forth. All parts, specifically EXCLUDING expendable 'wear' parts, that become unserviceable, due to defective material or workmanship, within three months / 90 days from date of the original retail purchase, shall, at Brown's option, be repaired or replaced.

#### LIMITATIONS

The obligations of Brown for breach of warranty shall be limited to products manufactured by Brown; (1) that are installed, operated, and maintained according to Brown's instruction furnished and/or available to the purchaser upon request; (2) that are installed according to all other applicable Federal, State, and local codes or regulations; and (3) that the purchaser substantiates were defective in material and workmanship notwithstanding that they were properly installed and correctly maintained as set forth and were not abused or misused. The obligation of Brown shall be limited to replacing or repairing the detective product, at the option of Brown. Brown shall not be responsible for any labor or cost of removal or repairing or reinstallation of its products and shall not be liable for transportation costs to and from its plant in Ozark, Alabama. Use of parts for modification or repair of the product or any component part thereof not authorized or manufactured by Brown specifically for such product shall void this warranty. This warranty shall not apply to any damage to or defect in the Brown's products that is directly or indirectly caused by; (1) FORCE MAJEURE, act of GOD, or other accident not related to an inherent product defect; or (2) abuse, misuse, or neglect of the such product, including any damage caused by improper assembly, installation, adjustment, or faulty instruction of the purchaser. OTHER THAN AS EXPRESSLY SET FORTH HEREINABOVE, BROWN MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECTTOANYOFBROWN'SPRODUCTS, INCLUDED BUTNOTLIMITED TOANYMERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL BROWN BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE SUFFERED BY PURCHASER OR ANY OTHER PERSON OR ENTITY CAUSED IN WHOLE OR IN PART BY ANY OF BROWN'S PRODUCTS. Any person or entity to whom this warranty extends and who claims breach of warranty against Brown must bring suit thereon within one year from the date of occurrence of such breach of warranty or be forever barred from any and all legal or other remedies for such breach of warranty. Brown is not responsible for and hereby disclaims any undertaking, representation, or warranty made by any dealer, distributor, or other person that is inconsistent with or in any way more expensive than the provisions of this limited warranty. This warranty grants specific legal rights and shall be read in conformity with applicable state law. In some jurisdictions, the applicable law mandates warranty provisions that provide greater rights than those provided for herein. In such case, this limited warranty shall be read to include such mandates provisions; and any provision herein that is prohibited or unenforceable in any such jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceable without invalidating the remaining provisions and without affecting the validity or enforceability of such provisions in any other jurisdiction.

#### STATEMENT OF POLICY

In accordance with our established policy of constant improvement, we reserve the right to amend these specifications at any time without notice.

#### WARRANTY BY MANUFACTURER

Dealer/distributor understands and agrees that the manufacturer extends only the following warranty to its customers. In the event dealer/distributor extends any additional warranty such as enlarging the scope or period of warranty or undertaking a warranty of fitness for any particular purpose or obligation not encompassed in manufacturer's warranty, dealer/distributor shall be solely responsible therefore and shall have no recourse against manufacturer with respect thereto.

### **Owner Registration**

To place the manufacturer's warranty into effect, the registration card below must be mailed within thirty (30) days after receiving equipment.

Owner Registration	
<b>Important:</b> Please record your Model, Serial Number, Date Purchased, and	Model: BDH
Dealer Information for future reference.	Serial No.:
<b>For further information:</b> Brown Manufacturing Corp.	Date Purchased://
6001 E. Hwy 27 Ozark, AL 36360	Dealer:
Phone: (334) 795-6603 Toll Free: (800) 663-8909 FAX: (334) 795-3029	
www.brownmfgcorp.com brown@brownmfgcorp.com	

Owner Registration	
<b>Important:</b> To place the manufacturer's warranty into	Name:
effect, this card must be	Address:
mailed within thirty (30) days after receiving equipment.	City: State:
	Model: BDH
Return to:	Serial No.:
Brown Manufacturing Corp.	Date Purchased://
6001 E. Hwy 27 Ozark, AL 36360	Dealer:

### Please use envelope.

#### Warning: Read this manual before operation.

Operators of the equipment must read and understand this manual. Failure to read this manual and follow these safety and operating instructions could result in serious bodily injury or even death.

## 



Before operating your machine, stop and read this owners manual. Do not attempt to operate the unit until you fully understand the material covered in this manual. Without the knowledge contained in this manual, injury or death can result.

### Recognize safety information

This is the safety alert symbol. When you see this symbol on your equipment or in this manual, be alert to the potential for personal injury or injury to others.

### Understand signal words

**DANGER** indicates an imminently hazardous situation which, if not avoided, <u>will</u> result in <u>death or serious injury</u>

**WARNING** indicates a hazardous situation which, if not avoided, <u>could</u> result in <u>serious injury or death</u>.

**CAUTION** indicates a potentially hazardous situation which, if not avoided, <u>may</u> result in <u>minor or moderate injury</u>.

**NOTICE** indicates information considered important but not directly hazard related. (e.g. security, hygiene, equipment or property damage).

#### Follow safety instructions

- Read owner/operator manual.
- Replace missing or damaged safety decals.
- Safety decals and this manual must be considered a permanent part of your equipment.
- Should ownership of the equipment be transferred, this manual must also be transferred.
- Unauthorized modifications to the equipment are not recommended. This could impair the function, safety, and life of the machine.
- For any part of this manual that you do not understand, contact your dealer or Brown Manufacturing Corporation at (800) 633-8909.
- All implements with moving parts are potentially dangerous. Due to this fact, there is no substitute for a safe, knowledgeable operator. It is important that all persons operating this equipment read, understand, and follow the instructions provided in this manual.

#### DO NOT OPERATE THIS UNIT IF YOU ARE UNDER THE INFLUENCE OF ALCOHOL, ILLEGAL DRUGS, OR ANY PRESCRIPTION OR OVER THE COUNTER MEDICATIONS THAT COULD CAUSE DROWSINESS, DIZZINESS, DISORIENTATION AND/OR IMPAIR YOUR ABILITY IN ANY WAY TO SAFELY OPERATE THE UNIT.

DO NOT OPERATE THIS UNIT IF YOU SUFFER FROM ANY PHYSICAL CONDITION OR DISABILITY THAT WOULD IMPAIR YOUR ABILITY TO OPERATE IT SAFELY.





### Safety Decals

The following safety decals should be attached to the equipment at all times. Should any decal become damaged or lost, it is the responsibility of the owner to replace it. Additional decals may be obtained from the manufacturer.

<b>A</b> WARNING	
	Antes de probar la unidad por primera vez deben remitirse a las instrucciones contenidas en el manual.
Read and understand owner's manual before operating unit.	IS assured de plen confiendre loules les

Part No.: SD-010.



Part No.: SD-012A.

# Warning! Transport with care.

Before transporting to a new location, make certain that the slow-moving vehicle (SMV) emblem is installed and is clearly visible. Use flashing lights and follow local traffic regulations.

# Danger! Protect bystanders, clear work area of debris.

Do not operate the cutter near people. Debris can be thrown hundreds of feet. Clear work area of foreign objects such as wire, glass, and other debris. Debris thrown by the cutter can cause serious injury or death.

Warning! Parking and dismounting. The rotating parts of this cutter continue to rotate even after the PTO has been disengaged. The operator should remain seated until rotation has stopped. He should then set the brake, turn off the engine, and remove the key. See tractor manual for proper parking procedure.

## **Caution!** Avoid fires.

Keep the machine clean of debris, trash, and any other flammable material.



### 

Transport with care. Use slow-moving vehicle emblem and flashing light. Follow local traffic regulations.

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Do not operate cutter near bystanders. Clear work area of debris before operating.



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Wait for all rotation to stop before dismounting tractor.

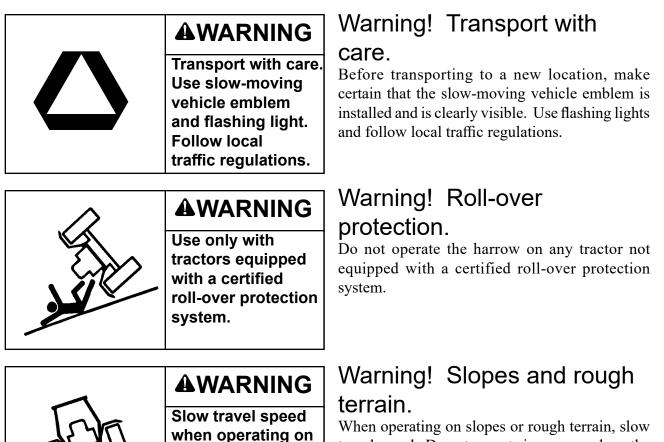
### 



Keep machine clean of debris. Flammable debris on machine poses fire hazard.

Warning! Fasten Seat belt! Before Starting Tractor! Always Wear Your Seat belt.





slopes or

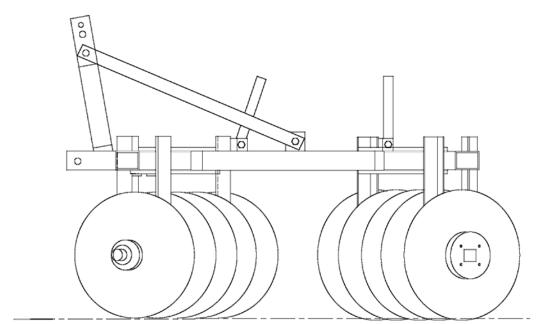
rough terrain.

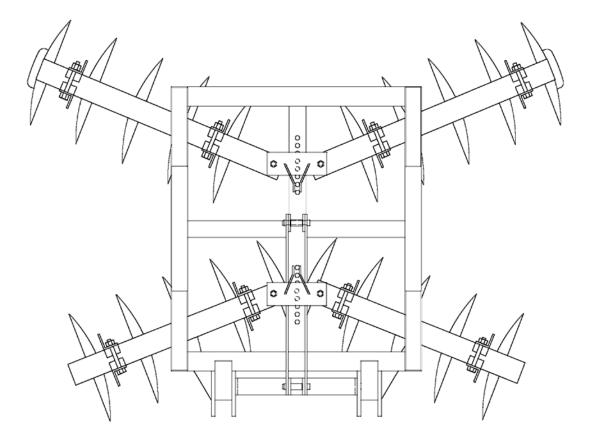
When operating on slopes or rough terrain, slow travel speed. Do not operate in an area where the tractor could roll over. Be sure to fasten safety belt when operating tractor!

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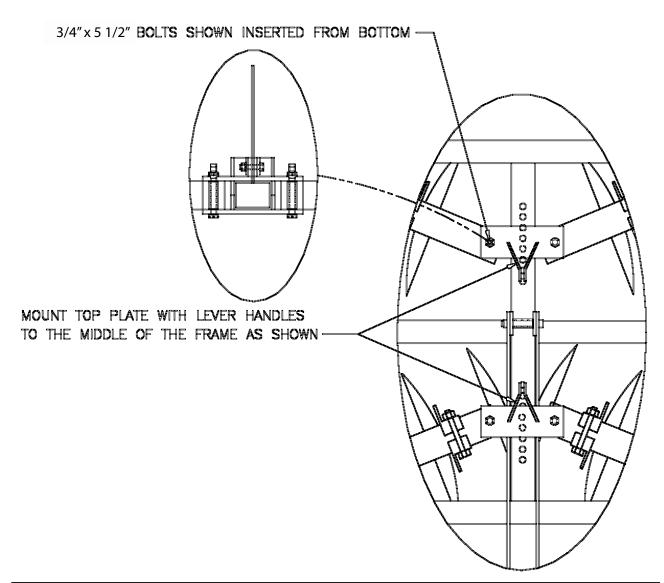
#### **Brown Disc Harrows**

Brown Disc Harrows come fully assembled, please check all fasteners to ensure correct torque before use and after two hours of use.





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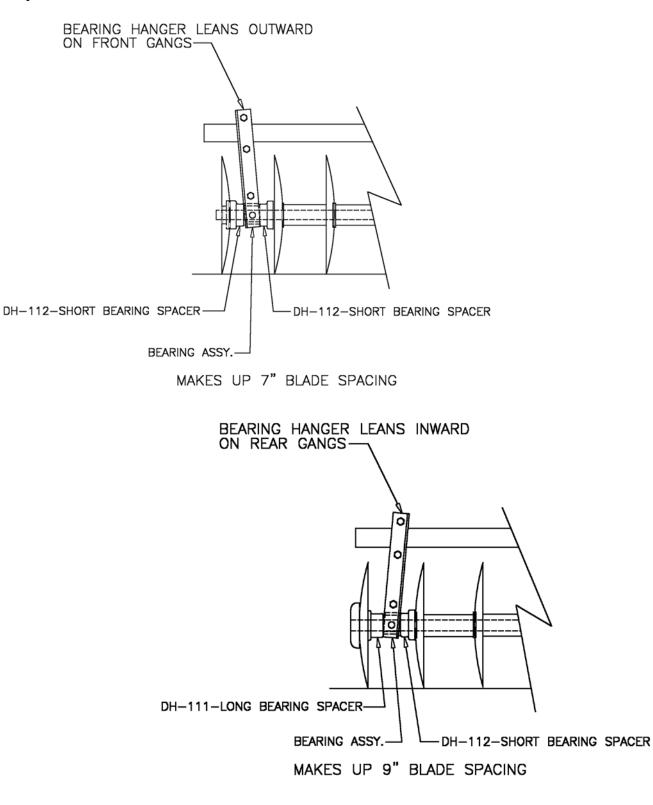


Model	Proper Gang Arm Length
BDH-1250 (front)	72" gang arm
BDH-1250 (rear)	72" gang arm
BDH-1400 (front)	80" gang arm
BDH-1400 (rear)	80" gang arm

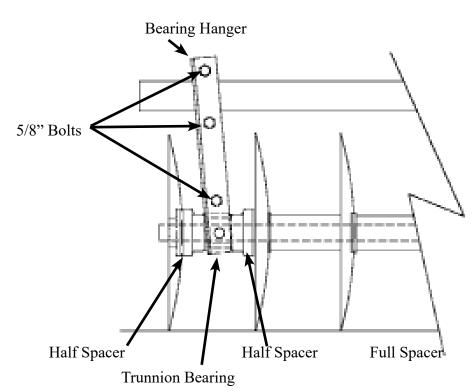
#### A-frame assembly

Step 1: Bolt A-frame braces to the outside of the top of A-frame in the back holes.

Step 2: Bolt A-frame braces into rear holes of lift ears on frame.

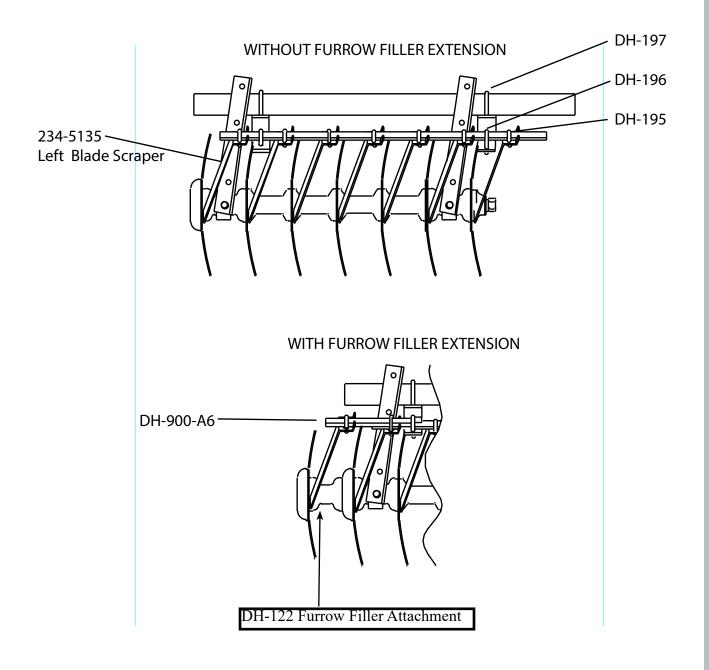


### **Bearing Replacement**



- 1- Attach the tractor to the disc harrow
- 2- Loosen the axle nut while the axle is still attached to the frame but do not remove.
- 3- Remove the 5/8" bolts from the bearing hanger that attach the axle to the gang arm. There are 3 bolts on each bearing hanger.
- 4- Once the two bearing hangers are removed from the axle, lift the disc harrow frame with your tractor and move the unit away from the axle assembly.
- 5- Stand the axle assembly up with the axle nut on top, secure the axle assembly in the standing position in a manner that it <u>cannot fall over</u>.
- 6- Remove axle nut from the axle and unstack the assembly down to the bearing that you wish to replace Note the order and the position of the components as you remove them. This will insure the proper order for reassembling the axle. Clean all components.
- 7- With new bearing assembly replaced on the axle restack all the components back onto the axle, in the same order as they were removed.
- 8- Start the axle THIN nut onto the axle but do not torque it at this time
- 9- Lay axle assembly back down on the ground and back the harrow frame over the axle assembly. Lower the frame down to the axle and remount the bearing hanger to the axle assembly.
- 10- Torque the axle THIN nut, to a minimum of 400 to 500 foot Lbs. of torque, install the REGULAR nut and tighten to 500 Foot lbs. its very important that axle nuts are tight and must be rechecked after the first hour of operation.





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## Operation



Before hitching harrow to your tractor, make sure all safety devices are installed on the tractor.

Please follow all safety instructions and procedures.

### Attach equipment to tractor.

Be sure the tractor is equipped with the correct category hitch pins, top link, etc.

Be extremely careful when positioning tractor to hitch to the equipment.

**Caution!** Never allow anyone between the tractor and the equipment during the hitching process.

### Adjust cutting depth.

Be sure the tractor engine is off, key is removed, and all movement of the tractor has stopped before dismounting to make adjustments.

Using the center link adjustment and the lift arms of the tractor, set the equipment so that the front and rear gangs are cutting at the same depth. The left-to-right pitch is obtained by adjusting the lift arms. Set the lift stop at the required position to maintain a uniform depth.

### Operating speed

Proper operating speed for equipment will depend upon the soil conditions and the particular application.

Warning! Avoid personal injury. Never allow anyone to ride on the tractor or harrow.

**Remember:** The safe operation of this equipment is the responsibility of the operator. The operator should be familiar with both the tractor and the equipment. He should read and understand all applicable operator manuals and follow all safety practices.

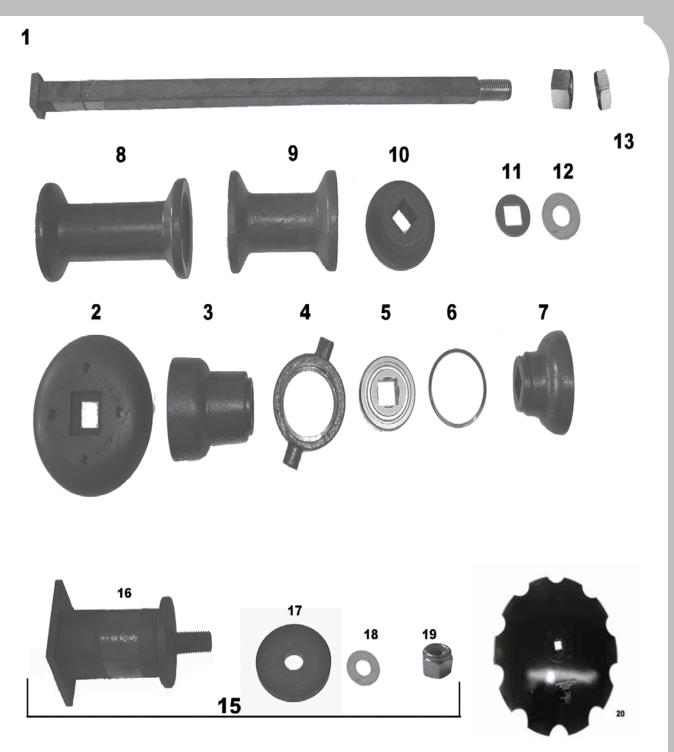
## Troubleshooting

Problem Possible Cause(s)		Possible Solution(s)	
Leaving center ridge	<ol> <li>Excessive Speed</li> <li>Rear gangs cut too deep</li> <li>Top link too long</li> </ol>	<ol> <li>Reduce speed</li> <li>Reduce gang angle</li> <li>Shorten top link</li> </ol>	
Leaving center valley	<ol> <li>Insufficient speed</li> <li>Rear gangs too shallow</li> <li>Top link too short</li> </ol>	<ol> <li>Increase speed</li> <li>Increase gang angle</li> <li>Lengthen top link</li> </ol>	
Side draft	Harrow not level side-to-side	Level draft lengths	
Rear tractor wheel slippage	Not enough ballast	Add weights or liquids to tractor	
Plugging	<ol> <li>Extremely wet soil</li> <li>Gangs set at too great an angle</li> <li>Not using scrapers</li> </ol>	<ol> <li>Allow soil to dry</li> <li>Reduce angle</li> <li>Install scrapers</li> </ol>	
Outside furrows too deep	Not using furrow fillers	Install furrow fillers	
Poor penetration	<ol> <li>Insufficient gang angle</li> <li>Lift set too high</li> </ol>	<ol> <li>Increase gang angle</li> <li>Reduce lift height</li> </ol>	

## Specifications

Model	No./Dia. Blades	Spacing	Approx. Width Cut	Weight in Lbs.	No. Bearings
BDH-1250-3422	34	9/9	12' 6"	2740	16
BDH-1250-3622	38	9/7	12'2"	2790	16
BDH-1400-3822	38	9/9	13' 6"	2954	16
BDH-1400-4022	40	9/7	13' 4"	3015	16

Standard Features	
3" x 3", 3" x 4" high t	ensile steel tube frame
Triple-sealed ball bear	rings
Self-aligning trunnion	bearing housings
1 1/8" axles	
Cast iron spacers	
Notched blades	
Options	Part No.
Balk Buster assembly	DH-191A
Scraper Assembly	Last 7 digits of model [xxx]-[xxxx] FR (front and rear) or R (rear) i.e. 600-1620FR
Furrow Filler adapter standard.	DH-122A - Disc blade is not included with this item.



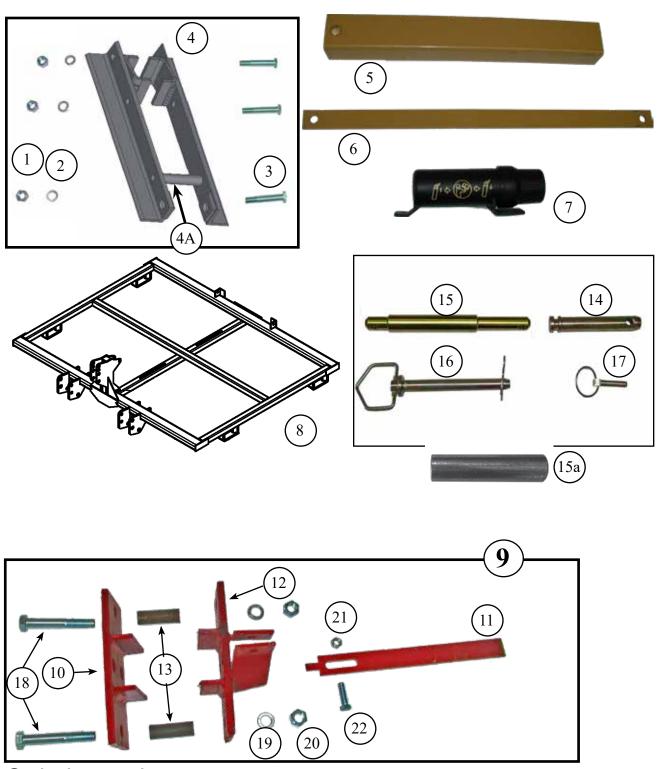
#### Ordering replacement parts

Please contact your nearest Brown dealer for replacements parts. They will be able to meet your equipment needs.

Ref. No.	Part No.	Description
1	DH-95	31" Axle for 9" spacing, 4 Blades or 7" spacing, 5 Blades
	DH-98	37 3/4" Axle for 7" spacing, 6 Blades
	DH-99	39 3/4" Axle for 9" spacing, 5 Blades
		1 1/8" Dia. Axles, Less Nuts And Washers (Note: Axle Lengths Measured From Head To End.)
2	DH-107A	
		Bumper Washer With Holes For Furrow Filler
3	DH-111	Long Bearing Spacer (4 1/2")
4	DH-113	Bearing Housing
5	DH-115	Ball Bearing
4,5,6	DH-115A	Ball Bearing Assembly
6	DH-117	Lock Ring
7	DH-112	Short Bearing Spacer (2 5/8")
8	DH-106	9" Spacer
9	DH-105	7" Spacer
10	DH-108	End Nut Washer
11	DH-204	Square Hole Washer
12	WUS118Z	1 1/8" Flat Washer
13	DH-DN	Nuts, 1-1/8"-7 Grade 8 Full and Thin - Install Thin Nut First
15	DH-122A	Furrow Filler Adapter Assembly (does not include disc blade)
16	DH-122	Furrow Filler Adapter
17	DH-123	Furrow Filler Washer
18	WUS1Z	1" Flat Washer
19	NNE1CZ	1" Nut
20	DH-116-14	14" 7 Gauge Disc Blade - Smooth (for Furrow Filler Only) 1" Hole
	DH-116-16	16" 7 Gauge Disc Blade - Smooth (for Furrow Filler Only) 1" Hole
	DH-116-18	18" 7 Gauge Disc Blade - Notched 1 1/8" Square Hole
	DH-116-20	20" 7 Gauge Disc Blade - Notched 1 1/8" Square Hole
	DH-116-22	22" 7 Gauge Disc Blade - Notched 1 1/8" Square Hole

#### Ordering replacement parts

Please contact your nearest Brown dealer for replacements parts. They will be able to meet your equipment needs.



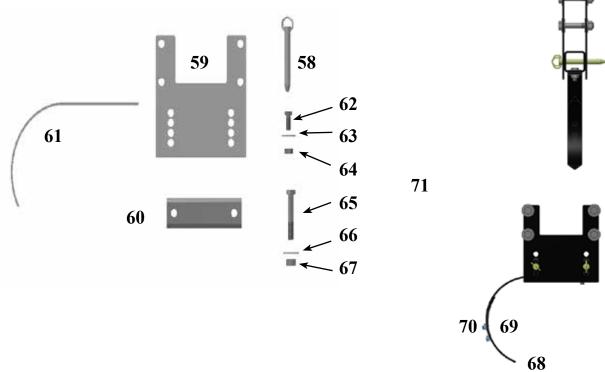
#### Ordering replacement parts

Please contact the nearest Brown dealer for replacements parts. They will be able to meet most of your equipment needs.

Ref. No.	Part No.	Qty	Description
1	HN258CZ	3 per Hanger Assy	Nut, Hex 5/8" NC GR2 Zinc
2	LOC58Z	3 per Hanger Assy	Washer, Lock 5/8" Zinc
3	HC510C104Z	3 per Hanger Assy	Bolt, 5/8" X 6 1/2" NC GR5 For Bearing Hangers
4	DH-1254B	8	Bearing Hanger Assembly w/ fasteners.
4A	DH-1254A	1 per Hanger Assy	Bearing Hanger Spacer (Included in DH-1254B)
5	234-1201	2	72" gang arm for BDH-1250 (Front and Rear)
	234-1401	2	80" gang arm for BDH-1400 (Front and Rear)
6	700-234-0023	2	A-frame Brace
not shown	HC512C96Z	2	Bolt 3/4" x 6" NC GR5 Zinc - A-Frame Brace Bolts
7	MH-01	1	Manual Holder
not shown	NNE516CZ	2	Nut, Nylon Lock 5/16" Zinc - for Manual Holder
not shown	CB5516C16Z	2	Bolt, 5/16" X 1" USS Carriage - for Manual Holder
8	234-1250	1	BDH-1250, BDH-1400 Frame
9	DH-153A	2	Gang Adjuster Assembly
10	DH-153	2	Gang Arm Pull Adjuster Bottom Plate
11	DH-154	2	Gang Arm Adjuster Lever
12	DH-155	2	Gang Arm Adjuster Top Plate
13	DH-156	2	Gang Arm Adjuster Bushing (2 required per gang)
14	500-22	1 Category II Top Link Pin	
not shown	255-0004	1	Category III Top Link Pin
15	255-2300	2	Category II/III Lower Hitch Pin
15a	255-1210	2	Quick Hitch Bushing (for use with quick hitch only, on lower link pins)
16	UT-207	2	3/4" Gang Adjuster Pin
17	TC-126A	3	Lynch Pin
18	HC512C88Z	2 Per Assembly	Bolt, 3/4" X 5 1/2" NC GR5 - Gang Adjuster
19	LOC34Z	2 Per Assembly	Washer, Lock 3/4" Zinc
20	HN534CZ	2 Per Assembly Nut, Hex 3/4" NC GR5 Zinc	
21	NSB50CZ	1 Per Assembly	Nut, Stover Lock 1/2" NC Zinc
22	HC58C28Z	1 Per Assembly	Bolt, 1/2" X 1-3/4" NC GR5



See Page 16 for Assembly Instructions of Scrapers



**DH-191A Balk Breaker Assembly Parts Breakdown** 

Ref. No.	Part No.	Qty	Description	
50	DH-900-A6	var	Furrow filler extension bar	
51	DH-197	var	U-Bolt (1/2" x 4" x 4")	
52	DH-196	var	U-Bolt (1/2" x 1 1/2" x 1 3/4")	
53	DH-198	var	Scraper Bar Bracket	
54	DH-600-50 DH-750-003	var	30" Scraper Bar     38" Scraper Bar	
55	234-5135	var	Scraper blade left	
56	234-5140	var	Scraper blade right	
57	DH-195	var	U-bolt (3/8" x 1 1/2" x 1 1/2")	
58	UT-207	2	Pull Pin 3/4 Inch	
59	700-234-2090	2	Balk breaker mount bracket	
60	700-234-3000	1	Balk breaker mount tube	
61	DH-191	1	Balk breaker tine only	
62	HC510C32Z	1	5/8" 11TPI X 2" Grade 5 Bolt	
63	WUS58Z	1	5/8" USS Flat Washer, Zinc	
64	NNE58CZ	1	Nylon Lock Nut 5/8" 11 TPI Zinc	
65	HC512C72Z	4	3/4" 10TPI X 4 1/2" Grade 5 Bolt	
66	WUS34Z	8	3/4" USS Flat Washer, Zinc	
67	NNE34CZ	4	Nylon Lock Nut 3/4" 10 TPI Zinc	
68	255-0750	1	Chisel Plow Point 11" x 2" x 5/16"	
69	BPL6C20Z	2	Plow Bolt 3/8" - 16 TPI X 1 1/4 Zinc	
70	NNE38CZ	2	Nylon Lock Nut 3/8" - 16 TPI Zinc	
71	DH-191A	1	Balk Breaker Tine Complete Assembly, (Items 58 - 70)	
			See Page 19 for blade scraper assembly part numbers.	

Date	Page	Change Made
7/16/2024	24-25	Changed scraper blades to new part numbers.
8/14/2024	20-21	Changed Axle Nuts to Double Nuts.

Notes

Thank You for purchasing a Brown Disc Harrow.



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Wide Disc Harrow Version 1.1.0 August 2024