

BDH Series Disc Harrow



Owner / Operator Manual



MANUFACTURING CORPORATIONTM
6001 E. Hwy 27 • OZARK, ALABAMA 36360
PHONE: (334) 795-6603 • FAX: (334) 795-3029

www.brownmfgcorp.com

⚠ WARNING



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.

Copyright

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Cover

Pictured: Model BDH-900 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 defective 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 RESPECT TO ANY OF BROWN'S PRODUCTS, INCLUDED BUT NOT LIMITED TO ANY MERCHANTABILITY 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



Important: Please record your Model, Serial Number, Date Purchased, and Dealer Information for future reference.

Model: BDH-_____

Serial No.: _____

For further information:
Brown Manufacturing Corp.
6001 E. Hwy 27
Ozark, AL 36360

Date Purchased: ____/____/____

Dealer: _____

Phone: (334) 795-6603
Toll Free: (800) 663-8909
FAX: (334) 795-3029

www.brownmfgcorp.com
brown@brownmfgcorp.com

Owner Registration



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

Name: _____

Address: _____

City: _____ State: _____

Model: BDH-_____

Serial No.: _____

Date Purchased: ____/____/____

Dealer: _____



Return to:
Brown Manufacturing Corp.
6001 E. Hwy 27
Ozark, AL 36360

Please use envelope.

Equipment Safety

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.

 WARNING	
	<p>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</p>

Equipment Safety

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

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

CAUTION



CAUTION



WARNING



DANGER





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.





Equipment Safety

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.

 WARNING	 ADVERTENCIA
	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.	 ADVERTISSEMENT
	S'assurer de bien comprendre toutes les consignes du manuel de propriétaire avant d'utiliser la unité.

Part No.: SD-010.

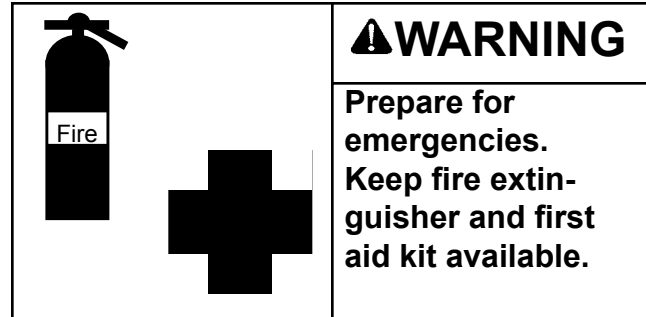
 DANGER	 PELIGRO
	CUCHILLAS ROTATIVAS •Guarden las monas y los pies lejos de las cuchillas. •No se acerquen a la máquina estando funcionando el motor.
ROTATING BLADES •Keep hands and feet away from blades. •Stay away from machine when engine running.	 DANGER LAMES ROTATIVES •Garder les mains et les pieds éloignés des lames rotatives. •Rester loin de la machine quand le moteur tourne.

Part No.: SD-012A.

Equipment Safety

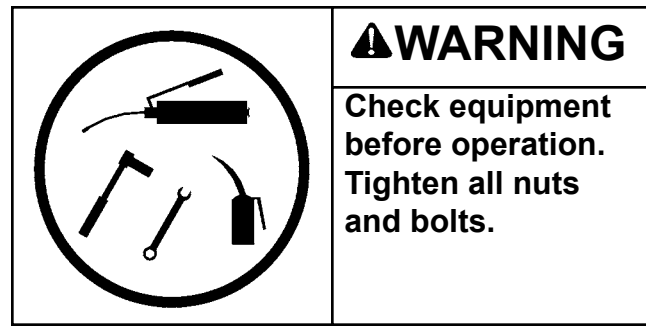
Warning! Prepare for emergencies.

Keep fire extinguisher and first aid kit available.



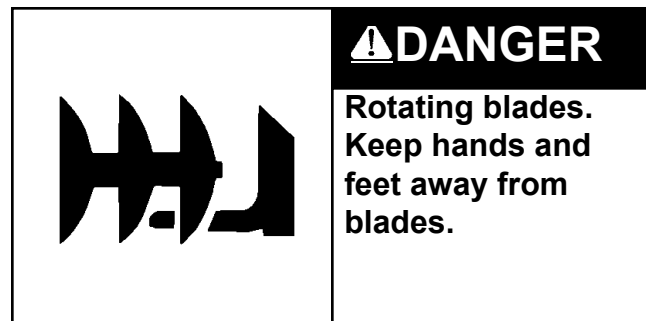
Warning! Check equipment before operating.

Tighten all nuts and bolts before operating. Make certain that equipment is lowered to ground before attempting to make adjustments or perform maintenance.



Danger! Stay clear of rotating blades.

The harrow is designed to cut soil, turf, and ground-litter. Keep hands and feet away from blades!



Danger! Keep riders off machine.

Riders can be seriously injured or killed by entanglement or by falling.

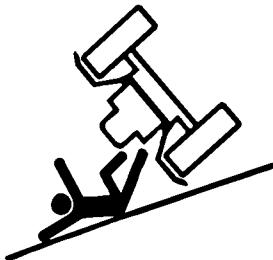


Equipment Safety

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

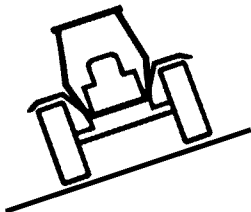
Warning! Transport with care.

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

	⚠ WARNING
	Use only with tractors equipped with a certified roll-over protection system.

Warning! Roll-over protection.

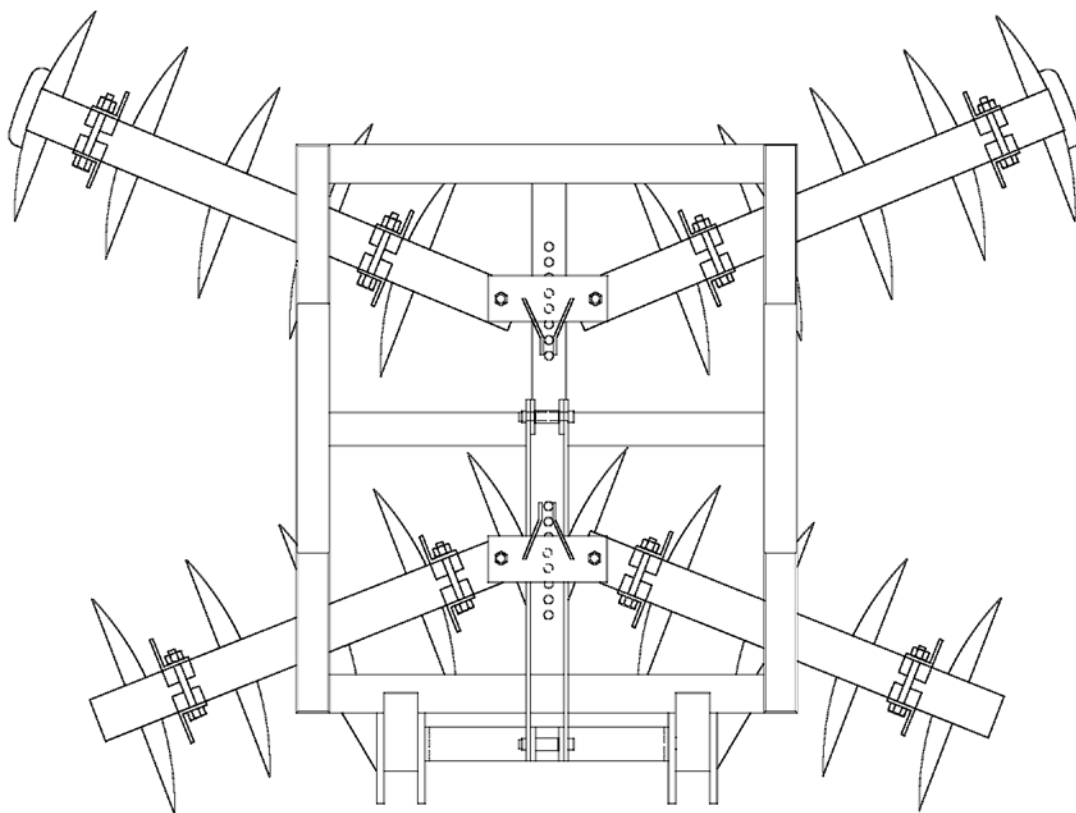
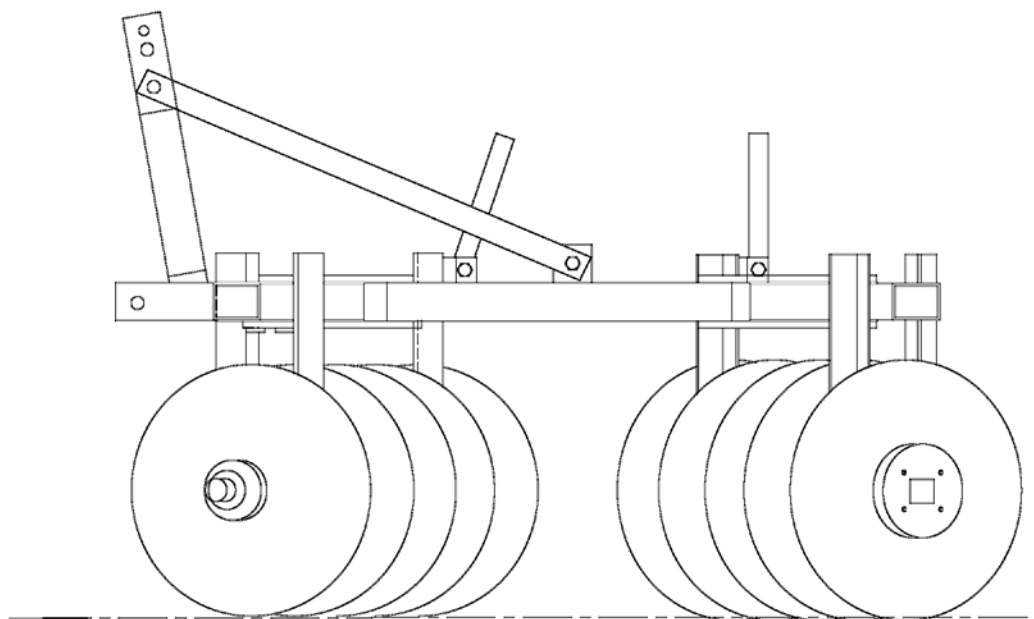
Do not operate the harrow on any tractor not equipped with a certified roll-over protection system.

	⚠ WARNING
	Slow travel speed when operating on slopes or rough terrain.

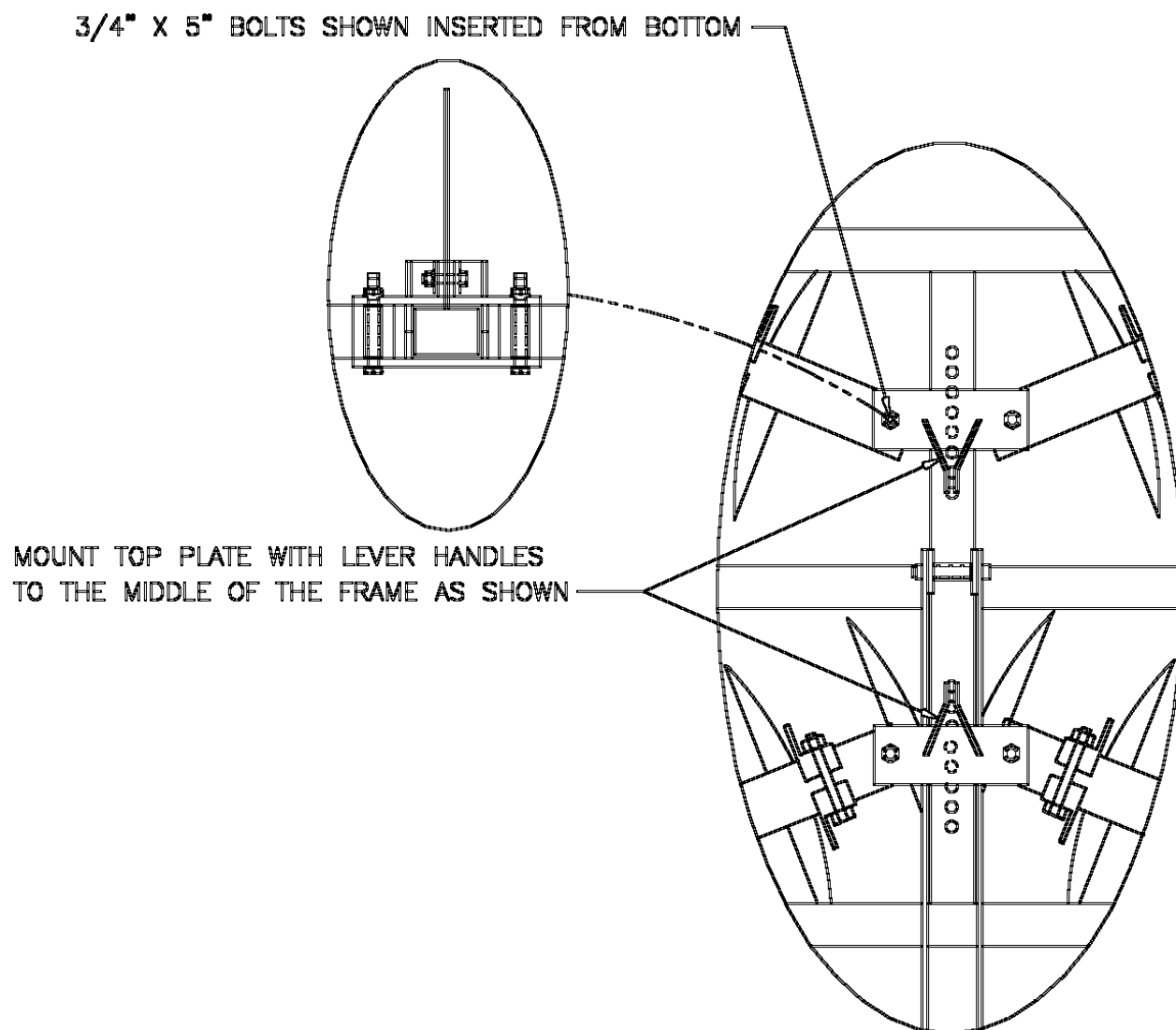
Warning! Slopes and rough terrain.

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!**

Assembly



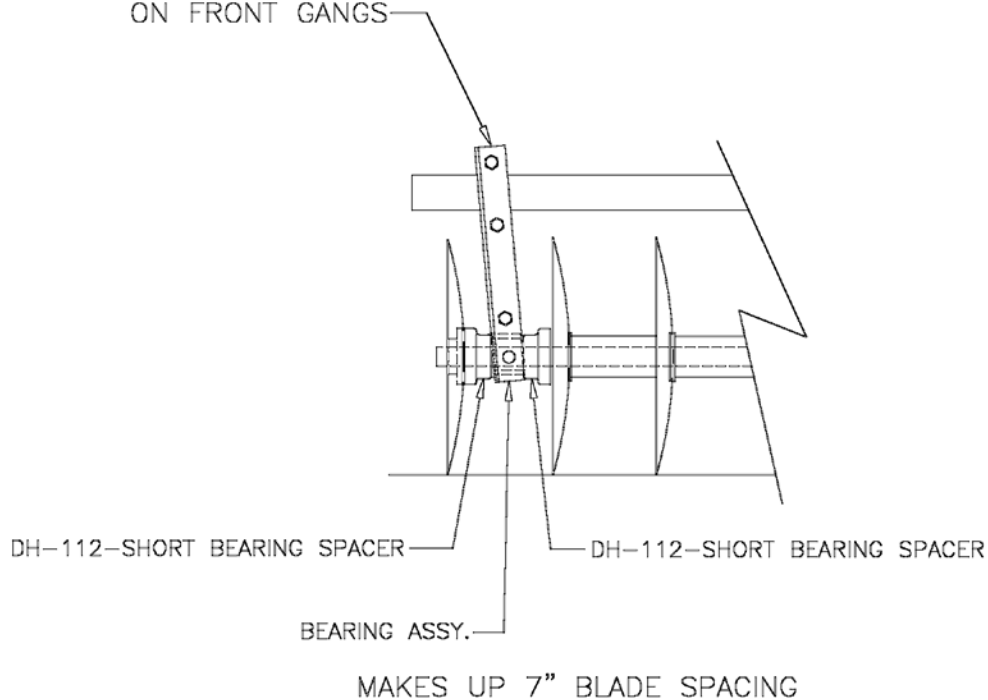
Assembly



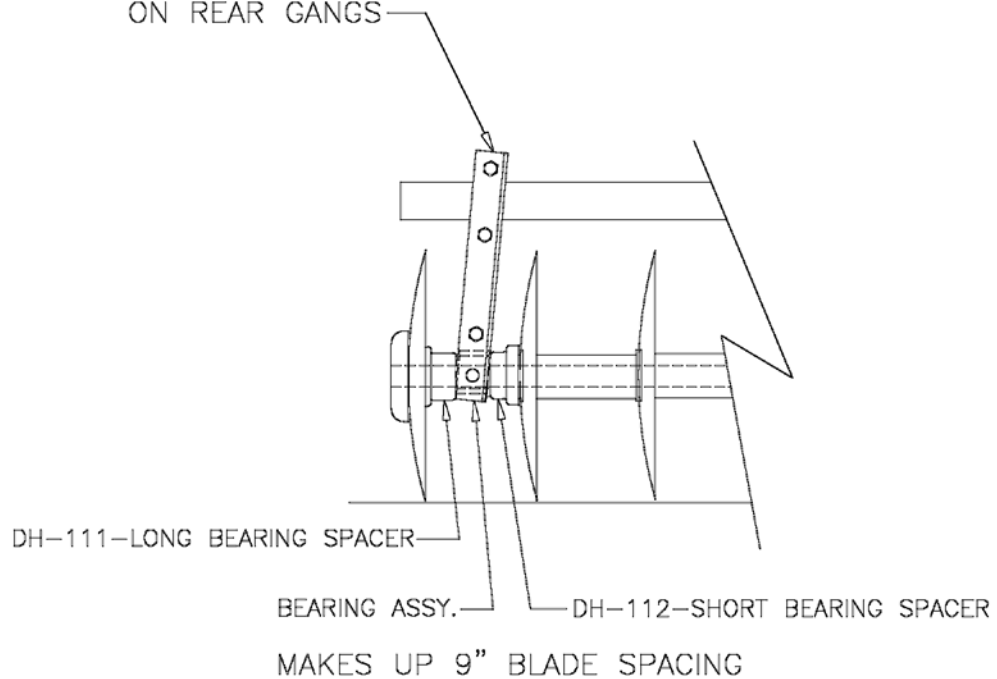
Model	Proper Gang Arm Length
BDH-600 (front)	29" gang arm
BDH-600 (rear)	36" gang arm
BDH-750 (front)	40" gang arm
BDH-750 (rear)	46" gang arm
BDH-900 (front)	46" gang arm
BDH-900 (rear)	54" gang arm

Assembly

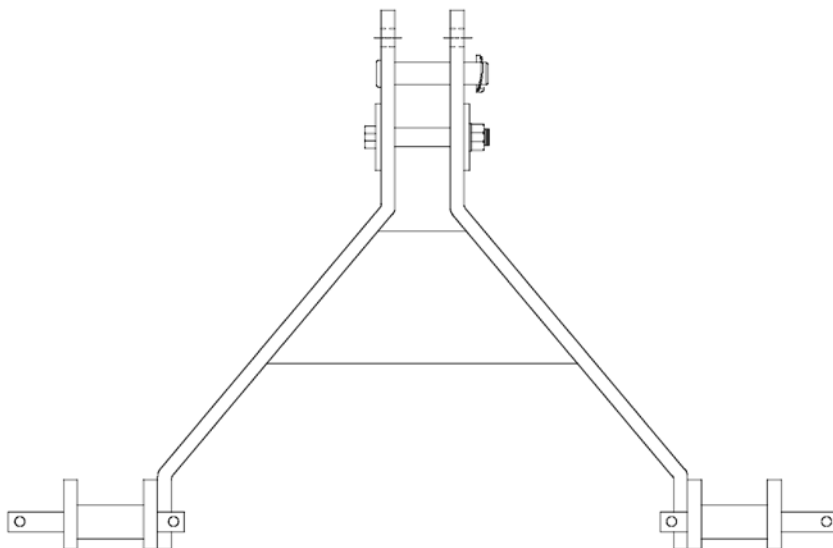
BEARING HANGER LEANS OUTWARD
ON FRONT GANGS



BEARING HANGER LEANS INWARD
ON REAR GANGS



Assembly

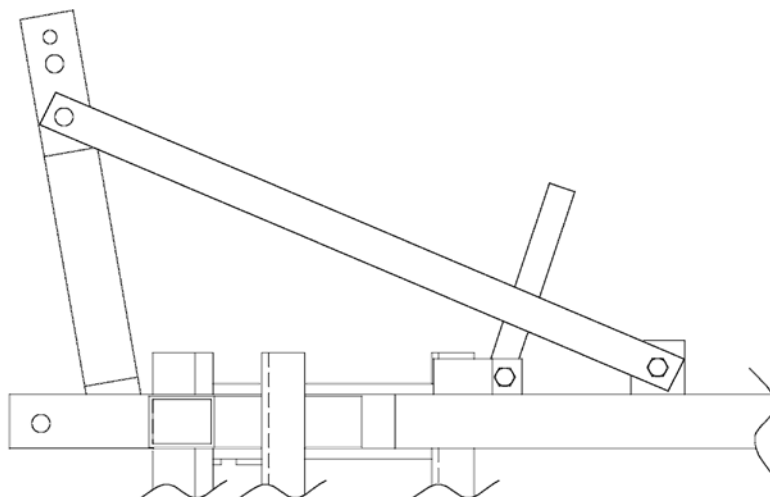


A-frame assembly

Step 1: Bolt A-frame into rear holes of lift ears on frame.

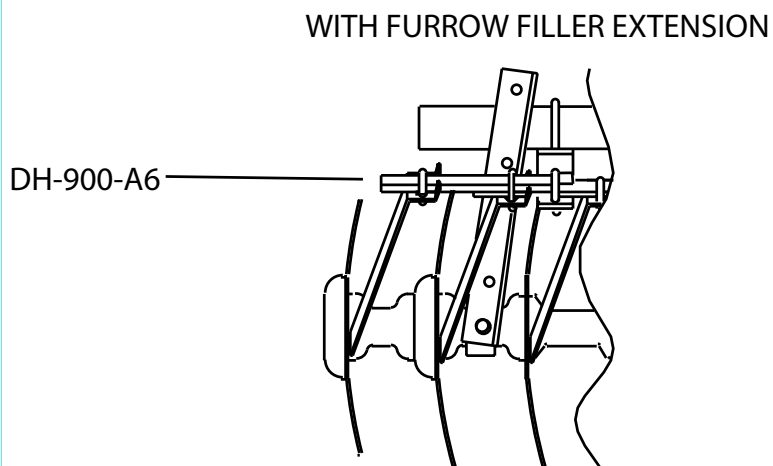
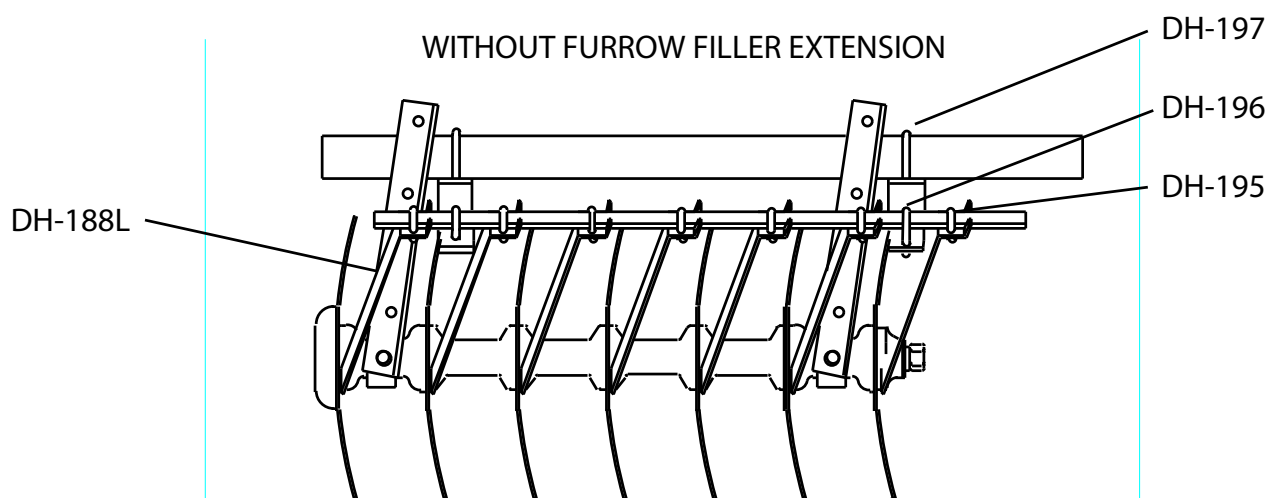
Step 2: Bolt A-frame braces to the outside of the top of A-frame in the bottom holes with spacer in between A-frame.

Step 3: Bolt opposite end of A-frame braces on outside of A-frame brace ears with spacer in between A-frame brace ears.



Assembly

Furrow Filler Assembly



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 hitchpins, 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 style="list-style-type: none"> 1. Excessive Speed 2. Rear gangs cut too deep 3. Top link too long 	<ol style="list-style-type: none"> 1. Reduce speed 2. Reduce gang angle 3. Shorten top link
Leaving center valley	<ol style="list-style-type: none"> 1. Insufficient speed 2. Rear gangs too shallow 3. Top link too short 	<ol style="list-style-type: none"> 1. Increase speed 2. Increase gang angle 3. lengthen top link
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 style="list-style-type: none"> 1. Extremely wet soil 2. Gangs set at too great an angle 3. Not using scrapers 	<ol style="list-style-type: none"> 1. Allow soil to dry 2. Reduce angle 3. Install scrapers
Outside furrows too deep	Not using furrow fillers	Install furrow fillers
Poor penetration	<ol style="list-style-type: none"> 1. Insufficient gang angle 2. Lift set too high 	<ol style="list-style-type: none"> 1. Increase gang angle 2. Reduce lift height

Specifications

Model	No./Dia. Blades	Spacing	Approx. Width Cut	Weight	No. Bearings
BDH-600-1620	16/20	9/9	6'4"	822 lbs.	8
BDH-600-1622	16/22	9/9	6'4"	860 lbs.	8
BDH-600-1820	18/20	9/7	6'4"	916 lbs.	8
BDH-600-1822	18/22	9/7	6'4"	960 lbs.	8
BDH-600-2020	20/20	7/7	6'4"	950 lbs.	8
BDH-600-2022	20/22	7/7	6'4"	1000 lbs.	8
BDH-750-2020	20/20	9/9	7'6"	1053 lbs.	8
BDH-750-2022	20/22	9/9	7'6"	1103 lbs.	8
BDH-750-2220	22/20	9/7	7'6"	1070 lbs.	8
BDH-750-2222	22/22	9/7	7'6"	1125 lbs.	8
BDH-750-2420	24/20	7/7	7'6"	1104 lbs.	8
BDH-750-2422	24/22	7/7	7'6"	1165 lbs.	8
BDH-900-2420	24/20	9/9	9'1"	1149 lbs.	8
BDH-900-2422	24/22	9/9	9'1"	1209 lbs.	8
BDH-900-2620	26/20	9/7	9'1"	1185 lbs.	8
BDH-900-2622	26/22	9/7	9'1"	1250 lbs.	8
BDH-900-2820	28/20	7/7	9'1"	1234 lbs.	8
BDH-900-2822	28/22	7/7	9'1"	1304 lbs.	8

Standard Features

3" x 3", 3" x 4" high tensile steel tube frame

Triple-sealed ball bearings

Self-aligning 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 (two needed) DH-122A - Disc blade is not included with this item.

Replacement Parts



Ordering replacement parts

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

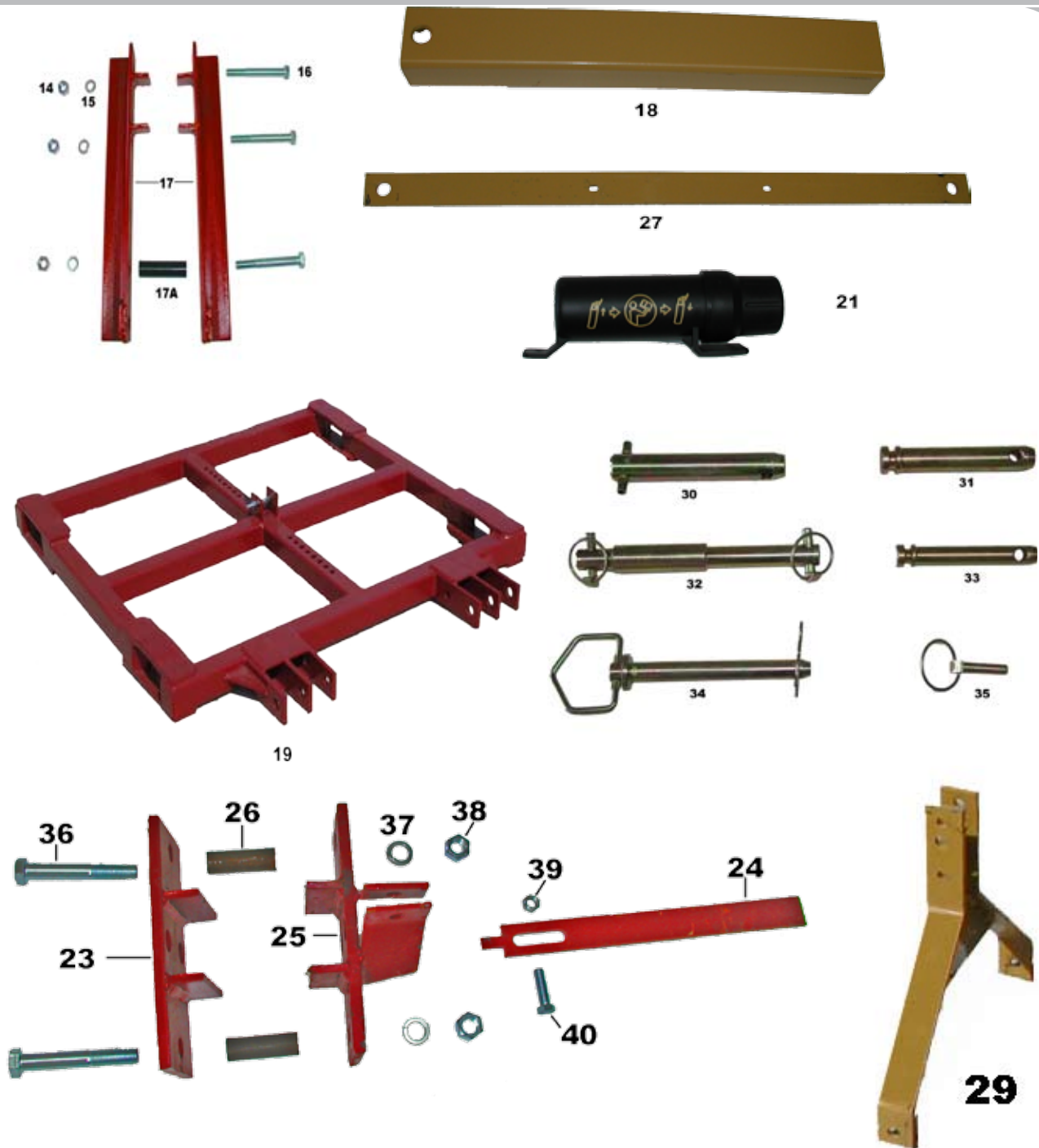
Replacement Parts

Ref. No.	Part No.	Description
1	DH-95	31" Axle for BDH-600 (front and rear)
	DH-98	37 3/4" axle for BDH-750 (rear)
	DH-99	39 3/4" axle for BDH-750 (front)
	DH-96	44 1/2" axle for BDH-900 (rear)
	DH-97	48 3/4" axle for BDH-900 (front)
		<i>1 1/8" dia. axles, less nuts and washers</i> (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	DH-119	1 1/8" flat washer
13	DH-120	1 1/8" lock washer
14	DH-121	1 1/8" standard nut
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	DH-124	1" lock washer
19	DH-124A	1" nut
20	DH-116-18	18" 7 guage disc blade
	DH-116-20	20 " 7 guage disc blade
	DH-116-22	22"7 guage disc blade

Ordering replacement parts

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Replacement Parts



Ordering replacement parts

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

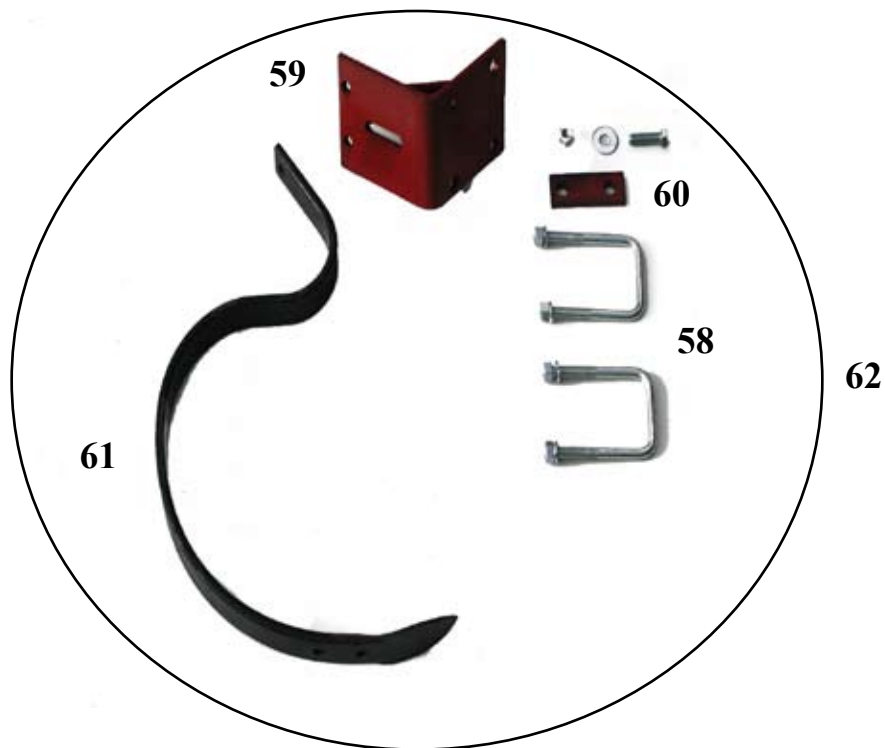
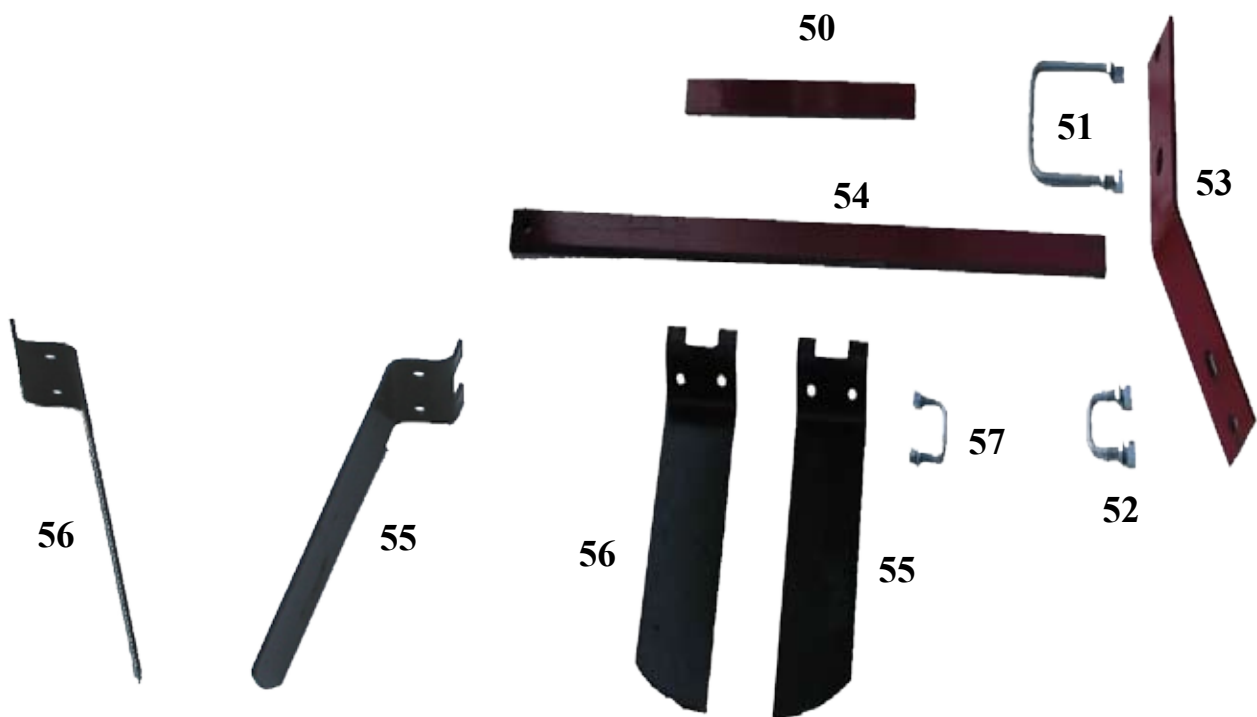
Replacement Parts

Ref. No.	Part No.	Description
14	HN258CZ	Nut, Hex 5/8" NC GR2 Zinc
15	LOC58Z	Washer, Lock 5/8" Zinc
16	HC510C88Z	Bolt, 5/8" X 5 1/2" NC GR5
17	DH-1254B	Bearing hanger assembly
17A	DH-1254A	Bearing hanger spacer
18	DH-128 DH-129 DH-130 DH-131 DH-132	36" gang arm for BDH-600 (rear) 29" gang arm for BDH-600 (front) 46" gang arm for BDH-750 (rear), BDH-900 (front) 40" gang arm for BDH-750 (front) 54" gang arm for BDH-900 (rear)
19	DH-142 DH-144	Frame for BDH-600, BDH-750 Frame for BDH-900
21	MH-01	Manual holder
not shown	NNE516CZ	Nut, Nylon Lock 5/16" Zinc - for Manual Holder
not shown	CB5516C16Z	Bolt, 5/16" X 1" USS Carriage - for Manual Holder
23	DH-153	Bottom plate for gang arm pull adjuster
24	DH-154	Lever for gang arm adjuster
25	DH-155	Top plate for gang arm adjuster
26	DH-156	Gang arm adjuster bushing (2 required)
27	DH-157	A-frame braces
29	DH-159	A-frame
30	TC-126	Category II lift pin
31	500-22	Category II upper link hitch pin
32	DH-101	Category I/II lower hitch pin w/ lynch pin
33	500-21	Category I upper link hitch pin (BDH-600, BDH-750)
34	UT-207	3/4" gang adjuster pin
35	TC-126A	Lynch pin
36	HC512C80Z	Bolt, 3/4" X 5" NC GR5 - Gang Adjuster and A-Frame brace
37	LOC34Z	Washer, Lock 3/4" Zinc
38	HN534CZ	Nut, Hex 3/4" NC GR5 Zinc
39	NSB50CZ	Nut, Stover Lock 1/2" NC Zinc
40	HC58C28Z	Bolt, 1/2" X 1-3/4" NC GR5

Ordering replacement parts

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

Replacement Parts



Replacement Parts

Ref. No.	Part No.	Description
not shown	HC514C40Z	Bolt, 7/8" X 2-1/2" NC GR5 Zinc, for lower A-Frame attachment
not shown	HN578CZ	Nut, Hex 7/8" NC GR5 Zinc, for lower A-Frame attachment
not shown	LOC78Z	Washer, Lock 7/8" Zinc, for lower A-Frame attachment
not shown	DH-158	A-Frame brace spacer (long, rear)
not shown	DH-158A	A-Frame brace spacer (short, front)
50	DH-900-A6	Furrow filler extension
51	DH-197	U-Bolt (1/2" x 4" x 4")
52	DH-196	U-Bolt (1/2" x 1 1/2" x 1 3/4")
53	DH-198	Scraper bar holder
54	DH-600-50 DH-750-003 DH-900-109	30" scraper bar for BDH-600 38" scraper bar for BDH-750 48" scraper bar for BDH-900
55	DH-188L	Scraper blade left
56	DH-188R	Scraper blade right
57	DH-195	U-bolt (3/8" x 1 1/2" x 1 1/2")
58	DH-175	U-bolt (5/8" x 3" x 3")
59	DH-189	Balk breaker bracket
60	DH-194	Balk breaker tine strap
61	DH-191	Balk breaker tine only
62	DH-191A	Balk Breaker tine assembly
		See Page 19 for blade scraper assembly part numbers.

Disc Harrow
Version 2.1.0
April 2006



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