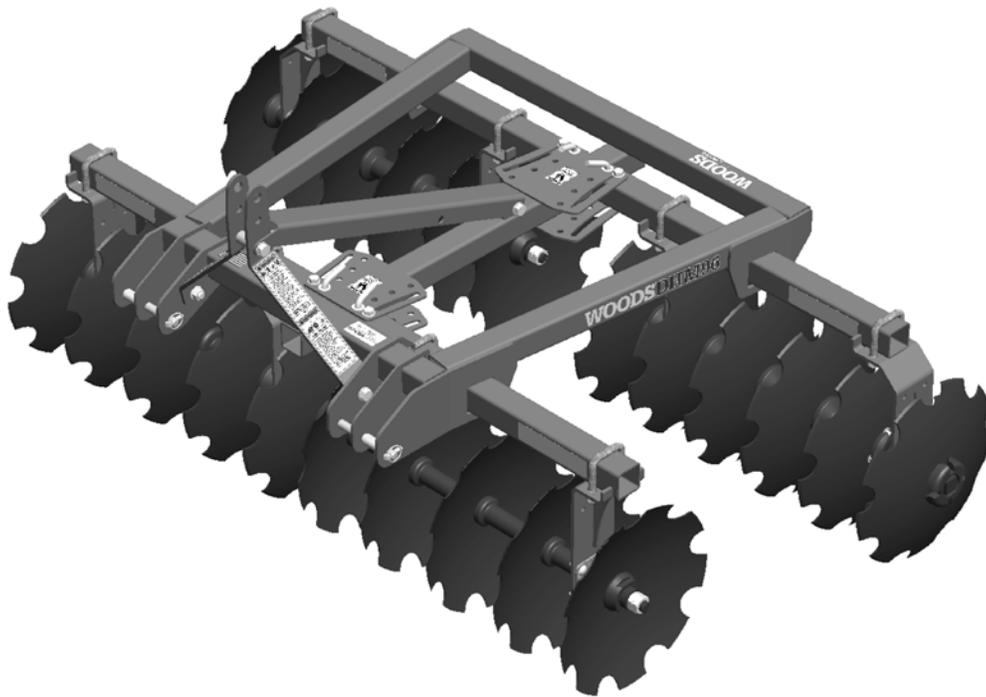
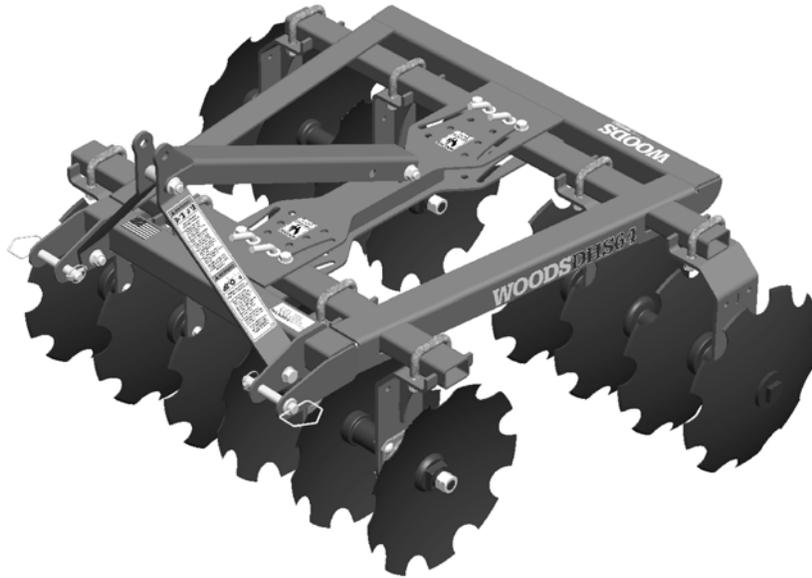


# DISC HARROW

DHS48, DHS64, DHS80  
DHM80, DHM96



MAN1143

(Rev. 1/08/2018)

**WOODS**<sup>®</sup>

OPERATOR'S MANUAL

## TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Woods® dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

**The dealer must complete the online Product Registration form at the Woods Dealer Website** which certifies that all Dealer Check List items have been completed. Dealers can register all Woods product at dealer.WoodsEquipment.com under Product Registration.

**Failure to register the product does not diminish customer's warranty rights.**

## TO THE OWNER:

Read this manual before operating your Woods equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer. To locate your nearest dealer, check the Dealer Locator at [www.WoodsEquipment.com](http://www.WoodsEquipment.com), or in the United States and Canada call 1-800-319-6637.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Woods dealer has trained mechanics, genuine Woods service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine Woods service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

**Model:** \_\_\_\_\_ **Date of Purchase:** \_\_\_\_\_

**Serial Number: (see Safety Decal section for location)** \_\_\_\_\_

Provide this information to your dealer to obtain correct repair parts.

Throughout this manual, the term **NOTICE** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING**, and **DANGER** are used in conjunction with the Safety-Alert Symbol (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety.



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**IMPORTANT  
or NOTICE**

Is used to address practices not related to physical injury.

**NOTE** Indicates helpful information.

**ALITEC™**  
**CENTRAL FABRICATORS®**  
**GANNON®**  
**WAIN-ROY®**  
**WOODS®**

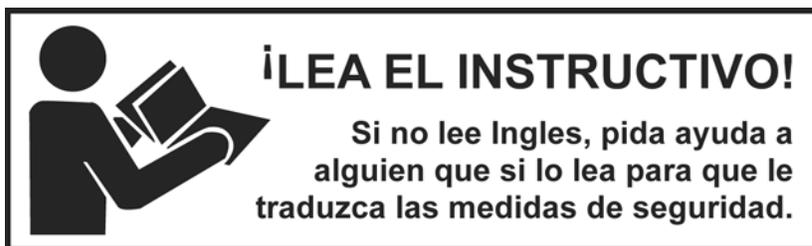
**WOODS®**  
Woods Equipment Company

## 2 Introduction

Gen'I (Rev. 2/25/2016)

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This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.

# SPECIFICATIONS

	<b>DHS48</b>	<b>DHS64</b>	<b>DHS80</b>	<b>DHM80</b>	<b>DHM96</b>
Working Width	48 inches	64 inches	80 inches	80 inches	96 inches
Weight	390 lbs.	508 - 532 lbs.	591 - 614 lbs.	846 lbs.	991 lbs.
Number of Blades	12	14 - 16	18 - 20	18	22
Weight per Blade	32.5 lbs	33 - 36 lbs	31 - 33 lbs.	47.2 lbs.	43.2 lbs.
Horsepower	35 Max.	25 - 45	35 - 55	45 - 75	55 - 85
Hitch	CAT 1/Limited CAT 1	CAT 1	CAT 1	CAT 1 & 2	CAT 1 & 2
Angling	Front & Rear: 0, 7, 14 & 21 degrees	Front & Rear: 0, 7, 14 & 21 degrees	Front & Rear: 0, 7, 14 & 21 degrees	Front & Rear: 0, 7, 14 & 21 degrees	Front & Rear: 0, 7, 14 & 21 degrees
Blade Type	Notched	Notched or Combo	Notched or Combo	Notched or Combo	Notched or Combo
Blade Diameter	16"	18"	18"	20"	20"
Blade Spacing	7-1/2 inches	7-1/2" -or- 9" Front / 7-1/2" Rear	7-1/2" -or- 9" Front / 7-1/2" Rear	9" Front / 7-1/2" Rear	9" Front / 7-1/2" Rear
Axle Size	1" Square	1" Square	1" Square	1-1/8" Square	1-1/8" Square
Bearing Type	Sealed, Self-Aligning	Sealed, Self-Aligning	Sealed, Self-Aligning	Sealed, Self-Aligning, Greaseable	Sealed, Self-Aligning, Greaseable
Bearing Hangers	1/4" Plate, U-Bolt	3/8" Plate, U-Bolt	3/8" Plate, U-Bolt	3/8" Plate, U-Bolt	3/8" Plate, U-Bolt
U-Bolts	Single, 3/4"	Single, 3/4"	Single, 3/4"	Single, 3/4"	Single, 3/4"
Frame Construction	3" x 3" Tube and Angle	3" x 3" Tube and Angle	3" x 3" Tube and Channel	3" x 3" Tube	3" x 3" Tube
Disc Gang Tube	2" x 3"	2" x 3"	2" x 3"	3" x 3"	3" x 3"
Accessories	Mud Scrapers CAT 0 Hitch	Mud Scrapers Furrow Fillers	Mud Scrapers Furrow Fillers	Mud Scrapers Furrow Fillers Rear Drawbar	Mud Scrapers Furrow Fillers Rear Drawbar

## GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your Disc Harrow. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance.

These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature, due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing. However, due to possible inline production changes, your machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification.

Throughout this manual, references are made to right and left direction. These are determined by standing behind the tractor facing the direction of forward travel.

# SAFETY RULES



**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

It has been said, "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

## TRAINING

■ Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer. To locate your nearest dealer, check the Dealer Locator at [www.WoodsEquipment.com](http://www.WoodsEquipment.com), or in the United States and Canada call 1-800-319-6637.) Failure to follow instructions or safety rules can result in serious injury or death.

■ If you do not understand any part of this manual and need assistance, see your dealer.

■ Operators must be instructed in and be capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.

■ Never allow children or untrained persons to operate equipment.

■ Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)

## PREPARATION

■ Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

■ Make sure attachment is properly secured, adjusted, and in good operating condition.

■ Make sure spring-activated locking pin or collar slides freely and is seated firmly in tractor PTO spline groove.

■ A minimum 25% of tractor and equipment weight must be on the tractor front wheels when

attachments are in transport position. Without this weight, front tractor wheels could raise up resulting in loss of steering. The weight may be attained with front wheel weights, ballast in tires, front tractor weights or front loader. Weigh the tractor and equipment. Do not estimate.

■ Consult local utilities before working. Know location of all underground cables, pipelines, overhead wires, and other hazards in working area and avoid contact.

## TRANSPORTATION

■ Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.

■ Always comply with all state and local lighting and marking requirements.

■ Never allow riders on power unit or attachment.

■ Do not operate or transport on steep slopes.

■ Use extreme care and reduce ground speed on slopes and rough terrain.

■ Do not operate or transport equipment while under the influence of alcohol or drugs.

## OPERATION

■ Always comply with all state and local lighting and marking requirements.

■ Operate only in daylight or good artificial light.

■ Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.

■ Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.

■ Never allow riders on power unit or attachment.

■ Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.

■ Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting power unit engine.

*(Safety Rules continued on next page)*



# SAFETY RULES

**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



*(Safety Rules continued from previous page)*

- Look down and to the rear and make sure area is clear before operating in reverse.
- Use extreme care when working close to fences, ditches, other obstructions, or on hillsides.
- Do not operate or transport equipment while under the influence of alcohol or drugs.
- Do not operate or transport on steep slopes.
- Do not stop, start, or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.
- Watch for hidden hazards on the terrain during operation.

## **MAINTENANCE**

- Before performing any service or maintenance, lower attachment to ground, turn off engine, set parking brake, and remove key.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.
- Never go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secured. Never place any part of the body underneath equipment or between moveable parts even

when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Never perform service or maintenance with engine running.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Tighten all bolts, nuts and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- If you do not understand any part of this manual and need assistance, see your dealer.

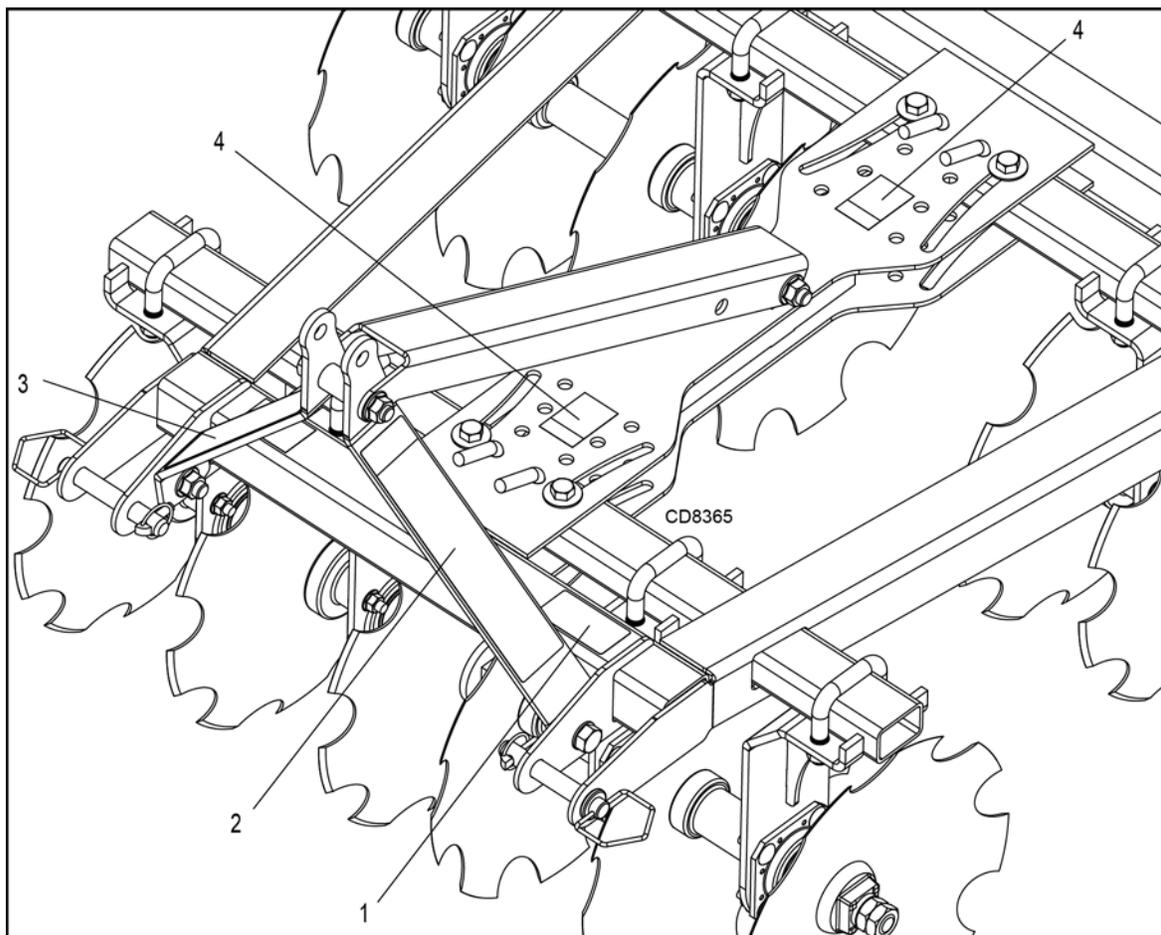
## **STORAGE**

- To help prevent injury caused by a falling implement, always detach on a hard level surface.
- Block equipment securely for storage.
- Keep children and bystanders away from storage area.
- Do not climb or lean on stored equipment.





**SAFETY & INSTRUCTIONAL DECALS**  
**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**  
**Replace Immediately If Damaged!**



**BE CAREFUL!**

Use a clean, damp cloth to clean safety decals.

Avoid spraying too close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.

Replacement safety decals can be ordered free from your Woods dealer. To locate your nearest dealer, check the Dealer Locator at [www.WoodsEquipment.com](http://www.WoodsEquipment.com), or in the United States and Canada call 1-800-319-6637.

**1 - SERIAL NUMBER PLATE**





# SAFETY & INSTRUCTIONAL DECALS



**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**  
**Replace Immediately If Damaged!**

4 - PN 1006885

**! WARNING**



**PINCH POINT**  
**Keep hands clear.**

1006885

2 - PN 1021069

**! WARNING**



**CRUSHING AND PINCHING HAZARD**

- Handle machine parts carefully. Body parts could be crushed or pinched between tractor and implement.
- Operate tractor controls from tractor seat only.
- Do not stand between tractor and implement when tractor is in gear.
- Make sure parking brake is engaged before going between tractor and implement.
- Stand clear of machine while in operation or when it is being raised or lowered.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

**! WARNING**



**RAISED IMPLEMENT CAN DROP AND CRUSH**

- Never go underneath raised implement which can drop from equipment or tractor 3-point hitch hydraulic leak down, hydraulic system failures, movement of control levers, or mechanical linkage failures.
- Service work does not require going underneath implement. Read manual instructions.

GOING UNDERNEATH IMPLEMENT CAN RESULT IN SERIOUS INJURY OR DEATH.

1021069

3 - PN 1021070

**! WARNING**



**CRUSHING AND PINCHING HAZARD**

- Handle machine parts carefully. Body parts could be crushed or pinched between tractor and implement.
- Operate tractor controls from tractor seat only.
- Do not stand between tractor and implement when tractor is in gear.
- Make sure parking brake is engaged before going between tractor and implement.
- Stand clear of machine while in operation or when it is being raised or lowered.

**! WARNING**

**TO AVOID SERIOUS INJURY OR DEATH:**

- Read Operator's Manual before operating, servicing, or repairing equipment. Follow all safety rules and instructions. (Manuals are available from dealer or call 1-800-319-6637.)
- Lower equipment to ground, stop engine, remove key, and set brake before dismounting tractor.
- Never allow children or untrained persons to operate equipment.
- Never allow riders.
- Keep bystanders away from equipment during operation.
- Keep all shields in place and in good condition.

**! WARNING**



**FALLING OFF CAN RESULT IN BEING RUN OVER.**

- Tractor must be equipped with ROPS (or ROPS CAB) and seat belt. Keep foldable ROPS systems in "locked up" position at all times.
- Buckle Up! Keep seat belt securely fastened.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

1021070

5 - REAR RED REFLECTOR (PN 20106)  
 Located on rear of frame (DHS64) (Not Shown).

6 - REAR RED REFLECTOR (PN 57123)  
 Located on rear of rear gang tubes (DHS80, DHM80, DHM96) (Not Shown).

7 - FRONT AMBER REFLECTOR (PN 1002940)  
 Located on front of all gang tubes (DHM96) (Not Shown).

8 - SAFETY DECAL SET (PN 1042082)  
 Includes decals 2 - 5 (DHS48, DHS64).

9 - SAFETY DECAL SET (PN 1042085)  
 Includes decals 2 - 4, 6, 7 (DHS80, DHM80, DHM96).

# OPERATION

The operator is responsible for the safe operation of this equipment. The operator must be properly trained. Operators should be familiar with the equipment, the tractor, and all safety practices before starting operation. Read the safety rules and safety decals, page 5 through page 8.

The Disc Harrow is designed for a wide range of applications: leveling, grading, and discing. Recommended tractor ground speed for most conditions is from 2 to 6 mph.

## WARNING

■ **A minimum 25% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, front tractor wheels could raise up resulting in loss of steering. The weight may be attained with front wheel weights, ballast in tires, front tractor weights or front loader. Weigh the tractor and equipment. Do not estimate.**

■ **Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.**

■ **Never allow children or untrained persons to operate equipment.**

■ **Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.**

■ **NEVER GO UNDERNEATH EQUIPMENT. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.**

- Service work does not require going underneath implement.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

## CAUTION

■ **Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, set parking brake, remove key, inspect, and repair any damage before resuming operation.**

■ **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.**

## PRE-OPERATION CHECK LIST

### Owner's Responsibility

- \_\_\_ Review and follow all safety rules and safety decal instructions, page 5 through page 8.
- \_\_\_ Check all lubrication points and grease as instructed in lubrication information.
- \_\_\_ Check that equipment is properly and securely attached to tractor.
- \_\_\_ Check that all safety decals are installed and in good condition. Replace if damaged.
- \_\_\_ Check that all hardware is properly installed and secured.
- \_\_\_ Do not allow riders.
- \_\_\_ Make sure tractor ROPS or ROPS cab and seat belt are in good condition. Keep seat belt securely fastened during operation.

## CONNECT DISC HARROW TO TRACTOR

This Disc Harrow should be mounted on tractors within the engine horsepower rating specified on page 4. Do not exceed maximum engine horsepower rating for a given model.

This Disc Harrow is compatible with 3-point tractors equipped with side swing type lower lift arms. See page 4 for 3-point hitch categories for a given model.

Adjust or remove tractor drawbar to eliminate interference with Disc Harrow.

## **NOTICE**

■ **The 3/4" bolt and sleeve in the lower hole provide the attachment point for a Category 1 quick coupler. Do not remove this bolt and sleeve when operating the disc harrow.**

## DHS48 - Category 1 (See Figure 1)

1. Place tractor 3-point lower lift arms over outer hitch pins (1).
2. Secure with klik pins (2).
3. Attach the tractor's top link to the top hole of the Disc Harrow frame (3).
4. Secure with the heavy-duty top link pin and retaining pin supplied with the tractor top link.

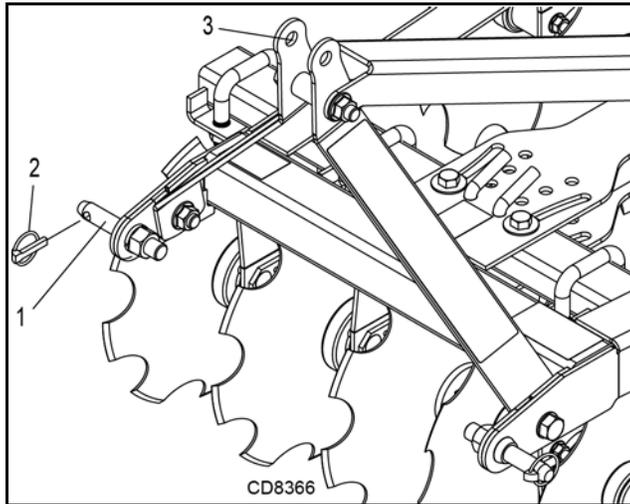


Figure 1. DHS48 CAT 1 Connection

## DHS48 - Quick Hitch (Optional) (CAT 1 Only) (See Figure 2)

The DHS48 Disc Harrow will attach to a Category 1 quick hitch.

1. Use Quick Hitch Bushing Kit 1023725 when using a quick hitch coupler.
2. Place Quick Hitch bushings (2) over mounting pin (1) and secure into position with roll pin (3).
3. Align quick hitch with lower bushings (2) and upper sleeve (4) in the lower hole on top of Disc Harrow frame.

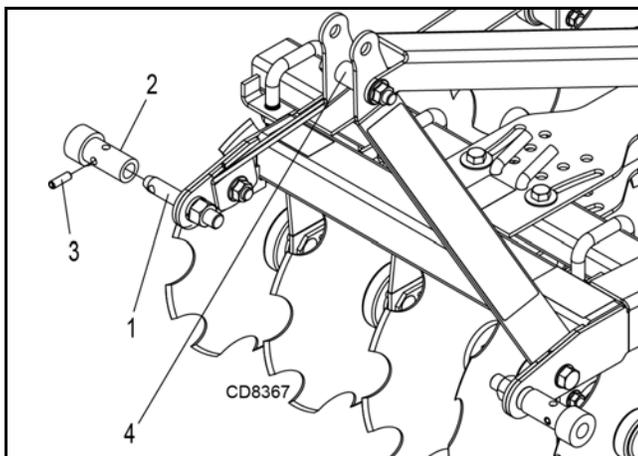


Figure 2. DHS48 Quick Hitch Connection.

## DHS48 - Category 0 (Optional)

(See Figure 3)

1. Place tractor 3-point lower lift arms over inner hitch pins (1).
2. Secure with safety pins. (Not provided)
3. Attach the tractor's top link to the top hole of the Disc Harrow frame (4).
4. Secure with the heavy-duty top link pin and retaining pin supplied with the tractor top link.

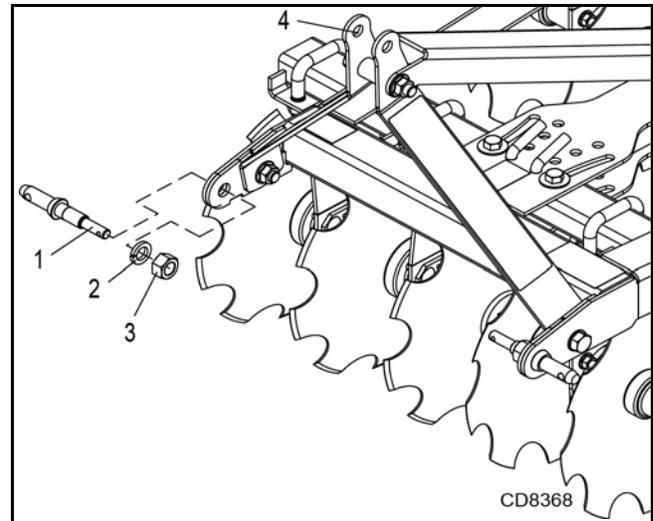


Figure 3. DHS48 CAT 0 Connection

## DHS48 - CAT 0 / 1 Hitch Pin Kit (Optional) (1009298) (See Figure 3)

1. Remove existing hitch pins.
2. Place hitch pin (1) through Disc Harrow frame.
3. Secure with lock washer (2) and hex nut (3).
4. Repeat for opposite side.

## DHS64, 80 - Category 1

(See Figure 4)

1. Place tractor 3-point lower lift arms between mounting lugs.
2. Secure with Category 1 hitch pins (1) and klik pins (2).
3. Attach the tractor's top link to the top hole of the Disc Harrow frame (3).
4. Secure with the heavy-duty top link pin and retaining pin supplied with the tractor top link.

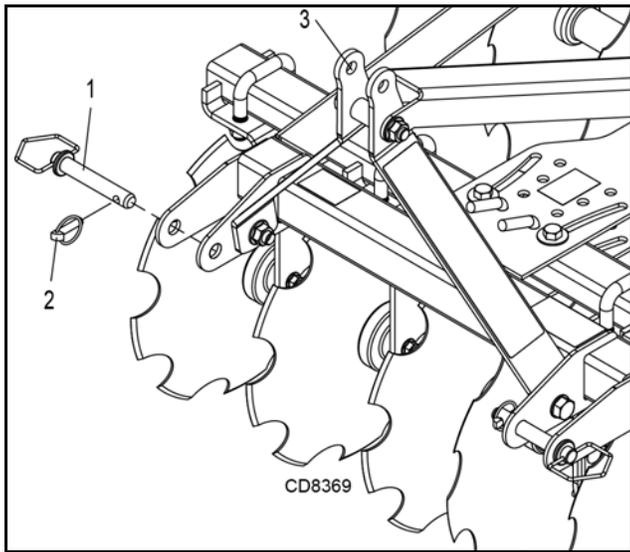


Figure 4. DHS64 & 80 CAT 1 Connection

### DHS64, 80 - Quick Hitch (Optional) (CAT 1 Only) (See Figure 5)

The DHS64 & 80 Disc Harrows will attach to a Category 1 quick hitch.

1. Use Quick Hitch Bushing Kit 1022043 when using a quick hitch coupler.
2. Remove lower hitch pins (1) from Disc Harrow frame.
3. Place Quick Hitch bushings (3) over hitch pin (1) and secure into position with klik pin (2).
4. Align Quick Hitch with lower bushings (3) and upper sleeve (4) in the lower hole on top of Disc harrow frame.

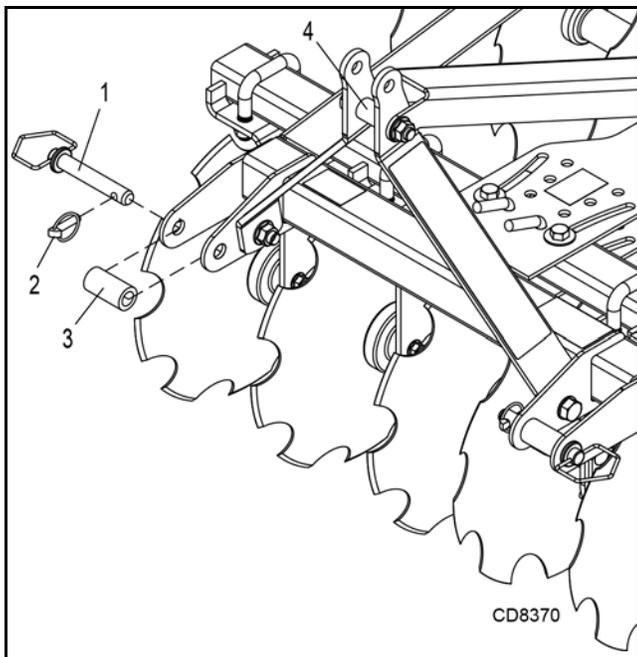


Figure 5. DHS64 & 80 Quick Hitch Connection

### DHM80, 96 - Category 1 (See Figure 6)

1. Place tractor 3-point lower lift arms between inner mounting lugs.
2. Secure with Category 1 hitch pins (1) and klik pins (2).
3. Attach the tractor's top link to the middle hole of the Disc Harrow frame (3).
4. Secure with the heavy-duty top link pin and retaining pin supplied with the tractor top link.

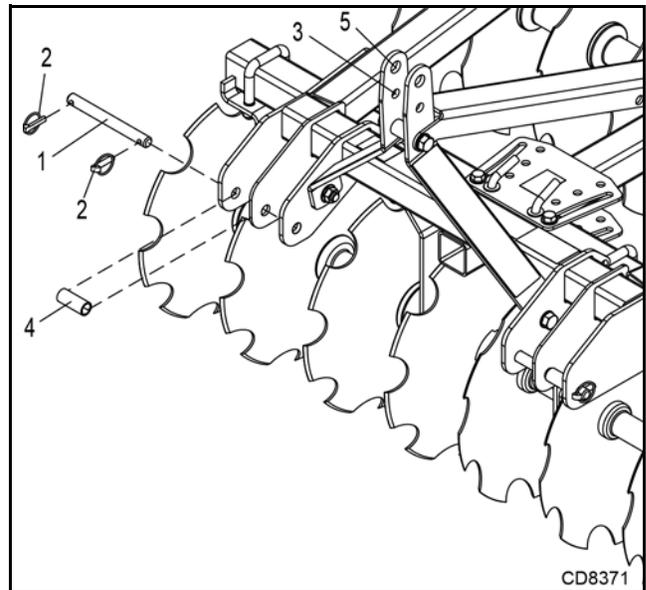


Figure 6. DHM80 & 96 CAT 1 & 2 Connection

### DHM80, 96 - Category 2 (See Figure 6)

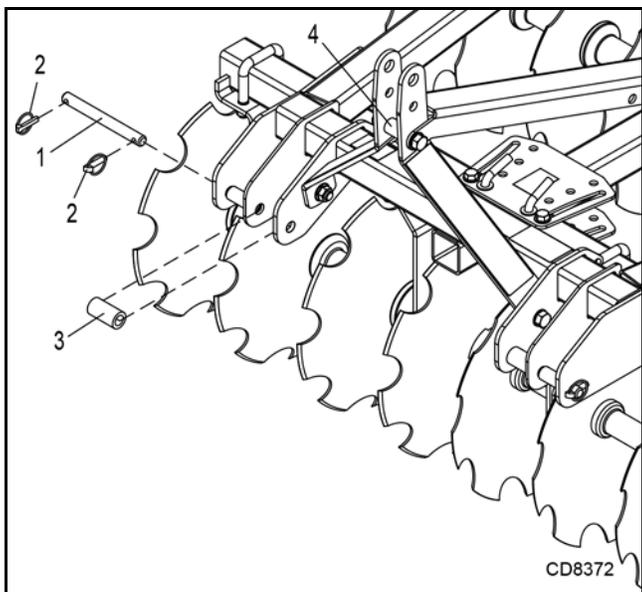
1. Place tractor 3-point lower lift arms between outer mounting lugs.
2. Use Category 2 bushings (4) (included) over hitch pins (1) and secure with klik pins (2).
3. Attach the tractor's top link to the top hole of the Disc Harrow frame (5).
4. Secure with heavy-duty top link pin and retaining pin supplied with the tractor top link.

### DHM80, 96 - Quick Hitch (Optional) (CAT 1 or CAT 2) (See Figure 7)

**NOTE:** The DHM80 & 96 Disc Harrows will attach to a Category 1 or Category 2 quick hitch.

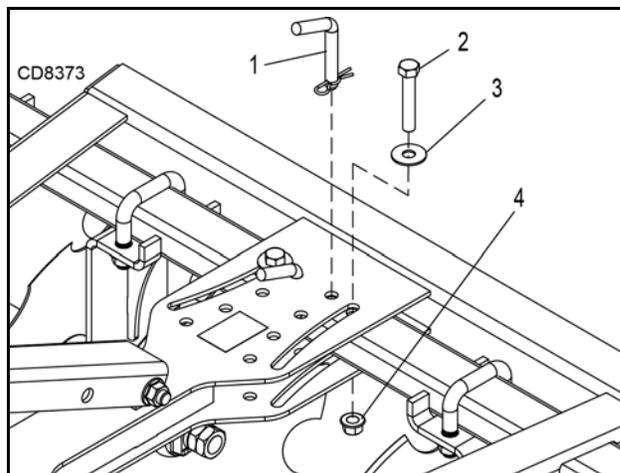
1. Use Quick Hitch Bushing Kit 1022043 when using a quick hitch coupler.
2. Remove lower hitch pins (1) from Disc Harrow frame.

- Place Quick Hitch bushings (3) over hitch pin (1) and secure into position with klik pin (2).
- Align Quick Hitch with lower bushings (3) and upper sleeve (4) in the lower hole on top of Disc Harrow frame.



**Figure 7.** DHM80 & 96 Quick Hitch Connection

- Using the tractor's 3-point lift; raise Disc Harrow off the ground.
- Remove pin (1) and safety pin.
- Grasp gang tube and move gang assembly to the desired position.
- Insert pin (1) and secure with safety pin.



**Figure 8.** Angling Blades

**NOTE:** Guide bolt (2) and washer (3) should be retained with lock nut (4) just loose enough to allow gang angle adjustment. For extended use in one position, the guide bolt and lock nut can be tightened to provide additional rigidity.

## **DISC HARROW ATTITUDE ADJUSTMENT**

The attitude of the Disc Harrow is leveled by adjusting the length of the tractor's top link.

For best results, always maintain a level disc attitude. A level disc attitude will leave a slight ridge of material, in the center, behind the rear gangs. A large ridge of material will require the attitude to be adjusted forward. A furrow, in the center, behind the rear gangs will require the attitude to be adjusted to the rear.

### ***NOTICE***

- Excessive forward or rear attitude adjustment will lead to poor finish and may cause equipment damage or premature bearing failure.

## **ANGLING DISC BLADES**

All disc gangs are independently adjustable with 4 positions between 0 and 21 degrees. The disc setting becomes more aggressive with increased gang angle. The greater the disc angle, the greater the material turn over. Adjustments can be made to the disc gang angles by following these instructions:

### ***NOTICE***

- Although front and rear gang sets can be adjusted independently, right and left gangs should always be adjusted to the same angle.

## **STORAGE**

### **WARNING**

- To help prevent injury caused by a falling implement, always detach on a hard level surface.
- Block equipment securely for storage.
- Do not climb or lean on stored equipment.
- Keep children and bystanders away from storage area.

# SERVICE

The information in this section is written for operators who possess basic mechanical skills. If you need help, your dealer has trained service technicians available. For your protection, read and follow the safety information in this manual.

## **WARNING**

■ **NEVER GO UNDERNEATH EQUIPMENT.** Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

- Service work does not require going underneath.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

■ **Keep all persons away from operator control area while performing adjustments, service, or maintenance.**

■ **Before performing any service or maintenance, lower attachment to ground, turn off engine, set parking brake, and remove key.**

■ **Make sure attachment is properly secured, adjusted, and in good operating condition.**

■ **Never perform service or maintenance with engine running.**

■ **Tighten all bolts, nuts, and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.**

■ **Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)**

■ **If you do not understand any part of this manual and need assistance, see your dealer.**

## **CAUTION**

■ **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.**

## LUBRICATION

The DHM80 & 96 are the only Disc Harrows that require lubrication. The DHM80 & 96 disc gang axle bearings should be greased after every 80 hours of normal operation. Severe or unusual conditions may require more frequent lubrication.

Do not let excess grease collect on or around parts, particularly when operating in sandy areas.

Use a lithium grease of #2 consistency with a MOLY (molybdenum disulfide) additive for all locations. Be sure to clean fittings thoroughly before attaching grease gun. One good pump of most guns is sufficient when lubrication schedule is followed.

## **NOTICE**

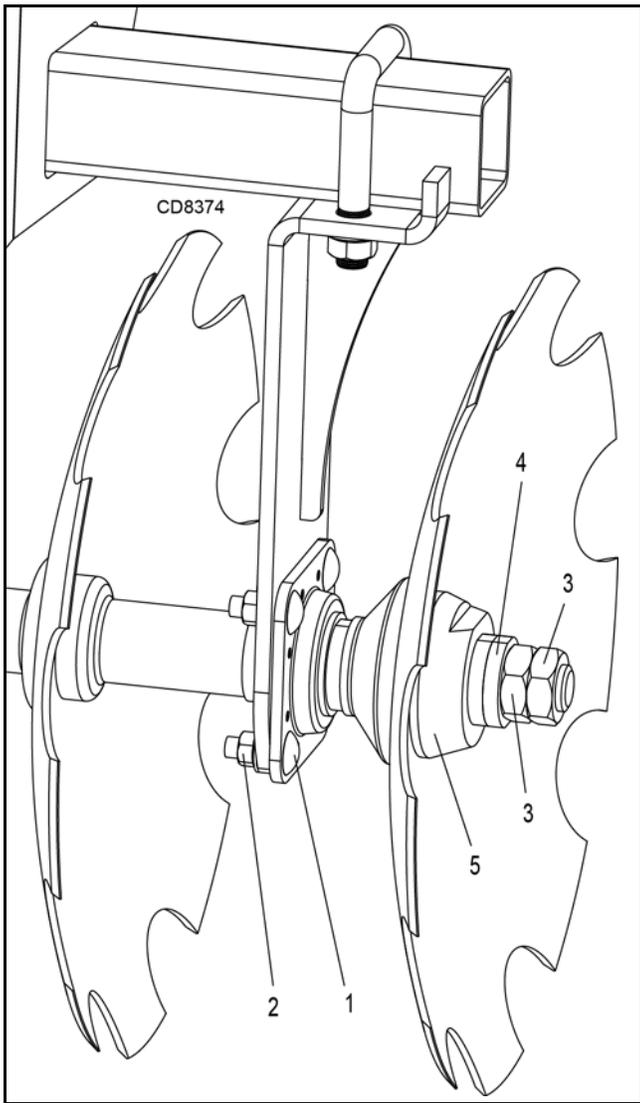
■ **Do not use excessive amounts of grease on axle bearings. Excessive amounts of grease can cause seal damage and/or premature bearing failure.**

## DISC & BEARING REPLACEMENT

### Disassemble Gang

1. Lower Disc Harrow to ground.
2. Securely block tractor to prevent wheel rotation.
3. Remove carriage bolts (1) and nuts (2) from all bearings on disc harrow gang.
4. Remove gang assembly from bearing hangers by raising 3-point lift on tractor.
5. With gang assembly removed from bearing hangers, remove outer jam nut (3), inner jam nut (3), washer(s) (4), and endcap (5).
6. Slide discs, spacers, washers and bearings off axle as needed to replace desired disc(s) and bearing(s).

**NOTE:** Maintain proper order of discs, spacers, washers and bearings for reassembly. (See Parts Section Page 19).



**Figure 9.** Disc and Bearing Replacement

### Assemble Gang

1. Reassemble gang with new disc(s) and bearing(s) in reverse order of disassembly steps.

**NOTE:** Maintain proper order of discs, spacers, washers, and bearings for reassembly. (See Parts Section Page 20).

2. Install endcap, washer(s) and inner jam nut. Torque inner jam nut to 365 lbs-ft. for 1" thread (DHS48, 64, 80) and 450 lbs-ft for 1-1/8" thread (DHM80 & 96).

3. Install outer jam nut. Torque outer jam nut to 365 lbs-ft for 1" thread (DHS48, 64, 80) and 450 lbs-ft for 1-1/8" thread (DHM80 & 96).
4. Align bearings with bearing hangers. Lower Disc Harrow.
5. Install carriage bolts and nuts on all bearings.

### **CLEANING**

#### **After Each Use**

- Remove large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Inspect machine and replace worn or damaged parts.
- Replace any safety decals that are missing or not readable.

#### **Periodically or Before Extended Storage**

- Clean large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Remove the remainder using a low-pressure water spray.
  1. Be careful when spraying near scratched or torn safety decals or near edges of decals as water spray can peel decal off surface.
  2. Be careful when spraying near chipped or scratched paint as water spray can lift paint.
  3. If a pressure washer is used, follow the advice of the pressure washer manufacturer.
- Inspect machine and replace worn or damaged parts.
- Sand down scratches and the edges of areas missing paint and coat with Woods spray paint of matching color (purchase from your Woods dealer).
- Replace any safety decals that are missing or not readable (supplied free by your Woods dealer). See Safety Decals section for location drawing.



# ASSEMBLY INSTRUCTIONS

## DEALER SET-UP INSTRUCTIONS

Assembly of this Disc Harrow is the responsibility of the WOODS dealer. The Disc Harrow is shipped partially assembled. The A-frame braces and top link need to be assembled on all models. The disc gang assemblies may require adjustment on select models.

Gang assemblies should be adjusted to the dimensions shown in Figure 10 and Table 1. Torque values for hardware are located on page 32.

Disc Harrow should be delivered to the owner completely assembled, lubricated and adjusted for normal conditions.

Complete the Dealer Checklist on page 18 when set-up is complete and Disc Harrow is delivered to the owner.

Model	Offset (Inches)			
	"A"	"B"	"C"	"D"
DHS48	2.0	11.1	1.6	10.8
DHS64+	3.0	14.2	1.4	14.5
DHS64*	3.5	18.7	1.4	14.5
DHS80+	3.3	21.6	1.4	22.1
DHS80*	3.5	26.2	1.4	22.1
DHM80	3.0	18.8	1.5	22.3
DHM96	3.0	27.8	1.5	30.0

Table 1: Disc Gang Offset Dimensions

\* Offset for 7-1/2" front spacing

+ Offset for 9" front spacing

## WARNING

■ **NEVER GO UNDERNEATH EQUIPMENT.** Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

- Service work does not require going underneath implement.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

■ Keep all persons away from operator control area while performing adjustments, service, or maintenance.

## CAUTION

■ Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

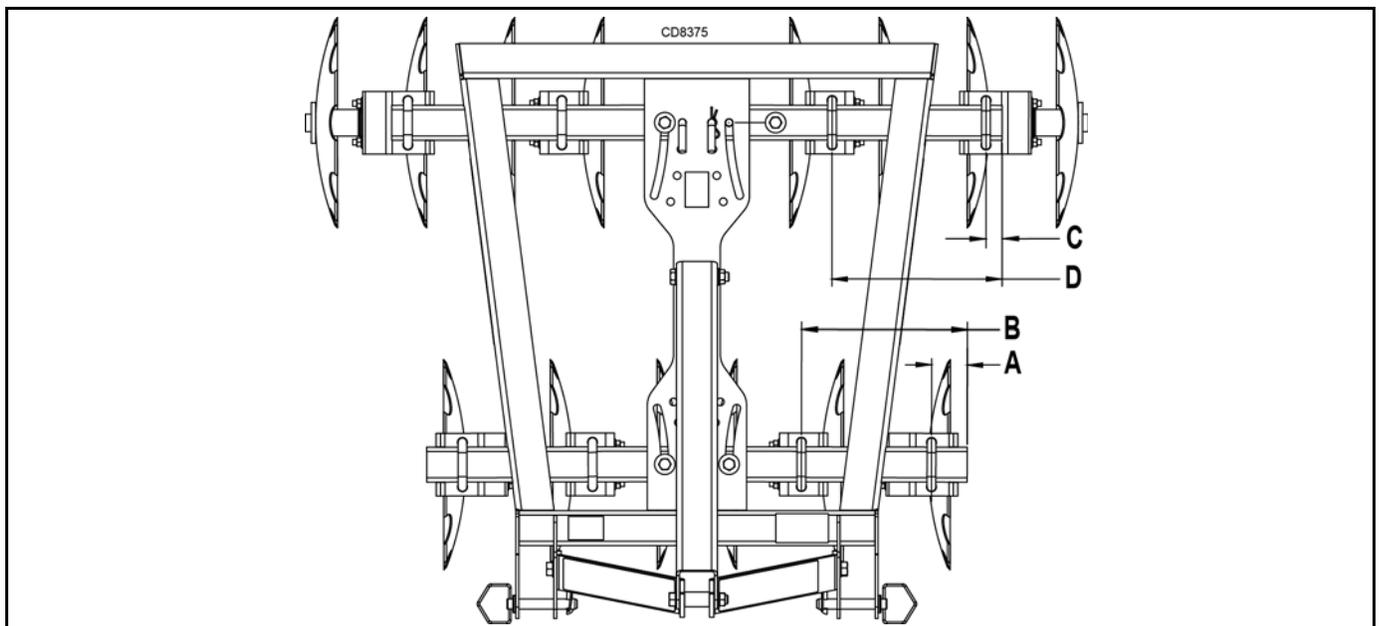


Figure 10. Gang Assembly Adjustment

**The Disc Harrow is to be assembled by following these instructions:**

1. Loosen or remove bolt, washers, and lock nut attaching A-frame brace to Disc Harrow frame.
2. Rotate A-frame brace into upward position and reinstall bolt, washer, and lock nut but do not tighten.
3. Remove bolt, washers, and lock nut from forward hole on top link where attached to Disc Harrow frame.
4. Move top link forward and reinstall bolt, washers, and lock nut in rear hole on top link through lug/sleeve on Disc Harrow frame but do not tighten.
5. Remove bolt, washers, sleeve, and lock nut holding A-frame braces together.
6. Align front hole in top link with lower hole at the top of A-frame braces. Reinstall bolt, washers, sleeve, and lock nut through top link and A-frame braces.
7. Tighten all hardware on hitch. Torque values for hardware are located on page 32.
8. Adjust disc gang assembly location per Table 1 on Page 15 if necessary.
9. Fully test all gang adjustments.
10. Complete Dealer Checklist before delivery to customer.

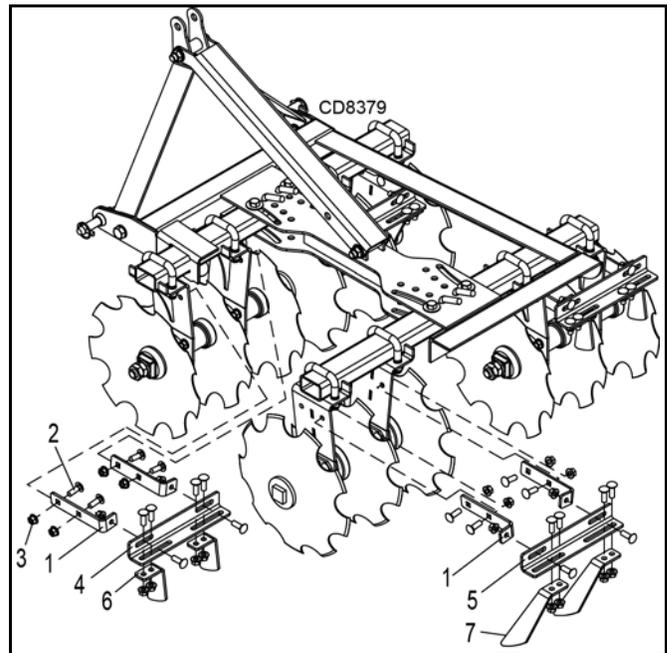
**ACCESSORY INSTALLATION**

All Disc Harrow factory accessories include all necessary hardware for installation. Assemble and install factory accessories by following these instructions.

**Mud Scrapers**

**NOTE:** Mounting brackets must be installed in proper orientation to achieve maximum adjustability. See detailed model specific assembly pictures included with each kit for more information.

1. Install mounting brackets (1) on bearing hangers with carriage bolts (2) and lock nuts (3).
2. Install front and rear scraper bars (4 & 5) to mounting brackets (1).
3. Install right facing scraper blades (6) on front left and rear right scraper bars.
4. Install left facing scraper blades (7) on front right and rear left scraper bars.
5. Adjust mud scrapers to desired spacing. Adjustments can be made to the scraper bar or each individual scraper to achieve desired setting.

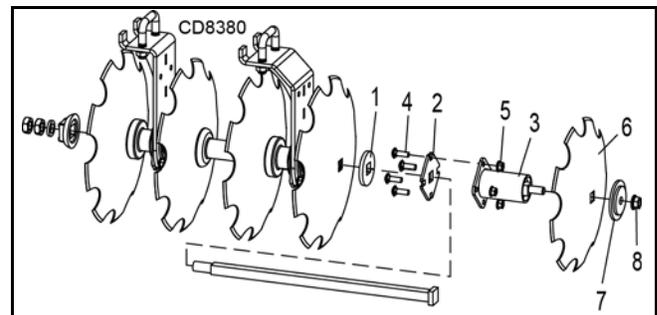


**Figure 11. Mud Scraper Installation**

**Furrow Fillers**

**Furrow Fillers - DHS64 & 80**

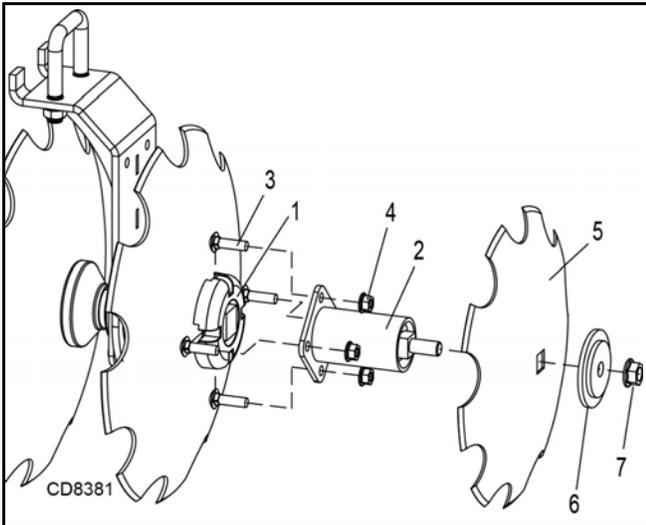
1. Remove and discard originally equipped bumper washers (1) on rear gangs and replace with slotted bumper washers (2) using Disc and Bearing Replacement instructions on page 13.
2. Install furrow filler mount (3) on bumper washer using carriage bolts (4) and lock nuts (5).
3. Slide disc blade (6) over mount and retain with washer (7) and lock nut (8).
4. Install and adjust furrow filler mud scraper bar (if equipped).
5. Tighten all hardware on furrow filler. Torque values for hardware are located on page 32.



**Figure 12. Furrow Filler Installation (DHS64 & 80)**

### Furrow Fillers - DHM80 & 96

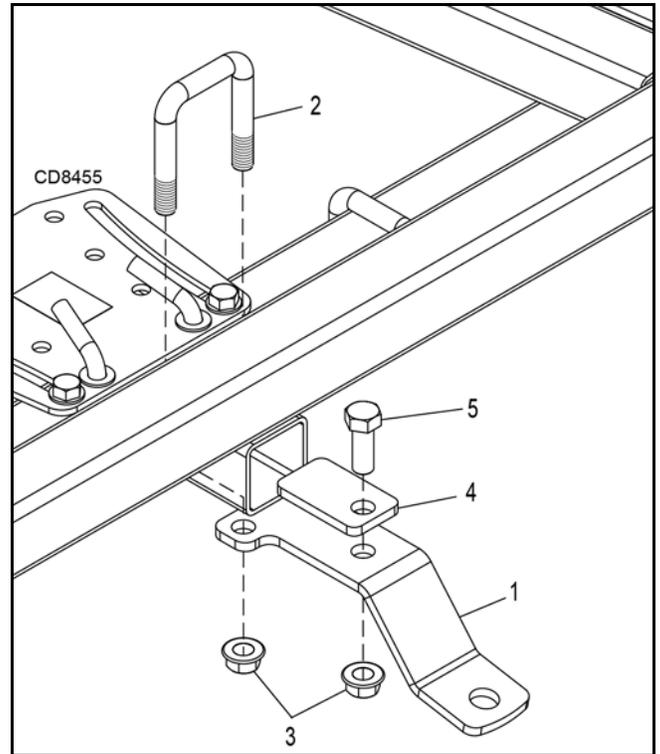
1. Install furrow filler mount (2) on originally equipped slotted bumper washer (1) using carriage bolts (3) and lock nuts (4).
2. Slide disc blade (5) over mount and retain with washer (6) and lock nut (7).
3. Install and adjust furrow filler mud scraper bar (if equipped).
4. Tighten all hardware on furrow filler. Torque values for hardware are located on page 32.



**Figure 13.** Furrow Filler Installation (DHM80 & 96)

### Rear Drawbar - DHM80 & 96

1. Place drawbar (1) under rear of center frame tube.
2. Install U-Bolt (2) over center frame tube and through drawbar. Secure with lock nuts (3) but do not tighten.
3. Slide drawbar clamp (4) inside rear of center tube and align with hole in drawbar. Secure with bolt (5) and lock nut (3) but do not tighten.
4. Position drawbar in desired location and tighten all hardware.



**Figure 14.** Rear Drawbar Installation (DHM80 & 96)

# DEALER CHECK LISTS

## PRE-DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

Inspect the equipment thoroughly after assembly to ensure it is set up properly before delivering it to the customer.

The following check lists are a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

- \_\_\_ Check that all safety decals are installed and in good condition. Replace if damaged.
- \_\_\_ Check gang assembly offset and adjust as necessary.
- \_\_\_ Properly attach implement to tractor and make all necessary adjustments.
- \_\_\_ Check all bolts to be sure they are properly torqued.
- \_\_\_ Check that all cotter pins and safety pins are properly installed. Replace if damaged.
- \_\_\_ Check and grease all lubrication points as identified in lubrication section on page 10.

## DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

- \_\_\_ Show customer how to make adjustments.
- \_\_\_ Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.
- \_\_\_ Present Operator's Manual and request that customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings and emphasize the increased safety hazards that exist when safety rules are not followed.
- \_\_\_ For mounted units, add wheel weights, ballast in front tires, and/or front tractor weight to enhance front end stability. A minimum 20% of tractor and equipment gross weight must be on front tractor wheels. When adding weight to attain 20% of tractor and equipment weight on front tractor wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. Do not estimate!
- \_\_\_ Make customer aware of optional equipment available so that customer can make proper choices as required.
- \_\_\_ Show customer the safe, proper procedures to be used when mounting, dismounting and storing equipment.
- \_\_\_ Instruct customer how to lubricate the disc harrow and explain the importance of lubrication.
- \_\_\_ Explain to the customer the potential crushing hazards of going underneath raised equipment. Service work does not require going underneath.

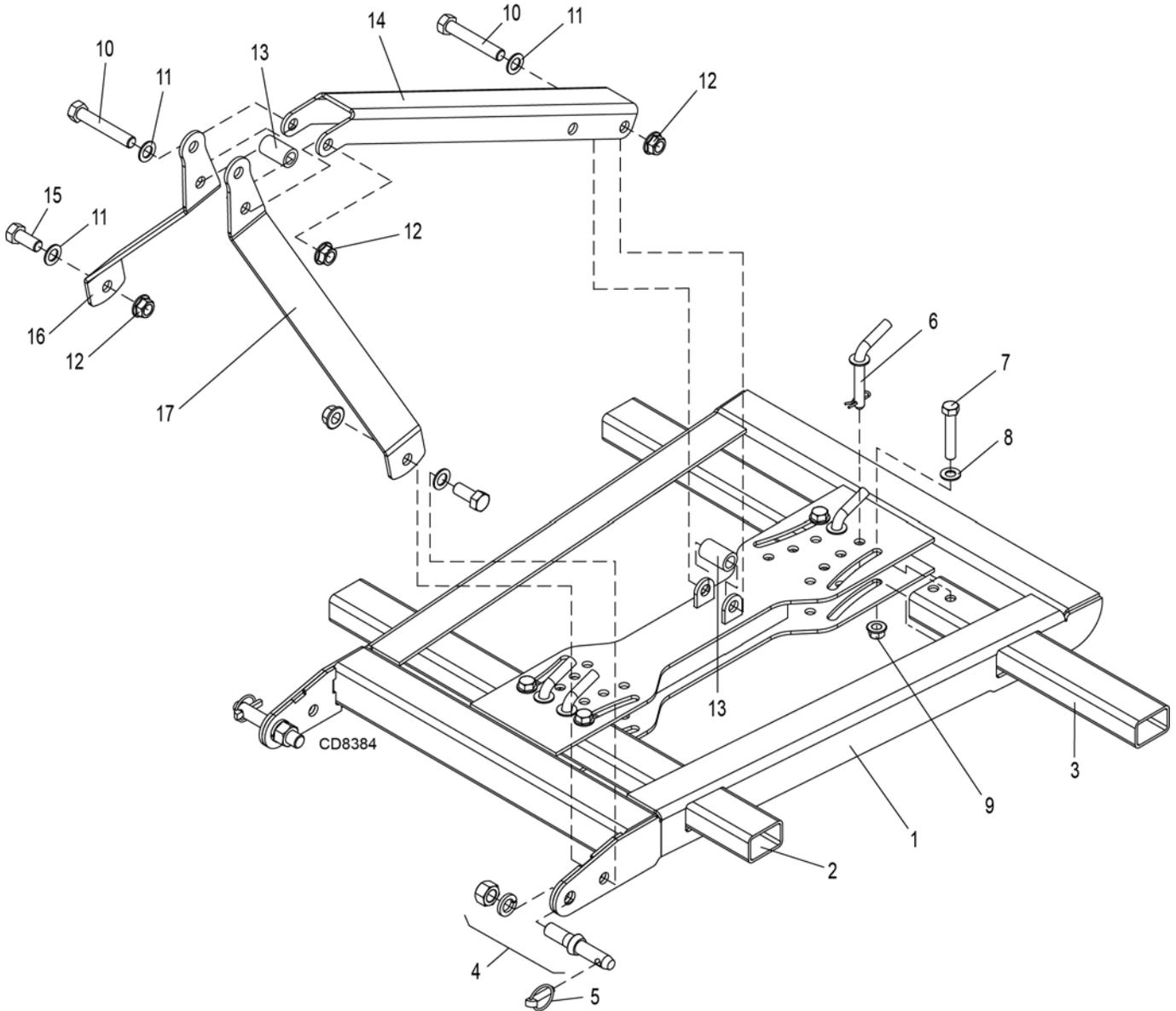


## DISC HARROW

### DHS48, DHS64, DHS80 DHM80, DHM96

DHS48 FRAME ASSEMBLY .....	20
DHS48 GANG ASSEMBLY .....	21
DHS64 & DHS80 FRAME ASSEMBLY .....	22
DHS64 & DHS80 FRONT GANG ASSEMBLY .....	23
DHS64 & DHS80 REAR GANG ASSEMBLY .....	24
DHM80 & DHM96 FRAME ASSEMBLY .....	25
DHM80 & DHM96 FRONT GANG ASSEMBLY .....	26
DHM80 & DHM96 REAR GANG ASSEMBLY .....	27
DHS & DHM MUD SCRAPER ASSEMBLY (OPTIONAL) .....	28
DHS64 & DHS80 FURROW FILLER ASSEMBLY (OPTIONAL) .....	29
DHM80 & DHM96 FURROW FILLER ASSEMBLY (OPTIONAL) .....	30
DHM80 & DHM96 REAR DRAWBAR ASSEMBLY (OPTIONAL) .....	31

# DHS48 FRAME ASSEMBLY



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	1041325	1	Disc frame	11	2864 *	6	3/4 SAE Flat washer
2	1041311	2	Front gang tube	12	302207 *	4	3/4 NC Flanged lock nut
3	1041312	2	Rear gang tube	13	1002018	2	Sleeve, .81 x 1.25 x 2.12
4	33661	2	Cat 1 mount pin w/nut & lock washer	14	1041327	1	Top link
5	43627 *	2	7/16 x 2 Klik pin	15	300517 *	2	3/4 NC x 1-3/4 HHCS, GR5
6	1042106	4	5/8 x 3.0 Bent pin	16	1041342	1	Right A-frame
7	23141 *	4	5/8 NC x 3-1/2 HHCS, GR5	17	1041343	1	Left A-frame
8	3632 *	4	5/8 SAE Flat washer				
9	19025 *	4	5/8 NC Flanged lock nut				
10	12558 *	2	3/4 NC x 4-1/2 HHCS, GR5				

HHCS Hex Head Cap Screw

\* Standard hardware, obtain locally

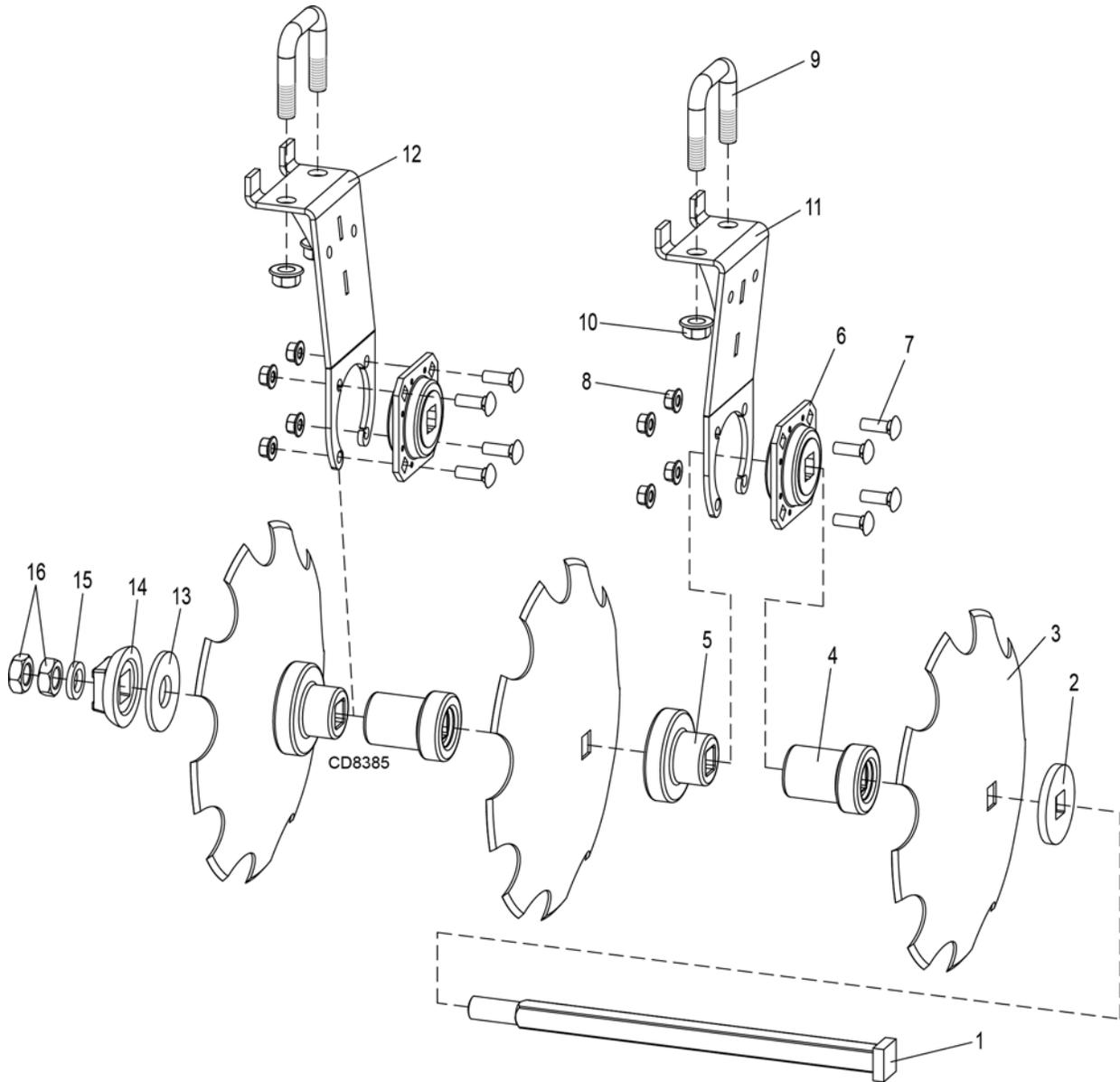
**20 Parts**

(Rev. 1/08/2018)

MAN1143 (7/20/2015)

# DHS48 GANG ASSEMBLY

(7-1/2" Spacing) (16" Blades)

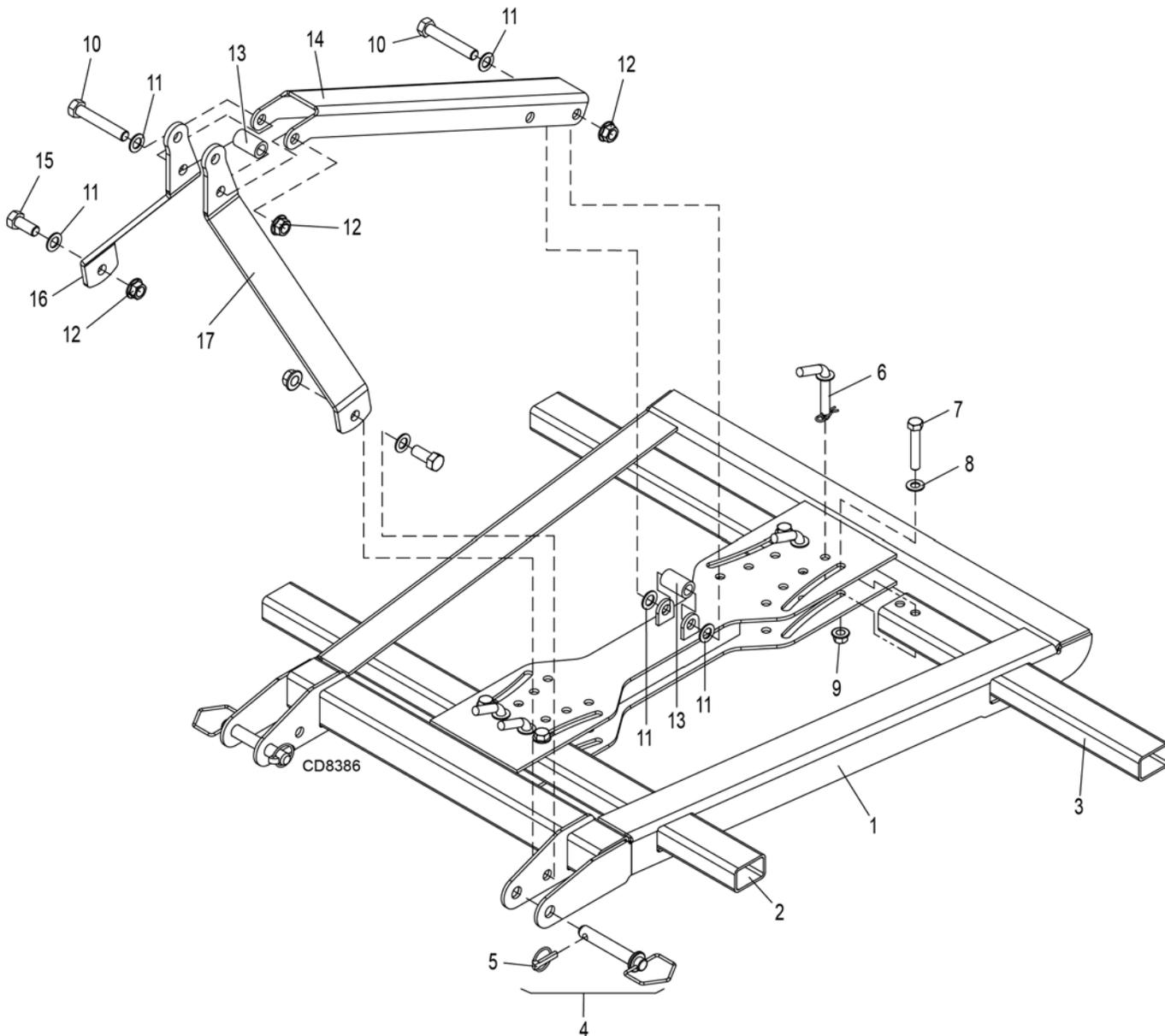


REF	PART	QTY	DESCRIPTION
1	1040602	4	Disc harrow axle - 1" x 19.0"
2	1042077	4	Bumper washer
3	1038696	12	16" Notched disc blade
4	1011323	8	3-5/8" Half spacer
5	1011324	8	2-3/8" Half spacer
6	1022500	8	Axle bearing - 1"
7	29893 *	32	1/2 NC x 1-1/2 Carriage bolt, GR5
8	11900 *	32	1/2 NC Flanged lock nut
9	1040620	8	U-bolt, 3/4 NC x 3.81 x 3.31
10	302207 *	16	3/4 NC Flanged lock nut
11	1041338	4	Bearing hanger, offset

REF	PART	QTY	DESCRIPTION
12	1041335	4	Bearing hanger
13	1041341	4	Washer, 1.41 x 3.50 x .25
14	1022501	4	1-1/4" End spacer
15	1041321	4	Washer, 1.03 x 1.63 x .25
16	2250	8	1 NC Hex nut

\* Standard hardware, obtain locally

# DHS64 & 80 FRAME ASSEMBLY



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
				9	19025 *	4	5/8 NC Flanged lock nut
1	1041300	1	Disc frame (DHS64) -or-				
1	1041301	1	Disc frame (DHS80)				
2	1041344	2	Front gang tube (DHS64) -or-				
2	1041345	2	Front gang tube (DHS80)				
3	1041313	2	Rear gang tube (DHS64) -or-				
3	1041314	2	Rear gang tube (DHS80)				
4	SU105	2	Cat 1 drawbar pin				
5	43627 *	2	7/16 x 2 Klik pin				
6	1042106	4	5/8 x 3.0 Bent pin				
7	23141 *	4	5/8 NC x 3-1/2 HHCS, GR5				
8	3632 *	4	5/8 SAE Flat washer				

**22 Parts**

MAN1143 (7/20/2015)

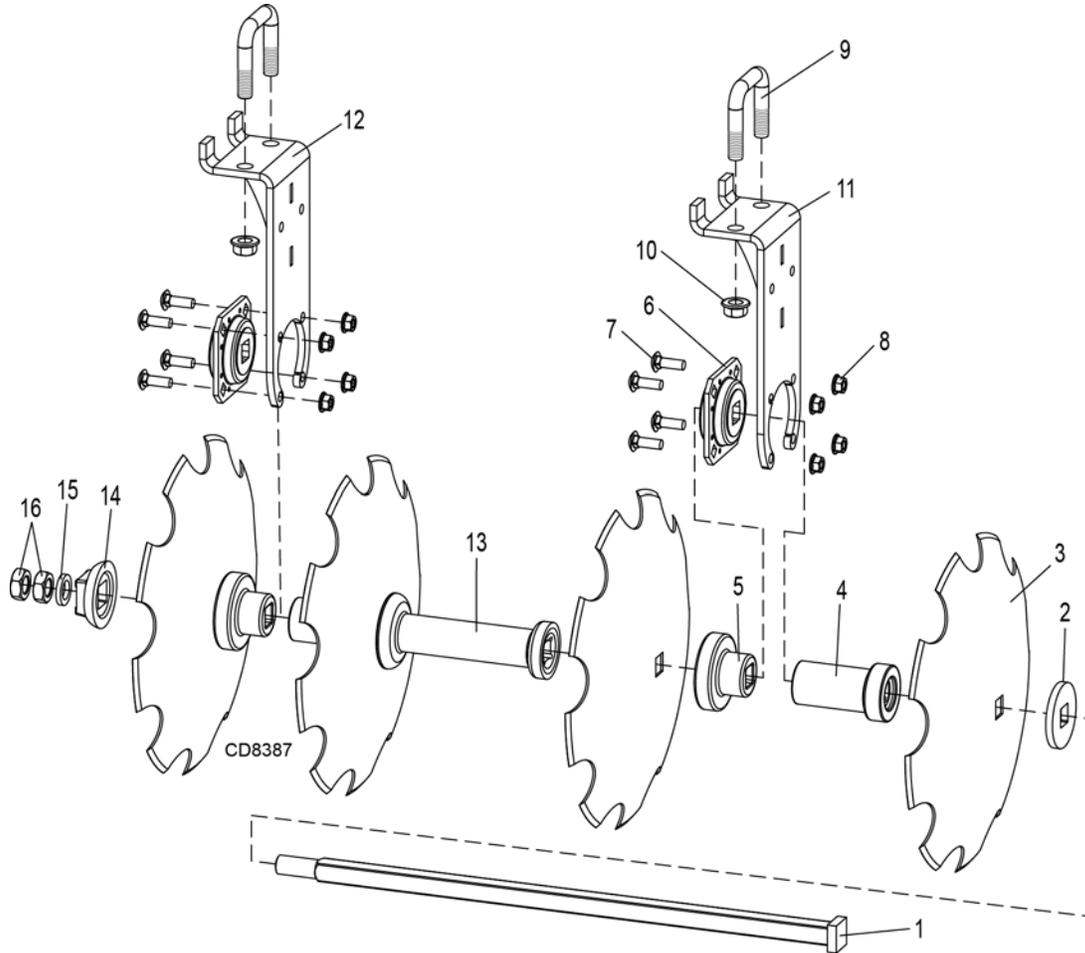
REF	PART	QTY	DESCRIPTION
10	12558 *	4	3/4 NC x 4-1/2 HHCS, GR5
11	2864 *	6	3/4 SAE Flat washer
12	302207 *	4	3/4 NC Flanged lock nut
13	1002018	2	Sleeve, .81 x 1.25 x 2.12
14	1041303	1	Top link
15	300517 *	2	3/4 NC x 1-3/4 HHCS, GR5
16	1041324	1	Right A-frame
17	1041323	1	Left A-frame

HHCS Hex Head Cap Screw

\* Standard hardware, obtain locally

# DHS64 & 80 FRONT GANG ASSEMBLY

(9" Spacing) (18" Blades)



REF	DHS64 PART	DHS80 PART	QTY	DESCRIPTION
1	1042100	-----	2	Disc harrow axle - 1" x 21.5" <b>-or-</b>
1	-----	1042101	2	Disc harrow axle - 1" x 31.0"
2	1042077	1042077	2	Bumper washer
3	1011274 (6)	1011274 (8)		18" Notched disc blade
4	1042103	1042103	4	5-1/8" Half spacer
5	1011324	1011324	4	2-3/8" Half spacer
6	1022500	1022500	4	Axle bearing - 1"
7	29893*	29893*	16	1/2 NC x 1-1/2 Carriage bolt, GR5
8	11900*	11900*	16	1/2 NC Flanged lock nut
9	1040620	1040620	4	U-Bolt, 3/4 NC x 3.81 x 3.31
10	302207*	302207*	8	3/4 NC Flanged lock nut
11	1041315 (2)	1041338 (4)		Bearing hanger, straight
12	1041318 (2)	-----		Bearing hanger, offset
13	-----	1042102 (2)		9" Plain spacer
14	1022501	1022501	2	1-1/4" End spacer
15	1041321	1041321	2	Washer, 1.03 x 1.63 x .25
16	2250	2250	4	1NC Hex nut

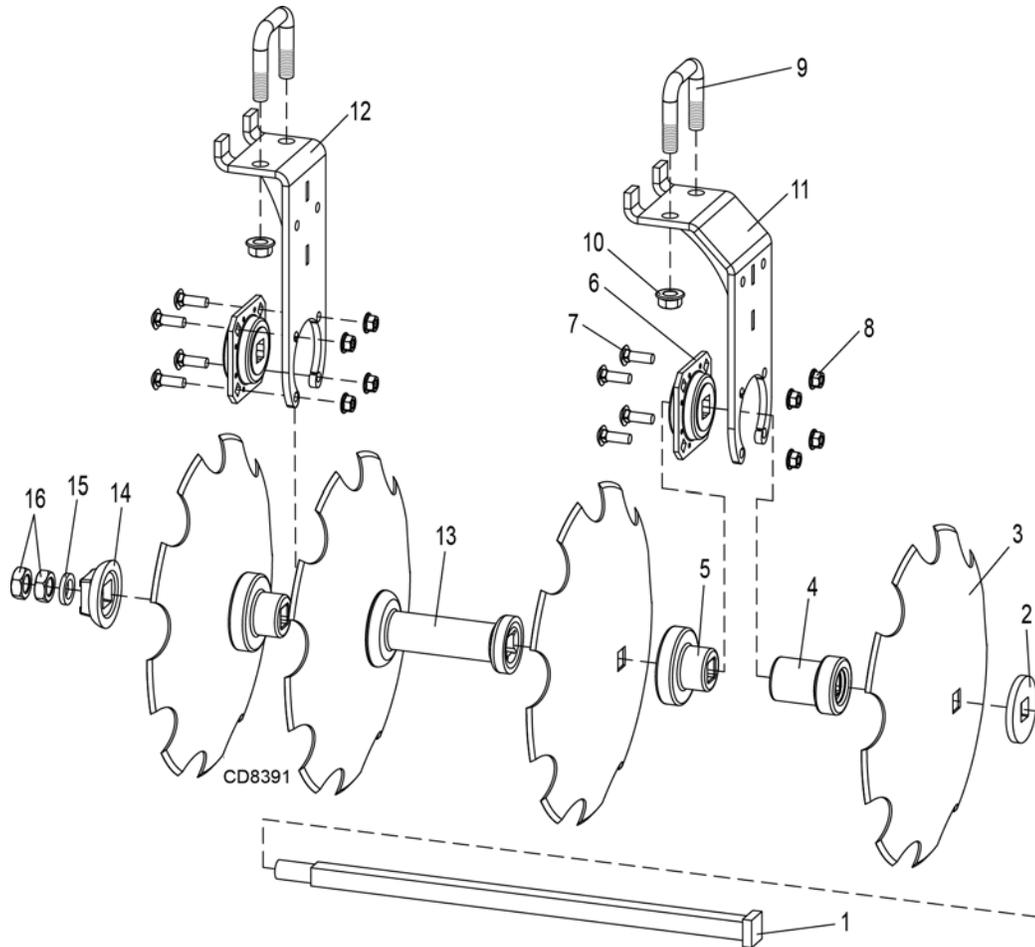
\* Standard Hardware, Obtain Locally

**24 Parts**

(Rev. 4/7/2017)  
MAN1143 (7/20/2015)

# DHS64 & 80 FRONT OR REAR GANG ASSEMBLY

(7-1/2" Spacing) (18" Blades)



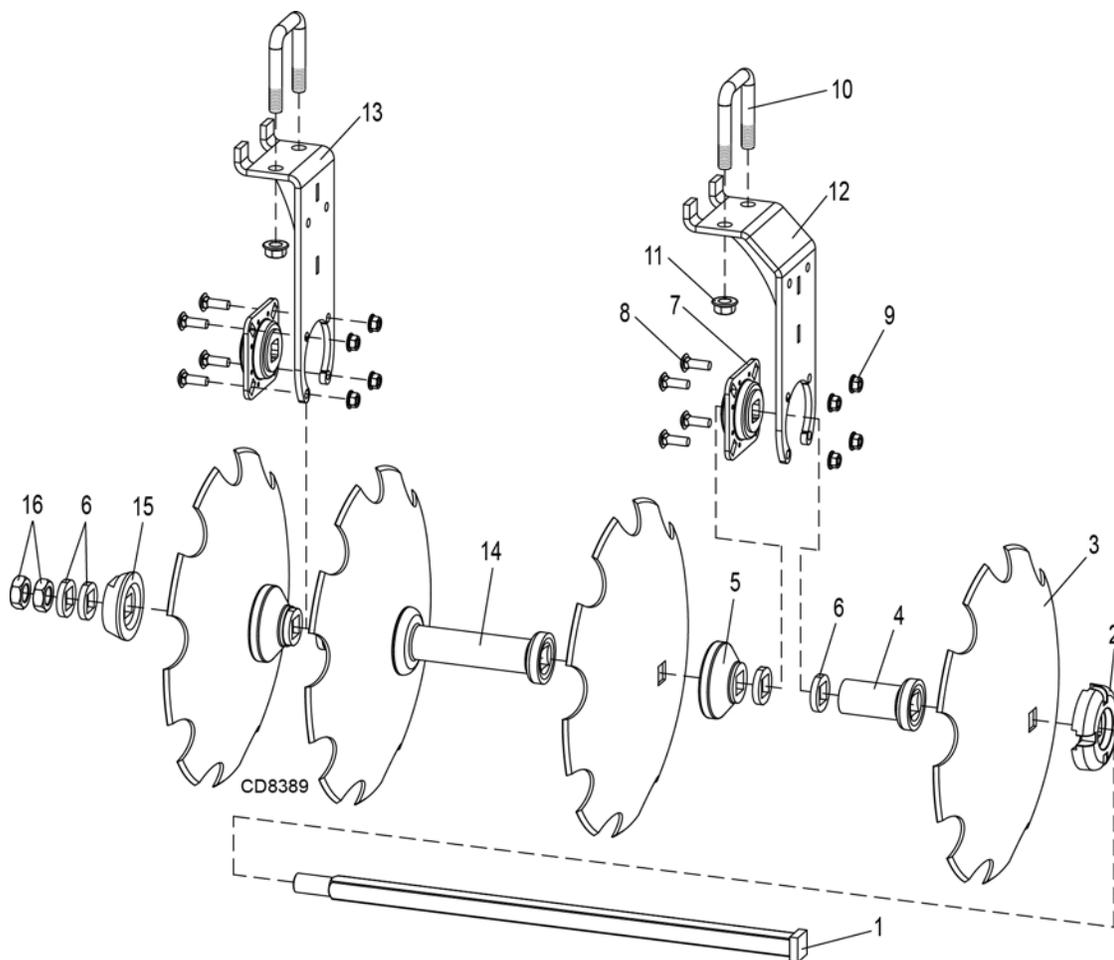
REF	DHS64 PART	DHS80 PART	REAR (FRONT) QTY	DESCRIPTION
1	1011299	-----	2	Disc harrow axle - 1" x 26.0" <b>-or-</b>
1	-----	1011277	2	Disc harrow axle - 1" x 34.0"
2	1042077	1042077	2	Bumper washer
3	1011274 (8)	1011274 (10)		18" Notched disc blade <b>-or-</b>
3	1011258 (8)	1011258 (10)		18" Smooth disc blade
4	1011323	1011323	4	3-5/8" Half spacer
5	1011324	1011324	4	2-3/8" Half spacer
6	1022500	1022500	4	Axle bearing - 1"
7	29893*	29893*	16	1/2 NC x 1-1/2 Carriage bolt, GR5
8	11900*	11900*	16	1/2 NC Flanged lock nut
9	1040620	1040620	4	U-Bolt, 3/4 NC x 3.81 x 3.31
10	302207*	302207*	8	3/4 NC Flanged lock nut
11	1041318	1041318	2 (0)	Bearing hanger, offset
12	1041315	1041315	2 (4)	Bearing hanger, straight
13	1011349 (2)	1011349 (4)		7-1/2" Plain spacer
14	1022501	1022501	2	1-1/4" End spacer
15	1041321	1041321	2	Washer, 1.03 x 1.63 x .25
16	2250	2250	4	1NC Hex nut

\* Standard Hardware, Obtain Locally



# DHM80 & 96 FRONT GANG ASSEMBLY

(9" Spacing) (20" Blades)

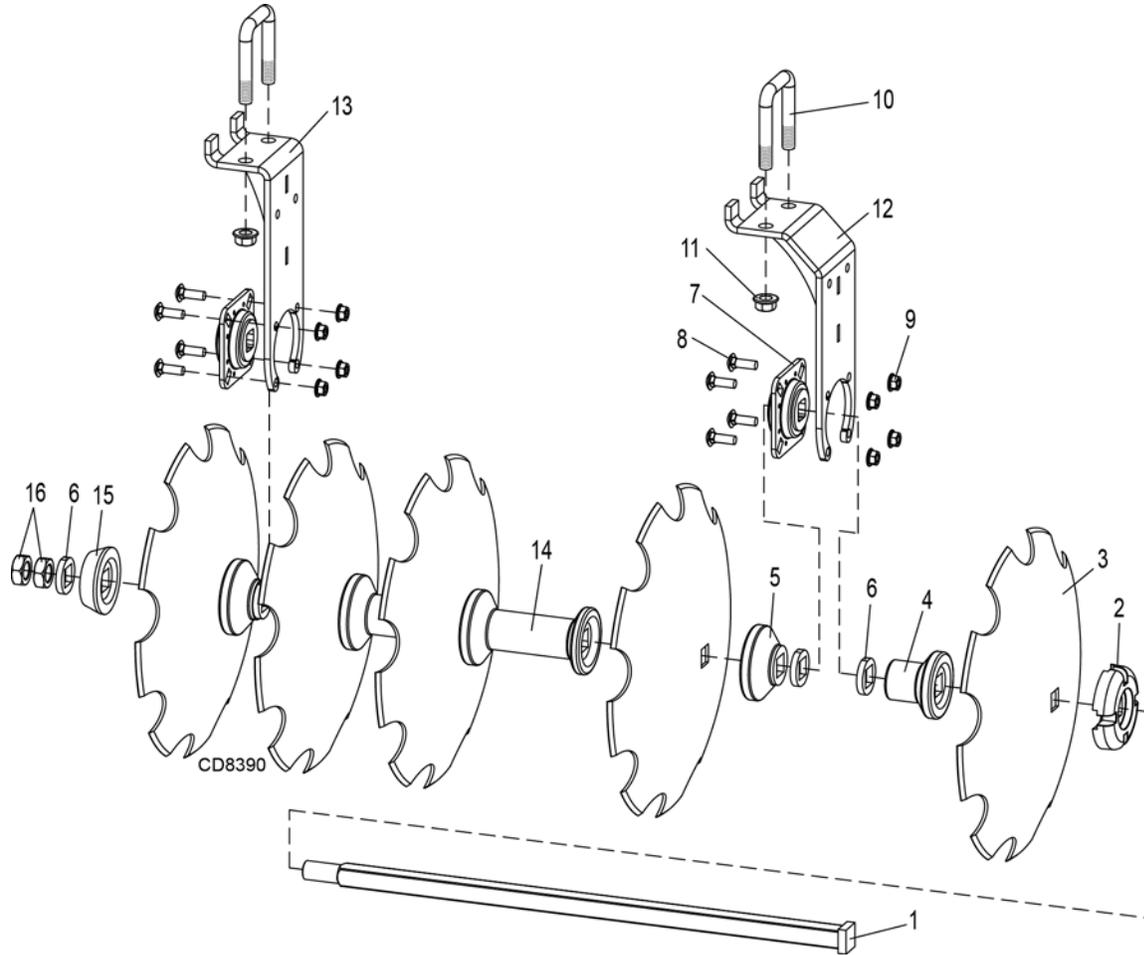


REF	DHM80 PART	DHM96 PART	QTY	DESCRIPTION
1	1040601	-----	2	Disc harrow axle - 1-1/8" x 31.0" -or-
1	-----	1040600	2	Disc harrow axle - 1-1/8" x 40.25"
2	1038801	1038801	2	Bumper washer
3	1038638 (8)	1038638 (10)		20" Notched disc blade
4	1038824	1038824	4	4-1/2" Half spacer
5	1038641	1038641	4	1-3/4" Half spacer
6	1038823	1038823	12	Axle washer, 1-1/8" x 3/8"
7	1038645	1038645	4	Axle bearing - 1-1/8"
8	29893*	29893*	16	1/2 NC x 1-1/2 Carriage bolt, GR5
9	11900*	11900*	16	1/2 NC Flanged lock nut
10	1034668	1034668	4	U-Bolt, 3/4 NC x 3.81 x 4.31
11	302207*	302207*	8	3/4 NC Flanged lock nut
12	1041147	1041147	2	Bearing hanger, offset
13	1041144	1041144	2	Bearing hanger, straight
14	1038643 (2)	1038643 (4)		9" Plain spacer
15	1038640	1038640	2	1-1/4" End spacer
16	1038815	1038815	4	1-1/8 NC Hex nut

\* Standard Hardware, Obtain Locally

# DHM80 & 96 REAR GANG ASSEMBLY

(7-1/2" Spacing) (20" Blades)



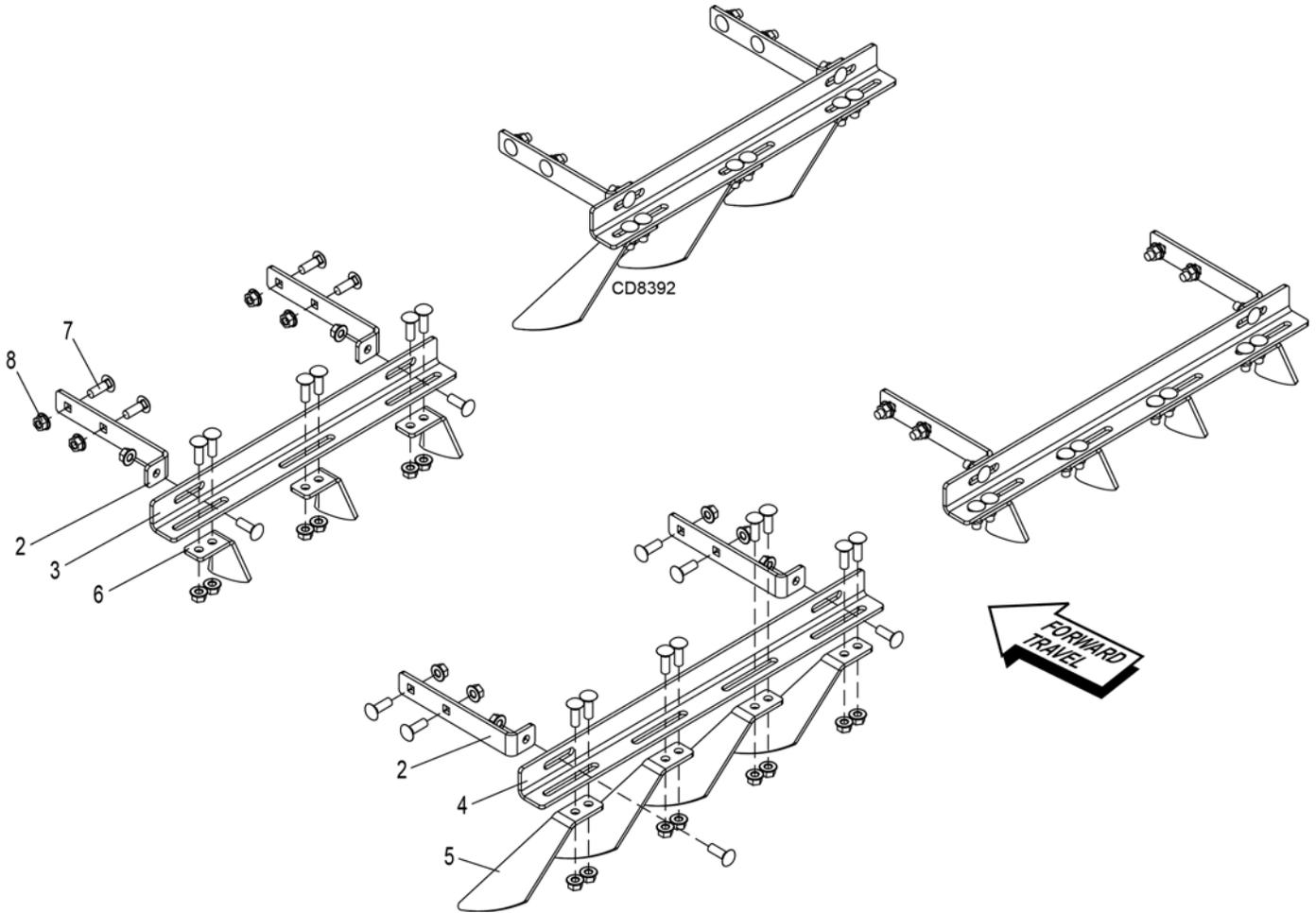
REF	DHM80 PART	DHM96 PART	QTY	DESCRIPTION
1	1040604	-----	2	Disc harrow axle - 1-1/8" x 34.0" <b>-or-</b>
1	-----	1040603	2	Disc harrow axle - 1-1/8" x 43.0"
2	1038801	1038801	2	Slotted bumper washer
3	1038638 (10)	1038638 (12)		20" Notched disc blade <b>-or-</b>
3	1038639 (10)	1038639 (12)		20" Smooth disc blade
4	1040606	1040606	4	3-1/4" Half spacer
5	1038641	1038641	4	1-3/4" Half spacer
6	1038823	1038823	10	Axle washer, 1-1/8" x 3/8"
7	1038645	1038645	4	Axle bearing - 1-1/8"
8	29893*	29893*	16	1/2 NC x 1-1/2 Carriage bolt, GR5
9	11900*	11900*	16	1/2 NC Flanged lock nut
10	1034668	1034668	4	U-Bolt, 3/4 NC x 3.81 x 4.31
11	302207*	302207*	8	3/4 NC Flanged lock nut
12	1041147	1041147	2	Bearing hanger, offset
13	1041144	1041144	2	Bearing hanger, straight
14	1040605 (4)	1040605 (6)		7-1/2" Plain spacer
15	1038640	1038640	2	1-1/4" End spacer
16	1038815	1038815	4	1-1/8 NC Hex nut

\* Standard Hardware, Obtain Locally

**28 Parts**

(Rev. 4/7/2017)  
MAN1143 (7/20/2015)

# DHS, DHM MUD SCRAPER ASSEMBLY (OPTIONAL)

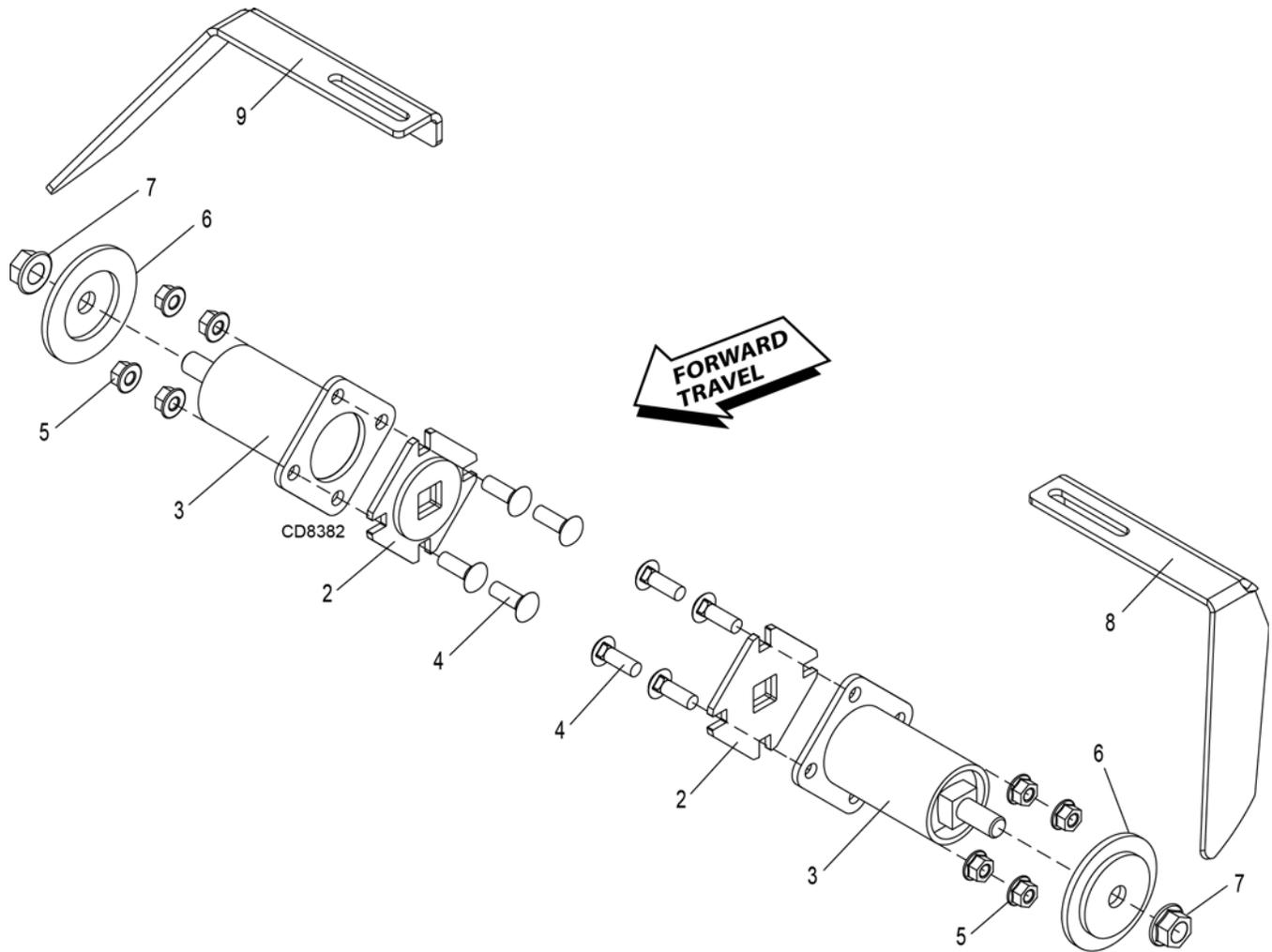


REF	DHS48 PART	DHS64 - 9 PART	DHS80 - 9 PART	DHM80 PART	DHM96 PART	QTY	DESCRIPTION
1	1041355	1041356	1041357	1041358	1041359	1	Mud scraper kit
2	1041348	1042088	1042088	1042095	1042095	8	Scraper mount
3	1041349	1042089	1042091	1042096	1042098	2	Front scraper bar
4	1041349	1042090	1042092	1042097	1042099	2	Rear scraper bar
5	1041347 (4)	1042086 (5)	1042086 (7)	1042093 (7)	1042093 (9)		Scraper blade, left
6	1041346 (4)	1042087 (5)	1042087 (7)	1042094 (7)	1042094 (9)		Scraper blade, right
7	29893 (40)	29893 (44)	29893 (52)	29893 (52)	29893 (60)	*	1/2 NC x 1-1/2 Carriage bolt, GR5
8	11900 (40)	11900 (44)	11900 (52)	11900 (52)	11900 (60)	*	1/2 NC Flange lock nut

REF	DHS64 - 7.5 PART	DHS80 - 7.5 PART	QTY	DESCRIPTION
1	1042119	1042120	1	Mud scraper kit
2	1042088	1042088	8	Scraper mount
4	1042090	1042092	4	Scraper bar
5	1042086 (6)	1042086 (8)		Scraper blade, left
6	1042087 (6)	1042087 (8)		Scraper blade, right
7	29893 (48)	29893 (56)	*	1/2 NC x 1-1/2 Carriage bolt, GR5
8	11900 (48)	11900 (56)	*	1/2 NC Flange lock nut

\* Standard Hardware, Obtain Locally

# DHS64 & 80 FURROW FILLER ASSEMBLY (OPTIONAL)



REF	PART	QTY	DESCRIPTION
1	1041360	1	DHS Furrow filler kit
2	1042080	2	Slotted bumper washer
3	1041157	2	Furrow filler mount
4	29893 *	8	1/2 NC x 1-1/2 Carriage bolt, GR5
5	11900 *	8	1/2 NC Flanged lock nut
6	1039084	2	Furrow filler washer
7	302207 *	2	3/4 NC Flanged lock nut
8	1041189	1	Furrow filler scraper, left hand
9	1041190	1	Furrow filler scraper, right hand

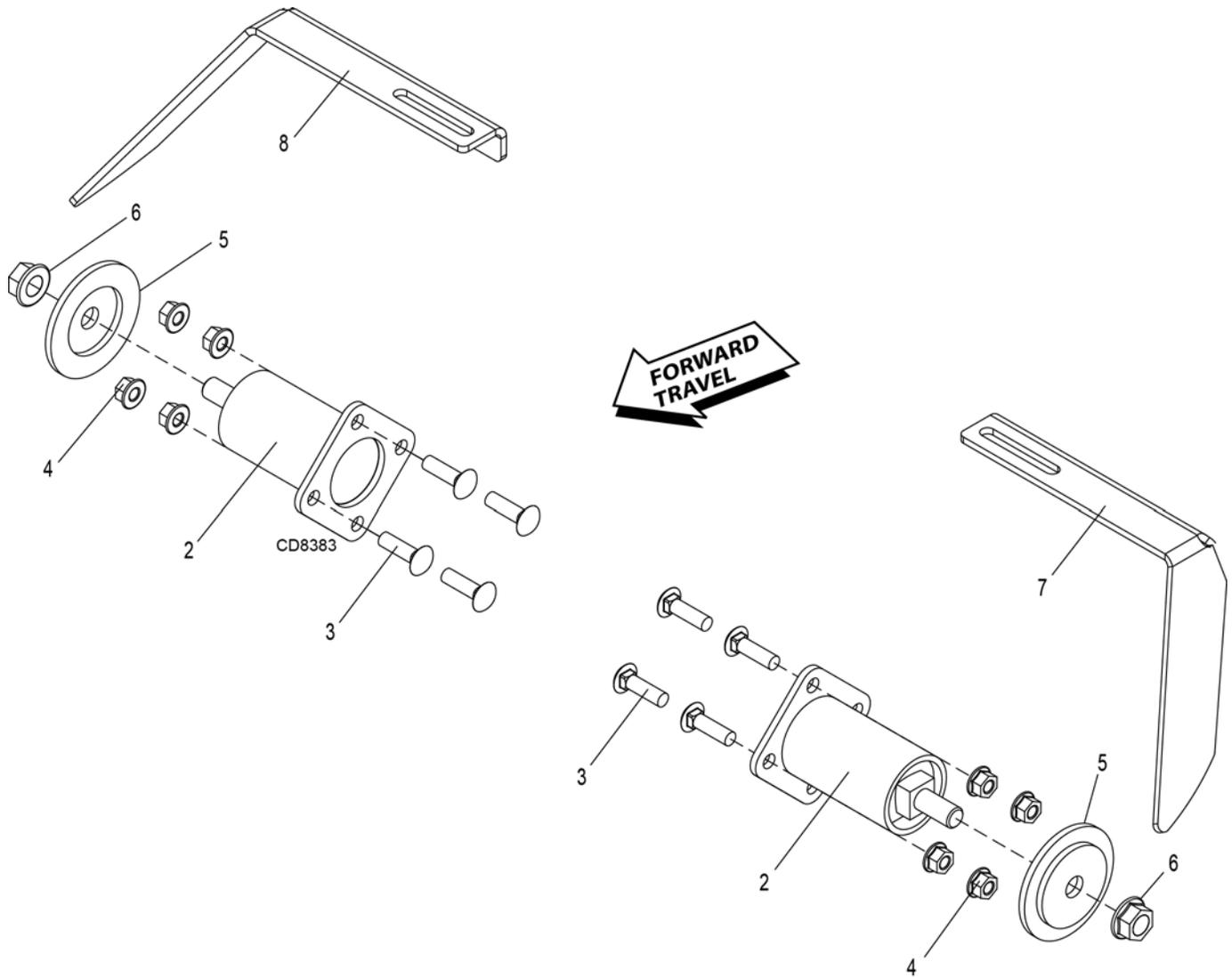
1039919KT 1 16" Notched disc blades, pair  
(Not included - order separately)

\* Standard Hardware, Obtain Locally

**30 Parts**

MAN1143 (7/20/2015)

# DHM80 & 96 FURROW FILLER ASSEMBLY (OPTIONAL)



REF	PART	QTY	DESCRIPTION
1	1041361	1	DHM Furrow filler kit
2	1041157	2	Furrow filler mount
3	12735 *	8	1/2 NC x 1-3/4 Carriage bolt, GR5
4	11900 *	8	1/2 NC Flanged lock nut
5	1039084	2	Furrow filler washer
6	302207 *	2	3/4 NC Flanged lock nut
7	1041179	1	Furrow filler scraper, left hand
8	1041180	1	Furrow filler scraper, right hand

1039919KT 1 16" Notched disc blades, pair  
(Not included - order separately)

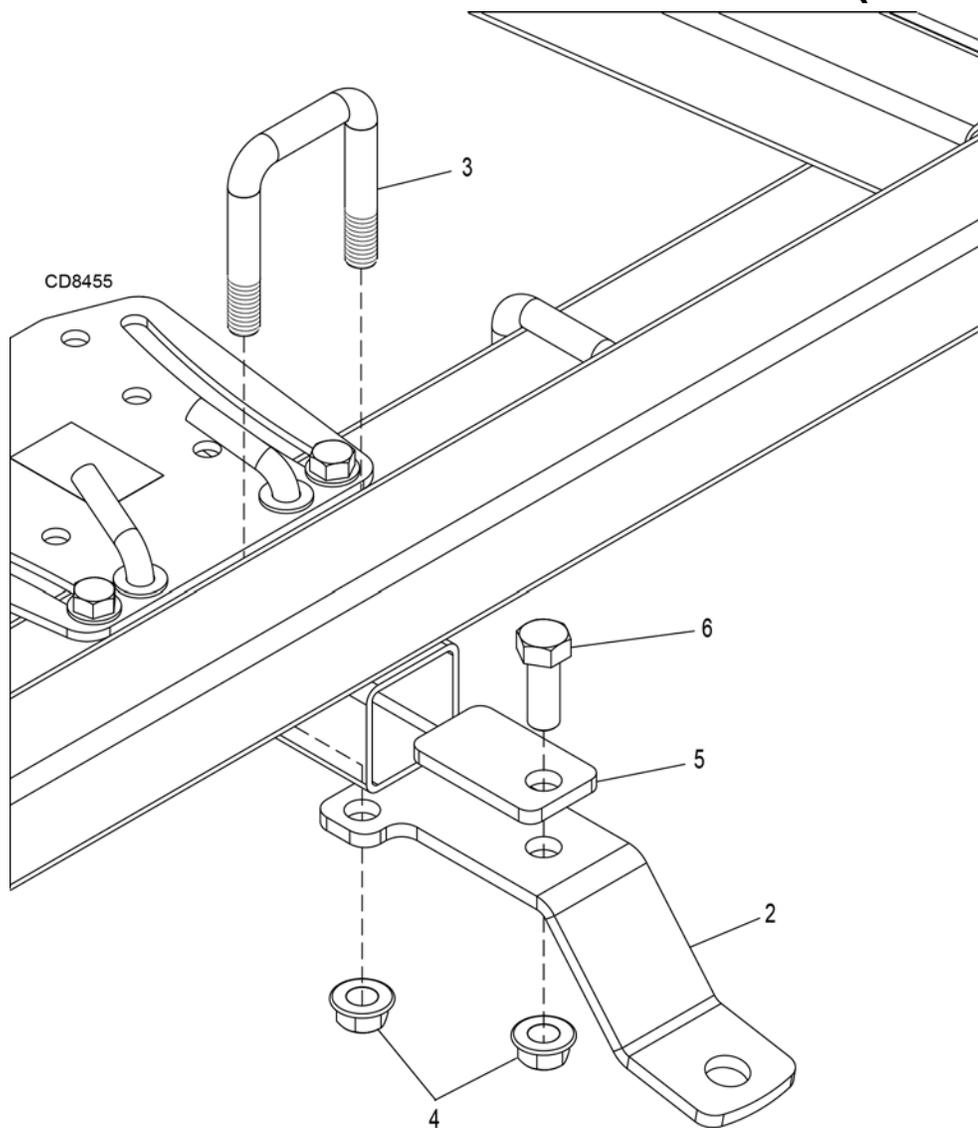
-or-

-or-

1039920KT 1 18" Notched disc blades, pair  
(Not included - order separately)

\* Standard Hardware, Obtain Locally

# DHM80 & 96 REAR DRAWBAR ASSEMBLY (OPTIONAL)



REF	PART	QTY	DESCRIPTION
1	1041362	1	DHM Rear drawbar kit
2	1041366	1	Drawbar
3	1034668	1	U-Bolt, 3/4 NC 3.81 x 4.31
4	302207 *	3	3/4 NC Flanged lock nut
5	1041367	1	Drawbar clamp
6	735 *	1	3/4 NC x 2 Hex head cap screw, GR5

\* Standard Hardware, Obtain Locally

# BOLT TORQUE CHART

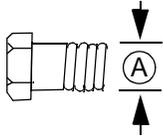
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 MAR 99 & J1701M JUL 96.



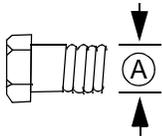
## SAE SERIES TORQUE CHART



SAE Bolt Head Identification



Ⓐ Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	110	149	170	230	240	325
3/4"	1-1/8"	192	261	297	403	420	569
7/8"	1-5/16"	306	416	474	642	669	907
1"	1-1/2"	467	634	722	979	1020	1383



## METRIC SERIES TORQUE CHART

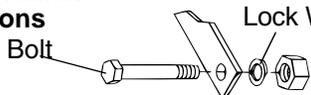


Metric Bolt Head Identification



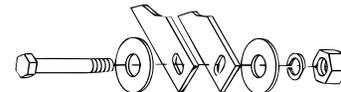
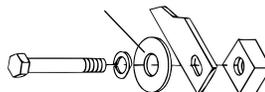
Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	Coarse Thread				Fine Thread				Ⓐ Diameter & Thread Pitch (Millimeters)
		Marking on Head				Marking on Head				
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0

### Typical Washer Installations



Lock Washer

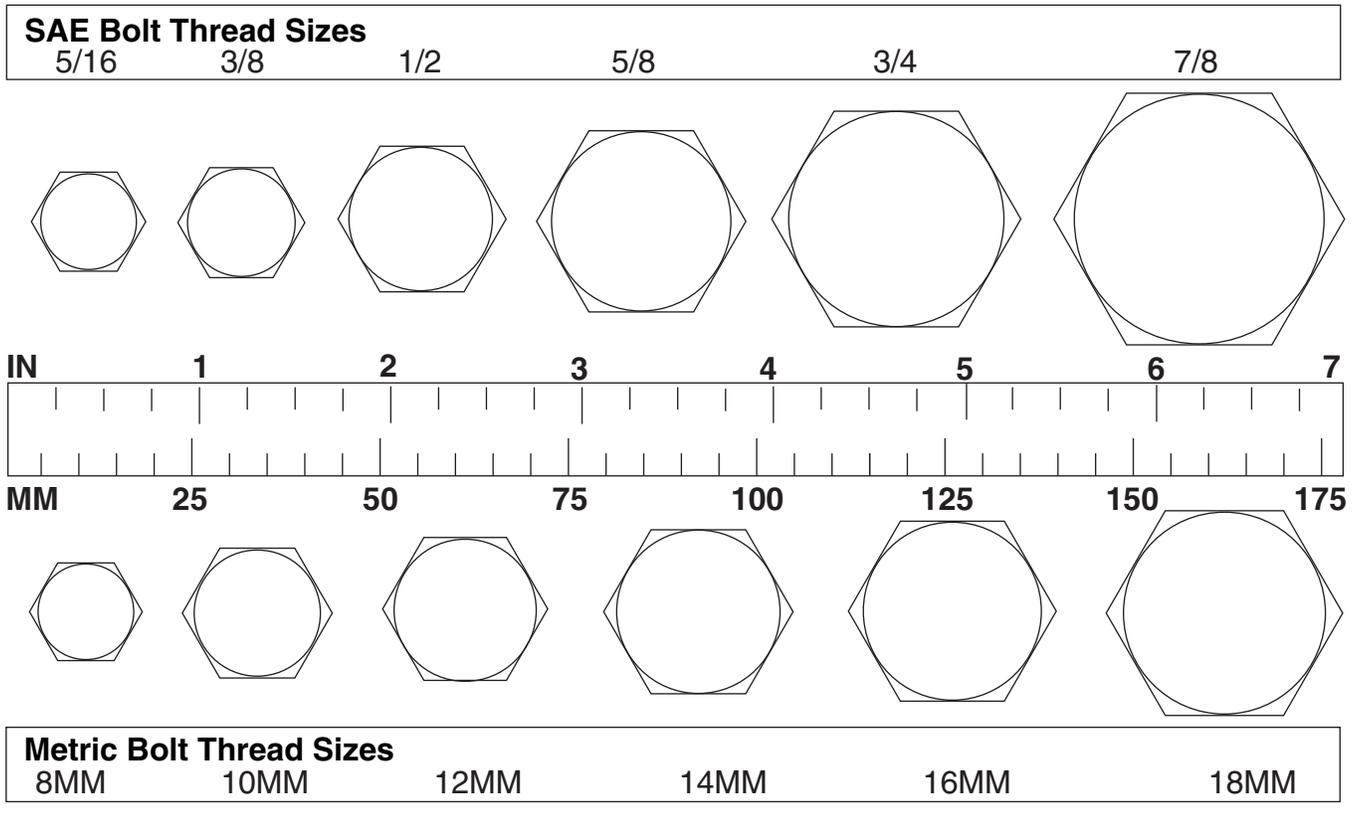
Flat Washer



8/9/00

# BOLT SIZE CHART

**NOTE:** Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.



## ABBREVIATIONS

AG .....	Agriculture	MPa.....	Mega Pascal
ASABE .....	American Society of Agricultural & Biological Engineers (formerly ASAE)	N .....	Newton
ASAE .....	American Society of Agricultural Engineers	NC .....	National Coarse
ATF.....	Automatic Transmission Fluid	NF .....	National Fine
BSPP.....	British Standard Pipe Parallel	NPSM.....	National Pipe Straight Mechanical
BSPTM .....	British Standard Pipe Tapered Male	NPT.....	National Pipe Tapered
CV .....	Constant Velocity	NPT SWF .....	National Pipe Tapered Swivel Female
CCW .....	Counter-Clockwise	ORBM .....	O-Ring Boss - Male
CW .....	Clockwise	P.....	Pitch
F .....	Female	PBY.....	Power-Beyond
FT .....	Full Thread	psi .....	Pounds per Square Inch
GA .....	Gauge	PTO.....	Power Take Off
GR (5, etc.).....	Grade (5, etc.)	QD.....	Quick Disconnect
HHCS .....	Hex Head Cap Screw	RH.....	Right Hand
HT.....	Heat-Treated	ROPS.....	Roll-Over Protective Structure
JIC.....	Joint Industry Council 37° Flare	RPM.....	Revolutions Per Minute
LH.....	Left Hand	RT .....	Right
LT .....	Left	SAE.....	Society of Automotive Engineers
m .....	Meter	UNC .....	Unified Coarse
mm .....	Millimeter	UNF.....	Unified Fine
M .....	Male	UNS .....	Unified Special



## WARRANTY

(Replacement Parts For All Models Except Mow'n Machine™  
Zero-Turn Mowers and Woods Boundary™ Utility Vehicles)

Woods Equipment Company ("WOODS") warrants this product to be free from defect in material and workmanship for a period of ninety (90) days from the date of delivery of the product to the original purchaser with the exception of V-belts, which will be free of defect in material and workmanship for a period of 12 months.

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not cover normal wear or tear, or normal maintenance items.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.** WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

**WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory.** Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply which may directly affect WOODS' ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, service person, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty.

Answers to any questions regarding warranty service and locations may be obtained by contacting:

**WOODS®** | A Blount International Brand

2606 South Illinois Route 2  
Post Office Box 1000  
Oregon, Illinois 61061 USA

800-319-6637 tel  
800-399-6637 fax  
woodsequipment.com



**ALITEC™**  
**CENTRAL FABRICATORS®**  
**GANNON®**  
**WAIN-ROY®**  
**WOODS®**

# WARRANTY

All Models Except Mow'n Machine™ Zero-Turn Mowers

Please Enter Information Below and Save for Future Reference.

Date Purchased: \_\_\_\_\_ From (Dealer): \_\_\_\_\_

Model Number: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Woods Equipment Company ("WOODS") warrants this product to be free from defect in material and workmanship. Except as otherwise set forth below, the duration of this Warranty shall be for TWELVE (12) MONTHS COMMENCING ON THE DATE OF DELIVERY OF THE PRODUCT TO THE ORIGINAL PURCHASER.

All current model backhoes, loaders and mounts (except 3-pt. SAF-T-LOK® mounts) are warranted for two (2) years from the date of delivery to the original purchaser. The limited warranty covers any defects in the material and/or workmanship. Following the proper, recommended installation by an authorized Woods Dealer and normal use of a Woods mounting and backhoe or loader, if a tractor incurs damage resulting from the attachment, Woods will cover the existing tractor warranty in the event the manufacturer voids its tractor warranty because of the attachment. Warranty does not cover any misuse or abusive conditions that could cause premature wear or damage to attachment or tractor.

The warranty periods for specific parts or conditions are listed below:

Part or Condition Warranted	Model Number	Duration (from date of delivery to the original purchaser)
	<b>All units invoiced after 4/30/2012</b>	
Gearbox components	BB48X, BB60X, BB72X, BB84X, BB600X, BB720X, BB840X, BB6000X, BB7200X, BB8400X, DS12.50, TS14.60, DS1440, TS1680, DS8.30, DS10.40, DS8.50, DSO8.50, DS10.50, DSO10.50, DBH5.30, DBH6.30	6 years
	BW12, BW15, BW126X, BW180X, BW126XHD, BW180XHD, BW1260X, BW1800X, BW10.50, BW10.50Q, BW15.50, BW15.50Q, BW15.60, BW15.60Q, BW10.60, BW10.60Q	
	BW240X, BW240XHD, BW1620X, BW2400X	
	RD990X, PRD6000, PRD7200, PRD8400, S15CD, S20CD, S22CD, S25CD, S27CD, S30CD, TC/R74, TC/R68, TC/R60, TBW144, TBW180, TBW204, TSG50, S12ED, S15ED, S18ED, S20ED, TPD25, TPD35, TPD65, TPD95	
	RDC54, RD60, RD72, TBW150C, TS/R60, TS/R52, TS/R44, RC3.5, RC4, RC5, RC6	3 years (1 year if used in rental or commercial applications)
Blade spindles	RD990X, PRD6000, PRD7200, PRD8400, TBW144, TBW180, TBW204	3 years

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not apply in the event that the product has been materially modified or repaired by someone other than WOODS, a WOODS authorized dealer or distributor, and/or a WOODS authorized service center. This Warranty does not cover normal wear or tear, or normal maintenance items. This Warranty also does not cover repairs made with parts other than those obtainable through WOODS.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS makes no warranty, express or implied, with respect to engines, batteries, tires or other parts or accessories not manufactured by WOODS. Warranties for these items, if any, are provided separately by their respective manufacturers.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.** WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. **THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.**

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

**WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory.** Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply which may directly affect WOODS' ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, serviceperson, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or

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 800-399-6637 fax  
 woodsequipment.com