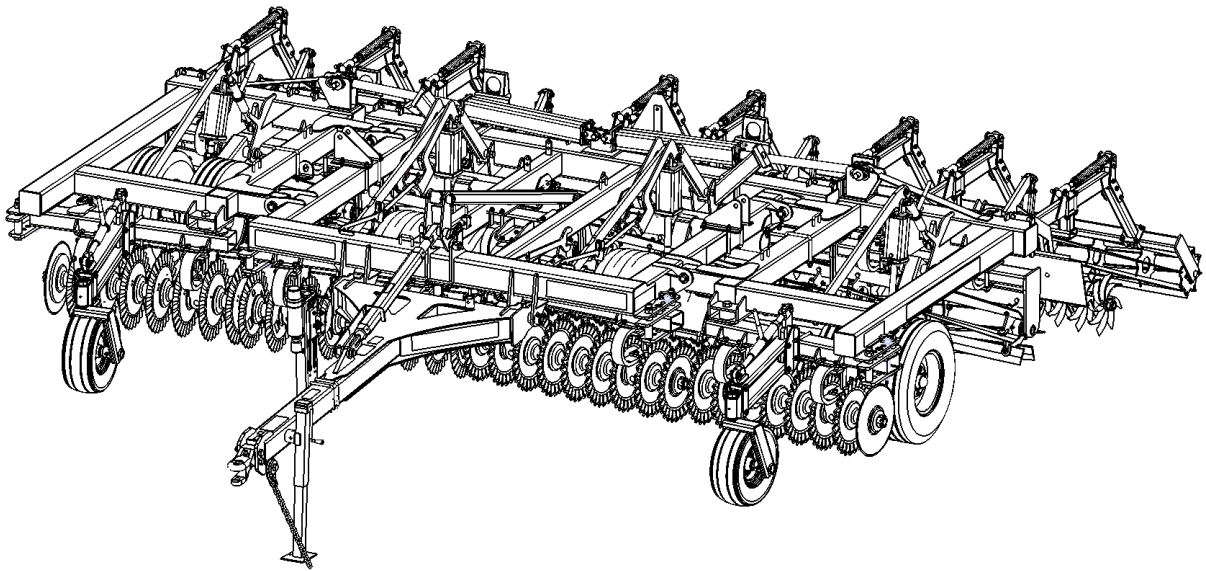


# OPERATION AND PARTS MANUAL

## COBRA 4200 SERIES Universal Tillage®



Read and understand the manual. This manual provides information and procedures to safely operate and maintain the Cobra 4200.



PART NUMBER: 16596— Serial Number 24000 - 25865

Learn more at [www.mcfarlaneag.com](http://www.mcfarlaneag.com)

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## Introduction

The 4200 Series Cobra from McFarlane Mfg. is our latest development in Universal Tillage® and can satisfy all of the demands of today's farming practices, especially BT corn and corn on corn cropping. This tool features wavy, serrated Cobra disk blades, loosens the top one to four inches of the soil yet leaves the seedbed firm. This ensures accurate seed depth at planting, resulting in even emergence and better yields. Smoothing uneven ground and removing small weeds are done quickly at the 7-9mph operating speeds.

The Cobra is available in a 12' and 14' wide rigid frame, as well as 20', 25', 30' 35' and 45' folding frames. The horsepower required to pull the Cobra is approximately 8-9 hp per foot of width. Therefore the 12' Cobra requires as little as 100 hp while the 45' requires up to 405 hp.

## Contact Information

If you have questions not answered in this manual, require additional copies, or the manual is damaged, please contact your local dealer or:

McFarlane Mfg. Co., Inc.  
1330 Dallas Street  
P.O. Box 100  
Sauk City, WI 53583

Phone: (608) 643-3322

Toll Free: (888) 627-8569

Fax: (608) 643-3976

E-mail: [info@mcfarlanemfg.com](mailto:info@mcfarlanemfg.com)

Web: [www.mcfarlaneag.com](http://www.mcfarlaneag.com)

## Product Registration

All McFarlane Ag products need to be registered to the owner prior to use.

The dealer is required to submit the product registration through the McFarlane dealer portal.

Failure to register the product may result in future warranty claims being rejected.

### Register at:

[mcfarlaneag.com/product-registration](http://mcfarlaneag.com/product-registration)

### Scan to Register:



## Safety

### General

Safety of the operator and bystanders is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling the equipment.

Most work related accidents are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you assemble, operate, tow, or maintain the Cobra (unit), you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform any assembly or maintenance procedures.

Improper operation and maintenance of this unit could result in a dangerous situation that could cause injury or death.

### **WARNING**



**Do not use or tow the unit until you read and understand the information contained in this manual.**



**Safety precautions and warnings are provided in this manual and on the unit. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.**

McFarlane cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the product are, therefore, not all-inclusive. If a method of operation not specifically recommended by us is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the unit will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this manual are based on the information that was available at the time this material was written and can change at any time.



## Safety Alert Symbols



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

This manual contains DANGERS, SAFETY INSTRUCTIONS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers attention to potential hazards.

Hazards are identified by the “Safety Alert Symbol” and followed by a signal word such as “DANGER”, “WARNING”, or “CAUTION”.

### **DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.

---

### **WARNING**

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

---

### **CAUTION**

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

---

### **NOTICE**

*Indicates that equipment or property damage can result if instructions are not followed.*

---

### **SAFETY INSTRUCTIONS**

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

---

**NOTE:** Contains additional information important to a procedure.

## Safety Icons Nomenclature

This manual and the equipment has numerous safety icons. These safety icons provide important operating instructions which alert you to potential personal injury hazards.

### Personal Protection/Important Information

-  Read the manual
-  Maintenance procedure
-  Crush hazard
-  Eye protection
-  Hand protection
-  Head protection
-  Hearing protection
-  Inspect equipment
-  OEM parts only
-  Place in neutral
-  Protective shoes
-  Remove key
-  Damaged hazard label
-  Set parking brake
-  Slow vehicle placard
-  Stop engine
-  Support stand usage
-  Use proper tools
-  Visually inspect

## Prohibited Actions

-  Do not alter or modify
-  Do not leave out tools
-  Do not weld
-  No alcohol
-  No children
-  No drugs
-  No open flame
-  No passengers
-  No riders
-  No smoking

## Hazard Avoidance

-  Block wheels
-  Crushing hazard (body)
-  Crush hazard (foot)
-  Crush hazard (rolling over)
-  Defective or broken part
-  Entanglement hazard
-  Explosive separation hazard
-  Falling hazard
-  Fire hazard
-  High-pressure fluid hazard
-  Hose damage
-  Hot surface

-  Maintain safe distance
-  Overturn hazard
-  Pinch point hazard
-  Pressure alert / check pressure
-  Projectile hazard
-  Safety alert symbol
-  Sharp object hazard
-  Slipping injury
-  Tripping injury
-  Zero pressure

## General Operating Safety

### **WARNING**



#### Read And Understand Manual

To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and how it works.

This unit was designed for a specific application; DO NOT modify or use this unit for any application other than which it was designed.

Units operated improperly or by untrained personnel can be dangerous!



#### Hazard And Information Signs

Replace any missing or hard-to-read decals. Decal placement and part numbers can be found in the Nomenclature section of this manual.



#### Damaged Parts Hazard

Do not use this unit if it is in need of repair. If you believe the unit has a defect which could cause damage, injury, or death, you should immediately stop using the unit.



#### Fall Hazard

Do not use the unit as a work platform. Do not stand on top of the unit at any time. Do not ride on the unit or allow others to ride on it.



#### Entanglement Hazard

Do not wear loose fitting clothing which may become entangled in moving parts.



#### Crush Hazard (Rolling Over)

When disconnecting the unit or leaving the operator's seat:

1. Stop the tractor or towing vehicle.
2. Shut off the engine and remove the ignition key.
3. Set the brakes.
4. Make sure wheel cylinder transport locks are attached.
5. Relieve hydraulic fluid pressure.
6. If parking the unit, make sure jack stand is lowered and retaining pin is installed.



#### Injury Hazard

Do not permit children to play on or around the stored unit.

### **WARNING**



#### Impaired Operator Hazard

Do not attempt to operate this unit under the influence of drugs or alcohol. Review the safety instructions with all users annually.

#### Personal Protection Equipment

When working around or operating this unit, wear appropriate personal protective equipment. This list includes but is not limited to:



- A hard hat
- Protective shoes with slip resistant soles
- Protective goggles, glasses, or face shield
- Heavy gloves and protective clothing



#### Safe Distance

Keep all bystanders, especially children, away from the unit while in operation.

### **SAFETY INSTRUCTIONS**



To prevent injury, use a tractor equipped with a Roll Over Protective System (ROPS).



#### Visually Inspect

Visually inspect the unit for any loose bolts, worn parts, or cracked welds, and make necessary repairs before using the unit.

## Towing Safety

For towing safety information, refer to the Towing section.

## Operation Safety

For operating safety information, refer to the Operation section.

## Assembly Safety

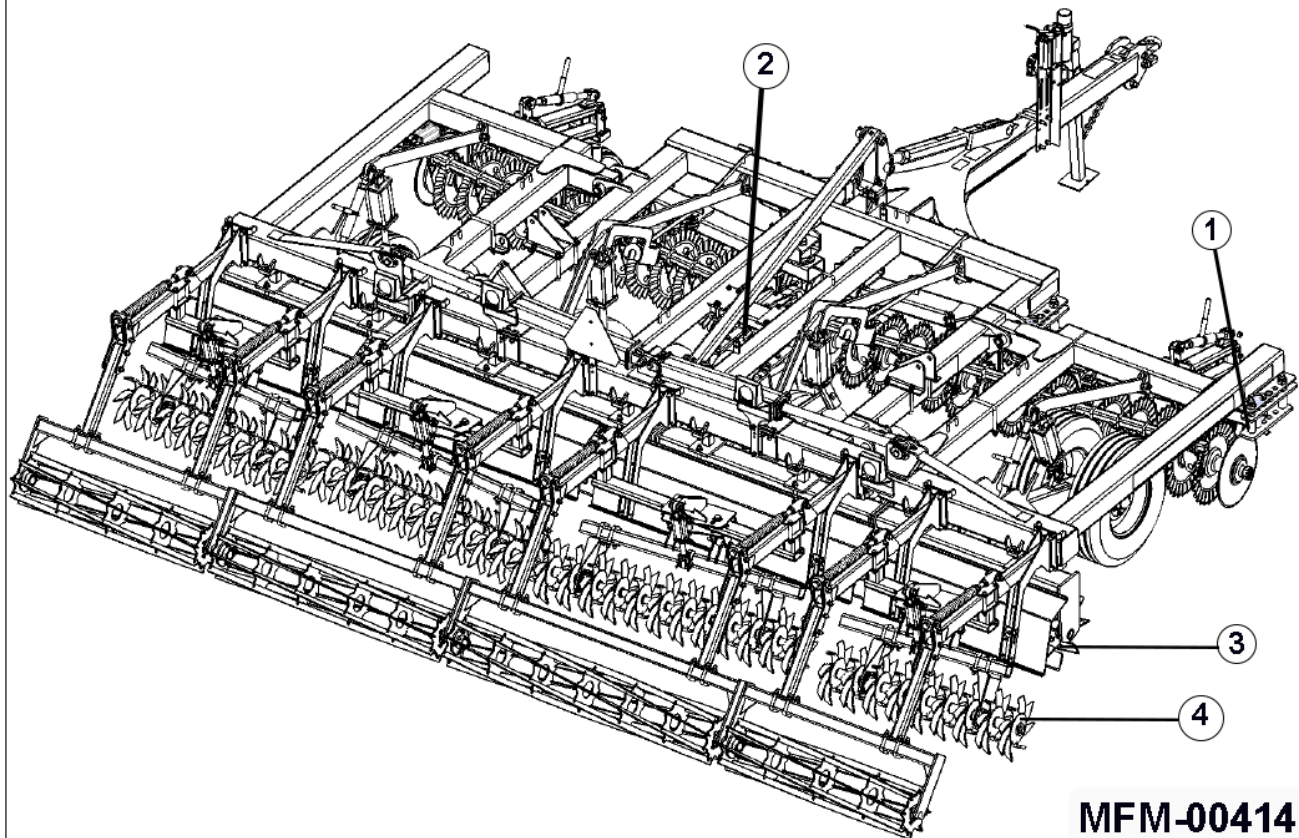
For assembly safety information, refer to the separate Assembly manual.

## Maintenance Safety

For maintenance safety information, refer to the Maintenance section.

## Component Nomenclature

### Component Locations



The Cobra is comprised of four components: (1) disk gangs, (2) wavy coulter and center covering disks, (3), Dura-Reel® and (4) finishing option (Spur-Till with a single rolling basket, 3-bar harrow with a single rolling basket, 5-bar harrow or double rolling basket).

### NOTICE

*In high residue situations, maximum down pressure on the disks is required to more completely cut the residue. In creating the maximum down pressure, make sure the C-spring stops do not constantly contact the frame, as this will cause equipment damage.*

## Specifications

### Hydraulic Requirements

This unit operates with hydraulic pressures of 2500 to 3000 psi (170 to 205 bars).

### Horsepower Range

CB-4212-STRB — 96 to 108  
CB-4214-STRB — 112 to 126  
CB-4220-STRB — 160 to 180  
CB-4225-STRB — 200 to 250  
CB-4230-STRB — 240 to 270  
CB-4235-STRB — 280 to 315  
CB-4245-STRB — 360 to 405

### Tillage Depths

Disk gang depth up to 4" (10.2 cm)

### Tongue Weight

Tongue weight of the unit is approximately 700 lbs. (318 kgs)

### Overall Weight (GVWR)

CB-4212-STRB — 7,544  
CB-4214-STRB — 8,091  
CB-4220-STRB — 13,102  
CB-4225-STRB — 15,719  
CB-4230-STRB — 17,193  
CB-4235-STRB — 21,053  
CB-4245-STRB — 27,688

### Transport Width

CB-4212-STRB — 13'9"  
CB-4214-STRB — 14'8"  
CB-4220-STRB — 13'4"  
CB-4225-STRB — 15'4"  
CB-4230-STRB — 15'4"  
CB-4235-STRB — 17'4"  
CB-4245-STRB — 19'2"

### Transport Height

CB-4212-STRB — N/A  
CB-4214-STRB — N/A  
CB-4220-STRB — 9'6"  
CB-4225-STRB — 10'5"  
CB-4230-STRB — 12'0"  
CB-4235-STRB — 13'6"  
CB-4245-STRB — 13'6"

### Working Tillage Width / Cut Width

CB-4212-STRB — 12'3"  
CB-4214-STRB — 14'2"  
CB-4220-STRB — 19'10"  
CB-4225-STRB — 25'8"  
CB-4230-STRB — 30'2"  
CB-4235-STRB — 35'9"  
CB-4245-STRB — 45'8"

### Field Capacity

(acre/hr @ 6-9 mph)

CB-4212-STRB — 7-11  
CB-4214-STRB — 10-12  
CB-4220-STRB — 14-19  
CB-4225-STRB — 18-24  
CB-4230-STRB — 22-28  
CB-4235-STRB — 26-33  
CB-4245-STRB — 26-46

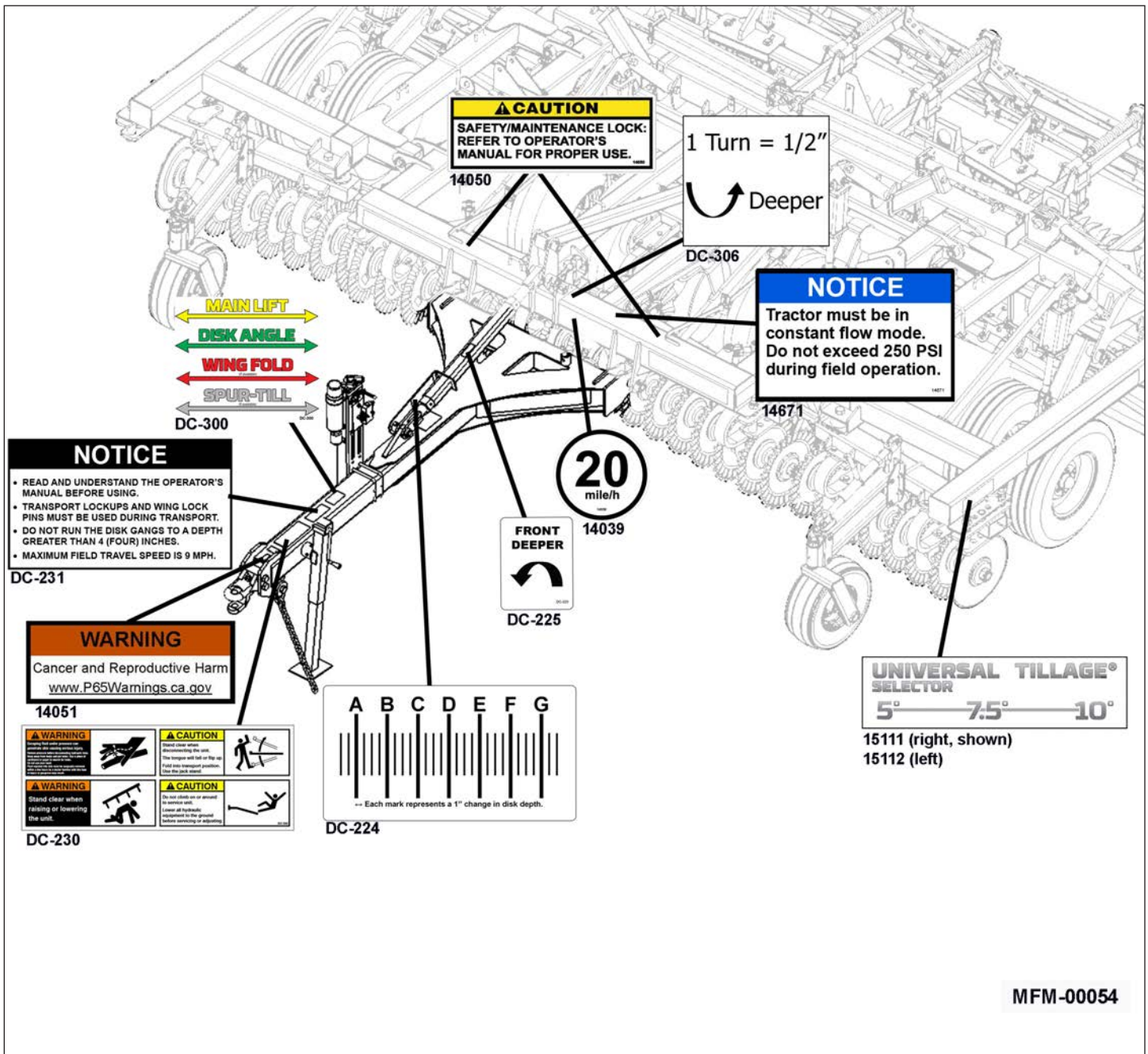
### Towing Speed

Towing speeds should not exceed 20 mph (32 kph)  
Field operating speeds should be 7-9 mph (11-14 kph).



## Instructions for Display of Hazard and Informational Signs

- It is the responsibility of the customer to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility.
- Keep safety signs clean and legible at all times. Replace safety signs that are missing or have become illegible.
- Do not paint over, remove, or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.
- Replacement parts that display a safety sign should display the same sign.
- Make sure the hazard warning labels or other information decals are legible and attached to the unit before use.
- Safety signs are available from your Distributor, Dealer Parts Department, or the factory.



MFM-00054



## ⚠ WARNING

Escaping fluid under pressure can penetrate skin causing serious injury. Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand. Fluid injected into skin must be surgically removed within a few hours by a doctor familiar with this type of injury or gangrene may result.



## ⚠ CAUTION

Stand clear when disconnecting the unit. The tongue will fall or flip up. Fold into transport position. Use the jack stand.



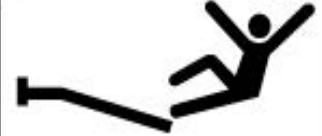
## ⚠ WARNING

Stand clear when raising or lowering the unit.



## ⚠ CAUTION

Do not climb on or around to service unit. Lower all hydraulic equipment to the ground before servicing or adjusting.



DC 230

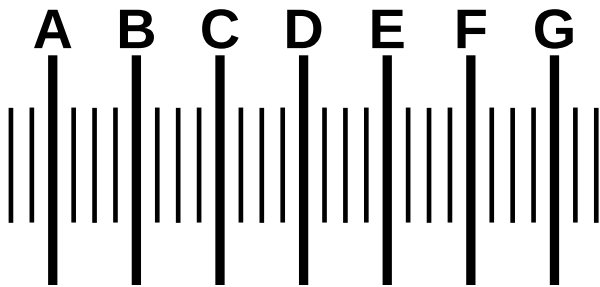
## NOTICE

- READ AND UNDERSTAND THE OPERATOR'S MANUAL BEFORE USING.
- TRANSPORT LOCKUPS AND WING LOCK PINS MUST BE USED DURING TRANSPORT.
- DO NOT RUN THE DISK GANGS TO A DEPTH GREATER THAN 4 (FOUR) INCHES.
- MAXIMUM FIELD TRAVEL SPEED IS 9 MPH.

DC-231



14039



↔ Each mark represents a 1" change in disk depth.

DC-224

## WARNING

Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

14051

## ⚠ CAUTION

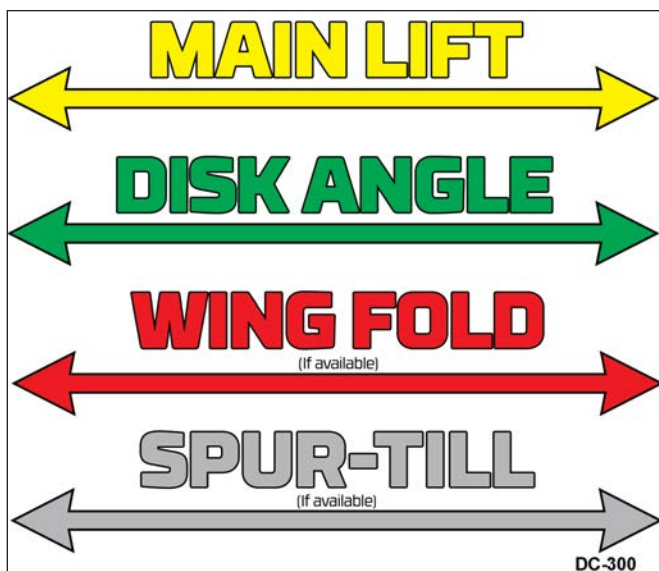
SAFETY AND MAINTENANCE LOCK:  
SEE OPERATOR'S MANUAL FOR USE.

14050

1 Turn = 1/2"



DC-306



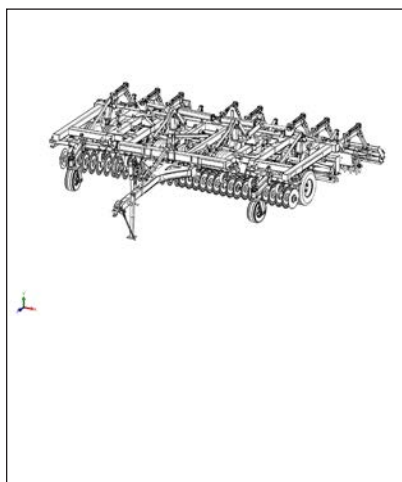
**NOTICE**

**Tractor must be in constant flow mode. Do not exceed 250 PSI during field operation.**

14671

## Assembly

Refer to the separate Cobra Assembly manual for complete assembly instructions.



The assembly process consists of attaching the hitch to the main frame and attaching the lift arm/rolling basket subassemblies to the frame.

Approximate time to set up: 12'-14' = 2-4 hours, 20'-30' = 4-6 hours, 35'-45' = 8-10 hours

Cobra 4200 Series

## Towing

### General Safety

#### SAFETY INSTRUCTIONS

**!** Towing the Cobra requires care! Both the unit and tow vehicle must be in good working condition. Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach safety chain.

**!** Make sure the hitch and coupling on the towing vehicle are rated equal to, or greater than, the unit's "gross vehicle weight rating" (GVWR). Refer to the specification section.

**!** Make sure the safety chain is securely fastened to the tow vehicle.

 Check the tires for tread wear, inflation pressure, and overall condition.

 Inspect the hitch and coupling for wear or damage. **DO NOT** tow the unit using a defective hitch or coupling!

 Make sure directional, brake, and running lights are connected and working properly.

 Make sure the lug nuts holding the wheels are tight (torque to specifications) and that none are missing.

 When towing the unit on the highway, make sure the "Slow Moving Vehicle" placard is clearly visible.

 Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.

 Make sure that the area is clear of children, animals, and other obstacles before using.

## Safety Chain

### SAFETY INSTRUCTIONS

- If the unit will be transported on a public highway, the safety chain must be attached to the tow vehicle.
-  Always follow state and local regulations regarding a safety chain when towing farm equipment on a public highway.
-  Be sure to check with local law enforcement agencies for any local regulations or restrictions.
- Do not use any device other than the safety chain that was supplied with the unit. Only a safety chain (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the tow vehicle and the unit in the event of separation of the primary attaching system.

## Bystanders

### SAFETY INSTRUCTIONS

-  Beware of physical surroundings and especially bystanders, particularly children, before moving the unit! This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
-   NO PASSENGERS ALLOWED - Do not carry passengers anywhere on or in the tractor, except as required for operation.
-  Do not allow anyone to ride on the unit while it is moving.

## Towing and Maximum Towing Speed

### SAFETY INSTRUCTIONS

- Operate the towing vehicle from the operator's seat only.
- Do not exceed a towing speed of more than 20 mph (0.5 KPH) on a public roadway.
-  Remember, tires supplied by the manufacturer are designed to operate LESS THAN 20 mph. Do not exceed or tire failure may occur.

## Highway and Transport Operations

### SAFETY INSTRUCTIONS

- Make sure the wheel cylinder transport locks are installed, the wing lock pins are in place, and the jack stand is in its storage position before transporting the unit.

### SAFETY INSTRUCTIONS

- Never use independent braking with unit in tow as loss of control and/or upset of unit may result.
- Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.
- Reduce speed prior to turns to avoid the risk of overturning.
- Avoid sudden uphill turns on steep slopes.
- Always keep the tractor or towing vehicle in gear to provide engine braking when going downhill. Do not coast.
- Use approved accessory lighting or flags and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport. Various safety lights and devices are available from your dealer.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- When driving the tractor and equipment on the road or highway, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Plan your route to avoid heavy traffic.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
- Watch for obstructions overhead and to the side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping, etc.

## Pre-towing Checklist

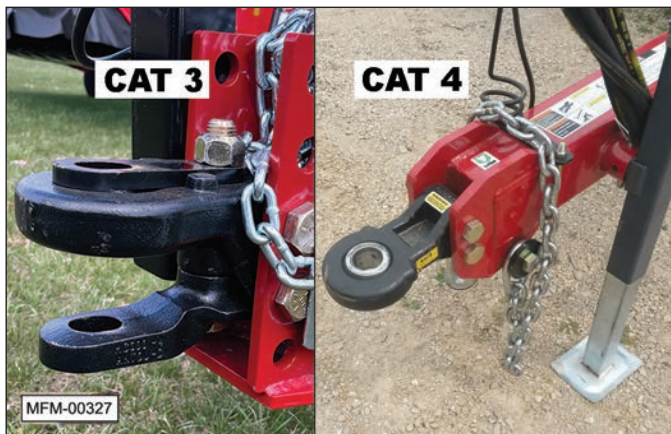
1. Before towing, make sure the maintenance on the tractor and the unit are current. This is very important because towing puts additional stress on the tow vehicle.
2. Check and correct the tire pressures on the tow vehicle and the unit. Refer to the Tire and Lug Torque specification chart in the manual.
3. Make sure the hitch, coupler, and any other equipment that connects the unit and the tow vehicle are properly secured and adjusted. Always inspect the hitch and tongue for cracks when hooking up.

### **! WARNING**

**! Substandard Parts Hazard**  
**If towing the unit with a draw bar, use only an OEM certified, hardened drawbar pin with a retainer clip. Do not use homemade pins, bolts, or any other type of retaining device. Always install the retainer clip, making sure the hitch and unit are securely fastened to the tow vehicle.**

**Using a pin not intended for this type of towing, can result in unexpected separation of the unit from the tow vehicle resulting in equipment damage and personal injury.**

4. Verify the appropriate Category 3 or Category 4 hitch is securely installed.



### **! WARNING**

**! Unexpected Separation Hazard**  
**If the safety chains do not have a current certification tag, do not use the unit until properly certified chains are installed. Substandard safety chains could allow the unit to separate from the tow vehicle resulting in equipment damage and personal injury.**

5. Attach the safety chain from the unit to the tow vehicle. The safety chain should be long enough for tight turns. Don't allow the chain to drag on the pavement because it will wear the chain links causing an unsafe condition.
6. Make sure the electrical wiring harness for the running lights and taillights is properly connected and not touching the road, but loose enough to make turns without disconnecting or damaging the wires.
7. Have an observer confirm all running lights, brake lights, turn signals, and hazard lights are working on both the tow vehicle and the unit.
8. Verify the brakes on the tow vehicle are operating correctly.
9. Make sure transport locks are securely in place around the cylinder rods.
10. Make sure the jack stand is raised and locked in the storage position.
11. Make sure the wing lock pins are in place.
12. Check mirrors of the tow vehicle to make sure you have good visibility.
13. Check routes and restrictions on bridges and tunnels.



## Safety

### SAFETY INSTRUCTIONS

Make sure that anyone who will be operating the unit or working on or around the unit reads and understands all the operating, maintenance, and safety information in the operator's manual and other related OEM equipment manuals before using or towing the unit.



### Prior to Connecting Unit

Make sure the unit is resting on the ground or the transport locks are securely installed over the wheel cylinder rods before attaching the unit to the tractor.



### SAFETY INSTRUCTIONS



If the unit is not resting on the ground, make sure wheel chocks are securely fitted on both sides of each wheel.

## ⚠ WARNING



### Crush Hazard

The tongue weight of the unit is approximately 700 lbs. (318 kgs.). Use care when lifting or attaching the unit to the tractor. Never place any part of your body under the tongue or hitch assembly.



### Hydraulic Pressure

This unit operates with hydraulic pressures of 2500 to 3000 psi (170 to 205 bars).



### High-Pressure Fluids

1. Check or tighten all connections BEFORE pressurizing system.
2. Release all pressure before removing hoses and/or valves by:
  - a. Stopping engine.
  - b. Holding hydraulic control levers in float or neutral position.



3. DO NOT use your bare hand to check for potential leaks. Always use a board or cardboard when checking for a leak.

Escaping hydraulic fluid under pressure, even a pinhole size leak, can penetrate body tissue, causing serious injury and possible death. If fluid is injected into your skin, it must be treated immediately by a doctor familiar with this type of injury.

### Tow Chain



certified tow chain is supplied with each unit. This chain must be attached to the tractor during towing or operation of the unit.

### SAFETY INSTRUCTIONS



Inspect the chain annually for wear or damage.



Do not replace the chain with anything other than an OEM certified replacement.



## Connecting to the Tractor

1. Raise the jack stand and connect the tongue to the tractor. The tongue weight of the unit is approximately 700 lbs. (318 kgs).



**Note:** If a drawbar pin is used, it should be an OEM certified pin and retainer clip. On category 3 pintle hitches use a 1-1/2" (38 mm) pin. On category 3 clevis hitch use a 1-1/4" (32 mm) pin. On category 4 articulating ball pintle hitch use a 2" (51 mm) pin.

### **WARNING**

 **Unexpected Separation Hazard**  
If towing the unit with a drawbar, use only a certified, hardened drawbar pin with a retainer clip. Do not use homemade pins, bolts, or any other type of retaining device. Always install the retainer clip, making sure the hitch and unit are securely fastened to the tow vehicle.

Using a pin not intended for this type of towing can result in unexpected separation of the unit from the tow vehicle, resulting in equipment damage and personal injury.

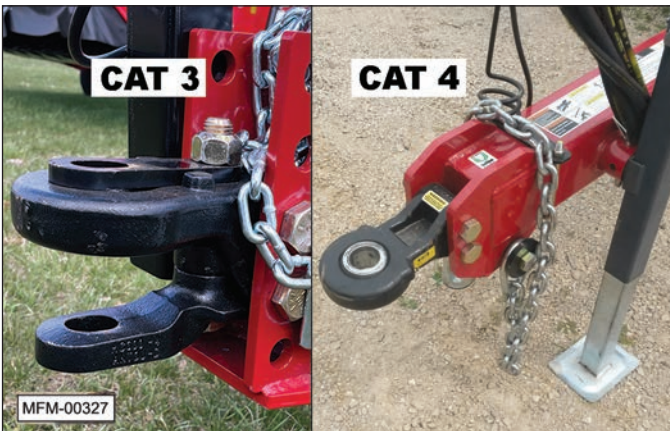
2. Connect the hitch of the unit to the tractor. Attach the tow chain to the tractor's draw bar cage.



**Note:** When connected, make sure the retaining plate securely locks the chain link in place.

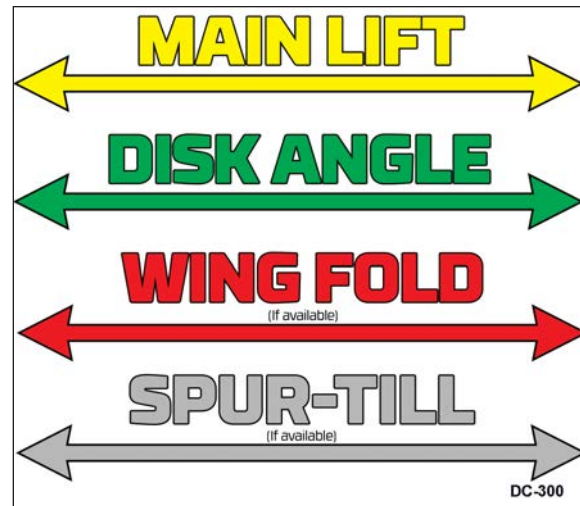
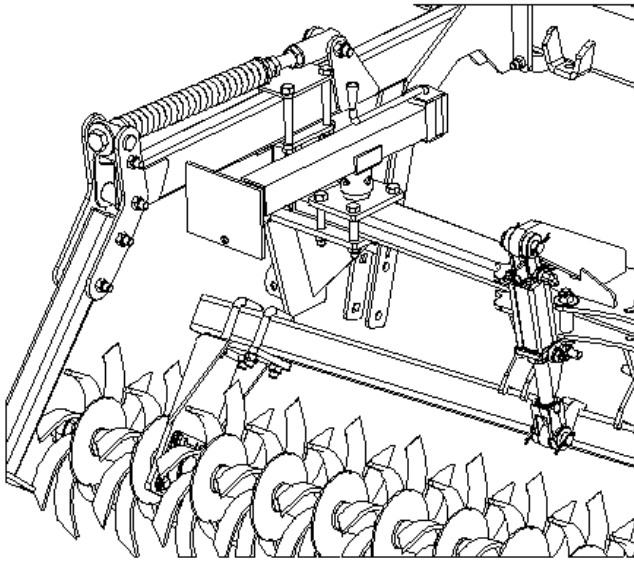


3. Remove the jack stand and place it in its storage position inside the frame, as shown.

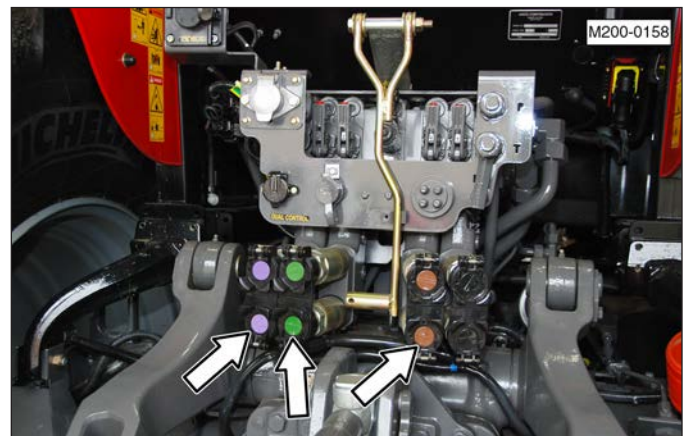




4. If equipped with Spur-Till, remove the jack stand and place it in its storage position on the mount bracket as shown.



6. Connect the hydraulic hoses to the tractor.



**Note:** The most commonly used function of the unit is the “main lift” cylinders, which raises and lowers the wheels. Connect the hydraulic hoses for this function into the port (control lever) used most commonly.

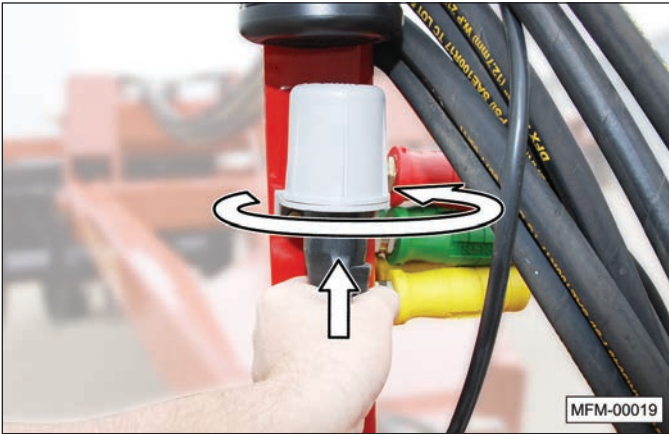
5. Remove the hydraulic hoses from their storage position.



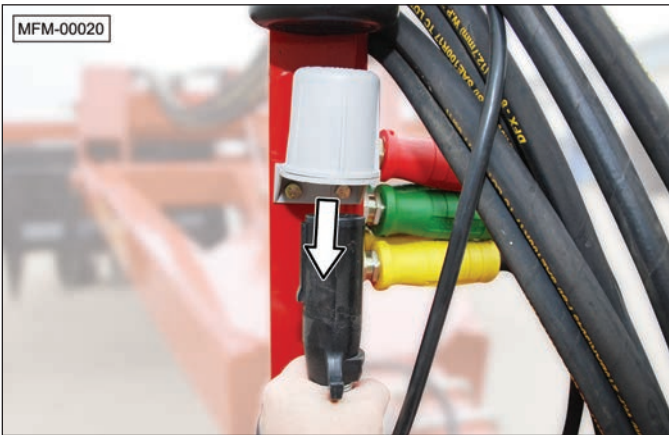
- a. Rotate the plug.



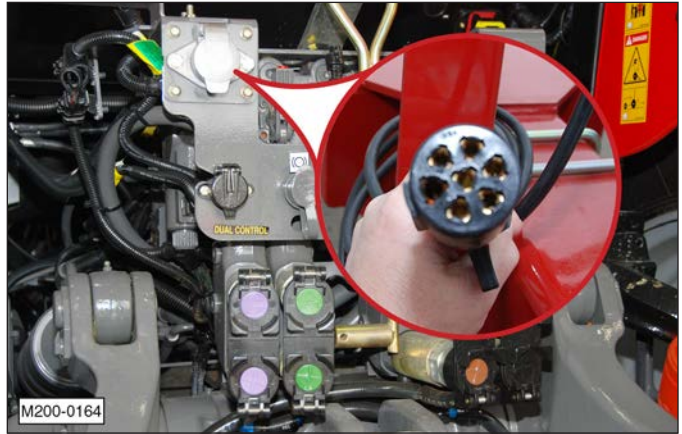
- b. Push the plug upward and slightly rotate it again to release it from the socket.



- c. Pull the plug downward.



- d. Connect the plug into the tractor's electrical socket.



8. Make sure all the hydraulic cylinders are functioning properly.
9. Make sure the amber and red indicator lights are working properly.
10. Move the unit to the desired location and position it for operation following the towing recommendation provided in this manual and/or any other local, State, or Federal regulations that may apply.





## Operation

### Safety

#### **WARNING**

To prevent serious injury or death, follow these safety instructions



Entanglement Hazard

Keep hands and clothing clear of moving parts.



Crush Hazard (Rolling Over)

Do not clean, lubricate, or make adjustments while the unit is moving.



Crash Hazard (Rolling Over)

When making adjustments to the unit or leaving the operator's seat:

1. Stop the tractor.
2. Shut off the engine and remove the ignition key.
3. Set the brakes.



Overturn Hazard

Pick the levellest possible route when transporting across fields. Avoid the edges of ditches or gullies and steep hillsides.



Safe Distance

Keep all bystanders, pets, and livestock clear of the work area, particularly when raising or lowering the unit.

#### **SAFETY INSTRUCTIONS**



Periodically clear the unit of brush, twigs, or other materials to prevent buildup of dry, combustible materials.

#### **NOTICE**

DO NOT turn while the unit is in the ground.  
DO NOT operate the unit in frozen ground.

## Initial Setup

The McFarlane Cobra is a tool that is designed to handle a wide variety of field conditions. It has many adjustments that can be made to change the performance of each component on the unit as well as its overall performance. Achieving the best results over the widest range of circumstances can be accomplished by making adjustments to match the field conditions.

**Note:** It is important to make one adjustment at a time in order to see the results of each change. If several adjustments are made at the same time, the operation of the machine can change dramatically, creating confusion and frustration.

#### **WARNING**



Pinch Point Hazard

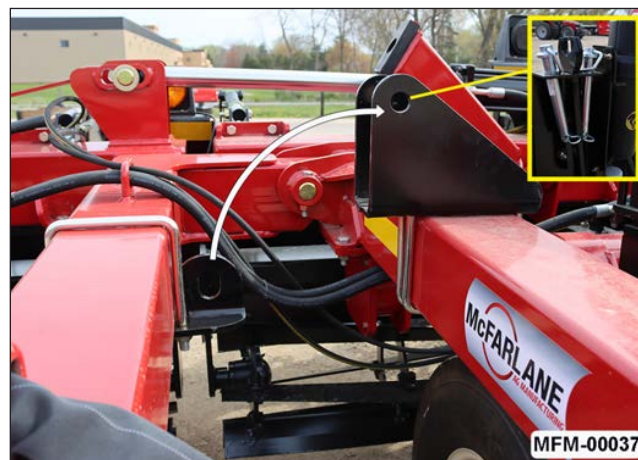
Do not place hands or fingers between moving and/or stationary parts. The weight of the unit will easily cause serious bodily injury.



Sharp Object Hazard

Do not place any part of your body under the disk gang during the adjustment process. Severe injury will occur if a person contacts or falls under the disk gang.

1. If equipped with wings, remove the wing fold lock pins and bridge pins and store them on the hitch storage bracket.



2. If necessary, raise the unit and release the transport locks from both wheel cylinders.

- a. Remove the retainer clip and rotate the lock plate upward.
- b. Now pull up on the release lever and pull back to release the transport locks from the cylinder.
- c. Lock the release lever in the locked position, lower the locking plate, and reinstall the retainer clip.



- a. Lower the disk gang close to the ground but not touching.



**Do not place any part of your body under the disk gang.**

## **WARNING**

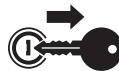
To prevent serious injury or death from rolling over or crushing during the setup procedure:



**Stop tractor's engine.**



**Set parking brake.**

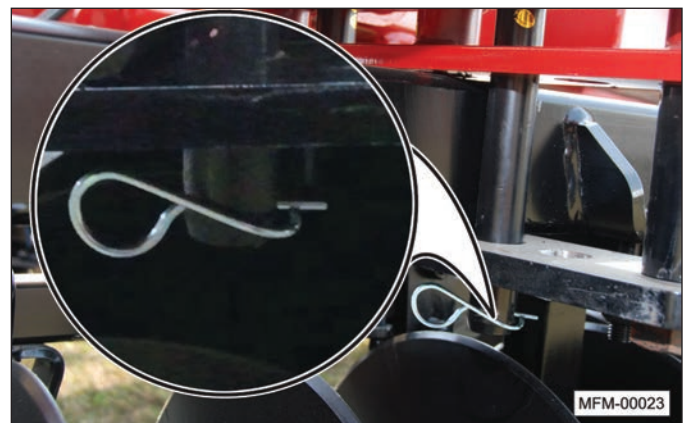


**Remove ignition key.**



**Block wheels of unit.**

- b. Stop the tractor, shut off the engine, set the parking brake, and remove the ignition key from the tractor.
- c. Release the wire retainer clips and remove the retainer pins.



- d. Adjust the disk gang to the desired angle.

### Disk Gang Adjustment

3. Adjust the disk gang angle by repositioning the retainer pins and moving the disk gang into the desired position using the following procedure.

**Note:** On models with wings, make sure the disk gang wing is unfolded before starting the adjustment procedure.





The 5° angle is the least aggressive setting and is typically used with higher speeds and smaller amounts of residue.



The 10° angle is the most aggressive setting and is used for heavy or difficult residue. This setting also requires the most horsepower. It may also be necessary to reduce the speed at this steeper gang angle to prevent ridging.

**Note:** Begin tilling with the disk gang angle set at 7.5°. If necessary, after operating the unit, increase or decrease the aggressiveness of the disk gangs per the condition of the soil. To prevent ridging, it may be necessary to reduce the travel speed with more aggressive disk angles.

- f. Set the remaining disk gangs to the same angle. Reinstall the two retainer pins and fasten the wire retainer clips.



4. Start the tractor and use the tractor's control lever to lower the wheels (raise the disk gang) to the maximum height.
5. Begin to pull the unit through the field.
6. Slowly raise the wheels until the disks contact the ground.



7. Continue raising the wheels (lowering the unit) until the disks are cutting into the ground.

## Machine Leveling

Once the desired depth is reached (no more than 4 inches), the unit must be leveled by adjusting the frame leveling turnbuckle.

Raise the locking mechanism from the turnbuckle.



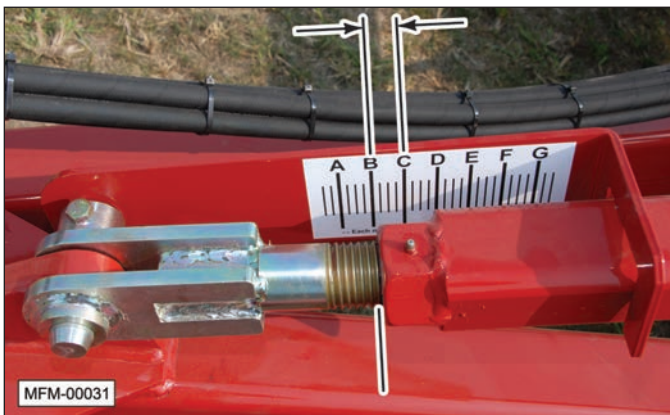


Use the wrench (stored behind the hitch) to make the adjustment.



**Note:** As viewed from the front of the unit, turning the turnbuckle counterclockwise will raise the hitch end and lower the Dura-Reel end.

- e. Record the current location on the depth gauge that is located on the turnbuckle lock. Each mark on the depth gauge represents a 1" change in disk depth. Example, changing from B0 to C0 will produce 4 inches of change.



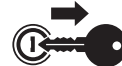
- f. Check the frame for levelness. Adjust the turnbuckle as needed.
- g. Once the unit is level from front to back, and the disks are cutting at the desired depth, place the locking mechanism over the turnbuckle.



**Note:** When a major change is made to the depth of the front gang disks or the Dura-Reels, make sure the frame is still level.

8. Stop the tractor with the unit still in the ground.

## ⚠ WARNING



**Before leaving the tractor, shut off the engine, set the parking brake, and remove the ignition key.**

9. Measure the depth the disk is cutting into the ground.

**Note:** The desired depth (no more than 4 inches) of the disks is controlled by a hydraulic valve. When the wheels of the unit are raised, the stop crank actuates the valve, stopping oil flow. Each time the wheels are raised and lowered, the valve will consistently position the depth of the unit.

10. Adjust the angle of center disks, if necessary. Adjust the center disks with more or less angle to prevent ridges or gaps from forming between the two inner disk gangs. Also, the depth of the coulter disk can be changed by adding or removing spacers.



**Note:** It may only be necessary to change the angle of the center disks when the disk gangs are set to steeper angles. The angle of the center disks can also be changed by loosening the back bolt of the mounting bracket and twisting to the desired angle.

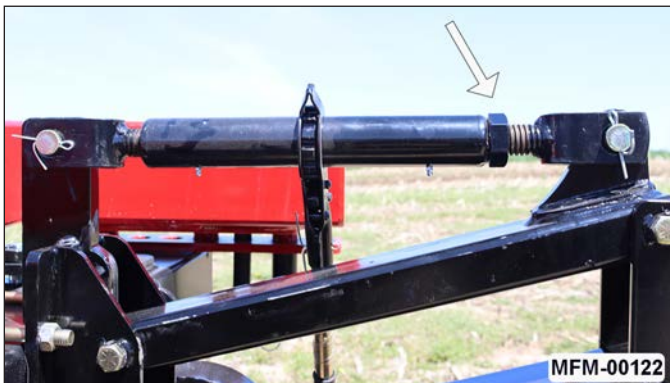




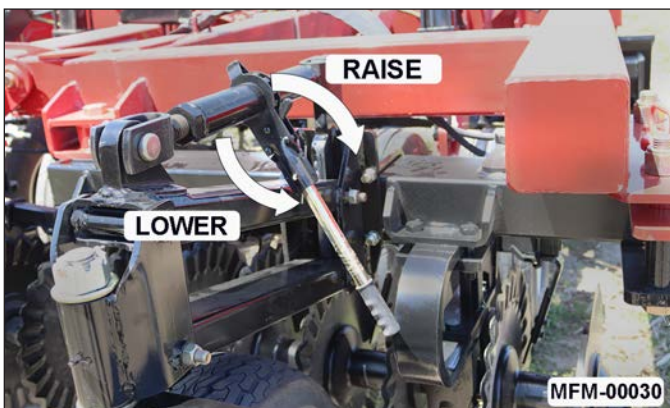
11. Position the height of the disk gang gauge wheels (on winged models only). With the disks in the ground at the desired depth, lower the gauge wheels to carry some of the wings weight, but not enough to prevent the wing from reaching the depth of the main frame components.



- a. Loosen the jam nut located on the gauge wheel ratchet cylinder with the adjustment wrench provided.

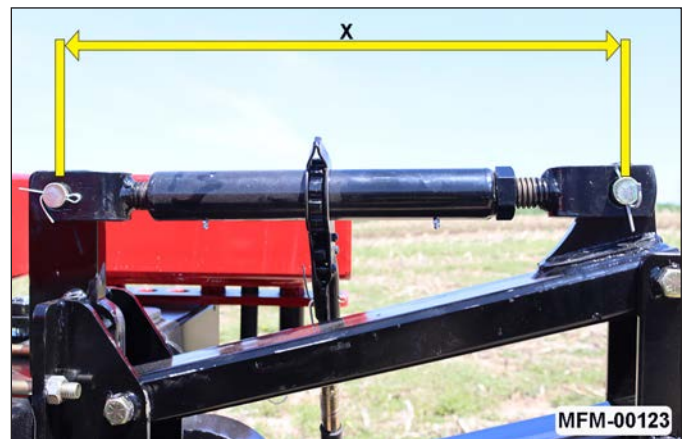


- b. Shortening the turnbuckle will raise the wheel, allowing the disks to go deeper into the ground.



- c. Verify that all gauge wheels have been adjusted equally by measuring the pin to pin distance of the

ratchet cylinders.



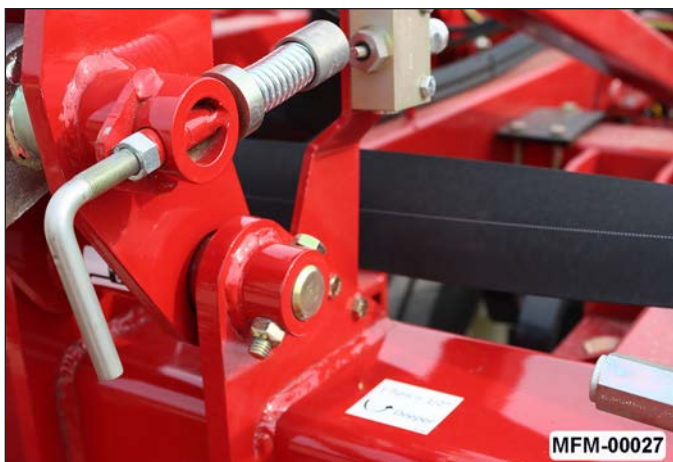
- d. Securely tighten the jam nut.

**Note:** The gauge wheels are not designed to prevent the disks from working deeper than originally set. The gauge wheels must be readjusted whenever the disk depth is changed. During operation, the gauge wheels should be observed to have some side to side “castering” motion.

### Dura-Reel Adjustment

12. Adjust the depth of the Dura-Reel. The Dura-Reel will generally run at the same depth as the disk gangs. Adjust the depth stop valve to prevent the Dura-Reel from going too deep.
  - a. Raise the wheel cylinders until the Dura-Reel is operating at the approximate desired depth.
  - b. Turn the stop crank (depth control) to fully depress the pin on the hydraulic stop valve.
  - c. Pull the Cobra through the field and stop the unit without raising it.
  - d. Check the depth of the Dura-Reel blades and adjust the stop crank accordingly.
  - e. If the Dura-Reel blades need to be reset, turn the stop crank accordingly; two full turns of the crank equals 1 inch of depth adjustment.





1 Turn = 1/2"



**Note:** Since the wheels position the height of the entire frame of the unit, the depth setting of the other components also needs to be checked and possibly readjusted any time the disk depth is changed.

13. Continue pulling the unit through the field and raise and lower the Dura-Reel to allow the hydraulic control valve to stop the unit at the set depth. Stop the tractor and check the depth of the disks and the Dura-Reel, making sure they are the desired depth. Readjust the depth control device and the hitch frame turnbuckle, if necessary. The disk blades should be cutting slightly deeper than the reels.

## WARNING



**Before leaving the tractor, shut off the engine, set the parking brakes, and remove the ignition key.**

### Leveling Wing Frames

14. Level the wing frames. This prevents the disk gangs from gouging and/or ridging. It also ensures a consistent operating depth across the width of the tillage area.
  - a. Rotate the turnbuckle either clockwise or counterclockwise to level the wings from side-to-side.
  - b. The gauge wheels may also need to be adjusted once the wing frames are set.

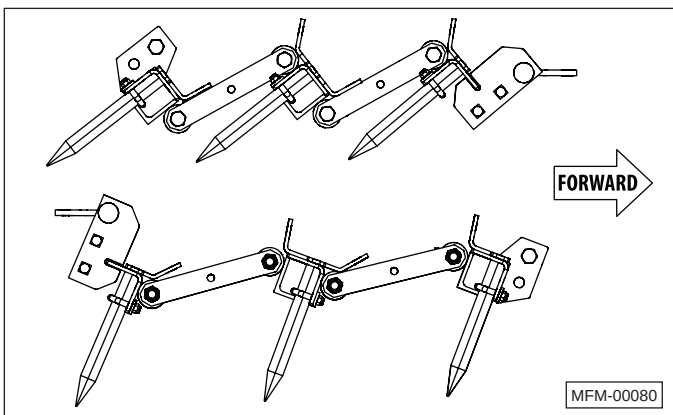
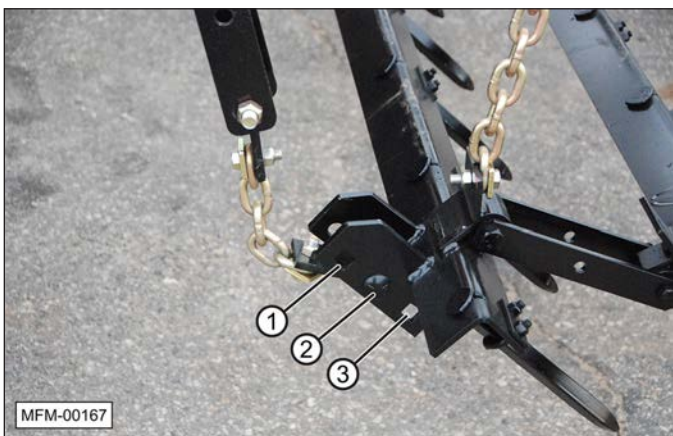
### Harrow and Rolling Basket Adjustment

1. Adjust the aggressiveness of the harrow sections. There are three attachment points on the first harrow bar to control the aggressiveness of the harrow.
  - a. In the least aggressive direction, mounting hole #1 will cause the sections to lay more flat (less aggressive).
  - b. In position #2, the teeth are in approximately a 45° position (more aggressive).
  - c. In position #3, the teeth are at the most aggressive angle (more upright).

**Note:** Typically, the angle should be set more aggressive for increased soil leveling and less aggressive in heavy residue conditions.

The steeper the angle of attack, the more aggressive the harrowing will be. In the least aggressive angle, use the pull hook in the top position, as shown.

In some situations that do not require the extra leveling of the harrow section, such as heavy fall residue, the sections can be removed or raised above the ground level.



## 2. Adjust the height of the harrow sections.



a. Remove the locking bar retainer clip.



b. Remove the locking bar.



c. Raise or lower each harrow bar to the desired height.

Typical spring (finishing) settings are all three chains set with three links hanging.

Typical fall settings in heavy residue are front chain with seven links hanging, middle with six, and rear with five links hanging (front bar higher than rear bar).

**Note:** Make sure the chains are not twisted when inserting into the slot.

d. Replace the locking bar and clip.

**Note:** To maximize the unit's performance, it should be operated at speeds ranging from 7 to 9 mph (11 to 14 kph). This keeps the field debris moving through the harrow sections and avoids clogging.

3. Adjust the rolling basket height and tension. If you have hydraulic down pressure, refer to "Hydraulic down pressure" section below. If not, refer to items a-f below.



- a. Place the rolling basket on a flat, level surface.
- b. Adjust the turnbuckle to either raise or lower the rolling basket. To adjust the turnbuckle, use the wrench provided on the front of the unit.
- c. Loosen the jam nut on the front of the turnbuckle, and turn the adjusting nut on the rear of the turnbuckle to raise or lower the rolling basket. Set the rolling basket height so it just touches the ground.



- d. Make sure all the rolling baskets are adjusted to the same height. Failure to do so will result in uneven seedbed conditions and could damage the rolling basket arms and/or bearings.
- e. If the spring or other components are replaced, tighten the adjusting nut to compress the spring 1/4". Make sure the jam nut is securely tightened against the adjusting nut.
- f. During operation the spring should only lightly compress. Too much spring tension will cause premature failure, especially when going through waterways or ditches.

## Hydraulic Down Pressure

Available on our Spur-till treaders and rolling basket attachments, the Hydraulic Cylinders with constant down pressure is self-adjusting for unit depth and will maintain a uniform pressure over rolling terrain. As the unit is lowered, the attachment will find its working position based on the set pressure applied. When the unit is raised the attachment will lower to the maximum down position. We recommend hydraulically raising the attachment for transport and going in and out of driveways or waterways.

## Operating with Constant Hydraulic Flow

1. The tractor SCV for the attachment function must be set to constant hydraulic flow. Refer to your tractor manual to set your tractor hydraulics to this

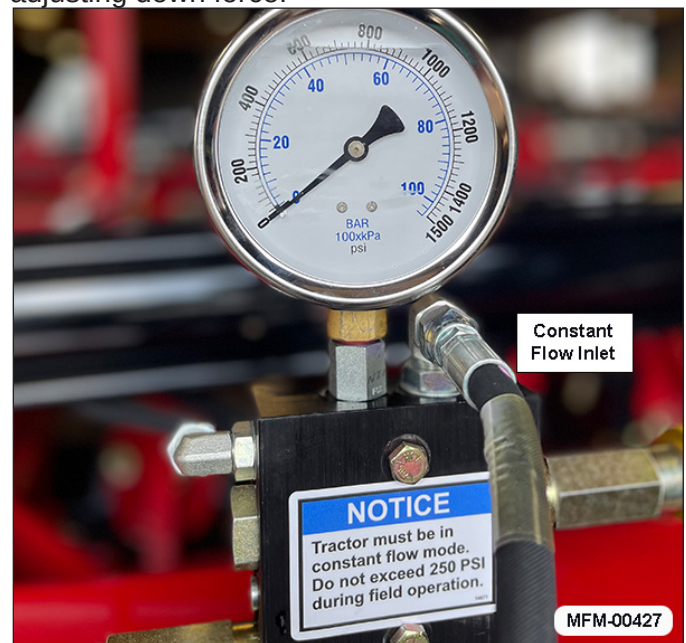
mode. This may also be referred to in your tractor manual as the setting required for hydraulic motors. If your tractor does not have this feature, the tractor SCV for the attachment must be run in the float position. Make the sure SCV that will be running in constant flow is connected to the "+" disconnect grip that is plumbed to the top side of the reducing valve (indicated in the figure below).

2. Lowering the flow rate to 25% of full flow will reduce the heat build up in the hydraulic oil.
3. Check the pressure gauge reading with the unit connected to the tractor and operating in the constant flow mode. It should be set initially at 200 psi. To increase down force, the pressure can be increased by loosening the locking nut and rotating the knob clockwise. Be sure to lock the nut after finishing the adjustment. The pressure should not exceed 250 psi.

## Spur-Till Operation and Adjustment

The McFarlane Spur-Till treader is designed to mix soil with residue, pulverize large clods, remove soil from exposed root balls and anchor residue to the soil surface.

Refer to "Hydraulic down pressure" section above for adjusting down force.

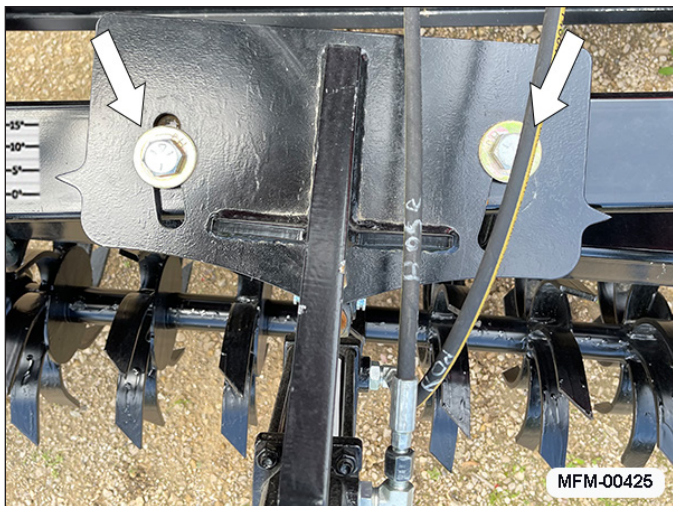


## Spur-Till Angle Adjustment

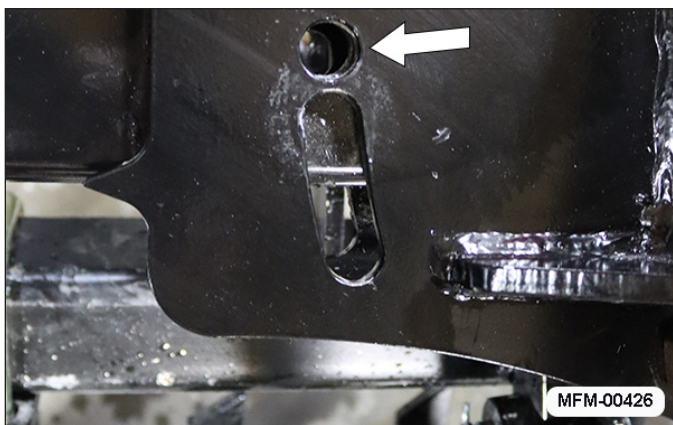
The Spur-Till can run at a 0° to 15° angle, and is set at 5° when delivered.

To adjust the angle of the Spur-Till, loosen both 3/4" bolts and manually rotate the Spur-Till to the selected angle point.

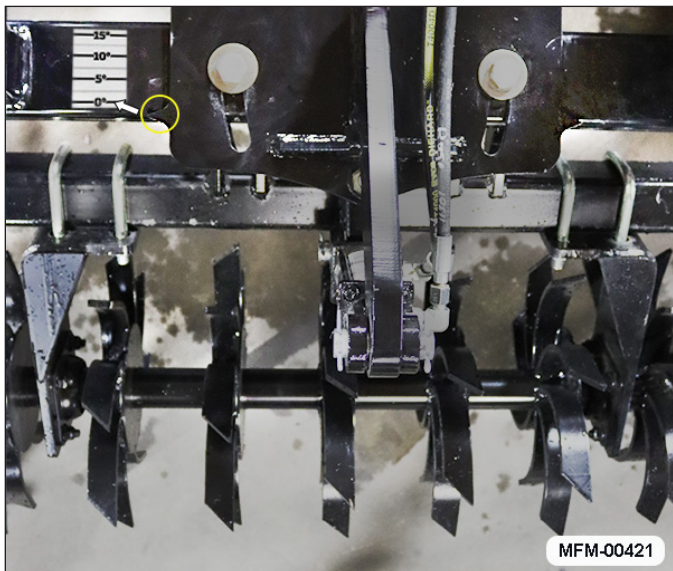




Note: When adjusting the Spur-Till to 0°, it is important to completely remove the bolt and place it the single hole on the pivot plate.



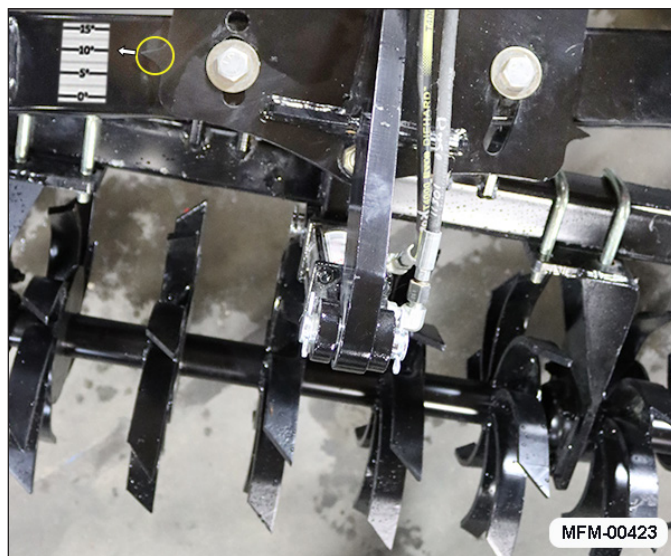
For residue pinning and soil firming, set the Spur-Till to 0°. When adjusting the Spur-Till to 0°, it is important to completely remove the bolt and place it the single hole on the pivot plate.



For minimal soil mixing, set the Spur-Till to 5°.

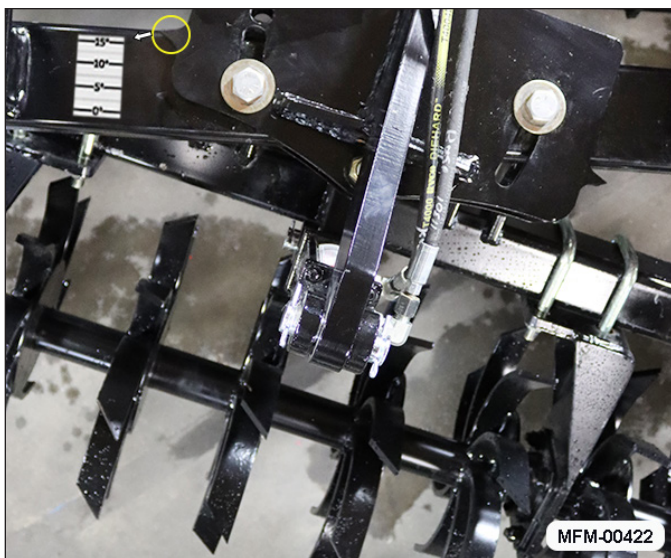


For increased root exposure, residue and soil mixing as well as residue incorporation, set the Spur-Till to roughly 10°.



For maximum root exposure and soil mixing, set the Spur-Till to the steepest and most aggressive angle (15°).





The unit should now be ready.

#### Preparing for Transport

1. Lower the wheels and lift unit off of the ground. Fold the wings into the wing rests.



2. Install the wing fold lock pins and bridge pins.



3. Push the transport locks into place over the cylinder rods. Lock the release lever in place and install the bridge pin.

## Maintenance

### Safety

#### **! WARNING**

To prevent serious injury or death:



**Rolling Over / Crush Hazard**  
To prevent serious injury or death, before servicing, adjusting, repairing, or performing other work on the unit, always make sure the tractor or towing vehicle engine is stopped, the ignition key is removed, the unit is lowered to the ground, all controls are placed in neutral, the parking brake is set, and all hydraulic fluid pressure is relieved (zero pressure).



**Rolling Over Hazard**  
Block the wheels before performing maintenance or repairs.



**Use Properly Rated Tools**  
Use sufficient tools, jacks, and hoists that have the capacity for the job.



**Crush Hazard**  
Use support blocks or safety stands rated to support the load when changing tires or performing maintenance.



**High-Pressure Fluids**  
Never use your hands to locate a hydraulic leak. Use a piece of cardboard or wood. Wear proper hand and eye protection when searching for a high-pressure hydraulic leak.

Hydraulic fluid escaping under pressure can penetrate the skin. Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Without immediate medical treatment, serious infection or toxic reaction can develop if hydraulic fluid penetrates the surface of the skin.



**Entanglement Hazard**  
Keep hands, feet, clothing, jewelry, and long hair away from any moving parts to prevent them from getting caught.

## SAFETY INSTRUCTIONS

Follow all operating, maintenance, and safety instructions found in this manual.



Understand the service procedure before performing the work. Keep area clean and dry.



Replace all worn or damaged safety and instruction decals.



Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts.



Do not leave tools lying on the unit.



Do not modify machine or safety devices. Do not weld on the unit. Unauthorized modifications may impair its function and safety.

If equipment has been altered in any way from the original design, the manufacturer does not accept any liability for injury or warranty.



Never replace hex bolts with less than Grade 5 bolts unless otherwise specified. In locations where grade 8 bolts are used, grade 8 replacements are required.



Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore the unit to original specifications. The manufacturer will not claim responsibility for damages as a result of the use of unapproved parts.

## Tire and Lug Torque Specifications

| Model                     | Tire Size          | Tire Pressure | Lug Size | Lug Torque (lb.ft.)<br>Min      Max |     | Tire and Wheel Weight |
|---------------------------|--------------------|---------------|----------|-------------------------------------|-----|-----------------------|
| MAIN FRAMES               |                    |               |          |                                     |     |                       |
| CB-4212, CB-4214          | IF 280/70R15 (4)   | 64            | 1/2"     | 75                                  | 85  | 85                    |
| CB-4220                   | IF 320/70R15 (4)   | 70            | 9/16"    | 80                                  | 90  | 103                   |
| CB-4225, CB-4230, CB-4235 | IF 320/70R15 (4)   | 70            | 9/16"    | 85                                  | 100 | 159                   |
| CB-4245                   | VF 285/70R19.5 (4) | 75            | 5/8"     | 85                                  | 100 | 159                   |
| WING FRAMES               |                    |               |          |                                     |     |                       |
| All Models                | IF 280/70R15 (4)   | 64            | 1/2"     | 75                                  | 85  | 85                    |

## Bolt Torque Chart

| Bolt Head Markings | <br>No Marking |       | <br>3 Radial Lines |       | <br>6 Radial Lines |       |
|--------------------|---------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------|-------|
| Bolt Diameter      | SAE Grade 2<br>N·m (ft-lbs)                                                                       |       | SAE Grade 5<br>N·m (ft-lbs)                                                                           |       | SAE Grade 8<br>N·m (ft-lbs)                                                                             |       |
| 1/4"               | 8                                                                                                 | (6)   | 12                                                                                                    | (9)   | 17                                                                                                      | (12)  |
| 5/16"              | 13                                                                                                | (10)  | 25                                                                                                    | (19)  | 36                                                                                                      | (27)  |
| 3/8"               | 27                                                                                                | (20)  | 45                                                                                                    | (33)  | 63                                                                                                      | (45)  |
| 7/16"              | 41                                                                                                | (30)  | 72                                                                                                    | (53)  | 100                                                                                                     | (75)  |
| 1/2"               | 61                                                                                                | (45)  | 110                                                                                                   | (80)  | 155                                                                                                     | (115) |
| 9/16"              | 95                                                                                                | (70)  | 155                                                                                                   | (115) | 220                                                                                                     | (165) |
| 5/8"               | 128                                                                                               | (95)  | 215                                                                                                   | (160) | 305                                                                                                     | (220) |
| 3/4"               | 225                                                                                               | (165) | 390                                                                                                   | (290) | 540                                                                                                     | (400) |
| 7/8"               | 230                                                                                               | (170) | 570                                                                                                   | (420) | 880                                                                                                     | (650) |
| 1"                 | 345                                                                                               | (225) | 850                                                                                                   | (630) | 1320                                                                                                    | (970) |



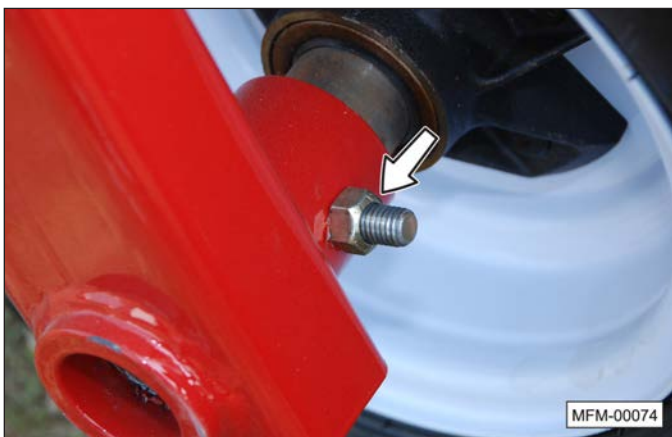
## Maintenance Schedule

### 1. After the first 12 hours of use:

- a. Make sure all retaining hardware is installed. Check the tightness of all the bolts, especially those on the C-springs. Torque specifications are listed in the Bolt Torque Chart in this manual.



Cotter pin and hairpin clips.



Wheel retainer bolts.



Hinge pin and hitch pin retainer bolts.



Bridge pins.



Retainer pins with wire retainer clips.

- b. Check the gang arbor bolt torque which is defined in the "Disk Gang and Blades" section.



- c. Retighten all of the bolts holding the blades onto the Dura-Reel.





2. Prior to each use, visually check for loose or missing bolts and replace lost or worn parts.
3. Refer to the Lubrication Location Drawing on page 37 for a list of lubrication locations and frequency.

5. Refer to the parts illustrations and listings for service and repair parts.
6. Dura-Reel bearings should be lubricated annually.



**Note:** Clean grease fittings and replace those that are broken or missing.

7. Inspect the rubber bumper pads on the wing support arms. Replace the pads if they are worn or missing.



**Note:** Clean grease fittings and replace those that are broken or missing.

4. Clean, repack, and adjust the wheel bearings annually. Use only wheel bearing grease when repacking these units. Check for excessive end play. To adjust wheel bearing, remove dust cap and cotter pin. Lift tire and slowly rotate while tightening the spindle nut. Tighten only until a slight drag is felt on the rotating wheel. Re-install cotter pin and dust cap.



## Maintenance Procedures

### Wheel Lift Cylinders and Wing Cylinders

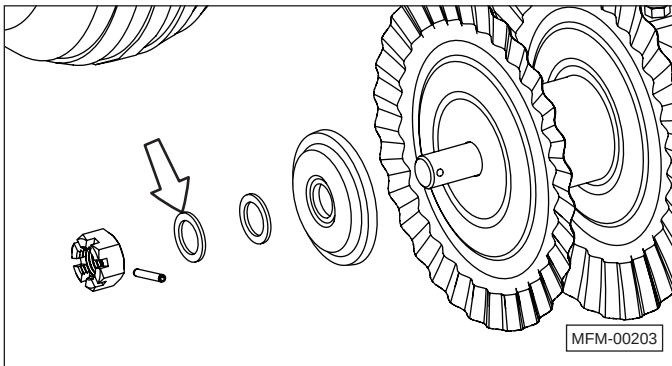
There are no setup procedures or maintenance items on these cylinders.

### Disk Gang Disk Blades

1. Replace the disk blades when the diameter is 19 inches or less.
2. It will also be necessary to check and tighten the disk gang arbor nuts to prevent excessive wear.
3. After 12 hours initial operation, using a torque-multiplier, tighten the gang arbor nuts to 1200-1600 ft-lb.

**Note:** A torque of 1200-1600 ft-lb would be equivalent to a 200 pound person using a 6 to 8 foot wrench.

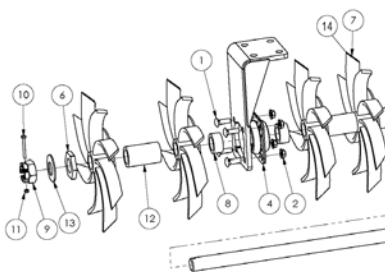
**Note:** When reassembling the disk gang, it may be necessary to add a 1-3/4" machine washer (10656) in order to align the cross-drilled hole in the shaft with the slots in the castle nut.



### For Spur-Till finishing configuration

1. Regularly inspect Spur-Till tines for damage and replace or repair as needed.
2. It will also be necessary to check and tighten the Spur-Till gang arbor nuts to prevent excessive wear.
3. After 12 hours of initial operation, using a torque-multiplier, tighten the gang arbor nuts to 800-1000 ft-lb.

**Note:** when disassembling Spur-Till gangs, note the orientation of all Spur-Till wheels (left vs. right), bearings, spacers and fasteners.



### Removal of Dura-Reel Hub

1. Support the reel assembly.
2. Remove one reel blade.
3. Remove five hub bolts.
4. Remove hub cross bolt.
5. Slide hub free from reel.

**Note:** May need to loosen all bolts to reassemble.

### Assembly and Lubrication Instructions for Dura-Reel Hub Assembly (RD-4854)

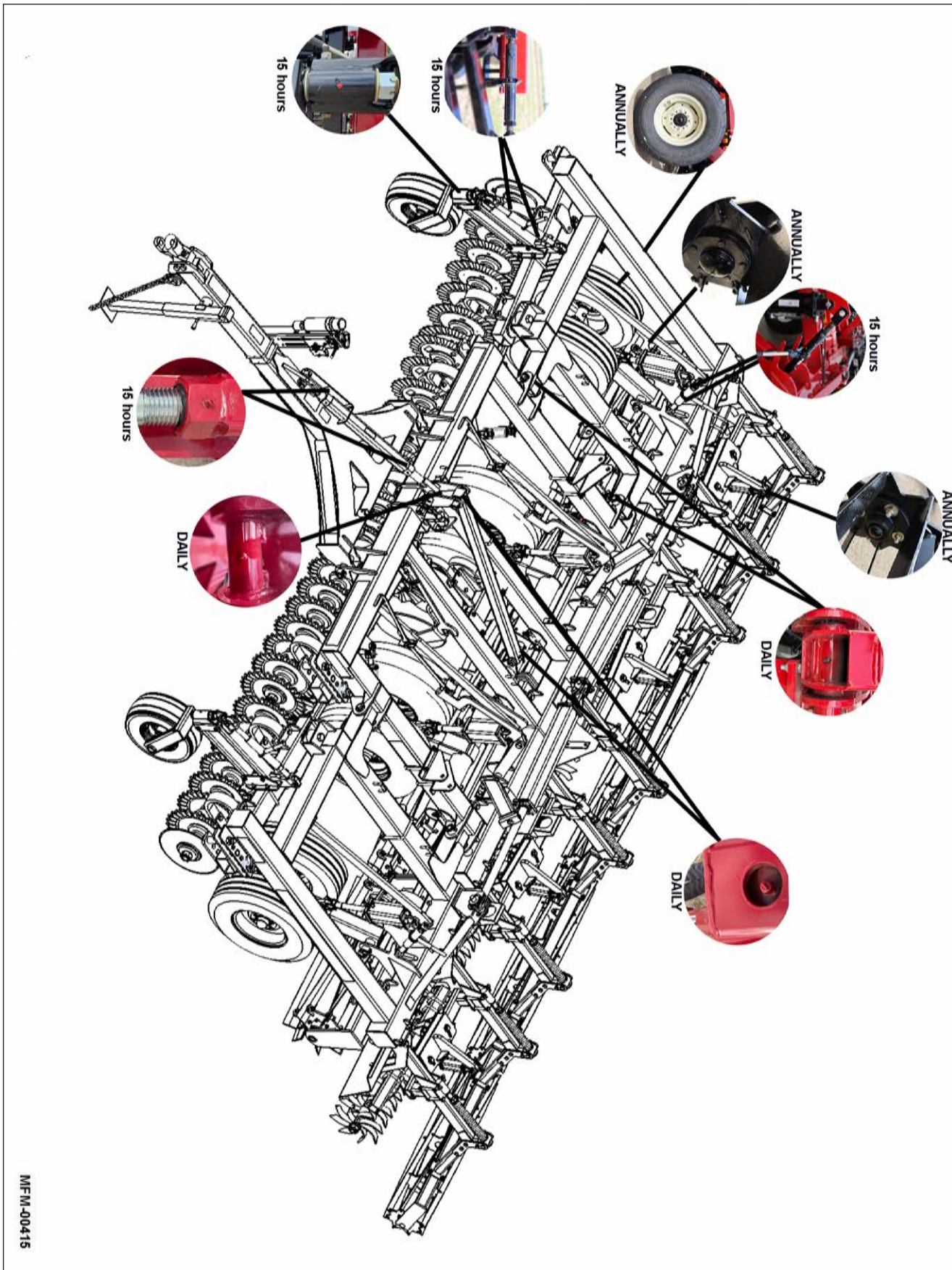


1. Tighten RD-4862 Hex Slotted Nut to 40 ft.-Lbs. Loosen nut to first slot in nut. Rotate hub five revolutions. If rotation is tight back off an additional slot.
2. Push RD-4863 Spring Pin through nut and spindle until it is flush with the nut.
3. Apply grease through the zerk until grease emerges through bearing rollers. Rotate hub five times.
4. Press RD-4859 Dust Cap onto hub.
5. Check end play.
  - a. Hold spindle securely in place.
  - b. Place a dial indicator onto the hub to measurement upward movement.
  - c. Use a bar or lifting device the raise hub upwards.
  - d. The reading should not exceed 0.002". Repair or replace hubs with excessive end play.

## Lubrication Locations Drawing

Add grease to the locations shown in the photo on the following page.

When greasing a pin and bushing, add grease until it is visibly forced out of the joint.





## Hydraulic Component Safety

### **WARNING**



#### Trapped Air Hazard

When installing, replacing, or repairing hydraulic system cylinders or parts, make sure that the entire system is charged and free of air before resuming operations. Failure to bleed the system of all air can result in improper machine operation, causing severe injury.



#### Zero Pressure

Relieve pressure from the hydraulic system before servicing or disconnecting from the tractor.



#### High-Pressure Fluid Hazard

Keep all hydraulic lines, fittings, and couplers tightly secured and free of leaks.



#### Explosive Separation Hazard

Replace any worn, cut, abraded, flattened, or crimped hoses.



#### High-Pressure Hazard

Do not make any temporary repairs to the hydraulic lines, fittings, or hoses using tape, clamps, or cement. The hydraulic system operates under extremely high pressure and temporary repairs may fail suddenly and create a hazardous/dangerous situation.



#### Personal Protection Equipment

Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to identify and isolate a leak. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop if hydraulic fluid penetrates the surface of the skin.



#### High-Pressure Fluid Hazard

Before applying pressure to the system, make sure all components are tight and that the hydraulic lines, hoses, and couplings are not damaged.

### **NOTICE**

Make sure components in the hydraulic system are kept clean and in good working condition.

## Tire Safety

### **WARNING**



#### Explosive Separation Hazard

Do not attempt to mount tires unless you have the proper equipment and experience to do the job. Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosive separation, which may result in serious injury or death.



#### Explosive Hazard

Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure, resulting in a tire explosion. Welding can structurally weaken or deform the wheel.



#### Flying Objects Hazard

Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.

When inflating tires, use a clip-on chuck and extension hose. Always stand to the side of the tire when inflating, and NOT in front of or over the tire assembly.

Make sure the tires are inflated evenly.



#### Crush Hazard

Make sure the unit is completely supported with suitable stands before removing a wheel assembly.

### **SAFETY INSTRUCTIONS**



Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.



Check tires for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.



Always install tires and wheels with appropriate capacity to meet or exceed the weight of the unit.



Do not exceed 20 mph or tire failure will occur.



Keep wheel lug nuts or bolts tightened.

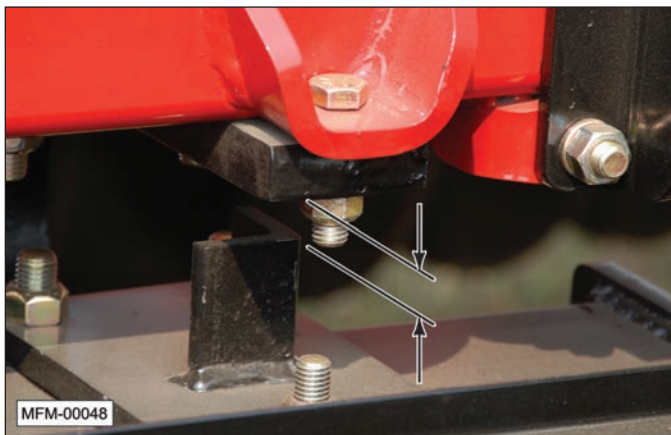
## Dura-Reel Blades

To replace a Dura-Reel blade:

1. Remove the bolts that secure the blade to the center plate.
2. Install a new blade with 5/8-11 x 2-1/4" bolts and lock nuts. Tighten the nut 160 ft.lbs. (215 N·m).



**Note:** Make sure the blades are positioned with the beveled edge of the blade closest to the tab on the center plate, as shown in the photo. Install the bolts from the blade side.



## NOTICE

Make sure the stop plate is not in constant contact with the C-spring during normal operation. Reduce the depth setting of the Dura-Reel to reduce the constant contact.

## Axle Assembly Wear Sleeves



No maintenance is required on the four axle mounting bearings. Check for excessive wear annually. To replace the bearings:

1. Support the main frame.
2. Support the wheel assembly and wheel lift cylinders to relieve the pressure on the bearings.
3. Remove the bearing retainer caps (center bearings) and end caps (outer bearings).
4. Insert four new bearing wear sleeves. Do not replace just one sleeve.
5. Reinstall the retainers and caps.

## Storage

### Safety

#### SAFETY INSTRUCTIONS

Follow all operating and safety instructions found in this manual when storing this equipment.



Store the unit in an area away from human activity.



Do not permit children to play on or around the stored unit at any time.

Make sure the unit is stored in an area with a firm and level base to prevent it from tipping or sinking into the ground.



Block the wheels to prevent the unit from rolling.

Power wash the unit prior to storage, following this protocol:

1. Washing equipment: It is very important to read the instruction manual and test the machine on a small spot



before starting the actual job. The scouring action of a pressure washer is very strong and may damage paint, and other surfaces if not properly used.

2. Nozzle Selection: Wide-fan nozzles are often preferred when pressure washing painted surfaces. Yellow (15-degree) or green (25-degree) fan nozzles are most common, white (40-degree) nozzles can also be used to clean unit.

3. Pressure Adjustment: To wash away dust and dirt, keep the pressure level between 1500 psi and 2000 psi. Pressures exceeding 2000 psi may damage paint depending on nozzle size and how close nozzle is to the part.

4. Wand angle: To avoid damaging painted surfaces, keep the wand angle/nozzle at a 45-degree angle and spray from a minimum distance of 12 inches. If you increase the pressure, move the nozzle further away from the surface.

5. Scrub away persistent dirt: Use a rotating scrub brush or a sponge along with a mild detergent solution to remove stubborn stains.

### Placing Into Storage (Disk Coatings)

Apply a thin layer of grease to all exposed metal surfaces of the disks, reel, and reels blades. Disposal of Equipment at End of Useful Life

The McFarlane Cobra has been designed for the specific purpose of tilling agricultural farm land. When this unit is no longer capable of doing its designed purpose, it should be dismantled and scrapped. Do not use any materials or components from this unit for any other purpose.

## Warranty

### Limited Warranty Statement

#### FULL ONE YEAR WARRANTY

If within one year from the date of purchase, this Cobra fails due to a defect in material or workmanship, McFarlane Mfg. Co., Inc. will repair it, free of charge.

Warranty service is available at dealer locations by simply contacting the nearest McFarlane dealership throughout the United States or Canada.

This warranty applies only while this product is used in the United States or Canada.

This warranty gives you specific legal rights, and you may have other rights which vary from state-to-state.

### Serial Number Location



## Troubleshooting

| Problem                                                                                     | Cause                                                         | Solution                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disk gang is not tilling to desired depth or the soil is not fully worked to desired depth. | Disk gang is not set deep enough.                             | Increase the depth of the disk gang up to a 4 inch maximum depth. Whenever you are making a change to any setting, make sure the unit remains level as it is pulled through the field. |
|                                                                                             | Disk gang angle is not set properly for the soil conditions.  | Increase disk gang angle to loosen more soil.                                                                                                                                          |
| Unit bounces or leaves surface uneven in loose soil.                                        | Disk gang depth is set higher than the Dura-Reel depth.       | Decrease depth of the spiral reels by carrying some of the weight on the wheels. The disk gang can then be lowered using the hitch turnbuckle to the desired depth of soil tilling.    |
| The residue is not being turned into the ground.                                            | The front gang disk is not set at an aggressive enough angle. | Increase the angle of the front disk gang.                                                                                                                                             |
|                                                                                             | The front gang disk is not set deep enough.                   | Increase the depth of the disk gang up to a 4 inch maximum depth. Whenever you are making a change to any setting, make sure the unit remains level as it is pulled through the field. |
|                                                                                             | Travel speed is too slow.                                     | Increase travel speed to 8 to 9 mph.                                                                                                                                                   |
| The residue is not being sized correctly.                                                   | The front disk gang may not be set deep enough.               | Increase the depth of the disk gang up to a 4 inch maximum depth. Whenever you are making a change to any setting, make sure the unit remains level as it is pulled through the field. |
| Ridging is occurring within a pass.                                                         | Front disk gang is not set correctly.                         | Reduce the disk gang depth.<br>Set the angle of the disk to be less aggressive.                                                                                                        |
|                                                                                             | The center disk angles are set incorrectly.                   | Increase or decrease the angle of the outboard center disks to eliminate the ridging.                                                                                                  |
| Disk gang ridges between adjacent passes.                                                   | The disk gang or wing frame are not set up properly.          | Level the wing frame using the turnbuckles on the wing wheels to raise the outside of the disk gang.                                                                                   |
|                                                                                             |                                                               | Reduce travel speed.                                                                                                                                                                   |
|                                                                                             |                                                               | Reduce angle of disks in disk gangs.                                                                                                                                                   |
| Center frame section not working to desired depth.                                          | Wing frame is set too deep.                                   | Raise the wing frame using the turnbuckles on the wing wheels to prevent the wings from working deeper than the center section.                                                        |
| Outside disk gang gouges.                                                                   | Wing frame are not level.                                     | Level the wing frame using the turnbuckles on the wing wheels to raise the outside of the disk gang or add gauge wheels.                                                               |



| Problem                                 | Cause                                  | Solution                                                                                                                                                                                                                  |
|-----------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dura-Reel plugs in wet soil conditions. | Dura-Reel is set too deep.             | Decrease the depth of the spiral reels by carrying some of the weight on the wheels.<br><br>Increase speed.                                                                                                               |
| Residue buildup on harrow bars.         | Front disk gang is not set correctly.  | Set the disk gang to a more aggressive angle in order to size the residue into smaller pieces.                                                                                                                            |
|                                         | The harrow angle is not set correctly. | Change the angle of the teeth. Using the linkage settings that produce the flattest angle on the harrow is recommended. Setting the harrow to the steepest angle is usually recommended for spring work or light residue. |
|                                         | The ground speed is too low.           | Increase ground speed to 8 to 9 mph.                                                                                                                                                                                      |
| Rolling basket springs are breaking.    | Too much spring tension.               | Too much spring tension per section in this manual.                                                                                                                                                                       |
| Spur-Till is plugging with mud          | Spur-Till is set too deep              | Reduce pressure (less depth) or lift it out of the ground                                                                                                                                                                 |

## Parts Section

### Ordering Parts

We manufacture a quality product that requires very little maintenance or repair. However, should a part break or become damaged, our knowledgeable staff can make sure you receive the part(s) to put your unit back into operation.

### Dealer Contact Information

For replacement decals, questions, or to order parts, contact your dealer:



## Decals

### **WARNING**

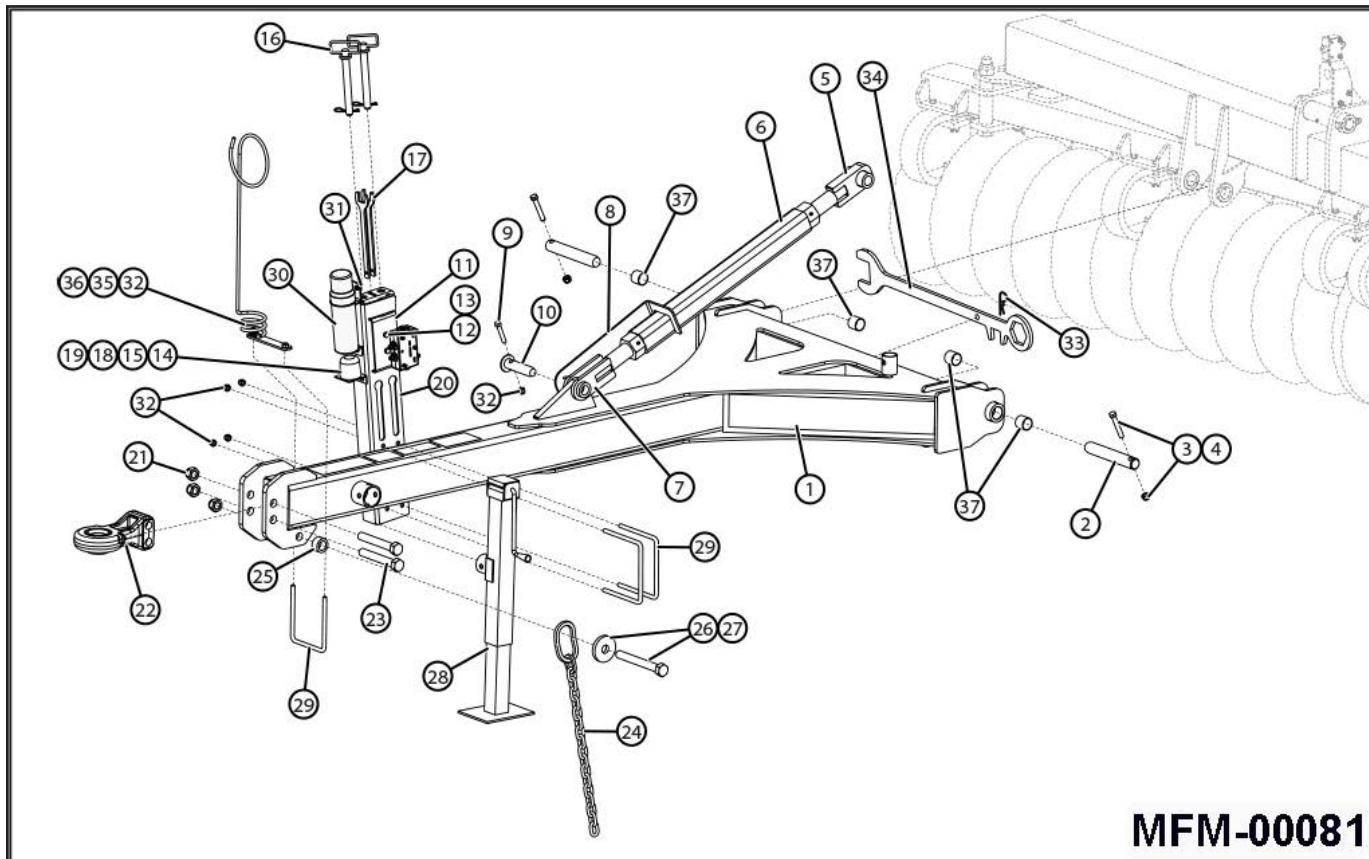


**Make sure all decals are attached to the unit and are legible at all times. Safety decals and reflective tape provide a vital role in helping to reduce injuries and/or possibly even death.**

To ensure the greatest level of safety, all decals must be in place and legible at all times. Remember, it is the user's responsibility to maintain these decals.

## Parts Drawings

### Hitch Frame for CB-4200 Series

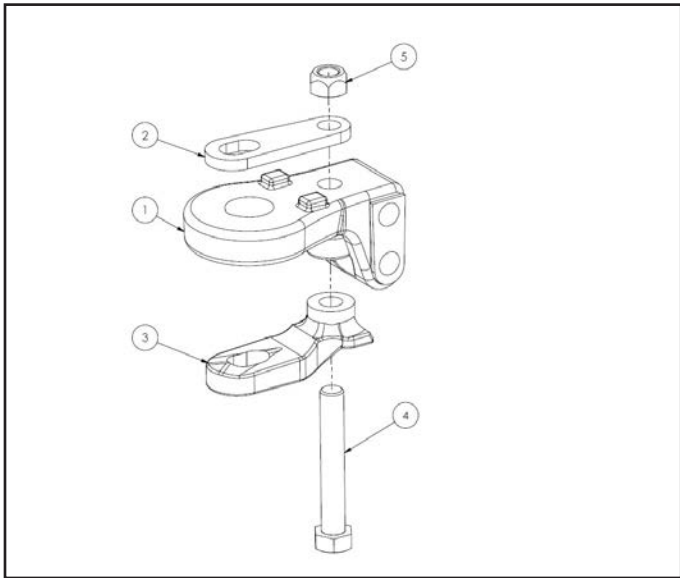


| Item | Part Number | Description                        |
|------|-------------|------------------------------------|
| 1    | 15207       | HITCH, 4212-4214                   |
|      | 15163       | HITCH, 4220-4230                   |
|      | 15209       | HITCH, 4235-4245                   |
|      |             |                                    |
| 2    | RT-2107     | HINGE PIN, 1-1/2 X 9-5/8           |
| 3    | BHY-5635    | 9/16-12 X 3-1/2 GRADE 8 BOLT       |
| 4    | NLT-5612    | 9/16-12 TOP LOCK NUT               |
| 5    | RT-2112     | PIVOT END TURNBUCKLE, 3 7/8" DOM   |
| 6    | RT-3145     | HITCH TURNBUCKLE - 30"             |
| 7    | RT-2111     | HITCH END TURNBUCKLE, 2 EAR        |
| 8    | RT-2114     | TURNBUCKLE LOCK, 3"                |
| 9    | BH-5028     | 1/2 X 2-3/4 GRADE 5 HEX BOLT       |
| 10   | RT-2113     | TURNBUCKLE PIN - 1-1/4 X 5-1/4     |
| 11   | RD-4309     | HYDRAULIC HOSE RACK CLAMP          |
| 12   | BH-4420     | 7/16 X 2 HEX BOLT                  |
| 13   | NLT-4414    | 7/16 TOP LOCK NUT                  |
| 14   | LW-0025     | 1/4 LOCK WASHER                    |
| 15   | NH-2520     | 1/4 HEX NUT                        |
| 16   | PH-8860     | HITCH PIN, 7/8 x 6 w/#6 BRIDGE PIN |
| 17   | RT-2416     | TURNBUCKLE WRENCH, 1-1/4"          |
| 18   | LB-1110     | LIGHT PLUG STORAGE                 |
| 19   | BH-2510     | 1/4 X 1 HEX BOLT                   |
| 20   | 10294       | BRACKET, STORAGE, HITCH            |
| 21   | NLT-1008    | 1" TOP LOCK NUT                    |

| Item | Part Number | Description                                         |
|------|-------------|-----------------------------------------------------|
| 22   | 15758       | HITCH PINTLE CAT III (4212-4220)                    |
|      | 12336       | HITCH, PINTLE, ARTICULATING BALL CAT IV (4225-4245) |
| 23   | BHY-1070    | 1 X 7 GRADE 8 HEX BOLT                              |
| 24   | CH-1816     | SAFETY CHAIN 16,100 lbs 4212-4220                   |
|      | CH-1820     | SAFETY CHAIN 20,200 lbs, 4225-4230                  |
|      | CH-1830     | SAFETY CHAIN 30,400 lbs, 4235-4245                  |
| 25   | RT-2021     | CYLINDER BUSHING, 4212-4220                         |
|      | RT-2054     | BUSHING, 1 7/8" OD X 1-1/4" ID X 1", 4225-4245      |
| 26   | RT-3103     | WASHER, SAFETY CHAIN                                |
| 27   | BHY-1085    | 1 X 8-1/2 GRADE 8 HEX BOLT                          |
| 28   | QT-1243     | JACK, SQ-15", 8000#                                 |
| 29   | BU-1267     | 1/2 X 6 X 7-1/4 U-BOLT                              |
| 30   | 14493       | MANUAL STORAGE TUBE                                 |
| 31   | FW-0025     | WASHER, FLAT, 1/4                                   |
| 32   | 12735       | HOSE WHIP                                           |
| 33   | PB-0009     | #9 BRIDGE PIN                                       |
| 34   | 11271       | WRENCH                                              |
| 35   | 12054       | HOSE WHIP MOUNT                                     |
| 36   | NLT-5013    | 1/2-13 TOP LOCK NUT                                 |
| 37   | RD-4889     | WING AXLE BUSHING                                   |

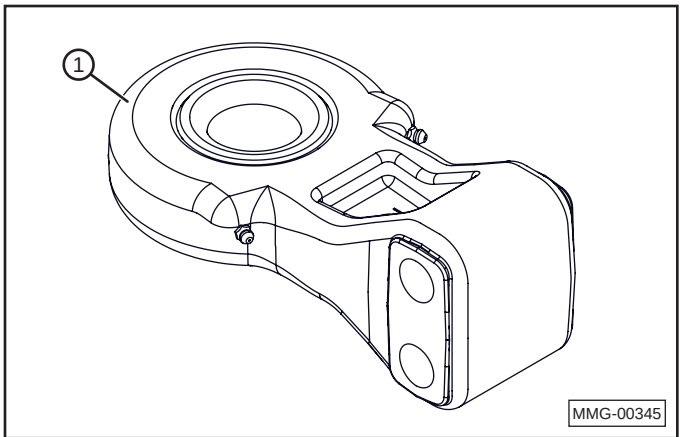


Hitch for CB-4212, CB-4214 and CB-4220  
(CAT. III)



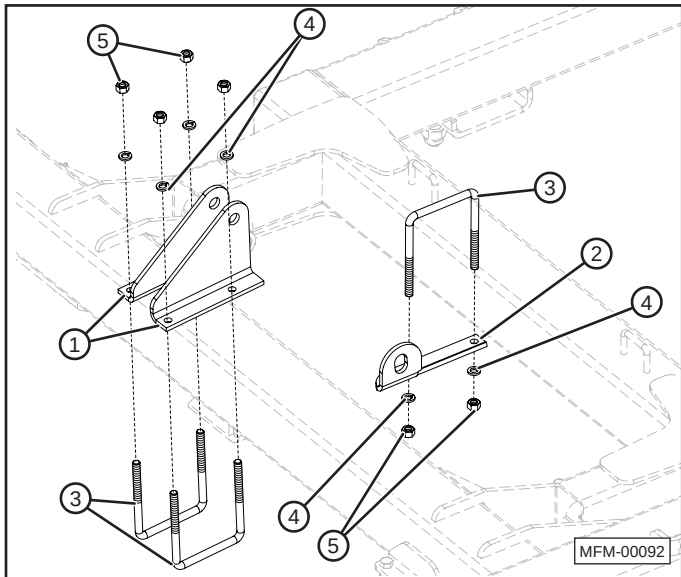
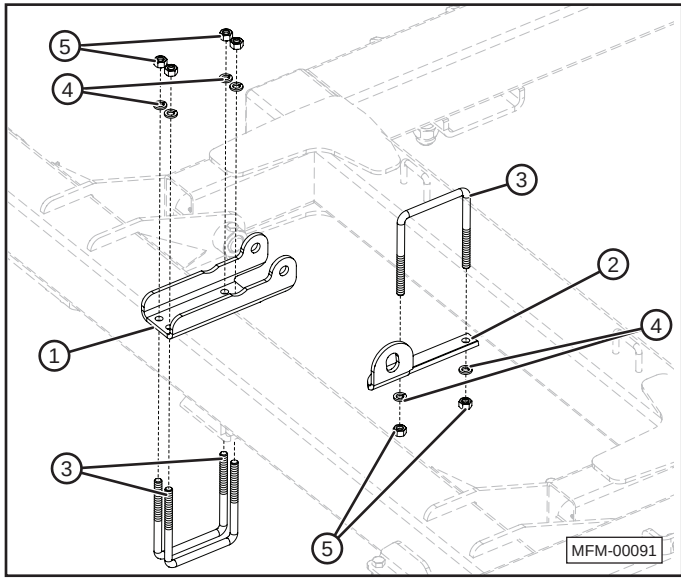
| Item | Part Number | Description                  |
|------|-------------|------------------------------|
| 1    | 15758       | HITCH,PINTLE,CATIII          |
| 2    | 15777       | TOP PLATE,PINTLE HITCH,CAT 3 |
| 3    | 16500       | CLEVIS,PINTLE HITCH,CAT 3    |
| 4    | BHY-1065    | BOLT,HEX,1-8X6.5,GD8         |
| 5    | NLT-1008    | NUT, TOP LOCK, 1             |

Hitch for CB-4225, CB-4230, CB-4235,  
CB-4245 (CAT. IV)



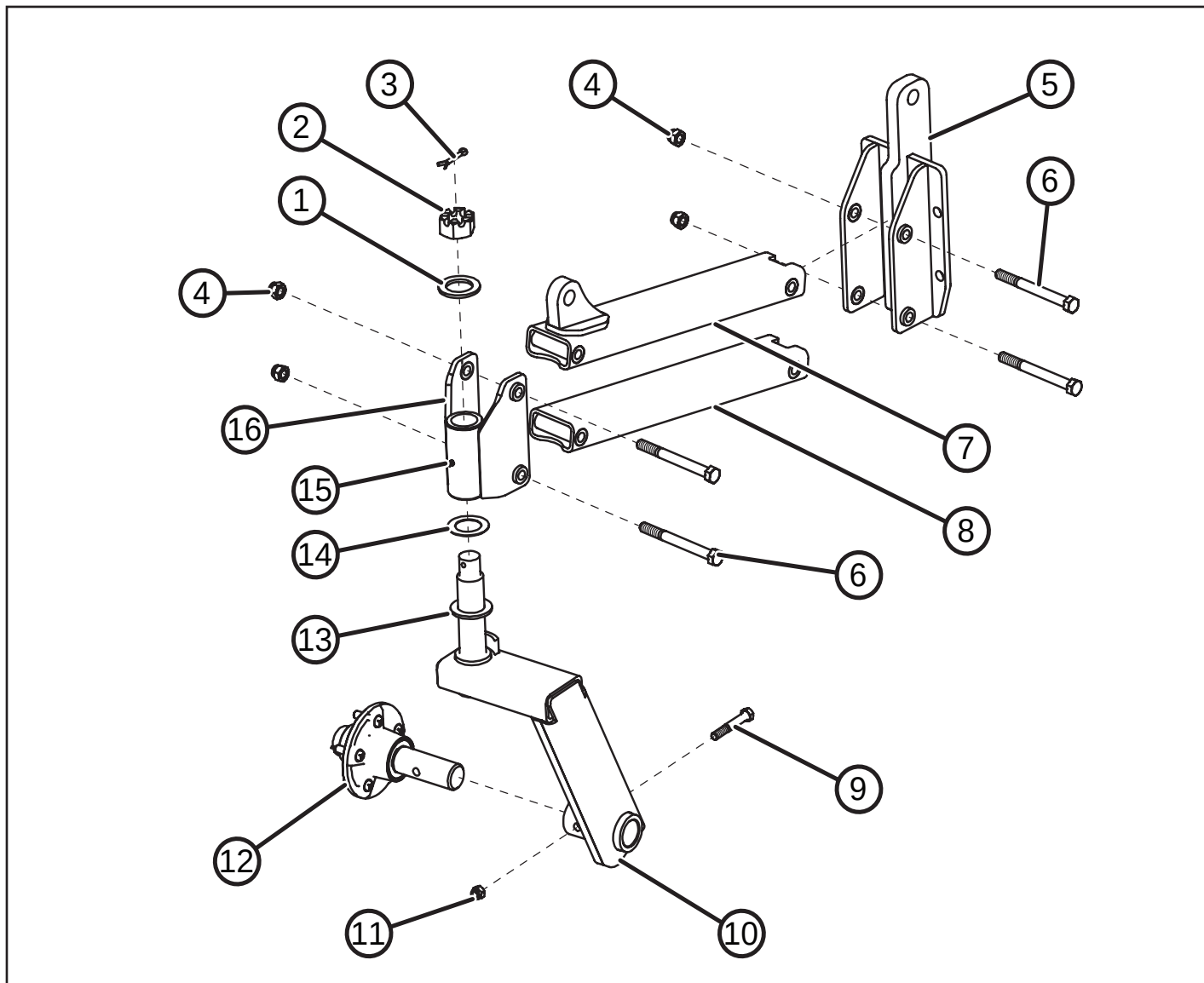
| Item | Part Number | Description                      |
|------|-------------|----------------------------------|
| 1    | 12336       | PINTLE, ARTICULATING BALL CAT IV |

Wing Locks for CB-4220, 4225, 4230, 4235,  
4245



| Item | Part Number                              | Description                                                                                                                                       |
|------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | RD-4508<br>RD-4509<br>RD-4610<br>RD-4611 | MAIN FRAME WING LOCK, LEFT (4220)<br>MAIN FRAME WING LOCK, RIGHT (4220)<br>MAIN FRAME WING LOCK (4225, 4230, 4235)<br>MAIN FRAME WING LOCK (4245) |
| 2    | RD-4612                                  | WING FRAME WING LOCK (ALL SIZES)                                                                                                                  |
| 3    | BU-5867                                  | 5/8-11 X 6 X 7-1/2 U-BOLT                                                                                                                         |
| 4    | LW-0063                                  | 5/8 LOCK WASHER                                                                                                                                   |
| 5    | NH-6311                                  | 5/8-11 HEX NUT                                                                                                                                    |

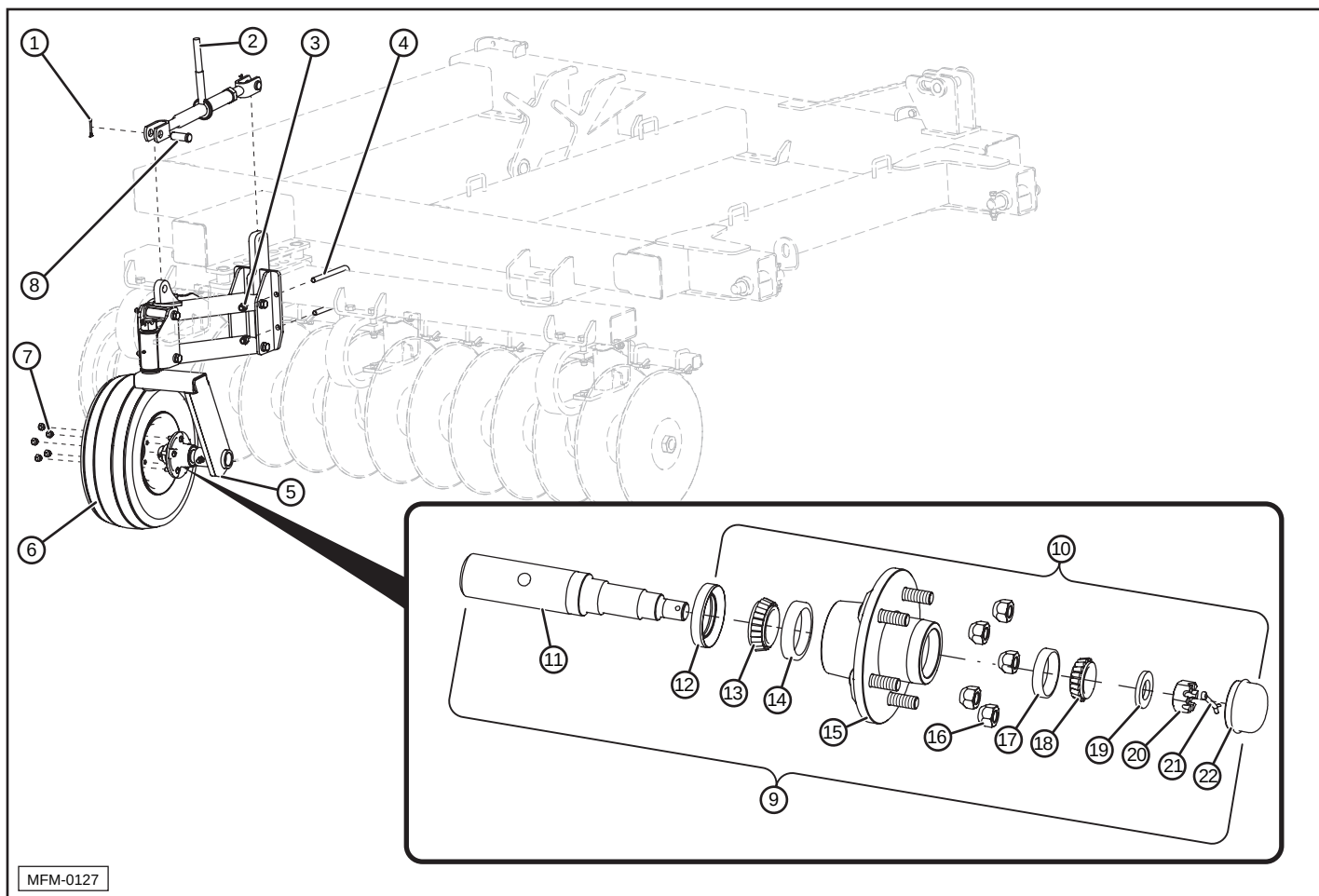
## Gauge Wheel Frame for CB-4200 Series



| Item | Part Number | Description              |
|------|-------------|--------------------------|
| 1    | RD-4876     | CASTER WASHER            |
| 2    | NC-1406     | 1-3/8 CASTLE NUT         |
| 3    | CP-3620     | COTTER PIN               |
| 4    | NLT-6311    | 5/8-11 TOP LOCK NUT      |
| 5    | RD-4870     | CASTER TO GANG MOUNT     |
| 6    | BHY-6365    | 5/8-11 x 6-1/2 HHCS GD 8 |
| 7    | RD-4869     | TOP LINK                 |
| 8    | RD-4873     | BOTTOM LINK              |

| Item | Part Number | Description              |
|------|-------------|--------------------------|
| 9    | BH-5035     | 1/2-13 x 3-1/2 HHCS GD 5 |
| 10   | RD-4872     | CASTER ARM ASSY          |
| 11   | NLT-5013    | 1/2-13 TOP LOCK NUT      |
| 12   | RD-4877     | HUB & SPINDLE            |
| 13   | RD-4867     | CASTER THRUST WASHER     |
| 14   | RD-4876     | CASTER WASHER            |
| 15   | GZ-2528     | GREASE FITTING           |
| 16   | RD-4871     | CASTER VERTICAL PIVOT    |
| 17   | RD-4868     | CASTER BUSHING           |

## Gauge Wheel for CB-4200 Series

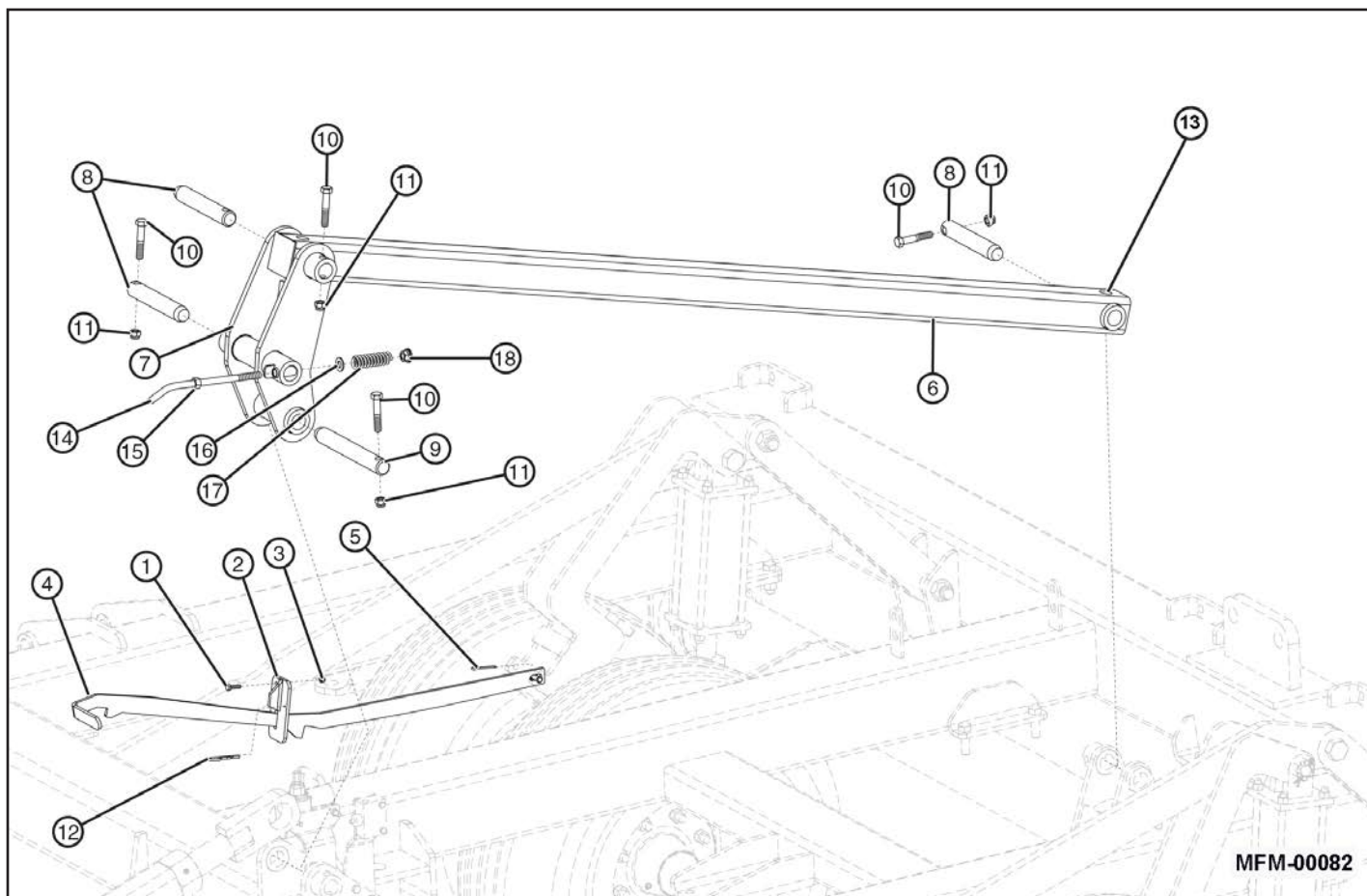


| Item | Part Number | Description         |
|------|-------------|---------------------|
| 1    | CP-3620     | COTTER PIN          |
| 2    | HYO-2008    | RATCHET             |
| 3    | NLT-6311    | 5/8-11 TOP LOCK NUT |
| 4    | BU-5848     | U-BOLT              |
| 5    | RD-4906     | GAUGE WHEEL ASSY    |
| 6    | 20.5-8 10TR | TIRE WHEEL ASSY     |
| 7    | WN-0050     | LUG NUT             |
| 8    | HD-1149     | CYLINDER PIN        |
| 9    | RD-4877     | HUB & SPINDLE ASSY  |
| 10   | RD-4881     | HUB ASSY            |
| 11   | RD-4883     | SPINDLE             |

| Item | Part Number | Description   |
|------|-------------|---------------|
| 12   | RD-4880     | HUB SEAL      |
| 13   | RD-4884     | INNER BEARING |
| 14   | RD-5114     | INNER RACE    |
| 15   | RD-4878     | HUB W/ RACES  |
| 16   | WN-0050     | WHEEL NUT     |
| 17   | HD-1182     | OUTER RACE    |
| 18   | RD-4879     | OUTER BEARING |
| 19   | HD-1164     | WASHER        |
| 20   | HD-1165     | CASTLE NUT    |
| 21   | CP-3620     | COTTER PIN    |
| 22   | RD-4882     | DUST CAP      |



## Level Lift and Cylinder Lock for CB-4200 Series

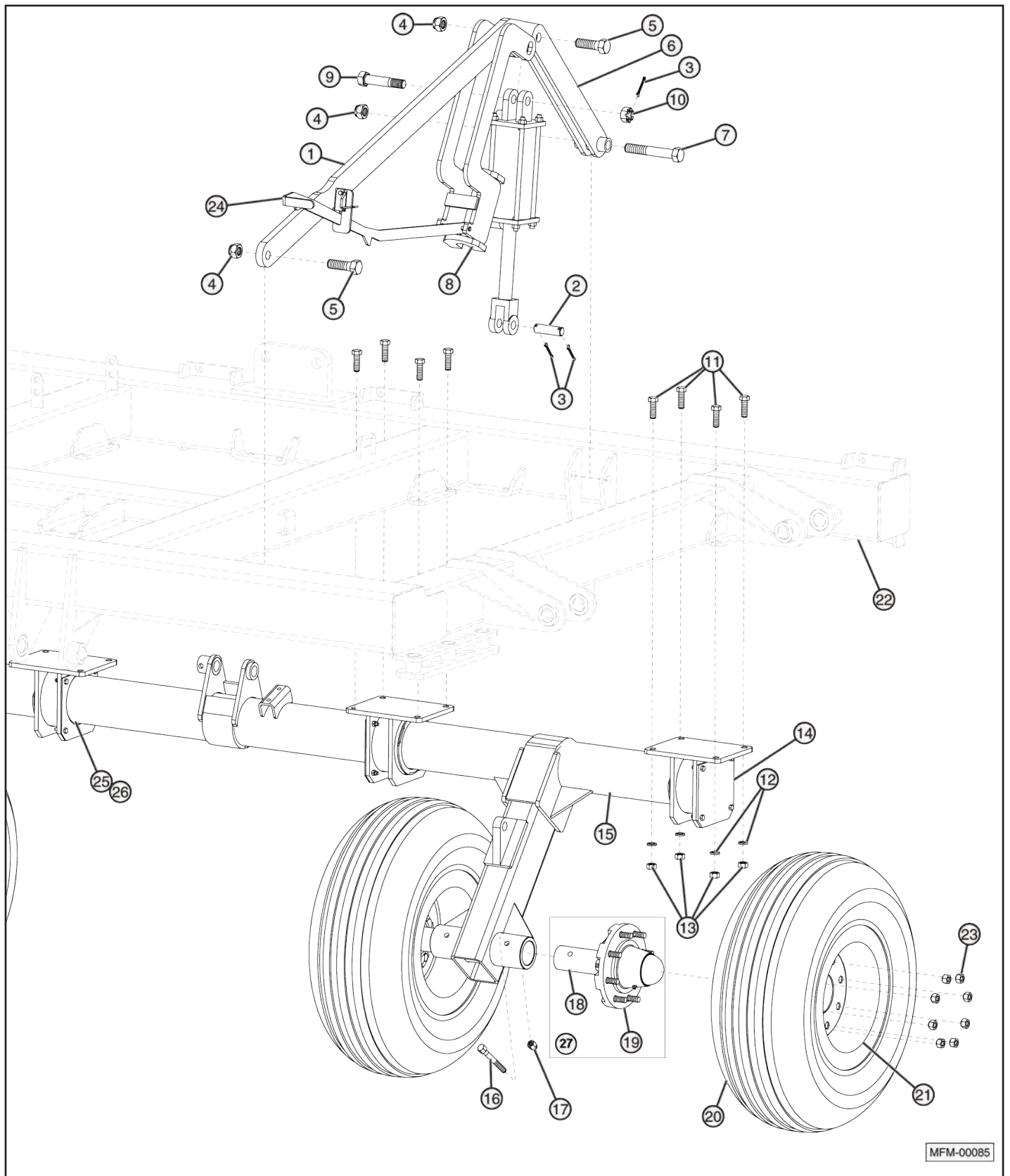


MFM-00082

| Item | Part Number | Description                        |
|------|-------------|------------------------------------|
| 1    | BH-2510     | 1/4 - 20 X 1 GRADE 5 HEX BOLT      |
| 2    | HYS-1104    | CYLINDER LOCK HANDLE LOCK          |
| 3    | NLT-2520    | 1/4 - 20 TOP LOCK NUT              |
| 4    | HYS-1103    | CYLINDER LOCK HANDLE               |
| 5    | CP-1810     | COTTER PIN, 1/8 X 1                |
| 6    | RT-3109     | LEVEL LIFT REAR TUBE               |
| 7    | RD-4912     | LEVEL LIFT PIVOT PLATE             |
| 8    | RT-2124     | LEVEL LIFT TUBE PIN, 1-1/4 X 7-1/2 |
| 9    | RT-3107     | PIVOT PLATE PIN, 1-1/4 X 9-1/2     |
| 10   | BH-5028     | 1/2-13X 2-3/4 GRADE 5 HEX BOLT     |

| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 11   | NLT-5013    | 1/2-13 TOP LOCK NUT             |
| 12   | PB-0009     | BRIDGE PIN #9                   |
| 13   | GZ-2528     | GREASE FITTING, 1/4-28 STRAIGHT |
| 14   | RD-4914     | HYDRAULIC STOP CRANK            |
| 15   | NH-5020     | 1/2-20 NUT                      |
| 16   | RD-5060     | LEVELER SPRING BASE             |
| 17   | RD-4355     | LEVELER SPRING                  |
| 18   | RD-5059     | LEVELER SPRING END              |

# Main Frame Axle for CB-4212, 4214, 4220, 4225 and 4230



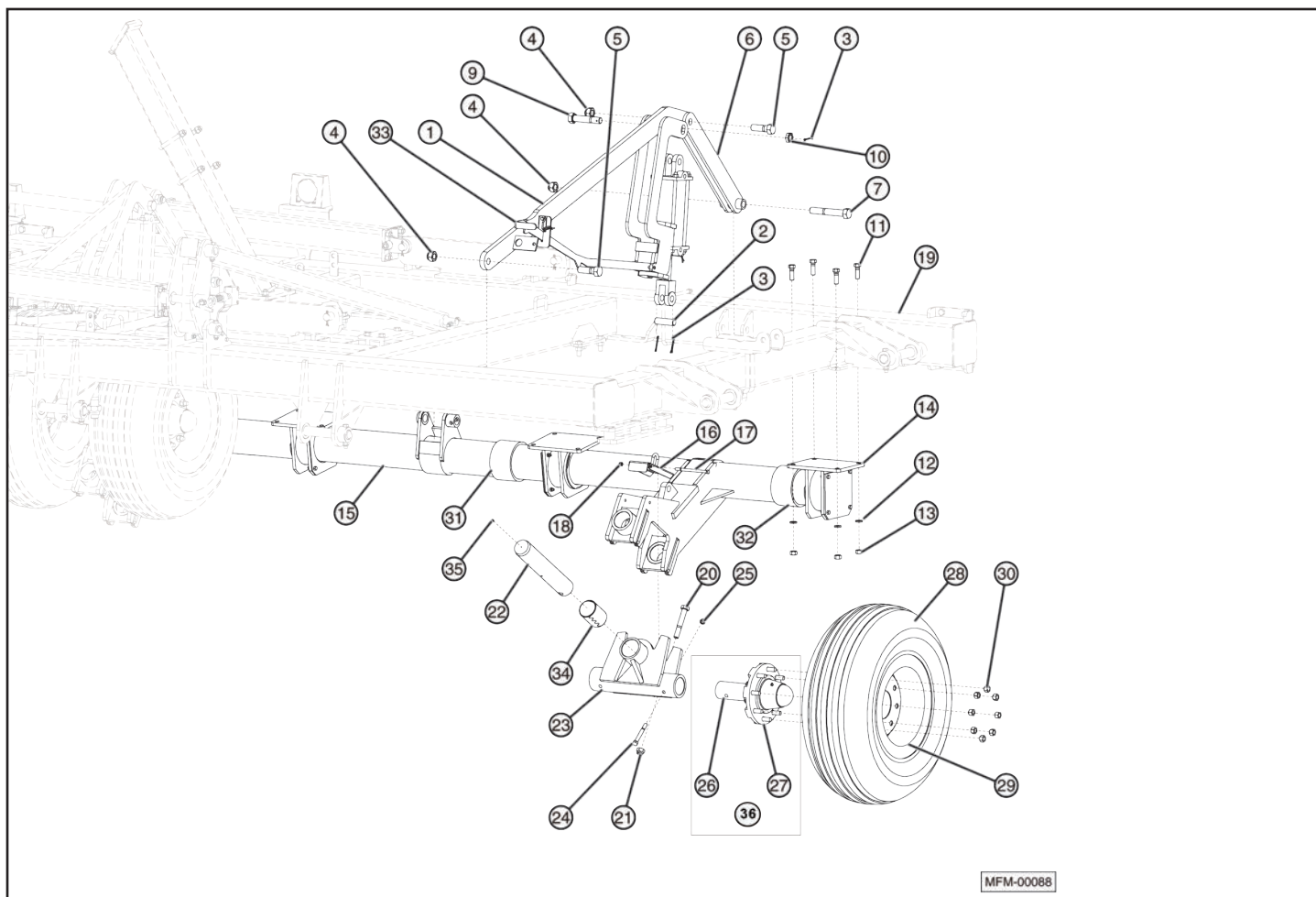
## Main Frame Axle for CB-4212, 4214, 4220, 4225 and 4230 (continued)

| Item            | Part Number                              | Description                                                                                                                                                                                 |
|-----------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | RD-4361                                  | MAIN AXLE CYLINDER ARM                                                                                                                                                                      |
| 2               | HYO-2103                                 | CYLINDER CLEVIS PIN, 1 X 3                                                                                                                                                                  |
| 3               | CP-3620                                  | 3/16 X 2 COTTER PIN                                                                                                                                                                         |
| 4               | NLT-1008                                 | 1-8 TOP LOCK NUT                                                                                                                                                                            |
| 5               | BHY-1033                                 | 1-8 X 3-1/4 GRADE 8 HEX BOLT                                                                                                                                                                |
| 6               | RD-4360                                  | MAIN AXLE CYLINDER TRUSS                                                                                                                                                                    |
| 7               | BHY-1065                                 | 1-8 X 6-1/2 GRADE 8 HEX BOLT                                                                                                                                                                |
| 8               | HYS-1102                                 | CYLINDER LOCK, RD TRANSPORT                                                                                                                                                                 |
| 9               | HYS-1112                                 | 1-8 X 5 GRADE 8 HEX BOLT W/PIN HOLE                                                                                                                                                         |
| 10              | NCJ-1008                                 | 1" CASTLE JAM NUT                                                                                                                                                                           |
| 11              | BH-6320                                  | 5/8-11 X 2 GRADE 5 HEX BOLT                                                                                                                                                                 |
| 12              | LW-0063                                  | 5/8 LOCK WASHER                                                                                                                                                                             |
| 13              | NH-6311                                  | 5/8-11 HEX NUT                                                                                                                                                                              |
| 14              | RD-4626<br>QT-1133<br>QT-1132            | AXLE MOUNT BRACKET<br>AXLE MOUNT INSERT<br>AXLE MOUNT CAP                                                                                                                                   |
| 15              | RD-5047<br>RD-5048<br>RD-5049<br>RD-5050 | MAIN AXLE ASSEMBLY (4212)<br>MAIN AXLE ASSEMBLY (4214)<br>MAIN AXLE ASSEMBLY (4220)<br>MAIN AXLE ASSEMBLY (4225-4230)                                                                       |
| 16              | BH-5040<br>BH-5045                       | 1/2" - 13 X 4 HEX BOLT (4212,4214)<br>1/2" - 13 X 4-1/2 HEX BOLT (4220, 4225,4230)                                                                                                          |
| 17              | NLT-5013                                 | 1/2" - 13 TOP LOCK NUT                                                                                                                                                                      |
| 18              | WDL-2505<br>RT-2170<br>RT-3180           | SPINDLE, 1 3/4 X 9 1/2 (4212-4216)<br>SPINDLE, 2 1/4 X 11 1/2 (4220)<br>SPINDLE, 2 3/4 X 12 1/2 (4225-4230)                                                                                 |
| 19 <sup>1</sup> | HD-1371<br>RT-2171<br>RT-3181            | 6 BOLT HUB ASSEMBLY, 3560 LB (4212-4214)<br>8 BOLT HUB ASSEMBLY, 4500 LB (4220)<br>8 BOLT HUB ASSEMBLY, 6000 LB (4225-4230)                                                                 |
| 20              | 12614<br>12616<br>12490<br>12615         | ASM, TIRE/RIM, IF320/70R15 (4212-4214 and ALL WINGS)<br>ASM, TIRE/RIM, IF320/70R15(4220-4235)<br>TIRE ONLY, 11L – 15, 8 PLY (4212-4214 and ALL WINGS)<br>TIRE ONLY, IF320/70R15 (4220-4235) |
| 21              | HD-1368<br>RT-2179                       | RIM, 15 X 8, 6-BOLT, 2900 LB (4212-4214)<br>RIM, 15 X 10, 8 BOLT, 5000 LB (4220-4230)                                                                                                       |
| 22              | 15211<br>15171<br>15150<br>15071         | MAIN FRAME (4212)<br>MAIN FRAME (4214)<br>MAIN FRAME (4220)<br>MAIN FRAME (4225-4230)                                                                                                       |
| 23              | WN-0063<br>WB-5010                       | WHEEL NUTS 5/8<br>WHEEL BOLT-1/2 x 1-3/4                                                                                                                                                    |
| 24              | HYS-1103                                 | CYLINDER LOCK HANDLE                                                                                                                                                                        |
| 25              | QT-1133                                  | AXLE MOUNT INSERT                                                                                                                                                                           |
| 26              | QT-1173                                  | AXLE MOUNT INSERT, SPLIT                                                                                                                                                                    |
| 27              | WDL-2507<br>RT-2175<br>RT-3185           | HUB AND SPINDLE ASSEMBLY (4212, 4214)<br>HUB AND SPINDLE ASSEMBLY (4220)<br>HUB AND SPINDLE ASSEMBLY (4225, 4230)                                                                           |

<sup>1</sup>See hub diagram for details



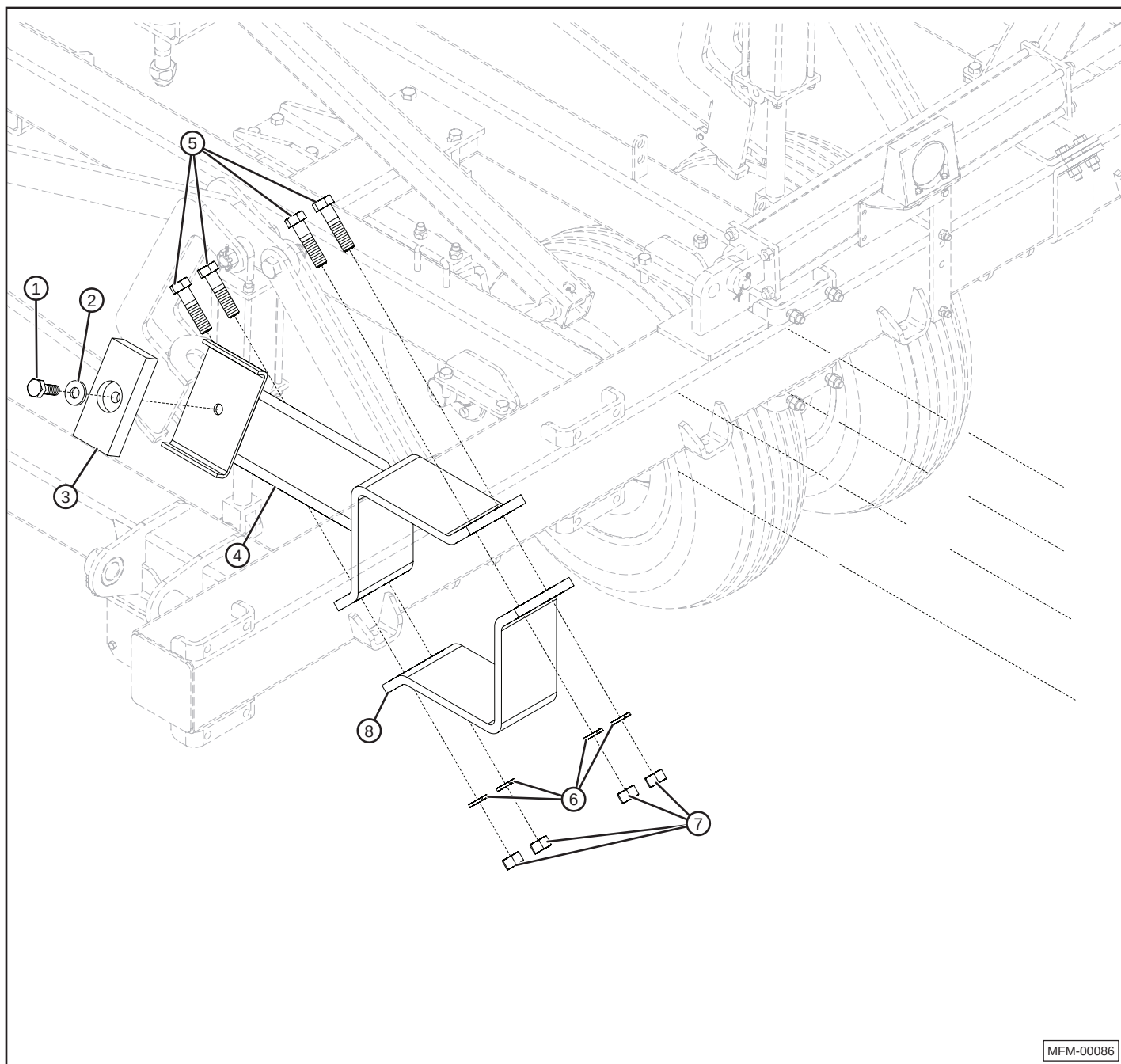
## Main Frame Axle for CB-4235 and 4245



| Item | Part Number                   | Description                                                    |
|------|-------------------------------|----------------------------------------------------------------|
| 1    | RD-4361<br>RD-4637            | MAIN AXLE CYLINDER ARM (4235)<br>MAIN AXLE CYLINDER ARM (4245) |
| 2    | HYO-2103                      | CYLINDER CLEVIS PIN, 1 X 3                                     |
| 3    | CP-3620                       | 3/16 X 2 COTTER PIN                                            |
| 4    | NLT-1008                      | 1-8 TOP LOCK NUT                                               |
| 5    | BHY-1033                      | 1-8 X 3-1/4 GRADE 8 HEX BOLT                                   |
| 6    | RD-4360                       | MAIN AXLE CYLINDER TRUSS                                       |
| 7    | BHY-1065                      | 1-8 X 6-1/2 GRADE 8 HEX BOLT                                   |
| 8    | HYS-1102                      | CYLINDER LOCK, RD TRANSPORT                                    |
| 9    | HYS-1112                      | 1-8 X 5 GRADE 8 HEX BOLT W/PIN HOLE                            |
| 10   | NCJ-1008                      | 1" CASTLE JAM NUT                                              |
| 11   | BH-6320                       | 5/8-11 X 2 GRADE 5 HEX BOLT                                    |
| 12   | LW-0063                       | 5/8 LOCK WASHER                                                |
| 13   | NH-6311                       | 5/8-11 HEX NUT                                                 |
| 14   | RD-4626<br>QT-1133<br>QT-1132 | AXLE MOUNT BRACKET<br>AXLE MOUNT INSERT<br>AXLE MOUNT CAP      |
| 15   | RD-5051<br>RD-5053            | MAIN AXLE ASSEMBLY (4235)<br>MAIN AXLE ASSEMBLY (4245)         |
| 16   | RD-4433<br>RD-4715            | CARRIAGE COVER PLATE (4235)<br>CARRIAGE COVER PLATE (4245)     |
| 17   | BH-3860                       | 3/8-16 X 6 GRADE 5 HEX BOLT                                    |

|    |                                       |                                                                                                                                   |
|----|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 18 | NLT-3816                              | 3/8-16 TOP LOCK NUT                                                                                                               |
| 19 | 15130<br>15386                        | MAIN FRAME (4235)<br>MAIN FRAME (4245)                                                                                            |
| 20 | BH-7550                               | 3/4-10 X 5 GRADE 5 HEX BOLT                                                                                                       |
| 21 | NLT-7510                              | 3/4 TOP LOCK NUT                                                                                                                  |
| 22 | RD-4644                               | AXLE CARRIAGE PIVOT PIN                                                                                                           |
| 23 | 13094<br>RD-4642                      | AXLE CARRIAGE ASSEMBLY (4235)<br>AXLE CARRIAGE ASSEMBLY (4245)                                                                    |
| 24 | BH-5050                               | 1/2-13 X 5 HEX BOLT                                                                                                               |
| 25 | NLT-5013                              | 1/2-13 TOP LOCK NUT                                                                                                               |
| 26 | RD-4416                               | SPINDLE, 3 X 12-1/2                                                                                                               |
| 27 | RD-4580                               | 8 BOLT HUB ASSEMBLY, 7500 LB                                                                                                      |
| 28 | 12616<br>12615<br>—<br>36x16-17.5 14T | ASM, TIRE/RIM, IF320/70R15 (4235)<br>TIRE, IF320/70R15 (4235)<br>ASM, TIRE/RIM (4245)<br>TIRE ONLY, 36x16-17.5 14T, 14 PLY (4245) |
| 29 | RT-2179<br>RD-4645                    | RIM, 15 X 10, 8 BOLT, 5000 LB (4235)<br>RIM, 17.5 X 10.5, 8-BOLT, 8000 LB (4245)                                                  |
| 30 | WN-0063                               | WHEEL NUTS 5/8                                                                                                                    |
| 31 | QT-1173                               | AXLE MOUNT INSERT SPLIT                                                                                                           |
| 32 | QT-1133                               | AXLE MOUNT INSERT                                                                                                                 |
| 33 | HYS-1103                              | LOCK HANDLE                                                                                                                       |
| 34 | RD-4643                               | SPRING BUSHING                                                                                                                    |
| 35 | GZ-2528                               | GREASE ZERK                                                                                                                       |
| 36 | RD-4417                               | HUB AND SPINDLE ASSEMBLY (4235,4245)                                                                                              |

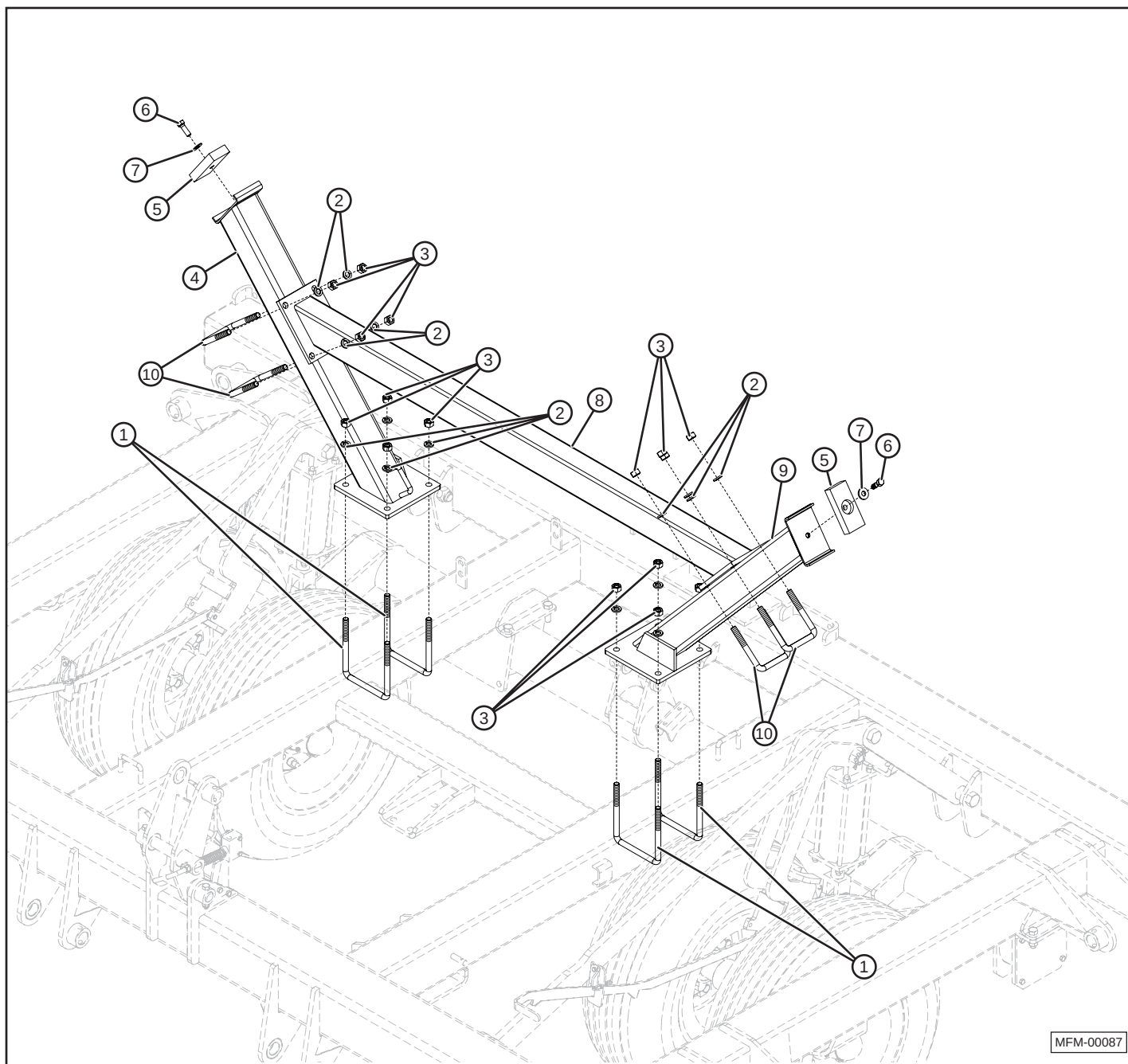
## Wing Rest for CB-4220



MFM-00086

| Item | Part Number        | Description                                           |
|------|--------------------|-------------------------------------------------------|
| 1    | BH-5015            | 1/2 – 13 X 1-1/2 GRADE 5 HEX BOLT                     |
| 2    | FW-0050            | WASHER, FLAT, 1/2                                     |
| 3    | RT-3415            | WING REST BUMPER                                      |
| 4    | RD-4488<br>RD-4489 | WING REST, LEFT HAND (SHOWN)<br>WING REST, RIGHT HAND |
| 5    | BH-6325            | 5/8-11 X 2-1/2 GRADE 5 HEX BOLT                       |
| 6    | LW-0063            | 5/8 LOCK WASHER                                       |
| 7    | NH-6311            | 5/8-11 HEX NUT                                        |
| 8    | SPR-2752           | WING REST CLAMP                                       |

## Wing Rest for CB-4225, 4230 and 4235



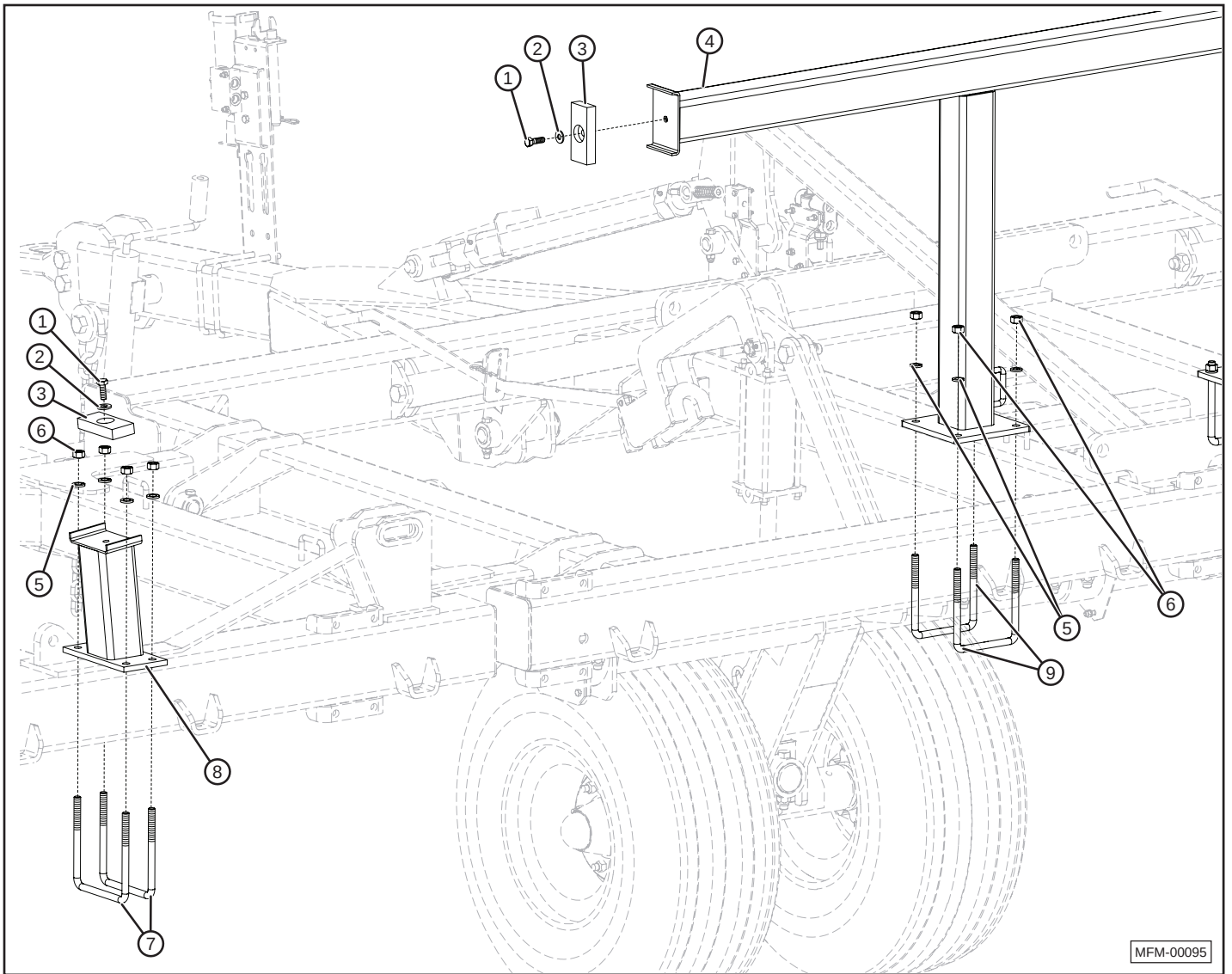
MFM-00087

| Item | Part Number                   | Description                                                                                              |
|------|-------------------------------|----------------------------------------------------------------------------------------------------------|
| 1    | BU-5867                       | 5/8-11 X 6 X 7-1/2 U-BOLT                                                                                |
| 2    | LW-0063                       | 5/8 LOCK WASHER                                                                                          |
| 3    | NH-6311                       | 5/8-11 HEX NUT                                                                                           |
| 4    | RD-4620<br>RT-3434<br>RD-4621 | WING REST ASSEMBLY, RIGHT (4225)<br>WING REST ASSEMBLY, RIGHT (4230)<br>WING REST ASSEMBLY, RIGHT (4235) |
| 5    | RT-3415                       | WING REST BUMPER                                                                                         |
| 6    | BH-5015                       | 1/2-13X 1-1/2 GRADE 5 HEX BOLT                                                                           |
| 7    | FW-0050                       | WASHER, FLAT, 1/2                                                                                        |

| Item | Part Number                   | Description                                                                                           |
|------|-------------------------------|-------------------------------------------------------------------------------------------------------|
| 8    | RD-4483<br>RT-3433<br>RD-4487 | WING REST BRACE (4225)<br>WING REST BRACE (4230)<br>WING REST BRACE (4235)                            |
| 9    | RD-4482<br>RT-3432<br>RD-4486 | WING REST ASSEMBLY, LEFT (4225)<br>WING REST ASSEMBLY, LEFT (4230)<br>WING REST ASSEMBLY, LEFT (4235) |
| 10   | BU-5845                       | 5/8-11 X 4 X 5-1/2 U-BOLT                                                                             |



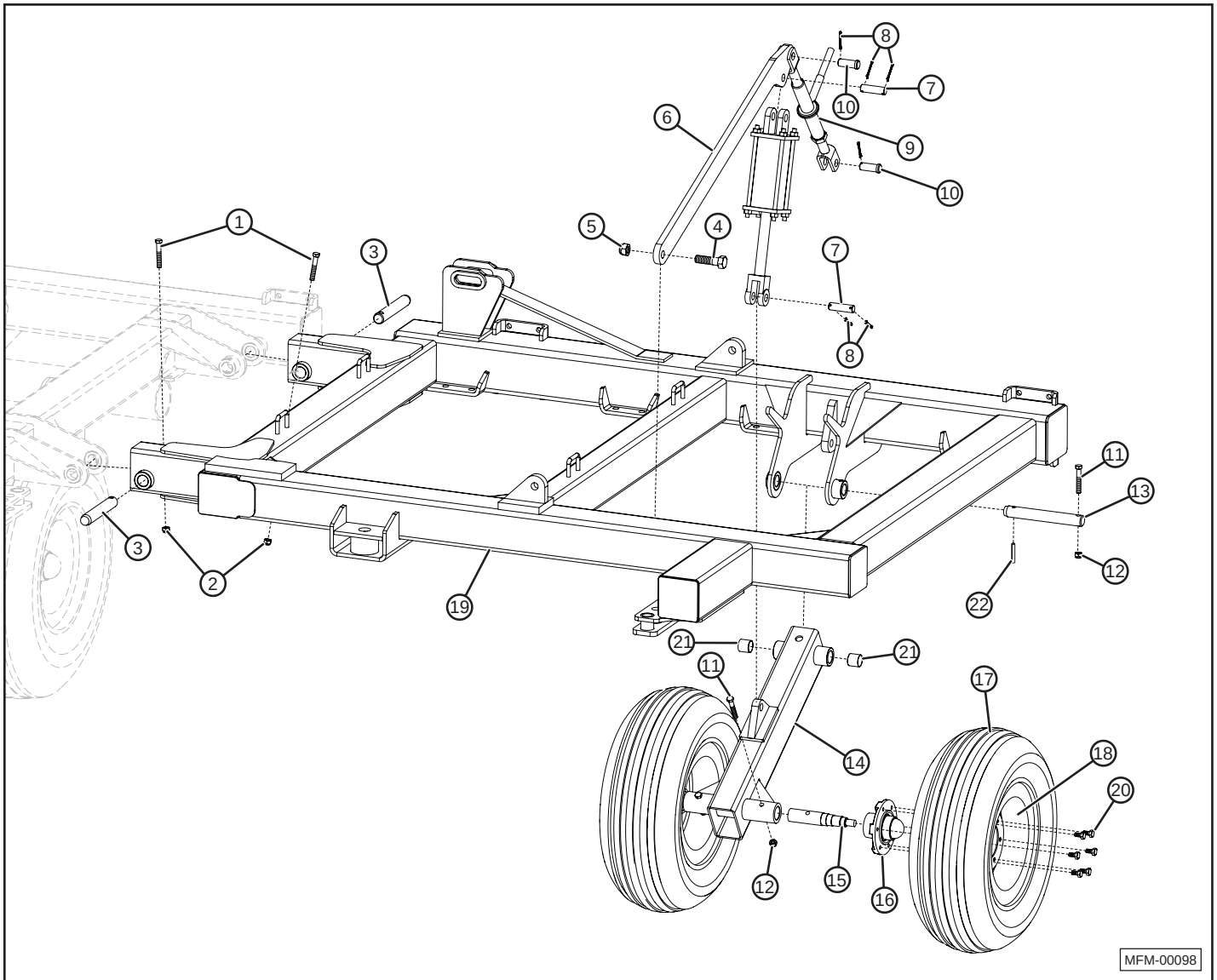
## Wing Rest for CB-4245



MF000095

| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 1    | BH-5015     | 1/2-13 X 1-1/2 GRADE 5 HEX BOLT |
| 2    | FW-0050     | WASHER, FLAT, 1/2               |
| 3    | RT-3415     | WING REST BUMPER                |
| 4    | RD-4636     | WING REST (4245)                |
| 5    | LW-0063     | 5/8 LOCK WASHER                 |
| 6    | NH-6311     | 5/8-11 HEX NUT                  |
| 7    | BU-5879     | 5/8-11 X 7 X 8-1/2 U-BOLT       |
| 8    | RD-4577     | WING REST, OUTSIDE              |
| 9    | BU-5867     | 5/8-11 X 6 X 7-1/2 U-BOLT       |

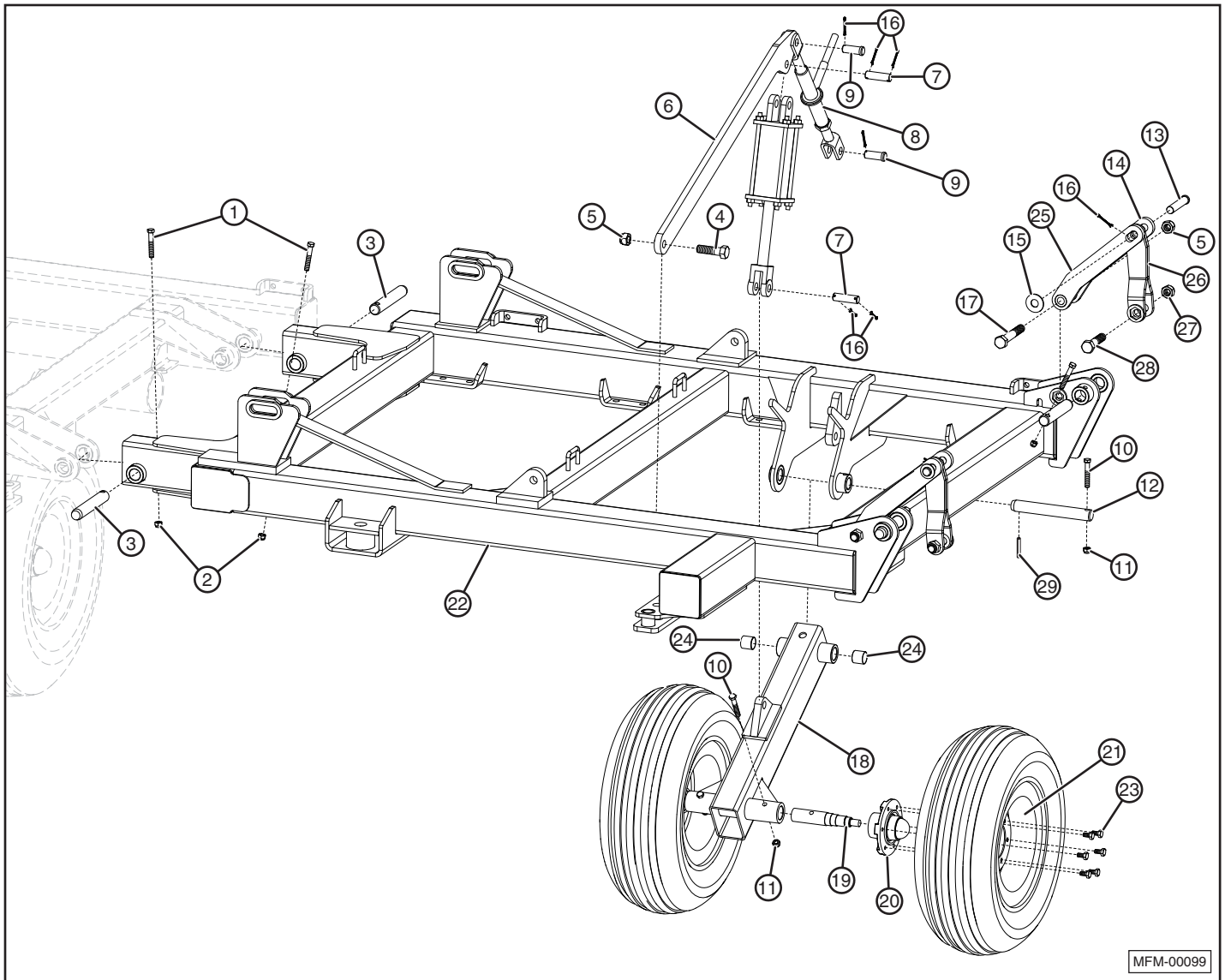
## Wing Frame for CB-4220, 4225, 4230 and 4235



| Item | Part Number | Description                           |
|------|-------------|---------------------------------------|
| 1    | BHY-5635    | 9/16-12 X 3-1/2 GRADE 8 BOLT          |
| 2    | NLT-5612    | 9/16-12 TOP LOCK NUT                  |
| 3    | RT-2107     | WING HINGE PIN, 1-1/2 X 9-5/8         |
| 4    | BHY-1033    | 1-8 X 3-1/4 GRADE 8 HEX BOLT          |
| 5    | NLT-1008    | 1-8 TOP LOCK NUT                      |
| 6    | RD-4624     | WING AXLE CYLINDER ARM                |
| 7    | HYO-2103    | CYLINDER CLEVIS PIN, 1 X 3            |
| 8    | CP-3620     | 3/16 X 2 COTTER PIN                   |
| 9    | HYO-2008    | RATCHET JACK, 8" STROKE               |
| 10   | HD-1149     | 1 X 2-1/2 CLEVIS PIN                  |
| 11   | BHY-5635    | 9/16-12 X 3-1/2 GRADE 8 BOLT          |
| 12   | NLT-5612    | 9/16-12 TOP LOCK NUT                  |
| 13   | RD-5061     | WING AXLE PIVOT PIN                   |
| 14   | RD-4888     | WING AXLE ASSEMBLY, DUAL (all models) |
| 15   | WDL-2505    | SPINDLE, 1-3/4 X 9-1/2                |
| 16   | HD-1371     | 6-HOLE HUB ASSEMBLY                   |

| Item | Part Number                                                          | Description                                                                                                                                                                                                              |
|------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17   | 12616<br>12615                                                       | ASM, TIRE/RIM, IF320/70R15<br>TIRE ONLY, IF320/70R15                                                                                                                                                                     |
| 18   | HD-1368                                                              | RIM, 15 X 8, 6-BOLT, 2900 LB                                                                                                                                                                                             |
| 19   | 15151<br>15152<br>15056<br>15093<br>14030<br>15114<br>13500<br>13501 | WING FRAME, LEFT (4220)<br>WING FRAME, RIGHT (4220)<br>WING FRAME, LEFT (4225)<br>WING FRAME, RIGHT (4225)<br>WING FRAME, LEFT (4230)<br>WING FRAME, RIGHT (4230)<br>WING FRAME, LEFT (4235)<br>WING FRAME, RIGHT (4235) |
| 20   | WB-5010                                                              | WHEEL BOLTS, 1/2-20 X 1-3/4                                                                                                                                                                                              |
| 21   | RD-4889                                                              | BUSHING                                                                                                                                                                                                                  |
| 22   | RD-5062                                                              | ROLL PIN, 1/2 X 2-1/2                                                                                                                                                                                                    |

## Wing Frame, Inside for CB-4245

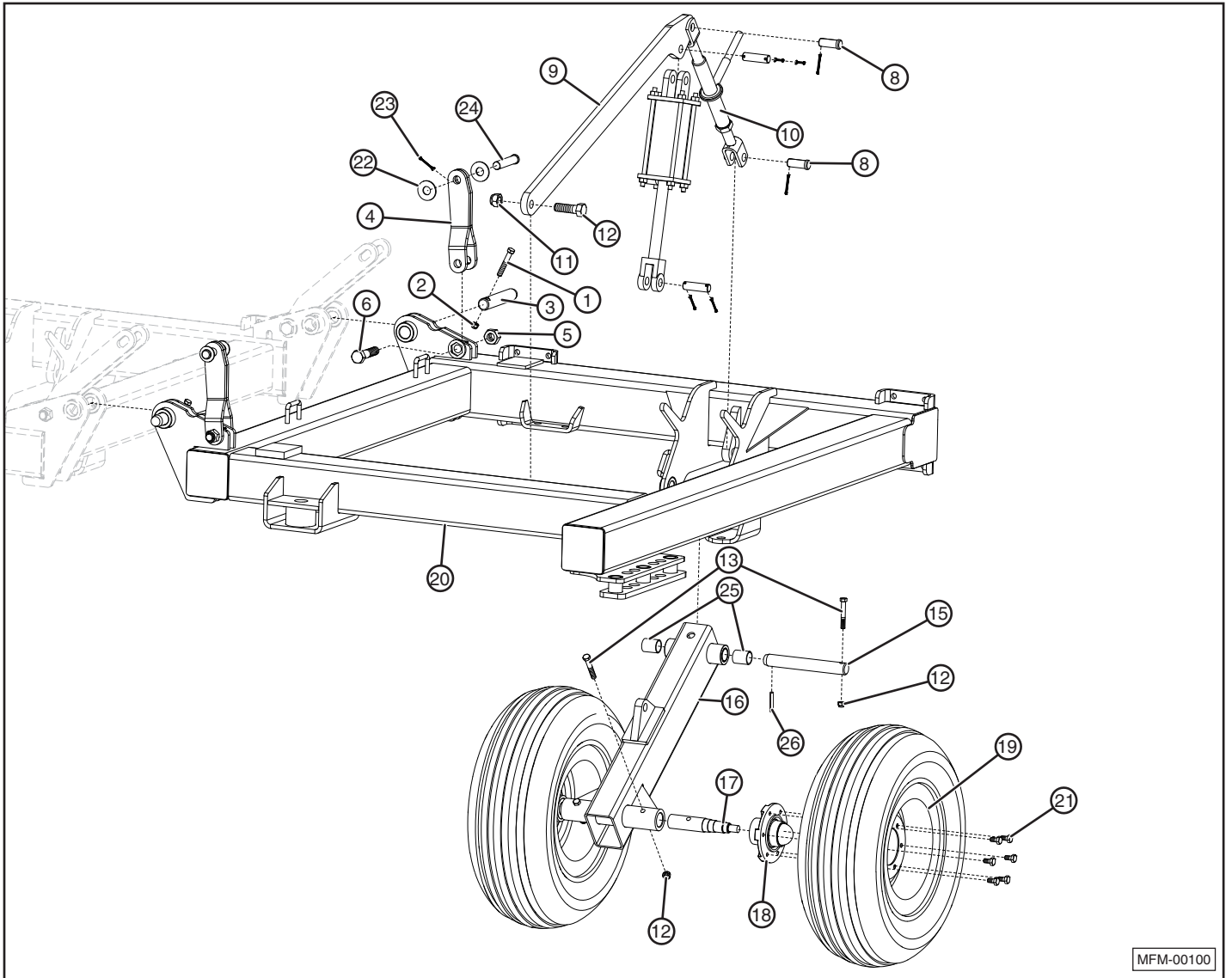


| Item | Part Number | Description                   |
|------|-------------|-------------------------------|
| 1    | BHY-5635    | 9/16-12 X 3-1/2 GRADE 8 BOLT  |
| 2    | NLT-5612    | 9/16-12 TOP LOCK NUT          |
| 3    | RT-2107     | WING HINGE PIN, 1-1/2 X 9-5/8 |
| 4    | BHY-1033    | 1-8 X 3-1/4 GRADE 8 HEX BOLT  |
| 5    | NLT-1008    | 1-8 TOP LOCK NUT              |
| 6    | RD-4624     | WING AXLE CYLINDER ARM        |
| 7    | HYO-2103    | CYLINDER CLEVIS PIN, 1 X 3    |
| 8    | HYO-2008    | RATCHET JACK, 8" STROKE       |
| 9    | HD-1149     | 1 X 2-1/2 CLEVIS PIN          |
| 10   | BHY-5635    | 9/16-12 X 3-1/2 GRADE 8 BOLT  |
| 11   | NLT-5612    | 9/16-12 TOP LOCK NUT          |
| 12   | RD-5061     | WING AXLE PIVOT PIN           |
| 13   | CL-1005     | PIN, CLEVIS, 1 X 5            |
| 14   | RD-4423     | WING LINKAGE ASSEMBLY         |
| 15   | FWP-0100    | 1" PLAIN FLAT WASHER          |
| 16   | CP-3620     | 3/16 X 2 COTTER PIN           |
| 17   | BHY-1065    | 1-8 X 6-1/2 GRADE 8 HEX BOLT  |

| Item | Part Number               | Description                                                                             |
|------|---------------------------|-----------------------------------------------------------------------------------------|
| 18   | RD-4888                   | WING AXLE, DUAL                                                                         |
| 19   | WDL-2505                  | WING AXLE SPINDLE                                                                       |
| 20   | HD-1371                   | 6-HOLE HUB ASSEMBLY                                                                     |
| 21   | HD-1368<br>12614<br>12490 | RIM, 15X8, 6 BOLT, 2900 LB.<br>ASM, TIRE/RIM, IF320/70R15<br>TIRE ONLY, 11L - 15, 8 PLY |
| 22   | 15387<br>15388            | WING FRAME ASSEMBLY, LEFT INSIDE<br>WING FRAME ASSEMBLY, RIGHT INSIDE                   |
| 23   | WB-5010                   | WHEEL BOLTS, 1/2-20 X 1-3/4                                                             |
| 24   | RD-4889                   | BUSHING                                                                                 |
| 25   | RD-4423                   | ARM                                                                                     |
| 26   | RD-4425<br>RD-4426        | LEVER, LH<br>LEVER, RH                                                                  |
| 27   | NLT-1008                  | 1-8 TOP LOCK NUT                                                                        |
| 28   | BHY-1065                  | 1-8 X 6-1/2 GRADE 8 HEX BOLT                                                            |
| 29   | RD-5062                   | ROLL PIN, 1/2 X 2-1/2                                                                   |



## Wing Frame, Outside for CB-4245

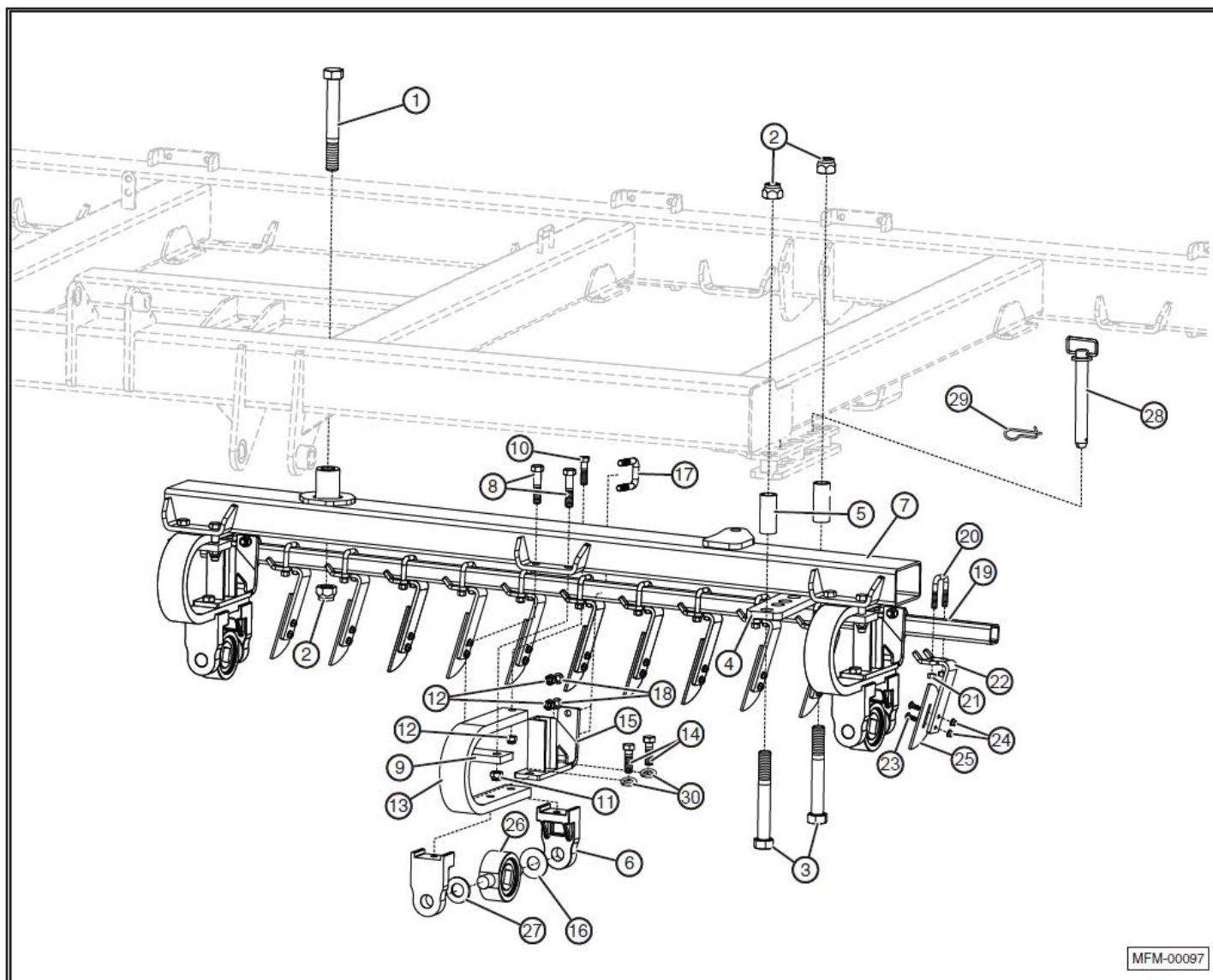


MFM-00100

| Item | Part Number        | Description                                 |
|------|--------------------|---------------------------------------------|
| 1    | BHY-5635           | 9/16-12 X 3-1/2 GRADE 8 BOLT                |
| 2    | NLT-5612           | 9/16-12 TOP LOCK NUT                        |
| 3    | SPR-2712           | HINGE PIN, 1-1/2 X 8-1/4                    |
| 4    | RD-4425<br>RD-4426 | WING FOLD ARM, LEFT<br>WING FOLD ARM, RIGHT |
| 5    | NLT-1008           | 1-8 TOP LOCK NUT                            |
| 6    | BHY-1045           | 1- 8 X 4-1/2 GRADE 8 HEX BOLT               |
| 7    | RD-4426            | WING FOLD ARM, RIGHT                        |
| 8    | HD-1149            | CLEVIS PIN, 1 x 2-1/2                       |
| 9    | RD-4624            | WING AXLE CYLINDER ARM                      |
| 10   | HYO-2008           | RATCHET JACK, 8" STROKE                     |
| 11   | NLT-1008           | 1-8 TOP LOCK NUT                            |
| 12   | NLT-5612           | 9/16-12 TOP LOCK NUT                        |
| 13   | BHY-5635           | 9/16-12 X 3-1/2 GRADE 8 BOLT                |
| 14   | NLT-5612           | 9/16-12 TOP LOCK NUT                        |

| Item | Part Number               | Description                                                                             |
|------|---------------------------|-----------------------------------------------------------------------------------------|
| 15   | RD-5061                   | WING AXLE PIVOT PIN                                                                     |
| 16   | RD-4888                   | WING AXLE ASSEMBLY, DUAL                                                                |
| 17   | WDL-2505                  | WING AXLE SPINDLE                                                                       |
| 18   | HD-1371                   | 6-HOLE HUB ASSEMBLY                                                                     |
| 19   | HD-1368<br>12614<br>12490 | RIM, 15X8, 6 BOLT, 2900 LB.<br>ASM, TIRE/RIM, IF320/70R15<br>TIRE ONLY, 11L - 15, 8 PLY |
| 20   | 15389<br>15390            | WING FRAME ASSEMBLY, LEFT OUTSIDE<br>WING FRAME ASSEMBLY, RIGHT OUTSIDE                 |
| 21   | WB-5010                   | WHEEL BOLTS, 1/2-20 X 1-3/4                                                             |
| 22   | FW-0100                   | WASHER                                                                                  |
| 23   | CP-3620                   | COTTER PIN                                                                              |
| 24   | CL-1005                   | CLEVIS PIN                                                                              |
| 25   | RD-4889                   | BUSHING                                                                                 |
| 26   | RD-5062                   | ROLL PIN, 1/2 X 2-1/2                                                                   |

## Disk Mount and Scrapers for CB-4200 Series



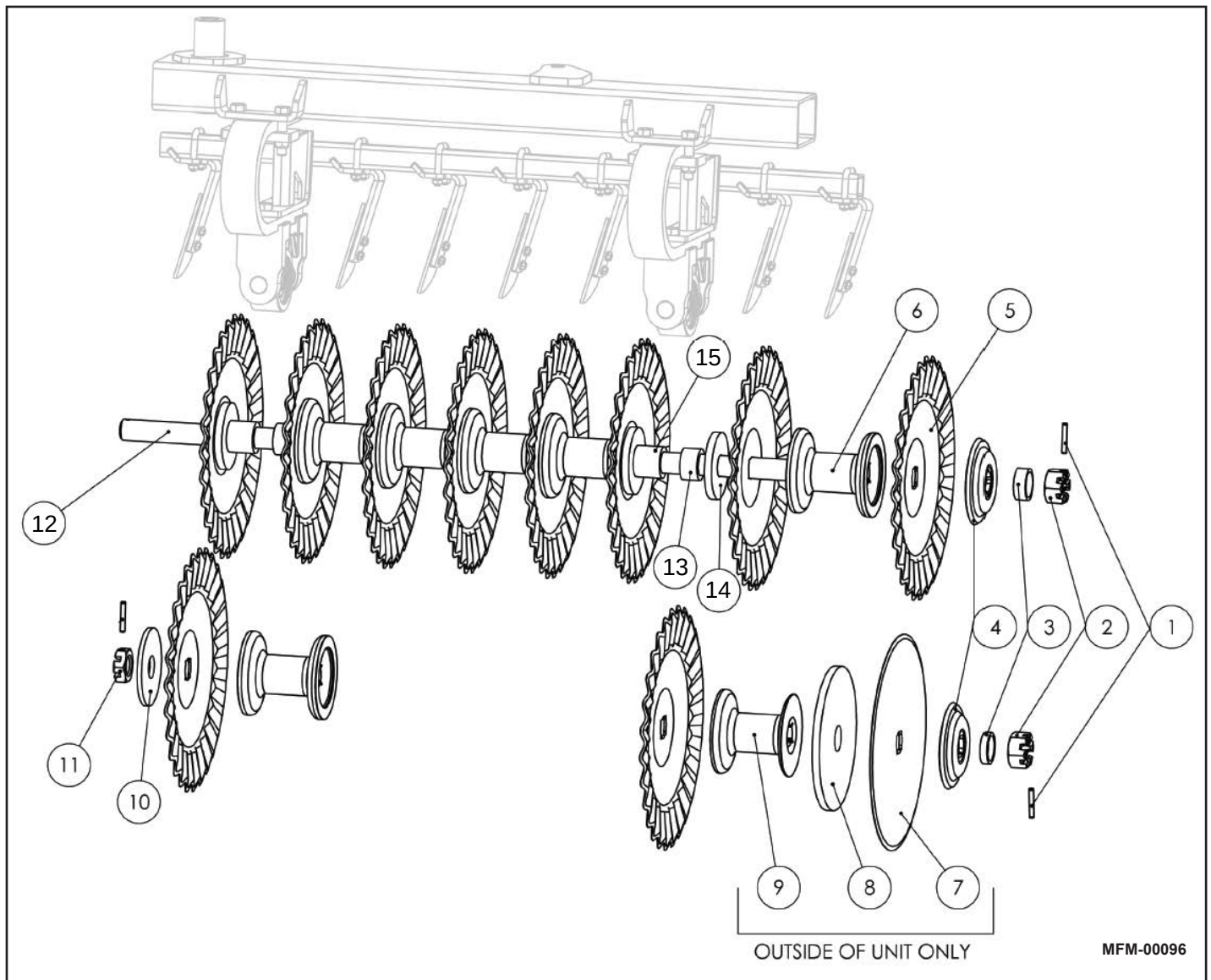
## Disk Mount and Scrapers for CB-4200 (continued)

| Item | Part Number                                                                                                                                                                                                                                                                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | BHY-1310                                                                                                                                                                                                                                                                        | 1-1/4-7 x 10 BOLT GD 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2    | NY-1307                                                                                                                                                                                                                                                                         | 1-1/4-7 NYLON LOCK NUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3    | BHY-1395                                                                                                                                                                                                                                                                        | 1-1/4-7 x 9-1/2 BOLT GD 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4    | RD-4890                                                                                                                                                                                                                                                                         | DISK ADJUST CLAMP GD 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5    | QT-1209                                                                                                                                                                                                                                                                         | SPACER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6    | QT-1081                                                                                                                                                                                                                                                                         | BEARING MOUNT, TRUNNION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 7    | RD-4950<br>RD-4951<br>RD-5043<br>RD-5044<br>RD-4952<br>RD-4954<br>RD-4955<br>RD-4956<br>RD-4957<br>RD-4896<br>RD-4913<br>RD-4922<br>RD-4926<br>RD-4904<br>RD-4910<br>RD-4958<br>RD-4959<br>RD-4960<br>RD-4961<br>RD-4962<br>RD-4963<br>RD-4964<br>RD-4965<br>RD-4966<br>RD-4967 | DISK MOUNT TUBE LT 4212<br>DISK MOUNT TUBE RT 4212<br>DISK MOUNT TUBE LT 4214<br>DISK MOUNT TUBE RT 4214<br>DISK MOUNT TUBE LT 4216<br>DISK MOUNT TUBE MAIN LT 4220<br>DISK MOUNT TUBE MAIN RT 4220<br>DISK MOUNT TUBE WING LT 4220<br>DISK MOUNT TUBE WING RT 4220<br>DISK MOUNT TUBE MAIN LT 4225-4230<br>DISK MOUNT TUBE MAIN RT 4225-4230<br>DISK MOUNT TUBE WING LT 4225<br>DISK MOUNT TUBE WING RT 4225<br>DISK MOUNT TUBE WING LT 4230<br>DISK MOUNT TUBE WING RT 4230<br>DISK MOUNT TUBE MAIN LT 4235<br>DISK MOUNT TUBE MAIN RT 4235<br>DISK MOUNT TUBE WING LT 4235<br>DISK MOUNT TUBE WING RT 4235<br>DISK MOUNT TUBE MAIN LT 4245<br>DISK MOUNT TUBE MAIN RT 4245<br>DISK MOUNT TUBE WING LT 4245<br>DISK MOUNT TUBE WING RT 4245<br>DISK MOUNT TUBE WING LT OUTSIDE 4245<br>DISK MOUNT TUBE WING RT OUTSIDE 4245 |
| 8    | BHY-7535                                                                                                                                                                                                                                                                        | 3/4-10 X 3-1/2 GRADE 8 HEX BOLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 9    | RT-2611                                                                                                                                                                                                                                                                         | DISK SPRING CLAMP PLATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10   | BH-6325                                                                                                                                                                                                                                                                         | 5/8-11 X 2-1/2 GRADE 5 HEX BOLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 11   | NLT-7510                                                                                                                                                                                                                                                                        | 3/4-10 TOP LOCK NUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 12   | NLT-6311                                                                                                                                                                                                                                                                        | 5/8-11 TOP LOCK NUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 13   | RD-4470                                                                                                                                                                                                                                                                         | DISK GANG SPRING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 14   | BHY-7525                                                                                                                                                                                                                                                                        | 3/4-10 x 2-1/2 BOLT GD 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15   | RD-4895                                                                                                                                                                                                                                                                         | SCRAPER MOUNT BRACKET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 16   | RD-4842                                                                                                                                                                                                                                                                         | DISK END SPACER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Item | Part Number                                                                                                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17   | BU-5823                                                                                                                                             | 5/8-11 x 2 x 3 U-BOLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 18   | LW-0063                                                                                                                                             | 5/8 LOCK WASHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 19   | RD-4969<br>RD-4897<br>RD-4971<br>RD-4974<br>RD-4972<br>RD-4897<br>RD-4971<br>RD-4917<br>RD-4917<br>RD-4971<br>RD-4974<br><br>RD-4917<br><br>RD-4969 | 11 SCRAPER TUBE LT & RT 4212<br>12 SCRAPER TUBE LT & RT 4214<br>9 SCRAPER TUBE LT & RT MAIN 4220<br>8 SCRAPER TUBE LT & RT WING 4220<br>7 SCRAPER TUBE RT WING 4220<br>12 SCRAPER TUBE LT & RT MAIN 4225 & 4230<br>9 SCRAPER TUBE LT & RT WING 4225<br>14 SCRAPER TUBE LT & RT WING 4230<br>14 SCRAPER TUBE LT & RT MAIN 4235<br>9 SCRAPER TUBE LT & RT INSIDE WING 4235<br>8 SCRAPER TUBE LT & RT OUTSIDE WING 4235<br><br>14 SCRAPER TUBE LT & RT MAIN/INSIDE WING 4245<br>11 SCRAPER TUBE LT & RT OUTSIDE WING 4245 |
| 20   | BU-1223                                                                                                                                             | 1/2 x 2 x 3 U-BOLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 21   | NLF-5013                                                                                                                                            | 1/2-13 FLANGED LOCK NUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 22   | RD-4898                                                                                                                                             | SCRAPER ARM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 23   | BC-3810                                                                                                                                             | 3/8-16 X 1 CARRIAGE BOLTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 24   | NLF-3816                                                                                                                                            | 3/8-16 FLANGED LOCK NUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 25   | RD-4532                                                                                                                                             | SCRAPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 26   | 10601                                                                                                                                               | BEARING ASSEMBLY, TRUNNION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 27   | FW-0138                                                                                                                                             | FLAT WASHER 1-3/8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 28   | RD-4900                                                                                                                                             | HITCH PIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 29   | RD-5076                                                                                                                                             | TWIST CLIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 30   | LW-0075                                                                                                                                             | LOCK WASHER 3/4"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



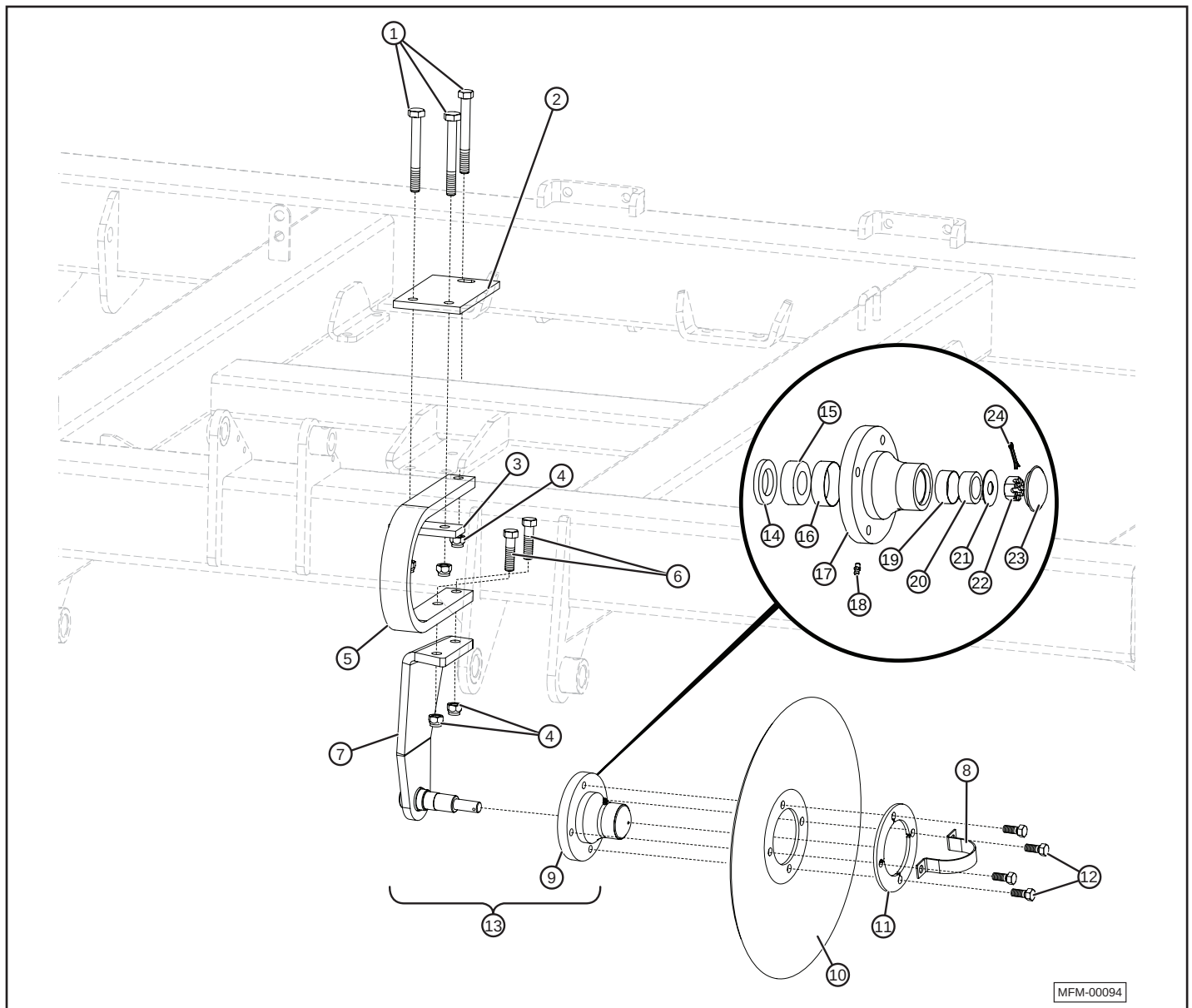
## Disk Gang for CB-4200 Series



| Item | Part Number | Description                           |
|------|-------------|---------------------------------------|
| Item | Part Number | Description                           |
| 1    | 10655       | PIN, SPRING ROLL 3/8 x 2.50           |
| 2    | 10657       | NUT, FINISHED SLOTTED, 1-3/4-5, PLAIN |
| 3    | RD-4843     | TUBE, ROUND, 2.625OD x 2.125ID - 1    |
| 3    | 13793       | TUBE, ROUND, 2.625OD x 2.125ID - .5   |
| 3    | 10656       | WASHER, 1.81 X 2.63 X .18             |
| 4    | 10600       | DISK TENSION WASHER                   |
| 5    | 12697       | BLADE, DISK, COBRA, 20", 5mm          |
| 5    | 12793       | BLADE, DISK, COBRA, 20", 6.5mm        |
| 6    | RD-4850     | DISK GANG SPOOL, 7"                   |
| 7    | RD-4925     | BLADE, FLAT, 6mm, 18"                 |
| 8    | RD-4975     | OUTSIDE DISK BLADE SUPPORT, 12"       |

| Item | Part Number | Description                               |
|------|-------------|-------------------------------------------|
| 9    | RD-4851     | DISK GANG SPOOL, 6 3/8"                   |
| 10   | 15131       | RD DISK GANG END PLATE                    |
| 11   | 10658       | NUT, FINISHED SLOTTED JAM, 1-3/4-5, PLAIN |
| 12   | 10746       | DISK GANG SHAFT, 8-BLADES, 53.5"          |
| 12   | 10829       | DISK GANG SHAFT, 9-BLADES, 60.5"          |
| 12   | 15121       | DISK GANG SHAFT, 10-BLADES, 67.5"         |
| 12   | 10635       | DISK GANG SHAFT, 11-BLADES, 74.25"        |
| 12   | 10634       | DISK GANG SHAFT, 12-BLADES, 81.5"         |
| 12   | 15140       | DISK GANG SHAFT, 14-BLADES, 95.5"         |
| 13   | 10727       | BUSHING, 2.625OD x 1.75ID - 1.48          |
| 14   | 10729       | PLATE, WASHER                             |
| 15   | 15129       | BUSHING, 2.625OD x 1.75ID - 2.25          |

## Center Covering Disk For CB-4200 Series

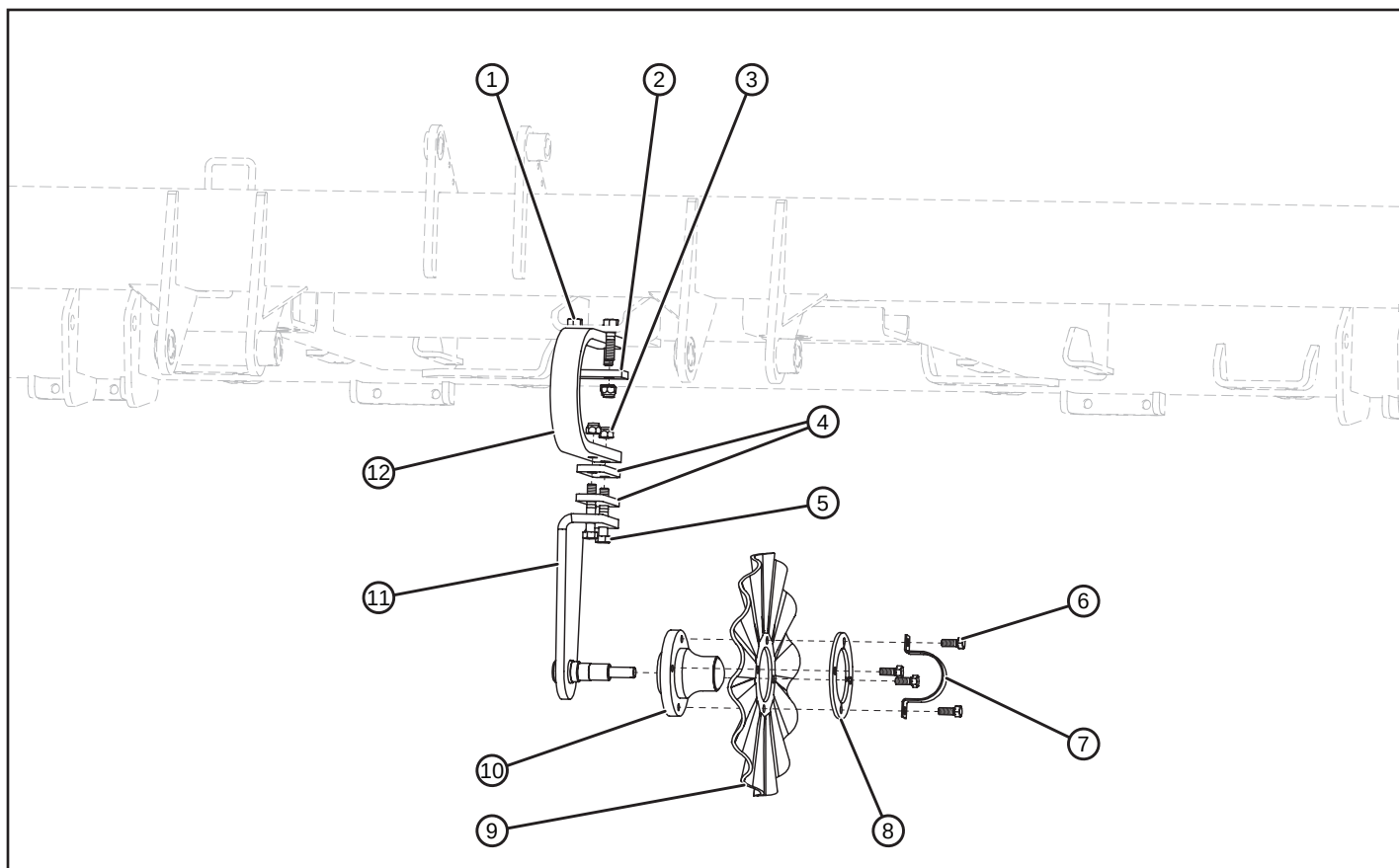


| Item | Part Number        | Description                                                      |
|------|--------------------|------------------------------------------------------------------|
| 1    | BH-6355            | 5/8-11 X 5-1/2 GRADE 5 HEX BOLT                                  |
| 2    | RD-4464            | SPRING CLAMP PLATE                                               |
| 3    | RD-4432            | SPRING CLAMP PLATE                                               |
| 4    | NLT-6311           | 5/8-11 TOP LOCK NUT                                              |
| 5    | QT-1027            | CENTER DISK SPRING                                               |
| 6    | BHY-6323           | 5/8-11 X 2-1/4 GRADE 8 HEX BOLT                                  |
| 7    | RD-4902<br>RD-4901 | LEVELER DISK MOUNT ASSY RT (shown)<br>LEVELER DISK MOUNT ASSY LT |
| 8    | RD-5092            | HUB RETAINER                                                     |
| 9    | HD-1170            | 4-BOLT HUB ASSEMBLY                                              |
| 10   | QT-1025            | BLADE, CONCAVE, 4-BOLT, 20"                                      |
| 11   | QT-1026            | CENTER DISK HUB PLATE                                            |
| 12   | BHF-5013           | WHEEL STUD, 1-1/4 GD 8                                           |

| Item | Part Number        | Description                                                                          |
|------|--------------------|--------------------------------------------------------------------------------------|
| 13   | RD-5095<br>RD-5096 | LEVELER DISK ASSY W/HUB LT<br>LEVELER DISK ASSY W/HUB RT<br>(includes items 7 and 9) |
| 14   | HD-1160            | GREASE SEAL                                                                          |
| 15   | HD-1162            | INNER BEARING                                                                        |
| 16   | HD-1171            | INNER RACE                                                                           |
| 17   | HD-1161            | HUB WITH RACES, 4 HOLE                                                               |
| 18   | GZ-2528            | ZERK, GREASE                                                                         |
| 19   | HD-1172            | OUTER RACE                                                                           |
| 20   | HD-1163            | OUTER BEARING                                                                        |
| 21   | HD-1164            | SPINDLE FLAT WASHER                                                                  |
| 22   | HD-1165            | SPINDLE CASTLE NUT                                                                   |
| 23   | HD-1167            | DUST CAP                                                                             |
| 24   | CP-5312            | PIN, COTTER .150 x 1-1/4                                                             |

\* Items 14 - 24 are part of RD-5092 Hub Retainer Assembly, Item 9.

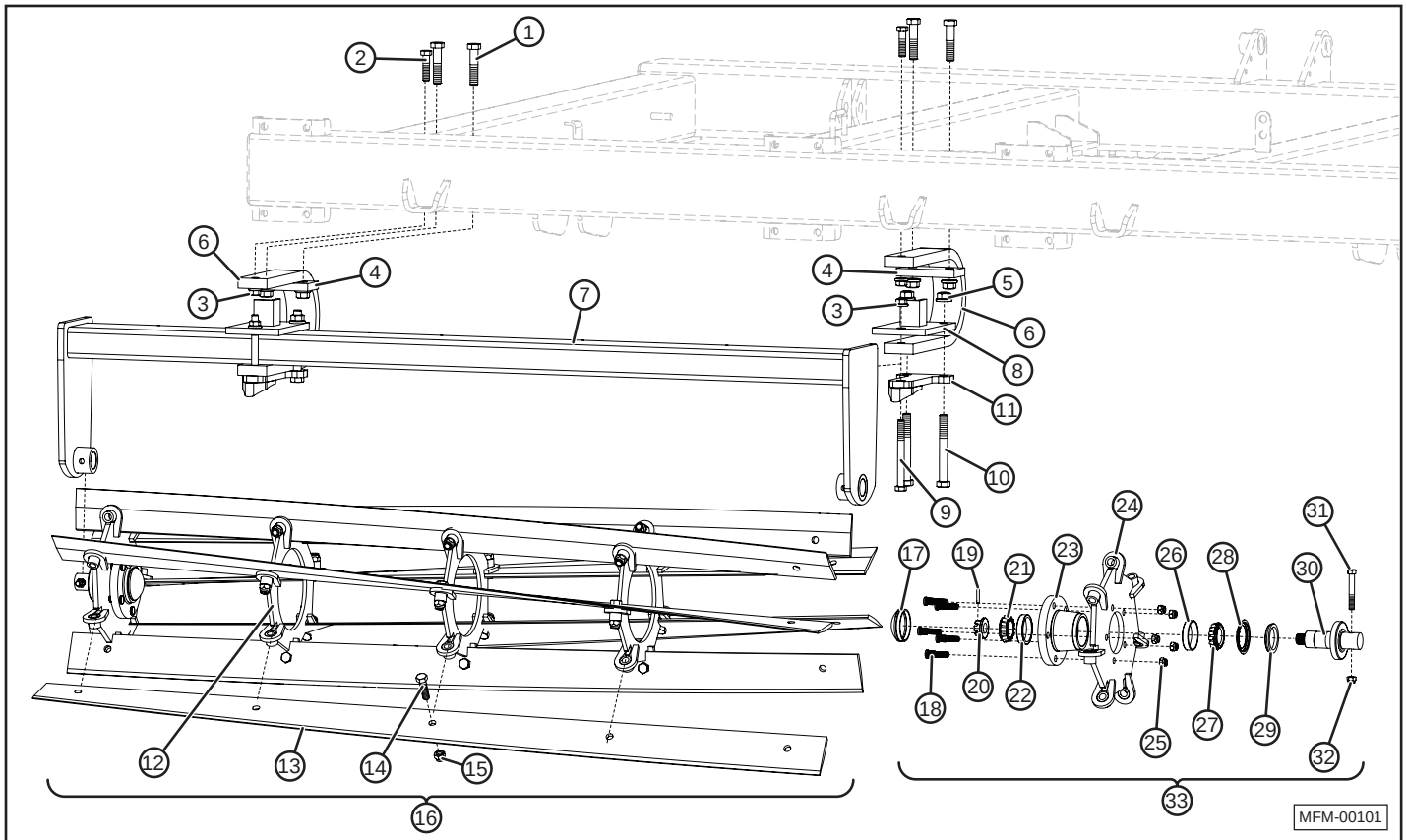
## Center Wavy Disk for CB-4200 Series



| Item | Part Number | Description              |
|------|-------------|--------------------------|
| 1    | BH-6325     | 5/8-11 x 2-1/2 HHCS GD 5 |
| 2    | RD-4432     | SPRING CLAMP             |
| 3    | NLT-6311    | 5/8-11 TOP LOCK NUT      |
| 4    | RD-4919     | SPACER PLATE             |
| 5    | BH-6335     | 5/8-11 x 3-1/2 HHCS GD 5 |
| 6    | BHF-5013    | HUB BOLT 1/2-20 x 1-1/4  |
| 7    | RD-5092     | HUB RETAINER             |
| 8    | QT-1026     | HUB PLATE                |
| 9    | RD-4265     | CENTER DISK, WAVY        |
| 10   | HD-1170     | HUB ASSY                 |
| 11   | RD-4886     | CENTER DISK MOUNT        |
| 12   | QT-1027     | DISK SPRING              |



## Dura-Reel for CB-4200 Series

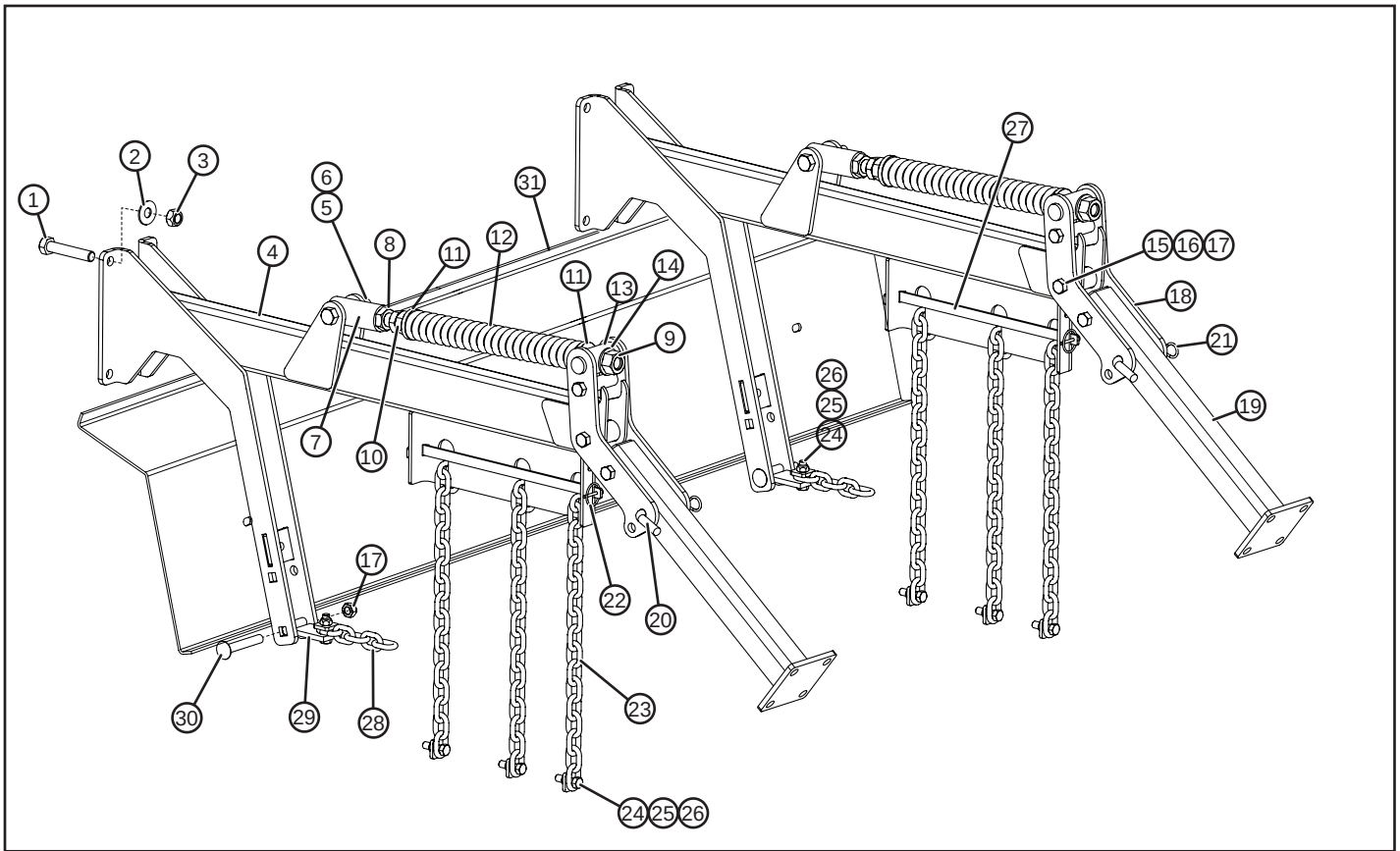


| Item            | Part Number                                                                      | Description                                                                                                                                                                                                           |
|-----------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | BHY-7535                                                                         | 3/4-10 X 3-1/2 GRADE 8 BOLT                                                                                                                                                                                           |
| 2               | BH-6325                                                                          | 5/8-11 X 2-1/2 GRADE 5 BOLT                                                                                                                                                                                           |
| 3               | NLT-6311                                                                         | 5/8-11 TOP LOCK NUT                                                                                                                                                                                                   |
| 4               | RT-2611                                                                          | C-SPRING TOP CLAMP                                                                                                                                                                                                    |
| 5               | NLT-7510                                                                         | 3/4-10 TOP LOCK NUT                                                                                                                                                                                                   |
| 6               | RD-4470                                                                          | SPIRAL REEL C-SPRING                                                                                                                                                                                                  |
| 7 <sup>1</sup>  | RD-5014<br>RD-5015<br>RD-5016<br>RD-5017<br>RD-5018<br>RD-5019<br>RD-5020        | 48" SPIRAL REEL MOUNT – 49"<br>51" SPIRAL REEL MOUNT – 52"<br>58" SPIRAL REEL MOUNT – 59"<br>66" SPIRAL REEL MOUNT – 67"<br>72" SPIRAL REEL MOUNT – 73"<br>80" SPIRAL REEL MOUNT – 81"<br>95" SPIRAL REEL MOUNT – 95" |
| 8               | RD-4485                                                                          | C-SPRING CLAMP WITH STOP                                                                                                                                                                                              |
| 9               | BHY-6365                                                                         | 5/8-11 X 6-1/2 GRADE 8 HEX BOLT                                                                                                                                                                                       |
| 10              | BHY-7565                                                                         | 3/4-10 X 6-1/2 GRADE 8 HEX BOLT                                                                                                                                                                                       |
| 11              | RD-4849                                                                          | SPIRAL REEL ROCK GUARD BRACKET                                                                                                                                                                                        |
| 12              | RD-5002                                                                          | SPIRAL REEL BLADE INNER BRACKET                                                                                                                                                                                       |
| 13 <sup>1</sup> | SPR-5048<br>SPR-5051<br>SPR-5058<br>SPR-5066<br>SPR-5072<br>SPR-5080<br>SPR-5095 | SPIRAL REEL BLADE, 48"<br>SPIRAL REEL BLADE, 51"<br>SPIRAL REEL BLADE, 58"<br>SPIRAL REEL BLADE, 66"<br>SPIRAL REEL BLADE, 72"<br>SPIRAL REEL BLADE, 80"<br>SPIRAL REEL BLADE, 95"                                    |
| 14              | BHP-6323                                                                         | 5/8 X 2-1/4 HEX BOLT                                                                                                                                                                                                  |
| 15              | NLT-6311                                                                         | 5/8-11 TOP LOCK NUT                                                                                                                                                                                                   |

| Item            | Part Number                                                               | Description                                                                                                                       |
|-----------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 16 <sup>1</sup> | RD-5022<br>RD-5023<br>RD-5024<br>RD-5025<br>RD-5026<br>RD-5027<br>RD-5028 | 48" SPIRAL REEL<br>51" SPIRAL REEL<br>58" SPIRAL REEL<br>66" SPIRAL REEL<br>72" SPIRAL REEL<br>80" SPIRAL REEL<br>95" SPIRAL REEL |
| 17              | RD-4859                                                                   | END CAP                                                                                                                           |
| 18              | RD-4861                                                                   | WHEEL BOLT                                                                                                                        |
| 19              | RD-4863                                                                   | ROLL PIN                                                                                                                          |
| 20              | RD-4862                                                                   | CASTLE NUT                                                                                                                        |
| 21              | RD-4857                                                                   | BEARING CONE                                                                                                                      |
| 22              | RD-4858                                                                   | BEARING CUP                                                                                                                       |
| 23              | RD-4855                                                                   | HUB, 5 BOLT                                                                                                                       |
| 24              | RD-5001                                                                   | 5 BOLT END PLATE                                                                                                                  |
| 25              | NL-5020                                                                   | NUT, 1/2-20                                                                                                                       |
| 26              | RD-4857                                                                   | BEARING CUP                                                                                                                       |
| 27              | RD-4858                                                                   | BEARING CONE                                                                                                                      |
| 28              | RD-4856                                                                   | SEAL, COUNTERFACE                                                                                                                 |
| 29              | RD-4865                                                                   | SEAL                                                                                                                              |
| 30              | RD-4864                                                                   | SPINDLE WITH GRASS GUARD AND SEAL                                                                                                 |
| 31              | RD-5055                                                                   | BOLT, 1/2-13 X 3-1/4, GD8                                                                                                         |
| 32              | NLT-5013                                                                  | NUT, TOP LOCK 1/2-13                                                                                                              |
| 33              | RD-4854                                                                   | HUB ASSY. (ITEMS 17-23, 26-30)                                                                                                    |

<sup>1</sup>Refer to layout diagram for position and size on each unit.

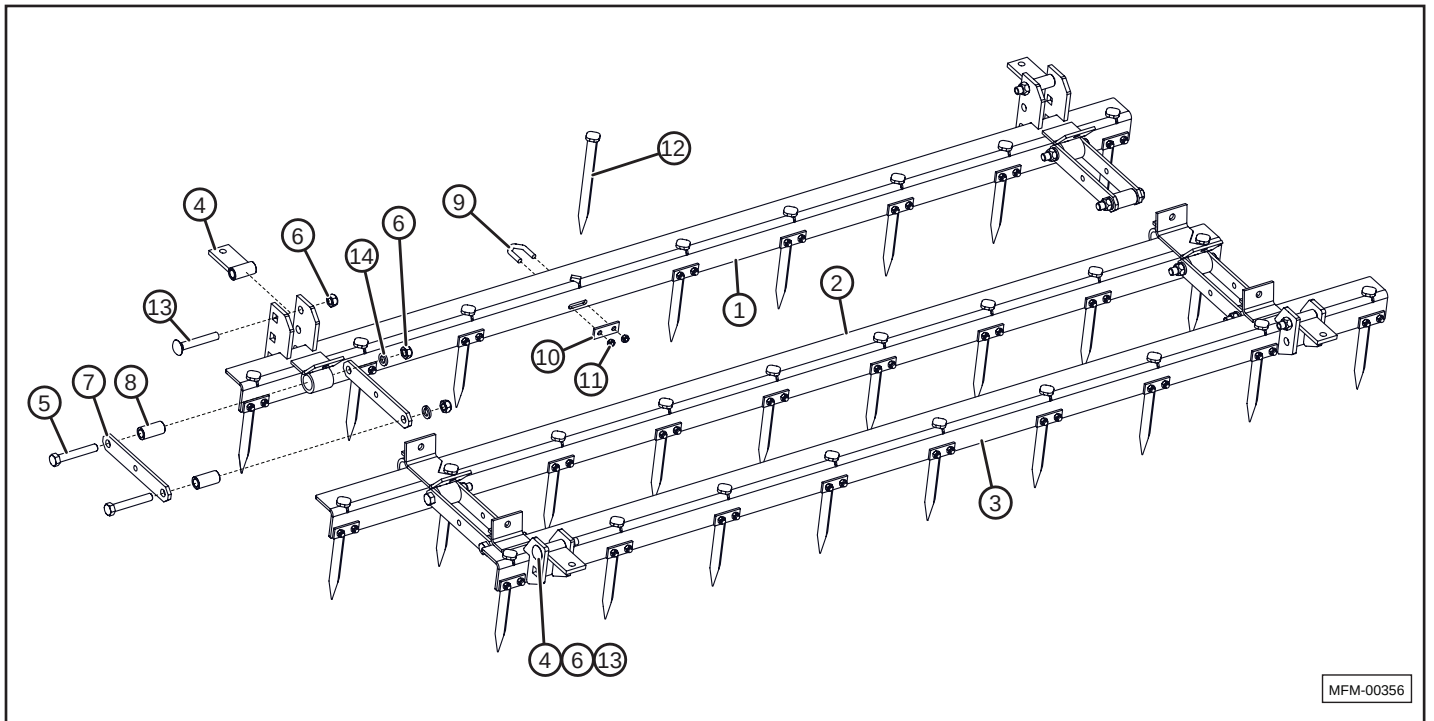
## Lift Arm for 3 Bar FA Harrow Sections



| Item | Part Number | Description                    |
|------|-------------|--------------------------------|
| 1    | BH-6320     | BOLT, HEX, 5/8-11 X 2, GRADE 5 |
| 2    | LW-0063     | WASHER, LOCK, 5/8              |
| 3    | NH-6311     | NUT, HEX, 5/8-11               |
| 4    | 10962       | ARM, LIFT                      |
| 5    | BH-7540     | BOLT, HEX, 3/4-10 X 4, GRADE 5 |
| 6    | NLT-7510    | NUT, TOP LOCK, 3/4-10          |
| 7    | 10713       | TUBE, ROUND, ADJUSTMENT        |
| 8    | NHJ-1008    | NUT, HEX, JAM, 1-8             |
| 9    | 10959       | BOLT, SPECIAL, GRADE 8         |
| 10   | NH-1008     | NUT, HEX, 1-8                  |
| 11   | 10715       | WASHER                         |
| 12   | 10682       | SPRING, COMPRESSION            |
| 13   | 10714       | BUSHING, TRUNNION              |
| 14   | FW-0100     | WASHER, FLAT                   |
| 15   | BH-6350     | BOLT, HEX, 5/8-11 X 5 GRADE 5  |
| 16   | 10716       | TUBE, ROUND                    |
| 17   | NLT-6311    | NUT, TOP LOCK, 5/8-11          |
| 18   | 10718       | PLATE, PIVOT                   |
| 19   | 10952       | ARM, PIVOT                     |
| 20   | 11033       | PIN, HITCH, 5/8 X 4"           |
| 21   | PB-0009     | PIN, BRIDGE, #9                |

| Item | Part Number                                         | Description                                                                                                     |
|------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 22   | PC-1913                                             | CLICK PIN, 3/16 X 1-9/16                                                                                        |
| 23   | CH-0818                                             | LIFT CHAIN, 18 LINK                                                                                             |
| 24   | BH-5018                                             | BOLT, HEX, 1/2-13 X 1-3/4 GRADE 5                                                                               |
| 25   | HDD-016                                             | WASHER, SQUARE, 1/2"                                                                                            |
| 26   | NLT-5013                                            | NUT, TOP LOCK, 1/2-13                                                                                           |
| 27   | 10957                                               | BAR, LOCK                                                                                                       |
| 28   | CH-0805                                             | PULL CHAIN, 5 LINK                                                                                              |
| 29   | FA-4105                                             | PULL POINT ASSEMBLY                                                                                             |
| 30   | BC-6340                                             | BOLT, CARRIAGE, 5/8 X 4                                                                                         |
| 31   | RD-4615<br>RD-4616<br>RD-4617<br>RD-4618<br>RD-4619 | DEBRIS SHROUD – 51"<br>DEBRIS SHROUD – 62"<br>DEBRIS SHROUD – 73"<br>DEBRIS SHROUD – 84"<br>DEBRIS SHROUD – 95" |

### 3 Bar FA Harrow Section



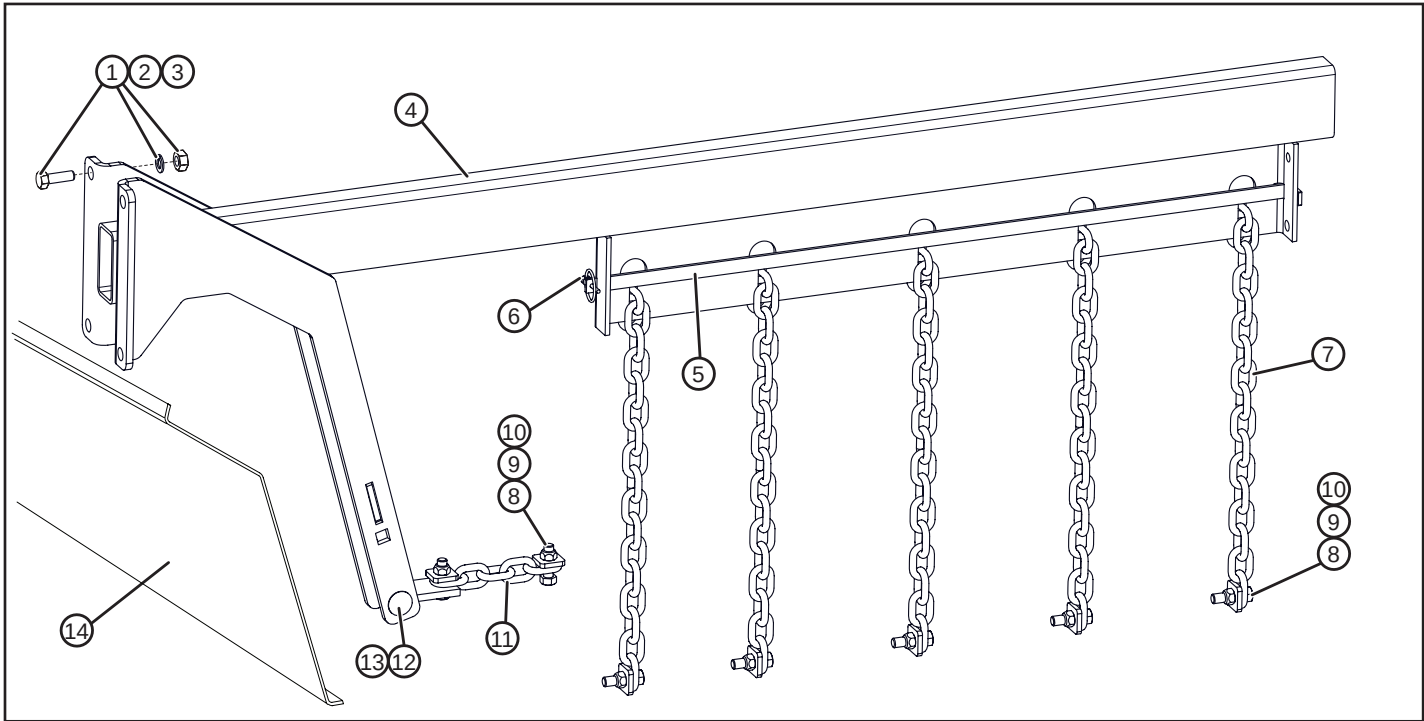
MFM-00356

| Item | Part Number | Description                        |
|------|-------------|------------------------------------|
| 1    | FA-551      | NUMBER ONE HARROW BAR (FA-500-3)   |
|      | FA-651      | NUMBER ONE HARROW BAR (FA-600-3)   |
|      | FA-751      | NUMBER ONE HARROW BAR (FA-700-3)   |
|      | FA-851      | NUMBER ONE HARROW BAR (FA-800-3)   |
|      | FA-951      | NUMBER ONE HARROW BAR (FA-900-3)   |
| 2    | FA-556      | NUMBER TWO HARROW BAR (FA-500-3)   |
|      | FA-656      | NUMBER TWO HARROW BAR (FA-600-3)   |
|      | FA-756      | NUMBER TWO HARROW BAR (FA-700-3)   |
|      | FA-856      | NUMBER TWO HARROW BAR (FA-800-3)   |
|      | FA-956      | NUMBER TWO HARROW BAR (FA-900-3)   |
| 3    | FA-557      | NUMBER THREE HARROW BAR (FA-500-3) |
|      | FA-657      | NUMBER THREE HARROW BAR (FA-600-3) |
|      | FA-757      | NUMBER THREE HARROW BAR (FA-700-3) |
|      | FA-857      | NUMBER THREE HARROW BAR (FA-800-3) |
|      | FA-957      | NUMBER THREE HARROW BAR (FA-900-3) |
| 4    | FA-4105     | PLATE, PIVOT                       |
| 5    | BH-6340     | BOLT, HEX, 5/8-11 X 4 GRADE 5      |

| Item | Part Number | Description                        |
|------|-------------|------------------------------------|
| 6    | NLT-6311    | NUT, TOP LOCK, 5/8-11              |
| 7    | CT-105      | CONNECTOR, FLAT                    |
| 8    | CT-102      | BUSHING, INNER                     |
| 9    | BV-3812     | 3/8" V BOLT                        |
| 10   | FA-4103     | PLATE, 3/8" V-BOLT                 |
| 11   | NLT-3816    | NUT, TOP LOCK, 3/8-16              |
| 12   | FA-4110     | TOOTH, 3/4" X 10"                  |
| 13   | BC-6340     | BOLT, CARRIAGE, 5/8-11 X 4 GRADE 5 |
| 14   | LW-0063     | WASHER, LOCK, 5/8                  |



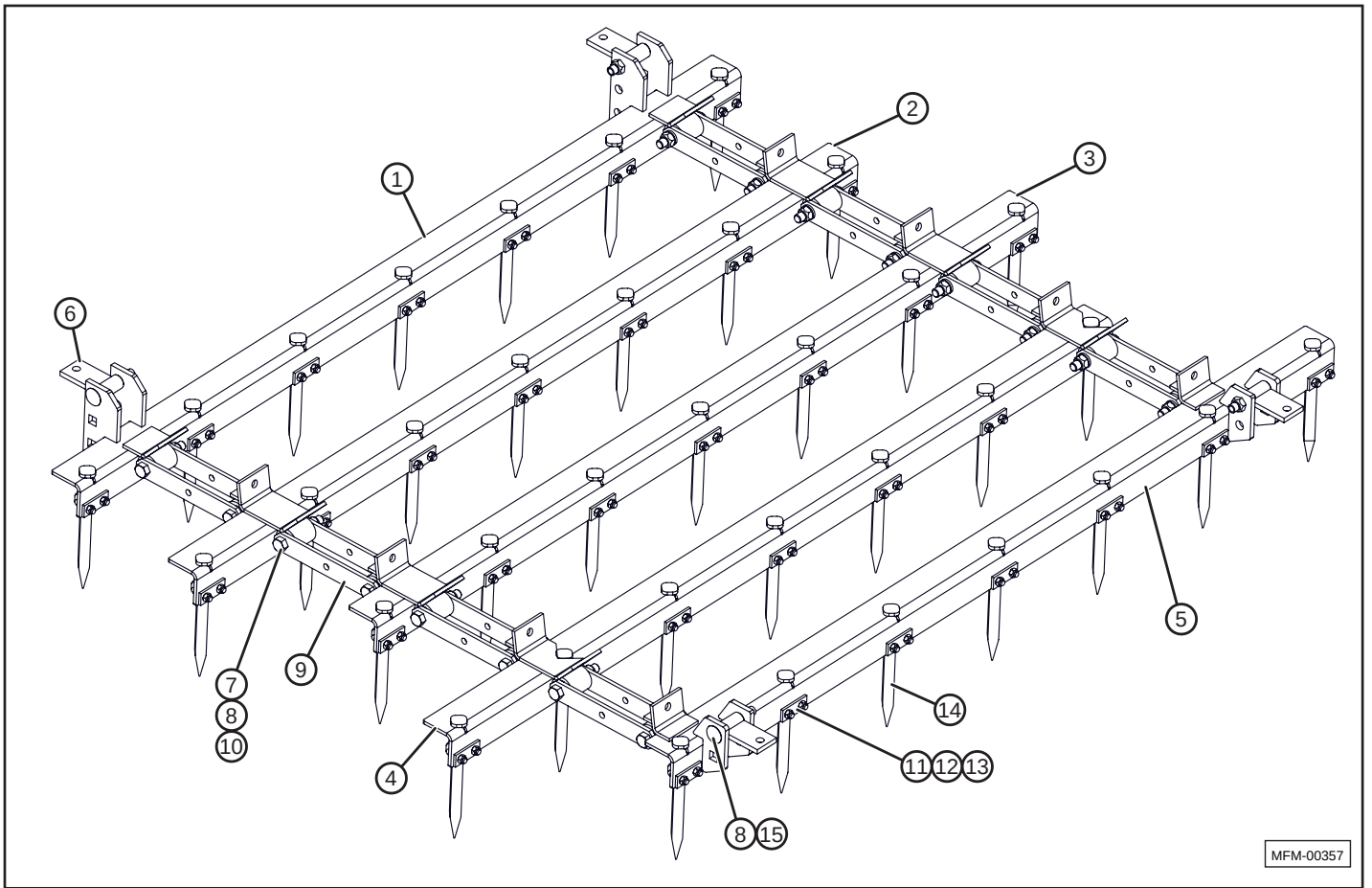
Lift Arm for 5 Bar FA Harrow Section



| Item | Part Number | Description                       |
|------|-------------|-----------------------------------|
| 1    | BH-6320     | BOLT, HEX, 5/8-11 X 2, GRADE 5    |
| 2    | LW-0063     | WASHER, LOCK, 5/8                 |
| 3    | NH-6311     | NUT, HEX, 5/8-11                  |
| 4    | 12706       | ARM, LIFT                         |
| 5    | RD-4629     | BAR, LOCK                         |
| 6    | PC-1913     | CLICK PIN, 3/16 X 1-9/16          |
| 7    | CH-0816     | LIFT CHAIN, 16 LINK               |
| 8    | BH-5018     | BOLT, HEX, 1/2-13 X 1-3/4 GRADE 5 |
| 9    | HDD-016     | WASHER, SQUARE, 1/2"              |

| Item | Part Number                                         | Description                                                                                                     |
|------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 10   | NLT-5013                                            | NUT, TOP LOCK, 1/2-13                                                                                           |
| 11   | CH-0805                                             | PULL CHAIN, 5 LINK                                                                                              |
| 12   | NLT-6311                                            | NUT, TOP LOCK, 5/8-11                                                                                           |
| 13   | BC-6340                                             | BOLT, CARRIAGE, 5/8 X 4                                                                                         |
| 14   | RD-4615<br>RD-4616<br>RD-4617<br>RD-4618<br>RD-4619 | DEBRIS SHROUD – 51"<br>DEBRIS SHROUD – 62"<br>DEBRIS SHROUD – 73"<br>DEBRIS SHROUD – 84"<br>DEBRIS SHROUD – 95" |

## 5 Bar FA Harrow Section

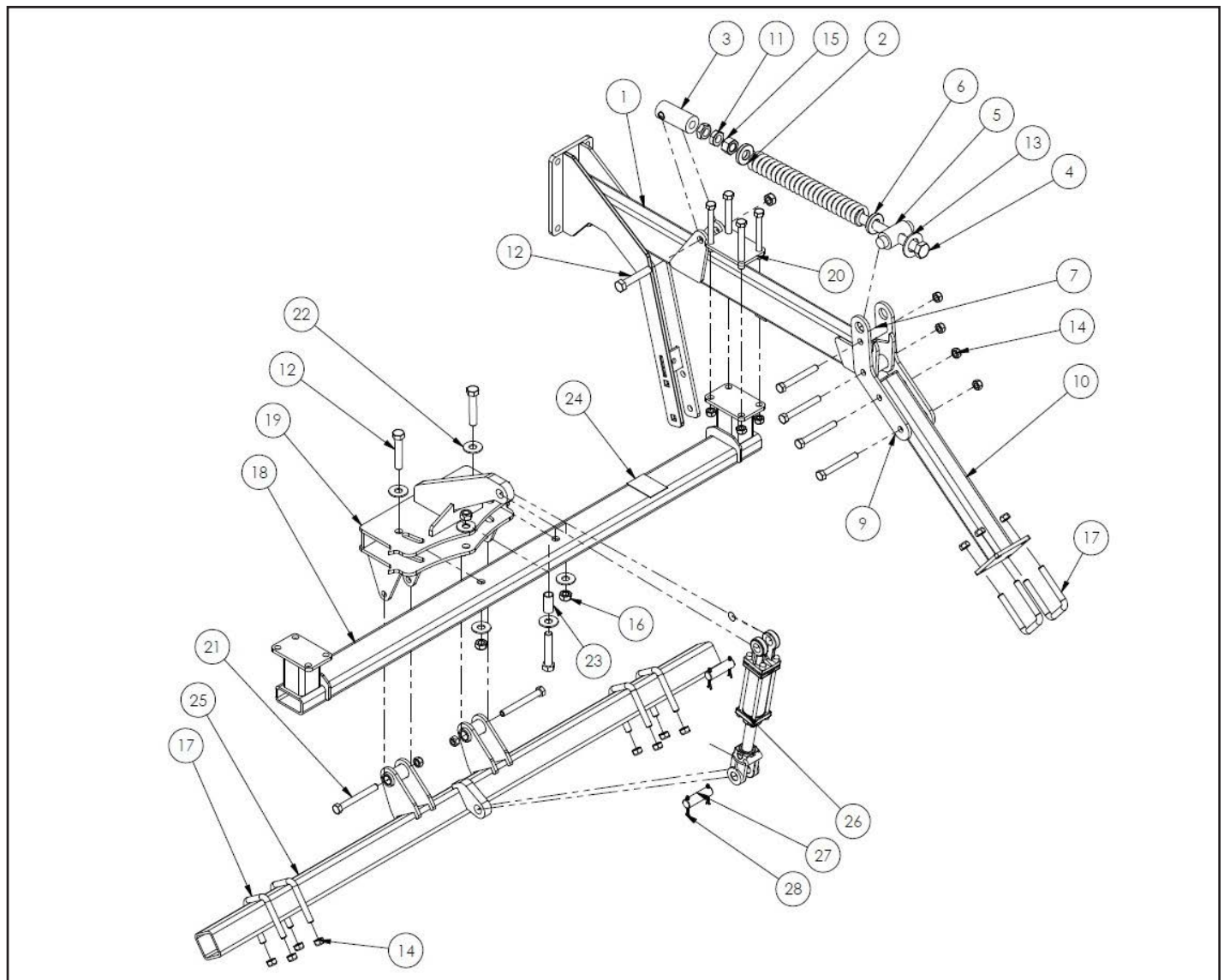


MFM-00357

| Item | Part Number                          | Description                                                                                                                                          |
|------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | FA-551<br>FA-651<br>FA-751<br>FA-851 | NUMBER ONE HARROW BAR (FA-500-5)<br>NUMBER ONE HARROW BAR (FA-600-5)<br>NUMBER ONE HARROW BAR (FA-700-5)<br>NUMBER ONE HARROW BAR (FA-800-5)         |
| 2    | FA-552<br>FA-652<br>FA-752<br>FA-852 | NUMBER TWO HARROW BAR (FA-500-5)<br>NUMBER TWO HARROW BAR (FA-600-5)<br>NUMBER TWO HARROW BAR (FA-700-5)<br>NUMBER TWO HARROW BAR (FA-800-5)         |
| 3    | FA-553<br>FA-653<br>FA-753<br>FA-853 | NUMBER THREE HARROW BAR (FA-500-5)<br>NUMBER THREE HARROW BAR (FA-600-5)<br>NUMBER THREE HARROW BAR (FA-700-5)<br>NUMBER THREE HARROW BAR (FA-800-5) |
| 4    | FA-556<br>FA-656<br>FA-756<br>FA-856 | NUMBER FOUR HARROW BAR (FA-500-5)<br>NUMBER FOUR HARROW BAR (FA-600-5)<br>NUMBER FOUR HARROW BAR (FA-700-5)<br>NUMBER FOUR HARROW BAR (FA-800-5)     |
| 5    | FA-557<br>FA-657<br>FA-757<br>FA-857 | NUMBER FIVE HARROW BAR (FA-500-5)<br>NUMBER FIVE HARROW BAR (FA-600-5)<br>NUMBER FIVE HARROW BAR (FA-700-5)<br>NUMBER FIVE HARROW BAR (FA-800-5)     |
| 6    | FA-4105                              | PLATE, PIVOT                                                                                                                                         |

| Item | Part Number | Description                        |
|------|-------------|------------------------------------|
| 7    | BH-6340     | BOLT, HEX, 5/8-11 X 4 GRADE 5      |
| 8    | NLT-6311    | NUT, TOP LOCK, 5/8-11              |
| 9    | CT-105      | CONNECTOR, FLAT                    |
| 10   | CT-102      | BUSHING, INNER                     |
| 11   | BV-3812     | 3/8" V BOLT                        |
| 12   | FA-4103     | PLATE, 3/8" V-BOLT                 |
| 13   | NLT-3816    | NUT, TOP LOCK, 3/8-16              |
| 14   | FA-4110     | TOOTH, 3/4" X 10"                  |
| 15   | BC-6340     | BOLT, CARRIAGE, 5/8-11 X 4 GRADE 5 |

## Lift Arm and Spur-Till Mount

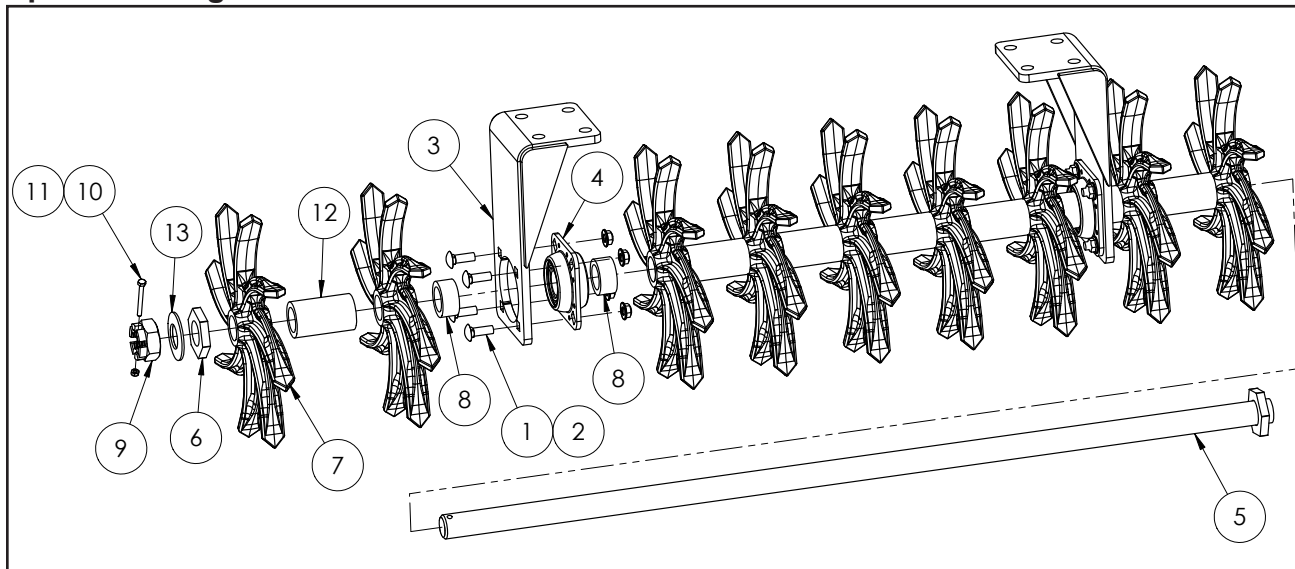


| Item | Part Number | Description                   |
|------|-------------|-------------------------------|
| 1    | 14450       | LIFT ARM, SPURTILL            |
| 2    | 10682       | SPRING, COMPRESSION           |
| 3    | 10713       | TUBE, ROUND, ADJUSTMENT       |
| 4    | 10959       | BOLT, SPECIAL, 1-8 x 23.8 GD5 |
| 5    | 10714       | BUSHING, TRUNNION             |
| 6    | 10715       | WASHER                        |
| 7    | 10716       | TUBE, ROUND                   |
| 8    | BH-6350     | BOLT, HEX, 5/8-11X5, GD5      |
| 9    | 14676       | PLATE, PIVOT                  |
| 10   | 14674       | PIVOT TUBE                    |
| 11   | NHJ-1008    | NUT, JAM 1-8                  |
| 12   | BH-7540     | BOLT, HEX, 3/4-10X4, GD5      |
| 13   | FW-0138     | WASHER, FLAT, 1.375, GD2      |
| 14   | NLT-6311    | NUT, LOCK, TOP, 5/8-11        |
| 15   | NH-1008     | NUT, HEX, 1-8, GD5            |
| 16   | NLT-7510    | NUT, LOCK, TOP, 3/4-10        |

| Item | Part Number | Description                                                                            |
|------|-------------|----------------------------------------------------------------------------------------|
| 17   | BU-5834     | U-BOLT, 5/8-11X3X4.5                                                                   |
| 18   | 14125       | CB-4212 (RH MAIN), CB-4214, CB-4225, CB-4230 (MAIN), CB-4235 (LH WING INNER & RH MAIN) |
|      | 14126       | CB-4212 (LH MAIN), CB-4220 (RH MAIN)                                                   |
|      | 14154       | CB-4220 (LH MAIN) CB-4235 (RH WING INNER)                                              |
|      | 14156       | CB-4220 (WING), CB-4235 (WING OUT))                                                    |
|      | 14190       | CB-4230 (WING), CB-4235 (LH MAIN)                                                      |
| 19   | 14518       | ASSY, PIVOT MOUNT                                                                      |
| 20   | 14395       | PLATE, MOUNT                                                                           |
| 21   | BH-6355     | BOLT, HEX, 5/8-11X5.5, GD5                                                             |
| 22   | FW-0075     | WASHER, FLAT, .75, GD8                                                                 |
| 23   | 15079       | BUSHING                                                                                |
| 24   | 15426       | DECAL, ST ANGLE                                                                        |
| 25   | 14106       | SPURTILL MOUNT                                                                         |
| 26   | HYC-32004   | HYD CYLINDER, 2 x 4                                                                    |
| 27   | HYO-2103    | PIN, CYLINDER CLEVIS, 1x3-1/2                                                          |
| 28   | CP-3620     | PIN, COTTER, 3/16x2                                                                    |



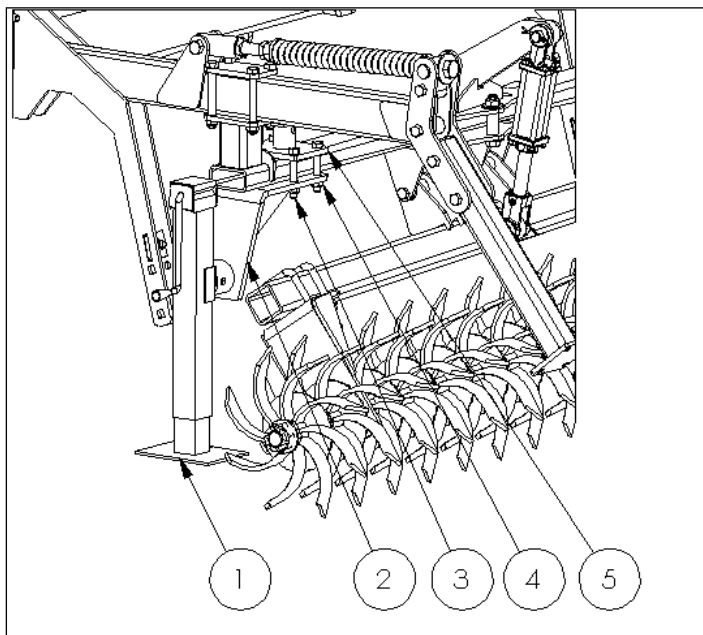
## Spur-Till Gang



| Item | Part Number | Description                                |
|------|-------------|--------------------------------------------|
| 1    | BC-5015     | BOLT, CARRIAGE,1/2-13X1.5, GD5             |
| 2    | 14599       | NUT, UNITORQUE LOCK, FLANGED,1/2-13 GRG ZP |
| 3    | 13785       | LEVELER MOUNT                              |
| 4    | 14204       | BEARING, FLANGED,1.50 RND                  |
| 5    | 14420       | WELDED SHAFT-71.22                         |
| 5    | 14421       | WELDED SHAFT-89.18                         |
| 5    | 14426       | WELDED SHAFT-65.22                         |
| 5    | 14431       | WELDED SHAFT-77.19                         |
| 5    | 14432       | WELDED SHAFT53.22                          |
| 5    | 14443       | WELDED SHAFT-95.19                         |
| 6    | 13969       | PLATE, WASHER                              |

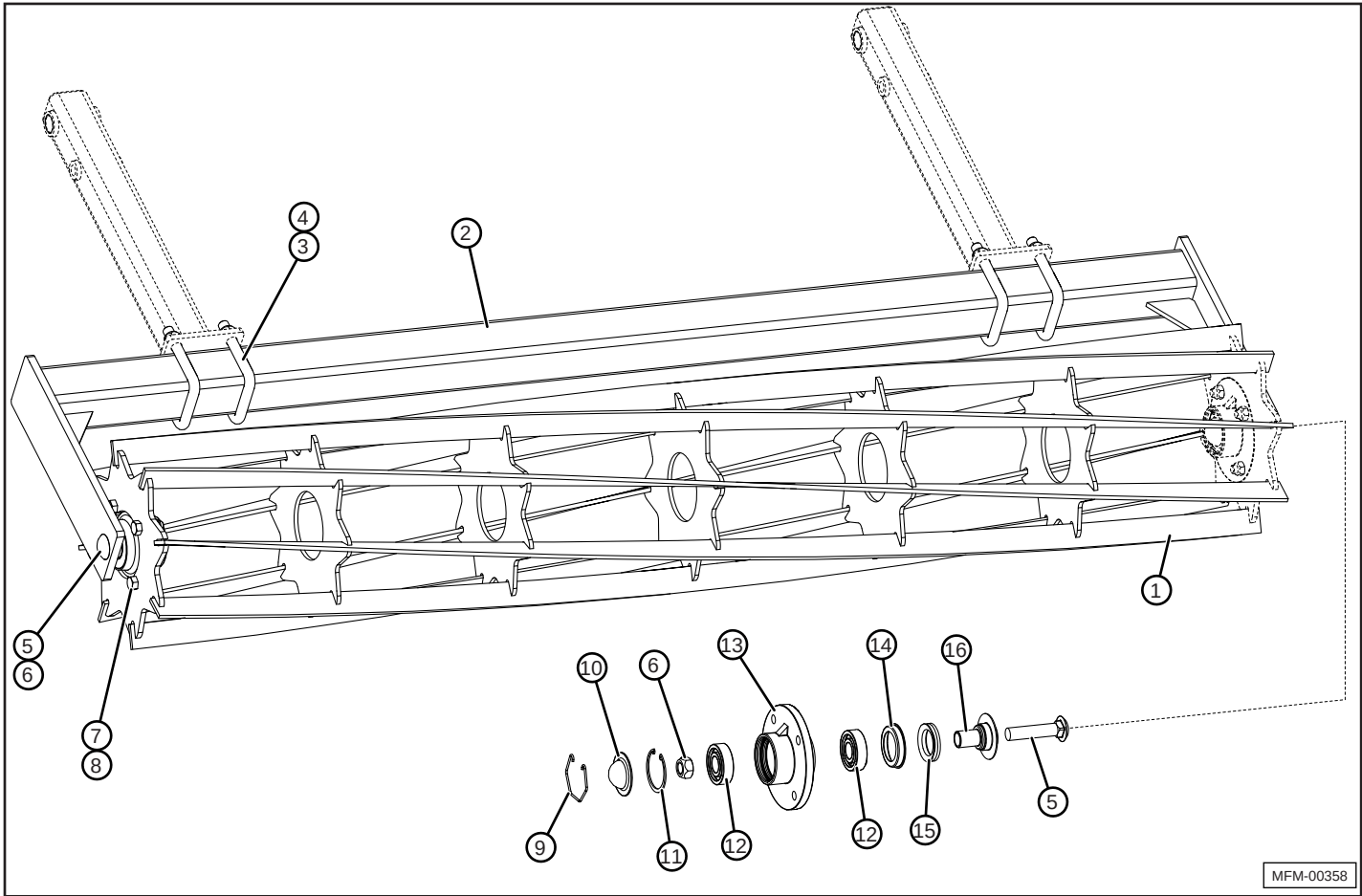
| Item | Part Number | Description               |
|------|-------------|---------------------------|
| 7    | 17372       | SPUR-TILL WHEEL, CAST     |
| 8    | 14137       | TUBE                      |
| 9    | 14400       | 1-1/2\"-6 SLOTTED NUT     |
| 10   | BH-2525     | BOLT, HEX,1/4-20X2.5, GD5 |
| 11   | NLT-2520    | NUT, TOP LOCK 1/4-20      |
| 12   | 13968       | TUBE                      |
| 13   | 14694       | BELLEVILLE DISC SPRING    |

## Spur-Till Rear Jack Stand



| Item | Part Number | Description              |
|------|-------------|--------------------------|
| 1    | QT-1243     | JACK, SIDEWIND,15",8000# |
| 2    | 14973       | JACK POST MOUNT          |
| 3    | BH-6340     | BOLT 5/8-11 x 4          |
| 4    | NLT-6311    | NUT, LOCK, TOP, 5/8-11   |
| 5    | 14972       | CLAMP PLATE, STORAGE     |

Rolling Basket

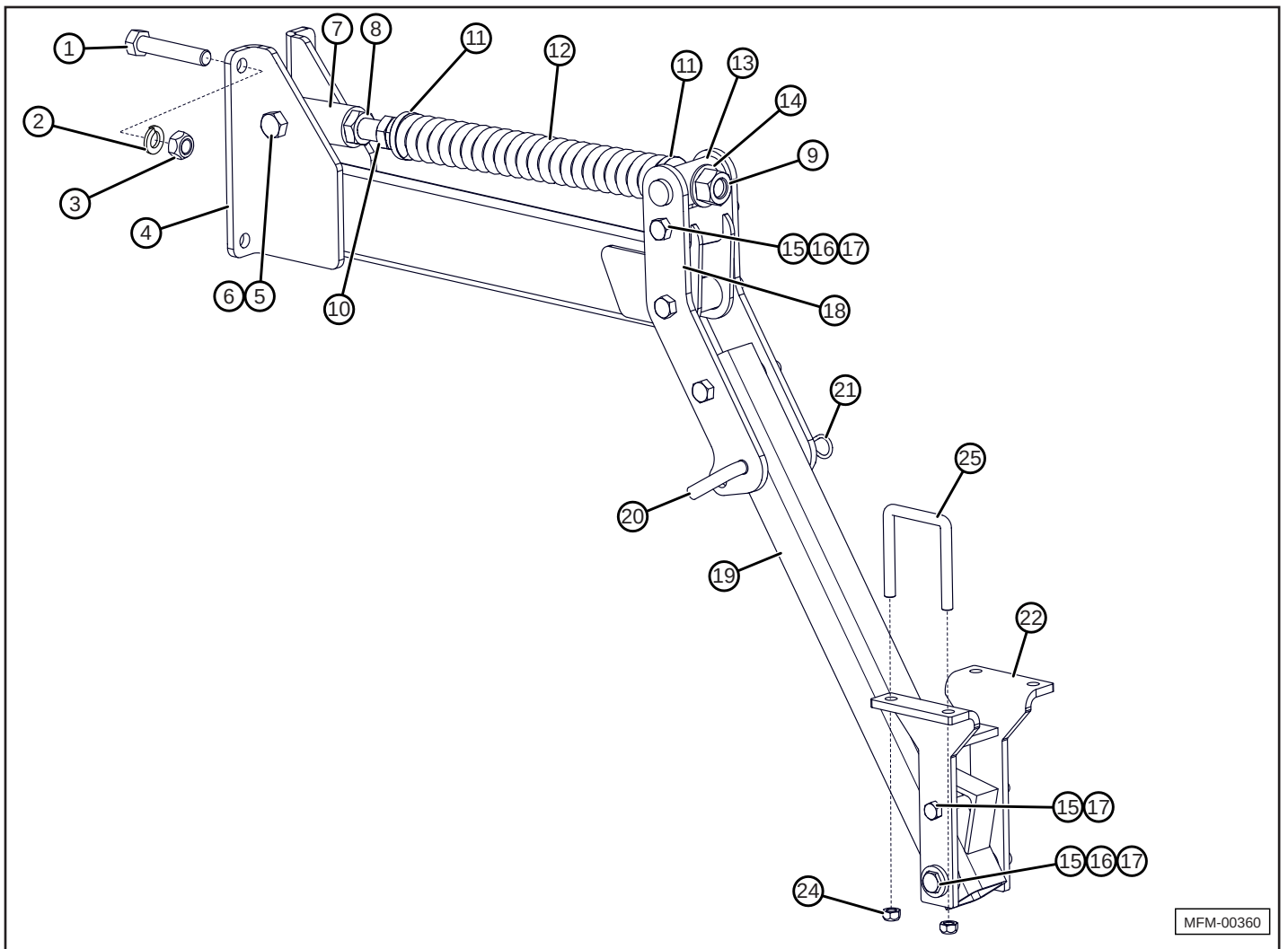


| Item           | Part Number | Description                             |
|----------------|-------------|-----------------------------------------|
| 1 <sup>1</sup> | SRB-1552    | ROLLING BASKET – 52"                    |
|                | SRB-1563    | ROLLING BASKET – 63"                    |
|                | SRB-1574    | ROLLING BASKET – 74"                    |
|                | SRB-1585    | ROLLING BASKET – 85"                    |
|                | SRB-1596    | ROLLING BASKET – 96"                    |
| 2              | RD-5080     | BASKET MOUNT TUBE – 52"                 |
|                | RD-5079     | BASKET MOUNT TUBE – 63"                 |
|                | RD-5078     | BASKET MOUNT TUBE – 74"                 |
|                | RD-5077     | BASKET MOUNT TUBE – 85"                 |
|                | RD-5081     | BASKET MOUNT TUBE – 96"                 |
| 3              | NLT-6311    | NUT, TOP LOCK 5/8-11                    |
| 4              | BU-5834     | 5/8" U BOLT                             |
| 5              | BC-7535     | BOLT, CARRIAGE, 3/4-10 X 3-1/2, GRADE 5 |
| 6              | NLT-7510    | NUT, TOP LOCK, 3/4-10                   |

| Item | Part Number | Description                       |
|------|-------------|-----------------------------------|
| 7    | BH-5018     | BOLT, HEX, 1/2-13 X 1-3/4 GRADE 5 |
| 8    | NLT-5013    | NUT, TOP LOCK, 1/2-13             |
| 9    | 13081       | RETAINING RING                    |
| 10   | 13078       | DUST CAP                          |
| 11   | 13076       | SNAP RING                         |
| 12   | 13074       | BEARING,SEALED,1" ID              |
| 13   | 13080       | HUB                               |
| 14   | 13079       | SEAL COUNTERFACE                  |
| 15   | 13075       | V-SEAL,1.59" ID                   |
| 16   | 13077       | BEARING SLEEVE W/GUARD            |

<sup>1</sup>Refer to layout diagram for position and size on each unit.

## Lift Arm for Double Rolling Baskets

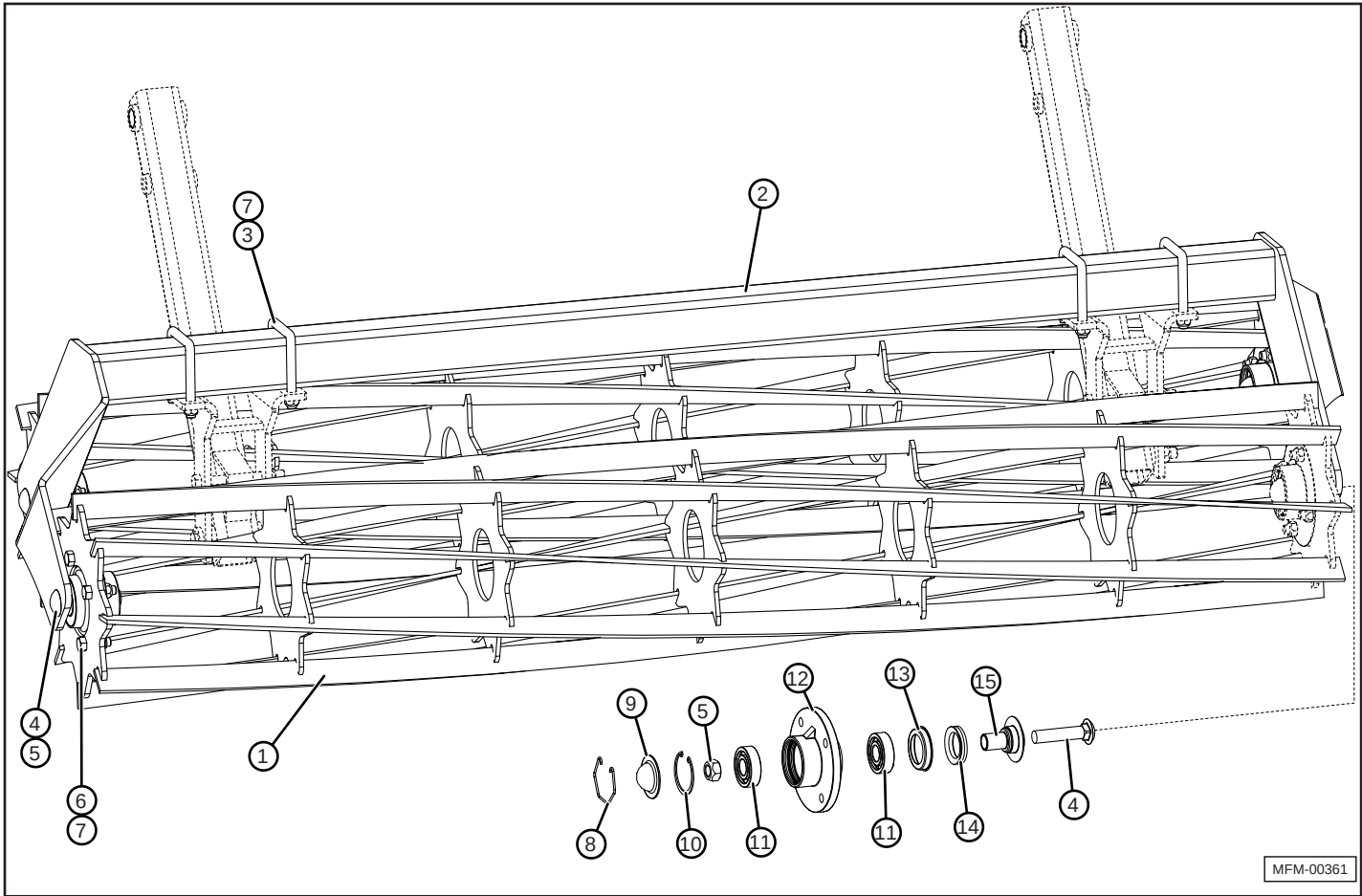


| Item | Part Number | Description                    |
|------|-------------|--------------------------------|
| 1    | BH-6320     | BOLT, HEX, 5/8-11 X 2, GRADE 5 |
| 2    | LW-0063     | WASHER, LOCK, 5/8              |
| 3    | NH-6311     | NUT, HEX, 5/8-11               |
| 4    | 11436       | ARM, LIFT                      |
| 5    | BH-7540     | BOLT, HEX, 3/4-10 X 4, GRADE 5 |
| 6    | NLT-7510    | NUT, TOP LOCK, 3/4-10          |
| 7    | 10713       | TUBE, ROUND, ADJUSTMENT        |
| 8    | NHJ-1008    | NUT, HEX, JAM, 1-8             |
| 9    | 10959       | BOLT, SPECIAL, GRADE 8         |
| 10   | NH-1008     | NUT, HEX, 1-8                  |
| 11   | 10715       | WASHER                         |
| 12   | 10682       | SPRING, COMPRESSION            |
| 13   | 10714       | BUSHING, TRUNNION              |
| 14   | FW-0100     | WASHER, FLAT                   |
| 15   | BH-6350     | BOLT, HEX, 5/8-11 X 5 GRADE 5  |

| Item | Part Number | Description                              |
|------|-------------|------------------------------------------|
| 16   | 10716       | TUBE, ROUND                              |
| 17   | NLT-6311    | NUT, TOP LOCK, 5/8-11                    |
| 18   | 11440       | PLATE                                    |
| 19   | 11441       | TUBE ASSEMBLY                            |
| 20   | 11033       | PIN, HITCH, 5/8 X 4"                     |
| 21   | PB-0009     | PIN, BRIDGE, #9                          |
| 22   | 13601       | BRACKET, MOUNTING, DOUBLE ROLLING BASKET |
| 23   | BH-5050     | BOLT, HEX, 1/2-13 X 5" GRADE 5           |
| 24   | NLT-5013    | NUT, TOP LOCK, 1/2-13                    |
| 25   | BU-1234     | 1/2" U BOLT                              |



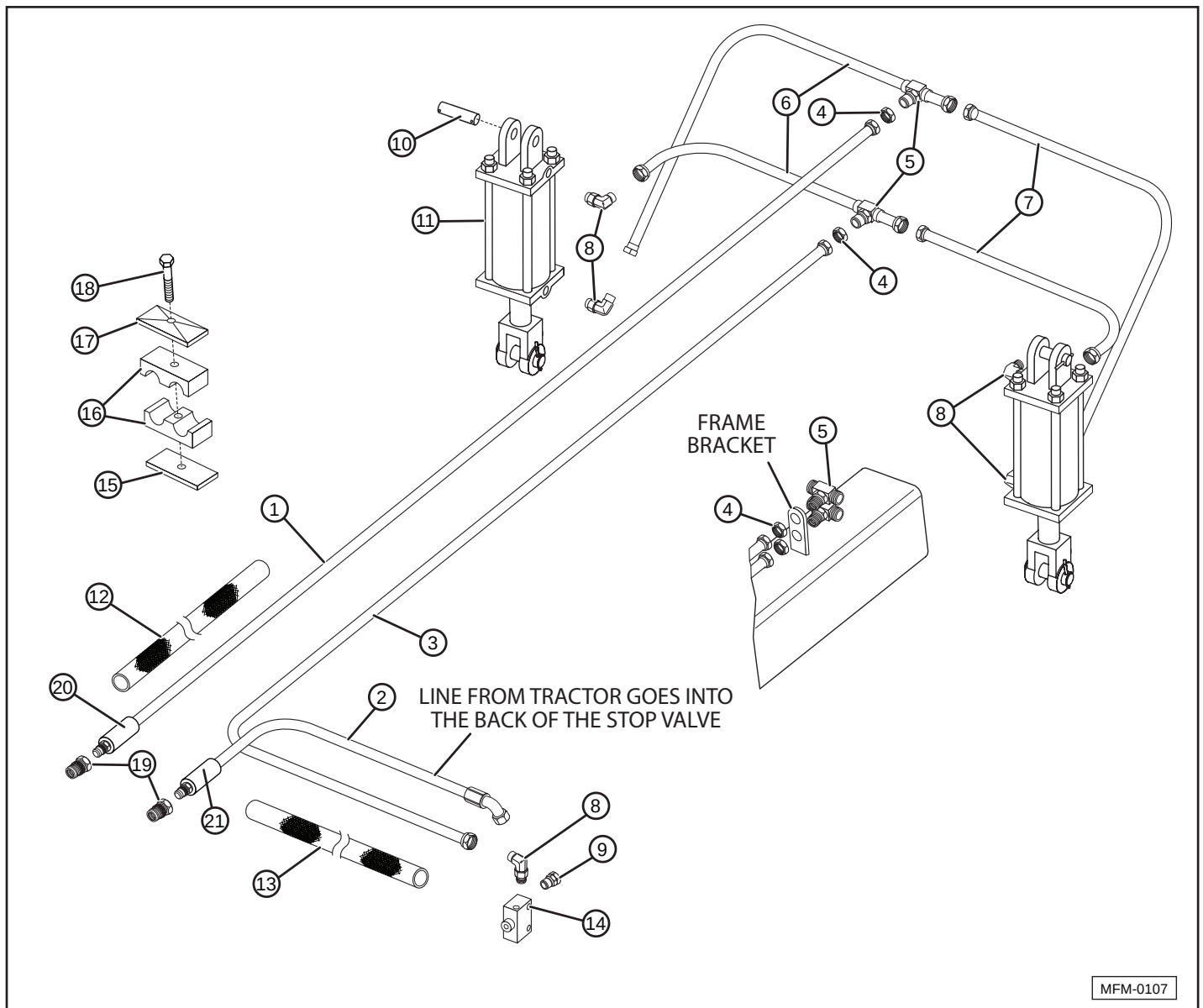
Double Rolling Basket



| Item | Part Number                      | Description                                                                                              |
|------|----------------------------------|----------------------------------------------------------------------------------------------------------|
| 1    | SRB-1552                         | ROLLING BASKET – 52"                                                                                     |
|      | SRB-1563                         | ROLLING BASKET – 63"                                                                                     |
|      | SRB-1574                         | ROLLING BASKET – 74"                                                                                     |
|      | SRB-1585                         | ROLLING BASKET – 85"                                                                                     |
| 2    | 11444<br>11628<br>11498<br>11452 | BASKET MOUNT TUBE – 52"<br>BASKET MOUNT TUBE – 63"<br>BASKET MOUNT TUBE – 74"<br>BASKET MOUNT TUBE – 85" |
| 3    | BU-1234                          | 1/2" U BOLT                                                                                              |
| 4    | BC-7535                          | BOLT, CARRIAGE, 3/4-10 X 3-1/2, GRADE 5                                                                  |
| 5    | NLT-7510                         | NUT, TOP LOCK, 3/4-10                                                                                    |
| 6    | BH-5018                          | BOLT, HEX, 1/2-13 X 1-3/4 GRADE 5                                                                        |

| Item | Part Number | Description            |
|------|-------------|------------------------|
| 7    | NLT-5013    | NUT, TOP LOCK, 1/2-13  |
| 8    | 13081       | RETAINING RING         |
| 9    | 13078       | DUST CAP               |
| 10   | 13076       | SNAP RING              |
| 11   | 13074       | BEARING,SEALED,1" ID   |
| 12   | 13080       | HUB                    |
| 13   | 13079       | SEAL COUNTERFACE       |
| 14   | 13075       | V-SEAL,1.59" ID        |
| 15   | 13077       | BEARING SLEEVE W/GUARD |

## Wheel Lift Hydraulics for CB-4212, 4214

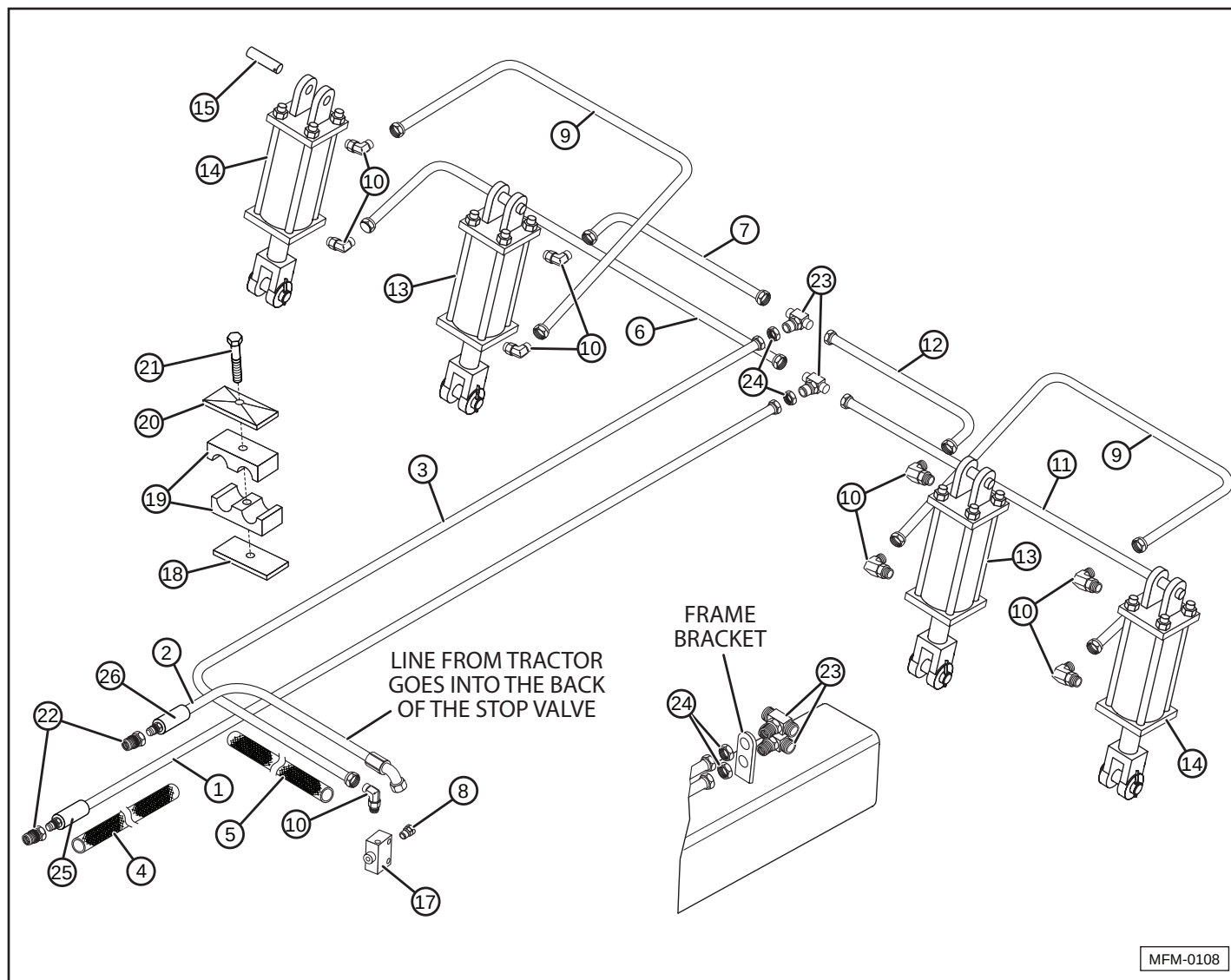


| Item | Part Number          | Description                                                          |
|------|----------------------|----------------------------------------------------------------------|
| 1    | 15626                | HYD HOSE, 1/2(3/4F-3/4ORB), 256                                      |
| 2    | 15646                | HYD HOSE, 1/2(3/4F-3/4ORB), 214                                      |
| 3    | HYH-2090             | 1/2" X 90" HYDRAULIC HOSE                                            |
| 4    | HYO-4002             | 1/2" TEE NUT                                                         |
| 5    | HYF-1222             | TEE (1/2"m - 1/2"m - 1/2"m)                                          |
| 6    | HYH-2028<br>HYH-2030 | 1/2" X 28" HYDRAULIC HOSE (4212)<br>1/2" X 30" HYDRAULIC HOSE (4214) |
| 7    | HYH-2070             | 1/2" X 70" HYDRAULIC HOSE (4212, 4214)                               |
| 8    | HYF-2220             | ELBOW (1/2"m - 1/2" O-RING)                                          |
| 9    | HYF-3220             | ADAPTER (1/2"m - 1/2" O-RING)                                        |
| 10   | HYO-2103             | CYLINDER CLEVIS PIN, 1 X 3-1/2                                       |
| 11   | HYA-33008            | 3" X 8" CYLINDER, ASAE                                               |
| 12   | HYS-2001             | HYDRAULIC HOSE COVER, 110"                                           |
| 13   | HYS-2004             | HYDRAULIC HOSE COVER, 12"                                            |

| Item | Part Number | Description                          |
|------|-------------|--------------------------------------|
| 14   | HYO-3021    | HYDRAULIC STOP VALVE                 |
| 15*  | HYO-1206    | HYDRAULIC CLAMP WELD PLATE, 1/2      |
| 16*  | HYO-1202    | HYDRAULIC CLAMP BODY, 1/2 (3/4 O.D.) |
| 17*  | HYO-1204    | HYDRAULIC CLAMP COVER, 1/2           |
| 18*  | HYO-1208    | HYDRAULIC CLAMP BOLT, 1/2 (1-3/4)    |
| 19   | 15641       | HYD DISCONNECT, MALE, 3/4 ORB        |
| 20   | 15037       | HYDRA GRIP, RETURN (-), YELLOW       |
| 21   | 15036       | HYDRA GRIP, SUPPLY (+), YELLOW       |

\* HYO-1201, CONSISTS OF 15, 16, 17, AND 18

## Wheel Lift Hydraulics for CB-4220, 4225, 4230 and 4235





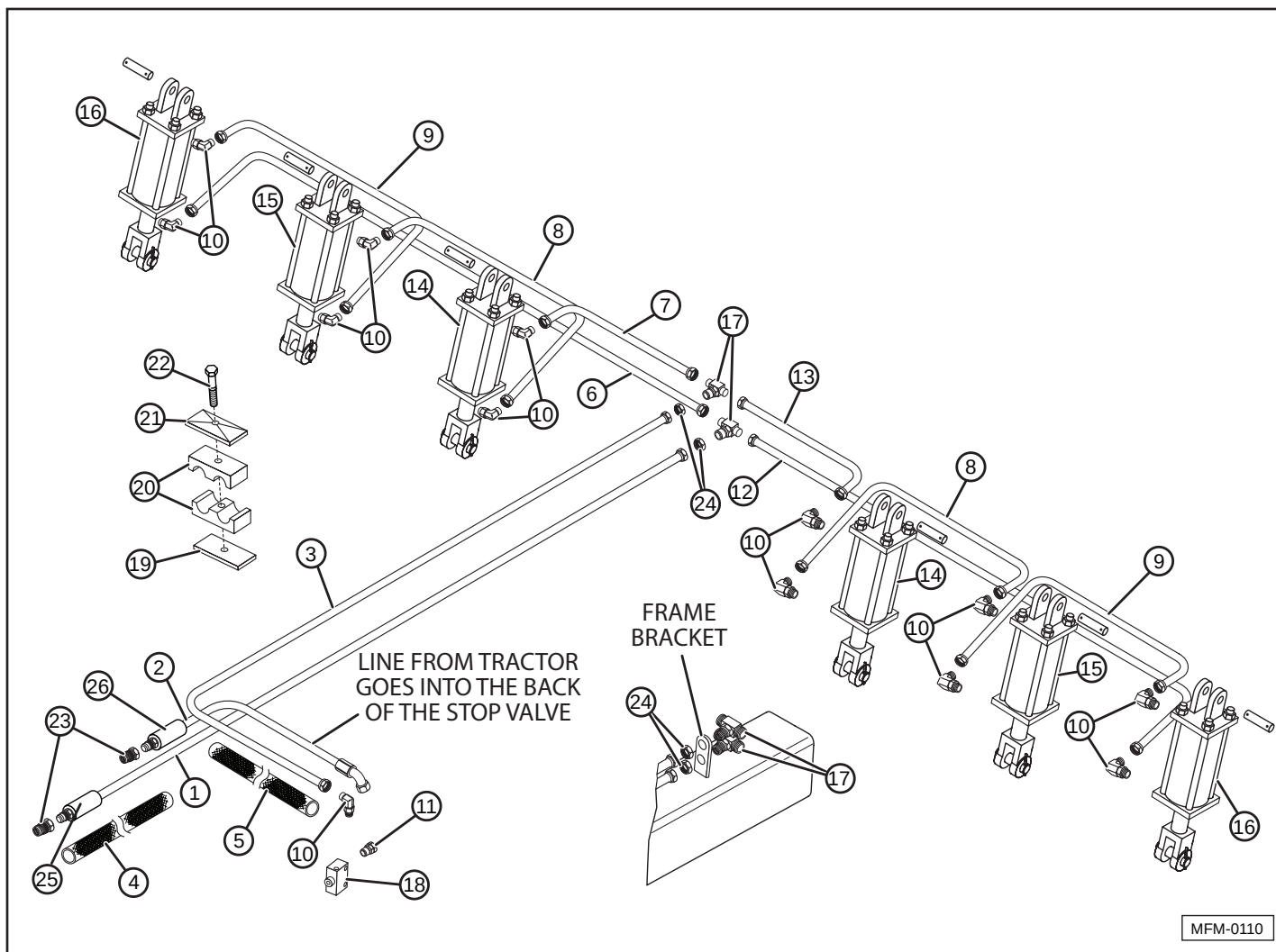
## Wheel Lift Hydraulics for CB-4220, 4225, 4230 and 4235 (continued)

| Item | Part Number                                  | Description                                                                                                                                                  |
|------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | 15648                                        | HYD HOSE, 1/2(3/4F-3/4ORB), 236                                                                                                                              |
| 2    | 15646                                        | HYD HOSE, 1/2(3/4F-3/4ORB), 214                                                                                                                              |
| 3    | HYH-2074<br>HYH-2078<br>HYH-2090             | 1/2" X 74" HYDRAULIC HOSE (CB-4220)<br>1/2" X 78" HYDRAULIC HOSE (CB-4225 and CB-4230)<br>1/2" X 90" HYDRAULIC HOSE (CB-4235)                                |
| 4    | HYS-2001                                     | HYDRAULIC HOSE COVER, 110"                                                                                                                                   |
| 5    | HYS-2004                                     | HYDRAULIC HOSE COVER, 12"                                                                                                                                    |
| 6    | HYH-2088<br>HYH-2115<br>HYH-2136<br>HYH-2144 | 1/2" X 88" HYDRAULIC HOSE (CB-4220)<br>1/2" X 115" HYDRAULIC HOSE (CB-4225)<br>1/2" X 136" HYDRAULIC HOSE (CB-4230)<br>1/2" X 144" HYDRAULIC HOSE (CB-4235)  |
| 7    | HYH-2024<br>HYH-2030                         | 1/2" X 24" HYDRAULIC HOSE (4220-4230)<br>1/2" X 30" HYDRAULIC HOSE (4235)                                                                                    |
| 8    | HYF-3220                                     | ADAPTER (1/2"m – 1/2" o-ring)                                                                                                                                |
| 9    | HYH-2068<br>HYH-2094<br>HYH-2115             | 1/2" X 68" HYDRAULIC HOSE (CB-4220)<br>1/2" X 94" HYDRAULIC HOSE (CB-4225)<br>1/2" X 115" HYDRAULIC HOSE (CB-4230 and CB-4235)                               |
| 10   | HYF-2220                                     | ELBOW (1/2"m – 1/2" O-RING)                                                                                                                                  |
| 11   | HYH-2108<br>HYH-2162<br>HYH-2182<br>HYH-2195 | 1/2" X 108" HYDRAULIC HOSE (CB-4220)<br>1/2" X 162" HYDRAULIC HOSE (CB-4225)<br>1/2" X 182" HYDRAULIC HOSE (CB-4230)<br>1/2" X 195" HYDRAULIC HOSE (CB-4235) |
| 12   | HYH-2044<br>HYH-2070<br>HYH-2078             | 1/2" X 44" HYDRAULIC HOSE (4220)<br>1/2" X 70" HYDRAULIC HOSE (4225, 4230)<br>1/2" X 78" HYDRAULIC HOSE (4235)                                               |
| 13   | HYR-4208<br>DHR 425-8-150                    | 4-1/4" X 8" REPHASING CYLINDER (MONARCH)<br>4-1/4" X 8" REPHASING CYLINDER (MIDWAY)                                                                          |

| Item                                | Part Number               | Description                                                                 |
|-------------------------------------|---------------------------|-----------------------------------------------------------------------------|
| 14                                  | HYR-4008<br>DHR-400-8-138 | 4" X 8" REPHASING CYLINDER (MONARCH)<br>4" X 8" REPHASING CYLINDER (MIDWAY) |
| 15                                  | HYO-2103                  | CYLINDER CLEVIS PIN, 1 X 3-1/2                                              |
| 16                                  | HYF-2022                  | ELBOW (1/2"m – 1/2"f)                                                       |
| 17                                  | HYO-3021                  | HYDRAULIC STOP VALVE                                                        |
| 18                                  | HYO-1206                  | HYDRAULIC CLAMP WELD PLATE, 1/2                                             |
| 19*                                 | HYO-1202                  | HYDRAULIC CLAMP BODY, 1/2 (3/4" O.D.)                                       |
| 20*                                 | HYO-1204                  | HYDRAULIC CLAMP COVER, 1/2                                                  |
| 21*                                 | HYO-1208                  | HYDRAULIC CLAMP BOLT, 1/2 (1-3/4)                                           |
| 22*                                 | 15641                     | HYD DISCONNECT, MALE, 3/4 ORB                                               |
| 23                                  | HYF-1222                  | TEE (1/2"m – 1/2"m – 1/2"m)                                                 |
| 24                                  | HYO-4002                  | 1/2" TEE NUT                                                                |
| 25                                  | 15037                     | HYDRA GRIP, RETURN (-), YELLOW                                              |
| 26                                  | 15036                     | HYDRA GRIP, SUPPLY (+), YELLOW                                              |
| <b>HYDRAULIC CYLINDER SEAL KITS</b> |                           |                                                                             |
|                                     | 639567                    | SEAL KIT FOR HYR-4208 CYLINDER (MONARCH)                                    |
|                                     | 4A6104                    | SEAL KIT FOR DHR 425-8-150 EBCS CYLINDER (MIDWAY)                           |
|                                     | 639564                    | SEAL KIT FOR HYR-4008 CYLINDER (MONARCH)                                    |
|                                     | 4A5103                    | SEAL KIT FOR DHR 400-8-138 EBCS CYLINDER (MIDWAY)                           |

\* HYO-1201, CONSISTS OF 19, 20, 21, AND 22

## Wheel Lift Hydraulics for CB-4245



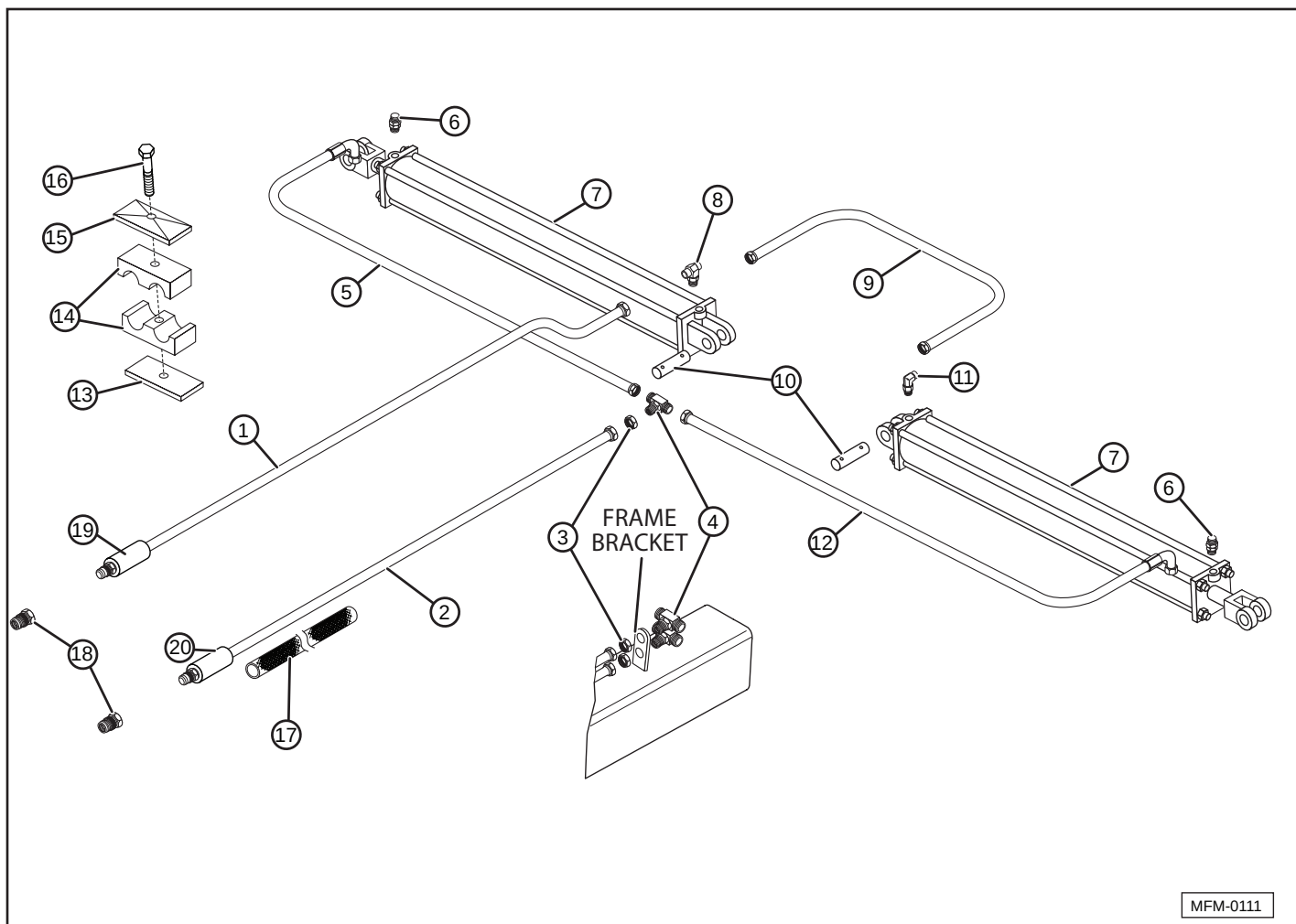
MFM-0110

| Item | Part Number               | Description                                                                         |
|------|---------------------------|-------------------------------------------------------------------------------------|
| 1    | 15648                     | HYD HOSE, 1/2(3/4F-3/4ORB), 236                                                     |
| 2    | 15646                     | HYD HOSE, 1/2(3/4F-3/4ORB), 214                                                     |
| 3    | HYH-2074                  | 1/2" X 74" HYDRAULIC HOSE                                                           |
| 4    | HYS-2001                  | HYDRAULIC HOSE COVER, 110"                                                          |
| 5    | HYS-2004                  | HYDRAULIC HOSE COVER, 12"                                                           |
| 6    | HYH-2255                  | 1/2" X 255" HYDRAULIC HOSE                                                          |
| 7    | HYH-2030                  | 1/2" X 30" HYDRAULIC HOSE                                                           |
| 8    | HYH-2128                  | 1/2" X 128" HYDRAULIC HOSE                                                          |
| 9    | HYH-2104                  | 1/2" X 104" HYDRAULIC HOSE                                                          |
| 10   | HYF-2220                  | ELBOW (1/2"m – 1/2" O-RING)                                                         |
| 11   | HYF-3220                  | ADAPTER (1/2"m – 1/2" O-RING)                                                       |
| 12   | HYH-2287                  | 1/2" X 287" HYDRAULIC HOSE                                                          |
| 13   | HYH-2065                  | 1/2" X 65" HYDRAULIC HOSE                                                           |
| 14   | HYR-4208<br>DHR 425-8-150 | 4-1/4" X 8" REPHASING CYLINDER (MONARCH)<br>4-1/4" X 8" REPHASING CYLINDER (MIDWAY) |
| 15   | HYR-4008<br>DHR 400-8-138 | 4" X 8" REPHASING CYLINDER (MONARCH)<br>4" X 8" REPHASING CYLINDER (MIDWAY)         |
| 16   | HYR-3808                  | 3-3/4" X 8" REPHASING CYLINDER                                                      |
| 17   | HYF-1222                  | TEE (1/2"m – 1/2"m – 1/2"m)                                                         |
| 18   | HYO-3021                  | HYDRAULIC STOP VALVE                                                                |

| Item                                | Part Number | Description                               |
|-------------------------------------|-------------|-------------------------------------------|
| 19*                                 | HYO-1206    | HYDRAULIC CLAMP WELD PLATE, 1/2           |
| 20*                                 | HYO-1202    | HYDRAULIC CLAMP BODY, 1/2 (3/4" O.D.)     |
| 21*                                 | HYO-1204    | HYDRAULIC CLAMP COVER, 1/2                |
| 22*                                 | HYO-1208    | HYDRAULIC CLAMP BOLT, 1/2 (1-3/4)         |
| 23                                  | 15641       | HYD DISCONNECT, MALE, 3/4 ORB             |
| 24                                  | HYO-4002    | 1/2" TEE NUT                              |
| 25                                  | 15037       | HYDRA GRIP, RETURN (-), YELLOW            |
| 26                                  | 15036       | HYDRA GRIP, SUPPLY (+), YELLOW            |
| <b>HYDRAULIC CYLINDER SEAL KITS</b> |             |                                           |
|                                     | 639567      | SEAL KIT FOR HYR-4208 CYLINDER (MONARCH)  |
|                                     | 4A6104      | SEAL KIT FOR DHR 425-8-150 EBSCS (MIDWAY) |
|                                     | 639564      | SEAL KIT FOR HYR-4008 CYLINDER (MONARCH)  |
|                                     | 4A5103      | SEAL KIT FOR DHR 400-8-138 EBSCS (MIDWAY) |
|                                     | 639563      | SEAL KIT FOR HYR-3808 CYLINDER (MONARCH)  |

\* HYO-1201, CONSISTS OF 19, 20, 21, AND 22

## Wing Fold Hydraulics for CB-4220, 4225 and 4230



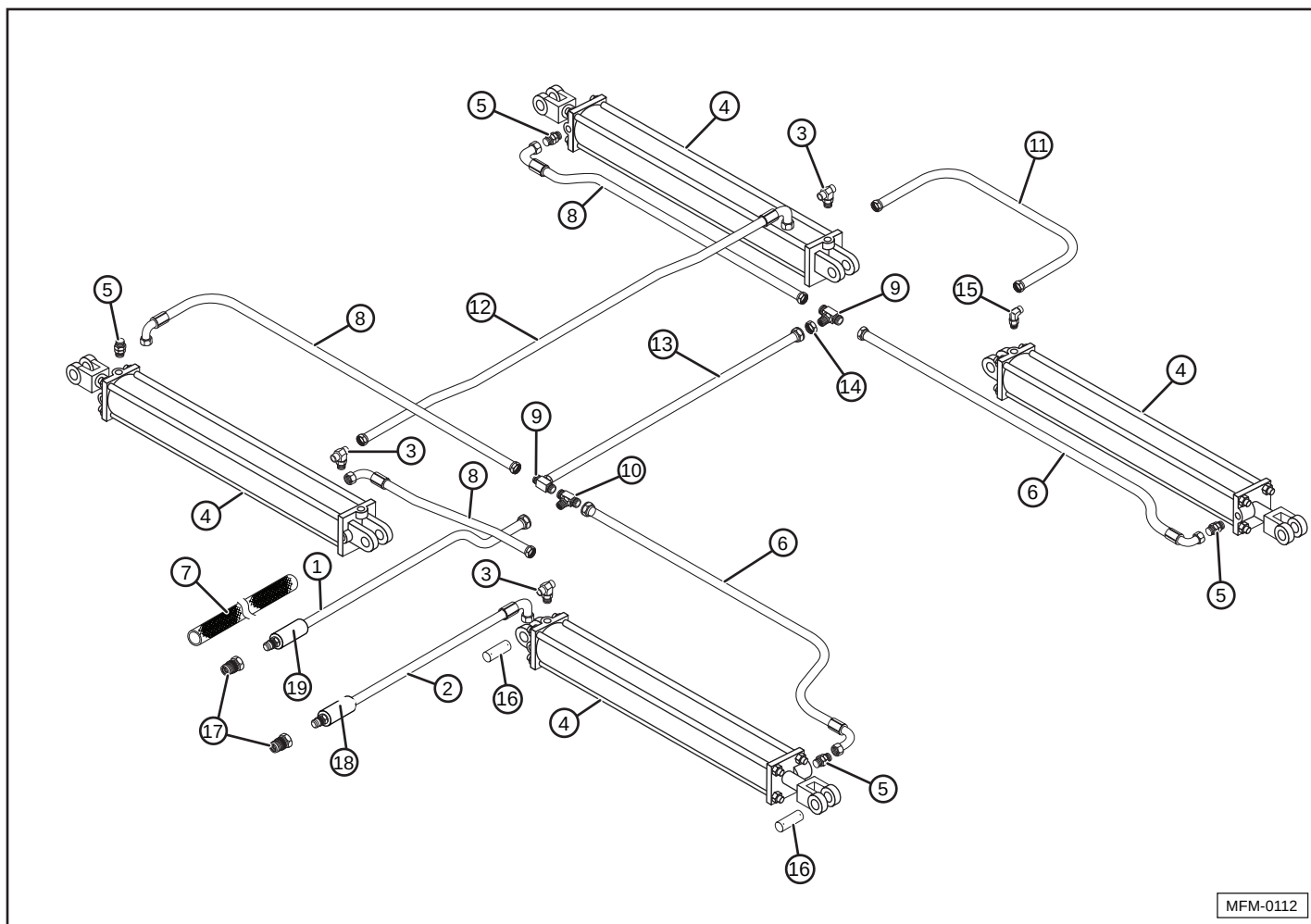
| Item | Part Number                      | Description                                                                                                                              |
|------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | 15626                            | HYD HOSE, 1/2(3/4F-3/4ORB), 256                                                                                                          |
| 2    | 15647                            | HYD HOSE, 1/2(3/4F-3/4ORB), 250                                                                                                          |
| 3    | HYO-4002                         | 1/2" TEE NUT                                                                                                                             |
| 4    | HYF-1222                         | TEE (1/2"m – 1/2"m – 1/2"m)                                                                                                              |
| 5    | HYH-1026                         | 1/2" x 30" HYDRAULIC HOSE                                                                                                                |
| 6    | 10621                            | HYDRAULIC RESTRICTOR, 1/16"                                                                                                              |
| 7    | HYC-4030<br>HYC-4040<br>HYC-4540 | 4" x 30" HYDRAULIC CYLINDER (RD-4020)<br>4" x 40" HYDRAULIC CYLINDER (MONARCH)<br>(RD-4025)<br>4-1/2" x 40" HYDRAULIC CYLINDER (CB-4230) |
| 8    | HYF-1202                         | TEE (1/2"m – 1/2" O-RING – 1/2"m)                                                                                                        |
| 9    | HYH-2024<br>HYH-2030             | 1/2" x 24" HYDRAULIC HOSE (RD-4020)<br>1/2" x 30" HYDRAULIC HOSE (RD-4025 and RD-4030)                                                   |
| 10   | HYO-2123                         | CYLINDER CLEVIS PIN, 1-1/4 X 3-1/2                                                                                                       |

| Item | Part Number          | Description                                                                            |
|------|----------------------|----------------------------------------------------------------------------------------|
| 11   | HYF-2220             | ELBOW (1/2"m – 1/2" O-RING)                                                            |
| 12   | HYH-1017<br>HYH-1025 | 1/2" X 52" HYDRAULIC HOSE (RD-4020)<br>1/2" x 70" HYDRAULIC HOSE (RD-4025 and RD-4030) |
| 13*  | HYH-1027             | HYDRAULIC CLAMP WELD PLATE, 1/2                                                        |
| 14*  | HYH-1025             | HYDRAULIC CLAMP BODY, 1/2 (3/4" O.D.)                                                  |
| 15*  | HYO-1204             | HYDRAULIC CLAMP COVER, 1/2                                                             |
| 16*  | HYO-1208             | HYDRAULIC CLAMP BOLT, 1/2 (1-3/4)                                                      |
| 17   | HYS-2001             | HYDRAULIC HOSE COVER, 110"                                                             |
| 18   | 15641                | HYD DISCONNECT, MALE, 3/4 ORB                                                          |
| 19   | 15032                | HYDRA GRIP, SUPPLY (+), RED                                                            |
| 20   | 15033                | HYDRA GRIP, RETURN (-), RED                                                            |

\* HYO-1201, CONSISTS OF 13, 14, 15, AND 16



## Wing Fold Hydraulics for CB-4235

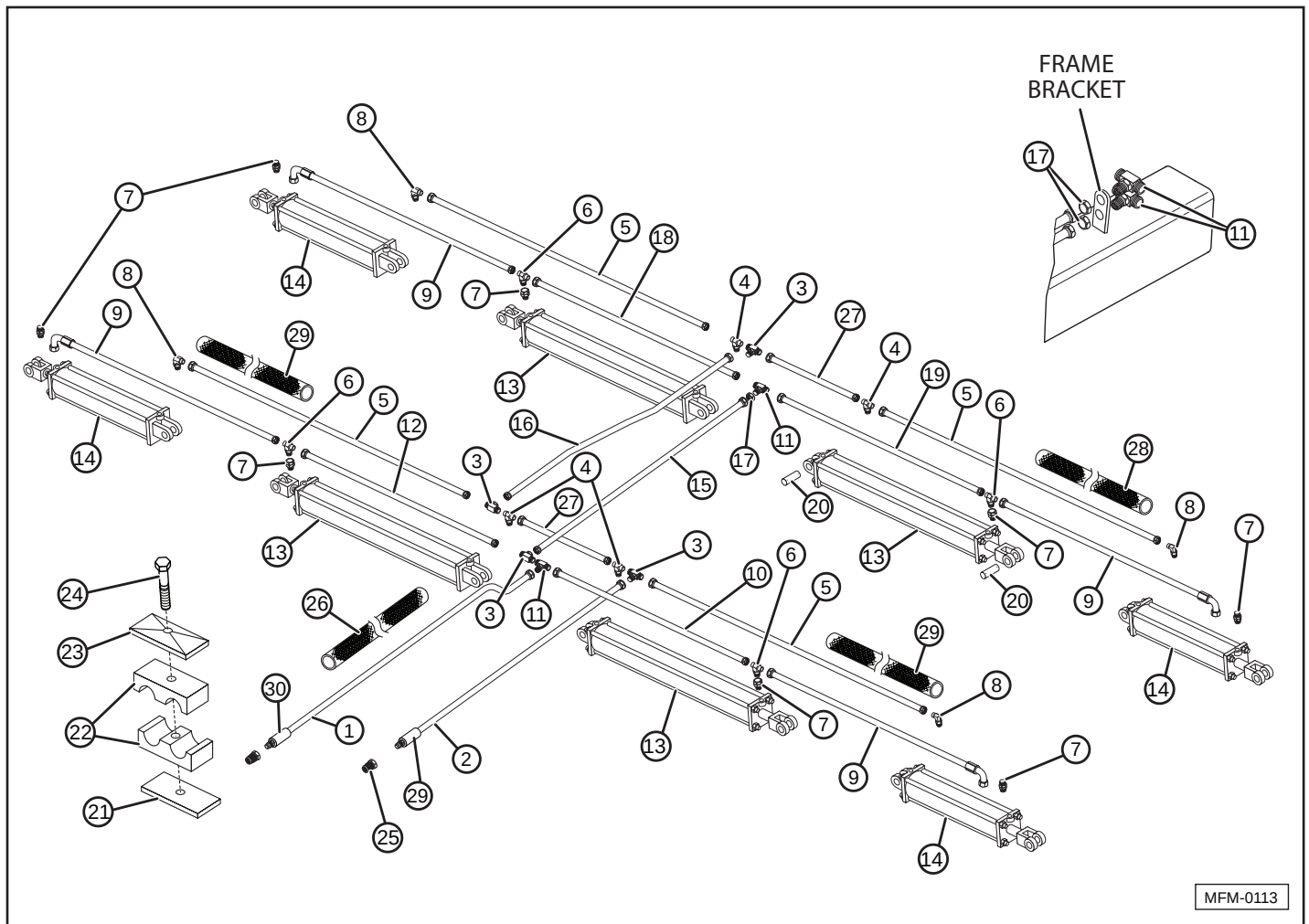


MFM-0112

| Item | Part Number | Description                           |
|------|-------------|---------------------------------------|
| 1    | 15649       | HYD HOSE, 1/2(3/4F-3/4ORB), 174       |
| 2    | 15646       | HYD HOSE, 1/2(3/4F-3/4ORB), 214       |
| 3    | HYF-1202    | TEE (1/2"m – 1/2" O-RING - 1/2"m)     |
| 4    | HYC-4040    | 4" X 40" HYDRAULIC CYLINDER (MONARCH) |
| 5    | 10621       | HYDRAULIC RESTRICTOR, 1/16")          |
| 6    | HYH-1028    | 1/2" X 84" HYDRAULIC HOSE             |
| 7    | HYS-2001    | HYDRAULIC HOSE COVER, 110"            |
| 8    | HYH-1024    | 1/2" X 38" HYDRAULIC HOSE             |
| 9    | HYF-1222    | TEE (1/2" m – 1/2" m – 1/2"m)         |
| 10   | HYF-1223    | TEE (1/2" m – 1/2" m – 1/2"F)         |
| 11   | HYH-2040    | 1/2" X 40" HYDRAULIC HOSE             |

| Item | Part Number | Description                            |
|------|-------------|----------------------------------------|
| 12   | HYH-1025    | 1/2" x 70" HYDRAULIC HOSE              |
| 13   | HYH-2074    | 1/2" x 74" HYDRAULIC HOSE              |
| 14   | HYO-4002    | 1/2" TEE NUT                           |
| 15   | HYF-2220    | ELBOW (1/2"m – 1/2" O-RING)            |
| 16   | HYO-2123    | CYLINDER CLEVIS PIN, 1-1/4 X 3 – 3 1/2 |
| 17   | 15641       | HYD DISCONNECT, MALE, 3/4 ORB          |
| 18   | 15032       | HYDRA GRIP, SUPPLY (+), RED            |
| 19   | 15033       | HYDRA GRIP, RETURN (-), RED            |

## Wing Fold Hydraulics for CB-4245

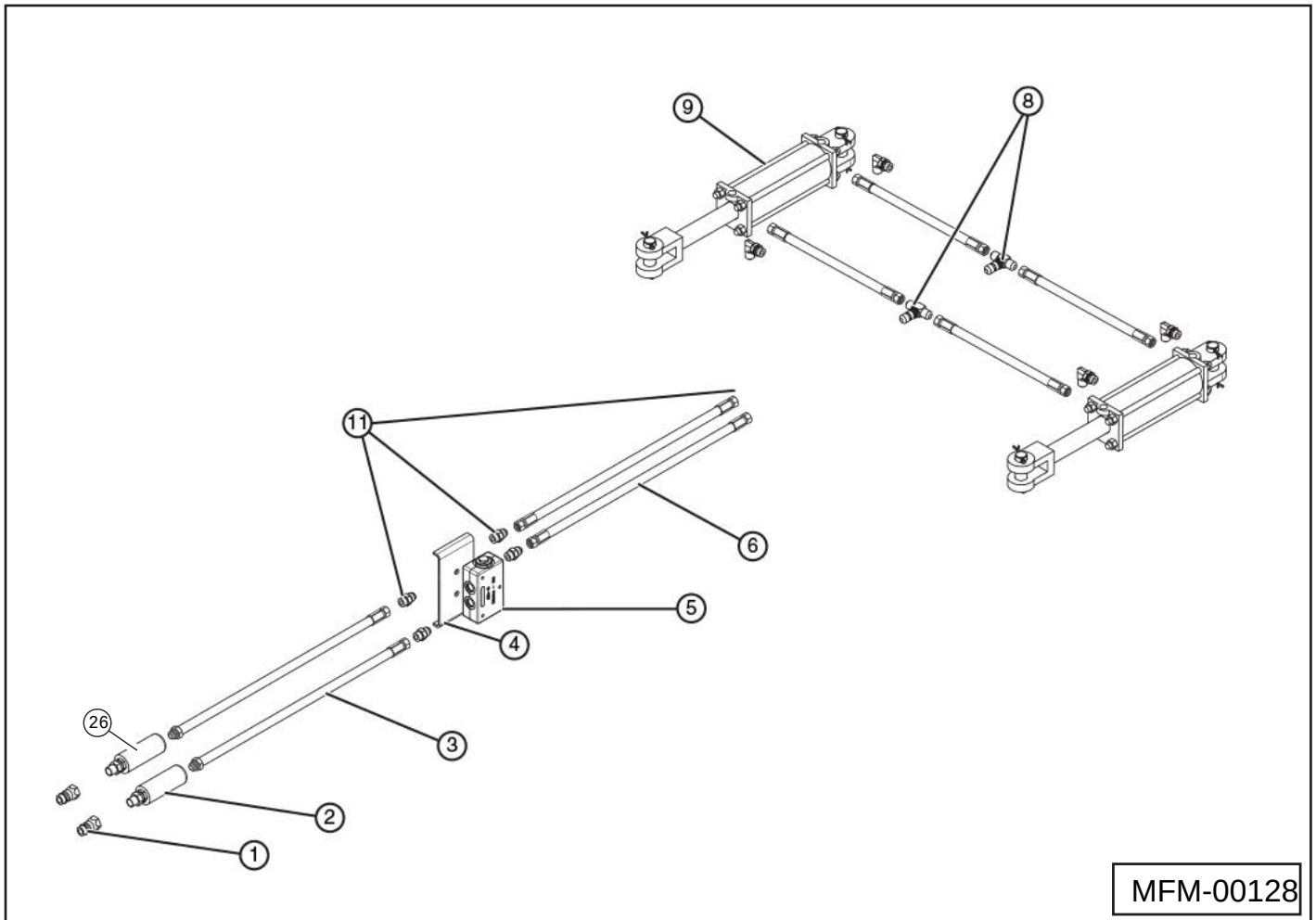


| Item | Part Number | Description                       |
|------|-------------|-----------------------------------|
| 1    | 15650       | HYD HOSE, 1/2(3/4F-3/4ORB), 194   |
| 2    | 15646       | HYD HOSE, 1/2(3/4F-3/4ORB), 214   |
| 3    | HYF-1223    | TEE (1/2"m – 1/2"m – 1/2"f)       |
| 4    | HYF-1202    | TEE (1/2"m – 1/2" O-RING – 1/2"m) |
| 5    | HYH-2128    | 1/2" x 128" HYDRAULIC HOSE        |
| 6    | HYF-1232    | TEE (1/2"m – 1/2"f – 1/2"m)       |
| 7    | 10621       | HYDRAULIC RESTRICTOR, 1/16"       |
| 8    | HYF-2220    | ELBOW (1/2"m – 1/2" O-RING)       |
| 9    | HYH-1029    | 1/2" x 115" HYDRAULIC HOSE        |
| 10   | HYH-2074    | 1/2" x 74" HYDRAULIC HOSE         |
| 11   | HYF-1222    | TEE (1/2"m – 1/2"m – 1/2"m)       |
| 12   | HYH-2055    | 1/2" x 55" HYDRAULIC HOSE         |
| 13   | HYC-4036    | 4" X 36" HYDRAULIC CYLINDER       |
| 14   | HYC-40 24   | 4" X 24" HYDRAULIC CYLINDER       |
| 15   | HYH-2060    | 1/2" x 60" HYDRAULIC HOSE         |
| 16   | HYH-2065    | 1/2" x 65" HYDRAULIC HOSE         |
| 17   | HYO-4002    | 1/2" TEE NUT                      |

| Item | Part Number | Description                           |
|------|-------------|---------------------------------------|
| 18   | HYH-2050    | 1/2" x 50" HYDRAULIC HOSE             |
| 19   | HYH-2084    | 1/2" x 84" HYDRAULIC HOSE             |
| 20   | HYO-2123    | CYLINDER CLEVIS PIN, 1-1/4 X 3-1/2    |
| 21*  | HYO-1206    | HYDRAULIC CLAMP WELD PLATE, 1/2       |
| 22*  | HYO-1202    | HYDRAULIC CLAMP BODY, 1/2 (3/4" O.D.) |
| 23*  | HYO-1204    | HYDRAULIC CLAMP COVER, 1/2            |
| 24*  | HYO-1208    | HYDRAULIC CLAMP BOLT, 1/2 (1-3/4)     |
| 25   | 15641       | HYD DISCONNECT, MALE, 3/4 ORB         |
| 26   | HYS-2001    | HYDRAULIC HOSE COVER, 110"            |
| 27   | HYH-2052    | 1/2" x 52" HYDRAULIC HOSE             |
| 28   | HYS-2002    | HYDRAULIC HOSE COVER, 85"             |
| 29   | 15032       | HYDRA GRIP, SUPPLY (+), RED           |
| 30   | 15033       | HYDRA GRIP, RETURN (-), RED           |

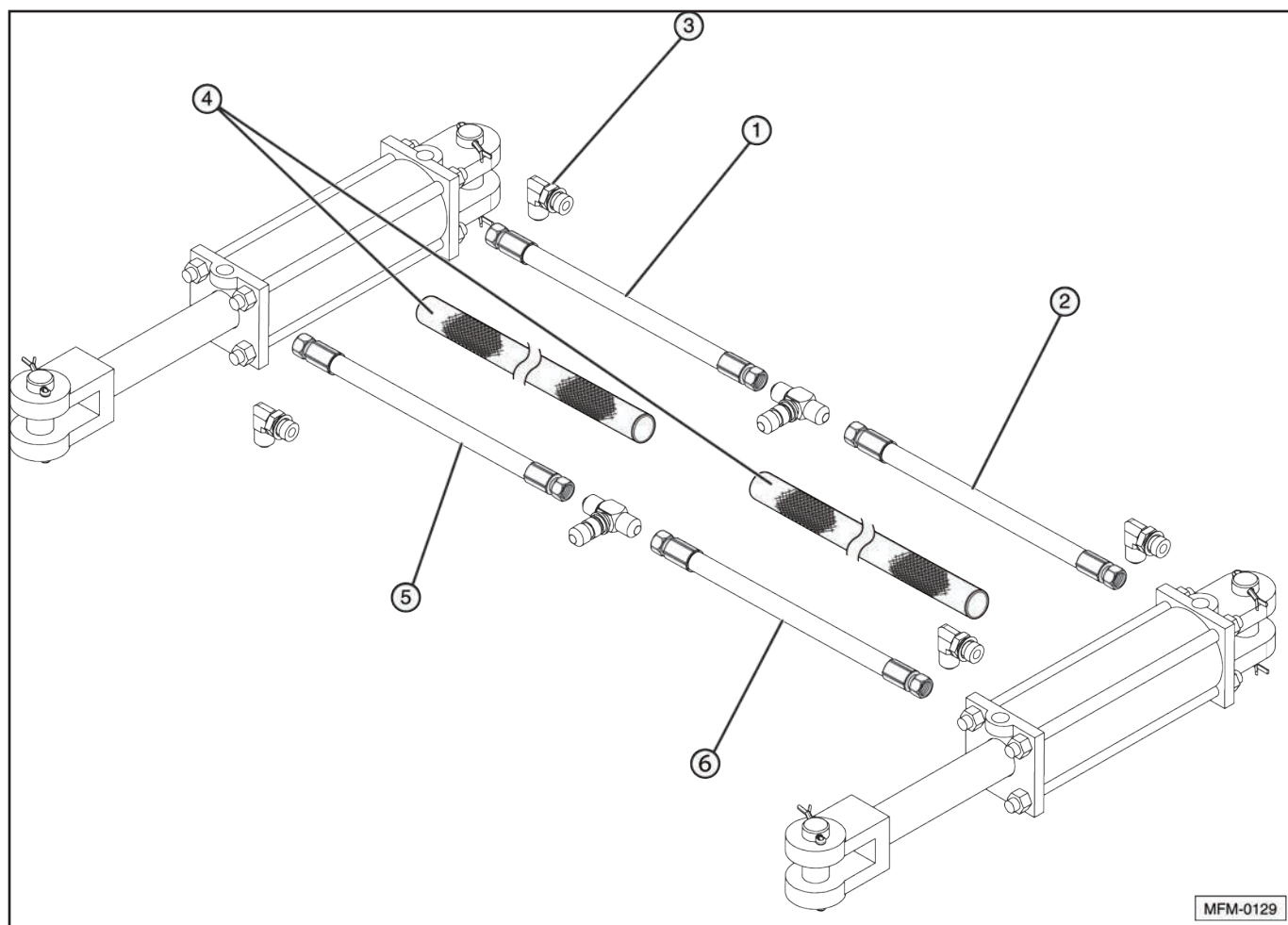
\* HYO-1201, CONSISTS OF 21, 22, 23, AND 24

## Disk Gang Hydraulics for All Models



| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 1    | 15641       | HYD DISCONNECT, MALE, 3/4 ORB   |
| 2    | 15035       | HYDRA GRIP, RETURN (-), GREEN   |
| 2a   | 15034       | HYDRA GRIP, SUPPLY (+), GREEN   |
| 3    | 15626       | HYD HOSE, 1/4(9/16F-3/4ORB), 88 |
| 4    | RD-4309     | HYDRAULIC HOSE RACK CLAMP       |
| 5    | 14092       | HYD LOCK VALVE, SINGLE (PRINCE) |
| 6    | 10989       | HYD HOSE, 1/4(9/16F), 84        |
| 7    | RD-4924     | RELIEF VALVE MOUNT              |
| 8    | HYF-1888    | HYD TEE, 9/16 M - 9/16 M 9/16 M |
| 9    | HYC-32004   | HYD CYLINDER, 4 x 8             |
| 10   | HYO-3023    | HYDRAULIC RELIEF VALVE          |
| 11   | HYF-3820    | HYD ADAPTER, 3/8M - 1/2 MORB    |

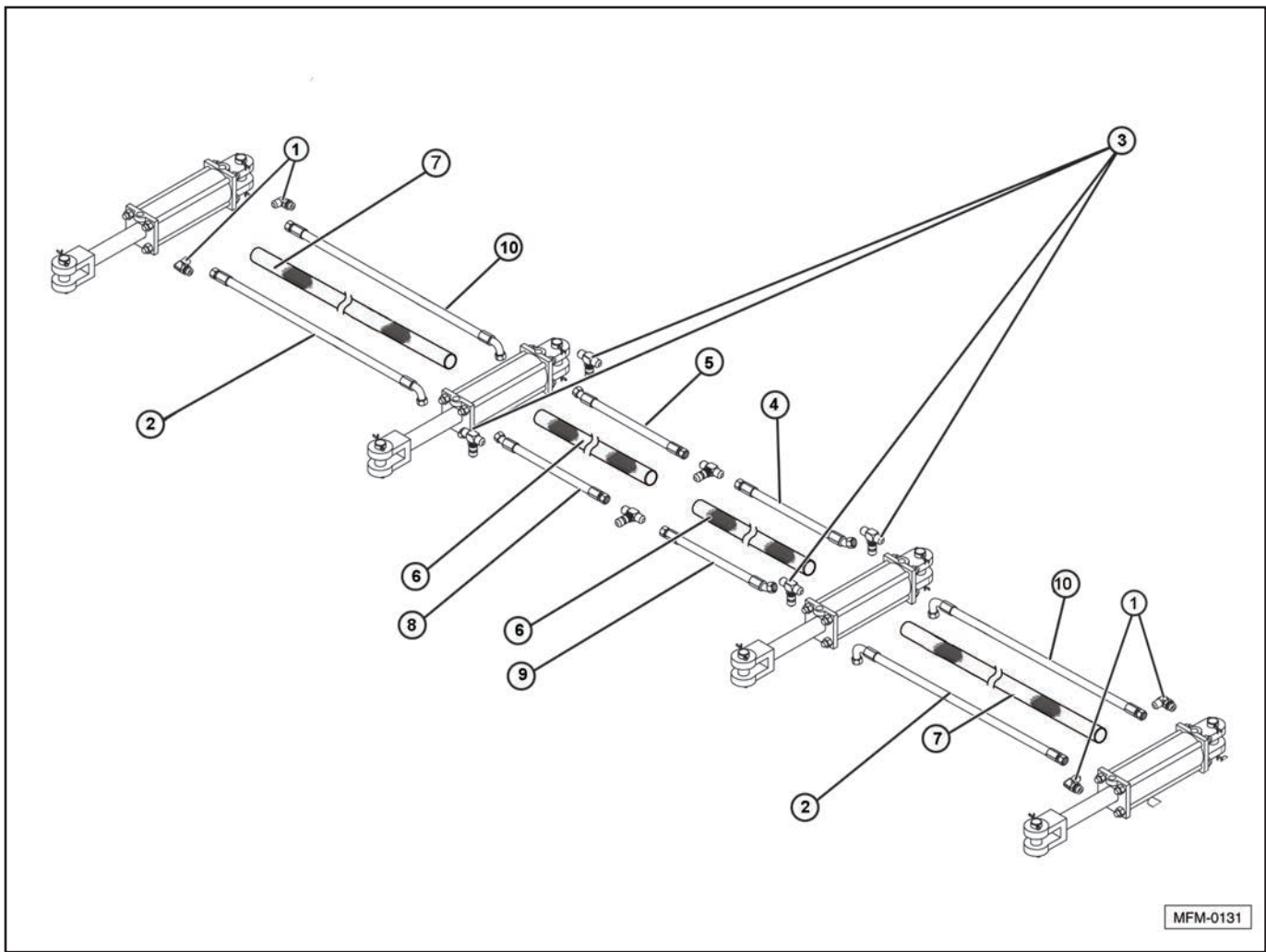
## Disk Gang Hydraulics for CB-4212, 4214



| Item | Part Number | Description                |
|------|-------------|----------------------------|
| 1    | 10801       | HYD HOSE, 1/4, 54"         |
| 2    | 10802       | HYD HOSE, 1/4, 86"         |
| 3    | HYF-2820    | HYD ELBOW, 9/16M - 3/4MORB |
| 4    | HYS-2011    | HYD HOSE COVER, 48         |
| 5    | 10985       | HYD HOSE, 1/4, 48"         |
| 6    | 10809       | HYD HOSE, 1/4, 80"         |

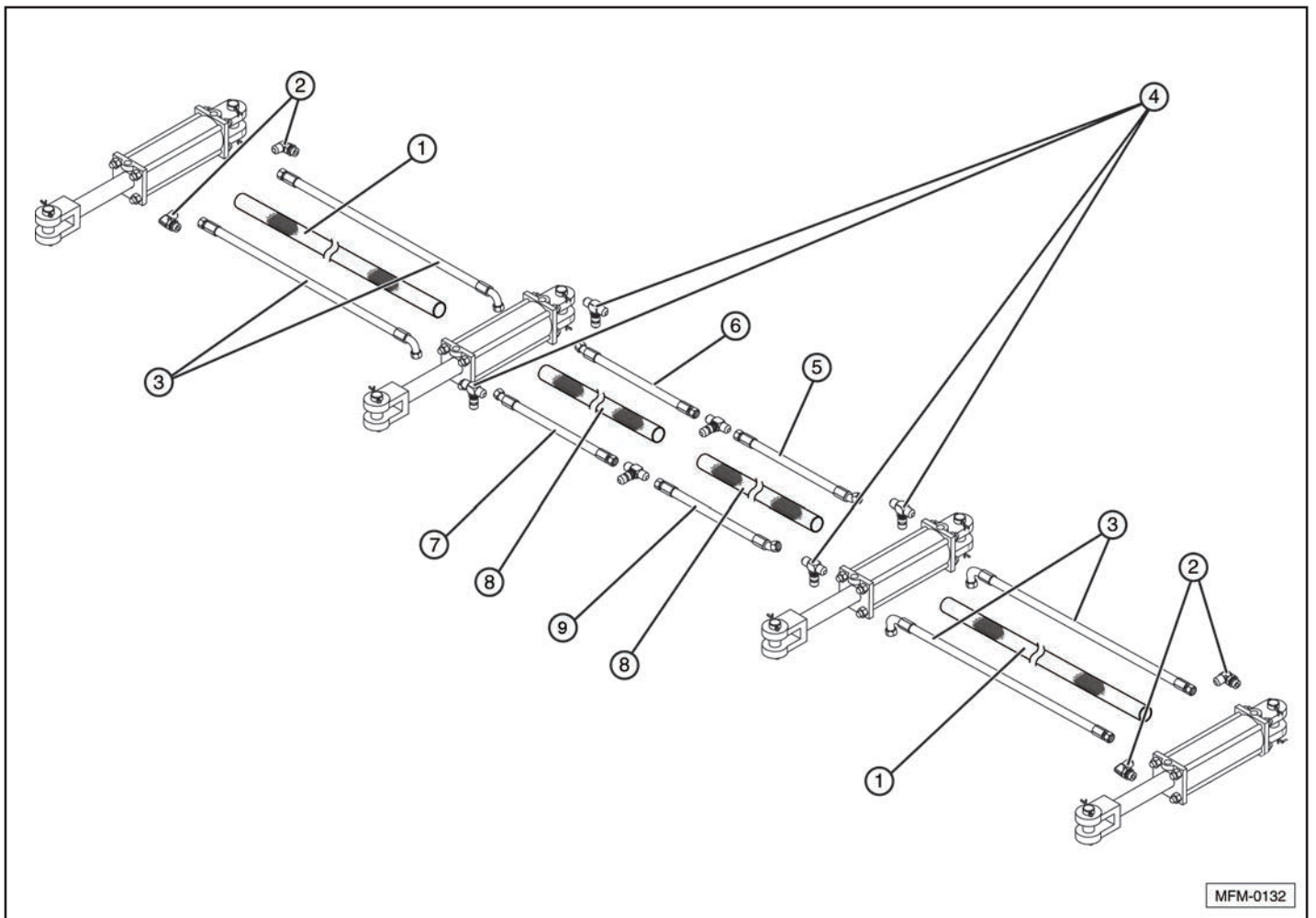


## Disk Gang Hydraulics for CB-4220



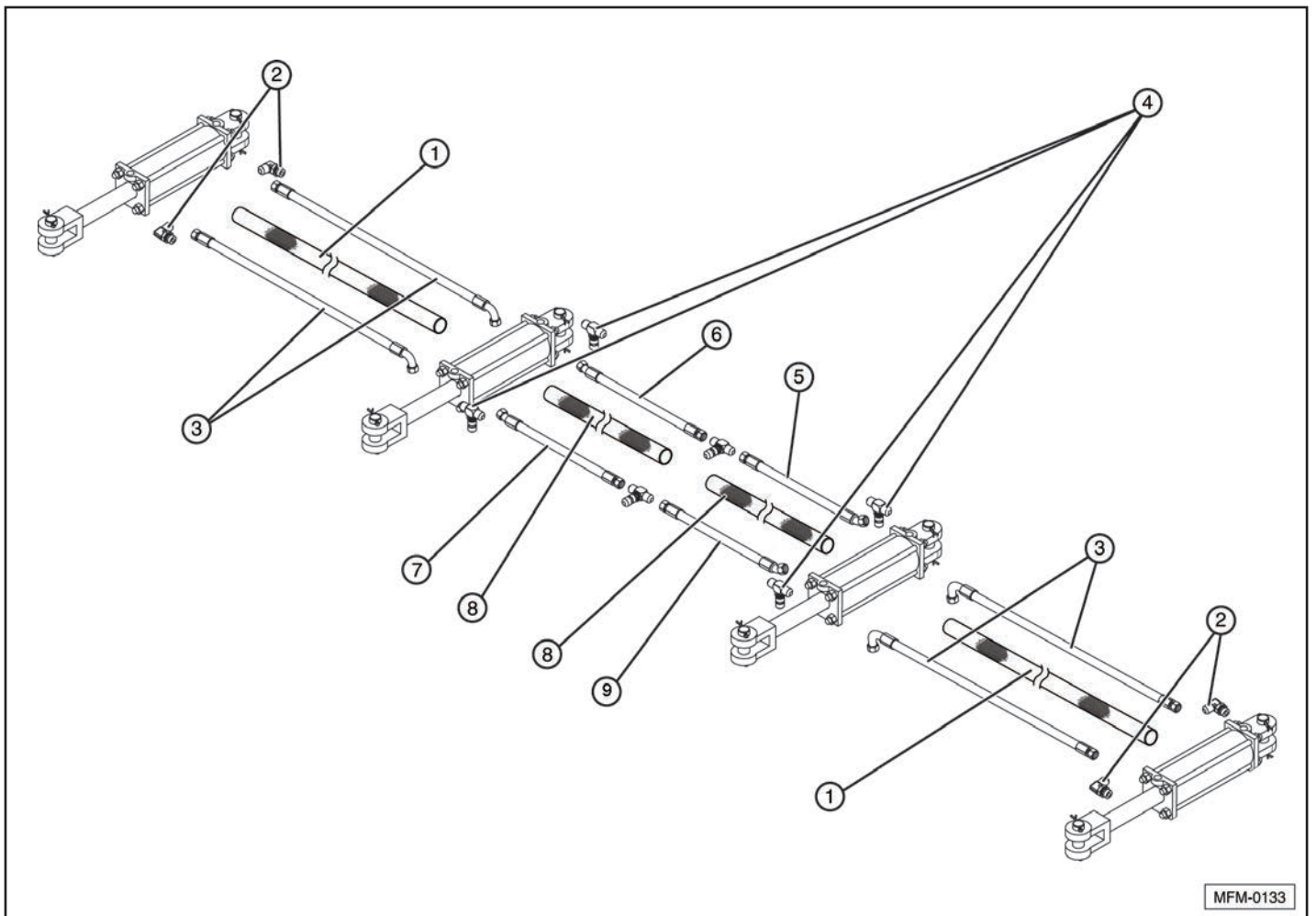
| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 1    | HYF-2820    | HYD ELBOW, 9/16M - 3/4MORB      |
| 2    | 10809       | HYD HOSE, 1/4, 80"              |
| 3    | HYF-1809    | HYD TEE, 9/16M - 3/4ORB - 9/16M |
| 4    | 10800       | HYD HOSE, 1/4, 58"              |
| 5    | 10985       | HYD HOSE, 1/4, 48"              |
| 6    | HYS-2011    | HYD HOSE COVER, 48              |
| 7    | HYS-2006    | HYD HOSE COVER, 60              |
| 8    | 15421       | HYD HOSE, 1/4, 41"              |
| 9    | 10986       | HYD HOSE, 1/4, 52"              |
| 10   | 14209       | HYD HOSE, 1/4, 72"              |

## Disk Gang Hydraulics for CB-4225



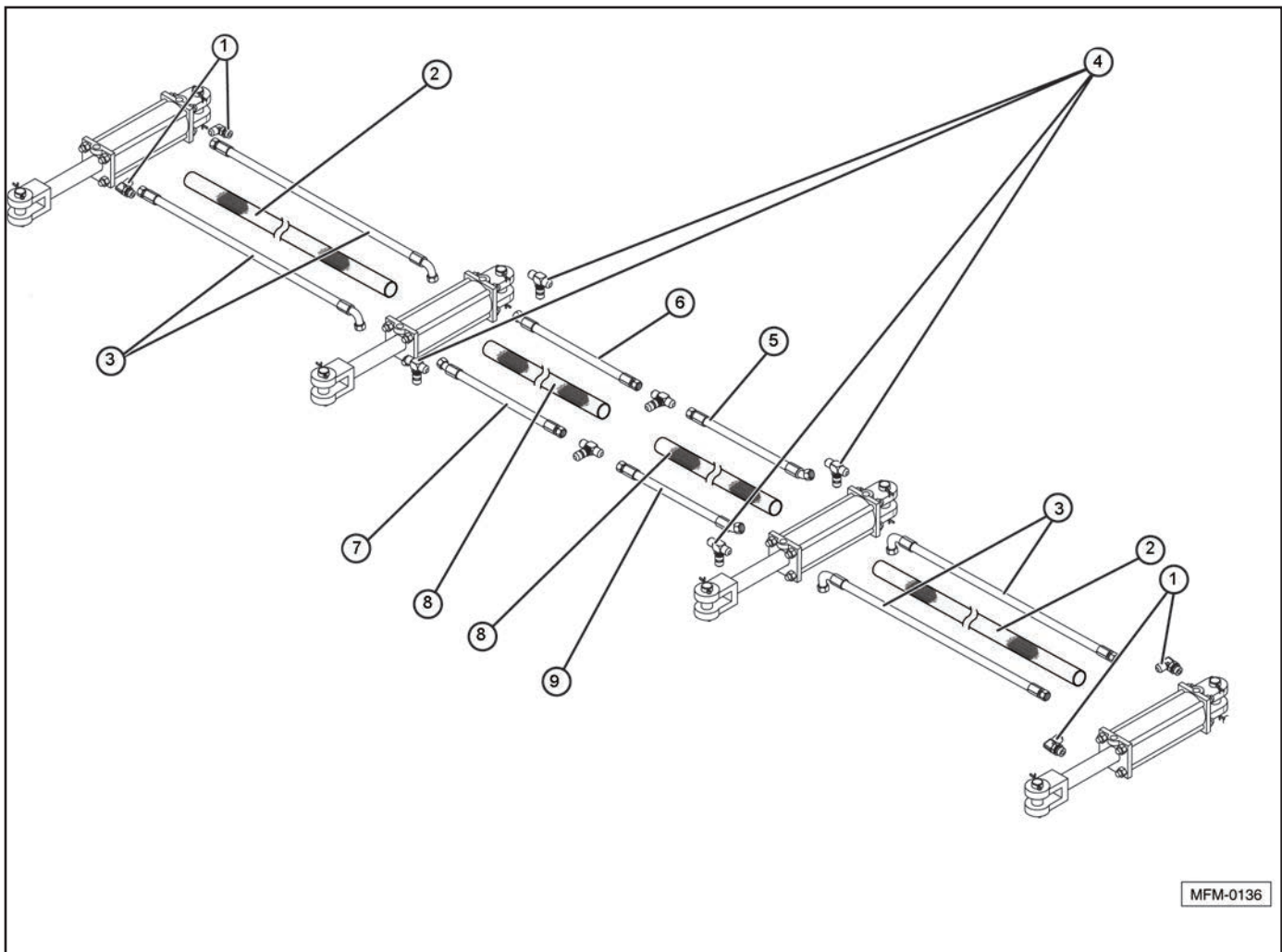
| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 1    | HYS-2012    | HYD HOSE COVER, 80              |
| 2    | HYF-2820    | HYD ELBOW, 9/16M - 3/4MORB      |
| 3    | 10992       | HYD HOSE, 1/4, 102"             |
| 4    | HYF-1809    | HYD TEE, 9/16M - 3/4ORB - 9/16M |
| 5    | 10802       | HYD HOSE, 1/4, 86"              |
| 6    | 10801       | HYD HOSE, 1/4, 54"              |
| 7    | 10985       | HYD HOSE, 1/4, 48"              |
| 8    | HYS-2011    | HYD HOSE COVER, 48              |
| 9    | 10809       | HYD HOSE, 1/4, 80"              |

## Disk Gang Hydraulics for CB-4230



| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 1    | HYS-2001    | HYD HOSE COVER, 110             |
| 2    | HYF-2820    | HYD ELBOW, 9/16M - 3/4MORB      |
| 3    | 10993       | HYD HOSE, 1/4, 122"             |
| 4    | HYF-1809    | HYD TEE, 9/16M - 3/4ORB - 9/16M |
| 5    | 10802       | HYD HOSE, 1/4, 86"              |
| 6    | 10801       | HYD HOSE, 1/4, 54"              |
| 7    | 10985       | HYD HOSE, 1/4, 48"              |
| 8    | HYS-2011    | HYD HOSE COVER, 48              |
| 9    | 10809       | HYD HOSE, 1/4, 80"              |

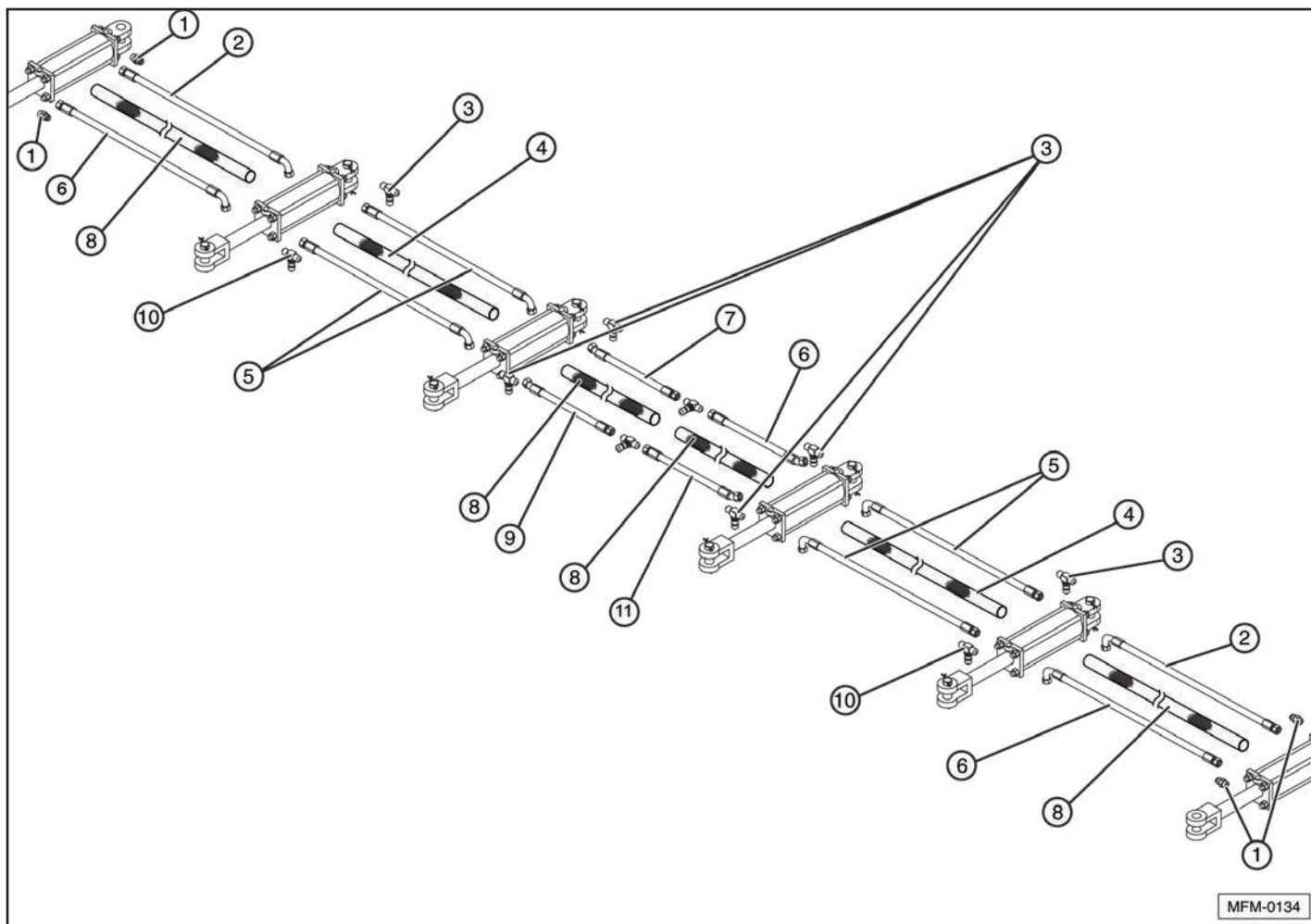
## Disk Gang Hydraulics for CB-4235



| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 1    | HYF-2820    | HYD ELBOW, 9/16M - 3/4MORB      |
| 2    | HYS-2009    | HYD HOSE COVER, 90              |
| 3    | 10867       | HYD HOSE, 1/4, 120"             |
| 4    | HYF-1809    | HYD TEE, 9/16M - 3/4ORB - 9/16M |
| 5    | 10902       | HYD HOSE, 1/4, 98"              |
| 6    | 10988       | HYD HOSE, 1/4, 66"              |
| 7    | 14962       | HYD HOSE, 1/4, 59"              |
| 8    | HYS-2006    | HYD HOSE COVER, 60              |
| 9    | 10803       | HYD HOSE, 1/4, 90"              |

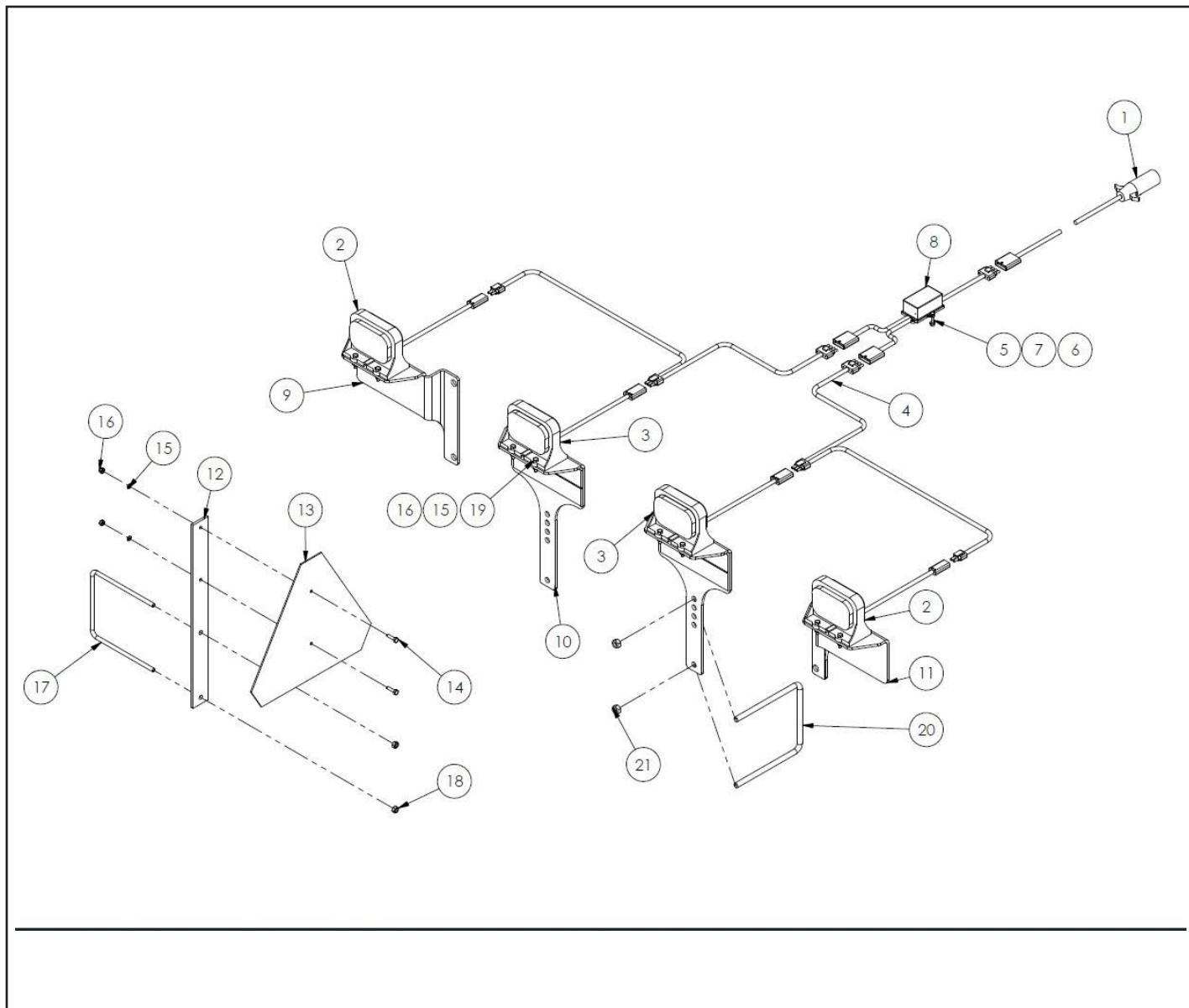


## Disk Gang Hydraulics for CB-4245



| Item | Part Number | Description                     |
|------|-------------|---------------------------------|
| 1    | HYF-2820    | HYD ELBOW, 9/16M - 3/4MORB      |
| 2    | 10902       | HYD HOSE,1/4, 98"               |
| 3    | HYF-1809    | HYD TEE, 9/16M - 3/4ORB -9/16M  |
| 4    | HYS-2009    | HYD HOSE COVER, 90              |
| 5    | 10993       | HYD HOSE,1/4, 122"              |
| 6    | 10902       | HYD HOSE,1/4, 98"               |
| 7    | 10988       | HYD HOSE,1/4, 66"               |
| 8    | HYS-2006    | HYD HOSE COVER, 60              |
| 9    | 14962       | HYD HOSE,1/4, 59"               |
| 10   | HYF-1089    | HYD TEE, 3/8M - 3/8M - 1/2 MORB |
| 11   | 10803       | HYD HOSE,1/4, 90"               |

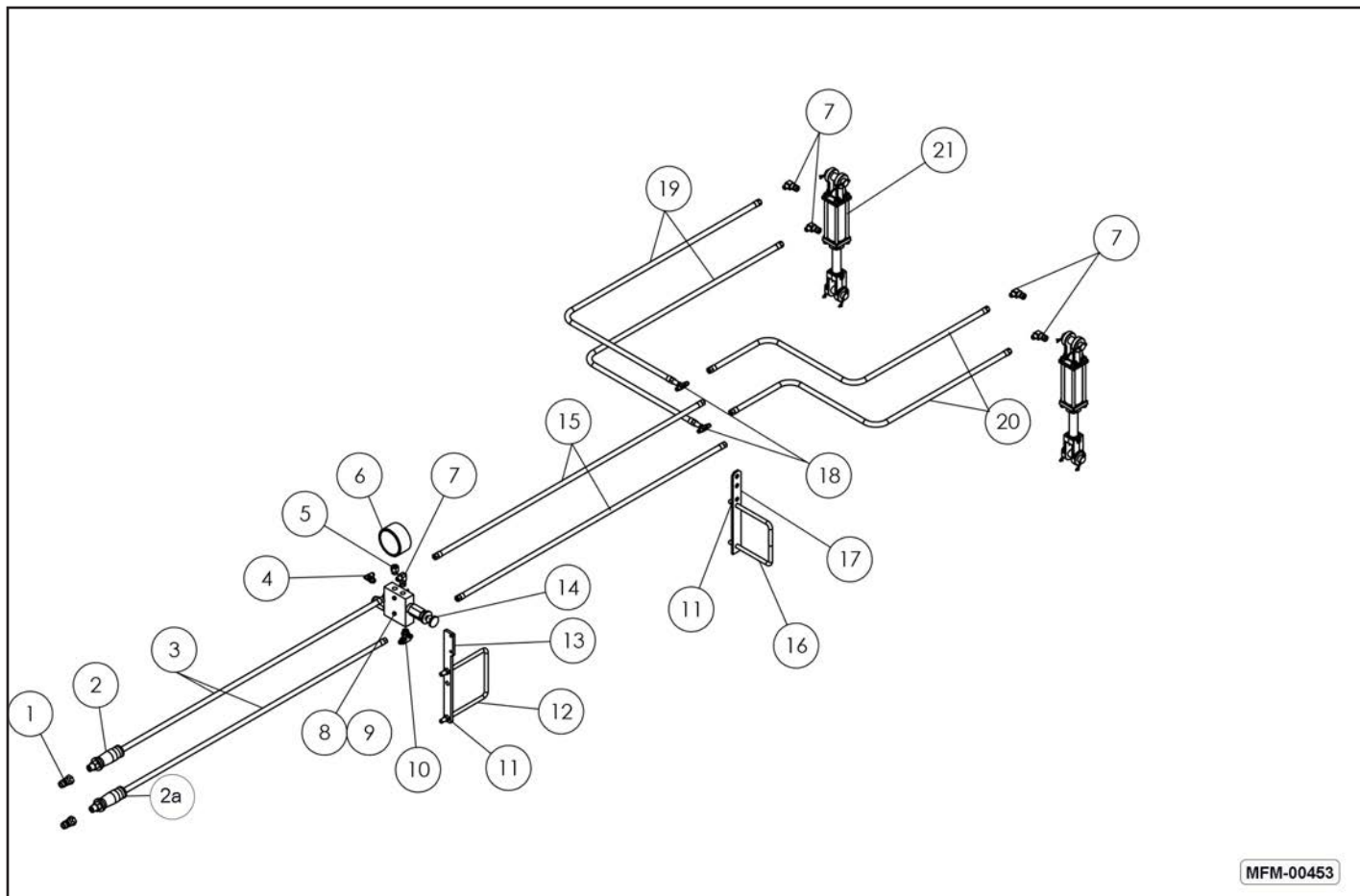
## Lighting Diagram for CB-4200 Series



| Item | Part Number | Description               |
|------|-------------|---------------------------|
| 1    | 16213       | 7 PIN - 4 PIN, 20'        |
| 2    | 16211       | LIGHT, AMBER-AMBER        |
| 3    | 16212       | LED LIGHT, RED            |
| 4    | 16214       | AG SINGLE LIGHT HARNESS   |
| 5    | BHY-3855    | BOLT,HEX,3/8-16X5.5,GD8   |
| 6    | 16295       | #10-24 LOCK NUT           |
| 7    | 16296       | #10 FLAT WASHER           |
| 8    | 16210       | AG ENHANCE FLASHER MODULE |
| 9    | RD-5057     | LIGHT MOUNT, SINGLE LT    |
| 10   | RD-5056     | BRACKET, LIGHT, SINGLE    |
| 11   | RD-5058     | LIGHT MOUNT, SINGLE RT    |

| Item | Part Number | Description              |
|------|-------------|--------------------------|
| 12   | LB-1203     | BRACKET,SMV MOUNT        |
| 13   | MM-1300     | SMV SIGN                 |
| 14   | BH-2510     | BOLT,HEX,1/4-20X1,GD5    |
| 15   | LW-0025     | WASHER,LOCK,1/4,GD2      |
| 16   | NH-2520     | NUT,HEX,1/4-20,GD5       |
| 17   | BU-3878     | U-BOLT, 3/8 x 7 x 8      |
| 18   | NLT-3816    | NUT,LOCK,TOP,3/8-16      |
| 19   | BH-2513     | BOLT,HEX,1/4-20X1.25,GD5 |
| 20   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4  |
| 21   | NLT-5013    | NUT,LOCK,TOP,1/2-13      |

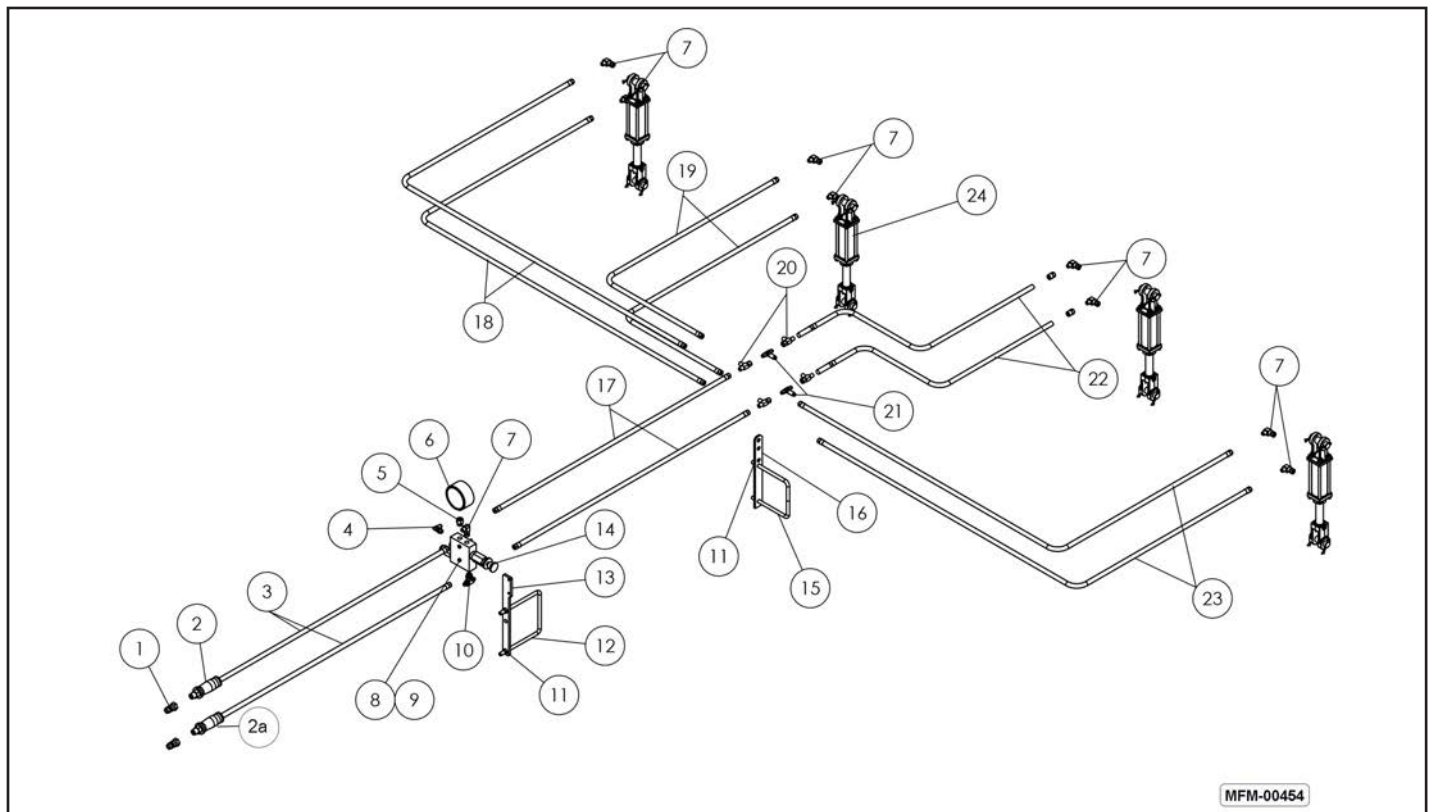
## Spur-Till Down Pressure for CB-4212, 4214



| Item | Part Number | Description                           |
|------|-------------|---------------------------------------|
| 1    | 15641       | HYD DISCONNECT, MALE, 3/4 ORB         |
| 2    | 15028       | HYDRA GRIP, SUPPLY (+), GRAY          |
| 2a   | 15029       | HYDRA GRIP, RETURN (-), GRAY          |
| 3    | 15629       | HHYD HOSE, 1/4(9/16F-3/4ORB), 186     |
| 4    | HYF-2880    | HYD ELBOW, 9/16M-9/16Morb             |
| 5    | 14946       | HYD ADAPTER, 9/16 Morb-1/4 Fpipe      |
| 6    | 14564       | PRESSURE GAUGE                        |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb            |
| 8    | BH-2525     | BOLT, HEX, 1/4-20X2.5, GD5            |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20                  |
| 10   | HYF-1809    | HYD TEE, 9/16M-3/4Morb-9/16M          |
| 11   | NLT-5013    | NUT, LOCK, TOP, 1/2-13                |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4               |
| 13   | 14919       | BRACKET, VALVE MOUNT                  |
| 14   | 14909       | VALVE, PRESSURE RED. W/REVERSE RELIEF |

| Item | Part Number | Description                |
|------|-------------|----------------------------|
| 15   | 14209       | HYD HOSE, 1/4(9/16F), 72   |
| 16   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4    |
| 17   | WDL-2307    | CB HYD TEE BRACKET         |
| 18   | HYF-1888    | HYD TEE, 9/16M-9/16M-9/16M |
| 19   | 10868       | HYD HOSE, 1/4(9/16F), 110  |
| 20   | 14209       | HYD HOSE, 1/4(9/16F), 72   |
| 21   | HYC-32004   | HYDRAULIC CYLINDER, 2X4    |

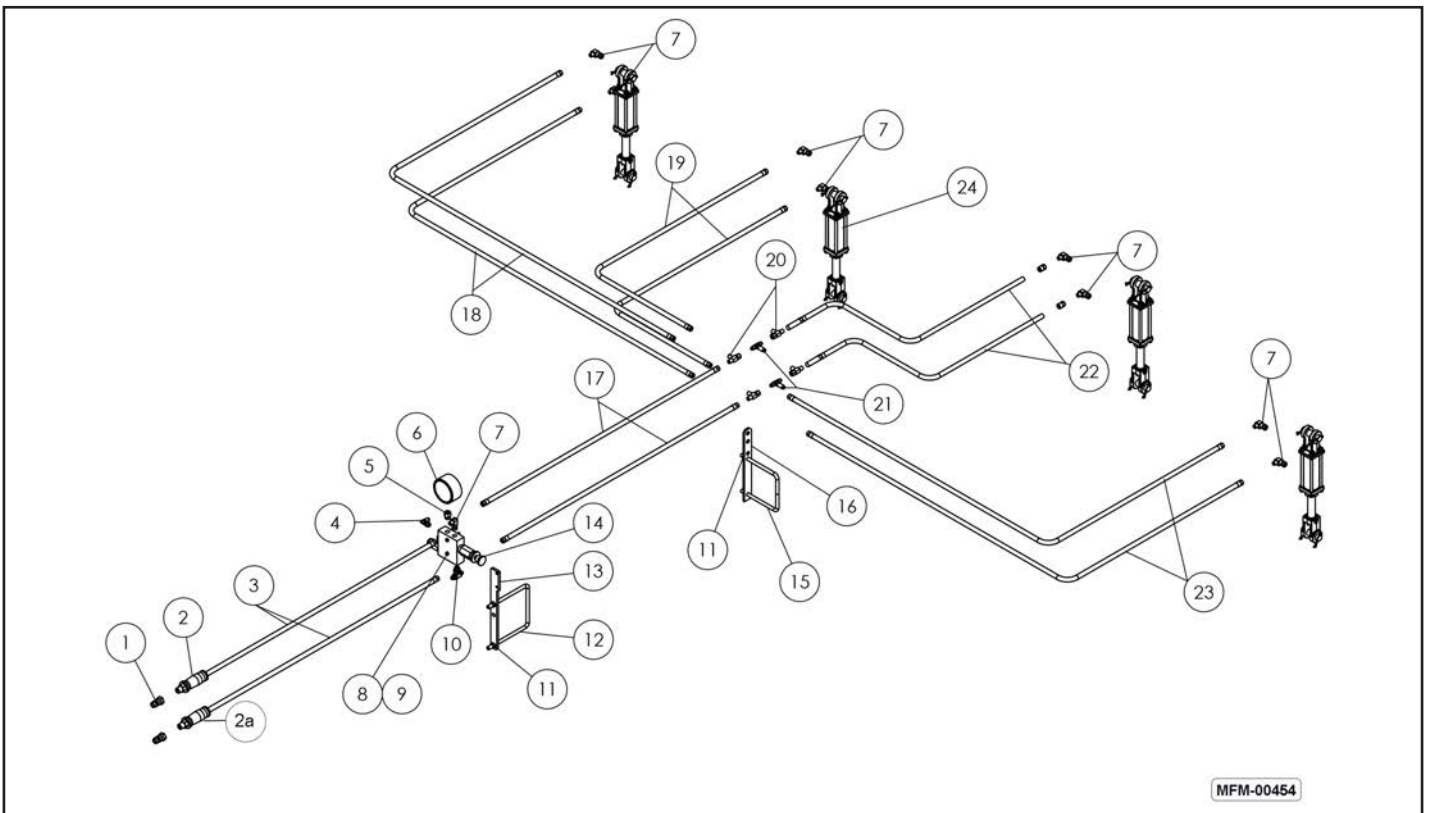
## Spur-Till Down Pressure CB-4220



| Item | Part Number | Description                          |
|------|-------------|--------------------------------------|
| 1    | 15641       | HYD DISCONNECT, MALE, 3/4 ORB        |
| 2    | 15028       | HYDRA GRIP, SUPPLY (+), GRAY         |
| 2a   | 15029       | HYDRA GRIP, RETURN (-), GRAY         |
| 3    | 15629       | HHYD HOSE,1/4(9/16F-3/4ORB), 186     |
| 4    | HYF-2880    | HYD ELBOW,9/16M-9/16Morb             |
| 5    | 14946       | HYD ADAPTER,9/16 Morb-1/4 Fpipe      |
| 6    | 14564       | PRESSURE GAUGE                       |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb           |
| 8    | BH-2525     | BOLT,HEX,1/4-20X2.5,GD5              |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20                 |
| 10   | HYF-1809    | HYD TEE,9/16M-3/4Morb-9/16M          |
| 11   | NLT-5013    | NUT,LOCK,TOP,1/2-13                  |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4              |
| 13   | 14919       | BRACKET,VALVE MOUNT                  |
| 14   | 14909       | VALVE,PRESSURE RED. W/REVERSE RELIEF |
| 15   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4              |
| 16   | WDL-2307    | CB HYD TEE BRACKET                   |
| 17   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 18   | 14210       | HYD HOSE,1/4(9/16F),162              |
| 19   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 20   | HYF-1188    | HYD TEE,9/16F-9/16M-9/16M            |
| 21   | HYF-1888    | HYD TEE,9/16M-9/16M-9/16M            |
| 22   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 23   | 10903       | HYD HOSE,1/4(9/16F),156              |
| 24   | HYC-32004   | HYDRAULIC CYLINDER, 2X4              |



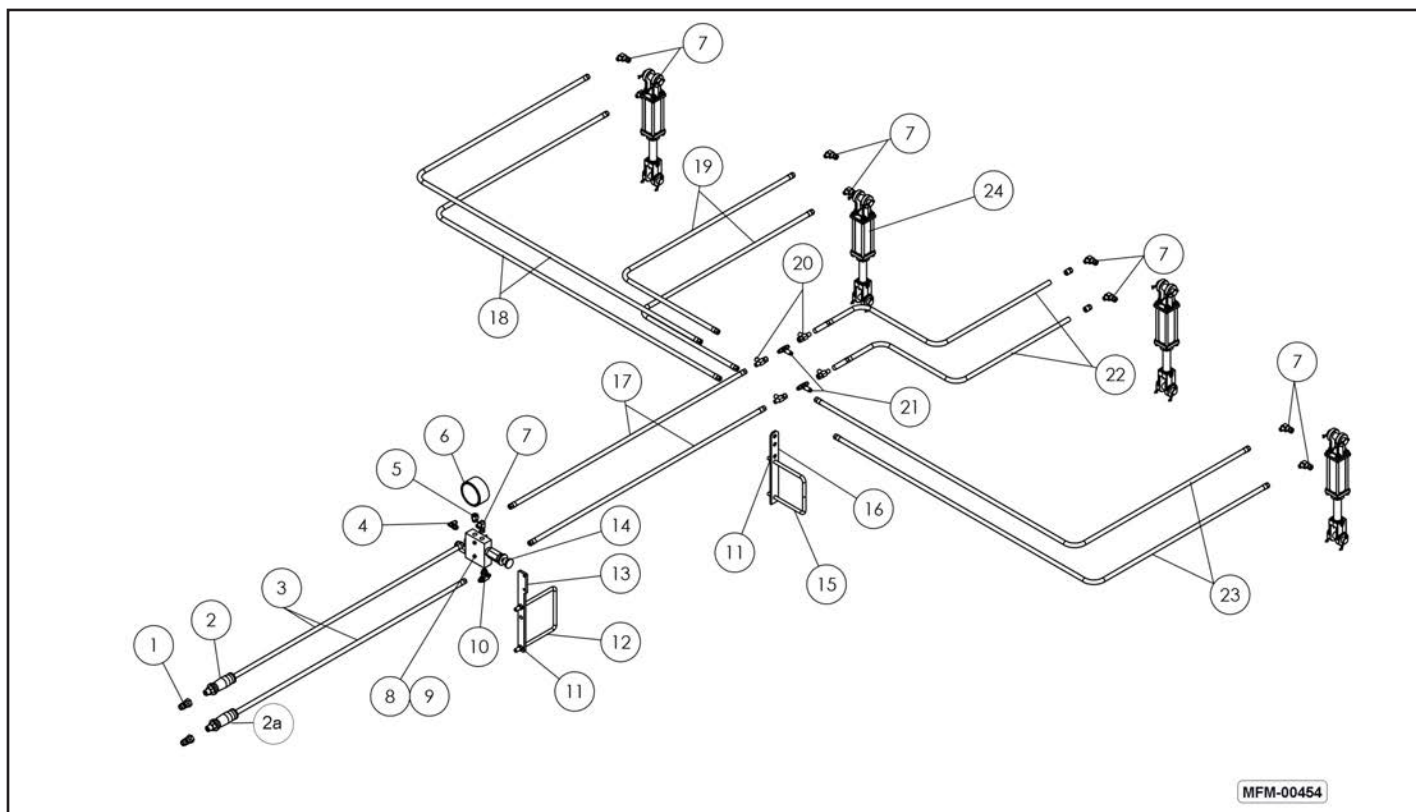
## Spur-Till Down Pressure for CB-4225



| Item | Part Number | Description                      |
|------|-------------|----------------------------------|
| 1    | 15641       | HYD DISCONNECT, MALE, 3/4 ORB    |
| 2    | 15028       | HYDRA GRIP, SUPPLY (+), GRAY     |
| 2a   | 15029       | HYDRA GRIP, RETURN (-), GRAY     |
| 3    | 15629       | HHYD HOSE,1/4(9/16F-3/4ORB), 186 |
| 4    | HYF-2880    | HYD ELBOW,9/16M-9/16Morb         |
| 5    | 14946       | HYD ADAPTER,9/16 Morb-1/4 Fpipe  |
| 6    | 14564       | PRESSURE GAUGE                   |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb       |
| 8    | BH-2525     | BOLT,HEX,1/4-20X2.5,GD5          |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20             |
| 10   | HYF-1809    | HYD TEE,9/16M-3/4Morb-9/16M      |
| 11   | NLT-5013    | NUT,LOCK,TOP,1/2-13              |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4          |

| Item | Part Number | Description                          |
|------|-------------|--------------------------------------|
| 13   | 14919       | BRACKET,VALVE MOUNT                  |
| 14   | 14909       | VALVE,PRESSURE RED. W/REVERSE RELIEF |
| 15   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4              |
| 16   | WDL-2307    | CB HYD TEE BRACKET                   |
| 17   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 18   | 15401       | HYD HOSE,1/4(9/16F),204              |
| 19   | 10868       | HYD HOSE,1/4(9/16F),110              |
| 20   | HYF-1188    | HYD TEE,9/16F-9/16M-9/16M            |
| 21   | HYF-1888    | HYD TEE,9/16M-9/16M-9/16M            |
| 22   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 23   | 14748       | HYD HOSE,1/4(9/16F),180              |
| 24   | HYC-32004   | HYDRAULIC CYLINDER, 2X4              |

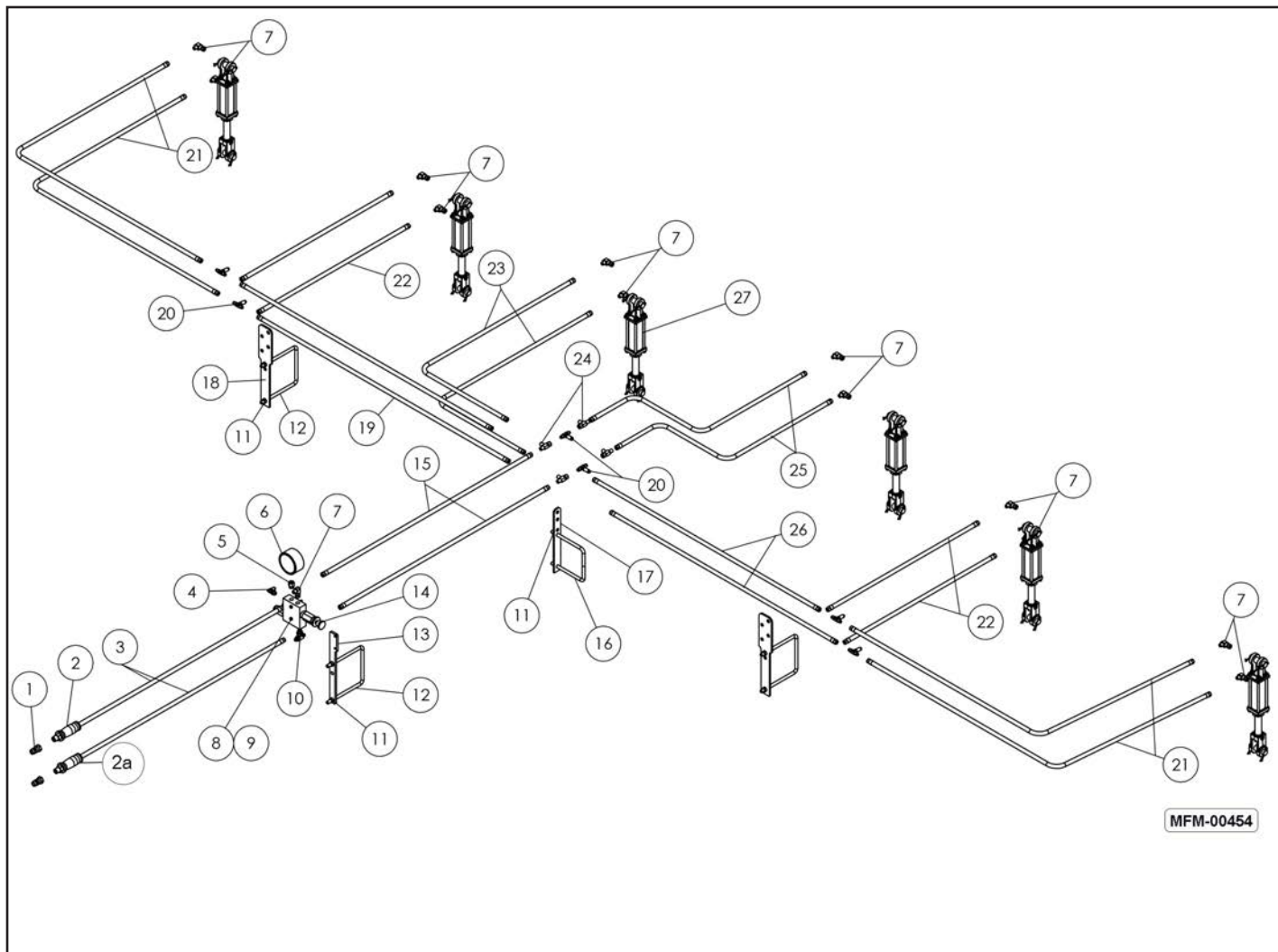
## Spur-Till Down Pressure CB-4230



| Item | Part Number | Description                      |
|------|-------------|----------------------------------|
| 1    | 15641       | HYD DISCONNECT, MALE, 3/4 ORB    |
| 2    | 15028       | HYDRA GRIP, SUPPLY (+), GRAY     |
| 2a   | 15029       | HYDRA GRIP, RETURN (-), GRAY     |
| 3    | 15629       | HHYD HOSE,1/4(9/16F-3/4ORB), 186 |
| 4    | HYF-2880    | HYD ELBOW,9/16M-9/16Morb         |
| 5    | 14946       | HYD ADAPTER,9/16 Morb-1/4 Fpipe  |
| 6    | 14564       | PRESSURE GAUGE                   |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb       |
| 8    | BH-2525     | BOLT,HEX,1/4-20X2.5,GD5          |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20             |
| 10   | HYF-1809    | HYD TEE,9/16M-3/4Morb-9/16M      |
| 11   | NLT-5013    | NUT,LOCK,TOP,1/2-13              |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4          |

| Item | Part Number | Description                          |
|------|-------------|--------------------------------------|
| 13   | 14919       | BRACKET,VALVE MOUNT                  |
| 14   | 14909       | VALVE,PRESSURE RED. W/REVERSE RELIEF |
| 15   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4              |
| 16   | WDL-2307    | CB HYD TEE BRACKET                   |
| 17   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 18   | 14963       | HYD HOSE,1/4(9/16F),215              |
| 19   | 10868       | HYD HOSE,1/4(9/16F),110              |
| 20   | HYF-1188    | HYD TEE,9/16F-9/16M-9/16M            |
| 21   | HYF-1888    | HYD TEE,9/16M-9/16M-9/16M            |
| 22   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 23   | 14482       | HYD HOSE,1/4(9/16F),190              |
| 24   | HYC-32004   | HYDRAULIC CYLINDER, 2X4              |

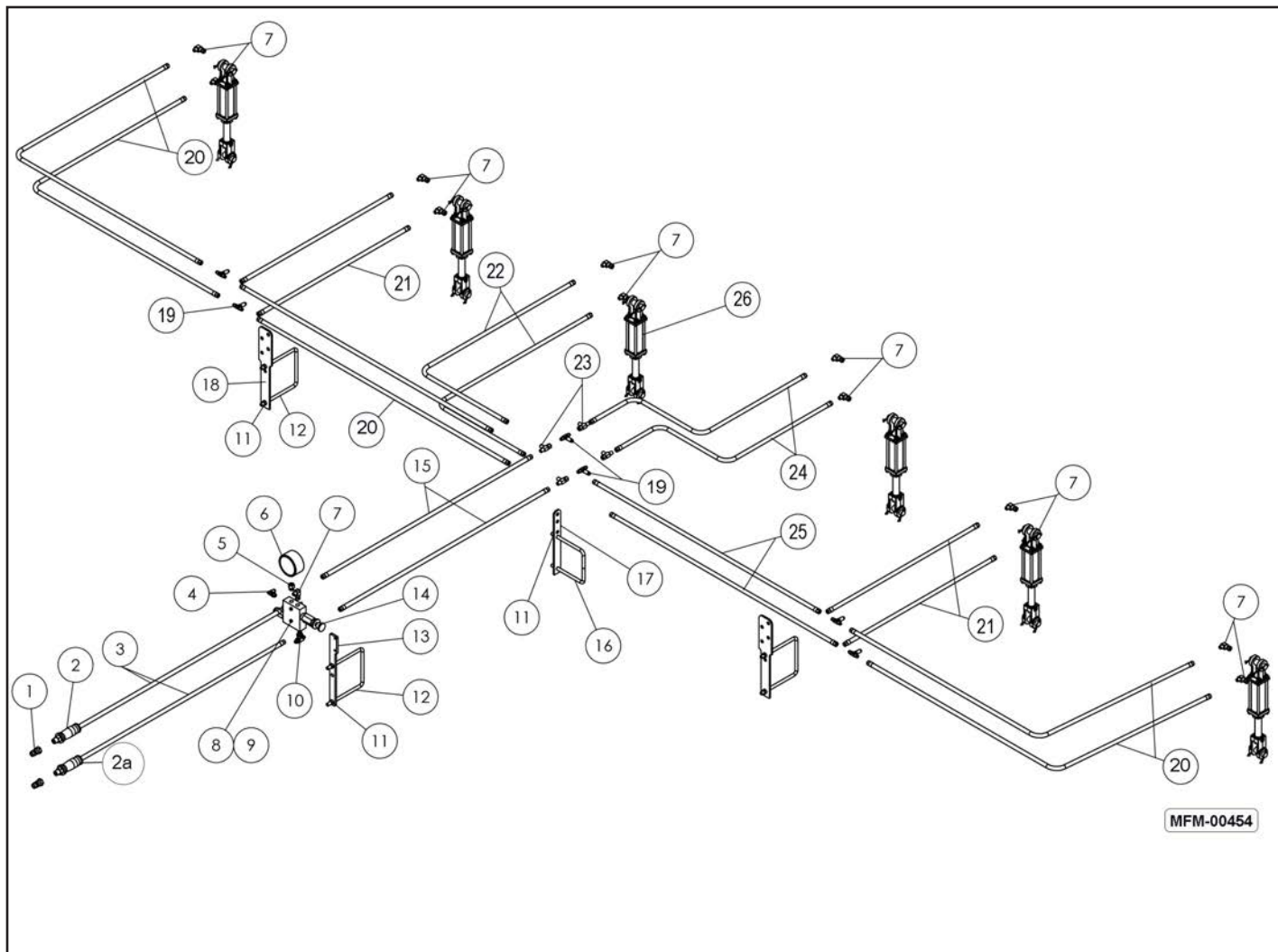
## Spur-Till Down Pressure for CB-4235



| Item | Part Number | Description                          |
|------|-------------|--------------------------------------|
| 1    | 15641       | HYD DISCONNECT,MALE                  |
| 2    | 15028       | HYDRA GRIP, SUPPLY (+), GRAY         |
| 2a   | 15029       | HYDRA GRIP, RETURN (-), GRAY         |
| 3    | 15629       | HYD HOSE,1/4(9/16F-3/4ORB),186       |
| 4    | HYF-2880    | HYD ELBOW,9/16M-9/16Morb             |
| 5    | 14946       | HYD ADAPTER,9/16 Morb-1/4 Fpipe      |
| 6    | 14564       | PRESSURE GAUGE                       |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb           |
| 8    | BH-2525     | BOLT,HEX,1/4-20X2.5,GD5              |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20                 |
| 10   | HYF-1809    | HYD TEE,9/16M-3/4Morb-9/16M          |
| 11   | NLT-5013    | NUT,LOCK,TOP,1/2-13                  |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4              |
| 13   | 14919       | BRACKET,VALVE MOUNT                  |
| 14   | 14909       | VALVE,PRESSURE RED. W/REVERSE RELIEF |

| Item | Part Number | Description               |
|------|-------------|---------------------------|
| 15   | 14209       | HYD HOSE,1/4(9/16F),72    |
| 16   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4   |
| 17   | WDL-2307    | CB HYD TEE BRACKET        |
| 18   | 14970       | HYDRAULIC TEE HOSE POST   |
| 19   | 10903       | HYD HOSE,1/4(9/16F),156   |
| 20   | HYF-1888    | HYD TEE,9/16M-9/16M-9/16M |
| 21   | 10868       | HYD HOSE,1/4(9/16F),110   |
| 22   | 10985       | HYD HOSE,1/4(9/16F),48    |
| 23   | 10867       | HYD HOSE,1/4(9/16F),120   |
| 24   | HYF-1188    | HYD TEE,9/16F-9/16M-9/16M |
| 25   | 10806       | HYD HOSE,1/4(9/16F),78    |
| 26   | 10992       | HYD HOSE,1/4(9/16F),102   |
| 27   | HYC-32004   | HYDRAULIC CYLINDER, 2X4   |

## Spur-Till Down Pressure for CB-4245

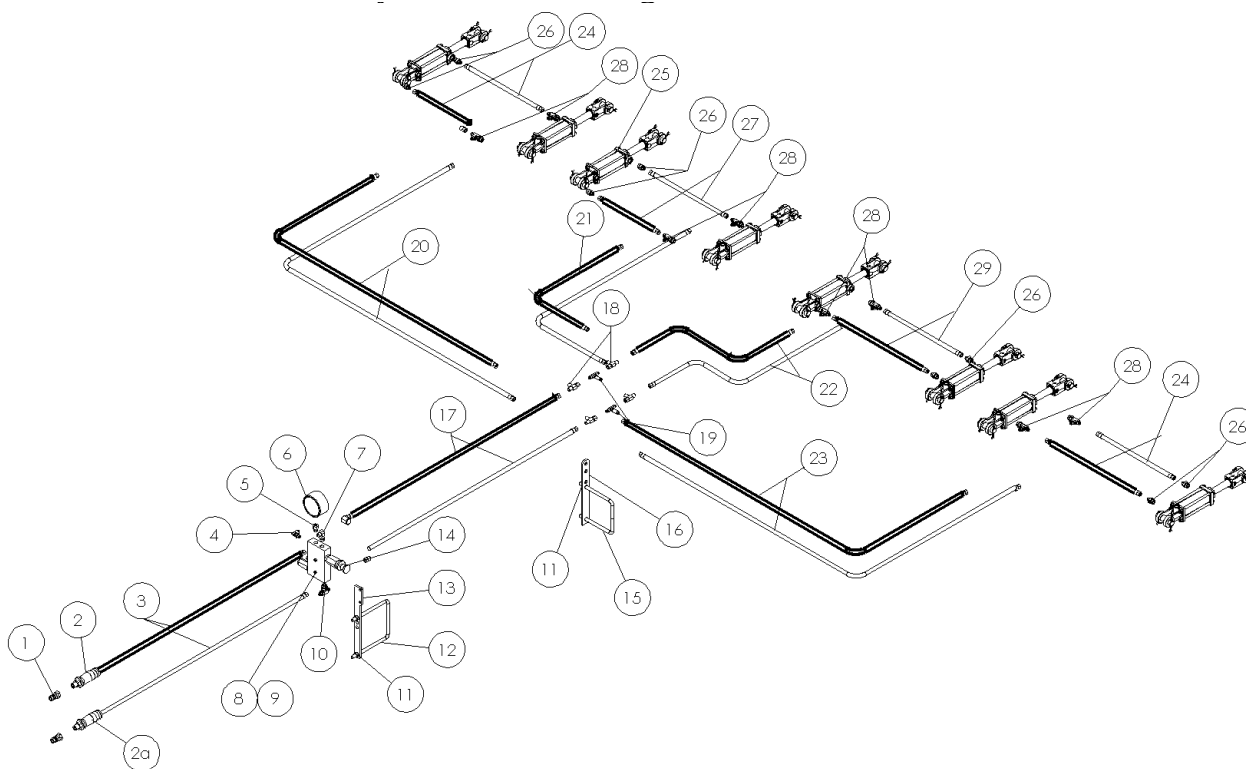


| Item | Part Number | Description                          |
|------|-------------|--------------------------------------|
| 1    | 15641       | HYD DISCONNECT,MALE                  |
| 2    | 15028       | HYDRA GRIP, SUPPLY (+), GRAY         |
| 2a   | 15029       | HYDRA GRIP, RETURN (-), GRAY         |
| 3    | 15629       | HYD HOSE,1/4(9/16F-3/4ORB),186       |
| 4    | HYF-2880    | HYD ELBOW,9/16M-9/16Morb             |
| 5    | 14946       | HYD ADAPTER,9/16 Morb-1/4 Fpipe      |
| 6    | 14564       | PRESSURE GAUGE                       |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb           |
| 8    | BH-2525     | BOLT,HEX,1/4-20X2.5,GD5              |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20                 |
| 10   | HYF-1809    | HYD TEE,9/16M-3/4Morb-9/16M          |
| 11   | NLT-5013    | NUT,LOCK,TOP,1/2-13                  |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4              |
| 13   | 14919       | BRACKET,VALVE MOUNT                  |
| 14   | 14909       | VALVE,PRESSURE RED. W/REVERSE RELIEF |
| 15   | 14209       | HYD HOSE,1/4(9/16F),72               |
| 16   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4              |

| Item | Part Number | Description               |
|------|-------------|---------------------------|
| 17   | WDL-2307    | CB HYD TEE BRACKET        |
| 18   | 14970       | HYDRAULIC TEE HOSE POST   |
| 19   | HYF-1888    | HYD TEE,9/16M-9/16M-9/16M |
| 20   | 10903       | HYD HOSE,1/4(9/16F),156   |
| 21   | 10985       | HYD HOSE,1/4(9/16F),48    |
| 22   | 15080       | HYD HOSE,1/4(9/16F),130   |
| 23   | HYF-1188    | HYD TEE,9/16F-9/16M-9/16M |
| 24   | 10989       | HYD HOSE,1/4(9/16F),84    |
| 25   | 10993       | HYD HOSE,1/4(9/16F),122   |
| 26   | HYC-32004   | HYDRAULIC CYLINDER, 2X4   |



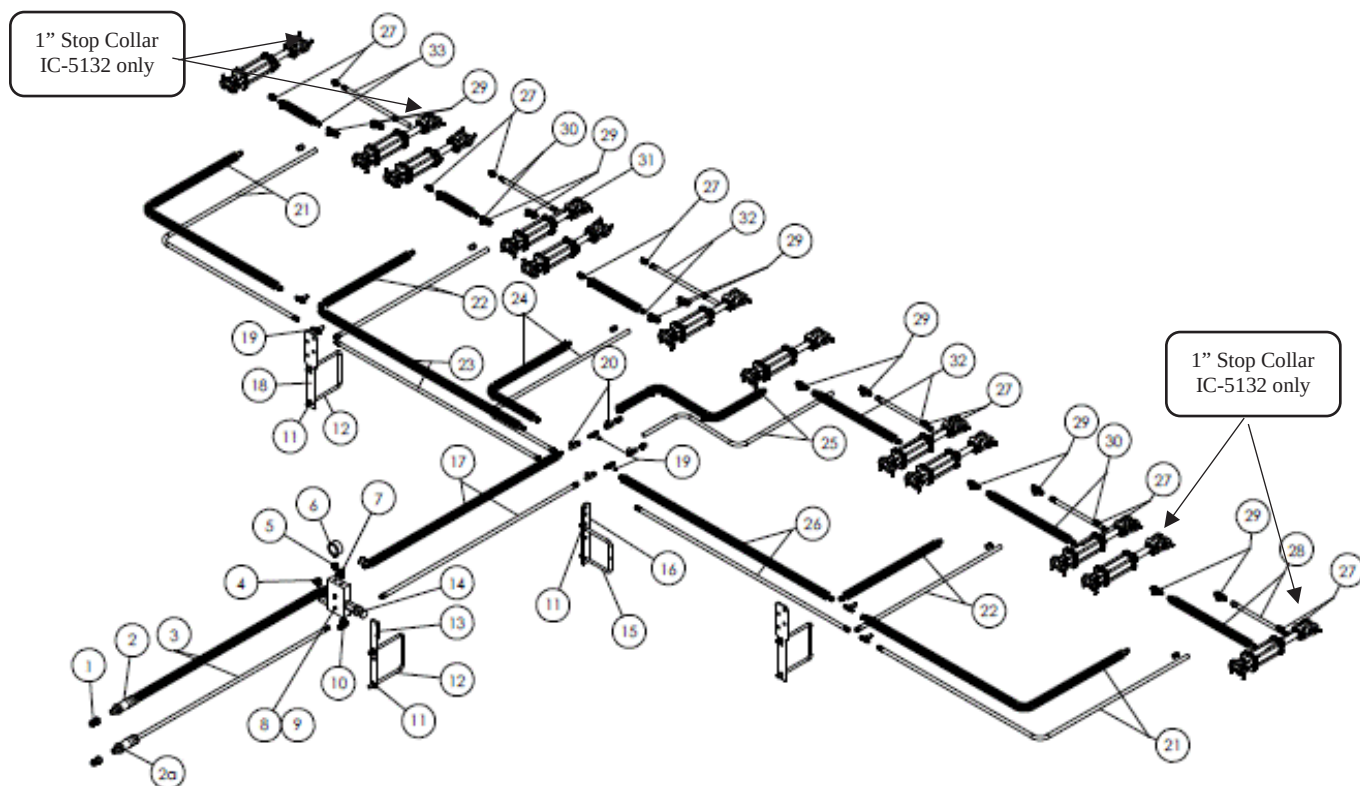
## Rolling Basket Down Pressure for CB-4230



| Item | Part Number | Description                           |
|------|-------------|---------------------------------------|
| 1    | HYF-4002    | HYD DISCONNECT, MALE                  |
| 2    | 15030       | HYDRA GRIP, SUPPLY, BLUE              |
| 2a   | 15031       | HYDRA GRIP, RETURN, BLUE              |
| 3    | 14820       | HYD HOSE,1/4(9/16F),186               |
| 4    | HYF-2880    | HYD ELBOW,9/16M-9/16Morb              |
| 5    | 14946       | HYD ADAPTER,9/16 Morb-1/4 Fpipe       |
| 6    | 14564       | PRESSURE GAUGE                        |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb            |
| 8    | BH-2525     | BOLT, HEX,1/4-20X2.5,GD5              |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20                  |
| 10   | HYF-1809    | HYD TEE,9/16M-3/4Morb-9/16M           |
| 11   | NLT-5013    | NUT, LOCK, TOP,1/2-13                 |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4               |
| 13   | 14919       | BRACKET, VALVE MOUNT                  |
| 14   | 14909       | VALVE, PRESSURE RED. W/REVERSE RELIEF |
| 15   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4               |
| 16   | WDL-2307    | CB HYD TEE BRACKET                    |
| 17   | 14962       | HYD HOSE,1/4(9/16F),59                |
| 18   | HYF-1188    | HYD TEE,9/16F-9/16M-9/16M             |
| 19   | HYF-1888    | HYD TEE,9/16M-9/16M-9/16M             |

| Item | Part Number    | Description                                                          |
|------|----------------|----------------------------------------------------------------------|
| 20   | 14964<br>10871 | HYD HOSE,1/4(9/16F),183 (4230)<br>HYD HOSE,1/4(9/16F),162 (4230-DRB) |
| 21   | 10992<br>10989 | HYD HOSE,1/4(9/16F),102 (4230)<br>HYD HOSE,1/4(9/16F),84 (4230-DRB)  |
| 22   | 10992<br>10989 | HYD HOSE,1/4(9/16F),102 (4230)<br>HYD HOSE,1/4(9/16F),84 (4230-DRB)  |
| 23   | 14963<br>15909 | HYD HOSE,1/4(9/16F),215 (4230)<br>HYD HOSE,1/4(9/16F),196 (4230-DRB) |
| 24   | 15019          | HYD HOSE,1/4(9/16F),70                                               |
| 25   | HYC-32004      | HYD CYLINDER,2 x 4                                                   |
| 26   | HYF-3820       | HYD ADAPTER,9/16M-3/4Morb                                            |
| 27   | 14962          | HYD HOSE,1/4(9/16F),59                                               |
| 28   | HYF-1089       | HYD TEE,9/16M-9/16M-3/4Morb                                          |
| 29   | 14962          | HYD HOSE,1/4(9/16F),59                                               |

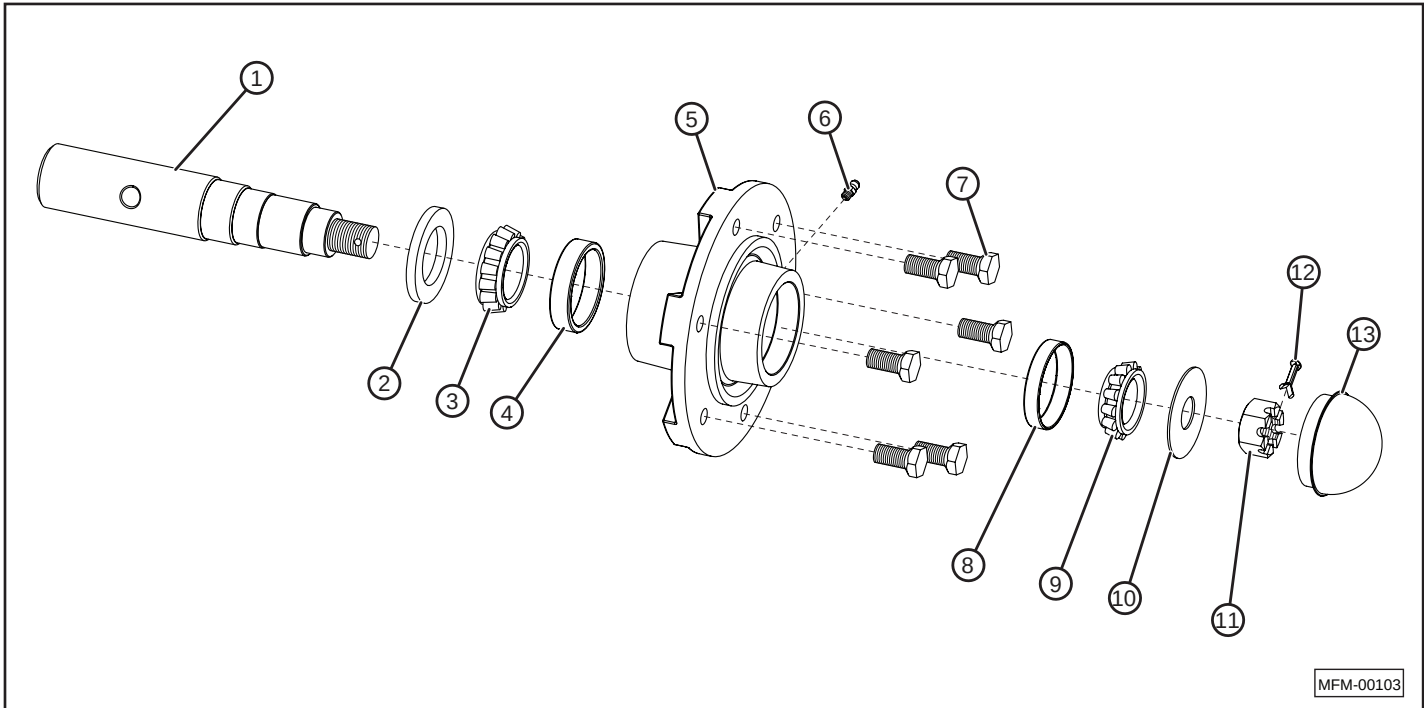
## Rolling Basket Down Pressure for CB-4245



| Item | Part Number | Description                           |
|------|-------------|---------------------------------------|
| 1    | HYF-4002    | HYD DISCONNECT, MALE                  |
| 2    | 15030       | HYDRA GRIP, SUPPLY, BLUE              |
| 2a   | 15031       | HYDRA GRIP, RETURN, BLUE              |
| 3    | 15629       | HYD HOSE, 1/4(9/16F), 186             |
| 4    | HYF-2880    | HYD ELBOW, 9/16M-9/16Morb             |
| 5    | 14946       | HYD ADAPTER, 9/16 Morb-1/4 Fpipe      |
| 6    | 14564       | PRESSURE GAUGE                        |
| 7    | HYF-2820    | HYD ELBOW, 9/16M - 3/4Morb            |
| 8    | BH-2525     | BOLT, HEX, 1/4-20X2.5, GD5            |
| 9    | NLT-2520    | NUT, TOP LOCK 1/4-20                  |
| 10   | HYF-1809    | HYD TEE, 9/16M-3/4Morb-9/16M          |
| 11   | NLT-5013    | NUT, LOCK, TOP, 1/2-13                |
| 12   | BU-1278     | U-BOLT, 1/2 x 7 x 8 1/4               |
| 13   | 14919       | BRACKET, VALVE MOUNT                  |
| 14   | 14909       | VALVE, PRESSURE RED. W/REVERSE RELIEF |
| 15   | BU-1267     | U-BOLT, 1/2 x 6 x 7 1/4               |
| 16   | WDL-2307    | CB HYD TEE BRACKET                    |
| 17   | 10988       | HYD HOSE, 1/4(9/16F), 66              |
| 18   | 14970       | HYDRAULIC TEE HOSE POST               |
| 19   | HYF-1888    | HYD TEE, 9/16M-9/16M-9/16M            |

| Item | Part Number    | Description                                                              |
|------|----------------|--------------------------------------------------------------------------|
| 20   | HYF-1188       | HYD TEE, 9/16F-9/16M-9/16M                                               |
| 21   | 15814<br>10870 | HYD HOSE, 1/4(9/16F), 158 (4245)<br>HYD HOSE, 1/4(9/16F), 138 (4245-DRB) |
| 22   | 10985<br>14447 | HYD HOSE, 1/4(9/16F), 48 (4245)<br>HYD HOSE, 1/4(9/16F), 29 (4245-DRB)   |
| 23   | 10870          | HYD HOSE, 1/4(9/16F), 138                                                |
| 24   | 10989<br>10988 | HYD HOSE, 1/4(9/16F), 84 (4245)<br>HYD HOSE, 1/4(9/16F), 66 (4245-DRB)   |
| 25   | 10989<br>10988 | HYD HOSE, 1/4(9/16F), 84 (4245)<br>HYD HOSE, 1/4(9/16F), 66 (4245-DRB)   |
| 26   | 15018          | HYD HOSE, 1/4(9/16F), 170                                                |
| 27   | HYF-3820       | HYD ADAPTER, 9/16M-3/4Morb                                               |
| 28   | 10901          | HYD HOSE, 1/4(9/16F), 106                                                |
| 29   | HYF-1089       | HYD TEE, 9/16M-9/16M-3/4Morb                                             |
| 30   | 10858          | HYD HOSE, 1/4(9/16F), 116                                                |
| 31   | HYC-32004      | HYD CYLINDER, 2 x 4                                                      |
| 32   | 10858          | HYD HOSE, 1/4(9/16F), 116                                                |
| 33   | 10985          | HYD HOSE, 1/4(9/16F), 48                                                 |

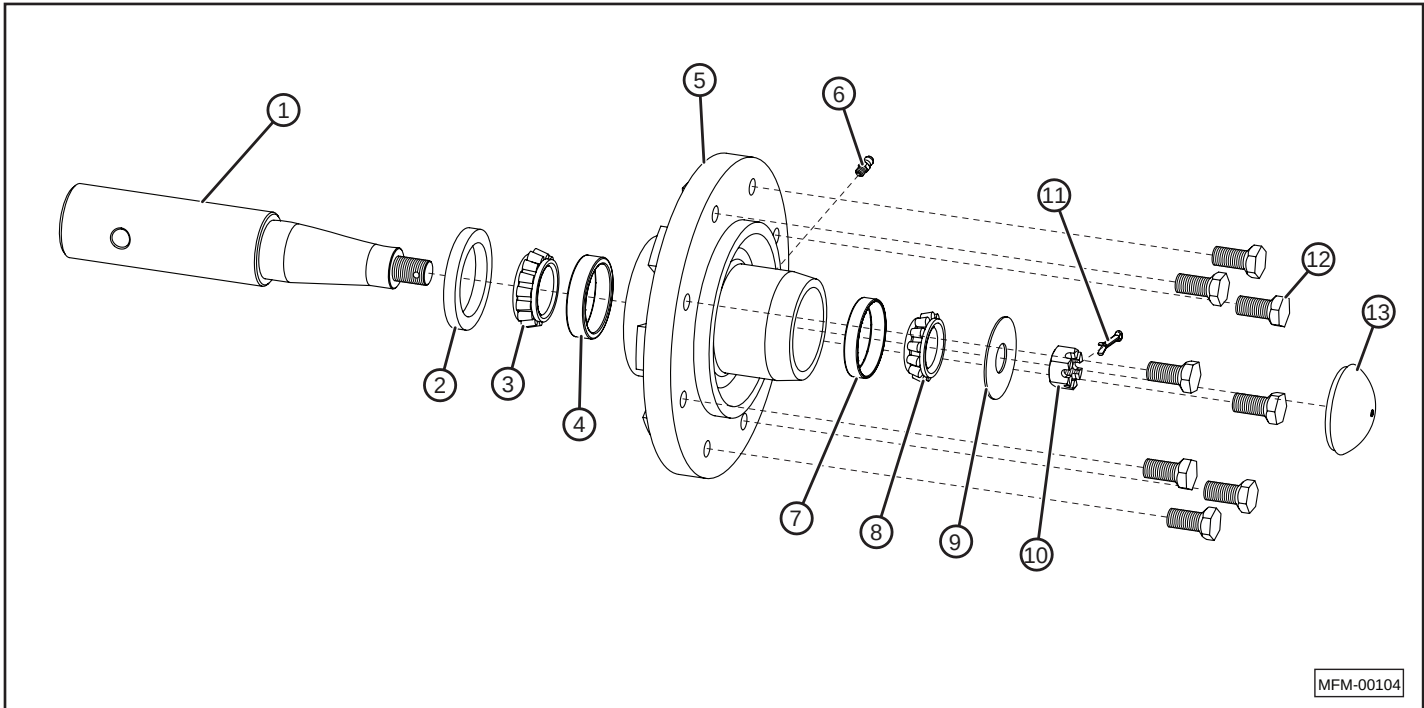
Hub Components for HD-1371



| Item                | Part Number | Description                 |
|---------------------|-------------|-----------------------------|
| 6-HOLE HUB, 3560 LB |             |                             |
| 1                   | WDL-2505    | SPINDLE, 1-3/4 X 9-1/2      |
| 2                   | HD-1360     | GREASE SEAL, 6 HOLE HUB     |
| 3                   | HD-1362     | INNER BEARING               |
| 4                   | HD-1366     | INNER RACE                  |
| 5                   | HD-1361     | HUB WITH RACES, 6 HOLE HUB  |
| 6                   | GZ-0601     | GREASE ZERK                 |
| 7                   | WB-5010     | WHEEL BOLTS, 1/2-20 X 1-3/4 |

| Item | Part Number | Description                                      |
|------|-------------|--------------------------------------------------|
| 8    | HD-1171     | OUTER RACE                                       |
| 9    | HD-1363     | OUTER BEARING                                    |
| 10   | HD-1364     | SPINDLE FLAT WASHER, 15/16                       |
| 11   | HD-1365     | SPINDLE HEX CASTLE N UT, 7/8-14                  |
| 12   | CP-1517     | COTTER PIN (0.150 X 1-3/4)                       |
| 13   | HD-1367     | DUST CAP                                         |
| —    | HD-1371     | 6-HOLE HUB ASSEMBLY (Includes items 2,3,7,9 ,15) |

Hub Components for RT-2171

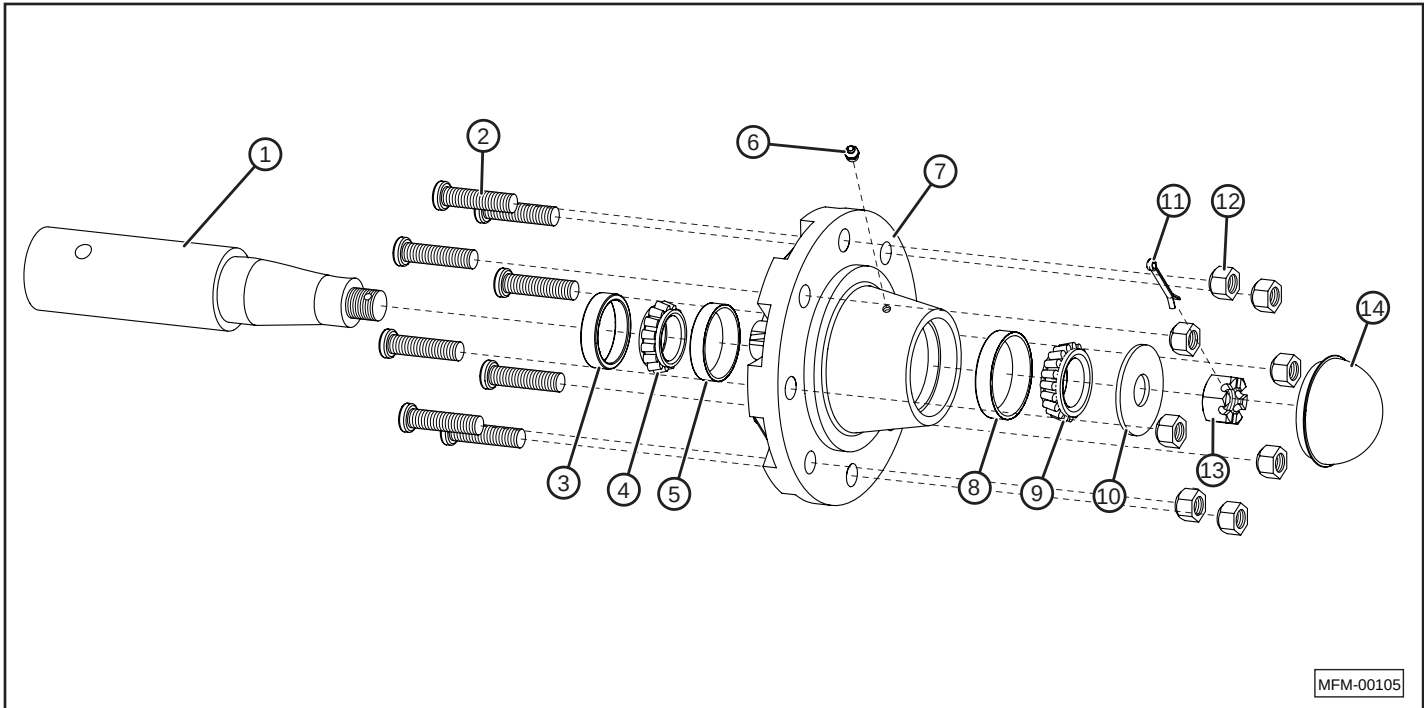


| Item                | Part Number | Description                |
|---------------------|-------------|----------------------------|
| 8-HOLE HUB, 4500 LB |             |                            |
| 1                   | RT-2170     | SPINDLE, 2-1/4 X 11-1/2    |
| 2                   | RT-2172     | GREASE SEAL, 8 HOLE HUB    |
| 3                   | RT-2173     | INNER BEARING              |
| 4                   | RT-2169     | INNER RACE                 |
| 5                   | RT-2174     | HUB WITH RACES, 8 HOLE HUB |
| 6                   | GZ-0601     | GREASE ZERK                |
| 7                   | HD-1171     | OUTER RACE                 |

| Item | Part Number | Description                                     |
|------|-------------|-------------------------------------------------|
| 8    | HD-1363     | OUTER BEARING                                   |
| 9    | RT-2176     | SPINDLE FLAT WASHER, 13/16                      |
| 10   | RT-2177     | SPINDLE HEX CASTLE NUT, 3/4 - 16                |
| 11   | CP-5312     | COTTER PIN (0.150 X 1-1/4)                      |
| 12   | WB-5610     | WHEEL BOLTS, 9/16 – 18 X 1 11/16                |
| 13   | RT-2178     | DUST CAP                                        |
| —    | RT-2171     | 8-HOLE HUB ASSEMBLY (Includes items 2,3,5,8,13) |



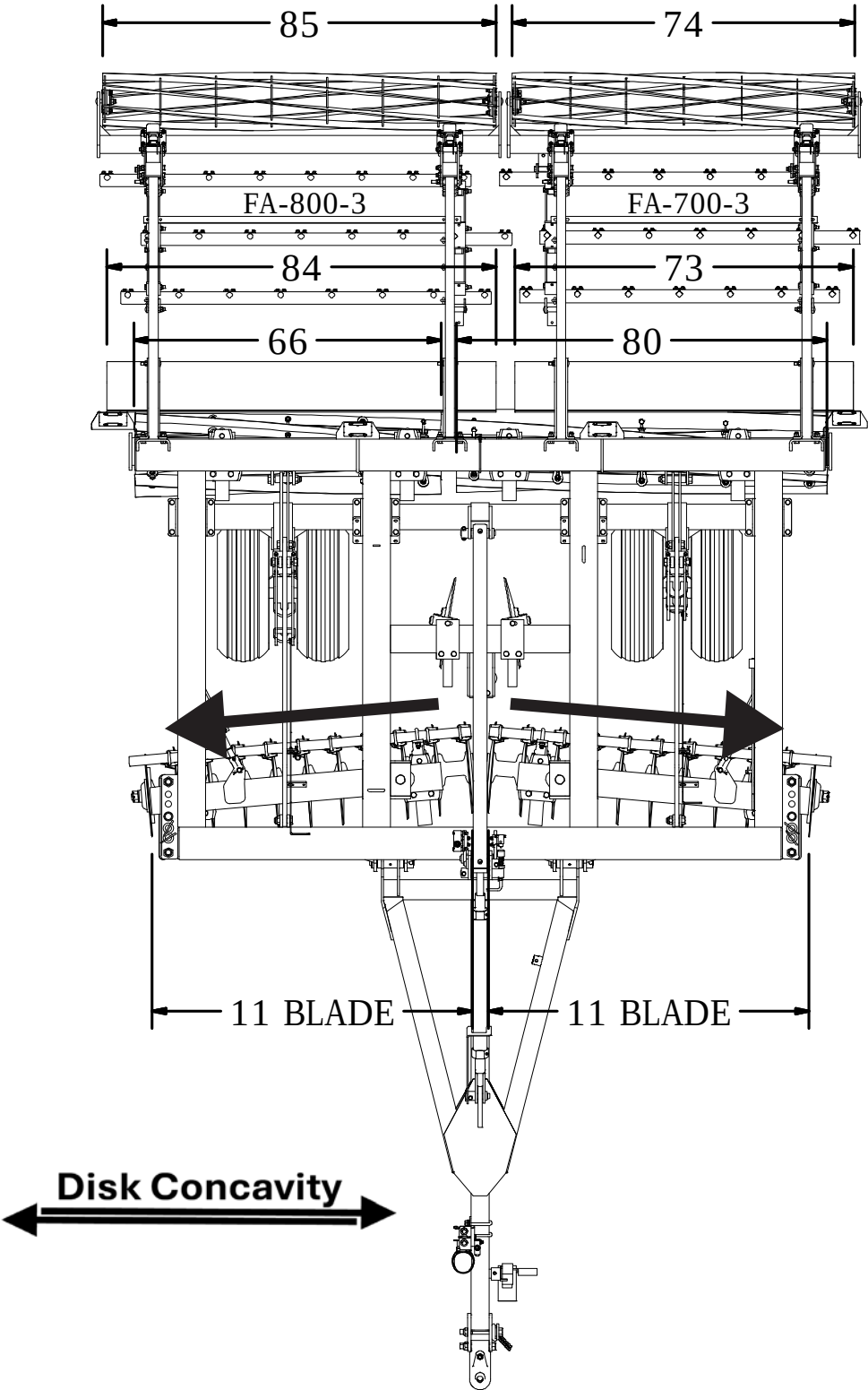
Hub Components for RT-3181/RD-4580



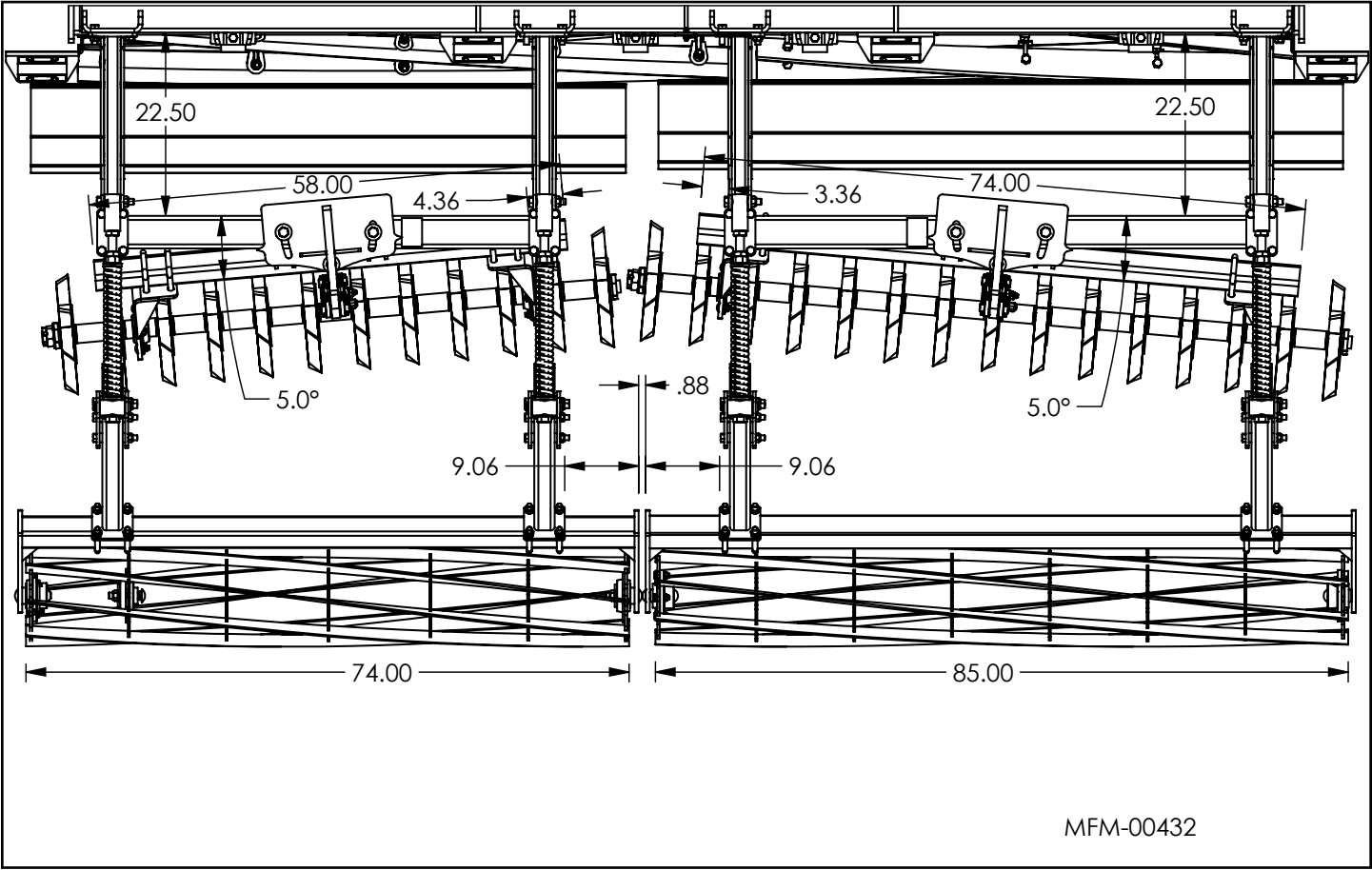
| Item                | Part Number | Description                                              |
|---------------------|-------------|----------------------------------------------------------|
| 8-BOLT HUB, 6000 LB |             |                                                          |
| 1                   | RT-3180     | SPINDLE, 2-3/4 X 12-1/2                                  |
| 2                   | RT-3193     | WHEEL STUD 5/8-18 X 2-1/2                                |
| 3                   | RT-3182     | GREASE SEAL, 8 BOLT HD HUB                               |
| 4                   | RT-3183     | INNER BEARING                                            |
| 5                   | RT-3191     | INNER RACE                                               |
| 6                   | GZ-0601     | GREASE ZERK                                              |
| 7                   | RT-3184     | HUB WITH RACES, 8 HOLE HUB                               |
| 8                   | RT-3192     | OUTER RACE                                               |
| 9                   | RT-3186     | OUTER BEARING                                            |
| 10                  | RT-3190     | SPINDLE FLAT WASHER, 1 5/16                              |
| 11                  | CP-7320     | COTTER PIN (0.207 X 2)                                   |
| 12                  | WN-0063     | WHEEL NUTS 5/8                                           |
| 13                  | RT-3187     | SPINDLE HEX CASTLE NUT, 1-14                             |
| 14                  | RT-3188     | DUST CAP                                                 |
| —                   | RT-3181     | 8-BOLT HUB ASSEMBLY, 6000 LB (Includes items 3,4,7,9,14) |

| I<br>tem            | Part Number | Description                                              |
|---------------------|-------------|----------------------------------------------------------|
| 8-BOLT HUB, 7500 LB |             |                                                          |
| 1                   | RD-4416     | SPINDLE, 3 X 12-1/2                                      |
| 2                   | RT-3193     | WHEEL STUD 5/8-18 X 2-1/2                                |
| 3                   | RD-4582     | GREASE SEAL, 8 BOLT 7500 LB HUB                          |
| 4                   | RD-4583     | INNER BEARING                                            |
| 5                   | RD-4584     | INNER RACE                                               |
| 6                   | GZ-0601     | GREASE ZERK                                              |
| 7                   | RD-4581     | HUB WITH RACES, 8 BOLT 7500 LB HUB                       |
| 8                   | RT-3192     | OUTER RACE                                               |
| 9                   | RT-3186     | OUTER BEARING                                            |
| 10                  | RT-3190     | SPINDLE FLAT WASHER, 1 5/16                              |
| 11                  | CP-7320     | COTTER PIN (0.207 X 2)                                   |
| 12                  | WN-0063     | WHEEL NUTS 5/8                                           |
| 13                  | RT-3187     | SPINDLE HEX CASTLE NUT, 1-14                             |
| 14                  | RT-3188     | DUST CAP                                                 |
| —                   | RD-4580     | 8-BOLT HUB ASSEMBLY, 7500 LB (Includes items 3,4,7,9,14) |

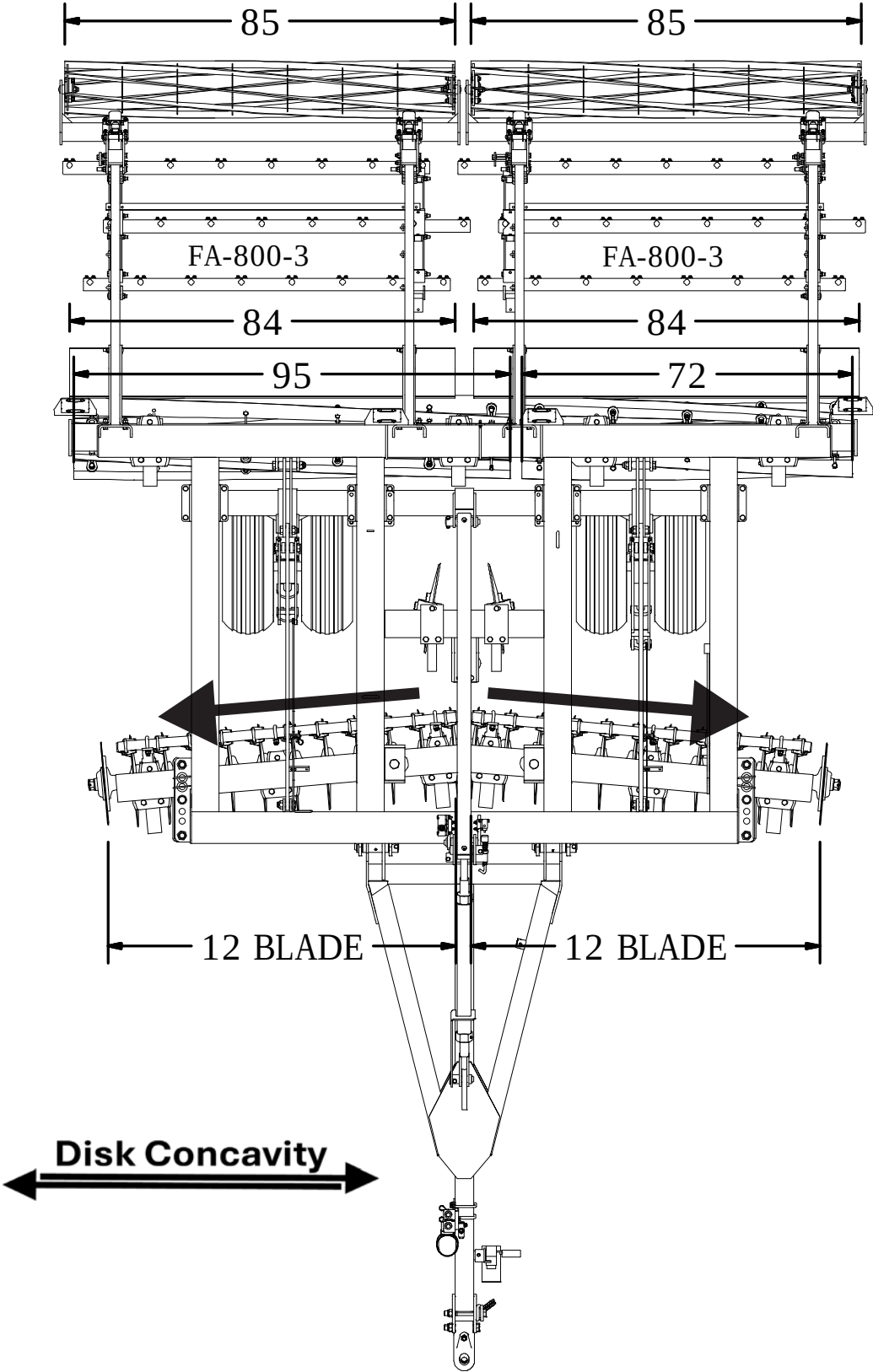
Layout Diagram for CB-4212



Layout Diagram for CB-4212-STRB

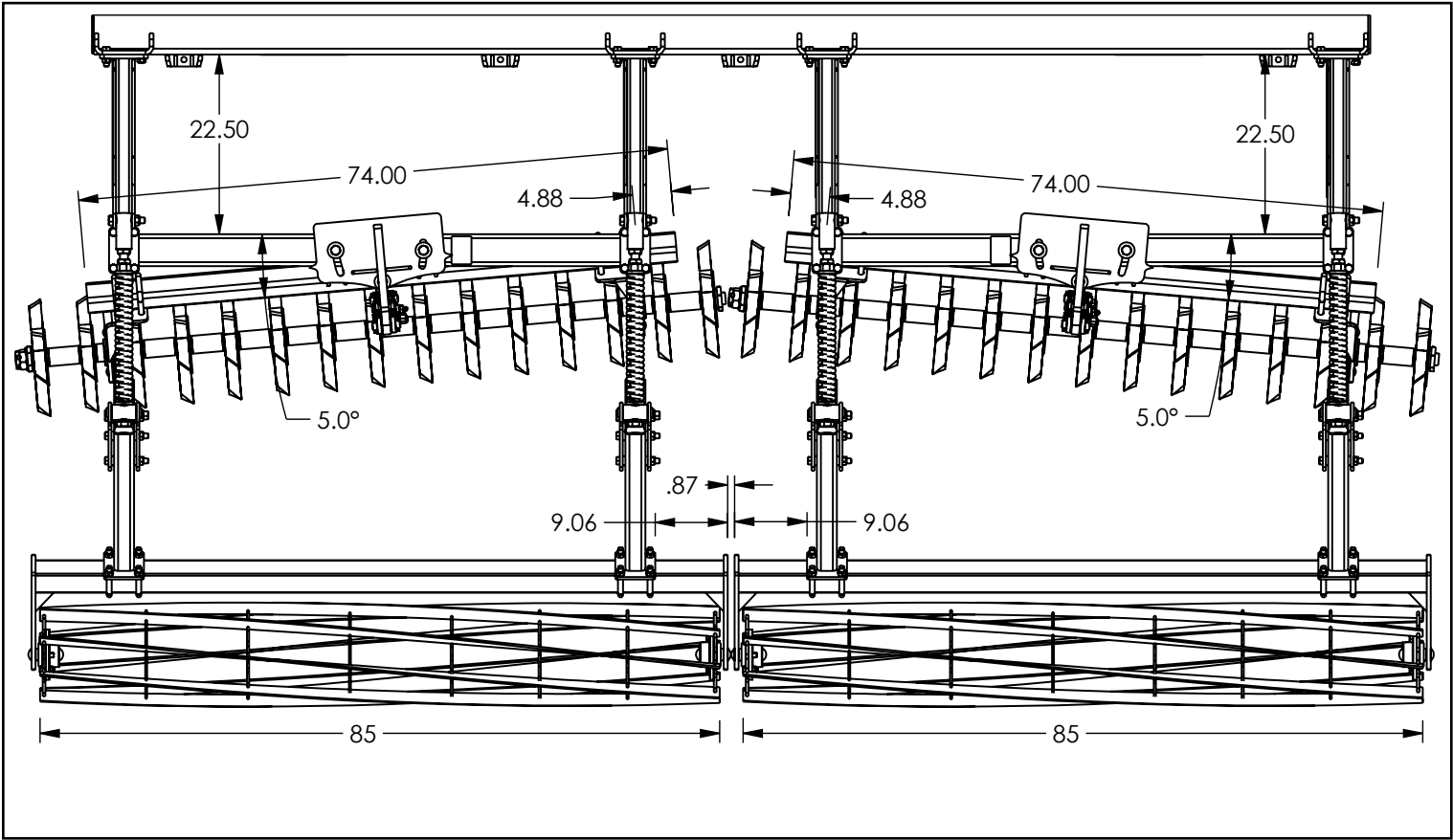


Layout Diagram for CB-4214

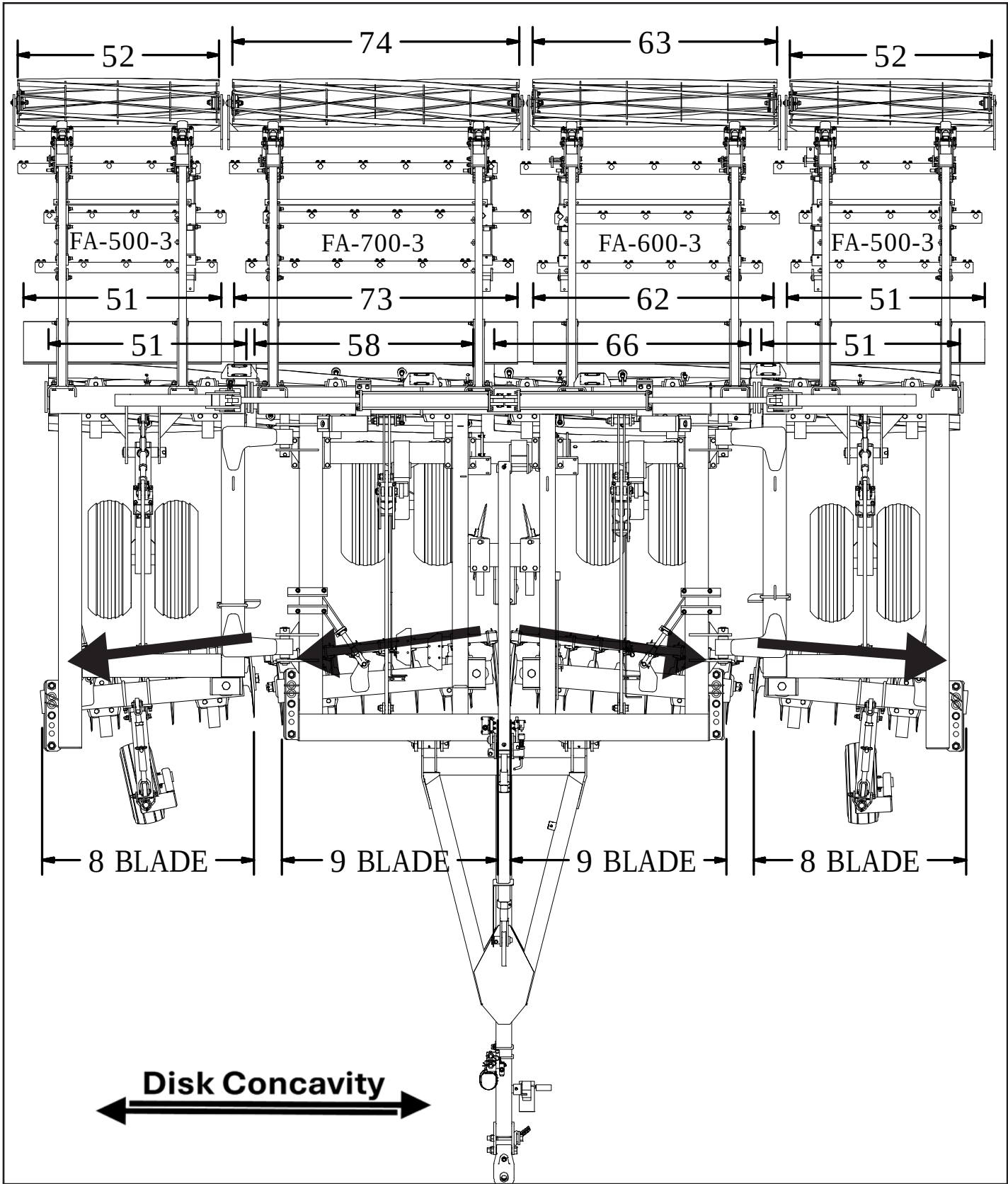




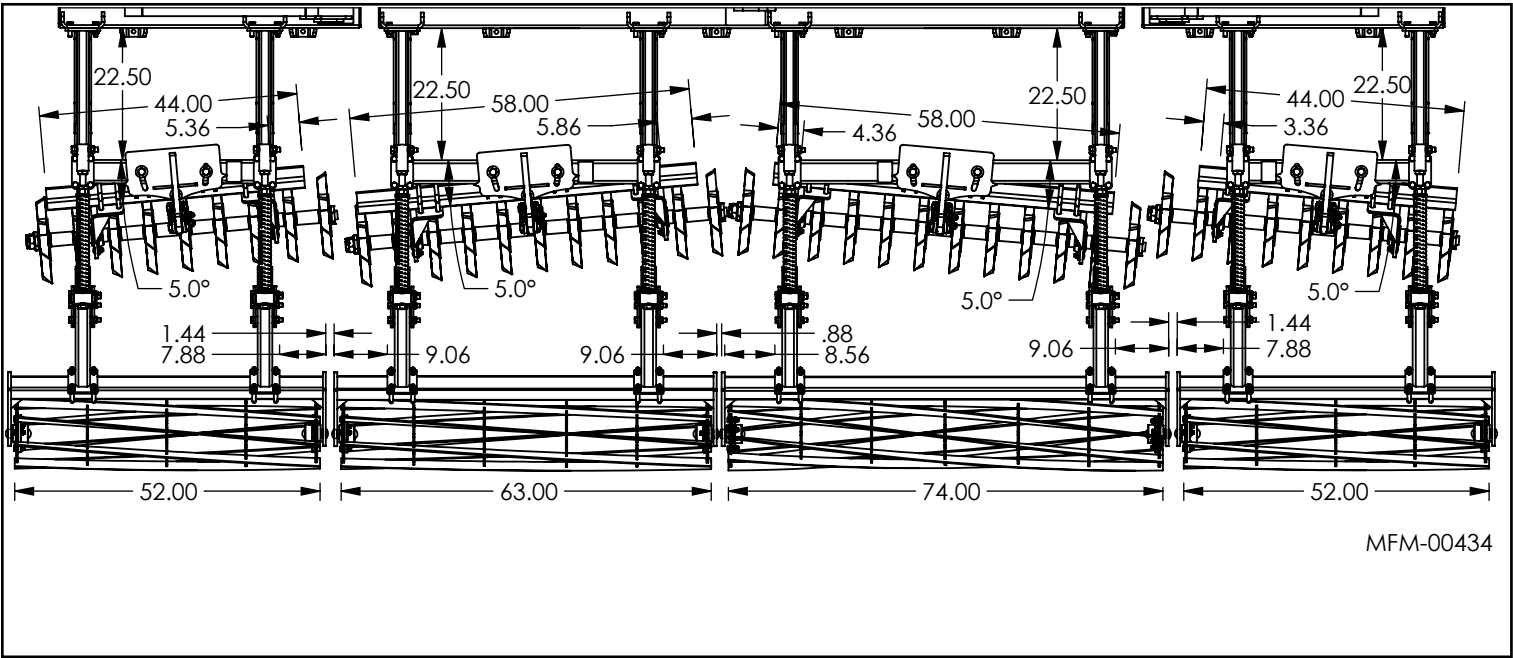
Layout Diagram for CB-4214-STRB



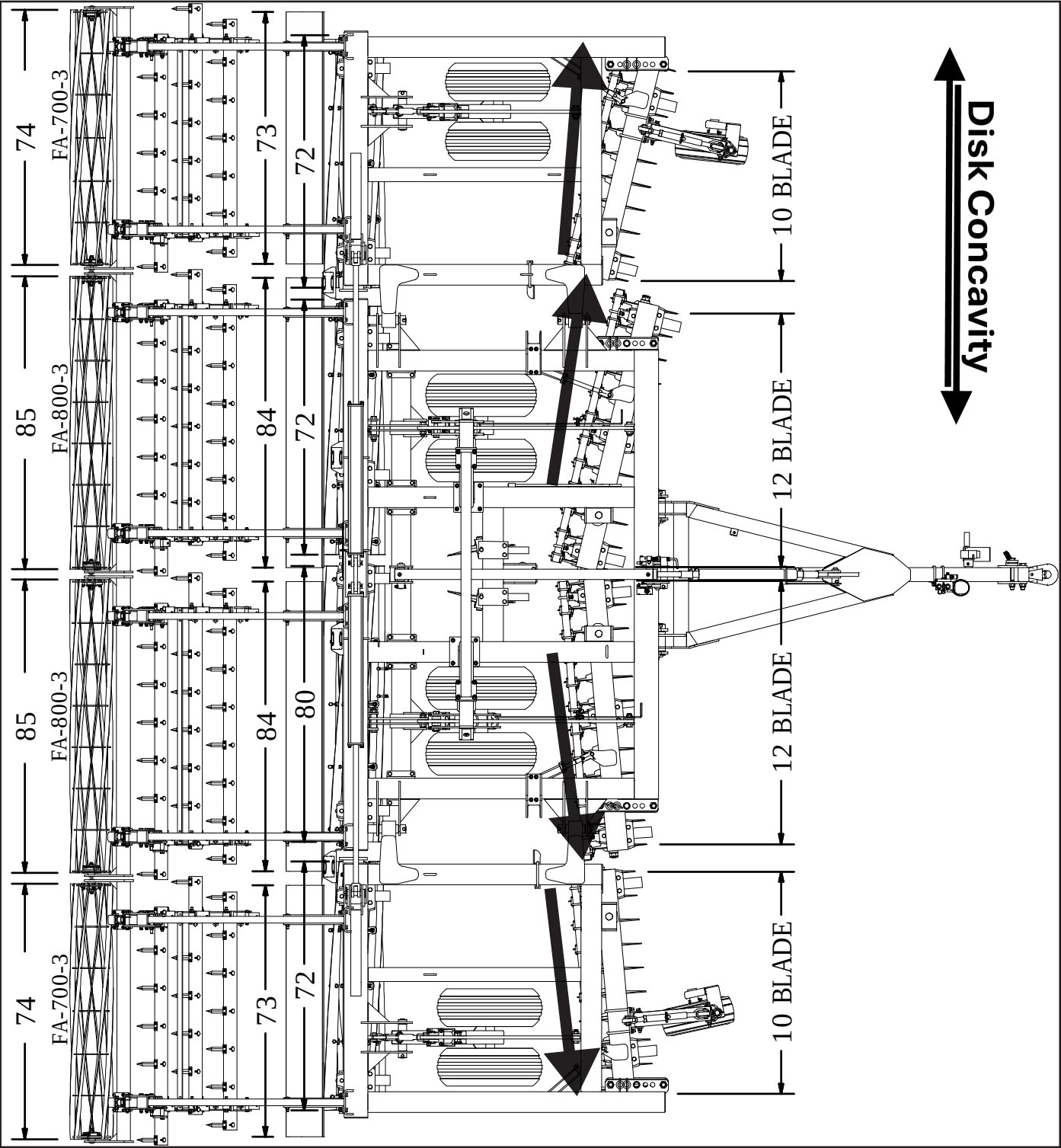
Layout Diagram for CB-4220



Layout Diagram for CB-4220-STRB

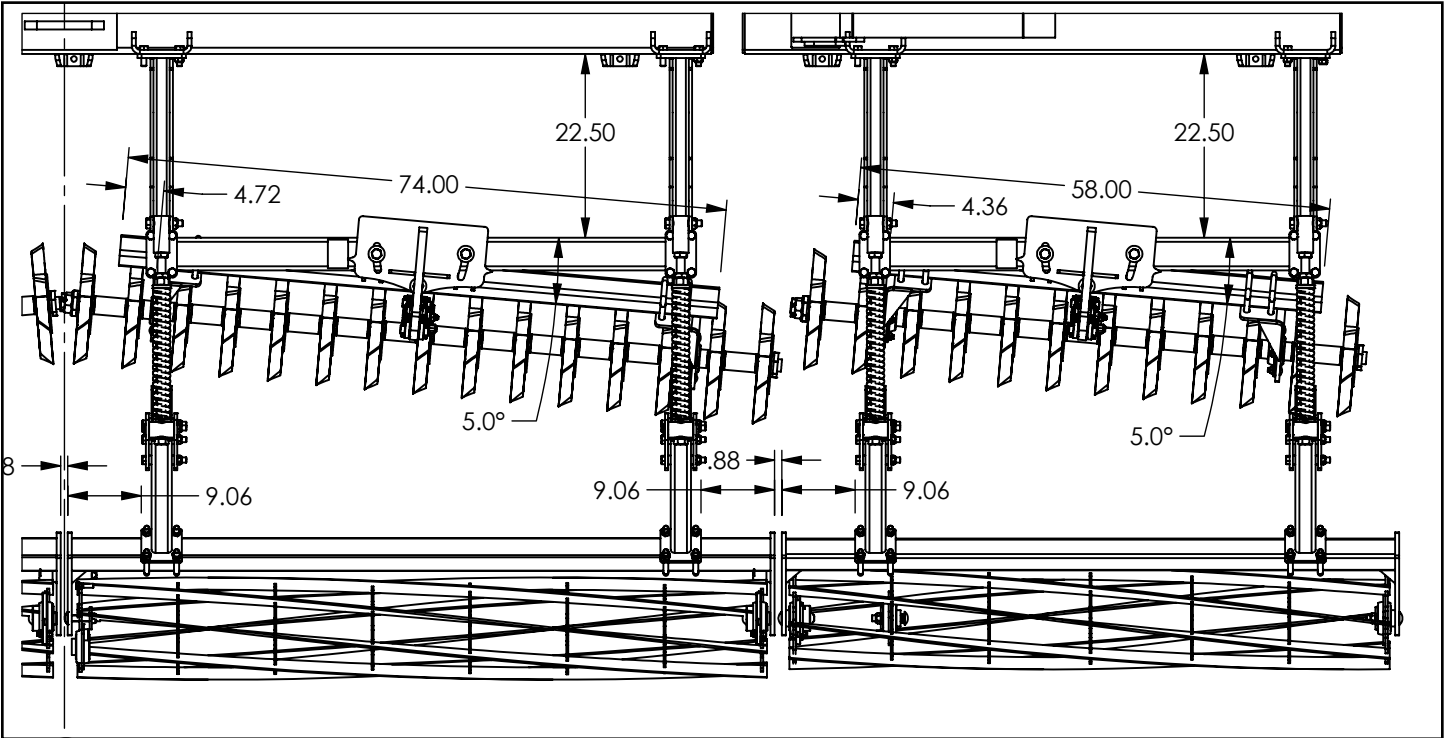
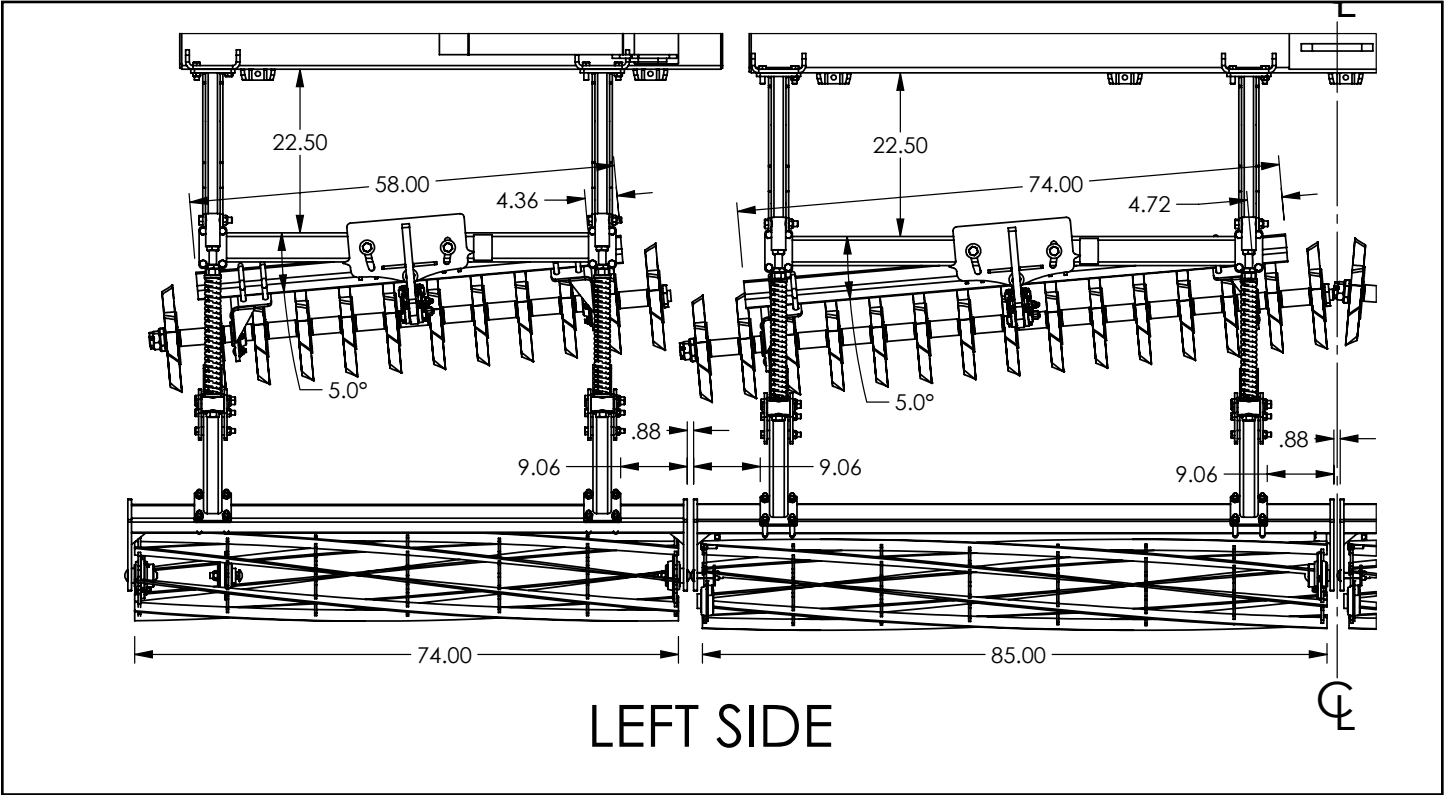


Layout Diagram for CB-4225

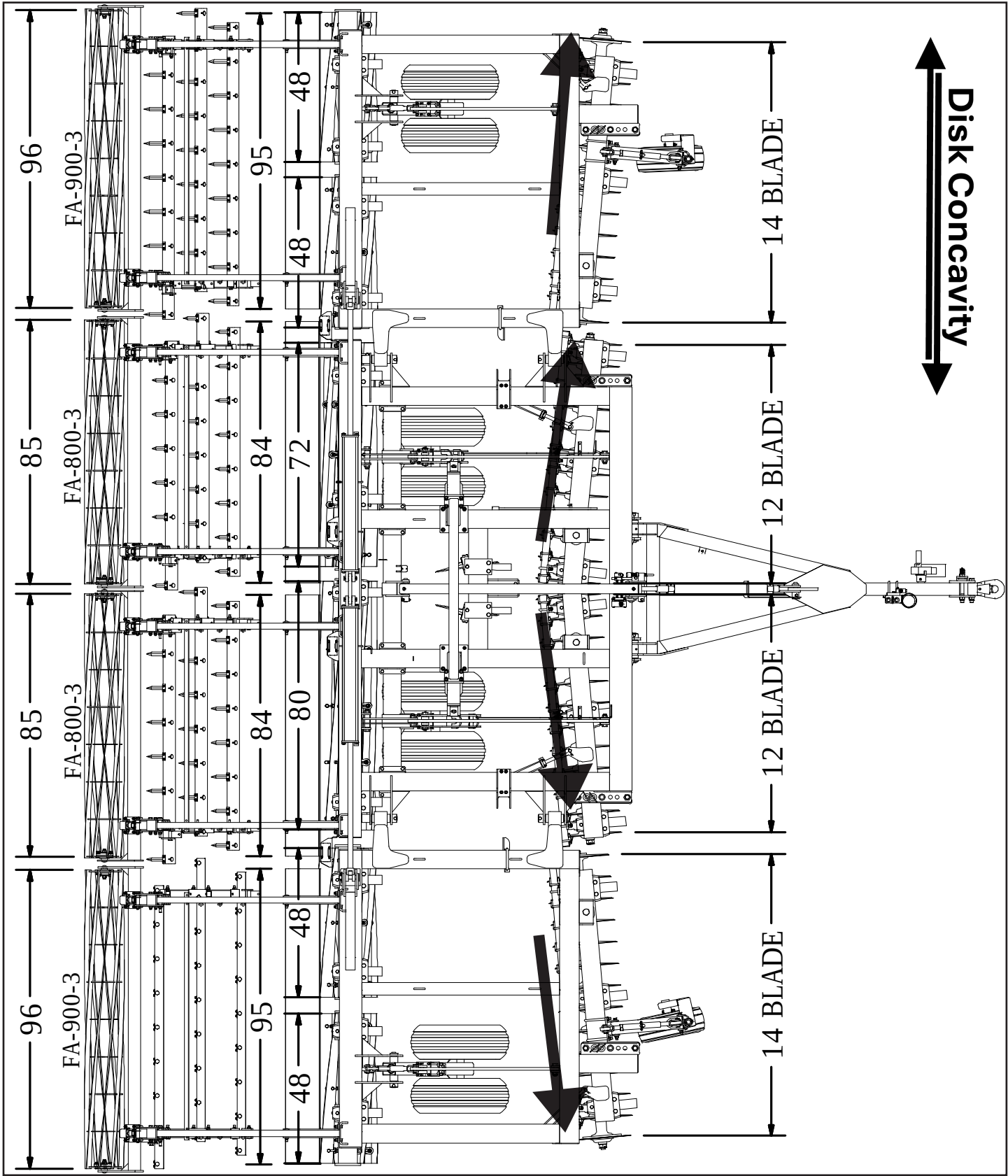




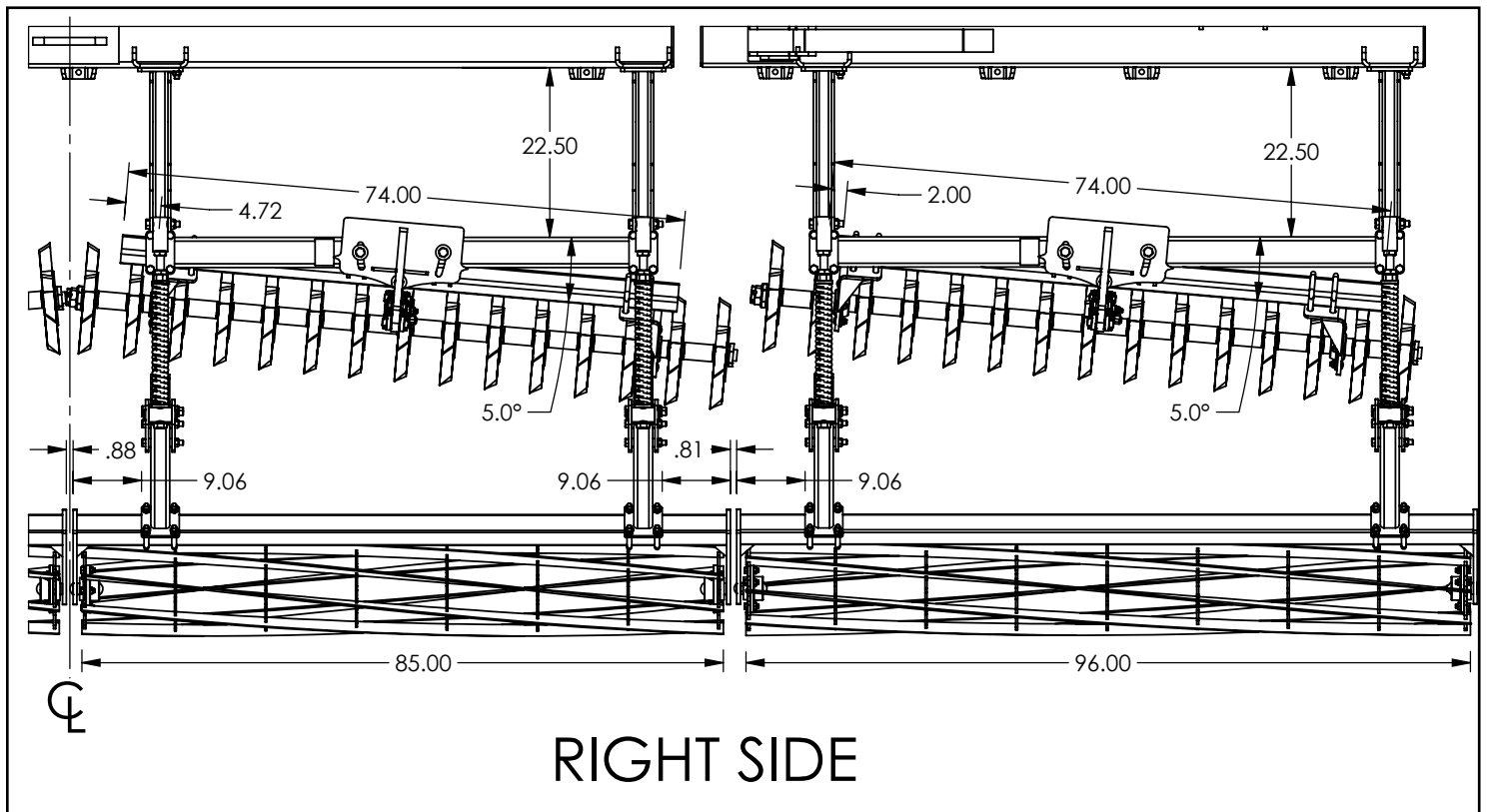
Layout Diagram for CB-4225-STRB



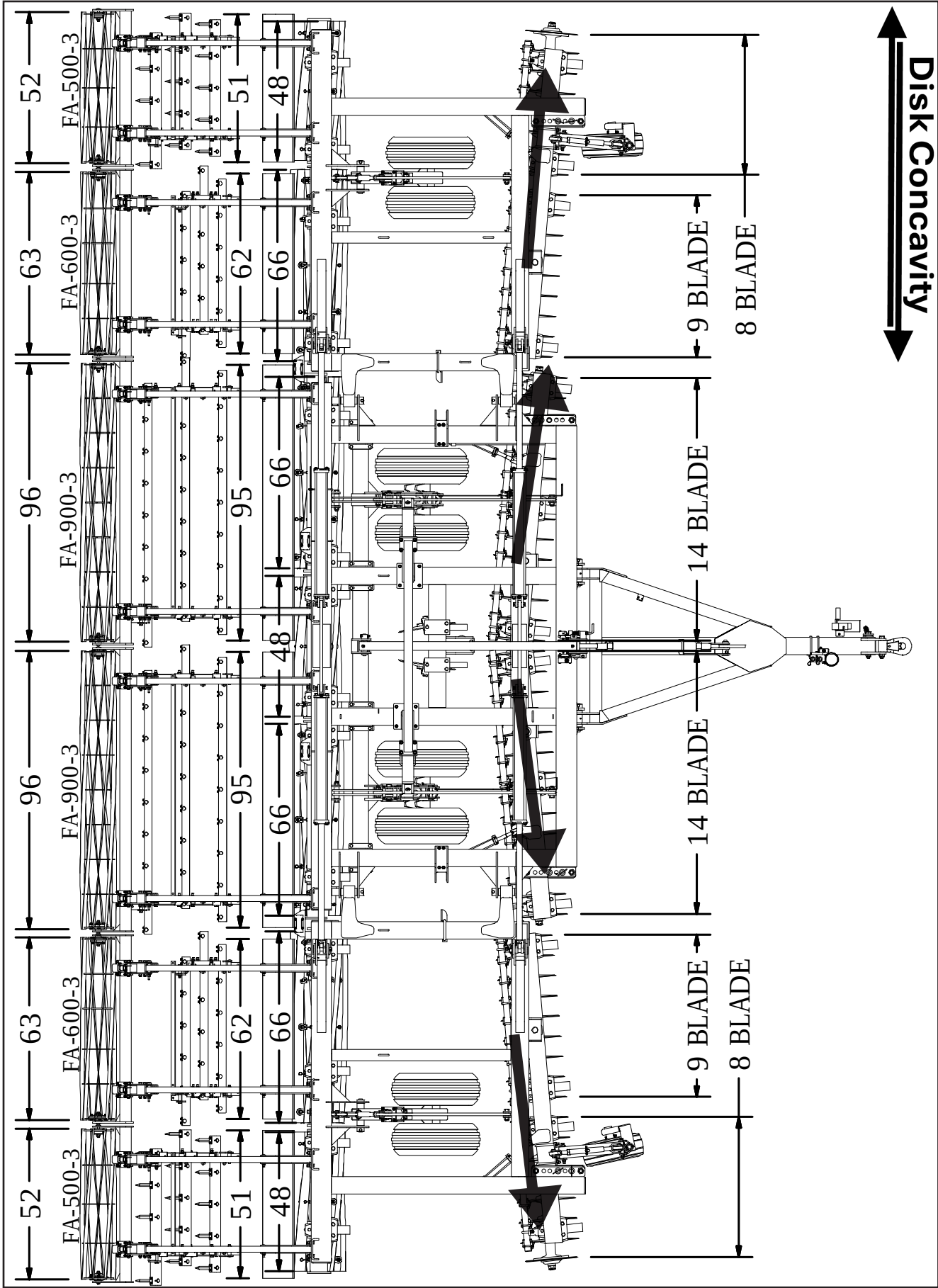
Layout Diagram for CB-4230



Technical drawing of the left side of a machine, showing two views of a complex mechanical assembly. The drawing includes dimensions such as 22.50, 74.00, 2.00, 4.72, 5.0°, 9.06, .81, .88, 96.00, and 85.00. A large 'C' symbol is visible on the right side of the drawing.

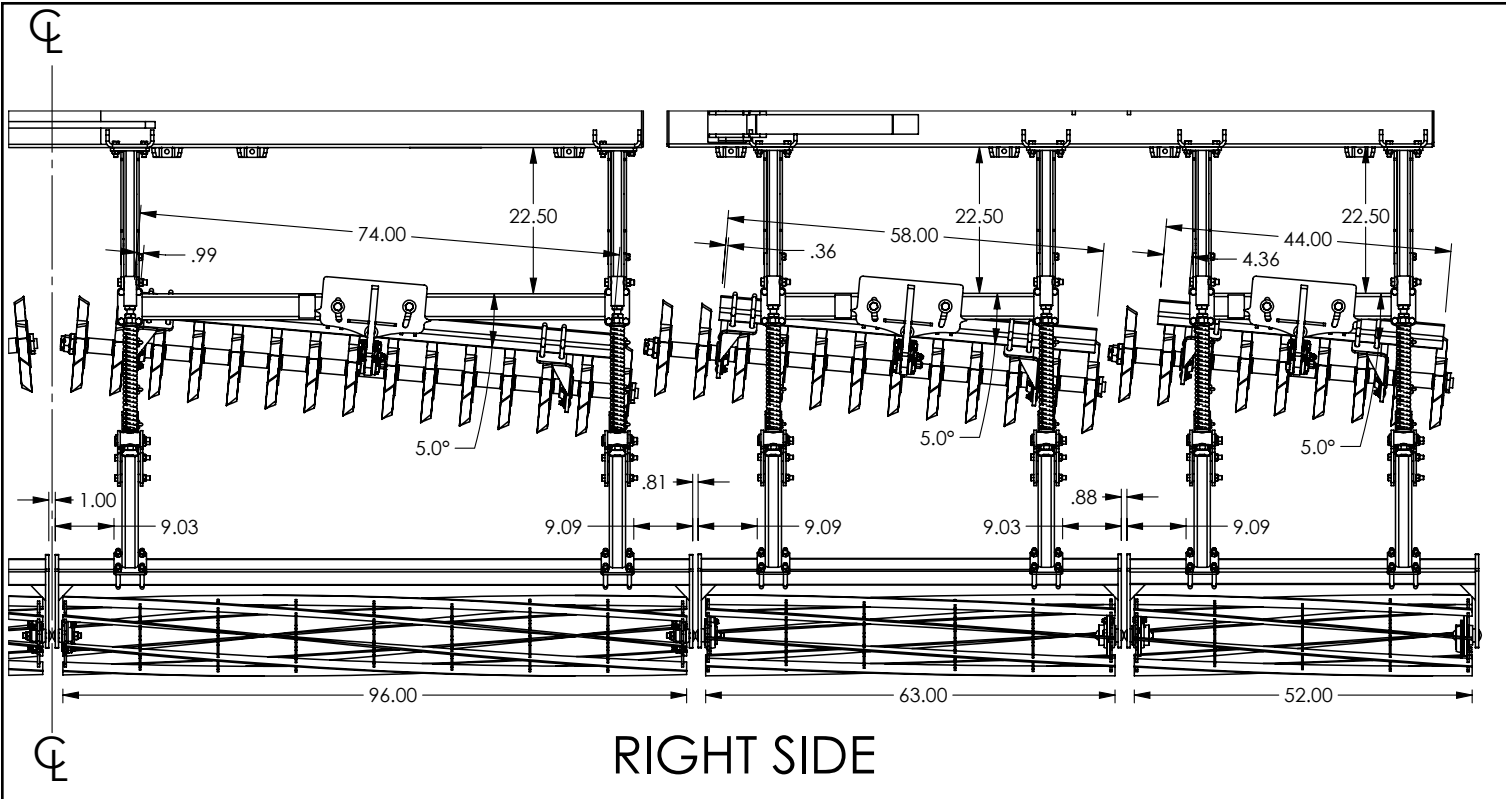
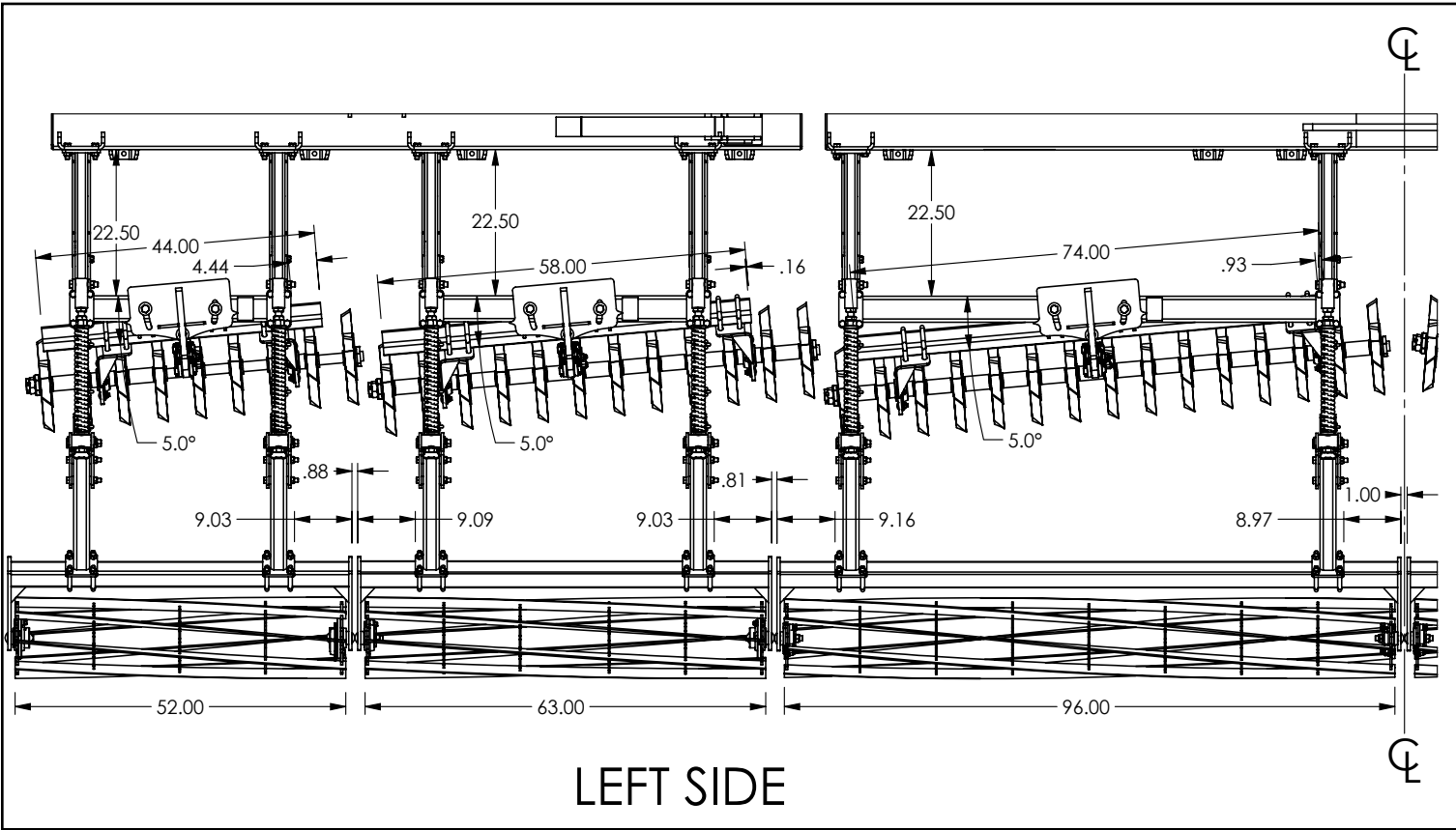


Layout Diagram for CB-4235

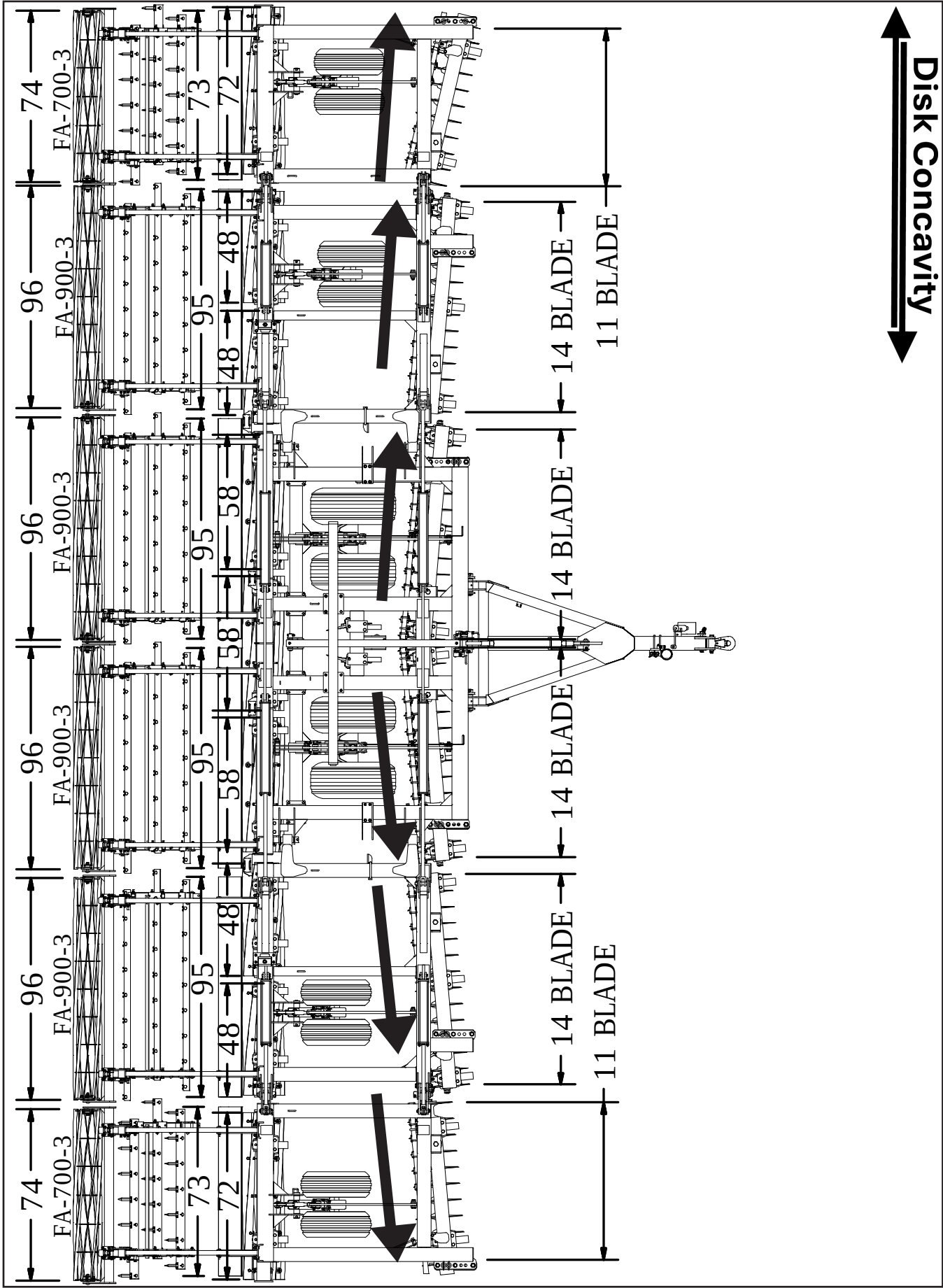




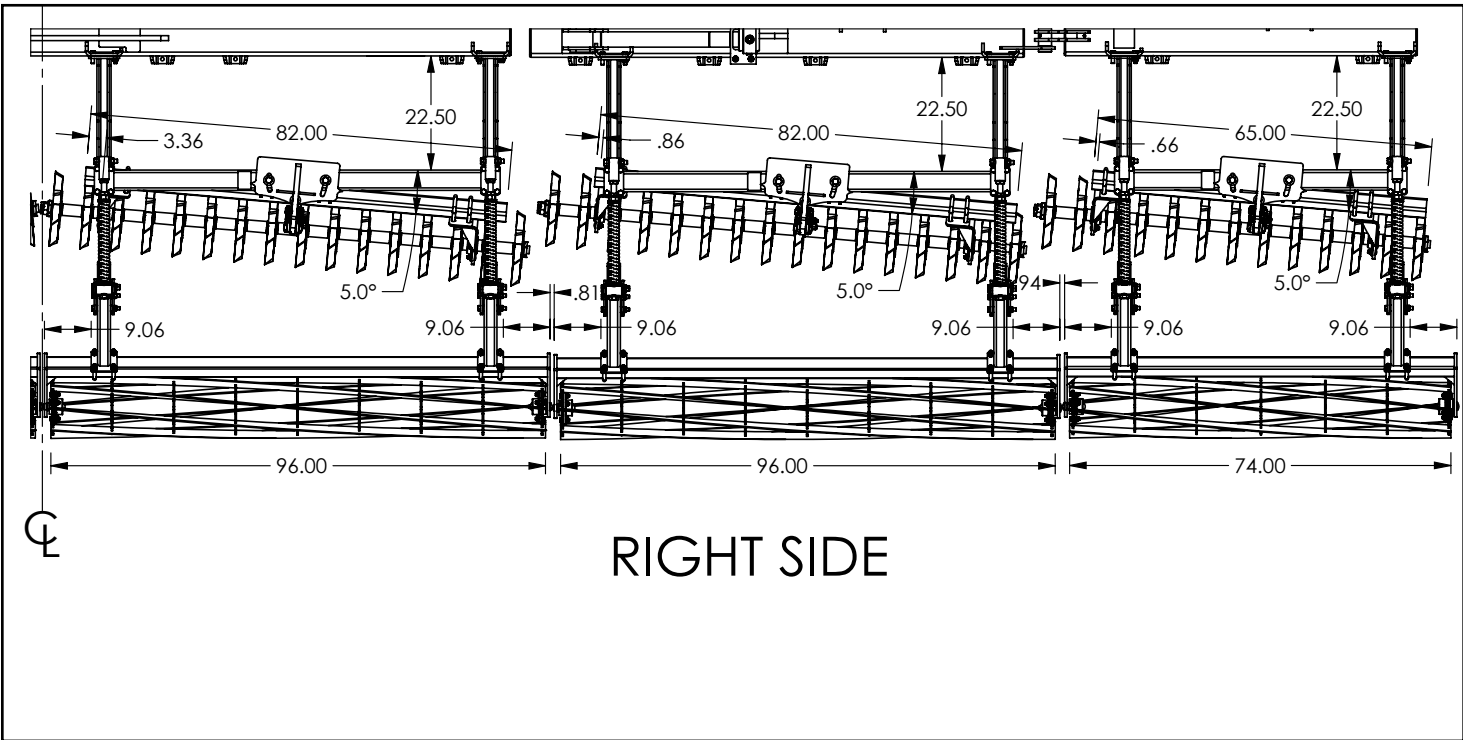
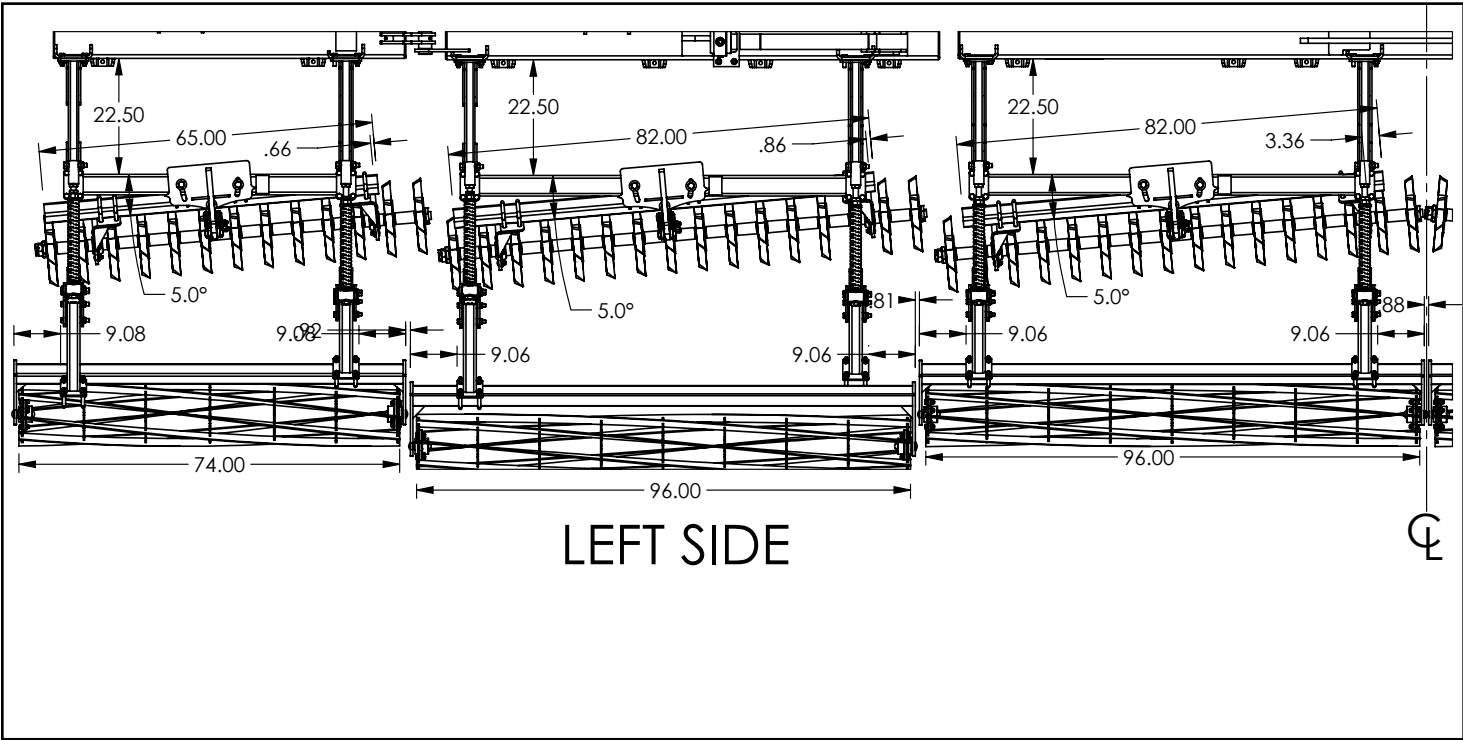
Layout Diagram for CB-4235-STRB



Layout Diagram for CB-4245



Layout Diagram for CB-4245-STRB







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