COULTER-CHISEL
DISK-CHISEL

# SUMMERS®

# Operator's Manual

# COULTER-CHISEL
# DISK-CHISEL

COULTER-CHISEL
DISK-CHISEL

**IMPORTANT**

THE OPERATOR IS RESPONSIBLE FOR ADJUSTING THE MACHINE SINCE MACHINE DOES NOT COME "FIELD READY" FROM FACTORY.

**CAUTION**

READ & UNDERSTAND OPERATOR'S MANUAL BEFORE USING MACHINE.

**SUMMERS MANUFACTURING CO., INC.**
**WEB SITE: www.summersmfg.com**

MADDOCK, NORTH DAKOTA 58348 ..... (701) 438-2855
DEVILS LAKE, NORTH DAKOTA 58301..... (701) 662-5391

8Z1094

Printed in USA

# Warranty

Summers warrants only products of its manufacture against operational failure caused by defective materials or workmanship which occur during normal use within 12 months from the date of purchase by the end user from Summers' dealer.

Summers' obligation is to replace free of charge any part of any product that Summers inspection shows to be defective excluding transportation charges to Maddock, ND or Devils Lake, ND and return and also excluding all transportation costs from Summers' dealer to the dealer's customer and all other costs such as removal and installation expense.

Summers shall not be liable for loss of time, manufacturing costs, labor, material, loss of profits, consequential damages, direct or indirect, because of defective products whether due to rights arising under the contract of sale or independently thereof, and whether or not such claim is based on contract, tort or warranty.

Written permission for any warranty claim return must be first obtained from authorized Summers' personnel. All returns must be accompanied with a complete written explanation of claimed defects and the circumstances of operational failure.

Written warranty for all component parts used in the manufacture of Summers products is available upon request. Warranty of such component parts will be determined by said component manufacturer upon their inspection of the claimed defective part.

This express warranty is the sole warranty of Summers. There are no warranties, which extend beyond the warranty herein expressly set forth. The sales for products of Summers under any other warranty or guarantee express or implied is not authorized. This warranty voids all previous issues.

**SUMMERS MANUFACTURING CO. INC.**
**MADDOCK, NORTH DAKOTA 58348**
**DEVILS LAKE, NORTH DAKOTA 58301**

2/95

# INTRODUCTION

This manual provides the following information about your Summers Coulter-Chisel.

**SECTION CONTENTS**

Section 1 – SAFETY explains important safety precautions and familiarizes the Operator with the decals and their locations.

Section 2 – ASSEMBLY includes step by step assembly instructions.

Section 3 – COULTER-CHISEL OPERATION provides necessary information for the operation and adjustment of the machine.

Section 4 – MAINTENANCE covers recommended mechanical maintenance.

Section 5 – TROUBLESHOOTING provides a quick reference to solving problems. SPECIFICATIONS lists important dimensions, capacities and other technical information.

Section 6 – PARTS

**OTHER ITEMS OF IMPORTANCE**

**A. Summers Mfg. Co., Inc. strongly recommends that each Coulter-Chisel Operator READ and UNDERSTAND the Operator's Manual before using the machine. In addition, this Operator's Manual should be REVIEWED at least ANNUALLY thereafter.**

**B. It is the policy of this company in improve its products whenever possible and practical to do so. We reserve the right to make changes or improvements in the design or construction of parts at any time without incurring obligations to install such changes on products previously delivered.**

**C. Reference to "right" and "left" in this manual is determined when machine is viewed from the rear.**

**D. Parts are referenced in each drawing with the Summers Manufacturing Part Number. Use this Part Number when ordering replacement parts from your Summers dealer. See back section of manual for description of each Part Number.**

**OWNER REGISTER**

Name_____ Size _____

Address _____ Serial Number _____
(located by the hitch piece)

City _____

State/Prov. _____ Date Purchased_____

Mail Code_____ Dealer_____

# TABLE OF CONTENTS

## SECTION 1 – SAFETY



## SECTION 2 – ASSEMBLY



## SECTION 3 – OPERATION



## SECTION 4 – MAINTENANCE

**SECTION 6 – PARTS**

## SAFETY-ALERT SYMBOL

This symbol is used to denote possible danger and care should be taken to prevent bodily injury. This symbol means:

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

Definition of each **Signal Word** used in conjunction with the **Safety-Alert** symbol.


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


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


indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

### GENERAL SAFETY PRACTICES

1. READ AND UNDERSTAND Operator's Manual before using machine. Review at least annually thereafter.

2. VERIFY all safety devices and shields are in place before using machine.

3. KEEP hands, feet, hair and clothing away from moving parts.

4. STOP engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, maintaining or unplugging.

5. BE CAREFUL when working around high pressure hydraulic system.

6. ALWAYS make sure that pressure is relieved from hydraulic circuits before servicing or disconnecting from tractor.

7. DO NOT ALLOW RIDERS.

8. USE EXTREME CARE when making adjustments.

9. KEEP CHILDREN AWAY from machinery at all times.

10. NEVER ALLOW anyone to walk or work under a raised piece of equipment without installing cylinder and transport locks.

## SAFETY DURING TRANSPORT

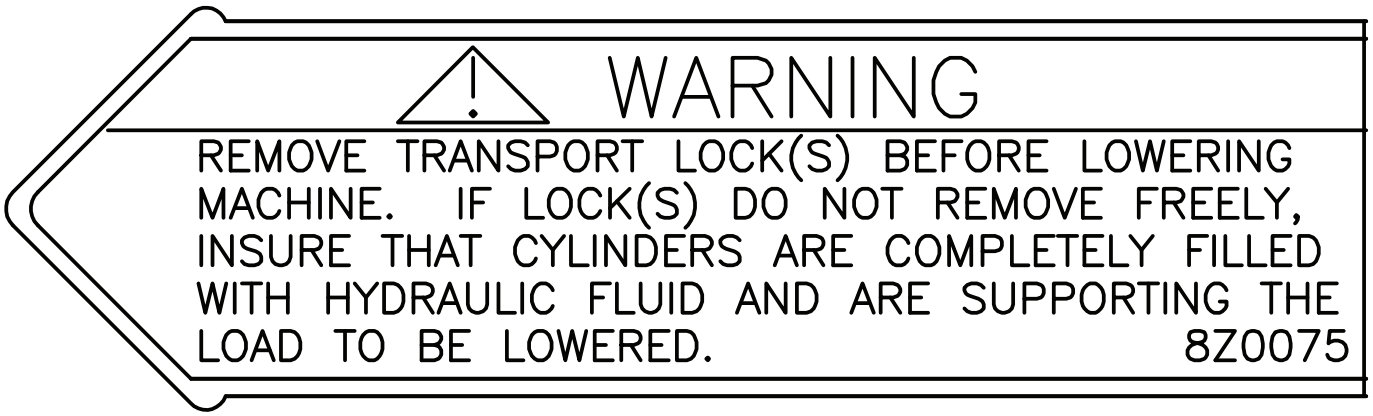
1. ONLY TOW at a safe speed. Use caution when making corners or meeting traffic.
2. USE a safety chain between tractor drawbar and implement hitch when transporting on public roads.
3. ALWAYS use hydraulic cylinder transport locks when transporting on public roads.
4. FOLLOW ALL local laws governing transporting of farm machinery.
5. Frequently check for traffic from rear, especially during turns.

## SAFETY DECALS

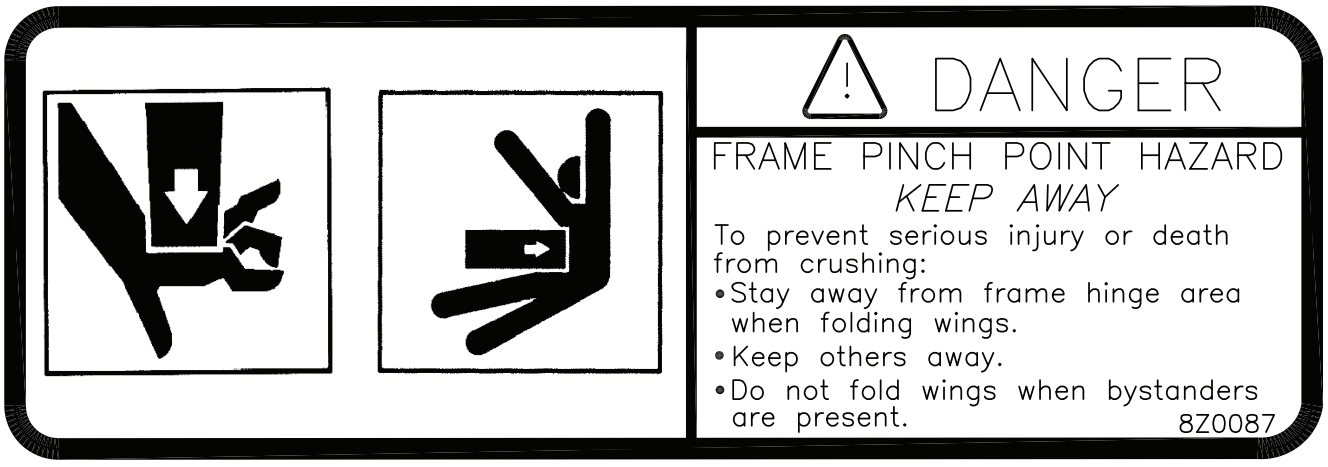
1. KEEP SAFETY DECALS CLEAN.
2. REPLACE missing or unreadable decals. New decals are available from your Summers dealer by ordering correct part number (PN) located on the decal.

## DECALS AND THEIR LOCATIONS

### 1. PN 8Z0075 – DECAL FOR REMOVING TRANSPORT LOCKS




### 2. PN 8Z0087 – DECAL FOR PINCH POINT HAZARD



### 3. PN 8Z0202 – DECAL FOR COMPANY IDENTIFICATION

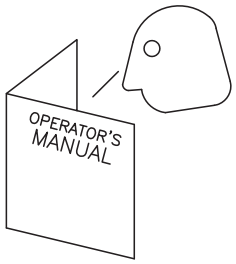
SUMMERS®

MADDOCK, ND 58348 DEVILS LAKE, ND 58301

TM

8Z0202

### 4. PN 8Z0276 – DECAL FOR GENERAL CAUTION




**⚠ CAUTION**

1. Read and understand Operator's Manual before using machine.
2. For Sprayers:
   a. Read and follow chemical manufacturers' WARNINGS, instructions and procedures before using.
   b. Use recommended personal protective equipment to reduce or eliminate chemical contact.
   c. Never run pump dry.
3. Verify all safety devices and shields are in place before using machine.
4. Keep hands, feet, hair and clothing away from moving parts.
5. Stop engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, maintaining or unplugging.
6. Be careful when working around high pressure hydraulic system.
7. Do not allow riders.
8. Check all wheel bolts DAILY for tightness.
9. Refer to Operator's Manual for periodic and annual maintenance.
10. For Towed Implements; DO NOT EXCEED 20 MPH.

8Z0276

### 5. PN 8Z0340 – DECAL FOR REPHASING CYLINDERS

IMPORTANT

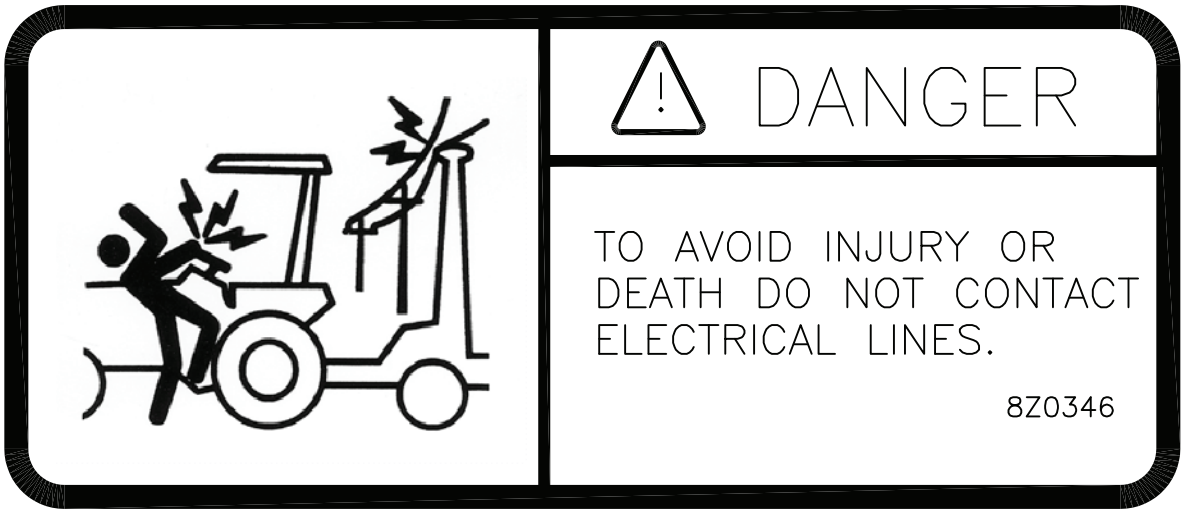
TO REPHASE CYLINDERS, RAISE MACHINE AND HOLD TRACTOR HYD. LEVER A FEW SECONDS AFTER CYLINDERS ARE FULLY EXTENDED. REPHASING SHOULD BE DONE EVERY HOUR OF OPERATION TO MAINTAIN UNIFORM TILLAGE DEPTH .

8Z0340

**6. PN 8Z0342 – DECAL FOR INSTALLING CYLINDER LOCKS**

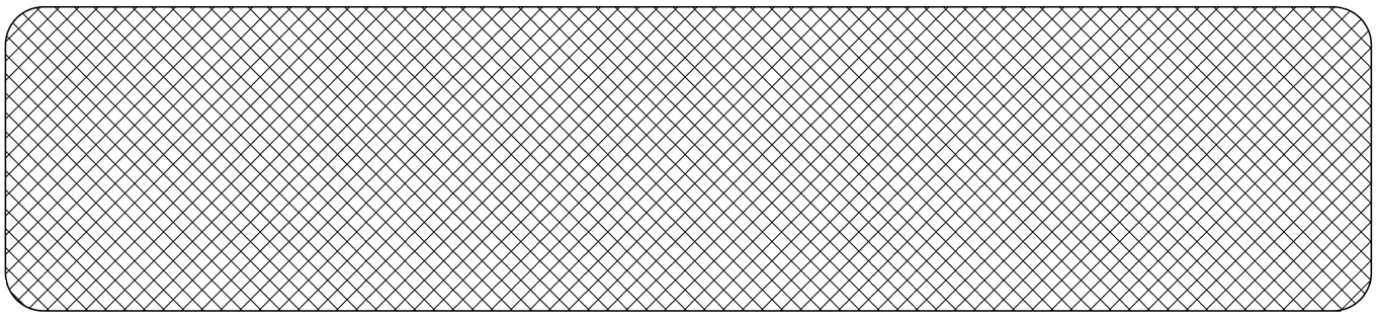

**7. PN 8Z0344 – DECAL FOR STAYING CLEAR OF WINGS**


**8. PN 8Z0346 – DECAL FOR ELECTROCUTION DANGER**

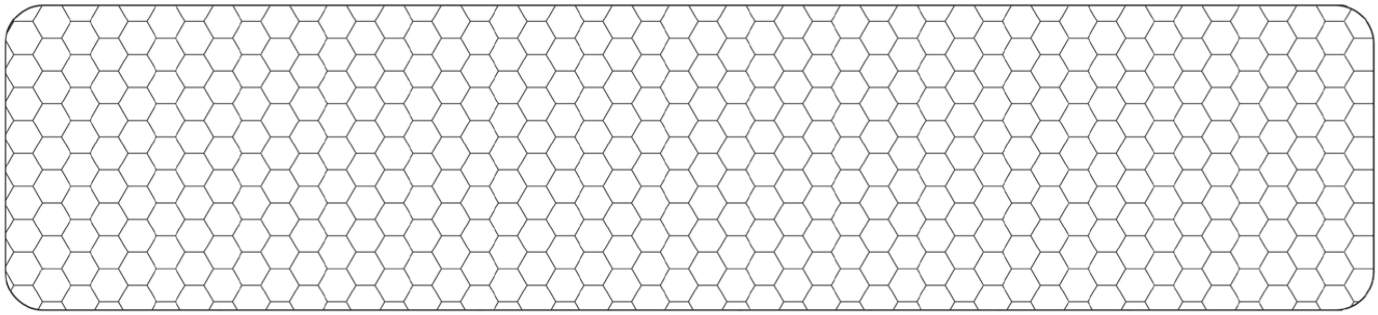


**9. PN 8Z0348 – DECAL FOR GAUGE WHEEL DEPTH**

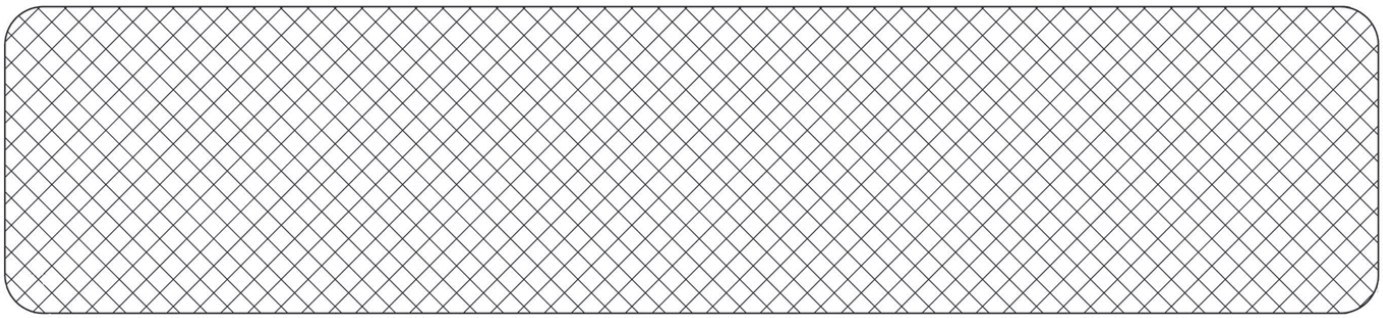
**10. PN 8Z0800 – AMBER REFLECTOR**



**11. PN 8Z0805 – RED-ORANGE REFLECTOR**



**12. PN 8Z0810 – RED REFLECTOR**



## SAFETY LIGHT OPERATION

The Summers Safety Light Kit is equipped with a 7 pin connector which meets SAE J560 specification. To protect 7 pin connector, store in dust cap (8K8067) when not attached to towing vehicle.

*On most towing vehicles WITHOUT brake lights:*
Amber lights will turn on with flashers or turn signals.
Red lights will turn on with parking, road or field lights.

*On most towing vehicles WITH brake lights:*
Amber lights will turn on with flashers, turn signals OR when brake is applied.
Red lights will turn on with parking or road lights.

## GENERAL ASSEMBLY SAFETY PRACTICES

1. READ AND UNDERSTAND Operator's Manual before assembly of machine.
2. Machine should be assembled in a horizontal (field) position only.
3. If machine is to be assembled INDOORS, check that exit door is a MINIMUM OF 22' WIDE. Height requirement varies up to 16'3". Shanks may be left off to reduce height and width requirement.
4. Reference to "RIGHT" and "LEFT" is determined when machine IS VIEWED FROM THE REAR.
5. Reference to "FORWARD" means TOWARDS THE TRACTOR.
6. Reference to "REAR" means AWAY FROM THE TRACTOR.

## SAFETY-ALERT SYMBOL

This symbol is an alert to the potential for personal injury. This symbol means

**ATTENTION! BECOME ALERT!**

**YOUR PERSONAL SAFETY IS INVOLVED!**

## GENERAL SAFETY PRACTICES

YOU ARE RESPONSIBLE for the safe assembly of the machine.

DO NOT ALLOW CHILDREN or other unauthorized persons within the assembly area.

WEAR PERSONAL PROTECTIVE EQUIPMENT which includes a hard hat, eye protection, work gloves and steel toed boots with slip resistant soles.

DO NOT MODIFY the equipment or substitute parts in any way. Unauthorized modification may impair the function and/or safety of the machine.

USE SUITABLE LIFTING DEVICE for components which could cause personal injury.

BLOCK UP ANY RAISED PART of the machine. Be sure machine is stable after blocking.

ALWAYS INSPECT LIFTING CHAINS AND SLINGS for damage or wear.

BE SURE LIFTING DEVICE IS RATED TO HANDLE THE WEIGHT.

STOP ENGINE, place all controls in neutral, set parking brakes, remove ignition key and wait for all moving parts to stop before servicing or adjusting.

BE SURE PRESSURE IS RELIEVED from hydraulic circuits before servicing or disconnecting from tractor.

USE EXTREME CARE when assembling, servicing and adjusting.

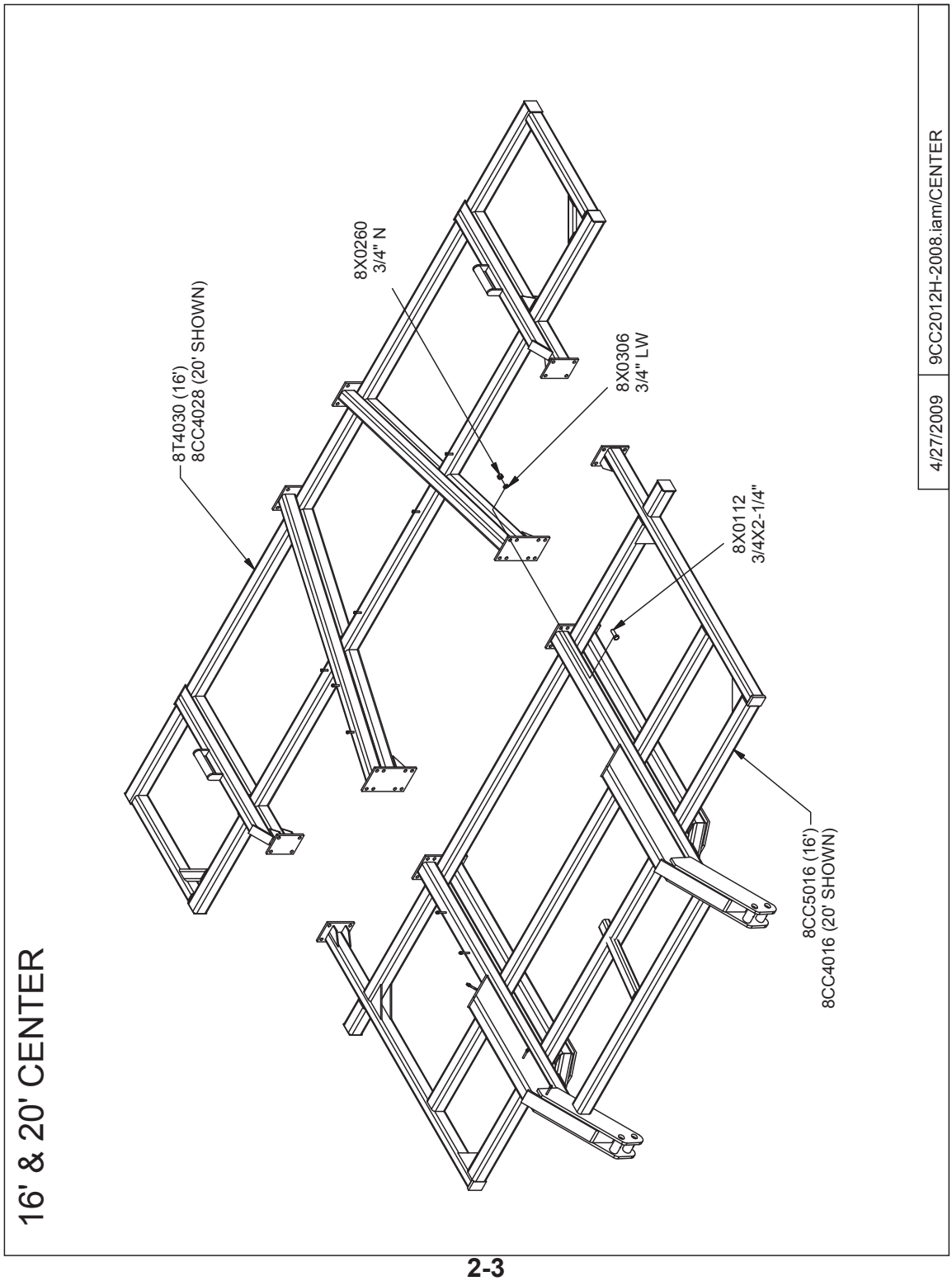
## SECTION 2 – SET-UP OF 16' & 20' DISK-CHISEL & COULTER-CHISEL MAIN FRAME

1. Place front and rear center section on floor with bolt plates facing each other.

2. ATTACH sections with 24 – 3/4x2-1/4" bolts, lock washers and nuts as shown.
3. Block center frames off the floor.

4. Install cylinder attach brackets with 3/4" u-bolts.

NOTE: – Locate Rear Cylinder Attach Brackets (8T4224) 62" from frame center.



5. Insert eyebolts (8K1683) into each cylinder attach bracket.

   – Tighten 1-1/2" nuts so the same amount of threads are above top nut on all eyebolts. Insure that cylinder attach holes are aligned when eyebolts are tightened.

6. Liftarms will be centered beneath cylinder attach brackets.

   – Use 3/4" u-bolts for 4x4 to attach liftarm pivots (8T4100) to frame.

   – Slide pivot pin (8T3640) through liftarm and liftarm pivots.

   – Insert 7/16 x 3-1/2" bolt in retaining bolt hole. Secure with lock nut.

7. Install walking tandem assemblies to bottom of liftarms.

   – The left hand side of center frame uses a left hand assembly (8T4166) and the right hand side uses a right hand assembly (8T4168).

   – Slide pivot pin (8T3620) through walking tandem assembly and lift arm.

   – Insert 7/16 x 3-1/2" bolt in retaining bolt hole. Secure with lock nut.

   – Install 8T4190 (left) and 8T4192 (right) mud guards as shown. Secure with 3/8" u-bolts and flange nuts.

7a. Install walking tandem assembly to bottom of front center lift arm.

   – Check inside surface of walking tandem assembly (8T4132). A 3-3/4" diameter surface around the 1-1/2" dia. pivot hole must be smooth and burr-free. Remove any welding spatter or roughness prior to further assembly. Install snap rings (8K1920) past grooves of lower pivot tube. Install V-seals over lower pivot tube until solid side is against snap ring. Protect lip of V-seals during assembly.

   – Install walking tandem assembly to bottom of center liftarm. Mount so right axle is towards front. Insert pivot pin (8T3620) through walking tandem assembly and liftarm. Retain with 7/16" x 3-1/2" bolt and lock nut.

   – Push V-seals against walking tandem assembly and secure by placing snap ring into groove.

8. Hang cylinders in correct locations.

   – Use 6" x 10" (8T1060) on left hand sider, 5.5 x 10" (8T1055) on right hand side.

9. Install 8K1100 axle and hub assembly into each walking tandem. Apply good quality anti-seize to axles before installation. Retain axle into receiver tube with 1/2 x 3-3/4" bolt and locknut.

10. Attach wheels onto hubs with 9/16" wheel bolts (torque required: 122 ft-lbs).

11. Attach hitch to center with 1-1/2" x 10-5/8" pins.

   NOTE: Center with 1-1/2" ID 10 GA flat washers.

12. Install 7/16x3-1/2" retaining bolts through hitch pivot pins. Secure with lock nuts.

## SECTION 2 – SET-UP OF 16' & 20' DISK-CHISEL & COULTER-CHISEL MAIN FRAME

13. Install shims and lock brackets as shown. Shims can be added or removed as necessary.

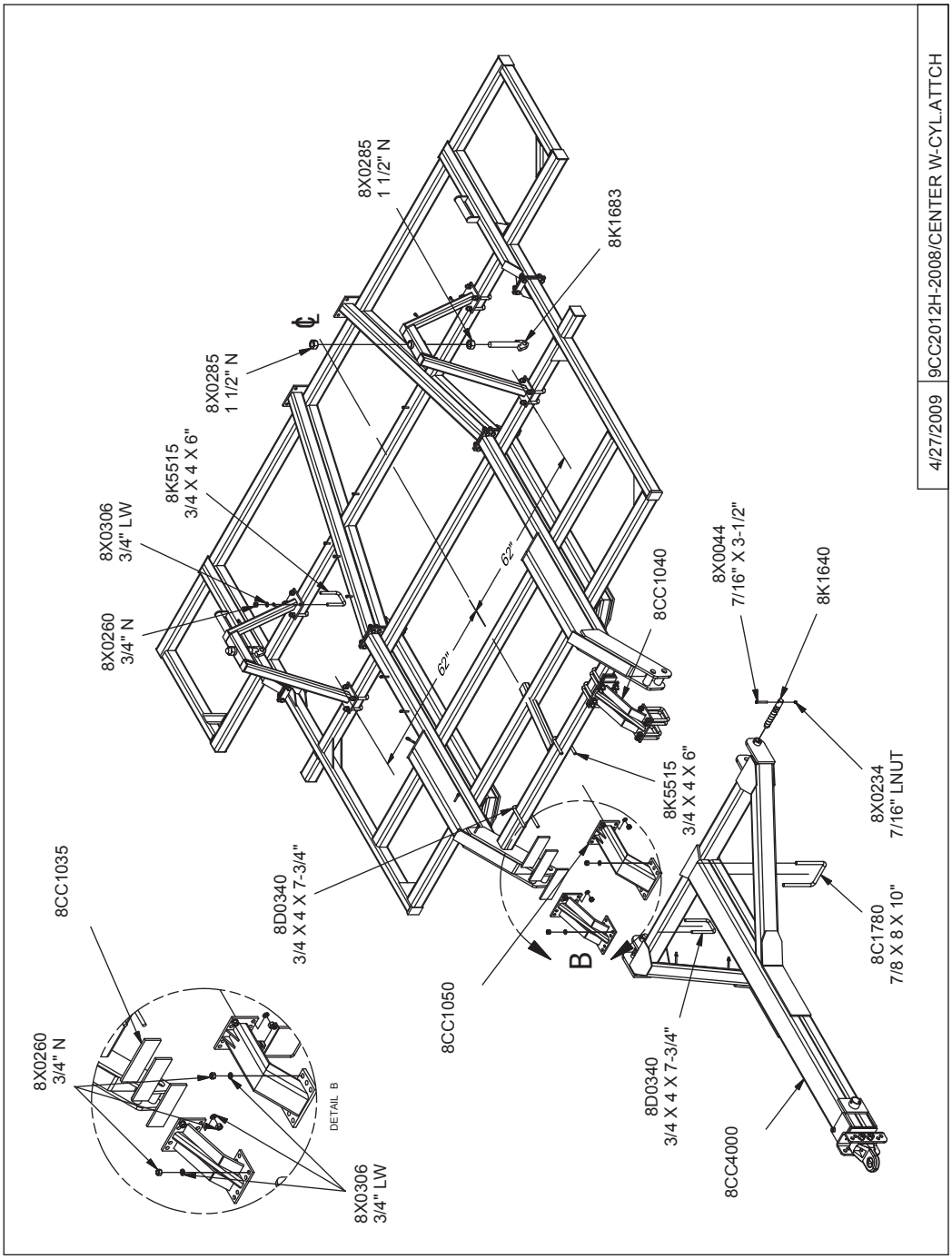
14. Attach hydraulic hose holder and tip holder with 3/4 x 1-1/4" bolt and flat washer.

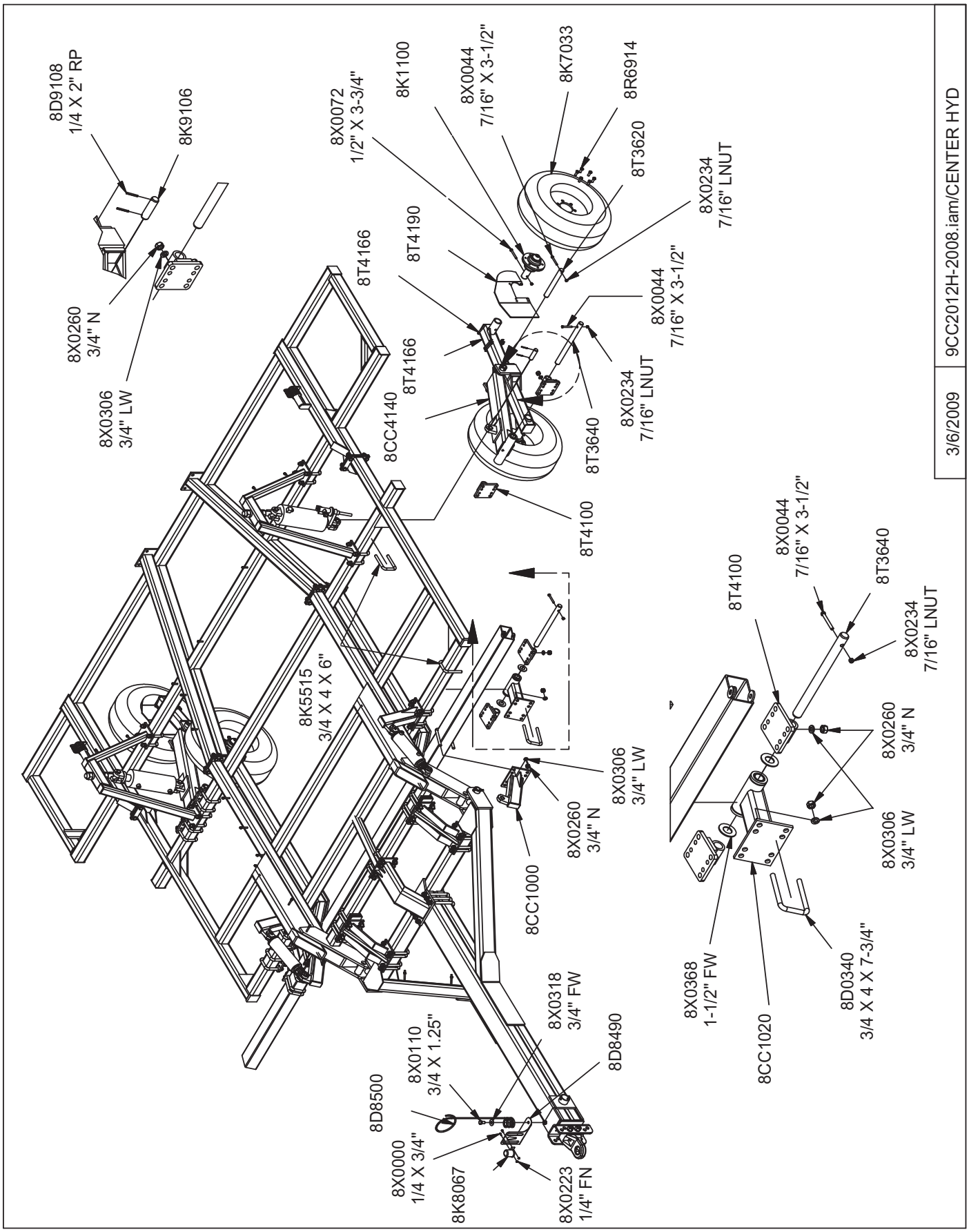
15. Attach hitch jack to jack spool.

16. Remove blocks from under center frame and allow wheel assemblies to support machine. Block tires to prevent movement.

17. Add depth control cylinder locks and storage bases.

18. Install SMV sign mounting bracket and sign at center of rear rank.



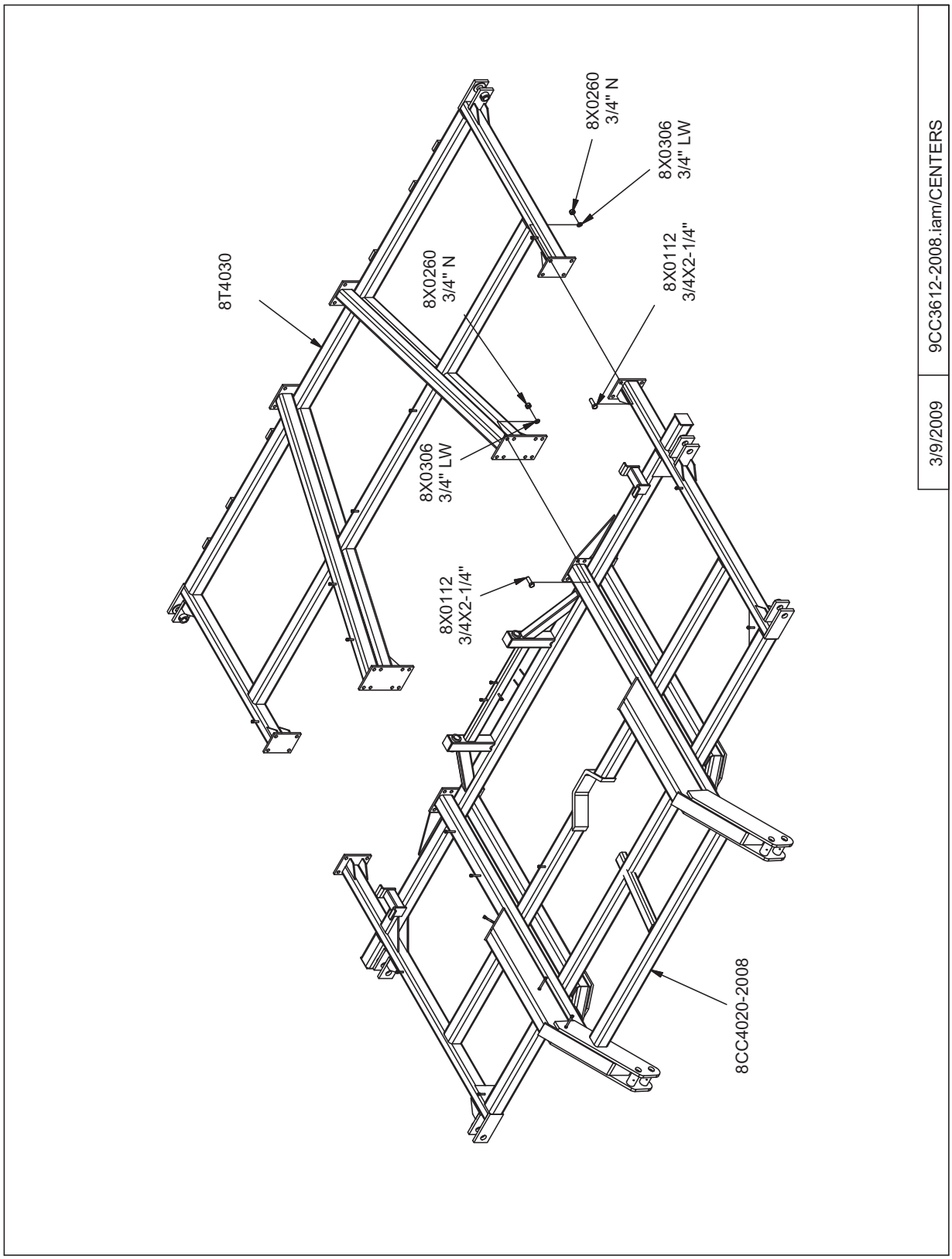

8D9108
1/4 X 2" RP
8K9106
8X0260
3/4" N
8X0306
3/4" LW
8X0072
1/2" X 3-3/4"
8K1100
8X0044
7/16" X 3-1/2"
8K7033
8R6914
8T3620
8X0234
7/16" LNUT
8T4166
8T4190
8T4166
8CC4140
8X0044
7/16" X 3-1/2"
8X0234
7/16" LNUT
8T3640
8T4100
8K5515
3/4 X 4 X 6"
8X0306
3/4" LW
8X0260
3/4" N
8CC1000
8T4100
8X0044
7/16" X 3-1/2"
8T3640
8X0234
7/16" LNUT
8X0260
3/4" N
8X0306
3/4" LW
8X0368
1-1/2" FW
8CC1020
8D0340
3/4 X 4 X 7-3/4"
8D8500
8X0110
3/4 X 1.25"
8X0318
3/4" FW
8D8490
8X0000
1/4 X 3/4"
8K8067
8X0223
1/4" FN
3/6/2009
9CC2012H-2008.iam/CENTER HYD

## SECTION 2 – SET-UP OF DISK-CHISEL & COULTER-CHISEL CENTER SECTION (32’-36’)

1. Place front and rear center section on floor with bolt plates facing each other.

2. ATTACH sections with 24 – 3/4x2-1/4” bolts, lock washers and nuts as shown.

3. Block center frames off the floor.



## SECTION 2 – SET-UP OF DISK-CHISEL & COULTER-CHISEL CENTER SECTION (32'-36')

4. Install cylinder attach brackets with 3/4" u-bolts.

NOTE: – Locate Rear Cylinder Attach Brackets (8T4224) 62" from frame center.

– Center front cylinder attach bracket (8T4200) as shown.

5. Insert eyebolts (8K1683) into each cylinder attach bracket.

– Tighten 1-1/2" nuts so the same amount of threads are above top nut on all eyebolts. Insure that cylinder attach holes are aligned when eyebolts are tightened.

6. All liftarms will be centered beneath cylinder attach brackets.

– Use 3/4" u-bolts for 4x4 to attach liftarm pivots (8T4100) to frame.

– Slide pivot pin (8T3640) through liftarm and liftarm pivots.

– Insert 7/16 x 3-1/2" bolt in retaining bolt hole. Secure with lock nut.

7. Install walking tandem assemblies to bottom of rear liftarms.

– The left hand side of center frame uses a left hand assembly (8T4166) and the right hand side uses a right hand assembly (8T4168).

– Slide pivot pin (8T3620) through walking tandem assembly and lift arm.

– Insert 7/16 x 3-1/2" bolt in retaining bolt hole. Secure with lock nut.

– Install 8T4190 (left) and 8T4192 (right) mud guards as shown. Secure with 3/8" u-bolts and flange nuts.

7a. Install walking tandem assembly to bottom of front center lift arm.

– Check inside surface of walking tandem assembly (8T4132). A 3-3/4" diameter surface around the 1-1/2" dia. pivot hole must be smooth and burr-free. Remove any welding spatter or roughness prior to further assembly. Install snap rings (8K1920) past grooves of lower pivot tube. Install V-seals over lower pivot tube until solid side is against snap ring. Protect lip of V-seals during assembly.

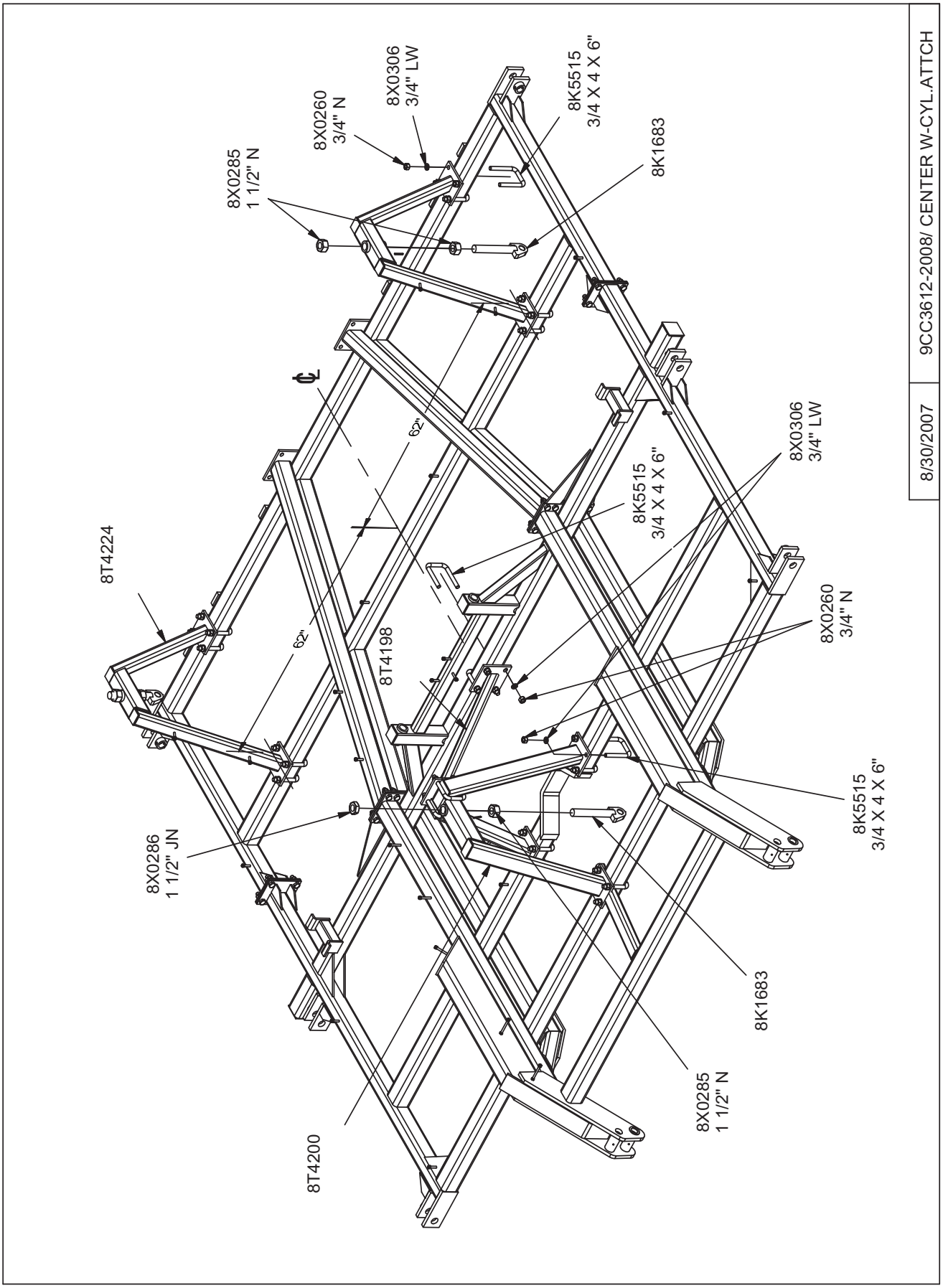
– Install walking tandem assembly to bottom of center liftarm. Mount so right axle is towards front. Insert pivot pin (8T3620) through walking tandem assembly and liftarm. Retain with 7/16" x 3-1/2" bolt and lock nut.

– Push V-seals against walking tandem assembly and secure by placing snap ring into groove.

8. Hang cylinders in correct locations.

– Use 5-1/2" x 10" (8T1055) on left hand side of center, 5 x 10" (8T1050) on right hand side of center, and 4 x 10" (8T1040) on center wheel assembly.

– The front center lift arm (8T4130) has two cylinder attach locations. Use front cylinder attach hole. Cylinder attach location can be changed based on final adjustments. Connecting front center cylinder to rear hole will lower front end of coulter-chisel in transport position.


8X0285
1 1/2" N
8X0260
3/4" N
8X0306
3/4" LW
8K5515
3/4 X 4 X 6"
8K1683
62"
62"
8T4224
8T4198
8X0306
3/4" LW
8K5515
3/4 X 4 X 6"
8X0260
3/4" N
8X0286
1 1/2" JN
8K5515
3/4 X 4 X 6"
8K1683
8X0285
1 1/2" N
8T4200
8/30/2007
9CC3612-2008/ CENTER W-CYL.ATTCH

## SECTION 2 – SET-UP OF DISK-CHISEL & COULTER-CHISEL CENTER SECTION (32'-36')

9. Install 8K1100 axle and hub assembly into each rear walking tandem. Install 8K1105S on front center. Apply good quality anti-seize to axles before installation. Retain axle into receiver tube with 1/2 x 3-3/4" bolt and locknut.

10. Attach wheels onto hubs with 9/16" wheel bolts (torque required: 122 ft-lbs) or 5/8" wheel nuts (170 ft-lbs.).

11. Attach wing transport locks to center frame with 3/4" u-bolts.

    – Located outside edge of bolt plate 78-3/8" away from frame center.

    – Install 1/2 x 6" pins in inside storage holes of transport lock.

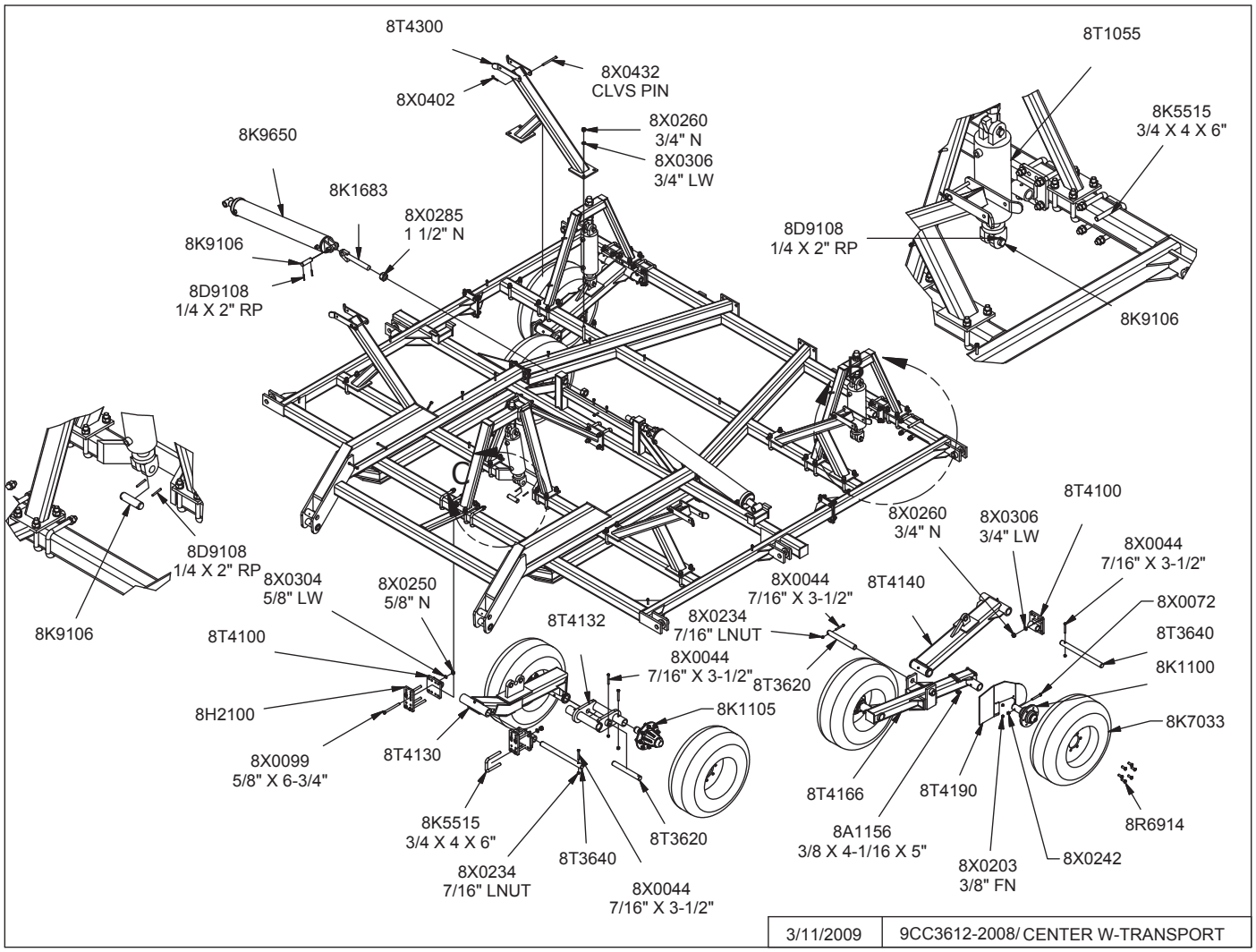
12. Insert 1-1/2 x 10-3/8" eyebolts into wing lift cylinder attach base.

    – Leave 1-1/2" nuts loose, they will need to be adjusted after wing is installed.

13. Attach wing lift cylinders to frame with pins and roll pins.

    – 32' machine uses 4 x 36" cylinders (8K9640).

    – 36' machine uses 5 x 36" cylinders (8K9650).



## SECTION 2 – SET-UP OF DISK-CHISEL & COULTER-CHISEL CENTER SECTION (32'-36')

14. Attach hitch to center with 1-1/2" x 10-5/8" pins.

    NOTE: Center with 1-1/2" ID 10 GA flat washers.

15. Install 7/16x3-1/2" retaining bolts through hitch pivot pins. Secure with lock nuts.

16. Attach hydraulic hose holder and tip holder with 3/4 x 1-1/4" bolt and flat washer.

17. Attach hitch jack to jack spool.

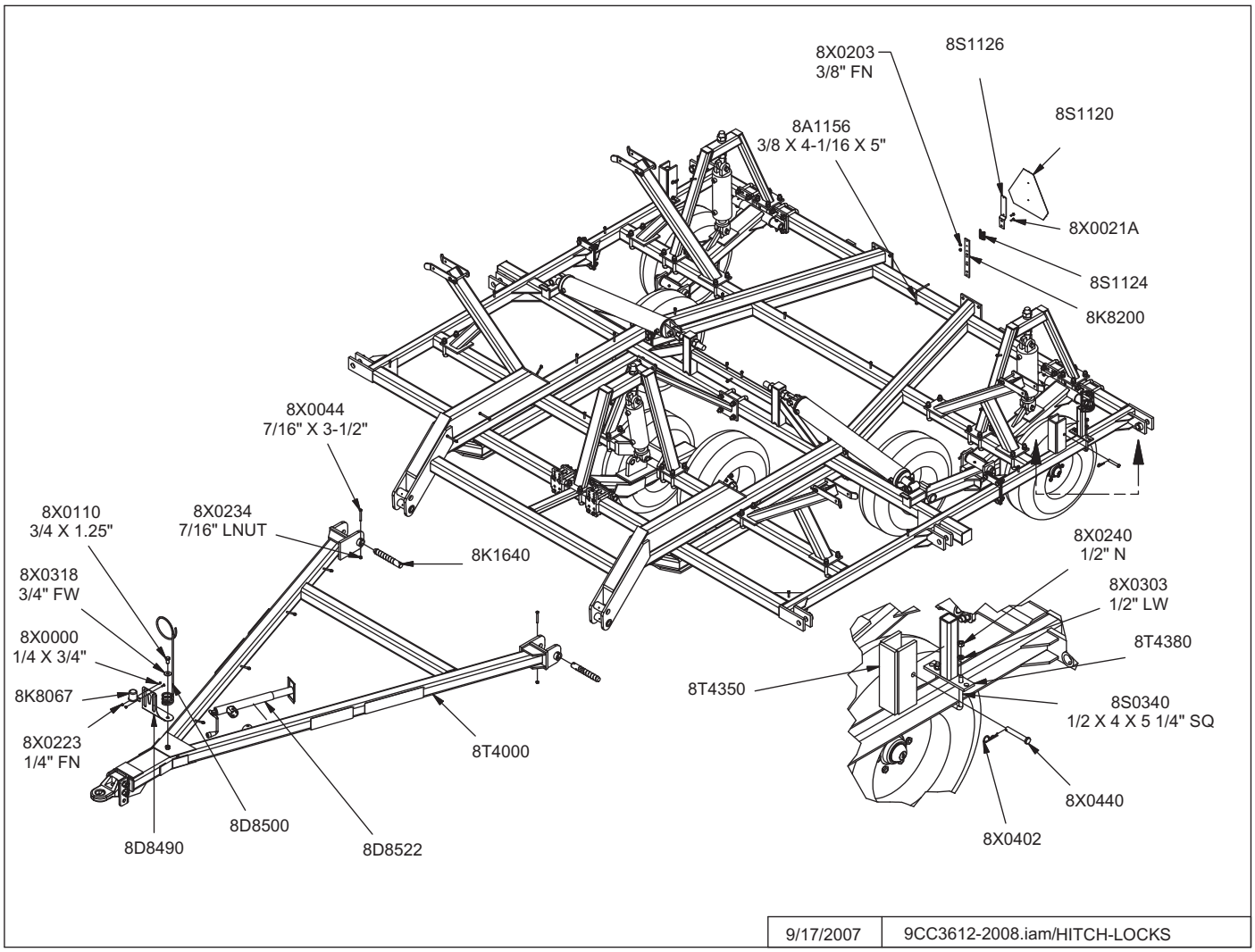
18. Remove blocks from under center frame and allow wheel assemblies to support machine. Block tires to prevent movement.

19. Add depth control cylinder locks and storage bases.

    – Attach locks for rear cylinders by liftarm pivots located closest to center of machine.

    – Locate lock for front center cylinder on front 4 x 4 tube.

20. Install SMV sign mounting bracket and sign at center of rear rank.



NOTE: It is recommended to set up both sides of machine at the same time. The left hand side is shown.

1. Attach wing to center section with pins, washers, bolts and locknuts.

   – Washers are used to center wing in hinges and prevent shift.

2. Fasten cylinder attach brackets with 3/4" u-bolts, located 169" from machine center.

3. Insert eyebolts (8K1683) into cylinder attach bracket.

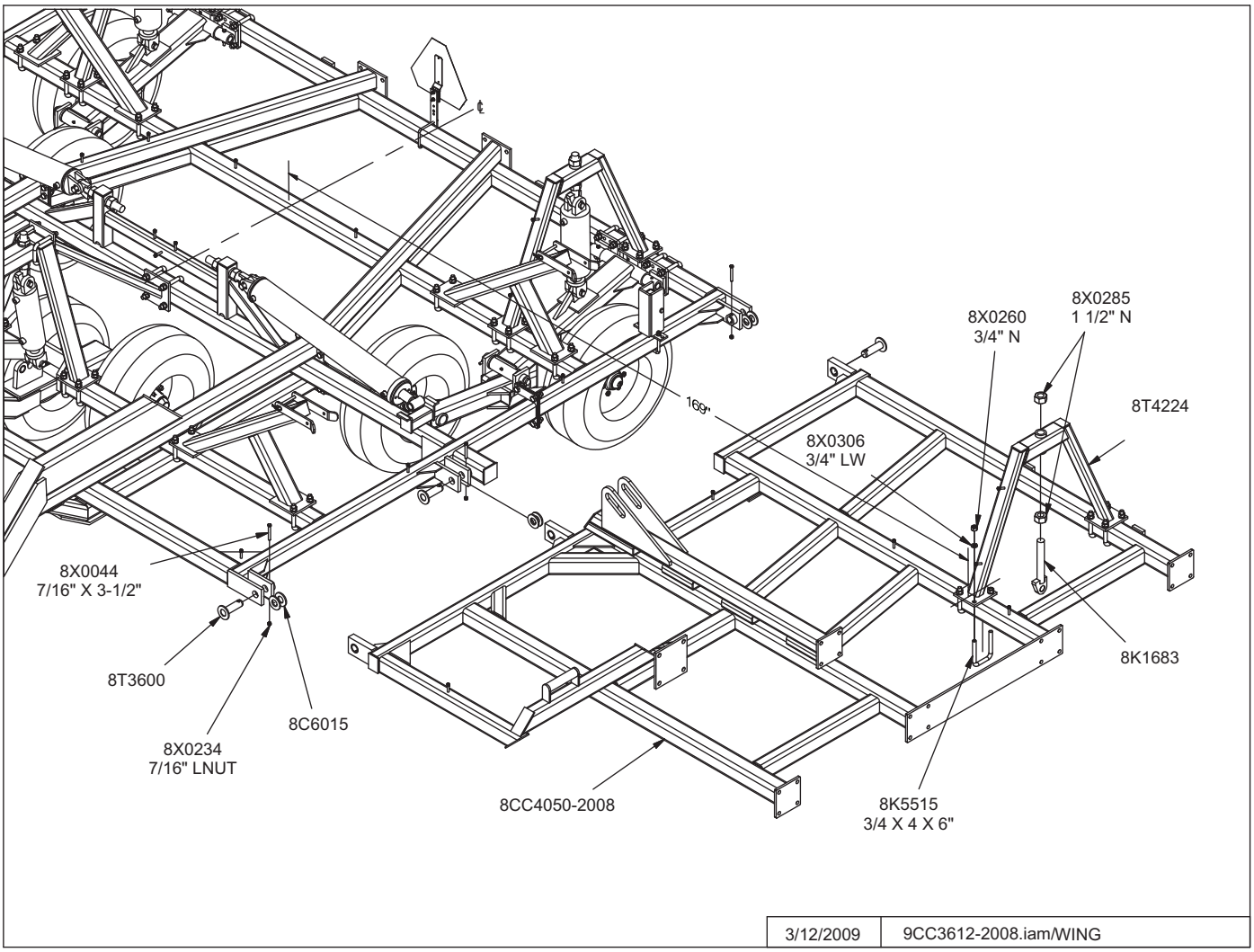
   – Tighten 1-1/2" nuts so the same amount of threads are above top nut on all eyebolts. Insure that cylinder attach holes are aligned when eyebolts are tightened.

4. Center liftarm under cylinder attach brackets.

   – Use 3/4" u-bolts for 4x4 to attach liftarm pivots (8T4100) to frame.

   – The inside pivot will be attached with 3/4 x 6" bolts and a trip assembly.

   – Slide pivot pin (8T3640) through liftarm and liftarm pivots.



– Insert 7/16 x 3-1/2" bolt in retaining bolt hole. Secure with lock nut.

5. Install walking tandem assembly to bottom of liftarm.

   – The left hand wing uses a right hand assembly – 8T4168.

   – The right hand wing uses a left hand assembly – 8T4166.

   – Slide pivot pin (8T3620) through walking tandem assembly and liftarm.

   – Insert 7/16 x 3-1/2" bolt in retaining bolt hole. Secure with lock nut.

6. Hang cylinders in appropriate location. Use pins and roll pins.

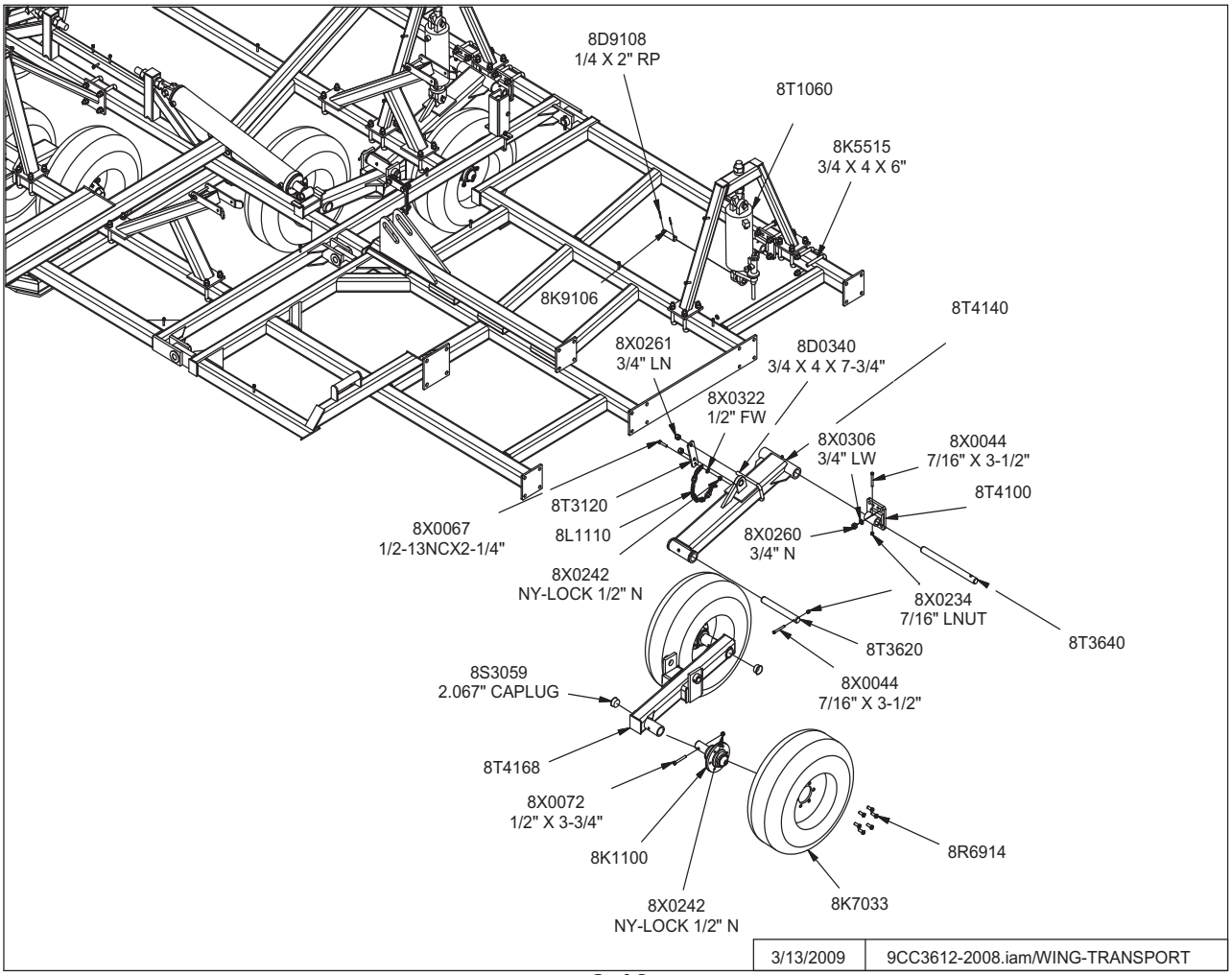
   – Rod end of cylinder must point towards ground.

   – Use 6 x 10" (8T1060) on left hand wing.

   – Used 4-1/2 x 10" (8T1045) on right hand wing.

7. Install 8K1100 axle and hub assembly into each walking tandem. Apply good quality anti-seize to axles before installation. Retain axle into receiver tube with 1/2 x 3-3/4" bolt and locknut.

8. Attach wheels onto hubs with 9/16" wheel bolts (torque required: 122 ft-lbs).



9. 36’ Only – Install wing extensions.

   – One-shank extension must be placed on rear rank.

   – Two-shank extension must be placed on front two ranks.

   – Mounting bolts must point toward outside of machine. (Trip assembly interference will occur if this is not followed.)

10. Install gauge wheel support (8T4090) onto wing with 7/8 x 2-1/2” bolts.

    NOTE: Steps 10 through 15 may have been pre-assembled at factory.

11. Apply anti-seize to jack bolt (8T6000) threads. Screw jack bolt into axle holder (8T4094) far enough to see hole on bottom of bolt through hole in axle holder.

    – Insert 3/16 x 2” roll pin. Insert pin far enough so it will clear tube when rotated.

12. Place gauge wheel depth decal on axle holder.

    – Locate decal 1” from bottom of 4 x 4 tube.

    – Make sure that decal faces the front of the machine.

    – Decal should be placed off to one side of axle holder to avoid seam on support tube.

13. Slide axle holder and jack bolt into gauge wheel support. Slide 1-1/4” flat washer onto bolt and turn 1-1/4” slotted nut on.

    – Do not tighten slotted nut.

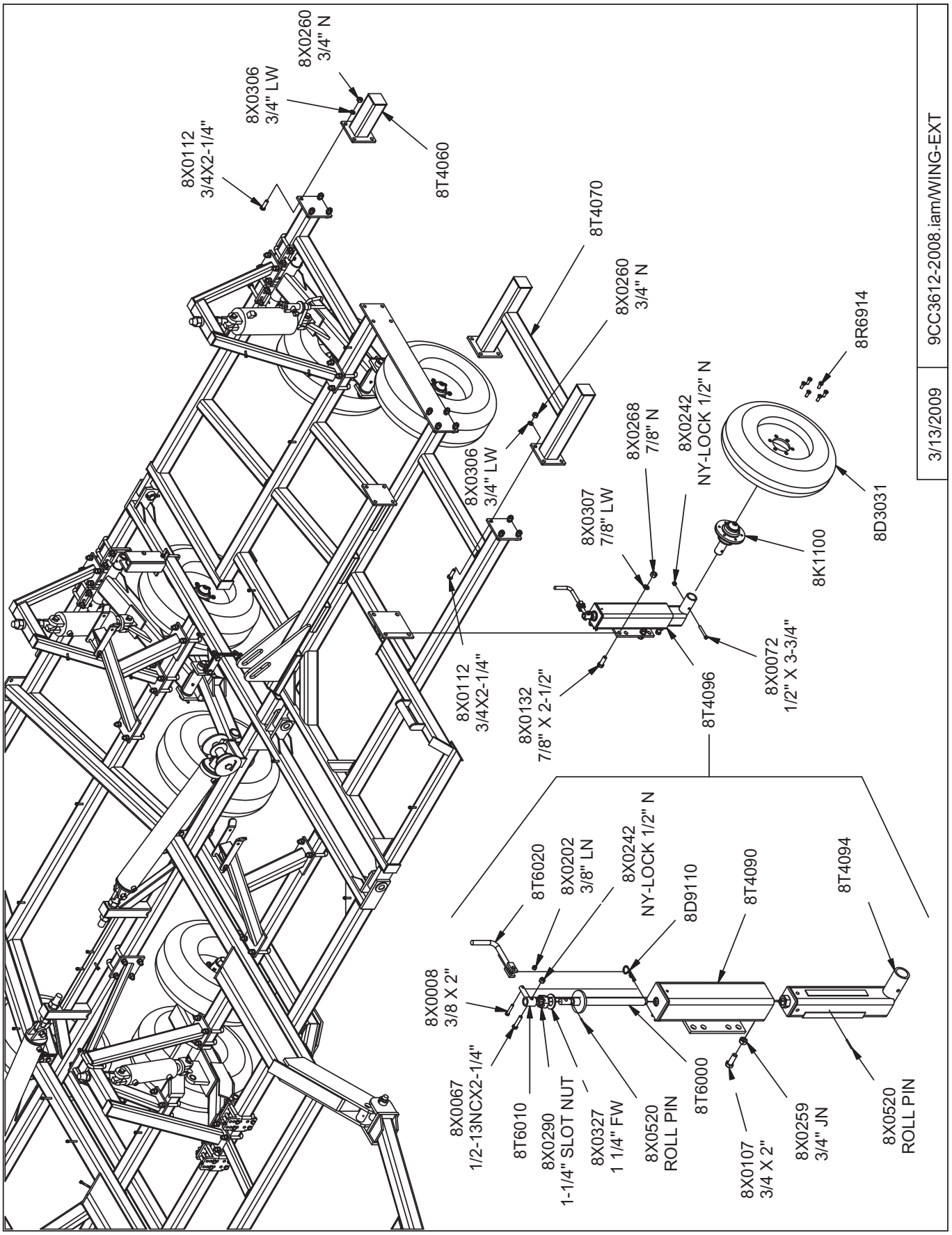
14. Add gauge wheel screw top onto jack bolt.

    – Insert 1/2 x 2-1/4” bolt into screw top and bolt, secure with locknut.

15. Attach gauge wheel jack handle to screw top.

    – Install 3/8 x 2” bolt in handle and screw top. Secure with lock nut.

    – Do not over tighten. Handle must pivot freely.


8X0112
3/4X2-1/4"
8X0306
3/4" LW
8X0260
3/4" N
8T4060
8T4070
8X0260
3/4" N
8X0306
3/4" LW
8X0307
7/8" LW
8X0268
7/8" N
8X0242
NY-LOCK 1/2" N
8R6914
8D3031
8K1100
8X0112
3/4X2-1/4"
8X0132
7/8" X 2-1/2"
8T4096
8X0072
1/2" X 3-3/4"
8X0008
3/8 X 2"
8T6020
8X0202
3/8" LN
8X0242
NY-LOCK 1/2" N
8D9110
8T4090
8T4094
8X0067
1/2-13NCX2-1/4"
8T6010
8X0290
1-1/4" SLOT NUT
8X0327
1 1/4" FW
8X0520
ROLL PIN
8T6000
8X0107
3/4 X 2"
8X0259
3/4" JN
8X0520
ROLL PIN
3/13/2009
9CC3612-2008.iam/WING-EXT

16. Check free operation of gauge wheel assembly.

    – Loosen or tighten slotted nut for optimum performance of gauge wheel.

    – Install 3/16" x 2" roll pin after slotted nut is adjusted properly.

16a. Adjust clearance between 8T4090 and 8T4094 with 3/4" set bolts and jam nuts.

17. Install 8K1100 axle and hub assembly into each receiver tube. Apply good quality anti-seize to axles before installation. Retain axle into receiver tube with 1/2 x 3-3/4" bolt and locknut.

18. Attach tire/wheel to hub with 9/16" wheel bolts (torque required: 122 ft-lbs).

19. Hang trip assemblies according to layout provided.

    NOTE: Steps 19-21 can be done after cylinders are filled with oil and machine is raised.

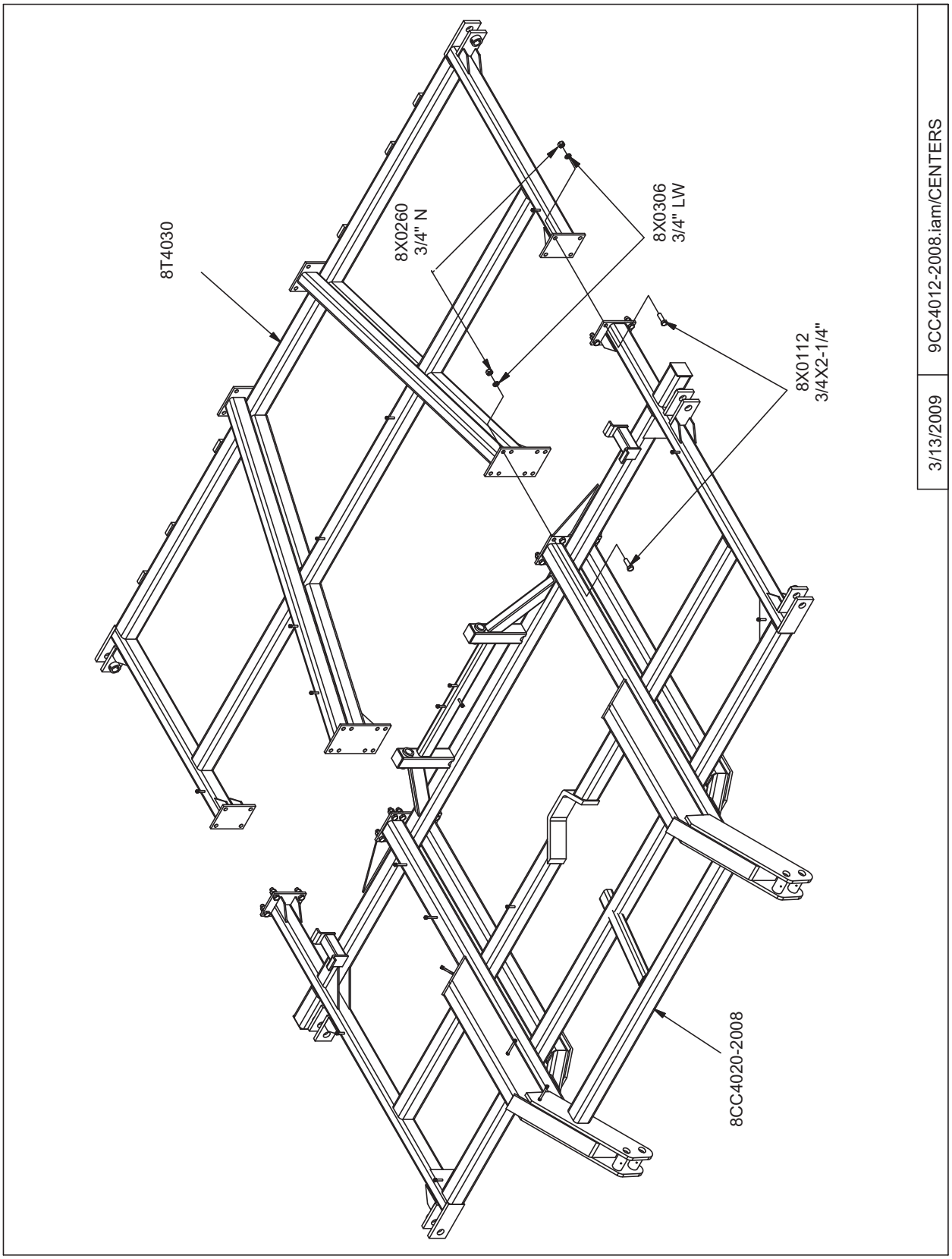
    – Use 3/4" u-bolts for 4 x 4 tube with 3/4" lock washers and 3/4" nuts.

    – Tighten u-bolts an equal amount on top and bottom. The same amount of threads should appear on top and bottom of u-bolt.

20. Trip assemblies located at 162" will be attached with 3/4 x 6" bolts. These bolts will also hold the liftarm pivot bracket at that location.

1. Place front and rear center section on floor with bolt plates facing each other.

2. ATTACH sections with 24 – 3/4x2-1/4” bolts, lock washers and nuts as shown.



3. Block center frames off the floor.

4. Install cylinder attach brackets with 3/4” u-bolts.

NOTE: – Locate Rear Cylinder Attach Brackets (8T4224) 62” from frame center.

– Front cylinder attach bracket (8T4200) should be centered on the front of the frame.

5. Insert eyebolts (8K1683) into each cylinder attach bracket.

– Tighten 1-1/2” nuts so the same amount of threads are above top nut on all eyebolts. Insure that cylinder attach holes are aligned when eyebolts are tightened.

6. All liftarms will be centered beneath cylinder attach brackets.

– Use 3/4” u-bolts for 4x4 to attach liftarm pivots (8T4100) to frame.

– Slide pivot pin (8T3640) through liftarm and liftarm pivots.

– Insert 7/16 x 3-1/2” bolt in retaining bolt hole. Secure with lock nut.

7. Install walking tandem assemblies to bottom of rear liftarms.

– The left hand side of center frame uses a left hand assembly (8T4166) and the right hand side uses a right hand assembly (8T4168).

– Slide pivot pin (8T3620) through walking tandem assembly and lift arm.

– Insert 7/16 x 3-1/2” bolt in retaining bolt hole. Secure with lock nut.

– Install 8T4190 (left) and 8T4192 (right) mud guards as shown. Secure with 3/8” u-bolts and flange nuts.

7a. Install walking tandem assembly to bottom of front center lift arm.

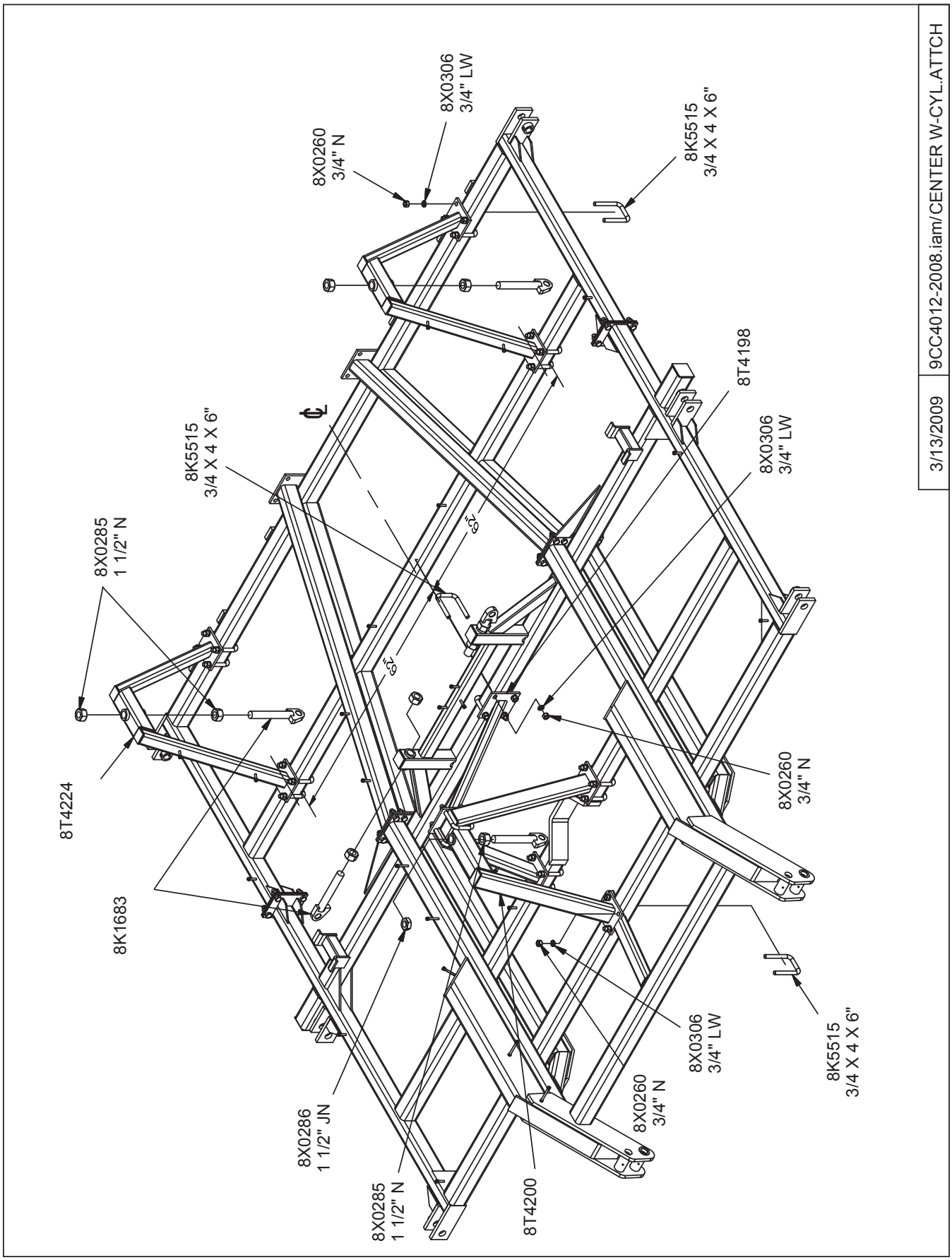
– Check inside surface of walking tandem assembly (8T4132). A 3-3/4” diameter surface around the 1-1/2” dia. pivot hole must be smooth and burr-free. Remove any we4lding spatter or roughness prior to further assembly. Install snap rings (8K1920) past grooves of lower pivot tube. Install V-seals over lower pivot tube until solid side is against snap ring. Protect lip of V-seals during assembly.

– Install walking tandem assembly to bottom of center liftarm. Mount so right axle is towards front. Insert pivot pin (8T3620) through walking tandem assembly and liftarm. Retain with 7/16” x 3-1/2” bolt and lock nut.

– Push V-seals against walking tandem assembly and secure by placing snap ring into groove.

8. Hang cylinders in correct locations.

– Use 5-1/2” x 10” (8T1055) on left hand side of center, 5 x 10” (8T1050) on right hand side of center, and 4 x 10” (8T1040) on center wheel assembly.


8X0306
3/4" LW
8X0260
3/4" N
8K5515
3/4 X 4 X 6"
8T4198
8X0306
3/4" LW
8K5515
3/4 X 4 X 6"
8X0285
1 1/2" N
8T4224
8K1683
8X0260
3/4" N
8X0306
3/4" LW
8K5515
3/4 X 4 X 6"
8X0260
3/4" N
8X0286
1 1/2" JN
8X0285
1 1/2" N
8T4200
3/13/2009
9CC4012-2008.iam/CENTER W-CYL.ATTCH

– The front center lift arm (8T4130) has two cylinder attach locations. Use front cylinder attach hole. Cylinder attach location can be changed based on final adjustments. Connecting front center cylinder to rear hole will lower front end of coulter-chisel in transport position.

9. Install 8K1105S axle and hub assembly into each walking tandem. Apply good quality anti-seize to axles before installation. Retain axle into receiver tube with 1/2 x 3-3/4” bolt and locknut.

10. Attach wheels onto hubs with 5/8” wheel nuts (170 ft-lbs.).

11. Attach wing transport locks to center frame with 3/4” u-bolts.

– Located outside edge of bolt plate 78-3/8” away from frame center.

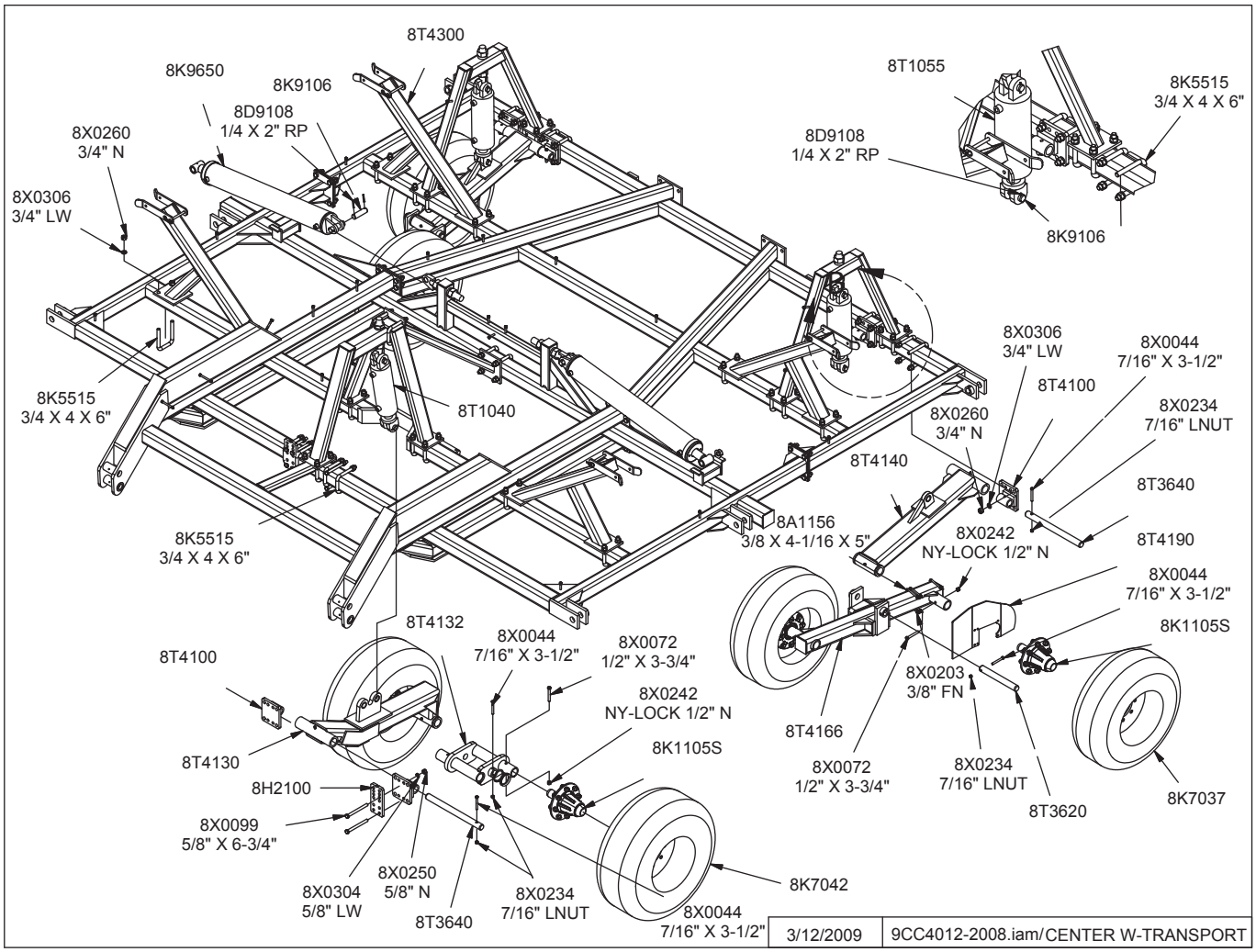
– Install 1/2 x 6” pins in inside storage holes of transport lock.

12. Insert 1-1/2 x 10-3/8” eyebolts into wing lift cylinder attach base.

– Leave 1-1/2” nuts loose, they will need to be adjusted after wing is installed.

13. Attach wing lift cylinders to frame with pins and roll pins.

– 40’ machines use 5 x 36” cylinders (8K9650).



14. Attach hitch to center with 1-1/2” x 10-5/8” pins.

    NOTE: Center with 1-1/2” ID 10 GA flat washers.

15. Install 7/16x3-1/2” retaining bolts through hitch pivot pins. Secure with lock nuts.

16. Attach hydraulic hose holder and tip holder with 3/4 x 1-1/4” bolt and flat washer.

17. Attach hitch jack to jack spool.

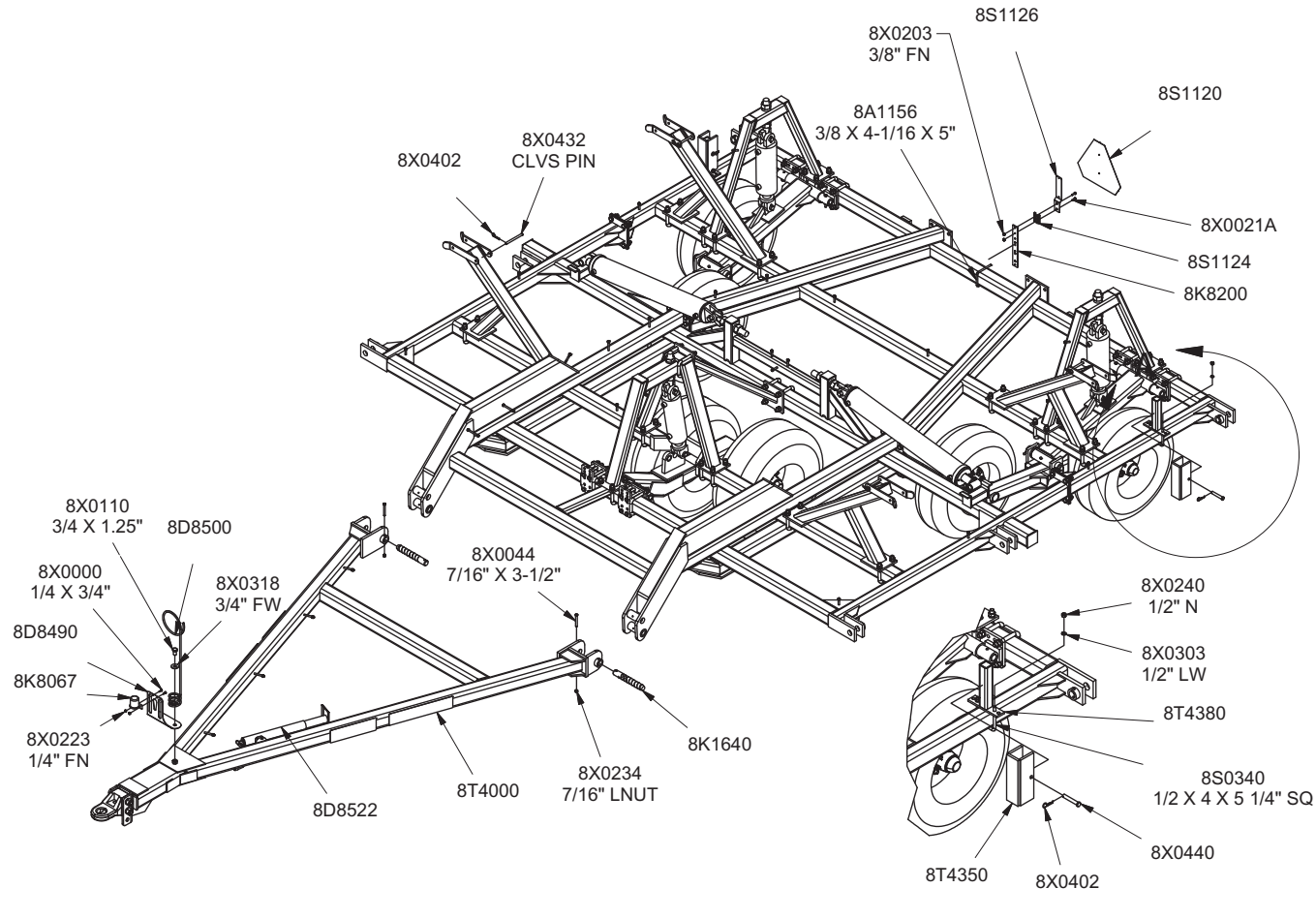
18. Remove blocks from under center frame and allow wheel assemblies to support machine. Block tires to prevent movement.

19. Add depth control cylinder locks and storage bases.

    – Attach locks for rear cylinders by liftarm pivots located closest to center of machine.

    – Locate lock for front center cylinder on front 4 x 4 tube.

20. Install SMV sign mounting bracket and sign at center of rear rank.




| 3/16/2009 | 9CC4012-2008.iam/HITCH-LOCKS |
|---|---|

## SECTION 2 – SET-UP OF 40' WINGS

NOTE: It is recommended to set up both sides of machine at the same time. The left hand side is shown.

1. Attach wing to center section with pins, washers, bolts and locknuts.

   – Washers are used to center wing in hinges and prevent shift.

2. Attach 4' extension to base wing. Extension braces lay on top of base wing, remaining bolt plates mate with bolt plates of base wing.

   – Mating bolt plates on back 3 ranks should have bolts pointed toward outside of machine. Bolt plate on first rank should have bolts pointed toward center of frame.

   – 3 u-bolts are used to secure front support on top of first rank.

3. Fasten cylinder attach brackets with 3/4" u-bolts.

   – Locate bracket 217" from machine center.

4. Insert eyebolts (8K1683) into cylinder attach bracket.

   – Tighten 1-1/2" nuts so the same amount of threads are above top nut on all eyebolts. Insure that cylinder attach holes are aligned when eyebolts are tightened.

5. Center liftarm under cylinder attachment brackets.

   – Use 3/4" u-bolts for 4 x 4 to attach liftarm pivots (8T4100) to frame.

   – Inside pivot will be attached with 3/4 x 6" bolts and a trip assembly. (See step 21).

   – Slide pivot pin (8T3640) through liftarm and liftarm pivots.

   – Insert 7/16 x 3-1/2" bolt in retaining bolt holes. Secure with lock nut.

6. Install walking tandem assembly to bottom of liftarm.

   – The left hand wing uses a right hand assembly – 8T4168.

   – The right hand wing uses a left hand assembly – 8T4166.

   – Slide pivot pin (8T3620) through walking tandem assembly and liftarm.

   – Insert 7/16 x 3-1/2" bolt in retaining bolt holes. Secure with lock nut.

7. Hang cylinders in appropriate location. Use pins and roll pins provided.

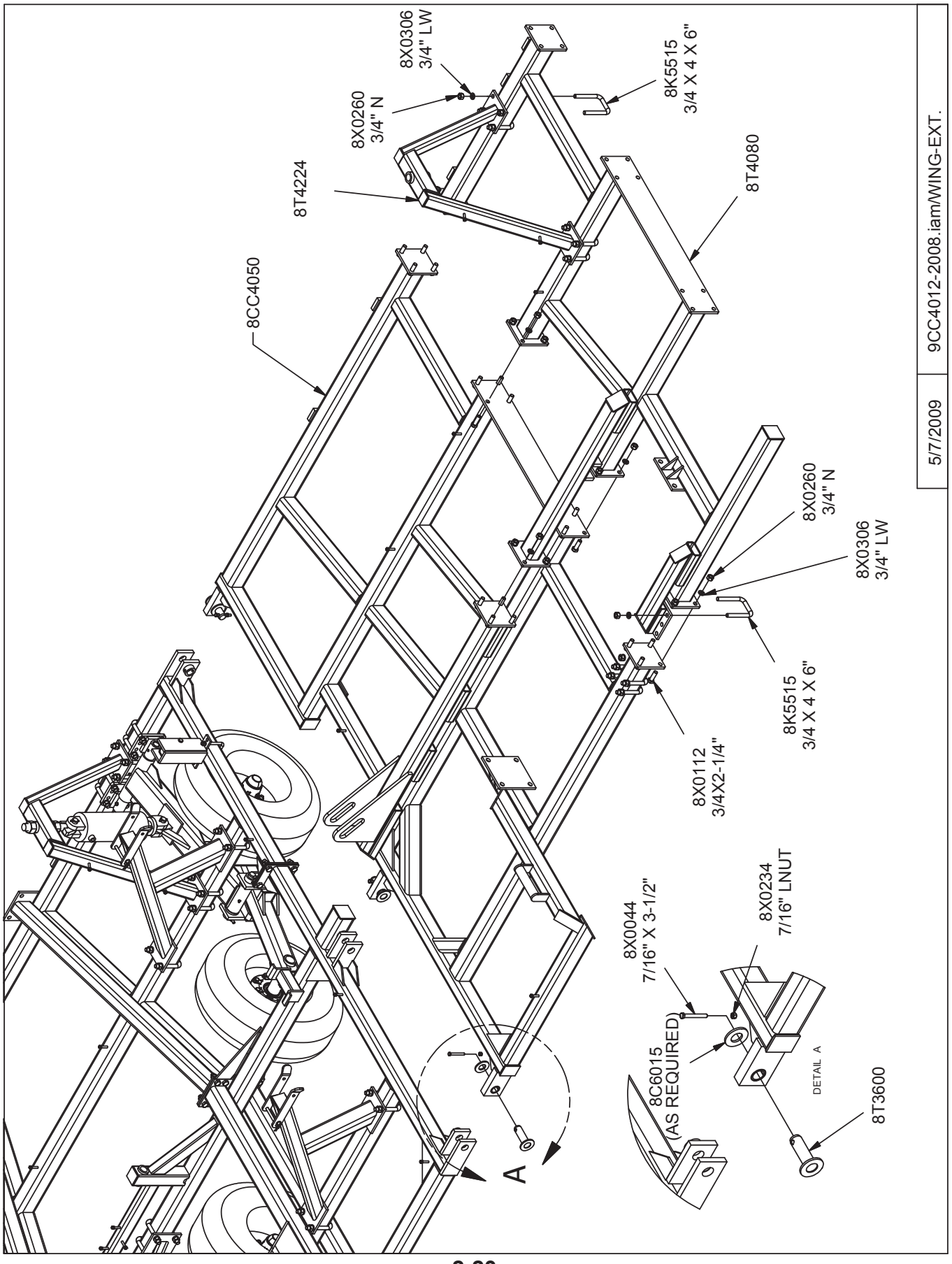
   – Rod end of cylinder must point towards ground.

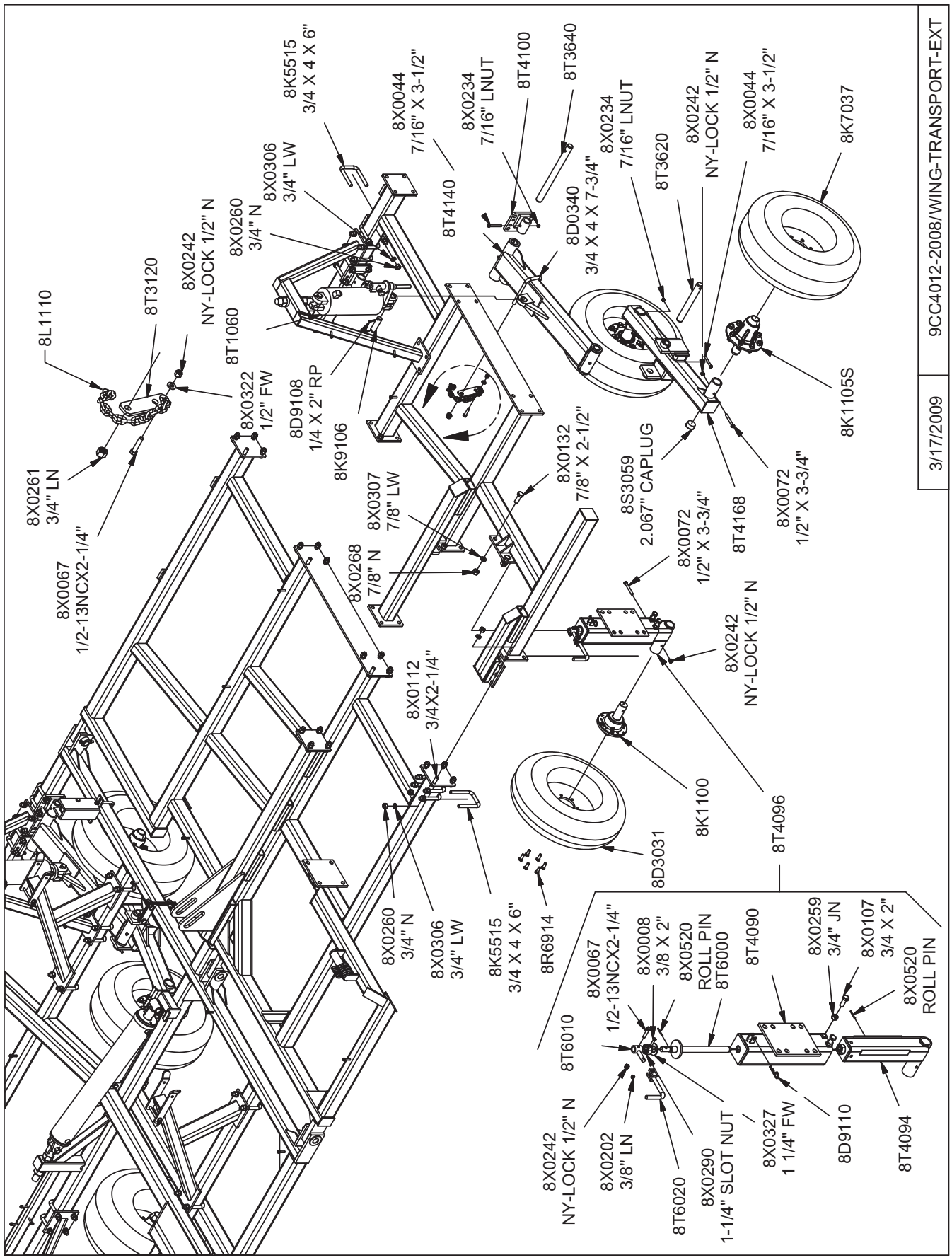
   – Use 6 x 10" (8T1060) on left hand wing.

   – Use 4-1/2 x 10" (8T1045) on right hand wing.

8. Install 8K1105S axle and hub assembly into each walking tandem. Apply good quality anti-sieze to axles before installation. Retain axle into receiver tube with 1/2 x 3-3/4" bolt and locknut.

9. Place wheels on hubs with 5/8" wheel nuts (torque required: 170 ft-lbs).


8X0306
3/4" LW
8X0260
3/4" N
8K5515
3/4 X 4 X 6"
8T4224
8T4080
8CC4050
8X0260
3/4" N
8X0306
3/4" LW
8K5515
3/4 X 4 X 6"
8X0112
3/4X2-1/4"
8X0044
7/16" X 3-1/2"
8X0234
7/16" LNUT
8C6015
(AS REQUIRED)
DETAIL A
8T3600
A
5/7/2009
9CC4012-2008.iam/WING-EXT.


3/17/2009
9CC4012-2008/WING-TRANSPORT-EXT
8K5515 3/4 X 4 X 6"
8X0044 7/16" X 3-1/2"
8X0234 7/16" LNUT
8T4100
8T3640
8X0306 3/4" LW
8X0260 3/4" N
8T4140
8D0340 3/4 X 4 X 7-3/4"
8X0234 7/16" LNUT
8T3620
8X0242 NY-LOCK 1/2" N
8X0044 7/16" X 3-1/2"
8K7037
8T3120
8X0242 NY-LOCK 1/2" N
8L1110
8T1060
8X0322 1/2" FW
8D9108 1/4 X 2" RP
8K9106
8K1105S
8X0261 3/4" LN
8X0067 1/2-13NCX2-1/4"
8X0307 7/8" LW
8X0132 7/8" X 2-1/2"
8S3059 2.067" CAPLUG
8X0072 1/2" X 3-3/4"
8T4168
8X0072 1/2" X 3-3/4"
8X0268 7/8" N
8X0242 NY-LOCK 1/2" N
8X0112 3/4X2-1/4"
8K1100
8T4096
8D3031
8X0260 3/4" N
8X0306 3/4" LW
8K5515 3/4 X 4 X 6"
8R6914
8T6010
8X0067 1/2-13NCX2-1/4"
8X0008 3/8 X 2"
8X0520 ROLL PIN 8T6000
8T4090
8X0259 3/4" JN
8X0107 3/4 X 2"
8X0520 ROLL PIN
8X0242 NY-LOCK 1/2" N
8X0202 3/8" LN
8T6020
8X0290 1-1/4" SLOT NUT
8X0327 1 1/4" FW
8D9110
8T4094

10. Install gauge wheel support (8T4090) onto wing with 7/8 x 2-1/2" bolts.

    NOTE: Steps 12 through 16 may have been pre-assembled at factory.

11. Apply anti-seize on jack bolt (8T6000) threads. Screw jack bolt into axle holder (8T4094) far enough to see hole on bottom of bolt through hole in axle holder.

    – Insert 3/16 x 2" roll pin. Insert pin far enough so it will clear tube when rotated.

12. Place gauge wheel depth decal on axle holder.

    – Locate decal 1" from bottom of 4 x 4 tube.

    – Make sure that decal faces the front of the machine.

    – Decal should be placed off to one side of axle holder to avoid seam on support tube.

13. Slide axle holder and jack bolt into gauge wheel support. Slide 1-1/4" flat washer onto bolt and turn 1-1/4" slotted nut on.

    – Do not tighten slotted nut.

14. Add gauge wheel screw top onto jack bolt.

    – Insert 1/2 x 2-1/4" bolt into screw top and bolt. Secure with locknut.

15. Attach gauge wheel jack handle to screw top.

    – Install 3/8 x 2" bolt in handle and screw top. Secure with lock nut.

    – Do not over tighten. Handle must pivot freely.

16. Check free operation of gauge wheel assembly.

    – Loosen or tighten slotted nut for optimum performance of gauge wheel.

    – Install 3/16" x 2" roll pin after slotted nut is adjusted properly.

17. Adjust clearance between 8T4090 and 8T4094 with 3/4" set bolts and jam nuts.

18. Install 8K1100 axle and hub assembly into each receiver tube. Apply good quality anti-seize to axles before installation. Retain axle into receiver tube with 1/2 x 3-3/4" bolt and locknut.

19. Attach tire/wheel to hub with 9/16" wheel bolts (torque required: 122 ft-lbs).

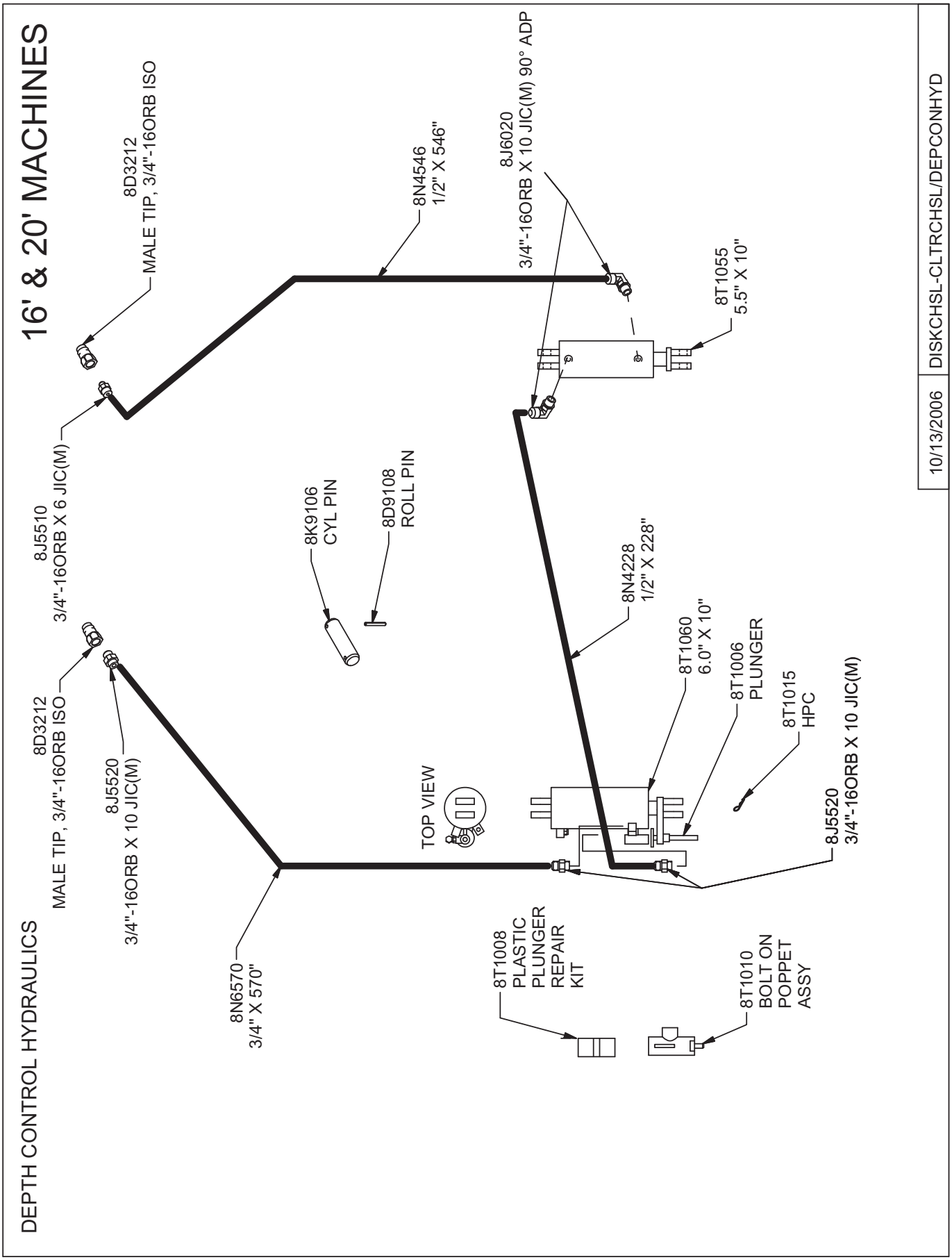
20. Hang trip assemblies according to layout provided.

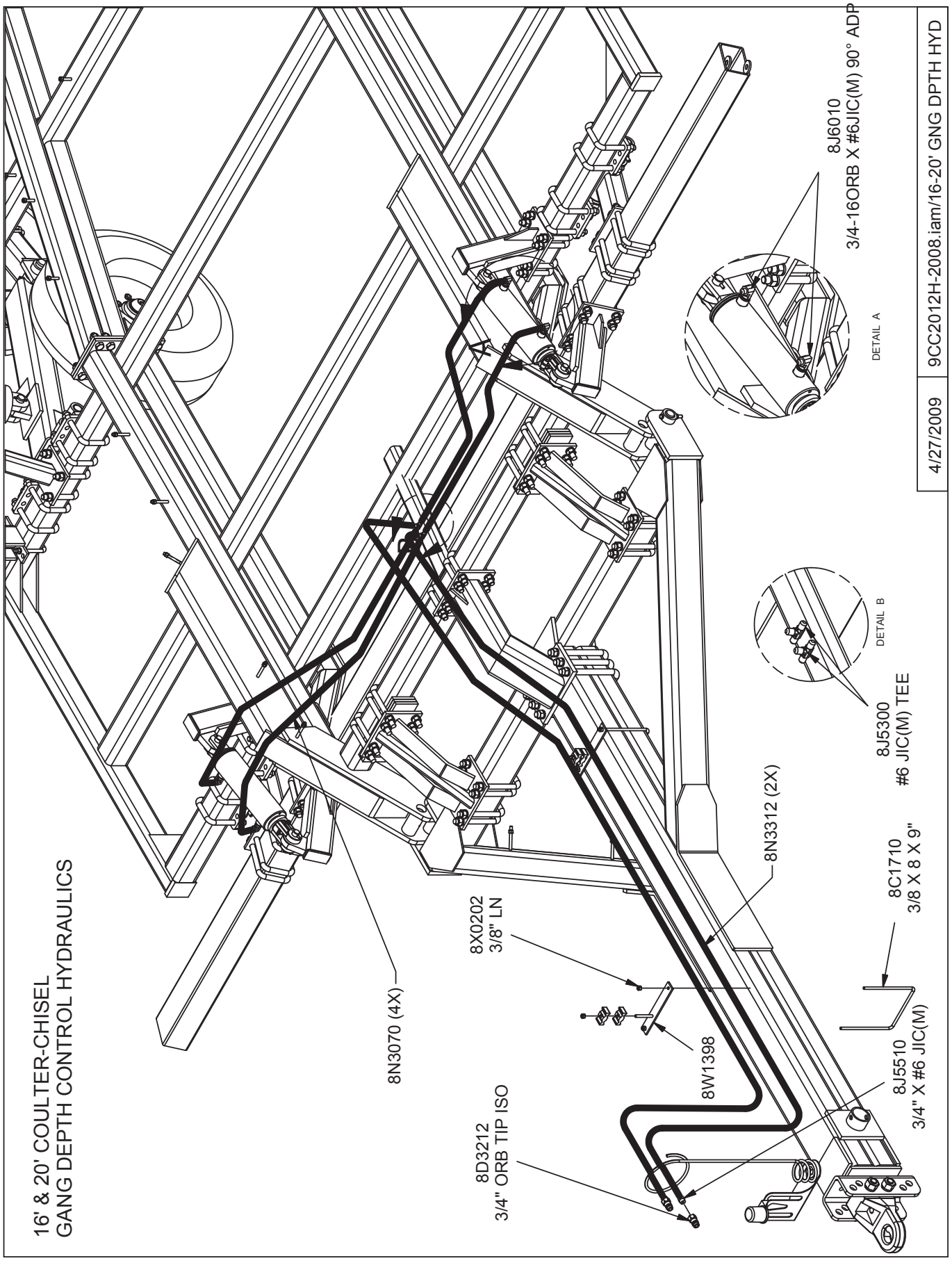
    NOTE: Steps 20-22 can be done after cylinders are filled with oil and machine is raised.

    – Use 3/4" u-bolts for 4 x 4 tube with 3/4" lock washers and 3/4" nuts.

    – Tighten u-bolts an equal amount on top and bottom. The same amount of threads should appear on top and bottom of u-bolt.

21. Trip assemblies located at 210" from center will be attached with 3/4" x 6" bolts. These bolts will also hold the liftarm pivot bracket at that location.


16' & 20' MACHINES
DEPTH CONTROL HYDRAULICS
8D3212
MALE TIP, 3/4"-16ORB ISO
8N4546
1/2" X 546"
8J6020
3/4"-16ORB X 10 JIC(M) 90° ADP
8T1055
5.5" X 10"
8J5510
3/4"-16ORB X 6 JIC(M)
8K9106
CYL PIN
8D9108
ROLL PIN
8N4228
1/2" X 228"
8T1060
6.0" X 10"
8T1006
PLUNGER
8T1015
HPC
8J5520
3/4"-16ORB X 10 JIC(M)
8D3212
MALE TIP, 3/4"-16ORB ISO
8J5520
3/4"-16ORB X 10 JIC(M)
TOP VIEW
8N6570
3/4" X 570"
8T1008
PLASTIC
PLUNGER
REPAIR
KIT
8T1010
BOLT ON
POPPET
ASSY
10/13/2006
DISKCHSL-CLTRCHSL/DEPCONHYD


16' & 20' COULTER-CHISEL
GANG DEPTH CONTROL HYDRAULICS
8J6010
3/4-16ORB X #6JIC(M) 90° ADP
DETAIL A
DETAIL B
8J5300
#6 JIC(M) TEE
8N3312 (2X)
8C1710
3/8 X 8 X 9"
8J5510
3/4" X #6 JIC(M)
8W1398
8X0202
3/8" LN
8N3070 (4X)
8D3212
3/4" ORB TIP ISO
4/27/2009
9CC2012H-2008.iam/16-20' GNG DPTH HYD

1. Hydraulic hoses and fittings for depth control cylinders can be found on following drawing.

   – Rephasing cylinders require that oil from the rod end of first cylinder goes to base end of second cylinder and so forth. Cylinders will not operate properly unless they are connected correctly.

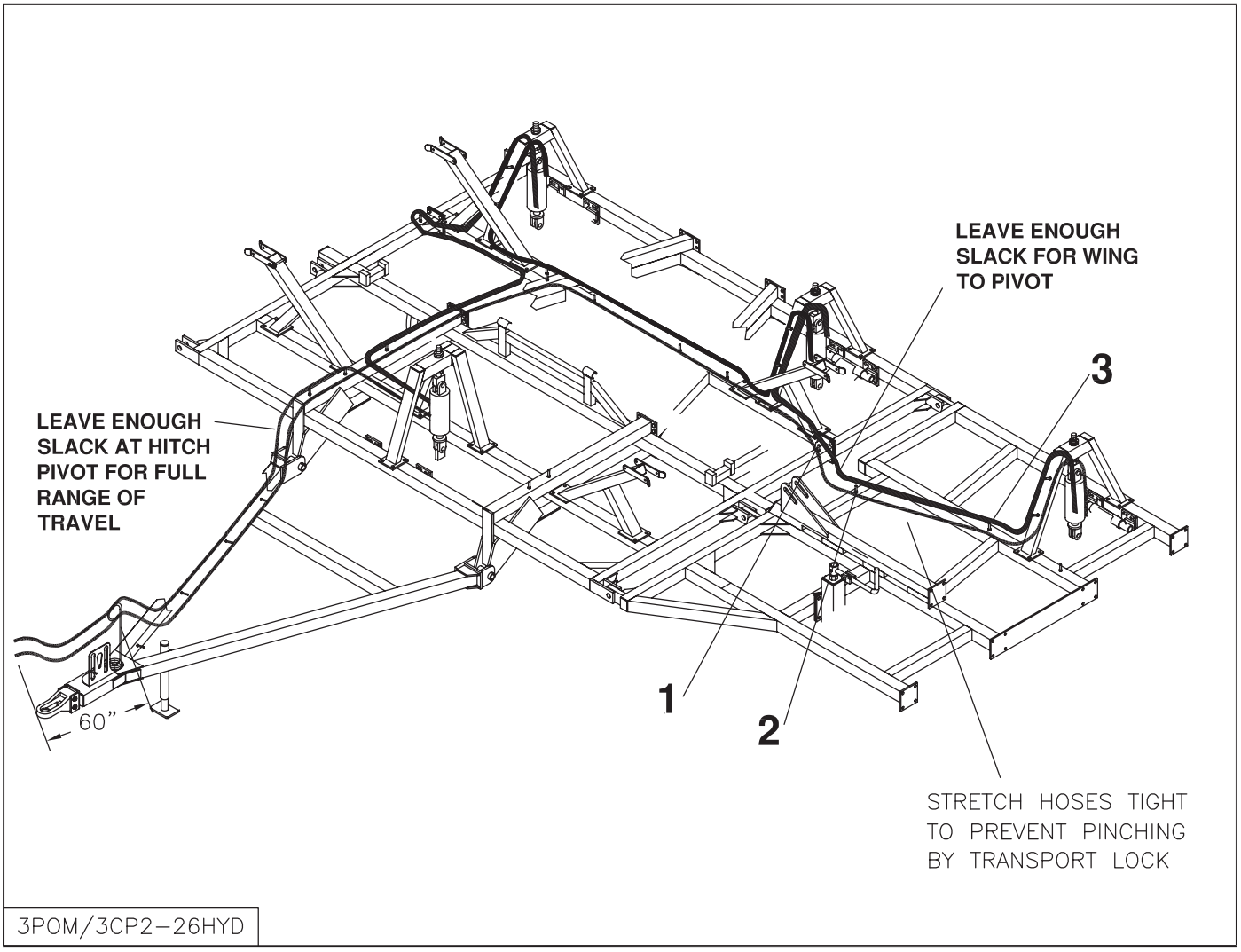
2. Special attention should be paid to routing of hydraulic hoses. Diagrahm below shows layout of hoses for depth control cylinders.

   A. It is best to start by routing the hose for the 6 x 10” cylinder. Make sure there is 60” of hose ahead of hose holder. This is usually enough hose for safe and easy hook-up to tractor.

   B. Route hose along hitch frame. Use plastic clamps provided. Do not tighten until routing is complete.

      **– Clamps are made to have the round surface point towards the surface that you are mounting to. DO NOT OVER TIGHTEN.**

   C. Leave slack by hitch pivot.



– The hitch pivot point will move up and down from transport position to field position. Hoses must be loose enough to allow full range of travel.

D. Continue to route hose for 6 x 10” cylinder along center section.

– Bolts welded to frame will help show correct routing.

– Hoses should be strung along top of frame by transport lock. Use nylon ties to hold hose in place once all hoses have been routed.

E. Use care when stringing hose between center section and wing.

**– Leave plenty of slack between points 1 and 2 (Page 2-27) as wing pivots up and down during field operation. Hose must not stretch tight.**

F. Hose must be routed so it will not be pinched when wing is folded into transport.

**– Pull hose tight between points 2 and 3. This will prevent hose from contacting transport lock.**

G. On 40’ models, an additional 3/4 x 60” hose is added to the 630” hose with a union.

– Additional bolt locations will guide routing along frame on the 40’ model.

H. Route hose up cylinder attach to 6 x 10” cylinder.

I. Route hose from 6 x 10” to 5-1/2 x 10” cylinder along same path as first hose.

– A 216” hose is used. Add a 60” hose when setting up a 40’.

J. Route hose under transport lock when going from point 1 to 5-1/2 x 10” cylinder.

– Use nylon ties to hold first hose to second hose.

– This hose must be attached to base end (top) of 5-1/2 x 10” cylinder.

K. Route 1/2 x 228” hose from 5-1/2 x 10” to 5 x 10” cylinder.

– This hose must go from rod end (bottom) of 5-1/2 x 10” to base end (top) of 5 x 10” cylinder.

L. Route hose from 5 x 10” to 4-1/2 x 10” cylinder.

– A 216” hose is used. Add a 60” hose when setting up a 40’.

– This hose must be routed through points 1, 2 and 3 as explained in steps E and F.

– The hose must go from rod end (bottom) of 5 x 10” to base end (top) of 4-1/2 x 10”.

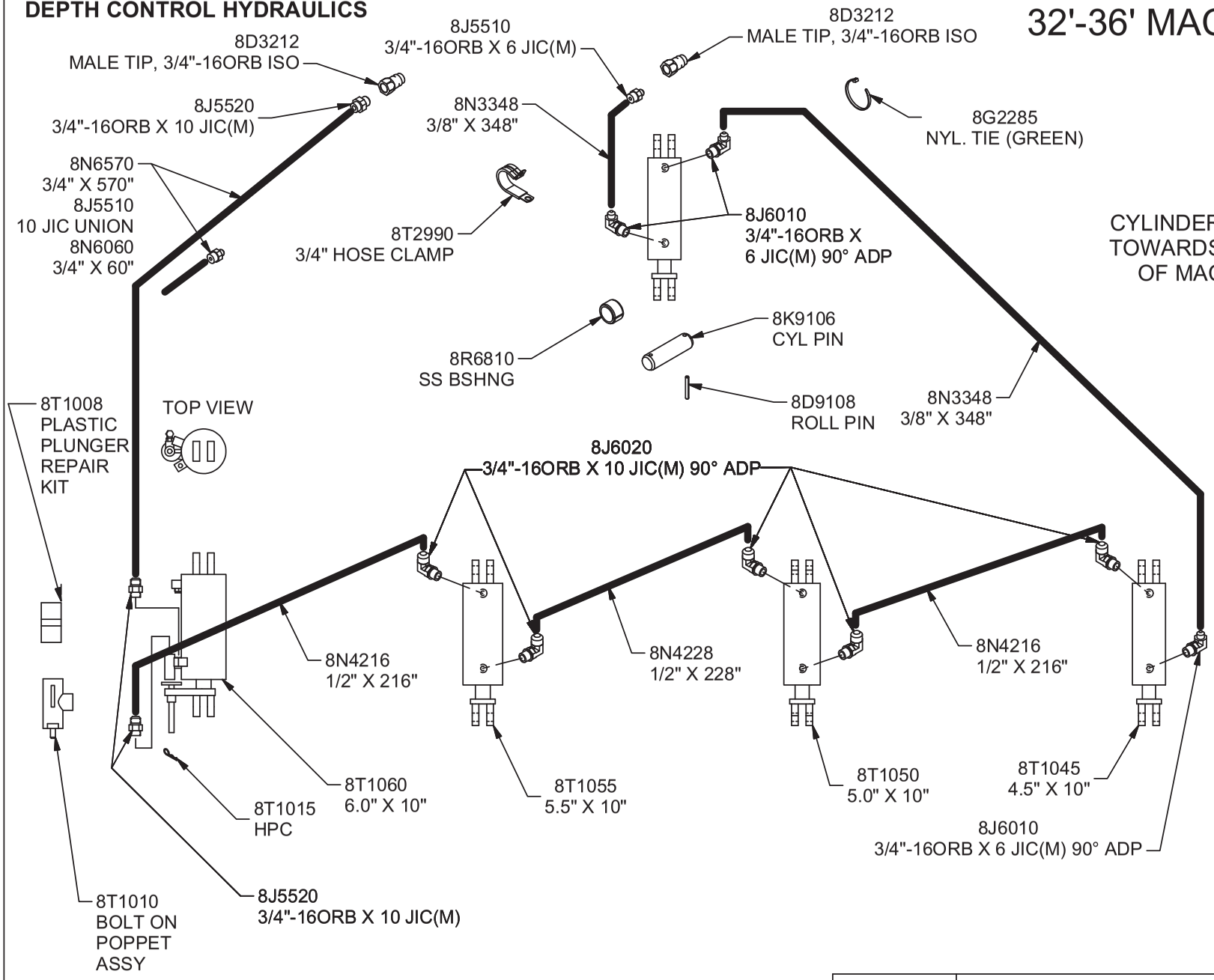
M. Route hose from 4-1/2 x 10” to 4 x 10” cylinder.

– A 348” hose is used. Add a 60” hose for 40’.

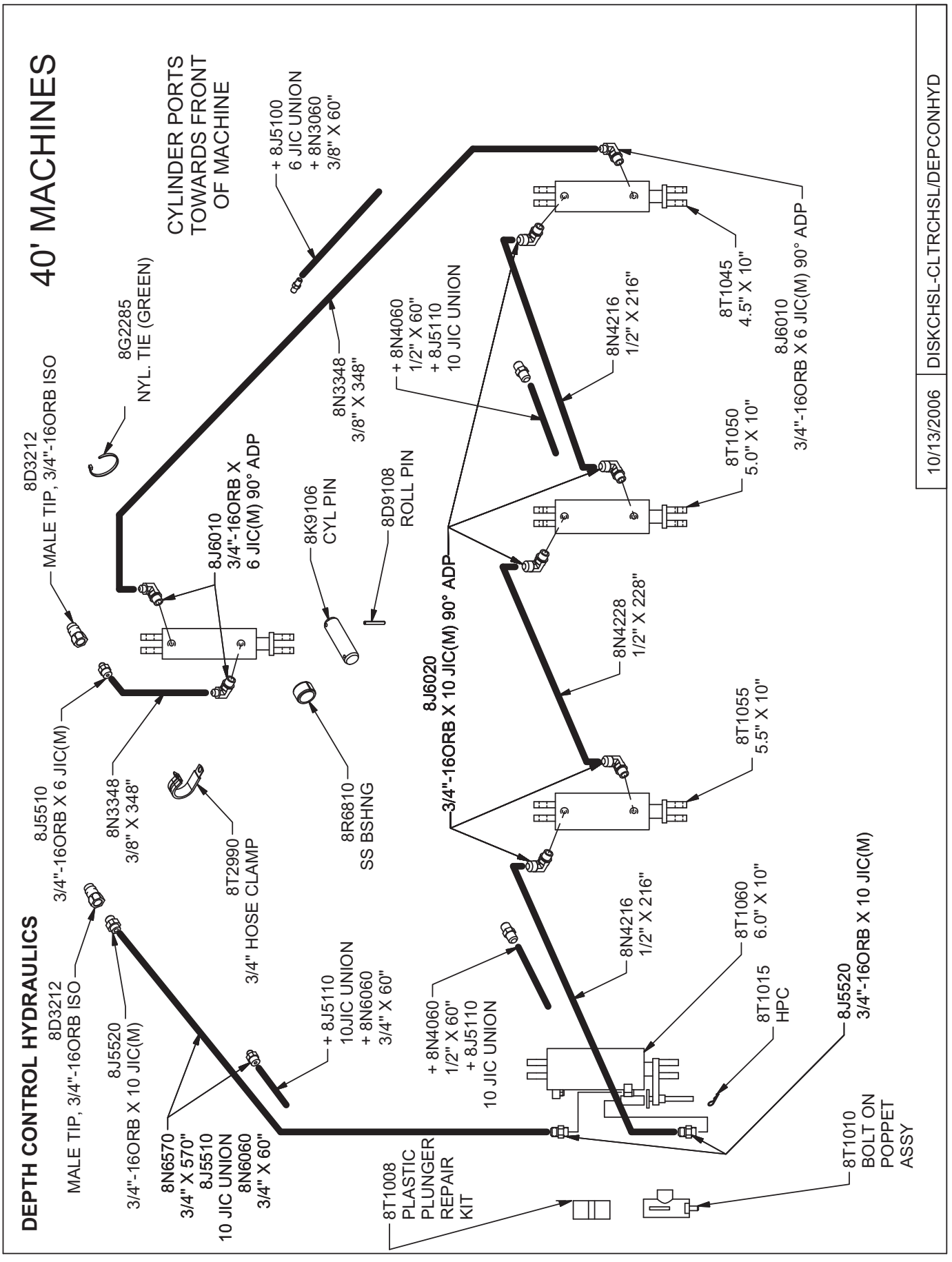
– This hose must follow the same path through points 1, 2, and 3.

## DEPTH CONTROL HYDRAULICS

# 32'-36' MACHINES




| 10/13/2006 | DISKCHSL-CLTRCHSL/DEPCONHYD |
|---|---|


40' MACHINES
CYLINDER PORTS TOWARDS FRONT OF MACHINE
DEPTH CONTROL HYDRAULICS
8D3212 MALE TIP, 3/4"-16ORB ISO
8J5520 3/4"-16ORB X 10 JIC(M)
8N6570 3/4" X 570"
8J5510 10 JIC UNION
8N6060 3/4" X 60"
8J5510 3/4"-16ORB X 6 JIC(M)
8N3348 3/8" X 348"
8T2990 3/4" HOSE CLAMP
8R6810 SS BSHNG
8J6010 3/4"-16ORB X 6 JIC(M) 90° ADP
8G2285 NYL. TIE (GREEN)
8K9106 CYL PIN
8D9108 ROLL PIN
8N3348 3/8" X 348"
+ 8J5100 6 JIC UNION + 8N3060 3/8" X 60"
8J6020 3/4"-16ORB X 10 JIC(M) 90° ADP
+ 8J5110 10JIC UNION + 8N6060 3/4" X 60"
+ 8N4060 1/2" X 60" + 8J5110 10 JIC UNION
8N4216 1/2" X 216"
8N4228 1/2" X 228"
8T1045 4.5" X 10"
8T1050 5.0" X 10"
8T1055 5.5" X 10"
8T1060 6.0" X 10"
8T1015 HPC
8J6010 3/4"-16ORB X 6 JIC(M) 90° ADP
8J5520 3/4"-16ORB X 10 JIC(M)
8T1010 BOLT ON POPPET ASSY
8T1008 PLASTIC PLUNGER REPAIR KIT
10/13/2006
DISKCHSL-CLTRCHSL/DEPCONHYD

– Continue to route hose along center frame. Bolt locations will help show desired location for routing.

– Hose must go from rod end (bottom) of 4-1/2 x 10" to base end (top) of 4 x 10".

N. Route 3/8 x 348" hose from 4 x 10" to front of hitch.

– Follow same path as steps A-C.

– Nylon ties should be used by the hose holder loop to keep hoses together.

O. Tighten all plastic hose clamps until hoses are snug but not compressed. Over tightening hose clamps will damage hydraulic hose. Hydraulic hoses enlarge and shorten when pressurized, leave slack between clamps.

4. Charge depth control cylinder system.

– Connect depth control cylinder hoses to tractor. Insure that tips and couplers are CLEAN.

– Raise Coulter-Chisel. One cylinder will extend at a time. Do not allow anyone to stand near Coulter-Chisel when it is raised or lowered.

– When all cylinders are fully extended, fully cycle the circuit four times to make sure all air has been removed from system.

– Lower Coulter-Chisel plow before next step.

5. Hydraulic hoses and fittings for wing lift cylinders are shown in the following drawing.

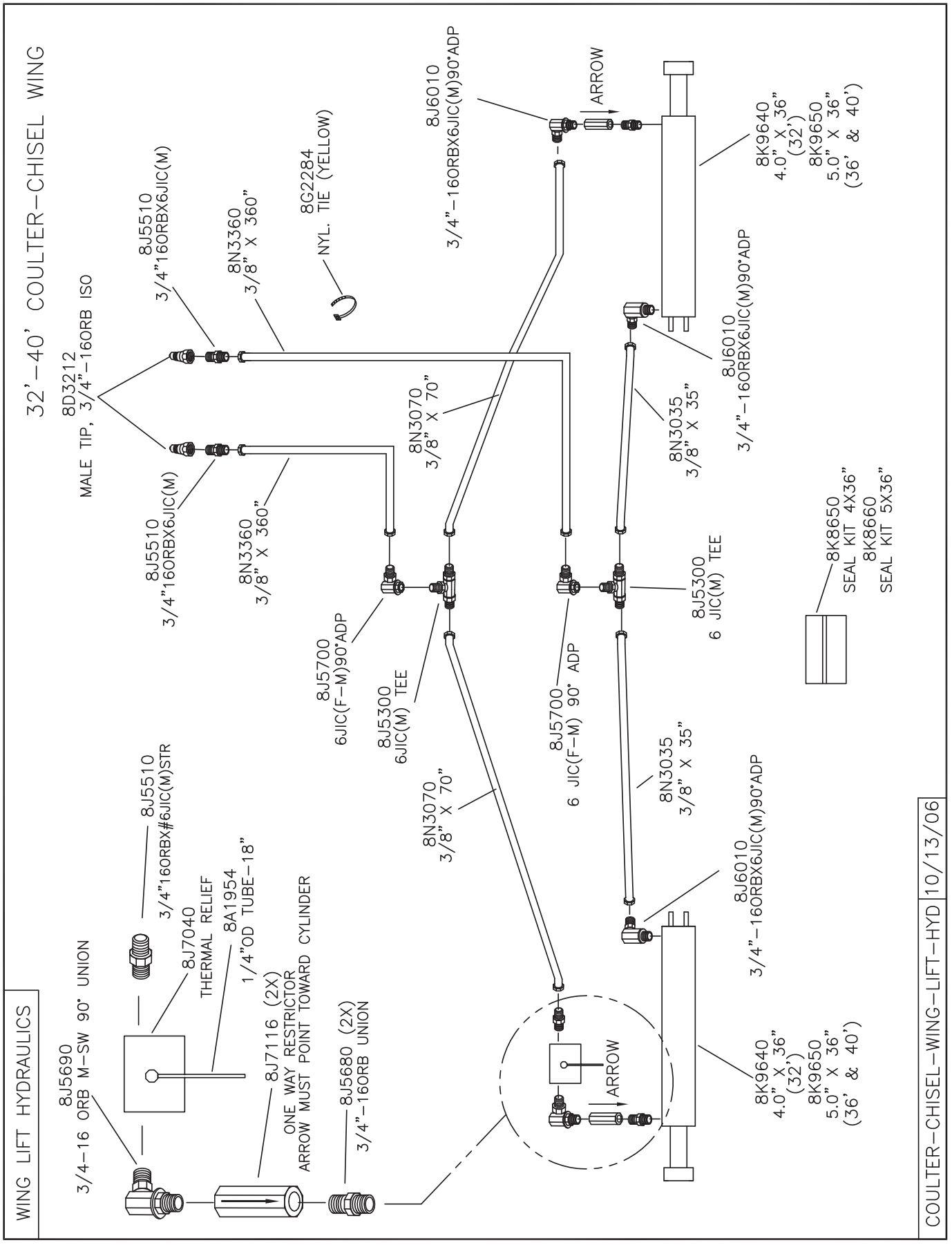
– The wing lift hydraulic circuit is equipped with a one-way restrictor to prevent free fall of the wings when being lowered. Be sure that the restrictor is installed so the arrow points toward the cylinder. This will restrict oil flowing out of the cylinder but not flowing in.

– For 36' and larger machines, 5 x 36" cylinders are used.

6. Route hoses along frame and hitch the same way depth control cylinder hoses are routed.

– Stack hoses on top of depth control hoses by using two hose clamps at each bolt.

– Leave enough slack by hitch pivot to allow full range of travel of the hitch without damage to hoses.


32’–40’ COULTER–CHISEL WING
8D3212
MALE TIP, 3/4”–16ORB ISO
8J5510
3/4”16ORBX6JIC(M)
8N3360
3/8” X 360”
8G2284
NYL. TIE (YELLOW)
8J6010
3/4”–16ORBX6JIC(M)90°ADP
ARROW
8K9640
4.0” X 36”
(32’)
8K9650
5.0” X 36”
(36’ & 40’)
8N3070
3/8” X 70”
8N3035
3/8” X 35”
8J5300
6 JIC(M) TEE
8J5700
6JIC(F–M)90°ADP
8J5700
6 JIC(F–M) 90° ADP
8K8650
SEAL KIT 4X36”
8K8660
SEAL KIT 5X36”
WING LIFT HYDRAULICS
8J5690
3/4–16 ORB M–SW 90° UNION
8J7040
THERMAL RELIEF
8A1954
1/4”OD TUBE–18”
8J7116 (2X)
ONE WAY RESTRICTOR
ARROW MUST POINT TOWARD CYLINDER
8J5680 (2X)
3/4”–16ORB UNION
COULTER–CHISEL–WING–LIFT–HYD 10/13/06

7. Charge Wing Lift Cylinders.

   – Block rod end of cylinders so cylinders can extend without hitting anything.

   – Fully cycle the cylinders several times to make sure that all air has been removed from system.

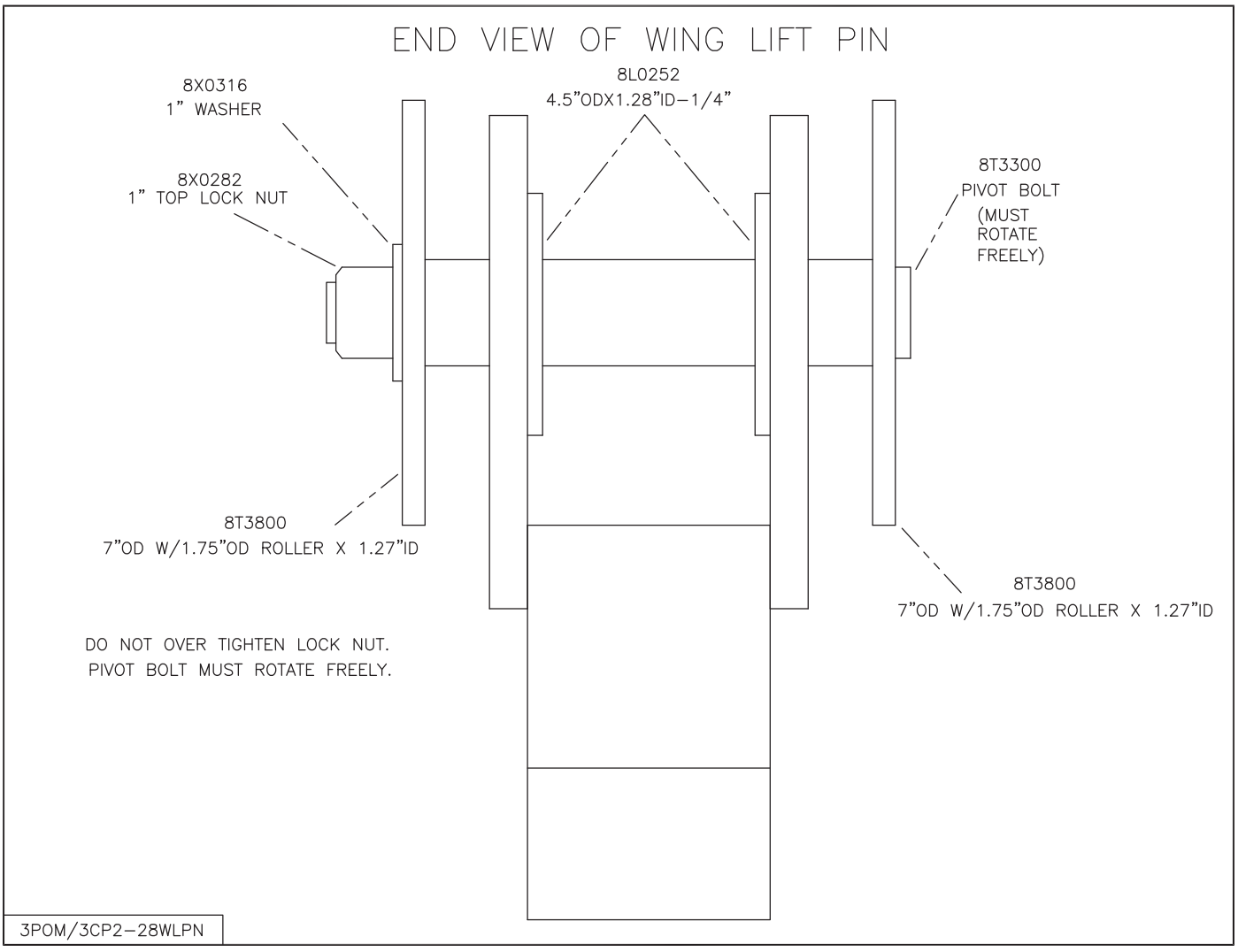
   – Leave cylinders in fully extended position.

8. Connect rod end of cylinders to wing. Follow these steps and see drawing below.

   – Use pivot bolt, washers with collars, 1-1/4" washers, 1" washer and 1" lock nut provided.

   – 1-1/4" washers must slide freely inside wing flamecuts.

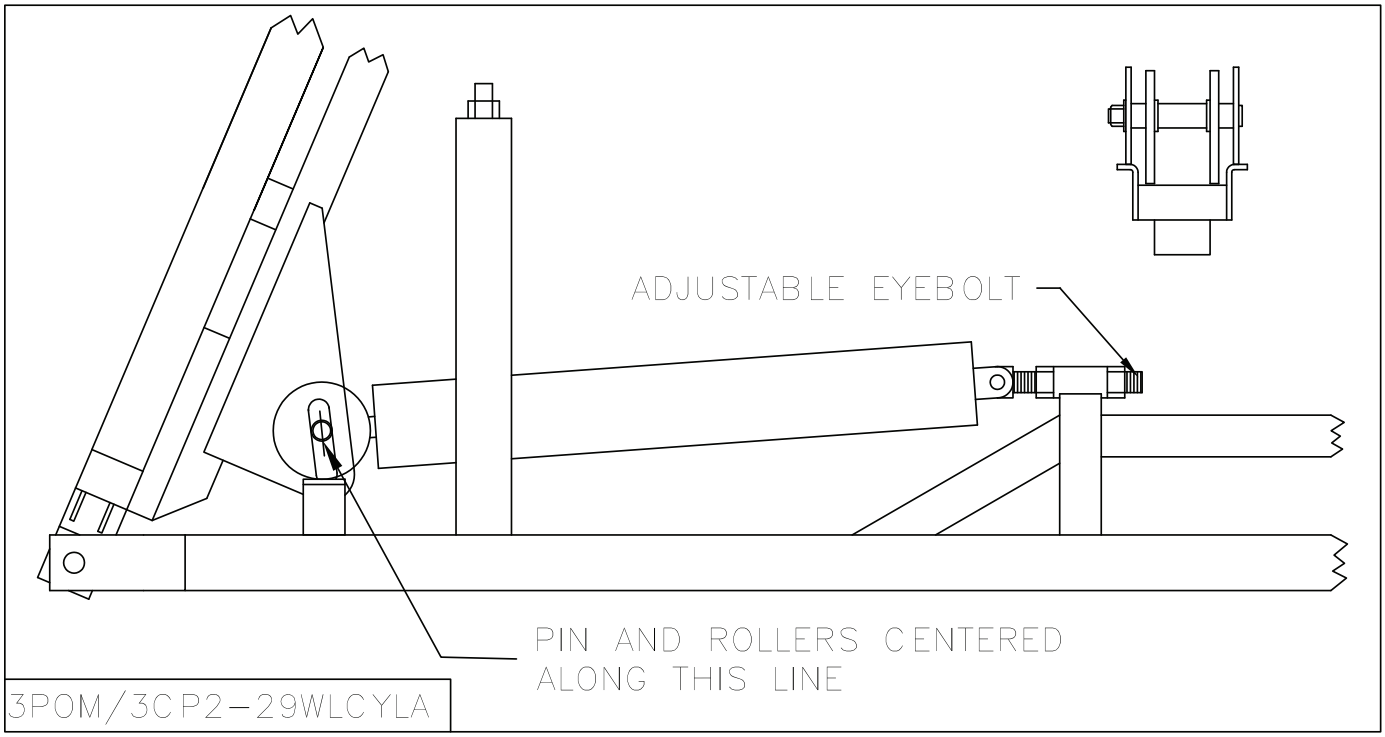
   – Do not over tighten lock nut. **Pivot bolt must rotate freely.**

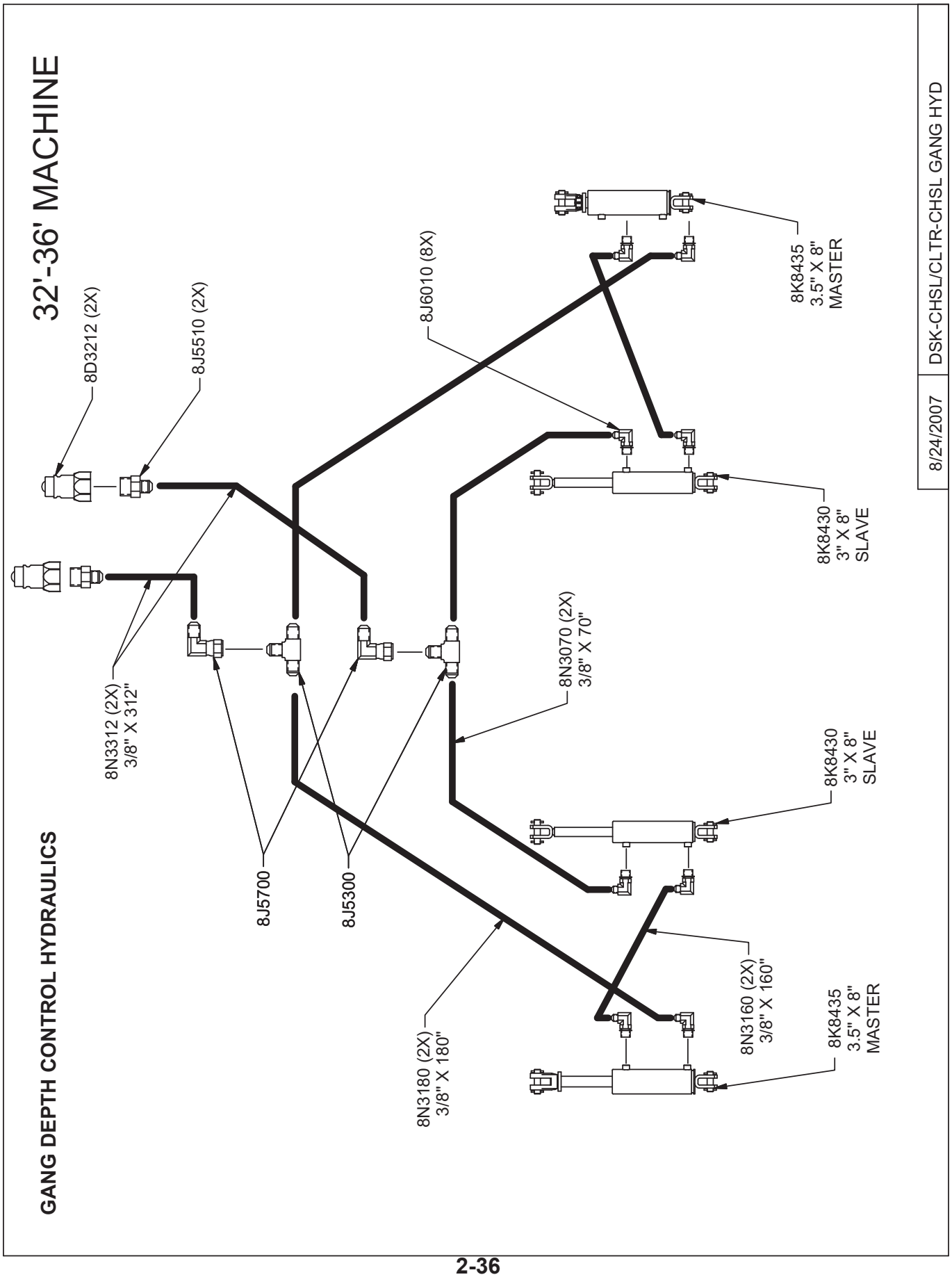


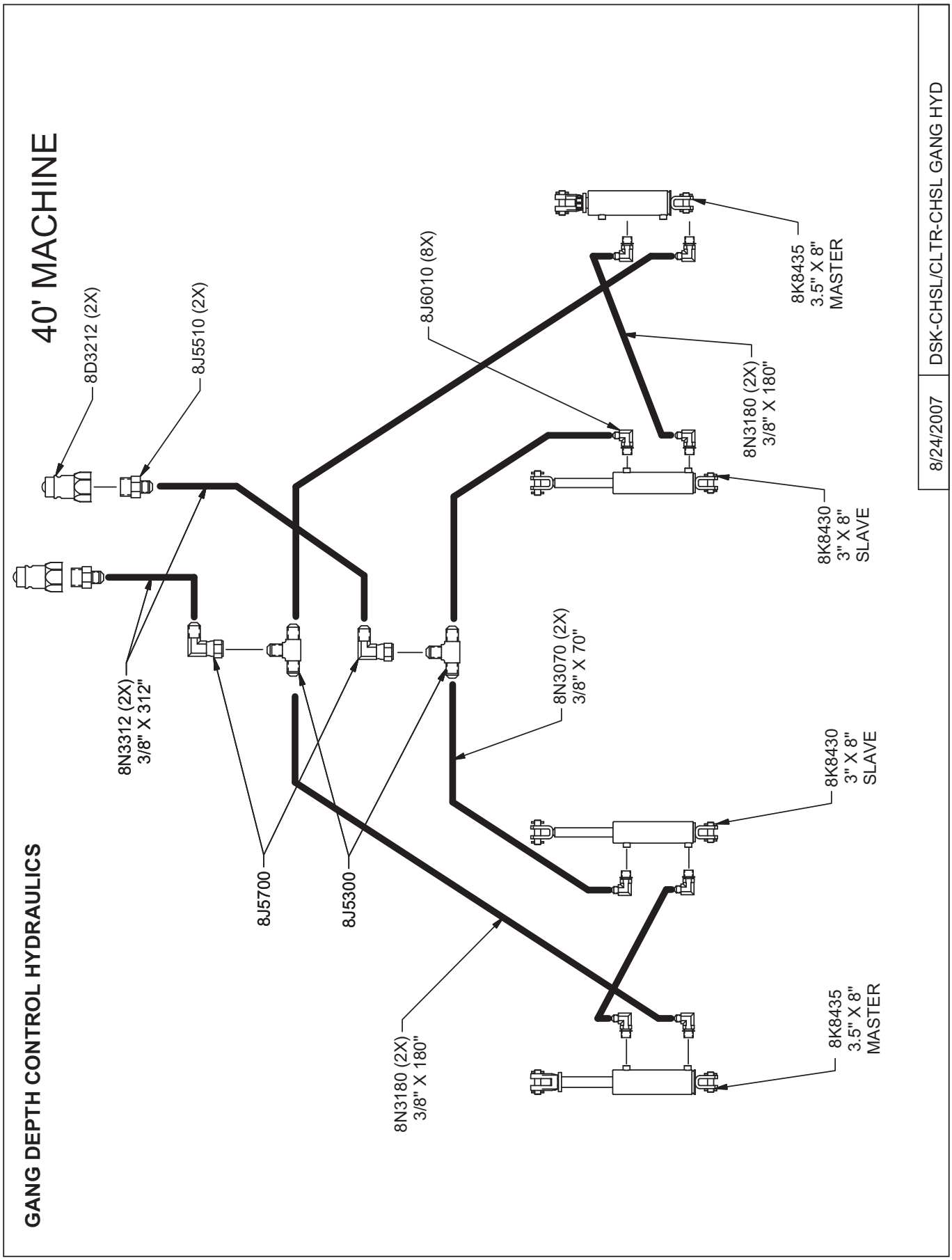
9. With cylinder attach eyebolts loose, raise coulter-chisel wings to transport position.

– Fully retract cylinders and let wings rest against transport locks.

– Tighten each eyebolt so pivot bolt and rollers are centered in the wing lift slot.



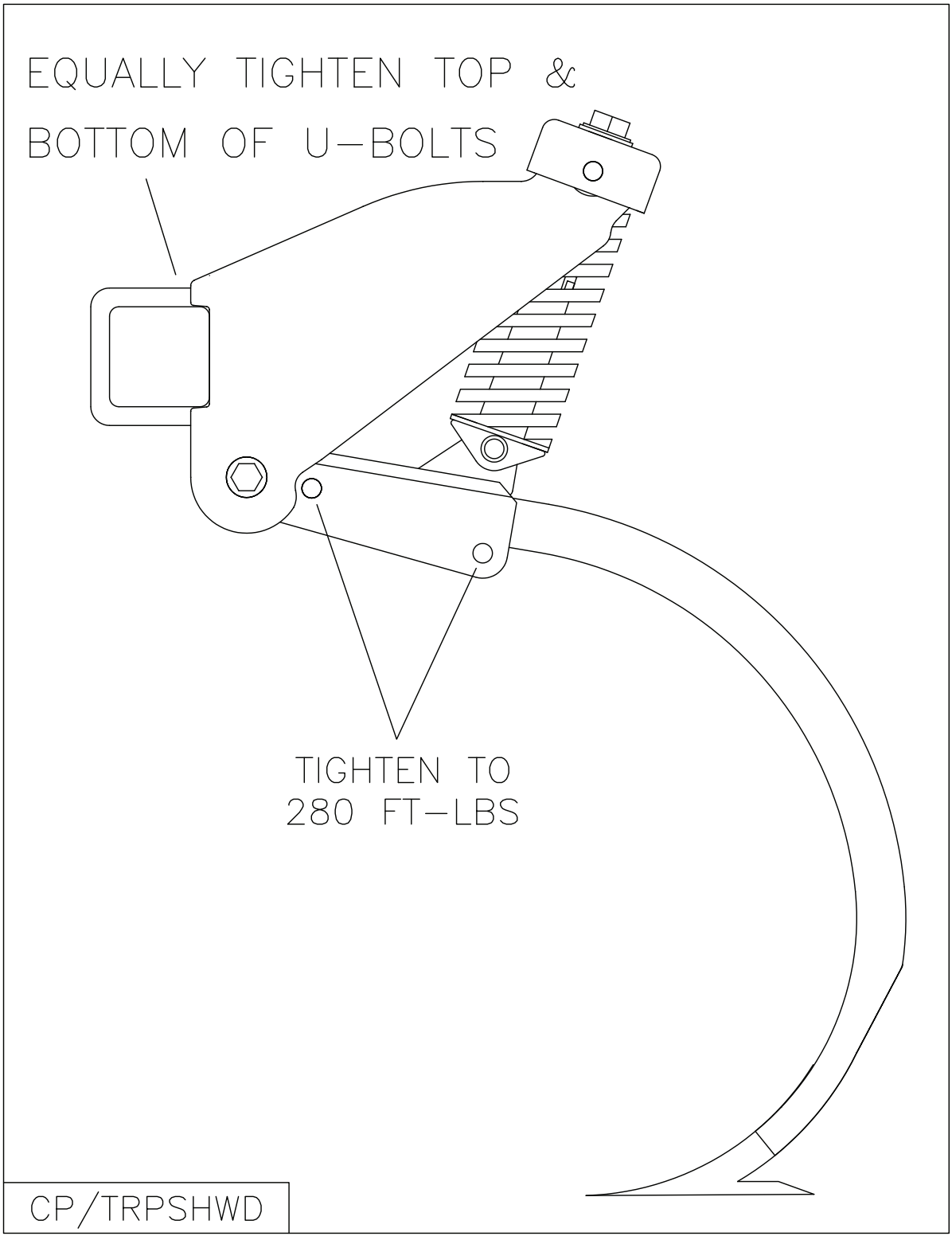

32'-36' MACHINE
GANG DEPTH CONTROL HYDRAULICS
8/24/2007
DSK-CHSL/CLTR-CHSL GANG HYD
8D3212 (2X)
8J5510 (2X)
8J6010 (8X)
8K8435
3.5" X 8"
MASTER
8K8430
3" X 8"
SLAVE
8N3312 (2X)
3/8" X 312"
8N3070 (2X)
3/8" X 70"
8J5700
8J5300
8K8430
3" X 8"
SLAVE
8N3160 (2X)
3/8" X 160"
8K8435
3.5" X 8"
MASTER
8N3180 (2X)
3/8" X 180"

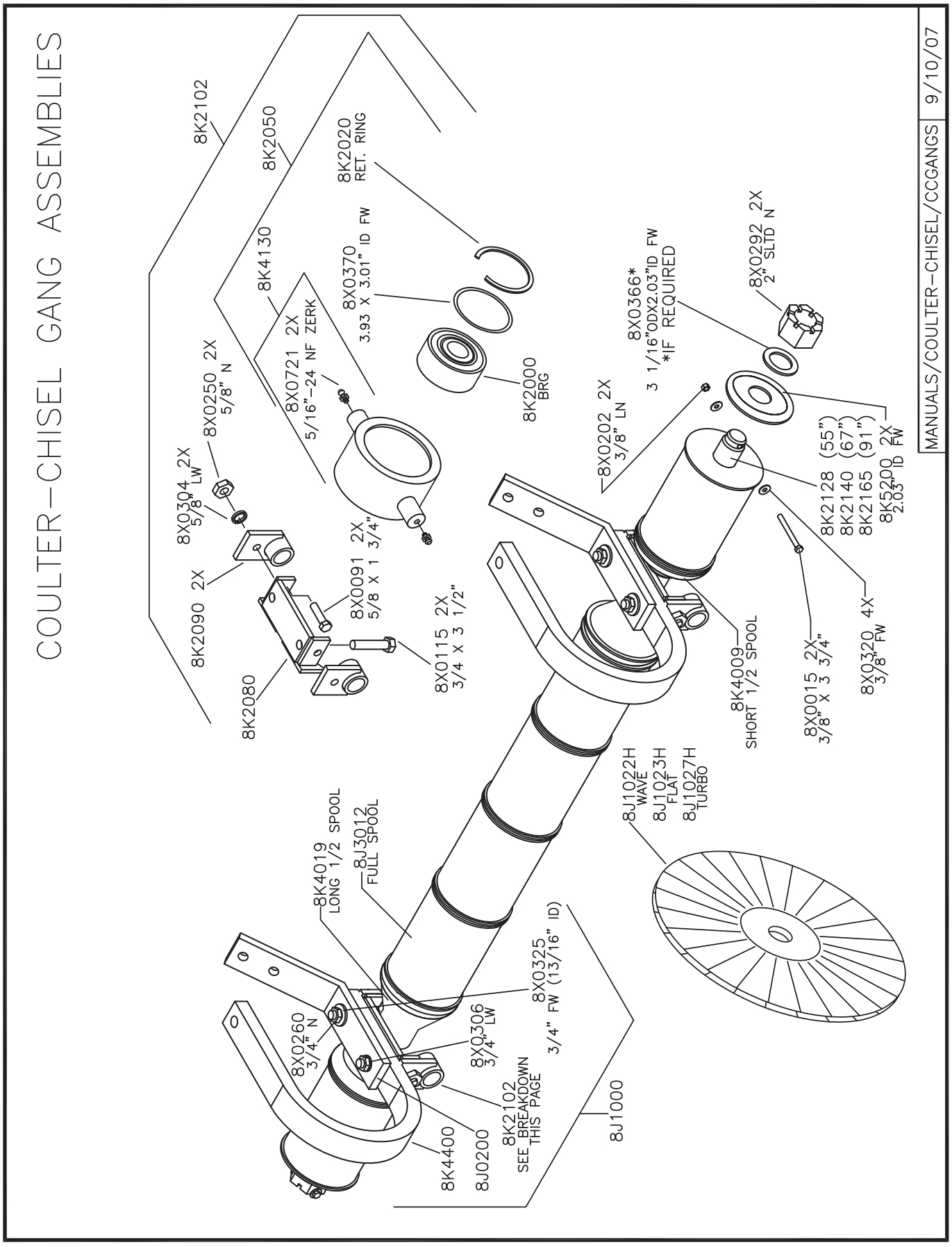

40' MACHINE
GANG DEPTH CONTROL HYDRAULICS
8D3212 (2X)
8J5510 (2X)
8J6010 (8X)
8K8435
3.5" X 8"
MASTER
8N3180 (2X)
3/8" X 180"
8K8430
3" X 8"
SLAVE
8N3312 (2X)
3/8" X 312"
8N3070 (2X)
3/8" X 70"
8J5700
8J5300
8K8430
3" X 8"
SLAVE
8N3180 (2X)
3/8" X 180"
8K8435
3.5" X 8"
MASTER
8/24/2007
DSK-CHSL/CLTR-CHSL GANG HYD

1. Install shanks into trip assemblies.

   – Install rear 3/4 x 4” bolt. Slide shank into shank holder. Install front bolt. Securely tighten.

   – Shanks will fit snuggly into shank holder. If tapping bottom of shank does not work, it may be necessary to remove burr and/or paint from shank or shank holder.

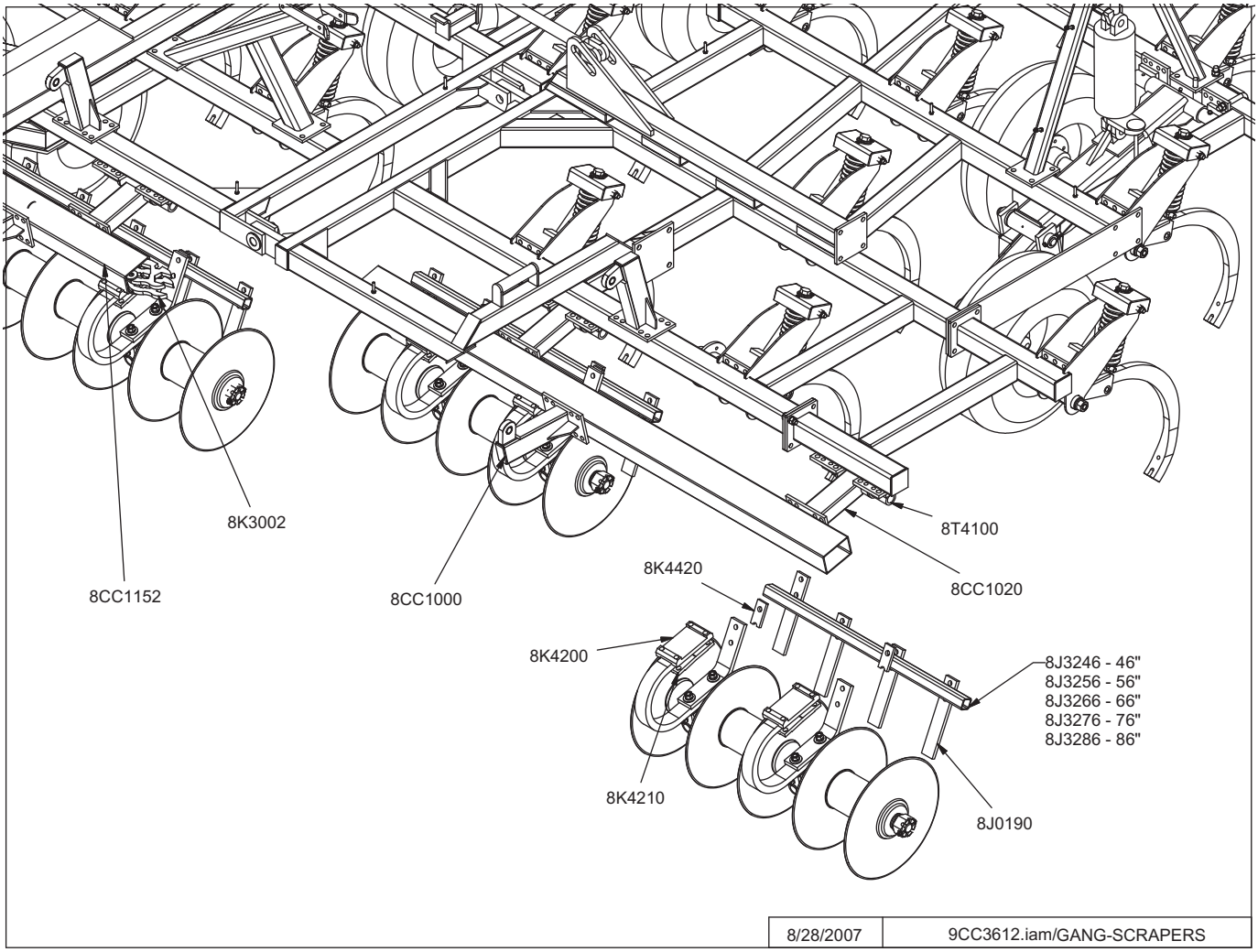



COULTER–CHISEL GANG ASSEMBLIES
MANUALS/COULTER–CHISEL/CCGANGS | 9/10/07
8K2102
8K2050
8K2020 RET. RING
8K4130
8X0370 3.93 X 3.01" ID FW
8X0721 2X 5/16"–24 NF ZERK
8K2000 BRG
8X0366* 3 1/16"ODX2.03"ID FW *IF REQUIRED
8X0292 2X 2" SLTD N
8X0250 2X 5/8" N
8X0304 2X 5/8" LW
8K2090 2X
8X0091 2X 5/8 X 1 3/4"
8X0115 2X 3/4 X 3 1/2"
8K2080
8X0202 2X 3/8" LN
8K2128 (55")
8K2140 (67")
8K2165 (91")
8K5200 2X 2.03" ID FW
8K4009 SHORT 1/2 SPOOL
8X0015 2X 3/8" X 3 3/4"
8X0320 4X 3/8" FW
8J1022H WAVE
8J1023H FLAT
8J1027H TURBO
8K4019 LONG 1/2 SPOOL
8J3012 FULL SPOOL
8X0325 3/4" FW (13/16" ID)
8X0260 3/4" N
8X0306 3/4" LW
8K2102 SEE BREAKDOWN THIS PAGE
8K4400
8J0200
8J1000

## SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

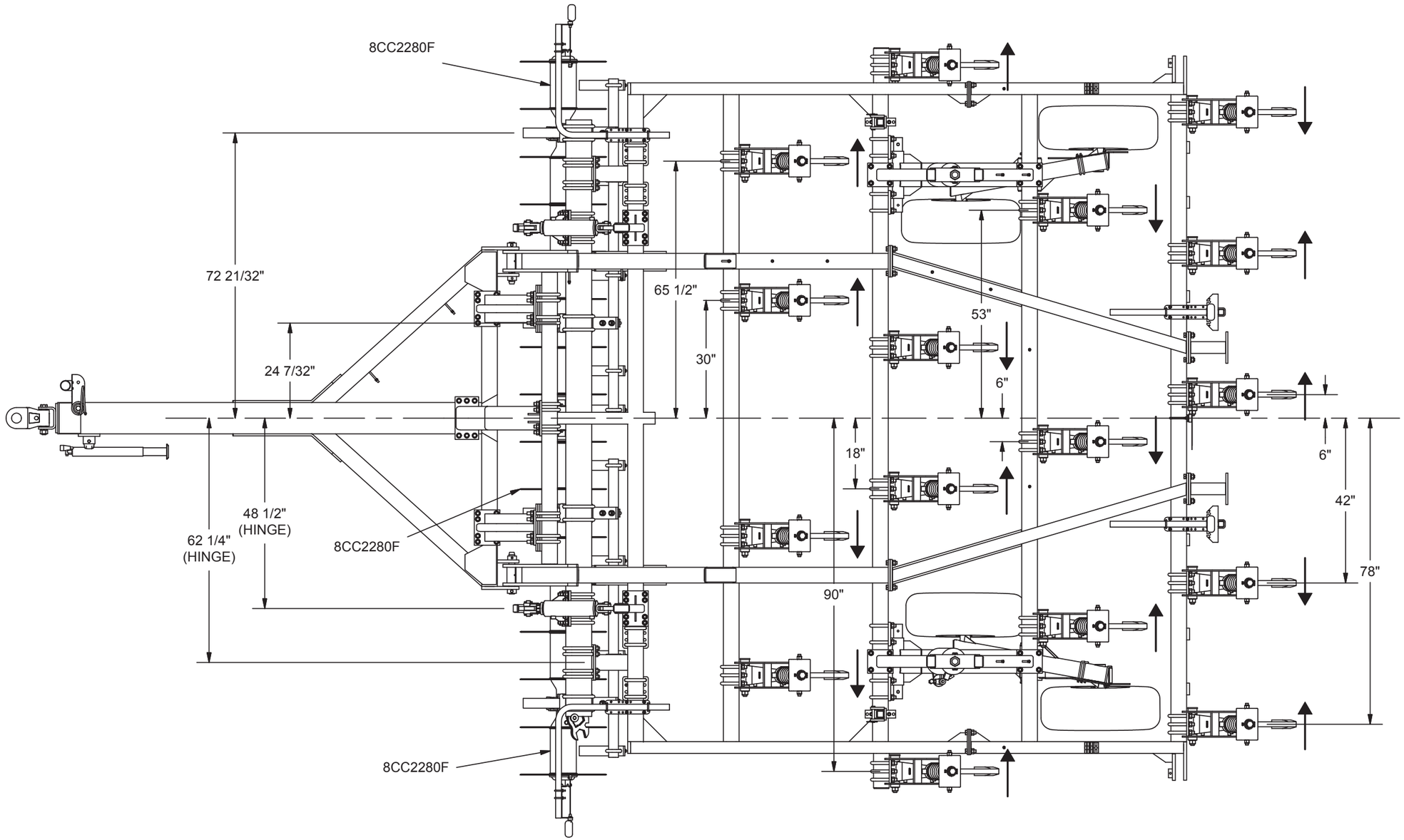
1. Gang Mounting – Start from the center and work towards the outside when hanging the gangs. Bearing location is important, use correct gang assembly for each location. Carefully lift gang to frame close to correct location. Attach C-shanks to frame using (2) 3/4" U-bolts, mounting plate with peg, flat mounting plate, lockwashers and nuts. After both C- shanks on each gang are mounted, slide the gang to its proper location and tighten hardware.

2. Scraper Mounting **–** Attach scraper mounting tubes to scraper support brackets (8J0200) using 3/4" U-bolts (8K5505), spacer flat (8K4420), lockwashers and nuts. Attach scraper flats (8J0190) to the mounting tubes using 3/4" U-bolts (8K5505), flatwashers (lower hole only), lockwashers and nuts. Center between coulter blades.



SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

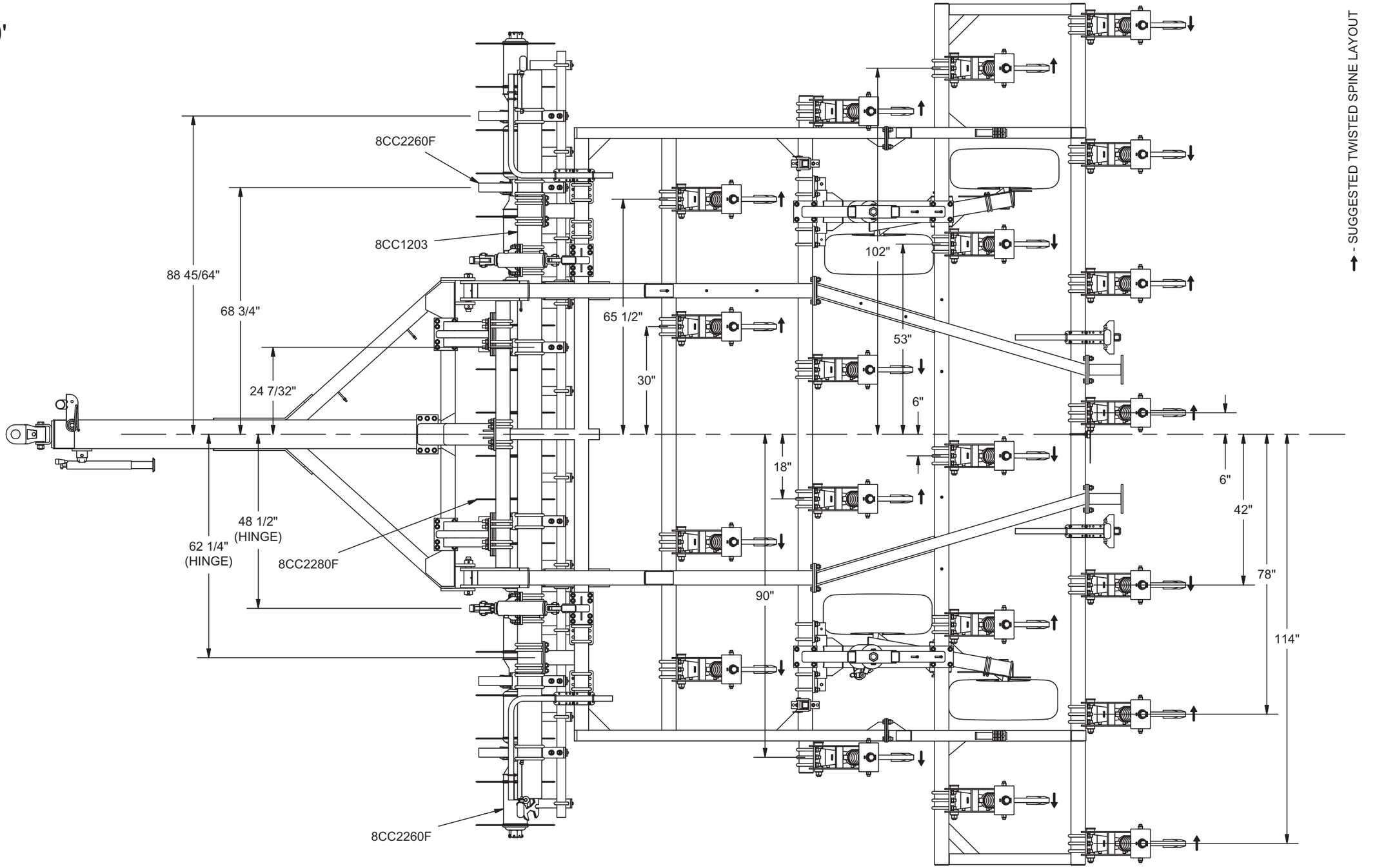
16'




| | |
|---|---|
| 4/28/2009 | 9CC1612H-2008.iam/SHANK-GANGS |

SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

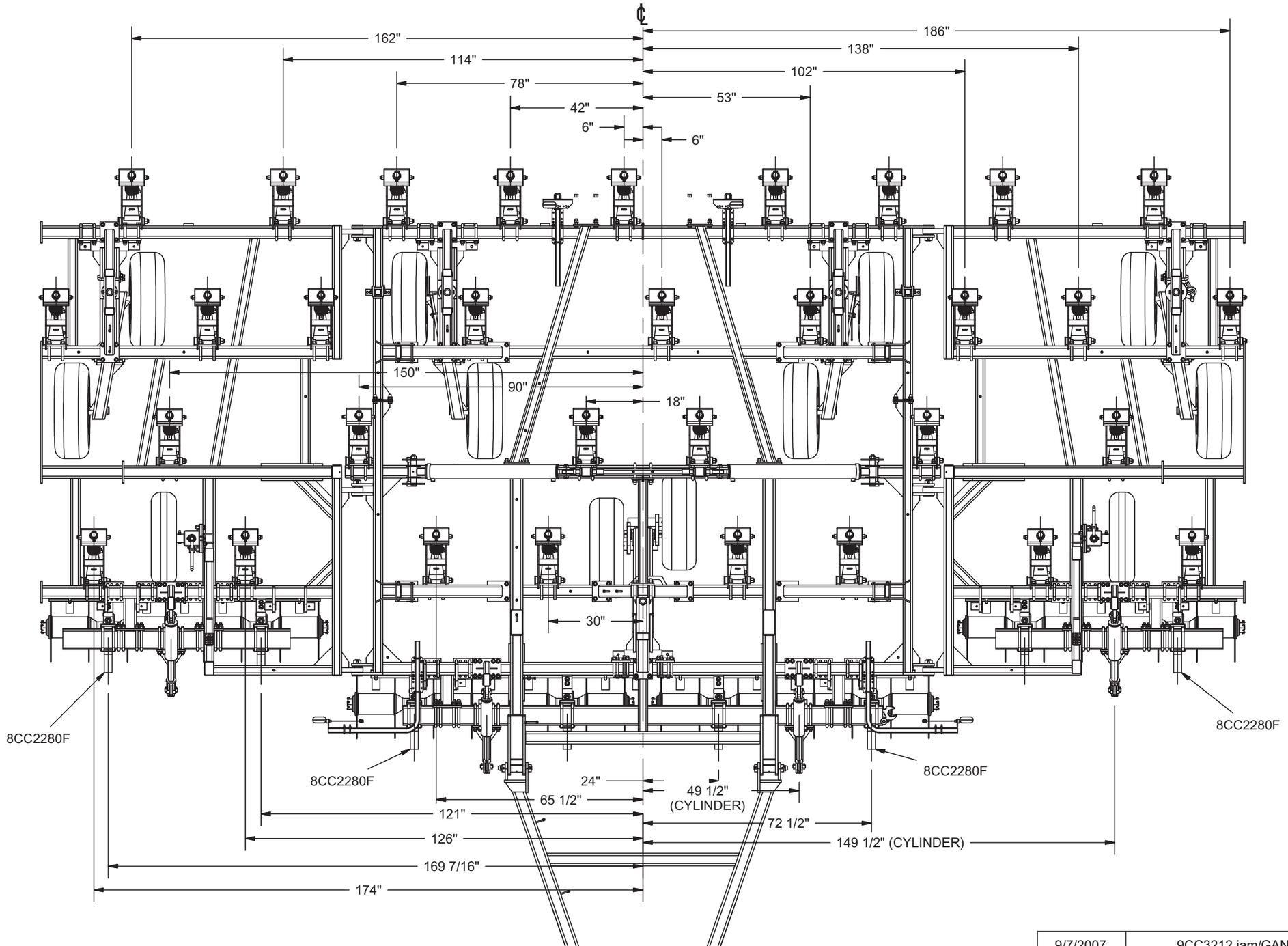
20'




| | |
|---|---|
| 3/18/2009 | 9CC2012H-2008.iam/SHANK-GANGS |

SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

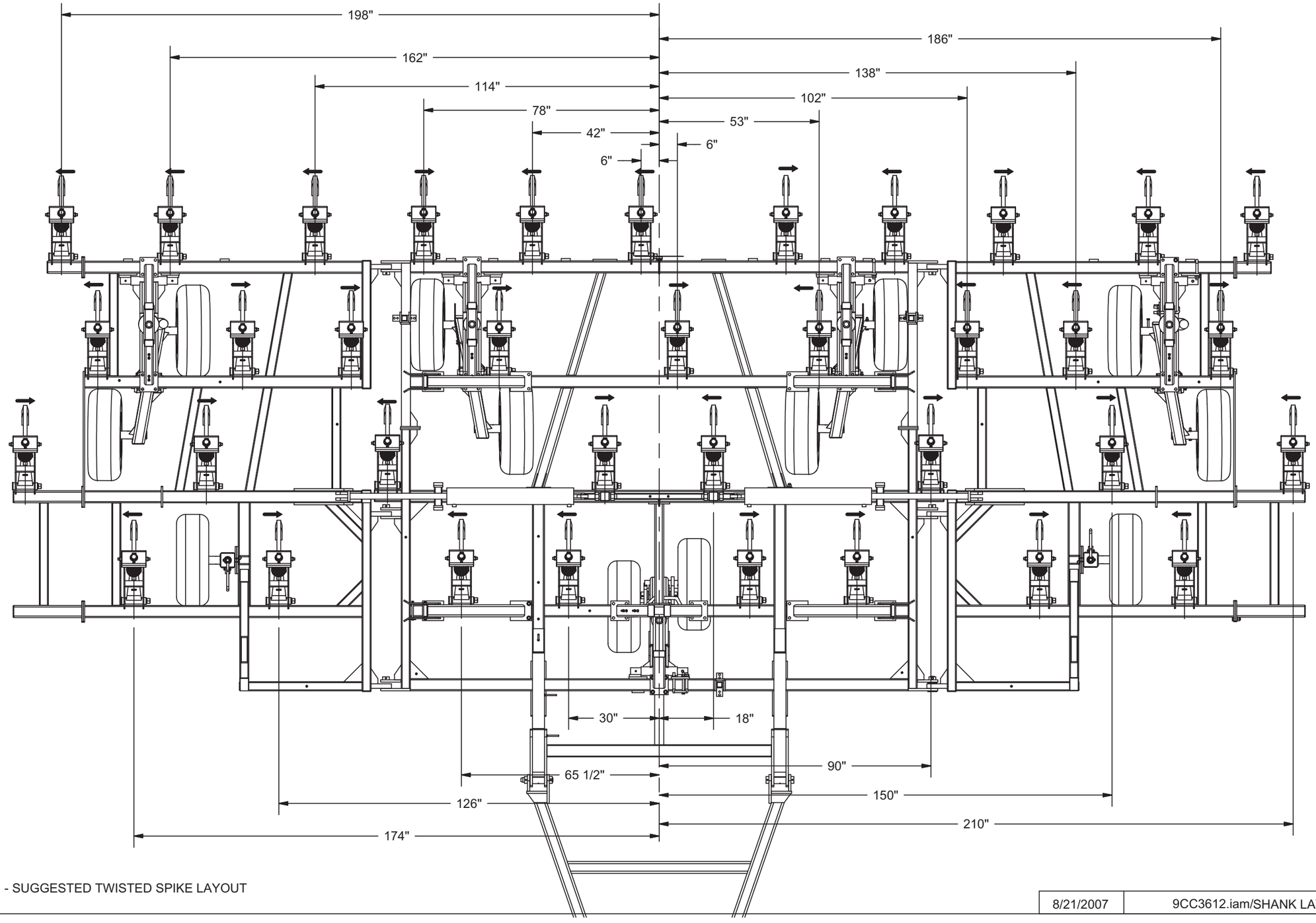
# 32’




| 9/7/2007 | 9CC3212.iam/GANGS-SHANKS |
|---|---|

SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

# 36’

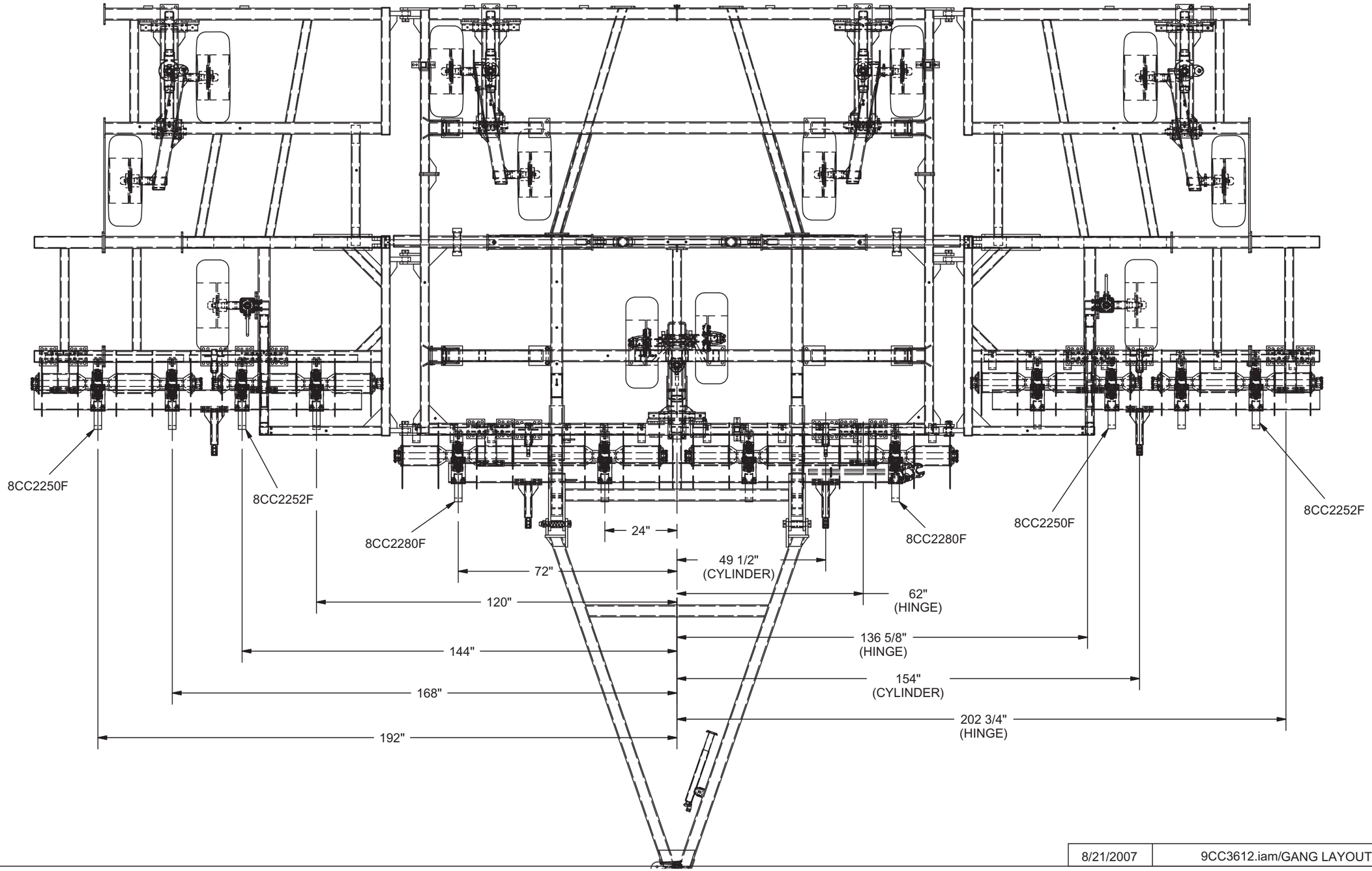



→ - SUGGESTED TWISTED SPIKE LAYOUT

| 8/21/2007 | 9CC3612.iam/SHANK LAYOUT |
|---|---|

SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

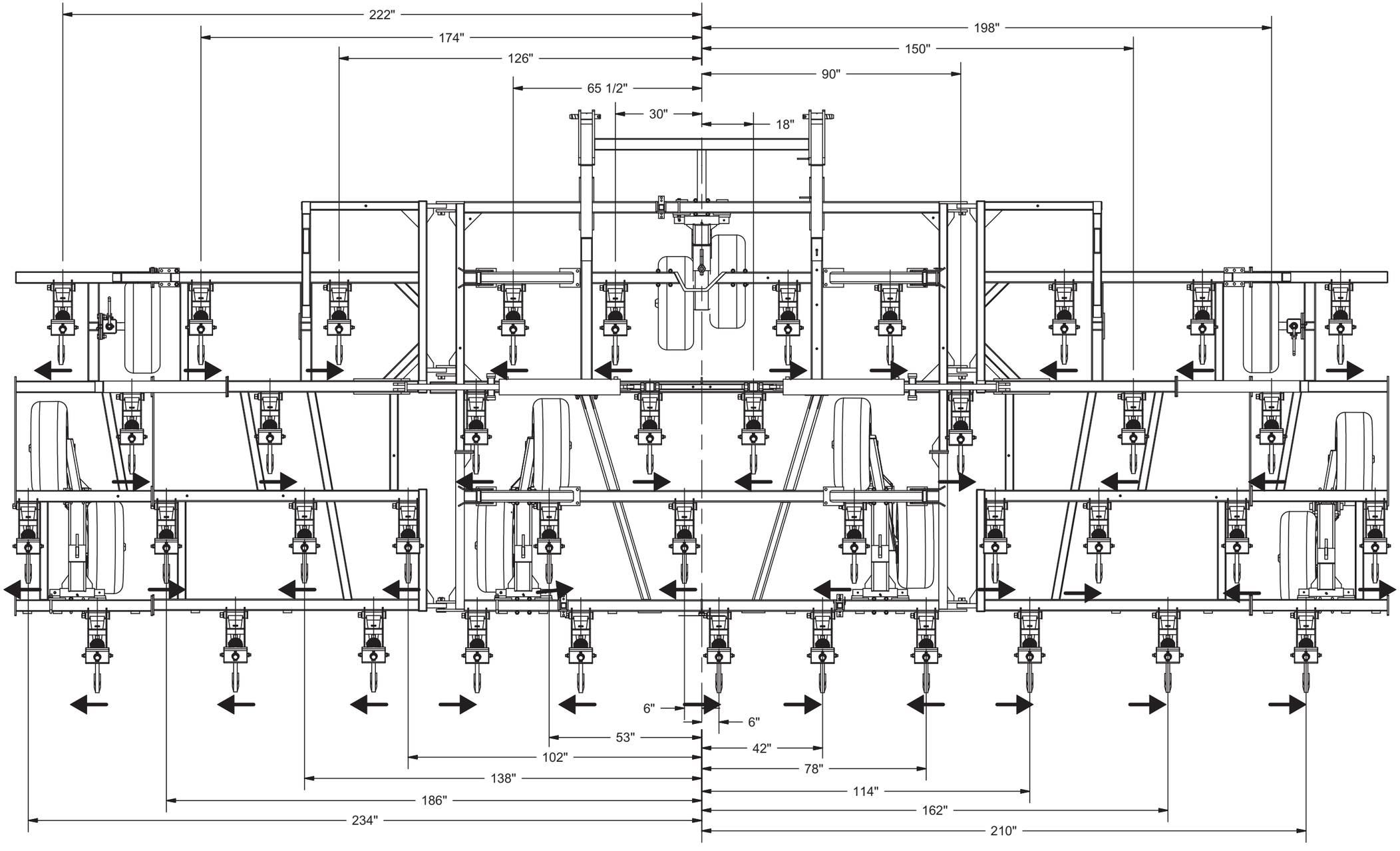
## 36’




| 8/21/2007 | 9CC3612.iam/GANG LAYOUT |
|---|---|

SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

# 40' SHANK LAYOUT

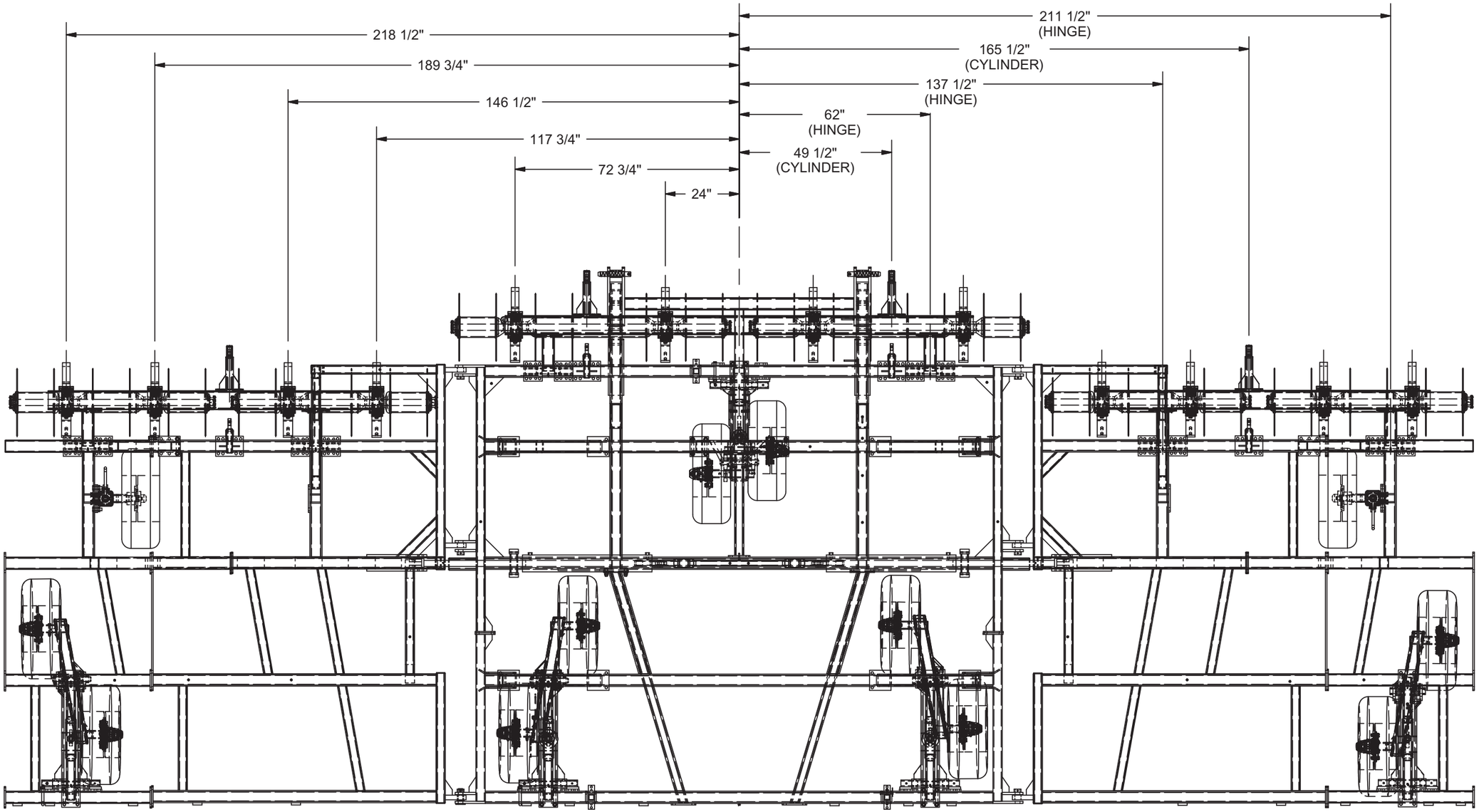



→ - SUGGESTED TWISTED SPIKE LAYOUT

| 8/28/2007 | 9CC4012.iam/SHANK LAYOUT |
|---|---|

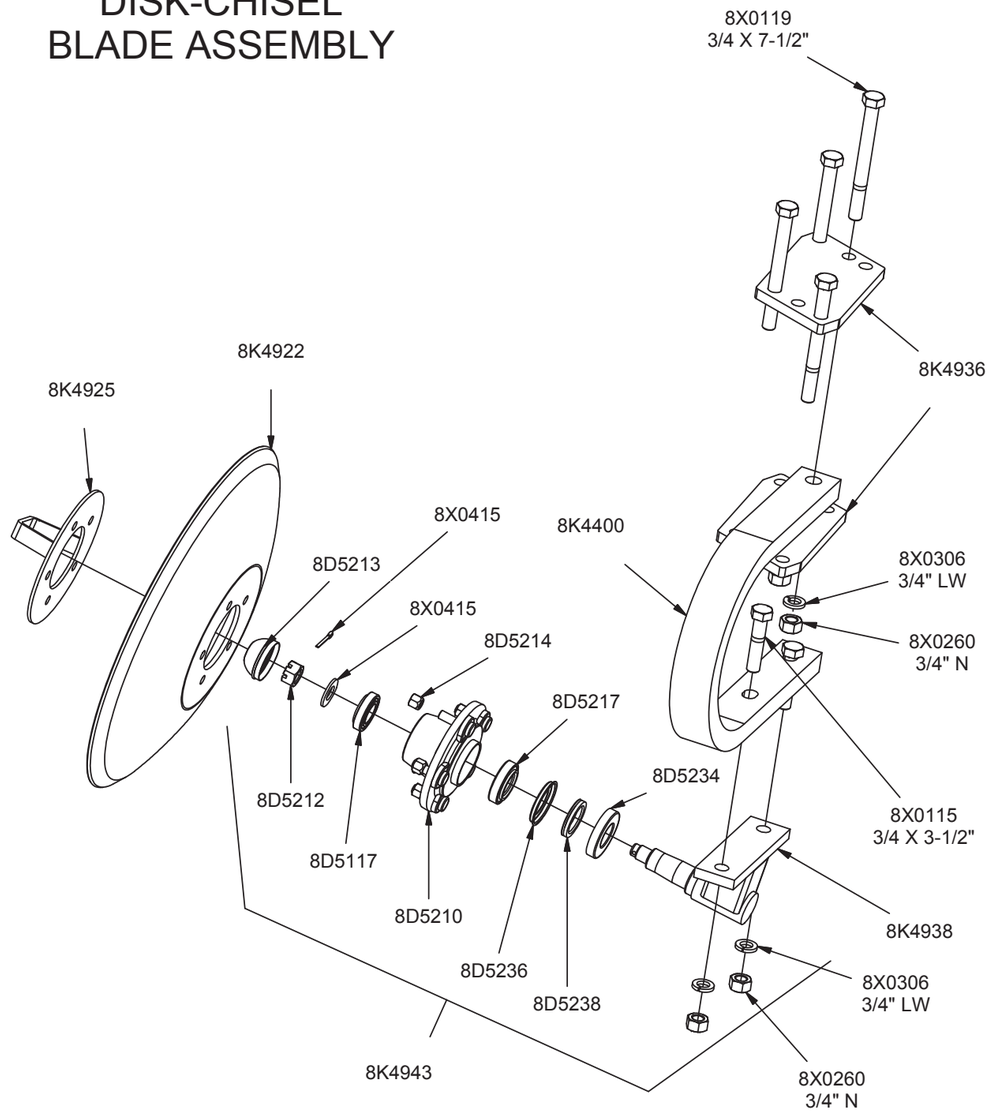
SECTION 2 – INSTALLATION OF SHANKS AND COULTER GANGS

# 40' GANG LAYOUT




| 9/7/2007 | 9CC4012.iam/GANG LAYOUT |
|---|---|

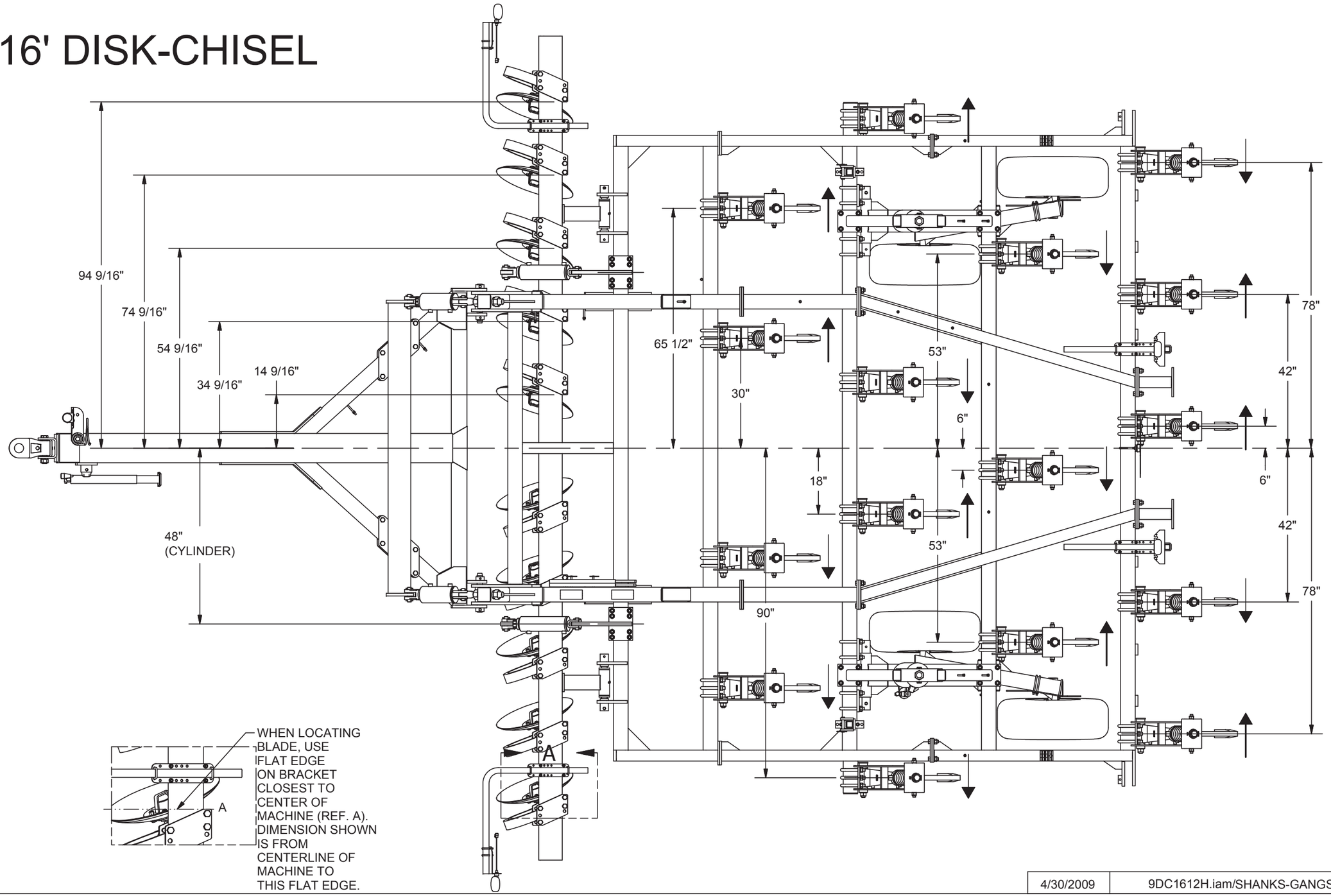
# DISK-CHISEL BLADE ASSEMBLY




NOTE: ASSEMBLY ABOVE IS FOR LEFT SIDE OF DISK-CHISEL. FOR RIGHT SIDE ASSEMBLY: ROTATE HUB ASSEMBLY 180 DEGREES AND FLIP BOLT PLATES OVER.

| 4/22/2009 | 9DC1612H.iam/BLADE ASSEMBLY |
|---|---|

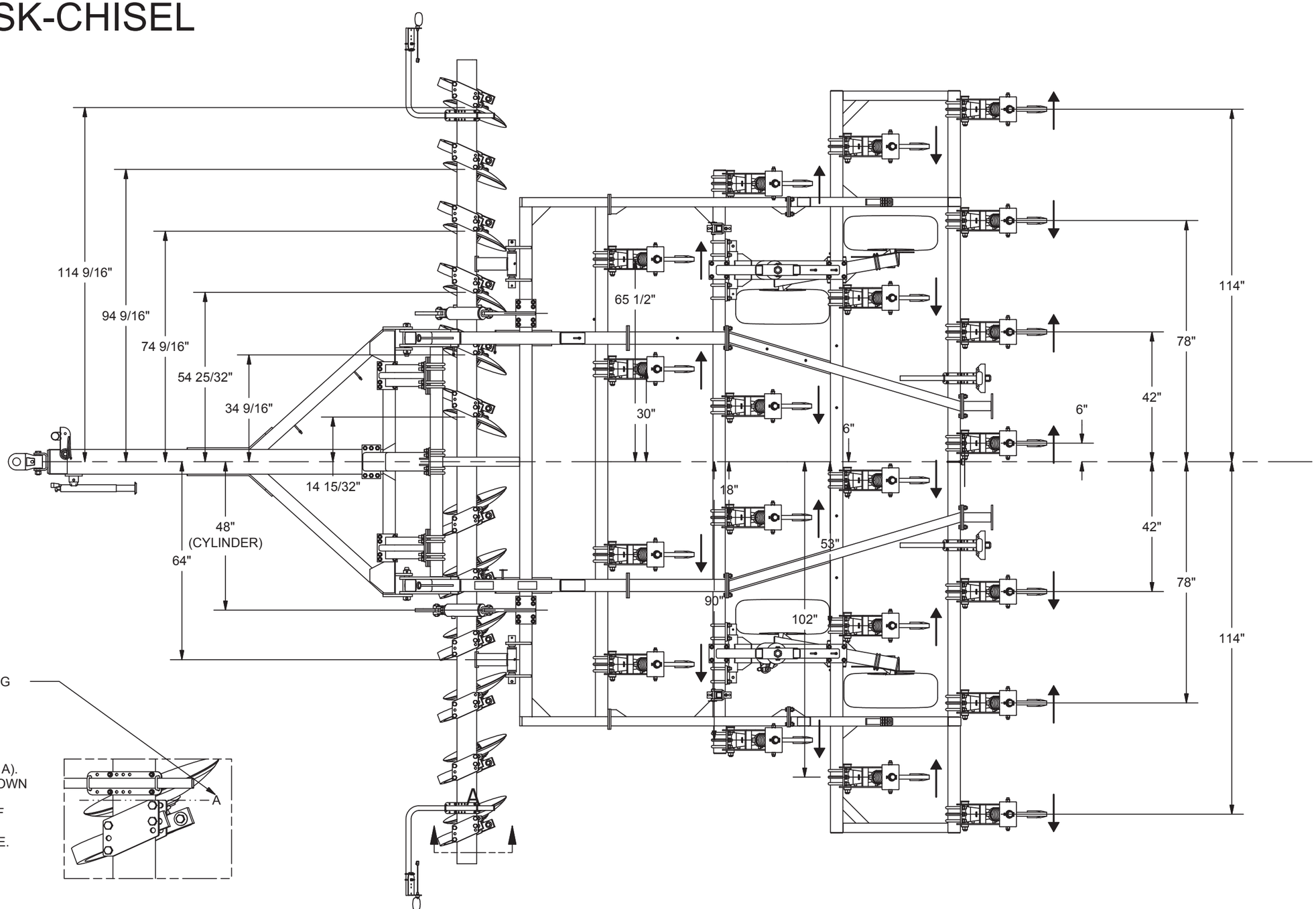
# 16' DISK-CHISEL




| 4/30/2009 | 9DC1612H.iam/SHANKS-GANGS |
|---|---|

SECTION 2 – DISK-CHISEL LAYOUT

# 20' DISK-CHISEL

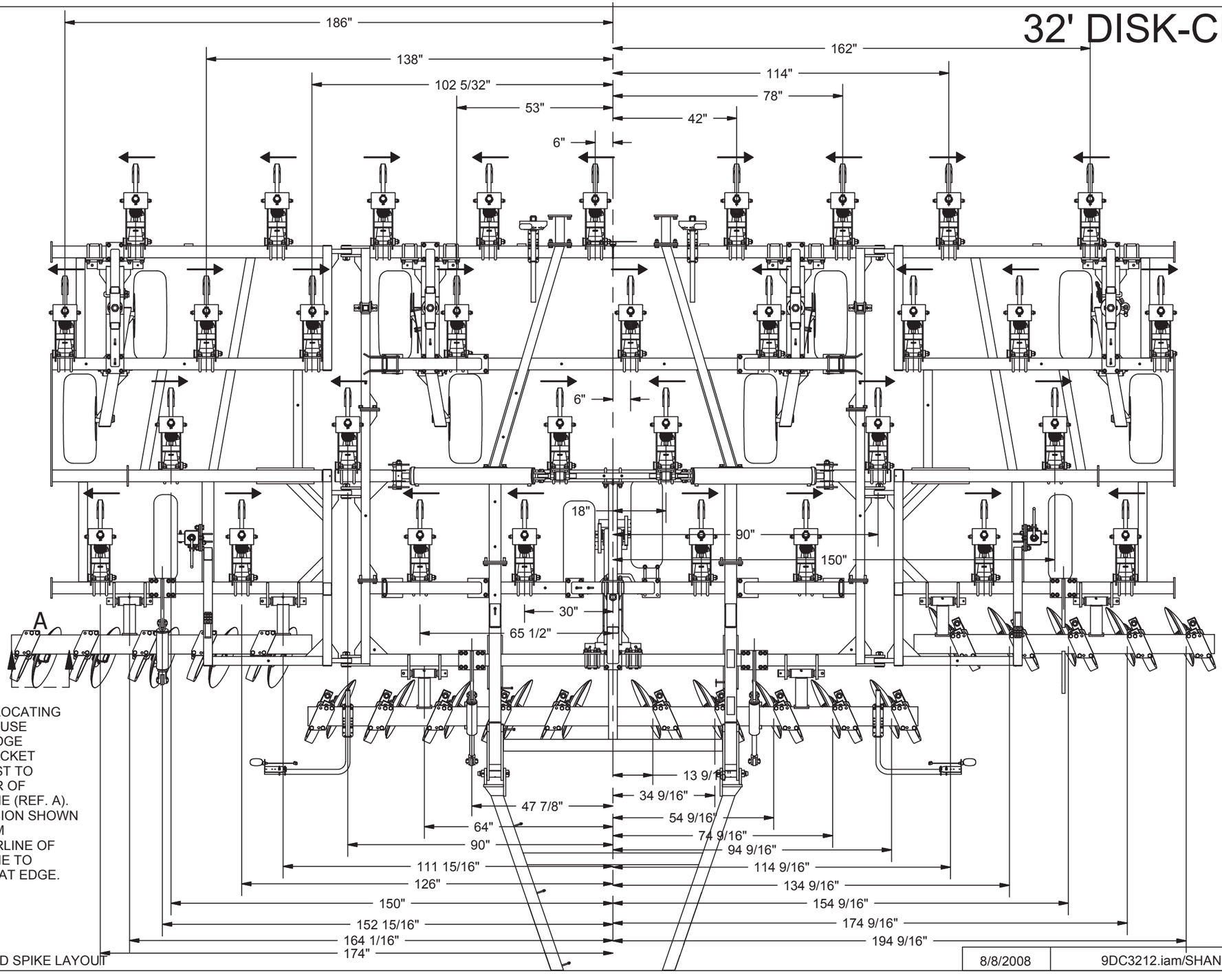



WHEN LOCATING BLADE, USE FLAT EDGE ON BRACKET CLOSEST TO CENTER OF MACHINE (REF. A). DIMENSION SHOWN IS FROM CENTERLINE OF MACHINE TO THIS FLAT EDGE.

| 4/30/2009 | 9DC2012H.iam/SHANKS-GANGS |
|---|---|

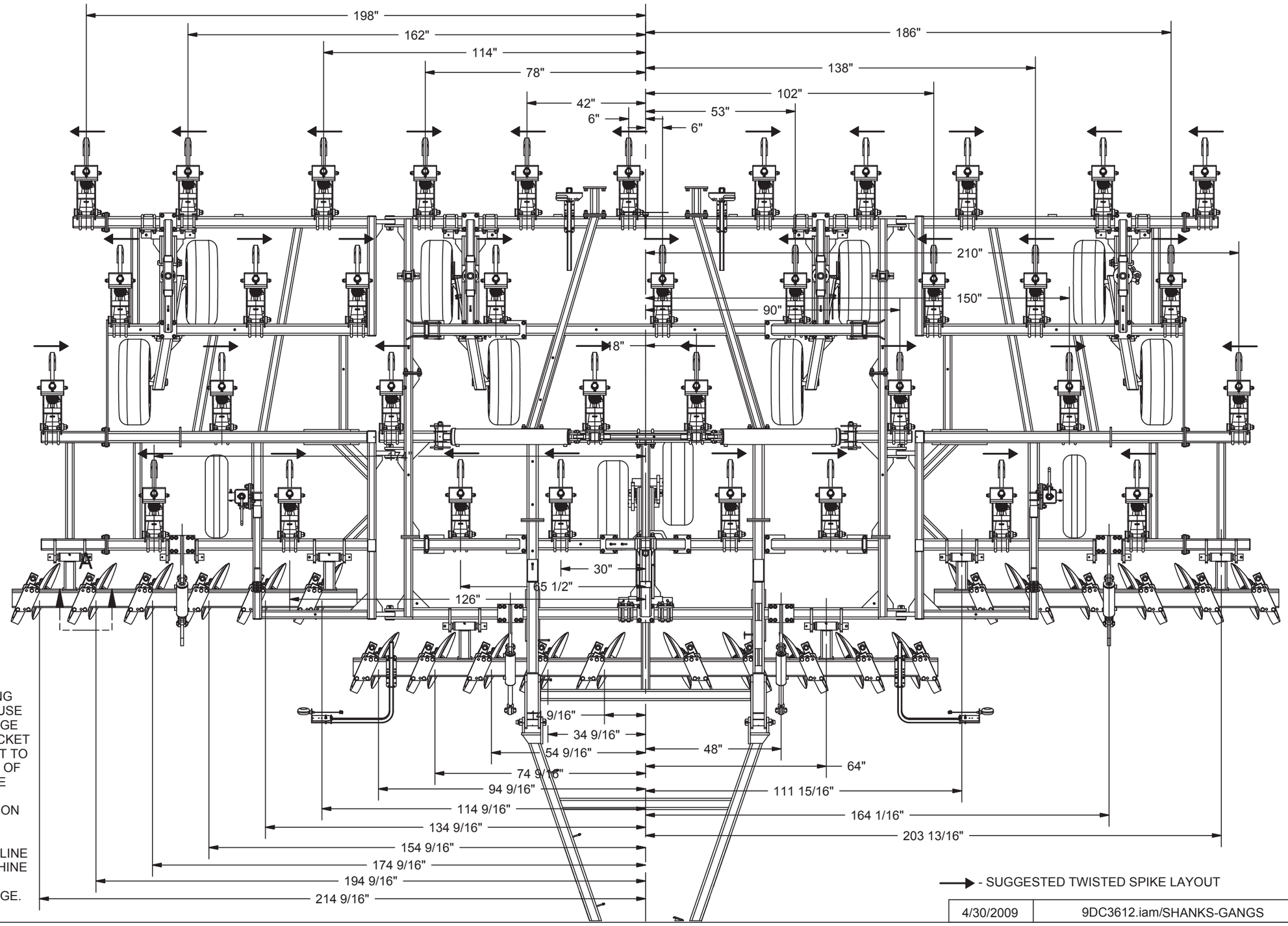
SECTION 2 – DISK-CHISEL LAYOUT

# 32' DISK-CHISEL



SECTION 2 – DISK-CHISEL LAYOUT

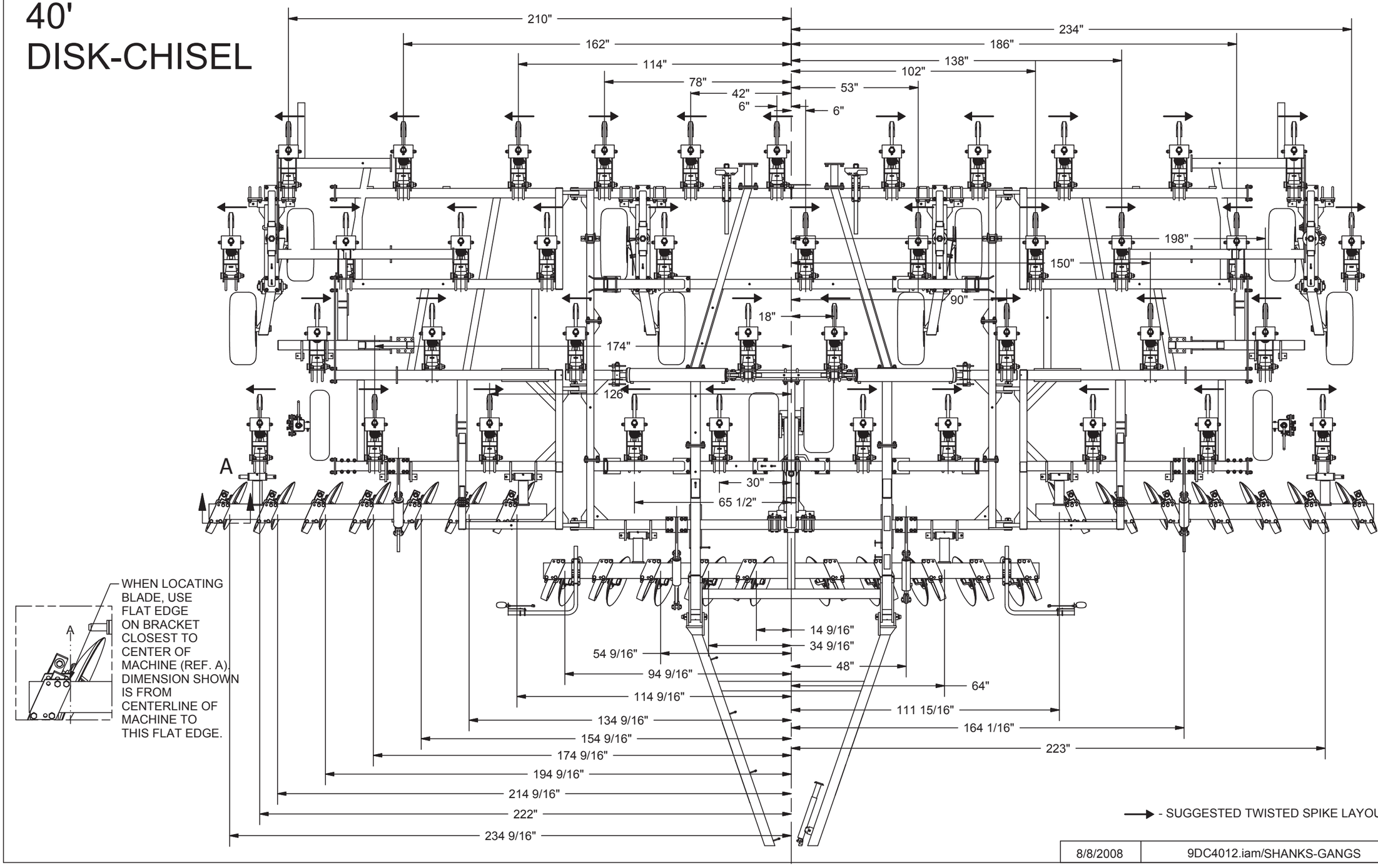
# 36' DISK-CHISEL




| 4/30/2009 | 9DC3612.iam/SHANKS-GANGS |
|---|---|

SECTION 2 – DISK-CHISEL LAYOUT

# 40' DISK-CHISEL




| 8/8/2008 | 9DC4012.iam/SHANKS-GANGS |
|---|---|

## SECTION 2 – WARNING DECALS (ALL SIZES)

1. Install danger, warning, and caution decals.

   – Part numbers can be found on lower right hand corner of each decal. Match this number with number on decal location drawing on Page 1-6.

   – The drawing gives approximate locations of decals. Decals must be clearly visible.

   – Order replacement decals if any are damaged.

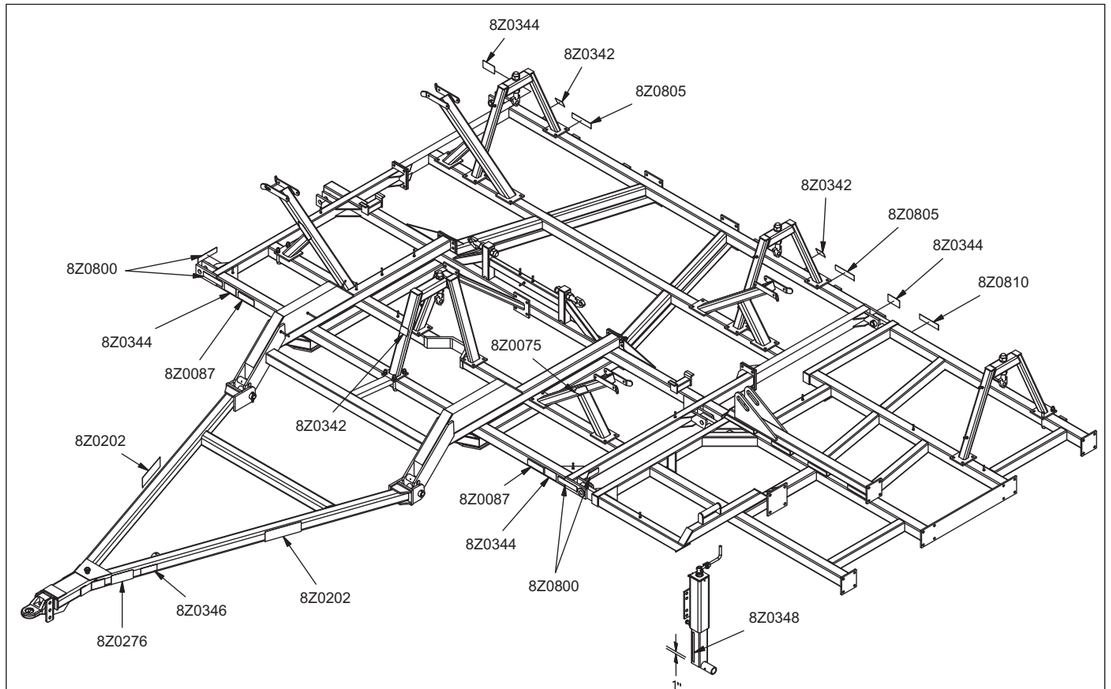
2. Install reflectors.

   – Amber reflectors are part # 8Z0800, these should be placed on front corners and sides of machine in transport position.

   – Red-orange reflectors are part # 8Z0805, these should be placed on outside back of machine in transport position.

   – Red reflectors are part # 8Z0810, these should be placed on outside back of machine in transport position.

3. Install Safety Light Kit, see Page 6-16 for mounting layout.




| 9/5/2007 | 9CC3212.iam/DECALS |
|---|---|

# SECTION 3 – OPERATION

## OPERATION SAFETY

1. READ AND UNDERSTAND Operator's Manual before using machine. Review at least annually thereafter.
2. VERIFY that all safety devices and shields are in place before using machine.
3. KEEP hands, feet, hair and clothing away from moving parts.
4. STOP engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, maintaining or unplugging.
5. BE CAREFUL when working around high pressure hydraulic system.
6. ALWAYS make sure that pressure is relieved from hydraulic circuits before servicing or disconnecting from tractor.
7. DO NOT ALLOW RIDERS.
8. USE EXTREME CARE when making adjustments.
9. KEEP CHILDREN AWAY from machinery at all times.
10. NEVER ALLOW anyone to walk or work under a raised piece of equipment without installing cylinder and transport locks.

## STEPS PRIOR TO OPERATION

1. COMPLETE WARRANTY REGISTRATION CARD

   A. Complete and return WARRANTY REGISTRATION CARD located at the beginning of this manual. **RETURNING CARD ENTITLES YOU TO A FREE GIFT**.

   B. Complete the OWNER REGISTER also located at the beginning of this manual (Serial Number is located at the front of the hitch). OWNER REGISTER INFORMATION MAY BE NEEDED WHEN ORDERING PARTS.

2. VERIFY TRACTOR REQUIREMENTS

   A. Recommended engine horsepower is 10-14 per foot.

NOTE: It may be necessary to reduce tillage depth, change tillage tools or perform multiple passes if below this horsepower range.

3. FINAL CHECK

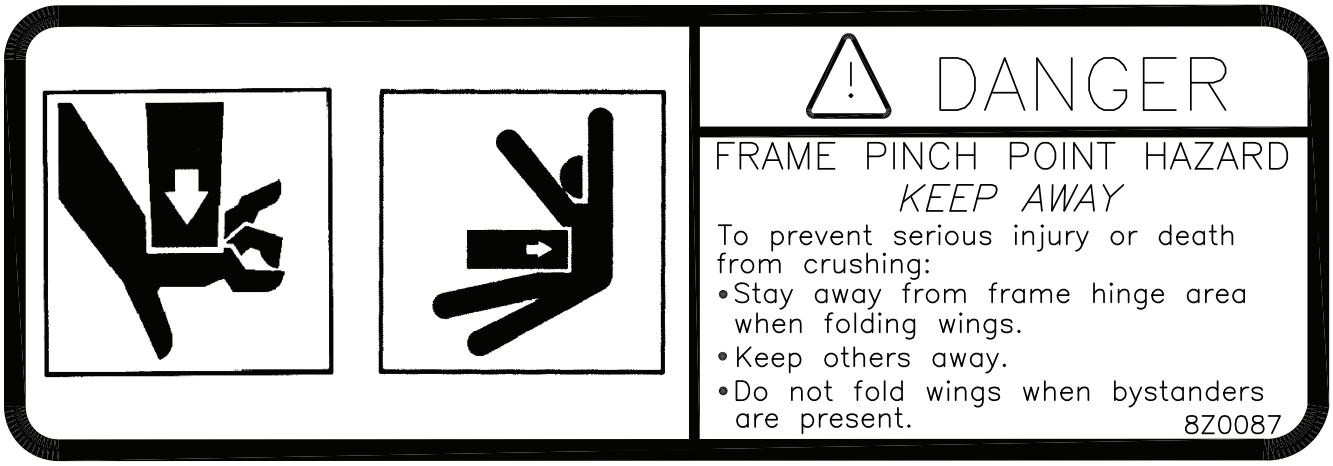
   A. After receiving or assembling your machine, it is a good practice to double check the entire machine so all fasteners are securely tightened.

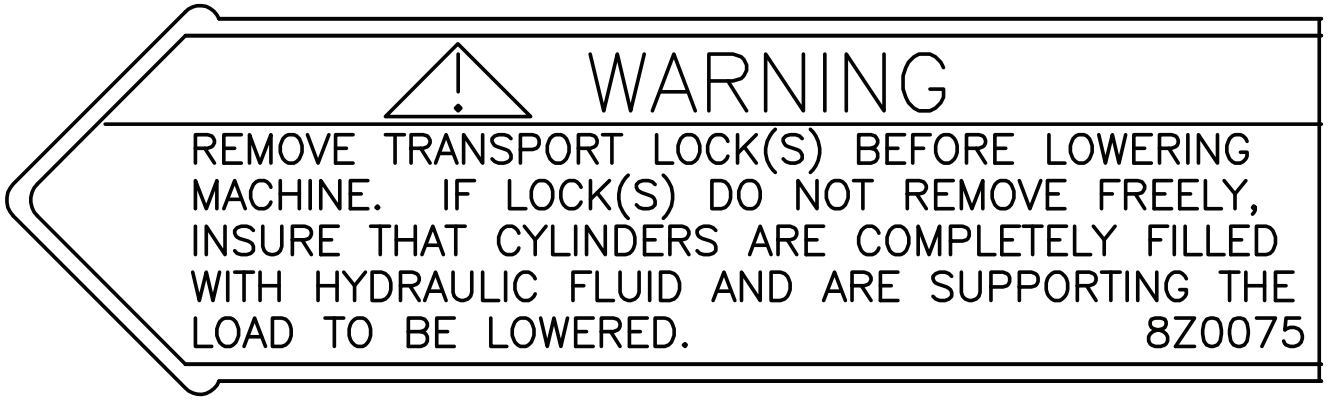
   B. Make sure all grease fittings are in place and greased properly.

   C. Inflate tires to recommended inflation pressure (see page 5-2) and check that wheel bolts are tight.

## INITIAL HOOKUP

1. Make tractor to hitch connection with locking draw pin and safety chain.
2. Retract jack and rotate into storage position. Connect Safety Light Kit to 7 pin receptacle.
3. Plug wing lift hoses into desired tractor outlet. Insure that tips and couplers are CLEAN.
4. Plug depth control hoses into desired tractor outlet.
5. Park tractor and coulter-chisel on a level surface.
6. Remove transport lock pins on wings.

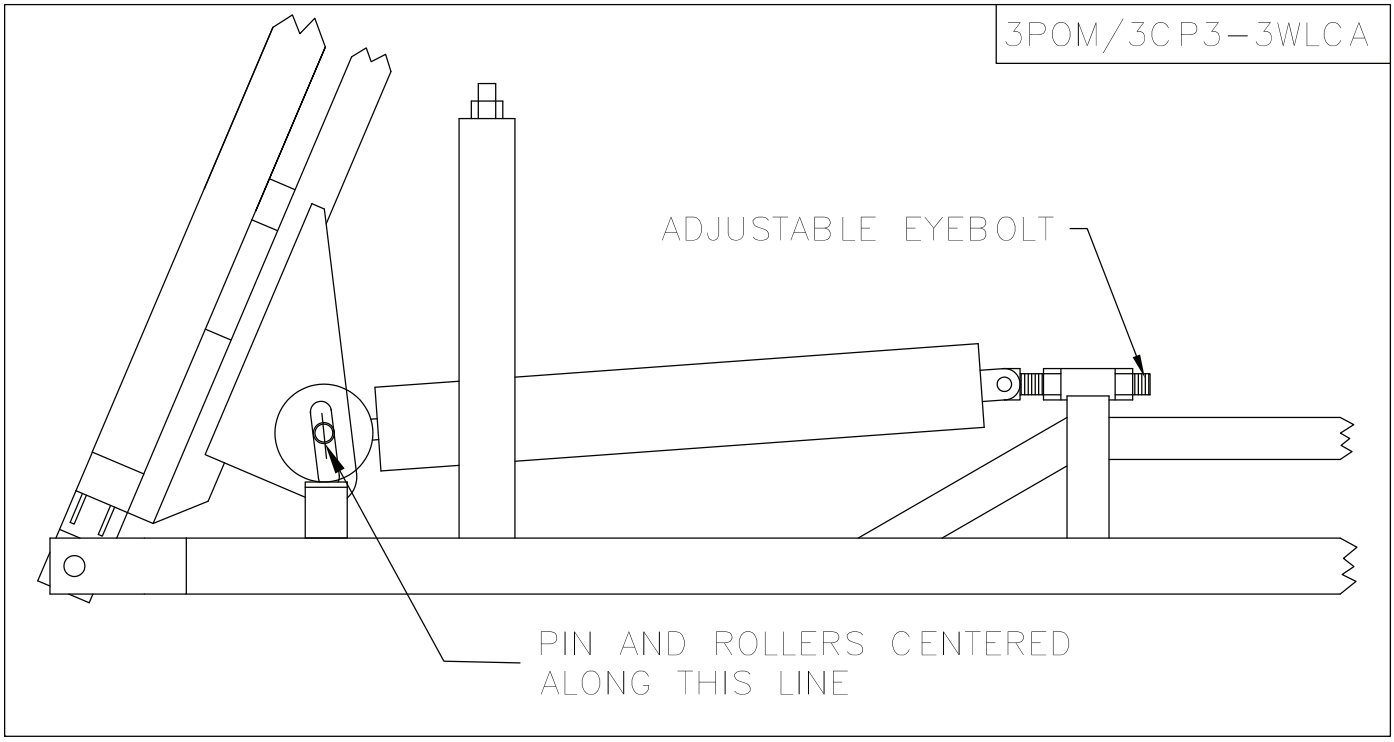



**IMPORTANT**

When the wings are setting against the transport locks and wing lift cylinders are fully retracted, rollers and winglift pin on the rod end of the cylinder must be centered in the slot on the wing. The 7" washers should be resting on the stand on top of the machine frame. If this is not the case, the eye bolt holding the base end of the cylinder must be readjusted accordingly. See drawing on page 3-3.

6. (Continued) WING LIFT CYLINDERS AT REST IN TRANSPORT POSITION.

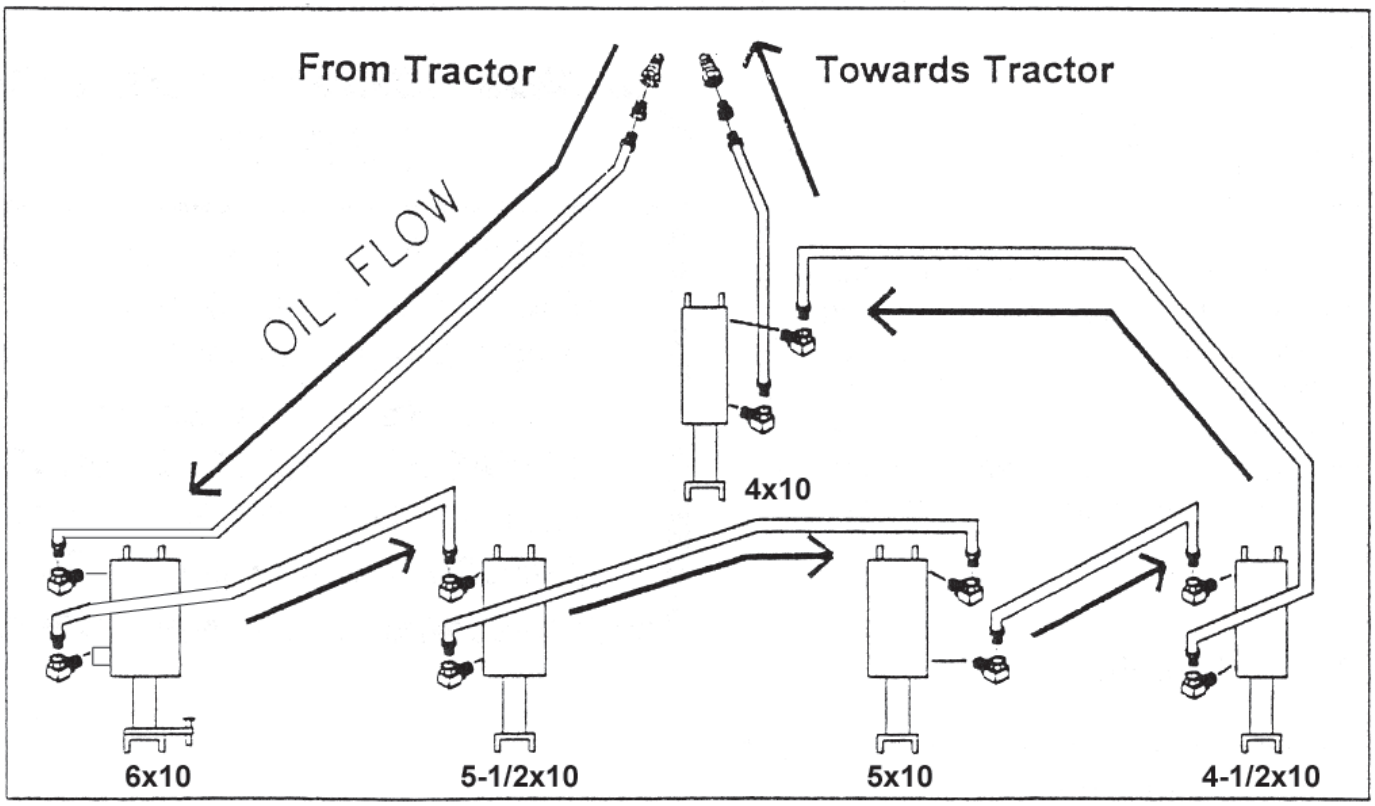



7. Lower wings with caution. Do not raise or lower the wings when moving. Operate tractor hydraulics from operator station only. Do not allow any one near Coulter-Chisel when wings are raised or lowered.


**IMPORTANT**

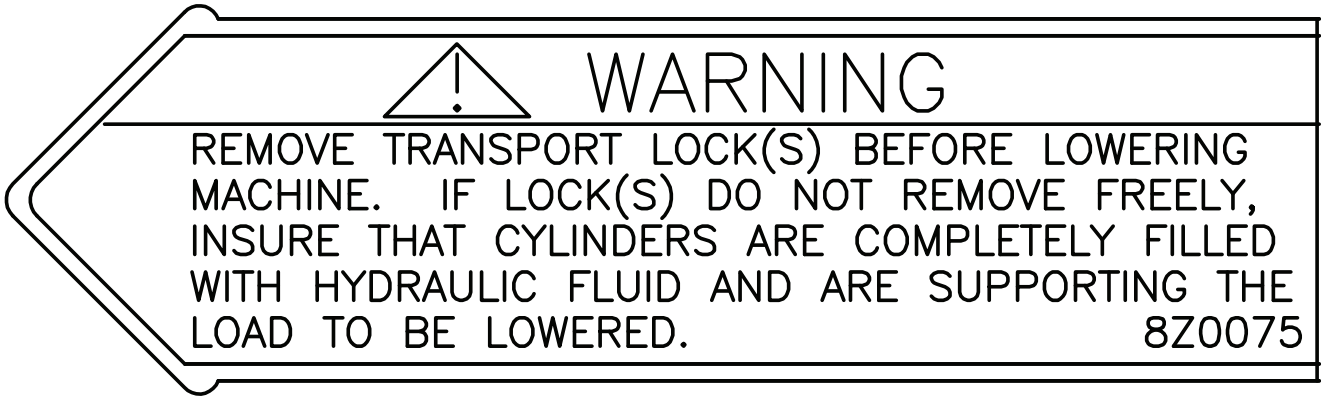
A one-way restrictor is installed in wing lowering hydraulic circuit. This has been done to reduce chance of wing free fall. Do not remove this restrictor.

8. Fully extend depth control cylinders and maintain hydraulic pressure for 30 seconds to insure that all air has been purged from the system.

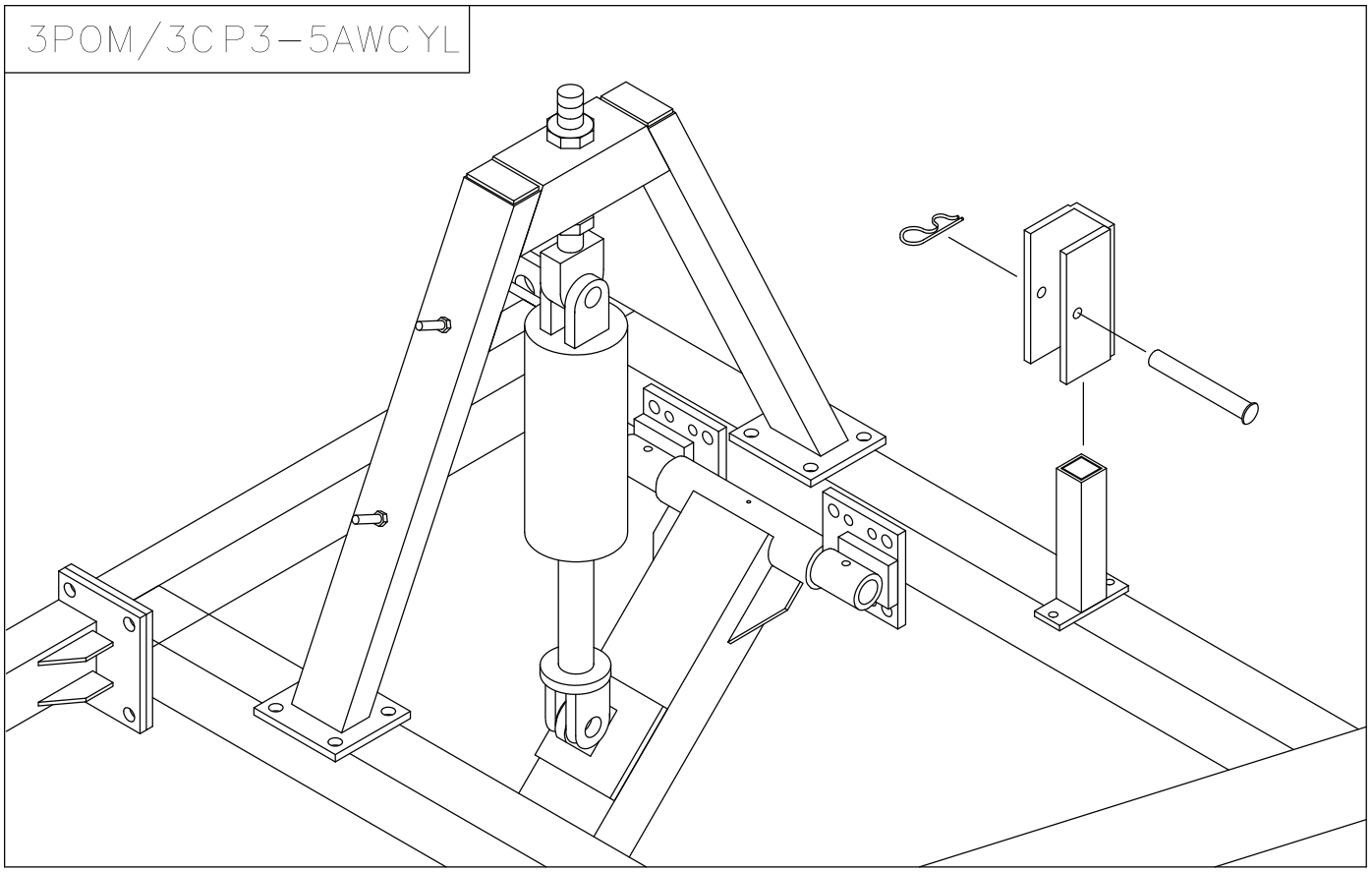



**NOTE:** This machine has rephasing style depth control cylinders. When cylinders are fully extended, oil will bypass through a rephasing slot on each cylinder in order to equalize the system.

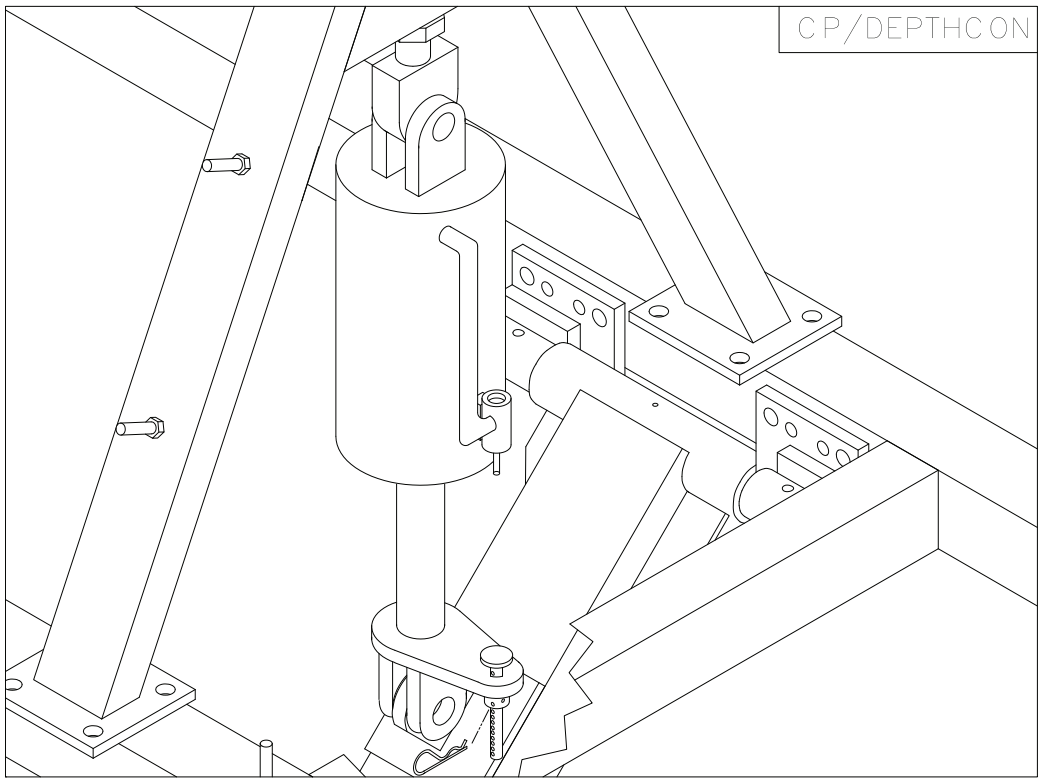
9. Remove depth control cylinder transport locks.



9. (Continued) – Store transport locks on holders.

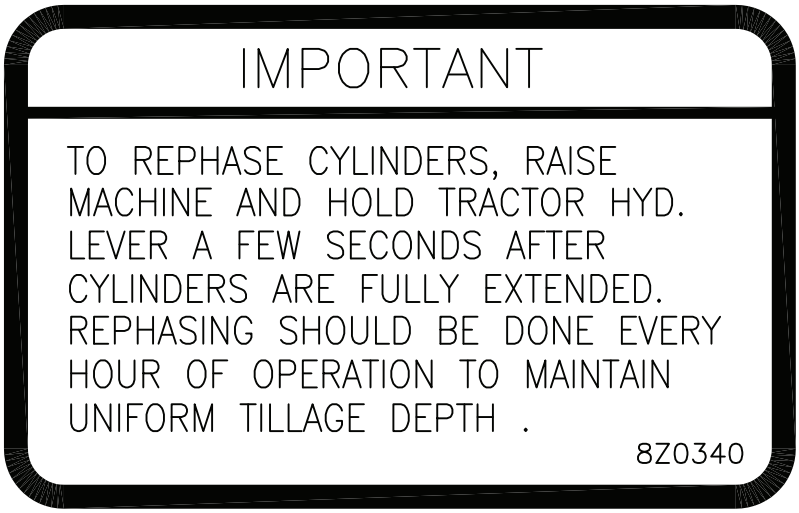



10. Become familiar with single point depth control. Control can be found on 6 x 10 cylinder located on lefthand wing. A hairpin clip is used to hold plunger in desired location.



## FIELD OPERATION

1. Rephase cylinders before starting field operation.




2. Choose a flat spot in a field to set tillage depth and level machine.

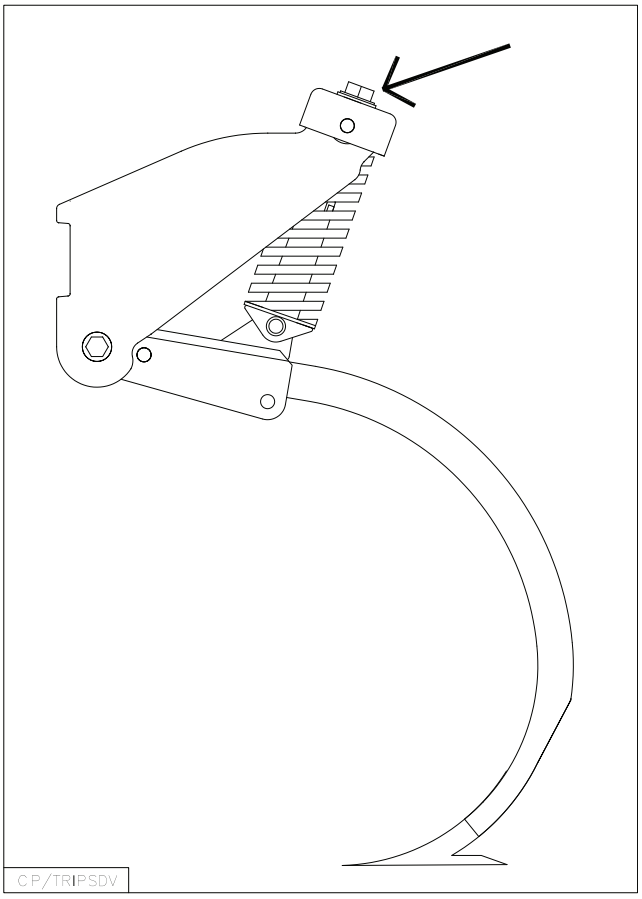
**IMPORTANT!**

The operator is responsible for adjusting machine since machine does not come “Field Ready” from factory.

3. Determine desired tillage depth by working test strips within the field.

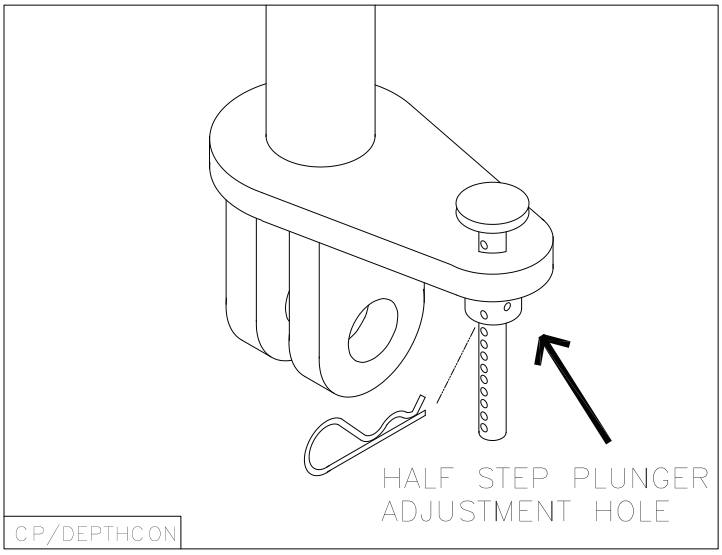
**NOTE:** Optimum performance of machine is achieved by tilling at a depth and moving at a speed that does not go beyond limit of trip assemblies. This limit is exceeded if connecting bolt (shown in the following drawing) continually rides above trip assembly cap.

3. (Continued) – Trip Assembly Limit

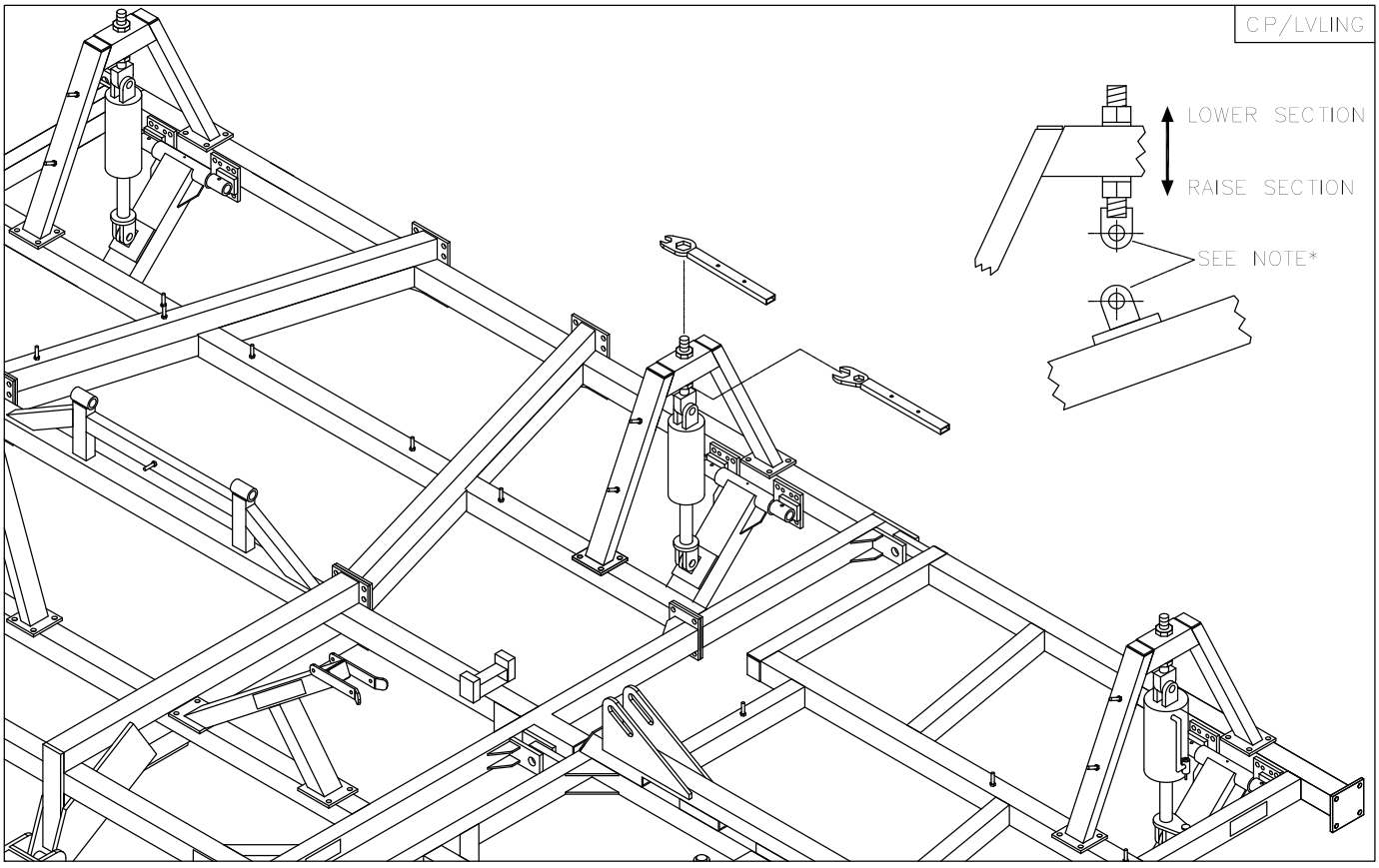



**NOTE:** Increased draft will occur if connecting bolt continually rides above trip assembly cap. This will consume horsepower as well as reduce life of trip assembly components.

4. After determining desired tillage depth, set depth control plunger accordingly. Standard plunger hole spacing gives 5/16” cylinder stroke adjustment. By rotating plunger 90 degrees, a half step adjustment is achieved.



5. Leveling coulter-chisel from side to side. Stop tractor with machine in the ground. Check depth of tillage on the left wing, center, and right wing. If leveling is necessary, use wrenches provided to adjust eyebolts on cylinder attachments located at rear of machine.




***NOTE**: Insure that cylinder attach holes are aligned when eyebolts are tightened.

**IMPORTANT!**

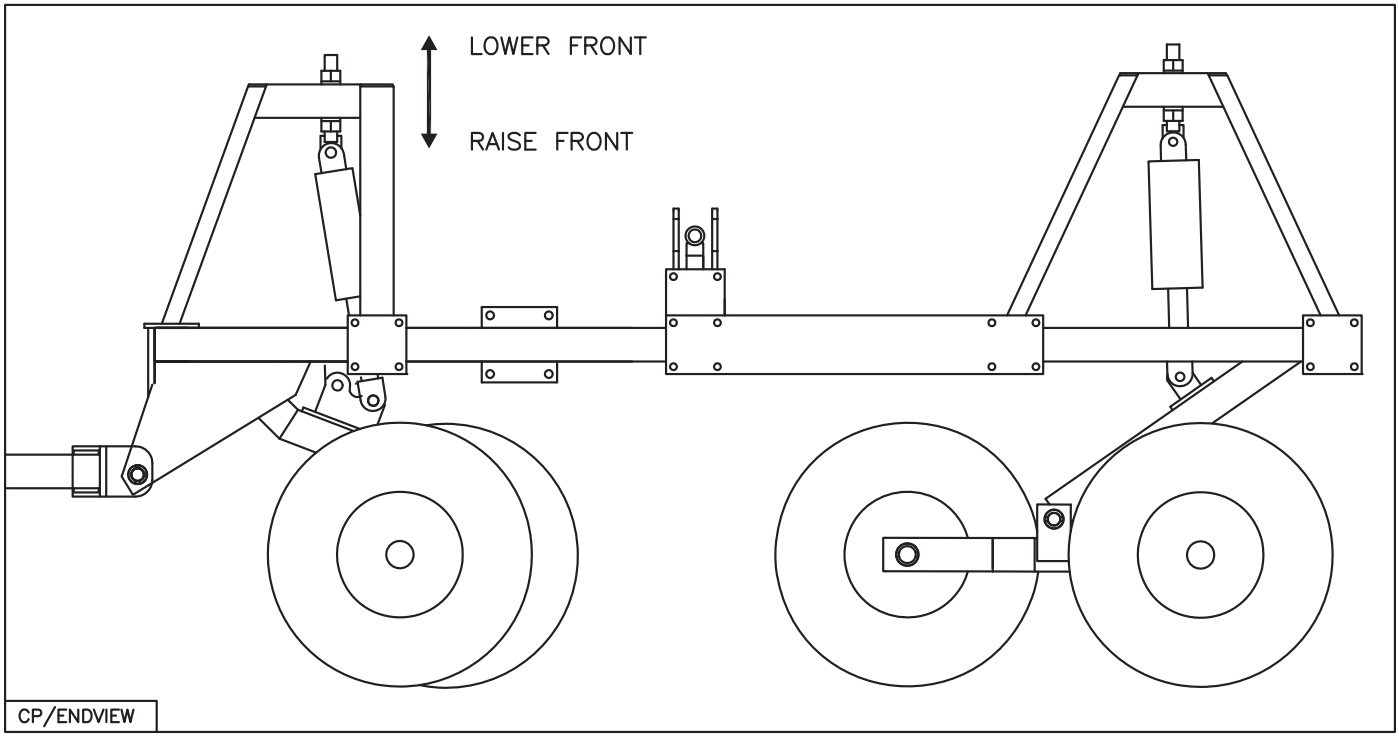
Pressure must be removed from cylinders before adjusting eyebolts. Rest machine on top of the ground, shut tractor off and relieve pressure.

One turn of 1-1/2" NC Cylinder Attach Eyebolt Nut changes tillage depth 3/8". One inch of cylinder stroke moves depth over 2 inches. Therefore, it may only be necessary to move eyebolts a small amount to attain correct adjustment of each section.

**NOTE:** It is best to check levelness after each adjustment by working test strips within the field.

6. Leveling machine from front to back. 16’ & 20’: Adjust hitch height to level machine at working depth. 32’-40’: With machine still in the ground, check depth of tillage in the front and the back. If leveling is necessary, use wrenches provided to adjust eyebolt on front wheel assembly up or down.

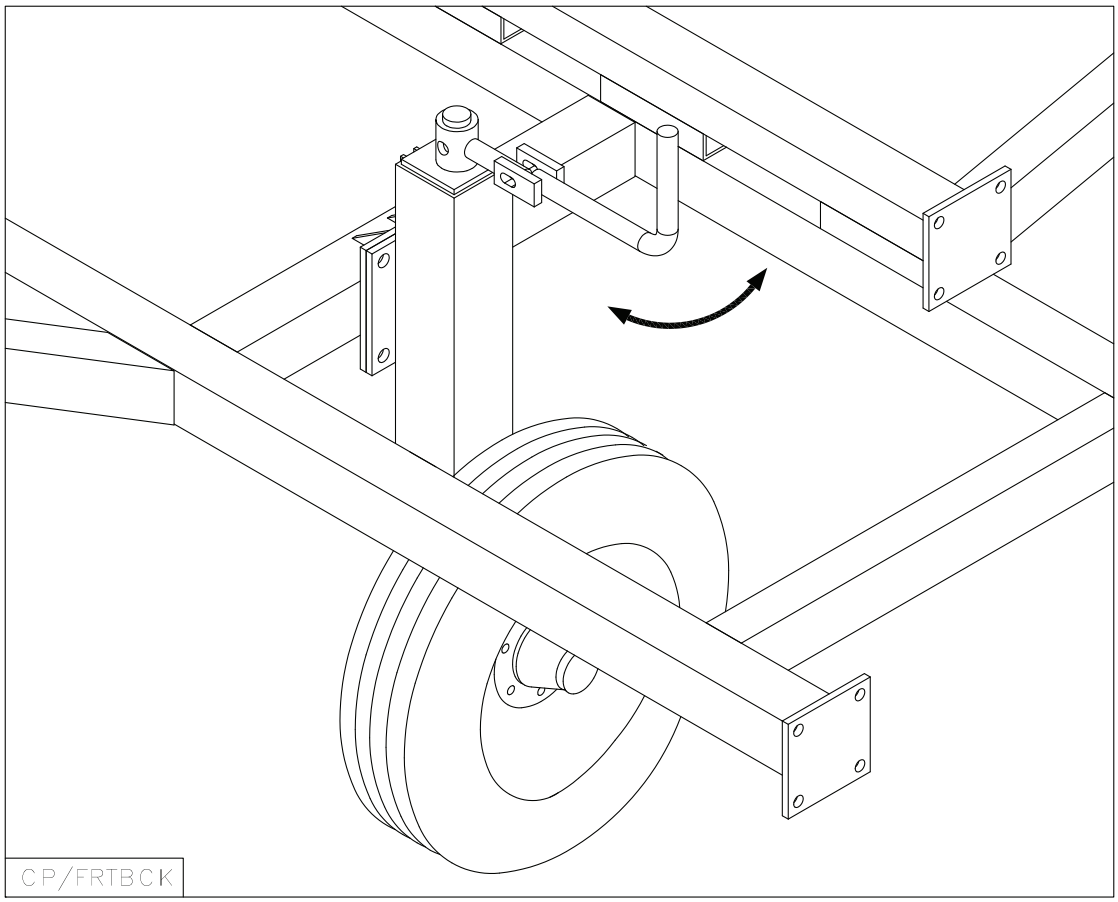
If Coulter gangs are supporting front weight of implement, adjusting the front wheels will not level the machine. In this case, adjust depth of coulter gangs to level machine.




**IMPORTANT!**

Pressure must be removed from cylinders before adjusting eyebolts. Rest machine on top of the ground. Shut tractor off and relieve pressure.

7. Setting gauge wheels. After depth has been established and coulter-chisel has been leveled, operator must set gauge wheels. Stop tractor with coulter-chisel in the ground. Adjust crank assembly until wheel rests on top of the ground. Set bolts are installed on each gauge wheel assembly. Adjust set bolts so gauge wheel depth can still be changed but rotation of assembly is limited. If running at a consistent depth, set bolts can be securely tightened to lock gauge wheels.




**IMPORTANT!**

Gauge wheels are only intended to stabilize the wings. They should not be used to support entire weight of wings. Tough soil conditions may create “suction” on the front. As long as the machine is not operated beyond trip assembly limit (see page 3-7), gauge wheels are being used properly. Failure to follow these guidelines may result in machine damage.

A depth decal is attached to the axle holder to help operator in setting gauge wheels.

8. Operation “Tips”

– The 5 solid lift arms on this machine are designed to prevent skewing from side to side. To avoid damage to lift arms and wheel assemblies, do not take sharp corners with machine in the ground.

– Floating hitch machines are designed to follow ground contours. This machine has a short wheel base in field position that allows it to smoothly follow through ditches and gullies. This machine will also follow deep furrows in the field. The operator may want to till through deep furrows at an angle to maintain a more uniform tillage depth.

– Remember to rephase cylinders every hour. If the machine is raised and lowered only a small amount during operation, cylinders will not remain in phase. Since each section is supported by individual cylinders, it is important to keep these cylinders in phase in order to maintain uniform tillage depth (See Page 3-6).

**NOTE:** Sweeps that are 14” and less can be used without trimming. Wider sweeps may need to be trimmed by tires and/or walking tandems.

## TRANSPORTING

1. Park on level surface with depth control cylinders fully raised.

2. Raise wings with caution. Operate tractor hydraulics from operator station only.


3. Install transport lock pins on wings and cylinder locks on depth control cylinders.

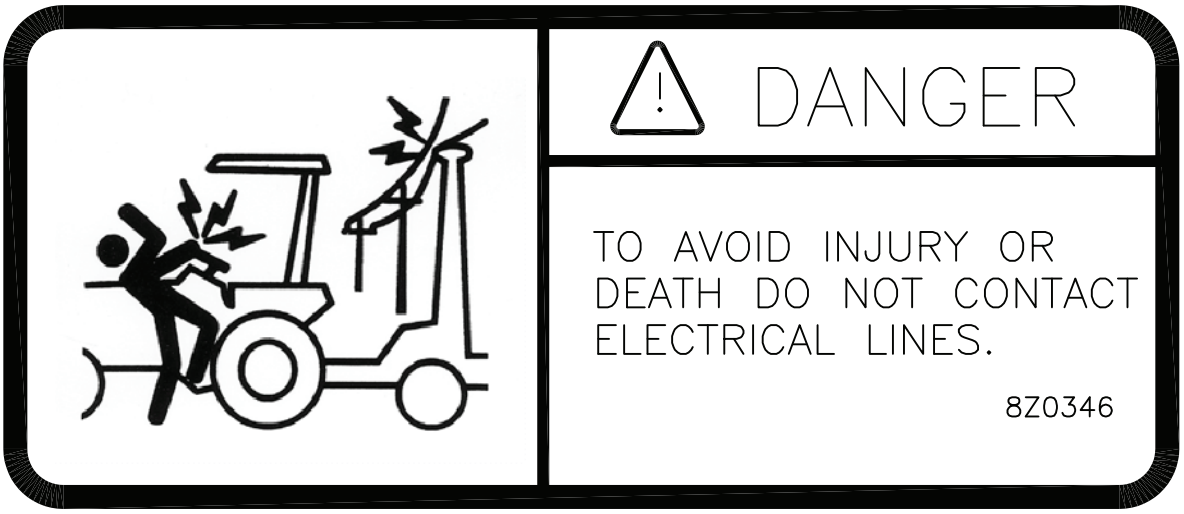
4. Use a safety chain between tractor drawbar and coulter-chisel hitch when transporting.

5. Only tow at a safe speed – 20 MPH MAXIMUM. Use caution when making corners or meeting traffic.

6. Follow all local laws governing transporting of farm machinery.

7. Be aware of and comply with all height and width transport requirements. (See specifications page 5-2).

8. Stay clear of overhead lines.




9. Avoid sharp turns on hard surfaces. Solid mounted lift arms may cause wheel assemblies to scuff. Damage to tires and machine could occur.

10. Frequently check for traffic from rear, especially during turns.

## UNHOOKING FROM TRACTOR

1. Lower machine and relieve hydraulic pressure from cylinders before disconnecting from tractor.

2. Disconnect hydraulics and Safety Light Kit wiring harness.

3. Rotate jack into standing position and extend jack.

4. Block tires to prevent movement of machine after unhooking.

5. Remove draw pin and safety chain.

## MAINTENANCE SAFETY

1. STOP engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting or maintaining.

2. BE CAREFUL when working around high pressure hydraulic system.

3. ALWAYS make sure that pressure is relieved from hydraulic circuits before servicing or disconnecting from tractor.

4. USE EXTREME CARE when making adjustments.

5. KEEP CHILDREN AWAY from machinery at all times.

6. NEVER ALLOW anyone to walk or work under a raised piece of equipment without installing cylinder and transport locks.

## MAINTENANCE FOR AFTER THE FIRST DAY AND WEEK OF OPERATION

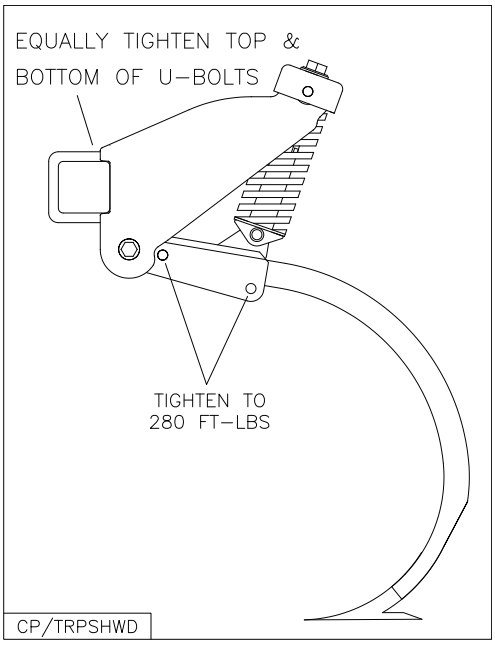
1. Grease lift arms, walking tandem assemblies, and hitch pivot. (There are a total of 12 daily grease zerks).

2. Check all hydraulic components for leaks daily.

3. Check tightness of all wheel bolts daily.

4. Check tightness of wheel bearings (See Page 6-21).

5. Check tightness of the following bolts on the trip assemblies.




6. Check tightness of all hardware. Pay special attention to the hitch bolts and all pivot retaining bolts.

## DAILY MAINTENANCE

1. Grease lift arms, walking tandem assemblies and hitch pivot.
2. Check all hydraulic components for leaks.
3. Check tightness of all wheel bolts.


## PERIODIC MAINTENANCE

1. Repack wheel bearings and check tightness (See Page 6-21).
2. Check tire air pressure (See specification page 5-2).
3. Check tightness of trip assembly hardware as explained under “Maintenance for after the first day and week of operation” (Page 4-1).
4. Check tightness of all hardware. Pay special attention to the hitch bolts and all pivot retaining bolts.
5. Check coulter-chisel for damaged or worn parts. Replace as needed.

## STORAGE

1. Clean and remove all excessive dirt and grease from coulter-chisel.
2. Grease all zerks.
3. To prevent rusting, repaint any areas that have been worn, chipped or scratched.
4. Retract cylinders when possible. Apply grease* to any exposed part of cylinder shafts.

***NOTE:** Before returning machine into service, all grease must be removed from cylinder shafts to prevent damage to seals.

| PROBLEM | CAUSE | CORRECTION |
|---|---|---|
| 1. Not tilling level. | A. Depth control cylinders out of phase. | Rephase cylinders. See page 3-6. |
| | B. Eyebolts not adjusted properly. | Adjust with wrenches provided. See Pages 3-8 and 3-9. |
| | C. Gauge wheels not adjusted properly. (32'-40') | Adjust gauge wheels so they ride freely on top of the ground. |
| | D. Hard Soils conditions. | Use different tillage tool or perform multiple passes, starting at less depth. |
| 2. Not pulling straight. | A. Not tilling level. | See "Not tilling level" above. |
| 3. Inconsistent tillage depth. | A. Excessive travel speed. | Reduce speed. |
| | B. Hard soil conditions. | Use different tillage tool or perform multiple passes, starting at less depth. |
| | C. Deep furrows. | Travel across field furrows at an angle. |
| 4. Plugging. | A. Working in extremely heavy trash. | If equipped with mounted harrows, reduce aggressiveness of harrows or lock harrows in the up position. |
| | B. Tillage tool (spike, sweep, etc.) causing plugging. | Change type of tool. Make sure twisted spikes are not throwing soil towards wheels. |
| 5. Poor penetration. | A. Machine not running level front to back. | Adjust eyebolts on front center wheel assembly. |
| | B. Gauge wheels adjusted improperly. | Adjust gauge wheels so they ride freely on top of the ground. |
| | C. Hard soil conditions. | Use different tillage tool. |
| 6. Depth control cylinders not working properly. | A. Depth control cylinders out of phase. | Rephase cylinders by fully extending and holding tractor remote lever for 30 seconds. |
| | B. Hydraulic hoses not connected properly or faulty hyd. coupler. | Reconnect hydraulic hoses or replace hydraulic coupler. |
| | C. Tractor hydraulics not set properly. | Adjust tractor hydraulic flow rate to maximum on Depth Control Circuit. |
| 7. Wing lift cylinders move too fast. (32'-40') | A. One way restrictor(s) not installed properly. | Check restrictor(s) (PN 8J7116). Arrow must point towards cylinder. |
| | B. Tractor hydraulics not set properly. | Reduce flow rate to Wing Lift Cylinder Circuit. |

## WIDTH, HEIGHT, WEIGHT, LENGTH

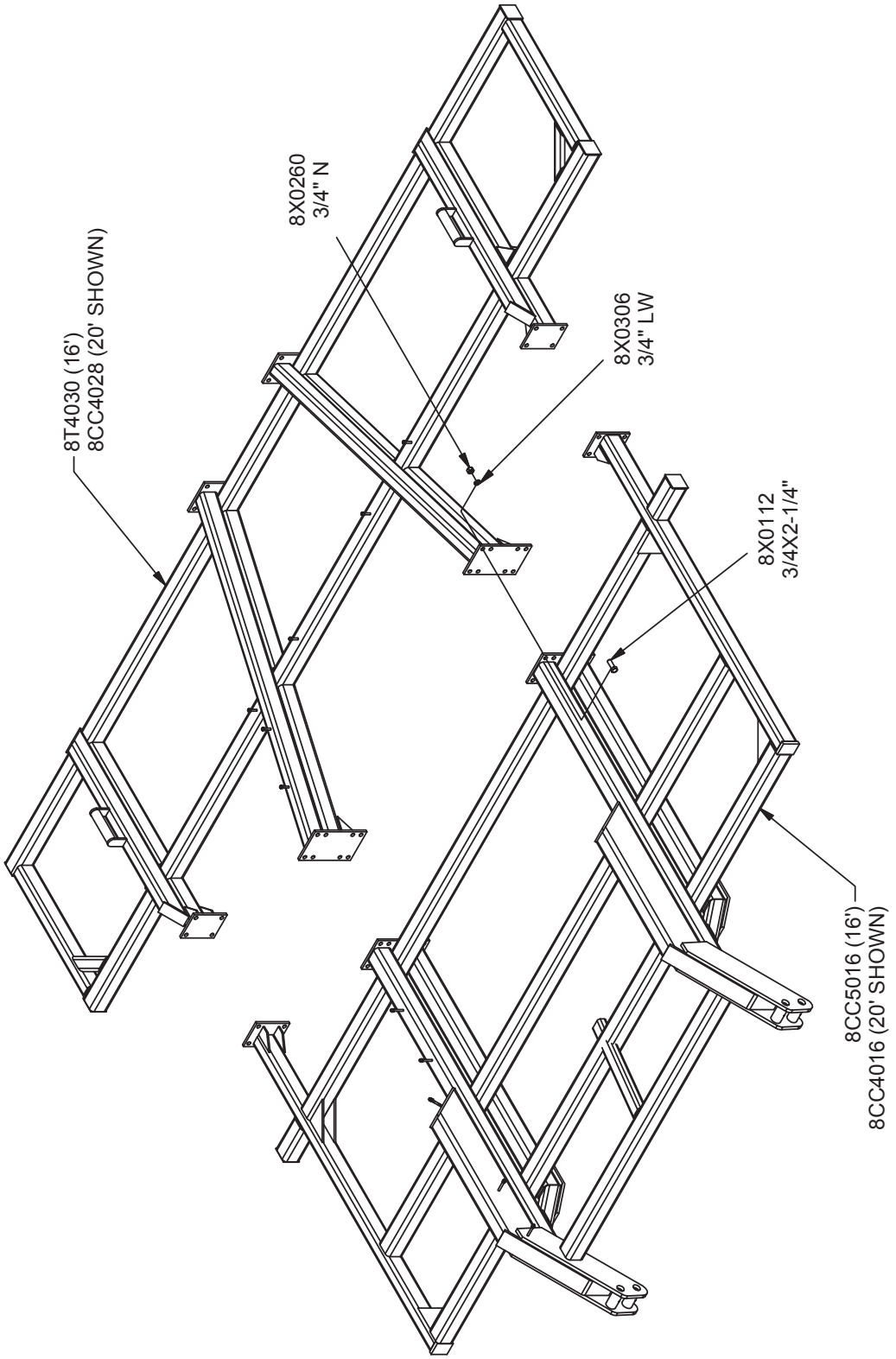
| SIZE | APPROX. TRANSPORT WIDTH | APPROX TRANSPORT HEIGHT | STANDARD WEIGHT | LENGTH W/4 BAR 106 |
|---|---|---|---|---|
| 16’ | 16’6” | 8’ | 11,300 | 39’ |
| 20’ | 20’6” | 8’ | 12,780 | 39’ |
| 32’ | 19’6” | 12’8” | 20,520 | 40’ |
| 36’ | 19’6” | 14’6” | 22,200 | 40’ |
| 40’ | 19’6” | 16’3” | 25,900 | 40’ |

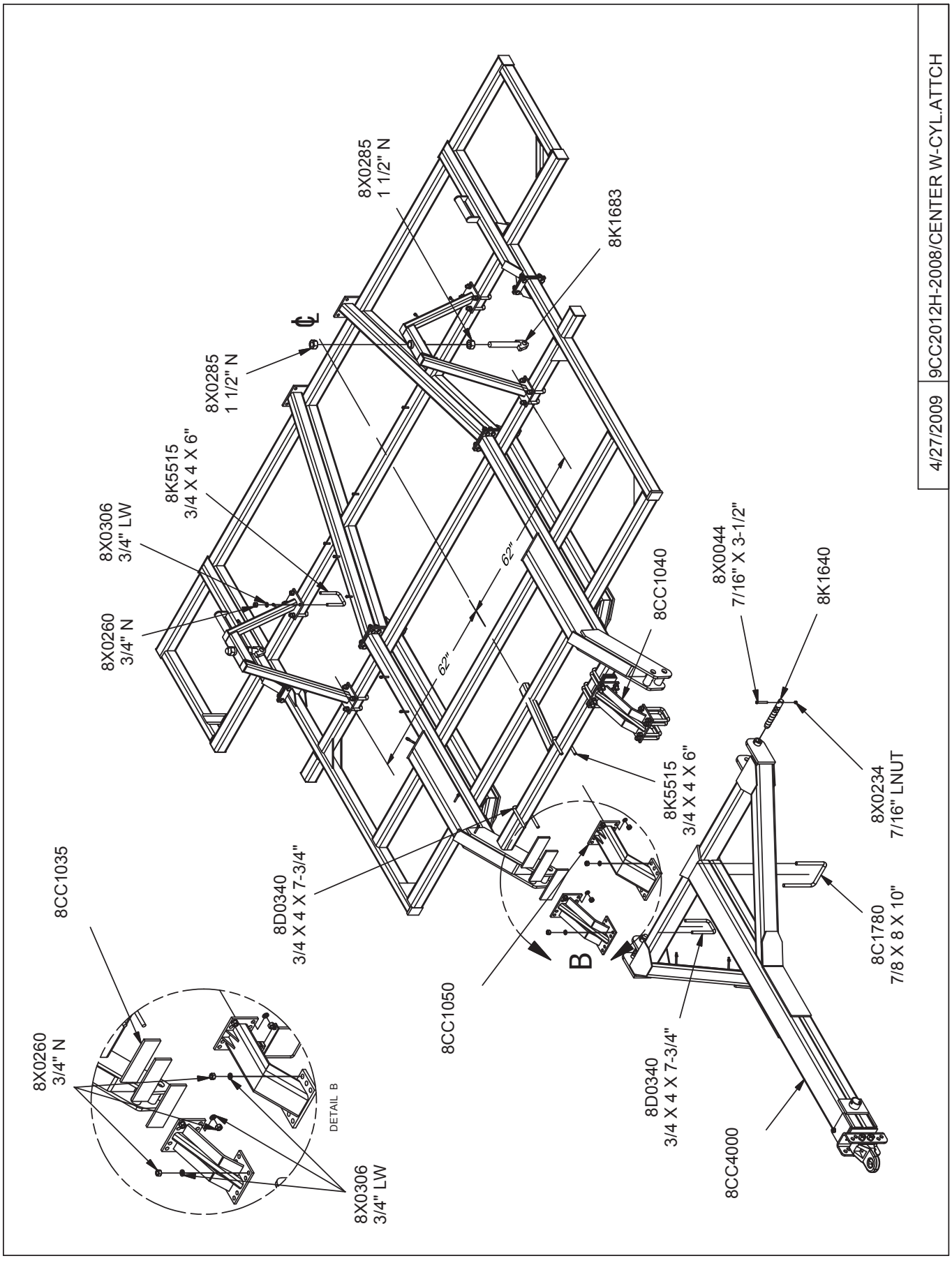
## TIRE SPECIFICATIONS

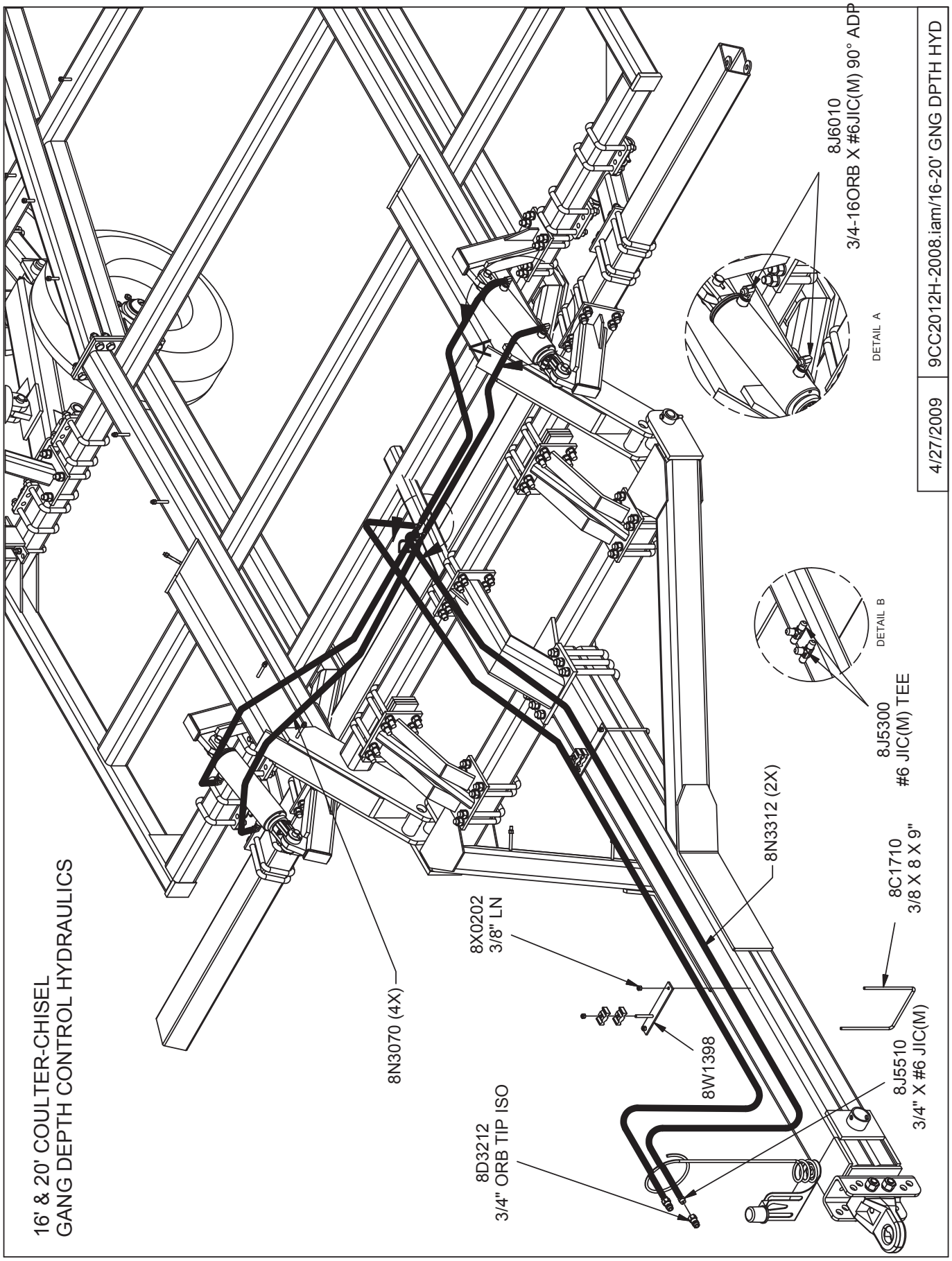
| LOCATION | TIRE SIZE | PLY RATING | INFLATION PRESSURE (PSI) |
|---|---|---|---|
| CENTER/WINGS | 11L x 15 | 10 | 44* |
| CENTER/WINGS | 11L & 12.5L x 15 | LRF | 90* |
| GAUGE WHEEL | 11L x 15 | 10 | 34 |

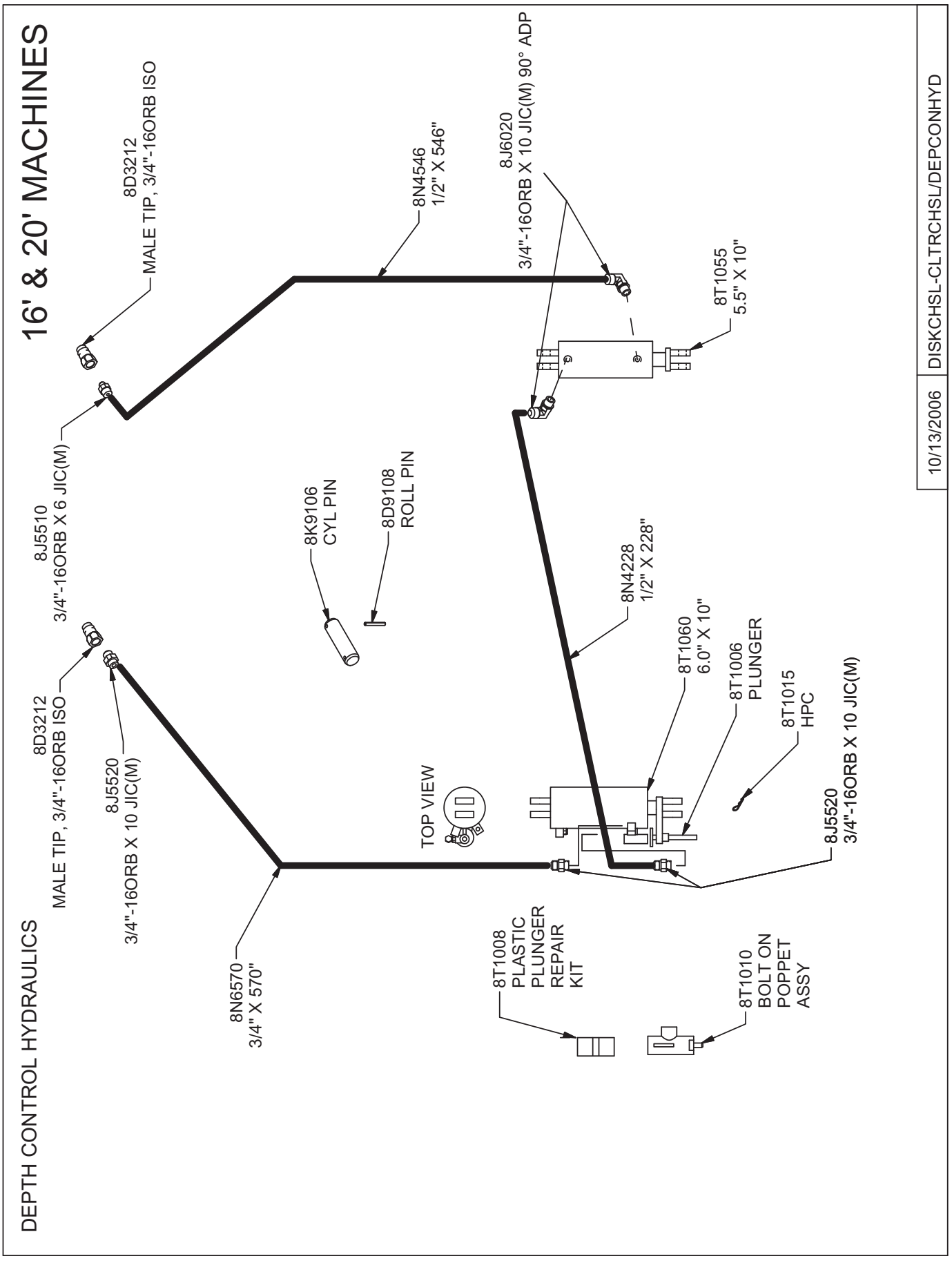
* To increase penetration depth, inflation pressure can be reduced by up to 33% on rear tires and 25% on front center tires.

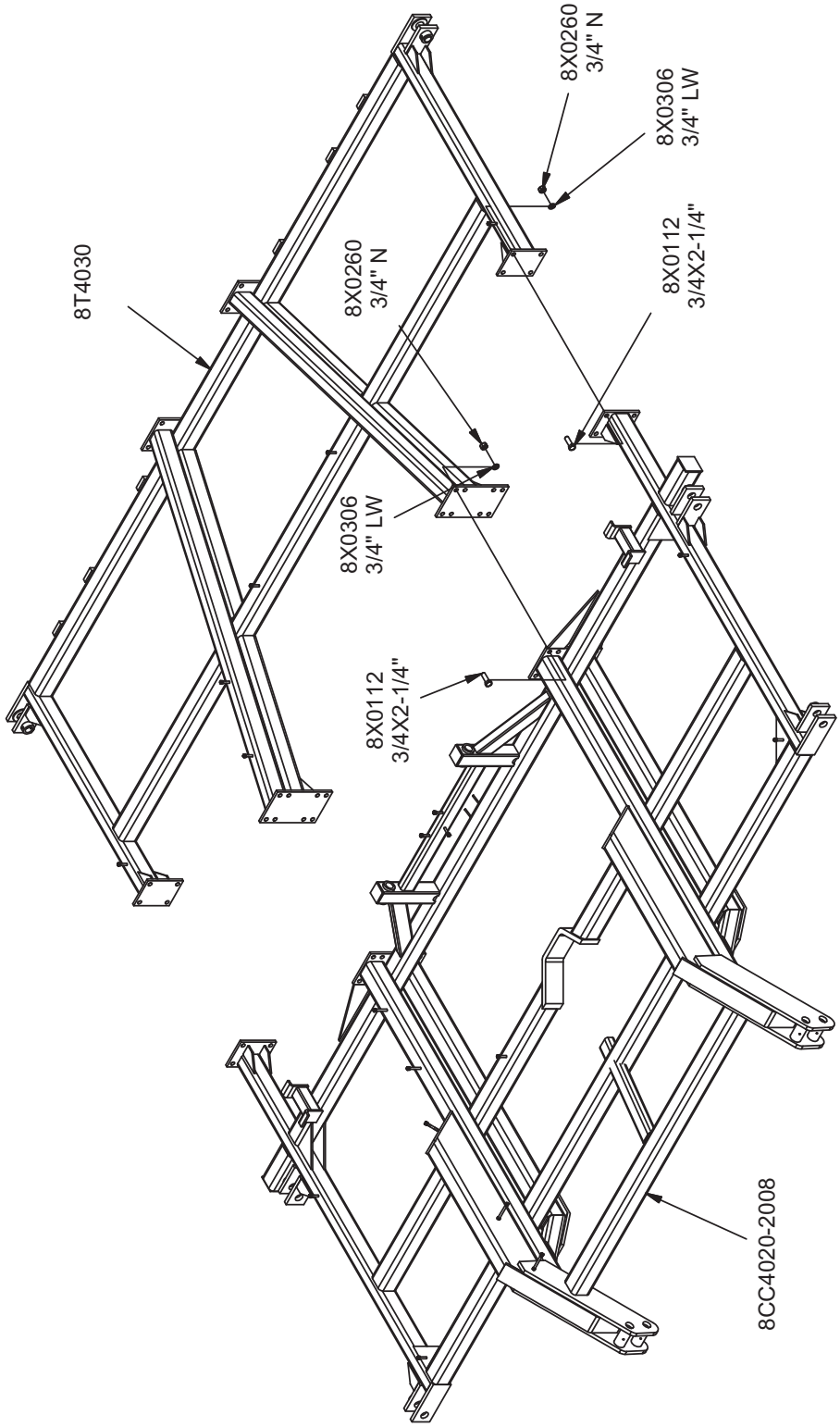
BRING YOUR OWNER REGISTER INFORMATION LOCATED AT THE BEGINNING OF THIS MANUAL WHEN ORDERING PARTS (SERIAL NUMBER IS LOCATED BY THE HITCH PIECE).


16' & 20' CENTER
8T4030 (16')
8CC4028 (20' SHOWN)
8X0260
3/4" N
8X0306
3/4" LW
8X0112
3/4X2-1/4"
8CC5016 (16')
8CC4016 (20' SHOWN)
4/27/2009
9CC2012H-2008.iam/CENTER

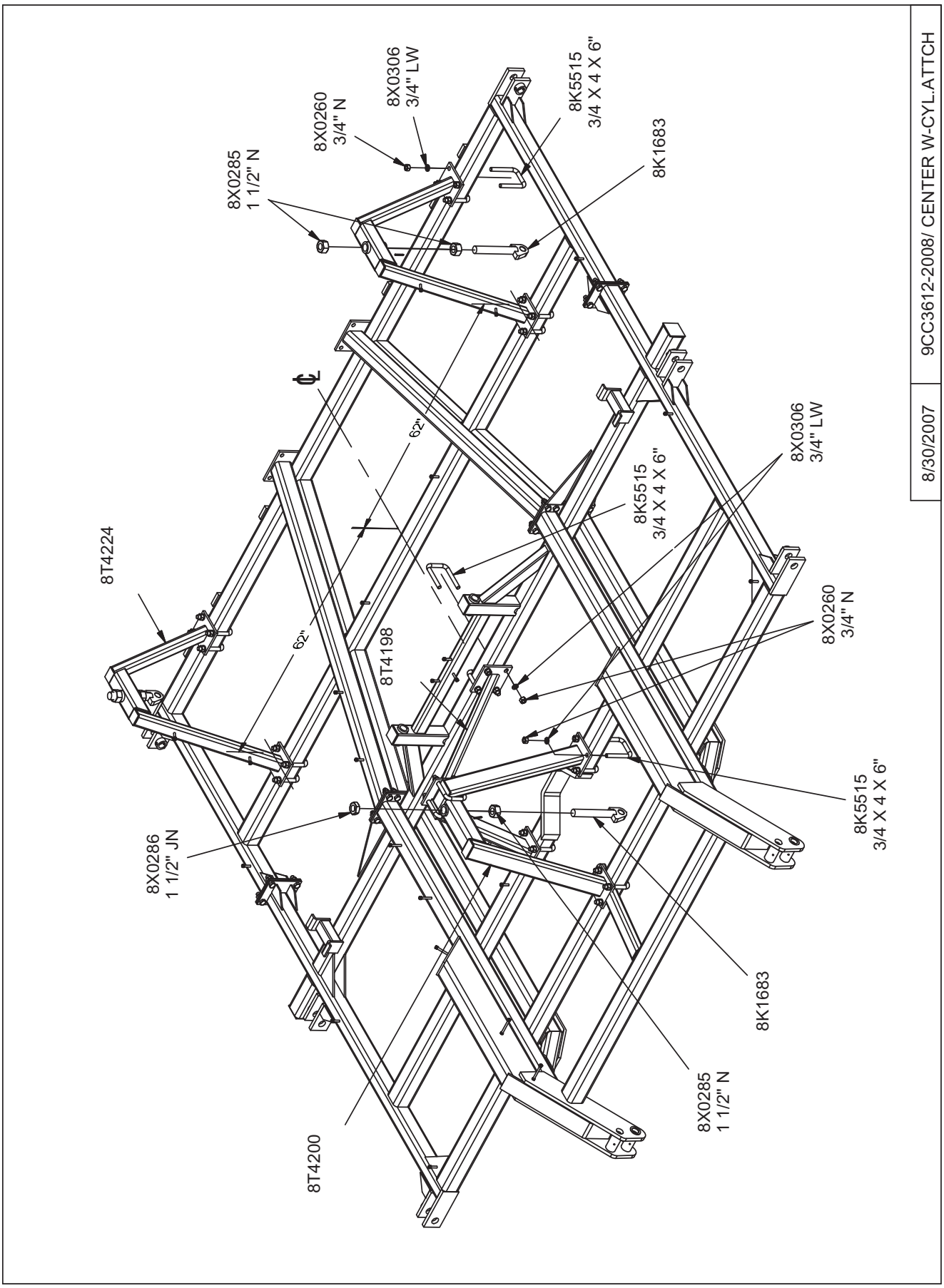

4/27/2009
9CC2012H-2008/CENTER W-CYL.ATTCH
8X0285
1 1/2" N
8K1683
8X0285
1 1/2" N
8K5515
3/4 X 4 X 6"
8X0306
3/4" LW
8X0260
3/4" N
62"
62"
8CC1040
8X0044
7/16" X 3-1/2"
8K1640
8K5515
3/4 X 4 X 6"
8X0234
7/16" LNUT
8D0340
3/4 X 4 X 7-3/4"
8CC1035
8X0260
3/4" N
DETAIL B
8X0306
3/4" LW
8CC1050
8D0340
3/4 X 4 X 7-3/4"
8C1780
7/8 X 8 X 10"
8CC4000


16' & 20' COULTER-CHISEL
GANG DEPTH CONTROL HYDRAULICS
8N3070 (4X)
8X0202
3/8" LN
8W1398
8D3212
3/4" ORB TIP ISO
8N3312 (2X)
8C1710
3/8 X 8 X 9"
8J5510
3/4" X #6 JIC(M)
8J5300
#6 JIC(M) TEE
DETAIL B
8J6010
3/4-16ORB X #6JIC(M) 90° ADP
DETAIL A
4/27/2009
9CC2012H-2008.iam/16-20' GNG DPTH HYD

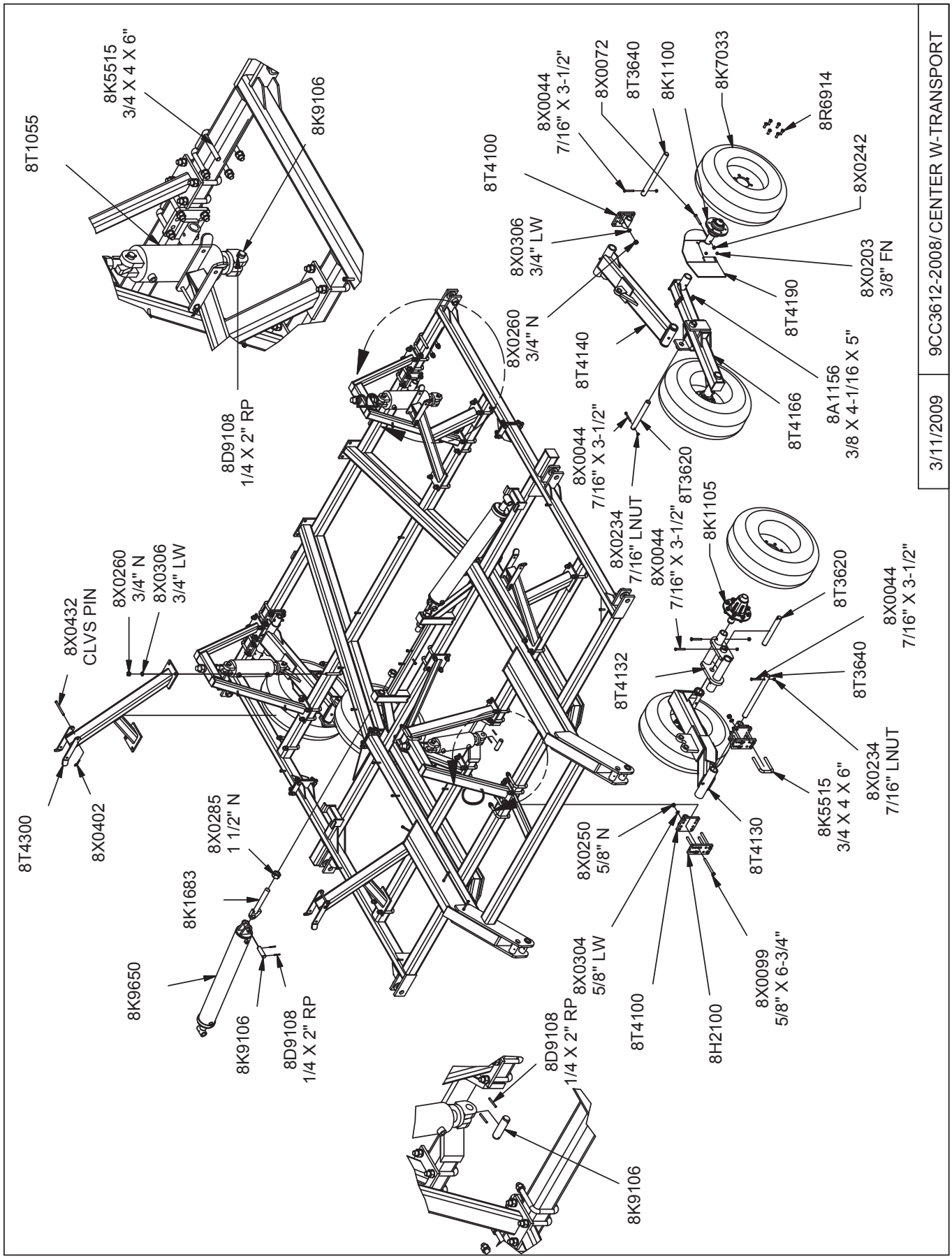

16' & 20' MACHINES
DEPTH CONTROL HYDRAULICS
10/13/2006
DISKCHSL-CLTRCHSL/DEPCONHYD
8D3212
MALE TIP, 3/4"-16ORB ISO
8N4546
1/2" X 546"
8J6020
3/4"-16ORB X 10 JIC(M) 90° ADP
8T1055
5.5" X 10"
8J5510
3/4"-16ORB X 6 JIC(M)
8K9106
CYL PIN
8D9108
ROLL PIN
8N4228
1/2" X 228"
8T1060
6.0" X 10"
8T1006
PLUNGER
8T1015
HPC
8J5520
3/4"-16ORB X 10 JIC(M)
8D3212
MALE TIP, 3/4"-16ORB ISO
8J5520
3/4"-16ORB X 10 JIC(M)
TOP VIEW
8N6570
3/4" X 570"
8T1008
PLASTIC
PLUNGER
REPAIR
KIT
8T1010
BOLT ON
POPPET
ASSY




3/9/2009 | 9CC3612-2008.iam/CENTERS




8/30/2007 | 9CC3612-2008/ CENTER W-CYL.ATTCH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8K5515
3/4 X 4 X 6"
8K9106
8D9108
1/4 X 2" RP
8T4100
8X0044
7/16" X 3-1/2"
8X0072
8T3640
8K1100
8K7033
8R6914
8X0242
8X0306
3/4" LW
8X0260
3/4" N
8X0203
3/8" FN
8T4190
8T4140
8T4166
8A1156
3/8 X 4-1/16 X 5"
8X0044
7/16" X 3-1/2"
8T3620
8X0234
7/16" LNUT
8K1105
8X0044
7/16" X 3-1/2"
8T3620
8X0044
7/16" X 3-1/2"
8T3640
8T4132
8X0234
7/16" LNUT
8K5515
3/4 X 4 X 6"
8T4130
8X0250
5/8" N
8X0304
5/8" LW
8X0099
5/8" X 6-3/4"
8H2100
8T4100
8K9106
8D9108
1/4 X 2" RP
8K9650
8K9106
8D9108
1/4 X 2" RP
8K1683
8X0285
1 1/2" N
8T4300
8X0402
8X0432
CLVS PIN
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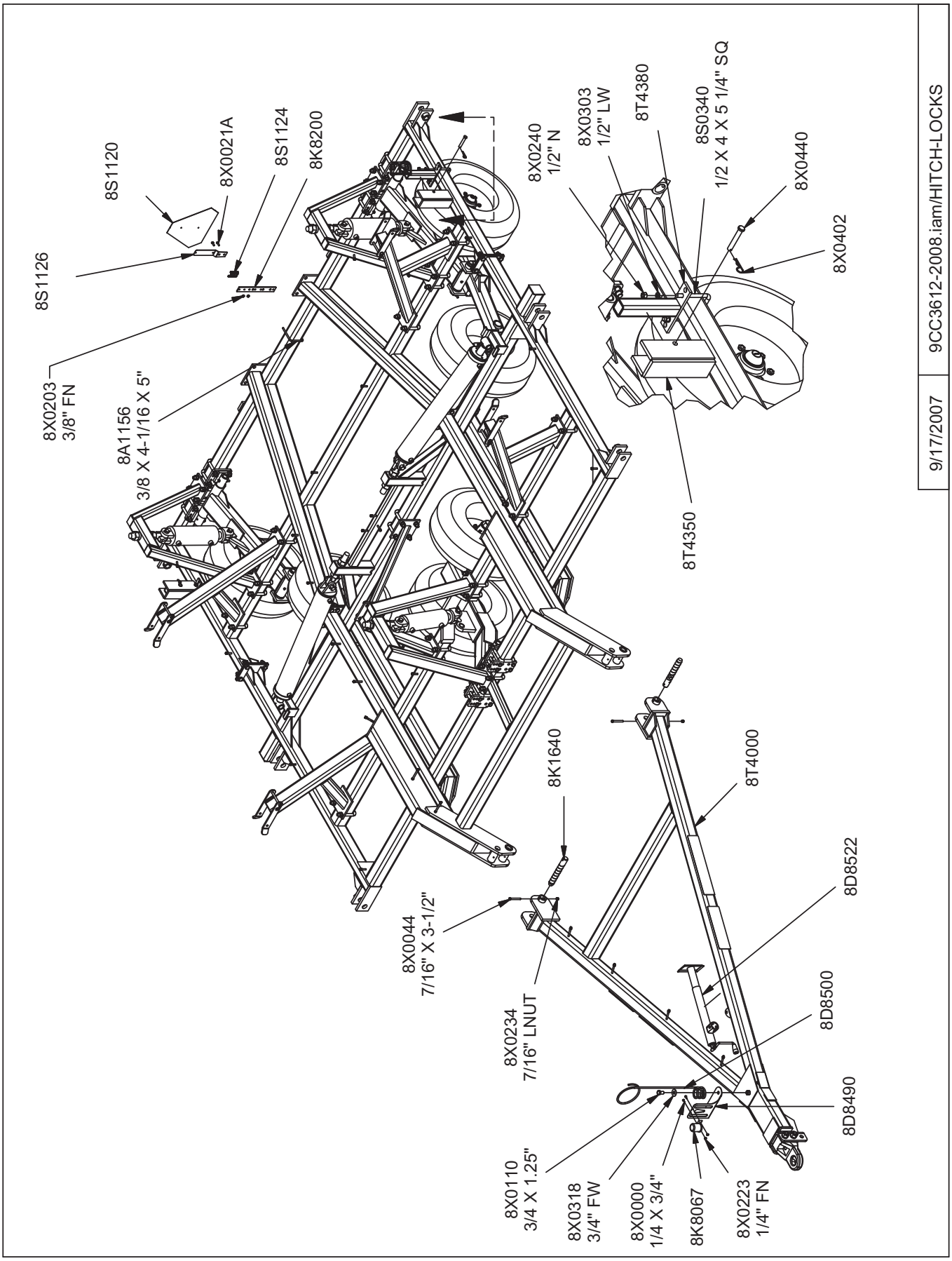
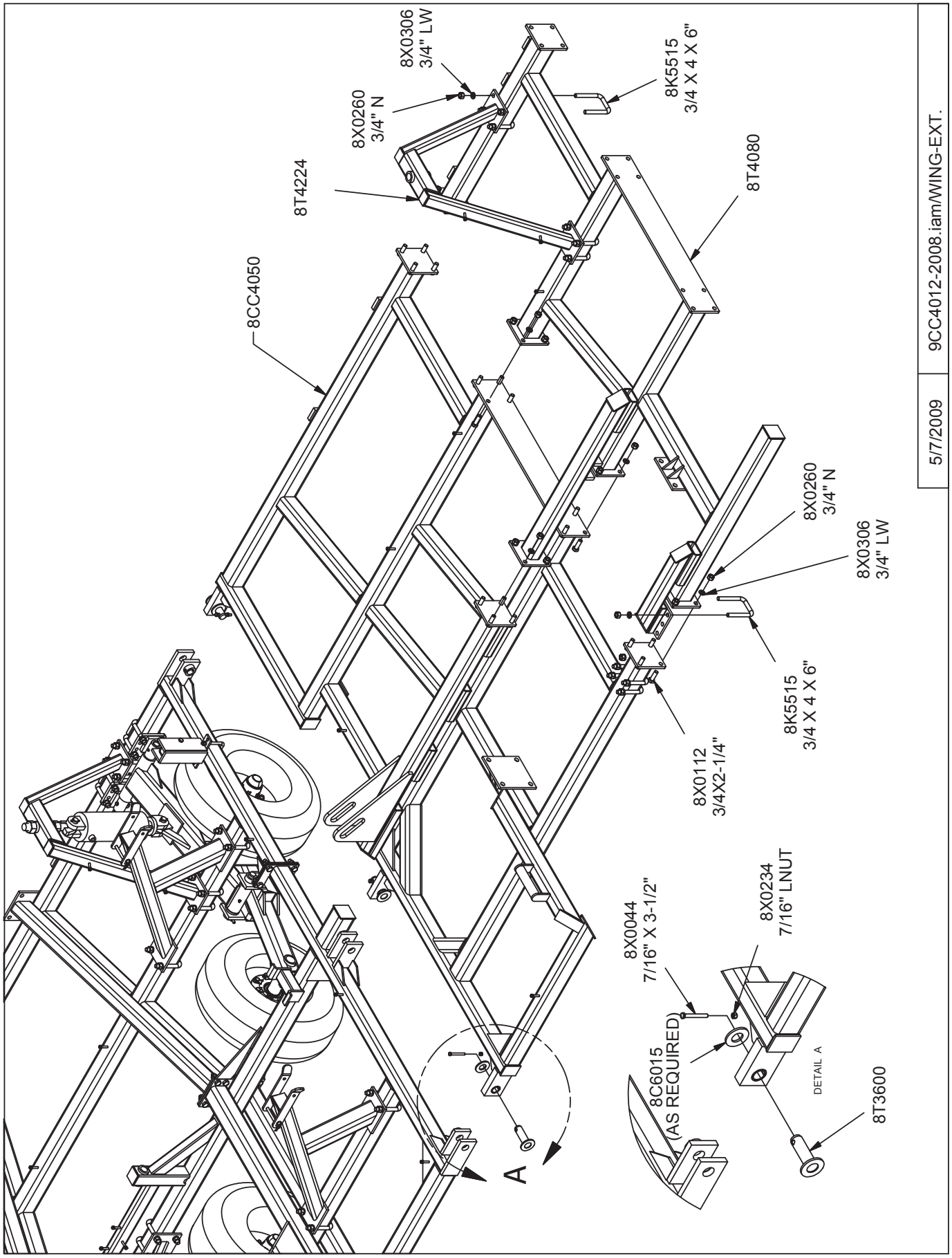
3/4" N
8X0306
3/4" LW
3/11/2009
9CC3612-2008/CENTER W-TRANSPORT




9/17/2007 | 9CC3612-2008.iam/HITCH-LOCKS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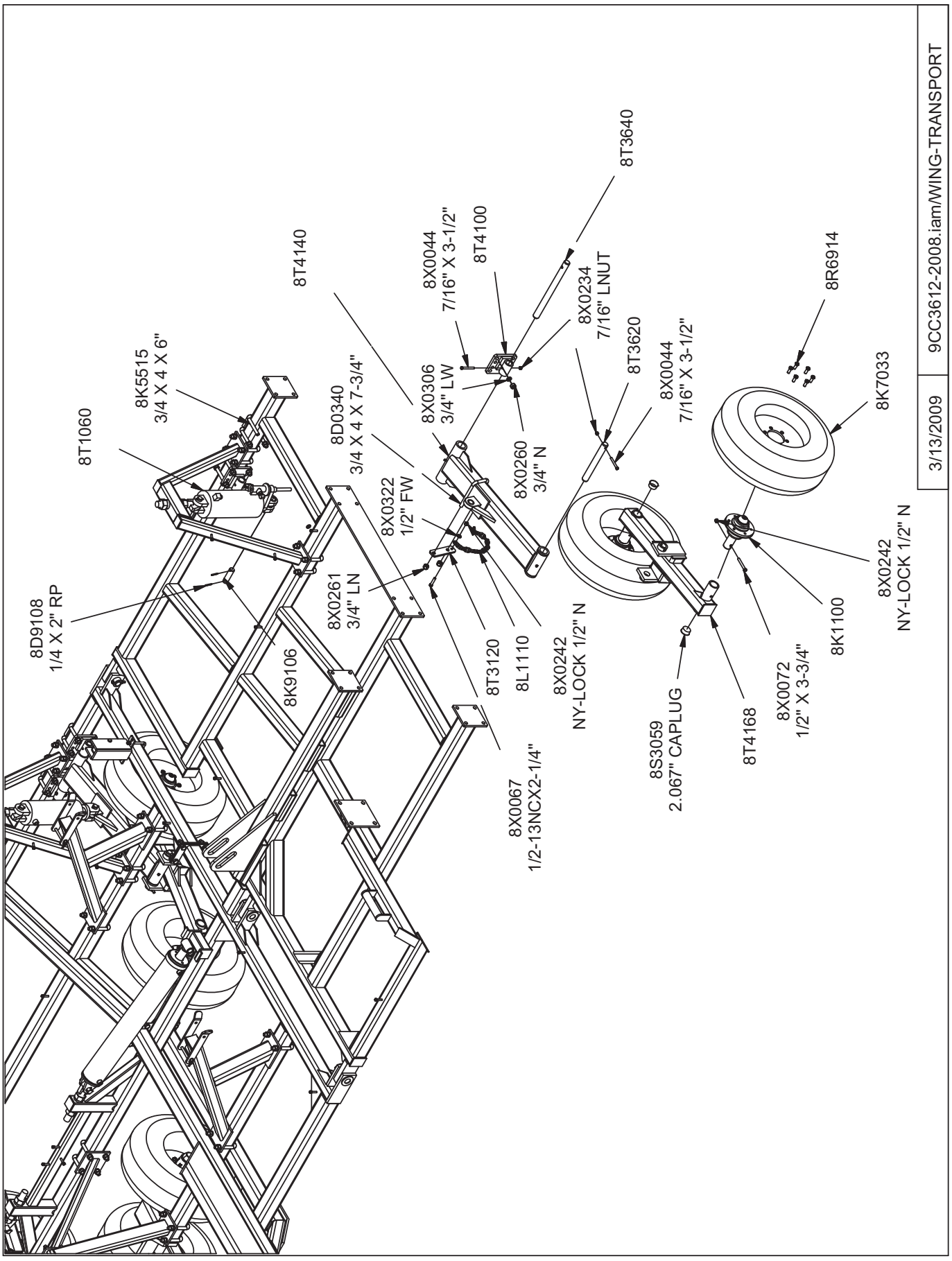
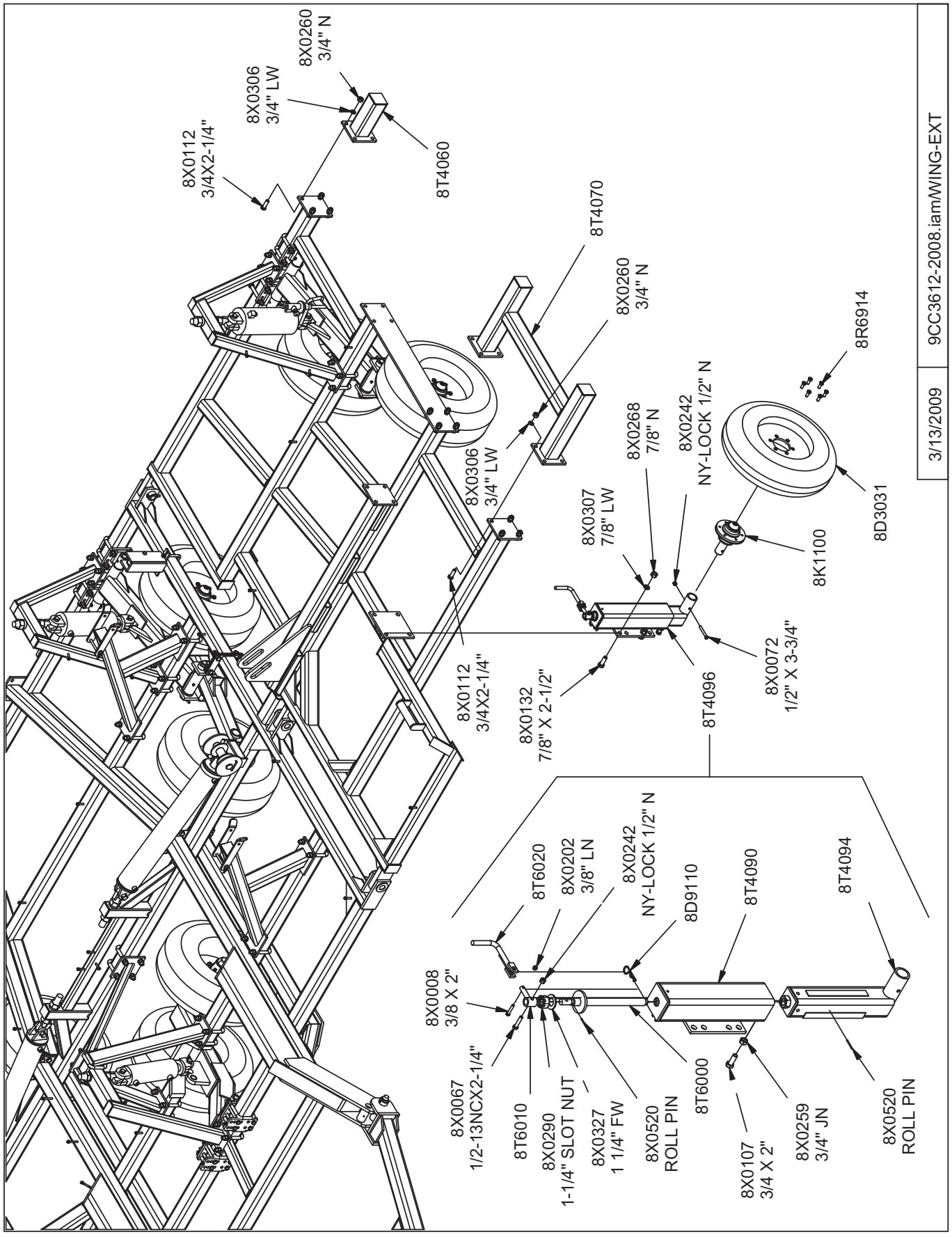
8X0260
3/4" N
8K5515
3/4 X 4 X 6"
8T4224
8T4080
8CC4050
8X0260
3/4" N
8X0306
3/4" LW
8K5515
3/4 X 4 X 6"
8X0112
3/4X2-1/4"
8X0044
7/16" X 3-1/2"
8X0234
7/16" LNUT
8C6015
(AS REQUIRED)
DETAIL A
8T3600
A
5/7/2009
9CC4012-2008.iam/WING-EXT.


8T1060
8K5515
3/4 X 4 X 6"
8T4140
8D0340
3/4 X 4 X 7-3/4"
8X0044
7/16" X 3-1/2"
8T4100
8T3640
8X0234
7/16" LNUT
8R6914
8X0306
3/4" LW
8T3620
8X0044
7/16" X 3-1/2"
8K7033
8X0322
1/2" FW
8X0260
3/4" N
8D9108
1/4 X 2" RP
8X0261
3/4" LN
8K9106
8T3120
8L1110
8X0242
NY-LOCK 1/2" N
8X0242
NY-LOCK 1/2" N
8K1100
8X0067
1/2-13NCX2-1/4"
8S3059
2.067" CAPLUG
8T4168
8X0072
1/2" X 3-3/4"
3/13/2009
9CC3612-2008.iam/WING-TRANSPORT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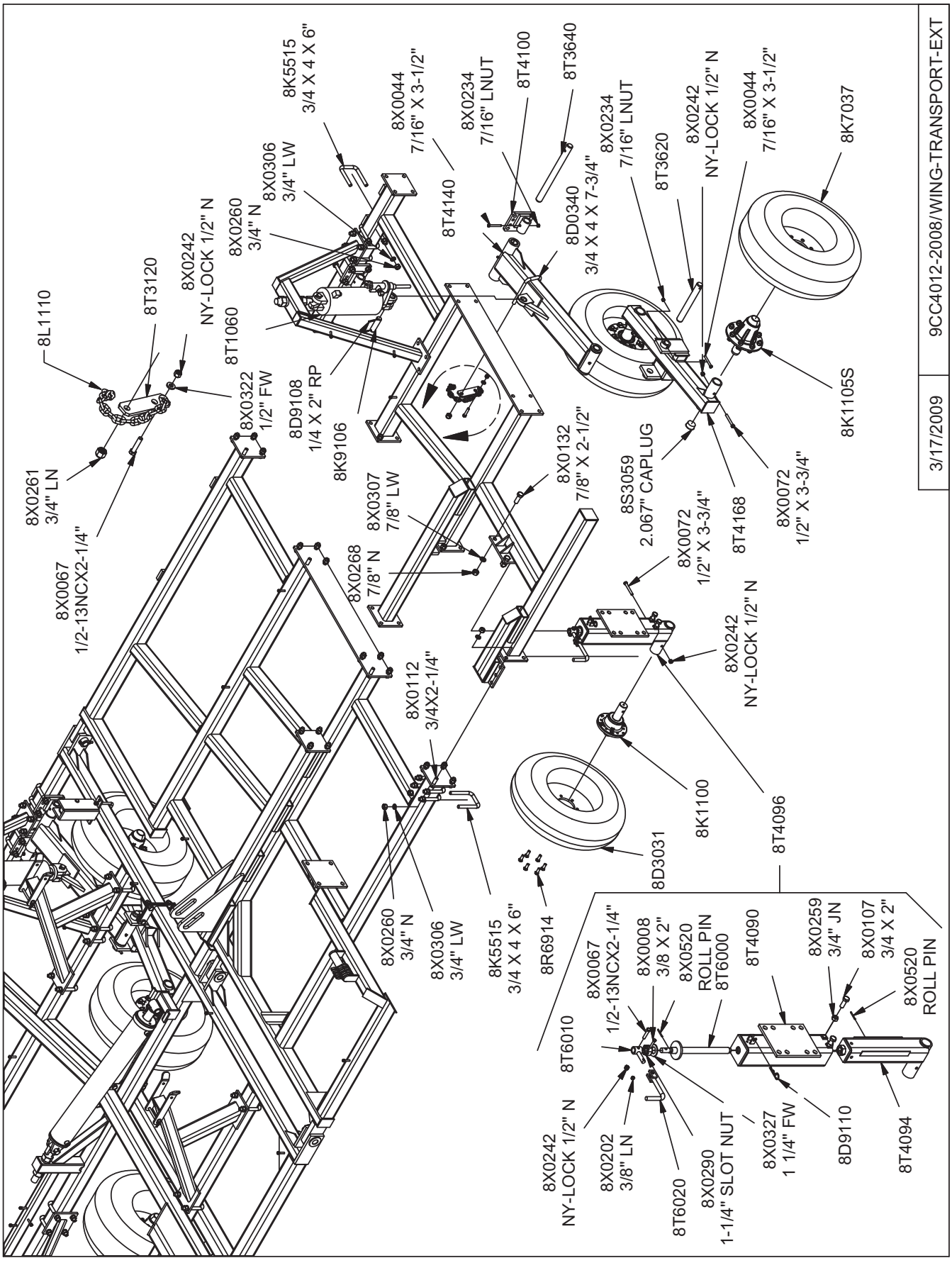
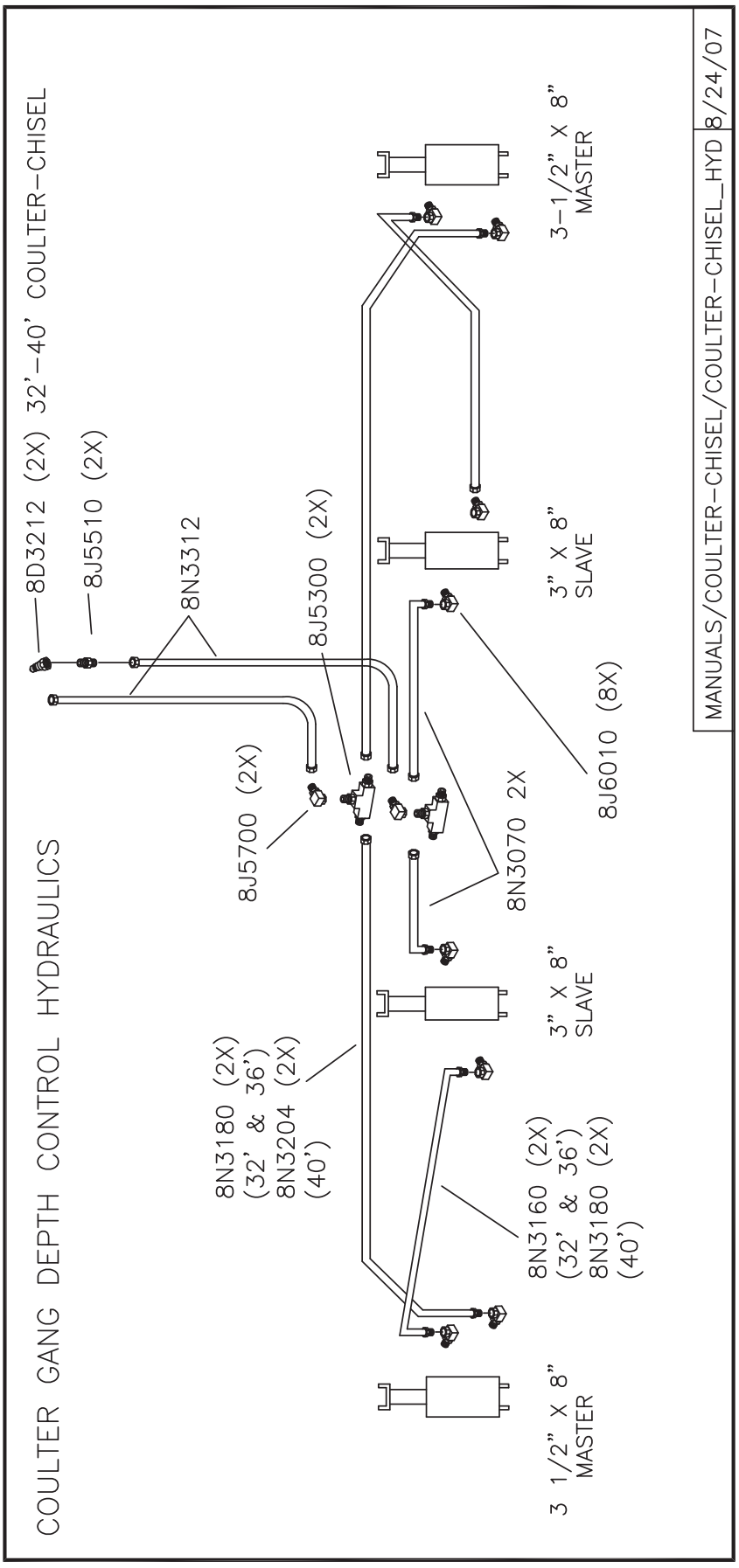
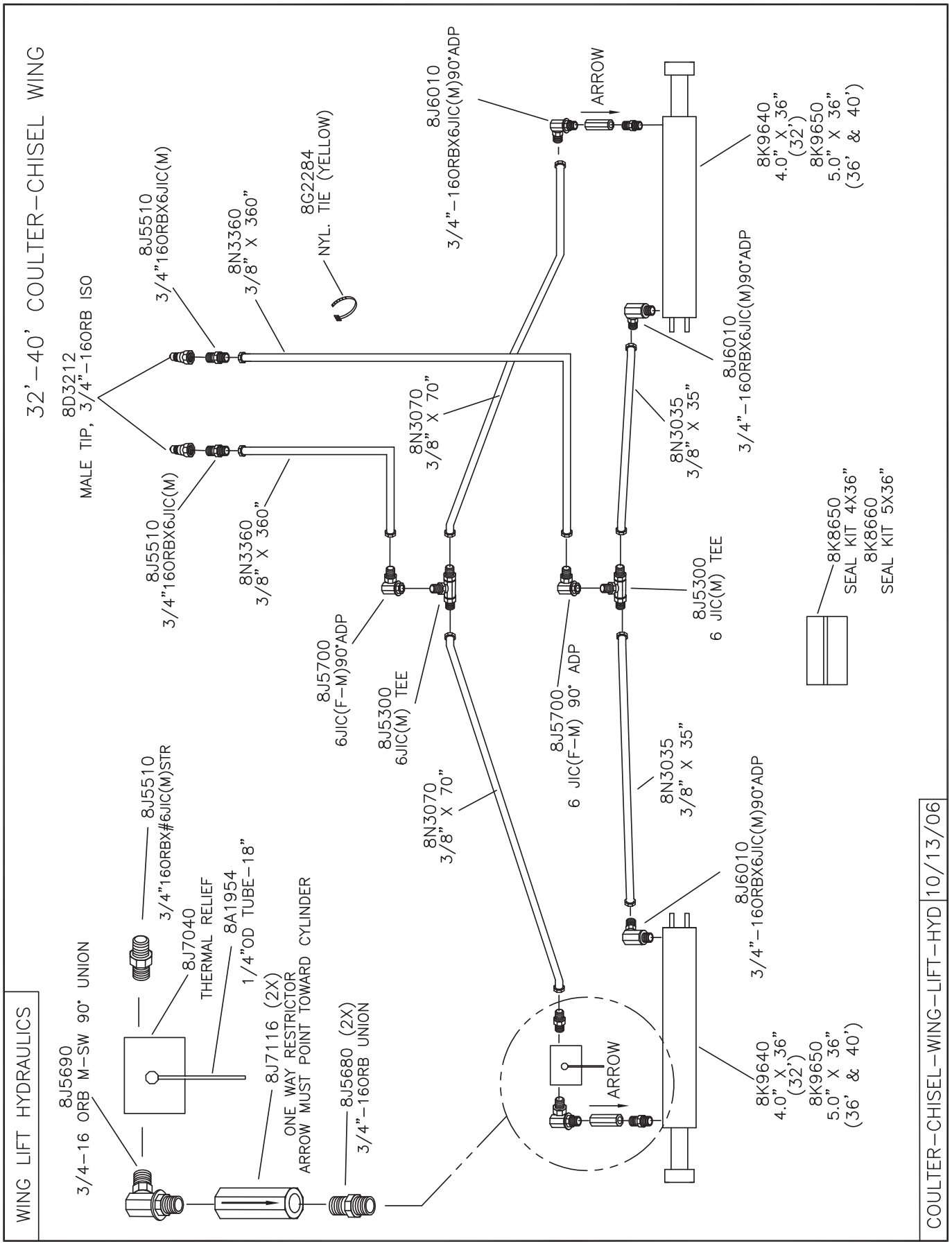
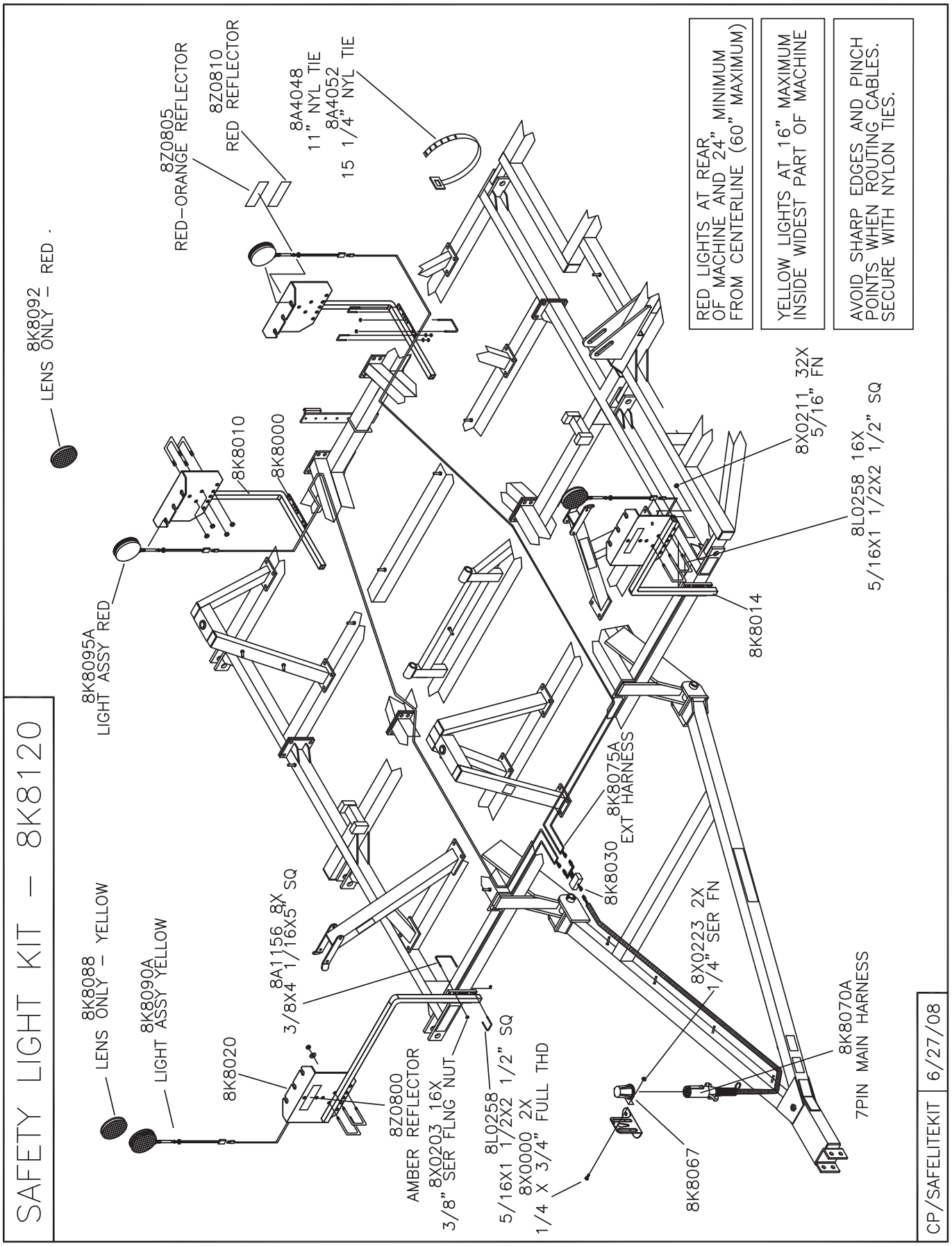
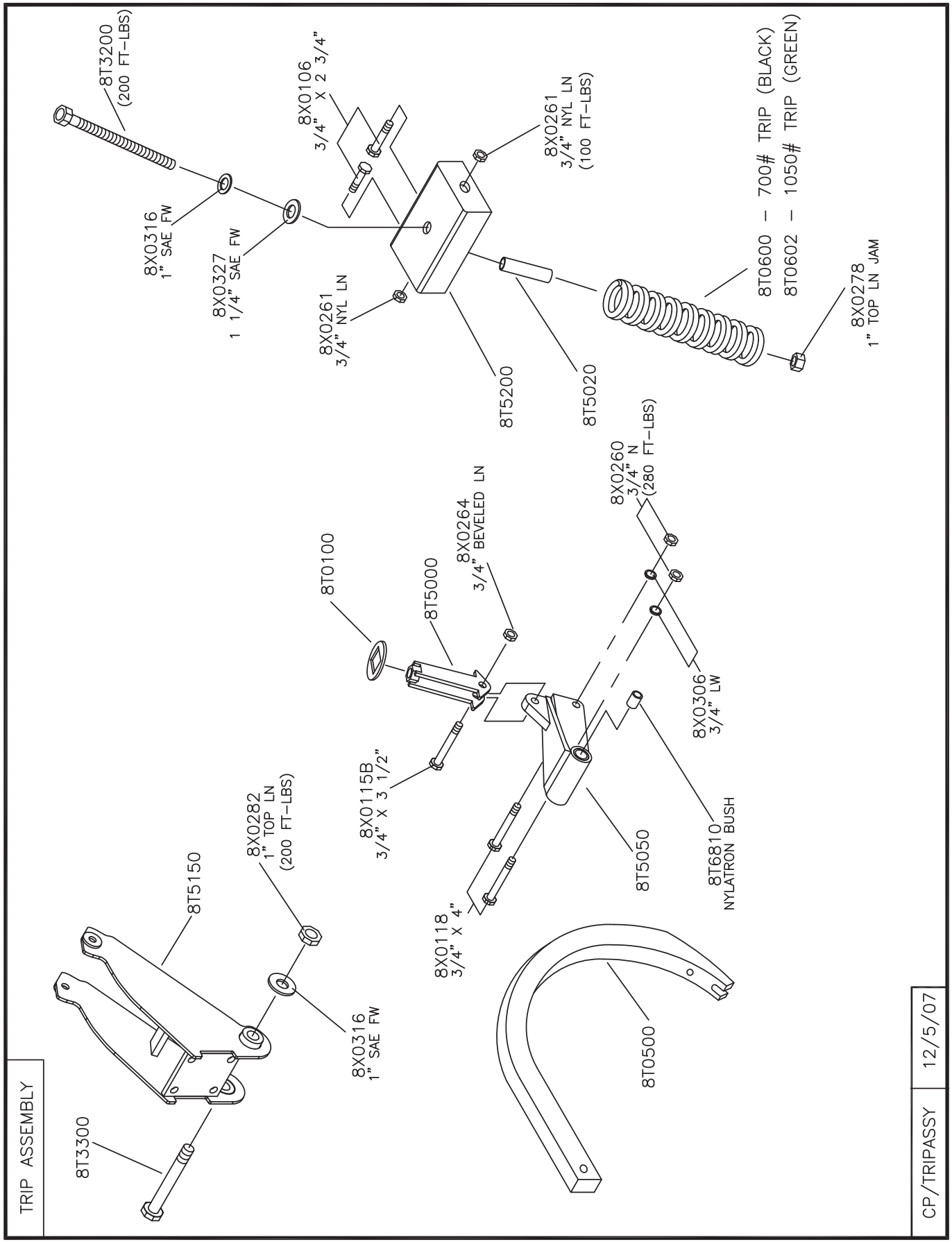
3/4" LW
8X0112
3/4X2-1/4"
8T4060
8T4070
8X0260
3/4" N
8X0306
3/4" LW
8X0268
7/8" N
8X0242
NY-LOCK 1/2" N
8R6914
8X0307
7/8" LW
8D3031
8K1100
8X0112
3/4X2-1/4"
8X0132
7/8" X 2-1/2"
8T4096
8X0072
1/2" X 3-3/4"
8X0008
3/8 X 2"
8T6020
8X0202
3/8" LN
8X0242
NY-LOCK 1/2" N
8D9110
8T4090
8T4094
8X0067
1/2-13NCX2-1/4"
8T6010
8X0290
1-1/4" SLOT NUT
8X0327
1 1/4" FW
8X0520
ROLL PIN
8T6000
8X0107
3/4 X 2"
8X0259
3/4" JN
8X0520
ROLL PIN
3/13/2009
9CC3612-2008.iam/WING-EXT

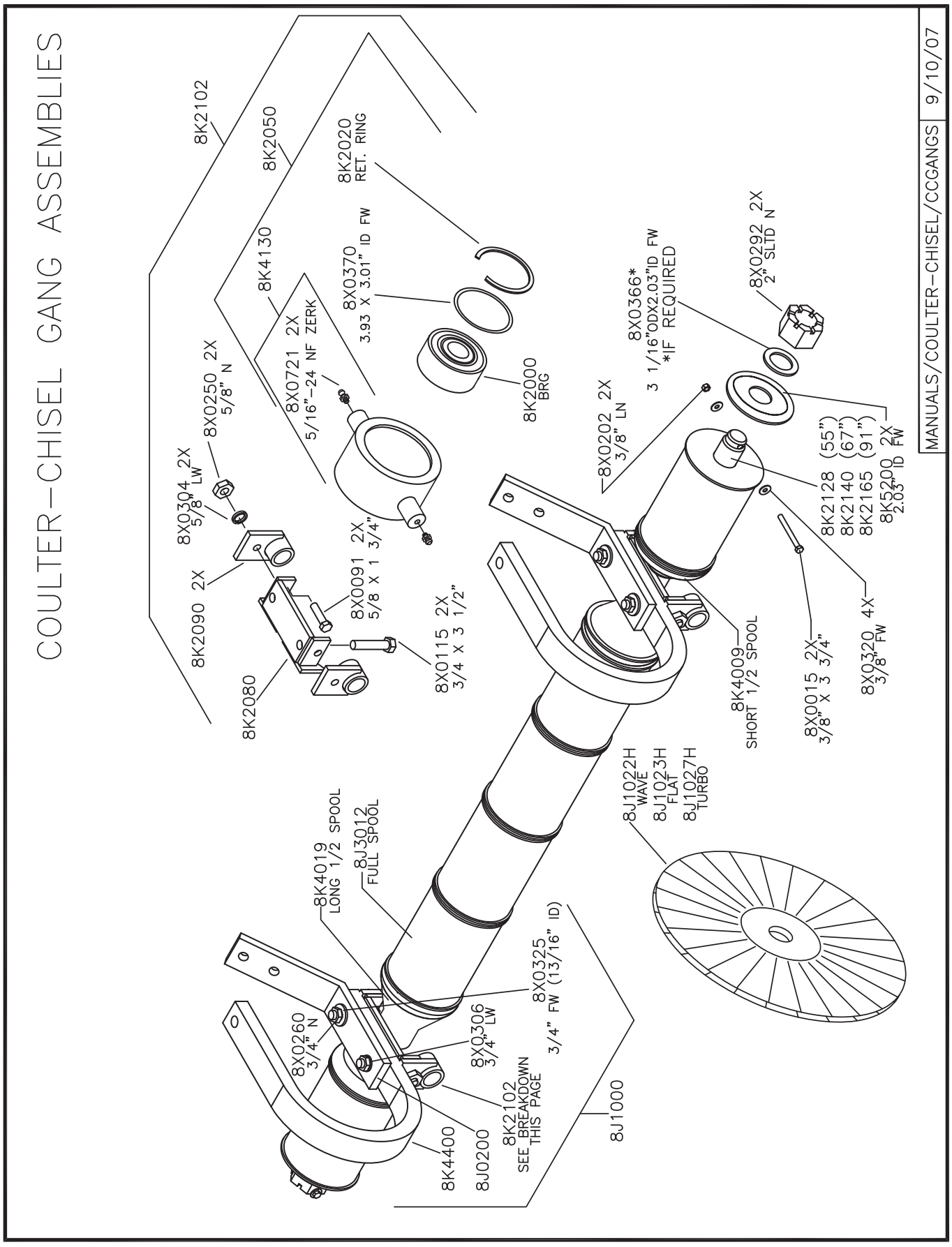

3/17/2009
9CC4012-2008/WING-TRANSPORT-EXT
8L1110
8T3120
8X0242 NY-LOCK 1/2" N
8T1060
8X0322 1/2" FW
8X0261 3/4" LN
8X0067 1/2-13NCX2-1/4"
8X0260 3/4" N
8X0306 3/4" LW
8K5515 3/4 X 4 X 6"
8D9108 1/4 X 2" RP
8K9106
8X0044 7/16" X 3-1/2"
8T4140
8X0234 7/16" LNUT
8T4100
8T3640
8D0340 3/4 X 4 X 7-3/4"
8X0234 7/16" LNUT
8T3620
8X0242 NY-LOCK 1/2" N
8X0044 7/16" X 3-1/2"
8K7037
8K1105S
8X0132 7/8" X 2-1/2"
8S3059 2.067" CAPLUG
8X0072 1/2" X 3-3/4"
8T4168
8X0072 1/2" X 3-3/4"
8X0307 7/8" LW
8X0268 7/8" N
8X0112 3/4X2-1/4"
8X0242 NY-LOCK 1/2" N
8K1100
8T4096
8D3031
8X0260 3/4" N
8X0306 3/4" LW
8K5515 3/4 X 4 X 6"
8R6914
8T6010
8X0067 1/2-13NCX2-1/4"
8X0008 3/8 X 2"
8X0520 ROLL PIN 8T6000
8T4090
8X0259 3/4" JN
8X0107 3/4 X 2"
8X0520 ROLL PIN
8X0242 NY-LOCK 1/2" N
8X0202 3/8" LN
8T6020
8X0290 1-1/4" SLOT NUT
8X0327 1 1/4" FW
8D9110
8T4094

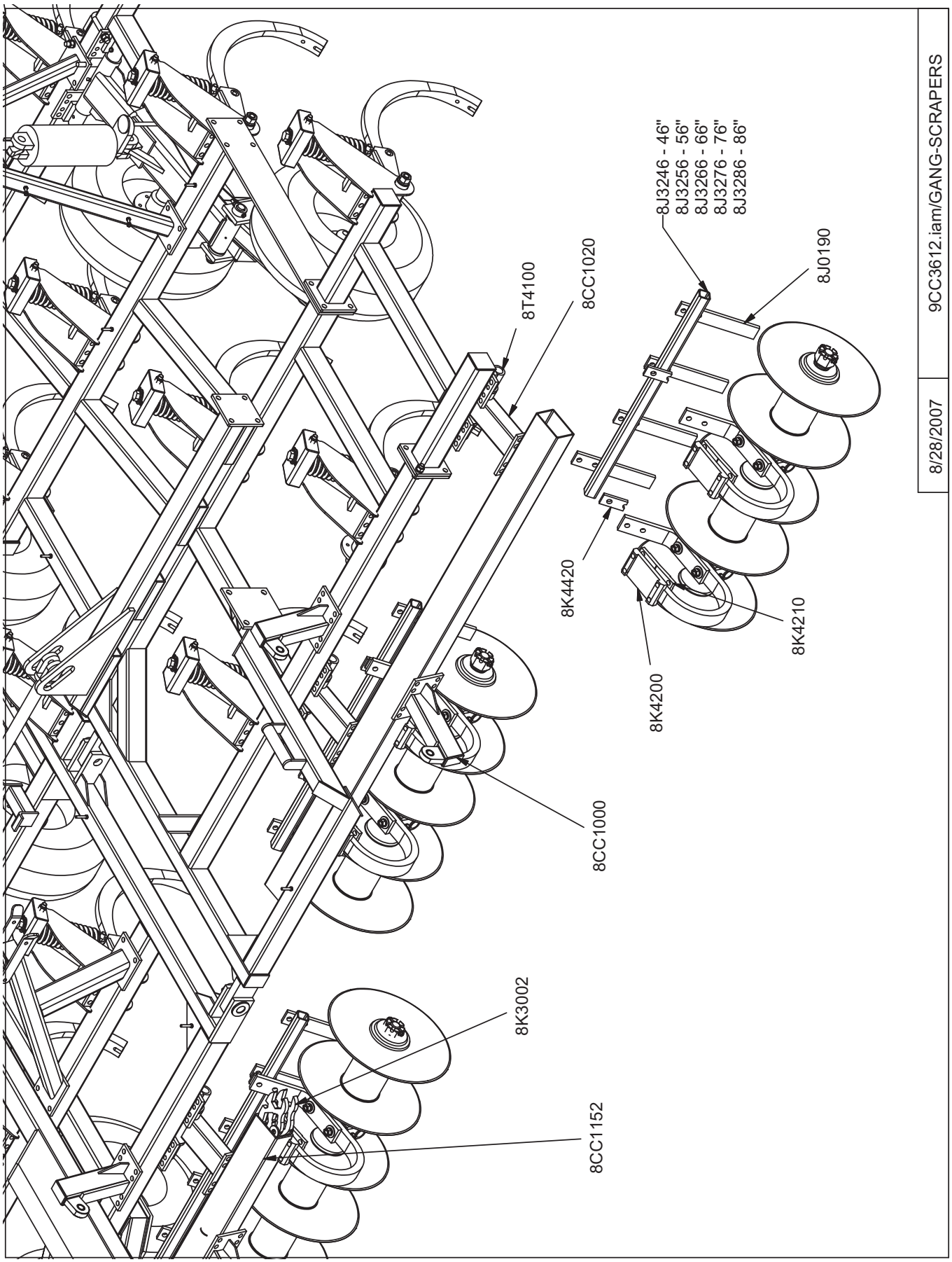

COULTER GANG DEPTH CONTROL HYDRAULICS
8D3212 (2X) 32’-40’ COULTER-CHISEL
8J5510 (2X)
8N3312
8J5300 (2X)
8J5700 (2X)
8N3070 2X
8J6010 (8X)
8N3180 (2X)
(32’ & 36’)
8N3204 (2X)
(40’)
8N3160 (2X)
(32’ & 36’)
8N3180 (2X)
(40’)
3 1/2” X 8”
MASTER
3” X 8”
SLAVE
3” X 8”
SLAVE
3-1/2” X 8”
MASTER
MANUALS/COULTER-CHISEL/COULTER-CHISEL_HYD 8/24/07


32'-40' COULTER-CHISEL WING
8D3212
MALE TIP, 3/4"-16ORB ISO
8J5510
3/4"16ORBX6JIC(M)
8N3360
3/8" X 360"
8G2284
NYL. TIE (YELLOW)
8J6010
3/4"-16ORBX6JIC(M)90°ADP
ARROW
8K9640
4.0" X 36"
(32')
8K9650
5.0" X 36"
(36' & 40')
8J5510
3/4"16ORBX6JIC(M)
8N3360
3/8" X 360"
8N3070
3/8" X 70"
8N3035
3/8" X 35"
8J6010
3/4"-16ORBX6JIC(M)90°ADP
8J5700
6JIC(F-M)90°ADP
8J5300
6JIC(M) TEE
8J5300
6 JIC(M) TEE
8K8650
SEAL KIT 4X36"
8K8660
SEAL KIT 5X36"
8J5700
6 JIC(F-M) 90° ADP
8N3070
3/8" X 70"
8N3035
3/8" X 35"
8J6010
3/4"-16ORBX6JIC(M)90°ADP
8K9640
4.0" X 36"
(32')
8K9650
5.0" X 36"
(36' & 40')
ARROW
WING LIFT HYDRAULICS
8J5690
3/4-16 ORB M-SW 90° UNION
8J5510
3/4"16ORBX#6JIC(M)STR
8J7040
THERMAL RELIEF
8A1954
1/4"OD TUBE-18"
8J7116 (2X)
ONE WAY RESTRICTOR
ARROW MUST POINT TOWARD CYLINDER
8J5680 (2X)
3/4"-16ORB UNION
COULTER-CHISEL-WING-LIFT-HYD 10/13/06


SAFETY LIGHT KIT – 8K8120
8K8092 LENS ONLY – RED
8Z0805 RED–ORANGE REFLECTOR
8Z0810 RED REFLECTOR
8A4048 11" NYL TIE
8A4052 15 1/4" NYL TIE
RED LIGHTS AT REAR OF MACHINE AND 24" MINIMUM FROM CENTERLINE (60" MAXIMUM)
YELLOW LIGHTS AT 16" MAXIMUM INSIDE WIDEST PART OF MACHINE
AVOID SHARP EDGES AND PINCH POINTS WHEN ROUTING CABLES. SECURE WITH NYLON TIES.
8K8010
8K8000
8K8095A LIGHT ASSY RED
8X0211 32X 5/16" FN
8L0258 16X 5/16X1 1/2X2 1/2" SQ
8K8014
8K8088 LENS ONLY – YELLOW
8K8090A LIGHT ASSY YELLOW
8A1156 8X 3/8X4 1/16X5 SQ
8K8030 8K8075A EXT HARNESS
8X0223 2X 1/4" SER FN
8K8020
8Z0800 AMBER REFLECTOR
8X0203 16X 3/8" SER FLNG NUT
8L0258 5/16X1 1/2X2 1/2" SQ
8X0000 2X 1/4 X 3/4" FULL THD
8K8067
8K8070A 7PIN MAIN HARNESS
CP/SAFELITEKIT | 6/27/08


TRIP ASSEMBLY
8T3200
(200 FT–LBS)
8X0316
1" SAE FW
8X0327
1 1/4" SAE FW
8X0106
3/4" X 2 3/4"
8X0261
3/4" NYL LN
8X0261
3/4" NYL LN
(100 FT–LBS)
8T5200
8T5020
8T0600 – 700# TRIP (BLACK)
8T0602 – 1050# TRIP (GREEN)
8X0278
1" TOP LN JAM
8T0100
8T5000
8X0264
3/4" BEVELED LN
8X0260
3/4" N
(280 FT–LBS)
8X0115B
3/4" X 3 1/2"
8X0306
3/4" LW
8T5050
8T6810
NYLATRON BUSH
8X0118
3/4" X 4"
8T0500
8T5150
8X0282
1" TOP LN
(200 FT–LBS)
8X0316
1" SAE FW
8T3300
CP/TRIPASSY
12/5/07


COULTER–CHISEL GANG ASSEMBLIES
MANUALS/COULTER–CHISEL/CCGANGS 9/10/07
8K2102
8K2050
8K4130
8K2020 RET. RING
8X0370 3.93 X 3.01" ID FW
8X0721 2X 5/16"–24 NF ZERK
8K2000 BRG
8X0366* 3 1/16"ODX2.03"ID FW *IF REQUIRED
8X0292 2X 2" SLTD N
8X0250 2X 5/8" N
8X0304 2X 5/8" LW
8K2090 2X
8K2080
8X0091 2X 5/8 X 1 3/4"
8X0115 2X 3/4 X 3 1/2"
8X0202 2X 3/8" LN
8K2128 (55")
8K2140 (67")
8K2165 (91")
8K5200 2X 2.03" ID FW
8K4009 SHORT 1/2 SPOOL
8X0015 2X 3/8" X 3 3/4"
8X0320 4X 3/8" FW
8J1022H WAVE
8J1023H FLAT
8J1027H TURBO
8K4019 LONG 1/2 SPOOL
8J3012 FULL SPOOL
8X0325 3/4" FW (13/16" ID)
8X0260 3/4" N
8X0306 3/4" LW
8K2102 SEE BREAKDOWN THIS PAGE
8K4400
8J0200
8J1000


8J3246 - 46"
8J3256 - 56"
8J3266 - 66"
8J3276 - 76"
8J3286 - 86"
8J0190
8T4100
8CC1020
8K4420
8K4200
8K4210
8CC1000
8K3002
8CC1152
8/28/2007
9CC3612.iam/GANG-SCRAPERS

1. Attach hitch frame to rear of coulter-chisel.

   – Use 3/4 x 2” bolts.

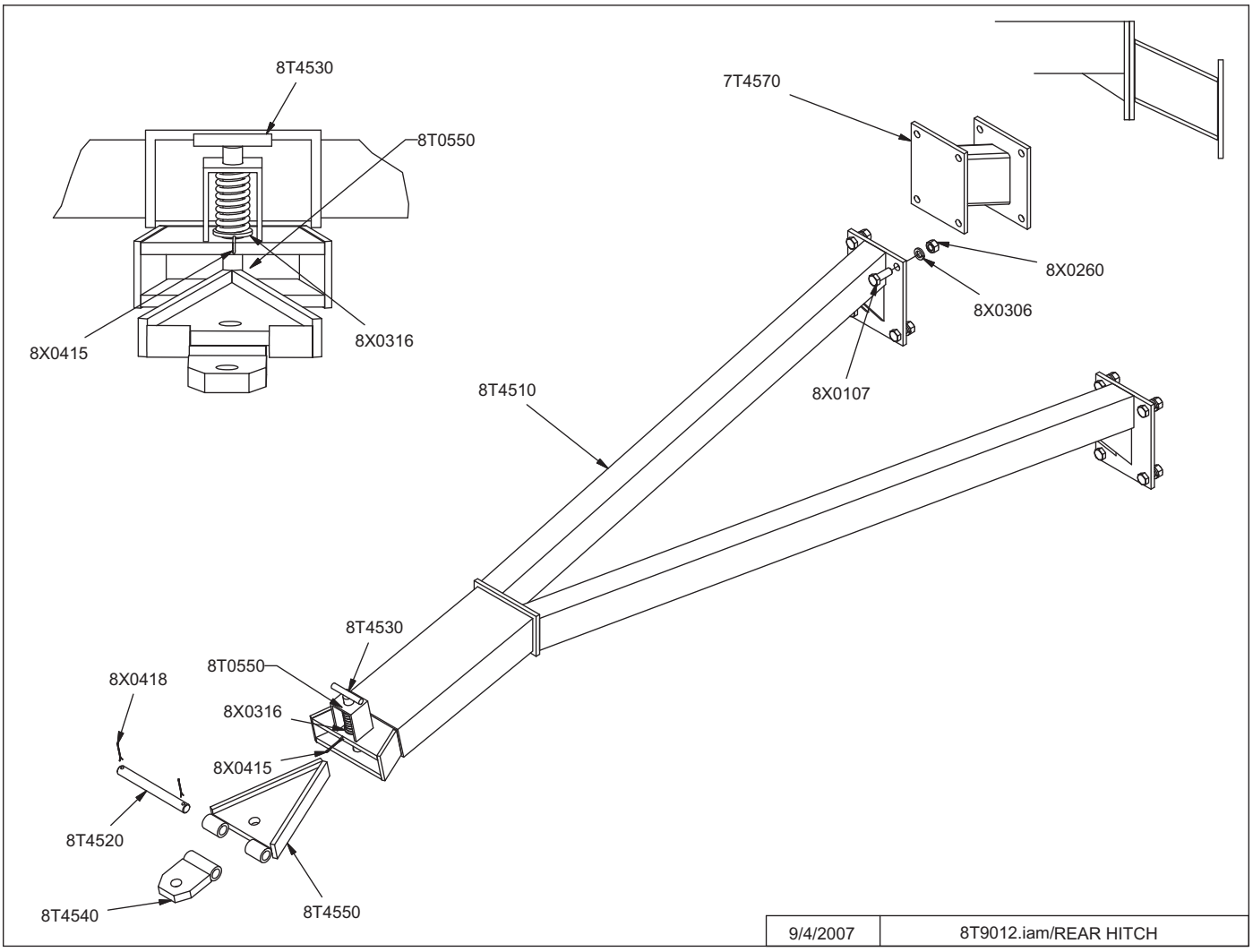
2. Slide rear hitch slide into place.

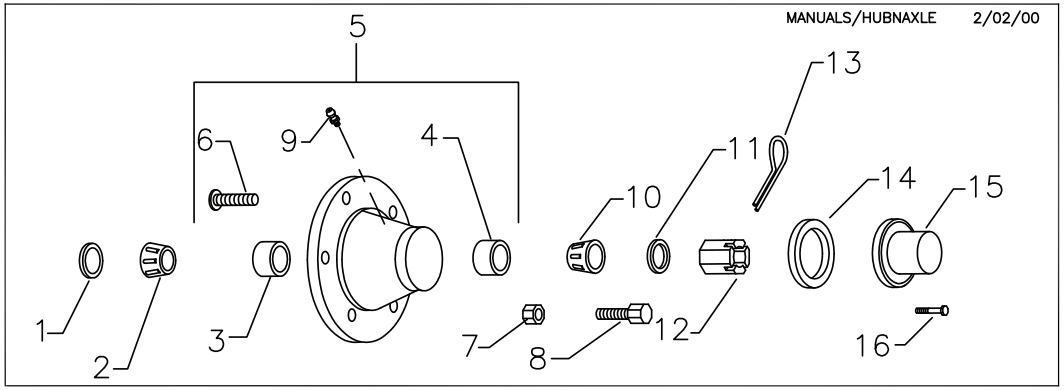
3. Insert spring load pin.

   – Spring and washer will be held in place by hitch channel and 3/16” cotter pin.

4. Install rear hitch swivel.

   – Use pin and cotter keys provided.






# HUB AND AXLE COMPONENTS

Assembly Notes:

A. Tighten axle nut to 45 ft.-lbs, loosen nut until first slot is aligned with hole in axle, install cotter pin and bend to retain.

B. Before towing machine, pack wheel bearings and fill 1/2 of hub cavity with high quality bearing grease.

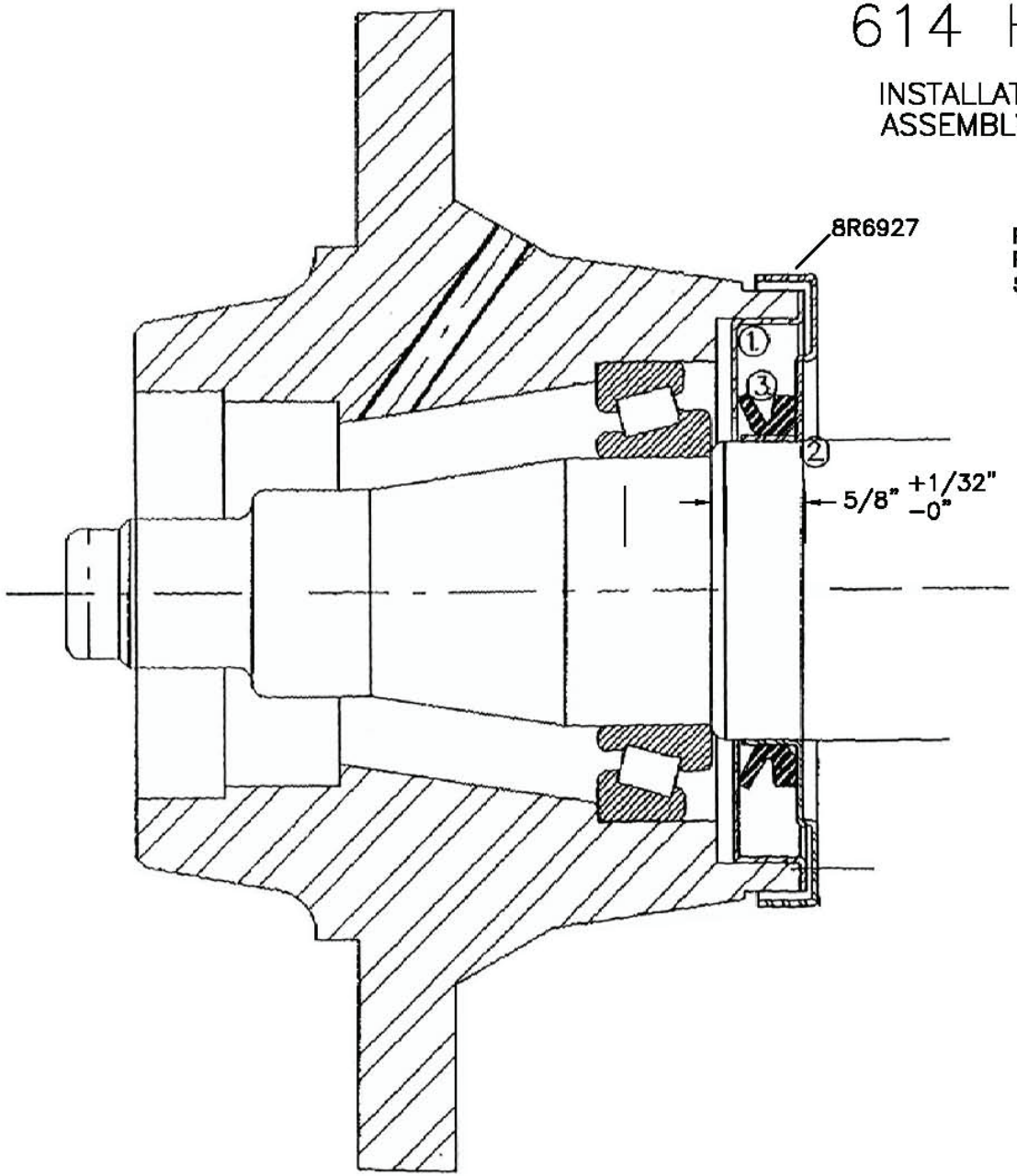
Legend:

SMC Part Number
INDUSTRY Part Number or Size

| HUB | 1. SEAL | 2. INNER BEARING | 3. INNER RACE | 4. OUTER RACE | 5. HUB ASSY | 6. WHEEL STUD | 7. WHEEL NUT | 8. WHEEL BOLT | 9. HUB ZERK | 10. OUTER BEARING | 11. AXLE WASHER | 12. AXLE NUT | 13. COTTER PIN | 14. HUB CAP GASKET | 15. HUB CAP | 16. HUB CAP BOLT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H413 | 8D5120 | 8D5117 | 8D5336 | 8D5330 | M6527850 | N/A | N/A | 8D5114 | 8X0708 | 8D5118 | 8X0317 | 8D5112 | 8X0410 | N/A | M6527846 | N/A |
| | SE11 | LM67048 | LM67010 | LM11910 | H413 | | | WB10 | 1/4-28NF | LM11949 | 3/4" I.D. | 3/4"-16 | 3/16X1" | | DC24 | |
| H517 | 8D5234<br>8D5236<br>8D5238 | 8D5217 | 8D5332 | 8D5336 | 8D5211 | 8D5215 | 8D5214 | N/A | 8X0721 | 8D5117 | 8S5219 | 8D5212 | 8X0415 | N/A | 8D5213 | N/A |
| | | LM48548 | LM48510 | LM67010 | H517 | WB16 | 1/2-20UNF | | 5/16-24NF | LM67048 | 7/8" I.D. | 7/8"-14 | 3/16X1-1/2" | | DC13 | |
| H614 | 8R6922 | 8R6917 | 8R6925 | 8D5332 | 8R6911 | N/A | N/A | 8R6914 | 8X0708 | 8D5217 | 8D5319 | 8D5312 | 8X0415 | N/A | 8R6913 | N/A |
| | SEE 6-22 | LM603049 | LM603011 | LM48510 | H614 | | | WB12 | 1/4-28NF | LM48548 | 1" I.D. | 1"-14 | 3/16X1-1/2" | | DC15 | |
| HD812 | 8K7127<br>SEAL SE77 | 8K7117 | 8K7130 | 8K7132 | 8K7111 | 8K7115-9/16"* | 8K7116-9/16"* | N/A | 8X0708 | 8K7118 | 8D5319 | 8D5312 | 8X0415 | N/A | 8K7113 | N/A |
| | | | | | | 8K7122-5/8" | 8K7123-5/8" | | | | | | | | | |
| | 8K7128<br>SLEEVE<br>SE77-1 | LM3780 | LM3720 | LM2720 | HD812 | WB41 | WB40 | | 1/4-28NF | LM2790 | 1" I.D. | 1"-14 | 3/16X1-1/2" | | DC17 | |
| | | | | | | WB46 | WB118 | | | | | | | | | |

9/11/2007

# 614 HUB W/GBGI SEAL




## INSTALLATION INSTRUCTIONS FOR 8R6922 SEAL ASSEMBLY (3 PIECE–GBGI) FOR H614 HUB:

### SEAL SUPPORT (2 – 8R6927)

**PRESS SEAL SUPPORT (2) ONTO AXLE 5/8" (+1/32", -0") PAST INNER BEARING RETAINING SHOULDER. SUPPORT WILL CONTACT MACHINED STEP ON AXLE.**

A: IF SEAL SUPPORT IS NOT PRESSED ON AXLE FAR ENOUGH, THE SEAL SUPPORT WILL RUB ON HUB.

B: IF SEAL SUPPORT IS PRESSED TOO FAR ONTO AXLE, IT WILL CAUSE IMPROPER CONTACT BETWEEN RUBBER SEAL (3) AND INNER SEAL SUPPORT (1) RESULTING IN BEARING CONTAMINATION AND FAILURE.

NOTE: APPLY THIN LAYER OF GREASE TO COUNTERFACE (1) SURFACE AT TIME OF SEAL INSTALLATION.

### SEAL COUNTERFACE (1 – 8R6924)

PRESS SEAL COUNTERFACE INTO HUB UNTIL SHOULDER CONTACTS HUB (1/2").

### V–SEAL (3 – 8R6923 (A–994))

STRETCH V–SEAL OVER SEAL SUPPORT UNTIL ITS BACK IS SEATED AGAINST THE BACK SHOULDER OF SEAL SUPPORT AND LIES SMOOTH ALL AROUND.

| MANUALS/GBGI | 1/06/05 |
|---|---|

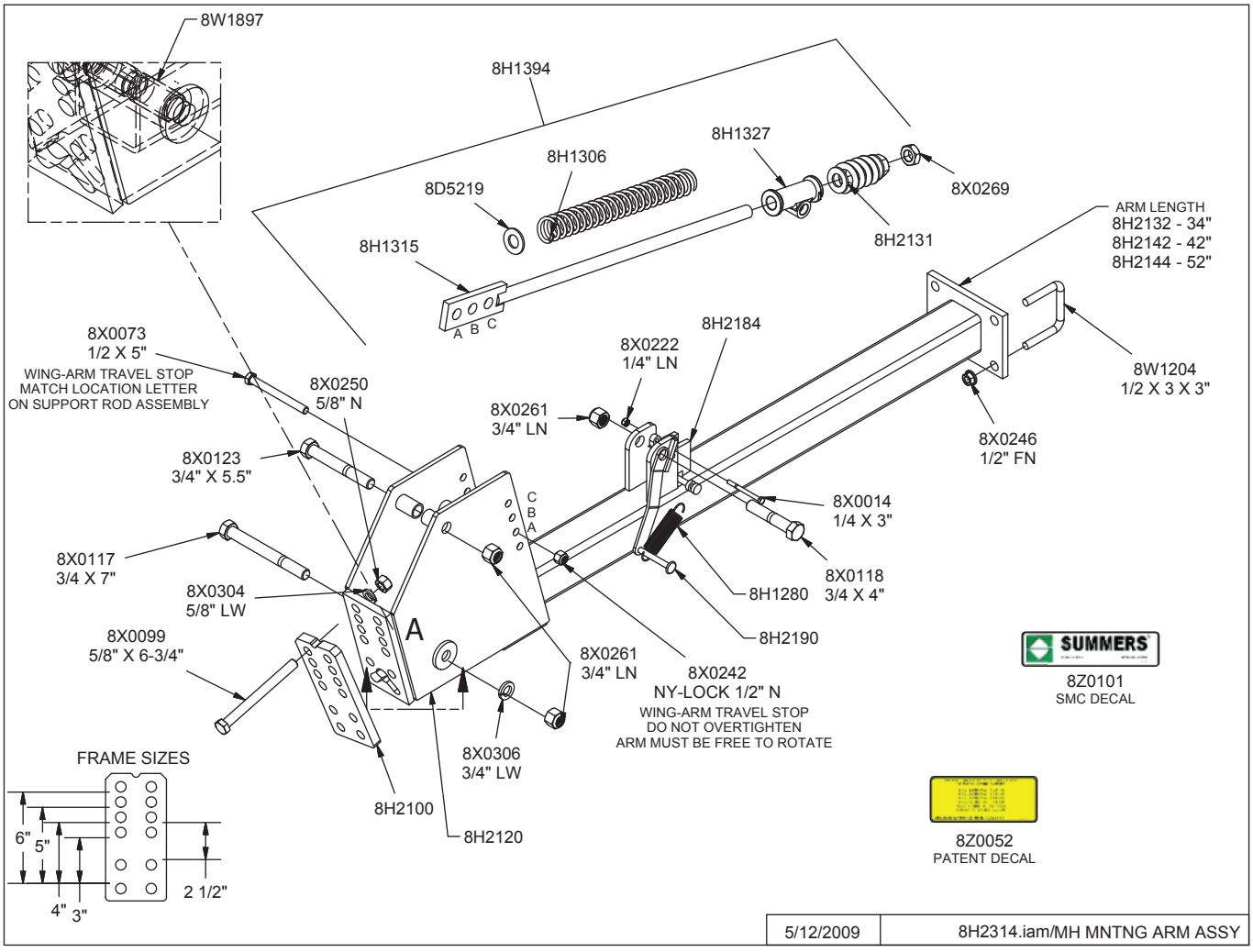
1. 52” mounting arms (PN 8H2314) should be used when attaching Summers mounted harrows.

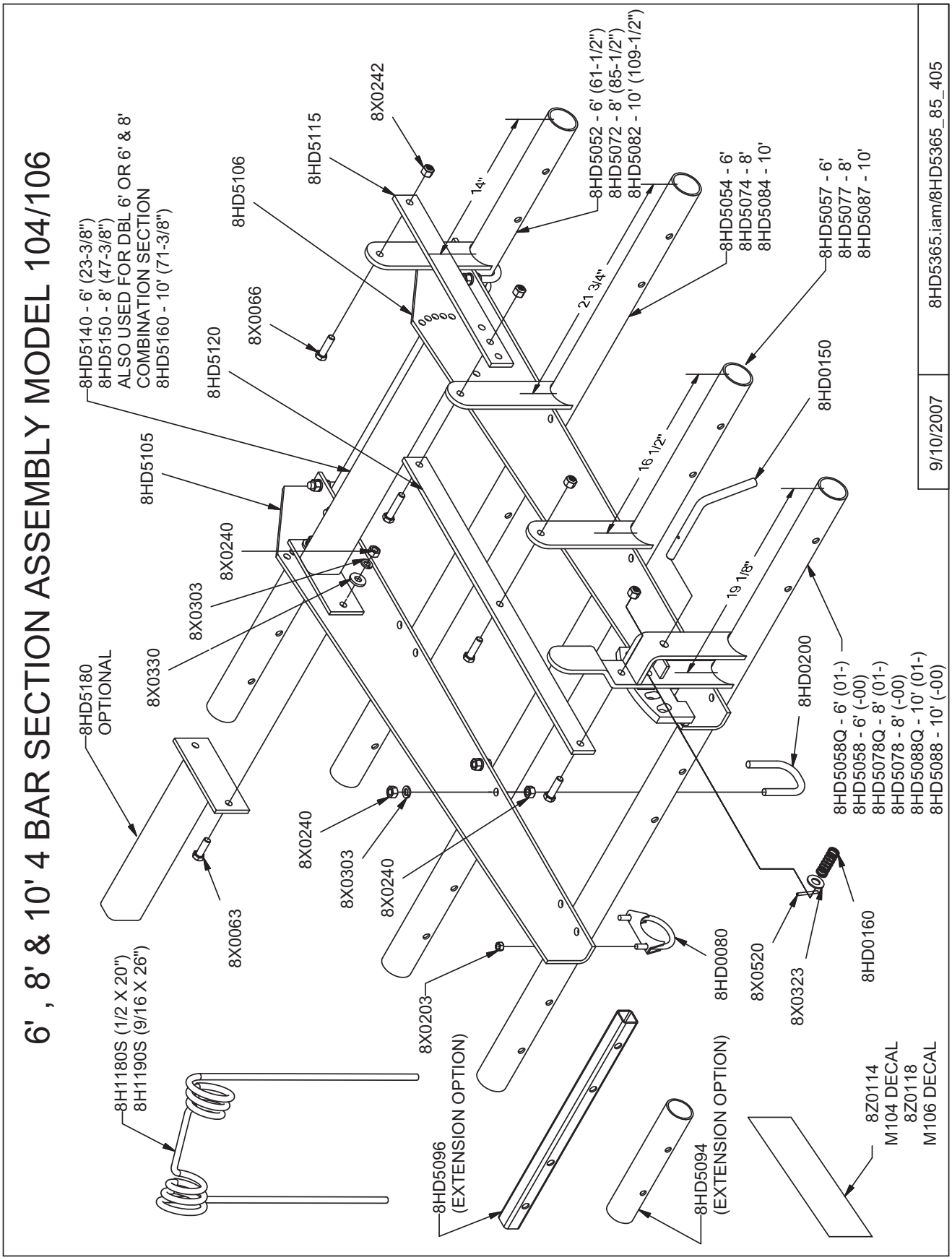
2. Mounting arm location can be found on the following layout drawings.

   – In certain locations, the mounting arm will be installed directly behind a liftarm pivot. A spacer block has been welded to the chisel plow frame so there is no interference between u-bolts and mounting head.

NOTE: Make sure that if one mounting arm rests against a spacer block, the other mounting arm, on that section, also rests against a spacer block.

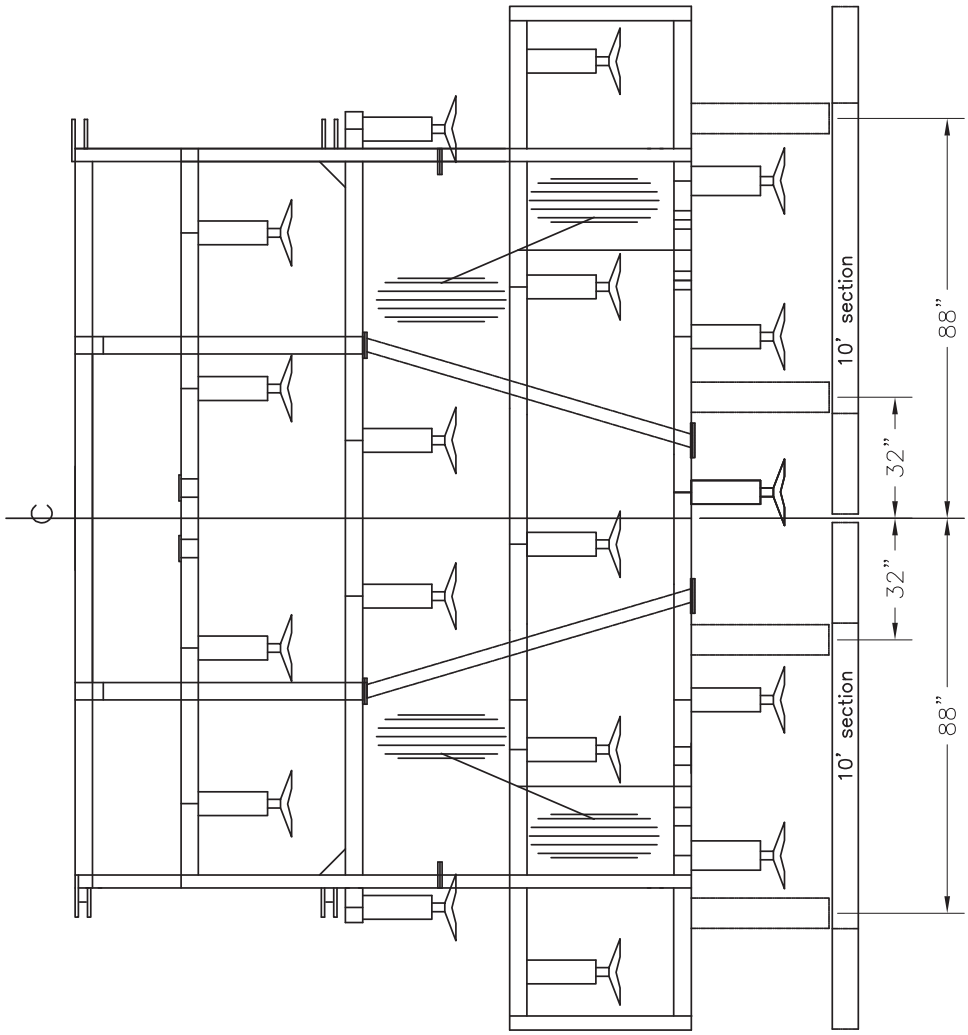
3. Adjust harrows according to performance desired.

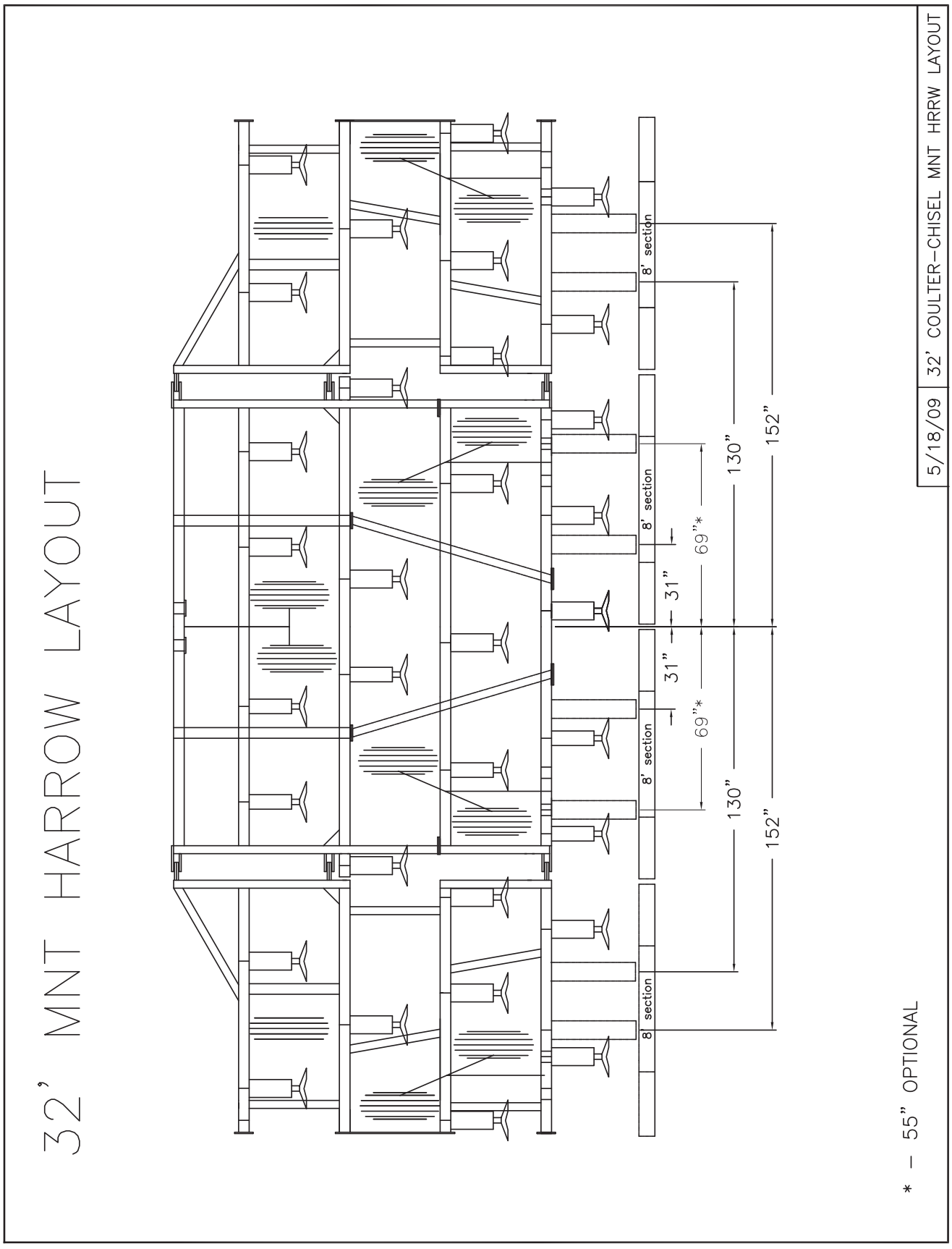


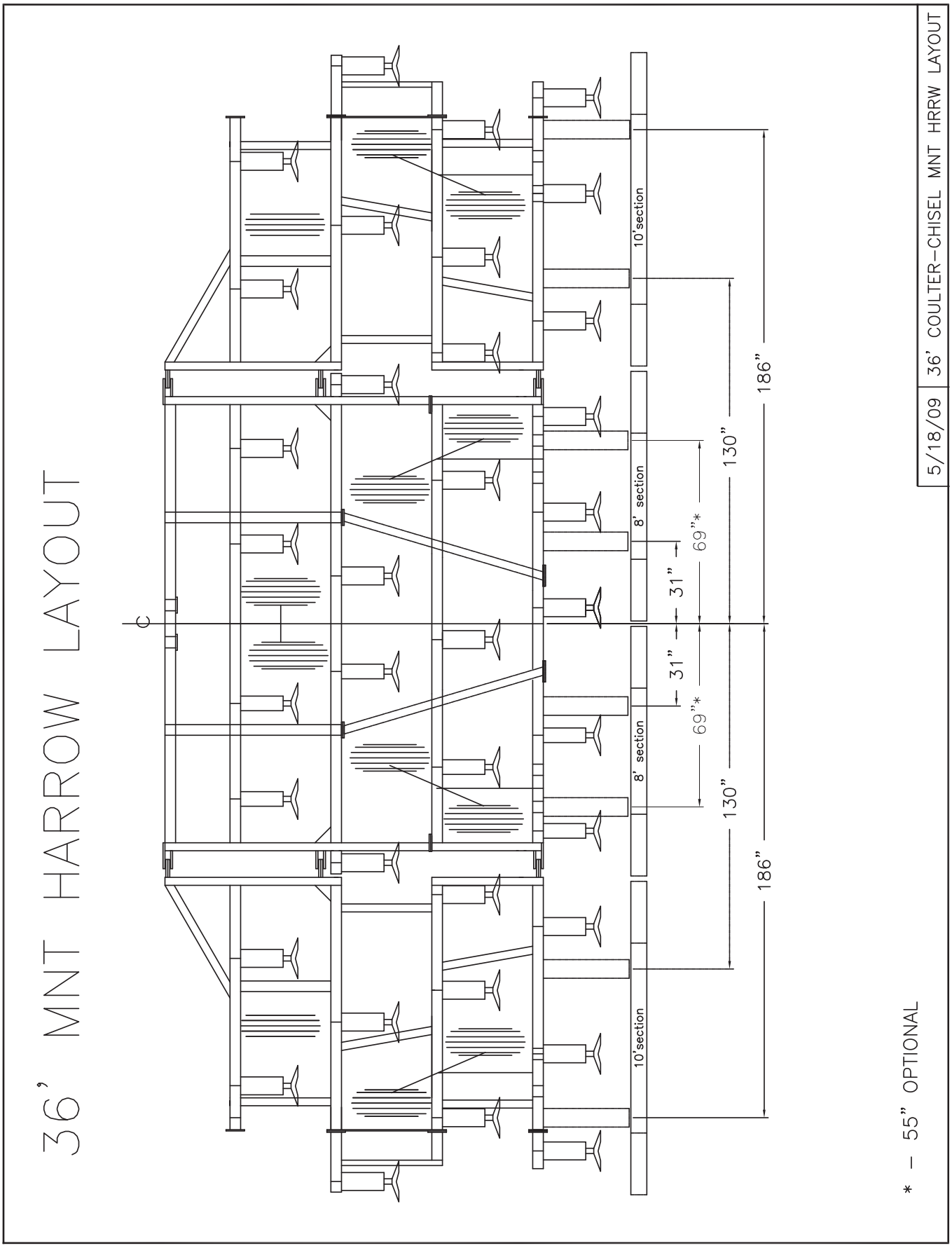

6' , 8' & 10' 4 BAR SECTION ASSEMBLY MODEL 104/106
8HD5140 - 6' (23-3/8")
8HD5150 - 8' (47-3/8")
ALSO USED FOR DBL 6' OR 6' & 8'
COMBINATION SECTION
8HD5160 - 10' (71-3/8")
8HD5105
8HD5120
8HD5106
8HD5115
8X0242
8X0066
8X0303
8X0240
8X0330
8HD5180
OPTIONAL
8X0063
8X0240
8X0303
8X0240
8X0203
8HD5096
(EXTENSION OPTION)
8H1180S (1/2 X 20")
8H1190S (9/16 X 26")
8HD5094
(EXTENSION OPTION)
8HD0080
8X0520
8X0323
8HD0160
8HD0200
8HD0150
8HD5052 - 6' (61-1/2")
8HD5072 - 8' (85-1/2")
8HD5082 - 10' (109-1/2")
8HD5054 - 6'
8HD5074 - 8'
8HD5084 - 10'
8HD5057 - 6'
8HD5077 - 8'
8HD5087 - 10'
8HD5058Q - 6' (01-)
8HD5058 - 6' (-00)
8HD5078Q - 8' (01-)
8HD5078 - 8' (-00)
8HD5088Q - 10' (01-)
8HD5088 - 10' (-00)
14"
21 3/4"
16 1/2"
19 1/8"
8Z0114
M104 DECAL
8Z0118
M106 DECAL
9/10/2007
8HD5365.iam/8HD5365_85_405

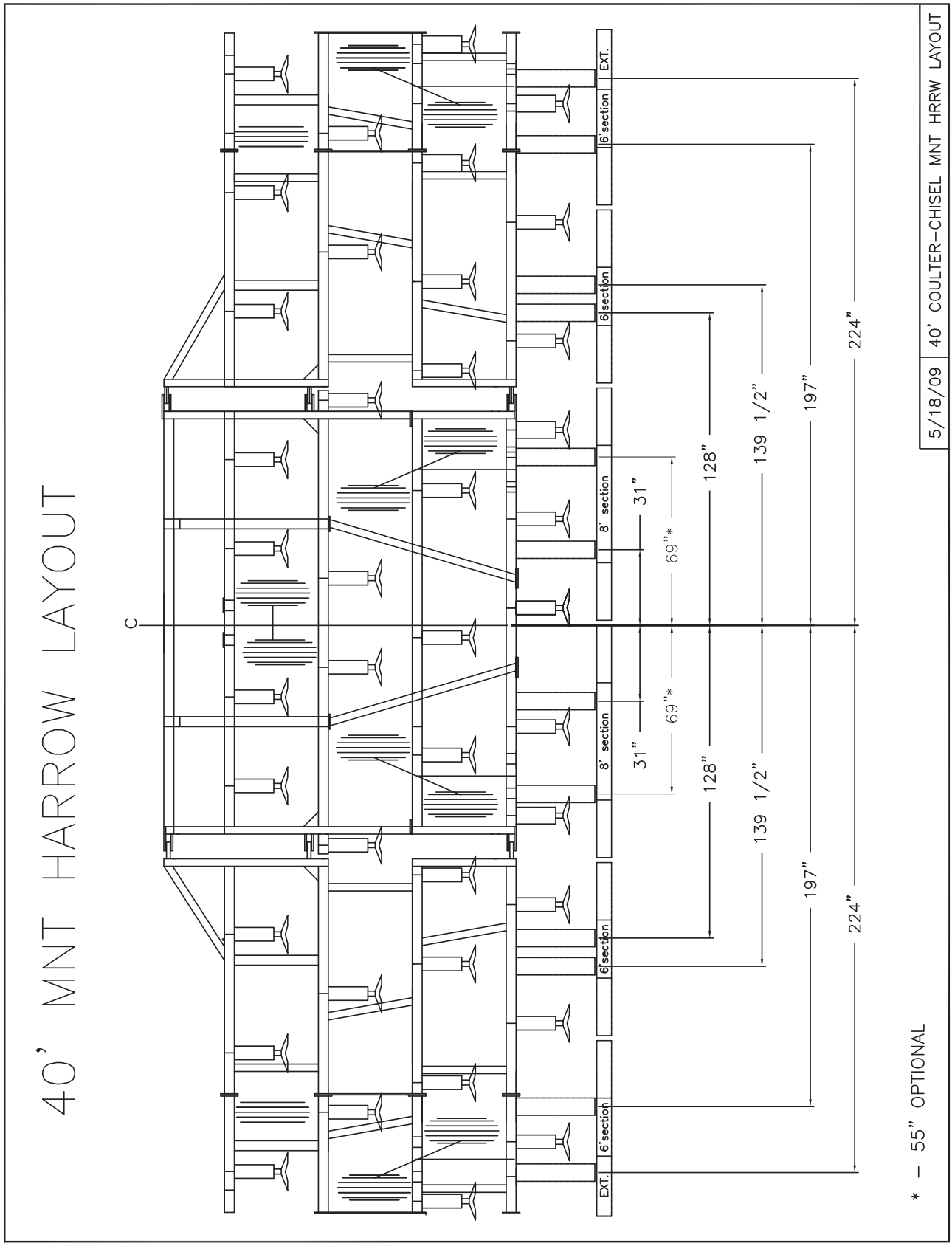
5/18/09 | 20’ COULTER–CHISEL MNT HRRW LAYOUT

# 20’ MNT HARROW LAYOUT




32' MNT HARROW LAYOUT
5/18/09
32' COULTER–CHISEL MNT HRRW LAYOUT
8' section
8' section
8' section
8' section
31"
31"
69"*
69"*
130"
130"
152"
152"
* – 55" OPTIONAL


36' MNT HARROW LAYOUT
5/18/09
36' COULTER-CHISEL MNT HRRW LAYOUT
10' section
8' section
8' section
10' section
186"
130"
69"*
31"
31"
69"*
130"
186"
* – 55" OPTIONAL


40' MNT HARROW LAYOUT
5/18/09
40' COULTER–CHISEL MNT HRRW LAYOUT
EXT.
6' section
6' section
8' section
8' section
6' section
6' section
EXT.
C
31"
69"*
128"
139 1/2"
197"
224"
31"
69"*
128"
139 1/2"
197"
224"
* – 55" OPTIONAL

| Stock Code | Description |
|---|---|
| 8A1155 | U-BOLT 3/8 X 6-1/16 X 5” SQ |
| 8A1156 | U-BOLT 3/8 X 4-1/16 X 5” SQ |
| 8A1157 | U-BOLT 3/8 X 4-1/16 X 7” SQ |
| 8A4044 | CABLE CLAMP BLACK NYLON 7/8” |
| 8A4048 | NYLON TIE .18 X 11” |
| 8A4050 | NYLON TIE .30 X 8-7/8” |
| 8A4052 | NYLON TIE .30 X 15-1/4” |
| 8C1720 | U-BOLT 1/2 X 2-5/8 X 3-3/4” SQ |
| 8C1736 | U-BOLT 1/2 X 4-1/4 X 5-1/4”RND |
| 8C1740 | U-BOLT 1/2 X 4-1/4 X 7-1/4”RND |
| 8C1750 | U-BOLT 3/4 X 3 X 5-1/2” SQ |
| 8C1755 | U-BOLT 3/4 X 6 X 6” SQ |
| 8C1760 | U-BOLT 3/4 X 8 X 6” SQ |
| 8C1780 | U-BOLT 7/8 X 8 X 10” SQ |
| 8C1900 | CLAMP 1/2” WIRE ROPE |
| 8C6010 | WASHER 1.03”ID X 3-1/16”ODX1/4 |
| 8C6015 | WASHER 1.53”ID X 3-1/16”ODX1/4 |
| 8C9000 | ISOLATOR ASSY RLLNGCHPPR 07- |
| 8C9017 | BLADE 3/8X3- 16-3/8” PNTD 06- |
| 8C9030 | FRAME 3”SQ 4’ ROLLNGCHPPR 06- |
| 8C9035 | FRAME 3”SQ 5’ ROLLNGCHPPR 06- |
| 8C9040 | FRAME 3”SQ 7’ ROLLNGCHPPR 07- |
| 8C9050 | REEL ONLY 4’ ROLLING CHPPR 06- |
| 8C9055 | REEL ONLY 5’ ROLLING CHPPR 06- |
| 8C9060 | REEL ONLY 7’ ROLLING CHPPR 07- |
| 8CC1000 | CYL ATTCH GANG CLTR CHSL 06- |
| 8CC1020 | PIVOTARM CLTRGNG CLTRCHSL 06- |
| 8CC1035 | ADJUSTMNT FLAT 1/2X4- 12” 07- |
| 8CC1072 | TUBE GNG MNT 6X4-72” CLTR06- |
| 8CC1109 | TUBE GNG MNT 6X4-109”CLTR06- |
| 8CC1132 | TUBE GNG MNT 6X4- 132”DSK 07- |
| 8CC1152 | TUBE GNG MNT 6X4-152”CLTR06- |
| 8CC1203 | TUBE GNG MNT 6X4-203”CLTR 07- |
| 8CC4000 | HITCH NARROW CHSL/CLTRCHSL07- |
| 8CC4020 | CENTER FRONT COULTRCHISL 06- |
| 8CC4050 | WING PRT1 LEFT32-40’CLTRC06- |
| 8CC4052 | WING PRT1 RGHT32-40’CLTRC06- |
| 8CC4140 | LIFTARM 20’ CLTRCHSL/CHSL 07- |
| 8D0330 | U-BOLT 5/8 X 6-1/16 X 5-5/8”SQ |
| 8D0340 | U-BOLT 3/4 X 4 X 7-3/4” SQ |
| 8D0350 | U-BOLT 3/4 X 4 X 10” SQ |
| 8D0720 | HITCH PIECE CAST CAT.3CTD PNTD |
| 8D0722 | PERFECT HTCH BACKSTOP W/HDWE |
| 8D0724 | CLEVIS OPT.HITCH CAT.3CTD99- |
| 8D0730 | URETHANE CUSHION PERFCTHTCH |
| 8D2460 | SAFETY CHAIN 3/8” X 4’ 20200# |
| 8D2470 | SAFETY CHAIN 7/16” X 5’ 30400# |
| 8D2730 | PIN 1 X 2-3/4” CABLE PLATED |
| 8D2994 | VALVE TIRE TR-801HP-.625”HOLE |
| 8D3011 | TIRE/WHEEL 4BLT 4.80-8 LOAD C |
| 8D3036 | WHEEL 15 X 10” 6 BOLT |
| 8D3130 | U-BOLT 3/8 X 1-3/4 X 2-1/2”RND |
| 8D3150 | U-BOLT 1/2 X 3 X 7-1/4” SQ |
| 8D3152 | U-BOLT 1/2 X 3-3/8 X 7-1/4” SQ |
| 8D3212 | MALE TIP 3/4”-16 ORB ISO |
| 8D5217 | BEARING IN 517 OUT 614 & 618 |
| 8D5234 | SEAL RETAINER GBGI HA517-7 |
| 8D5236 | SEAL COUNTERFACE GBGI HA517-7 |
| 8D5238 | SEAL GBGI FOR CTD HA517-7 HUB |
| 8D5311 | HUB H611 W/CUPS & ZERK 6 BLT |
| 8D5312 | NUT 1”-14NF HEX SLOT GR2 PLN |
| 8D5315 | NUT 1-1/4”-12 HEX SLOT GR2 ZDI |
| 8D5317 | BEARING INNER 611 LM29749 |
| 8D5319 | WASHER 1” AXLE |
| 8D5332 | RACE H517 & H614 LM48510 |
| 8D5334 | RACE INNER H611 LM29710 |
| 8D5336 | RACE H511 H517 & H611 LM67010 |
| 8D8490 | PIONEER/ISO TIP HLDR BNT 97- |
| 8D8500 | HYD HOSE HOLDER PNTD BLK 91- |
| 8D8521 | JACK SPOOL 3 X 2.56- 1-29/32” |
| 8D8522 | JACK 5000# TOP CRANK 15”LIFT |
| 8D8523 | JACK 8000# DROPLEG 5/8X4.25PIN |
| 8D9102 | PIN 1 X 4” CYL CTTR OR HAIRPIN |
| 8D9108 | ROLL PIN 1/4 X 2” YLW ZNC |
| 8D9110 | HAIR PIN CLIP LARGE(1”CYL PIN) |
| 8G8010 | U-BOLT 3/8 X 1-5/16 X 2-1/4”SQ |
| 8G8018 | U-BOLT 3/8 X 4 X 6-1/16” SQ |
| 8G8020 | U-BOLT 3/8 X 2-9/16 X 3-1/2”SQ |
| 8G8022 | U-BOLT 1/2 X 4 X 3-1/8” SQ |
| 8H1180S | HARROW TOOTH 1/2 X 20” M104/SH |
| 8H1190S | HARROW TOOTH 9/16X 26”M106/SH+ |
| 8H1280 | SPRING EXTENSION 1”OD X 4”LONG |
| 8H1304 | SPRING HEAVY 1”ID- 2.875” PNTD |
| 8H1306 | SPRING MEDIUM 1.5”OD-15” 50#1” |
| 8H1311 | SUPPORT ROD WLDD ASSY 79- |
| 8H1320 | COLLAR ADJUSTMENT 79- |
| 8H1325 | CAST SWIVEL MNTD HRRW |
| 8H1392 | SUPPORT ROD ASSY M94/04/06 |
| 8H1498 | SPACER TUBE 4 X 3 X 5T- 5” |
| 8H1499 | SPACER TUBE 4 X 2 X4T- 5” |
| 8H1504 | SPACER TUBE 4 X 4 X4T- 5” |
| 8H1510 | MNT PLATE(FLAT1/2X5-10”) 6”MAX |
| 8H1520 | MNT BRACKET SHORT (13”) UNIV |
| 8H1522 | MNT BRACKET SHORT (20”) HI-CLR |
| 8H1530 | MNT BRACKET LONG (25”) UNIV |
| 8H1532 | MNT BRACKET LONG (29”) HI-CLR |
| 8H2010 | PIPE SPACER 3/4 X 1-1/2” 88- |
| 8H2130 | ADJ NUT W/WLDD SHOCKSPRNG 88- |
| 8H2132 | CARRIER ARM 34”DSK M94/104/106 |
| 8H2142 | CARRIER ARM 42” M94/104/106 |
| 8H2144 | CARRIER ARM 52”CHP M94/104/106 |
| 8H2180 | CLIPW/PVT LCKUP CAST DRLD&PNTD |
| 8H2190 | HANDLE W/PIN AUTOLCKUP 94-106 |
| 8H2315 | EXTENSN MNT ARM 6” M94/04/06 |
| 8HD0080 | PIPE CLAMP 2-1/2”ID PLATED ZDI |
| 8HD0150 | PIN ADJSTMNT 5/8X9.75”ZDI95- |
| 8HD0160 | SPRING TINE ADJ.COMP.ZINC95- |
| 8HD0200 | U-BOLT 1/2 X 2-3/8X 3-9/16”RND |
| 8HD0510 | PIPE SPACER 3/4 X 2-3/4” 93- |
| 8HD5052 | 1ST PIPE W/LVR 6’104/6 3OR4BR |
| 8HD5054 | 2ND PIPE W/LVR 6’104/6 3OR4BR |

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| 8HD5056 | 3RD PIPEW/LVR 6’104/6 3BR93-00 |
| 8HD5056Q | 3RD PIPE/LVR6’ 3BR104/6QADJ00- |
| 8HD5057 | 3RD PIPEW/LVR 6’ 104/6 4BR 98- |
| 8HD5058 | 4TH PIPEW/LVR 6’104/6 4BR98-00 |
| 8HD5058Q | 4TH PIP/LVR6’ 4BR104/6 QADJ02- |
| 8HD5072 | 1ST PIPE W/LVR 8’ 104/6 3OR4BR |
| 8HD5074 | 2ND PIPE W/LVR 8’ 104/6 3OR4BR |
| 8HD5076 | 3RD PIPEW/LVR 8’104/6 3BR93-00 |
| 8HD5076Q | 3RD PIP/LVR8’ 3BR104/6 QADJ00- |
| 8HD5077 | 3RD PIPEW/LVR 8’ 104/6 4BR 98- |
| 8HD5078 | 4TH PIPEW/LVR 8’104/6 4BR98-00 |
| 8HD5078Q | 4TH PIP/LVR8’ 4BR104/6 QADJ02- |
| 8HD5082 | 1ST PIPE W/LVR10’ 104/6 3OR4BR |
| 8HD5084 | 2ND PIPE W/LVR10’ 104/6 3OR4BR |
| 8HD5086 | 3RD PIPEW/LVR10’104/6 3BR93-00 |
| 8HD5086Q | 3RDPIP/LVR10’ 3BR104/6 QADJ00- |
| 8HD5087 | 3RD PIPEW/LVR10’ 104/6 4BR 98- |
| 8HD5088 | 4TH PIPEW/LVR10’104/6 4BR98-00 |
| 8HD5088Q | 4THPIP/LVR10’ 4BR104/6 QADJ02- |
| 8HD5094 | EXT PIPE2.375”ODX.148- 12” 01- |
| 8HD5096 | EXT TUBE1.5SQ11GA-23-3/4”01- |
| 8HD5101 | SIDE PLT 1/4”3BR 104/6 LEFT00- |
| 8HD5102 | SIDE PLT 1/4”3BR 104/6 RGHT00- |
| 8HD5105 | SIDE PLT5/16”4BR 104/6 LEFT00- |
| 8HD5106 | SIDE PLT5/16”4BR 104/6 RGHT00- |
| 8HD5115 | CONNCTNG BAR (3/8X2-17.5) 00- |
| 8HD5120 | CONNCTNG BAR (3/8X2X30.5) 93- |
| 8HD5140 | CROSS TUBE W/FLATS 6’ M104/106 |
| 8HD5150 | CROSS TUBE W/FLATS 8’ M104/106 |
| 8HD5160 | CROSS TUBE W/FLATS 10’ M104/06 |
| 8J0190 | SCRAPER FLAT SUPRCOULTR 00- |
| 8J0200 | MNT FLAT SCRAPR SPRCLTR 00- |
| 8J1022H | COULTR BLADE WAVE.256X22”04- |
| 8J1023H | COULTR BLADE FLAT.256X22”04- |
| 8J1027H | COULTR BLADE TURBO.256X22”05- |
| 8J3002 | SPOOL 2” SPACR WELDED CLTR 06- |
| 8J3010 | SPOOL 10” FULL WELDED CLTR 00- |
| 8J3012 | SPOOL12”FULLWLDD CLTRCHSL06- |
| 8J3246 | SCRAPER MNT TUBE-46”SCLTR03- |
| 8J3256 | SCRAPER MNT TUBE-56”SCLTR00- |
| 8J3266 | SCRAPER MNT TUBE-66”SCLTR00- |
| 8J3276 | SCRAPER MNT TUBE-76”SCLTR00- |
| 8J3286 | SCRAPER MNT TUBE-86”SCLTR04- |
| 8J5100 | #6 JIC(M) X #6 JIC(M) UNION |
| 8J5110 | #10 JIC(M) X #10 JIC(M) UNION |
| 8J5150 | 3/8” MPT X #6 JIC(M) STR ADPTR |
| 8J5170 | 1/2” MPT X #10 JIC(M)STR ADPTR |
| 8J5200 | #10 JIC(F) X #6 JIC(M)HEX BUSH |
| 8J5300 | #6 JIC (MALE) 3X TEE |
| 8J5310 | #10 JIC (MALE) 3X TEE |
| 8J5500 | 9/16”-18 ORB X #6 JIC(M) STR |
| 8J5510 | 3/4”-16 ORB X #6 JIC(M) STR |
| 8J5520 | 3/4”-16 ORB X #10 JIC(M) STR |
| 8J5540 | 7/8”-14 ORB X #10 JIC(M) STR |
| 8J5600 | 9/16”-18 ORB X #6 JIC(F-SW)STR |
| 8J5620 | 3/4”-16 ORB X #6 JIC(F-SW)STR |
| 8J5680 | 3/4”-16 ORB X 3/4”-16ORB UNION |
| 8J5690 | 3/4-16X3/4-16 ORB M-SW90*UNION |
| 8J5700 | #6 JIC(F-SW) X #6 JIC(M)90*ADP |
| 8J5710 | #10 JIC(F-SW)X#10 JIC(M)90*ADP |
| 8J5810 | 1/2”FPT X #10 JIC(F-SW) STR |
| 8J6000 | 9/16”-18 ORB X #6 JIC(M)90*ADP |
| 8J6002 | 9/16”-18ORB X #6 JIC(M)BRNCH T |
| 8J6004 | 9/16”-18ORB X #6 JIC(M)RUN TEE |
| 8J6010 | 3/4”-16 ORB X #6 JIC(M)90*ADP |
| 8J6020 | 3/4”-16 ORB X #10 JIC(M)90*ADP |
| 8J6026 | 7/8”-14 ORB X #6 JIC(M)90*ADP |
| 8J6060 | 3/4”-16ORB X #6JIC(F-SW)90*ADP |
| 8J7000 | BALL VALVE HYD 9/16”-18ORB(2X) |
| 8J7040 | THERMAL RELIEF MANIFLD 4000PSI |
| 8J7116 | 3/4”-16 ORB(2X)1WAY 1/16”RESTR |
| 8J7216 | #6JIC(M)X6JIC(F)1/16”RSTR GOLD |
| 8J7232 | #6JIC(M)X6JIC(F)1/32”RSTR SLVR |
| 8K1100 | HUB&AXLE ASSY 614(GBGI-2”RCVR) |
| 8K1105 | HUB&AXLE ASSY HD812(2.5”RCVR) |
| 8K1105S | HUB&AXLE ASSY HD812 (2”RCVR) |
| 8K1610 | PIN 3/4 X 6-1/4”SAFETYLOCK 84- |
| 8K1620 | PIN 1-1/4 X 6-1/8” 84- |
| 8K1640 | PIN 1-1/2 X 10-5/8” HITCH 84- |
| 8K1660 | PIN 1-1/2 X 15-1/2” HARDEND84- |
| 8K1680 | EYEBOLT 1.25DIAX 1”EYEX 9” YZ |
| 8K1682C | EYEBOLT 1.5”DIAX1”EYEX10-3/8YZ |
| 8K1683 | EYEBOLT 1.5”DX1.25”EYEX10-3/8” |
| 8K1830 | HOUSNG HUBODOMETR DSK/CLTR GNG |
| 8K1900 | SEAL GBGI V WALKING TANDEM 01- |
| 8K1920 | RETAINING RING 2-7/8” INV 00- |
| 8K1995 | BEARING 211X2.02”PRTSONLY06- |
| 8K2000 | BEARING 211 X 2.02” ID 84- |
| 8K2020 | RETAINING RING GANG BRNG 84- |
| 8K2050 | HOUSNG W/BRNG LIST PRICE$88.60 |
| 8K2080 | CAST BEARNG MNT BASE DRILLD |
| 8K2090 | CAST BEARNG PIVOT TUBE DRILLD |
| 8K2102 | BEARING ASSYW/211BRNG&CSTNGS |
| 8K2120 | GANG ROD 2” DIA X 47” |
| 8K2128 | GANG ROD 2” DIA X 55” CLTR 07- |
| 8K2130 | GANG ROD 2” DIA X 57” |
| 8K2140 | GANG ROD 2” DIA X 67” |
| 8K2150 | GANG ROD 2” DIA X 77” |
| 8K2160 | GANG ROD 2” DIA X 87” |
| 8K2165 | GANG ROD 2” DIA X 91” CLTR 06- |
| 8K2170 | GANG ROD 2” DIA X 97” |
| 8K3002 | WRENCH GANG 3-1/8” HEX BLCK00- |
| 8K4009 | SPOOL HALF SHORT CLTR DCTL 00- |
| 8K4019 | SPOOL HALF LONG CLTR DCTL 00- |
| 8K4130 | HOUSING BRG TOGGLE MNT CAST |
| 8K4200 | CLAMP GANGMNT W/PEG CAST PNTD |
| 8K4210 | CLAMP GANG MOUNT CAST PNTD |
| 8K4300 | CLAMP SCRAPER MNT CAST PNTD |
| 8K4400 | SPRING SHANK GNG MNT 2.5”X1.25 |
| 8K4420 | CLAMP FLAT 1/2 X 2- 4-1/4” 84- |
| 8K4430 | ARM 5/8X2.5- 15.375”HR1044PNTD |
| 8K5200 | WASHER GANG BOLT 2.03” ID |

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| 8K5210 | WASHER GANG BLT FOR STLK FNGR |
| 8K5214 | STALK FINGER 3/4 X 6” |
| 8K5350 | SPLITSTEELBUSH 2”ODX1.5”ID- 2” |
| 8K5505 | U-BOLT 3/4 X 2-1/8 X 4-1/4” SQ |
| 8K5515 | U-BOLT 3/4 X 4 X 6” SQ |
| 8K5520 | U-BOLT 3/4 X 6-1/8 X 7-1/2” SQ |
| 8K6870 | ARM & KNEE ASSY W/HUB CLTR OPT |
| 8K6874 | COULTER BLADE 20” FLUTED B-JET |
| 8K6875 | COULTER BLADE17”DIA2”PTCH8WAVE |
| 8K7016 | WHEEL 15 X 8” 8 BOLT-VLV GRD |
| 8K7020 | WHEEL 15 X 10” 8 BOLT-VLV GRD |
| 8K7022 | WHEEL 16 X 10” 8 BLT PRTS ONLY |
| 8K7025 | TIRE 11L X 15” 10PLY FARM UTIL |
| 8K7026 | TIRE 11L X 15” LRF TBLS HWYSRV |
| 8K7028 | TIRE 12.5L X 15” LRF TL HWYSRV |
| 8K7111 | HUB HD812 W/CUPS&ZRK 8BLT3LIP |
| 8K7113 | HUB CAP HD812 DC17 |
| 8K7117 | BEARING INNER HD812 LM3780 |
| 8K7118 | BEARING OUTER HD812 LM2790 |
| 8K7120 | SEAL 2-1/2”ID HD812 SE17 -06 |
| 8K7122 | STUD WHEEL 5/8-18UNFX2.5”97- |
| 8K7123 | NUT 5/8”-18UNF WHEEL BOLT 97- |
| 8K7127 | SEAL TRPL LIP EXTRNL HD812 06- |
| 8K7128 | SEAL SLEEVE FOR 3X LIP 812 06- |
| 8K7130 | RACE INNER HD812 LM3720 |
| 8K7132 | RACE OUTER HD812 LM2720 |
| 8K7150 | AXLE HD812 X 11.5” (2.5”DIA.) |
| 8K7150S | AXLE HD812X 11.5” (2”DIA.RCVR) |
| 8K8000 | FLAT LGHT BRCKT3/8X3.5-11.38” |
| 8K8010 | TUBE LGHT BRCKT1.5SQ55.5”00- |
| 8K8020 | MOUNTNG BRCKT LIGHT 00- |
| 8K8060 | EXT HRNSS 12’ 3PIN WTHRPCK -07 |
| 8K8067 | DUST CAP FOR 7PIN CONNECT00- |
| 8K8068 | MAIN HRNSS7PIN WTHRPCK SHRT-07 |
| 8K8070 | MAIN HRNSS7PIN WTHRPCK LONG-07 |
| 8K8075 | EXT HRNSS NONDRAWBR WPCK 00-07 |
| 8K8080 | EXT HRNSS DRWBAR WTHRPCK 00-07 |
| 8K8088 | LENS ONLY AMBER GROTE LGHT 00- |
| 8K8090 | LIGHT AMBER 2WIREWTHRPCK 00- |
| 8K8092 | LENS ONLY RED GROTE LIGHT 00- |
| 8K8094 | LIGHT RED 2WIRE WTHRPCK 00-07 |
| 8K8095 | LIGHT RED 3WIRE WTHRPCK 05- |
| 8K8096 | LIGHT RED 3WIREWTHRPCK ISO 06- |
| 8K8105 | EXT HRNSS T 26’2WIREWTHRPCK-07 |
| 8K8200 | BRCKT SMV ATTCH 4-8”FRAME98- |
| 8K8202 | BRCKT SMV ATTCH BNT 45* LR 05- |
| 8K8430 | HYD CYL 3”DIA.X 8”RPHS 1.5”ROD |
| 8K8435 | HYD CYL 3.5 X 8” RPHS 1.75”ROD |
| 8K8440C | HYD CYL 4”DIA X 8” RPHS 2”ROD |
| 8K8445C | HYD CYL 4.5 X 8” RPHS 2”ROD |
| 8K8452C | HYD CYL 5”DIAX 8” RPHS2.125”RD |
| 8K8600 | SEAL KIT 3 X 8” CTD 89- |
| 8K8610 | SEAL KIT3.5X8”CTD1.75”ROD 90- |
| 8K8620 | SEAL KIT 4 X 8” CTD 89- |
| 8K8630 | SEAL KIT 4.5 X 8” CTD 89- |
| 8K8642 | SEAL KIT 5 X 8”CTD 2&2.125”ROD |
| 8K8650 | SEAL KIT4X36”CTD(8K9640CYL)90- |
| 8K8660 | SEAL KIT5X36”CTD(8K9650CYL)89- |
| 8K9102 | PIN 1 X 4” CYL-FOR1/4”ROLL PIN |
| 8K9106 | PIN 1-1/4 X 4-3/8” HARDENED |
| 8K9174 | STROKE CNTRL 1/2” 2”ROD 96- |
| 8K9176 | STROKE CNTRL 3/4” 2”ROD 96- |
| 8K9178 | STROKE CNTRL 1” 2”ROD 96- |
| 8K9180 | STROKE CNTRL 1-1/4” 2”ROD 96- |
| 8K9190 | TRANSPORT LOCK 7.5” (2”ROD)85- |
| 8K9220 | ANGLE 6X6X1/2- 6.25” WGHT PKG |
| 8K9230 | SUITCASE WGHT PNTD 1.25” X70# |
| 8K9640 | HYD CYL 4 X 36” W/3” STOP TUBE |
| 8K9650 | HYD CYL 5 X 36” W/3” STOP TUBE |
| 8L0252 | WASHER 1.28”IDX4.5ODX 1/4” ZDI |
| 8L0256 | U-BOLT 1/4 X 1-1/2 X 2-1/2” SQ |
| 8L0258 | U-BOLT 5/16 X 1-1/2 X 2-1/2”SQ |
| 8L0260 | U-BOLT 3/8 X 1-3/4 X 3” SQ |
| 8L0262 | U-BOLT 5/16 X 1 X 2” SQ |
| 8L0266 | U-BOLT 1/2 X 3-1/2 X 5” SQ |
| 8N3018 | 3/8X 18”HYD HOSE #6FJX3000PSI |
| 8N3028 | 3/8X 28”HYD HOSE #6FJX3000PSI |
| 8N3035 | 3/8X 35”HYD HOSE #6FJX3000PSI |
| 8N3048 | 3/8X 48”HYD HOSE #6FJX3000PSI |
| 8N3060 | 3/8X 60”HYD HOSE #6FJX3000PSI |
| 8N3070 | 3/8X 70”HYD HOSE #6FJX3000PSI |
| 8N3084 | 3/8X 84”HYD HOSE #6FJX3000PSI |
| 8N3096 | 3/8X 96”HYD HOSE #6FJX3000PSI |
| 8N3124 | 3/8X 124”HYD HOSE #6FJX3000PSI |
| 8N3136 | 3/8X 136”HYD HOSE #6FJX3000PSI |
| 8N3150 | 3/8X 150”HYD HOSE #6FJX3000PSI |
| 8N3156 | 3/8X 156”HYD HOSE #6FJX3000PSI |
| 8N3160 | 3/8X 160”HYD HOSE #6FJX3000PSI |
| 8N3180 | 3/8X 180”HYD HOSE #6FJX3000PSI |
| 8N3204 | 3/8X 204”HYD HOSE #6FJX3000PSI |
| 8N3216 | 3/8X 216”HYD HOSE #6FJX3000PSI |
| 8N3228 | 3/8X 228”HYD HOSE #6FJX3000PSI |
| 8N3252 | 3/8X 252”HYD HOSE #6FJX3000PSI |
| 8N3288 | 3/8X 288”HYD HOSE #6FJX3000PSI |
| 8N3312 | 3/8X 312”HYD HOSE #6FJX3000PSI |
| 8N3330 | 3/8X 330”HYD HOSE #6FJX3000PSI |
| 8N3348 | 3/8X 348”HYD HOSE #6FJX3000PSI |
| 8N3360 | 3/8X 360”HYD HOSE #6FJX3000PSI |
| 8N3390 | 3/8X 390”HYD HOSE #6FJX3000PSI |
| 8N3432 | 3/8X 432”HYD HOSE #6FJX3000PSI |
| 8N3462 | 3/8X 462”HYD HOSE #6FJX3000PSI |
| 8N3534 | 3/8X 534”HYD HOSE #6FJX3000PSI |
| 8N3570 | 3/8X 570”HYD HOSE #6FJX3000PSI |
| 8N3606 | 3/8X 606”HYD HOSE #6FJX3000PSI |
| 8N4016 | 1/2X 16”HYD HOSE#10FJX3000PSI |
| 8N4060 | 1/2X 60”HYD HOSE#10FJX3000PSI |
| 8N4114 | 1/2X 114”HYD HOSE#10FJX3000PSI |
| 8N4120 | 1/2X 120”HYD HOSE#10FJX3000PSI |
| 8N4138 | 1/2X 138”HYD HOSE#10FJX3000PSI |
| 8N4198 | 1/2X 198”HYD HOSE#10FJX3000PSI |
| 8N4216 | 1/2X 216”HYD HOSE#10FJX3000PSI |
| 8N4228 | 1/2X 228”HYD HOSE#10FJX3000PSI |

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| 8N4546 | 1/2X 546”HYD HOSE#10FJX3000PSI |
| 8N4624 | 1/2X 624”HYD HOSE#10FJX3000PSI |
| 8N6060 | 3/4X 60”HYD HOSE#10FJX3000PSI |
| 8N6354 | 3/4X 354”HYD HOSE#10FJX3000PSI |
| 8N6570 | 3/4X 570”HYD HOSE#10FJX3000PSI |
| 8N6588 | 3/4X 588”HYD HOSE#10FJX3000PSI |
| 8R6901 | AXLE H614 STR 2”CR X 9-1/2” |
| 8R6911 | HUB H614 W/CUPS&ZRK 6 BLT GBGI |
| 8R6913 | HUB CAP H614 & H618 |
| 8R6914 | BOLT WHEEL 9/16”-18 UNF |
| 8R6917 | BEARING INNER 614 |
| 8R6921 | SEAL HD 2” ID (TRPL LIP) H614 |
| 8R6922 | SEAL ASSY GBGI H614 HUB 00- |
| 8R6923 | SEAL ONLY GBGI H614 HUB 00- |
| 8R6924 | COUNTRFACE GBGI H614 HUB 00- |
| 8R6925 | RACE INNER H614 LM603011 |
| 8R6927 | SEAL SUPPORT GBGI H614 AXLE |
| 8S0300 | U-BOLT 3/8 X 2 X 4” SQ |
| 8S0315 | U-BOLT 3/8 X 3 X 4-1/8” RND |
| 8S0319 | U-BOLT 3/8 X 3 X 4-1/8” SQ |
| 8S0330 | U-BOLT 1/2 X 3 X 4-1/4” SQ |
| 8S0340 | U-BOLT 1/2 X 4 X 5-1/4” SQ |
| 8S0358 | U-BOLT 5/8 X 3 X 4-1/2” SQ |
| 8S0360 | U-BOLT 5/8 X 6 X 4-1/2” SQ |
| 8S1120 | SIGN SLOW MOVING VEHICLE(SMV) |
| 8S1124 | MOUNTING SOCKET SMV SIGN ZDI |
| 8S1126 | MNT SPADE W/HRDWR SMV SIGN |
| 8S2990 | HYD HOSE CLAMP-LARGE-NYLON |
| 8T0100 | SPRG BASE WSHR SQ HOL TRIP97- |
| 8T0400 | STL 7T0400 LIFT LINK CURVD 99- |
| 8T0500 | SHANK CHISEL EDGE-ON PNTD 96- |
| 8T0550 | SPRING REAR HTCH PIN 97- |
| 8T0600 | SPRING CHSL TRIP 700# PTD96- |
| 8T0602 | SPRING CHSL TRIP 1050#PTD03- |
| 8T0606 | WRENCH 1-1/2” OPEN 1” BOX 98- |
| 8T0608 | WRENCH 1” OPEN 1-1/2” BOX 98- |
| 8T0990 | HYD PLNGR UPDATEKIT1/4TO3/8”RD |
| 8T1004 | HYD PLNGR REPAIRKIT1/4RDRAM-02 |
| 8T1006 | PLUNGER PIN W/HOLS RAM 98- |
| 8T1008 | HYDPLNGR REPAIR KIT3/8RDRAM02- |
| 8T1010 | POPPET ASSY HD BLT-ON RAM02- |
| 8T1015 | HAIRPIN CLIP FOR PLUNGER PIN |
| 8T1035 | HYD CYL 3.5 X 10” R35SM-10BP |
| 8T1037 | HYD CYL 3.75 X 10”R3755M-10BP |
| 8T1040 | HYD CYL 4.0 X 10” REPHASE 96- |
| 8T1040B | HYD CYL 4.0 X10” FOR 5PLX 99- |
| 8T1045 | HYD CYL 4.5 X 10” REPHASE 96- |
| 8T1050 | HYD CYL 5.0 X 10” REPHASE 96- |
| 8T1055 | HYD CYL 5.5 X 10” REPHASE 96- |
| 8T1060 | HYD CYL 6 X10 W/STRK CNTRL 96- |
| 8T1135 | SEAL KIT 3.5 X 10”RAM 2” ROD |
| 8T1137 | SEAL KIT 3.75X 10”RAM1-3/8”ROD |
| 8T1140 | SEAL KIT 4.0 X 10”RAM 2” ROD |
| 8T1140B | SEAL KIT 4.0 X 10”RAM1-3/8”ROD |
| 8T1145 | SEAL KIT 4.5 X 10” RAM 98- |
| 8T1150 | SEAL KIT 5.0 X 10” RAM 98- |
| 8T1155 | SEAL KIT 5.5 X 10” RAM 98- |
| 8T1160 | SEAL KIT 6.0 X 10” RAM 98- |
| 8T2510 | ROLLER PRT1 WNGLIFT2.25”OD 99- |
| 8T2514 | SPACER WNGLFT2.25OD- 9/16” 99- |
| 8T2520 | ROLLR WNGLFT2.25ODX2-3/16” 99- |
| 8T2530 | ROLLR#2WNGLFT4.5ODX1.52”ID 00- |
| 8T2986 | CLAMP 1/2” WIRING MTL/RUB BCK |
| 8T2988 | CLAMP 3/8” WIRING MTL/RUB BCK |
| 8T2990 | HYD HOSE CLAMP MTL/RUB BACK |
| 8T3100 | Y-BOLT (7-3/4”) 1050#TRIP 04- |
| 8T3120 | FLAT3/8X2-7.75”WTCHAINATTCH07- |
| 8T3200 | BOLT 1-8NCX11”W/6.5”THD GR5 YZ |
| 8T3300 | PIVOT BOLT CHSLTRP&WNGLFT YZ |
| 8T3400 | PIN 1-1/4 X 6-11/16”5-PLEX 99- |
| 8T3590 | LINK PART 1 TO 2 FOR 5PLX99- |
| 8T3600 | PIN 1-1/2 X 4-7/8” WNG PIVT98- |
| 8T3606 | PIN 1-1/2 X 5-3/8”PRT2HNG 99- |
| 8T3608 | PIN 1-1/2 X 7-1/16”HRDND&CHROM |
| 8T3620 | PIN 1-1/2 X 12-1/2” HRDND&ZINC |
| 8T3625 | PIN 1-1/2 X 12” W/WLD WSHR 00- |
| 8T3640 | PIN 1-1/2 X 19” HARDEND 98- |
| 8T3800 | WASHR7OD W/1.75OD BUSHX1.27”ID |
| 8T3810 | 7T4286 HEX WASHER PNTD 99- |
| 8T3820 | WASHR7OD W/2.25OD BUSHX1.27”ID |
| 8T4000 | HITCH CHISEL PLOW 96- |
| 8T4020 | FRAME CNTR FRNT CHPLOW 96- |
| 8T4030 | FRAME CNTR REAR 3-PLEX 96- |
| 8T4032 | FRAME CNTR REAR 5-PLEX 99- |
| 8T4040 | WING 6’ PRT1 LEFT28+30’ 98- |
| 8T4042 | WING 6’ PRT1 RGHT28+30’ 98- |
| 8T4046 | WING 6’ PRT2 LEFT 50-60’ 99- |
| 8T4048 | WING 6’ PRT2 RGHT 50-60’ 99- |
| 8T4050 | WING 8’ PRT1 LEFT 32’-44’ 96- |
| 8T4052 | WING 8’ PRT1 RGHT 32’-44’ 96- |
| 8T4054 | WING 11’ PRT1 LEFT 50’-54’ 99- |
| 8T4056 | WING 11’ PRT1 RGHT 50’-54’ 99- |
| 8T4058 | WING 13’ PRT1 LEFT 56’-60’ 04- |
| 8T4059 | WING 13’ PRT1 RGHT 56’-60’ 04- |
| 8T4060 | WING EXT 1 SHNK CHSL 96- |
| 8T4070 | WING EXT 2 SHNK CHSL 96- |
| 8T4072 | WING EXT 2SHNK FOR GWHL 99- |
| 8T4074 | WING EXT 3SHNK LEFT CH 99- |
| 8T4076 | WING EXT 3SHNK RGHT CH 99- |
| 8T4080 | WING EXT 4SHNK LEFT CH 96- |
| 8T4082 | WING EXT 4SHNK RGHT CH 96- |
| 8T4090 | SUPPORT GAUGE WHEEL(5”SQ) 97- |
| 8T4094 | HOLDER GAUGE WHL AXL(4”SQ) 97- |
| 8T4100 | PIVOT W/BLTPLATE LIFTARM 96- |
| 8T4130 | LIFTARM FRONT CNTR CHSL 98- |
| 8T4132 | WLKNG TNDM 7.5”C-C 2” ID 98- |
| 8T4140 | LIFTARM REAR WLKNG TNDM CH96- |
| 8T4166 | WALKNG TNDM W/ANGLD4X4LEFT99- |
| 8T4168 | WALKNG TNDM W/ANGLD4X4RGHT99- |
| 8T4174 | FLAT 3/8 X 1-1/2- 6-7/8” 99- |
| 8T4175 | REAR SPRNG ATTCH BRCKT 50’-60’ |
| 8T4176 | SUPPORT-WHL SPRG LARM LEFT99- |

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| 8T4177 | SUPPORT-WHL SPRG LARM RGHT99- |
| 8T4178 | SUPPORT-WHL SPRG I-BLT LEFT99- |
| 8T4179 | SUPPORT-WHL SPRG I-BLT RGHT99- |
| 8T4190 | MUD DFLCTR W/T 7T0125 BNT LEFT |
| 8T4192 | MUD DFLCTR W/T 7T0125 BNT RGHT |
| 8T4198 | BRACE FRNTCNTR CYL ATTCH 02- |
| 8T4200 | CYL ATTCH FRNT CNTR CHSL 96- |
| 8T4224 | CYL ATTCH “A” REAR CHSL 99- |
| 8T4226 | CYL ATTCH OFFST REAR 5PLX 99- |
| 8T4260 | REST PART 2 WING 5-PLX 99- |
| 8T4300 | LOCK TRNSPRT 28’-44’ WING 97- |
| 8T4325 | LOCK TRNSPRT50-60’CP&SCLTR 99- |
| 8T4350 | LOCK CYLINDER 10.5”(2.5ROD)96- |
| 8T4380 | HOLDER CYL LOCK 4”&6” MNT 96- |
| 8T4400 | SUPPORT CABLE LIMIT/HTCH 99- |
| 8T4410 | SUPPORT CABLE LIMIT/FRM 99- |
| 8T4450 | KIT SUPPORT CABLE LIMIT 99- |
| 8T4510 | FRAME REAR HITCH 98- |
| 8T4520 | PIN 1 X 9-11/16”REAR HTCH 98- |
| 8T4530 | PIN 1 X 8-1/2”RRHTCHSPRNG98- |
| 8T4540 | SWIVEL REAR HITCH 98- |
| 8T4550 | SLIDE REAR HITCH 98- |
| 8T4570 | EXTENSION CHISEL REAR HTCH06- |
| 8T5000 | HOLDER SPRNG-TRIP ASSY CAST96- |
| 8T5020 | PIPE SPRING STOP CHSL TRIP 96- |
| 8T5050 | HOLDER SHANK TRIP W/BSHNGS 96- |
| 8T5150 | BRCKT CHSL TRIP ASSY MNTNG 96- |
| 8T5200 | CAP SWIVEL CAST HRDND CHSL96- |
| 8T5345 | SPLITSTEELBUSH2”ODX1.5”ID-1.5” |
| 8T6000 | GAUGE WHEEL JACKBLT PLTD 96- |
| 8T6010 | GAUGE WHEEL SCREW TOP 96- |
| 8T6020 | GAUGE WHEEL JACK HANDL 96- |
| 8T6810 | PLST BUSH 1-5/8X1.25X1”LG 96- |
| 8T7500 | TRIP ASSY-LESS SHANK 700# 96- |
| 8T7500H | TRIP ASSY-LESS SHNK 1050# 03- |
| 8T8100 | SEQUENCE VALVE WNG FOLD 99- |
| 8W1200 | U-BOLT 1/2 X 2 X 3-1/4” SQ |
| 8W1204 | U-BOLT 1/2 X 3 X 3” SQ |
| 8W1398 | HOLDDOWN HOSE 8” WDTH 91- |
| 8X0000 | BOLT 1/4-20X3/4”FLLTHDGR5 ZDI |
| 8X0000B | BOLT 1/4-20NC X 1” GR5 ZDI |
| 8X0001 | BOLT 3/8-16NC X 3/4” GR5 ZDI |
| 8X0002 | BOLT 3/8-16NC X 1” GR5 ZDI |
| 8X0003 | BOLT 1/4-20NC X 4-1/2” GR5 ZDI |
| 8X0004 | BOLT 3/8-16NC X 1-1/4” GR5 ZDI |
| 8X0005 | BOLT 1/4-20NC X 3-3/4” GR5 ZDI |
| 8X0006 | BOLT 3/8-16NC X 2-1/2” GR5 ZDI |
| 8X0007 | BOLT 3/8-16NC X 1-1/2” GR5 ZDI |
| 8X0007B | BOLT 3/8-16NC X 1-3/4” GR5 ZDI |
| 8X0008 | BOLT 3/8-16NC X 2” GR5 ZDI |
| 8X0009 | BOLT 1/4-20NC X 2” GR5 ZDI |
| 8X0010 | BOLT 1/4-20NC X 1-1/4” GR5 ZDI |
| 8X0011 | SCREW RDHD SLOT1/4-20X1.5”ZDI |
| 8X0013 | BOLT 1/4-20NC X 2-1/2” GR5 ZDI |
| 8X0014 | BOLT 1/4-20NC X 3” GR5 ZDI |
| 8X0015 | BOLT 3/8-16NC X 3-3/4” GR5 ZDI |
| 8X0016 | BOLT 3/8-16NC X 3” GR5 ZDI |
| 8X0017 | BOLT 3/8-16NC X 5” GR5 ZDI |
| 8X0019 | BOLT 3/8-16NC X 4-1/2” GR5 ZDI |
| 8X0020 | BOLT 3/8-16X3.5”FULLTHDGR5 ZDI |
| 8X0021 | BOLT 5/16-18NC X 3/4” GR5 ZDI |
| 8X0021A | BOLT 5/16-18NC X 1” GR5 ZDI |
| 8X0021B | BOLT 5/16-18NC X 1-1/4”GR5 ZDI |
| 8X0022 | SCKT CAP 5/16-18 X 1” GR5ZDI |
| 8X0023 | BOLT 5/16-18NC X 2” GR5 ZDI |
| 8X0030 | BOLT 5/16-18NC X 5” GR5 ZDI |
| 8X0031 | BOLT 7/16-14NC X 1” GR5 ZDI |
| 8X0033 | BOLT 7/16X1.25 5/8”THD GR5 ZDI |
| 8X0034 | BOLT 7/16X1.75 W/1”THD GR5 ZDI |
| 8X0036 | BOLT 7/16-14NC X 2” GR5 ZDI |
| 8X0037 | PLOWBOLT 1/2-13NC X 2”GR5 ZDI |
| 8X0038 | BOLT 7/16-14NC X 2-1/2”GR5 ZDI |
| 8X0041 | BOLT 7/16-14NC X 3” GR5 ZDI |
| 8X0044 | BOLT 7/16-14NC X 3-1/2”GR5 ZDI |
| 8X0045 | BOLT 7/16-14NC X 4-1/2”GR5 ZDI |
| 8X0046 | BOLT 7/16-14NC X 7-1/4”GR5 ZDI |
| 8X0047 | BOLT 7/16-14NC X 6” GR5 ZDI |
| 8X0048 | CRG 7/16-14NC X 3-1/2” GR5 ZDI |
| 8X0061 | BOLT 1/2-13NC X 1-1/4” GR5 ZDI |
| 8X0062 | BOLT 1/2-13NC X 2” GR5 ZDI |
| 8X0063 | BOLT 1/2-13NC X 1-1/2” GR5 ZDI |
| 8X0064 | CRG 1/2-13NC X 1-1/2” GR5 ZDI |
| 8X0065 | CRG 1/2-13NC X 2” GR5 ZDI |
| 8X0066 | BOLT 1/2-13NC X 1-3/4” GR5 ZDI |
| 8X0066S | SCKT CAP 1/2-13 X 1.75”GR8 PLN |
| 8X0067 | BOLT 1/2-13NC X 2-1/4” GR5 ZDI |
| 8X0068 | BOLT 1/2-13NC X 2-1/2” GR5 ZDI |
| 8X0069 | BOLT 1/2-13NC X 3” GR5 ZDI |
| 8X0070 | BOLT 1/2-13NC X 3-1/4” GR5 ZDI |
| 8X0071 | BOLT 1/2-13X 3”SHOULDR GR2 ZDI |
| 8X0072 | BOLT 1/2-13NC X 3-3/4” GR5 ZDI |
| 8X0073 | BOLT 1/2-13NC X 5” GR5 ZDI |
| 8X0074 | BOLT 1/2-13NC X 4-1/2” GR5 ZDI |
| 8X0075 | BOLT 1/2-13NC X 6” GR5 ZDI |
| 8X0076 | BOLT 1/2-13NC X 5-1/2” GR5 ZDI |
| 8X0077 | BOLT 1/2-13NC X 7-1/2” GR5 ZDI |
| 8X0078 | BOLT 1/2-13X3.5”SHOULDR GR2ZDI |
| 8X0080 | BOLT 1/2-13NC X 11” GR5 ZDI |
| 8X0082 | BOLT 1/2-13NC X 6-1/2” GR5 ZDI |
| 8X0083 | BOLT 1/2-13NC X 8” GR5 ZDI |
| 8X0084 | BOLT 1/2-13NC X 9” GR5 ZDI |
| 8X0087 | BOLT 5/8-11NC X 1-1/2” GR5 ZDI |
| 8X0090 | BOLT 5/8-11NC X 2-1/4” GR5 ZDI |
| 8X0091 | BOLT 5/8-11NC X 1-3/4” GR5 ZDI |
| 8X0092 | BOLT 5/8-11NC X 2-3/4” GR5 ZDI |
| 8X0093 | BOLT 5/8-11NC X 2” GR5 ZDI |
| 8X0095 | BOLT 5/8-11NC X 5” GR5 ZDI |
| 8X0096 | BOLT 5/8-11NC X 4” GR5 ZDI |
| 8X0098 | BOLT 5/8-11X 3.5”FULLTHDGR5ZDI |
| 8X0099 | BOLT5/8-11X6.75”W/3.5THDGR5ZDI |
| 8X0101 | BOLT 5/8-11NC X 8” GR5 ZDI |

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| 8X0102 | BOLT 5/8-11NC X 9” GR5 ZDI |
| 8X0106 | BOLT 3/4X2.75”W/1.38THD GR8ZDI |
| 8X0107 | BOLT 3/4-10NC X 2” GR5 ZDI |
| 8X0110 | BOLT 3/4-10NC X 1-1/4” GR5 ZDI |
| 8X0111 | BOLT 3/4-10NC X 2-1/2” GR5 ZDI |
| 8X0112 | BOLT 3/4-10NC X 2-1/4” GR5 ZDI |
| 8X0113 | BOLT 3/4-10NC X 5” GR5 ZDI |
| 8X0114 | BOLT 3/4-10NC X 3” GR5 ZDI |
| 8X0115 | BOLT 3/4-10NC X 3-1/2” GR5 ZDI |
| 8X0115A | BOLT 3/4NCX 3.5”FULLTHD GR5ZDI |
| 8X0115B | BOLT 3/4-10NC X 3-1/2” GR8 ZDI |
| 8X0116 | BOLT 3/4-10NC X 6” GR5 ZDI |
| 8X0117 | BOLT 3/4-10NC X 7” GR5 ZDI |
| 8X0118 | BOLT 3/4-10NC X 4” GR5 ZDI |
| 8X0118A | BOLT 3/4-10NC X 4-1/4” GR5 ZDI |
| 8X0119 | BOLT 3/4-10NC X 7-1/2” GR5 ZDI |
| 8X0120 | BOLT 3/4-10NC X 9” GR5 ZDI |
| 8X0121 | BOLT 3/4-10NC X 6-1/2” GR5 ZDI |
| 8X0122 | BOLT 3/4-10NC X 4-1/2” GR5 ZDI |
| 8X0123 | BOLT 3/4-10NC X 5-1/2” GR5 ZDI |
| 8X0125 | BOLT 3/4-10NC X 10” GR5 ZDI |
| 8X0130 | BOLT 7/8-9NC X 2” GR5 ZDI |
| 8X0132 | BOLT 7/8-9NC X 2-1/2” GR5 ZDI |
| 8X0133 | BOLT 7/8-9NC X 3” GR5 ZDI |
| 8X0138 | BOLT 1-8NC X 5-1/2” GR5 ZDI |
| 8X0139 | BOLT 1-8NC X 3” GR5 ZDI |
| 8X0140 | BOLT 1-8NCX7” W/1.5”THDGR5ZDI |
| 8X0143 | BOLT 1-8NC X 5” GR5 ZDI |
| 8X0144 | BOLT 1-8NC X 9-1/2” GR5 ZDI |
| 8X0145 | BOLT 1-8NC X 10-1/2” GR5 ZDI |
| 8X0149 | BOLT 1-8NC X 18” GR5 ZDI |
| 8X0150 | BOLT 1-8NC X 20” GR5 ZDI |
| 8X0160 | SCREW NO. 10 X 24 - 5/8” |
| 8X0164 | SCRW TRSS HD SLOT#10X24-3” ZDI |
| 8X0165 | SCRW TRSS HD PHPLS1/4-20-3/4SS |
| 8X0166 | SCREW PAN HD PHLPS 1/4X20X1”SS |
| 8X0168 | SCRW TORXTAMPPRF5/16-18X2”ZDI |
| 8X0169 | SCREW FLOORING 1/4 X 1.25” PLN |
| 8X0176 | SELF-DRILL SCRW 10-16X1/2” RUB |
| 8X0178 | SELF-DRL SCRW 12-14X3/4”RUB YZ |
| 8X0180 | SELF-DRL SCRW 12-14 X 1”RUB YZ |
| 8X0182 | SELF-DRL SCRW 12-14X1.5”RUB YZ |
| 8X0201 | NUT 3/8”-16NC HEX GR2 ZDI |
| 8X0202 | NUT 3/8”-16NC NY-LOCK GR2 ZDI |
| 8X0203 | NUT 3/8”-16NC SER FLANG GR2ZDI |
| 8X0204 | NUT 3/8”-16NC HEX GR2 GALV |
| 8X0205 | NUT 10-24 HEX ZDI |
| 8X0210 | NUT 5/16”-18NC HEX GR2 ZDI |
| 8X0211 | NUT 5/16”-18NC SERFLANG GR2ZDI |
| 8X0212 | NUT 5/16”-18NC NY-LOCK GR2 ZDI |
| 8X0218 | NUT 1/4”-20NC SQ GR2 SS |
| 8X0220 | NUT 1/4”-20NC HEX GR2 ZDI |
| 8X0222 | NUT 1/4”-20NC NY-LOCK GR2 ZDI |
| 8X0223 | NUT 1/4”-20NC SER FLANG GR2ZDI |
| 8X0232 | NUT 7/16”-14NC HEX GR2 ZDI |
| 8X0234 | NUT 7/16”-14NC NY-LOCK GR2 ZDI |
| 8X0240 | NUT 1/2”-13NC HEX GR2 ZDI |
| 8X0242 | NUT 1/2”-13NC NY-LOCK GR2 ZDI |
| 8X0246 | NUT 1/2”-13NC SER FLANG GR2 YZ |
| 8X0250 | NUT 5/8”-11NC HEX GR2 ZDI |
| 8X0251 | NUT 5/8”-11NC JAM GR2 ZDI |
| 8X0253 | NUT 5/8”-11NC NY-LOCK GR2 ZDI |
| 8X0256 | NUT 5/8”-11NC SER FLANG GR2 YZ |
| 8X0259 | NUT 3/4”-10NC JAM GR2 ZDI |
| 8X0260 | NUT 3/4”-10NC HEX GR2 ZDI |
| 8X0261 | NUT 3/4”-10NC NY-LOCK GR2 ZDI |
| 8X0264 | NUT 3/4”-10NC BEVL CNTRLCK ZDI |
| 8X0265 | NUT 3/4”-10NC CNTRLOCK GR2 ZDI |
| 8X0266 | NUT 3/4”-10NC SER FLANG GR2 YZ |
| 8X0268 | NUT 7/8”-9NC HEX GR2 ZDI |
| 8X0269 | NUT 7/8”-9NC JAM GR2 ZDI |
| 8X0270 | NUT 7/8”-9NC CNTRLOCK GR2 ZDI |
| 8X0277 | NUT 1”-8NC JAM GR2 ZDI |
| 8X0278 | NUT 1”-8NC JAM TOPLOCK GR2 ZDI |
| 8X0280 | NUT 1”-8NC HEX GR2 ZDI |
| 8X0281 | NUT 1”-8NC NY-LOCK GR2 ZDI |
| 8X0282 | NUT 1”-14NF TOPLOCK GR2 ZDI |
| 8X0283 | NUT 1-1/4”-7NC JAM GR2 ZDI |
| 8X0284 | NUT 1-1/4”-7NC HEX GR2 ZDI |
| 8X0285 | NUT 1-1/2”-6NC HEX GR2 ZDI |
| 8X0286 | NUT 1-1/2”-6NC JAM GR2 ZDI |
| 8X0287 | NUT 1-1/2”-6NC JAM GR2 PLN |
| 8X0290 | NUT 1-1/4”-7NC HEXSLOT GR2 ZDI |
| 8X0292 | NUT 2”-4.5 HVY HEXSLOT GR2 PLN |
| 8X0292S | NUT 2”NC HEXSLOT MACHIND 1.75” |
| 8X0299 | LOCKWASHER 1/4” EXT TOOTH SS |
| 8X0300 | LOCKWASHER 5/16” YLW ZNC |
| 8X0301 | LOCKWASHER 3/8” YLW ZNC |
| 8X0302 | LOCKWASHER 7/16” YLW ZNC |
| 8X0303 | LOCKWASHER 1/2” YLW ZNC |
| 8X0304 | LOCKWASHER 5/8” YLW ZNC |
| 8X0306 | LOCKWASHER 3/4” YLW ZNC |
| 8X0307 | LOCKWASHER 7/8” YLW ZNC |
| 8X0308 | LOCKWASHER 1/4” YLW ZNC |
| 8X0309 | LOCKWASHER 1” YLW ZNC |
| 8X0311 | LOCKWASHER 1-1/4” YLW ZNC |
| 8X0312 | WASHER 1/4” X 1-1/4” FENDER SS |
| 8X0313 | WASHER 1-1/4”ID X 2-1/2”SPRING |
| 8X0315 | LOCKWASHER 1-1/2” YLW ZNC |
| 8X0316 | WASHER 1” SAE FLAT ZDI |
| 8X0317 | WASHER 3/4” SAE FLAT ZDI |
| 8X0318 | WASHER 3/4” (13/16”ID)FLAT ZDI |
| 8X0319 | WASHER 17/32”IDX7/8ODX16GA ZDI |
| 8X0320 | WASHER 3/8” (7/16” ID)FLAT ZDI |
| 8X0323 | WASHER 5/8” SAE FLAT ZDI |
| 8X0327 | WASHER 1-1/4” SAE FLAT ZDI |
| 8X0328 | WASHER 1.312”IDX2.5 OD-1/4” BL |
| 8X0329 | WASHER 5/16”(3/8” ID)FLAT ZDI |
| 8X0330 | WASHER 17/32”ID X 1.25”OD ZDI |
| 8X0331 | WASHER 15/32”ID X 1.25”OD ZDI |

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| 8X0332 | WASHER 1/4”(5/16” ID) FLAT ZDI |
| 8X0333 | WASHER HARROW TOOTH ZDI |
| 8X0341 | WASHER 1-3/4”ID X 2.5”OD BRASS |
| 8X0355 | WASHER 1-1/2”IDX2.25”X10GA PLN |
| 8X0361 | WASHER 1-3/4”ID X2.5”X10GA PLN |
| 8X0364 | WASHER 2-1/2”IDX3.5”X 14GA PLN |
| 8X0366 | WASHER 2.03”ID X3-1/16ODX 1/4” |
| 8X0367 | WASHER 1-3/4”IDX3.25”X14GA PLN |
| 8X0368 | WASHER 1-1/2” SAE FLAT PLN |
| 8X0370 | WASHER 3.016”ID X3.934” X 14GA |
| 8X0380 | WASHER 3.06”ID X 4.25” X 3/16” |
| 8X0400 | HAIR PIN CLIP 1/8 X 1-15/16” |
| 8X0402 | HAIR PIN CLIP 1/8 X 2-9/16” |
| 8X0414 | COTTER PIN 1/4 X 2” ZDI |
| 8X0415 | COTTER PIN 3/16 X 1-1/2” |
| 8X0418 | COTTER PIN 5/16 X 2-1/2” ZDI |
| 8X0420 | CLEVIS PIN 7/16 X 1-3/4” ZDI |
| 8X0422 | CLEVIS PIN 1/2 X 2-1/4” ZDI |
| 8X0425 | CLEVIS PIN 1/2 X 3” ZDI |
| 8X0428 | CLEVIS PIN 1/2 X 5-1/4” ZDI |
| 8X0432 | CLEVIS PIN 1/2 X 6” ZDI |
| 8X0440 | CLEVIS PIN 5/8 X 3-7/8” ZDI |
| 8X0462 | CLEVIS PIN 3/8 X 3” W/HL ZDI |
| 8X0500 | LYNCH PIN 7/16 X 1-3/4” ZDI |
| 8X0505 | S-HOOK .125 X 1-3/8” ZINC |
| 8X0510 | ROLL PIN 3/16 X 1-1/4” PLN |
| 8X0520 | ROLL PIN 3/16 X 2” YZ OR CAD-Y |
| 8X0523 | ROLL PIN 5/16 X 2-1/2” PLN |
| 8X0605 | SET SCRW SQ HD 7/16-14X 1” ZDI |
| 8X0614 | SET SCRW SQ HD 5/8-11 X 2” PLN |
| 8X0632 | SET SCRW SCKT 7/16-14X 1.5”PLN |
| 8X0640 | SET SCRW SQ HD 1/2-13X 1.5”PLN |
| 8X0665 | SET SCRW SQ HD 3/4-10X4.5” ZDI |
| 8X0708 | ZERK 1/4”-28 NF STR ZDI |
| 8X0710 | ZERK 1/4”-28 NF 90 DEG ZDI |
| 8X0721 | ZERK 5/16”-24 NF STR ZDI |
| 8X0725 | ZERK 1/8” MPT STR ZDI |
| 8X0727 | ZERK 1/8” MPT 90 DEG ZDI |
| 8X0960 | CAN SPRAY PAINT SUMMERS GREEN |
| 8X0962 | CAN SPRAY PAINT SUMMERS BLACK |
| 8Z0070 | DECAL “SUMMERS” 1.25 X 6” |
| 8Z0075 | DECAL TRNSPRT LCK WARNING TILL |
| 8Z0079 | DECAL “SUMMERS” 5 X 20” |
| 8Z0087 | DECAL”WARNING”PINCH POINT03- |
| 8Z0092 | DECAL”WARNING”HITCH 5 X12.5” |
| 8Z0101 | DECAL”SUMMERS”M94/04/06 2.25X9 |
| 8Z0114 | DECAL ID M104 01- |
| 8Z0118 | DECAL ID M106 01- |
| 8Z0134 | DECAL ID SUPERCHISEL 01- |
| 8Z0202 | DECAL”SUMMERS” 4 X 13.5” |
| 8Z0276 | DECAL GENERAL CAUTION 91- |
| 8Z0340 | DECAL REPHASING CYLINDERS |
| 8Z0342 | DECAL INSTALL CYLINDER LOCKS |
| 8Z0344 | DECAL WING DANGER |
| 8Z0346 | DECAL ELECTROCUTION-TILLAGE |
| 8Z0348 | DECAL GAUGE WHEEL DEPTH |
| 8Z0350 | DECAL GREASE GANG BEARNG 04- |
| 8Z0800 | REFLECTOR AMBER ADHSVBCK98- |
| 8Z0805 | REFLCTR REDORANGE ADHSVBK99- |
| 8Z0810 | REFLECTOR RED ADHSV-BACK 98- |
| 8Z1070 | OPERATR MAN SUPRCOULTR 00- |
| 8Z1094 | OPER MAN COULTER CHISEL 07- |
| 8Z1096 | OPER MANUAL CHISLPLOW 28-44’ |

# History of Summers Manufacturing Co., Inc.

1965 – Summers Manufacturing is founded by Harley Summers, who purchases patent rights for Goebel truck and pickup hoists from the Goebel Brothers of Lehr, ND. These hoists, produced in Harley Summers' blacksmith shop the first year, were distributed nationwide by a Cincinnati, Ohio, dealer. With increasing sales, the company soon outgrows the small shop. Summers wins the Herman harrow contract, beginning the company's Herman culti-harrow line. Summers builds a 7,200 square-foot factory in Maddock to meet the demand for truck and pickup hoists, as well as Herman harrows.

1969 – Firm incorporates and becomes officially known as Summers Manufacturing Company, Inc.

1970 – Summers purchases rights to manufacture/market the Herman Harrow.

1973 – Company builds new 20,000 square-foot plant and offices in Maddock, adding a 20,000 square-foot assembly plant in the fall of 1975 (completed in January 1976), bringing total square footage of Maddock factories to 47,000.

1977 – Summers introduces the Agri-sprayer, used in conjunction with the Herman culti-harrow to incorporate herbicides and liquid fertilizer.

1980 – Company purchases manufacturing and distributing rights to Crown rockpickers from Crown Manufacturers of Regina, Saskatchewan. This forces another expansion project – a 26,000 square foot factory on a 24 acre site in Devils Lake, ND Industrial Park.

1981 – Company establishes a branch facility in Regina, Saskatchewan.

1982 – Devils Lake plant begins operations in January, manufacturing supersprayers and rockpickers. The Maddock factory begins producing the Superweeder, a combination cultivator and harrow.

1983 – Summers buys manufacturing and distributing rights to the Fargo Field Sprayer line from Mid America Steel (formerly Fargo Foundry), Fargo. This field sprayer line is manufactured at the Devils Lake plant. Harley Summers is selected North Dakota's small-businessman of the year by the Small Business Administration.

1984 – Herman Diamond Disk, a disk harrow made in a diamond shape to reduce blade breakage from rocks, comes off the assembly line.

1985 – Summers signs a contract with Melroe Company of Bismarck to obtain exclusive manufacturing rights to the Melroe harrow line.

1989 – Summers purchases TorMaster Company of Hordean, Manitoba, giving the company a line of rolling packer equipment, comprised of harrow packers and hydraulic fold coil packers.

1992 – A new engineering office/parts department is added to the Devils Lake factory.

1993 – Company adds two new products: a pickup-mounted sprayer with booms of 80 and 90 feet, and the Summers Superharrow, an extra-heavy-duty residue-management tool designed for the minimum and no-till farmer.

1994 – a 50 by 125 foot addition to the Maddock factory is completed. Construction begins on a 24,576 square-foot addition to the Devils Lake factory, which enables the company to increase production of truck-mounted and pull-type supersprayers and rockpickers.

1996 – 1500 square foot office area added to the Maddock plant. Company introduces Chisel Plow with floating hitch and 700# trip assembly.

1997 – 16,800 square foot warehouse in Maddock purchased from local business.

1999 - Company introduces the Ultimate suspended boom trailer sprayer with hydraulic folding booms. Additional sizes added to the Chisel Plow line, now ranging from 28' to 54'.

2000 - Company introduces the Supercoulter, the innovative solution for excessive field residue management on no-till, minimum-till, and conventional-till farming operations.

2001 - Cold storage building completed at Devils Lake. Company extends boom lengths up to 110 feet on the Ultimate Supersprayer.

2002 - Company adds a warehouse and service man in Aberdeen, SD.

2003 - Company introduces the Ultimate NT Supersprayer featuring a bolt on axle for easier adjustment, and a new family of tanks that feature a drainable sump and a common width dimension.

2004 - A 124 ft. x 310 ft. addition is added onto the current Devils Lake plant.

2005 - The Summers Superroller is added to the "Field Tested Tough" product line. Additional sizes of 56', 58' and 60' are added to the Superchisel line. Ultimate-Ultra NT Supersprayer introduced featuring 120' & 133' booms.

2006 - The Summers Coulter-Chisel, Rolling Choppers and 30' Superroller were included in product line.

2007 - 62' & 84' 5 Section Landrollers and a 20' Coulter-Chisel were introduced.

2008 - Disk-Chisels, ranging from 16' to 40' widths, are added to product line.

Summers distributes on a wholesale level to dealers and distributors throughout markets in North Dakota, South Dakota, Minnesota, Montana, Iowa, Washington, Idaho, Oregon, Utah, Colorado, Kansas, Nebraska, Oklahoma, Texas, Manitoba, Saskatchewan, Alberta, British Columbia, Kazakhstan, Russia and Australia, making it an international company.

Rolling Choppers

Mounted Harrows

Superharrow Plus

Superrollers

Hydraulic Fold
Coil Packer

# SUMMERS

Employee Owned

Manufacturing

Superchisel &
Twin Coulter Attachment

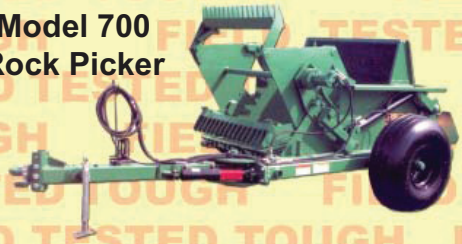
Diamond Disk

Supercoulter Plus

Coulter-Chisel
Disk-Chisel

Ultra & Ultimate NT
Supersprayer

Model 700
Rock Picker



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**To find a dealer near you check out our website - www.summersmfg.com**
**or call us at: 1 (800) 732-4347**
**SUMMERS Manufacturing Company, Inc. Maddock & Devils Lake ND**