

77C/107C Drills™

77C Drill - S.N. 77110001C & Up

107C Drill - S.N. 101100017C & Up



Operating Instructions



and Parts Reference

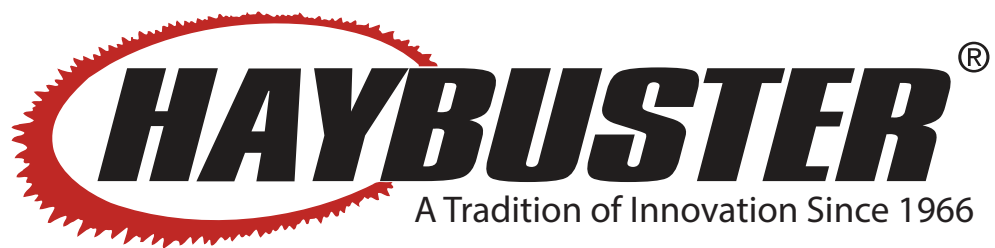


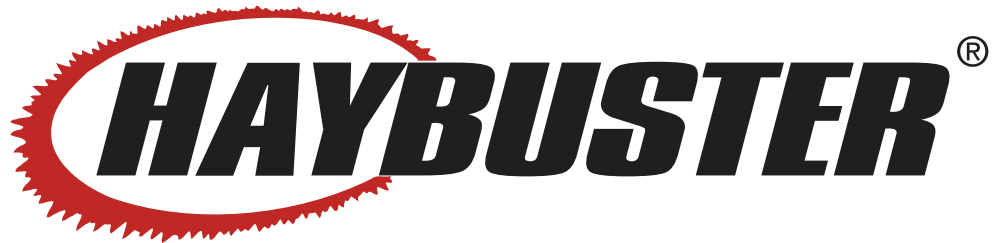
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77C/107C DRILL™

77C Serial Number 77110001C & UP

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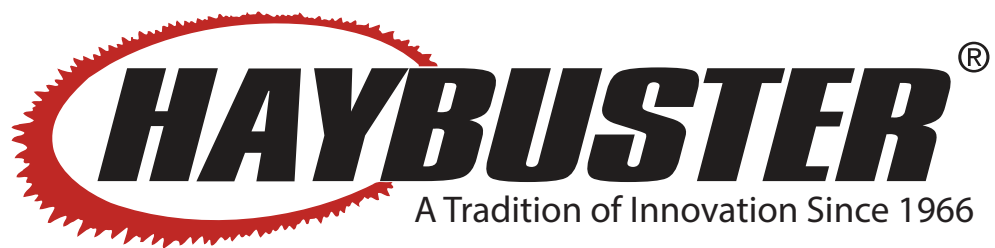
DuraTech Industries International Inc. (DuraTech Industries) has made every effort to assure that this manual completely and accurately describes the operation and maintenance of the 77C/107C DRILLS™ as of the date of publication. DuraTech Industries reserves the right to make updates to the machine from time to time. Even in the event of such updates, you should still find this manual to be appropriate for the safe operation and maintenance of your unit.

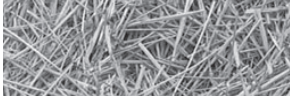
This manual, as well as materials provided by component suppliers to DuraTech Industries are all considered to be part of the information package. Every operator is required to read and understand these manuals, and they should be located within easy access for periodic review.



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Foreword

All personnel must read and understand before operating unit

- Foreword and Section 1, important safety information.
- Section 2, "Dealer Preparation," to verify that the machine has been prepared for use.
- Section 3, "Introduction," which explain normal operation of the machine.
- Section 4.1, "Operating Instructions" Pre-Operation Inspection Check List.

Appropriate use of the unit

The 77C / 107C Grain Drill is designed to seed No-Till, Minimum Till, or conventionally tilled fields. The two compartment hopper offers the flexibility of seeding with fertilizer, seeding alone, or planting two different seeds.

Operator protection

As with all machinery, care needs to be taken by the operator in order to insure the safety of the operator and those in the surrounding area.



WARNING: Operators and those observing the operation of the 77C / 107C GRAIN DRILLS are required to wear head, eye, and ear protection. No loose clothing is allowed.

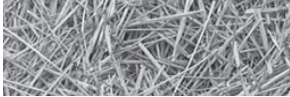


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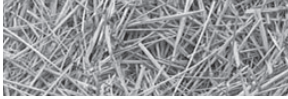


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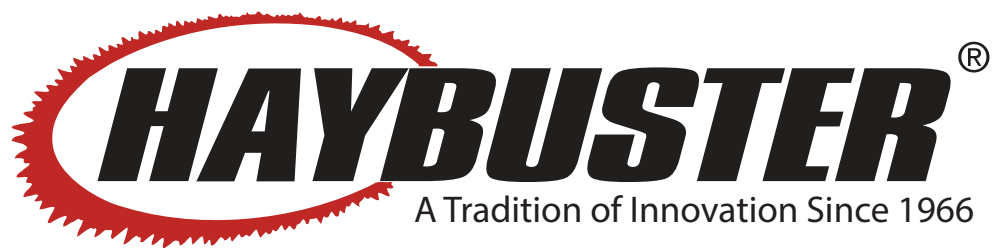
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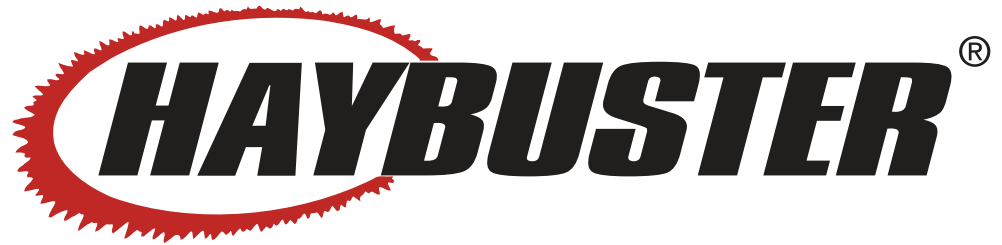
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77C/107C DRILLS™

*77C Serial Number 77110001C & UP
107C Serial Number 101100017C & UP*

Operating Instructions

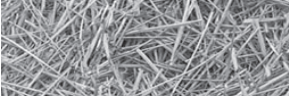


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Introduction

The 77C/107C Grain Drills are designed to seed No-Till, Minimum Till, or conventionally tilled fields. Two 30 gallon tanks are available for added ballast to penetrate the tough no-till conditions.

The two compartment hopper offers the flexibility of seeding with fertilizer, seeding alone, or planting two different seeds. The metering system for each hopper is infinitely adjustable.

Field hitches are available for one or multiples of two, three, and four of the model 107C Drill only. A tow hitch is also available for the 107C Drill to allow the towing of two or more drills in transport.

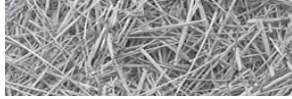
Purpose

The purpose of this owner’s manual is to explain maintenance requirements and routine adjustments for the most efficient operation of your 77C/107C Grain Drill. There is also a trouble shooting section that may help in case of problems in the field. Any information not covered in this manual may be obtained from your dealer.



Special Note: When reference is made as to front, rear, right hand or left hand of this machine, the reference is always made from standing at the rear end of the machine and looking towards the hitch. Always use serial number and model number when referring to parts or problems. Please obtain your serial number and write it below for your future reference.

MODEL: 77C DRILL SERIAL NO. _____
 107C DRILL



Section 1: Safety

The safety of the operator is of great importance to DuraTech Industries/Haybuster. We have provided decals, shielding and other safety features to aid you in using your machine safely. In addition, we ask you to be a careful operator who will properly use and service your Haybuster equipment.



WARNING: FAILURE TO COMPLY WITH SAFETY INSTRUCTIONS THAT FOLLOW WITHIN THIS MANUAL COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH. BEFORE ATTEMPTING TO OPERATE THIS MACHINE, CAREFULLY READ ALL INSTRUCTIONS CONTAINED WITHIN THIS MANUAL. ALSO READ THE INSTRUCTION MANUAL PROVIDED WITH YOUR TRACTOR.

THIS MACHINE IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THOSE EXPLAINED IN THE OPERATOR'S MANUAL, ADVERTISING LITERATURE OR OTHER DURATECH INDUSTRIES WRITTEN MATERIAL PERTAINING TO THE 77C/107C GRAIN DRILL.

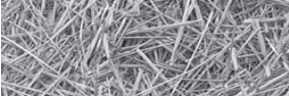
1.1 Safety-alert symbols

Decals are illustrated in **Part 2: Parts Reference**.

The safety decals located on your machine contain important and useful information that will help you operate your equipment safely.

To assure that all decals remain in place and in good condition, follow the instructions below:

- Keep decals clean. Use soap and water - not mineral spirits, adhesive cleaners and other similar cleaners that will damage the decal.
- Replace all damaged or missing decals. When attaching decals, surface temperature of the machine must be at least 40° F (5° C). The surface must be also be clean and dry.
- When replacing a machine component to which a decal is attached, be sure to also replace the decal.
- Replacement decals can be purchased from your Haybuster dealer.



DuraTech Industries uses industry accepted ANSI standards in labeling its products for safety and operational characteristics.



Safety-Alert Symbol

Read and recognize safety information. Be alert to the potential for personal injury when you see this safety-alert symbol.

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

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

This manual uses the symbols to the right to denote important safety instructions and information.

The **DANGER**, **WARNING** and **CAUTION** symbols are used to denote conditions as stated in the text above. Furthermore, the text dealing with these situations is surrounded by a box with a white background, will begin with **DANGER**, **WARNING**, or **CAUTION**.

The **INFORMATION** symbol is used to denote important information or notes in regards to maintenance and use of the machine. The text for this information is surrounded by a box with a light grey background, and will begin with either **Important** or **Note**.



DANGER:

Signal word - White Lettering/Red Background

Safety Alert Symbol - White Triangle/Red Exclamation Point



WARNING:

Signal word - Black Lettering/Orange Background

Safety Alert Symbol - Black Triangle/Orange Exclamation Point

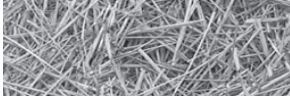


CAUTION:

Signal word - Black Lettering/Yellow Background

Safety Alert Symbol - Black Triangle/Yellow Exclamation Point





1.2 Operator - personal equipment

THE OPERATOR

Physical Condition

You must be in good physical condition and mental health and not under the influence of any substance (drugs, alcohol) which might impair vision, dexterity or judgment.

Do not operate a **77C/107C DRILL** when you are fatigued. Be alert - If you get tired while operating your **77C/107C DRILL**, take a break. Fatigue may result in loss of control. Working with any farm equipment can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating

Proper Clothing



Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Avoid loosefitting jackets, scarfs, neckties, jewelry, flared or cuffed pants, unconfined long hair or anything that could become entangled with the machine.



Protect your hands with gloves when handling discs and coulters. Heavy duty, nonslip gloves improve your grip and protect your hands.



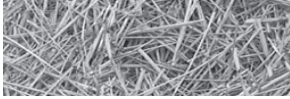
Good footing is most important. Wear sturdy boots with nonslip soles. Steel-toed safety boots are recommended.



To reduce the risk of injury to your eyes never operate a **77C/107C DRILL** unless wearing goggles or properly fitted safety glasses with adequate top and side protection.



Tractor noise may damage your hearing. Always wear sound barriers (ear plugs or ear muffers) to protect your hearing. Continual and regular users should have their hearing checked regularly.



1.3 Machine safety labels

The safety decals located on your machine contain important information that will help you operate your equipment. Become familiar with the decals and their locations.



WARNING: FOR YOUR PROTECTION AND PROTECTION OF OTHERS, PRACTICE THE FOLLOWING SAFETY RULES.

1. BEFORE OPERATING THIS MACHINE, READ THE OPERATOR'S MANUALS SUPPLIED WITH THIS MACHINE AND YOUR TRACTOR.
2. CHECK OPERATORS MANUALS TO BE SURE YOUR TRACTOR MEETS THE MINIMUM REQUIREMENTS FOR THIS MACHINE.
3. READ ALL DECALS PLACED ON THIS MACHINE FOR YOUR SAFETY AND CONVENIENCE.
4. NEVER ALLOW RIDERS ON THIS IMPLEMENT OR THE TRACTOR.
5. KEEP OTHERS AWAY FROM THIS MACHINE WHILE IN OPERATION.
6. KEEP ALL SHIELDS IN PLACE WHILE MACHINE IS OPERATING.
7. KEEP HANDS, FEET, LOOSE CLOTHING, ETC., AWAY FROM POWER DRIVEN PARTS.
8. ALWAYS SHUT OFF MACHINE AND ENGINE BEFORE SERVICING, UNCLOGGING, INSPECTING, OR WORKING NEAR THIS MACHINE FOR ANY REASON. ALWAYS PLACE TRANSMISSION IN PARK OR SET PARK BRAKE AND WAIT FOR ALL MOVEMENT TO STOP BEFORE APPROACHING THIS MACHINE.

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8. ALWAYS SHUT OFF MACHINE AND ENGINE BEFORE SERVICING, UNCLOGGING, INSPECTING, OR WORKING NEAR THIS MACHINE FOR ANY REASON. ALWAYS PLACE TRANSMISSION IN PARK OR SET PARK BRAKE AND WAIT FOR ALL MOVEMENT TO STOP BEFORE APPROACHING THIS MACHINE.

ADVERTENCIA

SIGA LAS REGLAS SIGUIENTES DE SEGURIDAD PARA SU PROTECCION Y LA PROTECCION DE OTROS

1. LEA LOS MANUALES DEL OPERADOR INCLUIDOS CON ESTA MAQUINA Y SU TRACTOR ANTES DE OPERAR ESTA MAQUINA.
2. PARA ASEGURARSE QUE SU TRACTOR CUMPLE CON LOS REQUERIMIENTOS MINIMOS PARA ESTA MAQUINA, REVISE LOS MANUALES DEL OPERADOR.
3. PARA SU SEGURIDAD Y CONVENIENCIA, LEA TODAS LAS CALCOMANIAS COLLOCADAS EN LA MAQUINA.
4. MANTENGA ALEJADOS A LOS ESPECTADORES MIENTRAS ESTA MAQUINA ESTE OPERANDO.
5. MANTENGA TODOS LOS PROTECTORES EN SU LUGAR MIENTRAS LA MAQUINA ESTE OPERANDO.
6. MANTENGA LAS MANOS, PIES, ROPAS HOLGADAS, ETC., ALEJADAS DE LAS PIEZAS PROPULSADAS.
7. SIEMPRE APAGUE LA MAQUINA Y EL MOTOR ANTES DE PRESTAR SERVICIO, DESTRABAR, INSPECCIONAR O TRABAJAR CERCA DE ESTA MAQUINA POR CUALQUIER MOTIVO. ANTES DE ACERCARSE A ESTA MAQUINA COLOQUE SIEMPRE LA TRANSMISION EN ESTACIONAMIENTO O ENGANCHE EL FRENO DE ESTACIONAMIENTO.

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WARNING: FOR YOUR PROTECTION KEEP ALL SHIELDS IN PLACE AND SECURED WHILE MACHINE IS OPERATING MOVING PARTS WITHIN CAN CAUSE SEVERE PERSONAL INJURY.

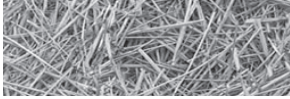
WARNING

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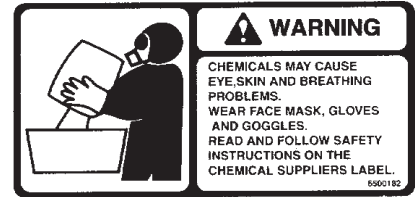
ADVERTENCIA

PARA ASEGURAR SU PROTECCION, MANTENGA TODOS LOS PROTECTORES EN SU LUGAR Y ASEGURADOS MIENTRAS LA MAQUINA ESTE OPERANDO. LAS PIEZAS MOVILES INTERNAS PUEDEN CAUSAR LESIONES PERSONALES GRAVES.

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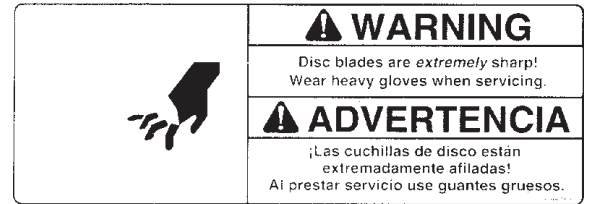
WARNING: CHEMICALS MAY CAUSE EYE, SKIN AND BREATHING PROBLEMS. WEAR FACE MASK, GLOVES AND GOGGLES . READ AND FOLLOW SAFETY INSTRUCTIONS ON THE CHEMICAL SUPPLIERS LABEL.

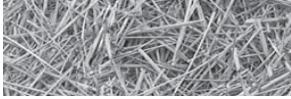


WARNING: NO RIDERS. SERIOUS PERSONAL INJURY COULD RESULT FROM RIDING ON STEP.



WARNING: DISC BLADES ARE *EXTREMELY* SHARP! WEAR HEAVY GLOVES WHEN SERVICING.





1.4 Shielding

Shields are installed for your protection. Keep them in place, and replace damaged shields.

1.5 Personal equipment

Operators of this machine are encouraged to wear head, eye, and ear protection. Loose clothing is discouraged.

1.6 Safety review

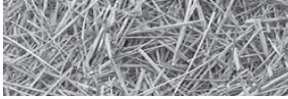
BEFORE OPERATING

- Read and follow all instructions contained in:
 - A. This 77C/107C DRILL Operator's Manual.
 - B. Tractor operator's manual.
 - C. Decals placed on the 77C/107C Drill and Tractor.



NOTE: Additional copies of the above mentioned materials can be obtained from your dealer.

- Be sure all safety shields and covers are securely in place when machine is running.
- Read all warning and instructional decals placed on the machine for your safety and convenience.
- Allow only responsible, properly instructed individuals to operate machine. Carefully supervise inexperienced operators.
- Make no modifications to this equipment unless specifically requested or recommended by DuraTech Industries.
- Tighten or replace any loose or cracked bolts, chains, hoses or connections.
- The towing vehicle must be of equal or greater weight than the grain drill for adequate braking capacity.



DURING OPERATION

- Exercise extreme caution with operating the drill on steep slopes or grades.
- Be sure all spectators are clear of the area where the drill is in operation or raised and lowered.
- Be sure the tractor operator is the only person riding the tractor. Allow no one to ride the drill at any time.
- Remember, loose clothing, necklaces and similar items are more easily caught in moving parts. Avoid the use of these items if possible and keep long hair confined.
- Never work under the drill when the drill is lifted up unless the safety stop bar is in position.
- Watch out for and avoid any object that might interfere with the proper operation of the machine.

DURING SERVICE & MAINTENANCE



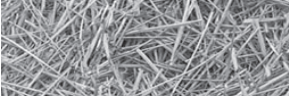
CAUTION: Before performing any maintenance or adjustments make sure machine is NOT running.

- Before working on or near drill for any reason including servicing, lubricating, cleaning, inspecting or refilling, or if working under drill or detaching from tractor, install safety stop bar (next to hydraulic cylinder).
- When replacing any part on your drill, be sure to use only DuraTech Industries authorized parts.
- Relieve all pressure in the hydraulic system before disconnecting the lines or performing other work on the system. Make sure all connections are tight and the hoses and lines are in good condition before applying pressure to the system.



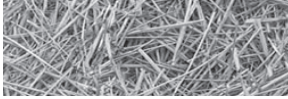
CAUTION: Hydraulic fluid escaping under pressure can be invisible and have enough force to penetrate the skin. When searching for a suspected leak, use a piece of wood or cardboard rather than your hands. If injured, seek medical attention immediately to prevent serious infection or reaction.

- Be careful when using a hoist or other lifting device. Use only devices that have adequate lifting capacity and be sure the chain or cable is securely attached.



WHEN TRANSPORTING ON PUBLIC ROADS

- Use good judgment and drive carefully, especially over rough or uneven roads.
- Be sure tractor brakes are properly adjusted and foot pedals locked together.
- Check your state laws regarding the use of lights, slow moving vehicle sign, safety chain and other possible requirements.
- Do not tow drills at speeds over 20 mph. It is recommended that drills be empty of seed or fertilizer when transporting.



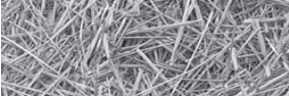
IMPORTANT WINCH SAFETY INFORMATION

- The winch is built for multipurpose hauling and lifting operations. It is not to be used as a hoist for lifting, supporting or transporting people, or for loads over areas where people could be present.
- Respect the winch. High forces are created when using a winch, creating potential safety hazards. It should be operated and maintained in accordance with instructions. Never allow children or anyone who is not familiar with the operation of the winch to use it. A winch accident could result in personal injury.
- Check winch for proper operation on each use. Do not use if damaged. Seek immediate repairs.
- Never exceed rated capacity. Excess load may cause premature failure and could result in serious personal injury.
- Never apply load on winch with cable fully extended. Keep at least three full turns of cable on the reel.
- Secure load properly. When winching operation is complete, do not depend on winch to support load.
- Operate with hand power only. This winch should not be operated with a motor of any kind. If the winch cannot be cranked easily with one hand, it is probably overloaded.



FAILURE TO COMPLY WITH ANY OF THE ABOVE SAFETY INSTRUCTIONS OR THOSE THAT FOLLOW WITHIN THIS MANUAL MAY RESULT IN SEVERE INJURY OR DEATH.

THIS DRILL IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS INTENDED AS EXPLAINED IN THE OPERATOR'S MANUAL, ADVERTISING MATERIALS AND OTHER PERTINENT WRITTEN MATERIAL. PREPARED BY DURATECH INDUSTRIES.



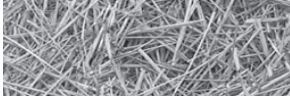
Section 2: Dealer Preparation

2.1 Gauge Wheel Attachment

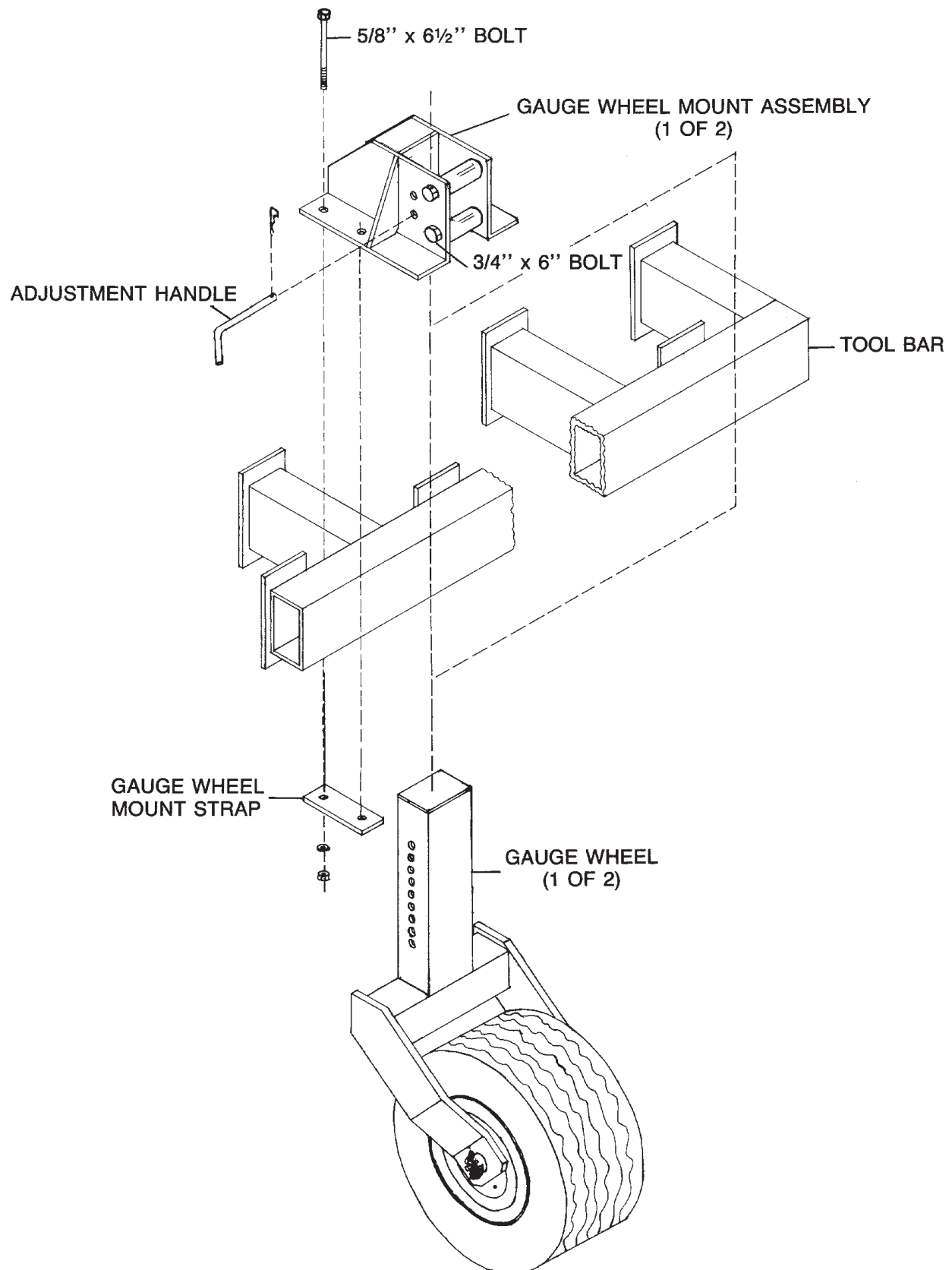
The heavy duty gauge wheels mount on the tool bar in front of the drill. The gauge wheels are adjustable to maintain a uniform planting depth when on side hills.

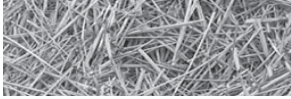
INSTALLATION

- Step 1:** Place the gauge wheel mount assembly in front of the second run assembly from either tool bar end. See the accompanying illustration.
- Step 2:** Mount the gauge wheel mount assembly to the tool bar by using two gauge wheel mount straps and four 5/8" x 6-1/2" hex bolts, lock washer and nuts provided. See accompanying illustration.
- Step 3:** Repeat Step 1 and Step 2 for the gauge wheel on the other side of the tool bar.
- Step 4:** Lift the tool bar using the drill's hydraulics and insert both gauge wheels into the bottom of the gauge wheel mount assemblies. See the accompanying illustration.
- Step 5:** If conditions prevent Step 4 from being done, the gauge wheels can be inserted into the front of the gauge wheel mount assemblies. To do this, remove all four bolt sleeves (two per gauge wheel mount assembly) by unbolting the four 3/4" x 6" hex bolts, lock washers and nuts and push the gauge wheels into the mount assemblies. Bolt the bolt sleeves on to the gauge wheel mount assemblies again.
- Step 6:** Adjust the gauge wheels to the desired position by inserting the adjustment handle through the proper gauge wheel adjustment with the hair pin. This adjustment determines the gauge wheel height that maintains the uniform planting depth on side hills. See the accompanying illustration.



Gauge Wheel (Option) Installation



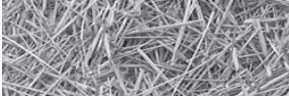


2.2 Drill Legume Box Attachment

The legume box attachment features fluted-feed cups which are capable of accurately metering small seeds even at very low rates. The hopper will hold up to 150 lbs. of seed.

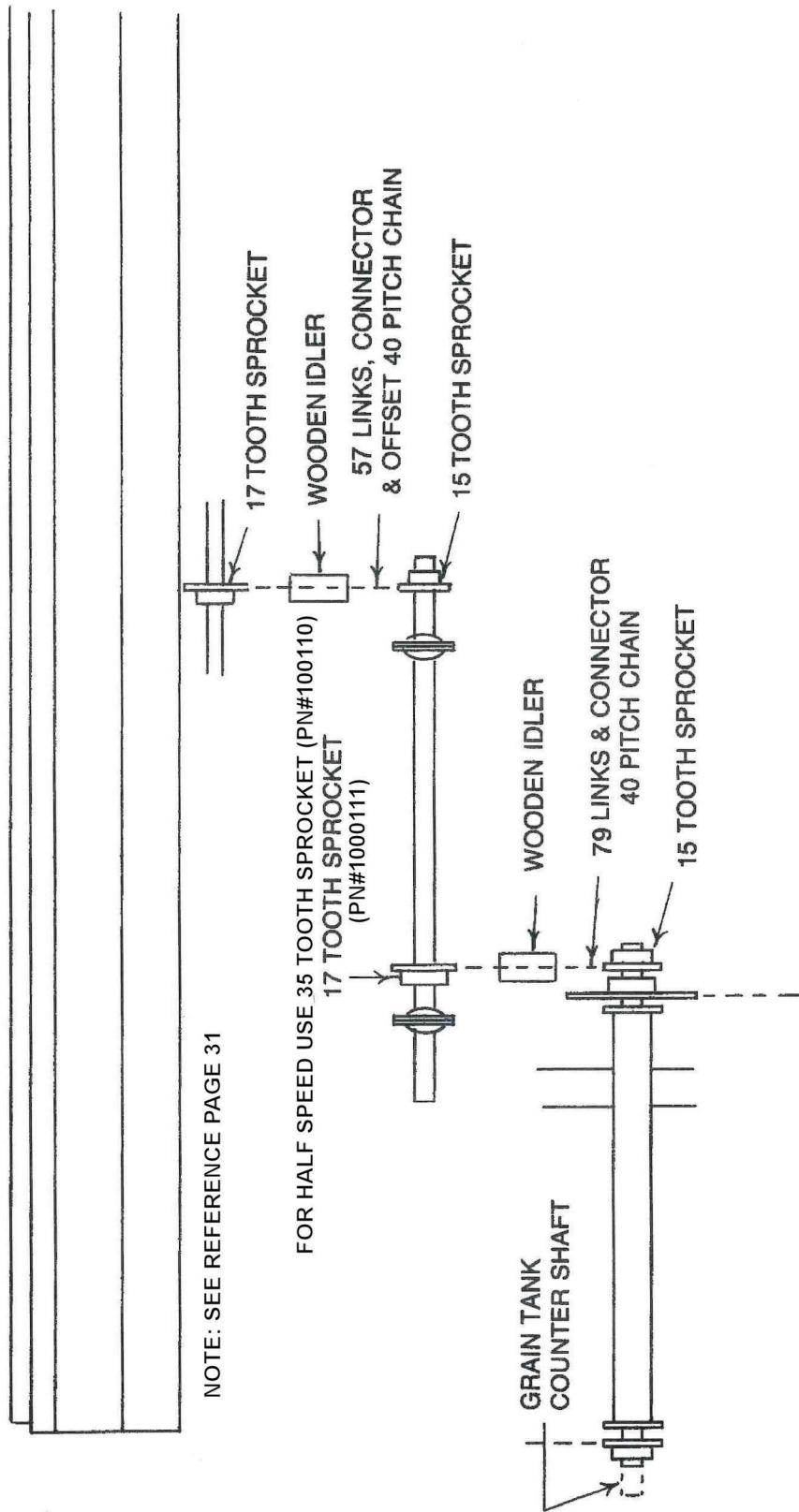
INSTALLATION

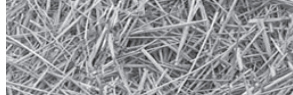
- Step 1:** Drill four 7/16" diameter holes in the front (grain) box as shown in Figure 1. Measure these holes carefully and use a good center punch to mark locations before drilling. Loosely bolt the mounting bracket to the grain box observing left hand and right hand parts.
- Step 2:** Remove the convoluted grain hoses and unbolt the cup assemblies from the grain tank. Replace with modified cup assemblies provided with the legume box kit. Reattach the convoluted grain hoses to the cups.
- Step 3:** Loosen chains, sprockets and bearings and move countershaft on grain tank. Reinstall existing bearings, sprockets and chains and install 15 tooth sprocket as shown in Figure 2.
- Step 4:** Bolt legume box to grain tank using the four 3/8" x 1" bolts provided. The mounts welded to the rear of the legume box should go between the mounting brackets installed in Step 1. Tighten all mounting bolts securely.
- Step 5:** Bolt the two bearing standards to the brackets on the legume box using six 5/16 x 3/4" carriage bolts, flat washers, lock washers and nuts. Align the bearing standards before tightening bolts. Loosely bolt the bearings to the outside of the bearing standards using the four 5/16" x 3/4" carriage bolts. Install the 29" shaft with the 17 tooth sprocket BETWEEN the bearings as shown in Figure 2. Install two wooden block chain tightener using 3/8" x 2-1/2" bolts, two flat washers, lock washer and nuts. Tighten the drive chains.
- Step 6:** Cut 5/8" I.D. clear plastic hose to 22" lengths. Eighteen are required. Install hoses on the grain cups first and then on legume box cups. Dipping the ends in a liquid soap solution (one part soap to one part water) will ease installation of the hoses.



Legume Box (Option) Installation

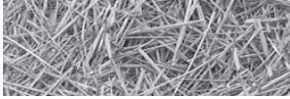
FIGURE 2





2.3 Legume Hopper Shipping Kit (Optional)

ITEM	PART NO.	QTY.	DESCRIPTION
1	8700001	1	BRKT\LEGUME\LH\LEG-BOX
2	8700002	1	BRKT\LEGUME\RH\LEG-BOX
3	8700003	4	STRAP\LEGUMEBOX
4	8700008	1	BRG\BOX\LEGUME\RH
5	8700009	1	BRG\BOX\LEGUME\LH
6	2000002	2	BRG\1" W\LOCK\COLLAR
7	2000703	4	FLGETT\1\2BOLT\PLTD
8	2000016	2	BLK\WD\IDLER
9	8700011	1	SHFT\1X29\LEGUMEBOX
10	1000111	1	SPKT\B\40\17\1\1\4KW\SOFT
11	1000112	2	SPKT\B\40\15\1\1\4KW
12	6200010	3	KEY\SQ\1\4X1
13	1100232	1	CHAIN\40NP\53
14	1100246	1	CHAIN\40NP\79
15	1100224	2	CHAIN\40NP\CL
16	1100225	2	CHAIN\40NP\OL
17	3700129	18	HOSE\PVC\5\8IDX22-1\2\CLR
18	4800098	4	BOLT\HEX\3\8X1-1\4\NC
19	4800156	4	BOLT\HEX\3\8X3
20	4800029	2	BOLT\HEX\3\8X2-1\2
21	4800003	4	BOLT\HEX\3\8X1
22	4900002	14	NUT\HEX\3\8\NC
23	5000019	14	WASH\LOCK\3\8
24	500000 1	4	WASH\FLAT\3\8
25	4800153	10	BOLT\CRG\5\16X3\4\NC
26	4900003	10	NUT\HEX\5\16\NC
27	5000022	10	WASH\LOCK\5\16



Section 3: Introduction

Every effort has been made to ensure that the information contained in this manual is correct at the date of publication; but, due to continuous improvements, DuraTech Industries reserves the right to make changes in the contents without notice or obligation.

This manual is shipped with each machine to familiarize the operator with the proper operating, maintenance and lubrication instructions to insure the best possible performance and service from the machine. Study and understand these instructions thoroughly before operating the machine. We recommend that this manual be readily available for reference at all times. Consult your DuraTech Industries dealer if any items in this manual are not understood.

DuraTech reserves the right to make changes in engineering, design and specifications, add improvements, or discontinue manufacture at any time without notice or obligation.

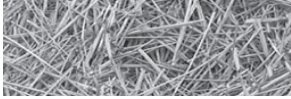
3.1 Ordering Parts

When ordering parts always specify your model number, serial number, and the number of the parts you wish to order.



IMPORTANT: WHEN REPLACEMENT PARTS ARE NEEDED, USE THE LISTED PART NUMBERS AND DESCRIPTIONS TO INSURE FAST AND ACCURATE SHIPMENT OF YOUR ORDER. WHEN ORDERING PARTS ALWAYS SPECIFY UNIT SERIAL NUMBER.

ONLY AUTHORIZED PARTS SHOULD BE USED FOR REPAIR AND/OR REPLACEMENT.



3.2 Serial Number Locations

The serial number and the machine model number are stamped on the decal. If the decal is missing, the serial number is also stamped on the frame.

The model number and serial number are required when communicating with DuraTech's service and/or parts departments.

decal location of serial number



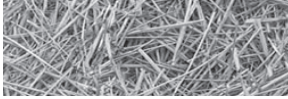
stamped location of serial number

3.3 About your 77C/107C Grain Drill

The 77C/107C Grain Drill is designed to seed No-Till, Minimum Till, or conventionally tilled fields. Two 30 gallon tanks are available for added ballast to penetrate the tough no-till conditions.

The two compartment hopper offers the flexibility of seeding with fertilizer, seeding alone, or planting two different seeds. The metering system for each hopper is infinitely adjustable.

Field hitches are available for one or multiples of two, three, and four of the model 107C Drill only. A tow hitch is also available for the 107C Drill to allow the towing of two or more drills in transport.



Section 4: Operating Instructions

To insure long life and economical operation, we highly recommend the operator of the 77C/107C Grain Drill be thoroughly instructed in the maintenance and operation of the machine. There is no substitute for a sound, preventative maintenance program and a well-trained operator.

Prior to operating the Grain Drill, we recommend the operator make a visual inspection of the unit. This can be done as the lubrication is being carried out.

4.1 Operating Instructions

Check the following:

- ☐ Hydraulic components for leaks or damage.



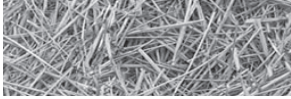
WARNING: Hydraulic fluid escaping under pressure can be almost invisible and can have sufficient force to penetrate the skin. When searching for suspected leaks, use a piece of wood or cardboard rather than your hands.

If injured, seek medical attention immediately to prevent serious infection or reaction.

- ☐ Lug nuts for tightness. Torque to: Hubs : 80 ft-lbs (11 kg-m) , Fork Hub : 100 ft-lbs (14 kg-m)
- ☐ Condition of tire rims.
- ☐ Tires for proper air pressure.
- ☐ Condition of rubber convoluted hoses.
- ☐ Adjustment of all chains.
- ☐ Installation and condition of shields.
- ☐ Installation of Slow Moving Vehicle (SMV) sign.
- ☐ Condition of decals.



WARNING: Before attempting to operate this machine, refer again to Section 1 (pages 3-11) for important safety information.



4.2 Grain Drill Setup

The 77C/107C Grain Drill may be shipped without the hydraulic lift cylinder, since the grain drill used a standard 3" x 8" cylinder. The retracted length must be 20-1/4", measured from the center of the mounting holes. When multiple grain drills are used, a cylinder will be required for each grain drill.

- Set the wheels on your tractor out as wide as possible for maximum stability.
- Hitch the grain drill to the tractor.
- Connect the hydraulic hoses to the tractor's hydraulic system.

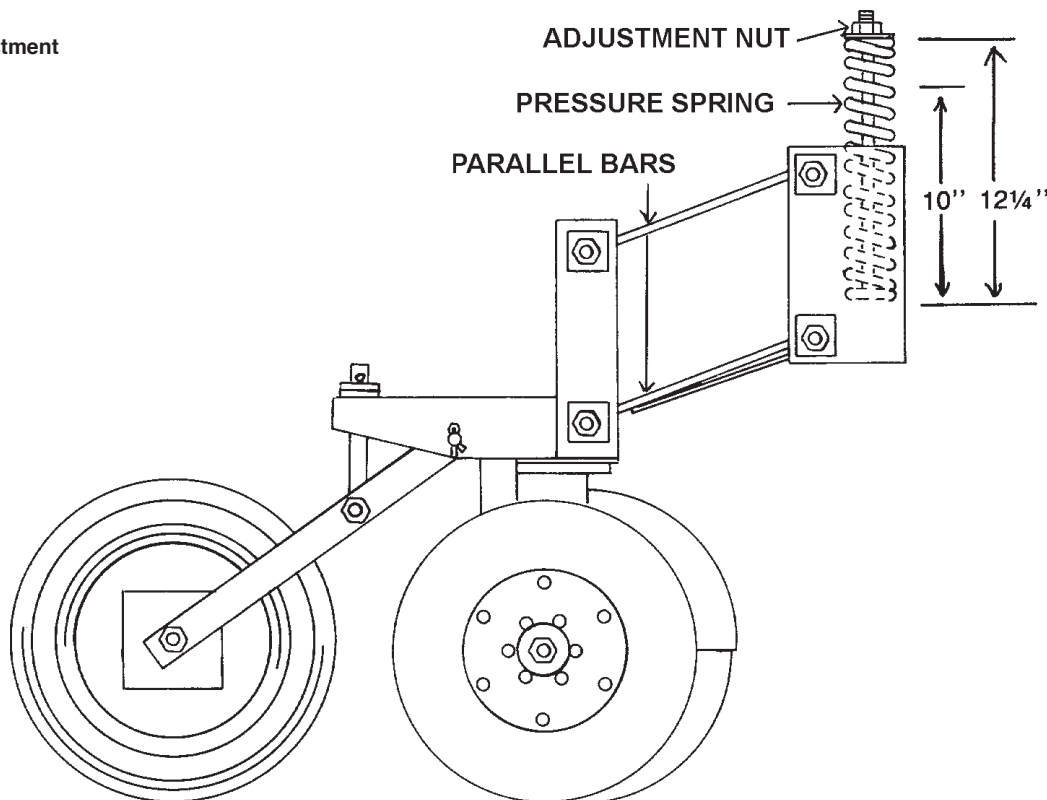
4.3 Pressure Spring Adjustment

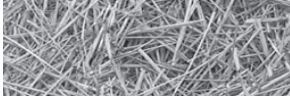
To gain versatility for all types of terrain and soil conditions, it is important to have a considerable amount of up and down travel built into each individual run. When seeding on level terrain, and the openers are seeding at the depth you want/require, adjust the hydraulic cylinder stroke to lower the movable frame so that the parallel bars are level when viewed from the side. The toolbar height will be about 20" when discs are new. This will allow runs to move up or down according to terrain.

If parallel bars are not level, it will be necessary to adjust pressure spring, or press wheel adjustment.

Proper tension of the pressure spring varies with conditions. No-till seeding may require more down pressure; loose soil requires less. Since the pressure springs work together with the opener depth adjustment controlled by the hydraulic cylinder, make sure that the opener depth adjustment is set correctly.

pressure spring adjustment





In extremely loose soils such as freshly worked summer fallow, it will be necessary to lessen tension on pressure spring instead of lessening hydraulic cylinder stroke.

To adjust the pressure springs:

1. Make sure the movable frame is raised completely up and the safety stop bar is secured.
2. Using the adjustment nut on each pressure spring, adjust the spring to the desired length. See table at right showing the opener pressure obtained at various spring lengths. Under no circumstances should the spring be adjusted to less than 10 inches. This may damage the spring and related parts and will also void the warranty on these parts.

SPRING LENGTH	OPENER PRESSURE
12¼ IN.	135 LBS.
11½ IN.	180 LBS.
11 IN.	205 LBS.
10½ IN.	235 LBS.
10 IN.	300 LBS.

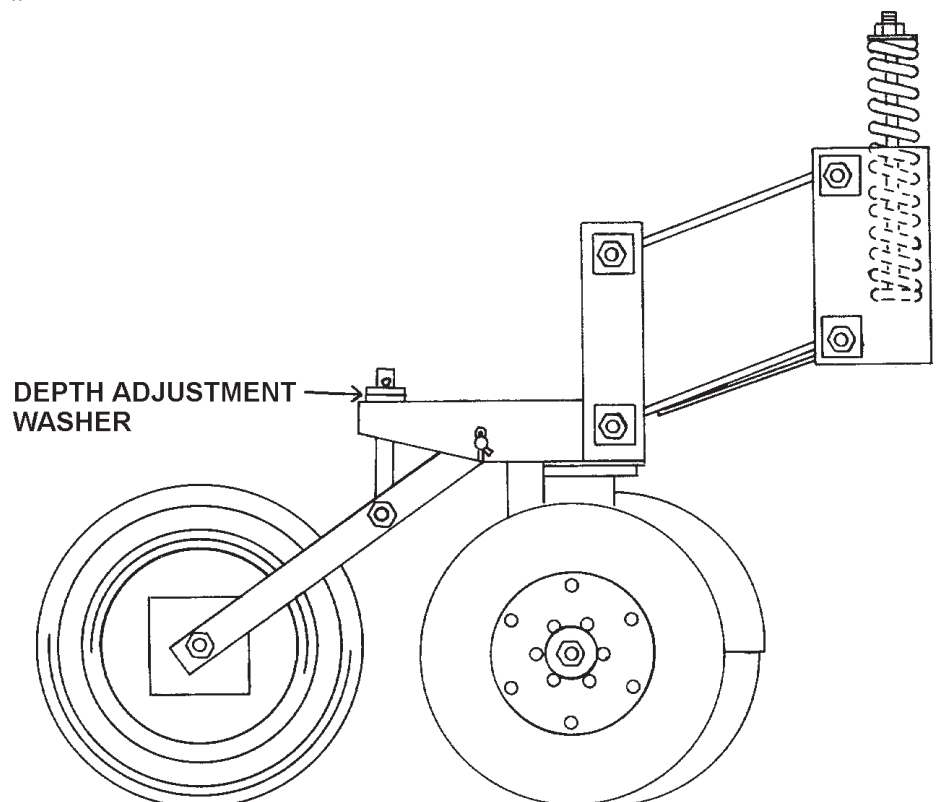
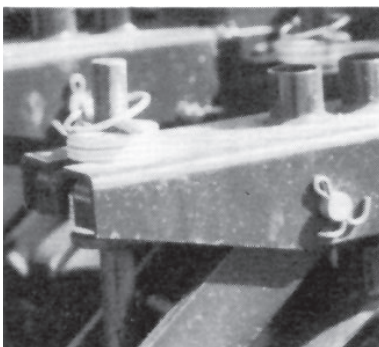
4.4 Press Wheel Adjustment

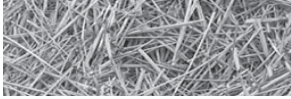
In addition to firming the soil around the seed, the press wheels serve as gauge wheels for the openers. The relationship of each press wheel and opener will remain consistent regardless of terrain or soil density. If the seed is too deep, lower the press wheel. If the seed is too shallow, raise the press wheel.

To adjust the press wheel height:

1. Remove quick attachment pin.
2. To lower the press wheel, relocate shim washers from top to bottom. To raise the press wheel, relocate shim washers from bottom to top.
3. Install quick attachment.

depth adjustment washer for serial numbers 401 and up

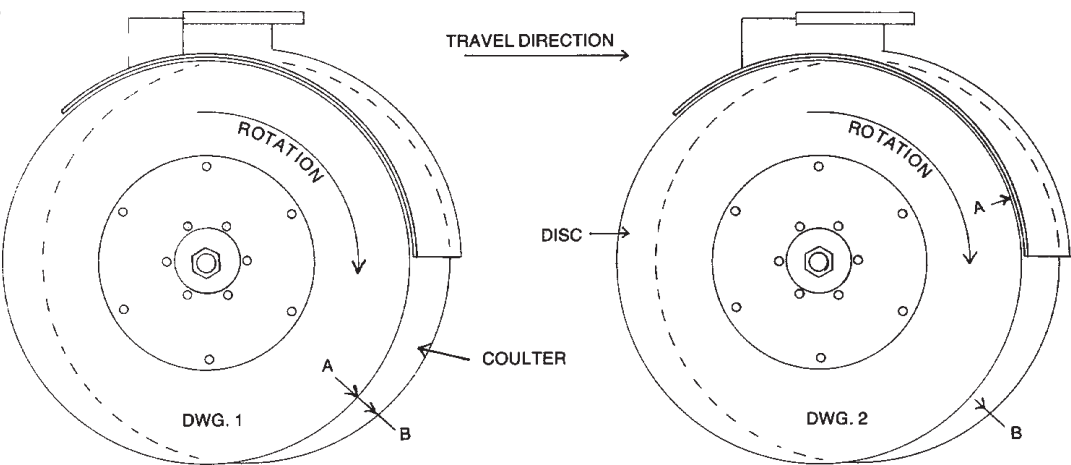




4.5 Haybuster 77C/107C Drill Opener

The 77C/107C Drill uses a coulter-disk offset opener. The coulter blade leads the disk by 1-1/2". Both blades are the same size and due to the offset, there is some sliding action where the blades contact. This sliding or scissor action provides excellent residue cutting action at ground level, especially in wet residue. The scissor action causes some wear into the coulter blade at the point of contact. This wear is normal and the heavier coulter blade is bolted to the bearing cage to allow easy replacement.

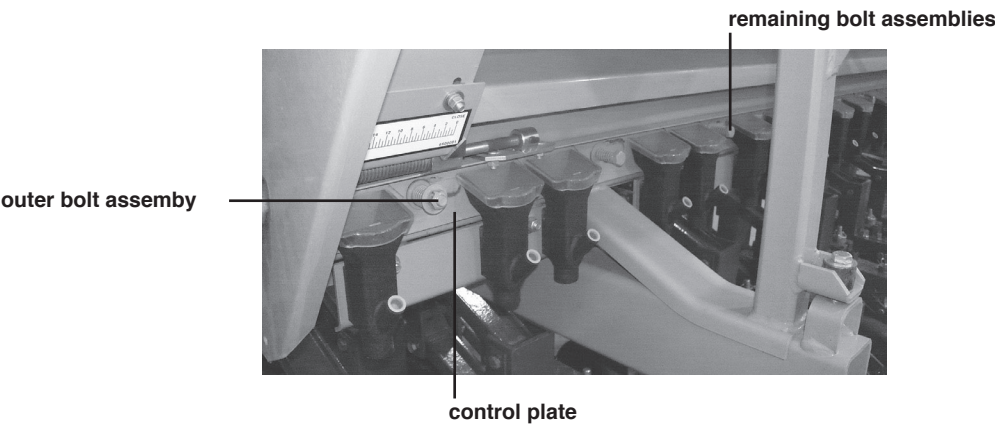
depth adjustment washer for serial numbers 401 and up

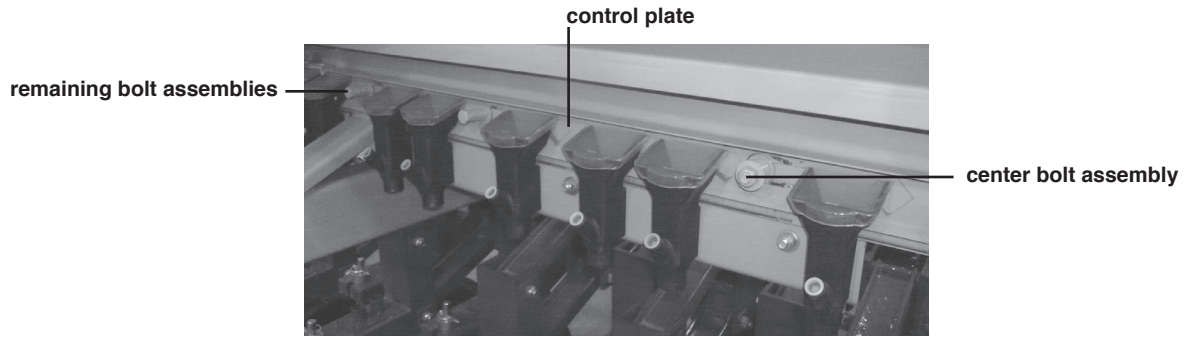
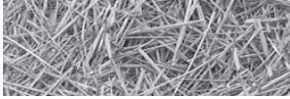


One complete turn changes points A and B (DWG. 1) the amount shown in DWG. 2. It takes 6 turns to bring points A and B back together.

4.5A Control Plates

Control plates are mounted using a spring, bolt, guide tube, washers and nut assemblies. The two outer and center assemblies use a larger washer, guide tube, washer, bolt and top locknut. When installing these assemblies, tighten the bolt until the guide tube is tight against the tank. The remaining assemblies use a spring, washers, bolt and a top locknut. On these remaining assemblies, the springs should be tightened to 1-1/16" - 1-1/8".

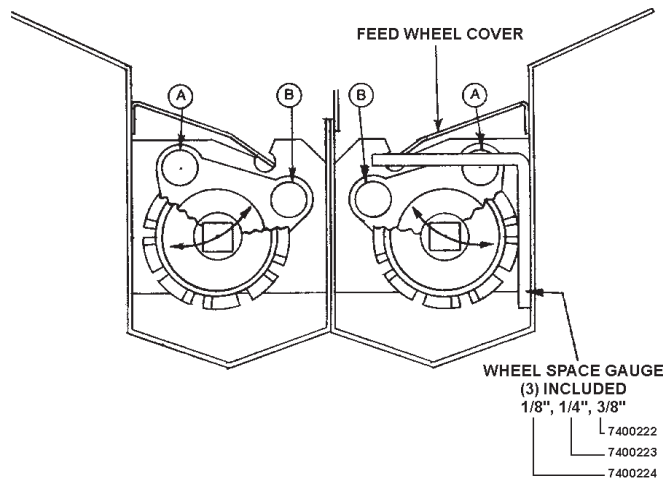




4.6 Feed Wheel Space Adjustment

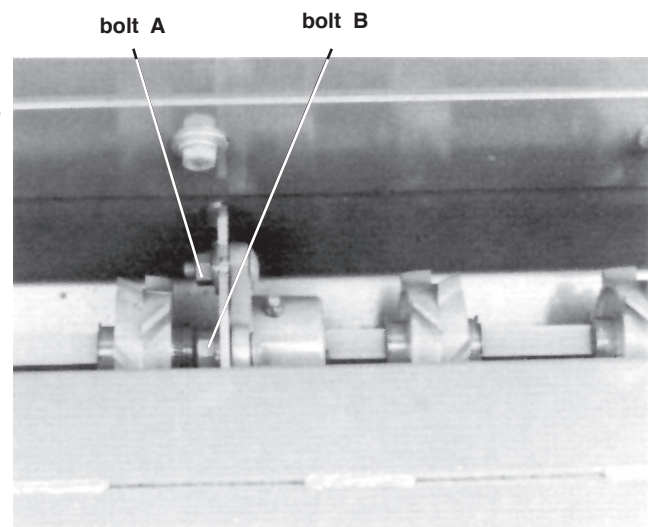
Large seeds require more space between feed wheel lugs and tank wall than small seeds to prevent cracking. Small seeds require less space to provide an even flow. Therefore each seed listed in the feed rate chart, pages 28 to 31, shows a required wheel space.

feed wheel space adjustment.



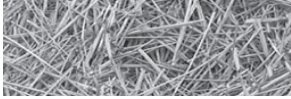
FEED WHEEL SPACE ADJUSTMENT

1. Remove the feed wheel covers.
2. Loosen the eight bolts A and B. There are four sets of bolts for each feed wheel - two on the outer end of the hopper and six inside the hopper.
3. Select the proper space gauge using the wheel space chart.
4. Install the proper space gauge as shown.
5. Slide the feed wheel toward the gauge until the feed wheel lugs, gauge and hopper are pressed together. Tighten the eight bolts.
6. Recheck the feed wheel space adjustment.
7. Install the feed wheel covers.



one set of feed wheel space adjustment bolts

The feed wheel space adjustment provides the proper clearance for the type of seed or fertilizer being used.

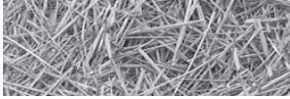


4.7 Drill Cleanout Slides

Cleanout slides are provided on both grain and fertilizer tanks. Handles for opening and closing the slides are located on the left side of the drill.

drill cleanout slides





4.8 Calibration Pointer Adjustment

Grain and fertilizer sliding gates are preadjusted at the factory. In the event any part of the calibrating mechanism is removed or replaced, it can be recalibrated in this order:

1. Place both pointer nut and anchor nut in the center of their respective thread.
2. Insert a short length of 7/16" rod or the shank end of a 7/16" drill bit into the square hole in sliding gate as shown.(figure 4.1)
3. Tighten bearing bolts securing calibration screw to end of tank.
4. Tighten bolts securing anchor nut to sliding gate.
5. Place scale plate on tank so number 8 is directly in line with top of pointer. This will insure pointer setting to coincide with chart. Scale plate must be parallel with calibration screw to allow pointer to operate smoothly along plate.

calibration pointer
adjustment

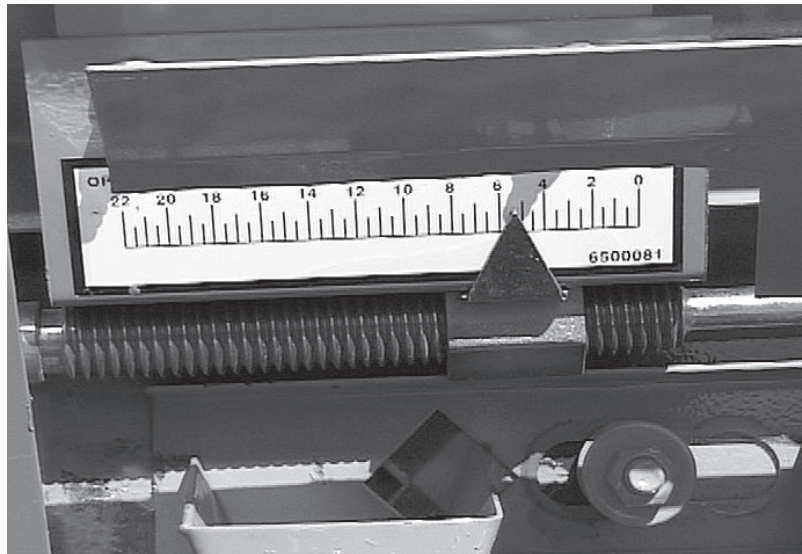
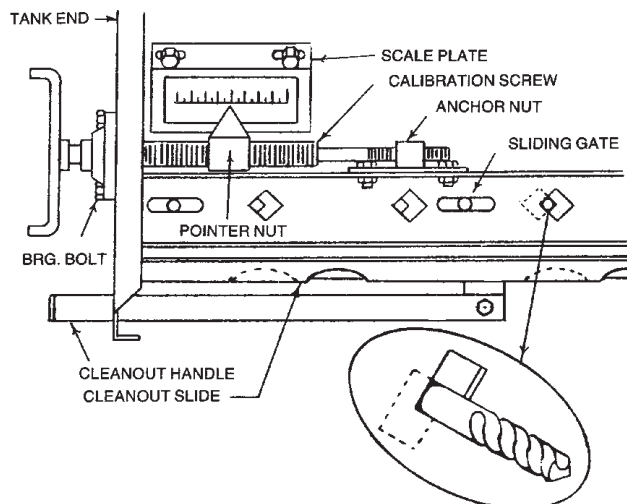
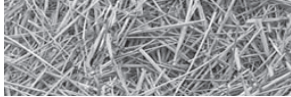


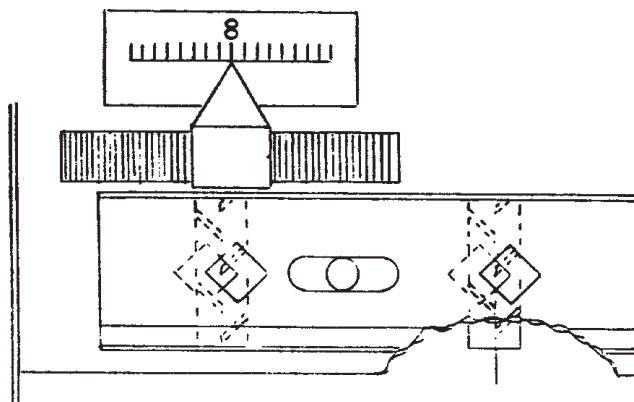
figure 4.1





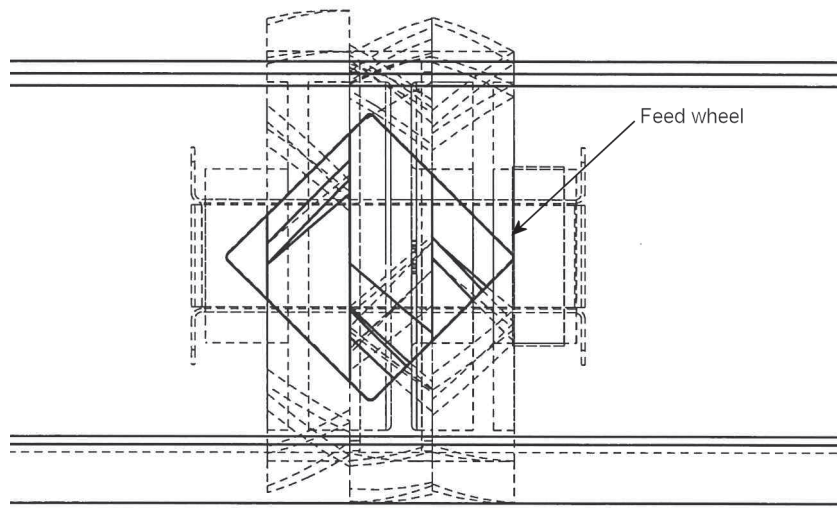
4.9 SETTING AND CHECKING FEED RATE

front feed wheel alignment



For most seeding, the front feed wheel should be aligned as shown above. Set the pointer on number 8. The center of the front feed wheel should be centered in the opening as viewed from outside of the box.

Rear feed wheel alignment

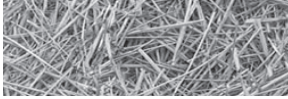


Setting the rear feed wheel, set pointer on number 22. The right edge of the rear feed wheel should line up with the right point of the diamond as viewed from outside of the box.

The rates shown on the charts serve only as a starting point. Due to variations in material size and density the rates may vary from the chart. The following methods may be used to determine the proper setting for your particular seed or fertilizer.

Setting and checking feed rate using wheat as an example.

1. You want to seed wheat at a rate of 95 lbs. per acre on 7" spacing.
2. Seed rate charts calls for a wheel space of 1/8" (page 28). Pointer set on 8 (see illustration above). The adjustment should be made before filling grain tank.
3. Make sure feed wheel cover is in place. Put grain in tank.
4. Seed far enough so you can visually check grain flowing into seed cups.



The addition of the single agitator to the standard drill box will prevent these seeds from bridging above the feed wheels. The single agitator may be added to all 77C/107C drills.

Alti wildrye
Brome grass #
Intermediate wheatgrass
Killdeer sideoats #
Pubescent wheatgrass
Streambank wheatgrass
Tall wheatgrass
Western wheatgrass

Extremely trashy samples may require the double agitator.

4.10 CHECKING SEED RATE

1. Measure a distance of 415' on a drill with 7" spacing and mark. Remove one hose from seed hopper on each drill. Attach a container (cloth or plastic bag) to hopper to collect seed.
2. Operate drill at intended planting speed through entire length of test track.
3. Weigh the sample in ounces (less weight of sample container). Use the following formula to determine lbs./acre for your particular shank spacing.

7" Spacing - oz. x 11.25 = lbs./acre

EXAMPLE

Sample and container weighs	9.9 ounces
Container weighs	- 1.5 ounces
Weight of sample only	8.4 ounces

4. Use formula No. 1 to figure pounds per acre. 8.4 ounces x 11.25 = 94.5 pounds per acre.
5. To calibrate a seed not shown on the chart or a mix of different seeds, compare to a similar charted seed to obtain a trial setting. Recalibrate as necessary.
6. The same method may be used to determine fertilizer rates.

**Series 100
Spacing 7"
Model No. 77C/107C**

[illegible]

**** = indicates wheel spacing**

100 DRILL DETERMINING SEED POPULATION

The 107C Drill seeds 10.50' / 126" per pass; the 77C Drill seeds 7' / 84" per pass.

The 107C Drill travels 4149 feet to seed 1 acre; the 77C Drill travels 6223' to seed 1 acre.

Following is the lineal feet of seeded row to seed 1 acre.

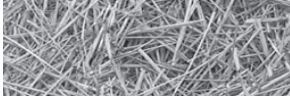
7" rows - 74,700 ft/acre

EXAMPLE:

150,000 bean plants desired per acre on 7" row spacing

150,000 divided by 74,700 = 2.0 beans per ft.

10 ft. of row - 20 beans.



Spacing 7 Inch

CHART FOR DRILLING GRAIN IN POUNDS PER ACRE

POINTER SETTING

POINTER SETTING	**	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BAHIA GRASS	1/8	2.5	10.3	16.1	24.6	34.2	44.5	53.7	63.9	77.7	89.9	102.0	115.0	131.0	145.0
BUFFALO GRASS*	1/8				2.5	3.8	5.3	6.7	8.6	10.9	13.9	16.0	18.8	21.7	26.1
FESCUE	1/8				4.5	6.3	8.1	11.7	14.4	18.9	22.9	27.4	32.0	36.4	42.2
GREEN	1/8		3.6	4.8	6.8	9.3	12.1	14.7	17.7	20.7	24.5	28.5	31.3	34.7	40.0
ORCHARD GRASS	1/8				1.3	2.0	2.7	4.1	5.4	7.2	9.0	11.3	13.5	16.7	19.8
RYEGRASS	1/8		3.1	4.5	6.7	9.4	13.5	16.6	21.1	27.0	33.7	45.4	53.0	61.1	69.3
*FEED COVER OFF															

** = indicates wheel spacing

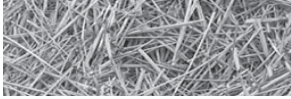
Spacing 7 Inch

CHART FOR DRILLING GRAIN IN POUNDS PER ACRE

POINTER SETTING

POINTER SETTING	**	1	2	3	4	5	6	7	8	9	10	11
ALFALFA	1/8		0.4	1.3	3.6	8.1	13.9	19.8	27.0	35.5	48.5	57.5
KENTUCKY BLUEGRASS	1/8			0.7	1.6	2.9	4.4	6.3	8.8	12.1	16.1	20.4
LADINO CLOVER	1/8		1.0	3.4	8.1	15.5	25.0	35.2	46.4	59.8		
LESPEDEZA (KOREAN)	1/8			1.1	4.7	8.3	12.4	17.3	23.6	31.3	39.8	49.2
RED CLOVER	1/8		1.3	4.3	9.5	16.4	24.3	32.8	43.4			
RED TOP	1/8			0.9	1.9	3.5	5.5	7.6	10.5	14.8	20.1	25.8
REED CANARYGRASS	1/8				0.9	2.3	3.8	5.5	7.9	10.9	14.0	17.2
SERECIA (UNHULLED)	1/8			1.0	2.7	4.7	7.4	10.6	14.1	19.0	25.0	30.8
SWEET CLOVER	1/8		2.7	7.2	14.4	23.4	33.5	44.5	58.9	77.3	97.5	
SWITCHGRASS	1/8		0.9	2.7	7.2	12.1	17.5	24.3	34.1			
TIMOTHY	1/8		0.9	3.6	8.5	15.3	22.9	30.6	39.5	53.0		
LOVEGRASS	1/8		1.0	3.4	8.3	15.5	23.4	33.5	44.5	57.5		

** = indicates wheel spacing



Spacing 7 Inch

CHART FOR DRILLING GRAIN IN POUNDS PER ACRE

POINTER SETTING

POINTER SETTING	**	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ALTI WILDRYE	1/8					3.1	5.7	7.6	12.7	18.5	27.1	36.2	46.4	47.4	49.8
BROMEGRASS*	1/8							3.6	5.3	7.5	10.2	13.6	16.5	20.0	20.7
INTERMEDIATE WHEATGRASS	1/8					5.8	8.1	12.1	19.3	28.3	35.0	49.8	55.2		
KILLDEER SIDEOATS*	1/8					2.5	3.8	5.5	7.4	9.6	11.8	14.0	16.4	19.3	22.5
PUBESCENT WHEATGRASS	1/8					4.9	12.6	19.3	28.5	39.7	53.4	69.9	81.1	86.1	
STEAMBANK WHEATGRASS	1/8					2.9	4.5	7.1	10.3	13.4	20.0	27.2	33.4	35.1	
TALL WHEATGRASS	1/8					5.8	8.5	12.1	18.4	25.2	32.3	43.1	53.9		
WESTERN WHEATGRASS	1/8					2.7	4.4	7.3	10.8	15.3	19.9	25.0	30.4	35.5	39.8
*DOUBLE AGITATOR MAY BE REQUIRED FOR EXTREMELY TRASHY SAMPLES															

** = indicates wheel spacing

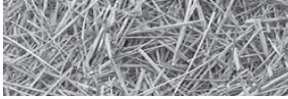


CHART FOR DRILLING LEGUMES AND SMALL GRASSES IN POUNDS PER ACRE

LEGUME BOX ATTACHMENT FOR 77C/107C DRILL ON 7" SPACING

NOTCHES ON INDEX	LBS. BU.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ALFALFA; RED, ALSIKE, LADINO CLOVER; VETCH	62	2.2	4.7	7.7	10.7	13.6	17.0	20.4	23.9	27.3	30.9	31.7	37.9	41.3	44.7	47.6	50.6
SWEET CLOVER	64	2.3	5.1	8.4	12.4	17.4	22.5	26.4	30.9	37.1	41.6	46.7	51.2	56.3	59.6	63.0	66.4
BIRDSFOOT TREFOIL	64	2.3	4.5	7.9	10.7	14.1	17.4	21.4	25.3	28.1	32.1	36.0	39.4	42.2	46.7	50.1	55.1
MILLIT, TIBBET CLOVER	60	2.1	4.9	7.7	10.7	14.3	17.4	21.2	26.1	28.5	30.9	35.5	39.4	42.8	46.7	51.0	55.9
UNHULLED SERICEA	36	1.1	2.8	4.5	6.8	9.6	11.8	14.6	17.4	20.3	23.1	26.4	28.7	31.5	33.8	36.0	40.5
UNHULLED LESPEDEZA	46	1.7	3.9	5.6	8.4	11.8	15.2	18.0	21.9	25.3	28.7	32.6	35.4	38.3	41.6	45.0	50.1
BAHIA GRASS	46	1.1	2.8	5.1	6.2	8.4	10.7	11.8	14.6	16.9	18.6	20.8	22.5	24.2	25.9	27.6	28.1
LOVEGRASS	64	2.3	5.1	7.9	11.3	16.3	20.3	24.2	28.7	32.6	36.6	42.2	46.7	51.2	55.1	57.9	60.2

SEED MIXTURES

SELECT THE SETTING FOR THE DESIRED QUANTITY OF EACH SEED.

ADD INDIVIDUAL SETTINGS.

EXAMPLE:

	LBS/ACRE	NOTCH
ALFALFA	5	2
SWEET CLOVER	5	2
TIMOTHY	2	1
TOTAL		5

WHEN USING HALF SPEED DRIVE DIVIDE CHARTED RATES BY TWO. REPLACE 17 TOOTH SPROCKET ON COUNTERSHAFT WITH 35 TOOTH. (SEE MANUAL FOR DETAILS.)

DENSITY OF THE SAMPLES USED TO PREPARE THIS CHART ARE GIVEN IN THE FIRST COLUMN TO THE RIGHT OF THE CROP NAME IN POUNDS PER BUSHEL.

NOTCHES ON INDEX	LBS. BU.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TIMOTHY	50	1.7	3.9	6.2	9.6	12.9	16.9	20.9	24.8	28.1	32.6	37.1	40.5	44.4	46.7	49.5	54.6
SWITCHGRASS	55	2.3	4.5	6.8	9.6	12.4	15.8	18.6	20.8	24.2	28.1	30.9	33.8	37.1	39.9	42.2	47.8
FLAX SESAME	55	1.4	3.7	6.2	8.7	11.6	14.7	17.5	20.6	23.1	26.5	29.6	32.4	35.5	37.9	40.5	44.5
RAPE MUSTARD	53	1.7	4.2	7.4	10.2	12.9	16.4	19.2	22.5	25.6	28.2	31.8	34.9	37.7	40.5	43.3	45.9
ORCHARD GRASS	17		0.8	1.7	2.8	3.4	3.9	5.1	5.6	6.8	7.3	8.4	9.0	10.1	10.7	11.3	11.9
PERENNIAL RYEGRASS	31		2.3	3.4	5.6	7.3	9.0	10.7	11.8	13.5	15.2	16.9	18.6	20.8	21.9	23.1	24.8
FESCUE	27		1.1	2.8	3.9	5.6	6.8	8.4	9.6	11.3	12.4	13.5	15.2	16.9	18.0	19.1	21.9
COMMON BERMUDA GRASS		2.7	5.0	7.4	10.6	14.3	17.6	20.8	25.1								

CHART FOR DRILLING GRASS IN POUNDS PER ACRE

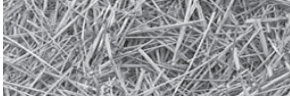
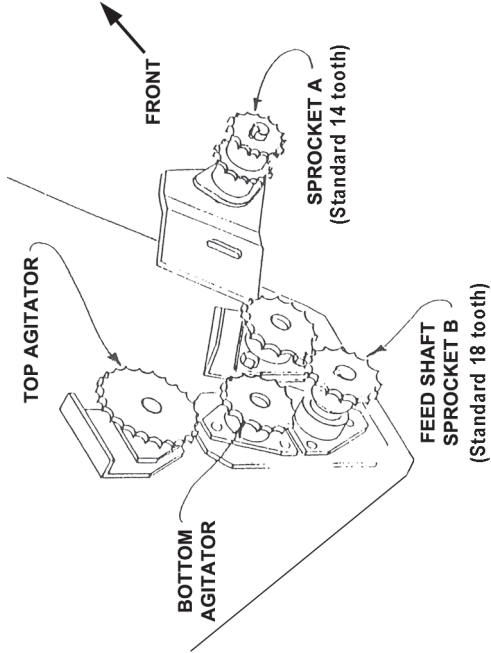
Standard
setup

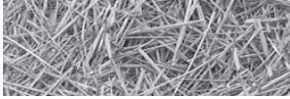


GRASS NAME	DENSITY	WHEEL		SPROCKET A															
		SPACE	POINTER	SPROCKET B															
	9 LB/BU	1/8"	REV. PER ACRE																
			14	6.8	7.9	9.3	10.1	10.6	11.8	14.8	15.8	17.4	19.3	23.3	25.3				
BLUE GRAMMA		17	9.5	11.3	13.3	14.1	15.7	16.5	19.4	19.9	22.5	24.8	27.9	31					
		22	11.3	12.5	13.5	15.3	17	18.8	19.9	20.5	21.1	24.5	28.5	31.1					
BIG BLUESTEM	9 LB/BU	1/8"	14	4.9	5.7	6.2	6.7	7.8	8	11.2	11.4	12.1	15	15.4	19				
			17	9.3	10.8	12.5	12.6	17.4	19	24.2	25.5	26	29.4	33.3	34.1				
			22	15.7	19.2	19.9	21.4	22.7	23.6	26.5	29.7	30.7	36.5	38.8	41.4				
INDIANGRASS	13 LB/BU	1/8"	17	9.2	10.9	11.5	13.8	14.5	14.6	15.5	20.4	21.2	22.3	23.2	26.4				
			22	17.5	20	21.4	21.8	22.9	23.8	24.4	24.5	27.3	28.8	30.1	31.1				
LITTLE BLUESTEM**	9 LB/BU	1/8"	22	3.2	3.3	4.2	5.4	7.5	8.3	9.4	9.8	10.5	10.8	11.4	13.5				
PRARIE SANDREED**	13 LB/BU	1/8"	22	5.5	5.6	8.5	8.6	9.2	10.5	13.3	15.8	16	18.6	20	22.1				

** = FOR BEST RESULTS OBTAIN THE MOST TRASH-FREE SEED AVAILABLE.
Also see information in section 5.4

To obtain the desired seeding rate of the chaffy native grasses it may be necessary to adjust the feed shaft speed. The charts on page 32 list the sprocket combinations and relative speed in revolutions per acre. Use these charts as a guideline in choosing the correct sprocket combinations. On a standard drill box, sprocket A has 14 teeth and sprocket B has 18 teeth. The 12 tooth sprocket (#1000055), and the 24 tooth sprocket (#1000090) are NOT included.





4.11 Drilling with the Grain Drill

If the grain drill was transported using the optional end hitch, the rear wheels will need to be rotated as follows:

1. Use the hydraulic system to lower the openers onto solid soil or use a jack to raise the drill frame and remove the weight from the rear wheels.
2. Remove the bolts from each wheel.

rotating the wheels for drilling (wheel shown in drilling position)

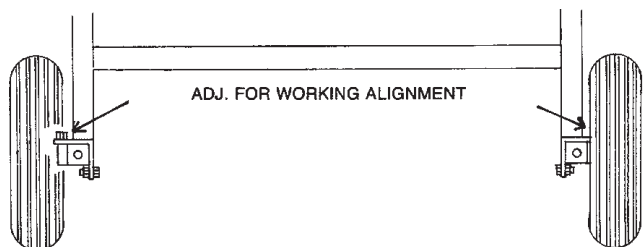


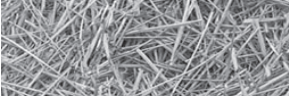
3. Rotate the wheels 90° and insert bolts.



NOTE: Step 4 covers alignment of the wheels. Once this adjustment is set, it should not normally be necessary to readjust it. Alignment of the wheels in the working position is less critical than in the transport position because of the softer surfaces and slower speeds.

4. Using a tape measure, align the wheels so that they are parallel with each other and the frame as shown. Adjust and secure the stop bolt #2.





5. Tighten the bolts.
6. Remove the jack, if used.
7. After the tractor is hitched to the front hitch, move the drill ahead slowly until the front swivel wheels are properly positioned.

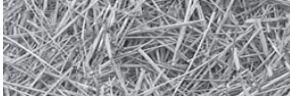
At this point the grain drill should be properly set up and adjusted according to the instructions in the preceding sections.

Load the tanks with seed and/or fertilizer. Rotate the drive wheel by hand to make sure that the feed wheel shafts are free to turn. This is particularly important if the drill was transported with fertilizer and seed in the hoppers.

Start the tractor, retract the cylinder completely, and begin drilling.

Periodically check for proper seed depth and feed rate.

When the seeding operation is finished, park the drill over a sheet of plastic, canvas, etc. Pull one of the cleanout side control levers out to empty the remaining seed or fertilizer. Collect the seed or fertilizer. Repeat the procedure for the other hopper.



4.12 SUGGESTIONS

When preparing to sow damp fertilizer that has been sitting in the tank for several hours, stir the fertilizer all the way to the bottom to break up any blocks of fertilizer which have become cemented together.

The amount of fertilizer sown will vary with the moisture content and quality of the fertilizer.

4.13 REAR WHEEL SWIVEL AND ADJUSTMENT

Both rear wheels are designed to swivel 90° for the purpose of transporting drills endways. Adjusting bolts are provided for aligning wheels in transport position as well as in forward position. Transport position is most critical for tire wear due to hard surface roads and faster speeds.



CAUTION: Transporting drills with seed and fertilizer in the tanks is not recommended. If drills are moved any distance with seed or fertilizer in tanks, either in transport or field position, materials will settle around feed wheels. Before starting to seed, operator should check with a wrench on drive end of feed wheel shaft to make sure they are free to turn. Shaft may be turned either clockwise or counterclockwise with openers in raised position.



WARNING: Maximum transport speed should never exceed 20 M.P.H., and should be less where conditions demand.

4.14 TRANSPORTING THE GRAIN DRILL

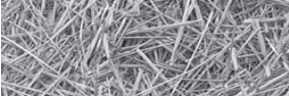
The rear wheels swivel 90° to transport the drill end ways with the optional end hitch. These wheels must be carefully aligned before transporting the drill because of the hard surfaces.

To rotate the rear wheels:

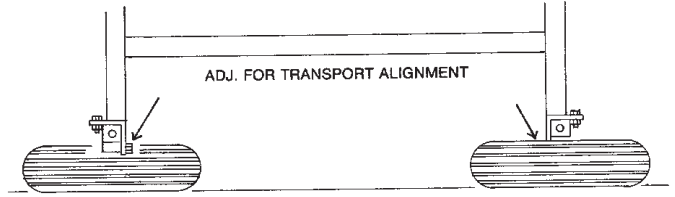
1. Use the hydraulic system to lower the openers onto solid soil or use a jack to raise the drill frame and remove the weight from the rear wheels.
2. Remove the lock bolts from each wheel.
3. Rotate the wheels 90° and insert the lock bolts.



NOTE: Step 4 covers alignment of the wheels. Once this adjustment is set, it should not normally be necessary to readjust it.



4. Using a string, align the wheels as shown. Adjust and secure the stop bolts.
5. Tighten the lock bolts.
6. Raise the openers or remove the jack. Secure the torque bar in the transport position with the safety stop bar.



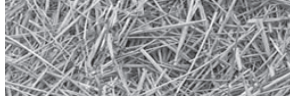
rear wheel alignment - transport position

7. After the tractor is hitched to the end hitch, move the drill ahead slowly until the front swivel wheels are properly positioned.

rotating the wheels for
drilling (wheel shown in
drilling position)



step # 4
stop bolt



4.15 CLEANING GRAIN TANKS AND LEGUME BOXES



CLEAN grain tanks and/or legume boxes on the 77C/107C Drill after using inoculated, treated or coated seeds. Failure to clean tanks will cause damage to moving parts. This damage is **NOT** covered by warranty. Always add graphite to treated seeds.

4.16 PREPARING FOR STORAGE

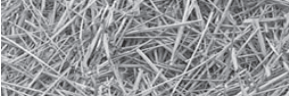
To prepare the 77C/107C Drill for storage, perform the following steps:

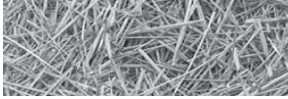
1. Install safety stop bar to keep planting units off the ground and to minimize rusting. Before drill is stored, clean out slides should be opened to remove as much seed and fertilizer as possible. Both tanks should be flushed out thoroughly to prevent any caking of seed or fertilizer. Open and close slides while flushing to allow any fertilizer that might be under the calibration slide to work its way free. Fertilizer can be damaging if left in contact with metal parts for a prolonged period.
2. Clean all mud, dirt, grease and other foreign material from the exterior of the machine. Wash the complete machine. Repaint places where bare metal is exposed - this will inhibit rusting.
3. After inside of the tank is thoroughly dry, apply a coat of oil or diesel fuel to calibration slide, bearings and other parts that have been in contact with fertilizer or seed.
4. Remove the chains and wash them in solvent. Using a clean cloth, wipe off the chains. Soak the chains in engine oil. Drain off the excess oil and install the chains on the grain drill.
5. Coat all chains and exposed hydraulic cylinder rod with a Valvoline Tectyl 506 oil or equivalent.
6. Lubricate machine thoroughly according to the lubrication instructions.
7. Drain water from ballast tanks, if installed.
8. If possible, store the machine in a dry, protected place. If it is necessary to store the machine outside, cover it with plastic, waterproof canvas, or other suitable protective material.
9. Check the machine for any worn or broken parts. By ordering parts now, you will avoid delays when it is time to remove the machine from storage. When ordering parts always specify machine serial number and the part number of the replacement part. Part numbers can be found in the Parts List Manual.

4.17 REMOVING FROM STORAGE

To remove the 77C/107C Drill from storage, perform the following steps:

1. Remove all protective coverings.
2. Remove all excess oil from chains and cylinder rods. Lubricate machine in accordance with lubrication instructions found in this manual.
3. Check all hydraulic hoses for deterioration and, if necessary, replace. Tighten any loose bolts, nuts and hydraulic fittings.
4. Follow prestarting inspection.





Section 5: Grass Seeding Reference

All Haybuster 77C/107C Grain Drills are very versatile. These base drills are capable of accurately metering most common seeds and fertilizer. The seed will be placed at the correct depth in conventional and minimum tillage and most zero-tillage situations. Through the use of special attachments, Haybuster 77C/107C Grain Drills can be used for seeding of various types of grass seeds including small-seed legumes and chaffy native grasses. When grass seeding is complete, each of these drills are capable of seeding and fertilizing your conventional crops. For more information on operating the drill, settings and procedures, please see **Section 4: Operating Instructions**.

5.1 Grass Seeding Attachments

The following attachments are available for grass seeding:

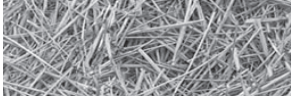
- Legume box
- Single agitator
- Double agitator
- 2" I.D. seed tubes
- Depth bands

Many grasses can be metered through the standard seed box with no additional equipment. However, some of the grasses listed below can be metered more accurately by using some of the special attachments listed on the following pages.

*Alfalfa	*Alsike clover	@Altiwild rye	*Bahia grass
*Birdsfoot trefoil	@Bromegrass	Buffalograss	Fescue
Green needlegrass	@Intermediate wheatgrass	*Kentucky bluegrass	@Killdeer sideoats
*Ladino clover	*Lespedeza (unhulled)	*Lovegrass	Orchard grass
@Pubescent wheatgrass	Ryegrass	*Red clover	*Red top
*Reed cararygrass	*Serecia (unhulled)	*Sweet clover	*Switchgrass
@Streambank wheatgrass	*Timothy	@Tall wheatgrass	@Western wheatgrass

* See legume box section, Section 5.2 Legume box Applications

@ See single agitator section, Section 5.3 Single Agitator Applications



5.2 Legume Box Applications

The legume box attachment is designed to accurately meter the small seeds listed below.

Alfalfa	Alsike clover	Bahia grass	Birdsfoot trefoil
Fescue	Kentucky bluegrass	Ladino clover	Lespedeza (Korean)
Lovegrass	Orchard grass	Red clover	Red top
Reed canarygrass	Rye grass	Serecia (unhulled)	Sweet clover
Switchgrass	Tibbet clover	Timothy	Vetch

For more information please see the Chart for drilling legumes and small grasses on page 31.

5.3 Single Agitator Applications

The addition of the single agitator to the standard drill box will prevent these seeds from bridging above the feed wheels.

Alti wildrye	Bromegrass #	Intermediate wheatgrass
Killdeer sideosts #	Pubescent wheatgrass	Streambank wheatgrass
Tall wheatgrass	Western wheatgrass	

Extremely trashy samples may require the double agitator.

For more information please see the Chart for drilling grain on page 30.

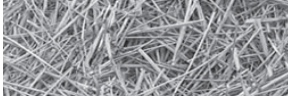
5.4 Special Instructions for Warm Season Grasses

Warm season grasses tend to be very low bulk and are very trashy or chaffy in appearance. Special equipment required to properly meter these grasses is listed below.

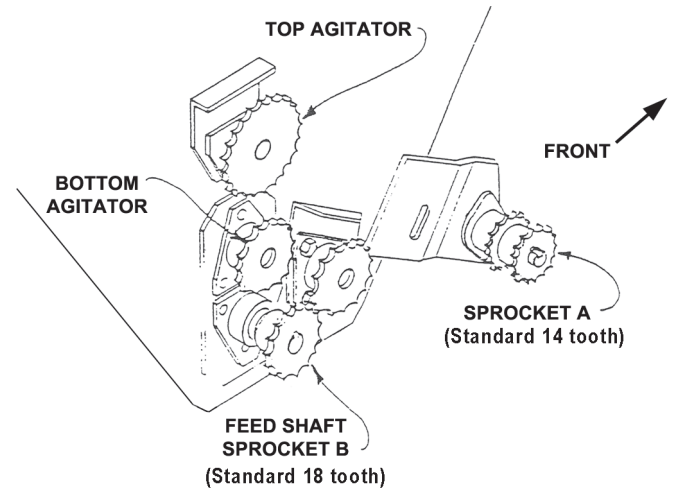
- Double agitator (top and bottom)
- Larger opening in drill box (1-1/2 inch)
- 2 inch I.D. grass tube kit
- Sprocket set (feed shaft speed adjustment)

Obtain the best quality seed available for best results. Trashier samples may need to be blended with heavier seed to improve metering capabilities. Center the feed wheels as shown on page 23. Be sure to check the feed wheels as shown on page 23.

Blue grammagrass	Big bluestem	Indian grass	Little bluestem	Prairie sandreed
------------------	--------------	--------------	-----------------	------------------



To obtain the desired seeding rate of the chaffy native grasses it may be necessary to adjust the feed shaft speed. The charts on page 32 list the sprocket combinations and relative speed in revolutions per acre. Use these charts as a guideline in choosing the correct sprocket combinations. On a standard drill box, sprocket A has 14 teeth and sprocket B has 18 teeth.



5.5 Pure Live Seed Calculations

Any sample of bulk seed always has a certain percentage of non-viable seed and inert matter. In cereal grains, this percentage is quite small and can usually be ignored when determining seeding rates. Grass seeds can have a very high percentage of dormant and non-viable seed, and inert matter. These high percentages must be considered when determining grass seeding rates.

For example: You wish to plant Big Bluestem (Chart pg 32) at a rate of 12 ponds of pure live seed (pls) per acre.

A typical grass seed tag might appear as follows:

Big Bluestem

Weed seed.....	0.10%	Lot No.....	83101
Noxious weed seed.....	0.00%	Germ.....	52.0%
Other crops.....	0.05%	Date of test.....	3-86
Inert matter.....	40.05%	Grown.....	Kansas

Step 1. Determine the total percentage of inert matter from the seed tag

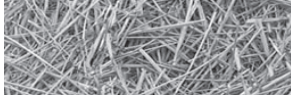
Weed seed	0.10%
Noxious weed seed	0.00%
Other crops	0.05%
Inert matter	<u>40.05%</u>
	40.20%

Step 2. Subtract the percentage of inert matter from 100% to find pure seed percentage.

$$100.0\% - 40.20\% = 59.80\%$$

Step 3. Divide the pounds of pure live seed desired by the percent pure seed.

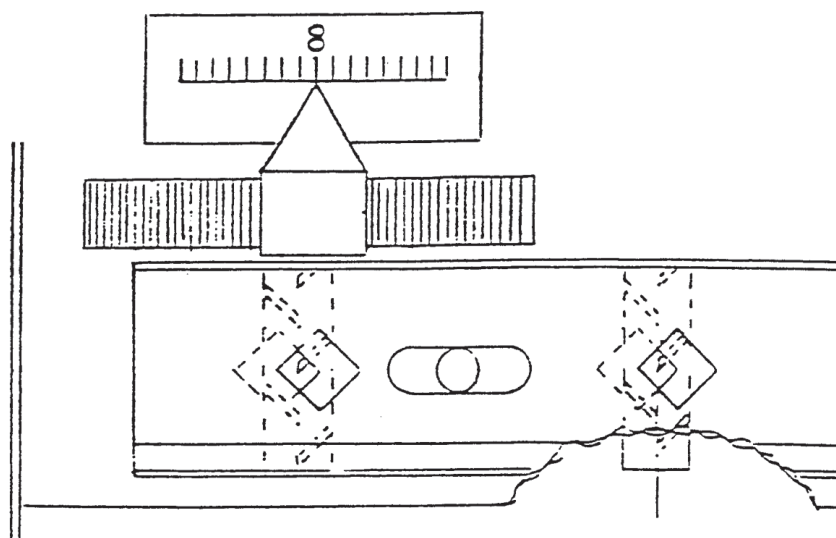
$$12 \text{ lbs pls} / 0.5980 = 20.07 \text{ lbs pure seed}$$



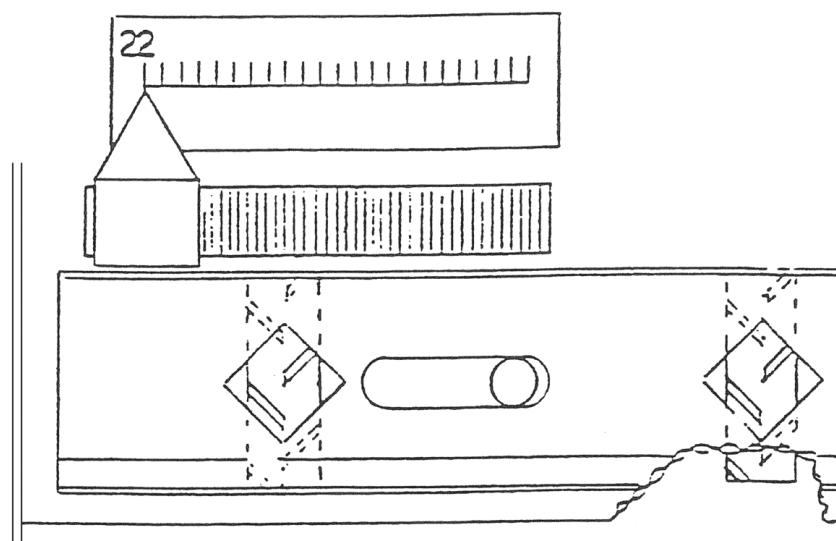
Step 4. Divide pounds of pure seed by the germination percentage to get bulk seed.

$$20.07/0.52 = 38.6 \text{ lbs of bulk seed}$$

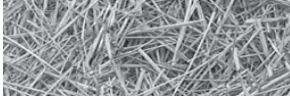
So 38.6 lbs of bulk seed per acre must be sown to get 12 lbs of pure live seed per acre.



For most seeding, the feed wheel should be aligned as shown above. Set the pointer on number 8. The center of the feed wheel should be centered in the opening as viewed from outside of the box.



When seeding the grasses listed on page 32, move the feed wheel as shown above. Set the pointer on number 22, the center of the feed wheel should be centered in the opening as viewed from outside of the box. Generally, a small screwdriver or similar tool may be inserted through the opening into the tank and used to push the wheel into position. The agitator blades inside the drill box may need to be re-centered over the feed wheels to prevent interference.



Section 6: Lubrication

All 77C/107C Grain Drills are completely serviced at the factory before shipping. However, the operator should make a check of all grease fittings on the unit before beginning to operate it so as to become familiar with their location and the correct service schedule.

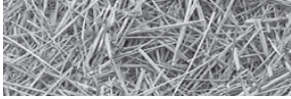
Use only a high quality, multi-purpose grease when lubricating the unit. Make sure all fittings and the nozzle of the grease applicator are clean before applying the grease. If any grease fittings are missing, replace them immediately.

Lubricating of all pillow block and flange-type self-aligning ball or roller bearings should be done slowly to help prevent bearing seal damage. Use caution when using a high pressure, high volume gun.

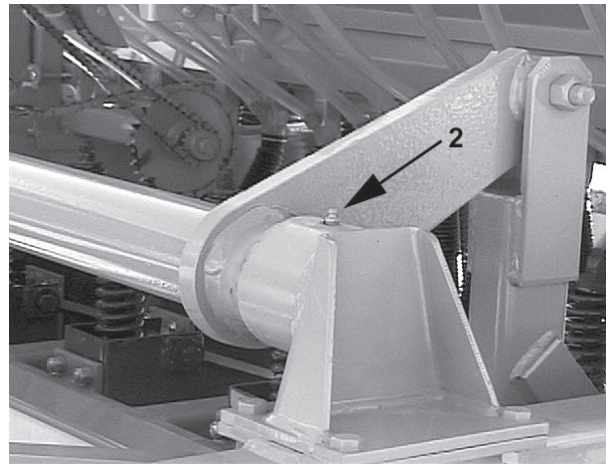
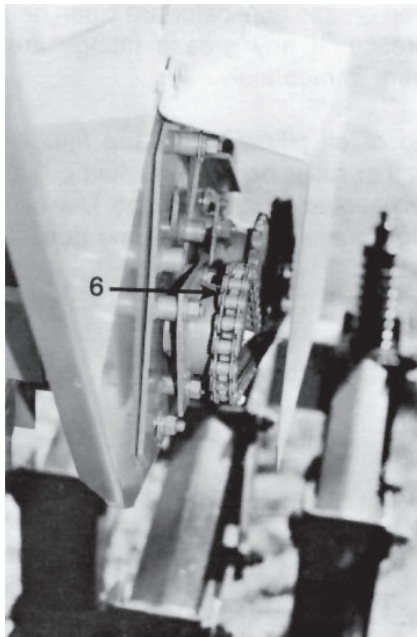
Description	Type	Frequency	No. Zerks
1. Swivel Wheel Pivot	Grease	20 Hrs.	2
2. Torque Tube Bushings	Grease	40 Hrs.	2
3. Universal Joints	Grease	40 Hrs.	2
4. Square Drive Line	Grease	40 Hrs.	2
5. Feed Wheel Shaft	Grease	100 Hrs.	6
6. Roller Chains	Oil	Daily In Dusty Conditions	
7. Tool Bar Bushing	Grease	20 Hrs.	2
8. Lift Arm Bushing	Grease	20 Hrs.	2
9. Lift Arm	Grease	20 Hrs.	2
10. Drive Wheel Frame	Grease	20 Hrs.	2
11. Packer Wheel Bearings and Coulter-Disk Bearings are Non-Relubable.			
12. Cylinder Clevis Pin	Grease	20 Hrs.	1

swivel wheel pivot
lubrication zerk

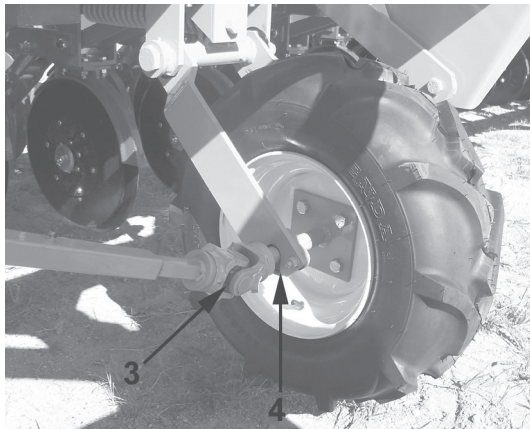




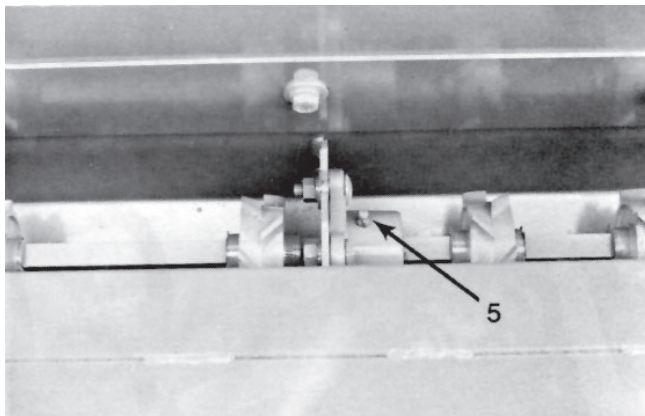
**torque tube bushings
lubrication points**

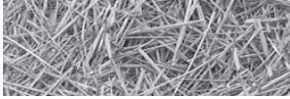


**universal joints and
square drive line
lubrication zerk**

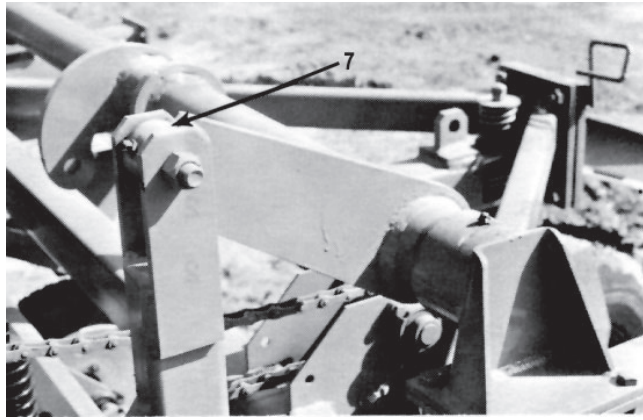


**feed wheel shaft
lubrication zerk**

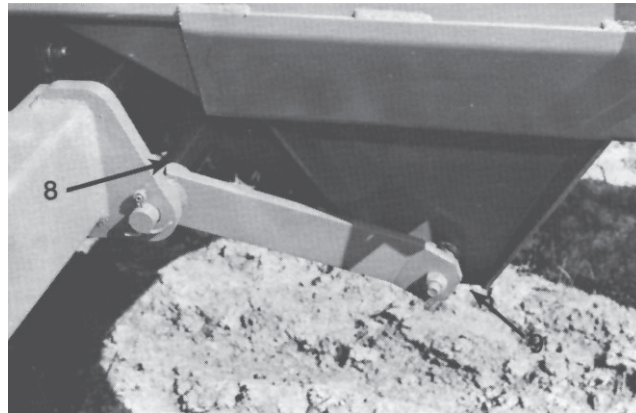




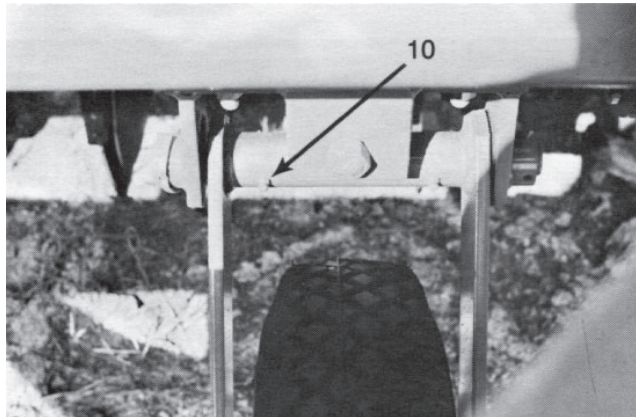
tool bar bushing
lubrication zerk



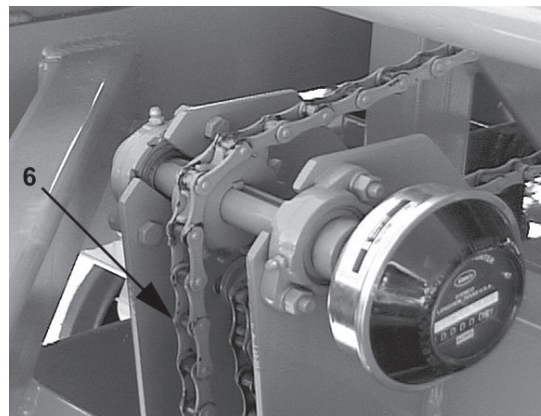
lift arm bushing
lubrication zerk

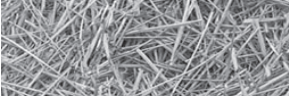


drive wheel frame
lubrication zerk



roller chains lubrication





APPENDIX A: WARRANTY

Duratech Industries International, warrants to the original purchaser for one year from purchase date that this product will be free from defects in material and workmanship when used as intended and under normal maintenance and operating conditions. This warranty is limited to the replacement of any defective part or parts returned to our factory in Jamestown, N.D., within thirty (30) days of failure.

This warranty shall become void if in Duratech Industries International's judgment the machine has been subject to misuse, negligence, alterations, damaged by accident or lack of required normal maintenance, or if the product has been used for a purpose for which it was not designed.

All claims for warranty must be made through the dealer which originally sold the product and all warranty adjustments must be made through same.

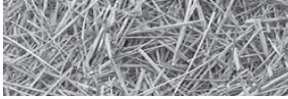
This warranty does not apply to tires or bearings or any other trade accessories not manufactured by Duratech Industries International. Buyer must rely solely on the existing warranty, if any, of these respective manufacturers.

Duratech Industries International shall not be held liable for damages of any kind, direct, contingent, or consequential to property under this warranty. Duratech Industries International cannot be held liable for any damages resulting from causes beyond its control. Duratech Industries International shall not be held liable under this warranty for rental costs or any expense or loss for labor or supplies.

Duratech Industries International reserves the right to make changes in materials and/or designs of this product at any time without notice.

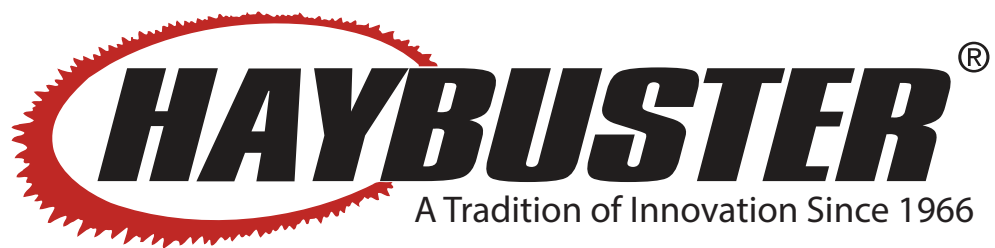
This warranty is void if Duratech Industries International does not receive a valid warranty registration card at its office in Jamestown, N.D., within 10 days from date of original purchase.

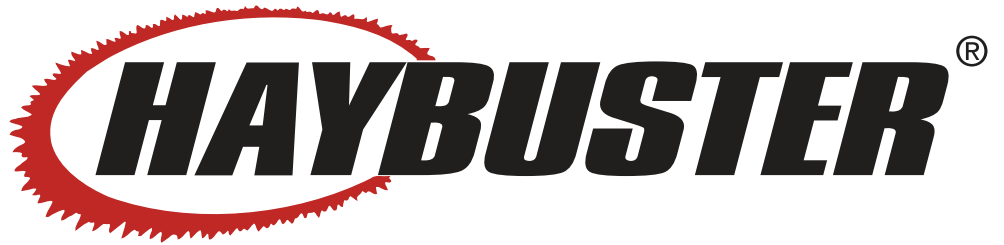
All other warranties made with respect to this product, either expressed or implied, are hereby disclaimed by Duratech Industries International.



APPENDIX B: SPECIFICATIONS

	77C Drill	107C Drill
Overall Width:	91"	125"
Seeding Width:	84"	126"
End Transport Width:		155"
Height:	73"	73"
Weight:	3,600 lbs	4,200 lbs
Tire Size- Front: Tire Pressure	9.5x14 Implement 44 PSI	9.5x14 Implement 44 PSI
Tire Size- Rear: Tire Pressure	7.6x15 implement 32 PSI	7.6x15 implement 32 PSI
Tire Size- Drive: Tire Pressure	20X8-10 4-Ply 28 PSI	20X8-10 4-Ply 28 PSI
Hopper Capacity:		
Grain- Front:	10 Bu.	14 Bu.
Granulated Fertilizer:	10 Bu.	14 Bu.
Grain- Front & Rear:	20 Bu.	28 Bu.
Legume Box:	1.5 Bu.	2 Bu.
Feed System:	infinitely adjustable meter	infinitely adjustable meter
Hoses:	rubber convoluted	rubber convoluted
Row Spacing:	7"	7"
Openers - Double Disc:	14"	14"
Press Wheels - Standard:	2" x 15-1/2"	2" x 15-1/2"
Press Wheels - Optional:	2" x 13"	2" x 13"
Options:	Swivel Hitch Acre Counter Legume Box Native Grass Kit Ballast Tanks Gauge Wheels	1-2-3-4 Drill Hitch and Components Swivel Hitch Acre Counter Hitch Winch Ballast Tanks End Hitch Stabilizer - Front and Rear Legume Box Native Grass Kit Gauge Wheels False Bottom





77C/107C DRILL™

*77C Serial Number 77110001C & UP
107C Serial Number 101100017C & UP*

Parts Reference



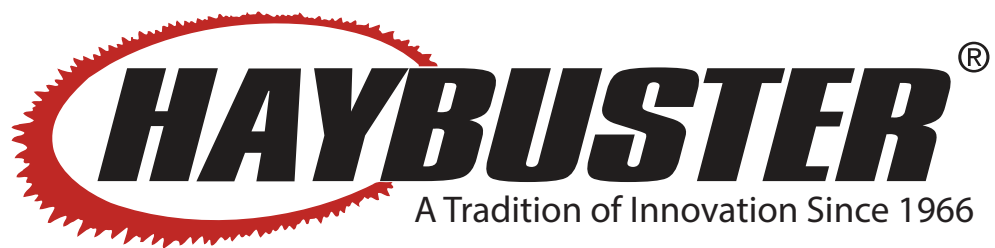
DuraTech Industries International Inc. (DuraTech Industries) has made every effort to assure that this manual completely and accurately describes the operation and maintenance of the 77C/107C DRILL™ as of the date of publication. DuraTech Industries reserves the right to make updates to the machine from time to time. Even in the event of such updates, you should still find this manual to be appropriate for the safe operation and maintenance of your unit.

This manual, as well as materials provided by component suppliers to DuraTech Industries are all considered to be part of the information package. Every operator is required to read and understand these manuals, and they should be located within easy access for periodic review.



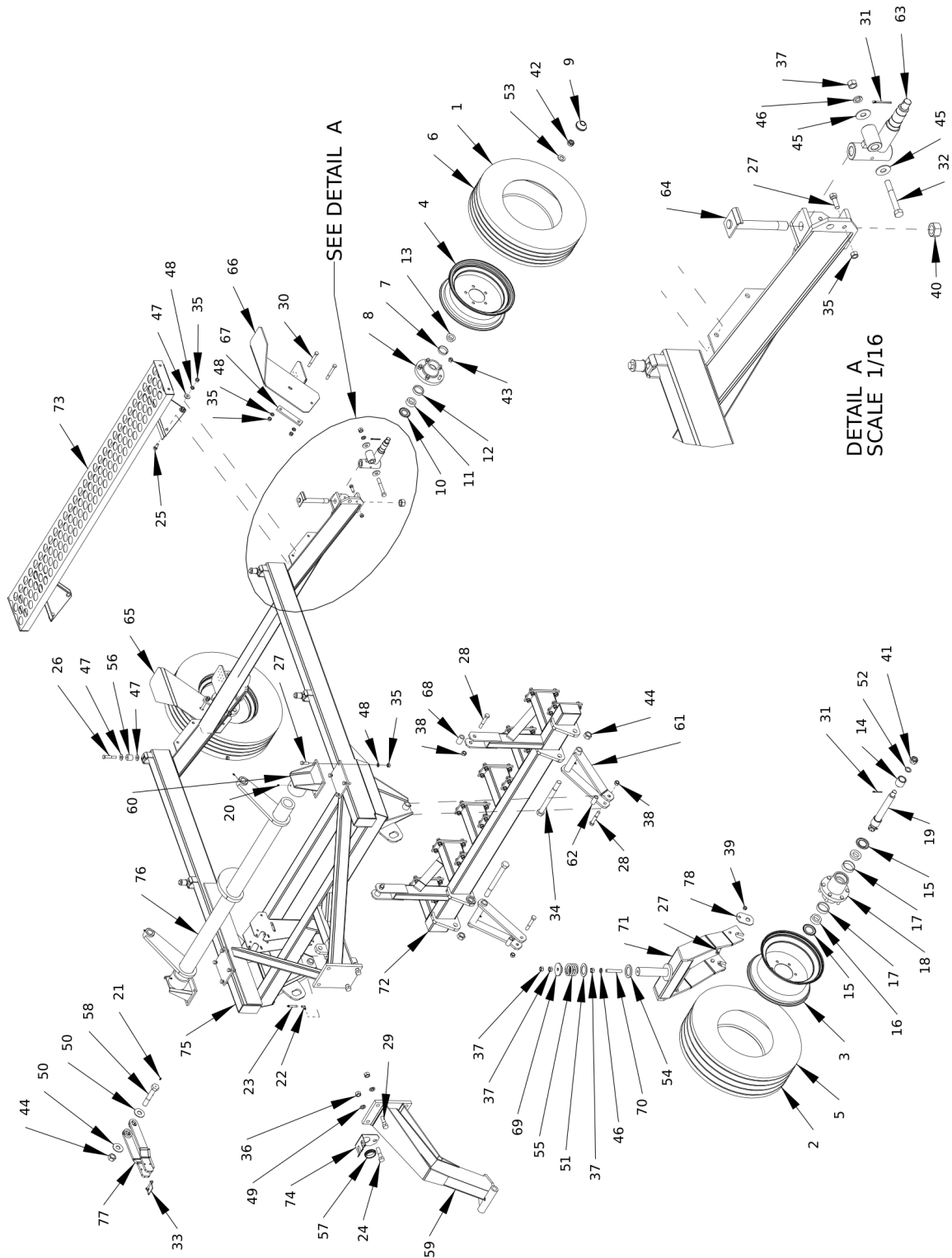
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77C Main Frame Assembly (for SN 0076 & Up)

Item	Part No.	Name	Remarks	Qty	Uom
1	2600008	TIRE\7:60X15\8PLY;IMP		2	EA
2	2600013	TIRE\9.5LX14\8PLY		1	EA
3	2600601	WHL\6-BOLT\14X8		1	EA
4	2600606	WHL\5-BOLT\15X5		2	EA
5	2600825	WHL\IMP\9.5X15\TIRE&RIM	(Includes #2 & #3)	1	EA
6	2600834	WHL\IMP\7.60X15\TIRE&RIM	(Includes #1 & #4)	2	EA
7	2900004	CUP\INNER\WHEEL HUB		2	EA
8	2900011	HUB\WITH CONES\W/NUTS	(Includes #7, #9, #10, #11, #12 & #13)	2	EA
9	2900013	CAP\DUST\WHL;HUB(DC-13)		2	EA
10	2900014	SEAL\GREASE(517) (15190)		2	EA
11	2900015	CONE\INNER\WHL HUB(48548)		2	EA
12	2900016	CUP\INNER\WHL:HUB(48510		2	EA
13	2900018	CONE\OUTER\WHL;HUB(67048		2	EA
14	2900084	SPACER\HUB\WHEEL		2	EA
15	2900085	SEAL\WHL;HUB(20078)		2	EA
16	2900086	CONE\2788\WHL;HUB		2	EA
17	2900087	CUP\BRG\HUB\WHL\2720		2	EA
18	2900089	HUB\H-628(FORK)\COMPLETE		1	EA
19	3000018	SPNDL\FORK		1	EA
20	3800041	FTG\LUB\1/8MPXZERK\ADAPT		4	EA.
21	3800082	FTG\LUB\1/4NFXZERK\ADAPT		5	EA.
22	3800111	FTG\1/8MPX1/8FP\90D\ST;EL		1	EA.
23	3800126	FTG\LUB\1/8MPXZRK\2-5/8		1	EA.
24	4800017	BOLT\HEX\3/4X3		1	EA.
25	4800018	BOLT\HEX\1/2X1-1/4		4	EA.
26	4800068	BOLT\HEX\1/2X3		4	EA.
27	4800082	BOLT\HEX\1/2X1-1/2		60	EA.
28	4800100	BOLT\HEX\5/8X4		4	EA.
29	4800115	BOLT\HEX\3/4X2-1/2		3	EA.
30	4800141	BOLT\HEX\1/2X4-1/2		4	EA.
31	4800157	PIN\COT\3/16X2		4	EA
32	4800158	BOLT\HEX\5/8X4-1/2		2	EA.
33	4800559	PIN\LYNCH\5/16X2-1/2\W/SQ;WIRE;KEEPER		1	EA.
34	4800626	BOLT\HEX\1X11\NC		2	EA.
35	4900001	NUT\HEX\1/2\NC		66	EA.
36	4900004	NUT\HEX\3/4\NC		4	EA.
37	4900005	NUT\HEX\5/8\NC		5	EA.
38	4900012	NUT\TPLCK\5/8\NC		4	EA.

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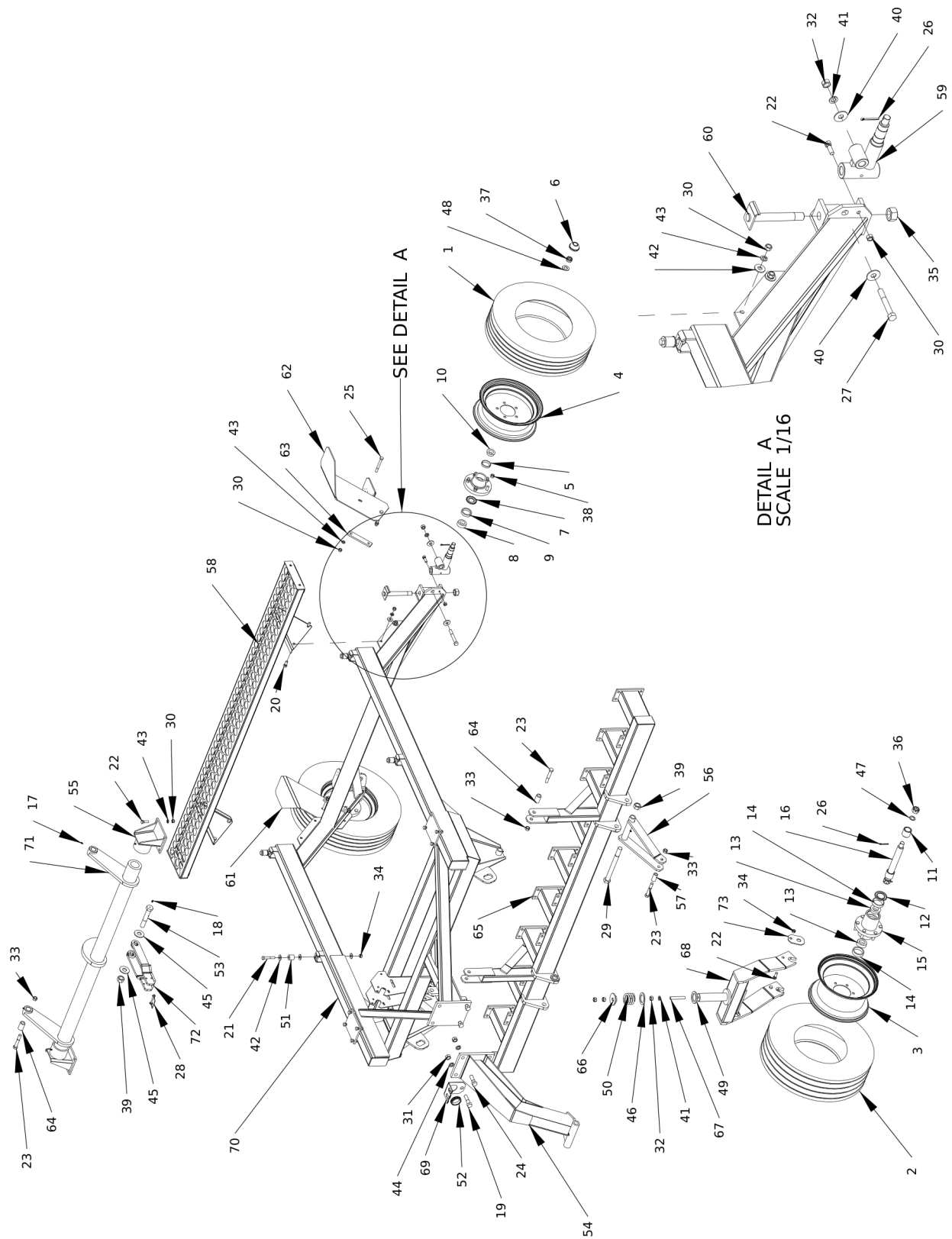
77C Main Frame Assembly (for SN 0076 & Up)

Item	Part No.	Name	Remarks	Qty	Uom
39	4900014	NUT\TPLCK\1\2\NC		6	EA.
40	4900015	NUT\NYLCK\1\NC		2	EA.
41	4900115	NUT\CASTLE\1\1"-14		2	EA
42	4900054	NUT\CASTLE\7\8\NF		2	EA.
43	4900094	NUT\TPRWHEEL\1\2\13\16OD\NF		10	EA
44	4900127	NUT\TPLCK\1\NC		3	EA.
45	5000002	WASH\FLAT\5\8		4	EA.
46	5000003	WASH\LOCK\5\8		3	EA.
47	5000004	WASH\FLAT\1\2		16	EA.
48	5000006	WASH\LOCK\1\2		64	EA.
49	5000012	WASH\LOCK\3\4		4	EA.
50	5000014	WASH\FLAT\1		2	EA.
51	5000032	WASH\MACH\2IDX10GA		1	EA.
52	5000040	WASH\BUSH\MACH\1		2	EA
53	5000055	WASH\SPNDL\7\8 FLAT		2	EA.
54	5000075	WASH\MACH\3X2-1\16X1\4		1	EA
55	6100044	SPRNG\2-1\16X3\8WIRE2"LG		1	EA
56	7500134	GROM 1.25ODX 17\32IDX1.25		4	EA.
57	7500858	GRMT\RBRR\2-1\4X2IDX1\4T		1	EA.
58	8101352	BOLT\HEX\1X6\GREASE		1	EA.
59	8400032	GOOSENECK		1	EA
60	8400036	TUBE\TORQUE\PIVOT		2	EA.
61	8400038	ARMLIFT		2	EA.
62	8400039	BUSH\ARM\LIFT\1X5\8X2-1\8		2	EA.
63	8400041	SPNDL\REAR\WHL		2	EA
64	8400042	BOLT\PIVOT\REAR\WHL		2	EA.
65	8400130	STEP\REAR\RH		1	EA
66	8400131	STEP\REAR\LH		1	EA
67	8400132	STRAP\REAR\STEP\MOUNT		2	EA
68	8400150	BUSH\TOOL_BAR\1-1\4X3\4X2		2	EA.
69	8400281	CAP\RECESSED\WHL\SWIVEL		1	EA
70	8400282	ROD\THRDD\5\8X4		1	EA.
71	8400283	FORK\WHL\SWVL		1	EA
72	8400701	BAR\TOOL\7"SPCNG		1	EA
73	8400702	WALKWAY\100_SERIES		1	EA
74	8400785	BRKT\HOSE\MINDER		1	EA.
75	8400808	FRM\MAIN		1	EA.
76	8400809	TUBE\TORQUE		1	EA

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77C Main Frame Assembly (for SN 0076 & Up)

Item	Part No.	Name	Remarks	Qty	Uom
77	8400901	STOP\CYL\PVT		1	EA.
78	8800021	RETAINER\SPNDL		2	EA
NS	7500186	BUSH\BRASS\SWIVEL WHEEL		2	EA



107C Main Frame Assembly (for SN 0881 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
1	2600008	TIRE\7:60X15\8PLY;IMP		2	EA
2	2600013	TIRE\9.5LX14\8PLY		1	EA
3	2600601	WHL\6-BOLT\14X8		1	EA
4	2600606	WHL\5-BOLT\15X5		2	EA
CA	2600825	WHL\IMP\9.5X15\TIRE&RIM	(Includes #2 & #3)		EA
CA	2600834	WHL\IMP\7.60X15\TIRE&RIM	(Includes #1 & #4)		EA
5	2900004	CUP\INNER\WHEEL HUB		2	EA
6	2900013	CAP\DUST\WHL;HUB(DC-13)		2	EA
7	2900014	SEAL\GREASE(517) (15190)		2	EA
8	2900015	CONE\INNER\WHL HUB(48548)		2	EA
9	2900016	CUP\INNER\WHL:HUB(48510)		2	EA
10	2900018	CONE\OUTER\WHL;HUB(67048)		2	EA
CA	2900011	HUB\WITH CONES\W/NUTS	(Includes #5, #6, #7, #8, #9 & #10)		EA
11	2900084	SPACER\HUB\WHEEL		2	EA
12	2900085	SEAL\WHL;HUB(20078)		2	EA
13	2900086	CONE\2788\WHL;HUB		2	EA
14	2900087	CUP\BRG\HUB\WHL\2720		2	EA
15	2900089	HUB\H-628(FORK)\COMPLETE		1	EA
16	3000018	SPNDL\FORK		1	EA
17	3800041	FTG\LUB\1/8MPXZERK\ADAPT		4	EA.
18	3800082	FTG\LUB\1/4NFXZERK\ADAPT		5	EA.
19	4800017	BOLT\HEX\3/4X3		1	EA.
20	4800018	BOLT\HEX\1/2X1-1/4		4	EA.
21	4800068	BOLT\HEX\1/2X3		4	EA.
22	4800082	BOLT\HEX\1/2X1-1/2		12	EA.
23	4800100	BOLT\HEX\5/8X4		4	EA.
24	4800115	BOLT\HEX\3/4X2-1/2		3	EA.
25	4800141	BOLT\HEX\1/2X4-1/2		4	EA.
26	4800157	PIN\COT\3/16X2		4	EA
27	4800158	BOLT\HEX\5/8X4-1/2		2	EA.
28	4800559	PIN\LYNCH\5/16X2-1/2W/SQ;WIRE;KEEPER		1	EA.
29	4800626	BOLT\HEX\1X11\NC		2	EA.
30	4900001	NUT\HEX\1/2\NC		17	EA.
31	4900004	NUT\HEX\3/4\NC		4	EA.
32	4900005	NUT\HEX\5/8\NC		5	EA.
33	4900012	NUT\TPLCK\5/8\NC		4	EA.
34	4900014	NUT\TPLCK\1/2\NC		6	EA.
35	4900015	NUT\NYLCK\1\NC		2	EA.

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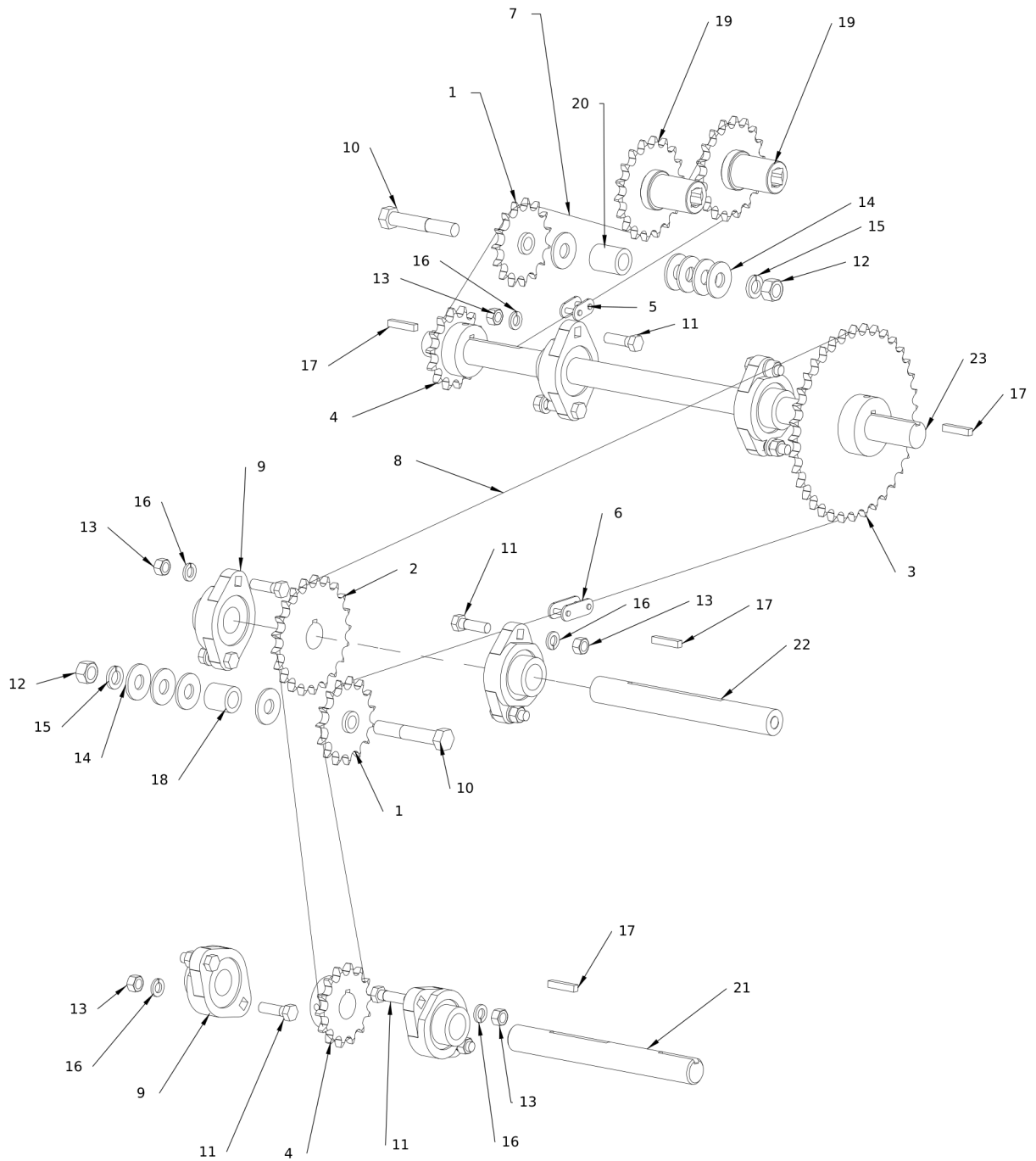
107C Main Frame Assembly (for SN 0881 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
36	4900115	NUT\CASTLE\1\1"-14		2	EA
37	4900054	NUT\CASTLE\7\8\NF		2	EA.
38	4900094	NUT\TPRWHEEL\1\2\13\16OD\NF		10	EA
39	4900127	NUT\TPLCK\1\NC		3	EA.
40	5000002	WASH\FLAT\5/8		4	EA.
41	5000003	WASH\LOCK\5/8		3	EA.
42	5000004	WASH\FLAT\1/2		16	EA.
43	5000006	WASH\LOCK\1/2		16	EA.
44	5000012	WASH\LOCK\3/4		4	EA.
45	5000014	WASH\FLAT\1		2	EA.
46	5000032	WASH\MACH\2IDX10GA		1	EA.
47	5000040	WASH\BUSH\MACH\1		2	EA
48	5000055	WASH\SPNDL\7/8 FLAT		2	EA.
49	5000075	WASH\MACH\3X2-1\16X1/4		1	EA
50	6100044	SPRNG\2-1\16X3\8WIRE2"LG		1	EA
51	7500134	GROM 1.25ODX 17/32IDX1.25		4	EA.
52	7500858	GRMT\RBRR\2-1\4X2IDX1/4T		1	EA.
53	8101352	BOLT\HEX\1X6\GREASE		1	EA.
54	8400032	GOOSENECK		1	EA
55	8400036	TUBE\TORQUE\PIVOT		2	EA.
56	8400038	ARMLIFT		2	EA.
57	8400039	BUSH\ARM\LIFT\1X5\8X2-1/8		2	EA.
58	8400040	WALKWAY\100_SERIES		1	EA
59	8400041	SPNDL\REAR\WHL		2	EA
60	8400042	BOLT\PIVOT\REAR\WHL		2	EA.
61	8400130	STEP\REAR\RH		1	EA
62	8400131	STEP\REAR\LH		1	EA
63	8400132	STRAP\REAR\STEP\MOUNT		2	EA
64	8400150	BUSH\TOOL_BAR\1-1/4X3/4X2		2	EA.
65	8400273	BAR\TOOL\7"SPCNG		1	EA
66	8400281	CAP\RECESSED\WHL\SWIVEL		1	EA
67	8400282	ROD\THRDD\5/8X4		1	EA.
68	8400283	FORK\WHL\SWVL		1	EA
69	8400785	BRKT\HOSE\MINDER		1	EA.
70	8400808	FRM\MAIN		1	EA.
71	8400809	TUBE\TORQUE		1	EA
72	8400901	STOP\CYL\IPVT		1	EA.
73	8800021	RETAINER\SPNDL		2	EA

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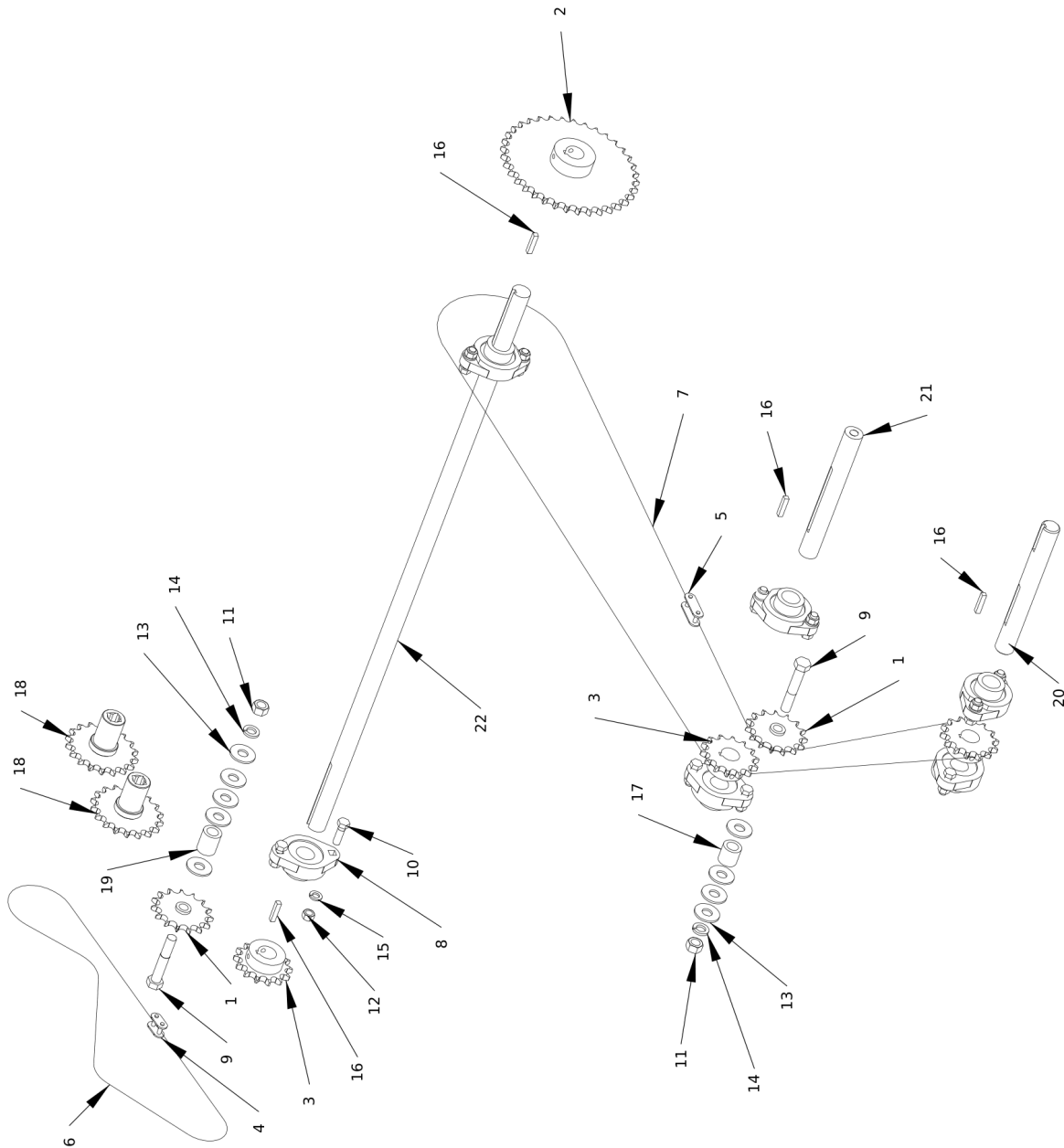
107C Main Frame Assembly (for SN 0881 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
NS	7500186	BUSH\BRASS\SWIVEL WHEEL		2	EA



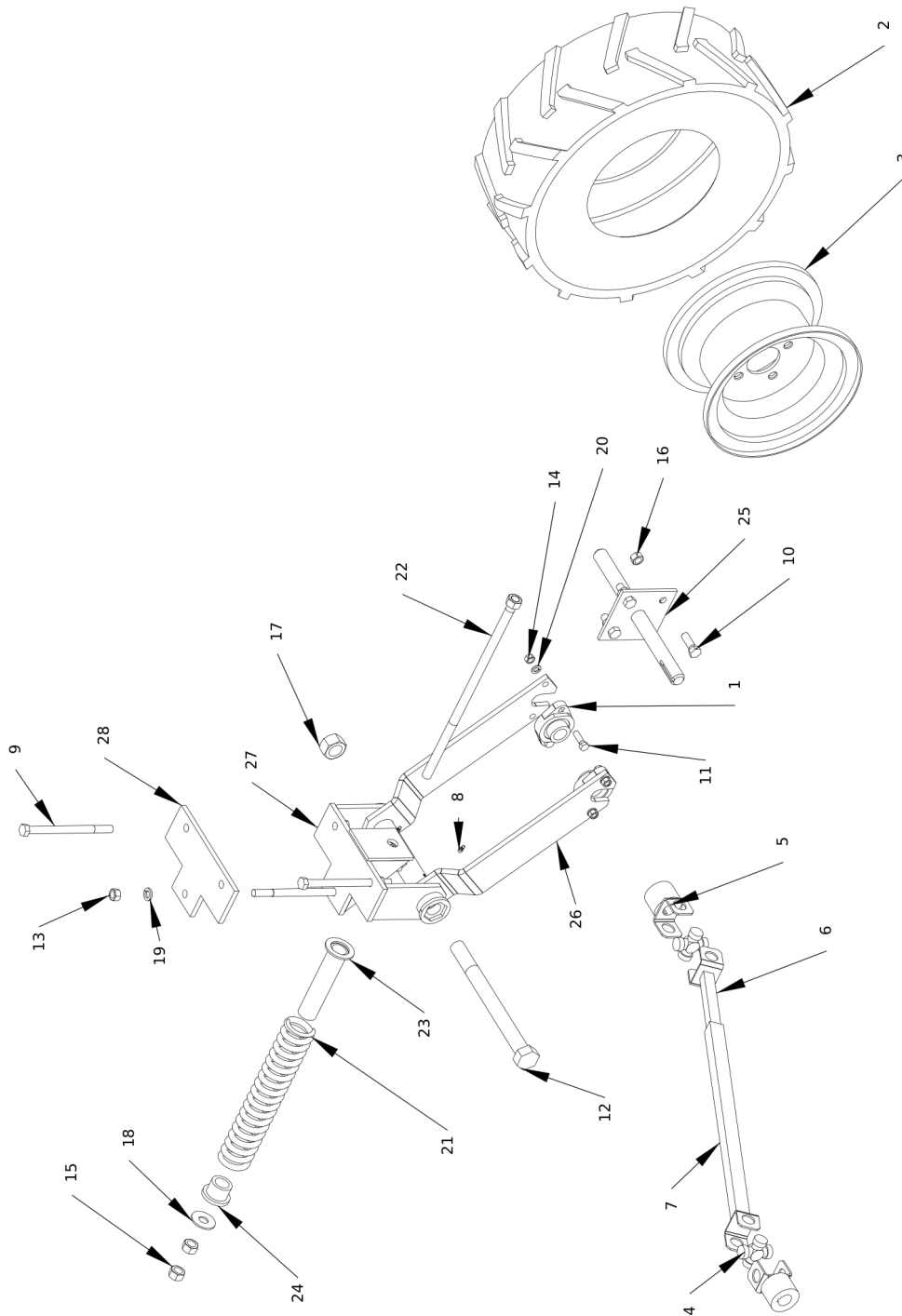
77C Drive Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	1000039	SPKT\50\15\1\2\IDLER		2	EA.
2	1000057	SPKT\50\B\21\1\1\4KW		1	EA
3	1000075	SPKT\50\B\36\1\1\4KW		1	EA.
4	1000314	SPKT\B\50\14\1\BORE\1\4KW		2	EA
5	1100227	CHAIN\50NP\CL		1	EA.
6	1100230	CHAIN\A2050NP\CL		1	EA.
7	1100234	CHAIN\50NP\73		1	EA.
8	1100281	CHAIN\2050NP\87		1	EA
9	2000310	BRG\FLG\CAST\1\2BOLT		6	EA.
10	4800068	BOLT\HEX\1\2X3		2	EA.
11	4800098	BOLT\HEX\3\8X1-1\4\NC		12	EA.
12	4900001	NUT\HEX\1\2\NC		2	EA.
13	4900002	NUT\HEX\3\8\NC		12	EA.
14	5000004	WASH\FLAT\1\2		10	EA.
15	5000006	WASH\LOCK\1\2		2	EA.
16	5000019	WASH\LOCK\3\8		12	EA.
17	6200014	KEY\SQ\1\4X1-1\4		4	EA.
18	8400058	SPCR\DRV\1ODX.640IDX1L\>		1	EA
19	8400071	SPKT\DRIVEW\SQ_HL_SLV		2	EA.
20	8400073	SPCR\DRV\1ODX.640IDX1.25L		1	EA
21	8400415	SHFT\1ST\1X8-3\4\1000		1	EA.
22	8400446	SHFT\1X8-1\2\ACRECTR		1	EA.
23	8400738	SHFT\DRV\77\NTV_GR\1X23.5		1	EA



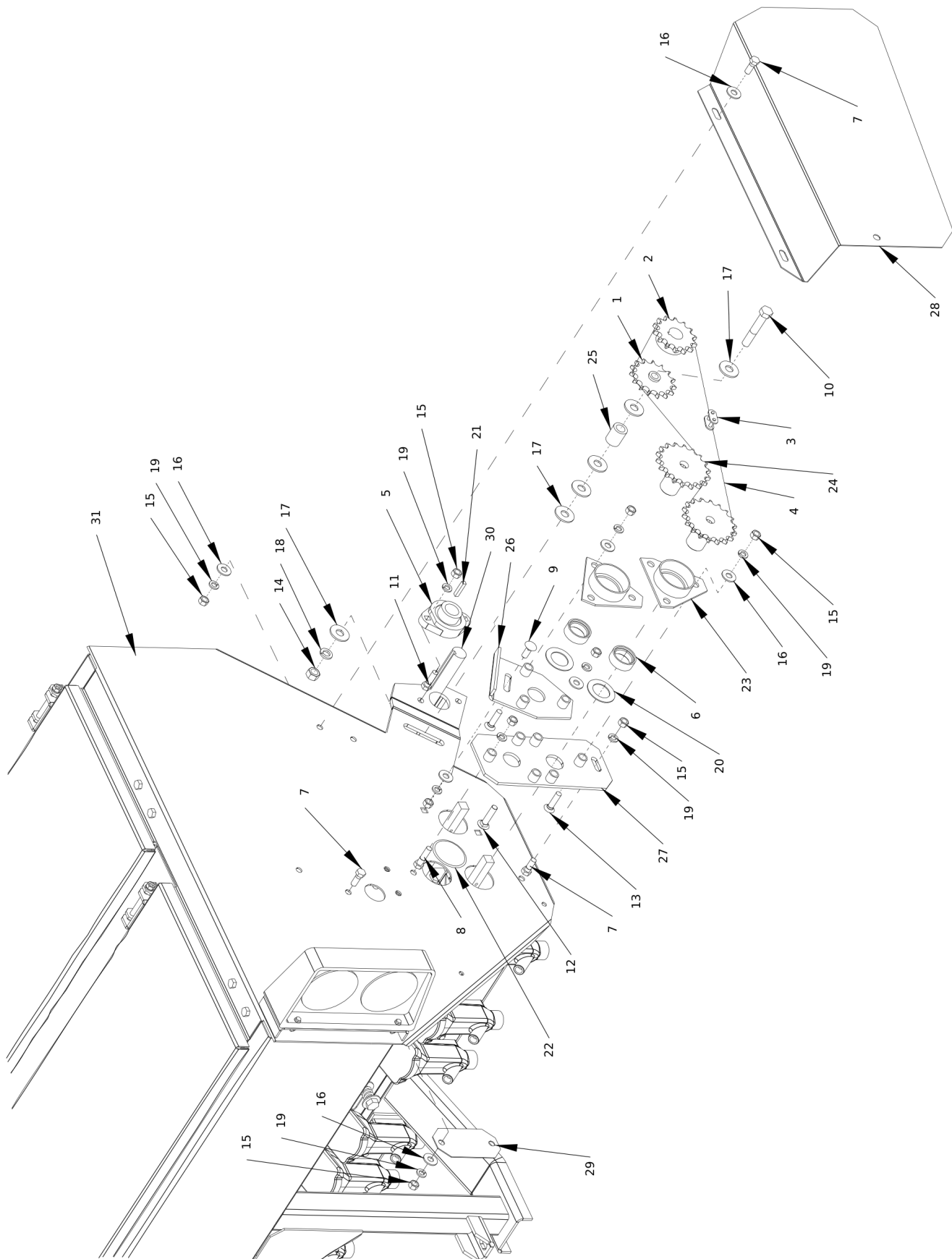
107C Drive Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	1000039	SPKT\50\15\1/2\IDLER		2	EA.
2	1000075	SPKT\50\B\36\1\1/4KW		1	EA.
3	1000314	SPKT\B\50\14\1BORE\1/4KW		3	EA
4	1100227	CHAIN\50NP\CL		1	EA.
5	1100230	CHAIN\A2050NP\CL		1	EA.
6	1100234	CHAIN\50NP\73		1	EA.
7	1100283	CHAIN\2050NP\87		1	EA.
8	2000310	BRG\FLG\CAST\1\2BOLT		6	EA.
9	4800068	BOLT\HEX\1/2X3		2	EA.
10	4800098	BOLT\HEX\3/8X1-1/4\NC		12	EA.
11	4900001	NUT\HEX\1/2\NC		2	EA.
12	4900002	NUT\HEX\3/8\NC		12	EA.
13	5000004	WASH\FLAT\1/2		10	EA.
14	5000006	WASH\LOCK\1/2		2	EA.
15	5000019	WASH\LOCK\3/8		12	EA.
16	6200014	KEY\SQ\1/4X1-1/4		4	EA.
17	8400058	SPCR\DRV\1ODX.640IDX1L\>		1	EA
18	8400071	SPKT\DRIVEW\SQ_HL_SLV		2	EA.
19	8400073	SPCR\DRV\1ODX.640IDX1.25L		1	EA
20	8400415	SHFT\1ST\1X8-3/4\1000		1	EA.
21	8400446	SHFT\1X8-1/2\ACRECTR		1	EA.
22	8400573	SHFT\DR\TANK\1X38		1	EA



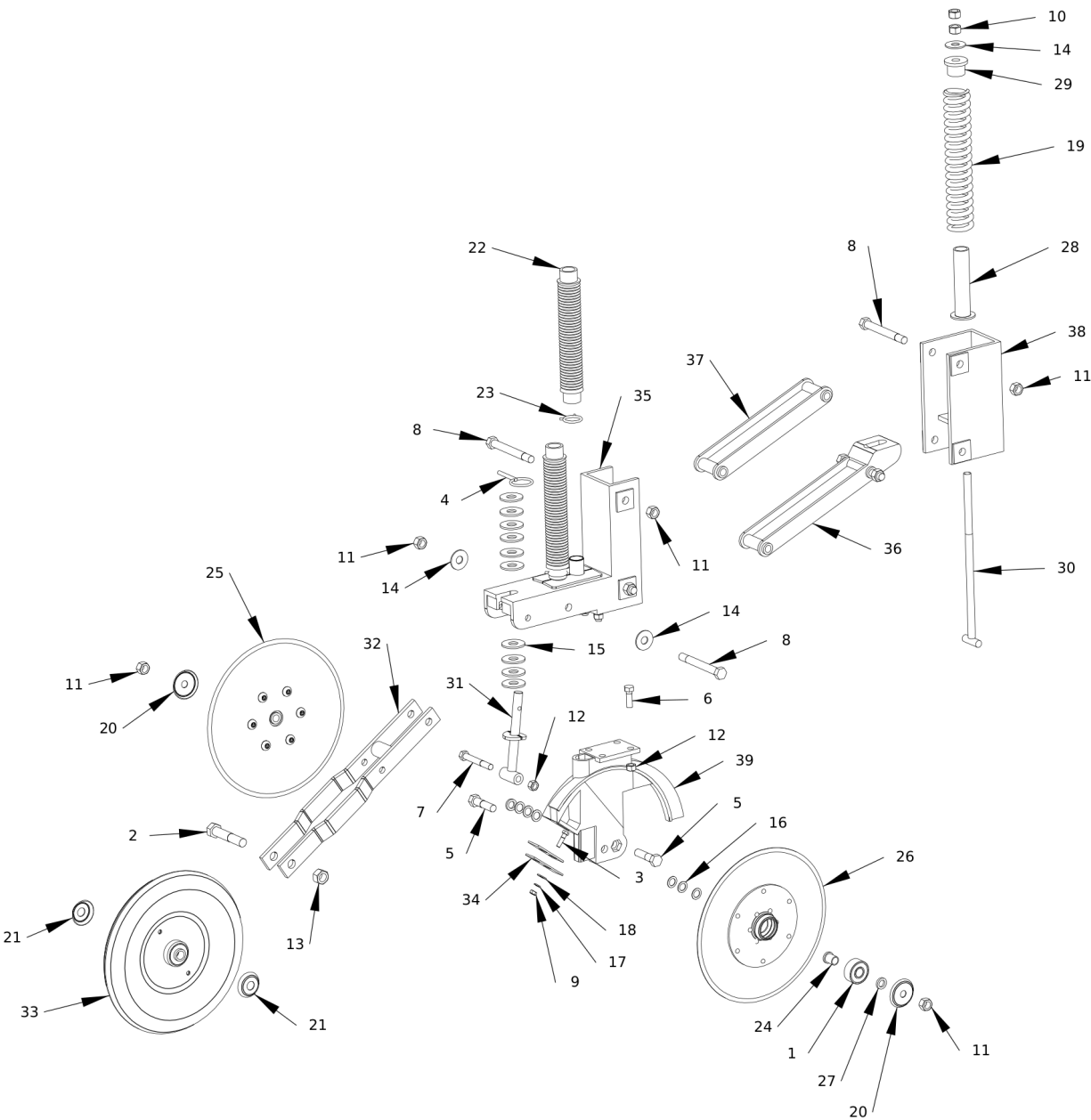
77C/107C Drive Wheel Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	2000310	BRG\FLG\CAST\1\2BOLT		2	EA.
2	2600055	TIRE\20X8-10\LUG\4PLY		1	EA.
3	2600651	WHL\10X6\4HL\4" CRL		1	EA.
CA	2600865	WHL\ASSY\20X8-10\4HL\4CRL	(Includes # 2 & #3)		EA.
4	3600008	#6 CROSS & BEARING KIT		2	EA.
5	3600242	1" YOKE		2	EA.
6	3600254	FEMALE HALF FOR 3600241		1	EA.
7	3600253	MALE HALF FOR 3600241		1	EA.
CA	3600241	SHFT\DRV\CMPLT\TR6NA	(Includes #4, #5, #6 & #7)		EA.
8	3800082	FTG\LUB\1\4NFXZERK\ADAPT		2	EA.
9	4800080	BOLT\HEX\1\2X7		3	EA.
10	4800082	BOLT\HEX\1\2X1-1/2		4	EA.
11	4800098	BOLT\HEX\3\8X1-1/4\NC		4	EA.
12	4800626	BOLT\HEX\1X11\NC		1	EA.
13	4900001	NUT\HEX\1\2\NC		3	EA.
14	4900002	NUT\HEX\3\8\NC		4	EA.
15	4900005	NUT\HEX\5\8\NC		3	EA.
16	4900014	NUT\TPLCK\1\2\NC		4	EA.
17	4900015	NUT\WYLCK\1\NC		1	EA.
18	5000002	WASH\FLAT\5/8		1	EA.
19	5000006	WASH\LOCK\1\2		3	EA.
20	5000019	WASH\LOCK\3\8		4	EA.
21	6100032	SPG\COMP\2.81OD\406WD>		1	EA.
22	8400024	ROD\SPRG\WHL\DR		1	EA.
23	8400025	GUIDE\SPRING\LONG		1	EA.
24	8400026	GUIDE\SPRING\SHORT		1	EA.
25	8400792	SHFT\DR\WHL\13"		1	EA.
26	8400793	BRKT\FRK\WHL\DRV\16-1/2X10-1/8		1	EA.
27	8400797	FRM\WHL\DR\WELD		1	EA.
28	D8400023	PL\MNT\WHL\DR		2	EA.
CA	8400794	WHL\DR\ASSY\107C			EA.
CA	8400798	FORK\ASSY\SUB	Used as replacement kit for the 4" lug style drive wheel assembly on old 107 drills. , Used as a replacement kit for the 4" lug style drive wheel assembly on old 107 drills.		EA.



77c/107c Tank End Drive

Item	Part No.	Name	Remarks	Qty	Uom
1	1000039	SPKT\50\15\1\2\IDLER		1	EA.
2	1000314	SPKT\B\50\14\1\BORE\1\4KW		1	EA
3	1100227	CHAIN\50NP\CL		1	EA.
4	1100234	CHAIN\50NP\73		1	EA.
5	2000310	BRG\FLG\CAST\1\2BOLT		1	EA.
6	2000824	CLLR\BRG\1-1/4 - FOR 8400070		2	EA.
7	4800003	BOLT\HEX\3/8X1		15	EA.
8	4800034	BOLT\HEX\3/8X1-1/2		1	EA.
9	4800053	BOLT\CRG\3/8X1\NC		21	EA.
10	4800068	BOLT\HEX\1\2X3		1	EA.
11	4800098	BOLT\HEX\3/8X1-1/4\NC		6	EA.
12	4800168	BOLT\CRG\3/8X1-3/4\NC		1	EA.
13	4800230	SCR\CSK\ALN\3/8X1-1/2\NC		5	EA.
14	4900001	NUT\HEX\1\2\NC		1	EA.
15	4900002	NUT\HEX\3/8\NC		59	EA.
16	5000001	WASH\FLAT\3/8		59	EA.
17	5000004	WASH\FLAT\1/2		6	EA.
18	5000006	WASH\LOCK\1/2		1	EA.
19	5000019	WASH\LOCK\3/8		59	EA.
20	5000084	2"PD 1-1/4ID OILITE WASHR		2	EA.
21	6200014	KEY\SQ\1/4X1-1/4		1	EA.
22	7500515	PLASTIC PLUG 107 DRILL		1	EA
23	8400070	BRG\1-1/4W\BRKT\3-HL		2	EA.
24	8400071	SPKT\DRIVEW\SQ_HL_SLV		2	EA.
25	8400073	SPCR\DRV\1ODX.640IDX1.25L		1	EA
26	8400074	SEALER PLATE		1	EA.
27	8400242	PL\SEAL\TANK\107		1	EA.
28	8400243	SHLD\DR\AGTTR\ISGL		1	EA
29	8400274	PLUG\TANK\STL\107DRILL		1	EA
30	8400573	SHFT\DR\TANK\1X38		1	EA
30A	8400738	SHFT\DRV\77\NTV_GR\1X23.5		1	EA
31	8400801	TANK\WLDMNT\107C		1	EA
31A	8400802	TANK\WLDMNT\77C		1	EA



Drill Run Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	2000031	BRG\ROWDBL		2	EA.
2	4800063	BOLT\HEX\3/4X4		1	EA.
3	4800071	BOLT\HEX\5/16X1-1/4		1	EA.
4	4800076	PIN\KLIK\5/16		1	EA.
5	4800079	BOLT\HEX\5/8X2-1/2		2	EA.
6	4800082	BOLT\HEX\1/2X1-1/2		4	EA.
7	4800231	BOLT\HEX\1/2X3-3/4		1	EA.
8	4800984	BOLT\HEX\5/8X5-1/2\SHRT\THRD		5	EA.
9	4900003	NUT\HEX\5/16\NC		1	EA.
10	4900005	NUT\HEX\5/8\NC		2	EA.
11	4900012	NUT\TPLCK\5/8\NC		7	EA.
12	4900014	NUT\TPLCK\1/2\NC		11	EA.
13	4900139	NUT\TPLCK\3/4\GR8\NC		1	EA.
14	5000002	WASH\FLAT\5/8		3	EA.
15	5000005	WASH\FLAT\3/4		10	EA.
16	5000009	WASH\1" OD\ SHIM		6	EA.
17	5000022	WASH\LOCK\5/16		1	EA.
18	5000023	WASH\FLAT\5/16		1	EA.
19	6100032	SPG\COMP\2.81OD\.406WD>		1	EA.
20	7400258	CAP\DUST		2	EA.
21	7400264	CAP\WHL\W/O_PILOT		2	EA.
22	7500097	HOSE\CONVOLUTED\1-1/2 ID		2	EA.
23	7500098	CLAMP\SDHOSE\1-1/4\A-24		2	EA.
24	7500160	#6610 BREAINING BUSHING		2	EA.
25	7500187	BLADE\ASSY\14"\COULTER		1	EA.
26	7500188	BLADE\ASSY\14"\DISC\107		1	EA.
27	7500307	CAP\SPACER\BUSHING		2	EA.
28	8400025	GUIDE\SPRING\LONG		1	EA.
29	8400026	GUIDE\SPRING\SHORT		1	EA.
30	8400047	ROD\SPG\5/8X15		1	EA.
31	8400064	ROD\DEPTH\WHEEL\PACKER		1	EA.
32	8400271	BRKT\WHL\PACKER\20"		1	EA.
33	8400617	WHL\PRESS\STL\ASSY\107		1	EA.
34	8400670	SCRPR\DISC		2	EA.
35	8400692	FRM\RUN\LOWER\CAST		1	EA.
36	8400693	LINK\RUN\LOWER\CAST		1	EA.
37	8400694	LINK\RUN\UPPER\CAST		1	EA.
38	8400697	FRM\RUN\FR\CAST		1	EA.

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Drill Run Assembly

Item	Part No.	Name	Remarks	Qty	Uom
39	8400736	BOOT\DR\SUB_WELD\LH\#10		1	EA.
39a	8400737	BOOT\DR\SUB_WELD\RH\#12		1	EA.
CA	8400780	RUN\DRILL\STL\RH\CAST\ASSY			EA.
CA	8400781	RUN\DRILL\STL\LH\CAST\ASSY			EA.



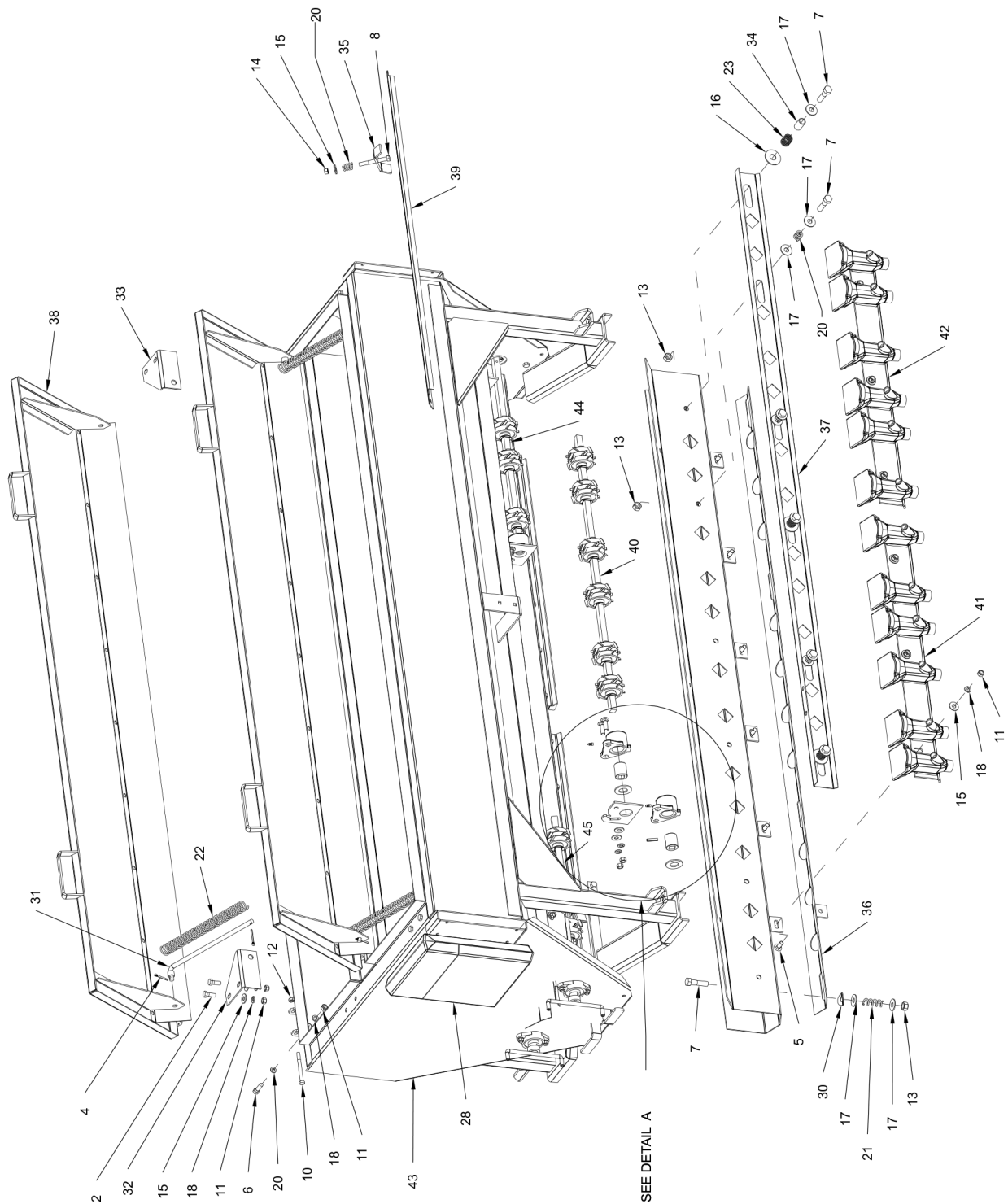
77C Tank Assembly - Front (for SN Up to 0075)

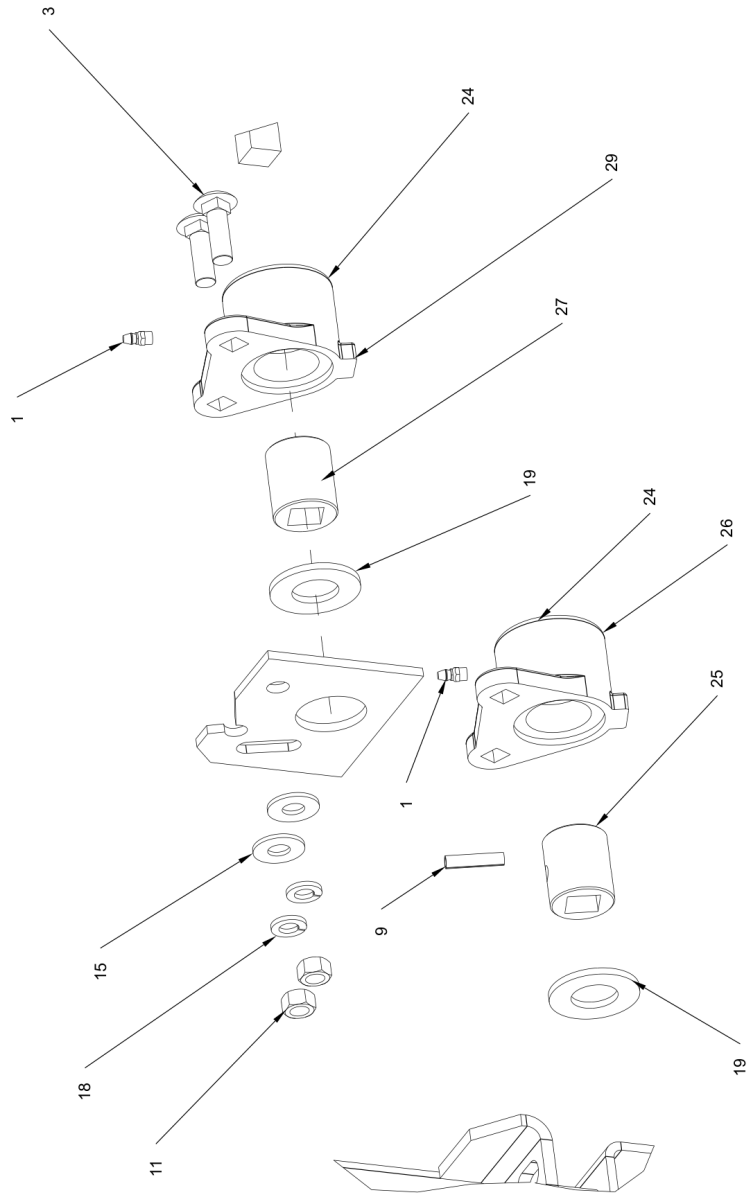
Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		6	EA.
2	4800012	BOLT\CRG\3\8X1-1\4\NC		12	EA.
3	4800053	BOLT\CRG\3\8X1\NC		13	EA.
4	4800164	BOLT\HEX\3\8X3\4		20	EA
5	4801296	BOLT\FLG\SERR\5\16X1\2		48	EA.
6	4900002	NUT\HEX\3\8\NC		49	EA.
7	5000001	WASH\FLAT\3\8		73	EA.
8	5000019	WASH\LOCK\3\8		69	EA.
9	5000055	WASH\SPNDL\7\8 FLAT		6	EA.
10	7500108	HSG\CAST\BUSH\TANK\DRILL		6	EA.
11	7500562	SLV\SQ_HL\5\8X1-7\16\W\5\16_PLAIN		4	EA.
12	7501058	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 5000055, 7500108, 7500562)	4	EA.
13	7501400	FNNL\SEED\SMALL\77-107		24	EA
14	7501401	FNNL\COVER\SEED\SMALL\77-107		24	EA.
15	7501444	#5\CAPLUG		24	EA.
16	8400243	SHLD\DRV\GTTTR\SGL		1	EA
17	8400658	WHL\FEED\33-1\16\FR\CTR (COMPLETE)		1	EA
17A	8400423	SHFT\TANK\33-1\16\DRILL			EA
18	8400704	PL\CLEANOUT\TANK		2	EA
19	8400705	PL\CNTRL\7" SPACING		1	EA
20	8400707	WHL\FEED\23-15\16\FR\RH (COMPLETE)		1	EA
20A	8400708	SHFT\TANK\23-15\16\DRILL(SHAFT ONLY)			EA
21	8400709	WHL\FEED\19"\FR\LH (COMPLETE)		1	EA
21A	8400710	SHFT\TANK\19"\DRILL(SHAFT ONLY)			EA
22	8400717	COV\DIVIDER\SH\37.25X10.5	(THRU S.N. 0075)	2	EA
23	8400771	CUP\SEED\CNTR\FRNT\ASM		2	EA.
NS	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
NS	7500109	SLV\SQ_HL\5\8X1-7\16\W\5\16_THRU_HL		2	EA.



77C Tank Assembly - Front (for SN 0076 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		6	EA.
2	4800012	BOLT\CRG\3\8X1-1\4\NC		12	EA.
3	4800053	BOLT\CRG\3\8X1\NC		13	EA.
4	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
5	4801296	BOLT\FLG\SERR\5\16X1\2		48	EA.
6	4900002	NUT\HEX\3\8\NC		49	EA.
7	5000001	WASH\FLAT\3\8		51	EA.
8	5000019	WASH\LOCK\3\8		49	EA.
9	5000055	WASH\SPNDL\7\8 FLAT		6	EA.
10	7500108	HSG\CAST\BUSH\TANK\DRILL		6	EA.
11	7500109	SLV\SQ_HL\5\8X1-7\16\W\5\16_THRU_HL		2	EA.
12	7500110	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 4800169, 5000055, 7500108, 7500109)	2	EA.
13	7500562	SLV\SQ_HL\5\8X1-7\16\W\5\16_PLAIN		4	EA.
14	7501058	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 5000055, 7500108, 7500562)	4	EA.
15	7501400	FNNL\SEED\SMALL\77-107		24	EA
16	7501401	FNNL\COVER\SEED\SMALL\77-107		24	EA.
17	7501444	#5\CAPLUG		24	EA.
18	8400243	SHLD\DR\AGTTR\SGL		1	EA
19	8400658	WHL\FEED\33-1\16\FR\CTR (COMPLETE)		1	EA
19A	8400423	SHFT\TANK\33-1\16\DRILL			EA
20	8400704	PL\CLEANOUT\TANK		2	EA
21	8400705	PL\CNTRL\7" SPACING		1	EA
22	8400707	WHL\FEED\23-15\16\FR\RH (COMPLETE)		1	EA
22A	8400708	SHFT\TANK\23-15\16\DRILL(SHAFT ONLY)			EA
23	8400709	WHL\FEED\19"\FR\LH (COMPLETE)		1	EA
23A	8400710	SHFT\TANK\19"\DRILL(SHAFT ONLY)			EA
24	8400771	CUP\SEED\CNTR\FRNT\ASM		2	EA.





DETAIL A
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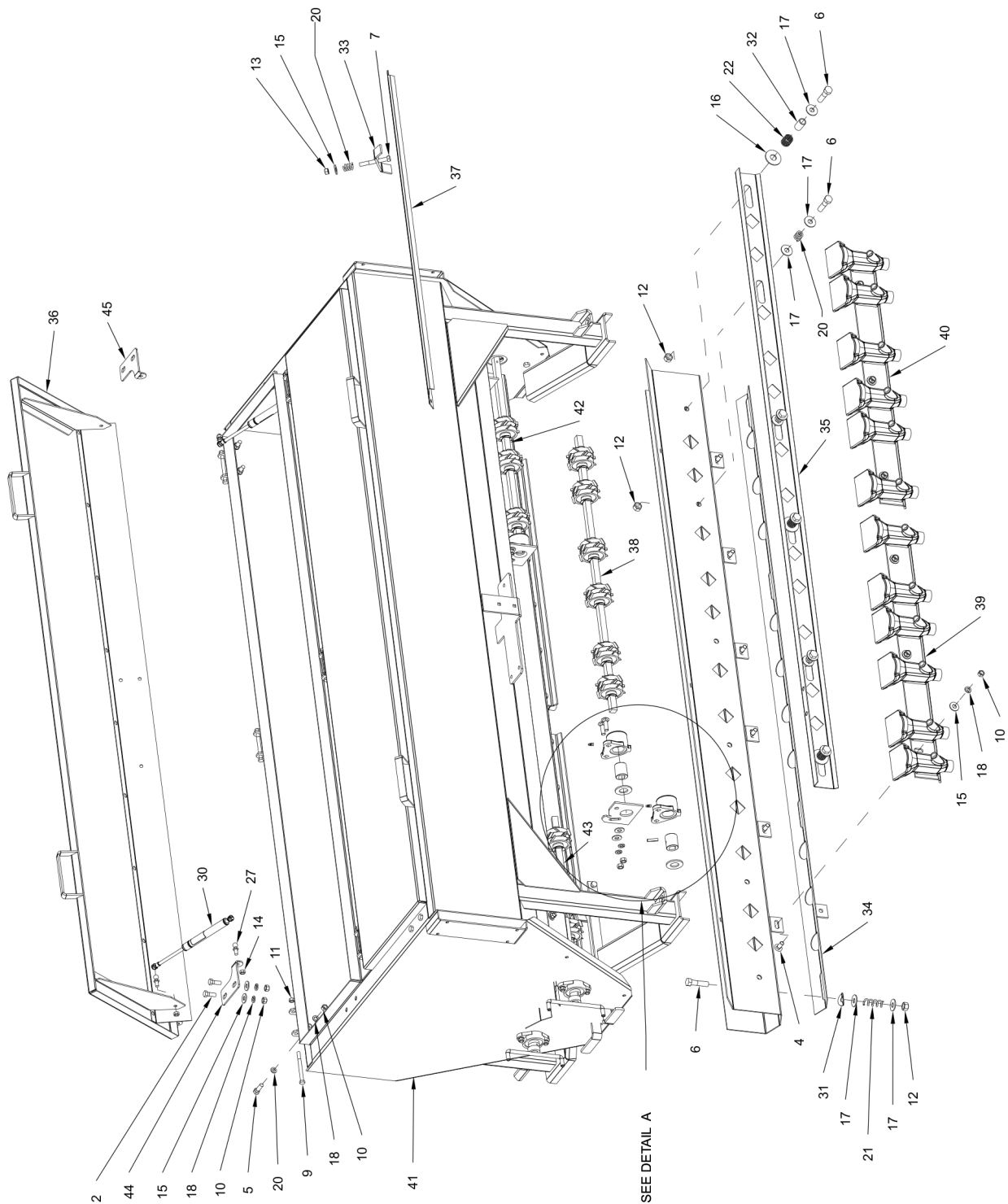
77C Tank Assembly - Back (for SN Up to 0255)

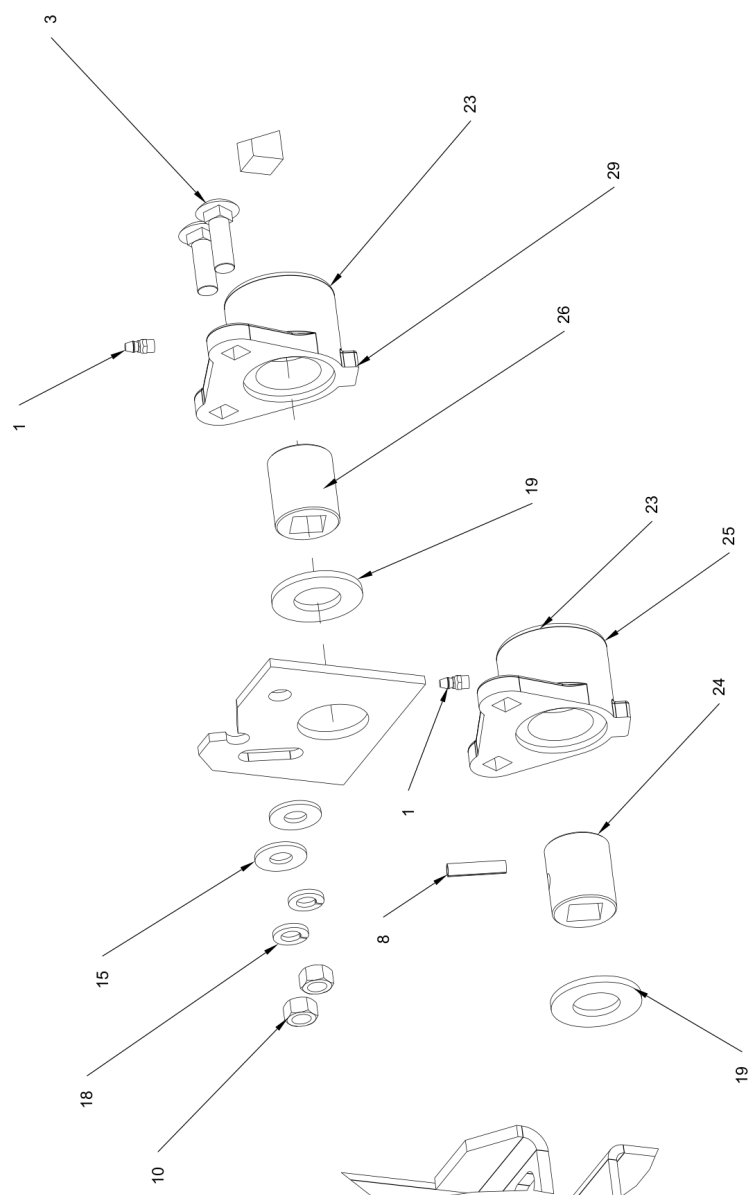
Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		6	EA.
2	4800003	BOLT\HEX\3\8X1		15	EA.
3	4800012	BOLT\CRG\3\8X1-1\4\NC		12	EA.
4	4800044	PIN\COT\5\32X1-1\2		8	EA.
5	4800053	BOLT\CRG\3\8X1\NC		13	EA.
6	4800098	BOLT\HEX\3\8X1-1\4\NC		4	EA.
7	4800114	BOLT\HEX\1\2X2		21	EA.
8	4800156	BOLT\HEX\3\8X3		6	EA.
9	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
10	4800170	BOLT\HEX\5\16X3-1\2		6	EA.
11	4900002	NUT\HEX\3\8\NC		49	EA.
12	4900003	NUT\HEX\5\16\NC		18	EA.
13	4900014	NUT\TPLCK\1\2\NC		21	EA.
14	4900030	NUT\NYLCK\3\8\NC		6	EA.
15	5000001	WASH\FLAT\3\8		51	EA.
16	5000002	WASH\FLAT\5\8		6	EA.
17	5000016	WASH\FLAT\7\16		36	EA.
18	5000019	WASH\LOCK\3\8		49	EA.
19	5000055	WASH\SPNDL\7\8 FLAT		6	EA.
20	5000128	WASH\FLAT\3\8\RBBR\EPDM		4	EA.
21	6100002	SPRING\COMP\0.072W\11\16OD\2-1\8LONG		8	EA.
22	6100017	PRESSURE SPRING 12X1 1/8		4	EA.
23	6100031	SPRING\COMP\0.072W\25\32OD		6	EA.
24	7500108	HSG\CAST\BUSH\TANK\DRILL		6	EA.
25	7500109	SLV\SQ_HL\5\8X1-7\16W\5\16_THRU_HL		2	EA.
26	7500110	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 4800169, 5000055, 7500108, 7500109)	2	EA.
27	7500562	SLV\SQ_HL\5\8X1-7\16W\5\16_PLAIN		4	EA.
28	7500590	ENCL\OPS\8-1\2X11X1-5\8	(THRU S.N. 0115, LATER MACHINES USE MANUAL CANISTER)	1	EA.
29	7501058	SUP\SHFT\ASSY\SLEEVE\107	(THRU S.N. 0115, LATER MACHINES USE MANUAL CANISTER)	4	EA.
30	8300236	WASH\BENT\1\2"		8	EA.
31	8400003	ROD\COV\TANK\SPG		4	EA.
32	8400005	RTNR\TANK\COVER\SPG\RH		2	EA.
33	8400004	RTNR\TANK\COVER\SPG\LH		2	EA.
34	8400007	GUIDE\PL\CNTRL\107		6	EA.
35	8400011	CLMP\WHL\COV\HOLD DOWN		6	EA.
36	8400704	PL\CLEANOUT\TANK		2	EA.

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77C Tank Assembly - Back (for SN Up to 0255)

Item	Part No.	Name	Remarks	Qty	Uom
37	8400706	PL\CNTRL\7"SPACING		1	EA
38	8400716	COV\TANK\BANDING		2	EA
39	8400719	COV\WHL\FEED\77		4	EA
40	8400762	WHL\FEED\3S\33-1/16\REAR\CTR		1	EA
40A	8400423	SHFT\TANK\33-1/16\DRILL			EA
41	8400773	CUP\SEED\CNTRL\T\REAR\ASM		1	EA.
42	8400774	CUP\SEED\CNTRL\RT\REAR\ASM		1	EA.
43	8400802	TANK\WLDMNT\77C		1	EA
44	8400803	WHL\FEED\3S\23-15/16\REAR\RH		1	EA
44A	8400708	SHFT\TANK\23-15/16\DRILL(SHAFT ONLY)			EA
45	8400804	WHL\FEED\3S\19\REAR\LH		1	EA
45A	8400710	SHFT\TANK\19"DRILL(SHAFT ONLY)			EA





DETAIL A
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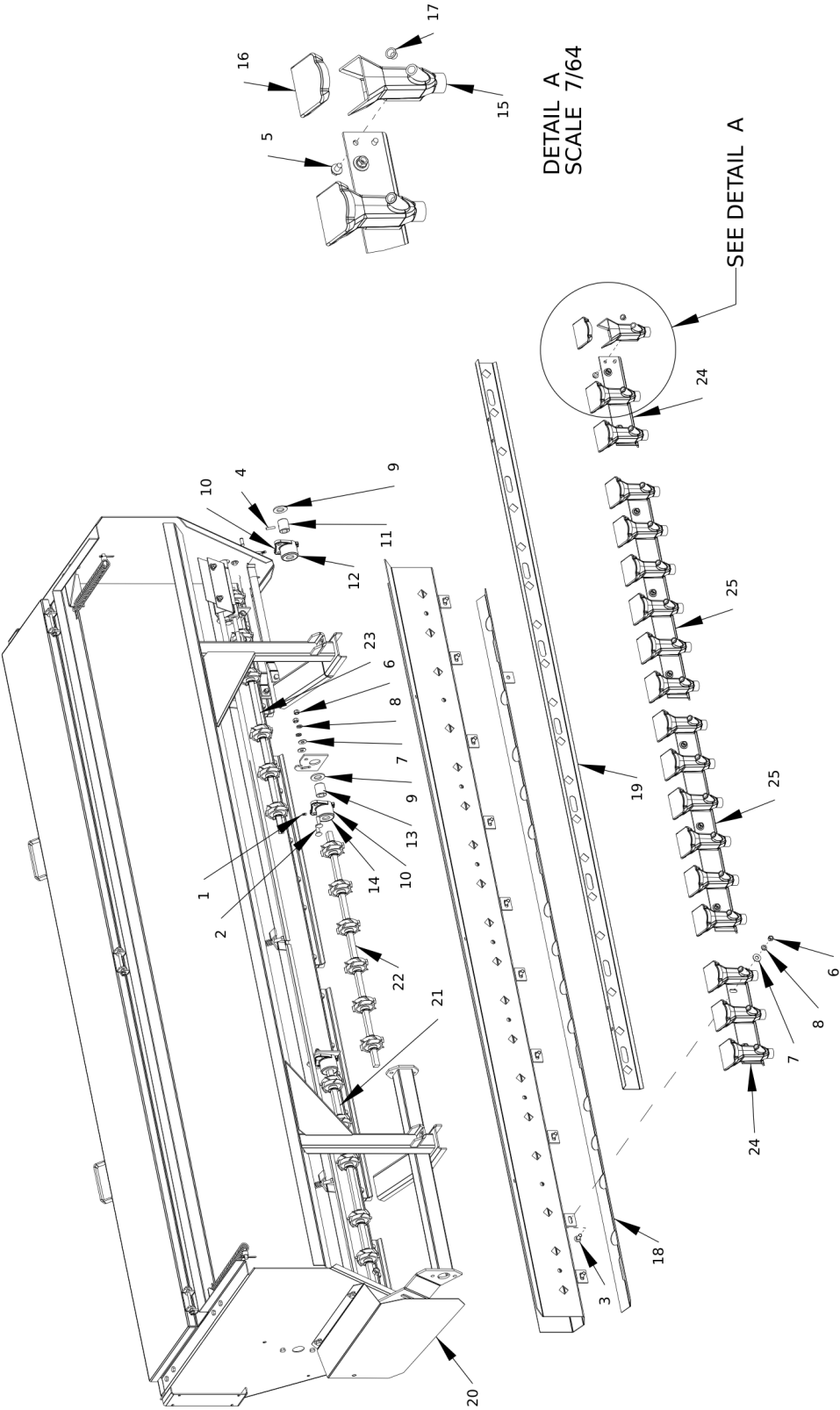
77C Tank Assembly Back (for SN 0256 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		6	EA.
2	4800003	BOLT\HEX\3\8X1		15	EA.
3	4800012	BOLT\CRG\3\8X1-1\4\NC		12	EA.
4	4800053	BOLT\CRG\3\8X1\NC		13	EA.
5	4800098	BOLT\HEX\3\8X1-1\4\NC		4	EA.
6	4800114	BOLT\HEX\1\2X2		21	EA.
7	4800156	BOLT\HEX\3\8X3		6	EA.
8	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
9	4800170	BOLT\HEX\5\16X3-1\2		6	EA.
10	4900002	NUT\HEX\3\8\NC		49	EA.
11	4900003	NUT\HEX\5\16\NC		18	EA.
12	4900014	NUT\TPLCK\1\2\NC		21	EA.
13	4900030	NUT\NYLCK\3\8\NC		6	EA.
14	4900142	NUT\TPLCK\5\16\NC		8	EA.
15	5000001	WASH\FLAT\3\8		51	EA.
16	5000002	WASH\FLAT\5\8		6	EA.
17	5000016	WASH\FLAT\7\16		36	EA.
18	5000019	WASH\LOCK\3\8		49	EA.
19	5000055	WASH\SPNDL\7\8 FLAT		6	EA.
20	5000128	WASH\FLAT\3\8\RBBR\EPDM		4	EA
21	6100002	SPRING\COMPL\072W\11\16OD\2-1\8LONG		8	EA.
22	6100031	SPRING\COMPL\072W\25\32OD		6	EA.
23	7500108	HSG\CAST\BUSH\TANK\DRILL		6	EA.
24	7500109	SLV\SQ_HL\5\8X1-7\16W\5\16_THRU_HL		2	EA.
25	7500110	SUP\SHFTVASSY\SLEEVE\107		2	EA.
26	7500562	SLV\SQ_HL\5\8X1-7\16W\5\16_PLAIN		4	EA.
27	7500664	BALL STUD\SHOCK\FITTING\M6		8	EA
29	7501058	SUP\SHFTVASSY\SLEEVE\107		4	EA.
30	7501740	SPRNG\GAS\90LB		4	EA.
31	8300236	WASH\BENT\1\2"		8	EA.
32	8400007	GUIDE\PL\CNTRL\107		6	EA.
33	8400011	CLMP\WHL\COV\HOLD DOWN		6	EA.
34	8400704	PL\CLEANOUT\TANK		2	EA
35	8400706	PL\CNTRL\7"SPACING		1	EA
36	8400716	COV\TANK\BANDING		2	EA
37	8400719	COV\WHL\FEED\77		4	EA
38	8400762	WHL\FEED\3S\33-1\16\REAR\CTR		1	EA
39	8400773	CUP\SEED\CNTRL\TREAR\ASM		1	EA.

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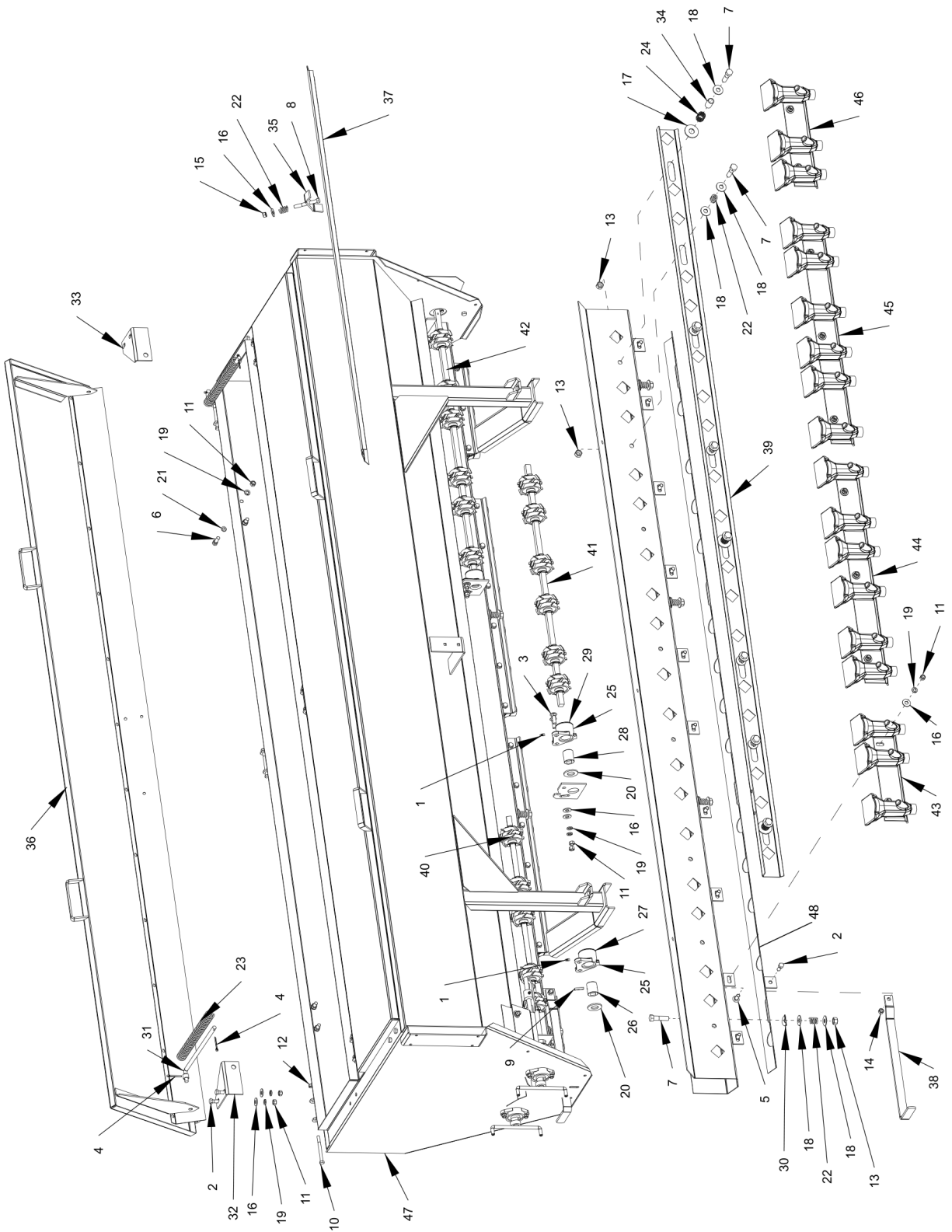
77C Tank Assembly Back (for SN 0256 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
40	8400774	CUP\SEED\CNTR\RT\REAR\ASM		1	EA.
41	8400802	TANK\WLDMNT\77C		1	EA
42	8400803	WHL\FEED\3S\23-15\16\REAR\RH		1	EA
43	8400804	WHL\FEED\3S\19\REAR\LH		1	EA
44	8400814	RTNR\TANK\COVER\SPG		2	EA.
45	8400815	RTNR\TANK\COVER\SPG		2	EA.



107C Tank Assembly-Front (for SN 0501 and up)

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		6	EA.
2	4800012	BOLT\CRG\3\8X1-1\4\NC		12	EA.
3	4800053	BOLT\CRG\3\8X1\NC		21	EA.
4	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
5	4801296	BOLT\FLG\SERR\5\16X1\2		72	EA.
6	4900002	NUT\HEX\3\8\NC		57	EA.
7	5000001	WASH\FLAT\3\8		59	EA.
8	5000019	WASH\LOCK\3\8		57	EA.
9	5000055	WASH\SPNDL\7\8 FLAT		6	EA.
10	7500108	HSG\CAST\BUSH\TANK\DRILL		6	EA.
11	7500109	SLV\SQ_HL\5\8X1-7\16\W\5\16_THRU_HL		2	EA.
12	7500110	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 4800169, 5000055, 7500108, 7500109)	2	EA.
13	7500562	SLV\SQ_HL\5\8X1-7\16\W\5\16_PLAIN		4	EA.
14	7501058	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 5000055, 7500108, 7500562)	4	EA.
15	7501400	FNNL\SEED\SMALL\77-107		36	EA
16	7501401	FNNL\COVER\SEED\SMALL\77-107		36	EA.
17	7501444	#5\CAPLUG		36	EA.
18	8400110	PL\CLEANOUT\TANK		2	EA
19	8400114	PL\CNTRL\7" SPACING		1	EA
20	8400243	SHLD\DR\AGTTR\SGL		1	EA
21	8400656	WHL\FEED\38-7\16\FR\RH		1	EA
21A	8400426	SHFT\TANK\38-7\16\DRILL	(Shaft Only)		EA
22	8400658	WHL\FEED\33-1\16\FR\CTR (COMPLETE)		1	EA
22A	8400423	SHFT\TANK\33-1\16\DRILL	(Shaft Only)		EA
23	8400660	WHL\FEED\34-1\2\FR\LH		1	EA
23A	8400425	SHFT\TANK\34-1\2\DRILL	(Shaft Only)		EA
24	8400770	CUP\SEED\END\FRNT\ASM		2	EA
25	8400771	CUP\SEED\CNTR\FRNT\ASM		2	EA.



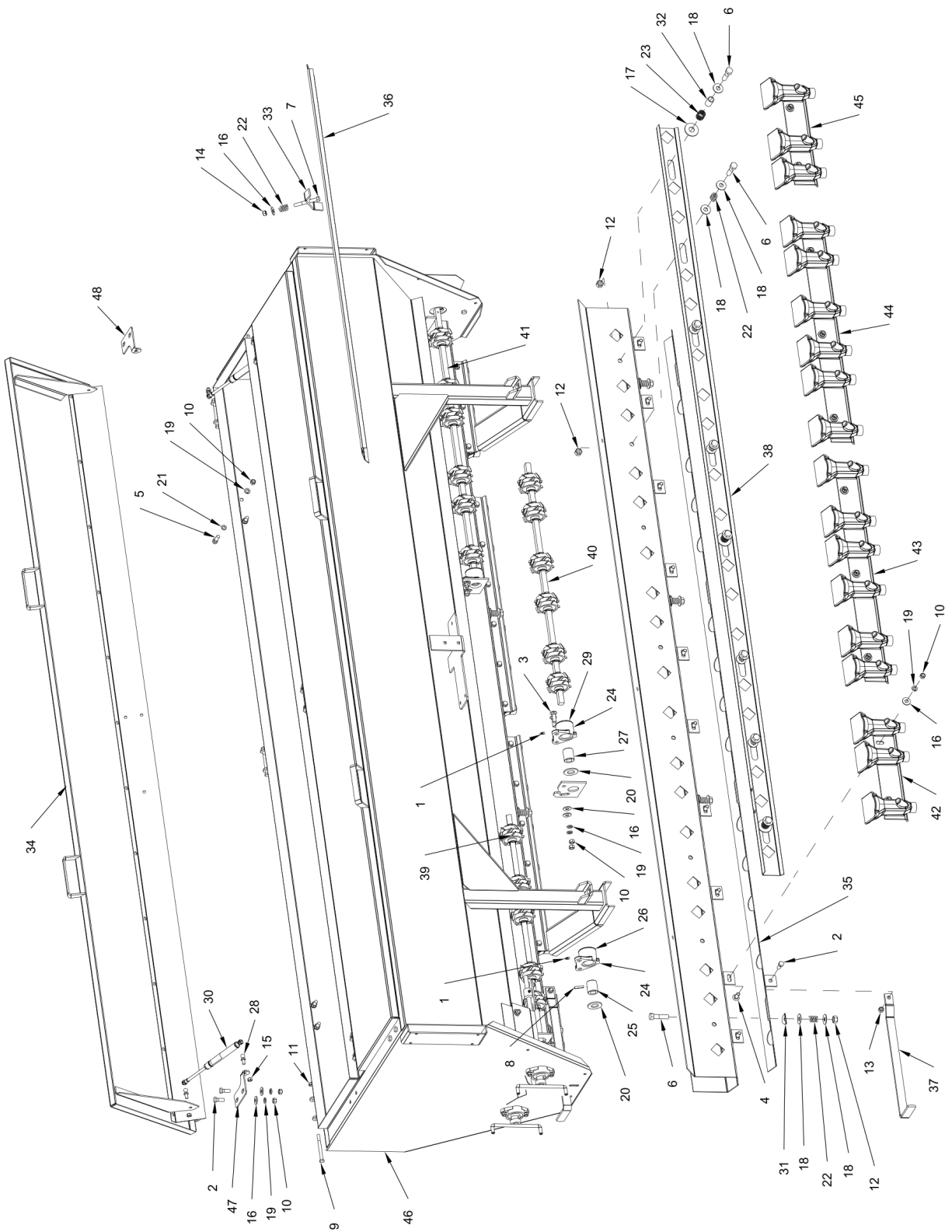
107C Tank Back Assembly (for SN Up to 1850)

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		6	EA.
2	4800003	BOLT\HEX\3\8X1		15	EA.
3	4800012	BOLT\CRG\3\8X1-1\4\NC		12	EA.
4	4800044	PIN\COT\5\32X1-1\2		8	EA.
5	4800053	BOLT\CRG\3\8X1\NC		21	EA.
6	4800098	BOLT\HEX\3\8X1-1\4\NC		4	EA.
7	4800114	BOLT\HEX\1\2X2		25	EA.
8	4800156	BOLT\HEX\3\8X3		6	EA.
9	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
10	4800170	BOLT\HEX\5\16X3-1\2		6	EA.
11	4900002	NUT\HEX\3\8\NC		57	EA.
12	4900003	NUT\HEX\5\16\NC		18	EA.
13	4900014	NUT\TPLCK\1\2\NC		25	EA.
14	4900023	NUT\TPLCK\3\8\NC		2	EA.
15	4900030	NUT\WYLCK\3\8\NC		6	EA.
16	5000001	WASH\FLAT\3\8		59	EA.
17	5000002	WASH\FLAT\5\8		6	EA.
18	5000016	WASH\FLAT\7\16		44	EA.
19	5000019	WASH\LOCK\3\8		57	EA.
20	5000055	WASH\SPNDL\7\8 FLAT		6	EA.
21	5000128	WASH\FLAT\3\8\RBBR\EPDM		4	EA.
22	6100002	SPRING\COMPL\072W\11\16OD\2-1\8LONG		25	EA.
23	6100017	PRESSURE SPRING 12X1 1/8		4	EA.
24	6100031	SPRING\COMPL\072W\25\32OD		6	EA.
25	7500108	HSG\CAST\BUSH\TANK\DRILL		6	EA.
26	7500109	SLV\SQ_HL\5\8X1-7\16W\5\16_THRU_HL		2	EA.
27	7500110	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 4800169, 5000055, 7500108, 7500109)	2	EA.
28	7500562	SLV\SQ_HL\5\8X1-7\16W\5\16_PLAIN		4	EA.
29	7501058	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 5000055, 7500108, 7500562)	4	EA.
30	8300236	WASH\BENT\1\2"		8	EA.
31	8400003	ROD\COV\TANK\SPG		4	EA.
32	8400005	RTNR\TANK\COVER\SPG\RH		2	EA.
33	8400004	RTNR\TANK\COVER\SPG\LH		2	EA.
34	8400007	GUIDE\PL\CNTRL\107		6	EA.
35	8400011	CLMP\WHL\COV\HOLD DOWN		6	EA.
36	8400107	COV\TANK\BANDING\107		2	EA.
37	8400111	COV\WHL\FEED\107\S\N2672\107		4	EA.

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107C Tank Back Assembly (for SN Up to 1850)

Item	Part No.	Name	Remarks	Qty	Uom
38	8400112	HDL\PL_CLEANOUT		2	EA.
39	8400245	PL\CNTRL\7"SPACING		1	EA
40	8400761	WHL\FEED\3S\34-1/2\REAR\LH	(Complete)	1	EA
40A	8400425	SHFT\TANK\34-1/2\DRILL	(Shaft Only)		EA
41	8400762	WHL\FEED\3S\33-1/16\REAR\CTR	(Complete)	1	EA
41A	8400423	SHFT\TANK\33-1/16\DRILL	(Shaft Only)		EA
42	8400763	WHL\FEED\3S\38-7/16\REAR\RH	(Complete)	1	EA
42A	8400426	SHFT\TANK\38-7/16\DRILL	(Shaft Only)		EA
43	8400772	CUP\SEED\END\LT\REAR\ASM		1	EA
44	8400773	CUP\SEED\CNTRL\LT\REAR\ASM		1	EA.
45	8400774	CUP\SEED\CNTRL\RT\REAR\ASM		1	EA.
46	8400775	CUP\SEED\END\RT\REAR\ASM		1	EA
47	8400801	TANK\WLD\MNT\107C		1	EA
48	8400110	PL\CLEANOUT\TANK		1	EA



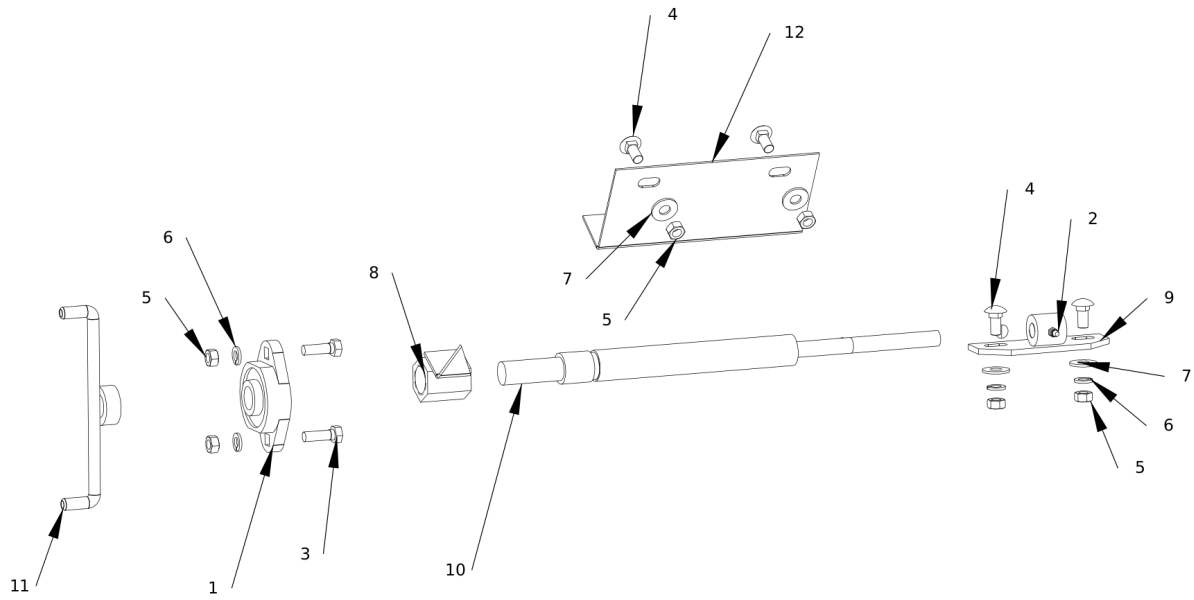
107C Tank Assembly - Back (for SN 1851 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		6	EA.
2	4800003	BOLT\HEX\3\8X1		15	EA.
3	4800012	BOLT\CRG\3\8X1-1\4\NC		12	EA.
4	4800053	BOLT\CRG\3\8X1\NC		21	EA.
5	4800098	BOLT\HEX\3\8X1-1\4\NC		4	EA.
6	4800114	BOLT\HEX\1\2X2		25	EA.
7	4800156	BOLT\HEX\3\8X3		6	EA.
8	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
9	4800170	BOLT\HEX\5\16X3-1\2		6	EA.
10	4900002	NUT\HEX\3\8\NC		57	EA.
11	4900003	NUT\HEX\5\16\NC		18	EA.
12	4900014	NUT\TPLCK\1\2\NC		25	EA.
13	4900023	NUT\TPLCK\3\8\NC		2	EA.
14	4900030	NUT\NYLCK\3\8\NC		6	EA.
15	4900142	NUT\TPLCK\5\16\NC		8	EA.
16	5000001	WASH\FLAT\3\8		59	EA.
17	5000002	WASH\FLAT\5\8		6	EA.
18	5000016	WASH\FLAT\7\16		44	EA.
19	5000019	WASH\LOCK\3\8		57	EA.
20	5000055	WASH\SPNDL\7\8 FLAT		6	EA.
21	5000128	WASH\FLAT\3\8\RBBR\EPDM		4	EA
22	6100002	SPRING\COMPL\072W\11\16OD\2-1\8LONG		25	EA.
23	6100031	SPRING\COMPL\072W\25\32OD		6	EA.
24	7500108	HSG\CAST\BUSH\TANK\DRILL		6	EA.
25	7500109	SLV\SQ_HL\5\8X1-7\16W\5\16_THRU_HL		2	EA.
26	7500110	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 4800169, 5000055, 7500108, 7500109)	2	EA.
27	7500562	SLV\SQ_HL\5\8X1-7\16W\5\16_PLAIN		4	EA.
28	7500664	BALL STUD\SHOCK\FITTING\M6		8	EA
29	7501058	SUP\SHFT\ASSY\SLEEVE\107	(INCLUDES 3800082, 5000055, 7500108, 7500562)	4	EA.
30	7501740	SPRNG\GAS\90LB		4	EA.
31	8300236	WASH\BENT\1\2"		8	EA.
32	8400007	GUIDE\PL\CNTRL\107		6	EA.
33	8400011	CLMP\WHL\COV\HOLD DOWN		6	EA.
34	8400107	COV\TANK\BANDING\107		2	EA
35	8400110	PL\CLEANOUT\TANK		1	EA
36	8400111	COV\WHL\FEED\107\S\N2672\107		4	EA
37	8400112	HDL\PL_CLEANOUT		2	EA.

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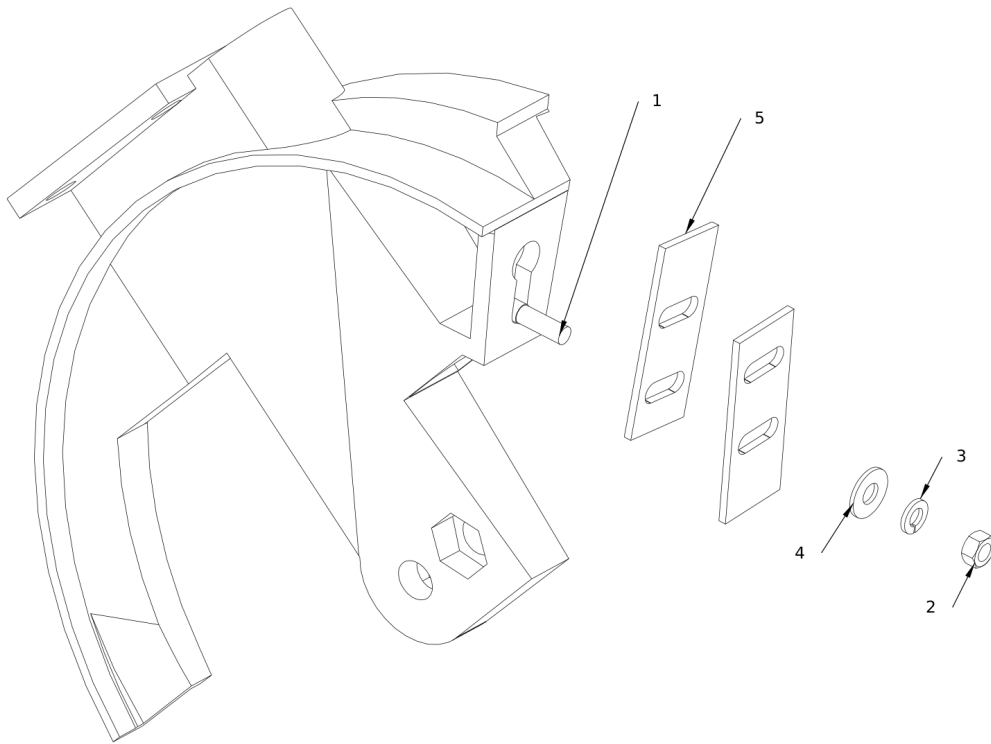
107C Tank Assembly - Back (for SN 1851 and Up)

Item	Part No.	Name	Remarks	Qty	Uom
38	8400245	PL\CNTRL\7"SPACING		1	EA
39	8400761	WHL\FEED\3S\34-1/2\REAR\LH	(COMPLETE)	1	EA
39A	8400425	SHFT\TANK\34-1/2\DRILL	(SHAFT ONLY)		EA
40	8400762	WHL\FEED\3S\33-1/16\REAR\CTR	(COMPLETE)	1	EA
40A	8400423	SHFT\TANK\33-1/16\DRILL	(SHAFT ONLY)		EA
41	8400763	WHL\FEED\3S\38-7/16\REAR\RH	(COMPLETE)	1	EA
41A	8400426	SHFT\TANK\38-7/16\DRILL	(SHAFT ONLY)		EA
42	8400772	CUP\SEED\END\LT\REAR\ASM		1	EA
43	8400773	CUP\SEED\CNTRL\LT\REAR\ASM		1	EA.
44	8400774	CUP\SEED\CNTRL\RT\REAR\ASM		1	EA.
45	8400775	CUP\SEED\END\RT\REAR\ASM		1	EA
46	8400801	TANK\WLDMNT\107C		1	EA
47	8400814	RTNR\TANK\COVER\SPG		2	EA.
48	8400815	RTNR\TANK\COVER\SPG		2	EA.



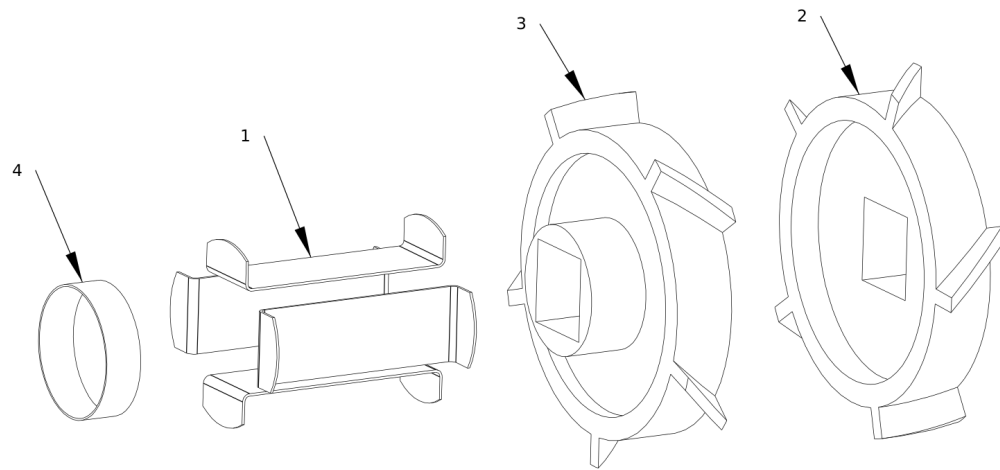
Seed and Fertilizer Setting Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	2000313	BRG\FLG\CAST\3/4\2BOLT		1	EA.
2	3600053	FTG\LUB\1/4NFXZERK\ADAPT		1	EA.
3	4800013	BOLT\HEX\5/16X1		2	EA.
4	4800153	BOLT\CRG\5/16X3/4\NC		4	EA.
5	4900003	NUT\HEX\5/16\NC		6	EA.
6	5000022	WASH\LOCK\5/16		4	EA.
7	5000023	WASH\FLAT\5/16		4	EA.
8	7500071	CALIBRATION POINTER NUT		1	EA.
9	7500072	CALIBRATION CONTRL PL NUT		1	EA.
10	7500073	CALIBRATION SHAFT #6620		1	EA.
11	8400060	HDL\CAL\107		1	EA.
12	8400262	PL\DECAL\CAL\DUAL_USE		1	EA.
12A	8400061	PL\DECAL\CAL\GRAIN		1	EA.
NS	6500016	DECAL\INFO\CAL;SCALE;GRAIN			EA.
NS	6500017	DECAL\INFO\CAL.SCALE;FERT			EA.
NS	6500081	DECAL\INFO\CAL.SCALE\GRASS			EA.



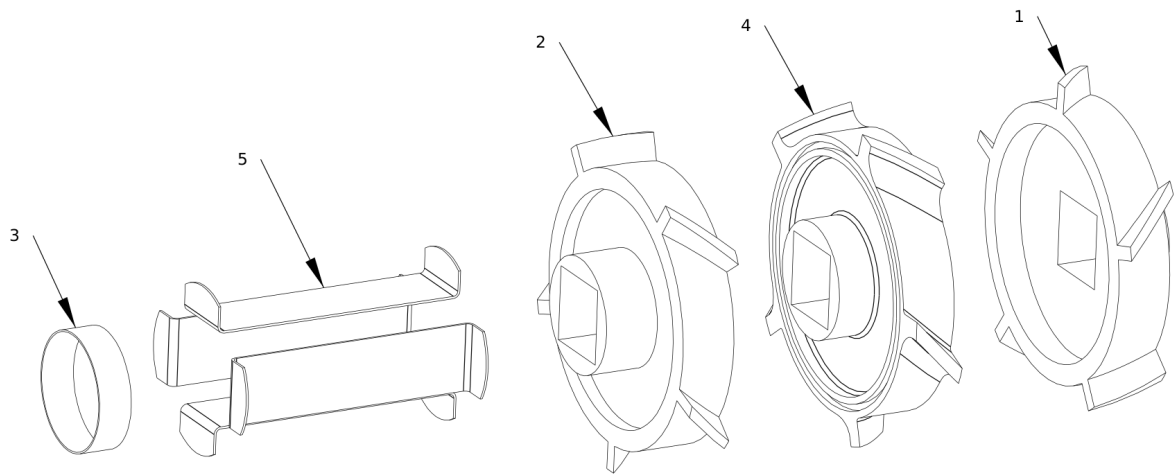
Scraper Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800071	BOLT\HEX\5/16X1-1/4		1	EA.
2	4900003	NUT\HEX\5/16\NC		1	EA.
3	5000022	WASH\LOCK\5/16		1	EA.
4	5000023	WASH\FLAT\5/16		1	EA.
5	8400670	SCRPR\DISC		2	EA.
CA	8400091	SCRPR\DISC\COMP	(Boot not Included)		EA.



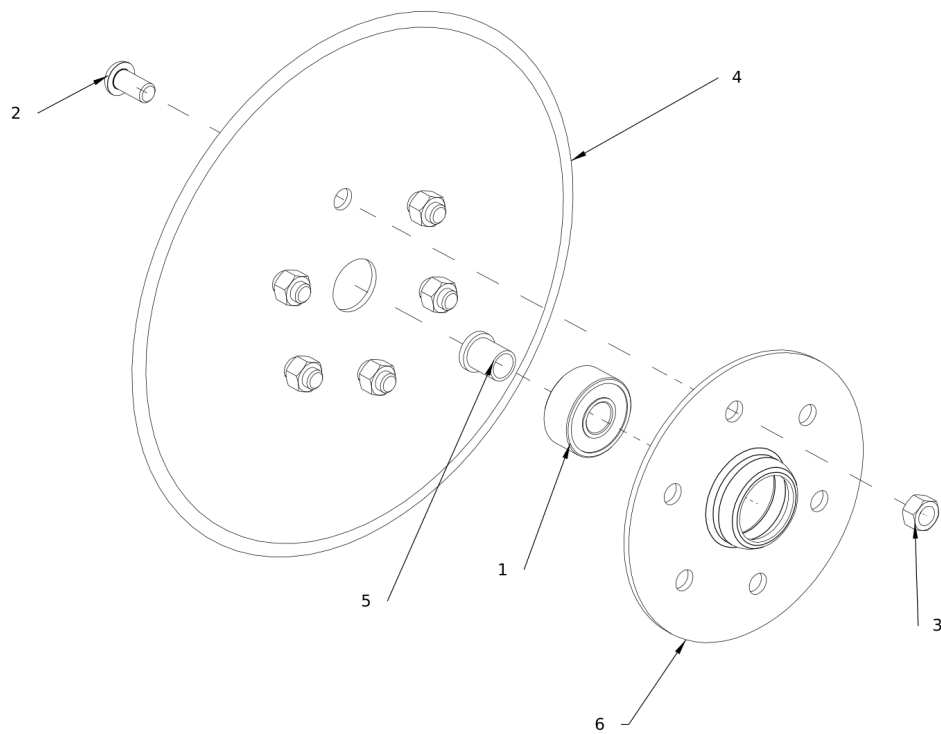
Feed Wheel-Double

Item	Part No.	Name	Remarks	Qty	Uom
1	7400066	CLIP\RETAINER\WHL\FEED		4	EA.
2	7500007	WHL\FEED\LH		1	EA.
3	7500008	WHL\FEED\RH		1	EA.
4	7500107	CLAMP\HOSE\1-1/4\WORM\SS		1	EA
CA	7500006	WHL\FERT\TANK	(Includes #1-#4)		EA.



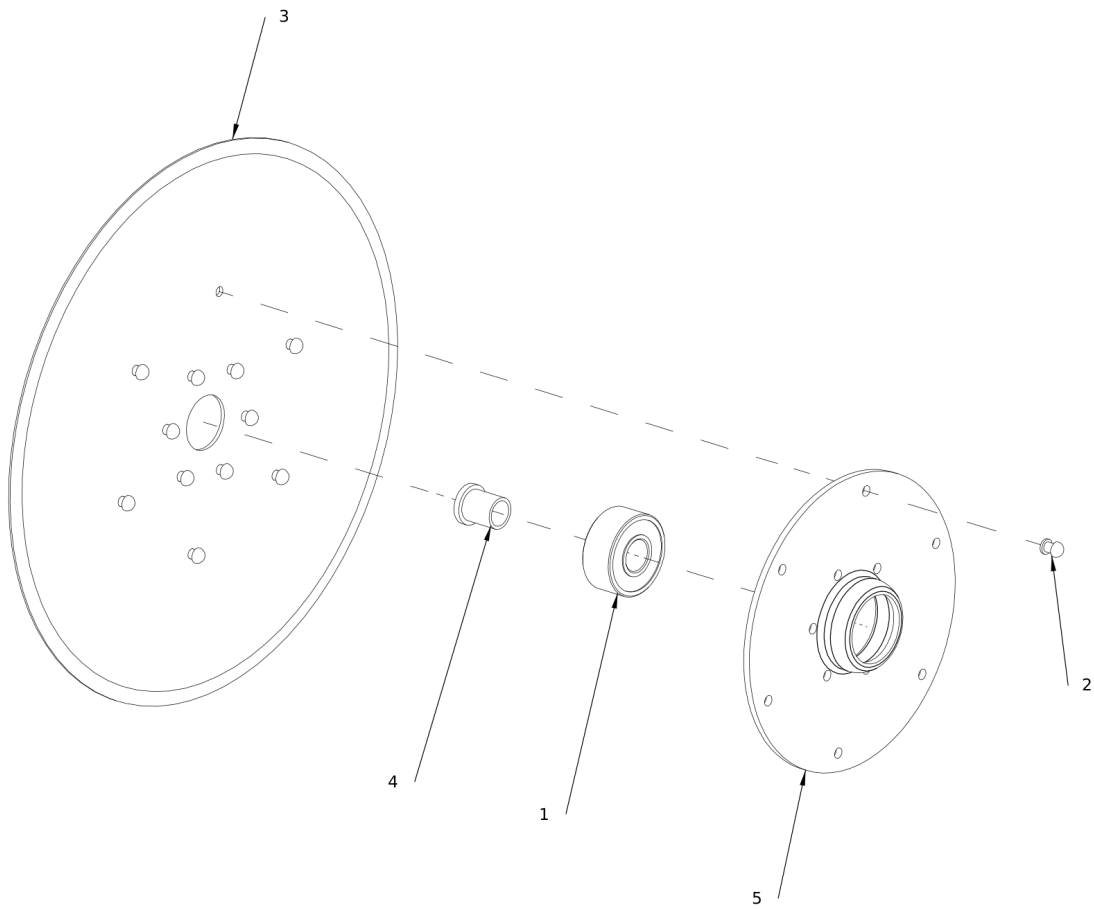
Feed Wheel-Triple

Item	Part No.	Name	Remarks	Qty	Uom
1	7500007	WHL\FEED\LH		1	EA.
2	7500008	WHL\FEED\RH		1	EA.
3	7500107	CLAMP\HOSE\1-1/4\WORM\SS		1	EA.
4	7501388	WHL\FEED\CENTER		1	EA.
5	7501407	CLIP\RETAINER\WHL\FEED\TRIPLE		4	EA.
CA	7501453	WHL\FEED\TRIPLE	(Includes #1-#5)		EA.



Coulter Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	2000031	BRG\ROWDBL		1	EA.
2	4800161	SCR\BUT\ALN\1/2X1\NC		6	EA.
3	4900014	NUT\TPLCK\1/2\NC		6	EA.
4	7500064	DISK\COLTER\14"\6-HOLE		1	EA.
5	7500160	#6610 BREAINING BUSHING		1	EA.
6	7500165	CAGE\BRG\DBL_ROW\6-HOLE		1	EA.
CA	7500187	BLADE\ASSY\14"\COULTER			EA.

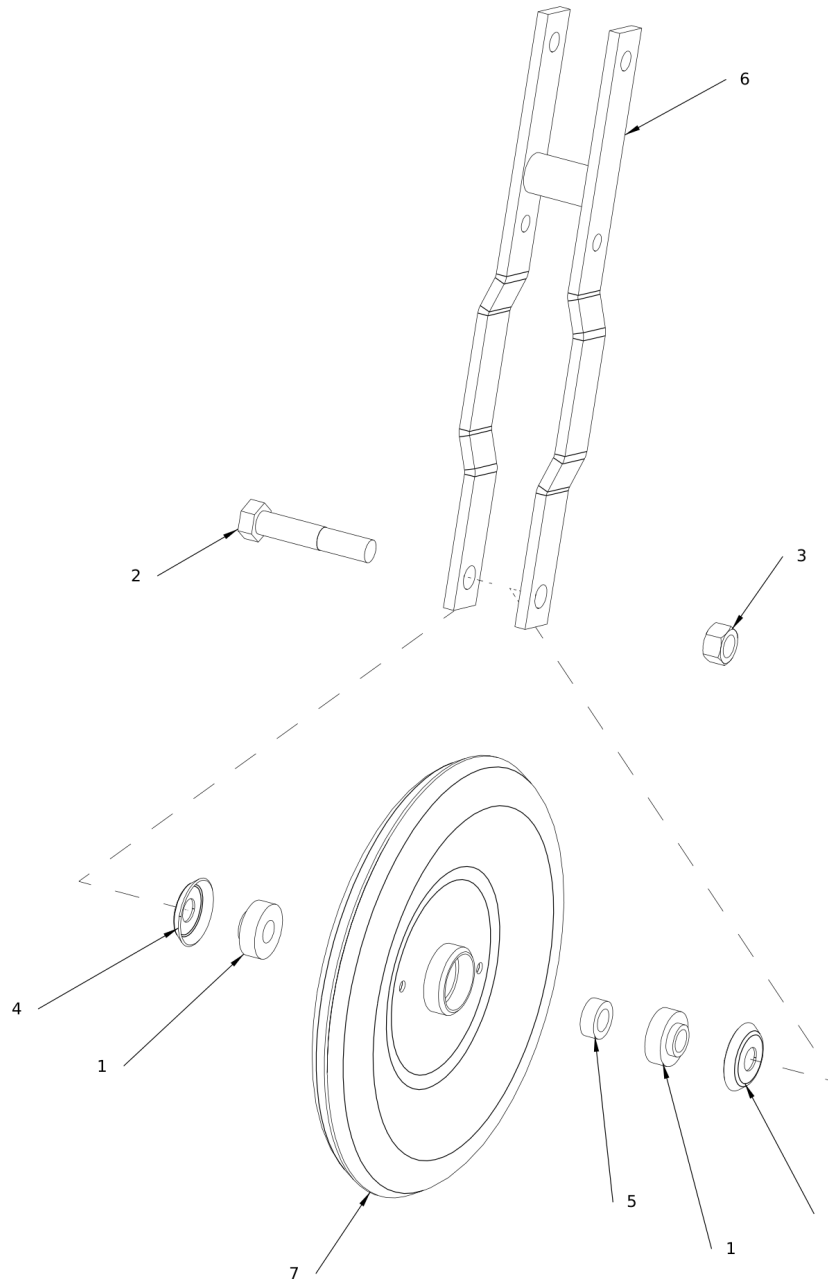


Disk Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	2000031	BRG\ROWDBL		1	EA.
2	4800039	RIV\RD\STL\1/4X1/2		12	EA.
3	7500010	DISK\PLAIN\14"\12-RIVET		1	EA.
4	7500160	#6610 BREAINING BUSHING		1	EA.
5	7500167	CAGE\BRG\DBL_ROW\12-RIVET		1	EA.
CA	7500188	BLADE\ASSY\14"\DISC\107			EA.

Press Wheel Assembly

77C/107C Drills Parts Reference



Press Wheel Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	2000061	BRG\3/4\FHR204-12		2	EA.
2	4800063	BOLT\HEX\3/4X4		1	EA.
3	4900139	NUT\TPLCK\3/4\GR8\NC		1	EA.
4	7400264	CAP\WHL\W/O_PILOT		2	EA.
5	7500653	SPCR\WHL\PACKER		1	EA.
6	8400271	BRKT\WHL\PACKER\20"		1	EA.
7	8400616	WHL\PRESS\STL\ASSY\107		1	EA.
CA	8400617	WHL\PRESS\STL\ASSY\107	(Includes #1-#5 and #7)		EA.
CA	8400355	WHL\PRESS\STL\SUB-ASY\107W\FRAME\2X15-1/2	(Includes 8400617 and #6)		EA.

Depth Band Kit Installation

Step #1: Remove disk as shown in illustration.

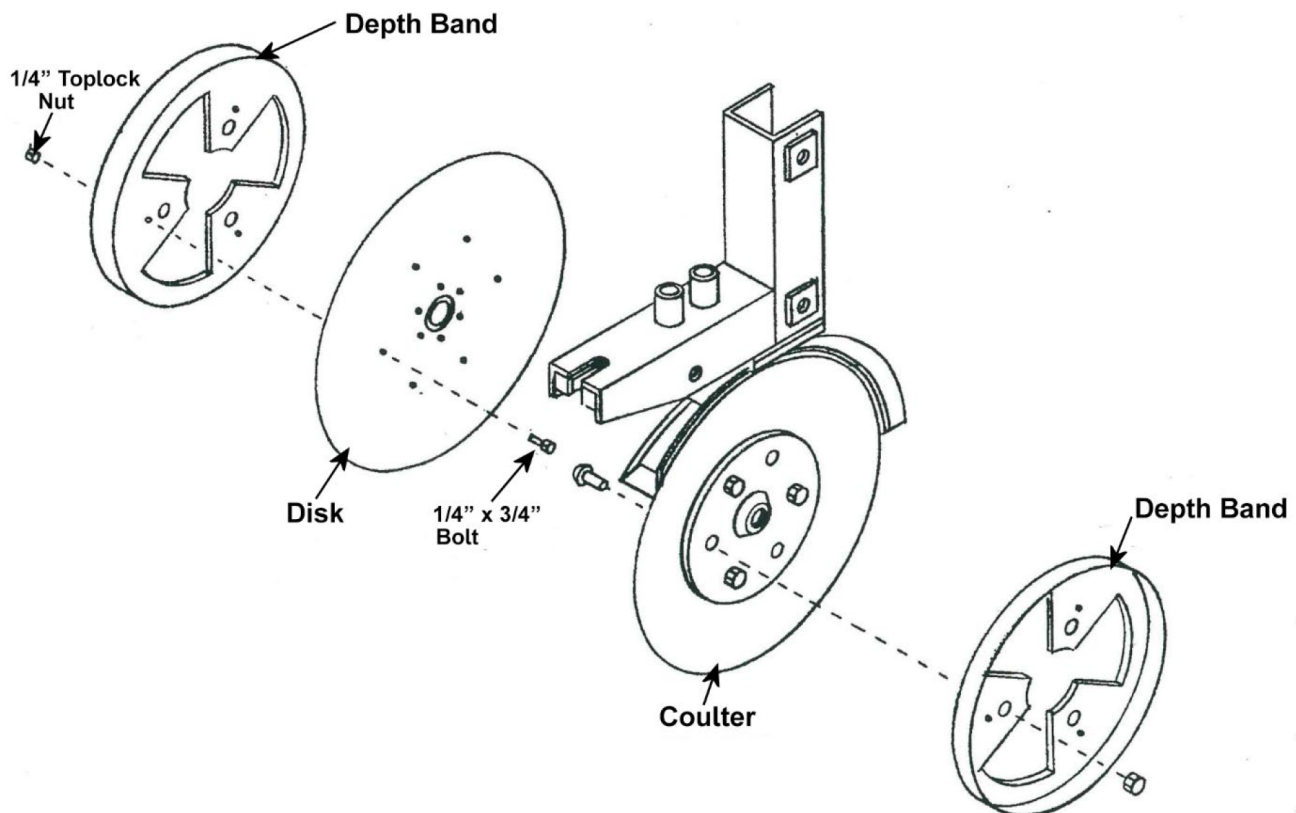
Step #2: Remove the three rivets matching small holes in depth band from the disk.

Step #3: Bolt depth band to disk using (3) 1/4" x 3/4" bolts and (3) 1/4" toplock nuts.

Step #4: Remove the three bolts matching the large holes in depth band from the coultter. It is not necessary to remove coultter from opener.

Step #5: Using bolts removed in step #4, bolt depth band to coultter.

Step #6: Reinstall disk on opener.



77C Optional Depth Band Kit Installation

Item	Part No.	Name	Remarks	Qty	Uom
	4800024	BOLT\HEX\1/4X3/4		36	EA.
	4900084	NUT\TPLCK\1/4\NC		36	EA.
	8400364	BAND\DEPTH\11-1/2ODX10GA		1	EA
	8400729	BAND\DEPTH-12\KIT\77	1 kit equals 12 depth bands. A total of 24 depth bands are needed for a complete machine. No hardware is included in these kits.	2	EA

Depth Band Kit Installation

Step #1: Remove disk as shown in illustration.

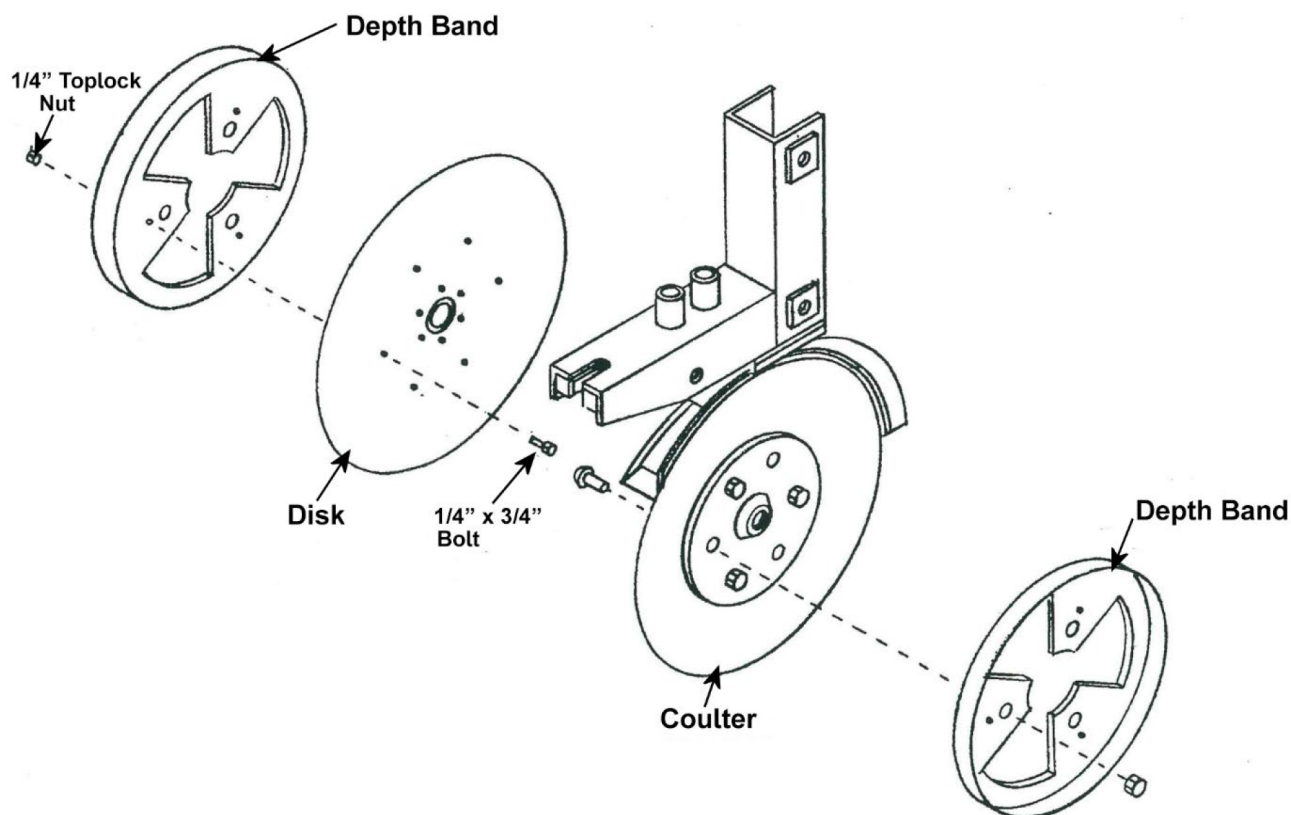
Step #2: Remove the three rivets matching small holes in depth band from the disk.

Step #3: Bolt depth band to disk using (3) 1/4" x 3/4" bolts and (3) 1/4" toplock nuts.

Step #4: Remove the three bolts matching the large holes in depth band from the coultter. It is not necessary to remove coultter from opener.

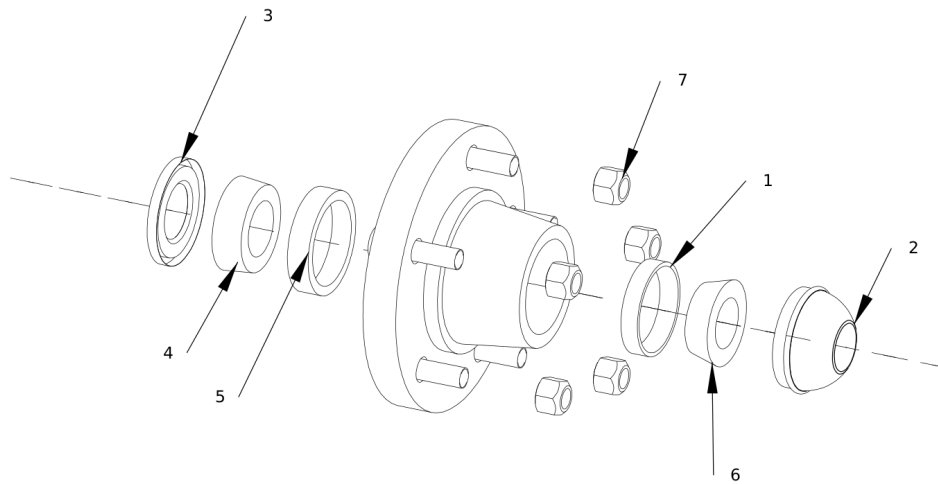
Step #5: Using bolts removed in step #4, bolt depth band to coultter.

Step #6: Reinstall disk on opener.



107C Optional Depth Band Kit Installation

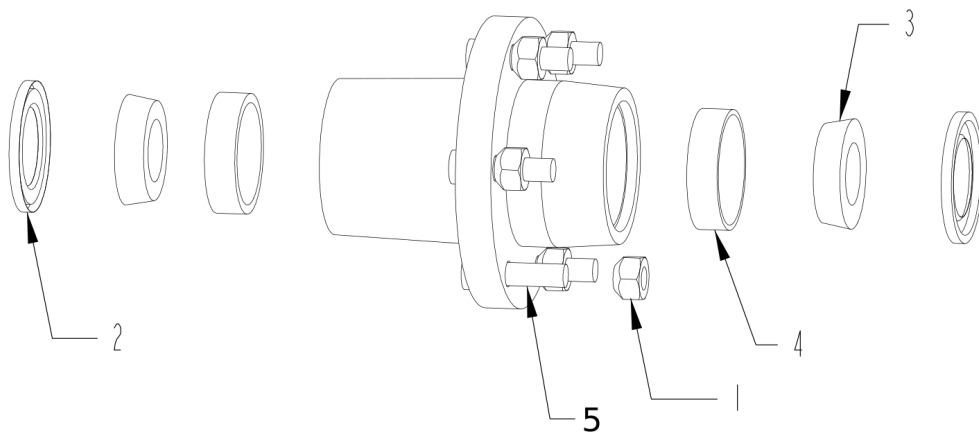
Item	Part No.	Name	Remarks	Qty	Uom
	4800024	BOLT\HEX\1/4X3/4		54	EA.
	4900084	NUT\TPLCK\1/4\NC		54	EA.
	8400364	BAND\DEPTH\11-1/2ODX10GA		1	EA
	8400645	BAND\DEPTH-18\KIT\107>	1 kit equals 18 depth bands. A total of 36 depth bands are needed for a complete machine. No hardware is included in these kits.	2	EA



NOTE- Torque wheel nuts to 80 ft-lbs (11 kg-m)

77C/107C Hub Assembly

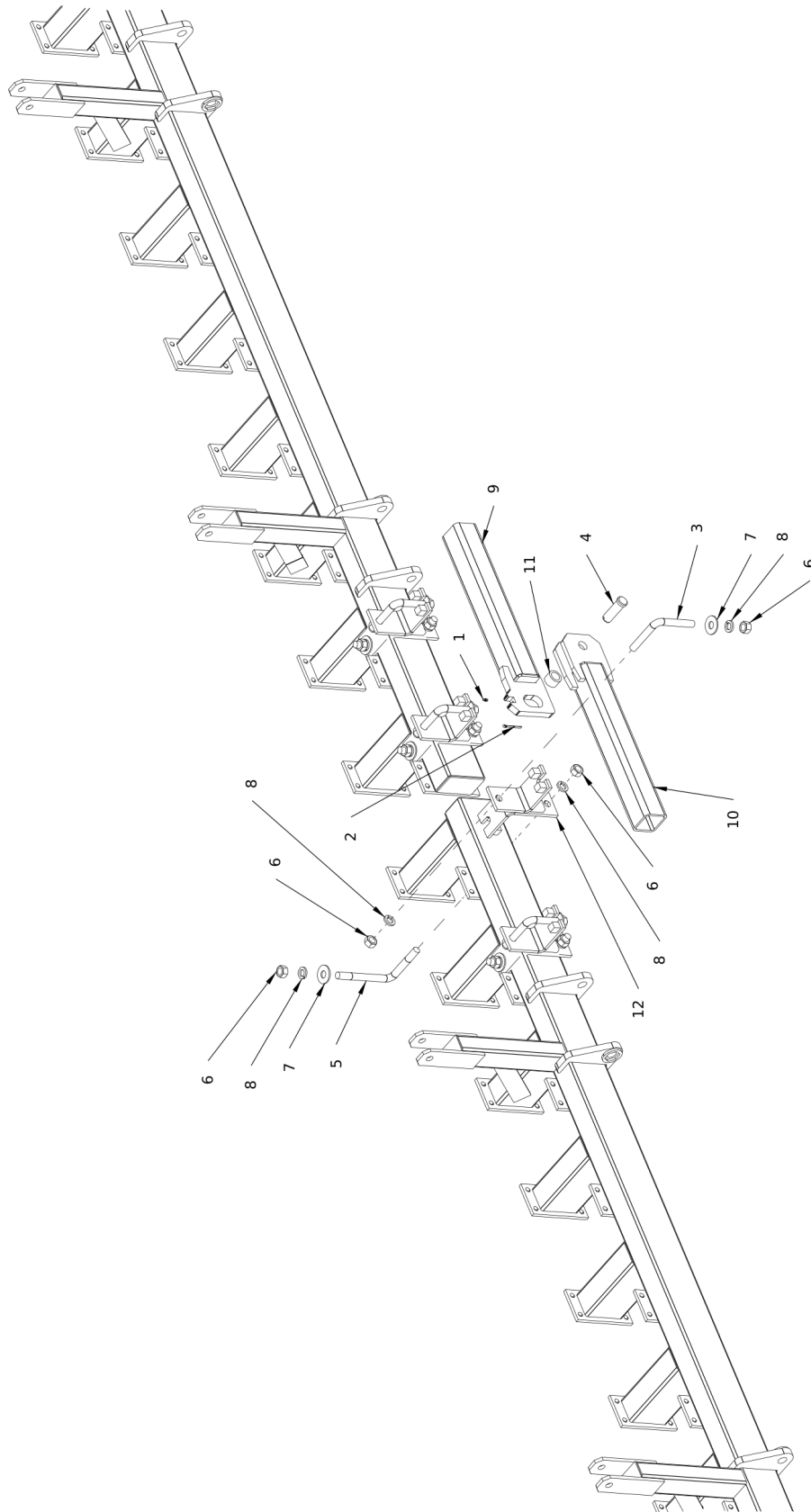
Item	Part No.	Name	Remarks	Qty	Uom
1	2900004	CUP\INNER\WHEEL HUB		1	EA
2	2900013	CAP\DUST\WHL;HUB(DC-13)		1	EA
3	2900014	SEAL\GREASE(517) (15190)		1	EA
4	2900015	CONE\INNER\WHL HUB(48548)		1	EA
5	2900016	CUP\INNER\WHL:HUB(48510		1	EA
6	2900018	CONE\OUTER\WHL;HUB(67048		1	EA
7	4900094	NUT\TPR\WHEL\1/2\13/16OD\NF		5	EA
CA	2900011	HUB\WITH CONES\W/NUTS		1	EA



NOTE- Torque wheel nuts to 100 ft-lbs (14 kg-m)

77C/107C Fork Hub Assembly

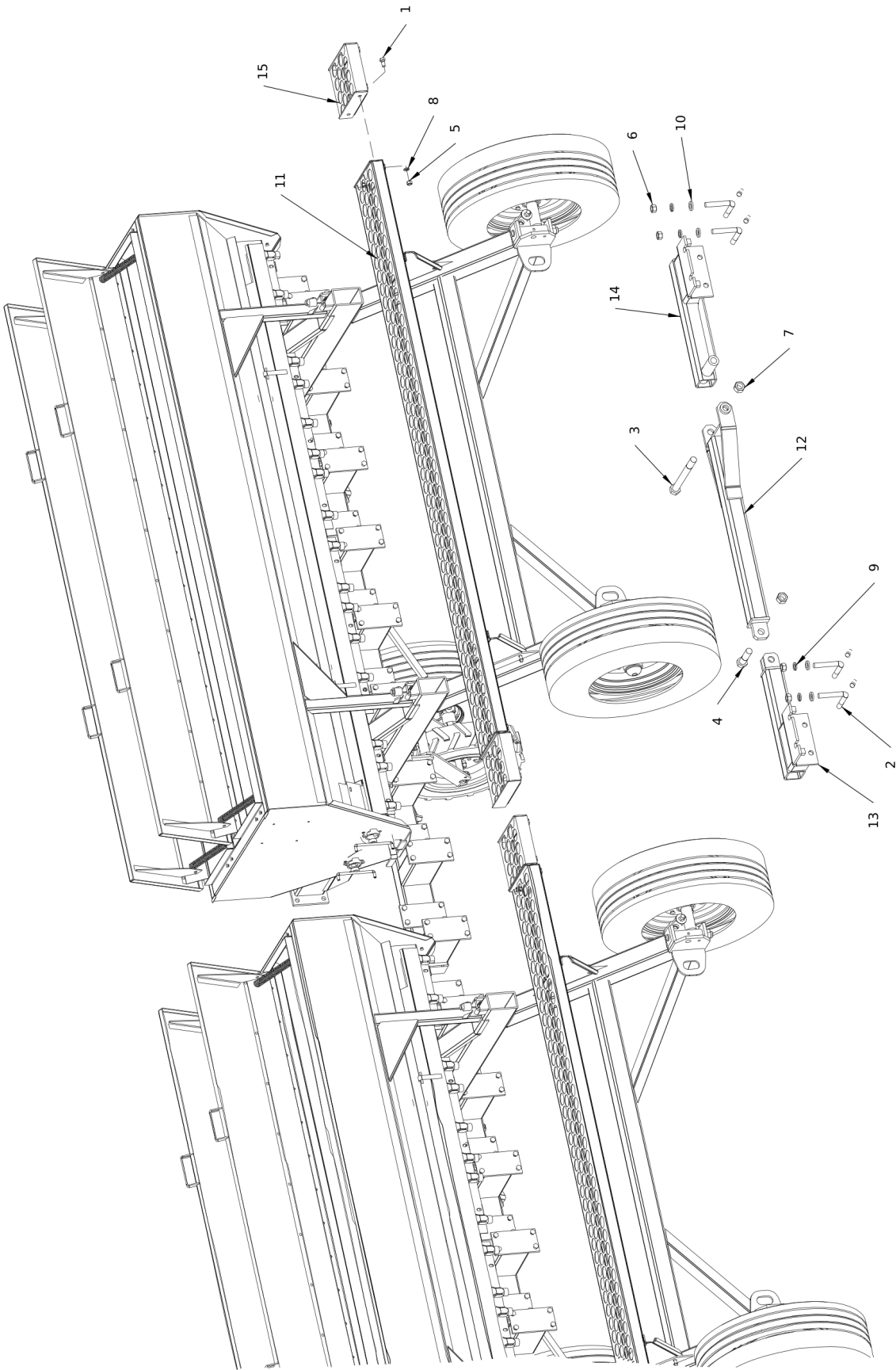
Item	Part No.	Name	Remarks	Qty	Uom
1	2900083	NUT\WHL\9/16-18\UNF		6	EA.
2	2900085	SEAL\WHL;HUB(20078)		2	EA
3	2900086	CONE\2788\WHL;HUB		2	EA
4	2900087	CUP\BRG\HUB\WHL\2720		2	EA
5	2900090	WHL\BOLT\9/16"X2-1/4"		6	EA
CA	2900089	HUB\H-628(FORK)\COMPLETE		1	EA



Note:
 Space tool bars 2 5/8" apart for a 7" spacing.
 Mount double clamps as far apart as possible.

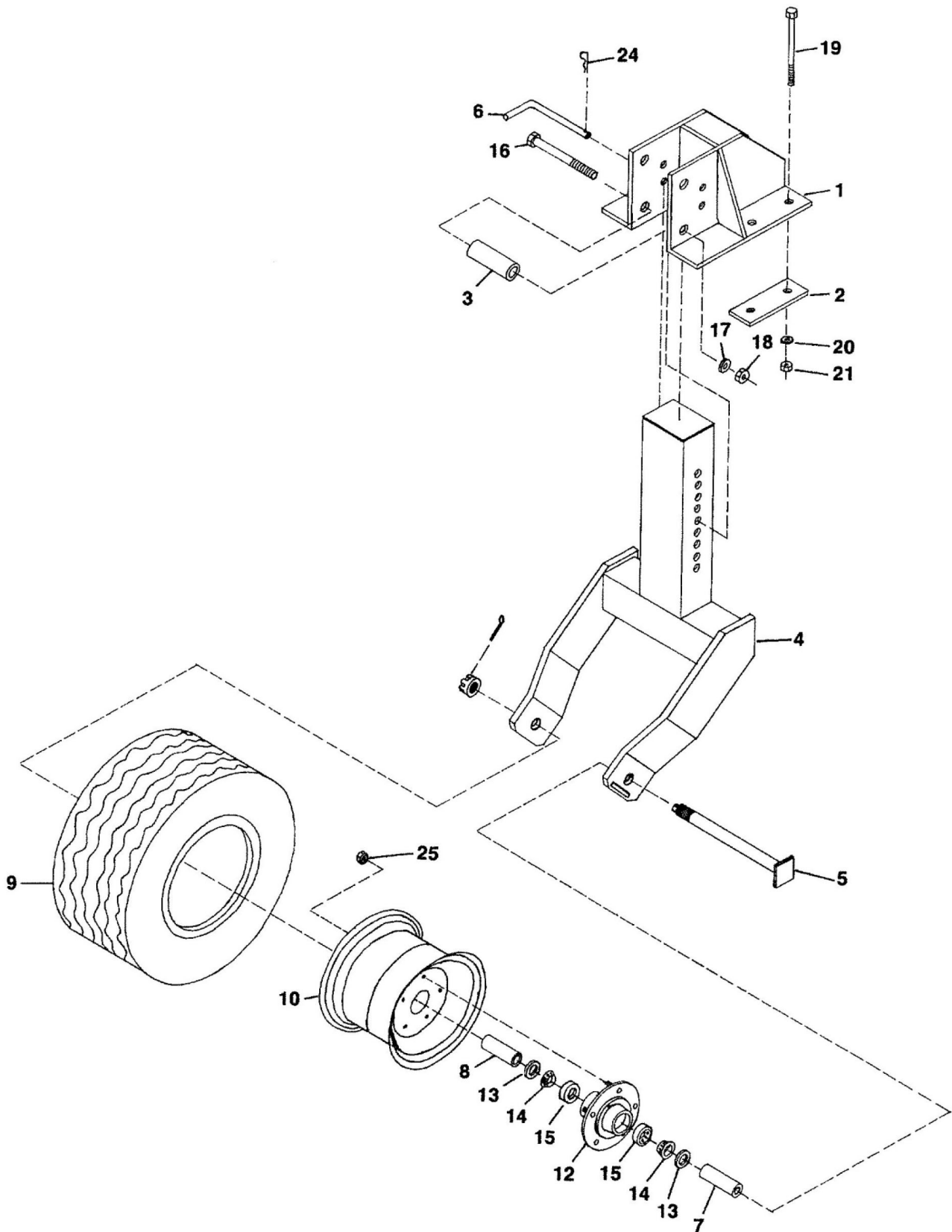
107C Optional Front Stabilizer

Item	Part No.	Name	Remarks	Qty	Uom
1	3600053	FTG\LUB\1/4NFXZERK\ADAPT		1	EA.
2	4800157	PIN\COT\3/16X2		1	EA
3	4800183	BOLT\L\3/4\5-1/4X5-1/4		4	EA
4	4800185	PIN\CLEVIS\1X3		1	EA.
5	4800199	BOLT\L\3/4X5-1/4X7-1/4		4	EA
6	4900004	NUT\HEX\3/4\NC		16	EA.
7	5000005	WASH\FLAT\3/4		8	EA.
8	5000012	WASH\LOCK\3/4		16	EA.
9	8400183	BRKT\STBLZR\FR\MALE\107C		1	EA
10	8400184	BRKT\STGLZR\FR\FEMALE\107C		1	EA
11	8400185	BUSH\1-1/2ODX1.028IDX1		1	EA
12	8400186	BRKT\CLAMP\STBLZR\107C		4	EA
CA	8300456	KIT\STBLZR\FRONT\107			EA



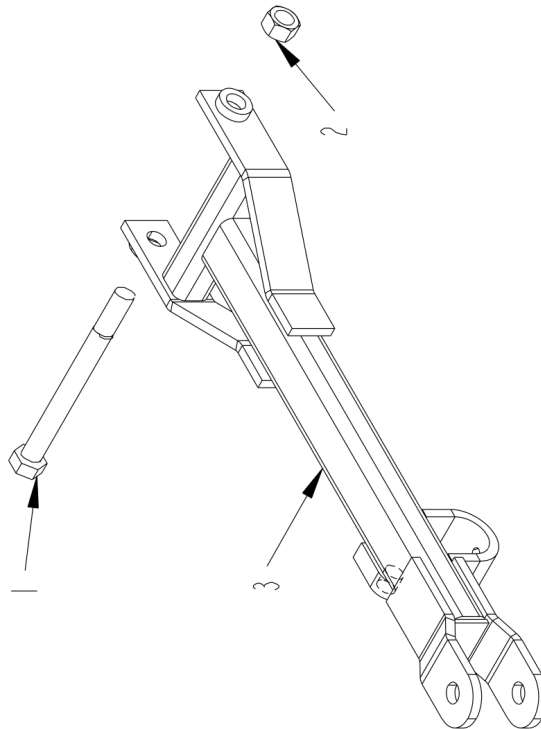
107C Optional Rear Stabilizer Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800085	BOLT\HEX\1/2X1		8	EA.
2	4800183	BOLT\L\3/4\5-1/4X5-1/4		4	EA
3	4800626	BOLT\HEX\1X1\1NC		1	EA.
4	4800647	BOLT\HEX\1X4\1NC		1	EA.
5	4900001	NUT\HEX\1/2\1NC		8	EA.
6	4900004	NUT\HEX\3/4\1NC		4	EA.
7	4900015	NUT\WYLCK\1\1NC		2	EA.
8	5000006	WASH\LOCK\1/2		8	EA.
9	5000012	WASH\LOCK\3/4		4	EA.
10	5000115	WASH\FLAT\3/4\EXTRTHK\GR8		4	EA
11	8400040	WALKWAY\100_SERIES		2	EA
12	8400201	BAR\STBLZR\CTR\REAR		1	EA
13	8400202	MNT\STBLZR\RH\REAR		1	EA
14	8400203	MNT\STBLZR\LH\REAR		1	EA
15	8400666	STEP\XTNS\WALKWY		4	EA
CA	8400378	KIT\107\STBLZR\REAR	(Includes #2,3,4,6,7,9,10,12,13 & 14)		EA



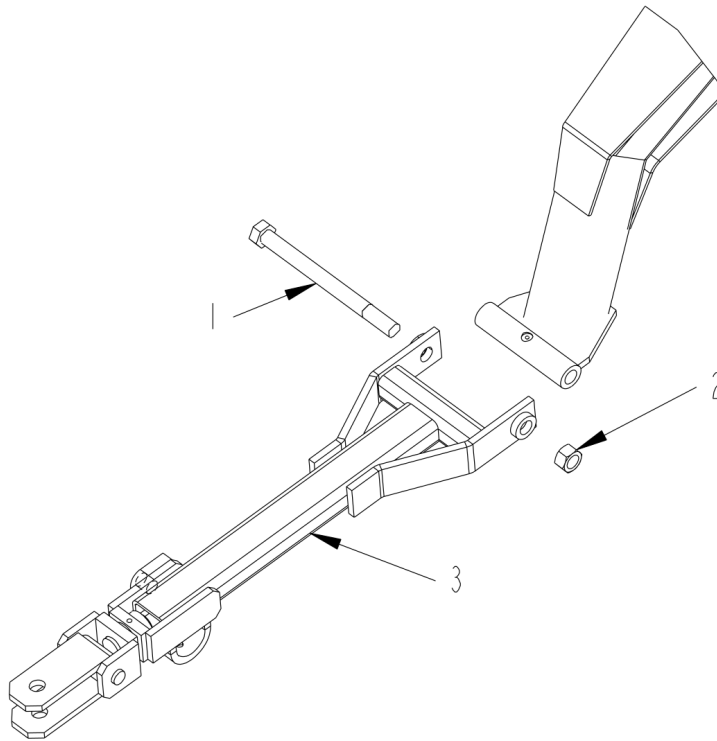
107C Optional Gauge Wheel Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	8400332	MNT\WHL\GAUGE\107		2	EA
2	8400333	STRAP\MNT\WHL\GAUGE\107		4	EA
3	8400334	SPCR\FRM\MTG\107		4	EA
4	8400335	FORK\WHL\107		2	EA
5	8400336	SPNDL\WHL\GAUGE\107		2	EA
6	8400337	HDL\ADJ\WHL\GAUGE\107		2	EA
7	8400338	SPCR\SPNDL\1.25X1X2-7/32		2	EA
8	8400339	SPCR\SPNDL\1.25X1X2-23/32		2	EA
CA	2600813	20.5 X 8 X 10 TIRE & RIM	(Includes 2600026 & 2600631)		EA
9	2600026	TIRE\20.5X8.0X10		2	EA
10	2600631	WHL\5-BOLT\10"X6.0"		2	EA
12	2900107	5-BOLT FORK HUB 12832 CPL		2	EA
13	2900031	SEAL\WHEEL HUB(12407		4	EA
14	2900032	CONE\WHEEL HUB(44643		4	EA
15	2900033	CUP\WHEEL HUB (44610		4	EA
16	4800248	BOLT\HEX\3/4X6		4	EA.
17	5000012	WASH\LOCK\3/4		4	EA.
18	4900004	NUT\HEX\3/4\NC		4	EA.
19	4800144	BOLT\HEX\5/8X6-1/2		8	EA.
20	5000003	WASH\LOCK\5/8		8	EA.
21	4900005	NUT\HEX\5/8\NC		8	EA.
22	4800157	PIN\COT\3/16X2		2	EA
23	4900055	NUT\SLOT.\1\JAM\NF		2	EA
24	4800107	PIN\HAIR\1/8(#9)		2	EA.
25	2500710	NUT\CONE\1/2-20\60-DEGREE		10	EA
CA	8400348	GAUGE WHEEL KIT COMPLETE	(For Use on 107C Models Only)		EA



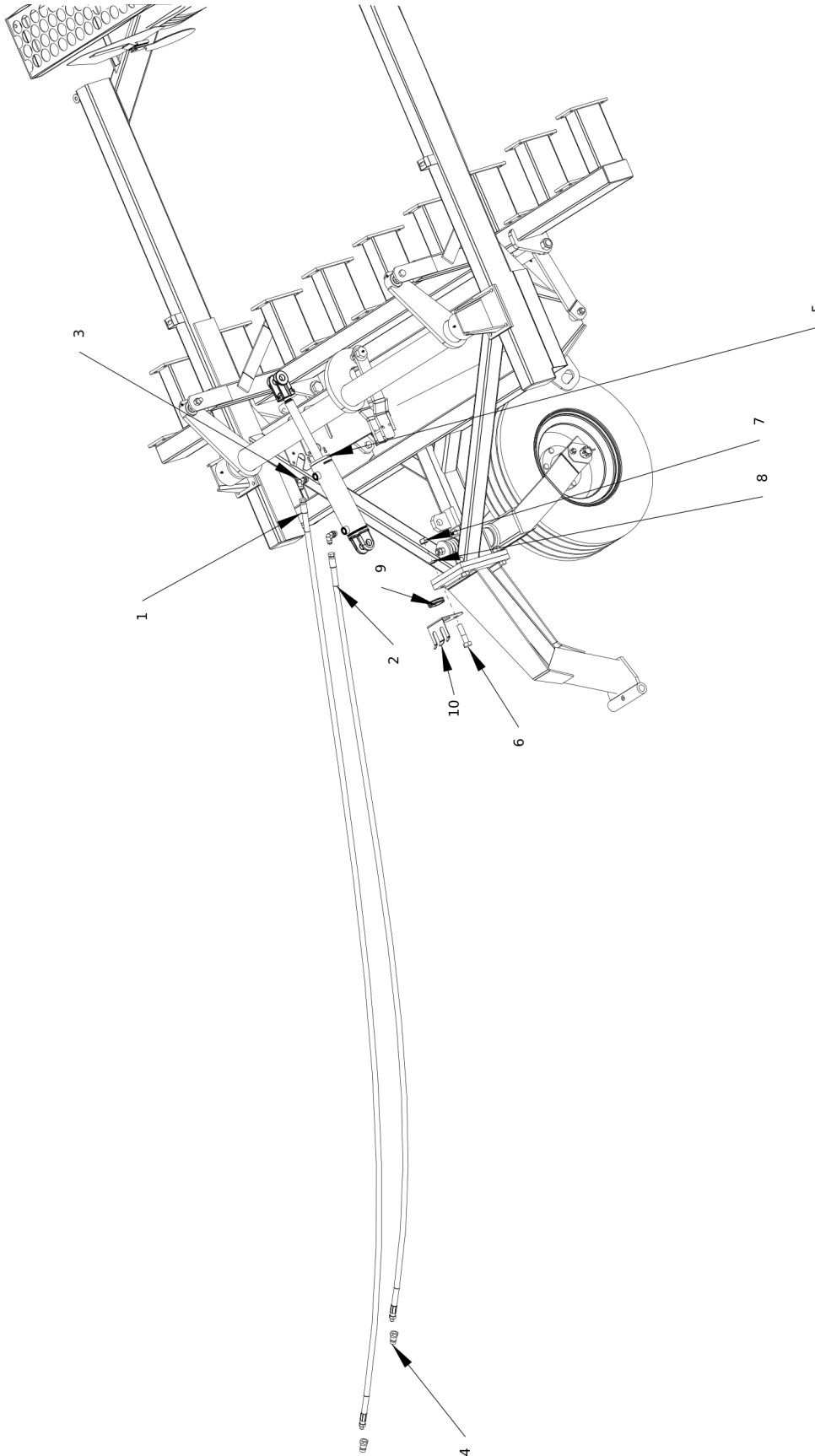
Single Drill Hitch

Item	Part No.	Name	Remarks	Qty	Uom
1	4800663	BOLT\HEX\1X12\NC\GR8\PLTD		1	EA.
2	4900015	NUT\NYLCK\1\NC		1	EA.
3	8400664	HITCH\SINGLE		1	EA.
NS	1100275	CHAIN\1/4\SFTY\AG\11000LB		1	EA.
NS	5000116	WASH\FLAT\1\EXTRTHK\GR8		1	EA.
NS	4800547	BOLT\HEX\1X2\NC		1	EA.



Swivel Hitch

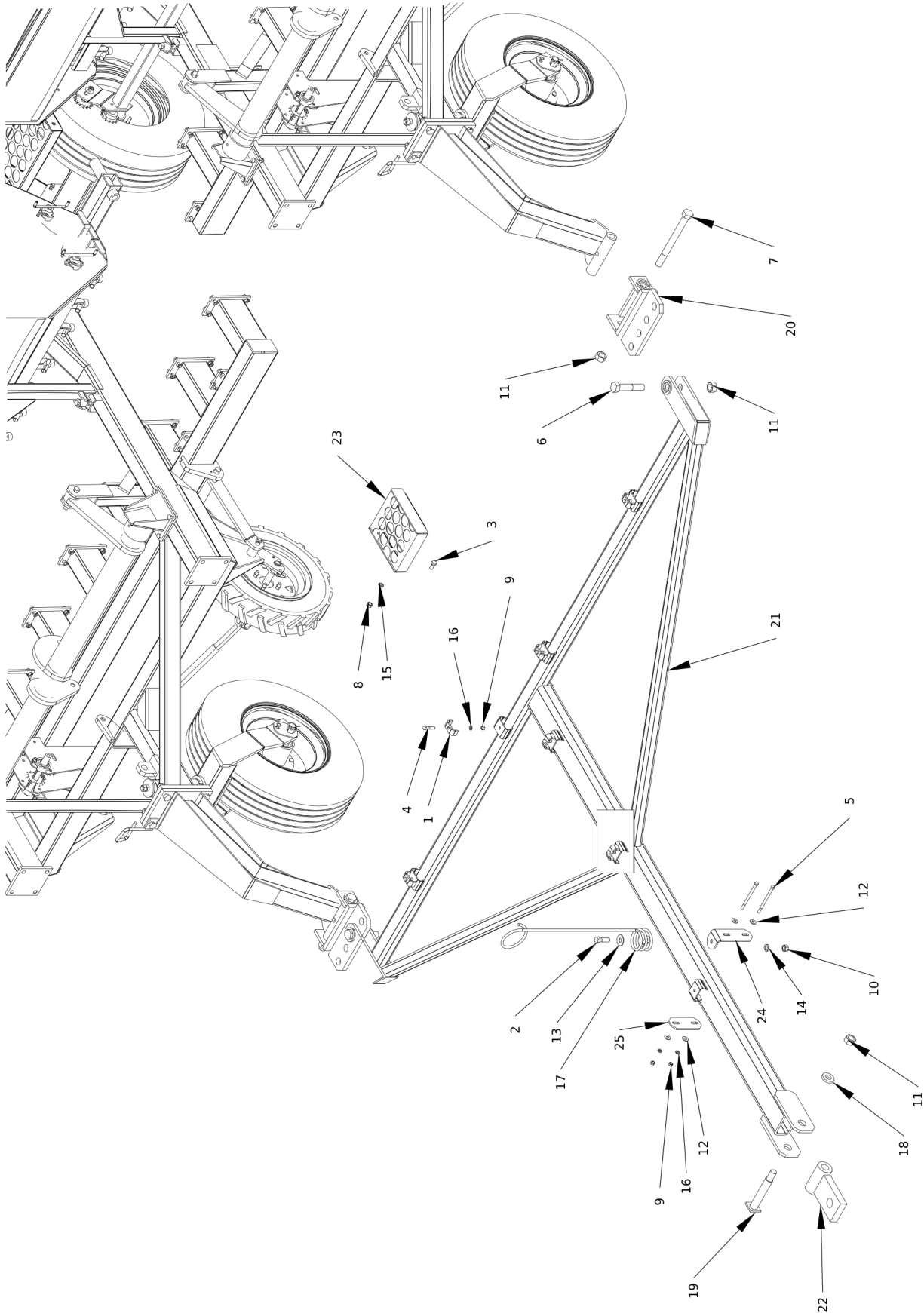
Item	Part No.	Name	Remarks	Qty	Uom
1	4800663	BOLT\HEX\1X12\NC\GR8\PLTD		1	EA.
2	4900015	NUT\NYLCK\1\NC		1	EA.
3	8400650	ORDER 8401024		1	EA.
NS	1100275	CHAIN\1/4\SFTY\AG\11000LB		1	EA.
NS	5000116	WASH\FLAT\1\EXTRTHK\GR8		1	EA.
NS	4800547	BOLT\HEX\1X2\NC		1	EA.



NOTE: THE STROKE OF THE HYDRAULIC CYLINDER IS 20-1/4" TO 28-1/4" FROM CYLINDER PIN TO CYLINDER PIN

Single Drill Hydraulic Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	3701622	HOSE\HYD\1\2X120\3\4MORSX3\4FJIC		1	EA.
2	3701623	HOSE\HYD\1\2X108\3\4MORSX3\4FJIC		1	EA.
3	3800537	FTG\3\4MORX3\4MJIC\90		2	EA.
4	3800694	FTG\3\4FOR\QUICK\CPLR\FEMALE		2	EA.
5	4100344	CYL\HYD\3X8\1-3\8ROD\#8 O-RING		1	EA.
	4100343	SEAL\KIT\CYL\HYD\3X8\3000 PSI	(Seal Kit for 4100344)		EA.
6	4800017	BOLT\HEX\3\4X3		1	EA.
7	4900004	NUT\HEX\3\4\NC		4	EA.
8	5000012	WASH\LOCK\3\4		4	EA.
9	7500858	GRMT\RBBR\2-1\4X2IDX1\4T		1	EA.
10	8400785	BRKT\HOSE\MINDER		1	EA.
11	8400799	PIN\CLEVIS\1X3\GREASE		1	EA.
CA	8400902	CYL\HYD\3X8\KIT\107DRILL>SINGLE\SAE THREAD			EA.
NS	7501600	CYL\DEPTH\STOP\KIT		1	EA.



107C Optional 2-Drill Hitch Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4700777	CLMP\HOSE\1/2		6	EA.
2	4800010	BOLT\HEX\5/8X2		1	EA.
3	4800085	BOLT\HEX\1/2X1		8	EA.
4	4800142	BOLT\HEX\3/8X1-3/4		6	EA.
5	4800581	BOLT\HEX\3/8X6-1/2		2	EA
6	4800546	BOLT\HEX\1X5\NC		2	EA
7	4800626	BOLT\HEX\1X11\NC		3	EA.
8	4900001	NUT\HEX\1/2\NC		8	EA.
9	4900002	NUT\HEX\3/8\NC		8	EA.
10	4900005	NUT\HEX\5/8\NC		1	EA.
11	4900015	NUT\WYLCK\1\NC		7	EA.
12	5000001	WASH\FLAT\3/8		4	EA.
13	5000002	WASH\FLAT\5/8		1	EA.
14	5000003	WASH\LOCK\5/8		1	EA.
15	5000006	WASH\LOCK\1/2		8	EA.
16	5000019	WASH\LOCK\3/8		8	EA.
17	7500170	HOSE MINDER		1	EA.
18	8300341	WASH\2X1.028X3/8		1	EA
19	8300498	PIN\HITCH		1	EA
20	8400034	HITCH\BLK\107		2	EA
21	8400193	HITCH\2\DRILL\107		1	EA
22	8400196	BLK\HITCH		1	EA
22A	8400667	BLK\HITCH\CLEVIS		1	EA
23	8400666	STEP\XTNSN\WLK\WY		4	EA
24	8800095	MNT\MINDER\HOSE\DRILL		1	EA
25	8800096	STRAP\MINDER\HOSE\DRILL		1	EA
CA	8400394	HITCH\2-DRILL\107\KIT			EA



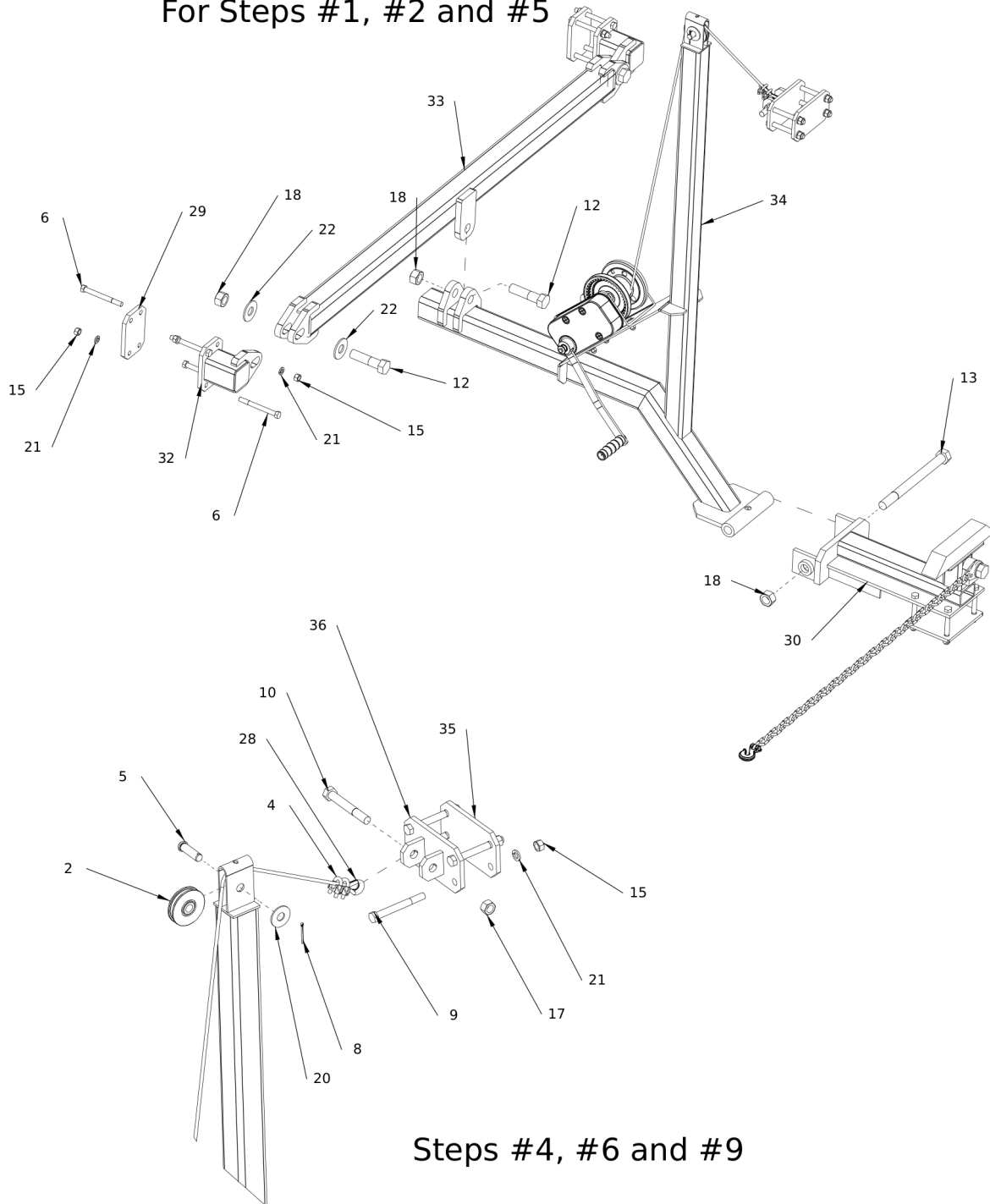
NOTE: THE STROKE OF THE HYDRAULIC CYLINDER IS 20-1/4" TO 28-1/4" FROM CYLINDER PIN TO CYLINDER PIN.

DETAIL A
SCALE 5/64

107C Optional 2-Drill Hitch Hydraulic Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	3701624	HOSE\HYD\1\2X132\3\4FJICX3\4FJIC		1	EA.
2	3701624	HOSE\HYD\1\2X132\3\4FJICX3\4FJIC		1	EA.
3	3700815	HOSE\HYD\1\2X236\3\4MORSX3\4FJIC		1	EA
4	3701626	HOSE\HYD\1\2X240\3\4MORSX3\4FJIC		1	EA.
5	3800484	FTG\3\4FJICSX3\4MJICX3\4MJIC\RUN;TEE		2	EA.
6	3800537	FTG\3\4MORX3\4MJIC\90		4	EA.
7	3800694	FTG\3\4FOR\QUICK;CPLR\FEMALE		2	EA.
8	4100344	CYL\HYD\3X8\1-3\8ROD\#8 O-RING		2	EA.
9	4700777	CLMP\HOSE\1\2		6	EA.
10	4800010	BOLT\HEX\5\8X2		1	EA.
11	4800142	BOLT\HEX\3\8X1-3\4		6	EA.
12	4800226	BOLT\HEX\3\8X5-1\2		2	EA
13	4900002	NUT\HEX\3\8\NC		8	EA.
14	4900005	NUT\HEX\5\8\NC		1	EA.
15	5000001	WASH\FLAT\3\8		4	EA.
16	5000002	WASH\FLAT\5\8		1	EA.
17	5000003	WASH\LOCK\5\8		1	EA.
18	5000019	WASH\LOCK\3\8		8	EA.
19	7500170	HOSE MINDER		1	EA.
20	8400193	HITCH\2\DRILL\107		1	EA
21	8800095	MNT\MINDER\HOSE\DRILL		1	EA
22	8800096	STRAP\MINDER\HOSE\DRILL		1	EA
CA	8400903	CYL\HYD\3X8\KIT\107DRILL\2-DRILL SAE THREAD			EA.

For Steps #1, #2 and #5



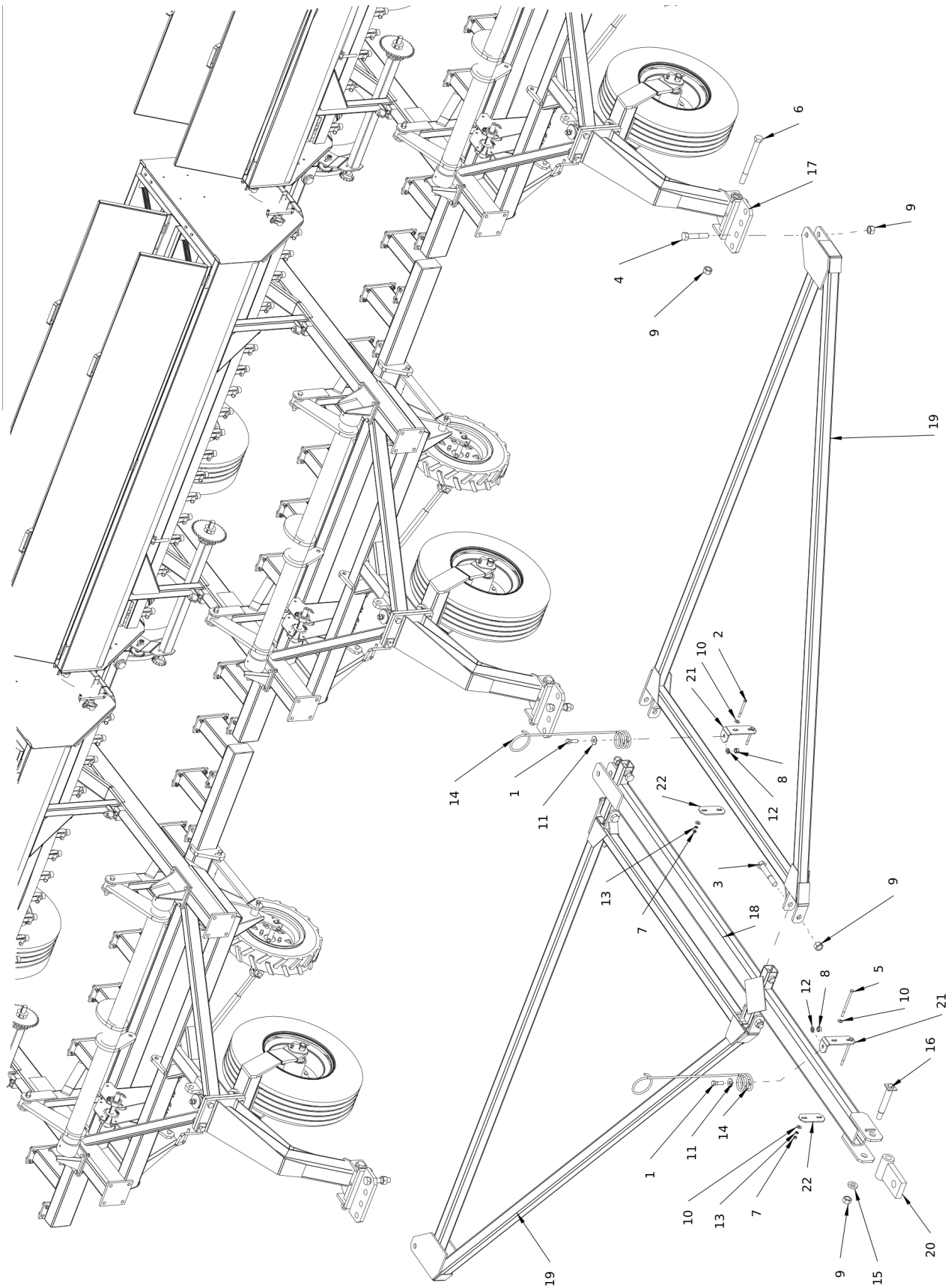
Steps #8 and #10



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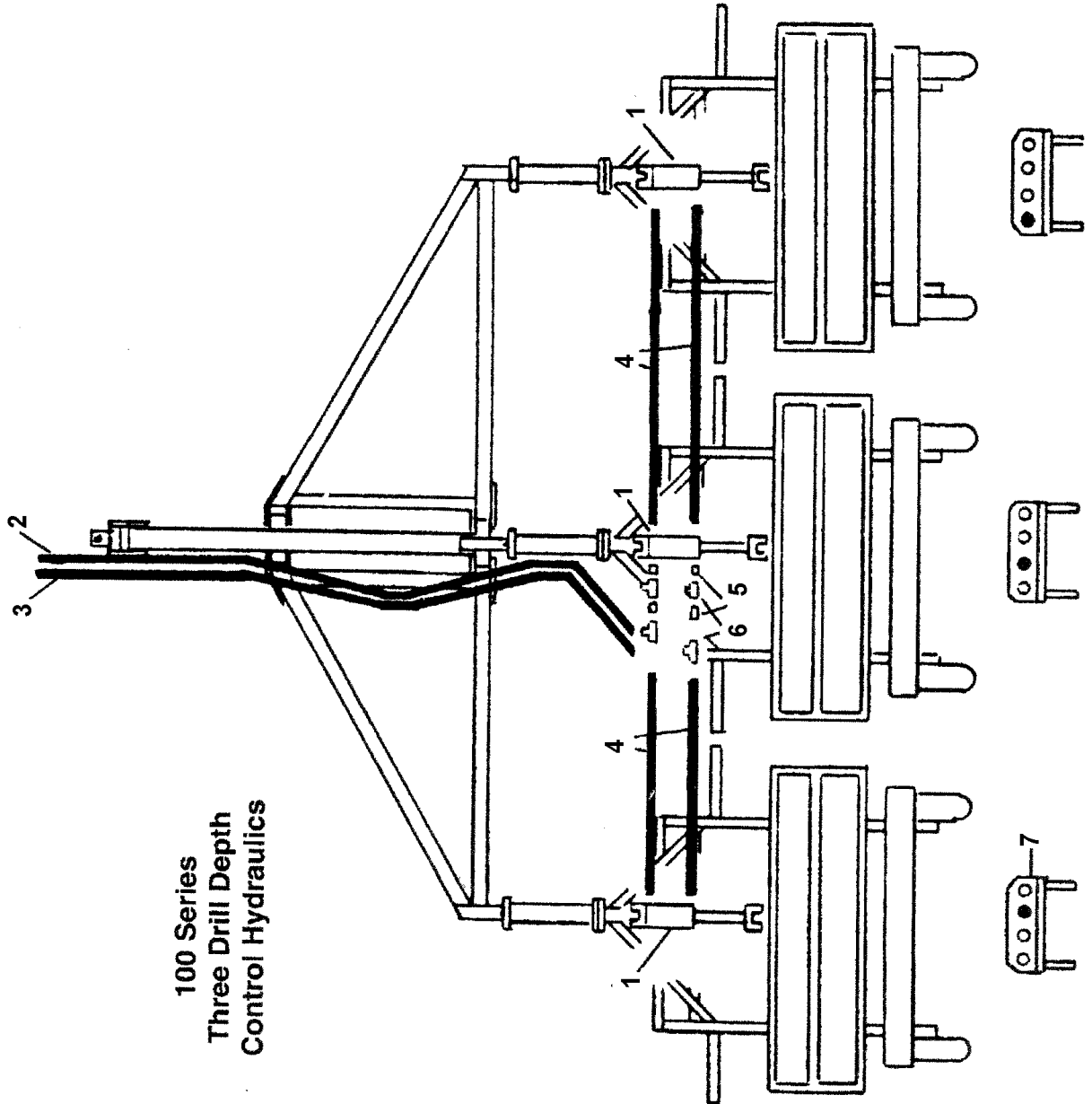
107C Optional 2-Drill Hitch Lift

Item	Part No.	Name	Remarks	Qty	Uom
1	1100275	CHAIN\1/4\SFTY\AG\11000LB		1	EA.
2	1400082	SHVE\ICBL\W-BRG		1	EA
3	4704099	BMPR\CNVYR\DISCH		1	EA
4	4800027	CLAMP\ICBL\1/4		2	EA
5	4800030	PIN\CLEVIS\5/8X2		1	EA
6	4800041	BOLT\HEX\1/2X5		8	EA.
7	4800098	BOLT\HEX\3/8X1-1/4\NC		3	EA.
8	4800123	PIN\COT\1/8X1-1/2		1	EA
9	4800141	BOLT\HEX\1/2X4-1/2		8	EA.
10	4800158	BOLT\HEX\5/8X4-1/2		1	EA.
11	4800547	BOLT\HEX\1X2\NC		1	EA.
12	4800647	BOLT\HEX\1X4\NC		3	EA.
13	4800663	BOLT\HEX\1X12\NC\GR8\PLTD		1	EA.
14	4801198	SCR\LAG\3/8X1-1/2		2	EA
15	4900001	NUT\HEX\1/2\NC		16	EA.
16	4900002	NUT\HEX\3/8\NC		3	EA.
17	4900012	NUT\TPLCK\5/8\NC		1	EA.
18	4900015	NUT\WYLCK\1\NC		4	EA.
19	5000001	WASH\FLAT\3/8		6	EA.
20	5000002	WASH\FLAT\5/8		1	EA.
21	5000006	WASH\LOCK\1/2		16	EA.
22	5000014	WASH\FLAT\1		4	EA.
23	5000019	WASH\LOCK\3/8		3	EA.
24	5000074	WASH\1-1/8ID\1-3/4OD\10GA		1	EA
25	5000116	WASH\FLAT\1\EXTRTHK\GR8		1	EA.
26	5800031	WINCH\BRAKE\2500#\#B2503		1	EA
27	5800311	CABLE\1/4X12'		1	EA
28	7500121	1/4" _CABLE_THIMBLE		1	EA
29	8400230	BRKT\MNT\HITCH\TOW		2	EA
30	8401096	BRKT\MNT\WNCH\HITCH		1	EA.
31	8401097	PLT\MNT\WNCH\2DRILL		1	EA.
32	8401098	MNT\WNCH\HITCH\2DRILL		2	EA.
33	8401099	CROSSBAR\MNT\WNCH\2DRILL		1	EA.
34	8401100	MNT\WNCH\HITCH\2DRILL		1	EA.
35	8401107	PLT\LIFT\HITCH\107C		2	EA.
36	8401108	BRKT\LIFT\HITCH\107C		1	EA.
CA	8401104	KIT\LIFT\HITCH\2DRILL\107C			EA.



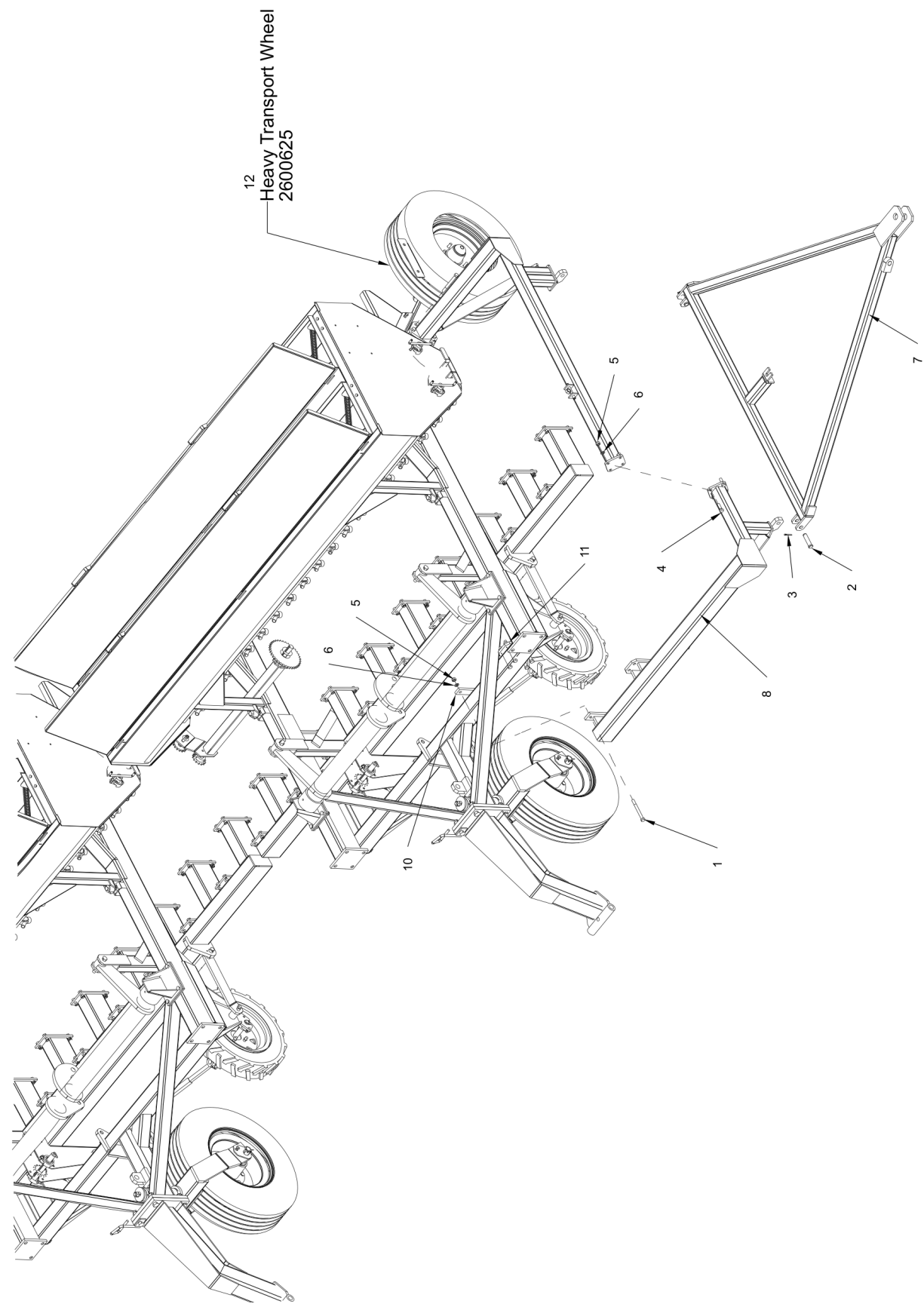
107C Optional 3-Drill Hitch Assembly

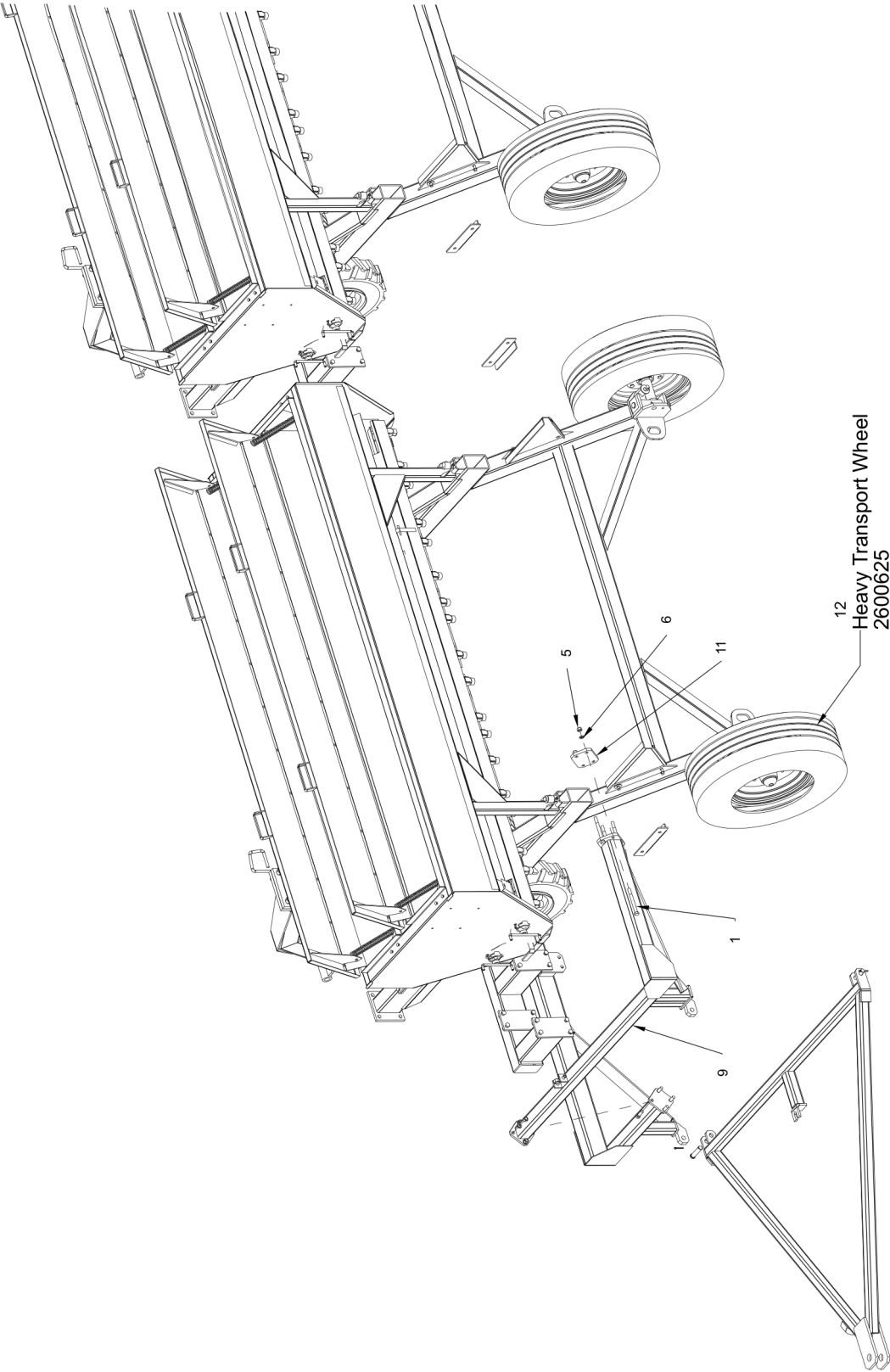
Item	Part No.	Name	Remarks	Qty	Uom
1	4800010	BOLT\HEX\5/8X2		2	EA.
2	4800089	BOLT\HEX\3/8X4		2	EA
3	4800187	BOLT\HEX\1X6		4	EA
4	4800546	BOLT\HEX\1X5\NC		3	EA
5	4800581	BOLT\HEX\3/8X6-1/2		2	EA
6	4800626	BOLT\HEX\1X11\NC		5	EA.
7	4900002	NUT\HEX\3/8\NC		4	EA.
8	4900005	NUT\HEX\5/8\NC		2	EA.
9	4900015	NUT\WYLCK\1\NC		15	EA.
10	5000001	WASH\FLAT\3/8		8	EA.
11	5000002	WASH\FLAT\5/8		2	EA.
12	5000003	WASH\LOCK\5/8		2	EA.
13	5000019	WASH\LOCK\3/8		4	EA.
14	7500170	HOSE MINDER		2	EA.
15	8300341	WASH\2X1.028X3/8		1	EA
16	8300498	PIN\HITCH		1	EA
17	8400034	HITCH\BLK\107		3	EA
18	8400194	HITCH\CNTR_SECT\3-DERILL		1	EA
19	8400195	HITCH\WING_SECT\3-DRILL		2	EA
20	8400196	BLK\HITCH		1	EA
21	8800095	MNT\MINDER\HOSE\DRILL		2	EA
22	8800096	STRAP\MINDER\HOSE\DRILL		2	EA
NS	8400378	KIT\107\STBLZR\REAR		2	EA
CA	8400399	HITCH\3-DRILL\107\KIT107-3DHW/HYDRAULICS	(Includes two rear stabilizer kits)		EA



107C Optional 3-Drill Hydraulic Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4100344	CYL\HYD\3X8\1-3/8ROD\#8 O-RING		3	EA.
2	3701629	HOSE\HYD\1/2X192\3/4MORSX3/4FJIC		1	EA.
3	3701625	HOSE\HYD\1/2X216\3/4 MORSX3/4FJIC		1	EA.
4	3701624	HOSE\HYD\1/2X132\3/4FJICX3/4FJIC		4	EA.
5	3800484	FTG\3/4FJICSX3/4MJICX3/4MJIC\RUN;TEE		4	EA.
6	3800588	FTG\3/4MJICX3/4MJICX3/4MOR\TEE		4	EA
7	8400034	HITCH\BLK\107		3	EA
CA	8400904	CYL\HYD\3X8\KIT\107DRILL3-DRILL SAE THREAD			EA.

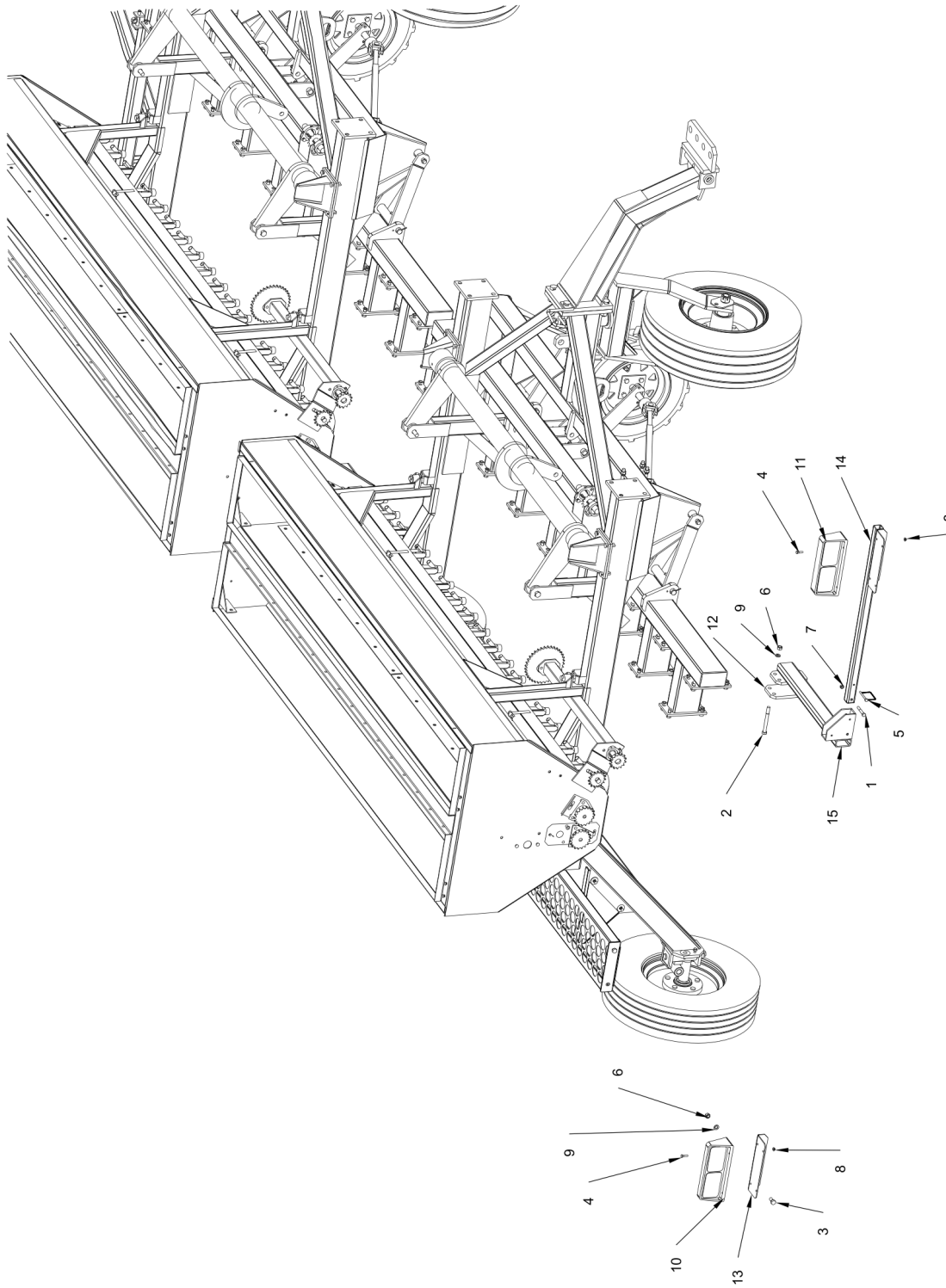




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107C Optional End Tow Hitch Assembly

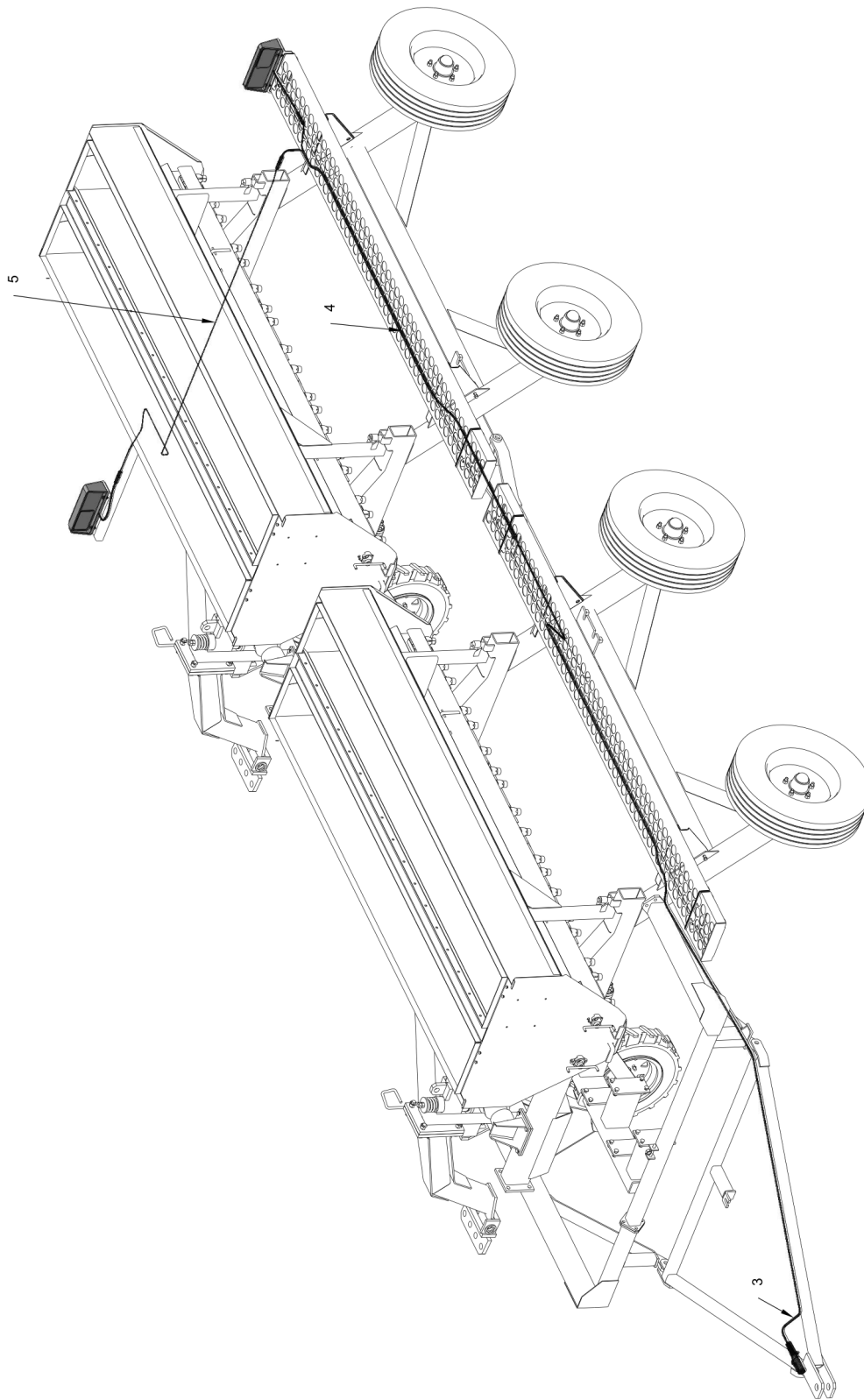
Item	Part No.	Name	Remarks	Qty	Uom
1	4800041	BOLT\HEX\1/2X5		10	EA.
2	4800046	PIN\CLEVIS\3/4X3		2	EA
3	4800050	PIN\COT\3/16X1-1/2		2	EA
4	4800082	BOLT\HEX\1/2X1-1/2		4	EA.
5	4900001	NUT\HEX\1/2\NC		14	EA.
6	5000006	WASH\LOCK\1/2		14	EA.
7	8400226	HITCH\TOW\107		1	EA
8	8400227	MNT\HITCH\TOW\END\FR\107		1	EA
9	8400228	MNT\HITCH\TOW\END\REAR		1	EA
10	8400229	STRAP\MNT\FR\HITCH\TOW\107		1	EA
11	8400230	BRKT\MNT\HITCH\TOW		3	EA
12	2600625	WHL\RIM\15X5X5\W\HVYCNTR		1	EA
CA	8400393	HITCH\TOW\2DR\107\KIT			EA
CA	8401017	HITCH\TOW\3DR\107\KIT			EA.

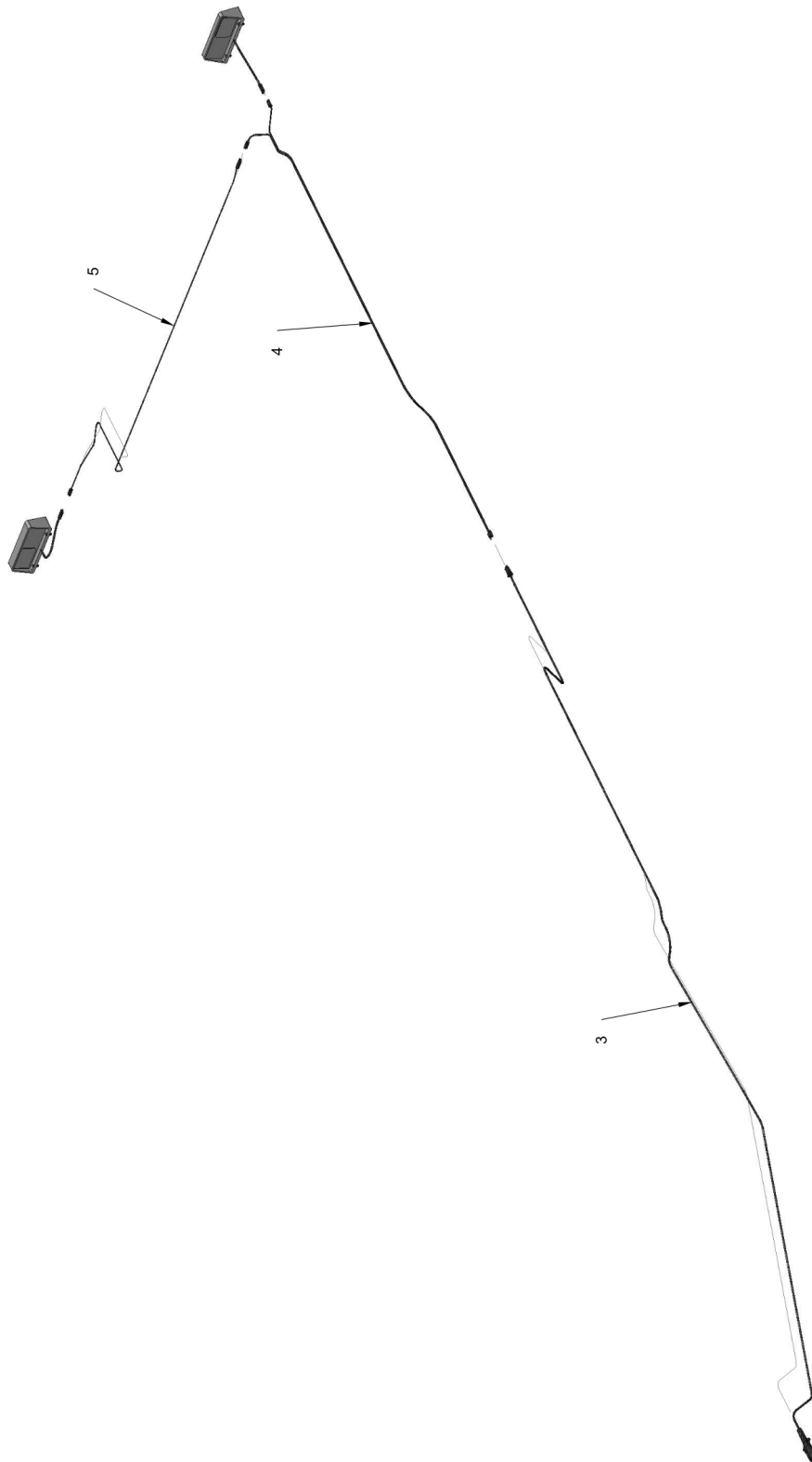


5701284, 5701285 STANDARD EQUIPMENT ON 107C
NOT INCLUDED IN KIT

107C Optional End Tow Hitch - Taillight Mount Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800029	BOLT\HEX\3/8X2-1/2		1	EA
2	4800041	BOLT\HEX\1/2X5		4	EA.
3	4800085	BOLT\HEX\1/2X1		2	EA.
4	4800277	BOLT\HEX\1/4X1		8	EA.
5	4800911	PIN\LYNCH\1/4X2-1/2\		1	EA.
6	4900001	NUT\HEX\1/2\NC		6	EA.
7	4900023	NUT\TPLCK\3/8\NC		1	EA.
8	4900040	NUT\FLG\SERR\1/4\NC		8	EA.
9	5000006	WASH\LOCK\1/2		6	EA.
10	5701284	LGHT\TAIL\AMBER-LEFT\4PN-WP\LED	(Standard equipment on 107C not included in kit)	1	EA.
11	5701285	LGHT\TAIL\AMBER-RGHT\4PN-WP\LED	(Standard equipment on 107C not included in kit)	1	EA.
12	8400230	BRKT\MNT\HITCH\TOW		3	EA
13	8400971	BRKT\TAILLIGHT\2564\RH		2	EA
14	8400972	MNT\LGHT\FOLD\TOW\HITCH		1	EA
15	8400973	MNT\LIGHT\FOLD\MNFRM		1	EA
CA	8400974	KIT\LGHT\2DRI\END\TOW\HITCH			EA.





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107C Optional End Tow Hitch - Taillight Wiring

Item	Part No.	Name	Remarks	Qty	Uom
1	5701284	LGHT\TAIL\AMBER-LEFT\4PN-WP\LED	(Standard equipment on 107C not included in kit)	1	EA.
2	5701285	LGHT\TAIL\AMBER-RGHT\4PN-WP\LED	(Standard equipment on 107C not included in kit)	1	EA.
3	7501619	HRNS\17-PIN-AG\4-PIN-FLAT		1	EA.
4	7501620	HRNS\15"WSHBONE		1	EA.
5	7501621	HRNS\10"3-PIN		1	EA.



2 - 6500022

3 - 6500040

4 - 6500041

5 - 6500060

6 - 6500061

7 - 6500062

8 - 6500063

9 - 6500064

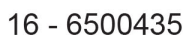


11 - 6500101

12 - 6500163

13 - 6500182

14 - 6500220



18 - 6500548

19 - 6500614

77C/107C Decals

Item	Part No.	Name	Remarks	Qty	Uom
CA	6500462	DECAL\KIT\107C			EA
CA	6500466	DECAL\KIT\77C			EA.
1	6500016	DECAL\INFO\CAL;SCALE;GRAIN		1	EA.
2	6500022	DECAL\INFO\CHART;SEED\>		1	EA.
3	6500040	DECAL\WARN\SHIELD\PROT		1	EA.
4	6500041	DECAL\WARN\PROTECTION		1	EA.
5	6500060	DECAL\WARN\AVOID;SHRP;TRN		2	EA.
6	6500061	DECAL\INFO\SEED;DEPTH\>		1	EA.
7	6500062	DECAL\INFO\IMPORTANT;STRG		1	EA.
8	6500063	DECAL\INFO\CHART\FEED;WHL		1	EA.
9	6500064	DECAL\INFO\ENGAGE;LOCKS		1	EA.
10	6500081	DECAL\INFO\CAL.SCALE\GRASS		1	EA.
11	6500101	DECAL\WARN\NO RIDERS		1	EA.
12	6500163	DECAL\WARN\DISC;BLADES		1	EA.
13	6500182	DECAL\WARN\AG;CHEMICAL		1	EA.
14	6500220	DECAL\WARN\HI;PRESS;FLUID		1	EA.
15	6500434	DECAL\2X9\RED\REFCT		2	EA.
16	6500435	DECAL\2X9\AMBER\REFCT		4	EA.
17	6500463	DECAL\LOGO\HYBSTR\107C\3\STRIP		2	EA.
17A	6500467	DECAL\LOGO\HYBSTR\77C\3\STRIPE		2	EA.
18	6500548	DECAL\NOTICE\TANKS\CLEAN		1	EA.
19	6500614	DECAL\RATE\SEED\CHECK		1	EA.
NS	7500077	Yellow Spray Paint	ORDER 7500980		EA.
NS	7500092	Yellow Paint			EA.
NS	7500091	Yellow Paint			EA.
NS	7500078	Red Spray Paint			EA.
NS	7500105	Red Paint			EA.
NS	7500104	Red Paint			EA.

																	
CHART FOR DRILLING LEGUMES AND SMALL GRASSES IN POUNDS PER ACRE																	
LEGUME BOX ATTACHMENT FOR 107 TO 1000 DRILL ON 7 INCH SPACING																	
NOTCHES ON INDEX	LBS. BU.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ALFALFA, RED, ALSIKE, LADINO CLOVER, VETCH	62	2.2	4.7	7.7	10.7	13.6	17.0	20.4	23.9	27.3	30.9	31.7	37.9	41.3	44.7	47.6	50.6
SWEET CLOVER	54	2.3	5.1	8.4	12.4	17.4	22.5	28.4	30.9	37.1	41.6	46.7	51.2	56.3	59.6	63.0	66.4
BIRDSFOOT TREFOIL	64	2.3	4.5	7.9	10.7	14.1	17.4	21.4	25.3	28.1	32.1	36.0	39.4	42.2	46.7	50.1	55.1
MILLET TIBBET CLOVER	60	2.1	4.9	7.7	10.7	14.3	17.4	21.2	26.1	28.5	30.9	35.5	39.4	42.8	46.7	51.0	55.9
UNHULLED SERICEA	36	1.1	2.8	4.5	6.8	9.6	11.8	14.6	17.4	20.3	23.1	26.4	28.7	31.5	33.8	36.9	40.5
UNHULLED LESPEDEZA	46	1.7	3.9	5.6	8.4	11.8	15.2	18.0	21.9	25.3	28.7	32.6	35.4	38.3	41.5	45.0	50.1
BAHIA GRASS	46	1.1	2.8	5.1	6.2	8.4	10.7	11.8	14.6	16.9	18.6	20.8	22.5	24.2	25.9	27.6	28.1
LOVEGRASS	64	2.3	5.1	7.9	11.3	16.3	20.3	24.2	28.7	32.6	36.6	42.2	46.7	51.2	55.1	57.9	60.2
TIMOTHY	50	1.7	3.9	6.2	9.6	12.9	16.9	20.9	24.8	28.1	32.6	37.1	40.5	44.4	46.7	49.5	54.6
SWITCHGRASS	55	2.3	4.5	6.8	9.6	12.4	15.8	18.6	20.8	24.2	28.1	30.9	33.8	37.1	39.9	42.2	47.8
FLAX SESAME	55	1.4	3.7	6.2	8.7	11.6	14.7	17.5	20.6	23.1	26.5	29.6	32.4	35.5	37.9	40.5	44.5
RAPE MUSTARD	53	1.7	4.2	7.4	10.2	12.9	16.4	19.2	22.5	25.6	28.2	31.8	34.8	37.7	40.5	43.3	45.9
ORCHARD GRASS	17	0.8	1.7	2.8	3.4	3.9	5.1	5.6	6.8	7.3	8.4	9.0	10.1	10.7	11.3	11.9	
PERENNIAL RYEGRASS	31	2.3	3.4	5.6	7.3	9.0	10.7	11.8	13.5	15.2	16.9	18.6	20.8	21.9	23.1	24.8	
FESCUE	27	1.1	2.8	3.9	5.6	6.8	8.4	9.6	11.3	12.4	13.5	15.2	16.9	18.0	19.1	21.9	
COMMON BERMUDA GRASS	27	5.0	7.4	10.6	14.3	17.6	20.8	25.1									

SEED MIXTURES

SELECT THE SETTING FOR THE DESIRED QUANTITY OF EACH SEED.

ADD INDIVIDUAL SETTINGS.

EXAMPLE: LBS./ACRE NOTCH

ALFALFA 5 2

SWEET CLOVER 5 2

TIMOTHY 2 1

TOTAL 5 5

WHEN USING HALF REEVE DRIVE DISC DRILL

RATES BY TWO. REPLACE 17 TOOTH SPROCKET ON COUNTERSHAFT WITH 35 TOOTH.

(SEE MANUAL FOR DETAILS.)

DENSITY OF THE SAMPLES USED TO PREPARE THIS CHART ARE GIVEN IN THE FIRST COLUMN TO THE RIGHT OF THE CROP NAME IN POUNDS PER BUSHEL.

6500083

SEED MIXTURES		
SELECT THE SETTING FOR THE DESIRED QUANTITY OF EACH SEED.		
ADD INDIVIDUAL SETTINGS.		
EXAMPLE:		
	LBS./ACRE	NOTCH
ALFALFA	5	2
SWEET CLOVER	5	2
TIMOTHY	2	1
TOTAL		5
WHEN USING HALF SPEED DRIVE DIVIDE CHARTED RATES BY TWO. REPLACE 17 TOOTH SPROCKET ON COUNTERSHAFT WITH 35 TOOTH.		
(SEE MANUAL FOR DETAILS.)		
DENSITY OF THE SAMPLES USED TO PREPARE THIS CHART ARE GIVEN IN THE FIRST COLUMN TO THE RIGHT OF THE CROP NAME IN POUNDS PER BUSHEL.		
6500083		

1 - 6500083



2 - 6500473



2A - 6500475

NOTICE

Clean Grain Tanks

Clean grain tanks and/or legume boxes after using inoculated, treated or coated seeds.

Add graphite when using inoculated, treated or coated seeds.

Failure to clean tanks will cause damage to moving parts.

6500548

3 - 6500548

NOTICE

Checking Seed Rate

1. Create a test track by measuring out a distance of 415' in a field and mark.
2. Remove one hose from the seed hopper on each drill. Attach a container (cloth or plastic bag) to hopper to collect seed.
3. Operate drill at intended planting speed through the entire length of the test track.
4. Weigh the sample in ounces (less weight of sample container). Use the following formula to determine lbs./acre for your shank spacing.

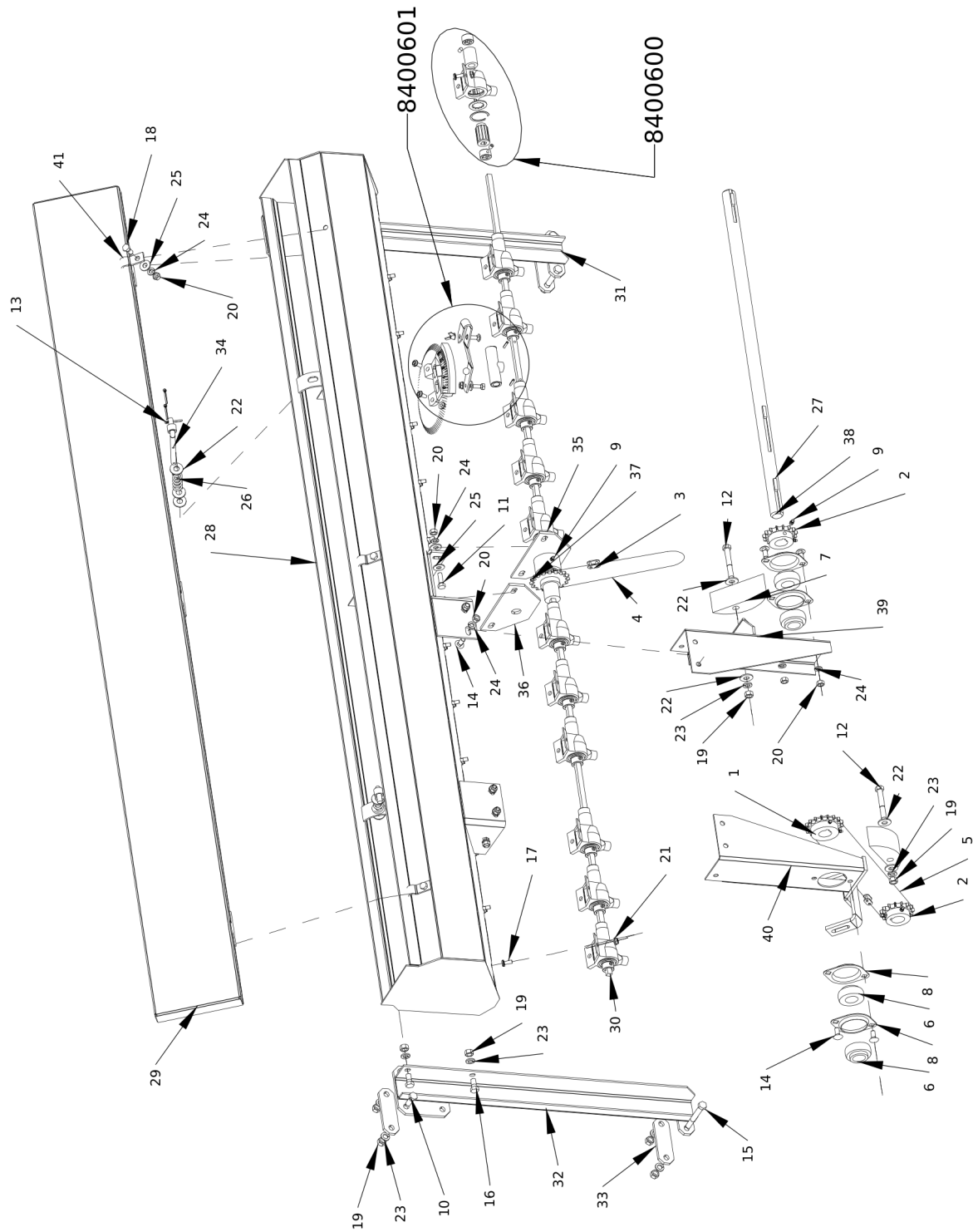
Formula: $\text{oz.} \times 11.25 = \text{lbs./acre}$

6500614

4 - 6500614

77C/107C Legume Box Decals

Item	Part No.	Name	Remarks	Qty	Uom
CA	6500474	DECAL\KIT\LEGUME BOX\107C			EA.
CA	6500476	DECAL\KIT\LEGUME BOX\77C			EA.
1	6500083	DECAL\INFO\CHART\LGM\7" SPCG		1	EA.
2	6500473	DECAL\LOGO\107C\1-3/4\BLK		1	EA.
2A	6500475	DECAL\LOGO\77C\LEGUME		1	EA.
3	6500548	DECAL\NOTICE\TANKS\CLEAN		1	EA.
4	6500614	DECAL\RATE\SEED\CHECK		1	EA.



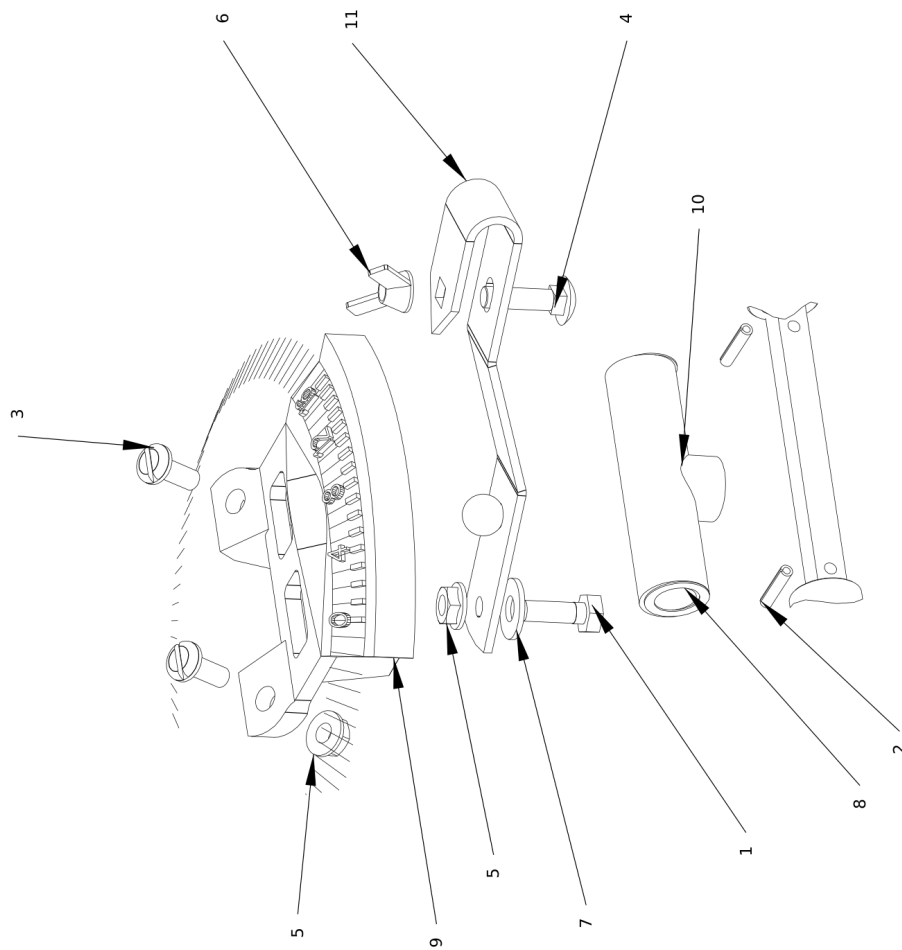
77C Optional Legume Box Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	1000111	SPKT\B\40\17\1\1/4KW\SOFT		1	EA.
2	1000112	SPKT\B\40\15\1\1/4KW		2	EA.
3	1100224	CHAIN\40NP\CL		2	EA.
4	1100232	CHAIN\40NP\53		1	EA.
5	1100233	77 LINKS 40NP PITCH CHAIN		1	EA
6	2000002	1" BEARING W/ LOCK COLLAR		4	EA.
7	7501667	BLK\PLSTC\IDLER	IN PLACE OF 2000016	2	EA.
8	2000703	2 HOLE FLANGETTE		4	EA.
9	3800082	FTG\LUB\1/4NFXZERK\ADAPT		8	EA.
10	4800003	BOLT\HEX\3/8X1		4	EA.
11	4800013	BOLT\HEX\5/16X1		4	EA.
12	4800029	BOLT\HEX\3/8X2-1/2		2	EA
13	4800127	PIN\COT\1/8X1		6	EA.
14	4800153	BOLT\CRG\5/16X3/4\NC		10	EA.
15	4800156	BOLT\HEX\3/8X3		4	EA.
16	4800164	BOLT\HEX\3/8X3/4		4	EA
17	4800213	SCR\PAN\SLOT\1/4X5/8\NC		26	EA.
18	4800643	BOLT\HEX\5/16X3/4		3	EA.
19	4900002	NUT\HEX\3/8\NC		14	EA.
20	4900003	NUT\HEX\5/16\NC		18	EA.
21	4900040	NUT\FLG\SERR\1/4\NC		27	EA.
22	5000001	WASH\FLAT\3/8		10	EA.
23	5000019	WASH\LOCK\3/8		14	EA.
24	5000022	WASH\LOCK\5/16		18	EA.
25	5000023	WASH\FLAT\5/16		12	EA.
26	6100046	SPG\COMP\618OD\800WD\2-5/8L		2	EA.
27	6200010	KEY\SQ\1/4X1		3	EA.
28	8400721	BOX\LEGUME		1	EA
29	8400722	CVR\BOX\LEGUME		1	EA
30	8400723	SHFT\3/8SQX71-1/2\LGUM;BX		1	EA
31	8700001	BRKT\LEGUME\LH\LEG-BOX		1	EA.
32	8700002	BRKT\LEGUME\RH\LEG-BOX		1	EA.
33	8700003	STRAP\LEGUMEBOX\1575		4	EA.
34	8700006	ROD\SPG\COV\BOX\147		2	EA.
35	8700008	BRG\BOX\LEGUME\RH\147		1	EA.
36	8700009	BRG\BOX\LEGUME\LH\147		1	EA.
37	8700010	SPKT\17T\LGM.BOX		1	EA.
38	8700011	SHFT\1X29\LEGUMEBOX		1	EA

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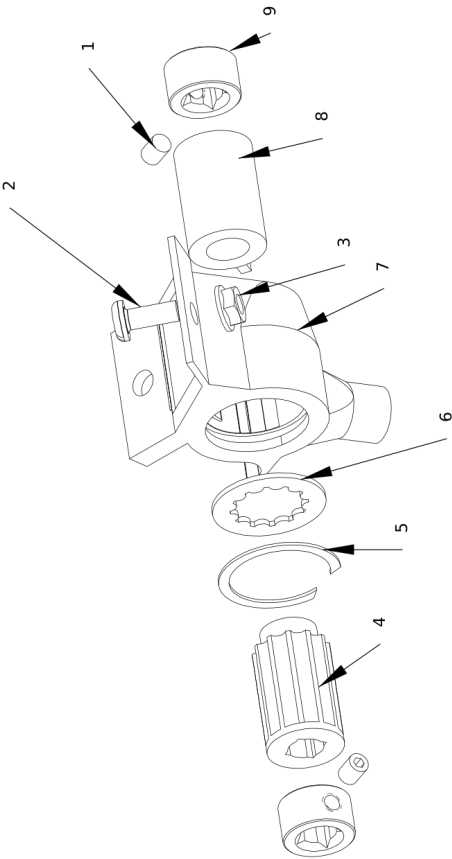
77C Optional Legume Box Assembly

Item	Part No.	Name	Remarks	Qty	Uom
39	8700012	BRKT\LEGUME\LH\SHFT-BOX		1	EA.
40	8700013	BRKT\LEGUME\RH\SHFT-BOX		1	EA
41	8700014	HINGE\LEGUMEBOX		3	EA.
CA	8400868	BOX\LEGUME\KIT\DLR INS\77C	Complete assembly includes legume box assembly, seed index assembly, cup assembly and mounting brackets.		EA



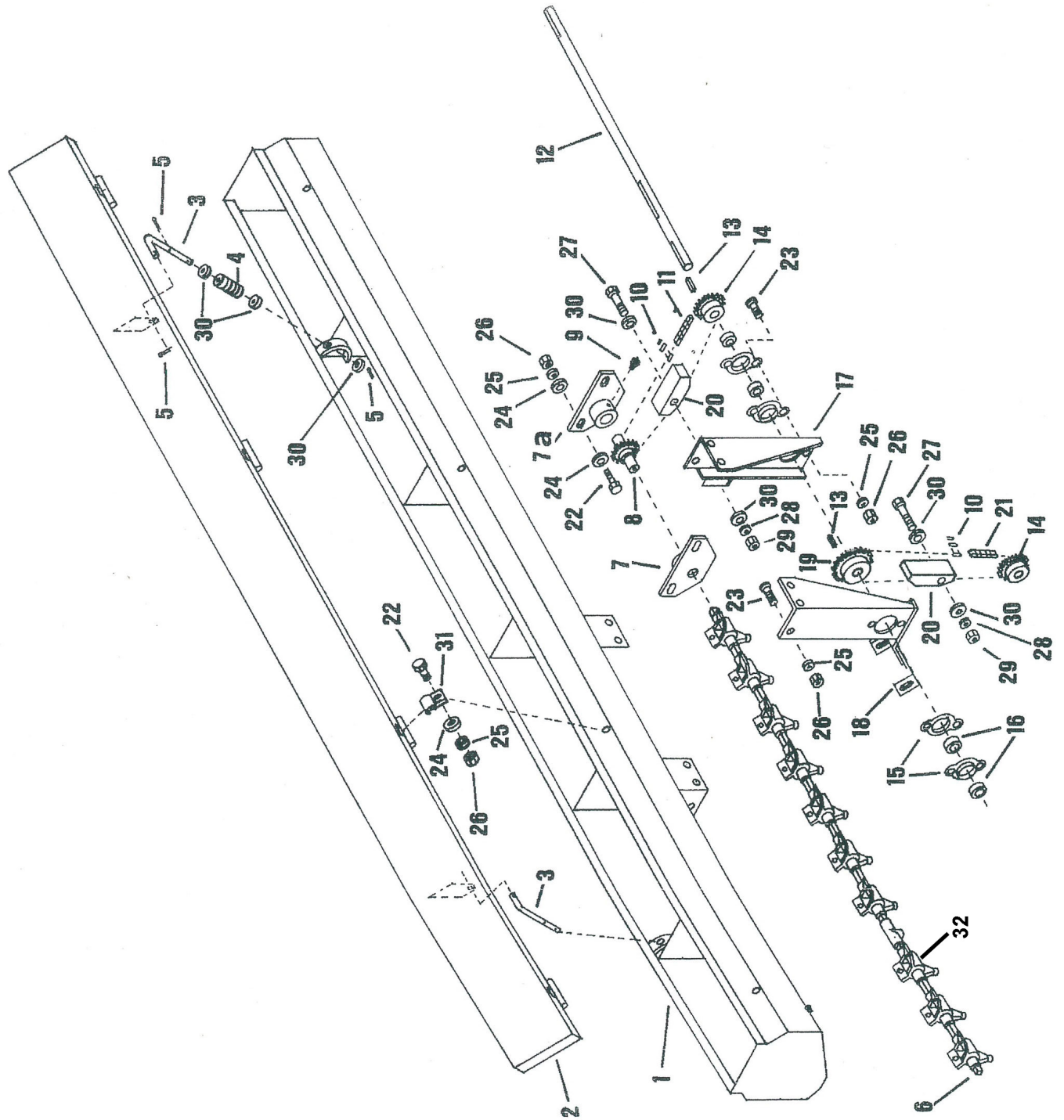
77C Legume Box Seed Index Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800024	BOLT\HEX\1/4X3/4		1	EA.
2	4800212	PIN\RLLD\5/32X3/4		2	EA.
3	4800213	SCR\PAN\SLOT\1/4X5/8\NC		2	EA.
4	4800957	BOLT\CRG\1/4X1-1/4\NC		1	EA.
5	4900040	NUT\FLG\SERR\1/4\NC		2	EA.
6	4900041	NUT\WING\1/4\NC		1	EA.
7	5000035	WASH\FLAT\1/4		1	EA.
8	5000118	WASH\FLAT\SPCL\14MM\5MM\20MMOD		2	EA.
9	7500183	METER\SEED\INDEX		1	EA.
10	7500184	SHIFTER\SEED\INDEX\ASSY		1	EA.
11	7500185	ARM\SEED\INDEX\ASSY		1	EA.
CA	8400601	SEED\INDEX\ASSY\LEG\BOX			EA.
NS	6500016	DECAL\INFO\CAL\SCALE\GRAIN			EA.
NS	6500017	DECAL\INFO\CAL\SCALE\FERT			EA.
NS	6500081	DECAL\INFO\CAL\SCALE\GRASS			EA.



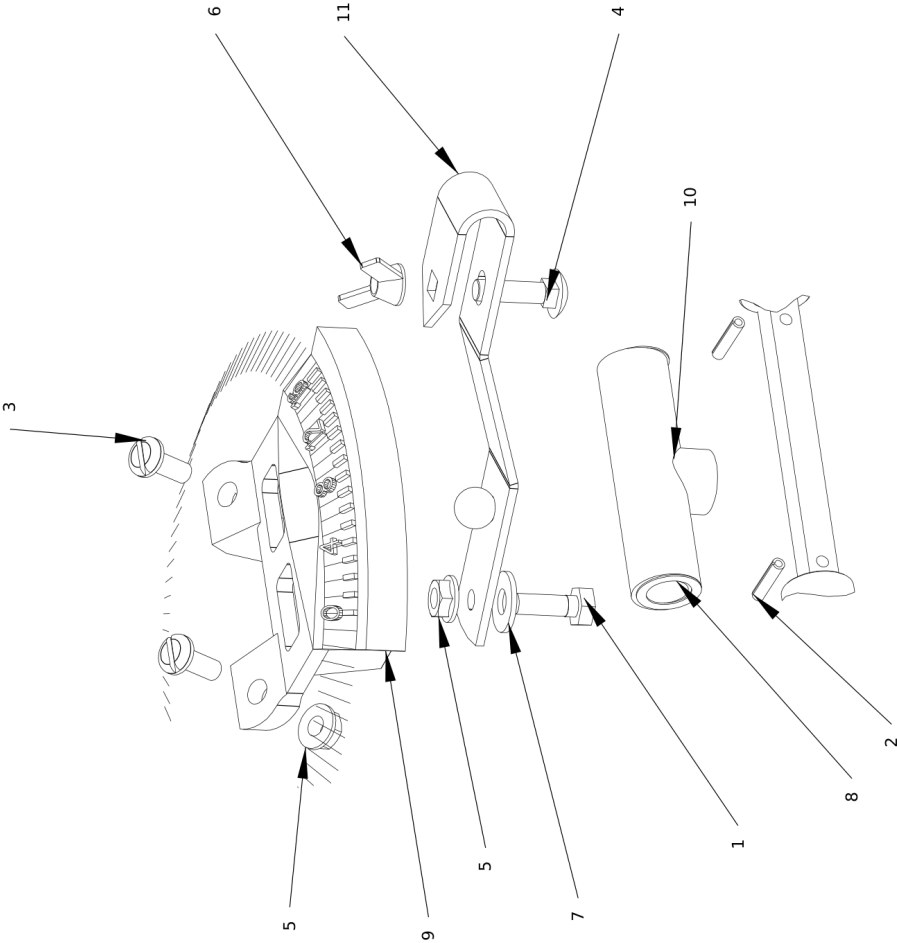
77C Legume Box Cup Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800211	SCR\SET\ALN\1/4X5/16\NC		24	EA.
2	4800213	SCR\PAN\SLOT\1/4X5/8\NC		24	EA.
3	4900040	NUT\FLG\SERR\1/4\NC		24	EA.
4	7500177	ROLL\CUP\ASSY\LEGUME BOX		12	EA.
5	7500178	SNAP RING		12	EA.
6	7500179	FEED ROLLER WASHER		12	EA.
7	7500180	FEED CUP ASSEMBLY		12	EA.
8	7500181	GATE\CUP\ASSY\LEGUME BOX		12	EA.
9	7500182	CLLR\7/8OD\3/8SQ		24	EA.
CA	8400600	CUP\ASSY\LEGUME;BOX	(Includes #1-#9)		EA.
NS	3700129	HOSE\PVC\5/8IDX22-1/2\CLR		12	EA.



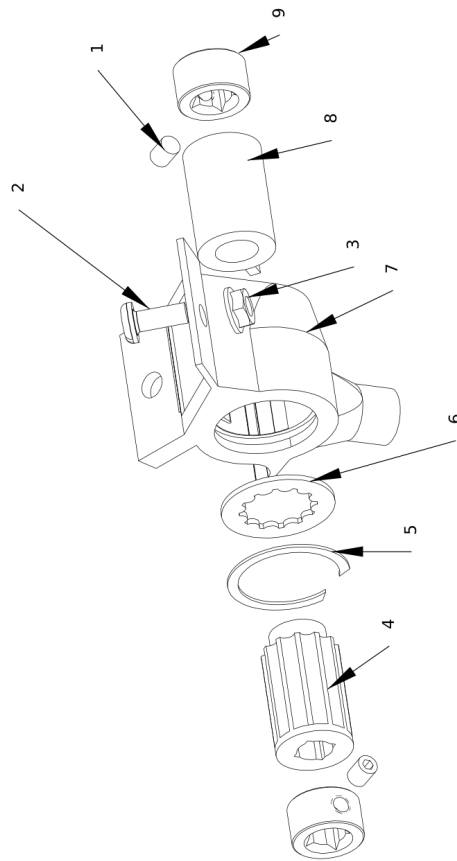
107C Optional Legume Box Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	8700004	BOX\LEGUME\107WELDMENT		1	EA
2	8700005	CVR\BOX\LEGUME\107		1	EA
3	8700006	ROD\SPG\COV\BOX\147		2	EA.
4	6100046	SPG\COMP\618OD\800WD\2-5/8L		2	EA.
5	4800127	PIN\COT\1/8X1		6	EA.
6	8700007	SHFT\3/8SQX50-3/4\LGUM;BX		2	EA
7	8700008	BRG\BOX\LEGUME\RH\147		1	EA.
7A	8700009	BRG\BOX\LEGUME\LH\147		1	EA.
8	8700010	SPKT\17T\LGM.BOX		1	EA.
9	3800082	FTG\LUB\1/4NFXZERK\ADAPT		2	EA.
10	1100224	CHAIN\40NP\CL		2	EA.
11	1100232	CHAIN\40NP\53		1	EA.
12	8700011	SHFT\1X29\LEGUMEBOX		1	EA
13	6200010	KEY\SQ\1/4X1		4	EA.
14	1000112	SPKT\B\40\15\1\1/4KW		2	EA.
15	2000703	2 HOLE FLANGETTE		4	EA.
16	2000002	1" BEARING W/ LOCK COLLAR		2	EA.
17	8700012	BRKT\LEGUME\LH\SHFT-BOX		1	EA.
18	8700013	BRKT\LEGUME\RH\SHFT-BOX		1	EA
19	1000111	SPKT\B\40\17\1\1/4KW\SOFT		1	EA.
20	7501667	BLK\PLSTC\IDLER	IN PLACE OF 2000016	2	EA.
21	1100246	CHAIN\40NP\79		1	EA
22	4800013	BOLT\HEX\5/16X1		8	EA.
23	4800153	BOLT\CRG\5/16X3/4\NC		10	EA.
24	5000023	WASH\FLAT\5/16		12	EA.
25	5000022	WASH\LOCK\5/16		18	EA.
26	4900003	NUT\HEX\5/16\NC		18	EA.
27	4800029	BOLT\HEX\3/8X2-1/2		2	EA
28	5000019	WASH\LOCK\3/8		2	EA.
29	4900002	NUT\HEX\3/8\NC		2	EA.
30	5000001	WASH\FLAT\3/8		10	EA.
31	8700014	HINGE\LEGUMEBOX		4	EA.
32	8400600	CUP\ASSY\LEGUME;BOX		18	EA.
CA	8400863	BOX\LEGUME\KIT\DLR INS\107C	Complete assembly includes legume box assembly, seed index assembly, cup assembly and mounting brackets.		EA
NS	1100225	CHAIN\40NP\OL			EA.



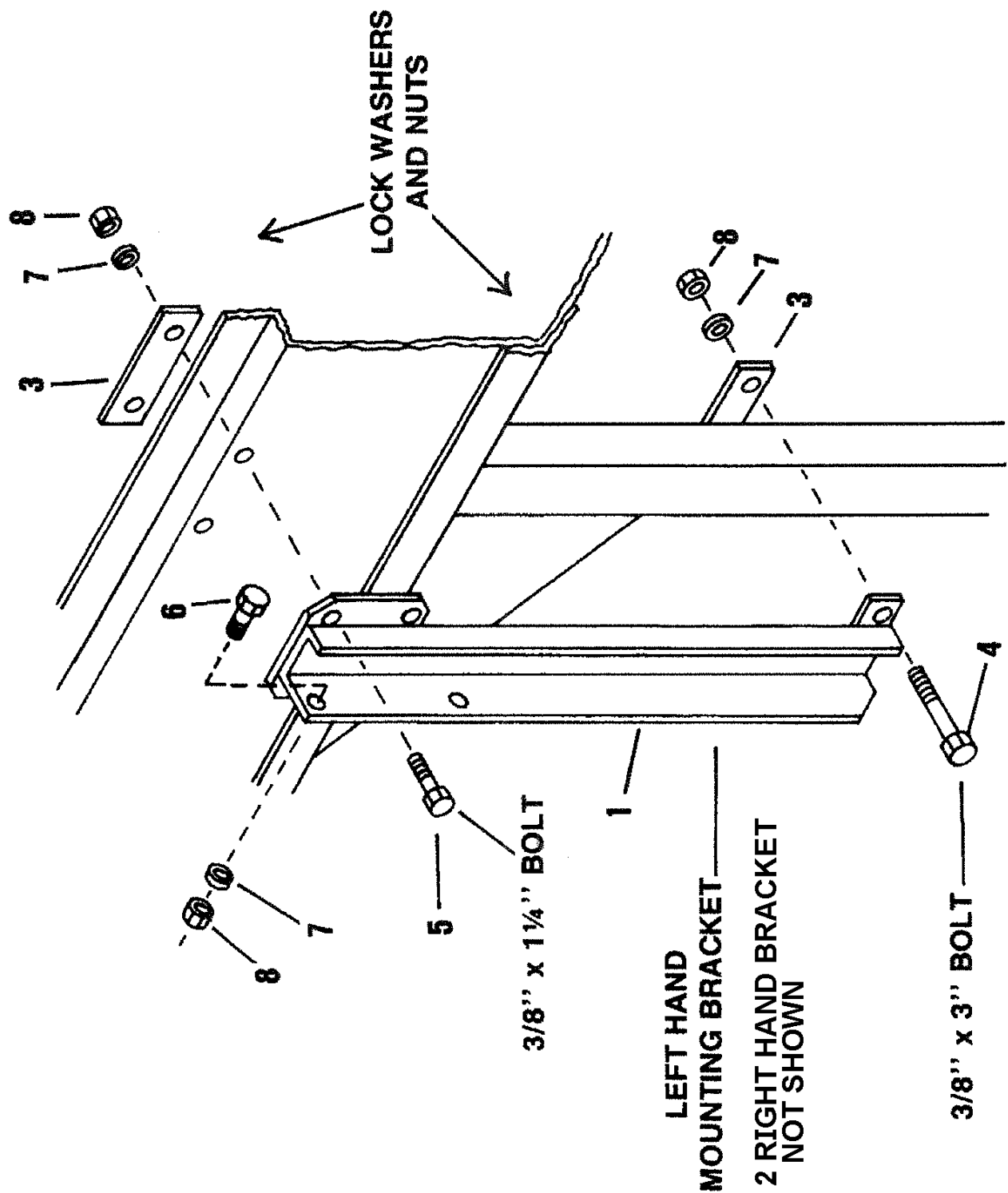
107C Legume Box Seed Index Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800024	BOLT\HEX\1/4X3/4		2	EA.
2	4800212	PIN\RLLD\5/32X3/4		4	EA.
3	4800213	SCR\PAN\SLOT\1/4X5/8\NC		4	EA.
4	4800957	BOLT\CRG\1/4X1-1/4\NC		2	EA.
5	4900040	NUT\FLG\SERR\1/4\NC		4	EA.
6	4900041	NUT\WING\1/4\NC		2	EA.
7	5000035	WASH\FLAT\1/4		2	EA.
8	5000118	WASH\FLAT\SPCL\14MM\5MM\20MMOD		4	EA.
9	7500183	METER\SEED\INDEX		2	EA.
10	7500184	SHIFTER\SEED\INDEX\ASSY		2	EA.
11	7500185	ARM\SEED\INDEX\ASSY		2	EA.
CA	8400601	SEED\INDEX\ASSY\LEG\BOX			EA.
NS	6500016	DECAL\INFO\CAL\SCALE\GRAIN			EA.
NS	6500017	DECAL\INFO\CAL\SCALE\FERT			EA.
NS	6500081	DECAL\INFO\CAL\SCALE\GRASS			EA.



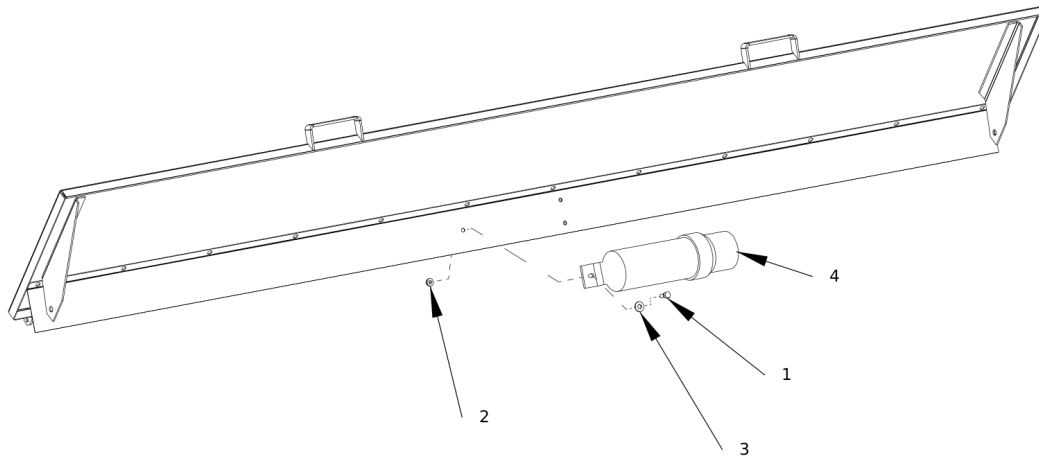
107C Legume Box Cup Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800211	SCR\SET\ALN\1/4X5/16\NC		36	EA.
2	4800213	SCR\PAN\SLOT\1/4X5/8\NC		36	EA.
3	4900040	NUT\FLG\SERR\1/4\NC		36	EA.
4	7500177	ROLL\CUP\ASSY\LEGUME BOX		18	EA.
5	7500178	SNAP RING		18	EA.
6	7500179	FEED ROLLER WASHER		18	EA.
7	7500180	FEED CUP ASSEMBLY		18	EA.
8	7500181	GATE\CUP\ASSY\LEGUME BOX		18	EA.
9	7500182	CLLR\7/8OD\3/8SQ		36	EA.
CA	8400600	CUP\ASSY\LEGUME;BOX	(Includes #1-#9)		EA.
NS	3700129	HOSE\PVC\5/8IDX22-1/2\CLR		18	EA.



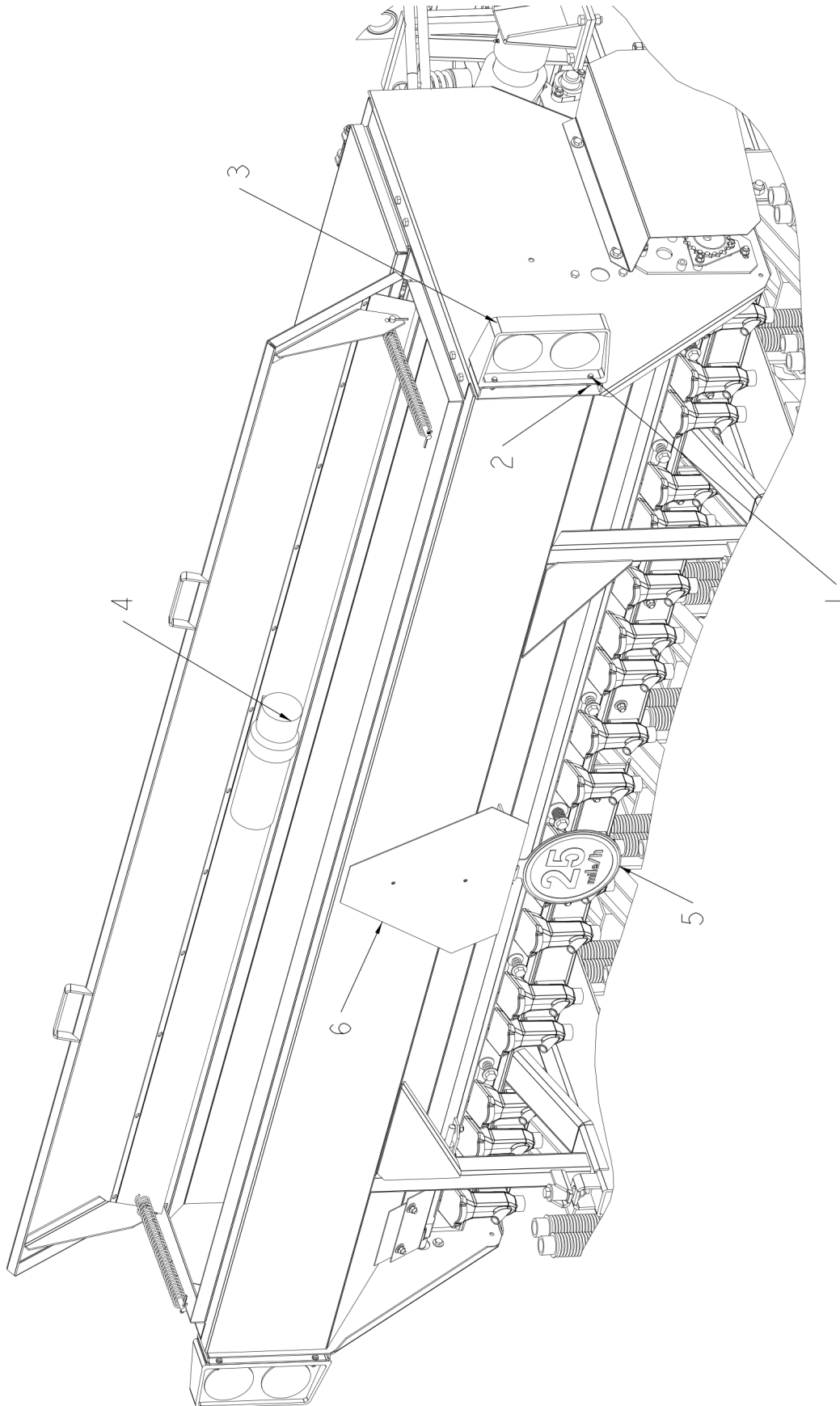
77C/107C Legume Mounting Brackets

Item	Part No.	Name	Remarks	Qty	Uom
1	8700001	BRKT\LEGUME\LH\LEG-BOX		1	EA.
2	8700002	BRKT\LEGUME\RH\LEG-BOX		1	EA.
3	8700003	STRAP\LEGUME\BOX\1575		4	EA.
4	4800156	BOLT\HEX\3/8X3		4	EA.
5	4800098	BOLT\HEX\3/8X1-1/4\NC		4	EA.
6	4800003	BOLT\HEX\3/8X1		4	EA.
7	5000019	WASH\LOCK\3/8		12	EA.
8	4900002	NUT\HEX\3/8\NC		12	EA.



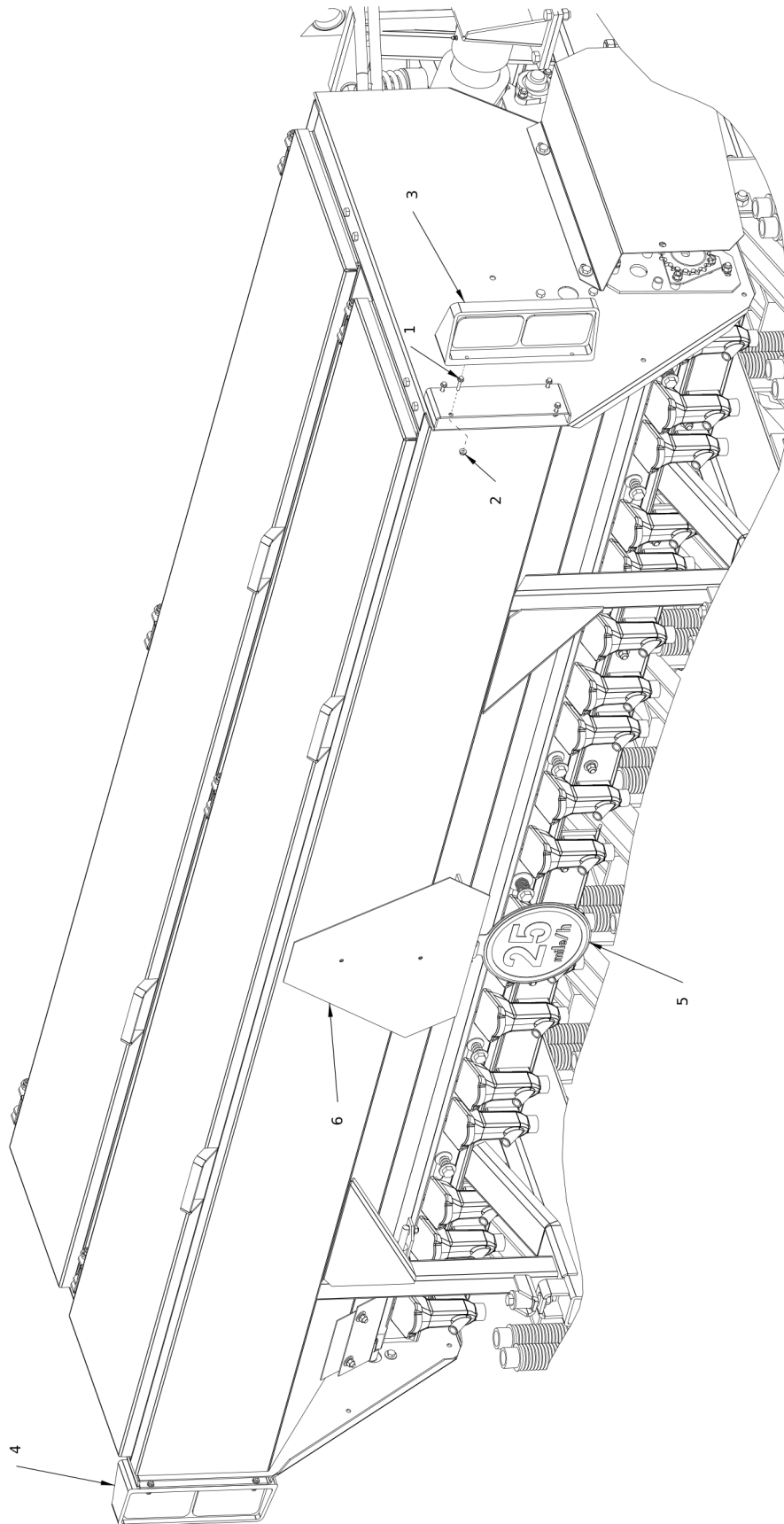
77C/107C Manual Canister

Item	Part No.	Name	Remarks	Qty	Uom
1	4800643	BOLT\HEX\5/16X3/4		3	EA.
2	4900108	NUT\FLG\SERR\5/16\NC		3	EA.
3	5000023	WASH\FLAT\5/16		3	EA.
4	7501628	CNSTRS\MANUAL\12X3.5		1	EA.



77C/107C Round Light Kit and SMV-Speed Indicator

Item	Part No.	Name	Remarks	Qty	Uom
1	4801321	BOLT\FLG\SERR\#10X1\NC		8	EA.
2	4900190	NUT\FLG\SERR\#10\NC		8	EA.
3	5701080	KIT\LIGHT\2-3PIN;LEDS		1	EA
4	7501628	CNSTRS\MANUAL\12X3.5		1	EA.
5	7501701	DECAL\ASSY\ID\SPD\25MPH/40KM/H		1	EA.
6	7501353	SIGN\SMV\PLSTC-BCKNG		1	EA.
NS	4800643	BOLT\HEX\5/16X3/4	(For Manual Canister)	3	EA.
NS	4900108	NUT\FLG\SERR\5/16\NC	(For Manual Canister)	3	EA.



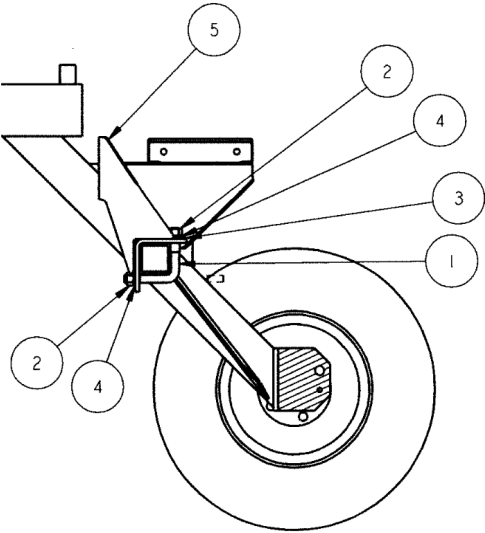
77C/107C Rectangular Light Kit and SMV-Speed Indicator

Item	Part No.	Name	Remarks	Qty	Uom
1	4801321	BOLT\FLG\SERR\#10X1\NC		8	EA.
2	4900190	NUT\FLG\SERR\#10\NC		8	EA.
3	5701284	LGHT\TAIL\AMBER-LEFT\4PN-WP\LED		1	EA.
4	5701285	LGHT\TAIL\AMBER-RGHT\4PN-WP\LED		1	EA.
5	7501701	DECAL\ASSY\ID\SPD\25MPH/40KM/H		1	EA.
6	7501353	SIGN\SMV\PLSTC-BCKNG		1	EA.
NS	5701283	HARN\JUMPER\4SQX4FLAT-WP		2	EA.

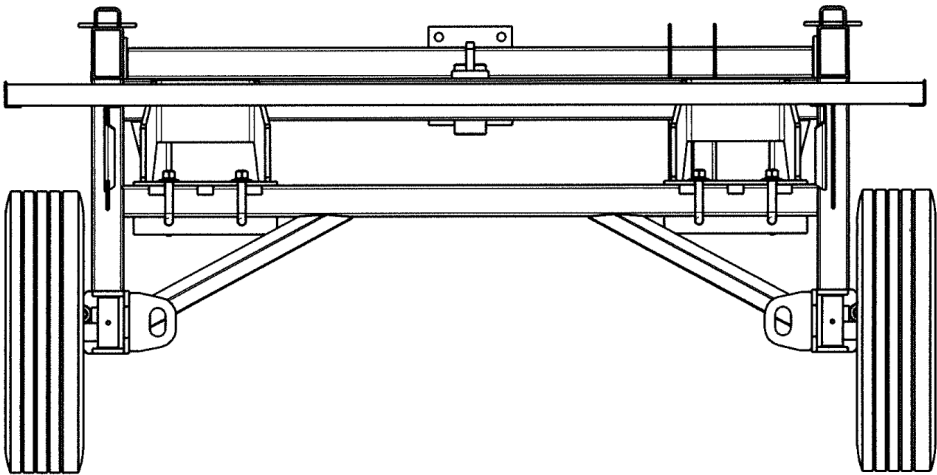
Mount weight brackets on outside ends of the 3"x 3" crosstube to get maximum support of weight.



IMPORTANT: Each bracket can carry a maximum of 300 lbs. Carrying more than 300 lbs. on each bracket will result in machine damage.

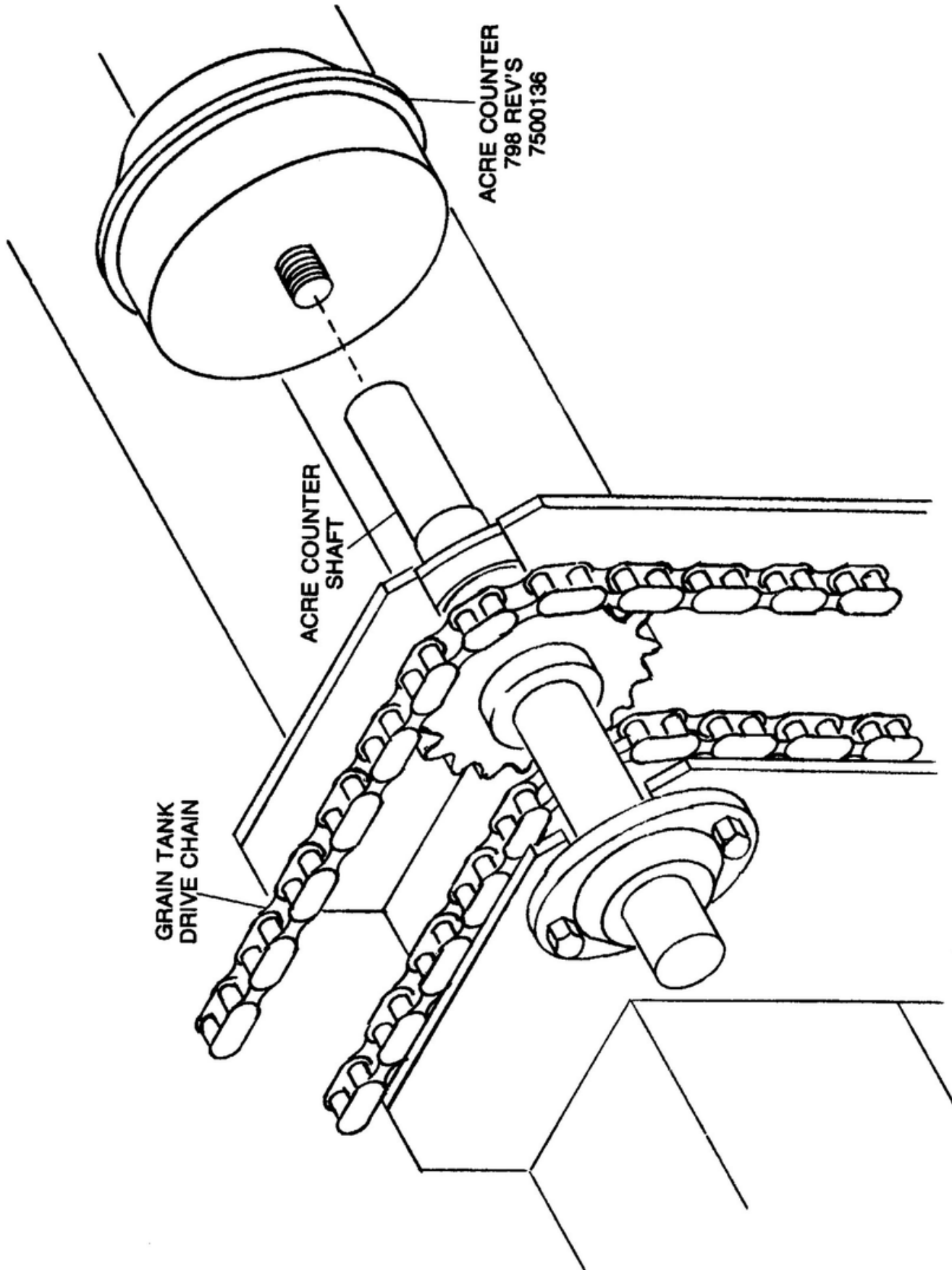


ITEM	PART	DESCRIPTION	QTY
1	4800183	BOLT\L\3/4\5-1/4X5-1/4	4
2	4900004	NUT\HEX\3/4\NC	8
3	5000005	WASH\FLAT\3/4	4
4	5000012	WASH\LOCK\3/4	8
5	8400879	BRKT\WGHT\107-77	2



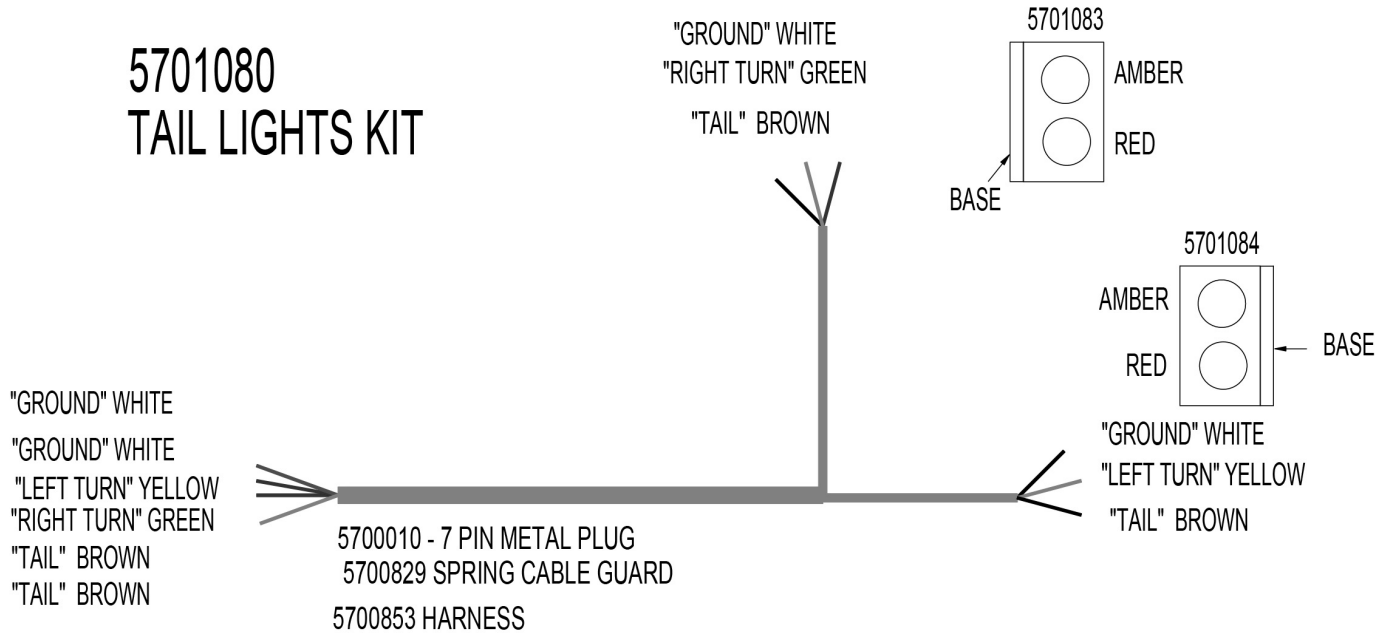
77C/107C Optional Suitcase Weight Brackets

Item	Part No.	Name	Remarks	Qty	Uom
1	4800183	BOLT\1/3/4\5-1/4X5-1/4		4	EA
2	4900004	NUT\HEX\3/4\NC		8	EA.
3	5000005	WASH\FLAT\3/4		4	EA.
4	5000012	WASH\LOCK\3/4		8	EA.
5	8400879	BRKT\WGHT\107-77			EA.
CA	8400880	WGHT\BRKT\KIT\107-77			EA.

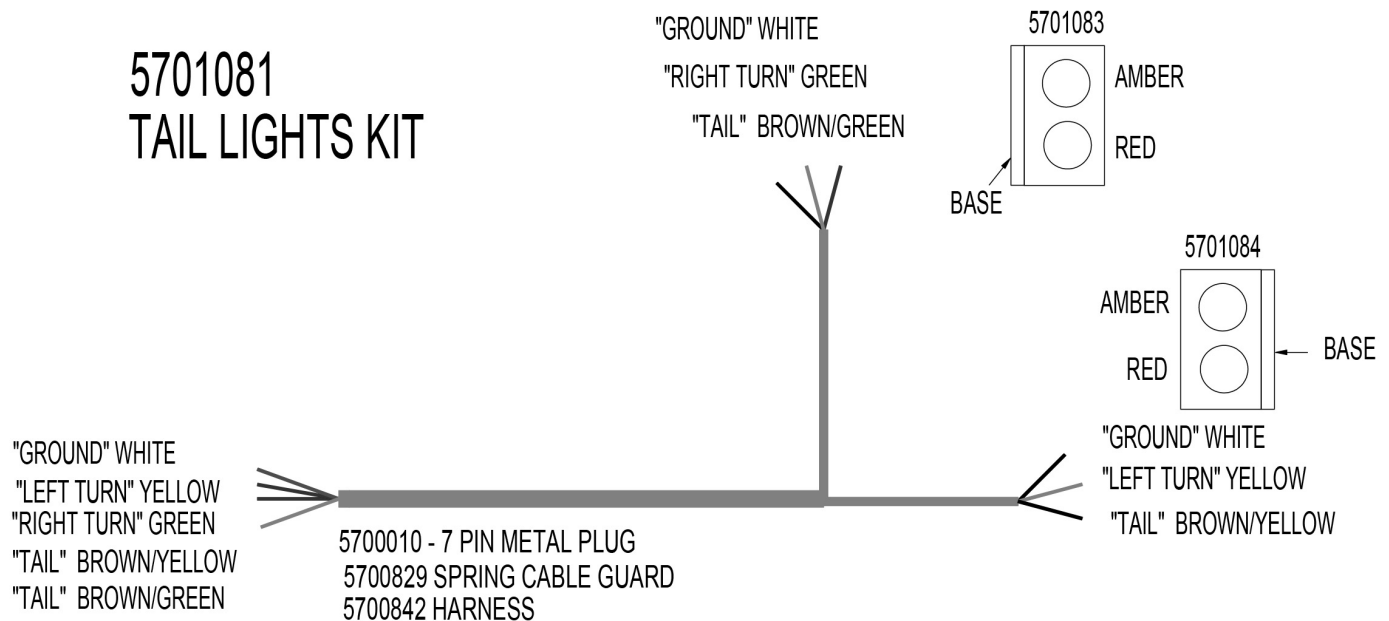


Round Taillight Harness Schematic

5701080 TAIL LIGHTS KIT

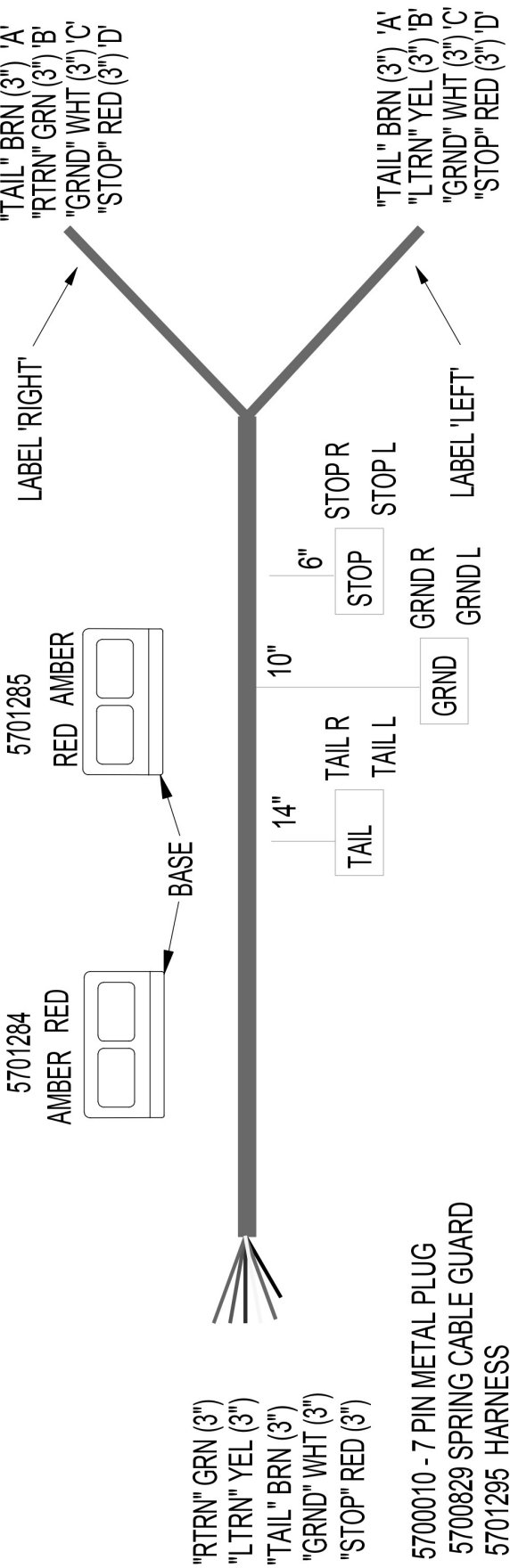


5701081 TAIL LIGHTS KIT



NOTE - 5701081 HAS A GENERIC HARNESS, 5700842, MUST BE TRIMMED TO FIT
NOTE - 5701080 HAS HARNESS 5700853 WHICH IS BUILT FOR THE DRILLS

5701295
DRILL TAIL LIGHT



4 FLAT WEATHERPACK CONNECTOR



77C/107C DRILL™

77C Serial Number 77110001C & UP

107C Serial Number 101100017C & UP

Optional Single Bottom Agitator Kit



Installation Instructions and Parts Reference

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This manual, as well as materials provided by component suppliers to DuraTech Industries are all considered to be part of the information package. Every operator is required to read and understand these manuals, and they should be located within easy access for periodic review.

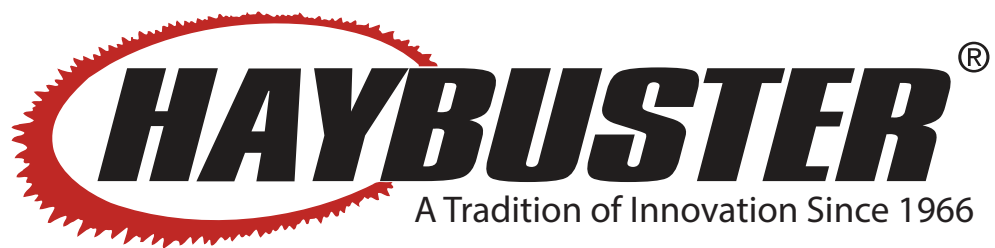


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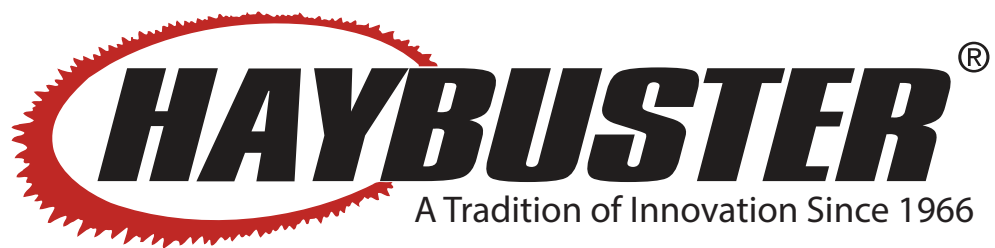
77c/107c Tank End Drive 11

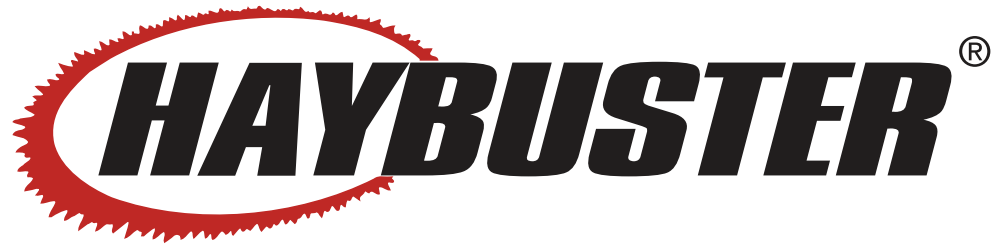
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77C DRILLS™

77C Serial Number 77110001C & UP

Single Bottom Agitator Kit

Installation Instructions and Parts Reference

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77C Single Agitator Kit Installation Instructions

Kit for drills Serial No. 77110001C and up

An agitator kit may be necessary when seeding grasses that will not flow freely into the feed wheels after removing feed wheel covers. The following steps and illustrations will enable you to install the agitator kit in the rear compartment of an existing HAYBUSTER 77C drill box.

Step 1. Remove shield (#28), drive chain (#3), rear sealer plate (#27), bearing (#23), and sprocket assembly (#24). Retain bearing and sprocket assembly. Discard plastic plug (#22) and the steel tank plate (#30). **See Existing Tank End.**

Step 2. Remove straight zerks from (3) three existing feed wheel shaft bearings. Install (3) (#1A) 45-degree zerks. Remove mounting bolts from same. Replace with 3/8" x 1-1/4" (#2) carriage bolts to enable bolting on agitator mounting plates (#2). Using the 1/8" wheel gauge, adjust feed wheels and tighten bolts. **See Single Agitator Kit-Additional Agitator Shafts.**

Installing Feed Shaft Agitator Kits

Item	Quantity	Description
1	6	Rubber paddles
2	6	Paddle reinforcement plate
3	11	Hose Clamps
4	4	Finger agitator

Step 3. Mount the finger agitator (#4) in the center of the large spaces between feed wheels and tighten clamps securely. **See Single Agitator Kit – Tank, Existing Shaft Modifications.**

Step 4. Install the rubber paddles (#1) in the center of the small spaces between feed wheels. Make sure the paddle reinforcement plate (#2) is installed between the paddle and the hose clamp (#3). **See Single Agitator Kit – Tank, Existing Shaft Modifications.**

Step 5. Install (6) six small agitators (#13) in sequence on the 33-1/16" (#21) and (3) small agitators (#13) on the 23-13/16" right end shaft (#23) and 19" left end shaft (#26) for single agitator. **See Single Agitator Kit-Additional Agitator Shafts.**

Note: For a single bottom agitator kit, you will only need to assemble the shafts with the small agitators.

Step 6. Starting with shaft (#24) slide cast housing and steel bearing over shaft and drive 1/4" x 1-1/8" (#4) roll pin through bearing and shaft. Insert 5/32" x 1-1/2" (#3) cotter pin in (#23) shaft and bend ends of key back over shaft. **See Single Agitator Kit-Additional Agitator Shafts.**

Step 7. Place the (3) three assembled shafts with small paddles in tank. **See Single Agitator Kit-Additional Agitator Shafts.**

Note: For a single bottom agitator kit, assemble a bearing spacer plate (#16) between bearing and second agitator plate (#15). See Single Agitator Kit-Additional Agitator Shafts

Step 8. Kit contains 1-1/2" O.D. x 7/8" I.D. washers (#7). Add washers as needed to remove end play from agitator shaft. **See Single Agitator Kit-Additional Agitator Shafts.**

Step 9. Bolt existing bearing and sprocket assembly (#A) (removed in step #1) to top end of agitator mounting plate (#7) using (2) existing 3/8" x 1-1/4" socket head screws (#18). Assemble collar (#8), bracket (#9), drive shaft stub (#10) and sprocket (#12) as shown, bolt above assembly to the bottom end of mounting plate (#7) using (2) 3/8" x 1-1/4" socket head screws (#18). **See Single Agitator Kit-Tank End Drive for Single Agitator.**

Step 10. Bolt completed assembly (step #9) to end of tank using existing 3/8" x 1-1/2" hex head machine bolt in top end, 3/8" x 1" (#20) hex head in bottom end along with idler mount (#5). **See Single Agitator Kit-Tank End Drive for Single Agitator.**

Step 11. Loosen sprockets and bearings on 1" drive shaft (#30) and shift to the right to allow enough shaft to accommodate second drive sprocket. Align all respective sprockets and secure. **See Single Agitator Kit-Tank End Drive for Single Agitator.**

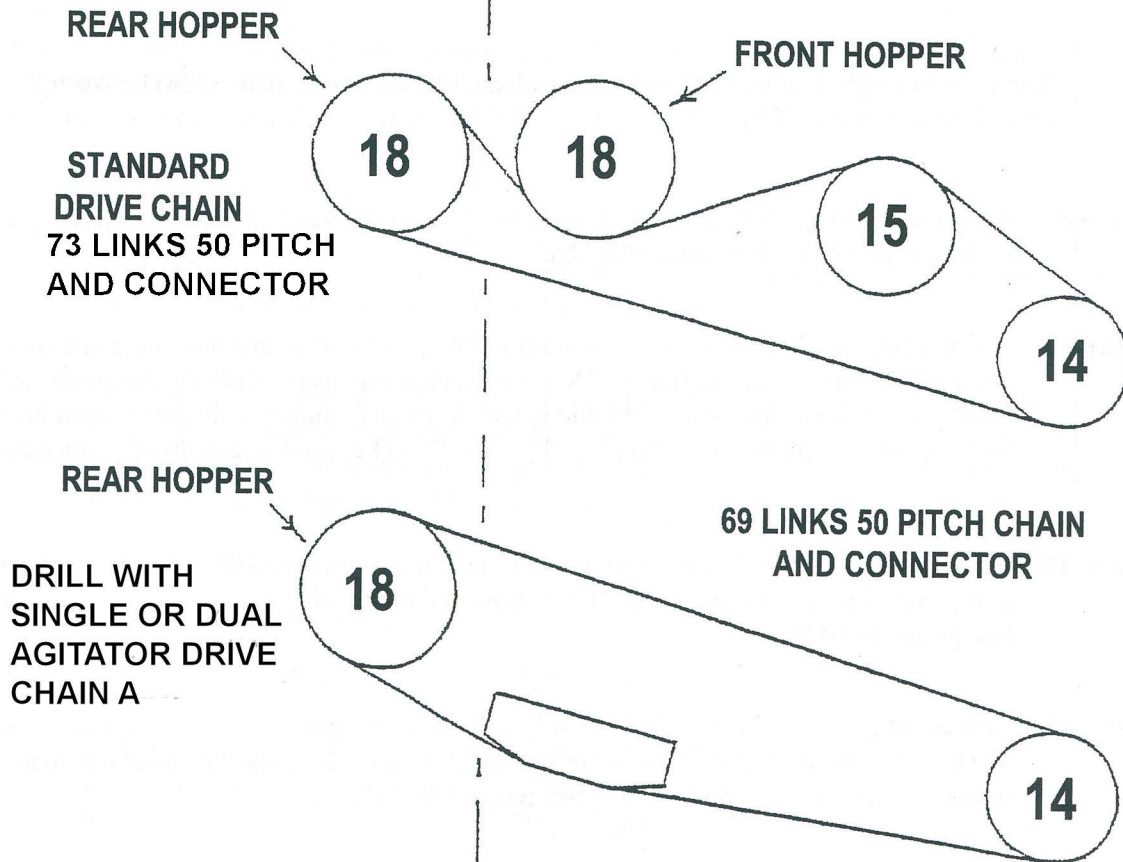
Step 12. Install both drive chains (#1 & #2). **See Single Agitator Kit-Tank End Drive for Single Agitator.**

Step 13. Install idler (#4) using 3/8" x 2-1/2" (#21) hex head machine bolt. Adjust chain tension. **See Single Agitator Kit-Tank End Drive for Single Agitator.**

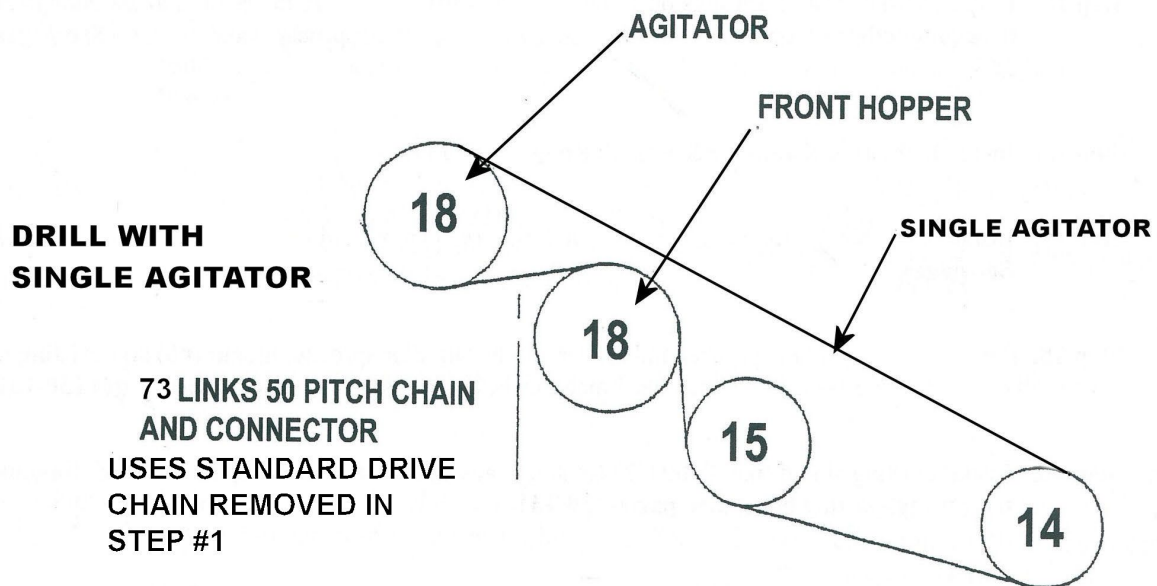
Step 14. Remove existing idler sprocket and spacer and install idler sprocket mount (#6) and existing idler sprocket using 1/2" x 1-1/2" (#25) hex head machine bolts. Adjust chain tension. **See Single Agitator Kit-Tank End Drive for Single Agitator.**

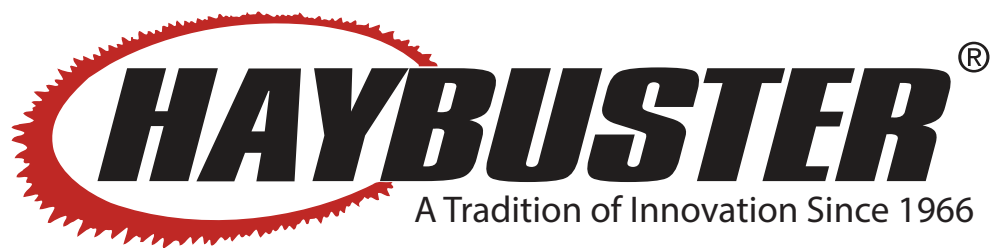
Step 15. Install existing shield (p.n. 8400243) for single agitator **See Single Agitator Kit-Tank End Drive for Single Agitator.**

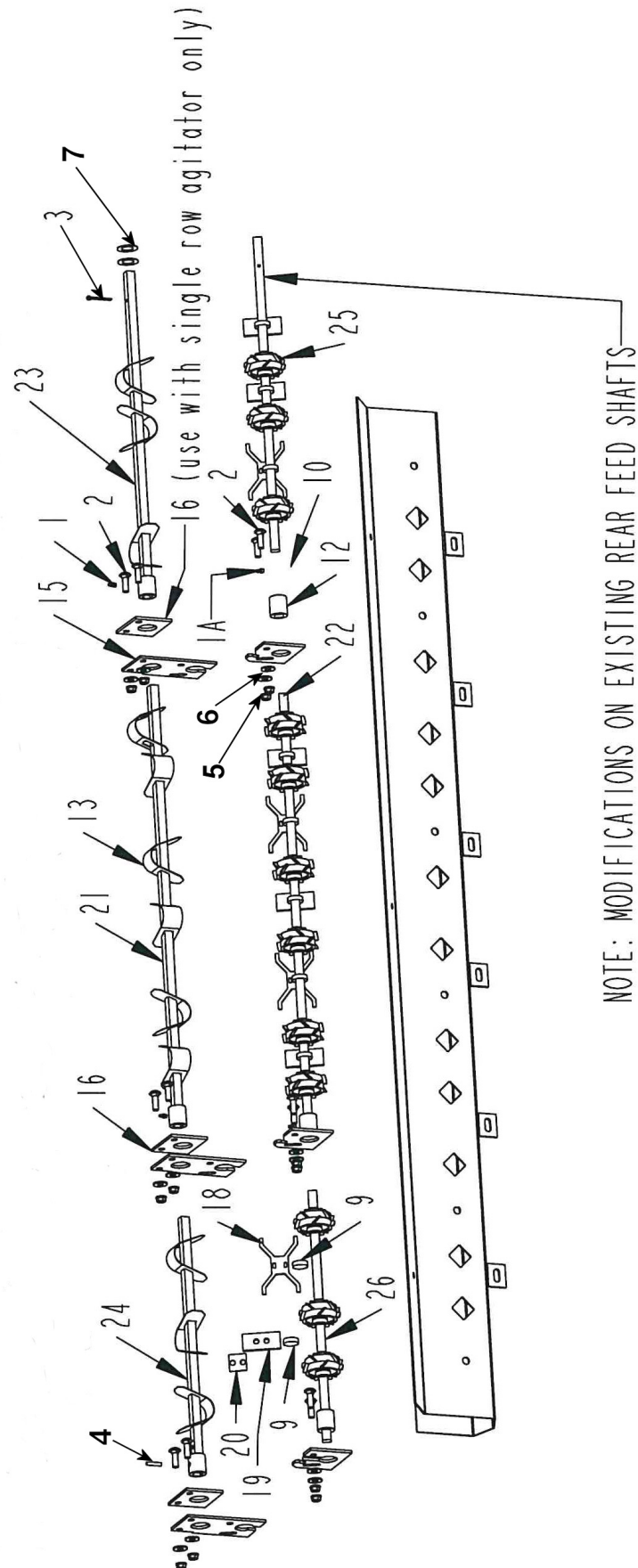
Chain Routing



Chain Routing for Single Agitator

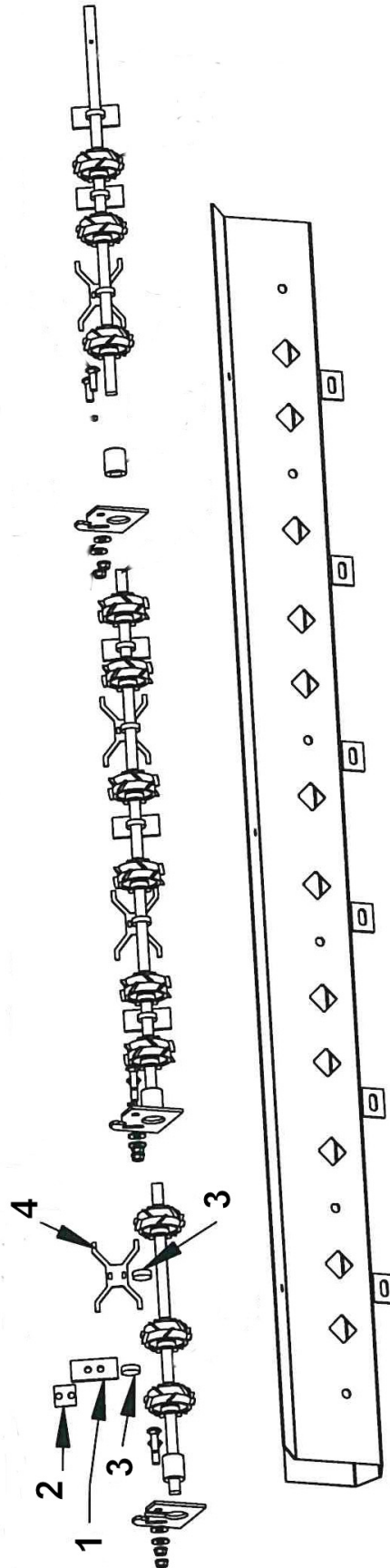






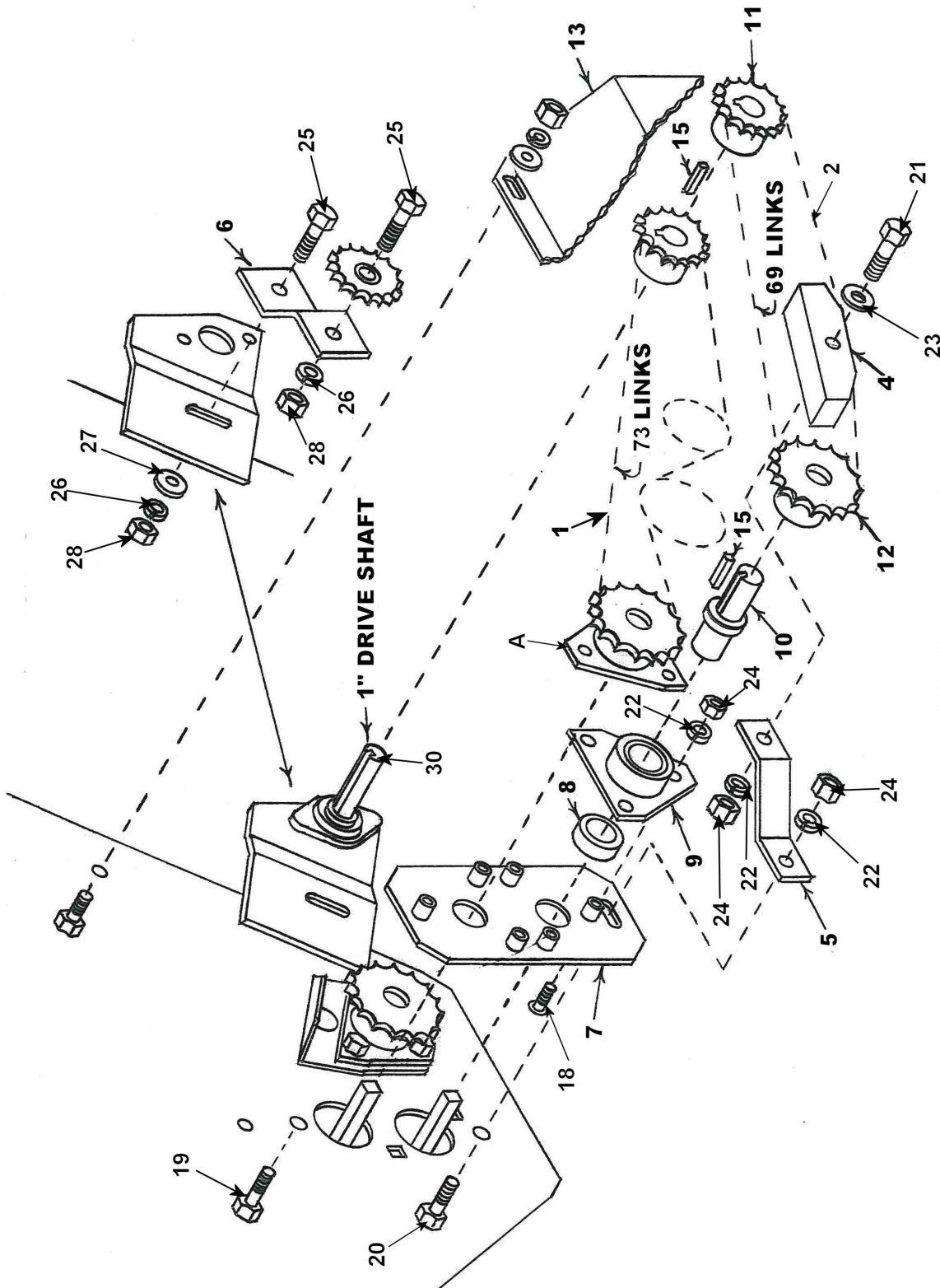
77C Single Bottom Agitator Kit-Additional Shafts

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1/4NFXZERK\ADAPT		2	EA.
1A	3800098	FTG\LUB\1/4MPXZRK\45D		3	EA
2	4800012	BOLT\CRG\3/8X1-1/4NC		12	EA.
3	4800044	PIN\COT\5/32X1-1/2		1	EA.
4	4800169	PIN\RLLD\1/4X1-1/8		1	EA.
5	4900076	NUT\FLG\SERR\3/8\NC		12	EA.
6	5000001	WASH\FLAT\3/8		12	EA.
7	5000027	WASH\7/81DX1-1/2OD\20GA SHIM		2	EA
8	5000055	WASH\7/8 X 1.75OD		3	EA.
9	7500107	CLAMP\HOSE\1-1/4\WORM\SS		11	EA
10	7500108	CAST BRACKET HOUSING		3	EA.
11	7500109	1.445 5/8SQ HOLE SLEEVE		1	EA.
12	7500562	SLV\SQ_HL\5/8X1-7/16\W/5/16_PLAIN		2	EA.
13	8400256	SMALL AGITATOR PADDLE 7" SPACING		12	EA
15	8400259	LOWER BEARING BRACKET		2	EA
16	8400260	BEARING SPACER PLATE		3	EA
18	8400267	FEED WHEEL SHAFT AGITATOR		4	EA
19	8400396	RUBBER PADDLE		6	EA
20	8400397	PADDLE, REINFORCE PLATE		6	EA
21	8400423	33-1/16 FEED SHAFT 100 SERIES		1	EA
22	8400659	WHL\FEED\33-1/16\REAR\CTR	Existing Shaft		EA
23	8400708	SHFT\TANK\23-15/16\DRILL		1	EA
24	8400710	SHFT\TANK\19"\DRILL		1	EA
25	8400711	WHL\FEED\23-15/16\REAR\RH	Existing Shaft		EA
26	8400713	WHL\FEED\19\REAR\LH	Existing Shaft		EA



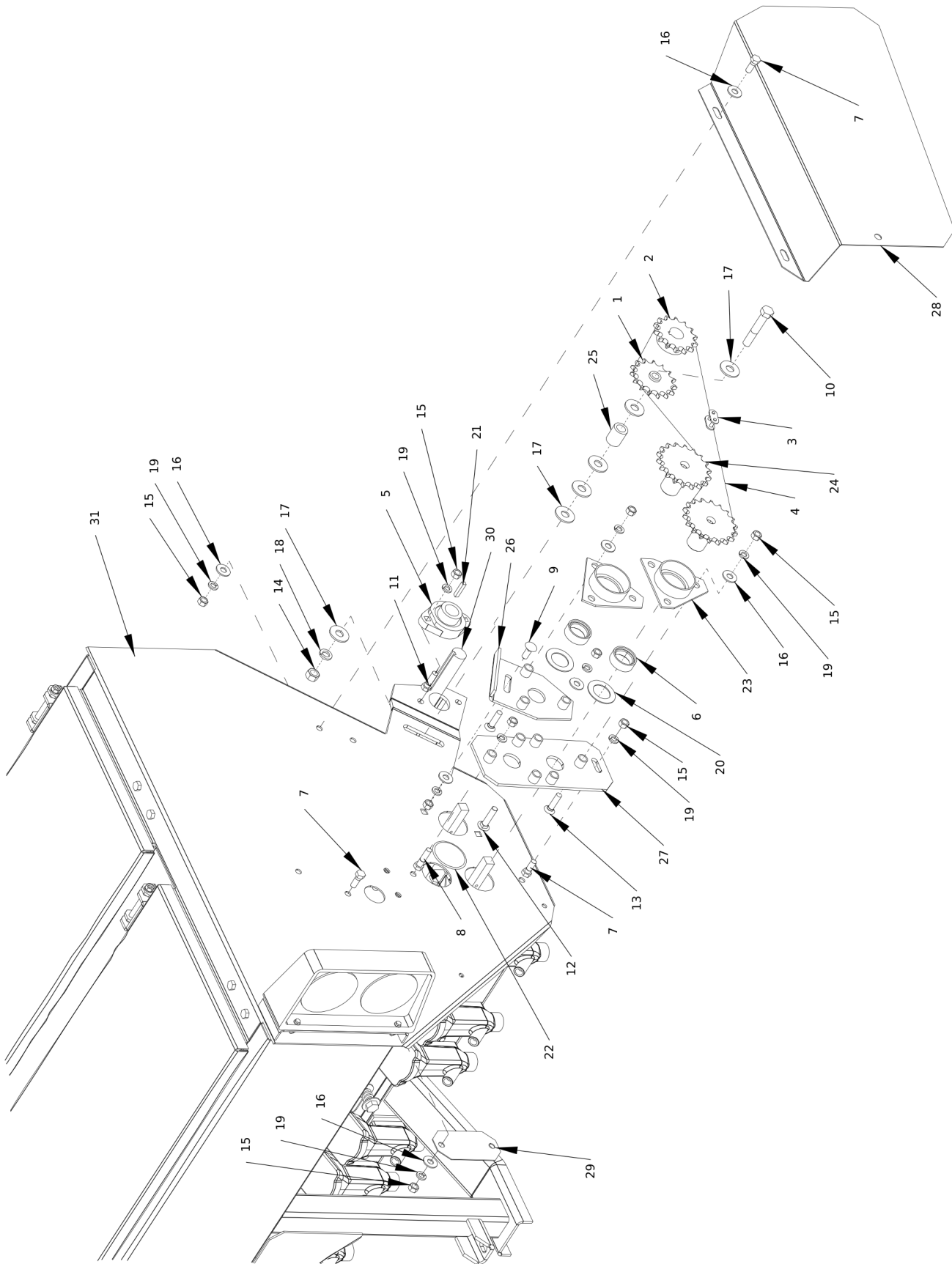
77C Single Bottom Agitator Kit-Tank, Existing Shaft Modifications

Item	Part No.	Name	Remarks	Qty	Uom
1	8400396	RUBBER PADDLE		6	EA
2	8400397	PADDLE, REINFORCE PLATE		6	EA
3	7500107	CLAMP\HOSE\1-1/4\WORM\SS		11	EA
4	8400267	FEED WHEEL SHAFT AGITATOR		4	EA



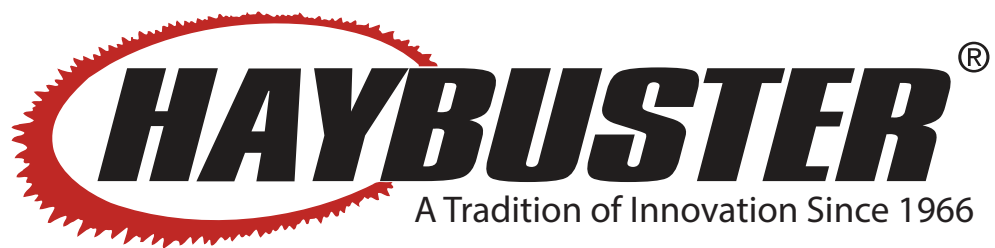
77C Single Bottom Agitator Kit-Tank End Drive

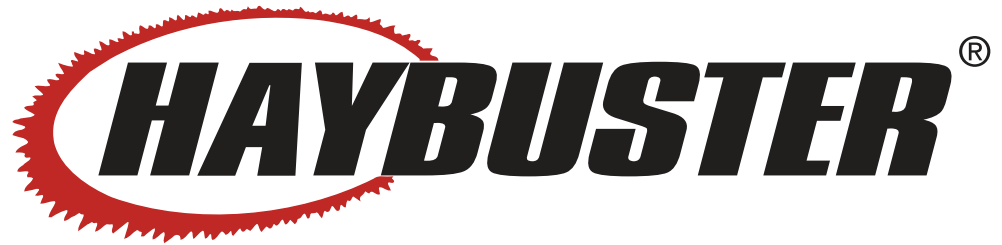
Item	Part No.	Name	Remarks	Qty	Uom
1	1100234	CHAIN\50NP\73	Existing		EA.
2	1100282	CHAIN\50NP\69		1	EA
3	1100227	CHAIN\50NP\CL		1	EA.
4	7501667	BLK\PLSTC\IDLER\	IN PLACE OF 2000016	1	EA.
5	8400240	MNT\SPKT\IDLER\REAR		1	EA
6	8400241	MNT\SPKT\IDLER\FR		1	EA
7	8400242	PL\SEAL\TANK\107	Existing		EA.
8	2000802	CLLR\ECC\1-1/4		2	EA
9	8400070	BRG\1-1/4\W\BRKT\3-HL		2	EA.
10	8400438	SHFT\DRIVE\EXT\DRILL		1	EA
11	1000314	SPKT\B\50\14\1BORE\1/4KW		1	EA
12	1000319	SPKT\B\50\18\1BORE\1/4KW		1	EA
13	8400243	SHLD\AGTTR\SINGLE	Existing		EA
15	6200014	Key\Sq\1/4x1-1/4		2	EA.
18	8400167	SCR\CAP\ALN\3/8X1-1/4\NC		6	EA
19	4800034	BOLT\HEX\3/8X1-1/2		1	EA.
20	4800003	BOLT\HEX\3/8X1		1	EA.
21	4800029	BOLT\HEX\3/8X2-1/2		1	EA
22	5000019	WASH\LOCK\3/8		9	EA.
23	5000001	WASH\FLAT\3/8		3	EA.
24	4900002	NUT\HEX\3/8\NC		9	EA.
25	4800082	BOLT\HEX\1/2X1-1/2		2	EA.
26	5000006	WASH\LOCK\1/2		2	EA.
27	5000004	WASH\FLAT\1/2		3	EA.
28	4900001	NUT\HEX\1/2\NC		2	EA.
30	8400738	SHFT\DRV\77\NTV_GR\1X23.5	Existing		EA



77c/107c Tank End Drive

Item	Part No.	Name	Remarks	Qty	Uom
1	1000039	SPKT\50\15\1\2\IDLER		1	EA.
2	1000314	SPKT\B\50\14\1\BORE\1\4KW		1	EA
3	1100227	CHAIN\50NP\CL		1	EA.
4	1100234	CHAIN\50NP\73		1	EA.
5	2000310	BRG\FLG\CAST\1\2BOLT		1	EA.
6	2000824	CLLR\BRG\1-1/4 - FOR 8400070		2	EA.
7	4800003	BOLT\HEX\3\8X1		15	EA.
8	4800034	BOLT\HEX\3\8X1-1/2		1	EA.
9	4800053	BOLT\CRG\3\8X1\NC		21	EA.
10	4800068	BOLT\HEX\1\2X3		1	EA.
11	4800098	BOLT\HEX\3\8X1-1/4\NC		6	EA.
12	4800168	BOLT\CRG\3\8X1-3/4\NC		1	EA.
13	4800230	SCR\CSK\ALN\3\8X1-1/2\NC		5	EA.
14	4900001	NUT\HEX\1\2\NC		1	EA.
15	4900002	NUT\HEX\3\8\NC		59	EA.
16	5000001	WASH\FLAT\3\8		59	EA.
17	5000004	WASH\FLAT\1\2		6	EA.
18	5000006	WASH\LOCK\1\2		1	EA.
19	5000019	WASH\LOCK\3\8		59	EA.
20	5000084	2"PD 1-1/4ID OILITE WASHR		2	EA.
21	6200014	Key\Sq\1/4x1-1/4		1	EA.
22	7500515	PLASTIC PLUG 107 DRILL		1	EA
23	8400070	BRG\1-1/4\W\BRKT\3-HL		2	EA.
24	8400071	SPKT\DRIVE\W\SQ_HL_SLV		2	EA.
25	8400073	SPCR\DRV\1ODX.640IDX1.25L		1	EA
26	8400074	SEALER PLATE		1	EA.
27	8400242	PL\SEAL\TANK\107		1	EA.
28	8400243	SHLD\AGTTR\SINGLE		1	EA
29	8400274	PLUG\TANK\STL\107DRILL		1	EA
30	8400573	SHFT\DR\TANK\1X38		1	EA
30A	8400738	SHFT\DRV\77\NTV_GR\1X23.5		1	EA
31	8400801	TANK\WLDMNT\107C		1	EA
31A	8400802	TANK\WLDMNT\77C		1	EA





107C DRILLS™

107C Serial Number 101100017C & UP

Single Bottom Agitator Kit



Installation Instructions and Parts Reference

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107C Single Agitator Kit Installation Instructions

Kit for drills Serial No. 101100017C and up

An agitator kit may be necessary when seeding grasses that will not flow freely into the feed wheels after removing feed wheel covers. The following steps and illustrations will enable you to install the agitator kit in the rear compartment of an existing HAYBUSTER 107C drill box.

Step 1. Remove shield (#28), drive chain (#3), rear sealer plate (#27), bearing (#23), and sprocket assembly (#24). Retain bearing and sprocket assembly. Discard plastic plug (#22) and the steel tank plate (#30). **See Existing Tank End.**

Step 2. Remove straight zerks from (3) three existing feed wheel shaft bearings. Install (3) three 45-degree zerks. Remove mounting bolts from same. Replace with 3/8" x 1-1/4" (#28) carriage bolts to enable bolting on agitator mounting plates (#23). Using the 1/8" wheel gauge, adjust feed wheels and tighten bolts. **See Single Agitator Kit-Additional Agitator Shafts.**

Installing Feed Shaft Agitator Kits

Item	Quantity	Description
1	8	Rubber paddles
2	8	Paddle reinforcement plate
3	15	Hose Clamps
4	7	Finger agitator

Step 3. Mount the finger agitator (#4) in the center of the large spaces between feed wheels and tighten clamps securely. **See Single Agitator Kit – Tank, Existing Shaft Modifications.**

Step 4. Install the rubber paddles (#1) in the center of the small spaces between feed wheels. Make sure the paddle reinforcement plate (#2) is installed between the paddle and the hose clamp (#3). **See Single Agitator Kit – Tank, Existing Shaft Modifications.**

Step 5. Install (6) six small agitators (#21) in sequence on the 38-7/16" (#18) and 34-1/2" (#20) shafts and (6) six small agitators (#21) on the 33" (#19) shaft for the lower agitator. **See Single Agitator Kit-Additional Agitator Shafts.**

Note: For a single bottom agitator kit, you will only need to assemble the shafts with the small agitators.

Step 6. Starting with shaft #20 slide cast housing and steel bearing over shaft and drive 1/4" x 1-1/8" (#15) roll pin through bearing and shaft. Insert 5/32" x 1-1/2" (#17) cotter pin in #18 shaft and bend ends of key back over shaft. **See Single Agitator Kit-Additional Agitator Shafts.**

Step 7. Place the (3) three assembled shafts with small paddles in tank. **See Single Agitator Kit-Additional Agitator Shafts.**

Note: For a single bottom agitator kit, assemble a bearing spacer plate (#24) between bearing and second agitator plate (#23). See Single Agitator Kit-Additional Agitator Shafts.

Step 8. Kit contains 1-1/2" O.D. x 7/8" I.D. washers (#16). Add washers as needed to remove end play from agitator shaft. **See Single Agitator Kit-Additional Agitator Shafts.**

Step 9. Bolt existing bearing and sprocket assembly (#A) (removed in step #1) to top end of agitator mounting plate (#7) using (2) existing 3/8" x 1-1/4" socket head screws (#18). Assemble collar (#8), bracket (#9), drive shaft stub (#10) and sprocket (#12) as shown, bolt above assembly to the bottom end of mounting plate (#7) using (2) 3/8" x 1-1/4" socket head screws (#18). **See Single Agitator Kit-Tank End Drive for Single Agitator.**

Step 10. Bolt completed assembly (step #9) to end of tank using existing 3/8" x 1-1/2" hex head machine bolt in top end, 3/8" x 1" (#20) hex head in bottom end along with idler mount (#5). **See Single Agitator Kit-Tank End Drive for Single Agitator.**

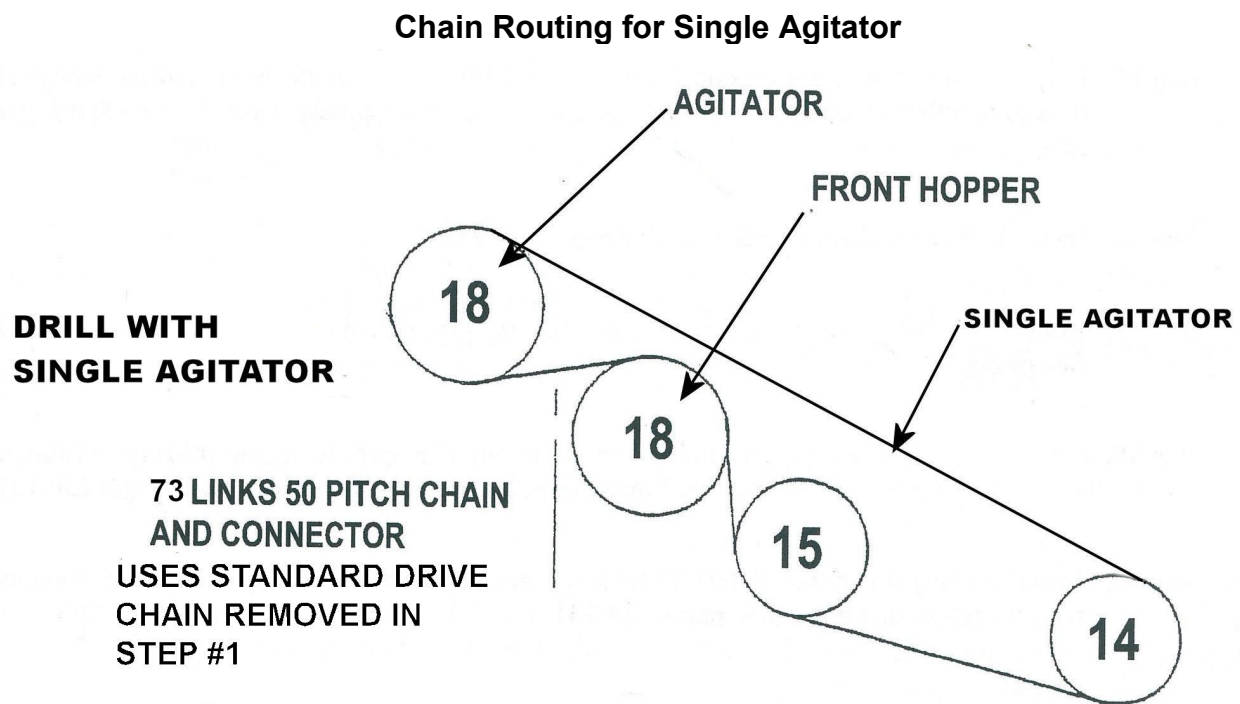
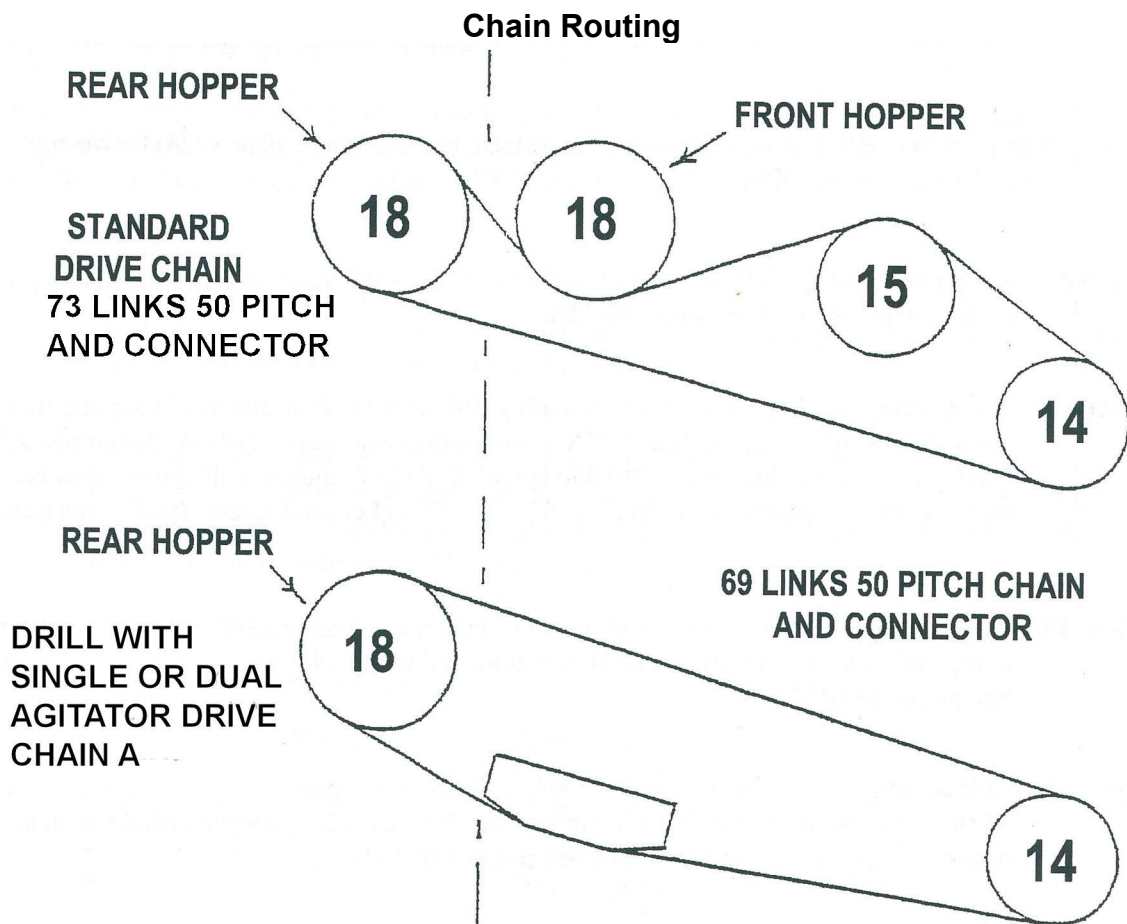
Step 11. Loosen sprockets and bearings on 1" drive shaft (#30) and shift to the right to allow enough shaft to accommodate second drive sprocket. Align all respective sprockets and secure. **See Single Agitator Kit-Tank End Drive for Single Agitator.**

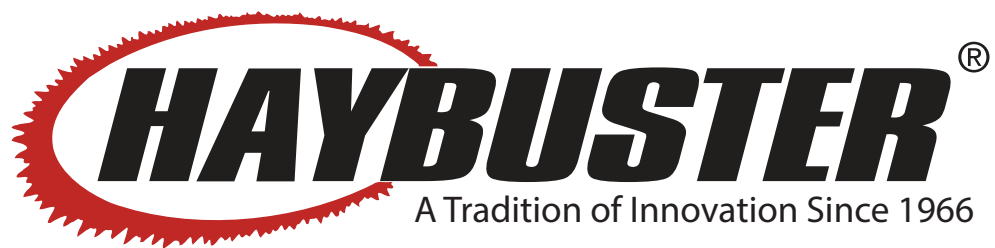
Step 12. Install both drive chains (#1 & #2). **See Single Agitator Kit-Tank End Drive for Single Agitator.**

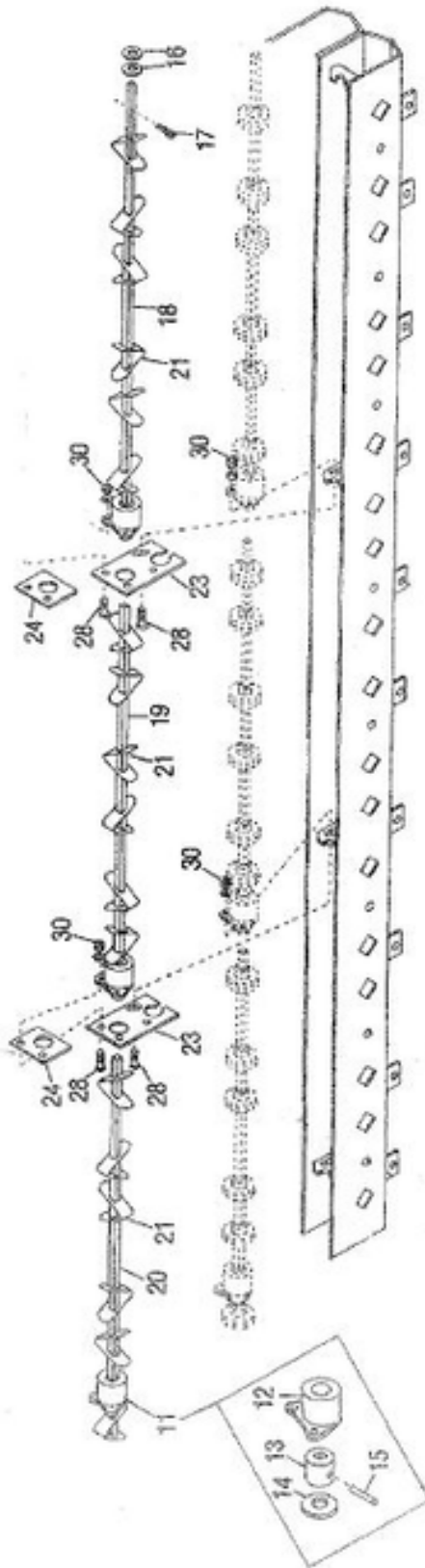
Step 13. Install idler (#4) using 3/8" x 2-1/2" (#21) hex head machine bolt. Adjust chain tension. **See Single Agitator Kit-Tank End Drive for Single Agitator.**

Step 14. Remove existing idler sprocket and spacer and install idler sprocket mount (#6) and existing idler sprocket using 1/2" x 1-1/2" hex head machine bolts. Adjust chain tension. **See Single Agitator Kit-Tank End Drive for Single Agitator.**

Step 15. Install existing shield (p.n. 8400243) for single agitator **See Single Agitator Kit-Tank End Drive for Single Agitator.**

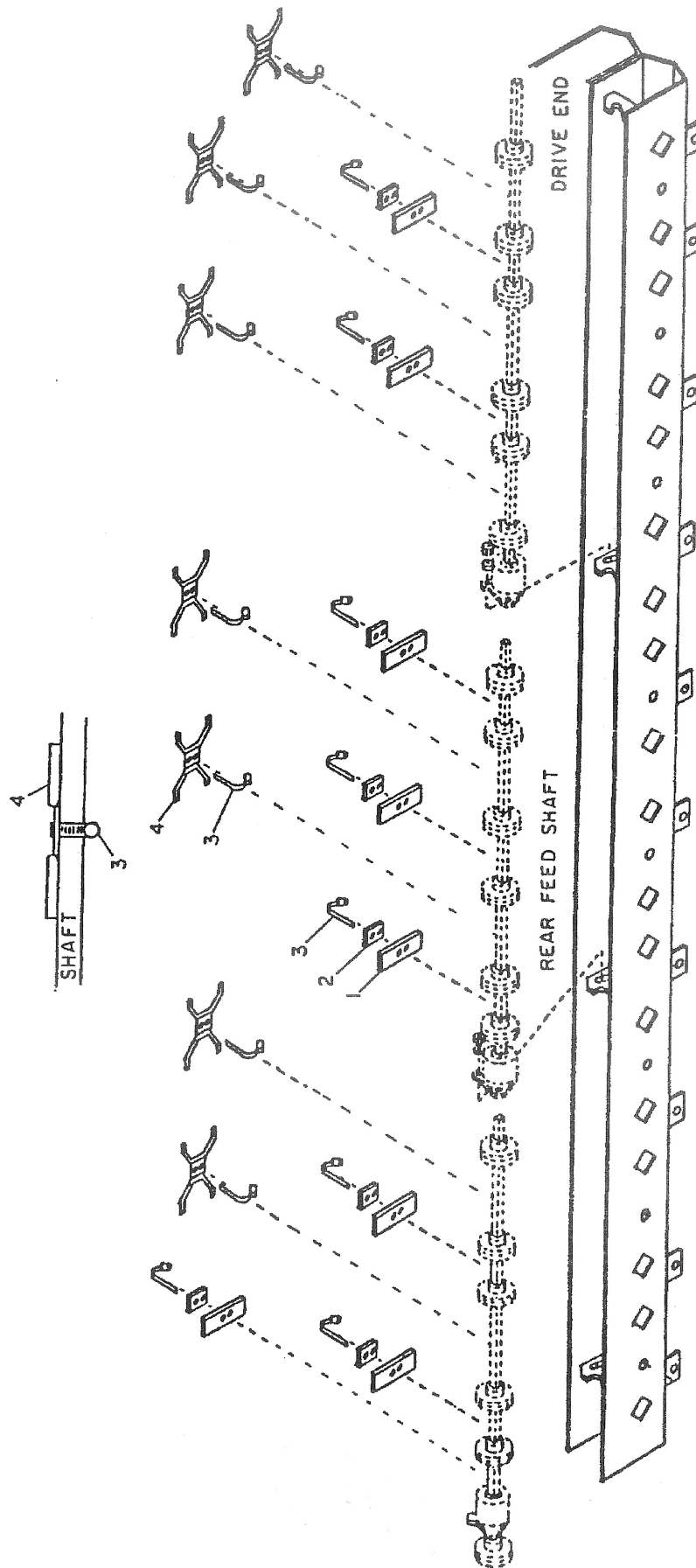






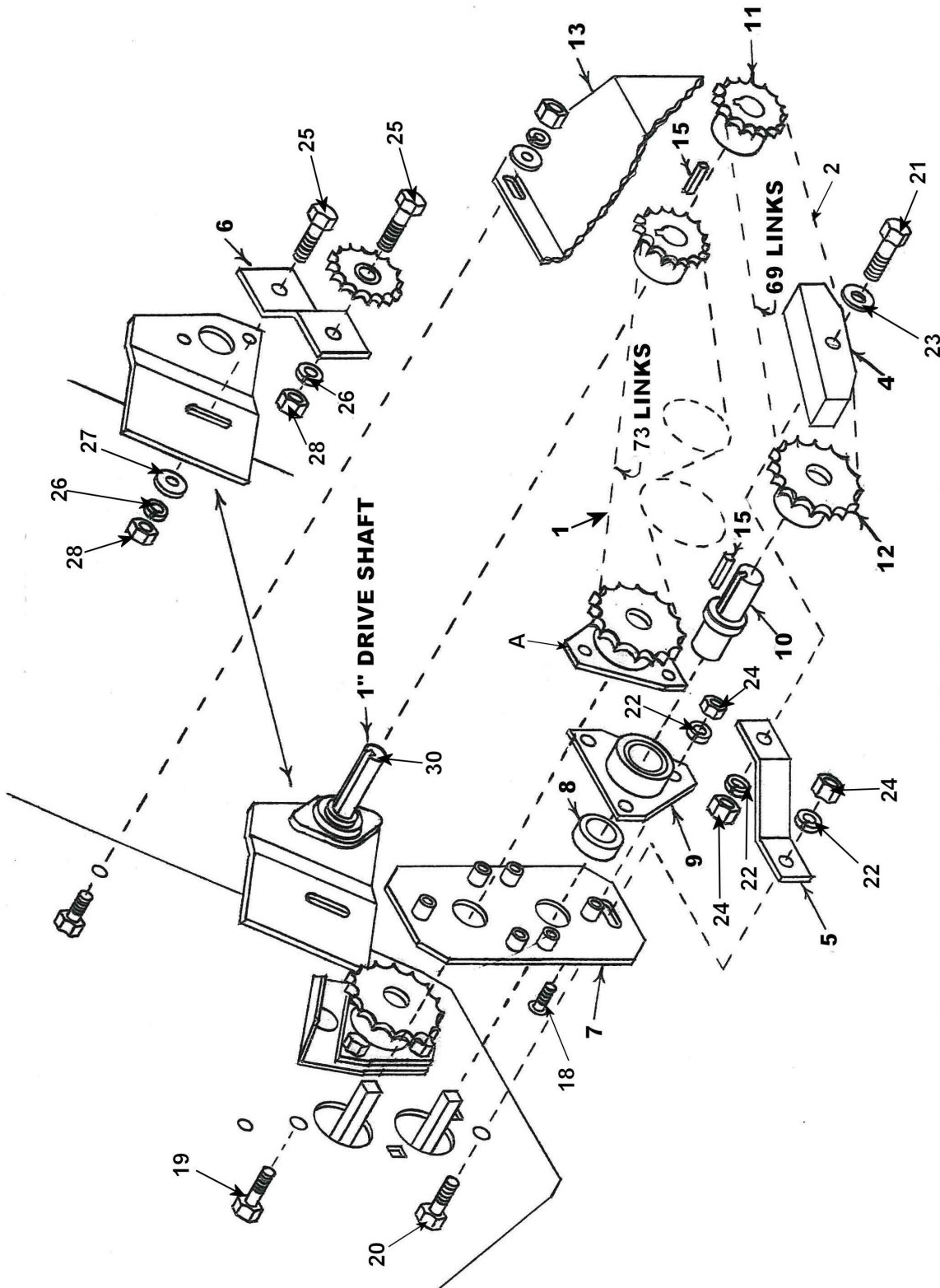
107C Single Bottom Agitator Kit-Additional Shafts

Item	Part No.	Name	Remarks	Qty	Uom
11	7500110	BRKT\CAST\W\BEARING\COMPLETE		3	EA.
12	7500108	CAST BRACKET HOUSING		3	EA.
13	7500109	1.445 5/8SQ HOLE SLEEVE		3	EA.
14	5000055	WASH\7/8 X 1.75OD		3	EA.
15	4800169	PIN\RLLD\1/4X1-1/8		1	EA.
16	5000027	WASH\7/81DX1-1/2OD\20GA SHIM		2	EA
17	4800044	PIN\COT\5/32X1-1/2		1	EA.
18	8400426	38-7/16 FEED SHAFT 100 SERIES		1	EA
19	8400423	33-1/16 FEED SHAFT 100 SERIES		1	EA
20	8400425	34-1/2 FEED SHAFT 100 SERIES		1	EA
21	8400256	SMALL AGITATOR PADDLE 7" SPACING		18	EA
23	8400259	LOWER BEARING BRACKET		3	EA
24	8400260	BEARING SPACER PLATE		3	EA
28	4800012	BOLT\CRG\3/8X1-1/4NC		12	EA.
30	4900076	NUT\FLG\SERR\3/8\NC		12	EA.



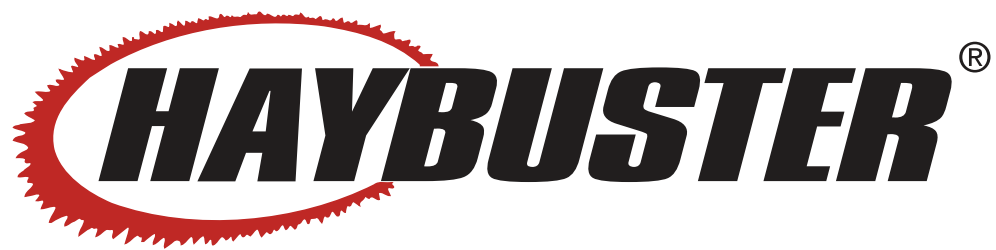
107C Single Bottom Agitator Kit-Tank, Existing Shaft Modifications

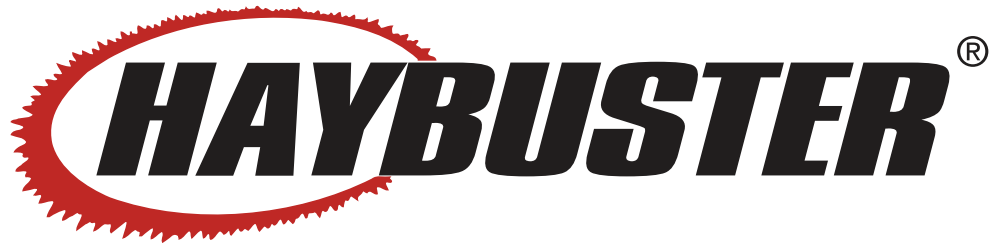
Item	Part No.	Name	Remarks	Qty	Uom
1	8400396	RUBBER PADDLE		8	EA
2	8400397	PADDLE, REINFORCE PLATE		8	EA
3	7500107	CLAMP\HOSE\1-1/4\WORM\SS		15	EA
4	8400267	FEED WHEEL SHAFT AGITATOR		7	EA



107C Single Bottom Agitator Kit-Tank End Drive

Item	Part No.	Name	Remarks	Qty	Uom
1	1100234	CHAIN\50NP\73	Existing		EA.
2	1100282	CHAIN\50NP\69		1	EA
3	1100227	CHAIN\50NP\CL		1	EA.
4	7501667	BLK\PLSTC\IDLER\	IN PLACE OF 2000016	1	EA.
5	8400240	MNT\SPKT\IDLER\REAR		1	EA
6	8400241	MNT\SPKT\IDLER\FR		1	EA
7	8400242	PL\SEAL\TANK\107		1	EA.
8	2000802	CLLR\ECC\1-1/4		2	EA
9	8400070	BRG\1-1/4\W\BRKT\3-HL		2	EA.
10	8400438	SHFT\DRIVE\EXT\DRILL		1	EA
11	1000314	SPKT\B\50\14\1BORE\1/4KW		2	EA
12	1000319	SPKT\B\50\18\1BORE\1/4KW		1	EA
13	8400243	SHLD\AGTTR\SINGLE		1	EA
15	6200014	Key\Sq\1/4x1-1/4		2	EA.
18	4800167	SCR\CAP\ALN\3/8X1-1/4\NC		6	EA
19	4800034	BOLT\HEX\3/8X1-1/2		1	EA.
20	4800003	BOLT\HEX\3/8X1		1	EA.
21	4800029	BOLT\HEX\3/8X2-1/2		1	EA
22	5000019	WASH\LOCK\3/8		9	EA.
23	5000001	WASH\FLAT\3/8		3	EA.
24	4900002	NUT\HEX\3/8\NC		9	EA.
25	4800082	BOLT\HEX\1/2X1-1/2		2	EA.
26	5000006	WASH\LOCK\1/2		2	EA.
27	5000004	WASH\FLAT\1/2		3	EA.
28	4900001	NUT\HEX\1/2\NC		2	EA.
30	8400573	SHFT\DR\TANK\1X38		1	EA





77C/107C DRILL™

77C Serial Number 77110001C & UP

107C Serial Number 101100017C & UP

Optional Native Grass Kit

Installation Instructions and Parts Reference

DuraTech Industries International Inc. (DuraTech Industries) has made every effort to assure that this manual completely and accurately describes the operation and maintenance of the 77C/107C DRILLS™ as of the date of publication. DuraTech Industries reserves the right to make updates to the machine from time to time. Even in the event of such updates, you should still find this manual to be appropriate for the safe operation and maintenance of your unit.

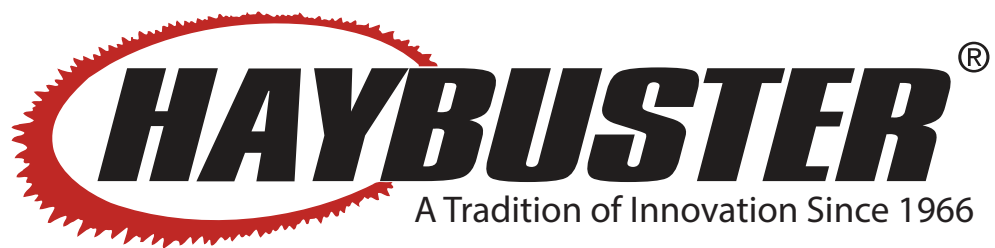
This manual, as well as materials provided by component suppliers to DuraTech Industries are all considered to be part of the information package. Every operator is required to read and understand these manuals, and they should be located within easy access for periodic review.



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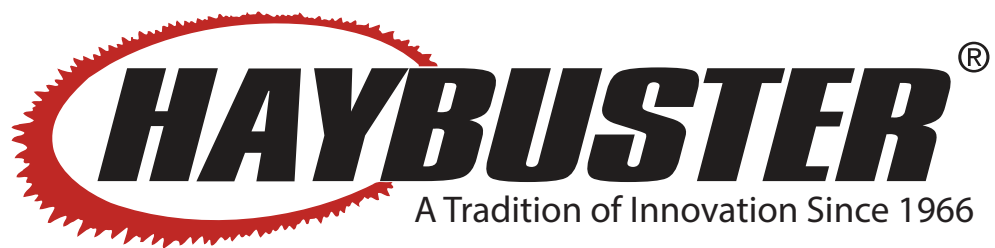


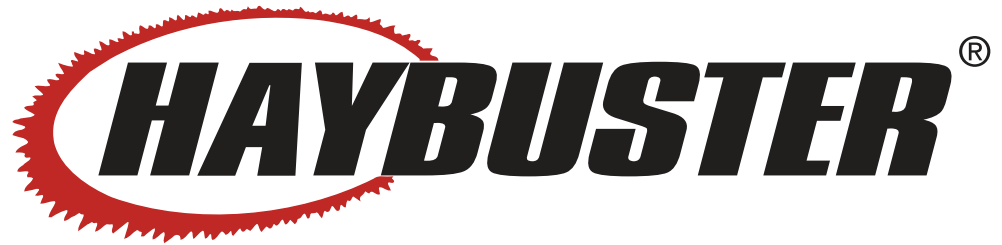
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77C DRILLS™

77C Serial Number 77110001C & UP

Native Grass Kit



Installation Instructions and Parts Reference

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77C Native Grass Kit Installation Instructions

Kit for Serial No. 77110001C and up

An agitator kit may be necessary when seeding grasses that will not flow freely into the feed wheels after removing feed wheel covers. The following steps and illustrations will enable you to install the agitator kit in the rear compartment of an existing HAYBUSTER 77C drill box.

Step 1. Remove shield (#28), drive chain (#3), rear sealer plate (#27), bearing (#23), and sprocket assembly (#24). Retain bearing and sprocket assembly. Discard plastic plug (#22) and the steel tank plate (#30). **See Existing Tank End.**

Step 2. Remove straight zerks from (3) three existing feed wheel shaft bearings. Install (3) three 45 degree zerks (#1A). Remove mounting bolts from same. Replace with 3/8" x 1-1/4" (#2) carriage bolts to enable bolting on agitator mounting plates (#15). Using the 1/8" wheel gauge, adjust feed wheels and tighten bolts. **See Native Grass Kit – Additional Agitator Shaft.**

Installing Feed Shaft Agitator Kits

Item	Quantity	Description
1	8	Rubber paddles
2	8	Paddle reinforcement plate
3	11	Hose Clamps
4	4	Finger agitator

Step 3. Mount the finger agitator (#18) in the center of the large spaces between feed wheels and tighten clamps securely. The finger agitator has been welded flush on one side, mount with this side against the shaft. **See Native Grass Kit – Additional Agitator Shaft.**

Step 4. Install the rubber paddles (#19) in the center of the small spaces between feed wheels. Make sure the paddle reinforcement plate (#20) is installed between the paddle and the hose clamp. **See Native Grass Kit – Additional Agitator Shaft.**

Step 5. Install (3) three small agitators (#13) in sequence on the 19" (#24) and 24" (#23) shafts and (6) six small agitators (#13) on the 33" (#21) shaft for the lower agitator. Install (3) three large agitators (#14) in sequence on the 19" (#24) and 24" (#23) shafts and (6) large agitators (#14) on the 33" (#21) shaft for the upper agitator. **See Native Grass Kit – Additional Agitator Shaft.**

Note: For a single bottom agitator kit, you will only need to assemble the shafts with the small agitators.

Step 6. Starting with shaft #24 slide cast housing and steel bearing over shaft and drive 1/4" x 1-1/8" (#4) roll pin through bearing and shaft. Insert 5/32" x 1-1/2" (#3) cotter pin in #23 shaft and bend ends of key back over shaft, repeat this step for second agitator. **See Native Grass Kit – Additional Agitator Shaft.**

Step 7. Place the (3) three assembled shafts with small paddles in tank. For upper agitator, insert second agitator mounting plate (#17) between bearing and agitator mounting plates and bolt each together using 3/8" x 1-1/4" carriage bolts, lock washer, and hex nuts. **See Native Grass Kit – Additional Agitator Shaft.**

Note: For a single bottom agitator kit, assemble a bearing spacer plate (#16) between bearing and second agitator plate (#15).

Step 8. Kit contains 1-1/2" O.D. x 7/8" I.D. washers (#7). Add washers as needed to remove end play from agitator shaft. **See Native Grass Kit – Additional Agitator Shaft.**

Step 9. Bolt existing bearing and sprocket assembly (#A) (removed in step #1) to top end of agitator mounting plate (#7) using (2) existing 3/8" x 1-1/4" socket head screws (#18). Assemble collar (#8), bracket (#9), drive shaft stub (#10) and sprocket (#12) as shown, bolt above assembly to the bottom end of mounting plate (#7) using (2) 3/8" x 1-1/4" socket head screws (#18). **See Native Grass Kit – Tank End Drive**

Step 10. Bolt completed assembly (step #9) to end of tank using existing 3/8" x 1-1/2" hex head machine bolt in top end, 3/8" x 1" (#20) hex head in bottom end along with wood block idler mount (#5). **See Native Grass Kit – Tank End Drive**

Step 11. Bolt bearing and sprocket assembly (#16) with 24 tooth sprocket to upper agitator shaft using 3/8" x 1" (#20) hex head machine bolt in top slot and 3/8" x 1-1/2" (#19) hex head machine bolt in bottom hole with flat washers and hex nuts. **See Native Grass Kit – Tank End Drive**

Note: Step #11 used only with a dual agitator.

Step 12. Loosen sprockets and bearings on 1" drive shaft (#30) and shift to the right to allow enough shaft to accommodate second drive sprocket. Align all respective sprockets and secure. **See Native Grass Kit – Tank End Drive**

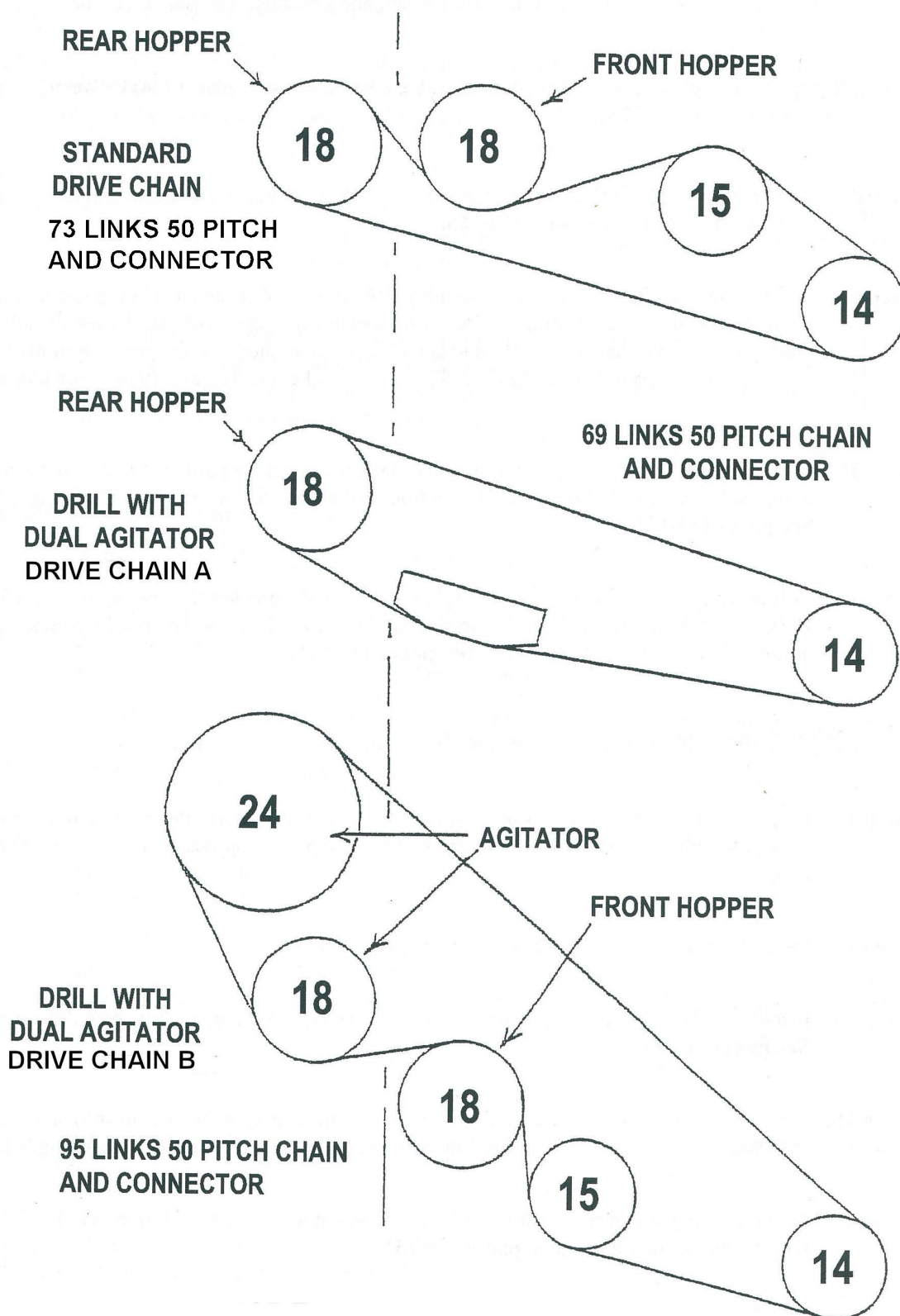
Step 13. Install both drive chains (#1 & #2). **See Native Grass Kit – Tank End Drive**

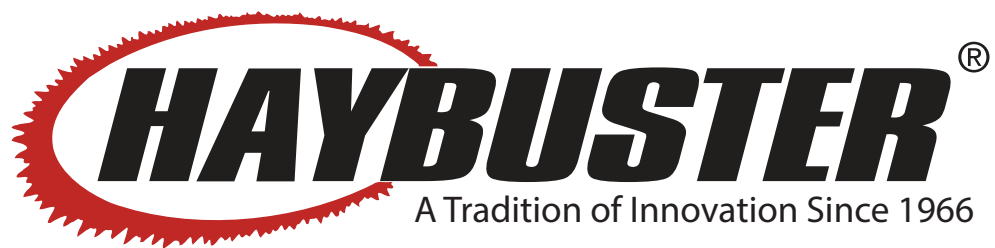
Step 14. Install wood block idler (#4) using 3/8" x 2-1/2" (#21) hex head machine bolt. Adjust chain tension. **See Native Grass Kit – Tank End Drive**

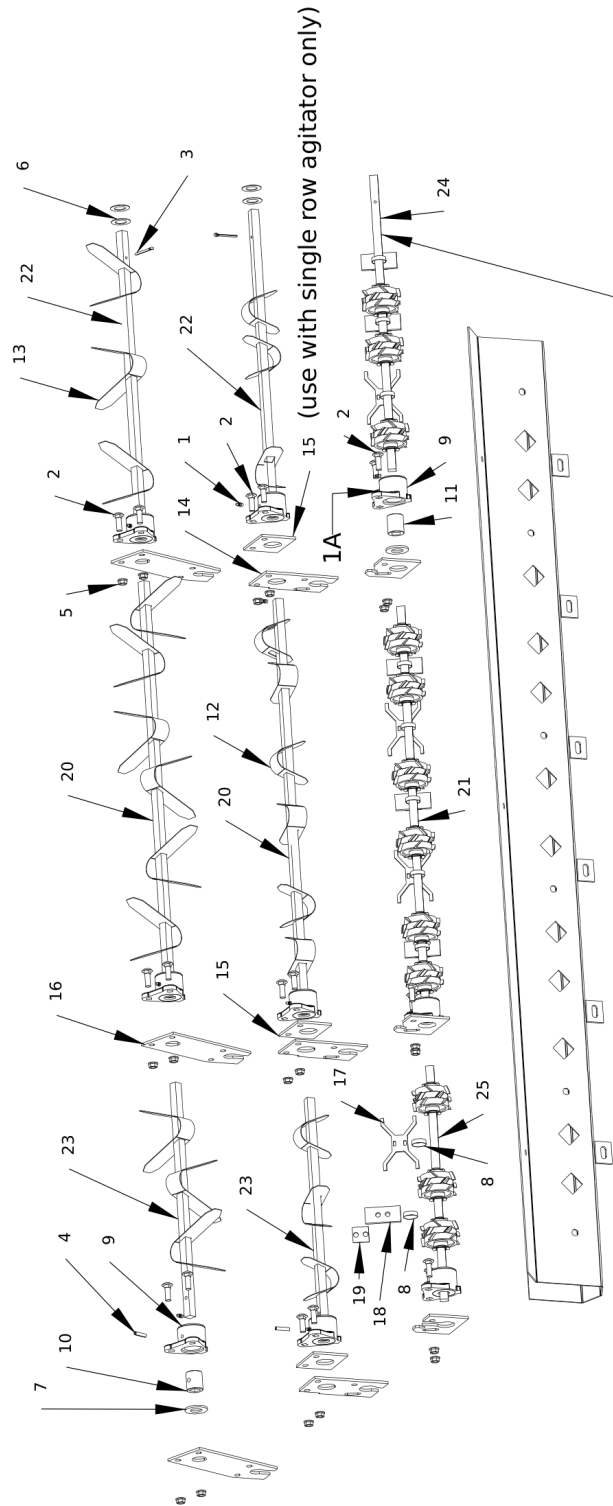
Step 15. Remove existing idler sprocket and spacer and install idler sprocket mount (#6) and existing idler sprocket using 1/2" x 1-1/2" hex head machine bolts. Adjust chain tension. **See Native Grass Kit – Tank End Drive**

Step 16. Install existing shield (p.n. 8400243) for single agitator or new shield (p.n. 8400246) for double agitator using existing bolts. **See Native Grass Kit – Tank End Drive**

Chain Routing



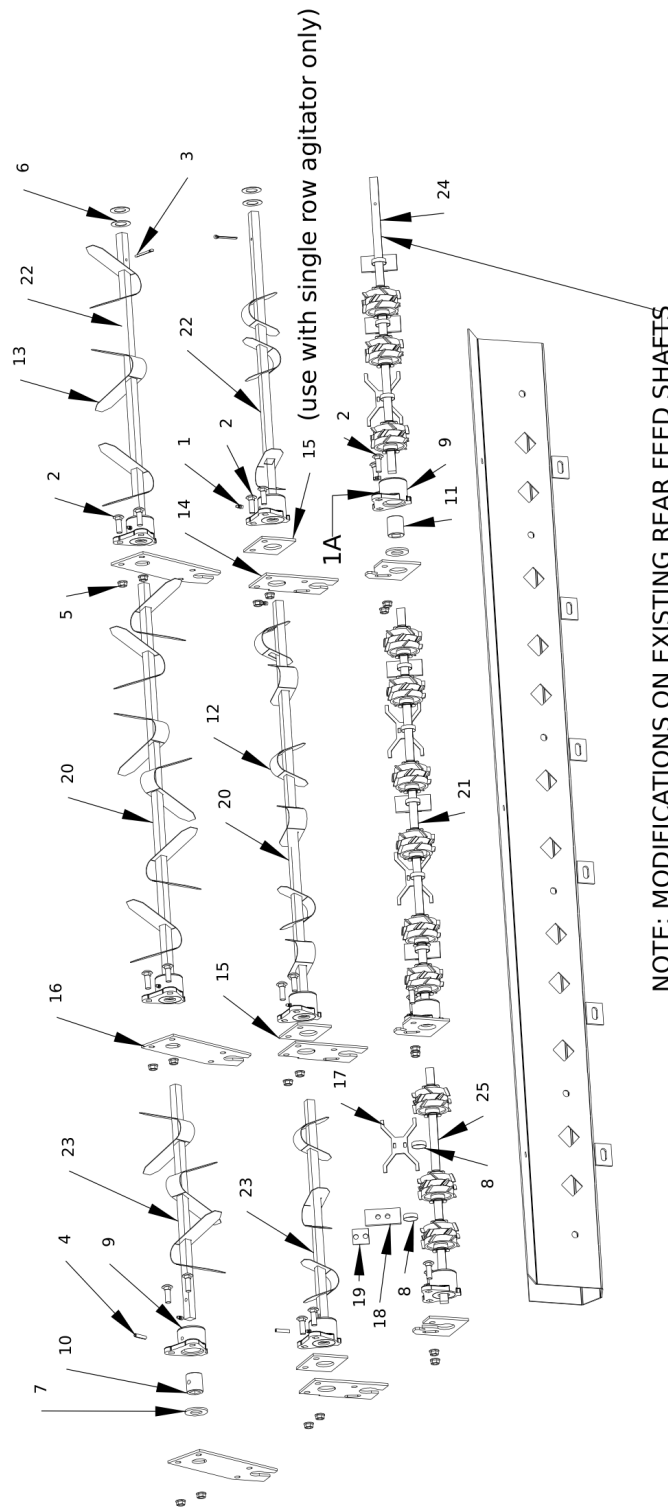




NOTE: MODIFICATIONS ON EXISTING REAR FEED SHAFTS

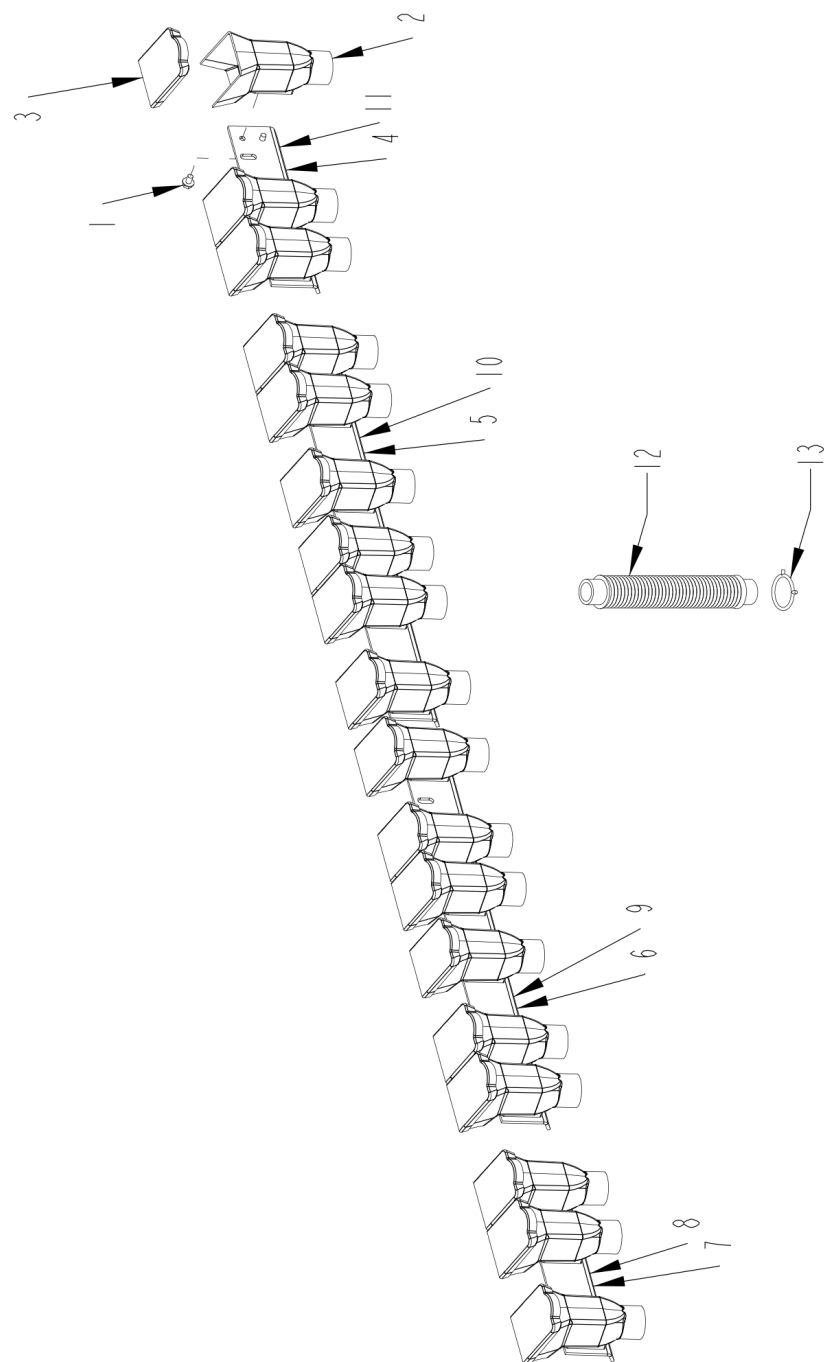
77C Optional Native Grass Kit-Additional Single Agitator Shafts

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1/4NFXZERK\ADAPT		2	EA.
1A	3800098	FTG\LUB\1/4MPXZRK\45D		3	EA
2	4800012	BOLT\CRG\3/8X1-1/4NC		12	EA.
3	4800044	PIN\COT\5/32X1-1/2		1	EA.
4	4800169	PIN\RLLD\1/4X1-1/8		1	EA.
5	4900076	NUT\FLG\SERR\3/8\NC		12	EA.
6	5000027	WASH\7/81DX1-1/2OD\20GA SHIM		2	EA
7	5000055	WASH\7/8 X 1.75OD		3	EA.
8	7500107	CLAMP\HOSE\1-1/4\WORM\SS		11	EA
9	7500108	CAST BRACKET HOUSING		3	EA.
10	7500109	1.445 5/8SQ HOLE SLEEVE		1	EA.
11	7500562	SLV\SQ_HL\5/8X1-7/16\W/5/16_PLAIN		2	EA.
12	8400256	SMALL AGITATOR PADDLE 7" SPACING		12	EA
13	8400257	AGTTR\LRG\CTR\DRILL		0	EA
14	8400259	LOWER BEARING BRACKET		2	EA
15	8400260	BEARING SPACER PLATE		3	EA
16	8400261	BRKT\BRG\UPPER\DRILL		0	EA
17	8400267	FEED WHEEL SHAFT AGITATOR		4	EA
18	8400396	RUBBER PADDLE		6	EA
19	8400397	PADDLE, REINFORCE PLATE		6	EA
20	8400423	33-1/16 FEED SHAFT 100 SERIES		1	EA
21	8400762	WHL\FEED\3S\33-1/16\REAR\CTR	Existing Shaft		EA
22	8400708	SHFT\TANK\23-15/16\DRILL		1	EA
23	8400710	SHFT\TANK\19"\DRILL		1	EA
24	8400803	WHL\FEED\3S\23-15/16\REAR\RH	Existing Shaft		EA
25	8400804	WHL\FEED\3S\19\REAR\LH	Existing Shaft		EA



77C Optional Native Grass Kit-Additional Dual Agitator Shafts

Item	Part No.	Name	Remarks	Qty	Uom
1	3800082	FTG\LUB\1\4NFXZERK\ADAPT		4	EA.
1A	3800098	FTG\LUB\1\4MPXZRK\45D		3	EA
2	4800012	BOLT\CRG\3\8X1-1\4NC		18	EA.
3	4800044	PIN\COT\5\32X1-1\2		2	EA.
4	4800169	PIN\RLLD\1\4X1-1\8		2	EA.
5	4900076	NUT\FLG\SERR\3\8\NC		18	EA.
6	5000027	WASH\7\8\1DX1-1\2OD\20GA SHIM		4	EA
7	5000055	WASH\7\8 X 1.75OD		6	EA.
8	7500107	CLAMP\HOSE\1-1\4\WORM\SS		11	EA
9	7500108	CAST BRACKET HOUSING		6	EA.
10	7500109	1.445 5\8SQ HOLE SLEEVE		2	EA.
11	7500562	SLV\SQ_HL\5\8X1-7\16\W\5\16_PLAIN		4	EA.
12	8400256	SMALL AGITATOR PADDLE 7" SPACING		12	EA
13	8400257	AGTTR\LRG\CTR\DRILL		12	EA
14	8400259	LOWER BEARING BRACKET		2	EA
15	8400260	BEARING SPACER PLATE		0	EA
16	8400261	BRKT\BRG\UPPER\DRILL		2	EA
17	8400267	FEED WHEEL SHAFT AGITATOR		4	EA
18	8400396	RUBBER PADDLE		6	EA
19	8400397	PADDLE, REINFORCE PLATE		6	EA
20	8400423	33-1\16 FEED SHAFT 100 SERIES		2	EA
21	8400762	WHL\FEED\3S\33-1\16\REAR\CTR	Existing Shaft		EA
22	8400708	SHFT\TANK\23-15\16\DRILL		2	EA
23	8400710	SHFT\TANK\19"\DRILL		2	EA
24	8400803	WHL\FEED\3S\23-15\16\REAR\RH	Existing Shaft		EA
25	8400804	WHL\FEED\3S\19\REAR\LH	Existing Shaft		EA



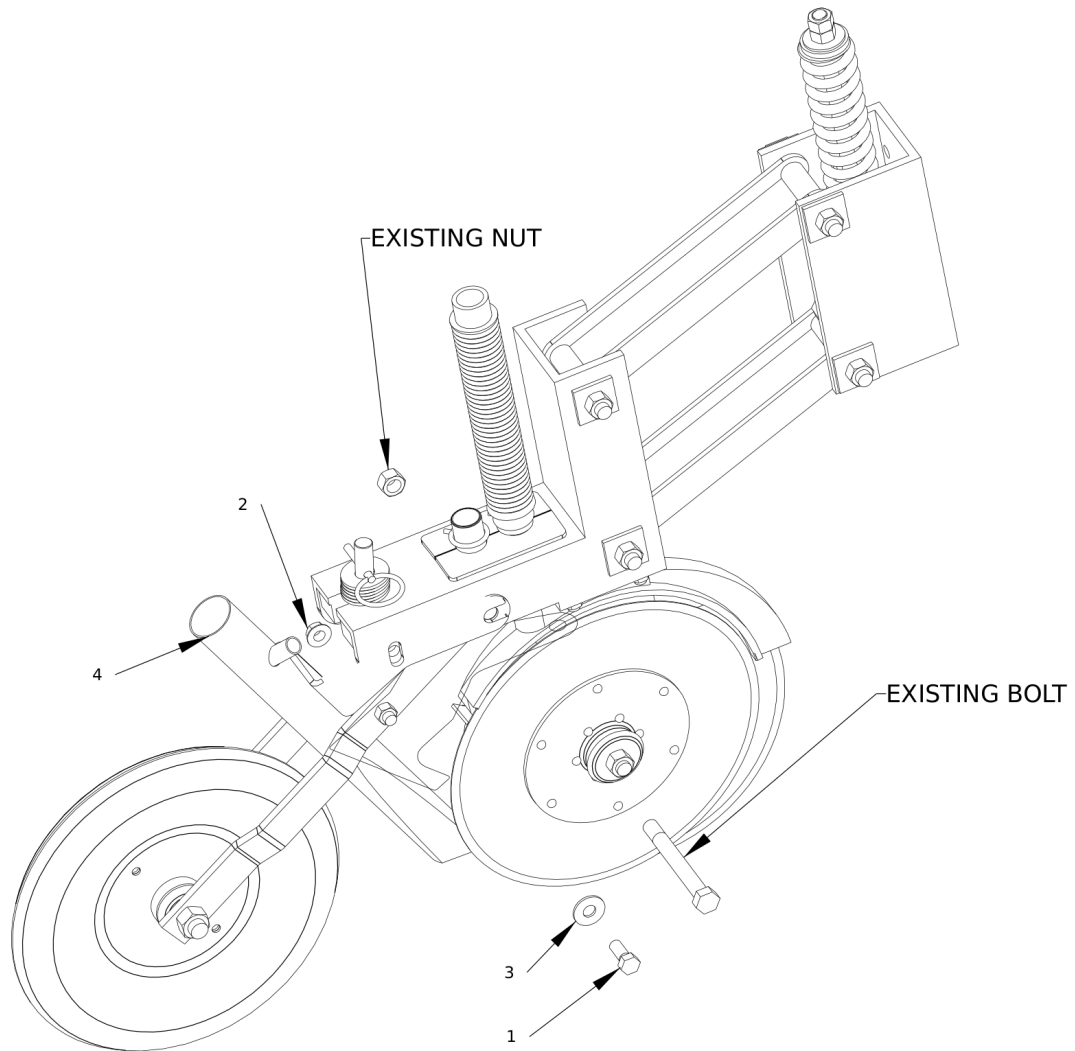
77C Native Grass Kit-Seed Cups

Item	Part No.	Name	Remarks	Qty	Uom
1	4801296	BOLT\FLG\SERR\5/16X1/2		24	EA.
2	7501402	FNNL\SEED\LARGE\77-107		12	EA
3	7501403	FNNL\COVER\SEED\LARGE\77-107		12	EA
4	8400766	MNT\SEEDCUP\REAR\GRAINTANK		0	EA
5	8400767	MNT\SEEDCUP\REAR\GRAINTANK		1	EA
6	8400768	MNT\SEEDCUP\REAR\GRAINTANK		1	EA
7	8400769	MNT\SEEDCUP\REAR\GRAINTANK		0	EA
8	8400776	CUP\SEED\END\LTASM		0	EA
9	8400777	CUP\SEED\CNTR\LTASM		1	EA
10	8400778	CUP\SEED\CNTR\RTASM		1	EA
11	8400779	CUP\SEED\END\RTASM		0	EA
12	7500168	HOSE\2"\CONVOLUTED		12	EA
13	7500169	CLAMP\SDHOSE\2\CP-34		24	EA



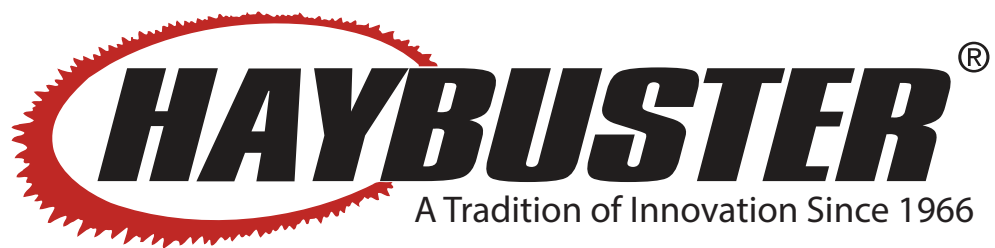
77C Native Grass Kit-Tank, Existing Shaft Modifications

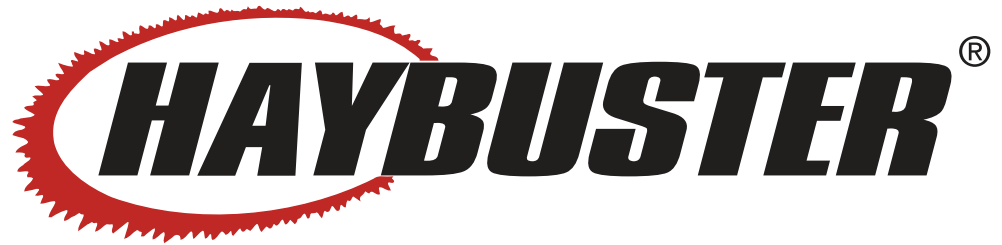
Item	Part No.	Name	Remarks	Qty	Uom
1	8400396	RUBBER PADDLE		8	EA
2	8400397	PADDLE, REINFORCE PLATE		8	EA
3	7500107	CLAMP\HOSE\1-1/4\WORM\SS		11	EA
4	8400267	FEED WHEEL SHAFT AGITATOR		4	EA



77C Native Grass Kit-Drop Tube and Hose Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800018	BOLT\HEX\1/2X1-1/4		12	EA.
2	4900133	NUT\FLG\1/2\NC		12	EA
3	5000004	WASH\FLAT\1/2		12	EA.
4	8400883	TUBE\DROP\LARGE\LHW-NIPPL		6	EA
4a	8400882	TUBE\DROP\LARGE\RH\W-NIPPL		6	EA
NS	7500220	# 7 CAPLUG			As Needed
NS	7501607	PLUG\CAP\2"ID\SC2			As Needed
NS	3701669	HOSE\PVC\5/8IDX63\CLEAR			As Needed
NS	7500107	CLAMP\HOSE\1-1/4\WORM\SS			EA
CA	8400979	TUBE\DROP\LRG\W-NPPL\KIT\77C			EA





107C DRILLS™

107C Serial Number 101100017C & UP

Native Grass Kit



Installation Instructions and Parts Reference

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107C Native Grass Kit Installation Instructions

Kit for drills Serial No. 101100017C and up

An agitator kit may be necessary when seeding grasses that will not flow freely into the feed wheels after removing feed wheel covers. The following steps and illustrations will enable you to install the agitator kit in the rear compartment of an existing HAYBUSTER 107C drill box.

Step 1. Remove shield (#28), drive chain (#3), rear sealer plate (#27), bearing (#23), and sprocket assembly (#24). Retain bearing and sprocket assembly. Discard plastic plug (#22) and the steel tank plate (#30). **See Existing Tank End.**

Step 2. Remove straight zerks from (3) three existing feed wheel shaft bearings. Install (3) three 45 degree zerks . Remove mounting bolts from same. Replace with 3/8" x 1-1/4" (#28) carriage bolts to enable bolting on agitator mounting plates (#23). Using the 1/8" wheel gauge, adjust feed wheels and tighten bolts. **See Native Grass Kit –Additional Agitator Shaft.**

Installing Feed Shaft Agitator Kits

Item	Quantity	Description
1	8	Rubber paddles
2	8	Paddle reinforcement plate
3	15	Hose Clamps
4	7	Finger agitator

Step 3. Mount the finger agitator (#4) in the center of the large spaces between feed wheels and tighten clamps securely. **See Native Grass Kit – Tank, Existing Shaft Modifications.**

Step 4. Install the rubber paddles (#1) in the center of the small spaces between feed wheels. Make sure the paddle reinforcement plate (#2) is installed between the paddle and the hose clamp (#3). **See Native Grass Kit – Tank, Existing Shaft Modifications.**

Step 5. Install (6) six small agitators (#21) in sequence on the 38-7/16" (#18) and 34-1/2" (#20) shafts and (6) six small agitators (#21) on the 33" (#19) shaft for the lower agitator. Install (6) six large agitators (#22) in sequence on the 38-7/16" (#18) and 34-1/2" (#20) shafts and (6) large agitators (#22) on the 33" shaft for the upper agitator. **See Native Grass Kit –Additional Agitator Shaft.**

Note: For a single bottom agitator kit, you will only need to assemble the shafts with the small agitators.

Step 6. Starting with shaft #20 slide cast housing and steel bearing over shaft and drive 1/4" x 1-1/8" (#15) roll pin through bearing and shaft. Insert 5/32" x 1-1/2" (#17) cotter pin in #18 shaft and bend ends of key back over shaft, repeat this step for second agitator. **See Native Grass Kit –Additional Agitator Shaft.**

Step 7. Place the (3) three assembled shafts with small paddles in tank. For upper agitator, insert second agitator mounting plate (#25) between bearing and agitator mounting plates and bolt each together using 3/8" x 1-1/4" carriage bolts, lock washer, and hex nuts. **See Native Grass Kit – Additional Agitator Shaft.**

Note: For a single bottom agitator kit, assemble a bearing spacer plate (#24) between bearing and second agitator plate (#23). See Native Grass Kit –Additional Agitator Shaft.

Step 8. Kit contains 1-1/2" O.D. x 7/8" I.D. washers (#16). Add washers as needed to remove end play from agitator shaft. **See Native Grass Kit –Additional Agitator Shaft.**

Step 9. Bolt existing bearing and sprocket assembly (#A) (removed in step #1) to top end of agitator mounting plate (#7) using (2) existing 3/8" x 1-1/4" socket head screws (#18). Assemble collar (#8), bracket (#9), drive shaft stub (#10) and sprocket (#12) as shown, bolt above assembly to the bottom end of mounting plate (#7) using (2) 3/8" x 1-1/4" socket head screws (#18). **See Native Grass Kit– Tank End Drive for Double Agitator.**

Step 10. Bolt completed assembly (step #9) to end of tank using existing 3/8" x 1-1/2" hex head machine bolt in top end, 3/8" x 1" (#20) hex head in bottom end along with wood block idler mount (#5). **See Native Grass Kit– Tank End Drive for Double Agitator.**

Step 11. Bolt bearing and sprocket assembly (#16) with 24 tooth sprocket to upper agitator shaft using 3/8" x 1" (#20) hex head machine bolt in top slot and 3/8" x 1-1/2" (#19) hex head machine bolt in bottom hole with flat washers and hex nuts. **See Native Grass Kit– Tank End Drive for Double Agitator.**

Note: Step #11 used only with a dual agitator.

Step 12. Loosen sprockets and bearings on 1" drive shaft (#30) and shift to the right to allow enough shaft to accommodate second drive sprocket. Align all respective sprockets and secure. **See Native Grass Kit– Tank End Drive for Double Agitator.**

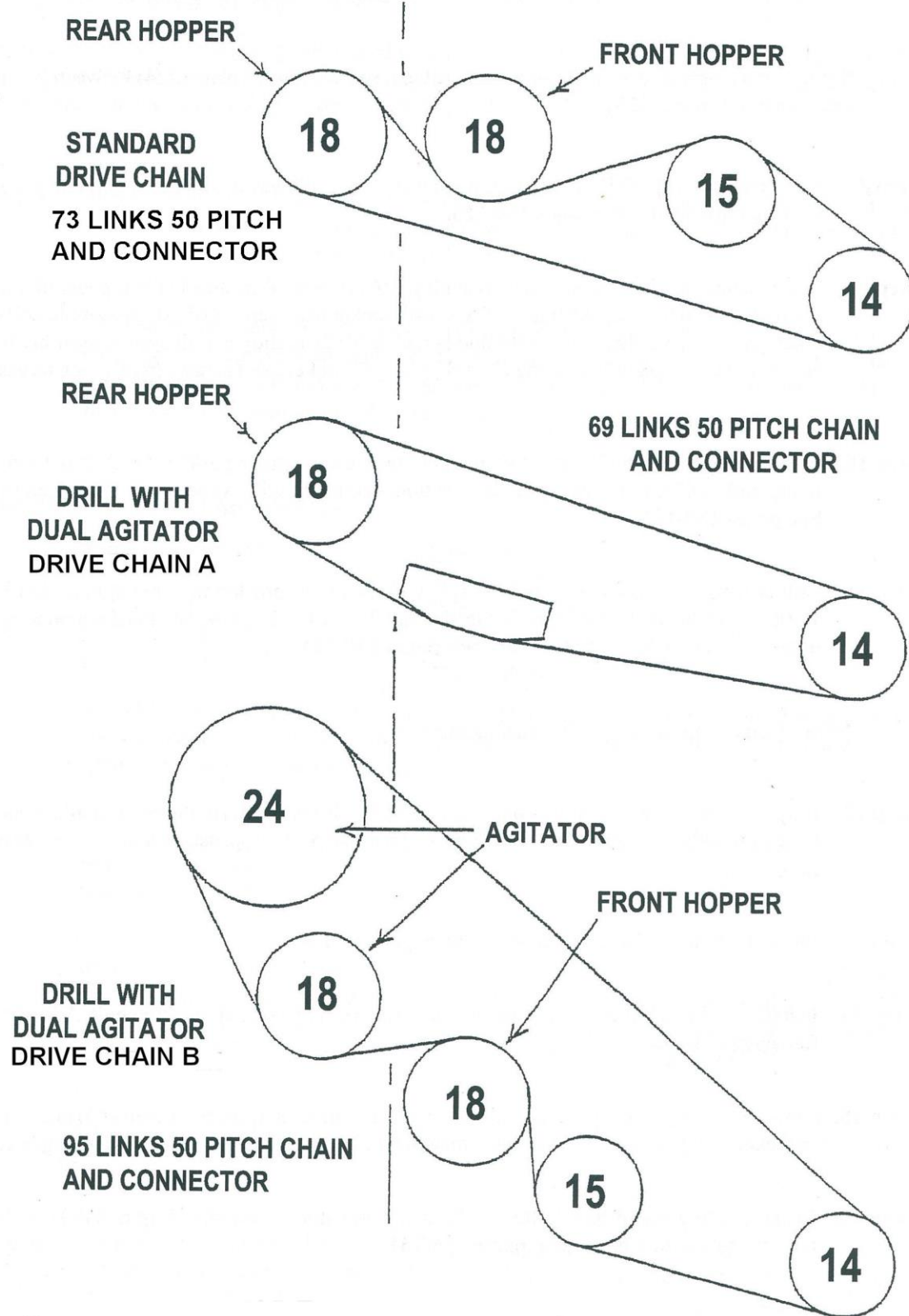
Step 13. Install both drive chains (#1 & #2). **See Native Grass Kit– Tank End Drive for Double Agitator.**

Step 14. Install wood block idler (#4) using 3/8" x 2-1/2" (#21) hex head machine bolt. Adjust chain tension. **See Native Grass Kit– Tank End Drive for Double Agitator.**

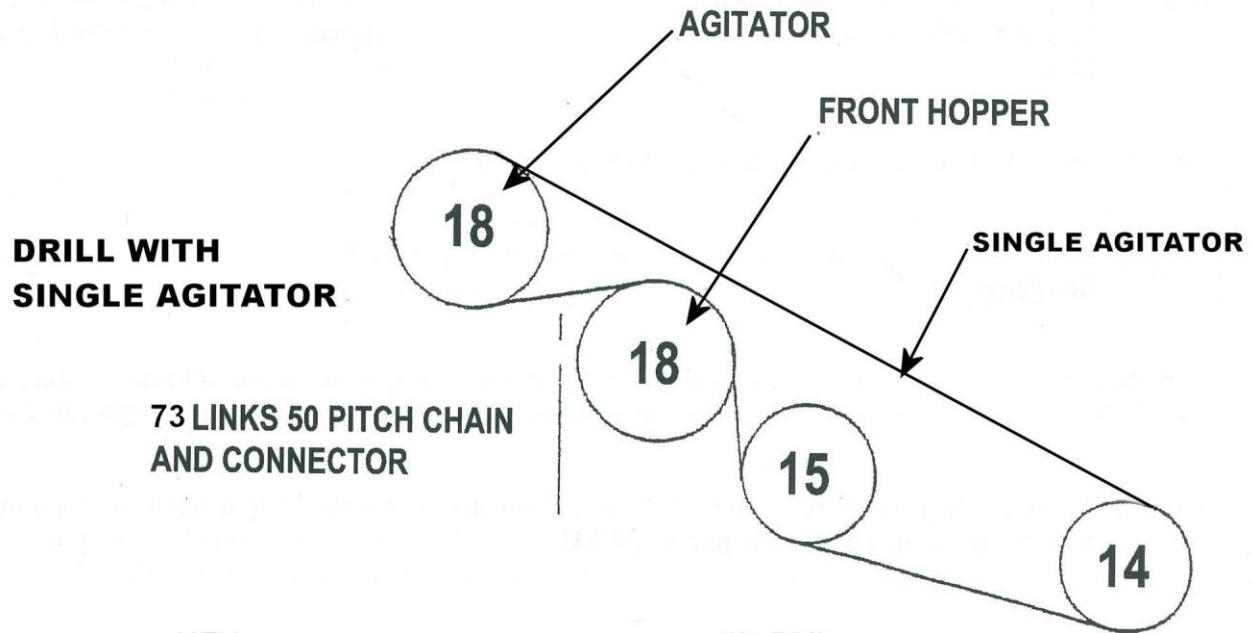
Step 15. Remove existing idler sprocket and spacer and install idler sprocket mount (#6) and existing idler sprocket using 1/2" x 1-1/2" hex head machine bolts. Adjust chain tension. **See Native Grass Kit– Tank End Drive for Double Agitator.**

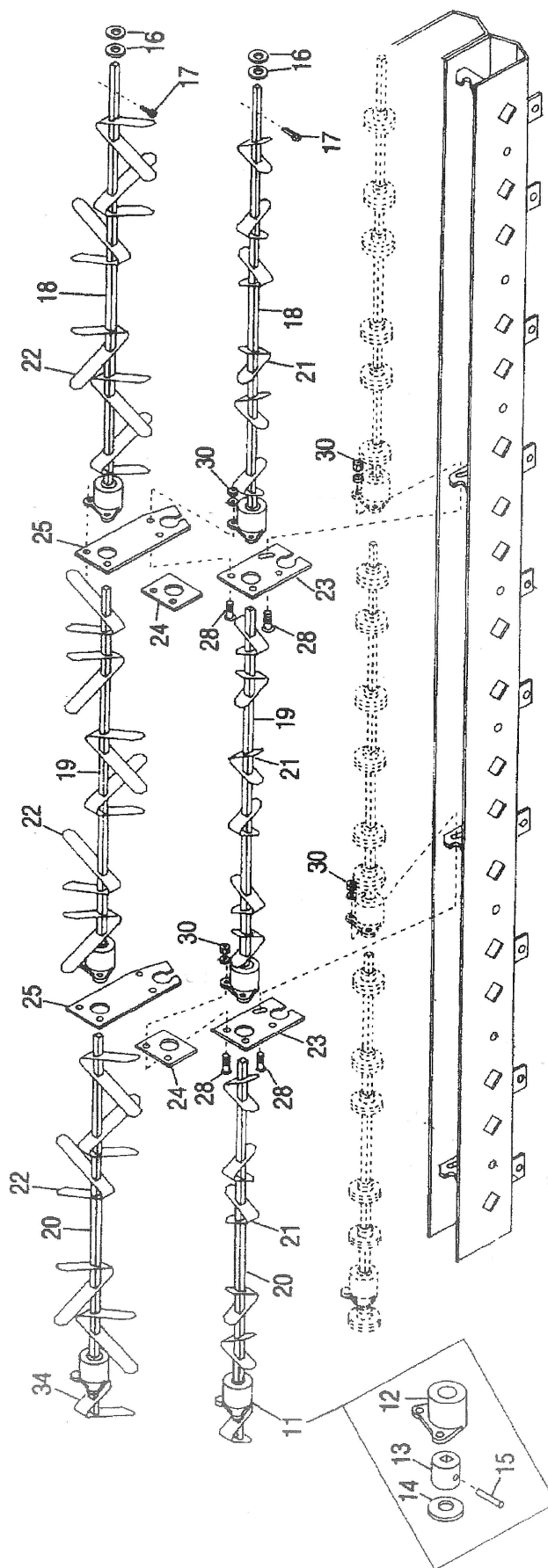
Step 16. Install existing shield (p.n. 8400243) for single agitator or new shield (p.n. 8400246) for double agitator using existing bolts. **See Native Grass Kit– Tank End Drive for Double Agitator.**

Chain Routing



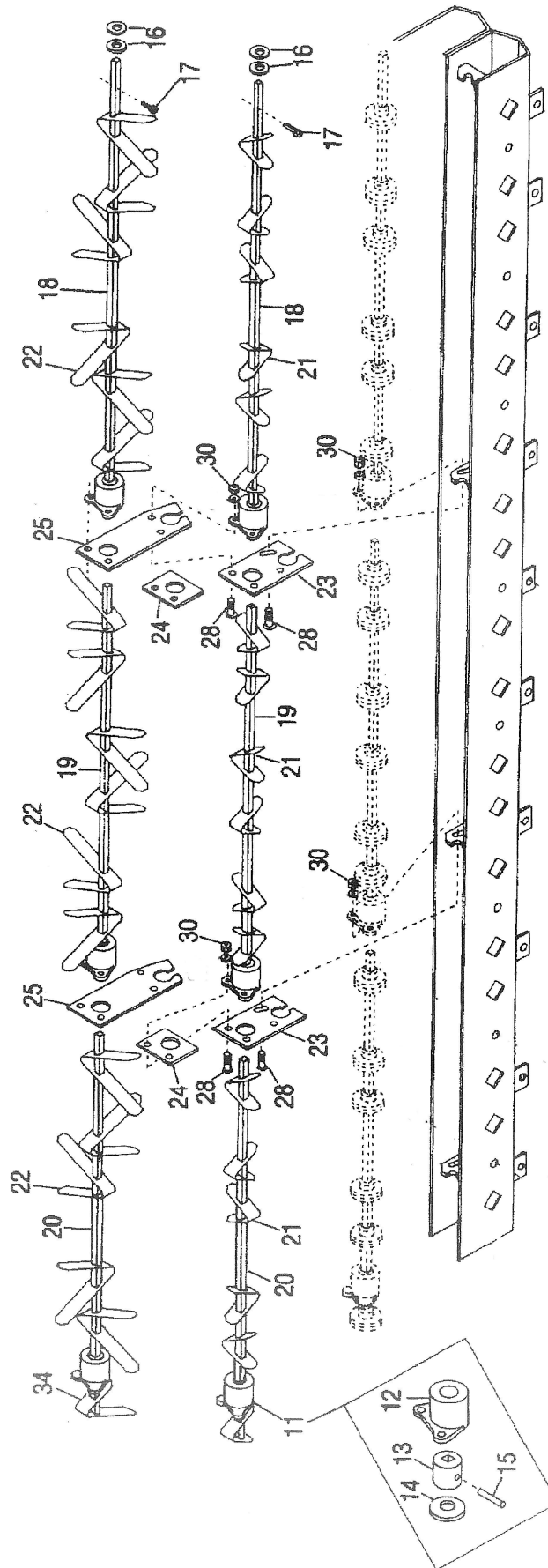
Chain Routing for Single Agitator





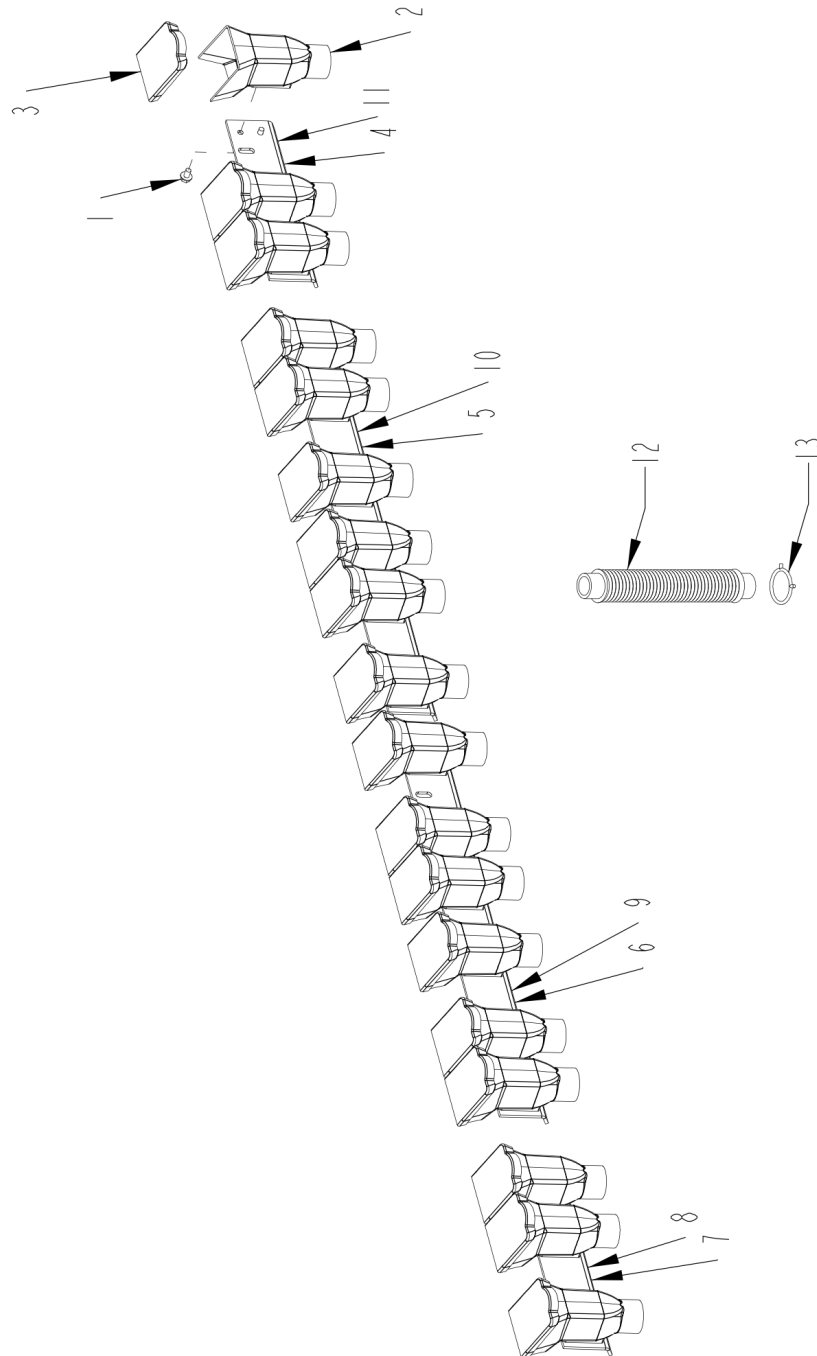
107C Native Grass Kit-Additional Single Agitator Shafts

Item	Part No.	Name	Remarks	Qty	Uom
11	7500110	BRKT\CAST\W\BEARING\COMPLETE		3	EA.
12	7500108	CAST BRACKET HOUSING		3	EA.
13	7500109	1.445 5/8SQ HOLE SLEEVE		3	EA.
14	5000055	WASH\7/8 X 1.75OD		3	EA.
15	4800169	PIN\RLLD\1/4X1-1/8		1	EA.
16	5000027	WASH\7/81DX1-1/2OD\20GA SHIM		2	EA
17	4800044	PIN\COT\5/32X1-1/2		1	EA.
18	8400426	38-7/16 FEED SHAFT 100 SERIES		1	EA
19	8400423	33-1/16 FEED SHAFT 100 SERIES		1	EA
20	8400425	34-1/2 FEED SHAFT 100 SERIES		1	EA
21	8400256	SMALL AGITATOR PADDLE 7" SPACING		18	EA
22	8400257	AGTTR\LRG\CTR\DRILL		0	EA
23	8400259	LOWER BEARING BRACKET		3	EA
24	8400260	BEARING SPACER PLATE		3	EA
25	8400261	BRKT\BRG\UPPER\DRILL		0	EA
28	4800012	BOLT\CRG\3/8X1-1/4NC		12	EA.
30	4900076	NUT\FLG\SERR\3/8\NC		12	EA.
34	8400258	AGTTR\LRG\OFFSET\DRILL		0	EA
CA	8400865	ATTACH\INTV-GRASS\KIT\107C\7"DEALER_INSTALLED			EA



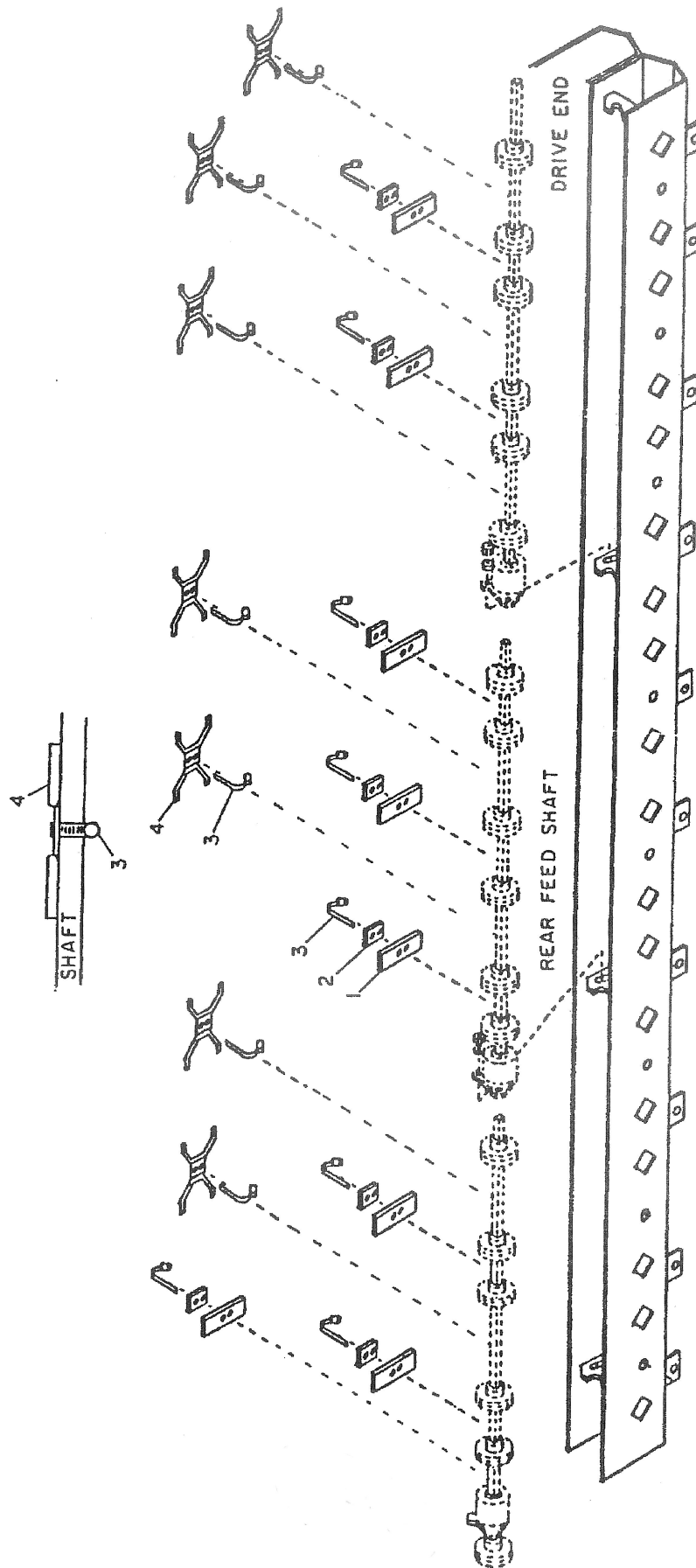
107C Native Grass Kit-Additional Dual Agitator Shafts

Item	Part No.	Name	Remarks	Qty	Uom
11	7500110	BRKT\CAST\W\BEARING\COMPLETE		6	EA.
12	7500108	CAST BRACKET HOUSING		6	EA.
13	7500109	1.445 5/8SQ HOLE SLEEVE		6	EA.
14	5000055	WASH\7/8 X 1.75OD		6	EA.
15	4800169	PIN\RLLD\1/4X1-1/8		2	EA.
16	5000027	WASH\7/81DX1-1/2OD\20GA SHIM		4	EA
17	4800044	PIN\COT\5/32X1-1/2		2	EA.
18	8400426	38-7/16 FEED SHAFT 100 SERIES		2	EA
19	8400423	33-1/16 FEED SHAFT 100 SERIES		2	EA
20	8400425	34-1/2 FEED SHAFT 100 SERIES		2	EA
21	8400256	SMALL AGITATOR PADDLE 7" SPACING		18	EA
22	8400257	AGTTR\LRG\CTR\DRILL		17	EA
23	8400259	LOWER BEARING BRACKET		3	EA
24	8400260	BEARING SPACER PLATE		0	EA
25	8400261	BRKT\BRG\UPPER\DRILL		3	EA
28	4800012	BOLT\CRG\3/8X1-1/4NC		18	EA.
30	4900076	NUT\FLG\SERR\3/8\NC		18	EA.
34	8400258	AGTTR\LRG\OFFSET\DRILL		1	EA
CA	8400865	ATTACH\INTV-GRASS\KIT\107C\7"DEALER_INSTALLED			EA



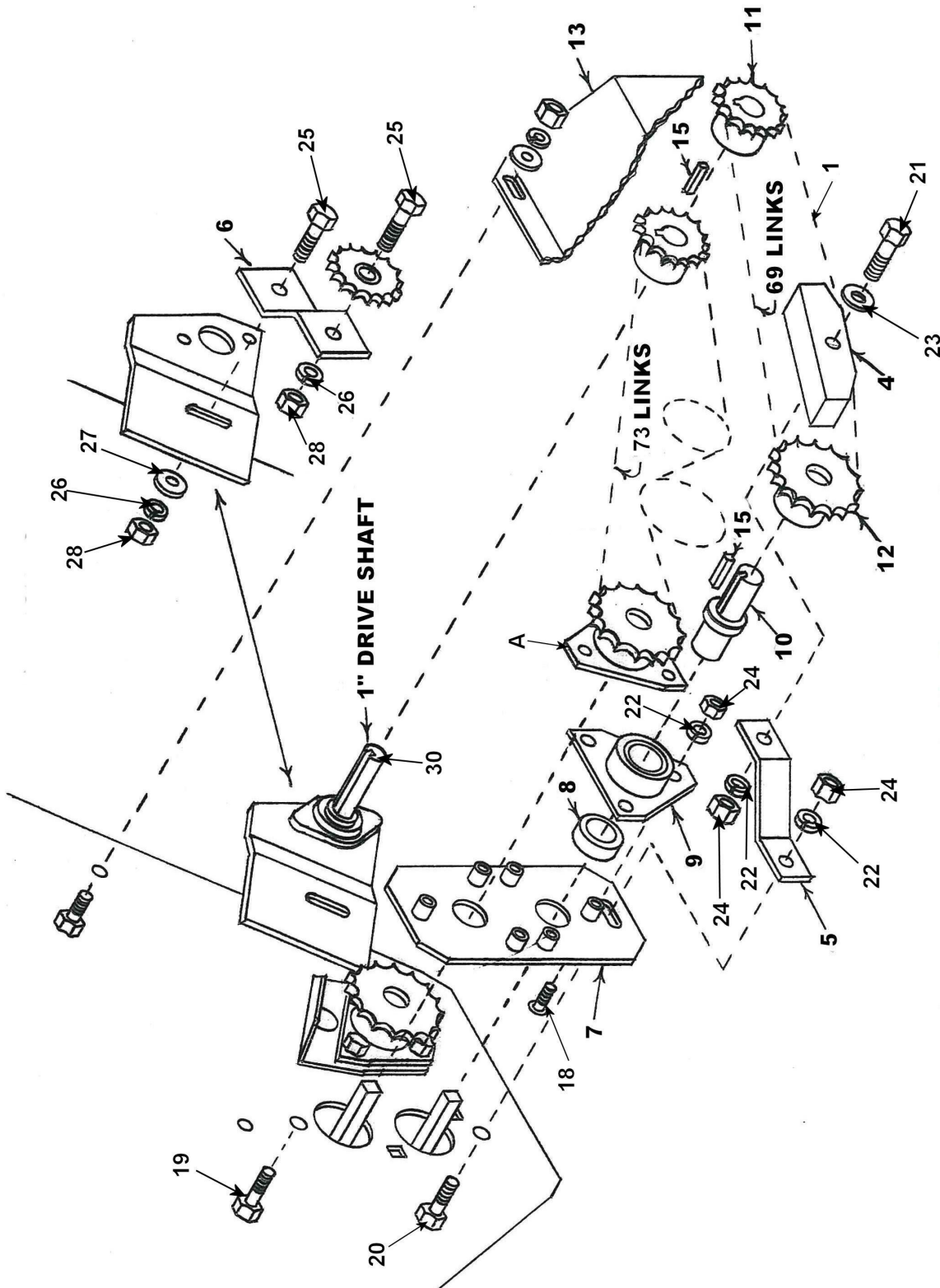
107C Native Grass Kit-Seed Cups

Item	Part No.	Name	Remarks	Qty	Uom
1	4801296	BOLT\FLG\SERR\5/16X1/2		36	EA.
2	7501402	FNNL\SEED\LARGE\77-107		18	EA
3	7501403	FNNL\COVER\SEED\LARGE\77-107		18	EA
4	8400766	MNT\SEEDCUP\REAR\GRAINTANK		1	EA
5	8400767	MNT\SEEDCUP\REAR\GRAINTANK		1	EA
6	8400768	MNT\SEEDCUP\REAR\GRAINTANK		1	EA
7	8400769	MNT\SEEDCUP\REAR\GRAINTANK		1	EA
8	8400776	CUP\SEED\END\LTASM		1	EA
9	8400777	CUP\SEED\CNTR\LTASM		1	EA
10	8400778	CUP\SEED\CNTR\RTASM		1	EA
11	8400779	CUP\SEED\END\RTASM		1	EA
12	7500168	HOSE\2"\CONVOLUTED		18	EA
13	7500169	CLAMP\SDHOSE\2\CP-34		36	EA



107C Native Grass Kit-Tank, Existing Shaft Modifications

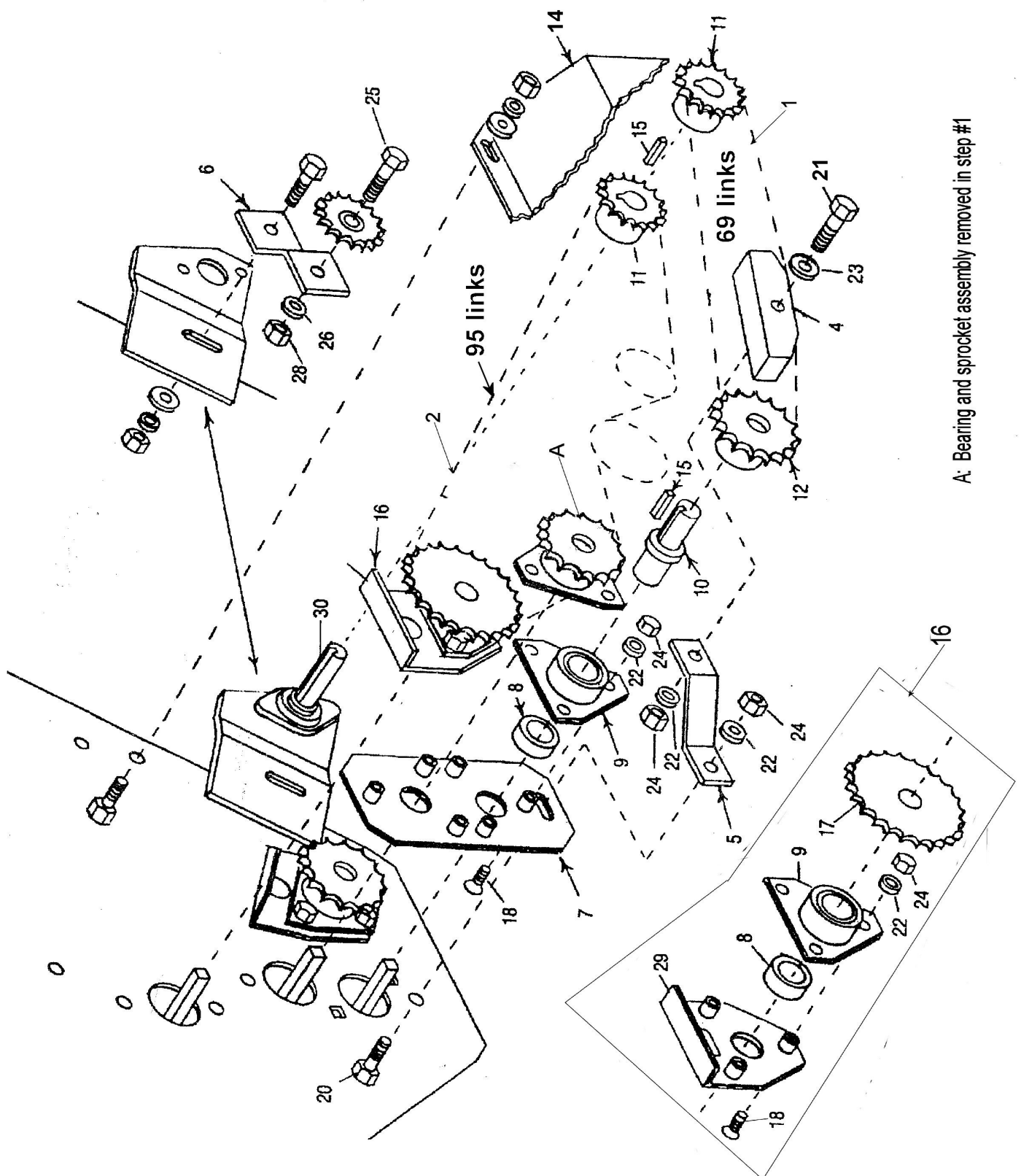
Item	Part No.	Name	Remarks	Qty	Uom
1	8400396	RUBBER PADDLE		9	EA
2	8400397	PADDLE, REINFORCE PLATE		9	EA
3	7500107	CLAMP\HOSE\1-1/4\WORM\SS		16	EA
4	8400267	FEED WHEEL SHAFT AGITATOR		7	EA



A: Bearing and sprocket assembly removed in step #1

77C/107C Native Grass Kit-Single Agitator Tank End Drive Assembly

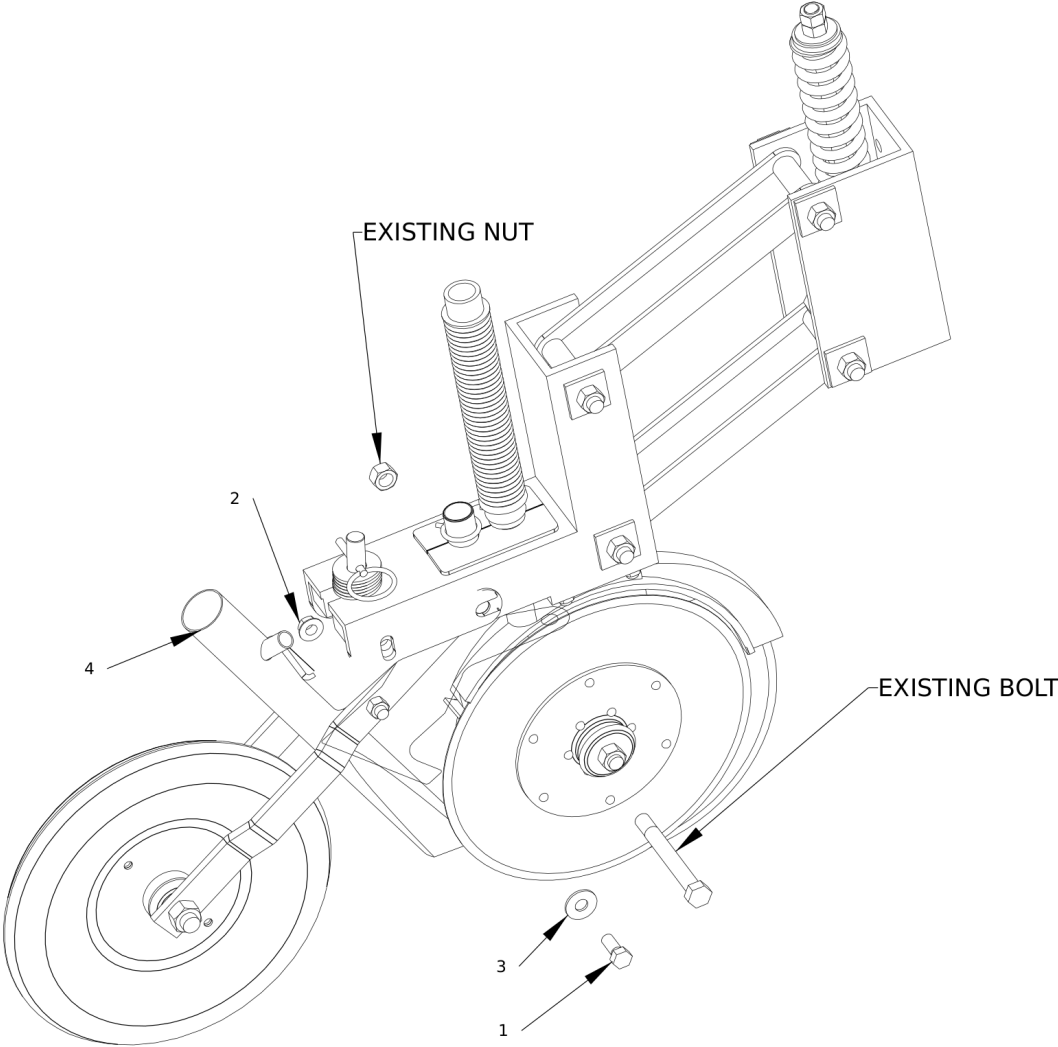
Item	Part No.	Name	Remarks	Qty	Uom
1	1100282	CHAIN\50NP\69		1	EA
3	1100059	CHAIN\50\CL		1	EA.
4	7501667	BLK\PLSTC\IDLER\	IN PLACE OF 2000016	1	EA.
5	8400240	MNT\SPKT\IDLER\REAR		1	EA
6	8400241	MNT\SPKT\IDLER\FR		1	EA
7	8400242	PL\SEAL\TANK\107		1	EA.
8	2000802	CLLR\ECC\1-1/4		2	EA
9	8400070	BRG\1-1/4\W\BRKT\3-HL		2	EA.
10	8400438	SHFT\DRIVE\EXT\DRILL		1	EA
11	1000029	SPKT\50\B\14\1\1/4KW		2	EA.
12	1000175	SPKT\50\B\18\1\1/4KW		1	EA
13	8400243	SHLD\AGTTR\SINGLE		1	EA
15	6200014	Key\Sq\1/4x1-1/4		2	EA.
18	8400167	SCR\CAP\ALN\3/8X1-1/4\NC		6	EA
19	4800034	BOLT\HEX\3/8X1-1/2		1	EA.
20	4800003	BOLT\HEX\3/8X1		1	EA.
21	4800029	BOLT\HEX\3/8X2-1/2		1	EA
22	5000019	WASH\LOCK\3/8		9	EA.
23	5000001	WASH\FLAT\3/8		3	EA.
24	4900002	NUT\HEX\3/8\NC		9	EA.
25	4800082	BOLT\HEX\1/2X1-1/2		2	EA.
26	5000006	WASH\LOCK\1/2		2	EA.
27	5000004	WASH\FLAT\1/2		3	EA.
28	4900001	NUT\HEX\1/2\NC		2	EA.
30	8400573	SHFT\DR\TANK\1X38	Note: Required when the native grass kit and a legume box are mounted on the same 107C.		EA
30A	8400440	SHFT\1X36\100 DRILL	Note: Required when a native grass kit and a legume box are mounted on the same 107C.		EA
30B	8400738	SHFT\DRV\77\NTV_GR\1X23.5	Note: Required when the native grass kit and a legume box are mounted on the 77C		EA
30C	8400718	SHFT\1X21.5	Note: Required when the native grass kit and a legume box are mounted on the same 77C		EA



A: Bearing and sprocket assembly removed in step #1

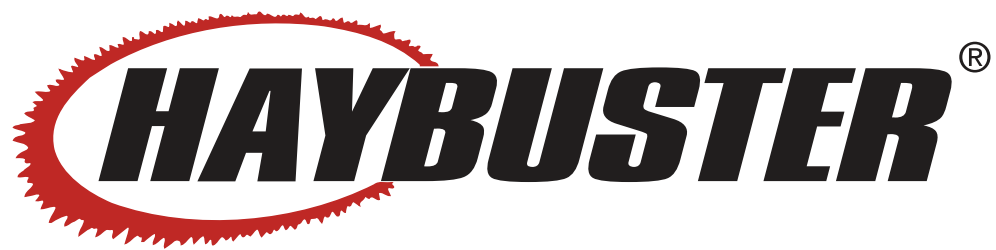
77C/107C Native Grass Kit-Double Agitator Tank Drive Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	1100282	CHAIN\50NP\69		1	EA
2	1100237	CHAIN\50NP\95		1	EA
3	1100059	CHAIN\50\CL		1	EA.
4	7501667	BLK\PLSTC\IDLER\	IN PLACE OF 2000016	1	EA.
5	8400240	MNT\SPKT\IDLER\REAR		1	EA
6	8400241	MNT\SPKT\IDLER\FR		1	EA
7	8400242	PL\SEAL\TANK\107		1	EA.
8	2000802	CLLR\ECC\1-1/4		3	EA
9	8400070	BRG\1-1/4\W\BRKT\3-HL		3	EA.
10	8400438	SHFT\DRIVE\EXT\DRILL		1	EA
11	1000029	SPKT\50\B\14\1\1/4KW		2	EA.
12	1000175	SPKT\50\B\18\1\1/4KW		1	EA
14	8400246	SHLD\AGTTR\DOUBLE		1	EA
15	6200014	Key\Sq\1/4x1-1/4		2	EA.
16	8400239	SEALER PLATE & BRG COMPLETE		1	EA
17	8400238	50-24 SPRKT W/SQ HOLE SLEEVE		1	EA
18	8400167	SCR\CAP\ALN\3/8X1-1/4\NC		9	EA
19	4800034	BOLT\HEX\3/8X1-1/2		2	EA.
20	4800003	BOLT\HEX\3/8X1		2	EA.
21	4800029	BOLT\HEX\3/8X2-1/2		1	EA
22	5000019	WASH\LOCK\3/8		14	EA.
23	5000001	WASH\FLAT\3/8		4	EA.
24	4900002	NUT\HEX\3/8\NC		14	EA.
25	4800082	BOLT\HEX\1/2X1-1/2		2	EA.
26	5000006	WASH\LOCK\1/2		2	EA.
27	5000004	WASH\FLAT\1/2		3	EA.
28	4900001	NUT\HEX\1/2\NC		2	EA.
29	8400074	SEALER PLATE		1	EA.
30	8400573	SHFT\DR\TANK\1X38	Note: Required when the native grass kit and a legume box are mounted on the same 107C.		EA
30A	8400440	SHFT\1X36\100 DRILL	Note: Required when the native grass kit and a legume box are mounted on the same 107C.		EA
30B	8400738	SHFT\DRV\77\NTV_GR\1X23.5	Note: Required when the native grass kit and a legume box are mounted on the same 77C.		EA
30C	8400718	SHFT\1X21.5	Note: Required when the native grass kit and a legume box are mounted on the same 77C.		EA



107C Native Grass Kit-Drop Tube and Assembly

Item	Part No.	Name	Remarks	Qty	Uom
1	4800018	BOLT\HEX\1/2X1-1/4		18	EA.
2	4900133	NUT\FLG\1/2\NC		18	EA
3	5000004	WASH\FLAT\1/2		18	EA.
4	8400883	TUBE\DROP\LARGE\LHW-NIPPL		9	EA
4a	8400882	TUBE\DROP\LARGE\RH\W-NIPPL		9	EA
NS	7500220	# 7 CAPLUG			As Needed
NS	7501607	PLUG\CAP\2"ID\SC2			As Needed
NS	3701669	HOSE\PVC\5/8IDX63\CLEAR			As Needed
NS	7500107	CLAMP\HOSE\1-1/4\WORM\SS			EA
CA	8400980	TUBE\DROP\LRG\W-NPPL\KIT\107C			EA





Delivery Report

Delivery Date	Machine Model	Serial No.	
Dealer Name		Engine Serial No.	
Dealer Address		Invoice No.	
Dealer City	State	Zip	
Dealer Email		Phone	

Customer Name		
Customer Address	Phone	
Customer City	State	Zip
Customer Email		

The following items are to be checked as they are explained to the owner / operator at the time of delivery

- ☐ Explain the delivery packet and present the operators manual(s) to the owner / operator.
- ☐ Review and inspect the machine safety signs (decals) and the operator's manual.
- ☐ Advise the owner that the dealer is the source to obtain operator training, and information regarding the correct application of the machine to the job, as well as service and warranty information.
- ☐ Explain the capabilities and restrictions of the machine as it applies to the owner's application as defined in the operator's manual.
- ☐ Explain the operation of the controls and start up and shut down procedures of the engine and power transmission components of the machine.
- ☐ Explain rated lift or carrying capacity and loading and unloading procedures of the machine to maintain safety and stability of the machine.
- ☐ Explain proper folding, unfolding, and transporting procedures to the owner / operator.
- ☐ Explain recommended fueling procedures on engine equipped machines.
- ☐ Explain proper loading and unloading of materials from the tub or grinding chamber of the machine.
- ☐ Objects thrown by shredding or spinning rotors may represent a hazard to personnel and property in the area. Minimize risks by planning and by keeping personnel and property clear of hazard area.
- ☐ Explain the availability and use of the tub cover to further reduce risks of thrown objects.
- ☐ Review maintenance and lubrication procedures with the operator / maintenance person as defined in the operators manual.
- ☐ Advise never to use the machine in an environment with explosive or flammable materials present.
- ☐ Explain warranty policy and limitations to the owner / operator.



Warning

Misuse of the machine or modification or removal of the guards, safety devices, or control interlocks can cause injury or death.

The above delivery information has been explained to me. I understand the operation and maintenance of this machine. I also acknowledge the warranty conditions and limitations as outlined.	
Owner / Operator Signature	Date
Dealer Representative Signature	Date