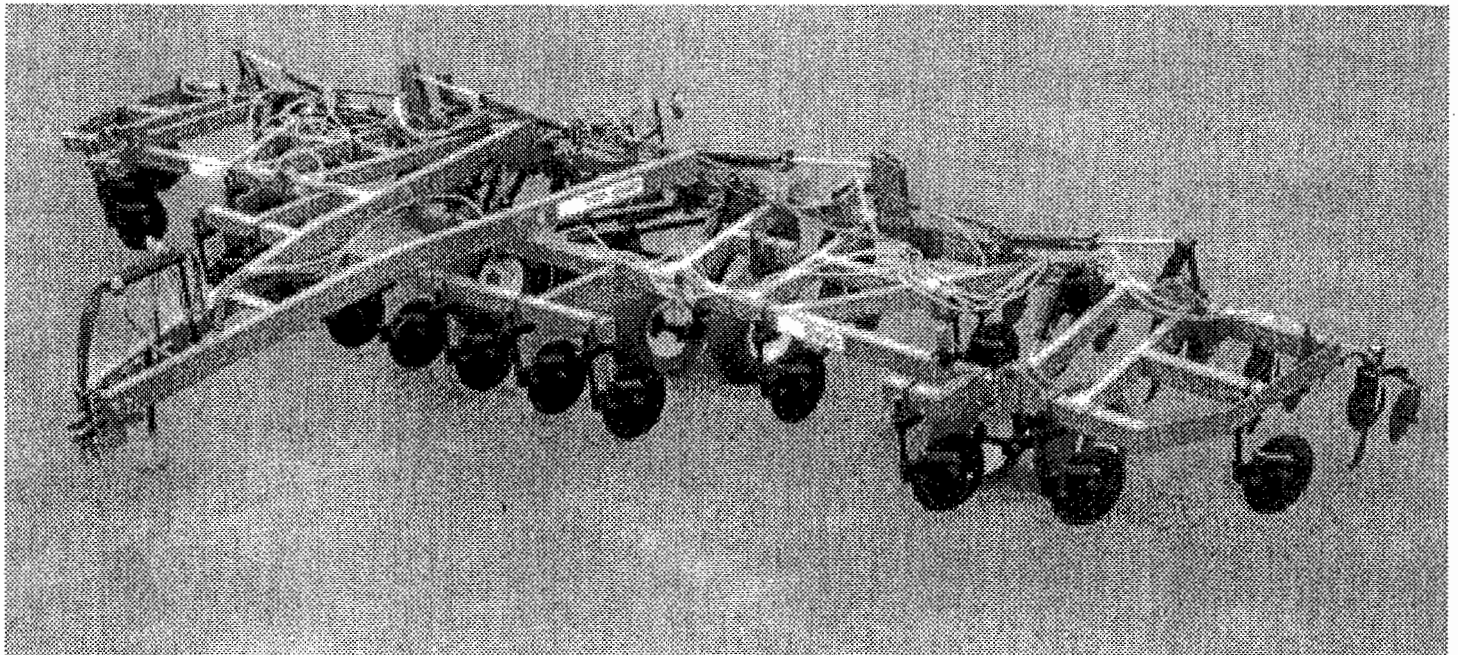


# **nutri-placr<sup>®</sup>**

## **Models**

### **4300 and 5300**

# **operator's manual**



DMI yield till<sup>®</sup> system... Helping Plants Thrive<sup>®</sup>!

600 East Peoria Street • P.O. Box 65 • Goodfield, Illinois 61742-0065

# TO THE OPERATOR

The manufacturer has built performance, features, reliability, and long life into this product, but it is your responsibility to operate and service this machine properly in order to realize these built in benefits.

The manufacturer urges you to read and understand this manual and to instruct all who will operate the implement to proper operation and service.

When ordering parts, provide the complete model number and serial number of the machine (should be filled in below), in addition the part number and part description.

MODEL NUMBER \_\_\_\_\_ SERIAL NUMBER \_\_\_\_\_  
 DATE PURCHASED \_\_\_\_\_ DEALER PHONE NUMBER \_\_\_\_\_  
 DEALER NAME \_\_\_\_\_





**NOTE:** When the term "Right" or "Left" is used, it means from a position behind the implement and facing the front.

## BOLT TORQUE

### READ THESE INSTRUCTIONS FIRST:

1. Improperly tightened bolts will result in damage, breakage, expense, and down-time.
2. Always replace bolts with the specified grade and type.
3. Torque properly before first use of the machine and every 2-4 hours of use until you are sure bolts are staying tight.
4. The chart below is a guide for proper torque. Use it unless a specified torque is called out elsewhere in the manual.
5. Torque is the force you apply to the wrench handle or the cheater bar, times the length of the handle or bar.
6. Use a torque wrench whenever possible.

The following table shows torque as measured in ft-lbs.

BOLT DIA. AND THREADS PER INCH	 GRADE 2	 GRADE 5	OR  A-325	 GRADE 8
3/8 - 16	25	35	50	50
7/16 - 14	35	55	80	80
1/2 - 13	55	85	125	125
9/16 - 12	75	125	175	175
5/8 - 11	105	170	235	235
3/4 - 10	185	305	425	425
7/8 - 9	170	445	690	690
1 - 8	260	670	1030	1030
1 1/8 - 7	365	900	1460	1460
1 1/4 - 7	515	1275	2060	2060
1 3/8 - 6	675	1675	2700	2700
1 1/2 - 6	900	2150	3500	3500
1 3/4 - 5	1410	3500	5600	5600

**NOTE:** Torque values given are for lubricated hardware. Increase values given by 10% non-lubricated hardware. Use 65% of torque value given for jam nuts.

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NOTE: **nutri-placr<sup>®</sup>**, **HCS<sup>™</sup>** shanks, **tru-trak'r<sup>®</sup>**, **uni-seal'r<sup>®</sup>**, and **wagon-mate<sup>®</sup>** are trademarks and registered products of CNH America LLC.

# SAFETY SECTION

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



This Safety-Alert Symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

	<b>CAUTION</b>	Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.
	<b>WARNING</b>	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.
	<b>DANGER</b>	Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

**IMPORTANT:** Be sure to keep all safety signs clean and readable. When replacing signs or reflectors, remove loose pieces of old sign and clean surface. Peel off backing of new sign and position as closely as possible to original location.

THE MODEL 4300 SIGN KIT #18530043 INCLUDE ALL SIGNS AND REFLECTORS FOR AN ENTIRE MACHINE (EXCEPT SMV WHICH IS INCLUDED IN KIT #18584200).

PART NO. 18534282

PART NO. 18534228



PART NO. 18534244



PART NO. 18534243

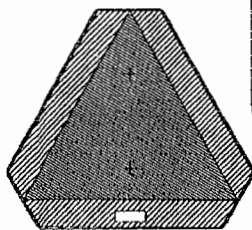
PART NO. 18534368



PART NO. 18534367



PART NO. 18534364



PART NO. 311860A1

PART NO. 18534227



PART NO. 18534363

# IMPLEMENT SAFETY

## nutri-placr Models 4300 and 5300

In addition to design and configuration of equipment, safety and accident prevention are dependent upon the awareness, concern and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment. Failing to follow these safety messages can result in machine damage, property damage, personal injury, and/or death.

- Before operating your **nutri-placr** unit, thoroughly read and understand your operator's manual. **If you do not understand any portion of the Operator's Manual, contact your DMI dealer immediately for clarification.**
- Machinery should be operated only by qualified persons familiar to the tractor and equipment, **nutri-placr** unit, and the safety related items. Do not let children operate machinery.
- Tow with tractor only. Never transport the **nutri-placr** unit in excess of 20 m.p.h. Maintain a safe speed.
- Be sure unit is equipped with a Slow-Moving-Vehicle (SMV) emblem when transporting.
- Check with state and local authorities for additional guidelines concerning lighting for implements being towed on public roads and comply.
- Test and maintain lights before towing on public roads. Make sure lights are not obstructed by residue hanging from shanks or sealers before towing on public roads.
- Be sure to comply with all state and local requirements for implement transport.
- Install transport stops before transporting.
- Always check torque on wheel bolts before transporting.
- Keep everyone clear while operating hydraulics or controls and also when machine is in motion.
- Never permit riders on **nutri-placr** unit or tractor.
- Do not stand on, or straddle, the **nutri-placr** unit tongue when unhitching.
- Never position yourself under any portion of the **nutri-placr** unit. Lower machine to the ground, turn off tractor and remove key before making adjustments or repairs. Otherwise, block securely to prevent accidental lowering.
- Do not lubricate, adjust, or repair when **nutri-placr** unit is in motion.
- Always store a wing implement with the wings down.
- Keep fingers, hands, and feet away from pivot links when servicing, or adjusting shank trip mechanisms.
- Always have tractor coupled to applicator when folding or unfolding wings and raising or lowering machine.
- Compressed springs have potentially dangerous stored energy. Always assemble and disassemble properly.
- When transporting, always use an ASAE approved (ANSI/ASAE S338.2 Jul 93) safety chain with tensile strength equal to the gross weight of the unit, plus any attachments. The proper size for the **nutri-placr** is a 30,000 lbf rated chain.
- Do not modify or permit anyone to modify this **nutri-placr** unit, any of its components, or any equipment function without first consulting a DMI equipment dealer.
- Blades have extremely sharp edges. Care must be taken when handling to avoid injury.
- NEVER attempt to inspect, service, or disassemble any part of the hydraulic system including the hydraulic hoses until all pressure is relieved by shutting off tractor, lowering the **nutri-placr** unit to the ground (or secure with cylinder transport stops provided), and placing remote control levers in float or neutral position.
- High pressure fluid is nearly invisible, but has enough force to penetrate the skin. **NEVER** use the hands to search out a suspected leak. If injured by escaping fluid, obtain medical attention immediately. Fluid must be surgically removed or gangrene will result. Wear safety glasses or goggles to avoid eye injury when working on the hydraulic system.
- Be sure safety signs are clean and readable. All safety related signs must be replaced if the **nutri-placr** unit is painted or the signs are otherwise rendered unreadable.
- Use only approved replacement parts.
- Furnish this manual to a new operator.
- Always check for overhead obstacles during transport and before folding or unfolding the wings.

# A.A. SAFETY

- Before operating your **nutri-placr** unit, thoroughly read and understand your Operator's Manual. If you do not understand any portion of the Operator's Manual, contact your **DMI** dealer immediately for clarification.
- Before operating your **nutri-placr** unit, thoroughly read and understand your Parker quick disconnect coupling operating instructions pamphlet. If you do not understand any portion of the operating instruction pamphlet, contact your **DMI** dealer immediately for clarification.
- Always wear a full face mask with ammonia type canister, tight fitting safety goggles and protective gloves made of rubber or other material impervious to ammonia.
- A container of no less than five (5) gallons of readily available clean water should be on or near every tank of ammonia.
- Never look directly into hose, meter, quick coupler or shut off.
- Do not attempt to connect or disconnect the coupling until lines are completely bled and flow from open bleed valves has stopped.
- When transporting ammonia the discharge hose should be securely fastened on both ends. Hose end valves should be turned off while in transport, service, or storage. Precautionary measures must be taken to prevent accidental opening of these valves (especially quick opening or 1/4 turn valves).
- Before storage or service, close all hose end and tank valves. Bleed all A.A. hoses. Be sure to actuate hydraulic ball shutoff valves to release trapped ammonia inside the ball.
- Read and understand all safety signs and keep them in their proper places.
- Always teach all persons involved in the handling of ammonia that it is dangerous and must be handled with care. Carelessness may cause serious injury or death.
- No ammonia should be transported on wagons or applicators that are not safe for road travel.
- Work upwind whenever practical.
- Provide a warning to prevent filling of tank past 85% capacity.
- Use only approved replacement parts.
- Never allow children near equipment.
- Replace Quic-Coupler and anhydrous ammonia hoses in accordance with state regulations or manufacturer's recommendations, whichever is sooner.
- The hose from the wagon to the Quic-Coupler should not be wrapped or tied to applicator. The Quic-Coupler must be free to detach if wagon accidentally unhooks.
- The Quic-Coupler safety swing stand must pivot freely. Check before using.

## AMMONIA FACTS

The following information is taken from the joint publication of the American National Standard Institute and Compressed Gas Association. (ANSI K61.1/CGA G-2.1)

- \* Ammonia is extremely hard to ignite and is a relatively stable compound. However, the release of ammonia gas into a tightly enclosed or inadequately ventilated space may result in the accumulation of a flammable mixture that can cause a combustion explosion if a high temperature ignition source is present.
- \* Under some circumstances ammonia and ammonium compounds can react with other chemicals to form explosive products. Ammonia should never be combined with other chemicals unless the possible reactions have been adequately investigated and appropriate precautions taken.
- \* Ammonia Exposure. At low concentrations, ammonia gas is irritating to the eyes, skin and mucous membranes of the nose, throat, and lungs. At higher concentrations, ammonia is corrosive to human tissue and possibly life threatening.
- \* The U.S. Occupational Safety and Health Administration (OSHA) has adopted a short term exposure limit (STEL) of 35 parts per million (ppm) (27 mg/m<sup>3</sup>). This is for an employee's 15 minute time-weighted average (TWA) exposure which may not be exceeded at any time during a work day.

# GENERAL INFORMATION

## FEATURES

The **DMI nutri-placr** pull type applicators are the result of over 30 years of using imagination and foresight to create original and unique nutrition systems for smart farming. The **nutri-placr** units are truly the strongest and most dependable applicators available, and can handle any tillage practice by cutting residue and deep placing anhydrous ammonia, or liquid plant nutrients in the root zone.

DMI has designed every feature, every function, and every resulting operation with the predominant needs of today's dealers and progressive farmers in mind.

### I. MAIN FRAME

Main frame bars are vertical 4" x 6" tubes and the main frame is of double bar welded construction, providing superior strength in both field and transport positions.

### II. PULL FRAME

Pull frame attaches to both front and rear bar for even distribution of pull. The pull frame tube is formed down to prevent frame interference with the tractor 3-point hitch. Adjustable combination single/double clevis hitch with one pin adjustment for leveling machines with various tractor drawbar heights. All welded construction.

### III. WINGS

The wings are constructed from vertical 4" x 6" tubes with diagonal bracing providing superior strength with less weight. The large hinge rank means less stress on the hinge pins. The 135° fold on the **model 4300** and the 117° fold on the **model 5300** reduces transport width for added convenience.

### IV. WHEELS

The **model 4300** has pin-adjust gauge wheels standard, with hydraulic gauge wheels optional. On the **model 5300**, hydraulic gauge wheels are standard. Synchronized hydraulic system guarantees an even lift between wings and main frame every time. Available with single tires for side dressing 30" rows, or with tandems for a smoother ride over rough terrain.

### V. WAGON HITCH

The patented **wagon-mate** constant tongue-height hitch keeps wagon tongues at a constant height throughout the entire lift and lower cycle of the applicator. The **wagon-mate** constant tongue-height hitch has the largest extending and swinging hookup pattern in the industry, with the added convenience of single lever action. The optional narrow hitch, has a slightly reduced hookup pattern, but allows the use of double disc sealers at 15" off center.

### VI. SHANKS

1" x 2" A.A. side mount shanks pull easier because of less wandering and side draft than coil shanks. Side mount provides easy mounting of knives. Available with spring, rigid, or C-S mountings.

### VII. COULTERS

Both the 20" and 24" heavy-duty spring coulters are available to slice through residue. The coulters swing side to side and adjust up and down for proper depth. Both 20" and 24" coulters are spring cushioned to ride up and over obstructions. 16E taper on coulters keep blades sharp to cut without bull dozing.

### VIII. SEALERS

Regular double disc, reversible spring double disc or **uni-seal'r** for accurate knife slot sealing in all conditions.

### IX. ANHYDROUS AMMONIA OPTIONS

All models can be equipped with either 3/8" or 1/2" A.A. plumbing from the remote double manifolds (standard). Double manifolds provide even product distribution. 1" high pressure A.A. hose feeds from the regulator to the manifolds. 1-1/4" quick coupler with 1-1/4" feeder hose on a 180° safety swing mount provides maximum safety for the operator as well as maximum capacity. Pressure gauges for each manifold to display accurate readings, are mounted on pull frame for easy viewing.

# SPECIFICATIONS

HORSEPOWER REQUIREMENTS .....	10 - 12 hp. per shank (30" spacing). 7 - 9 hp. per shank (15" spacing). Actual hp. varies with soil conditions, operating depth, knife type, etc.
SHANK SPACING .....	Knives on 15", 30", 36" and 38" centers.
SHANKS .....	1" x 2" spring loaded or rigid. 32" clearance from knife to bottom of frame.
COULTERS .....	24" diameter or 20" diameter
WORKING DEPTH .....	Knives - 5" - 8" Coulters - 2" - 4"
WORKING SPEED .....	5 - 6 m.p.h.
TRANSPORT TIRES..... <b>model 4300</b>	12.5L x 15 10-ply (single) or 11L x 15 8-ply (tandem). 12.5L x 15 12-ply (single) (Heavy Duty)
..... <b>model 5300</b>	11L x 15 8-ply (tandem) 12.5L x 15 12-ply (tandem) (Heavy Duty) 12.5L x 15 12-ply (single) (Heavy Duty)
GAUGE WHEEL TIRES..... <b>model 4300</b>	9.5L x 15 6-ply (hyd.) 8.5L x 14 6-ply (pin adjust)
..... <b>model 5300</b>	9.5L x 15 6-ply (hyd. tandem) 11L x 15 8-ply (hyd. singles) 8.5L x 14 6-ply (pin adjust)

## CYLINDERS AT RATED OPERATING PRESSURE

LIFT CYLINDER - 3,000 p.s.i. ....	Synchronized - 3-1/2" x 10" rephasing with hydraulic gauge wheels, or 3" x 10" with pin adjustable gauge wheels.
GAUGE WHEEL CYLINDERS - 3,000 p.s.i. ....	Synchronized - 3-1/4" x 10" rephasing
WING FOLD CYLINDER - 3,000 p.s.i. ..... <b>model 4300</b>	3-1/2" bore x 36" stroke
..... <b>model 5300</b>	4" bore x 36" stroke inner wing 3" bore x 24" stroke outer wing (40' & 42-1/2' machines) 3-1/2" bore x 24" stroke outer wing (47-1/2' & 52-1/2' machines) 4" bore x 24" stroke outer wing (50' w/15" shank spacings)

SWATH WIDTH .....	#	OF SHANKS	SHANK SPACING	WORKING WIDTH	TRANSPORT WIDTH	TRANSPORT HEIGHT
<b>4300</b>		11	30"	27-1/2'	16'6"	10'
		12	30"	30'	16'6"	11'
		13	30"	32-1/2'	16'6"	11'9"
		15	30"	37-1/2'	16'6"	13'6"
<b>5300</b>		16	30"	40'	18'6"	13'6"
		17	30"	42-1/2'	18'6"	13'6"
		19	30"	47-1/2'	18'6"	13'6"
		21	30"	52-1/2'	18'6"	13'6"

# WARNING AND TAILLIGHTS

- This machine includes warning and taillights as standard equipment. These lights will be assembled to the left and right rear corners of the machine (see Assembly Instructions).

When properly installed and connected to a tractor with a properly functioning seven-pin light system receptacle, this system will comply with ANSI/SAE Standard S279.9 - OCT98 for warning and taillights. They will provide the following features.


- The location of the lights will show approaching traffic and approximate width and length of the machine.
- The red taillights will work with the tractor red tail lights.

- The amber lights, which are visible from both front and rear, will flash in unison with the tractor flashing amber warning lights.
- If the tractor is equipped with turn signals, the amber lights and the red taillights will flash in unison with the turn signals on the tractor.

**IMPORTANT:** Test and maintain the warning and tail lights before transporting the machine on public roads. Make sure lights are not obstructed by residue hanging from shanks or sealers before towing on public roads.


- A storage container is provided to keep the seven-pin connector clean when not in use.

# OPERATION SECTION

 **CAUTION:** Do not allow children or unqualified operators to operate equipment. In addition to design and configuration of equipment, safety and accident prevention are dependent upon the awareness, concern and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

## IMPORTANT:

- Before moving the implement be sure the three point hitch has been raised to the top to prevent damage to the clevis and tongue when making turns.
- Before raising and lowering the machine or folding the wings, be sure that all hydraulic hoses are tied down properly so they don't interfere with the raising, lowering and folding operation. Hoses must be fastened securely, especially near the wing hinge area.
- The machine must be on level ground with tires properly inflated to raise and lower the wings.
- Never attempt to raise or lower wings while applicator shanks are in or on the ground.
- Measure overall transport height.
- Never lower or raise the wings under full tractor hydraulic pressure. Always slowly lower the wings by partially opening the valve on the tractor.
- Make sure that wing hydraulic cylinders are fully extended to allow wings to follow the contour of the ground.
- Be sure to comply with all state and local requirements for implement transport, day and night.
- Never install additional equipment on top of **nutri-placr** unit except approved **DMI** Accessories. Failure to comply will void warranty.

 **WARNING:** Keep everyone clear of the machine when folding or unfolding the wing.

## OPERATION OF HYDRAULIC WING LIFT

### CHANGING FROM OPERATING POSITION TO TRANSPORT POSITION

Prior to operating the hydraulic wing lift, the hydraulic system must be fully charged. See [Charging the Hydraulic System](#).

Prior to transporting the **nutri-placr** unit, the lift cylinders should be recharged, the wings should be folded and the transport stops installed. The tractor operator should perform the folding and locking operations and he should be the only person in the tractor cab or around the unit for safety.

1. Extend the depth control cylinders and hold the tractor hydraulic level for 30-60 seconds to purge the air from the synchronized system. Install the transport stop on the master cylinders (main frame).
2. Retract the wing lift cylinders slowly until wings are fully folded.

# CHANGING FROM TRANSPORT POSITION TO OPERATING POSITION

- 1) Lower the wings slowly. Fully extend the wing lift cylinders.
- 2) Remove the transport stop on the depth control master cylinders.

## CHARGING THE HYDRAULIC SYSTEM SYNCHRONIZED (REPHASING) LIFT SYSTEM

Each of these rephasing cylinders is equipped with a bypass port located at the rod end of the cylinder. This port allows air to be purged from the system and the cylinders to be rephased.

Because the cylinders are connected in a series it takes more time and care to properly bleed the system. After all cylinders are in place, lines properly connected and the hoses hooked to a tractor, raise the unit and hold the hydraulic lever for 30-60 seconds. Repeat this procedure several times to be certain the system is purged of air. Check the tractor hydraulic reservoir and add oil as required.

When lifting the applicator completely out of the ground, it is best to hold the tractor hydraulic valve open for a second or two to resynchronize the slave cylinders, thereby keeping both wings level with the center section.

## FOLDING SYSTEM

All wing folding cylinders are plumbed together. In some situations one wing may lift before the other; this is normal. The wings will fold and unfold slowly because of the throttle valve in the hydraulic hoses. **MAKE SURE THESE THROTTLE VALVES ARE INSTALLED IN THE HYDRAULIC SYSTEM, SEE PAGES #31, #32, and #33.**

Before proceeding to charge the wing fold cylinders raise the unit onto its wheels and install the transport stops on each main axle.

Charge the wing folding hydraulic system in the following manner. Disconnect the rod end of each wing cylinder. Block the cylinder so that the piston rod is free to move its full stroke. Hydraulically extend and retract the tractor hydraulic lever, adding oil as required. Reconnect the rod ends of all wing lift cylinders to their respective cylinder lugs. Making certain no one is near the machine, raise the wings into transport position.

## BLEEDING THE REPHASING SERIES SYSTEM

Cylinders can get out of phase (retracted length on one cylinder 1/4" - 1/2" longer or shorter than others) for a number of reasons:

- 1) The system is cycled many times without fully extending the cylinders. Raising the unit completely out of the ground for turning at the field ends is usually all that is necessary to keep the system synchronized.
- 2) If the **nutri-placr** unit is allowed to sit in the raised position for a period of time, oil can leak by the piston allowing the cylinder to get out of sequence.

- 3) Air in the system. To force the air out, extend the cylinder. After all cylinders are fully extended, hold the lever for 30-60 seconds. Air may enter the system by a leaky fitting, mismatched couplers, or low oil in the tractor.
- 4) Internal leak in the cylinder. Repack the cylinder to solve this problem.

**NOTE:** It is wise to rephase the **nutri-placr** unit every 2 hours to insure that the wings and main frame are running level.



**CAUTION:** If cylinders are not bled as described, wings or shanks could drop unexpectedly causing injury or death.

## CHECKING THE SYNCHRONIZED SYSTEM

After fully extending all cylinders retract them to any length, and they should be within 1/4". If they are not, it is likely that a cylinder is in the wrong location. Use the hydraulic system diagram in the Owner's Manual (Pages #31, #32, and #33) to check the plumbing and cylinder locations.

## TIRE INFLATION

**IMPORTANT:** To maintain consistent depth, be sure tires are inflated to recommended pressure:

8.50 x 14	6-ply	36 p.s.i.
9.5L x 15	6-ply	38 p.s.i.
11L x 15	8-ply	40 p.s.i.
12.5L x 15	10-ply	46 p.s.i.
12.5L x 15	12-ply	46 p.s.i.

## DEPTH ADJUSTMENTS



- WARNING:**
- Keep everyone clear while operating controls or machine.
  - Do not lubricate, adjust or repair when **nutri-placr** unit is in motion.
  - Blades have extremely sharp edges. Care must be taken when working around or adjusting to avoid injury.

The applicator comes standard with cylinder stroke control segments to be used to limit the depth of the applicator. The segments are of various lengths so that the desired depth can be achieved.

**IMPORTANT:** Never use a cylinder stroke control segment larger or smaller than the cylinder rod as damage to the cylinder may result.

# SETTING THE KNIVES AND COULTER DEPTH

- 1) Set the depth of the A.A. knives by using stroke control segments on the **MAIN FRAME CYLINDERS ONLY**.
- 2) Level applicator as shown in Fig. #1 below.

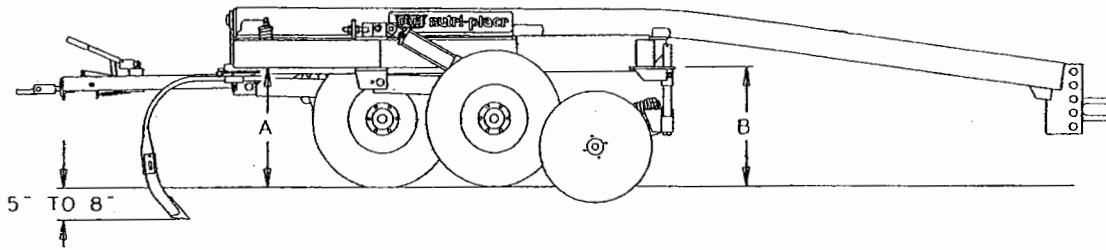


Figure 1

Once the applicator knives are at the desired depth, the machine must be leveled. A low front end will cause the front knives to be in the ground deeper than the rear knives. With the knives in the soil, measure distance "A" and "B" (Fig. #1) from level ground to the bottom of the frame - **THIS DISTANCE MUST BE THE SAME**. Once this distance is obtained, step back approximately 50 feet and view the machine. The applicator should appear level to the ground. If not, make certain the ground is level. The applicator can be leveled by changing the position of the hitch clevis, which has an adjustment range of 10-1/2 inches (Fig. #2).

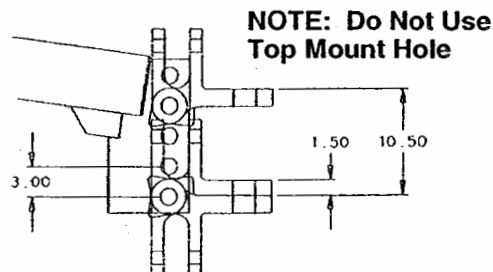


Figure 2

**NOTE: For 1-1/2" increments, flip clevis over.**

The gauge wheel has a built in adjustment. The cylinder lug can be moved forward or rearward to insure the total machine is running level side to side. If the wings of the machine are not operating as deep as the main frame (example: tractor tires are digging in and the applicator main frame is running deeper than the wings), loosen the nuts and adjust the cylinder lug rearward until equal depth is achieved. Then tighten all the nuts back up. To make wing run shallower, adjust forward. (See Fig. #3 and Fig. #4)

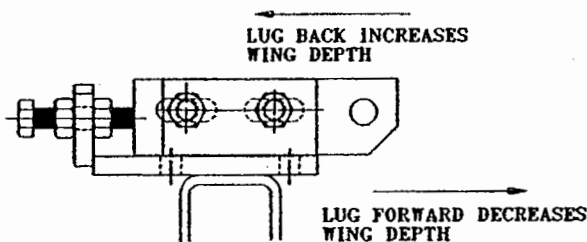


Figure 3

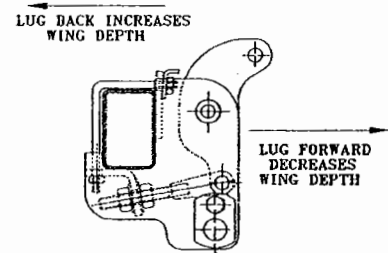
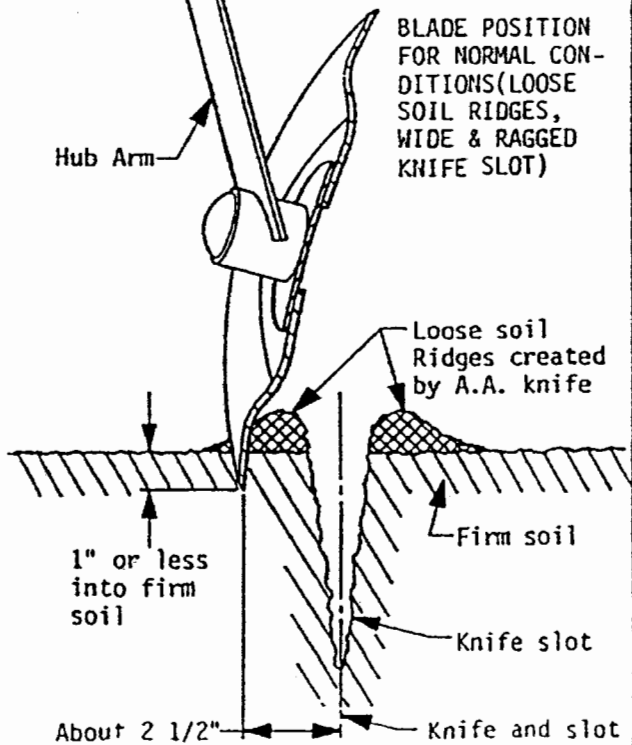
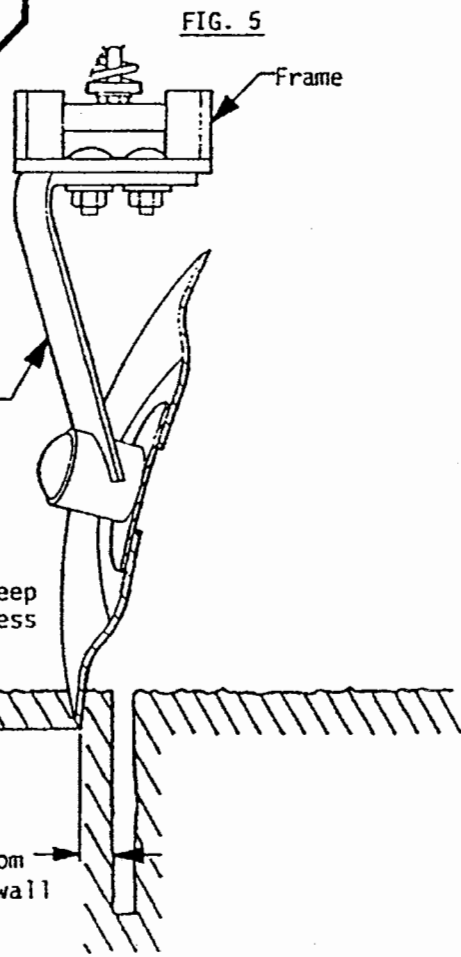
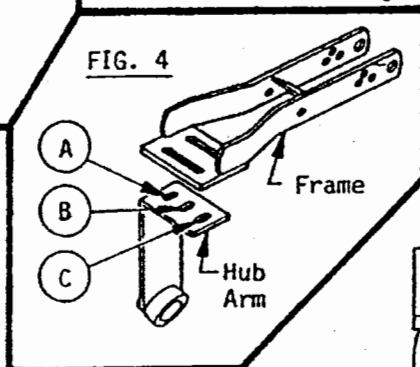
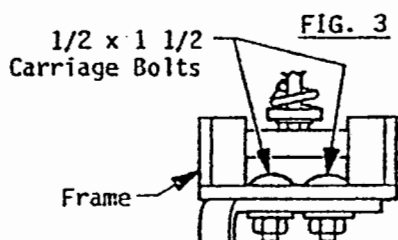
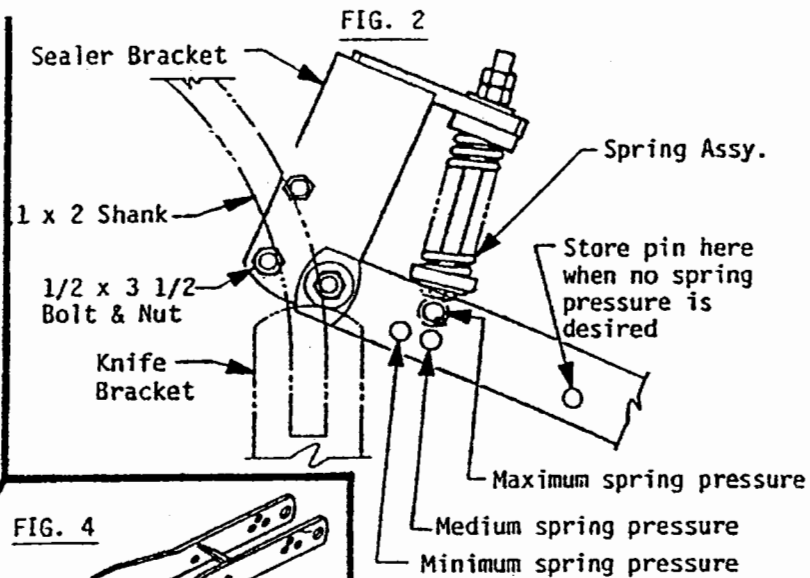
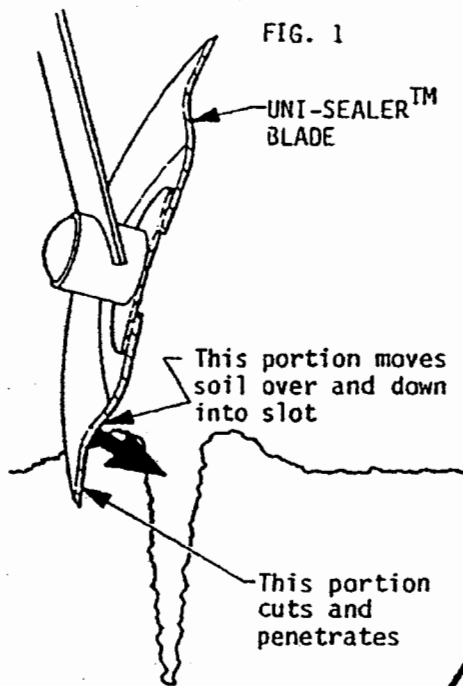


Figure 4

- 3) Set the coulters depth. The coulters are adjusted independent of the A.A. knives. Loosen the 3/4" set screw on the mounting bracket and slide the coulters shaft up or down to the desired height.
- 4) Do not run the coulters any deeper than what is needed to cut the residue. Running the coulters deeper than necessary increases the draft on the tractor and increases coulters wear.
- 5) A thin, sharp A.A. knife minimizes the amount of soil disturbed or ridged and thus reduces the power required to pull the knife through the soil. It also helps to seal the A.A. because of a smaller slit through the soil and thus is easier to cover the slot created by the knife. This is extremely helpful in heavier (gumbo type) or wet soils.
- 6) A large, thick, blunt edged knife (large insert or excess hard surfacing) provides longer knife wear but creates a larger knife slot thus making it harder to seal the A.A. It pulls harder due to more soil disturbance, thus using more fuel. The large, thick, blunt edged knife is most effective in light sandy soils which seal easiest and wear the knives the most.

# uni-seal'r



# uni-seal'r ADJUSTMENTS

- A) **ATTACK ANGLE OF BLADE:** Increasing the angle will move the loose soil ridge farther sideways so as to "gather" in all the loose ridge soil and still move it over to seal the slot. However, the wider angle may "throw" the loose soil beyond the slot and will slightly decrease blade penetration and trash cutting ability.
- B) **DISTANCE OF BLADE FROM KNIFE SLOT:** Distance can be increased or decreased by sliding the hub arm in the frame slot. Holes "B" and "C" can be used for additional side adjustment. (See Fig. #, Page #12.)
- C) **BLADE HITS A.A. KNIFE:** If the front of the **uni-seal'r** blade contacts the knife or A.A. hose with the implement raised, attach the hub arm and disc assembly in the rear slot of the **uni-seal'r** frame for additional clearance. (See Fig. #4, Page #12.)
- D) **SPRING PRESSURE:** (See Fig. #2, Page #12.) Adjustment is quickly made by changing the hole used to pin the spring T-bolt to the frame. Note that there is a storage hole for the pin in case no spring pressure is desired at all.

In the case where the knife depth used is very shallow, it may be necessary to back off the nuts at the top of the spring bolt to allow the **uni-seal'r** to drop far enough to contact the soil.

An increased spring pressure will cut trash better, minimize bouncing in rough fields and will provide more soil penetration; but it will result in more trenching and ridging.

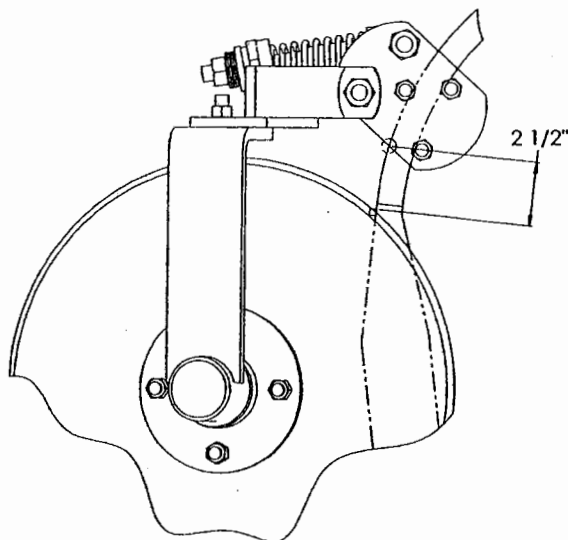
Use the lightest spring pressure that will provide satisfactory sealing.

Using the factory settings, the disc edge **DIRECTLY BELOW THE HUB** will be about 2-1/2" to the side of the knife's center-line with the disc resting on the ground. The blade will "gather" in most or all of the one loose soil ridge, move the soil over, and direct it down to seal the slot. (See Fig. #3, Page #12.)

**NOTE:** Fig. #3, Page #12, shows the normal positioning for typical conditions where the knife slot is wide and irregular, and loose soil ridges are thrown up by the A.A. knife.

In the less typical condition where the knife slot is narrow and "clean", there may be little or no loose soil ridges created by the knife. In this case, move the blade closer to the knife slot. (See Fig. #5, Page #12.) Reduce the blade attack angle somewhat to prevent the sliced off firm soil from being tossed beyond the slot and to get the best soil penetration in the firm soil.

# 18" DISC SEALER FOR 1" X 2" RIGID SHANK ADJUSTMENTS



A) Position the 18" disc sealer on the 1" x 2" shank so there is 2-1/2" space between the bottom of the sealer mounting bracket and the pin located on the back of the 1" x 2" shank.

B) Position the blades so there is approximately 9-1/2" between the blades at the rear of the sealer and adequate space between the blades at the front of the sealer so all of the soil coming from the strip-till knife is contained within the disc sealer blades. Adjust as necessary from this position as conditions indicate.

# TROUBLE SHOOTING

**TO THE nutri-placr Model 4300 or 5300 OWNER:** DMI equipment is designed for tough conditions. Our products have innovative features that greatly improve performance and reduce operating costs if the product is properly used.

Improper use of these same features can result in excessive costs, premature failure, and poor field performance. The key to proper use is knowledge and awareness on your part. This section is designed to give you that awareness.

THIS SECTION COVERS FIELD PROBLEMS, CAUSES, AND REMEDIES. A FOLLOWING SECTION, DISCUSSES CONDITIONS THAT CAN LEAD TO COMPONENT BREAKAGE, ALONG WITH THE PROBABLE CAUSES AND HOW TO PREVENT OR REMEDY THE PROBLEM.

## FIELD PROBLEM REMEDIES

POTENTIAL PROBLEM	PROBABLE CAUSES	REMEDIES
LACK OF PROPER AMOUNT OF MATERIAL PER ACRE	Clogged screen in regulator. A.A. tubes clogged with dirt. Broken diaphragm in regulator. Hose too small from tank. Regulator not set properly.	Remove and clean often. Remove dirt. Replace. Replace with larger hose. Review setting instructions.
TOOL BAR JUMPS SIDE TO SIDE	Pitch of knife not correct.	Adjust hitch clevis up or down to level implement fore and aft. Be sure rear bar is not lower than front bar.
BALLING AND FREEZING	Knife collecting trash is primary cause of balling and freezing.	Use coulters to cut trash.
INSUFFICIENT DEPTH OR MACHINE FLOATS OUT.	Dull or broken knives. Frame of machine not level (knives riding on the heel). Coulters too deep.	Replace. Forward swept knives provide better suck in. Level frame. Raise coulters. Coulters tend to hold machine out of ground if set too deep.
MACHINE PULLS HARD	Blades are too deep. Dull or broken knives. Implement frame is not level. Insufficient tire pressure. Coulters not in line with shanks.	Excessive depth consumes power. Raise blades. Replace knives. Level the machine. Inflate both transport tires equally: Refer to Page #10. Adjust coulters and/or knives so coulters are in line with shanks.

POTENTIAL PROBLEM	PROBABLE CAUSES	REMEDIES
<p><b>MACHINE IS PULLING CROOKED.</b></p>	<p>Unequal tire inflation.</p> <p>Shanks and/or coulters are spaced differently on one side compared to the other side.</p> <p>Coulters are not directly ahead of shanks.</p> <p>Gauge wheels not set evenly.</p> <p>Uneven depth stops on transport wheel cylinders.</p>	<p>Inflate to equal pressure. (See Page #10.)</p> <p>Adjust shank spacing.</p> <p>Adjust and align.</p> <p>Adjust gauge wheel evenly.</p> <p>Adjust depth stops evenly.</p>
<p><b>MACHINE PLUGGING</b></p>	<p>Blades are running too deep.</p> <p>Blades are not deep enough.</p> <p>Dull blades.</p> <p>Coulters are not directly ahead of shanks.</p> <p>Large amount of trash.</p> <p>Dull/damaged coulters.</p>	<p>Best depth is 3"-4". Maximum depth is 4". Raising blades helps to cut residue rather than pushing it ahead and not cutting. Deep blades put the hubs and disc mount parts too close to surface and creates plugging in heavy residue.</p> <p>In soft, wet ground and tough stalks, it may be necessary to lower blades to cut heavy residue. 4" disc depth is recommended maximum depth.</p> <p>Sharpen or replace.</p> <p>Adjust coulter or disc position to directly ahead of shanks.</p> <p>Add coulters.</p> <p>Sharpen or replace.</p>
<p><b>WARNING AND TAIL LIGHTS WORK IMPROPERLY</b></p>	<p>Burned out bulbs.</p> <p>Bad connections in the plug connection(s).</p> <p>Damage to wiring harness or light assemblies.</p> <p>Tractor 7-pin connector malfunctioning.</p>	<p>Replace bulbs.</p> <p>Clean contacts.</p> <p>Repair or replace.</p> <p>Try different tractor and repair tractor electrical system.</p>

# COMPONENT BREAKAGE

PROBLEM	PROBABLE CAUSES	REMEDIES
DAMAGE/BREAKAGE OF BLADE SHAFTS AND/OR BLADE MOUNT PARTS	<p>Turning with blades in ground.</p> <p>Extreme soil conditions such as very heavy ground, frozen ground or heavy rocks.</p> <p>Running blades too deep (especially with above conditions).</p> <p>Speed too fast for conditions.</p>	<p>Avoid this.</p> <p>Avoid wherever possible. Otherwise, adjust speed to match tough conditions.</p> <p>Raise blades enough to just cut trash.</p> <p>Reduce speed in rocks or other adverse conditions.</p>
BREAKAGE OR EXCESSIVE DAMAGE TO BLADES.	<p>Turning with blades in the ground.</p> <p>Heavy rock conditions, especially combined with:</p> <ul style="list-style-type: none"> <li>a. Speed is too fast.</li> <li>b. Blades are too deep.</li> <li>c. Turning with blades in ground.</li> </ul> <p>Running in hard frozen ground.</p>	<p>Avoid sharp turns with blades in the ground.</p> <ul style="list-style-type: none"> <li>a. Reduce speed in rocks or other adverse conditions.</li> <li>b. Run blades only deep enough to cut residue.</li> <li>c. Do not turn with blades in ground.</li> </ul> <p>Avoid this.</p>
<p><b>NOTE:</b> Blade breaks where the layers of steel split apart (laminated) and straight breaks are usually due to defective materials. These types of breaks are warranted. Blades with irregular breaks, chips, dented edges and/or a center break-out (around the flanges) indicate excessive flexing and side stresses and are <b>NOT</b> warranted.</p>		

## A.A. GAUGES

The A.A. gauges give the manifold pressure for each side of the machine. Unequal gauge pressure can be caused by:

- 1) Knife tube wear - Knife tubes create pressure and must be the same type (open tube or closed and drilled) and have same hole diameter.
- 2) With double regulators, adjust each for the swath they control. For example: On a 15-shank machine, one regulator controls 7 shanks while the other controls 8 shanks.

# PARKER QUICK DISCONNECT COUPLING



**DANGER:** To prevent serious bodily harm, read and understand instructions completely before starting installation.



**WARNING:** If the coupling fails to connect or disconnect in a normal manner; if the poppets fail to close or move easily; or if there is any corrosion on the coupling or the nipple, replace the unit immediately. Failure to bleed the pressure from both halves of the coupling before connecting or disconnecting may result in hazardous ammonia spray.

For maintenance, service and operating, see the Parker Quick Disconnect Coupling Instruction pamphlet. If the pamphlet becomes illegible or lost, contact DMI immediately for replacement Part No. 00100940.

See Warranty Section for claims.

# CONTINENTAL REGULATOR

## SETTING INSTRUCTIONS

Simplicity in setting the CONTINENTAL METER MATIC is one of its outstanding features and is based on the following known values:

1. Desired amount of 'N' to be applied in pounds per acre.
2. Swath width (in feet).
3. Tractor speed (MPH)

HOW TO SET METER MATIC FOR APPLICATION RATES SHOWN ON DIAL  
 FORMULA FOR SETTING C-4100 AND B-9500

If appropriate charts are not available, use the formula (Lbs. Nitrogen x Swath Feet x MPH x .1212 = Lbs. Nitrogen in one hour).

Example: Lbs. Nitrogen per acre 100  
 Swath width in feet 30  
 Tractor speed 5

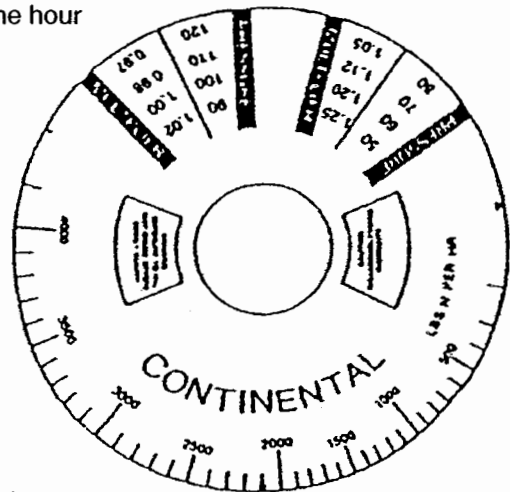
Lbs. Nitrogen x swath feet x MPH x .1212 = Nitrogen applied in one hour  
 $100 \times 30 \times 5 \times .1212 = 1818$  Lbs. Nitrogen per hour

This will be the dial setting at 100 p.s.i. tank pressure in a normal fitting arrangement. (12 feet hose x hose valve x 1" QDC x 3' of 1" hose).

**NOTE A:** 1-1/4" QDC will have less pressure drop, so less vapor formation and about 10% more flow. (So 10% less dial setting)

This setting number is then multiplied by the tank pressure multiplier on the dial (if not 100 lbs. tank pressure) in order to get the actual dial setting.

If using charts, find setting number X tank pressure multiplier = dial setting.



## MULTIPLIERS FOR DIFFERENT TANK PRESSURES

PRESSURE	MULTIPLIER		PRESSURE	MULTIPLIER
50	1.25		100	1.00
60	1.20	Lbs. N x 1.22 = Lbs. NH <sub>3</sub>	110	0.97
70	1.15		120	0.95
80	1.10	Lbs. NH <sub>3</sub> x .82 = Lbs. Nitrogen	130	0.93
90	1.05		140	0.92

FORMULA FOR CHART: #N x SWATH FT. x MPH x .1212 = # NITROGEN PER HOUR AT 100# TANK PRESSURE

EXAMPLE:  $100 \times 30 \times 5 \times .1212 = 1818$ # NITROGEN PER HOUR AT 100# TANK PRESSURE

See Warranty Section for claims.

# SELECTOR VALVE

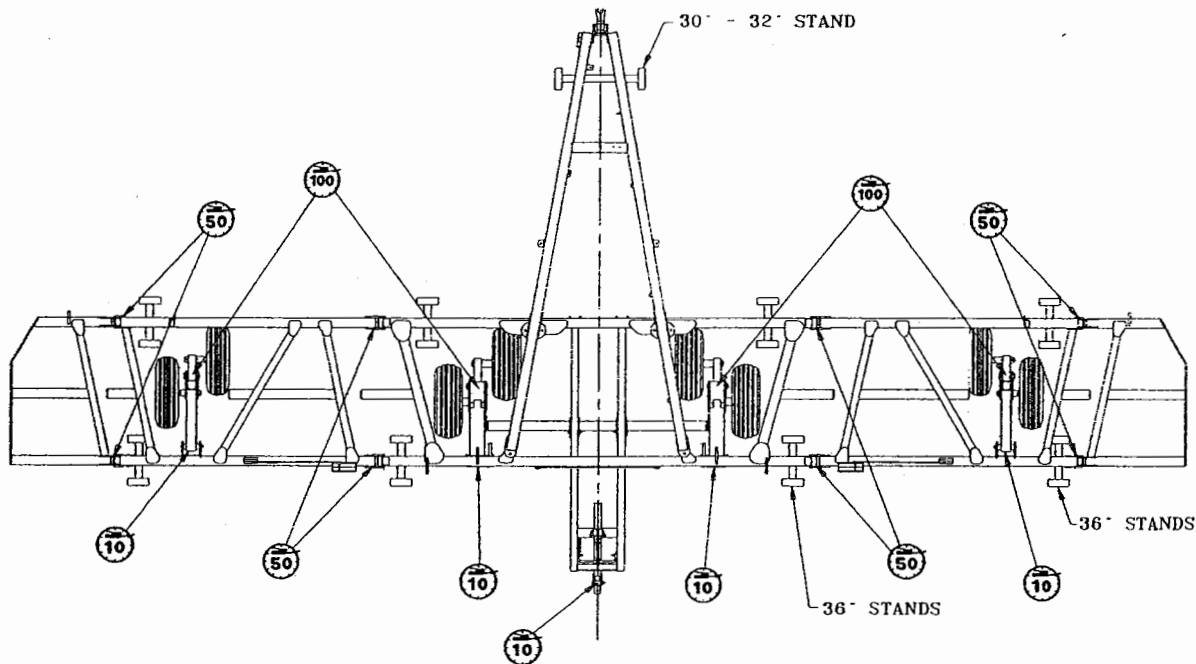
The selector valve allows the operation of two hydraulic circuits with one tractor remote outlet. On the applicator, the selector valve operates either the wing fold circuit or the main lift circuit. The hydraulic shutoff (B9500 shutoff, Gromo III, etc.) is hooked directly to the tractor for added safety.

In operating the selector valve:

- 1) When unfolding wings, be sure the wing cylinders are fully extended for full wing float before switching the selector valve to the main lift circuit.
- 2) Before folding the wings, fully raise the applicator. Install the transport lock on the main lift cylinders. Lower the machine on the stop using the float position of the tractor hydraulic control. Switch the selector valve to the wings and fold the wings.

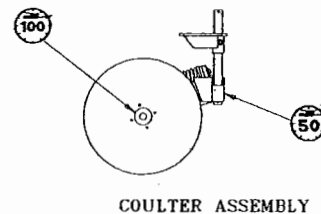
# MAINTENANCE SECTION

## LUBRICATION



- 10** - LUBRICATE EVERY 10 HOURS OR ONCE DAILY.
- 50** - LUBRICATE EVERY 50 HOURS OR ONCE WEEKLY.
- 100** - LUBRICATE EVERY 100 HOURS OR ONCE A SEASON.

(SEE NOTE "A")



COULTER ASSEMBLY

- Always lubricate your implement thoroughly before taking it to the field.
- Always lower your implement until all shank points rest on the ground and stop the tractor engine prior to lubricating the machine.
- Grease fittings are provided at all points indicated in the illustration above.
- Be sure all fittings are free from dirt and paint so the lubricant is certain to enter the proper areas.
- If any grease fittings are damaged or missing, replace them immediately. Clean the fittings thoroughly before using the grease gun.
- Use a lubricating gun and No. 2 multi-purpose lithium grease at the hourly intervals indicated on the symbols.

**WHEEL HUBS:** Clean and inspect bearings before the season and repack with wheel bearing grease.

**COULTERS ARM:** Lubricate grease zerks on individual coulters arms every 50 hours or once each week.

**COULTER HUB:** Lubricate grease zerk on individual coulters hubs every 100 hours or once a season. In muddy conditions coulters hubs should be pumped with grease to purge out dirt.

**NOTE "A":** Approximately 10 pumps from the grease gun will adequately lubricate hubs. (Some cases may vary.)

# PREVENTIVE MAINTENANCE



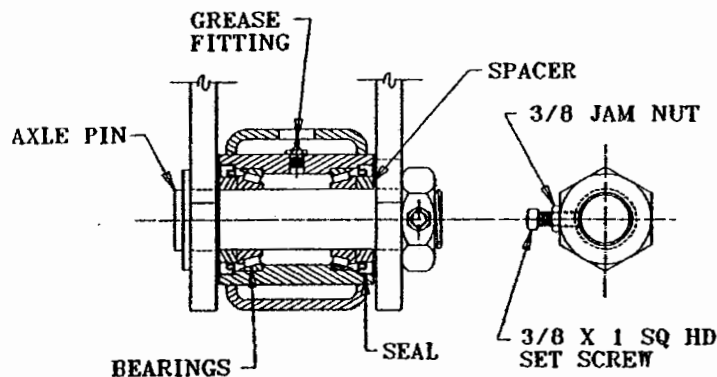
- WARNING:**
- Never position yourself under any portion of the **nutri-placr** unit. Lower machine to the ground, turn off tractor and remove key before making adjustments or repairs. Otherwise, block securely to prevent accidental lowering.
  - Be sure safety signs are clean and readable. All safety related signs must be replaced if the **nutri-placr** unit is painted or the decals are otherwise rendered unreadable.
  - Use only approved replacement parts.

**WHEEL HUB BEARINGS:** There are grease zerks in hubs that can be used during the season; however it is important to inspect bearings and seals. Repack once a year or every 250 hours of use, whichever occurs first, with a good multi-purpose wheel bearing grease. Tighten slotted nut on spindle, draw up the nut tight, and then back off one (1) slot.

**CYLINDER RODS:** When not in use for some time, coat the exposed portion of cylinder rods with grease. This will protect rod surfaces against corrosion.

## WALKING TANDEM AXLE

Check the tandem axle pivot at least once a year. Loosen the 3/8" x 1" sq. hd. set screw and torque the nut to 150-175 ft-lbs. Tighten the set screw.



If the tandem axles are removed for servicing, assemble as follows: Refer to Figure #1.

- 1) After reassembling the axle pivot bearings, place the spacers against the bearings, then press seals into place over the spacers flush with tube.
- 2) Seat the bearing assembly by torquing the nut to 260 ft-lbs. (Rotate axle up and down.)
- 3) Loosen the nut until it can be turned by hand. Retorque the nut to 150-175 ft-lbs. Tighten the set screw and jam nut. Lubricate the fitting until grease appears at both sides.

Service life and satisfaction will be extended by following these suggestions:

## PRE-SEASON CHECK LIST

1. Carefully review all of the safety suggestions in this manual.
2. Check all bolts for proper tightness. (See Bolt Torque Chart.) When implement is new, check after (1) hour and every few hours of operation.
3. Replace ground tools that are severely worn, broken or damaged.
4. Check tires for proper inflation. All tires should be inflated equally to avoid side draft. See Page #10.
5. Check the wheel lug bolts daily, keep wheel bolts. Torque to 100 ft-lbs.
6. Grease all fittings; refer to Lubrication Section, Page #21.
7. Inspect, repack, or replace (if necessary) wheel bearings and seals.
8. Check hoses, hose routing and hydraulic cylinders. Any indication of leakage or fraying of hoses should be corrected.
9. Check regulators - make sure they operate properly.
10. The Quic-Coupler safety swing stand must pivot freely. Check before using.
11. Check torque on walking tandem axle pivot. Refer to Page #22.
12. Check warning lights. Replace bad bulbs if necessary.

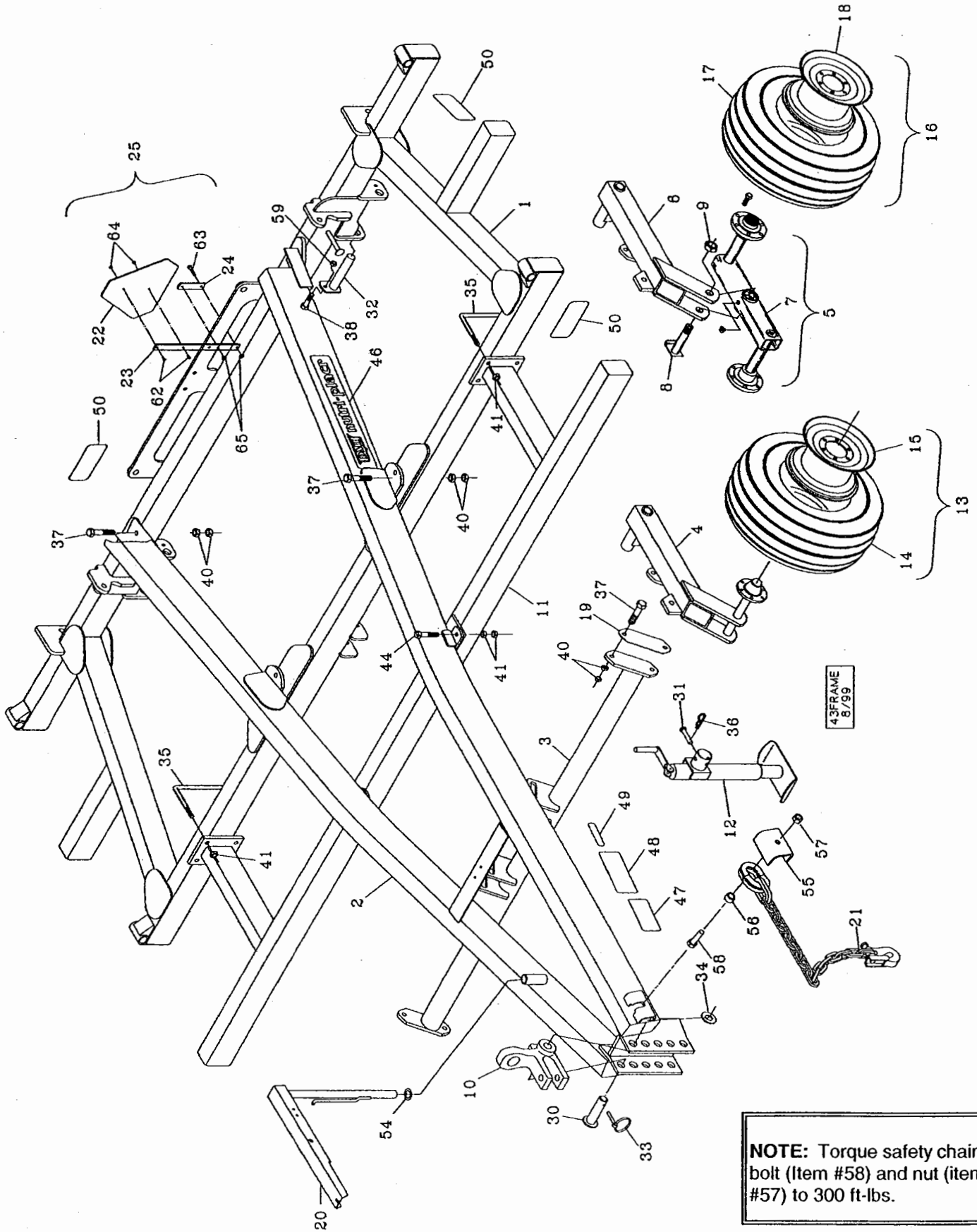
## OFF-SEASON STORAGE CHECK LIST

1. The chief enemies of your **nutri-placr** unit, rust and corrosion, are busy year around. A little time and effort spent cleaning your machine before storing will repay in longer service, easier operation, and higher resale value.
2. Inspect for worn or damaged parts. Replace if required, to avoid delays the next season.
3. Repaint all areas where the original paint is worn off.
4. Lubricate your implement. (See Lubrication Section, Page #21.)
5. Grease all exposed metal surfaces of ground tools.
6. Store the unit unfolded on a level area inside a shed to protect from weather. The ground working parts should rest on boards.
7. **DMI** recommends that during the off-season, when the applicator is not in use, the regulators and Quic-Couplers should be removed, cleaned and lubricated. Regulators and Quic-Couplers should be stored uncoupled to prevent damage to internal parts.
8. Disconnect and retract cylinders in storage or coat cylinder rods with a light coat of oil or grease.
9. Store warning light seven pin connector in storage receptacle to prevent corrosion.

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# PARTS SECTION

# 4300 MAIN FRAME

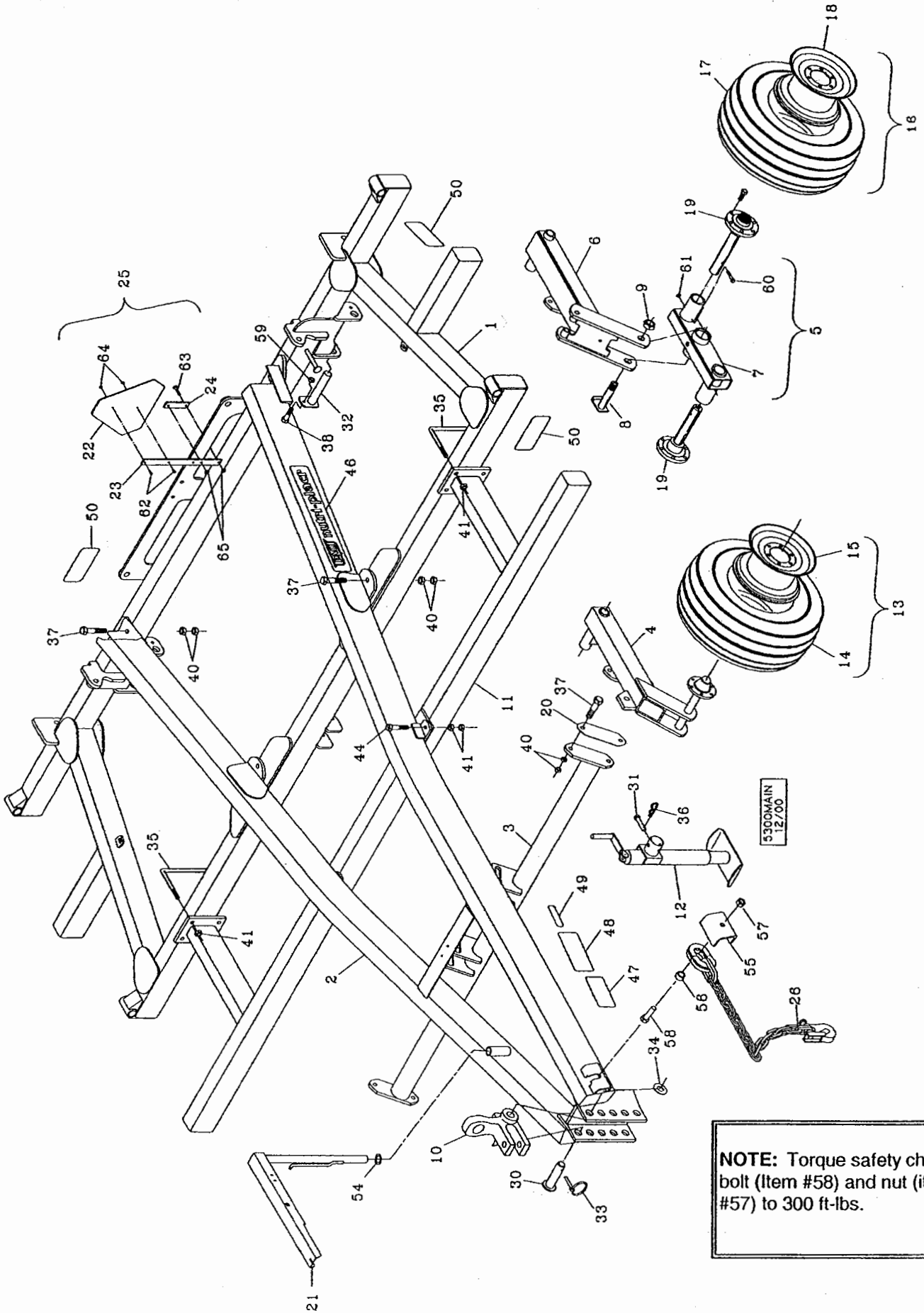


# 4300 MAIN FRAME (CONTINUED)

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	04681150	1	Main Frame	21	1032162	1	30,400 lbf ASAE Safety Chain
2	04681200	1	A-Frame	22	311860A1	1	SMV Sign
3	04661150	1	Torque Tube, 97.31" Long	23	06000099	1	SMV Mount
4	04661805	1	Spindle Arm Single 783 RH (1997 & Prior Production Used 803 Hub)	24	04660050	1	Plate
	04661905	1	Spindle Arm Single 783 LH (1997 & Prior Production Used 803 Hub)	25	18584200	1	SMV Kit (Incl. #22, 23, 24, 62, 63, 64 & 65)
	04681900	1	H.D. Spindle Arm Single 50-8 RH	30	14820525	1	1-5/8" O.D. Hitch Pin
	04681950	1	H.D. Spindle Arm Single 50-8 LH (Refer to Page #54 for 783 Hub) (Refer to Page #55 for 803 Hub & 50-8 Hub)	31	14810251	1	5/8" O.D. x 3-1/8" Clevis Pin
				32	14820920	2	1-5/8" O.D. Pin
				33	D33805	1	7/16" x 2" Klik Pin
				34	17426001	1	1-5/8" I.D. HD Washer
5	04662080	1	Spindle Arm Tandem 783 RH (Incl. #6-9) (1997 & Prior Production Used 888 Hub)	35	16312240	4	3/4" x 6" x 5-1/2" U-Bolt
	04662180	1	Spindle Arm Tandem 783 LH (Incl. #6-9) (1997 & Prior Production Used 888 Hub)	36	NSI	1	1/8" x 2" Hair Pin (14720411)
6	04662050	1	Spindle Arm Tandem RH	37	413-1448	10	7/8" x 3" NC Hex Bolt Gd. 5
	04662150	1	Spindle Arm Tandem LH	38	413-1032	4	5/8" x 2" NC Hex Bolt Gd. 5
7	04662070	1	Walking Axle Assy. 783 RH (Incl. #8-9)	40	425-1014	20	7/8" NC Hex Nut
	04662170	1	Walking Axle Assy. 783 LH (Incl. #8-9) (Refer to Page #54 for 888 Hub)	41	425-1012	10	3/4" NC Hex Nut
				44	413-1240	2	3/4" x 2-1/2" Hex Bolt Gd. 5
8	04661850	2	Axle Pin	46	18534249	2	<b>nutri-placr</b> Decal
9	14032408	2	1-1/2" Jam Nut with Set Screw	47	18534107	1	Patent Decal
10	20092310	1	Combination Clevis	48	18534228	1	Caution Decal
11	04691650	1	Front Coulter Bar	49	18534174	1	Other Patents Applied For Decal
12	32230000	1	3000# Swivel Jack	50	18534227	4	Danger Decal
				51	18530043	1	Decal Kit (for entire machine)
13	10010163	2	12.5L x 15 12-Ply Tire Assy ( <b>HD</b> single option)	54	17620030	1	1-1/4" Machine Bushing
	10010160	2	12.5L x 15 10-Ply Tire Assy (Std Single option)	55	04681210	1	Bracket
14	NSI	2	12.5L x 15 12-Ply Tire ( <b>HD</b> single option) (11012152)	56	04681211	1	Spacer
	NSI	2	12.5L x 15 10-Ply Tire (Std Single option) (11012150)	57	86992219	1	1" Stover Lock Nut
15	10110174	2	10 x 15 8-Hole Wheel ( <b>HD</b> single option)	58	413-1648	1	1" x 3" NC Hex Bolt
	10110154	2	10 x 15 6-Hole Wheel (Std Single option)	59	425-1010	4	5/8" NC Hex Nut
16	10010152	4	11L x 15 8-Ply Tire Assy. (Tandem option)	62	413-412	2	1/4" x 3/4" NC Hex Bolt
17	NSI	4	11L x 15 8-Ply Tire (Tandem option) (1980927C1)	63	413-628	2	3/8" x 1-3/4" NC Hex Bolt
18	10110154	4	10 x 15 6-Hole Wheel (Tandem option)	64	86992211	2	1/4" NC Stover Lock Nut
19	04661154	2	Shim	65	231-4246	2	3/8" NC Hex Lock Nut
20	05302150	1	Hose & Gauge Stand				

NSI - NOT A SERVICE ITEM

# 5300 MAIN FRAME



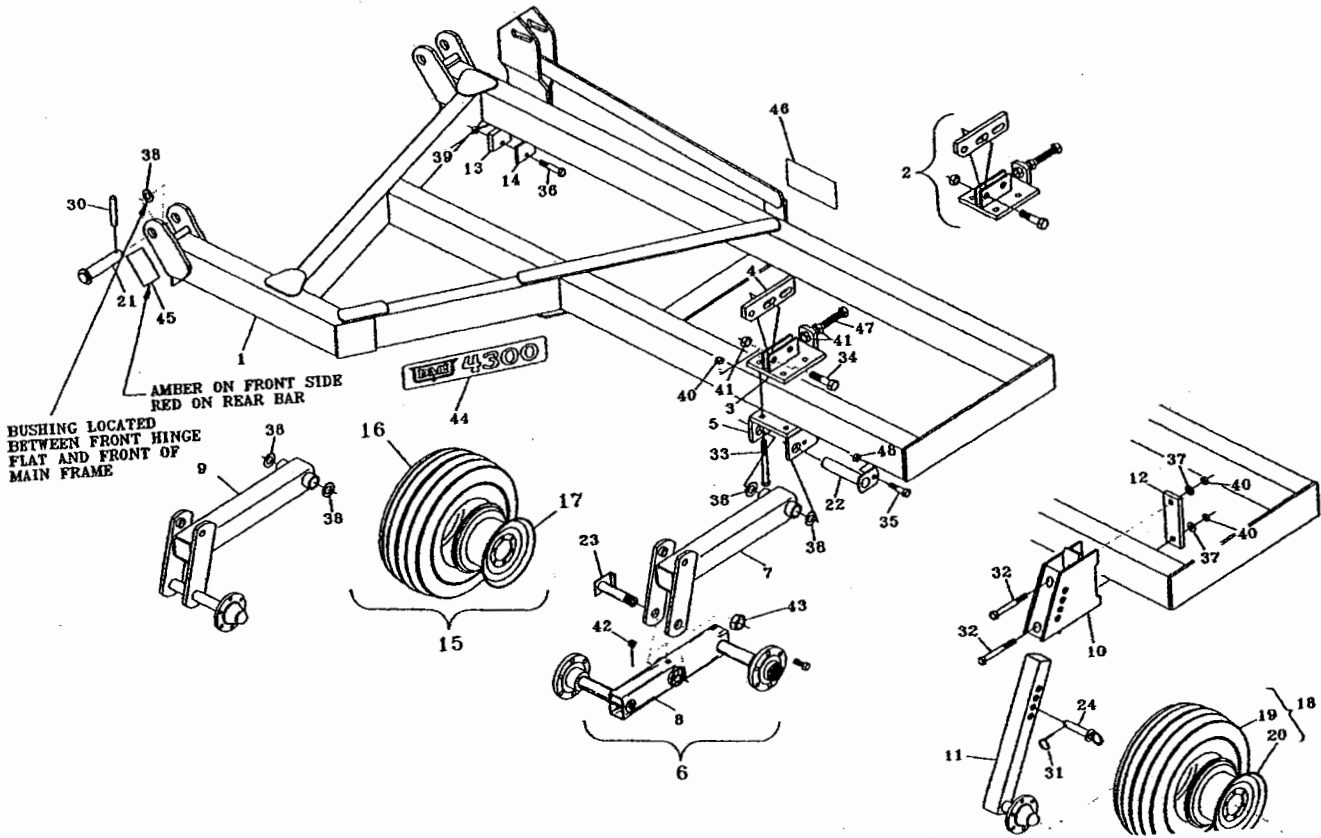
**NOTE:** Torque safety chain bolt (Item #58) and nut (item #57) to 300 ft-lbs.

# 5300 MAIN FRAME (CONTINUED)

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	04681150	1	Main Frame	30	14820525	1	1-5/8" O.D. Hitch Pin
2	04681200	1	A-Frame	31	14810251	1	5/8" O.D. x 3-1/8" Clevis Pin
3	04661150	1	Torque Tube (HD Singles), 97.31" Long	32	14820920	2	1-5/8" O.D. Pin
	04683600	1	Torque Tube (Tandems), 92.12" Long	33	D33805	1	7/16" x 2" Kjik Pin
4	04681900	1	H.D. Spindle Arm Single 50-8 RH	34	17426001	1	1-5/8" I.D. HD Washer
	04681950	1	H.D. Spindle Arm Single 50-8 LH (Refer to Page #55 for 803 Hub & 50-8 Hub)	35	16312240	4	3/4" x 6" x 5-1/2" U-Bolt
5	04683000	1	Main Tandem Assembly RH	36	NSI	1	1/8" x 2" Hair Pin (14720411)
	04683100	1	Main Tandem Assembly LH	37	413-1448	10	7/8" x 3" NC Hex Bolt Gd. 5
6	04683030	1	Main Tandem Arm RH	38	413-1032	4	5/8" x 2" NC Hex Bolt Gd. 5
	04683130	1	Main Tandem Arm LH	40	425-1014	20	7/8" NC Hex Nut
7	04683045	1	Walking Axle Weld RH	41	425-1012	8	3/4" NC Hex Nut
	04683145	1	Walking Axle Weld LH	44	413-1240	2	3/4" x 2-1/2" Hex Bolt Gd. 5
8	04683050	2	Axle Pin	46	18534249	2	nutri-placr Decal
9	14032408	2	1-1/2" Jam Nut with Set Screw	47	18534107	1	Patent Decal
10	20092310	1	Combination Clevis	48	18534228	1	Caution Decal
11	04691650	1	Front Coultter Bar	49	18534174	1	Other Patents Applied For Decal
12	32230000	1	3000# Swivel Jack	50	18534227	4	Danger Decal
				51	18530053	1	Decal Kit (for entire machine)
13	10010163	2	12.5L x 15 12-Ply Tire Assy (HD Option)	54	17620030	1	1-1/4" Machine Bushing
14	NSI	2	12.5L x 15 12-Ply Tire (HD Option) (11012152)	55	04681210	1	Bracket
15	10110174	2	10 x 15 8-Hole Wheel (HD Option)	56	04681211	1	Spacer
16	10010152	4	11L x 15 8-Ply Tire Assy. (Standard Tandem)	57	86992219	1	1" Stover Lock Nut
17	NSI	4	11L x 15 8-Ply Tire (Standard Tandem) (1980927C1)	58	413-1648	1	1" x 3" NC Hex Bolt
18	10110154	4	10 x 15 6-Hole Wheel (Standard Tandem)	59	425-1010	4	5/8" NC Hex Nut
19	28078361	4	783 Hub & Spindle Assembly (Main Frame)	60	413-864	4	1/2" x 4" NC Hex Bolt Gd. 5
	28050885	4	50-8 Hub & Spindle Assembly (Main Frame)	61	231-4248	4	1/2" NC Hex Lock Nut
20	04661154	2	Shim	62	413-412	2	1/4" x 3/4" NC Hex Bolt
21	05302150	1	Hose & Gauge Stand	63	413-628	2	3/8" x 1-3/4" NC Hex Bolt
22	311860A1	1	SMV Sign	64	86992211	2	1/4" NC Stover Lock Nut
23	06000099	1	SMV Mount	65	231-4246	2	3/8" NC Hex Lock Nut
24	04660050	1	Plate				
25	18584200	1	SMV Kit (Incl. #22, 23, 24, 62, 63, 64 & 65)				
26	1032162	1	30,400 lbf ASAE Safety Chain				

NSI - NOT A SERVICE ITEM

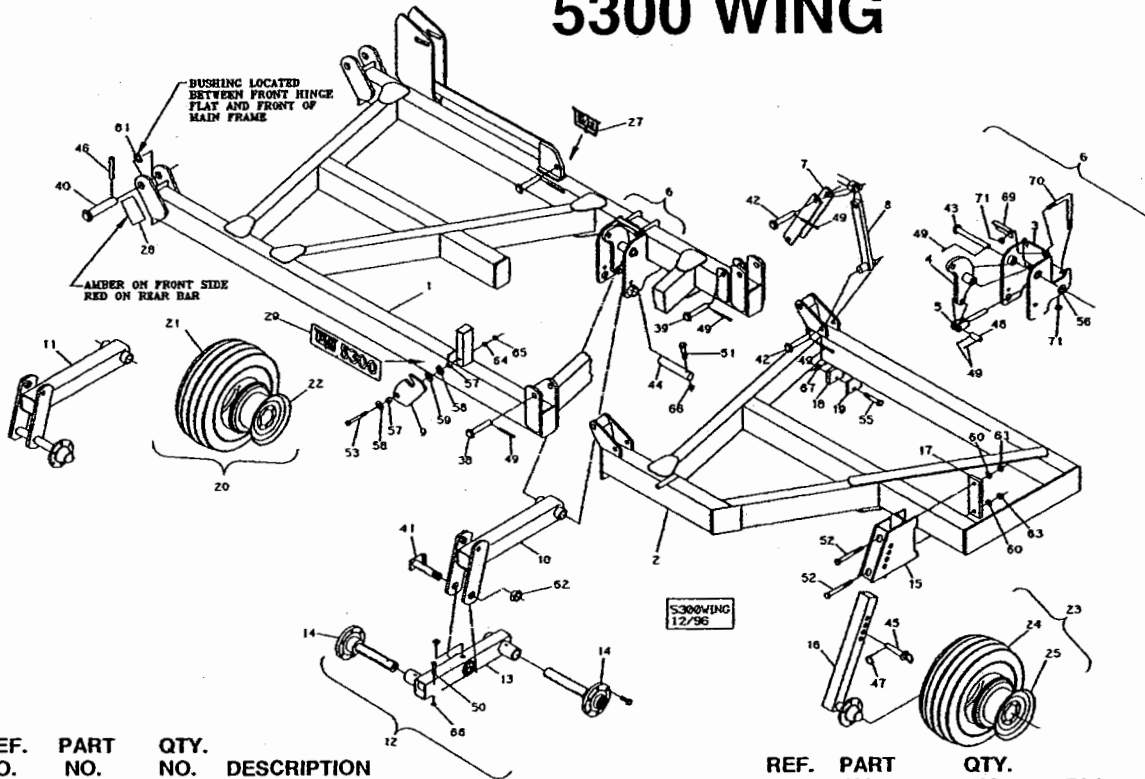
# 4300 WINGS



REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	04681300	1	Wing 72" RH 4300 27' Machine	19	NSI	2	8.5L x 14 6-Ply Tire (11090140)
	04681350	1	Wing 72" LH 4300 27' Machine	20	10114080	2	14 x 8 6-Hole Wheel
	04681400	1	Wing 96" RH 4300 32' Machine	21	14826552	4	Hinge Pin
	04681450	1	Wing 96" LH 4300 32' Machine	22	14820640	2	1-5/8" Dia. Pin.
	04681500	1	Wing 124" RH 4300 37' Machine	23	04661850	2	Axle Pin
	04681550	1	Wing 124" LH 4300 37' Machine	24	14816348	2	1" Dia. x 4-1/4" Pin
2	04661410	2	Top Mount Assy. (Incl. #4, 5, 54 & 66)	30	438-32840	4	7/16" x 2-1/2" Roll Pin
3	04661420	2	Top Mount	31	A30338	2	1/4" Dia. x 1-3/4" Klik Pin
4	04661451	2	Adjustable Cylinder Lug	32	413-12104	4	3/4" x 6-1/2" NC Hex Bolt Gd. 5
5	04661430	2	Spindle Mount	33	413-12136	8	3/4" x 8-1/2" NC Hex Bolt Gd. 5
				34	413-1440	2	7/8" x 2-1/2" NC Hex Bolt
6	04661600	1	Gauge Wheel Assy. Tandem 888 RH (Incl. #8, 23, 42 & 43)	35	413-1032	2	5/8" x 2" NC Hex Bolt Gd. 5
	04661700	1	Gauge Wheel Assy. Tandem 888 LH	36	413-832	2	1/2" x 2" NC Hex Bolt Gd. 5
7	04661610	2	Spindle Arm Tandem	37	492-11075	4	3/4" Lock Washer
8	04662070	1	Walking Axle Assy. 783 RH (1997 & Prior Production Used 888 Hub)	38	17627010	2	1-5/8" x 14 Ga. Machine Bushing
	04662170	1	Walking Axle Assy. 783 LH (1997 & Prior Production Used 888 Hub) (Refer to Page #54 - 888 Hub) (Refer to Page #54 for 783 Hub)	39	425-108	2	1/2" NC Hex Nut
				40	425-1012	12	3/4" NC Hex Nut
				41	425-1014	6	7/8" NC Hex Nut
				42	219-86	2	1/8" NPT Self Tap Zerk
9	04661440	1	Gauge Wheel Single 783 RH	43	14032408	2	1-1/2" Jam Nut with Set Screw
	04661540	1	Gauge Wheel Single 783 LH (Refer to Page #54 for 783 Hub)	44	18534290	2	4300 Decal
				45	18534243	1	Amber Reflector Decal
					18534244	1	Red Reflector Decal
10	04661320	2	Gauge Wheel Mounting Bracket	46	18534261	2	DMI Decal
11	02380400	2	Spindle Weldment	47	16901411	2	7/8" x 4" NC Hex Bolt Gd. 5
12	09576610	2	Flat-Gauge Wheel	48	425-1010	2	5/8" NC Hex Nut
13	04662230	2	Block-Wing Stop (Pin Adjust Only)				
14	04662231	A/R	Shim-Wing Stop (Pin Adjust Only)				
15	10008156	A/R	9.5L x 15 6-Ply Tire Assembly				
16	NSI	A/R	9.5L x 15 6-Ply Tire (11012150)				
17	10108154	2	8 x 15 6-Hole Wheel				
18	10008146	2	8.5L x 14 Tire Assy				

NSI - NOT A SERVICE ITEM  
A/R - AS REQUIRED

# 5300 WING



REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	04682200	1	110" Inner Wing RH	38	14820445	4	1-1/4" Dia. x 6.31" Pin
	04682250	1	110" Inner Wing LH	39	14816466	2	1" Dia. X 5.81" Pin
2	04682300	2	16 Row Outer Wing (40' Machine)	40	14820650	4	1-5/8" x 8-3/4" Hinge Pin
	04682400	1	44" Outer Wing RH (42-1/2' Machine)	41	04661850	2	Axle Pin
	04682450	1	44" Outer Wing LH (42-1/2' Machine)	42	14891660	4	1" Dia. x 4.31" Pin
	04682500	1	72" Outer Wing RH (47-1/2' Machine)	43	14816686	2	Pivot Pin
	04682550	1	72" Outer Wing LH (47-1/2' Machine)	44	14820640	2	1-5/8" Dia. Pin 1996 and Before Production (Serial #623524 and Before)
3	04683575	2	Gauge Wheel Mounting Bracket		14892788	2	1-5/8" Dia. Pin for 1997 and After Production (Serial #720762 and After)
4	04683545	2	Adjustment Pivot	45	14816348	2	1" Dia. x 4-1/4" Pin
5	04683585	2	Eyebolt	46	438-32840	4	7/16" x 2-1/2" Roll Pin
6	04683560	2	Gauge Wheel Mount (Incl. #3, 4, 5, 43, 44, 48, 49, 51, & 56)	47	A30338	2	1/4" Dia. x 1-3/4" Klik Pin
7	04662630	2	H-Link, Wing Hinge	48	14891619	2	1" Dia. Pin
8	04682260	2	Link Weldment	49	432-1624	10	1/4" x 1-1/2" Cotter Pin
9	06220130	2	Outer Wing Catch	50	413-848	4	1/2" x 3" NC Hex Bolt
10	04683225	2	Spindle Arm (Tandem)	51	413-1032	2	5/8" Hex Bolt Gd. 5
11	04683410	1	Spindle Arm RH (Single)	52	413-12104	12	3/4" x 6-1/2" NC Hex Bolt Gd. 5
	04683460	1	Spindle Arm LH (Single)	53	413-1096	2	5/8" x 6" NC Hex Bolt Gd. 5
12	04683200	1	Tandem Spindle Arm Ass'y RH	55	413-824	2	1/2" x 1-1/2" NC Hex Bolt
	04683300	1	Tandem Spindle Arm Ass'y LH	56	17616021	2	1" Machine Bushing
13	04683245	1	Walking Axle Weld RH	57	44006200	4	Bushing
	04683345	1	Walking Axle Weld LH	58	17411012	4	11/16" I.D. x 1-3/4" O.D. x 1/4" thk. Washer
14	28078372	2	783 Hub & Spindle Assembly	59	17620020	2	1-1/4" x 14 ga. Machine Bushing
15	04661320	2	Gauge Wheel Mounting Bracket	60	492-11075	4	3/4" Lock Washer
16	02380400	2	Spindle Weldment	61	17627010	2	1-5/8" 14 ga. Machine Bushing
17	09576610	2	Flat - Gauge Wheel	62	14032408	2	1-1/2" Jam Nut with Set Screw
18	04626130	2	Shim - Outer Wing	63	425-1012	12	3/4" NC Hex Nut
19	04626120	A/R	Shim - Outer Wing	64	425-1010	2	5/8" NC Hex Nut
20	10008156	A/R	9.5L x 15 8-Ply Tire Ass'y	65	425-1410	2	5/8" NC Hex Jam Nut
	10010152	A/R	11L x 15 8-Ply Tire Ass'y	66	232-4149	4	1/2" NC Stover Lock Nut
21	NSI	A/R	9.5L x 15 8-Ply Tire (1980928C1)	67	425-108	2	1/2" NC Hex Nut
	NSI	A/R	11L x 15 8-Ply Tire (1980927C1)	68	231-42410	2	5/8" NC Hex Lock Nut
22	10108154	A/R	8 x 15 6-Hole Wheel	69	04683565	2	Mounting Plate
	10110154	A/R	10 x 15 6-Hole Wheel	70	87427191	4	3/4" NC Sq. L-bolt
23	10008146	2	8.5L x 14 Tire Ass'y	71	425-1012	8	3/4" NC Hex Nut, Gd. 5 ZP
24	NSI	2	8.5L x 14 6-Ply Tire (11090140)				
25	10114080	2	14 x 8 6-Hole Wheel				
27	18534261	2	DMI Decal				
28	18534243	1	Amber Reflector Decal				
	18534244	2	Red Reflector Decal				
29	18534291	2	5300 Decal				

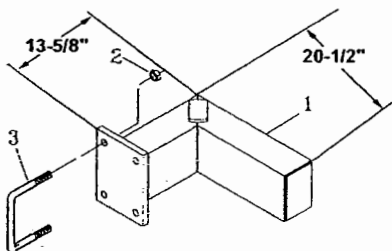
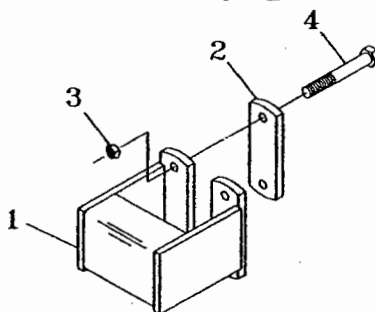
NSI - NOT A SERVICE ITEM  
A/R - AS REQUIRED

# ACCESSORY WINGS

## SIDEDRESS BRACKET

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	P0957150	1	Sidedress Bar w/Hardware
1	09576750	1	Sidedress Bar
2	09576757	2	Flat
3	425-1014	4	7/8" NC Hex Nut
4	413-14104	4	7/8" x 6-1/2" NC Hex Bolt Gd. 5

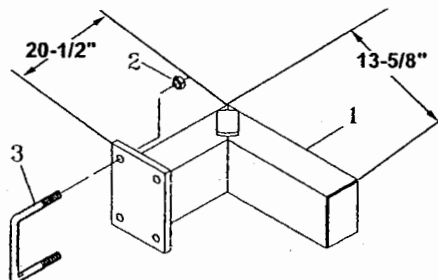
NSI - NOT A SERVICE ITEM



## OFFSET BRACKET

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	04662900	1	Offset Bar w/Hardware
1	04662910	1	Offset Bar
2	425-1012	4	3/4" NC Hex Nut Gd. 2
3	16312240	2	3/4" x 6" NC U-Bolt

NSI - NOT A SERVICE ITEM



## FRONT EXTENSION BAR

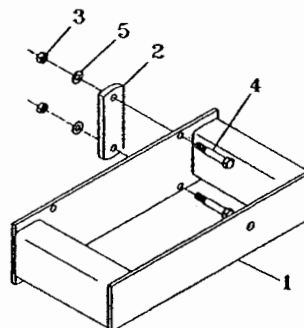
REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	P0468275	1	Front Extension Bar w/Hardware
1	04682580	1	Front Extension Bar
2	425-1012	4	3/4" NC Hex Nut Gd. 2
3	16312240	2	3/4" x 6" NC U-Bolt

NSI - NOT A SERVICE ITEM

## EXTENSION WINGS

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	04662950	1	15" Extension Wing w/Hardware
	P0468280	1	28" Extension Wing w/Hardware
1	04662960	1	15" Extension Wing
	04681600	1	28" Extension Wing
2	09576610	2	Flat
3	425-1012	4	3/4" NC Hex Nut
4	413-1240	4	3/4" x 2-1/2" NC Hex Bolt Gd. 5
5	492-11075	4	3/4" Lock Washer

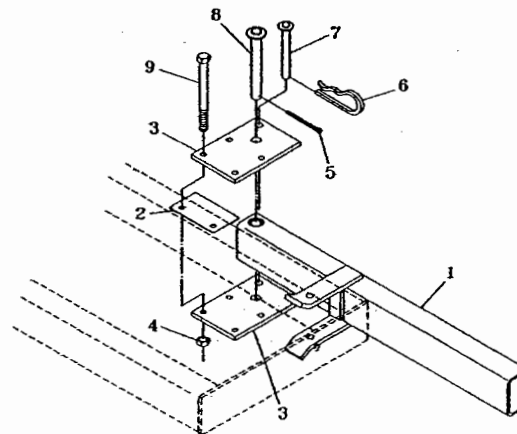
NSI - NOT A SERVICE ITEM



## MANUAL FOLD AROUND WING

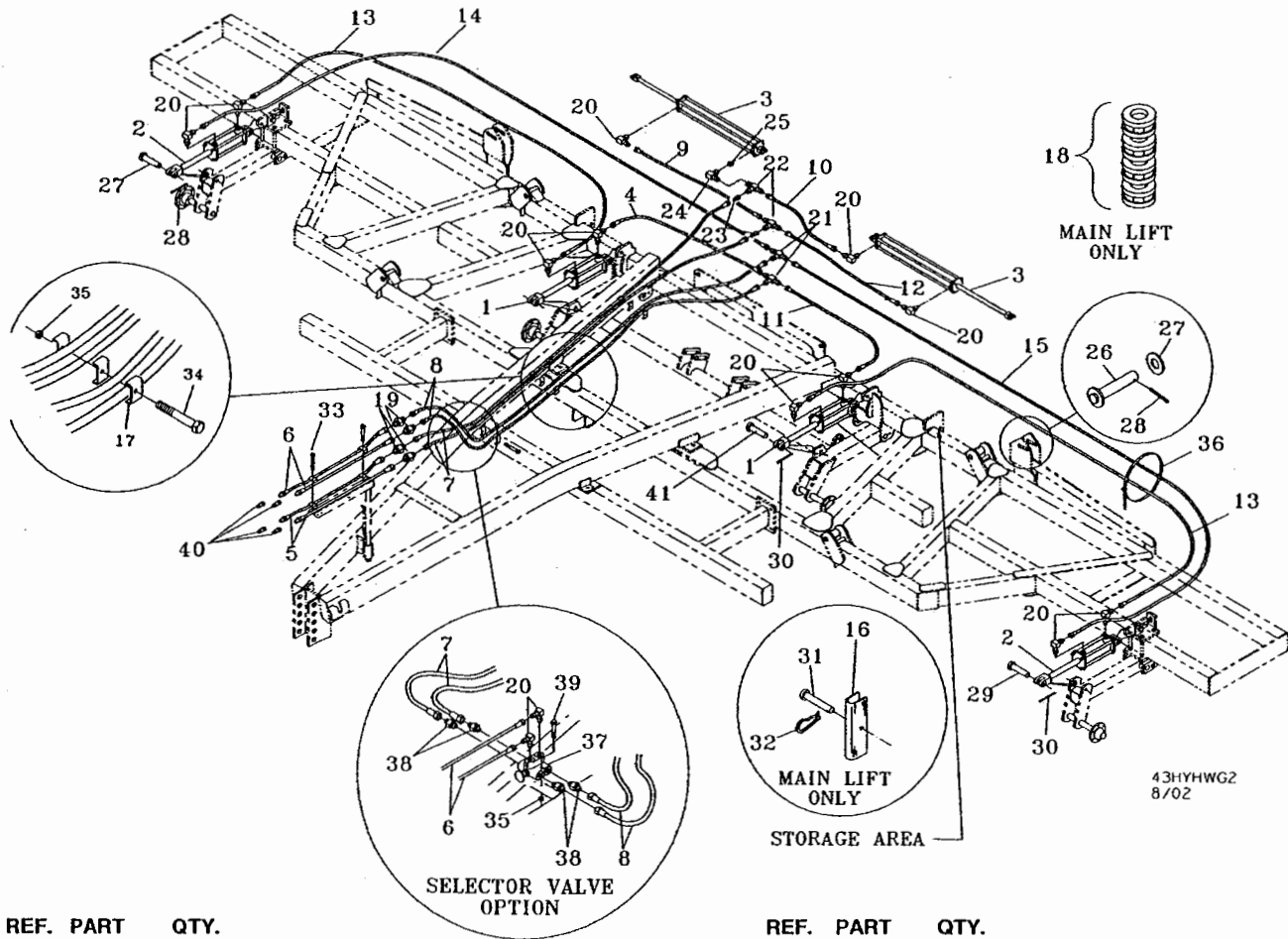
REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	04662930	1	Fold Around Wing R.H.
	04662940	1	Fold Around Wing L.H.
2	04662905	A/R	Shim, Fold Wing
3	04662990	4	Wing Mtg. Plate
4	425-1012	8	3/4" NC Hex Nut Gd. 2
5	432-1632	2	1/4" x 2" Cotter Pin
6	NSI	2	1/8" x 2" Hair Pin (14720411)
7	14816610	2	1" Dia. x 7-5/8" Pin
8	14820610	2	1-1/4" Dia. x 7-5/8" Pin
9	413-1236	8	3/4" x 8-1/2" NC Hex Bolt Gd. 5

NSI - NOT A SERVICE ITEM



MANUAL FOLD AROUND WING  
(2) USED ON 52 1/2" MACHINE

# 4300 HYDRAULICS WITH HYDRAULIC GAUGE WHEELS



REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	86990539	2	3-1/2" x 10" Hydraulic Cylinder - Rephase
2	86990538	2	3-1/4" x 10" Hydraulic Cylinder - Rephase
3	25335360	2	3-1/2" x 36" Hydraulic Cylinder - <b>3,000 p.s.i.</b>
4	25600630	1	3/8" Hydraulic Hose x 30" Long
5	25610645	2	3/8" Hydraulic Hose x 80" Long
6	25610855	2	1/2" Hydraulic Hose x 100" Long
7	25600633	2	3/8" Hydraulic Hose x 165" Long
8	134216A1	2	1/2" Hydraulic Hose x 165" Long
9	25600634	1	3/8" Hydraulic Hose x 37" Long
10	25600655	1	3/8" Hydraulic Hose x 55" Long
11	25600662	1	3/8" Hydraulic Hose x 72" Long
12	25600704	1	3/8" Hydraulic Hose x 97" Long
13	25600667	2	3/8" Hydraulic Hose x 187" Long
14	25600695	1	3/8" Hydraulic Hose x 220" Long
15	25600707	1	3/8" Hydraulic Hose x 246" Long
16	04632700	2	Cylinder Stop 9-3/4" Long, 3 Holes
17	06200125	15	Hose Clamp
18	25800010	2	Stroke Control Kit 1-1/4"
19	218-735	4	3/4" JICM Adapter
20	218-5106	11	3/4" JICM x 3/4" SAEM 90E
21	218-594	2	3/4" JICM Tee

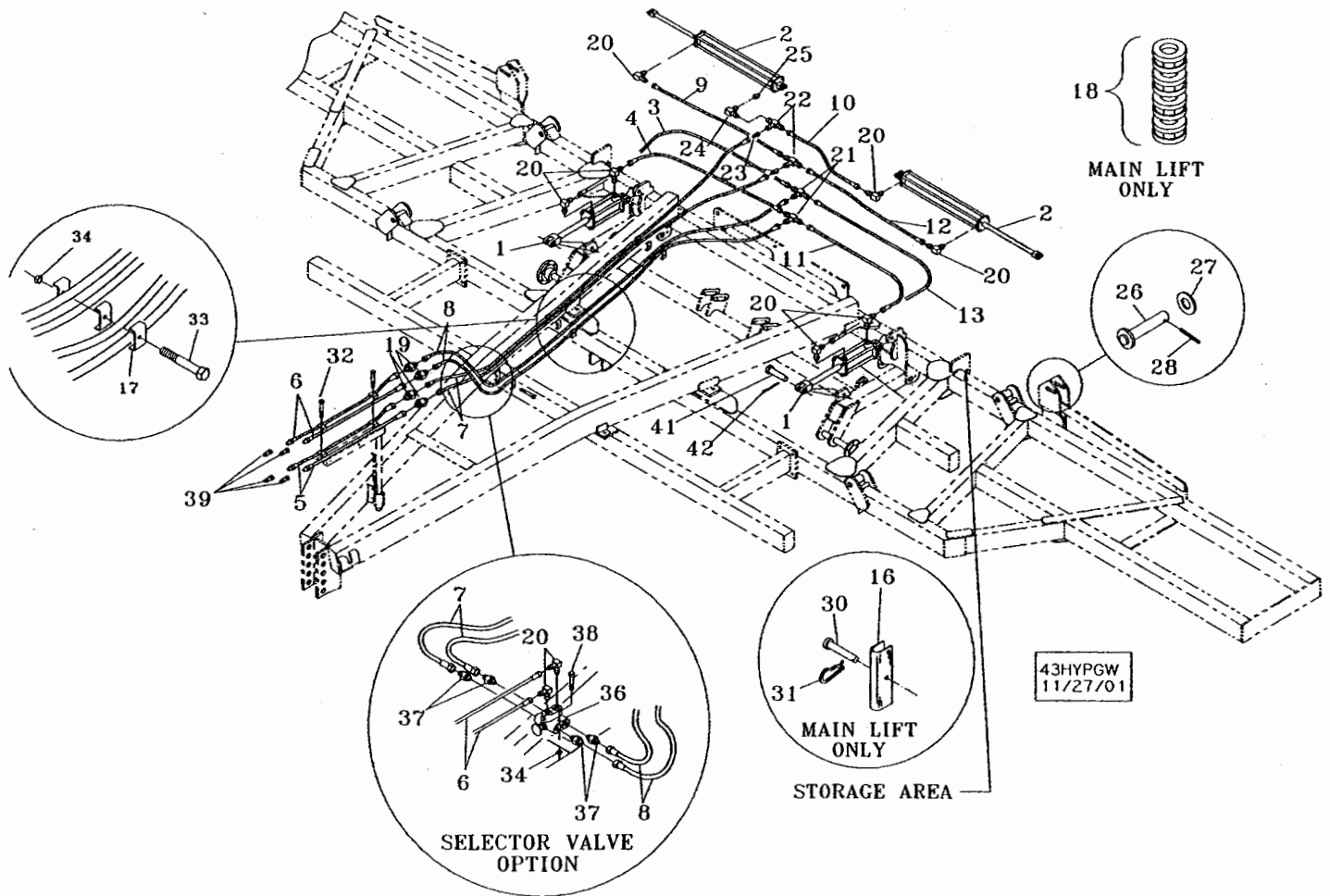
REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
22	218-5183	2	3/4" JICM (2) x 3/4" SAEM Tee
23	25405013	2	Throttle Valve (Purple SAE)
24	218-5230	1	3/4" JICM x 3/4" JICF 90E Swivel
25	25707534	1	3/4" SAEM x 3/4" JICF Adapter
26	14891660	2	1" x 4-1/4" E.L. Clevis Pin
27	495-21106	2	1" Std Washer
28	432-1632	2	1/4" x 2" Cotter Pin
29	87430410	2	1" x 5.54" E.L. Clevis Pin
30	432-1624	2	1/4" x 1-1/2" Cotter Pin
31	14810251	2	5/8" x 3-1/8" E.L. Clevis Pin
32	NSI	2	1/8" x 2" Hair Pin (14720411)
33	413-648	5	3/8" x 3" NC Hex Bolt
34	413-636	5	3/8" x 2-1/4" NC Hex Bolt
35	425-106	5	3/8" NC Hex Nut
36	386170C1	14	32" Hose Tie
40	25705041	4	3/4"SAEF-Male ISO Hydraulic Coupling
41	14891672	2	1" x 9" Clevis Pin (for 4" x 6" Tube)
	14816466	2	1" x 5.81" Clevis pin (for 4" x 4" Tube)

### SELECTOR VALVE ITEMS (PO466083)

20	218-5106	2	3/4" JICM x 3/4" SAEM 90°
35	425-106	2	3/8" NC Hex Nut
37	25401000	1	Selector Valve
38	218-5059	4	3/4" SAEM x 3/4" JICM Adapter
39	413-640	2	3/8" x 2-1/2" NC Hex Bolt

NSI - NOT A SERVICE ITEM

# 4300 HYDRAULICS WITH PIN ADJUST GAUGE WHEELS



REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	25330101	2	3" x 10" Hydraulic Cylinder - 3,000 p.s.i.
2	25335360	2	3-1/2" x 36" Hydraulic Cylinder - 3,000 p.s.i.
3	25600634	1	3/8" Hydraulic Hose x 37" Long
4	25600630	1	3/8" Hydraulic Hose x 30" Long
5	25610645	2	3/8" Hydraulic Hose x 80" Long
6	25610855	2	1/2" Hydraulic Hose x 100" Long
7	25600633	2	3/8" Hydraulic Hose x 165" Long
8	134216A1	2	1/2" Hydraulic Hose x 165" Long
9	25600642	1	3/8" Hydraulic Hose x 42" Long
10	25600655	1	3/8" Hydraulic Hose x 55" Long
11	25600662	1	3/8" Hydraulic Hose x 72" Long
12	25600704	1	3/8" Hydraulic Hose x 97" Long
13	25600676	1	3/8" Hydraulic Hose x 88" Long
16	04632700	2	Cylinder Stop 9-3/4" Long, 3 Holes
17	06200125	15	Hose Clamp
18	25800010	2	Stroke Control Kit 1-1/4"
19	218-735	4	3/4" JICM Adapter
20	218-5106	11	3/4" JICM x 3/4" SAEM 90E
21	218-594	2	3/4" JICM Tee
22	218-5183	2	3/4" JICM (2) x 3/4" SAEM Tee
23	25405013	2	Throttle Valve (Purple SAE)

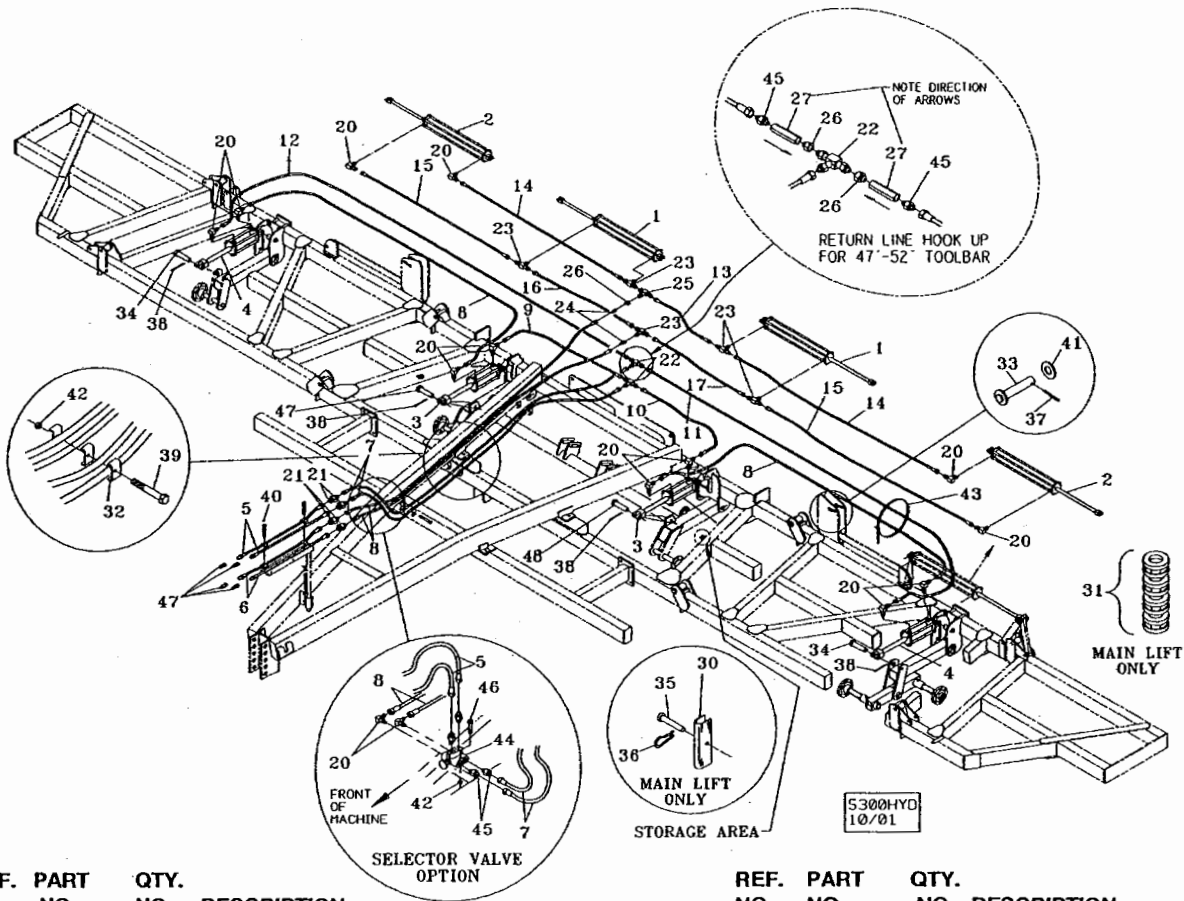
REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
24	218-5230	1	3/4" JICM x 3/4" JICF 90E Swivel
25	25707534	1	3/4" SAEM x 3/4" JICF Adapter
26	14891660	2	1" x 4-1/4" E.L. Clevis Pin
27	495-21106	2	1" Std Washer
28	432-1632	2	1/4" x 2" Cotter Pin
30	14810251	2	5/8" x 3-1/8" E.L. Clevis Pin
31	NSI	2	1/8" x 2" Hair Pin (14720411)
32	413-648	5	3/8" x 3" NC Hex Bolt
33	413-636	5	3/8" x 2-1/4" NC Hex Bolt
34	425-106	5	3/8" NC Hex Nut
35	386170C1	14	3/2" Hose Tie
39	25705041	4	3/4" SAEF-Male ISO Hydraulic Coupling
41	14891672	2	1" x 9" Clevis Pin (for 4" x 6" Tube)
	14816466	2	1" x 5.81" Clevis pin (for 4" x 4" Tube)
42	432-1624	2	1/4" x 1-1/2" Cotter Pin

### SELECTOR VALVE ITEMS (PO466083)

20	218-5106	2	3/4" JICM x 3/4" SAEM 90°
34	425-106	2	3/8" NC Hex Nut
36	25401000	1	Selector Valve
37	218-5059	4	3/4" SAEM x 3/4" JICM Adapter
38	413-640	2	3/8" x 2-1/2" NC Hex Bolt

NSI - NOT A SERVICE ITEM

# 5300 HYDRAULICS

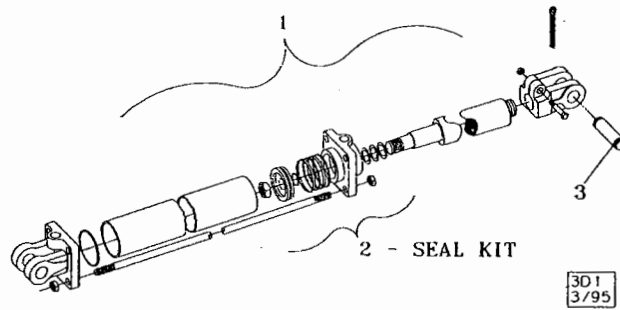


REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	25340360	2	4" x 36" Hydraulic Cylinder - 3,000 p.s.i.	24	25405013	2	Throttle Valve (Purple SAE)
2	25340242	2	4" x 24" Hydraulic Cylinder - 3,000 p.s.i. (50' Machine w/15" shank spacing only)	25	218-5183	1	3/4" JICM (2) x 3/4" JICF Tee
	25335242	2	3-1/2" x 24" Hydraulic Cylinder - 3,000 p.s.i. (47-1/2' & 52-1/2' Machines)	26	25707534	1	3/4" SAEM x 3/4" JICF Adapter
	25330241	2	3" x 24" Hydraulic Cylinder - 3,000 p.s.i. (40' & 42-1/2' Machines)	27	25407503	2	Relief Valve (47-1/2' - 52-1/2' Units Only)
3	86990539	2	3-1/2" x 10" Hydraulic Cylinder - Rephase	30	04632700	2	Cylinder Stop 9-3/4" Long, 3 Holes
4	86990538	2	3-1/4" x 10" Hydraulic Cylinder - Rephase	31	25800010	2	Stroke Control Kit 1-1/4"
5	25610855	2	1/2" Hydraulic Hose x 100" Long	32	06200125	15	Hose Clamp
6	25610645	2	3/8" Hydraulic Hose x 80" Long	33	14891660	2	1" x 4-1/4" E.L. Clevis Pin
7	134216A1	2	1/2" Hydraulic Hose x 165" Long	34	87430410	2	1" x 5.54" E.L. Clevis Pin
8	25600633	2	3/8" Hydraulic Hose x 165" Long	35	14810251	2	5/8" x 3-1/8" E.L. Clevis Pin
9	25600630	1	3/8" Hydraulic Hose x 30" Long	36	NSI	2	1/8" x 2" Hair Pin (14720411)
10	25600662	1	3/8" Hydraulic Hose x 72" Long	37	432-1632	2	1/4" x 2" Cotter Pin
11	25600695	1	3/8" Hydraulic Hose x 220" Long	38	432-1624	2	1/4" x 1-1/2" Cotter Pin
12	25600615	1	3/8" Hydraulic Hose x 173" Long	39	413-636	5	3/8" x 2-1/4" NC Hex Bolt
13	25600655	1	3/8" Hydraulic Hose x 55" Long	40	413-648	5	3/8" x 3" NC Hex Bolt
14	25600650	2	3/8" Hydraulic Hose x 128" Long	41	495-21106	2	1" Std. Washer
15	25600669	2	3/8" Hydraulic Hose x 114" Long	42	425-106	5	3/8" NC Hex Nut
16	25600634	1	3/8" Hydraulic Hose x 37" Long	43	386170C1	A/R	32" Hose Tie
17	25600704	1	3/8" Hydraulic Hose x 97" Long	47	25705041	4	3/4" SAEF-Male ISO Hydraulic Coupling
20	218-5106	12	3/4" JICM x 3/4" SAEM 90°	48	14891672	2	1" x 9" Clevis Pin (for 4" x 6" Tube)
21	218-735	2	3/4" JICM Adapter		14816466	2	1" x 5.81" Clevis pin (for 4" x 4" Tube)
22	218-594	2	3/4" JICM Tee	<b>SELECTOR VALVE ITEMS (PO466083)</b>			
23	218-5183	5	3/4" JICM (2) x 3/4" SAEM Tee	20	218-5106	2	3/4" JICM x 3/4" SAEM 90°
				42	425-106	2	3/8" NC Hex Nut
				44	25401000	1	Selector Valve
				45	218-5059	4	3/4" SAEM x 3/4" JICM Adapter
				46	413-640	2	3/8" x 2-1/2" NC Hex Bolt

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# HYDRAULIC CYLINDER

3,000 p.s.i.

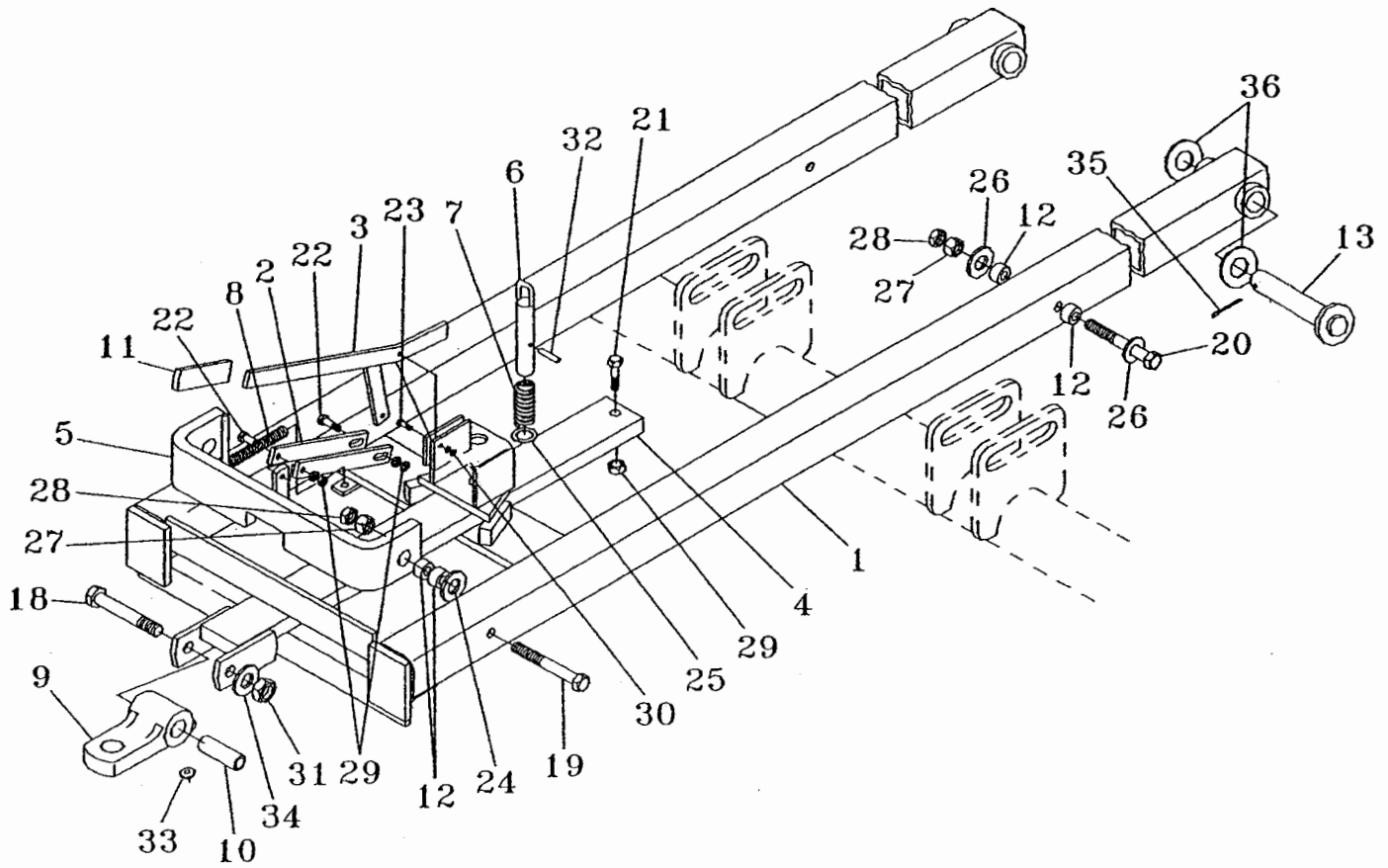


REF. NO.	3" x 10"	3-1/4" x 10"	3-1/2" x 10"	QTY	DESCRIPTION
1	25330101			1	3" x 10" Hydraulic Cylinder (20-1/4" Closed)
		86990538		1	3-1/4" x 10" Hydraulic Cylinder (20-1/16" Closed)
			86990539	1	3-1/2" x 10" Hydraulic Cylinder (20-5/16" Closed)
2	25833007	80116C2	25803500	1	Seal Kit
3	25890100	25890100	25890100	1	1" Dia. Cylinder Pin Bag of Parts

REF. NO.	3" x 24"	3-1/2" x 24"	4" x 24"	3-1/2" x 36"	4" x 36"	QTY	DESCRIPTION
1	25330241					1	3" x 24" Hydraulic Cylinder
		25335242					3-1/2" x 24" Hydraulic Cylinder
			25340242				4" x 24" Hydraulic Cylinder
				25335360		1	3-1/2" x 36" Hydraulic Cylinder
					25340360	1	4" x 36" Hydraulic Cylinder
2	25833007	25833526	25834023	25833526	25834023	1	Seal Kit
3	25890100	25890100	25890100	25890100	25890100	1	1" Dia. Cylinder Pin Bag of Parts

- WARNING:**
- High pressure fluid is nearly invisible, but has enough force to penetrate the skin. **NEVER** use the hands to search out a suspected leak. If injured by escaping fluid, obtain medical attention immediately. Fluid must be surgically removed or gangrene will result. Wear safety glasses or goggles to avoid eye injury when working on the hydraulic system.
  - To prevent serious injury from high pressure fluid, **NEVER** attempt to inspect, service, or disassemble any part of the hydraulic system until all pressure is relieved by shutting off tractor, lowering the **nutri-placr** unit to the ground (or secure with cylinder transport stops provided), and placing remote control levers in flat or neutral position.

# REAR HITCH STANDARD

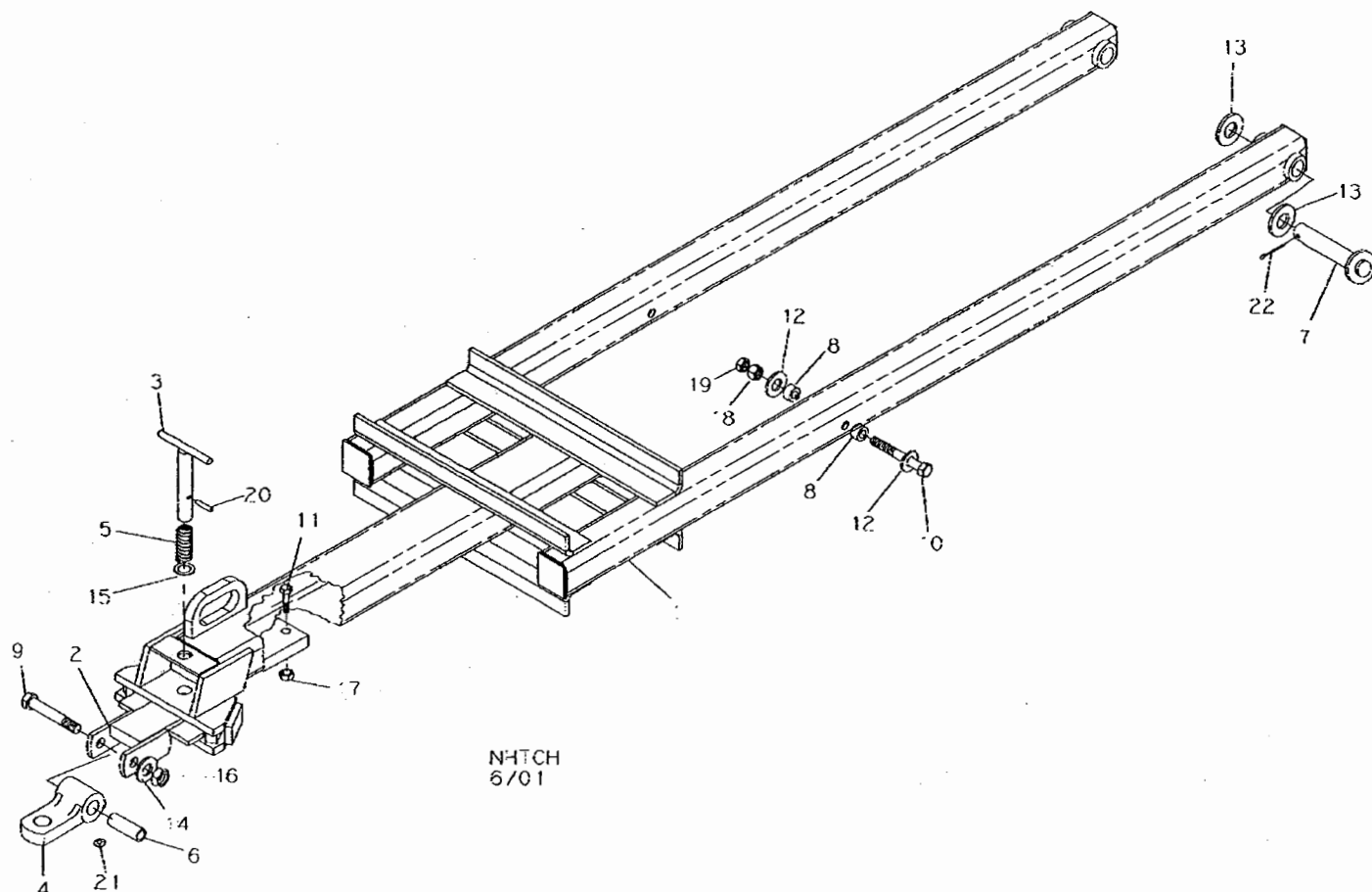


REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	04664000	1	Rear Hitch Assembly	23	413-424	1	1/4" x 1-1/2" NC Hex Bolt
2	04664130	2	Link	24	17618030	4	1-1/8" Mach. Bushing 18 Ga.
3	04664200	1	Handle	25	17616020	1	1" Mach. Bushing 14 Ga.
4	04664400	1	Tow Bar	26	17411012	4	11/16" I.D. x 1/4" Thk. Washer
5	04664300	1	Draw Bar Stop	27	425-1010	4	5/8" NC Hex Nut
6	14816167	1	Hitch Pin	28	425-1410	4	5/8" NC Hex Jam Nut
7	24111200	1	Compression Spring	29	425-106	4	3/8" NC Hex Nut
8	24312000	1	Extension Spring	30	425-104	2	1/4" NC Hex Nut
9	20092085	1	Single Clevis	31	86992218	1	7/8" NC Stover Lock Nut
10	44009370	1	Bushing	32	438-11624	1	1/4" x 1-1/2" Lg. Roll Pin
11	30011100	1	Vinyl Grip	33	219-86	1	1/8" NPT Self Tap Zerk
12	44006200	8	Bushing	34	17414012	1	7/8" I.D. Thk. Washer
13	14820445	2	1-1/4 Dia. Pin	35	432-1632	2	1/4" x 2" Cotter Pin
18	16901420	1	7/8" x 5-1/2" NC Hex Bolt	36	17620020	A/R	1-1/4" Mach. Bushing 14 Ga.
19	413-1088	2	5/8" x 5-1/2" NC Hex Bolt Gd. 5				
20	413-1096	2	5/8" x 6" NC Hex Bolt Gd. 5				
21	413-1028	1	5/8" x 1-3/4" NC Hex Bolt Gd. 5				
22	413-632	2	3/8" x 2" NC Hex Bolt				

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A/R - AS REQUIRED

# REAR HITCH

## NARROW



REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
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1	04667420	1	Rear Hitch
2	04667200	1	Tow Bar
3	14816450	1	1" O.D. Pin
4	20092085	1	Single Clevis
5	24111200	1	Compression Spring
6	44009370	1	Bushing
7	14820445	1	1-1/4" Dia. Pin
8	44006200	2	Bushing
9	16901420	1	7/8" x 5-1/2" NC Bolt (Special)
10	413-1096	2	5/8" x 6" NC Bolt Gd. 5
11	413-1028	1	5/8" x 1-3/4" NC Bolt
12	17411012	4	11/16" I.D. x 1/4" Thk. Washer
13	17620020	4	1-1/4" I.D. Machine Bushing 14 Ga.

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
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14	17414012	1	7/8" I.D. Thk. Washer
15	17616020	1	1" Machine Bushing 14 Ga.
16	86992218	1	7/8" NC Stover Lock Nut
17	425-106	1	3/8" NC Hex Nut
18	425-1010	2	5/8" NC Hex Nut
19	425-1410	2	5/8" NC Jam Nut
20	438-11624	1	1/4" x 1-1/2" Lg. Roll Pin
21	219-86	1	1/8" NPT Self Tap Grease Zerk
22	432-1632	2	1/4 x 2" Cotter Pin

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# HEAVY DUTY SPRING AND RIGID SHANK

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	P0466018	1	Rigid Mount 4" x 6" with Hardware
	04665090	1	H.D. Spring Mount 4" x 6" with Hardware
1	33020017	1	Shank, Side Mount
2	04665400	1	H.D. Spring Mount Assy. (Less #25 and #28)
3	04665410	1	H.D. Spring Mount
4	20090120	2	Double Spring Casting
5	24162504	1	Compression Spring 4-1/16" O.D.
6	24143812	1	Compression Spring 2-1/2" O.D.
7	09236000	1	Clamp Plate
8	04620510	1	Plate
9	A/R	1	Forward Swept Knife - See Knife Page #42
10	214-1406	2	Hose Clamp
11	22510803	1	Hose Clip

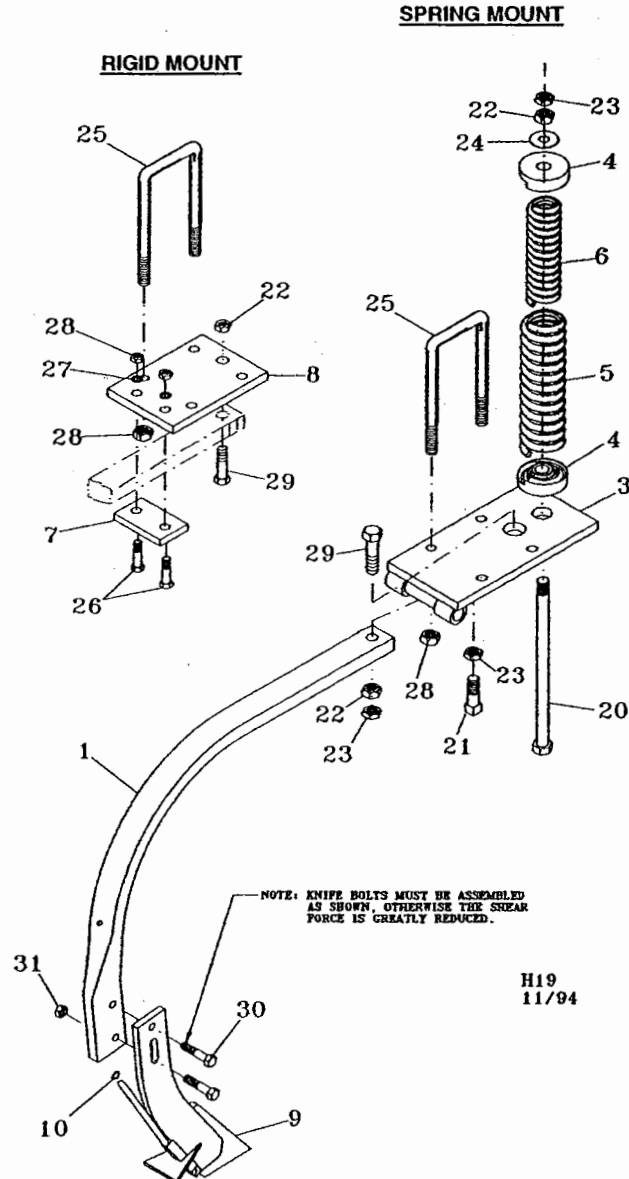
## HARDWARE

20	16912606	1	3/4" x 15" NC Hex Bolt
21	16812084	1	3/4" x 2" Sq. Hd. Set Screw
22	425-1012	A/R	3/4" NC Hex Nut
23	425-1412	A/R	3/4" NC Hex Jam Nut
24	495-21081	1	3/4" Std. Washer
25	16310011	2	5/8" x 4" x 5-1/2" U-Bolt
	87427170	2	5/8" x 4" x 8" U-Bolt
26	424-1048	2	5/8" x 3" NC Hex Bolt Gd. 2
27	492-11062	2	5/8" Lock Washer
28	425-1010	A/R	5/8" NC Hex Nut
29	413-1248	1	3/4" x 3" NC Capscrew Gd. 5
30	413-832	2	1/2" x 2" NC Capscrew Gd. 5
31	425-108	2	1/2" NC Hex Nut

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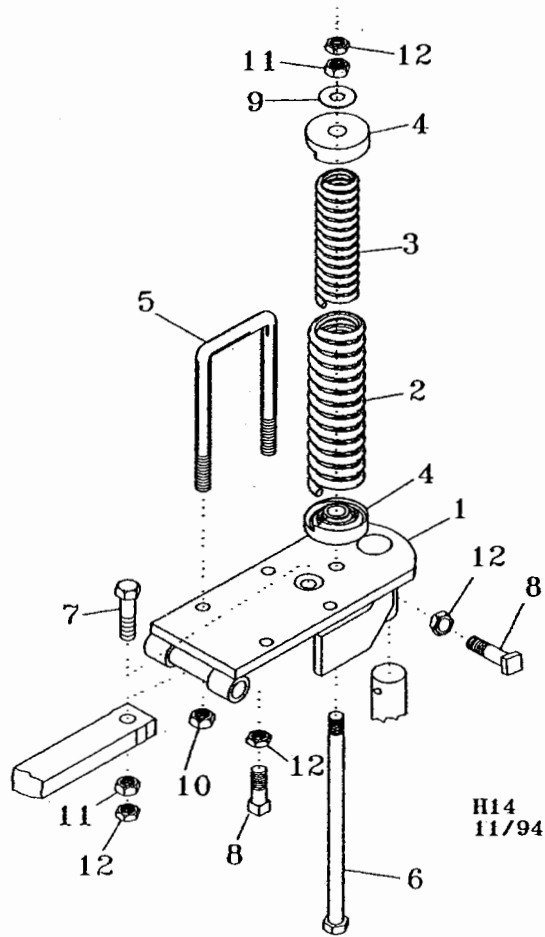


**WARNING:** Compressed springs have potentially dangerous stored energy. Always assemble and disassemble properly.



NOTE: Knife bolts must be assembled as shown, otherwise the shear force is greatly reduced.

# HEAVY DUTY SPRING C-S MOUNT

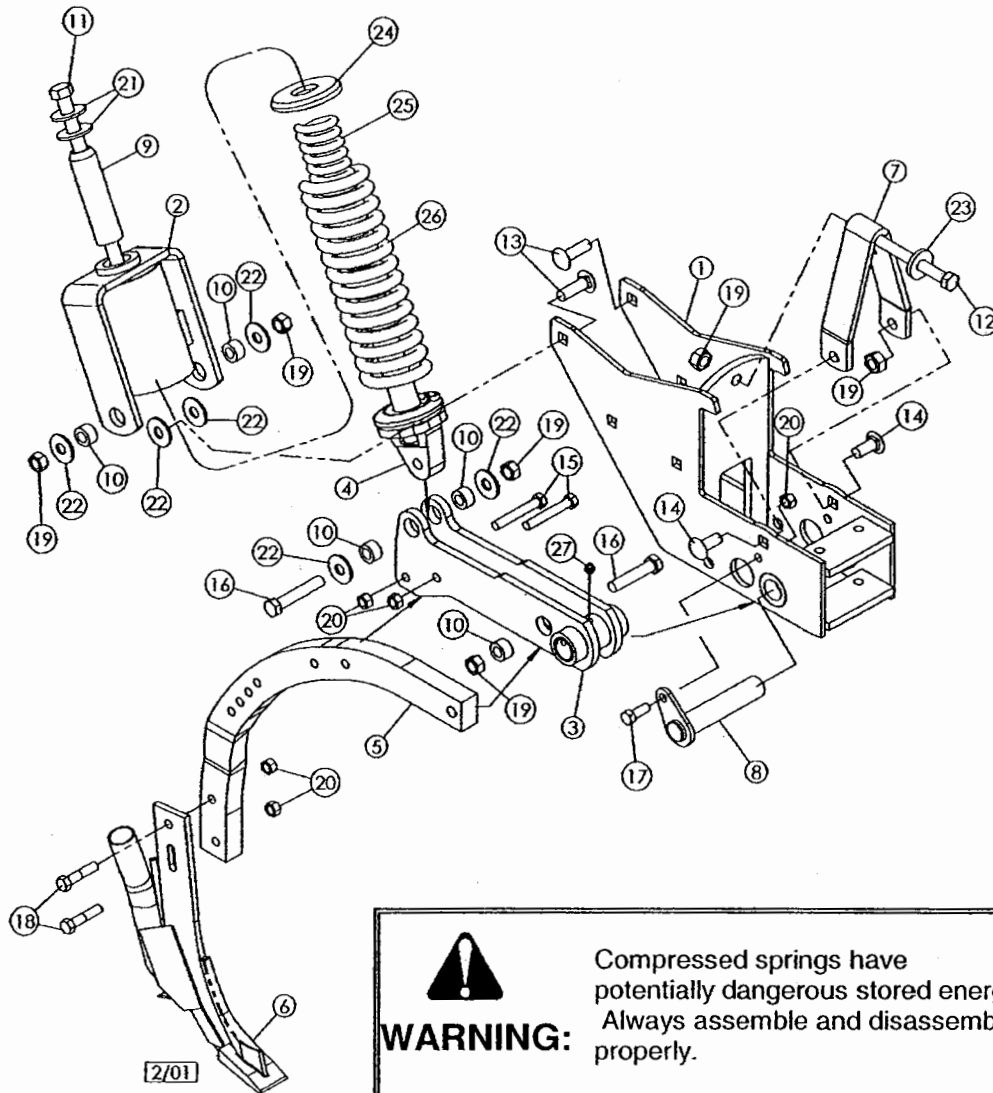


REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	04665070	1	H.D. Spring C-S Mounting 4" x 6" with Hardware
1	04665510	1	C-S Spring Mount
2	24162504	1	Compression Spring 4-1/16" O.D.
3	24143812	2	Compression Spring 2-1/2" O.D.
4	20090120	2	Double Spring Casting
5	16310011	2	5/8" x 4" x 5-1/2" U-Bolt
	87427170	2	5/8" x 4" x 8" U-Bolt
6	16912606	1	3/4" x 15" NC Hex Bolt

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
7	413-1248	1	3/4" x 3" NC Bolt Gd. 5
8	16812084	2	3/4" x 2" Sq. Hd. Set Screw
9	425-1010	4	5/8" NC Hex Nut
10	425-1012	2	3/4" NC Hex Nut
11	425-1412	4	3/4" NC Hex Jam Nut
12	425-1412	4	3/4" NC Hex Jam Nut

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# HCS™ SHANK ASSEMBLY

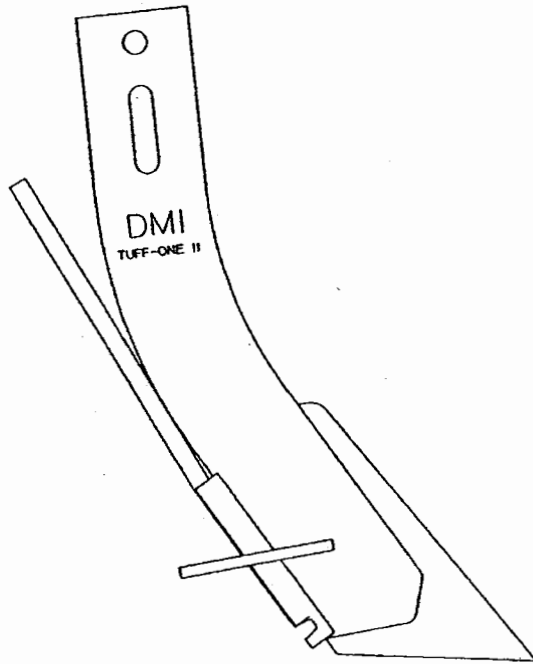


**TO DISASSEMBLE SPRINGS: BACK OFF THE 3/4" BOLT (#21) ABOUT 1/4" TO 1/2". PLACE A COLLAR OR OTHER SPACER UNDER THE DOUBLE WASHERS (#21), FILLING AS MUCH SPACE AS POSSIBLE BETWEEN THE WASHERS (#21) AND THE CANISTER WELDMENT (#2). TIGHTEN THE 3/4" BOLT DOWN UNTIL THE SPRING (#25) IS COMPRESSED ENOUGH TO TAKE THE LOAD OFF THE CARRIAGE BOLTS (#13). REMOVE CARRIAGE BOLTS, BACK OFF THE 3/4" BOLT UNTIL THE SPRING IS FULLY EXTEND AND CAN BE REMOVED.**

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	04691800	1	HCS Shank Assy Complete (Does Not Incl. Knife & Hardware)	14	433-1024	2	5/8" x 1-1/2" NC Carriage Bolt
1	04691710	1	Shank Mount Weldment	15	16908128	2	1/2" x 3" NC A-325 Hex Bolt
2	04691730	1	Spring Canister Weldment	16	413-1056	2	5/8" x 3-1/2" NC Hex Bolt, Gd. 5 ZP
3	04691735	1	Shank Pivot Weldment	17	413-820	1	1/2" x 1-1/4" NC Hex Bolt, Gd. 5, ZP
4	04691725	1	Spring Bolt Weldment	18	413-836	2	1/2" x 2-1/4" NC Hex Bolt, Gd. 5 ZP
5	33020031	1	Formed Shank	19	86992216	7	5/8" NC Stover Lock Nut
6	33607130	1	Strip-Till Knife, Dry and NH <sub>3</sub> (A.A.)	20	86992215	5	1/2" NC Stover Lock Nut
	33607135	1	Strip-Till Knife, NH <sub>3</sub> (A.A.) Only	21	495-21081	2	3/4" Washer
7	04691717	1	Flip-Up Stop	22	495-21069	6	5/8" Washer
8	14820475	1	Flag Pin Weldment, 1-1/4" Dia.	23	17411012	1	11/16" I.D. x 1-3/4" O.D. x 1/4" Washer
9	04691721	1	Wear Tube	24	20090124	1	Spring Casting
10	44006201	5	Bushing	25	24143815	1	Compression Spring
11	16901244	1	3/4" x 11-1/2" NC Special Bolt	26	24162505	1	Compression Spring
12	413-10120	1	5/8" x 7-1/2" NC Hex Bolt, Gd. 5 ZP	27	219-86	1	1/8" NPT Self Tapping Grease Zerk
13	433-1032	2	5/8" x 2" NC Carriage Bolt				

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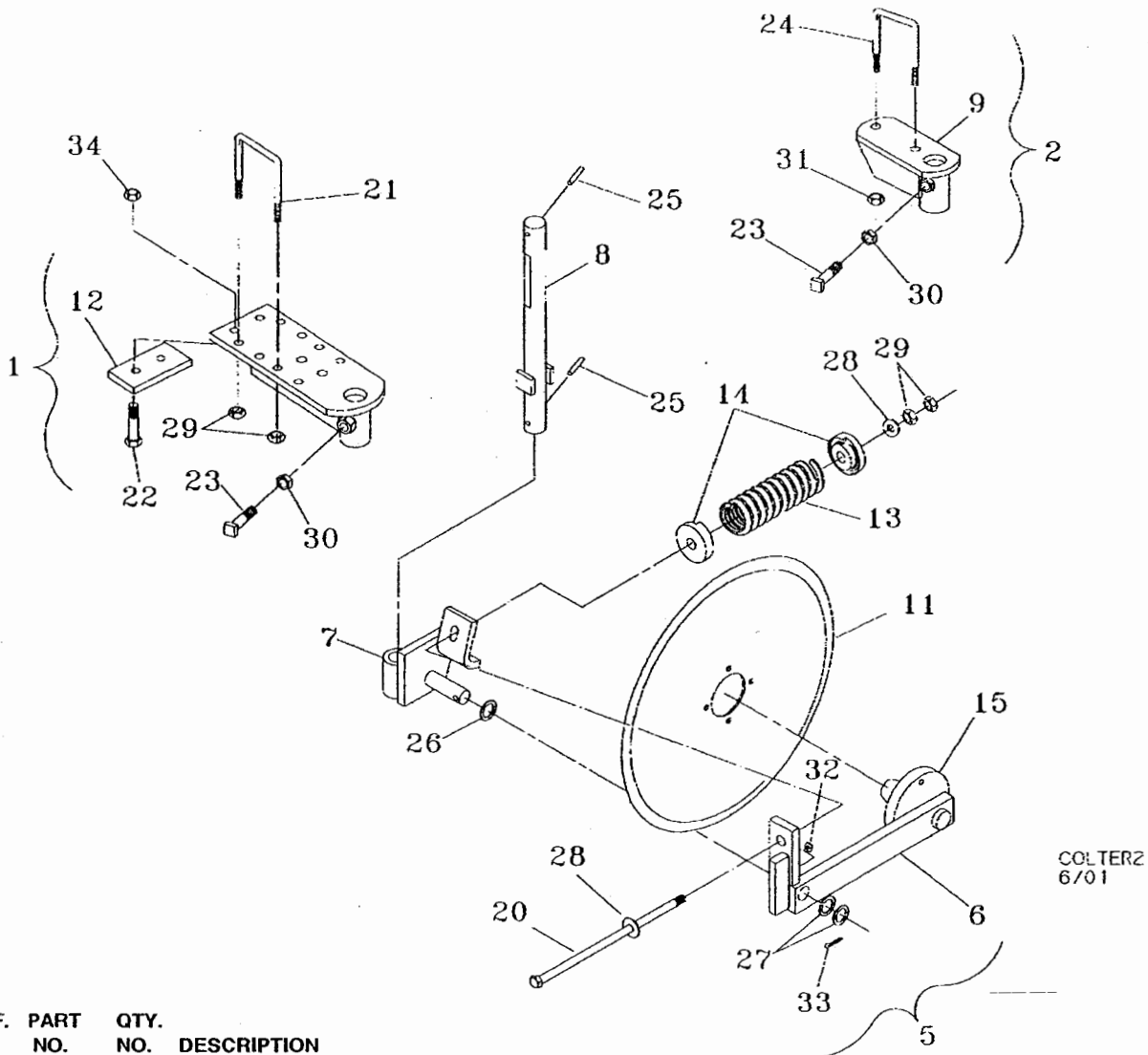
# KNIVES



## STANDARD FORWARD SWEEP KNIVES

- 1 33601002 - 3/8" Std. Forward Swept w/Sealer
- 2 33601007 - Knife Tube only (3/8" Tube)
- 3 33601006 - Knife Tube only (1/2" Tube)
- 4 33601008 - Knife Sealer only
  
- 5 33607001 - 3/8" C.C. Tuff - One II w/o Sealer
- 6 33607002 - 3/8" C.C. Tuff - One II w/Sealer
  
- 7 33607008 - C.C. Tuff - One II Sealer only
- 8 33607007 - 3/8" C.C. Tuff - One II Tube Only
- 9 33607003 - 1/2" C.C. Tuff - One II w/o Sealer
- 10 33607004 - 1/2" C.C. Tuff - One II w/Sealer
- 11 33605001 - 3/8" C.C. Tuff - One II Dual Tube w/o Sealer

# 20" & 24" SPRING COULTER



COLTERZ  
6/01

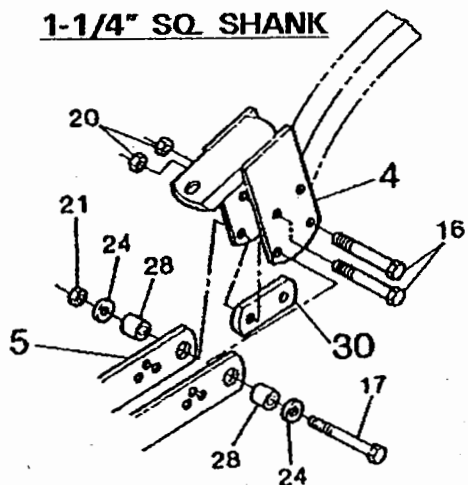
REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	04663900	1	Rigid C-S Mount with Hardware 20" Coulters
2	04663400	1	Std. Mount with Hardware 20" & 24" Coulters
3	04663600	1	20" Coulters Assy. less Mount. (incl. #5,8,11)
4	04663700	1	24" Coulters Assy. less Mount. (incl. #5,8,11)
5	04663000	1	20" Coulters Arm Assy.
	04663050	1	24" Coulters Arm Assy.
6	04663100	1	Coulters Arm 20"
	04663300	1	Coulters Arm 24"
7	04663200	1	Coulters Pivot
8	04663150	1	Coulters Shaft 20"
	04663140	1	Coulters Shaft 24"
9	04663410	1	Standard Mount
10	04663900	1	Coulters C-S Mount
11	443626A1	1	20" Coulters Blade
	443638A1	1	24" Coulters Blade
12	09236000	1	Clamp Plate
13	24143880	1	Compression Spring - 20" Coulters
	24156205	1	Compression Spring - 24" Coulters
14	20090050	2	Spring Holder Casting
15	28063331	1	633 Hub & Spindle - 20" & 24" Coulters (See Page #54)

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
20	413-10176	1	5/8" x 11" NC Hex Bolt - 20" Coulters
	413-10216	1	5/8" x 13-1/2" Hex Bolt - 24" Coulters
21	87427170	2	5/8" x 4" x 8" U-bolt
22	413-1048	1	5/8" x 3" NC Hex Bolt Gd. 5
23	16812084	1	3/4" x 2" NC Sq. Hd. Set Screw
24	87427182	2	3/4" x 4" x 8" U-Bolt
25	438-32840	2	7/16" x 2-1/2" Roll Pin
26	17620030	1	1-1/4" Machine Bushing 10 Ga.
27	17620020	2	1-1/4" Machine Bushing 14 Ga.
28	17411012	2	5/8" Washer x 1/4" Thk.
29	425-1010	5	5/8" NC Hex Nut
30	425-1412	1	3/4" NC Jam Nut
31	425-1012	4	3/4" NC Hex Nut
32	219-86	1	1/8" NPT Grease Zerk
33	432-1624	1	1/4" x 1-1/2" Cotter Pin
34	86992216	2	5/8" NC Stover Lock Nut

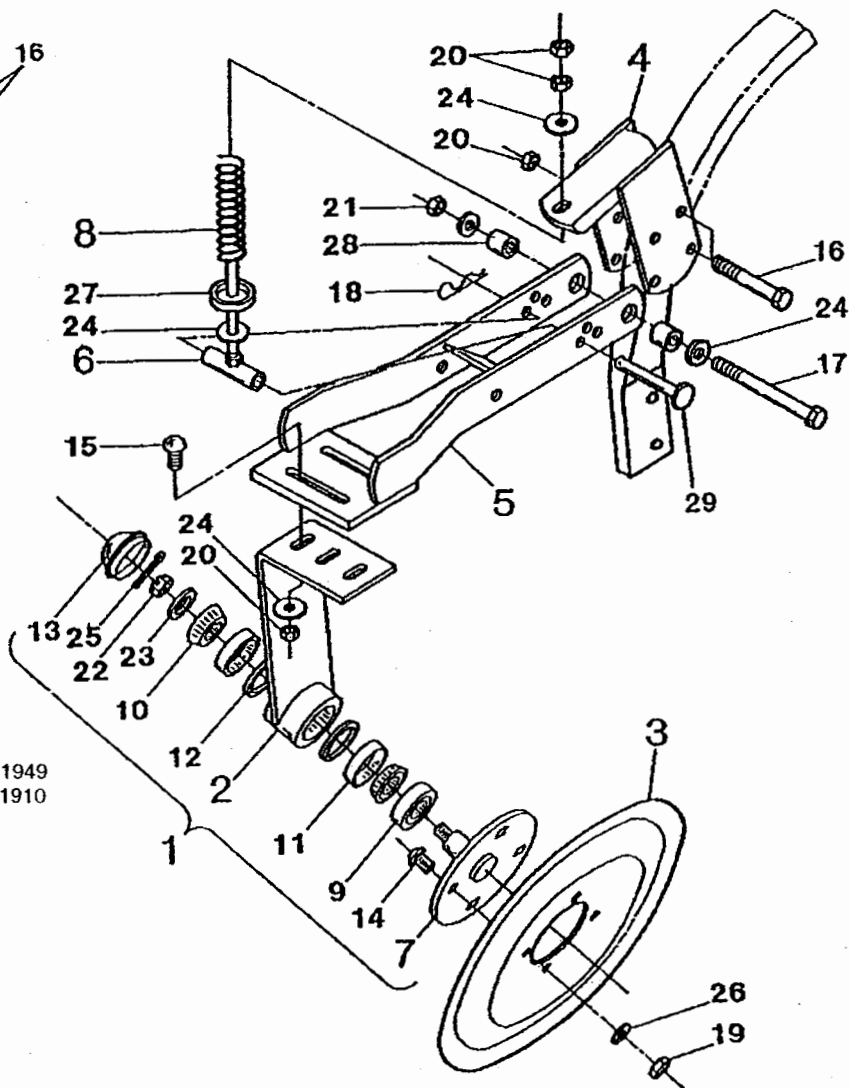
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# uni-seal'r

## 1-1/4" SQ. SHANK



## 1" X 2" SHANK

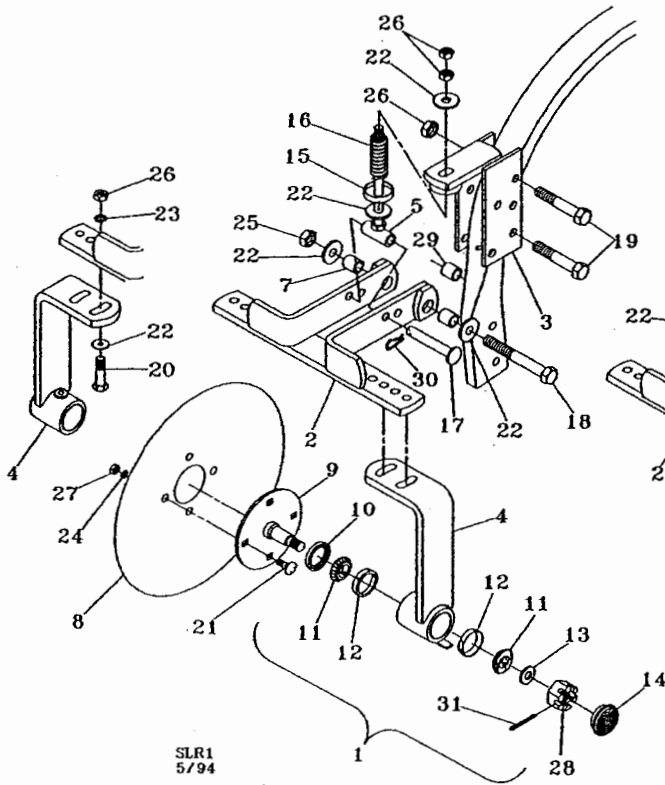


REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	02333000	1	Uni-Sealer Ass'y
1	02333120	1	Bearing Housing Ass'y
2		1	Replaced by Item #1
3	443622A1	1	Uni-Sealer Disc
4	02333300	1	Bracket Weld
5	02333200	1	Frame Weld
6	02333500	1	Pivot Bolt (1/2")
7	04666420	1	Hub and Spindle Weld
8	24117700	1	Spring
9	21931000	1	Seal - CR #10035
10	651815R91	2	.75" Bore Cone - Timken #LM11949
11	651814R1	2	1.78" O.D. Cup - Timken #LM11910
12	100-21175	2	Internal Retaining Ring
13	28400400	1	Dust Cap
14	433-612	4	3/8" x 3/4" Carriage Bolt
15	433-824	2	1/2" x 1-1/2" NC Carriage Bolt
16	413-856	1	1/2" x 3-1/2" NC Capscrew
17	413-888	1	1/2" x 5-1/2" NC Capscrew
18	NSI	1	1/8" x 2" Hair Pin (14720411)
19	425-106	4	3/8" NC Hex Nut
20	425-108	5	1/2" NC Hex Nut
21	231-4248	1	1/2" NC Lock Nut
22	425-1312	1	3/4" NF Slotted Hex Nut
23	495-11081	1	3/4" SAE Washer
24	495-21056	6	1/2" Std. Washer
25	432-816	1	1/8" x 1" Cotter Pin
26	492-11038	4	3/8" Lock Washer
27	17506010	1	Cup
28	02323001	2	Bushing (Heat Treated)
29	14808291	1	1/2" x 3-5/8" E.L. Clevis Pin
30	02333350	2	Spacer Plate (1-1/4" Shank)

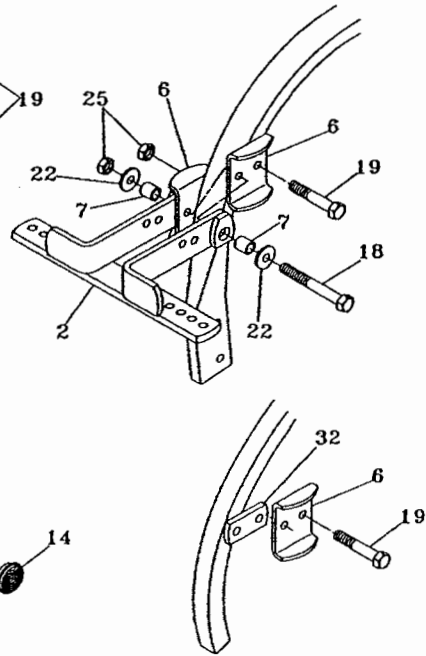
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# 14" REVERSIBLE DOUBLE DISC AND REVERSIBLE SPRING DOUBLE DISC SEALERS

## SPRING-REVERSIBLE DOUBLE DISC SEALER



## REVERSIBLE DOUBLE DISC SEALER



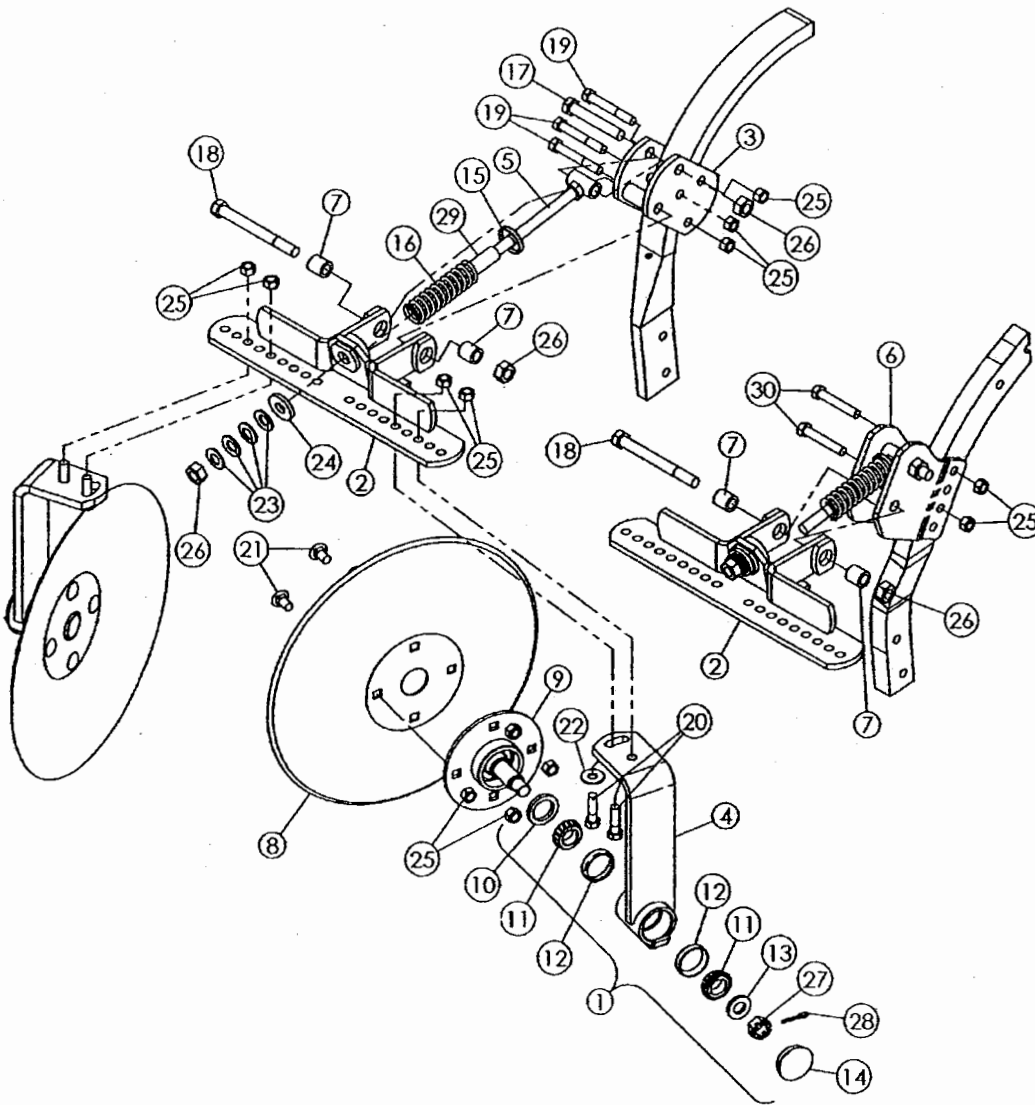
### 1 1/4" SQUARE SHANK MOUNTING OPTION

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	02400100	1	Spring Disc Sealer (complete)
	02330100	1	Regular Disc Sealer (complete)
1	02325200	1	Sealer Arm Assembly
2	02335300	1	Sealer Frame
3	02334000	1	Bracket
4	02325150	1	Sealer Arm with Cups
5	02333500	1	1/2" Dia. Spring Pivot Bolt
6	02335120	2	Shank Spacer (1" x 2" Shank)
	02335140	2	Shank Spacer (1-1/4" Square Shank)
7	02323100	2	Bushing
8	443623A1	2	14" Disc Blade
9	04666420	2	Hub and Shaft
10	21931000	2	Seal - CR #10035
11	651815R91	4	3/4" Bore Cone - Timken #LM11949
12	651814R1	4	1.781" O.D. Cup - Timken #LM11910
13	495-11081	4	3/4" SAE Washer
14	28400400	2	Grease Cap
15	17506010	1	Cup Washer

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
16	24120701	1	Compression Spring
17	14808291	1	1/2" x 3-5/8" E.L. Clevis Pin
18	413-888	1	1/2" x 5-1/2" NC Hex Bolt Gd. 5
19	413-852	2	1/2" x 3-1/4" NC Hex Bolt Gd. 5
20	413-828	4	1/2" x 1-3/4" NC Hex Bolt Gd. 5
21	433-612	8	3/8" x 3/4" NC Carriage Bolt
22	17411012	6	1/2" .688" x 1.75" O.D. Washer
23	492-11050	4	1/2" Lock Washer
24	492-11038	8	3/8" Lock Washer
25	231-4248	2	1/2" Hex Lock Nut
26	425-108	8	1/2" Hex Nut
27	425-106	8	3/8" Hex Nut
28	425-1312	2	3/4" NF Slotted Nut
29	02333410	1	Tube Spacer (Tru-Trak'r only)
30	NSI	1	1/8" x 2" Hair Pin (14720411)
31	432-816	1	1/8" x 1" Cotter Pin
32	02321000	2	Spacer Plate (1-1/4" Sq. Shank)

NSI - NOT A SERVICE ITEM

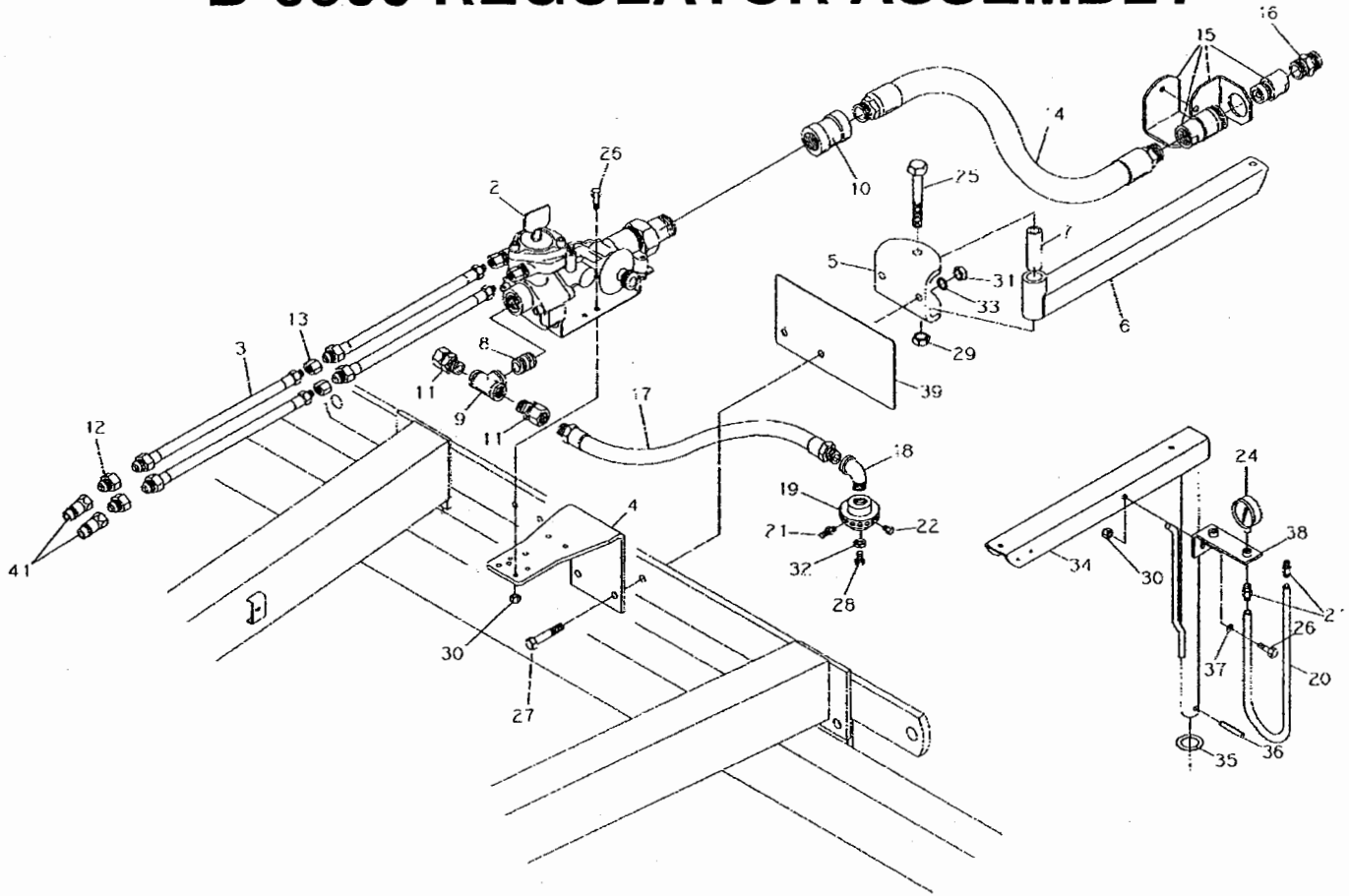
# 18" DISC SEALER (1" X 2" AND HCS™ SHANK)



REF. NO.	PART NO.	QTY. NO.	DESCRIPTION	REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
	04693185	1	18" Spring Disc Sealer, Dull, 1" x 2" Shank	14	28420021	2	Grease Cap
	04693175	1	Reverse Spring 18" Disc Sealer, Dull	15	17506020	1	0.656" I.D. Cup Washer
1	02337230	2	Sealer Arm Assy (Incl #'s 4, 9, 10, 11, 12, 13, 14, 27, & 28)	16	24120702	1	Compression Spring
2	04693145	1	Sealer, H-frame Weldment	17	413-1064	1	5/8" x 4" NC Hex Bolt, Gd. 5, Z.P.
3	04693195	1	1" x 2" Sealer Mount	18	413-1096	1	5/8" x 6" NC Hex Bolt, Gd. 5 Z.P.
4	02337233	2	Sealer Arm Weld w/Cups	19	413-856	3	1/2" x 3-1/2" NC Hex Bolt Gd. 5
5	04693150	1	T-bolt Weldment	20	413-828	4	1/2" x 1-3/4" NC Hex Bolt, Gd. 5
6	04693165	1	HCS Sealer Mount	21	413-816	8	1/2" x 1" Carriage Bolt
7	44006204	2	Bushing	22	17411012	2	1/2" .688" x 1.75" O.D. Washer
8	443625A1	2	18" Disc Blade - Dull	23	17511000	4	11/16" Spring Washer
9	09103110	2	Disc Spindle Weld	24	17411012	1	11/16" I.D. x 1-3/4" x .25" Washer
10	21931375	2	1.37" Seal	25	86992215	15	1/2" NC Stover Lock Nut
11	463911R91	4	1.00" Bore Cone (Timken #L44643)	26	86992216	3	5/8" NC Stover Lock Nut
12	572564R1	4	1.980" Cup (Timken #L44610)	27	425-1312	2	3/4" NF Slotted Hex Nut
13	17412001	2	3/4" I.D. Washer, Heat Treated	28	432-816	2	1/8" x 1" Cotter Pin
				29	04693158	1	Tube
				30	413-848	2	1/2" x 3" NC Hex Bolt, Z.P.

NSI - NOT A SERVICE ITEM  
A/R - AS REQUIRED

# B-9500 REGULATOR ASSEMBLY

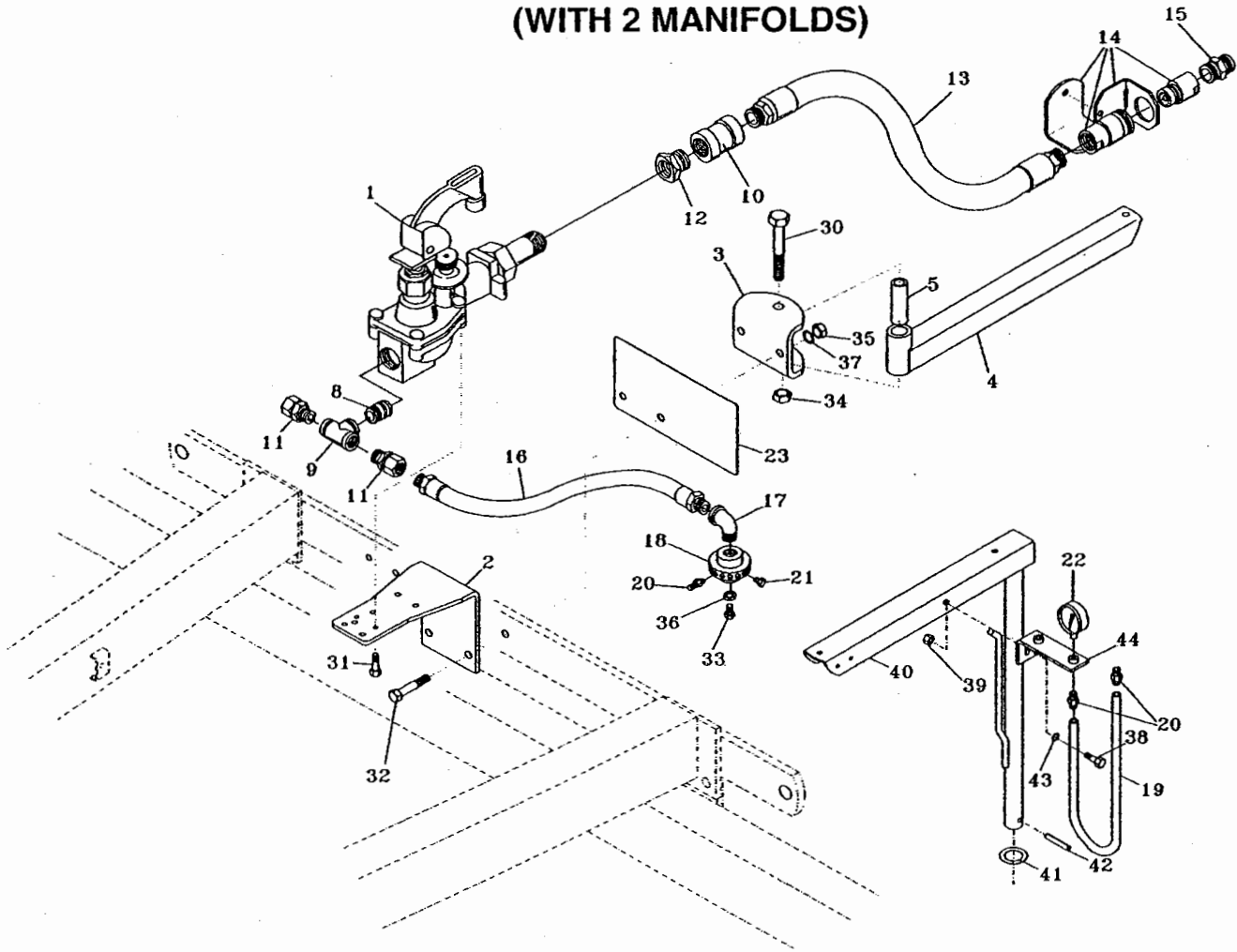


REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	P1466079	1	B9500 Regulator w/hoses
2	34107100	1	B9500 Regulator
3	25600412	4	1/4"Hydraulic Hose x 144" Long
4	04660310	1	Regulator Stand
5	04660320	1	Bracket
6	04660330	1	Extension Pivot Mount
7	04660340	1	Pivot Tube
8	15011000	1	1" NPT x 1-1/2" Lg. Nipple
9	15051001	1	1" Pipe Tee Blk. Mal.
10	15071251	1	1-1/4" NPT Coupling
11	15081006	2	1" Swivel Pipe Coupling
12	217-1109	2	1/4" NPTF x 1/2" NPTM Adapter
13	217-1101	2	1/4" NPT Coupling
14	25675320	1	1-1/4" A.A. Hose x 32"
15	02600040	1	1-1/4" Quick Coupler Assembly
16	34314100	1	1-3/4" ACME x 1-1/4" NPTM Adapter
17	25674955	2	1" A.A. Hose x 126" Long
18	15001002	2	1" NPT 90° Street Elbow
19	34199024	2	Continental Manifold, 14 Outlet
	34199012	2	Continental Manifold, 18 Outlet 21-33 Shank Wheat Machines
	34199014	2	Continental Manifold, 24 Outlet 37-39 Shank Wheat Machines
20	25630601	A/R	3/8" I.D. x 166" Long A.A. Hose
	25630801	A/R	1/2" I.D. x 166" Long A.A. Hose

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
21	15040251	A/R	1/4" NPT x 3/8" Hose Barb
	15040252	A/R	1/4" NPT x 1/2" Hose Barb
	15040120	A/R	1/8" NPT x 3/8" Barb Orifice Wheat Machines Only
22	15020250	A/R	1/4" NPT Plug
	15020120	A/R	1/8" Pipe Plug
24	34599060	1	Dial Gauge - 60 p.s.i.
25	413-1296	1	3/4" x 6" NC Hex Bolt Gd. 5
26	413-616	3	3/8" x 1" NC Hex Bolt (16006041)
27	413-1040	2	5/8" x 2-1/2" NC Hex Bolt Gd. 5
28	413-812	2	1/2" x 3/4" NC Hex Bolt
29	86992217	1	3/4" NC Stover Lock Nut
30	425-106	3	3/8" NC Hex Nut
31	425-1010	2	5/8" NC Hex Nut
32	492-11050	2	1/2" Lock Washer
33	492-11062	2	5/8" Lock Washer
34	05302150	1	Hose Stand
35	17620030	1	1-1/4" Machine Bushing
36	438-32840	1	7/16" x 2-1/2" Roll Pin
37	495-21044	1	3/8" Standard Washer
38	04681830	1	Gauge Bracket
39	04681850	1	Decal Plate with Danger Sign
40	18534368	1	Danger Sign (Not Shown)
41	25705041	4	3/4" SAEF-Male ISO Hydraulic Coupling

NSI - NOT A SERVICE ITEM  
A/R - AS REQUIRED

# SINGLE CONTINENTAL ASSEMBLY (WITH 2 MANIFOLDS)

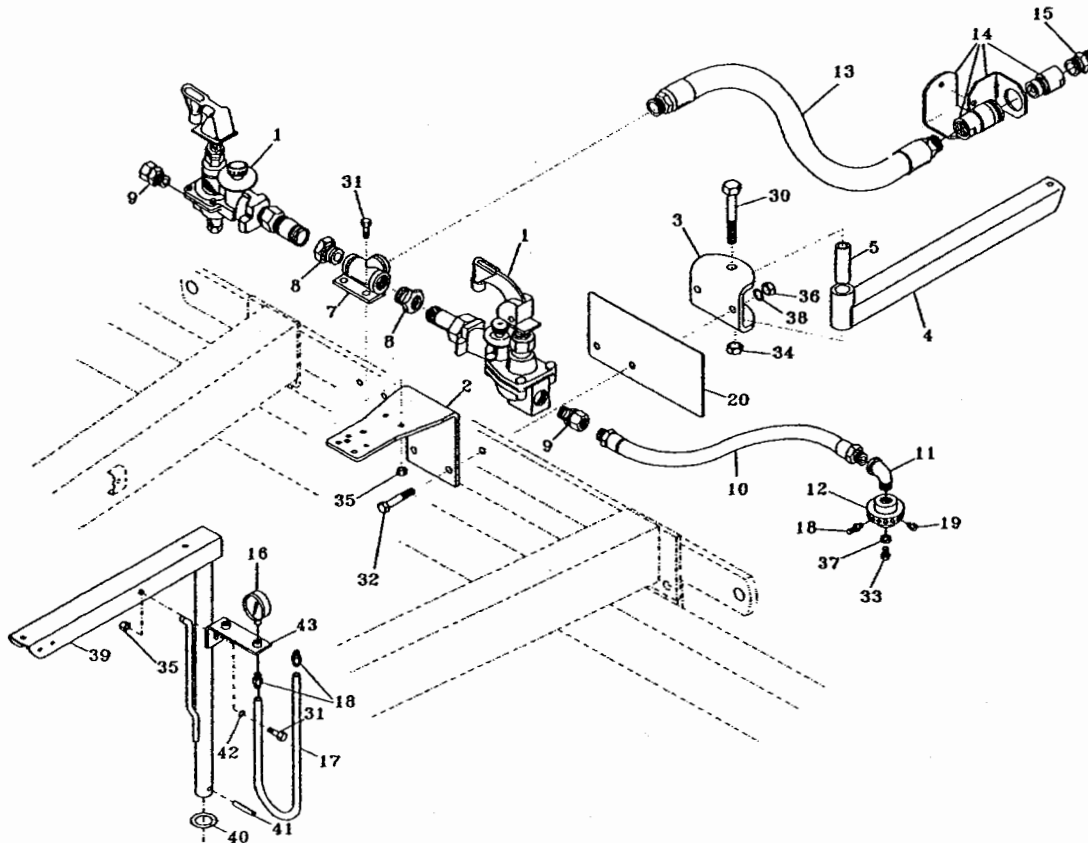


REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	34104101	1	C4103 RPR Cont. Regulator with Single Outlet
2	04660310	1	Regulator Stand
3	04660320	1	Bracket
4	04660330	1	Extension Pivot Mount
5	04660340	1	Pivot Tube
8	15011000	1	1" NPT x 1-1/2" Lg. Nipple
9	15051001	1	1" Pipe Tee Blk. Mal.
10	15071251	1	1-1/4" NPT Coupling
11	15081006	2	1" Swivel Pipe Coupling
12	15031259	1	1-1/4" x 1" NPT Reducer
13	25675320	1	1-1/4" A.A. Hose x 32"
14	02600040	1	1-1/4" Quick Coupler Assy.
15	34314100	1	1-3/4" ACME x 1-1/4" NPTM Adapter
16	25674955	2	1" A.A. Hose x 126" Lg.
17	15001002	2	1" NPT x 90° Street Elbow
18	34199024	2	Continental Manifold, 14 Outlet
	34199012	2	Continental Manifold, 18 Outlet 21-33 Shank Wheat Machines
	34199014	2	Continental Manifold, 24 Outlet 37-39 Shank Wheat Machines
19	25630601	A/R	3/8" ID x 166' Long A.A. Hose
	25630801	A/R	1/2" ID x 166' Long A.A. Hose

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
20	15040251	A/R	1/4" NPT x 3/8" Hose Barb
	15040252	A/R	1/4" NPT x 1/2" Hose Barb
	15040120	A/R	1/8" NPT x 3/8" Barb Orifice Wheat Machines Only
21	15020250	A/R	1/4" NPT Plug
	15020120	A/R	1/8" Pipe Plug
22	34599060	1	Dial Gauge - 60 p.s.i.
23	04681850	1	Decal Plate with Danger Sign
24	18534368	1	Danger Sign (Not Shown)
30	413-1296	1	3/4" x 6" NC Hex Bolt Gd. 5
31	413-524	2	5/16" x 1-1/2" NC Hex Bolt
32	413-1040	2	5/8" x 2-1/2" NC Hex Bolt Gd 5
33	413-812	2	1/2" x 3/4" NC Hex Bolt
34	86992217	1	3/4" NC Stover Lock Nut
35	425-1010	2	5/8" NC Hex Nut
36	492-11050	2	1/2" Lock Washer
37	492-11062	2	5/8" Lock Washer
38	413-616	1	3/8" x 1" NC Hex Bolt
39	425-106	1	3/8" NC Hex Nut
40	05302150	1	Hose Stand
41	17620030	1	1-1/4" Machinery Bushing
42	438-32840	1	7/16" x 2-1/2" Roll Pin
43	495-21044	1	3/8" Standard Washer
44	04681830	1	Gauge Bracket

NSI - NOT A SERVICE ITEM  
A/R - AS REQUIRED

# DOUBLE CONTINENTAL ASSEMBLY (WITH 2 MANIFOLDS)



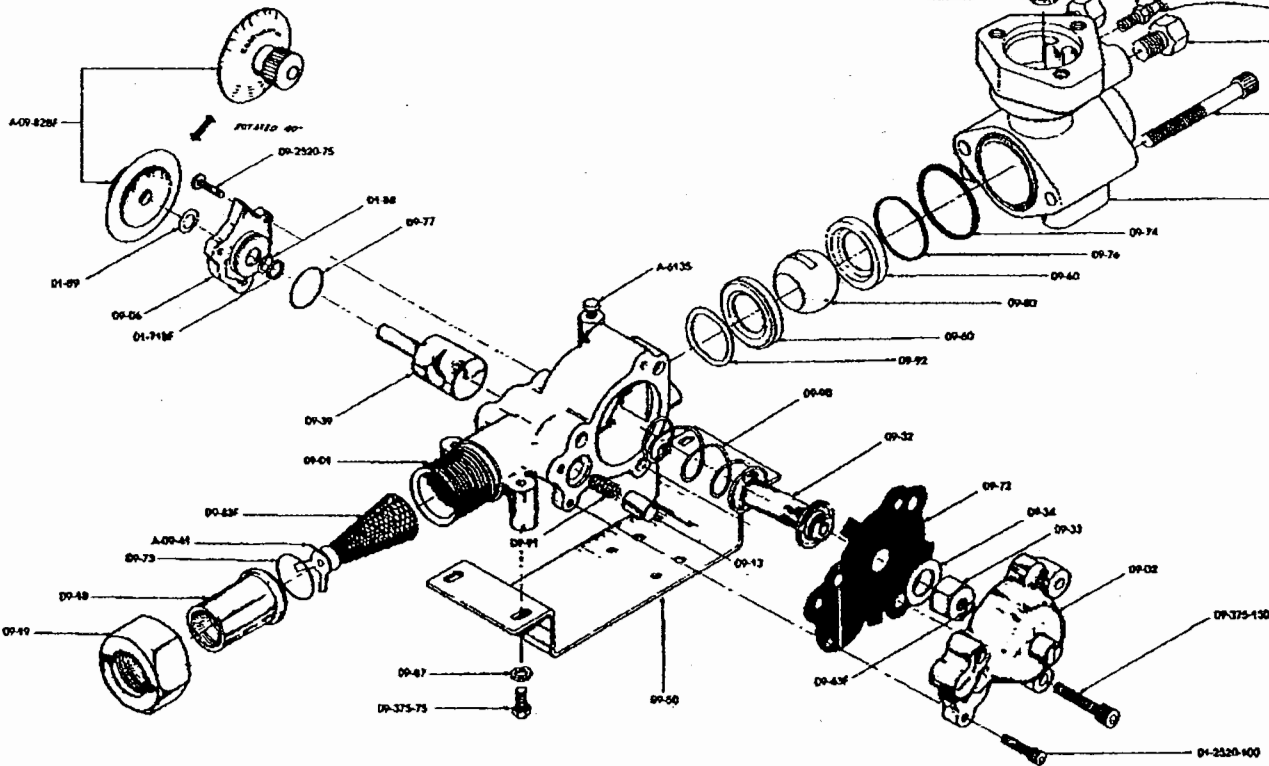
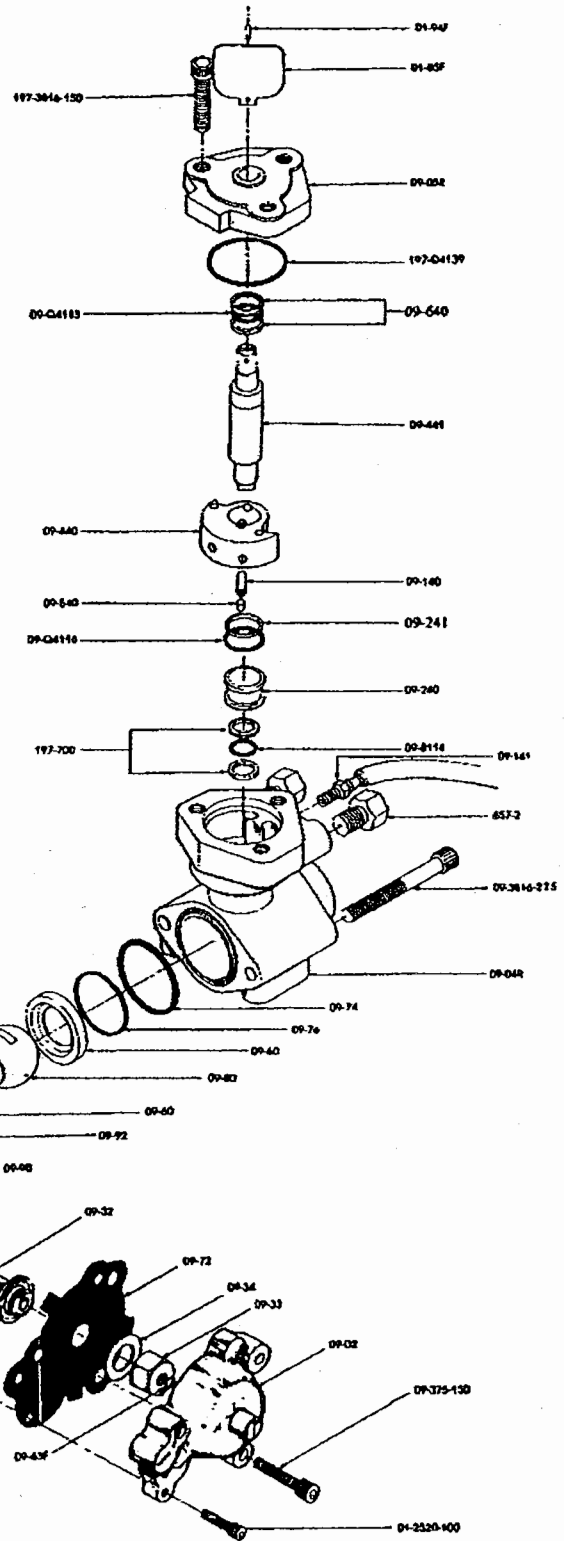
REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	34104101	2	C4103 RPR Cont. Regulator with Single Outlet
2	04660310	1	Regulator Stand
3	04660320	1	Bracket
4	04660330	1	Extension Pivot Mount
5	04660340	1	Pivot Tube
7	02259500	1	Double Regulator Bracket
8	15031259	2	1-1/4" x 1" NPT Reducer
9	15081006	2	1" Swivel Pipe Coupling
10	25674955	2	1" A.A. Hose x 126" Lg.
11	15001002	2	1" NPT x 90° Street Elbow
12	34199024	2	Continental Manifold, 14 Outlet
	34199012	2	Continental Manifold, 18 Outlet
			21-33 Shank Wheat Machines
	34199014	2	Continental Manifold, 24 Outlet
			37-39 Shank Wheat Machines
13	25675320	1	1-1/4" A.A. Hose x 32" Lg.
14	02600040	1	1-1/4" Quick Coupler Assembly
15	34314100	1	1-3/4" ACME x 1-1/4" NPTM Adapter
16	34599060	2	Dial Gauge - 60 p.s.i.
17	25630601	A/R	3/8" I.D. x 166" Long A.A. Hose
	25630801	A/R	1/2" I.D. x 166" Long A.A. Hose

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
18	15040251	A/R	1/4" NPT x 3/8" Hose Barb
	15040252	A/R	1/4" NPT x 1/2" Hose Barb
	15040120	A/R	1/8" NPT x 3/8" Barb Orifice Wheat Machines Only
19	15020250	A/R	1/4" NPT Plug
	15020120	A/R	1/8" Pipe Plug
20	04681850	1	Decal Plate with Danger Sign
21	18534368	1	Danger Sign (Not Shown)
30	413-1296	1	3/4" x 6" NC Hex Bolt Gd. 5
31	413-616	3	3/8" x 1" NC Hex Bolt
32	413-1040	2	5/8" x 2-1/2" NC Hex Bolt Gd. 5
33	413-812	2	1/2" x 3/4" NC Hex Bolt
34	86992217	1	3/4" NC Stover Lock Nut
35	425-106	3	3/8" NC Hex Nut
36	425-1010	2	5/8" NC Hex Nut
37	492-11050	2	1/2" Lock Washer
38	492-11062	2	5/8" Lock Washer
39	05302150	1	Hose Stand
40	17620030	1	1-1/4" Machinery Bushing
41	438-32840	1	7/16" x 2-1/2" Roll Pin
42	495-21044	1	3/8" Standard Washer
43	04681830	1	Gauge Bracket

NSI - NOT A SERVICE ITEM  
A/R - AS REQUIRED

# B-9500 REGULATOR

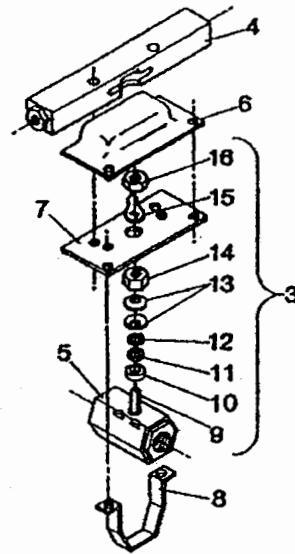
PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
01-37	DIAL BASE	01-85F	INDICATOR FLAG
01-38	DIAL KNOB	**01-24F	FLAG LOCK PIN
01-71BF	CAP SEAL	09-04R	ROTOR SHUT OFF BODY
01-88	RETAINER WASHER	09-05F	ROTOR SHUT OFF BONNET
01-89	DIAL TENSION WASHER	09-440	ROTOR
01-428F	DIAL LOCK PIN	09-441	SHUT OFF PINION
01-632-25	DIAL SET SCREW	09-140	ROTOR SHAFT PIN
01-2520-100	CAP SCREW	09-241	LOWER SHAFT SEAL BACK UP RING
09-01	METER BODY	09-240	SHAFT SEAL GLAND
09-02	METER BONNET	**09-40	BALL VALVE SEAL (2)
09-04	METER BARREL BONNET	09-540	WEAR PAD (FOR ROTOR PIN)
09-12	SLAVE VALVE	**09-74	BODY O'Y RING
09-18	MALE UNION	**09-76	O'Y RING SEAL SHUT OFF BODY
09-19	UNION NUT	09-640	SEAL BACK UP WASHER (9/16" ID) (2)
09-32	THROTTLE STEM	197-700	SEAL BACK UP WASHER (2)
09-33	THROTTLE LOCK NUT	09-90	SHUT OFF BALL
09-34	DIAPHRAGM PLATE	09-92	BALL VALVE TENSION WASHER
09-39	METER BARREL	09-3816-275	SHUT OFF BODY CAP SCREW (2)
A-09-41	FILTER PLUG ASSY.	**09-Q4113	UPPER SHAFT SEAL
09-50	METER BRACKET	**09-Q4116	LOWER SHAFT SEAL
09-53F	THROTTLE STEM GUIDE	**09-8116	CAP SEAL
09-77	DIAPHRAGM	197-3816-150	BONNET SCREW
09-78	UNION O'Y RING	**197-Q4130	BONNET QUAD RING
09-77	DIAL BONNET O'Y RING SEAL	657-2	CYLINDER ORIFICE ADAPTOR
09-82BF	DIAL ONLY	09-17	DRAIN HOSE CONNECTOR
A-09-82BF	DIAL ASSY.	R-9500-B5	REPAIR KIT (FOR METER ONLY)
09-83F	STRAINER SCREEN		ITEMS MARKED *
09-87	3/8" LOCK WASHER (4)	09-141	DRAIN HOSE CONNECTOR
09-90	METER SPRING	R-9590-BK	REPAIR KIT (ACTUATOR ONLY)
09-91	SLAVE VALVE SPRING		ITEMS MARKED **
09-376-75	BRACKET BOLT (4)		
09-375-150	METER BONNET CAP SCREW (3)		
09-2520-75	BONNET CAP SCREW (6)		



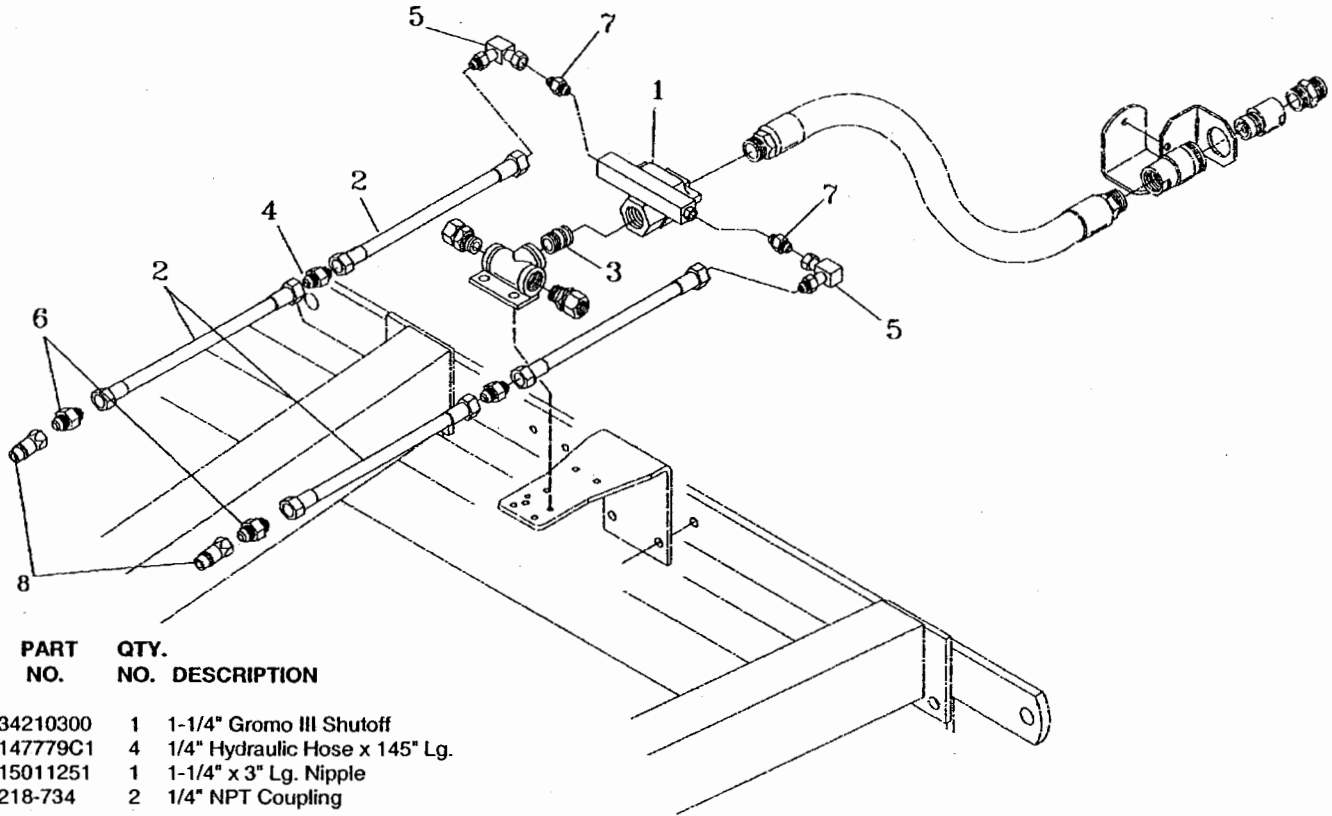
# 1-1/4 GROMO III SHUT-OFF

REF. NO.	PART NO.	QTY.	NO. DESCRIPTION
1	34210300	1	1-1/4" Gromo III Shut-off (incl. #4-#16)
2	34210301	1	Seal Kit
3	34210302	1	Stem Kit (incl. #9-#16)
4	NSI	1	Actuator Assembly
5	NSI	1	Ball Valve Assembly
6	NSI	1	Cover
7	NSI	1	Mounting Plate
8	NSI	1	Strap
9	NSI	1	Stem
10	NSI	1	Thrust Washer
11	NSI	1	Top Washer
12	NSI	1	Follower Washer
13	NSI	2	Belleville Washer
14	NSI	1	Stem Nut
15	NSI	1	Cam Arm
16	NSI	1	Jam Nut

NSI - NOT A SERVICE ITEM  
 1 - 1-1/4" GROMO III SHUT-OFF  
 2 - SEAL KIT

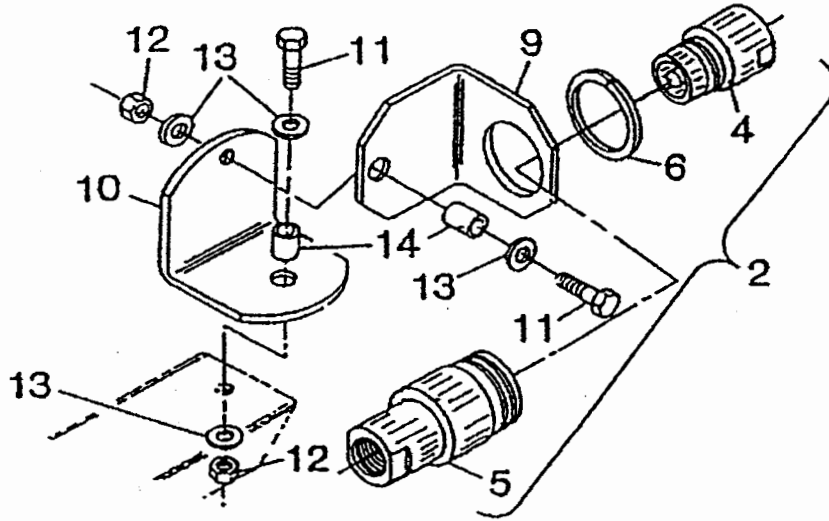


# 1-1/4" GROMO III TO TRACTOR



REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	34210300	1	1-1/4" Gromo III Shutoff
2	147779C1	4	1/4" Hydraulic Hose x 145" Lg.
3	15011251	1	1-1/4" x 3" Lg. Nipple
4	218-734	2	1/4" NPT Coupling
5	218-980	2	1/8" NPTM x 1/4" NPTF Elbow
6	218-5058	2	1/4" NPTF x 1/2" NPTM Adapter
7	218-453	2	1/8" NPTM x 9/16" JICM Adapter
8	25705041	2	3/4" SAEF-Male ISO Hydraulic Coupling

# 1-1/4" QUICK COUPLER



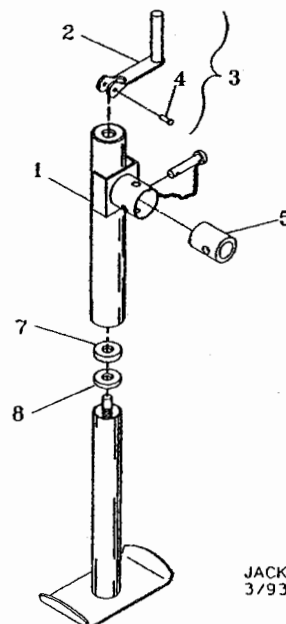
REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
2	02600040	1	1-1/4" Quick Coupler Assembly w/Bracket (incl. #4,5,6,9-14)
4	34410032	1	1-1/4" Quick Coupler - Male
5	34410033	1	1-1/4" Quick Coupler - Female
6	103-11250	1	Retaining Ring
7	34410034	1	Gasket Kit (consists of (2) O-Rings)
9	02628012	1	Upper Swivel Bracket (Incl. 11-14)
10	02138100	1	Lower Swivel Bracket w/Bushing
11	413-824	2	1/2" x 1-1/2" NC Capscrew
12	231-4248	2	1/2" NC Hex Lock Nut
13	495-21056	4	1/2" Std. Washer
14	02138110	2	Pipe

NSI - NOT A SERVICE ITEM

# JACK ASSEMBLY

REF. NO.	PART NO.	QTY. NO.	DESCRIPTION
1	32230000	1	Jack Assembly 3000#
2	NSI	1	Jack Handle
3	32230100	1	Handle Replacement Kit (incl. #2, 4, 9)
4	NSI	1	1/4" x 1" NC Std. Hex Bolt
5	09311040	1	Mounting Bracket
7	NSI	1	Thrust Bearing
8	NSI	1	Thrust Washer
9	NSI	1	1/4" Lock Nut

NSI - NOT A SERVICE ITEM



JACK  
3/93

# 633 HUB & SPINDLE

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
	28063331	1	Hub & Spindle Assy. (4-1/2")
1	28163310	1	633 4-Bolt Hub Assy.
2	28463300	1	Hub Cap
3	432-1024	1	5/32" x 1-1/2" Cotter Pin
4	425-1312	1	3/4" NF Slotted Nut
5	495-11081	1	3/4" SAE Washer
6	651815R91	1	.75" Bore Cone - Timken #LM11949
7	651814R1	1	1.78" O.D. Cup - Timken #LM11910
8	414-820	4	1/2" x 1-1/4" NF Flat Head Bolt
9	NSI	1	633 Hub (28263340)
10	651817R1	1	2.33" O.D. Cup - Timken #LM67010
11	651818R91	1	1.25" Bore Cone - Timken #LM67048
12	126621C1	1	1.50" I.D x 2.33" O.D. Seal - CR #14975
13	28363331	1	Spindle

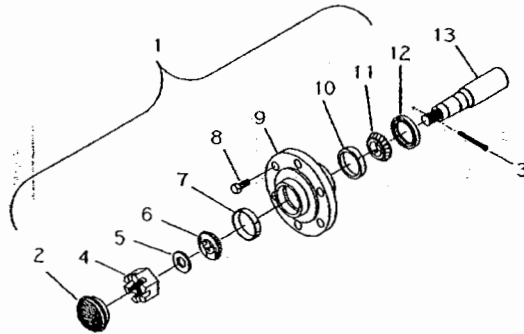
NSI NOT A SERVICE ITEM

# 888 HUB & SPINDLE

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
	28088801	1	Hub and Spindle Assembly (12-5/8")
1	28188800	1	888 6-Bolt Hub Assembly
2	28477700	1	Hub Cap
3	432-1024	1	5/32" x 1-1/4" Cotter Pin
4	425-1314	1	7/8" NF Slotted Nut
5	495-61094	1	7/8" Washer 2" O.D. (17140002)
6	651818R91	1	1.25" Bore Cone - Timken #LM67048
7	651817R1	1	2.33" O.D. Cup - Timken #LM67010
8	549962R1	6	1/2" x 1" NF Lug Bolt
9	NSI	1	888 Hub (28288800)
10	61801C1	1	2.480" O.D. Cup - Timken #JL69310
11	21871496	1	1.50" Bore Cone - Timken #JL69349
12	T57618	1	1.63" I.D. x 2.57" O.D. Seal - CR #16289
13	28388807	1	Spindle 14-1/4"

NSI - NOT A SERVICE ITEM

NOTE: CHECK HUB NO. BEFORE ORDERING PARTS  
 IMPORTANT: TORQUE 1/2" WHEEL BOLTS  
 TO 100 FT.-LBS.



# 710 HUB & SPINDLE

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
	28071001	1	Hub and Spindle Assembly
1	28171000	1	Q-710 6-Bolt Hub Assembly
2	28477700	1	Hub Cap
3	432-1024	1	5/32" x 1-1/2" Cotter Pin
4	425-1314	1	7/8" NF Slotted Nut
5	17915000	1	7/8" Washer H.T.
6	651818R91	1	1.25" Bore Cone - Timken #LM67048
7	651817R1	1	2.33" O.D. Cup - Timken #LM67010
8	549962R1	6	1/2" NF Lug Bolt
9	NSI	1	Hub (28270900)
10	618024R1	1	2.56" O.D. Cup - Timken #LM48510
11	618023R91	1	1.38" Bore Cone - Timken #LM48548
12	614410R91	1	1.63" I.D. x 2.63" O.D. Seal - CR #16322
13	28371001	1	Spindle

NSI - NOT A SERVICE ITEM

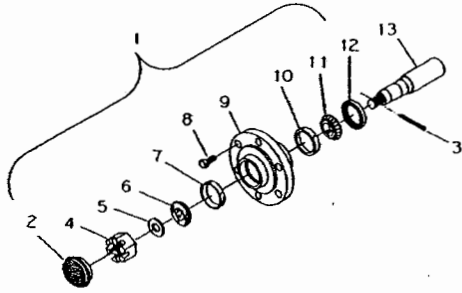
# 783 HUB & SPINDLE

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
	28078372	1	Hub and 2" Spindle Assembly
	28078361	1	Hub and 2-1/2" Spindle Assembly
1	28178300	1	783 6-Bolt Hub Assembly
2	28477700	1	Hub Cap
3	432-1024	1	5/32" x 1-1/2" Cotter Pin
4	425-1314	1	7/8" NF Slotted Nut
5	495-61094	1	7/8" Washer 2" O.D.
6	651818R91	1	1.25 Bore Cone - Timken #LM67048
7	651817R1	1	2.33" O.D. Cup - Timken #LM67010
8	549962R1	6	1/2" NF x 1-15/32" Lug Bolt
9	NSI	1	Hub w/Cups (28278300)
10	663558R1	1	2.89" O.D. Cup - Timken #LM501310
11	663557R91	1	1.625" Bore Cone - Timken #LM501349
12	145769C91	1	1.875" I.D. x 3.005" O.D. Seal - CR #18823
13	28378371	1	2" Spindle
	28378361	1	2-1/2" Spindle

NSI - NOT A SERVICE ITEM

# 803 HUB & SPINDLE

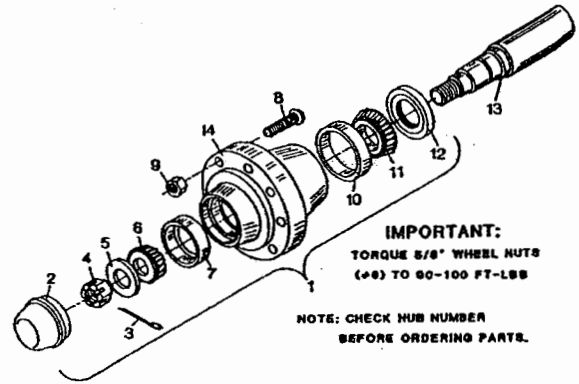
NOTE: CHECK HUB NO. BEFORE ORDERING PARTS  
 IMPORTANT: TORQUE 9/16" WHEEL BOLTS  
 TO 150 FT.-LBS.



REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	28180300	1	803 6-Bolt Hub Assembly
2	28480300	1	Hub Cap
3	432-1024	1	5/32" x 1-1/2" Cotter Pin
4	425-1314	1	7/8" NF Slotted Nut
5	495-61094	1	7/8" Washer 2" O.D.
6	560953R91	1	1.375" Bore Cone - Timken #25877
7	165964R1	1	2.875" O.D. Cup - Timken #25821
8	16409053	6	9/16" NF x 1-1/8" Lug Bolt
9	NSI	1	803 Hub (28280300)
10	130503H	1	3.270" O.D. Cup - Timken #25520
11	300426R91	1	1.800" Bore Cone - Timken #25590
12	491715R91	1	2" I.D. x 3.63" O.D. Seal - CR #521430
13	28380341	1	Spindle 16-15/16"

NSI NOT A SERVICE ITEM

# 50-8 HUB & SPINDLE



IMPORTANT:  
 TORQUE 5/8" WHEEL NUTS  
 (••) TO 60-100 FT-LBS

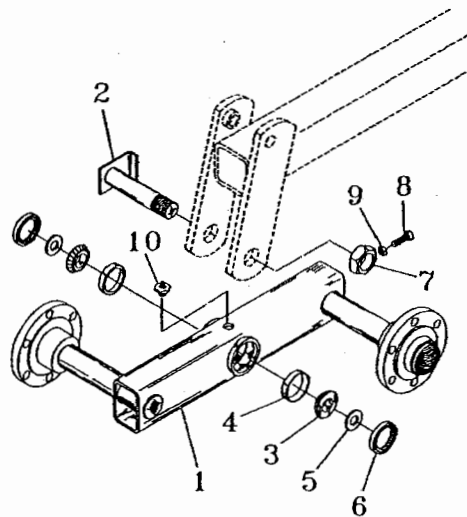
NOTE: CHECK HUB NUMBER  
 BEFORE ORDERING PARTS.

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	28050885	1	50-8 Hub and Spindle Assembly
1	28150800	1	50-8 8-Bolt Hub Assembly
2	28460800	1	Hub Cap
3	432-1232	1	3/16" x 2" Cotter Pin
4	425-1316	1	1" NF Slotted Nut
5	95-11106	1	1" SAE Washer
6	663557R91	1	1.62" Bore Cone - Timken #LM501349
7	663558R1	1	2.89" O.D. Cup - Timken #LM501310
8	16410087	8	5/8" NF x 2-1/4" Wheel Bolt
9	554480R1	8	5/8" NF Wheel Nut
10	376463C1	1	3.22" O.D. Cup - Timken #JLM104910
11	21872005	1	2.00" O.D. Bore Cone - Timken #LM104948
12	21932502	1	2.50" I.D. x 3.25" O.D. Seal - Carbox CR #53510
13	28350805	1	Spindle

# 4300 WALKING AXLE ASSEMBLY

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
	04662070	1	Walking Axle Assy 783 RH (incl. #1-10)
	04662170	1	Walking Axle Assy 783 LH (incl. #1-10)
1	04662060	1	Walking Axle Weld 783 RH
	04662160	1	Walking Axle Weld 783 LH
2	04661850	1	Axle Pin
3	160558C91	2	1.50" Bore Cone - Timken #LM29749
4	478793R1	2	2.56" O.D. Cup - Timken #LM29710
5	06201420	2	Spacer
6	21932090	2	2.094" I.D. Seal - CR #20952
7	14032408	1	1-1/2" NC Nut w/Set Screw
8	16806045	1	3/8 x 1 NC Sq. Hd. Set Screw
9	425-146	1	3/8" NC Hex Jam Nut (14030601)
10	219-86	1	1/8" NPT Self Tap Zerk

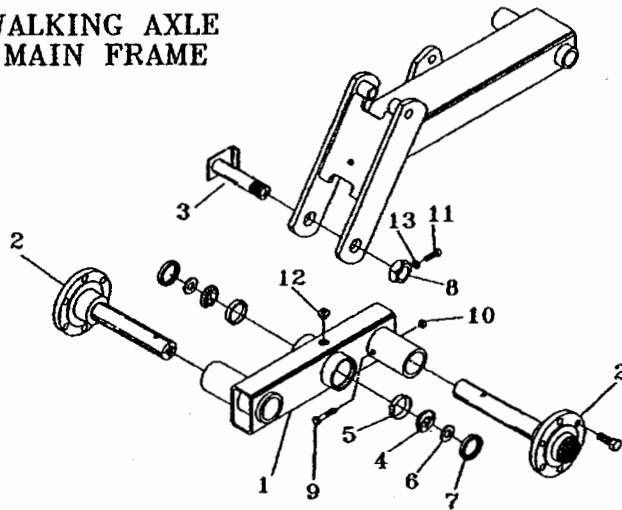
NSI NOT A SERVICE ITEM



# 5300 MAIN FRAME WALKING AXLE ASSEMBLY

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	04683045	1	Walking Axle Weld RH
	04683145	1	Walking Axle Weld LH
2	28078361	2	783 Hub & 2-1/2" Spindle Assembly
	28050885	2	50-8 Hub and Spindle Assembly
3	04683050	1	Axle Pin
4	21871501	2	1.50" Bore Cone - Timken #2776
5	17498D	2	3.00" O.D. Cup - Timken #2720
6	06400573	2	Spacer
7	21932510	2	3.148" Bore Seal - CR #22870
8	14032409	1	1-1/2" Special Jam Nut
9	413-864	2	1/2" x 4" NC Hex Bolt Gd. 5
10	231-4248	2	1/2" NC Hex Lock Nut
11	16806045	1	3/8" X 1" Square Head Set Screw
12	219-86	1	1/8" NPT Self Tap Zerk
13	425-146	1	3/8" NC Hex Jam Nut

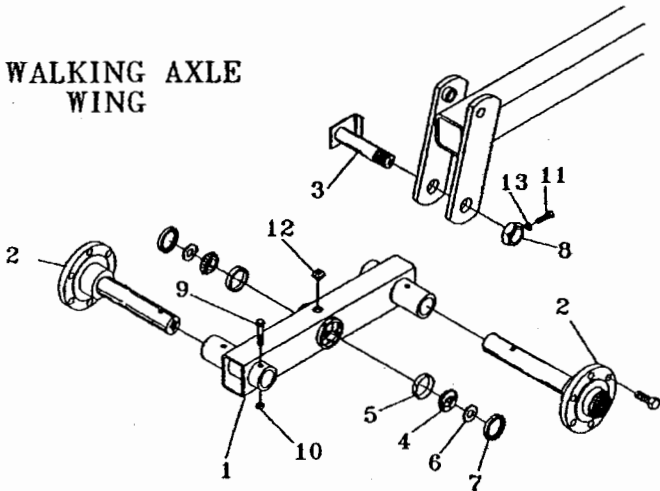
WALKING AXLE  
MAIN FRAME



NSI NOT A SERVICE ITEM

# 5300 WING WALKING AXLE ASSEMBLY

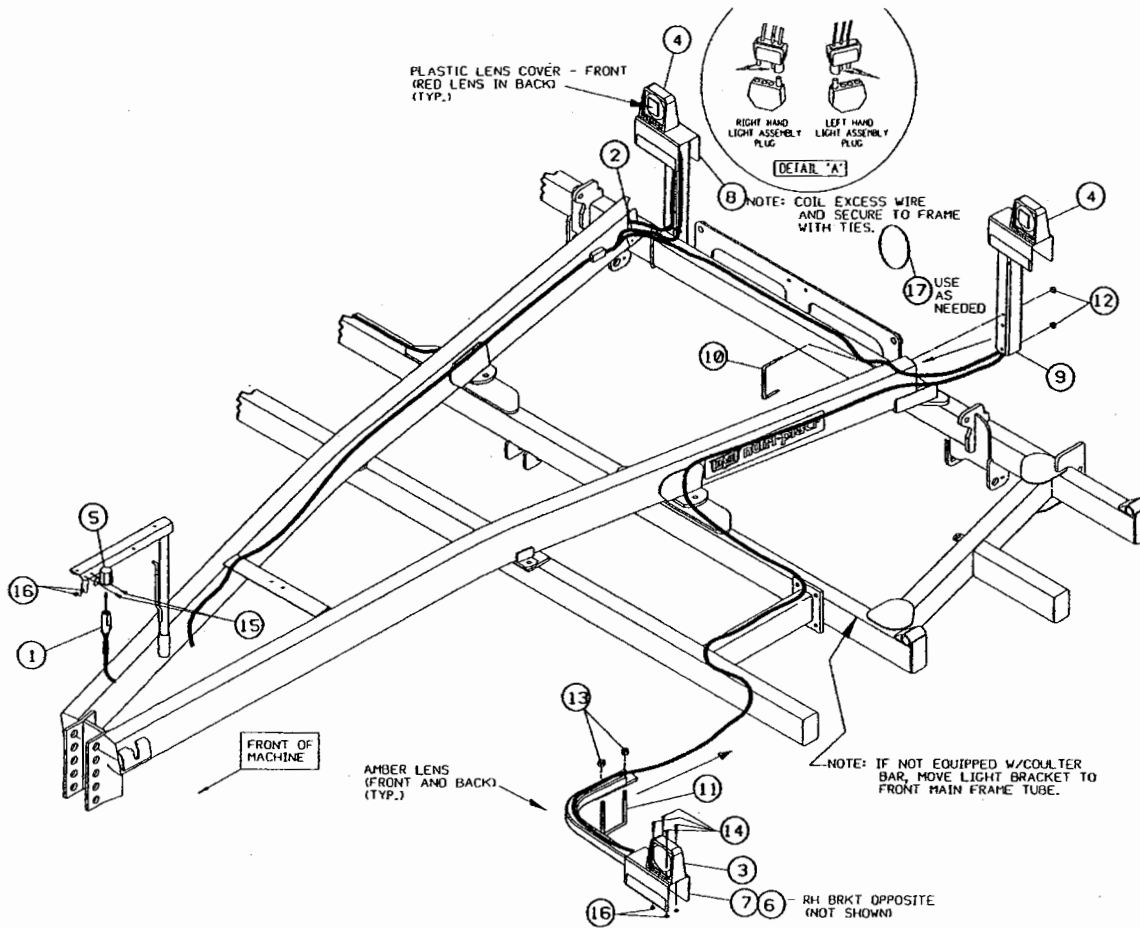
WALKING AXLE  
WING



REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	04683245	1	Walking Axle Weld RH
	04683345	1	Walking Axle Weld LH
2	28078372	2	783 Hub & 2" Spindle Assembly
3	04661850	1	Axle Pin
4	160558C91	2	1.50" Bore Cone - Timken #LM29749
5	478793R1	2	2.56" O.D. Cup - Timken #LM29710
6	06201425	2	Spacer
7	21932090	2	2.094" Bore Seal - CR #20952
8	14032409	1	1-1/2" Special Jam Nut
9	413-852	2	1/2" x 3-1/4" NC Hex Bolt
10	231-4248	2	1/2" NC Hex Lock Nut
11	16806045	1	3/8" X 1" Square Head Set Screw
12	219-86	1	1/8" NPT Self Tap Zerk
13	425-146	1	3/8" NC Hex Jam Nut

NSI NOT A SERVICE ITEM

# WARNING AND TAILLIGHT KIT



REF. NO.	PART NO.	QTY NO.	DESCRIPTION
1	27602311	1	Front Wiring Harness
2	27602234	1	Rear Wiring Harness
3	27602201	2	Single Light Fixture, Amber
4	27602202	2	Single Light Fixture, Red
5	27601214	1	Plug Storage Container
6	87413845	1	Front Light Bracket, L.H.
7	87413808	1	Front Light Bracket, R.H.
8	27602425	1	Rear Light Bracket, R.H.
9	27602420	1	Rear Light Bracket, L.H.
10	16309101	2	3/8" x 4.9" x 6.06" U-Bolt

REF. NO.	PART NO.	QTY NO.	DESCRIPTION
11	87427170	2	5/8" x 4" x 8" U-Bolt
12	86992213	4	3/8" NC Stover Lock Nut
13	86992216	4	5/8" NC Stover Lock Nut
14	413-420	16	1/4" x 1-1/4" NC Hex Bolt Gd. 5
15	413-412	2	1/4" x 3/4" NC Hex Bolt Gd. 5
16	86992211	18	1/4" NC Stover Lock Nut
17	386170C1	A/R	28" Plastic Hose Tie
18	27601215	A/R	Replacement Lens - Amber (Not Shown)
19	27601216	A/R	Replacement Lens - Red (Not Shown)
20	533959R1	A/R	12" Plastic Hose Tie

\*See Pages #66 and #67 for Light Kit installation instructions.

A/R - AS REQUIRED  
NSI - NOT A SERVICE ITEM

# ASSEMBLY SECTION

The following text describes procedure for assembling the **nutri-placr** applicator. Place all bundles where they will be convenient. Part numbers are stamped on each bag. It may be helpful to open the bags for easier identification, but do not mix parts from different bags, and keep the bag number with the bundle of loose parts. Study and refer to the Assembly Drawings in this manual and proceed with the step-by-step instructions. All bolts should be torqued to the recommended torque shown on bolt torque chart on inside of cover unless otherwise specified.



- WARNING:**
- **Never** position yourself under any portion of the **nutri-placr** applicator. Lower machine to the ground, turn off tractor and remove key before making adjustments or repairs. Otherwise, block securely to prevent accidental lowering.
  - Compressed springs have potentially dangerous stored energy. Always assemble and disassemble properly.

## 4300 FRAME

Refer to parts drawing and reference numbers on Pages #26, #27, #30, #33 and #34.

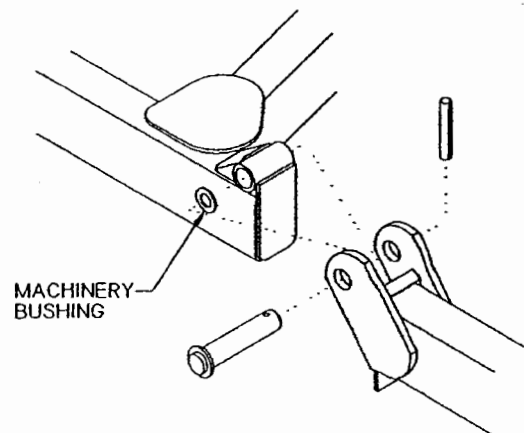
- 1) Place main frame (#1) on stands approximately 36" high on a level surface.
- 2) Place lift wheel spindle assemblies (#4 or #5) on Pages #26 and #27 onto main frame using the 1-5/8" dia. pins (#32) (bag #04681010). Place the 5/8" bolt (#38) through the pin and tighten 5/8" nut (#41).
- 3) Install torque tube (#3) on to the lift wheel spindles using the 7/8" bolts (#37), shims (#19), and nuts (#40). Torque to 450 ft-lbs and double nut.
- 4) Mount the tire and wheel assembly (#13 or #16) to lift wheel spindle assemblies and torque wheel bolts to 100 ft-lbs on tandems or 150 ft-lbs on 783 singles or torque wheel nuts 90-100 ft-lbs on 50-8 H.D. singles. **Re-torque after 1 hour of use.**
- 5) Place pull frame (#2) on top of the main frame and align the holes. Bolt the pull frame to the main frame using the 7/8" bolts (#37) and nuts (#40).

**IMPORTANT:** Torque 7/8" bolts of pull frame to main frame to 450 ft-lbs and double nut.

- 6) If so equipped, place front coulter bar (#11) under pull frame and attach to main frame and pull frame using 5/8" U-bolts and nuts (#35 & #41) and 3/4" bolts and nuts (#44 & #45).
- 7) Install hose and gauge stand (#20) onto pull frame using 3/8" hardware.
- 8) Refer to Page #37 or #38 for rear hitch. Mount rear wagon hitch (#1) to the front bar of the main frame using the 1-1/4" pins (#13), 1-1/4" machine bushings (#36), and cotter pins (#35). Remove the 5/8" bolts

(#20), washers (#26), nuts (#27 and #28), and bushings (#12) from the rear wagon hitch. Align the hole on the hitch with the slotted mounts on the torque tube and re-assemble bolts, washers, nuts, and bushings.

- 9) Refer to Page #30 for wings. Install the wings (#1) by positioning onto the main frame. Be sure to support the wings on the outside for stability. Place, as required, the 1-5/8" machinery bushing (#38) **between the front of the main frame and the front wing hinge flat only** (shown below). Install the 1-5/8" hinge pins (#21) through the hinge flats and secure with the 7/16" x 2-1/2" roll pin (#30).



## 4300 HYDRAULIC GAUGE WHEELS

Refer to the parts drawing and reference numbers on Page #30 and location charts on Page #73 through #79. (Bag #04661050 Hydraulic Gauge Wheel).

- 1) Attach both the top mount assembly (#3) and the spindle mount (#5) to the front bar of the wings in the location shown on Page #30 with the 3/4" bolts (#33) and nut (#40). Bolts must be inserted from the bottom through the spindle mount and through the top mount. Bolts must be drawn down squarely on the bar by tightening nuts evenly to 325 ft-lbs.
- 2) Mount the gauge wheel arm assemblies (#6 or #9) to the spindle mount using the 1-5/8" pivot pin (#22). Secure the pivot pin to the spindle mount with the 5/8" bolt and nut (#35 and #48) and torque to 170 ft-lbs.
- 3) Mount the tire and wheel assembly (#6 or #15) to the gauge wheel arm assemblies and torque wheel bolts to 100 ft-lbs.

## 4300 PIN-ADJUST GAUGE WHEELS

Refer to the parts drawing and reference numbers on Page #30 and shank location chart on Pages #73 through #79. Gauge wheel hardware is found in Bag #02380020.

- 1) Attach gauge wheel mounting brackets (Item #10) to the front bar of the wings in the locations shown on Page #30 with the 3/4" bolts (Item #32), nuts (Item #40), flat (Item #12), and lock washer (Item #37). Bolts must be drawn down squarely on bar by tightening nuts evenly to 325 ft-lbs.
- 2) Mount the tire and wheel assembly (Item #18) to the gauge wheel spindle arm (Item #11) and torque wheel bolts to 100 ft-lbs. Inflate 7.50 x 15 tire to 32 p.s.i.
- 3) Insert the gauge wheel spindle arm into the gauge wheel mount and secure with the 1" pin (Item #24) and klik pin (Item #31).

## 5300 FRAME

Refer to parts drawing and reference numbers on Pages #28, #29, #31, and #35.

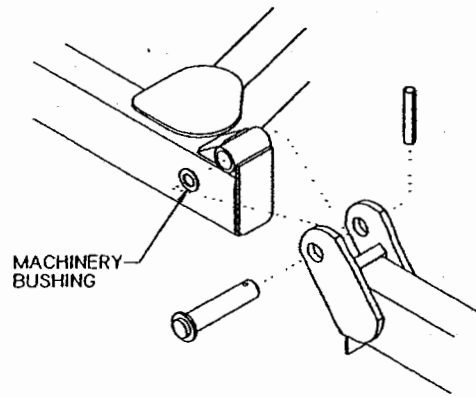
- 1) Place main frame (#1) on stands approximately 36" high on level surface.
- 2) Place lift wheel spindle assemblies (#4 or #6) on Pages #28 and #29 onto main frame using the 1-5/8" dia. pins (#32). Place the 5/8" bolt (#38) through the pin and tighten 5/8" nut (#59).
- 3) Install torque tube (#3) onto the lift wheel spindles using the 7/8" bolts (#37), shims (#20), and nuts (#40). Torque to 450 ft-lbs and double nut.
- 4) For tandem lift wheel assembly, install hub and spindle assemblies (#19) into walking axle (#7) and secure using 1/2" bolt (#60) and lock nut (#61).
- 5) Mount the tire and wheel assembly (#13 or #16) to lift wheel spindle assemblies and torque wheel bolts to 100 ft-lbs on tandems or 150 ft-lbs on 783 singles or torque wheel nuts to 90-100 ft-lbs on 50-8 H.D. singles. Re-torque after 1 hour of use.

- 6) Place pull frame (#2) on top of the main frame and align the holes. Bolt the pull frame to the frame using the 7/8" bolts (#37) and nuts (#40).

**IMPORTANT:** Torque 7/8" bolts of pull frame to main frame to 450 ft-lbs and double nut.

- 7) If so equipped, place front coulter bar (#11) under pull frame and attach to main frame and pull frame using 3/4" U-bolts (#35) and nuts (#41) and 3/4" bolts (#44) and nuts (#41).
- 8) Install hose and gauge stand (#20) onto pull frame using 3/8" hardware.
- 9) Refer to Page #37 or #38 for rear hitch. Mount rear wagon hitch (#1) to the front bar of the main frame using the 1-1/4" pins (#13), 1-1/4" machine bushings (#36), and cotter pins (#26), nuts (#27 and #28), and bushings (#12) from the rear wagon hitch. Align the hole on the hitch with the slotted mounts on the torque tube and re-assemble bolts, washers, nuts, and bushings.

- 10) Refer to Page #31 for wings. Install the inner wings (#1) by positioning onto main frame. Be sure to support the wings on the outside for stability. Place the 1-5/8" machine bushing (#61) **between the front of the main frame and the front wing hinge flat only** (shown below). Install the 1-5/8" hinge pins (#40) through the hinge flats and secure with 7/16" x 2" roll pin (#46).
- 11) Install the outer wings (#2) onto the inner wing using the 1" hinge pins (#39) and 1/4" x 1-1/2" cotter (#49). Attach outer wing shims (#18 and #19) to the outer wing (#2) with the 1/2" bolt (#55) and nut (#67) to level outer wing with the inner wing.



## 5300 HYDRAULIC GAUGE WHEELS

Refer to the parts drawing and reference numbers on Page #31 and location charts on Page #80 through #88. (Bag #04661050 Hydraulic Gauge Wheel).

- 1) Attach both the gauge wheel mount assembly (#26) and the gauge wheel mount (#6) to the rear bar of the wings in the location shown on Page #31 with the 3/4" L-bolts (#70) and nut (#71). Bolts must be inserted from the front through the gauge wheel mount and through the gauge wheel mount. Bolts must be drawn down squarely on the bar by tightening nuts evenly to 325 ft-lbs.
- 2) Mount the gauge wheel arm assemblies (#11 or #12) to the spindle mount using the 1-5/8" pivot pin (#44). Secure the pivot pin to the spindle mount with the 5/8" bolt and nut (#51 and #68) and torque to 170 ft-lbs.
- 3) Mount the tire and wheel assembly (#20 or #23) to the gauge wheel arm assemblies and torque wheel bolts to 100 ft-lbs.

## HYDRAULICS

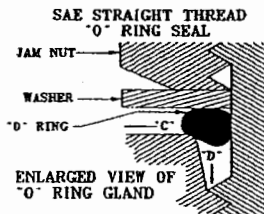


**WARNING:** High pressure fluid is nearly invisible but has enough force to penetrate the skin. **NEVER** use the hands to search out a suspected leak. If injured by escaping fluid, obtain medical attention immediately. Fluid must be surgically removed or gangrene will result. Wear safety glasses or goggles to avoid eye injury when working on the hydraulic system.

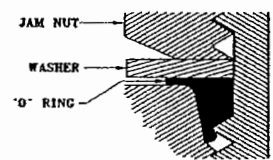
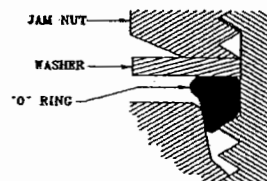
### IMPORTANT: READ THIS BEFORE INSTALLING ADAPTERS

#### SAE ADAPTER INSTALLATION INSTRUCTIONS

1. Jam nut and washer must be to the back side of the smooth portion of the elbow adapter.
2. Lubricate the "O" Ring - **VERY IMPORTANT!**



3. Thread into port until washer bottoms onto spot face. **NOTE:** Is the spot face large enough for the washer? Does hex of the straight adapter fit into spot face?
4. Position elbows by backing up the adapter.
5. Tighten jam nut.



#### WHY "O" RING LUBRICATION IS IMPORTANT:

1. Fitting engaged to point where "O" Ring touches face of boss. Lubrication on "O" Ring permits it to move in direction "D"
2. When "O" Ring and boss are dry, rotary motion of assembly can cause friction and "O" Ring can move in direction "C".
3. Jam nut and washer cannot bottom fully if the "O" Ring is between the washer and the face of the boss.

#### WHAT HAPPENS WHEN THE JAM NUT AND WASHER ARE NOT BACKED UP PRIOR TO ASSEMBLY:

1. When jam nut and washer have not been backed up, there is not enough room for the "O" Ring Seal when the squeeze takes place.
2. Washer can't seat properly on the face of the boss. The compressed rubber between the washer and the boss face will cold flow out from compression and the fitting will be loose and usually leak.

NOTE: Hydraulic hardware is in bag #04681010 standard hardware and #04661050 hydraulic gauge wheel.

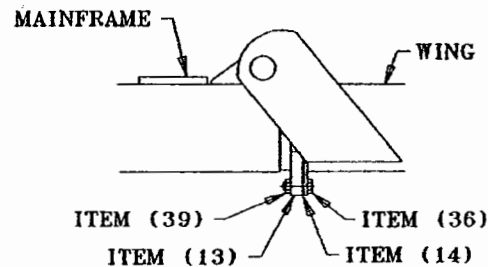
## 4300 LIFT HYDRAULICS WITH PIN-ADJUST GAUGE WHEEL

- 1) Refer to Page #34. Install the ram end of the 3" x 10" hydraulic cylinders (#1) on the cylinder lug on the main frame. Then connect the rod end of the hydraulic cylinder to the cylinder lug on the spindle arm.
- 2) Install the 3/4" SAEM x 3/4" JICM 90E (#20) elbows in the cylinder ports.
- 3) Attach the 3/8" x 30" hose (#4) to the elbow on the ram end of the right hand cylinder, and the 3/8" x 72" hose (#11) to the elbow on the ram end of the left hand cylinder. Then connect these hoses together to the 3/4" JICM tee (#21). Attach the 3/8" x 42" hose (#3) to the elbow on the rod end of the right hand cylinder and the 3/8" x 88" hose (#13) to the elbow on the rod end of the left hand cylinder. Then connect these hoses together to the 3/4" JICM tee (#21).
- 4) Attach a 1/2" x 165" (#8) to each 3/4" JICM Tee (#21). Attach a 1/2" x 100" hose (#6) to each 1/2" x 165" hoses with the 3/4" JICM couplers (#19).

### NOTE: FOR SELECTOR VALVE OPTION:

Connect a 1/2" x 165" hose (#8) to each 3/4" JICM tee (#21). Attach the other ends to the right side of the selector valve (#36) using the 3/4" SAEM x 3/4" JICM adapters (#37). Insert the 3/4" SAEM x 3/4" JICM 90E elbows (#20) in the top of the selector valve. Connect the 1/2" x 100" hoses (#6) to each elbow on the selector valve. Insert the remaining 3/4" SAEM x 3/4" JICM adapters (#37) in the left side of the selector valve. The 3/8" x 165" hoses (#7) will attach to these.

Refer to Page #30. Attach wing stop block (#13) and shims (#14) to the wing between the hinge flats. Secure with 1/2" bolt (#36) and nut (#39). Add or remove shims to allow level field operation and sufficient height with applicator raised to prevent the shank on the ends from hitting the ground.



## 4300 LIFT HYDRAULICS WITH HYDRAULIC GAUGE WHEELS

- 1) Refer to Page #33. Install the ram end of the 3-1/2" x 10" hydraulic cylinders (#1) on the cylinder lug on the main frame. Then connect the rod end of the hydraulic cylinder to the cylinder lug on the spindle arm.
- 2) Install the ram end of the 3-1/4" x 10" hydraulic cylinder (#2) on the top gauge wheel mount assembly on the wing. Then connect the rod end of the hydraulic cylinder to the gauge wheel spindle arm using the 1" pin (#27) and cotter pin (#28).
- 3) Install the 3/4" SAEM x 3/4" JICM 90E (#20) elbows in the cylinder ports.
- 4) Attach the 3/8" x 30" hose (#4) to the elbow on the ram end of the right hand 3-1/2" x 10" cylinder and the 3/8" x 72" hose (#11) to the elbow on the ram end of the left hand 3-1/2" x 10" cylinder. Then connect these hoses together to the 3/4" JICM tee (#21).
- 5) Attach the 3/8" x 187" hoses (#13) to the elbows on the rod end of the 3-1/2" x 10" cylinders. Then connect these hoses to the elbows on the ram end of the 3-1/4" x 10" cylinders. Next connect the 3/8" x 220" hose (#14) to the elbow on the rod end of the

right hand 3-1/4" x 10" cylinder and the 3/8" x 246" hose (#15) to the elbow on the rod end of the left hand 3-1/4" x 10" cylinder. Then connect these hoses to the 3/4" JICM tee (#21).

- 6) Connect a 1/2" x 165" hose (#8) to each 3/4" JICM tee (#21). Attach a 1/2" x 100" hose (#6) to each 1/2" x 165" hose with the 3/4" JICM couplers (#19).

### NOTE: FOR SELECTOR VALVE OPTION

Connect a 1/2" x 165" hose (#8) to each 3/4" JICM tee (#21). Attach the other ends to the right side of the selector valve (#37) using the 3/4" SAEM x 3/4" JICM adapters (#38). Insert the 3/4" SAEM x 3/4" JICM 90E elbows (#20) in the top of the selector valve. Connect the 1/2" x 100" hoses (#6) to each elbow on the selector valve. Insert the remaining 3/4" SAEM x 3/4" JICM adapters (#38) in the left side of the selector valve. The 3/8" x 165" hoses (#7) will attach to these.

- 7) See Page #9 for charging hydraulic cylinders.

## 4300 WING HYDRAULICS

**IMPORTANT:** The wing folding hydraulic system must be charged before initial operation.

Assemble wing fold per Page #33.

- 1) Install the ram end of the 3-1/2" x 36" hydraulic cylinders (#3) on the wing cylinder lug on the main frame. Then connect the rod end of the hydraulic cylinder to the cylinder lug on the wing using the 1" pin (#26), 1" washer (#27), and hair pin (#28).
- 2) Install the 3/4" SAEM x 3/4" JICM 90E (#20) elbow in the rod end of the right hand 3-1/2" x 36" hydraulic cylinder and install a 3/4" SAEM x 3/4" JICF adapter (#25), then a 3/4" JICM x 3/4" 90E Swivel (#24) on the ram end of the right hand 3-1/2" x 36" hydraulic cylinder. Next, install the 3/4" SAEM x 3/4" JICM 90E elbows (#20) on the rod and ram ends of the left hand 3-1/2" x 36" hydraulic cylinder.
- 3) Connect the 3/8" x 55" hydraulic hose (#10) to the elbow on the ram end of the left hand 3-1/2" x 36" hydraulic cylinder. Then connect this hose to the elbow on the ram end of the right hand 3-1/2" x 36" hydraulic cylinder with a 3/4" SAEM x 3/4" JICM tee (#22).
- 4) Connect the 3/8" x 37" hydraulic hose (#9) to the elbow on the rod end of the right hand 3-1/2" x 36" hydraulic cylinder and connect the 3/8" x 97" hose (#12) to the elbow on the rod end of the left hand 3-1/2" x 36" hydraulic cylinder. Next, connect these hoses together with the 3/4" SAEM x 3/4" JICM tee (#22).

- 5) Install the throttle valves (#23) to the 3/4" SAEM x 3/4" JICM tees (#22) which connect the hydraulic hoses together.

**IMPORTANT:** Valves are used to control wing fold and unfold speeds. Failure to install the throttle valves can cause damage to the applicator as well as personal injury or death.

- 6) Connect the 3/8" x 165" hydraulic hose (#7) to the throttle valves (#23). Attach a 3/8" x 80" hose (#5) to each 3/8" x 165" hose with the 3/4" JICM coupler (#19).

**NOTE:** FOR SELECTOR VALVE OPTION.

Connect the 3/8" x 165" hydraulic hose (#7) to the throttle valves (#23). Attach the other ends of the hose to the left side of the selector valve using the 3/4" SAEM x 3/4" JICM adapters (#38). See also Lift Hydraulic Section.

- 7) Charge the wing folding hydraulic system (Page #27) in the following manner. Disconnect the rod end of each wing cylinder. Block the cylinder so that the piston rod is free to move its full stroke. Hydraulically extend and retract the tractor hydraulic lever, adding oil as required. Reconnect the rod ends of all wing lift cylinders to their respective cylinder lugs. Making certain no one is near the machine, raise the wings into transport position

## 5300 LIFT HYDRAULICS

- 1) Refer to Page #35. Install the ram end of the 3-1/2" x 10" hydraulic cylinders (#3) on the cylinder lug on the main frame. Then connect the rod end of the hydraulic cylinder to the cylinder lug on the spindle arm.
- 2) Install the ram end of the 3-1/4" x 10" hydraulic cylinder (#4) on the top gauge wheel mount assembly on the wing. Then connect the rod end of the hydraulic cylinder to the gauge wheel spindle arm using the 1" pin (#34) and cotter pin (#38).

- 3) Install the 3/4" SAEM x 3/4" JICM 90E (#20) elbows in the cylinder ports.
- 4) Attach 3/8" x 30" hose (#9) to the elbow on the ram end of the right hand main frame 3-1/2" x 10" master cylinder. Attach 3/8" x 72" hose (#10) to the elbow on the ram of the left hand main 3-1/2" x 10" master cylinder. Then connect these hoses together to the 3/4" JICM tee (#22).

5) **For 40' - 42-1/2' Units:**

Attach the 3/8" x 165" hoses (#8) to the elbows on the rod end of the 3-1/2" x 10" master cylinders. Connect these hoses to the elbows on the ram end of the 3-1/4" x 10" wing cylinders. Connect the 3/8" x 173" hose (#12) to the elbow on the rod end of the right hand 3-1/4" x 10" wing cylinder and connect the 3/8" x 220" hydraulic hose (#11) to the elbow on the rod end of the left hand 3-1/4" x 10" wing cylinder. Connect these hoses to the 3/4" JICM tee (#22).

**For 47-1/2' to 52-1/2' Units:**

Attach the 3/8" x 165" hoses (#8) to the elbows on the rod end of the 3-1/2" x 10" master cylinders. Connect these hoses to the elbows on the ram end of the 3-1/4" x 10" wing cylinders. Connect the 3/8" x 173" hose (#12) to the elbow on the rod end of the right hand 3-1/4" x 10" wing cylinder and connect the 3/8" x 220" hose (#11) to the elbow on the rod end of the left hand 3-1/4" x 10" wing cylinder.

Connect adaptor fitting (#45) and in-line relief valve (#27) to each of the return line hoses. Use adaptor fitting (#26) to connect relief valves to tee (#22).

**NOTE:** Have arrow indicating free-flow path toward tee.

- 6) Connect a 1/2" x 165" hose (#8) to each 3/4" JICM tee (#22). Attach a 1/2" x 100" hose (#5) to each 1/2" x 165" hose with the 3/4" JICM couplers (#21).

**NOTE: FOR SELECTOR VALVE OPTION:**

Connect the 1/2" x 165" hose (#7) to the left side of the selector valve (#44) using the 3/4" SAEM x 3/4" JICM adapters (#45). Insert 3/4" SAEM x 3/4" JICM adapters (#45) in the top of the selector valve and attach the 1/2" x 100" hoses (#5) to the top of the selector valve. Insert 3/4" SAEM x 3/4" JICM elbows (#14) to the right side of the selector valve. The 3/8" x 165" hose (#10) will attach to these.

- 7) See Page #9 for charging hydraulic cylinders.

## 5300 WING HYDRAULICS

**IMPORTANT:** The wing folding hydraulic system must be charged before initial operation.

Assemble wing fold per Page #35.

- 1) Install the ram end of the 4" x 36" hydraulic cylinders (#1) on the wing cylinder lug on the main frame. Then connect the rod end of the hydraulic cylinder to the cylinder lug on the wing using the 1" pin (#33), 1" washer (#41), and cotter pin (#37).
- 2) Install the ram end of the 3" x 24", 3-1/2" x 24", or the 4" x 24" hydraulic cylinders (#2) to the outer wing cylinder lug on the inner wing using the 1" pin (#39, Page #31) and 1/4" cotter pin (#49, Page #31). Next install the H-link (#7, Page #31) to the inner wing using the 1" pin (#39, Page #31) and 1/4" cotter pin (#49, Page #31).
- 3) Attach the T-link to the outer wing using the 1" pin (#39, Page #31) and 1/4" cotter pin (#49, Page #31).
- 4) Attach the rod end of the outer wing cylinder to the H-link and the T-link using the 1" pin (#42, Page #31) and 1/4" cotter pin (#49, Page #31). The H-link fits outside the rod clevis and the T-link fits inside the rod clevis.

- 5) Install a 3/4" JICM Adapter (2) x 3/4" SAEM tee (#23) in the ram end port of the right hand 4" x 36" hydraulic cylinder (#1). Then install a 3/3" JICM (2) x 3/4" JICF tee (Item#25) to the right side of item #23. Next, install a 3/4" SAEM x 3/4" JICF adapter (Item #26) in the short leg of the tee Item #25.
- 6) Install 3/4" JICM (2) x 3/4" SAEM tee (#23) in the rod end ports of both 4" x 36" hydraulic cylinders (#1) and in the ram end port of the left hand 4" x 36" hydraulic cylinder (#1). Next install 3/4" SAEM x 3/4" JICM 90E elbow (#20) in both ports of the 3" x 24" or 3-1/2" x 24" outer fold hydraulic cylinders.
- 7) Connect the 3/8" x 55" hydraulic hose (#13) to the left side of the tee (#25) of the right cylinder and to the 3/4" JICM SAEM tee (#23) in the ram end port of the left hand 4" x 36" hydraulic cylinder (#1). Next connect one 3/8" x 128" hydraulic hose (#14) from the right side of the ram end tee (Item #23) of the right cylinder to the ram end of the right hand outer fold hydraulic cylinders (#2). Connect the other 3/8" x 128" hydraulic hose (#14) from the ram end 3/4" JICM (2) x 3/4" SAEM tee (#23) of the left hand 4" x 36" hydraulic cylinder (#1) to the ram end of the left hand outer fold hydraulic cylinder (#2).

8) Connect the rod ends of the 4" x 36" hydraulic cylinders (#1) to the rod ends of the outer fold hydraulic cylinders (#2) with 3/8" x 114" hydraulic hoses (#15). Next connect the 3/8" x 37" hydraulic hose (#16) to the rod end port of the right hand 4" x 36" hydraulic cylinder (#1). Connect a 3/8" x 97" hydraulic hose (#17) to the rod end port of the left port of the 4" x 36" hydraulic cylinder (#1). Connect both hoses to a 3/4" JICM (2) x 3/4" SAEM tee (#23).

9) Install the throttle valves (#24) on the 3/4" SAEM (2) x 3/4" SAEM tee (#23) and to the 3/4" SAEM x 3/4" JICF adapter (#26).

**IMPORTANT:** Throttle valves are used to control wing fold and unfold speeds. Failure to install the throttle valves can cause damage to the applicator as well as personal injury or death.

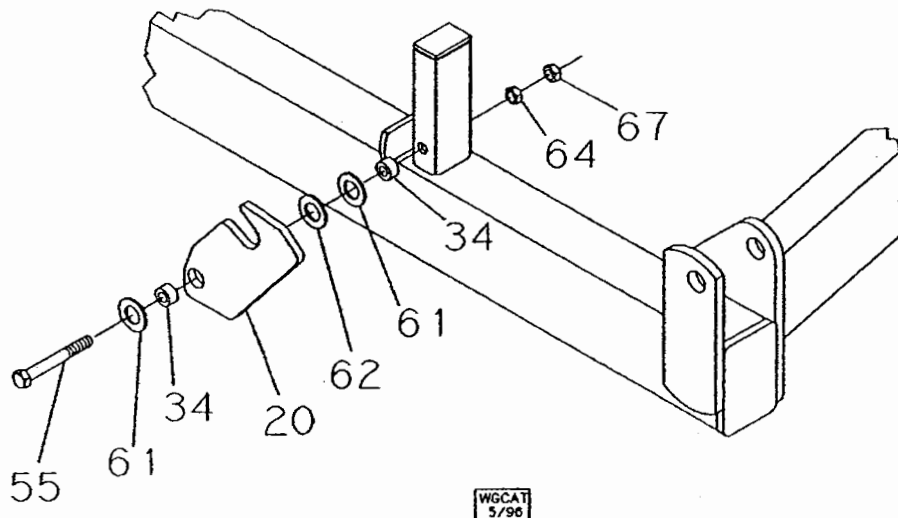
10) Connect the 3/8" x 165" hydraulic hose (#8) to the throttle valves (#24). Attach a 3/8" x 80" hydraulic hose (#6) to each 3/8" x 165" hydraulic hose (#8) with the 3/4" JICM coupler (#21).

**NOTE:** FOR SELECTOR VALVE OPTION.  
Connect the 3/8" x 165" hydraulic hose (#8) to the throttle valves (#24). Attach the other ends of the hose to the right side of the selector valve using the 3/4" JICM x 3/4" SAEM 90E elbows (#20). See also 5300 Lift Hydraulic Section.

11) Charge the wing folding hydraulic system (Page #35) in the following manner. Disconnect the rod end of each wing cylinder. Block the cylinder so that the piston rod is free to move its full stroke. Hydraulically extend and retract the tractor hydraulic lever, adding oil as required. Reconnect the rod ends of all wing lift cylinders to their respective cylinder lugs. Making certain no one is near the machine, raise the wings into transport position.

12) Refer to Page #31. Assemble the outer wing catch (#9) to the front side of the 2" x 3" wing stop which is welded to the front part of the inner wing (#1). Insert the 5/8" x 6" bolt (#53) through the 5/8" H.D. washer (#58), 1-1/8" O.D. bushing (#57), and outer wing catch (#9). Next insert through the 1-1/8" machine bushing (#59), H.D. washer (#58), 1-1/8" O.D. Bushing (#57), and wing stop. Secure with 5/8" nut (#64) and 5/8" jam nut (65). When tightening, make sure the 1-1/8" I.D. machine bushing fits over the 1-1/8" O.D. bushing. This bushing is used to control end play of the latch which needs minimal end play for proper operation.

**IMPORTANT:** Catch must be free to pivot.



WGCAT  
5/98

# WARNING AND TAILLIGHT INSTALLATION INSTRUCTIONS

See Page #57 for parts list and diagrams.

1. Lay out parts:
  - A. Unroll the wiring harness. The seven-pin connector will plug into the receptacle on the rear of the tractor. The longer of the two wiring harness leads will go to the left hand light assembly. The shorter lead goes to the right hand assembly. The seven-pin receptacle goes to the rear of the machine.
  - B. Identify the left hand and right hand light assemblies by referring to the connector diagram on Page #57. (Note the different pin locations.)
  - C. Identify the light brackets by referring to Page #57.
  - D. Locate and identify hardware:
    - The light parts box includes all 1/4" fasteners for both light assemblies and the plug storage container.
    - Light mounting kit contains right hand and left hand brackets, 3/8" and 5/8" U-bolts and 3/8" and 5/8" hex nuts.
2. Test System
  - A. Lay out the wiring harness on the machine with the longer lead to the left light assembly.
  - B. Plug the two light assemblies into the plugs on the two leads.

**IMPORTANT:** Left hand and right hand light assemblies must be mounted on their respective sides or the warning lamps will not work properly as turn signals. Refer to the connector diagrams on Page #57.

To make sure that light assemblies will be mounted correctly, check the following:

    - From the rear of machine the amber lights should be visible from the outer brackets and red lights should be visible from the inner brackets.
    - From the front of machine, only the amber lights should be visible.
  - C. Clean the tractor receptacle and plug the seven pin connector into the tractor receptacle.
  - D. Test the light system.
    - Red taillights should work with the red taillights on the tractor and the tractor head lights.
    - Amber lights should flash with the amber warning lights on the tractor and flash correctly with the tractor turn signals.

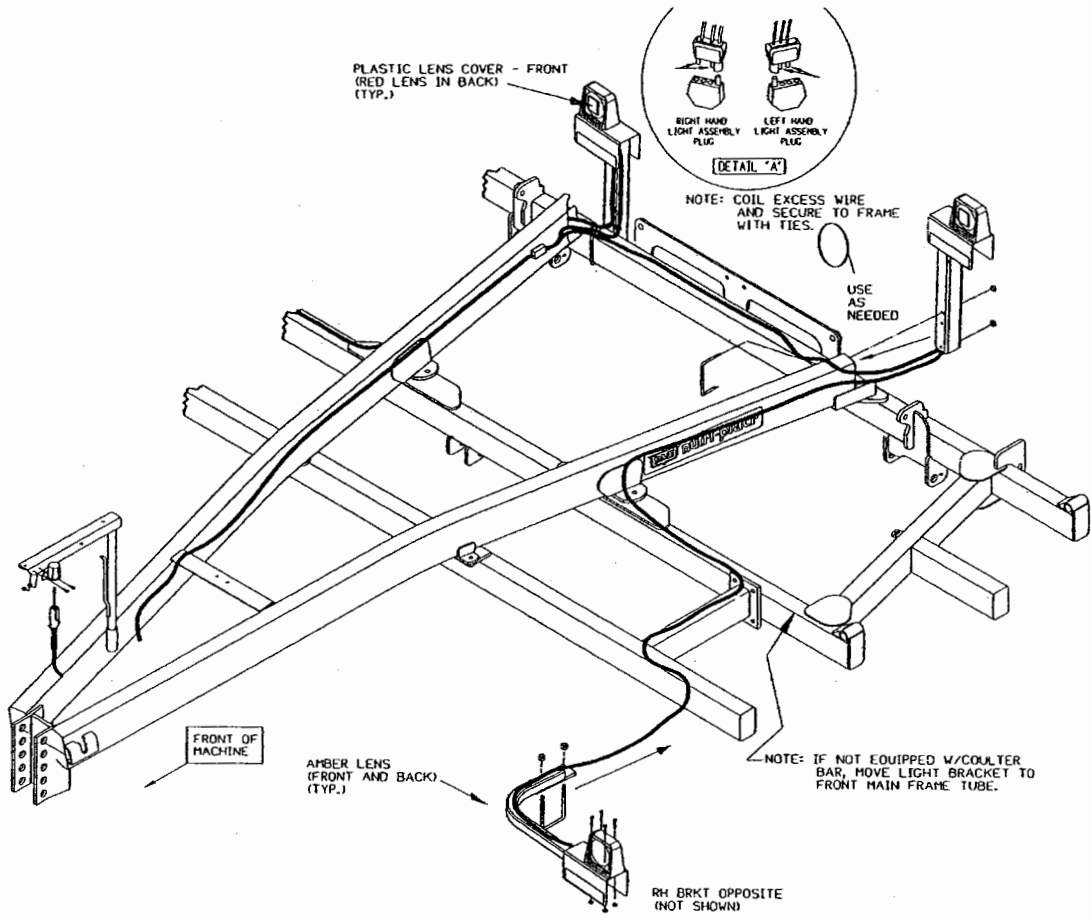
**NOTE:** If you experience a problem with the lights operating properly, besides checking the lights and wire harness, you will want to:

    - Check for loose wires on the tractor receptacle.
    - Have the tractor ignition key in the "running" position or have the tractor engine "running" to have the lights work correctly.
3. Attach front light brackets (#5 & #6) to the outermost position of the coultter bar or front main frame tube with the 5/8" U-bolts (#11) and 5/8" hex nuts (#13) as shown on page #57. Then attach lights (#2 & #3) to the correct light bracket using 1/4" x 1-1/4" hex bolts (#14) and 1/4" stover lock nuts (#16). Adjust assemblies outward until lights are visible from front and rear and are no more than 16" from outside of implement. **Do not over tighten fasteners on the plastic light assemblies.**
4. Install rear light brackets (#8 & #9) to the rear tube of the main frame using 3/8" U-bolts (#10) and 3/8" stover lock nuts (#12) as shown on page #57. Adjust lights so they are each 2' to 5' from center of implement. Attach red lights (#4) to the light brackets using 1/4" x 1-1/4" hex bolts (#14) and 1/4" stover lock nuts (#16). **Do not over tighten fasteners on the plastic light assemblies.**
5. Refer to diagrams on pages #57 & #67. Plug left hand and right hand harness leads. Route leads along the rear frame tube until reaching the right hand A-frame tubes. Then route to the front of the machine similar to hydraulic hoses.
6. Secure wiring harness with hose ties as shown in diagram on Page #67 **after** hydraulic hoses have been installed.

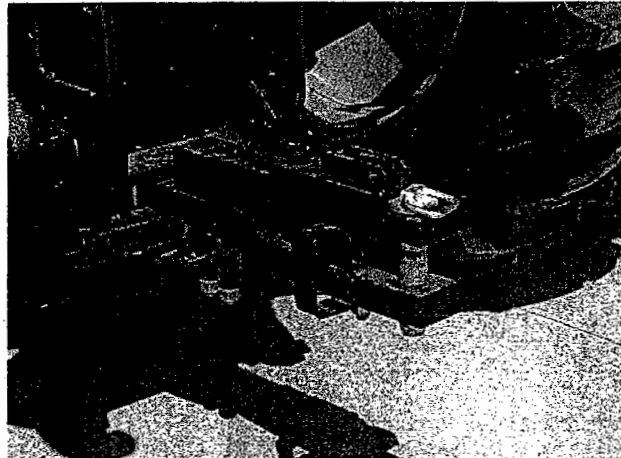
**IMPORTANT:** Wiring harness must be routed as shown and secured to prevent damage.

  - Do not stretch leads too tight.
  - Secure leads so they cannot be snagged.
  - Use plenty of plastic hose ties.
7. Plug the seven-pin connector into the tractor receptacle and allow enough slack for tractor maneuvering.
8. Attach plug storage container (#5) to the hose stand using 1/4" x 3/4" hex bolts (#15) and 1/4" stover lock nuts (#16). **Do not over tighten fasteners on the plastic container.**
9. Retest the light system.
10. When not in use, store the seven-pin connector in the plug storage container to keep it clean. Align the rib, on the connector, with one of the slots in the bottom of the container, push the connector up into the container and turn one-quarter turn for storage.

# WIRE ROUTING DIAGRAM



# TRACTOR/nutri-placr CONNECTION



## HITCH

Before connecting the **nutri-placr** applicator to the tractor drawbar, raise the tractor three point hitch (if equipped) to prevent interference between the hitch and the tractor.

The tractor must be equipped with a drawbar and drawbar safety chain clevis.

For rigid frame tractors with swinging drawbar: the drawbar must be fastened in the center position.

For articulated frame or track type tractors with swinging drawbar, allow the drawbar to swing a limited amount in each direction. However, for road transport, the drawbar must be fastened in the center position.

For rigid frame tracked tractors equipped with swinging drawbar: the drawbar must be permitted to swing a small amount both ways, but the drawbar must be located in a fixed position in the center of the tractor before transporting on the highway.

Refer to your tractor operator's manual for drawbar adjustments and drawbar operating instructions.



**WARNING:** Make sure that the weight of a trailed implement that is not equipped with brakes NEVER EXCEEDS the weight of the machine that is towing the vehicle. Stopping distance increases with increasing speed, typically on hills and slopes.

## DRAWBAR CONNECTION

Connect the **nutri-placr** applicator to the tractor drawbar only. Do not connect the hitch to any other part of the tractor. Connect the **nutri-placr** applicator hitch to the tractor drawbar with a hitch pin.



**WARNING:** Do not move articulated tractor steering wheel until everyone is clear of the equipment. Moving the steering wheel can swing or move attached equipment which could cause serious personal injury.



**WARNING:** The tractor drawbar must be located in a fixed position before transporting the implement.

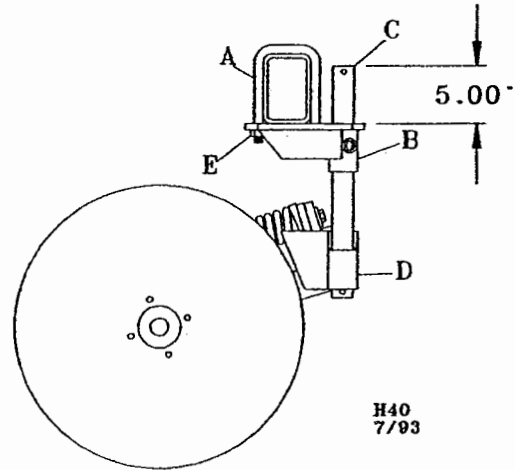
# COULTERS

Attach coulters mounting brackets to the 4" x 6" bar per locations on Pages #73 through #88. Coulters assembly drawings are on Page #43. All coulters hardware is in hardware bags 04660014, 04663001, and 04660015.

**NOTE:** The center of the 3/4" U-bolt is the center of the coulters when assembled. Attach the standard coulters mount (B) to the bar using the 3/4" U-bolt (A) and nuts (E). Insert the coulters shaft (C) through the bottom of the mount, aligning the milled surface with the set screw location. Insert the 3/4" set screw and 3/4" jam nut into the coulters mount (B). Slide the coulters shaft up until the 5.00" dimension is obtained. Use this only as a guide for coulters depth.

After desired coulters depth is obtained, **tighten and loosen the set screws three times**. Tighten jam nut after the set screw has been tightened for the third time.

Slide the coulters arm assembly onto the shaft and secure with the 7/16" x 2-1/2" roll pins (Item #25) on both ends of the shaft. Attach coulters blade to coulters arm assembly.



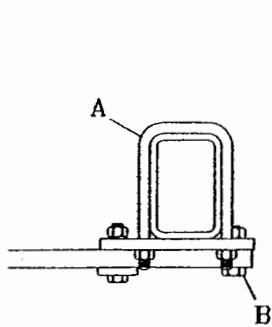
# SHANK INSTALLATION

Shank locations are found on Pages #73 through #88. For spring shank mountings the hardware is in bag 04660013. For rigid shank mountings the hardware is in bags 04660010 and 04660016. For C-S shank mountings the hardware is in bag 04660015. For spring C-S mounting hardware is in bag 04660016 and 04665010.

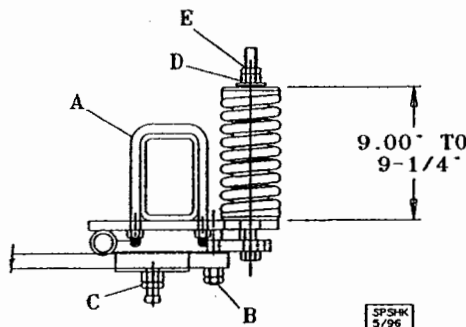
After mounting the shank, install the knife on the shank with the 1/2" bolts and nuts from bags 02400018, 02400058, and 02400089. Make sure to insert the bolt through the knife first and then the shank. This allows for the full body of the bolt to resist the load. Inserting from the shank through the knife puts the load on the threads and greatly decrease the shear strength.

## RIGID SHANK INSTALLATION

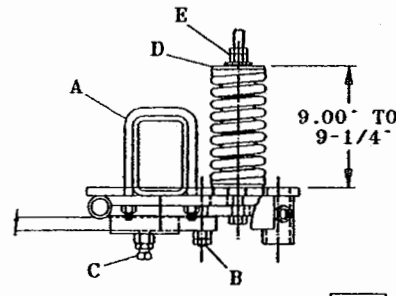
Attach rigid shank to the bar as shown below using 5/8" U-bolts. The 5/8" U-bolts (A) must be drawn down squarely on the bar by tightening the nuts evenly to 170 ft-lbs. Assemble the clamp plate with 5/8" x 3" NC hex bolts and torque nuts to 170 ft-lbs. Torque the 3/4" x 3" bolt, nut and jam nut (B) that holds the front end of the shank to the plate to 325 ft-lbs.



RIGID



SPRING



SPRING C-S

## SPRING SHANK AND SPRING C-S MOUNT INSTALLATION

Attach spring shank to the bar as shown in the drawing below. The 5/8" U-bolts (A) must be drawn down squarely on the bar by tightening the nuts evenly to 170 ft-lbs.

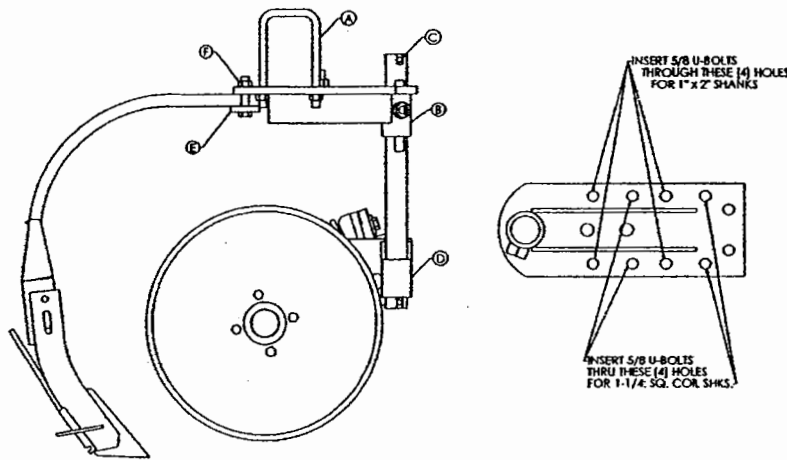
Torque the 3/4" x 3" bolt, nut, and jam nut (B) that holds the front end of the shank to the pivot plate to 325 ft-lbs. Torque the 3/4" x 2" set screw (C) to 150 ft-lbs and lock jam nut.

**NOTE:** The spring shank assembly is designed to work only when striking an obstruction and should not be allowed to "float". This will cause the machine to pull hard and result in excessive wear of the spring shank assembly.

Be sure to maintain the factory set spring length of 9.00 inches.

# RIGID C-S SHANK MOUNT INSTALLATION

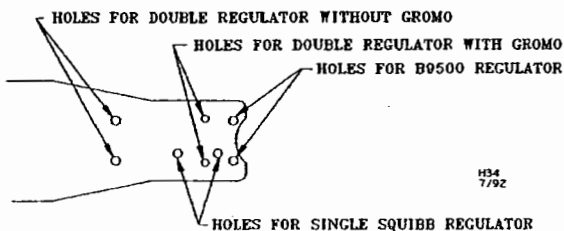
Attach the C-S mount to the bar as shown below. The 5/8" U-bolts (A) must be inserted through the top of the C-S mount (B) and then through the shank. Install 5/8" x 3" bolt (G) through bottom of C-S mount, shank and plate (E), securing squarely with the 5/8" nuts to 105 ft-lbs. The shank is clamped between the C-S mount and the bar and is also secured with a 5/8" x 2-1/2" bolt and nut and torque to 105 ft-lbs.



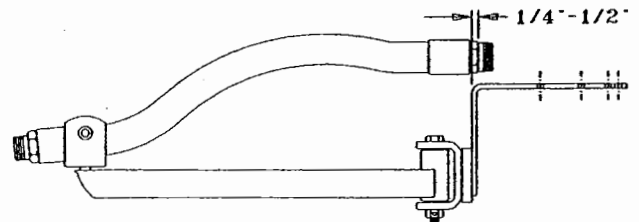
## A.A. COMPONENTS

Refer to the Regulator Assemblies on Pages #47 through #49 for specific component placement and assembly.

Mount the regulator stand bracket to the rear bar, making sure to clear shank. Attach the regulator stand and extension pivot mount assembly to the regulator stand bracket with the 5/8" x 2-1/2" bolt and nut. Mount the regulator assembly on the regulator stand using the hole locations shown below. Attach 1-1/4" x 32" hose and Qui-Coupler to regulator and extension pivot mount assembly.



**IMPORTANT:** If another regulator or hydraulic shutoff is used, mount them so the end of the fitting on the hose is in the location shown below for proper and safe operation.



**IMPORTANT:** The 1-1/4" x 32" hose must have some slack so the Qui-Coupler can disconnect.

Bolt the manifolds to the brackets on the wings and connect the 1" x 104" large A.A. hose to the manifold and regulator. Using the 3/8" or 1/2" A.A. hose, hose clamps, and hose clips, start on the middle shank and connect the hose from the center knife to the left manifold. Continue connecting knives on the left side to the left manifold and knives on the right side to the right manifold. Connect a hose from each manifold to each A.A. gauge to the stand on the pull frame.

Take care when routing all A.A. hoses so that they do not get cut or pinched when folding the machine. Recheck, making sure all fittings are tight.

# SEALERS

## DISC SEALERS

Mount the disc sealer assembly to the shank above the projection on back of shank with the 1/2" bolt, nuts and lock washers in bag (02400025). Mount the two disc blades to the hub with the 3/8" carriage bolt, lock washer, and nuts in bag (02400025). (See Page #45.)

**NOTE:** The disc sealer must be free to pivot. The weight of the disc sealer should hold down the sealer.

## uni-seal'r ATTACHMENT

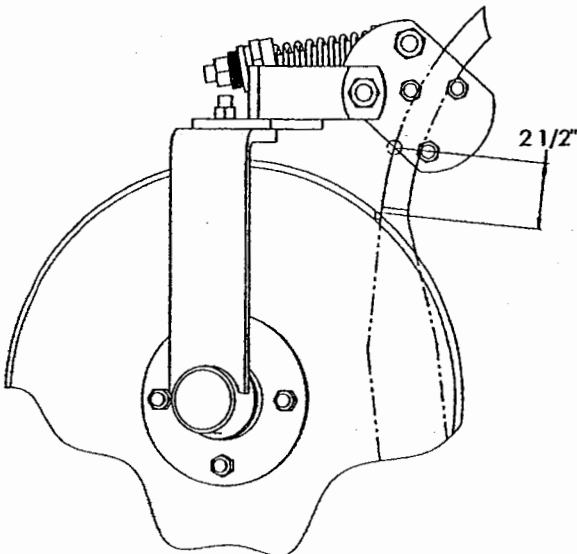
(See Figure #2, Page #12). The **uni-seal'r** is shipped partially assembled. Assemble the disc blades to hub using the 3/8" bolts CAREFULLY. Be sure to install so that the curvature of the blade matches the curvature of the hub mounting flange.

- A) 1" x 2" flat shank: Install the **uni-seal'r** using the 1/2" x 3-1/2" cap screw and nut. (See Figure #2.)
- B) The unit can be mounted so the blade is either to the right or left of the A.A. knife. To change, remove the two 1/2" x 1-1/2" carriage bolts and rotate the hub arm to the other side of the frame. (See Figure #3, Page #12.)
- C) The unit is assembled at the factory using holes "A" and "B" (See Figure #4, Page #12) in the hub arm and bolted through the forward slot in the frame. The hub arm is factory assembled at an angle to the frame. That is, the leading edge of the blade will be farther away from the knife slot than the trailing edge. The factory set angle is about 15° with the direction of travel.



**WARNING:** Blades have extremely sharp edges. Care must be taken when handling to avoid injury.

## 18" DISC SEALERS



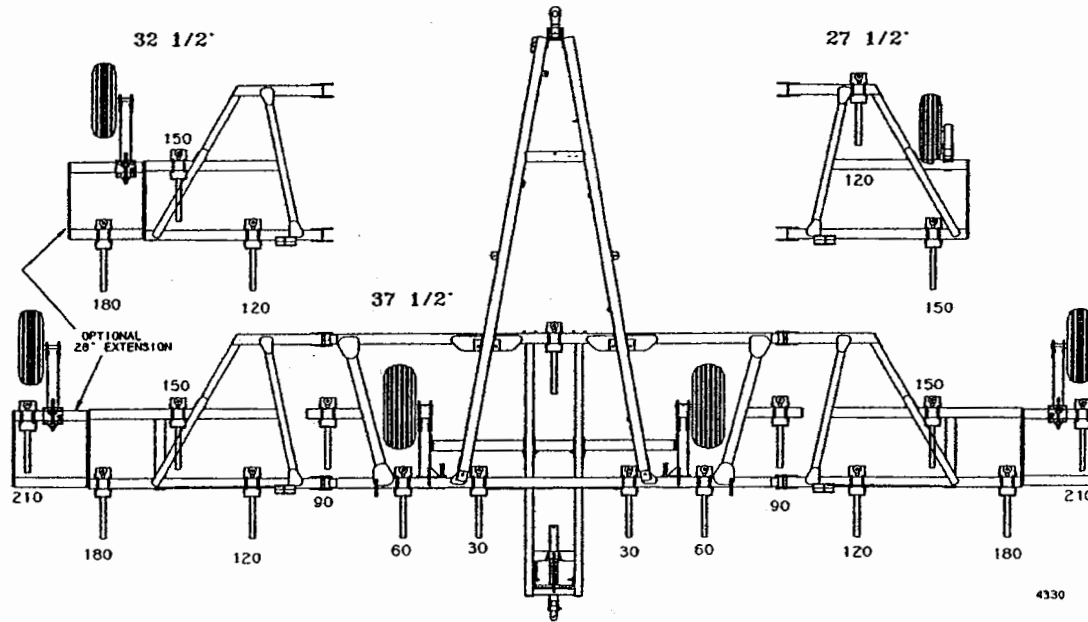
Mount the disc sealer assembly to the shank above the projection on back of shank with 1/2" bolt, nuts, and lock washers in hardware bag #02400025. Mount the two disc blades to the hub with the 3/8" carriage bolts, lock washers, and nuts in hardware bag #02400025.

**NOTE:** The disc sealer must be free to pivot. The weight of the disc sealer should hold down the sealer.

# SHANK LOCATIONS

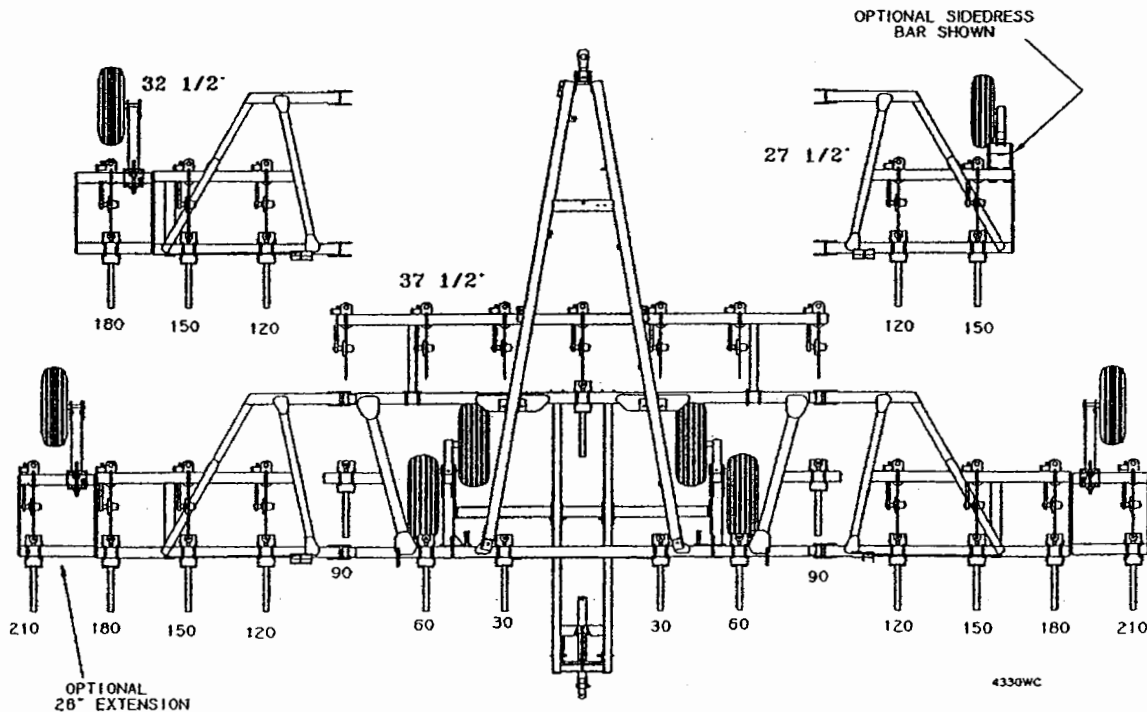
4300

30" SHANK SPACING  
RIGID OR SPRING SHANKS  
SINGLE WHEELS OR TANDEM

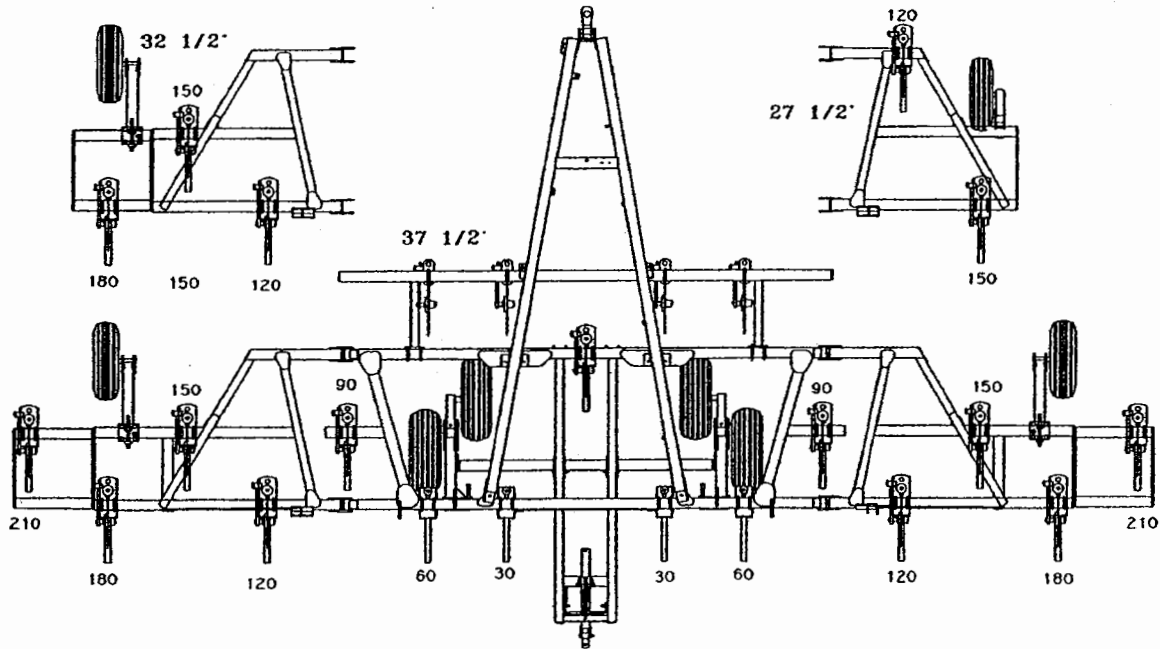


4300

30" SHANK SPACING  
WITH INDIVIDUAL COULTERS  
SINGLE WHEELS OR TANDEM

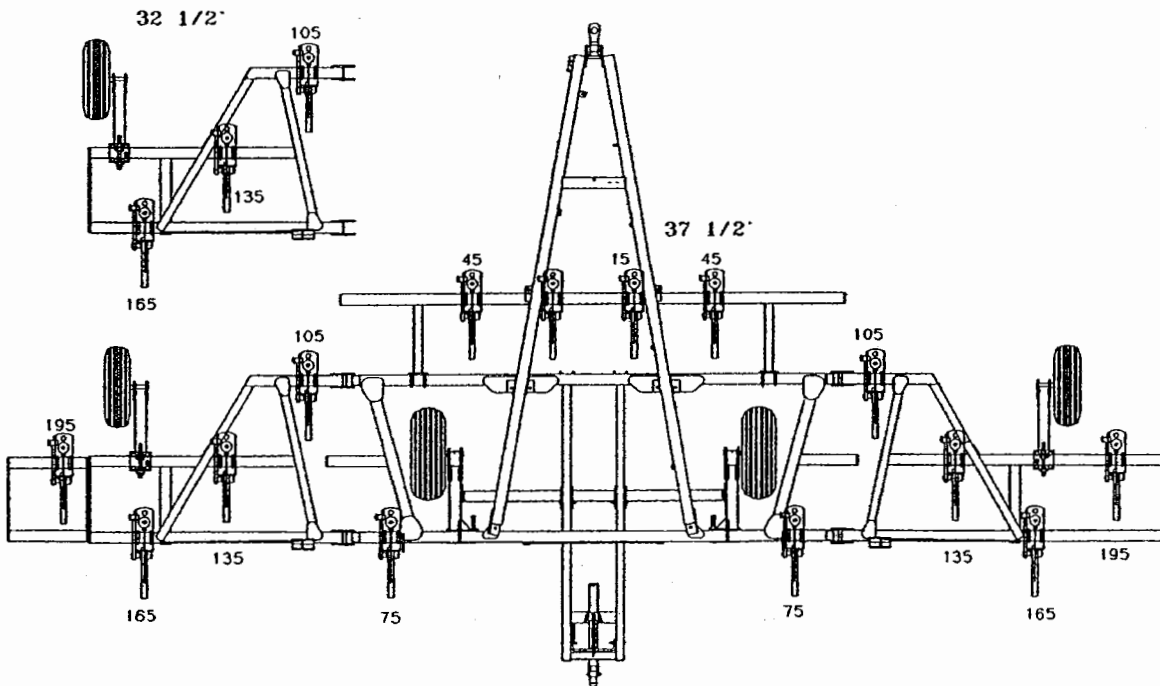


**4300**  
**30" SHANK SPACING**  
**RIGID C-S OR SPRING C-S MOUNTS**  
**SINGLE WHEEL OR TANDEM**

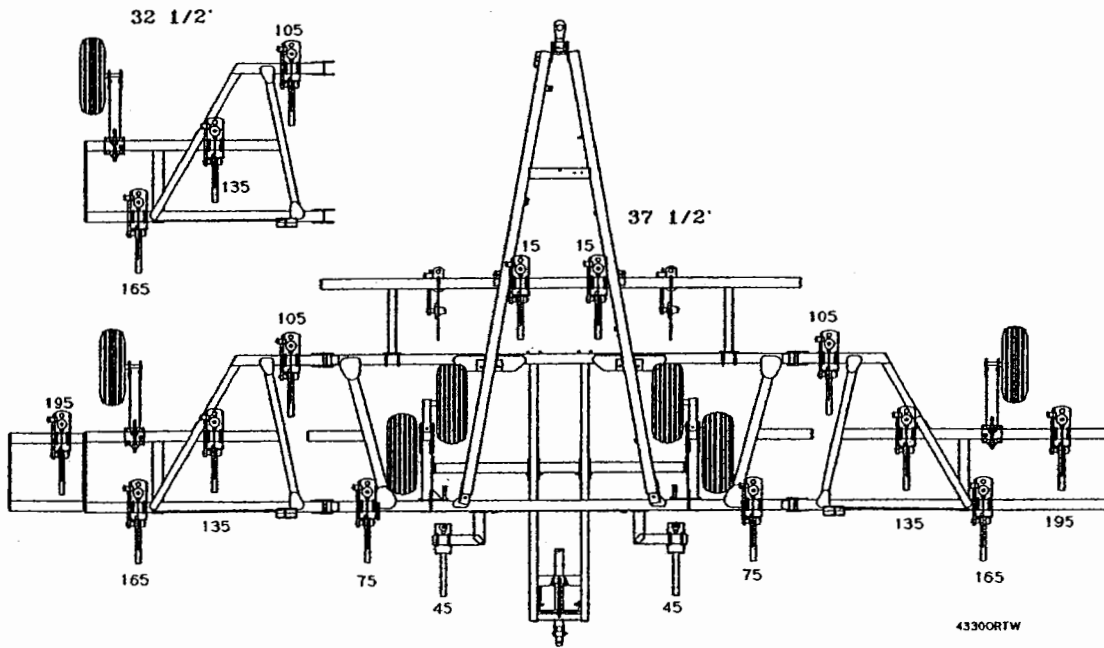


4330CS

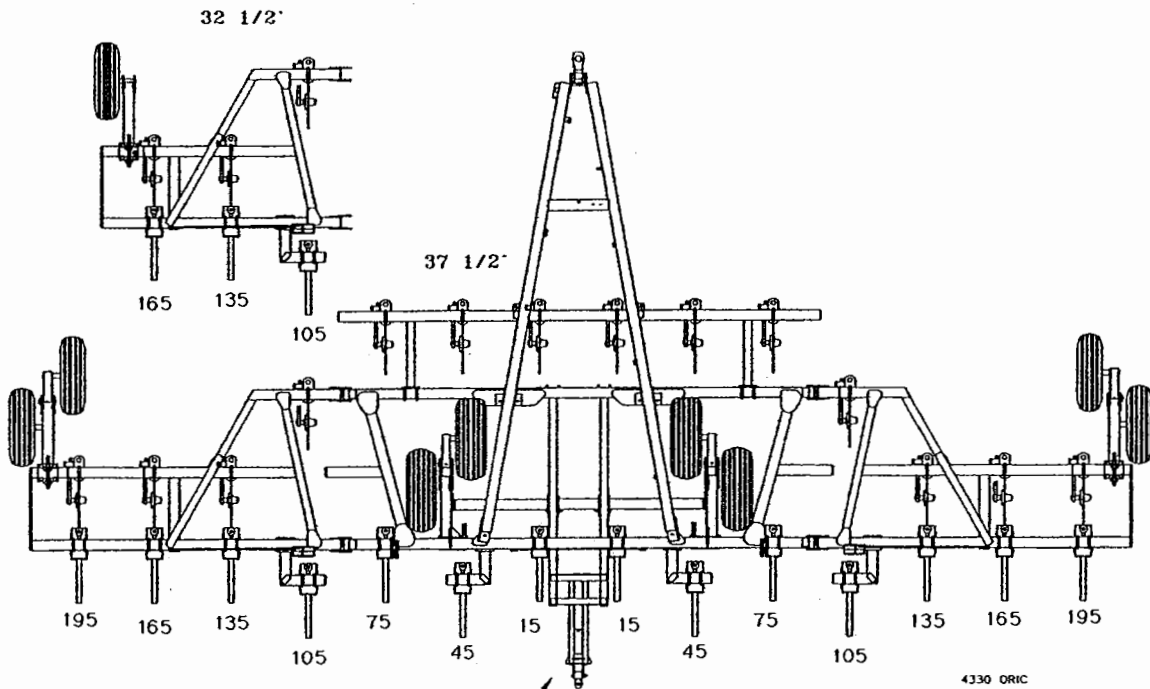
**4300**  
**30" SHANK SPACING ON-ROW**  
**RIGID OR SPRING SHANKS**  
**RIGID OR SPRING C-S MOUNTS**  
**SINGLE WHEELS**



4300  
 30" SHANK SPACING ON-ROW  
 RIGID OR SPRING SHANKS  
 RIGID OR SPRING C-S MOUNTS  
 TANDEM WHEELS

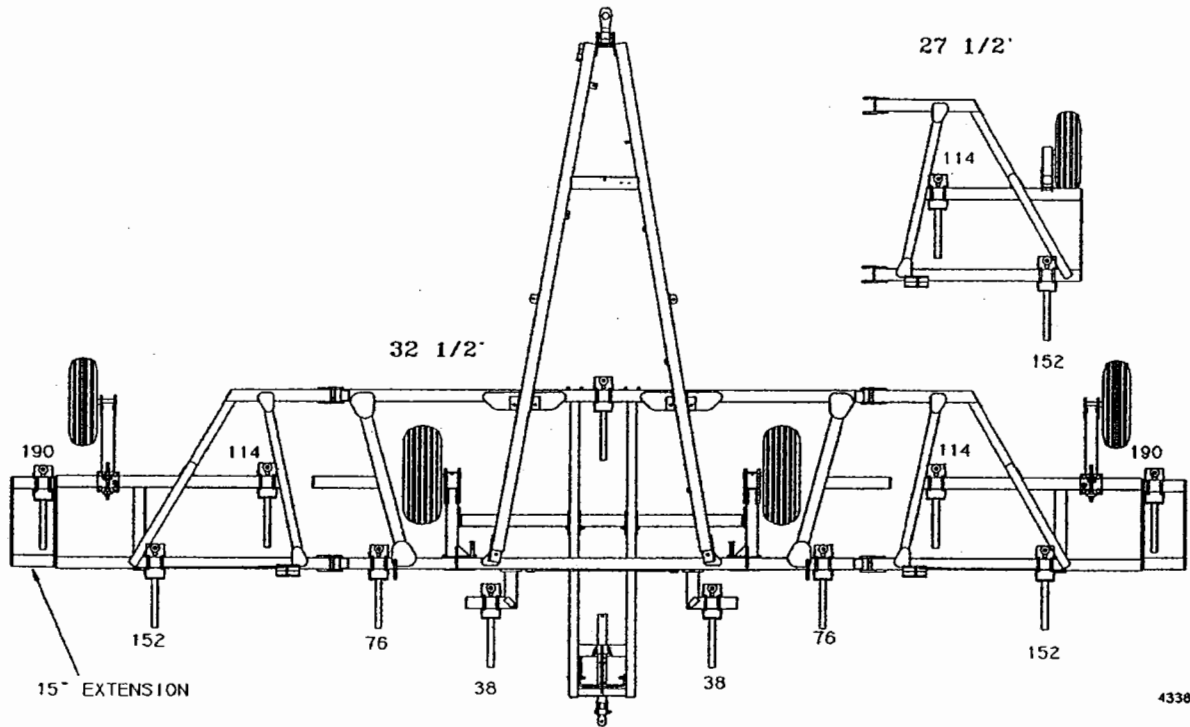


4300  
 30" SHANK SPACING ON-ROW  
 INDIVIDUAL COULTERS  
 SINGLE WHEELS OR TANDEM

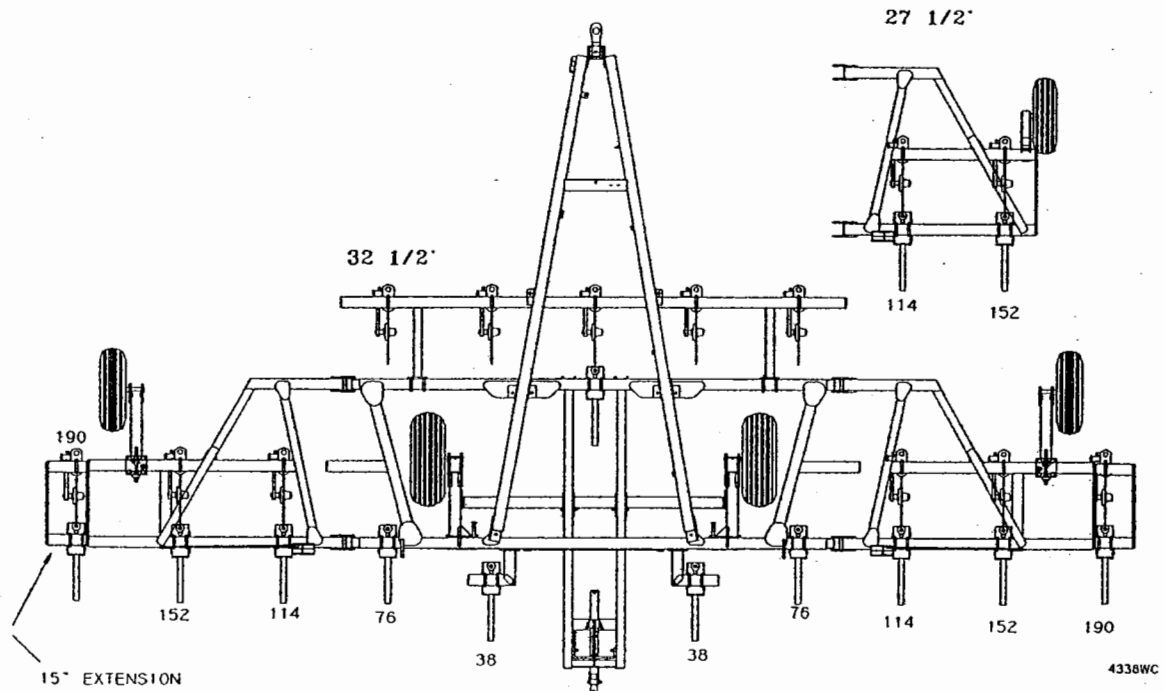


NOTE: Narrow hitch needed  
 with double disc sealers

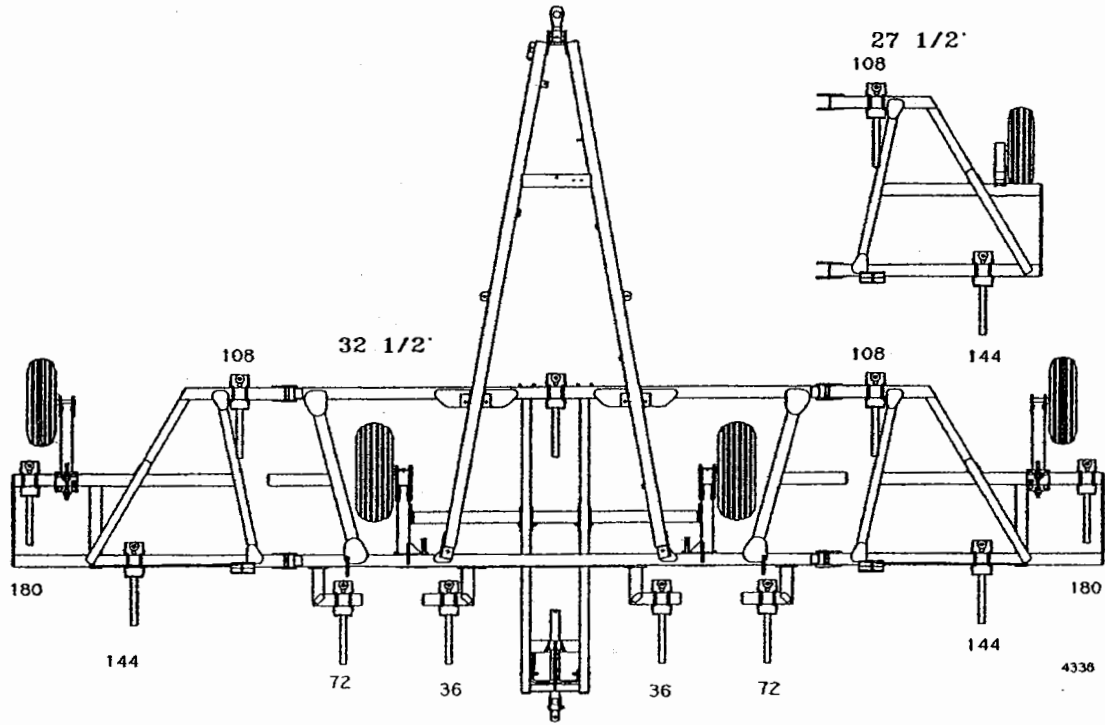
4300  
 38" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 RIGID C-S OR SPRING C-S MOUNTS  
 SINGLE WHEELS OR TANDEM



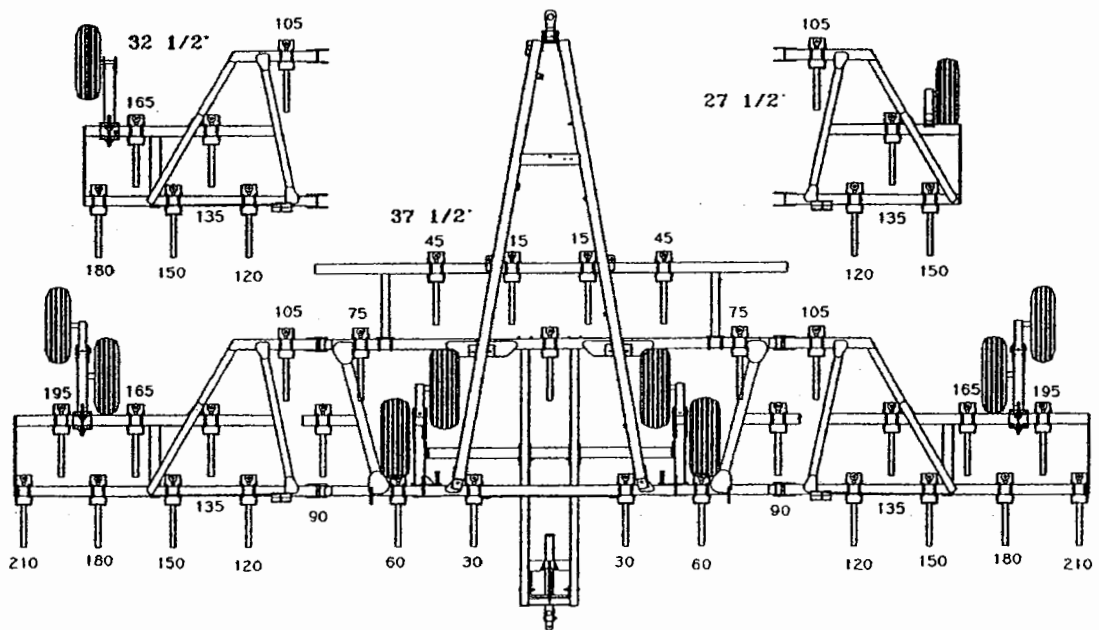
4300  
 38" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 INDIVIDUAL COULTERS  
 SINGLE WHEELS OR TANDEM



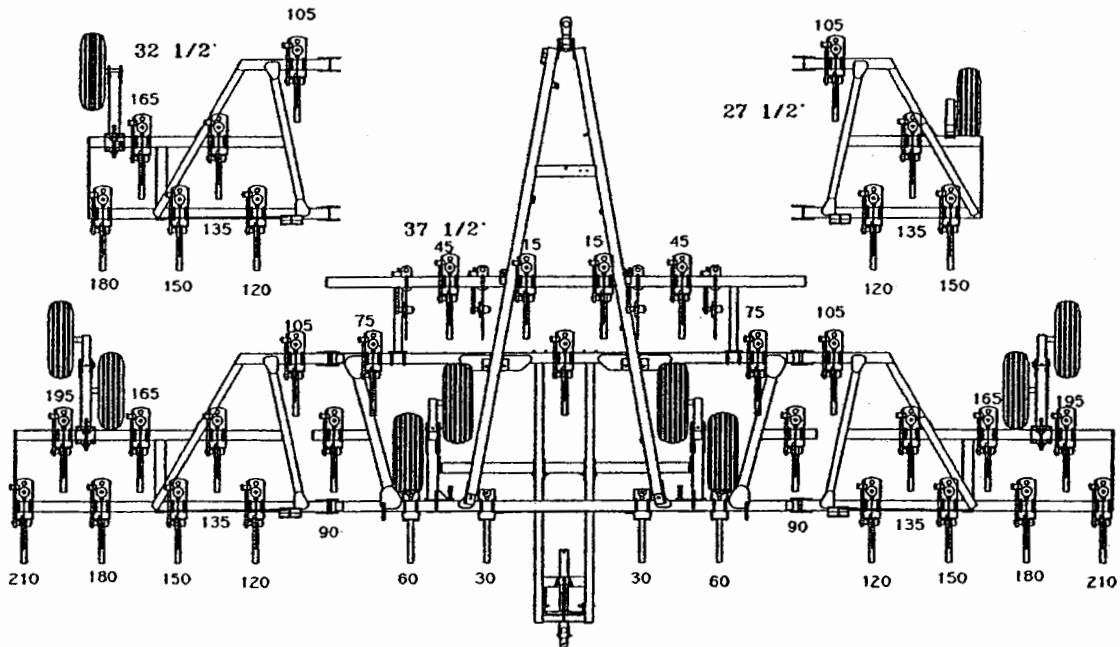
**4300**  
**36" SHANK SPACING**  
**RIGID OR SPRING SHANKS**  
**RIGID C-S OR SPRING C-S MOUNTS**  
**SINGLE WHEELS OR TANDEMS**



**4300**  
**15" SHANK SPACING**  
**RIGID OR SPRING SHANKS**  
**SINGLE WHEELS OR TANDEMS**

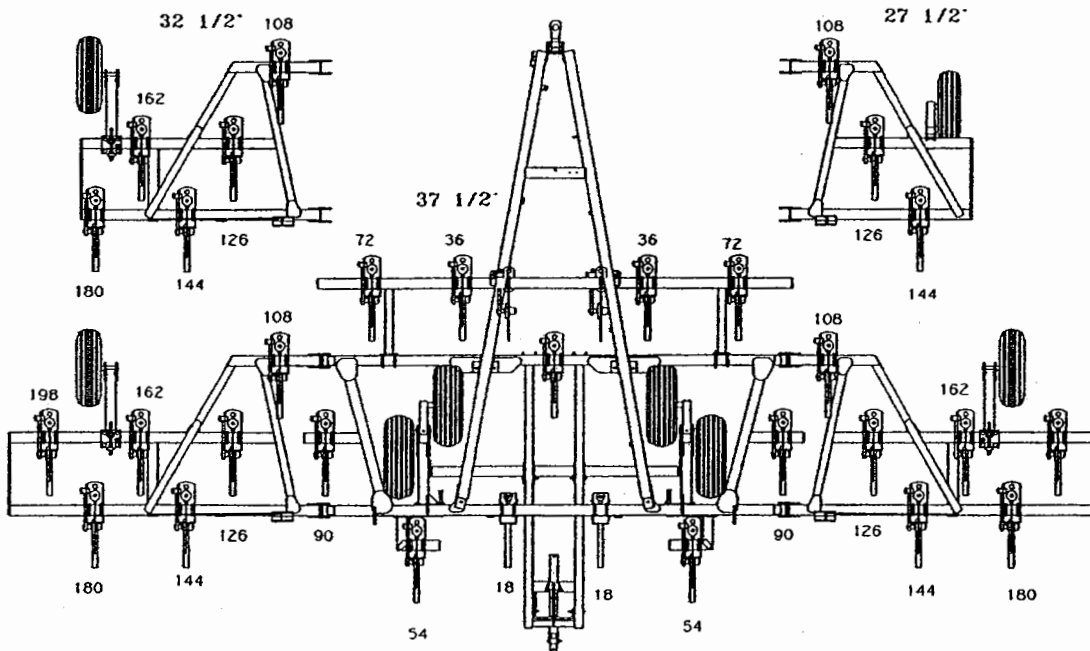


**4300**  
**15" SHANK SPACING**  
**RIGID C-S OR SPRING C-S MOUNTS**  
**TANDEM WHEELS**



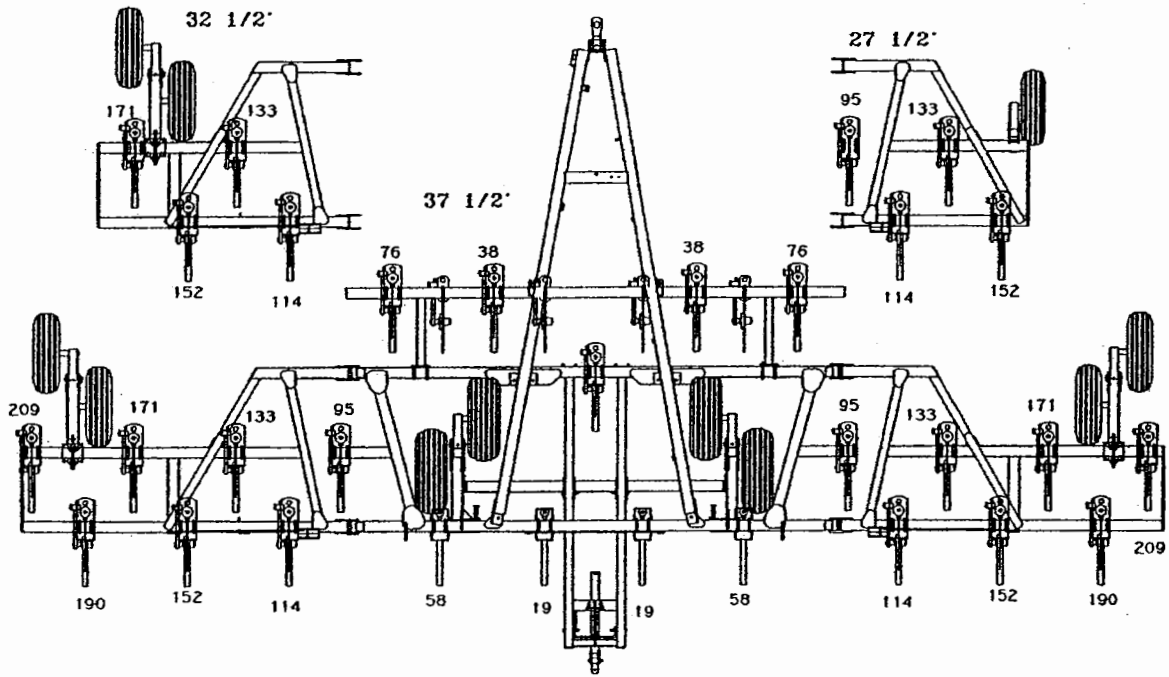
4315CS

**4300**  
**18" SHANK SPACING**  
**RIGID C-S OR SPRING C-S MOUNTS**  
**TANDEM WHEELS**



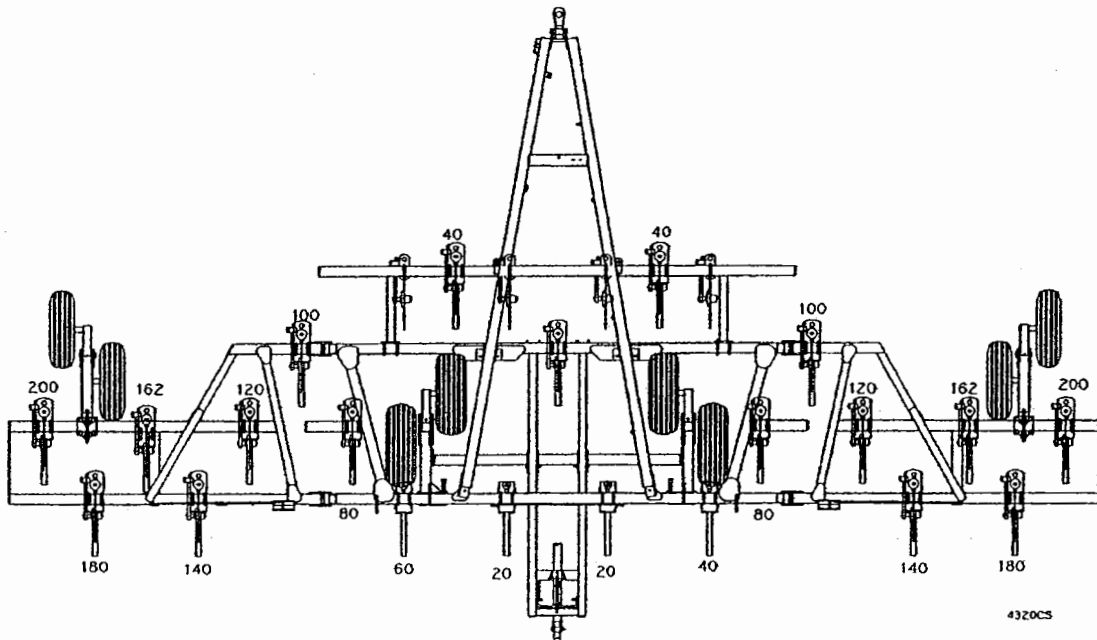
4316CS

4300  
 19" SHANK SPACING  
 RIGID C-S OR SPRING C-S MOUNTS  
 TANDEM WHEELS



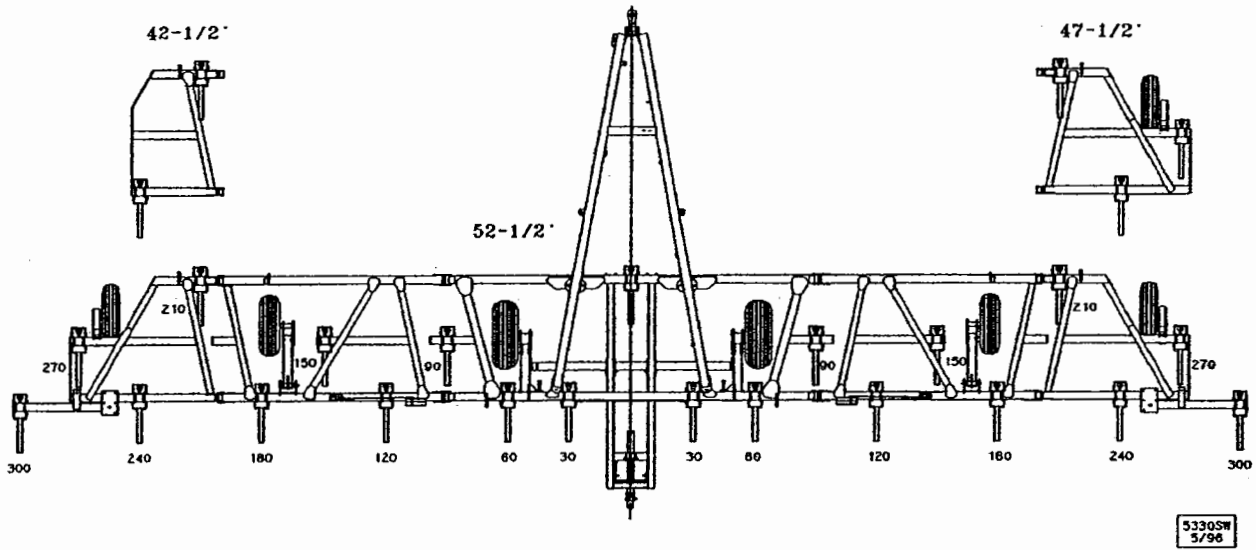
4319CS

4300  
 20" SHANK SPACING  
 RIGID OR SPRING SHANK  
 RIGID C-S OR SPRING C-S MOUNTS  
 TANDEM WHEELS

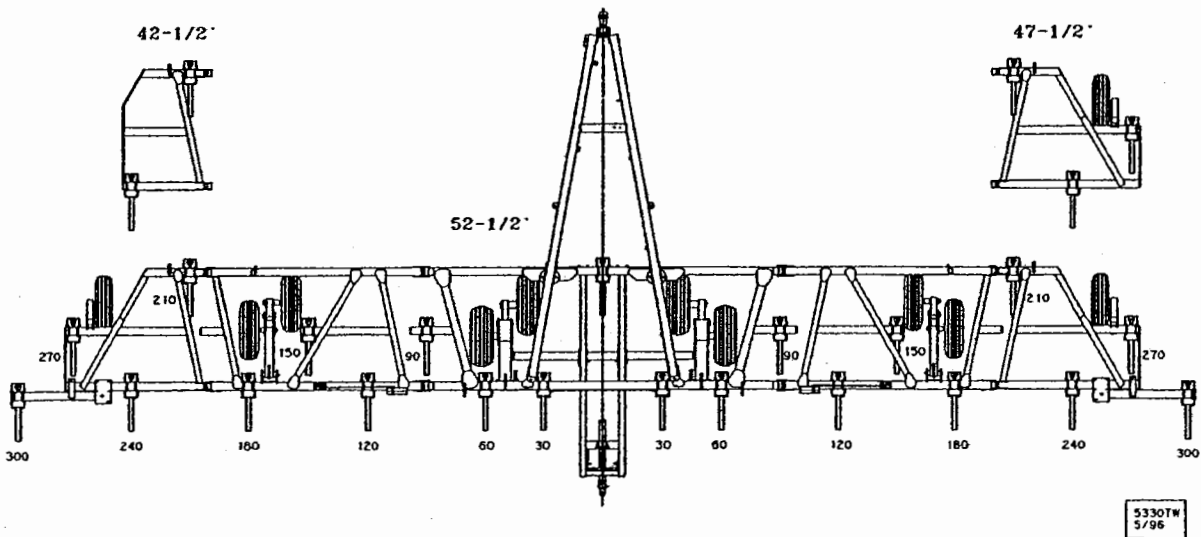


4320CS

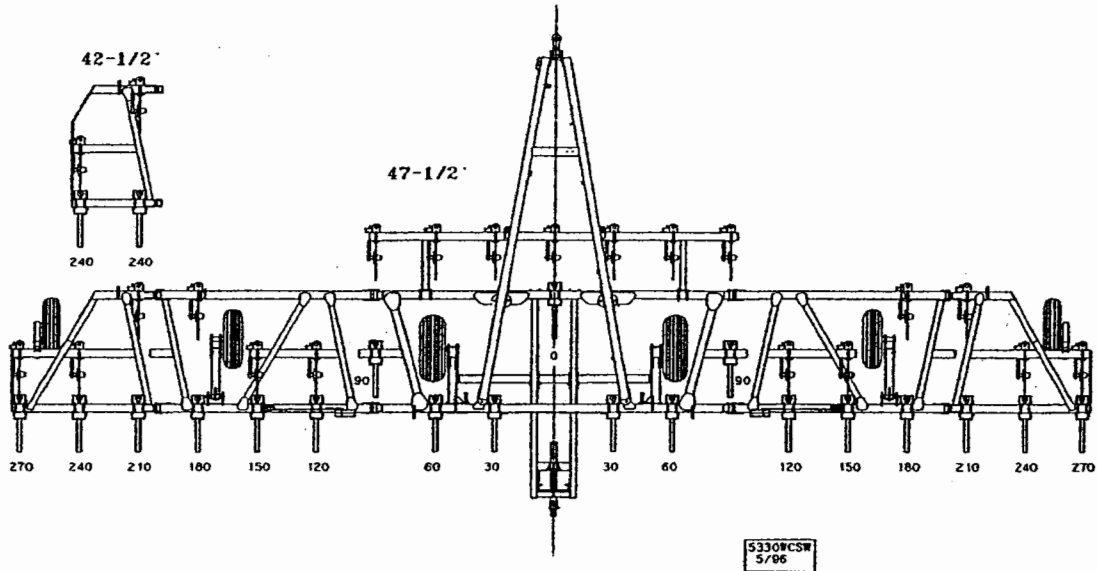
5300  
 30" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 SINGLE WHEELS



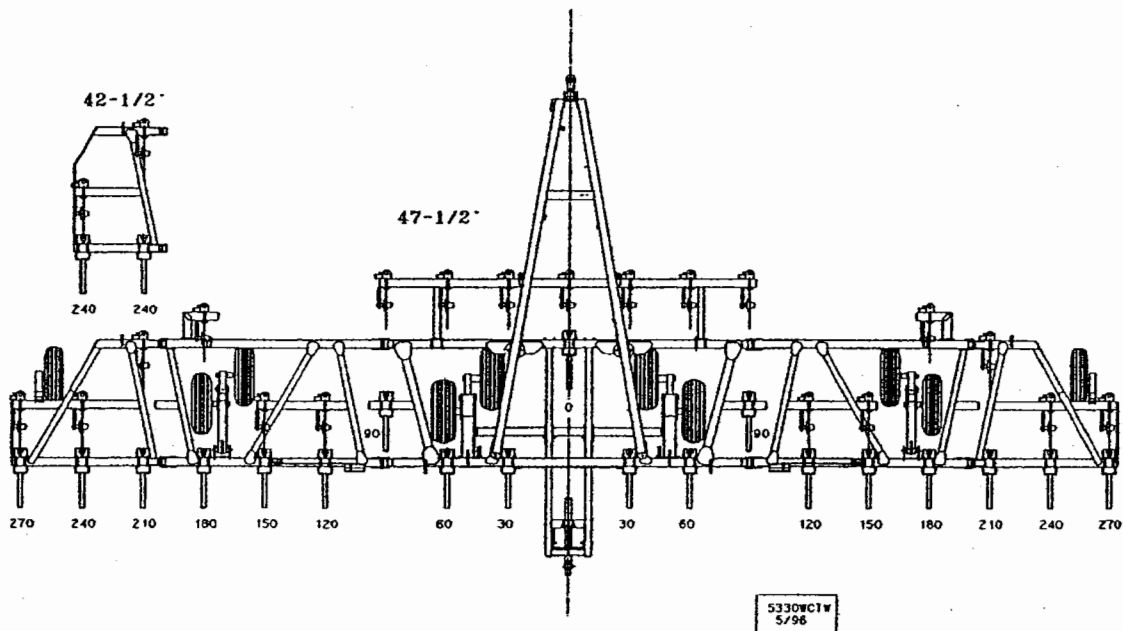
5300  
 30" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 TANDEM WHEELS



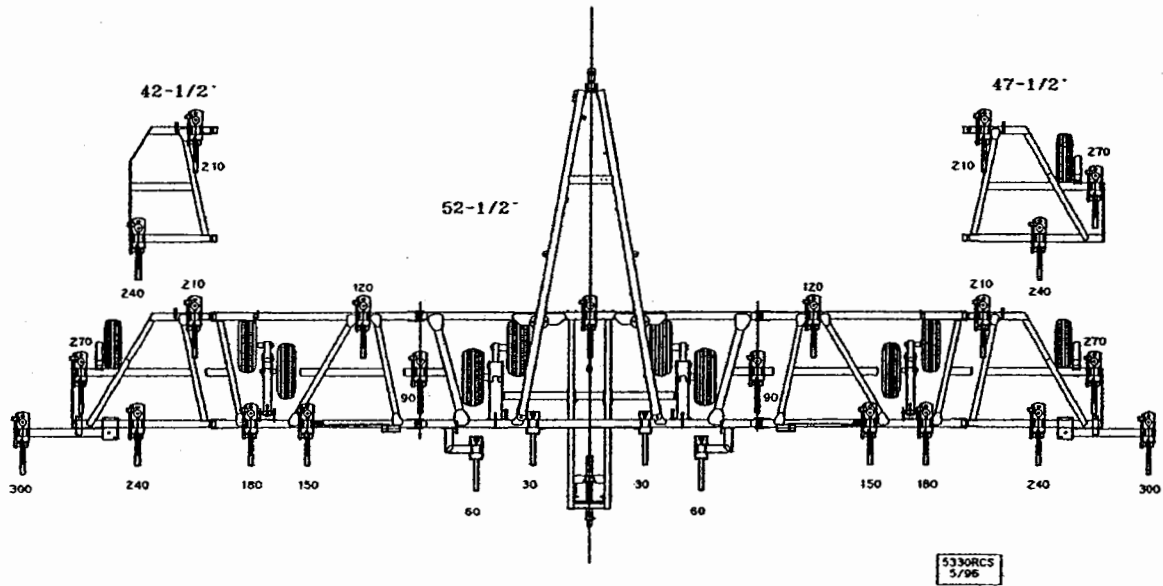
5300  
 30" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 WITH INDIVIDUAL COULTERS  
 SINGLE WHEELS



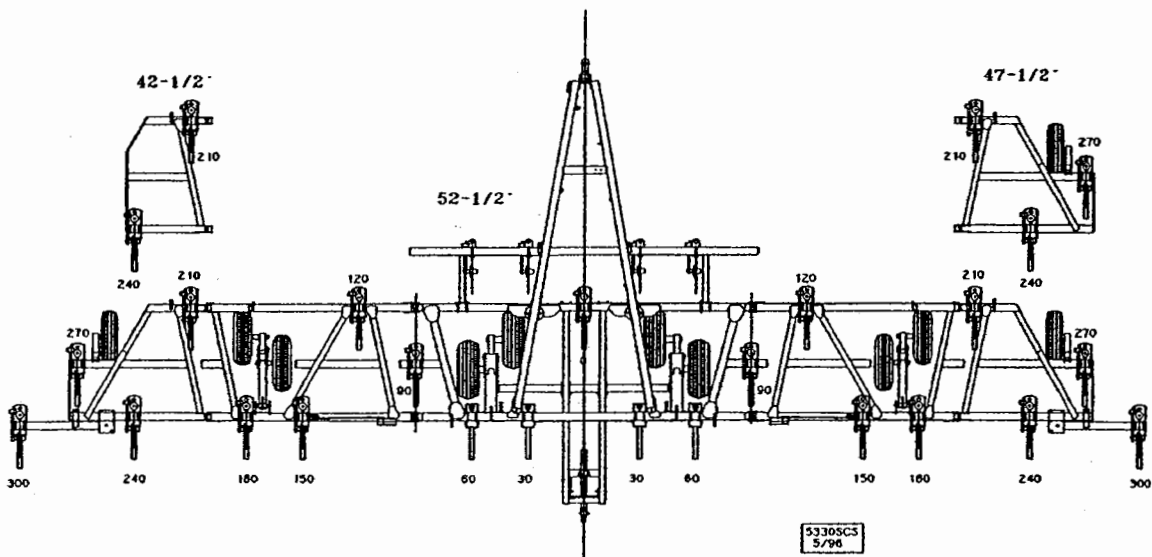
5300  
 30" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 WITH INDIVIDUAL COULTERS  
 TANDEM WHEELS



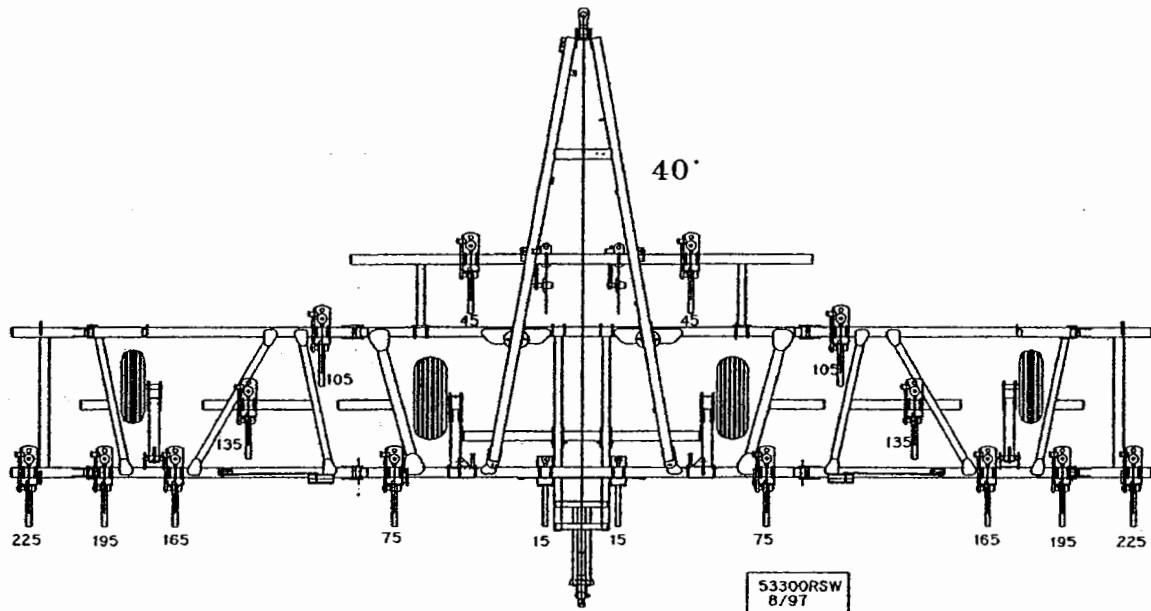
5300  
 30" SHANK SPACING  
 RIGID C-S MOUNTS  
 SINGLE WHEELS OR TANDEM



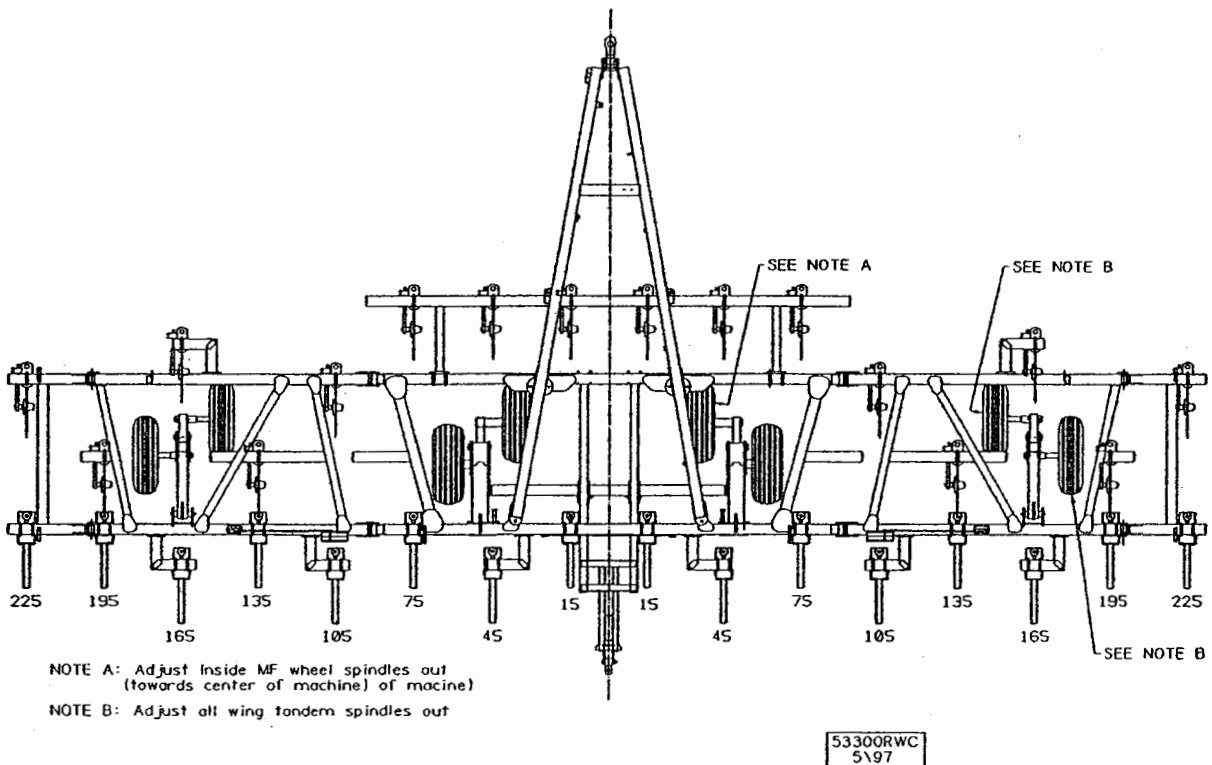
5300  
 30" SHANK SPACING  
 SPRING C-S MOUNTS  
 SINGLE WHEELS OR TANDEM



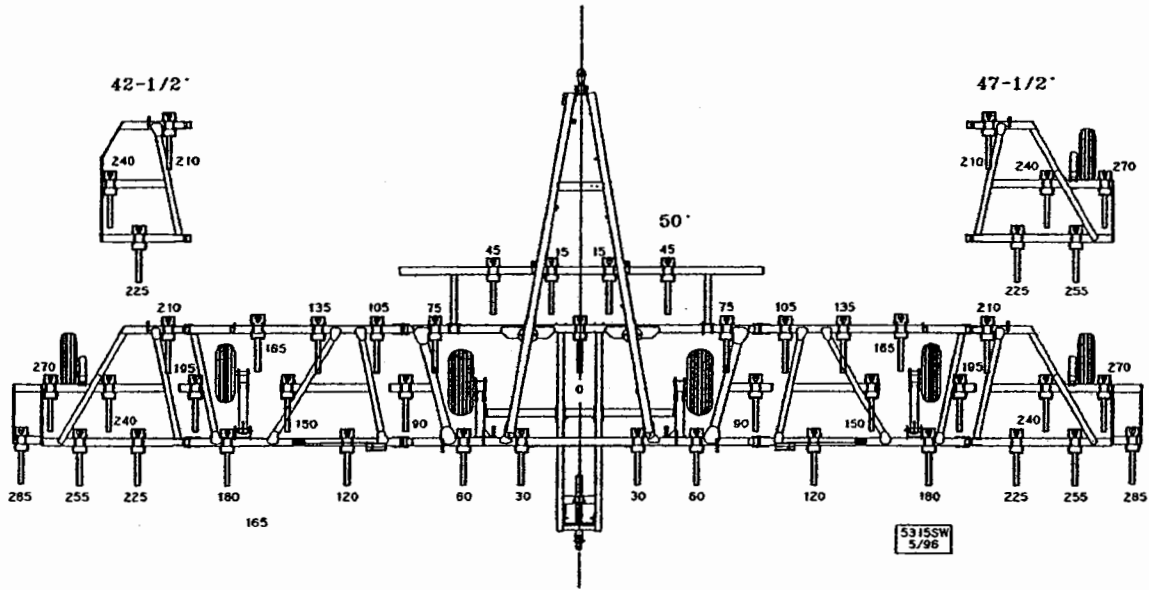
5300  
 30" ON ROW SHANK SPACING  
 RIGID OR SPRING SHANKS  
 RIGID C-S OR SPRING C-S MOUNTS  
 SINGLE WHEELS



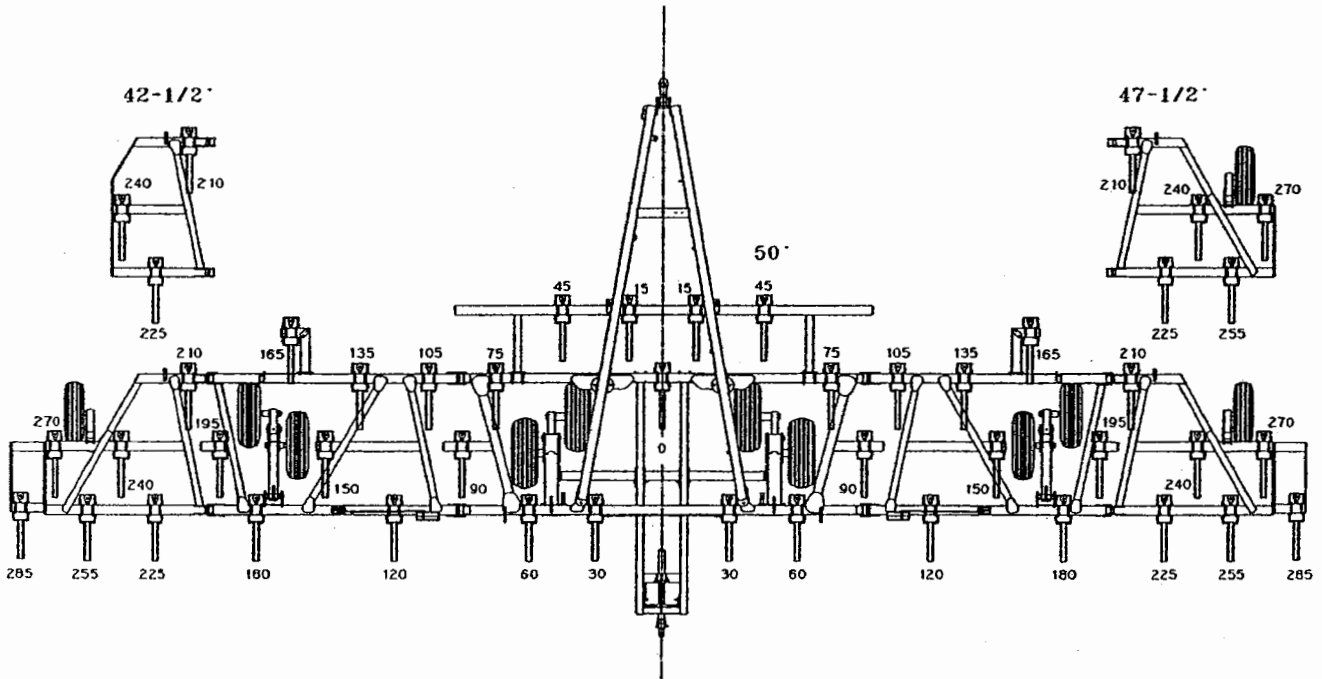
5300  
 30" ON-ROW SHANK SPACING  
 RIGID OR SPRING SHANKS  
 INDIVIDUAL COULTERS  
 TANDEM WHEELS



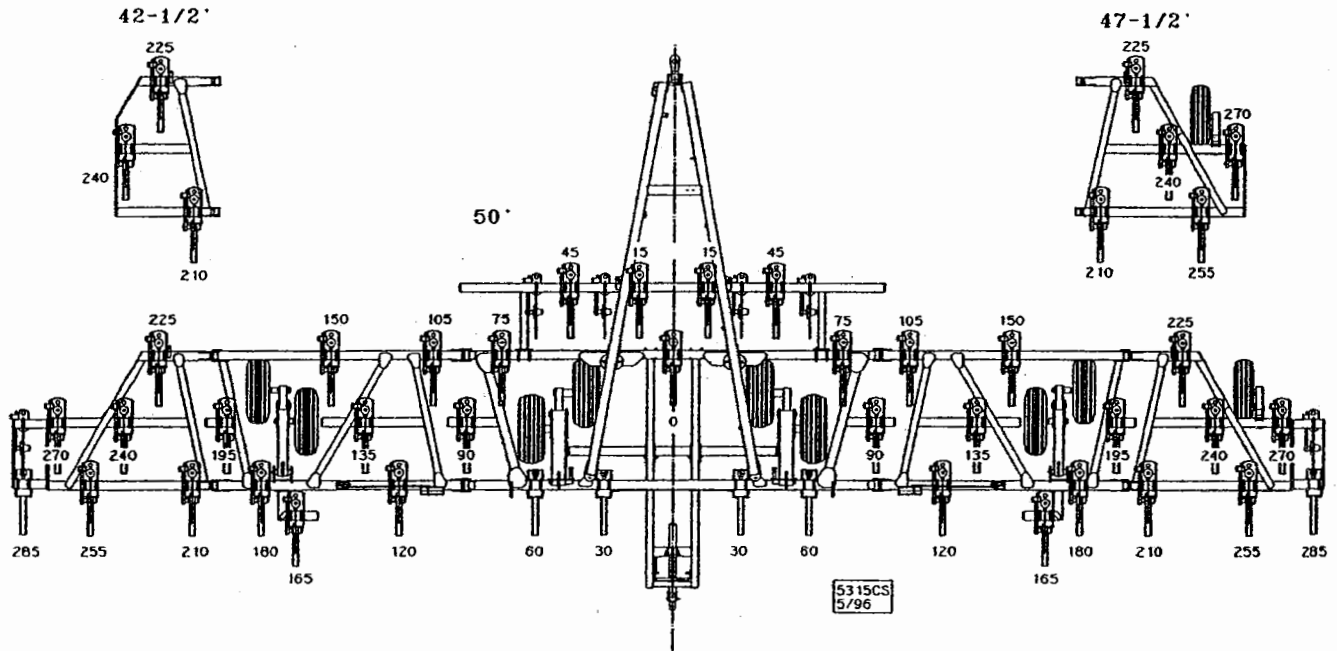
**5300  
15" SHANK SPACING  
RIGID OR SPRING SHANKS  
SINGLE WHEELS**



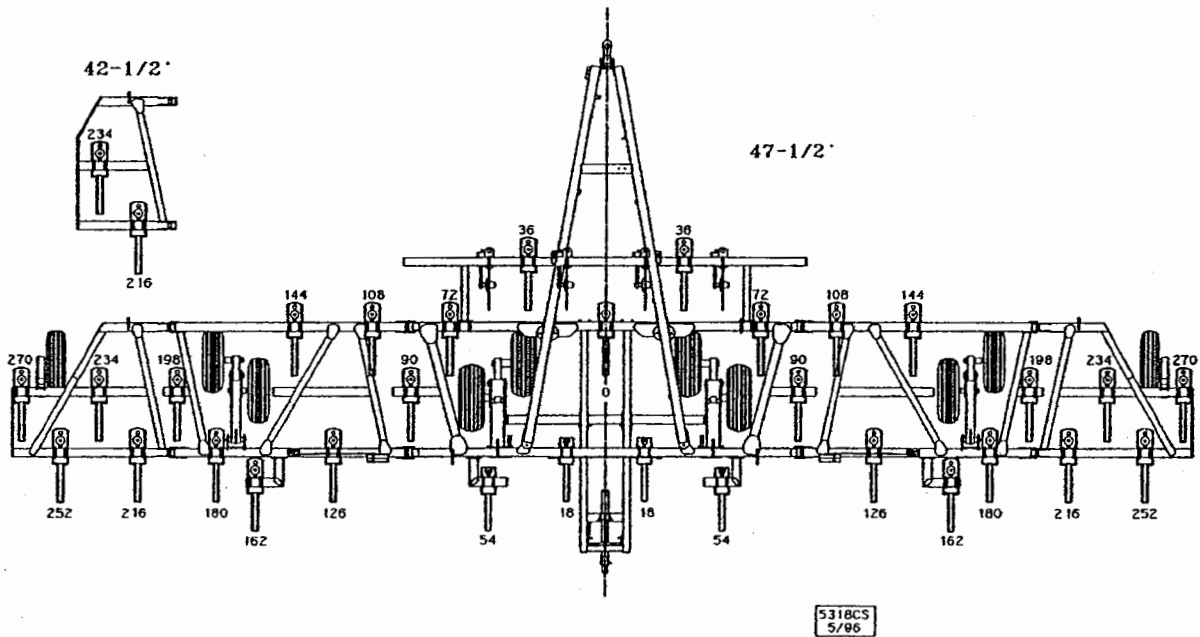
**5300  
15" SHANK SPACING  
RIGID C-S OR SPRING SHANKS  
TANDEMS**



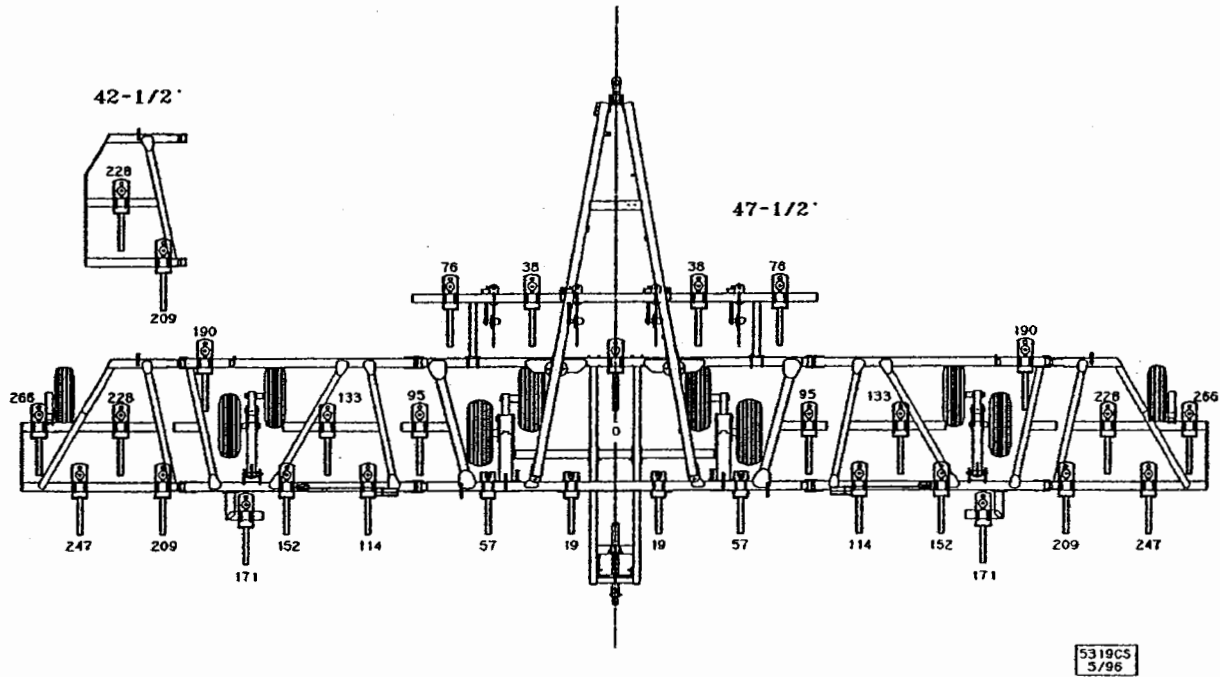
**5300  
15" SHANK SPACING  
RIGID C-S OR SPRING C-S MOUNTS  
TANDEMS**



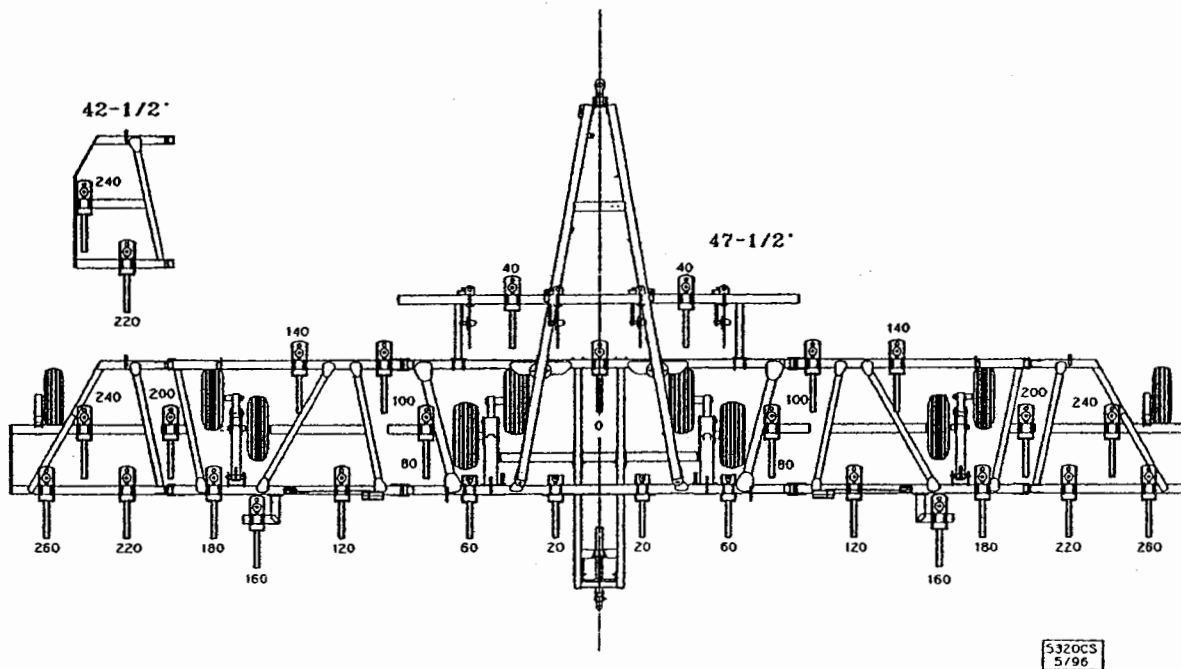
**5300  
18" SHANK SPACING  
RIGID C-S OR SPRING C-S MOUNTS  
TANDEMS**



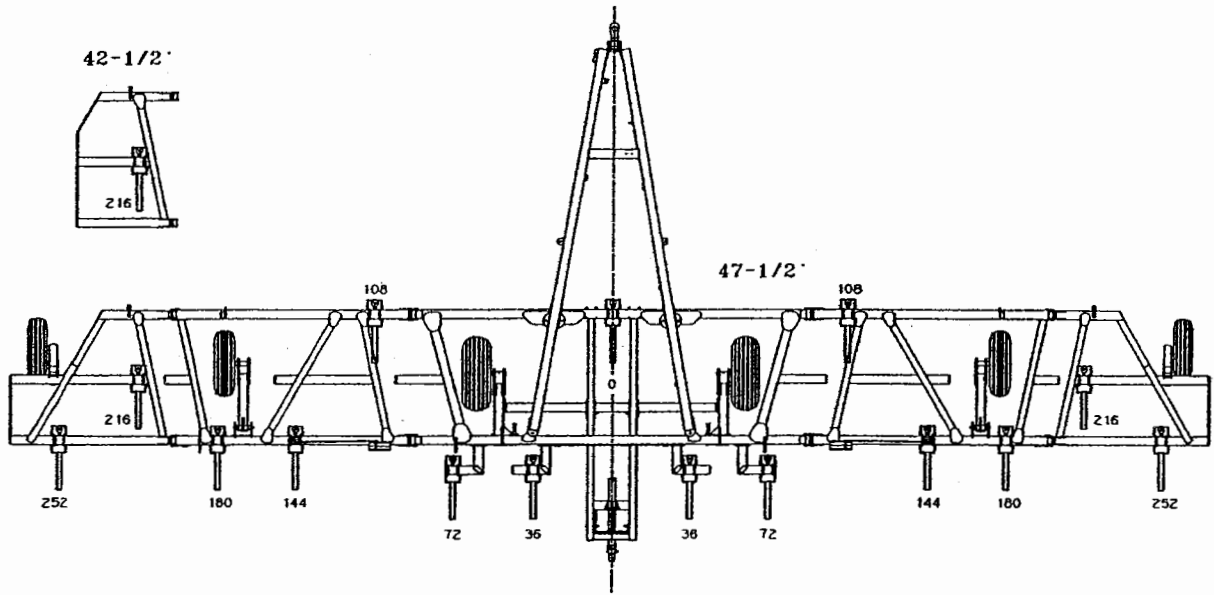
**5300  
19" SHANK SPACING  
RIGID C-S OR SPRING C-S MOUNTS  
TANDEMS**



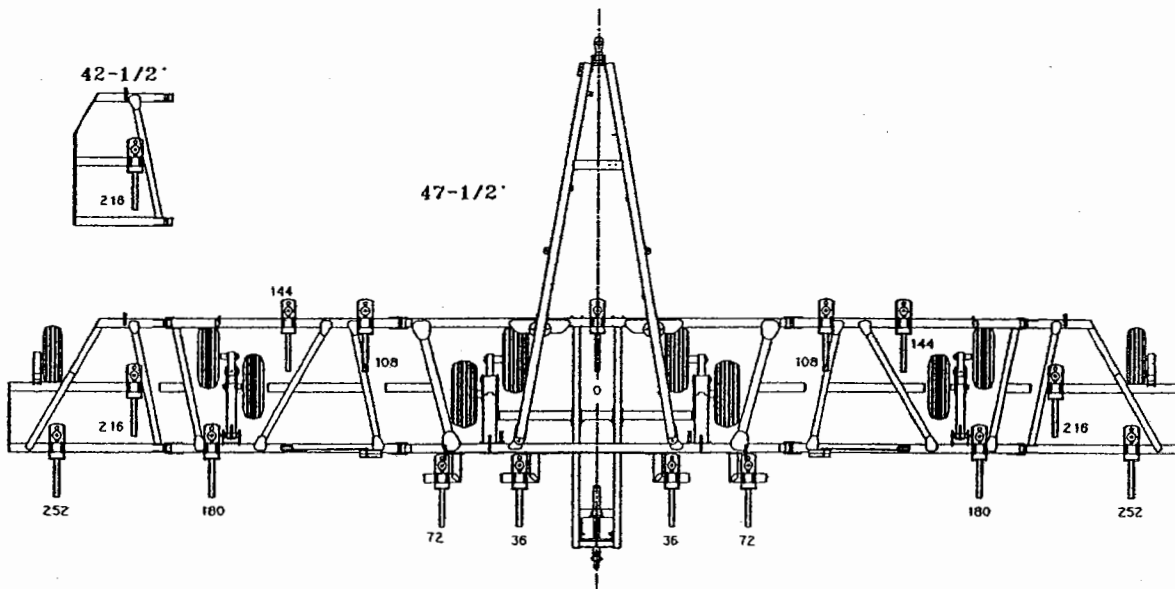
**5300  
20" SHANK SPACING  
RIGID OR SPRING SHANK  
RIGID C-S OR SPRING C-S MOUNTS  
TANDEMS**



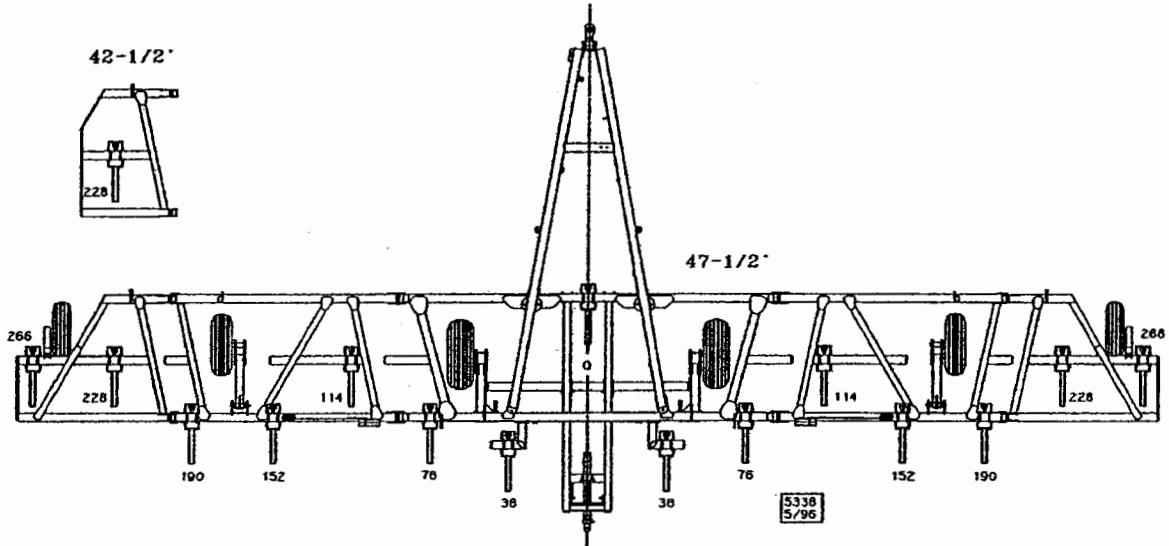
5300  
 36" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 SINGLE WHEELS OR TANDEM



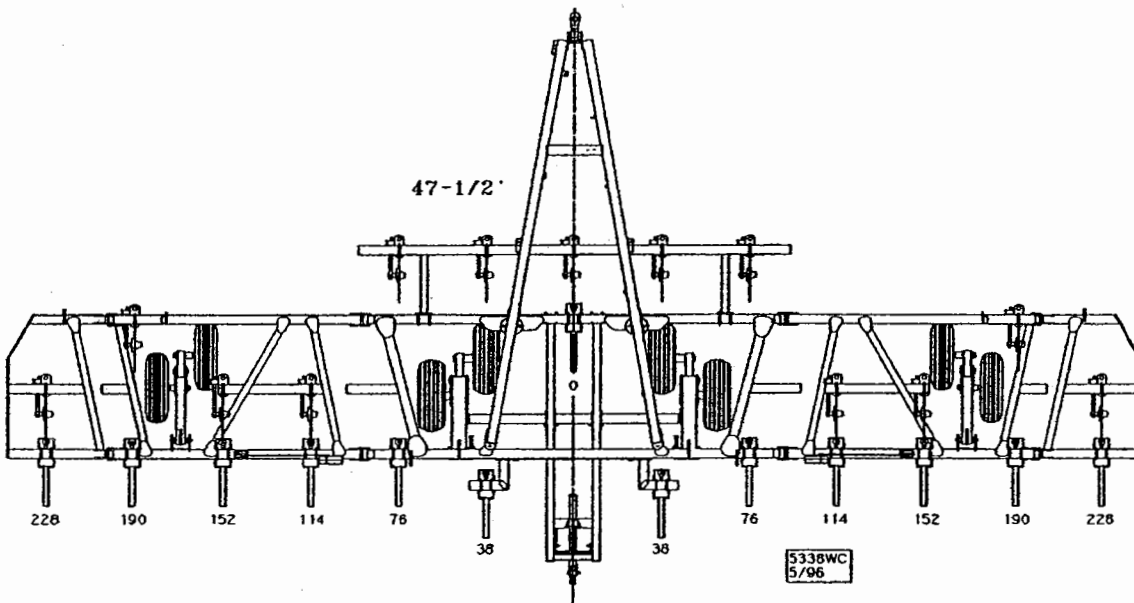
5300  
 36" SHANK SPACING  
 RIGID C-S OR SPRING C-S MOUNTS  
 SINGLE WHEELS OR TANDEM



5300  
 38" SHANK SPACING  
 RIGID OR SPRING SHANK  
 RIGID C-S OR SPRING C-S MOUNTS  
 SINGLE WHEELS OR TANDEM

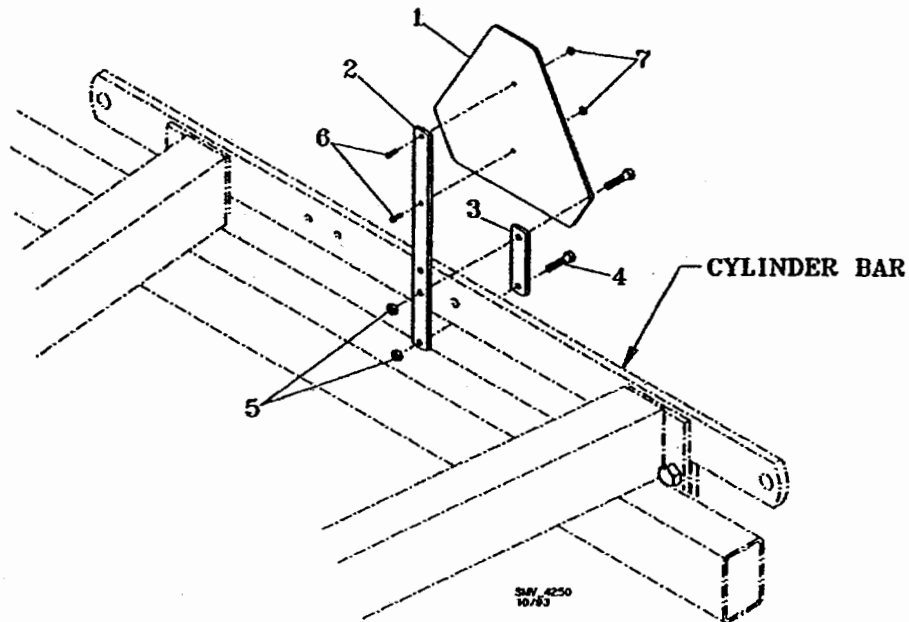


5300  
 38" SHANK SPACING  
 RIGID OR SPRING SHANKS  
 INDIVIDUAL COULTERS  
 SINGLE WHEELS OR TANDEM



# SMV EMBLEM INSTALLATION INSTRUCTIONS

The SMV emblem must be visible when viewing the implement from the rear. Attach the SMV emblem to the rear 3/4" x 4" cylinder bar of the implement. Locate the SMV emblem on the implement centerline or near the centerline on the left side of the implement when viewed from the rear.



1. Assemble SMV emblem (item #1) to SMV bracket (item #2) using 1/4" cap screws (item #6) and 1/4" nuts (item #7).
2. Position SMV emblem and bracket assembly on implement centerline or near the centerline on the left side of the implement when viewed from the rear. Attach assembly to cylinder bar of the main frame with SMV brace (item #3), 3/8" cap screws (item #4) and 3/8" lock nuts (item #5) and tighten hardware.

# WARRANTY SECTION

## MISCELLANEOUS WARRANTIES

### CONTINENTAL REGULATOR

All warranty claims must be filed, or regulator sent directly to:

Continental NH<sub>3</sub> Products Co., Inc  
Box 5423  
Dallas, Texas 75200  
Phone No. (214) 741-6081

For maintenance, service and operating instructions, see the Continental Operator's Manual.

### PARKER QUICK DISCONNECT COUPLING

All warranty claims must be filed, or coupling sent directly to:

Parker Fluid Connectors  
8145 Lewis Road  
Minneapolis, MN 55427  
Phone No. (612) 544-7781

# WARRANTY

## FIVE YEAR LIMITED WARRANTY

CASE CORPORATION warrants to the original purchaser of each new **DMI nutri-placr** unit that the product will be free from defects in material and workmanship for the following periods:

Basic, Main and Wing Frame Weldments.....Five (5) years  
All other components, except tires .....One (1) year

This warranty does not cover replacement parts or tires. Tires on **DMI** equipment are warranted through the respective tire manufacturer. Contact a dealer of the manufacturer in your local area. Parts are warranted to be free of defects in material and workmanship for a period of ninety (90) days from the date of delivery.

This Warranty covers only defective material or workmanship. It does not cover normal wear or maintenance or repair resulting from accident, improper maintenance, improper use, or alteration of the product. The cost of normal maintenance, service, and repair items shall be paid by the owner.

Under this Warranty, manufacturer shall, at its option, either repair or replace, free of charge, any defective part or parts. The part or parts must be returned to the manufacturer within thirty (30) days from the date of failure through the dealer from whom the product was purchased. Transportation charges are paid. The only remedies are those which are outlined herein. The manufacturer will not be liable for incidental or consequential damages, including, but not limited to, loss of crops, loss because of delay in harvesting, or any expense or loss incurred for labor, supplies, substitute machinery or rental.

This Warranty is subject to any existing conditions of supply which affect the manufacturer's ability to obtain materials or manufacture replacement parts.

The manufacturer reserves the right to make improvements in design or changes in specification at any time, without incurring any obligations to owners of products previously sold.

No one is authorized to alter, modify, or enlarge this Warranty nor its exclusions, limitations, and reservations.

THE FOREGOING WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

**TITAN/ARMSTRONG TIRES:** Warranty claims on **nutri-placr** units equipped with Armstrong ag tires can be filed by contacting your local Titan Tire/Armstrong Ag Tire Dealer or by calling the Armstrong Claim Service at **1-800-219-6239**, for both United States and Canada.

or write to the Company at:

**Titan Tire Corporation**  
2345 E. Market Street  
Des Moines, Iowa 50317