



P.O. Box 526 - Spearville, Kansas 67876 - (620) 227-7106
crustbuster.com

4560 Air Drill OWNER'S MANUAL

OPERATION • MAINTENANCE • REPAIR PARTS

Identification

Your CrustBuster® drill is identified by a Serial Number and Model Number. Record these numbers in the spaces provided in this manual and refer to them when ordering parts or requesting service.

Serial Number	Model Number
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Warranty

WARRANTY: In addition to the implied warranties of fitness and of merchantability, CrustBuster®/Speed King, Inc. warrants new products sold by it to be free from defects in workmanship and material for a period of 12 months, from the date of delivery to the first user customer. Warranty on purchased parts (cylinder, blades, bearings, shanks, etc.) will be the same as that offered by the appropriate manufacturer of these parts.

EXCLUSIONS: No warranty of any kind is made by CrustBuster®/Speed King, Inc. with regard to new products which have been subject to operation in excess of recommended capacities, misuse, abuse, negligence, or accident, or have been altered or repaired in any manner not authorized by CrustBuster®/Speed King, Inc. CrustBuster®/Speed King, Inc. is constantly striving to improve its products. Changes in design and improvement will be made whenever CrustBuster®/Speed King, Inc. believes the efficiency of its products will be improved thereby, but without incurring any obligation to incorporate such improvements in any products which have been shipped or are in service. No obligation exists for compensation of unauthorized repairs or modifications without prior approval. And in no event will CrustBuster®/Speed King, Inc. be liable for consequential damages, such as but not limited to: downtime, delayed or late tillage or planting, etc.

WARRANTY REGISTRATION: This warranty is not valid unless registered with CrustBuster®/Speed King, Inc. within 10 days from the date of purchase. It is the sole responsibility of the selling retail dealer to fill out the registration forms and see that they are properly filed with CrustBuster®/Speed King, Inc. This can be done at crustbuster.com.

WARRANTY PROCEDURE: Should any part fail to conform with this warranty, CrustBuster®/Speed King, Inc. will repair or replace the part or parts which do not conform. If a part is defective, take it to your authorized CrustBuster® Farm Equipment Dealer immediately, along with your warranty registration, and complete the proper forms requesting a warranty adjustment. Our representative will pick up the part to be returned to the factory for examination. If the customer (first user) requests that a new part be substituted for the old part, a new part will be charged to the dealer who will in turn charge the customer. If the part is found by us to be defective, a credit for the part will be given to the dealer to be passed on to the customer. If the dealer or customer wishes to repair the part, this will be done only if authorized by CrustBuster®/Speed King, Inc. This warranty procedure is in addition to all remedies authorized by law.

CRUSTBUSTER®/SPEED KING, INC.
Box 526
Spearville, KS 67876

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**BE A SAFE OPERATOR
BY THINKING BEFORE ACTING
AND
BY READING
YOUR OWNER'S MANUAL
Avoid Accidents**

Most accidents, whether they occur in industry, on the farm, at home, or on the highway, are caused by the failure of some individual to follow simple and fundamental safety rules or precautions. For this reason most accidents can be prevented by recognizing the real cause and doing something about it before the accident occurs.

Regardless of the care used in the design and construction of any type of equipment, there are many conditions that cannot be completely safeguarded against without interfering with reasonable accessibility and efficient operation.

A CAREFUL OPERATOR
is the Best Insurance Against an Accident.
The complete observance of one simple rule
would prevent many thousands
of serious injuries each year.

That rule is:

**Never Attempt to
Clean, Oil, or Adjust
A Machine While It Is In Motion.**

To Our Customers

The following pages and illustrations are printed to help supply you with the knowledge to better operate and service your new CrustBuster equipment.

We are proud to have you as a customer and feel you will be proud to be a CrustBuster owner.

Any piece of equipment needs, and must have, a certain amount of service and maintenance to keep it in top running condition. We have attempted to cover all the adjustments required to fit most conditions; however, there may be times when special care must be taken to fit a condition.

Study this owner's manual carefully and become acquainted with all the adjustments and operating procedures before attempting to operate your new equipment. Remember, it is a machine and has been designed and tested to do an efficient job in most operating conditions and will perform in relation to the services it receives.

If special attention is required for some condition, ask your CrustBuster dealer; he will be glad to help and answer any questions on operations and service of your new machine.

TAKE TIME FOR SAFETY

Safety

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



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



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



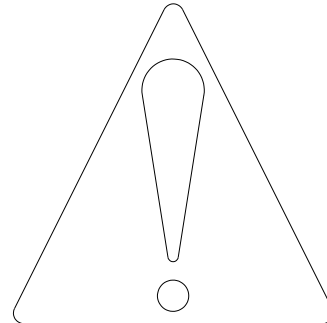
NOTICE: Used to address practices not related to physical injury.



RECOGNIZE SAFETY INFORMATION

THIS IS THE SAFETY-ALERT SYMBOL. WHEN YOU SEE THIS SYMBOL ON YOUR MACHINE OR IN THIS MANUAL, BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY.

FOLLOW RECOMMENDED PRECAUTIONS AND SAFE OPERATING PRACTICES.



UNDERSTAND SIGNAL WORDS

A SIGNAL WORD-DANGER, WARNING, OR CAUTION-IS USED WITH THE SAFETY-ALERT SYMBOL. DANGER IDENTIFIES THE MOST SERIOUS HAZARDS.

DANGER OR WARNING SAFETY SIGNS ARE LOCATED NEAR SPECIFIC HAZARDS. GENERAL PRECAUTIONS ARE LISTED ON CAUTION SAFETY SIGNS. CAUTION ALSO CALLS ATTENTION TO SAFETY MESSAGES IN THIS MANUAL.



DANGER



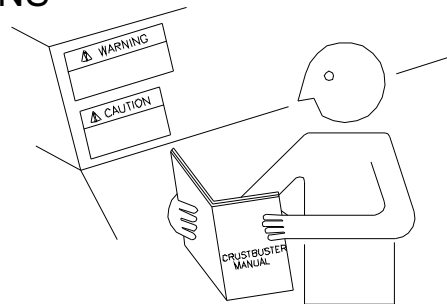
WARNING



CAUTION

FOLLOW SAFETY INSTRUCTIONS

CAREFULLY READ ALL SAFETY MESSAGES IN THIS MANUAL AND ON YOUR MACHINE SAFETY SIGNS. KEEP SAFETY SIGNS IN GOOD CONDITION. REPLACE MISSING OR DAMAGED SAFETY SIGNS. BE SURE NEW EQUIPMENT COMPONENTS AND REPAIR PARTS INCLUDE THE CURRENT SAFETY SIGNS. REPLACEMENT SAFETY SIGNS ARE AVAILABLE FROM YOUR CRUSTBUSTER DEALER.



LEARN HOW TO OPERATE THE MACHINE AND HOW TO USE CONTROLS PROPERLY. DO NOT LET ANYONE OPERATE WITHOUT INSTRUCTION.

KEEP YOUR MACHINE IN PROPER WORKING CONDITION. UNAUTHORIZED MODIFICATIONS TO THE MACHINE MAY IMPAIR THE FUNCTION AND/OR SAFETY AND AFFECT MACHINE LIFE.

IF YOU DO NOT UNDERSTAND ANY PART OF THIS MANUAL AND NEED ASSISTANCE, CONTACT YOUR CRUSTBUSTER DEALER.

Safety

OPERATE SAFELY

DO NOT OPERATE DRILL WITH MORE THEN ONE PERSON ON THE TRACTOR.

DO NOT ALLOW ANYONE TO RIDE ON THE DRILL.

DO NOT OPERATE CLOSE TO A DITCH OR CREEK.

DRIVE SLOWLY OVER ROUGH GROUND.

SHIFT THE TRACTOR INTO A LOWER GEAR WHEN OPERATING ON STEEP SLOPES.

IF YOUR TRACTOR IS EQUIPPED WITH A ROLL-GUARD SAFETY CANOPY AND A SEAT BELT, BE SURE TO KEEP YOUR SEAT BELT FASTENED WHEN OPERATING OR TRANSPORTING THE DRILL.

HANDLE AND APPLY CHEMICALLY TREATED SEEDS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PROPERLY DISPOSE OF UNUSED TREATED SEEDS AND THEIR CONTAINERS.

ALWAYS SHUT OFF TRACTOR ENGINE AND SHIFT TO PARK WHEN LEAVING TRACTOR. REMOVE KEY WHEN LEAVING TRACTOR UNATTENDED.

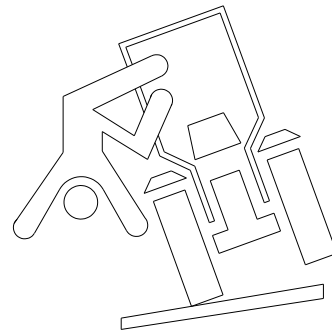
AVOID TIP-OVERS

USE A SEAT BELT UNDER ALMOST ALL OPERATING CONDITIONS.

AVOID HOLES, DITCHES, AND OBSTRUCTIONS WHICH MAY CAUSE THE MACHINE TO TIP, ESPECIALLY ON HILLSIDES.

NEVER DRIVE NEAR THE EDGE OF A GULLY OR STEEP EMBANKMENT-IT MIGHT CAVE IN.

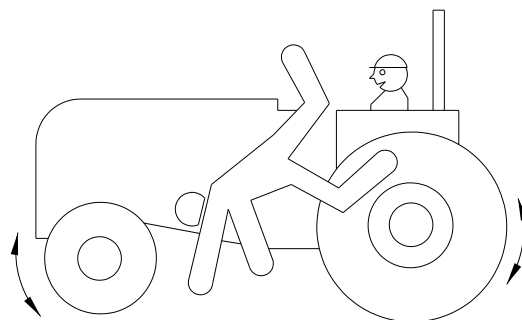
SLOW DOWN FOR HILLSIDES, ROUGH GROUND, AND SHARP TURNS.



KEEP RIDERS OFF MACHINE

ONLY ALLOW THE OPERATOR ON THE MACHINE. KEEP RIDERS OFF.

RIDERS ON MACHINE ARE SUBJECT TO INJURY SUCH AS BEING STRUCK BY FOREIGN OBJECTS AND BEING THROWN OFF OF THE MACHINE. RIDERS ALSO OBSTRUCT THE OPERATOR'S VIEW RESULTING IN THE MACHINE BEING OPERATED IN AN UNSAFE MANNER.



Safety

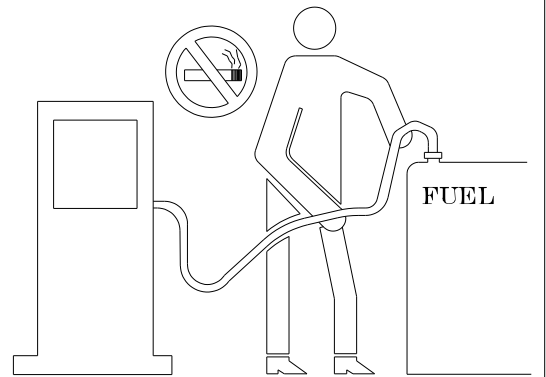
HANDLE FUEL SAFELY - AVOID FIRES

HANDLE FUEL WITH CARE: IT IS HIGHLY FLAMMABLE.

DO NOT REFUEL THE MACHINE WHILE SMOKING OR WHEN NEAR OPEN FLAME OR SPARKS.

ALWAYS STOP ENGINE BEFORE REFUELING MACHINE.
FILL FUEL TANK OUTDOORS.

PREVENT FIRES BY KEEPING MACHINE CLEAN OF
ACCUMULATED TRASH, GREASE, AND DEBRIS.
ALWAYS CLEAN UP SPILLED FUEL.

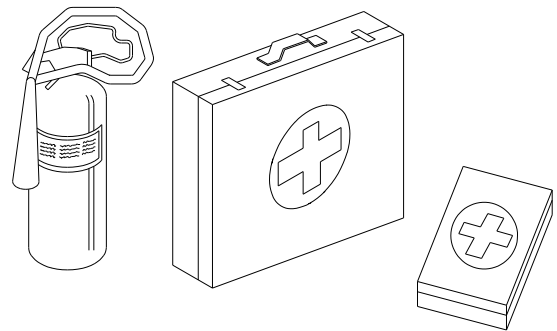


PREPARE FOR EMERGENCIES

BE PREPARED IF A FIRE STARTS.

KEEP A FIRST AID KIT AND FIRE EXTINGUISHER
HANDY.

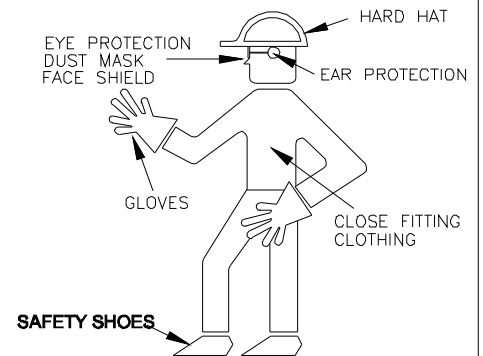
KEEP EMERGENCY NUMBERS FOR DOCTORS,
AMBULANCE SERVICE, HOSPITAL, AND FIRE
DEPARTMENT NEAR YOUR TELEPHONE.



WEAR PROTECTIVE CLOTHING

WEAR CLOSE FITTING CLOTHING AND SAFETY EQUIPMENT
APPROPRIATE TO THE JOB.

OPERATING EQUIPMENT SAFELY REQUIRES THE FULL ATTENTION
OF THE OPERATOR. DO NOT WEAR RADIO OR MUSIC HEADPHONES
WHILE OPERATING MACHINE.

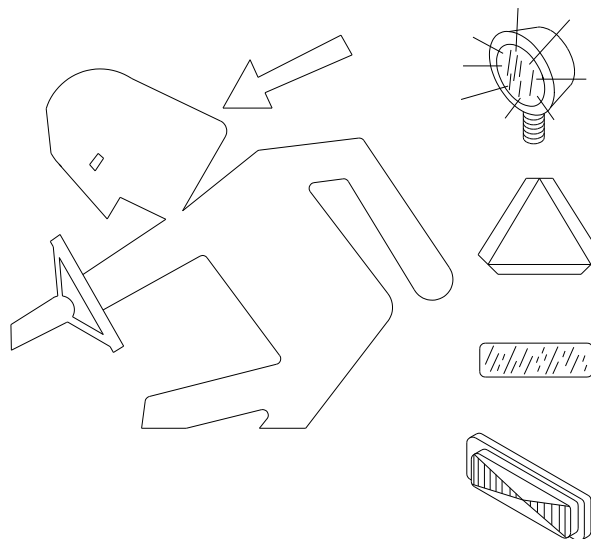


Safety

USE SAFETY LIGHTS AND DEVICES

PREVENT COLLISIONS BETWEEN OTHER ROAD USERS, SLOW MOVING TRACTORS WITH ATTACHMENT OR TOWED EQUIPMENT, AND SELF-PROPELLED MACHINES ON PUBLIC ROADS. FREQUENTLY CHECK FOR TRAFFIC FROM THE REAR, ESPECIALLY IN TURNS, AND USE HAND SIGNALS OR TURN SIGNAL LIGHTS.

USE HEADLIGHTS, FLASHING WARNING LIGHTS, AND TURN SIGNALS DAY AND NIGHT. FOLLOW LOCAL REGULATIONS FOR EQUIPMENT LIGHTING AND MARKING. KEEP LIGHTING AND MARKING VISIBLE AND IN GOOD WORKING ORDER. REPLACE OR REPAIR LIGHTING AND MARKING THAT HAS BEEN DAMAGED OR LOST. AN IMPLEMENT SAFETY LIGHTING KIT IS AVAILABLE FROM YOUR CRUSTBUSTER DEALER.

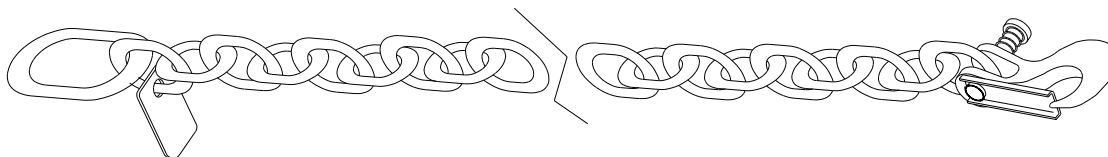


USE A SAFETY CHAIN

A SAFETY CHAIN WILL HELP CONTROL DRAWN EQUIPMENT SHOULD IT ACCIDENTLTY SEPERATE FROM THE DRAWBAR.

ATTACH THE SAFETY CHAIN TO THE TRACTOR DRAWBAR SUPPORT OR OTHER SPECIFIED ANCHOR LOCATION. PROVIDE ONLY ENOUGH SLACK IN THE CHAIN TO PERMIT TURNING.

SEE YOUR CRUSTBUSTER DEALER FOR A CHAIN WITH A STRENGTH RATING EQUAL TO OR GREATER THEN THE GROSS WEIGHT OF THE TOWED MACHINE. DO NOT USE SAFETY CHAIN FOR TOWING.



Safety

TRANSPORT SAFELY

KNOW THE TRANSPORT HEIGHT AND HEIGHT OF OVERHEAD WIRES.

ALWAYS RAISE THE FRONT JACK STAND BEFORE TRANSPORTING.

RAISE OPENERS FULLY.

SHIFT THE TRACTOR INTO A LOWER GEAR WHEN TRANSPORTING DOWN STEEP SLOPES OR HILLS.

DO NOT TRANSPORT UNLESS THE GRAIN DRILL REFLECTORS, LIGHTS AND SMV EMBLEM ARE EASILY VISIBLE FROM THE REAR.

NEVER TRANSPORT THE GRAIN DRILL FASTER THAN 24 KM/H (15 MPH). REDUCE SPEED WHEN TRAVELING OVER ROUGH GROUND.

DO NOT TRANSPORT DRILL WITH GRAIN IN BOX.

TOW LOADS SAFELY

STOPPING DISTANCE INCREASES WITH SPEED AND WEIGHT OF TOWED LOADS, AND ON SLOPES. TOWED LOADS WITH OR WITHOUT BRAKES THAT ARE TOO HEAVY FOR THE TRACTOR OR ARE TOWED TOO FAST CAN CAUSE LOSS OF CONTROL. CONSIDER THE TOTAL WEIGHT OF THE EQUIPMENT AND ITS LOAD.

OBSERVE RECOMMENDED MAXIMUM ROAD SPEEDS, OR LOCAL SPEED LIMITS WHICH MAY BE LOWER.

IF TOWED EQUIPMENT DOES NOT HAVE BRAKES, DO NOT TRAVEL MORE THAN 24 KM/H (15 MPH) AND DO NOT TOW LOADS MORE THAN 1.5 TIMES THE TRACTOR WEIGHT.

IF TOWED EQUIPMENT HAS BRAKES, DO NOT TRAVEL MORE THAN 40 KM/H (25 MPH) AND DO NOT TOW LOADS MORE THAN 4.5 TIMES THE TRACTOR WEIGHT.

ENSURE THE LOAD DOES NOT EXCEED THE RECOMMENDED WEIGHT RATIO. ADD BALLAST TO RECOMMENDED MAXIMUM FOR TRACTOR, LIGHTEN THE LOAD, OR GET A HEAVIER TOWING UNIT. THE TRACTOR MUST BE HEAVY AND POWERFUL ENOUGH WITH ADEQUATE BRAKING POWER FOR THE TOWED LOAD. USE ADDITIONAL CAUTION WHEN TOWING LOADS UNDER ADVERSE SURFACE CONDITIONS, WHEN TURNING, AND ON INCLINES.

Safety

PRACTICE SAFE MAINTENANCE

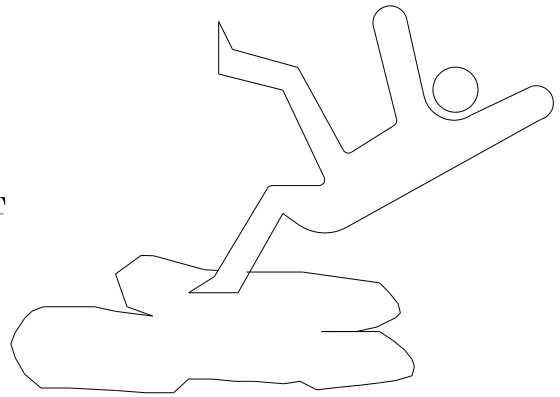
UNDERSTAND SERVICE PROCEDURE BEFORE DOING WORK.
KEEP AREA CLEAN AND DRY.

NEVER LUBRICATE, SERVICE, OR ADJUST MACHINE
WHILE IT IS MOVING. KEEP HANDS, FEET, AND
CLOTHING FROM POWER DRIVEN PARTS.
DISENGAGE ALL POWER AND OPERATE CONTROLS
TO RELIEVE PRESSURE. LOWER EQUIPMENT TO
THE GROUND. STOP THE ENGINE. REMOVE THE
KEY. ALLOW MACHINE TO COOL.

SECURELY SUPPORT ANY MACHINE ELEMENTS THAT
MUST BE RAISED FOR SERVICE WORK.

KEEP ALL PARTS IN GOOD CONDITION
AND PROPERLY INSTALLED. FIX DAMAGE
IMMEDIATELY. REPLACE WORN OR BROKEN
PARTS. REMOVE ANY BUILDUP OF GREASE,
OIL, OR DEBRIS.

DISCONNECT BATTERY GROUND CABLE (-)
BEFORE MAKING ADJUSTMENTS ON ELECTRICAL
SYSTEMS OR WELDING ON MACHINE.



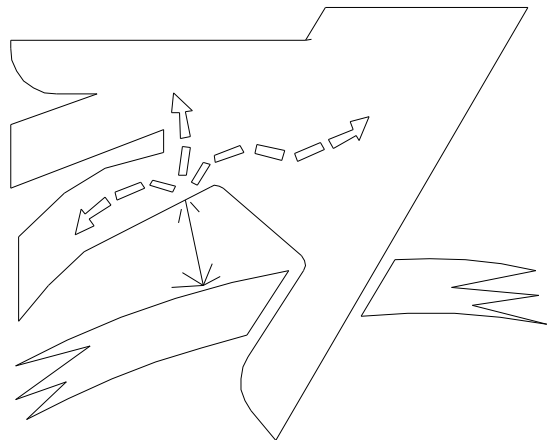
AVOID HIGH-PRESSURE FLUIDS

ESCAPING FLUID UNDER PRESSURE CAN
PENETRATE THE SKIN CAUSING SERIOUS
INJURY.

AVOID THE HAZARD BY RELIEVING PRESSURE
BEFORE DISCONNECTING HYDRAULIC OR OTHER
LINES. TIGHTEN ALL CONNECTIONS BEFORE
APPLYING PRESSURE.

SEARCH FOR LEAKS WITH A PIECE OF
CARDBOARD. PROTECT HANDS AND BODY FROM
HIGH PRESSURE FLUIDS.

IF AN ACCIDENT OCCURS, SEE A DOCTOR
IMMEDIATELY. ANY FLUID INJECTED IN THE
SKIN MUST BE SURGICALLY REMOVED WITHIN
A FEW HOURS OR GANGRENE MAY RESULT.
DOCTORS UNFAMILIAR WITH THIS TYPE OF
INJURY SHOULD REFERENCE A KNOWLEDGEABLE
MEDICAL SOURCE.

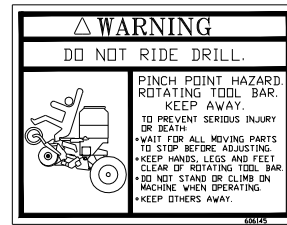


Safety Decals

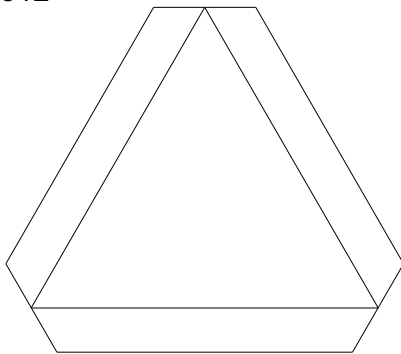
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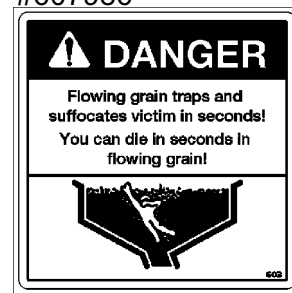
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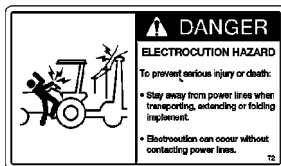
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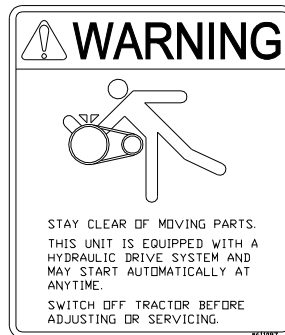
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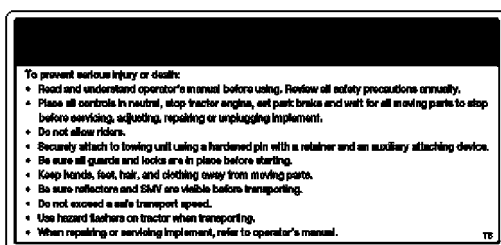
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#608018



#608026



#602151



#602177



Hitching to Tractor

The drill is equipped with a telescoping category II draw bar hitch or an optional 2 point hitch (category III).

Secure drill clevis to tractor draw bar with an adequate size hitch pin (Hitch pin is commonly supplied with tractor.)



Never use an unsecured pin in draw bar.



Attach safety chain from drill to tractor draw bar supports.

Hydraulic Connections to Tractor



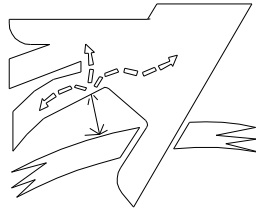
AVOID HIGH-PRESSURE FLUIDS

ESCAPING FLUID UNDER PRESSURE CAN PENETRATE THE SKIN CAUSING SERIOUS INJURY.

AVOID THE HAZARD BY RELIEVING PRESSURE BEFORE DISCONNECTING HYDRAULIC OR OTHER LINES. TIGHTEN ALL CONNECTIONS BEFORE APPLYING PRESSURE.

SEARCH FOR LEAKS WITH A PIECE OF CARDBOARD. PROTECT HANDS AND BODY FROM HIGH PRESSURE FLUIDS.

IF AN ACCIDENT OCCURS, SEE A DOCTOR IMMEDIATELY. ANY FLUID INJECTED IN THE SKIN MUST BE SURGICALLY REMOVED WITHIN A FEW HOURS OR GANGRENE MAY RESULT. DOCTORS UNFAMILIAR WITH THIS TYPE OF INJURY SHOULD REFERENCE A KNOWLEDGEABLE MEDICAL SOURCE.



Hydraulic hoses are clamped and labeled in circuit pairs.

Fan Motor

The first hose connection to be made should be the case drain hose of the fan drive motor. This zero pressure connection is a flat face coupler which is only to be connected to the tractor hydraulic sump.

The fan drive motor hoses are large 3/4" diameter hoses. The fan is only driven one direction so the return hose can be routed to the SCV port or tractor hydraulic sump. Make sure fan turns the correct direction (*Figure FF*).

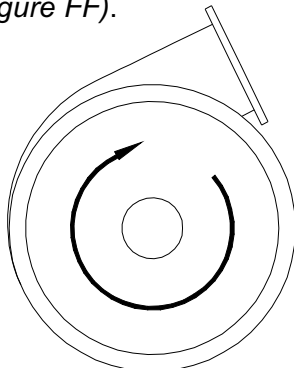


Figure FF

Telescoping Hitch Cylinder

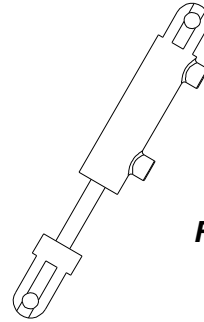


Figure TH

This hydraulic cylinder is located at the front of the drill so these hoses go directly to SCV on tractor. This cylinder controls the levelness of the drill and lifts front of hitch in transport (*Figure TH*).

The next two hydraulic circuits are connected to electric solenoid selector valves.

One hydraulic circuit operates the disk opener lift cylinders and wing wheel cylinders. The second circuit is selected between the fold and the seed meter hydraulic motor drive.

In summary, four SCV outlets and one zero pressure case drain port is required.

SCV	Function	Oil Flow @2200 psi
No. 1	Telescoping hitch cylinder	5 to 8 GPM
No. 2 with case drain	Fan motor	3 to 8 GPM (If tractor has a priority circuit, connect the fan motor to it.)
No. 3	Disk opener lift and wing wheel	12 to 16 GPM
No. 4	Drill fold cylinder and seed meter drive	3 to 8 GPM

How the electric solenoid valves are switched will be explained in the **Fold and Field Operation Section**. (*Page 12*)

The hydraulics on the drill are charged and purged of air at the factory. Unless the hydraulic circuits are opened and drained for service or repair, no purging or bleeding of air is required.

Hitching to Tractor

Electrical Connections to Tractor

Shut off tractor and lights and accessories before making electrical connection to drill.

A 24 foot long tractor harness (*Part No. 614966*) is supplied with the 4560 drill. This harness has 3/8" diameter ring terminals on one end, a 4 prong male connector at 15 feet, and a 4 place female connector at the other end.

The 3/8" diameter ring terminals are connected to **12 volt** battery terminals.



Black wire to **POSITIVE 12 volt**.



White wire to **NEGATIVE 12 volt**.

The brake controller (*Part No. 615021*) is plugged into the middle connector of the tractor harness. The brake controller is then routed into back of tractor cab for easy access to the operator.

The end 4 place connector is connected to the 4560 drill harness. This plug is next to the 7 pin light plug.

Connect the 7 pin light plug to the 7 pin light receptacle on the tractor.

Secure the tractor and drill harnesses so they are not damaged by pinching or dragging.

These connections supply 12 volt electrical power to the electrical boxes on the left side of the seed tank front leg. This power is for the electric actuators used to open and close seed meter gate and electric brakes.

Also included in the harness is power for lights and brake control.

Electronic Connection to Tractor

The drill is equipped with modules and harness compatible with ISO 11783 guidelines. This requires the tractor to be equipped with a virtual terminal, tractor ECU and harness.

The drill is connected to the tractor through the ISO BUS 9 pin Deutsch connector.

This ISO BUS connection provides control of the seed meter drive and monitors row blockage, fan speed, seed hopper level and pressure.

Transport



When transporting drill, be aware you are towing a 48,000 lb. load with 18,000 lb. hitch weight.

DO NOT EXCEED 15 MPH!

Take appropriate precautions when stopping and turning.

- Use an adequate hitch pin.
- **NEVER** use an unsecured pin in draw bar.
- Make sure safety chain is in place.
- Lug bolts should be checked prior to towing, after 1 mile of transport, within the next 20 miles and periodically thereafter. Check hub for looseness and excess heating.



CAUTION:

Your drill weighs more than the towing vehicle.

EXERCISE EXTREME CAUTION!

The drill is equipped with electric powered hydraulic brakes. To operate these brakes, push the button on the brake controller, or apply tractor brakes. Electric brakes are activated by tractor brake light circuit.

MAXIMUM ALLOWABLE SPEED - 15 MPH



NEVER ALLOW ANYONE TO RIDE THE DRILL!

Proper tire inflation is necessary for acceptable tire wear and safe transport. Make sure all tires are properly inflated.

Center Frame Tires-

Size 445/50R 22.5 at 120 psi

Wing Frame Tires-

Size 11L x 15 -8 ply at 60 psi



Be sure warning lights are operating properly and SMV sign is unobstructed.

Fold and Unfold Instructions

- Folding and unfolding of drill should be done on level ground with the tractor transmission in neutral.



- Stay clear of drill during the fold and unfold operation.
- Operate tractor hydraulics slowly while folding and unfolding drill.

To Unfold:

Note: The fold and unfold system on this drill is electric over hydraulic system. The system must have power in order to prevent damage to the implement. When unit is folded up in transport the two indicator lights located above the fan should be on which indicates that power is to the system.

1. Lower the wing wheels all the way down.

Note: The wing wheels must be lowered before the opener bars can be lowered to prevent damage to the wing wheels. They also must be down all the way in order to prevent tires from hitting opener bar in the field.

2. Lower hitch so transport pins will clear holder when wing is unfolded.
3. Put tractor in to neutral and begin to unfold the wings.

Note: As wings begin to unfold, one of the indicator lights should go off. This is indicating that Valve #2 has been switched from **Wing Tires to Opener Bars**.

4. Once wings have been unfolded all the way and the pull bar lock has been engaged, you can now lower opener bars to field operating height.

Note: Once opener bars on wings go down part of the way, the second indicator light should go off. This is switching Valve #1 from **Fold to Hydraulic Drive**.

5. Implement is now in field operating mode and ready for use.

To Fold:

1. Raise openers up until they are all the way up.

Note: One of the indicator lights (located above the fan) should come on before the opener bars are all the way up. This light indicates that valve #1 has now been selected from **Hydraulic Drive to Fold**.

2. Put the tractor into neutral and begin to fold wings inward. Once wings begin to get close to the hitch, the tongue may need to be lowered in order for transport pins to engage wings.

Note: The second indicator light should come on before wings are all the way in. Once the light has come on this indicates that valve #2 has now been selected from **Opener Bar to Wing Tires**.

3. Raise tongue or hydraulic hitch until transport pins begin to engage wings.
4. Raise wing tires until all four wheel arms are all the way up.

Note: The wheel arms will not all go up at the same time. The operator needs to make sure that they are up all the way for proper transport clearance.

5. Raise hitch all the way up to insure proper road clearance. You are now ready for transport.

Note: The above fold sequence is achieved by wisker switches turning on and off electric over hydraulic selector valves. Wisker switch #1 is located on the left wing and should make contact with opener bar before opener bar is all the way up. This switch operates Selector Valve #1 which selects from **Hydraulic Drive to Fold**. Wisker switch #2 is located at the front of the tongue by the jack. This switch should make contact before wings are all the way in. This switches Selector Valve #2 from **Opener Bars to Wing Tires**.

Walkway Ladder

The lower section of the ladder swings down for access. This ladder section is held up by a spring loaded pin located at the upper right corner of the lower ladder section.

Pull the pin out and lower ladders section.

To stow ladder, fold section up and latch with pin.



Make sure ladder is securely latched for transport and planting.



Watch your step on walkways, steps, and ladders.

Grain Hopper

To Open Lids:

To open lids pull spring loaded pin to free T-handle lid latch to rotate. (Page 17)

Be careful when working around lids not to damage lid seal. For air system to operate properly, the tank must be air tight.

To Close Lids:

Make sure seal and seal area is clean of seed and debris before closing lid. Close lid and latch by rotating lid latch until spring loaded pin engages hole in handle.



Keep lids closed to keep out rodents and debris. This tank is a confined space and has suffocation and toxic chemical risks.

The hoppers are equipped with screens. These screens are made to catch large objects which could damage meter rotors. After each tank filling, the screens should be cleaned of debris. Screens may be lifted out of tank for cleaning.

Leave the screen in place during normal operation.

Tank Material Gates

Each meter has 3 material gates. One above meter and two below.

The gate above the meter stops material from flowing out of the tank and into the meter housing. If the meter needs cleaned or serviced this gate can be closed. Meter service can take place without emptying the seed hopper. This gate is opened and closed by electrical actuators. A switch box, mounted on the left front leg of the seed hopper, powers and controls the actuators. Use the

switches to select between left and right meter and opening and closing. Make sure gate is fully open during calibration and planting.

The two gates located on the bottom of the meter are for emptying the tank and cleaning the meter.

Note: The meter on the LEFT side of the seed hopper meters seed for the RIGHT side of the drill and the RIGHT meter delivers seed for the LEFT side of drill.

It is best to close the upper electric gate before opening either lower gate. This will prevent accidentally emptying seed hopper content.

The outside of each meter is the inlet side of the air stream. This side is therefore the inlet side of seed and is directly below the seed hopper opening. Be cautious when opening this gate. It may have considerable pressure from the weight of grain above it.



Make sure upper gate is closed.

Forty to fifty pounds of seed may be in the meter. A funnel (*Item #6, Page 29*) provided to catch the seed when the gates are opened.

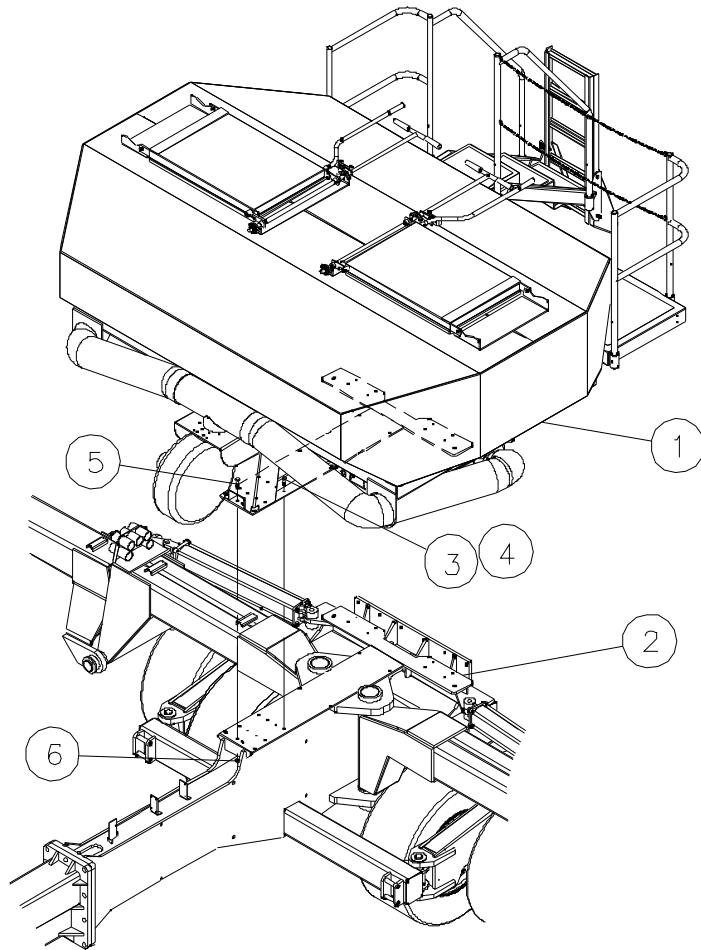
The gates are held shut by latches. Each latch has a small safety catch which must be pushed down to free main latch.

Once the lower gate is removed, the upper gate can be opened and closed with electric control.

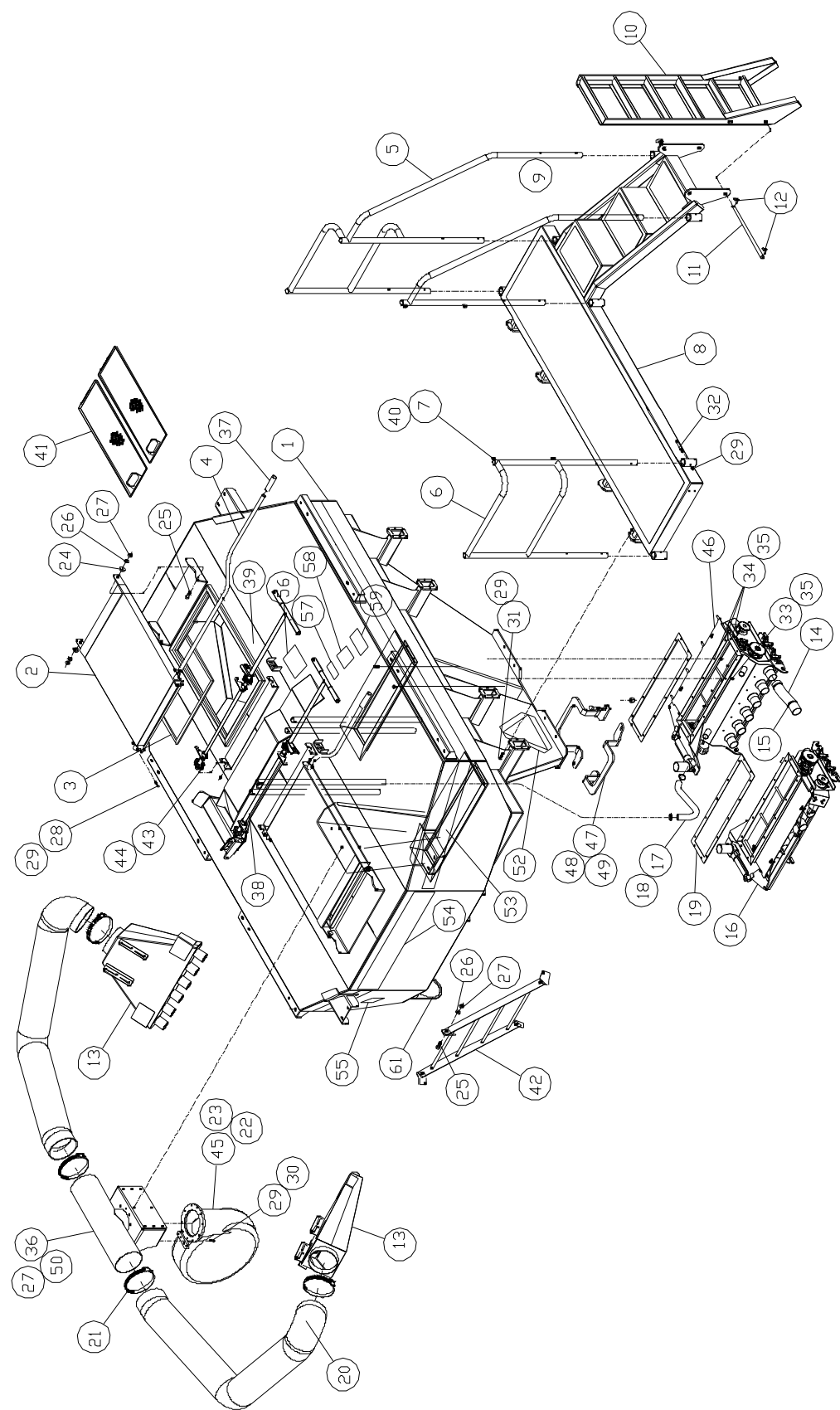
The inboard gate, or cover, provides access to the outlet side of the meter. This cover is removed to clean meter and for calibration of seed rate. This gate is equipped with the same type of latch as the outboard gate.

Tank & Frame

Item	Qty	Part No.	Description
1	1	879205	Tank
2	1	879023	Frame
3	16	331926	Bolt 1/2" x 2"
4	16	331363	Nylock 1/2"
5	4	01071000	Bolt 5/8" x 2"
6	4	01572700	Nylock 5/8"



Tank

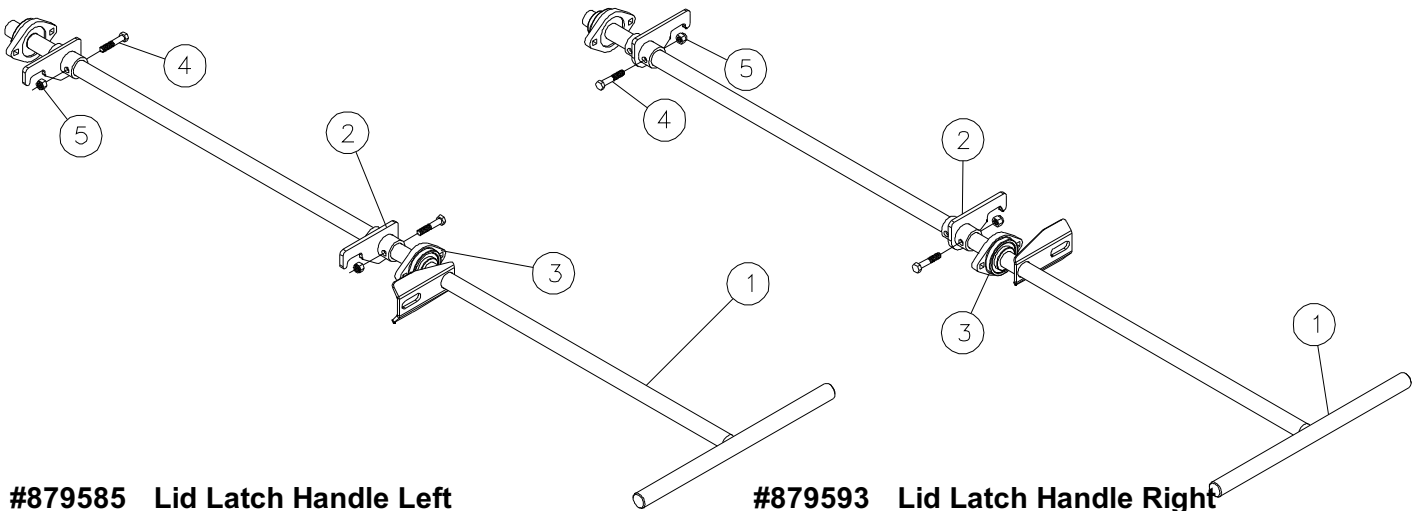


Tank

#879205 Tank Assembly

Item	Qty	Part No.	Description
1	1	975755	Tank
2	2	975821	Lid
3	20'	613000	Rubber Seal 3/4" x 3/4" xFt
4	2	156950	Lid Handle
5	1	975797	Stair Handrail Right
6	1	975789	Catwalk Handrail Left
7	.2'	434506	Chain 2/0 Passing
8	1	975771	Catwalk
9	1	975805	Stair Handrail Left
10	1	975813	Steps
11	1	313817	Stair Rod
12	2	338392	Klik Pin 1/4" -1 3/4" Ring
13	2	975094	Eductor Nozzle -6 Inlet
14	11'	710186	Hose 2 1/2" Ureflex x Feet
15	36	606392	Clamp 2 1/2" Worm Drive
16	1	879148	Feeder -6 Fluted Left
17	7'	708131	Hose 1 1/2" ID x Feet
18	4	00242800	Clamp 1 1/2" Worm Drive
19	2	613570	Feeder Seal
20	15'	04143400	Hose 8" Kanaflex
21	4	03461100	Clamp 8" Worm Drive
22	1	613232	Fan
23	1	613240	Fan Screen
24	4	153858	Spacer Bushing
25	8	01147800	Bolt 1/2" x 1 1/2"
26	8	330159	Flat Washer 1/2"
27	8	331363	Nylock 1/2"
28	4	334243	Bolt 3/8" x 2"
29	61	330837	Nylock 3/8"
30	14	335703	Bolt 3/8" x 1 1/2"
31	24	337857	Bolt 3/8" x 1 3/8"
32	7	330886	Bolt 3/8" x 3"

Item	Qty	Part No.	Description
33	16	01252600	Carriage Bolt 5/16" x 1" Stainless Steel
34	12	01377100	Carriage Bolt 5/16" x 1 1/2" Stainless Steel
35	28	03933900	Nylock 5/16" Stainless Steel
36	1	976654	Fan Mount
37	6	613588	Rubber Grip
38	1	882191	Lid Latch T-Handle Left
39	1	882209	Lid Latch T-Handle Right
40	4	339226	Chain Quick Link 3/16
41	4	275669	Screen
42	1	80457500	Ladder 4'
43	8	01011600	Bolt 5/16" x 1 1/4"
44	8	331611	Nylock 5/16"
45	1	313932	Hex Shaft 7/8" x 1"
46	1	879882	Feeder -6 Fluted Right
47	2	242743	Hose Rest
48	4	01071000	Bolt 5/8" x 2"
49	4	01572700	Nylock 5/8"
50	8	01029800	Bolt 1/2" x 1"
51	1	879197	Gate Control Enclosure
52	1	604512	Decal "Slow Moving Vehicle"
53	4	03573300	Decal Striping
54	2	02004000	Decal "CBI Logo"
55	2	611087	Decal Warning "Moving Parts"
56	1	606145	Decal "Pinch Points"
57	1	05328000	Decal "Danger Hopper"
58	1	607986	Decal "Suffocation"
59	1	608000	Decal "Electrocution"
60	1	00166900	Decal "Watch Your Step"
61	4.75'	615104	Rubber Trim

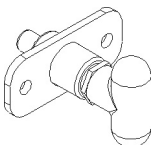


#879585 Lid Latch Handle Left

Item	Qty	Part No.	Description
1	1	980433	Lid Latch T-Handle
2	2	975847	Lid Latch
3	2	03001500	Bearing 1" Flange Mount
4	2	334243	Bolt 3/8" x 2"
5	2	330837	Nylock 3/8"

#879593 Lid Latch Handle Right

Item	Qty	Part No.	Description
1	1	980433	Lid Latch T-Handle
2	2	975847	Lid Latch
3	2	03001500	Bearing 1" Flange Mount
4	2	334243	Bolt 3/8" x 2"
5	2	330837	Nylock 3/8"



#977645 Latch Adjustment

This exploded view diagram illustrates the assembly of a complex mechanical system. The main components and their sub-assemblies are identified by numbered callouts:

- Main Frame and Structure:** Includes the main body (1), side panels (2, 4), and a large cylindrical component (20) with associated flanges (21, 23, 29, 30) and pipes (36, 50).
- Internal Mechanism:** A complex assembly (15) featuring a motor or actuator (14, 15, 16, 17, 18, 19), a drive shaft (34), and various gears and bearings (33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49).
- Accessories and Components:** Includes a ladder (5) with steps (32), a control panel or display (6), and various fasteners and connectors (7, 8, 9, 10, 11, 12, 13, 24, 25, 26, 27, 28, 31, 32, 41, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64).

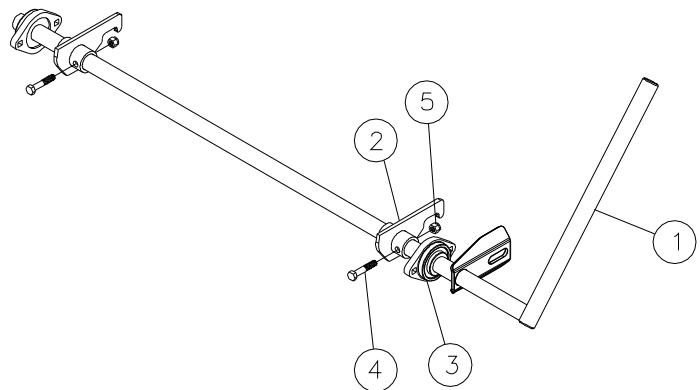
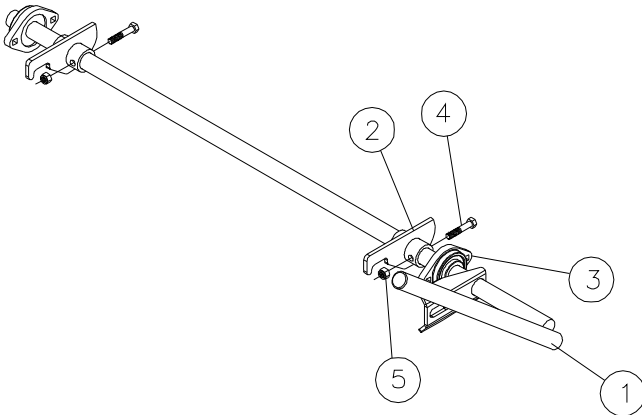
The diagram shows the spatial relationship and assembly sequence of these parts, with dashed lines indicating the alignment and fit of the components.

Tank with Auger

#881615 Tank Assembly w/Auger

Item	Qty	Part No.	Description
1	1	975755	Tank
2	2	975821	Lid
3	20'	613000	Rubber Seal 3/4" x 3/4" x Ft
4	2	156950	Lid Handle
5	1	881607	Ladder
6	1	979260	Ladder Mount
7	1	979195	Handrail Rear Left
8	1	979211	Handrail Front
9	1	979203	Handrail - Side
10	1	979187	Handrail - Rear Right
11	16	339598	Pin 3/8" x 2 1/2" Square
12	1	979229	Walkway -Front
13	2	975094	Eductor Nozzle -6 Inlet
14	11'	710186	Hose 2 1/2" Ureflex x Feet
15	36	606392	Clamp 2 1/2" Worm Drive
16	1	879148	Feeder -6 Fluted Left
17	7'	708131	Hose 1 1/2" ID x Feet
18	4	00242800	Clamp 1 1/2" Worm Drive
19	2	613570	Feeder Seal
20	15'	04143400	Hose 8" Kanaflex
21	4	03461100	Clamp 8" Worm Drive
22	1	613232	Fan
23	1	613240	Fan Screen
24	4	314690	Spacer Bushing
25	8	01147800	Bolt 1/2" x 1 1/2"
26	40	330159	Flat Washer 1/2"
27	64	331363	Nylock 1/2"
28	4	334243	Bolt 3/8" x 2"
29	30	330837	Nylock 3/8"
30	14	335703	Bolt 3/8" x 1 1/2"
31	12	337857	Bolt 3/8" x 1 3/8"
32	8	01017300	Bolt 3/8" x 1"
33	16	01252600	Carriage Bolt 5/16" x 1" Stainless Steel

Item	Qty	Part No.	Description
34	12	01377100	Carriage Bolt 5/16" x 1 1/2" Stainless Steel
35	28	03933900	Nylock 5/16" Stainless Steel
36	1	976654	Fan Mount
37	4	613588	Rubber Grip
38	1	879585	Lid Latch Handle Left
39	1	879593	Lid Latch Handle Right
40	8	980011	Riser
41	4	275669	Screen
42	1	80457500	Ladder 4'
43	8	01011600	Bolt 5/16" x 1 1/4"
44	8	331611	Nylock 5/16"
45	1	313932	Hex Shaft 7/8" x 1"
46	1	879882	Feeder -6 Fluted Right
47	2	242743	Hose Rest
48	4	01071000	Bolt 5/8" x 2"
49	4	01572700	Nylock 5/8"
50	40	01029800	Bolt 1/2" x 1"
51	1	879197	Gate Control Enclosure
52	1	604512	Decal "Slow Moving Vehicle"
53	4	03573300	Decal Striping
54	2	02004000	Decal "CBI Logo"
55	2	611087	Decal Warning "Moving Parts"
56	1	606145	Decal "Pinch Points"
57	1	05328000	Decal "Danger Hopper"
58	1	607986	Decal "Suffocation"
59	1	608000	Decal "Electrocution"
60	1	00166900	Decal "Watch Your Step"
61	4.75'	615104	Rubber Trim
62	16	334300	HHCS 1/2" x 3 1/2"
63	1	979179	Walkway -Rear Right
64	1	979161	Walkway -Rear Left



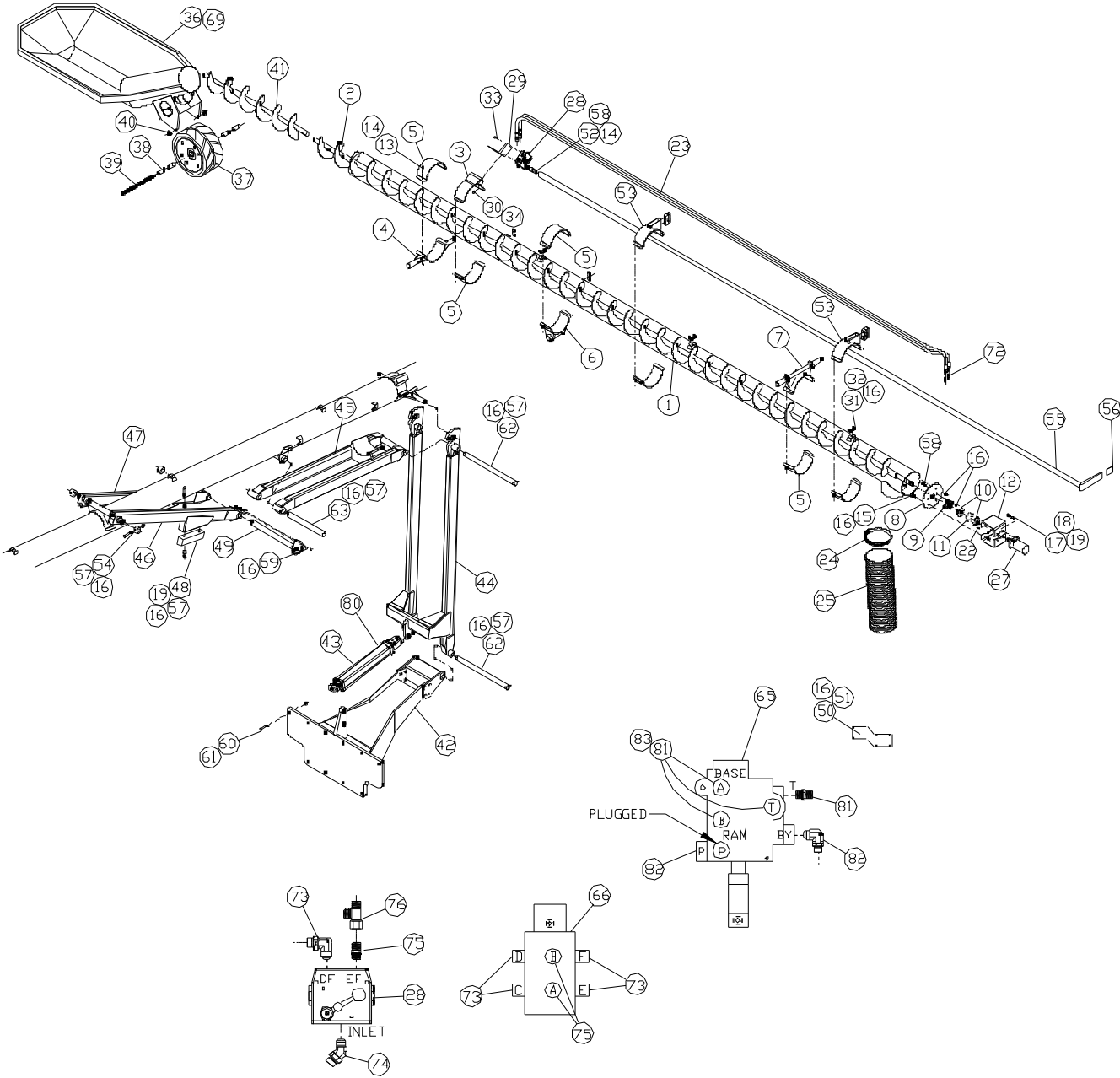
#879585 Lid Latch Handle Left

Item	Qty	Part No.	Description
1	1	975839	Lid Latch Handle Left
2	2	975847	Lid Latch
3	2	03001500	Bearing 1" Flange Mount
4	2	334243	Bolt 3/8" x 2"
5	2	330837	Nylock 3/8"

#879593 Lid Latch Handle Right

Item	Qty	Part No.	Description
1	1	980425	Lid Latch Handle Right
2	2	975847	Lid Latch
3	2	03001500	Bearing 1" Flange Mount
4	2	334243	Bolt 3/8" x 2"
5	2	330837	Nylock 3/8"

Tank Auger & Mount



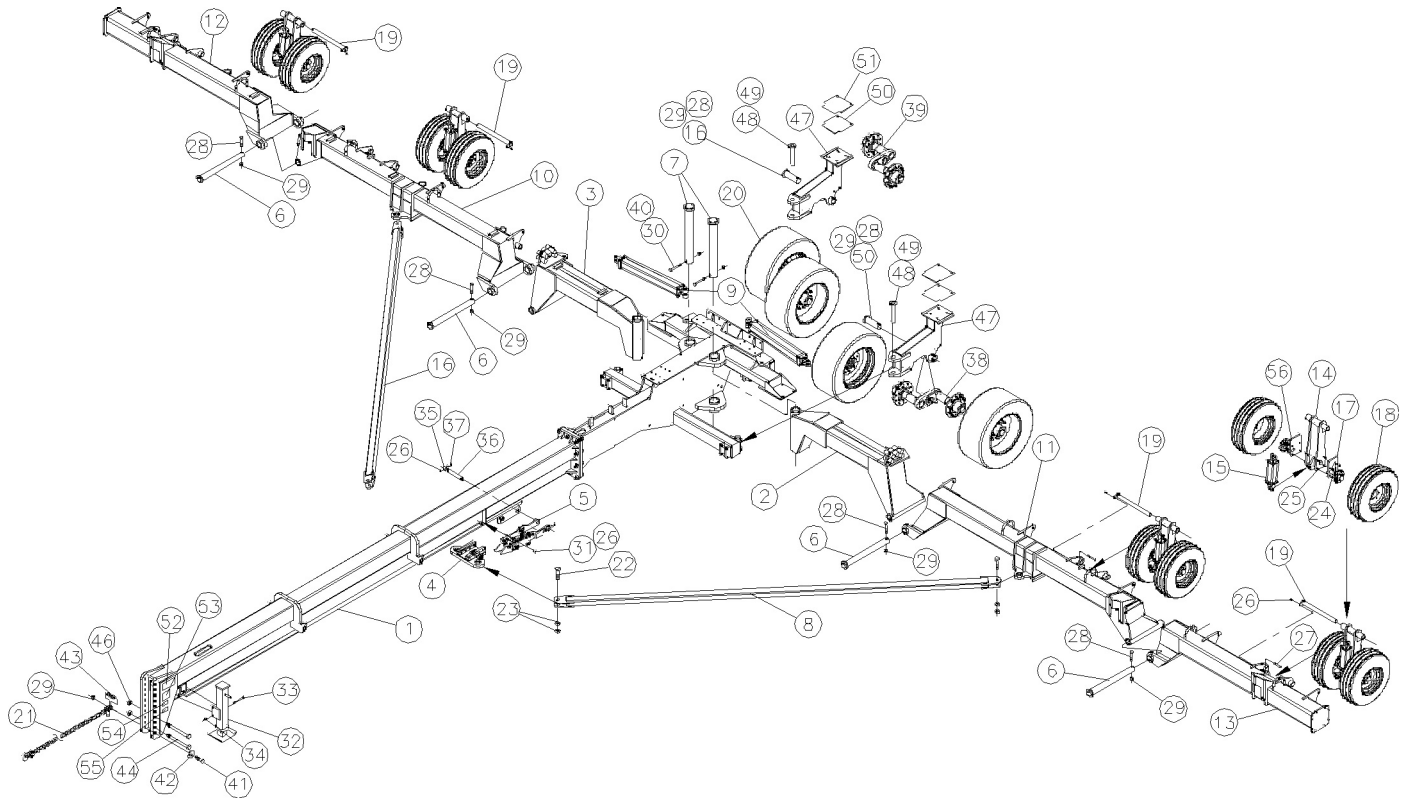
Tank Auger & Mount

#881581 Tank Auger & Mount

Item	Qty	Part No.	Description
1	1	975110	Auger Tube -8"
2	1	615625	Flighting -7" Poly
3	1	975136	Valve Mount
4	1	978817	Transport Lock
5	5	274670	Half Band 4 x 8
6	1	978809	Float Arm Mount
7	1	978825	Front Pin
8	1	240549	Auger End Cap
9	1	400754	Bearing 1 1/4" 2B Flange
10	2	05237300	Sprocket #40-16T -1" Hub
11	1	05238100	Chain #40 x 16 Coupler
12	2	240556	Motor Mount
13	24	01011600	Bolt 5/16" x 1 1/4"
14	26	331611	Nylock 5/16"
15	4	335919	Carriage Bolt 3/8" x 1 1/4"
16	19	330837	Nylock 3/8"
17	4	01145200	Bolt 3/8" x 3/4"
18	4	330043	Lock Washers 3/8"
19	9	330894	Flat Washer 3/8"
20	20'	603001	Cable Wrap
21	10	570192	Cable Tie -14"
22	1	17375700	Key 1/4" x 1"
23	2	475137	Hose 1/2" x 214 3/4" FJSw/1 1/16 FJSw
24	1	03461100	Clamp 8" Worm Drive
25	5.5'	04143400	Hose 8" Kanaflex
26	12	571299	Cable Tie -8 1/2"
27	1	03129400	Hydraulic Motor
28	1	01436500	Flow Control Valve
29	1	31989700	Flow Control Valve Bracket
30	2	331835	HHCS 1/4" x 1"
31	14	00613000	Hose Clamp 5/8"
32	5	330654	Carriage Bolt 3/8" x 1"
33	2	331850	Bolt 1/4" x 2 1/2"
34	2	330522	Nylock 1/4"
35	1	05375100	Decal -Danger Intake
36	1	979013	Air Seeder Hopper
37	1	531673	Presswheel Assy 6 x 12 Single Rib
38	4	154393	Bushing
39	1	314427	All Thread 5/8-11 x 11 1/4
40	2	01572700	Nylock 5/8"
41	1	615633	Drag Auger
42	1	881623	Auger Mount Assembly
43	1	472423	Cylinder 3 x 18
44	1	979047	Lift Arm
45	1	978791	Float Arm
46	1	979062	Swing Arm -Cam Side
47	1	979070	Swing Arm
48	1	30075600	Bumper
49	1	979021	Cam Pin
50	1	31988900	Valve Bracket
51	1	339275	U-Bolt 3/8 x 4 x 2 5/8

Item	Qty	Part No.	Description
52	1	158634	Valve / Handle Adapter
53	1	980839	Handle Half Band
54	3	157834	Collar
55	1	980847	Handle
56	1	00716100	Vinyl Cap 1/4 x 2 x 2
57	9	331884	Bolt 3/8" x 2 1/2"
58	2	01152800	HHCS 5/16" x 1 3/4"
59	2	01158500	Bolt 3/8" x 1 1/4"
60	10	335174	Bolt 3/4" x 2 1/2"
61	10	330316	Nylock 3/4"
62	2	314468	Pin 1 1/2" x 21"
63	1	314450	Pin 1 1/2" x 14 3/4"
64	1	04266300	Selector Valve 1 1/16"
65	1	474981	Directional Valve Solenoid
66	1	04211600	Ag Cam 9" Quad Double Camera Kit
67	1	04242400	Ag Cam Extension Cable
68	1	278499	Light Bracket
69	1	615617	Hopper Extension
72	2	00673400	Adapter Straight 3/4 JICM/ 1/2" NPT
73	5	00607200	Adapter 90° 1 1/16 MOR/1 1/16 JICM
74	1	00601500	Adapter 45° 1 1/16 MOR/1 1/16 JICM
75	3	00590000	Adapter Straight 1 1/16 MOR/1 1/16 JICM
76	1	03556800	Adapter Tee 1 1/16 JICM-2/1 1/16 FJSw
80	2	466862	Adapter 90° Restricted 3/4 MOR/3/4 JICM
81	4	465294	Adapter Straight 3/4 MOR/3/4 JICM
82	2	465310	Adapter 90° 3/4 MOR/3/4 JICM
83	3	474130	Adapter 90° 3/4 JICM/3/4 FJSw
84	2	00556100	Hose 3/4" x 98" 1 1/16 FJSw
85	1	02088300	Hose 3/4" x 30" 1 1/16 FJSw
86	1	475145	Hose 3/4" x 34" 1 1/16 FJSw
87	2	472324	Hose 3/4" x 140" 1 1/16 FJSw
88	1	470203	Hose 1/2" x 32" -3/4 FJSw
89	1	465492	Hose 1/2" x 46" -3/4 FJSw
90	1	465153	Hose 1/2" x 36" -3/4 FJSw
91	1	473363	Hose 1/2" x 68" -3/4 FJSw
92	1	475152	Hose 1/2" x 240" 3/4 FJSw/ 1 1/16FJSw
93	1	475160	Hose 1/2" x 255" 3/4 FJSw/ 1 1/16FJSw

Frame



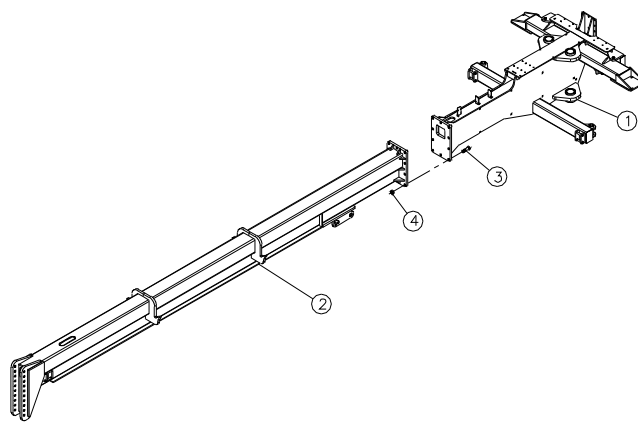
#879023 Frame

Item	Qty	Part No.	Description	Item	Qty	Part No.	Description
1	1	879015	Tongue/Center Section	27	4	330100	Bolt 1/2" x 4 1/2"
2	1	975490	Wing Mount Left	28	5	330357	Bolt 1" x 5 1/2"
3	1	975482	Wing Mount Right	29	6	330597	Nylock 1"
4	1	878926	Pull Bar Slide Assembly	30	2	335968	Bolt 1 1/2" x 8"
5	1	879007	Pivot Catch Assembly	31	1	331926	Bolt 1/2" x 2"
6	4	975516	Pin 3"	32	1	976118	Jack
7	2	975524	Pin 4 1/2"	33	2	331579	Bolt 3/4" x 7 1/2"
8	2	975581	Pull Arm	34	2	330316	Nylock 3/4"
9	2	474288	Cylinder 5 x 36 -2" Rod	35	1	156836	Lock Collar
10	1	878967	Wing Inside Right	36	1	313742	Arm Pin
11	1	878975	Wing Inside Left	37	2	334946	Bolt 1/2" x 3"
12	1	878983	Wing Outside Right	38	1	879452	Tandem Axle Left
13	1	878991	Wing Outside Left	39	1	879460	Tandem Axle Right
14	4	975573	Wheel Mount	40	2	331082	Hex Nut 1 1/2"
15	4	474296	Cylinder 4 x 10 -1 1/2" Rod	41	1	334870	Bolt 1" x 4"
16	2	975599	Pin 3" x 8 35/64"	42	1	20442000	Safety Chain Washer
17	4	881011	Spindle-Hub Assembly Left	43	4	335166	Machine Bushing
18	8	815175	Mounted Tire				1" x 10 ga
		530329	Tire Only 11L x 15 8 Ply	44	2	339366	Bolt 1 1/4" x 11"
		530147	Rim 6 Bolt 15 x 10				
		530287	Valve Stem	46	2	338228	Nylock 1 1/4"
		02990000	Safety Decal	47	2	976506	Swing Out Axle
19	4	974261	Pin 2" x 24 3/8"	48	2	976779	Pin 2" x 12 1/8"
20	4	531616	Mounted Tire	49	2	331272	Cotter Pin 3/8" x 3 1/2"
			445/50R22.5-13" 10 bolt	50	2	277921	Shim 10ga- As Needed
21	1	433953	Safety Chain 41,100#	51	2	277939	Shim 14ga-As Needed
22	4	338863	Bolt 1 1/2" x 6"	52	1	608026	Decal -Warning (10pt)
23	8	331074	Jam Nut 1 1/2"	53	1	608018	Decal -Warning Hydraulic Fluid
24	32	01572700	Nylock 5/8"	54	1	602151	Decal -"Fold"
25	32	336321	Bolt 5/8" x 2 1/4"	55	1	602177	Decal -"Lift"
26	7	331363	Nylock 1/2"	56	4	881029	Spindle-Hub Assembly Right

Center Frame

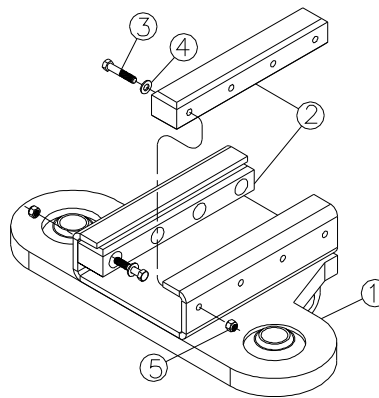
#879015 Tongue / Center Section

Item	Qty	Part No.	Description
1	1	975466	Center Section
2	1	975474	Tongue
3	10	333823	Bolt 1 1/4" x 4 1/2"
4	10	338228	Nylock 1 1/4"



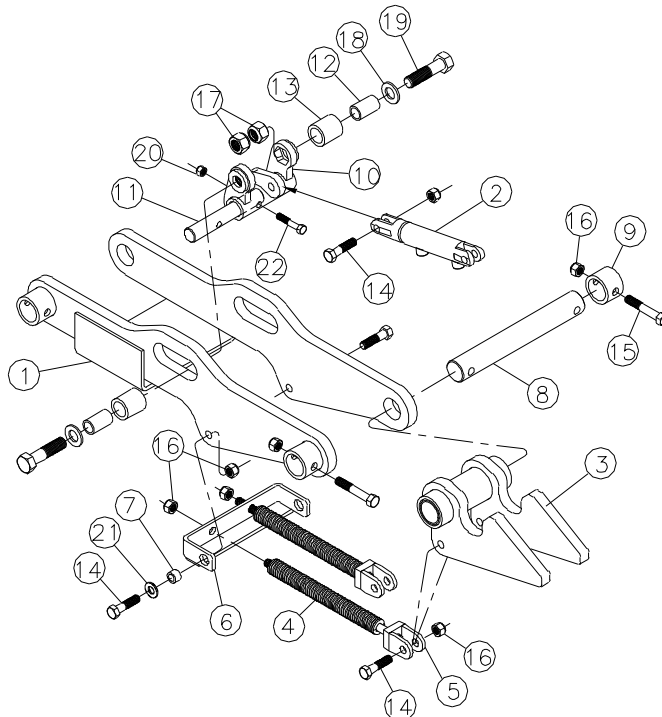
#878926 Pull Bar Slide

Item	Qty	Part No.	Description
1	1	975508	Slide
2	2	572313	UHMW Pad
3	8	334243	Bolt 3/8" x 2"
4	8	330894	Flat Washer 3/8"
5	8	330837	Nylock 3/8"



#879007 Pivot Catch

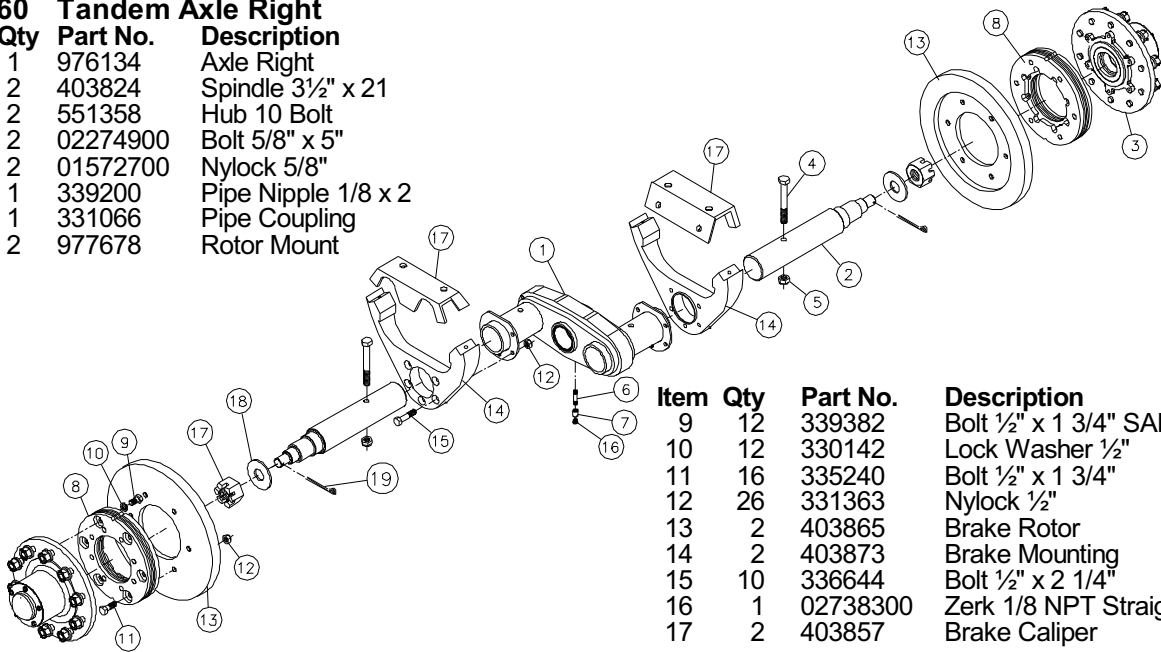
Item	Qty	Part No.	Description
1	1	975607	Pivot Arm
2	1	471854	Cylinder 1" x 2"
3	1	642348	Pivot Catch
4	2	502567	Spring 250# Die
5	2	975615	Pivot Guide
6	1	975623	Spring Retainer
7	2	149732	Spacer
8	1	313742	Arm Pin
9	1	156836	Lock Collar
10	1	975631	Pivot
11	1	313759	Pivot Pin
12	2	156851	Roller Spacer
13	2	156869	Pivot Roller
14	5	331926	Bolt 1/2" x 2"
15	2	334946	Bolt 1/2" x 3"
16	8	331363	Nylock 1/2"
17	2	330316	Nylock 3/4"
18	2	330340	Flat Washer 3/4"
19	2	02307700	Bolt 3/4" x 3"
20	1	330837	Nylock 3/8"
21	2	330159	Flat Washer 1/2"
22	1	334243	Bolt 3/8" x 2"



Center Frame

#879460 Tandem Axle Right

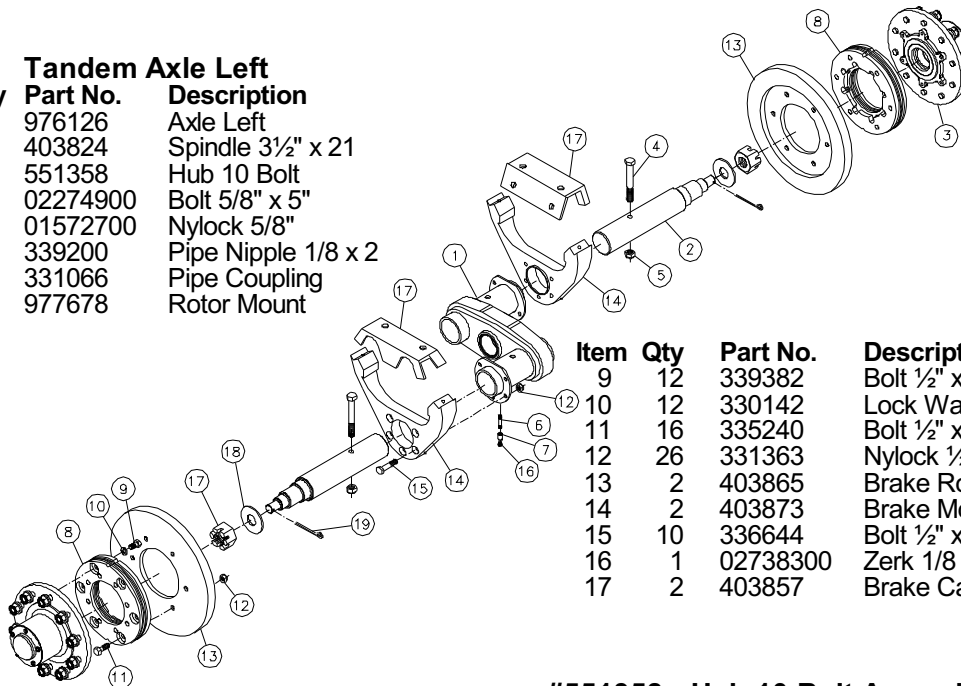
Item	Qty	Part No.	Description
1	1	976134	Axle Right
2	2	403824	Spindle 3½" x 21
3	2	551358	Hub 10 Bolt
4	2	02274900	Bolt 5/8" x 5"
5	2	01572700	Nylock 5/8"
6	1	339200	Pipe Nipple 1/8 x 2
7	1	331066	Pipe Coupling
8	2	977678	Rotor Mount



Item	Qty	Part No.	Description
9	12	339382	Bolt ½" x 1 3/4" SAE
10	12	330142	Lock Washer ½"
11	16	335240	Bolt ½" x 1 3/4"
12	26	331363	Nylock ½"
13	2	403865	Brake Rotor
14	2	403873	Brake Mounting
15	10	336644	Bolt ½" x 2 1/4"
16	1	02738300	Zerk 1/8 NPT Straight
17	2	403857	Brake Caliper

#879452 Tandem Axle Left

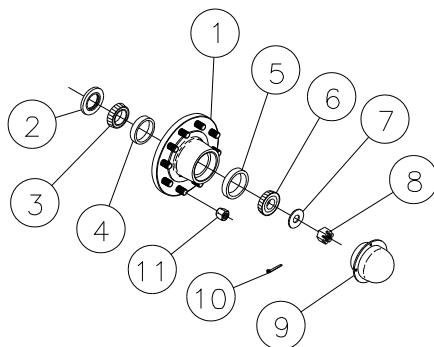
Item	Qty	Part No.	Description
1	1	976126	Axle Left
2	2	403824	Spindle 3½" x 21
3	2	551358	Hub 10 Bolt
4	2	02274900	Bolt 5/8" x 5"
5	2	01572700	Nylock 5/8"
6	1	339200	Pipe Nipple 1/8 x 2
7	1	331066	Pipe Coupling
8	2	977678	Rotor Mount



Item	Qty	Part No.	Description
9	12	339382	Bolt ½" x 1 3/4" SAE
10	12	330142	Lock Washer ½"
11	16	335240	Bolt ½" x 1 3/4"
12	26	331363	Nylock ½"
13	2	403865	Brake Rotor
14	2	403873	Brake Mounting
15	10	336644	Bolt ½" x 2 1/4"
16	1	02738300	Zerk 1/8 NPT Straight
17	2	403857	Brake Caliper

#551358 Hub 10 Bolt Assembly

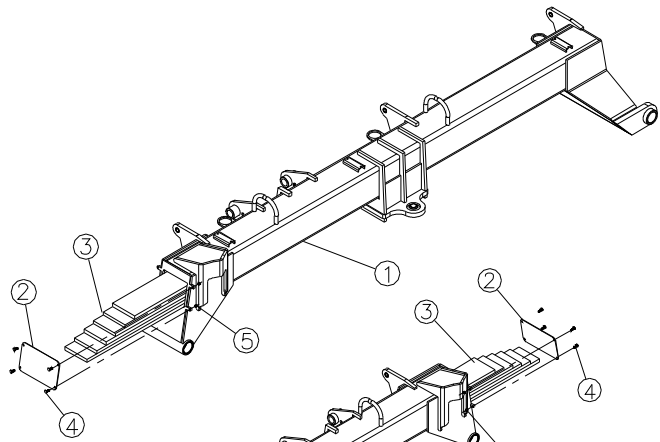
Item	Part No.	Description
1	551366	Hub w/cups only
2	402428	Grease Seal
3	403410	Inner Bearing
4	403402	Inner Cup
6	402800	Outer Bearing
7	402842	Spindle Washer
8	402859	Spindle Nut 1 1/4" Castle
9	402818	Dust Cap
10	330530	Cotter Pin 1/4" x 2 1/4"
11	403352	Wheel Nut 3/4-16 Flange
	337899	Replacement Bolt 3/4"-16 x 2 13/16"



Wings

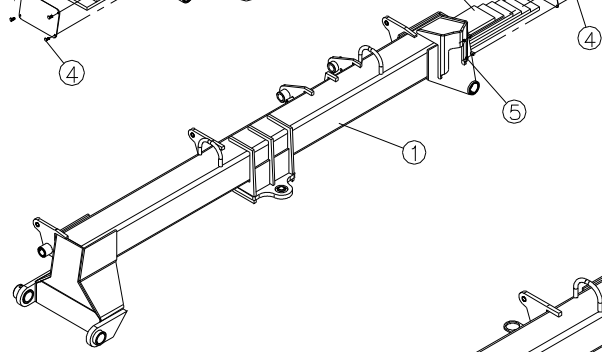
#878967 Inside Wing Right w/Weights

Item	Qty	Part No.	Description
1	1	975532	Inside Wing Right
2	1	275040	End Cap
3	6	242008	Weight Bar
4	4	335919	Carriage Bolt 3/8" x 1 1/4"
5	4	330837	Nylock 3/8"



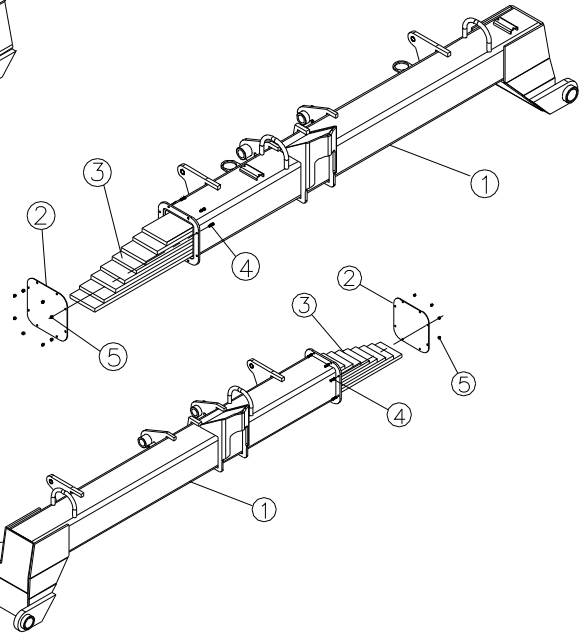
#878975 Inside Wing Left w/Weights

Item	Qty	Part No.	Description
1	1	975540	Inside Wing Left
2	1	275040	End Cap
3	6	242008	Weight Bar
4	4	335919	Carriage Bolt 3/8" x 1 1/4"
5	4	330837	Nylock 3/8"



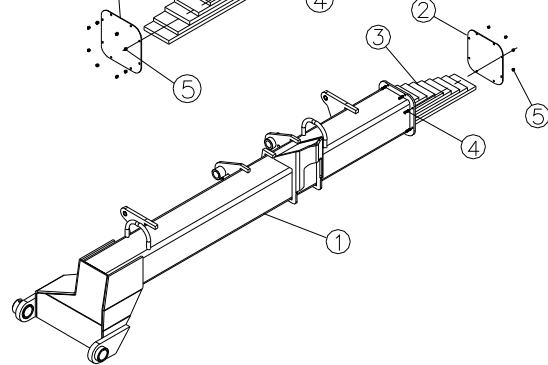
#878983 Outside Wing Right w/Weights

Item	Qty	Part No.	Description
1	1	975557	Outside Wing Right
2	1	275057	End Cap
3	8	241539	Weight Bar
4	8	01158500	Bolt 3/8" x 1 1/4"
5	8	330837	Nylock 3/8"



#878991 Outside Wing Left w/Weights

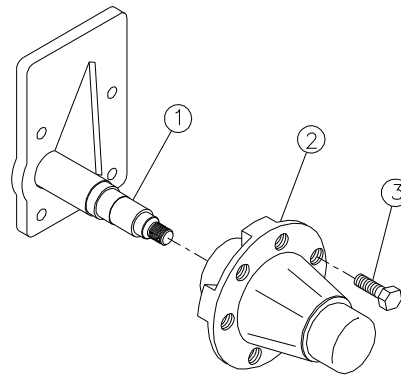
Item	Qty	Part No.	Description
1	1	975565	Outside Wing Left
2	1	275057	End Cap
3	8	241539	Weight Bar
4	8	01158500	Bolt 3/8" x 1 1/4"
5	8	330837	Nylock 3/8"



#881011 Spindle & Hub Left (Shown)

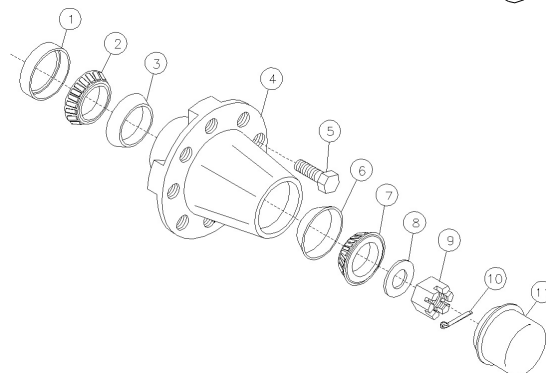
#881029 Spindle & Hub Right

Item	Qty	Part No.	Description
1	1	978296	Spindle Plate Left (Shown)
	1	978304	Spindle Plate Right
2	1	551291	Hub 6 Bolt
3	6	330464	Hub Bolt 1/2" x 1 1/4" SAE

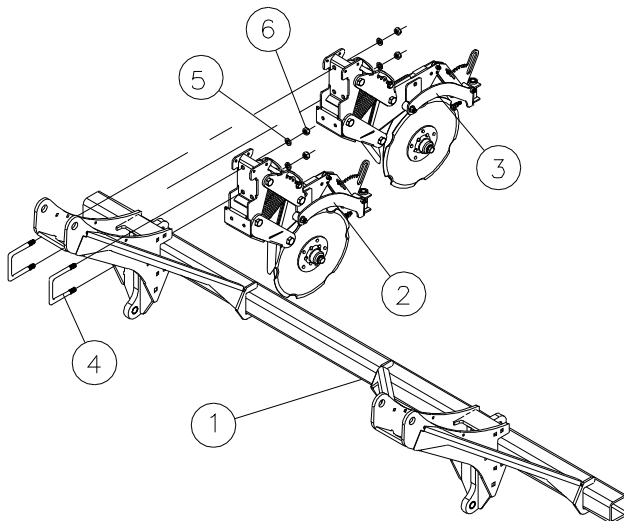


#551291 6 Bolt Hub

Item	Part No.	Description
1	400861	Grease Seal
2	400853	Inner Bearing
3	400846	Inner Cup
4	551291	Hub Complete less bolts
	550707	Hub w/cups only
5	330464	Lug Bolt 1/2" x 1 3/4" SAE
6	05742200	Outer Cup
7	05741400	Outer Bearing
8	02080000	Spindle Washer
9	331801	Spindle Nut
10	02154300	Cotter Pin
11	05703400	Hub Cap

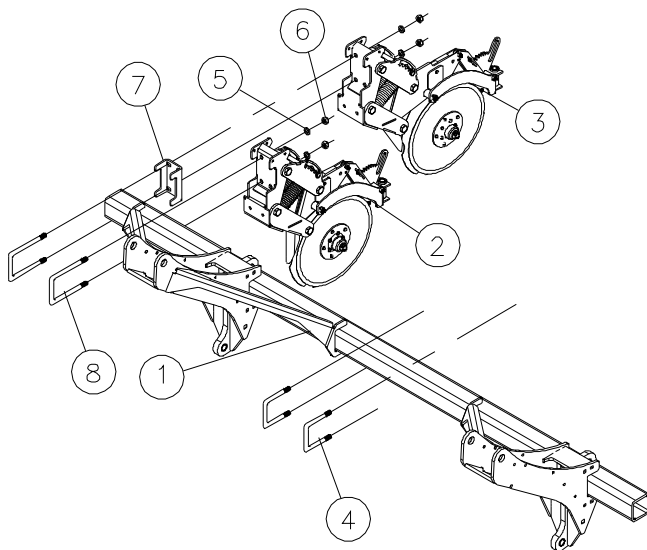


Tool Bars



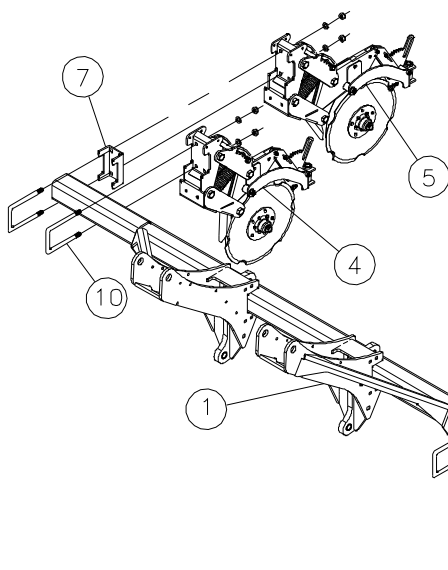
Outside Right

Item	Part No.	Description
1	975870	Tool Bar
2	871012	Opener Left Short
3	871038	Opener Left Long
4	337147	U-Bolt 5/8" x 4" x 5"
5	330878	Lock Washer 5/8"
6	330571	Hex Nut 5/8"



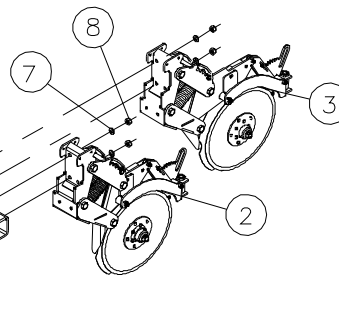
Outside Left

Item	Part No.	Description
1	975888	Tool Bar
2	871004	Opener Right Short
3	871020	Opener Right Long
4	337147	U-Bolt 5/8" x 4" x 5"
5	330878	Lock Washer 5/8"
6	330571	Hex Nut 5/8"
7	243857	Opener Spacer
8	337469	U-Bolt 5/8" x 4" x 7"

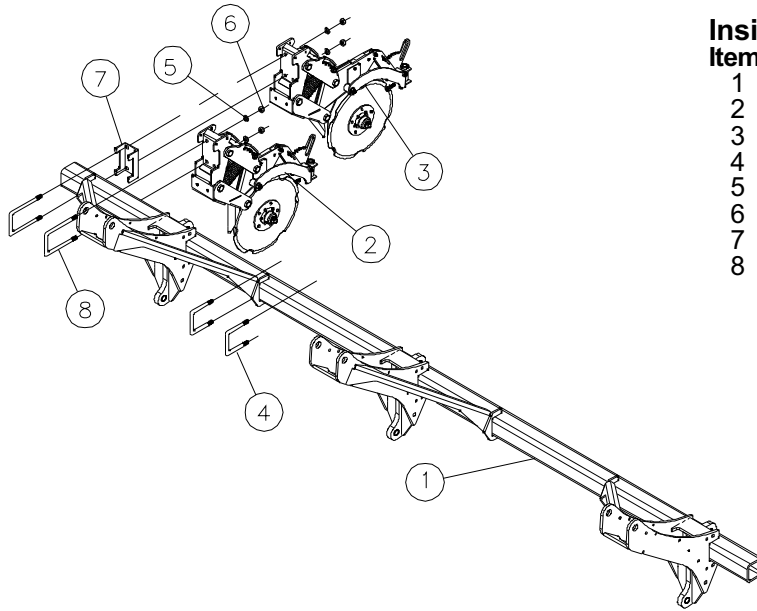


Center

Item	Part No.	Description
1	975912	Tool Bar
2	871004	Opener Right Short
3	871020	Opener Right Long
4	871012	Opener Left Short
5	871038	Opener Left Long
6	337147	U-Bolt 5/8" x 4" x 5"
7	330878	Lock Washer 5/8"
8	330571	Hex Nut 5/8"
9	243857	Opener Spacer
10	337469	U-Bolt 5/8" x 4" x 7"

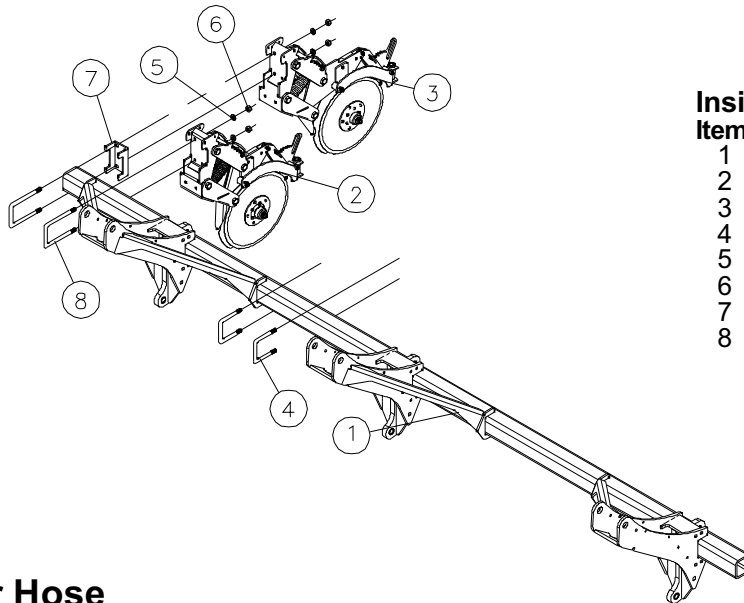


Tool Bars



Inside Right

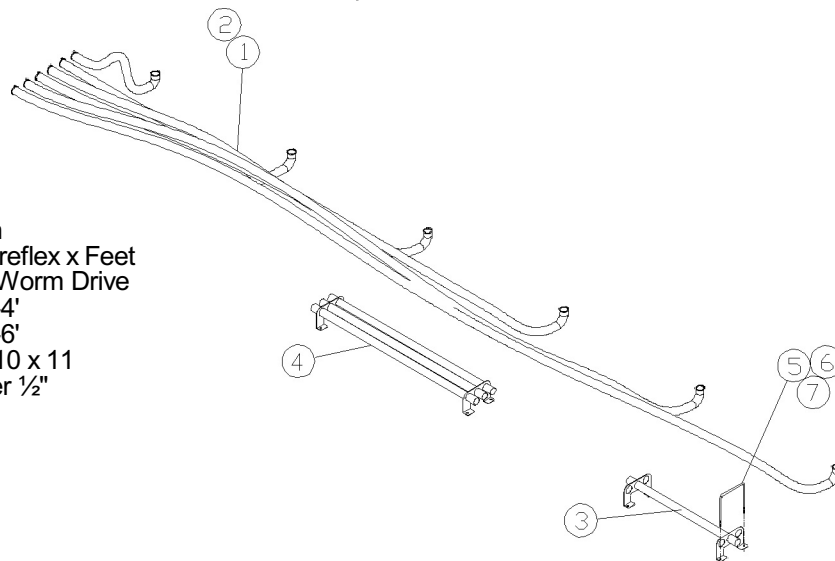
Item	Part No.	Description
1	975896	Tool Bar
2	871012	Opener Left Short
3	871038	Opener Left Long
4	337147	U-Bolt 5/8" x 4" x 5"
5	330878	Lock Washer 5/8"
6	330571	Hex Nut 5/8"
7	243857	Opener Spacer
8	337469	U-Bolt 5/8" x 4" x 7"



Inside Left

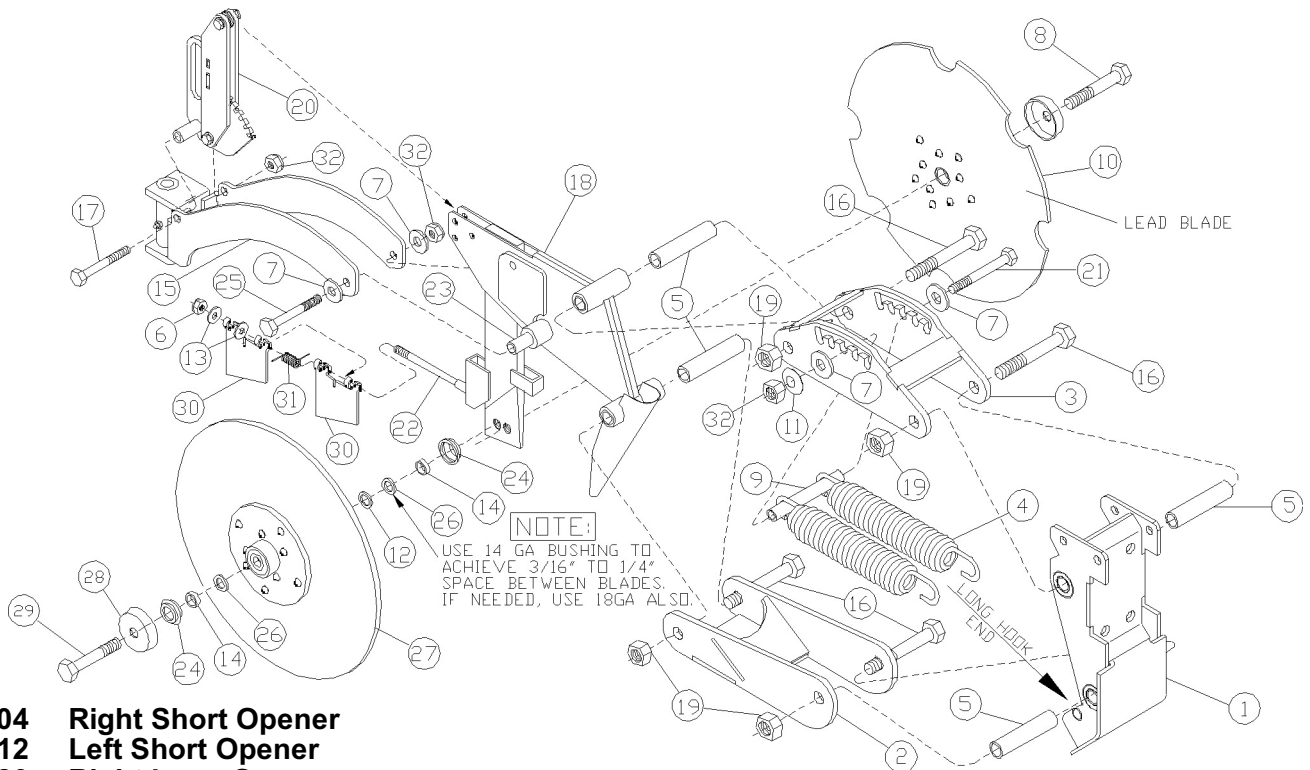
Item	Part No.	Description
1	975904	Tool Bar
2	871004	Opener Right Short
3	871020	Opener Right Long
4	337147	U-Bolt 5/8" x 4" x 5"
5	330878	Lock Washer 5/8"
6	330571	Hex Nut 5/8"
7	243857	Opener Spacer
8	337469	U-Bolt 5/8" x 4" x 7"

Air Hose



Item	Part No.	Description
1	710186	Hose 2½" Ureflex x Feet
2	606392	Clamp 2½" Worm Drive
3	977686	Hose Tube -4'
4	977694	Hose Tube -6'
5	339309	U-bolt ½" x 10 x 11
6	330142	Lock Washer ½"
7	330134	Hex Nut ½"

Openers



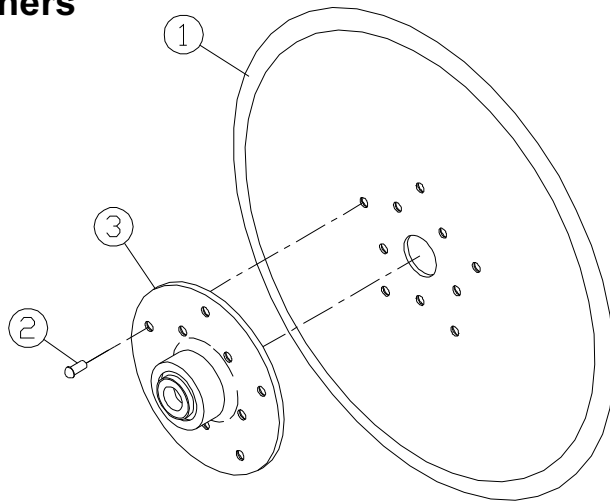
#871004 Right Short Opener
#871012 Left Short Opener
#871020 Right Long Opener
#871038 Left Long (Shown)

Item	Part No.	Description	Item	Part No.	Description
1	964692	Opener Mount	18	964817	Opener -Left Long
2	964726	Lower Arm		964800	Opener -Right Long
3	964718	Upper Arm		964791	Opener -Left Short
4	502294	Extension Spring		964783	Opener -Right Short
5	152561	Upper & Lower Arm Bushing	19	01015700	Center Lock Nut 3/4"
6	336909	Nylock Jam Nut 3/8"	20	871061	Quadrant Assembly 2006
7	330159	Flat Washer 1/2"		881631	Quadrant Assembly 2018
8	335596	Bolt 5/8" x 3" Left Hand	21	337972	Bolt 1/2" x 6" Grade 8
9	152611	Spring Bushing	22	150045	Scraper Spacer
10	845925	Blade Assembly -Notched	23	148999	Bushing .532 x .747 x 3.594
11	502302	Curved Spring Washer	24	400747	Neoprene Dust Seal
12	333351	Machine Bushing 18ga	25	338053	Bolt 1/2" x 5" Gr 8
13	330852	Flat Washer 5/16"	26	330720	Machine Bushing 14ga
14	606558	Bushing .657 x 1 x .281	27	845917	Blade Assembly -Plain
15	964908	Presswheel Swivel Bracket	28	278317	Dust Seal Cap
16	334466	Bolt 3/4" x 6	29	335620	Bolt 5/8" x 3" Right Hand
17	337865	Bolt 1/2" x 4 1/2" Gr 8	30	257048	Scraper Plate
			31	502146	Scraper Spring -Left
				502153	Scraper Spring -Right
			32	03223500	Reversible Lock Nut 1/2" Gr 8

Opener Assemblies with Smooth Blades Only

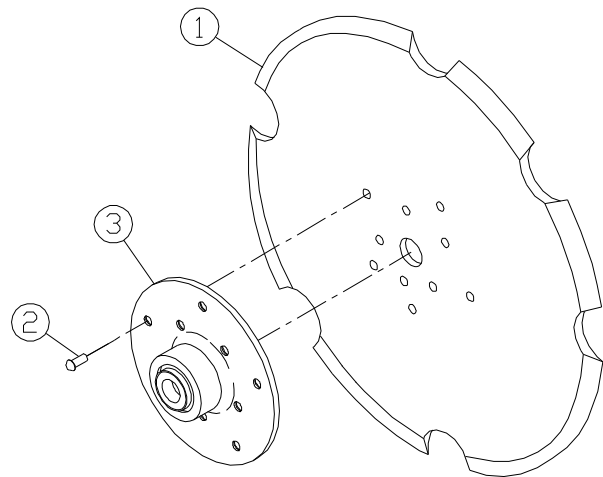
#875187 Right Short Opener
#875195 Left Short Opener
#875203 Right Long Opener
#875211 Left Long Opener

Openers



#845917 16" Blade Assembly - Plain

Item	Part No.	Description
1	502641	Blade 16" #9 Plain
2	980037	Bearing Flange
3	601351	Rivet 5/16" x 1/2" Button Head
4	401042	Bearing
5	636761	Bearing & Flange Sub-Assy (Includes Items 2 & 4)

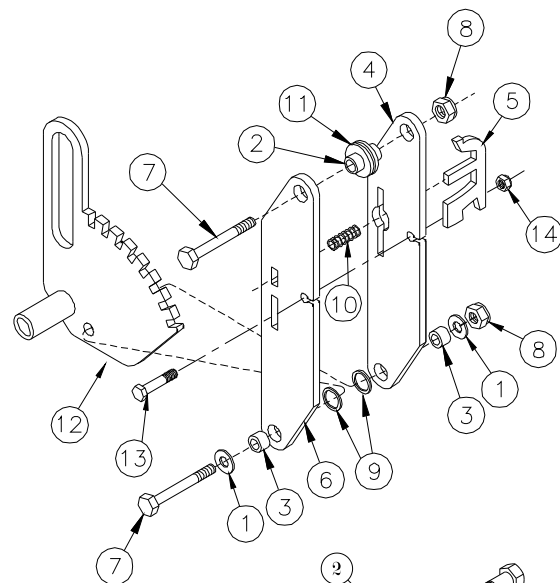


#845925 16" Blade Assembly- Notched

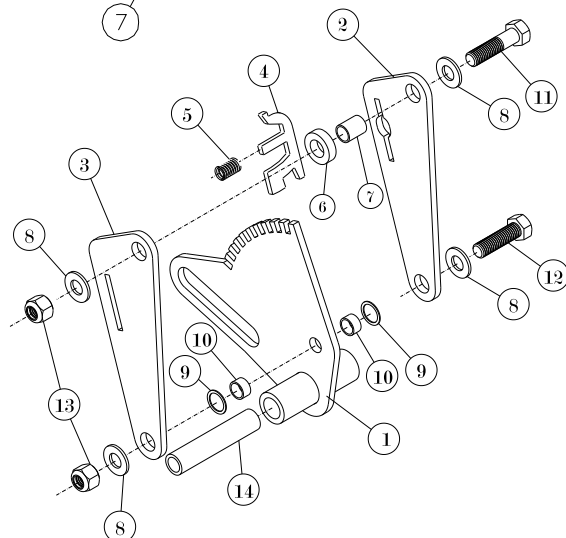
Item	Part No.	Description
1	502633	Blade 16" #9 Notched
2	980037	Bearing Flange
3	601351	Rivet 5/16" x 1/2" Button Head
4	401042	Bearing
5	636761	Bearing & Flange Sub-Assy (Includes Items 2 & 4)

#871061 Quadrant Assembly 2015

Item	Part No.	Description
1	330852	Flat Washer 5/16"
2	149385	Bushing 3/8" x 1/2" x 25/32"
3	149393	Bushing 3/8" x 1/2" x 5/16"
4	224022	Quadrant Strap Left
5	224030	Quadrant Lock Latch
6	224014	Quadrant Strap Right
7	338624	Bolt 3/8" x 1 3/4" Gr 8
8	330837	Nylock 3/8"
9	337063	Nylon Washer 1/2"
10	502310	Spring
11	604504	Grommet
12	964874	Quadrant Handle
13	330522	Nylock 1/4"
14	333633	Bolt 1/4" x 1 1/4"



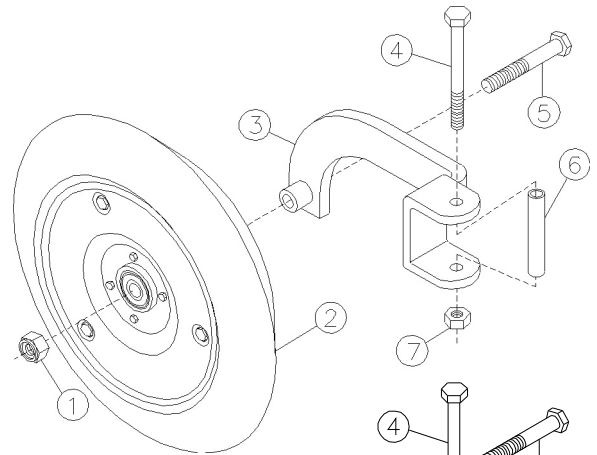
Item	Part No.	Description
1	979450	Quadrant Handle
2	249201	Quadrant Strap Right
3	249219	Quadrant Strap Left
4	224030	Quadrant Lock Latch
5	502310	Quadrant Spring
6	615740	Rubber Grommet 5/8" IDx5/16
7	615724	Bushing 1/2"ID x 25/32"
8	330159	Flat Washer 1/2"
9	572503	Nylon Bushing
10	615732	Bushing 1/2"ID x .33
11	331926	HHCS 1/2" x 2"
12	335240	HHCS 1/2" x 1 3/4"
13	331363	Nylock 1/2"
14	148999	Bushing 1/2"ID x 3 19/32



Presswheel Assemblies

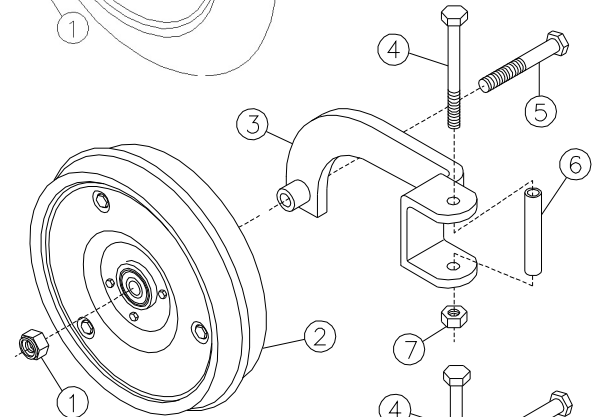
#878199 -3 x 15 V-Type

Item	Part No.	Description
1	01572700	Nylock 5/8"
2	531483	Presswheel 3 x 15 V-Type -Carlisle
3	954636	Presswheel Arm
4	338053	Bolt 1/2" x 5"
5	335182	Bolt 5/8" x 4 1/2"
6	148999	Bushing .532 x .747 x 3.594
7	03223500	Reversible Lock Nut 1/2"



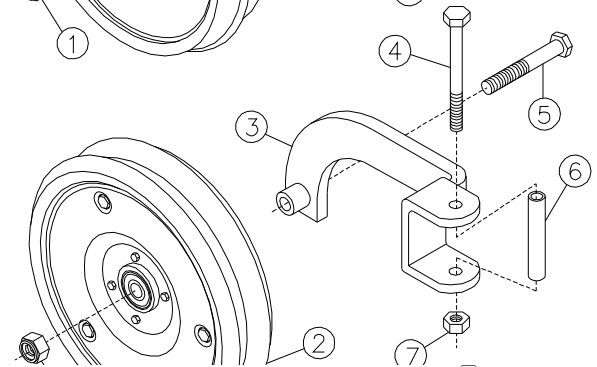
#874362 -3 x 13 Center Rib

Item	Part No.	Description
1	01572700	Nylock 5/8"
2	531111	Presswheel 3 x 13 Center Rib -Hammer
3	954636	Presswheel Arm
4	338053	Bolt 1/2" x 5"
5	331983	Bolt 5/8" x 4"
6	148999	Bushing .532 x .747 x 3.594
7	03223500	Reversible Lock Nut 1/2"



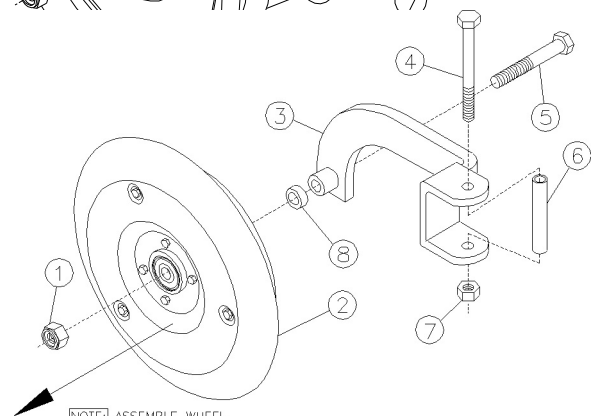
#877852 -3 x 13 Dual Rib

Item	Part No.	Description
1	01572700	Nylock 5/8"
2	531541	Presswheel 3 x 13 Dual Rib -Carlisle
3	954636	Presswheel Arm
4	338053	Bolt 1/2" x 5"
5	335182	Bolt 5/8" x 4 1/2"
6	148999	Bushing .532 x .747 x 3.594
7	03223500	Reversible Lock Nut 1/2"
8	151472	Bushing Shim



#859991 -2 x 13 Single Peaked

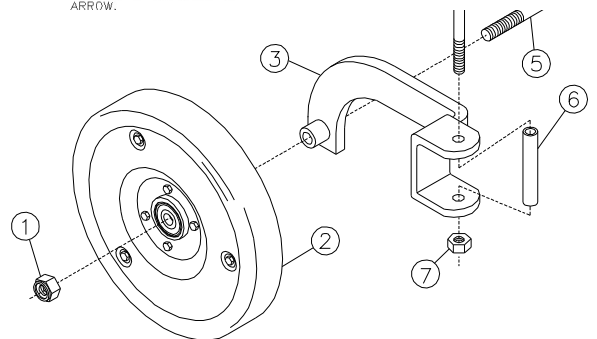
Item	Part No.	Description
1	01572700	Nylock 5/8"
2	530667	Presswheel 2 x 13 Single Peaked -Hammer
3	954636	Presswheel Arm
4	338053	Bolt 1/2" x 5"
5	331983	Bolt 5/8" x 4"
6	148999	Bushing .532 x .747 x 3.594
7	03223500	Reversible Lock Nut 1/2"



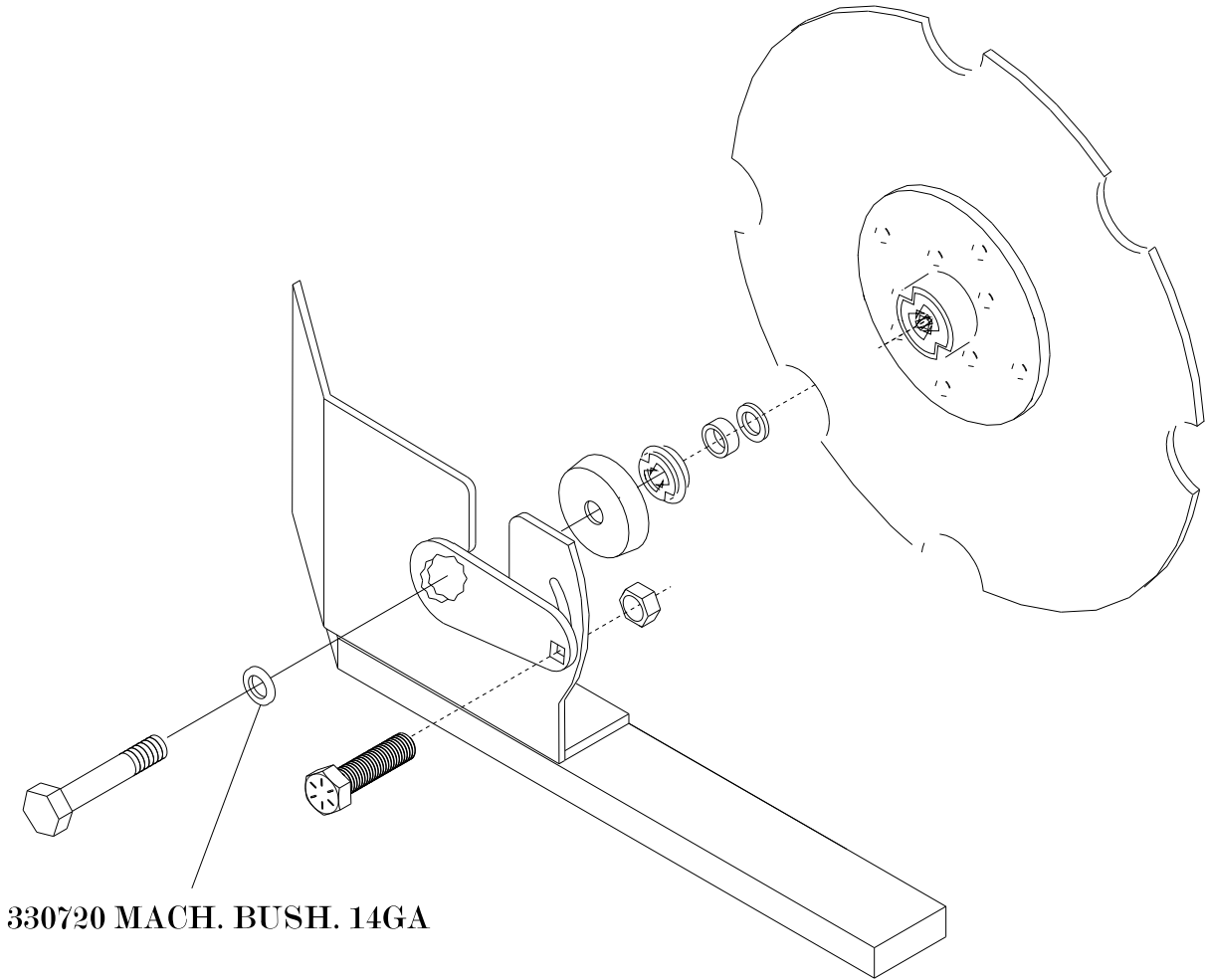
NOTE: ASSEMBLE WHEEL WITH EXTENDED RACE OF BEARING IN DIRECTION OF ARROW.

#860007 -2 x 13 Single

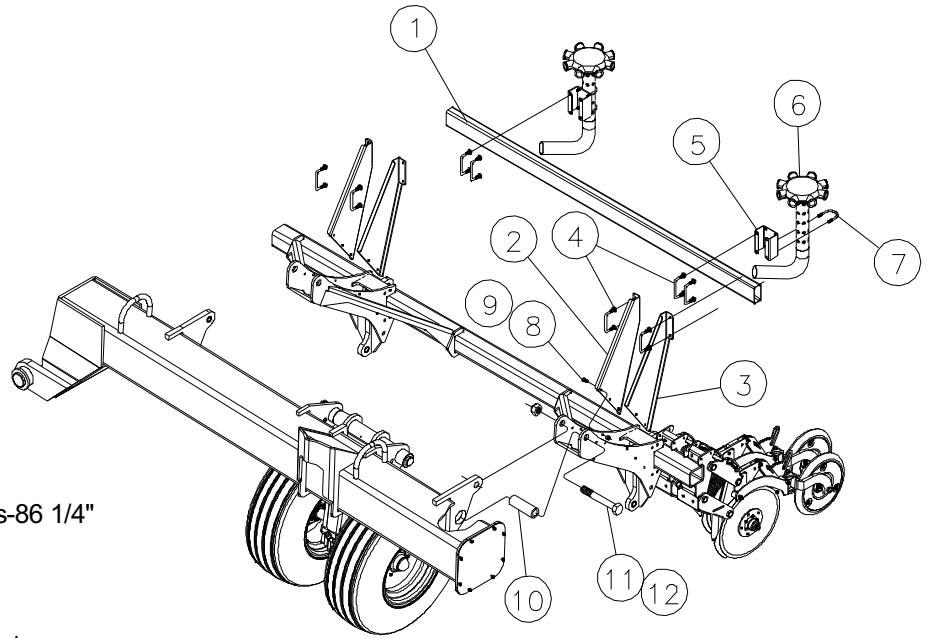
Item	Part No.	Description
1	01572700	Nylock 5/8"
2	531095	Presswheel 2 x 13 Single -Carlisle
3	954636	Presswheel Arm
4	338053	Bolt 1/2" x 5"
5	331983	Bolt 5/8" x 4"
6	148999	Bushing .532 x .747 x 3.594
7	03223500	Reversible Lock Nut 1/2"



Outside Scraper Assy
883694 & 883686



Feed Tube Bars



Left Outside Wing Shown

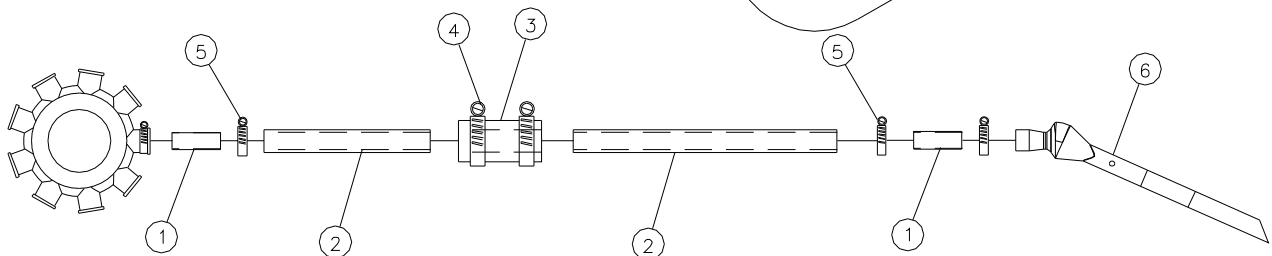
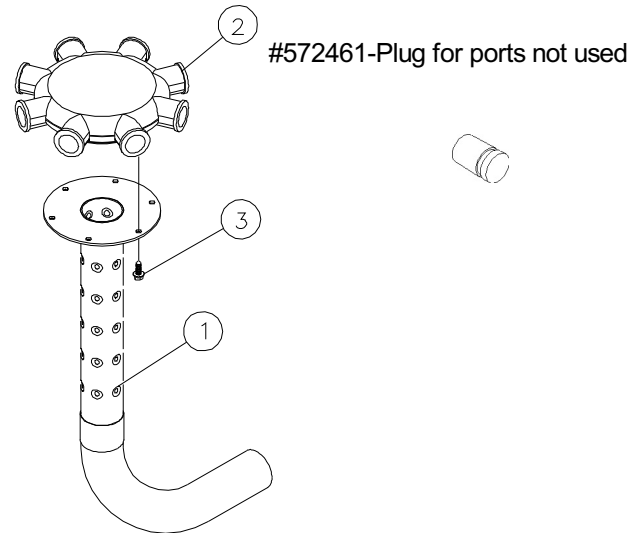
Item	Part No.	Description
1	123695	Feed Tube Bar
	123703	Center & Outside Wings-86 1/4"
	123703	Inside Wings -146 1/4"
2	243865	Tool Bar Bracket Right
3	243873	Tool Bar Bracket Left
4	339275	U-bolt 3/8" x 4 x 2 5/8
5	275727	Distributor Tower Bracket
6	879288	Distributor -9 Outlet
	880880	Distributor -8 Outlet
7	339168	U-bolt 5/16" x 2 13/16 x 2 1/2
8	01158500	Bolt 3/8" x 1 1/4"
9	330837	Nylock 3/8"
10	157032	Tool Bar Bushing
11	338236	Bolt 1 1/4" x 9"
12	338228	Nylock 1 1/4"

Distributor Tower Assembly

#879288 - 9 Outlet

#880880 - 8 Outlet

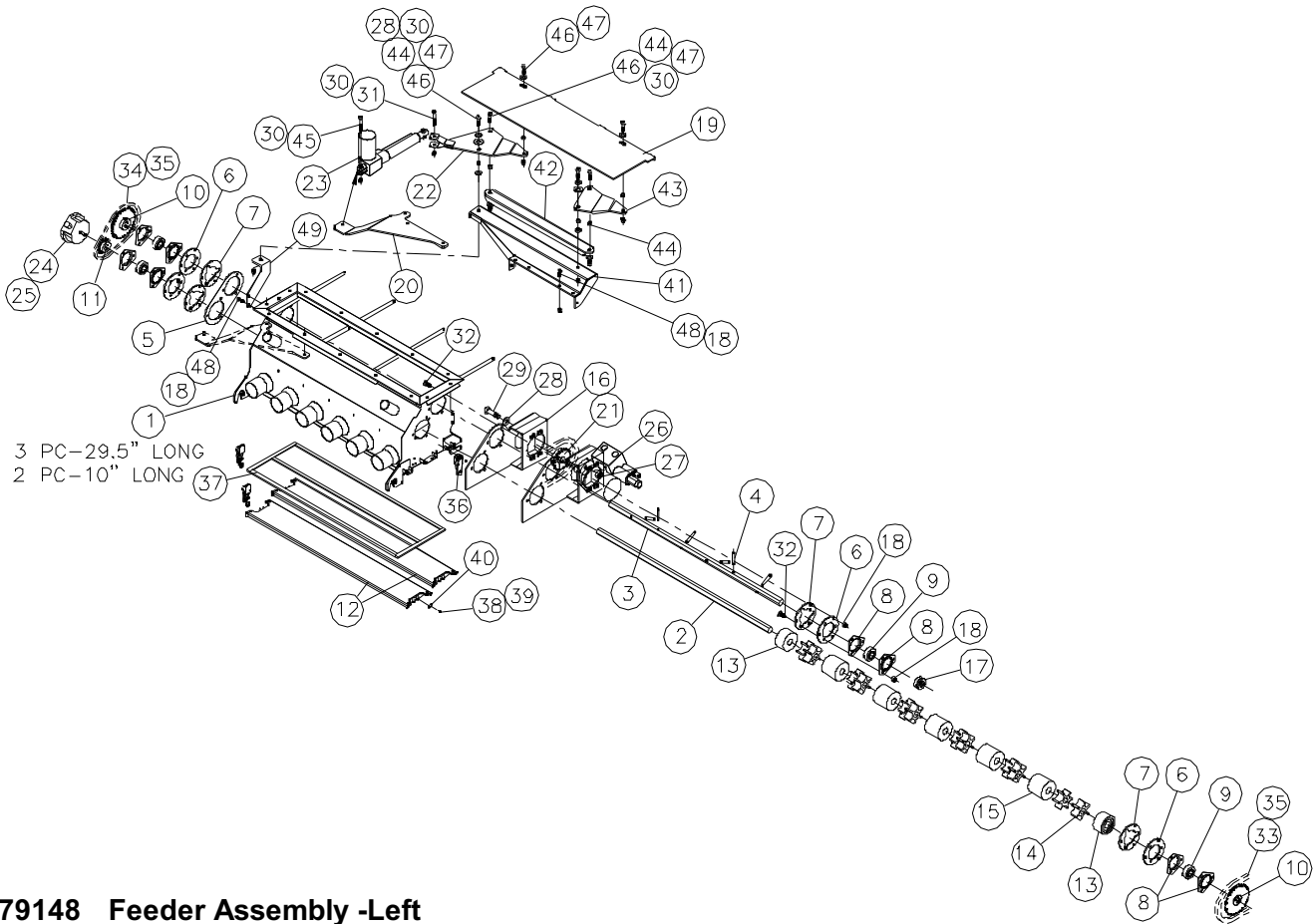
Item	Qty	Part No.	Description
1	1	977264	Tower
2	1	614925	Header - 8 Outlet
	1	613554	Header - 9 Outlet
3	6	01213800	Screw #14 x 3/4"
			Washer Head Self-Tap



Distributor Hose Assembly

Item	Part No.	Description
1	156422	Hose Protector Sleeve
2	710210	Hose 1 1/4" Ureflex x Feet
3	613885	Daisy Chain Sensor
4	614859	Hose Clamp 1 1/2"
5	00242800	Clamp 1 1/2" Worm Drive
6	572263	Feed Tube

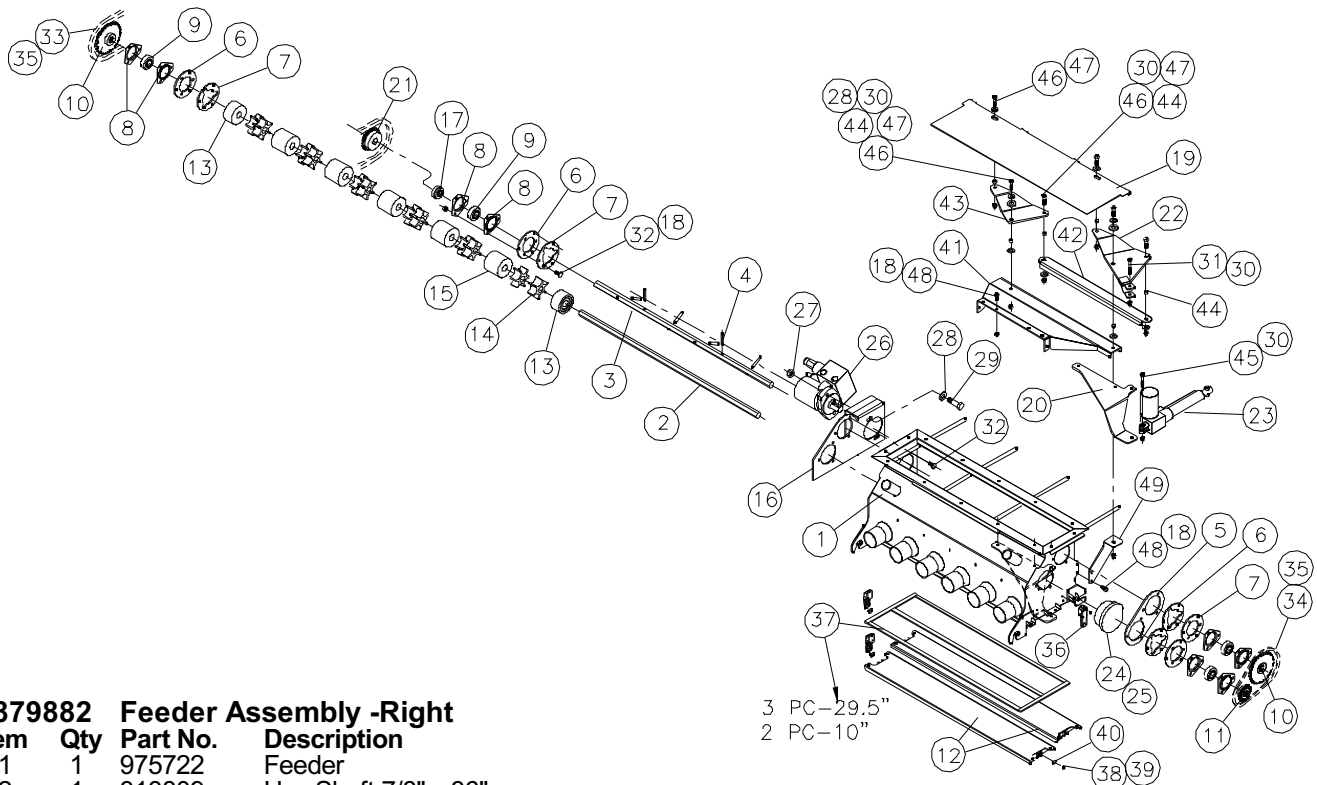
Feeders



#879148 Feeder Assembly -Left

Item	Qty	Part No.	Description	Item	Qty	Part No.	Description
1	1	975722	Feeder	26	1	612820	Hydraulic Motor w/controller
2	1	313809	Hex Shaft 7/8" x 36"	27	2	331363	Nylock 1/2"
3	1	312975	Hex Shaft 7/8" x 35 1/2"	28	4	330159	Flat Washer 1/2"
4	6	339010	Roll Pin 5/16" x 2" Stainless	29	2	335240	Bolt 1/2" x 1 3/4"
5	1	238279	Double Flangette Mount	30	8	330837	Nylock 3/8"
6	4	238287	Flangette Mount	31	1	335729	Bolt 3/8" x 2 1/4"
7	4	238295	Flangette Back Plate	32	24	01252600	Carriage Bolt 5/16" x 1" Stainless Steel
8	8	403436	Flangette 3 Bolt	33	1	434407	Chain #40 x 53 Pitches
9	4	403444	Hex Bearing 7/8"	34	1	434191	Chain #40 x 41 Pitches
10	2	974485	Sprocket #40-30T-7/8 Hex	35	2	434084	Chain #40 Connector Link
11	1	974477	Sprocket #40-14T-7/8 Hex	36	4	614677	Draw Latch
12	2	976613	Bottom Tray	37	.4'	710178	Foam Adhesive 1/2" x 1"
13	2	572214	Nylon Idler 1" x 1.61	38	16	01170000	Screw #8-32 x 1/2" Pan Head
14			Nylon Rotor 7/8" Hex x 1 1/4	39	16	01166800	Hex Nut #8-32
	12	572206	Coarse	40	4	614685	Draw latch Catch Plate
		572438	Fine	41	1	977439	Actuator Mount Left
		572446	Extra Fine	42	1	277525	Gate Link
15	5	572198	Nylon Idler 1" x 2 3/4	43	1	244913	Gate Arm Left
16	1	977710	Drive Mount Left	44	6	149393	Bushing 3/8"
17	1	639781	Sprocket Hub 7/8 Hex	45	1	334243	HHCS 3/8" x 2"
18	32	03933900	Nylock 5/16" Stainless	46	6	01158500	HHCS 3/8" x 1 1/4"
19	1	977421	Gate	47	8	330894	Flat Washer 3/8"
20	1	242610	Actuator Mount Right	48	8	01244300	HHCS 5/16" x 3/4" Stainless
21	1	432997	Sprocket #41-21T-1" Hub	49	1	278432	Feeder Bracket
22	1	977454	Actuator Arm Left				
23	1	473686	Electric Actuator 400# 12 volt -6" stroke				
24	1	612804	Application Rate Sensor				
25	1	612812	Application Sensor Mount w/hardware				

Feeders



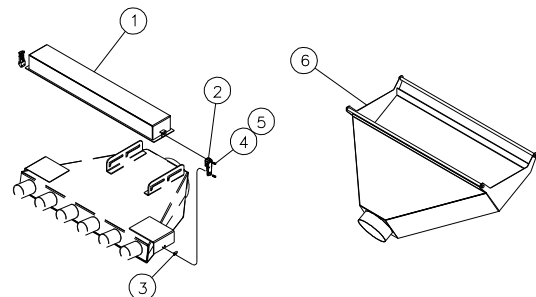
#879882 Feeder Assembly -Right

Item	Qty	Part No.	Description
1	1	975722	Feeder
2	1	313809	Hex Shaft 7/8" x 36"
3	1	312975	Hex Shaft 7/8" x 35 1/2"
4	6	339010	Roll Pin 5/16" x 2" Stainless
5	1	238279	Double Flangette Mount
6	4	238287	Flangette Mount
7	4	238295	Flangette Back Plate
8	4	403436	Flangette 3 Bolt
9	4	403444	Hex Bearing 7/8"
10	2	974485	Sprocket #40-30T-7/8 Hex
11	1	974477	Sprocket #40-14T-7/8 Hex
12	2	976613	Bottom Tray
13	2	572214	Nylon Idler 1" x 1.61
14	12	572206	Nylon Rotor 7/8" Hex x 1 1/4"
		572438	Coarse
		572446	Fine
		572498	Extra Fine
15	5	572198	Nylon Idler 1" x 2 3/4"
16	1	977702	Drive Mount Right
17	1	639781	Sprocket Hub 7/8 Hex
18	32	03933900	Nylock 5/16" Stainless
19	1	977421	Gate
20	1	242628	Actuator Mount Right
21	1	432997	Sprocket #41-21T-1" Hub
22	1	977462	Actuator Arm Left
23	1	473686	Electric Actuator 400# 12 volt -6" stroke
24	1	612804	Application Rate Sensor
25	1	612812	Application Sensor Mount w/hardware

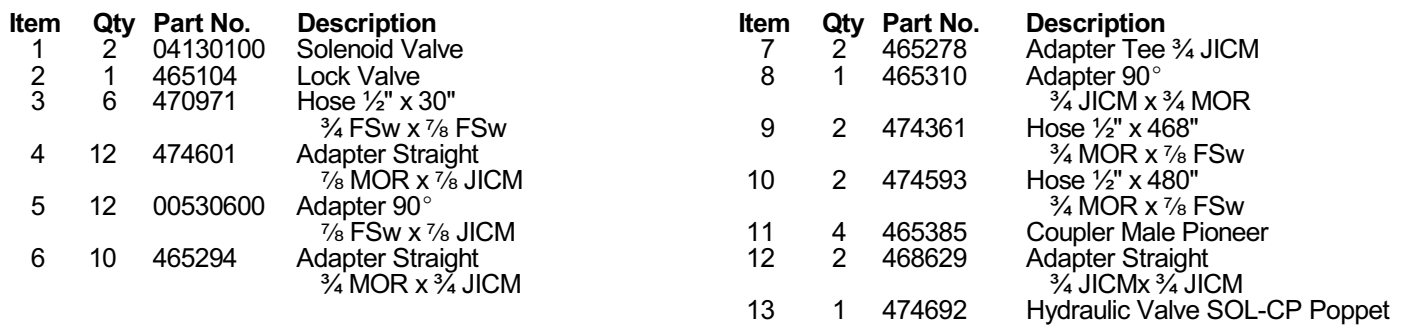
Item	Qty	Part No.	Description
26	1	612820	Hydraulic Motor w/controller
27	2	331363	Nylock 1/2"
28	4	330159	Flat Washer 1/2"
29	2	335240	Bolt 1/2" x 1 3/4"
30	8	330837	Nylock 3/8"
31	1	335729	Bolt 3/8" x 2 1/4"
32	24	01252600	Carriage Bolt 5/16" x 1" Stainless Steel
33	1	434407	Chain #40 x 53 Pitches
34	1	434191	Chain #40 x 41 Pitches
35	2	434084	Chain #40 Connector Link
36	4	614677	Draw Latch
37	.4'	710178	Foam Adhesive 1/2" x 1"
38	16	01170000	Screw #8-32 x 1/2" Pan Head
39	16	01166800	Hex Nut #8-32
40	4	614685	Draw Latch Catch Plate
41	1	977447	Actuator Mount Right
42	1	277525	Gate Link
43	1	244921	Gate Arm Right
44	6	149393	Bushing 3/8"
45	1	334243	HHCS 3/8" x 2"
46	6	01158500	HHCS 3/8" x 1 1/4"
47	8	330894	Flat Washer 3/8"
48	8	01244300	HHCS 5/16" x 3/4" Stainless
49	1	278424	Feeder Bracket

Calibration

Item	Qty	Part No.	Description
1	1	976605	Calibration Pan
2	2	614677	Draw Latch
3	2	614685	Draw Latch Catch Plate
4	8	03786100	Screw #10-24 x 3/4" Pan Hd
5	8	02694800	Hex Nut #10-24 Stainless
6	1	976597	Funnel

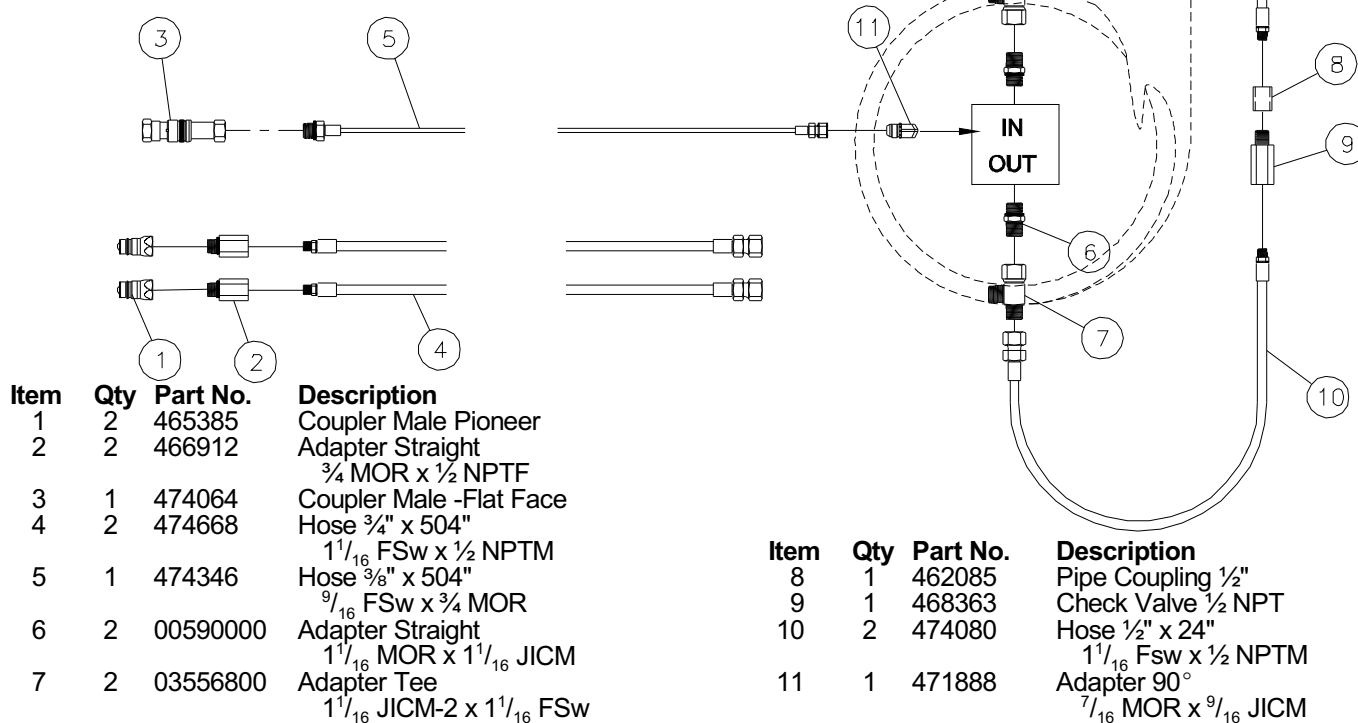


Solenoid and Lock Valve

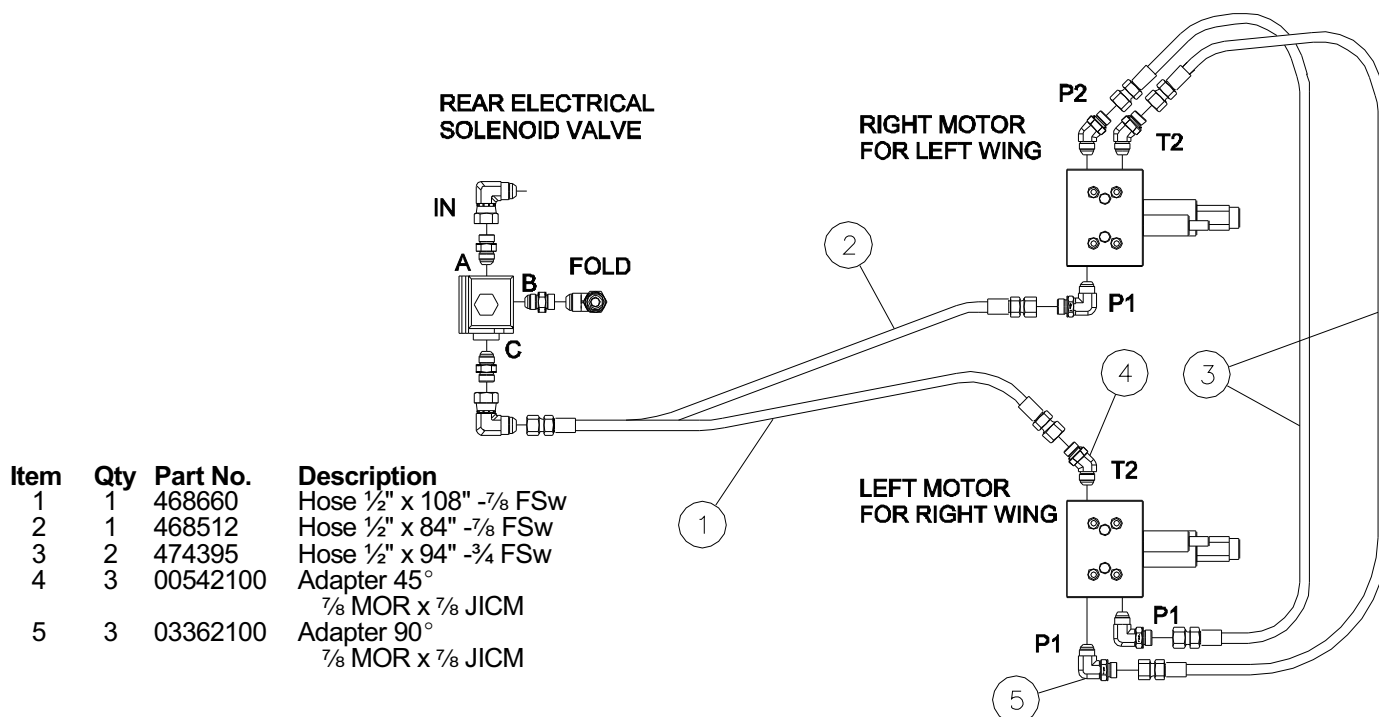


Hydraulics

Fan



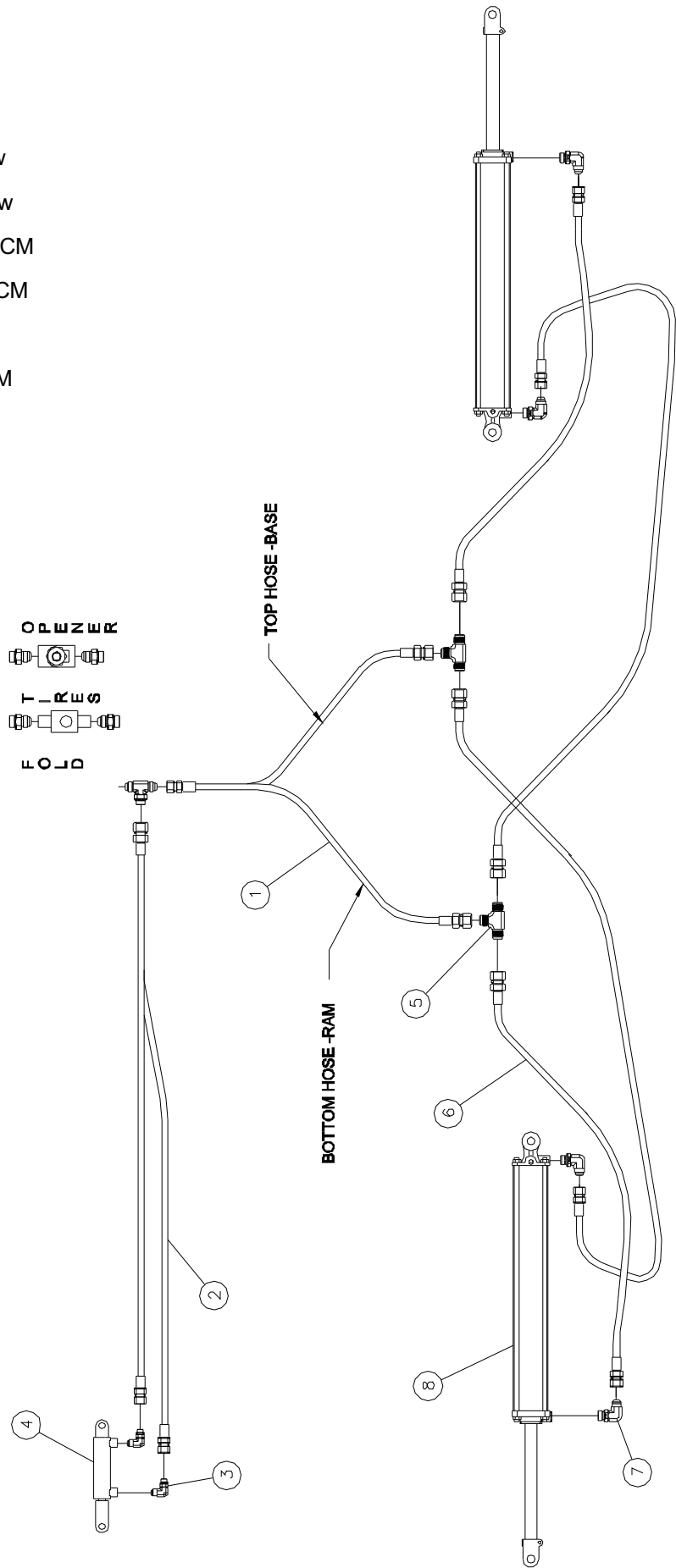
Motors



Hydraulics

Fold

Item	Qty	Part No.	Description
1	2	474353	Hose 1/2" x 76"
			3/4 FSw x 7/8 FSw
2	2	474379	Hose 3/8" x 129"
			9/16 FSw x 3/4 FSw
3	2	471888	Adapter 90°
			7/16 MOR x 9/16 JICM
4	1	471854	Cylinder 1 x 2
5	2	00614800	Adapter Tee -7/8 JICM
6	4	474254	Hose 1/2" x 72"
			3/4 FSw x 7/8 FSw
7	4	465310	Adapter 90°
			3/4 MOR x 3/4 JICM
8	2	474288	Cylinder 5 x 36

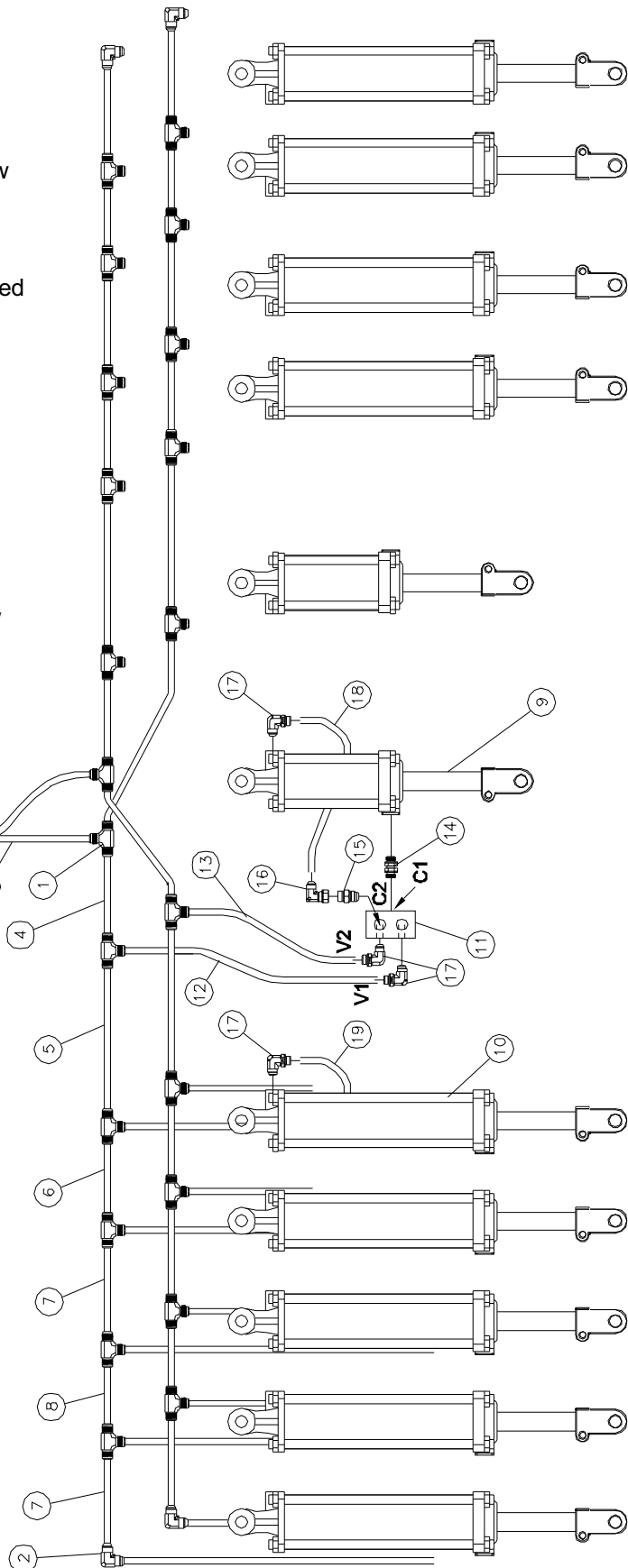


Hydraulics

Openers

Item	Qty	Part No.	Description
1	22	00614800	Adapter Tee -7/8 JICM
2	4	00618900	Adapter 90° -7/8 JICM
3	2	474353	Hose 1/2" x 76"
			3/4 FSw x 7/8 FSw
4	4	474627	Hose 1/2" x 24" -7/8 FSw
5	4	474403	Hose 1/2" x 124" -7/8 FSw
6	4	468546	Hose 1/2" x 60" -7/8 FSw
7	8	471623	Hose 1/2" x 74" -7/8 FSw
8	4	474619	Hose 1/2" x 50" -7/8 FSw
9	2	474221	Cylinder 4 x 5
10	10	474411	Cylinder 4 x 10 Restricted
11	12	474429	Counterbalance Valve
12	12	471276	Hose 1/2" x 32"
			3/4 FSw x -7/8 FSw
13	12	472639	Hose 1/2" x 34"
			3/4 FSw x 7/8 FSw
14	12	00893800	Adapter Straight
			3/4 MOR x 3/4 MOR
15	12	465294	Adapter Straight
			3/4 MOR x 3/4 JICM
16	12	474130	Adapter 90°
			3/4 JICM x 3/4 FSw
17	36	465310	Adapter 90°
			3/4 MOR x 3/4 JICM
18	2	465450	Hose 1/2" x 19" -3/4 FSw
			(Center)
19	10	465708	Hose 1/2" x 40" -3/4 FSw
			(Wings)

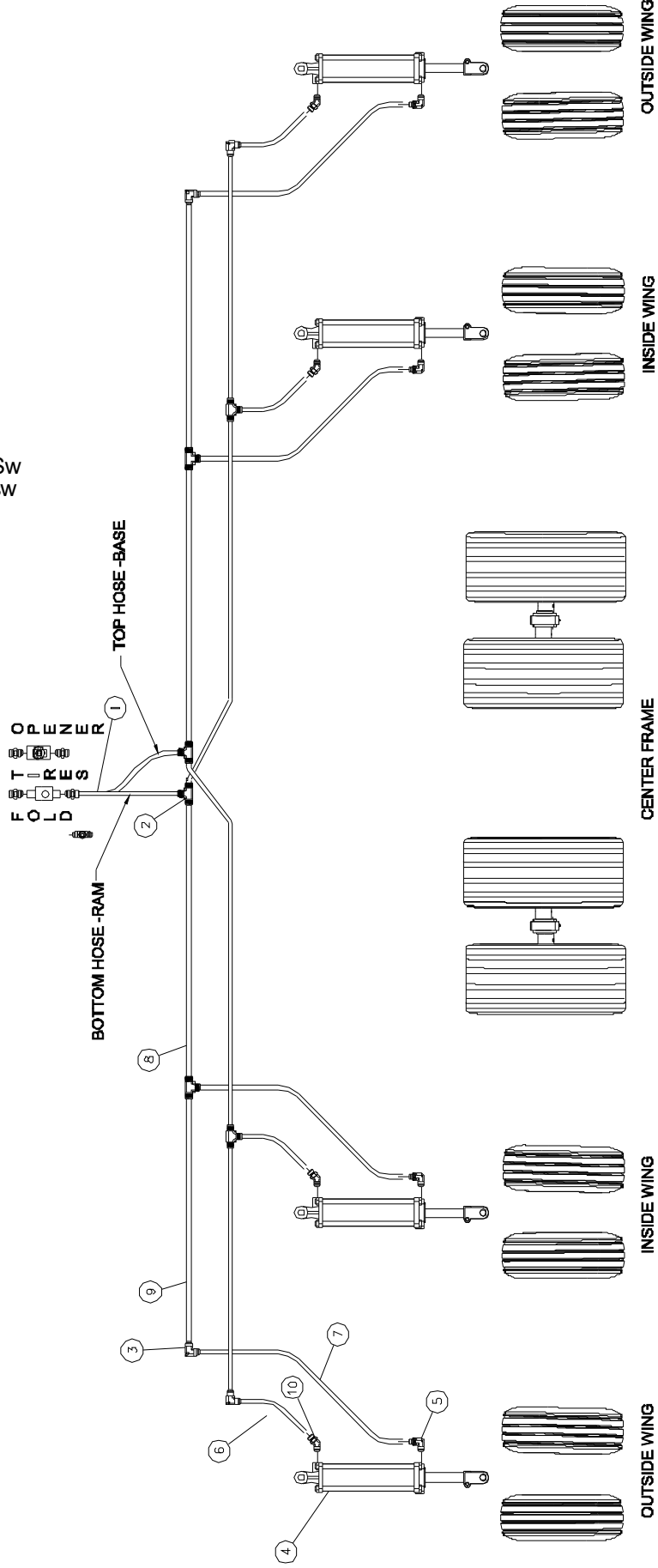
OPENER
 T - REES
 FOLD



Hydraulics

Tires

Item	Qty	Part No.	Description
1	2	474254	Hose 1/2" x 72" 3/4 FSw x 7/8 FSw
2	6	00614800	Adapter Tee -7/8 JICM
3	4	00618900	Adapter 90° -7/8 JICM
4	4	474296	Cylinder 4 x 10
5	4	465310	Adapter 90° 3/4 MOR x 3/4 JICM
6	4	470971	Hose 1/2" x 33" 3/4 FSw x 7/8 FSw
7	4	475319	Hose 1/2" x 29" 3/4 FSw x 7/8 FSw
8	4	474338	Hose 1/2" x 220" -7/8 FSw
9	4	474403	Hose 1/2" x 124" -7/8 FSw
10	4	470187	Adapter 45° 3/4 MOR x 3/4 JICM



Hydraulic Cylinders

#474221 - 4 x 5 Cylinder

Base Clevis	467134
O-Ring	461186
Back Up	461277
Piston	461269
Head	470104
Wiper	460907
Tie Rod Nut	461442
Piston Nut	461285
Cap Screw	460477
Rod Clevis	461483
Clevis Nut	460691
Clevis Pin -1 x 2 ³ / ₄ "	460451
Clevis Pin -1 x 3"	463133
Seal Kit	463372

#474288 - 5 x 36 Cylinder

Base Clevis	466177
O-Ring	461533
Back Up	461590
Piston	461582
Head	466110
Wiper	461160
Tie Rod Nut	461459
Piston Nut	461608
Cap Screw	460477
Rod Clevis	464875
Clevis Nut	460691
Clevis Pin -2 ¹ / ₄ x 3"	463265
Clevis Pin -2 ¹ / ₄ x 3 ³ / ₄ "	468447
Seal Kit	464412

#474411 - 4 x 10-Restricted Cylinder

Base Clevis	467134
O-Ring	461186
Back Up	461277
Piston	461269
Head	470104
Wiper	460907
Tie Rod Nut	461442
Piston Nut	461285
Cap Screw	460477
Clevis Nut	460691
Clevis Pin -1 x 2 ³ / ₄ "	460451
Clevis Pin -1 x 3"	463133
Seal Kit	474650

#474296 - 4 x 10 Cylinder

Base Clevis	467134
O-Ring	461186
Back Up	461277
Piston	461269
Head	470104
Wiper	460907
Tie Rod Nut	461442
Piston Nut	461285
Cap Screw	460477
Rod	475021
Rod Clevis	461483
Clevis Nut	460691
Clevis Pin -1 x 2 ³ / ₄ "	460451
Clevis Pin -1 x 3"	463133
Seal Kit	463372

#471854 - 1" x 2" Cylinder

Seal Kit	472043
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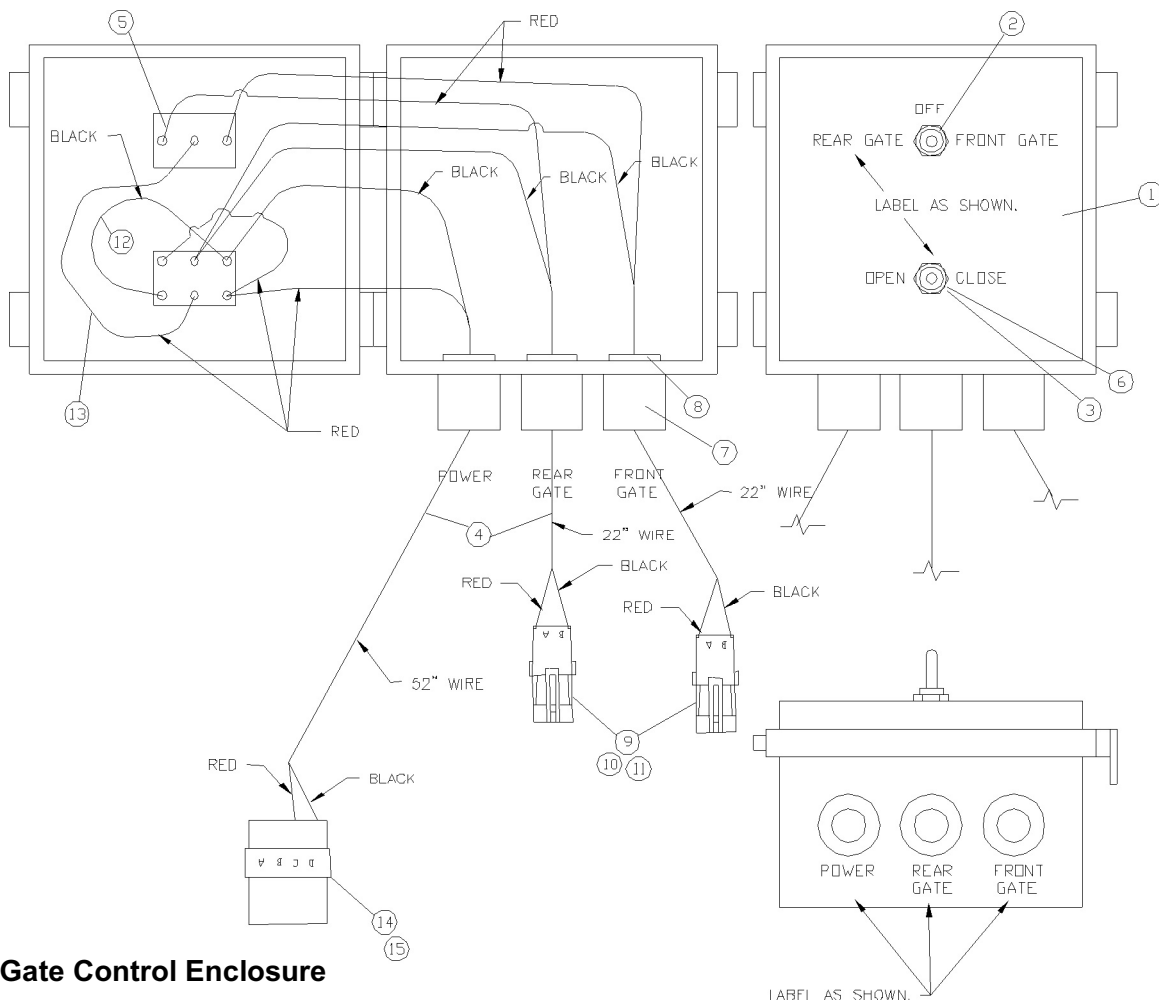
Brake Replacement Parts

Brake Pump -EHB SD	403832
Ag Controller	403840
Hose 15" -3/8-24 Male Swivel	403881
Union Tee 3/16"	403899
Tube 3/16" x 60" Steel	403907
Tube 3/16" x 40" Steel	403915
Tube 3/16" x 12" Steel	403923
Union 3/16"	403931

Electronic and Electrical

Hopper Sensor	608521
Digital Scale	611632
Astro V GPS Speed Sensor- 4 pin	612390
Extension 15' - 3 pin WP	612796
Extension 15' - 2 pin WP 12ga	612846
Hitch Extension 40'	613414
Hopper Level Extension 10'	613430
Daisy Chain Sensor	613885
Daisy Chain Sensor Module	613893
DC Harness ISO 2 Loop	613901
DC Extension Harness 6 Meter	613919
Sensor Extension Harness 20'	613927
Sensor Extension Harness 10'	613935
CAN Bus Adapter Harness	613950
Extension 6' -3 pin WP	613968

Air Pressure Sensor	613976
Harness Loop A/B	614065
Mini CAN Terminator	613455
Sensor 32MM -SS Extrusion	613745
Seed Row Module WSMB11 -18	613836
Extension 40' CAN	614693
Extension 20' CAN	614701
Cable 12 Row Y	614719
Cable 3 Way PM Y	614727
WSMB to PM Adapter	614735
6 Row Harness PM	614743

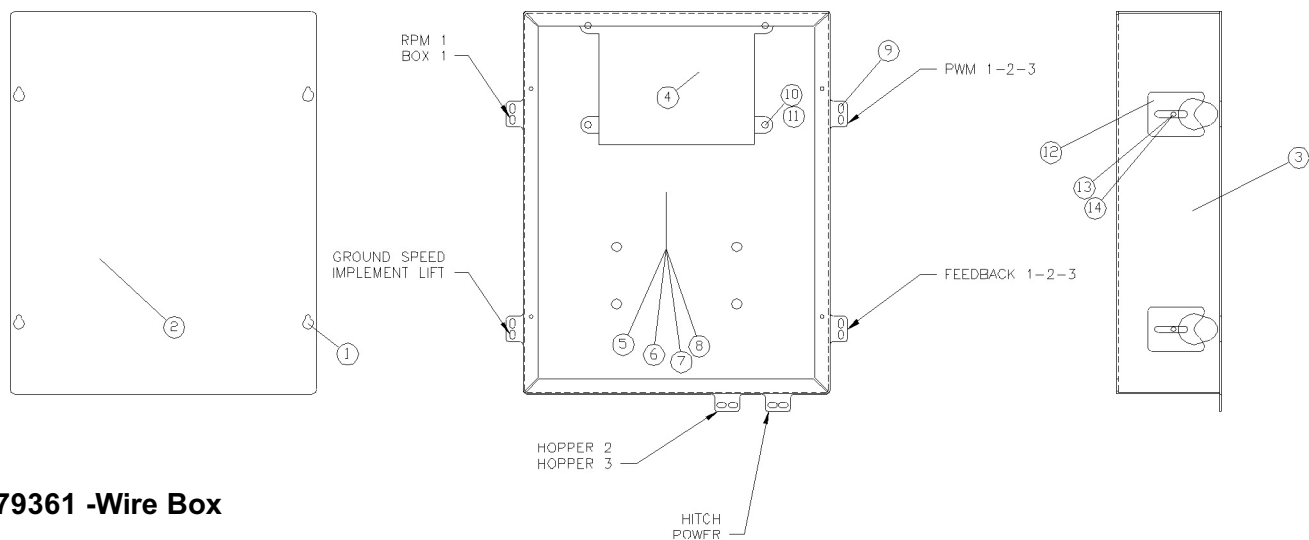


#879528 -Gate Control Enclosure

Item	Qty	Part No.	Description
1	1	613984	Enclosure
2	1	04180600	Toggle Switch ON-OFF-ON
3	1	03713500	Toggle Switch ON-OFF-ON 10 Amp
4	8'	03257300	Wire 16ga 2 wire Carol Cord
5	12	03912300	Wire Terminal -#8 Ring
6	2	03682200	Switch Seal
7	3	03412400	Strain Relief
8	3	01076900	Nut 1/2" NPT

Item	Qty	Part No.	Description
9	2	03594900	Shroud 2 Pole
10	4	03410800	Wire Terminal Male 16ga
11	4	03406600	Seal Green
12	.5'	611137	Wire 16ga Black
13	1'	610006	Wire 16ga Red
14	1	613992	Connector Metri Pack 630 Male 4 Cavity
15	2	614008	Terminal Metri Pack 630 Male 12ga

Electronic and Electrical



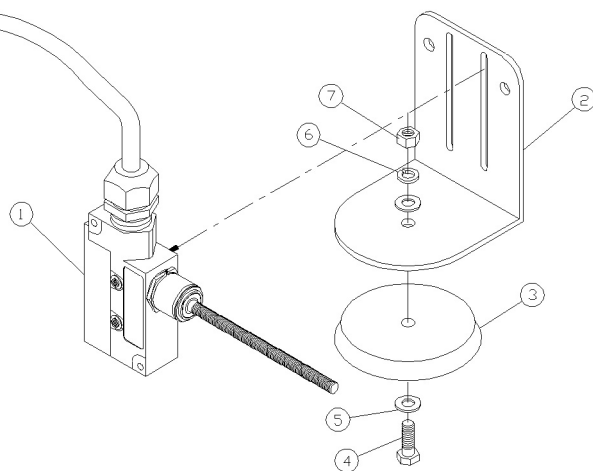
#879361 -Wire Box

Item	Qty	Part No.	Description
1	4	337881	Screw #10 x 1/2 Self Tap
2	1	575610	Back Plate
3	1	976068	Wire Box
4	1	612705	ACC-WMST2
5	1	612713	WSMT Harness -PM Style
6	1	612721	4 Channel (1-4 PWM and 1-4 Feed Back)
7	1	612739	ACC Harness (2 RPM and 3 Hopper)

Item	Qty	Part No.	Description
8	1	613455	CAN Terminator
9	6	571299	Wire Tie 8 1/2"
10	4	02919900	Screw #10-24 x 1 Hex Hd
11	4	333393	Lock Nut #10-24
12	6	275594	
13	6	01150200	HHCS 1/4" x 1/2"
14	6	330522	Nylock 1/4"

#879114 -Wisker Switch Mounting Kit

Item	Qty	Part No.	Description
1	1	613463	Wisker Switch
2	1	271767	Mounting Bracket
3	1	03742400	Magnet 2 5/8 x 3/8
4	1	01057900	HHCS 1/4" x 3/4"
5	2	020216400	Flat Washer 1/4"
6	1	330050	Lock Washer 1/4"
7	1	332205	Hex Nut 1/4"

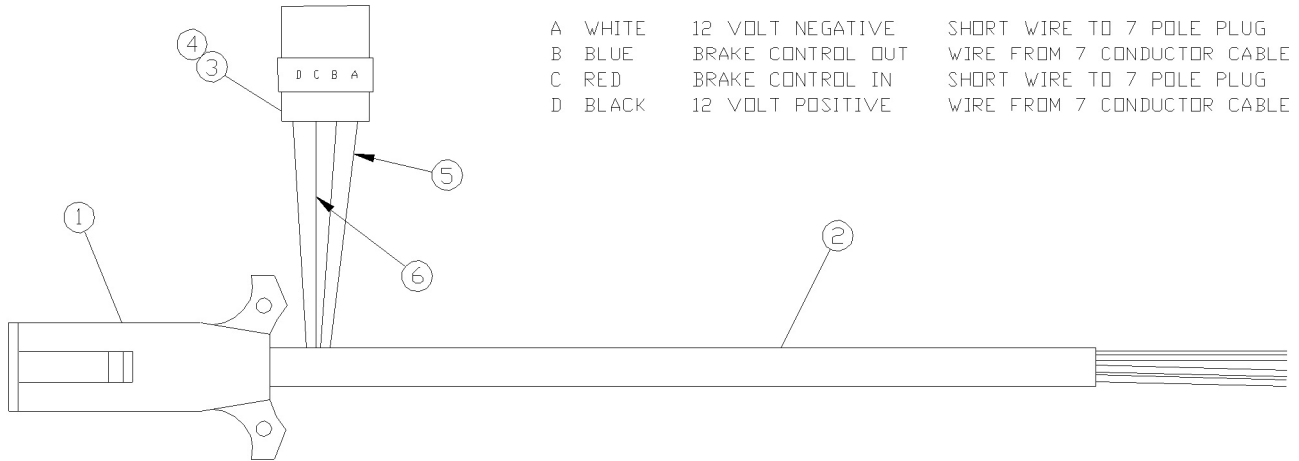


#879890 -Wisker Switch Mounting Kit -12 Pin

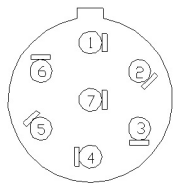
879908	Wisker Switch -12 Pin
613463	Wisker Switch
614255	Receptacle 12 Pin DT4
614263	Wedge Plug 12 Pin DT4
614271	Pin Terminal DT4
614289	Sealing Plug DT4
271767	Mounting Bracket
03742400	Magnet Magnet 2 5/8 x 3/8

Electronic and Electrical

#614933 -Wiring Harness -Hitch



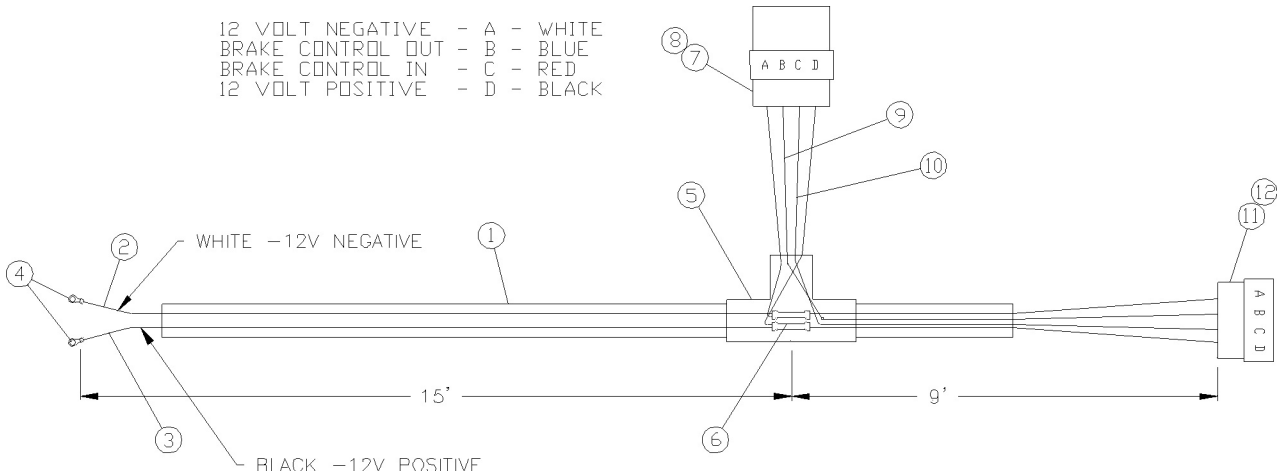
BACK OF PLUG



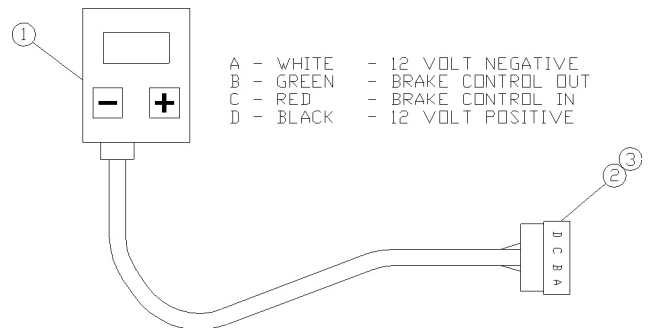
#1	WHITE	12 VOLT NEGATIVE
#2	NOT USED	
#3	YELLOW	LEFT TAIL LIGHT
#4	RED	BRAKE CONTROL IN
#5	GREEN	RIGHT TAIL LIGHT
#6	BROWN	AMBER FLASHING
#7	NOT USED	

Item	Qty	Part No.	Description
1	1	614958	Trailer Plug 7 Pole
2	50'	614941	Trailer Cable 7 Conductor
3	1	613992	Male Connector
4	4	614008	Male Terminal
5	1'	610006	Wire 14 ga Red xFT
6	1'	609883	Wire 14 ga White xFT

#614966 -Wiring Harness -Tractor



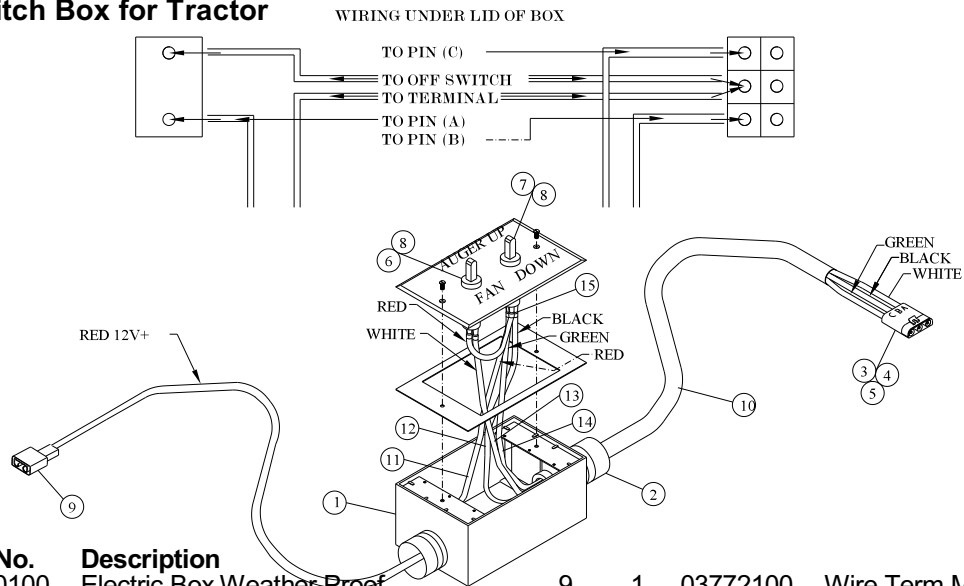
Item	Qty	Part No.	Description
1	24'	609941	Loom 3/8" xFT
2	25'	615013	Wire 10 ga Black XFT
3	25'	615005	Wire 10 ga White xFT
4	2	03260700	Terminal Ring 3/8"
5	1	614990	Tee Fitting
6	2	00485300	Butt Connector 12-10 ga
7	1	613992	Male Connector
8	4	614008	Male Terminal
9	10'	03915600	Wire 12 ga Blue xFT
10	10'	03917200	Wire 12 ga Red xFT
11	1	614974	Female Connector
12	4	614982	Female Terminal



#615021 -Brake Controller

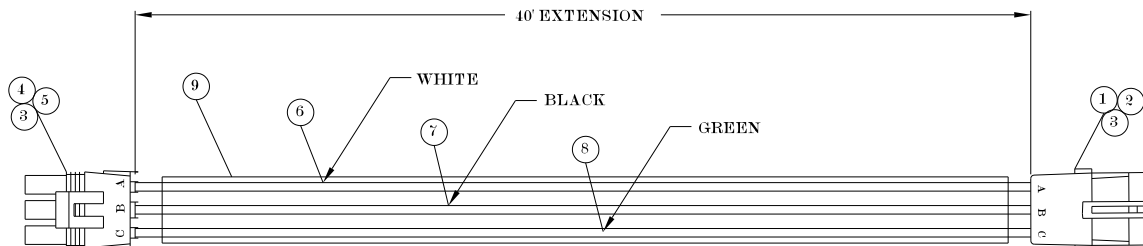
Item	Qty	Part No.	Description
1	1	403840	Brake Controller
2	1	614974	Female Connector
3	4	614982	Female Terminal

#63418800-Switch Box for Tractor

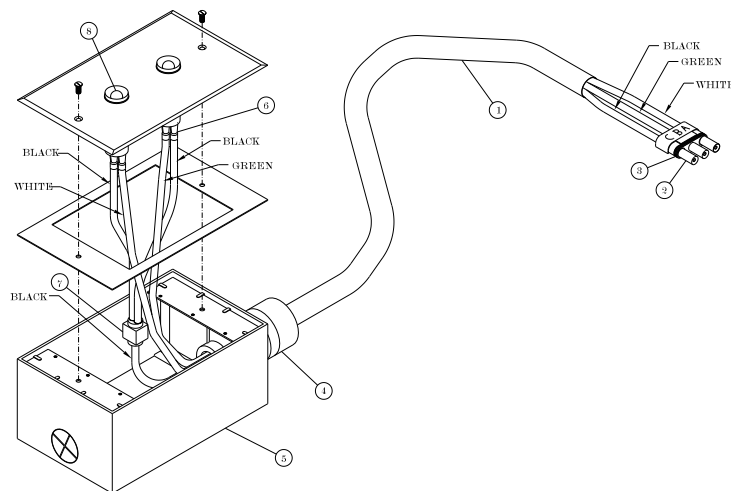


Item	Qty	Part No.	Description	Item	Qty	Part No.	Description
1	1	04470100	Electric Box Weather Proof W/Cover	9	1	03772100	Wire Term Male .25 INS 16-14 Blu
2	2	03412400	Strain Relief	10	8'	03693900	Wire #12-3 X Ft Insul SJOOW
3	1	03620200	AT Shroud 3 Pole	11	8'	03917200	Wire 12Ga Red X Ft
4	3	03406600	AT Cable Seal Green 18-16Ga	12	8'	03914900	Wire 12Ga Black X Ft
5	3	03410800	AT Terminal Male 16-14Ga	13	8'	03916400	Wire 12Ga White X Ft
6	1	03713500	Switch ON-OFF-ON	14	8'	03775400	Wire #12THHN X Ft Green
7	1	04180600	Switch Toggle	15	6	03447000	Wire Ring Term #10 22-16 Ga Blu
8	2	03682200	Switch Boot Seal				

#63419600-40' Extension for Tractor



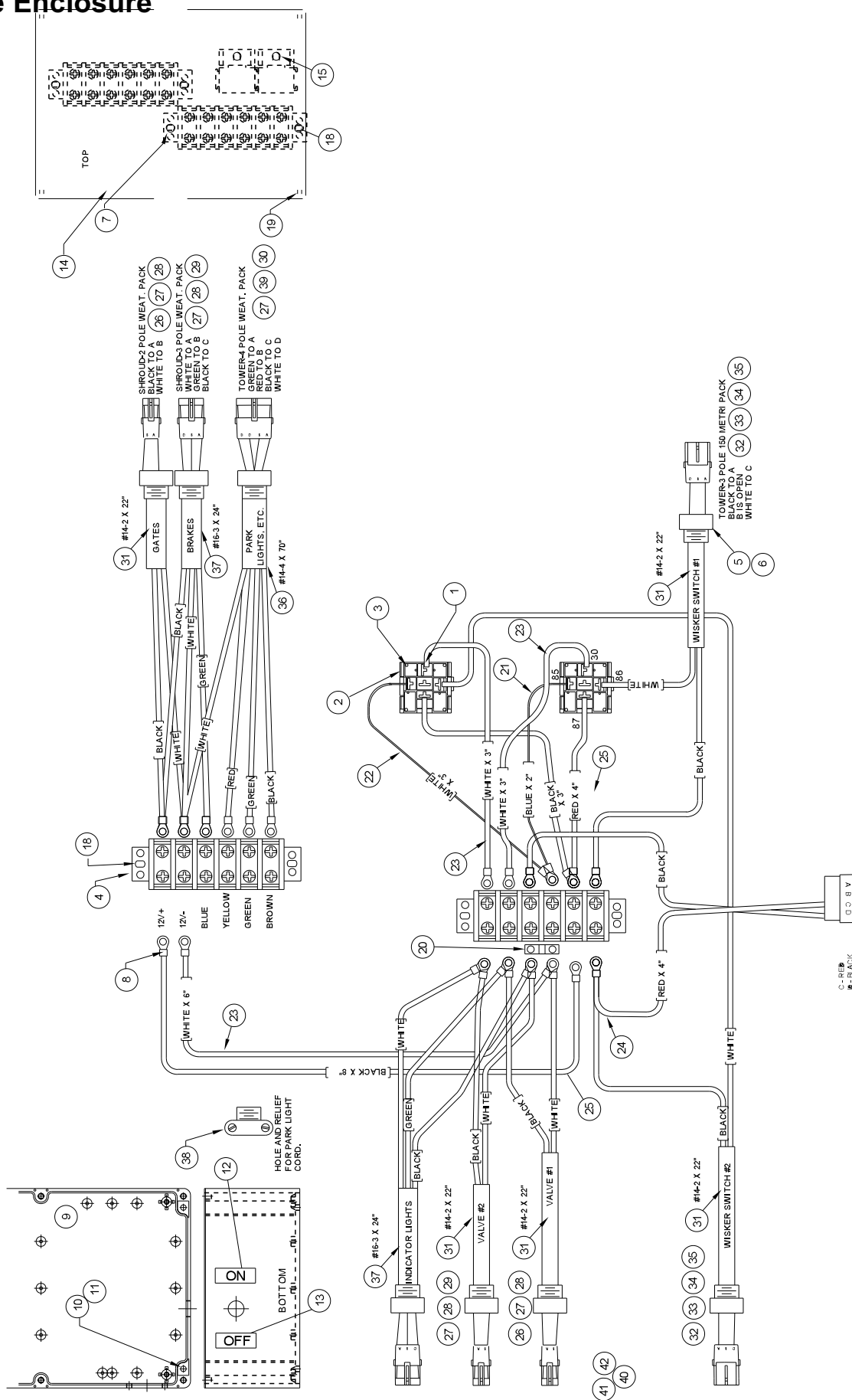
Item	Qty	Part No.	Description	Item	Qty	Part No.	Description
1	1	03620200	Shroud 3 Pole	5	3	03409000	Female Terminal 16-14Ga
2	3	03410800	Terminal Male	6	40'	03775400	Wire #12THHN X Ft Green
3	6	03406600	Green Cable Seal	7	40'	03916400	Wire 12Ga White X Ft
4	1	03519600	3 Pin Tower	8	40'	03914900	Wire 12Ga Black X Ft
				9	40'	616292	Wire Loom .500 X Ft



#881003-Indicator Light Assy

Item	Qty	Part No.	Description
1	3'	01860600	Wire 16-3 Service Cord
2	1	03519600	Tower 3 Pole Weather Pack
3	3	03406600	Seal Green Weather Pack
4	1	03412400	Strain Relief
5	1	04470100	Elec Box Weather Proof W/Cover
6	2	03772100	Wire Term Male .25 Ins 16-14 Blu
7	1	04469300	Tap Connector 18-14Ga Blue
8	2	04455200	

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Remote Enclosure

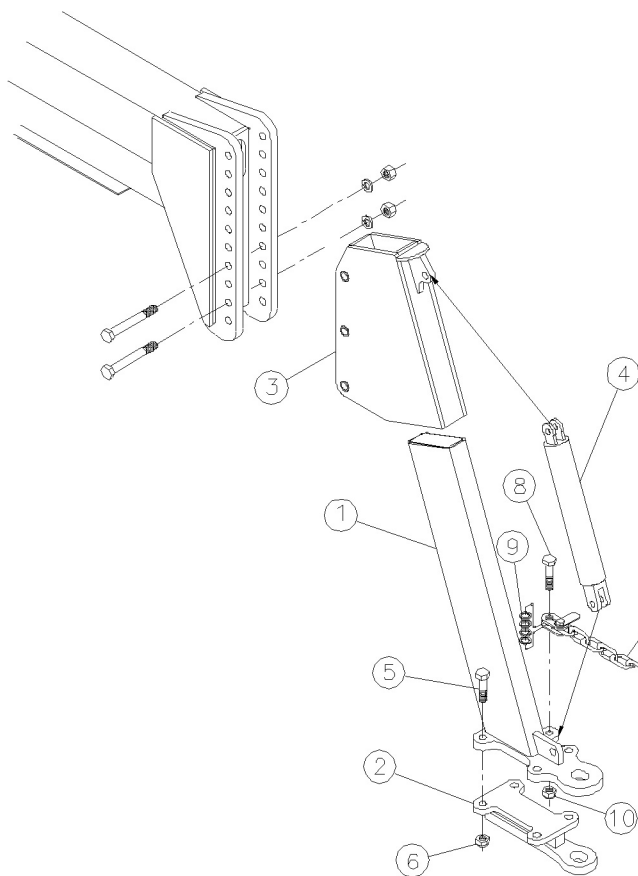
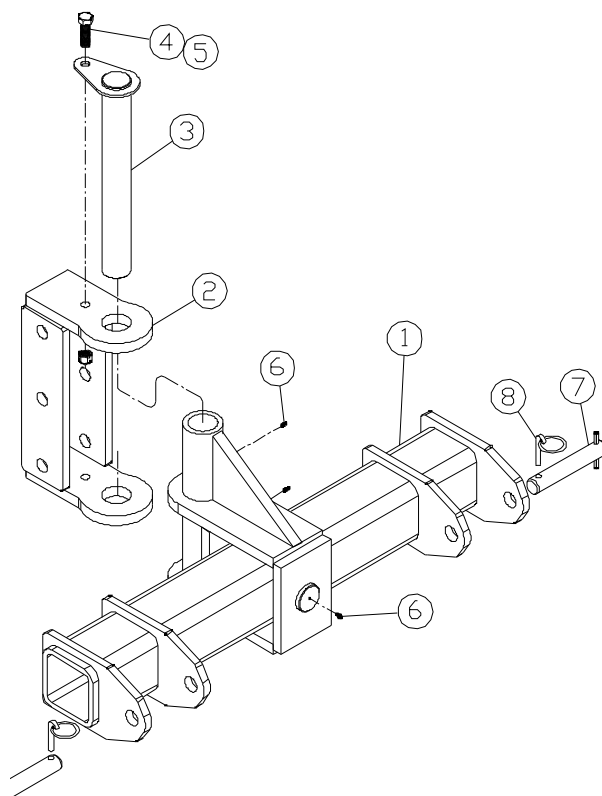
#880872

Item	Qty	Part No.	Description	Item	Qty	Part No.	Description
1	8	03887700	Terminal Connector	20	1	03889300	Terminal Block Jumper
2	2	03891900	Connector 5 Pin for Wire Harness	21	.25'	03918000	Wire Primary Auto 18ga Blue x FT
3	2	03892700	Relay Plug In	22	.25'	03919800	Wire Primary Auto 18ga White x FT
4	2	03890100	Terminal Block -6 Pin	23	1.25'	03916400	Wire Primary Auto 12ga White x FT
5	8	03412400	Strain Relief 1/2"	24	.6'	03917200	Wire Primary Auto 12ga Red x FT
6	8	01076900	Conduit Nut 1/2"	25	1'	03914900	Wire Primary Auto 12ga Black x FT
7	4	04312500	Machine Screw Pan Head #10-32 x 5/8"	26	3	03594900	Shroud 2 Pole
8	30	03912300	Wire Terminal Ring #8-32 16-14ga	27	16	03406600	Seal -Gray
9	1	614917	Enclosure Box	28	13	03410800	Male Pin
10	4	03925500	Screw #10-24 x 1	29	2	03620200	Shroud 3 Pole
11	4	03898400	Push Nut 7/16"	30	1	03812500	Shroud 4 Pole
12	1	04168100	Decal "On"	31	9.5'	-----	Wire 14-2 Service Cord
13	1	04169900	Decal "Off"	32	2	-----	Tower 3 Pole Metri Pack
14	1	278325	Enclosure Plate	33	4	-----	Seal Red Metri Pack
15	2	03927100	Machine Screw Pan Head #10-32 x 3/8"	34	4	-----	Pin Female Metri Pack
16				35	2	-----	TPA Metri Pack
17				36	6'	-----	Wire 14-4 Service Cord
18	6	339218	Rivet Nut #10-32	37	4'	-----	Wire 16-3 Service Cord
19	4	03893500	Machine Screw Pan Head M3 x 8MM	38	1	-----	Screw Clamp Stress Relief
				39	3	03409000	Female Pin
				40	2	04447900	AT Deutsch Wedge Plug 2 Pin
				41	4	04446100	AT Deutsch Male Pin 22-16 AWG
				42	2	04445300	AT Deutsch Male Plug 2 Way
				43	1	614974	Connector Female 630 Series
				44	2	614982	Terminal Female 630 Series

Hitch Options

#881847 - 2 Point

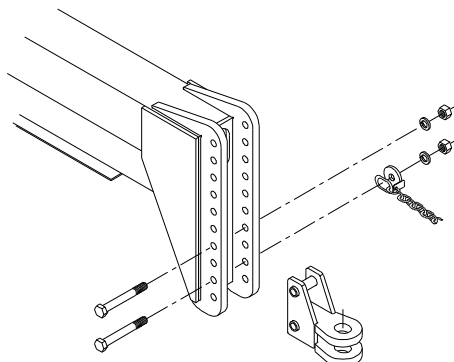
Item	Qty	Part No.	Description
1	1	979799	Joint
2	1	979781	Mount
3	1	979807	Swing Pin
4	1	335174	HHCS 3/4" x 2 1/2"
5	1	330316	Nylock 3/4"
6	3	600346	Zerk 1/4-25 x .531
7	2	850792	Hitch Pin
8	2	334425	Klik Pin 7/16" w/2" Ring



#879841 - Draw Bar

Item	Qty	Part No.	Description
1	1	976514	Tube
2	1	976530	Dual Clevis
3	1	976522	Hitch Mount
4	1	474148	Cylinder 3 1/2" x 19
5	4	333823	Bolt 1 1/4" x 4 1/2"
6	4	338228	Nylock 1 1/4"
7	1	433953	Safety Chain 41,000#
8	1	334870	Bolt 1" x 4"
9	4	335166	Bushing 1" x 10ga
10	1	330597	Nylock 1"

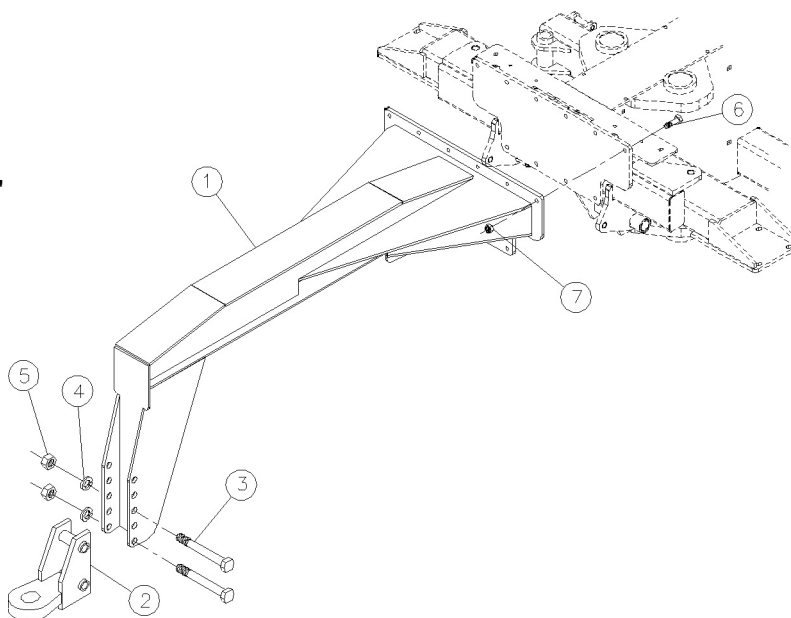
#955831 - Dual Clevis



Hitch Options

#880385 - Rear Hitch

Item	Qty	Part No.	Description
1	1	977249	Rear Hitch
2	1	963546	Mono Clevis
3	2	337360	HHCS 1 1/4" x 10"
4	2	332304	Lock Washer 1 1/4"
5	2	331454	Hex Nut 1 1/4"
6	10	335174	HHCS 3/4" x 2 1/2"
7	10	330316	Nylock 3/4"





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