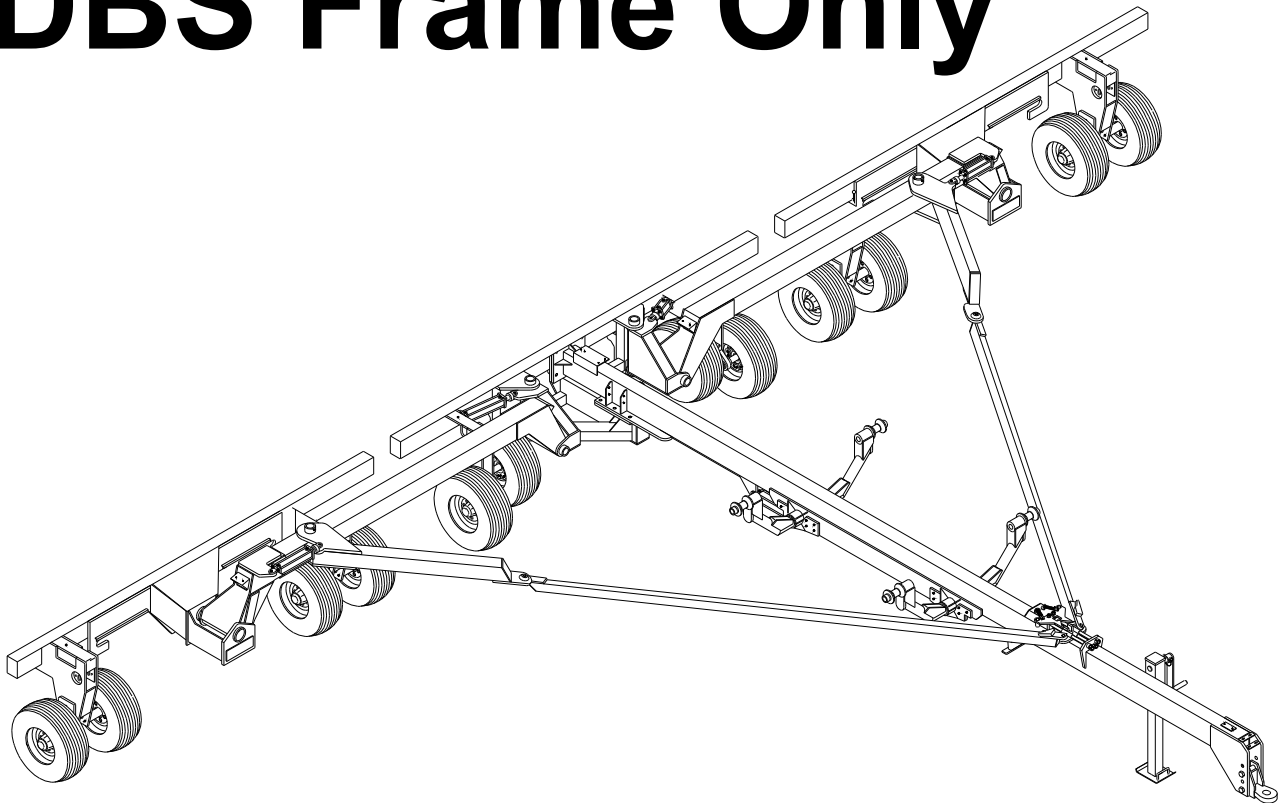




P.O. Box 526 - Spearville, Kansas 67876 - (620) 227-7106
crustbuster.com

4740

DBS Frame Only



OWNER'S MANUAL

OPERATION • MAINTENANCE • REPAIR PARTS

617068 - 2022

Identification

Your CrustBuster® DBS 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
---------------	--------------

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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Specifications

Size & Spacing	Number Openers	Weight w/ DBS	Min. HP
40' x 15"	16	26,142 lbs.	250
40' x 20"	18	23,462 lbs.	250
40' x 30"	8	20,782 lbs.	250

**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.

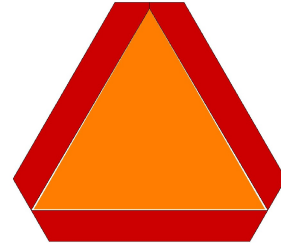
TAKE TIME FOR SAFETY

Safety Decals

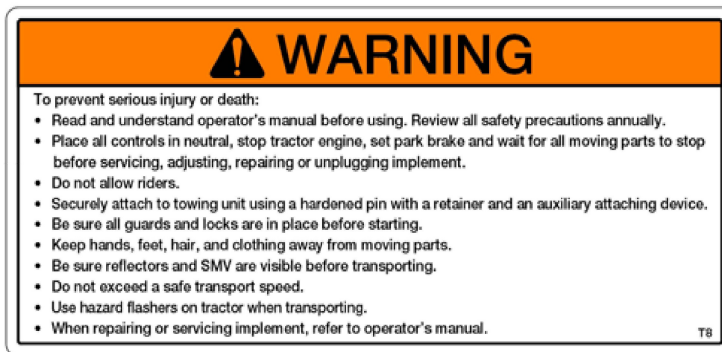
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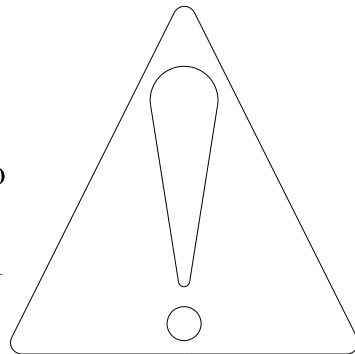


Safety

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



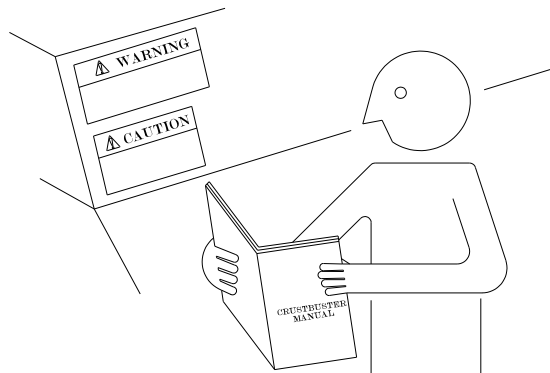
WARNING



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.

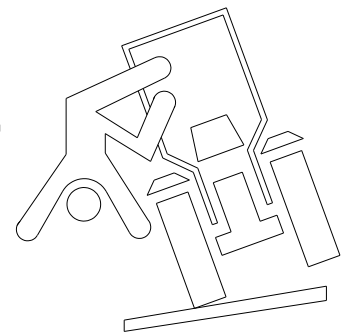
AVOID TIP-OVERS

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.

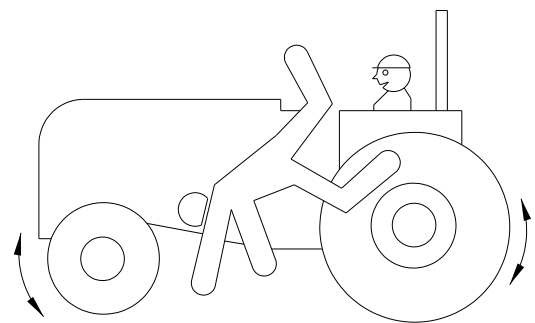
SLOW DOWN FOR HILLSIDES, ROUGH GROUND, AND SHARP TURNS.



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.



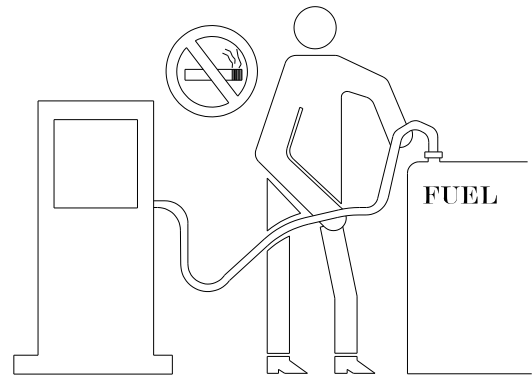
Safety

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.

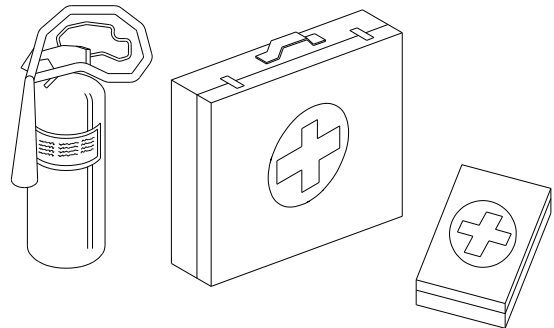


PREPARE FOR EMERGENCIES

BE PREPARED IF A FIRE STARTS.

KEEP A FIRST AID KIT AND FIRE EXTINGUISHER
HANDY.

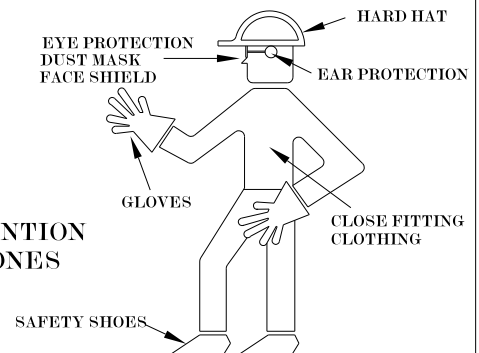
KEEP EMERGENCY NUMBERS FOR DOCTORS,
AMBULANCE SERVICE, HOSPITAL, AND FIRE
DEPARTMENT NEAR YOUR TELEPHONE.



WEAR PROTECTIVE CLOTHING

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

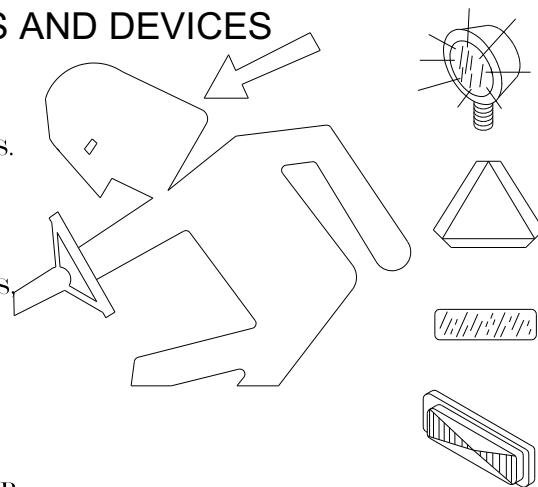
OPERATING EQUIPMENT SAFELY REQUIRES THE FULL ATTENTION
OF THE OPERATOR. DO NOT WEAR RADIO OR MUSIC HEADPHONES
WHILE OPERATING MACHINE.



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.



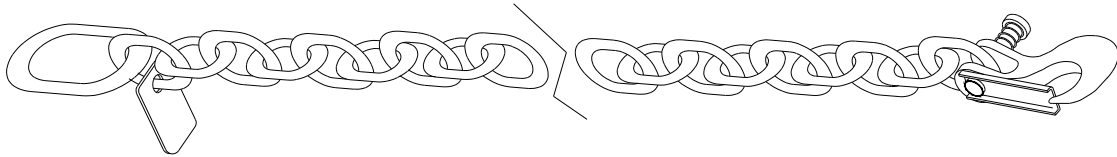
Safety

USE A SAFETY CHAIN

A SAFETY CHAIN WILL HELP CONTROL DRAWN EQUIPMENT SHOULD IT ACCIDENTLLY 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.



TRANSPORT SAFELY

IF EQUIPPED WITH ROW MARKERS, KNOW THE TRANSPORT HEIGHT OF YOUR MARKER ARM AND OVERHEAD WIRES. STOP SLOWLY.

ALWAYS RAISE THE FRONT JACK STAND BEFORE TRANSPORTING.

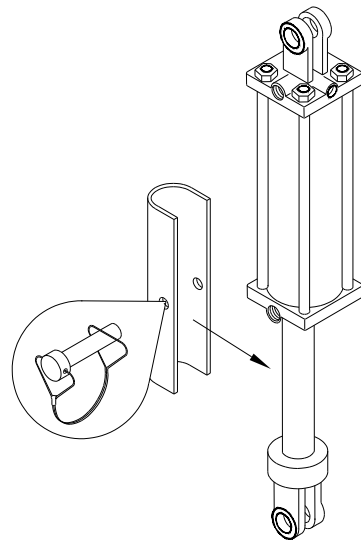
RAISE OPENERS FULLY AND PLACE OPENER LOCK-UP BRACKETS ON CYLINDERS TO PREVENT OPENERS FROM LOWERING. SECURE WITH PIN.

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.



Safety

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.

PRACTICE SAFE MAINTENANCE

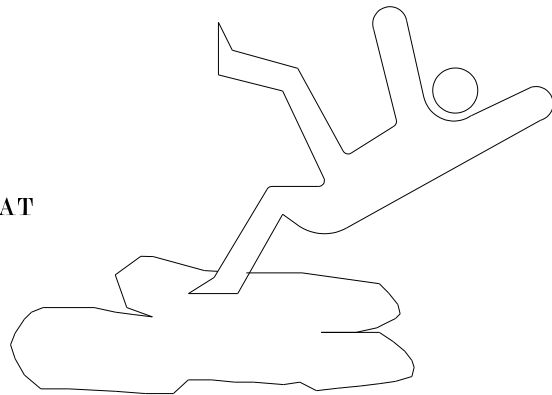
UNDERSTAND SERVICE PROCEDURE BEFORE DOING WORK.
KEEP AREA CLEAN AND DRY.

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.



Safety

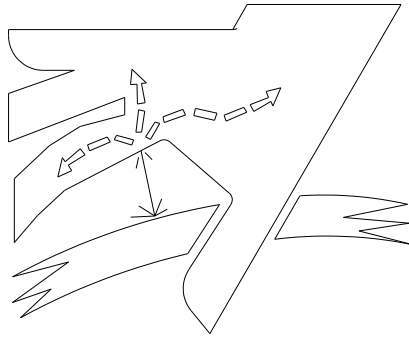
AVOID HIGH-PRESSURE FLUIDS

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.

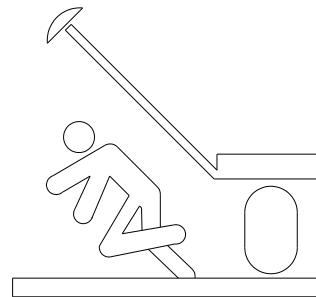
IF AN ACCIDENT OCCURS, SEE A DOCTOR IMMEDIATELY. ANY FLUID INJECTED IN THE SKIN MUST BE SURGICALLY REMOVED WITHIN A FEW HOURS OR GANGRENE MAY RESULT. DOCTORS UNFAMILIAR WITH THIS TYPE OF INJURY SHOULD REFERENCE A KNOWLEDGEABLE MEDICAL SOURCE.



CHARGE ROW MARKER HYDRAULIC SYSTEM

FALLING ROW MARKERS CAN CAUSE PERSONAL INJURY. BE SURE CYLINDERS AND ATTACHING HOSES ARE FULLY CHARGED WITH OIL BEFORE OPERATING. FAILURE TO DO SO WILL ALLOW MARKERS TO FALL RAPIDLY.

ALWAYS STAY CLEAR OF MARKERS WHEN RAISING OR LOWERING.



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.



Safety



CrustBuster/SpeedKing recognizes that the DBS applicator will be used to supply nutrients such as NH₃. We do not supply the actual metering system for this unit. We felt it necessary to include some general safety and handling material. You should always read and understand any and all manuals that come with the metering system that you choose. Use extreme caution when hauling any and all chemicals.

ATTENTION: Please follow all of the instructions in this manual carefully and read the entire manual completely. Failure to do so may cause the product to function improperly or fail causing serious injury or death.

ANHYDROUS AMMONIA IS AN INHALATION HAZARD AND WILL CAUSE SERIOUS INJURY OR DEATH. PLEASE USE EXTREME CAUTION WHEN HANDLING IT OR PERFORMING ANY MAINTENANCE ON EQUIPMENT USED FOR ANHYDROUS AMMONIA.

ATTENTION: Before performing any installation, repair or maintenance please follow the instructions below.

1. You must be trained and certified to work with anhydrous ammonia. If you are not, please seek out the appropriate agricultural department to attend a class to obtain the proper training and certification.
2. Wear appropriate safety goggles, gloves and breathing apparatuses.
3. Always know which way the wind is blowing.
4. Drain all tanks, hoses and piping of anhydrous ammonia COMPLETELY before removing, installing, performing maintenance or repairing any equipment.
5. Always remove device from service before performing any maintenance or repair.
6. Have sufficient water nearby.
7. Obey all local, state and federal laws regarding the handling of anhydrous ammonia.

Safety



Anhydrous ammonia is an important source of nitrogen fertilizer for crops. The improper handling of anhydrous ammonia can have catastrophic results on both plants and farm workers. Common injuries are severe burns to eyes, skin and the respiratory tract.

- Personal protective equipment (PPE) should always be worn. Standard PPE should be non-vented goggles, rubber gloves with thermal lining, face shield or an approved respirator. Wear a lightweight rubber suit, or (at the very least) a long sleeve shirt and coveralls.
- Make sure anhydrous ammonia tanks are not filled beyond the recommended capacity.
- Use care when handling the hose end valve so that it does not open accidentally. Do not move the hose by handling valve handle.
- Be sure to bleed the hose coupling before disconnecting. Use care when cleaning plugged knives as anhydrous ammonia could be built up behind the plug.
- Use emergency water supply for at least 15 minutes if exposed to anhydrous ammonia and then seek emergency medical attention.
- Always have a small squeeze bottle of fresh water at all times.
- Never assume NH₃ lines are empty, including the lines connected to the Torpedo.
- Make sure the system is completely drained of NH₃. It can hide in low areas of the system. Look for frost on the hose or equipment. That usually means there is NH₃ there.
- Always use high pressure hose when ammonia can be trapped in that segment, such as between the tank and the Torpedo.
- Any place that has a high pressure hose should also have a hydrostatic relief valve and a bleed valve.
- Always handle valves by the body and by the wheel or latch.
- Always make sure you are upwind of potential NH₃ release points.
- When you park, position NH₃ equipment downwind from dwellings, people, and livestock.
- Close the valve on the tank when you stop.
- The first treatment for anhydrous ammonia exposure is WATER.

NH₃ is a very dangerous product. It can kill you or blind you or worse. If you have not taken an approved NH₃ Safety class, do not work around NH₃.

Safety

NOTICE

Before you start applying NH₃—

- Know the wind direction.
- Are the hoses in good condition?
- Has the expiration date been passed on any hose or other dated component?
- Are all fittings clean and free from rust?
- Do low-pressure tubes have any leaks?
- Are any knives plugged?
- Is the tank secure with a locking hitch pin?
- Is the pressure relief valve operating correctly?
- Does the tank have five gallons of fresh water?
- Is PPE available and being worn (goggles, gloves, long-sleeve shirt) ?

Before performing maintenance on the toolbar or equipment—

- Put on gloves and goggles
- Make sure you have emergency water
- Check wind direction and stay upwind
- Park away from buildings, livestock, and people
- Before servicing, close the valve on the NH₃ tank and continue application to bleed the system.
- Be sure the tank valve is closed. Turn the Master valve on and leave it on during bleeding.
- Disconnect the nurse tank supply hoses.
- Open all bleeder valves on cooler and rest of system.
- Check any hoses that have a low loop in them
- Even after bleeding, slowly and cautiously loosen any fittings to be sure there is no ammonia trapped inside.

Before Unfolding and Operating This Equipment ---
Read and understand this owner's manual.



Transport & Safety Instructions



- When transporting DBS, be aware you are towing a **26,000 lb.** load with up to **6,550 lb.** empty hitch weight.

Tow width - 16'

Tow length - 34'

Take appropriate precautions in stopping, turning, etc. **DO NOT EXCEED 15 MPH.**

Follow tire manufacturer's recommendations regarding inflation for towing.

(Goodyear farm implement tire for highway and agriculture usage)

Mfg stated capacity @ 90 PSI

= 4870 lb.

4700 DBS load per tow tire empty boxes = 4745 lb.

- Use a minimum hitch pin of 1" with lock nut to towing vehicle. **DO NOT** use a hairpin or wire to secure hitch pin. Make sure adequate safety chains are in place.
- **NEVER** use an unsecured pin in draw bar.
- Before transporting, make sure transport locks are in place on the wing carrier arms located under the hitch.
- Lug bolts should be checked prior to towing, after 1 mile of transport, within the next 20 miles and periodically thereafter. Check hubs for excess heating.
- Make sure 3-point linkages are raised completely to clear hitch.
- If your tractor does not already have a lighting receptacle, install one. Always plug in the DBS lighting system to a correctly wired tractor and **USE** for transport safety. Wiring should be extended into tow tractor for turn and stop light.
- Connect the 7 pin lighting plug to the tractor receptacle and use at all times. Confirm the correct lights are operating if your tractor is not wired by industry standard code. Standard 7 pin receptacles are available through your dealer, local truck supply stores, and auto parts facilities.
- Before operating hydraulics, remove all transport locks or damage to DBS will result.

CAUTION: Your DBS weighs more than the towing vehicle. The DBS is NOT equipped with brakes. **EXERCISE EXTREME CAUTION ! Maximum allowable speed - 15 mph.**

NEVER ALLOW ANYONE TO RIDE THE DBS!

L Fold and Unfold Instructions

- Folding or unfolding of DBS should be done on nearly level ground with the tractor transmission in neutral.
- During the fold and unfold operation, be sure to stay clear of pull bar slides located at front top of hitch.
- Check that all wing carrier cylinder locks are removed.
- Lower wings by rotating wing carrier arms down out of hooks on front of wing frames. Be sure wing carrier arms are clear of wing frames before unfolding. Unfolding is complete when pull bar slides are pulled back against stop, and locked in place by automatic locks located at front top of hitch. When folding, automatic locks will release pull bar slides.
- Be sure wing carrier arms are lowered to clear wing frames when folding.
- When pull bars come together against bumpers, and rollers on wing carrier arms are centered under guides on wing frames, DBS is completely folded. Wings can now be raised.
- Be sure rollers are securely in hooks on wing frames.
- Install cylinder locks on wing carrier lift cylinders.
- DBS is now ready for transport. USE GOOD JUDGEMENT AND SAFE OPERATING PROCEDURES WHEN TRANSPORTING.

Field Operating Checklist

- _____ Remove **ALL** transport locks.
- _____ Inflate tires to recommended air pressure.
- _____ Lubrication as required.
- _____ DBS adjusted at hitch for level field operation.
- _____ Down pressure set for soil conditions.
- _____ Acre meter reset.
- _____ Lower DBS while moving forward to avoid plugging openers.
- _____ Allow no riders.
- _____ After approximately 10 hours, wheel bolts, etc.. Make sure they are tight.

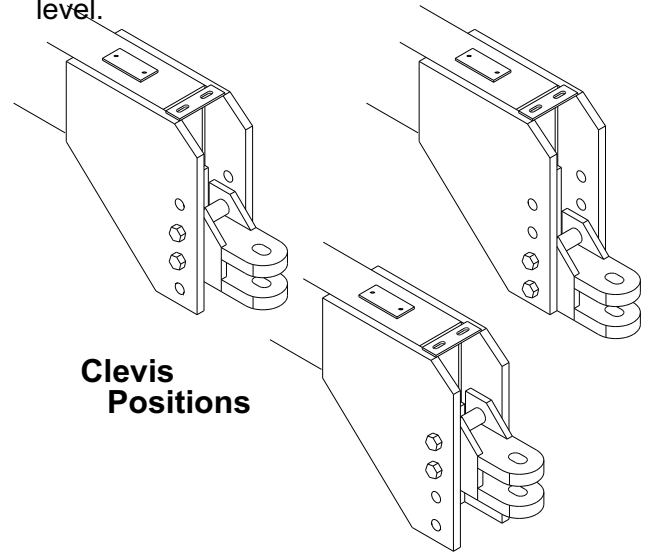
Field Operation

Recommended Operating Speed

Operating speeds of **6-10** mph will provide optimum results from your DBS. Conventional field conditions can warrant speeds in the upper end of the range. High levels of "tough" residue due to morning dew or recent moisture, rough field conditions, rocky fields, or hard ground may require lower speeds for adequate performance.

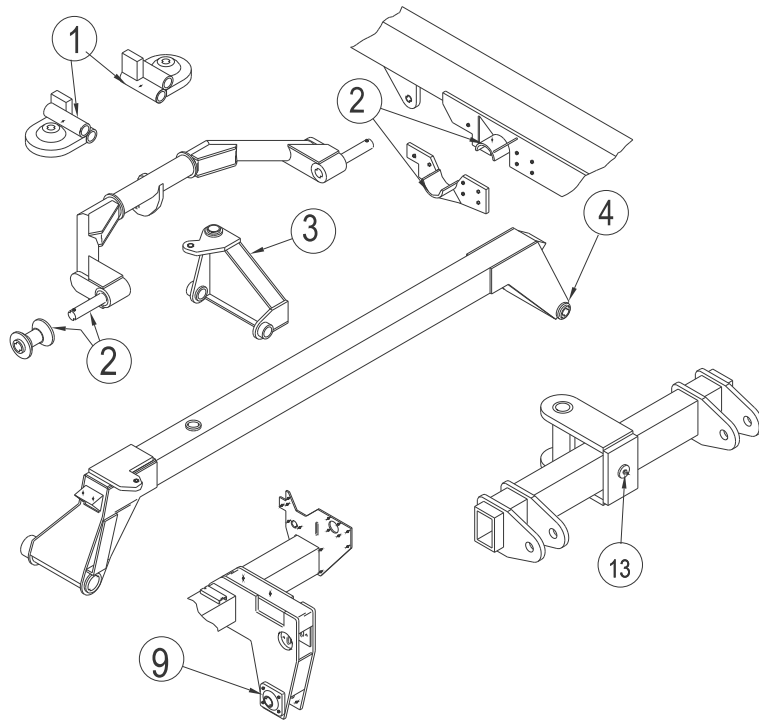
Leveling the DBS

It is important to level the DBS from front to back first. The tongue and box should be as close to level as you can get it by changing the drawbar height on the tractor (on offset drawbars), or by repositioning the clevis or mono hitch mounting. Any time a different tractor is hooked to the DBS you should recheck level.



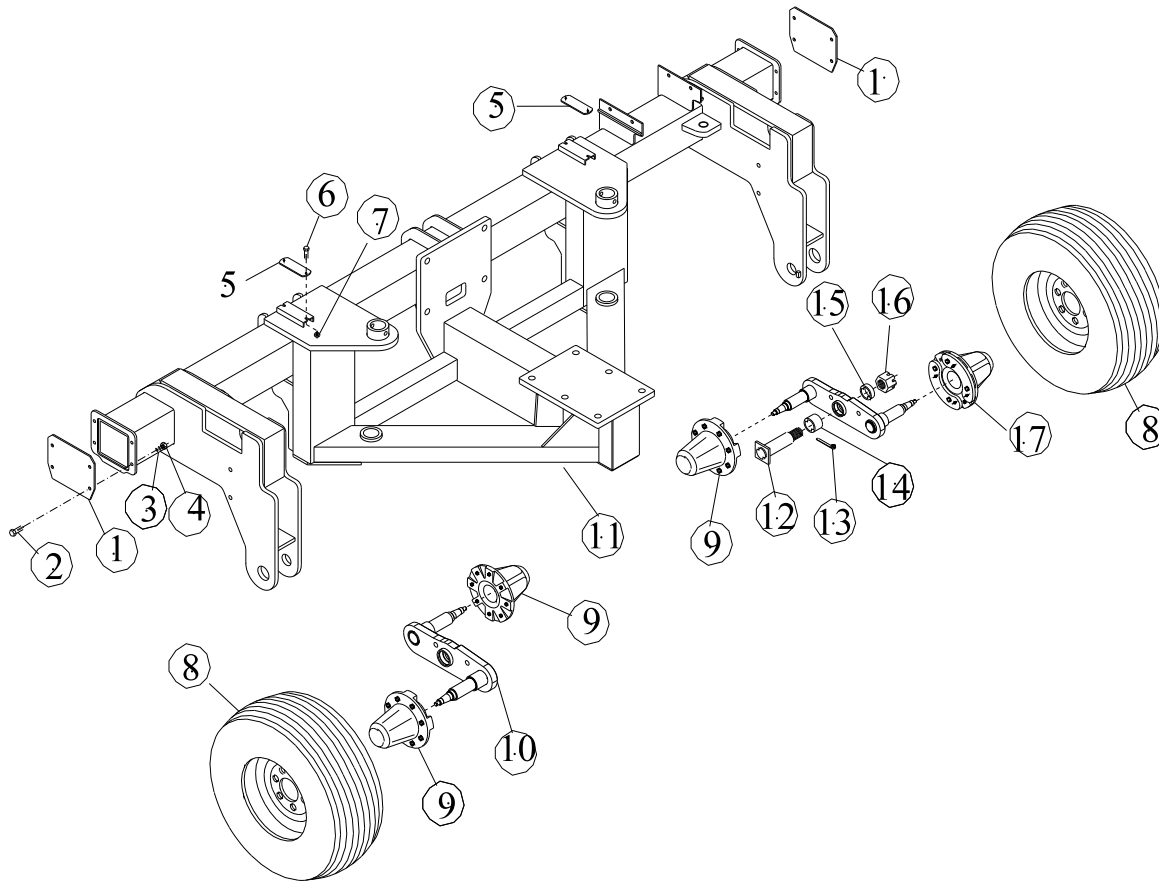
Lubrication and Service

Proper maintenance will extend the life of your DBS. Refer to the list and drawings below and drawings in the repair parts section for lubrication requirements. Use a high quality grease in bearings and pivot points. On greaseable sealed bearings, be careful not to over grease and destroy the dirt seal. Oil chains with a chain lube. A light penetrating oil or liquid graphite should be used on seed cups initially and at the end of each season.



- 1 Front pull bar slides as needed
- 2 Wing carrier rollers and wing carrier arms as needed
- 3 Fold hinges as needed
- 4 Fold flex arms as needed
- 9 Wing wheel bearings once per season
- 13 3-Point Hitch as needed

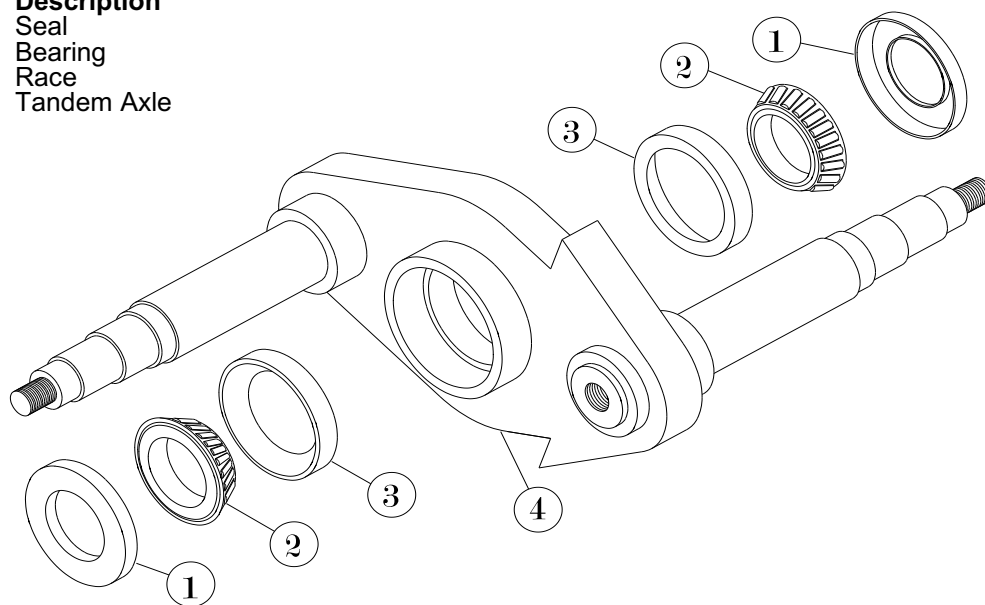
Center Section



Item	Part No.	Description	Item	Part No.	Description
1	958173	Frame End Cap	9	550897	Hub W778 8 Bolt Complete
2	01147800	HHCS 1/2" x 1 1/2"	10	962639	Tandem Axle
3	330142	Lock washer 1/2"	11	970152	Center Frame
4	330134	Hex Nut 1/2"	12	957258	Tandem Pivot Pin
5	217729	Hose Carrier Bolt Plate	13	331371	Cotter Pin 5/16" x 3"
6	334243	HHCS 3/8" x 2"	14	150409	Tandem Bushing Long
7	330837	Nut 3/8" Nylock	15	150391	Tandem Bushing Short
8	032862	Mounted Tire 12.5L x 15	16	337626	Slotted Hex Nut 1 1/2" SAE
INCLUDES:			17	865618	Hub W778 8 Bolt w/ Drive
	02990000	Decal "Check Wheel Lugs"			
	530287	Valve Stem			
	530931	Tire 12.5L x 15 "F"			
	530584	Wheel 8 Bolt 15 x 10			

Tandem Axle

Item	Part No.	Description
1	403154	Seal
2	403139	Bearing
3	403147	Race
4	962639	Tandem Axle

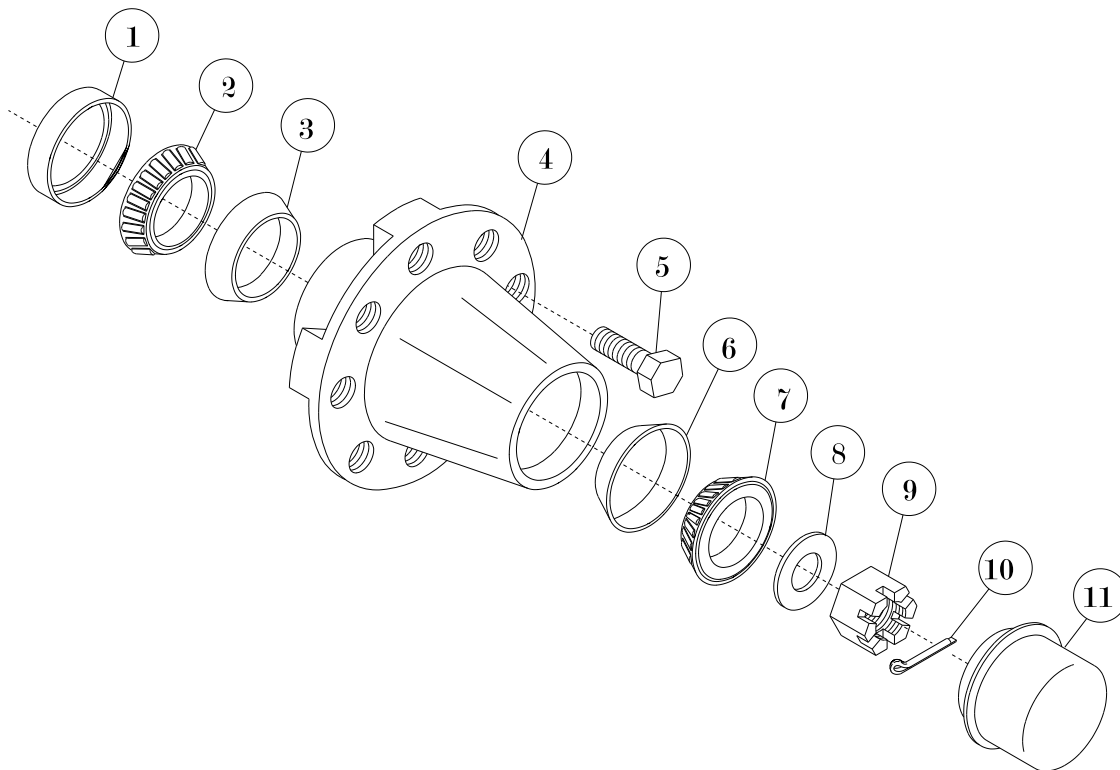


8 Bolt Hub #550897

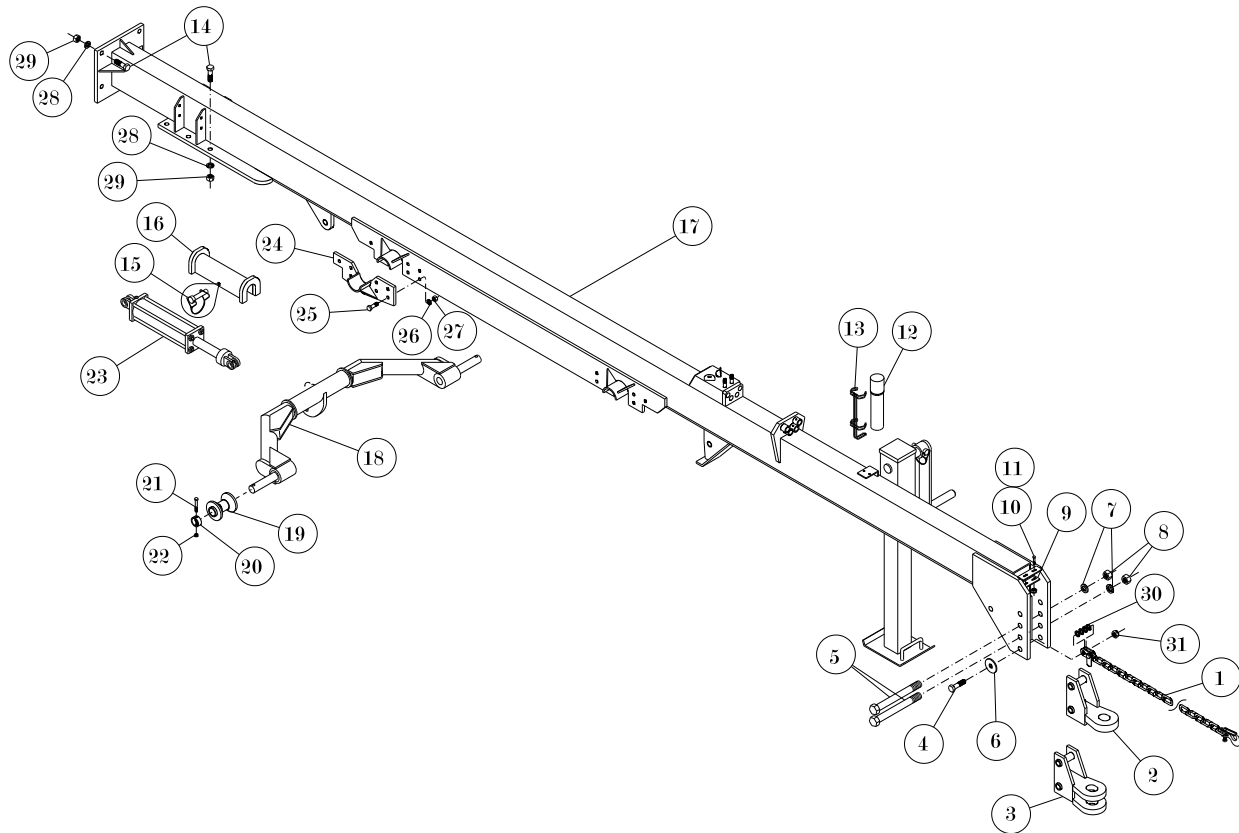
Item	Part No.	Description
1	401646	Grease Seal
2	401653	Inner Bearing
3	401661	Inner Cup
4	550897	8 Bolt Hub
		Hub Complete (Includes Items #1-#7)
	550970	Hub w/Cups Only
5	336297	Lub Bolt 9/16" x 1 1/8"
6	401679	Outer Cup
7	401687	Outer Bearing
8	02080000	Spindle Washer
9	331801	Spindle Nut
10	02154300	Cotter Pin
11	603613	Hub Cap

8 Bolt Hub w/4-3/8" Holes #551267

Uses same components
as #550897. See parts list for #550897.



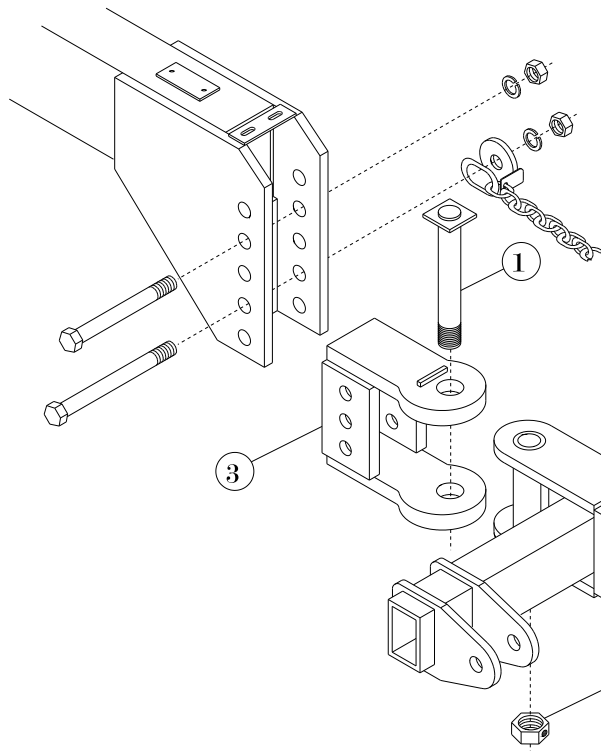
Hitch



Item	Qty	Part No.	Description
1	1	433953	Safety Chain 41,100#
2	1	963546	Mono-Clevis
3	1	955831	Clevis (Optional)
4	1	334870	HHCS 1" x 4"
5	2	337360	HHCS 1 1/4" x 10"
6	1	20442000	Safety Chain Washer
7	3	332304	Lock Washer 1 1/4"
8	3	331454	Hex Nut 1 1/4"
9	1	217810	Hose Bolt Plate
10	2	334243	HHCS 3/8" x 2"
11	2	330837	Hex Nylock Nut 3/8"
12	1	02889400	Manual Cannister
13	1	02890200	Cannister Mounting Bracket
14	10	334789	HHCS 1" x 3 1/2"
15	2	00233700	Pin-Wire Lock 5/16" x2 3/4"
16	2	964759	Cylinder Lockout
17	1	962456	Hitch

Item	Qty	Part No.	Description
18	2	963272	Wing Carrier
19	4	957191	Wing Carrier Roller
20	4	150326	Wing Carrier Lock Collar
21	4	334300	HHCS 1/2" x 3 1/2"
22	4	331363	Hex Nylock Nut 1/2"
23	2	469908	Cylinder 5" x 10"
24	1	957480	Lower Bearing Plate Right Rear / Left Front (Shown)
	1	957779	Left Rear / Right Front
25	28	335174	HHCS 3/4" x 2 1/2"
26	28	330332	Lock Washer 3/4"
27	28	330290	Hex Nut 3/4"
28	10	330399	Lock Washer 1"
29	10	330381	Hex Nut 1"
30	4	335166	Machine Bushing 1" x 10 ga
31	1	330597	Hex Nylock Nut 1"

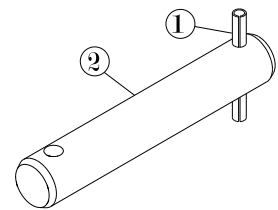
2 Point Hitch Option #873539



Item	Part No.	Description
1	966986	Hitch Mount Pin
2	331785	Nut Hex Jam 1 3/4" w/set screw
3	966994	Hitch Tube
4	967430	Hitch
5	850792	Pin
6	334425	Klik Pin 7/16" w/2" ring

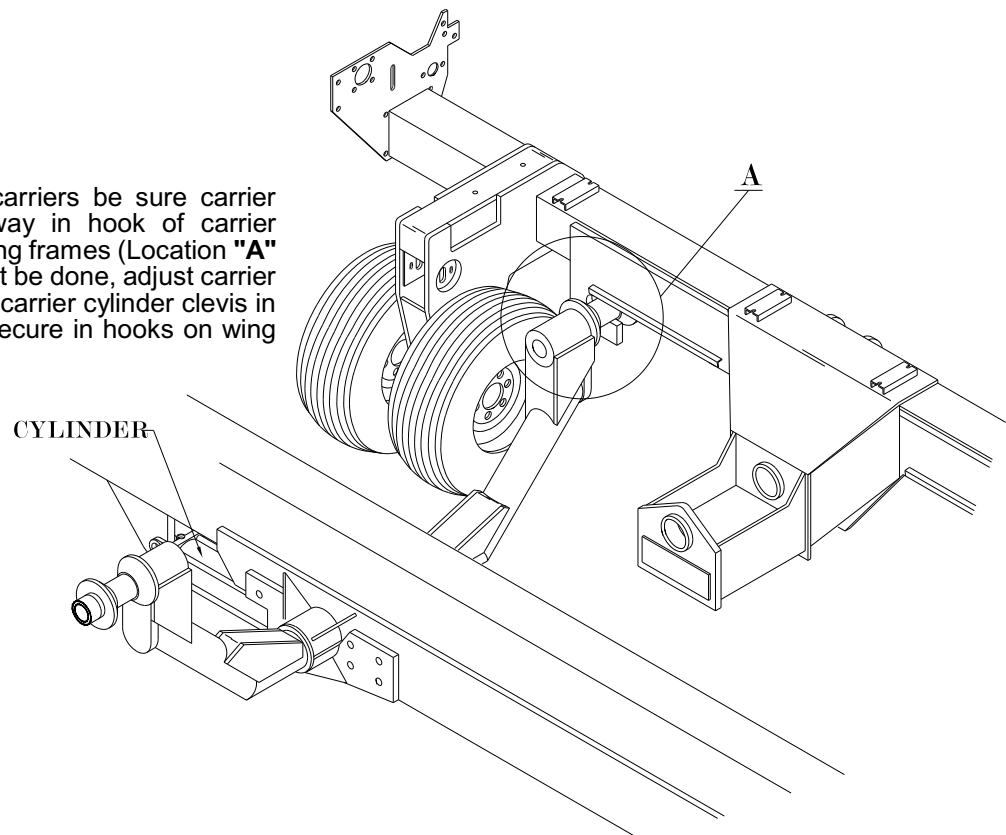
2-Point Pin #850792

Item	Part No.	Description
1	336248	Roll Pin 3/8" x 2 1/2"
2	336834	Pin 1 1/2" x 9"



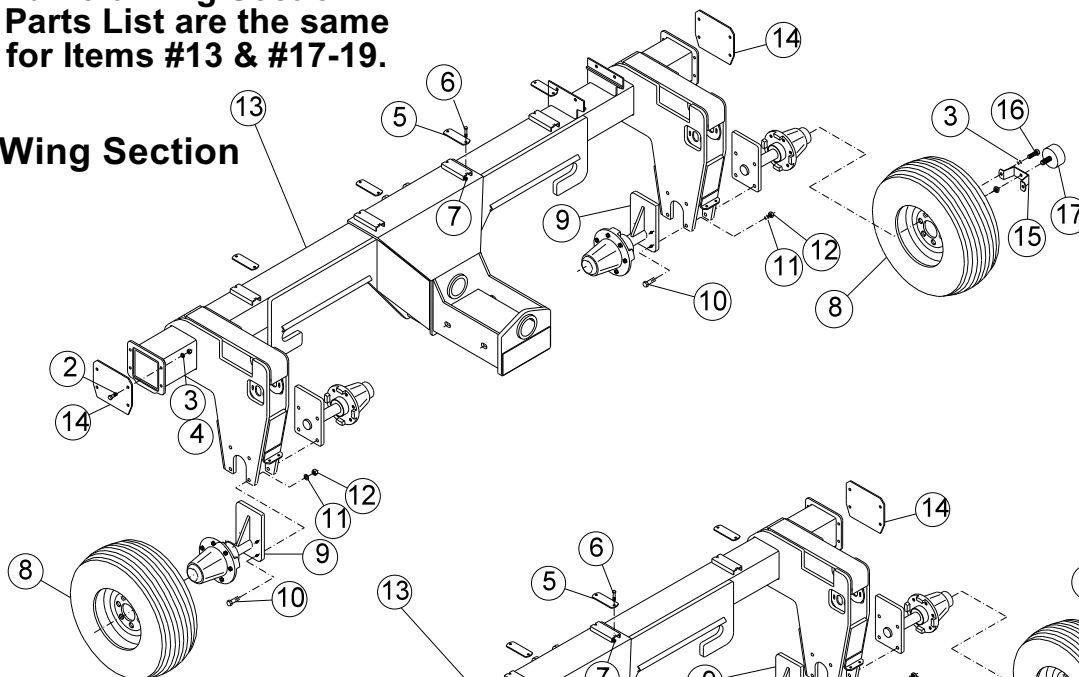
Wing Carrier Adjustment

When raising wing carriers be sure carrier rollers are all the way in hook of carrier bracket on front of wing frames (Location "A" in view). If this cannot be done, adjust carrier arms by turning wing carrier cylinder clevis in or out until roller is secure in hooks on wing frames.

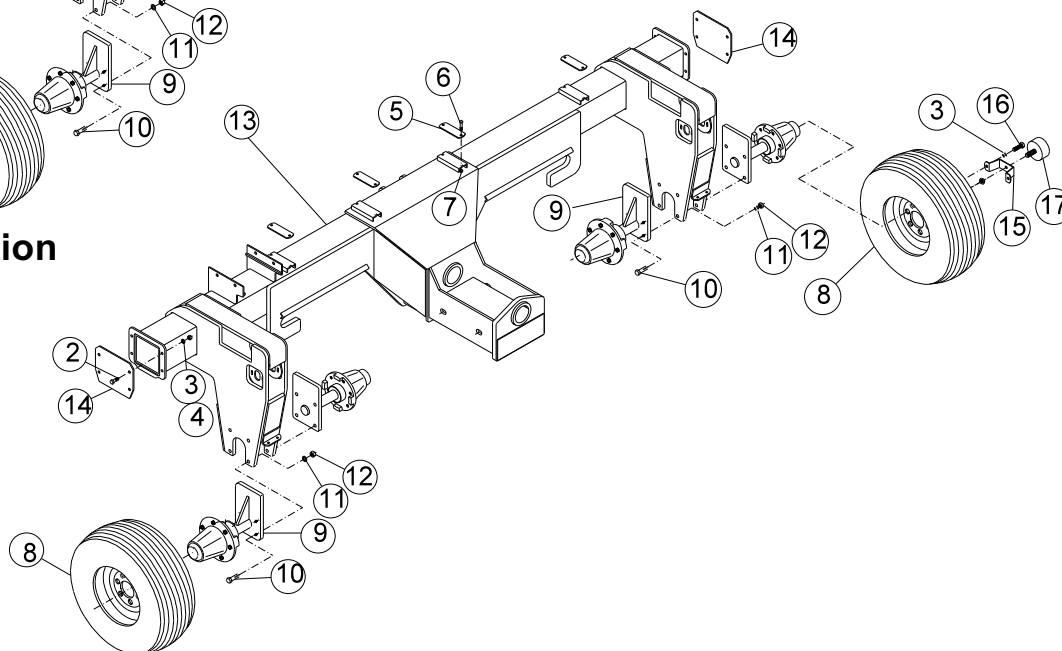


**Right and Left Wing Section
Repair Parts List are the same
except for Items #13 & #17-19.**

Right Wing Section



Left Wing Section



Item	Part No.	Description
2	01147800	HHCS 1/2" x 1 1/2"
3	330142	Lock washer 1/2"
4	330134	Hex Nut 1/2"
5	217729	Hose Carrier Bolt Plate
6	334243	HHCS 3/8" x 2"
7	330837	Nut 3/8" Nylock
8	815175	Mounted Tire 11L 8 Ply 6B

INCLUDES:

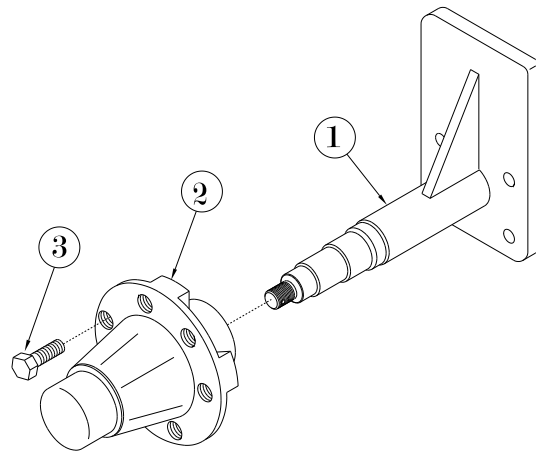
	02990000	Decal "Check Wheel Lugs"
	530287	Valve Stem
	530329	Tire 11L x 15 8 Ply
	530147	Wheel 6 Bolt 15 x 10
9	868711	Spindle Assembly
10	06957500	HHCS 5/8" x 2 1/2"
11	330878	Lock Washer 5/8"
12	330571	Hex Nut 5/8"

Item	Part No.	Description
13	970178	Wing Frame Right
	970194	Wing Frame Left
14	958173	Frame End Cap
15	263962	Acre Counter Bracket Left Only
16	337139	Tap Bolt 1/2" x 2" SAE Left Only
17	609453	Acre Meter Counter Left Only

Spindle & Hub Assembly #868711

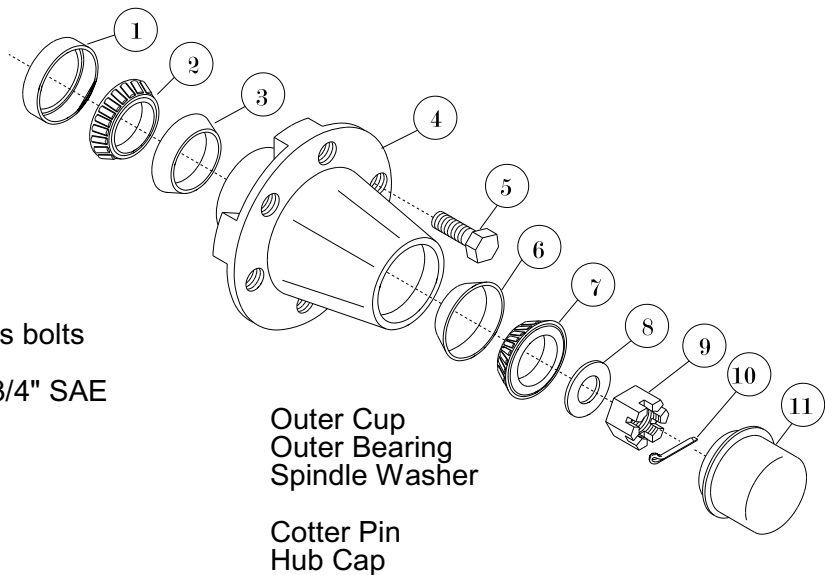
Item	Part No.	Description
1	961847	Spindle Weldment
2	551291	6 Bolt Hub less bolts
* 3	330464	Lug Bolt

*Lug Bolts are not included in hub #551291

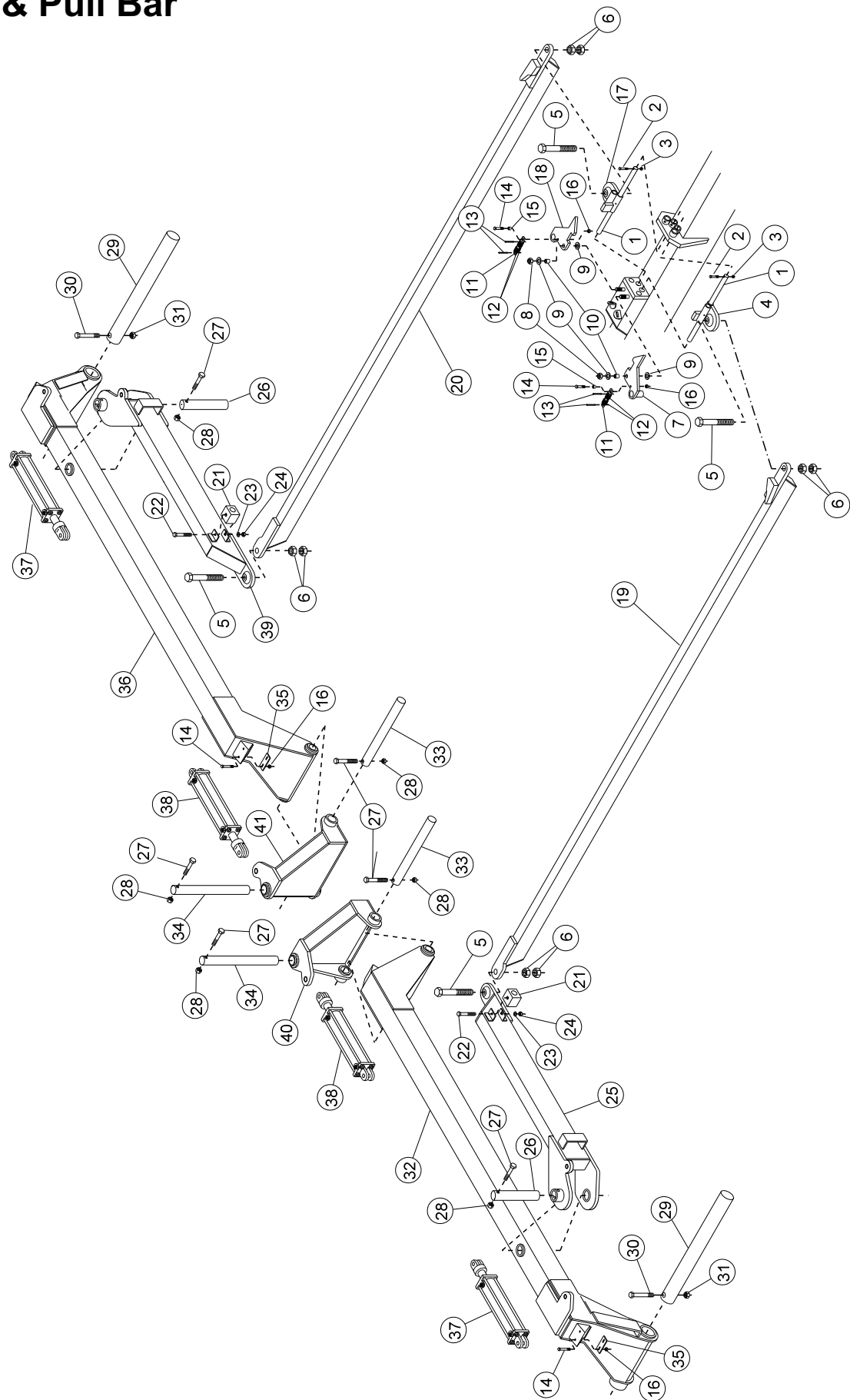


6 Bolt Hub #551291

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	
7	05741400	
8	02080000	
9	331801	Spindle Nut
10	02154300	
11	05703400	



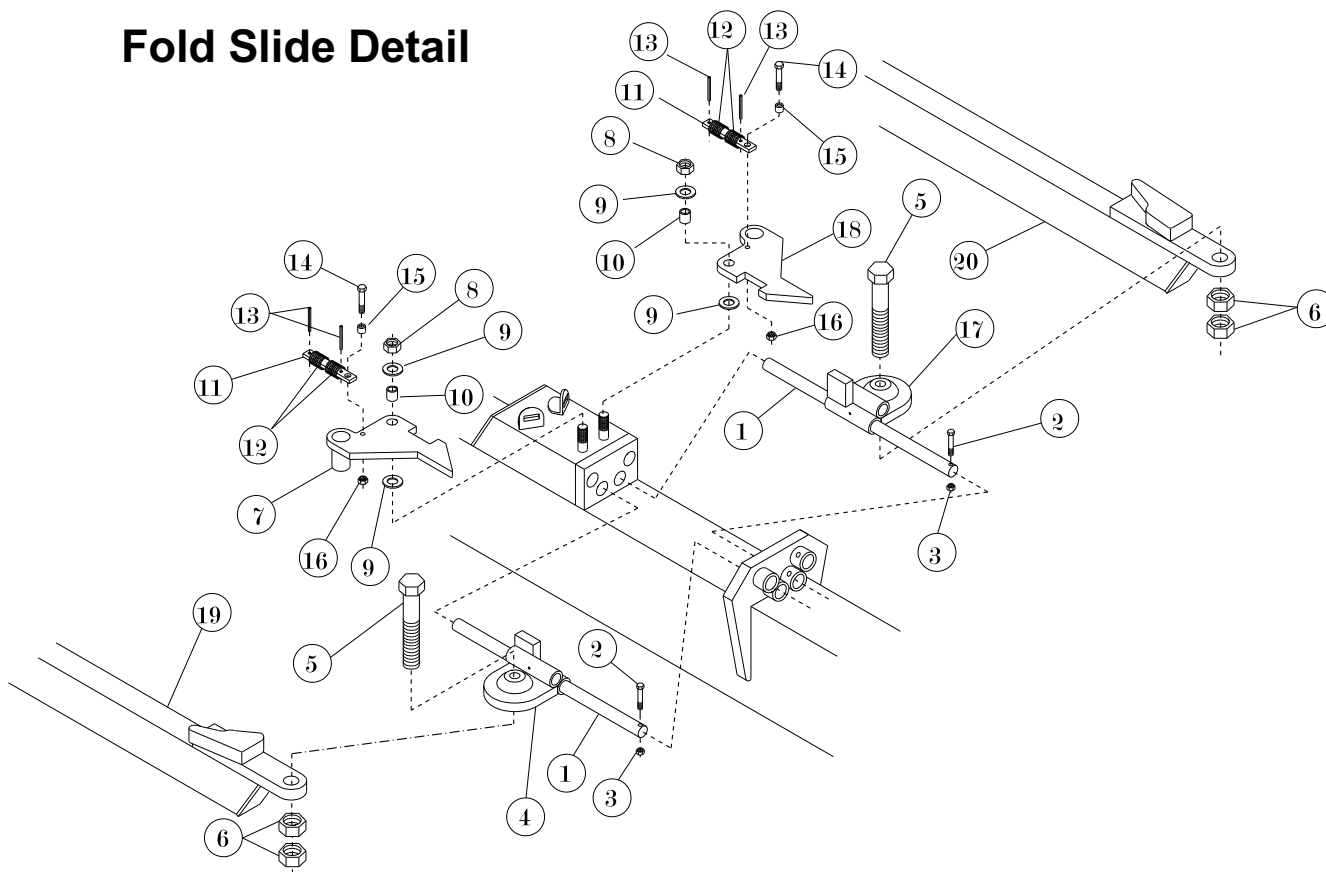
Fold & Pull Bar



Fold & Pull Bar

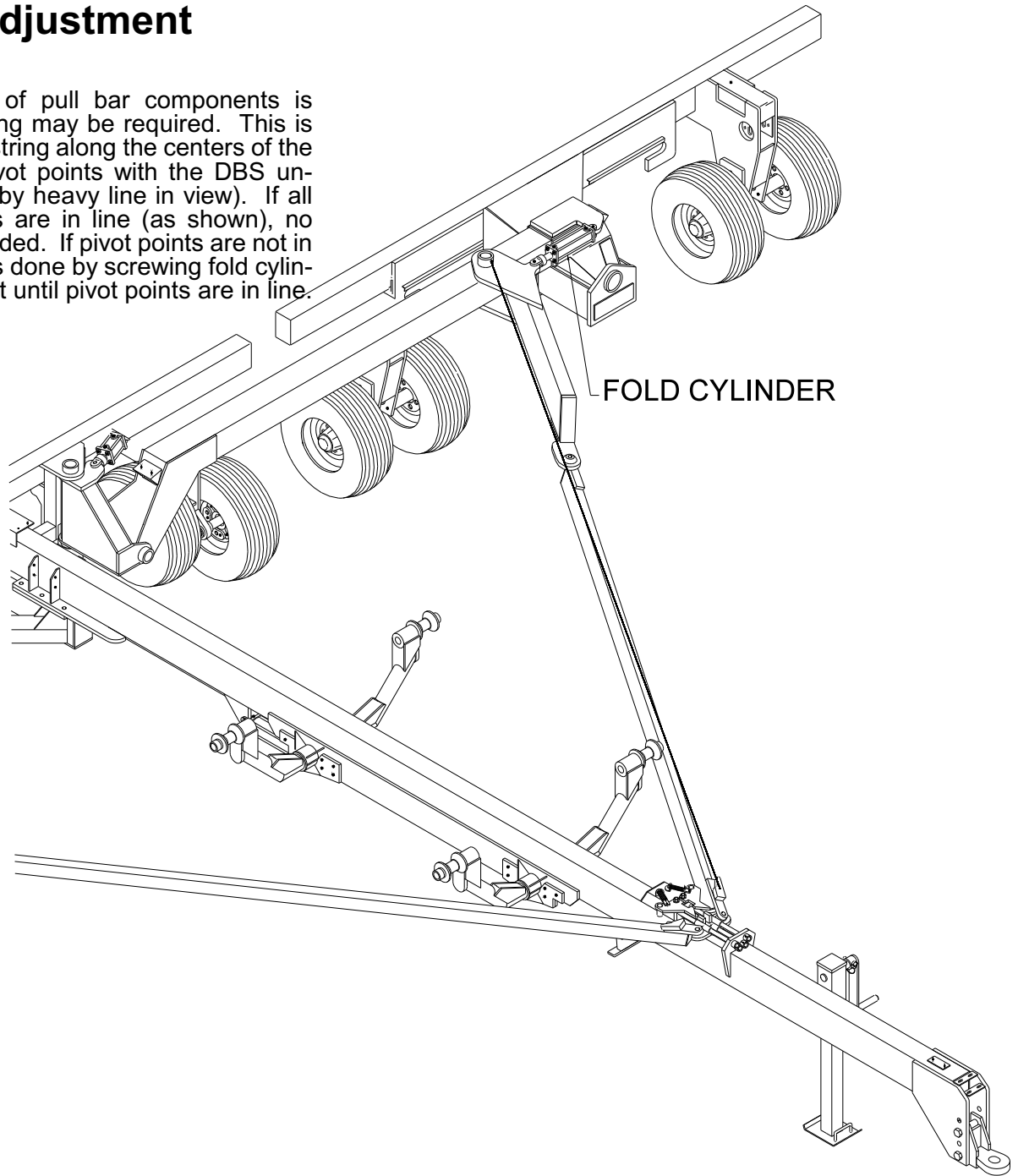
Item	Part No.	Description	Item	Part No.	Description
1	309880	Pull Bar Slide Rod	22	333112	HHCS 3/8" x 4 1/2"
2	02440600	HHCS 5/16" x 2 1/4"	23	330043	Lock Washer 3/8"
3	331611	Hex Nut 5/16" Nylock	24	330035	Hex Nut 3/8"
4	957969	Pull Bar Slide Right	25	962522	Rear Fold & Pull Bar Right
5	337451	HHCS 1 1/2" x 5"	26	309872	Rear Pull Bar Pin
6	331074	Hex Jam Nut 1 1/2"	27	335182	HHCS 5/8" x 4 1/2"
7	957381	Slide Lock Right	28	01572700	Nut 5/8" Nylock
8	330316	Hex Nut 3/4" Nylock	29	309518	Flex Arm Pin
9	330340	Flat Washer 3/4"	30	333732	HHCS 1" x 6 1/2"
10	142646	Bushing	31	330597	Nut 1" Nylock
11	216481	Spring Guide	32	962464	Flex Arm Right
12	501031	Spring	33	309922	Hinge Pin
13	330662	Roll Pin 5/16" x 1 3/4"	34	309914	Hinge Pin
14	334243	HHCS 3/8" x 2"	35	217810	Hyd. Hose Bolt Plate
15	150441	Bushing	36	962472	Flex Arm Left
16	330837	Hex Nut 3/8" Nylock	37	469916	Cylinder 4 x 8
17	957373	Pull Bar Slide Left	38	469908	Cylinder 5 x 10
18	957399	Slide Lock Left	39	962530	Rear Fold/ Pull Bar Left
19	962555	Front Pull Bar Right	40	955773	Hinge Right
20	962563	Front Pull Bar Left	41	956185	Hinge Left
21	605832	Pull Bar Bumper			

Fold Slide Detail

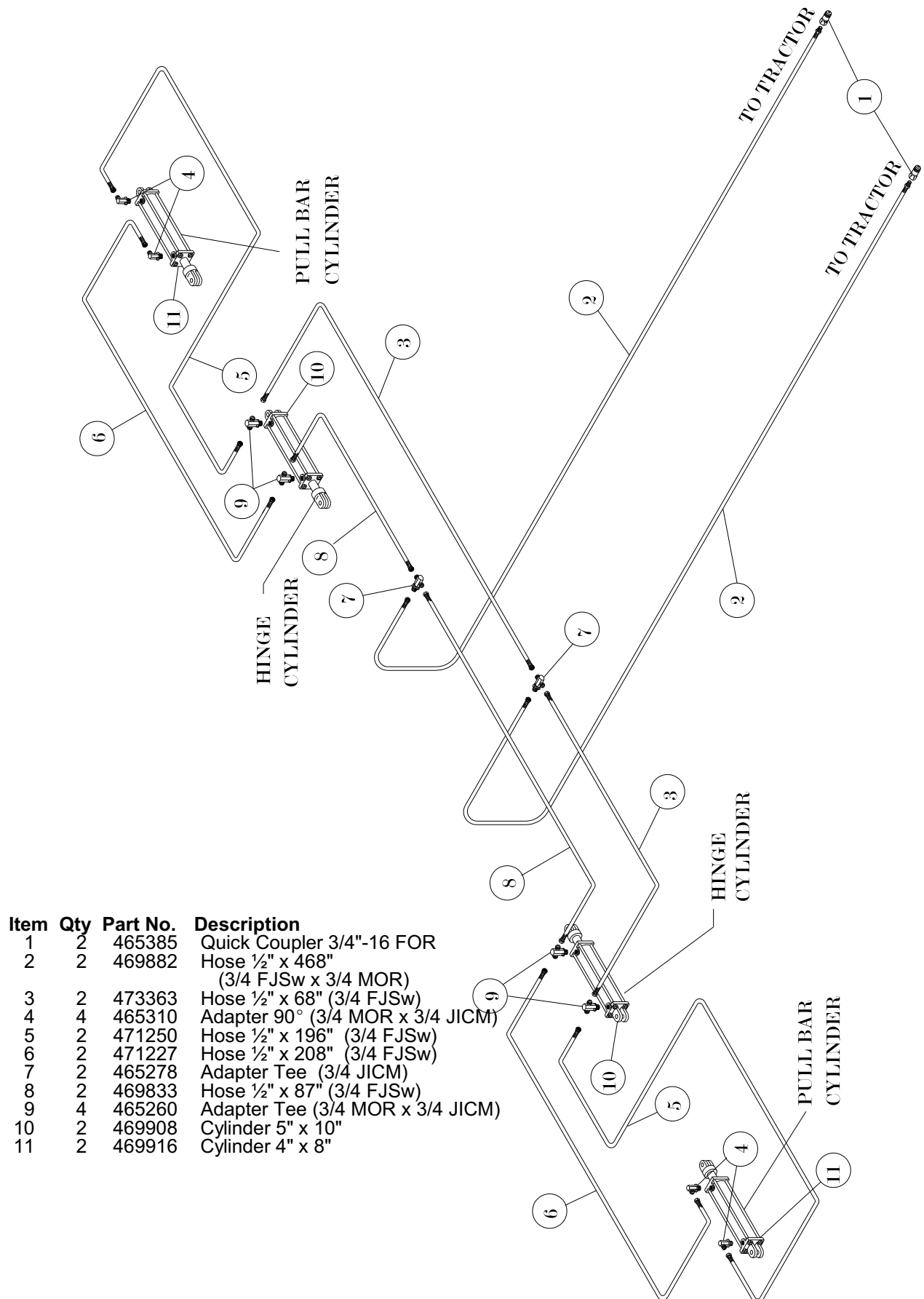


Pull Bar Adjustment

When assembly of pull bar components is complete, adjusting may be required. This is done by laying a string along the centers of the front and rear pivot points with the DBS unfolded (indicated by heavy line in view). If all three pivot points are in line (as shown), no adjustment is needed. If pivot points are not in line, adjustment is done by screwing fold cylinder clevis in or out until pivot points are in line.

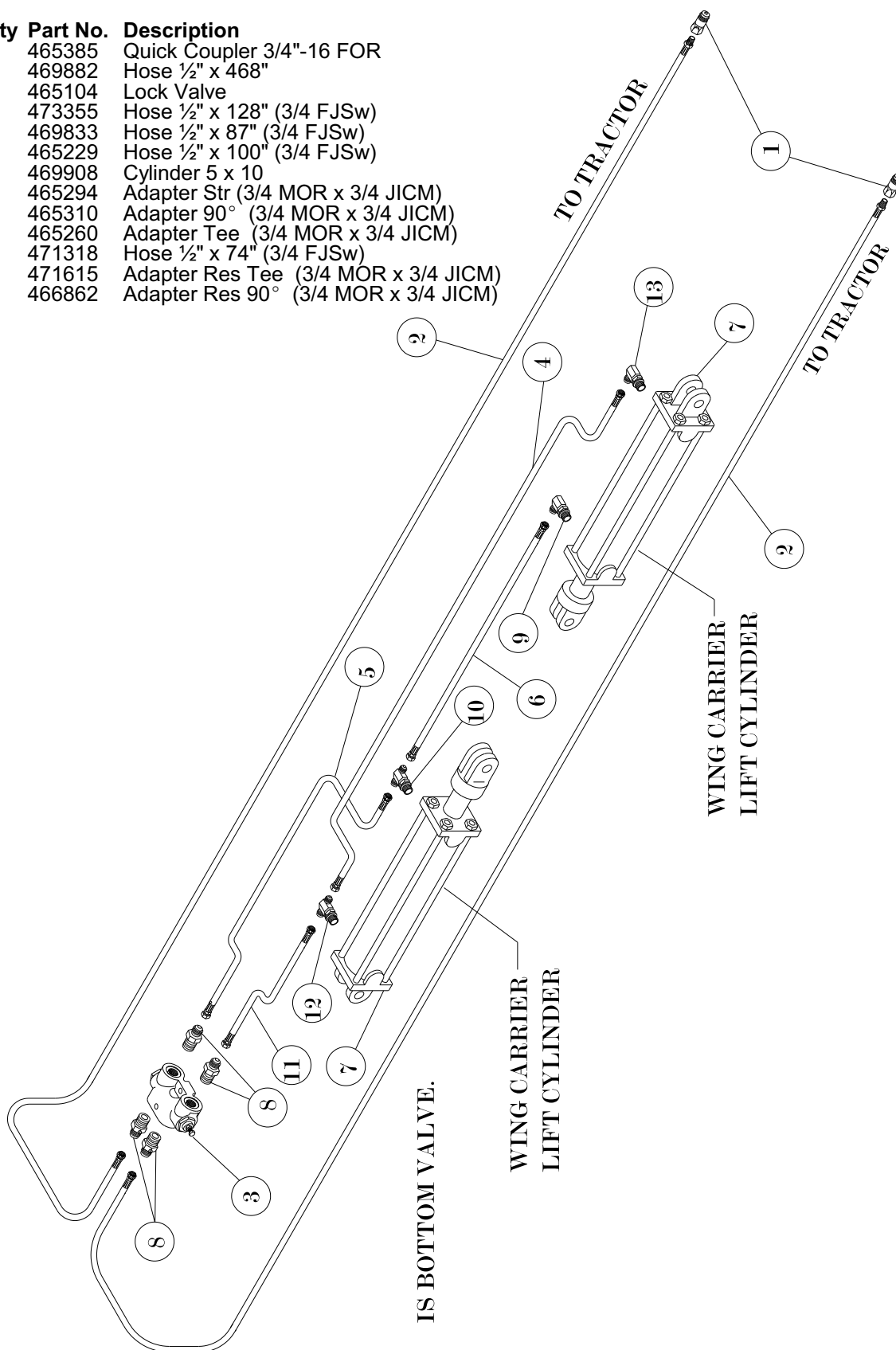


Fold Hydraulics

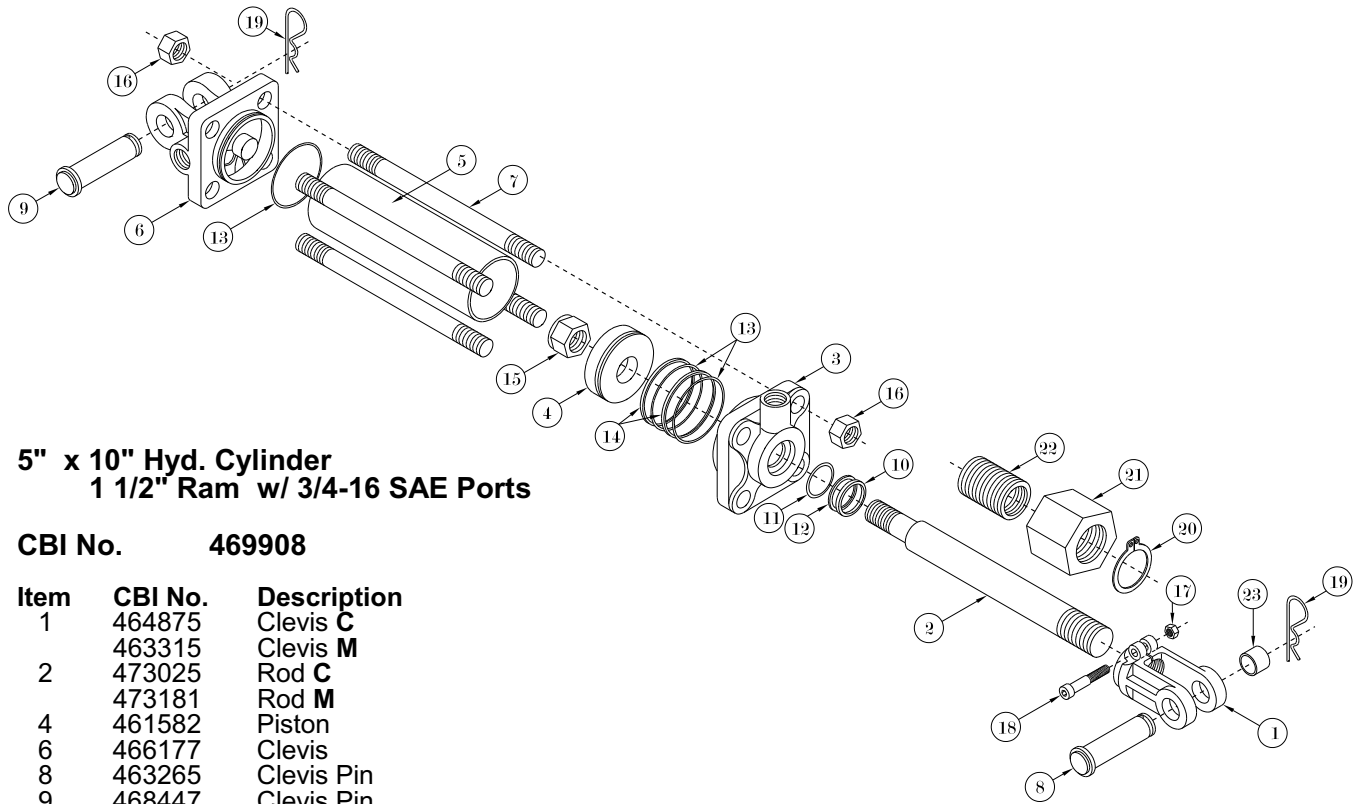


Wing Carrier Hydraulics

Item	Qty	Part No.	Description
1	2	465385	Quick Coupler 3/4"-16 FOR
2	2	469882	Hose 1/2" x 468"
3	1	465104	Lock Valve
4	1	473355	Hose 1/2" x 128" (3/4 FJSw)
5	1	469833	Hose 1/2" x 87" (3/4 FJSw)
6	1	465229	Hose 1/2" x 100" (3/4 FJSw)
7	2	469908	Cylinder 5 x 10
8	4	465294	Adapter Str (3/4 MOR x 3/4 JICM)
9	1	465310	Adapter 90° (3/4 MOR x 3/4 JICM)
10	1	465260	Adapter Tee (3/4 MOR x 3/4 JICM)
11	1	471318	Hose 1/2" x 74" (3/4 FJSw)
12	1	471615	Adapter Res Tee (3/4 MOR x 3/4 JICM)
13	1	466862	Adapter Res 90° (3/4 MOR x 3/4 JICM)



Hydraulic Cylinders



5" x 10" Hyd. Cylinder
1 1/2" Ram w/ 3/4-16 SAE Ports

CBI No. 469908

Item	CBI No.	Description
1	464875	Clevis C
	463315	Clevis M
2	473025	Rod C
	473181	Rod M
4	461582	Piston
6	466177	Clevis
8	463265	Clevis Pin
9	468447	Clevis Pin
10	460907	Rod Wiper
13	461533	O-ring
14	461590	Back-up
15	461608	Piston Nut
16	461459	Tie Rod Nut
17	460691	Clevis Nut
18	460477	Capscrew
19	460469	Cotter Pin
	461855	Seal Kit C
	473199	Seal Kit M

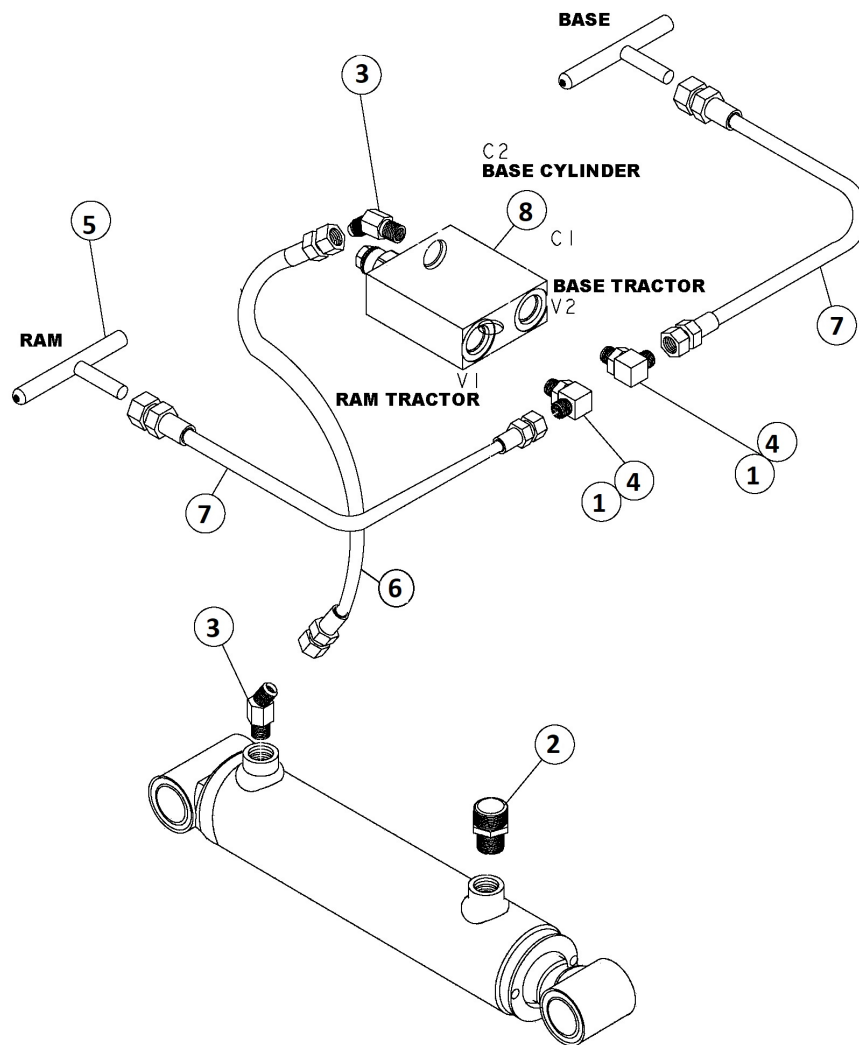
4" x 8" Hyd. Cylinder
1 1/4" Ram w/ 3/4-16 SAE Ports

CBI No. 469916

Item	CBI No.	Description
1	461095	Clevis
4	461269	Piston
5	461293	Tube
6	467134	Base Clevis
7	461384	Tie Rod
8	463133	Clevis Pin
9	463133	Clevis Pin
10	460329	Rod Wiper
13	461186	O-ring
14	461277	Back-up
15	461285	Piston Nut
16	461442	Tie Rod Nut
17	460691	Clevis Nut
18	460477	Capscrew
19	460469	Cotter Pin
	461830	Seal Kit

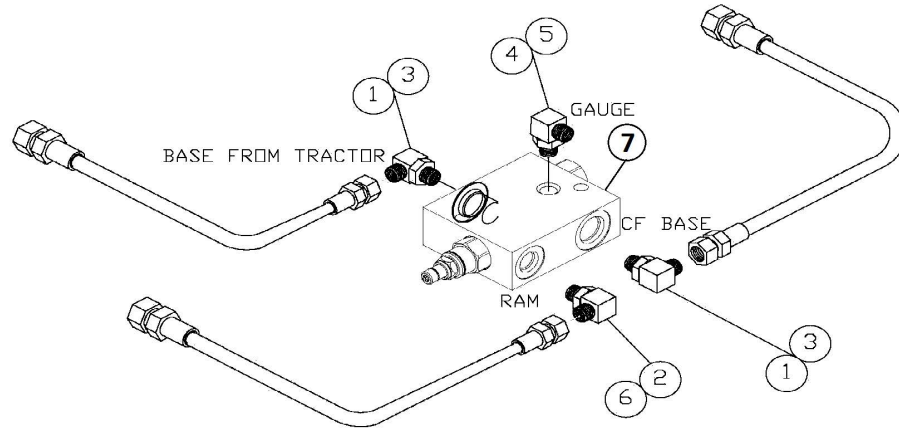
Hydraulics Hose & Fittings

3 x 7 U-Bolt



Item	Part No.	Description
1	00598300	ADPT 90D .563MOR/.563JICM
2	476135	ADPT STR .563MOR/.563MORSW
3	476127	ADPT 45D .563MOR/.563JICM
4	469049	ADPT 90D .563JICM/.563JICFSW
5	465278	ADPT TEE .750JICM
6	476119	HOSE .375* 15 .563FJSW/.563FJS
7	469619	HOSE .375* 20 .563FJSW/.75FSW
8	476093	HYD VALVE CBBCLHN-ZRKB

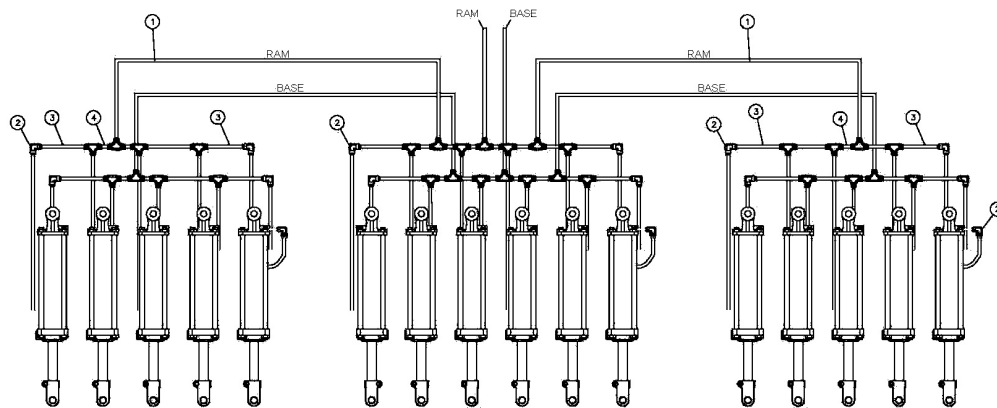
Constant Down Pressure Valve 3 x 7 U-Bolt



Item	Part No.	Description
1	465146	HOSE .500 X 30 .750FJSW
2	476135	ADPT STR .563MOR/.563MORSW
3	465310	ADPT 90D .750MOR/.750JICM
4	00650200	ADPT 90D .250NPTM/.250NPTFSW
5	00652800	HYD GAUGE 5000 PSI .250 NPTM
6	459800	HOSE .375 X 40 .563FJSW/.75FSW
7	476101	HYD VALVE PPDBLAN-E2J

Hydraulic Hose Diagram

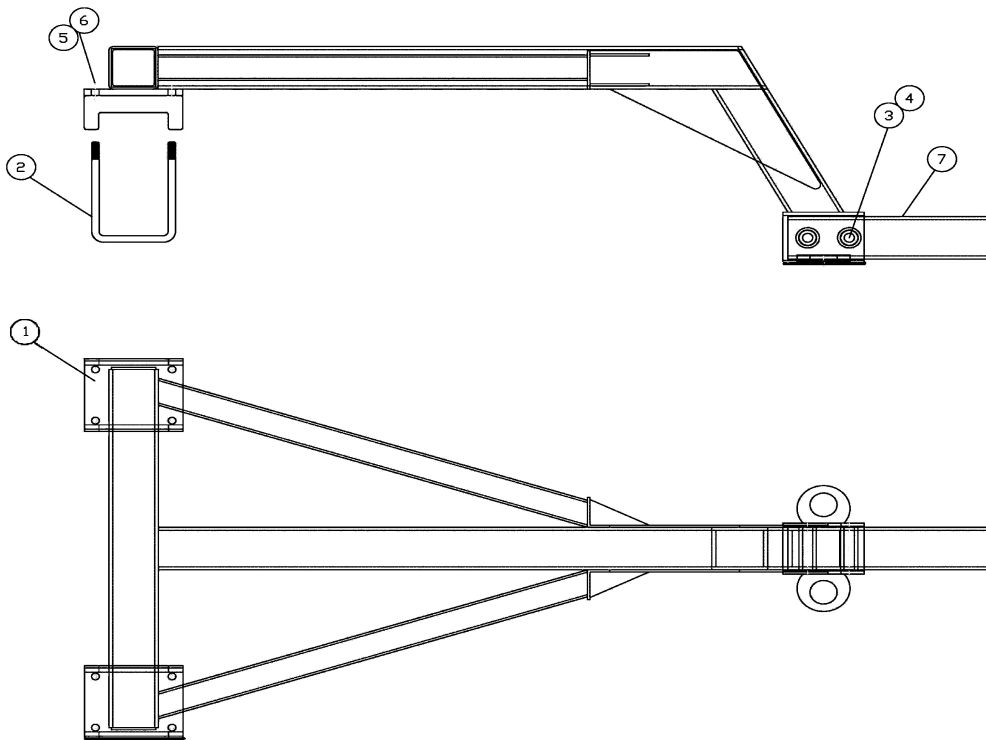
Item	Part No.	Description
1	471250	HOSE .500 X 196 .750 FJSW
2	466870	ADPT 90D .750JICM/.750JICM
3	465146	HOSE .500 X 30 .750 FJSW
4	468934	HOSE .500 X 15 .750FJSW



Rear Hitch Assy

884560

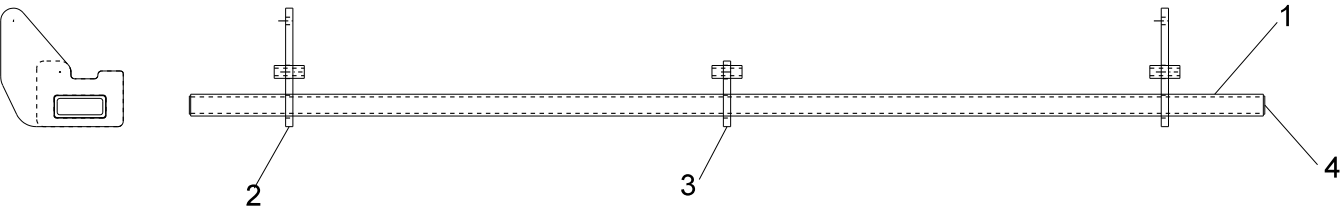
Item	Qty	Part No.	Description
1	1	983437	4700 DBS REAR HITCH WA
2	4	337162	CRR .750*30 U-BOLT 7X11
3	2	334938	HHCS 1.000 X 7.000 G5
4	2	330597	NUT 1.000 HEX NYLOCK
5	8	330332	WASHER .750 LOCK
6	8	330290	NUT .750 HEX
7	1	983460	HITCH TUBE WA
8	1	04578100	WINCH



DMR 4740 Tool Bar RT/LT

983114

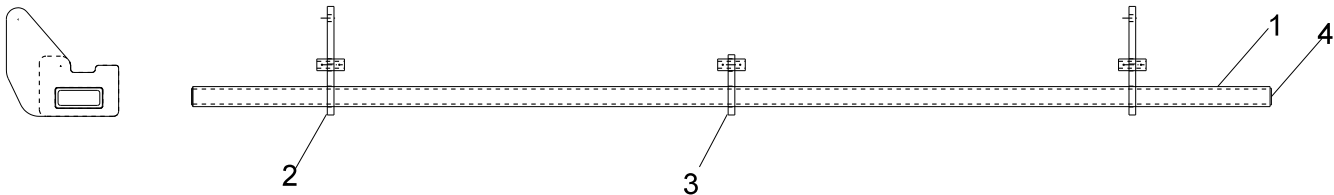
Item	Qty	Part No.	Description
1	1	158956	TUB-RT 7 X 3 X .375 X 147.00
2	2	644450	TOOL BAR HANGER OUTSIDE
3	1	644443	TOOL BAR HANGER CENTER
4	2	33052200	HRF .188 X 2.50 X 6.75 END CAP



DMR 4740 Tool Bar Center

983122

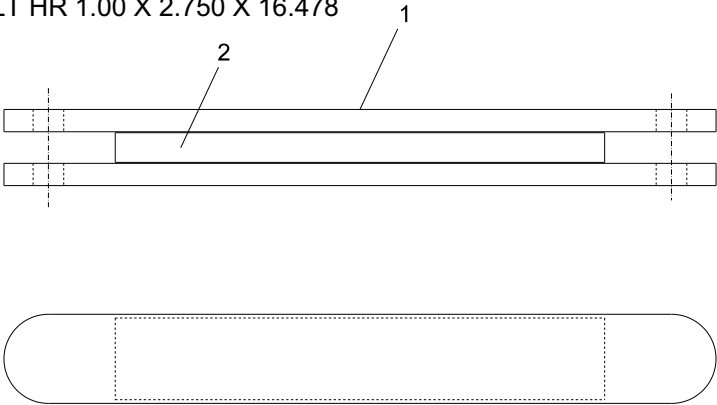
Item	Qty	Part No.	Description
1	1	158964	TUB-RT 7 X 3 X .375 X 161.25
2	2	644450	TOOL BAR HANGER OUTSIDE
3	1	644443	TOOL BAR HANGER CENTER
4	2	33052200	HRF .188 X 2.50 X 6.75 END CAP



DMR Tool Bar Link

983106

Item	Qty	Part No.	Description
1	1	32982100	PLT HR 1.00 X 3.000 X 23.978
2	2	32981300	PLT HR 1.00 X 2.750 X 16.478





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

DBSs Final Assembly Check List

DBS Model #

DBS Serial #

SR. NO .	DESCRIPTION	CHECKED		INITIALS
		Yes	No	
1	Check console, Light kit			
2	No missing nuts & bolts and that all nuts & bolts are tight.			
3	Center lug bolts torque to 120 ft. lbs.			
4	All bearing zerks are greased.			
5	No hydraulic leaks			
6	All decals on and in proper place.			
7	Paint touched up and good overall appearance.			
8	Final check on opener assembly.			
9	All lock out brackets in place			
10	Manual in box.			

Remarks:

Signature: Date: