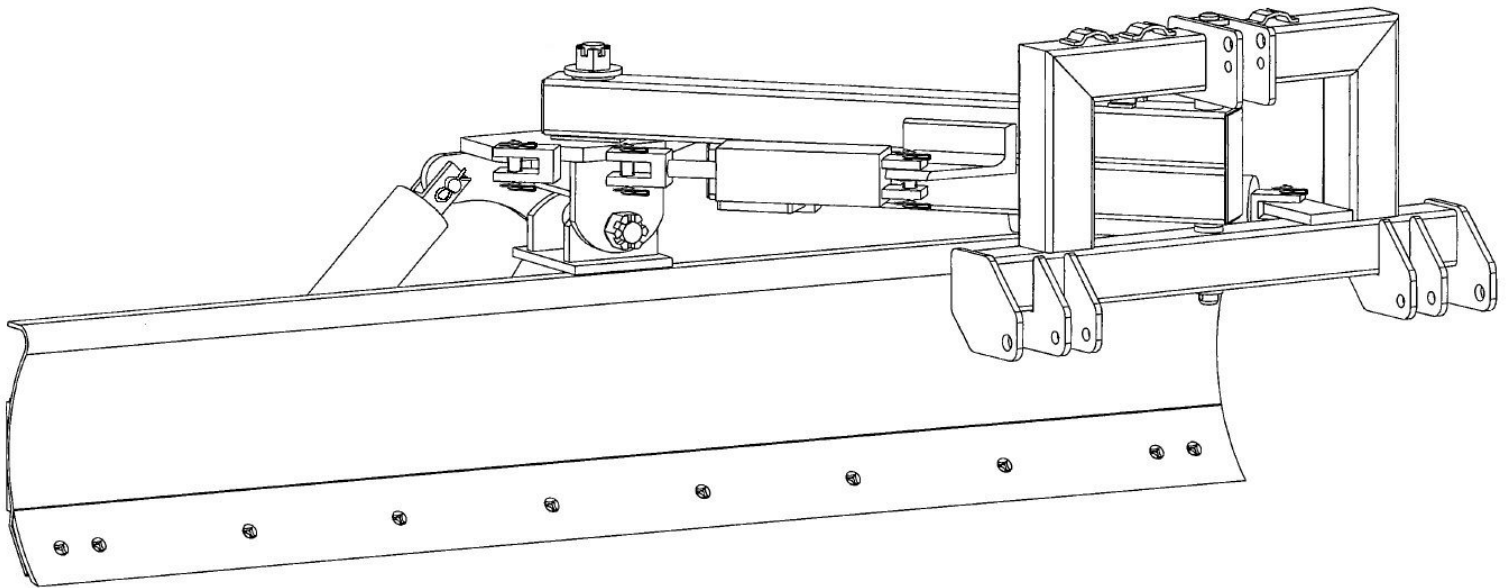




Taylor Pittsburgh Mfg., Inc.
PO Box 1200
Winfield, Alabama 35594
205-487-3202

RMB 8500 SERIES GRADER BLADES



OWNERS MANUAL

FORM RMB-8500
OCT 2023

www.taylorpittsburgh.com

TO THE DEALER:

The rear blade assembly and proper installation to the tractor is the responsibility of the TAYLOR PITTSBURGH dealer. Read manual instructions and safety rules. Make sure all items on the Pre-delivery and Delivery Checklists are completed before releasing equipment to the owner.

TO THE OWNER:

Read this manual before operating your TAYLOR PITTSBURGH rear blade. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer or by calling 1-205-487-3202, in the USA and Canada only.

The rear blade you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the rear blade and tractor.

For service your authorized TAYLOR dealer has trained mechanics, genuine TAYLOR PITTSBURGH service parts, and the necessary tools and equipment to handle all your needs.

Provide your model number and serial number to your dealer to obtain correct repair parts.

LIMITED WARRANTY

TAYLOR PITTSBURGH MFG., INC. the manufacturer, warrants only to the Original Purchaser that this equipment, under normal use and service, will be free from defects in material and workmanship for one (1) year from date of purchase providing this equipment is purchased for individual and not for commercial use. Warranty for commercial usage is 90 days. This warranty does not apply to any equipment which has been damaged or which has been subjected to abuse, misuse, negligence, abnormal wear and tear, alterations, tampering, or failure to follow operating instructions. This warranty does not cover any product or parts not manufactured by TAYLOR PITTSBURGH MFG., Inc.

Under this warranty, the manufacturer will repair or replace any part which the manufacturer determines has failed during the period of the warranty due to defects in material or workmanship. After approval by the manufacturer, the equipment or defective part must be returned to TAYLOR PITTSBURGH MFG., INC., Winfield, AL 35594.

Warranty coverage and performance is expressly conditioned on the return of the completed registration form to TAYLOR PITTSBURGH MFG., INC., Winfield, AL 35594.

PURCHASER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, OTHER DEFECT, OR CONDUCT GIVING RISE TO LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT SOLD, AND THE MANUFACTURER UNDER NO CIRCUMSTANCES SHALL BE LIABLE FOR ECONOMIC LOSS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

Taylor Pittsburgh Mfg., Inc. reserves the right to make improvements and changes in specifications without notice or obligation to modify previous sold units.

This manual describes the proper assembly procedures for your rear blade and furnishes operating and maintenance recommendations to help you obtain long and satisfactory service.

SAFETY

READ AND FOLLOW THE INSTRUCTIONS IN THIS MANUAL AND ESPECIALLY IN THE SAFETY SECTION. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS.



THIS SYMBOL MEANS
ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED



SIGNAL WORDS:

The signal words **DANGER**, **WARNING** and **CAUTION** are used with the safety messages in this manual and with each safety signs. They are defined as follows:

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

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

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

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or Taylor Pittsburgh Mfg., Inc. P.O. Box 1200 Winfield, AL 35594 (205) 487-3202 or www.taylorpittsburgh.com

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LEARN TO RECOGNIZE THIS SYMBOL!



It means: ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

8500 SPECIFICATIONS

MODEL	RMB-8500-72 RMB-8500-84 RMB-8500-96
TRACTOR DRAWBAR RATING	UP TO 85 HP
HITCH TYPE	3 POINT - CAT I & CAT II
BLADE WIDTHS	6', 7', 8'
BLADE ANGLING	RATCHET JACK OR HYDRAULIC CYLINDER (OPTIONAL) FORWARD OR REVERSE, 36 DEGREES RIGHT OR LEFT (INFINITLY ADJUSTABLE)
TILT	RATCHET JACK OR HYDRAULIC CYL. (INFINITLY ADJUSTABLE) UP OR DOWN 24 DEGREES UP - 28 DEGREES DOWN (INFINITLY ADJUSTABLE)
OFFSET	MANUAL LINK OR HYDRAULIC CYLINDER (OPTIONAL) 28.75" (730.3mm) RIGHT TO 28.75" (730.3mm) LEFT
MOLDBOARD HEIGHT	18" (457.2mm)
MOLDBOARD THICKNESS	5/16" (7.93mm)
CUTTING EDGE	1/2 X 6" (12.7 X 152.4mm) - REVERSIBLE - HEAT TREATED
PARKING STAND	PIN TYPE
PIVOT DIAMETERS	A - FRAME - 1-3/8" (34.92mm) ANGLE - 2-1/8" (53.98mm) TILT - 1-1/2" (38.1mm)
MAST TUBE	4" X 4" X 1/4" WALL (101.6 X 101.6 X 6.35mm)
SWING FRAME TUBE	4" X 4" X 3/8" WALL (101.6 X 101.6 X 9.52mm)
APPROXIMATE WEIGHT	6 FOOT (1,828.8mm) - 761 LBS. (345.2 KG) 7 FOOT (2,133.6mm) - 793 LBS. (359.7 KG) 8 FOOT (2,438.4mm) - 825 LBS. (374.2KG)
SKID SHOES	OPTIONAL
END COVERS	OPTIONAL

**** WARRANTY IS VALID FOR TRACTORS UP TO 85 HP REAR WHEEL DRIVE OR 65 HP TRACTORS EQUIPPED WITH FRONT WHEEL ASSIST**



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



- Your personal safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of this equipment.
- It has been said, “**The best safety device is an informed, careful operator.**” We ask you to be that kind of operator.
- The design of this equipment depends on it being operated within the limitations as explained in this manual.
- A minimum 20% of the combined tractor and equipment weight must be on the tractors front wheels with the equipment in transport position. Without this weight, tractor could tip over causing personal injury or death. See your tractors operators manual for information regarding adding weights.
- Remove accumulated debris from this equipment, tractor, and engine to avoid fire hazard.
- Ensure all safety decals are installed. Replace if damaged. (See Safety decals section for location.)

OPERATIONAL SAFETY

TRAINING

- Safety instructions are important! Read this manual and the tractor manual; follow all safety rules and safety decal information. (Replacement manuals are available from your dealer). Failure to follow instructions or safety rules can result in serious injury or death.
- If you do not understand any part of this manual and need assistance see your dealer.
- Know your controls and how to stop engine and attachment quickly in an emergency.
- The operator must be instructed in and be capable of the proper operation of the equipment it's attachments and all controls. Do not allow anyone to operate this equipment without proper instructions.
- Do not allow children or untrained persons to operate equipment.
- Keep bystanders away from equipment while it is in operation.
- Operate only in daylight or good artificial light.
- Always comply with all state and local lighting and marking requirements.
- No riders on equipment.
- Always sit in tractor seat with seat belt fastened when operating controls or starting engine. Place transmission in park or neutral, engage brake and ensure all other controls are disengaged before starting tractor engine.
- Look down and to the rear and make sure area is clear before operating in reverse.
- Do not operate on steep slopes.
- Do not stop, start or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Watch for hidden hazards on the terrain during operation.
- Stop rear blade and tractor immediately upon striking an obstruction. Turn engine off, remove key, inspect and repair any damage before resuming operation.
- When performing any service or maintenance, disengage power to implement. Lower all raised components to the ground. Operate valve levers to relieve any hydraulic pressure. Shut off the engine, set the parking brakes and remove the ignition keys before dismounting tractor.
- Keep all persons away from operator control area while performing adjustments, service or maintenance.

PREPARATION

- Always wear close fitting clothing and personal protection equipment called for by the job conditions. These items may include a hard hat, safety glasses, goggles or face shield, hearing protection and safety boots. DO NOT wear loose clothing, jewelry or any other items that may be entangled in moving parts. Tie up long hair.
- Ensure rear blade is properly mounted, adjusted and in good operating condition.
- Tighten all bolts and nuts and check that all cotter pins are installed securely to ensure equipment is properly assembled before operating.
- Tractor must be equipped with an approved Roll-Over-Protective System (ROPS). Keep seat belt securely fastened. Falling off the tractor can result in serious injury or even death. Keep foldable ROPS systems in “locked up” position at all times.

MAINTAINANCE SAFETY

- Before working underneath, raise rear blade to highest position, install transport locks, and block securely. Blocking up prevents rear blade dropping from hydraulic leak down or mechanical failure on the tractor.

(Safety Rules continue on next page)



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

- Keep all persons away from operator control area while performing adjustments, service or maintenance.
- Your dealer can supply genuine replacement parts. Substitute parts may not meet original equipment specifications.
- Do not climb or walk on equipment frame.
- Never operate rear blade until hydraulic cylinders and lines are full of oil and free of air.
- Check condition of hitch pins and blots before transporting.
- Keep your equipment in proper working condition. Unauthorized modifications to the equipment may impair the function and affect the equipment life. Do not add excessive weight to the equipment. Additional weight could cause the frame to fail resulting in loss of control of equipment/tractor during transport.
- Raise equipment to highest position for transport.
- Watch low hanging Overhead Power Lines during transport. Avoid contact as this can cause serious injury or death.

TRANSPORTING SAFETY

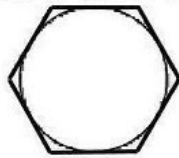
- Use a Slow—Moving Vehicle (SMV) emblem and proper lighting on the tractor when transporting the rear blade.
- Do not drive the tractor and rear blade over 20 mph (30 kph) on the best surface conditions. Reduce speed when going up and down hills and when approaching ditches or corners.
- Always comply with all state and local lighting and marking requirements.

STORAGE

- Block equipment securely for storage.
- Store unit on a level surface sheltered from the weather.
- Clean all debris from rear blade.
- Coat soil engaging surfaces with a rust inhibitor after cleaning.
- Keep playing children and bystanders away from storage area.

BOLT TORQUE CHART

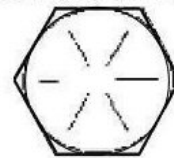
GRADE 2



GRADE 5



GRADE 8



TORQUE IN FOOT POUNDS (NEWTON METERS)

BOLT SIZE		3/8"	1/2"	5/8"	3/4"	7/8"	1"
HEX HEAD		9/16"	3/4"	15/16"	1-1/8"	1-5/16"	1-1/2"
GRADE	2	18 (24.4)	45 (61.0)	89 (120.7)	160 (216.9)	252 (341.6)	320 (433.9)
	5	30 (40.6)	68 (92.2)	140 (189.8)	240 (325.4)	360 (488.1)	544 (737.5)
	8	40 (54.2)	100 (135.6)	196 (265.7)	340 (460.9)	528 (715.1)	792 (1073.8)



SAFETY DECALS



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED
Replace Immediately If Damaged
DECAL LOCATIONS

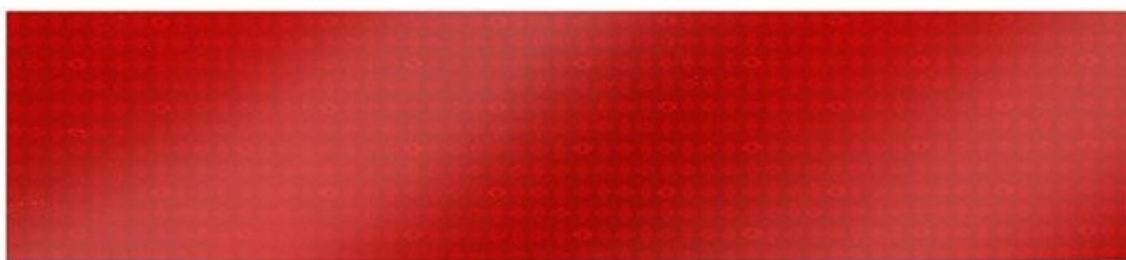
The following safety decals are located on your implement. Read them and follow their instructions. Keep all decals in place and legible. If safety signs have been damaged, removed, become illegible or parts have been replaced without signs, new safety signs must be applied. New safety signs are available from your authorized dealer, distributor or factory.



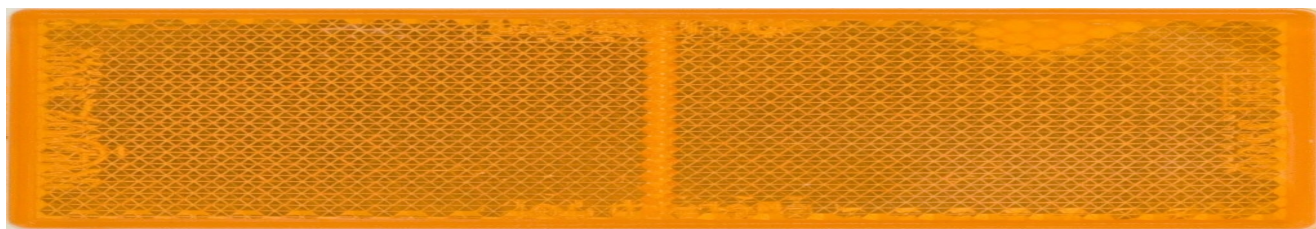
009537 FRONT CROSS MEMBER OF FRAME



029772 NEAR PIVOT BOLT ON TOP OF MAIN FRAME



029771 RED REFLECTOR BACK OUTSIDE EDGES OF MOLDBOARD



029770 AMBER REFLECTOR FRONT OUTSIDE EDGES OF MOLDBOARD

INTRODUCTION

This manual covers the assembly, operation and maintenance of your Series 8500 Grader Blade. Studying and obeying these instructions will ensure optimum product performance and longevity. Be sure to read all the instructions carefully. Read all safety precautions prior to operation.

Maintain your implement with original repair parts to ensure safety and optimum performance.

MODIFICATIONS

It is the policy of the manufacturer to improve it's products whenever possible and practical. We reserve the right to make changes, improvements, and modifications at any time without incurring the obligation to make such changes, improvements, and modifications on any implement sold previously.

ASSEMBLY

General

Your Series 8500 Grader Blade is shipped in bundles for assembly. Remove all wiring from bundles as they are called for. Choose a level area to arrange the parts conveniently. Assembly parts for each step loosely to insure fit. Use flatwashers with slotted holes. Always use lockwashers unless a lock nut is called for. Tighten hardware after parts are installed according to the torque chart given. Unless otherwise stated, all hardware is Grade 5. The following assembly steps are given to minimize the need for adjustment after assembly. Remember Left and right are determined by standing at the rear of the rear blade and facing it.



WARNING

A minimum 20% of a tractor and rear blade weight must be on tractor front wheels with attachment in transport position. Without this weight, tractor could tip over causing personal injury or death. The weight may be attained with front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and rear blade. Do not estimate.

MAST ASSEMBLY (REFER TO FIGURE 1)

- 1) Lay 3-point mast assembly down and install jack stand in transport position with pin in lower hole.
- 2) Support the main frame bundle from below to enable attaching to a tractor. Be sure frame is stable on supports before proceeding.

3) Position mast assembly near 3-point arms on tractor with mast assembly flat on the ground. Raise left side of mast assembly and pin into lower 3-point arm and install lynch pin. Raise right side of mast assembly and pin into lower 3-point arm and install lynch pin. Rotate mast assembly toward tractor and attach upper 3-point link to hole in mast plate assembly. Top hole is Cat II and lower hole is Cat I Pin and install click pin.

4) Using the tractor's 3-point hydraulic lift, lift the frame bundle from it's supports. Adjust the top link so that the main beam is approx. level from front too rear.

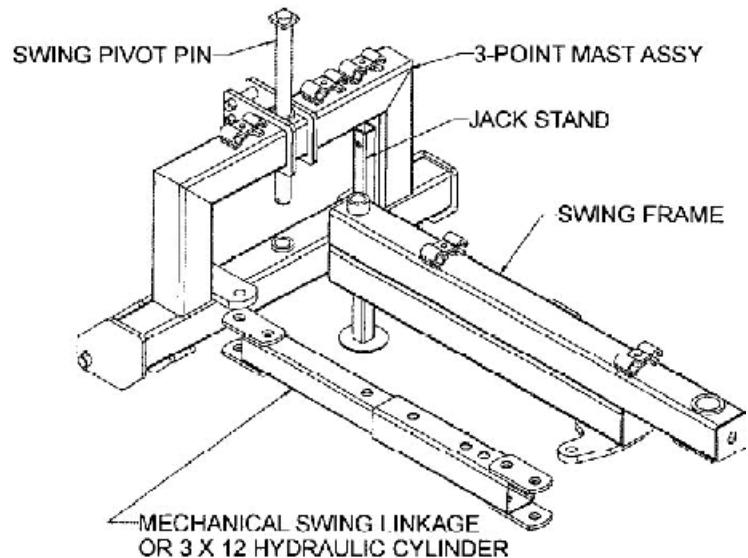


FIGURE 1

Swing Frame to Mast Assembly (Refer to Figure 1)

- 1) Lower tractor 3-point to lowest position.
- 2) Support swing frame on blocks at height of lower mast tube. Slide swing frame between upper and lower mast tube. Align holes and insert swing pivot pin. Secure with cotter pin.
- 3) The swing frame is unstable in the condition. Install either a 3 x 12" hydraulic cylinder or the mechanical swing linkage between the mast assembly lug and the swing frame left lug. Center the swing frame so it is perpendicular to mast assembly (90°).

Swing Weldment to Moldboard Assembly (Refer to Figure 2)

- 1) Align swivel weldment with cross hole in moldboard assembly. Install swing pivot pin from rear and secure with castle nut and cotter pin.
- 2) Install 3 x 8" hydraulic cylinder or ratchet jack between moldboard and swivel weldment lug. Adjust length so swivel pin is vertical. Stand moldboard vertical and block securely.

Mast Assembly to Moldboard Assembly (Refer to Figure 1)

- 1) Align the swing frame with the blade so that the pivot bolt hole is over the pivot bolt. Slowly lower the swing frame onto the blade and secure with heavy flat washer, flatwasher, castle nut and cotter pin provided.
- 2) Install 3 x 8" hydraulic or ratchet jack between sawing frame and swivel weldment lug.
- 3) Attach hydraulic hoses to tractor and secure hoses in hose clamps. Operate cylinders to purge all air out.

MECHANICAL HYDRAULIC SETUP

Linkage Components (Refer to Figure 3)

The rear blade is functional with either mechanical links or hydraulic cylinders in each of the three functions: angling, tilt and swing.

Depending on your selection, attach hydraulic cylinder or mechanical linkage in each location. The blade angling and tilt mechanical feature is a turn-buckle jack in each location for mechanical. The swing offset uses a tube within a tube design for mechanical. When a hydraulic function is used: attach hydraulic cylinders and hoses as shown in Figure 5 using the following instructions.

BLADE ANGLING

- 1) With hydraulic line ports facing up, attach butt end of 3 x 8" cylinder to angle iron bracket on swing frame using pin and cotter pins provided.
- 2) Remove port plug on rod end of cylinder body to allow movement of piston.
- 3) Pull rod out to align clevis with bracket on swivel pivot. Attach rod end of cylinder to bracket using pin and cotter pins provided.

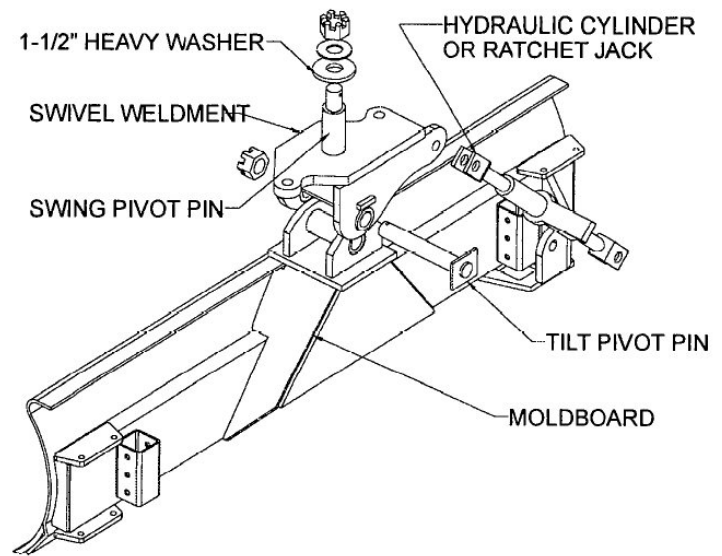


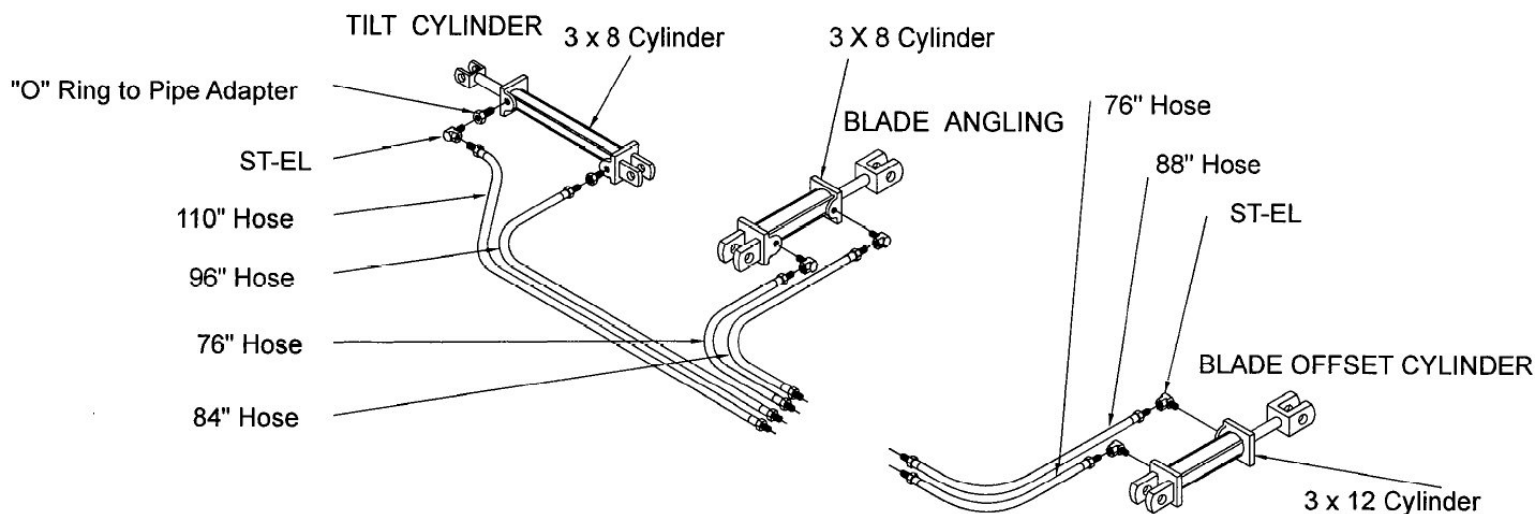
FIGURE 2

BLADE TILT

- 1) With hydraulic line ports facing up, attach butt end of 3 x 8" cylinder to rear lug on swing frame using pin and cotter pins provided.
- 2) Remove port plug on rod end of cylinder body to allow movement of piston.
- 3) Pull rod out to align clevis with bracket on moldboard. Attach rod end of cylinder to bracket using pin and cotter pins provided.

BLADE OFFSET

- 1) With hydraulic line ports facing up, attach butt end of 3 x 12" cylinder to lug on mast frame using pin and cotter pins provided.
- 2) Remove port plug on rod end of cylinder body to allow movement of piston.
- 3) Pull rod out to align clevis with bracket on swing frame. Attach rod end of cylinder to bracket using pin and cotter pins provided.



Hydraulic Hose Assembly

Each hose has only one swivel end so it is important to connect the end with the non swivel to cylinder port first. Always tighten each hose end as it is connected before proceeding.

Use a thread sealant on fittings to prevent leaking.
DO NOT OVER TIGHTEN.

Depending on the cylinder port type, screw a "O" ring to pipe adapter into "O" ring port cylinders before proceeding.

1) Screw a 90° str-el into butt and rod port of each cylinder. Rotate st-ell so it points toward the tractor. Attach one hose non swivel end to st-el fitting of each cylinder using Figure 5 as guide to hose length.

IMPORTANT: Do not over tighten hoses. Use Teflon tape on threads to insure a good seal and prevent leakage.

2) Thread hoses through hose clamps mounted on frame. Secure with 1/2" x 1-1/4" carriage bolts with lockwashers and nuts.

3) Attach tractor couplers to other end of hose. (Not provided)

4) Check all fittings to see that they are tight.



WARNING

Do not use bare hand to check for hydraulic leaks. Hydraulic fluid under high pressure can penetrate skin and cause poisoning.

BEFORE OPERATION

- 1) Tighten all loose hardware using the torque chart. **SEE PAGE 6.** Replace any missing hardware. On new machines, all hardware must be rechecked after first few hours of operation.
- 2) Replace any bent or broken parts.
- 3) Refer to your Tractor's Owners Manual for recommended adjustments and weight distribution.
- 4) Check blade for signs of wear or damage. Replace if necessary. **SEE MAINTENANCE.**
- 5) Read the **SAFETY** section of this manual to be sure of all precautions.

ATTACHING



WARNING

Be sure bystanders are clear. Do not stand between implement and tractor. Shut off tractor and engage parking brake prior to dismounting.

- 1) Back tractor to align three-point hitch with frame.
- 2) Attach left lower link arm to frame first and secure with lynch pin..
- 3) Using leveling crank, align right lower link arm with link pin. Attach arm to link pin and secure with lynch pin.
- 4) Attach top link between the frame and the tractor with a pin and secure with click pins.
- 5) Tractor must be equipped with enough hydraulic outlets to accommodate all cylinder hoses. Example: Two hydraulic cylinders require two sets (4 outlets).
- 6) Attach hoses to tractor remote couplers. Check all fittings to see that they all are tight.



WARNING

Do not use bare hand to check for hydraulic leaks. Hydraulic fluid under high pressure can penetrate skin and cause poisoning.

- 7) Raise blade and lock jackstand in up position.
- 8) Cycle hydraulic cylinders several times to purge air from system. This will Prevent erratic, jerky operation.

OPERATION

ADJUSTMENTS

Depth Control:

The desired operating depth is selected by using the tractor's position control lever. When using position control, the blade will operate at the same depth, below the line of travel of the tires, until the setting is changed.

It is possible to operate the blade using draft control (if tractor is so equipped) when operated in the forward direction. When using draft control, the blade will operate at a depth which will result in a constant load on the tractor. NEVER operate with draft control when operating in the reverse direction with moldboard reversed.

Blade Moldboard Angle:

Operating conditions for the job being done will largely determine the desired angle of the blade. A greater angle is generally used for cutting deep rather than for moving loose soil. As the blade is angled more, soil will roll and travel for a lesser distance, thus allowing a deeper cut. It is suggested that the blade be angled sufficiently to permit soil to move freely in front of the blade.

Blade angle is controlled by the 3 x 8" hydraulic cylinder or the ratchet jack assembly. Rotated to desired position.

Reversing Moldboard (Refer to Figure 4)

The moldboard may also be reversed if desired. Remove pin from hydraulic cylinder or ratchet jack and rotate blade 180 degrees and install pin. Secure with cotter pin.

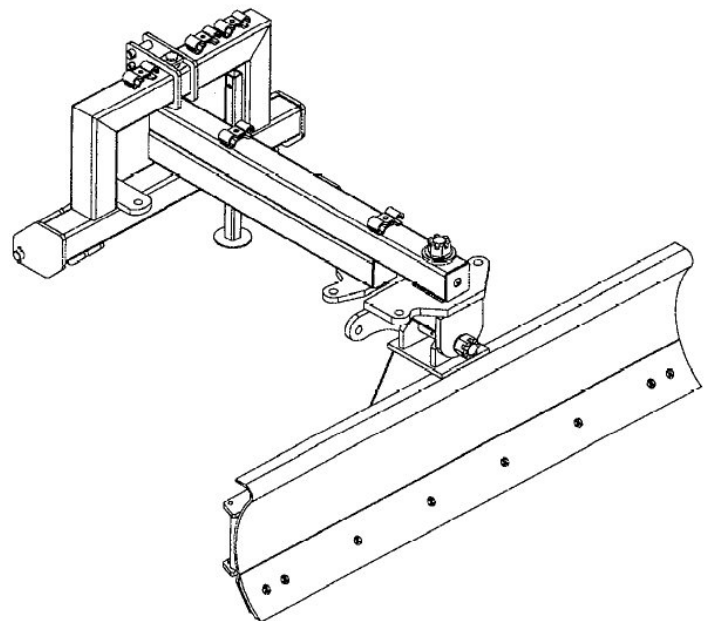


FIGURE 4

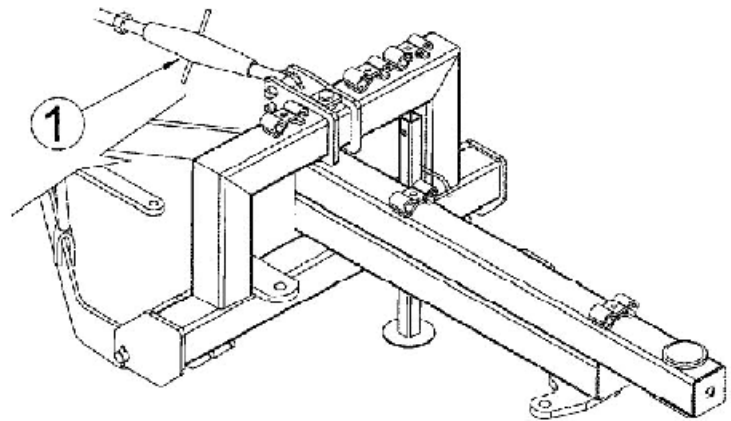


FIGURE 5

Blade Pitch (Refer to Figure 5)

The pitch of the blade can be changed by lengthening or shortening the tractor top link (1). Lengthening the top link increases blade "aggressiveness" and shortening the top link decreases blade "aggressiveness".

Adjust the blade pitch so that the soil tumbles ahead of the blade. Tumbling soil produces less draft and moves more earth. Normally, the upper edge of the moldboard is 1" to 2" ahead of an imaginary vertical line extending upward from the cutting edge of the moldboard.

In general, working in harder soils requires more aggressiveness in order to dig in to the soil surface.

Blade tilt Angle:

The moldboard can be tilted on the pivot assembly by the ratchet jack or 3" x 8" hydraulic cylinder.

Additional blade tilt can be achieved by using the tractor hitch lift link leveling crank or adjustable lift link.

Blade Offset:

The blade can be offset up to 28.75" (750.25mm) by repositioning the mechanical linkage or the 3" x 12" hydraulic cylinder.

OPERATING**Terrace Construction:**

In construction of a terrace system, the first terrace is always started near the top of the slope. Always prepare an outlet water channel before constructing a graded terrace. By starting at the top of the slope and completing the outlet channel, erosion damage, in the event of rain during construction, will be prevented.

Blade Setting:

Set blade angle at 30° with the left hand side of the blade forward. Raise the right hand side of the blade to the desired cutting tilt by using the tractor right lift link leveling crank. A first cut depth of 3" to 4" (76.2 to 101.6mm) is recommended although this may vary according to ground conditions.

Terrace Layout:

The terrace is laid out as desired by marking the terrace course with stakes along the upper edge. The stakes provide a guide for the first cut which, on graded terraces, is started at the outlet channel. Follow the staked out course when making first shallow cut to mark out the terrace line.

On the return trip, the tractor is driven at a selected distance from the edge of soil deposited by blade on opening cut. This cut is also shallow and serves to mark lower edge of terrace.

Second Cut:

The tractor front wheel should follow along the furrow wall made by the first cut with the blade lowered progressively deeper than the opening cut on the upper side of the terrace. On the lower side, make a cut slightly deeper than the opening cut.

Additional Cuts:

On the upper side, drive the tractor so that the front wheel is evenly spaced above the furrow wall. This will permit the blade to move a cut of soil of the same width. Distance from front wheel to wall edge determines the width of cut. Do not try to large a cut at any time. On the lower side smaller cuts must be made if it is desired to increase the width of the terrace, since it is more difficult to roll soil uphill than downhill from upper edge of terrace.

Moving Loose Soil

After each cut is made, move loose soil over onto terrace edge. To complete ridge of terrace, additional soil is required. This is obtained from the area of the terrace designated as water channel. Cuts are made in channel until desired depth and sufficient soil for the terrace ridge has been obtained. Terrace is complete when all loose soil is cleared from water channel to provide a smooth channel.

Terrace Profile:

The stakes mark location points of terrace. These points are:

- Upper Edge of Terrace
- Low Point of Water Channel
- Crown of Terrace ridge
- Lower Edge of Terrace

The ground below the terrace should be smoothed to blend into slope of adjoining undisturbed land. This prevents accumulation of water below ridge. Unless this ground blends into general slope, water will cause a soft spot in field and may start a gully. The time required to construct a terrace and the number of rounds required to move loose soil will vary with soil type, local conditions, and size of terrace. The construction steps as outlined will be similar regardless of size and type of terrace being built. Discuss them with local conservation authorities. By following these general suggestions, you will be able to build more terraces in less time.

Back Filling:

Reverse blade and operate at 0° to backfill ditches, etc.

Drainage Ditch Construction

The grader blade lends itself readily to the construction of a V-type ditch used to drain surface water from wet areas. To start a ditch, angle left end of blade 30° and lower the left end of the blade. Make the necessary cuts to obtain the desired ditch depth. At intervals during construction, it may be necessary to move soil away from edge of ditch.

Road Maintenance:

Maintenance of roads can easily be handled with a grader blade. The grader blade will do an efficient job of grading the road to smooth a surface.

Water Channel Construction:

The grader blade can be used to construct a broad bottom water channel, one of the types that is popular with soil conservationists. After each new cut, move soil to sides of channel and spread evenly over side area. Place a gradual slope on channel edges so that the channel can be crossed easily by implements.

TRANSPORTING

- Use a Slow Moving Vehicle (SMV) emblem and proper lighting on the tractor when transporting the rear blade.
- Do not drive the tractor and rear blade over 20 MPH (30KPH) on the best surface conditions. Reduce speed when going up or down hills and when approaching ditches or corners. Towing vehicle must weigh more than towed implement.
- Always comply with all state and local lighting and marking requirements.
- Check condition of hitch pins and bolts before transporting.
- Keep your rear blade in proper working condition. Unauthorized modifications to the rear blade may impair the function and effect rear blade life. Do not add excessive weight to the rear blade. Additional weight could cause the frame to fail resulting in loss of control of rear blade and or tractor during transport.
- Raise rear blade to highest position for transport.
- Watch low hanging Overhead Power Lines during transport. Avoid contact as this can cause serious injury or death.



WARNING

When implement is transported on public roads day or night, use signal lights conforming to local law. A Slow Moving Vehicle (SMV) emblem must be displayed and be visible from the rear. Do not exceed 20 mph travel speed.

DETACHING



WARNING

Be sure bystanders are clear. Do not stand between rear blade and tractor. Shut off tractor and engage parking brake prior to dismounting.

- Lower rear blade to the ground.
- Detach the tractor top link from the rear blade.
- Lower the blade frame onto supports and shut off tractor engine. Be sure blade is stable on supports.
- Detach tractor right hand lower link arm then left hand lower link arm from rear blade.
- Remove hydraulic pressure from lines and disconnect hydraulic quick couplers.



WARNING

To help avoid injury from escaping hydraulic fluid under pressure, relieve the pressure in the system by shutting off tractor and moving remote cylinder operating levers in both directions before attaching to or detaching from the break-away couplers.

MAINTENANCE

Keep cutting edge sharp for maximum performance. Reverse the cutting edge to get maximum use from both edges. Replace cutting edge when wear becomes excessive.

Inspect hydraulic hoses and fittings for wear or leaks. Repair or replace if damaged.

Lubricate ratchet jack and king pin every 50 hours with a multi purpose, lithium base grease. King pin grease fitting is accessible through hole in rear of swing tube.

STORAGE

Store on a level surface sheltered from the weather.

- Lower rear blade to the ground and block to prevent rolling.
- Clean all debris from rear blade.
- Coat soil engaging surfaces with a rust inhibitor after cleaning.
- Keep playing children and bystanders away from storage area.

SKID SHOES (Refer To Figure 6)

The skid shoes provide a stable surface for the blade to ride against. They are adjustable height wise.

Raise the blade off the ground and block up. Slide the skid shoe into the attachment tube and pin at desired height.

OPTIONS

END COVERS (Refer To Figure 6)

The end cap control the runout of material when leveling.

Position the end cap brackets overlapping brackets on the moldboard. Attach with 1/2" bolts, lockwashers, and nuts provided.

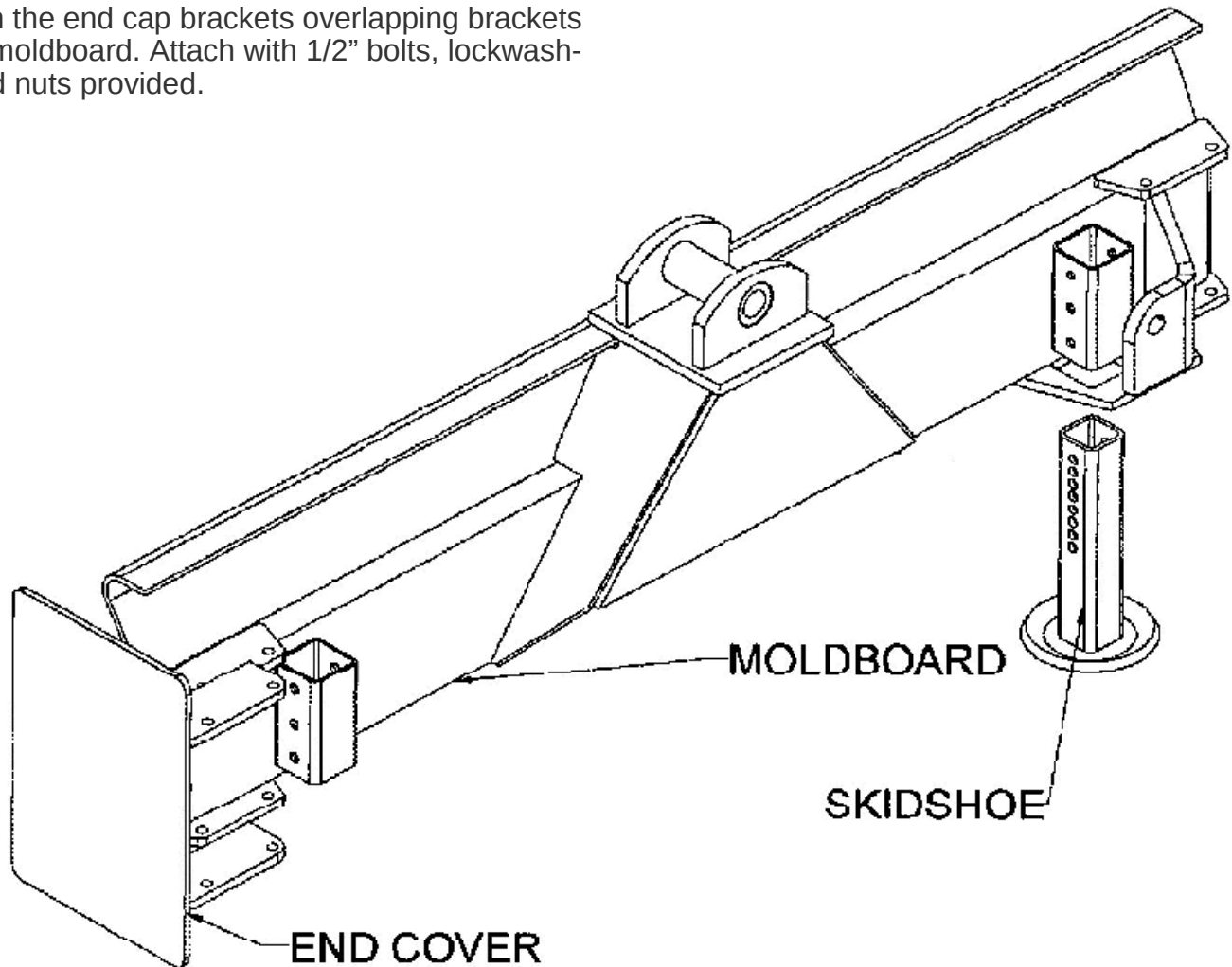


FIGURE 6

8500 REAR BLADE COMPONENTS

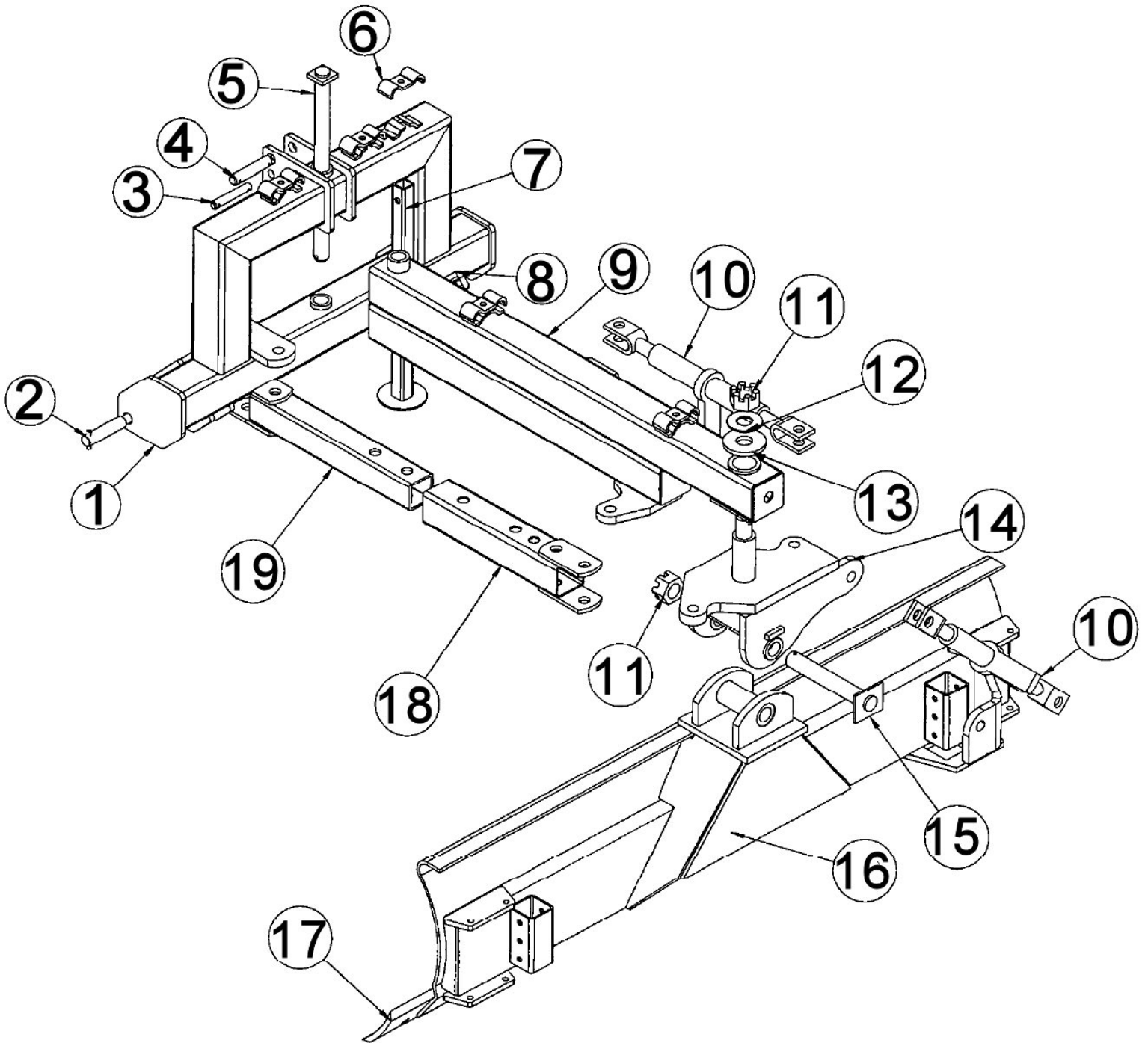


FIGURE 7

8500 REAR BLADE COMPONENTS

ITEM	PART #	DESCRIPTION	Qty
1	815084	MAST ASSEMBLY	1
2	815109	PIN/STEPPED CAT I & II	2
	304260	PIN/ROLL 3/8" X 2"	2
	303113	PIN/CLICK	2
3	814699	PIN/3 POINT UP CAT I	1
	304111	PIN/COTTER 3/16" X 2"	1
	304244	PIN/HAIRPIN COTTER 3/16" X 3-1/4"	1
4	814704	PIN/3 POINT UP CAT II	1
	304111	PIN/COTTER 3/16" X 2"	1
	304244	PIN/HAIRPIN COTTER 3/16" X 3-1/4"	1
5	815106	PIVOT PIN	1
	304142	PIN/COTTER 5/16" X 3"	1
6	208259	HOSE - CLAMP	5
	303859	BOLT/CARRIAGE 1/2" X 1-1/2" GR5	5
	303955	WASHER/LOCK 1/2"	5
	304007	NUT/HEX 1/2" NC	5
7	815082	SUPPORT STAND	1
8	815150	PIN/BENT	1
	304244	PIN/HAIRPIN COTTER 3/16" X 3-1/4"	1
9	815091	PIVOT TUBE ASSY	1
10	807858	TURNBUCKLE ASSY	
OR	811237	HYDRAULIC CYLINDER 3" X 8"	
11	304042	NUT/HEX SLOTTED 1-1/2" NC	2
	304142	PIN/COTTER 5/16" X 3"	2

ITEM	PART #	DESCRIPTION	Qty
12	303978	WASHER/FLAT 1-3/8"	1
13	244380	WASHER/HEAVY 1-9/16" X 3/8"	1
14	815100	UPPER PIVOT	1
15	815078	PIN W. A. HORIZONTAL	1
16	815157	72" MOLDBOARD ASSEMBLY	
	815158	84" MOLDBOARD ASSEMBLY	
	815070	96" MOLDBOARD ASSEMBLY	
17	815153	72" CUTTING EDGE	
	815154	84" CUTTING EDGE	
	815004	96" CUTTING EDGE	
	303942	BOLT/PLOW 5/8" X 1-3/4"	
	303956	WASHER/LOCK 5/8"	
18	304008	NUT/HEX 5/8" NC	
	815127	TUBE/INNER SWING ADJ	1
	303762	HHCS 1" X 5-1/2" GR5	1
	304024	NUT/HEX LOCK 1" NC	1
19	815128	TUBE/OUTER ADJ	1
	303762	HHCS 1" X 5-1/2" GR5	1
	304024	NUT/HEX LOCK 1" NC	1
	206123	BOLT 1" X 5-1/2" - DRILLED	1
	304244	PIN/HAIRPIN COTTER 3/16" X 3-1/4"	1

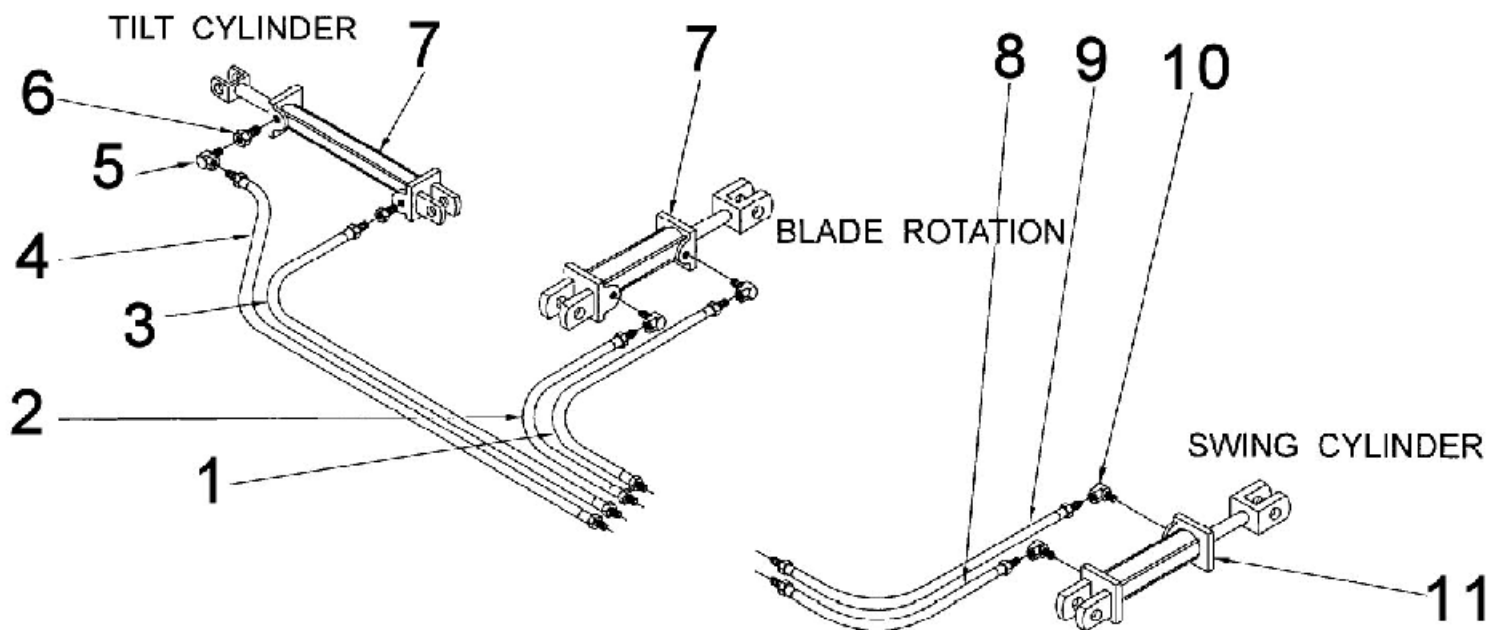
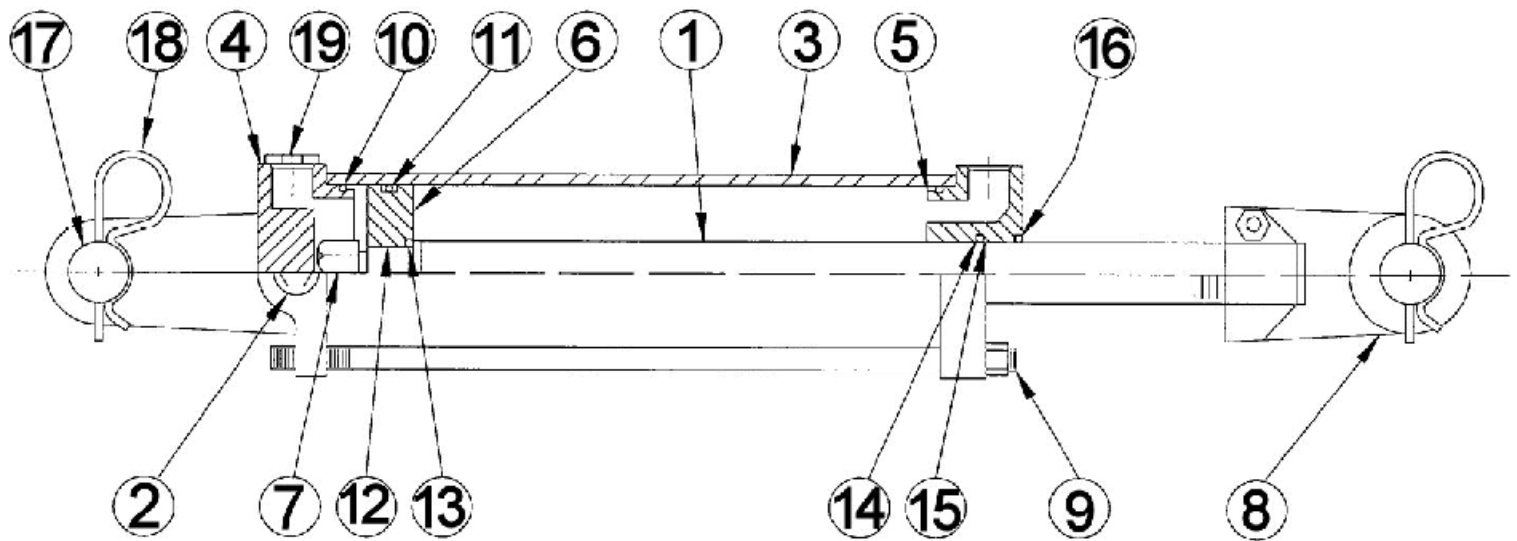


FIGURE 8 - HYDRAULIC COMPONENTS

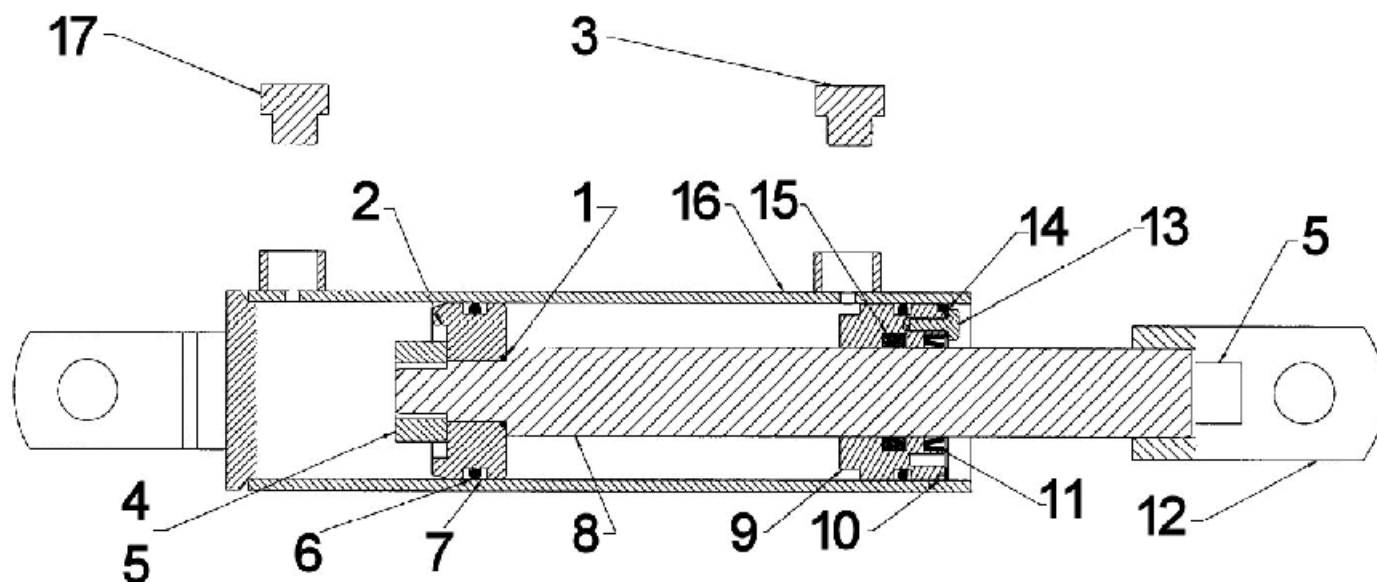
Item	Part #	Description
1	207979	HYDRAULIC HOSE ASSEMBLY 84"
2	803856	HYDRAULIC HOSE ASSEMBLY 76"
3	803852	HYDRAULIC HOSE ASSEMBLY 96"
4	605405	HYDRAULIC HOSE ASSEMBLY 110"
5	207982	ST-EL 1/2 X 90
6	814432	ADAPTER HYDRAULIC 8 - 8 SAE TO 1/2 NPT
7	505742	HYDRAULIC CYLINDER 3 X 8
8	803856	HYDRAULIC HOSE ASSEMBLY 76"
9	209227	HYDRAULIC HOSE ASSEMBLY 88"
10	207982	ST-EL 1/2 X 90
11	806557	HYDRAULIC CYLINDER 3 X 12



“These Cylinders are Tie Rod Design with Square Ends”

FIGURE 9 - HYDRAULIC CYLINDER COMPONENTS

Item	Part No.	Description	3 X 8	3 X 12 SWING
1	800572	ROD/PISTON 3" X 8"	1	-----
	806963	ROD/PISTON 3" X 12"	-----	1
2	800573	PIPE PLUG "O" RING SAE #8	3	2
3	800574	TUBE/CYLINDER 3" X 8"	1	-----
	806964	TUBE/CYLINDER 3" X 12"	-----	1
4	800575	BUTT / 3"	1	1
5	800576	GLAND / 3"	1	1
6	800577	PISTON	1	1
7	606941	NUT / LOCK 3/4"	1	1
8	800584	CLEVIS ASSEMBLY 3" X 8"	1	-----
	806965	CLEVIS ASSEMBLY 3" X 12"	-----	1
9	800578	TIE ROD 3" X 8"	1	-----
	806966	TIE ROD 3" X 12"	-----	1
10	**	O-RING	2	2
11	**	O-RING	1	1
12	**	BU-WASHER	2	2
13	**	O-RING	1	1
14	**	O-RING	1	1
15	**	BU-WASHER	1	1
16	**	WIPER	1	1
17	606949	CLEVIS PIN 1" X 3-1/2"	2	2
18	304244	PIN/HAIRPIN COTTER 3/16" X 3-1/4"	4	4
19	806950	BREATHER	1	1
**	800585	PACKING KIT (INCLUDES 10-16) (3" X 8")	1	1
**	810054	PACKING KIT (INCLUDES 10-16) (3" X 12")	1	1
505742		3" X 8" HYDRAULIC CYLINDER COMPLETE	-----	-----
806557		3" X 12" HYDRAULIC CYLINDER COMPLETE	-----	-----



THESE CYLINDERS ARE ROUND BARREL-- NON TIE ROD DESIGN

FIGURE 10 HYDRAULIC CYLINDER COMPONENTS

ITEM	PART NO.	DESCRIPTION	3 X 8	3 X 12 SWING
1**	811417	SHAFT SEAL	1	1
2	811420	CYLINDER PISTON	1	1
3	811422	PLUG 1/2" NPT	2	1
4	811424	PISTON LOCK NUT	1	1
5	811425	SCREW / SET 5/16" X 5/16"	2	2
6**	811426	SEAL / PISTON	2	2
7**	811429	BACKUP WASHER	3	3
8	811434	ROD / CYLINDER 3" X 8"	1	-----
	811435	ROD / CYLINDER 3" X 12"	-----	1
9	811439	CYLINDER GLAND	1	1
10	811442	SNAP RING	1	1
11**	811445	WIPER/CANNED 1-1/2"	1	1
12	811448	ADJUSTABLE YOKE	1	1
13	811449	SCREW / MACHINE 1/4" X 1"	2	-----
	811450	HHCS 1/4" X 1/2"	-----	2
14	811454	WASHER / FLAT 1/4" SAE	-----	4
15**	811457	ROD SEAL	1	1
16	811462	TUBE/CYLINDER 3" X 12"	-----	1
	811464	TUBE/CYLINDER 3" X 8"	1	-----
--	811472	STOP PLATE	1	-----
**	811467	SEAL KIT (INCLUDES 1, 6, 11, 15)	-----	-----
811237		3" X 8" TRANSPORT HYDRAULIC CYLINDER	-----	-----
811230		3" X 12" WING HYDRAULIC CYLINDER	-----	-----

OPTIONS

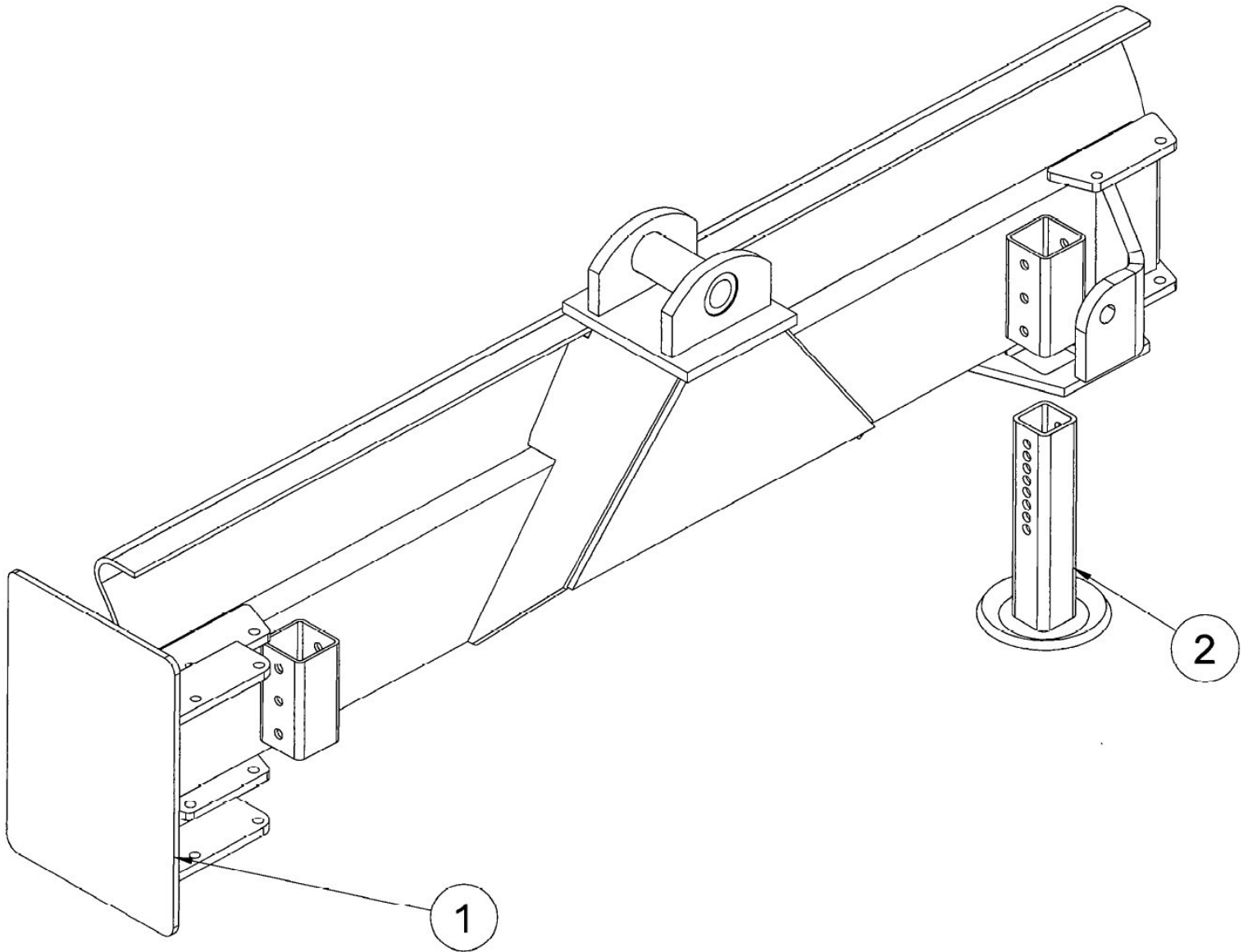


FIGURE 11 OPTIONAL COMPONENTS

ITEM	PART NO.	DESCRIPTION	QTY
1	815117	END CAP ASSEMBLY RR BLD	2
	303653	HHCS 1/2" X 2" GR 5	8
	303955	WASHER / LOCK 1/2"	8
	304007	NUT / HEX 1/2" NC	8
	815149	END COVER BUNDLE	
2	815111	SKID ASSEMBLY RR BLD	2
	815150	PIN / BENT 1/2" X 3-1/2"	2
	304244	PIN / HAIRPIN COTTER 3/16" X 3-1/4"	2
	815148	SKID SHOE BUNDLE	