



## Operation, Parts and Service Manual

### Rear Blades Small, Medium, CAT II and Large



#### **Cammond Industries**

*A Subsidiary of Superior Fabrication, Inc.*

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Ada, OK 74820

1-800-843-8354

# Thank you for choosing CAMMOND!

For over 17 years, CAMMOND has been designing and manufacturing implements you can rely on. Because our commitment to quality remains top priority, this durable blade will be there when you need it. Your Cammond Rear Blade should operate smoothly and offer years of trouble free use.

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## General Safety Information

Note the use of the signal words Danger, Warning and Caution with the safety messages. The appropriate signal word each has been selected using the following guidelines:



### **Danger!**

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

### **Warning!**

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

### **Caution!**

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

Safety of the operator is one of the main concerns when designing and developing a new piece of equipment. You, the operator, can avoid many accidents by observing the following precautions in this section.

- Replace any CAUTION, WARNING, DANGER or instruction safety decal that is not readable or is missing.
- Do not attempt to operate this equipment under the influence of drugs or alcohol.
- Review the safety instructions with all users.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with the equipment and its operation. Do not allow persons to operate this unit until they have developed understanding of the safety precautions and of how it works.

To prevent injury or death, use a tractor equipped with a Roll Over Protective System (ROPS). Do not paint over, remove or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice instructions on them.

Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question – Don't try it.

Remember - Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local dealer or manufacturer.

If you have questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or Cammond Industries.

## Preparation

Before Operation - Carefully study and understand this manual.

- Do not wear loose-fitting clothing, which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- It is recommended that suitable protective hearing and eye protection be worn.
- The operator may come in contact with certain materials, which may require specific safety equipment, relative to the handling of such materials.
- Keep wheel lug nuts or bolts tightened to specific torque.
- Assure that agricultural implement tires are evenly inflated.
- Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
- Be sure that there are no tools lying on or in the equipment.
- Do not use the unit until you are sure that the area is clear, especially children and animals.
- Because it is possible that this equipment may be used in dry areas or in the presence of combustibles, special precautions should be taken to prevent fires and fire-fighting equipment should be readily available.
- Clear area of debris.
- Never permit any person, other than the operator, to ride on board the tractor at any time.
- DO NOT allow riders on implement at any time. Operate only in daylight or good artificial light. ALWAYS wear relatively tight and belted clothing when operating implement. Loose clothing should not be worn, as it could get caught in the moving parts or controls.
- A minimum of 20% of the tractor and equipment weight must be on the tractors front wheels with the blade in transport position. Without this weight, the 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. When attaining the minimum 20% weight on the front wheels, you must not exceed the Roll Over Protection Structure (ROPS) weight certification. Weigh tractor and equipment. Do not guess or estimate.

Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment. Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operations before using

## Attaching Unit

- The implement should be placed on level ground.
- Place the tractor 3-point lift arm control in "position control" (non-floating) for attaching and detaching the rear-mounted blade.
- "Draft control" or "position control" can be used while operating.
- Attach the top link to the top hitch mount and adjust so that the frame will be level in the operating position.
- Back the tractor until the ends of the lift arms can be attached to the bottom clevis pins on the implement.
- **Never stand between tractor and implement when backing up to implement.**
- Secure the lift arms to the clevis pins. Slowly move implement throughout the lift cycle of the tractor watching for interference between implement and tractor.
- Adjust top link, if necessary to provide additional clearance.

## Operating Safety

- **NO PASSENGERS ALLOWED-** Do not carry passengers anywhere on, or in, the tractor or equipment, except as required for operation.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate or adjust your equipment while it's moving.
- When halting operation, even periodically, set the tractor or towing vehicle brakes, disengage the PTO, shut off the engine and remove the ignition key.
- Be especially observant of the operating terrain. Always inspect the area prior to operation.
- Do not operate near the edge of drop offs or banks.
- Do not operate on steep slopes as overturn may result.
- Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops.
- Maneuver the equipment at safe speeds.
- Do not walk or work under raised components unless securely positioned and blocked.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside or unit.
- Never leave running equipment attachments unattended.

## Operating Instructions

Each operator should review this section of the manual at the start of the season and as often as required to be familiar with the machine. After initial adjustments have been made and tractor is hooked up to blade, you are ready to start.

- Before operating the blade, always check to make sure that the lynch pins are in the lock position, so that the lift pins do not work their way out.
- Lower blade to ground and start moving forward. Your travel speeds will be determined by soil conditions. You may find you want more or less angle on the blade to do the job.
- When turning, always lift implement up out of ground.
- **Damage to the blade can occur if it is not lifted out of the ground before turning.**
- Do not travel backwards. The blade is designed for traveling forward only. Damage to the blade may occur.
- Recommended procedure for corners or tight places:
  - a. Lift unit up
  - b. Back up into corner or other tight areas
  - c. Lower blade to ground and proceed going forward
  - d. Do not cross a ditch at a 90° angle (straight on). Damage to the blade and/or tractor may occur while crossing at a 90° angle. **Always cross a ditch on a diagonal.**

### To detach from tractor:

- Lower the implement to the ground with 3-point lift arm control in position control.
- Remove top link from top hitch mount.
- Disconnect hitch arms from bottom clevis pins and pull tractor away from blade.
- Lower the implement as much as possible and securely support before making any adjustment.
- Level the implement from side to side and front to rear using adjustments on the tractor's 3-point lift.

Care should be exercised during use of the implement to prevent hanging the ends on immovable objects or otherwise use the implement under conditions beyond its designed capacity.

## Maintenance Safety

Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.

Before working on this machine, stop the towing vehicle, set the brakes, disengage the PTO and all power drives, shut off the engine and remove the ignition keys.

Be certain all moving parts on attachments have come to a complete stop before attempting to perform maintenance.

Be careful when working with blades, as the edges are sharp. Wear gloves when working around blades

- Always use a safety support to block the wheels.
- Always use the proper tools or equipment for the job at hand.
- Use extreme caution when making adjustments.
- Never use your hand to locate a hydraulic leak on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate the skin. Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid. If injured by the escaping hydraulic fluid, see a doctor at once. Without immediate medical treatment, serious infection can occur.
- After servicing, be sure all tools, parts and service equipment are removed.
- Do not allow grease or oil to build up on any step or platform.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment

## Servicing Instructions

Lower blade to the ground, set tractor locking system device, turn tractor engine off, and remove key before performing any service or maintenance. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.

- Secure blade before working underneath.
- When disconnecting hydraulic lines, shut off hydraulic supply and relieve all hydraulic pressure.
- Never replace hex bolts with less than grade five bolts unless otherwise specified.
- Periodically tighten all bolts and nuts to ensure scraper is in a safe working condition.
- Keep all persons away from operator control area while performing adjustments, service or maintenance.

### CUTTING EDGE

Cutting edges are reversible so always remember to "flip" them over. Replace the cutting edge after both edges are worn. For reversing the cutting edge:

- Remove 5/8" plow bolts.
- Remove cutting edge from moldboard and reinstall with sharp edge down.
- Replace when both edges are worn out.

**BOLTS**

Keep all the bolts tight at all times by checking them periodically. Replace the bolts only with those having the same marks on the heads as on original bolt. Marks on bolt head indicate high strength.

**BOLT TORQUE**

5/8" Plow Bolt  
150 Ft/lbs. min.  
180 Ft/lbs. max.

**Shut Down and Storage**

Following operation, or when unhitching, stop the tractor or towing vehicle, set the brakes, disengage the PTO and all power drives, shut off the engine and remove the ignition keys.

- Store the unit in an area away from human activity.
- Do not park equipment where it will be exposed to livestock for long periods of time.
- Do not permit children to play on or around the stored unit.
- Make sure all parked machines are on a hard, level surface and engage all safety devices.
- Wheel chocks may be needed to prevent unit from rolling.

**Highway and Transportation Operations**

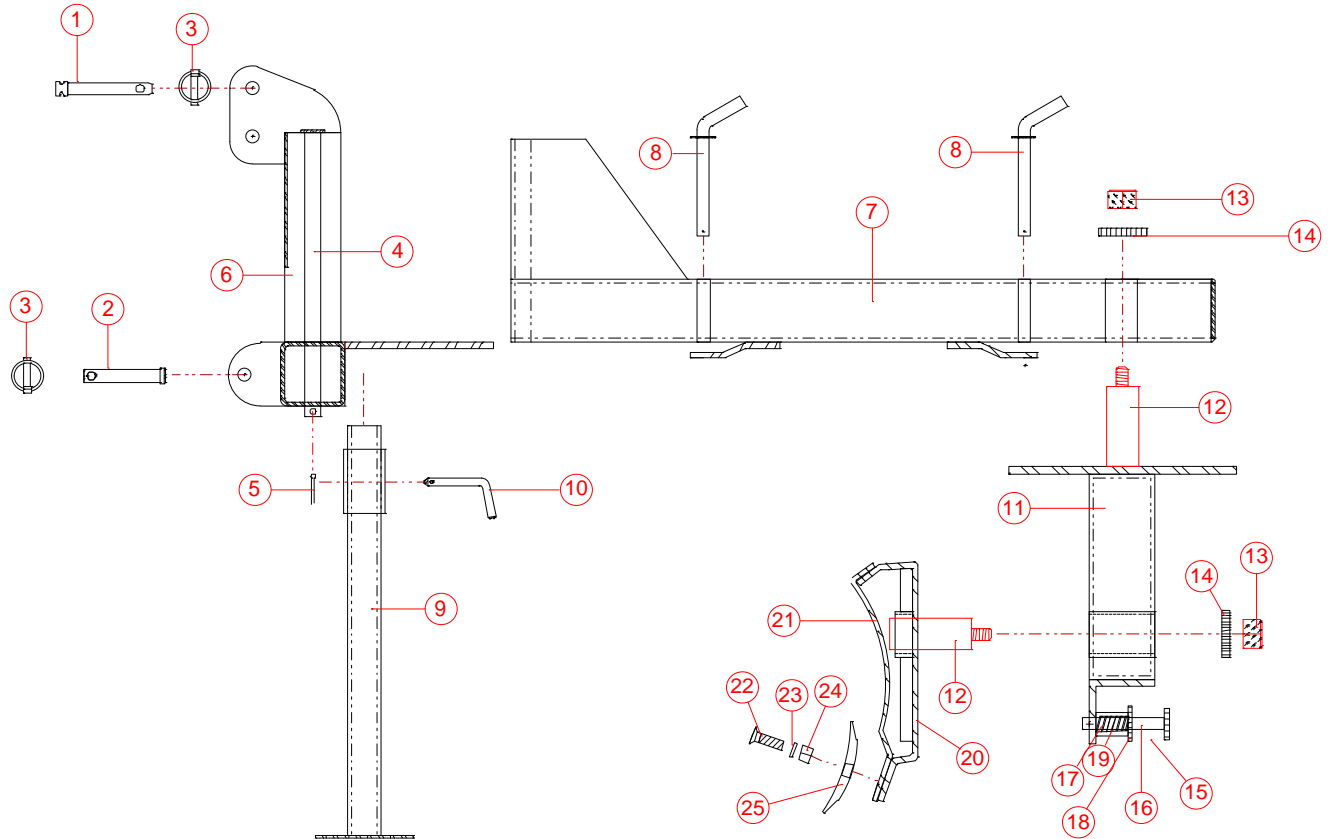
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use appropriate accessory lighting flags and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport.
- Various safety lights and devices are available from your dealer.



## Small Rear Blade Parts List

REF#	PART#	DESCRIPTION	RB5	RB6	RB7
1	P075500C1TL	CAT I TOP LINK PINS	1	1	1
2	P078375C1D	7/8 X 3/4" CAT I HEAVY DUTY	2	2	2
3	P716175LY	7/16 x 1 3/4" LYNCH PINS	3	3	3
4	BM038A	BOOM ASSEMBLY	1	1	1
5	R04134A	SWIVEL PIN ASSEMBLY	1	1	1
6	T01201A	JACK STAND ASSEMBLY	1	1	1
7	P050300BL	BENT "L" PIN	1	1	1
8	PD131A	PEDISTAL ASSEMBLY	1	1	1
9	P11	HAIR PIN	2	2	2
10	P02213A	TILT PLATE ASSEMBLY	1	1	1
11	R14RB01	TILT PIN	1	1	1
12	N125L	1 1/4" LOCK NUT	4	4	4
13	P02043	PIN WASHER	4	4	4
14	R04671A	TILT LOCK PIN	1	1	1
15	S075200C0M	TILT LOCK COMPRESSION SPRING	2	2	2
16	W075L	3/4" LOCK WASHER	2	2	2
17	X174011	TILT PIN SLEEVE	2	2	2
18	B125700	1 1/4" X 7" BOLT	1	1	1
19	B058150	5/8 X 1 1/2" BOLT	2	2	2
20	P014913	MOLDBOARD	1		
20	P014914	MOLDBOARD		1	
20	P014915	MOLDBOARD			1
21	B058200P	5/8 X 2" PLOW BOLT	5	6	7
22	W058L	5/8" LOCK WASHER	7	8	9
23	N058H	5/8" HEX NUT	7	8	9
24	CE60	CUTTING EDGE	1		
24	CE72	CUTTING EDGE		1	
24	CE84	CUTTING EDGE			1

# Medium Rear Blade Replaceable Parts Drawing



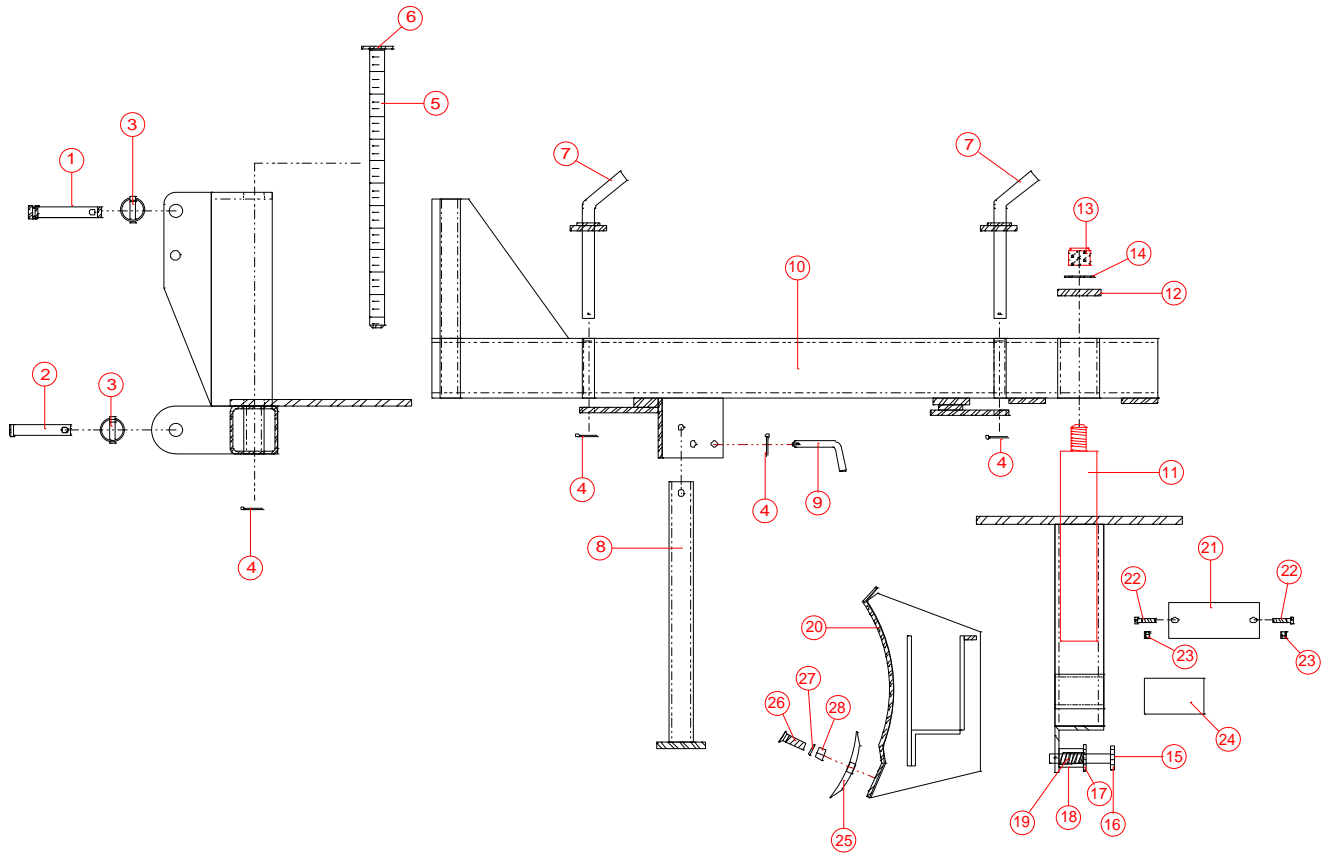
**Please note:**

The following illustrations are for reference only. CAMMOND reserves the right to change or correct part numbers, descriptions or dimensions at any time. If you have specific questions about parts not specified in the following illustrations, please contact your CAMMOND authorized dealer.

## Medium Rear Blade Parts List

REF#	PART#	DESCRIPTION	RB60	RB70
1	P075500C1TL	CATI TOP LINK PIN	1	1
2	P078375C1D	CAT I HVY DUTY	2	2
3	P716175LY	7/16 X 1 3/4" LYNCH PIN	4	4
4	R00404A	MAIN SHAFT ASSEMBLY	1	1
5	P11	HAIR PIN	2	2
6	F12401A1	3-POINT ASSEMBLY	1	1
7	BM042A	BOOM ASSEMBLY	1	1
8	R04134	SWIVEL PIN	2	2
9	T01201A	JACK STAND ASSEMBLY	1	1
10	P050300BL	BENT "L" PIN		
11	PD131MA	PEDISTAL ASSEMBLY	1	1
12	R14RB01	KING/TILT PIN	2	2
13	N125L	1 1/4" KING/TILT PIN WASHER	1	1
14	P02043	PIN WASHER	2	2
15	R04671A	LOCK PIN ASSEMBLY	1	1
16	R04671	TILT LOCK PIN	1	1
17	S075200COM	TILT COMPRESSION SPRING	1	1
18	W075L	3/4" LOCK WASHER	1	1
19	X174011	TILT PIN SPRING	1	1
20	P024151A	TILT PLATE ASSEMBLY	1	1
21	P04122A	MOLDBOARD ASSEMBLY	1	1
22	B058200P	5/8 X 2" PLOW BOLT	6	7
23	W058L	5/8" LOCK WASHER	6	7
24	N058H	5/8" HEX NUT	6	7
25	CE72	CUTTING EDGE	1	
25	CE84	CUTTING EDGE		1

# CAT II Rear Blade Replaceable Parts Drawing



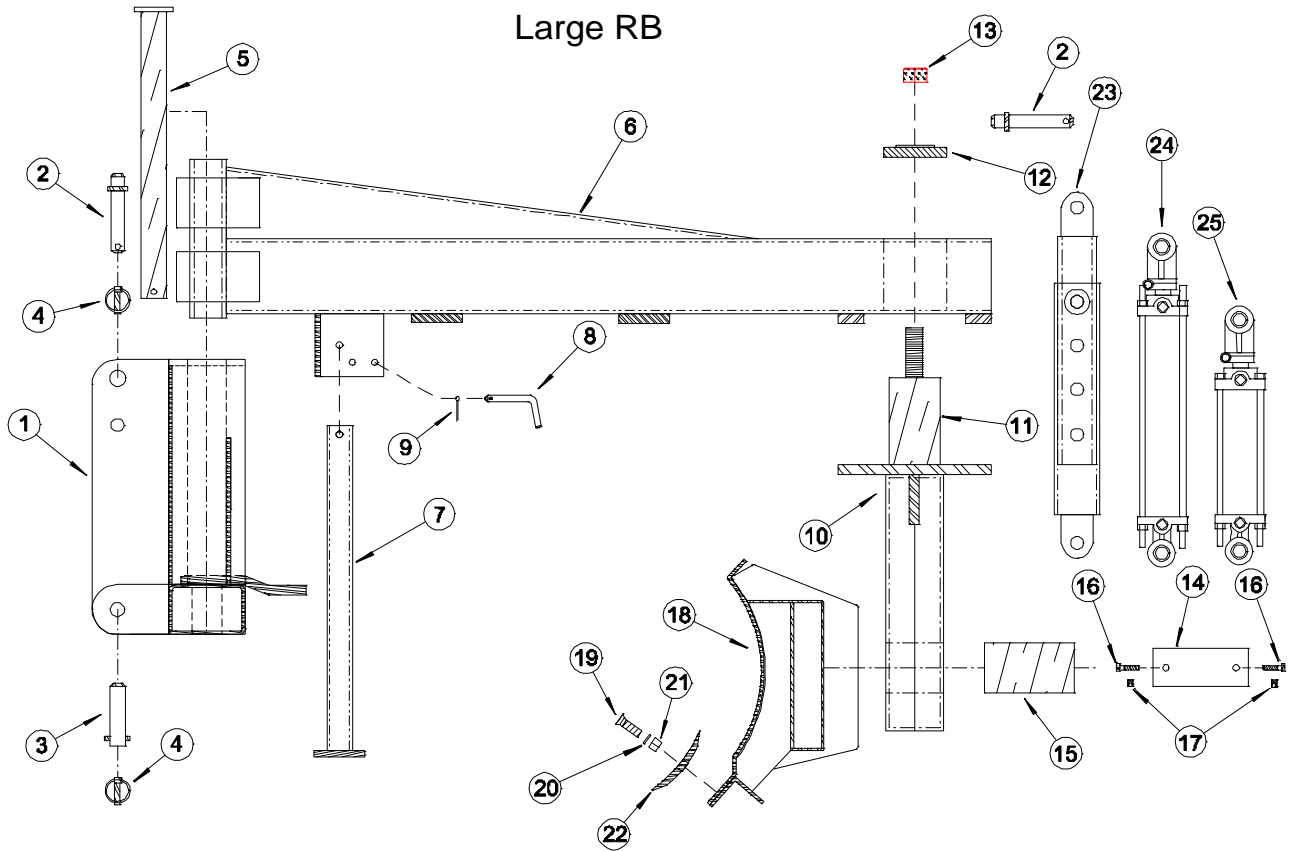
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## CAT II Rear Blade Parts List

REF#	PART#	DESCRIPTION	RB75	RB85	RB95
1	P100500C2TL	CAT II TOP LINK PIN	1	1	1
2	P118500C2D	CAT II DRAW PIN	2	2	2
3	P716175LY	LYNCH PIN	4	4	4
4	P11	HAIR PIN	3	3	3
5	R174106	3 -POINT SHAFT	1	1	1
6	P0122	PIN TOP	1	1	1
7	R004109	LOCK PINS	2	2	2
8	T015113	JACK STAND	1	1	1
9	P050300BL	BENT "L" PEN	1	1	1
10	T184101	CAT II BOOM	1	1	1
11	R104122	KING PIN	1	1	1
12	P034150	PEDISTAL WASHER	1	1	1
13	N125L	1 ¼" LOCK NUT	1	1	1
14	W125F	1 ¼" FLAT WASHER	1	1	1
15	R01134	PIN TOP	1	1	1
16	R044108	TILT LOCK OUT PIN	1	1	1
17	W075L	¾" LOCK WASHER	1	1	1
18	X174011	TILT LOCK PIN SLEEVE	1	1	1
19	S075200COM	TILT LOCK COMPRESSION SPRING	1	1	1
20	P015188	RB75 MOLDBOARD	1		
20	P015189	RB85 MOLDBOARD		1	
20	P015190	RB95 MOLDBOARD			1
21	F125211	KEEPER PLATE	1	1	1
22	B038150	3/8" X 1 ½" BOLT FOR KEEPER PLATE	2	2	2
23	N038L	3/8" NYLOCK FOR KEEPER PLATE	2	2	2
24	R105171	TILT PIN	1	1	1
25	CE84	RB75 CUTTING EDGE	1		
25	CE96	RB85 CUTTING EDGE		1	
25	CE95	RB95 CUTTING EDGE			1
26	B058200P	5/8"X 2" PLOW BOLTS	7	8	9
27	W058L	5/8" LOCK WASHER FOR PLOW BOLT	7	8	9
28	N058H	5/8" HEX NUT FOR PLOW BOLT	7	8	9

# Large Rear Blade Replaceable Parts Drawing



**Please note:**

The following illustrations are for reference only. CAMMOND reserves the right to change or correct part numbers, descriptions or dimensions at any time. If you have specific questions about parts not specified in the following illustrations, please contact your CAMMOND authorized dealer.

## Large Rear Blade Parts List

REF#	PART#	DESCRIPTION	RB800	RB900	RB1000
1	W125F	1 ¼" FLAT WASHER	1	1	1
2	P100500C2TL	CAT II TOP LINK PIN	1	1	1
3	P118500C2D	CAT II DRAW PIN	2	2	2
4	P716175LY	7/16 X 1 ¾" LYNCH PIN	2	2	2
5	R075110	3-PT MAIN PIN	1	1	1
6	R215118	BOOM	1	1	1
7	***	JACK STAND	1	1	1
8	P050300BL	BENT "L" PIN	1	1	1
9	P11	HAIR PIN	1	1	1
10	***	PEDISTAL	1	1	1
11	R115171	KING PIN	1	1	1
12	P055106	PEDISTAL WASHER	1	1	1
13	N125L	1 ¼" LOCK NUT	1	1	1
14	F125211	KEEPER PLATE	1	1	1
15	R115101	TILT PIN	1	1	1
16	B038250S	3/8 X 2 ½" BOLT	2	2	2
17	N038L	3/8" NYLOCK	2	2	2
18	P015100	RB800 MOLDBOARD	1	1	1
18	P015111	RB900 MOLDBOARD		1	
18	P015122	RB1000 MOLDBOARD			1
19	B058200P	5/8 X 2" PLOW BOLT	8	9	10
20	W058L	5/8" LOCK WASHER	8	9	10
21	N058H	5/8" HEX NUT	8	9	10
22	CE96	CUTTING EDGE	1		
22	CE	CUTTING EDGE		1	
22	CE	CUTTING EDGE			1
*23	ML314	3X14" MECHANICAL LINK	2	2	2
*23	ML38	3X8" MECHANICAL LINK	1	1	1
*24	C314	3X14" HYDRAULIC CYLINDER	2	2	2
*25	C38	3X8" HYDRAULIC CYLINDER	1	1	1

## CAMMOND INDUSTRIES PRODUCT WARRANTY

Cammond Industries warrants its new equipment to be free of defects in material and workmanship at the time of delivery to the first retail purchaser. All equipment is warranted for six (6) months from the date of purchase by the first retail customer. Cammond will repair or replace, at its option, without charge for parts and labor, any defective part of the equipment during the six (6) months. All warranty work will be done by an authorized dealer or at the factory. Any work performed by the dealer must be authorized by the factory and charges will be determined based on the factory-approved rate. This warranty does not include transportation of equipment to the dealer or the factory, or the removal or replacement of any products attached to Cammond equipment. It is the responsibility of the owner, at the owner's expense, to transport the equipment to the service shop or an authorized dealer or alternatively to reimburse the dealer for any travel or transportation expense involved in fulfilling this warranty.

**EXCEPTIONS TO THIS WARRANTY:** This warranty will not apply in the following cases:

1. Warranty registration card is not completed and returned to Cammond Industries, 902 Arlington Center, PMB 225, Ada, OK. 74820
2. Normal wear of components and structure.
3. Damage caused by accident, fire, flood, abuse, negligence, alterations, lack of performance or lack of required maintenance.
4. Replacement of maintenance items such as hoses, hydraulic cylinders, etc. is not covered
5. Any unauthorized alteration of equipment or use of unauthorized parts.
6. Use of equipment in rental fleets.

This warranty is in lieu of all warranties of merchant ability, fitness for a purpose or other representations, warranties on conditions, expressed or implied. The remedies of the owner set forth herein are exclusive. Cammond Industries neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale of covered equipment. Correction of defects in the manner and for the applicable period of time provided above will constitute fulfillment of all responsibilities of Cammond Industries to the owner and Cammond will not be liable for negligence, under contract or in any other manner with respect to such equipment. **IN NO EVENT WILL THE OWNER BE ENTITLED TO RECOVER FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS LOSS OF CROPS, PROFITS, REVENUE OR RENTAL COST.**

If you have any warranty claim contact your dealer within 30 days of the occurrence. Your dealer will contact Cammond Industries and together they will determine the manner that it will be handled. DO NOT HAVE UNAUTHORIZED REPAIRS COMPLETED AND THEN CLAIM A WARRANTY REIMBURSEMENT.

*If equipment has been altered in anyway from original design, Cammond does not accept any liability for warranty.*