

THANK YOU!

THANKS FOR BUYING A BRAMCO MATERIAL HANDLING MECHANISM. THE MARVIN MARTENS FAMILY OWNS AND OPERATES THIS OKLAHOMA MANUFACTURING COMPANY. WE HAVE MANY YEARS OF EXPERIENCE IN THE MANUFACTURING OF MATERIAL HANDLING AND FARM EQUIPMENT. WE KNOW THE NEED FOR EQUIPMENT THAT OPERATES UNDER TOUGH CONDITIONS WITH FEW PROBLEMS. OUR GOAL IS TO BUILD THE BEST PRODUCT POSSIBLE, MAKE IT AFFORDABLE, AND BE A PRODUCT YOU WILL BE PLEASED WITH FOR MANY YEARS.

THIS BOOK CONTAINS VALUABLE INFORMATION ON THE INSTALLATION OF THE BRAMCO MATERIAL HANDLING MECHANISM FOR PICKUP TRUCKS. PLEASE TAKE A FEW MINUTES TO READ THIS MANUAL SO THAT YOU CAN EASILY AND SAFELY INSTALL AND MAINTAIN YOUR MATERIAL HANDLER.

THANKS AGAIN!

BRAMCO BALE HAULER MECHANISM WARRANTY

BRAMCO, INC. WARRANTS to each purchaser of any Bale Hauler Mechanism and Components acquired from an authorized dealer, to be free from manufacturing defects in normal service for a period of one (1) year commencing with delivery to the original user.

LIMITATIONS ON WARRANTY:

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES EXPRESSED OR IMPLIED. THE ABOVE WARRANTY DOES NOT COVER CONDITIONS OVER WHICH WE HAVE NO CONTROL, INCLUDING ABUSE OR MISUSE AFTER SHIPMENT FROM OUR FACTORY, NOT TO PRODUCTS ALTERED OR REPAIRED BY ANYONE OTHER THAN AUTHORIZED BRAMCO PERSONNEL.

No products shall be returned without prior written authorization from Bramco, Inc. Buyer shall prepay all transportation charges for the return of such products to Sellers Factory.

There will be no acceptance of any charges of labor and/or parts incidental to the removal and remounting of products repaired or replaced under this warranty. Bramco, Inc. will in no event be liable for any special or consequential damage whatsoever, whether based on contract or tort, nor for any sum in excess of the price received by it for the product for which liability is claimed or associated.

OUR OBLIGATION ON THIS WARRANTY SHALL BE LIMITED TO THE REPAIR OR EXCHANGE OF WARRANTED PRODUCTS, AT OUR OPTION, FOB OUR FACTORY, BRAMCO, INC. FAIRVIEW, OK 73737

BRAMCO, INC. RESERVES THE RIGHT TO MAKE CHANGES IN DESIGN AND IMPROVEMENTS WHENEVER IT IS BELIEVED THE EFFICIENCY OF THE PRODUCTS WILL BE IMPROVED, BUT WITHOUT INCURRING ANY OBLIGATION TO INCORPORATE SUCH IMPROVEMENTS IN ANY PRODUCT THAT HAS BEEN SHIPPED OR IS IN SERVICE.

SAFETY

The **BRAMCO MATERIAL HANDLER** is a powerful tool which should be installed, used and maintained with respect and caution. Misuse or carelessness may result in serious injury or damage to equipment and property. Always follow safety rules.

This safety alert sign Δ is used in this book. When you see this sign, carefully read what it says. Your safety is at stake. The safety sign will be used with these words: Danger, Warning, and Caution.

Δ **DANGER** indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

Δ **WARNING** indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

Δ **CAUTION** indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

In this book, you should look for two other words: **NOTICE** and **IMPORTANT**.

NOTICE can keep you from doing something that might damage the machine or someone's property. It may also be used to alert against unsafe practices.

IMPORTANT can help you do a better job or make your job easier in some way.

Read this book before attempting to install, operate or service this equipment. Always follow all safety precautions to avoid personal injury or damage to equipment.

If you have questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or BRAMCO, INC. , 513 N. Main, Fairview, Oklahoma 73737. Telephone: 580-227-2345; Fax: 580-227-3851;

E-Mail: info@bramcoinc.com

Δ SAFETY . . . YOU CAN LIVE WITH IT

EQUIPMENT SAFETY GUIDELINES

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them.

Replace any safety decal that is not readable or is missing. Location of such decals is indicated in this booklet.

Do not attempt to operate this equipment under the influence of drugs or alcohol.

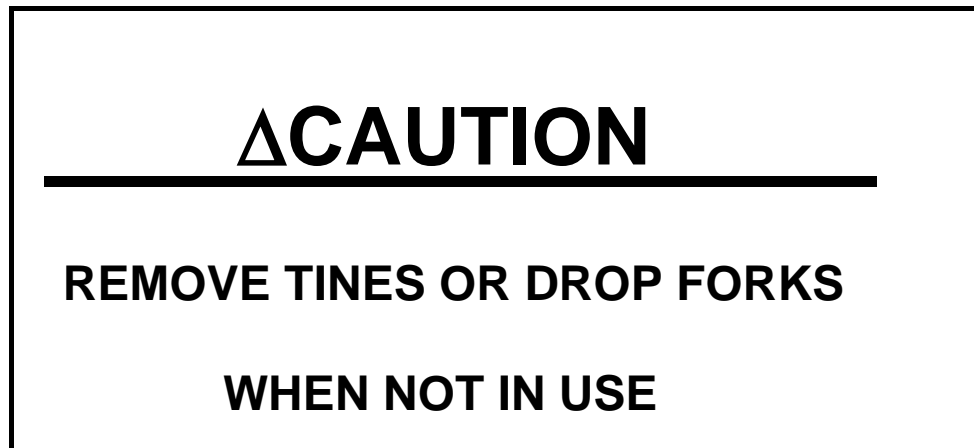
Review the safety instructions with all users annually.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.

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.**

Δ SAFETY . . . SIGN LOCATIONS

The type of Safety Sign and locations on the equipment are shown in the illustration below. Good safety requires that you familiarize yourself with the various Safety Signs, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.



REMEMBER: If Safety signs have been damaged, removed, become illegible or parts replaced without decals, new decals must be applied. New decals are available from your authorized distributor or factory.

SAFETY DECAL CARE:

- Keep safety decals and signs clean and legible at all times.
- Replace safety decals and signs that are missing or have become illegible.
- Replaced parts that displayed a safety sign should also display the current sign.
- Safety decals or signs are available from your Dealer or the factory.

HOW TO INSTALL SAFETY DECALS:

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.

△ 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 authorized dealer or the manufacturer.

BEFORE-DURING-FOLLOWING OPERATION:

- **Carefully study this manual.**
- Make sure tines are correctly mounted and secured with tine pin.
- Do not use the unit until you are sure that the area is clear, especially children and animals.
- Make sure the pickup is properly located for use in lifting your bales.
- Do not allow any one to stand at the rear of the vehicle while loading, lifting, or unloading the bales.
- Beware of bystanders, particularly children. Always look around to make sure that it is safe to move and transport the bales. This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
- Do not carry passengers anywhere in the bed or on the bale while transporting the bale to different sites.
- Do not clear, lubricate or adjust your equipment while moving.
- When halting operation, even periodically, set the vehicle brakes, shut off the engine and remove the ignition key.
- Be especially observant of the operating area and terrain - watch for holes, rocks or other hidden hazards. 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.
- Pick the most level possible route when transporting across fields. Avoid the edges of ditches or gullies and steep hillsides.
- Be extra careful when working on inclines.
- Maneuver the vehicle at safe speeds.
- Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
- Avoid loose fill, rocks and holes; they can be dangerous for equipment operation or movement.

Before-During-Following Operation Continued:

- Keep all bystanders, pets and livestock clear of the work area.
- Never leave running equipment attachments unattended.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures.
- Following operation place tines in an upright position.

△ HIGHWAY AND TRANSPORT OPERATIONS:

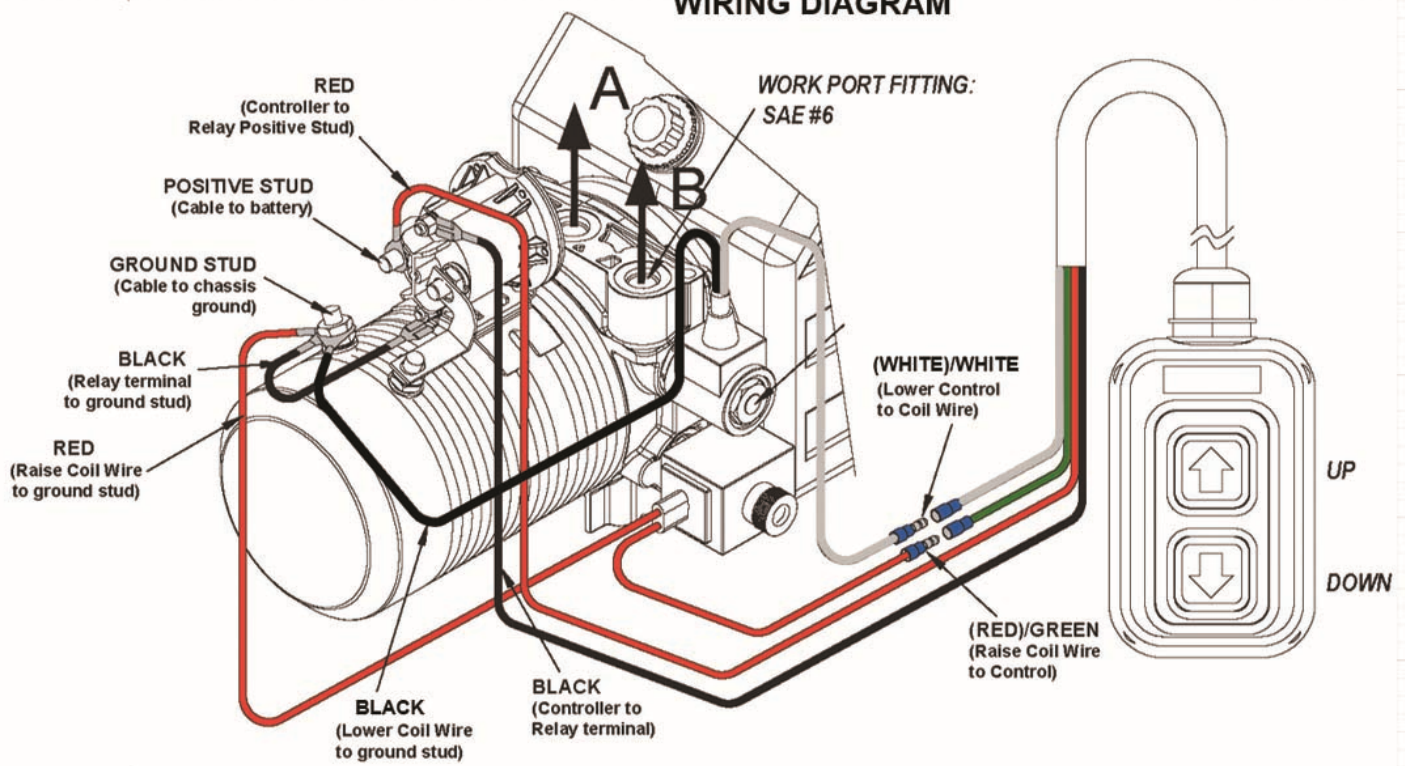
- Adopt safe driving practices:
 - Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.
 - Reduce speed prior to turns to avoid the risk of overturning.
 - Avoid sudden uphill turns on steep slopes.
 - Do not drink and drive!
- △ **NEVER drive with the empty tines in a horizontal position. Always remove tines when not transporting a bale.**
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
- Watch for obstructions overhead and to the side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.

PERFORMING MAINTENANCE:

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Before working on this machine stop all activity, set the brakes, shut off the engine and remove the ignition keys.
- Be certain all moving parts have come to a complete stop before attempting to perform maintenance.
- Always use a safety support and block the wheels. Never use a jack to support the machine.
- Always use the proper tools or equipment for the job at hand.
- Use extreme caution when making adjustments.
- Follow the torque chart in this manual when tightening bolts and nuts.
- Never use your hands to locate a hydraulic leak on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate the skin.
- When disconnecting hydraulic lines, shut off hydraulic supply and relieve all hydraulic pressure.
- Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid. If injured by escaping hydraulic fluid, see a doctor at once. Without immediate medical treatment, serious infection and reactions can occur.
- Check the level of the hydraulic fluid in the pump. Keep a standard level for good operation.
- **Apply grease to all grease zerks. Make this a regular maintenance check.**
- After servicing, be sure all tools, parts and service equipment are removed.
- Never replace hex bolts with less than grade five bolts unless otherwise specified. Refer to bolt torque chart for head identification marking.
- 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.
- If equipment has been altered in any way from original design, the manufacturer does not accept any liability for injury or warranty.

POWER-PAK HYDRAULIC SYSTEM

WIRING DIAGRAM



TROUBLESHOOTING CHART

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor won't start	1. Loose connections. 2. Dead battery	1. Check wiring. Retighten connections. 2. Test for proper voltage.
Unit will not pump oil.	No oil in reservoir.	Remove breather and check oil level in reservoir. Add oil with tines lowered. Oil level should be 1 inch from top of reservoir. If over filled oil will blow out the breather cap.
Motor runs but cylinder does not move or moves slowly.	1. Low oil level 2. Suction strainer in reservoir clogged.	1. Add oil 2. Remove reservoir and clean inlet strainer.
Pump motor unit is noisy.	1. Low oil level 2. Air in system.	1. Add oil 2. Bleed air from highest fitting in system by loosening fitting very slightly and operating unit until bubbling of air stops, then tighten.
Unit does not develop full pressure.	Pump relief valve set too low, or leaking.	Check relief valve for proper setting with pressure gauge in outlet line. (Note: Relief valve starts to bypass oil at approximately 85% of full bypass setting).
Double acting cylinder moves but does not stay extended.	Hoses connected to wrong ports on 4-way valve.	Reverse hose connections on valve.
Motor runs but solenoid valve does not activate.	Contamination in valve causing the spool to stick.	Move valve spool manually with a 1/8 inch rod by pushing on end of solenoid. The end is designed for this purpose.
Leak Down	Ball is not seating in check valve.	Make sure ball is seated on spring.

Need Help---Call the Factory at 1-580-227-2345 or 1-888-927-2626

BOLT TORQUE:**CHECKING BOLT TORQUE**

The table shown below gives correct torque values for various bolts and cap screw. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

TORQUE SPECIFICATIONS:

Bolt Diameter:	SAE 2	SAE 5	SAE 8
1 / 4"	6	9	12
5 / 16"	10	19	27
3 / 8"	20	33	45
7 / 16"	30	53	75
1 / 2"	45	80	115
9 / 16"	70	115	165
5 / 8"	95	160	220
3 / 4"	165	290	400
7 / 8"	170	420	650
1"	225	630	970

* Bolt Torque value for bolts and cap screws are identified by their head markings.

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

WARRANTY REGISTRATION FORM:

This form must be filled out and returned by the customer at time of purchase.

Mail to: **Bramco, Inc. • 513 N. Main • Fairview, Oklahoma 73737**

OR Fax to: **580-227-3851**

WARRANTY REGISTRATION:

Customer name _____

Address _____

City, State, Zip Code _____

Phone Number _____

Purchased From _____

Product _____ Delivery Date _____

Serial Number _____ Pump Serial Number _____
(If Applicable)

I have reviewed the enclosed material on the above described equipment. I am instructed in the operator's manual content, equipment care, safe operation and applicable warranty policy.

Date _____ Owner's Signature _____