

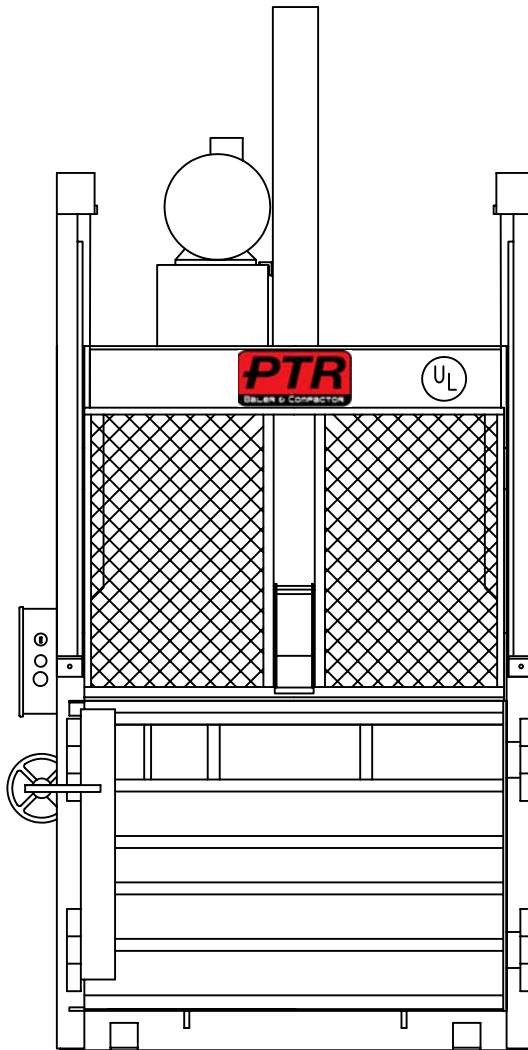
PTR BALER & COMPACTOR CO.

2207 EAST ONTARIO STREET . PHILADELPHIA, PA. 19134

1-800-523-3654

HYDRAULIC BALERS

FOR DEPENDABLE, COST-SAVING RECYCLING



ENGINEERED FOR SUPERIOR DURABILITY & MAXIMUM SAFETY.

OUR EMPHASIS
IS ON SAFETY

MODEL No. _____

SERIAL No. _____

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Revised 10/2006

Congratulations on your purchase of a PTR Baler.

- PTR is known for producing balers with the highest safety and quality standards in the industry.
- All PTR Balers are factory tested and receive a vigorous quality assurance inspection to insure top performance and safety in the field.
- Many of the advanced design features on our balers make operation easy without sacrificing safety.
- At PTR Baler and Compactor, operator safety is our number one priority. We ask that all operators read and fully understand this manual and view the provided safety/operational video. All baler operators must be at least 18 years old.
- UL Approved and CUL Approved.

*****IMPORTANT*****

- A. The operating keys are located inside of the control panel. A tool is required to open the control box and only trained and authorized service personnel should enter following proper lockout/tagout procedures.**
- B. When power has been properly connected, press the Down/Up button and observe the direction of the rotation of the motor. Look at the motor fan, proper rotation is clockwise. (As indicated by arrow on motor). If fan rotation is not clockwise, follow lock out/tag out procedures and interchange any two of the three power conductors, re-check for proper rotation. This should correct the problem.**

GENERAL

- PTR's vertical downstroke baler is designed with the operator's safety in mind. However, as with most industrial equipment, the ultimate responsibility for safety rests with the operator.
- It is the operator's duty to be thoroughly familiar with this manual and video before operating the baler.
- Additional operator responsibilities are to insure that the units' operation is in accordance with safety requirements and codes, especially all applicable **Occupational Safety and Health Administration (O.S.H.A)** standards and **American National Standard Institute (A.N.S.I)** Regulations.
- PTR strongly recommends that current, completed, applicable **ANSI** and **OSHA** standards are available to operators at all times.
- PTR Baler and Compactor Company strongly recommends: Keep the baler clean and free of contaminant. Failure may cause illness or death. Bale clean Cardboard only.

Note:

The information contained herein is subject to change without notice.

We reserve the right to make changes, and alterations to the equipment and information contained herein at anytime.

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7 Operational requirements

7.1 Owner/employer responsibilities for balers. The owner/employer shall provide properly maintained balers that meet all applicable regulatory safety requirements and the requirements of this standard, and shall be responsible for all of the following:

- a) Ensuring that the installation of the baler conforms to local codes, ordinances, and manufacturer's recommendations. If installing into a system, examine prevailing safety standards of associated equipment;
- b) Providing to employees instruction and training in safe work methods before assigning them to operate, clean, service, maintain, modify, or repair the baler. Such instruction and training shall include procedures provided by the manufacturer. The employer will maintain records as to the names of employees and the dates of training;
- c) Providing instructions for addressing abnormal situations (e.g., bridging of the loading chamber or feeding chute, jam of materials);
- d) Assigning only trained employees to work on (which includes operating, loading, cleaning, servicing, maintaining, or repairing) the baler;
- e) Monitoring the employee's operation of the baler and taking appropriate action to ensure proper use, including adherence to safe practices and the employee requirements of this standard and monitoring the employee's operation of balers and taking appropriate action to ensure proper use of equipment, including adherence to safe practice;
- f) Repairing, prior to placing the baler into service, any mechanical malfunctions or breakdowns that affect the safe operations of the baler;
- g) Establishing and following a program of periodic and regular inspections of all balers to ensure that all parts, component equipment, and safeguards are in safe operating condition, and adjusted, in accordance with the manufacturer's recommended procedures. This shall include keeping all malfunction reports and records of inspections and maintenance work performed;
- h) Implementing a program for the maintenance of the baler which will incorporate the following elements:
 - 1) Requirements for trained, competent maintenance employees or contractors to perform inspection and repair work;
 - 2) Providing for the cleaning, inspection and repair of the baler in accordance with the manufacturer's recommendations, including periodic maintenance;
 - 3) Ensuring that all required safety features are operational and functioning, and repairing, prior to placing into service, any reported malfunction or defect that affects the safe operation of the baler; and
 - 4) Ensuring that all caution, warning and danger markings required by 5.14 are installed and legible, or are replaced if damaged, defaced or missing.
- i) Utilizing the manufacturer's recommended procedures for the control of hazardous energy sources (lockout/tagout) in a program complying with Part 1910.147 of Title 29 of the *Code of Federal Regulations* (OSHA) (see 7.3);

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- j) Utilizing the manufacturer's recommended procedures for access control for permit-required confined spaces as part of the employer's program (see 7.4);
- k) Protecting any person by one of the methods in 5.8.1, or by other means as effective as those means of protection.
- l) For balers fed by means of a loading pit conveyor, reciprocating floor, or push pit that is flush with or below the facility floor, providing:
 - 1) Protection for employees by means of:
 - i) Limiting access within 6 feet (183 cm) of the edge of the pit to authorized employees;
 - ii) Training authorized employees to recognize and avoid the hazards associated with the pit area;
 - iii) Requiring that others whose employees use the pit area provide assurance of such training; and
 - iv) Limiting access by unauthorized persons by installing signs, such as:
"RESTRICTED AREA — AUTHORIZED EMPLOYEES ONLY"
 - 2) Providing a device to the extent practicable, which prevents trucks or other motor vehicles that unload directly into the loading pit from rolling into the pit;
- m) When balers equipped with automatic start/cycling controls are provided, allowing their use only in locations where a startup alarm is utilized or it is demonstrated that automatic starting does not result in a risk of injury to persons;

NOTE: Achieving acceptably low risk of injury would include demonstrating that lockout procedures are strictly adhered to when bridging in feed chutes occurs or jammed material must be cleared from the loading chamber
- n) Providing guard railings for dock ramps that meet U.S. Occupational Safety and Health Administration requirements. These shall be located around the loading chamber opening if walk-on ramps are used to deposit refuse into the loading chamber. Guard railings and toe boards shall be provided on the sides of docks and ramps;
- o) Providing for an adequate work area around the baler for safe maintenance, servicing, and cleaning procedures;
- p) Keeping all surrounding walking areas and floors free from obstructions, and accumulations of waste matter, grease, oil, and water (slipping and tripping hazards);
- q) Maintaining records or employee reports of malfunctions;
- r) Specifically inspecting safety interlocks, switches, and other protective devices to ensure that these devices are not disabled or bypassed, and not to permit the baler to be operated unless these devices are fully functional. These inspections shall be in accordance with (g);
- s) Ensuring that containers supplied are capable of withstanding the maximum forces generated by the baling system;

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- t) Ensuring that loaders are aware of hazards and safety requirements;
- u) Ensuring that only authorized employees (18 years old or older) operate, inspect, or maintain balers;
- v) Ensuring that only authorized employees (16 years old or older) load, but do not operate balers; and
- w) Incorporating balers into the employer's safety program (see Section 8).

7.2 Operator and employee responsibilities. Operators who work on and around the baler shall be responsible for the items listed below:

- a) Using all applicable safety features provided on the baler;
- b) Using the baler only after receiving instruction;
- c) Reporting any damage to, or malfunction of, the baler by submitting a report to the employer or responsible authority when the damage or malfunction occurs;
- d) Ensuring that access doors and service opening covers are in place, secure, and/or locked before operations begin;
- e) Ensuring that the area of operation around container/cart lifting systems and the container will be clear of persons during all phases of the lifting operation prior to energizing the dumping system;
- f) Ensuring that all persons are clear of the baler point of operation before actuating any compaction cycle controls or container/cart lifting system controls and being prepared to stop the compaction cycle or container dumping operation if necessary;
- g) Ensuring that all persons are clear of the tailgate (on baler-container combinations so equipped) before the tailgate is opened or shut. The operator shall warn all persons not to cross behind or under an open tailgate;
- h) Using the baler in accordance the manufacturer's instructions, including ensuring the proper position of all locks, doors, guards, etc.;
- i) Ensuring that no one disables or bypasses safety interlocks, switches, or other protective devices and that the baler is not operated unless these devices are fully functional;
- j) Locking out the unit when inspecting malfunctions, jams, or other problems arising from daily operations; servicing; or performing maintenance (except maintenance testing). The affected employee shall identify the type and magnitude of the energy that the baler uses, shall understand the hazards, and know the methods to control the energy (see 7.3);
- k) Coupling and securing a compatible container to a baler frame as specified by the baler and container manufacturer(s);
- l) Operating, inspecting, and maintaining the baler only if 18 years old or older and after being properly instructed and trained; and
- m) Loading, but not operating, the baler only if 16 years old or older.

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7.3 Procedures for the control of hazardous energy sources (lockout/tagout)

7.3.1 The owner/employer shall have a hazardous energy control (lockout/tagout) procedure to follow when performing servicing and maintenance on balers where the unexpected energization or start up of equipment, or release of stored energy could cause injury to employees.

7.3.2 The owner/employer shall utilize the instructions provided by the manufacturer for the control of hazardous energy sources. The lockout/tagout procedure shall isolate and render safe all energy sources, including electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other potential energy sources (e.g., gravity, kinetic, etc.). It shall be used to ensure that the baler is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the baler or release of stored energy could cause injury.

7.3.3 The lockout/tagout procedure shall include but is not limited to the following:

- a) Shutting down all power sources;
- b) Removing keys or other devices that enable the baler;
- c) Using a lock to secure the power supply or, if that is not feasible, installing a tag on an appropriate location, using a non-reusable fastener, or installing a similar warning device;
- d) Placing operating components in such a position so as not to be subject to possible free fall and/or installation of additional blocking devices to prevent such free fall of any raised or elevated component; and
- e) Relieving stored hydraulic or pneumatic pressure, after blocking devices are installed, if maintenance is to be done to the hydraulic or pneumatic system.

7.3.4 The procedure shall address the following:

- a) Sequence of lockout for the baler:
 - 1) Notify all affected employees that servicing or maintenance is required on a baler and that the baler must be shut down and locked out to perform the servicing or maintenance.
 - 2) The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the baler utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
 - 3) If the baler is operating, it must be shut down by the normal stopping procedure (depress stop button, open switch, close valve, etc.).
 - 4) De-activate the energy isolating device(s) so that baler is isolated from the energy source(s).
 - 5) Lock out the energy isolating device(s) with assigned individual lock(s).
 - 6) Stored or residual energy must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.

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7) Ensure that the baler is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

Caution: Return operating control(s) to neutral or "off" position only after verifying the isolation of the equipment.

NOTE: The machine or equipment is now locked out.

b) Restoring the baler to service. When the servicing or maintenance is completed and the baler is ready to return to normal operating condition, the following steps shall be taken:

1) Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.

2) Check the work area to ensure that all employees have been safely positioned or removed from the area.

3) Verify that the controls are in neutral. 4) Remove the lockout devices and reenergize the machine or equipment. NOTE: The removal of some forms of blocking may require re-energizing of the machine before safe removal.

5) Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

7.4 Procedures for work in confined spaces

7.4.1 The owner/employer shall have a written procedure for work in confined spaces meeting the criteria of "permit required confined spaces," such as integrated power units. The procedure shall utilize the manufacturer's instructions for the hazardous energy control (lockout / tagout) procedure which shall isolate and render safe all energy sources, including electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other potential energy sources (e.g., gravity, kinetic, etc.) which may create a hazard during entry into each of those confined spaces.

a) These instructions shall include the requirement to affix a sign to the baler, at or near the entrances to those confined spaces for which hazardous energy control procedures are provided, such as, "**Warning — Follow lockout/tagout procedures before entering.**"

b) These instructions shall include the requirement to affix a sign to the baler, at or near the entrances to those confined spaces for which hazardous energy control procedures are provided, such as, "**Danger — Confined Space.**"

8 Safety and training program

8.1 General

8.1.1 Employers shall evaluate and manage safety issues related to the operation of baling equipment as part of their safety program.

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8.2 Safety program

8.2.1 The employer's program shall include at a minimum the following elements:

- a) A hazard assessment in which the employer conducts a review of the various types of baling equipment that the employer utilizes and the hazards associated with them and, review and assess the capabilities, qualifications and training of any person who may potentially encounter these hazards.
- b) An evaluation of the means and methods of controlling the hazards identified in the hazard assessment, including information such as industry and regulatory requirements; instructions for the operation, inspection, and maintenance of balers, and other information appropriate to the hazards that are identified
- c) A written program, based upon the hazard assessment and evaluation, to include procedures for the operation, inspection, and maintenance of balers, prohibited practices, record keeping, training requirements, and normative references to documents, such as operating manuals, that are relied upon and may be required as part of that program;
- d) A program, conforming to 8.3, for the implementation of the written program; and e) Periodic review and program revisions as necessary to ensure the effectiveness of the safety program.

8.3 General training

8.3.1 Employers shall ensure all employees, including supervisors, contract laborers, and all other persons engaged in the operation, cleaning, maintenance, service or repair of baling equipment are properly trained appropriate for their assigned jobs and tasks. Contractors who may be engaged to operate or maintain the employer's balers shall be advised of the unique hazards related to the equipment that may affect the activities in which the contractor's employees will engage.

8.3.2 Training frequency

8.3.2.1 Training shall be provided upon initial assignment to a job or task, with periodic refresher training to maintain the required level of competence. Retraining shall be provided for employees whenever their job assignments change, or an equipment change occurs that presents a new hazard. Additional retraining shall be provided whenever the employer has reason to believe, or periodic inspections reveal, that employee deviations from procedures have occurred, or inadequacies in the employee's knowledge of procedures become evident.

8.3.3 Instructional information

8.3.3.1 Employers are required to refer employees to, and have readily available, the manufacturer's instructions to ensure correct operating and maintenance procedures and work practices are understood and followed. Employers are required to ensure employees possess knowledge and skills to safely operate the baler.

8.3.4 Contract labor

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8.3.4.1 Employers shall ensure for each job or task performed that training is provided either by the contract laborer's parent employer or by the employer.

8.3.5 Training records

8.3.5.1 Employers are required to maintain training records to include the date(s) of the training and the type of training received. Records are required to be maintained as required by applicable regulations. Contractors and contract laborers are required to provide the employer with appropriate training records upon demand.

8.3.6 Equipment-specific training

8.3.6.1 Training shall be tailored for individual operations and the type of equipment utilized including detailed, equipment-specific training for machine operators, as well as maintenance personnel and supervisors who must operate equipment as part of their job duties. Training shall include practical demonstration of equipment operation knowledge and skills by the employee, as appropriate to the requirements of the employee's job duties.

8.4 Training requirements

8.4.1 Training is required to include at a minimum:

- a) The necessary training as identified in the hazard assessment [see 8.2.1 a)]; b) The training required by laws and regulations, such as those of federal and state Occupational Safety and Health Administrations, the Departments of Transportation, and other applicable regulatory agencies; and
- c) Operational instruction on each specific type of equipment used by the employee, including the instructions provided with the equipment.

Baler Operational And Repair Safety Instructions

WARNING: DO NOT OPERATE BALER WITHOUT THOROUGH UNDERSTANDING OF INSTRUCTIONS.

DAILY: PERFORM SAFETY CHECK TO ENSURE PROPER INTERLOCK FUNCTION

ONLY AUTHORIZED PERSONNEL SHOULD BE ALLOWED TO OPERATE THIS BALER

Keys to this machine should be removed between uses to prevent unauthorized operation. Federal regulation prohibits use of this machine by people under the age of 18.

DO NOT ATTEMPT TO DEFEAT THE PURPOSE OF ANY SAFETY SWITCH!

Immediately replace any switches that are found not to be in proper working condition

DO NOT OPERATE BALER UNLESS GATE IS FULLY CLOSED

KEEP CLEAR OF THE BALER WHILE EJECTING A BALE



THE BALER SHOULD NEVER BE ENTERED OR SERVICED WITHOUT FOLLOWING THE LOCK-OUT TAG-OUT PROCEDURE

The baler should not be restarted until all workers have exited the baler and moved out of the way of all moving components.

Lock-out procedure is listed on the following page.



ONLY AUTHORIZED PERSONNEL SHOULD BE ALLOWED TO OPEN THE PANEL BOX

Baler operates with high voltage, and should not be serviced by people who are not certified to do so.

Lock-out procedure must be used before opening panel box.



BEWARE OF MOVING COMPONENTS

The gate and door should not be opened at anytime while the ram is advancing under pressure. The user should stand away from baler while in operation, and should never reach into the machine in any way.



DO NOT CLIMB THE BALER UNDER ANY CIRCUMSTANCE

User should also be familiar with applicable safety codes, including those issued by ANSI, OSHA, UL, NFPA, etc.

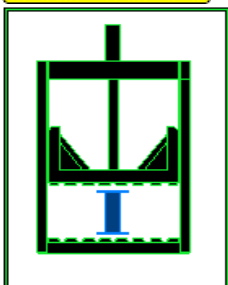
NOTICE: WHEN CHANGING CYLINDER, PERFORMING HYDRAULIC SERVICE, OR PERFORMING STRUCTURAL REPAIRS

Be absolutely sure to fully support the ram. Suggested method shown on drawing AB340367 in the user manual

Balers that are found not to be operating safely, must be **IMMEDIATELY** reported to **PTR Baler and Compactor**

AT: (800) 523-3654

LOCK-OUT PROCEDURE IS LOCATED ON THE FOLLOWING PAGE



LOCKOUT/TAGOUT PROCEDURE DEVELOPMENT INFORMATION

Warning! Before performing maintenance or service work on the baler, the OSHA (Occupational Safety and Health Administration) 29 CFR (Code of Federal Regulations) 1910.147 requires that each company develop, maintain, and follow a lock-out / tag-out procedure for employees and equipment.(standard should be referenced for definitions to various terms such as isolation, affected, and authorized.) This procedure must be followed prior to performing maintenance or service work or entering any hazard area that may exist. The following is merely a guideline for creating a company/equipment specific lock-out / tag-out procedure and is not intended to supplant either the specific company procedure or OSHA standard 29 CFR 1910.147 and 29 CFR 1910.147 appendix A.

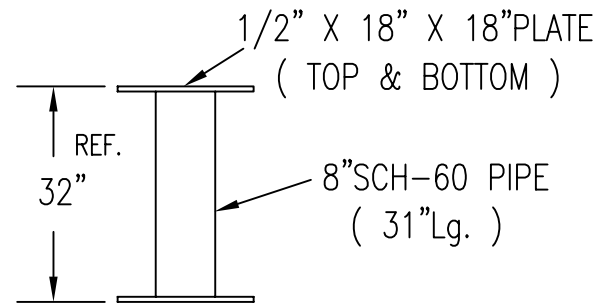
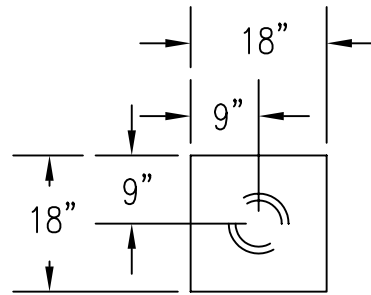
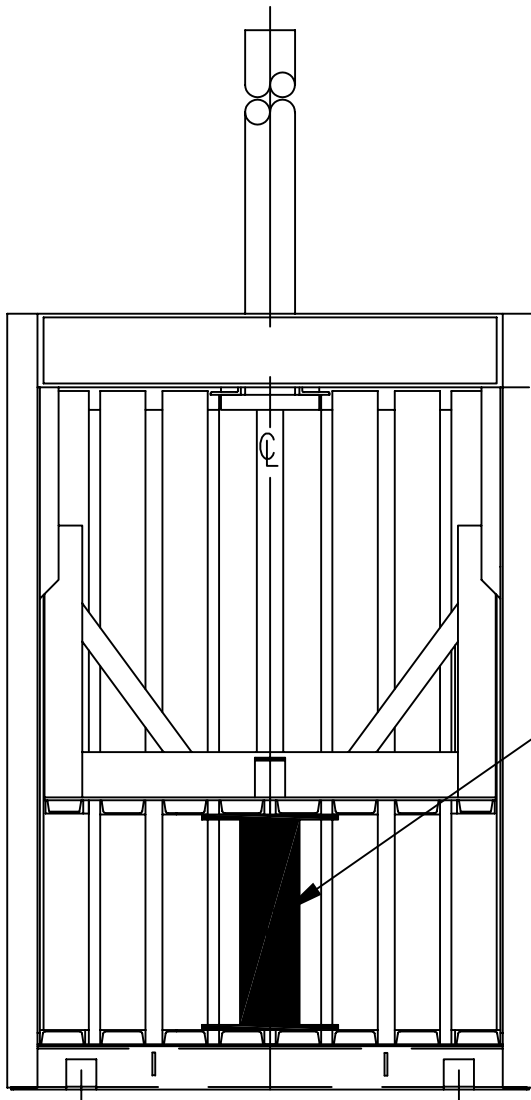
1. All “affected” employees shall be notified that equipment is being shut down and locked out prior to performing service or maintenance.
2. The equipment, if operating, shall be shut down by normal means and the energy-isolating device shall be de-activated to isolate the equipment from the energy source by an “authorized” employee. Isolation shall include:

 - a) Removing the key from the key-lock ON-OFF switch on the baler control box
 - b) turning off disconnect and affixing a lock, securing disconnect in the off position
 - c) Affixing a tag to the lock, clearly identifying the individual who locked out the machine, warn against hazardous conditions, and actions required to avoid hazardous conditions, such as, “Do not operate”
 - d) Placing operating equipment in such a position as not to be subject to possible free fall and/or installing additional blocking devices to prevent freefall. See drawing number AB340367 in user manual
 - e) Relieving stored hydraulic or pneumatic pressure, after blocking devices are installed

3. Equipment isolation shall be verified by activating the normal operating controls, ensuring first that no personnel are exposed (insure operating controls are returned to the neutral or “off” position after verifying the isolation of the equipment).
4. When the servicing or maintenance is completed, only after checking that the equipment is ready to operate, ensuring that the surrounding area is clear, that employees are safely positioned or removed from the area, and verifying that controls are in neutral, shall the lockout devices be removed and the equipment be re-energized. Tags and locks must be removed by the same person who attached them.
5. Affected employees shall be notified that the servicing or maintenance has been completed and the equipment is ready for use.

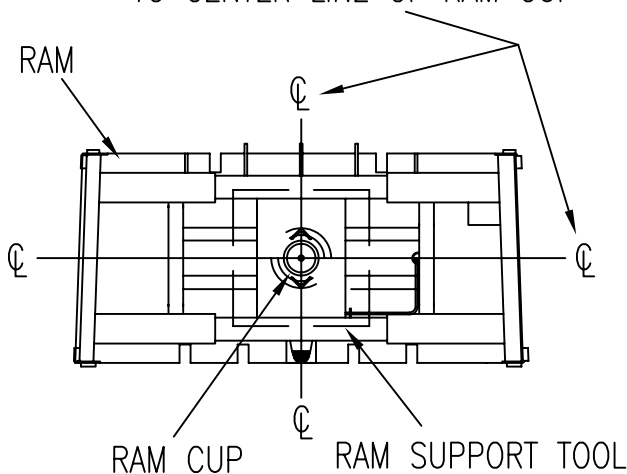
PTR Baler & Compactor strongly recommends that current and applicable ANSI and OSHA standards be made available to operators at all times. At the time of printing the applicable OSHA Standard 29 CFR1910.147 / 1910.147 Appendix A applied. Also reference ANSI Z245.5, others may also apply.

PTR BALER & COMPACTOR CO.



OPTIONAL RAM SUPPORT TOOL

LOCATE CENTER LINE OF TOOL
TO CENTER LINE OF RAM CUP



BALER CYLINDER CHANGING PROCEDURE

1. APPLY THE LOCKOUT PROCEDURES DESCRIBED IN THE MANUAL TO DE-ENERGIZE THE BALER WHILE THE RAM IS IN IT'S UP-POSITION. (SEE LOCKOUT PROCEDURES IN TABLE OF CONTENTS)
2. OPEN THE CHAMBER DOOR AND POSITION THE RAM SUPPORT ALIGNED WITH THE CENTERLINE OF CYLINDER AS SHOWN IN THIS DRAWING.
3. AT THE POWER UNIT, RELIEVE PRESSURE OF THE SOLENOID VALVE BY PUSHING THE SPOOL END BUTTONS IN. THIS WILL ALLOW THE RAM TO DRIFT SLOWLY DOWN UNTIL IT SITS ON TOP OF THE RAM SUPPORT.
4. PROCEED WITH THE CYLINDER MAINTENANCE AS REQUIRED.

NOTE:
WHEN CHANGING CYLINDERS, NEW LOCKNUTS MUST BE USED.

Baler Safety and Training Outline

I. Scope - Employers should designate a Safety/Risk Manager or equivalent person that has qualifications necessary to evaluate and manage safety and operational training issues related to the operation of baling equipment as part of their operator safety and training program. Each individual baler owner should develop their own training program specific to their equipment, personnel, processes, environment, and unique site application.

- A. Your company safety official should conducted a hazard assessment of the various baling equipment utilized at your facility and use the information from the hazard assessment to develop a company specific baler safety training program. The hazard assessment should include at a minimum the following:
 - 1) Identification of material being baled. (clean cardboard only)
 - 2) Hazards associated with the baling equipment and material baled.
 - 3) An initial and then periodic review of the capabilities, qualifications, and training of any person who may potentially encounter the identified hazards.

- B. Your company safety official should evaluated the means and methods of controlling the hazards identified in the hazard assessment; including information such as industry and regulatory requirements, instructions for the operation, inspection and maintenance of balers, and other information appropriate to the identified hazards.
 - 1) Your company safety official should ensure compliance with applicable OSHA Code of Federal Regulations under 29 CFR 1910 and applicable ANSI baling equipment standards under ANSI Z245.5 and Z245.51.
 - 2) Your company safety official should ensure that all employees (including supervisors) engaged in the operation, cleaning, maintenance, service, or repair of the baling equipment are properly trained according to their assigned jobs or tasks. The Baler Safety Video supplied by PTR should be shown to all potential operators and the manual should be read thoroughly.
 - 3) Contractors should not be permitted to operate in-house baling equipment unless they have been properly trained and authorized.

- C. As a leading baler manufacture we recommend that your company utilizes the following baler safety training outline and baler safety video which cover the following:
 - 1) Pre-start up
 - 2) Operation – (operation procedures are also posted on front of control box)
 - 3) Safe bale ejection
 - 4) Inspection / maintenance (see baler safety inspection checklist included in this manual)
 - 5) Operator Safety / Prohibited practices
 - 6) Training requirements (necessary training as identified from hazard assessment and use of baler safety video.
 - 7) Record keeping – (see Attachment A)

- D. Your company safety official should periodically review their company specific program to ensure the effectiveness of your safety program and make revisions as necessary.

Heed & Obey Warning Signs

Signs such as Danger, Caution, Warning, and Attention are on the machine for your protection. Warning signs must remain in place and be kept in readable condition. Report and replace all damaged or missing warning signs.

Operational carelessness and safety shortcuts can cause serious injury or death! Follow safety Guidelines and be safety conscious.

Every operator should read operators manual and the operating instructions posted on the front of the control box.

The operating key should not be left in the machine when the machine is left unattended.

Prior to Start Up

1. Wear proper safety equipment as recommended by your company safety official.
2. **Never** allow yourself or anyone involved with the baling system to be under the influence intoxicants or narcotics while the baler is operating.
3. Walk around the baling system to check for proper equipment condition. Open hopper door and check inside the baler.
4. Be positive no one is working on the baler or adjoining equipment. With ram in up position, lift gate and look inside main chamber area to be sure no one is inside.
5. The following operational check should be conducted prior to each shift:
 - With the gate raised, press all buttons in any order or combination. No motion should occur.
 - Close gate and start machine, open gate during downward motion. Machine should immediately stop.
 - Close gate and start machine. Gate will automatically open with upward ram travel. During this time, raise the gate off the ram. Machine should immediately stop.
 - Demonstrate that the machine will not operate in “automatic” if the main bale door is open. Operator should do this by having the ram in the up position and with the gate closed set the selector switch to down and push. Release the button and the ram should stop.

If anything does not function as indicated, immediately report problems to supervisor, remove key, lockout machine, and call for service.

Operator Safety

Always Use Lockout/Tagout

Power must always be disconnected and locked out before working within or performing maintenance on the baler or associated equipment. Standard Lockout/Tagout procedures should be followed in accordance with the OSHA standard 1910.147 “The control of hazardous energy”.

A group safety lock should be used when multiple employees are working on the machine at one time so that all locks need to be removed in order to be able to re-energize the baler. Every employee who works on or with the baler should have his own lock and key. **Never assume you are protected by another employee’s safety lock.**

Keep Safety Guards in Place

Safety guards must be kept in place and secure at all times. Keep the guards in good repair with periodic maintenance. Keep limit switches free of debris or obstructions. **Do not override of bypass safety switches or features.**

If feed gate becomes difficult to open or close, maintenance should be informed.

Operators should be instructed on how to conduct a brief visual safety inspection that includes areas door hinges and latch. Also how to conduct a visual inspection of the ejector chains, t-hooks, and shackles. Operator should know that maintenance should be called if there is any evidence of damage or if anything looks “different” as opposed to prior inspections.

Practice Fire Prevention

1. Keep fire extinguishers accessible at all times. Use the extinguisher recommended for the material being baled. It should be rated safe for use of electrical fires.
2. Never smoke close to combustible material.
3. Clean the area before welding or other repair activities that produce sparks or source of ignition.
4. Keep tank and motor areas free of oil, dust, or paper accumulations.

Keep a Clean Machine

1. Bale only clean cardboard.
2. Clean motor area monthly.
3. Remove any wedged cardboard from sides and back of ram. Remove any cardboard on the top of the ram daily.
4. Remove any cardboard stuck on retainer dogs and limit switches.
5. Keep baler clean and free of dirt and other contaminants. Failure to do so may cause illness or death.

Remember! All possible Dangers cannot be predicted. Your own safety attitude and habits are your best protection.

Additional Safety Guidelines for Baler Operation

- 1.** Only authorized personnel 18 years of age or older, who are trained in baler operation are permitted to operate the baler.
- 2.** The owner and operator are responsible for the safety of the employees and should be familiar with applicable OSHA and ANSI standards.
- 3.** Operate in accordance with the owner's manual supplied with your baler.
- 4.** Do not set the hydraulic pressure above factory specs. Specified pressures are listed inside the control box. Severe baler damage and/or personal injury could result.
- 5.** Bale only the specified material for which the baler was built. And also for which the hazard assessment was conducted for.
- 6.** Never overload the baler chamber.
- 7.** Never enter the main chamber area unless the power is disconnected and locked out.
- 8.** If work on or in the baler is required, disconnect the power to the baler, and lockout. Never assume that you are protected by another employee's safety lock. Before restarting, repeat the "Prior to Start Up" procedures.
- 9.** Anytime the baler is shut down, the "Prior to Start up" procedures should be repeated.
- 10.** Never bale aerosol cans or containers filled with liquid.
- 11.** Use of safety glasses and forearm length leather gloves are strongly recommended when handling baling wire.

Attachment A

TRAINING RECORD

Employee Name	Description of Training and other Notes	Date of Training	Seen Video Yes/No	Employee Signature

Store name and location: _____

Training Video Present at Store: _____

Store #: _____

Manual present at Store: _____

Store Manager Name: _____

Name or Trainer: _____

Signature and Date: _____

Signature of Trainer: _____

BALER INSTALLATION GUIDE

1. Place the Baler in the location desired by the customer. While doing so, be sure to maintain the minimum clearances, listed in dimension table, otherwise, the baler will not be able to function properly.
2. After the baler has been placed, it must then be anchored to the floor using the 4 supplied anchors through the mounting holes on the bottom of the baler.
3. Run power to the control panel from the customer supplied wall disconnect.

NOTE: The disconnect must adhere to local, state, and federal electrical and safety codes and must be located within line of sight of the Baler start controls. The manual electrical section can be referred to for minimum wire size, amperage requirements and fuse specifications. Wire sizes given are for runs of under 25 ft, longer runs require heavier wire. Line must be fused with time delay fuses.

4. Once the power has been properly connected, press the Down/Up button and observe the direction of the rotation of the motor. Look at the motor fan, proper rotation is clockwise. (As indicated by the arrow on the motor) If the fan rotation is not clockwise, follow the lock-out / tag-out procedures and interchange, any two, and only two of the three power connectors and re-check for proper rotation. This should correct the problem.
5. Affix the provided seal across the control box opening. This sticker must then be ripped to access the control box after the initial install. The sticker reads “Danger – High Voltage – Danger, Do Not Open This Control Box, Can Only Be Serviced By Authorized Personnel.”
6. Any scrap material should be picked up and discarded after the completion of the installation. All scratches and exposed metal on the baler must be touched up.
7. Fill out the Operating and Safety Checklist, the Preventative Maintenance Checklist, and the Baler Installation Information sheet.
8. Supply the customer with the operation manual and video. Also, get them to sign them the two checklists and the Baler Installation Information sheet which must be completed and mailed or faxed to PTR.

TO BE COMPLETED BY INSTALLER

2207 E Ontario St.

Please complete and mail/fax this form along with the completed Baler Safety Checklist, immediately after installation

Philadelphia, PA, 10134

Fax: (215) 533 - 8907

**PTR Baler and Compactor Company
Baler Installation: Information / Check List**

Baler Information:

Model No: _____	Serial No: _____
Installed By: _____	Date: _____
Signature of Installer: _____	

Customer Information:

Customer and Store No: _____

Address _____

Phone No: _____

Operation and Maintenance Manual Received By:

Name & Signature: _____

Individuals Instructed In Safety Procedures And Operation Of Machine:

Names & Signatures: _____

Keys Received By:

Name & Signature: _____

Operation Video Tape Received By:

Name & Signature: _____

Verify The Following:

ELECTRICAL

- 1. All connections made ()
- 2. All terminals tight ()
- 3. Fuse clips tight ()
- 4. Limit switches tight (door and gate) ()
- 5. Proximity switch tight ()
- 6. All switch buttons (selectors) tight and properly aligned ()
- 7. Seal the control box with the High Voltage Sticker ()
- 8. Push relay tight to relay base ()

HYDRAULIC

- 1. Oil Level ()
- 2. All (4) hose fittings re-tightened after unit was set in place ()
- 3. Motor/pump coupling tight ()
- 4. Directional valve shifting smoothly and quietly ()
- 5. Pressure settings ()

PHYSICAL

- 1. Anchored to floor ()
 - 2. Ejector chain assys. In place properly aligned ()
 - 3. Cylinder bolts tight ()
 - 4. All gate hardware tight ()
 - 5. Touch up paint if required ()
 - 6. All safety signs in place ()
 - 7. Gate moves up/down easily ()
- See sticker location drawing in manual

OPERATIONAL

- 1. Power to machine ()
- 2. Run to check proper operation ()
- 3. Demonstrate proper operation to customer –See baler safety checklist in manual ()

INSTALLER'S CHECKLIST

PRIOR TO INSTALLATION: A main electrical disconnect, providing over current protection, must be furnished by the user of this equipment.

Refer to electrical section for setup information. (See Table of Contents)

Determine if the available electrical current agrees with the voltage marked on the front of the panel door and the wiring of the motor starter.

AFTER INSTALLATION

The unit is shipped with oil in the hydraulic system and reservoir.

IMPORTANT: Before operating baler, remove the pipe plug at the fill opening in the reservoir and install the breather cap located in the blue box in the zip lock bag in the control panel.

OIL LEVEL

With the ram in the full UP position, oil in the sight glass on the reservoir should be at the high mark on the gauge.

DOOR

Open and close the door to make sure that it is “free” and easy to move.

ELECTRICAL

If an electrician is available, advise them about proper motor fan rotation. If the rotation is not correct, follow lock-out tag-out procedures and interchange any two of the three power conductors.

IMPORTANT: If an electrician is not available, advise the store manager about the motor fan rotation.

GATE

Pull gate up and down to make sure that it is ‘free’ and easy to move. If the gate is hard to move, check the roller chains to make sure that they are on the sprockets. Counter balance tubes are bolted on for ease of adjustment. Not on all models.

PRESSURES

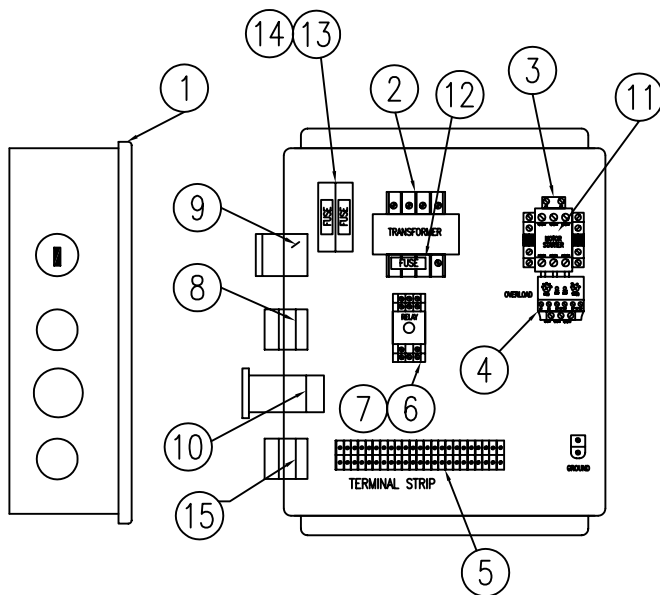
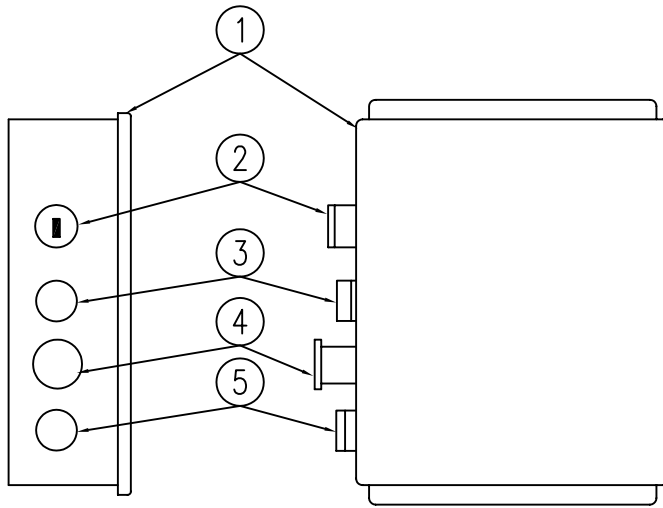
Start machine and check to see if pressure switch setting and the relief valve setting are at the recommended settings. If either is incorrect, see **pressure-setting procedures. (See Table of Contents)**

PRESSURE SETTING PROCEDURES

1. Disconnect #8 wires from bottom of terminal strip.
2. Adjust pressure switch setting to a very high point.
3. Press Down button.
4. Extend ram allow pressure to read consistently on the gauge.
5. Back relief valve off until the pressure gauge reads working P.S.I. desired.
6. Lock relief valve there, (Shut off baler) reconnect #8 wires.
7. Restart baler – Adjust pressure switch DOWN until the solenoid valve shifts and the ram starts UP.
8. Lock pressure switch at that point and disconnect #8 wires from electrical circuit of the pressure switch.
9. Extend ram to allow pressure to read consistently on the gauge.
10. Adjust relief valve in until the pressure gauge reads maximum P.S.I. desired.
11. Lock relief valve at that point.
12. Reconnect #8 wires.
13. Your working pressure and maximum pressure are now set.

PTR BALER AND COMPACTOR CO.

ITEM	QTY.	DESCRIPTION	PART NO.
1	1	ENCLOSURE (14X12X6)	500147
2	1	ON/OFF KEY SWITCH	155408
3	1	UP/DOWN BUTTON	155397
4	1	EMERGENCY STOP BUTTON	155398
5	1	OVERLOAD RESET BUTTON	602436



ITEM	QTY.	DESCRIPTION	PART NO.
1	1	ENCLOSURE	See above
2	1	TRANSFORMER	155350
3	1	STARTER	
4	1	OVERLOAD	
5	19	TERMINAL STRIP	155441
6	1	RELAY (C.H.)	155392
7	1	BASE (C.H.)	155393
8	3	KA-1 CONTACT BLOCKS	155399
9	1	KA-2 CONTACT BLOCKS	155400
10	2	KA-3 CONTACT BLOCKS	155401
11	1	CONTACT COIL	500065
12	1	TRANSFORMER SECONDARY FUSE	320209
13	1	TRANSFORMER PRIMARY FUSE BLOCK	500529
14	2	TRANSFORMER PRIMARY FUSE	603320
15	1	OVERLOAD RESET ACTUATOR	602437

BALER OPERATING INSTRUCTIONS

WARNING

This unit is to be operated by authorized personnel only. By law, no one under 18 years old is permitted to operate this machine.

- A. Preparing the baler to make a new bale of cardboard;
1. Insure power key switch is in the OFF position.
 2. Insure baler ram is in the UP position.
 3. With gate in the UP position, open bale chamber door.
 4. Lay a flat piece of cardboard on the bottom of the bale chamber over top of the ejector straps or chains.
 5. Close and latch the bale chamber door.
- B. To make a bale;
1. Fill the chamber with cardboard, boxes need not be broken down, the material to be baled should be loaded evenly in the chamber.
 2. Pull the gate down to the top of the chamber door.
 3. Turn power key switch to the ON Position.
 4. Set the UP/DOWN switch to the DOWN position, which is also the AUTO setting.
 5. Press the DOWN button and release, the ram will travel down and automatically reverse when reaching full down stroke.
 6. Repeat above steps until full bale indicator arrows on the ram face and wall match as ram reverses.
- C. To tie off and eject a bale: (Load Evenly)
1. With ram in the UP position, insert a flat piece of cardboard on top of the bale, this will provide a flat surface for tying.
 2. Pull gate down.
 3. Turn power key switch to ON position.
 4. Set the UP/DOWN switch to DOWN.
 5. Press the DOWN button.
 6. When the ram cannot compress the cardboard any further, press the STOP button.

BALER OPERATING INSTRUCTIONS (Continued)

7. Lift gate, unlatch and open chamber door at least 110 degrees. Do not stand in front of the door.
 8. Slide baling wire through slots in floor and back through slots in ram.
 9. Tie off all wires.
 10. Position a pallet, hand truck, forklift in front of baler opening to receive the bale when it's ejecting.
 11. Place ejector hooks onto the ejector ram lugs in the back of the baler.
 12. Set the UP/DOWN switch to the UP position.
 13. Pull gate down as far as it will go.
 14. Press and hold the UP switch until the bale ejects.
 15. Pull gate down as far as it will go.
 16. Turn the UP/DOWN switch to the DOWN position.
 17. Press the DOWN button and hold, ejector chains and hooks will automatically disengage during downward travel.
 18. Turn the UP/DOWN switch to the UP position.
 19. Press the UP/DOWN button and hold down until the ram is in the UP position.
 20. Lay a flat piece of cardboard on the bottom of the bale chamber over top of the ejector chains.
 21. Close and latch the bale chamber door.
- d. Ready for a new bale of cardboard
1. Follow steps A, B, & C.
- **NOTE:**
 - a. Occasionally paper will be wedged in the ram area.
 1. Turn off the power at the disconnect box and remove any excess paper; if left to build up, it could affect the operation of the baler.
 - b. Sometimes an operator will try to run the baler and it does not operate.
 1. Be sure the power key switch is ON.
 2. Be sure gate is pulled down completely.
 3. Be sure chamber door is completely closed.
 4. Be sure not to lift the gate while ram is moving, baler will shut down and not start until gate is pulled down to the top of the chamber door.
 5. Other checks are discussed in the trouble shooting section. (**See Table of Contents**)

OPERATING INSTRUCTIONS
FOR BALERS WITH THE GATE SECUR LOCKING SYSTEM

- A. TO COMPRESS MATERIAL (POWER KEY “ON”)
1. Turn selector switch to UP position – press START button.
 2. Load material evenly in the chamber.
 3. Pull gate down.
 4. Turn selector switch to DOWN position – press START button.
- B. TO EJECT FINISHED BALE (POWER KEY “ON”)
1. Turn start switch to UP position – press START button.
 2. Place a flat piece of cardboard on top of bale.
 3. Pull gate down.
 4. Turn start switch to DOWN position – press START button.
 5. When ram stops – open bale chamber door wide so ejecting bale will clear.
 6. Insert and tie (4) bale wires.
 7. Back of baler – place ejector T-Hooks on ram lugs.
 8. Turn start switch to UP position – press START button and hold (Keeping clear of the ejecting bale).
 9. Close bale chamber door.
 10. Turn start switch to DOWN position – press START button.
 11. Open bale chamber door, place a flat piece of cardboard on floor.
 12. Close and latch bale chamber door.

BALER MODES

There are three basic modes of operation a downstroke vertical baler will perform – loading, compression, and ejection.

LOADING

Material is evenly loaded into the baler chamber while the safety charging gate and ram are in the UP position. The baler chamber door is closed and locked.

COMPRESSION

With the safety gate down, the ram pushes the material down into the bottom of the baler chamber area. Retainer Dogs located on baler chamber door help hold the compressed material down while the ram travels up to the loading position, opening the baler safety charging gate as it travels up.

EJECTION

When full bale indicator arrows on the ram face and baler frame match, the bale is the proper size. Lift gate, unlatch and open chamber door at least 110 degrees, slide baling wire through slots and tie off all wires.

Close feed gate by pulling it down completely.

Attach the ejector “T” hooks at back of baler to ram ejector lugs, set the UP/DOWN switch located on baler electrical box to the UP position, press and hold button in until the bale ejects. Keep clear of ejecting bale.

Safe Bale Ejection

Recommended Bale Tie-Off and Eject Procedure for PTR Baler and Compactor Company's standard built 2300HD baler producing bales of ordinary corrugated cardboard. Please consult PTR Baler and Compactor Company for recommendations specific to your model and application.

Show how to tie off a bale. Include adding a piece of flat cardboard over the top of the finished bale prior to the last compression cycle. Use only properly sized baling wire.

Visibly inspect wire for damage, nicks, sharp kinks, etc. immediately before use. Do not use damaged baling wire. Baling wire should not be re-used.

Use the maximum number baling wires allowed by the number of available slots on the back of the machine. This will be five wires on standard 2300HD machines and will never be less than four.

Care should be taken when handling any potentially sharp objects such as baling wire. Follow appropriate procedures and precautions.

Removal of the bale from the area in front of the machine after it is ejected is not covered in this procedure due to the wide variety of methods and procedures in use. A bale cart, pallet, etc. may be placed in front of the baler before the bale is ejected to catch the bale and to better facilitate bale removal and transportation.

This procedure starts once a full bale is determined to be in the baling chamber and assumes the machine stops the previous cycle in the normal way with the ram fully raised and the feed gate open.

1. Turn the machine off and remove key from control panel On/Off switch.
2. Place a large piece of flat cardboard over the completed bale.
3. Turn the machine back on run the ram down.
4. Stop machine with ram at lowest point of travel against completed bale by hitting the e-stop immediately after the ram reversed direction.
5. Turn the machine off and remove key from control panel On/Off switch.
6. Open bale eject door beyond 90 degrees. (Break plane of side of baler with door). **Warning:** If door is not open beyond 90 degrees while ejecting bale, eject chains may break and bale may not properly eject.
7. Use "poker rod" as necessary to clear a path for the baling wire both under and over the bale.
- * **Attention:** The remainder of the following steps involve handling baling wire. Before proceeding any further, it is recommended that you consult your supervisor or company safety professional for required personal protective equipment when handling baling wire. It is strongly recommended that safety glasses and forearm length leather gloves be worn when handling baling wire at any time.
8. From the front of the machine, manually feed the first baling wire "loop-end" first under the bale through the available wire slots on the bale chamber floor until the wire protrudes slightly through

the rear of the machine. (The wire can actually be fed either end first either over or under the bale. This loop end first was chosen only because customer feedback indicated it is generally easier to feed the wire this way as opposed to the alternatives)

9. Repeat with a wire in each of the available wire slots feeding each one “loop-end” first. Do not cross the wires, each wire should pass through corresponding wire slots on the chamber floor and on the ram face. Do not put baling wire through the two slots occupied by the bale eject chains. Do not allow baling wire to tangle with bale eject chains or other baling wire.
10. From behind the baler, take each wire and pass the “loop-end” over the bale through the available wire slots in the ram face until the “loop-end” of wire protrudes slightly beyond the ram toward the front of the machine. Pull additional wire from under the bale as required to continue feeding wire over the bale.
11. Walk back to the front of the machine.
12. Pull each “loop-end” of the wire until there is sufficient slack to pull loop end down to the bottom corner of the bale where the wire was originally fed under the bale.
13. Carefully pass the “non-loop-end” of the wire through the baling wire loop.
14. Manually pull the wire snugly around the bale.
15. Carefully wrap the section of wire that protrudes through the loop around the rest of the wire several times to “tie-off” the bale.
16. Move behind the baler and engage the ejector chain “tee-hooks” onto the ram ejector brackets.
17. Turn the machine back on.
18. It is important to allow the machine to automatically lift the gate during bale ejection. Verify that the loading gate is fully lowered to the top of the ram. Do not lower the gate below the ram.
Warning: Ejecting a bale with the feed gate below the ram will cause gate damage.
19. Ensure that the area in front of the baler is clear of all personnel and that baler door is still open beyond 90 degrees of the side of baler.
20. Raise the ram and eject the bale. Do not attempt to attempt to attach the ejector chains while the ram is in motion. Do not allow anyone to walk behind baler while it is in motion.
21. Remove the bale from in front of the machine.
22. Close the main bale dump door and lower the feed gate.
23. Run the ram down to automatically disengage the ejector chain “tee-hooks” from the ejector brackets.
24. Turn the key back off and remove it from the control panel.
25. Place a large piece of flat cardboard on the floor of the baler before starting new bale. Cardboard should be long and wide enough to cover all slots on bale chamber floor.

TROUBLE SHOOTING GUIDE **BALER WILL NOT OPERATE**

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) No Power	<ol style="list-style-type: none">1. Check main power source2. Check if power key switch is on3. Reset Overloads4. Check motor starter contacts for extreme wear5. Check if gate is down6. Check bale chamber door is closed
B) Limit Switch (Ram)	<ol style="list-style-type: none">1. Upper Limit Switch malfunction2. Upper Limit Switch needs adjustment
C) Motor Overload Tripped	<ol style="list-style-type: none">1. Reset overload on motor starter2. Check current Load (Amps)
D) Blown Fuses	<ol style="list-style-type: none">1. Replace fuses – Turn power off at wall disconnect switch
E) Electrical Malfunction	<ol style="list-style-type: none">1. Perform electrical system continuity check

BALER WILL NOT OPERATE IN AUTO

(All the above can be applied to the Auto Mode)

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) Door Switch	<ol style="list-style-type: none">1. Main door may not be closed properly against switch2. Door Switch loose3. Door Switch malfunction
B) Pressure Switch	<ol style="list-style-type: none">1. Improper pressure setting2. Bad electrical contact
C) Relay (Plug-In)	<ol style="list-style-type: none">1. Loose on base in control enclosure

TROUBLE SHOOTING GUIDE
RAM WILL NOT TRAVEL DOWN

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) Directional Valve Malfunction	<ol style="list-style-type: none">1. Check valve solenoid2. Push in manual override, pins are on each end of solenoid
B) Relay	<ol style="list-style-type: none">1. May be loose in base.
C) Electrical Malfunction	<ol style="list-style-type: none">1. Perform electrical system continuity check
D) Material Jamming Ram	<ol style="list-style-type: none">1. Remove all jamming material from ram
E) Ram Switch	<ol style="list-style-type: none">1. Ram Switch not in proper position2. Limit Switch malfunction.3. Adjust Limit Switch4. Pedal Switch jammed in down position.
F) Pressure Switch	<ol style="list-style-type: none">1. Improper pressure setting2. Bad electrical contact
G) Solenoid	<ol style="list-style-type: none">1. Check for shifting of solenoid (check light)
H) Proximity Switch	<ol style="list-style-type: none">1. Proximity switch must detect plate mounted on gate counter weight2. Proximity switch malfunction

TROUBLE SHOOTING GUIDE
RAM WILL NOT TRAVEL UP

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) Hydraulic Fluid Level Low	1. Check hydraulic fluid level gauge on reservoir, add hydraulic fluid.
B) Pump Taking Air	1. Check fittings to see if they are tight
C) Directional Valve Malfunction	1. Check valve solenoid 2. Push in manual override, pins are on each end of solenoid
D) Electrical Malfunction	1. Perform electrical continuity check
E) Material Jamming Ram	1. Remove all jamming material from ram
F) Incorrect Pump Rotation	1. Check fan rotation on motor (fan should turn clockwise)
G) Relief Valve	1. Check setting 2. Replace valve
H) Pump Not Building Pressure	1. Replace pump
I) Hydraulic System Pressure Is Low	1. Check pressure setting 2. Check relief valve for malfunction 3. Worn pump
J) Pressure Switch	1. Improper pressure setting 2. Bad electrical contact
K) Cylinder	1. Check for internal/external cylinder leakage
L) Up Stop Limit Switch	1. Check arm is free and not activated
M) Gate	1. Make sure gate is down 2. Check switch

TROUBLE SHOOTING GUIDE
RAM DRIFTS DOWN

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) Directional Valve	1. Spool may be jammed
B) Cylinder	1. Seals may be damaged (Replace seals or replace cylinder)
C) (optional) Regenerative Hydraulic Valve	1. Hoses may be reversed. Verify “A” to extend and “B” to retract.
D) Hydraulic Leak	1. Check all connections for leaks.

MOTOR DOES NOT STOP WHEN RAM
RETURNS TO THE UP POSITION

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) Limit Switch	1. Check for broken limit switch arm 2. Improper switch adjustment 3. Bad contacts in motor starter.

HYDRAULIC PRESSURE NOT OBTAINABLE

- A) Worn Pump
- B) Cylinder bypass
- C) Relief valve malfunction
- D) Improper pressure setup
- E) Loose fitting

TROUBLE SHOOTING GUIDE
BALER IS NOISY

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) Ram Rubbing	1. Cylinder and ram may not be centered in chamber 2. Cylinder rod may be bent
B) Noise at Directional Valve	1. Directional valve worn 2. Check for broken springs inside valve

PUMP NOISE

<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
A) Oil Reservoir Level Low	1. Check oil level gauge on reservoir (add oil if necessary)
B) Worn Pump	1. Check hydraulic system pressure
C) Restricted Inlet Strainer	1. Replace strainer
D) Air Leakage in Oil	1. Check for foamy hydraulic fluid in reservoir oil level gauge

ELECTRICAL INFORMATION

The unit “as shipped” is pre-wired to a specific voltage, as shown on the cover of its control panel. The standard baler is intended for indoor installations only. Please contact PTR Baler and Compactor Co. if a baler is required for an outdoor application.

CAUTION

If your power supply voltage does not agree with the voltage stated on the Compactor control panel cover, **DO NOT CONNECT THEM**; damage may occur. Have an authorized electrician reset the unit to match your power supply voltage. By “code”, the control panel wire harness must be connected to a properly sized fused disconnect switch. The disconnect switch should be “time delay fuse type” and must be located less than 15 feet and adjacent to the compactor while always within clear view of its operator.

MINIMUM SIZING REQUIRED

* “Wire size” denotes wire to be used from power supply to disconnect switch, use heavier wire if distance is more than 25 feet.

CONVERSION VOLTAGE: In order to convert the compactor from high to low voltage, or vice versa, the following components must be changed: *Motor* connection as indicated by diagram on motor. *Transformer* connection as indicated by diagram on transformer. Overload size as indicated by voltage requirements.

IMPORTANT MOTOR ROTATION

When power has been properly connected, press the START button momentarily and observe the direction of the rotation of the motor. Look at the motor fan, proper rotation is clockwise. (If fan rotation is not clockwise, interchange any two of the three power conductors). This should correct the rotation.

CHECK OPERATION

Check by following the operating instructions listed on the cover plate of the unit’s control panel.

ELECTRICAL INFORMATION

GROUNDING INSTRUCTIONS

The baler must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the baler. A qualified electrician should be consulted if there is any doubt as to whether an outlet box or the machine is properly grounded.

3 HP MOTOR, 3 PHASE, 60 CYCLE				
Voltage	F.L.A.	Type Fuse	Wire Size	Disconnect Switch
200V-208V	10 amp	Time Delay	14	30 amp
220V-230V	9 amp	Time Delay	14	30 amp
440V-460V	5 amp	Time Delay	14	20 amp
550V-575V	4 amp	Time Delay	14	20 amp
5 HP MOTOR, 3 PHASE, 60 CYCLE				
200V-208V	16 amp	Time Delay	12	30 amp
220V-230V	14 amp	Time Delay	12	30 amp
440V-460V	7 amp	Time Delay	14	30 amp
550V-575V	6 amp	Time Delay	14	30 amp
10 HP MOTOR, 3 PHASE, 60 CYCLE				
200V-208V	29 amp	Time Delay	8	60 amp
220V-230V	26 amp	Time Delay	8	60 amp
440V-460V	14 amp	Time Delay	12	30 amp
550V-575V	11 amp	Time Delay	12	30 amp
15 HP MOTOR, 3 PHASE, 60 CYCLE				
200V-208V	43 amp	Time Delay	6	60 amp
220V-230V	39 amp	Time Delay	6	60 amp
440V-460V	20 amp	Time Delay	8	60 amp
550V-575V	16 amp	Time Delay	10	30 amp
20 HP MOTOR, 3 PHASE, 60 CYCLE				
200V-208V	57 amp	Time Delay	4	100 amp
220V-230V	51 amp	Time Delay	4	100 amp
440V-460V	30 amp	Time Delay	8	60 amp
550V-575V	21 amp	Time Delay	8	60 amp

PTR BALER AND COMPACTOR CO.

FOR SERVICE
1-215-533-5100

PTR BALER AND COMPACTOR CO.

2207 E.ONTARIO AVE.
PHILA., PA 19134

FOR SERVICE
1-800-523-3554

MODEL	HP	F.L.A. @ VOLTAGE 3- ϕ 60Hz				STARTER	OVERLOAD	OVERLOAD SETTING			
		208	230	460	575			208	230	460	575
	20	56	50			CGC-75A-120	CGE-80-2S-80	56	50		
				25	20	CGC-40A-120	CGE-40-2P-40A			25	20
	15	42	38			CGC-75A-120	CGE-80-2S-80	42	38		
				18	15	CGC-40A-120	CGE-40-2P-40A			18	15
	10	28	25			CGC-40A-120	CGE-40-2P-40A	28	25		
				13	10	CGC-40A-120	CGE-40-2P-40A			13	12
	5	15	13			CGC-40A-120	CGE-40-2P-40A	16	14		
				6.5	5.3	CGC-22A-120	CGE-40-2P-20A			7.5	6.5
	3	9	8			CGC-22A-120	CGE-40-2P-20A	9	8		
				4	3.3	CGC-22A-120	CGE-40-2P-20A			4	3.3

MODEL	HP	VOLTAGE	PHASE	FREQUENCY	F.L.A.	STARTER	OVERLOAD	O.L. SETTING
		V	ϕ	Hz				

ELECTRICAL CONNECTION REQUIREMENTS

ADDITIONAL CURRENT DRAW (MAXIMUM) DUE TO HEATER OPTION IF PRESENT:
 LOW VOLTAGE HEATER OPTION - 2.08 AMPS AT 240VAC.
 HIGH VOLTAGE HEATER OPTION - 1.04 AMPS AT 480VAC.

CONNECT TO CIRCUIT WITH DUAL ELEMENT TIME DELAY FUSES RATED TO AT LEAST
 125% OF THE MOTOR F.L.A. PLUS THE OPTIONAL HEATER LOAD AND NO MORE THAN 175%
 OF THE MOTOR F.L.A. PLUS THE OPTIONAL HEATER LOAD IF PRESENT.

SUPPLY WIRE AMPACITY FROM THE FUSES TO THE MACHINE CONNECTION POINT MUST BE
 AT LEAST THAT OF THE DUAL ELEMENT TIME DELAY FUSES PROTECTING THE WIRES.

MOTOR: _____ HP VOLTAGE: _____ VAC ϕ _____ HEATER: YES / NO

CONNECT TO CIRCUIT WITH DUAL ELEMENT TIME DELAY FUSES RATED: _____ AMP MAX.

USE SUPPLY WIRE WITH A MINIMUM AMPACITY OF AT LEAST: _____ AMP

SETTINGS

COMPACTOR	BALER
70% _____ PSI	SHIFT _____ PSI
80% _____ PSI	RELIEF _____ PSI
90% _____ PSI	_____
FULL _____ PSI	_____
RELIEF _____ PSI	_____
REV. TIMER _____ SEC	_____
MULTI. _____ CYCLES	_____

SCHMATIC NUMBER: _____

PTR BALER AND COMPACTOR CO.

ELECTRICAL INFORMATION

Motor Hp	Voltage 3-P VAC	Motor F.L.A. from NEC	Heater Yes/No	Use Time Delay Dual Element Fuses		Minimum Circuit Ampacity
				Recommended Size (amps)	Maximum Size (amps)	
3 Hp	200-208	10.6	No	15	20	20
3 Hp	200-208	10.6	Yes	15	20	20
3 Hp	220-240	9.6	No	12	17.5	17.5
3 Hp	220-240	9.6	Yes	15	17.5	17.5
3 Hp	440-480	4.8	No	6	9	9
3 Hp	440-480	4.8	Yes	7	9	9
3 Hp	550-575	3.9	No	5	9	9
5 Hp	200-208	16.7	No	25	30	30
5 Hp	200-208	16.7	Yes	25	30	30
5 Hp	220-240	15.2	No	20	30	30
5 Hp	220-240	15.2	Yes	25	30	30
5 Hp	440-480	7.6	No	10	15	15
5 Hp	440-480	7.6	Yes	12	15	15
5 Hp	550-575	6.1	No	8	12	12
10 Hp	200-208	30.8	No	40	60	60
10 Hp	200-208	30.8	Yes	40	60	60
10 Hp	220-240	28	No	35	50	50
10 Hp	220-240	28	Yes	40	50	50
10 Hp	440-480	14	No	17.5	25	25
10 Hp	440-480	14	Yes	20	25	25
10 Hp	550-575	11	No	15	20	20
15 Hp	200-208	46.2	No	60	60	60
15 Hp	200-208	46.2	Yes	60	60	60
15 Hp	220-240	42	No	60	60	60
15 Hp	220-240	42	Yes	60	60	60
15 Hp	440-480	21	No	30	40	40
15 Hp	440-480	21	Yes	30	40	40
15 Hp	550-575	17	No	25	30	30
20 Hp	200-208	59.4	No	80	80	80
20 Hp	200-208	59.4	Yes	80	80	80
20 Hp	220-240	54	No	70	80	80
20 Hp	220-240	54	Yes	70	80	80
20 Hp	440-480	27	No	35	50	50
20 Hp	440-480	27	Yes	35	50	50
20 Hp	550-575	22	No	30	40	40

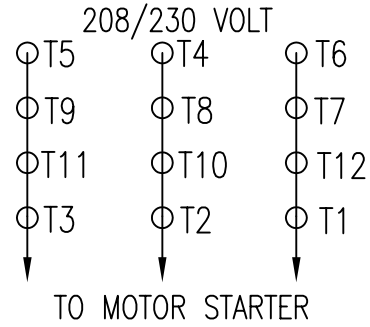
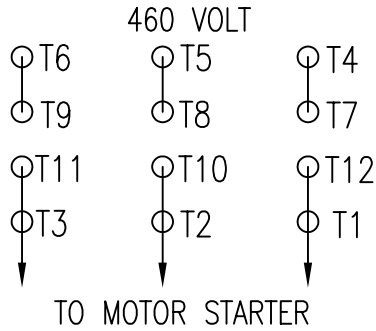
125% Motor F.L.A. plus optional heater current - minimum fuse size
 175% Motor F.L.A. plus optional heater current - maximum fuse size

Heater at 208V draws 1.80 amps
 Heater at 240V draws 2.08 amps
 Heater at 480V draws 1.04 amps

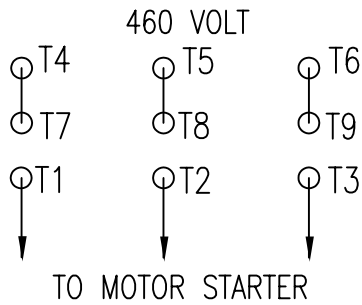
PTR BALER AND COMPACTOR CO.

MOTOR WIRING GUIDE

12 WIRE DELTA THREE PHASE

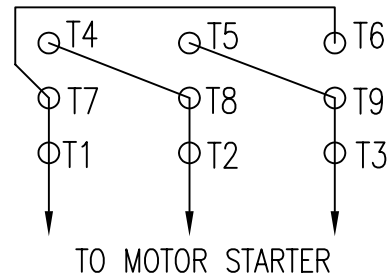


9 WIRE STAR THREE PHASE

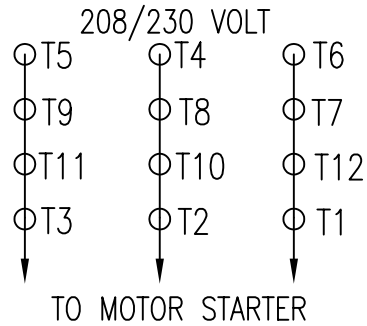
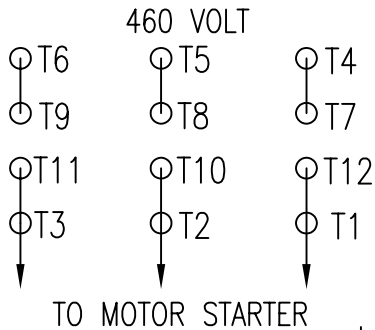


HYDROLEC
MOTORS
(WEG)

208/230 VOLT

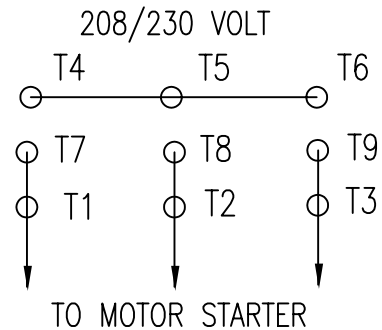
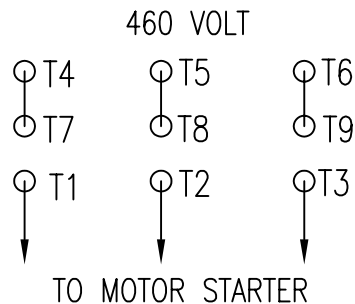


12 WIRE DELTA THREE PHASE



WARFEL
MOTORS
&
HYDROLEC
MOTORS
(BALDOR)

9 WIRE STAR THREE PHASE



NOTE: VERIFY AGAINST MOTOR NAME-PLATE WHEN POSSIBLE

4/15/98

MJM REV. 2 9-7-06
REV. 1 7-10-02

PTR BALER AND COMPACTOR CO.

SINGLE PHASE ELECTRICAL INFORMATION

Motor Hp	Voltage 1-P VAC	Motor F.L.A.	Use Time Delay Dual Element Fuses		Minimum Circuit Ampacity
			Recommended Size (amps)	Maximum Size (amps)	
1 1/2 Hp	115	20.0	25	35	35
3 Hp	220	17.0	25	30	30
5 Hp	220	28.0	35	50	50
10 Hp	220	50.0	70	80	80

HP	F.L.A. @ VOLTAGE		STARTER	OVERLOAD	OVERLOAD SETTING	
	115	220			115	220
10		50	CGC-75A-120	CGE-80-2S-80		50
5		28	CGC-40A-120	CGE-40-2P-40A		28
3		17	CGC-22A-120	CGE-40-2P-20A		17
1.5	20		CGC-22A-120	CGE-40-2P-20A	20	

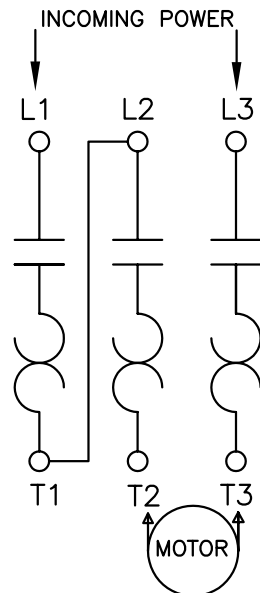
minimum fuse size:

125% Motor F.L.A. plus optional heater current

maximum fuse size:

175% Motor F.L.A. plus optional heater current

Heater at 220V draws 1.91 amps



Electrical Information

For 50Hz power

GROUNDING INSTRUCTIONS

The compactor must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the compactor. A qualified electrician should be consulted if there is any doubt as to whether an outlet box or the machine is properly grounded.

3 HP MOTOR – 3 PHASE – 50 CYCLE				
Voltage	F.L.A.	Type Fuse	Wire Size*	Disconnect Switch
380V	5.4 amp	Time Delay	14	30 amp
415V	5.2 amp	Time Delay	14	30 amp
440V	5.0 amp	Time Delay	14	30 amp
5 HP MOTOR – 3 PHASE – 50 CYCLE				
380V	8.7 amp	Time Delay	12	30 amp
415V	8.0 amp	Time Delay	12	30 amp
440V	7.8 amp	Time Delay	14	30 amp
10 HP MOTOR – 3 PHASE – 50 CYCLE				
380V	17 amp	Time Delay	8	30 amp
415V	16.1 amp	Time Delay	8	30 amp
440V	15 amp	Time Delay	12	30 amp
15 HP MOTOR – 3 PHASE – 50 CYCLE				
380V	23.1 amp	Time Delay	8	60 amp
415V	22 amp	Time Delay	8	60 amp
440V	21.5 amp	Time Delay	8	60 amp
20 HP MOTOR – 3 PHASE – 50 CYCLE				
380V	29.2 amp	Time Delay	8	60 amp
415V	28 amp	Time Delay	8	60 amp
440V	27.5 amp	Time Delay	8	60 amp

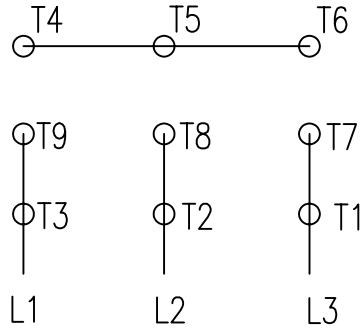
* - “Wire Size” denotes minimum wire size required to be used from power supply to disconnect switch. Use a heavier wire if distance is more than 25 feet.

PTR BALER AND COMPACTOR CO.

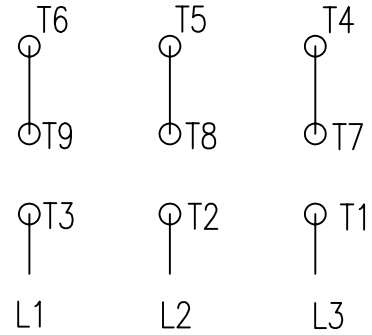
MOTOR WIRING GUIDE

9 WIRE DELTA THREE PHASE (FOR 3HP, 5HP)

208 / 230 VOLT

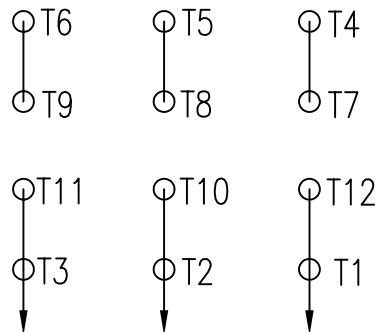


380 / 460 VOLT



12 WIRE DELTA THREE PHASE (FOR 10HP, 15HP, 20HP)

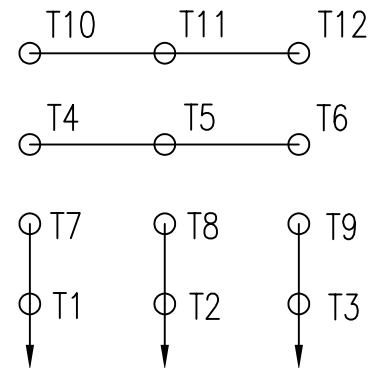
415 / 440 VOLT



TO MOTOR STARTER

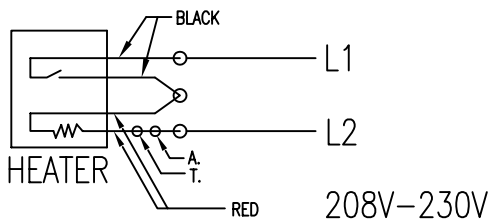
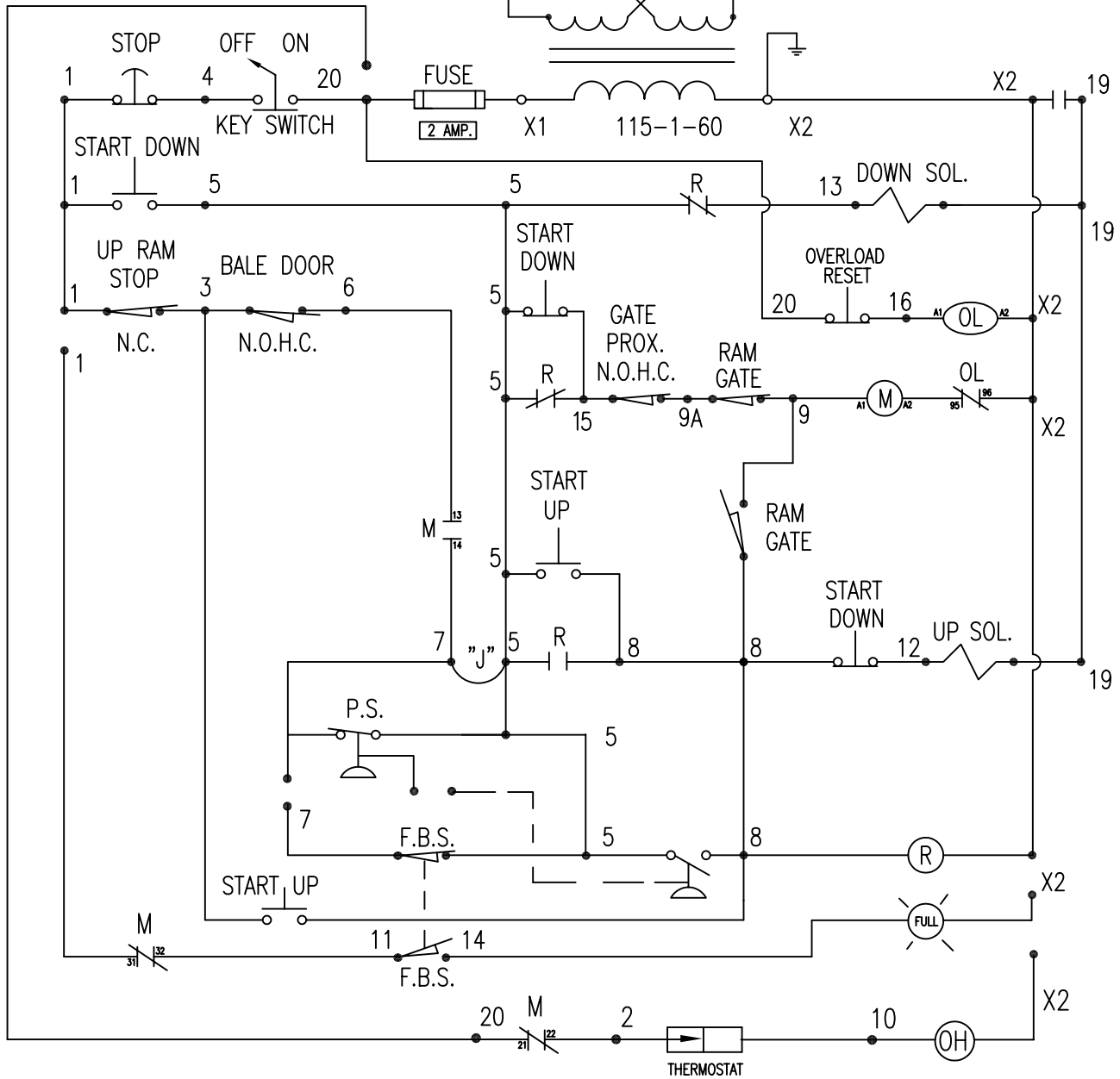
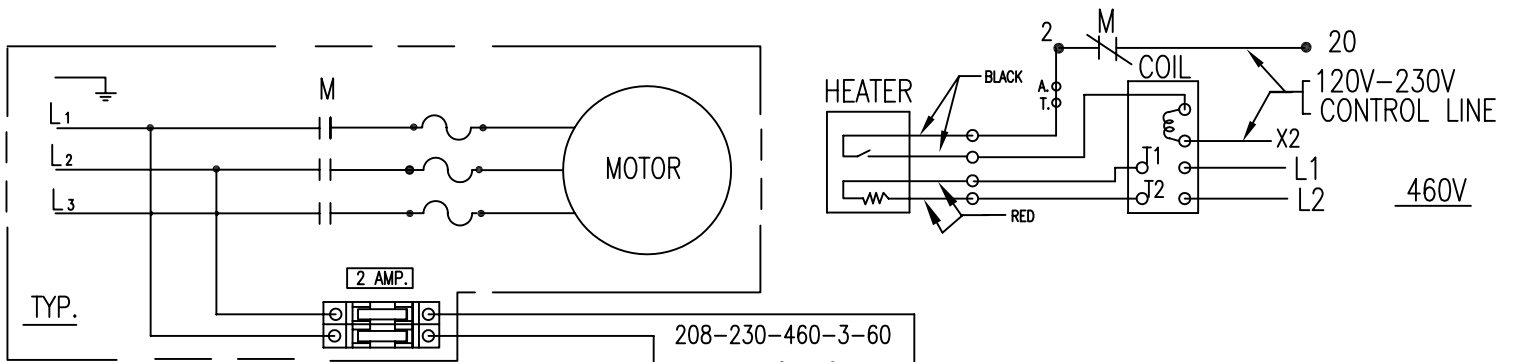
HYDROLEC
MOTORS

380 VOLT



TO MOTOR STARTER

PTR BALER AND COMPACTOR CO.



- | | |
|------------|-------------|
| X2 - WHT | 8 - BLUE |
| 1 - YELLOW | 9 - MARK |
| 3 - ORANGE | 9A - MARK |
| 4 - MARK | 12 - BROWN |
| 5 - RED | 13 - BLACK |
| 6 - PINK | 15 - PURPLE |
| | 19 - GRAY |

"J" - REMOVE IF FULL LIGHT OPTION INSTALLED

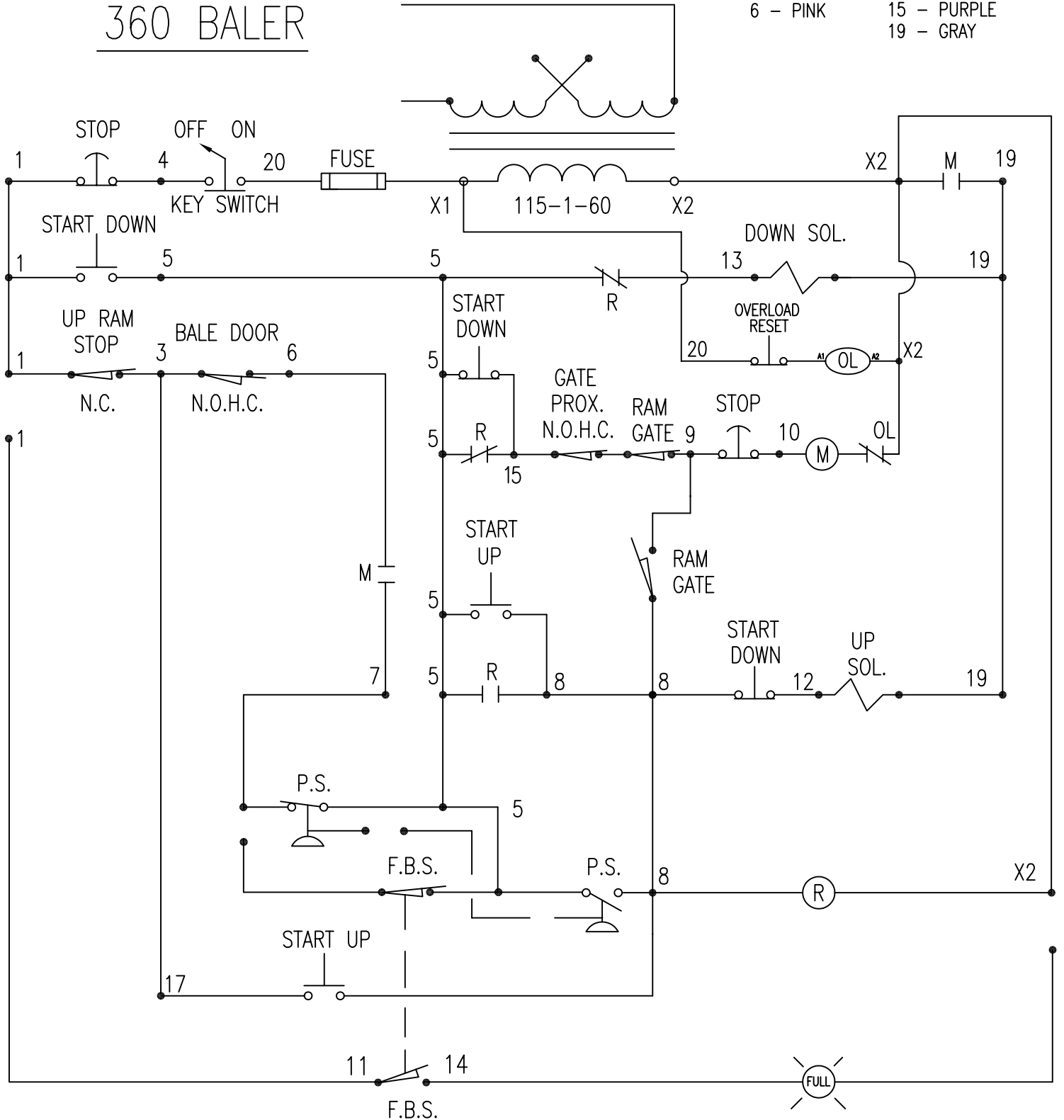
R3- 7-1-05
R2- 4-27-05
R1- 5-24-04
8/10/98

PTR BALER & COMPACTOR CO.

360 BALER

- | | |
|------------|-------------|
| X2 - WHT | 8 - BLUE |
| 1 - YELLOW | 9 - MARK |
| 3 - ORANGE | 9A - MARK |
| 4 - MARK | 12 - BROWN |
| 5 - RED | 13 - BLACK |
| 6 - PINK | 15 - PURPLE |
| | 19 - GRAY |

208-230-460-3-60

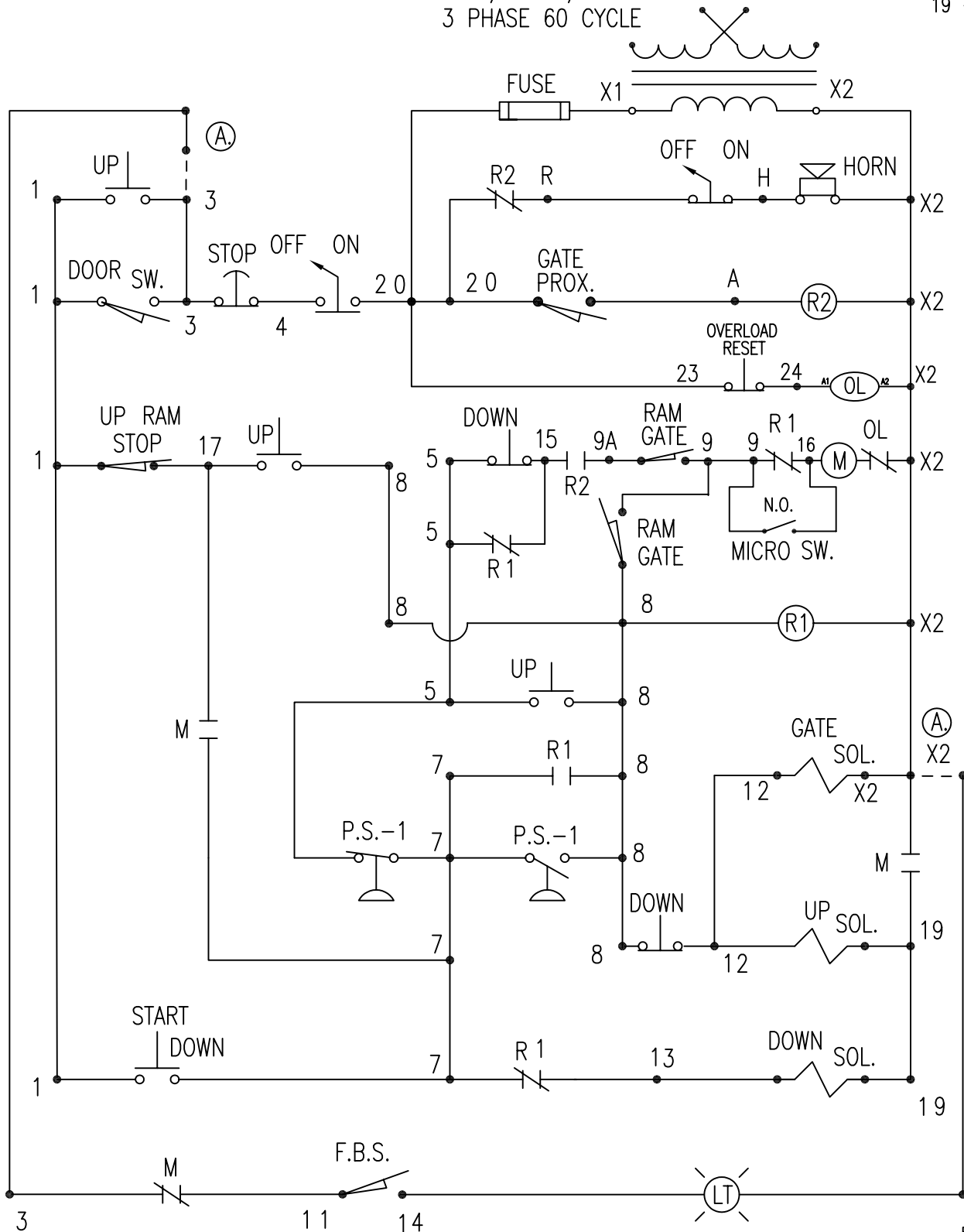


R1 6/10/05
9/4/97

PTR BALER AND COMPACTOR CO.

- | | |
|------------|-------------|
| X2 - WHT | 8 - BLUE |
| 1 - YELLOW | 9 - MARK |
| 3 - ORANGE | 9A - MARK |
| 4 - MARK | 12 - BROWN |
| 5 - RED | 13 - BLACK |
| 6 - PINK | 15 - PURPLE |
| | 19 - GRAY |

208 / 230 / 460 VOLT
3 PHASE 60 CYCLE



(A) OPTIONAL CIRCUIT — —

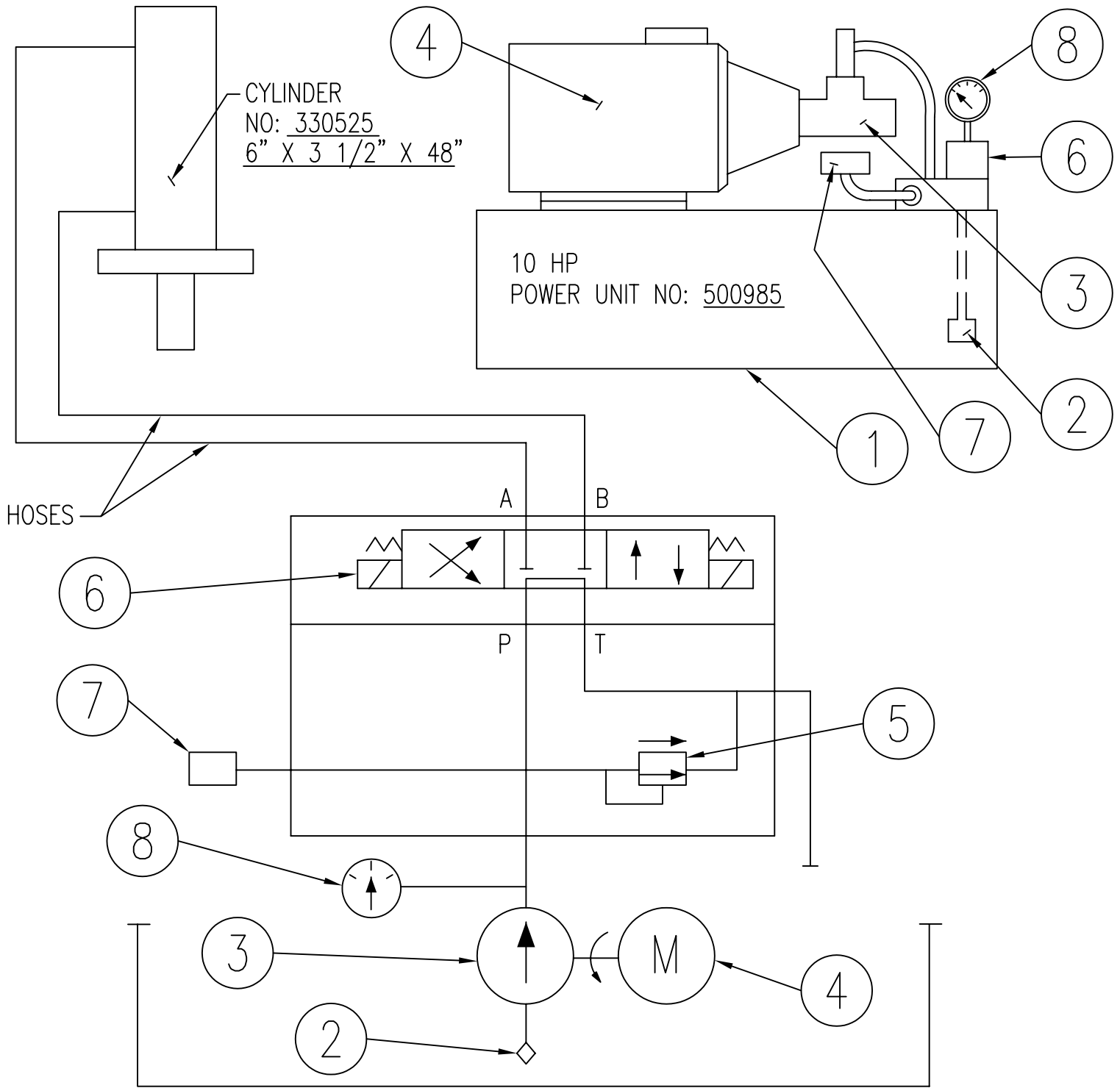
REV. 5 - 8/27/05
REV. 3 - 5/30/05
REV. 2 - 1/2/03
REV. 1 - 12/12/02
9/4/97

TITLE: GATE LOCK (LOCKED GATE, HORN, NO-MAX.)

DP/DT

DWG. NO: AB400824-5

PTR BALER AND COMPACTOR CO.

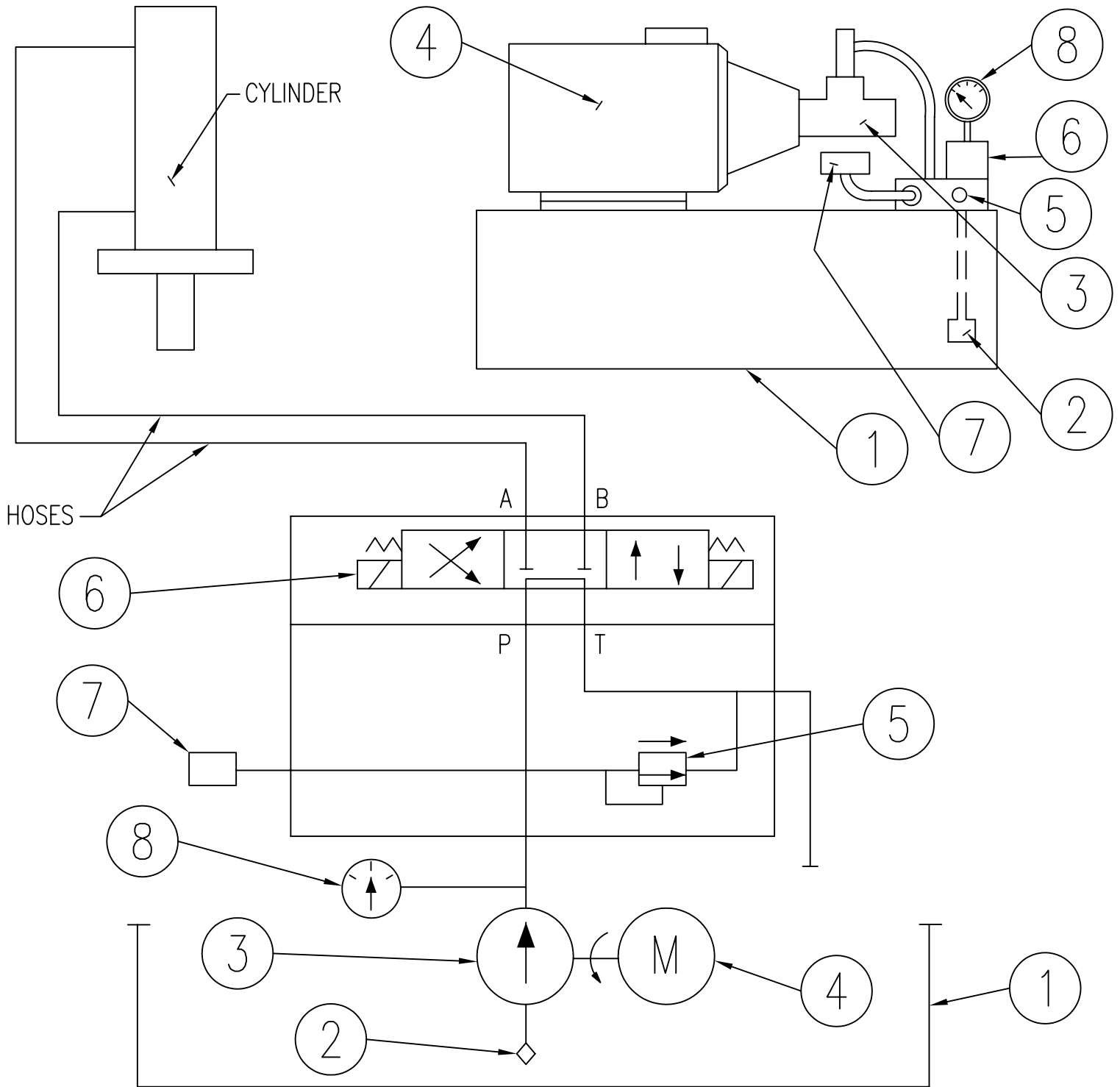


- | | |
|--|----------------|
| 1. RESERVOIR | <u>23 GAL.</u> |
| 2. INLET STRAINER: | <u>311642</u> |
| 3. PUMP: 10.5 G.P.M. | <u>500126</u> |
| 4. MOTOR: | <u>602001</u> |
| 5. RELIEF VALVE: | <u>330465</u> |
| 6. DIRECTIONAL VALVE (4 WAY) | <u>500196</u> |
| 7. PRESSURE SWITCH: | <u>312300</u> |
| 8. PRESSURE GAUGE: | <u>320068</u> |
| 9. COUPLER, HOLLOW SHAFT, DIRECT TO MOTOR: | |

SYSTEM IS DESIGNED FOR USE WITH
DRYDEN ISO GRADE 46 HYDRAULIC
FLUID OR EQUAL.
APPROX: 10.5 G.P.M.

PLD: 1"=1"

PTR BALER AND COMPACTOR CO.



- 1. RESERVOIR
- 2. INLET STRAINER
- 3. PUMP
- 4. MOTOR
- 5. RELIEF VALVE
- 6. DIRECTIONAL VALVE
- 7. PRESSURE SWITCH
- 8. PRESSURE GAUGE

SYSTEM IS DESIGNED FOR USE WITH
 DRYDEN ISO GRADE 46 HYDRAULIC
 FLUID OR EQUAL.

MAINTENANCE INSTRUCTIONS **INCLUDING PERIODIC MAINTENANCE ITEMS**

FLUID: Check the level of hydraulic oil in the reservoir. The oil level should be mid-way between high and low marks on the gauge when cylinder is in the maximum UP position. The oil level should be approximately at the low mark when the cylinder is all the way down. This check should be made every six months. If oil must be added or replaced, it should be transferred through a 100 mesh strainer. If oil replacement is required, clean the reservoir and suction strainer before refilling. We recommend Dryden ISO 46 or equal.

FLUID CLEANLINESS: We recommend that oil be changed every two (2) years. If for any reason dirt or water gets into the fluid, or if the baler is operating in an extremely dirty or dusty area, then the fluid should be changed more frequently.

OPERATING TEMPERATURE: Fluid temperature should not exceed 180 degrees F. – high temperatures may cause fluid and seal deterioration. Use sight temperature gauge located on back of tank to check the temperature.

ELECTRICAL SYSTEM MAINTENANCE

For electrical system to function properly, components must be clean and dry, limit switches must be clean of foreign material and properly adjusted. All maintenance service to the electrical system must be performed only by trained, authorized personnel.

WEAR PADS – The nylatron wear pads attached to the ram should be checked every six months for wear, and should be replaced if they are worn 1/8” or more.

YEARLY INSPECTIONS

Perform a full safety inspection at least once per year as per the “Baler Safety Checklist”. At this time also perform the necessary preventative maintenance as per the “Preventative Maintenance Checklist”. Both checklists are contained in this manual.

- * PTR Baler and Compactor Company strongly recommends that current and applicable ANSI and OSHA standards be available to operators at all times.



PTR Baler and Compactor

2207 E. Ontario Street Philadelphia, PA 19134
1-800-523-1155 • 215-533-5100 • Fax: 215-533-8907

Branch Office Locations: Baltimore, MD • Bayshore, LI • Harrisburg, PA • Paterson, NJ • Philadelphia, PA

BALER SAFETY CHECKLIST

The following is a SAFETY CHECKLIST for the purpose of keeping the Baler in a Safe Operating Condition.

A. Check that all signs and warnings are in place and in good condition:

- Name Plates and all Decals installed
- Signs missing:
- A. WARNING: No one under 18 is permitted to operate this machine.
- B. CAUTION: Stand clear while bale is ejecting
- C. OPERATING INSTRUCTIONS
- D. DANGER – HIGH VOLTAGE
- E. CAUTION: CLOSE GATE
- F. CAUTION: KEEP CLEAR
- G. WATCH FINGERS
- H. DO NOT CLIMB

B. Check the following control functions:

- On/Off Keyswitch
- Man/Auto Selector Switch
- Up/Down Pushbutton Selector Switch
- Start Button
- Emergency Stop Button
- Full Light

Others: _____

Check Door Safety - with main door open machine should not operate in auto _____

Check all wiring for frayed or loose connections _____

Check condition of expanded metal on gate _____

Check entire structural, including ram - for welding and structural failure _____

Check ejector chains or cables for bent or broken parts _____

Hinge Side _____ Cylinder Size _____

Voltage _____ PIN Size _____

Serial No.: _____

Model No.: _____

Manuf.: _____

C. Check Operation of Baler

Manual Pull Down Gates & Auto Gates

- Press all buttons with gate up (no motion should occur)
- Pull Gate down and check the following:
- Set Auto/Man Switch at Man/Main door open
- Set Up/Down Switch at Down
- Press Down Button
- Ram Travels down
- Hold Down Button until Cylinder "bottoms". Continue to press down button until motor and pump stop. _____
- Run unit up and down several times. Note any unusual occurrences.
- During down time travel lift gate up while continuing to hold the down button. Ram and motor should stop.
- Run Ram to Up position. Ram and Pump should stop at the top.
- Set Auto/Man Switch at Auto/Main door closed.
- Press Start Button/or Down Selector.
- Ram lowers automatically, reverses at bottom of stroke, then rises and automatically stops at the top of the stroke unless equipped with interlock boxes.
- Check gate safety. Start Machine and during down travel lift gate. Ram should stop.
- Check Push/Pull Gate Up & Down to check for gate movement.

Serviceman's Signature _____

Customer's Signature _____

Date: _____



PTR Baler and Compactor

2207 E. Ontario Street
(215) 533-5100

Philadelphia, PA 19134
Fax No. (215) 537-8536

Branch Office Locations: Baltimore, MD • Bayshore, LI • Harrisburg, PA • Paterson, NJ • Philadelphia, PA

PREVENTATIVE MAINTENANCE CHECKLIST BALER AND COMPACTORS

MFG. _____

DATE _____ JOB NO. _____

MOD. NO. _____

STORE NO. _____ LOC. _____

SER. NO. _____

CUSTOMER _____

ELECTRICAL

- | | Comp. | Baler |
|--|-------|-------|
| 1. Control Box | | |
| A. Fuse Clips tight | () | () |
| B. All term. tight | () | () |
| C. Magnetic starter contacts for pitting & wear | () | () |
| D. Breakers not sticking | () | () |
| 2. All wire and cable free from breaks & wear on insul. & properly secured | () | () |
| 3. Check all relays for proper position and continuity | () | () |
| 4. All switch buttons/selectors tight and properly aligned | () | () |
| 5. Check & Inspect | | |
| A. Reset button on starter | () | () |
| B. Up-stop Limit | () | () |
| C. Main door limit | () | () |
| D. Safety door limit | () | () |
| E. Pressure switch | () | () |
| F. Check auto size timer | () | () |
| G. Security door switch | () | () |
| H. Gate interlock box | () | () |
| I. Ram safety limit switch | () | () |

HYDRAULIC & MECHANICAL

- | | Comp. | Baler |
|------------------------------|-------|-------|
| 1. Oil Level | () | () |
| 2. Condition of Oil | () | () |
| 3. Cylinder Connections | () | () |
| A. Directional Valve | () | () |
| B. Top Valve | () | () |
| C. Valve Connections | () | () |
| 4. Pressure Setting | () | () |
| A. Pressure settings | —() | () — |
| B. Relief settings | —() | () — |
| 5. Line or hose clamps | () | () |
| 6. Motor/pump coupling | () | () |
| 7. Cylinder Seals | | |
| A. Gland - Leaky | () | () |
| B. Gland - Loose | () | () |
| 8. Hose Connections | () | () |
| 9. Grease Fittings | () | () |
| 10. Main Door Hinge | () | () |
| 11. Cylinder/Crown Bolts | () | () |
| 12. Pressure Gauge Condition | () | () |

STRUCTURAL

- | | Comp. | Baler |
|-----------------------------------|-------|-------|
| 1. Physical Appearance | | |
| A. Paint | () | () |
| B. Rubber Filler around chute | () | () |
| C. Area clear of foreign material | () | () |
| 2. Frictional Parts | | |
| A. Excessive wear | | |
| 1. Bailing Chamber | () | () |
| 2. Ram Guides | () | () |
| 3. Lift Gate Tracks | () | () |
| 4. Slide Cover | () | () |
| B. Lubricate | | |
| 1. Gate Track | () | () |
| 2. Inner walls | () | () |
| 3. Ram | () | () |
| 4. Door Hinges | () | () |
| 5. Security Hinges | () | () |
| 6. Safety gate | () | () |
| 7. Container wheels | () | () |
| 8. Cylinder pins | () | () |
| 3. Bale Ejector | | |
| A. Hooks | () | () |
| B. Cables | () | () |
| C. Welded eye | () | () |
| D. Retainers | () | () |
| E. Chains | () | () |
| 4. Loose Parts | | |
| A. Lock-nuts on gate arms | () | () |
| B. Safety on door handle | () | () |
| 5. Door Linkage | | |
| A. Pin bracket engagement | () | () |
| B. Tighten if necessary | () | () |
| 6. Ratchet Binders | () | () |
| 7. Hooks | () | () |

COMMENTS: _____

Serviceman's Signature _____

Store Manager's Signature _____

Date _____

- A Adjusted
- ✓ O.K.
- O Replacement Required
- X Replaced
- (—) Does not apply

MAINTENANCE INSTRUCTIONS (Continued)

“CAUTION”

DO NOT UNLOCK OR OPEN chamber door while ram is advancing under pressure. Even though safety switches are incorporated, keep clear of moving parts at all times.

This baler is equipped with safety switches to prevent operation when protective gate is open. **IMMEDIATELY** replace switches that are not in proper working order.

“DO NOT ATTEMPT TO DEFEAT THE PURPOSE OF ANY SAFETY SWITCH!!!

In case of emergency:

1. Push Emergency Stop button.
2. Pull wall safety disconnect switch handle to end all electrical power.

HYDRAULICS: Hydraulic fluid operates at high temperatures and high pressures. Avoid contact with hoses, cylinder and hydraulic fluid leaks to prevent the possibility of burns and severe injury. In event of such injury, seek medical attention immediately.

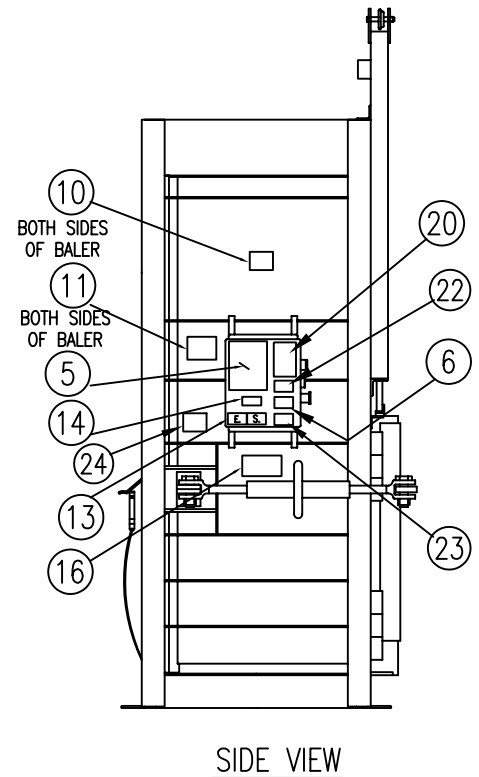
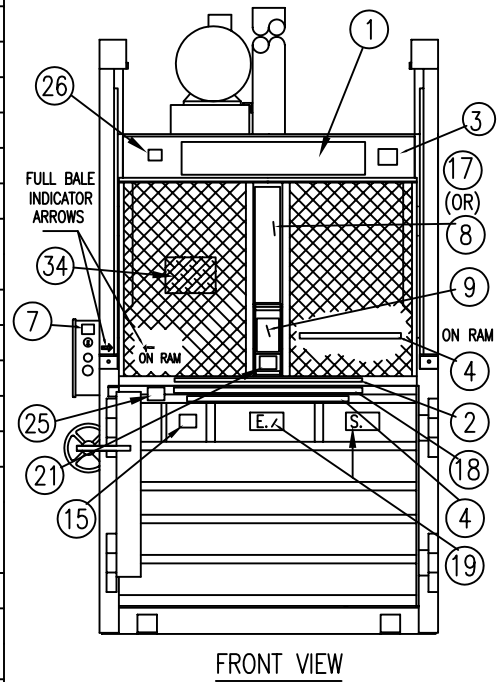
WARNING DECALS AND INSTRUCTION PLATES

Read and follow the warning instructions of each decal, it is for the operator safety that each decal is in place. Make certain that each decal is obeyed at all times. Notify proper authority of any missing decal. Replacements can be ordered from:

PTR Baler and Compactor Company
2207 E. Ontario Street
Philadelphia, PA 19134
(800) 523-3654, (800) 523-1155, or (215) 533-5100
(215) 537-8536 (FAX)

PTR BALER & COMPACTOR CO.

NO.	QTY.	DESCRIPTION	PART NO.
1	1	PTR BALER AND COMPACTOR	301315
2	1	DANGER -CLOSE GATE BEFORE OPERATING BALER-CAUTION	330229
3	1	UL - CUL (CONTROLLED)	500534
4	2	DANGER -STAND CLEAR WHILE EJECTING BALE	330219
5	1	OPERATING INSTRUCTIONS, MODEL NO., & SERIAL NO.	330280
6	1	DANGER HIGH VOLTAGE (ENG.& SPAN)	500644
7	1	NOTICE THIS MACHINE REQUIRES PERIODIC PREVENTIVE MAINTENANCE AND IS THE RESPONSIBILITY OF THE OWNER.	500140
8	1	CAUTION-KEEP CLEAR OF GATE WHILE EJECTING BALE(ENG.& SPAN)	500607
9	1	DANGER- DO NOT PUT HANDS IN MACHINE WHILE IN OPERATION (ENG.& SPAN)	320066
10	2	DO NOT CLIMB	500137
11	2	PARTS & SERVICE BALING WIRE-OSHA- ANSI INSPECTIONS	500153
12			
13	1	24 HOUR SERVICE-PTR BALER AND COMPACTOR 2207 E. ONTARIO ST. PHILA, PA. 19134 INSIDE PA. 215-5335100 / OUTSIDE PA. 1-800-523-3654	311658
14	1	VOLTAGE/AMP/PSI INFORMATION LABEL	154377
15	1	THIS BALER MEETS ALL ANSI Z 245.5-1997 SAFETY AND PERFORMANCE STANDARDS.	500270
16	1	IMPORTANT BALE DOOR MUST BE OPEN BEYOND 90° FOR PROPER EJECTION	500272
17	1	CAUTION-GATE LOCK SYSTEM IN USE. DO NOT FORCE	500504
18	1	CAUTION-LOAD BALE CHAMBER AS EVENLY AS POSSIBLE	500505
19	1	"WARNING" NO ONE UNDER 18 IS ALLOWED TO OPERATE THIS BALER! "WARNING" (ENG.& SPAN)	500639
20	1	"DANGER" BEFORE AND DURING ANY MAINTENANCE, TESTING, AND/OR ELECTRICAL CONNECTING-MOVE DISCONNECT SWITCH TO OFF POSITION AND PADLOCK.-PLACE A WARNING TAG ON THE DISCONNECT SWITCH AS FOLLOWS: WARNING-DO NOT ENERGIZE WITH THE PERMISSION OF-	500576
21	1	CAUTION-SAFETY GATE LOCK IN USE ON THIS BALER-DO NOT FORCE GATE OPEN OR OVERRIDE SYSTEM	500553
22	1	CAUTION-WITH CONTROL PANEL DOOR OPEN INCOMING POWER SIDE OF DISCONNECT IS STILL ELECTRIFIED. (2300HDLP UNITS ONLY)	500651
23	2	PTR BALER AND COMPACTOR	500867
24	1	FOR BALING WIRE CALL ---	601690
25	1	CONFINED SPACE- USE LOCKOUT/TAG OUT	401740
26	1	WARNING- KEEP BALER CLEAN & FREE OF DIRT ---	402168
27	1	DANGER-HIGH VOLTAGE-AUTHORIZED PERSON-CONTROL BOX ETC.	500448
28	1	FUSE 2.0 AMP.	320063
29	1	KEEP CLEAR OF GATE	320067
30	1	TYPE 1 ENCLOSURE	500532
31	1	GROUNDS	500610
32	1	ATTENTION-WHEN ELECTRIC IS FIRST CONNECTED, RUN BALER TO MAKE SURE THAT MOTOR ROTATES IN INDICATED DIRECTION	500675
33	1	VOLTAGE	VARIABLE PER BALER
34	1	BEFORE EACH SHIFT, CHECK THE FOLLOWING	402549



rev. 5 - 7/15/04
 rev. 4 - 9/30/03
 rev. 3 - 3/10/03
 rev. 2 - 1/8/03
 rev. 1 - 3/13/02
 9/4/01

WARRANTY

PTR BALER AND COMPACTOR COMPANY warrants all equipment when operated, maintained and installed, and used in normal service for a period of three hundred sixty-five (365) days after the date of installation to be free from defects in material and workmanship.

The responsibility of PTR BALER AND COMPACTOR COMPANY, under this warranty to the purchaser, except as to title, shall not in any case exceed the cost of correcting defects in the equipment. Warranty repair or replacements shall not extend the initial warranty period.

PTR BALER AND COMPACTOR COMPANY shall under no circumstances be responsible for any loss of business or profit to the purchaser or any other consequential damages in connection with the sale of such equipment or any obligation under this warranty. The foregoing shall constitute the sole remedy of the purchaser, and the responsibility of PTR BALER AND COMPACTOR COMPANY.

Warranty repairs and/or replacements (at our option), will be made for both parts and labor. The authorized service center must use PTR BALER AND COMPACTOR COMPANY authorized parts. Labor will be allowed at a maximum of (\$40) hourly rate. Premium rates will be at the customer's accountability. All warranty calls must be called into PTR BALER AND COMPACTOR COMPANY for dispatch. 1-800-523-3645

All parts, components or accessories requiring repair or replacement, within the warranty period, shall be returned PREPAID, to the PTR BALER AND COMPACTOR COMPANY at the expense of the buyer, lessee, or consignee. The PTR BALER AND COMPACTOR COMPANY will return at its expense replacement parts, components or accessories found to be defective. Shipment of parts under warranty shall be made via United Parcel Service or Parcel Post. Cost of any other means or transportation shall be paid by the equipment user.

PTR BALER AND COMPACTOR COMPANY does not assume any responsibility of liability for improper use of the equipment or improper installation of any unit, part or accessory which may cause damage to the unit. The installation of parts or accessories manufactured or sold by any other supplier shall be deemed to void all warranties.

Warranty claims for equipment will not be proceeded unless a properly completed and signed warranty card (attached to the installation checklist) has been received.

NON-WARRANTABLE REPAIRS

1. Routine adjustments; limit switches, pressure switch, or relief valve.
2. Tightening of hydraulic fittings and terminal connections.
3. Electrical fuses, tripped over loads or breakers.
4. Power to the unit, phase change, motor rotation change, facility electrical problems, or damage by customer from improper electrical hook up to unit.
5. Addition of hydraulic oil.
6. Ejector system parts such as chains, t-hooks, and shackles.
7. Repairs necessitated by improper use such as failure to follow instructions and abuse of equipment.
8. Operator error (example: chamber door not closed tight enough or gate not pulled down flush to top of chamber door)
9. Damage or install errors from customer supplied installer.

NOTE: Always have Serial and Model Number of unit ready when calling for service.

PARTS AND SERVICE

PTR Baler and Compactor Company has carefully chosen the components in your vertical downstroke baler to be the best available for you particular model. We strongly recommend that all replacement parts be identical to the original components.

PTR Baler and Compactor Company will not be responsible for equipment failures resulting from use of incorrect replacement parts or unauthorized modification to the baler.

PTR Baler and Compactor will gladly supply replacement parts for your vertical downstroke baler. Main components are identified in Parts Description Section. **(See Table of Contents for page numbers)**

When ordering, please include the Model and serial Number of the unit. This is located on the baler electrical panel box door shown in Control Cover Layout. **(See Table of Contents for page numbers)**

When ordering parts for a cylinder, please include the Cylinder Number, which is shown in Parts Description Section. **(See Table of Contents for page numbers)**

To order replacement parts, please call the parts and service department.

PTR BALER AND COMPACTOR COMPANY
2207 E. Ontario Street
Philadelphia, PA 19134
(800) 523-3654
(800) 523-1155
(215) 533-5100

**THANKS AGAIN FOR YOUR PATRONAGE OF PTR BALER AND
COMPACTOR COMPANY!**

PTR Baler & Compactor Co.

2207 E. Ontario St Philadelphia, PA 19134
PHONE: 215-533-5100 * FAX 215-533-8907

Quality * History * Service* Value

Baling wire recommendation for PTR Baler and Compactor Company's standard built balers producing bales of ordinary cardboard. Consult PTR Baler and Compactor for wire recommendations for non-cardboard applications.

MODELS: 1800HD, 2318, 2300HD, 3400HD, 3600HD, 7230

Minimum of 14 Ga galvanized steel wire approximately 14' long with one end looped for bale tie off.

Wire is to have a tensile strength of approximately 70,000 to 85,000 psi or more and a break strength of approximately 380 to 420 pounds or more.

MODELS: 360, 420

Minimum of 15 Ga galvanized steel wire approximately 9' long with one end looped for bale tie off.

Wire is to have a tensile strength of approximately 75,000 to 80,952 psi or more and a break strength of approximately 300 to 340 pounds or more.

MODELS: 5000HD, 7200HD

Minimum of 12 Ga galvanized steel wire approximately 16' long with one end looped for bale tie off.

Wire is to have a tensile strength of approximately 70,588 to 76,136 psi or more and a break strength of approximately 600 to 670 pounds or more.

Additional Information:

At least four baling wires must be used per bale. Slots are available for five or more bailing wires to be used.

Care should be exercised when handling any potentially sharp objects such as bailing wire. Follow appropriate precautions and procedures.

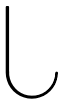
Always stand clear of ejecting bale.

Baling wire recommendation is based on industry standard and past history of success with this wire in a wide variety of customer environments and usages of balers and other vertical balers with comparable compression yielding bales of comparable size and weight.

PTR BALER & COMPACTOR CO.

WALL BRACKET KIT

MATERIAL LIST

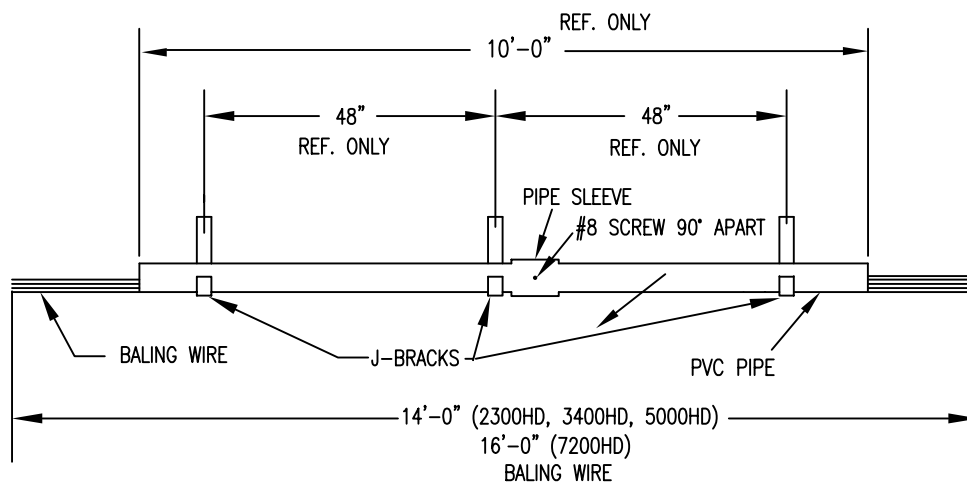
1. (3) WALL BRACKETS 
2. (9) WALL TOGGLE BOLTS (3/8" X 6" Lg)
3. (1) 6" I.D. PVC PIPE 5'-0" LG WITH PIPE SLEEVE &
(1) 6" I.D. PVC PIPE 5'-0" LG WITHOUT PIPE SLEEVE.
4. (3) #8 X 3/4" SELF DRILLING SCREWS

INSTALLATION GUIDE

1. MARK A LEVEL LINE ON WALL
2. MARK LENGTH OF WIRE ON LEVEL LINE
3. SPACE BRACKETS EQUAL DISTANCE INSIDE WIRE LENGTH (TO BALANCE WIRE)
4. MARK BRACKET HOLES ON WALL USING EACH BRACKET AS ITS OWN TEMPLAT
5. USING A 1" MASONRY DRILL , DRILL EACH HOLE
6. INSERT TOGGLE BOLT INTO EACH HOLE
7. MOUNT THE WALL BRACKETS TO THE BOLTS
8. TIGHTEN ALL BOLTS IN PLACE
9. ASSEMBLE PIPE TOGETHER, AND SECURE BOTH HALF'S AT THE PIPE'S SLEEVE.
(SEE BELOW)
10. INSTALL THE THREE #8 X 3/4" SELF TAPPING SCREWS INTO THE PIPE SLEEVE,
90° APART. (SEE BELOW)
11. MOUNT PVC PIPE ONTO "J" WALL BRACKETS (SEE BELOW)

EXAMPLE (3.)

REF. ONLY



5/12/06

TITLE:

WALL BRACKET KIT

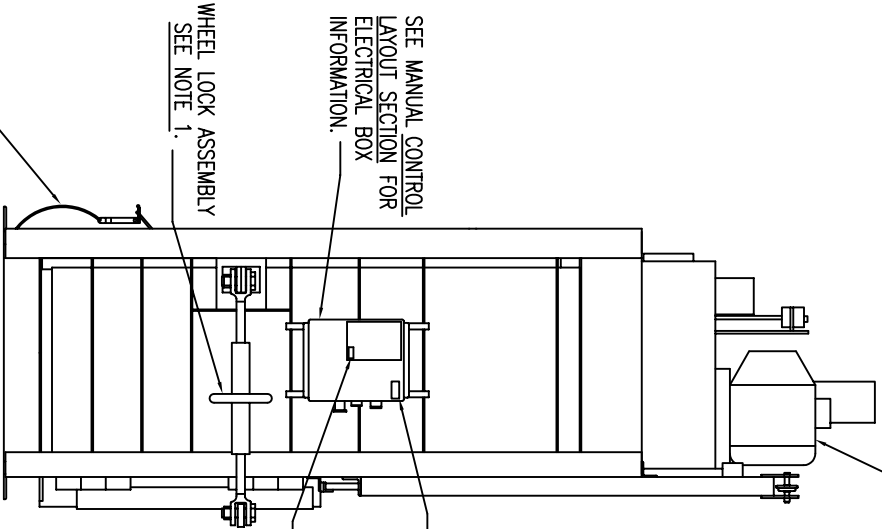
DWG. NO: AB4006371

BALER MODELS

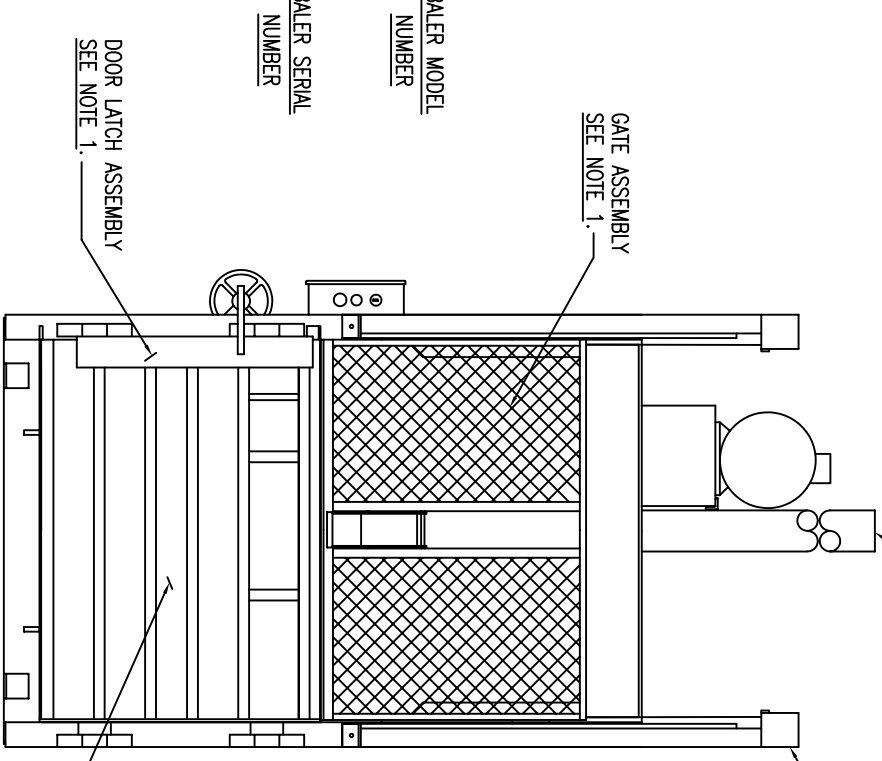
360	420	1800	1800HD	2300HD	2300HDLP	3400KP	3400HD	3600HDLP	4000HD	5000HD	7200HD
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SEE MANUAL BALER PARTS & DESCRIPTION SECTION FOR POWER UNIT INFORMATION.

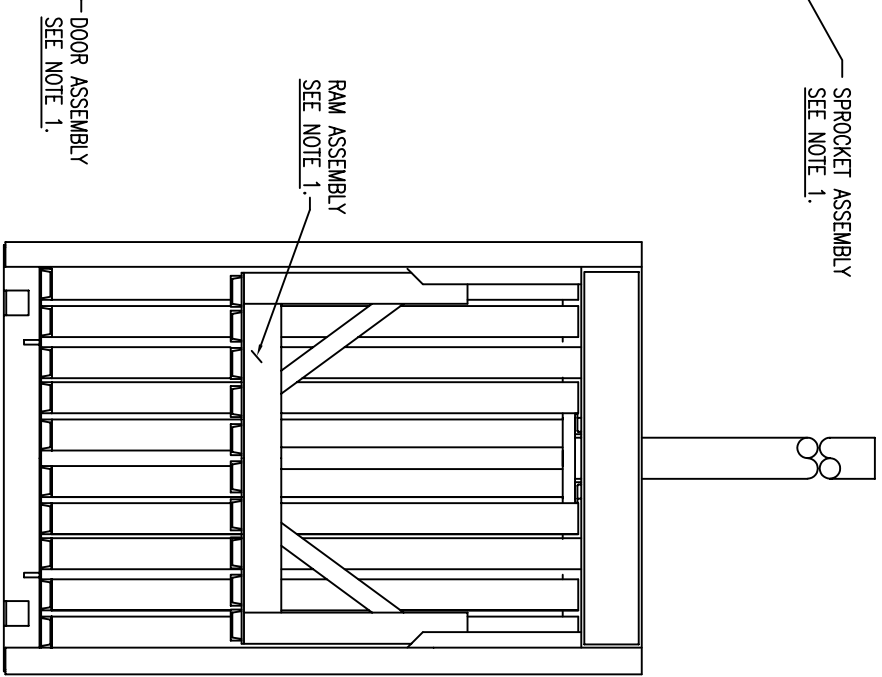
SEE MANUAL BALER PARTS & DESCRIPTION SECTION FOR CYLINDER INFORMATION.



SIDE VIEW



FRONT VIEW OF BALER



FRONT VIEW OF BALER

DOOR, POWER UNIT, & GATE WITH SPROCKET ASSEMBLY HAS BEEN REMOVED FOR CLARITY.

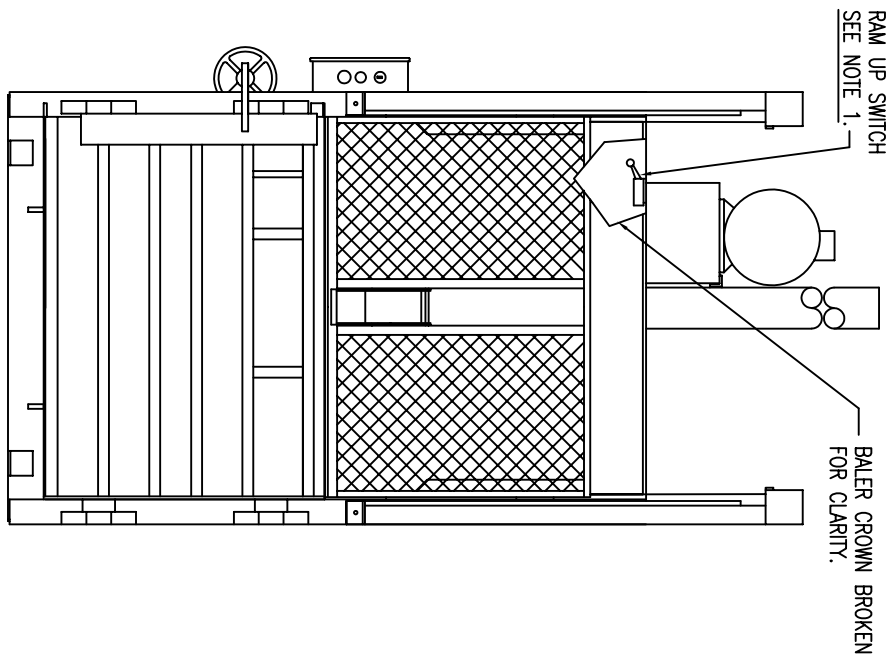
NOTE:

1. ALL PARTS TO BE ORDERED FROM PTR BALER & COMPACTOR CO. FOR PROMPT SERVICE IT IS IMPORTANT FOR CUSTOMER TO GIVE BALER MODEL NUMBER & SERIAL NUMBER LISTED ON MANUAL COVER SHEET OR ON ELECTRICAL BOX DOOR AS SHOWN ON DWG.

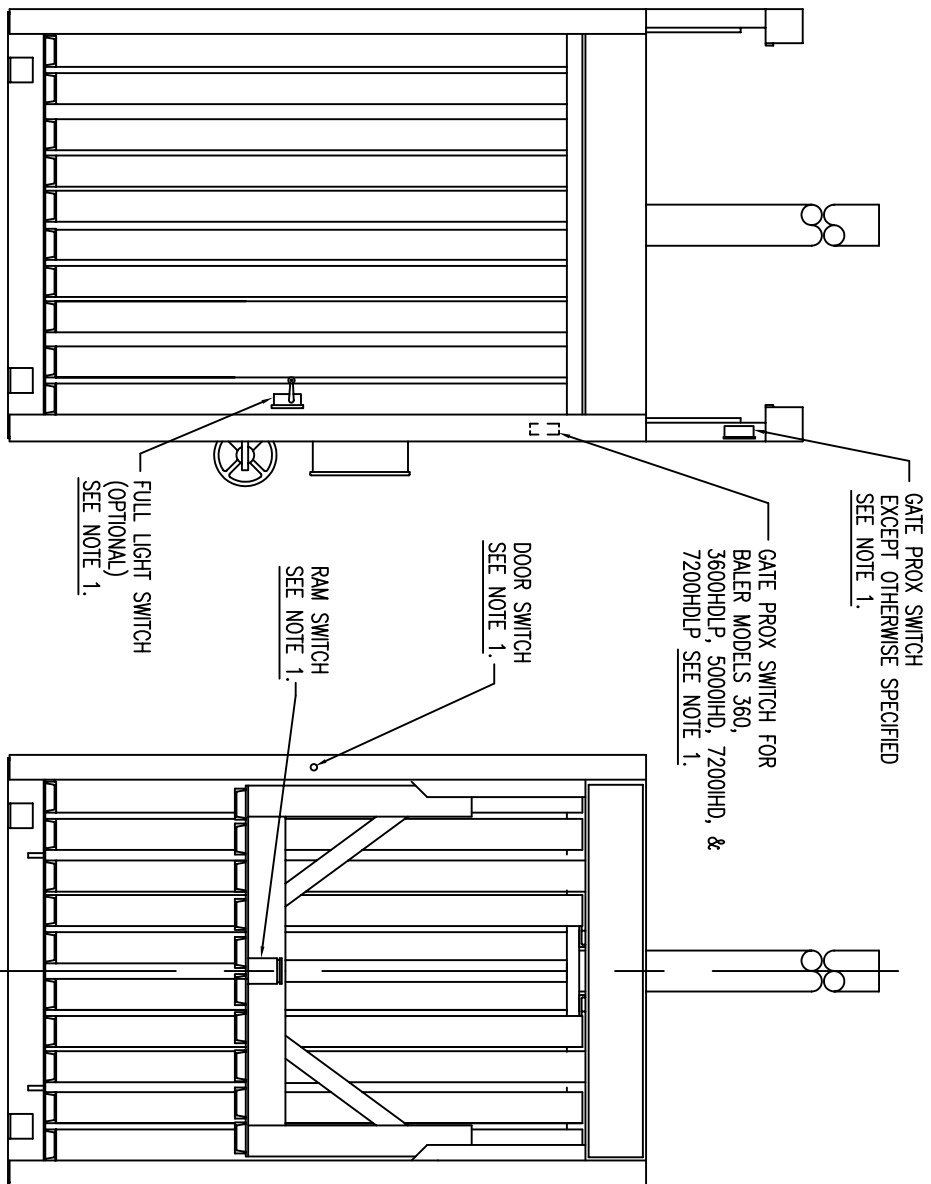
MECHANICAL PARTS INFORMATION

BALER MODELS

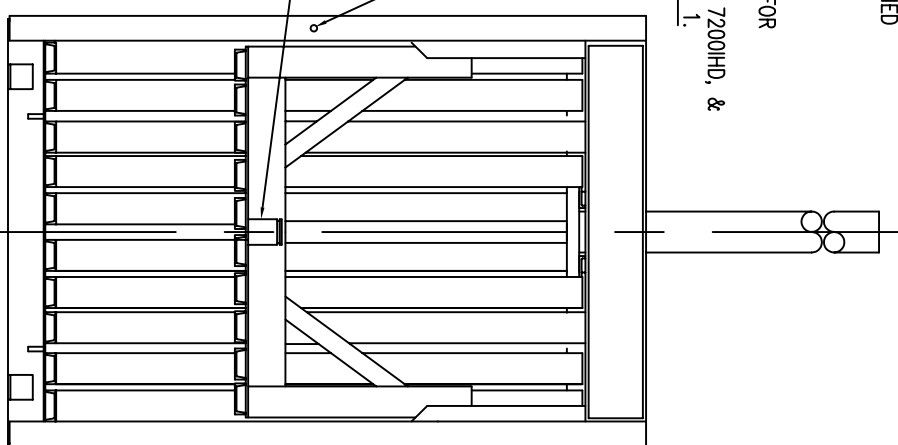
360	420	1800	1800HD	2300HD	2300HDLP	3400KP	3400HDLP	3600HDLP	4000HD	5000HD	7200HD
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FRONT VIEW OF BALER



BACK VIEW OF BALER



NOTE:

1. ALL PARTS TO BE ORDERED FROM PTR BALER & COMPACTOR CO. FOR PROMPT SERVICE IT IS IMPORTANT FOR CUSTOMER TO GIVE BALER MODEL NUMBER & SERIAL NUMBER LISTED ON MANUAL COVER SHEET OR ON ELECTRICAL BOX DOOR AS SHOWN ON THE BALER PARTS DESCRIPTION & NUMBERS SECTION

LIMIT SWITCH INFORMATION

EFFECTIVE 10/2006

PART NO.	DESCRIPTION	324	324 HD	360	360 HD	420	420 HD	1800	1800 HD	2300	2300 HDLP	3400	3600	3400	5000	7230	7200
500459	PUMP 1.3 G.P.M.	X	X	X	X	X	X										
500460	PUMP 3.7 G.P.M.	X	X	X	X	X	X										
500126	PUMP 10.5 G.P.M.							X	X	X	X	X	X	X		X	
500127	PUMP 15.1 G.P.M.														X		X
500063	4 WAY VALVE: SS-G01-C7Y-FR-E115	X	X	X	X	X	X										
155529	5 WAY VALVE: SS-G03-C7Y-FR-E115							X	X	X	X	X	X	X	X	X	X
320068	PRESSURE GAUGE 0 TO 4000 P.S.I.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
500515	PRESSURE SWITCH (UE)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
311606	OIL TANK GAUGE (TEMPERATURE/LEVEL)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
311640	BREATHER CAP #UC10500	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
330465	RELIEF VALVE RPEC-FAN-SUN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
500461	SUMP SCREEN #CU20500	X	X	X	X	X	X										
500461	SUMP SCREEN #LH50950							X	X	X	X	X	X	X		X	
500462	SUMP SCREEN #CU20502														X		X
330547A	CYLINDER 3" X 1 3/4" X 32"	X		X		X											
330525	CYLINDER 6" X 3 1/2" X 48"							X		X							
330534	CYLINDER 6" X 3 1/2" X 38"								X		X	X		X		X	
500162	CYLINDER 6" X 3 1/2" X 27"												X				
330533	CYLINDER 7" X 4" X 48"														X		X
500870	CYLINDER 4" X 2 1/2" X 32"		X		X		X										
330174	HYDRAULIC HOSE (BALER) 52" (1/2")							X	X	X	X	X	X	X	X	X	X
500591	HYDRAULIC HOSE (BALER) 32" (1/2")									X	X						
500592	HYDRAULIC HOSE (BALER) 40" (1/2")							X	X			X	X	X	X	X	X
500146-A	HYDRAULIC HOSE (BALER) 32" (3/8")	X	X	X	X	X	X										
500146-B	HYDRAULIC HOSE (BALER) 41" (3/8")	X	X	X	X	X	X										
500295	MOTOR 3H.P. 208-230-460	X	X	X	X	X	X										
602823	MOTOR 5H.P. 220 (SINGLE PHASE)	X	X	X	X	X	X										
602001	MOTOR 10H.P. 208-230-462							X	X	X	X	X	X			X	
602002	MOTOR 15H.P. 208-230-463(Optional on some models)																
602003	MOTOR 20H.P. 208-230-464														X		X
155491	PROXIMITY SWITCH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155420	UP/STOP LIMIT SWITCH (W/ARM)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
500266	RAM SWITCH (CAST METAL)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155419	DOOR LIMIT SWITCH (BUTTON HEAD)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155418	FULL BALE LIMIT SWITCH (W/ARM)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155350	TRANSFORMER 100VA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
320209	TRANSFORMER FUSE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155408	POWER ON/OFF KEY SWITCH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155397	UP/DOWN PUSH BUTTON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155398	EMERGENCY STOP BUTTON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155399	CONTACT BLOCKS KA-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155400	CONTACT BLOCKS KA-2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

EFFECTIVE 10/2006

PART NO.	DESCRIPTION	324	324 HD	360	360 HD	420	420 HD	1800	1800 HD	2300	2300 HDLP	3400	3600	3400 KP	5000 IHD	7230	7200 IHD
155401	CONTACT BLOCKS KA-3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155392	RELAY (11 PIN)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
155393	RELAY BASE (11 PIN)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
311604	COIL CORD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
600175	#80 CONNECTING LINK														X		X
500720	PROX SWITCH (NEW STYLE)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
603200	STARTER: 75A														LV		LV
603196	STARTER: 40A							X	X	X	X	X	X	X	HV	X	HV
603198	STARTER: 22A	X	X	X	X	X	X										
603197	OVERLOAD: 40A							X	X	X	X	X	X	X	HV	X	HV
603201	OVERLOAD: 80A														LV		LV
603199	OVERLOAD: 20A	X	X	X	X	X	X										
500088	LEAF EJECTON CHAIN BL534														X		
500645	LEAF EJECTON CHAIN HD BL634																X
330387	LINK EJECTOR CHAIN #40												X				
320086	ANCHOR CHAIN	X	X	X	X	X	X	X	X	X	X	X	X	X			
500740	ANCHOR CHAIN HD							X	X	X	X	X	X	X		X	
330388	GATE CONNECTION LINK #40							X	X	X	X	X	X	X		X	
500113	EJECTOR CONNECTING LINK # 60																X
330235	SHACKLE 1/4"	X	X	X	X	X	X	X	X	X	X	X	X	X		X	
400018	EJECT 'T' HOOK														X		X
330120-1-2	EJECT RECESSED 'T' HOOK	X	X	X	X	X	X	X	X	X	X	X		X		X	
401412	EJECT SPROCKET 'T' HOOK												X				
500056	SIDE WHEEL TURN BUCKLE 8"	X	X	X	X	X	X										
330506	SIDE WHEEL TURN BUCKLE 10"							X	X	X	X	X	X	X	X	X	X
500273	NYLON GUIDE 1/2" X 2" X 36" LG																X
500012	NYLON GUIDE 1/2" X 2" X 42" LG							X	X	X	X	X	X	X	X	X	
500602	NYLON GUIDE 1/2" X 2" X 23" LG									X	X		X				
600042	NYLON GUIDE 3/8" X 2" X 42" LG																X
500011	NYLON GUIDE 3/8" X 2" X 36" LG							X	X	X	X	X	X	X	X	X	
320085-4	NYLON GUIDE 3/4" X 1" X 4" LG	X	X														
320085-23	NYLON GUIDE 3/4" X 1" X 23" LG			X	X	X	X			X	X						
320085-24	NYLON GUIDE 3/4" X 1" X 24" LG	X	X	X	X	X	X										
320085-33	NYLON GUIDE 3/4" X 1" X 33" LG			X	X	X	X										
500042	POWER UNIT 3 H.P.	X	X	X	X	X	X										
500077	POWER UNIT 5 H.P. (220V/1PH.)			X	X	X	X										
500985	POWER UNIT 10 H.P.							X	X	X	X	X	X	X			
500986	POWER UNIT 15 H.P. (Optional on some models)																
500995	POWER UNIT 20 H.P.														X		X