



COMPACTION & RECYCLING SOLUTIONS

RamJet® Stationary Auger Compactor
AST-220, AST-320, AST-440

OPERATION, SERVICE, AND INSTALLATION
ISSUED SEPTEMBER 2023

CUSTOMER NAME: _____

SERIAL NUMBER: _____

0016-2-RJAST-0923



© 2023 Marathon Equipment Company



**Environmental
Solutions Group**

Environmental Solutions Group
2030 Hamilton Place Blvd., Suite 200
Chattanooga, TN 37421
Marathon Customer Care: 1.800.633.8974



WARNING

IF INCORRECTLY USED, THIS EQUIPMENT CAN CAUSE SEVERE INJURY. THOSE WHO USE AND MAINTAIN THE EQUIPMENT SHOULD BE TRAINED IN ITS PROPER USE, WARNED OF ITS DANGERS, AND SHOULD READ AND FULLY UNDERSTAND THIS ENTIRE MANUAL BEFORE ATTEMPTING TO SET UP, OPERATE, ADJUST OR SERVICE THE EQUIPMENT. KEEP THIS MANUAL FOR FUTURE REFERENCE

IMPORTANT SAFETY NOTICE

Proper service and repair are important to the safe, reliable operation of the Marathon Equipment Company products. Service procedures recommended by Marathon Equipment Company are described in this Operation, Service, and Installation Manual and are effective for performing service operations. Some of these service operations may require the use of tools or blocking devices specially designed for the purpose. Special tools should be used when and as recommended. It is important to note that some warnings against the use of specific methods that can damage the product or render it unsafe are stated in the service manual. It is also important to understand these warnings are not exhaustive. Marathon Equipment Company could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each method. Consequently, Marathon Equipment Company has not undertaken any such broad evaluations. Accordingly, anyone who uses service procedures or tools which are not recommended by Marathon Equipment Company must first satisfy himself thoroughly that neither his safety nor the product safety will be jeopardized by the method he selects.

RamJet® Stationary Auger Compactor

TABLE OF CONTENTS

General Information

Introduction	4
Preface	5
Hazard Symbols and Definitions	5
Lock-Out/Tag-Out Instructions	6
Service/Parts Assistance	8
Guards and Access Covers	8
Grease Lubrication Recommendation	8
Recommended Oils for Gearbox	8
Warning Decals on the Unit	9
Decal Care	9
Electrical Symbols	11

Installation

Contact Information	14
Concrete Pad Requirements	15
Steel Installation Procedures	16
Electrical Installation	17

Operation

Contact Information	20
Compactor Pre-Operation Instructions	21
Standard Control Panel	22
Operating Instructions - Photoelectric Cycle Controls	23
Optional Controls	24

Service

Contact Information	26
Periodic Maintenance	27
Maintenance Schedule Form	30
Auto Greaser	35
Bearing Lubrication	36
Hard Surface Weld	38
Principles of Operation	40
Fuses, Circuit Breaker, & Wire Size Charts	40
PLC Maintenance - Layout & Description	42
PLC Maintenance - Forward/Reverse Timer Adjustment	43
Electric Schematic	44
Troubleshooting Chart	45

Replacement Parts

Contact Information	48
Typical Panel Box Configuration	49
Decal Parts List	50
Decal Placement	51
Decal Placement for Optional Loading Configurations	52
Decal Images	54
Spare Parts Lists	57

RamJet® Stationary Auger Compactor

TABLE OF CONTENTS

Index.....	63
-------------------	-----------

RamJet® Stationary Auger Compactor
AST-220, AST-320, AST 440

OPERATION, SERVICE, AND INSTALLATION

ISSUED SEPTEMBER 2023

0016-2-RJAST-0923

INTENTIONALLY LEFT BLANK

SECTION 1

GENERAL INFORMATION

RamJet® Stationary Auger Compactor

General Information

4

INTRODUCTION

Thank you for purchasing a Marathon® RamJet® Stationary Auger Compactor!

This product is designed to give you reliable service and superior performance for years to come. The purpose of this manual is to provide the owner and/or operators with the necessary information to properly install, operate, and maintain the machine. Also included are sections regarding troubleshooting and service procedures. The manual is not intended as a primary training source, but as a reference guide for authorized, trained personnel. Each person involved in the operation, maintenance, and installation of the machine should read and thoroughly understand the instructions in this manual and follow ALL warnings.

Employers involved in the operation, maintenance, and installation of the machine should also read and understand the most current version of the following applicable standards:

A copy of this standard may be obtained from:

**ENVIRONMENTAL INDUSTRIES ASSOCIATION
4301 CONNECTICUT AVENUE, NW SUITE 300
WASHINGTON, D.C. 20008**

OSHA Standards - 29 CFR

Refer to:

- Part 1910.147: "The Control of Hazardous Energy (Lock-Out/Tag-Out)"
- Part 1910.212: "Machinery and Machine Guarding: General Requirements for all Machines"
- All other applicable OSHA Standards

ANY SERVICE OR REPAIRS THAT GO BEYOND THE SCOPE OF THIS MANUAL SHOULD BE PERFORMED BY FACTORY AUTHORIZED PERSONNEL ONLY!

If you should need further assistance, please contact your distributor. You will need to provide the equipment serial number, installation date, and electrical schematic number to your distributor.

If you have any safety concerns with the equipment or need further information, please contact us at:

**Marathon Equipment Company
P.O. Box 1798
Vernon, AL 35592-1798
Attn: Field Service Department
877-258-1105**

PREFACE

The following sections are a guide for maintenance and service of the Marathon Equipment Company unit. The sections cover preventive maintenance, adjustment, and troubleshooting hints. Before performing maintenance, check the work area carefully to find all the hazards present and make sure all necessary safeguards or safety devices are used to protect all persons and equipment involved. In order to diagnose a problem quickly and effectively, a service person must be thoroughly familiar with the machine. This Operation, Service, and Installation Manual explains the system and its major components. Diagrams and schematics of the electrical systems are in the Service Section.



IMPORTANT!

- Before starting any maintenance, study this section of the manual.
- Read all hazard warnings and decals on the unit.
- Clear the area of other persons before performing any maintenance.
- Know and understand safe use of all controls.
- It is your responsibility to understand and follow manufacturer's instructions on equipment and care.

HAZARD SYMBOLS AND DEFINITIONS

Listed below are the definitions for the various levels of hazards. It is important that the operators of this equipment and people who service units read and understand all warnings as they relate to this equipment operation.

- **DANGER** – indicates an imminently hazardous situation, which **WILL** result in **DEATH** or **SERIOUS INJURY** if you don't follow proper instructions.
- **WARNING** – indicates an imminently hazardous situation, which **COULD** result in **DEATH OR SERIOUS INJURY** if you don't follow proper instructions.
- **CAUTION** – indicates an imminently hazardous situation, which **will** result in **MINOR** to **Moderate INJURY** if you don't follow proper instructions.
- **NOTICE** – means unit or other property may be damaged if these instructions are not followed.

You must read and obey all warnings in any manual produced by Marathon Equipment Company to support your unit.

LOCK-OUT & TAG-OUT INSTRUCTIONS

DANGER



Before entering any part of the compactor, be sure that all sources of energy have been shut off, all potential hazards have been eliminated, and the compactor is locked-out and tagged-out in accordance with OSHA and ANSI requirements.

The specific Lock-Out and Tag-Out instructions may vary from company to company (i.e. multiple locks may be required, or other machinery may need to be locked-out and tagged-out). The following instructions are provided as minimum guidelines.

INSTRUCTIONS

1. Notify all affected employees that servicing or maintenance is required on the compactor and that the compactor must be shut down and locked out to perform the servicing or maintenance.
2. Perform a hazard assessment;
 - a. The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the compactor utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
3. Wear proper personal protective equipment.
4. If compactor is operating, it must be shut down by the normal stopping procedure. If the ram is pressing against a load, move the ram rearward before shutting the auger down.
5. De-activate the energy isolating device(s) so that auger is isolated from the energy source(s).
 - a. Shut down all power sources.
 - b. Move the main disconnect lever to the OFF position.
6. Lockout the energy isolating device(s) with assigned individual lock(s).
 - a. Padlock the disconnect lever with a keyed padlock and take the key with you.
 - b. Along with the padlock, place an appropriate, highly visible, warning tag on the disconnect lever. The tag should provide a warning such as:
"Danger: Do not operate equipment. Person working on equipment." or
"Warning: Do not energize without the permission of _____."
 - c. Place operating components in such a position so as not to be subject to possible free fall and/or install additional blocking devices to prevent this potential for any raised or elevated component.
7. After locking and tagging the compactor, ensure that the auger is disconnected from the energy source 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. Try to start and operate the compactor (as outlined in the Operating Instructions) to make sure the Lock-Out and Tag-Out is effective. If the Lock-Out and Tag-Out is effective, remove the key from the key switch and take it with you.
8. Before entering compactor perform hazard assessment for confined space requirements (hazardous fumes, dust, toxic material, or other hazards) per the OSHA confined space standard.
9. The compactor is now locked out.

LOCK-OUT & TAG-OUT INSTRUCTIONS (CONTINUED)

RESTORING SERVICE

When the servicing or maintenance is completed and the auger is ready to return to normal operating condition, the following steps shall be taken:

1. Check the compactor and the immediate area around the compactor to ensure that nonessential items have been removed and that the compactor components, guards and covers are operationally intact.
2. Check the work area to ensure that all employees have been safely positioned or removed from any hazardous area.
3. Verify that the controls are in neutral.
4. Remove the lockout devices and re-energize the compactor.

NOTICE

The removal of some forms of blocking may require re-energizing of the compactor before safe removal.

5. Notify affected employees that the servicing or maintenance is completed and the compactor is ready for use.
6. Reassess area to determine all hazards are protected.

SERVICE/PARTS ASSISTANCE

Assistance in troubleshooting, repair and service is available by contacting the authorized Marathon Equipment Company Dealer in your area. Parts are available at your Marathon Equipment Company Dealer or through Marathon Equipment Company. Marathon Equipment Company personnel are trained to give prompt, professional assistance.

ALWAYS give the machine serial number in all correspondence relating to the equipment.

GUARDS AND ACCESS COVERS

Before operating or performing maintenance, check the work area carefully to find all the hazards present and make sure all guards and safety devices are in place to protect all persons and equipment involved.

WARNING

DO NOT operate without all guards and access covers in place.

GREASE LUBRICANT RECOMMENDATION

Use a grease gun. Before engaging grease gun, clean the fitting. Always pump enough grease to purge the joint of contaminated grease and wipe off the excess grease. Lubricate a unit as recommended on the lubrication decal on the unit and in the Operation, Service, and Installation Manual. Use NLGI 2 grease. The unit is shipped with Nevastane XS 80 grease.

RECOMMENDED OILS FOR GEARBOX

The following oil by brand name is approved for use in the gearbox on this equipment.

- Shell Omala S4 GX150 or Equivalent.

WARNING DECALS ON THE UNIT

WARNING

DO NOT operate without all guards and access covers in place.

Make sure you can read all warning and instruction decals. Clean decals if you cannot read the words. See below for directions on cleaning decals. Replace any decal that is damaged, missing, or is not readable. When you replace a part that has a decal, make sure a new decal is installed on the new part. See the Operation, Service, and Installation Manual for replacement decals. Order replacement decals from Marathon Equipment Company or an authorized dealer.

DECAL CARE

It is important that the decals are properly cleaned to make sure that they are readable and do not come off the unit. Use the following steps to clean the decals.

A. General Instructions

Following these instructions helps the decals adhere longer.

- Wash the decals with a blend of mild car wash detergent and clean water
- Rinse with clean water
- Let the unit air-dry or dry with a micro-fiber cloth
- Do not allow fuels to stay in contact with the decal for an extended period of time. Remove the fuel contamination as quickly as possible
- Do not use carnauba-based wax over the decals
- Do not use a mechanical brush while washing the decals.

B. Pressure Washer Precautions

Pressure washing can cause damage to decals. It can cause the edges of the decals to lift and peel the decal away from the unit. Over time, the decal can fade, crack or chip away.

Use pressure washing only when other cleaning methods are not effective. If you use a pressure washer, use the following precautions.

- Spray nozzle opening: 40° wide pattern
- Spray angle: 65° from vehicle's body
- Distance of nozzle to decal: 15" minimum
- Water pressure: less than or equal to 800 psi
- Length of time: not more than 30 sec.
- Do not use sharp angles to clean the decals – this can lift the decals from the unit.
- NEVER use a "turbo pressure nozzle".

C. Remove Difficult Debris

When normal cleaning procedures do not remove difficult debris from the decals, try the following:

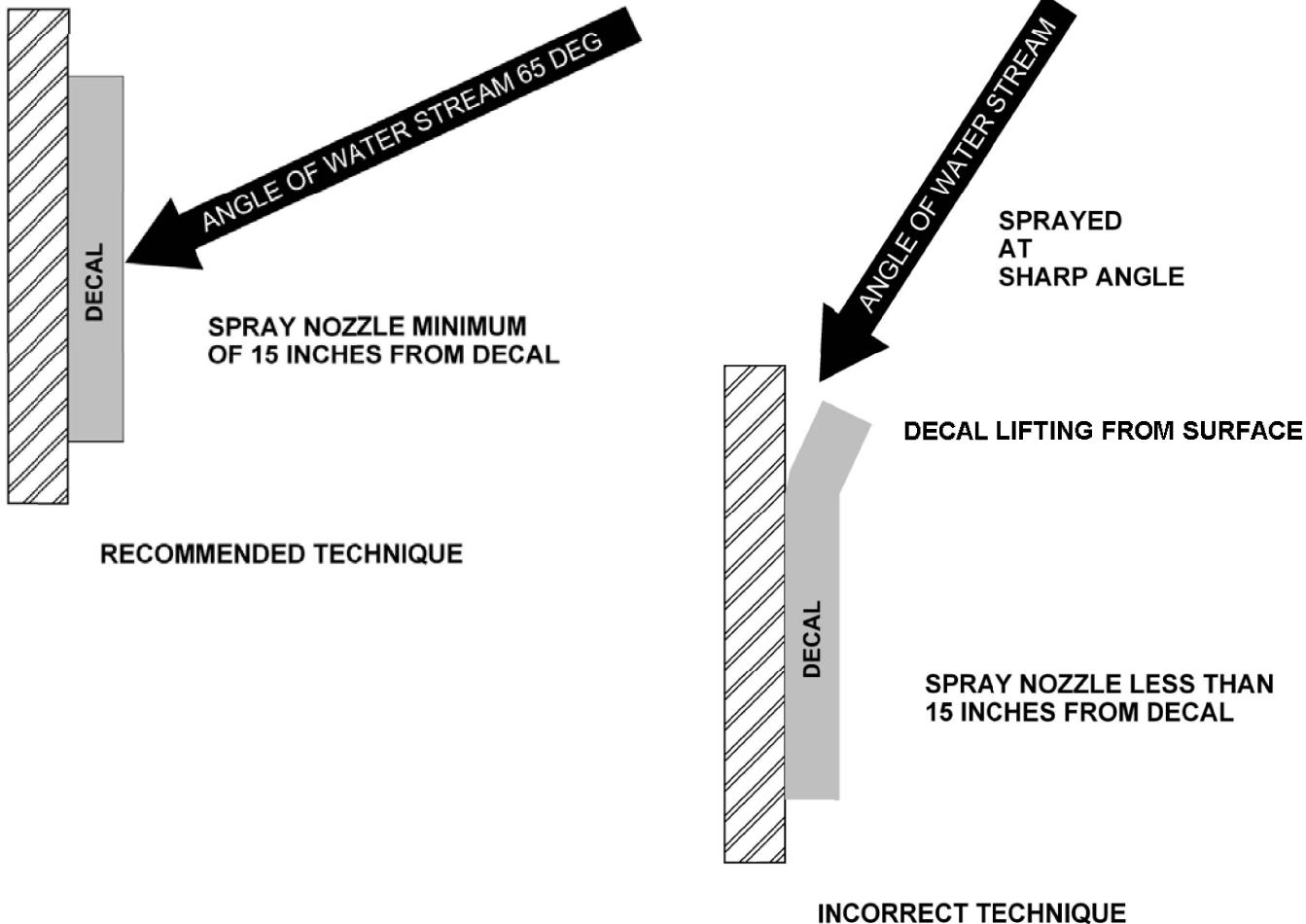
- Spot clean the decal with Isopropyl Alcohol and a micro-fiber cloth (rag)
- If these methods do not work on a problem area, call a Marathon Equipment Company Dealer or Marathon Equipment Company Customer Support.

RamJet® Stationary Auger Compactor

General Information

10

DECAL CARE - CONTINUED



ELECTRICAL SYMBOLS

SYMBOL DEFINITIONS



BATTERY



FUSE



SOLENOID



CONTACT RELAY

CR1



NORMALLY OPEN CONTACT OF CR1

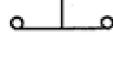
CR1



NORMALLY CLOSED CONTACT OF CR1



INDICATOR LIGHT (GREEN)



PUSH BUTTON SWITCH NORMALLY CLOSED



PUSH BUTTON SWITCH NORMALLY OPEN



TOGGLE SWITCH



DIODE



PRESSURE SWITCH



LIMIT SWITCH NORMALLY OPEN



LIMIT SWITCH NORMALLY CLOSED



CAPACITOR

INTENTIONALLY LEFT BLANK

SECTION 2

INSTALLATION

CONTACT INFORMATION



Technical Service and Warranty:

877-258-1105

Parts:

800-528-5308

For parts visit our e-commerce market place at **www.mecomerchant.com**.

If you do not have a user name and password, contact our Parts Department and they will assist with your registration.

Normal Business Hours:

Monday-Friday 8:00am - 5:00pm

(Central Standard Time)

CONCRETE PAD REQUIREMENTS

These installation instructions are not intended as a substitute for training and experience in proper use and safety procedures in operating this equipment.

Marathon Equipment Co. does not assume responsibility for the installation procedures of this equipment. Conformance to applicable local, state, and federal laws concerning installation rests with the customer.

CAUTION

Review this manual before making the installation. Study the job site and installation requirements carefully to be certain all necessary safeguards or safety devices are provided to protect all personnel and equipment during the installation and as a completed system. Special attention is directed to the most current ANSI Z245.2 standard.

Concrete Pad

1. Preferred dimensions of the concrete pad are 10'0" wide and a length of 5'0" greater than the length of the compactor/container. It should be level and of minimum 3000 PSI concrete steel reinforced, 6" thick. It is preferred that the concrete pad be flush with the surrounding ground level.
2. To provide accessibility, concrete pad should be positioned to allow 28" of clearance from outer most protrusion of the lock system of the compactor/container to a wall, building, structure, or container to allow adequate ingress/egress to equipment. Allow a minimum of 45' of clear space from end of pad for container handling vehicle.

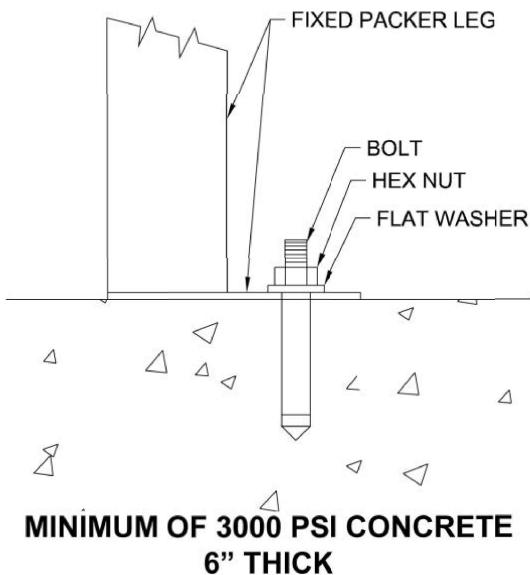
NOTICE

The clearances given are minimums. Your installation may require greater clearances depending on the site and the hauling equipment that will be used.

ANCHORING

The compactor should be anchored to concrete pad using (8) minimum 3/4" x 6" long anchor bolts. These bolts can be secured to concrete pad using "Porok" or special concrete anchors. It is best if these holes are drilled in the concrete after pre-locating the compactor in its desired location. Holes in the leg plates are 1-5/16" dia. to permit the use of a 1-1/8" dia. concrete bit. The 1-1/8" dia. holes in the concrete should be approximately 5" deep. When the compactor has been permanently located, shimmed to compensate for unevenness, and anchor bolts set, tighten all nuts securely.

Note: Ensure anchor bolts are not allowed to torque or twist the compactor body when tightened.



STEEL INSTALLATION PROCEDURES

Dock Installation

If the appropriate accessories are ordered from Marathon Equipment Co., the compactor will be furnished with either a four-sided hopper or a three-sided hopper with a hinged gate. THESE ACCESSORIES SHOULD NOT BE ALTERED AS THEY ARE MANUFACTURED IN ACCORDANCE WITH THOSE STANDARDS WHICH PREVAIL AT THE TIME OF MANUFACTURE.

If the compactor cannot be directly abutted to the dock or if there is any difference in height between the dock and the compactor/container, an appropriately sturdy transition section should be provided by the customer and securely affixed to the dock. Along with the transition section, a compactor/container guidance/stop mechanism should be installed to assure that the unit does not bottom out against the transition section or dock during dock placement (See ANSI Z245.2 Safety Standards). Optional container guides with stops are available from Marathon and are recommended for proper dock placement of the compactor/container.

Chute-Fed Installation

Compactors installed in this arrangement are normally fed "through-the-wall". The lower edge of the access hole in the wall should be a MINIMUM of 42" (and, if possible, not more than 58") from the inside floor level. Also, due to compactor height variations, the bottom of the access hole should be at least 2" above the compactor height. A security door (in accordance with local code) should be installed in the wall opening. In the absence of a local code, this door should be constructed of 3/16" thick steel or of steel hollow core design and be lockable from the inside of the building.

Decals

Be certain that the appropriate decals are in their proper locations at all times on the machine. For decals locations, see **Decals and Decal Placement for Standard Units** in the "Replacement Parts" section of this manual.

Note: Installation is not complete until all decals are in place.

Container Guides

If container guides (optional) are used with the compactor and container, each guide should be anchored to the concrete pad with 3/4" x 6" (minimum) anchor bolts. These bolts should be concrete anchors or expansion type anchor bolts. To allow for construction variations, it is best if these holes are drilled in the concrete after pre-locating the container guides in their desired location. When the guides have been placed in position, and the anchor bolts have been set, tighten all nuts securely.

ELECTRICAL INSTALLATION



The Panel Box contains high voltage components. Only authorized service personnel should be allowed inside. See **Lock-Out & Tag-Out Instructions** in the Service Section.



A lockable fused disconnect switch (customer furnished) must be installed and be within sight of the compactor's electrical panel box location, not to exceed 50'0" from the compactor. This fused disconnect switch should be sized in accordance with the compactor (see **Fuse and Circuit Breaker Charts**).



All equipment should be grounded per National Electric Code.

Grounding Instructions

This appliance 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 appliance.

If there is any doubt whether the equipment is properly grounded, a qualified electrician should be consulted.

Remote Panel Box Installation

1. If the Panel Box is remote, it should be installed and anchored as required by the customer. If push buttons are mounted in the face of the panel box, be certain these controls are located as to be in a convenient, but not hazardous, location to the customer.



Controls must be located so that the Emergency Stop Button is readily accessible to the operator and within three (3) feet of the charging chamber access. If installation requires this push-button control station to be located in a more remote area, a second Emergency Stop Button should be added and installed in the manner described above.

2. Connect the 3 phase power to the top distribution block located in the electrical junction box mounted on auger body.
NOTE: AST-440 will have two distribution blocks.
3. Verify that one line of the 3 phase wires passes through the current transducer. This component monitors motor amperage for the AW/CF indicator.



NOTE: Verify that one line of the 3 phase wire passes through the current transducer. This component monitors motor amperage for the AW/CF indicator.

ELECTRICAL INSTALLATION (CONTINUED)

Push-button Control Panel

If a remote push-button station is furnished, it will be factory wired using Sealtite. If it is necessary to disconnect it from the wires (to install the push-button station inside a building), exercise care that these wires are reconnected as originally furnished. (Check local codes to be certain that Sealtite is acceptable.)

CAUTION

Controls must be located so that the Emergency Stop Button is readily accessible to the operator and within three (3) feet of the charging chamber access. If installation requires this pushbutton control station to be located in a more remote area, a second Emergency Stop Button should be added and installed in the manner described above.

Electrical Connections

1. Run power lines between fused disconnect switch (customer furnished) and compactor's electrical panel box, in accordance with local electrical codes, using knock-outs in bottom of panel box. See **Fuse & Circuit Breaker Charts** for Motors and **Wire Size Chart**, in the Service section, to determine the proper service disconnect amperage rating and the proper wire size.

Note: High legs should be installed to L3 on motor starter.

2. Check voltage at fused disconnect switch to be certain it is the same as is shown on compactor or remote power pack.

Start-Up Instructions

CAUTION

Make sure persons and material are clear of charge box area.

Put fused disconnect switch in "ON" position when ready to start machine. Depress the start button and check the motor fan for proper rotation (should be clockwise). Reversing any two incoming power lines should change the motor rotation. Push the start button for the auger to go counter clockwise. Follow all **Lock-Out & Tag-Out Instructions** in the "Service" section.

Make sure that the operators are trained in the proper use of this equipment.

SECTION 3

OPERATION

CONTACT INFORMATION



Technical Service and Warranty:

877-258-1105

Parts:

800-528-5308

For parts visit our e-commerce market place at **www.mecomerchant.com**.

If you do not have a user name and password, contact our Parts Department and they will assist with your registration.

Normal Business Hours:

Monday-Friday 8:00am - 5:00pm

(Central Standard Time)

PRE-OPERATION INSTRUCTIONS

Employers should allow only authorized and thoroughly trained personnel to operate this compactor.

This compactor is equipped with a key operated locking system. Keys should be in possession of only authorized personnel. Turn off and remove the key after use.

DANGER

ONLY TRAINED AND AUTHORIZED PERSONNEL SHOULD BE ALLOWED INSIDE PANEL BOX. The panel box contains high voltage components. See Lock-Out/Tag-Out Instructions.

WARNING

Do not operate compactor until operating instructions are thoroughly understood. Wear safety glasses and gloves when operating this equipment.

WARNING

Stay clear of all internal compactor parts and all moving external compactor parts when in operation. Failure to do so could result in serious personal injury or death!

WARNING

Never enter any part of compactor unless the disconnect switch has been turned off, padlocked, and all stored energy sources have been removed. See Lock-Out/Tag-Out Instructions.

WARNING

Do not remove access covers except for servicing. Only trained and authorized service personnel should be allowed to service this equipment. All access doors on the compactor body should always be secured in place when the unit is operating. See Lock-Out/Tag-Out Instructions.

WARNING

Before starting compactor, be sure no one is inside. Be certain that everyone is clear of all operation points and pinch point areas before starting.

WARNING

If the compactor is equipped with a security gate or doghouse with security door, be sure that the security gate or door is closed before the compactor is started.

NOTICE

Federal regulation prohibits the use of this equipment by anyone under 18 years of age.

STANDARD CONTROL PANEL



CONTROL DESCRIPTION

1. **KEYED SWITCH** - This switch requires a key for operation. Insert the key and turn counterclockwise to the ON position. The compactor will cycle one time then stop. After use, turn the key clockwise to the OFF position and remove the key.
2. **START PUSH-BUTTON** - This button starts the auger in the Forward/Counterclockwise direction.
3. **EMERGENCY STOP PUSHBUTTON** - When depressed, this pushbutton will stop all powered operation of the compactor.
4. **REVERSE PUSHBUTTON** - This push-button will reverse the auger rotation when depressed. The motor must be running for the REVERSE button to operate. See the **Manual Override Instructions** for details of the operation.

OPERATING INSTRUCTIONS - STANDARD MODELS

WARNING

Use ONLY Marathon reinforced receiver containers with Marathon Stationary Auger Compactors. Use of a non-OEM receiver container with a Marathon Stationary Auger Compactor could result in container damage, property damage, and/or personal injury – up to and including death.

1. First, place the material to be discarded into the compactor.
2. Depress the start button for 1 to 2 seconds and release. The unit will cycle for a predetermined time then stop.
3. Repeat, if necessary, after the compactor has stopped.
4. When you have finished using the compactor, remove the key from the key switch.

IN CASE OF EMERGENCY: Push the large RED button to STOP!

OPERATING INSTRUCTIONS - MODELS WITH PHOTOELECTRIC CYCLE CONTROL

WARNING

Use ONLY Marathon reinforced receiver containers with Marathon Stationary Auger Compactors. Use of a non-OEM receiver container with a Marathon Stationary Auger Compactor could result in container damage, property damage, and/or personal injury – up to and including death.

NOTICE

This compactor features an **ANSI Z245.21-5.12.1** compliant start-up alarm that is both audible and visible during the activation of the **AUTOMATIC** mode.

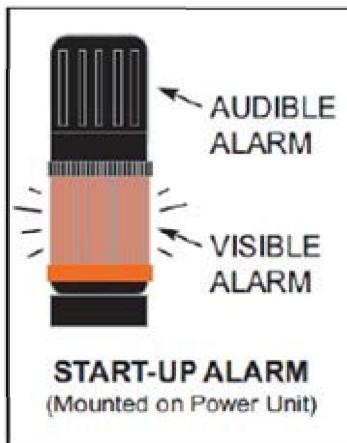
Operating Instructions (Automatic Mode)

1. First, place the material to be discarded into the compactor.

NOTICE

If you are loading the compactor through a door or gate, close it before starting the compactor. Refer to **Decal Placement for Optional Loading Configurations** to determine how your compactor is configured

2. Insert the first key into the "**MANUAL - OFF - AUTOMATIC**" key switch and turn to the "**AUTOMATIC**" position.
3. Insert the second key into the "**START**" switch and turn to the right.
4. Depress the key in the "**START**" switch and hold it continuously for 20 seconds.



5. Both the audible and visual start-up alarms will energize for 5 seconds.
6. After 5 seconds the audible alarm will stop, but the visual alarm will continue for an additional 15 seconds (for a total of 20 seconds).
7. After 20 seconds, the motor will start and the ram will extend, and then retract (one complete cycle).
8. The light will continue to flash until the unit is manually turned off, automatically shuts down, or is switched to manual mode.

WARNING

In AUTOMATIC mode, the power unit will ram automatically anytime photocells detect ANY OBJECT in the charge box.

OPTIONAL CONTROLS

1. SUSTAINED MANUAL PRESSURE CONTROL BUTTON (Hold-To-Run, Release-To-Stop) This option requires the compactor operator to remain at the push button station while the compactor is in use. Actuation requires depressing the "Hold-To-Run" and "Start" buttons. After the unit has started, the "Start" button is released. If the "Hold-To-Run" button is released, the unit will stop instantly.
2. ADVANCE WARNING / CONTAINER FULL LIGHT - When the light starts flashing (ADVANCE WARNING). When the light stays on continuously (CONTAINER FULL), the container is full and is ready to be emptied before its next use. To deactivate the light, depress the illuminated light (The unit will not run while the light is continuously on).
3. ACCESS INTERLOCK - This is optional with units equipped with doors, security doors, or access gates. It prevents the unit from operating while a door or gate is open.
4. PHOTOELECTRIC CYCLE CONTROL - (Photocell) - Consists of a LED light source and a reflector. It can be mounted on a hopper or chute. Two holes, located so as to avoid any hazard, are located in opposite walls of the chute. When the light beam is blocked for 5 seconds, the audible alarm will sound for 5 more seconds, then the compactor is activated and will continue to run until the obstruction has been cleared or the watchdog timer times out.
5. AUTOMATIC SHUTDOWN - Used with the photoelectric cycle control. If a blockage in the charge chamber causes the compactor to continue cycling, the timer will shut the compactor down after the preset time has passed. To deactivate the timer, the illuminated auto shutdown push-button is pressed after clearing the blockage.
6. START ON DOOR CLOSURE - When switch is in auto the PLC counts door closures. The machine will start on predetermined count that is within the PLC.

SECTION 4 SERVICE

CONTACT INFORMATION



Technical Service and Warranty:

877-258-1105

Parts:

800-528-5308

For parts visit our e-commerce market place at **www.mecomerchant.com**.

If you do not have a user name and password, contact our Parts Department and they will assist with your registration.

Normal Business Hours:

Monday-Friday 8:00am - 5:00pm

(Central Standard Time)

PERIODIC MAINTENANCE

WARNING

Never enter any part of the compactor until the unit has been locked-out and tagged-out.

Monthly or every 200 hours of operation

- Check for and correct any unsafe conditions in or around the compactor area.
- Clean debris from under/around the compactor/container.
- Inspect the anchor bolts located on the foot pads of the machine for damage or if they have become unfastened. Please contact the installer of the machine if either of these conditions is observed so that it may be corrected.
- Inspect the Ratchet and Ratchet Claws for function, wear, or damage.
- Check external cords and flexible conduit for chafing, rubbing, deterioration, or damage. Repair/replace as necessary.
- Check that all control functions are operational (stop button, timers, lights, auto-lube, etc.). You must be trained to operate the machine to verify they are working properly. Refer to the user's manual for full instructions.
- Check on and around the gearbox(es) for leaks. Check the oil and oil level in the planetary gearbox. The oil should be translucent, and the proper level is to the bottom of the sight gauge. If not, change oil as needed. (If needed, place a catch pan under the gearbox, with an Allen wrench, and remove the bottom plug, once oil is drained replace the plug, and fill it with oil)

NOTE: The AST-440 has two gearboxes.

- Check the auger screw and front hub cover for material build-up (banding, plastic wrap, etc.). Remove if necessary. Check front hub cover for grease leakage. Visually inspect below front bearing cover for grease leakage.
- Check the auger screw for damage and repair it if necessary.
- Check the grease reservoir level. If the level is less than $\frac{1}{4}$ filled, fill the reservoir to full.

NOTICE

Two grease fitting locations on the AST-440



Quarterly Preventative Maintenance

- Remove the rear cover with an impact drill and a 9/16" socket, and then clean debris from the chain/sprocket chamber.
- Inspect rear bearing cover for grease leakage. Visual inspection of shaft between sprocket and rear bearing cover and area directly below rear bearing cover for grease leakage.
- Inspect the sprockets for excessive wear or damage. This can include, but is not limited to:
 - a. Large amounts of material missing from any of the teeth on the sprocket.
 - b. Obvious signs of wear on the points of contact between the sprocket teeth and roller chain.
- Inspect the chain for excessive wear or damage. Use the appropriate chain wear indicator to check for chain elongation.
- Check the chain for proper tension. The chain should have 1" – 1 1/2" of deflection, on the top side of the chain halfway between the sprockets, when finger pressure is applied to the chain.
- Ensure the motor/gearbox/gearbox mounting plate bolts are tight. The motor to gearbox bolts should be torqued to 150 ft-lbs. The gearbox to back plate bolts should be tightened to 100 ft-lbs.
- Check main and small sprocket alignment. Ensure the main sprocket and small sprocket are flush.
To do this, measure from the rear wall to the edge of the tooth on the main sprocket.
Then measure from the rear wall to the edge of the tooth on the small sprocket.
If the dimensions are not the same adjust the small sprocket to match the main sprocket.
If you are adjusting the small sprocket on the ASC-210 or AST-220:
You will need to first loosen the Allen head screw. Then move the sprocket until it aligns with the main sprocket.

NOTE: You will more than likely need to utilize a gear puller for this process.

When finished, torque the Allen's head set screw to 63 ft-lbs.

If you are adjusting the small sprocket on the AST-320 or AST-440:

You will need to first loosen the bolts retaining the small sprocket to the sleeve. Then move the sprocket until it aligns with the main sprocket.

NOTE: You will more than likely need to utilize a gear puller for this process.

When finished, apply blue Loctite to a new set of bolts and torque them to 60 ft-lbs.

- Inspect and verify that the sprocket bolts or Allen hex screws are still at the proper torque.
 - a. The large sprocket bolts should be torqued to 200 ft-lbs.
 - b. The small sprocket bolts should be torqued to 60 ft-lbs. (Only applies to AST-320 and AST-440 models).
 - c. The small sprocket set screw should be torqued to 63 ft-lbs. (Only applies to ASC-210 and AST-220 models).

NOTE: If any of the bolts are not at the proper torque, replace them with new bolts and ensure they each have blue Loctite applied to them before re-torquing. Use an alternating tightening pattern to torque the bolts. If the set screw is not at the proper torque, please use an 8 mm to torque to the specified value.

- Inspect hard surface welding on the end of the auger flighting.

For stationary compactors, you will need to first separate the compactor and container.

For self-contained compactors, you will need to dump the compaction container.

Then you will need to clean off the hard surface welded zone of the auger flights.

Next, measure the height of the hard surface weld perpendicular to the auger flight.

If the hard-surface weld height is less than 1/8", hard surface material needs to be re-applied.

- Inspect the liners, if applicable.

• a. The liners for all models have an initial thickness of 3/8".

- Inspect the auger teeth, if applicable.
 - a. Check to ensure that the units have all the teeth required:
 - i. ASC-210 and AST-220 models should have 4 teeth.
 - ii. AST-320 models should have 5 teeth.
 - iii. AST-440 models should have 5 teeth PER AUGER SCREW. 10 TOTAL.
 - b. Inspect the condition of the teeth. If the leading edge of the tooth is rounded off, replace the tooth.
- Grease internal bearings.
 - a. For units equipped with Auto-Lube systems:
 - Fill the grease reservoir per the auto-lube manufacturer's recommendation. The auto-lube system will automatically grease the bearings (The grease recommendation is in the manual)
 - Depress the "Auto-Lube" button until fresh grease comes out of the drip hose.
 - Clean the excess grease from the drip pan.
 - b. For units not equipped with Auto-Lube systems:
 - Clean the grease fitting. The fitting is located on the right-hand side just above the gearbox.
 - Add grease to the grease fitting until fresh grease comes out of the drip hose.
 - Clean off grease fitting.
 - Clean out excess grease from the drip pan.

Then replace the rear cover using an impact drill and a 9/16" socket.

NOTE: Based on ambient conditions, replace the gear lube per the instructions in the Annual PM Section.

- Grease the Ratchets with the appropriate grease recommended in the Auger Manual.

Annual Preventative Maintenance:

- Lubricate electric motor bearings annually per the manufacturer's instructions.

NOTE: There are two grease fitting locations on the AST-440

- Replace gear oil in the planetary gearbox. Marathon recommends either:
 - a. Valvoline EPG Gear Lube 320 rated 15 to 160 degrees Fahrenheit
 - b. Valvoline EPG Gear Lube 150 rated -22 to 90 degrees Fahrenheit.

MAINTENANCE SCHEDULE FORM

Make copies of the table below, to record your maintenance on equipment.

MONTHLY MAINTENANCE SCHEDULE								
TIME OF SERVICE								
ACTION	DATE							
Check for Unsafe Conditions								
Clean Debris Around/ Under Compactor								
Check Anchor Bolts								
Inspect Ratchets and Claws for Damage								
Check External Cords and Conduit								
Check All Controls and Functions are Operational								
Check Around Gearbox for Leaks and Check Oil Level								
Check Auger Screw and Front Hub Cover for Debris and Grease Leakage								
Check Auger Screw for Damage								
Check Grease Reservoir Level								

RamJet® Stationary Auger Compactor

Service

31

Comments:

PRINT COPY BEFORE USE

MAINTENANCE SCHEDULE FORM (CONTINUED)

QUARTERLY MAINTENANCE SCHEDULE								
TIME OF SERVICE								
ACTION	DATE							
Clean Grease Pan and Chain/Sprocket Chamber								
Inspect Rear Bearing Cover for Grease Leakage								
Inspect Sprockets for Wear/Damage								
Inspect Chain for Damage/Elongation								
Check Chain Tension								
Check Gearbox/Motor Mounting Hardware for Torque								
Check Sprocket Alignment								
Check Torque of Sprocket Hardware								
Inspect Hard Surface Welds								
Inspect Liners (if applicable)								
Inspect Auger Teeth (if applicable)								
Grease Internal Bearings								
Grease Ratchets								

RamJet® Stationary Auger Compactor

Service

33

Comments:

PRINT COPY BEFORE USE

RamJet® Stationary Auger Compactor Service

34

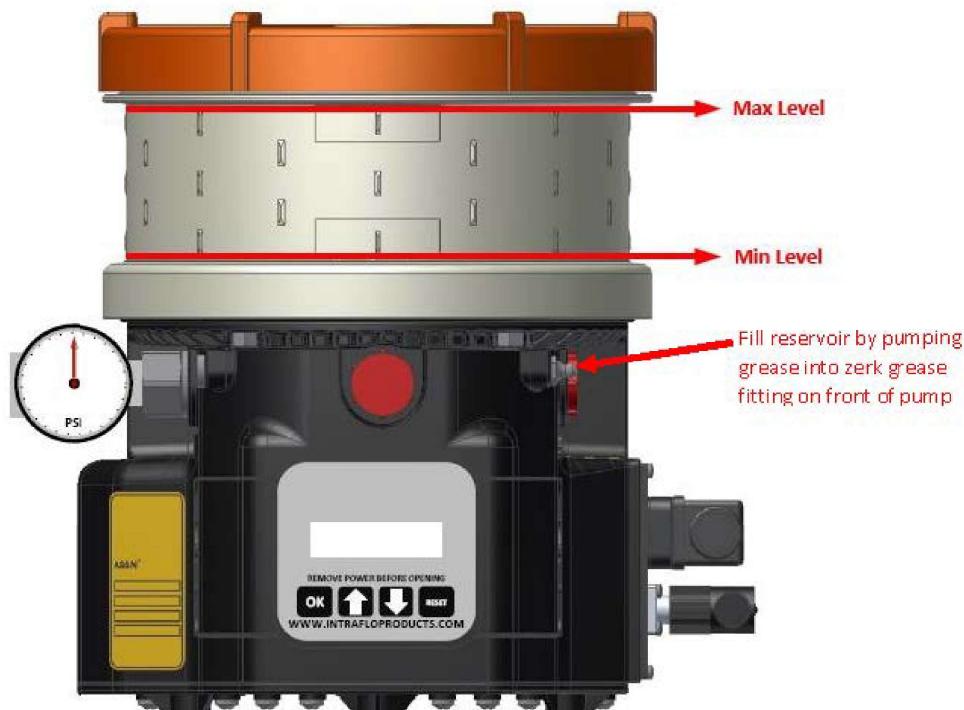
MAINTENANCE SCHEDULE FORM (CONTINUED)

ANNUALLY MAINTENANCE SCHEDULE								
TIME OF SERVICE								
ACTION	DATE							
Lubricate Electric Motor Bearings								
Replace Gear Oil in Gearbox								
Comments:								

PRINT COPY BEFORE USE

AUTO GREASER

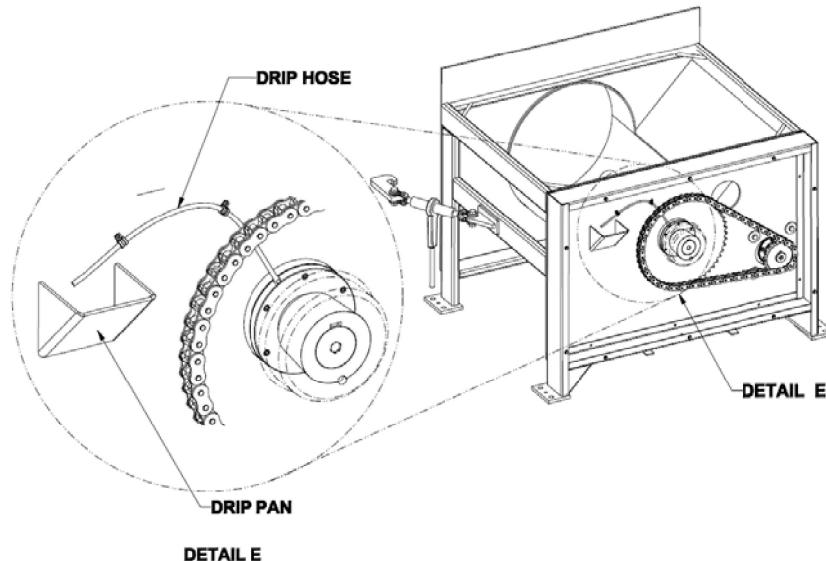
For units equipped with Auto-Lube systems:



BEARING LUBRICATION

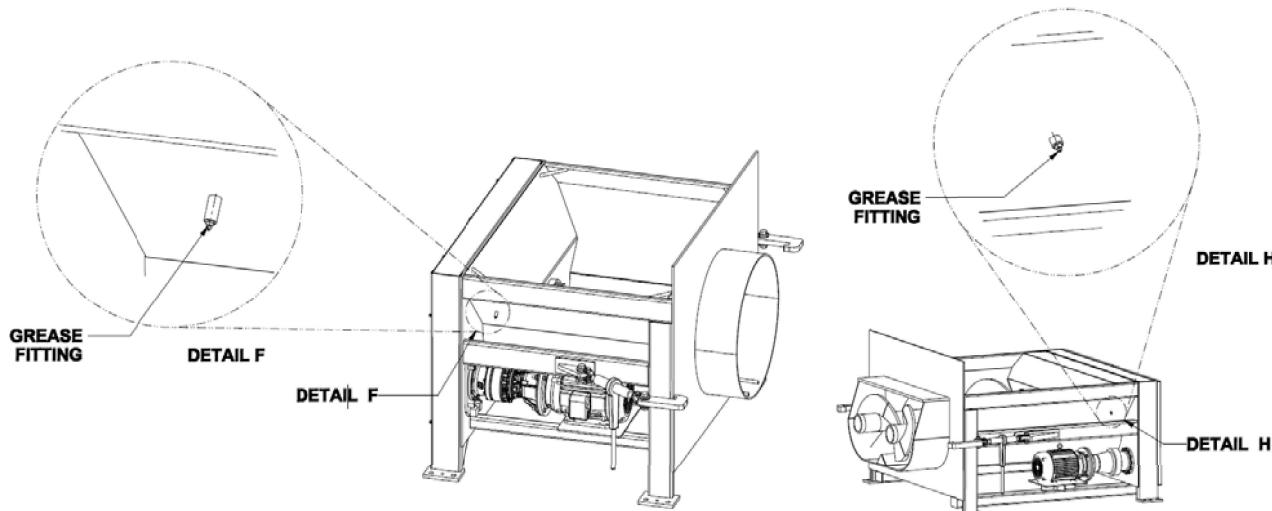
For units equipped with Auto-Lube systems:

1. Fill the grease reservoir per the auto-lube manufacturer's recommendation. The auto-lube system will automatically grease the bearings. Use NLGI 2 grease. The unit is shipped with Nevastane XS 80 Grease.
2. Depress the "Auto-Lube" button until grease fresh comes out of the drip hose.
3. Clean the excess grease from the drip pan.
4. Wipe any build up off of chain with towel and apply lubricant to chain.



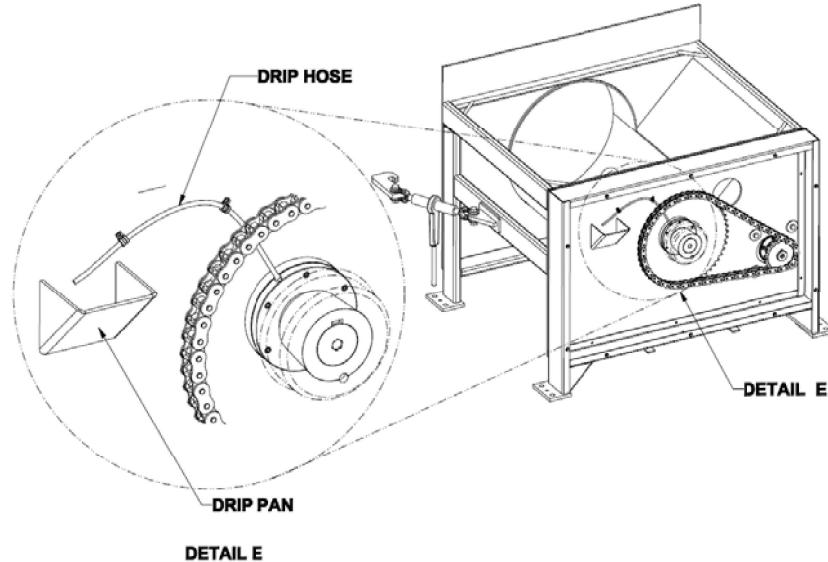
For units not equipped with Auto-Lube systems:

1. Clean the grease fitting. On AST-220 and AST-320 the fitting is located on the right-hand side just above the gearbox. The AST-440 has two grease fittings one on the right-hand side and one on the left-hand side located just above each gearbox.

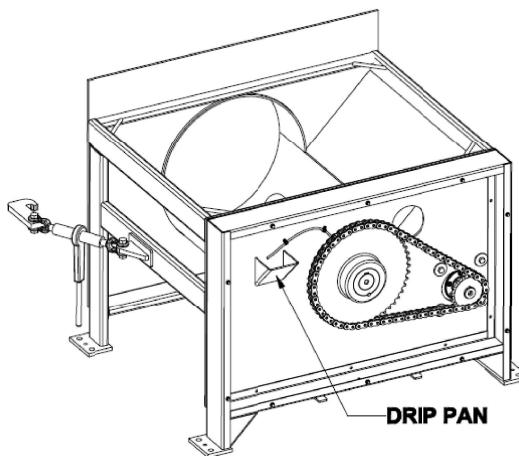


BEARING LUBRICATION (CONTINUED)

2. Add grease to the grease fitting until fresh grease comes out of the drip hose.



3. Clean off grease fitting.
4. Clean out excess grease from drip pan.
5. Wipe any build up off of chain with towel and apply lubricant to chain.



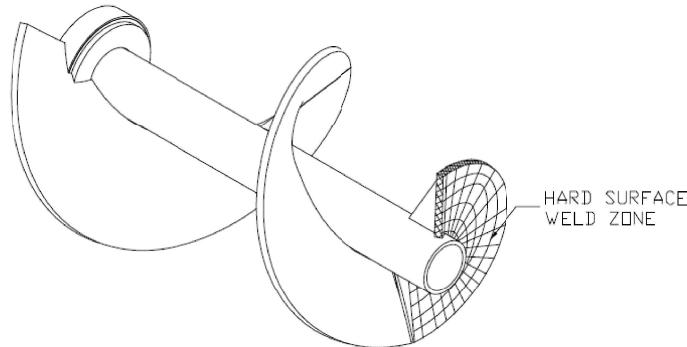
HARD SURFACE WELD

WARNING

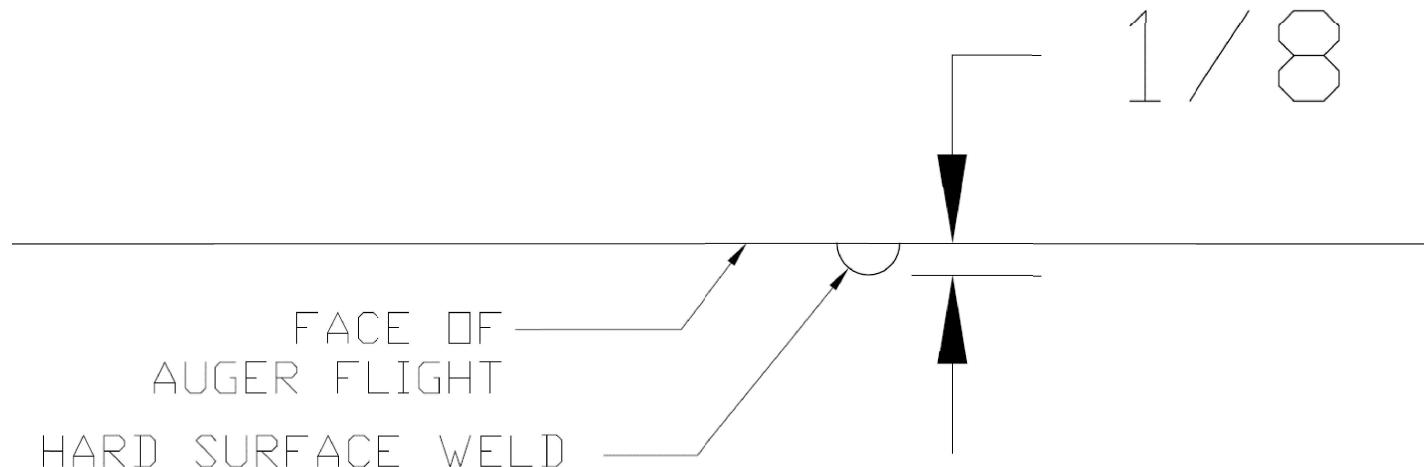
Never enter any part of the compactor until the unit has been Locked-out and Tagged-out.

Inspection:

1. For stationary compactors - separate the compactor and container.
For self-contained compactors – dump compaction container.
2. Clean off the hard surface welded zone of the auger flights.



3. Measure the height of the hard surface weld perpendicular to the auger flight.



4. If the hard-surface weld height is less than 1/8", hard surface material needs to be re-applied.

Hard Surface Weld (Continued)

Hard surface weld wire specification and recommended settings:

GMAW-C (MIG)

- wire Weartech WT-1
- wire diameter .045"
- volts 26-28
- amps 240-260

or

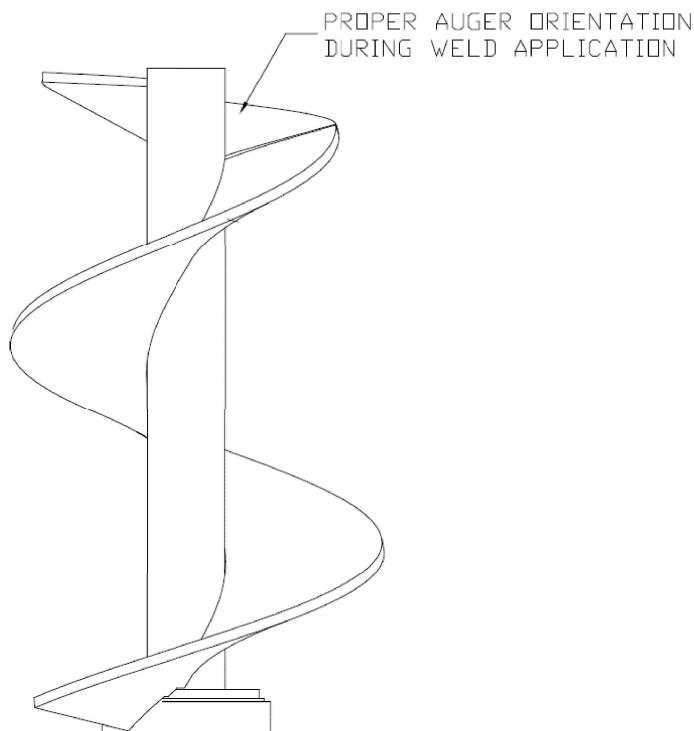
- wire Lincore 60-0
- wire diameter .045"
- volts 25-27
- amps 190-210

SMAW (STICK)

- wire Weartech WT-1
- rod diameter .125"
- voltage dc+
- amps 115-135

Notes:

- Weld surface must be clean and free from all dirt, oil, and debris.
- Welding should be performed in a flat orientation.
- Material may crack during and after the welding process; this is acceptable and expected.



PRINCIPLES OF OPERATION

Standard Operation

Upon start up, a contact is made that energizes the motor starter, starting the electric motor and at the same time energizing T1 timer in the program. When T1 is energized, the auger will turn counterclockwise (forward) for the predetermined amount of time in T1. When T1 timer times out, auger will stop. If auger sees high enough amperage it will reverse causing T2 timer to energize and shift the auger clockwise (reverse). Auger will run in reverse for a predetermined time in T2. When T2 timer times out, the motor starter contact will shift back forward and timer T1 will go for its predetermined time then shut down. If amperage is high every time auger is going forward then after the 6th time the auger will shut down.

AST-220 FUSES AND CIRCUIT BREAKERS

Three Phase					
MOTOR SIZE	VAC	FULL LOAD AMP	DUAL ELEMENT FUSE MAX. SIZE	CIRCUIT BREAKER MAX. SIZE	SERVICE DISCONNECT AMP.
20 HP	208	51.0	100	125	100
	230	48.0	90	125	100
	460	24.0	45	60	60
	575	19.1	35	50	60

AST-220 WIRE SIZES

Three Phase	THW Copper 75°C (165°F)			
MOTOR SIZE	VOLTAGE	LENGTH		
		TO 100'	TO 200'	TO 300'
20 HP	208	4	1	1/0
	230	4	2	1
	460	10	8	6
	575	10	10	8

AST-320 FUSES AND CIRCUIT BREAKERS

Three Phase					
MOTOR SIZE	VAC	FULL LOAD AMP	DUAL ELEMENT FUSE MAX. SIZE	CIRCUIT BREAKER MAX. SIZE	SERVICE DISCONNECT AMP.
20 HP	208	51.0	100	125	100
	230	48.0	90	125	100
	460	24.0	45	60	60
	575	19.1	35	50	60

AST-320 WIRE SIZES

Three Phase		THW Copper 75°C (165°F)		
MOTOR SIZE	VOLTAGE	LENGTH		
		TO 100'	TO 200'	TO 300'
20 HP	208	4	1	1/0
	230	4	2	1
	460	10	8	6
	575	10	10	8

AST-440 FUSES AND CIRCUIT BREAKERS

MOTOR SIZE	VAC	FULL LOAD AMP	DUAL ELEMENT FUSE MAX. SIZE	CIRCUIT BREAKER MAX. SIZE	SERVICE DISCONNECT AMP.
2 X 20 HP	208V	118	150	200	200
	230V	108	150	200	200
	460V	54	70	90	100
	575V	44	60	80	100

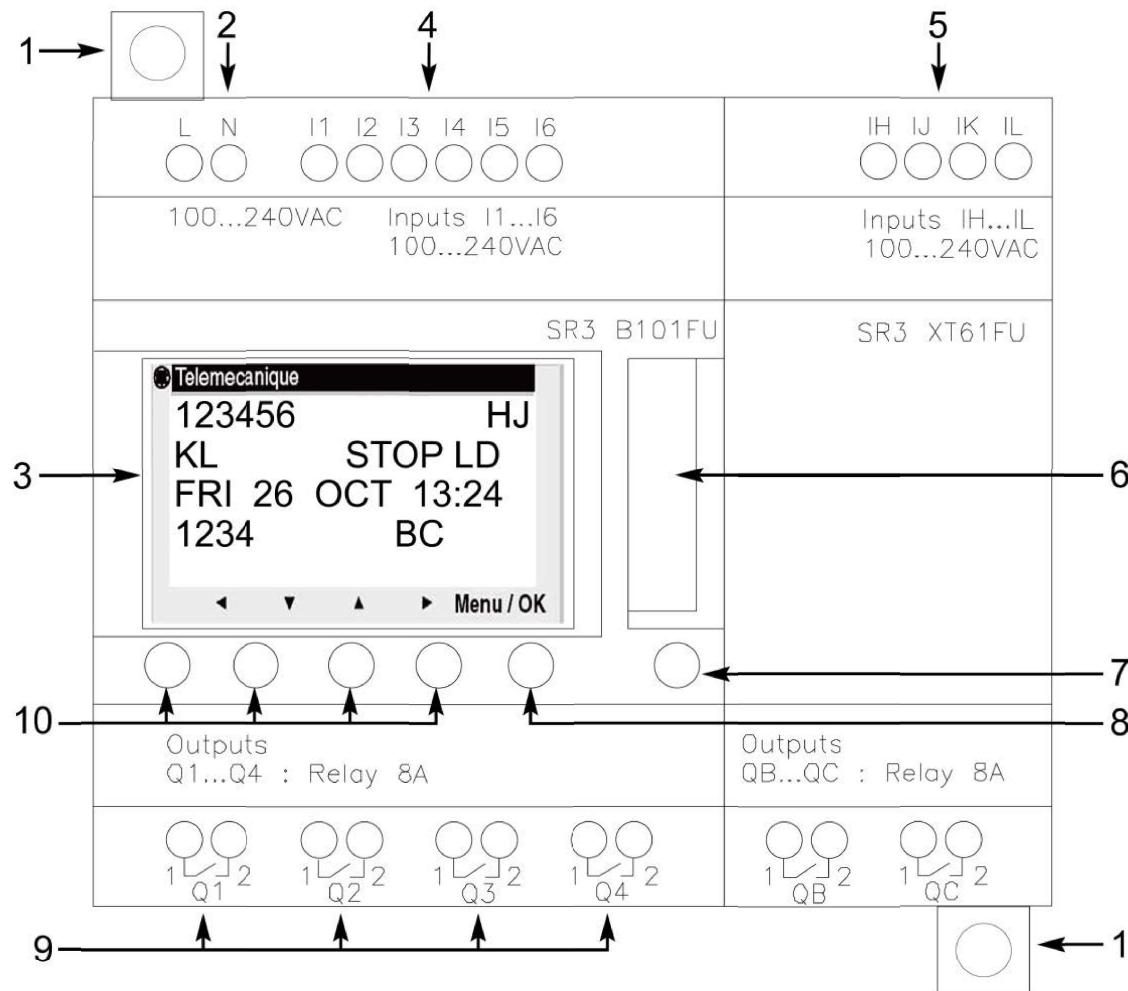
AST-440 WIRE SIZES

MOTOR SIZE	VOLTAGE	LENGTH		
		TO 100'	TO 200'	TO 300'
2 X 20 HP	208V	1/0	3/0	4/0
	230V	1/0	2/0	4/0
	460V	4	4	2
	575V	6	6	4

RamJet® Stationary Auger Compactor Service

42

PLC MAINTENANCE - LAYOUT & DESCRIPTION



REFERENCE	DESCRIPTION
1	RETRACTABLE MOUNTING FEET.
2	SCREW TERMINAL BLOCK FOR THE POWER SUPPLY.
3	LCD, 4 LINES, 18 CHARACTERS
4	SCREW TERMINAL BLOCK FOR INPUTS
5	SCREW TERMINAL BLOCK FOR 0-10 VOLT ANALOG INPUTS USABLE IN DISCRETE MODE ON SOME MODELS
6	CONNECTOR FOR BACKUP MEMORY OR PC CONNECTION CABLE
7	SHIFT KEY
8	SELECTION AND VALIDATION KEY (MENU / OK)
9	RELAY OUTPUT SCREW TERMINAL BLOCK
10	ARROW KEYS OR AFTER FIRST CONFIGURING THEM, Z PUSHBUTTONS

PLC MAINTENANCE - FORWARD/REVERSE TIMER

STEPS	DIRECTIONS
1	PRESS MENU/OK BUTTON
2	PRESS ARROW DOWN BUTTON TO SELECT PARAMETER (SHOULD BE FLASHING)
3	PRESS MENU/OK BUTTON
4	PRESS ARROW UP BUTTON UNTIL TT1 = FORWARD TIMER (FLASHING)
5	PRESS ARROW LEFT BUTTON UNTIL TIME SETTING (FLASHING)
6	PRESS ARROW UP OR ARROW DOWN TO ADJUST TIME*
7	PRESS MENU/OK BUTTON
8	PRESS MENU/OK BUTTON TO CONFIRM CHANGES
9	PRESS ARROW LEFT BUTTON TO RETURN TO TT1 = FORWARD TIMER (FLASHING)
10	PRESS MENU/OK BUTTON TO RETURN TO NORMAL OPERATION

*NOTE: THE TIMER FOR EACH OPERATION WILL BE LISTED ON THE SCHEMATIC.

ELECTRICAL SCHEMATIC

Refer to the electrical schematic shipped with your compactor or contact Marathon Equipment Company's Technical Service Department at 877-258-1105. Be sure to have compactor serial number ready when contacting service.

TROUBLESHOOTING CHART

TROUBLESHOOTING CHART		
PROBLEM	CAUSE	SOLUTION
UNIT WILL NOT START	1. No electrical power to unit	1a. Turn on main disconnect. 1b. Replace fuse or reset breakers.
	2. No electrical power to control circuit	2a. Check primary and secondary sides of transformer. 2b. Check for correct voltage. Check control fuses. 2c. Check stop button. 2d. Check start button to be sure contact closes when depressed.
	3. No electrical power to motor	3a. Check heater resets
UNIT WILL NOT CONTINUE RUNNING WHEN START BUTTON IS RELEASED	1. Motor starter is inoperative.	1a. Check motor starter coil & wiring.
	2. Motor starter auxiliary contacts are inoperative	2a. Check motor starter contacts and wiring
UNIT WILL NOT REVERSE	1. Reverse Motor Starter not energized	1a. Check coil Motor Starter
ERRATIC OPERATION	1. Low voltage	1a. Check primary & secondary sides of transformer for correct voltage.
OVERLOADS TRIP FREQUENTLY	1. Incorrect voltage	1a. Check for correct voltage
	2. Excessive load on motor	2a. Check current transducer and transducer setting. 2b. Check chain and gear box alignment.
	3. Possible problem with motor	3a. Check motor windings for shorted or open windings 3b. Check motor bearings and lubrication
	4. Improper overload setting	4a. Check overload section for correct setting. Adjust as needed 4b. Check overload for correct size
	5. Loose connections	5a. Check all connections on motor starter, overload section, and in motor junction box for loose connections. Tighten as needed
	<p>Note: Excessive overload tripping and/or motor or coil failures may occur if voltage surges or voltage drops are frequent in your area. This circumstance can be remedied by the installation of phase protectors which drop power to the motor if surges are present.</p>	

INTENTIONALLY LEFT BLANK

SECTION 5

REPLACEMENT PARTS

CONTACT INFORMATION



Technical Service and Warranty:

877-258-1105

Parts:

800-528-5308

For parts visit our e-commerce market place at **www.mecomerchant.com**.

If you do not have a user name and password, contact our Parts Department and they will assist with your registration.

Normal Business Hours:

Monday-Friday 8:00am - 5:00pm

(Central Standard Time)

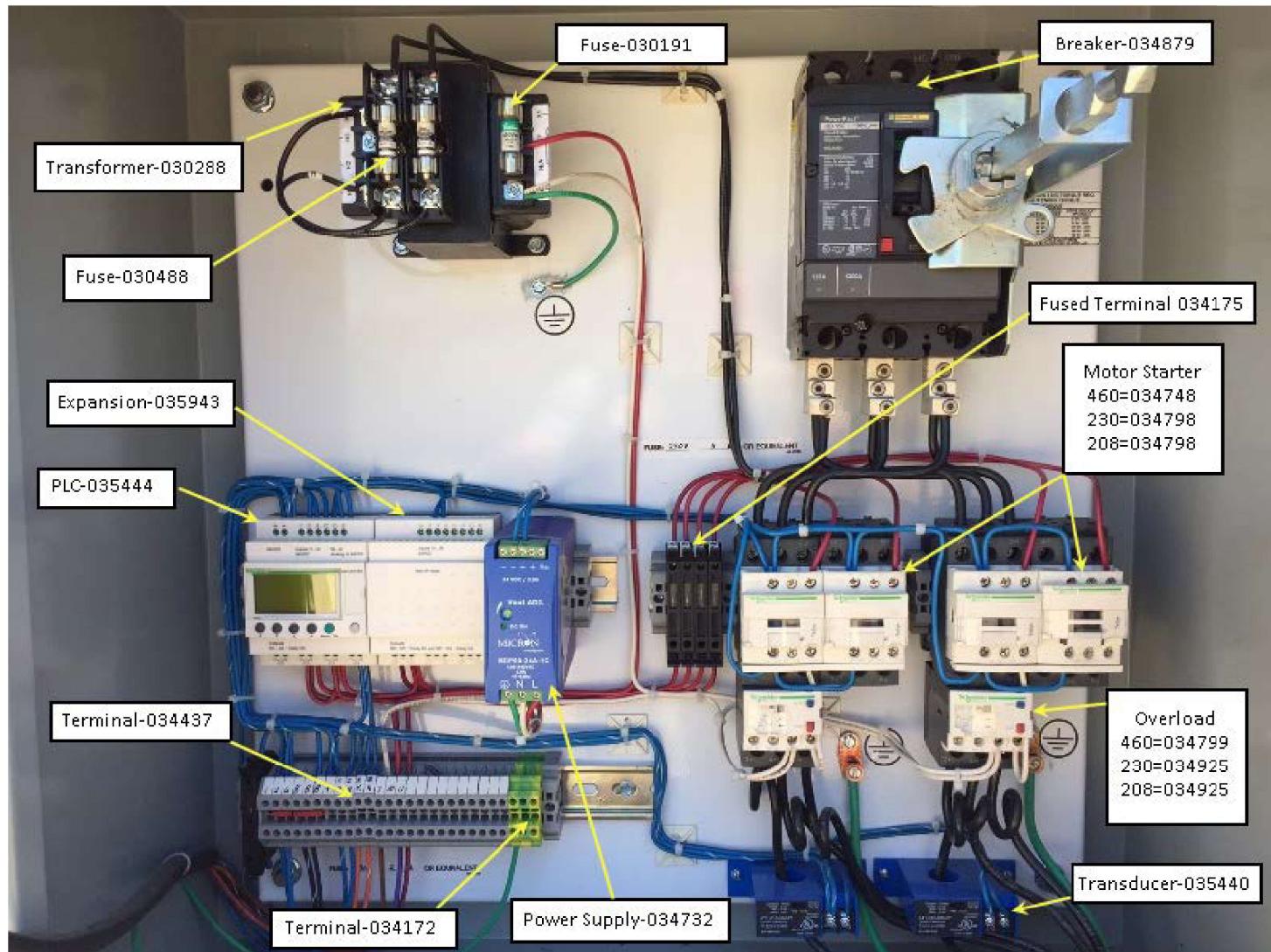
RamJet® Stationary Auger Compactor

Replacement Parts

49

TYPICAL PANEL BOX CONFIGURATION

The diagram below represents a typical panel box configuration for the self-contained compactors. The panel box on your compactor may differ depending on the model and/or optional equipment/controls. Refer to the chart below to identify components. To order replacement parts, please call our Parts Department at 800-528-5308.



DECAL PARTS LIST

WARNING

When your compactor leaves the factory, several WARNING DECALS are installed for your protection. These labels are subject to wear and abuse due to the nature of operation. The FOLLOWING DECALS MUST BE MAINTAINED. Additional decals may be purchased through your distributor or from Marathon Equipment Company by calling the parts department at 800-528-5308.

Note: When ordering replacement decals, use the chart below with the drawing on the next page or look for the part number in the lower right hand corner of the decal.

PART#	DESCRIPTION	QTY
06-0002	RAM-JET	3
06-0038	WARNING: DO NOT REMOVE ACCESS COVER	1
06-0039	DANGER: DO NOT ENTER	3
06-0121	NOTICE: FEDERAL REGULATION	2
06-0249	DANGER: HAZARDOUS VOLTAGE	1
06-1839	AMERICAN FLAG	3
06-3123	DANGER: CONFINED SPACE	3
06-0097	COMPACTOR SERIAL PLATE	1
06-3976	WARNING: ARC FLASH HAZARD	
06-3977	WARNING: DO NOT OPERATE	2
06-3978	DANGER: DO NOT OVERRIDE	2
06-0133	WARNING: KEEP OFF	2
06-2751	"MARATHON COMP & RECYCLING" DECAL	2
06-3044	DANGER VOLTS	
06-0040	DANGER: CRUSHING HAZARD ... KEEP OUT ****	
06-3333	NOTICE: IN THE EVENT OF FIRE ****	
06-0052	DANGER: GATE MUST BE CLOSED ****	

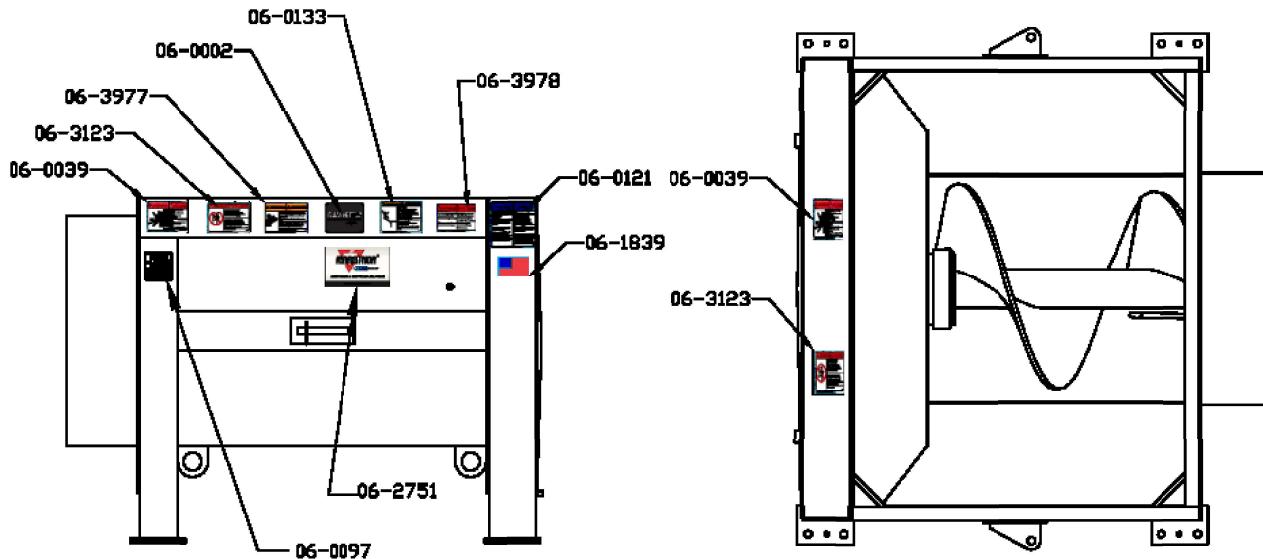
*** ONLY ON UNITS WITH SIDE MOUNT PPK
**** ONLY ON OPTIONAL LOADING CONFIGURATIONS. SEE DECAL PLACEMENT FOR OPTIONAL LOADING CONFIGURATIONS ⁵².

RamJet® Stationary Auger Compactor

Replacement Parts

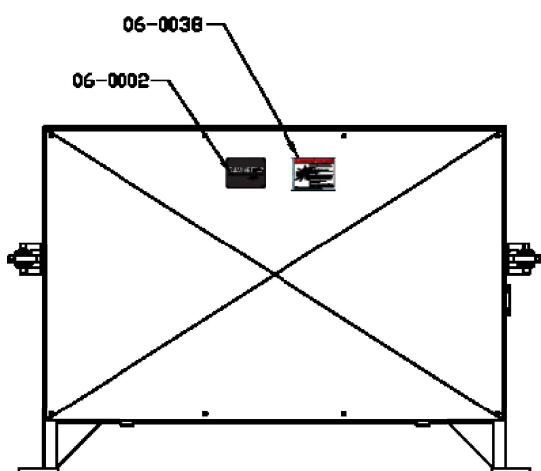
51

DECAL PLACEMENT

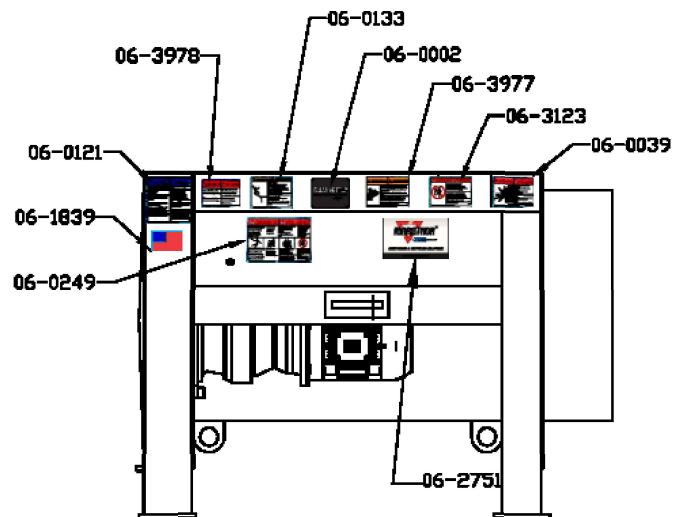


LEFT SIDE VIEW

TOP VIEW



REAR VIEW



RIGHT SIDE VIEW

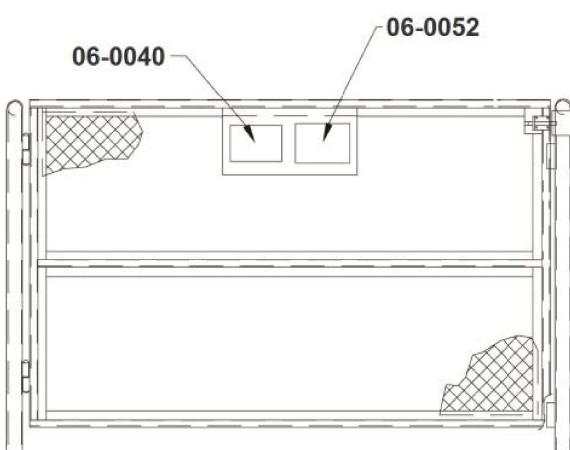
RamJet® Stationary Auger Compactor

Replacement Parts

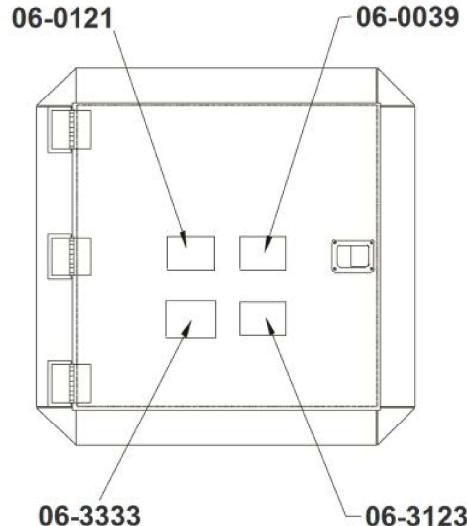
52

DECAL PLACEMENT FOR OPTIONAL LOADING CONFIGURATIONS

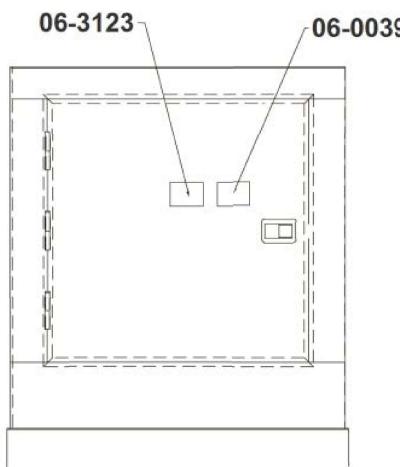
In addition to the standard decal placement, the following decals shown below need to be maintained on any optional loading configurations installed with your horizontal compactor. Match the reference numbers with the decals listed on the **Decals** chart. Since quantities vary by installation, it is best to record the quantity of each of these decals at the time of installation for future reference.



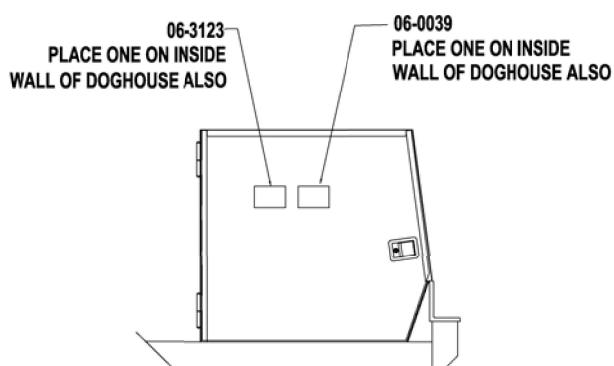
ACCESS GATE



SECURITY
DOOR



REAR FEED DOGHOUSE



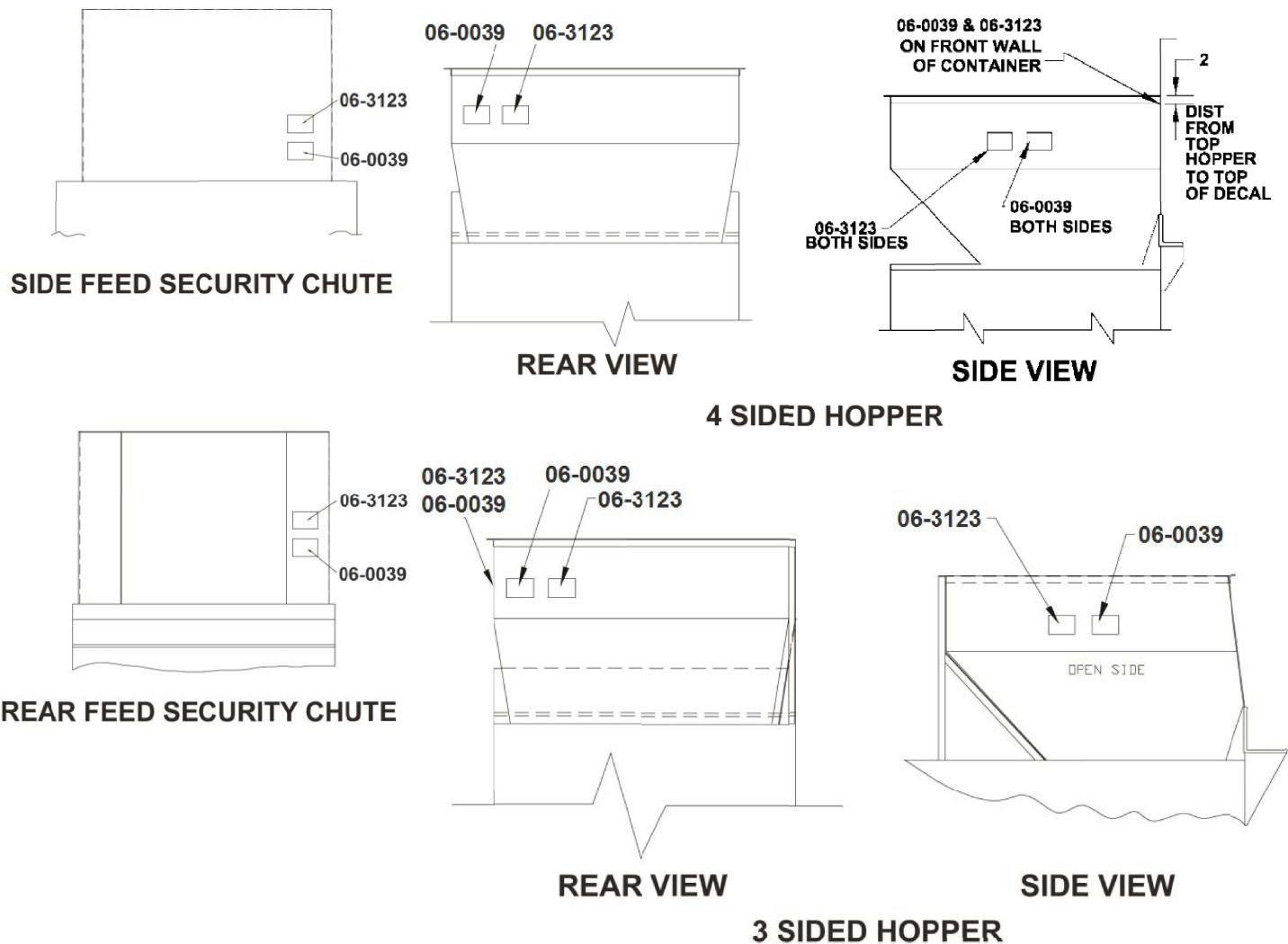
SIDE FEED DOGHOUSE

RamJet® Stationary Auger Compactor

Replacement Parts

53

DECAL PLACEMENT FOR OPTIONAL LOADING CONFIGURATIONS (CONTINUED)



RamJet® Stationary Auger Compactor

Replacement Parts

54

DECAL IMAGES

06-0038



06-0039



06-3044



06-0052



06-3978



06-0040



06-0249



06-3123



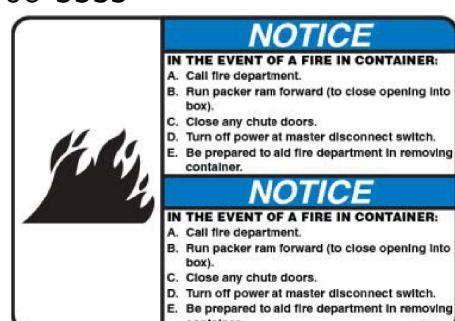
06-0133



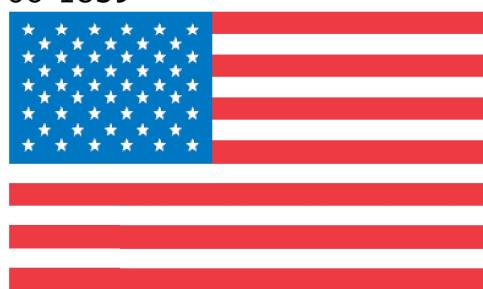
06-3977



06-3333



06-1839



RamJet® Stationary Auger Compactor

Replacement Parts

55

06-0038



06-0039



06-3044



06-0002



06-2751



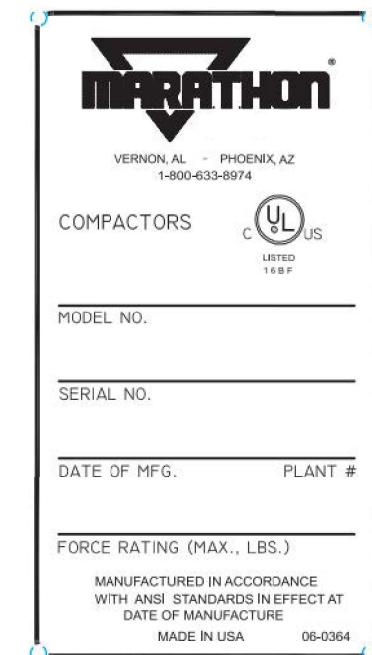
06-0121

NOTICE	AVISO
<ul style="list-style-type: none"> Federal law prohibits operation of equipment by persons under 18 years of age. Machine may only be loaded and operated by persons who have been authorized and properly trained. U.S. Department of Labor age restrictions apply. The key in the "ON-OFF" switch must be turned to the "OFF" position and removed when this equipment is NOT in operation. The key is to remain in the custody of persons 18 years and older. 	<ul style="list-style-type: none"> Las leyes federales prohíben que personas menores de 18 años de edad operen los equipos. Las personas que han sido autorizadas y debidamente entrenadas son las únicas que pueden cargar y operar la máquina. Sujeta a las restricciones de edad del Departamento del Trabajo de Estados Unidos. La llave en el interruptor "ON-OFF" (ENCENDIDO/APAGADO) se debe girar a la posición "OFF" (APAGADO) y retirarla cuando este equipo no está en funcionamiento. La llave debe permanecer bajo el cuidado de personas mayores de 18 años.

06-0413



06-0097



06-3976

RamJet® Stationary Auger Compactor

Replacement Parts

56

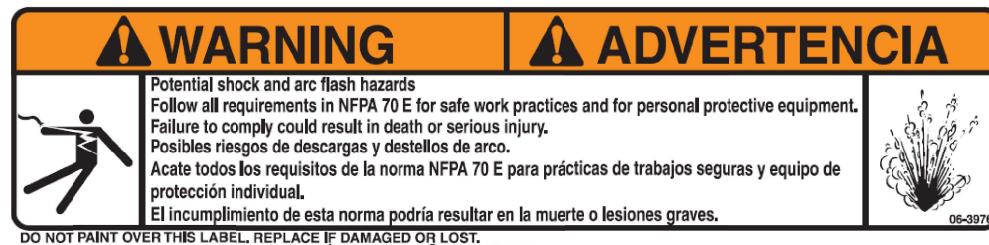
06-0038



06-0039



06-3044



RamJet® Stationary Auger Compactor

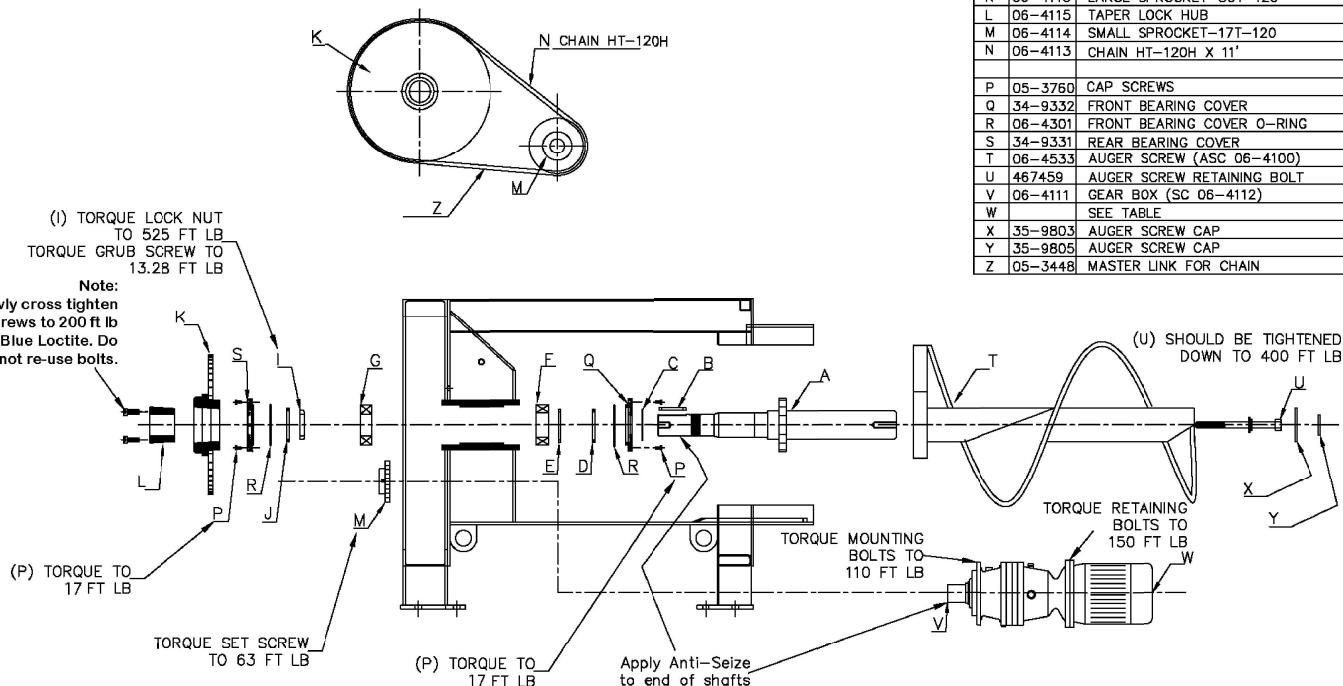
Replacement Parts

57

AST-220 SPARE PARTS

AUGER MOTORS			
MOTOR	460V	575V	208V
15kw - 20 hp	462212	462213	462211

AST-220 SPARE PARTS LIST		
REF	PART #	PART DESCRIPTION
A	462721	MAIN SHAFT
B	35-5235	MAIN SHAFT KEY
C	06-4107	FRONT BEARING COVER RING SEAL
D	06-4135	FRONT BEARINGS SEAL-CR49998
E	06-4136	FRONT BEARING SEAL-CR50070
F	06-4131	FRONT BEARING
G	06-4132	REAR BEARING
I	06-4134	LOCK NUT KMFE20
J	06-4104	REAR COVER SEAL-H606-NB1
K	06-4115	LARGE SPROCKET-50T-120
L	06-4115	TAPER LOCK HUB
M	06-4114	SMALL SPROCKET-17T-120
N	06-4113	CHAIN HT-120H X 11'
P	05-3760	CAP SCREWS
Q	34-9332	FRONT BEARING COVER
R	06-4301	FRONT BEARING COVER O-RING
S	34-9331	REAR BEARING COVER
T	06-4533	AUGER SCREW (ASC 06-4100)
U	467459	AUGER SCREW RETAINING BOLT
V	06-4111	GEAR BOX (SC 06-4112)
W	SEE TABLE	
X	35-9803	AUGER SCREW CAP
Y	35-9805	AUGER SCREW CAP
Z	05-3448	MASTER LINK FOR CHAIN



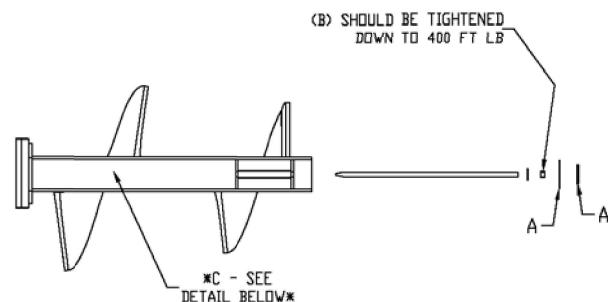
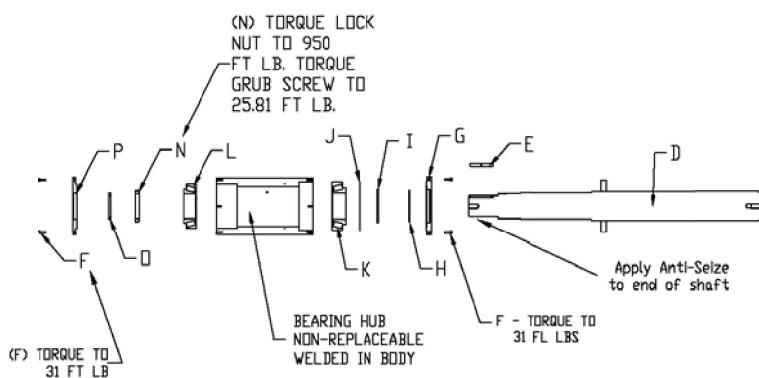
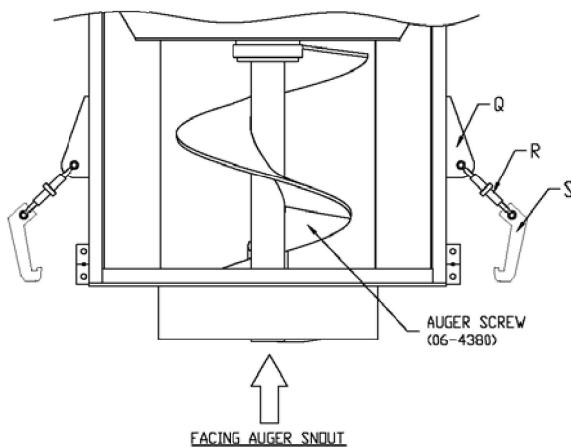
RamJet® Stationary Auger Compactor

Replacement Parts

58

AST-320 SPARE PARTS LISTS

AST-320 DRIVETRAIN PARTS LIST		
	PART NUMBER	PART DESCRIPTION
A	35-9804 & 35-9805	AUGER SCREW CAPS
B	467465	AUGER SCREW RETAINING BOLT
C	06-4380	AUGER SCREW
D	463414	MAIN SHAFT
E	35-3584	MAIN SHAFT KEY
F	05-4134	CAP SCREWS
G	35-3109	FRONT BEARING COVER
H	06-4282	FRONT BEARING COVER RING SEAL
I	06-4257	FRONT BEARING COVER SEAL
J	06-4262	FRONT BEARING O-RING
K	06-4255	FRONT BEARING
L	06-4256	REAR BEARING
N	06-4261	LOCK NUT
O	06-4258	REAR BEARING COVER SEAL
P	35-3110	REAR BEARING COVER
Q	35-6341	PINNING EAR
R	05-5031	RATCHET
S	09-1089	RATCHET CLAW



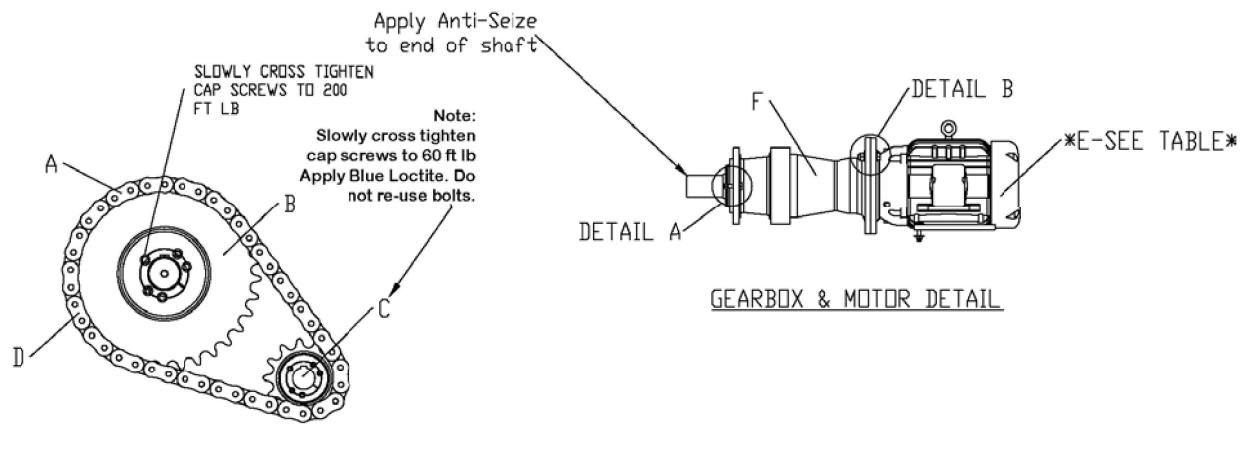
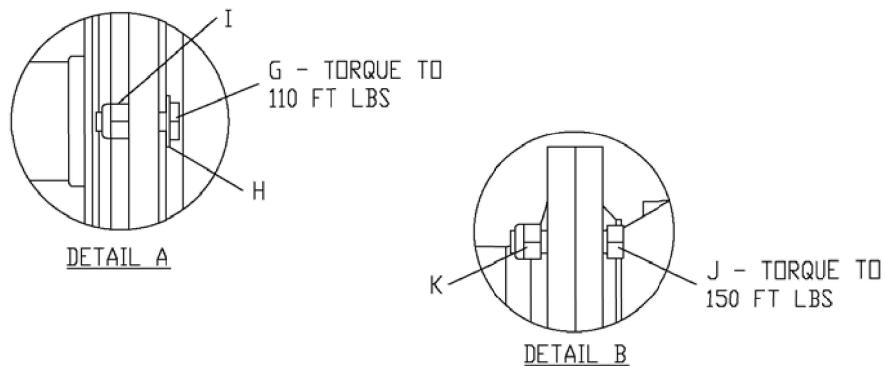
RamJet® Stationary Auger Compactor

Replacement Parts

59

AST-320 SPARE PARTS LISTS (CONTINUED)

AST-320 SPARE PARTS LIST		
	PART NUMBER	PART DESCRIPTION
A	06-4259	AUGER CHAIN
B	06-4252	LARGE SPROCKET
C	06-4253	SMALL SPROCKET
D	05-5640	CHAIN MASTER LINK
E	462211	208V MOTOR
	462212	230/460V MOTOR
	462213	575V MOTOR
F	06-4254	GEARBOX
G	05-0273	BOLT
H	05-0052	WASHER
I	05-0018	NUT
J	05-0547	BOLT
K	05-2301	NUT



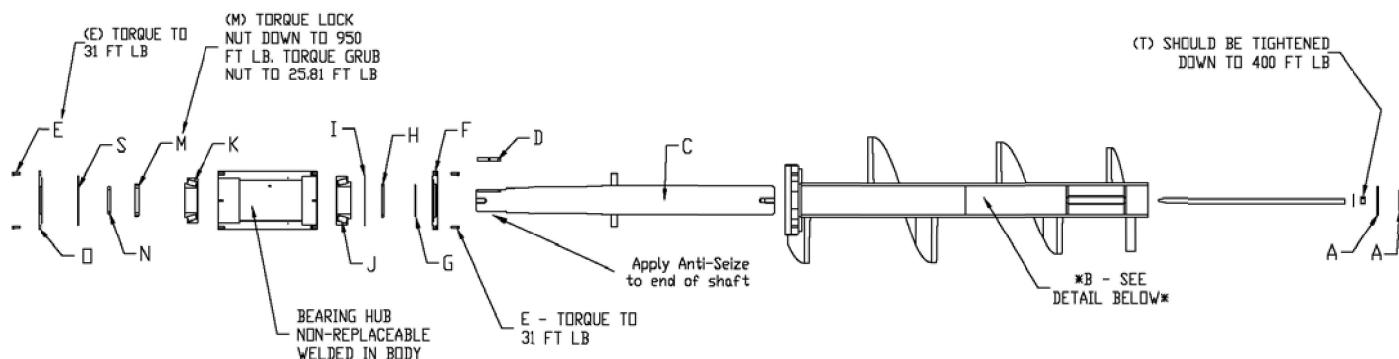
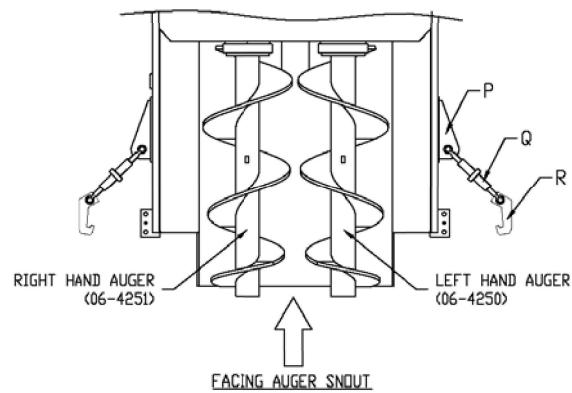
RamJet® Stationary Auger Compactor

Replacement Parts

60

AST-440 SPARE PARTS LISTS

AST-440 DRIVETRAIN PARTS LIST	
	PART DESCRIPTION
A	35-9804 & 35-9805 AUGER SCREW CAP
B	06-4250 LEFT HAND SCREW
	06-4251 RIGHT HAND SCREW
C	458176 MAIN SHAFT
D	35-3584 MAIN SHAFT KEY
E	05-4134 CAP SCREWS
F	35-3109 FRONT BEARING COVER
G	06-4282 FRONT BEARING COVER RING SEAL
H	06-4257 FRONT BEARING COVER SEAL
I	06-4262 FRONT BEARING O-RING
J	06-4255 FRONT BEARING
K	06-4256 REAR BEARING
M	06-4261 LOCK NUT
N	06-4258 REAR BEARING COVER SEAL
O	35-3110 REAR BEARING COVER
P	35-6341 PINNING EAR
Q	05-5031 RATCHET
R	32-9403 RATCHET CLAW
S	06-4281 REAR BEARING COVER O-RING
T	467466 AUGER SCREW RETAINING BOLT



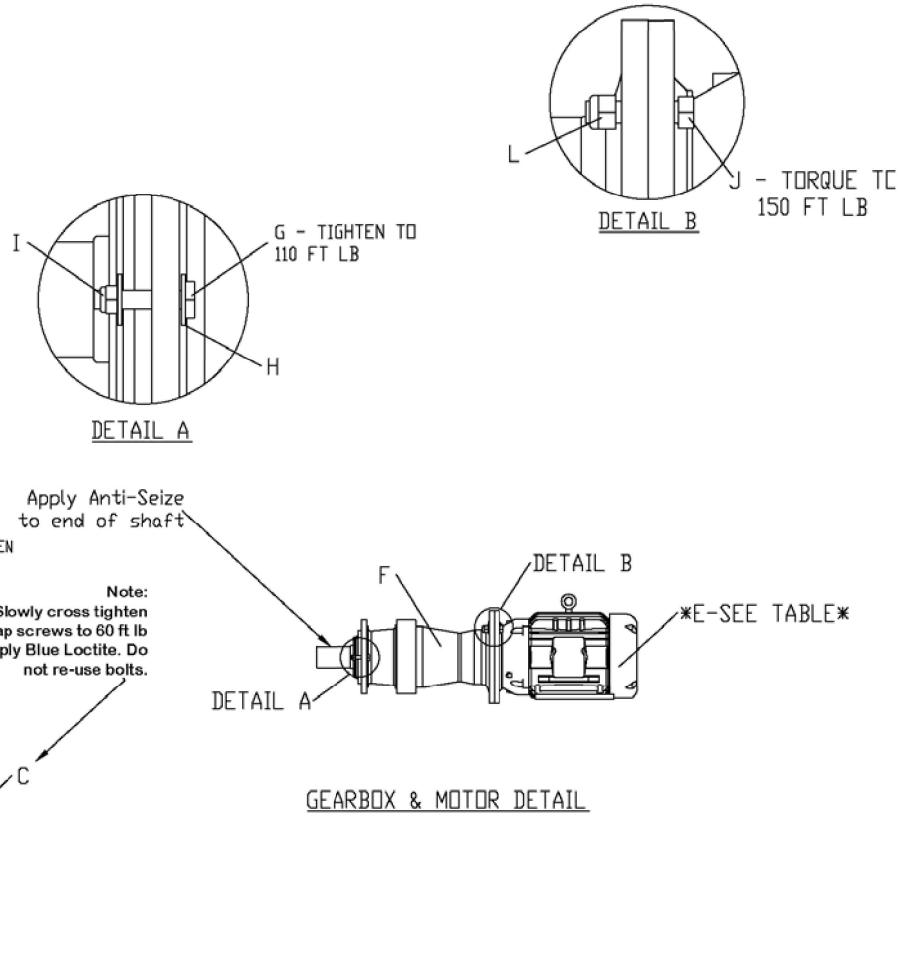
RamJet® Stationary Auger Compactor

Replacement Parts

61

AST-440 SPARE PARTS LISTS (CONTINUED)

AST-440 SPARE PARTS LIST		
	PART NUMBER	PART DESCRIPTION
A	06-4259	AUGER CHAIN
B	06-4252	LARGE SPROCKET
C	06-4253	SMALL SPROCKET
D	06-4432	CHAIN MASTER LINK
E	03-7273	208V MOTOR
	03-6922	230/460V MOTOR
	03-6902	575V MOTOR
F	06-4254	GEARBOX
G	05-0273	BOLT
H	05-0052	WASHER
I	05-0018	NUT
J	05-0547	BOLT
L	05-2301	NUT



INTENTIONALLY LEFT BLANK

RamJet® Stationary Auger Compactor

INDEX

63

A

anchoring 15

C

chute-fed installation 16
concrete pad requirements 15
contact information 14, 20, 26, 48
container guides 16

D

decal care 9
decal images 54
decal placement 51
decal placement for optional loading configuration 52
decals parts list 50
Distance of nozzle to decal: 15" minimum 9
Do not allow fuels to stay in contact with the decal for an extended period of time. Remove the fuel contamination as quickly as possible 9
Do not use a mechanical brush while washing the decals. 9
Do not use carnauba-based wax over the decals 9
Do not use sharp angles to clean the decals – this can lift the decals from the unit. 9
dock installation 16

E

electric schematic 44
electrical installation 17
electrical symbols 11

F

Following these instructions helps the decals adhere longer. 9
forward/reverse timer 43
Fuses, Circuit Breaker, & Wire Size Charts 40

G

General Instructions 9
grease lubrication recommendation 8
grounding instructions 17
guards and access covers 8

I

If these methods do not work on a problem area, call a Marathon Equipment Company Dealer or Marathon Equipment Company Customer Support. 9

introduction 4

It is important that the decals are properly cleaned to make sure that they are readable and do not come off the unit. Use the following steps to clean the decals. 9

L

Length of time: not more than 30 sec. 9
Let the unit air-dry or dry with a micro-fiber cloth 9
lock-out/tag-out instructions 6

M

maintenance schedule form 30

N

NEVER use a "turbo pressure nozzle". 9

O

operating instructions 22
operating instructions for models with photoelectric cycle controls 23
optional controls 24

P

periodic maintenance 27
plc maintenance layout & description 42
preface 5
pre-operation instructions 21
Pressure Washer Precautions 9
Pressure washing can cause damage to decals. It can cause the edges of the decals to lift and peel the decal away from the unit. Over time, the decal can fade, crack or chip away. 9
principles of operation 40

R

recommended oils for gearbox 8
regenerative operation 40
remote power pack installation 17
Remove Difficult Debris 9
replacement parts 47
Rinse with clean water 9

RamJet® Stationary Auger Compactor

INDEX

64

S

- safety symbols and definitions 5
- service/parts assistance 8
- spare parts lists 57
- Spot clean the decal with Isopropyl Alcohol and a micro-fiber cloth (rag) 9
- Spray angle: 65° from vehicle's body 9
- Spray nozzle opening: 40° wide pattern 9
- standard control panel 22
- standard operation 40
- steel installation procedures 16

T

- troubleshooting chart 45
- typical panel box configuration 49

U

Use pressure washing only when other cleaning methods are not effective. If you use a pressure washer, use the following precautions. 9

W

- warning decals on the unit 9
- Wash the decals with a blend of mild car wash detergent and clean water 9
- Water pressure: less than or equal to 800 psi 9
- When normal cleaning procedures do not remove difficult debris from the decals, try the following: 9



www.marathonequipment.com

Customer Care:
800-633-8974

Parts Central:
800-528-5308
www.mecomerchant.com

Technical Service and Warranty:
877-258-1105

Customer Support:

Marathon Equipment Company
P.O. Box 1798
Vernon, AL 35592-1798