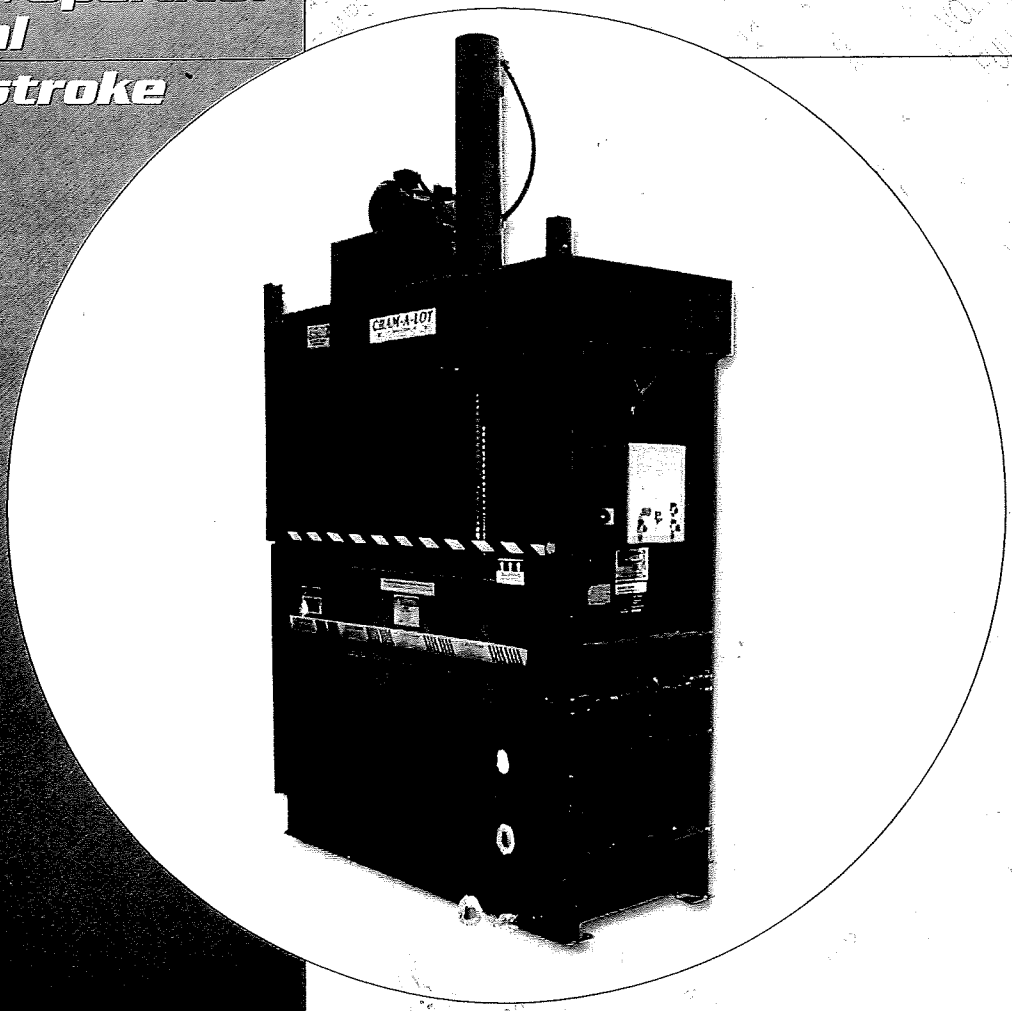
CRAM-A-LOT®

J.V. Manufacturing, Inc.

Owner/Operator Manual Downstroke Baler



"Equipping The World For A Better Environment"

Models: DB-42, DB-60, DH-60, DX-60, DB-72, DH-72, & DX-72

DB60F303

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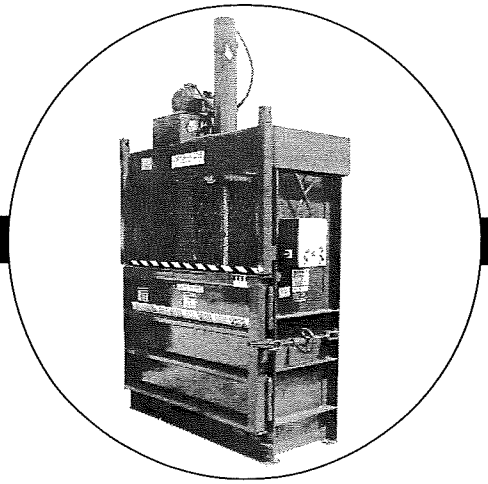


WASTEC
WASTE EQUIPMENT TECHNOLOGY ASSOCIATION

Corporate
701 HWY 265-S • Springdale, AR 72765-0229
800-678-7320 • 501.751.7320 • Fax: 501-751-7774

www.cram-a-lot.com

Cram-A-Lot® West
1501 Weyand Ave. • Sacramento, CA 95828
888.431.3094 • 916.381.1600 • Fax: 916.381.6400

INTRODUCTION

Congratulations on the purchase of a ***CRAM-A-LOT®*** baler. This baler is designed to provide safe, trouble-free operation for many years. All ***CRAM-A-LOT®*** balers meet and exceed A.N.S.I. Z245.5 safety standards for baler machines.

This Owners Manual is presented to give the owner and/or operator the necessary information to properly and safely operate the baler. It also provides information for routine maintenance and trouble-shooting.

If, after thoroughly reading this manual, there are questions about the operation or repair of the baler, call ***J.V. MANUFACTURING, INC.*** at 1-800-754-4290. Ask to speak with one of our service staff and he/she will be glad to answer any questions. Our customer support hours are 7:00 a.m. - 5:30 p.m. CST Monday - Friday and 8:00 a.m. - 12:00 p.m. CST on Saturday. You can also address questions via e-mail to **service@jv.com**.

WARRANTY

TERM

Unless terminated as hereinafter provide, this warranty shall continue in full force for a period of one year, and shall govern all transactions between the parties hereto following the completion of installation of the product at the end user's facility, and evidenced by a signed and dated installation report and warranty registration returned to J.V. Manufacturing, Inc. If no registration card is remitted or the installation is not provided by the factory, the warranty period shall be considered to start on the date of shipment.

LIMITED WARRANTY

As limited herein, the ***CRAM-A-LOT®*** products (the "goods") you have purchased are warranted by J.V. Manufacturing, Inc. ("seller") to be free of all defects in material and workmanship. This warranty does not apply to any defects caused by negligence, misuse, modifications, alterations, or accidents by purchaser or third parties.

Seller's liability under warranty shall be limited to the repair and replacement of parts and the necessary labor and services required to repair the goods and shall be in lieu of any other remedy available under applicable law and shall not to exceed the purchase price of the goods. IT IS EXPRESSLY AGREED THAT THIS WARRANTY WILL BE IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED, OF FITNESS AND IN LIEU OF THE WARRANTY OF MERCHANTABILITY, AND ALL SUCH OTHER WARRANTIES ARE HEREBY REVOKED AND DISCLAIMED.

- Seller neither assumes nor authorizes any representative or person to assume for seller any other liability in connection with the sale or shipment of our products.
- Seller reserves the right to make changes or improvements in our products without notice and without incurring any obligation to prospective customers.
- Seller reserves the right to make changes or improvements in our products without incurring any obligation to similarly alter products previously purchased.
- Except in the case of damages or defect attributable to the Seller, Buyer shall not make any claim against Seller for any damaged or defective product or part.
- If Seller breaches or repudiates this contract, Buyer shall not be entitled to recover any incidental damages as that term is defined in the Uniform Commercial Code.
- If Seller breaches or repudiates this contract, Buyer shall not be entitled to any consequential damages as defined in the Uniform Commercial Code.
- Seller does not warrant that any product purchased shall conform to: (1). any affirmation of fact or promise relating to it, or (2). any description of it. No affirmation, promise, or description relating to any product purchased shall be deemed part of the basis of the parties bargain.
- No agent, employee, or representative of Seller has any authority to bind Seller to any affirmation, representation, or warranty concerning the goods sold under this contract, and unless an affirmation, representation, or warranty made by agent, employee, or representative is specifically included within this contract, it will not be enforceable by Buyer.

ITEMS NOT COVERED

Seller waives the standard warranty on the following components and systems: Downstroke Baler bale ejection system - to include dump rods, dump handles, dump trays and associated components; Sonozaire hoses and fittings; Broken or lost machine keys; Lift-up door systems; Loading door handles; Broken or bent limit switch arms; Maladjusted or dirty photo-electric eyes and reflectors; All fuses and thermal / voltage / current limiting devices; Guide islands, wheel-stops, and anchor bolts; Container nose rollers.

RETURN OF PRODUCTS OR SERVICE PARTS FOR REPAIR OR CREDIT

Unless Seller shall have authorized or permitted the return of any products or parts, in writing, or by phone with Return Material Authorization Number assigned by J.V. Manufacturing, Inc. to the specified product or parts, seller shall not be obligated to accept from Buyer any products or parts returned, nor to make any exchange thereof, nor to credit Buyer therefor.

WARRANTY

NOTICE OF CLAIMS

A) Buyer must notify Seller immediately by phone or writing, or fax, of any defect, malfunction, or nonconformity after he or she knows or has reason to know the basis of any claim, and in no event more than ten days thereafter. Within 24 hours after receiving notice from the buyer, Seller will authorize repair or replacement of the defective part.

(1) J.V. Manufacturing, Inc., at its sole discretion, will have the option to make repairs or authorize a distributor or third party to make repairs. *(2)* All claims for repairs must be accompanied with a Warranty Job Order Number. Failure to obtain a Job Order Number will relieve Seller from all liability.

B) Failure to give the notice prescribed by Subsection shall relieve the seller from all liability on any claim in respect to any transaction growing out of this warranty.

C) The provisions of this shall survive the termination of any other portions of this warranty.

COMMON CARRIERS AGENTS OF DISTRIBUTOR

Whenever Seller shall deliver or cause to be delivered to a common carrier any goods ordered by Buyer, whether the particular carrier shall have been designated in the shipping or routing instructions of the Buyer or not, Seller shall not be responsible for any delays or damages in shipment and the common carrier, to which Seller shall deliver goods shipped to the Buyer, is declared to be the agent of the Buyer.

COMPLETENESS OF INSTRUMENT

This instrument contains all of the agreements, understandings, representations, conditions, warranties, and covenants made between parties hereto. Unless set forth herein, neither party shall be liable for any representations made, and all modifications and amendments hereto must be in writing.

NO IMPLIED WAIVERS

The failure of either party at any time to require performance by the other party of any provision hereof shall not affect in any way the full right to require such performance at any time thereafter. Nor shall the waiver by either party of a breach of any provision hereof be taken or held to be a waiver of the provision itself.

CONTROLLING LAW

The validity, interpretation, and performance of this warranty shall be controlled by and construed under the laws of the State of Arkansas, the state in which this warranty is being executed. It is understood, however, that this is a general form of warranty, designed for use in the United States wherever the Seller may desire to sell its products and that any provision herein which in any way contravenes the laws of any state or jurisdiction shall be deemed not to be a part of this warranty therein.

BUYER NOT AN AGENT

This warranty does not constitute the Buyer as the agent or legal representative of the Company, or the Company as the agent or legal representative of the Buyer for any purpose whatsoever. Neither party is granted any express or implied right or authority by the other party to assume or create any obligation or responsibility on behalf of or in the name of the other party, or to bind the other party in any manner or thing whatsoever.

FINALITY OF THIS WRITING

The parties intend this document to be the final expression of their agreement and it is intended also as a complete and exclusive statement of the terms of their agreement. No course of prior dealing between the parties and no usage of the trade shall be relevant to supplement or explain any term used in this document. Acceptance or acquiescence in a course of performance rendered under this document shall not be relevant to determine the meaning of this contract even when the accepting or acquiescing party has knowledge of the nature of the performance and opportunity for objection.

PRE-OPERATION

The ***CRAM-A-LOT***® Downstroke Baler requires up to132 square feet of clear floor space for proper installation and operation. (11'x12') This space should always be kept clear of materials which could interfere with the safe operation of the compactor. WARNING: Material can fall into the bale chamber between the rear supports of the baler, wedge under the platen and turn the baler over onto it's front. Damage to the compactor and injury to personnel can result. ALWAYS keep this area clean.

POSITIONING

Position the downstroke baler so that sufficient room is available for proper and safe operation. The baler should be placed no less than 24 inches from any structure to allow room to insert wires and tie off the bale. Also, enough room in front of the baler must be present to allow the chamber door to swing fully open so the finished and tied bale can be ejected.

ANCHORING

J.V. recommends mounting the baler on a pad of steel reinforced concrete with a minimum 3000psi capacity. The pad should be at least 4 inches deep. The compactor should be anchored to the pad with 4 anchor bolts. (3/4"x5 1/2") To allow for construction variances, the holes should be drilled after locating the baler in the desired position.

ELECTRICAL

A lockable fused disconnect switch (customer furnished) must be installed within 50 feet, and in line of sight of the compactor electrical enclosure. This disconnect must be sized in accordance with the compactor motor and voltage.

MOTOR	VOLTAGE	DISCONNECT	THERMAL OVERLOADS
7.5HP 1PH	240vac	60amp	LR2D3357@40a
10HP	208vac	60amp	LR2D2353@32.2a
10HP	240vac	60amp	LR2D2353@28a
10HP	480vac	30amp	LR2D1321@14a
10HP	575vac	30amp	LR2D1321@11a
15HP	208vac	60amp	LR2D3357@48.3a
15HP	240vac	60amp	LR2D3357@42a
15HP	480vac	30amp	LR2D1322@21a
15HP	575vac	30amp	LR2D1322@17a

Fig 1.1 Motor Voltage

VOLTAGE	H1	H2	H3	H4
208vac	X	X		
240vac	X		X	
480vac	X			X

Fig 1.2 Transformer Wiring

HYDRAULIC

Check for any hydraulic oil leaks and make sure that all hoses are tight.

NOTE: The non-ventilated cap (on the hydraulic tank) must be replaced with the ventilated cap before the baler is started. The ventilated cap is shipped inside the electrical control panel.

COMPLETION AND FINAL CHECK

Touch up paint as required. Make sure all appropriate safety decals are present and in their proper locations. Check that the compactor motor is wired for the correct voltage. Check that the motor starter has the correct thermal overloads for the installed voltage. Check that the transformer is wired correctly for the installed voltage. Starting and adhering to a comprehensive preventative maintenance program will ensure and extend the trouble-free operation of the baler. Particular attention should be given to the hydraulic system, as it will extend the life of the baler.

MAINTENANCE

Starting and adhering to a comprehensive preventative maintenance program will ensure and extend the trouble-free operation of the baler. Particular attention should be given to the hydraulic system, as it will extend the life of the baler.

HYDRAULIC

INITIAL CHECK OUT

- ○ Check for proper oil level with the cylinder fully retracted.
- ○ Check all hydraulic lines and hoses for leaks.
- ○ Replace the non-vented tank cap with the vented-cap.
- ○ Make sure the platen is in the fully retracted (up) position.

60 DAY CHECK UP

- ○ Check for proper oil level with the cylinder fully retracted
- ○ Check all hydraulic lines and hoses for leaks.
- ○ Check for proper system operating pressure and cycle time.

NOTE: It is critical to the operation of the baler that all foreign matter be kept from the hydraulic fluid.

ELECTRICAL

INITIAL CHECK OUT

- ○ Check limit switch for proper mounting operation.
- ○ Check motor wiring and voltage.
- ○ Check for proper motor rotation. (clockwise at fan)
- ○ Check motor starter thermal overload selection and voltage.
- ○ Check modes of operation.

60 DAY CHECK UP

- ○ NONE

ROUTINE MAINTENANCE

EACH MONTH

Clean any loose material from on top of the platen.

EACH SIX MONTHS

Check for hydraulic fluid leaks.
Clean suction strainer and air filter vent (every 6 months or 2000 hours of operation).

EACH YEAR

Check for proper oil level.
Change oil filter.

EMERGENCY OPERATION

Should an emergency occur while operating the baler, press the RED STOP BUTTON and the baler will terminate all functions and shut down. ***EVERYONE AUTHORIZED TO OPERATE THE BALER SHOULD KNOW THIS EMERGENCY PROCEDURE.***

⚠ CAUTION

IMPORTANT: READ BEFORE OPERATING THE BALER.

CRAM-A-LOT® balers meet and exceed all safety standards set by A.N.S.I. Although J.V. Manufacturing has included many safety features in the design and construction of the baler, safe operation of the equipment depends on the operator's adherence to certain guidelines. To prevent accidents to personnel or damage to the baler, the operator ***MUST NEVER VIOLATE ANY OF THE FOLLOWING SAFETY PRECAUTIONS***. It is the client's responsibility to ensure these guidelines are known and followed by all operators of the baler.

NOTE: Publication of these safety precautions does not imply or represent an inclusive list.

NEVER place hands or arms in the baler while it is operating.

NEVER climb in or on the baler, nor perform any maintenance/repairs unless the power is disconnected and locked out.

NEVER allow anyone except qualified electrical or hydraulic repair persons to work on the equipment.

NEVER disable any safety switch.

NEVER try to operate the baler with the chamber door open.

NEVER overload the baling chamber.

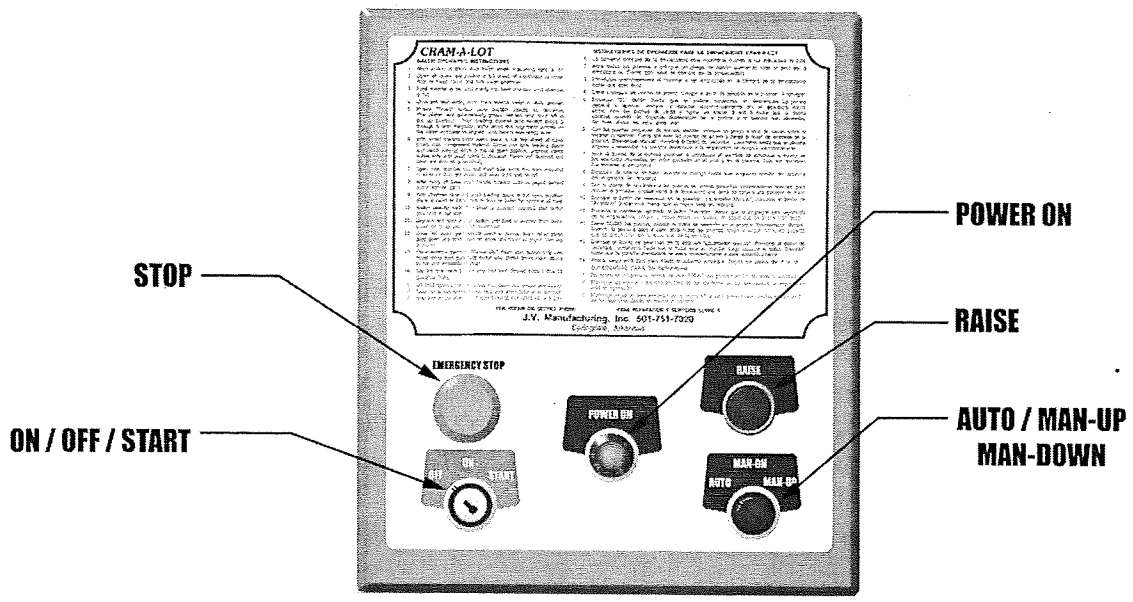
NEVER place concrete, heavy steel plate or castings, explosive materials, liquids, nor hazardous waste in the baler.

NOTE: Hydraulic oil is the primary element of power transmission on the baler. Remember that hydraulic systems can remain pressurized even after the motor has stopped and or the power disconnected.

BALER OPERATION

⚠ CAUTION

It is unlawful to operate this machine if you are under 18 years of age!



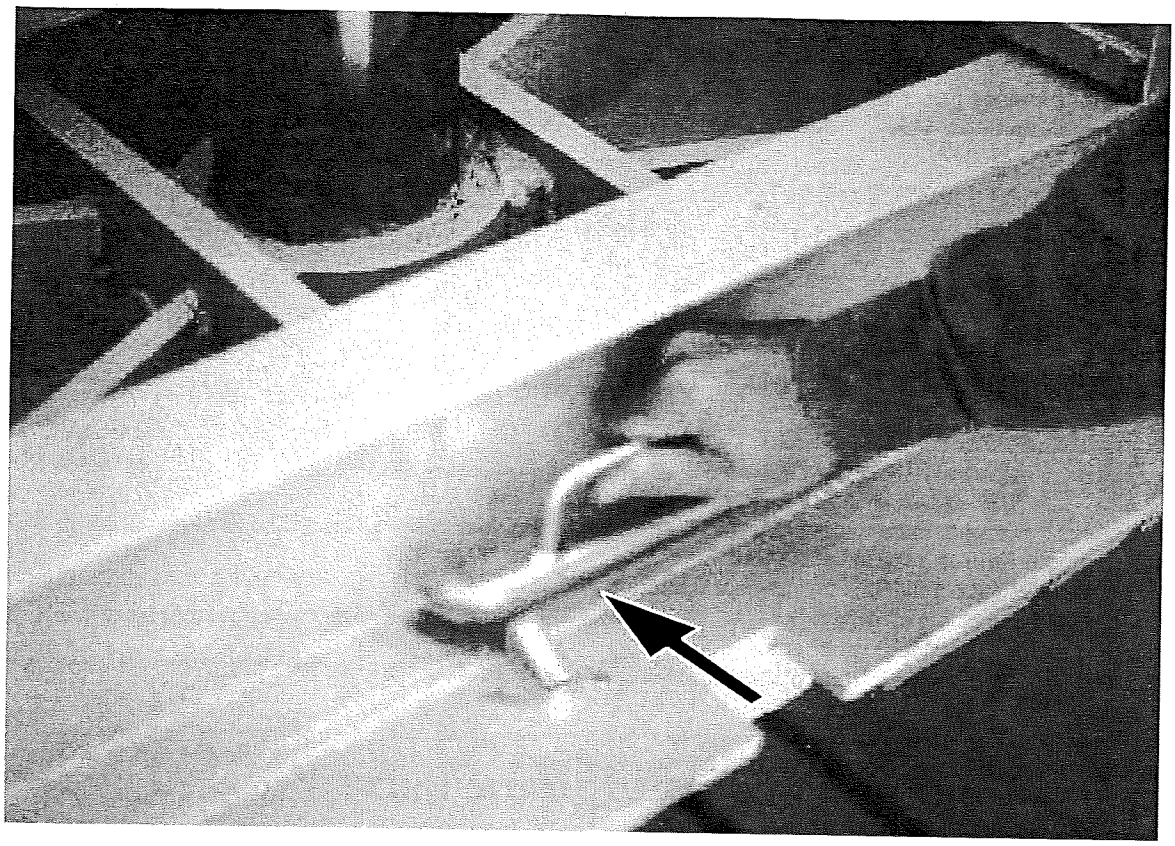
NORMAL OPERATION:

1) Set the MODE SELECTOR SWITCH to the AUTOMATIC position. The POWER ON LIGHT should be illuminated.
2) Check that both the loading door(s) and the chamber door are closed and latched.
3) Turn the START KEY SWITCH. The baler should start and complete one cycle. (platen will extend and retract)
4) Open the loading door(s) and fill the chamber with the material to be baled. Never fill the chamber to a level above the top of the chamber door as this may damage the baler.
5) Close the loading door(s).
6) Repeat steps #3 through #5 until the baler has made a full bale. A full bale has been achieved when the FULL BALE INDICATOR ARROWS align as the baler shifts.

FULL BALE OPERATION:

7) Set the MODE SELECTOR SWITCH to the MANUAL DOWN position.
8) Turn the START KEY SWITCH. The platen will travel down and compress the baled material. When the bale is complete, the baler will shut down in the bale compressed position.
9) Once the baler shuts down, open the loading door(s).
10) Open the chamber door.
11) Insert the six (6) bale ties (loop end first) into the six (6) silver slots in the front of the bale chamber floor. Push the wires through and out the back of the machine. Move to the rear of the baler and insert the wires back through the bale chamber using the corresponding silver slots located on the rear of the platen. Both ends of each bale tie should now be at the front of the baler.
12) Tie the bale ties by inserting the straight end of the wire through the looped end. Pull any slack out of the wire and twist to secure.

BALER OPERATION



BALER EJECTION:

13) "Never try to eject a bale with either the loading door(s) or chamber door closed." Doing so will cause serious injury and/or damage to the baler.
14) Push the BALE DUMP HANDLE into the EJECT POSITION. This handle is located on the top front of the platen and is painted silver.
15) Set the MODE SELECTOR SWITCH to the MANUAL UP position.
16) Turn the START KEY SWITCH. The motor will start but the platen will remain still.
17) Make sure the area in front of the baler is clear.
18) Press and hold the RAISE BUTTON to make the platen raise and eject the bale.
19) Once the bale is ejected and removed from in front of the baler press the STOP BUTTON.
20) Close both the chamber and loading door(s).
21) The baler is now ready for normal operation.

Note: The first time the baler cycles after ejecting a bale the BALE DUMP HANDLE resets automatically to the out (non-operation) position.

TROUBLE SHOOTING

⚠ CAUTION

Before performing any maintenance, always "LOCK AND TAG OUT THE DISCONNECT."

NOTE: Only factory authorized service representatives should make adjustments outside the scope of this manual.

NOTE: Before performing any maintenance, always LOCK AND TAG OUT THE DISCONNECT.

MOTOR WILL NOT OPERATE:

- Check fused disconnect.
- Check motor starter thermal overloads. Reset if necessary.
- Check motor starter coil.
- Check chamber door safety latch.

MOTOR RUNS BUT PLATEN DOES NOT MOVE:

- Check for proper motor rotation. (clockwise from the fan end)
- Check for proper mode of operation.
- Check the directional valve for proper operation.
- Check the pressure switch.
- Check relief valve for proper adjustment.
- Check contact blocks on rear of mode selector switch.
- Check mode selector switch.
- Check hydraulic fluid level.

BALER WILL NOT OPERATE IN AUTOMATIC MODE:

- Check loading door photocells
- Check contact blocks on rear of mode selector switch for binding.

BALER WILL NOT OPERATE IN MANUAL DOWN MODE:

- Check contact blocks on rear of mode selector switch for binding.

BALER WILL NOT OPERATE IN MANUAL UP MODE:

- Remember, this is a deadman mode of operation (platen will move only when UP button is depressed.)
- Check contact blocks on rear of mode selector switch for binding.
- Check for proper operation of RAISE button.

BALER WEIGHTS ARE LOW:

- Check for proper system pressure.
- Check for proper relief valve adjustment.
- Check for proper pressure switch adjustment.

BALER SHIFTS ERRATICALLY:

- Check for proper system pressure.
- Check for proper pressure switch adjustment.
- Check relays and bases for signs or arcing.
- Check directional valve.

BALER DOES NOT EJECT WELL:

- On new balers the paint on the sides of the bale chamber may cause the bale to not eject well. From norman use, this probelm should disappear. If the problem persists, lubricate the chamber wall.

BALER MAKES EXCESSIVE NOISE:

- Check hydraulic fluid level.
- Check for water or air in hydraulic fluid.
- Check oil filter and suction lines components for tightness.

LOCKOUT TAGOUT

BALER LOCKOUT TAGOUT PROCEDURE

This procedure establishes the minimum requirements for the lockout of a baler for service. It shall be used to ensure that the machine is isolated from all potentially hazardous energy, and locked out before employees perform any servicing or maintenance activities where the unexpected energization or start-up could cause serious injury or fatality due to electrocution or due to entrapment in moving parts. This procedure should be performed only by an authorized, qualified electrician.

(1) Before locking the baler out for service or repair, locate which breaker or disconnect applies to the baler being locked out. Notify all affected employees that a lockout system is going to be utilized and the reason therefore.

(2) If the machine or equipment is operating, shut it down by the normal stopping procedure.

(3) Lock out the disconnect or breaker that controls the baler. If locking out a breaker use a double-pole breaker lockout and lock.

(4) Lockout the energy isolating devices with assigned individual locks. If more than one person is servicing the baler, then a hasp with a lock for each service person shall be used.

(5) After ensuring that no personnel are exposed, and as a check on having closed the appropriate breaker or disconnect, operate the start button to make certain the baler will not operate, then push the stop button. The baler is now locked out.

(6) After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.

(7) After all tools have been removed from the baler and employees are clear, remove the lockout device. Operate the start button to restore energy to the baler.

PRESSURE SETTING

PRESSURE SETTING PROCEDURE

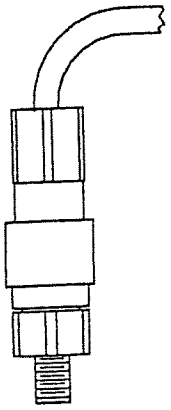
PRESSURE SETTING PROCEDURE (Barksdale pressure switch only)

1. Turn the relief valve counterclockwise to the full out setting.
2. Attach a 3000 psi gauge to the gauge port.
3. Remove the pressure switch cap.
4. Turn the pressure switch counterclockwise 2 turns.
5. Start the baler by pressing the start button.
6. The platen will extend to the end of the stroke and remain there.
7. Adjust the relief valve clockwise and raise the system pressure to 2000 psi.
8. Turn the pressure switch clockwise (slowly) until the baler's platen reverses.
9. Remove the pressure switch wire from terminal #6 of the main terminal board.
10. Restart the baler by pressing the stat button.
11. The platen will extend and remain at the end of the stroke once again.
12. Adjust the relief valve clockwise and raise the system pressure to 2400 psi.
13. Lock down the relief valve.
14. Stop the baler.
15. Reattach the pressure switch wire to terminal #6 of the main terminal board.
16. Check the operation of the baler.

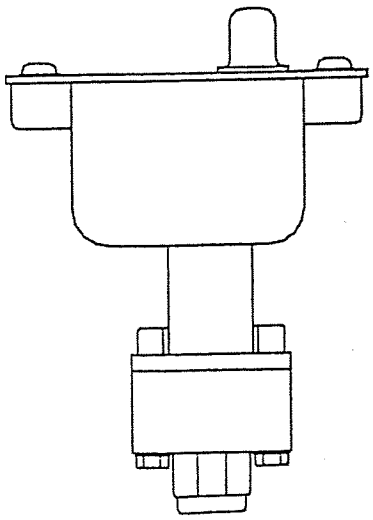
PRESSURE SETTING PROCEDURE (United pressure switch only)

1. Turn the relief valve counterclockwise to the full out setting.
2. Attach a 3000 psi gauge to the gauge port.
3. Side pressure switch cover up.
4. Turn the pressure switch adjustment slots clockwise* until slight resistance is felt.
5. Start the baler by pressing the start button.
6. The platen will extend to the end of the stroke and remain there.
7. Adjust the relief valve clockwise and raise the system pressure to 2000 psi.
8. Turn the pressure switch adjustment slots counter-clockwise* until platen reverses.
9. Remove the pressure switch wire from terminal #6 of the main terminal board.
10. Restart the baler by pressing the start button.
11. The platen will extend and remain at the end of the stroke once again.
12. Adjust the relief valve clockwise and raise the system pressure to 2400 psi.
13. Lock down the relief valve.
14. Stop the baler.
15. Reattach the pressure switch wire to terminal #6 of the main terminal board.
16. Check the operation of the baler.

*(from top of pressure switch as shown below)



United Pressure Switch

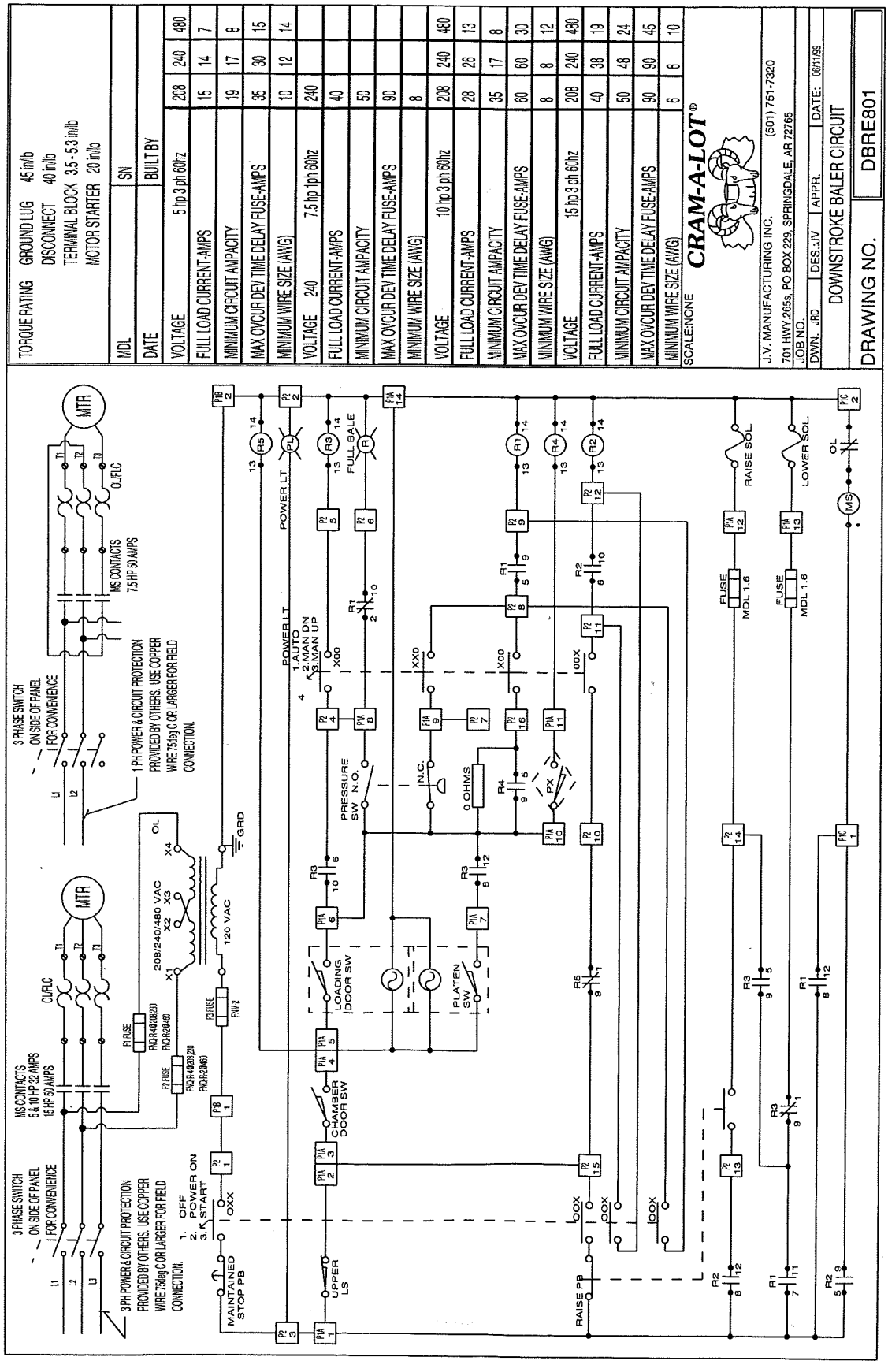


Barksdale Pressure Switch

NOTE: Always use 5 weight high detergent hydraulic oil in J.V. systems.

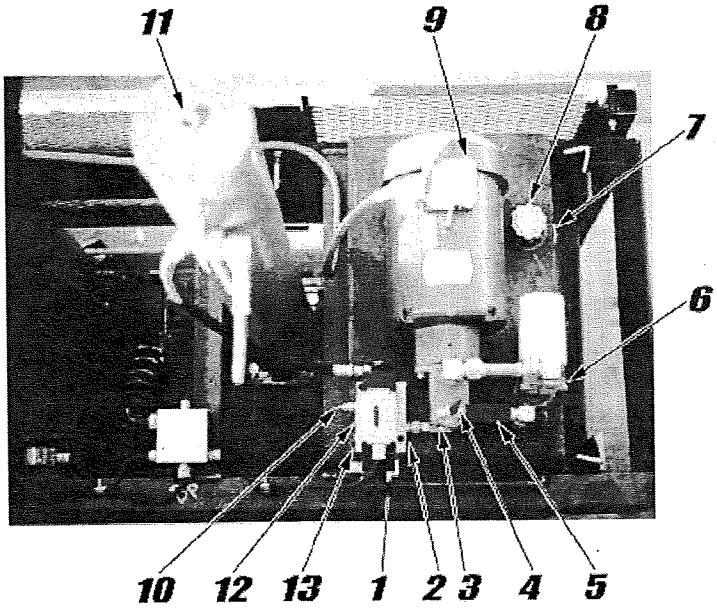
APPENDICES A

Electical Schematic



APPENDICES B.1

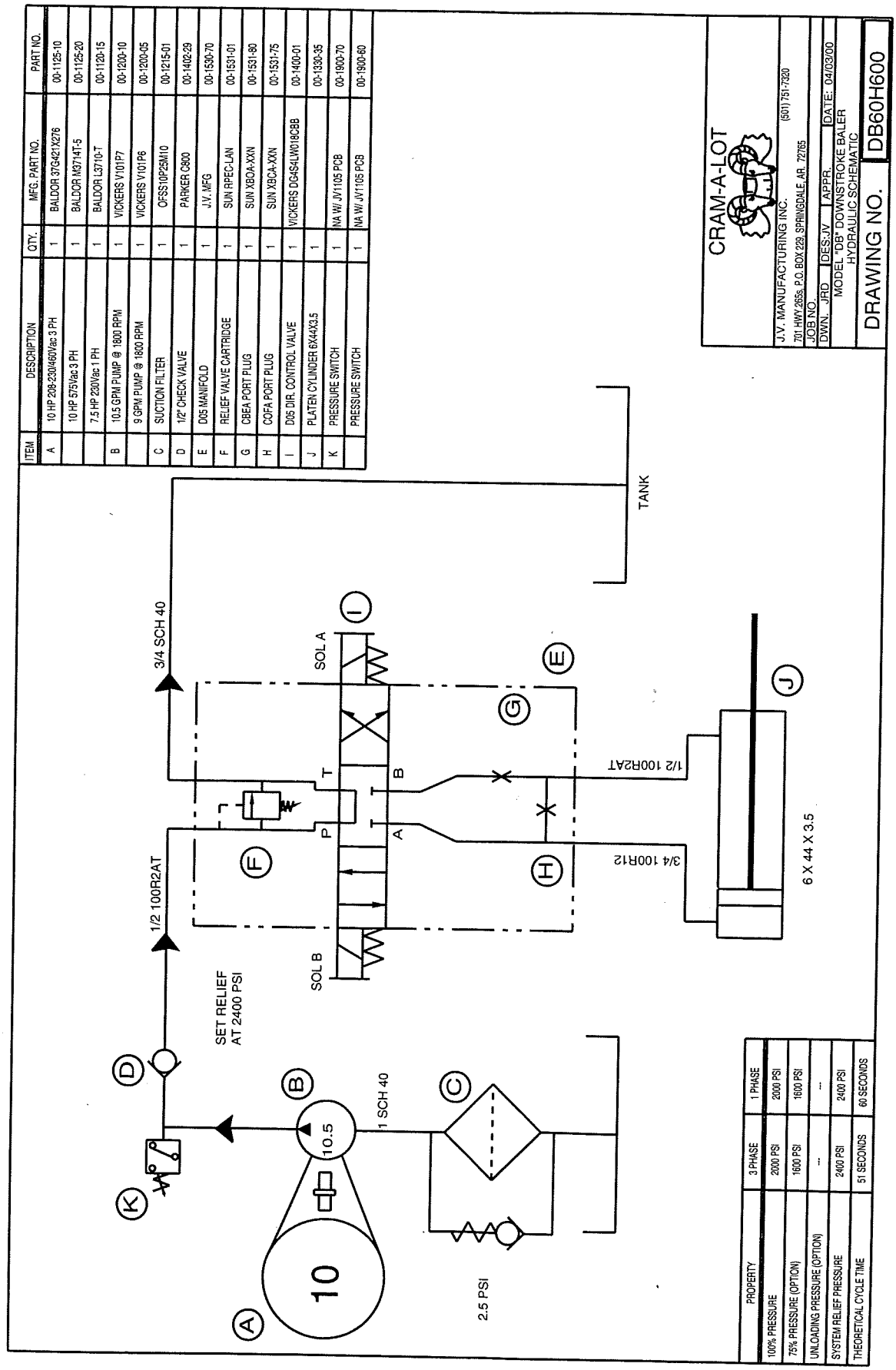
Downstorke Baler Hydraulic Assy.



#	PART NUMBER	DESCRIPTION
1.	140001	DIRECTIONAL VALVE (DUAL SOL)
2.	153070	SUBPLATE MANIFOLD
3.	120010	7 GAL. HYDRAULIC PUMP
	120020	8 GAL. HYDRAULIC PUMP
4.	151619	QUICK DISCONNECT (MALE)
5.	140229	CHECK VALVE
6.	121501	FILTER ASSEMBLY
	121527	FILTER ELEMENT ONLY
7.	190020	SIGHT GAGE
8.	121524	BREATHER CAP
9.	112510	10HP MOTOR
	113010	15HP MOTOR
10.	153101	RELIEF VAVE
11.	133020	5" HYDRAULIC CYLINDER
	133035	6" HYDRAULIC CYLINDER
	134001	7" HYDRAULIC CYLINDER
For DB-42, DB-48, DI-60, DB-60, and DB-72		
12.	153175	XBCA-XXN SUBPLATE PLUG
13.	153180	XBOA-XXN SUBPLATE PLUG
For DH-60, DX-60, DH-72, and DX-72		
12.	153031	COFA-XEN CHECK VALVE
13.	153025	CBEA-LHN COUNTER-BALANCE VALVE

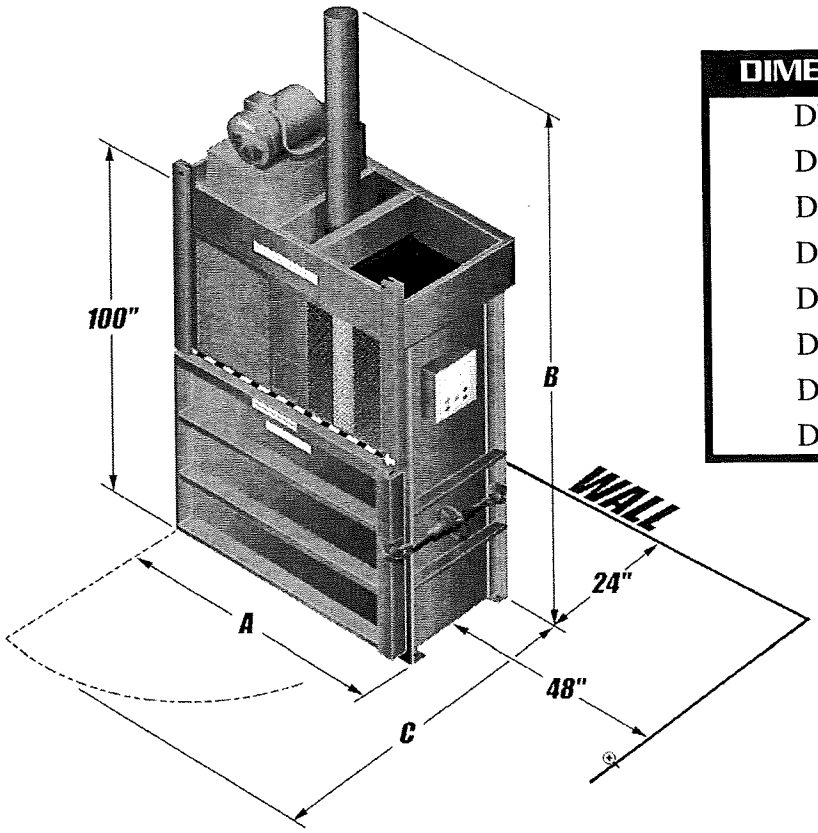
APPENDICES B.2

Hydraulic Schematic



APPENDICES C

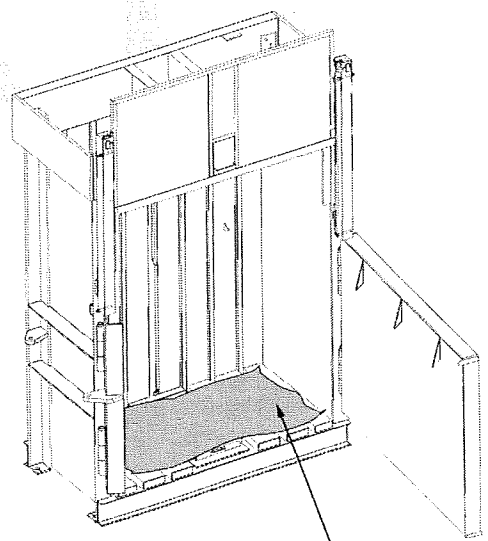
Sturctural Measurements



DIMENSIONS	A	B	C
DB-42	52"	141"	80"
DB-48	58"	139"	86"
DI-60	70"	139"	98"
DB-60	70"	141"	98"
DH-60	70"	144"	98"
DX-60	70"	144"	98"
DB-72	82"	141"	110"
DX-72	82"	144"	110"

NOTICE!

The machine must have cardboard in the indicated area's to operate properly. The cardboard keeps the "Bale Tie Wire - Channels" clear of debris. ***Do not use any objects to remove packed debris.***



Cardboard placed into the chamber lying flat on the baler floor.

Cardboard placed into the chamber on top compacted bale