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# INSTRUCTION MANUAL

# FOR

X-Series Conveyor



This manual contains the following documents:

- 1. 01-16-004-008 (Conveyor Assembly & Belt Tracking Instructions)
- 2. 01-16-009 (Operation and Maintenance Instructions)
- 3. 01-00-005 (Warranty)
- 4. 01-00-006 (Warranty Implementation)
- 5. 01-00-015 (Terms and Conditions)

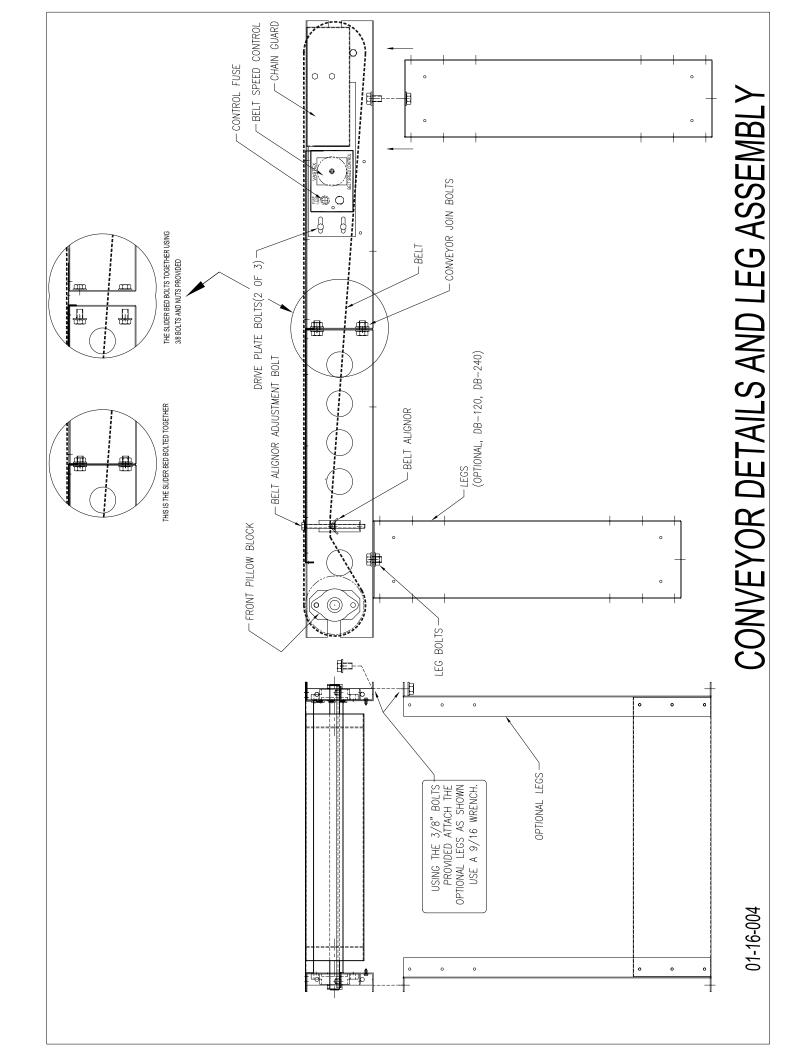
### UNPACKING AND ASSEMBLY INSTRUCTIONS:

Please See the Photo Page **01-16-006** for Visual Aid.

- 1) Please inspect for any hidden shipping damages and notify the trucking company to submit a hidden damage report if necessary.
- 2) Assemble the conveyor, see 01-16-006 for instructions.
- 3) Install the legs if you have a floor model.
- 4) Tighten all the bolts and turn the conveyor over (right side up).
- 5) Install the chain guard!
  - Do not operate the conveyor without the guard in place !

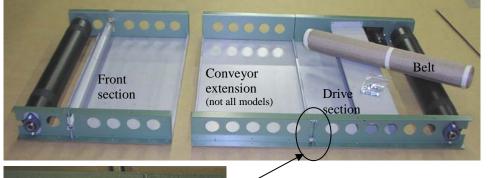
**Belt installation:** 

- 6) Install belt around the pulleys and over the alignor as shown in the diagram on sheet 01-16-004.
- 7) You are ready to plug in the conveyor power and start tracking the belt. See the diagram 01-16-005 on belt tracking.
- 8) See operation instructions 01-16-009 for electrical requirements, operation recommendations and maintenance.



# Conveyor Assembly Photo's and Assembly Procedure.

Doc# 01-06-006



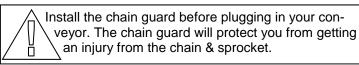
Remove conveyor parts from skid and lay out on large table or floor upside down as shown.



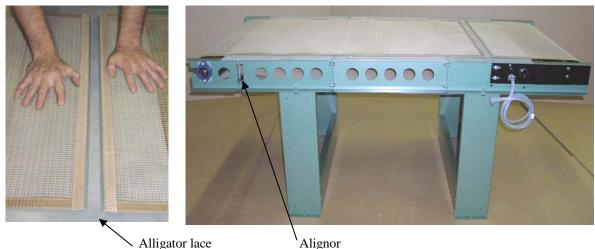
3/8-16 x 3/4 long bolts with lockwashers and nuts are provided to connect the front section to the drive section. If your conveyor is longer then 48" there will be extensions which bolt together as shown. Please install all bolts before tightening. A 9/16 wrench will be needed to tighten the bolts and nuts. The lockwasher goes next to the nut.



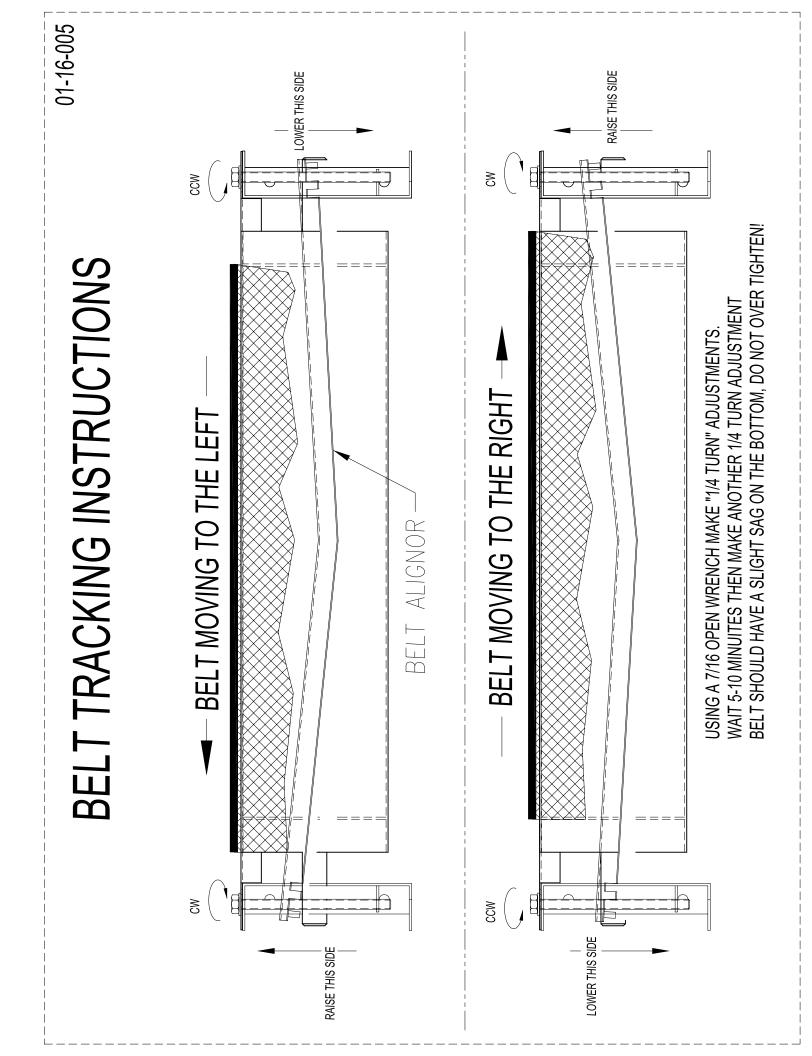
If you have legs with your conveyor, bolt on as shown.  $3/8-16 \times 3/4$  bolts with lock washer, washer and nuts are provided. The lock washer goes next to the nut.





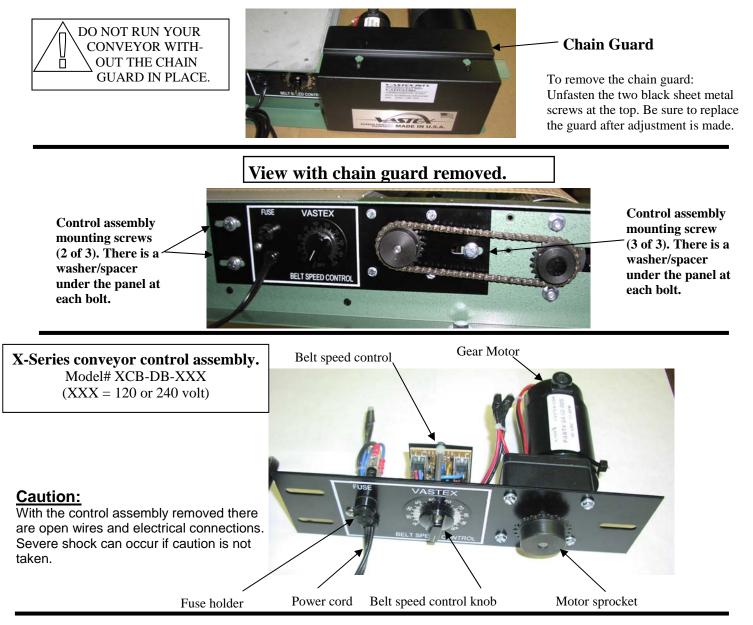


After tightening all the bolts carefully turn the conveyor onto its feet or your table. The belt needs to be installed as shown in DOC# 01-16-004 making sure you thread it over the alignor. Install the pin into the alligator lace and make sure the two ends of the belt are centered to each other. If one person positions the belt ends and holds the belt into position a second person can install the pin. Be sure when pushing on the pin you grip it close to the belt if the pin bends it will be difficult to remove the kink in the pin. Plug the conveyor into a properly grounded 120 volt outlet and turn the controller on. The numbers on the dial are for reference only. Time the belt with a watch and set the speed to the desired seconds in the heat.



# X-Series conveyor motor, chain and control maintenance.

In order to **adjust the chain tension** or **remove the control assembly**, the chain guard must first be removed.



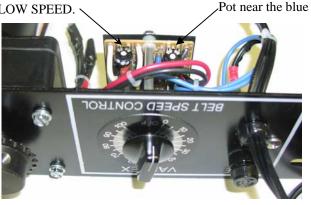
## Setting the low speed pot adjustment: (small screw driver with plastic handle is needed)

Turn the speed pots clockwise to increase the speed and counterclockwise to decrease. The low speed pot should be set so the belt (or sprocket) moves very slow at the lowest setting on the controller, just before the controller is clicked in the off position. The high setting is set so 90 VDC is the maximum voltage to the motor, a volt meter is needed for the high speed adjustment. The control assembly should be placed on a bench so the speed pots are up and accessible.

Caution: Do not to touch the open wires around the controller and the fuse holder.

Pot near the white wires LOW SPEED.

This view of the control assembly "upside down" is to show you the speed pot adjustments on the bottom side of the controller.



Pot near the blue wires HIGH SPEED.



# **OPERATION AND MAINTENANCE MANUAL**

FOR X-Series Conveyors - all sizes.

## **CONTENTS:**

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## **1.0 INTRODUCTION:**

Congratulations, you have chosen a VASTEX, X-Series conveyor system. VASTEX has been designing and building machinery 1960 and has the knowledge and expertise to supply a quality machine and help you keep it running for many years to come.

We hope the unpacking and assembly went smoothly and **welcome any comments or suggestions** to help make the process easier. Please read this document thoroughly as it will help you with the learning process on your new dryer.

#### 2.0 PACKAGE CONTENTS

In your package, you should have found:

- 1) Conveyor bed front end (with belt alignor)
- 1) Conveyor bed rear end (with motor and control)
- 1) Conveyor belt (be careful not to cut)
- 1) Manilla envelope with this manual and hardware
- 1) Set of legs (optional on DB-120 & DB-240)
- 1) Conveyor extension (optional adds 18" of length to standard 48" conveyor)

#### 3.0 CONVEYOR ASSEMBLY INSTRUCTIONS.

See Document #01-16-003, 004, 005, 006 included with manual.

#### 4.0 POWER REQUIREMENTS

#### Outlets must be grounded and tight. The standard motor draws less then (1) amp.

All X-Series conveyors are supplied with a grounded plug. For the United States, 120volt versions are supplied with a Nema 5-16P type plug and 240 volt versions are supplied with a Nema 6-15P. Overseas units will have a bare line cord or optional plug configuration of the country sold in.

#### **5.0 OPERATING INSTRUCTIONS**

- **A.** Be sure your belt control is in the "off" position (counter clockwise). Then plug the unit into the properly rated outlet. See section 3.0 for power requirements.
- **B.** Turn the belt control on and set the speed to about 25 on the dial to track the belt. (See 01-16-004, 005, 006 for installation and tracking adjustments.)
- **C** After the belt is properly tracked, adjust the speed for your process.

## 5.1 BELT SPEED CONTROL

The control takes the 120 volt AC and converts it to DC voltage and varies it from 0 to 90 volts. The dial is for reference only. Speed can vary from location to location depending on the input voltage. You should time the belt and note what dial position gives you desired number of seconds in the chamber.

# 5.2 GEAR MOTOR

A 90 Volt DC gear motor is located to the rear of the conveyor. It drives the rear pulley and belt via a roller #25chain and 25B22 sprockets. A one amp fuse is located on the belt control box to protect the belt control.

# 6.0 CONVEYOR

# 6.1 BELT

The conveyor belt is made of Teflon coated fiberglass. It is joined together with an alligator lace using a steel pin to connect each side. The belt will not burn under normal conditions but the dryer should always have the belt moving while the heaters are above 500 degrees. The belt should remain tracked in the center of each pulley. (See 01-16-004, 005, 006 for installation and tracking adjustments.)

## 6.2 ALIGNOR

The alignor is a device for tracking to your belt and keeping it on the pulley. As the belt moves from side to side the alignor is used for adjustments to keep it centered. The belt does not have to be perfectly centered on the pully but just not hanging over either edge.

#### 6.3 PULLEYS

The pulleys at either end of the conveyor are made by VASTEX of 41/2" inch tubing with 3/4 inch center shaft. They are mounted on self aligning flange bearing blocks for precision rolling. A belt lagging material is used on each pulley for better belt grip and aid in the tracking.

#### 7.0 MAINTENANCE

Your **VASTEX** dryer has few points that need maintaining. The most important first step is to follow the unpacking and setup instructions. The proper electrical hookup and exhaust duct installation will insure the most can be achieved from your investment. **Turn off power at your disconnect before entering any part of the machine.** 

#### 7.1 ELECTRICAL CONNECTIONS

Electrical connections will loosen in time from heating and cooling. Every three (6) months the **power should be turned off** at the external disconnect and all the points of connection should be inspected and tightened.

#### 7.2 MOTOR CHAIN

Chain can loosen in time and should be inspected, tightened and lubricated when necessary. The motor chain is located in the rear of the conveyor.

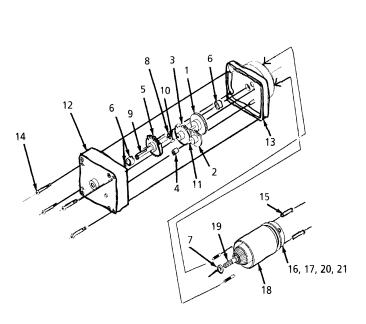
(Caution: Do not over tighten chain, damage to bearings may occur.)

#### 7.3 SPARE PARTS

VASTEX stocks parts used on current model machines. Also any older machine can be upgraded to new style components to keep their controls modern and operating. But having spare parts on your shelf can save you overnight shipping costs and the downtime waiting for shipment of parts in the event of a component failure. The only downside of buying spare parts ahead of time is the warranty starts on the ship date, not installation date.

The Following is a diagram of your gear motor. If you need to order replacement parts, please consult the diagram and the chart, and order using the manufacturer's part numbers.

Motor Parts			
No.	Description	Part Number	
1	High Speed Gear	A11336-0003	
2	Inter-High Speed Gear	A07979-0002	
5	Output Gear	H06099-0003	
6	Bearing Kit	E12489-0001	
7	Spacers	K09087-0002	
8	Retaining Ring	R01877-0007	
9	Output Shaft	J06171-0023	
10	High or Inter-Low Speed	l	
	Gear Shaft	J06165-0001	
11	Inter-High Speed Gear		
	Shaft	J06165-0001	
12	Gearcase Assembly	D08012-0010	
13	Cover Assembly	D11324-0005	
14	#6-32 Screw	R12132-0002	
15	#10-32 Screw	R12022-0008	
16	Brush Holder Cap	K09127-0001	
17	Endbell Assembly	D11325-0001	
18	Stator Assembly	C09073-0007	
19	Armature Assembly	K09128-0002	
20	Brush	K09129-0001	
21	Spring	E13418-0001	



# 8.0 TROUBLESHOOTING GUIDE

Caution! <u>Unplug</u> unit before attempting repairs or entering any part of this unit. See the last print in this manual for a point to point wiring schematic.

#### **Problem: motor stopped or not running smooth**

Condition	Possible Cause	Solution
Stopped Motor	Bad outlet, power in. Bad Motor Brushes Bad connections. Blown Fuse	Check outlet with another device. Check Brushes, clean and replace Unplug before checking, remove main plate. Replace fuse with proper size (1 amp. AGC)
Motor erratic or jerky	Bad or dirty motor brushes Bad gear box.	Check Brushes, clean and replace. Replace whole motor and gear box or parts inside gear box if your handy.

# VASTEX WARRANTY IMPLEMENTATION SHEET

Please read this document in order to fully understand the warranty.

# Doc.# 01-00-006

Your new Vastex equipment is protected against \*manufacturers' defects by our warranty, completely explained in doc# 01-00-017 for the V2000-HD series manual printer and in doc# 01-00-005 for all other Vastex manufactured equipment. Please refer to these documents for the \*\*warranty term and specific concerns about the warranty. The following are some important facts and requirements for the proper implementation of the warranty.

1.0 Everything is covered!

2.0 <b>**</b> Warranty Term is defined as:	Ship date from VASTEX to the date the item in question is returned to VASTEX for inspection and repair.
3.0 *Manufacturers defects are defined as:	Parts determined to be defective in workmanship which will lead up to a premature failure. The determination will be made only by the manufacturer of the item in question.

4.0 To take advantage of the warranty the following steps must be taken:

- 4.1 The equipment must be paid for in full.
- 4.2 The item in question must be shipped to VASTEX for evaluation with all shipping costs incurred by the buyer.
- 4.3 If the item is deemed as a manufacturer's defect it will be repaired or replaced within 2 business days from the time received. The shipping cost back to the customer located in the continental United States will be paid by VASTEX if a warranty item.
- 4.4 If the item in question must be replaced immediately and is more than a year old, it will have to be purchased at list price and will be shipped COD. A pro-rated credit will be given promptly if the returned item is a valid manufacturer's defect.
- 4.5 If the equipment was shipped less than a year before the date of the service call and a technician confirms the part needed for repair, the replacement will be shipped before the replacement is shipped back. An RGA will be issued and must accompany the old part to VASTEX within 30 days or the account will be billed.

5.0 Important facts about the condition of shipped equipment:

- 5.1 Dryers are partially assembled with the belts tracked and the machine run at full temperature for a min. of  $1\frac{1}{2}$  hours.
- 5.2 Printers are partially assembled, inspected, and adjusted for all heads down prior to partial disassembly and packing.
- 5.3 Exposing units are fully assembled and tested with the maximum screen size for vacuum integrity, timer operation and light output.
- 6.0 This document is in addition to the standard warranty and only helps the customer understand how to take advantage of the warranty. In no way does this document override the standard warranty or the terms and conditions of sale and the limited warranty doc# 01-00-015.

Please see doc# 01-00-015 for specific terms and conditions of sale and the limited warranty

VASTEX INTERNATIONAL 1032 N. IRVING ST. ALLENTOWN PA. 18109 USA

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# **Vastex Warranty**

Doc#01-00-005 Revised 11/20/2002

Vastex, hereinafter referred to as "seller" warrants only to its original "<u>purchaser", who holds a copy</u> of the original invoice and is the original end user of the equipment in question, its new equipment against defects in workmanship on a pro-rated basis for a period of three (3) years from the date of shipment to buyer and receipt of payment in full. Infrared heaters installed by Vastex in a new dryer will be covered for a period of (10) years. Replacement parts are covered for a period of (1) year from ship date contingent on payment in full, with the exception of replacement infrared heaters, which have a (3) year warranty. All sales made through Vastex dealers must be certified by that dealer before a warrantied replacement is issued.

This warranty is expressly contingent upon the buyer delivering to seller, at the address below, with all transportation charges prepaid, the part or parts claimed to be defective within the above mentioned period (3) years for new equipment, (10) years on the heaters and (1) year for replacement parts, with the exception of replacement infrared heaters, which have a (3) year warranty. If the machine in question is less than a year old, it will be shipped to the customer at no charge, with an RGA issued by Vastex for the defective part. The defective part must be shipped back to Vastex within 30 days or the account will be billed. If the equipment is more than a year old, the part will be shipped after we receive the defective part. If it's necessary to expedite the movement of parts and to minimize down time to the buyer, the replacement part shall be supplied on a C.O.D. basis. If testing and analysis of said part by the seller or its supplier discloses that said part is defective, the cost of said part will be refunded to the buyer on a <u>pro-rated basis</u>.

Except as otherwise provided herein, the equipment is being sold "as-is". Final determination of the suitability of the equipment for the use contemplated by the buyer, is the sole responsibility of buyer, and seller shall have no responsibility in connection with the suitability.

All warranties implied by law, including the implied warranties of merchantability and fitness are hereby limited to workmanship and defective parts to a period of (3) years for new equipment and 10 years for the heaters in said equipment and (3) years (for replacement infrared heaters) and (1) year (for replacement parts) after date of shipment to first buyer. The express warranty and remedies contained herein and such implied limited warranties are made solely to the sole warranties and remedies and are in lieu of all other warranties, guarantees, agreements, and other liabilities, whether express or implied, and all other remedies for breach of warranty or any other liability of seller, in no event shall seller be liable for consequential damages.

No person, agent, distributer, or service representative is authorized to change, modify or extend the terms hereof in any manner whatsoever.

These terms and conditions are an essential part of the transaction between the parties and constitute the entire agreement between them with respect to the same.

Some states do not allow limitation on how long an implied warranty lasts of the exclusion or limitation of incidental, or consequential damages, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Infrared heaters are the only replacement parts covered for a period of (3) years from date of shipment and contingent to receipt of payment in full.

Electrical components can not be returned once installed unless proven defective.

Please refer to doc. 01-01-006 for warranty implementation help.

Please refer to doc. 01-00-015 for specific terms and conditions of sale and the limited warranty. Please refer to doc. 01-00-017 for V-2000HD printer warranty.

This revised warranty effective as of 11/20/2002

VASTEX INTERNATIONAL

1032 N. IRVING ST. ALLENTOWN PA. 18109 USA

#### TERMS AND CONDITIONS OF SALE AND LIMITED WARRANTY Doc.#01-00-015

1. Buyer's order will constitute an offer in accordance with the terms hereof and such offer, upon acknowledgment of Seller, will constitute the agreement between Buyer and Seller. Buyer's order after such acknowledgment by Seller will not be subject to cancellation, change or reduction in amount, or suspension by Buyer of deliveries, unless prior to such action Buyer has obtained Seller's written consent. Notwithstanding anything to the contrary in Buyer's Purchase Order or other communications, the parties agree to be bound by these Terms and Conditions. Acceptance of the product by the Buyer shall be deemed to constitute unconditional acceptance of these Terms and Conditions.

2. Any of these terms, conditions and provisions of Buyer's order which are inconsistent with Seller's acknowledgment and these Terms and Conditions of Sale shall not be binding on the Seller and shall be considered not applicable to any sale so made. No waiver, alteration or modification of any of the provisions on either side of the document shall be binding upon Seller unless agreed to in writing by Seller.

3. (a) All prices are F.O.B. Seller's Plant and method of delivery and routing shall be at Seller's discretion, unless specifically otherwise stated herein. Notwithstanding any agreement to pay freight, delivery of products purchased hereunder to a common carrier or licensed trucker shall constitute delivery to Buyer and be determinative of the date and time of shipment and all risk of loss or damage in transit shall be borne by Buyer. If the Buyer fails to accept the goods from the common carrier or licensed trucker, the Seller shall be entitled to claim payment from the Buyer. Seller shall arrange for storage, the risk and the cost, including insurance costs, to be borne by the Buyer (and Buyer agrees to pay such amounts upon demand) except if the failure to accept delivery is due to any of the exceptions noted in Paragraph 4.

(b) Terms of payment shall be as stated on invoice.

4. It is understood that deliveries will be made in accordance with Seller's regular production schedule. Every reasonable effort will be made to meet the Buyer's required delivery dates but Seller will not be liable for damages or be deemed to be in default by reason of any failure to deliver or delay in delivery due to any preference, priority, allocation or allotment order issued by the Government, whether Federal, State or local, or causes beyond its control including but not limited to, Acts of God or a public enemy, acts of Government, fires, floods, epidemics, quarantine restrictions, strikes, lockouts, freight embargoes, severe weather, unavailability of materials or shipping space, delays of carriers or suppliers or delays of any subcontractors. Should delay in delivery be caused by any of the circumstances mentioned in this paragraph, such extension of the delivery period shall damages will be limited to cancellation of the purchase order without penalty, and refund of any monies deposited or prepaid on the purchase order with no liability for any consequential or incidental damages.

5. Seller reserves the right to increase the prices prior to Seller's acceptance of order and/or after expiration of any price quoted by Seller.

6. Unless otherwise stated in writing, Seller's prices do not include sales, excise, value-added or other taxes. Consequently, in addition to the price specified herein, the amount of any present or future sales, use, excise, value-added or other tax applicable to the manufacture, sale, purchase or use of the products hereunder shall be paid by Buyer, or in lieu thereof, Buyer shall provide Seller with a valid tax exemption certificate acceptable to the taxing authorities.

7. Seller reserves the right, at any time, to revoke any credit extended to Buyer because of Buyer's failure to pay for any products when due or for any other reason deemed good and sufficient by Seller and in such event, all subsequent shipments shall be paid for prior to at delivery at Seller's option.

8. (a) SELLER'S LIABILITY SHALL BE LIMITED TO SELLER'S STATED SELLING PRICE PER UNIT OF ANY DEFECTIVE GOODS AND SHALL IN NO EVENT INCLUDE BUYER'S MANUFACTURING COSTS, LOST PROFITS, GOODWILL, OR ANY OTHER SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, ARISING OUT OF THE AGREEMENT, THIS CONTRACT, THE SALE OF THE PRODUCTS TO THE BUYER OR THE USE OR THE PERFORMANCE OF THE PRODUCTS. Seller may at its discretion repair, replace or give the Buyer credit (pro-rated) for such defective products.

(b) Notwithstanding anything herein to the contrary, Seller shall have no liability for alleged defects with the products which are not specified in written notice from the Buyer to the Seller within thirty-six (36) months from the date of shipment of machines. Seller shall pass to Buyer any warranty received by Seller from the manufacturer of Limited Life Components, which in most cases is 12 to 18 months.

(c) Seller shall have no liability under this Limited Warranty unless Buyer has paid in full for the products. Further, this Limited Warranty is expressly contingent on Buyer's delivery to Seller, all costs prepaid, the defective part(s) within thirty-six (36) months of shipment to Buyer, together with a written statement specifying the alleged defect(s). Any replacement part(s) shall be shipped to Buyer on a C.O.D. basis.

(d) SELLER SPECIFICALLY EXCLUDES ALL WARRANTIES, EXPRESSED, IMPLIED OR OTHERWISE, EXCEPT AS STATED EXPLICITLY IN THESE TERMS AND CONDITIONS OF SALE. SELLER DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

9. The remedies herein reserved by Seller shall be cumulative and in addition to any other legal remedies. No waiver of a breach of any portion of this contract shall constitute a waiver of continuing or future breach of such provision or of any other provisions hereof.

10. These Terms and Conditions constitute the entire agreement of the parties. No amendments, changes, revisions or discharges hereof in whole or in part shall have any force or effect unless set forth in writing and signed by the parties hereto. This contract shall not be assignable by Buyer voluntarily by operation of law or otherwise without Seller's written consent.

11. This contract shall be governed and shall be construed according to the domestic laws of the Commonwealth of Pennsylvania.

12. Anything herein to the contrary notwithstanding, any action for alleged breach by Seller of the contract between the parties, including but not limited to any action for breach of the warranties herein set forth, shall be barred unless commenced by Buyer within one (1) year from the date such cause of action accrued.

13. This agreement shall inure to the benefit of and be binding upon the parties hereto, their respective successors and permitted assigns.

14. All notices required by this contract to be given by either party shall be sent in writing or by facsimile and shall be addressed to the last known address of such other party. Notices shall be deemed to have been received on the fifth business day following deposit in the mail.