Altek®

USERS MANUAL
FOR
STRETCH WRAP MACHINES
SERIES 200, 400, 600

paco manufacturing®
A Precision Automation® Company

P.O. Box 2188 ◆ 2120 Addmore Lane ◆ Clarksville, IN 47129 ◆ (812) 283-7963 ◆ fax (812) 283-7992 ◆ sales@pacc.win.net

FOREWORD

Thank you for choosing an Altek stretch wrap machine!

You have purchased a machine which is cost effective, virtually problem free, and innovative in design. Altek's design is based upon simplicity and tough, rugged construction.

Backed by one of the best warranties in the industry, we believe that there is no finer machine available today!

The operation and features outlined on the following pages will help you better understand your Altek stretch wrap machine.

CONTENTS

MACHINE IDENTIFICATION

IMPORTANT

The serial number for your Altek machine is stamped on the base of the machine, under the door.

Older machines may have a plaque located on the front of the tower, with the serial number stamped on the bottom.

Always include this number in all correspondence pertaining to this machine. Identifying your machine by its serial number will eliminate any confusion and will help us serve you more promptly. Failure to produce the serial number may result in improper identification of any required spare parts.

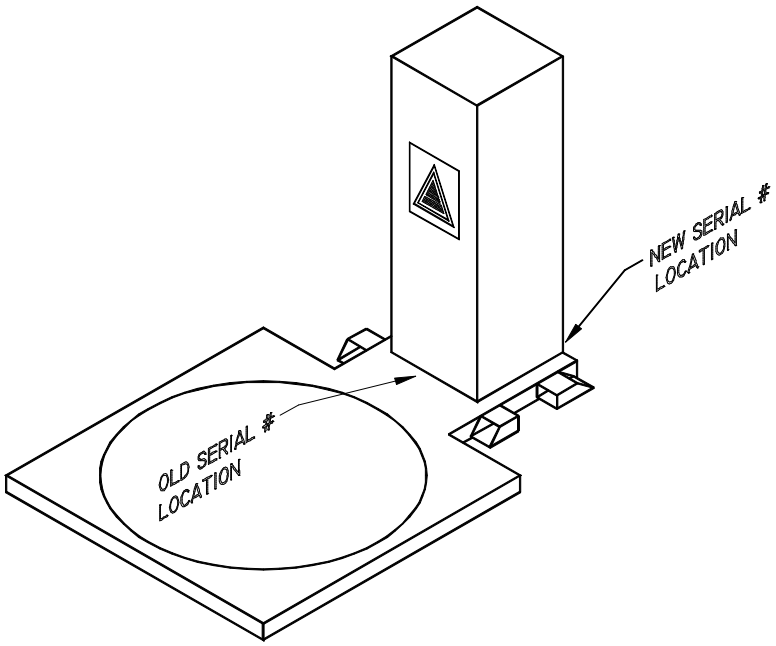


Fig. 1

RECEIVING & INSTALLATION

UPON ARRIVAL:

Before unloading your Altek stretch wrap machine from the carrier, inspect it thoroughly to assure that no damage has occurred during shipping. If any damage has occurred, notify the carrier immediately. **All freight claims must be settled with the carrier.** Contact your distributor. They may be able to help you in this area.

UNLOADING:

After you have thoroughly inspected your Altek machine, it is ready to be unloaded. It may be lifted with a fork truck by inserting the forks into the "shoes" at the base of the column (fig. 2).

CAUTION: When lifting the machine off of the carrier, be careful not to bend or distort the frame or the turntable.

To prevent damage, always make sure the film carriage is 6" to 8" above the floor before lifting the machine.

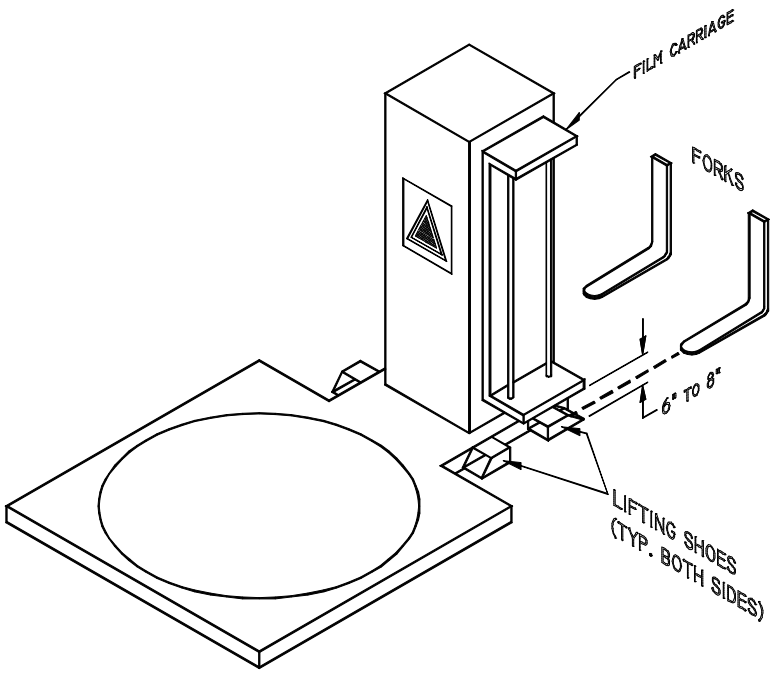


Fig. 2

LOCATION:

The Altek stretch wrap machine can be loaded from three different sides (fig. 3). Locate it so that it is easily accessible to the forklift or pallet jack operator and so that the controls are easy to reach.

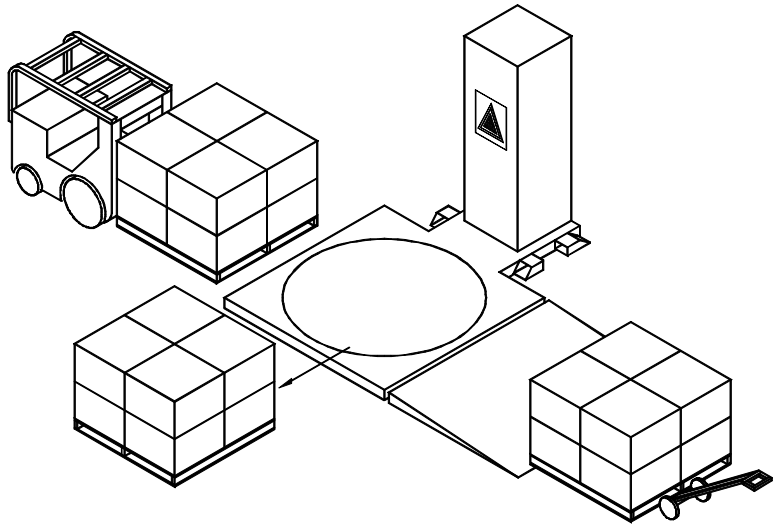


Fig. 3

INSTALLATION:

It is not necessary to bolt the Altek stretch wrap machine to the floor. However, if the floor is not level, it may be necessary to shim under the machine to ensure smooth operation.

RAMPS: If an Altek ramp is used, allow adequate space for a straight run onto and off of the turntable. The ramp may be placed in any of three positions (fig. 4).

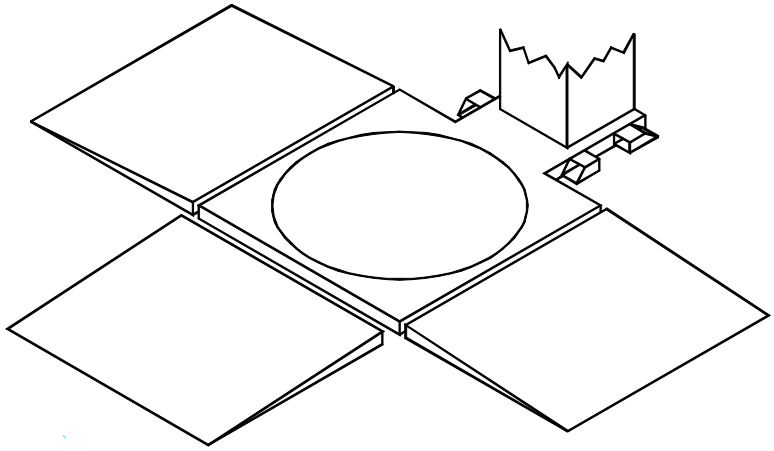


Fig.4

AIR CONNECTION: No air is required unless the machine is equipped with a Top Platen Press. If this is the case, refer to page 11.

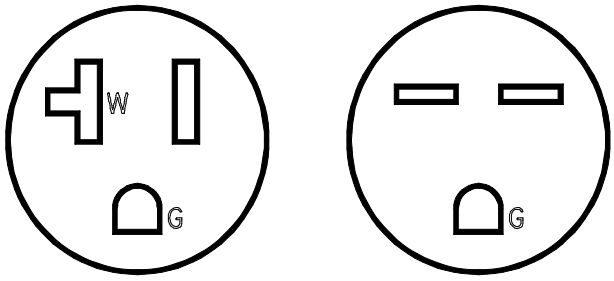
ELECTRICAL CONNECTION: Altek machines are delivered to accept the electrical voltage specified when ordered. The customer must supply the appropriate electrical service as follows:

120 VAC, SINGLE PHASE: 20 Amp dedicated circuit minimum service. Use a standard **12 Gauge cord with ground** and a 125V, 20 Amp, "Insulgrip" type female connector (Hubbell #5369C or equal, fig. 5a). Keep the cord length to a minimum to ensure proper machine performance.

220 VAC, SINGLE PHASE: 15 Amp minimum service. Use a standard **12 Gauge cord with ground** and a 250V, 15 Amp, "Insulgrip" type female connector (Hubbell #5669C or equal, fig. 5b). Keep the cord length to a minimum to ensure proper machine performance.

220 VAC, THREE PHASE: 15 Amp minimum service. Hardwire to the disconnect inside the main panel door. Use **12 Gauge** wire.

480 VAC, THREE PHASE: 15 Amp minimum service. Hardwire to the disconnect inside the main panel door. Use **12 Gauge** wire.



(a) (b)

Fig. 5:(a) 125V, 20A, NEMA 5-20R
(b) 250V, 15A, NEMA 6-15R

WARNING: Electrical Hazard. Make certain that the main power supply is OFF before attempting to connect power to the machine!

CAUTION: Low voltage will cause erratic operation. Be certain that the power supply can provide full voltage at the rated amperage!

OPERATING INSTRUCTIONS

Your Altek stretch wrap machine is ready to use upon delivery. It has been lubricated, cycled, and thoroughly tested prior to shipping. However, periodic maintenance is required to keep it functioning properly! Please refer to the "Maintenance" section for recommended preventative maintenance instructions.

DESCRIPTION OF CONTROLS
FOR MANUAL MACHINES

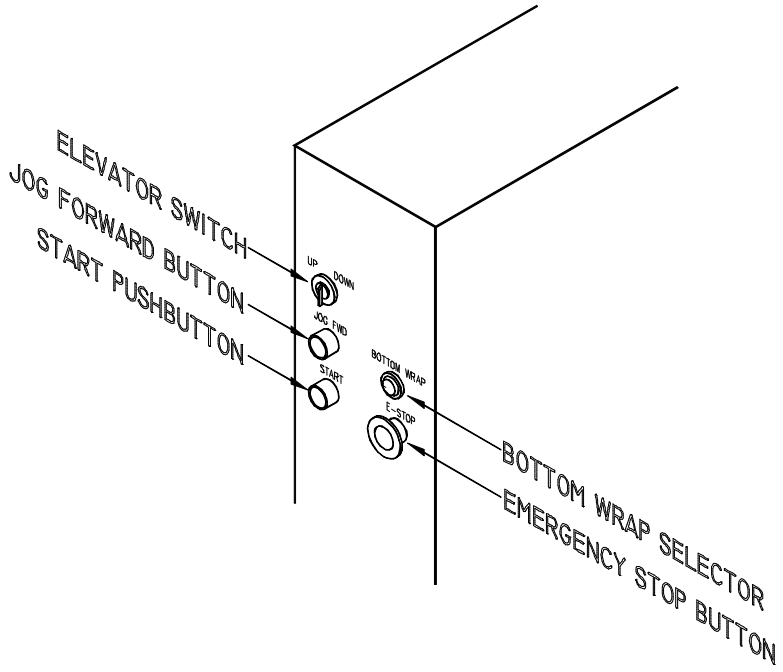


Fig. 6

ELEVATOR SWITCH: Allows the operator to raise and lower the film carriage during the wrap cycle to affect a spiral wrap (On Spiral Wrap models only.)

JOG FORWARD BUTTON: Allows the operator to manually rotate the turntable to the best position for unloading the pallet after wrapping.

START PUSHBUTTON: Activates the wrap cycle.

BOTTOM WRAP SELECTOR: Controls the number of revolutions the turntable will make during one cycle.

EMERGENCY STOP BUTTON: Removes control power and stops the machine at any point in the cycle.

WRAPPING PROCEDURE
FOR MANUAL MACHINES

A certain amount of trial and error is necessary to determine the most economical combination of film thickness, film tension, and number of wraps that will guarantee that your product or merchandise will arrive at its destination adequately protected.

The following sequence outlines the wrapping process:

1) Load the pallet to be wrapped onto the turntable. Be careful to center the load. If standard pallet sizes are used, it may be helpful to outline the sizes on the turntable.

2) Release the film tension brake (see fig. 7) by rotating it counterclockwise. Pull the end of the film out to the pallet, and "snag" it between the boxes or on the part being wrapped, so that it will be pulled off the roll when the turntable begins rotating.

3) If your machine has a Top Platen Press, use the foot switch to lower it to either stabilize or compress the load as required.

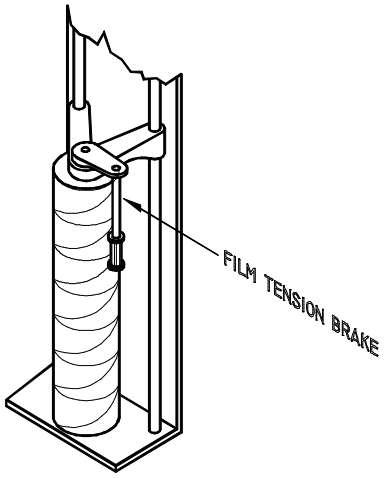


Fig. 7

4) Set the "Turntable Setting Switch" to the desired number of wraps (turntable revolutions).

5) Press the "Start Pushbutton" to activate the turntable. After the load has revolved approximately ½ turn, increase the brake tension for maximum film yield and effective wrapping.

6) If a spiral wrap is required, allow the machine to make two or three wraps around the bottom of the pallet. Then use the "Elevator Switch" to raise the tensioned film up over the top of the load for another two or three revolutions. Then lower the elevator until the film reaches the bottom.

7) After the wrapping cycle stops, cut the film near the pallet and smooth the loose end so that it adheres to the pallet.

8) If necessary, use the "Jog Forward" button to rotate the pallet until it is properly aligned for easy unloading.

DESCRIPTION OF CONTROLS
FOR AUTOMATIC MACHINES

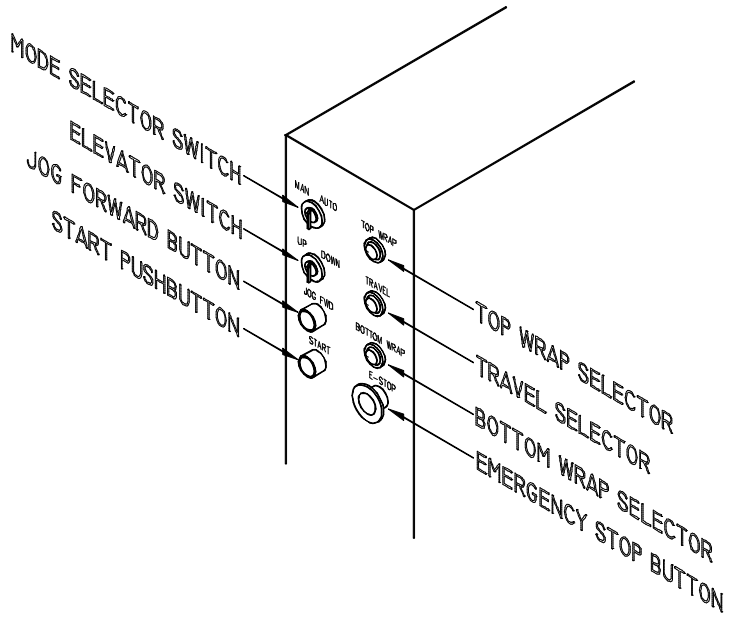


Fig. 8

MODE SELECTOR SWITCH:	Allows the operator to choose between automatic and manual control of the film elevator and turntable.
ELEVATOR SWITCH:	Allows the operator to manually raise and lower the film carriage when in manual mode.
JOG FORWARD BUTTON:	Allows the operator to manually rotate the turntable when in manual mode.
START PUSHBUTTON:	Activates the wrap cycle.
BOTTOM WRAP SELECTOR:	Sets the number of wraps (turntable revolutions) made around the bottom of the pallet before raising the film carriage when in automatic mode.
TRAVEL SELECTOR:	Sets the maximum height to which the film carriage will travel when in automatic mode.
TOP WRAP SELECTOR:	Sets the number of wraps made around the top of the pallet before returning the film to the bottom of the pallet when in automatic mode.
EMERGENCY STOP BUTTON:	Removes control power and stops the machine at any point in the cycle.
FOOT SWITCH (Not shown):	Activates the Top Hold-down Platen on machines so equipped.

WRAPPING PROCEDURE
FOR AUTOMATIC MACHINES

A certain amount of trial and error is necessary to determine the most economical combination of film thickness, film tension, and number of wraps that will guarantee that your product or merchandise will arrive at its destination adequately protected.

The following sequence outlines the wrapping process:

1) Load the pallet to be wrapped onto the turntable. Be careful to center the load. If standard pallet sizes are used, it may be helpful to outline the sizes on the turntable.

2) Release the film tension brake (see fig. 7) by rotating it counterclockwise. Pull the end of the film out to the pallet, and "snag" it between the boxes or on the part being wrapped so that it will be pulled off the roll when the turntable begins rotating.

3) If your machine has a Top Platen Press, lower it to either stabilize or compress the load as required.

4) Set the "Mode Selector Switch" on "AUTO".

5) Set the "Bottom Wrap Selector" to the number of wraps (turntable revolutions) that will be required to secure the load to the pallet. Usually two or three wraps are sufficient.

6) Position the magnetic strip on the elevator so that the arrow is at the top of the film roll (see fig. 9).

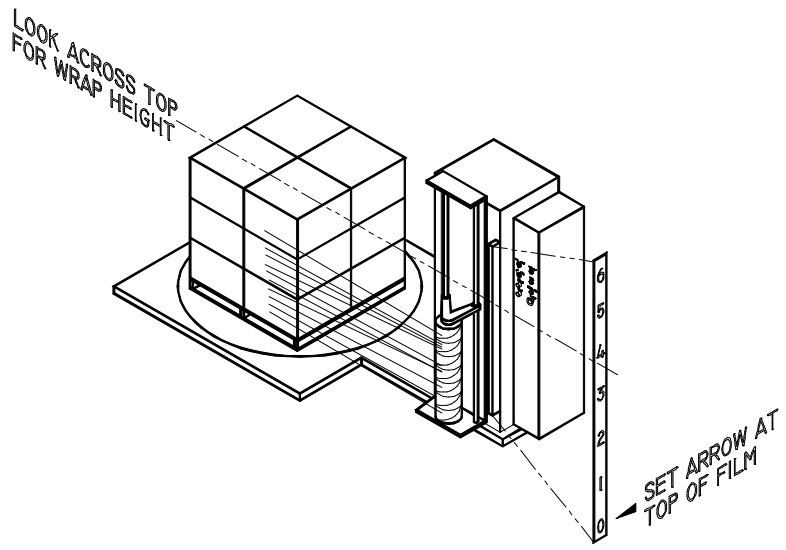


Fig. 9

7) Sight across the top of the pallet and select the number on the magnetic strip that most closely corresponds to the pallet height. Adjust the "Wrap Height Selector" to this value.

8) Set the "Top Wrap Selector" to the desired number of wraps around the top of the pallet.

9) Press the "Start Pushbutton" to activate the turntable. After the load has revolved approximately ½ turn, increase the brake tension for maximum film yield and effective wrapping.

10) The machine will now automatically wrap the load without additional operator input.

11) After the wrapping cycle stops, cut the film near the pallet and smooth the loose end so that it adheres to the pallet.

12) On models without the indexing option, go to manual mode and use the "jog forward" button to rotate the pallet until it is properly aligned for easy unloading.

LOADING FILM

To install the desired roll of film:

1) Lift the upper brake assembly.

2) Put the bottom opening of the roll core over the bottom chuck spindle and stand the roll up.

3) Slide the upper brake assembly down with a fast hard motion to seat the top chuck into the roll core. **Do NOT hammer the top brake assembly into the roll core.**

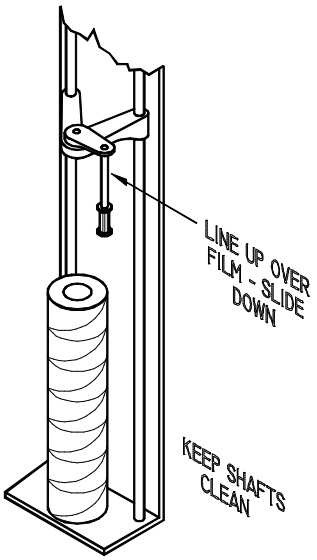


Fig. 10

SCALE OPTION

SET UP: Plugging in the machine powers up the scale automatically. Press the "Auto-Zero" button on the scale readout on the machine column to clear the scale before weighing.

ADJUSTMENTS: Install a 1/2-20 X 2" socket head cap screws into each load cell. Carefully adjust each screw so that they all bear the same load.

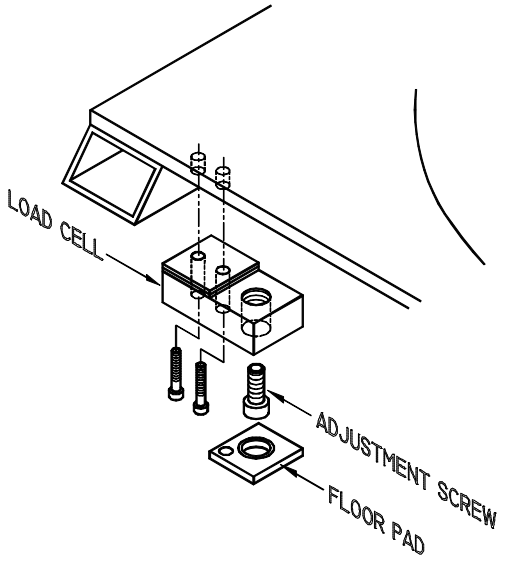


Fig. 11

TOP PLATEN PRESS OPTION

A 1/4" air line connection is provided for each Altek machine equipped with a Top Platen Press. The air line is piped directly to the filter/regulator/lubricator located on the side of the machine.

The press is designed to operate at a minimum pressure of 80 PSI. Failure to use the proper air pressure can cause erratic operation and may void the warranty.

The hold down force can be controlled by adjusting the pressure regulator.

Use the foot switch to raise and lower the press.

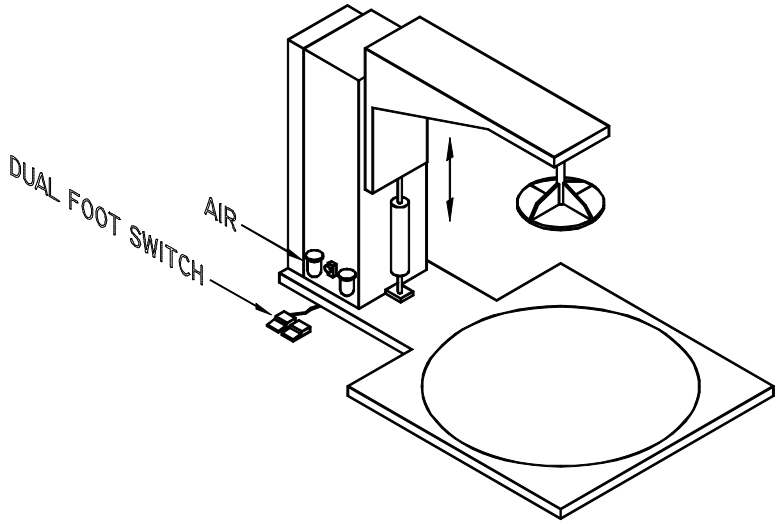


Fig. 12

TROUBLESHOOTING GUIDE

Different fault conditions could occur that would cause the machine to malfunction. The following list of machine faults is by no means complete, but is intended to assist in solving the most common machine problems.

Problem	Probable Cause	Solution
Turntable will not turn	No Power	Confirm machine is plugged in and ON/OFF switch is in the “ON” position
	Bad fuse	Check 1FU and replace with FLM 1 Amp if required
	Motor overload	Reduce pallet load and reset red overload button on back side of motor
	Loose belt	Inspect turntable motor belt and tighten or replace as required
	Chain off sprocket	Remove the turntable. Put chain on sprocket and adjust chain tension per maintenance instructions.
Turntable binding or straining to rotate	Turntable bearing	Make sure turntable bearing is properly lubricated
	Foreign debris under turntable	Remove turntable and turntable visually check for debris around chain and sprocket
Turntable rotates counterclockwise (3 phase only)	Phase problem	Have a qualified electrician swap two phases of the incoming power to the machine
Improper number of top and/or bottom wraps	Rotary switches are set incorrectly	Confirm settings
	Faulty timers	Swap timers to see if problem moves. If so, replace defective timer
Elevator won't travel up and down correctly	See solutions for "Improper number of top and/or bottom wraps”	
	Photo eye needs adjusting (for automatic machines)	Check that eye is aligned and sensitivity adjustment is set correctly
	Low voltage	Confirm proper supply voltage at machine. Eliminate long power runs or extension cords
	Loose clutch or belt	Check and adjust as necessary
	Bad or loose energy block or chain	Remove the elevator body block or chain from the v-track and check the energy block and chain tension (See fig. 13)
Elevator loose on carriage track	Loose v-roller bearings	Adjust right side v-roller bearings
Improper stretch wrap	Manual brake tension out of adjustment	Check brake tension and adjust if required (per maintenance instructions)

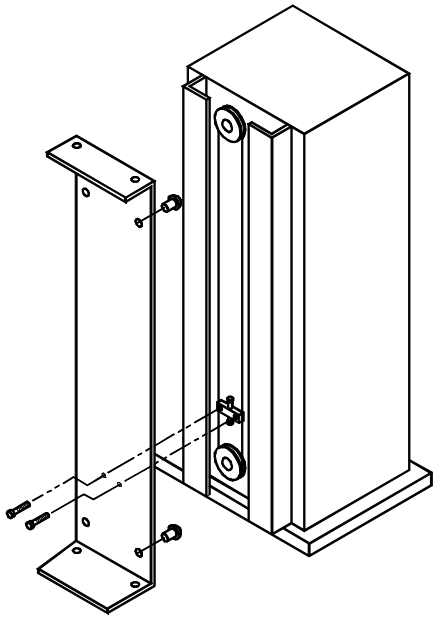


Fig. 13

MAINTENANCE

Your Altek stretch wrap machine has been fully serviced prior to shipping. However, some periodic maintenance is required to keep it functioning properly.

RECOMMENDED LUBRICANTS:

Sprockets, Chains, Elevator rollers, Turntable bearings, etc.	Chevron Poly FM Lithium base grease or equal
Elevator and Turntable gearboxes and felt pads under turntable rollers	Chevron Universal Gear Lubricant SAE 80W-90 Gear oil or equal

ARCTIC PAK OPTION:

If the stretch wrap machine is to be operated in extremely cold temperatures for extended periods of time (ice cream and frozen food manufacturers, for example), Altek recommends the following to ensure proper machine operation.

Chain bearings, Sprockets, Chains, Elevator Rollers, etc.	Chevron Poly-urea EPI Grease or equal
Elevator and Turntable gearboxes and felt pads under turntable rollers	Chevron Synthetic Gear lube Tegra SAE 75W-90 Gear oil or equal

Also, a 600-Watt heater should be placed in the Altek machine's column.

SPEED CHANGE:

To increase the turntable's speed from 6 to 9 RPM:

1) Change the pulley on the turntable gearbox to Altek #T-1008-9.

2) Change the pulley belt to Altek #T-1015.

TURNTABLE LUBRICATION:

SEMI-ANNUALLY: Replace the button head screw in the center of the turntable with a standard grease "zerk" fitting and lubricate with suitable grease (see fig. 14).

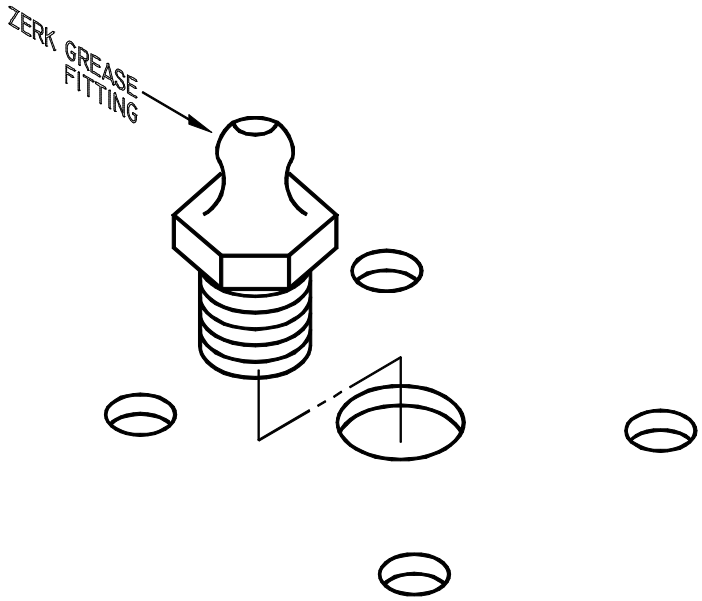


Fig. 14

TURNTABLE DRIVE CHAIN TENSION:

ANNUALLY: Inspect the drive chain tightness. If adjustment is required, loosen the bolts holding the motor gearbox mount inside the column, pull the assembly toward the rear, and retighten the bolts.

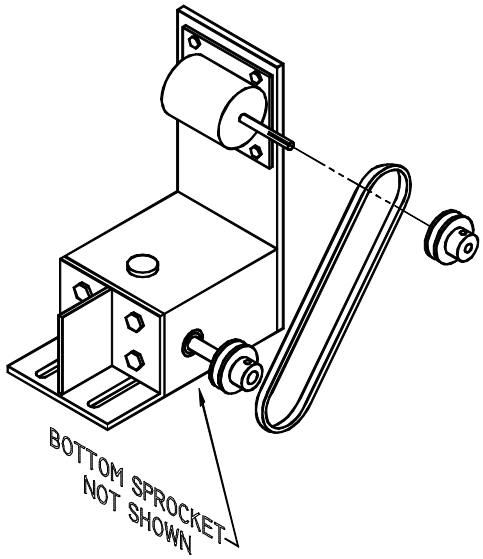


Fig. 15

ELEVATOR DRIVE CHAIN TENSION:

ANNUALLY: Inspect the elevator drive chain tension. If adjustment is required, loosen the 9/16" hex head bolts holding the elevator motor/gearbox mount, adjust the 1/4" drive socket setscrew located below the mount welded to the column, and retighten the 9/16" hex head bolts.

ELEVATOR SLIP CLUTCH ADJUSTMENT:

The elevator slip clutch, attached to the input shaft of the gearbox, can be adjusted by loosening the two setscrews in the large nut. Turn the nut clockwise to increase the slip torque or counterclockwise to decrease the slip torque. Retighten the setscrews after making adjustments.

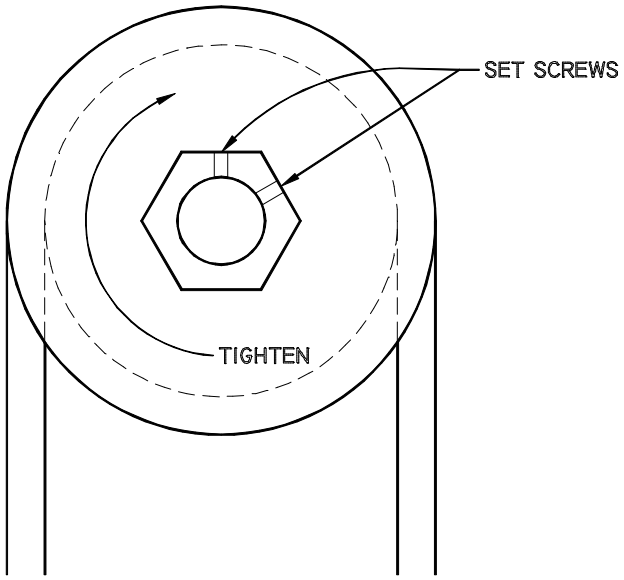


Fig. 16

FILM TENSION BRAKE ADJUSTMENT:

AFTER THE FIRST THREE MONTHS, THEN ANNUALLY: Remove the brake adjustment arm from the brake spindle. Rotate the brake tension nut to tighten it. Then replace the brake tension arm. Be careful not to over tighten the brake handle hold down nut. This would put unnecessary strain on the brake arm casting.

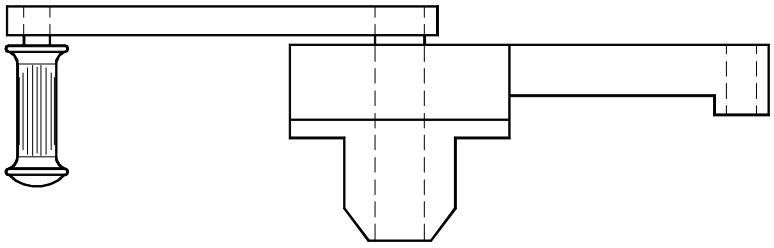


Fig.; 17

ENERGY BLOCK:

ANNUALLY: The energy block is located on the column, behind the film carriage. Turn the power off. Then remove the film carriage, and tighten the cap screws holding the spring retainers.

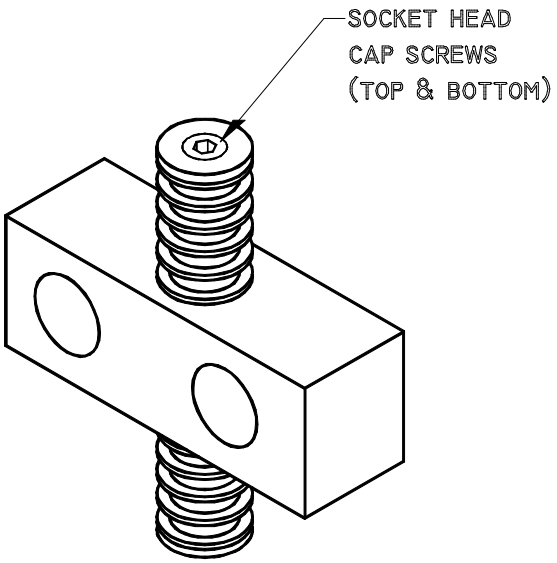


Fig. 18

TURNTABLE CLEANING AND LUBRICATION:

ANNUALLY OR AS NEEDED: Turn off the power. Remove the four turntable cap screws, and lift the turntable off of the sprocket. Clean out any debris that has accumulated under the table. Lubricate the chain and chain guide assembly and soak the felt pads under each tapered roller with an appropriate oil. Replace the turntable.

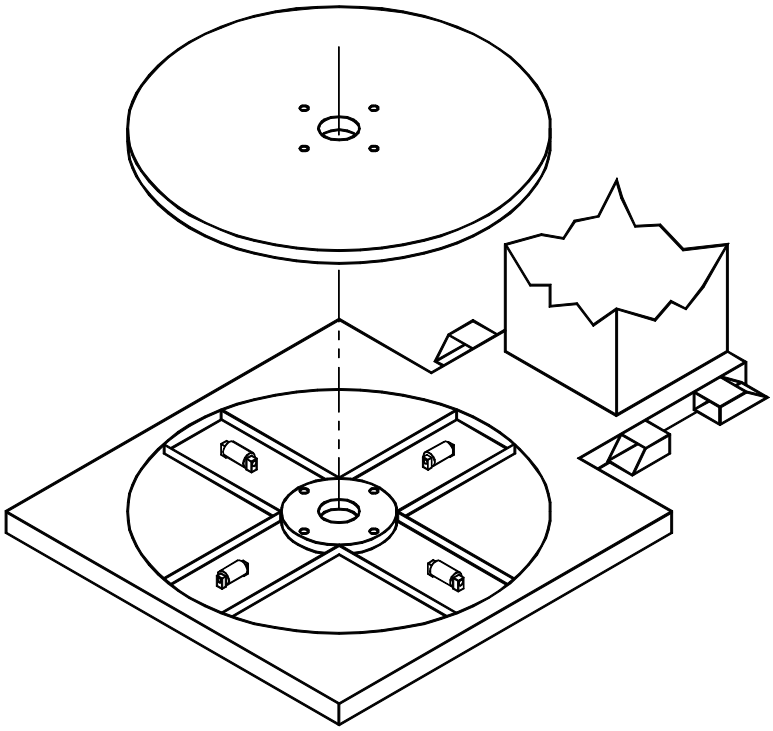


Fig.19

Service Record

Service Date					
Turntable Lubrication (semi-annually)					
Turntable Drive Chain Tension (annually)					
Elevator Drive Chain Tension (annually)					
Film Tension Brake Adjustment (3 mo., then annually)					
Tighten Energy Block & Lube Elev. Chain (annually)					
Clean Under Turntable & Lube Chain & Roller Pads (annually)					

MODEL 100

Weight	5 lbs. est. shipping weight
Dimensions	24" H
Maximum Load Size	None
Film Dispenser (Altek Model "A" Hand Stretch Wrapper)	Accepts any conventional "Hand wrap" film, 12", 15", or 18"widths and core dia. of 1 1/2", 2 1/4", of 3"

MODEL 200

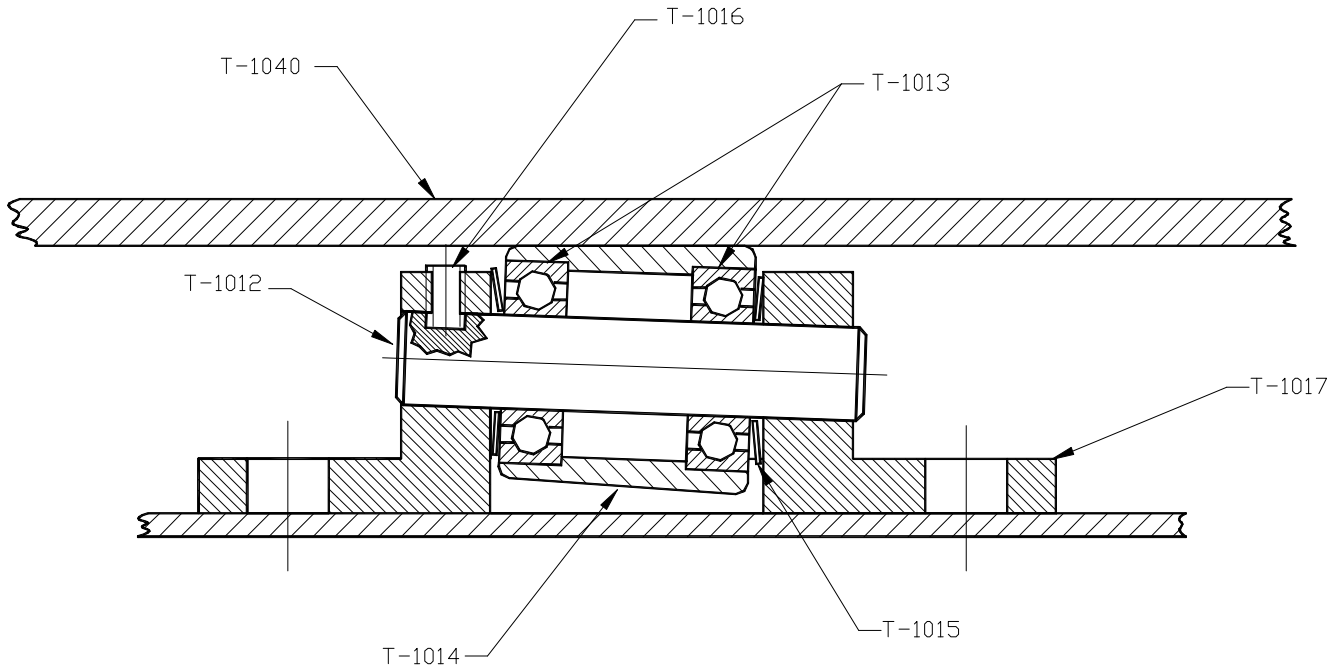
Weight:	200TT	650 lbs. (est. shipping weight)
	200FW	900 lbs. (est. shipping weight)
Dimensions:	200TT	48" W x 97" L x 74" H
	200FW	48" W x 97" L x 74" H
Maximum Load Size		48" x 48"
Film		All films up to 60" wide
Film Braking System		3 piece mechanical brake
Turntable Support		29,000 lbs. cap. center thrust bearing and four-tapered roller bearing assemblies
Turntable Static Capacity		40,000 lbs.
Turntable Rotating Capacity		2,000 lbs.
Turntable Drive		3/4HP, 110VAC, Chain, 6 RPM
Film Carriage Drive		1/2HP, 110VAC, Chain
Chassis Construction		Structural steel tubing, boxed honeycomb design, steel

MODEL 400

Weight	970 lbs. (est. shipping weight)
Dimensions	52" W x 97" L x 74" H
Maximum Load Size	60" x 60" x 100"
Film	All films up to 70" wide
Film Braking System	3 piece mechanical brake
Turntable Support	29,000 lbs. cap. center thrust bearing and 4 tapered roller bearing assemblies
Turntable Static Capacity	50,000 lbs.
Turntable Rotating Capacity	4,000 lbs.
Turntable Drive	1HP, 110VAC, Chain, 6 RPM
Film Carriage Drive	1/2HP, 110VAC, Chain
Chassis Construction	Structural steel tubing, boxed honeycomb design, steel

MODEL 600

Weight	1235 lbs.(est. shipping weight)
Dimensions	64" W x 106" L x 74" H
Maximum Load Size	60" x 60" x 100"
Film	All films up to 70" wide
Film Braking System	3 piece mechanical brake
Turntable Support	29,000 lbs. cap. center thrust bearing and 6 tapered roller bearing assemblies
Turntable Static Capacity	50,000 lbs.
Turntable Rotating Capacity	6,000 lbs.
Turntable Drive	1HP, 110VAC, Chain, 6 RPM
Film Carriage Drive	1/2HP, 110VAC, Chain
Chassis Construction	Structural steel tubing, boxed honeycomb design, steel plate

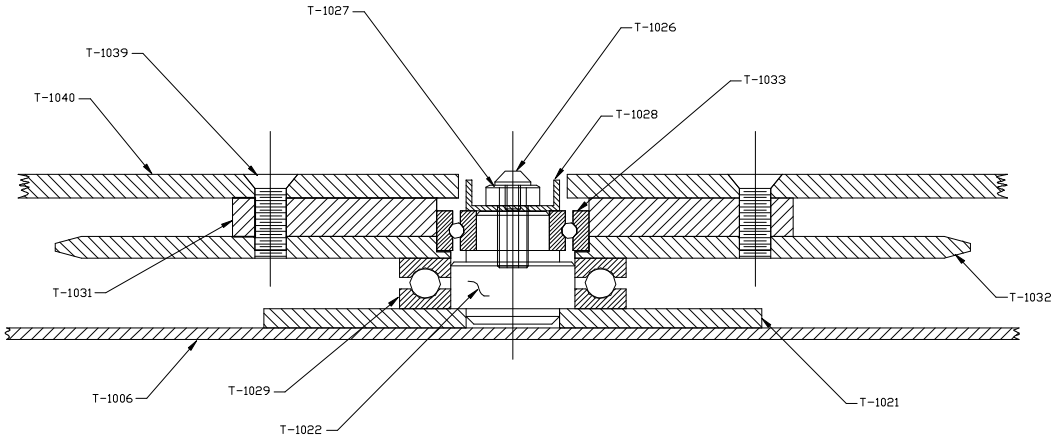


REV #2 5/5/94, GS, DRWG NO WAS T-2010-A, DELETED C'SINK, REVISED PART NUMBERS

ALTEK MFG. CO.
DIVISION OF PRECISION AUTOMATION CO.,INC
CLARKSVILLE, IN. 47131

DRAWN BY	TITLE	
DESIGNED BY	TURNTABLE ROLLER ASSY	
SCALE FULL	DRAWING NO. T-1010-A	REV. 2
DATE 6-15-90		

PART No.
T-1020-A



ALTEK MFG. CO.
DIVISION OF PRECISION AUTOMATION CO.,INC
CLARKSVILLE, IN. 47131

DRAWN BY	TITLE	
DESIGNED BY	CENTER SPINDLE ASSEMBLY	
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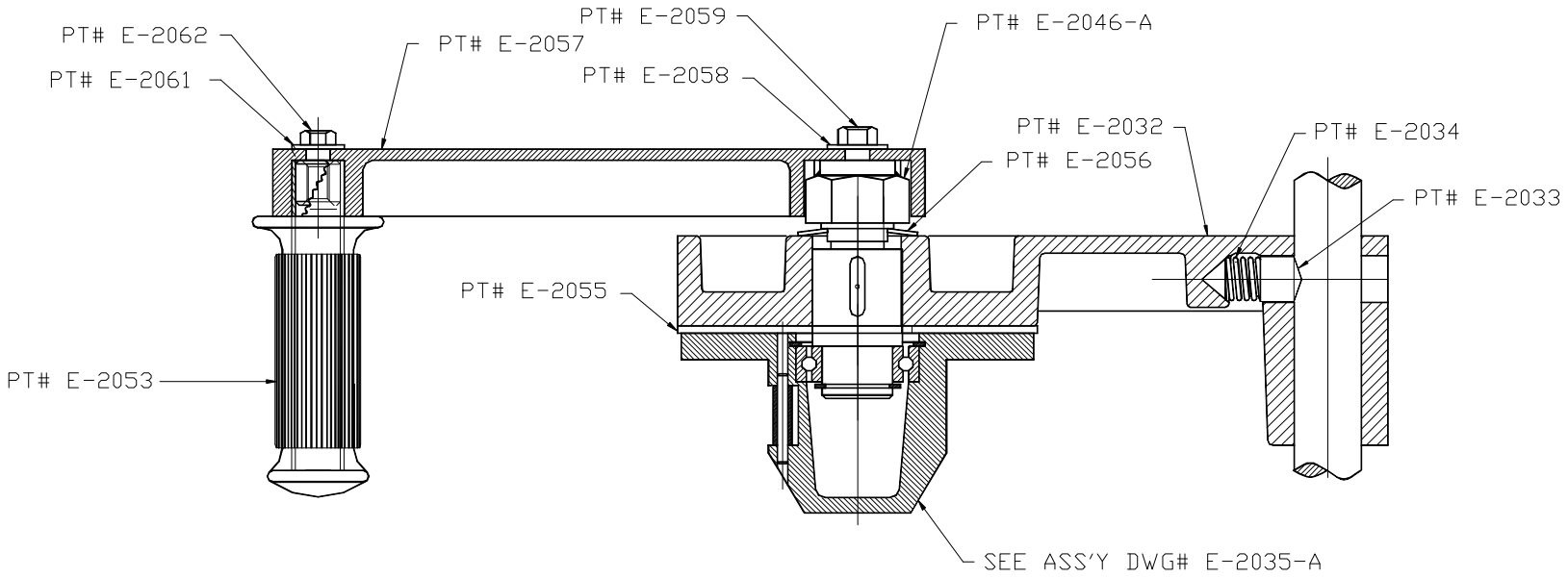
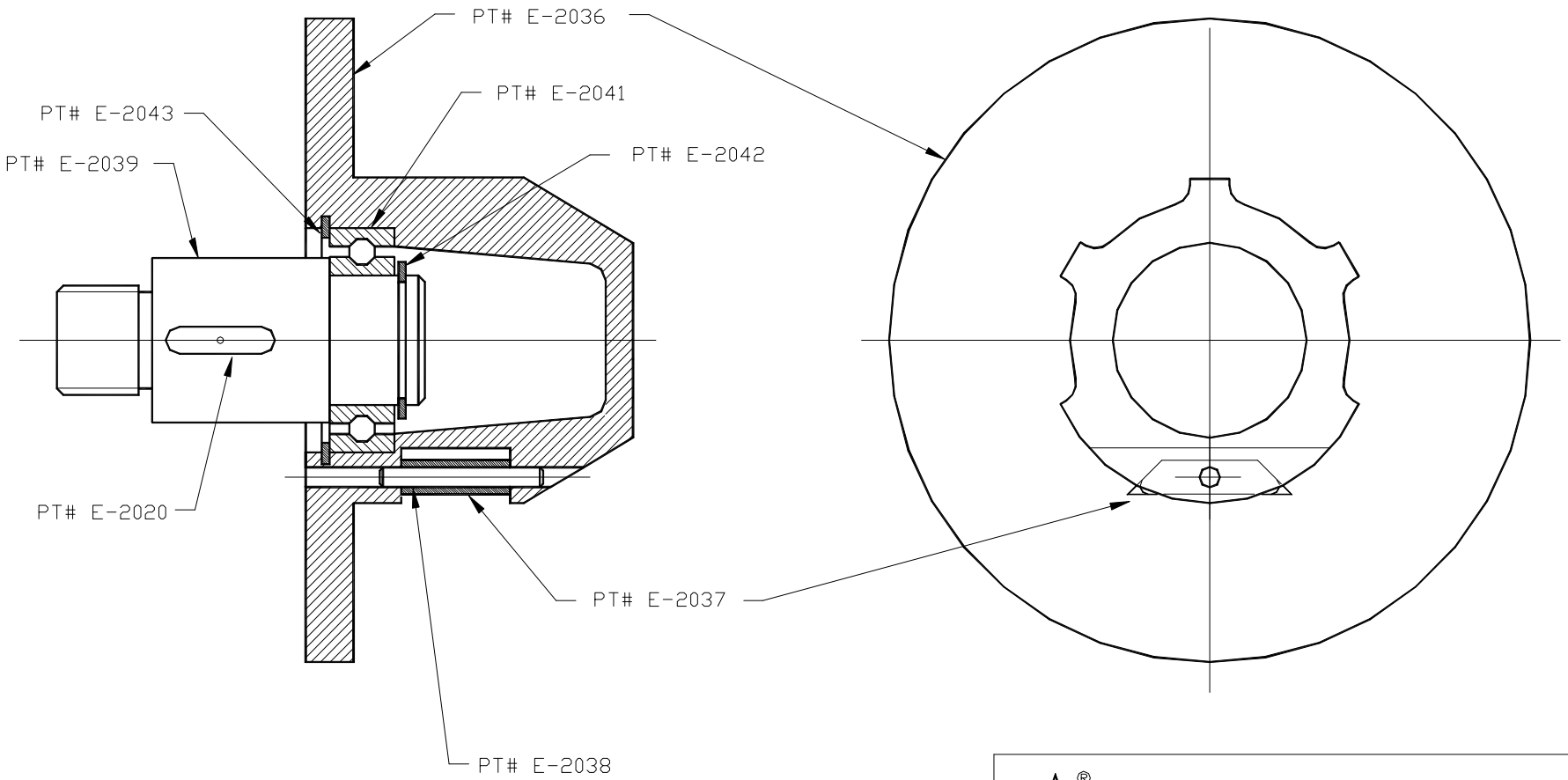
DATE 6-21-90		



ALTEK MFG. CO.
DIVISION OF PRECISION AUTOMATION CO.,INC
CLARKSVILLE, IN. 47131

DRAWN BY	TITLE: COMPLETE UPPER BRAKE ASS'Y
DESIGNED BY	
SCALE: FULL	
DATE: 7-20-90	DRAWING NO.: E-2030-A
	REV.: A



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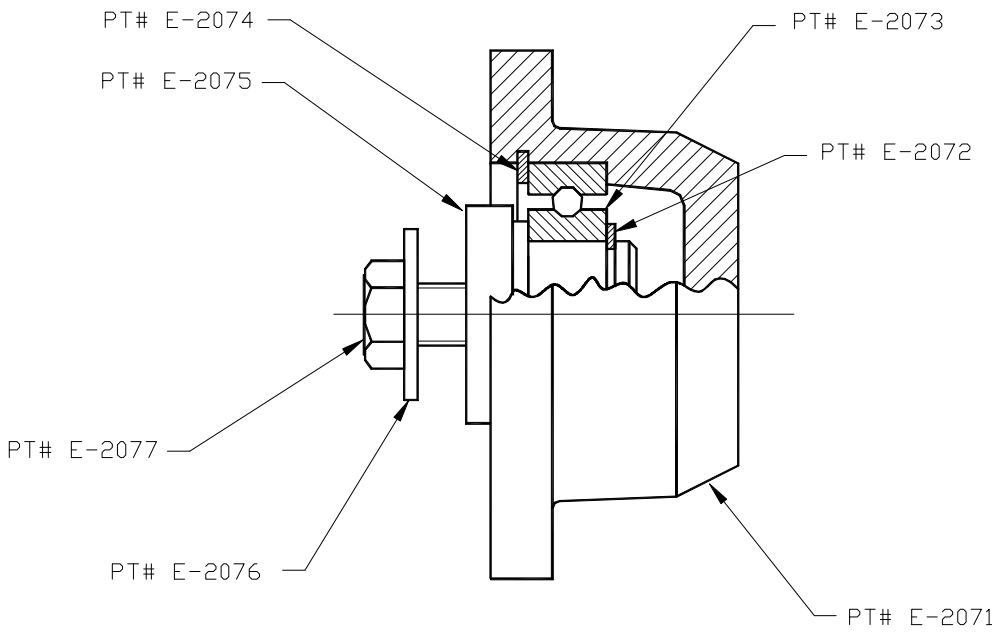
DRAWN BY	TITLE: UPPER CORE CHUCK ASSEMBLY
DESIGNED BY	
SCALE: FULL	
DATE: 7-3-90	DRAWING NO.: E-2035-A
	REV.



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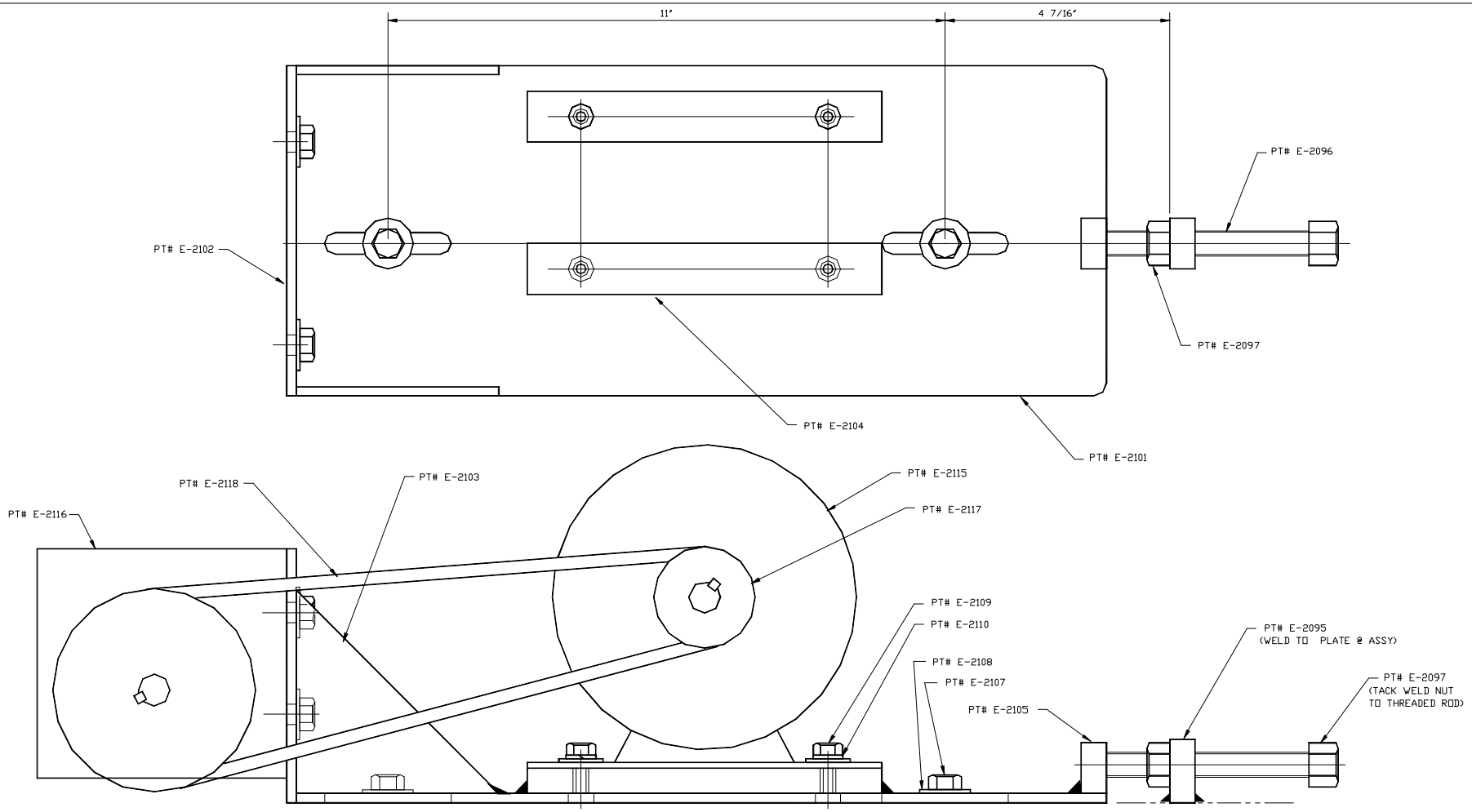
DRAWN BY	TITLE	
DESIGNED BY	LOWER CORE CHUCK ASSEMBLY	
SCALE FULL	DRAWING NO. E-2070-A	REV.
DATE 7-5-90		



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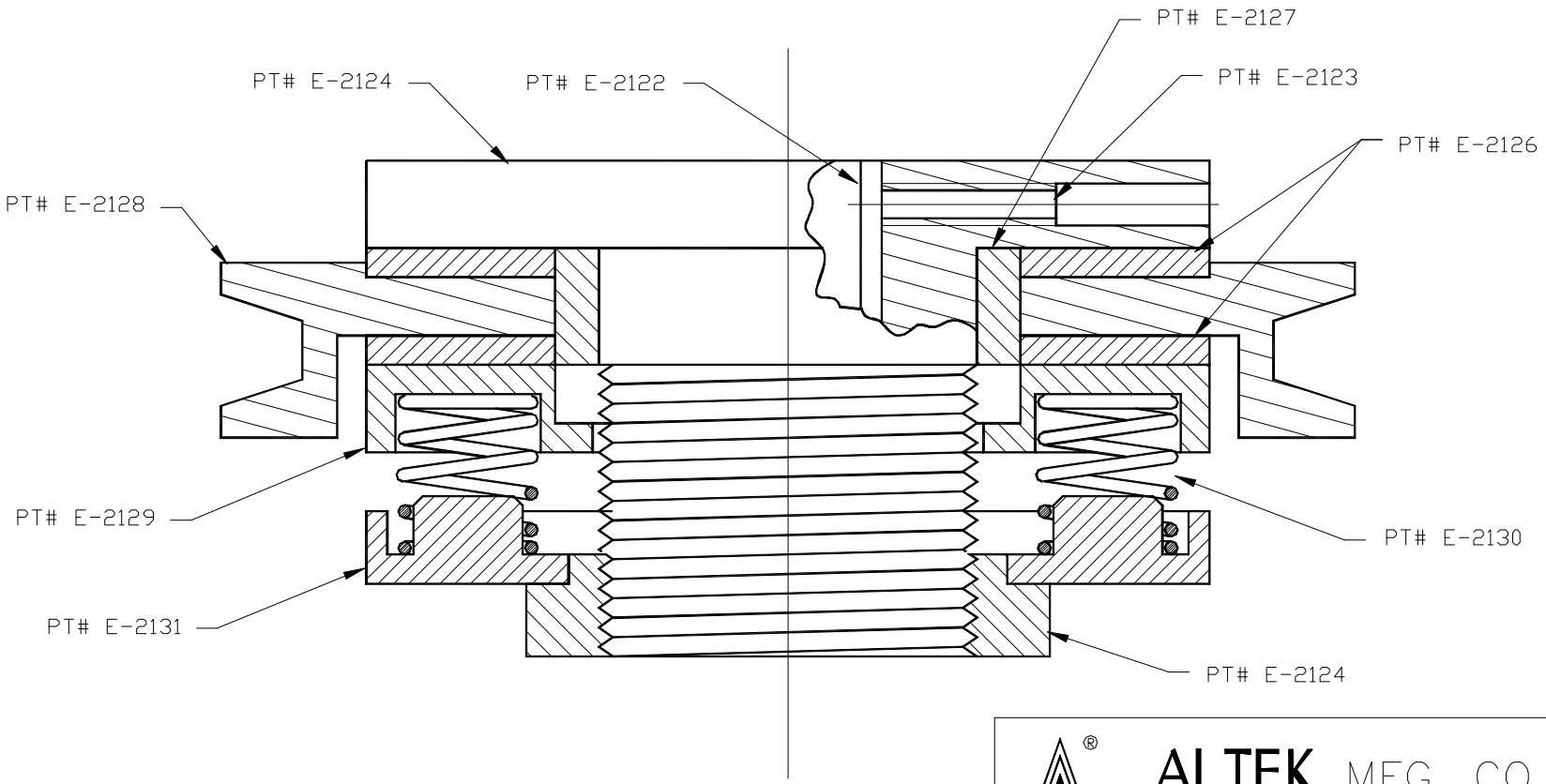
CLARKSVILLE, IN. 47131

DRAWN BY	TITLE: FILM CARRIER DRIVE BASE ASSEMBLY
DESIGNED BY	
SCALE: FULL	DRAWING NO.: E-2100-A
DATE: 7-10-90	REV.



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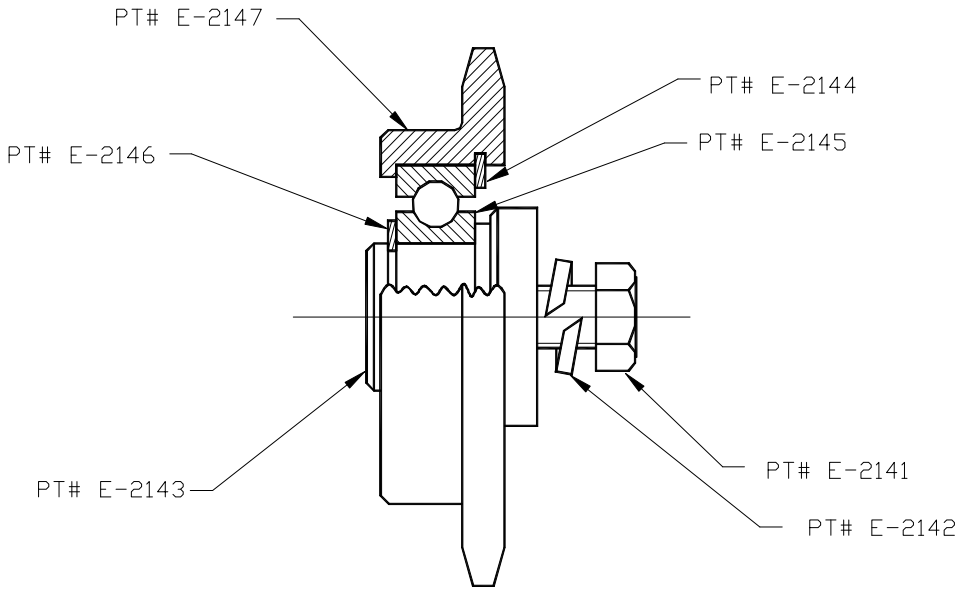
DRAWN BY	TITLE: ELEVATOR CLUTCH ASSEMBLY
DESIGNED BY	
SCALE 2X	
DATE 7-10-90	DRAWING NO. E-2120-A
	REV.



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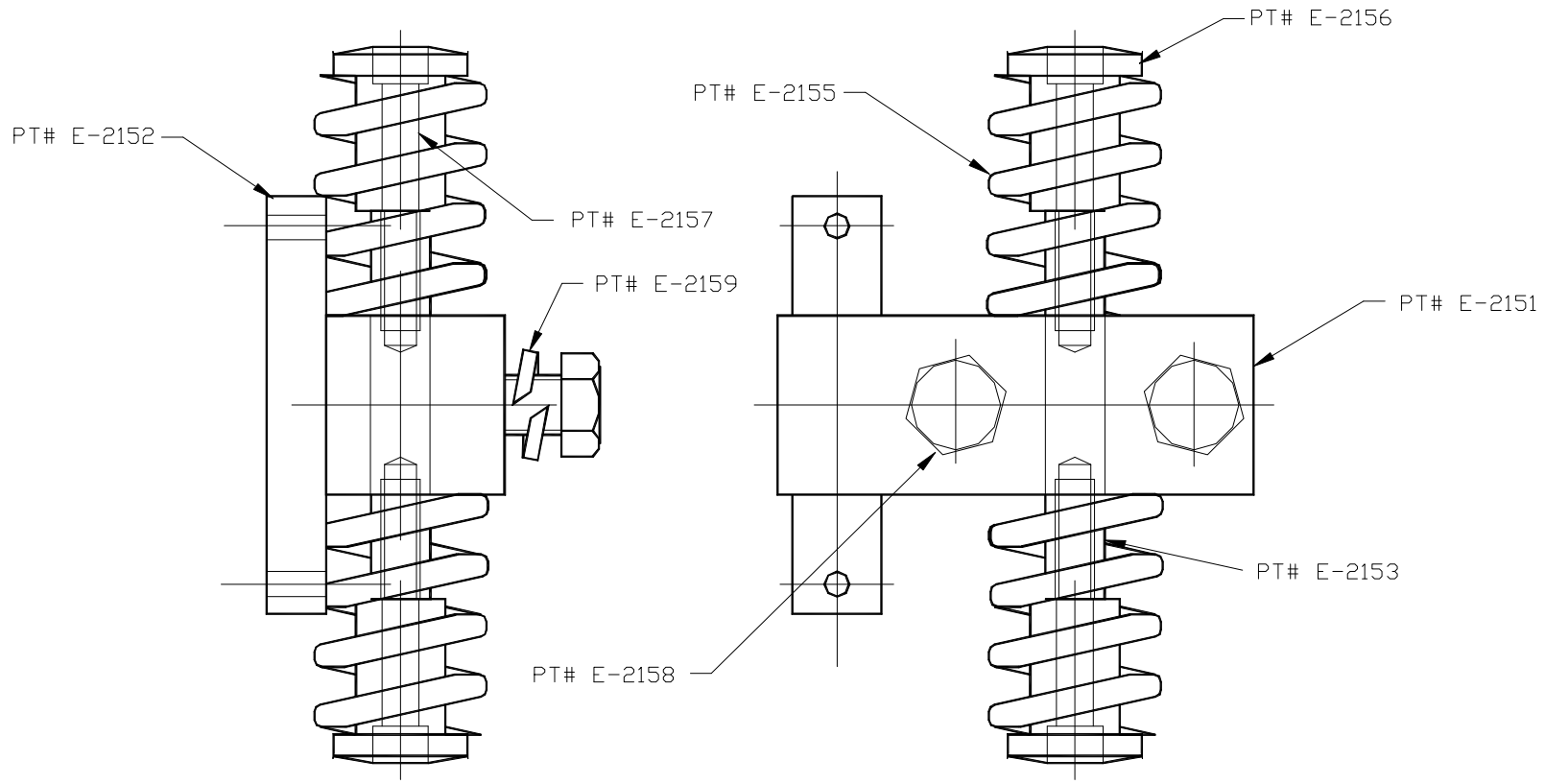
DRAWN BY	TITLE: ELEVATOR IDLER SPROCKET ASSEMBLY
DESIGNED BY	
SCALE: FULL	
DATE: 7-14-90	DRAWING NO.: E-2140-A
	REV.



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CLARKSVILLE, IN. 47131

DRAWN BY	TITLE: ENERGY BLOCK ASS'Y
DESIGNED BY	
SCALE: FULL	
DATE: 7-16-90	DRAWING NO.: E-2150-A
	REV.: A

ALTEK

P. O. Box 2188 Clarksville, IN 47131 · Phone: 812-283-7963 · Fax: 812-283-7992
Web Site: www.pacomfg.com

WARRANTY

ALTEK (MANUFACTURER) WARRANTS ALL MANUFACTURED PROPRIETARY PARTS AND FABRICATION TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP, UNDER NORMAL USE, WITHIN 6 MONTHS OF THE PURCHASE DATE, THE PARTS AND FABRICATION COVERED UNDER THE WARRANTY ARE AS FOLLOWS:

1. ALL SHEET METAL AND STEEL FABRICATION
2. "V" TRACK FILM CARRIAGE ROLLERS (NO BEARINGS)
3. "V" TRACK STABILIZING PLATEN ROLLERS (NO BEARINGS)

ALL OTHER "PURCHASED " O.E.M. PARTS AND COMPONENTS ARE WARRANTED TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP, UNDER NORMAL USE, FOR A PERIOD OF THIRTY DAYS FROM THE DATE OF SHIPMENT.

PARTS ARE "NO CHARGE" WITHIN THE WARRANTY PERIOD, WHEN, UPON EXAMINATION, PROVE TO BE DEFECTIVE. ALL SHIPPING COSTS ARE THE RESPONSIBILITY OF THE ORIGINAL PURCHASER.

THIS WARRANTY EXTENDS ONLY TO THE ORIGINAL PURCHASER FROM THE MANUFACTURER AND IS NOT TRANSFERABLE. REPAIRS MADE BY ANYONE OTHER THAN MANUFACTURER'S AUTHORIZED FACTORY REPRESENTATIVE SHALL RENDER THIS WARRANTY VOID. THIS WARRANTY DOES NOT COVER DAMAGE RESULTING FROM ACCIDENTS, ALTERATION, MISUSE OR ABUSE, ACTS OF GOD, OR FAILURE TO FOLLOW PROPER OPERATING INSTRUCTIONS AND ONLY COVERS DEFECTS IN MATERIALS AND WORKMANSHIP. DAMAGES CAUSED IN TRANSPORTATION OR MAILING ARE NOT COVERED BY THIS WARRANTY.

MANUFACTURER MAKES NO WARRANTY OF MERCHANT ABILITY AND NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE. NOR DOES IT HAVE ANY WARRANTY, EXPRESS OR IMPLIED, OF ANY NATURE WHATSOEVER, WITH RESPECT TO PRODUCTS SOLD BY MANUFACTURER OR THE USE THEREOF EXCEPT AS IS SPECIFICALLY SET FORTH ON THE FACE HEREOF EVEN THOUGH IT MAY HAVE BEEN NEGLIGENT. MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PENAL DAMAGES. MANUFACTURER MAKES NO WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO CONSUMERS AS THAT TERM IS DEFINED IN THE MAGNUSON-MOSS WARRANTY – FEDERAL TRADE COMMISSION IMPROVEMENT ACT.