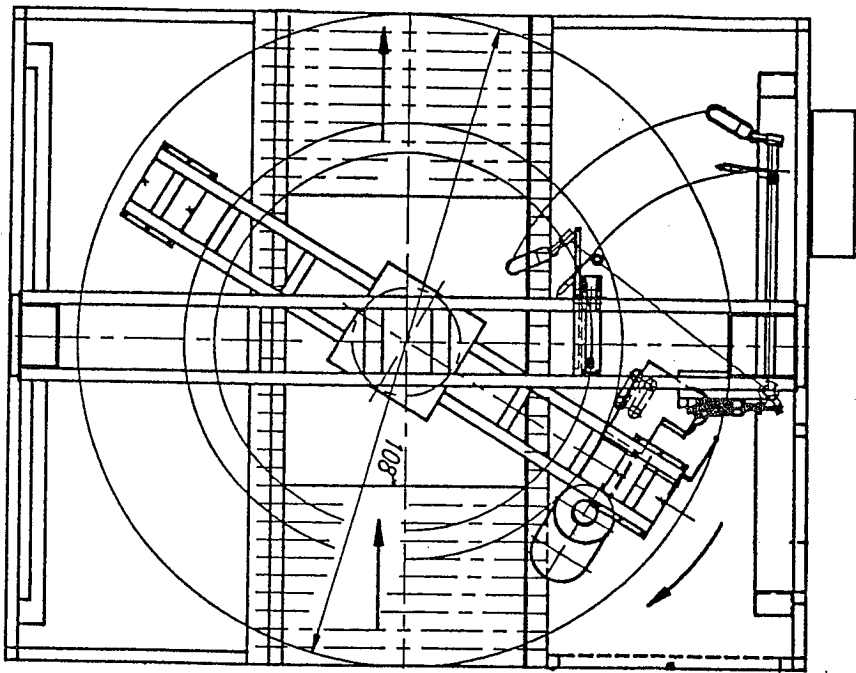
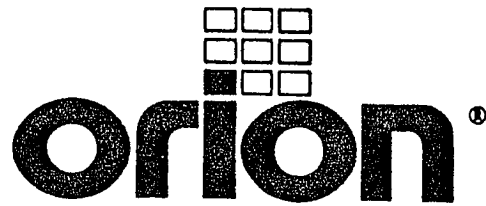


orion[®]



STRETCHWRAPPERS





INSTRUCTION MANUAL

FOR ALL INQUIRIES
PLEASE CONTACT
OUR LOCAL DISTRIBUTOR

FOR U.S. (ONLY)
1-800-333-6556

Thank you for choosing ORION stretch-wrapping equipment. It is a wise choice which will benefit your company now and in the future.

ORION uses a unique combination of functional, rugged steel structure and sophisticated control systems to offer equipment high in durability and low in maintenance requirements. Our advanced control systems mean that ORION equipment can be operated safely and efficiently without the need for special operator expertise.

Please read this manual carefully and keep it handy. Following these simple operating instructions will insure the safe and efficient performance of this machine while simple maintenance procedures will guarantee a long and productive life of the equipment.

NOTICE:

Our manual covers standard features of the machine. Certain options may not be fully covered due to their unique application.

In order to acquire more information about custom made features of your machine and to provide quicker service, the following information is required when making an inquiry:

- 1) MODEL 7 1 1 7 7 2 0
- 2) SERIAL NUMBER
- 3) SUBASSEMBLY (see PART LIST)

SAFETY:

ORION'S stretch wrappers should be operated with caution and common sense as any other industrial equipment. To prevent injury and / or electrical shock, careful operation of the machine and awareness of its many automatic functions is required.

Note: All electrical power and compressed air must be disconnected prior to performing any inspection, maintenance or repair work.

ORION PACKAGING INC.

Semi-Automatic Machines Version -12. Specifications

(Revised: June 10, 1997)

ORION "MATRIX" SERIES MODEL M-55GS

L 7 1 1 7 7 2 0

Spiral Semi-Automatic Heavy Duty Gantry Style Rotary Tower System

Maximum Load Size	50"W x 50"L x 80"H (Max Load Diagonal 71")
Weight Capacity	Unlimited (Floor Loaded)
Utilities	115/1/60 20 Amp Service
Rotary Tower	20" Diameter Ring Bearing Tower Support Structural Steel Tube Design with Steel "H" Beam Mast
Tower Drive	Heavy Duty ANSI Chain & Sprocket Drive 0 - 18 RPM Variable Tower Speed Electronically Adjustable Acceleration/Deceleration (Soft Start) DC Variable Speed Drive Motor Positive Home Position Alignment Feature
Control Features	CSA Approved, NEMA 12 Control Panel State-of-the-Art Allen Bradley PLC for Maximum Flexibility User Friendly Controls with Non-Proprietary Pushbuttons and Switches Load/Personnel Safety Stop Photocell System Electronic Film Tension Control Adjustment on the Panel End of Cycle Film Force Release <u>RevoLogic® Exact Top and Bottom Wrap Counting Logic</u> Separate Top and Bottom Wrap Count Selectors Variable Speed & Separate Film Carriage Up/Down Controls Film Carriage Raise/Lower Switch (Manual) Cycle Pause On/Off Switch Reinforce Wrap Switch for Banding Photocell for Automatic Load Height Detection with On/Off Switch Tower Jog Pushbutton Spiral Up or Up/Down Cycles
Film Delivery	20" Orion Power Prestretch <u>"InstaThread™" Self Threading Carriage</u> Electronic Film Tension Control Adjustment on the Panel Full Authority Film Dancer Bar with Variable Speed Output Heavy Duty ANSI Chain & Sprocket Ratio Control Maximum Available Pre-Stretch Ratio of 395% (Standard Setting of 245%) DC Variable Speed Drive Motor
Film Carriage Elevator Drive	Heavy Duty ANSI Chain Carriage Lift DC Variable Speed Drive Motor Structural "H" Beam Guidance Ultra-High Molecular Weight Carriage Guidance System
Structural Features	100% Structural Steel Construction Throughout Non-Proprietary, Locally Obtainable Components Throughout Easy Access to All Components Open Mechanical Design for Ease of Maintenance Free Standing Two Leg Design (Self-Supporting) Expanded Metal Safety Fencing Around Process Area
Estimated Shipping Weight	2,700 lbs.

MACHINE UNLOADING INSPECTION & INSTALLATION

UNLOADING

Machine can be easily unloaded and transported by a forklift with a minimum capacity of 2500 lbs.

1. Carefully insert the forks into the lifting tubes to the maximum possible depth. Depending on the model, a forklift access may be either at the turntable end of the machine frame, the tower end or both. In case of the mongoose machine or the conveyor, enter the forks under the frame.
2. Lift the machine (or other part of system) only to the necessary height to move it with no bouncing or friction on the floor.
 - 2a. On the mongoose machines use the brackets welded on the top part of the machine.
3. Sit the machine down assuring uniform contact with the floor which is necessary to ensure correct and smooth operation.
 - 3a. Mongoose type machines (M66, M67) have to be attached on the bracket or on the stand (collapsible or anchored to the floor). The M55 has it's own supporting frame which allows the machine to stand independently.

INSPECTION

1. Remove all packing and supporting additions - these may include the blocks under the carriage and the restraining bar over the table.

NOTE: when removing the stretchwrap film covering the machine, care must be taken not to cut any of the electrical wires and rubber covering on the multistretch rollers.

2. Perform a visual inspection of the electrical and mechanical parts for loosened joints and / or broken connections. Any suspected shipping damage must be reported immediately to the freight carrier.

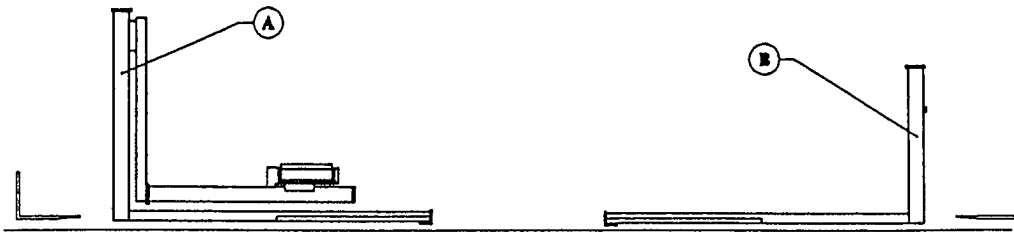
Items that are vulnerable to damage and must be inspected are as follows:

- motors and transmissions
- junction boxes
- electrical conduits
- proximity and limit switches
- photocells

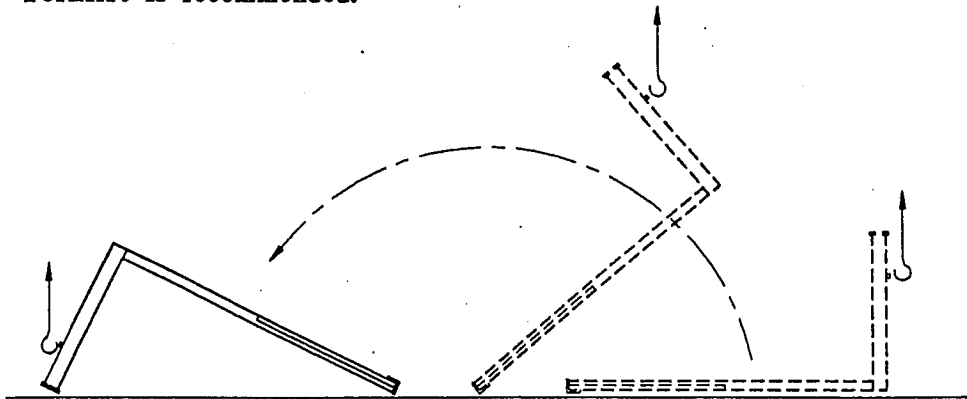
3. Check under the turntable (H - series models only) to ensure that there is no crippling of the movable parts i.e. casters, center axle or drive assembly.

4. Verify the following:

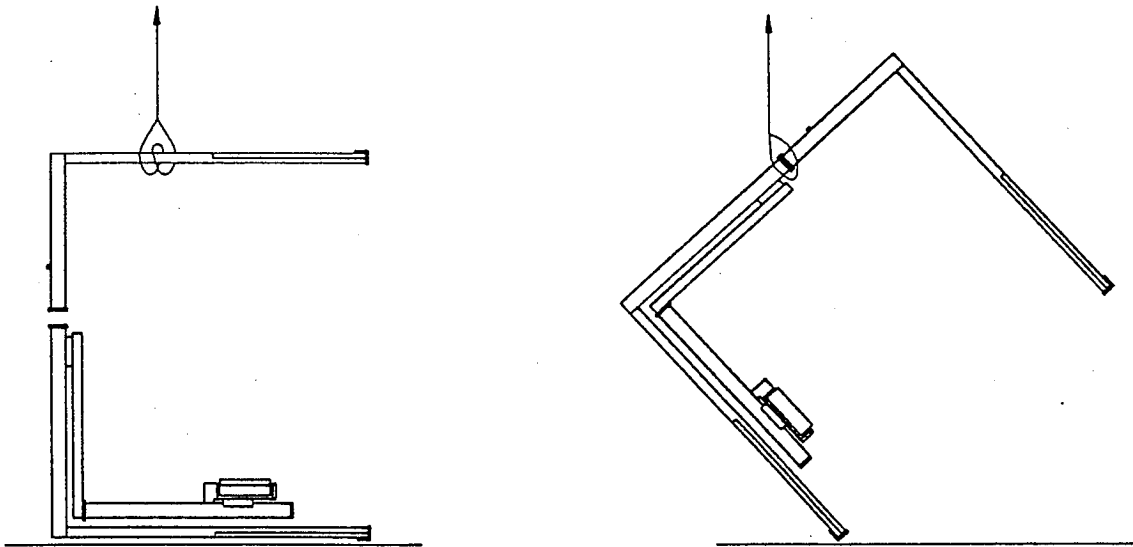
- turntable or rotary arm drive system to confirm that the reducer to drive the chain is snug and properly aligned
- verify the wires tight conduits for crushed sections or loose fittings
- verify the carriage to be sure that it is correctly aligned with the tower and verify the tension on the lift chain
- verify all the dials and knobs on the control panel for smooth action.



1. Lay down parts A & B of the machine as shown
Forklift is recommended.



2. Turn over part "B" (special lifting eye is provided for this purpose).



3. Find a balance point of part "B" with a sling belt (2 or more loops if necessary). Once properly balanced, lift part "B" and bolt to the part "A".

4. Lift machine into proper upright position using the same sling belt - properly placed over bolted section (with one loop only !)

NOTE: Prior to start-up, machine must be levelled* and bolted securely to the floor.

* Tower deviation from vertical should be less than 1/4" on a distance of 10 feet (angle 0 degrees 6').

MOUNTING PROCEDURE SCHEMATIC FOR M-55, MA-55 & MPA-55

MACHINE INSTALLATION

After the visual inspection has been completed the electrical power and the compressed air may be connected as specified on the diagrams supplied with the machine.

An electrical diagram is provided with each machine in the envelope attached to the panel box.

ASSEMBLY PROCEDURE

The structural frames of the machine have to be installed on a levelled floor. Locate the main wrapper section into its final position, keeping the tower assembly* away from any traffic.

The wrapper mainframe section must be bolted to the floor by the 1/2" concrete floor anchors (leg & shield or expandable type).

Conveyor sections (where applicable) have to be positioned, levelled** and bolted to the floor. Any wiring which has been disconnected to facilitate transport is marked with a number located on the junction box to which the wiring must be reconnected. It allows identification of the proper position of the infeed and outfeed conveyor sections. Any wire run that appears too short or long may indicate that the position of the mechanical components is incorrect. Verify the status of all assemblies before proceeding.

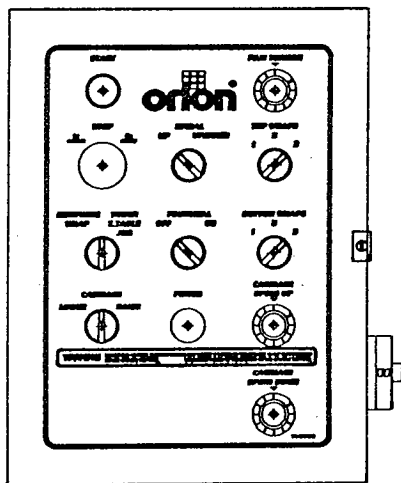
CAUTION: improper placement and alignment of the conveyor section(s) and/or electric photocells may lead to equipment malfunction and damage.

* The tower deviation from vertical must not exceed 1/4" on the distance of 10 feet (angle: 0 degrees 6').

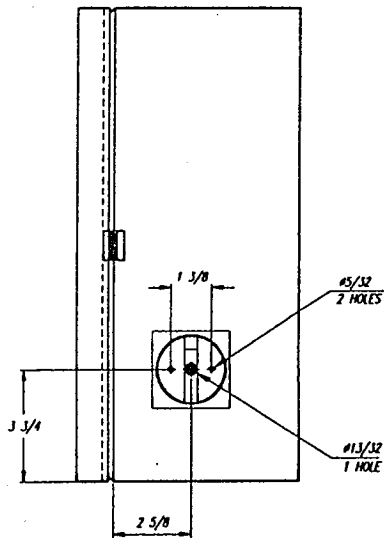
** In the case of the conveyors, the roller deviation from the horizontal must not exceed 1/16 "on the distance 52" (angle: 0 degrees 4').

CONTROL PANEL

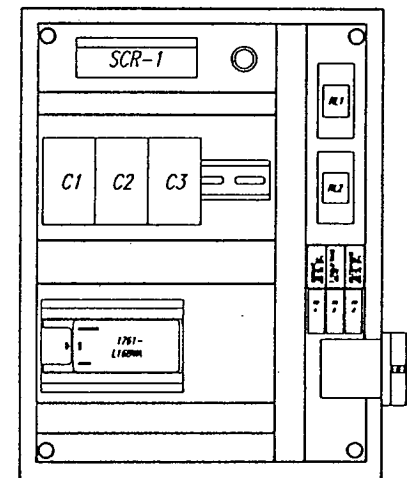
In the case of the free standing panel (console) place it adjacent to the system and anchor firmly to the floor. Connect the liquid tide (rigid conduit) to the main junction box located on the wrapper main frame next to the tower (or tower home position in case of mongoose). The wires must be matched properly on both sides.



M55M66M67-12 (STD)
 PANEL STICKER PH-500 030
 (3412 ECH161206)



SIDE VIEW
 MAIN SWITCH LOCATION



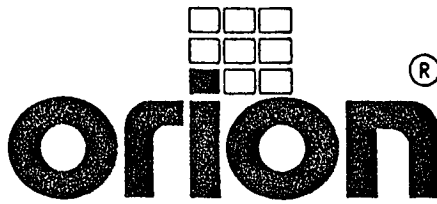
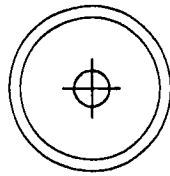
M55M66M67-12 (STD) PANEL LAYOUT
 PANEL SIZE 16X12X06

NOTES:

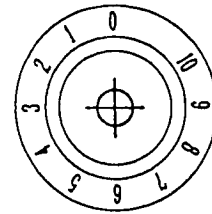
- 1: SCR-2 (168-4) IS LOCATED ON ENCLOSURE DOOR.
- 2: FU-2 & FU3:
 MOL-BA (20" CARRIAGE)
 MOL-10A (30" CARRIAGE OR HEAVY FILM GAUGE UPGRADE)
- 3: BOARD SCR-3:
 336-9 (20" CARRIAGE)
 336-7 (30" CARRIAGE) OR HEAVY FILM GAUGE UPGRADE)

<p>ORION PACKAGING INC. 2700 WASHINGTON BLVD., SUITE 100 BOSTON, MASSACHUSETTS 02118 TEL. (617) 851-9900</p>	ORION PACKAGING INC.		SCALE
	M55,66,67-12 (STD)		1:2
	D		301 273/L
	REV. 10-1987		SHEET 1 OF 1

START

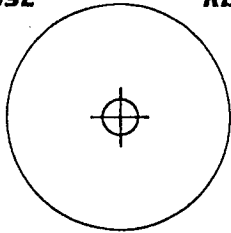


FILM TENSION



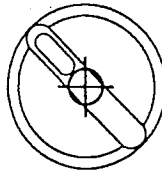
STOP

**1x
PAUSE**

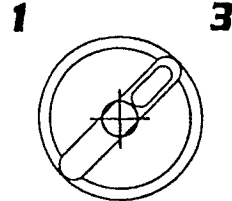


**2x
RESET**

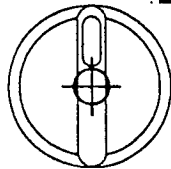
**UP
SPIRAL
UP/DOWN**



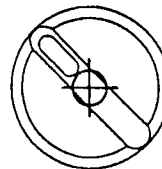
**TOP WRAPS
2**



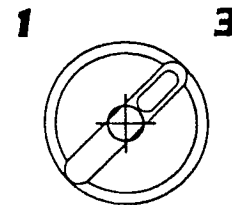
**REINFORCE WRAP
TOWER T.TABLE JOG**



**PHOTOCELL
OFF ON**

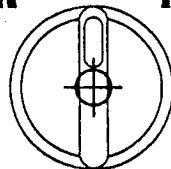


**BOTTOM WRAPS
2**



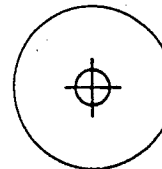
CARRIAGE

LOWER

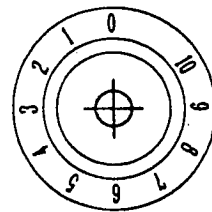


RAISE

POWER

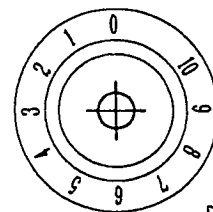


**CARRIAGE
SPEED UP**



WARNING! DANGEROUS OR FATAL ELECTRIC SHOCKS MAY RESULT IF POWER TO THE MACHINE IS NOT DISCONNECTED BEFORE OPENING THE PANEL. DISCONNECT POWER TO THE MACHINE BEFORE OPENING THE PANEL.

**CARRIAGE
SPEED DOWN**



CARRIAGE SPEED

The carriage speed potentiometer control can be used to control the amount of overlap the film will have during the wrap. The potentiometer has settings from 0 to 10, the higher settings being the fastest. High settings mean less film overlap because of faster carriage speed and low settings mean more film overlap because of lower carriage speed.

TOP WRAPS 1,2,3...9

Three position switch controls the number of wraps that may be applied on the top of the load. The machine is preset RANGE # 1 (top wraps: 1 or 2 or 3). To change the values of wrap see *TOP & BOTTOM WRAP COUNTS CHANGE*.

BOTTOM WRAPS 1,2,3,...9

Three position switch controls the number of wraps that may be applied on the bottom of the load. The machine is preset with RANGE # 1 (bottom wraps: 1 or 2 or 3) which may be applied. To change the values of wrap see *TOP & BOTTOM WRAP COUNTS CHANGE*.

TOP & BOTTOM WRAP COUNTS CHANGE

The Top & Bottom Wrap Selector Switches have three (3) ranges of wrap counts and operate independently of each other.

Range #1	Wrap values of 1-2-3
Range #2	Wrap values of 4-5-6
Range #3	Wrap values of 7-8-9

For the selection of any of these ranges for top and bottom wraps please do as follows:

Before proceeding ensure that machine is in MANUAL, STANDBY MODE (machine is powered on and all machine manual functions are enabled)

- 1: Press the STOP (Red) Button
2. Set the Top and Bottom wrap count selector switch to the position corresponding with the desired count range.:
1= Range #1
2= Range #2
3= Range #3
3. Press the START (Green) pushbuttons and maintain for approximately 12 seconds.
4. Pull the STOP (Red) push-button out.
5. Perform standard machine reset procedure by double push-pull operation of the red mushroom stop button.

At this point machine is ready and new preset values are loaded

CYCLE CONTROLS

The control panel layout is custom designed for each particular installation, however, common standard controls have been employed.

CAUTION: before proceeding be familiar with the EMERGENCY button and all functions, switches and pushbuttons.

POWER SWITCH

The Power Switch has two settings:

ON - connects a power source to the machine (voltage depends on the machine type - see electrical diagram provided with the machine).

OFF - disconnects the power source.

START AND STOP SWITCHES (EMERGENCY STOP)

The START switch is used to start the cycle once the load is on the turntable (or under the rotary arm). The cycle may be stopped at anytime by pressing the STOP button.

NOTICE: In case of emergency, use the STOP button which interrupts all the machine electrical circuits (except multistretch drive). If the STOP pushbutton is pressed in the middle of the cycle, the carriage and turntable may be returned to their home position by using the jog buttons before restarting the cycle.

SPIRAL WRAP SWITCH

The SPIRAL WRAP switch has two positions:

UP - in this position the cycle will end after completing the specified number of top wraps, therefore, the machine will only wrap the load once, going up.

UP/DOWN - in this position the cycle will be completed after the load is wrapped in both the up and down directions.

NOTE: TOP WRAP FIRST (OPTIONAL)

The carriage raises faster at the beginning of the cycle to wrap the top of the load (see electrical diagram provided with the machine).

CARRIAGE CONTROL SWITCH

The CARRIAGE CONTROL switch is a three position switch with the following settings:

RAISE - raises the carriage until the top limit switch on the tower is activated.

LOWER - lowers the carriage until the bottom limit switch on the tower is attained.

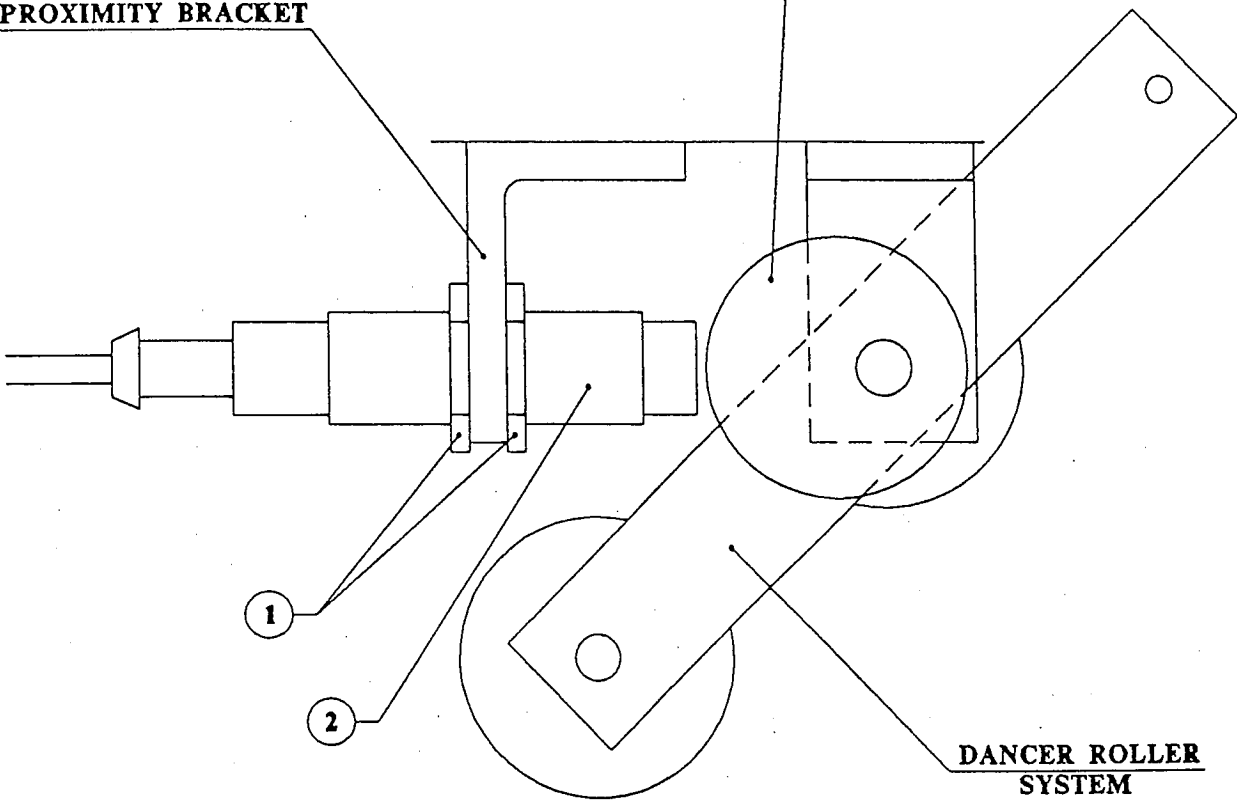
The switch is normally positioned in the middle where the carriage remains stationary. Turning the switch to the RAISE or LOWER will activate the carriage to move in its respective direction.

TURNTABLE (ROTARY TOWER) JOG

The turntable (rotary tower) jog switch is a pushbutton which will rotate the turntable (rotary arm) in a clockwise direction (as viewed from the top) when the switch is held depressed. When the switch is released the turntable (rotary tower) will stop. The switch is inoperative during the wrap cycle.

PROXIMITY BRACKET

CAM



DANCER ROLLER
SYSTEM

PROXIMITY SENSOR FEED BACK ADJUSTMENT

DWG. # 001

PHOTOCELL SWITCH

The photocell switch has two settings:

ON - when turned ON, the photocell instructs the carriage to stop and begin the top wraps sequence once the top of the load is reached. The carriage will always stop at the top of the load regardless of its height. The photoswitch position on the track can be adjusted in order to make the carriage pass the top of the load and overlap the top.

OFF - when turned OFF, the photocell is inoperative and the carriage will stop when the top limit switch has been activated.

FILM TENSION

Film tension may be adjusted using the film tension control knob. It has a range of tension from 0 to 10 (0 to 4 the low range, 4 to 8 the most usefull range for most of the films used by our customers, 8 to 10 as a very high range which may break some films).

NOTE: Lighter loads may require lower tension settings then heavier loads.

Film tension is controlled through the dancer bar system. Occasionally the feed back proximity sensor may need some adjustment. Adjustment of feed back is shown on drawing # 001

Adjustment instructions:

- remove the carriage cover
- unbolt the two nuts holding the proximity switch -item # 1
- turn the proximity switch - item # 2 until the moment when the motor starts to turn (or hums)
- tighten on the nuts securing the proximity switch.

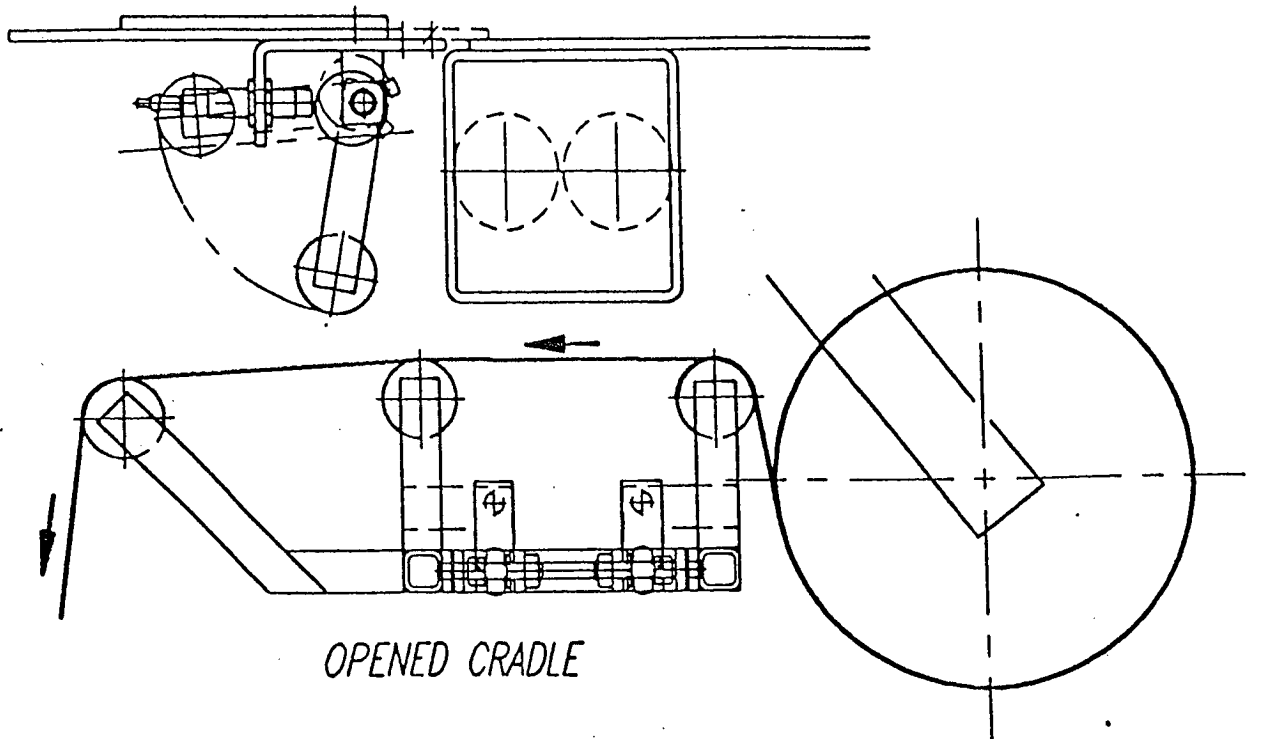
NOTE: The condition in which the motor hums but does not turn must be maintained even after all elements are tightened. If not, the adjustment procedure must be repeated.

TO LOAD THE FILM....

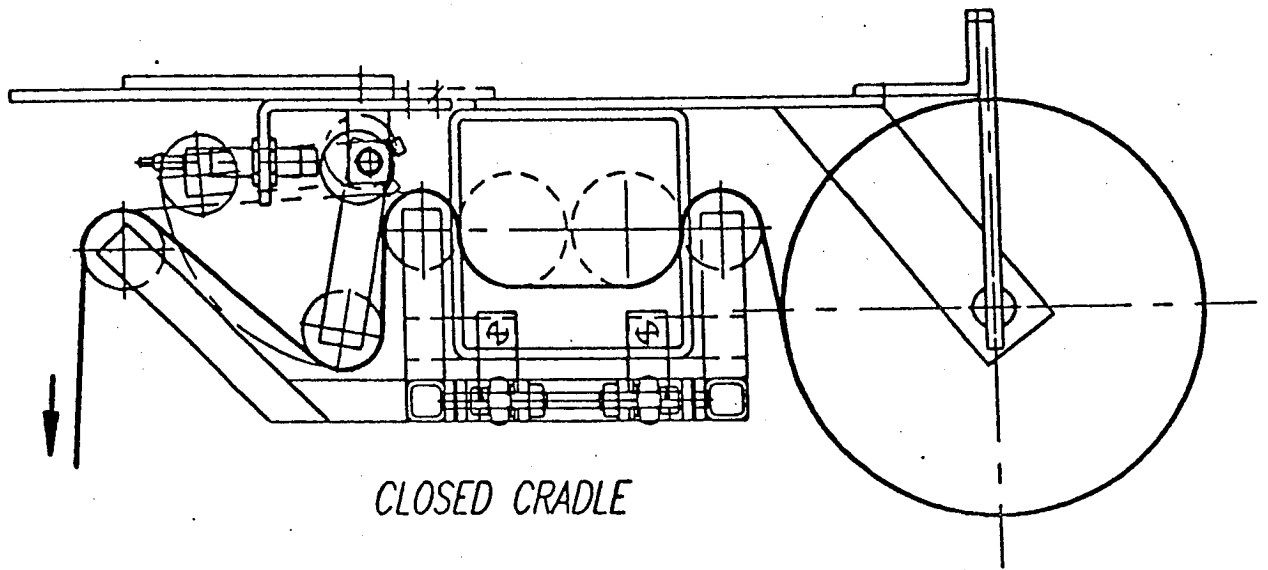
The film roll can be loaded on the mandrel of the carriage from either end of the roll. When using tacky film, please verify that the inward tacky surface of the film is inward on the load.

1. Disconnect power (turn off power switch).
2. Put the roll of film on the mandrel and press down to insure penetration of spikes into the card board center of the film roll.
3. In the case of automatic machines, install the film cap on top of the roll to prevent upward movement.
4. Introduce the roping end of the film between the shafts of all rollers (as shown on the dwg.) and pull to pass it around all three rollers (pressure roller and both rubber rollers).
5. Pass the film between the two dancer (aluminium) rollers (in certain applications the film has to be passed around one or two additional position aluminium rollers).
6. When the film feeding is completed - turn the power switch ON
7. Peel off the first few winds of the film (multistretch will run due to displacement of the dancer roller) and fix the film end onto the load or into the clamp mechanism (if machine is fully automatic).

The system is now ready to begin the first wrapping cycle.
Proceed to page titled SYSTEM START UP.



OPENED CRADLE



CLOSED CRADLE

FILM QUICK THREADING

SYSTEM START-UP

Notice: It is advisable to test-run the equipment with several pallet loads before make the attempt to wrap with film. Please position a worker at the EMERGENCY STOP push button.

Start up of the machine (system) may determine the need for the adjustment of:

- pallet sensor eyes (automatic systems only)
- load height stop photoswitch (on the carriage)
- conveyor acceleration/deceleration
- turntable speed & jog speed
- turntable speed acceleration/deceleration
- turntable home position (rotary tower home position)
- film tail treatment devices (automatic systems).

MACHINE WRAPPING TEST

Before the test procedure adjust the wrapping cycle parameters i.e. top wraps, bottom wraps, height photocell on/off, film tension, carriage speed (those two parameters may be adjusted during the wrapping cycle).

When there is no photocell, verify the top limit switch position.

MACHINE MAINTENANCE

REDUCER OIL CHANGE

On the reducing transmission, after the first week all external cap screws and plugs should be checked for tightness. It is recommended to change the oil every six months or 25000 hours of operation, which ever comes first. When adding oil, the transmission should never be filled above the oil level mark indicated, because leakage and overheating may occur. Below is a list of the type of lubricant that should be used:

Manufacturer	Lubricant
American Oil CO.	American Cyl Oil no:196-L
Cities Service Oil Co.	Citgo Cyl.Oil 100-5
Gulf Oil Corp.	Gulf Senate 155
Mobil Oil Corp.	Mobil 600 W Suerr Cyl.Oil
Philips Oil Co.	Andes S 180
Texaco Inc.	624+650T Cyl.Oil
Shell Oil Co.	Velvata Oil J82
Union Oil Of Cal.	Red Line Worm Gear Lube 140

MOTOR MAINTENANCE

An occasional inspection of the brushes should be made in order to establish a wear rate. Replacement brushes should be installed before old brushes wear to 9/16" long, measured on the long side. After replacing brushes run the motor near rated speed for at least 1/2 hour with no load to seat the new brushes.

Failure to properly seat the new brushes may cause commutator damage and rapid wear of the new brushes. If the commutator becomes rough, scored or out of shape, a competent motor shop should disassemble the motor and resurface the commutator. With every third brush change, have a competent motor shop resurface the commutator and blow the carbon dust out of the motor.

RING BEARING MAINTENANCE

The ring bearing is located under the turntable (or above the rotary tower), and should be lubricated internally and externally.

Internally: by injecting grease into all the lubrication nipples in succession until a collar of fresh grease appears around the perimeter of the ring.

Externally: by lubricating and wiping the chain drive with oily cloth.

The frequency of lubrication depends entirely upon the usage of the machine and the environment in which the machine is placed (dust, moisture etc...).

Machines working under extremely dirty conditions should be lubricated every 100 to 200 operating hours but at minimum, every 2 months. Longer lubrication intervals may occur only when machine is working under very clean and dry conditions but should not be longer than 6 months.

Lubricants of different manufacture recommended for the ring are shown below:

Manufacturer	Lubricant
BP	Energrease LS2
Castrol	Spheeroll AP2
ESSO	Beacon 2
Gulf	Crown Grease 2
Mobil	Mobilus 2
Shell	Alvania Grease R2
Texaco	Glissando FT 2
Valvoline	LB - 2

CHAIN MAINTENANCE

To clean the chain, wipe it with an oily cloth every month. If the environment is very dusty or damp, it may be necessary to clean it more often.

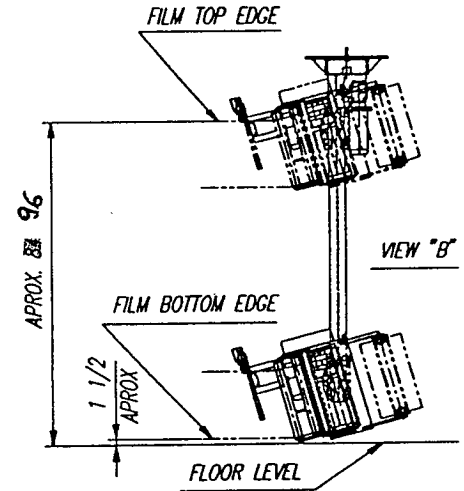
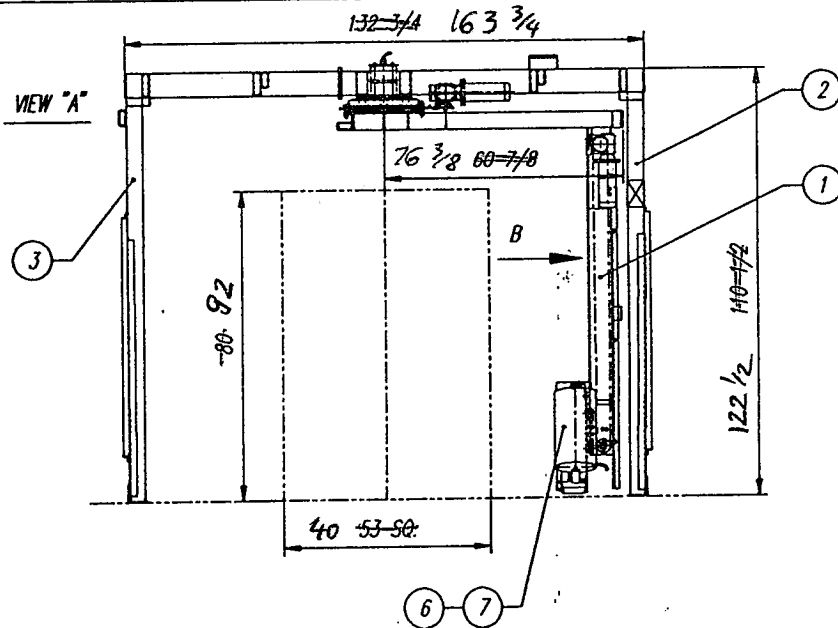
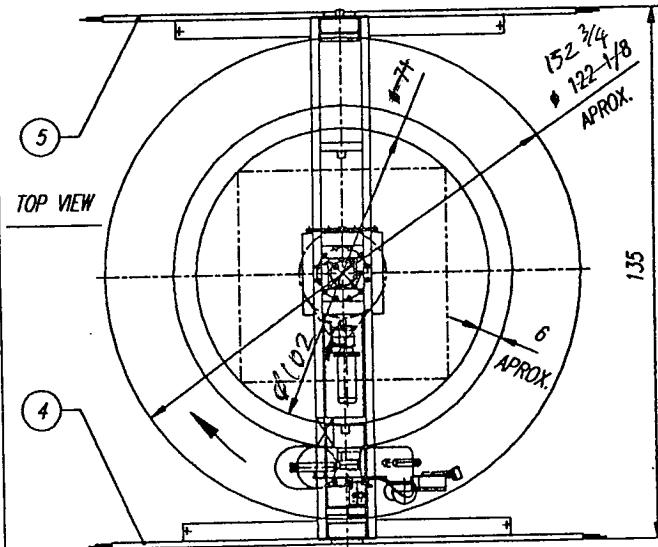
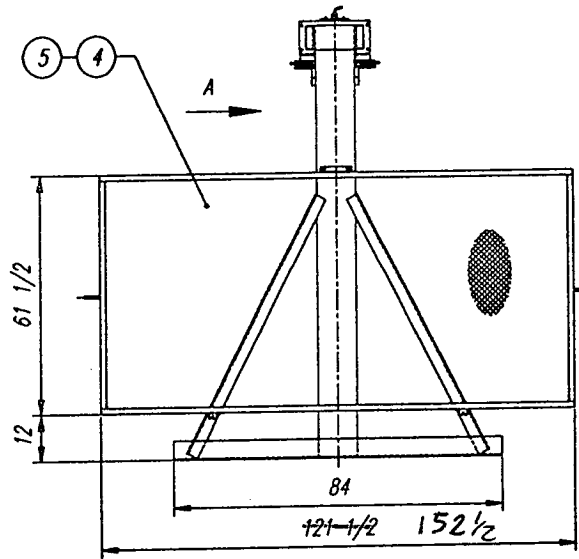
With time the chain will tend to stretch. A loose elevator and turntable (rotary arm) chain should be tightened at the chain tensioner, or by moving the reducer on the mounting plate.

**SEMI-AUTOMATIC
STANDARD ASSEMBLY
PART LIST**

Note :

*** Quantity listed in order of part number**

**** The names given to the parts are generic**



TOTAL WEIGHT : 2002.8 (2035.6) Lbs

NOTE:

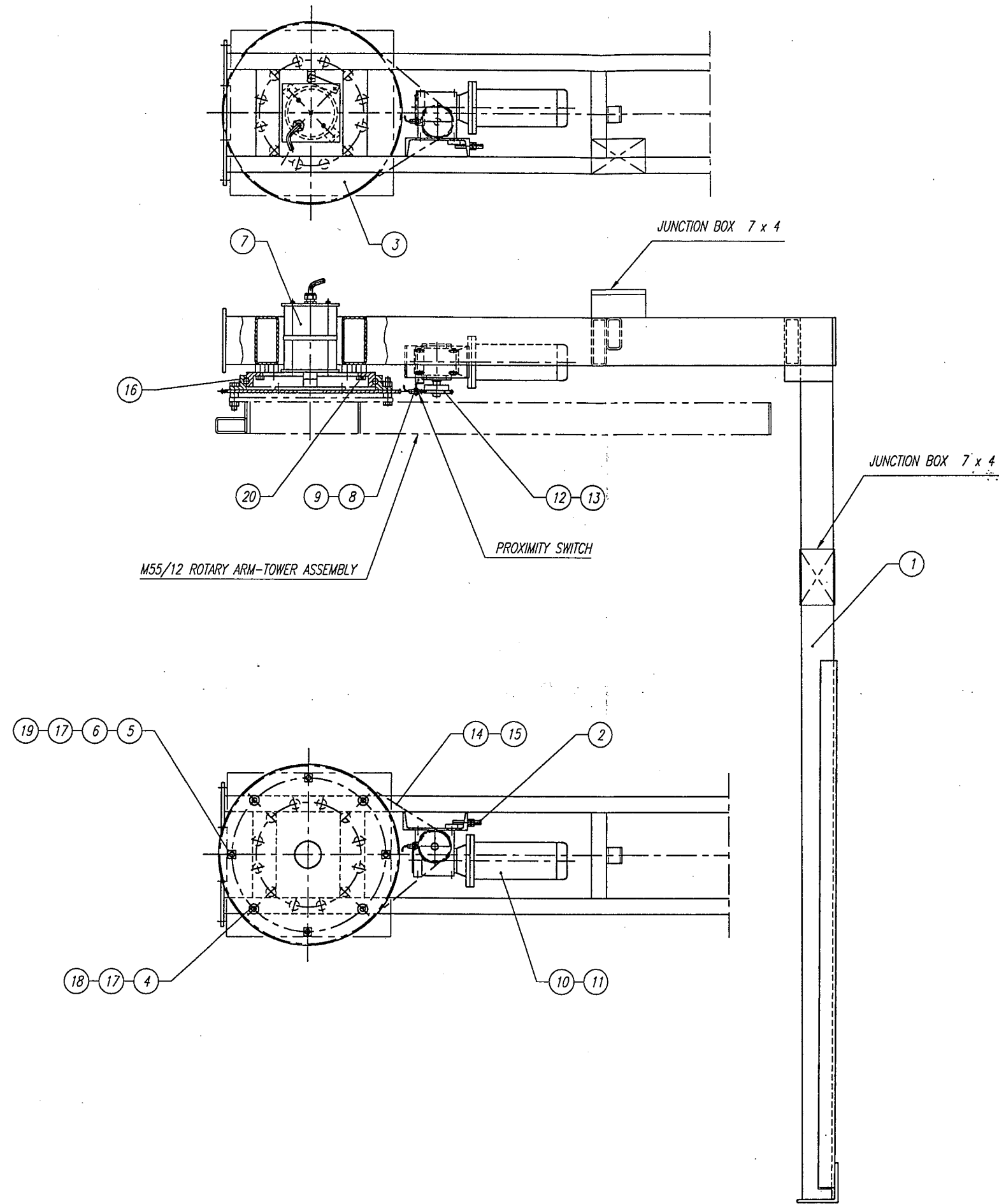
1. IF 20" FILM CARRIAGE - TOWER TURNS 18 RPM
2. IF 30" FILM CARRIAGE OR 20" FILM CARRIAGE & EXTENDED TOWER OR ARM - TOWER TURNS 14 RPM

No.	DESCRIPTION	DWG SIZE	PART No.	Q'ty	WEIGHT
7	30" INSTA-THREAD FILM CARRIAGE, M55/12, CW	D	415406	1	
6	20" INSTA-THREAD FILM CARRIAGE, M55/12, CW	D	415405	1	
5	GUARD WITH REFLECTOR BRACKET	B	404417	1	
4	GUARD WITH PHOTOCCELL BRACKET	B	404416	1	
3	LEG-84	C	415527	1	
2	M55/12 DRIVE SIDE FRAME ASS'Y	C	415523	1	
1	M55/12 ROTARY ARM-TOWER ASS'Y	C	415525	1	

REMARKS: MAX. LOAD SIZE: 53" x 53" x 80" H 40" x 94" x 92" H
 REVOLOGIC, SPROCKETS: 50B19(50B14)/50A112

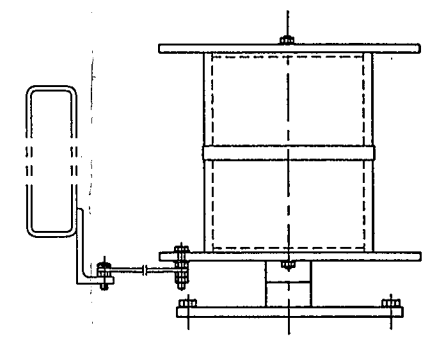
M55/12GS WRAPPER, CW ROTATION, GENERAL LAYOUT					
<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (514) 687-9769</p>	DATE:	MAR-20-1997	SCALE:	1 : 32	
	DRAWN BY:	B. PATEL	MACHINE TYPE:	M55/12GS	
	CHECKED BY:		DRAWING SIZE:	B	
	ASSEMBLY DWG:	LAYOUT	JOB No.:	STD	DRAWING No.:

REQ'D : 1 Pc



SLIP RINGS MOUNTING

1 : 5

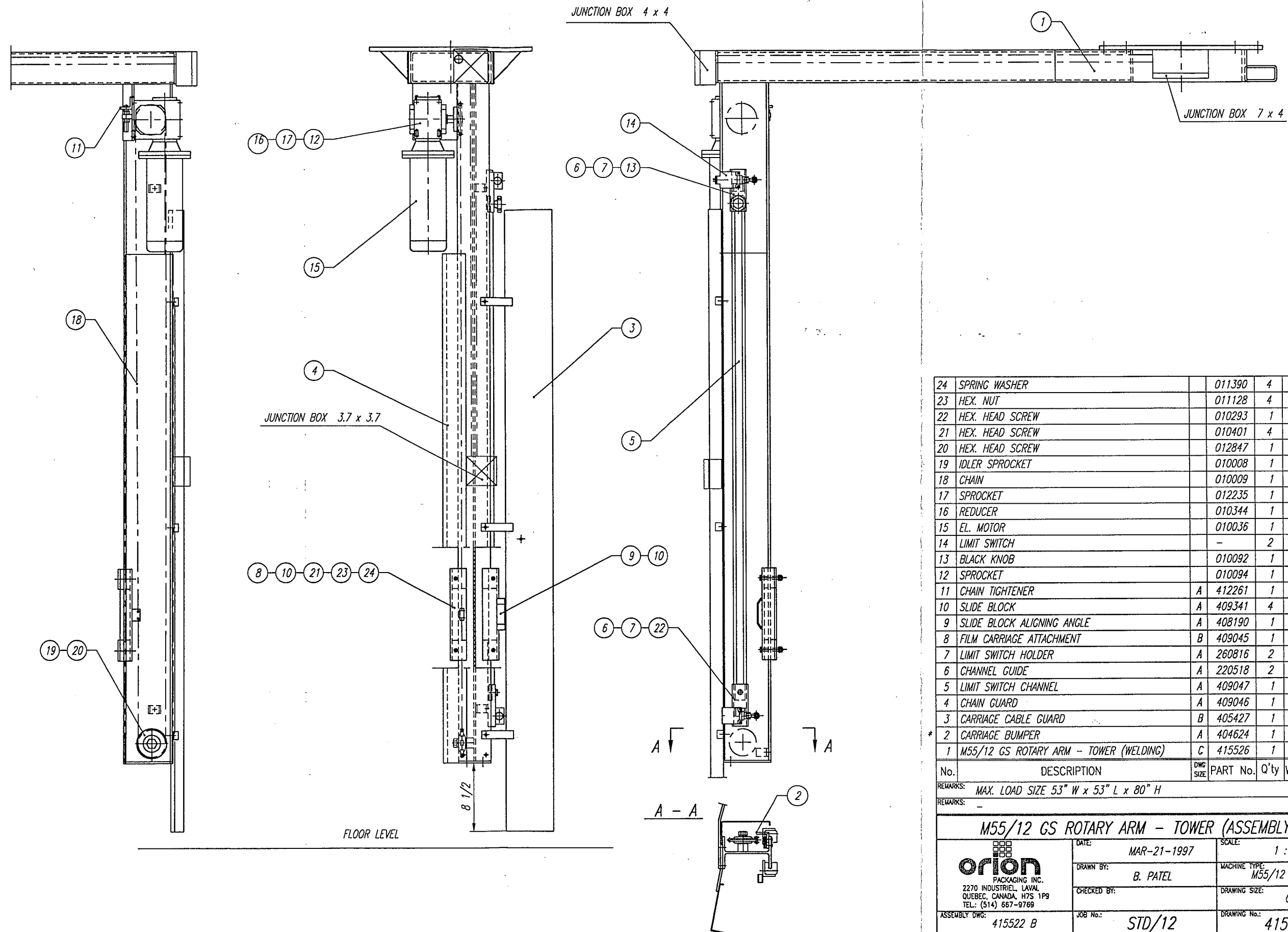


20	HEX. HEAD SCREW	013402	12		
19	HEX. HEAD SCREW	013527	4		
18	HEX. HEAD SCREW	012929	4		
17	HEX. NUT	012846	8		
16	TT BEARING	400064	1		
15	ROLLER CHAIN	010009	1		
14	ROLLER CHAIN	010009	1		
13	SPROCKET	010343	1		
12	SPROCKET	010235	1		
11	REDUCER	010093	1		
10	EL. MOTOR	010036	1		
9	PROXIMITY SWITCH BRACKET	A 413083	1		
8	PROXIMITY SWITCH BRACKET	A 413849	1		
7	SLIP RINGS ASSEMBLY - M55	417187	C 41193	1	
6	CENTERING BUSHING	A 402388	4		
5	SPACER	A 400578	4		
4	TT SPACER	A 270060	4		
3	SPROCKET 50A112	B 401984	1		
2	CHAIN TIGHTENER	A 412261	1		
1	M55/12GS DRIVE SIDE FRAME (WELDING)	C 415524	1		
No.	DESCRIPTION	DWG SIZE	PART No.	Q'ty	WEIGHT

REMARKS: REVOLOGIC
 MAX. LOAD SIZE: 53" W x 53" L x 80" H

M55/12GS DRIVE SIDE FRAME (ASSEMBLY)

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (514) 667-9769</p>	DATE:	MAR-21-1997	SCALE:	1 : 10	
	DRAWN BY:	B. PATEL	MACHINE TYPE:	M55/12GS	
	CHECKED BY:		DRAWING SIZE:	C	
	ASSEMBLY DWG:	415522 B	JOB No.:	STD	DRAWING No.:

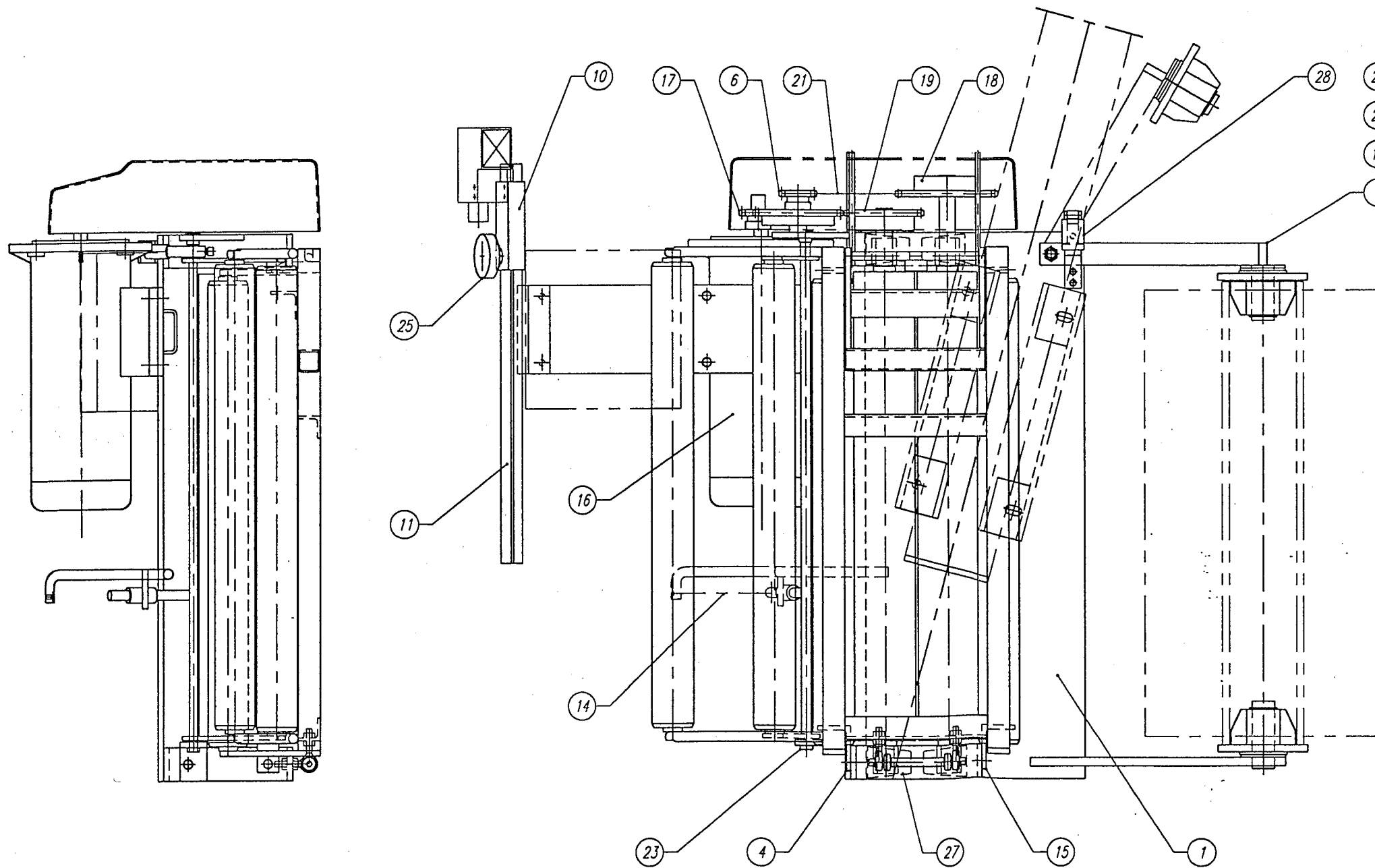
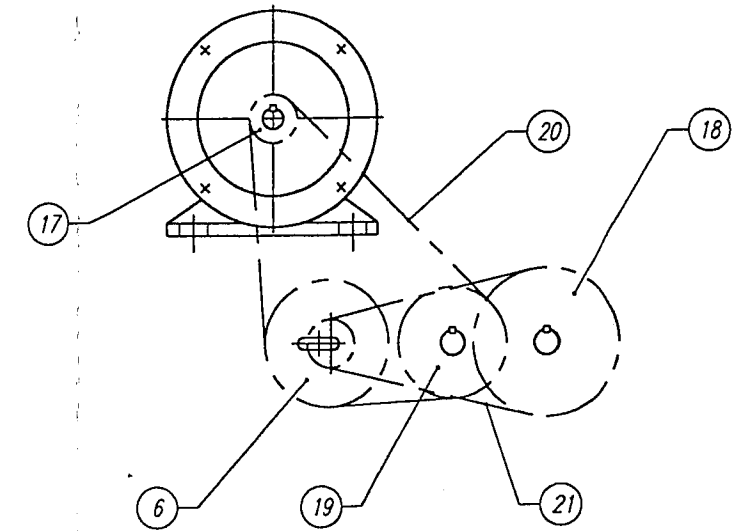
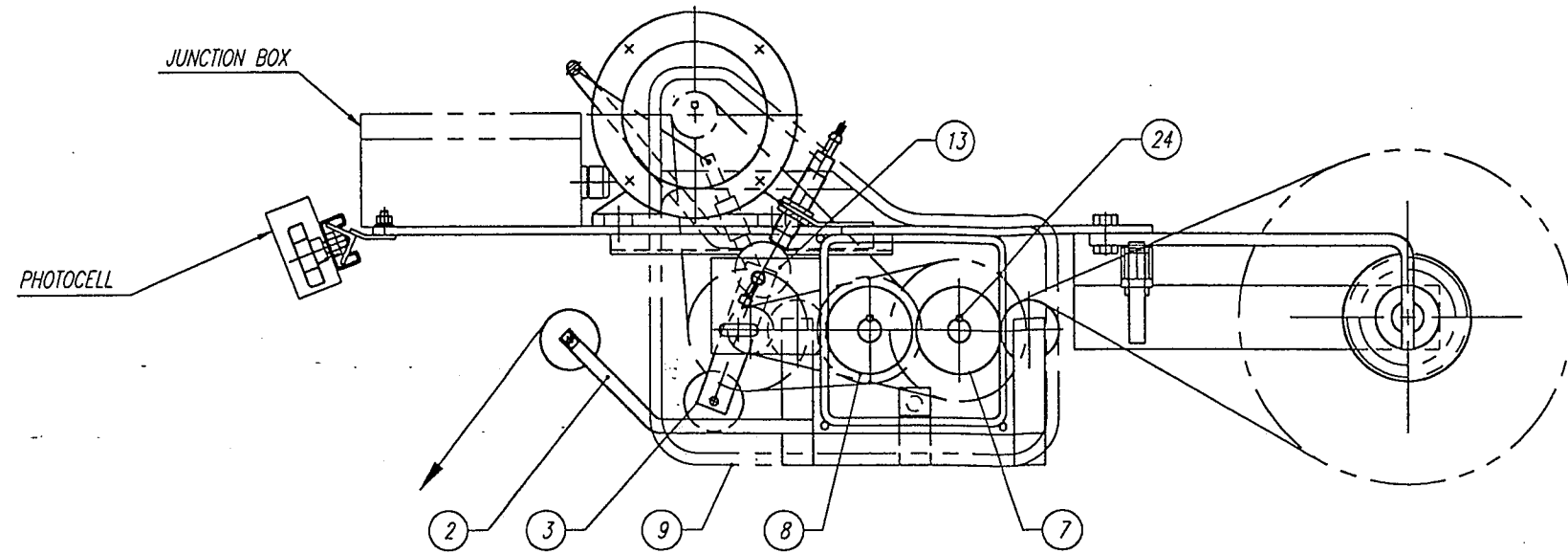


24	SPRING WASHER	011390	4
23	HEX. NUT	011128	4
22	HEX. HEAD SCREW	010293	1
21	HEX. HEAD SCREW	010401	4
20	HEX. HEAD SCREW	012847	1
19	IDLER SPROCKET	010008	1
18	CHAIN	010009	1
17	SPROCKET	012235	1
16	REDUCER	010344	1
15	EL. MOTOR	010036	1
14	LIMIT SWITCH	-	2
13	BLACK KNOB	010092	1
12	SPROCKET	010094	1
11	CHAIN TIGHTENER	A 412261	1
10	SLIDE BLOCK	A 409341	4
9	SLIDE BLOCK ALIGNING ANGLE	A 408190	1
8	FILM CARRIAGE ATTACHMENT	B 409045	1
7	LIMIT SWITCH HOLDER	A 260816	2
6	CHANNEL GUIDE	A 220518	2
5	LIMIT SWITCH CHANNEL	A 409047	1
4	CHAIN GUARD	A 409046	1
3	CARRIAGE CABLE GUARD	B 405427	1
2	CARRIAGE BUMPER	A 404624	1
1	M55/12 GS ROTARY ARM - TOWER (WELDING)	C 415526	1

No. DESCRIPTION DWG. PART No. Q'ty WEIGHT
 SIZE
 REMARKS: MAX. LOAD SIZE 53" W x 53" L x 80" H
 REMARKS: -

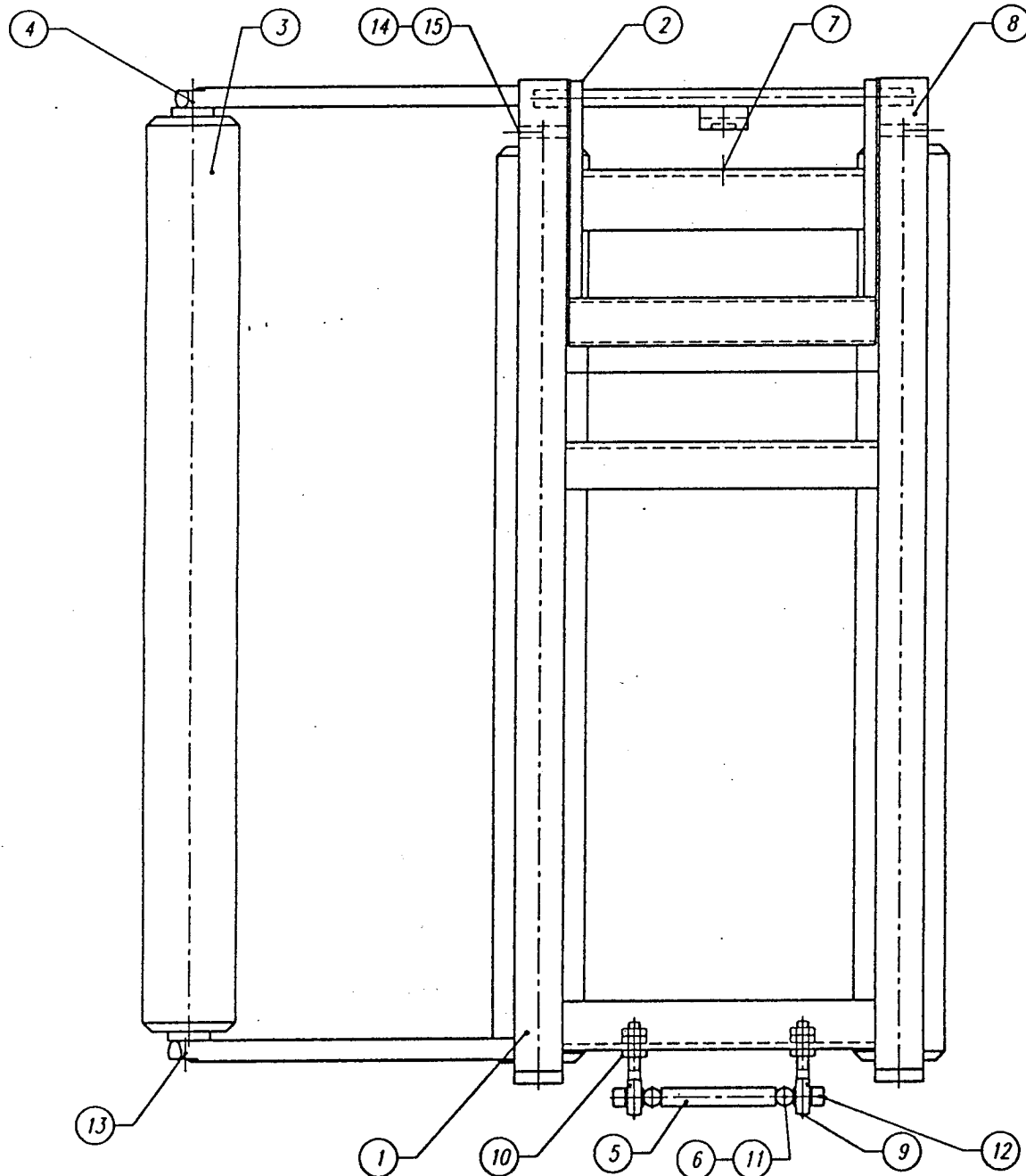
M55/12 GS ROTARY ARM - TOWER (ASSEMBLY)

<p>ORION PACKAGING INC. 2270 INDUSTRIEL LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (514) 667-9769</p>	DATE:	MAR-21-1997	SCALE:	1 : 8	
	DRAWN BY:	B. PATEL	MACHINE TYPE:	M55/12 GS	
	CHECKED BY:		DRAWING SIZE:	C	
	ASSEMBLY DWG:	415522 B	JOB No.:	STD/12	DRAWING No.:



28	TOP MANDREL BRACKET W/SPRING LOADED LATCH	B	414462	1
27	PILLOW BLOCK		011192	4
26	FLAT WASHER		012323	2
25	BLACK KNOB		010092	1
24	SQ. KEY		010227	3
23	FL. BRONZE BUSHING		014247	2
22	SELF SEATING RETAINING RING		013860	2
21	CHAIN		010583	1
20	CHAIN		010583	1
19	SPROCKET		011454	1
18	SPROCKET - 245 % PRESTRETCH		011457	1
17	SPROCKET		415109	1
16	ELECTRIC MOTOR		010036	1
15	CRADLE ROLLER OPENING LOCK	A	409469	2
14	EXTENSION SPRING	B	403118	1
13	PROXIMITY SENSOR CAM	A	413744	1
12	SPOOL	A	405855	2
11	PHOTOCELL CHANNEL - 20, CW ROT'N	A	414304	1
10	PHOTOCELL BRACKET	A	414187	1
9	FIBERGLASS COVER - CW ROT'N	B	414305	1
8	RUBBER ROLLER - 2 (20" FILM)	A	413296	1
7	RUBBER ROLLER - 1 (20" FILM)	A	413295	1
6	DOUBLE SPROCKET	A	414313	1
5	TOP MANDREL - CW ROT'N	A	414303	1
4	DANCER ROLLER BRACKET	A	413745	1
3	DANCER ROLLER ASSEMBLY - 20 (FRL)	A	414194	1
2	CRADLE ROLLER ASSEMBLY - 20 (FRL) 415941	C	413632	1
1	BACK PLATE - 20 INSTA, CW ROTATION	C	414300	1

No.	DESCRIPTION	DWG SIZE	PART No.	Q'ty	WEIGHT
REMARKS: W6 x 12 TOWER, 4-BLOCK UHMWPE GUIDES					
REMARKS: TOP MANDREL WITH SPRING LOADED LATCH					
20" INSTA-THREAD FILM CARRIAGE ASS'Y - CW ROTATION					
 ORION PACKAGING INC. 2270 INDUSTRIEL LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (514) 667-9769		DATE: APR-25-97	SCALE: 1 : 4		
DRAWN BY: M. W. SOBUCKI		MACHINE TYPE: M67, M66, M55		DRAWING SIZE: D	
CHECKED BY:		JOB No.: STD /12.2		DRAWING No.: 415405	
ASSEMBLY DWG: -					

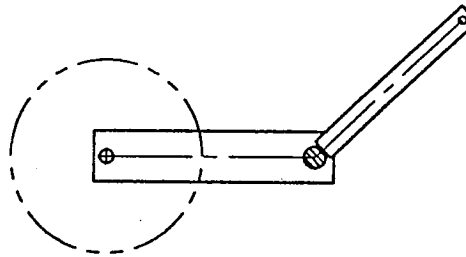
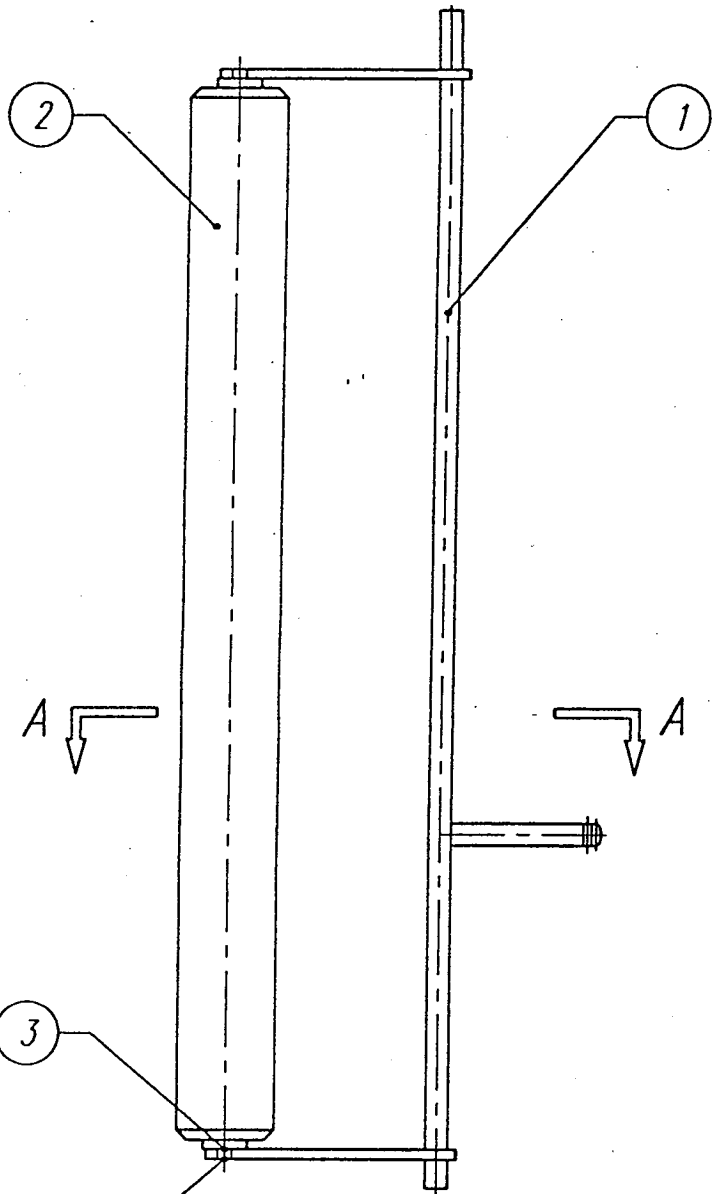


15	HEX NUT #10-32UNF	-	2		
14	HEX SOCK. CAP SCREW #10-32UNF 1 LG	-	2		
13	HEX SOCK. BUTTOM HEAD SCREW #10-32UNF 1LG	-	2		
12	HEX SOCK. CAP SCREW 1/4-28UNF 1 LG	-	2		
11	JAM NUT	012582	6		
10	JAM NUT	013048	6		
9	ROD END HM - 4	-	2		
8	POLYETHYLENE 7/8 x 7/8 1 3/4 LG	-	2		
7	SPRING # 40	013994	1		
6	SPECIAL BOLT	A 415938	2		
5	SHAFT	A 412541	1		
4	IDLE ROLLER SHAFT - 21 1/4 LG	A 413249	3		
3	ALUMINIUM ROLLER 1.9 DIA - 20 LG	A 402789	3		
2	LOCK	A 412542	1		
1	CRADLE ROLLER FRAME - 20" (FRL)	B 414787	1		
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT
REVISION:	-				
REVISION:	-				

CRADLE ROLLER ASSEMBLY - 20 (FRL)

<p>ORION PACKAGING INC. 2270 INDUSTRIEL LAMAL QUEBEC, CANADA, H7S 1P9 TEL: (514) 667-9768</p>	DATE:	APR-22-1997	SCALE:	1 : 2	
	DRAWN BY:	ROGER F.	MACHINE TYPE:	ALL/12	
	CHECKED BY:		DRAWING SIZE:	C	
	ASSEMBLY DWG.:	415397	JOB No.:	STD - 12.2	DRAWING No.:

A - A



4	HEX HEAD SCREW		012475	2	
3	FLANGE NUT 1/4-20UNC		-	2	
2	ALUMINIUM ROLLER 1.9 DIA - 20	A	402789	1	
1	DANCER ROLLER CRADLE - 20 (FRL)	A	414195	1	
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT

REMARKS: -

REMARKS: -

DANCER ROLLER ASSEMBLY - 20 (FRL)


orion
 PACKAGING INC.
 2270 INDUSTRIEL, LAVAL
 QUEBEC, CANADA, H7S 1P9
 TEL.: (514) 667-9769

DATE:

NOV-22-1996

SCALE:

1 : 4

DRAWN BY:

ROGER F.

MACHINE TYPE:

ALL/12

CHECKED BY:

DRAWING SIZE:

A

ASSEMBLY DWG.:

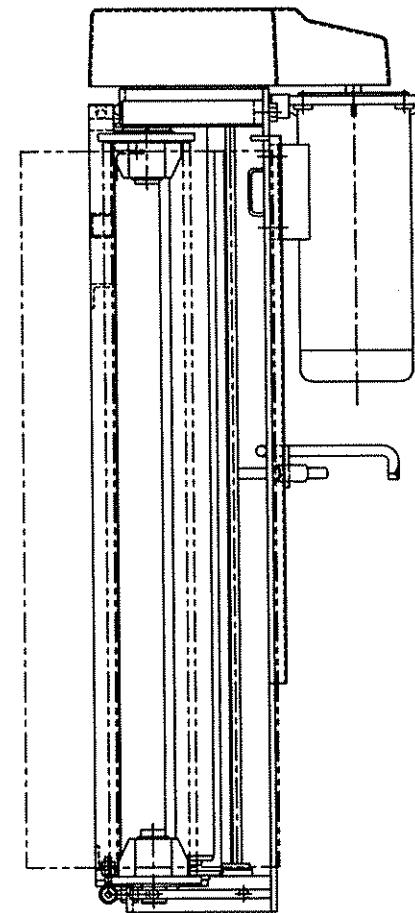
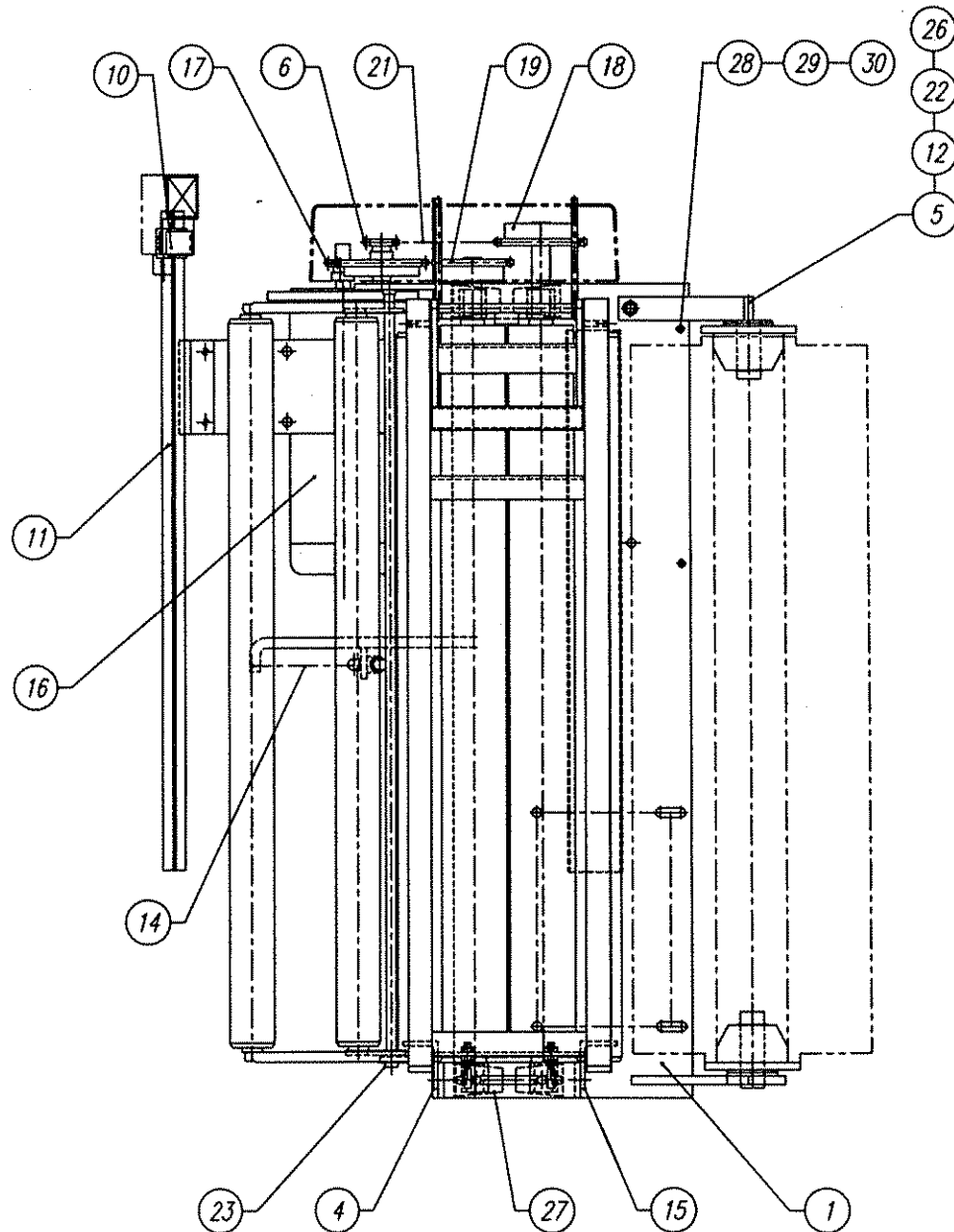
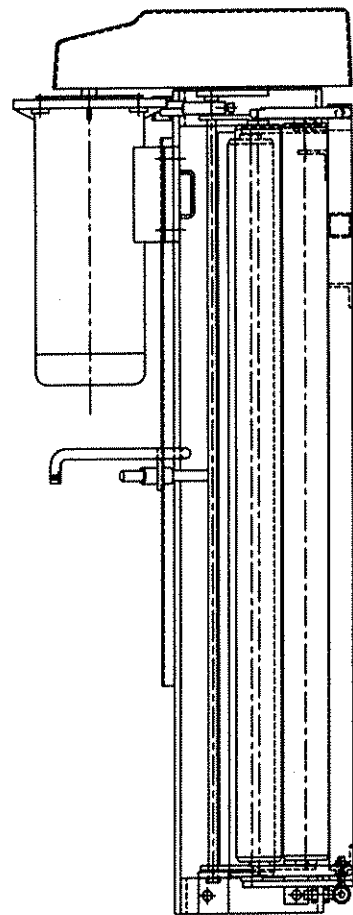
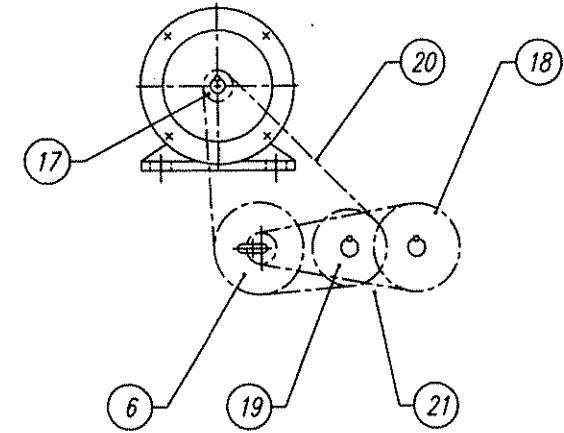
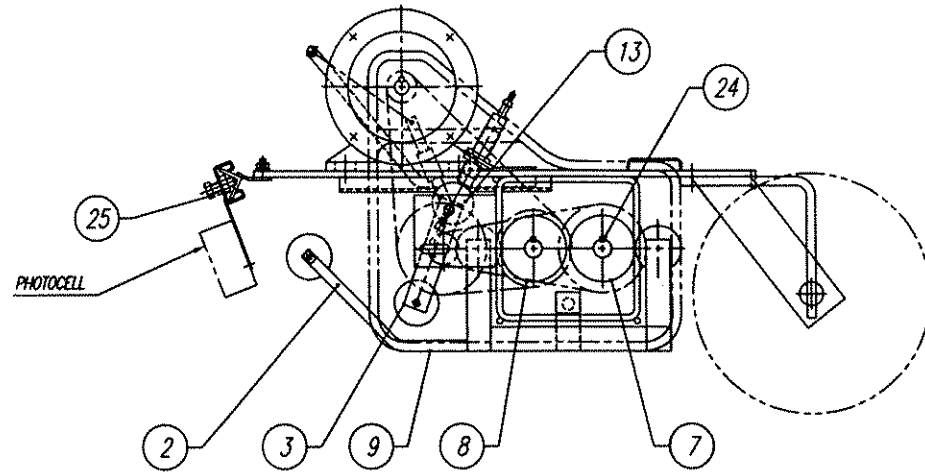
414189

JOB No.:

STD - 12.1

DRAWING No.:

414194

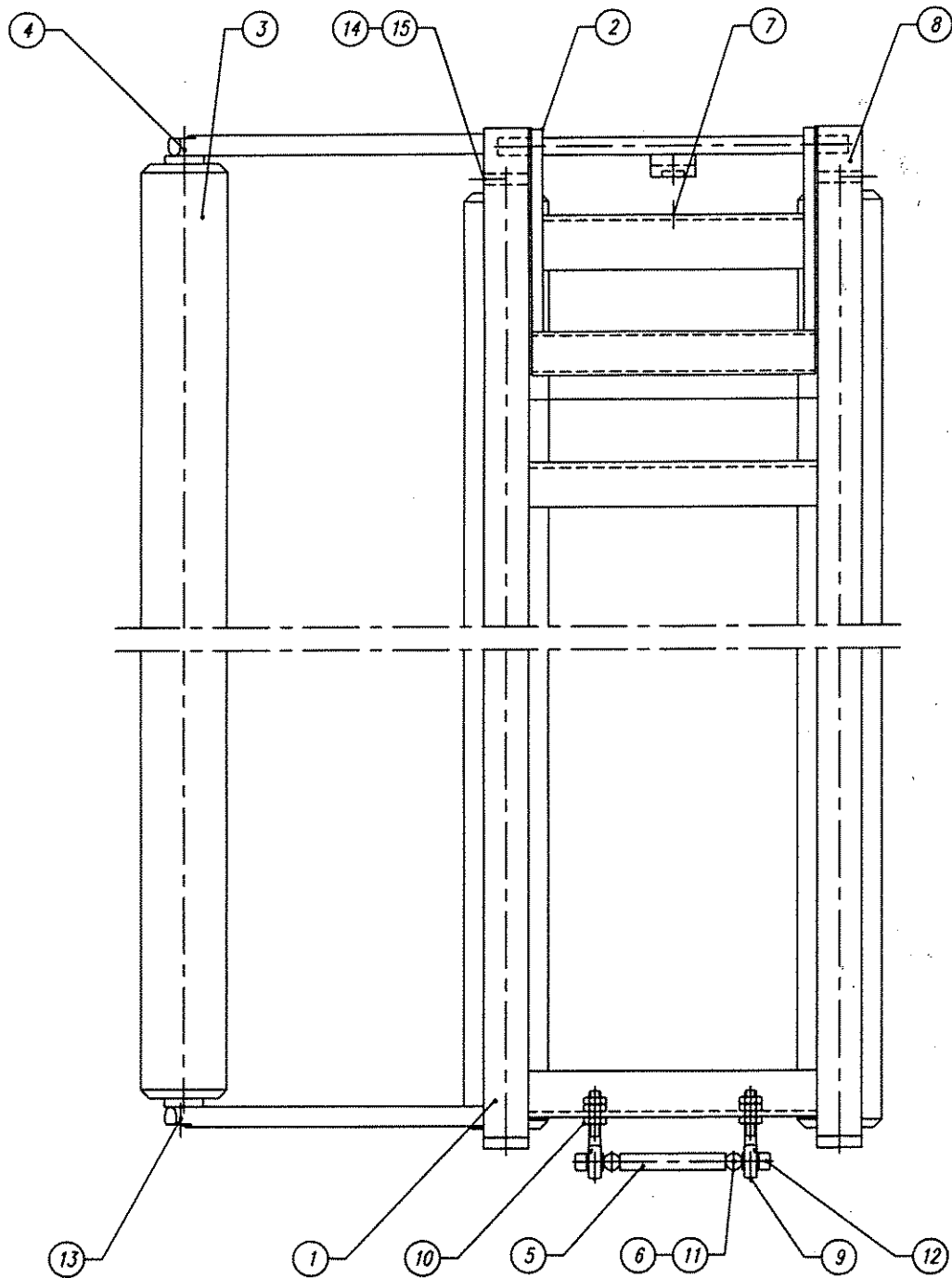


30	HEX. NUT	012689	1		
29	FLAT WASHER	012221	1		
28	SOCK. HD. CAP SCREW	010259	1		
27	PILLOW BLOCK	011192	4		
26	FLAT WASHER	012323	2		
25	BLACK KNOB	010092	1		
24	SQ. KEY	010227	3		
23	FL.BRONZE BUSHING	014247	2		
22	SELF SEATING RETAINING RING	013860	2		
21	CHAIN	010583	1		
20	CHAIN	010583	1		
19	SPROCKET	011454	1		
18	SPROCKET	011457	1		
17	SPROCKET	A 415109	1		
16	ELECTRIC MOTOR	010036	1		
15	CRADLE ROLLER OPENING LOCK	A 409469	2		
14	EXTENSION SPRING	B 403118	1		
13	PROXIMITY SENSOR CAM	A 413744	1		
12	SPOOL	A 405855	2		
11	PHOTOCELL CHANNEL - 30, CW ROT'N	A 414390	1		
10	PHOTOCELL BRACKET	A 416832	1		
9	FIBERGLASS COVER - CW ROT'N	B 414305	1		
8	RUBBER ROLLER - 2 (30" FILM)	A 414389	1		
7	RUBBER ROLLER - 1 (30" FILM)	A 414388	1		
6	DOUBLE SPROCKET	A 414546	1		
5	TOP MANDREL	A 414193	1		
4	DANCER ROLLER BRACKET	A 413745	1		
3	DANCER ROLLER ASSEMBLY - 30,	A 414386	1		
2	CRADLE ROLLER ASSEMBLY - 30,	C 415976	1		
1	30" INST.-THR. CAR. BACK PLATE	D 418920	1		
No.	DESCRIPTION	DWG SIZE	PART No.	Q'ty	WEIGHT

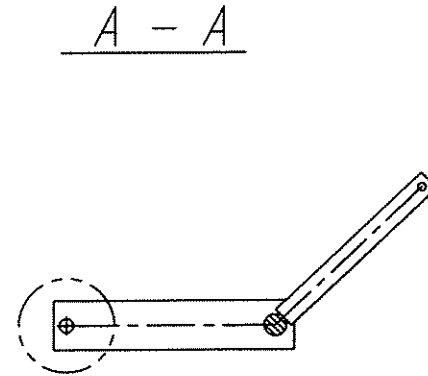
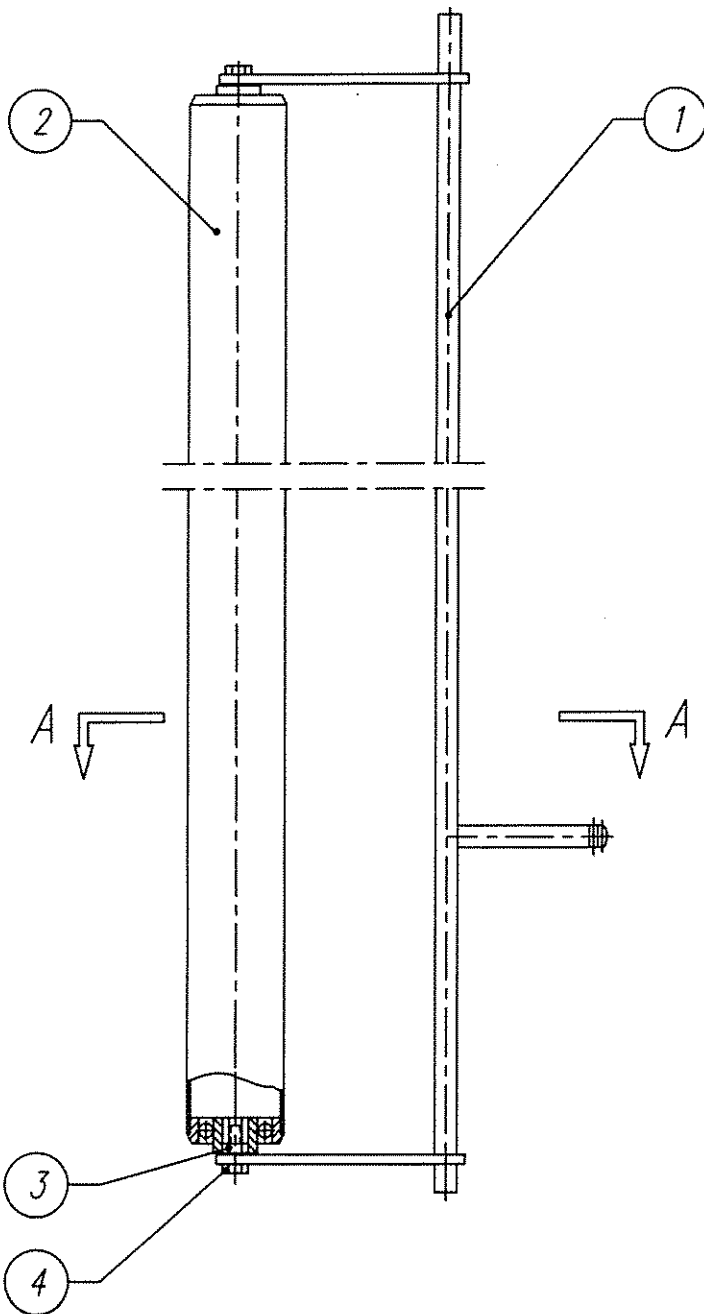
REMARKS: W8 x 18 TOWER, 4-BLOCK UHMWPE GUIDES
 REMARKS: -

30" INSTA-THREAD FILM CARRIAGE ASS'Y (FRL)

<p>orion PACKAGING INC. 2270 INDUSTRIEL L'AVANT QUEBEC, CANADA, H7S 1P9 TEL.: (514) 667-9769</p>	DATE: FEB-16-98	SCALE: 1 : 4
	DRAWN BY: S. KUBICKA	MACHINE TYPE: HJL66,55,44
	CHECKED BY: G. STACHURA	DRAWING SIZE: D
	ASSEMBLY DWG: -	JOB No.: STD /12.3



15	HEX NUT			2	
14	HEX SOCK. CAP. SCREW			2	
13	HEX SOCK. BUTTON HEAD SCREW			2	
12	HEX SOCK. CAP SCREW			2	
11	JAM NUT		012582	6	
10	JAM NUT		013048	6	
9	ROD END			2	
8	POLYETHYLENE			2	
7	SPRING			1	
6	SPECIAL BOLT	A	415938	2	
5	SHAFT	A	412541	1	
4	IDLE ROLLER SHAFT	A	414385	3	
3	ALUMINUM ROLLER	A	402875	3	
2	LOCK	A	412542	1	
1	CRADLE ROLLER FRAME - 30" (FRL)	C	415977	1	
No.	DESCRIPTION	QTY	PART No.	Q'ty	WEIGHT
REQUIRES:					
REQUIRES:					
CRADLE ROLLER ASSEMBLY - 30" (FRL)					
 2270 INDUSTRIEL, L'AVAIL QUÉBEC, CANADA, H7S 1P9 TEL.: (514) 867-9788		DATE:	APR-24-1997	SCALE:	1 : 2
		DRAWN BY:	G. STACHURA	MACHINE TYPE:	L66/12
ASSEMBLY DWG:		JOB NO.:	8550, 51.	DRAWING NO.:	415976



4	HEX. HEAD SCREW		012475	2	
3	FLANGE NUT		-	2	
2	ALUMINUM ROLLER	A	402875	1	
1	DANCER ROLLER CRADLE	A	414387	1	
No.	DESCRIPTION	DWG SIZE	PART No.	Q'ty	WEIGHT

REMARKS: -

REMARKS: -

DANCER ROLLER ASSEMBLY - 30

ORION
 PACKAGING INC.
 2270 INDUSTRIEL, LAVAL
 QUEBEC, CANADA, H7S 1P9
 TEL.: (514) 667-9769

DATE: DEC-05-1996

SCALE: 1 : 4

DRAWN BY: M. W. SOBUCKI

MACHINE TYPE: L66/12

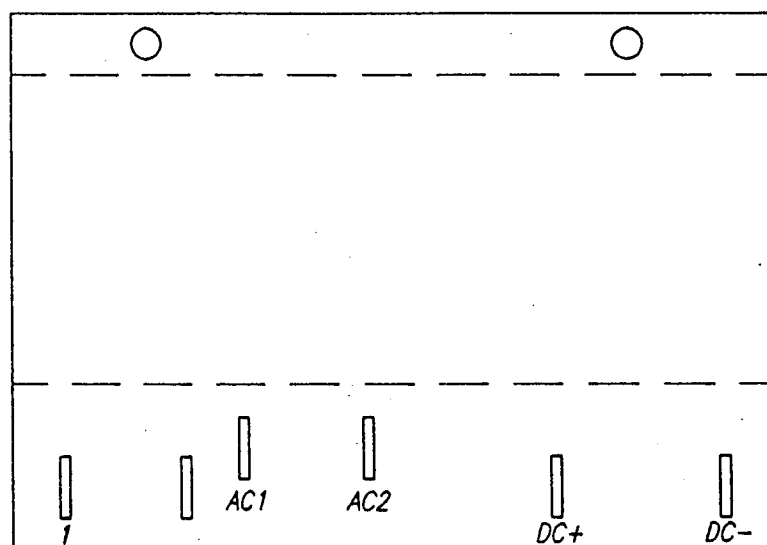
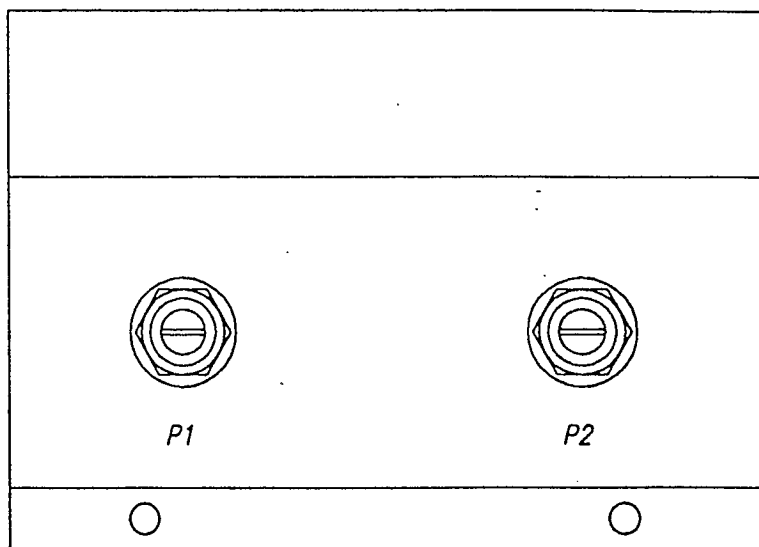
CHECKED BY:

DRAWING SIZE: A

ASSEMBLY DWG: 418921

JOB No.: 8550, 51.

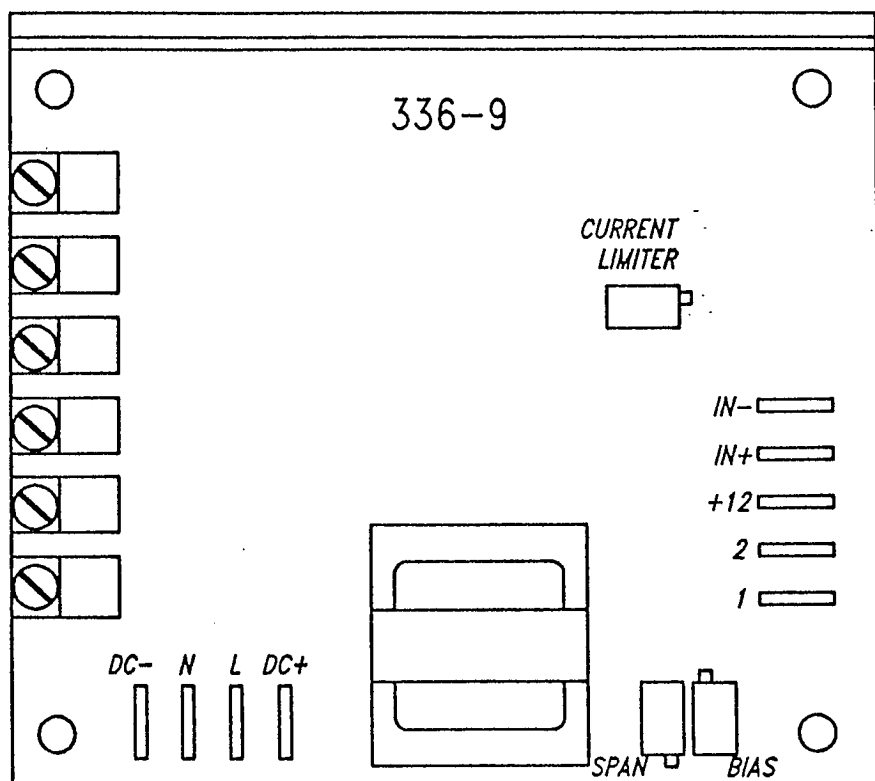
DRAWING No.: 414386



1 : CONTROL
 AC1: AC INPUT
 AC2: AC INPUT
 DC+: ARMATURE CONTROL
 DC-: ARMATURE CONTROL

POTS: SPEED ADJUSTEMENT.

168-4 CARRIAGE
 DOUBLE SPEED BOARD



DC+: ARMATURE CONTROL

N: AC NEUTRAL

L: AC LINE

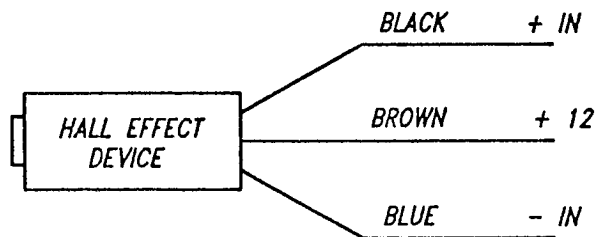
DC-: ARMATURE CONTROL

POTENTIOMETER

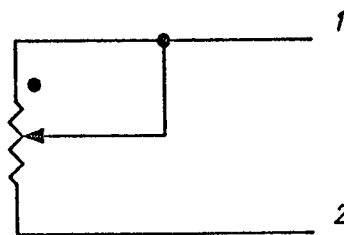
SPAN: HALL EFFECT SENSITIVITY CONTROL

BIAS: SYSTEM BIAS (FACTORY SET)

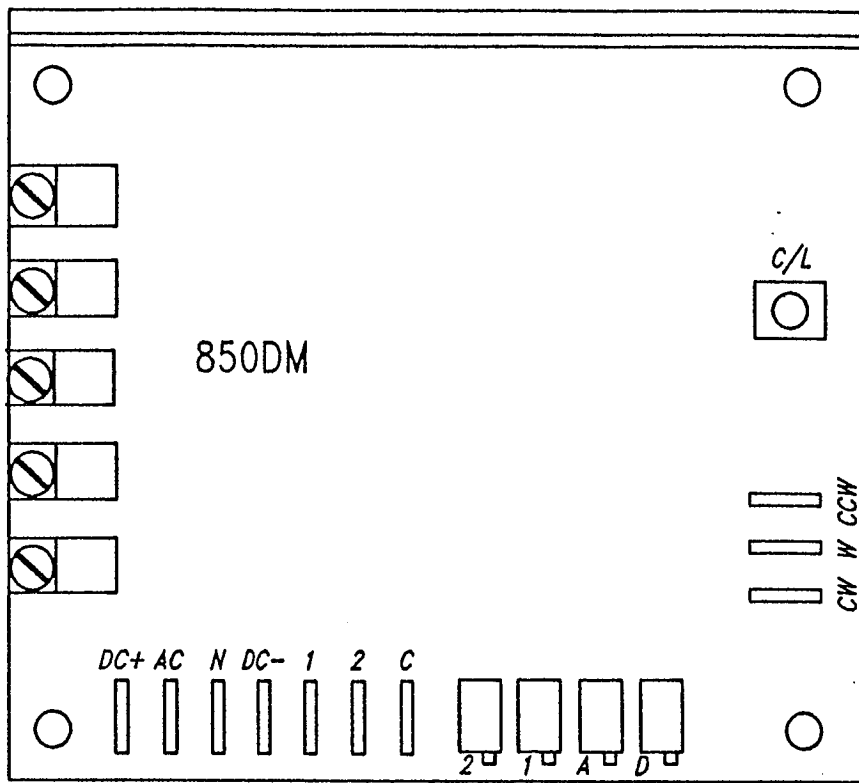
CURRENT LIMITER: (FACTORY SET)



*FILM TENSION ADJUSTMENT
REMOTE POTENTIOMETER*



336-9 MULTISTRETCH BOARD



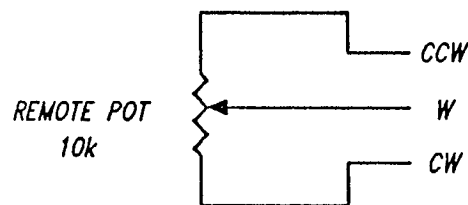
2-ND SPEED (HIGH)
 REMOTE ADJUSTMENT
 (IF NOT USED-PUT JUMPER
 BETWEEN "CW" & "W").

TERMINALS:

DC+: ARMATURE CONTROL.
 AC: AC (HOT) POWER INPUT.
 N: AC NEUTRAL.
 DC-: ARMATURE CONTROL.
 C: CONTROL COMMON.
 2: SPEED CONTROL (HIGH).
 1: SPEED CONTROL (JOG).

POTENTIOMETERS:

2: HIGH SPEED ADJUSTMENT.
 1: JOG SPEED ADJUSTMENT.
 A: ACCELERATION ADJUSTMENT.
 D: DECELERATION ADJUSTMENT.
 C/L: CURRENT LIMIT.

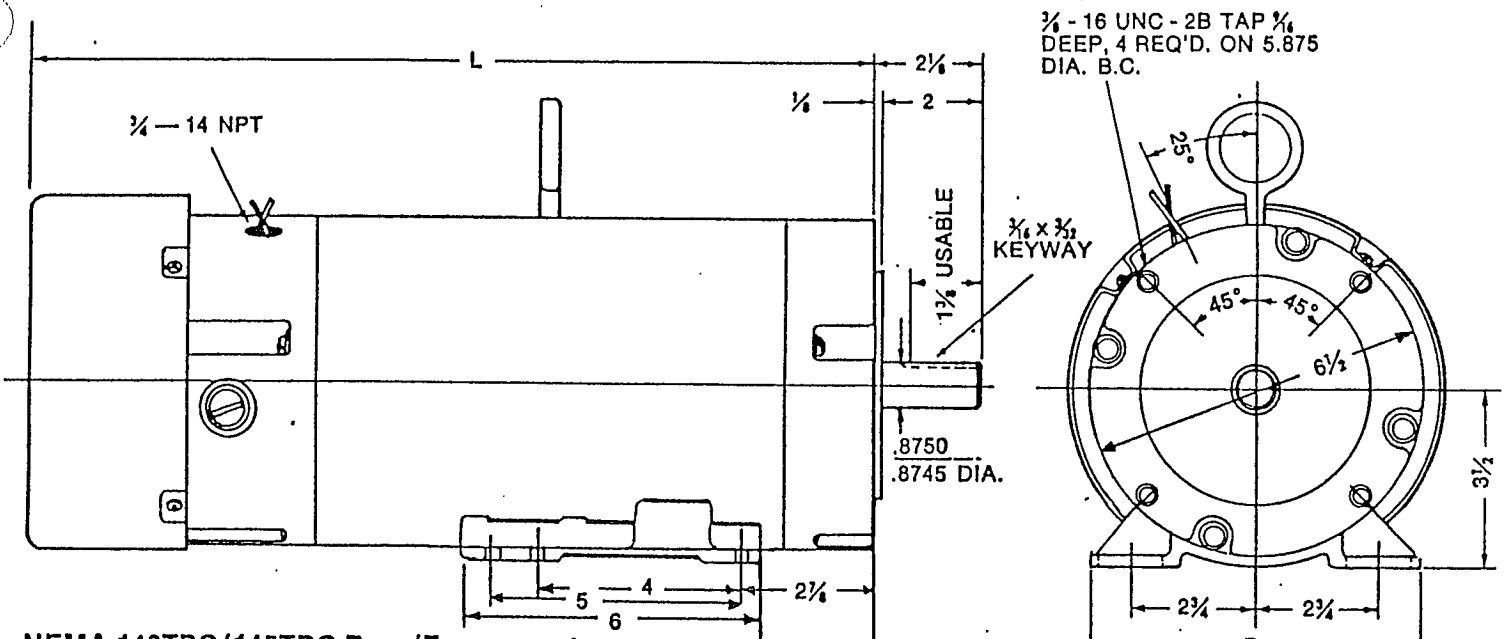


850DM 2 SPEED DC
 MOTOR CONTROL BOARD

APPENDIX

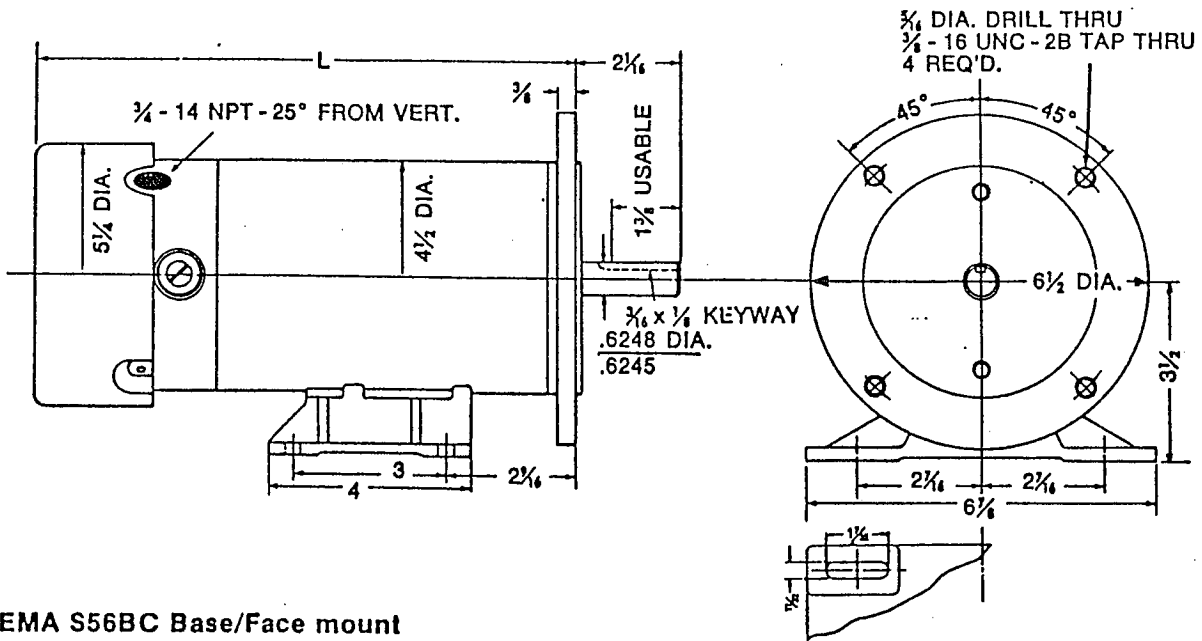
Motor dimensions

TEFC P/M motor



NEMA 143TBC/145TBC Base/Face mount

H.P.	RPM	VOLTS	AMPS	L	DUTY
1.5	1800	180	8.2	15 1/2	CONT.
2	1800	180	11.6	16 1/2	CONT.



NEMA S56BC Base/Face mount

180 V.

H.P.	RPM	VOLTS	AMPS	L	DUTY
1/2	1725	180	2.8	10 3/4	CONT.
3/4	1725	180	3.5	12 3/4	CONT.
1	1725	180	5.35	14 3/4	CONT.

90 V.

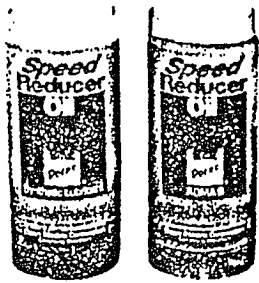
H.P.	RPM	VOLTS	AMPS	L	DUTY
1/2	1725	90	5.35	10 3/4	CONT.
3/4	1725	90	8.1	12 3/4	CONT.
1	1725	90	10.6	14 3/4	CONT.

Lubrication

REDUCERS MAY BE FILLED TO THE PROPER LEVEL AT THE FACTORY WITH AGMA No. 8 compounded oil. AFTER INSTALLATION OF THE BREATHER PLUG, UNIT IS READY FOR USE. Before installing breather plug, refer to instruction tag and determine proper position according to reducer mounting.

We recommend an initial oil change after 250 hours of operation, then every six months or every 2500 hours of service under Class I Service. If fluctuating temperatures, humid, dirty or corrosive environment, oil changes should be made more frequently. Frequency can be established by oil sample analysis.

KEEP YOUR OIL CLEAN



Doerr Electric replacement oil

To order oil, request:

Doerr part no. 00019001 — synthetic AGMA #7EP
(-40°F to 150°F)

Doerr part no. 00019101 — AGMA #8 (50°F to 125°F)

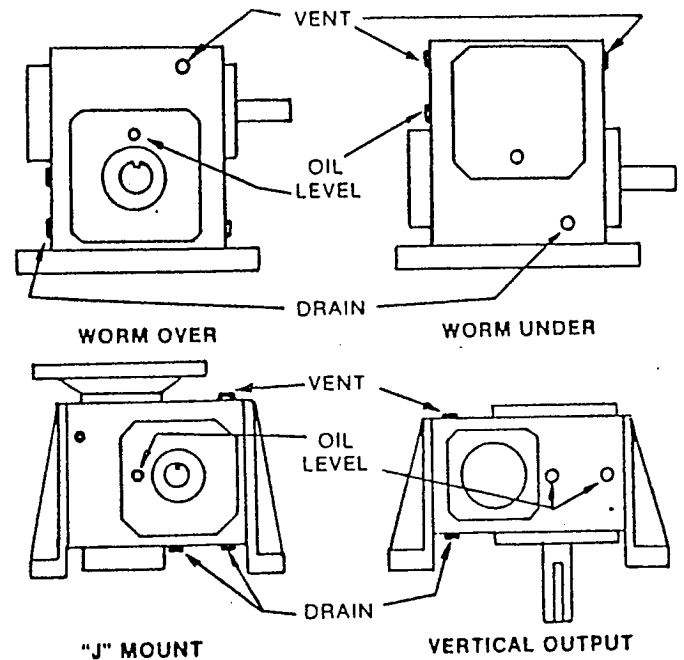
Oil is packed 12 one quart bottles per carton, minimum ship one carton.
Contact DEC Service Dept. for order information.

OIL CAPACITIES*

UNIT TYPE	UNIT SERIES				
	133	175	208	262	325
Worm Over	14	20	27	49	84
Worm Under	17	22	28	49	73
Vertical Output	10	15	20	37	63
"J" Mount	13	18	23	38	63

*Capacities in approximate ounces. On double reduction units determine capacity of both primary and secondary reducers.

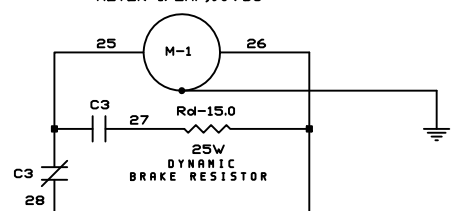
OIL LEVELS*



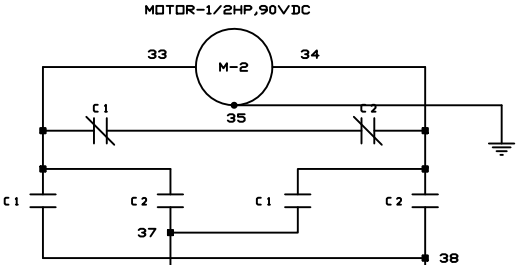
*On double reduction units fill and vent each unit to levels shown.

NEUTRAL NEUTRAL NEUTRAL NEUTRAL NEUTRAL NEUTRAL

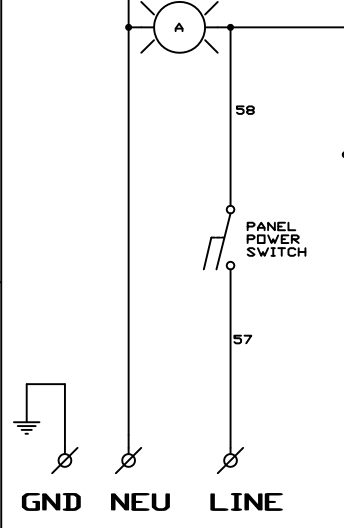
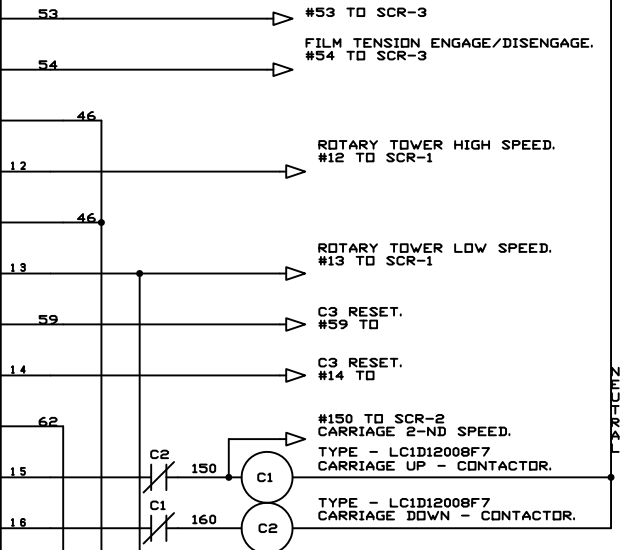
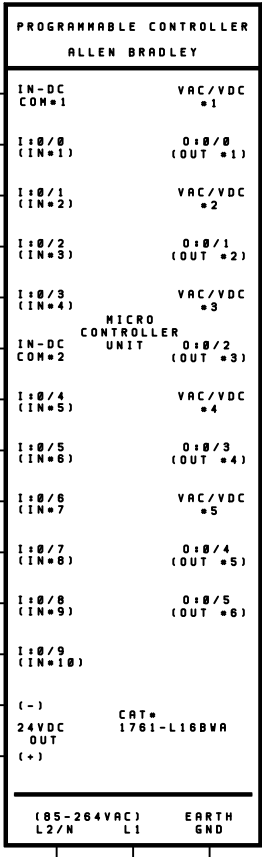
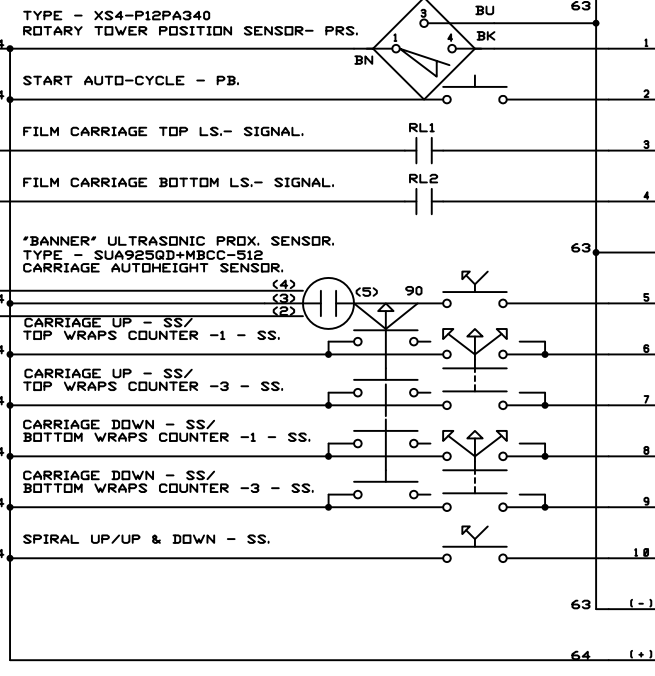
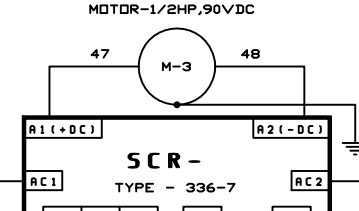
ROTARY TOWER
MOTOR-1/2HP,90VDC



CARRIAGE
MOTOR-1/2HP,90VDC



MULTISTRETCH
MOTOR-1/2HP,90VDC

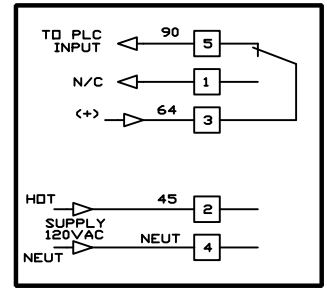


- REQUIREMENTS:**
- 115VAC
 - 1PH
 - 50/60Hz
 - 15A

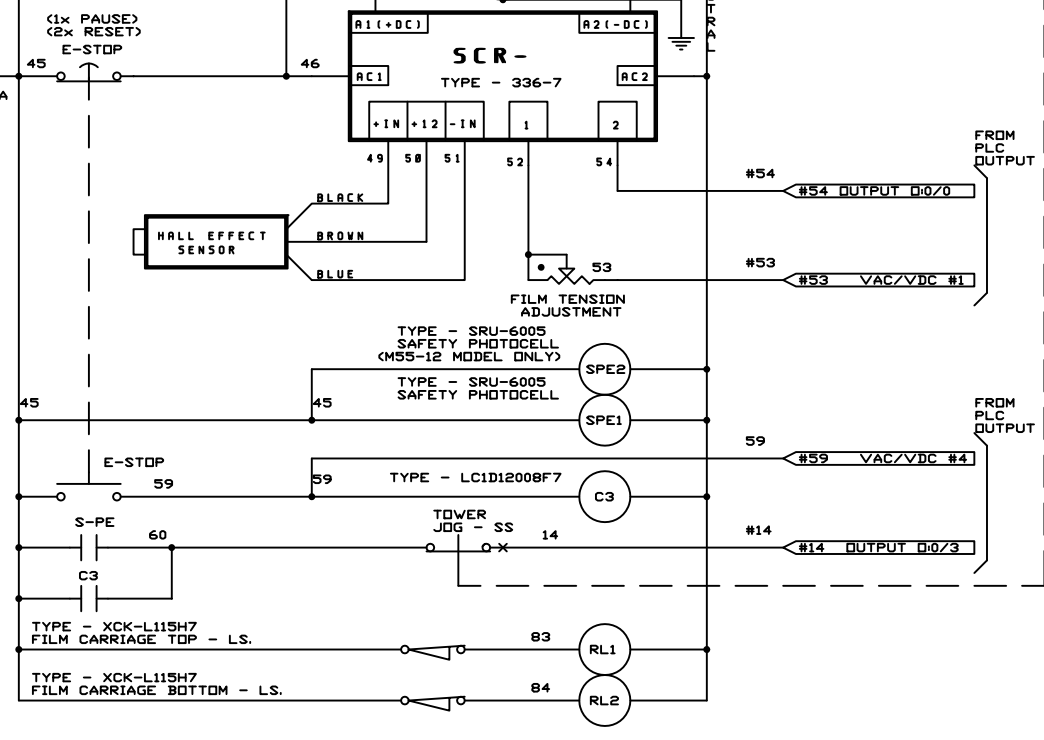
M55	
SLIP-RING	
SECTION #	WIRE #
1.	GND
2.	NEUT
3.	33
4.	34
5.	45
6.	46
7.	52
8.	54
9.	SPARE.
10.	63
11.	64
12.	83
13.	84
14.	90

NOTE:

ULTRA-BEAM ULTRASONIC PROX.SW.
"BANNER"-SU925GD



- FUSES FU-2 AND FU-3:
- MDL-8A (20" CARRIAGE)
- MDA-10A (30" CARRIAGE OR HEAVY FILM GAUGE UPGRADE)
- BOARD SCR-3:
- 336-9 (20" CARRIAGE)
- 336-7 (30" CARRIAGE OR HEAVY FILM GAUGE UPGRADE)



ORION PACKAGING INC.			
2270 INDUSTRIEL BD LAVAL, QUE., CANADA H7S 1P9			
TEL: (514)-667-9769		FAX: (514)-667-6320	
CK'D BY: J.B.S. DRAWN BY: M.THOMAS			
TITLE		"GL. COATING CORPORATION"	
M55-12			
SIZE	DOCUMENT NO.	REV	
C	JOB# 7720	301 529	2
DATE:	DEC-26-1997	SHEET	1 OF 1
FILENAME:	M55-7720.SCH	BASE:	