

ATTENTION:

VERY IMPORTANT

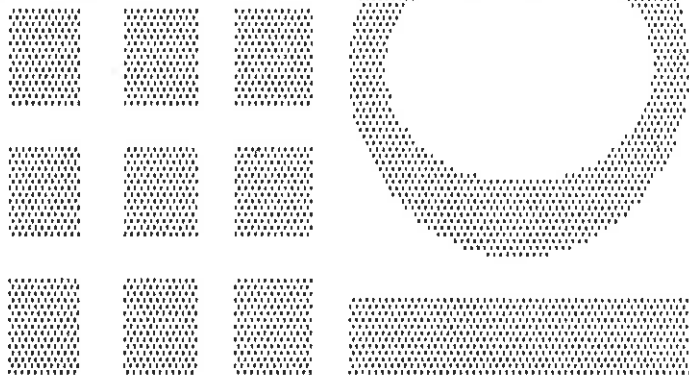
Before unloading and unpacking the machine, read section 5 of this manual for unloading and unpacking instructions.

Failure to do so may result in the forfeiture of the warranty.

L77

OWNER'S

MANUAL



Orion Packaging Inc.
4263 Richelieu
Montreal H4C 1A1
Tel.: 514-937-6642

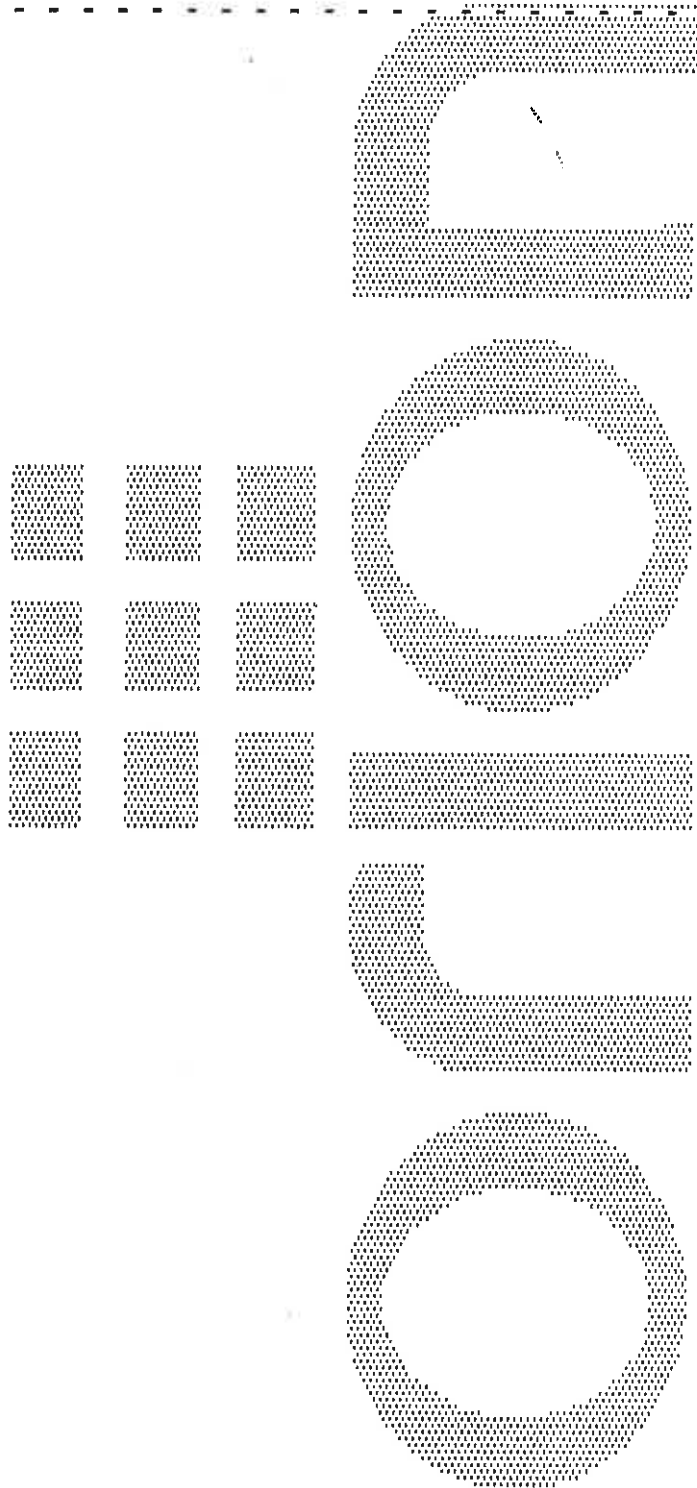
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APPENDIX 20



1. L77 SPECIFICATIONS

Power requirements: 110 VAC, single phase, 60 Hz, 15 A.

Machine floor space requirements: 60" x 100"

Distance from floor to top of table: 3 inches.

Turntable diameter: 60"

Turntable drive: 1/2 hp, 90 VDC, TEFC, SCR controlled soft start and stop, ANSI #50 chain.

Carriage elevator drive: 1/3 hp, 90 VDC, TEFC, SCR controlled variable speed, 20 fpm max, ANSI #50 chain.

Maximum static load: 20 000 lbs.

Maximum dynamic load: 4 000 lbs.

Minimum load: 350 lbs.

Maximum pallet and load dimensions: 56" w x 56" l x 84" h [Recommended]

62" w x 62" l x 87" h [Theoretical]*

Machine dimensions: 60" x 100" x 80" (h)

Machine weight: 1060 lbs.

*Theoretical is based upon removal of roping bar, and reflects the maximum film web height attainable.

2.

STANDARD FEATURES

The standard L77 stretchwrapper comes with a 20" electromechanical film delivery system, designed for ease and simplicity of operation and quick access for routine maintenance and servicing.

The master control panel features are,

- Film tension control,
- Individual count selectors for top and bottom wraps,
- Solid state elevator speed control,
- Electric eye OFF/ON,
- Spiral up - up/down cycle selector,
- Turntable jog,
- Raise/Lower elevator control,
- Power OFF/ON
- Start,
- Stop,
- Current overload protection.

The turntable has positive alignment by using electronic dynamic braking resulting in a soft stop of the turntable. The turntable is directly driven with a # 50 chain, reaches a speed of 10 rpm, and is powered by a constant torque motor.

The turntable is supported by nine cam followers, mounted in 3/8 inch steel, each having a maximum static load capacity of 2500 lbs.

The L77 also has a roping bar designed to more fully secure the load to the pallet.

3.

OPTIONS

The options available for the , Low Profile stretchwrapper are,

- Ring gear turntable drive and support system
- 72" diameter turntable,
- Turntable surrounding
- Carriage for the 30" film roll
- Extended mast,
- Programmable logic controller,
- Heater option for cold environment application,
- Custom design features.

Custom design features may be in the form of special brackets or tracks that hold loads that don't require pallets, or additional features such as scales to measure the load's weight as it is being wrapped.

4. PARTS LISTS

4.1 Tower Parts List

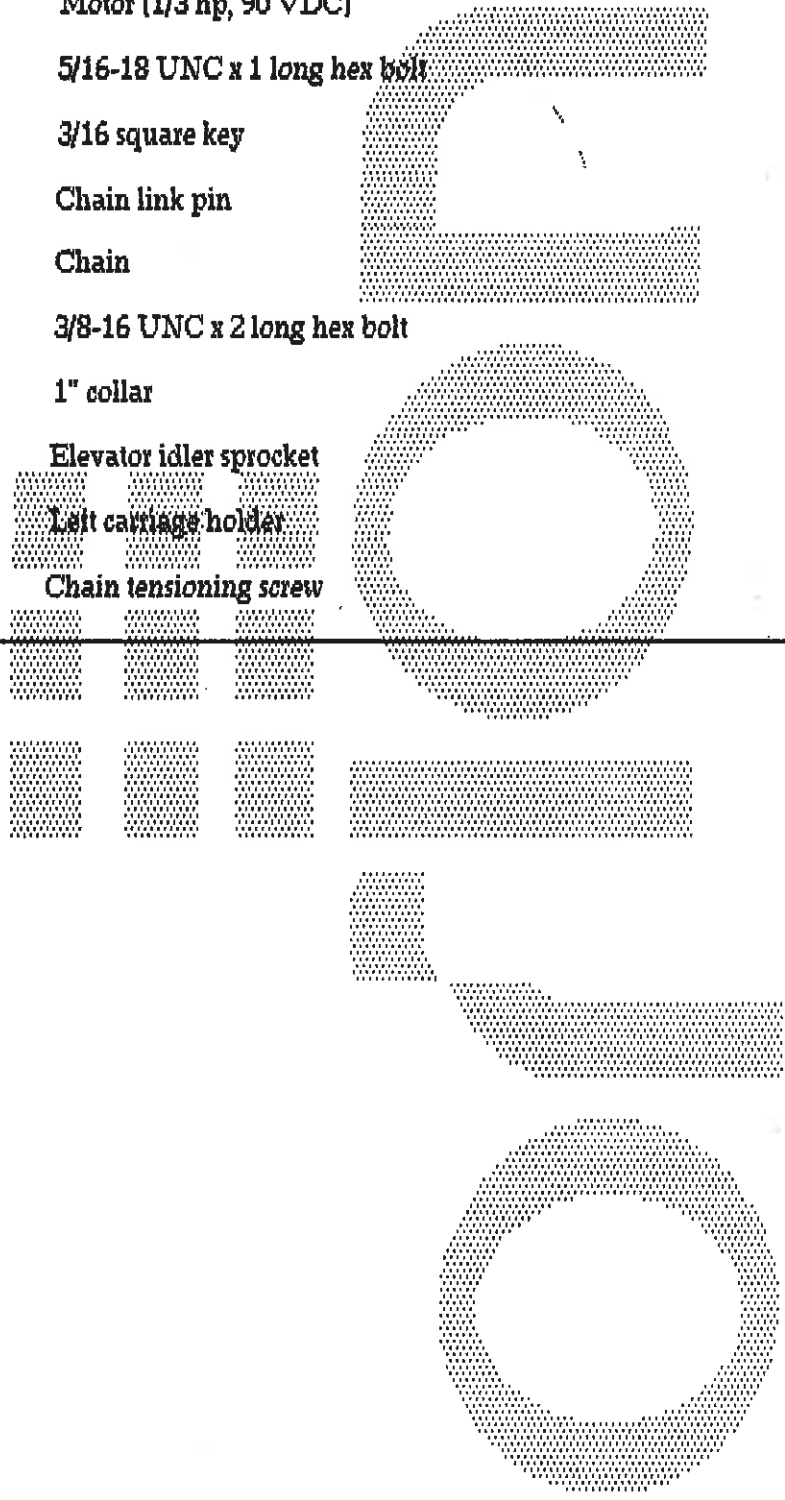
The exploded assembly drawing of the Small Tower is shown on drawing number 200 190. Table 1 has the parts listed in order of part number. Note: the names given to the parts are generic.

TABLE 1

Tower Parts List

Part Number	Description	Quantity
10067	Cam follower (1/2 inch O.D.)	4
10330	10-24 UNC x 2 long SHCS	2
10331	Knob	2
10332	Limit switch	2
10333	Limit switch bracket	2
10334	Channel guide	2
10335	Channel	1
10336	1/4-20 UNC x 1/2 long SHCS	2
10337	Chain cover	1
10338	Limit switch actuator	1
10339	Right carriage holder	1
10340	3/8-16 UNC x 1 long hex bolt	2
10341	Chain tensioner	1
10342	Tower	1
10343	Elevator driver sprocket	1

10344	Reducer (40:1)	1
10345	1/4-20 UNC x 1/2 long SHCS	3
10346	Motor (1/3 hp, 90 VDC)	1
10347	5/16-18 UNC x 1 long hex bolt	4
10348	3/16 square key	1
10349	Chain link pin	2
10350	Chain	1
10351	3/8-16 UNC x 2 long hex bolt	4
10384	1" collar	2
10385	Elevator idler sprocket	1
10386	Left carriage holder	1
10387	Chain tensioning screw	2



4.3 Base And Turntable Parts List

The exploded assembly drawing of the Small, Low Profile base is shown on drawing number 200 195.

Table 3 has the parts listed in order of part number. Note: the names given to the parts are generic.

TABLE 3

Base And Turntable Parts List

Part Number	Description	Quantity
10006	Turntable sprocket	1
10007	Center bearing unit	1
10008	Idler sprocket	1
10009	#50 Chain	1
10010	Cam follower (1 3/8" O.D.)	9
10035	Reducer	1
10124	Proximity switch	1
10222	Driver sprocket (H55)	1
10228	Motor (1/2 hp, DC)	1
10229	Turntable	1
10230	Roping bar	1
10231	Proximity switch bracket	1
10232	Chain tensioner	1
10233	Chain tensioning screw	1
10234	Small base	1
10368	3/8-16 UNC x 1 long hex bolt	4
10370	3/16 square key	2
10371	Chain cover	1

10372	1/4-20 UNC x 1 long CHCS	2
10373	3/8-16 UNC x 1 long CHCS	2
10374	5/8-11 UNC x 1 1/2 long hex bolt	1
10375	3/8-16 UNC x 1 long hex bolt	2
10376	10-24 UNC x 2 long BHCS	2
10377	10-24 UNC x 1/2 long SHCS	2
10379	3/8-16 UNC x 1 1/2 long hex bolt	4
10380	1/2-13 UNC hex nut	9
10381	3/8-16 UNC x 1 1/2 long SHCS	4
10382	5/16-18 UNC x 3/4 long hex bolt	4

5. MACHINE INSPECTION AND INSTALLATION

5.1 Inspection Upon Arrival

CAUTION: When unloading the stretchwrapper, care must be taken not to lift it by the turntable. The forks of the forklift should be inserted in the 6 inch slots behind the tower to lift the machine.

Before inspection, all packing and restraining blocks must be removed; these may include the blocks under the carriage and the bolts holding the ramp on the table.

CAUTION: When cutting the stretchwrap material covering the machine, care must be taken not to cut any of the electrical lines.

A visual inspection of all the electrical connections should be performed after unpacking the machine to check for loosened joints or broken connections. Any suspected shipping damage must be reported immediately to the freight carrier.

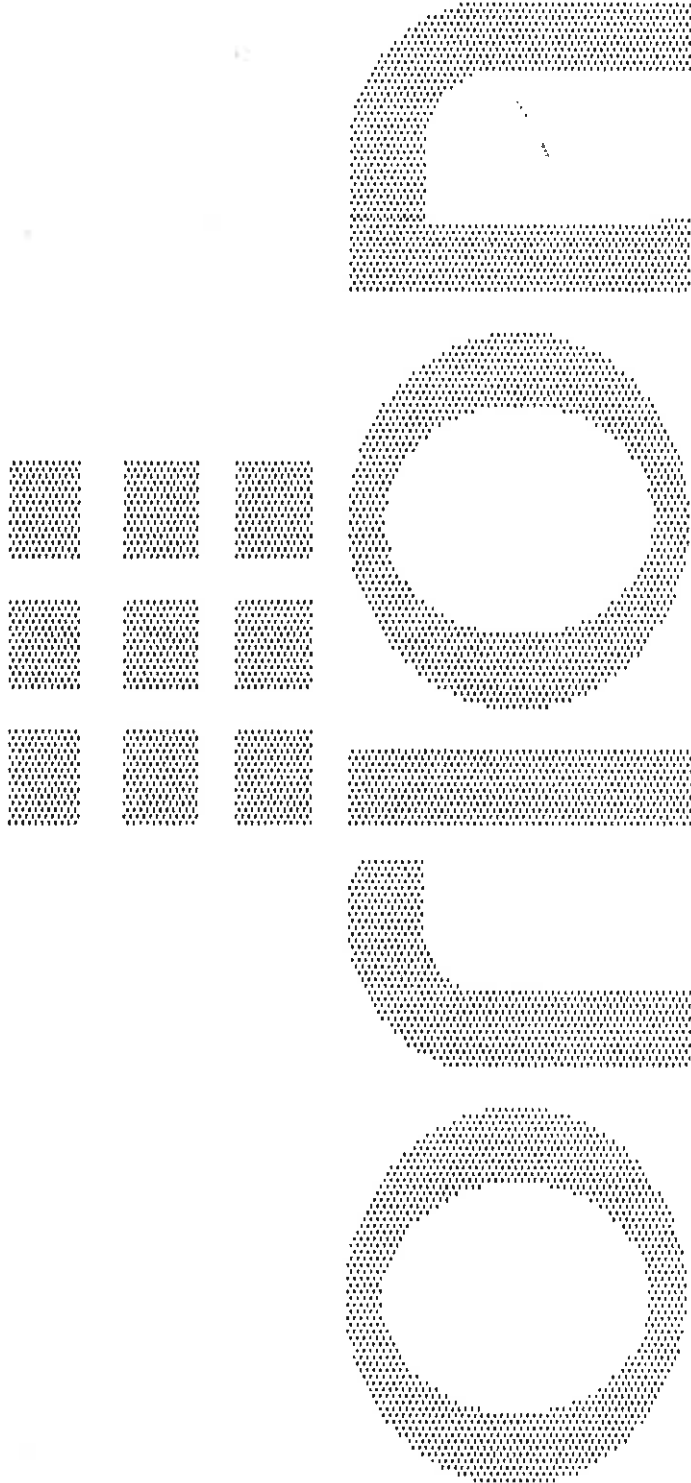
Items that are vulnerable to damage and must be inspected are the motor and transmission housings and connections at the base of the tower, and on the carriage, the photoswitch on the carriage, and the roping bar and stands.

5.2 Machine Installation

After the visual inspection has been performed, the customer is required to provide the electrical power requirements as outlined in the specifications (sections 1, 2, and 3 of this manual).

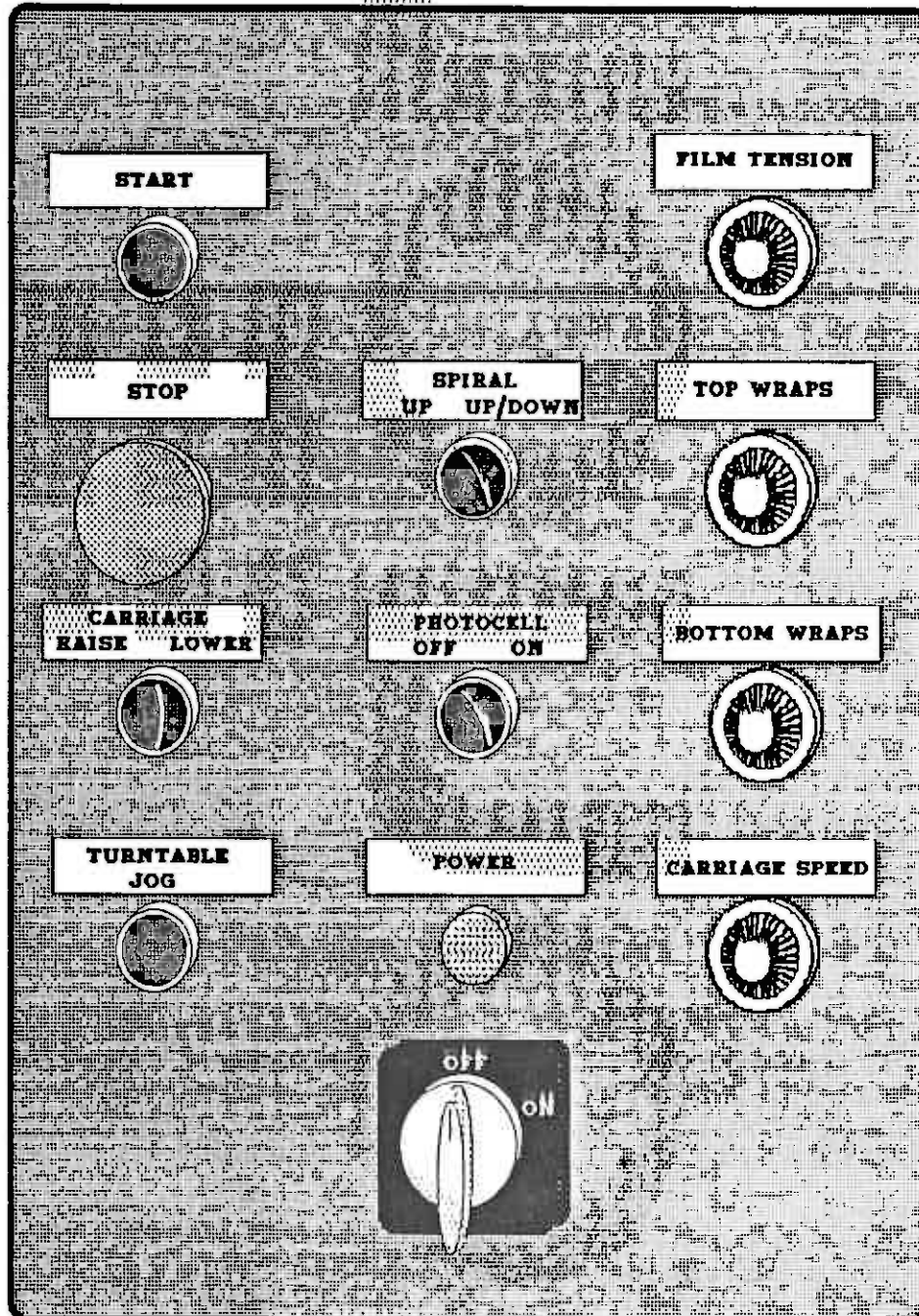
An electrical diagram is provided in the panel box. Only a qualified electrical technician or an Orion representative should effect any repairs on the machines.

Before operating the machine the oil pockets underneath the table should be checked and filled if any oil is missing (see section 8.4).



6.

MACHINE CONTROLS



6.1 Power Switch

The Power Switch has two settings,

ON - Connects a 110 VAC power source to the machine,

OFF - Disconnects the power source.

6.2 Start And Stop Switches

The Start switch is used to start the cycle once the load is on the turntable. The cycle may be stopped at any time by pressing the Stop button.

NOTE: if the Stop button is pressed in the middle of the cycle, the carriage and turntable may be returned to their home positions by using the jog buttons before restarting the cycle.

6.3 Spiral Wrap Switch

The Spiral Wrap switch has two positions,

UP - In the UP 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 the UP/DOWN position the cycle is complete after the load is wrapped in both the up and down directions.

6.4 Turntable Jog Switch

The Turntable jog switch is a pushbutton switch that will turn the turntable in a clockwise direction (as viewed from the top) when the switch is held depressed. When the switch is released the turntable will stop.

The switch is inoperative during the wrap cycle.

6.5 Carriage Control Switch

The Carriage Control switch is a monostable three position switch with the following settings,

RAISE - Raises the carriage until the top limit switch on the tower is activated or until the photo switch senses that the top of the load has been reached.

LOWER - Lowers the carriage until the bottom limit switch on the tower is activated.

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

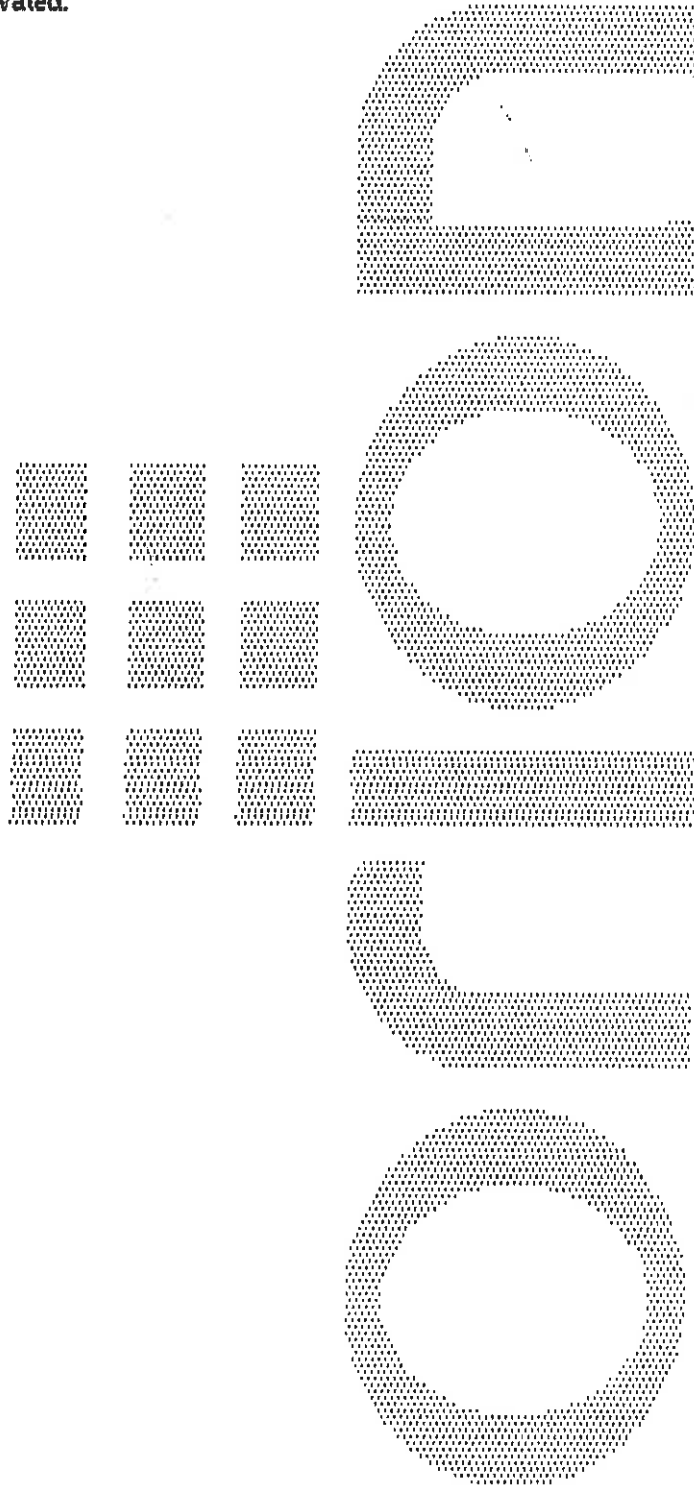
6.6 Photocell Switch

The Photocell switch has two settings,

ON - When turned ON, the photocell senses whether or not the carriage has reached the top of the load. The carriage will 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's 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 only once the top limit switch has been activated.



7.

CYCLE CONTROLS

7.1 Film Tension

The film tension may be adjusted through the film tension control potentiometer. The pot has a range of tension from 0 to 10, 10 being the highest tension rating. This pot may be adjusted during the cycle.

CAUTION: Light loads may require lower tension settings than heavier loads.

The film tension is controlled through the dancer bar system. Occasionally the feedback potentiometer may need some adjustment. The adjustment of the feedback potentiometer can be performed while there is no film on the carriage. The bottom screw on the potentiometer coupling must first be loosened. Once the screw is loosened the potentiometer shaft must be turned until the prestretch motor just begins to hum but does not rotate, at which point the screw can be tightened. NOTE: the condition in which the motor hums but doesn't turn must be maintained even after the screw is tightened. If not, the adjustment procedure must be repeated.

7.2 Carriage Speed

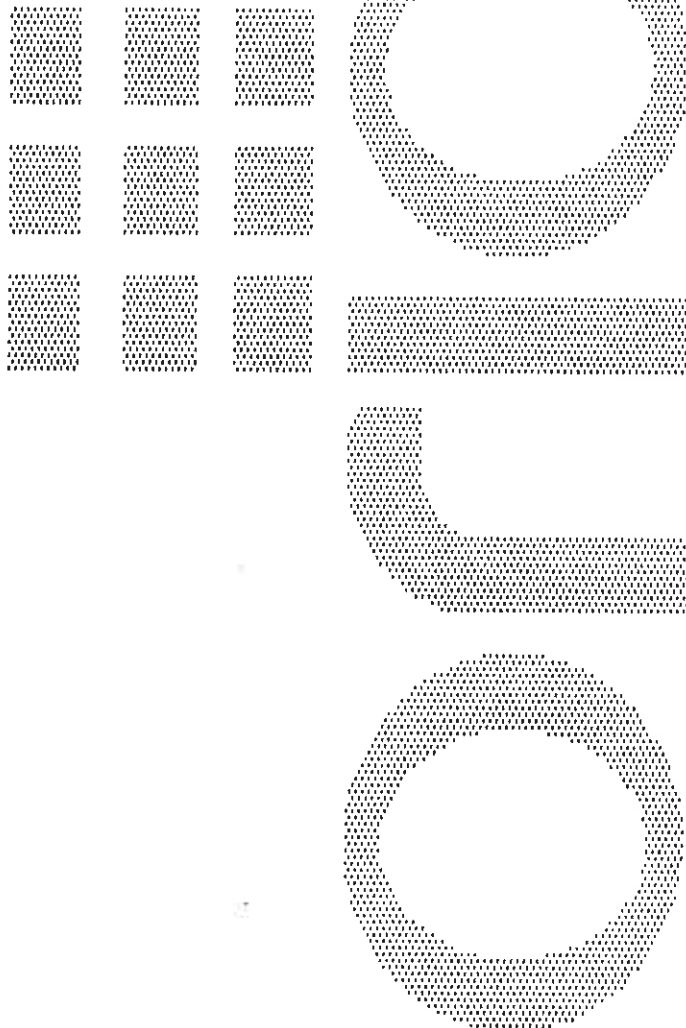
The carriage speed control can be used to control the amount of overlap the film will have on itself during a wrap.

The control potentiometer has settings from 0 to 10, the higher settings being the fastest. High settings will mean less film overlap because of faster carriage speed, and low settings will mean more film overlap because of lower carriage speeds.

7.3 Top And Bottom Wraps

There are two multi-position switches which control the number of wraps that may be put at the top and bottom of the load. Each switch has positions going from 1 to 10 corresponding to the number of wraps which may be applied at the top or bottom of the load.

These switches may be set before the cycle begins.



8. MACHINE MAINTENANCE

8.1 Speed Reducer Maintenance

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 every 2500 hours of operation, whichever 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 180-5
Gulf Oil Corp.	Gulf Senate 155
Mobile Oil Corp.	Mobil 600 W Super Cyl. Oil
Phillips Oil Co.	Andes 5150
Texaco Inc.	624-650T Cyl. Oil
Shell Oil Co.	Valvata Oil J82
Union Oil Of Cal.	Red Line Worm Gear Lube 140

Reducing transmissions are found on the carriage, and at the base of the tower.

8.2 Motor Maintenance

An occasional inspection of the brushes should be made in order to establish a maintenance schedule. 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 round, 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.

8.3 Chain Maintenance

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

With time the chains will tend to stretch. A loose elevator chain should be tightened at the chain tensioner as shown on drawing number 200 192. A loose turntable drive chain should be tightened by tightening the 1/2" dia. screw on the base, next to the turntable.

8.4 Cam Follower Maintenance

The cam followers behind the carriage have deep grease pockets and do not need frequent relubrication.

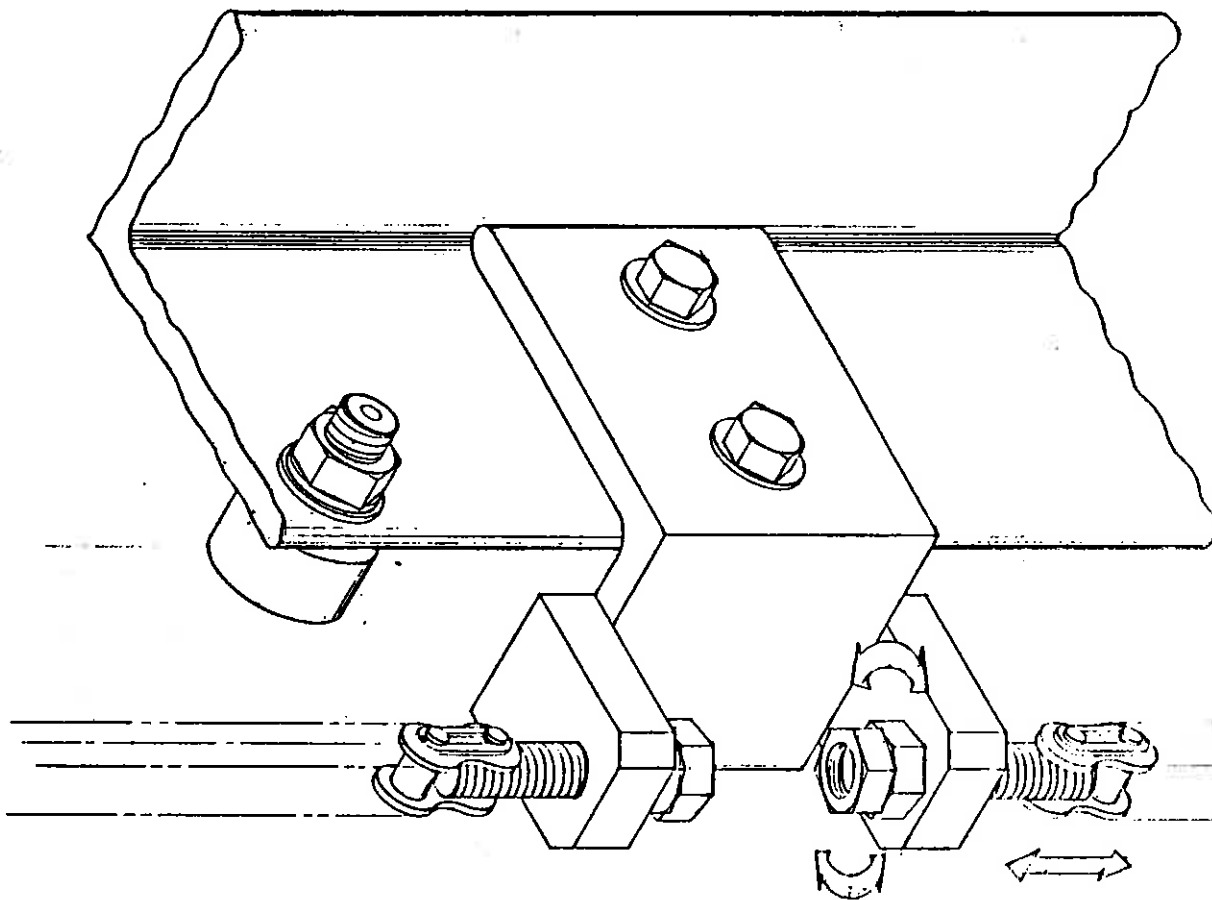
The portion of the tower on which the cam followers roll should be cleaned and regreased every 300 hours of operation. If the machine operates in a dusty or corrosive environment the tower should be relubricated more often.

The cam followers under the turntable are wet with oil in order to keep the track properly lubricated. The oil pockets should be refilled every 200 hours of operation. The two oil pockets are found on the base, underneath the table.



APPENDIX



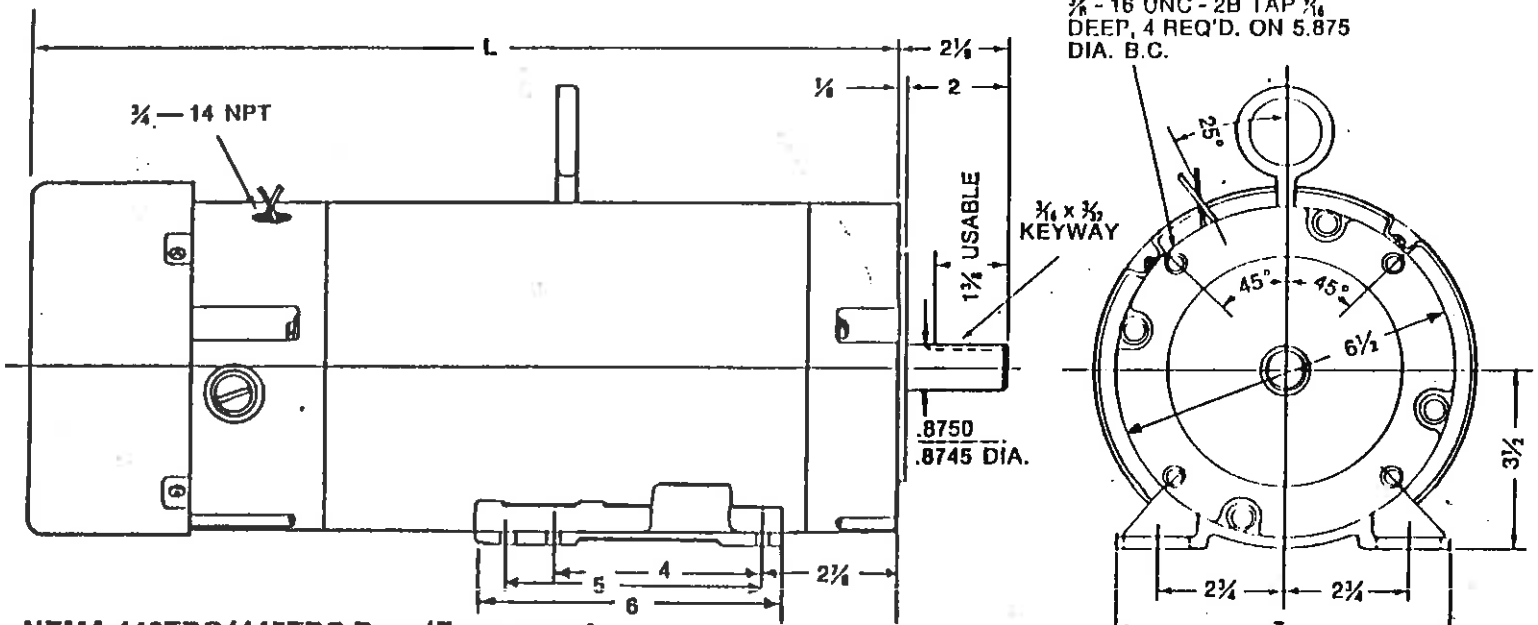


CHAIN TENSION
ADJUSTMENT

ORION PACKAGING	
DESIGNED BY T.S.	APPROVED BY
DATE 10-7-56	
CHAIN TENSIONER ASS'Y	
DRAWING NUMBER 200-1912	

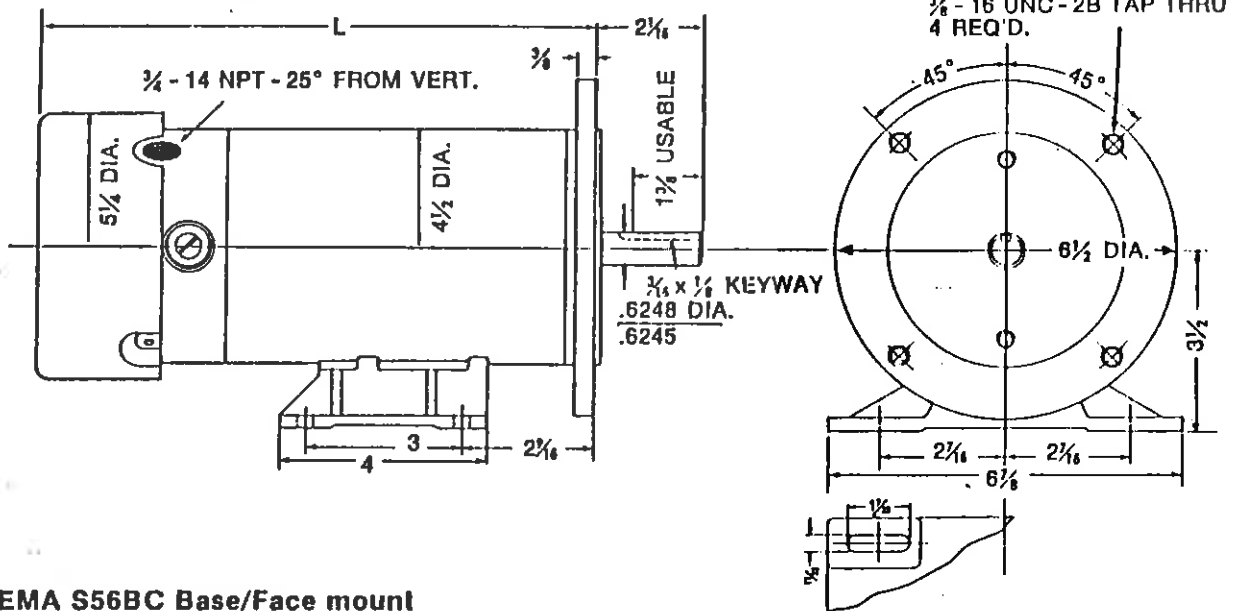
Motor dimensions

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.

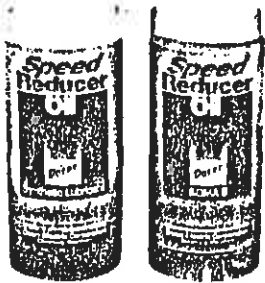
H.P.	RPM	VOLTS	AMPS	L	DUTY
1/2	1725	90	5.35	10 3/4	CONT.
3/4	1725	90	8.1	12 3/4	CONT.
1	1725	90	10.6	14 3/4	CONT.

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)

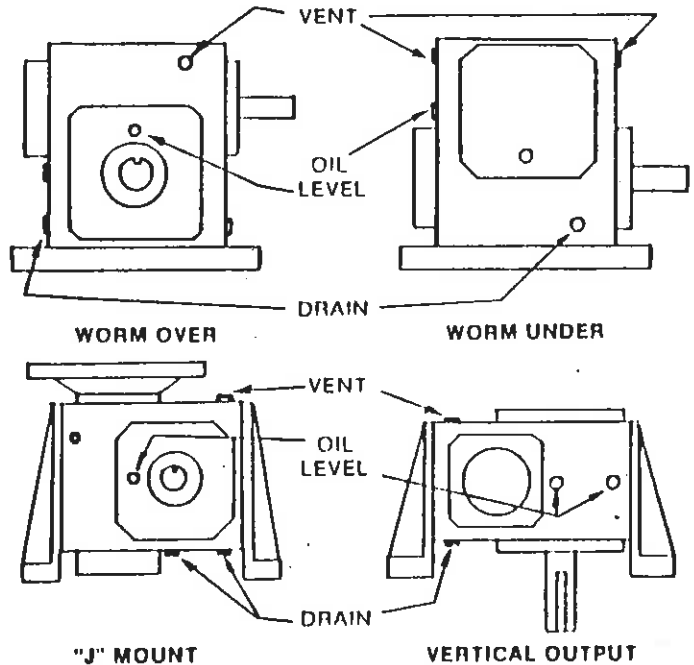
Oil is packed 12 one quart bottles per carton, minimum ship one carton.
Contact DEC Service Dept. for order information.

OIL CAPACITIES*

UNIT TYPE	UNIT SERIES				
	133	173	200	202	320
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.

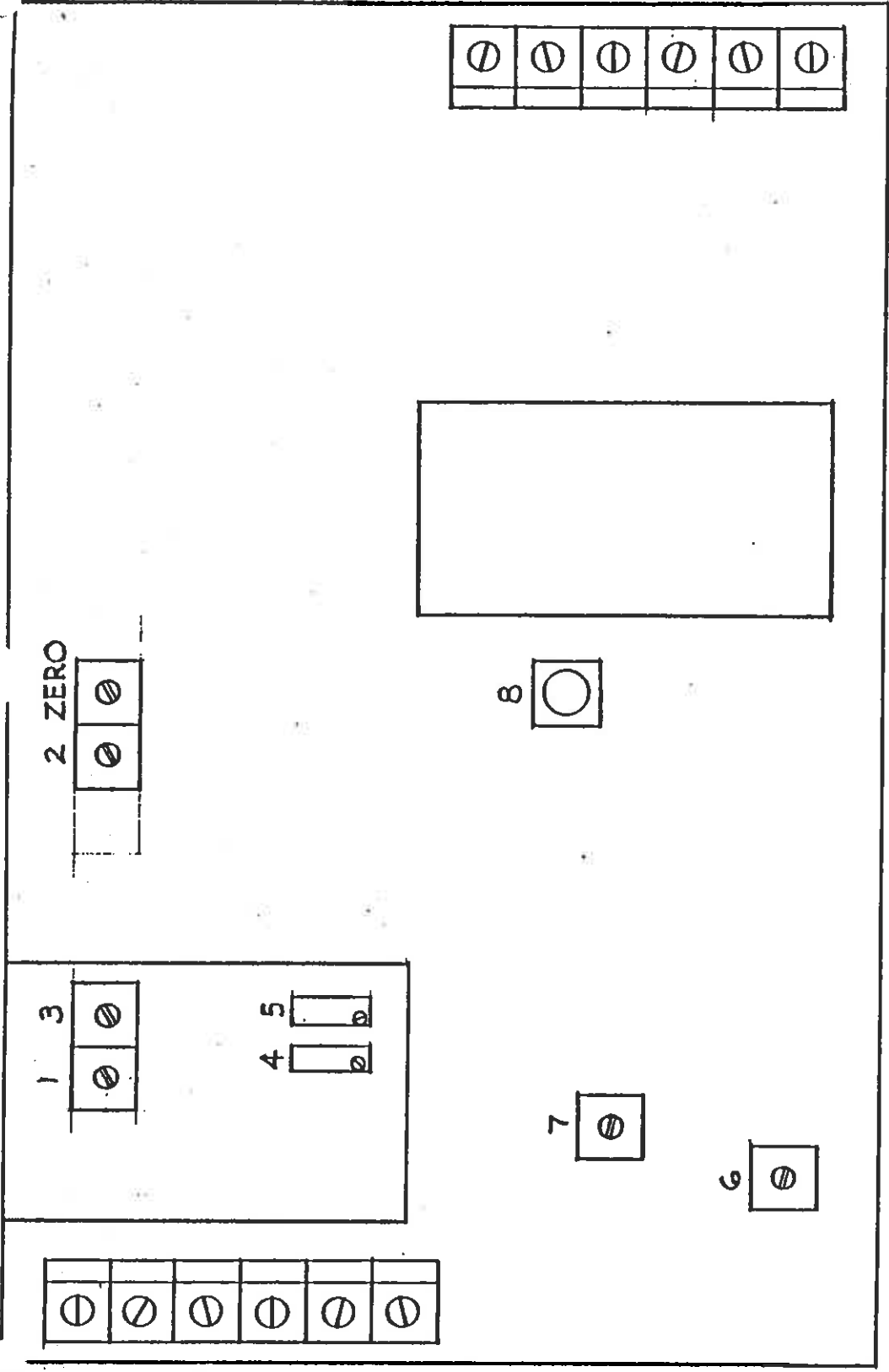
OIL LEVELS*



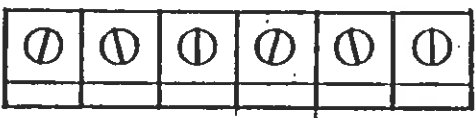
*On double reduction units fill and vent each unit to levels shown.

Electrical Boards' Chart for ORION Stretchwrappers

	168-4	168-A	236	336	750+	750M-240V	850M	850C	155-3A
MLH 44 Processor	X		X		X				
MLH 44	X		X		X				X
MLH 55		X		X			X		X
MLH 66		X		X			X		X
MLH 77		X							X
PA 33	X			X	X				
FA 33	X			X		X		X	
MA 33	X			X		X		X	
MA 44	X			X	X			X	
MA 55	X			X			X	X	



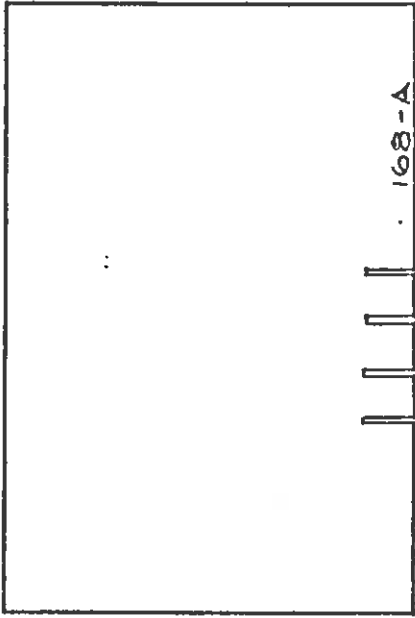
F1
 AC2
 AC1
 F2
 A2
 A1





- ZERO: TURNTABLE DEADBAND ADJ.
- 1: HIGH SPEED ADJ.
- 2: JOG SPEED ADJ.
- 3: LOW SPEED ADJ.
- 4: HIGH SPEED DECELERATION ADJ.
- 5: LOW SPEED DECELERATION ADJ.
- 6: ACCELERATION ADJ.
- 7: LOAD RANGE ADJ.
- 8: CURRENT LIMITER

ORION PACKAGING INC.

ECHELLE: N.T.S. SCALE:	APPROUVE PAR: APPROVED BY:	DESSINE PAR: VALENTINI DRAWN BY:
DATE: 16-09-87		REVISE PAR: REVISED BY:
750M + 233		
		NUMERO DE DESSIN DRAWING NUMBER 200 888

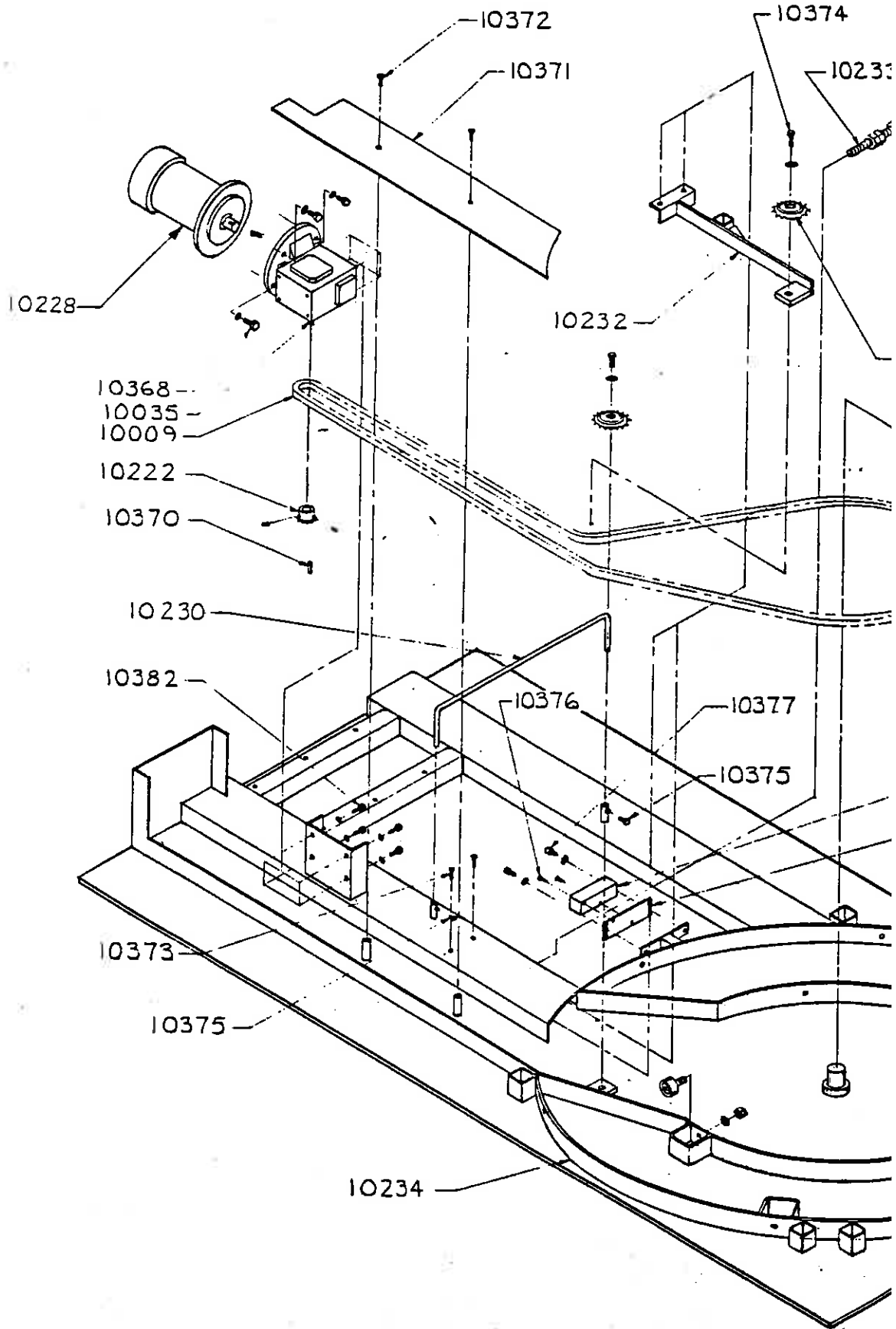


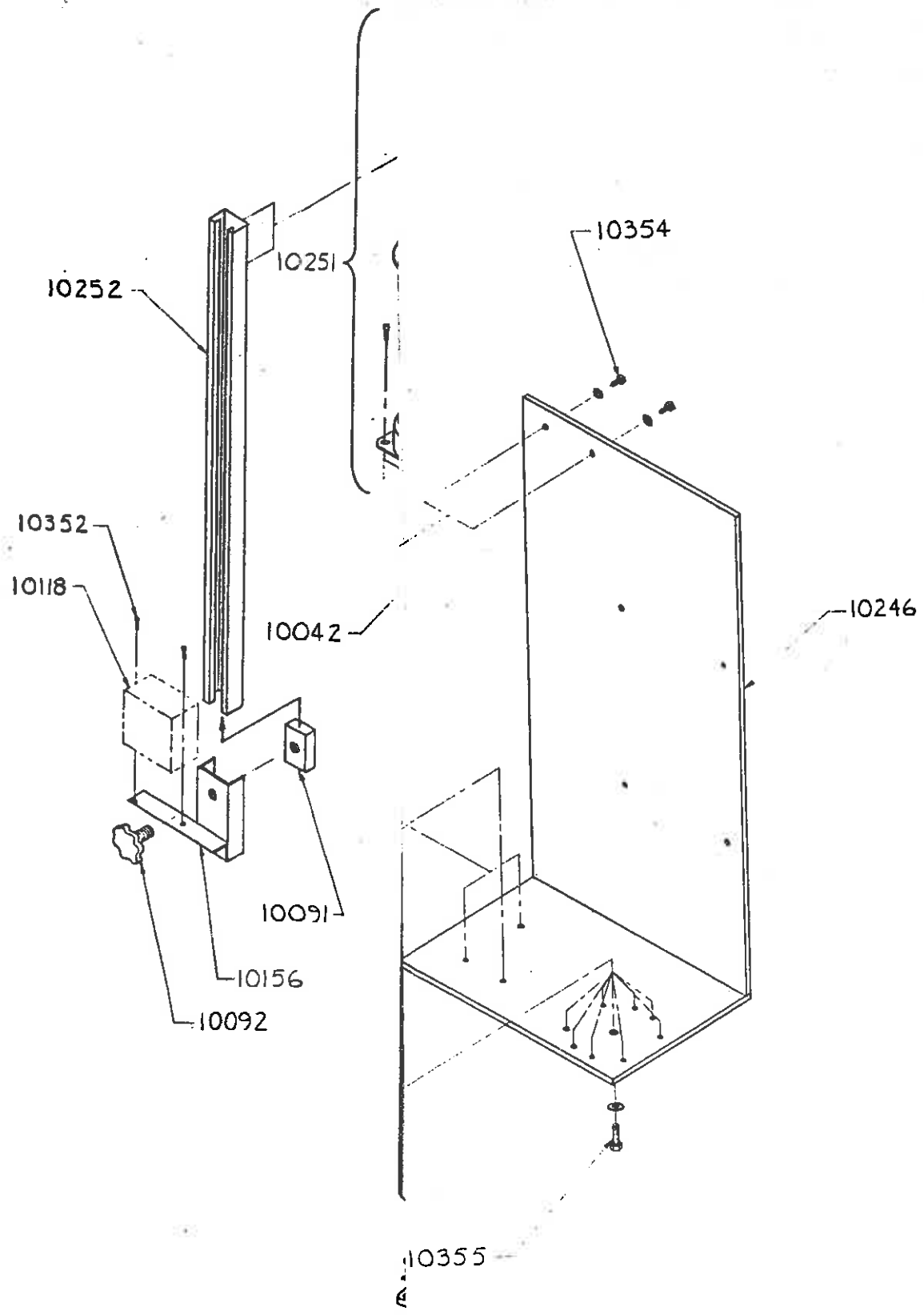



 AC + DC

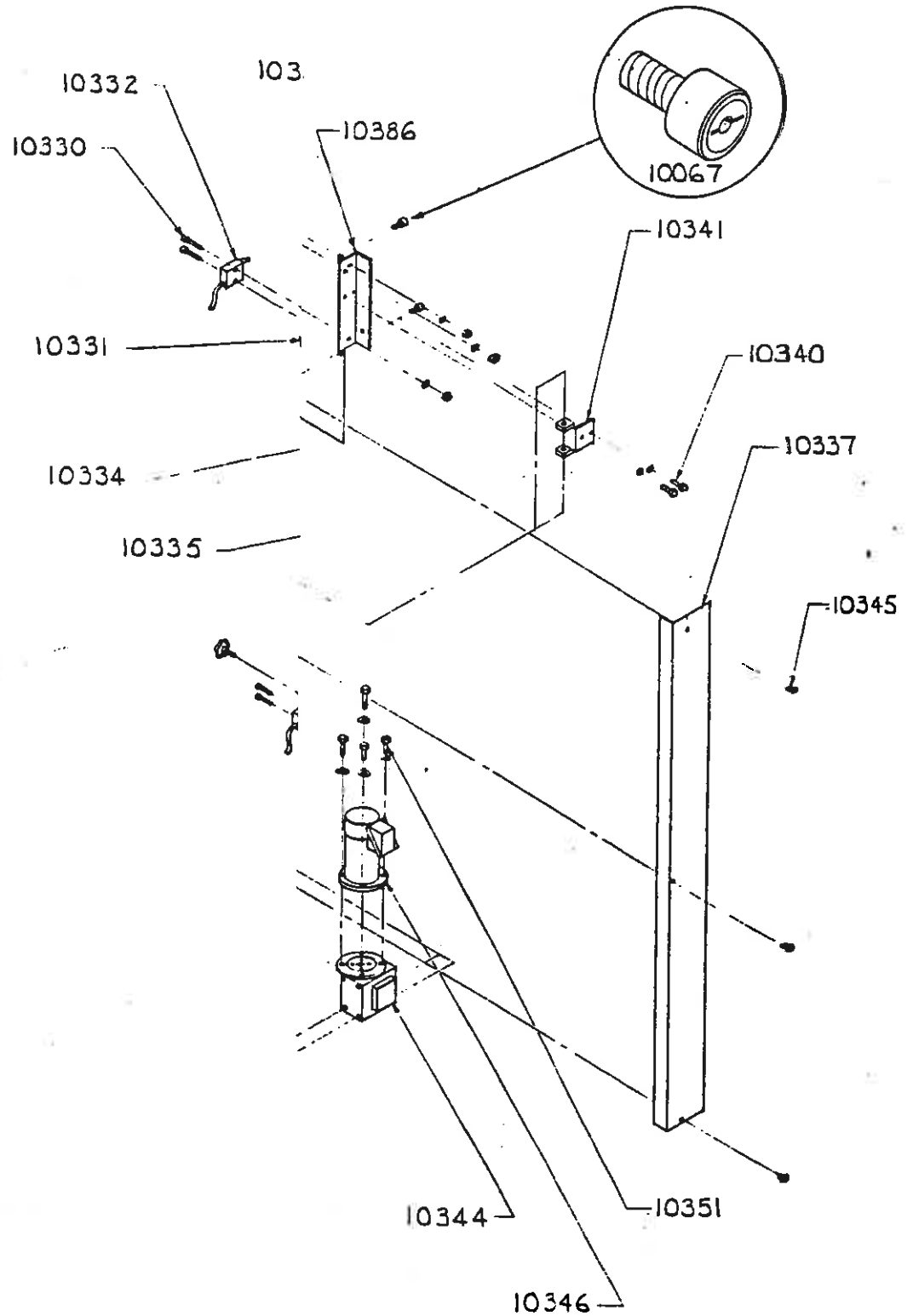
168-A

ORION PACKAGING INC	
ECHELLE: N.T.S. SCALE:	APPROUVE PAR: APPROVED BY:
DATE: 16-9-87	DESSINE PAR: VALENTINI DRAWN BY:
168 - A	
NUMERO DE DESSIN DRAWING NUMBER	
200 891 A	





ORION PACKAGING MONTREAL		
SCALE: N.T.S.	APPROVED BY:	DRAWN BY VALLANTIN
DATE: 7-7-56		REVISED
SMALL CARRIAGE ASS'Y		
L77 H77		DRAWING NUMBER 200 191



ORION PACKAGING		
DESIGN: N. T. S	APPROVED BY:	DRAWN BY: VALERINI
DATE: 8-7-86		
SMALL TOWER ASS'Y		
H66 L66 H77 L77		200-190