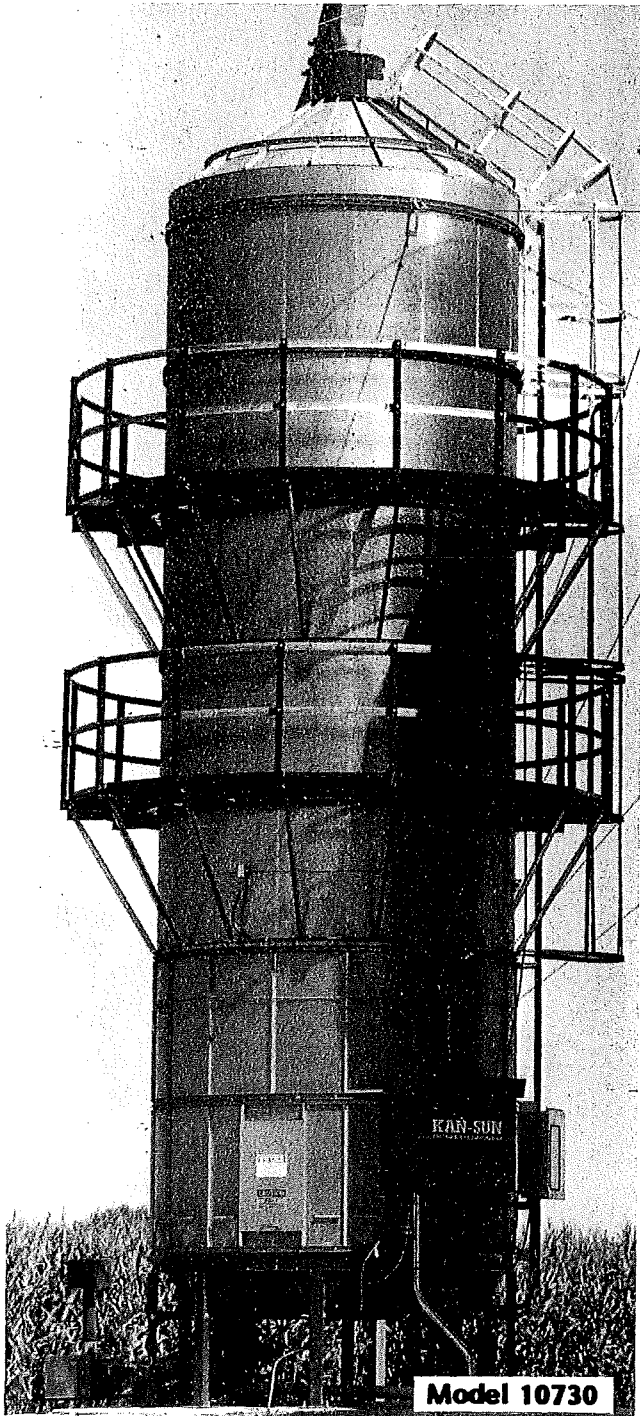




KAN-SUN®

— THE NEXT GENERATION™ —



OPERATOR'S and PARTS MANUAL

(Starting with S/N 54817)
up to and including S/N 55969)

MODELS

10420

10530

10630

10730

Form No. K 313
January 1995

Revised January 1996

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INTRODUCTION

TO THE OWNER-OPERATOR

This manual provides information on set-up, initial start-up, operation, shutdown, and maintenance as well as a parts breakdown for Kan-Sun Models 10420, 10530, 10630, 10730 Grain Dryers enabling owners and operators to keep their grain dryers operating at peak efficiency.

Before operating your Grain Dryer read the Start-Up and Operating Instructions. Become familiar with the controls, adjustments and settings to accomplish efficient operation.

To keep the dryer operating at peak efficiency it is suggested that it be cleaned and lubricated, adjust belt tension, and each year prior to the dryer season test the ignition system and unloading system.

Refer to "Pre-Season Check" in the Maintenance section. The pre-season check can be made when the dryer is empty and any necessary repairs or adjustments can be made so the dryer is ready to operate before the drying season.

SAFETY PRECAUTIONS



This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.

A safe operator is the best insurance against accidents. The precautions listed below must be observed at all times.

- Do not allow children or bystanders to be near the Grain Dryer or grain handling machinery while it is operating.
- Do not operate the Grain Dryer without all safety shields in place and secure.

NOTE: To provide clear illustrations some of the covers, guards and shields were removed.

WARRANTY REGISTRATION

It is important to send in your warranty registration sheet as soon as your new Grain Dryer is delivered. The sheet validates your grain dryer warranty, and is also our way of knowing who has purchased M-C equipment so we can keep in touch with you.



Figure 1

MODEL AND SERIAL NUMBER LOCATION

The model and serial number of your Grain Dryer are stamped on a plate located on the triangular support leg next to the control panel. For future reference, record the model and serial number in the blank spaces in Figure 1.




CAPSCREW GRADE IDENTIFICATION

There are four grades of hex-head capscrews. Grade 1 and 2 are common capscrews, grade 5 and grade 8 are used when greater strength is required. Each grade can be identified by

the marking on the head of the capscrew, see chart.

When servicing the Dryer and/or replacing capscrews, be sure to use the correct size and grade.

CAPSCREW GRADE IDENTIFICATION CHART

S.A.E. Grade	Description	Capscrew Head Marking*
1	WILL HAVE A PLAIN HEAD - NO RADIAL LINES	
2	Low or Medium Carbon Steel Not Heat Treated	
5	WILL HAVE 3 RADIAL LINES Quenched and Tempered Medium Carbon Steel	
8	WILL HAVE 6 RADIAL LINES Quenched and Tempered Special Carbon or Alloy Steel	

*The center marking identifies the capscrew manufacturer.

Metric (SI) Measurements

(English Units & Metric (SI) Equivalent)

Area

1 square inch = 6.4516 square centimeters
 1 square foot = 0.0929 square meters
 1 square yard = 0.8361 square meters
 1 acre = 4047 square meters
 1 acre = 0.4047 hectare

Force

1 pound (force) = 4.45 newtons

Length

1 inch = 25.4 millimeters
 1 inch = 2.54 centimeters
 1 foot = 304.8 millimeters
 1 foot = 30.5 centimeters
 1 foot = 0.305 meters
 1 yard = 0.9144 meters
 1 mile = 1.6093 kilometers

Mass

1 ounce = 28.35 grams
 1 pound = 0.454 kilograms
 1 ton = 907.1848 kilograms

Power

1 horsepower = 0.7457 kilowatts

Pressure

1 psi = 6.89 kilopascals
 1 psi = 0.00689 megapascals
 1 inch of mercury = 3.377 kilopascals

Temperature

1 degree Fahrenheit ($^{\circ}\text{F} - 32$) \div 1.8 = $^{\circ}\text{Celsius}$

Torque

1 inch pound = 0.113 newton meters
 1 foot pound = 1.356 newton meters

Velocity

1 mile per hour = 1.61 kilometers per hour

Volume

1 bushel = 35.24 liters
 1 bushel = 0.0352 cubic meters
 1 pint = 0.4731 liters
 1 quart = 0.9464 liters
 1 gallon = 3.7854 liters
 1 cubic inch = 16.387 cubic centimeters
 1 cubic foot = 0.0283 cubic meters
 1 cubic yard = 0.7646 cubic meters

NOTE: The Mathews Company reserves the right to incorporate changes in design without obligation to make these changes on units previously sold.

SET-UP INSTRUCTIONS

GENERAL

Check to make sure that all the parts and hardware listed on the packing list have been received.

IMPORTANT: Inspect for and remove any foreign material (nuts, bolts, tools, parts, etc.) from the hopper, grain columns, unload auger and heat chamber before filling the dryer with grain. Also be sure the heat chamber door is in position and secure. Check to make sure that the fan blade moves freely and has sufficient clearance.

PERMANENT INSTALLATION

The dryer must be installed on a level concrete foundation designed to carry the weight of the dryer when full of grain (Model 10420 approximately 33,950 lbs., Model 10530 approximately 40,130 lbs., Model 10630 approximately 46,300 lbs., Model 10730 approximately 52,480 lbs.). The foundation must be engineered locally for ground and weather conditions to prevent settling and frost upheaval. (See Figure 3 and 3a.)

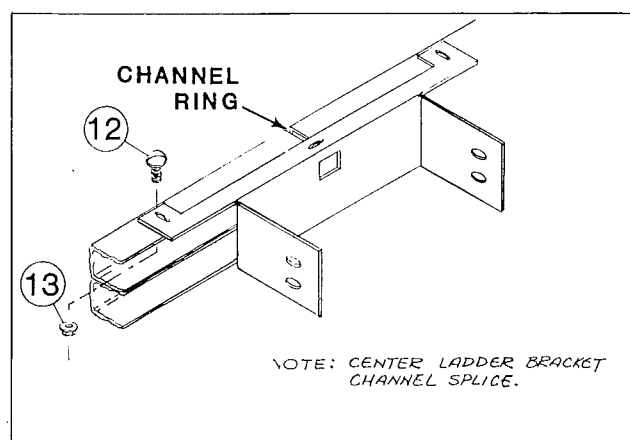
Additional considerations are as follows:

1. Allow for unrestricted air flow around the dryer and a clean supply of intake air.
2. It is recommended that the dryer not be closer than 10 feet to another dryer.
3. Be sure to ground the dryer by embedding an 8 foot rod in the ground.

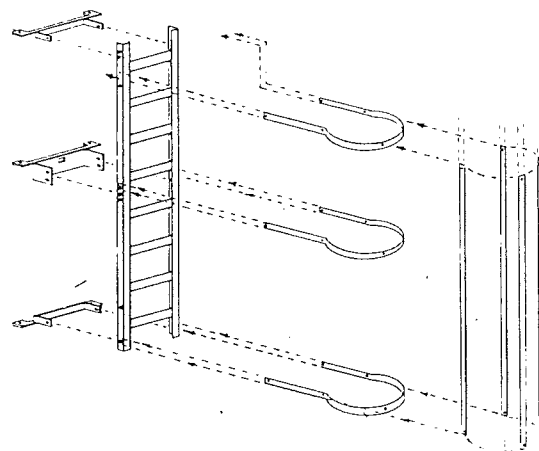
IMPORTANT: When assembling the dryer, avoid dropping nuts, bolts or parts down the grain columns. If anything is accidentally dropped in, it must be removed before filling the dryer with grain.

KAN-SUN LADDER INSTALLATION

1. Assemble the ladder and ladder cage on individual sections before bolting the sections together. The ladder and ladder alignment is determined by counting one divider over from the right side of the control cabinet and then the first set of mounting holes for the left ladder bracket. Leave the top set of ladder mounting brackets loose for use in attaching the ladder from higher sections. (See Figure 2a)



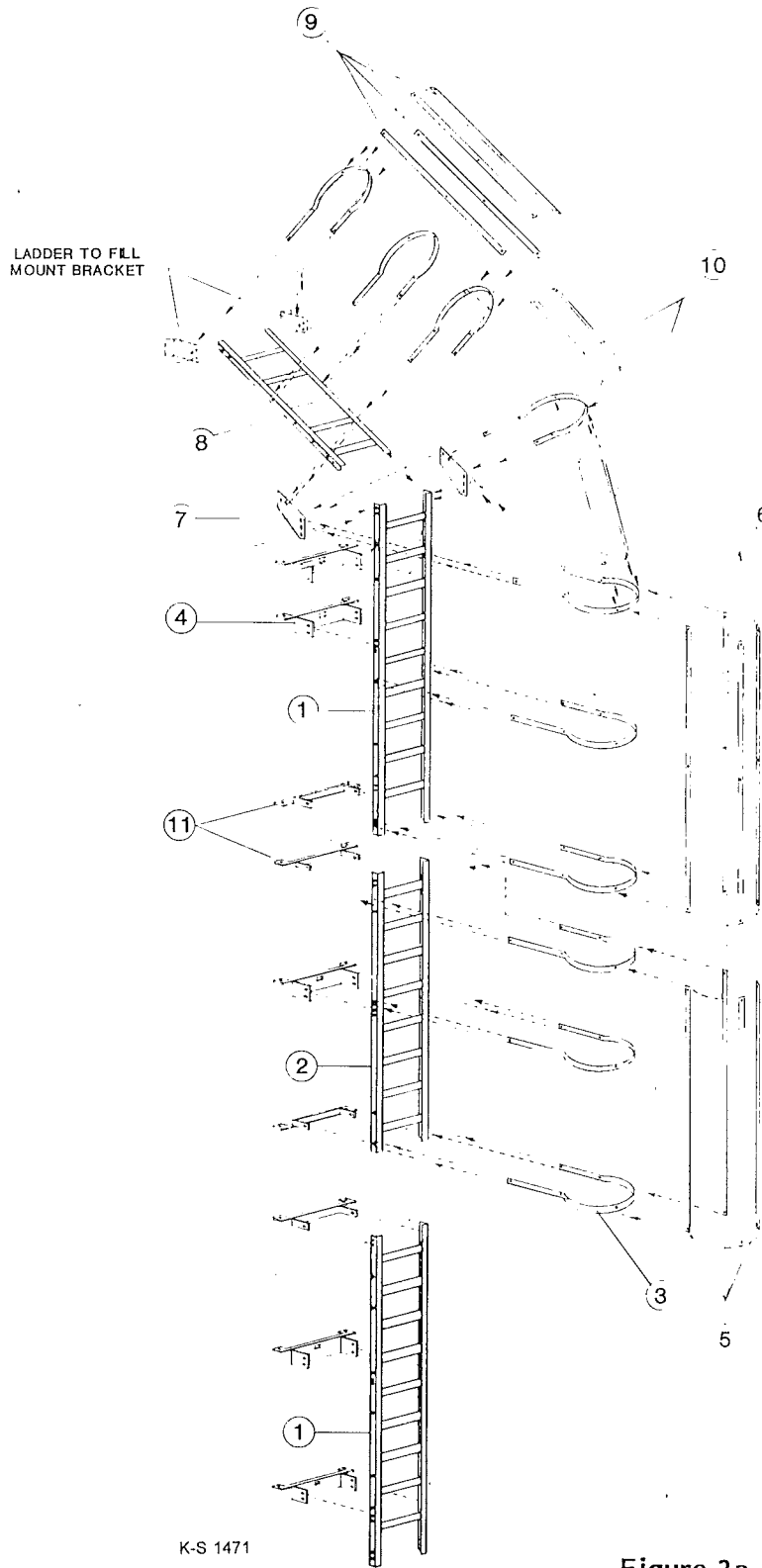
TYPICAL BRACKET MOUNTING



DETAIL LADDER CAGE

Figure 2
Ladder Bracket
and
Cage Assembly

LADDER ASSEMBLY



K-S 1471

Figure 2a

FOUNDATION LAYOUT AND ANCHORING INFORMATION FOR 10420, 10530, & 10630

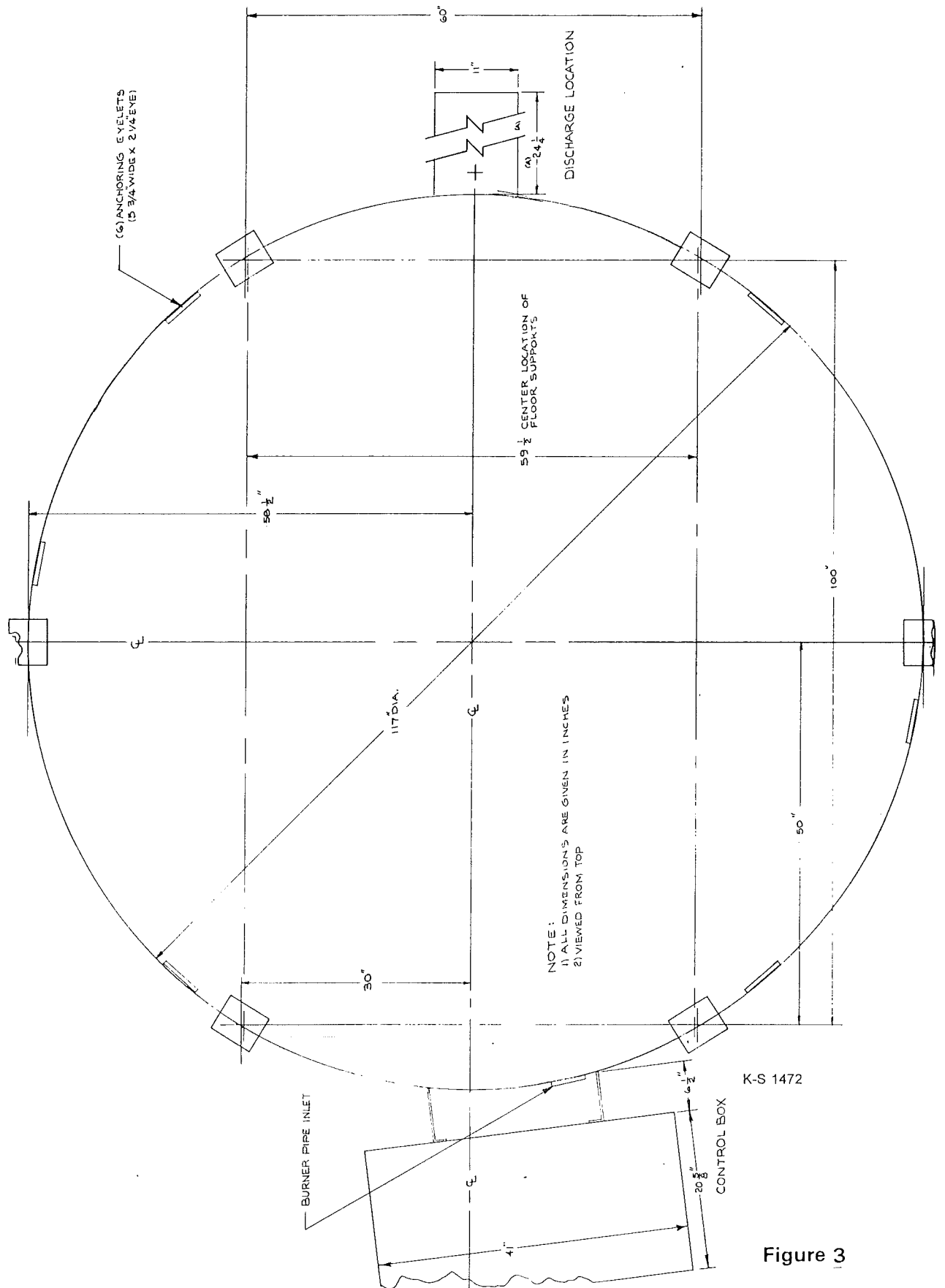


Figure 3

FOUNDATION LAYOUT AND ANCHORING INFORMATION FOR 10730

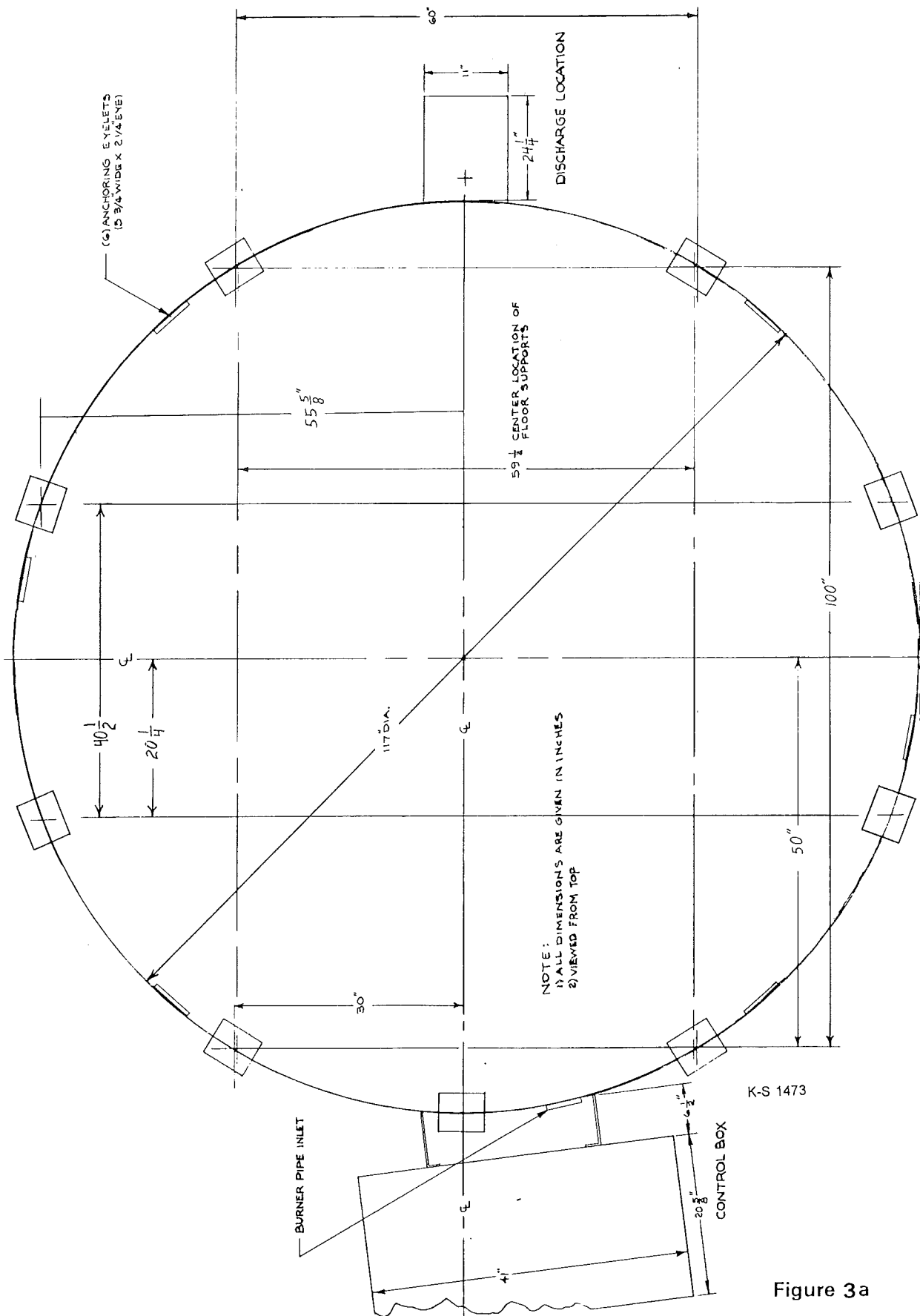


Figure 3a

ERECTION

1. Assemble the dryer sections as follows:
 - A. Start by positioning the base unit using the lifting brackets located beneath the base, in a 4 point lift. Discard the shipping legs and attach the leg extensions to the base weldment aligning the holes. Set the base section into place so the discharge auger is correctly positioned.
 - B. Level the dryer using metal shims as required.

IMPORTANT: As sections are mounted, channel splices will align in a 90° rotation so four splices appear around the dryer. Be careful not to damage the channel rings or screens while handling.

- C. When lifting screen sections (maximum 2 sections) only use the three hold down brackets. Bolt them to the bottom inside of the top channel of a one or two section unit locating a bracket at three equally spaced intervals.

NOTE: Do not lift more than two sections with the three lifting brackets.

- D. Position the middle section on top of the base section aligning the ladder into the ladder of the base unit. The inside channel splice should align with the splice on outside channel ring of the base unit.
- E. Position the top section (using the U bolt as the lifting point) on top of the middle section aligning the ladder of the top section into the ladder of the middle section. The inside channel splice should align with the splice on the outside channel ring of the section below it. When positioned correctly, all screen seams should line up.
- F. Tighten all bolts.

WARNING: DO NOT use hold down brackets to lift the base section.

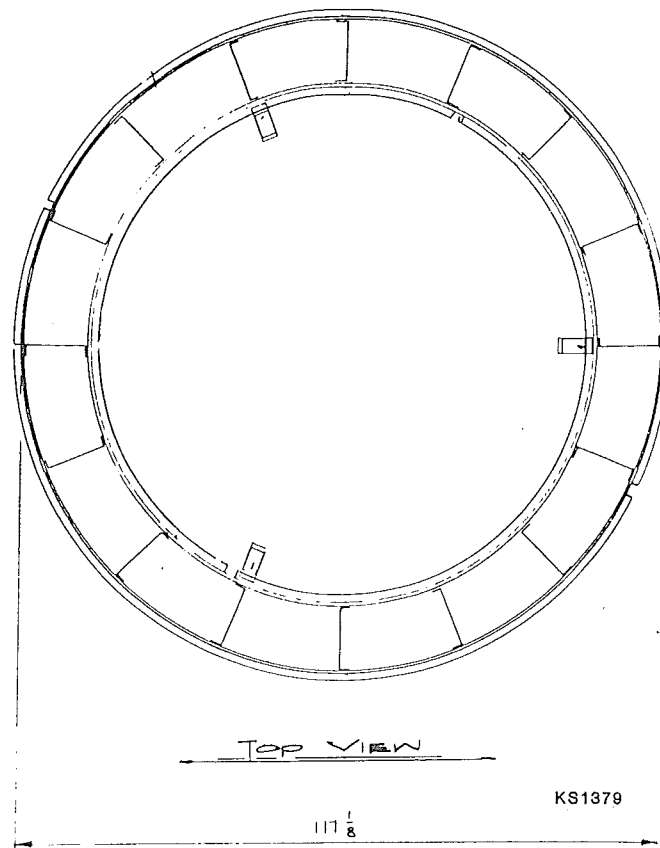


Figure 4 – Placement of Hold Down Brackets for Lifting

ANCHORING THE DRYER

Immediately after installation, anchor the dryer to the foundation by using turn buckles that can be mounted to the dryer frame and secure it to the foundation. In temporary installations and in areas where blow over may occur due to the wind the dryer should be guy wired. (See dimensional data on page 53.

NOTE: All anchoring material and cable are to be supplied and installed by the customer.

GAS SUPPLY AND CONNECTIONS

LP Fuel

1. The dryer requires liquid propane from the LP tank (not vapor).

IMPORTANT: Do not store liquid propane in tanks that have contained anhydrous ammonia. Mixing liquid propane and anhydrous ammonia produces an extremely caustic solution that will damage the dryer controls. It is recommended that only clean LP gas equipment be used.

2. An excess flow valve must be installed on the LP tank. One is furnished with the dryer. The LP tank **MUST BE** equipped for liquid withdrawal. The gas line from the tank to dryer should be ½" Sch 80 pipe or ½" ID Type K copper tubing.
3. Connect the LP gas line from the tank valve to the LP gas inlet at the front (control box side) of the dryer.



CAUTION: Before starting the dryer test for any gas leaks. Turn the gas supply on and apply soap water to **ALL** pipe joints and unions, including pipes assembled on the site and those assembled at the factory.

Natural Gas

1. Consult the gas company for gas supply line size required to the dryer that will provide an adequate volume of gas to meet the dryer BTU/Hr. requirement at the required operating pressure. See Gas Consumption (BTU/Hr.) Chart. The incoming line size should be 1½-2 inches for runs under 200 feet.

IMPORTANT: Use type of supply line specified by Local Codes.



CAUTION: Before starting the dryer test for any gas leaks. Turn the gas supply on and apply soap water to **ALL** pipe joints and unions, including pipes assembled on the site and those assembled at the factory.

2. Connect the NG line to the NG inlet at the front (control box side) of the dryer on the left side.
3. See Operating Fuel Requirements on page 9 .

OPERATING FUEL REQUIREMENTS

	NORMAL CONDITIONS 50°F Ambient - 220°F Plenum			
MODEL	10420	10530	10630	10730
BTU/Hr.	3,550,000	4,100,000	4,400,000	4,650,000
G.P.H. (LP Liquid)*	37.4	45.6	48	51.6
C.F.H. (Nat.Gas)**	3550	4100	4400	4650

*LP Gas - 90,000 BTU's/Gal.

**NG - 1,000 BTU's/Cubic Ft.

LP units have 3/16" orifice, factory installed.
(1/8" orifice special - see burner parts page.)

Natural gas units are shipped from the factory
with no orifice.

	ORIFICE	
FUEL	HIGH-TEMP (175 - 240°F)	LOW-TEMP (110 - 175°F)
LP	3/16	1/8
NG	NONE	NONE

ELECTRIC POWER SUPPLY

Use a power source to the control cabinet that meets all requirements of the local electrical codes. The power source must be adequately fused and have a main disconnect.

All electrical work to be performed by a qualified electrician.

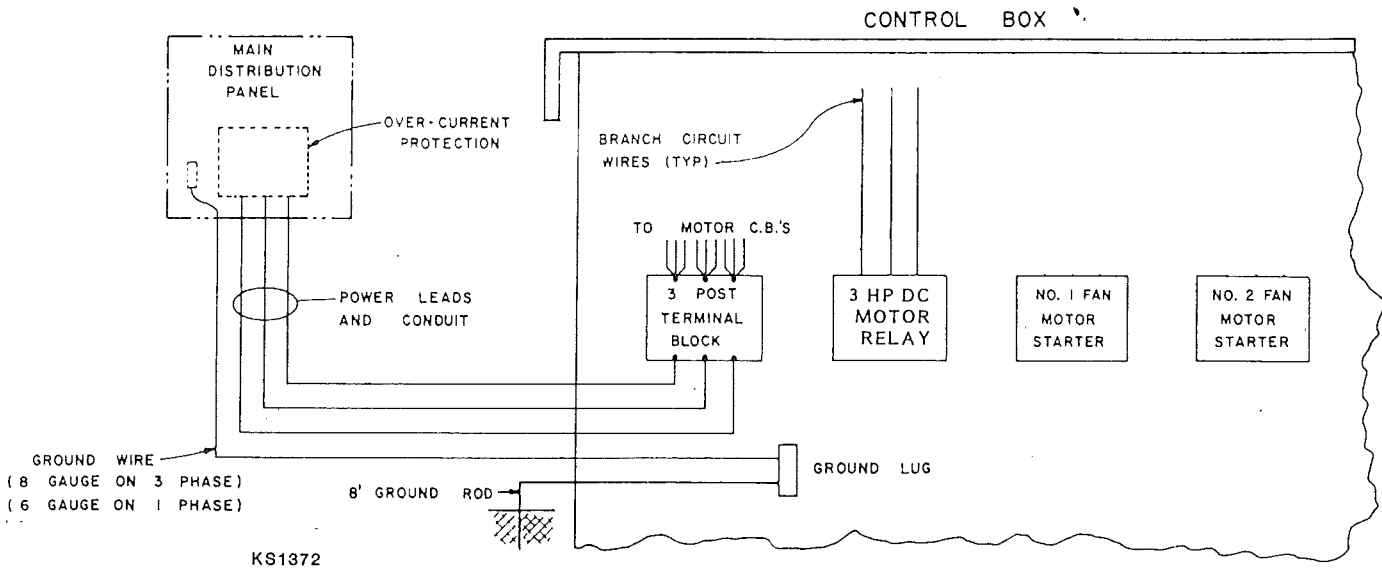
1. See "Recommended Electrical Specifications", page 10, for power and ground lead hook-up. Check for proper fan rotation.

2. Connect bin fill wires from control box to bin fill switch on holding section. Wires are connected to the bin fill switch for fill equipment control. See page 11 for suggested wiring of bin fill and take-away augers.

3. Attach thermistor cable from three-way box on second section to four-way box above control cabinet. Connect individual lead to terminal strips inside four-way thermistor box.

IMPORTANT: Check resistance reading of thermistor wires disconnected from Moisture-Matic® board. Determine that neither wire is shorted to ground and resistance reading is correct for current ambient temperature. See page 44.

RECOMMENDED ELECTRICAL SPECIFICATIONS

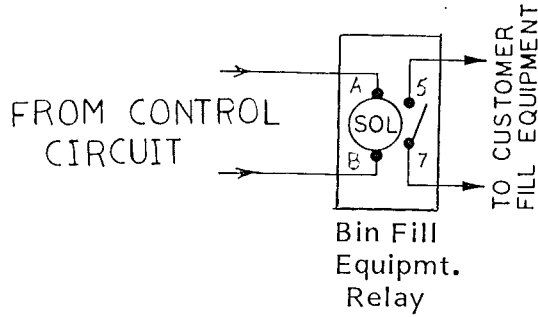


Mathews Company assumes no responsibility that the following recommendations comply with prevailing codes. Recommendations furnished are only an aid for the erector / electrician. All electrical work to meet prevailing codes and be performed by a qualified electrician.

DRYER MODEL	SUPPLY POWER	FULL LOAD AMPS
10420	230	128
10530	VOLT	150
10630	1 ϕ	150
10730		150
10420	230	86
10530	VOLT	96
10630	3 ϕ	96
10730		96
10420	460	43
10530	VOLT	48
10630	3 ϕ	48
10730		48

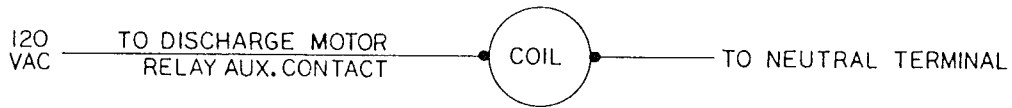
NOTE: Control box motor starters, three post terminal block and ground bar are furnished by Mathews Company. Customer to furnish all other items shown.

SUGGESTED WIRING OF AUXILIARY EQUIPMENT TYPICAL FILL CIRCUIT



Bin Fill Equipment Relay included with dryer.
Connection to holding bin starter coil by customer.

TYPICAL TAKE AWAY AUGER CIRCUIT



NOTE:
COMPONENTS FURNISHED BY OWNER
UNLESS OTHERWISE NOTED.
USE 18 AWG WIRE SIZE FOR
CONTROL CIRCUIT.

CUSTOMERS
TAKE AWAY AUGER
MOTOR CONTACTOR
COIL (120 VOLT ONLY)

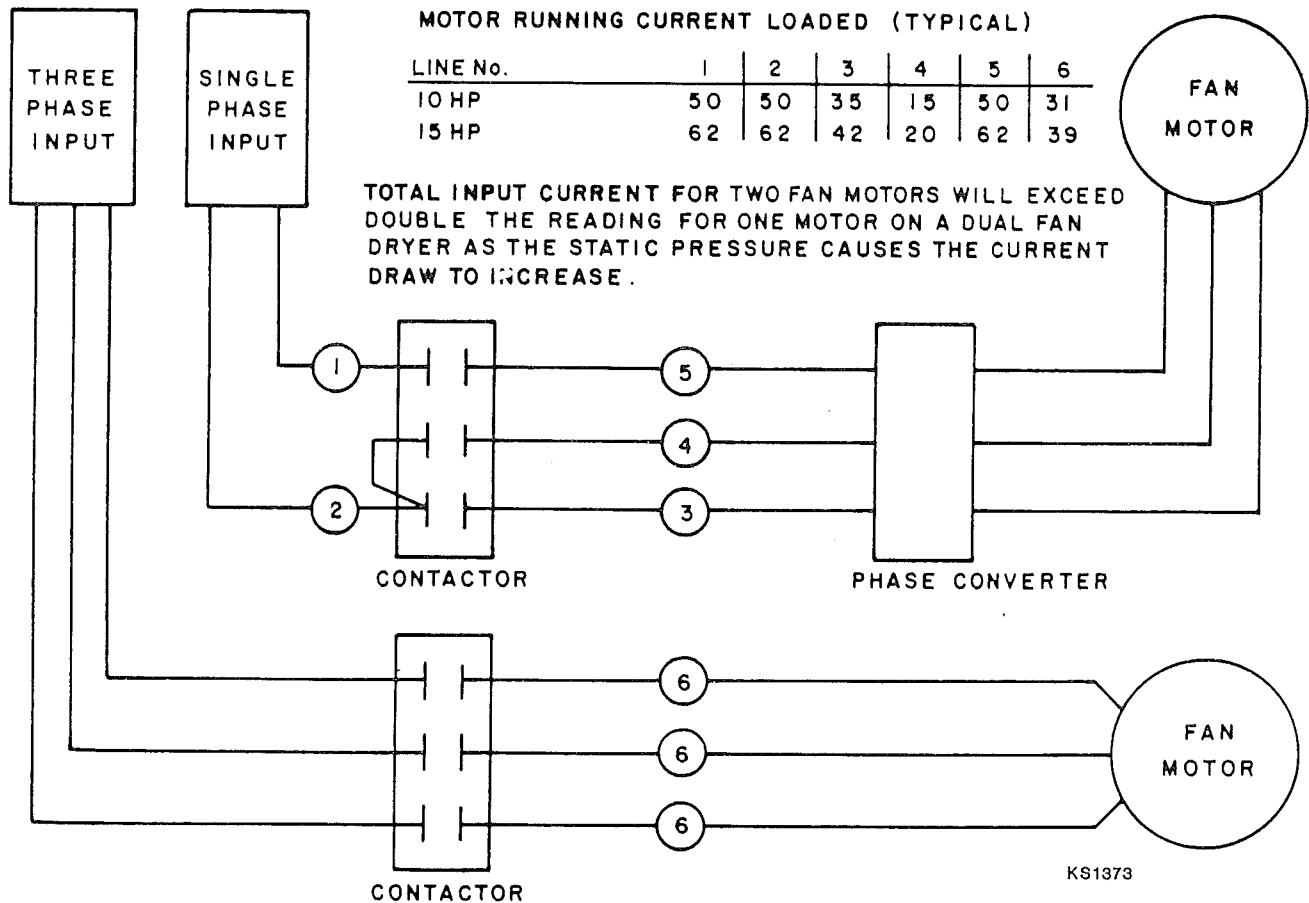
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FAN MOTOR CURRENT DATA

MOTOR RUNNING CURRENT LOADED (TYPICAL)

LINE No.	1	2	3	4	5	6
10 HP	50	50	35	15	50	31
15 HP	62	62	42	20	62	39

TOTAL INPUT CURRENT FOR TWO FAN MOTORS WILL EXCEED
DOUBLE THE READING FOR ONE MOTOR ON A DUAL FAN
DRYER AS THE STATIC PRESSURE CAUSES THE CURRENT
DRAW TO INCREASE.



KS1373

FILLING EQUIPMENT (Customer Supplied)

1. Be sure that the system used has the grain moving capacity to fill the dryer faster than the grain shrinks and dries. If it does not, the Low Grain Timer will time out and shut down the dryer when the BIN FILL switch is in the AUTOMATIC position and the grain level in

the dryer is low, lighting the EMPTY and FILLING lamps.

2. Fill equipment must be controlled by the dryer.
3. Take away equipment can be controlled by the dryer.

CONTROLS, PANEL LIGHTS, SWITCHES AND METERS

Ref. 1 – Control Circuit On Light

Indicates that the CONTROL CIRCUIT toggle switch is in the ON position, the IGNITION RESETS are closed, the fan motor magnetic starter overload relay blocks are closed and the unload auger rear discharge door mercury switch is closed.

Ref. 2 – Control Circuit Switch

When the switch is in the ON position, the control light will be ON if the IGNITION RESETS are closed, the fan motor magnetic starter overload relay blocks are closed and the unload auger rear discharge door mercury switch is closed. The HIGH LIMIT light will also be ON.

When the switch is pushed up to the START position, the ready light will be ON if the HIGH LIMIT light is ON. When the READY light is ON, the dryer can be started.

NOTE: If there is a momentary loss of electric power, the dryer will shut down. When the power comes back on, the 115V POWER light and the CONTROL CIRCUIT ON light will be ON. The dryer will have to be re-started. This feature prevents an unattended dryer from restarting.

Ref. 3 – Control Circuit Ready Light

Indicates that the CONTROL CIRCUIT toggle switch has been pushed up to the START position and the dryer is ready to be started.

Ref. 4 – 115V Power On Light

Indicates that 115 Volt electric power to the dryer control panel is on.

Ref. 5 – Empty Light

Indicates low grain level in the hopper. The dryer will shut down when this light comes on.

Ref. 6 – Wet Grain Switch

When the switch is in the MANUAL position, the bin fill equipment will start immediately when the rotary BIN FILL switch in the hopper calls for grain and stops when the hopper is full.

When the switch is in the AUTOMATIC position, the rotary BIN FILL switch will start and stop the bin fill equipment automatically after the preset time on the delay.

Ref. 7 – Filling Light

Indicates that the grain level in the hopper is low and the rotary BIN FILL switch in the hopper has closed, activating the customer bin fill equipment.

Ref. 8 – Fan Start-Stop Buttons

Black button starts and red button stops the fans.

Ref. 9 – High Limit Light

Indicates that the HIGH LIMIT switch is closed and the temperature in the plenum chamber has not exceeded the high limit setting.

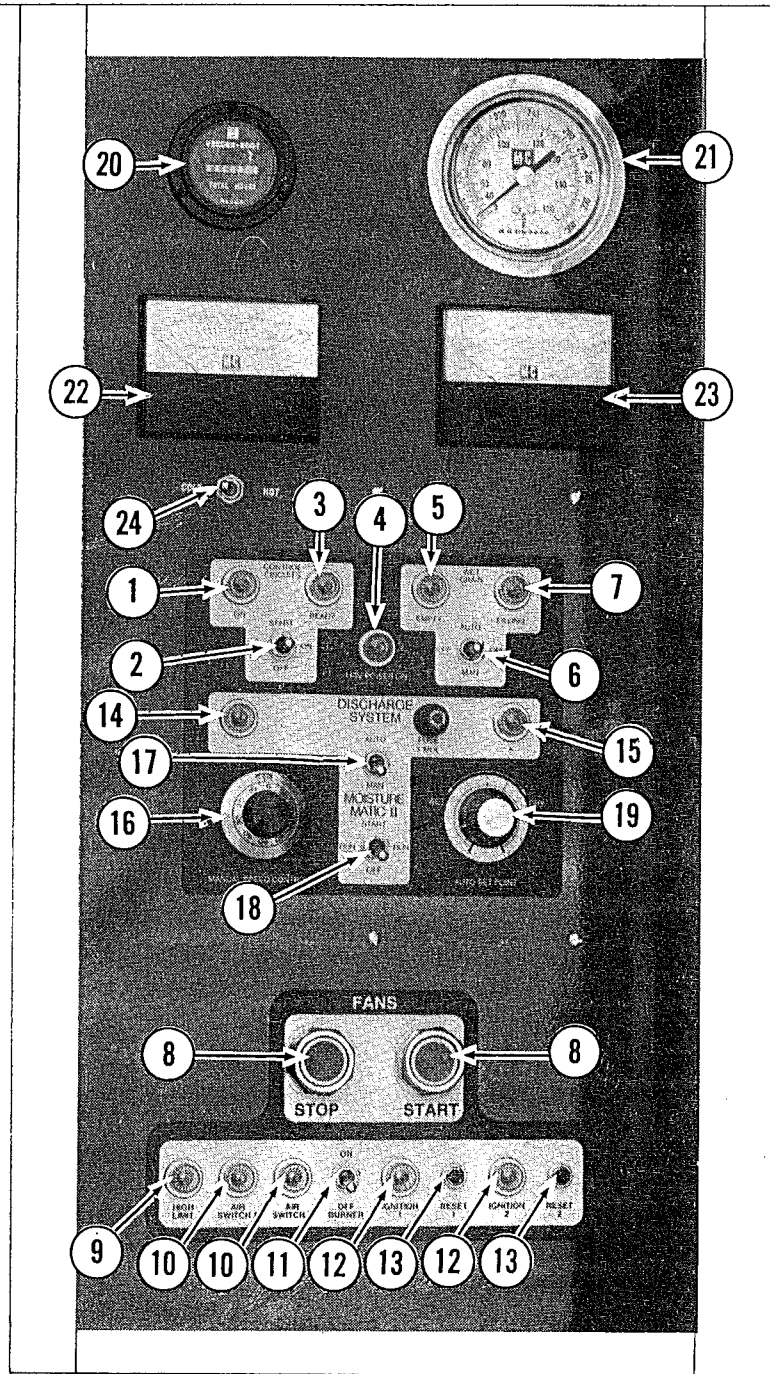
Ref. 10 – Air Switch

Indicates that the respective burner fan is running.

Ref. 11 – Burner Switch

Flip this switch ON to light the burner. After a ten second delay the IGNITION light will come on and the burner will light. If the burner does not light in 5 seconds, the ignition board will "lock out" closing the gas solenoid valves.

CONTROL PANEL



K-S 1474

Figure 5 - Control Panel

Ref. 12 – Ignition Lights 1 and 2

IGNITION LIGHT 1 indicates that the ignition board on burner one has provided a source of high voltage for ignition, a power circuit for ignition board on burner two and a flame sensing circuit. The trial period for flame is 10 seconds and if no flame is sensed the monitor will shut off ignition to the burner and trip the corresponding reset.

IGNITION LIGHT 2 indicates that the ignition board on burner two has provided a source of high voltage for ignition, a relay circuit for the gas solenoids and a flame sensing circuit. The trial period for flame is 10 seconds and if no flame is sensed the monitor will shut off ignition and solenoid power closing off gas to the burner and tripping the corresponding reset.

Ref. 13 – Ignition Reset Buttons

These resets trip out any time the ignition board goes through a 10 second trial for ignition and does not sense flame.

Ref. 14 – (-) Light

Indicates that the discharge rate is slowing down if Moisture-Matic® is in automatic.

Ref. 15 – (+) Light

Indicates that the discharge rate is speeding up if Moisture-Matic® is in automatic.

Ref. 16 – Manual Speed Control

The MANUAL SPEED CONTROL potentiometer is used to set the grain discharge rate in the manual mode.

Ref. 17 – Discharge System Start-Run-Off Switch

Controls the discharge auger and auxiliary take-away equipment if connected.

Ref. 18 – Moisture-Matic® Automatic/Manual Switch

Used to set the moisture control for manual or automatic operation. When it is in MANUAL, the MANUAL SPEED CONTROL potentiometer controls the grain discharge speed. When it is in AUTOMATIC, the Moisture-Matic® controls the grain discharge speed.

Ref. 19 – Auto Set Point Potentiometer

Used when the Moisture-Matic® is in the MANUAL position to balance the system.

When the Moisture-Matic® is in the AUTOMATIC position the AUTO SET POINT potentiometer can be used to increase or decrease the desired moisture content of discharge grain. To increase the moisture content of discharge grain the AUTO SET POINT potentiometer must be turned counterclockwise. To decrease the moisture content of discharge grain the AUTO SET POINT potentiometer must be turned clockwise.

Ref. 20 – Total Hours Meter

Records the number of hours of dryer operation.

Ref. 21 – Plenum Temperature Meter

Indicates the temperature inside the plenum.

Ref. 22 – Grain Temperature Meter

Indicates the grain temperature in the dryer in the heat (HOT) or cool (COLD) chambers. It has no effect on operation.

Ref. 23 – Discharge Speed Meter

Indicates the speed of the discharge system.

Ref. 24 – Hot-Cold Switch

Used to read grain temperature from two thermistors. One thermistor is located in the heat section (HOT) and one thermistor is located in the cool section (COLD). This switch does not effect operation in any way.

BALANCE lamps may be on when in the MANUAL mode of operation.

When in the AUTOMATIC mode and incoming grain moisture content is constant the BALANCE lamps are normally OFF. BALANCE lamps ON indicate a change in the moisture content of incoming grain has taken place and that the Moisture-Matic® system is adjusting the discharge speed to maintain the pre-set moisture content of discharged grain.

DRYING INFORMATION

MOISTURE-MATIC®

The Moisture-Matic System regulates the discharge rate of grain to maintain moisture at a pre-set level. It senses grain temperature.

DRYING RATE

Drying rate is largely affected by physical characteristics of the grain. Variety, fertilization program, rainfall, sunlight (degree days), planting date and hail and storm damage all affect drying rate. Dryer capacity changes of up to 30% have been observed simply by changing from one field of corn to another of equal moisture content.

Capacity stated by industry standards is for 10 point moisture removal based on 25% dried to 15% moisture content. Five point is from 20% to 15%. Drying below 15% is slower and drying to 13% will reduce capacity as much as 30%.

Trash in grain reduces the drying rate and may cause uneven drying and flow patterns.

DRYING TEMPERATURE LIMITS

Commonly dried grains have various maximum allowable drying temperatures depending upon anticipated storage, handling, and end usage.

Excessive temperatures affect palatability to livestock, milling, germination and cracking. Commonly accepted temperature limits are shown in the chart on this page.

COOLING

Cooling is controlled by the cooling chamber doors. Maximum cooling occurs with the doors closed and minimum cooling with them open. Less cooling allows faster drying. To achieve a maximum drying rate, use an aeration bin to cool the grain with a minimum airflow of 1/2 CFM per bushel and leave the cooling doors open. If the cooling doors are abruptly closed, the plenum temperature will rise so rapidly (faster than the modulating valve can operate) it will trip the high limit switch.

DRYING IN GENERAL

CORN

Corn is the most commonly dried grain, thus general drying instructions apply to it.

Clean grain dries faster, more cheaply and more uniformly. All possible trash should be removed in harvesting.

IMPORTANT: Drying equipment should be serviced at least daily. Heating and cooling chambers should be inspected and all foreign material removed. Perforated walls may need cleaning to remove foreign material. Drying temperature, flow rate, and moisture content are established as shown in the operation section.

SOYBEANS

Soybeans are not dried as a common practice; however, they are dried successfully by operating at a lower temperature with added inspection for cracks and special handling care.

WHEAT

Wheat kernels are smaller than corn and pack more densely causing higher resistance to air flow. The increased resistance results in drying capacity somewhat below that of corn.

Fill dryer with fan off.



WARNING: Check and clean the inside of the dryer heating and cooling chambers daily or more often if needed. Most dryer fires are caused by poor house-keeping.

RECOMMENDED DRYING TEMPERATURE °F*	
Grain	
Corn	220°
Soybeans	130°
Wheat	170°

NOTE: When drying seed or food grade lower temperatures must be used and capacity will be reduced.

*Standard modulating valves supplied with Kan-Sun Dryers have a minimum control range of 140° F. Drying below this temperature requires manual regulation or substitution of a low temperature modulating valve.

INITIAL START-UP INSTRUCTIONS

GENERAL

IMPORTANT: Inspect for and remove any foreign material (nuts, bolts, tools, parts, etc.) from the grain columns, discharge auger and heat chambers before filling the dryer with grain.

1. Flip all the toggle switches on the control panel to the OFF position.
2. Liquid Propane (LP) Fuel
 - A. Turn the LP inlet hand valve (Figure 6) 90° to the piping to shut off the LP at the dryer.
 - B. Turn the main hand valve (Figure 6) 90° to the piping to shut off the gas to the burner.
 - C. Open the LP valve at the source.
3. Natural Gas (NG) Fuel
 - A. Turn the NG hand valve 90° to the piping to shut off the NG at the dryer.
 - B. Open the NG valve at the source.

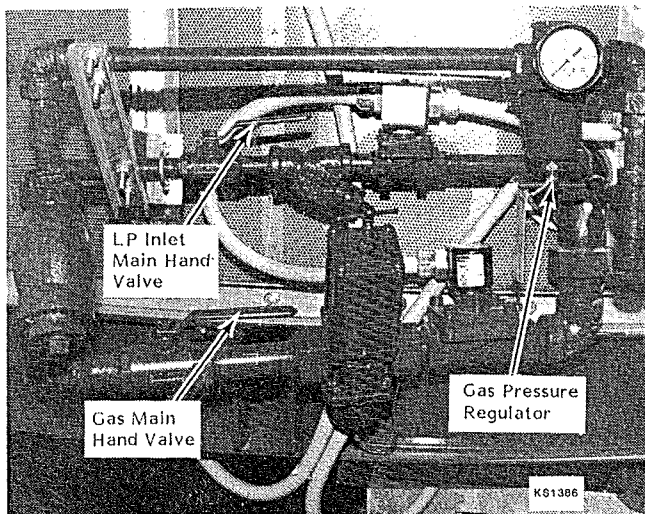


Figure 6 - LP Piping

4. Adjust the high limit thermostat (Figure 7) (located in the upper right side of the control cabinet) 30-50° above the desired drying temperature or just enough to avoid nuisance shutdowns. (See Recommended Drying Temperatures, page 15.)
5. A. Turn the LP inlet hand valve parallel to the piping.
B. Set the LP gas pressure at 10 PSI as indicated by the gas pressure meter

on the pressure regulator using the "T" handle but only while burner is on.



CAUTION: Check the modulating valve in gas manifold to be sure the "T" handle has **NOT** been turned all the way in to the wide open position. The "T" handle should be halfway between the closed and fully open position.

6. Set the .1 to 8 minute adjustable delay timer to start the auxiliary fill equipment to ensure that the grain level in the dryer does not expose the perforations on the peak panels. This delay prevents nuisance starting and stopping of the fill equipment.
7. Turn on the electric power supply to the dryer. The 115V POWER ON light will be on.
8. Flip the control circuit toggle switch ON. The control circuit ON light and high limit light will be on. If the high limit light is not on, push the reset button on the high limit switch, see Figure 7.
9. Push the spring loaded control circuit toggle switch up to the START position and release it. The READY light will be on.

FILLING THE DRYER



CAUTION: Do not allow anyone to be in the dryer when filling it with grain. Always turn off and lock the electric power supply to the control cabinet before allowing anyone to work in the dryer.

1. Flip the WET GRAIN switch (AUTOMATIC/OFF/MANUAL) to the MANUAL position (bypassing the 0-60 minute Low Grain Timer).
2. The FILLING lamp lights.

NOTE: Either start with dry grain or be prepared to catch wet grain and recycle it until it starts to come out dry.

3. After the adjustable .1 to 8 minute delay timer, the dryer fills with grain up to the rotary switch in the hopper stopping the auxiliary fill equipment.
4. The FILLING lamp goes off.

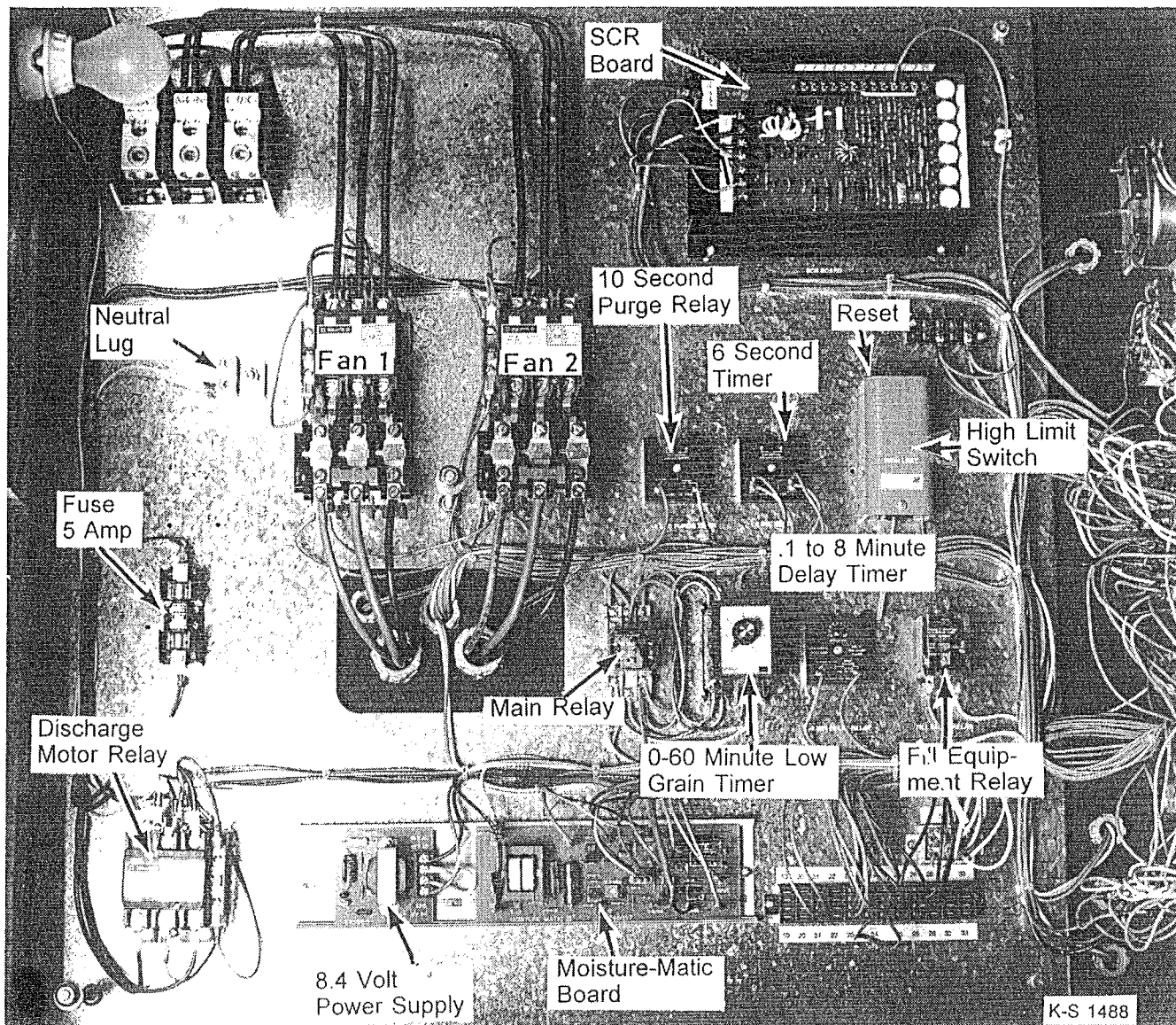


Figure 7 - Control Cabinet (Inside)



WARNING: Check and clean the inside of the dryer heating and cooling chambers daily or more often if needed.

SETTING THE LOW GRAIN TIMER

IMPORTANT: If the timer is set at 0, the dryer will shut down when the FILL toggle switch is flipped from MANUAL to AUTOMATIC.

1. Set the adjustable grain fill delay (Figure 7) for the desired delay time (.1 to 8 minutes).
2. Flip the WET GRAIN switch to the MANUAL position. Turn the timer control knob (Figure 7) to 20 minutes. The fill equipment **will start after** the adjustable .1 to 8 minute delay if the FILLING light is on calling for grain.

3. Check the fill equipment refill time a few times. The FILLING light will come on when the Bin Switch in the hopper calls for grain and will go out when the hopper is full. The length of time that the FILLING light is on is the refill time (including the .1 to 8 minute delay).
4. Average the refill time and reset the Low Grain Timer to run a little longer than actual. For example if it takes the fill equipment an average of 5 minutes to refill the dryer (including the .1 to 8 minute delay), set the Low Grain Timer to run about 10 minutes.

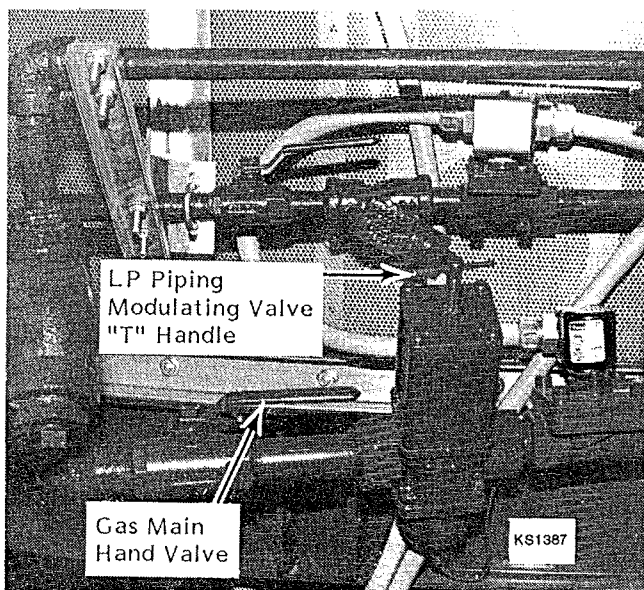
NOTE: The Low Grain Timer does not operate when the WET GRAIN toggle switch is in the OFF position.

STARTING THE BURNERS

1. Start the fans by pressing the FAN START push button. There is a 6 second delay between Fan No. 1 starting and Fan No. 2 starting. Check that AIR SWITCH 1 and AIR SWITCH 2 lamps come on.
2. Open the gas main hand valve (Figure 8) half way.
3. Flip the BURNER SWITCH to the ON position. The IGNITION lamps come on and the burners light after a 10 second purge delay.

NOTE: The purge is a safety feature that allows the fans to purge the heat chamber of any unburned gases that may remain after a burner has been shut down for any reason.

4. After the flame is established, **slowly** open the gas main hand valve all the way (handle parallel to the piping).



**Figure 8 – LP Piping (Gas Main Hand Valve)
(Modulating Valve "T" Handle)**

NOTE: Opening the gas main hand valve slowly will prevent possible freezing of the LP gas line and also prevent the temperature from rising too fast. If the temperature rises too fast, the high limit switch will trip out and the dryer will shut down.

5. If the LP gas line freezes, close the gas main hand valve and flip the BURNER switch OFF. After the gas line thaws out repeat steps 3 and 4 but open the gas main hand valve **slower**.

NOTE: The Ignition Board is electronically timed so that the ignition system will spark and hold the solenoid gas valves open for a "trial ignition" period (10 seconds). If the burner does not light, the system will "lock out" (after the 10 second trial period) closing the gas solenoid valves and the ignition resets will trip, shutting down the complete dryer.

6. Push the ignition reset button and then restart the dryer, flip the BURNER switch OFF then ON again, a new trial for ignition will take place.

NOTE: If the burners fail to light, check that the status lamps through Ignition 2 are ON, check LP or NG pressure, check that spark is present at the electrode, and check the ignition board as explained in the maintenance section.

7. If the High Limit Switch trips out, close the gas main hand valve and flip the BURNER switch OFF. Push the reset button on the High Limit Switch (located in the upper right side of the control cabinet) to reset it.

NOTE: When the High Limit Switch trips out the dryer will shut down. The fans and burners will have to be restarted.

8. Start the fans by pressing the FAN START push button. There is a 6 second delay between Fan No. 1 and Fan No. 2 starting. Check that AIR SWITCH 1 and AIR SWITCH 2 lamps come on.
9. Open the gas main hand valve half way.
10. Flip the BURNER switch to the ON position, the IGNITION lamps come on and the burners light.
11. Gas Pressure – gas pressure should read 2–3 pounds above what is required to maintain operating temperature to allow for temperature variations from day to night operation.

SETTING BURNER OPERATING TEMPERATURE

NOTE: Refer to the Recommended Drying Temperatures on page 15. Temperatures shown are initial settings and may have to be adjusted for local crop and weather conditions.

1. With the burners operating, set the operating temperature by adjusting the modulating valve "T" handle.

2. Turn the "T" handle on the modulating valve IN to increase temperature and OUT to decrease temperature (see Figure 8). There is a temperature gauge mounted on the control panel.

NOTE: After the dryer has been operating for couple of hours the modulating valve will be functioning properly. It will not be necessary to adjust them for future start-ups unless the burner operating temperature is to be changed.

OPERATION OF THE DISCHARGE SYSTEM WITH MOISTURE-MATIC®

1. The grain discharge auger and sweep is driven by a 3HP (DC) motor.
2. The discharge system is started by setting the DISCHARGE SYSTEM START/RUN/OFF switch to the START position.
3. The discharge system will operate as follows when the Moisture-Matic® 's switch is in the MANUAL position. The Moisture-Matic® is bypassed and power flows directly to the discharge motor. When the Moisture-Matic® is in the MANUAL position the discharge meter will run at the speed set by the MANUAL SPEED CONTROL dial.
4. The discharge system will operate as follows when the Moisture-Matic® 's switch is in the AUTOMATIC position.
 - A. The discharge motor will run at the speed established by the MANUAL SPEED CONTROL until there is a change in the moisture content of the incoming grain. The Moisture-Matic senses the change and adjusts the discharge speed up or down.
 - B. When the moisture content of the incoming grain increases, the Moisture-Matic® 's system senses this and adjusts the speed of the discharge motor to slow down or stop to prevent the discharge of wet grain from the dryer.
 - C. When the moisture content of the incoming grain decreases, the Moisture-Matic® 's system senses this and increases the speed of the discharge motor to prevent the dryer from discharging overdry grain.

REAR DISCHARGE OVERLOAD DOOR

1. If the take-away system fails, the dryer will discharge grain until the rear discharge overload door (Figure 9) is raised by the grain.
2. When the overload door raises, the dryer will shut down and all of the lights except the 115V POWER ON light will be out.
3. When the problem has been corrected and the rear discharge overload door closes, the control circuit ON and the high limit lights will be on. Flip the control circuit switch up to the start position and release it, the READY light will be on.
4. If the WET GRAIN-AUTOMATIC/OFF/MANUAL switch is in the AUTOMATIC position and the .1 to 8 minute delay timer times out, the fill equipment will start to fill the dryer.

NOTE: If the Low Grain Timer times out due to lack of grain, the dryer will shut down.

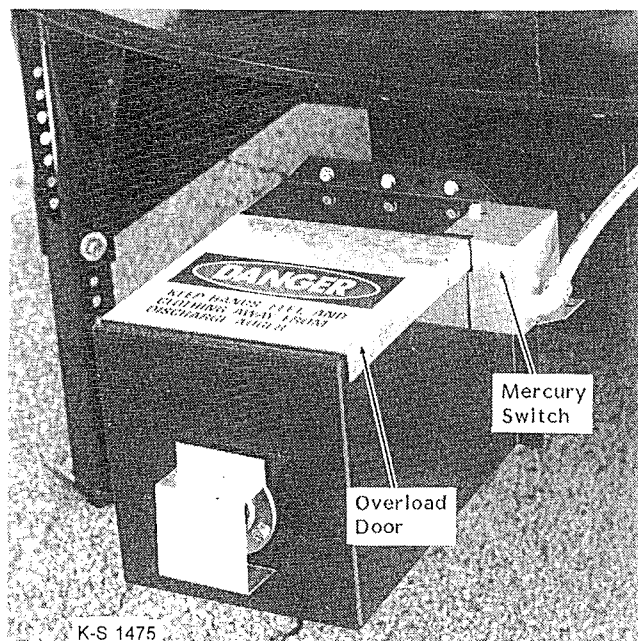


Figure 9 - Rear Discharge Overload Door

MANUAL CONTROL OF MOISTURE CONTENT

Manual control of a dryer is recommended for start-up. Moisture-Matic® set to MANUAL.

1. Check and record grain moisture content every hour. Obtain a representative grain sample by collecting five 1-cup samples at 10 second intervals. Mix the samples thoroughly before testing.

- A. If the moisture content of the dried grain is lower than desired, increase the discharge speed with the MANUAL SPEED CONTROL potentiometer.
 - B. If the moisture content of the dried grain is higher than desired, decrease the discharge speed with the MANUAL SPEED CONTROL potentiometer.
2. After any adjustment of the discharge speed, wait 1½ to 2 hours to make further speed adjustments since it takes that long for grain to pass through the dryer and for the full effect of the speed adjustment to be made on the moisture content.

MOISTURE-MATIC® AUTOMATIC MOISTURE CONTROL

1. When the dryer has discharged grain at the desired moisture content for 2 to 4 hours adjust the AUTO SET POINT potentiometer until the BALANCE lights above the dial go OFF.
2. Place the Moisture-Matic® AUTOMATIC/MANUAL switch to the AUTOMATIC position. The discharge speed is now under control of the Moisture-Matic®.
3. The Moisture-Matic® system aids in controlling the discharge moisture content by varying the discharge speed.
4. Continue checking discharge grain moisture content every 60 minutes. Should the moisture content be consistently too wet or too dry, adjust the AUTO SET POINT dial clockwise (drier) or counter clockwise (wetter) respectively.
5. After any adjustment of the AUTO SET POINT dial wait 1½ to 2 hours before making further adjustments because of the lag in response due to the time it takes grain to pass through the dryer. A major cause of inconsistent discharge moisture content is too frequent adjustment of the AUTO SET POINT dial.

FILL SYSTEM

1. There is an adjustable .1 to 8 minute delay in the grain fill circuit. It is activated when the WET GRAIN switch is ON and FILLING light is on calling for grain.
2. This delay prevents nuisance starting and stopping of the fill equipment. If the

WET GRAIN switch is flipped to OFF and back to the AUTOMATIC position, the delay will recycle.

3. The Low Grain Timer (Figure 7) will shut the dryer down if there is an insufficient grain supply to fill the hopper. When the fill equipment starts, the Low Grain Timer will be activated. When the timer counts down to zero, the dryer will shut down and the EMPTY light will be on.

LOW GRAIN TIMER OPERATION

With the Low Grain Timer set to run 5 minutes longer than the grain refilling time, the timer will work as follows:

1. The timer will start when the fill equipment starts. The red light on the face of the timer will be on and the red needle on the timer dial will start to move to zero.
2. After the dryer refills, the FILLING light will go out and the timer red needle will automatically reset. The red light on the face of the timer will be out.
3. If there is insufficient grain to fill the dryer, the Low Grain Timer will time out and shut down the dryer. The EMPTY light will be on.



CAUTION: Turn off and lock the electric power to the dryer before any service work is performed.

4. When the problem has been corrected, flip the WET GRAIN switch OFF then to the MANUAL position. Restart the fans, burners and discharge system. Flip the WET GRAIN switch to the AUTOMATIC position.



CAUTION: Do not allow anyone to be in the dryer as the fill equipment will start automatically.

DRYER SHUTDOWN FOR THE DAY

When dryer is full of grain:

1. Shut off the fuel valve at the fuel source and let the fuel burn out and dryer cool.
2. Place the IGNITION switch in the OFF position.
3. Shut off the fuel valve at the dryer.

4. Place the WET GRAIN switch to OFF and the DISCHARGE SYSTEM switch to OFF.
5. Continue to operate the fans for about 15 minutes to cool the grain. After cooling, stop the fans by placing the FANS switch to the OFF position and the CONTROL CIRCUIT switch to OFF.
6. Turn off and lock the electric power supply to the dryer.

NOTE: Do not turn the 115V electric power supply off if the heat bulb in the cabinet is to remain on.

SECOND OR SUBSEQUENT DAY START-UP



WARNING: Check and clean the inside of the dryer heating and cooling chambers daily or more often if needed. Most dryer fires are caused by poor house-keeping.

NOTE: Open the fuel at the source before starting the dryer.

1. Flip all of the toggle switches on the control panel(s) to the OFF position. Turn on the electric power supply to the dryer.
2. Flip the control circuit toggle switch ON. Then push it up to the START position and release it, the READY light will be on.
3. Start the fans by pressing the FAN START push button.
4. Set the IGNITION switch to the ON position.
5. LP Fuel - Open the dryer valve half way until the dryer warms up.
NG Fuel - Open the dryer valve until sufficient flow is obtained for ignition.
6. Start the DISCHARGE SYSTEM and set the Moisture-Matic AUTOMATIC/MANUAL switch in the AUTOMATIC position.

EMPTYING THE DRYER

When the last grain to be dried has been put into the dryer, stop the discharge motor before the grain has dropped below the perforated area in the grain receiving assembly. Dry this remaining grain for approximately 6 minutes per point. Then shut off the fuel valve at the source. Let the burners burn the gas until out. Then shut off the burners and cool this remaining grain approximately 20 minutes. After cooling, shut off the fans and empty the dryer by starting the discharge

motor and waiting until the last of the grain has been removed by the take-away equipment. Then shut off the discharge motor.

OFF SEASON STORAGE



WARNING: Disconnect and lock out the Main Power Supply anytime work is performed inside the dryer.

1. Cover burner shields with plastic.
2. Remove cooling floor sections and remove grain from the bottom of the dryer.
3. Brush (non-metallic), blow or wash all dirt and residue from the dryer walls and floors. Use a power washer on the outer screens if dirt has filled the perforations.
4. With no one in the dryer, reconnect power to the dryer and start the discharge motor. Auger any trash out of the discharge auger. Hose off the floor, sump and U-trough.
5. Disconnect the power to the dryer and replace the cooling floor sections.
6. Grease the fan motors with Chevron SRI-2 or equivalent.
7. Use compressed air to blow any dirt from the control box.
8. Release spring tension on the regulator and modulating valves.
9. Disconnect the power and lock the control box doors.

SEASONAL MAINTENANCE

MAINTENANCE INSIDE MACHINE FOR START-UP

1. Turn power off at main distribution panel.
2. Clean out heating and cooling chamber.
3. Remove cover from burner.
4. Grease fan motor at top and bottom bearing.
 - A. Apply grease until it comes out relief port opening. Use Chevron SRI-2 or other approved lubricant.
5. Check oil in 50:1 gear box and grease.
 - A. Oil must be at least ¼" over gear.
 - B. Grease top bearing with gun grease.
6. Grease U-joint on 50:1 drive shaft.

MAINTENANCE OUTSIDE MACHINE

7. Grease belt tightener pivot.

LUBRICATION

Lubrication is applied to all required areas before leaving the factory; however, a lubrication schedule should be maintained as described below.

ITEM	LUBRICATION REQUIRED	INTERVAL
50:1 Gearbox Oil Level	Fill ¼" over gear with SAE 90 gear lubricant.	Maintain proper level. Check every 100 hours.
50:1 Gearbox Grease Fitting	Use five (5) strokes of gun grease.	And at beginning and end of season.
U-Joints	Use one (1) stroke of gun grease.	Every 50 hours of operation.
Fan Motor(s) & Metering Motor	Lubricate with SRI-2 (Chevron) grease or equivalent. (Equivalents below)	Prior to operation and end season

FAN AND METERING MOTOR GREASES

Chevron SRI-2 Standard Oil of California
 Aeroshell #16 Shell Oil Company
 Hi Temp Texaco, Inc.
 Andok 260 Humble Oil
 Rykon #2 American Oil

NOTE: SCR Min Pot has no effect with Moisture-Matic III control

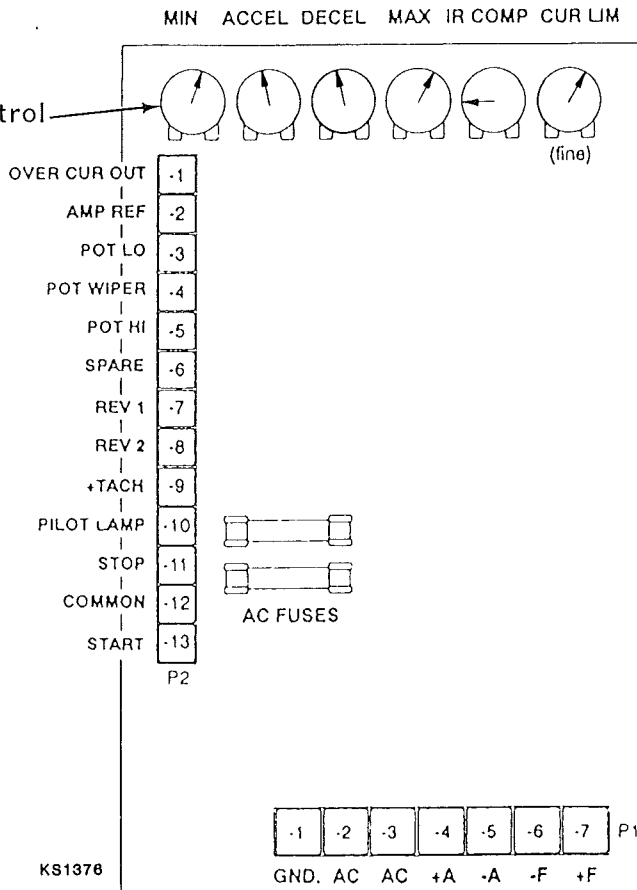


Figure 10 - 500 SERIES SCR BOARD

SCR BOARD TRIM POT ADJUSTMENT PROCEDURE

NOTE: Figure 10 shows approximate trim pot settings. Follow adjustment procedure below for final calibration.

Trim Pot	Function	Adjustment
MIN.	<p><u>Moisture-Matic II Control</u></p> <p>Sets Minimum Motor Speed when Speed Control is set at zero. CW rotation will increase minimum motor speed.</p> <p><u>Moisture-Matic III Control</u></p> <p>The SCR Trim Pot has no effect. Use the Min Pot on the Moisture-Matic III Board and adjust as described under adjustment.</p>	<ol style="list-style-type: none"> 1. TURN DRIVE POWER OFF! 2. Connect DC Voltmeter: + to + Arm, - to - Arm. 3. Turn Drive Power ON. Set SPEED control to zero. (Fully CCW) 4. Rotate Min pot CW until desired Min speed is reached (18 volts on DC meter connected between Arm (+) and Arm (-) or .14 reading on discharge meter or 200 RPM on DC motor output shaft.
MAX.	<p>Sets Maximum Motor Speed when Speed Control is set at maximum (10) 100% rotation CW. CW rotation of MAX trim pot increases maximum motor speed.</p>	<ol style="list-style-type: none"> 1. TURN DRIVE POWER OFF! 2. Connect DC Voltmeter: + to +Arm, - to -Arm. 3. Turn power on. Set SPEED control at 100% (10). 4. Adjust MAX pot for 170 volts on DC meter connected between Arm (-) and Arm (+), or 1.0 reading on discharge meter or 1750 RPM on DC motor output shaft.
ACCEL	Allows adjustment of Acceleration.	<ol style="list-style-type: none"> 1. CW rotation increases time of acceleration.
DECEL	Allows adjustment of Deceleration.	<ol style="list-style-type: none"> 1. CW trim pot rotation increases deceleration time.
I.R. COMP.	<p>Provides a means of improving speed regulation in the armature feedback mode. If a change in motor speed during a load change is of no concern, rotate this trim pot fully CCW.</p>	<ol style="list-style-type: none"> 1. Set Speed pot at 50%. 2. Observe motor speed during a no load condition. 3. Apply a full load to the motor. 4. Adjust the I.R. COMP. trim pot CW (while the load is applied) until the no load motor speed is maintained.
CUR. LIM.	<p>Limits DC motor armature current (torque) to prevent damage to the motor or control. The current limit is set for 125% of the rated motor current. CW rotation of this trim pot increases the armature current (or torque produced).</p>	<ol style="list-style-type: none"> 1. TURN DRIVE POWER OFF! 2. Connect a DC ammeter in series with the + Arm line (between +A on motor and +Arm on the control). Preset the current limit trim pot CCW. 3. Turn power on and set Speed pot to 50%. 4. Increase the motor load until the motor stalls (zero RPM). 5. Set CUR.LIM. trim pot to 125% of the rated motor armature current (see "TRIM POT CHART" on page 22).

TROUBLESHOOTING

The following table is provided as an aid to the Operator to determine the cause and corrective action required for problems occurring during dryer operation. If the corrective action recommended does not correct the problem, contact an authorized Kan-Sun Dryer Serviceman.

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
115V Power Light	Power disconnected. Control circuit fuse blown (5 amp).	Connect power. Replace fuse.
On Light Off	Control Circuit switch Off. Flame Monitor Reset(s) tripped. Fan Overloads tripped. Rear discharge door open.	Reset.
Motors fail to start (no power)	High Limit Switch tripped. Motor Overload tripped.	Reset. Reset.
Fan motor(s) hum, but fail to start, or turn slowly.	Defective bearings.	First shut off and lock out power supply. Check motor bearings (spin blade by hand).
Magnetic Starter(s) trip out repeatedly.		Call authorized serviceman.
Fan runs but Air Switch doesn't light.	Check 1 amp fuse. Check flap on air switch. Fan rotation.	Replace. Make sure it is free and not missing.
Machine runs through purge period, but fails to ignite or flame out occurs before temperature reaches drying temperature.	Low gas pressure. Modulating valve improperly adjusted. Improper electrode gap or cracks.	Set proper pressure with regulator. Readjust modulating valve. Adjust or replace.
High Limit Thermostat kicks out repeatedly.	Check High Limit Thermostat setting. Check for clogged heating chamber walls. Check temperature gauge for accuracy.	Readjust as required. Clean dryer chamber. Replace gauge.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Machine will not achieve desired temperature or temperature is erratic.	<p>Check supply tank fill and pressure for LP units; supply pressure on NG units.</p> <p>Check regulator and modulating valve for proper adjustment.</p> <p>Check temperature gauge.</p> <p>Check excess flow valve at fuel supply for clicking noise or frost indicating blockage.</p> <p>Check for frost on supply line indicating blockage.</p> <p>Check for correct burner orifice.</p>	<p>Contact fuel supplier.</p> <p>Readjust as required.</p> <p>Replace gauge.</p> <p>Call LP Serviceman.</p> <p>Call LP Serviceman.</p> <p>Replace, adjust or drill out.</p>
Uneven moisture content of discharged grain.	<p>Check to see if machine is level.</p> <p>Sweep arms not level.</p>	<p>Level machine.</p> <p>Check that sweep arms are sweeping parallel to the lower edge of the inner perforated wall.</p>
Machine shuts down.	<p>Check for wet grain at Rotary Bin switch.</p> <p>Check gas pressure regulator and modulating valve setting.</p> <p>Improper high limit setting.</p> <p>Improper flame probe gap or cracks.</p> <p>Check secondary and high tension lines for cracks, nicks or looseness.</p>	<p>Increase low bin timer.</p> <p>Adjust as required.</p> <p>Reset.</p> <p>Readjust or replace.</p> <p>Replace or tighten.</p>
Status lights flicker, solenoids chatter, or unit shuts down repeatedly.	<p>Poor machine ground.</p> <p>Loose connections.</p>	<p>Tighten machine ground.</p> <p>Tighten as required.</p> <p>Contact authorized Kan-Sun Serviceman.</p>
Low dryer throughput.	<p>Grain overdried.</p> <p>More than 10 point moisture removed.</p> <p>Check moisture tester for accuracy.</p> <p>Improper drying temperature.</p> <p>Plugged perforated sheets.</p>	<p>Adjust SCR potentiometer.</p> <p>Allow more time.</p> <p>Replace if broken.</p> <p>Readjust temperature.</p> <p>Clean as required.</p>

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Plus (+) and minus (-) lights will not go off when calibrating Moisture-Matic® control system.	Deadband potentiometer out of adjustment.	Adjust the deadband trim pot on Moisture-Matic® board (R-7) until both lights stay off when turning moisture control dial two spaces on the scale.
Sweep and discharge auger DC motor will not run.	<p>High limit light off. (High Limit control not reset.)</p> <p>Discharge motor relay coil burned out.</p> <p>SCR board fuse(s) blown.</p> <p>Moisture-Matic® 1 amp fuse blown.</p> <p>Moisture-Matic® board inoperative.</p> <p>SCR board inoperative.</p> <p>No power source</p> <p>Min pot on SCR board set too low.</p> <p>Worn or broken motor brushes.</p>	<p>Reset.</p> <p>Replace.</p> <p>Replace.</p> <p>Replace.</p> <p>Check output voltage between Arm (+) and Arm (-) which should be approximately 20 to 170 volts DC depending on the SCR speed control potentiometer setting. If no voltage, consult factory.</p> <p>Check output voltage between (+) and (-) terminals on Moisture-Matic® board. Voltage should be approximately 3 to 10 volts DC depending on the SCR speed control potentiometer setting. If no voltage, consult factory.</p> <p>Repair power source.</p> <p>Adjust Min pot for 18 VDC between Arm (+) and Arm (-).</p> <p>Replace brushes.</p>
Sweep and discharge auger will not run.	<p>Belts loose.</p> <p>Belts broken.</p>	<p>Tighten belts.</p> <p>Replace belts.</p>

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Moisture-Matic® does not control grain moisture.	Moisture-Matic® MANUAL-AUTO switch in MANUAL position. Bad thermistor. Check response with ohmmeter Reference thermistor chart, page 44. Bad Moisture-Matic® board. Bad moisture control potentiometer. Check potentiometer with ohmmeter.	Switch to AUTOMATIC. Replace if bad. Replace. Replace.
Motor stalls or runs very slowly with speed control turned fully CW.	Low DC voltage. Overload condition. Worn motor brushes.	Should be above 108V. Max. speed set incorrectly. See "Adjustment Procedure" page 23. Reduce load or readjust Current Limit. Replace motor brushes.
Repeated SCR Board fuse blowing.*	Low AC voltage. Overload condition. Worn motor brushes. Defective motor bearings. Failed electrical components.	Check AC supply voltage. Reduce load. Replace motor brushes. Replace motor bearings. Return SCR board for repair.
Motor runs but will not stop.	Incorrect wiring. Defective wiring. Failed component.	Check "Terminal Strip Wiring" sections. Check wiring. Return SCR board for repair.

*Fuse Size: 20 Amp

Fuse Type: Bussman ABC-20 or Littlefuse 314020

NOTE: Both sides of VAC input to SCR board are fused.

KAN-SUN MOISTURE-MATIC® BOARD ADJUSTMENTS

DEADBAND ADJUSTMENT

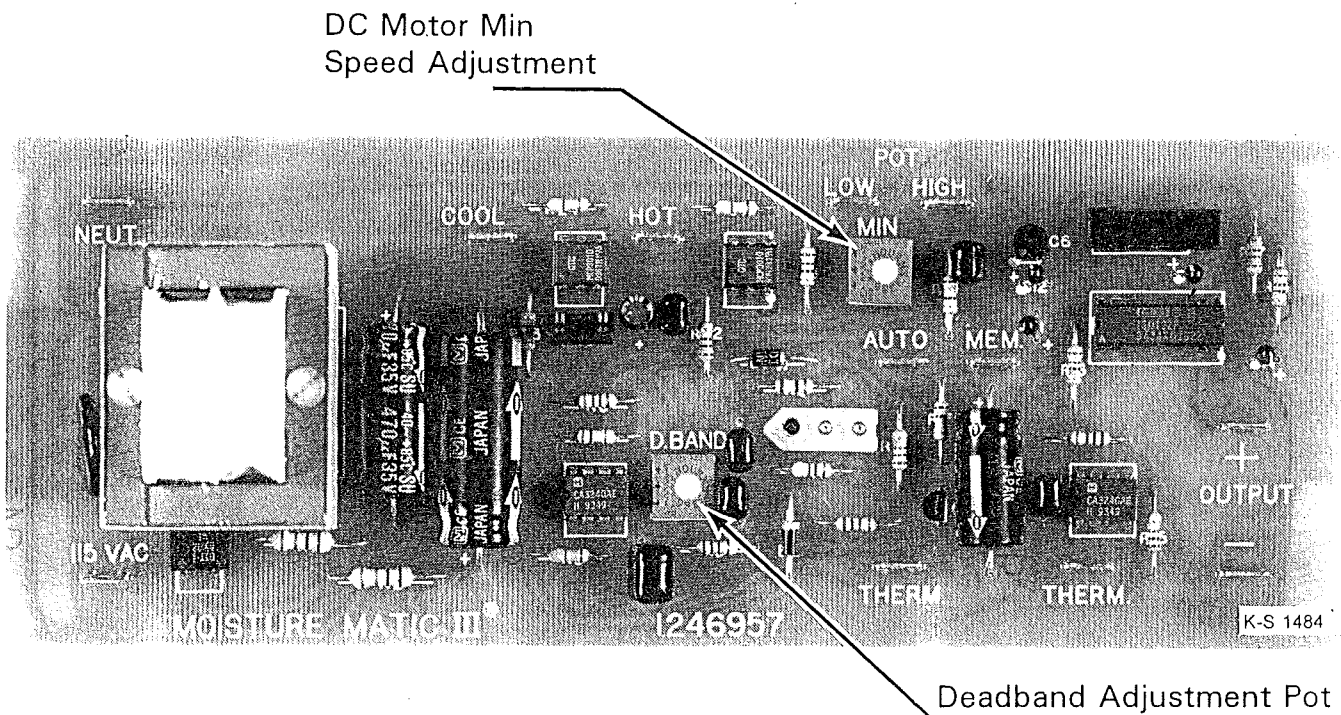
Locate the deadband adjustment potentiometer on the Moisture-Matic® board.

With a small screwdriver, adjust the potentiometer (R-7) until both plus (+) and minus (-) lights stay off when turning the moisture control dial two spaces on the scale.

DC MOTOR MINIMUM SPEED ADJUSTMENT

Turn the SCR speed control to zero (fully CCW).

Locate the Min Pot on the Moisture-Matic® Board. Rotate the Min Pot with a small screwdriver until the desired minimum speed is reached (18 volts on DC meter connected between Arm (+) and Arm (-) or .14 reading on the discharge meter).

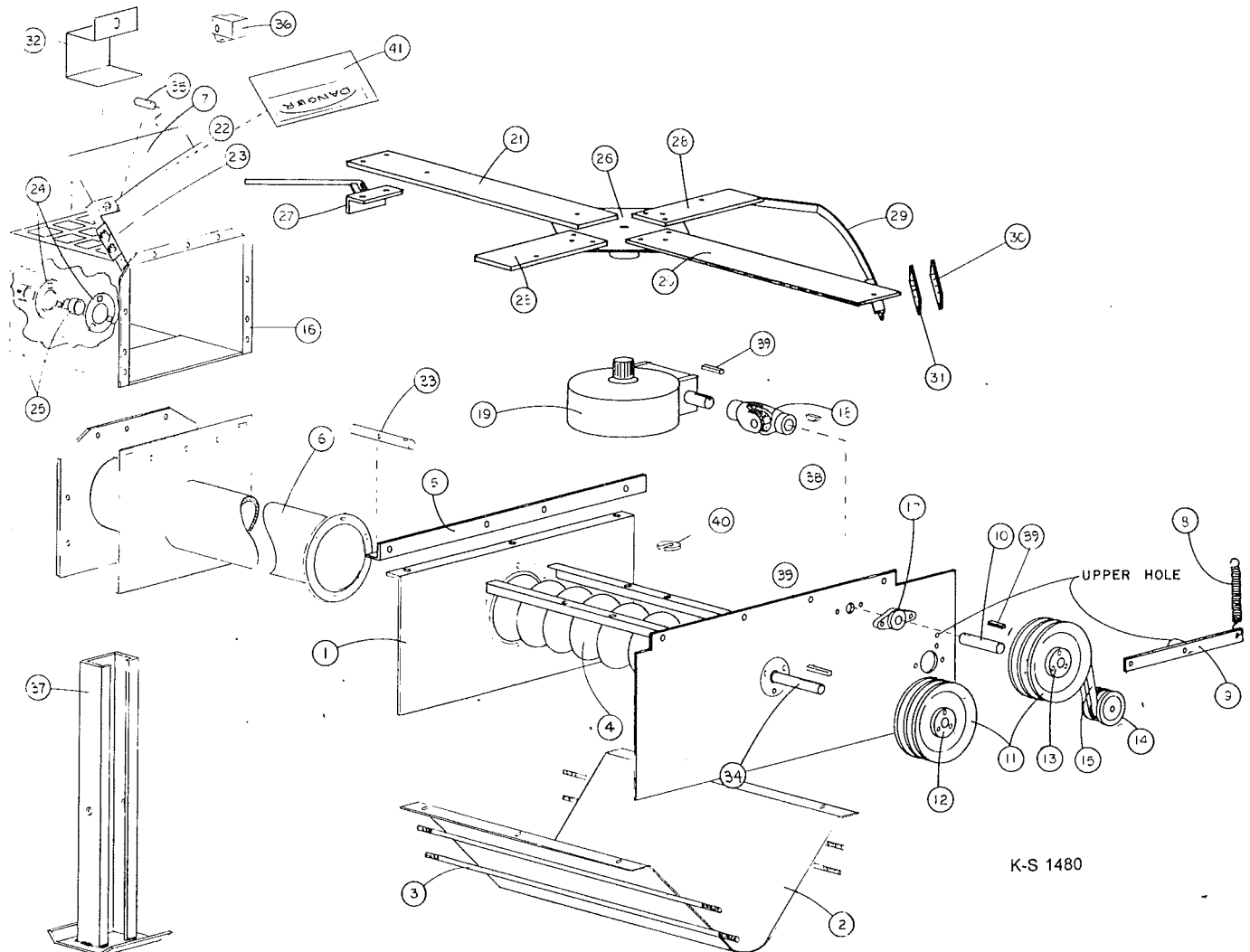


PARTS LIST

AUGER - SWEEP

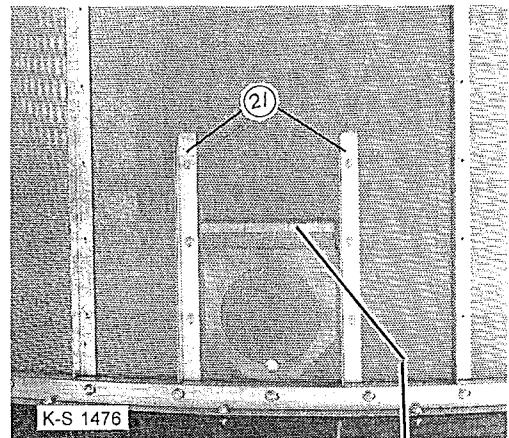
ITEM NO.	PART NO.	DESCRIPTION	QTY
1	475044	DISCHARGE SUMP BODY WELDMENT	1
2	475071	SUMP TROUGH	1
3	475053	SUMP TIE BOLTS	4
4	475086	AUGER WELDMENT, 8"	1
5	439779	ATTACHMENT ANGLE	1
6	475315	DISCHARGE AUGER TUBE WELDMENT	1
7	475052	AUGER EXTENSION OVERLOAD DOOR	1
8	441966	SPRING (6" LONG)	1
9	444601	BELT TIGHTENER WELD'T	1
10	830017	DRIVE SHAFT	1
11	837742	SHEAVE 6.9" O.D.	2
12	475074	HUB 1 1/4" BORE WITH KEY	1
13	837739	HUB 1" BORE	1
14	833318	BELT IDLER	1
15	837356	DRIVE "V" BELT	1
16	475049	UNLOAD AUGER DISCHARGE	1
17	821372	BEARING 1" BORE WITH CASTING	1
18	820026	"U" JOINT	1
19	437752	GEAR BOX 50:1	1
20	834682	SWEEP ARM - SHORT	1
21	834683	SWEEP ARM - LONG	1
22	475170	MOUNTING CLIP LEVEL SWITCH	1
23	475171	VA BULB MOUNT	1

ITEM NO.	PART NO.	DESCRIPTION	QTY
24	475050	1 1/4" BEARING FLANGETTE	4
25	475051	1 1/4" BEARING W/LOCKING COLLAR	2
26	821633	SWEEP ARM HUB ASSEMBLY	1
27	821364	SWEEP ARM FINGER ASSEMBLY	1
28	446360	SWEEP FIN TAIL BRACKET	2
29	821649	SWEEP FIN	2
30	833278	SWEEP FIN FINGER	2
31	441965	SWEEP FIN FINGER - CLEANER - (TEFLON)	2
32	475069	AUGER STUB SHAFT GUARD	1
33	475073	AUGER STUB SHAFT	1
34	475072	AUGER DRIVE SHAFT	1
35	475147	MERCURY SWITCH	1
36	475172	MERCURY SWITCH COVER	1
37	475150	LEG EXTENSION WELDMENT	6
38	833607	1/4 x 7/8 WOODRUFF KEY	1
39	475246	1/4 x 1/4 x 1 1/2 KEYSTOCK	3
40	475140	SHIM - 20GA (QUANTITY AS REQUIRED)	-
41	836424	"DANGER" DISCHARGE AUGER DECAL	1

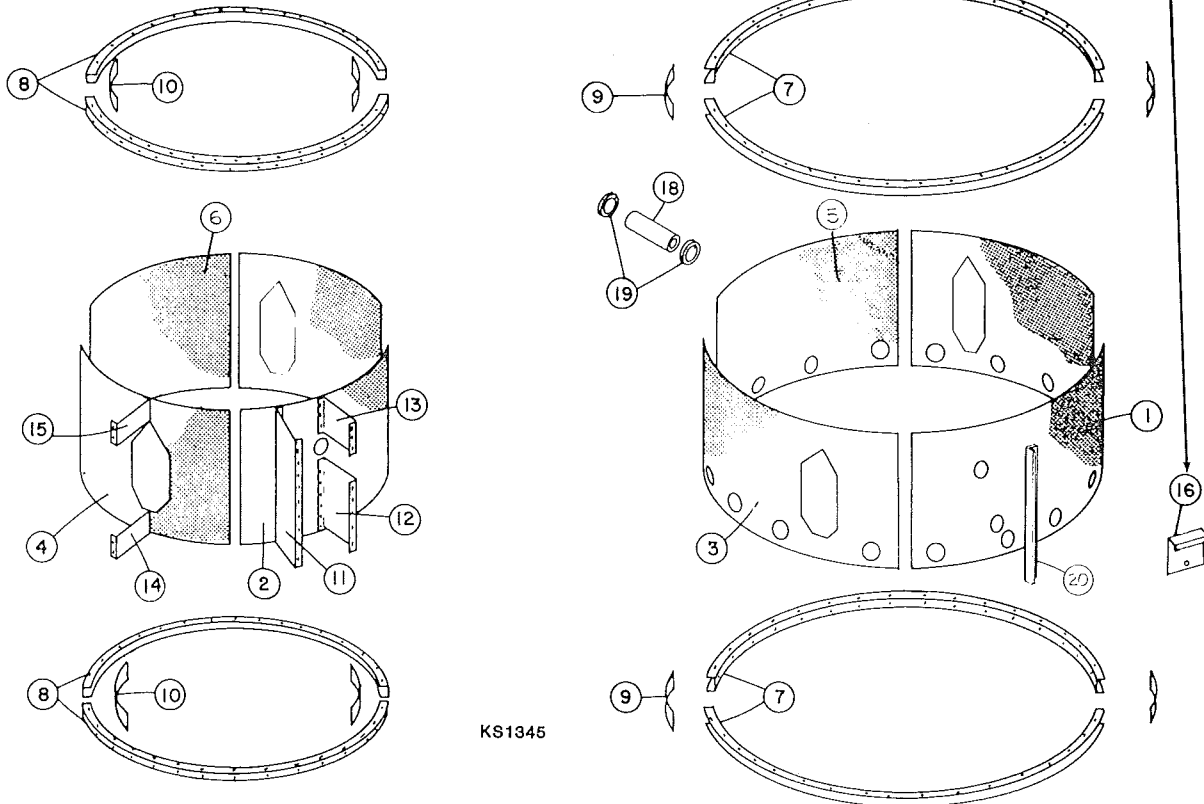


COOLING SECTION

ITEM NO.	PART NO.	DESCRIPTION	QTY.
			10'
1	475024	OUTER CONTROL BOX SHEET	1
2	834536	INNER CONTROL BOX SHEET	1
3	475023	OUTER DOOR SHEET	2
4	834534	INNER DOOR SHEET	2
5	475022	OUTER COOLING SHEET	1
6	834531	48" 10' INNER SHEET	1
7	438761	OUTSIDE CHANNEL RING	4
8	438760	INSIDE CHANNEL RING	6
9	438649	OUTER RING BOLTING TAB	4
10	833353	INNER RING BOLTING TAB	4
11	834589	PARTITION 4'	13
12	834600	PARTITION BOTTOM PVC	1
13	834599	PARTITION TOP PVC	1
14	834598	PARTITION BOTTOM DOOR	2
15	834597	PARTITION TOP DOOR	2
16	475011	DUMP GATE	16
17*	833194	STEP, COOLING CHAMBER	32
18	438912	ENTRANCE TUBE	2
19	438913	COLLAR	4
20	834718	BRACE ANGLE	13
21	475384	QUICK DUMP SCREEN STIFFENER	24



*ITEMS NOT SHOWN



HEAT SECTION

ITEM NO.	PART NO.	DESCRIPTION	QTY
			10'
1	834065	1/4" x 1/2" POP RIVET	288
2*	834133	1/4" x 3/16" POP RIVET	12
3	444762	OUTER 4' SHEET-10'	4
4*	095069	5/16"-18 x 3/4" TRUSS BOLT	100
5*	095316	5/16"-18 x 1/2" TRUSS BOLT	76
6	834531	INNER 4' SHEET-10'	4
7*	434632	5/16"-18 WHIZ HEX NUT	304
8	438761	OUTSIDE CHANNEL RING-10'	4
9	837524	5/16"-18 x 3/4" HWHCS	128
10	438760	INSIDE CHANNEL RING-10'	4
11	438649	OUTER RING BOLTING TAB	4
12	833353	INNER RING BOLTING TAB	4
13			
14	834589	PARTITION 4'	16
15	475104	CLEANOUT PLENUM STRIP LONG	2
16	475105	CLEANOUT PLENUM STRIP SHORT	2

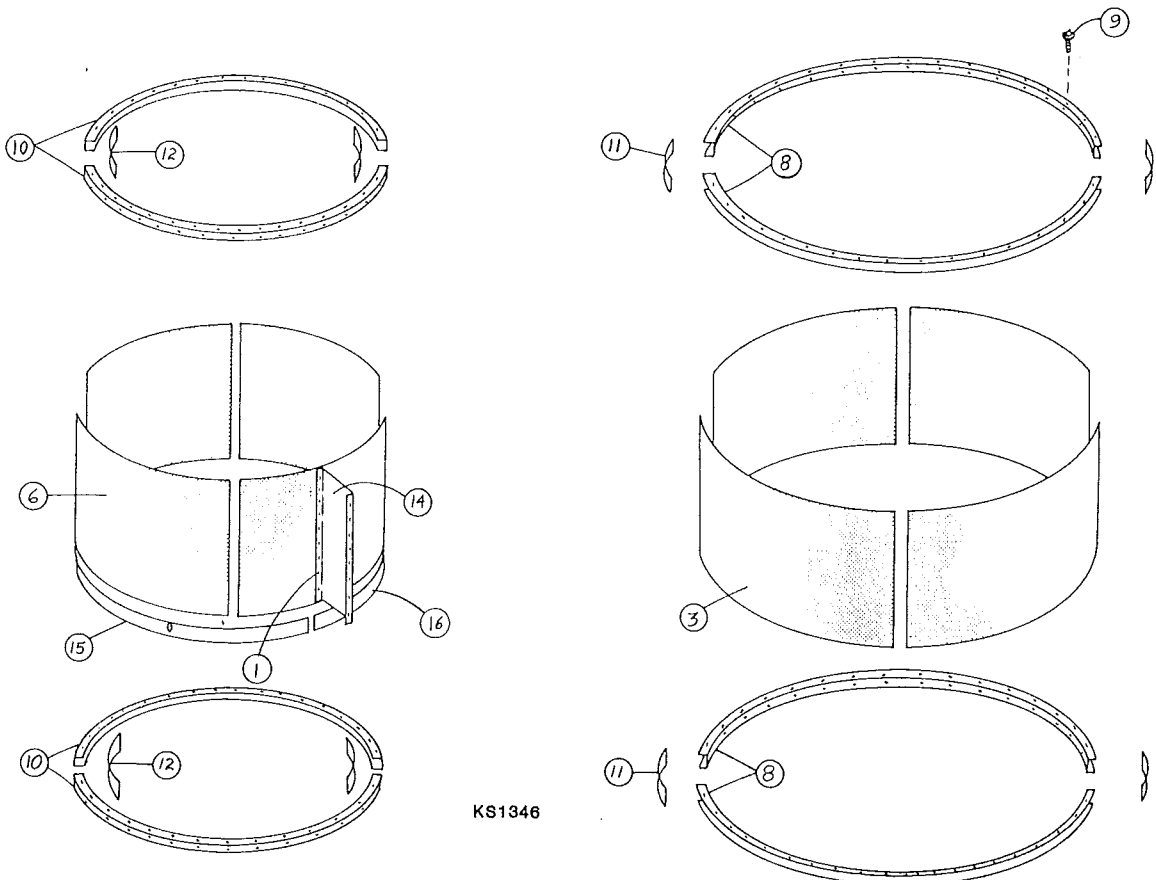
* ITEMS NOT SHOWN

REPLACEMENT POP RIVETS - 834065 - 1/4" DIA. x 1/2"

8' DIA. - 3' SECTION - 168 REQ'D

8' DIA. - 4' SECTION - 216 REQ'D

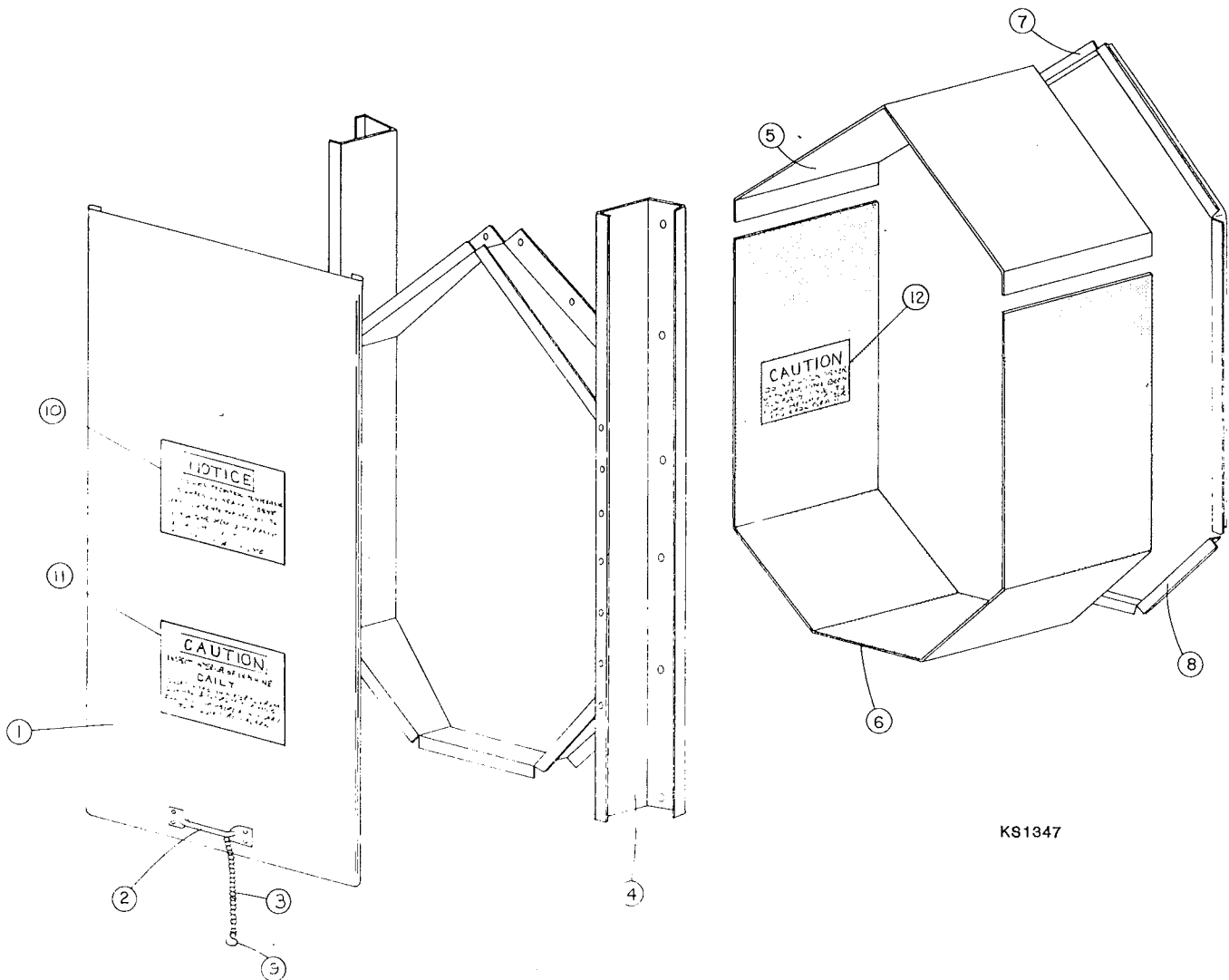
10' DIA. - 4' SECTION - 288 REQ'D



KS1346

CRAWL DOOR

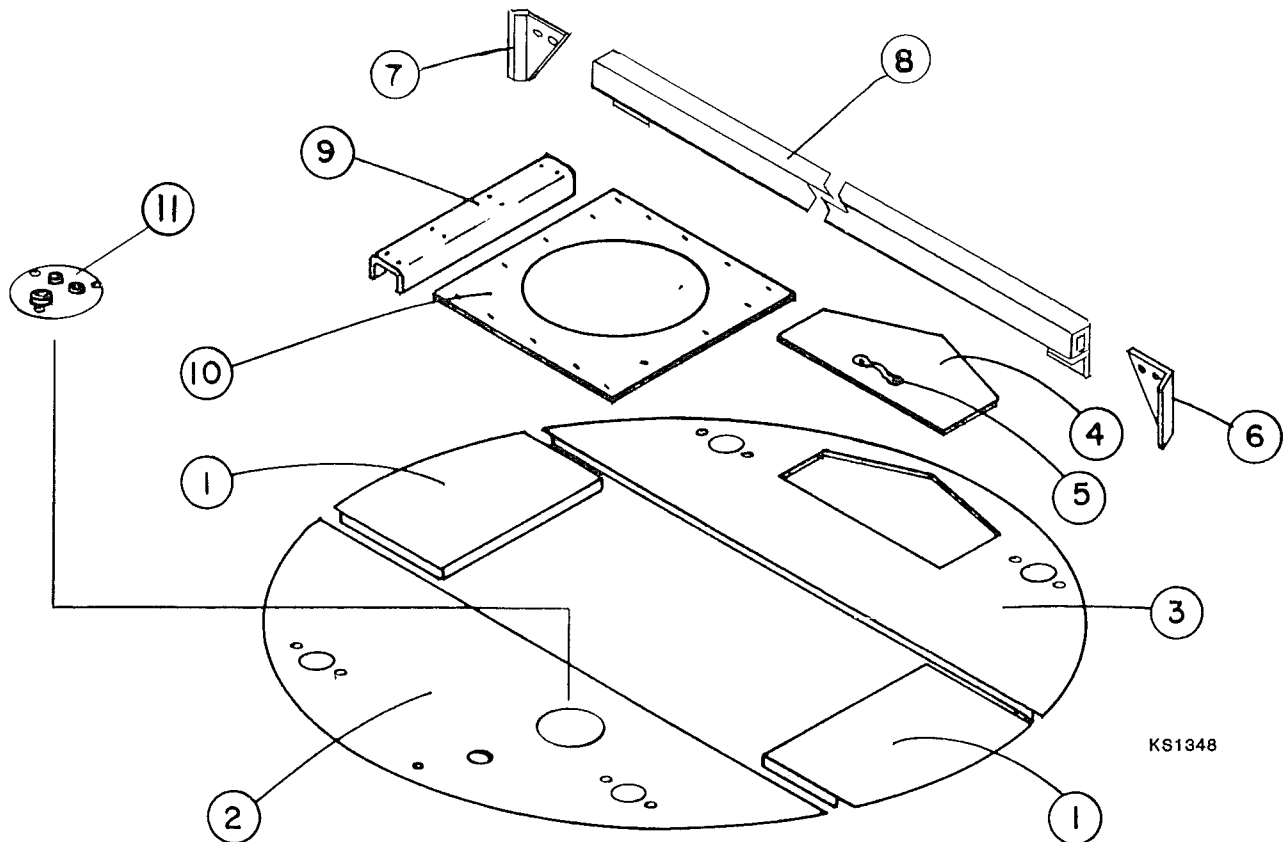
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	830125	CRAWL DOOR COVER	1
2	830126	DOOR HANDLE	1
3	830127	DOOR CHAIN	1
4	440504	CRAWL DOOR FRAME	1
5	830114	CRAWL DOOR TOP	1
6	830115	CRAWL DOOR BOTTOM	1
7	830116	TOP FILLER ANGLE	1
8	830117	BOTTOM FILLER ANGLE	1
9	475210	"S" HOOK	1
10	836427	DECAL: NOTICE-USE THIS DOOR ETC.	1
11	836425	DECAL: CAUTION-INSPECT INTERIOR ETC.	1
12	837667	DECAL: CAUTION-DO NOT ENTER ETC.	1



KS1347

10' HEAT FLOOR

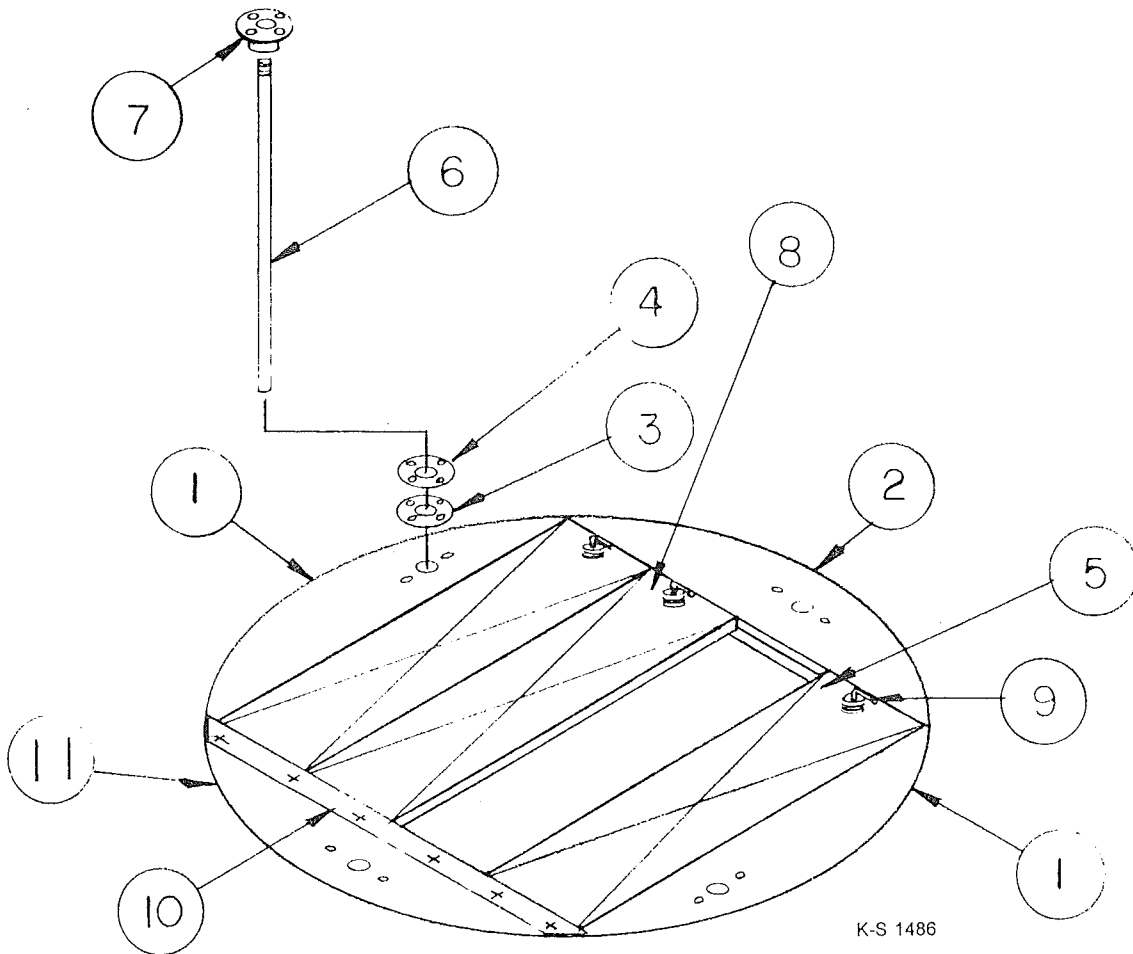
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	833372	PLENUM FLOOR END	2
2	475185	PLENUM FLOOR SIDE	1
3	475184	PLENUM FLOOR ENTRANCE	1
4	821305	PLENUM DOOR ASS'Y (INCLUDES HANDLE)	1
5	830126	DOOR HANDLE	1
6	475057	RIGHT HAND SUPPORT GUSSET	2
7	475056	LEFT HAND SUPPORT GUSSET	2
8	821659	PLENUM SUPPORT WELDMENT	2
9	833727	BURNER SHROUD SUPPORT	1
10	833221	FLOOR PLATE	2
11	475169	PIPE BUSHING MOUNT WELDMENT	1



KS1348

COOLING FLOOR

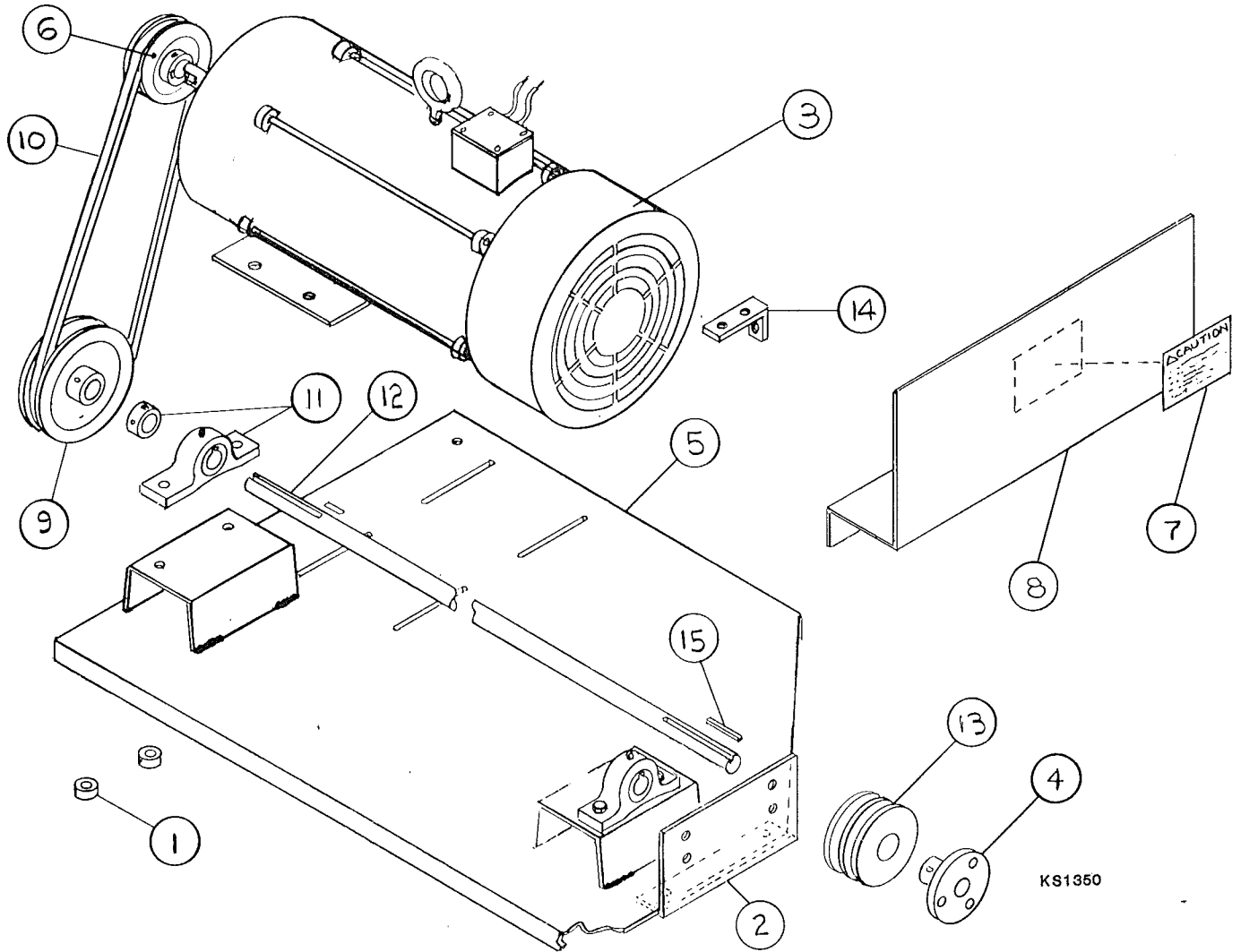
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	475397	COOLING FLOOR PANEL - "AA"	2
2	475396	COOLING FLOOR PANEL - "A"	1
3	475108	CLEANOUT PIPE GASKET	4
4	475109	CLEANOUT FLOOR SEAL	4
5	475398	COOLING FLOOR PANEL - "B"	3
6	475106	CLEANOUT PIPE	4
7	475107	FLOOR FLANGE	4
8	475399	COOLING FLOOR PANEL - "C"	1
9		HANDLE ASSEMBLY	4
10	475087	SEAL PLATE	1
11	475424	COOLING FLOOR PANEL - "D"	1



K-S 1486

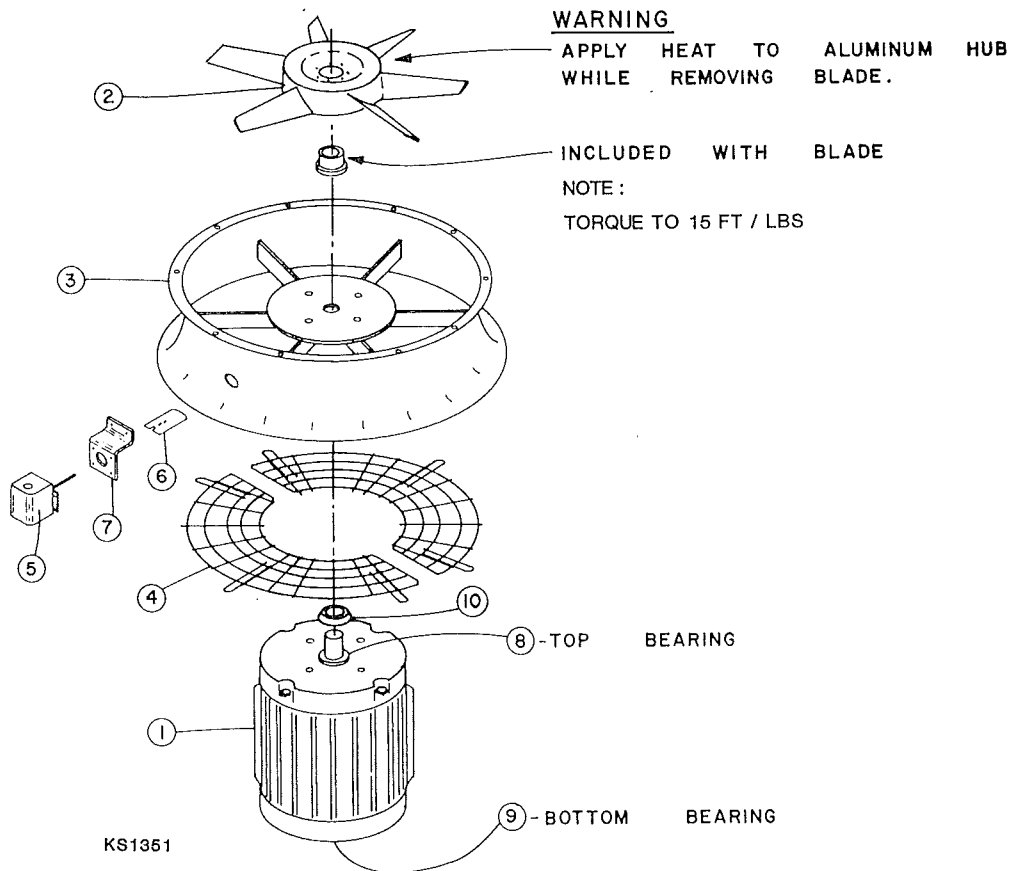
3 HP DC MOTOR MOUNT

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	441021	SPACER, MOTOR MOUNT	2
2	441969	SWEEP MOTOR ATTACH. PLATE	1
3	475010	3 HP DC MOTOR	1
4	475236	1" J.A. BUSHING	1
5	475240	DRIVE PLATE, DC MOTOR WELDMENT	1
6	475235	PULLEY, 3 3/4" O.D.	1
7	475272	DECAL, CAUTION	1
8	475244	GUARD, BELT	1
9	475234	PULLEY, 6 1/2 O.D.	1
10	475237	BELT, DRIVE	1
11	475239	BEARING, JACK SHAFT, 1", AND COLLAR	2
12	475241	SHAFT, JACK 1" DIA.	1
13	837357	SHEAVE, 2.65 O.D.	1
14	475243	BELT TENSION ADJUSTING BRACKET	1
15	475246	1/4 x 1/4 x 1 1/2 KEY STOCK	3



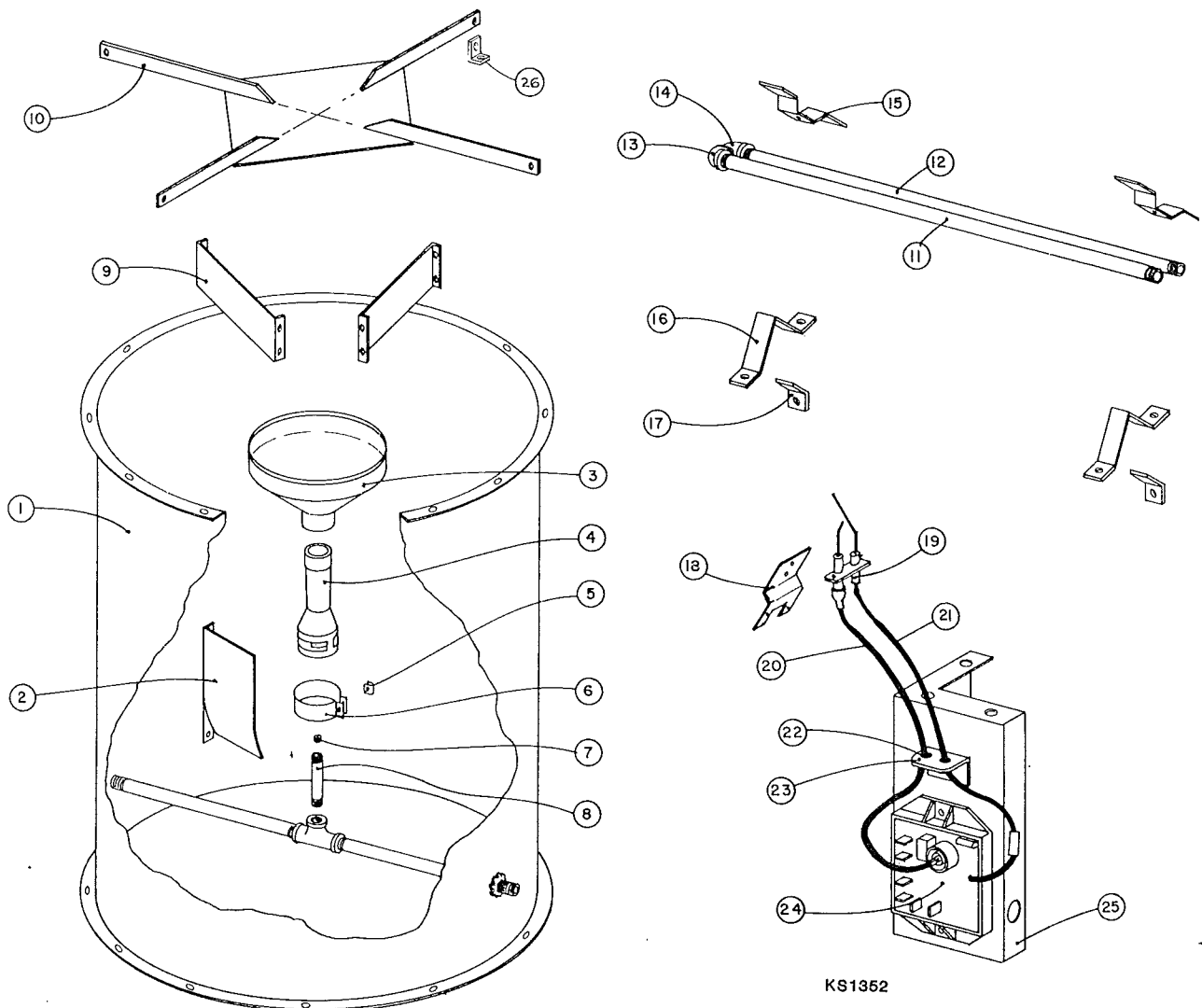
FAN ASSEMBLY 10 & 15 HP

ITEM NO.	PART NO.	DESCRIPTION	QTY.	
			10 HP	15 HP
1	821576	MOTOR 10 HP	2	
	821577	MOTOR 15 HP		2
2	835253	BLADE ASS'Y (INCLUDES BUSHING)	2	
	835258	BLADE ASS'Y (INCLUDES BUSHING)		2
3	821316	VENTURI	2	2
4	833220	FAN GUARD (HALF)	4	4
5	821632	AIR SWITCH	2	2
6	837253	AIR SWITCH SAIL	2	2
7	834568	AIR SWITCH BRACKET	2	2
8	835184	TOP REPLACEMENT BEARING	2	2
9	835185	BOTTOM REPLACEMENT BEARING	2	2
10	444766	SLINGER	2	2



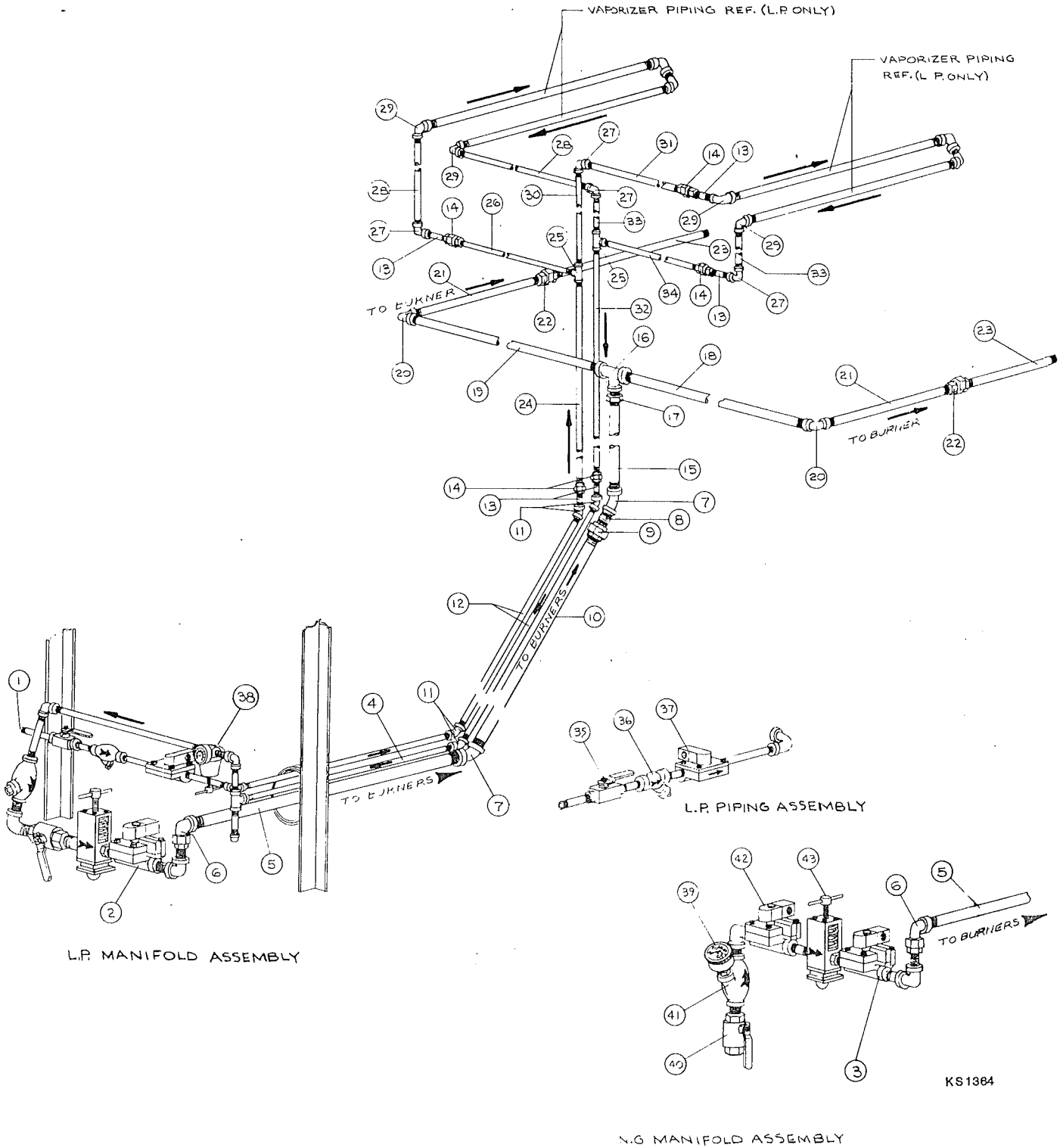
BURNER

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	438499	BURNER SHELL	2
2	833224	AIR FIN	12
3	835368	BURNER SHIELD	2
4	835367	BURNER	2
5	837537	TINNERMAN CLIP	2
6	833745	AIR DAMPER	2
7	433888	LP ORIFICE 3/16 DIA.	2
	437168	LP ORIFICE 1/8 DIA. (LOW TEMP)	2
8	835366	PIPE	2
9	440105	BURNER RETAINER	4
10	441000	VAPORIZER BAFFLE ASSEMBLY	2
11	437082	UPPER VAPORIZER PIPE	2
12	437083	LOWER VAPORIZER PIPE	2
13	440929	ELBOW 1" 90° 300# BL	2
14	837248	STREET EL 1" 90° 300#	2
15	437119	VAPORIZER CLAMP	4
16	437118	VAPORIZER MOUNTING BRACKET	4
17	440106	BAFFLE END RETAINER	4
18	448064	PROBE CLIP	2
19	448068	FLAME CONTROL PROBE (LOCAL SENSE)	2
20	823551	HIGH TENSION LINE	2
21	823552	SECONDARY TENSION LINE	2
22	833468	BUSHING	4
23	833461	WIRE HOLDER	2
24	978389	FLAME MONITOR BOARD W/RESET	2
25	833524	FLAME MONITOR BRACKET	2
26	440917	VAPORIZER MOUNTING CLIP	4



KS1352

LP/NG PLUMBING ASSEMBLY



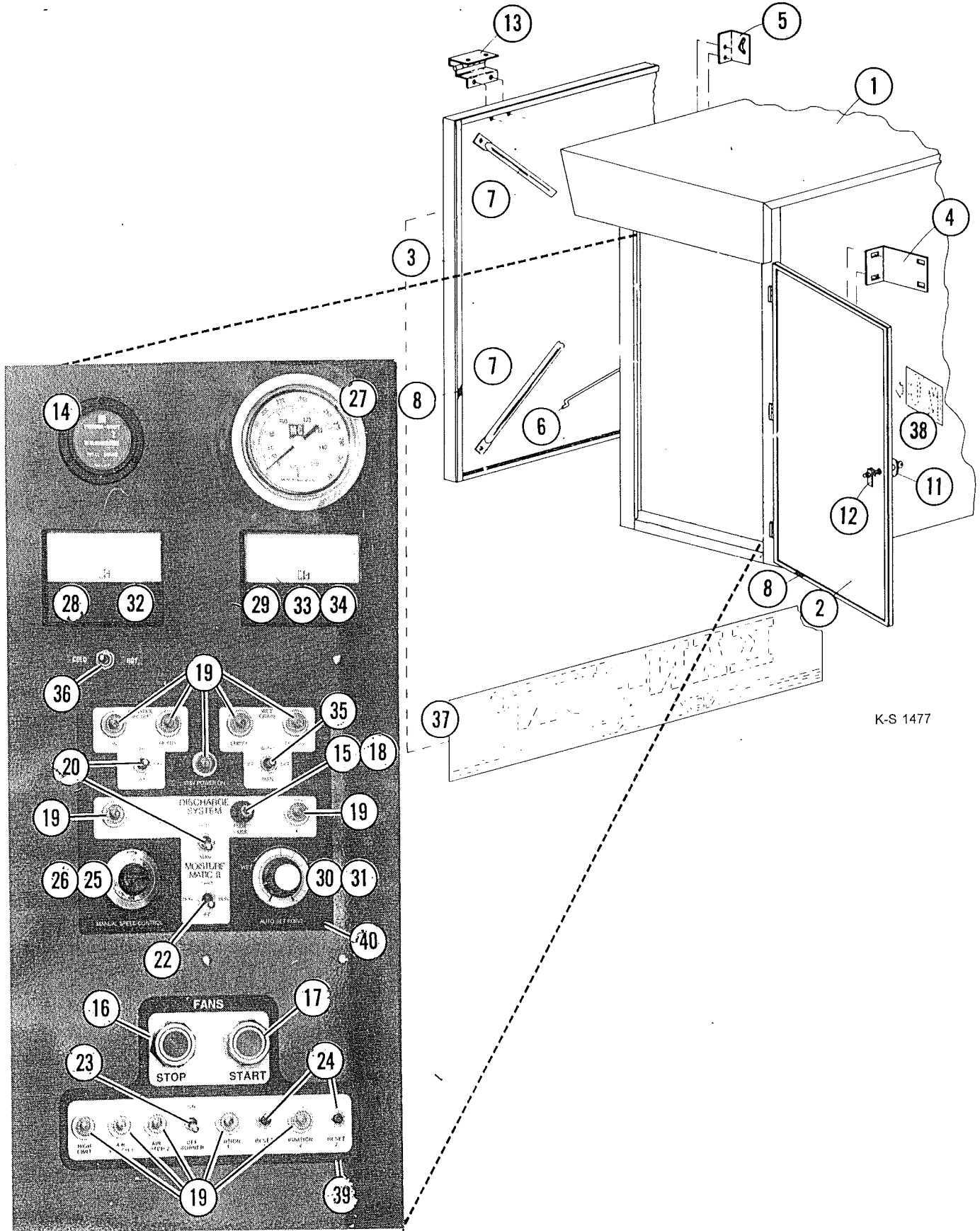
ALL PIPING MUST BE SCHEDULE 80 PIPE

LP/NG PLUMBING ASSEMBLY

Ref.	Part No.	Qty.	Description	Ref.	Part No.	Qty.	Description
1	475099	1	LP Assembly	30	440812	1	½" x 18¼" Ex. Hvy. Nipple
2	475115	1	LP Manifold Ass'y	31	475114	1	½" x 5" Ex. Hvy. Nipple
3	475141	1	NG Manifold Ass'y	32	475221	1	½" x 40" Ex. Hvy. Nipple
4	475142	1	½" x 23¼" Ex. Hvy. Nipple	32A	475392	1	½" x 44-5/8" Ex. Hvy. Nipple - 10730 Only
5	475126	1	1" x 19" Ex. Hvy. Nipple	33	475142	2	½" x 23¼" Ex. Hvy. Nipple
6	475128	1	1" x 90° Ex. Hvy. Union Elbow	34	475143	1	½" x 10" Ex. Hvy. Nipple
7	475129	2	1" x 45° Ex. Hvy. Elbow	35	823387	1	½" Hand Valve (LP only)
8	475119	1	1" Close Ex. Hvy. Nipple	36	823297	1	½" Strainer (LP only)
9	475130	1	1" Ex. Hvy. Union	36A	837657	1	Replacement Screens ½"
10	475127	1	1" x 19½" Ex. Hvy. Nipple	37	465554	1	½" Solenoid Valve (LP only)
11	475125	4	½" x 45° Ex. Hvy. Elbow	37A	834656	1	Replcmnt. Diaphragm Assembly
12	475124	2	½" x 24½" Ex. Hvy. Nipple	37B	833618	1	Replacement Coil
13	096370	5	½" x 1½" Ex. Hvy. Nipple	38	445521	1	½" Gas Regulator (LP only)
14	096834	5	½" Ex. Hvy. Union	39	445520	1	0-60 PSI Pressure Gauge
15	475132	1	1" x 43" Ex. Hvy. Nipple	40	822284	1	1" Hand Valve
15A	475393	1	1" x 47-5/8" Ex. Hvy. Nipple - 10730 Only	41	823293	1	1" Strainer
16	475135	1	3/4" x 3/4" x 1¼" Tee	41A	837659	1	Replacement Screen 1"
17	475131	1	1¼" to 1" Red Bushing	42	465556	1	1" Solenoid Valve
18	475133	1	3/4" x 10" Ex. Hvy. Nipple	42A	475309	1	Replcmnt. Diaphragm Ass'y
19	475134	1	3/4" x 19½" Ex. Hvy. Nipple	42B	475310	1	Replacement Coil
20	475136	2	3/4" x 90° Ex. Hvy. Elbow	43	437086	1	1" Modulating Valve
21	833708	2	3/4" x 8" Ex. Hvy. Nipple	43A	437214	1	Replacement Power Element 140-250
22	475137	2	3/4" Ex. Hvy. Union	43B	437215	1	Replcmnt. Diaphragm Kit
23	438659	2	3/4" x 13-3/8" Ex. Hvy. Nipple	43C	437216	1	Replacement Valve & Seat Kit
24	475138	1	½" x 48" Ex. Hvy. Nipple	*	837524	4	5/16-18 x 3/4" HWHCS Whiz
24A	475391	1	½" x 52-5/8" Ex. Hvy. Nipple - 10730 Only	*	434632	4	5/16-18 Whiz Hex Nut
25	096357	2	½" Ex. Hvy. Tee	*	834038	8	¼-20 Whiz Locknut
26	440957	1	½" x 20" Ex. Hvy. Nipple	*	436359	4	U Bolt/½" Pipe
27	096360	4	½" x 90° Ex. Hvy. Elbow	*	436349	2	LP-NG Piping Brkt.
28	475139	2	½" x 17½" Ex. Hvy. Nipple	*	437081	1	NG Mtg. Channel
29	440930	4	1" to ½" 90° Ex. Hvy. Elbow				

*Items not shown.

CONTROL PANEL CABINET



CONTROL PANEL PARTS LIST

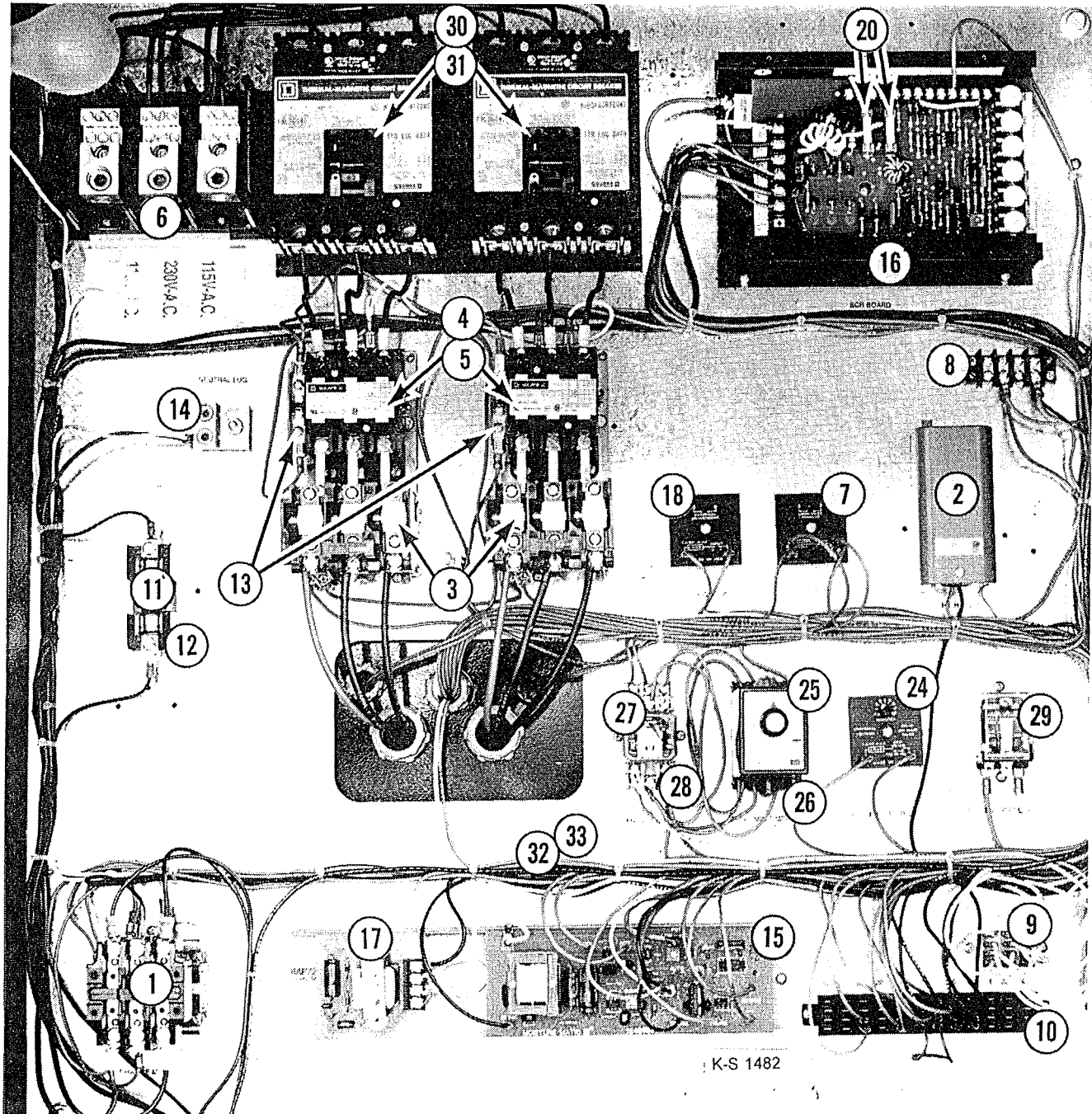
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	475375	CONTROL BOX WELD ASSEMBLY	1
2	445690	CONTROL DOOR COVER WELD ASSEMBLY	1
3	448109	CONTROL BOX COVER	1
4	836894	CONTROL BOX MOUNTING BRACKET	4
5	445507	DOOR SUPPORT BRACKET	1
6	445509	DOOR SUPPORT ROD	1
7	445527	CROSS BRACE	2
8	436448	GASKET STRIP (30" LONG)	as reqd.
9	445508*	DOOR SUPPORT ROD PIVOT MOUNT	1
10	420005*	COVER DOOR SLOT	2
11	444589	LOCKING "T" HANDLE	3
12	433800	LOCKING CAM	3
13	444628	HINGE	2
14	444645	HOUR METER	1
15	433100	FUSE HOLDER	1
16	475364	STOP SWITCH RED	1
17	475365	START SWITCH GREEN	1
18	833447*	FUSE (1 AMP)	1
19	475016	PILOT LAMP ASSEMBLY	12
20	475354	START UP - RUN SWITCH	2
22	475326	AUTO - MANUAL SWITCH	1
23	438907	BURNER ON-OFF SWITCH	1
24	441959	REMOTE RESET SWITCH	2
25	475013*	10 TURN POTENTIOMETER	1
26	475014	SPEED CONTROL DIAL	1
27	475015	TEMPERATURE GAUGE	1
28	444782	GRAIN TEMPERATURE METER (GASKET #475269)	1
29	444783	DISCHARGE SPEED METER (GASKET #475269)	1
30	438698*	POTENTIOMETER	1
31	438699	KNOB	1
32	445961*	TEMPERATURE BRIDGE	1
33	475191*	1 MEG OHM RESISTOR	1
34	475192*	806K RESISTOR	1
35	475369	WET GRAIN FILL SWITCH	1
36	475194	COLD-HOT SWITCH	1
37	475182	DECAL "KAN-SUN-THE NEXT GENERATION"	1
38	475273	DECAL "M-C"	1
39	475366	FAN/BURNER CONTROL BEZEL	1
40	475367	115 POWER CONTROL BEZEL	1

*ITEMS NOT SHOWN

ELECTRICAL COMPONENTS

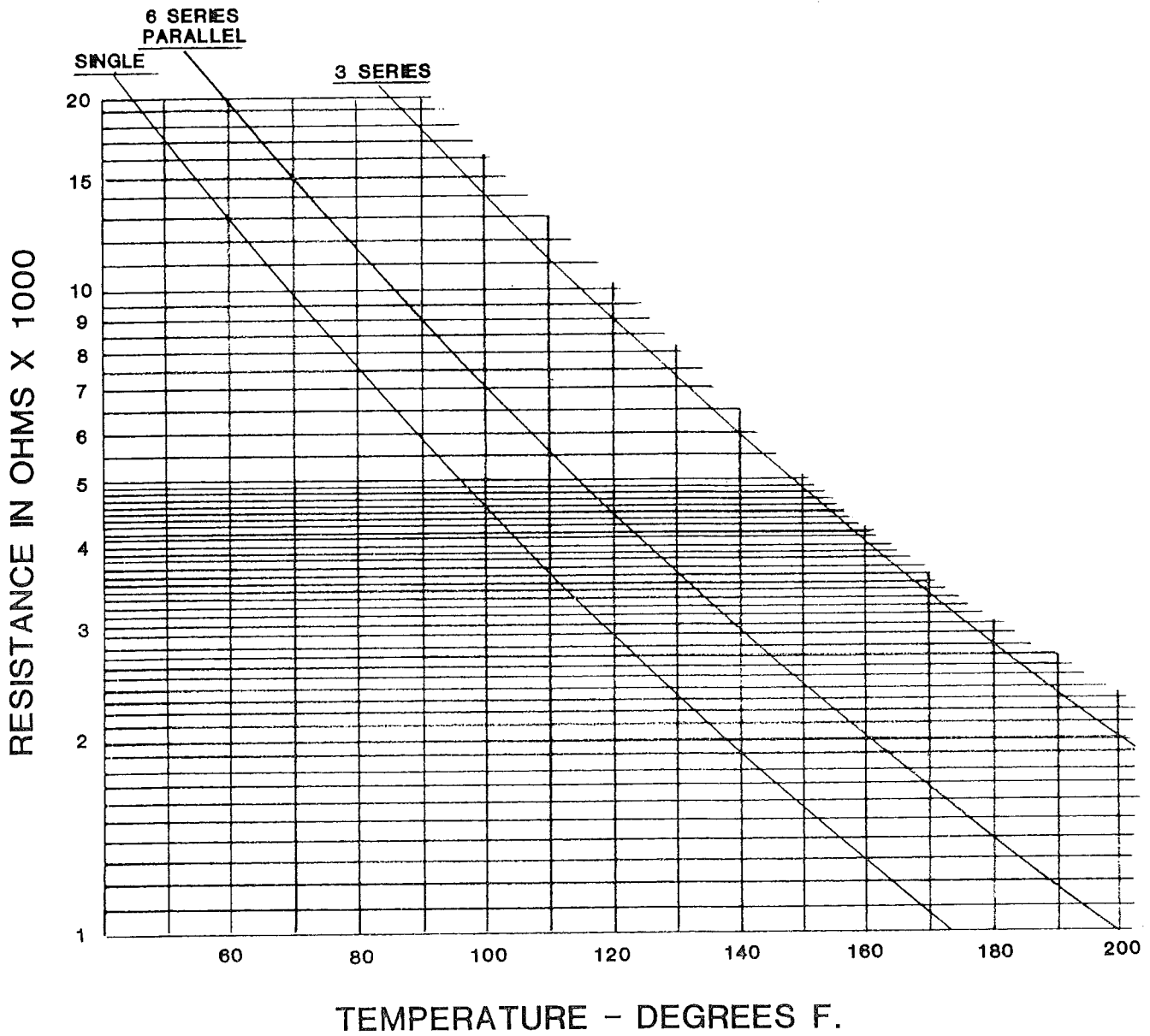
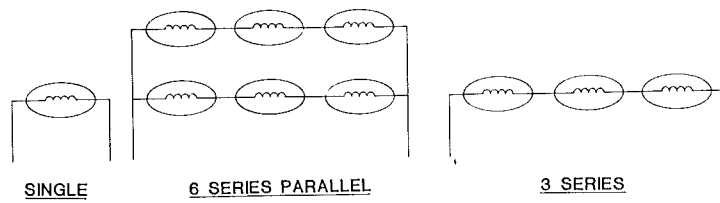
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	475307	CONTACTOR 30 AMP-3 POLE (3HP METER MOTOR)	1
2	835916	HIGH LIMIT CONTROL 10 FT. LEAD	1
3	475303	HEATER STRIP (10HP FAN MOTOR) 220V, 1Ø & 3Ø	3
	475305	HEATER STRIP (15HP FAN MOTOR) 220V, 1Ø & 3Ø	3
4	475293	FAN MOTOR STARTER (10HP) 1 & 3Ø DPS033	2
5	475294	FAN MOTOR STARTER (15HP) 3Ø DPS053	2
	475414	FAN MOTOR STARTER (15HP) 1Ø DPA73	2
6	475372	POWER DISTRIBUTION BLOCK (3 POLE)	1
7	442533	TIME DELAY RELAY (6 SEC.)	1
8	835872	TERMINAL BLOCK (4 POSITION)	1
9	475012	TERMINAL GROUNDING BLOCK (4 POSITION)	1
10	475025	TERMINAL BLOCK (12 POSITION)	1
11	475325	FUSE 5 AMP	2
12	475426	FUSE BLOCK	1
13	475362	AUXILIARY	1

ITEM NO.	PART NO.	DESCRIPTION	QTY.
14	475308	GROUND LUG	2
15	475390	MOISTURE CONTROL BOARD	1
16	475008	SCR BOARD	1
17	445960	8 VOLT POWER SUPPLY	1
18	475363	TIME DELAY RELAY (10 SEC.)	1
20	475202	SCR FUSE	2
24	475189	.1 TO 8 MINUTE TIMER	1
25	475261	0 TO 60 MINUTE TIMER	1
26	475262	TIMER SOCKET	1
27	475311	MAIN RELAY	1
28	475312	RELAY SOCKET	1
29	475313	FILL RELAY	1
30	475295	CIRCUIT BREAKER 10HP, 1 & 3 PHASE	2
31	475297	CIRCUIT BREAKER 15HP, 1 & 3 PHASE	2
32	444613	FUSE (1/2 AMP)	1
33	475368	IN LINE FUSE HOLDER	1



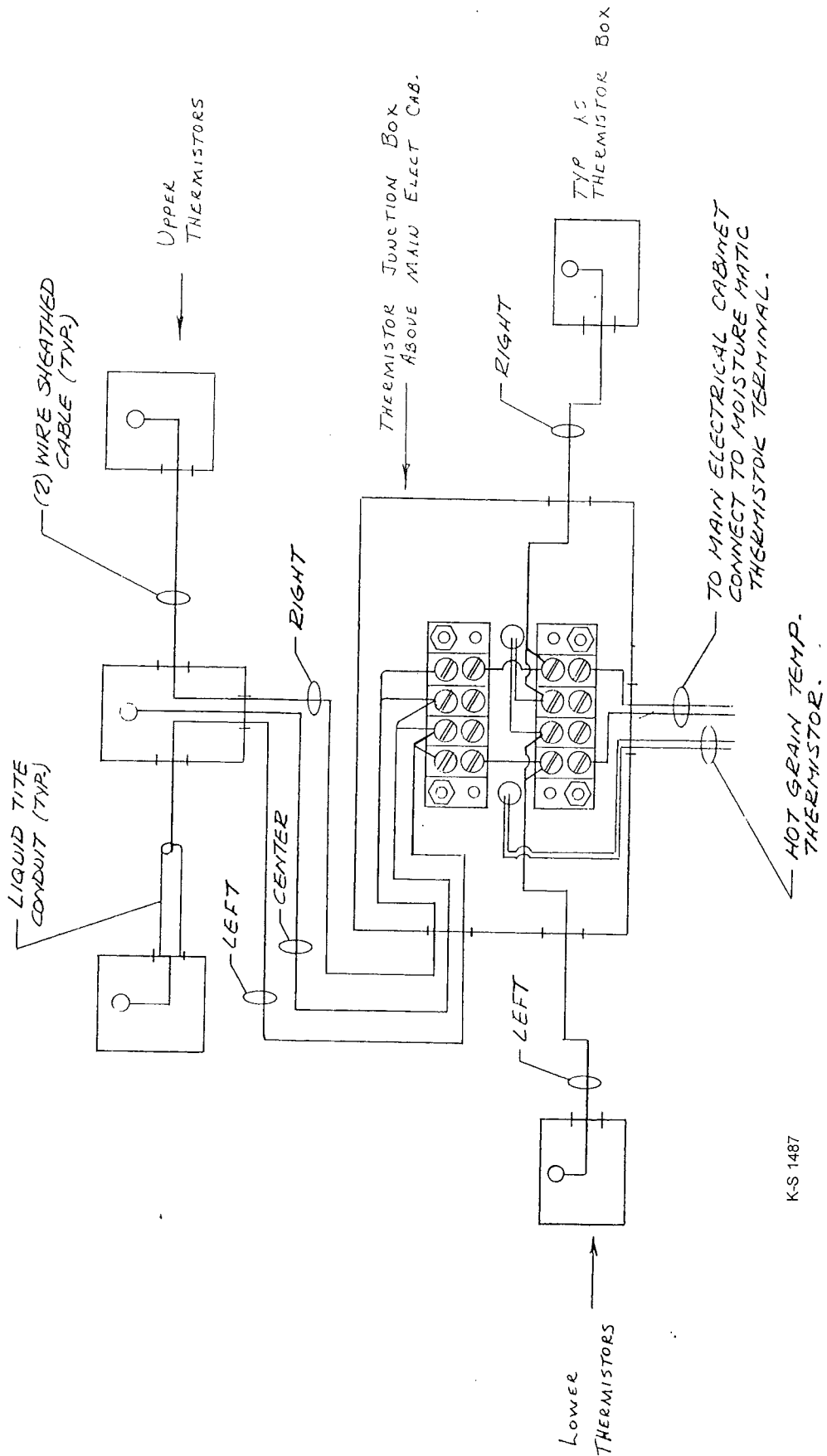
K-S 1482

THERMISTOR CHART



KS1387

THERMISTOR WIRING DETAILS



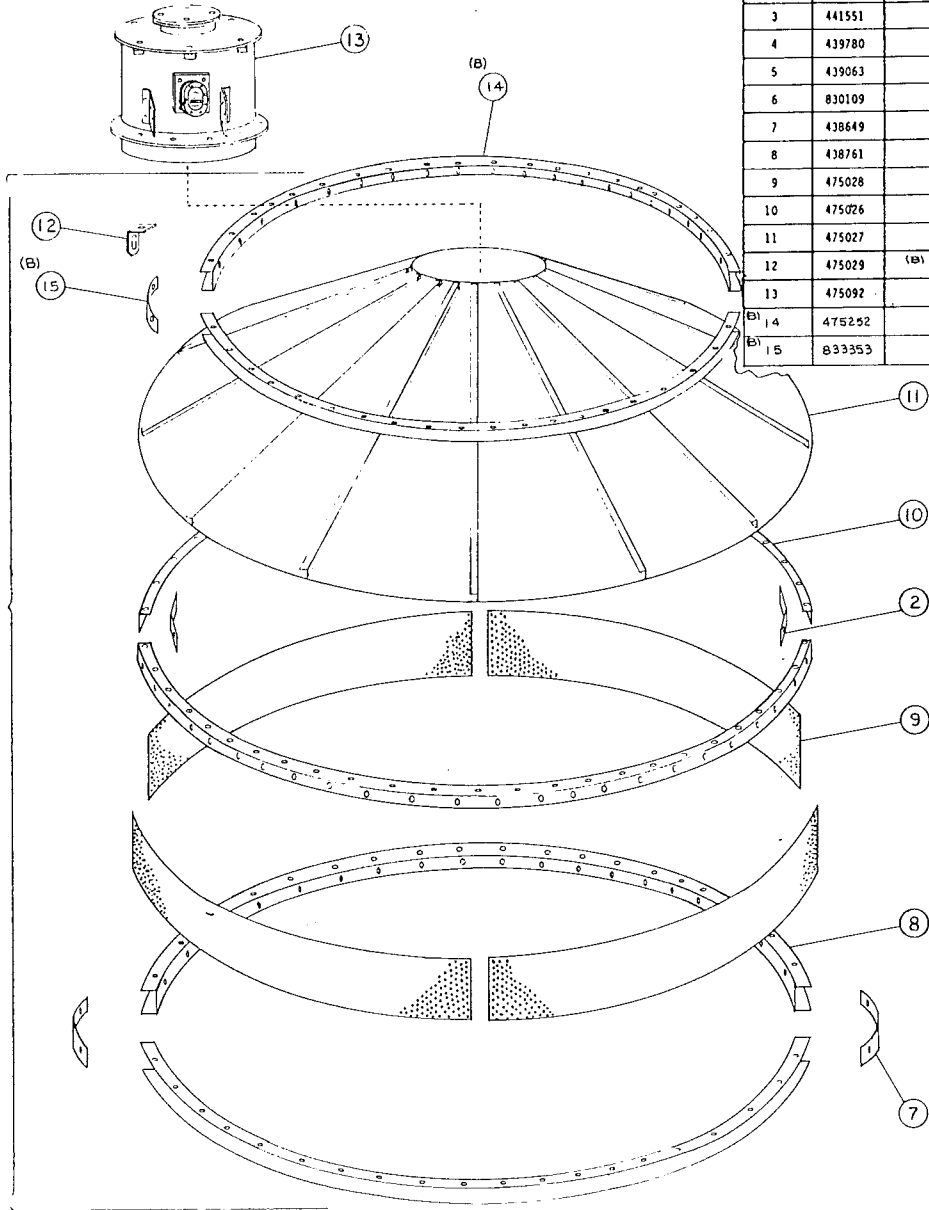
STRET S/M 55120

K-S 1487

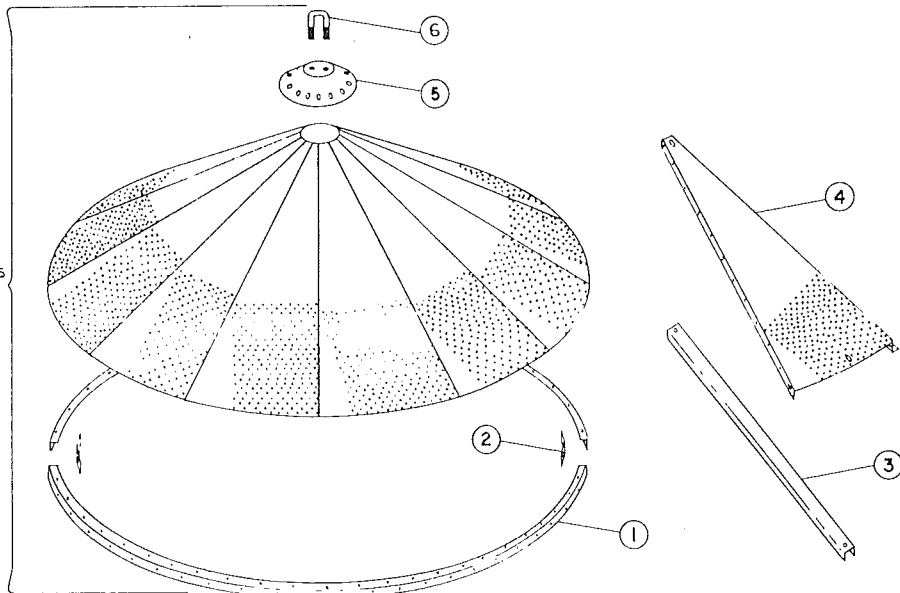
10' ROOF SECTION

REF. NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
1	833219	2	RING, TRANSITION
2	834721	4	CLIP, FILLER M480
3	441551	16	REIN CHANNEL 10'KS ROOF
4	439780	16	INNER PERF PEAK PANEL 10'
5	439063	1	ROOF CAP M001
6	830109	1	U-BOLT, ROOF CAP M021
7	438649	2	TAB OUTER RING BOLTING
8	438761	2	OUTSIDE CHANNEL RING
9	475028	4	WET HOLDING BIN SCREW
10	475026	2	OUTER 10' TRANSITION RING
11	475027	16	OUTER ROOF PANEL
12	475029	(B) 32	UNIVERSAL ANGLE
13	475092	1	GRAIN RECEIVING ASSEMBLY
(B) 14	475252	2	OUTER ROOF CHANNEL RING
(B) 15	833353	2	TAB INNER RING BOLTING

ROOF SECTION

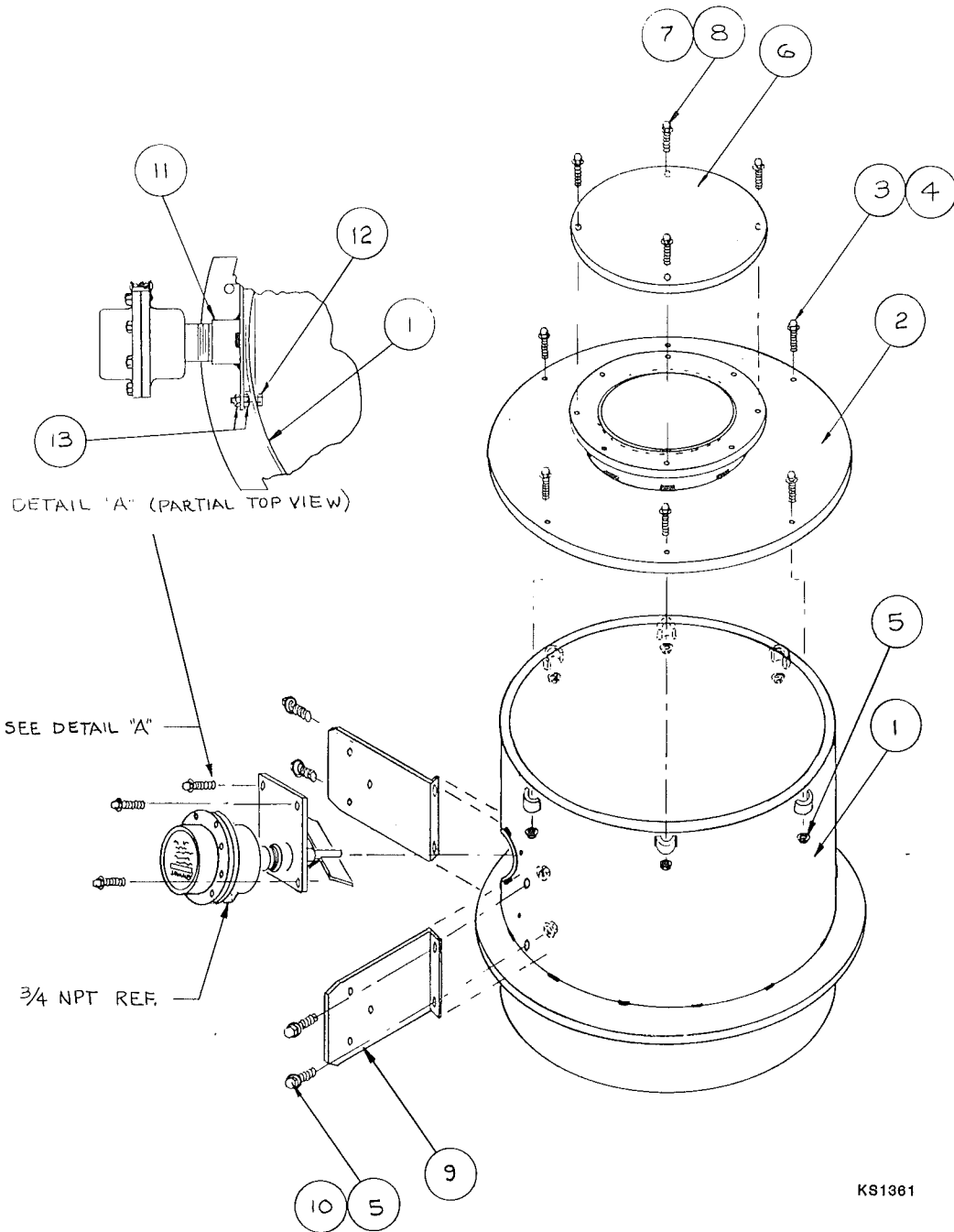


(B) INNER PEAK
 FOR PURPOSES OF BILL OF MATERIALS
 ITEMS #1 THRU ITEM #6 ARE
 COMPONENTS OF ASSEMBLY # B22213



KS1362

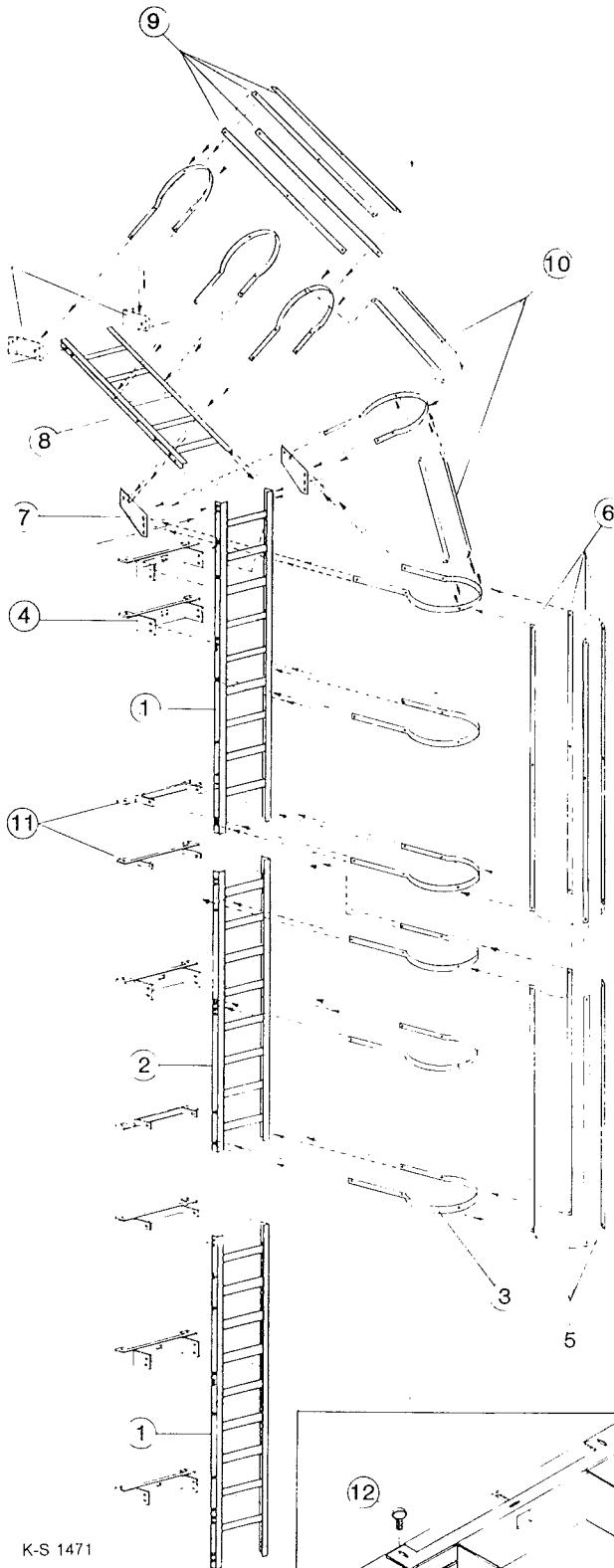
GRAIN RECEIVING TOP ASSEMBLY



Ref.	Part No.	Qty.	Description	Ref.	Part No.	Qty.	Description
1	475030	1	Grain Receiving Weld.	8	434632	4	5/16-18 Whiz Hex Nut
2	475091	1	Receiving Tube Weld.	9	475058	2	Ladder to Fill Mount
3	475094	6	3/8-16 x 2" HHCS	10	095078	4	3/8-16 x 3/4" HHCS
4	095013	6	3/8 Flat Washer	11	475232	1	Rotary Fill Switch Ass'y
5	434111	10	3/8-16 Whiz Hex Nut	12	095058	4	1/4-20 x 1 1/2" HHCS Gr.5
6	475037	1	Receiving Tube Cover	13	834038	8	1/4-20 Whiz Hex Locknut
7	837524	4	5/16-18 x 3/4" HWHCS Whiz				

LADDER ASSEMBLY

LADDER TO FILL
MOUNT BRACKET



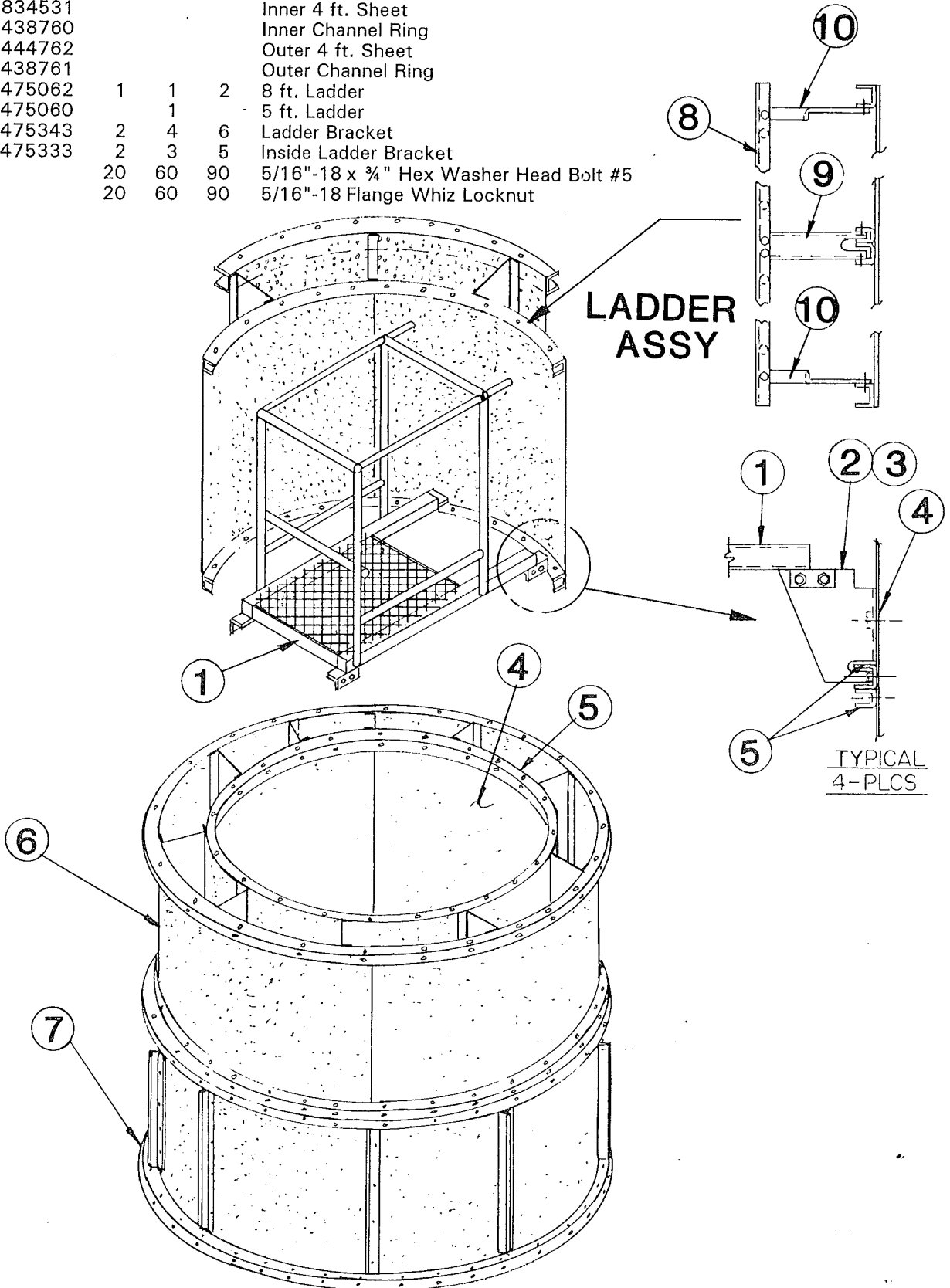
Ref.	Part No.	Qty.	Description
1	475061	2	9' Ladder Weld.
2	475062	1	8' Ladder Weld.
3	475063	10	Ladder Cage Hoop
4	475351	5	Main Ladder Brackets
5	475066	4	8' Ladder Cage Strap
6	475065	4	9' Ladder Cage Strap
7	475059	2	Ladder Conn. Brkt.
8	475060	1	5' Roof Ladder Weld.
9	475067	4	5' Ladder Cage Strap
10	475090	4	Safety Cage Conn. Strap
11	475352	4	Ladder Bracket
12	837524	110	5/16-18 x 3/4" HWHCS
13	434632	110	5/16-18 Whiz Hex Nut

K-S 1471

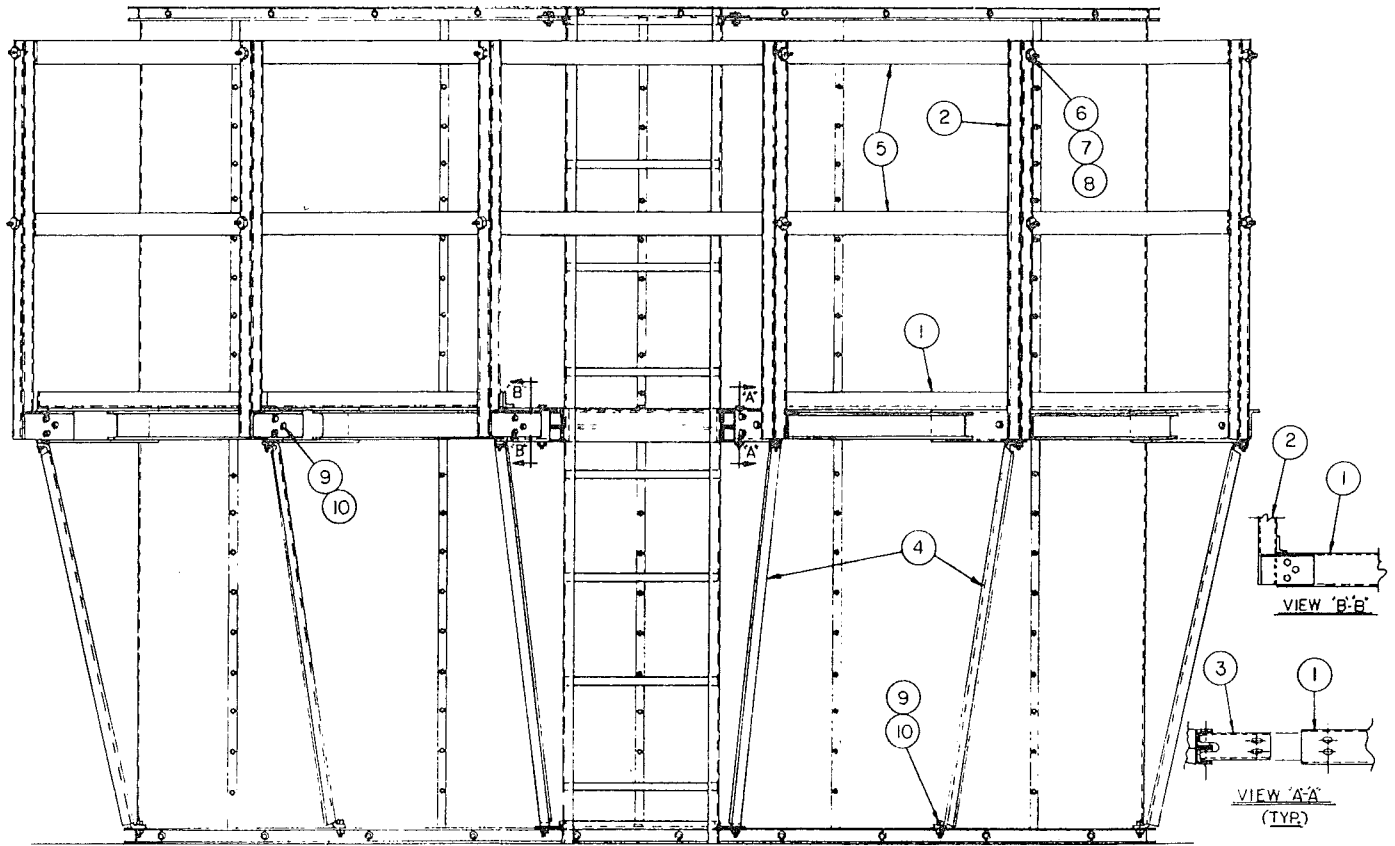
TYPICAL BRACKET MOUNTING

CLEAN-OUT WALKWAY & LADDER - 10 FT.

Ref.	Part No.	Qty.			Description
		10530	10630	10730	
1	475330	1	1	2	Cleaning Walkway
2	475057	2	2	2	Floor Support Gusset LH
3	475056	2	2	2	Floor Support Gusset RH
4	834531				Inner 4 ft. Sheet
5	438760				Inner Channel Ring
6	444762				Outer 4 ft. Sheet
7	438761				Outer Channel Ring
8	475062	1	1	2	8 ft. Ladder
	475060		1		5 ft. Ladder
9	475343	2	4	6	Ladder Bracket
10	475333	2	3	5	Inside Ladder Bracket
		20	60	90	5/16"-18 x 3/4" Hex Washer Head Bolt #5
		20	60	90	5/16"-18 Flange Whiz Locknut



OUTSIDE WALKWAY ASSEMBLY

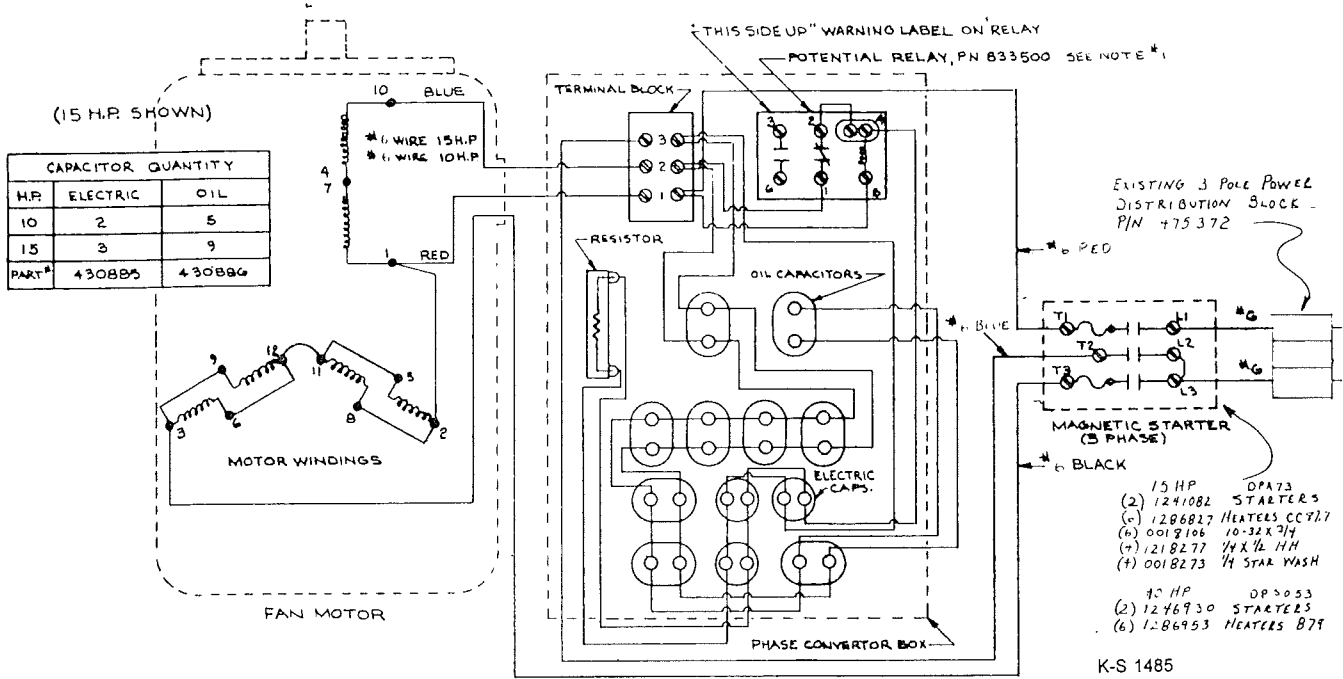


Ref.	Part No.	Qty.	Description
1	475348	5	Walkway Floor Section
2	475347	16	Upright Post Weldment
3	475343	16	Floor Mounting Bracket
4	475342	16	Walkway Diagonal Support
5	475353	8	Walkway Hand Rail
6	097121	34	3/8-16 x 2 3/4" Hex Head Capscrew
7	095013	34	3/8 Flatwasher
8	434111	34	3/8-16 Flange Whiz Locknut
9	837524	170	5/16-18 x 3/4" HWH Screw
10	434632	170	5/16-18 Flange Whiz Locknut

PHASE CONVERTER WIRING DETAILS

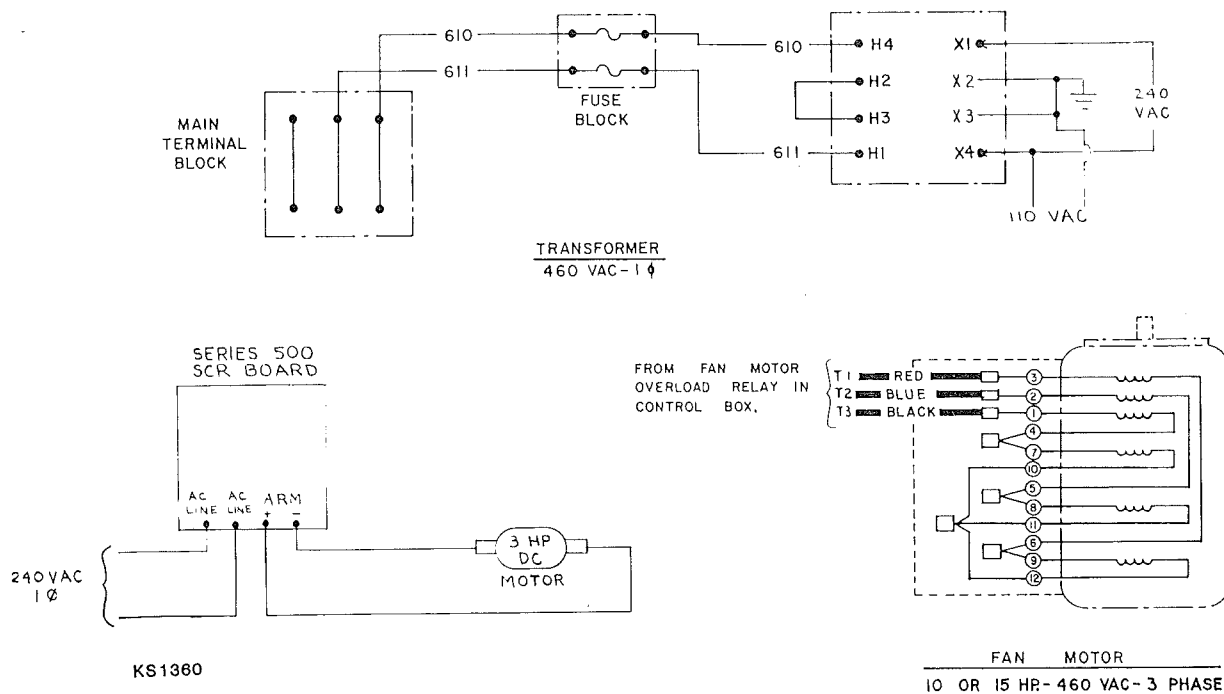
230 VAC - 1 PHASE 10 OR 15 HP.

NOTES:
 1) OBSERVE "THIS SIDE UP" WARNING LABEL ON RELAY WHEN MOUNTING
 2) TO REVERSE ROTATION INTERCHANGE 1 AND 10



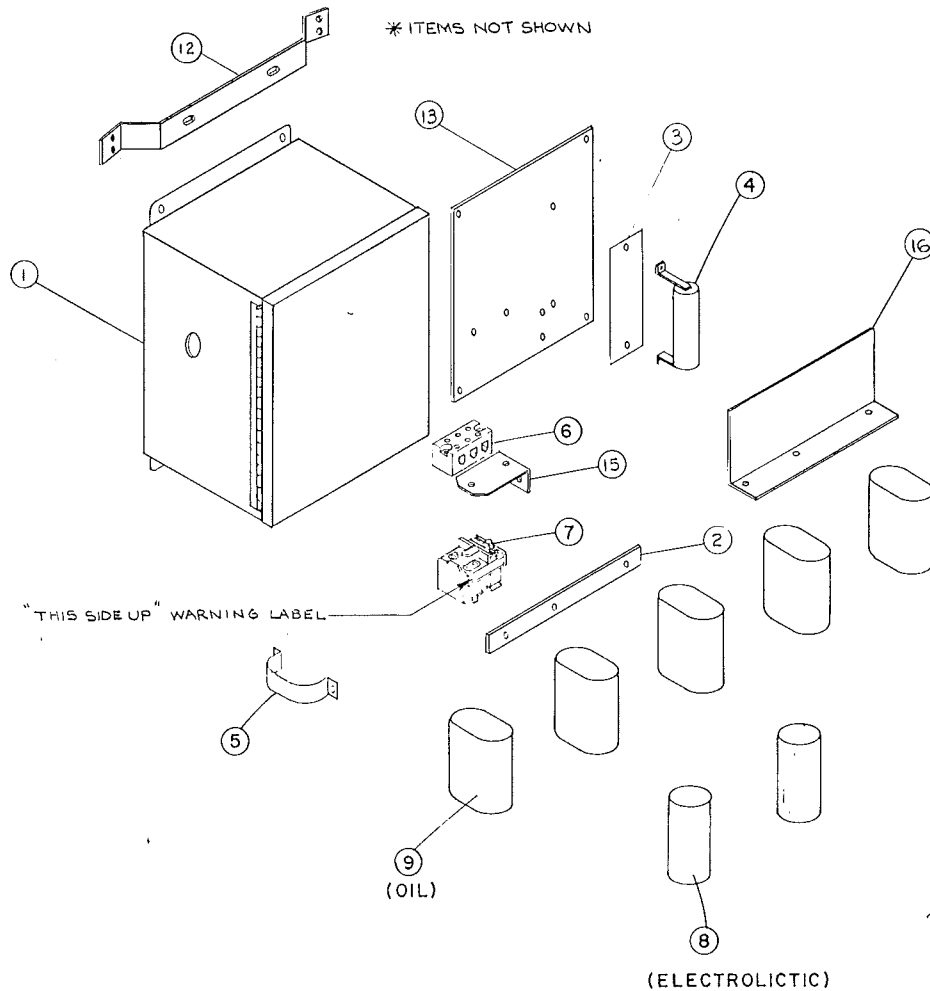
MOTOR - TRANSFORMER WIRING DETAILS

460 VAC-3PH. 10 OR 15 HP.



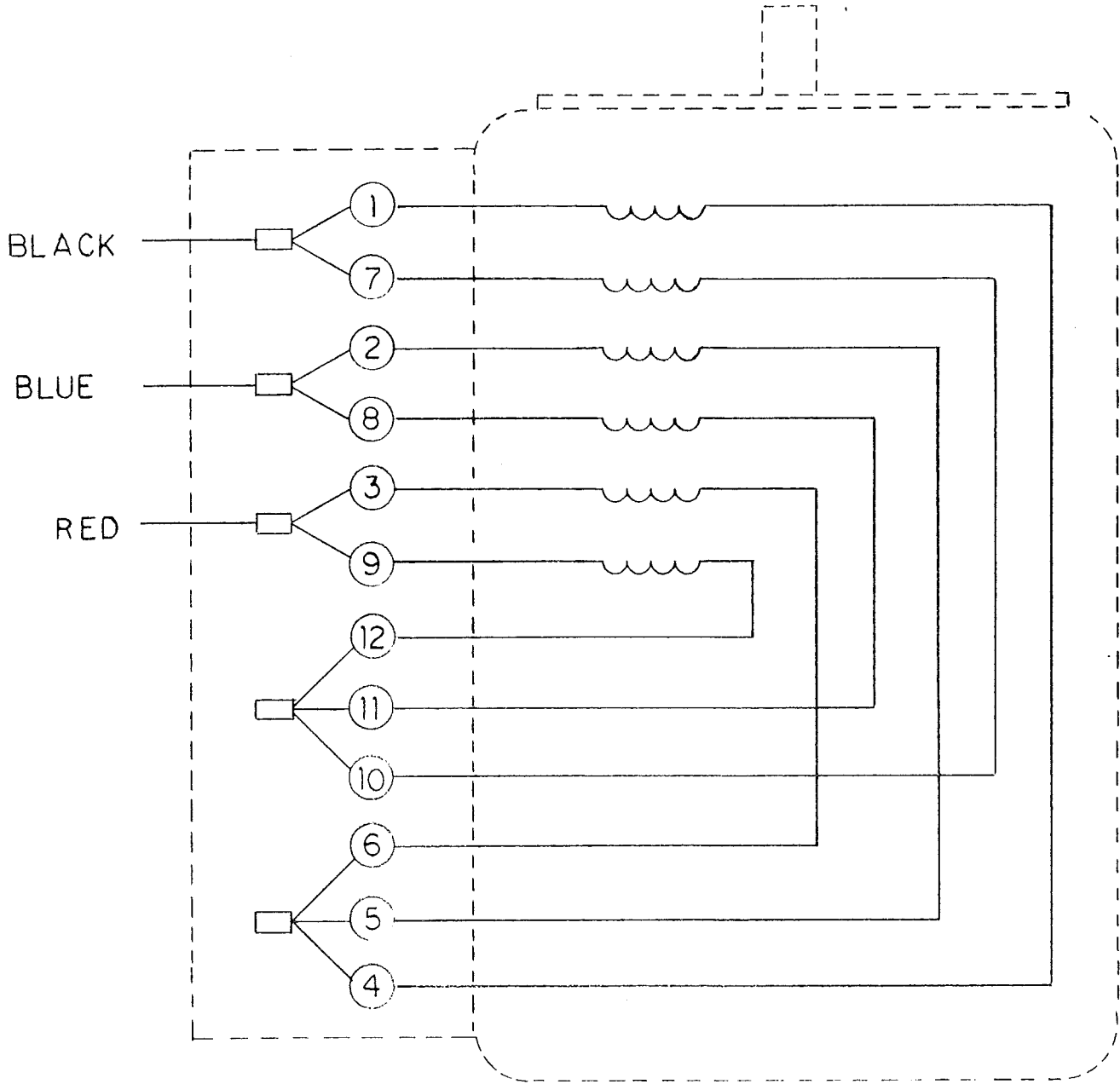
PHASE CONVERTER

ITEM NO.	PART NO.	DESCRIPTION	QTY.	
			10 HP	15 HP
1	475253	BOX	1	1
2	475256	CAPACITOR HOLD DOWN	1	2
3	475257	INSULATOR, RESISTOR	1	1
4	837526	RESISTOR	1	1
5	475224	CAPACITOR HOLD DOWN STRAP	1	2
6	837527	TERMINAL BOARD	1	1
7	833500	RELAY	1	1
8	430885	CAPACITOR (ELECTROLYTIC) 216 MFD	2	3
9	430886	CAPACITOR (OIL) 20 MFD	5	9
10	820796*	10HP PHASE CONVERTOR	1	-
11	821420*	15HP PHASE CONVERTOR	-	1
12	833411	BRACKET, PHASE BOX MOUNTING	4	4
13	475255	COMPONENT MOUNTING PLATE	1	1
14	475259*	RUBBER SPONGE INSULATION		
15	475260	BRACKET, TERMINAL BOARD	1	1
16	833700	BRACKET, HOLD DOWN	1	-



KS1357

230 VOLT MOTOR WIRING

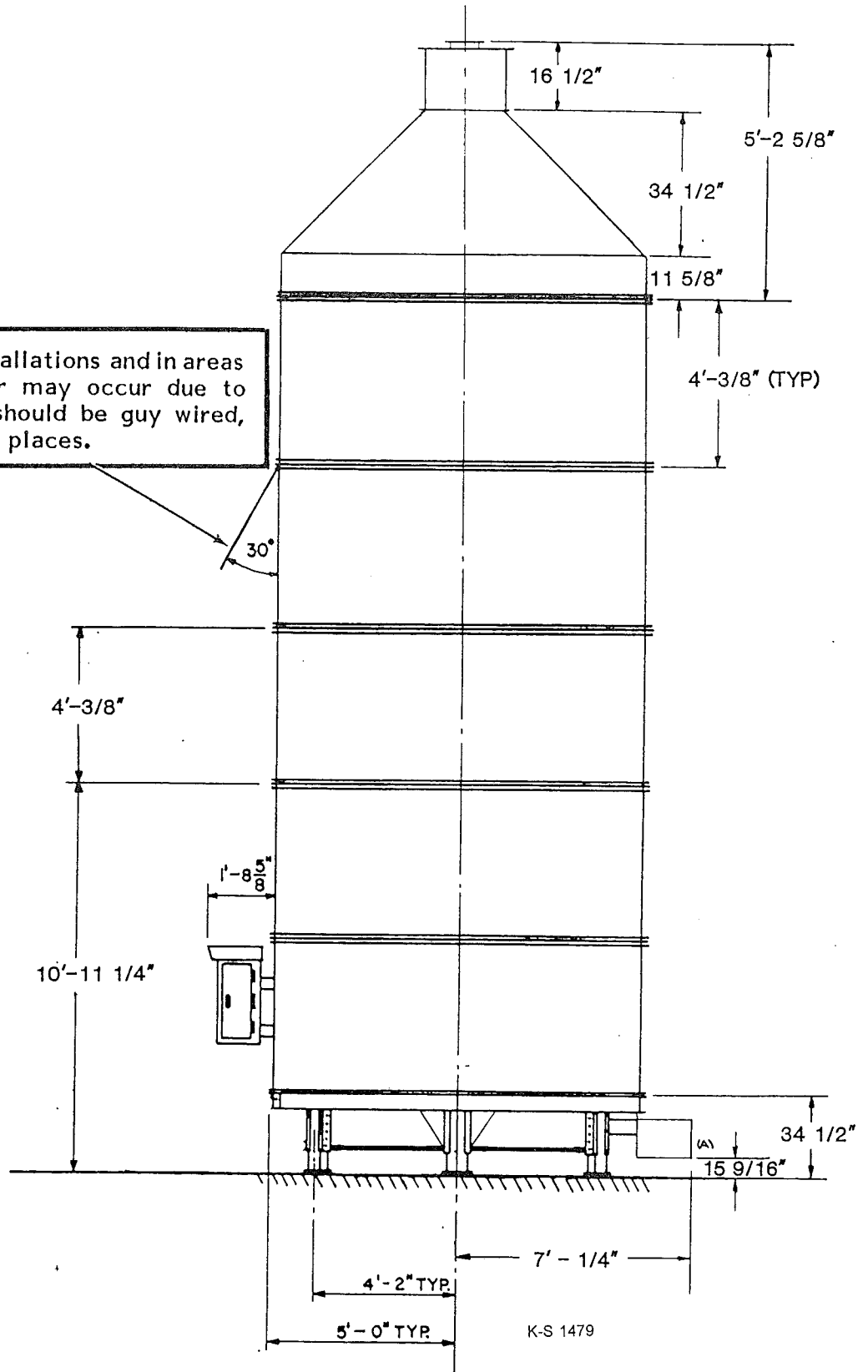


KS1369

BALDOR 10-15 HP - 230 VAC - 3 PH

DIMENSION DATA

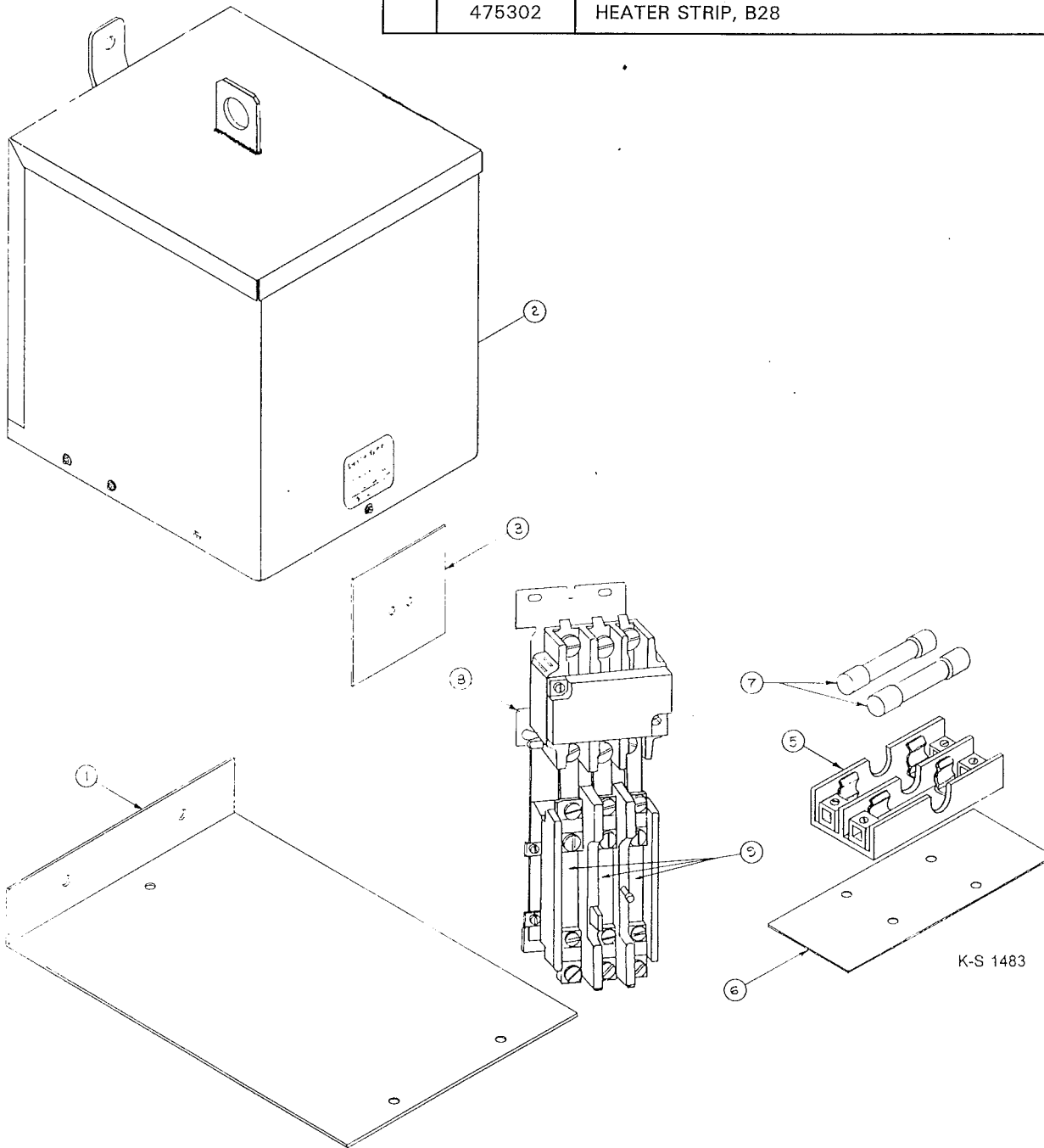
In temporary installations and in areas where blow over may occur due to wind the dryer should be guy wired, typically in three places.

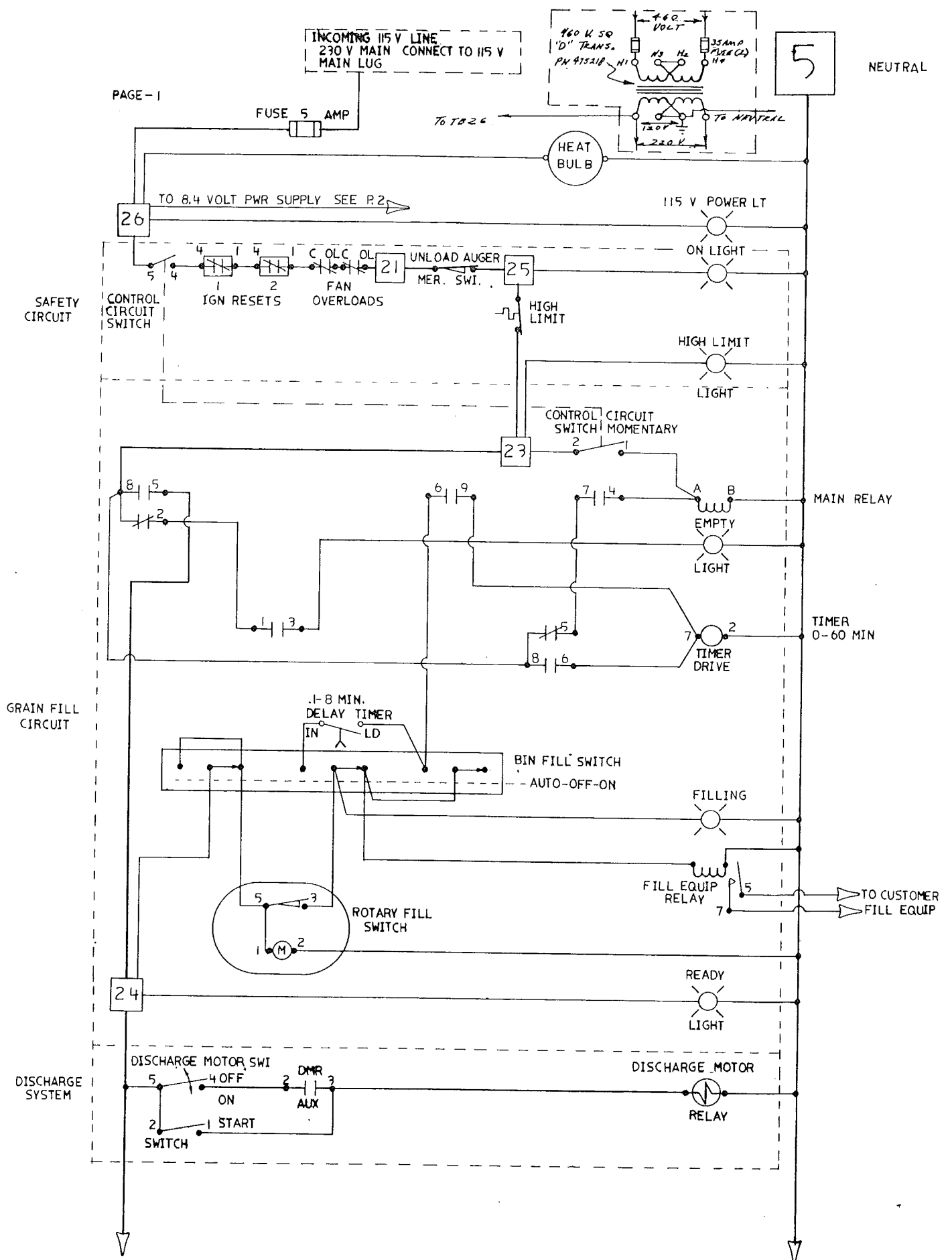


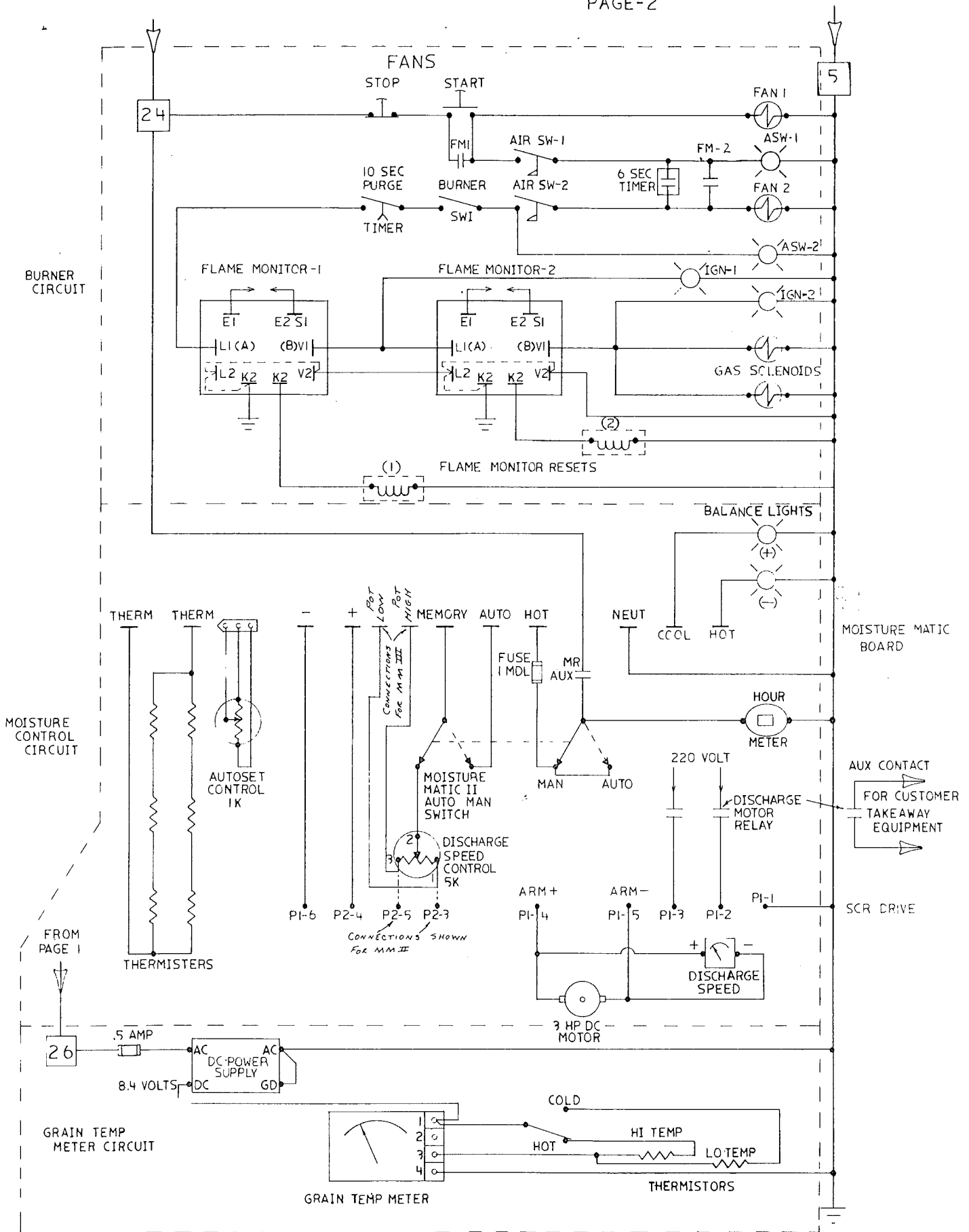
10' DRYER

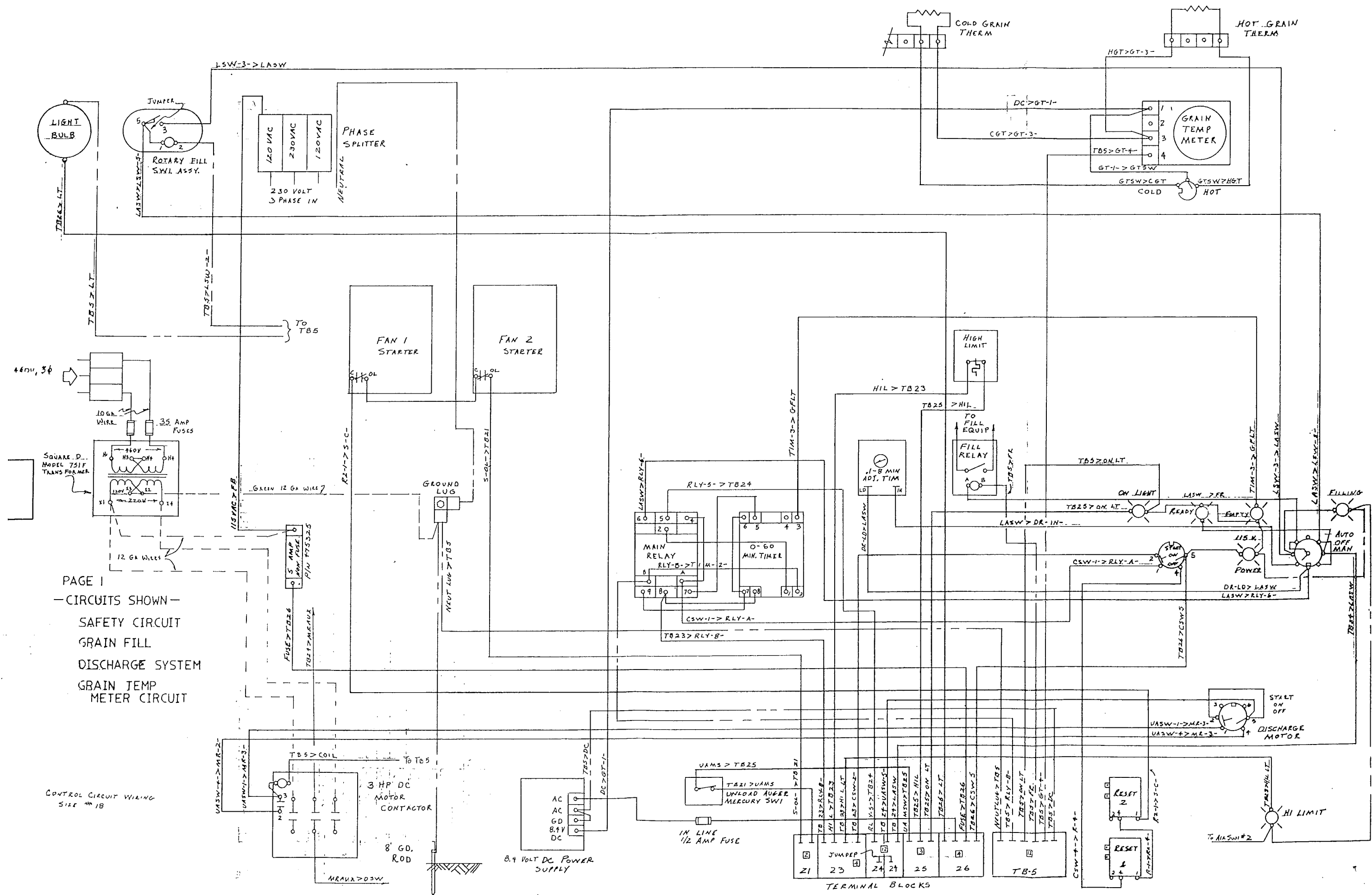
460 VOLT ELECT. COMPONENTS

REF.	PART NO.	DESCRIPTION	QTY.
1	475220	TRANSFORMER MOUNT	1
2	475218	460 VOLT TRANSFORMER	1
3	475207	INSULATOR PLATE	1
5	475217	70 AMP 2 POLE FUSE HOLDER	1
6	475219	INSULATOR FUSE HOLDER	1
7	475204	35 AMP FERRULE FUSE	2
8	475293	FAN MOTOR STARTER, 15HP, 440V, 3Ø DPS033	2
9	475301	HEATER STRIP, B17.5	3
	475302	HEATER STRIP, B28	3









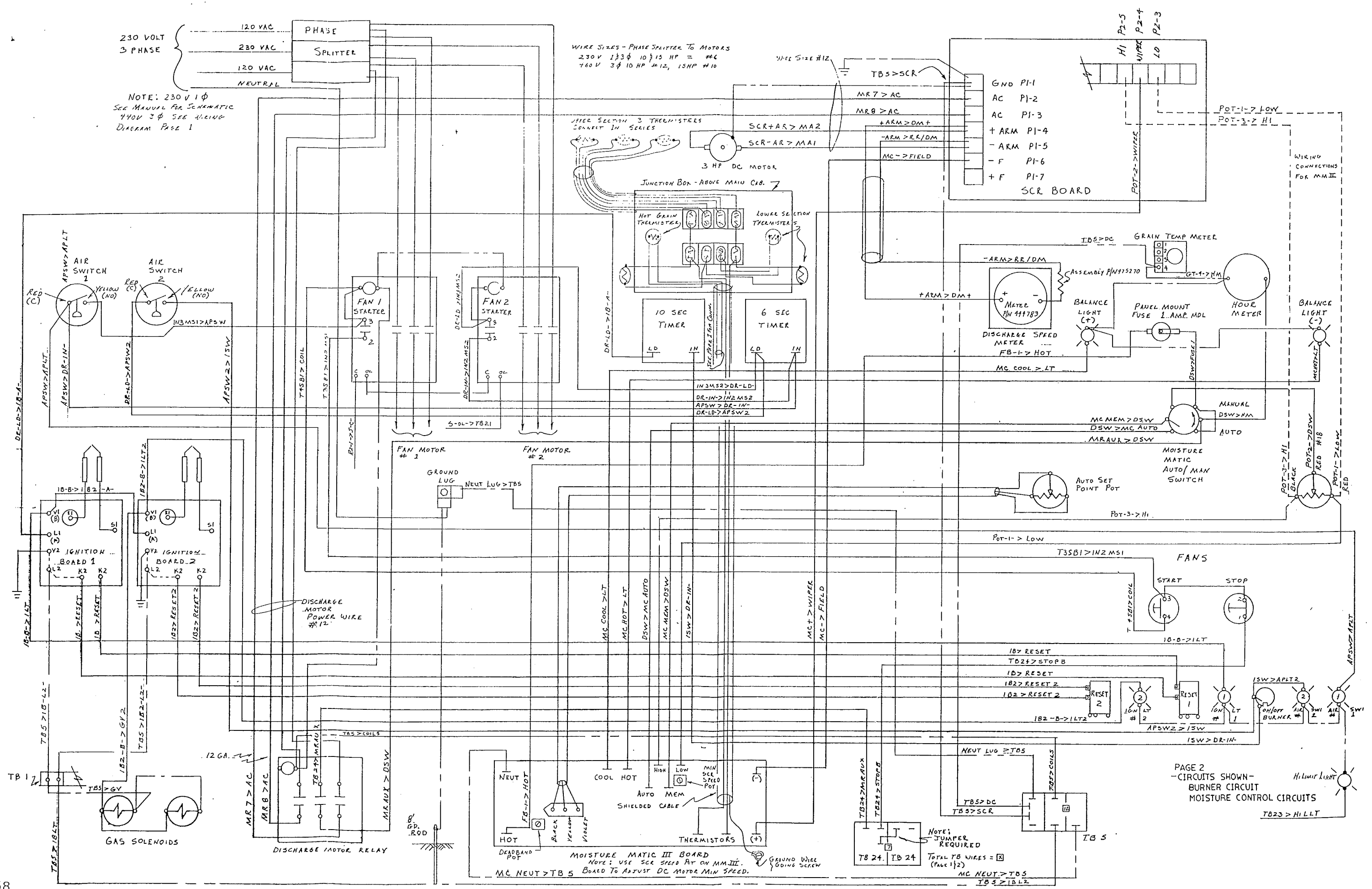
PAGE 1
 - CIRCUITS SHOWN -
 SAFETY CIRCUIT
 GRAIN FILL
 DISCHARGE SYSTEM
 GRAIN TEMP
 METER CIRCUIT

CONTROL CIRCUIT WIRING
 SIZE #18

230 VOLT 3 PHASE
 120 VAC
 230 VAC
 120 VAC
 NEUTRAL

NOTE: 230 V 1 ϕ
 SEE MANUAL FOR SCHEMATIC
 440V 3 ϕ SEE WIRING
 DIAGRAM PAGE 1

WIRE SIZES - PHASE SPLITTER TO MOTORS
 230V 133 ϕ 10 1/2 HP = #6
 460V 3 ϕ 10 HP #12, 15HP #10

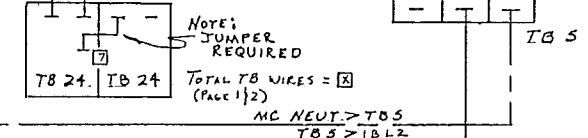
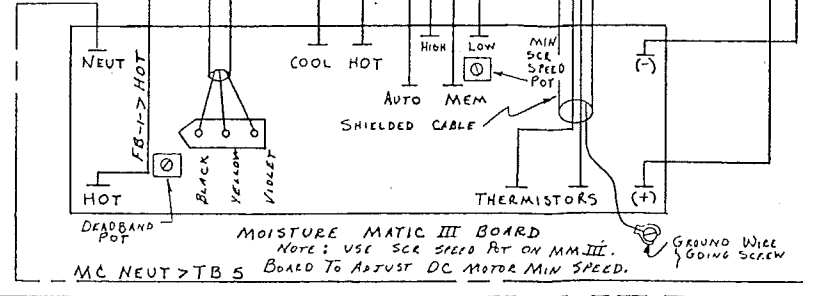
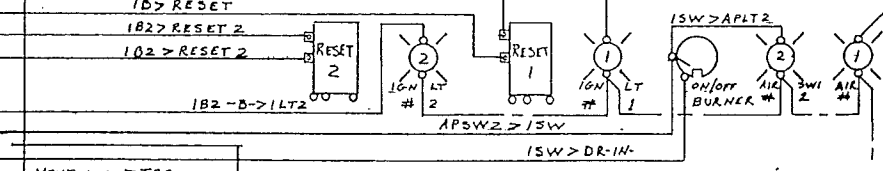
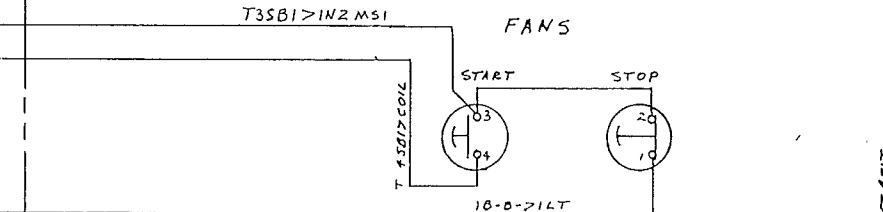
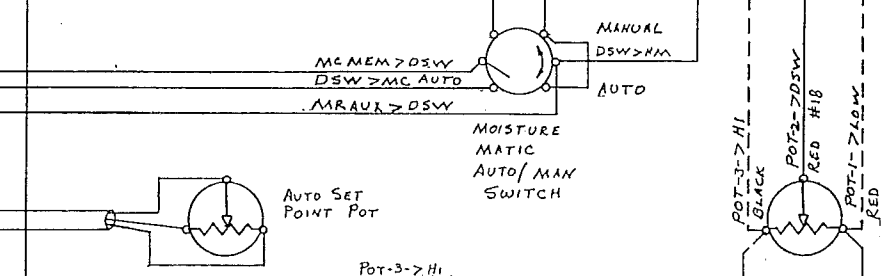
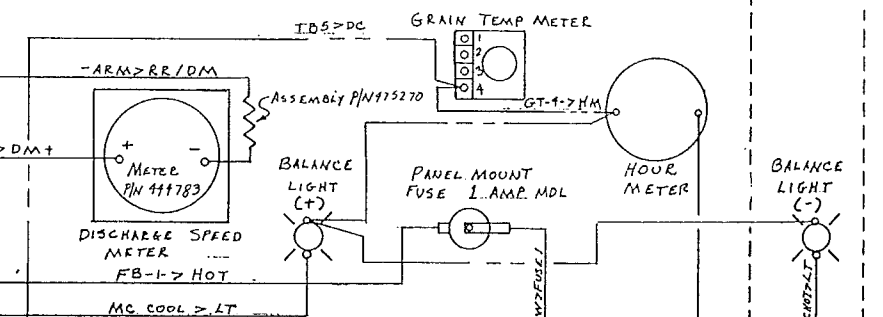
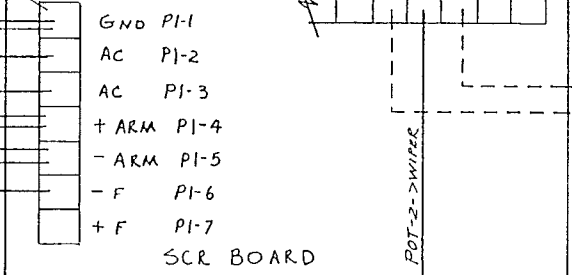


REFER SECTION 3 THERMISTORS
 CONNECT IN SERIES

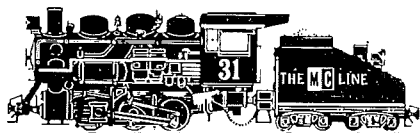
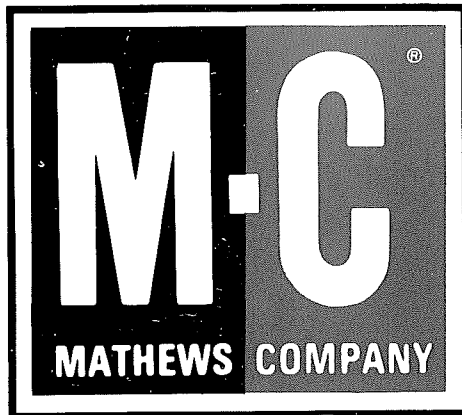
JUNCTION BOX - ABOVE MAIN CAB.

10 SEC
 TIMER

6 SEC
 TIMER



PAGE 2
 -CIRCUITS SHOWN-
 BURNER CIRCUIT
 MOISTURE CONTROL CIRCUITS



Iron Horse Quality