

***COOK/CHILL
HORIZONTAL AGITATOR
STATIONARY & TILTING
MIXER KETTLES***

***TECHNICAL REFERENCE
MANUAL***

By:

***Cleveland Range, LLC
A Division of the Manitowoc Company***

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TABLE OF CONTENTS

DISCLAIMER NOTE:	4
IMPORTANT SERVICE INFORMATION:	4
SPECIFICATION SHEETS:	5
INSTALLATION INSTRUCTIONS:	6
OPERATING INSTRUCTIONS HA-MKDL-XX-CC & HA-MKDL-XX-CC-T:	9
DAILY PRE-START UP	9
PRODUCTION MODE:	11
READY TO PUMP FOOD OUT OF KETTLE:	11
TO COOL AND BLEND PRODUCTS WITHOUT HEAT	12
TO ADD POTABLE WATER TO THE KETTLE	12
OPERATING INSTRUCTIONS HA-MKDL-XX-CCT-RL:	14
DAILY PRE-START UP	14
PRODUCTION MODE	14
CLEANING INSTRUCTIONS:	15
1. Temperature Probe	15
2. Product Valve	16
3. Standard Idler Bearing	17
4. Shaft Seal	18
5. C.I.P. Idler	18
RECOMMENDED PREVENTIVE MAINTENANCE:	19
1. GENERAL KETTLE COMPONENTS:	19
1.1. AUTOMATIC PRODUCT VALVE	19
1.2. AIR PRESSURE	19
1.3. STEAM TRAP	19
1.4. SAFETY VALVE	19
1.5. LEAKS	19
1.6. CONTROL PANELS	19
2. MONTHLY INSPECTIONS	21
MAINTENANCE INSTRUCTIONS:	22
1. Cover Actuator Maintenance	22
2. New Scrapper Blade Installation	23
3. Agitator Removal Instructions for CIP or kettles over 200 gallon capacity	24
4. ASCO Solenoid valve	25
5. Shaft Seal	26
6. Idler Bearing	28
7. Clean-in-Place (CIP) Idler Bearing	29
GENERIC ELECTRICAL SCHEMATICS:	31
Single Remote Control Panel	31
Single Remote Control Panel – (continued)	31
Single Remote Control Panel – (continued)	32
Single Remote Control Panel – (continued)	32
Single Remote Control Panel – (continued)	33
Dual Remote Control Panel	34
Dual Remote Control Panel – (continued)	35
Dual Remote Control Panel – (continued)	35
Dual Remote Control Panel – (continued)	36
Dual Remote Control Panel – (continued)	37

Dual Remote Control Panel – (continued)	38
Dual Remote Control Panel – (continued)	39
Kettle Control Panel “RL” Series	40
Kettle Control Panel “RL” Series – (continued)	41
Kettle Control Panel “RL” Series – (continued)	42
Kettle Control Panel “RL” Series – (continued)	43
Kettle Control Panel “RL” Series – (continued)	44
Kettle Control Panel “RL” Series – (continued)	45
GENERIC PARTS DRAWINGS:	46
Electrical Control Panels - Interior	46
Electrical Control Panels – Exterior	47
Mechanical Components	48
Basic Kettle	48
Hinge Actuator	49
Plumbing	51
Agitator	53
Drive Shaft	54
Product Outlet Valve	55
Product Valve	56
Shaft Seals	57
Potable Water	59

DISCLAIMER NOTE:

THIS TECHNICAL REFERENCE MANUAL HAS BEEN CREATED TO ASSIST SERVICE TECHNICIANS WITH UNDERSTANDING AND TROUBLESHOOTING CLEVELAND RANGES HORIZONTAL AGITATOR STATIONARY AND TILTING MIXER KETTLES. THE MANUAL INCLUDES INFORMATION ON THE FOLLOWING TOPICS:

- KETTLE SPECIFICATIONS
- GENERAL
 - INSTALLATION INSTRUCTION
 - OPERATING INSTRUCTIONS
 - CLEANING INSTRUCTIONS
 - PREVENTIVE MAINTENANCE
- GENERIC ELECTRICAL SCHEMATICS
- GENERIC PARTS DRAWINGS

THE MANUAL IS NOT INTENDED TO REPLACE THE ORIGINAL EQUIPMENT MANUFACTURE (OEM) MANUAL THAT SHIPS TO THE END USER WITH EVERY JOB. THE OEM MANUAL CONTAINS THE SPECIFIC INFORMATION FOR THAT PARTICULAR SERIAL NUMBER PIECE OF EQUIPMENT.

IMPORTANT SERVICE INFORMATION:

A. MODEL NUMBERS AND SERIAL NUMBERS

CLEVELAND RANGE, LLC ASSIGNS TWO PRODUCT IDENTIFICATION NUMBERS TO EACH KETTLE: A MODEL NUMBER AND A SERIAL NUMBER. THE MODEL NUMBER IDENTIFIES THE PRODUCT CHARACTERISTICS. THE SERIAL NUMBER IDENTIFIES THE INDIVIDUAL KETTLE.

B. SERIAL NUMBER RECORD

PLEASE PROVIDE THE MODEL NUMBER AND SERIAL NUMBER WHEN YOU CONTACT CLEVELAND RANGE OR A QUALIFIED CLEVELAND RANGE AUTHORIZED SERVICE REPRESENTATIVE:

SERIAL NUMBER _____
(WRITE THE SERIAL NUMBER OF YOUR KETTLE HERE.)

MODEL NUMBER _____
(WRITE THE MODEL NUMBER OF YOUR KETTLE HERE.)

WHEN CALLING CLEVELAND RANGE FOR TECHNICAL ASSISTANCE OR ORDERING OF SPARE PARTS PLEASE INSURE THAT YOU HAVE AT A MINIMUM THE EQUIPMENT SERIAL NUMBER AND PREFERABLE THE MODEL AND WORK SITE THE PIECE OF EQUIPMENT IS LOCATED. THIS INFORMATION WILL REDUCE THE LEAD TIME IN ANSWERING QUESTIONS AND INSURING THAT THE END-USER RECEIVES THE PROPER INFORMATION AND PARTS.

**ALL SERVICE MUST BE PERFORMED BY A QUALIFIED
CLEVELAND RANGE AUTHORIZED TECHNICIAN.**



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SPECIFICATION SHEETS:

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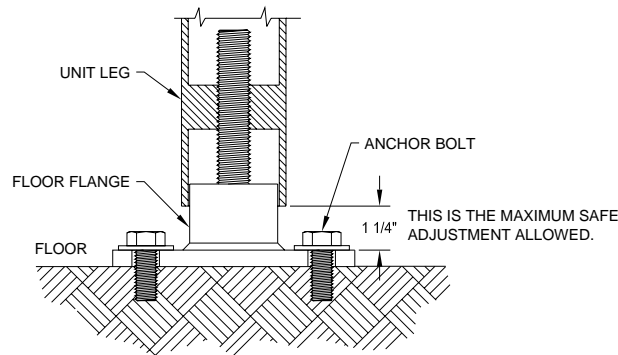
INSTALLATION INSTRUCTIONS:

WARNING - It is IMPERATIVE THAT THE KETTLE BE LEVEL BEFORE BOLTING TO THE FLOOR. THIS WILL PREVENT ANY MISALIGNMENT, TWISTING OR OUT OF ROUNDNESS TO THE KETTLE AND WILL PREVENT DEFLECTION OF THE AGITATOR DURING OPERATION.

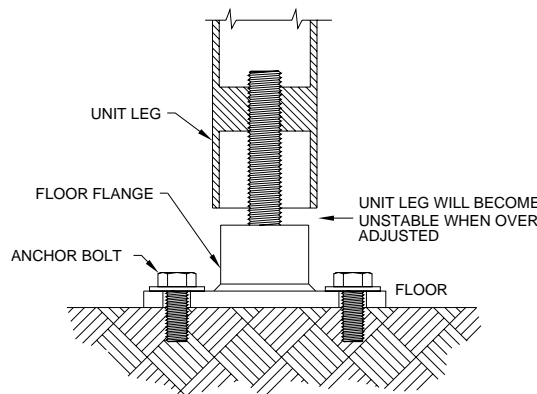
1. WHEN REMOVING THE KETTLE FROM THE CRATE, HANDLE WITH CARE TO PREVENT SCRATCHING OR ANY OTHER DAMAGE TO THE EQUIPMENT.

2. LEVELING INSTRUCTIONS:

- a. FIRST - RAISE THE FLANGE ON THE LEG OR LEGS UNDER THE MOTOR SO THAT ITS SETS FREELY.
- b. SECOND – LOWER THE KETTLE TO THE FLOOR AND START THE LEVELING PROCESS. THE FLOOR FLANGES ONLY ADJUST 1” MAXIMUM, THEREFORE IF ANY GAP EXIST SHIMS MUST BE PLACED BETWEEN THE FLOOR FLANGE AND FLOOR TO PROPERLY LEVEL AND SECURE THE UNIT. REFERENCE PICTURE BELOW.

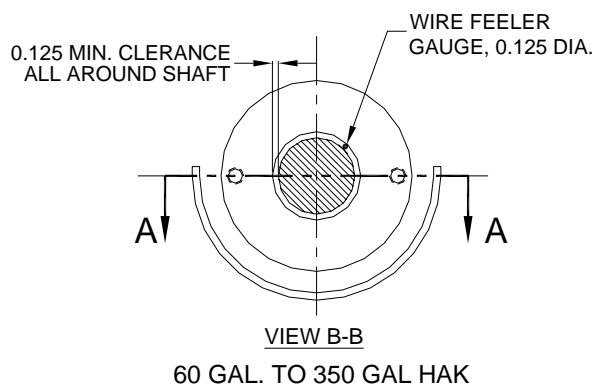
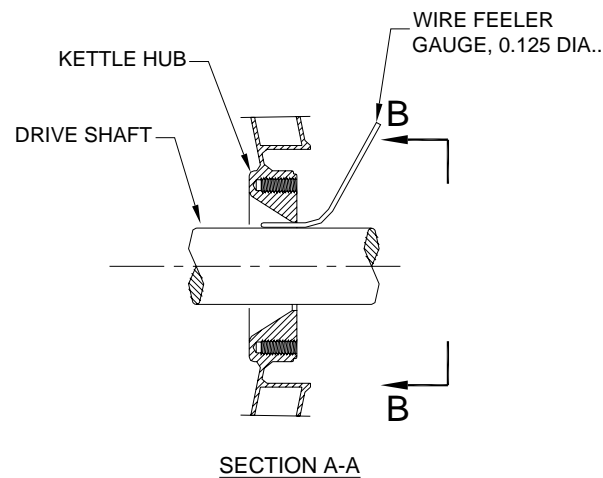


CORRECT ADJUSTMENT
 OF FLOOR FLANGE



INCORRECT ADJUSTMENT
 OF FLOOR FLANGE

- c. **THIRD – (STATIONARY KETTLES ONLY!) LOWER THE FLANGE OR FLANGES UNDER THE MOTOR CHANNEL SUPPORT. TAKE CAUTION NOT TO OVER ADJUST THESE FLANGES. OVER ADJUSTMENT WILL CAUSE MISALIGNMENT AND POSSIBLE DAMAGE THE AGITATOR DRIVE SHAFT AND HUB.**
 - d. **FORTH – ONCE ALL FLANGES ARE SET AND THE KETTLE IS LEVEL, THE UNIT IS READY TO BE BOLTED TO THE FLOOR.**
3. **NEXT YOU MUST CHECK THE ALIGNMENT OF THE DRIVE SHAFT FOR A UNIFORM CLEARANCE BETWEEN THE HUB AND SHAFT. IN ORDER TO CHECK FOR CLEARANCE YOU MUST REMOVE THE SEAL COVER PLATE AND PULL THE SEAL BACK. CHECK THE DISTANCE FOR CLEARANCE BY USING A WIRE FEELER GAUGE.**

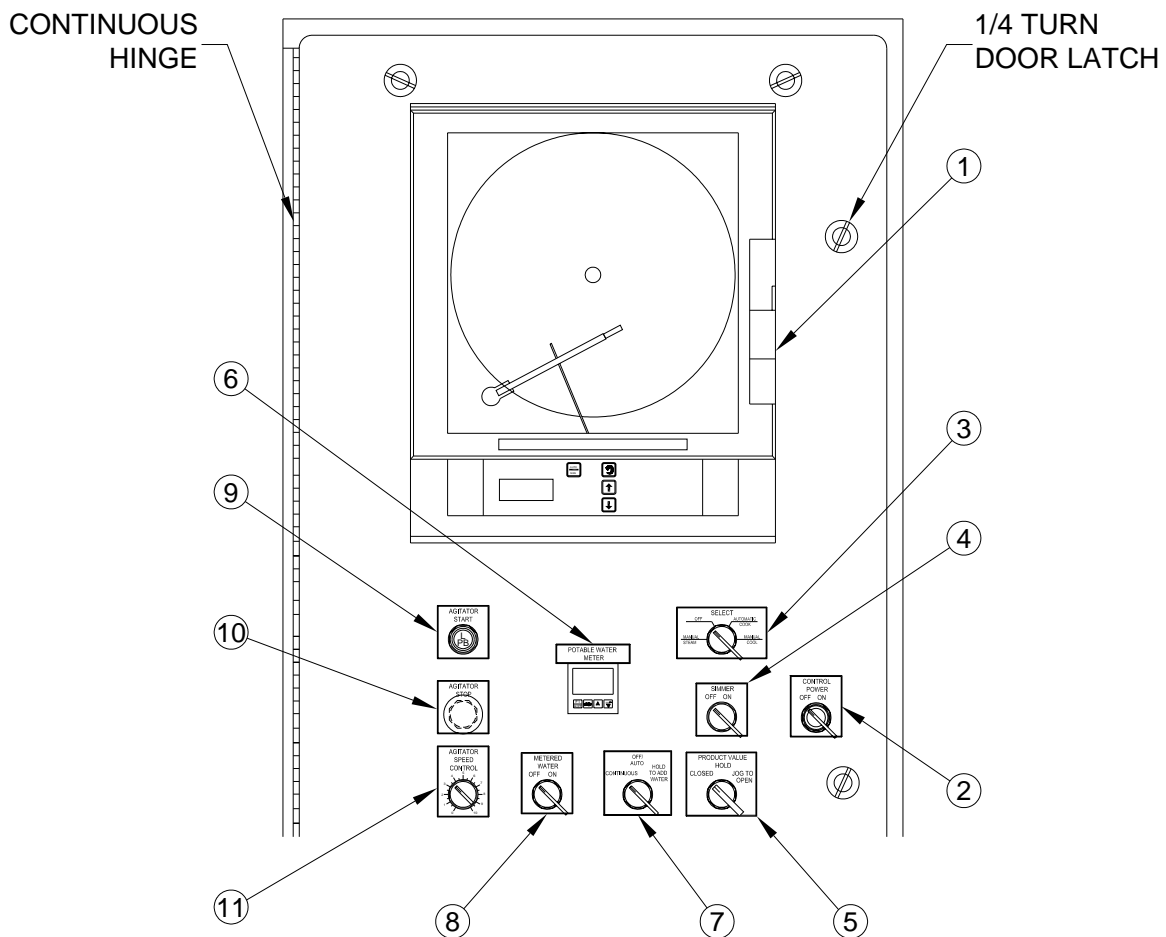


4. IF ADJUSTMENT IS REQUIRED FOR SIDE DIRECTION, LOOSEN THE MOTOR BOLTS, CENTER THE SHAFT AND RETIGHTEN. IF VERTICAL ALIGNMENT IS NEEDED, LOOSEN THE MOTOR BOLTS AND ADD A SHIM TO RAISE OR REMOVE AN EXISTING SHIM TO LOWER. RETIGHTEN THE MOTOR BOLTS. WHEN THIS IS COMPLETE CHECK TO SEE THAT THE AGITATOR SHAFT COUPLING SLIDES FREELY FOR EASY REMOVAL OF THE AGITATOR.

OPERATING INSTRUCTIONS HA-MKDL-XX-CC & HA-MKDL-XX-CC-T:

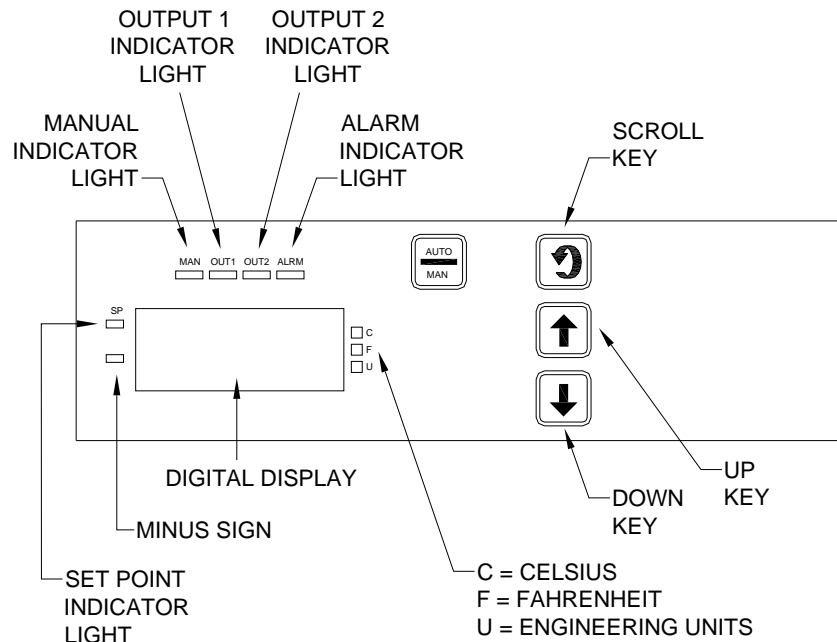
DAILY PRE-START UP

1. The operator must check the kettle, springs and scraper blades for proper installation before turning kettle on.
2. Make sure the connecting coupling from the drive shaft to the agitator is properly installed with the quick release pin fully engaged.
3. Label and place clean chart on chart recorder, if applicable.
4. If the above cannot be achieved, call your maintenance supervisor or service contractor before proceeding.



YOUR KETTLE HAS BEEN EQUIPPED WITH A CONTROL PANEL THAT HAS SOME OR ALL OF THE FOLLOWING FUNCTIONS:

1. 24 HOUR CIRCULAR CHART RECORDER
2. CONTROL POWER SWITCH, OFF-ON, RED ILLUMINATED
3. SELECT SWITCH, MANUAL STEAM-OFF-AUTOMATIC COOK-MANUAL COOL
4. SIMMER SWITCH, OFF-ON
5. PRODUCT VALVE SWITCH, CLOSED-HOLD-JOG TO OPEN
6. POTABLE WATER METER, DISPLAY AND SET POINT
7. SWITCH, CONTINUOUS-OFF/AUTO-HOLD TO ADD WATER
8. METERED WATER SWITCH, OFF-ON
9. AGITATOR START PUSH BUTTON, GREEN ILLUMINATED
10. AGITATOR STOP PUSH BUTTON, RED MUSHROOM
11. AGITATOR SPEED CONTROL DIAL



PARTLOW 8000 CONTROLS

PRODUCTION MODE:

1. To operate the system the CONTROL POWER switch, #2, on the control panel must be turned on. The temperature control computer will run through its diagnostics for about one minute.
2. To set the Temperature Set Point on the Partlow 8000, first press either the UP KEY or DOWN KEY once. This will illuminate the indicator light under SP to indicate the Temperature Set Point is being displayed. To change the Temperature Set Point press and hold the UP KEY to raise the set point or the DOWN KEY to lower the set point to the desired temperature.
3. To start the cooking cycle, turn the SELECT switch #3 to AUTOMATIC COOK. The steam will come on to heat the kettle and its contents until the set point temperature is reached. The kettle will cycle off and on to maintain the set point temperature until stopped.
4. To start the agitator, press the AGITATOR START button #9. The button will be illuminated green to indicate the agitator is on.
5. To stop the agitator, press the red AGITATOR STOP button #10.
6. To change the speed of the agitator, turn the AGITATOR SPEED CONTROL dial #11 clockwise to increase the speed or counter-clockwise to decrease the speed. As a safety precaution, always turn the speed to "0" when kettle is not in use and before using.
7. To add ingredients to the kettle, push the red AGITATOR STOP button #10. Steam heating will continue in the jacket. The agitator must be started again as soon as possible or product might burn on the surface of the kettle.
8. MANUAL STEAM is an override on the SELECT switch #3 that allows steam into the jacket with no temperature control.
9. The SIMMER switch #4 allows the kettle to maintain the Set Point Temperature by slowly introducing steam into the jacket.

READY TO PUMP FOOD OUT OF KETTLE:

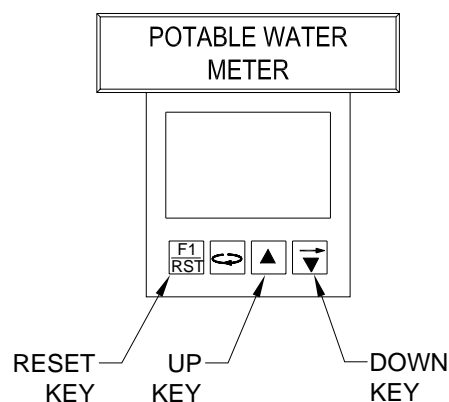
1. Foods must be cooked to a minimum of 165°F to kill dangerous pathogens and must be at least this temperature when its casings are filled. Set temperature on the Partlow 8000 to at least 165°F before pumping.

2. Pump product through MFS to heat the hoses and MFS parts until at least 165°F can be maintained when product exits the MFS. This MFS warming product may be poured back into the kettle for reheated before pumping.
3. Close the Kettle cover to maintain the temperature and a moist atmosphere in the kettle which will make cleaning easier.
4. Empty the kettle as quickly as possible to prevent over-cooking of product and to maintain quality, consistency and temperature.
5. Temperature may be turned OFF or placed on SIMMER when kettle product level reaches the steam jacketed area to reduce chances of burning while pumping.

TO COOL AND BLEND PRODUCTS WITHOUT HEAT

1. Turn the CONTROL POWER switch #2 to ON.
2. Turn the SELECT switch #3 to MANUAL COOL. This will start the flow of cold water from the plant into the jacket of the kettle. When in this mode the Partlow 8000 will read the temperature of the product only and serve no other function.
3. When cooking a product that is too hot, the MANUAL COOL setting can be used. Turn on the SELECT switch #3 to MANUAL COOL. When sufficient cooling has been achieved, turn the SELECT switch #3 back to AUTOMATIC COOK. The kettle jacket will drain and steam will automatically come on to continue cooking if the set point on the Partlow 8000 has not been lowered.

TO ADD POTABLE WATER TO THE KETTLE



1. Turn the CONTROL POWER switch #2 to ON.
2. Turn the Faucet knob until it is completely open.
3. Set the gallons of water desired by changing the Set Point on the POTABLE WATER METER #6. To change the Set Point press and hold the UP KEY to raise the set point or the DOWN KEY to lower the set point to the desired volume.
4. Turn switch #7 to OFF/AUTO then turn the METERED WATER switch #8 to ON. Water will begin filling the desired number of gallons and stop automatically. The amount of water that has been metered can be read above the set point on the POTABLE WATER METER.
5. Additional water may be metered by pressing the RESET KEY. This will add the volume of water indicated by the SET POINT. The additional water will accumulate on the POTABLE WATER METER as long as it is not turned off.
6. Additional water may be added by turning Switch #7 to CONTINUOUS or HOLD TO ADD WATER. This will add water to the kettle that will accumulate on the POTABLE WATER METER as long as it is not turned off.

OPERATING INSTRUCTIONS HA-MKDL-XX-CCT-RL:**DAILY PRE-START UP**

1. The operator must check the kettle, springs and scraper blades for proper installation before turning kettle on.
2. Make sure the connecting coupling from the drive shaft to the agitator is properly installed with the quick release pin fully engaged.

PRODUCTION MODE

1. REFER TO MANUAL CALLED ALSO LOCATED ON THE CD:

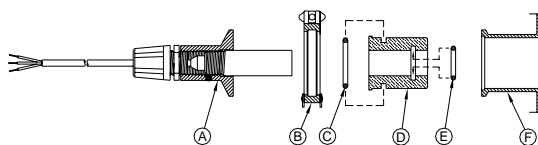
- a. Cleveland Range Model HA-MKDL-CCT-RL
Cook/Chill Horizontal Tilting Mixer

Automated Control System
Operating Manual

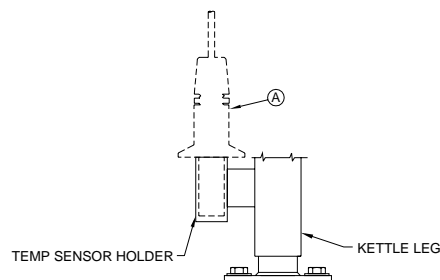
CLEANING INSTRUCTIONS:

1. Temperature Probe

- Disassemble
 - Insure there is no product in the kettle and the hazardous energy from the kettle has been removed.
 - Remove Clamp “B” and slide Temperature Probe Assembly “A” out of the Seal Holder “D”.
 - Place Probe Assembly “A” on holder attached to kettle leg or frame.
 - Slide Seal holder “D” out of the Ferrule “F.”
 - Remove Inner & Outer O-Rings “C” and “E.”
 - Clean all parts thoroughly.
- Reassemble
 - Lubricate O-Rings with Chesterton 622 USDA approved or equivalent grease.
 - Install Inner & Outer O-Rings “C” and “E” into Seal Holder “D.”
 - Install Seal Holder “D” into Ferrule “F.”
 - Slide Temperature Probe Assembly “A” into Seal Holder “D.”
 - Replace Clamp “B”.



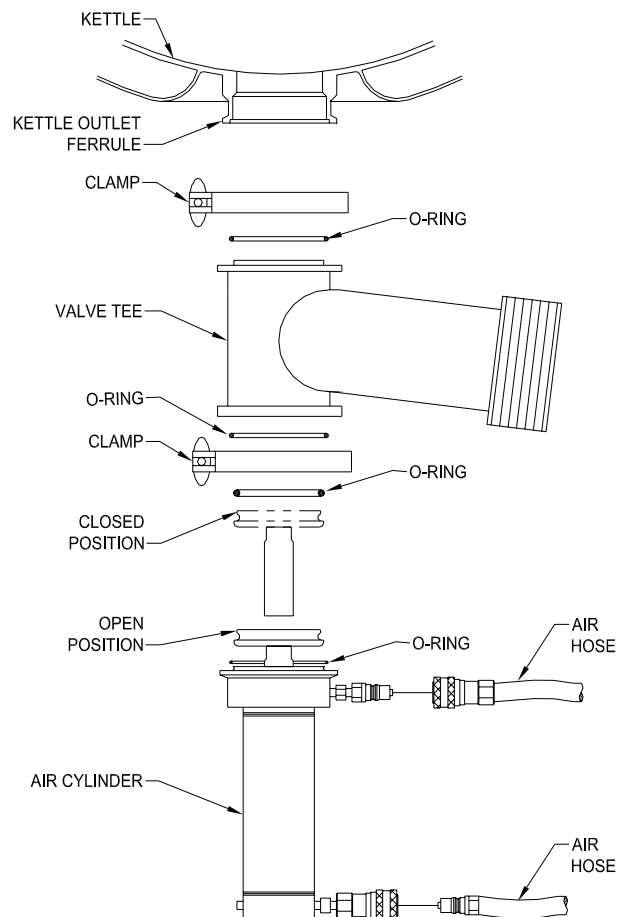
EXPLODED DETAIL



WARNING:
 FAILURE TO PLACE PROBE ASSEMBLY
 IN HOLDER COULD DAMAGE PROBE.

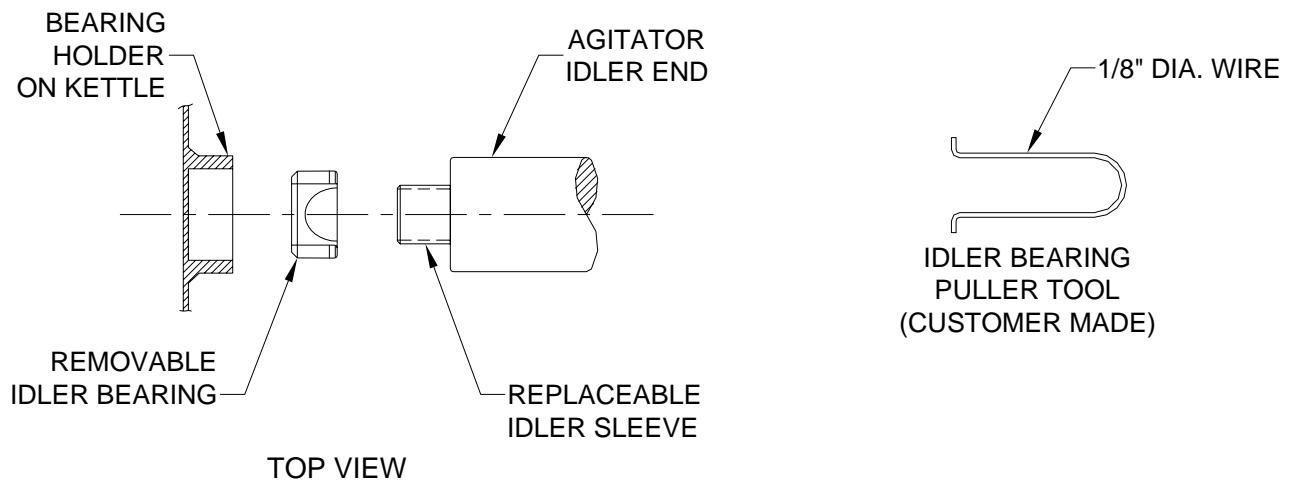
2. Product Valve

- Disassemble
 - Open Product Valve.
 - Disconnect Air Hoses.
 - Remove Air Cylinder.
 - Remove Valve Tee.
 - Remove All O-Rings.
- Cleaning
 - Clean Air Cylinder, Do Not Submerge In Water. Wipe Clean And Sanitize.
 - Clean And Sanitize Tee And O-Rings.
- Reassemble
 - Grease and Reinstall O-Rings.
 - Reinstall Tee To Kettle Outlet.
 - Reinstall Air Cylinder To Bottom Of Tee.
 - Reconnect Air Hoses.



3. Standard Idler Bearing

- Disassemble
 - Remove Agitator.
 - Remove Idler Bearing.
- Cleaning
 - Clean, Sanitize, and Grease the Idler Bearing.
 - Clean inside of the Idler Holder.
- Reassemble
 - Reinstall Idler Bearing in Bearing Holder.
 - Reinstall Agitator.

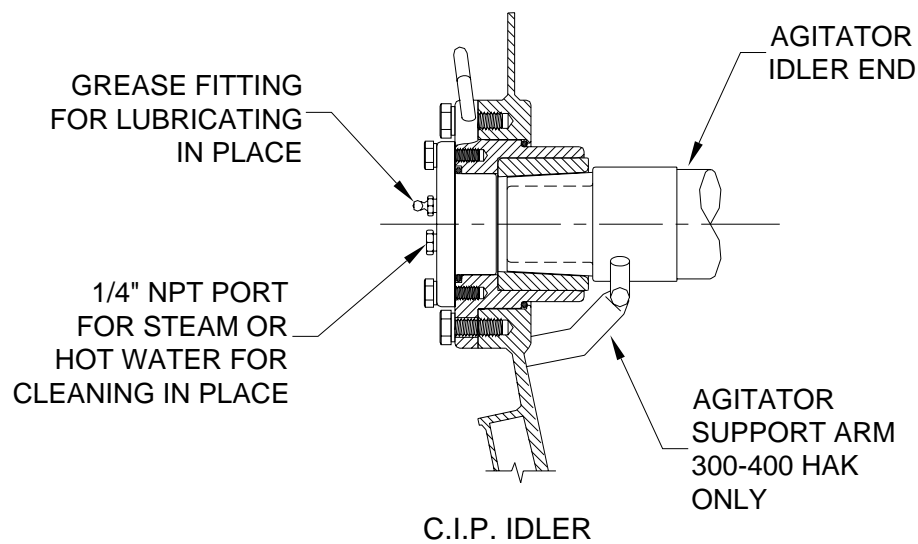


4. Shaft Seal

- USING A GREASE GUN FILLED WITH FOOD GRADE GREASE PUMP THE COVER PLATE WITH GREASE UNTIL IT CAN BE SEEN COMING THROUGH SEALING AREA ON THE INTERIOR OF THE KETTLE.
- WIPE THE EXCESSIVE GREASE FROM THE INSIDE OF THE KETTLE.

5. C.I.P. Idler

- SET THE AGITATOR SPEED TO ITS LOWEST SETTING AND CLOSE THE KETTLE COVER.
- FLUSH OUT THE C.I.P. IDLER WITH STEAM OR HOT WATER THRU THE 1/4" NPT PORT FOR 5-10 MINUTES.
- STOP AGITATOR, OPEN COVER AND RINSE INSIDE OF KETTLE WITH HOT WATER.
- USING A GREASE GUN FILLED WITH FOOD GRADE GREASE PUMP THE C.I.P. IDLER WITH GREASE THRU THE GREASE FITTING UNTIL IT CAN BE SEEN COMING THROUGH BEARING AREA ON THE INTERIOR OF THE KETTLE.
- WIPE THE EXCESSIVE GREASE FROM THE INSIDE OF THE KETTLE



RECOMMENDED PREVENTIVE MAINTENANCE:**1. GENERAL KETTLE COMPONENTS:****1.1. AUTOMATIC PRODUCT VALVE****1.1.1. WEEKLY**

- Check Air Collector Regulator For Moisture, Dirt, And Proper Pressure
- Check All O-Rings and Seals and Gaskets
- Check Valve Operation
- Lubricate With Light Oil When Needed
- Check Air Hose For Leaks Or Signs Of Wear

1.2. AIR PRESSURE**1.2.1. WEEKLY**

- 45 Psi Dump Valve - 15 Psi For Jacket Purge
- Air Must Be Clean And Dry
- Check All Air Lines & Fittings For Leaks

1.3. STEAM TRAP**1.3.1. MONTHLY**

- Check Proper Operation

1.4. SAFETY VALVE**1.4.1. WEEKLY**

- Check For Leakage
- Steam Pressure 65 Psi. Max.
- Safety Set At 100 Psi.

1.5. LEAKS**1.5.1. WEEKLY**

- Check For Leaks Of Any Type (Water - Steam - Hydraulic) **WARNING - Leaks Take Away From Performance And Will Lead To Costly Repair .**

1.6. CONTROL PANELS**1.6.1. WEEKLY**

- Signs Of Water Damage
- Check Operation Of All Controls

- Water Meter Operation
- Temp Read Outs
- Temp Charting
- Temp Controlling
- RTD Adjustments
- Mixer Operation & Speed Control
- Simmer Operation
- Product Valve Operation

2. MONTHLY INSPECTIONS

- **MAKE SURE KETTLE IS BOLTED SECURELY TO FLOOR, BOLTS MAY LOOSEN AFTER TIME.**
- **INSPECT THE FOLLOWING:**
 - Incoming power and amp draws compare to name plate
 - Incoming air pressure (line 1cfm @ 90psi.)
 - Air pressure regulator/collector for draw off valve (45psi.)
 - Air pressure regulator for kettle jacket purge (15psi.)
 - Air collector regulator for moister, dirt (Must be clean & dry)
 - All o-rings and shaft seal for wear and proper lubrication
 - The installation & Operation of the 3" Flush Piston Draw Off Valve
 - All air hoses for leaks and signs of wear
 - Incoming steam pressure (3/4"line / 320PPM / 65psi.)
 - The steam trap for proper operation (clean or replace if needed)
 - The operation of safety valve 100psi. Rating
 - Steam leaks (Inlets and Returns)
 - The proper clearance where drive shaft penetrates the kettle
 - Make sure temperature sensor is properly installed
 - Chill water supply and return lines for leaks.
 - The control panel for any signs of corrosion moisture
 - The complete operation of all kettle controls
 - The mixer operation (Speed control, Emergency stop)
 - The idler bearing and idler busing for wear
 - Water meter operation
 - Make sure the Partlow chart recorder/controller is controlling, reading, and charting correctly
 - The cooking operation in both automatic and in manual modes
 - The operation of Simmer mode
 - The operation of the Manual Cool mode
 - Kettle cover hinge tension and fasteners

MAINTENANCE INSTRUCTIONS:

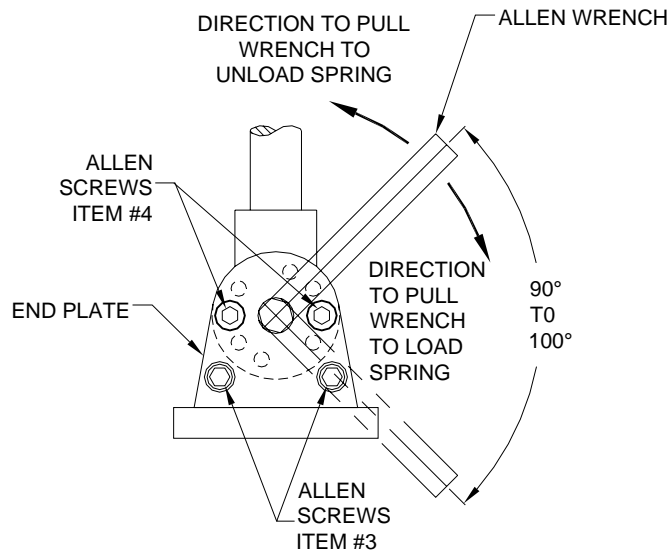
1. Cover Actuator Maintenance

PROCEDURE TO TIGHTEN SPRING IN LID ACTUATOR

1. Make sure the cover is in the up position.
2. Hold tension on the allen wrench, remove the allen screws #4.
3. Pull down on allen wrench until the 2nd set of holes appears in line. Reinstall allen screws. Note the allen wrench should travel 1/4 turn (90°-100°).

PROCEDURE FOR REPLACING SPRING IN LID ACTUATOR

1. Make sure the cover is in the up position and properly supported before removing any allen screws.
2. Using that allen wrench hold tension on the spring when removing the allen screws item #4 using the allen wrench unload the spring.
3. Carefully remove the allen screws #3 and remove the end plate.
4. Remove the old spring and centering rod.
5. Grease new spring and centering rod before installing them into housing, note use Chesterton 622 USDA approved or equal grease.
6. Replace the end plate and replace the allen screws item #3.
7. Using the allen wrench tighten the spring and align the holes.
8. Replace the allen screws item #4.



2. New Scrapper Blade Installation

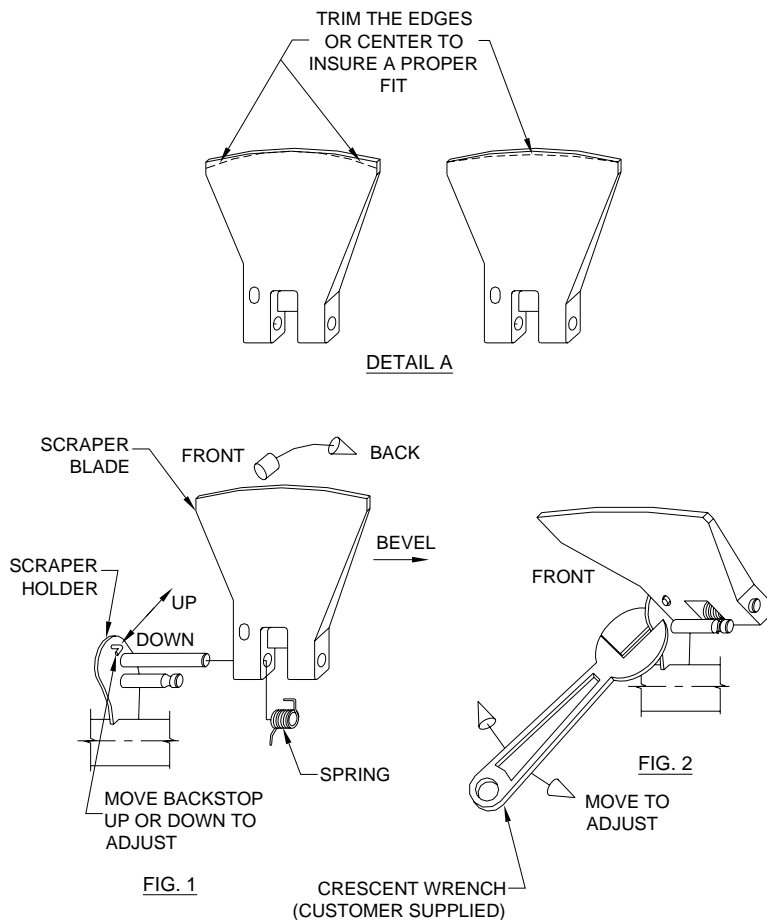
When installing a new Scrapper Blade there may be some adjustments required to make it lay flat to follow the contour of the kettle. If the blade does not fit, you may have to grind either the two edges of the blade or the center of the blade (per detail a).

Note #1:

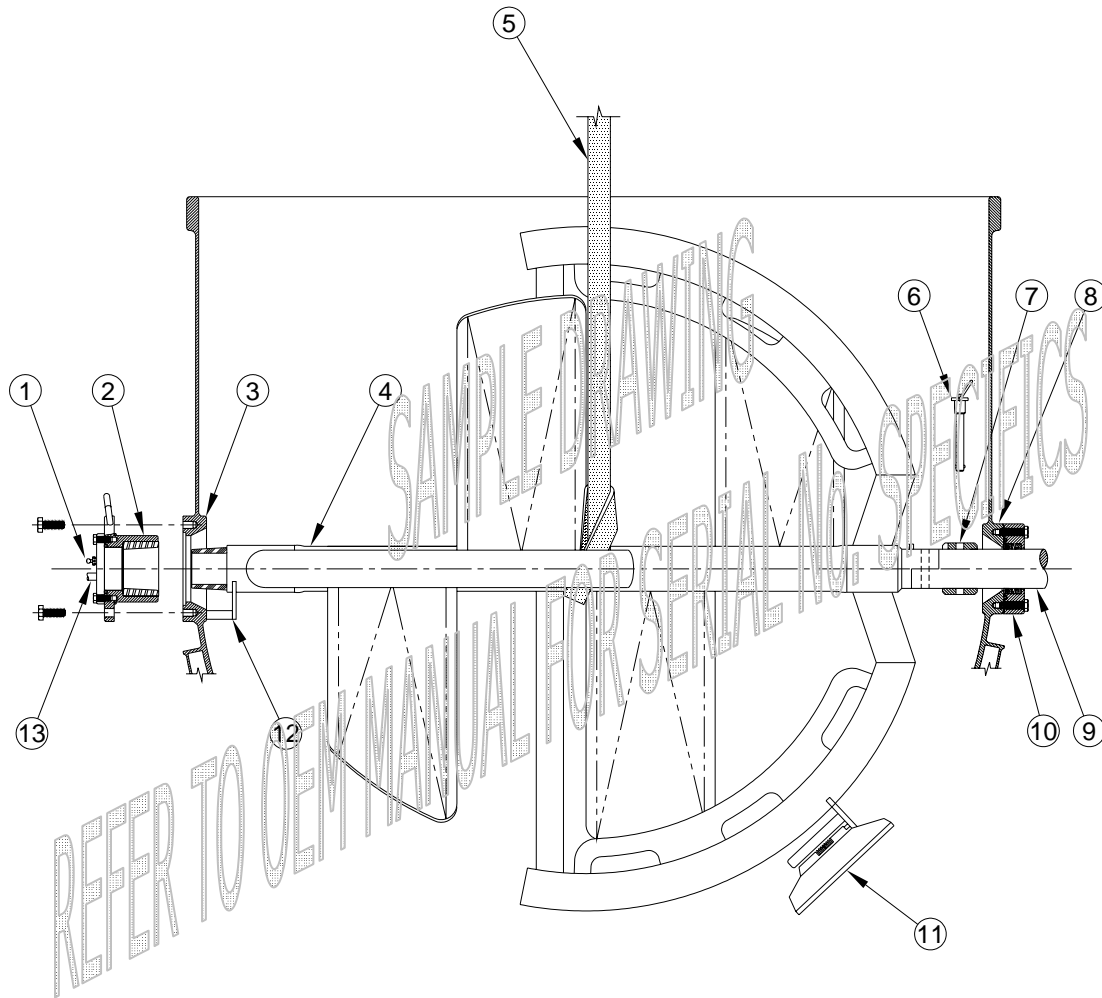
When there is too much or too little pressure on the scraper blade, bend the backstop down to decrease the pressure or bend it up to increase the pressure on the blade when scraping the kettle surface (per fig. 1).

Note #2:

If only one corner of the scraper blade is touching the kettle surface, use a crescent wrench and slightly twist the scraper holder so the entire blade scrapes the kettle wall with even pressure (per fig. 2).

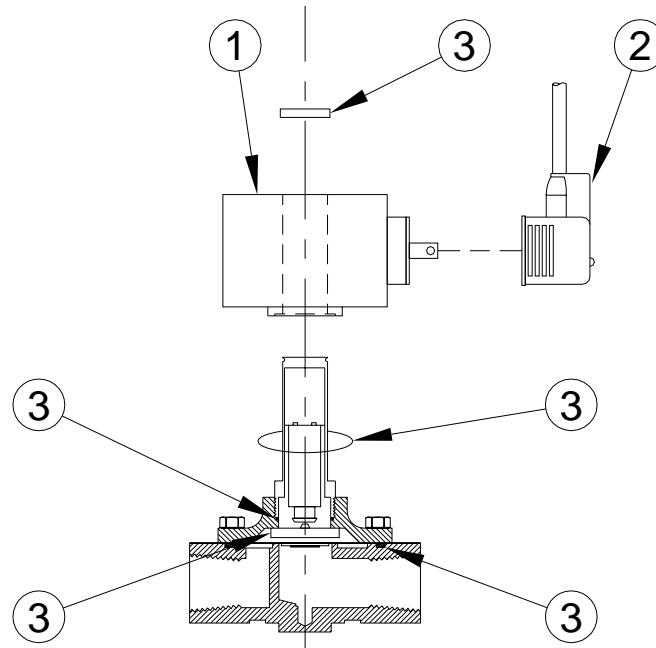


3. Agitator Removal Instructions for CIP or kettles over 200 gallon capacity.



- | | |
|--|--|
| <ol style="list-style-type: none"> 1. GREASE FITTING 2. IDLER BEARING HOLDER ASSEMBLY 3. IDLER BEARING HUB 4. AGITATOR ASSEMBLY 5. LIFTING STRAP 6. QUICK RELEASE PIN 7. SHAFT COUPLING (SHOWN MOVED TO ALLOW AGITATOR REMOVAL) | <ol style="list-style-type: none"> 8. DRIVE SHAFT HUB 9. DRIVE SHAFT 10. DRIVE SHAFT SEAL RETAINER ASSEMBLY 11. SCRAPER BLADE ASSEMBLY (ONLY ONE SHOWN) 12. AGITATOR REST 13. 1/4" NPT FEMALE PORT FOR STEAM OR HOT WATER CLEANING |
|--|--|

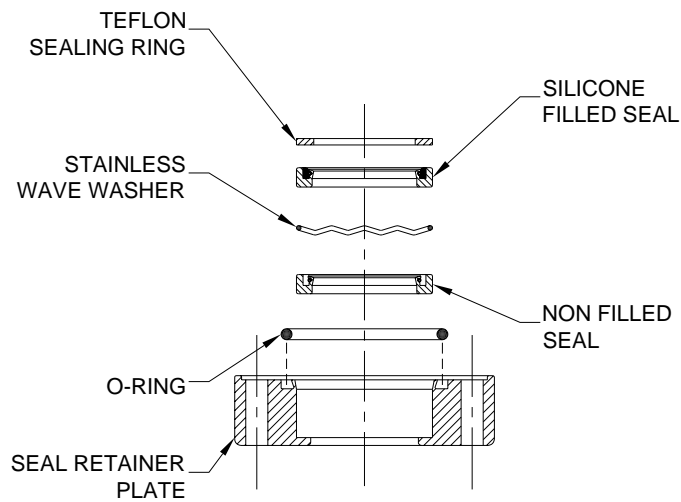
4. ASCO Solenoid valve



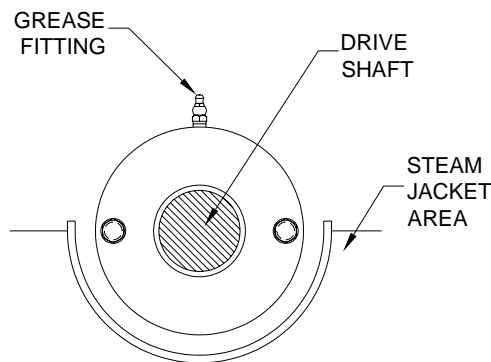
BASIC ASCO SOLENOID CONSTRUCTION

1. COIL
2. DIN CONNECTOR
3. REPAIR KIT PARTS:
 - a. ALL INTERNAL GASKETS, SPRINGS, DIAPHRAGM, COIL POST, PLUNGER & CAP

5. Shaft Seal



EXPLODED VIEW



INSTALLED VIEW

1. CAREFULLY REMOVE O-RING, BOTH SEALS, STAINLESS WAVE WASHER, AND TEFLON SEALING RING.
2. WASH AND INSPECT ALL PIECES, DISCARD AND REPLACE ANY PARTS THAT SHOW SIGNS OF WEAR OR DAMAGE.
3. CLEAN AND THOROUGHLY DRY THE COVER PLATE.
4. TAKING THE NON FILLED SEAL, PLACE IT CUP UP INTO THE OPENING.
5. USING A NON METALLIC OBJECT EVENLY PUSH THE SEAL INTO THE OPENING UNTIL IT IS FIRMLY SEATED IN THE BOTTOM OF THE COVER PLATE.
6. PACK THE SEAL WITH FOOD GRADE GREASE.
7. INSTALL THE STAINLESS WAVE WASHER, PACKING GREASE AROUND IT.
8. TAKING THE SILICONE FILLED SEAL, PLACE IT FACE UP IN THE OPENING IN THE COVER PLATE.

9. **TAKING THE TEFLON SEALING RING LAY IT ON TOP OF THE SEAL. AGAIN USING A NON METALLIC OBJECT PRESS THE SEAL AND RING IN UNTIL THE TEFLON RING IS EVEN WITH THE INNER FACE OF THE COVER PLATE.**
10. **GREASE AND PUSH THE O-RING INTO IT'S GROOVE**
11. **SLIDING THE COMPLETED COVER PLATE ASSEMBLY ON THE DRIVE SHAFT. MAKE SURE THE TEFLON SEALING RING REMAINS IN PLACE.**
12. **MAKE SURE THE GREASE FITTING IS FACING TOWARDS THE TOP OF THE KETTLE REINSTALL THE 2 RETAINING BOLTS.**
13. **USING A GREASE GUN FILLED WITH FOOD GRADE GREASE PUMP THE COVER PLATE WITH GREASE UNTIL IT CAN BE SEEN COMING THROUGH SEALING AREA ON THE INTERIOR OF THE KETTLE.**
14. **WIPE THE EXCESSIVE GREASE FROM THE INSIDE OF THE KETTLE. THE COVER PLATE IS NOW READY FOR USE.**

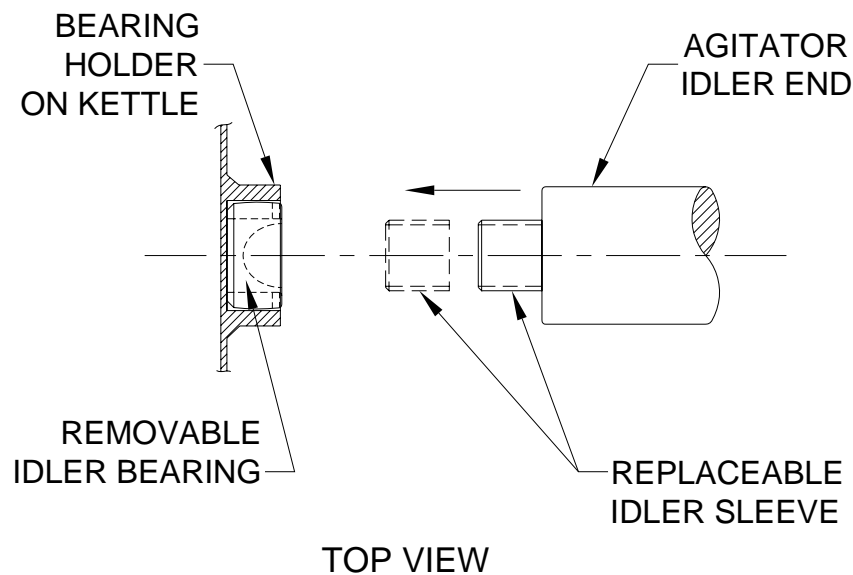
6. Idler Bearing

To remove the Idler Sleeve:

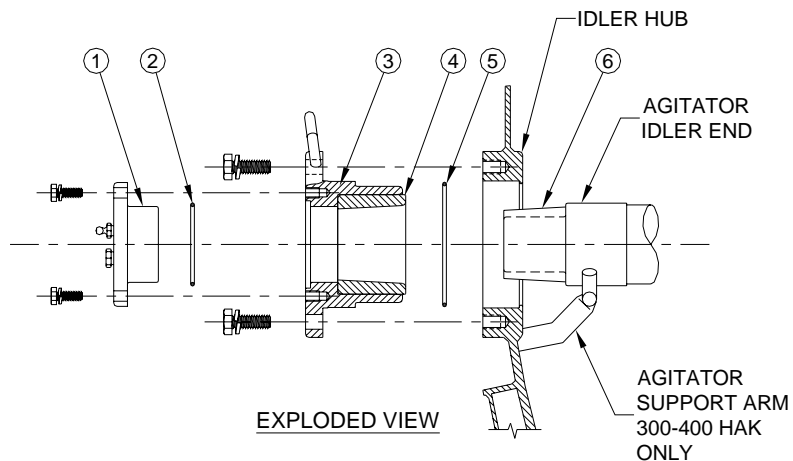
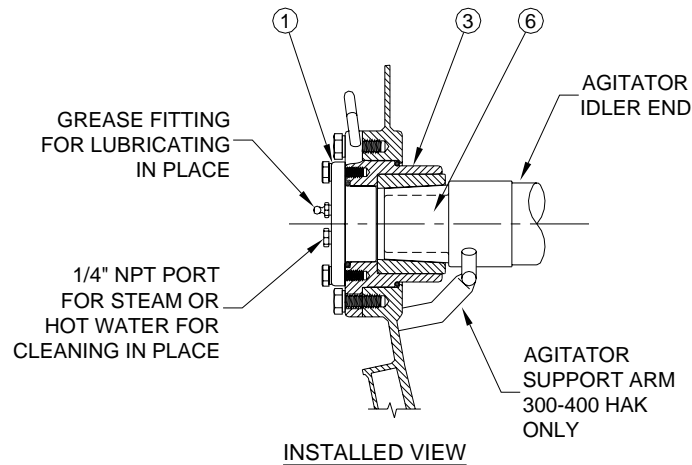
1. Remove the Agitator from the Kettle..
2. Place Agitator in a level surface and secure in place. Take care not to damage the Agitator.
3. The Idler Sleeve must be quickly and evenly heated with a torch.
4. Using large pliers and wearing protective gloves slide the Idler Sleeve off the Agitator Pin.

TO REPLACE THE IDLER SLEEVE.

1. MAKE SURE THE AGITATOR PIN IS FREE OF SCRATCHES, DENTS, DIRT OR ANYTHING ELSE THAT MIGHT PREVENT THE IDLER SLEEVE FROM SLIDING ON EVENLY.
2. EVENLY HEAT THE IDLER SLEEVE WITH A TORCH ON A FIRE PROOF SURFACE.
3. Using large pliers and wearing protective gloves slide the Idler Sleeve on to the Agitator Pin. Be careful not to tilt the Idler Sleeve as this will cause it to jam on the Agitator Pin early.
4. MAKE SURE THE IDLER SLEEVE IS COMPLETELY ON THE AGITATOR PIN AND LET THE IDLER SLEEVE COOL BEFORE REPLACING THE AGITATOR.



7. Clean-in-Place (CIP) Idler Bearing



1. Idler Bearing Cap
2. O-ring, Idler Bearing Cap
3. Idler Bearing Holder
4. Replaceable Idler Bearing
5. O-ring, Idler Bearing Holder
6. Replaceable Idler Sleeve

Replacing C.I.P. Idler Bearing and Sleeve.

To remove the Idler Bearing:

1. Support the Agitator so the Idler Bearing Holder #3 can be removed.
2. Unbolt the Idler Bearing Holder #3 and remove from the kettle.
3. For 300-400 gal. Kettles lower the agitator and allow it rest on the Support Arm.
4. UNBOLT AND REMOVE THE IDLER BEARING CAP #1 AND O-RING #2.
5. THE IDLER BEARING #4 CAN BE PRESSED OUT OF THE BEARING HOLDER #3 THRU THE HOLE FOR THE IDLER BEARING CAP #1.
6. THE IDLER BEARING MUST BE PRESSED OUT EVENLT TO AVOID BINDING.

TO REPLACE THE IDLER BEARING.

1. MAKE SURE THE IDLER BEARING HOLDER INSIDE IS FREE OF SCRATCHES, DENTS, DIRT OR ANYTHING ELSE THAT MIGHT PREVENT THE IDLER BEARING FROM PRESSING IN EVENLY.
2. THE IDLER BEARING CAN BE PRESSED IN TO THE BEARING HOLDER WITHOUT HEATING.
3. THE IDLER BEARING MUST BE PRESSED IN EVENLY TO AVOID BINDING.
4. THE IDLER BEARING MUST BE FULLY INSERTED IN TO THE BEARING HOLDER OR THE AGITATOR MAY NOT FIT IN KETTLE.

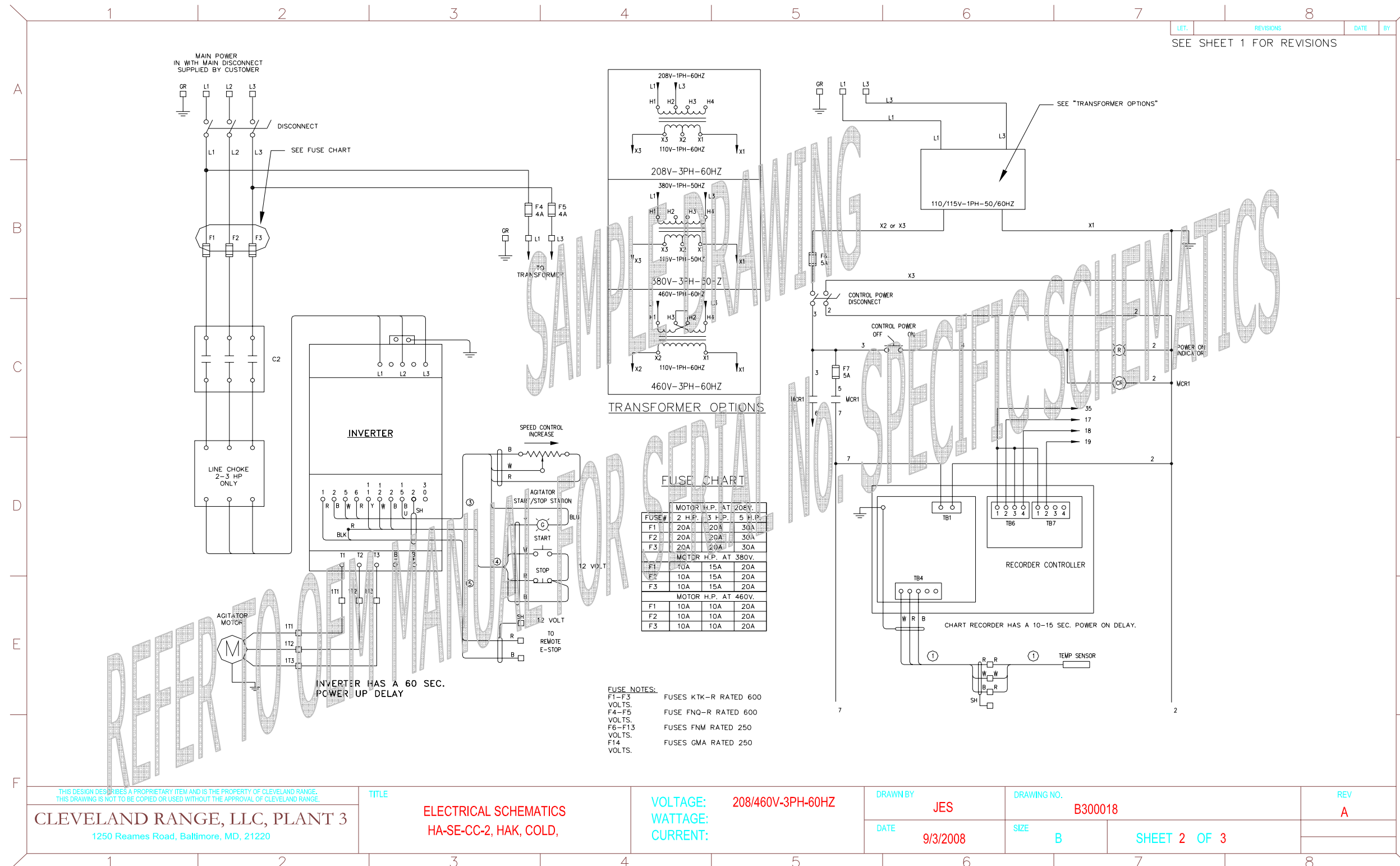
To remove the Idler Sleeve:

1. Remove the Agitator from the Kettle..
2. Place Agitator in a level surface and secure in place. Take care not to damage the Agitator.
3. The Idler Sleeve must be quickly and evenly heated with a torch.
4. Using large pliers and wearing protective gloves slide the Idler Sleeve off the Agitator Pin.

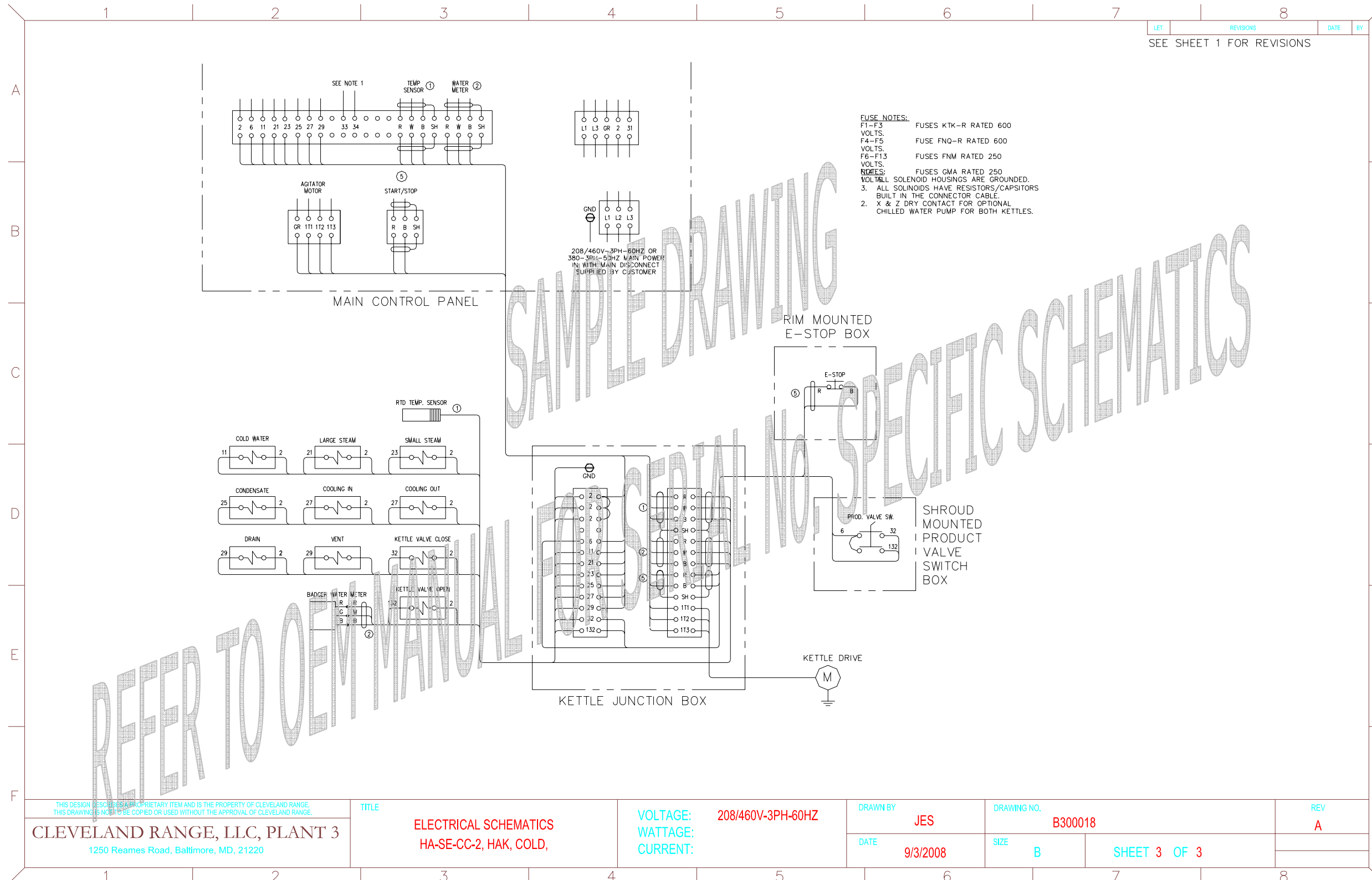
TO REPLACE THE IDLER SLEEVE.

1. MAKE SURE THE AGITATOR PIN IS FREE OF SCRATCHES, DENTS, DIRT OR ANYTHING ELSE THAT MIGHT PREVENT THE IDLER SLEEVE FROM SLIDING ON EVENLY.
2. EVENLY HEAT THE IDLER SLEEVE WITH A TORCH ON A FIRE PROOF SURFACE.
3. Using large pliers and wearing protective gloves slide the Idler Sleeve on to the Agitator Pin. Be careful not to tilt the Idler Sleeve as this will cause it to jam on the Agitator Pin early.
4. MAKE SURE THE IDLER SLEEVE IS COMPLETELY ON THE AGITATOR PIN AND LET THE IDLER SLEEVE COOL BEFORE REPLACING THE AGITATOR.

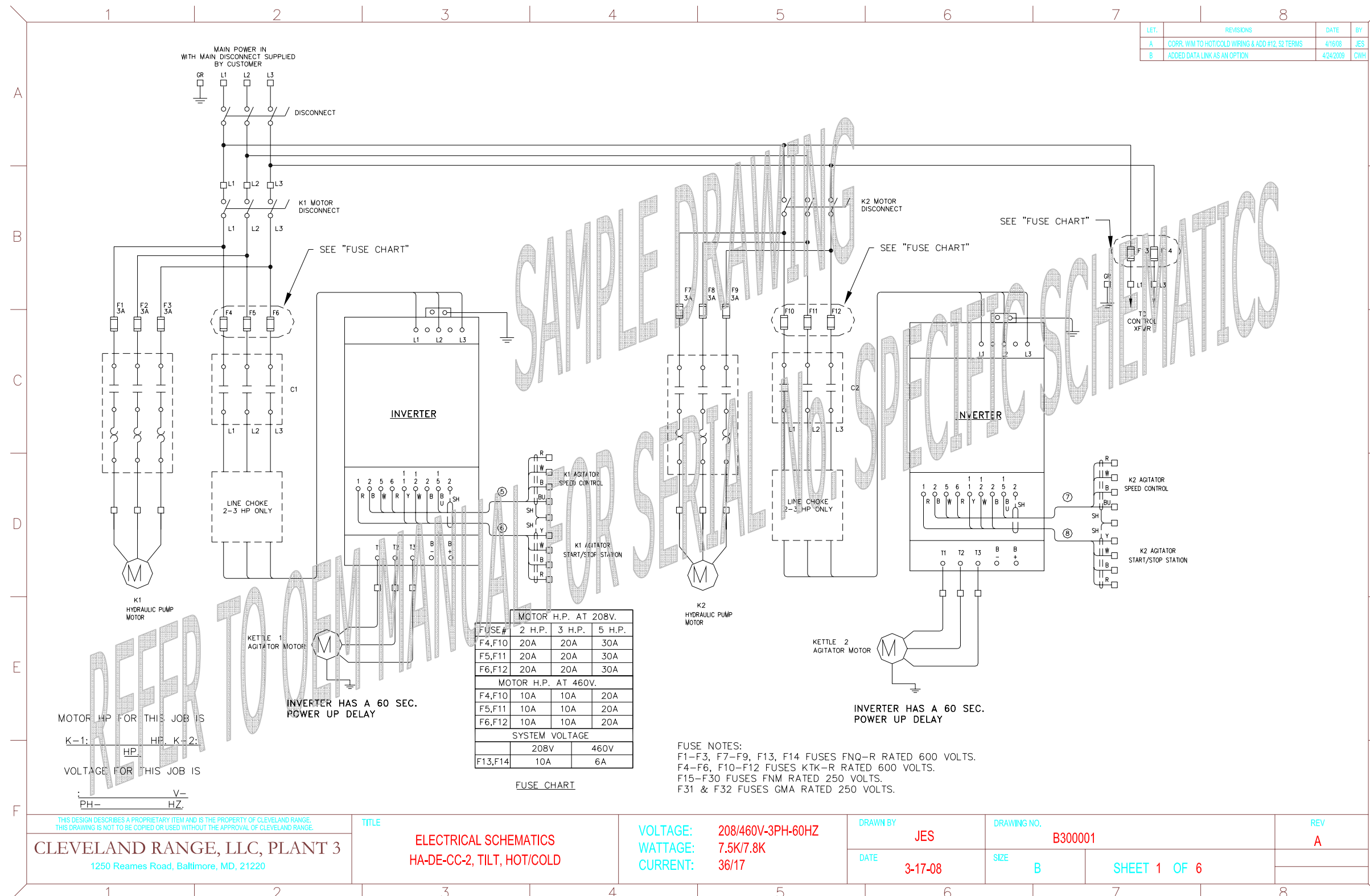
Single Remote Control Panel – (continued)



Single Remote Control Panel – (continued)



Dual Remote Control Panel



LET.	REVISIONS	DATE	BY
A	CORR. W/M TO HOT/COLD WIRING & ADD #12, 52 TERMS	4/16/08	JES
B	ADDED DATA LINK AS AN OPTION	4/24/09	CWH

THIS DESIGN DESCRIBES A PROPRIETARY ITEM AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF CLEVELAND RANGE.

CLEVELAND RANGE, LLC, PLANT 3
 1250 Reames Road, Baltimore, MD, 21220

TITLE
 ELECTRICAL SCHEMATICS
 HA-DE-CC-2, TILT, HOT/COLD

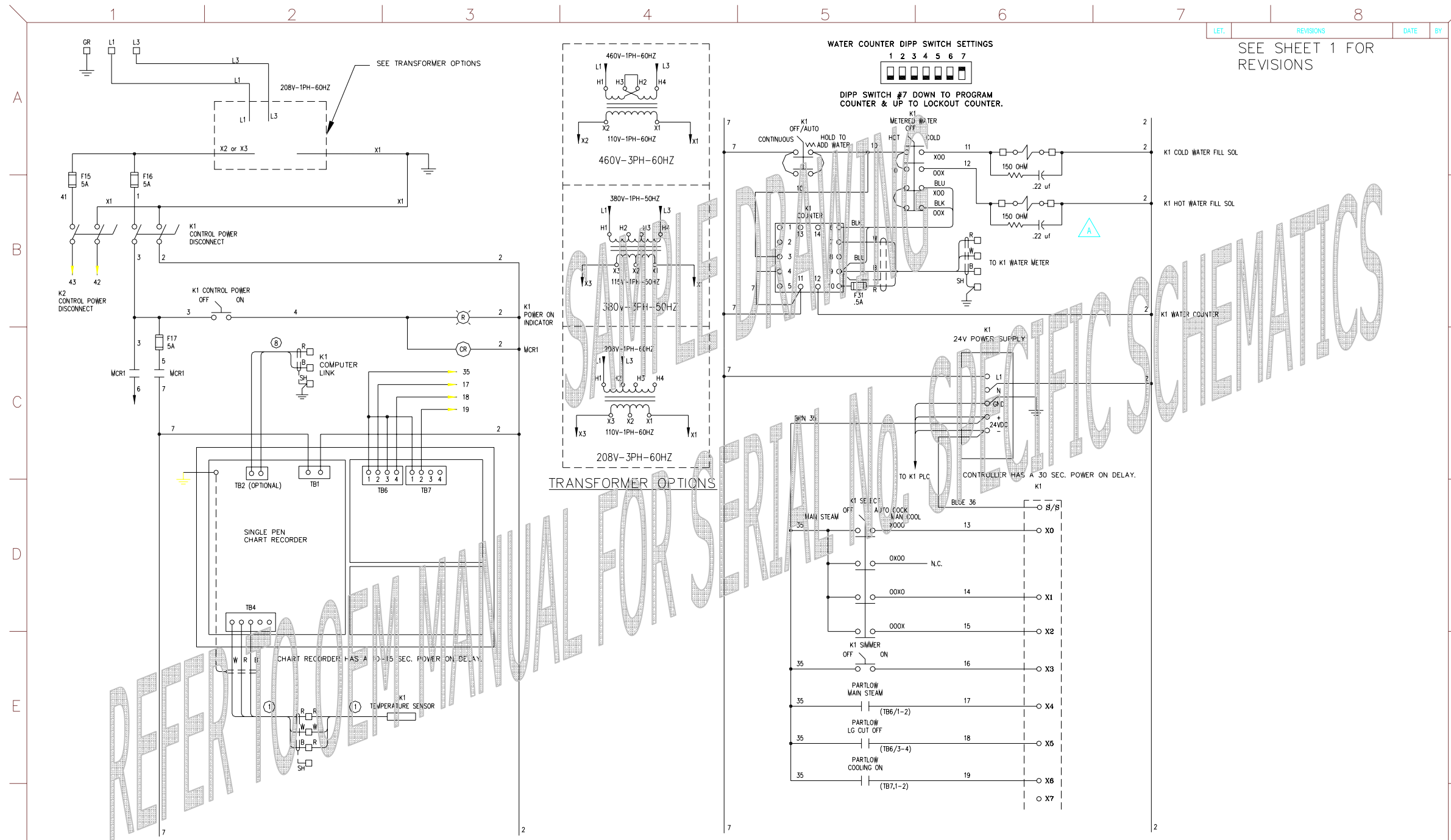
VOLTAGE: 208/460V-3PH-60HZ
WATTAGE: 7.5K/7.8K
CURRENT: 36/17

DRAWN BY JES
DATE 3-17-08

DRAWING NO. B300001
SIZE B
SHEET 1 OF 6

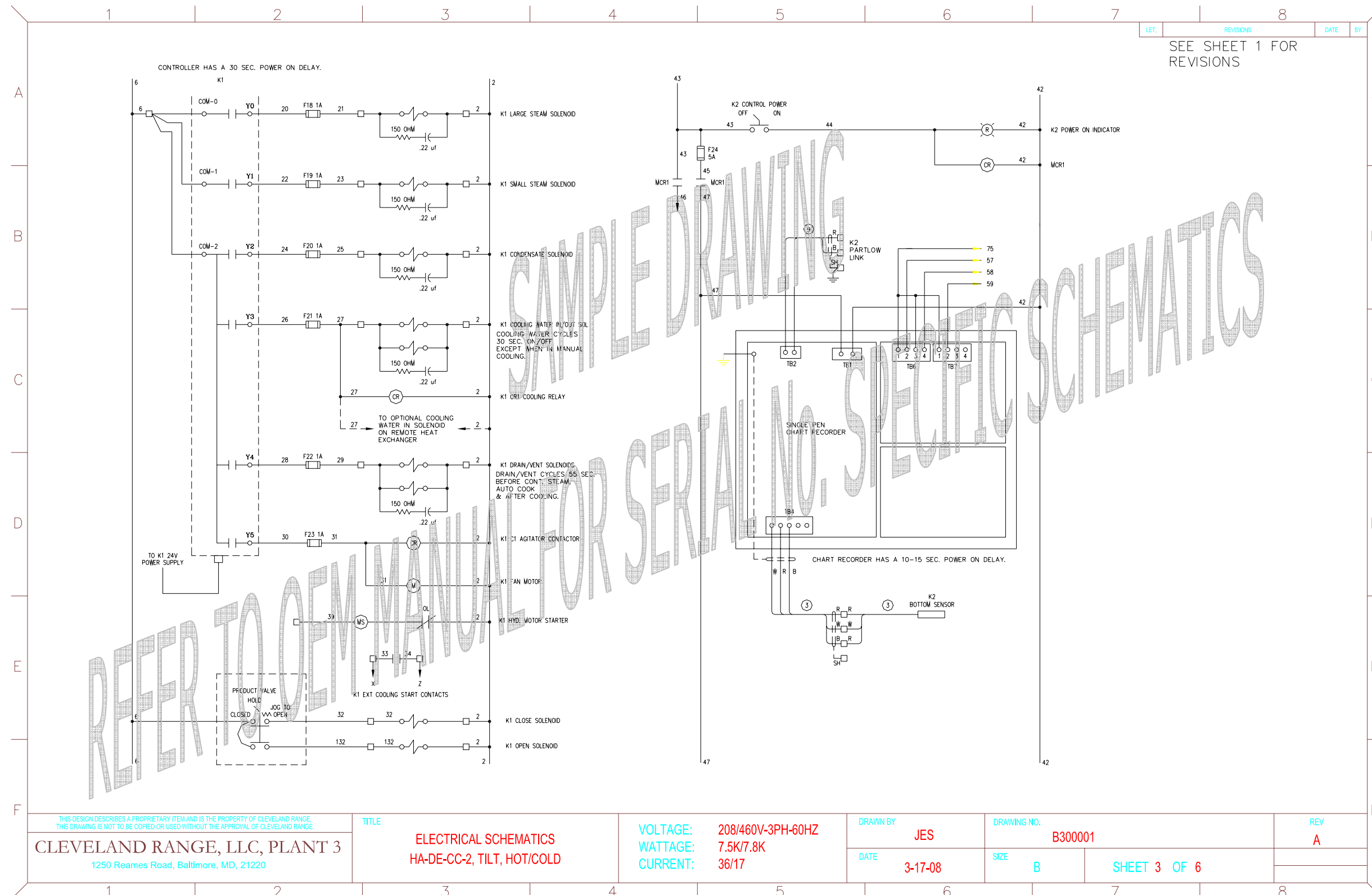
REV
 A

Dual Remote Control Panel – (continued)

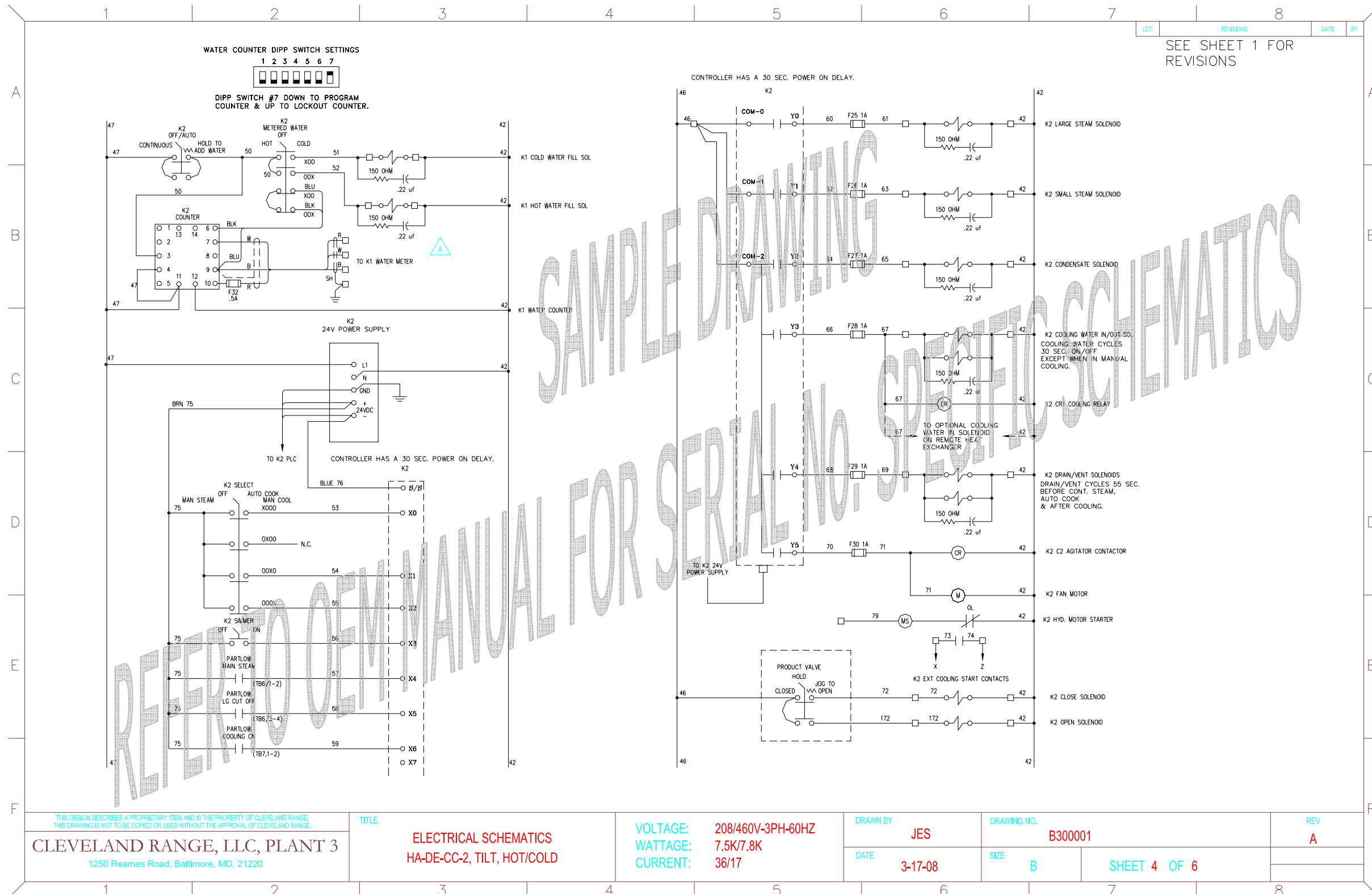


<p>THIS DESIGN DESCRIBES A PROPRIETARY ITEM AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF CLEVELAND RANGE.</p>		<p>TITLE ELECTRICAL SCHEMATICS HA-DE-CC-2, TILT, HOT/COLD</p>		<p>VOLTAGE: 208/460V-3PH-60HZ WATTAGE: 7.5K/7.8K CURRENT: 36/17</p>		<p>DRAWN BY: JES DATE: 3-17-08</p>		<p>DRAWING NO.: B300001 SIZE: B SHEET 2 OF 6</p>		<p>REV A</p>	
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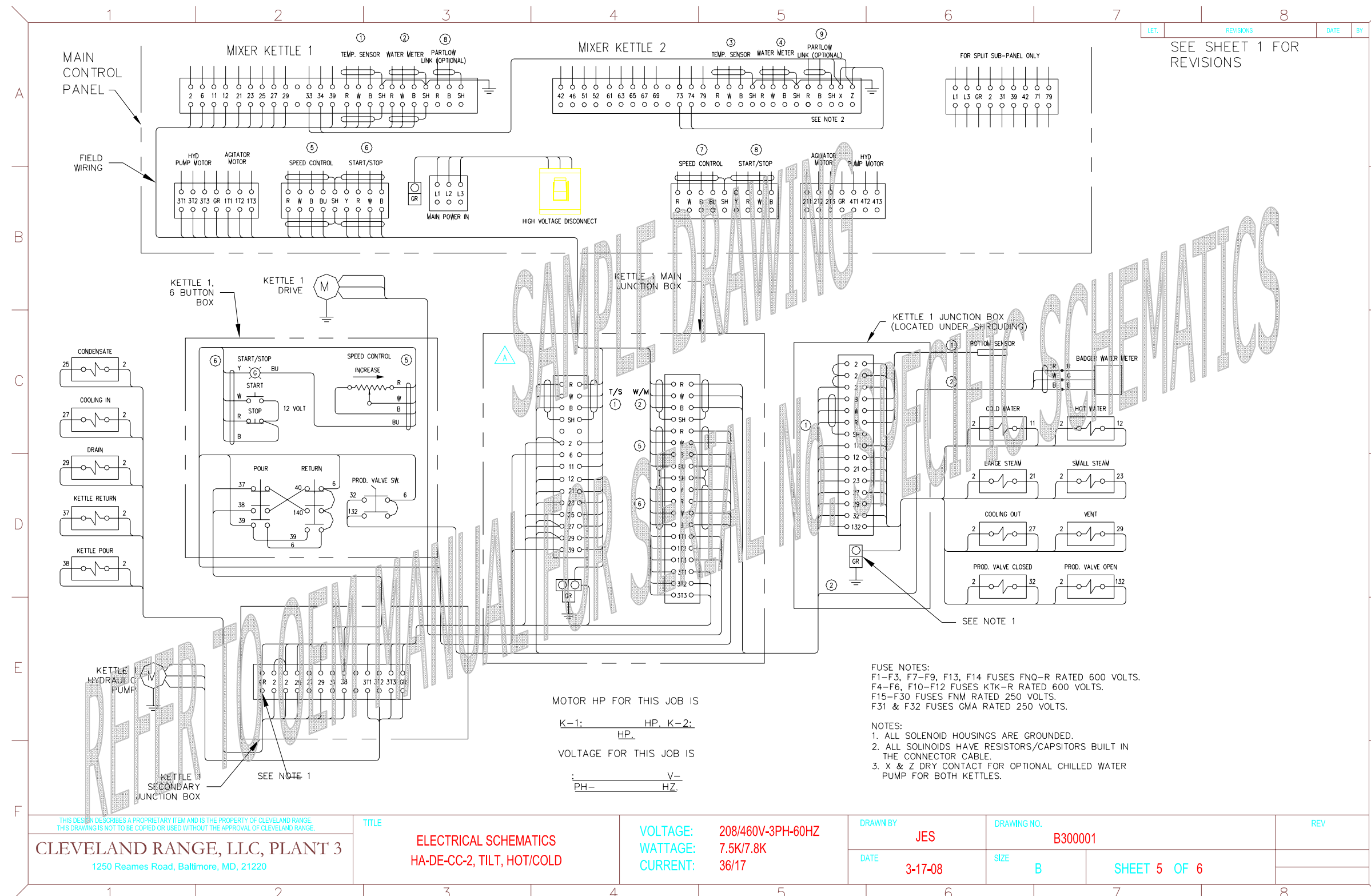
Dual Remote Control Panel – (continued)



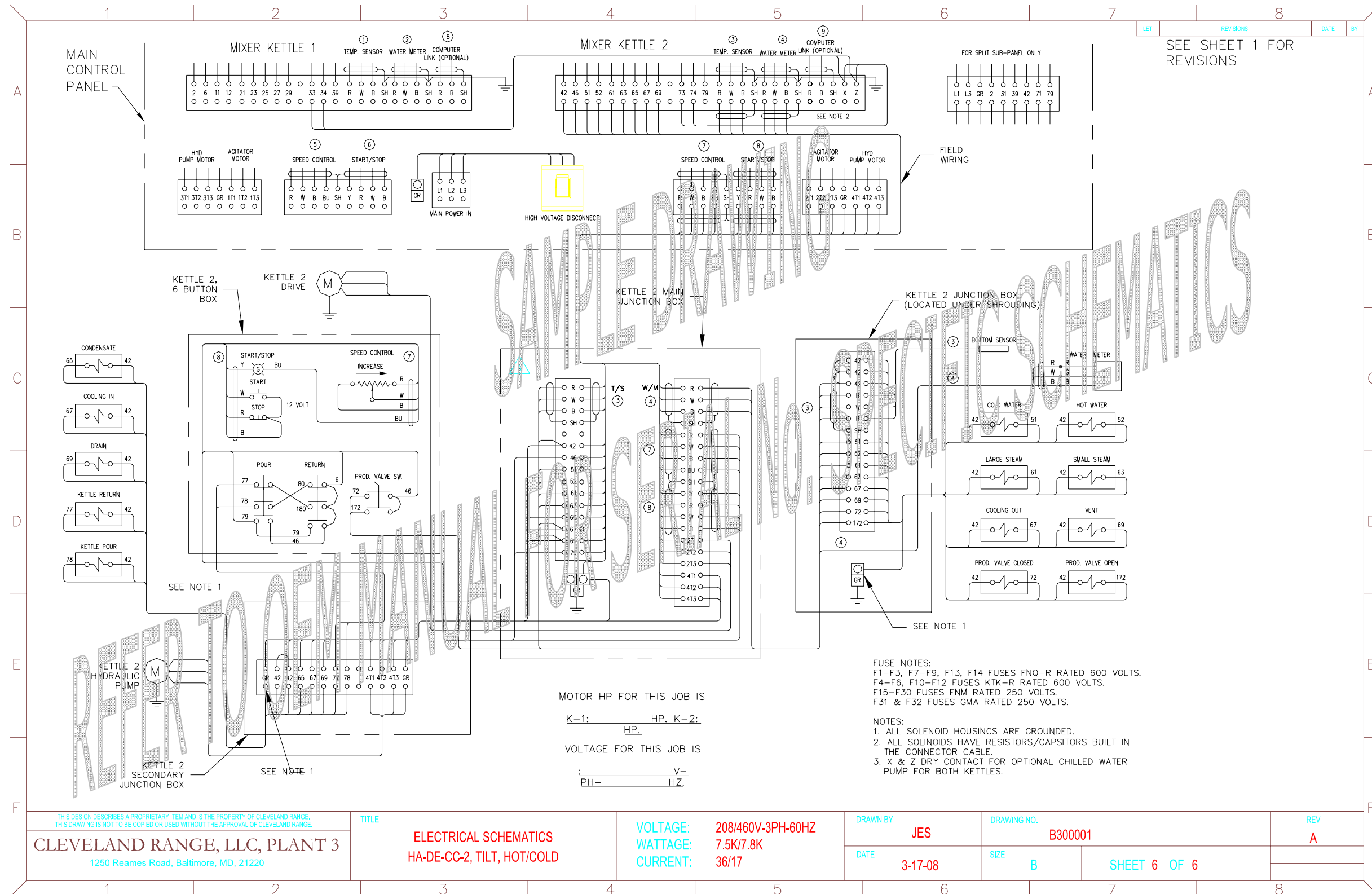
Dual Remote Control Panel – (continued)



Dual Remote Control Panel – (continued)



Dual Remote Control Panel – (continued)



LET.	REVISIONS	DATE	BY
	SEE SHEET 1 FOR REVISIONS		

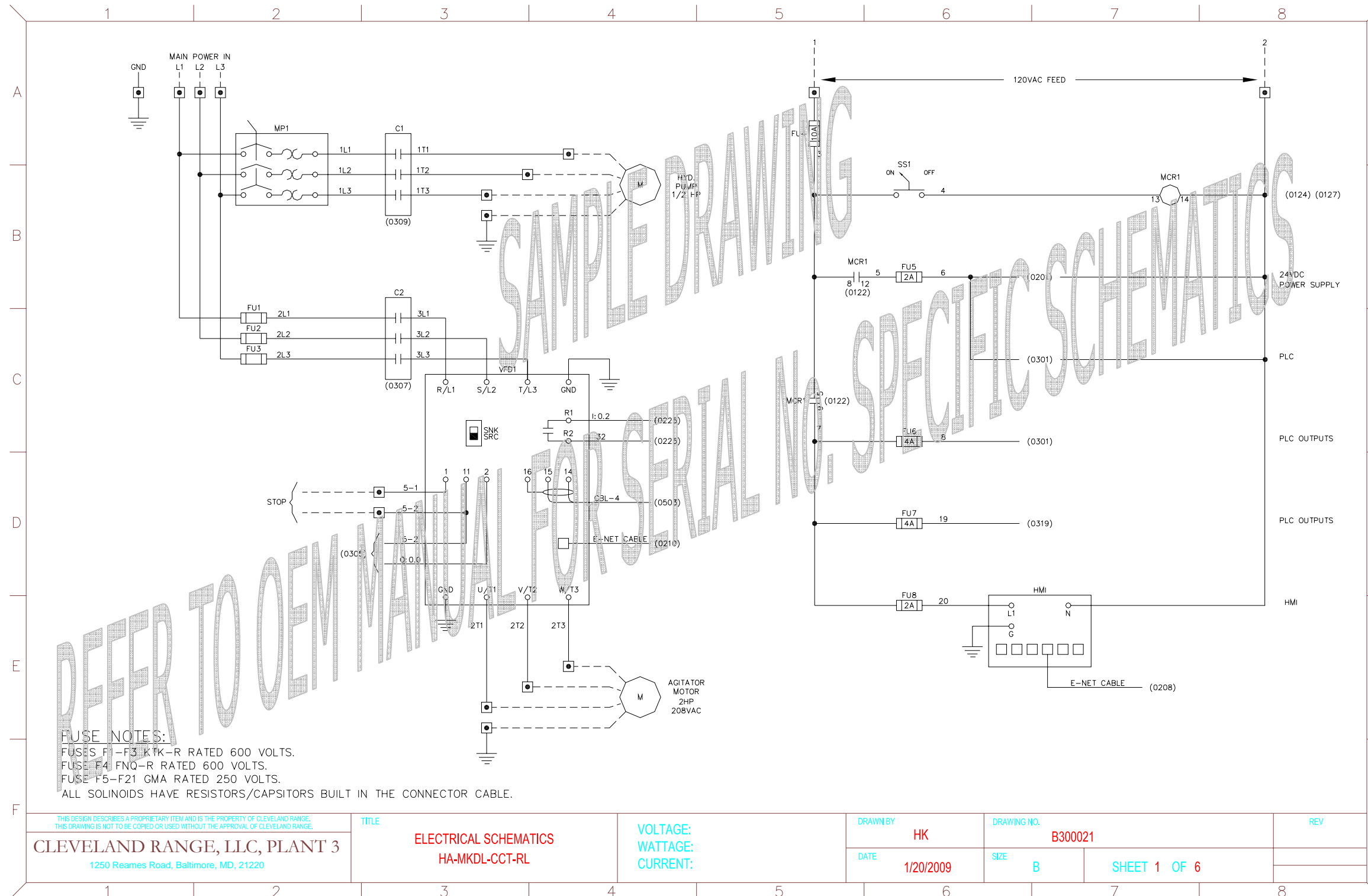
FUSE NOTES:
 F1-F3, F7-F9, F13, F14 FUSES FNQ-R RATED 600 VOLTS.
 F4-F6, F10-F12 FUSES KTK-R RATED 600 VOLTS.
 F15-F30 FUSES FNM RATED 250 VOLTS.
 F31 & F32 FUSES GMA RATED 250 VOLTS.

NOTES:
 1. ALL SOLENOID HOUSINGS ARE GROUNDED.
 2. ALL SOLINIODS HAVE RESISTORS/CAPSITORS BUILT IN THE CONNECTOR CABLE.
 3. X & Z DRY CONTACT FOR OPTIONAL CHILLED WATER PUMP FOR BOTH KETTLES.

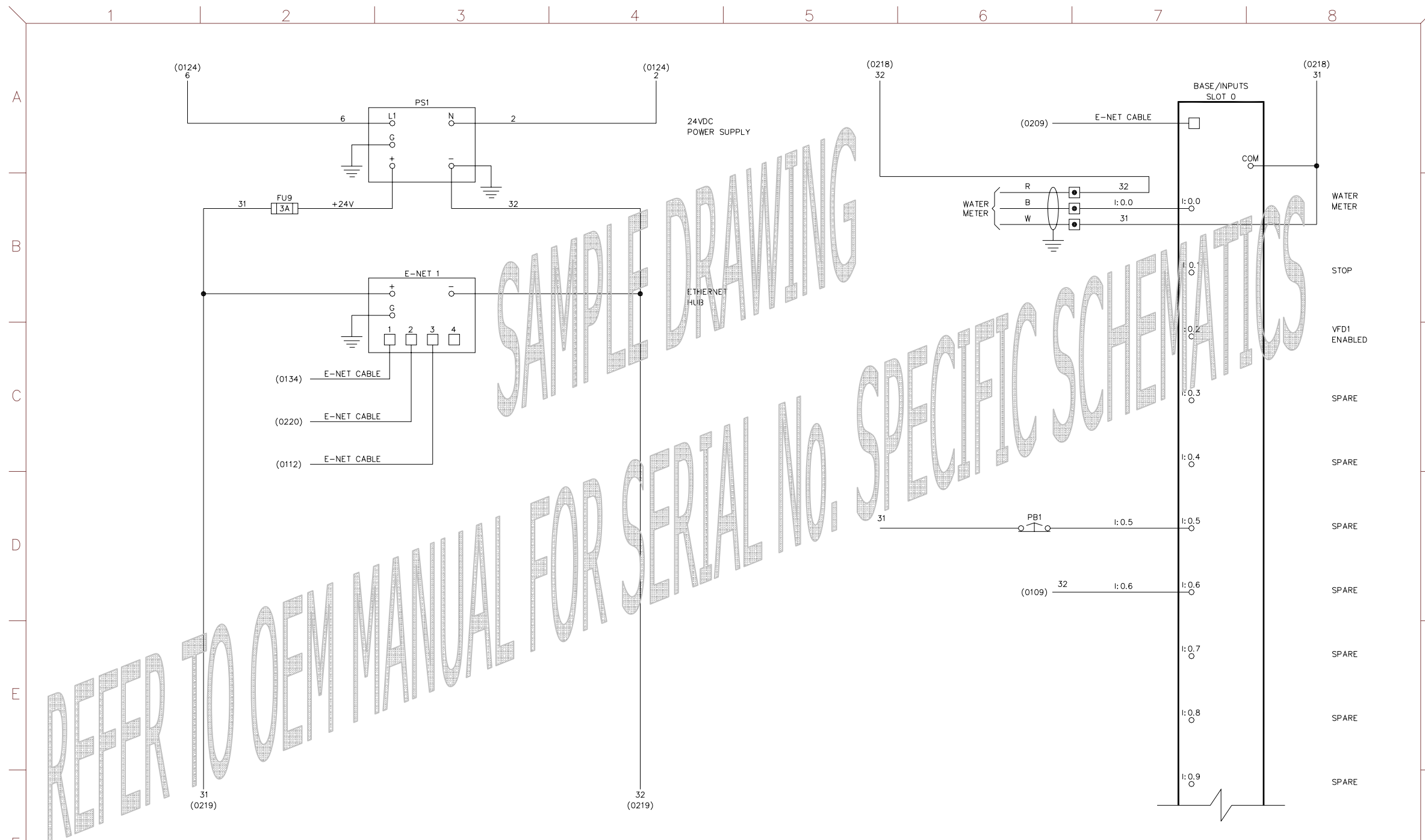
MOTOR HP FOR THIS JOB IS
 K-1: _____ HP. K-2: _____
 HP.
 VOLTAGE FOR THIS JOB IS
 _____ V-
 PH- _____ HZ.

THIS DESIGN DESCRIBES A PROPRIETARY ITEM AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF CLEVELAND RANGE. CLEVELAND RANGE, LLC, PLANT 3 1250 Reames Road, Baltimore, MD, 21220	TITLE ELECTRICAL SCHEMATICS HA-DE-CC-2, TILT, HOT/COLD	VOLTAGE: 208/460V-3PH-60HZ WATTAGE: 7.5K/7.8K CURRENT: 36/17	DRAWN BY JES	DRAWING NO. B300001	REV A
			DATE 3-17-08	SIZE B	SHEET 6 OF 6

Kettle Control Panel "RL" Series

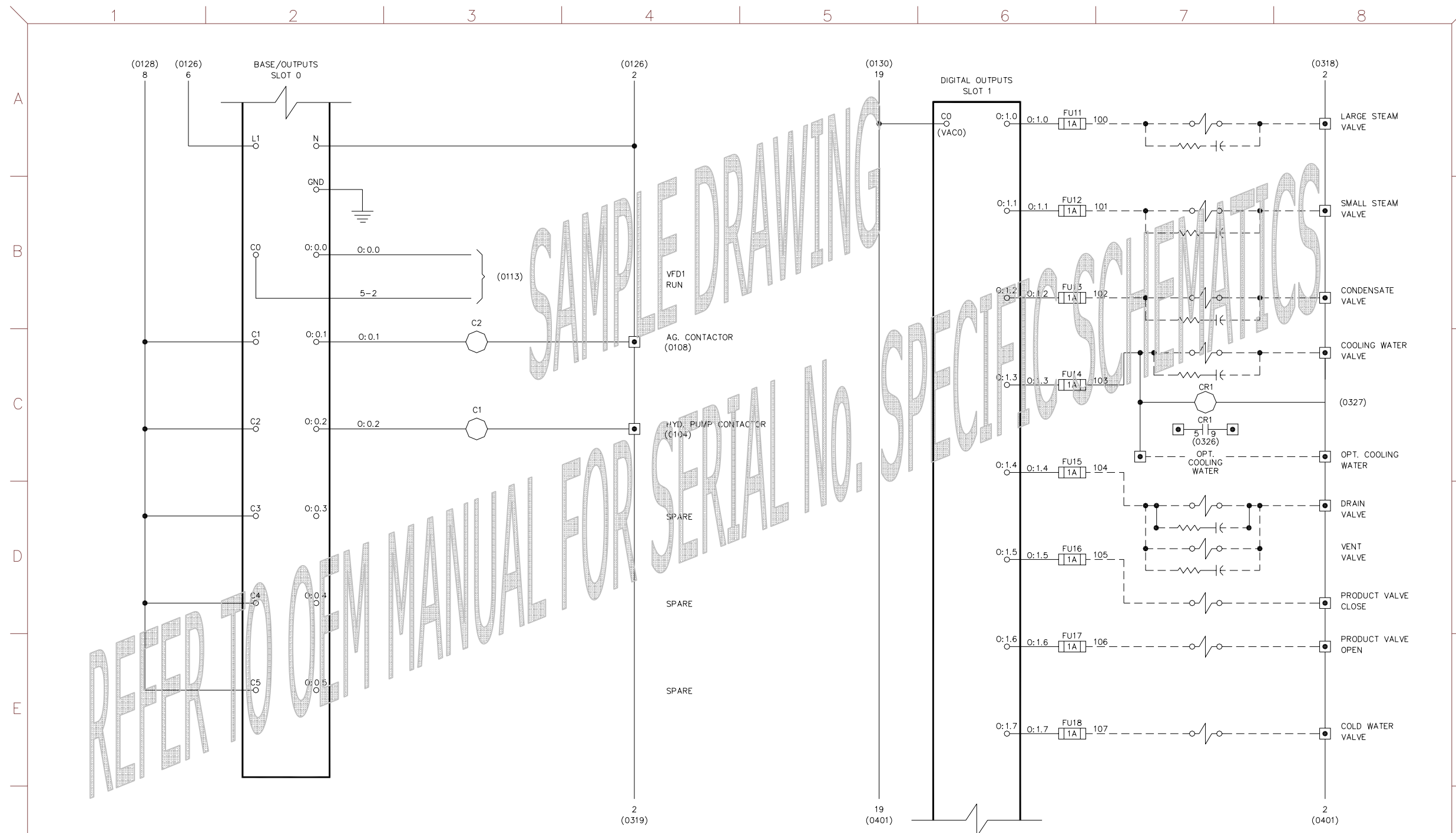


Kettle Control Panel “RL” Series – (continued)



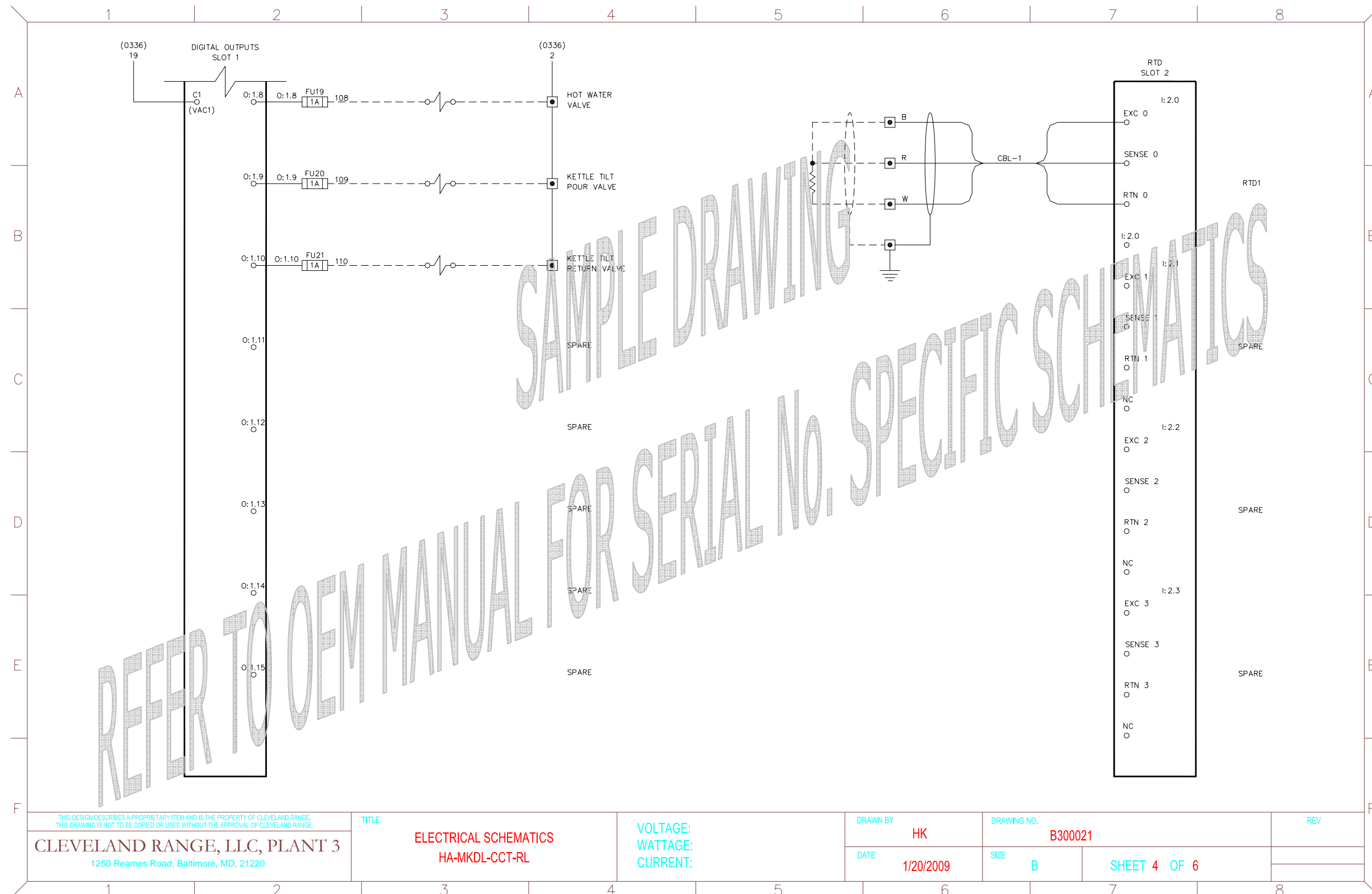
<small>THIS DESIGN DESCRIBES A PROPRIETARY ITEM AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF CLEVELAND RANGE.</small>		TITLE ELECTRICAL SCHEMATICS HA-MKDL-CCT-RL		VOLTAGE: WATTAGE: CURRENT:		DRAWN BY HK		DRAWING NO. B300021		REV	
CLEVELAND RANGE, LLC, PLANT 3 1250 Reames Road, Baltimore, MD, 21220						DATE 1/20/2009		SIZE B		SHEET 2 OF 6	

Kettle Control Panel "RL" Series – (continued)



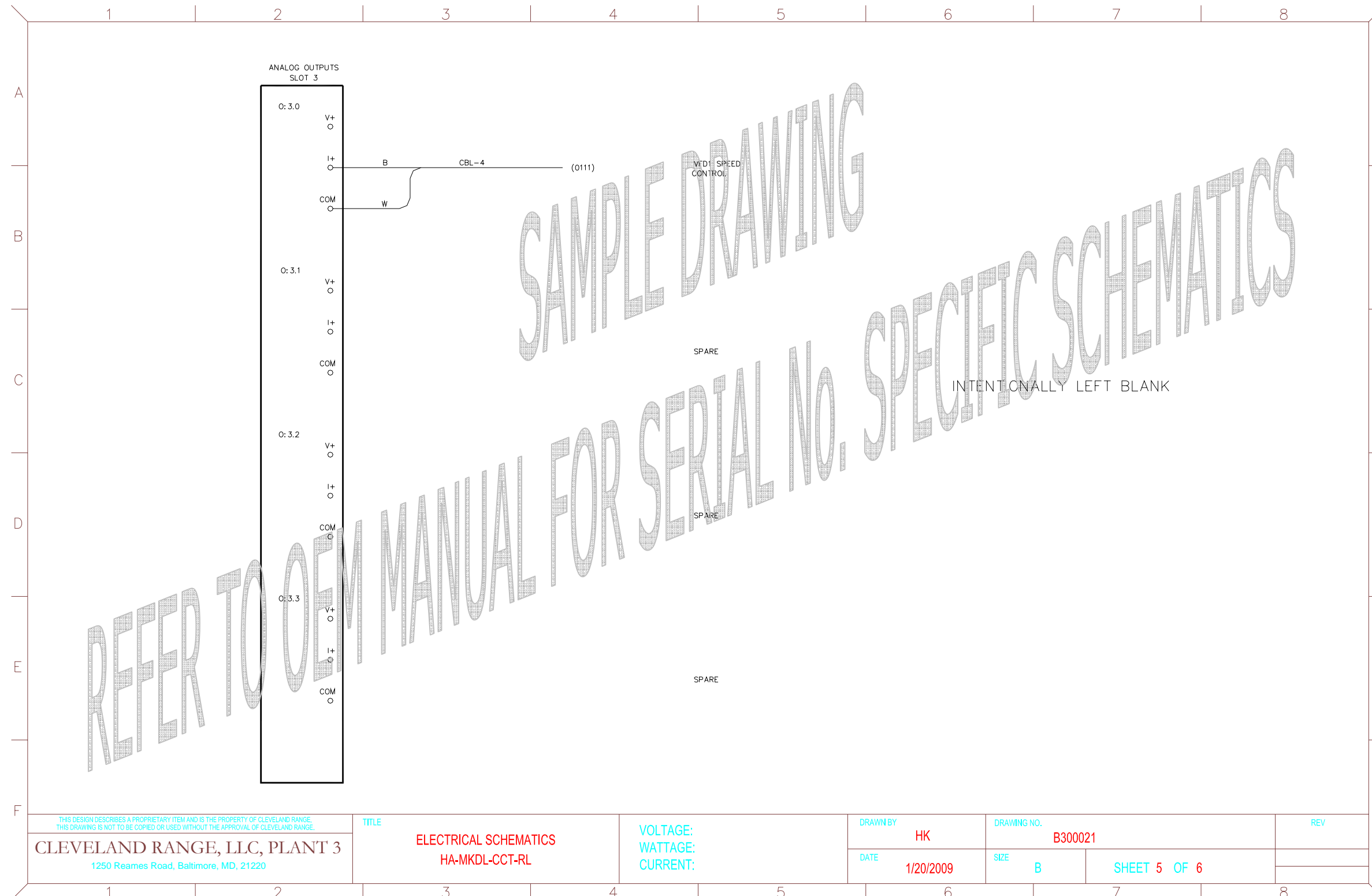
<small>THIS DESIGN DESCRIBES A PROPRIETARY ITEM AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF CLEVELAND RANGE.</small>		TITLE ELECTRICAL SCHEMATICS HA-MKDL-CCT-RL		VOLTAGE: WATTAGE: CURRENT:		DRAWN BY HK		DRAWING NO. B300021		REV	
CLEVELAND RANGE, LLC, PLANT 3 <small>1250 Reames Road, Baltimore, MD, 21220</small>						DATE 1/20/2009		SIZE B		SHEET 3 OF 6	

Kettle Control Panel "RL" Series – (continued)



<small>THIS DESIGN DESCRIBES A PROPRIETARY ITEM AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF CLEVELAND RANGE.</small> CLEVELAND RANGE, LLC, PLANT 3 1250 Reames Road, Baltimore, MD, 21220	TITLE ELECTRICAL SCHEMATICS HA-MKDL-CCT-RL	VOLTAGE: WATTAGE: CURRENT:	DRAWN BY HK	DRAWING NO. B300021	REV
			DATE 1/20/2009	SIZE B	

Kettle Control Panel "RL" Series - (continued)



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CLEVELAND RANGE, LLC, PLANT 3
 1250 Reames Road, Baltimore, MD, 21220

TITLE
ELECTRICAL SCHEMATICS
HA-MKDL-CCT-RL

VOLTAGE:
WATTAGE:
CURRENT:

DRAWN BY
HK

DATE
1/20/2009

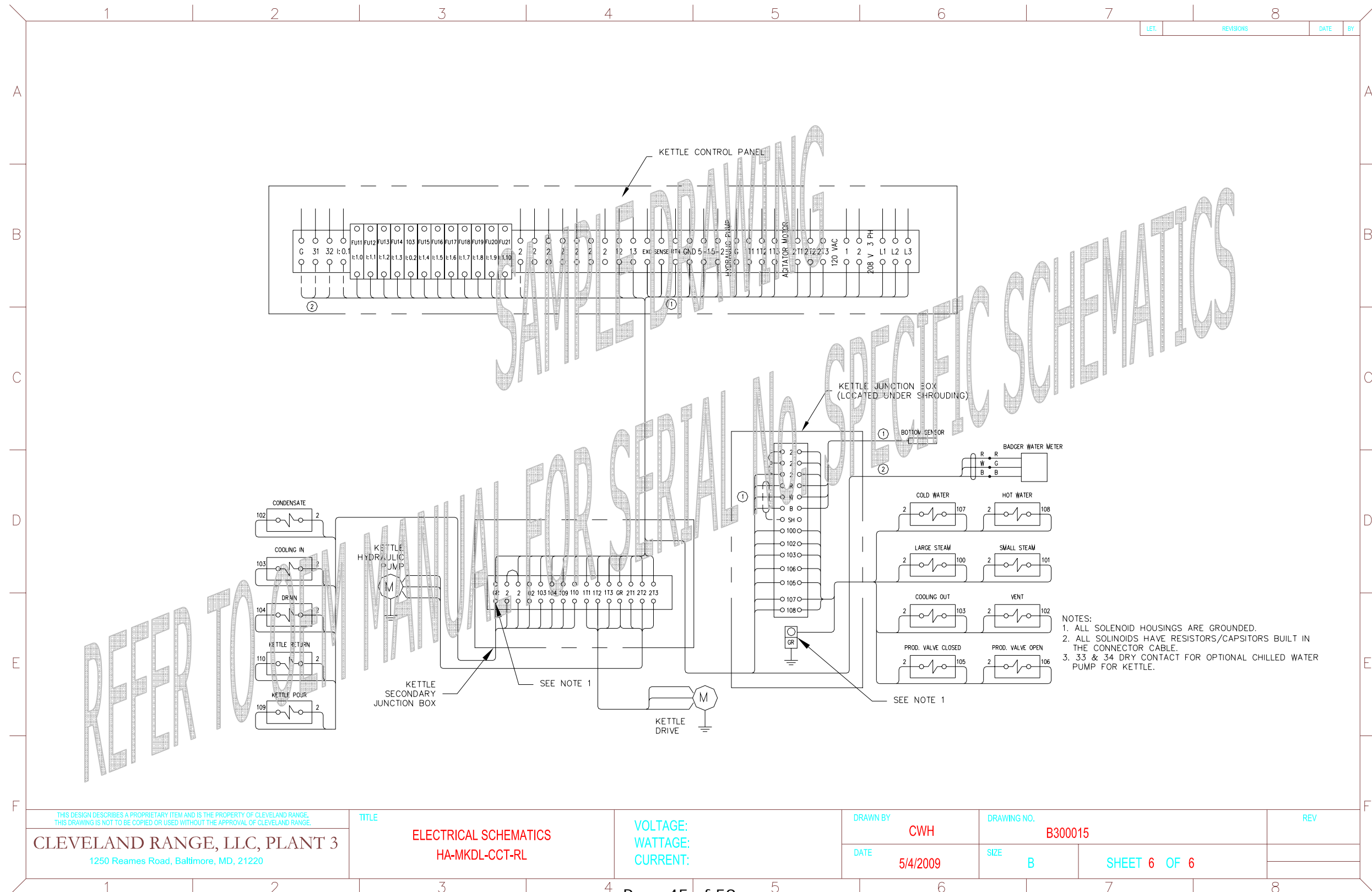
DRAWING NO.
B300021

SIZE
B

SHEET 5 OF 6

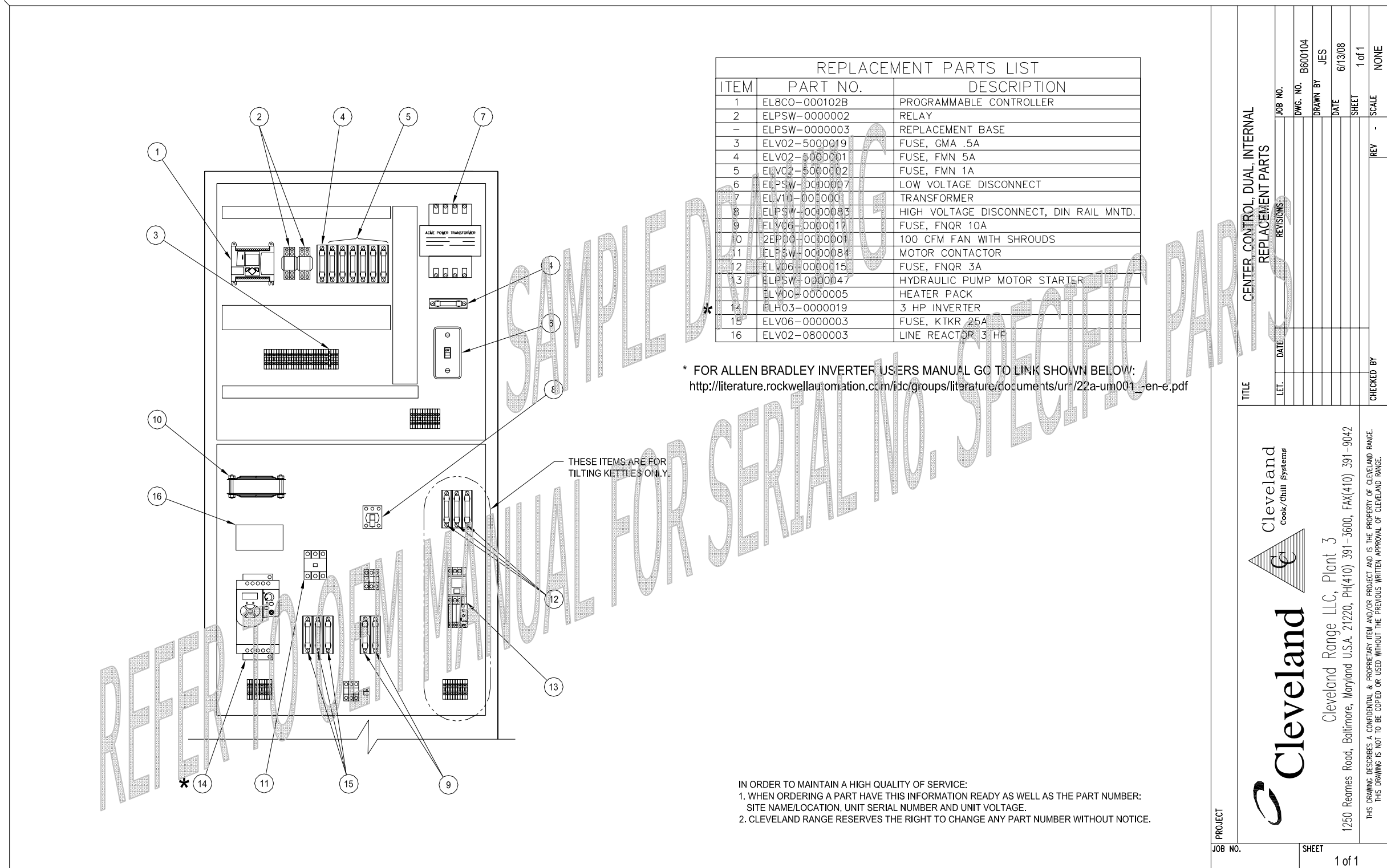
REV

Kettle Control Panel "RL" Series – (continued)



GENERIC PARTS DRAWINGS:

Electrical Control Panels - Interior



REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	EL8CO-000102B	PROGRAMMABLE CONTROLLER
2	ELPSW-0000002	RELAY
-	ELPSW-0000003	REPLACEMENT BASE
3	ELV02-5000019	FUSE, GMA .5A
4	ELV02-5000001	FUSE, FMN 5A
5	ELVC2-5000002	FUSE, FMN 1A
6	ELPSW-0000007	LOW VOLTAGE DISCONNECT
7	ELV10-0000001	TRANSFORMER
8	ELPSW-0000083	HIGH VOLTAGE DISCONNECT, DIN RAIL MNTD.
9	ELV06-0000017	FUSE, FNQR 10A
10	2EP00-0000001	100 CFM FAN WITH SHROUDS
11	ELPSW-0000084	MOTOR CONTACTOR
12	ELV06-0000015	FUSE, FNQR 3A
13	ELPSW-0000047	HYDRAULIC PUMP MOTOR STARTER
-	ELV00-0000005	HEATER PACK
14	ELH03-0000019	3 HP INVERTER
15	ELV06-0000003	FUSE, KTKR 25A
16	ELV02-0800003	LINE REACTOR 3 HP

* FOR ALLEN BRADLEY INVERTER USERS MANUAL GO TO LINK SHOWN BELOW:
http://literature.rockwellautomation.com/idc/groups/literature/documents/urn/22a-um001_-en-e.pdf

THESE ITEMS ARE FOR TILTING KETTLES ONLY.

REFER TO OWNERS MANUAL FOR SERIAL NO. SPECIFIC PARTS

IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:
 1. WHEN ORDERING A PART HAVE THIS INFORMATION READY AS WELL AS THE PART NUMBER:
 SITE NAME/LOCATION, UNIT SERIAL NUMBER AND UNIT VOLTAGE.
 2. CLEVELAND RANGE RESERVES THE RIGHT TO CHANGE ANY PART NUMBER WITHOUT NOTICE.

PROJECT		TITLE	
Cleveland Cook/Chill Systems		CENTER, CONTROL, DUAL, INTERNAL REPLACEMENT PARTS	
JOB NO.	DWG. NO.	REVISIONS	CHECKED BY
	B600104		
		DATE	SCALE
		6/13/08	1 of 1
			NONE
 Cleveland Range LLC, Plant 3 1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042		THIS DRAWING DESCRIBES A CONFIDENTIAL & PROPRIETARY ITEM AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PREVIOUS WRITTEN APPROVAL OF CLEVELAND RANGE.	
JOB NO.	SHEET	1 of 1	

Electrical Control Panels – Exterior

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	EL8C0-000042	PARTLOW 8000, SINGLE PEN
-	EL977-7700019	REPLACEMENT PEN MOTOR
-	EL977-7700021	REPLACEMENT PEN ARM
-	EL977-7700018	REPLACEMENT CHART MOTOR
-	EL977-7700020	REPLACEMENT TOUCH PAD
-	ELP00-0000037	REPLACEMENT DOOR
-	ELP00-0000036	REPLACEMENT DOOR WINDOW
2	MSJ00-0000005	24 HOUR CHART PAPER 'F'
3	MSP00-0000002	RED REPLACEMENT PEN
4	NPRE0000009	NAMEPLATE WARNING
5	NPYELLOW00111	NAMEPLATE
6	ELP00-8800001	FOUR POSITION SWITCH
7	2EP00-8800025	RED LIGHTED TURN SWITCH
-	ELV00-6000001	REPLACEMENT BULB
8	NPYELLOW00110	NAMEPLATE
9	NPYELLOW00107	NAMEPLATE
10	2EP00-8800006	TWO POSITION SWITCH
11	NPYELLOW00241	NAMEPLATE
12	2EP00-8800044	THREE POSITION SWITCH
13	NPYELLOW00260	NAMEPLATE
14	EL8C0-0000067	DIGITAL RED LION WATER COUNTER
15	2EP00-8800022	THREE POSITION SWITCH
16	NPYELLOW00109	NAMEPLATE
17	NPYELLOW00116	NAMEPLATE
18	NPYELLOW00115	NAMEPLATE
19	ELF00-8800003	SPEED POT
20	2EP00-8800019	RED MUSHROOM PUSH BUTTON
21	NPYELLOW00104	NAMEPLATE
22	2EP00-8800014	GREEN LIGHTED PUSH BUTTON
-	ELV00-2400001	REPLACEMENT BULB
23	NPYELLOW00103	NAMEPLATE

ALL COMPONENTS AND FEATURES SHOWN ARE NOT PRESENT ON ALL UNITS.
 PLEASE IGNORE ALL COMPONENTS AND FEATURES THAT ARE NOT ON YOUR UNIT.

PROJECT TITLE: CENTER CONTROL, SINGLE, EXTERNAL
 REPLACEMENT PARTS

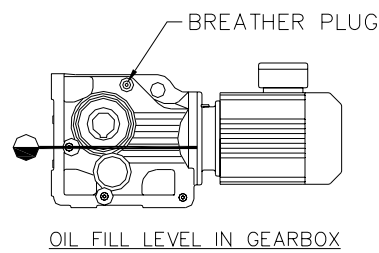
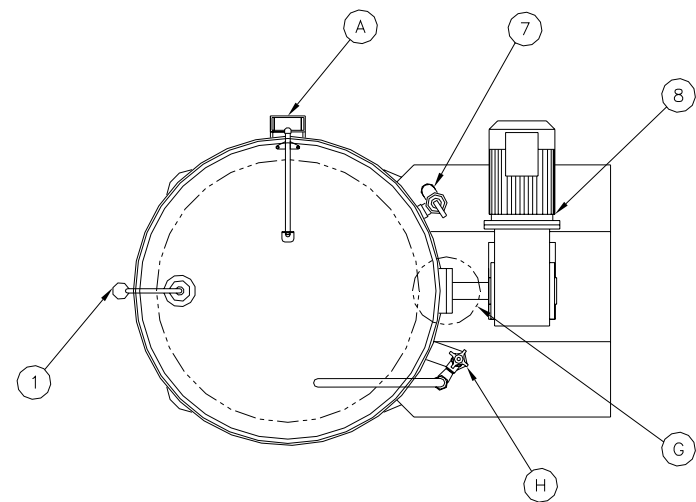
JOB NO.	DWG. NO. B600105
REVISIONS	DRAWN BY JES
DATE	DATE 8-12-08
SHEET	SHEET 1 of 1
SCALE	SCALE NONE
CHECKED BY	REV -

Cleveland
 Cook/Chill Systems
 Cleveland Range LLC, Plant 3
 1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042
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JOB NO. SHEET 1 of 1

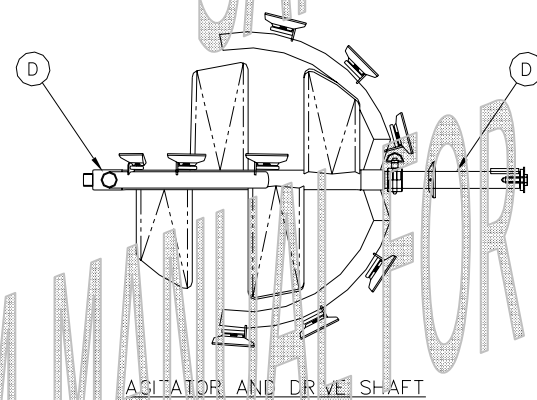
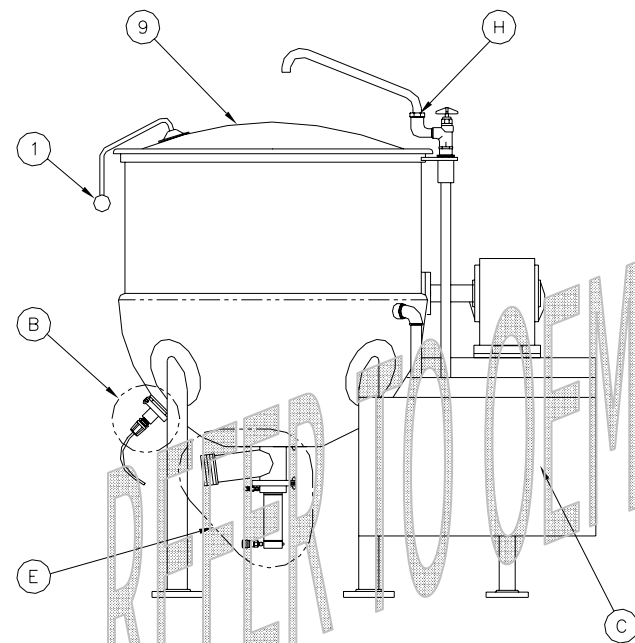
Mechanical Components

Basic Kettle

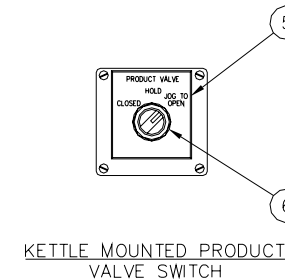
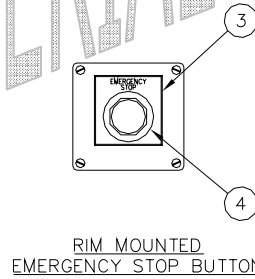


BASIC REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	MSP02-0000001	RED BALL
3	NPRED00000025	NAMEPLATE
4	2EP01-25A0014	RED MUSHROOM P.B.
5	NPYELLOW00242	NAMEPLATE
6	2EP01-25A0022	3 POSITION TURN SWITCH
7	VAB00-7500005	100 PSI SAFETY VALVE
8	DUF02-0000005	2 HP DRIVE UNIT 208 VOLTS
-	DU302-0000018	ELECTRIC MOTOR 208 VOLTS
*	DU301-5000004	GEAR BOX
9	1FS18-CA00003	1 PIECE COVER

DRAWINGS LIST		
ITEM	DRAWING NO.	DESCRIPTION
A	B600039	HINGE ACTUATOR PARTS LIST
B	B600040	TEMPERATURE SENSOR PARTS LIST
C	B600059	COOK/CHILL PLUMBING PARTS LIST
D	B600044	AGITATOR & DRIVE SHAFT PARTS LIST
E	B600024	OUTLET VALVE PARTS LIST
G	B600036	SHAFT SEAL PARTS LIST
H	B600045	POTABLE WATER LINE PARTS LIST



*** REPLACEMENT GEAR BOXES COME WITHOUT OIL.
 CUSTOMER MUST SUPPLY OIL FOR THE GEAR BOX.
 (MOBILE 630 SYNTHETIC OR EQUAL)**



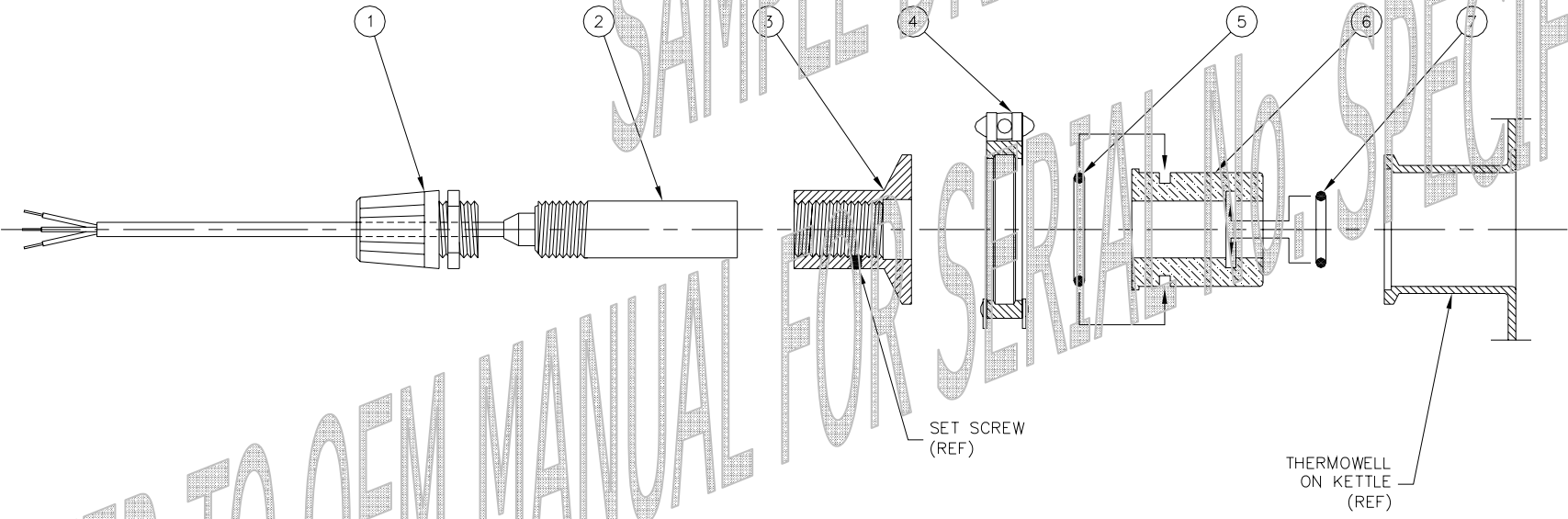
ALL COMPONENTS AND FEATURES SHOWN ARE NOT PRESENT ON ALL UNITS.
 PLEASE IGNORE ALL COMPONENTS AND FEATURES THAT ARE NOT ON YOUR UNIT.

- IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:
1. WHEN ORDERING A PART HAVE THIS INFORMATION READY AS WELL AS THE PART NUMBER: SITE NAME/LOCATION, UNIT SERIAL NUMBER AND UNIT VOLTAGE.
 2. CLEVELAND RANGE RESERVES THE RIGHT TO CHANGE ANY PART NUMBER WITHOUT NOTICE.
 3. **OBsolete ITEMS ARE AVAILABLE AS REPLACEMENT PARTS BUT ARE NO LONGER USED IN CURRENT PRODUCTION MODELS.**

PROJECT		JOB NO.		DWC. NO. B600095	
TITLE		DATE		DRAWN BY JES	
HA-MKDL-60-CC		7/25/08		SHEET 1 of 1	
REPLACEMENT PARTS		SCALE		REV NONE	
Cleveland Cook/Chill Systems		Cleveland Range LLC, Plant 3		1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042	
Cleveland		THIS DRAWING DESCRIBES A CONFIDENTIAL & PROPRIETARY ITEM AND/OR PROJECT AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PREVIOUS WRITTEN APPROVAL OF CLEVELAND RANGE.		CHECKED BY	
SHEET 1 of 1		JOB NO.		DWC. NO. B600095	

Temperature Sensor

REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
1	ELP00-0000050	WIRE RESTRAINT
2	TSENSOR00002	TEMPERATURE SENSOR W/STRAIGHT CABLE
3	TSENSOR00001	CAP W/SST SET SCREW
4	DFS02-0000002	CLAMP
5	SE3ORING00004	O-RING
6	SE3ORING00001	SEAL RETAINER
7	SE3ORING00005	O-RING



REFER TO OEM MANUAL FOR SERIAL AND SPECIFIC PARTS

SAMPLE DRAWING

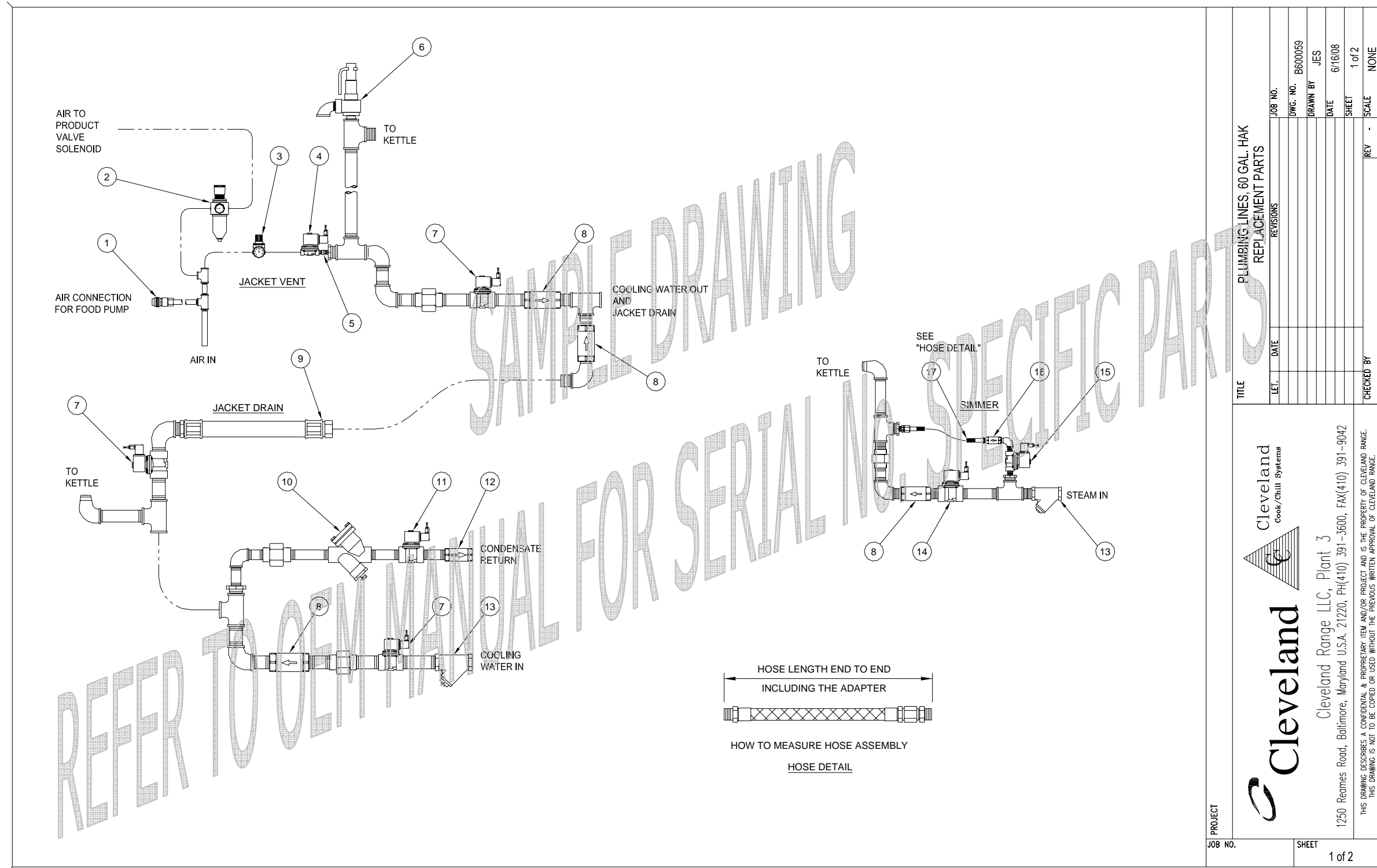
IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:
 1. WHEN ORDERING A PART HAVE THIS INFORMATION READY AS WELL AS THE PART NUMBER:
 SITE NAME/LOCATION, UNIT SERIAL NUMBER AND UNIT VOLTAGE.
 2. CLEVELAND RANGE RESERVES THE RIGHT TO CHANGE ANY PART NUMBER WITHOUT NOTICE.
 3. **OBsolete items are available as replacement parts but are no longer used in current production models.**

LET.	DATE	REVISIONS

TITLE		SENSOR, TEMPERATURE, STATIONART KETTLE	
JOB NO.		B600040	
DRAWN BY		JES	
DATE		6/13/08	
SHEET		1 of 1	
SCALE		NONE	
CHECKED BY			

PROJECT	JOB NO.	SHEET
		1 of 1

Plumbing



PROJECT		TITLE	
JOB NO.	REV	PLUMBING LINES, 60 GAL. HAK REPLACEMENT PARTS	DATE
DWG. NO. B600059	SCALE		
DRAWN BY JES	SHEET		
DATE 6/16/08	1 of 2		
CHECKED BY			

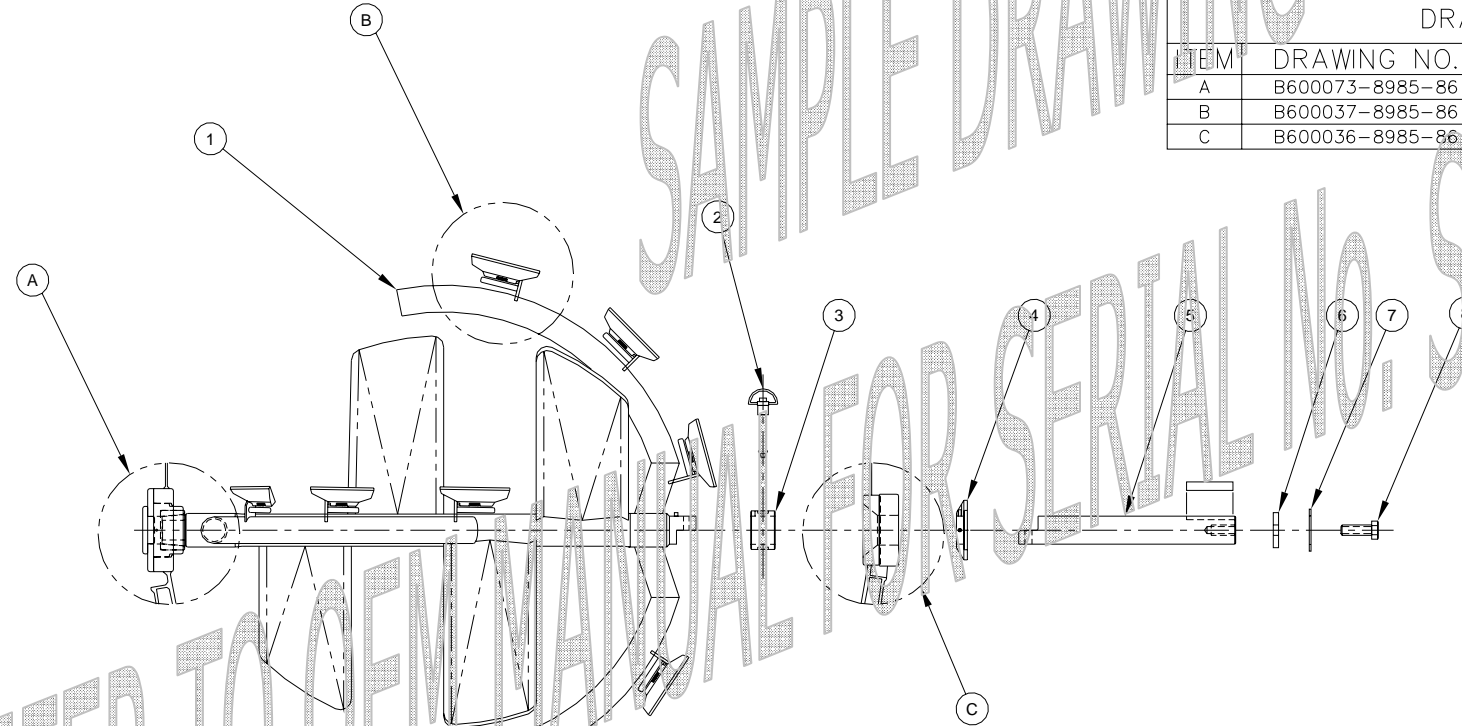
<p>Cleveland Range LLC, Plant 3 1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042</p>	
<p><small>THIS DRAWING DESCRIBES A CONFIDENTIAL & PROPRIETARY ITEM AND/OR PROJECT AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PREVIOUS WRITTEN APPROVAL OF CLEVELAND RANGE.</small></p>	

Agitator

NOTE ABOUT AGITATORS:
 BASIC AGITATORS DO NOT INCLUDE ANY ITEMS
 LISTED ON THIS PAGE.

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	1G060GAL00002	AGITATOR 60 HAK
2	MSS00-3700003	QUICK RELEASE PIN 60 HAK
3	FAS02-5000003	SHAFT COUPLING 60 HAK
4	1FW03-5000001	MOTOR SEAL PROTECTOR 60 HAK
5	1FS01-5000004	DRIVE SHAFT 60 HAK
6	HWS01-5000001	RETAINING WASHER 60 HAK
7	HWS01-5000003	RETAINING SNAP RING 60 HAK
8	HWS01-5000002	RETAINING BOLT 60 HAK

DRAWINGS LIST		
ITEM	DRAWING NO.	DESCRIPTION
A	B600073-8985-86	C.I.P. IDLER BEARING, 60 HAK
B	B600037-8985-86	SCRAPER BLADE
C	B600036-8985-86	SHAFT SEAL, 60 HAK



IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:
 1. WHEN ORDERING A PART HAVE THIS INFORMATION READY AS WELL AS THE PART NUMBER:
 SITE NAME/LOCATION, UNIT SERIAL NUMBER AND UNIT VOLTAGE.
 2. CLEVELAND RANGE RESERVES THE RIGHT TO CHANGE ANY PART NUMBER WITHOUT NOTICE.
 3. **OBsolete ITEMS ARE AVAILABLE AS REPLACEMENT PARTS BUT ARE NO LONGER USED
 IN CURRENT PRODUCTION MODELS.**

SAMPLE DRAWING FOR SERIAL NO. SPECIFIC PARTS

REFER TO OEM MANUAL FOR SERIAL NO. SPECIFIC PARTS

AGITATOR AND DRIVE SHAFT, 60 GAL. KETTLE REPLACEMENT PARTS																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>LET.</th> <th>DATE</th> <th>ADDED C.P. DETAIL</th> <th>REVISIONS</th> </tr> <tr> <td>A</td> <td>7/28</td> <td></td> <td></td> </tr> </table>	LET.	DATE	ADDED C.P. DETAIL	REVISIONS	A	7/28			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>JOB NO.</td> <td>DWG. NO.</td> <td>DRAWN BY</td> <td>DATE</td> <td>SHEET</td> <td>SCALE</td> </tr> <tr> <td></td> <td>B600044-8985-86</td> <td>JES</td> <td>6/16/08</td> <td>1 of 1</td> <td>NONE</td> </tr> </table>	JOB NO.	DWG. NO.	DRAWN BY	DATE	SHEET	SCALE		B600044-8985-86	JES	6/16/08	1 of 1	NONE
LET.	DATE	ADDED C.P. DETAIL	REVISIONS																		
A	7/28																				
JOB NO.	DWG. NO.	DRAWN BY	DATE	SHEET	SCALE																
	B600044-8985-86	JES	6/16/08	1 of 1	NONE																
Cleveland Cleveland Range LLC, Plant 3 1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042 <small>THIS DRAWING DESCRIBES A CONFIDENTIAL & PROPRIETARY ITEM AND/OR PROJECT AND IS THE PROPERTY OF CLEVELAND RANGE. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PREVIOUS WRITER'S APPROVAL OF CLEVELAND RANGE.</small>																					
PROJECT:	SHEET:																				
JOB NO.	1 of 1																				

Drive Shaft

REPLACEMENT PARTS LIST

ITEM	PART NO.	DESCRIPTION
* 1	1H800-000023	SEAL KIT, REPLACEMENT
2	1FF01-500001	SEALING RING
3	1FD01-500001	SILICONE FILLED SEAL
4	1FS01-5000013	SST SPACING RING
5	SEDSEALS00017	SEAL
6	SE3ORING00046	O-RING
7	1FS04-5000003	SEAL RETAINER PLATE
8	HWS00-3800011	SST LOCK WASHER
9	HWS00-3800016	SST BOLT
10	HWS00-1300001	SST GREASE FITTING
11	NSFLUIDS00001	TUBE FOOD GR. GREASE (NOT SHOWN)
12	1H800-0000005	GREASE GUN (NOT SHOWN)
13	FS01-5000012	DRIVE SHAFT PULLER

* ITEM #1 CONSISTS OF ITEMS #2-6

JOB NO.	DWG. NO. B600036	DRAWN BY JES	DATE 6/13/08	SHEET 1 of 1	SCALE NONE
LET.	REVISIONS	CHECKED BY			

IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:

1. WHEN ORDERING A PART HAVE THIS INFORMATION READY AS WELL AS THE PART NUMBER:
 SITE NAME/LOCATION, UNIT SERIAL NUMBER AND UNIT VOLTAGE.
2. CLEVELAND RANGE RESERVES THE RIGHT TO CHANGE ANY PART NUMBER WITHOUT NOTICE.
3. **OBSELETE ITEMS ARE AVAILABLE AS REPLACEMENT PARTS BUT ARE NO LONGER USED IN CURRENT PRODUCTION MODELS.**

PROJECT: SEAL, SHAFT, AND PULLER, HA-MKDL-60-CCT-RL
 TITLE: REPLACEMENT PARTS

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Product Outlet Valve

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	DFS03-000001	CLAMP
2	SE30-RING00011	O-RING, TEE
3	1FS03-0000006	TEE WITH ACME THREADED END
4	SE30RING00012	O-RING, PLUNGER HEAD
5	1FS02-17500014	PLUNGER HEAD
6	SE30RING00042	O-RING, AIR ACTUATOR
7	ARS03-0000001	AIR ACTUATOR
8	ARSC0-1200003	FEMALE QUICK DISCONNECT SST.
9	ARSC0-1200002	MALE QUICK DISCONNECT SST.

SAMPLE DRAWING
 REFER TO OEM MANUAL FOR SERIAL NO. SPECIFIC PARTS

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 3. **OBsolete items are available as replacement parts but are no longer used in current production models.**

PROJECT		TITLE	
JOB NO.		VALVE, PRODUCT OUTLET, 3" REPLACEMENT PARTS	
SHEET		LET.	REVISIONS
1 of 1		DATE	
		DWG. NO.	B600024
		DRAWN BY	JES
		DATE	6/16/08
		SHEET	1 of 1
		SCALE	NONE
		CHECKED BY	
		REV	-
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Product Valve

REPLACEMENT PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	1HB00-1200002	FEMALE QUICK DISCONNECT BRASS
* 2	AR700-2500002	AIR HOSE
3	1HB00-1200001	MALE QUICK DISCONNECT BRASS
4	AR800-2500020	AIR SOLENOID
-	SP999-9900099	REPAIR KIT FOR ITEM #4
5	ELP00-0000047	DIN CONNECTOR
6	SP888-8800036	REPLACEMENT COIL
7	ARB00-2500028	AIR MUFFLER WITH FLOW CONTROL
8	ARP00-2500001	AIR MUFFLER

*CUSTOMER TO SPECIFY HOSE LENGTH
 HOSE SOLD IN FOOT INCREMENTS ONLY.

SOLENOID, CONTROL, PRODUCT OUTLET VALVE
 REPLACEMENT PARTS

LET.	DATE	REVISIONS

IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:

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PROJECT: _____

JOB NO. _____ SHEET 1 of 1

Cleveland
 Cook/Chill Systems
 Cleveland Range LLC, Plant 3
 1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042
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Shaft Seals

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	1FK02-0000004	60-HAK IDLER BEARING
2	1FS01-2500003	60-HAK IDLER SLEEVE

IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:

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SAMPLE DRAWING

REFER TO OEM MANUAL FOR SERIAL NO. SPECIFIC PARTS

REPLACEMENT PARTS

REVISIONS

DATE

CHECKED BY

REV

SCALE

1 of 1

NONE

60-HAK IDLER BEARING

60-HAK IDLER SLEEVE

60-HAK IDLER BEARING

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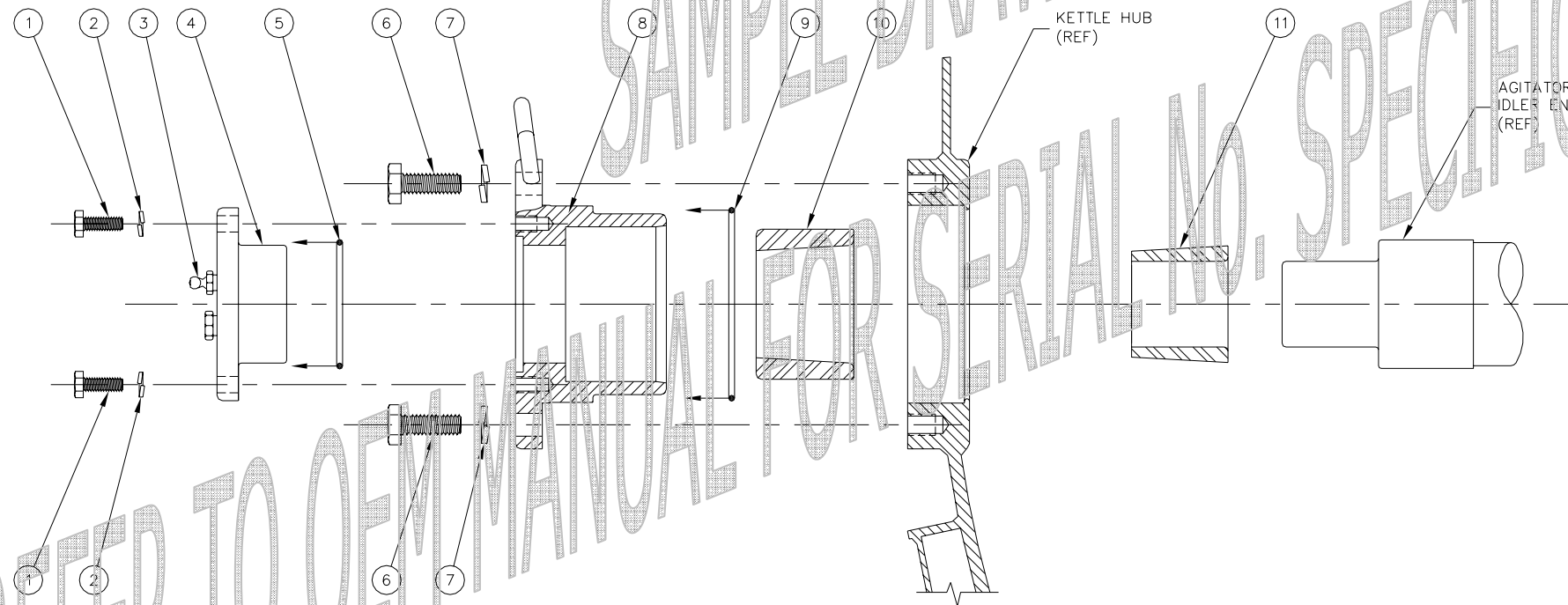
60-HAK IDLER BEARING

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60 GAL HAK CIP IDLER PARTS		
ITEM	PART NO.	DESCRIPTION
1	HWS00-2500023	BOLT
2	HWS00-2500008	WASHER, LOCK
3	HWS00-1300001	FITTING, GREASE
4	1FS03-0000020	COVER, PLATE
5	SE3ORING00061	O-RING
6	HWS00-5000001	BOLT
7	HWS00-5000004	WASHER, LOCK
8	1FS05-2500002	HOLDER, IDLER BEARING
9	SE3ORING00060	O-RING
10	1FK02-5000005	BEARING, IDLER
11	1FS01-5300001	SLEEVE, IDLER



REFER TO OEM MANUAL FOR SERIAL NO. SPECIFIC PARTS

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TITLE		JOB NO.	
BEARING, IDLER, C.I.P., 60 GAL. KETTLE REPLACEMENT PARTS		6600073-8985-86	
LET.	DATE	DRAWN BY	DATE
		JES	6/20/08
			1 of 1
		CHECKED BY	SCALE
			NONE

PROJECT

Cleveland
Cook/Chill Systems

Cleveland
Cleveland Range LLC, Plant 3
1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042

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JOB NO.

SHEET
1 of 1

Potable Water

REPLACEMENT PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	PBB00-7500018	3/4" FILL FAUCET WITH SWING SPOUT
-	PBB00-7500021	3/4" SWING SPOUT FOR ITEM #1
2	ELB00-7500015	POTABLE WATER SOLENOID
-	SP983-8800002	REPLACEMENT COIL FOR ITEM #2
-	SP999-9900004	REPAIR KIT FOR ITEM #2
-	ELPC0-0000000	REPLACEMENT DIN CONN. FOR ITEM #2
3	MSB00-7500001	STRAINER
-	MSE00-7500006	REPLACEMENT SCREEN FOR ITEM #3
4	ELB00-7500018	DIGITAL HOT WATER METER
-	EL800-0000073	REPLACEMENT TRANSMITTER ITEM #4

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REFER TO OLEM MANUAL FOR SERIAL NO. SPECIFIC PARTS

SAMPLE DRAWING

REVISIONS

LET.	DATE	REVISIONS

CHECKED BY

REV	SCALE

TITLE

PLUMBING LINE, POTABLE WATER
 REPLACEMENT PARTS

JOB NO.

DWG. NO. 000045-8985-86
 DRAWN BY JES
 DATE 6/16/08
 SHEET 1 of 1
 SCALE NONE

PROJECT

Cleveland
 Cook/Chill Systems
 Cleveland Range LLC, Plant 3
 1250 Reames Road, Baltimore, Maryland U.S.A. 21220, PH(410) 391-3600, FAX(410) 391-9042

JOB NO.

SHEET

1 of 1

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