



Operators Manual

Electric Table Top Kettles
Installation & Operation

For units built after April 2010

KET-3-T
KET-6-T
KET-12-T
KET-20-T
TKET-3-T
TKET-6-T
TKET-12-T



For your future reference.

Model # _____

Serial # _____

← Model # & Serial #.



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***Read the manual thoroughly.
Improper installation, operation or
maintenance can cause property
damage, injury or death.***

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FOR YOUR SAFETY / POUR VOTRE SÉCURITÉ / PARA SU SEGURIDAD

FOR YOUR SAFETY

Do not store or use gasoline or any other flammable liquids and vapours in the vicinity of this or any other appliance.

POUR VOTRE SÉCURITÉ

Ne pas entreposer ou utiliser d'essence ou d'autres liquides ou vapeurs inflammables à proximité de cet appareil ou de tout autre appareil.

PARA SU SEGURIDAD

No guarde ni use gasolina o cualesquiera otros líquidos o vapores inflamables en las cercanías de éste o cualquier otro aparato.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation and operating instructions thoroughly before installing or servicing this equipment.

AVERTISSEMENT : Une installation, un réglage, une modification, une réparation ou un entretien inadéquat peut occasionner des dommages matériels, des blessures ou la mort. Lire la notice de montage et d'exploitation avant d'installer ou d'entretenir cet équipement.

ADVERTENCIA: La instalación, el ajuste, la alteración, el servicio o el mantenimiento incorrectos pueden ocasionar daños a la propiedad, lesiones o la muerte. Lea detenidamente las instrucciones de instalación y de operación antes de instalar o darle servicio a este equipo.

This appliance is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Cet appareil ne doit pas être utilisé par des personnes dont les capacités physiques, sensorielles ou mentales sont réduites, ou des personnes dénuées d'expérience ou de connaissance, sauf si elles ont pu bénéficier, par l'intermédiaire d'une personne responsable de leur sécurité, d'une surveillance ou d'instructions préalables concernant l'utilisation de l'appareil.

Este aparato no debe ser utilizado por personas con capacidades físicas, sensoriales o mentales reducidas, o que no tengan la experiencia y los conocimientos adecuados, a menos que estas personas hayan recibido supervisión e instrucciones en cuanto al uso del aparato por la persona responsable de la seguridad de ellas.

This appliance is not for use by children and they must be supervised not to play with it.

Cet appareil n'est pas destiné à être utilisé par des enfants et ils doivent être surveillés pour s'assurer qu'ils ne jouent pas avec l'appareil.

Este aparato no debe ser usado por los niños y ellos deben ser supervisados para que no jueguen con el aparato.

Post in a prominent location, instructions to be followed in the event the user smells gas. This information shall be obtained by consulting your local gas supplier.

Affichez à un endroit bien visible les instructions à suivre dans le cas où l'utilisateur sent une odeur de gaz. Ces informations seront obtenues auprès de votre fournisseur de gaz local.

No obstruya el flujo del aire combustión y de ventilación.

Do not obstruct the flow of combustion and ventilation air.

Ne pas obstruer le flux d'air de combustion et de ventilation.

Guarde este manual para su referencia.

Retain this manual for your reference.

Conservez ce manuel pour votre référence

FOR YOUR SAFETY / POUR VOTRE SÉCURITÉ / PARA SU SEGURIDAD

Hazard warnings are for your safety. Absence of a warning does not mean the hazard is not present. Unforeseen actions may result in unanticipated hazards.

Les avertissements de danger sont pour votre sécurité. L'absence d'un avertissement ne signifie pas que le danger n'est pas présent. Les actions imprévues peuvent entraîner des dangers imprévus

Las advertencias sobre los peligros son para su seguridad. La ausencia de una advertencia no significa que el peligro no está presente. Las acciones imprevistas podrían resultar en peligros no anticipados.

IMPORTANT / IMPORTANT / IMPORTANTE



Read the manual thoroughly. Improper installation, operation or maintenance can cause property damage, injury or death. / Lisez le manuel attentivement. Une mauvaise installation, utilisation ou maintenance peut causer des dommages matériels, des blessures ou la mort. / Lea detenidamente el manual. La instalación, la operación o el mantenimiento incorrectos pueden ocasionar daños a la propiedad, lesiones o la muerte.



Inspect unit daily for proper operation. / Inspectez l'unité tous les jours pour son bon fonctionnement. / Inspeccione diariamente el funcionamiento correcto de la unidad.



Do not fill kettle above recommended level marked on outside of kettle. / Ne remplissez pas la chaudière en excès du niveau recommandé marqué sur la chaudière. / No llene la marmita arriba del nivel recomendado marcado fuera de la marmita.



Floor may become slippery from product spillage. / Déversement de produit peut causer de plancher à être glissant. / Derrame de producto puede causar piso a ser resbaladizo.



Unit must be anchored as per manual. / Unité doit être ancrée selon les directives du manuel. / Unidad debe estar fijado según el manual.

CAUTION / ATTENTION / PRECAUCIÓN



Keep clear of pressure relief discharge. / Restez à l'écart de la soupape de sûreté. / Permanezca alejado de la descarga de presión.



Keep hands away from moving parts and pinch points. / Gardez les mains loin des pièces mobiles et des points de pincement. / Mantenga las manos lejos de piezas móviles y puntos de presión muy localizada.



Surfaces and product may be hot! Wear protective equipment. / Les surfaces et le produit peuvent être chauds! Portez un équipement de protection. / ¡Las superficies y el producto pueden estar calientes! Utilice equipo protector.



Hot! / Chauds ! / ¡Caliente!



Do not climb, sit or stand on equipment. / Il ne faut pas monter, s'asseoir ni se tenir debout sur l'équipement. / No subirse, ni sentarse ni pararse sobre el equipo.



Stand clear of product discharge path when discharging hot product. / Écartez-vous du chemin de décharge d'un produit chaud. / Permanezca alejado de la ruta de descarga del producto al vaciar producto caliente.



Do not lean on or place objects on kettle lip. / Ne vous appuyez pas et ne placez pas d'objets sur le bec de la chaudière. / No se apoye o coloque objetos en el borde de la marmita.

SERVICING / ENTRETIEN / SERVICIO



Remove electrical power prior to servicing. / Coupez l'alimentation électrique avant l'entretien. / Desconecte la energía eléctrica antes de darle servicio.



Ensure kettle is at room temperature and pressure gauge is showing zero or less prior to removing any fittings. / Assurez-vous que la chaudière est à température ambiante et que le manomètre est à zéro ou moins avant de retirer des accessoires. / Asegúrese de que la marmita esté a temperatura ambiente y el manómetro esté mostrando cero o menos antes de retirar cualquier accesorio.



Have a qualified service technician maintain your equipment. / Demandez à un technicien en entretien et en réparation qualifié d'effectuer l'entretien de votre équipement. / Haga que un técnico de servicio calificado mantenga su equipo.

INSTALLATION

GENERAL

Installation of the kettle must be accomplished by qualified electrical installation personnel working to all applicable local and national codes. Improper installation of product could cause injury or damage.

This equipment is built to comply with applicable standards for manufacturers. Included among those approval agencies are: UL, NSF, ASME/Ntl. Bd., CSA, CGA, ETL, and others. Many local codes exist, and it is the responsibility of the owner/installer to comply with these codes.

RECEIVING INSPECTION

Before unpacking visually inspect the unit for evidence of damage during shipping.

If damage is noticed, do not unpack the unit, follow Shipping Damage Instructions shown below.

SHIPPING DAMAGE INSTRUCTIONS

If shipping damage to the unit is discovered or suspected, observe the following guidelines in preparing a shipping damage claim.

1. Write down a description of the damage or the reason for suspecting damage as soon as it is discovered. This will help in filling out the claim forms later.
2. As soon as damage is discovered or suspected, notify the carrier that delivered the shipment.
3. Arrange for the carrier's representative to examine the damage.
4. Fill out all carrier claims forms and have the examining carrier sign and date each form.

APPROXIMATE WEIGHTS

Model #	Unit	Unit with shipping box
KET3T	55 lbs.	95 lbs.
KET6T/GB	130 lbs.	170 lbs.
KET12T/GB	150 lbs.	190 lbs.
KET20T	220 lbs.	260 lbs.
TKET3T	95 lbs.	135 lbs.
TKET6T	186 lbs.	226 lbs.
TKET12T	275 lbs.	315 lbs.

UNCRATING

Caution:

Straps under tension and will snap when cut.

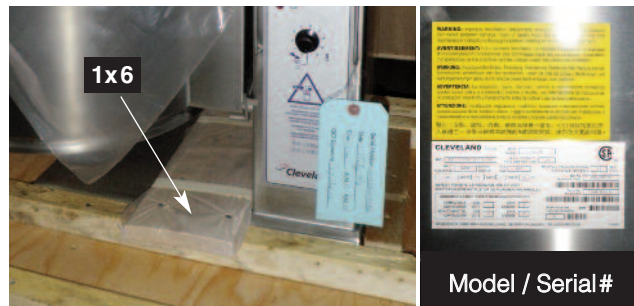
Carton may contain staples and Skid contains Nails.

Use proper safety equipment and precautions.

Unit is heavy use adequate help or lifting equipment as needed.



1. Carefully cut any straps from container.
2. Lift off carton.
3. Inspect for hidden damage. If found refer to "SHIPPING DAMAGE INSTRUCTIONS".
4. Cut strap holding unit.



5. Remove 1X6 holding unit in place.
6. Remove manual from kettle pot. Write down the model # and serial# of the unit onto the front of this manual.
7. Lift kettle off skid and move kettle to its installation location.
8. Discard packaging material according to local and or state requirements.

POSITIONING

Units must be positioned on a firm, level stand that has been bolted in place, or existing counter top, and bolted in place.

For mounting, these models are supplied with four threaded bushings welded to the underside of the base.

The first installation step is to refer to the Specification Sheets or Specification Drawings for detailed clearance requirements and mounting hole locations of the kettle. If you don't have access to a specification sheet, check the bottom of the kettle for location of threaded mounting bushings.

CLEARANCE REQUIREMENTS

Model #	Back*	Left Side	Right Side
KET-3-T	0	0	0
KET-6-T	6"	0	0
KET-12-T	6"	0	0
KET-20-T	9"	0	0
TKET-3-T	7 1/8"	0	0
TKET-6-T	7 1/8"	0	0
TKET-12-T	9 7/8"	0	0

* From back of mounting base.

Countertop Models

1. Drill mounting holes. If mounting to a Cleveland stand holes are already predrilled.
2. Position the unit in its permanent location.
3. Once positioned permanently secure the unit to the mounting surface with the hardware provided.
4. Seal around base of unit with silicone sealant.
5. Remove protective material covering stainless steel surfaces.

KET-20-T Leg Type Models

For floor type leg mount models position on a firm, level surface, level using adjustable feet and bolt two flanged feet in place. Once the kettle is secure, screw tilt handle into the threaded hole provided at the right of kettle.

ELECTRICAL

ENSURE THE ELECTRICAL SUPPLY MATCHES THE KETTLE'S REQUIREMENTS AS STATED ON THE RATING LABEL.

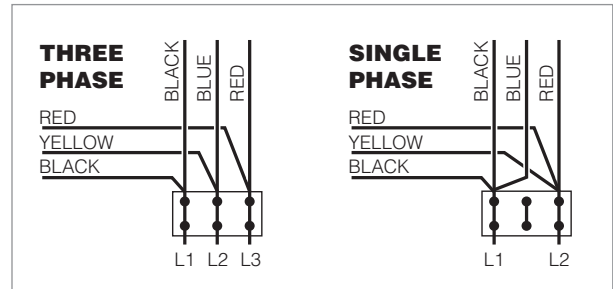
Install in accordance with local codes and/or the National Electric Code ANSI/NFPA No. 70 (USA) or the Canadian Electric Code CSA Standard C22.2 (Canada). A separate fused disconnect switch must be supplied and installed. The kettle must be electrically grounded by the installer.

POUR PATHS

Kettle Size	Min.	Max.
3 Gallon	15 1/2"	32"
6 Gallon	17 1/4"	36"
12 Gallon	18"	38"
20 Gallon	22"	45"

A wiring diagram is affixed to the underside of the console cover.

Remove the four screws securing the console cover and remove the cover. Using a water tight fitting feed permanent copper wiring through the cut-out in the rear or bottom of the console, and fasten to the three connection terminal block, which is mounted on the top of the console's control panel. Be sure to connect the ground wire to the separate ground terminal connector (ground lug). Replace console cover and secure it with the four screws.



The kettle is wired for 3-phase operation at the factory. For single phase operation, rewire the terminal block to that shown in the above diagram.

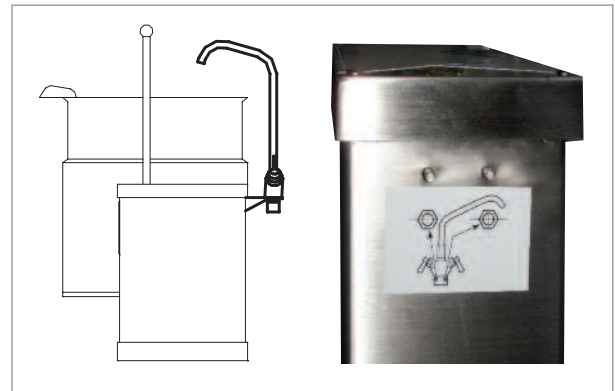
Note: Ensure main power is turned off before connecting wires.

WATER FOR JACKET

The sealed jacket of the electric kettle is precharged with the correct amount of a water based formula, and therefore, no water connection is required to the kettle jacket.

FAUCET SPOUT

The kettle can be equipped with optional hot and/or cold water faucet, requiring 1/2" copper tubing as supply lines. Mount faucet bracket to the rear of the unit or studs provided. Assemble faucet onto bracket and check for leaks.



INSTALLATION CHECKS

Although the kettle has been thoroughly tested before leaving the factory, the installer is responsible for ensuring the proper operation of kettle once installed.

Visual Checks

1. Check unit is bolted in place.
1. Check Marine Lock. See Marine Lock Testing Procedure.
2. Check Tilting:
 - A/ Handle is in place and firmly tightened.
 - B/ Kettle tilts smoothly and freely.
3. Insure there are:
 - A/ Four screws securely holding the console cover.
 - B/ The bottom cover is in place and held with a nut.

Performance Checks

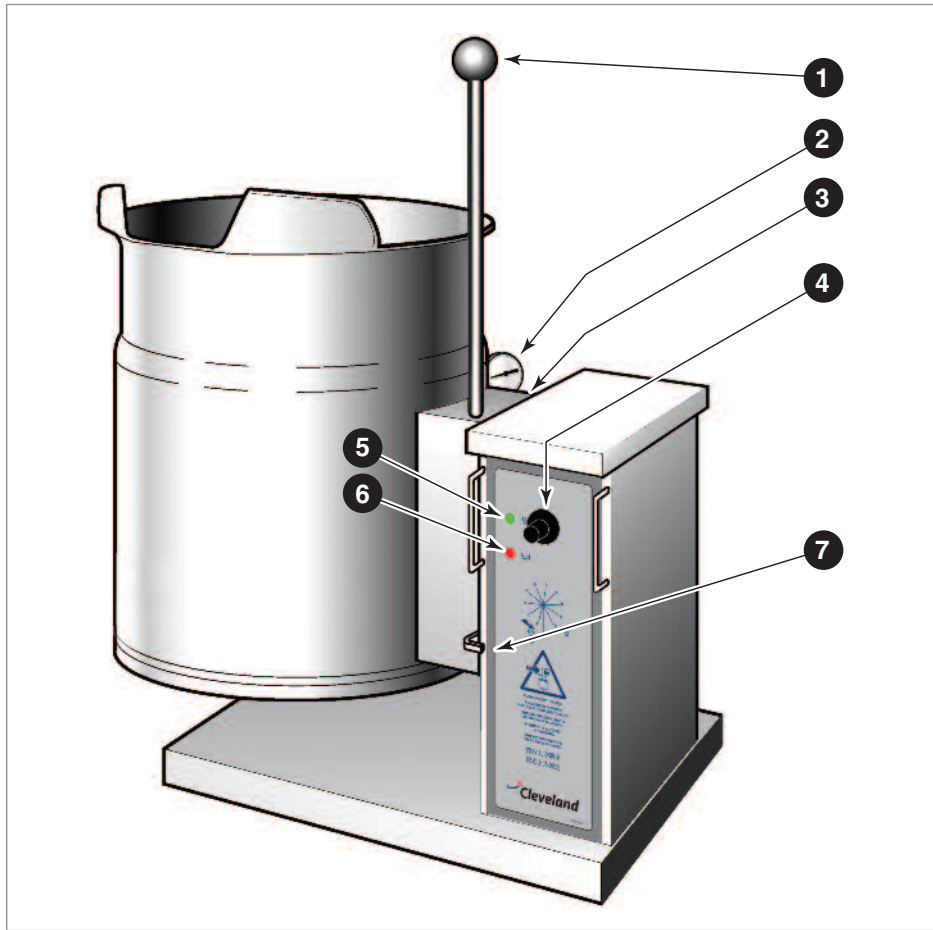
1. Supply power to the kettle by placing the fused disconnect switch to the "ON" position.
2. Before turning the kettle on, read the Vacuum/Pressure Gauge. The gauge's needle should be in the green zone. If the needle is in the "VENT AIR" zone, follow Kettle Venting Instructions.
3. Turn the kettle's ON/OFF Switch/Solid State Temperature Control to "1" (Min.). The Heat Indicator Light (Green) should remain lit, indicating the element is on, until the set temperature is reached (130°F/54°C). Then the green light will cycle on and off, indicating the element is cycling on and off to maintain temperature.
4. Tilt the kettle forward. After a few seconds the Low Water Indicator Light (Red) should be lit when the kettle is in a tilted position. This light indicates that the element has automatically been shut off by the kettle's safety circuit. This is a normal condition when the kettle is in a tilted position.
5. Raise the kettle to the upright position. The Low Water Indicator Light (Red) should go out when the kettle is upright.
6. Turn the ON/OFF Switch/Solid State Temperature Control to "10" (Max.) and allow the kettle to preheat. The green light should remain on until the set temperature (260°F/127°C) is reached. Then the green light will cycle ON and OFF, indicating the element is cycling ON and OFF to maintain temperature. Fill the kettle with cold water to the steam jacket's welded seam. Refer to the Temperature Range Chart for the time required to bring the water to a boil.
7. When all testing is complete, empty the kettle and turn the ON/OFF Switch/Solid State Temperature Control to the "OFF" position.



CLEANING

After installation the kettle must be thoroughly cleaned and sanitized prior to cooking. See Cleaning Instructions.

OPERATING INSTRUCTIONS



ITEM # DESCRIPTION

1. **Tilting Handle** - Used for tilting the kettle.
2. **Vacuum/Pressure Gauge** - Indicate steam pressure in PSI inside steam jacket as well as vacuum in inches of mercury.
3. **Pressure Relief Valve** (not shown) - This valve is used to vent the kettle and in the unlikely event there is an excess steam build-up in the jacket, this valve opens automatically to relieve this pressure.
4. **On-Off Switch/Solid State Temperature Control** - Turns kettle ON/OFF and allows the operator to adjust the kettle temperature in increments from 1 (Min.) to 10 (Max.). (see Temperature Range Chart in the Operating Instructions section).
5. **Heat Indicator Light** (Green) - When lit, indicates that the kettle element is on. Cycles ON-OFF with element.
6. **Low Water Indicator Light** (Red) - When lit, indicates that the kettle is low on water and will not operate in this condition. This will also light when the kettle is tilted.
7. **Marine Lock** - Prevents unit from accidental tilting.



OPERATING THE KETTLE

1. Before turning kettle on, read the Vacuum/Pressure Gauge. The gauges needle should be in the green zone. Once heated, the kettle's normal maximum operating pressure is approximately 10-12 psi, while cooking a water base product.
2. Ensure that the electrical service to the kettle is turned on at the fused disconnect switch.

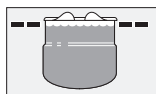
Temperature Control Setting	Approximate Product Temperature	
	°F	°C
1. (Min.)	130	54
2.	145	63
3.	160	71
4.	170	77
5.	185	85
6.	195	91
7.	210	99
8.	230	110
9.	245	118
10. (Max.)	260	127
NOTE: Certain combinations of ingredients will result in temperature variations		

Temperature Range Chart

3. Preheat the kettle by turning the ON/OFF Switch/Solid State Temperature Control to the desired temperature setting (see above "Temperature Range Chart"). The Heat Indicator Light (Green) will remain lit, indicating the burner is lit, until the temperature setting is reached. When the green light goes off, the heaters are off, and preheating is complete.

NOTE: When cooking egg and milk products, the kettle should not be preheated, as products of this nature adhere to hot cooking surfaces. These types of food should be placed in the kettle before heating is begun.

4. Place food product into the kettle. The Heat Indicator Light (Green) will cycle on and off indicating the elements are cycling on and off to maintain the set temperature.



NOTE: Do not fill kettle above recommended level marked on outside of kettle.

NOTE: The Low Water Indicator Light (Red) should not be lit when kettle is in upright position during operation. This light indicates that the elements have been automatically shut off by the kettle's safety circuit. It is, however, normal for the red light to come on when the kettle is in a tilted position.

5. When cooking is completed place ON/OFF Switch/Solid State Temperature Control to the "OFF" position.

6. Pour the contents of the kettle into an appropriate container by tilting the kettle forward. Care should be taken to pour slowly enough to avoid splashing off the product.

NOTE: As with cleaning food soil from any cookware, an important part of kettle cleaning is to prevent food from drying on. For this reason, cleaning should be completed immediately after cooked foods are removed.

APPROXIMATE BOILING TIMES

Kettle Capacity	Minutes
3 gallon/11 litre	15
6 gallon/23 litre	20
12 gallon/45 litre	25
20 gallon/80 litre	40

Approximate Boiling Times

The accompanying chart shows approximate times required for electric kettles of various capacities to boil water. The ON/OFF Switch/Solid State Temperature Control must be set at "10" (Max.) throughout the heatup period. Water will boil about 1/3 faster if the kettle is filled only to the outer steam jacket's welded seam, resulting in a kettle filled to 2/3 capacity.

MARINE LOCK



Your unit is equipped with a marine lock to prevent accidental tilting. The following procedure should be used to tilt the kettle.

1. Grasp the tilt handle.
2. Hold the latch down to unlock tilting mechanism.
3. Pull the handle to tilt kettle.
4. To lock, return the kettle to its upright position and push handle back.

NOTE: Inspect lock daily to ensure it is free moving and does not bind or stick. Clean lock if necessary (see Cleaning Instructions for details)

CLEANING INSTRUCTIONS



CARE AND CLEANING

Cooking equipment must be cleaned regularly to maintain its fast, efficient cooking performance and to ensure its continued safe, reliable operation. The best time to clean is shortly after each use (allow unit to cool to a safe temperature).

WARNINGS



Chloride Cleaners

Do not use detergents or cleansers that are chloride based or contain quaternary salt.



Wire Brush & Scrapers

Do not use a metal bristle brush or scraper.



Steel Pads

Steel wool should never be used for cleaning the stainless steel.



High Pressure Spray Hose

Unit should never be cleaned with a high pressure spray hose.



Stagnant Water

Do not leave water sitting in unit when not in use.

CLEANING INSTRUCTIONS

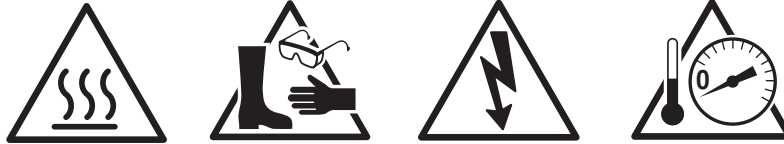
1. Turn unit off.
2. Remove drain screen (if applicable). Thoroughly wash and rinse the screen either in a sink or a dishwasher.
3. Prepare a warm water and mild detergent solution in the unit.
4. Remove food soil using a nylon brush.
5. Loosen food which is stuck by allowing it to soak at a low temperature setting.
6. Drain unit.
7. Rinse interior thoroughly.
8. Using mild soapy water and a damp sponge, wash the exterior, rinse, and dry.

NOTES

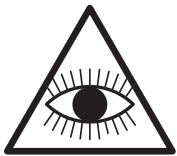
- ⇒ For more difficult cleaning applications one of the following can be used: alcohol, baking soda, vinegar, or a solution of ammonia in water.
- ⇒ Leave the cover off when the kettle is not in use.
- ⇒ For more detailed instructions refer to Stainless Steel Equipment Care and Cleaning (www.nafem.org/resources/stainlesssteelfinal.doc) on Nafem's website (www.nafem.org).

PREVENTATIVE MAINTENANCE

FOR MAINTENANCE AND REPAIRS CONTACT YOUR
AUTHORIZED MANITOWOC SERVICE AGENCY AND HAVE A
QUALIFIED SERVICE TECHNICIAN MAINTAIN YOUR EQUIPMENT.



Refer to maintenance procedures and parts list manual
for detailed maintenance and testing instructions.



DAILY PRE-STARTUP INSPECTION

1. Kettle tilts smoothly.
2. Pressure Gauge (**E**) is in the green when unit is cold.
3. Green Light (**F**) comes on when unit is energized.
4. Red Light (**G**) comes on when unit is tilted (tilting models only).

SIX MONTH SERVICE INSPECTION

1. Perform daily startup inspection.
2. Grease bearings on both trunnions.
3. Fasteners securing panels are in place and tight.
4. Perform pressure relief valve periodic test (see PRESSURE RELIEF VALVE TESTING).
5. Insure there are four screws firmly holding down the cover. If not replace screws and/or missing or worn nylon anchor nuts.
6. Check the bottom cover gasket is in place and not cracked.
7. Unit is bolted in place.

YEARLY SERVICE INSPECTION

1. Perform six month service inspection.
2. Check kettle maximum temperature setting (see CALIBRATING PROCEDURE).
3. Perform safety inspection using SAFETY INSPECITON CHECKLIST found in the MAINTENANCE PROCEDURES.