



Super Runner 38 Series Electric Fryers (CE)
Installation & Operation Manual

CE ONLY



DEAN



Dean, a member of the Commercial Food Equipment Service Association, recommends using CFESA Certified Technicians.

24-Hour Service Hotline 1-800-551-8633

Price: \$6.00

**819-5709
04-99**

PLEASE READ ALL SECTIONS OF THIS MANUAL AND RETAIN FOR FUTURE REFERENCE.

THIS PRODUCT HAS BEEN CERTIFIED AS COMMERCIAL COOKING EQUIPMENT AND MUST BE INSTALLED BY PROFESSIONAL PERSONNEL AS SPECIFIED.

WE SUGGEST INSTALLATION, MAINTENANCE AND REPAIRS SHOULD BE PERFORMED BY YOUR LOCAL DEAN FACTORY AUTHORIZED SERVICE AGENCY.

WARNING!

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY, OR DEATH. READ THE INSTALLATION, OPERATING, AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IMPORTANT

SAFE AND SATISFACTORY OPERATION OF YOUR EQUIPMENT DEPENDS ON ITS PROPER INSTALLATION. INSTALLATION MUST BE PLANNED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES OR IN THE ABSENCE OF LOCAL CODES, WITH THE NATIONAL ELECTRICAL CODE, NFPA 70-1984 (OR LATEST EDITIONS).

WARNING!

DO NOT INSTALL SWIVEL CASTERS ON THIS UNIT. UNIT MAY TIP AND CAUSE SEVERE INJURY. LEGS OR A COMBINATION OF REAR FIXED CASTERS AND FRONT LEGS MAY BE INSTALLED ON THIS UNIT ONLY

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER COOKING APPLIANCE.

IMPORTANT

THE SERVICER/INSTALLER MUST USE A GOOSE NECK AND RETAINER TO PROTECT THE POWER CORD SET

Cover Photo

SR38E w/15cm (6") Legs

DEAN

SUPER RUNNER 38 ELECTRIC FRYER

INSTALLATION, OPERATION, SERVICE & PARTS MANUAL

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1. PARTS ORDERING AND SERVICE INFORMATION

1.1 ORDERING PARTS:

Customers may order parts directly from their local Authorized Parts Distributor. For this address and phone number, contact your Maintenance & Repair Center or call the Dean Factory Service Hotline. The factory address and phone numbers are on the cover of this booklet.

To speed up your order, the following information is required:

Model Number	
Serial Number	
Type of Voltage	
Item Part Number	
Quantity Needed	

1.2 SERVICE INFORMATION:

Call the Dean Factory Service Hotline number on the cover of this booklet for the location of your nearest Maintenance & Repair Center or contact the factory direct. Always give the model and serial numbers of your filter and fryer.

To assist you more efficiently, the following information will be needed:

Model Number	
Serial Number	
Voltage	
Nature of the Problem	
Any other information which may be helpful in solving your service problem.	

1.3 AFTER SALES:

In order to improve service, have the following chart filled in by the Dean Authorized Servicer who installed this equipment.

Authorized Servicer	
Address	
Telephone/Fax	
Model #	
Serial #	
Type:	
Fryer Equipped For:	

2. IMPORTANT INFORMATION

2.1 DESCRIPTION: The Dean Super Runner Series 38 electric fryers are energy-efficient, electrically heated units, certified by NSF and the Underwriters Laboratory and manufactured to their basic performance and application specifications. The Dean SR38-E is certified for installation and operation in the European Community (CE).

Units are shipped completely assembled with any accessories packed inside the fryer vessel. They are adjusted, tested, and inspected at the factory prior to crating for shipment. Sizes, weights and input rates are listed in this manual.

2.2 DESIGN SPECIFICATIONS:

- a. **VESSEL CONSTRUCTION:** Welded, heavy gauge steel with three heater elements fixed inside the vessel with a protective, chromed wire mesh crumb screen over the elements. Drain tapped into front right corner of vessel with front-controlled manual drain valve.
- b. **BODY CONSTRUCTION:** An aluminized steel base with stainless steel front and enamel sides. The frame is supported by 15 cm (6 inches) adjustable legs or optional 15 cm (6 inches) rigid rear casters.
- c. **OPERATING CONTROLS:** Unit is shipped standard with a liquid filled bulb thermostat. The temperature control is mounted in the cabinet behind the front door on the bottom left side of the cabinet.
- d. **AUTOMATIC SAFETY FEATURE:** High temperature detection to shut-off electric heater elements should the controlling thermostat fail.

- e. **RATING PLATE:** This is attached to the inside front door panel. Information provided includes the kilowatt (kW) output of the heater elements and electrical requirements.



DANGER!

THE FRYER MUST BE CONNECTED ONLY TO THE TYPE OF ELECTRICAL SERVICE IDENTIFIED ON THE ATTACHED RATING PLATE.

2.3 PRE-INSTALLATION:

- a. **GENERAL:** A licensed electrician should install any electrically heated equipment.
- b. **CLEARANCES:** The fryer area must be kept free and clear of all combustibles. This unit is design-certified for the following installations:
 1. Other than household use;
 2. Non-combustible floor installation equipped with factory-supplied 15 cm (6 inches) adjustable legs or optional 15 cm (6 inches) rigid rear casters;
 3. Combustible construction with a minimum clearance of 15 cm (6 inches) side and 15 cm (6 inches) rear, and equipped with factory-supplied 15 cm (6 inches) adjustable legs or 15 cm (6 inches) rigid casters.

CAUTION

LOCAL BUILDING CODES USUALLY PROHIBIT A FRYER WITH ITS OPEN TANK OF HOT OIL FROM BEING INSTALLED BESIDE AN OPEN FLAME OF ANY TYPE, WHETHER A BROILER OR THE OPEN BURNER OF A RANGE.

- c. **STANDARDS:** All electrical cooking appliances must be electrically connected and grounded in accordance with local codes, or in the absence of local codes, with the latest editions of the European Community (CE) standards.

2.4 AIR SUPPLY & VENTILATION:

- a. The area around the fryer must be kept clear to prevent any obstruction to ventilation air flow as well as for service and maintenance. Never use the interior of the fryer's cabinet for storage.
- b. A commercial, heavy-duty fryer should be vented to the outside of the building.
- c. Filters and drip troughs should be part of any industrial hood, but consult local codes before constructing and installing any hood.

2.5 RECEIVING AND UNPACKING:

Check that the container is upright. Unpack the fryer carefully and remove all accessories from the carton. Do not discard or misplace these, as they will be needed.

After unpacking, immediately check the equipment for visible signs of shipping damage. If such damage has occurred, contact the carrier and file the appropriate freight claims. Do not contact the factory, as the responsibility of shipping damage is between the carrier and the dealer or end-user.

If your equipment arrives damaged:

- ◆ File claim for damages immediately, regardless of extent of damage.
- ◆ Visible loss or damage: Be sure this is noted on the freight bill or express receipt

and is signed by the person making the delivery.

- ◆ Concealed loss or damage: If damage is unnoticed until equipment is unpacked, notify freight company or carrier immediately, and file a concealed damage claim. This should be done within fifteen (15) days of date of delivery. Be sure to retain container for inspection.

NOTE: Dean does not assume responsibility for damage or loss incurred in transit.

3. INSTALLATION

3.1 POSITIONING:

- a. Initial Installation: If installed with legs, do not push against any unit edges to adjust its position. Use a pallet or lift jack to lift it slightly and place it where it is to be installed.
- b. Relocating The Fryer: If relocating a fryer installed with legs, remove all weight from each leg before moving.

Note: If a leg becomes damaged during movement, contact your service agent for immediate repair/replacement of that leg.

DANGER!

THIS FRYER MAY TIP AND CAUSE PERSONAL INJURY IF NOT SECURED IN A STATIONARY POSITION. REMOVE ALL SHORTENING BEFORE MOVING FRYER AS IT MAY CAUSE SEVERE BURNS UPON CONTACT.

3.2 LEG AND CASTER INSTALLATION:

- a. General:
 1. Install legs and casters (optional) near where the fryer is to be used, as neither are secure for long transit. Unit cannot be curb mounted and must be equipped with the legs (or legs and optional rigid casters) provided.
 2. When positioning the fryer, gently lower the fryer into position to prevent undue strain to the legs and internal mounting hardware. Use a pallet or lift jack to lift and position the fryer if possible. Tilting the fryer may damage the legs.
 3. If the optional rigid casters are to be installed on the fryer, the casters

must be installed on the fryer rear channel assembly only.

4. Proceed to Step 3.3, Leveling, after legs and/or optional rear rigid casters are installed to ensure the fryer is level before using.

b. Leg Installation:

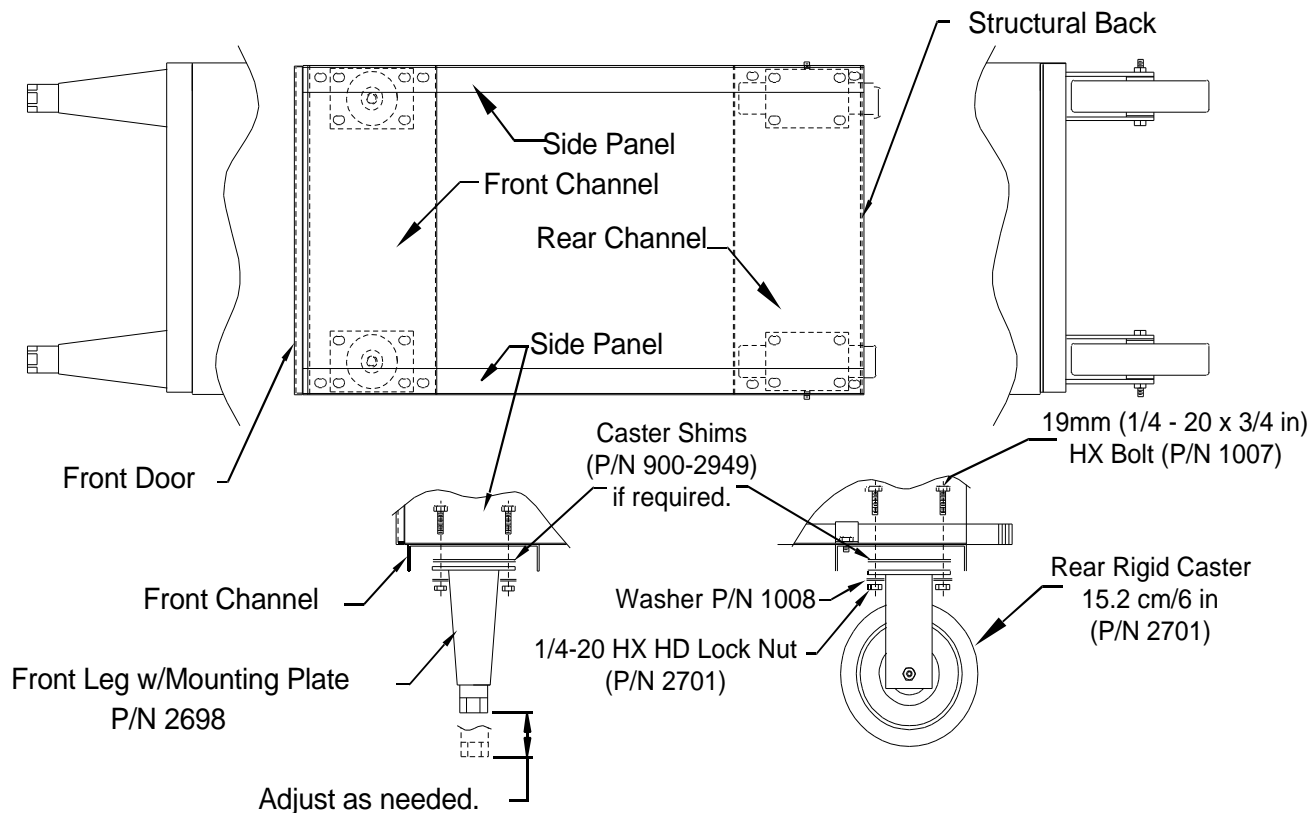
1. Remove unit from pallet.
2. Carefully raise unit with forklift, pallet jack, or other steady means.
3. Insert hex head bolts (1/4-20 threads by 19mm (3/4") long) from top of side panels and channels through bolt holes of leg mounting plates as shown in the Figure 3-1 on the next page.
4. Mount washer and lock nuts (1/4-20 threads Stover lock nut) from bottom of the leg mounting plates. The lock nut has a portion of threads deflected. Make sure the nut starts freely on the bolt like a common nut until the deflected thread portion is reached.
5. On the front door hinge corner, the bolts will be inserted first through the holes of the hinge plate, then followed with side panel, channel, and leg mounting plate.
6. Tighten the bolts and nuts with each bolt to 5.65 joules (50 inch-lbs.) minimum torque.

CAUTION

FOR CASTER RETROFIT, THE UNIT MUST BE AT ROOM TEMPERATURE AND DRAINED OF SHORTENING BEFORE INSTALLING THE CASTERS.

c. Installing Optional Rear Rigid Casters:

1. Install casters only at the rear of the unit as shown in the Figure 3-1.
2. Follow the same instructions for leg installations as given above in steps 3.2.b.1-6.



Leg and Rigid Caster Installations
Figure 3-1



WARNING!

A FRYER MUST BE LEVEL BEFORE FILLING WITH OIL. IF THE FRYER IS NOT LEVEL, THE FRYER MAY TIP OVER AND MAY CAUSE INJURY TO THE OPERATOR.

3.3 LEVELING:

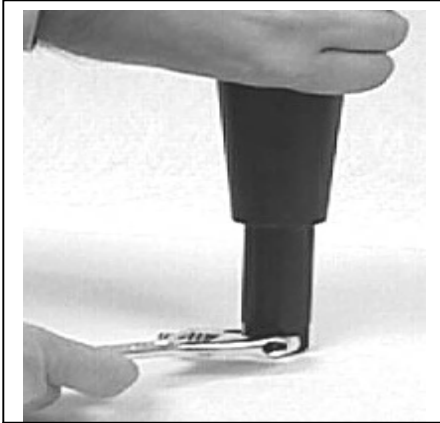
- a. Place a carpenter's spirit level across the top of the fryer and level the unit both front-to-back and side-to-side. If the fryer is not level, the unit may not function efficiently, the oil may not drain properly for filtering and in a

line-up it may not match adjacent units.

b. Legs (Only):

1. If the floor is smooth and level, level the unit by using the caster shims. Adjust to the high corner and measure with the spirit level.
2. Adjust leg height with an adjustable or 27mm (1-1/16") open end wrench by turning the hex bullet on the bottom of the leg. See figure 3-2 on page 7.
3. **The hex bullet is for minor leg height adjustment only. Do not adjust more than 22mm (1").**
4. When leveling the unit, the leg body should be held firmly to keep the leg from rotating while

turning the hex bullet foot to the required height.



Adjust leg height with an adjustable wrench.

Figure 3-2

c. Rigid Casters (Only):

1. Install the optional rigid casters on the fryer rear channel only.
2. Do not use more than two metal shims per caster.
3. There are no thread adjustments for the rigid casters.



WARNING!

DO NOT USE MORE THAN TWO METAL SHIMS PER LEG/CASTER.

USING MORE THAN TWO SHIMS PER LEG/CASTER MAY CAUSE THE FRYER TO BECOME UNSTABLE, TIP OVER, AND MAY CAUSE INJURY TO THE OPERATOR.

- d. If the floor is uneven or has a decided slope, it is recommended to place the fryer

on a smooth platform. Do not rely on leg thread or caster shims for adjustments.

- e. If the fryer is moved, re-level the fryer following the instructions given in Steps 3.3.a-c.
- f. This fryer must be restrained to prevent tipping when installed in order to avoid the splashing of hot liquid. The means of restraint may depend on the type of application, such as connecting to a battery of appliances or installing the fryer in an alcove, or by separate means, such as restraining devices. A bracket has been provided on the fryer back panel for this purpose.

The install must be reviewed at the time of installation to ensure it meets the intent of these instructions. The on-site supervisor and/or operator(s) should be made aware that there is a restraint on the appliance and, if disconnection of the restraint is necessary, to reconnect this restraint after the appliance has been returned to its originally installed position.

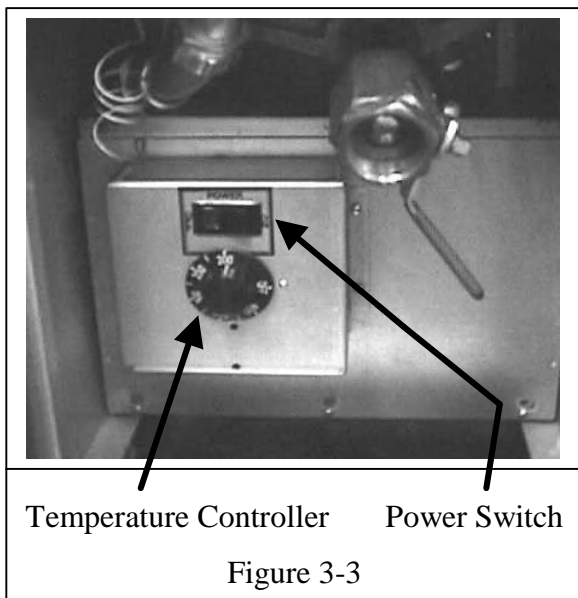
3.4 ELECTRICAL CONNECTIONS:

Plan and carry out installation in accordance with local codes.

- a. Connections: Connections to the terminal block and grounding lug should be made through the hole provided for this purpose in the junction box. To install this fryer, the servicer/installer must use a goose neck and retainer to protect the cord set.
- b. Wiring Diagram: It is attached to the inside of the fryer door. Amperage for each unit depends on the type of installation and accessories supplied with the unit. A 230/400V Wiring Diagram is provided in Chapter 7 also.

3.5 INITIAL START-UP:

- a. **CLEANING:** New units are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, grease, etc. remaining from the manufacturing process, then coated lightly with oil. Wash thoroughly with hot, soapy water to remove any film residue and dust or debris before food preparation, then rinse out and wipe dry. Wash also any accessories shipped with the unit. Close the drain valve completely and remove the crumb screen. Make sure the screws holding the thermostat and limit control sensing bulbs into the vessel are tight.
- b. **HEATING THE VESSEL:** This step checks heater element operation, initial thermostat calibration, and cleans the vessel for initial food production.
 1. Fill the fryer vessel with hot or cold water to the oil level line scribed in the back of the tank.
 2. Set the thermostat/temperature controller dial to 100°C/220°F, just above that of boiling water.



3. Toggle the power switch “ON”. The heater elements will begin heating.

4. When the water starts to boil, turn the dial to below 99°C/210°F. The elements will turn off and the water will stop boiling.
5. When satisfied that the heaters and thermostat operate properly, drain the vessel of water and dry thoroughly. Refill fry vessel with shortening as directed in section 3.6, Final Preparation.

3.6 FINAL PREPARATION:

- a. When using liquid shortening (cooking oil), fill the fryer to the “oil level” line scribed into the back of the fryer vessel.
- b. When using solid shortening, either melt it first, or cut into small pieces and pack into cool zone (bottom) of the frying vessel. Be careful to not leave any air spaces or disturb the sensing bulbs. Melt shortening by turning the heaters “ON” for about five or ten seconds, “OFF” for a minute, repeating cycle until shortening is melted. If oil starts to smoke while melting this way, shorten the “ON” cycle and lengthen the “OFF” cycle. Smoke shows that you are scorching the shortening and cutting its useful life.

NOTE: Never melt a solid block of shortening by setting it in the vessel or on top of the heating elements. This is unsafe, inefficient, and dangerous.

- c. When the fryer vessel is filled and the shortening melted, replace the crumb screen over the heater elements.
- d. Before starting operation, turn the temperature controller to the probable working temperature; wait for the temperature to stabilize then check with a high-quality immersion thermometer.



WARNINGS

NEVER OPERATE FRYER WITHOUT ENOUGH COOKING COMPOUND OR WATER IN THE VESSEL TO COVER THE HEATING ELEMENTS.

ALWAYS WEAR OIL-PROOF, INSULATED GLOVES WHEN WORKING WITH THE FRYER FILLED WITH HOT OIL.

ALWAYS DRAIN HOT OIL INTO A METAL CONTAINER. HOT OIL CAN MELT PLASTIC BUCKETS AND CRACK GLASS CONTAINERS.

4. DAILY OPERATION

4.1 OPENING: At opening time, always visually check that the power switch and the thermostat are “OFF”.

CAUTION

IF ELECTRICAL POWER SERVICE IS INTERRUPTED FOR MORE THAN A FEW SECONDS, TURN FRYER OFF. THIS WILL PREVENT THE FRYER FROM ACCIDENTALLY HEATING OIL WHEN POWER SERVICE IS RESUMED.

4.2 GENERAL USE:

- a. For consistent quality product, convenience and long-term savings, use a high-quality liquid frying compound.



WARNING!

IF USING SOLID SHORTENING, NEVER MELT A BLOCK OF SHORTENING BY SETTING IT WHOLE IN THE FRYER VESSEL. THIS IS DANGEROUS AND CAN EASILY CAUSE THE SHORTENING TO OVERHEAT, SCORCH, DAMAGE THE ELEMENTS OR POSSIBLY A FIRE.

- b. Although a temperature of 177°C (350°F) is recommended for most cooking operations, set the fryer at the lowest possible temperature which produces a high quality end product while ensuring maximum life of frying compound.

- c. When the fryer is not in use, the thermostat should be set lower than that used during cooking.

4.3 TURN ON PROCEDURES:

- a. If fryer is empty, pour enough frying compound into the vessel to fill the vessel to the "oil level" line scribed on the rear wall. If solid shortening is to be used, melt enough in a separate container to cover the heating elements in the bottom of the vessel, then melt the rest in the vessel by turning power switch off and on.
- b. Turn the power switch on; set temperature controller to 177°C (350°F). In less than 30 minutes, the frying compound temperature will stabilize and be ready for production.

4.4 FILTERING:

- a. General: Filtering the frying compound assures a better taste to the food being prepared, minimizes flavors being transferred from batch to batch, and increases frying compound lifespan.

Filter the frying compound at least once daily or more frequently if cooking is heavy.

- b. Prior to filtering, align the filter unit with the drain valve. Attach the drain valve extension to ensure frying compound flows into the filter unit safely.
- c. If using solid shortening, clear return lines before turning off the filter motor and hang any flexible lines up to drain. As it cools, solid shortening solidifies and clogs lines.

- d. For more detailed information concerning filtration, review the operator's manual shipped with your filter unit or read Chapter 9 of this manual.

CAUTION

WHEN FILTERING, NEVER LEAVE THE FILTER UNATTENDED. ALWAYS POINT THE FLEXIBLE OIL RETURN HOSE NOZZLE DOWN INTO THE FRY VESSEL TO PREVENT THE SPRAYING OF HOT OIL WHICH MAY CAUSE SEVERE BURNS.

- 4.5 CLOSING:** When closing at night, filter oil in all fryers and drain the filter lines. Cover the open tanks of oil. Turn power switch "OFF".

- 4.6 SHUTDOWN:** When shutting down for periods longer than overnight, drain the frying compound and clean the vessel thoroughly. Either discard the frying compound or return it filtered to the vessel and then cover it. Turn both the power switch and temperature controller "OFF".

5. CLEANING & MAINTENANCE



WARNING

IF FRYER IS NOT COMPLETELY EMPTY OF OIL, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE AND PERSONAL INJURY.

5.1 GENERAL: Any piece of equipment works better and lasts longer when maintained properly and kept clean. Cooking equipment is no exception. The fryer must be kept clean during the working day and thoroughly cleaned at the end of each day.

5.2 DAILY: Wash all removable parts. Clean all exterior surfaces of the body. Do not use cleansers, steel wool, or any other abrasive material on the stainless steel. Filter the cooking oil and replace if necessary. The oil should be filtered more often than daily under heavy use conditions.

5.3 ACCESS FOR SERVICING:

The appliance is equipped with a bracket attached on the center of the structural back to connect a restraining device supplied by the installer. The restraining device should meet the requirements specified in section 3.4.e of this manual. In addition, if the installed fryers have casters provided by Dean Industries, both rear casters come with a locking mechanism that prevents the fryer from moving when the lever or each mechanism is turned "ON".

To gain access for servicing, the restraining device has to be removed from the bracket and both front casters locking mechanisms have to be turned "OFF".

To return the unit to its previous installed position see sections 3.4 and 5.3 of this manual.

5.4 WEEKLY:

- a. Completely drain the oil from the fry vessel into either the filter or a steel container. Do not use a plastic bucket or glass container.
- b. Clean the vessel with a good grade of cleaner or hot water and a strong detergent.
- c. Close the drain valve and refill with either the cleaning solution or water and detergent.
- d. Set operating thermostat to 104°C (220°F). Bring to a rolling boil, then turn the heat down and let the mixture stand until deposits and/or carbon spots can be rubbed off with the Teflon brush.
- e. Scrub tank walls, bottom and heating tubes. Then drain vessel and rinse in clear water.

DO NOT DRAIN WATER INTO FILTER. WATER WILL DAMAGE THE FILTER PUMP.

- f. Refill with clear water, set operating thermostat to 104°C (220°F), and boil again. Once boiling is completed, turn operating thermostat "OFF", drain, rinse, and dry thoroughly.

CAUTION

DO NOT LET WATER BOIL DOWN TO THE POINT THAT ELEMENTS ARE EXPOSED AS THIS WILL DAMAGE THEM.

- g. Immediately refill with cooking oil or frying compound as directed in Section 4.3.



WARNING

DO NOT LET WATER SPLASH INTO THE TANK OF HOT OIL. IT WILL SPLATTER AND CAN CAUSE SEVERE BURNS.

5.5 PERIODIC: The fryer should be checked and adjusted periodically by qualified service personnel as part of a regular kitchen maintenance program.

5.6 STAINLESS STEEL: All stainless steel fryer body parts should be wiped regularly with hot, soapy water during the day and with a liquid cleaner designed for this material at the end of each day.

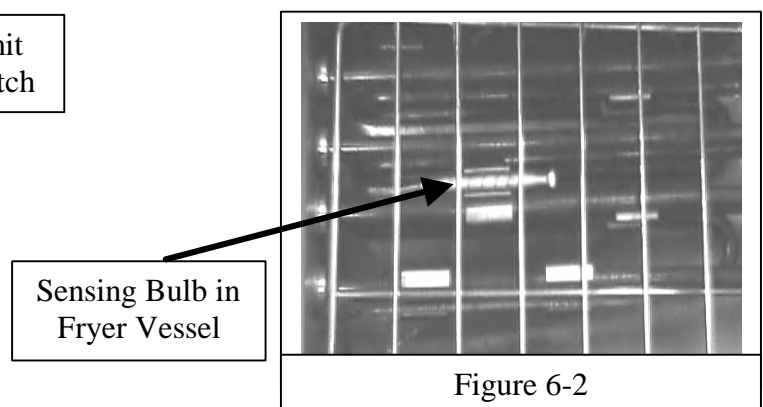
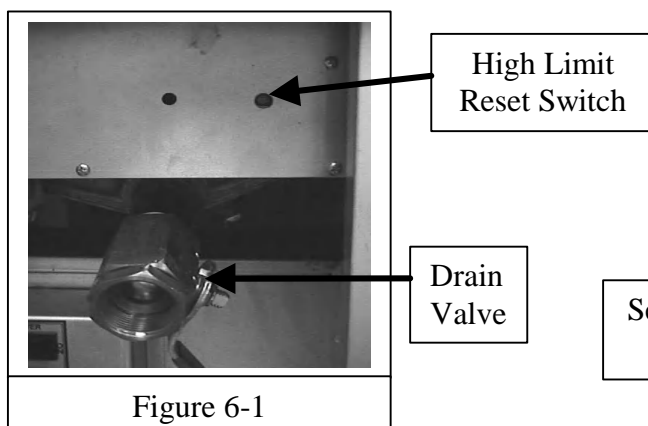
- a. Do not use steel wool, abrasive cloths, cleansers or powders!
- b. Do not use a metal knife, spatula or any other metal tool to scrape stainless steel! Scratches are almost impossible to remove.
- c. If it is necessary to scrape the stainless steel to remove any encrusted materials, soak the area first to loosen the material, then use a wood or nylon scraper only.

6. TROUBLESHOOTING GUIDE

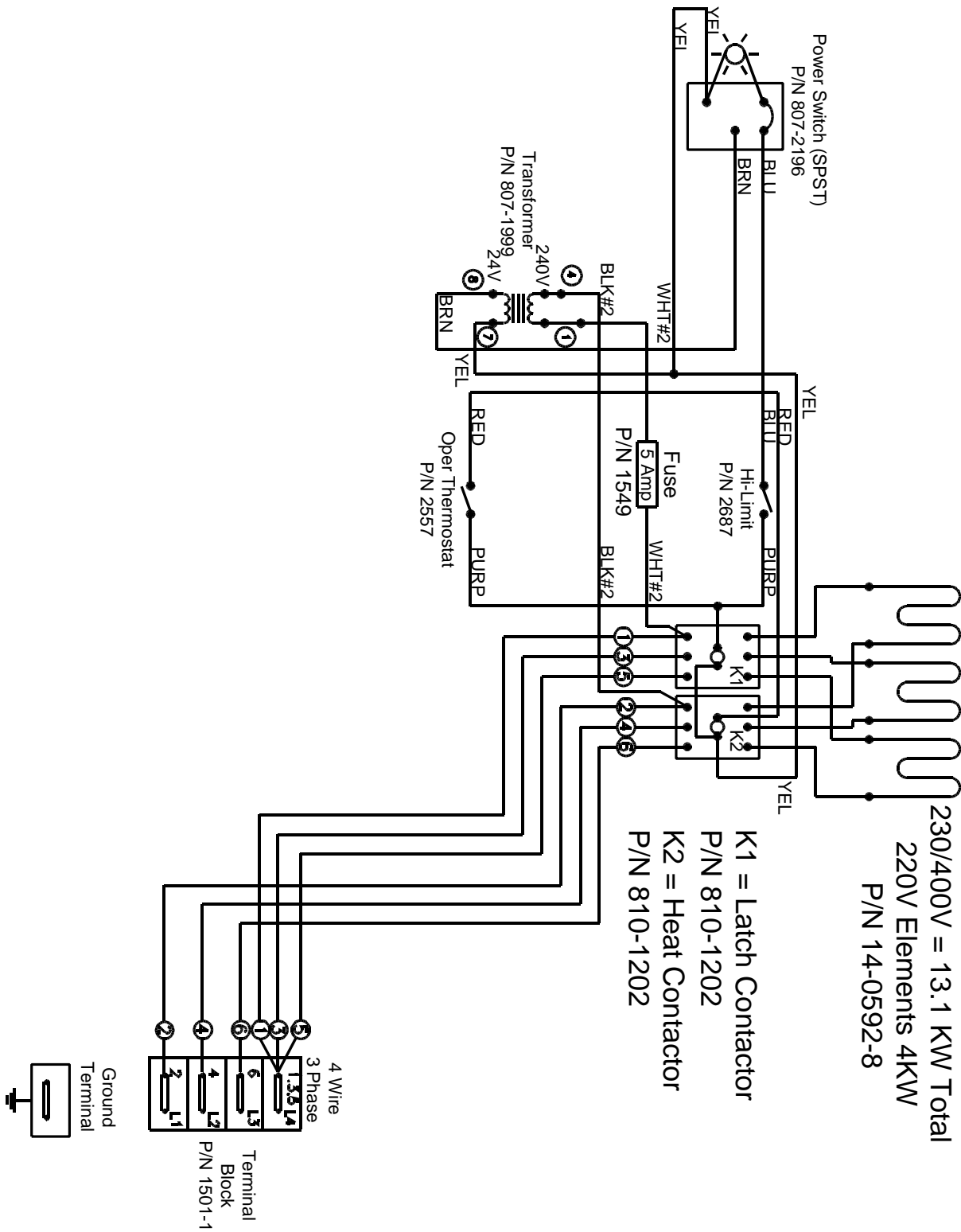
These troubleshooting procedures must be carried out only by a Factory Authorized Service Center or a local service company specializing in hotel and restaurant cooking appliances. The problems and possible solutions given below cover those most commonly encountered.

FOR DETAILED TROUBLESHOOTING AND SERVICE-RELATED INFORMATION, CALL THE DEAN SERVICE HOTLINE AT 1-800-551-8633 (USA/Canada only) or 1-318-865-1711.

PROBLEM	CORRECTIVE ACTION
Operator hears click sound when the temperature controller dial is turned but vessel remains cold. No evidence that elements are warming the vessel.	<p>With the power switch "ON":</p> <ol style="list-style-type: none"> 1. Manually reset the high temperature limit switch (push red button on the panel above the drain valve). See Figure 6-1. 2. Check branch or main circuit breakers or fuses are not tripped or blown.
Poor temperature control on the cold side; excessive warm-up time; temperature recovery is slow or inadequate when vessel is loaded; or uneven heating.	<p>Check thermostat adjustment:</p> <ol style="list-style-type: none"> 1. Check that the thermostat bulb/probe in the vessel has not been knocked loose from its operating position. It should be clamped to the 2nd element with 1.5 mm (1/16 inch) spacing. See Figure 6-2. 2. Place the sensing bulb of a high quality immersion thermometer about 38 mm (1-1/2 inches) above the thermostat sensing bulb and set the temperature controller dial to 177°C (350°F). 3. Wait at least 30 minutes for the oil temperature to stabilize. 4. If temperature is not within +/- 5°C (10°F) of the dial setting, call service for a new operating thermostat/temperature controller.
Poor temperature control on the hot side; excessive temperature overshooting during warm-up; scorching; overheating; or high limit switch must be reset often.	<p>Check thermostat adjustment:</p> <ol style="list-style-type: none"> 1. Check that the thermostat bulb/probe in the vessel has not been knocked loose from its operating position. It should be clamped to the 2nd element with 1.5 mm (1/16 inch) spacing. 2. Place the sensing bulb of a high quality immersion thermometer about 38 mm (1-1/2 inches) above the thermostat sensing bulb and set the temperature controller dial to 177°C (350°F). 3. Wait at least 30 minutes for the oil temperature to stabilize. 4. If temperature is not within +/- 5°C (10°F) of the dial setting, call service for a new operating thermostat/temperature controller.



7. WIRING DIAGRAM



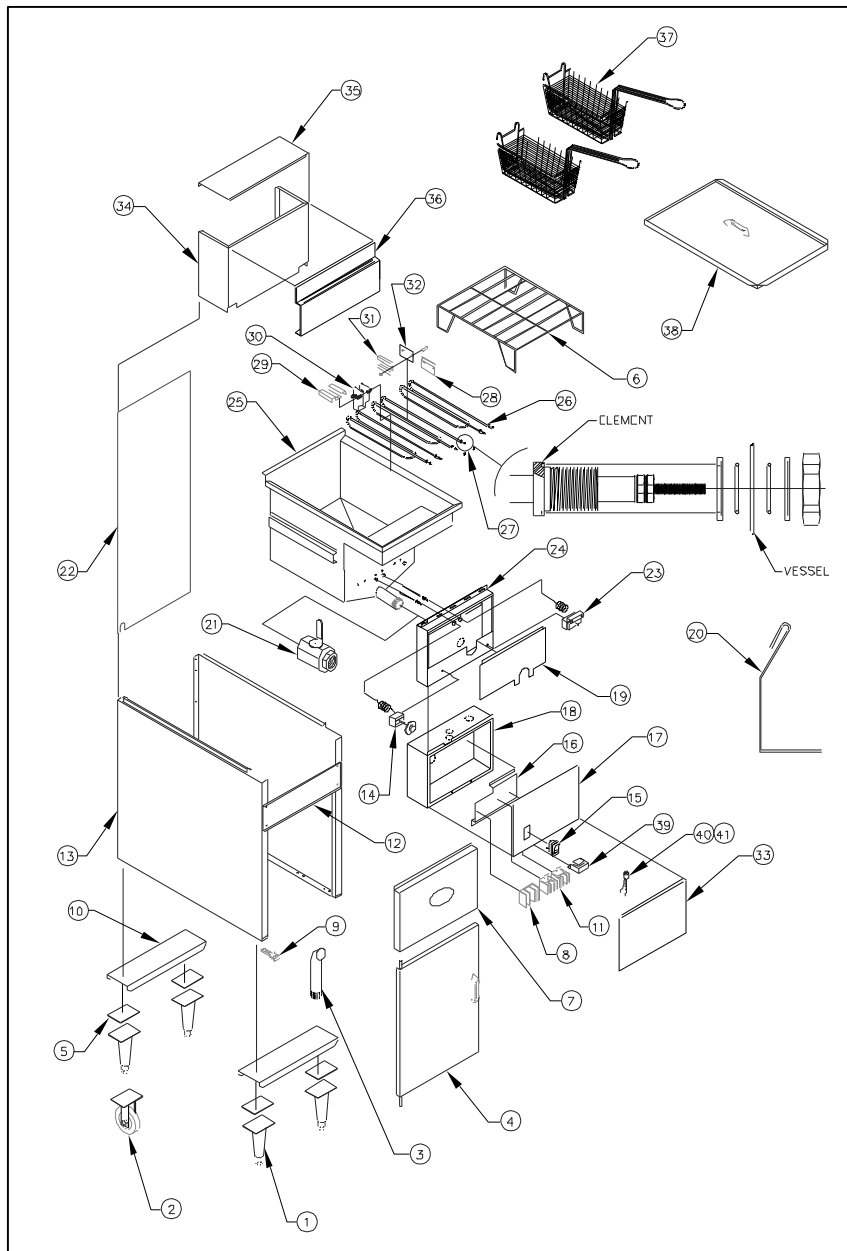
Wiring Diagram SR38E Fryer

Electric Fryer 230/400V 24V Contactors

P/N 12-0403

March 10, 1999

8. SUPER RUNNER 38 ELECTRIC (CE) PARTS LIST



ITEM	PART NUMBER	DESCRIPTION
1	2698	LEG, BLACK, ADJUSTABLE WITH MOUNTING PLATE, 6"
2	2686	CASTER RIGID
3	44-1363	NIPPLE, DRAIN EXT. 1-1/4"
4	12183-2	DOOR ASSY SS SR38
	12-0308-2	DOOR PANEL SS SR38
	12-0097	DOOR PIN
	1503	MAGNETIC DOOR CATCH
	1039-2	HANDLE, CHROME/DOOR
5	9002949	SHIM CASTER
6	12220	GRID ASSEMBLY FOR SR38E
7	12-0309-2	FRONT CNTRL PANEL SS SR38
8	1501	TERMINAL BLOCK 3 WIRE
	1501-1	TERMINAL BLOCK 4 WIRE

ITEM	PART NUMBER	DESCRIPTION
9	12-0379	LOWER HINGE BRACKET
10	12-0373	FRT & REAR CHANNEL SR38 (NEW STYLE)
11	8101202	40 AMP 3 POLE CONTACTOR (CE Only)
12	12-0311	CNTRL PANEL BACK SR38
13	12-0380-1	SIDE PANEL PP/GREY LH,SR38-650mm (CE)
	12-0380-2	SIDE PANEL PP/GREY RH,SR38-650mm (CE)
14	2557	THERMOSTAT, SUNNE #TC125-004
	1205	KNOB,THERMOS R/S KXD
15	2025	POWER SWITCH (ROCKER SWITCH, CARLING)
	8072196	POWER SWITCH (GRN LIGHTED ROCKER SWITCH)
16	12-0376	MOUNTING PLATE CONTCTR, SR38ECE
17	12-0323	COVER CONTACTOR BOX, SR38E
18	12210	BOX, CONTACTOR WELD ASSY,SR38E (CE)
19	12-0322	COVER HEATER RACEWAY, SR38E
20	14-0193	GOOFER ROD DECLOGGER
21	2066-1	DRAIN VALVE,1-1/4"(1"STD PORT)
22	12-0354-1	STRUCTURAL BACK, SR38E
	12-0237	RESTRAINING BRACKET
23	2672	HI LMT 435 DEG F,W/MAN RESET
	2687	HI LMT 410 DEG F,W/MAN RESET CE
24	12212	BOX RACEWAY/CONTCTR ASSY,SR38E (CE)
25	12185-2	VESSEL WELD ASSY SS, SR38E
	12185-1	VESSEL MS WELD ASSY, SR38E
26	14-0592-8	HEAT ELEMENT 220V 4000W 380,400,415(240 USA 14.3KW)
	14-0592-7	HEAT ELEMENT 208V 4666W USA 14KW
27	1902	O RING SEAL (4 EA ELEMENT)
	14-0695	O-RING RETAINER WASHER (4 EA ELEMENT)
	2189	JAM NUT 3/4-16 (2 EA ELEMENT)
28	18-0041	CLAMP; THERMOSTAT 1 EA USA, 2 EA CE
	14-0883	SPRING/ROBERTSHAW/SPACER
	18-0041	CLAMP; THERMOSTAT 1 EA USA, 2 EA CE
	18-0040	HIGH LIMIT CLAMP USA
29	14-0714	SPACER HEAT ELEMENT
30	12193	BRACKET ELEMENT SPRT, SR38E
31	14-0714	SPACER HEAT ELEMENT
32	18-0061	SUPPORT HEAT ELEMENT
33	12-0377	COVER, LOWER CNTRL BOX SR38E (CE Only)
34	12204-1	VESSEL BACK ASSY MS, SR38-650mm
	12204-2	VESSEL BACK ASSY SS, SR38-650mm
35	12-0372	CAP VESSEL BACK, SR38E 650MM
36	12-0310-1	BASKET HANGER ALZ, SR38
	12-0310-2	BASKET HANGER S/S, SR38
37	2607	FRY BASKET,5-5/8X5-5/8X13-1/4"
39	8071999	TRANSFORMER PRIMARY 208/240V (CE Only)
40	1692	FUSE HOLDER W/LEADS
41	1693	FUSE 5 A
Not Shown	12-0347	WIRING DIAG 208/220 TMST,SR38E
	12-0403	WIRE DIAG 220/380, SR38E (CE Only)
	14673	OPERATIONAL THERMOSTAT WIRING HARNESS
	44-1362	BRACKET,DRAIN NIPPLE EXTENSION

9. PORTABLE FILTER OPERATIONS

9.1 GENERAL:

- a. These instructions are not intended to replace the operating instructions that came with your Dean Filter System. They are intended to provide general information about filtration procedures and serve as a quick reference guide.
- b. For consistent product quality, convenience and long-term savings, use a high-quality liquid frying compound.
- c. The frying compound should be filtered at least daily or even more frequently if cooking is heavy. This ensures the longest life possible for the frying compound, gives better taste to the food being prepared, and minimizes flavors being transferred from batch to batch.
- d. When completing a filter cycle, always close the return valve(s) at the fryer(s) to avoid siphoning oil out of the fryer into the filter and open the valve at the filter to promote draining of the return lines into the filter pan.
- e. If using solid shortening, always make sure the return lines are clear before turning off the filter motor and hang any flexible lines up to drain. Solid shortening will solidify as it cools and clog the lines.

CAUTION

When filtering, never leave the filter unattended. Oil moving through the lines could KNOCK a flexible return hose out of the filter pan, spraying hot oil and causing severe burns.

9.2 FILTER PREPARATION:

- a. Turn the fryer "OFF".
- b. Remove the filter pan cover.

- c. Remove the crumb screen (if provided) and clean.

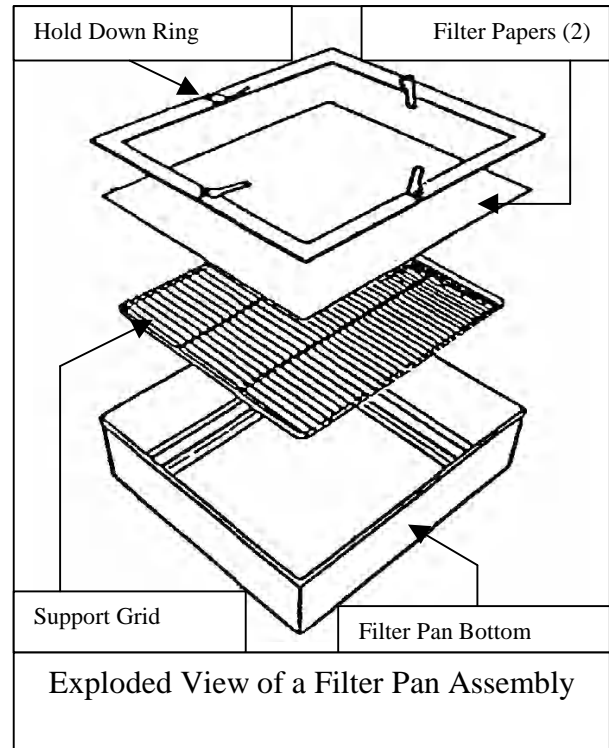


FIGURE 9-1

- d. Remove the hold-down ring and clean.
- e. Examine the filter paper, if it is dark or scuffed in appearance, discard it. Follow procedures listed in Section 9.4 to change dirty filter paper.
- f. Remove the filter support grid and clean.
- g. Remove the filter pan and clean with hot water, then re-install. Make sure all residual water is removed and the filter pan is dry. Any remaining water will cause dangerous splattering of hot oil when filtering.
- h. Re-install filter support grid. Place two sheets of filter paper on top of the support grid. Push paper to the filter pan bottom with the hold-down ring. Latch the hold-down ring into place.
- i. Then reinstall the crumb catcher (if provided) inside the filter pan. Place the

filter cover on top of filter pan and slide the filter back inside the fryer.

j. Reconnect oil return quick disconnect lines (if installed on the fryer).

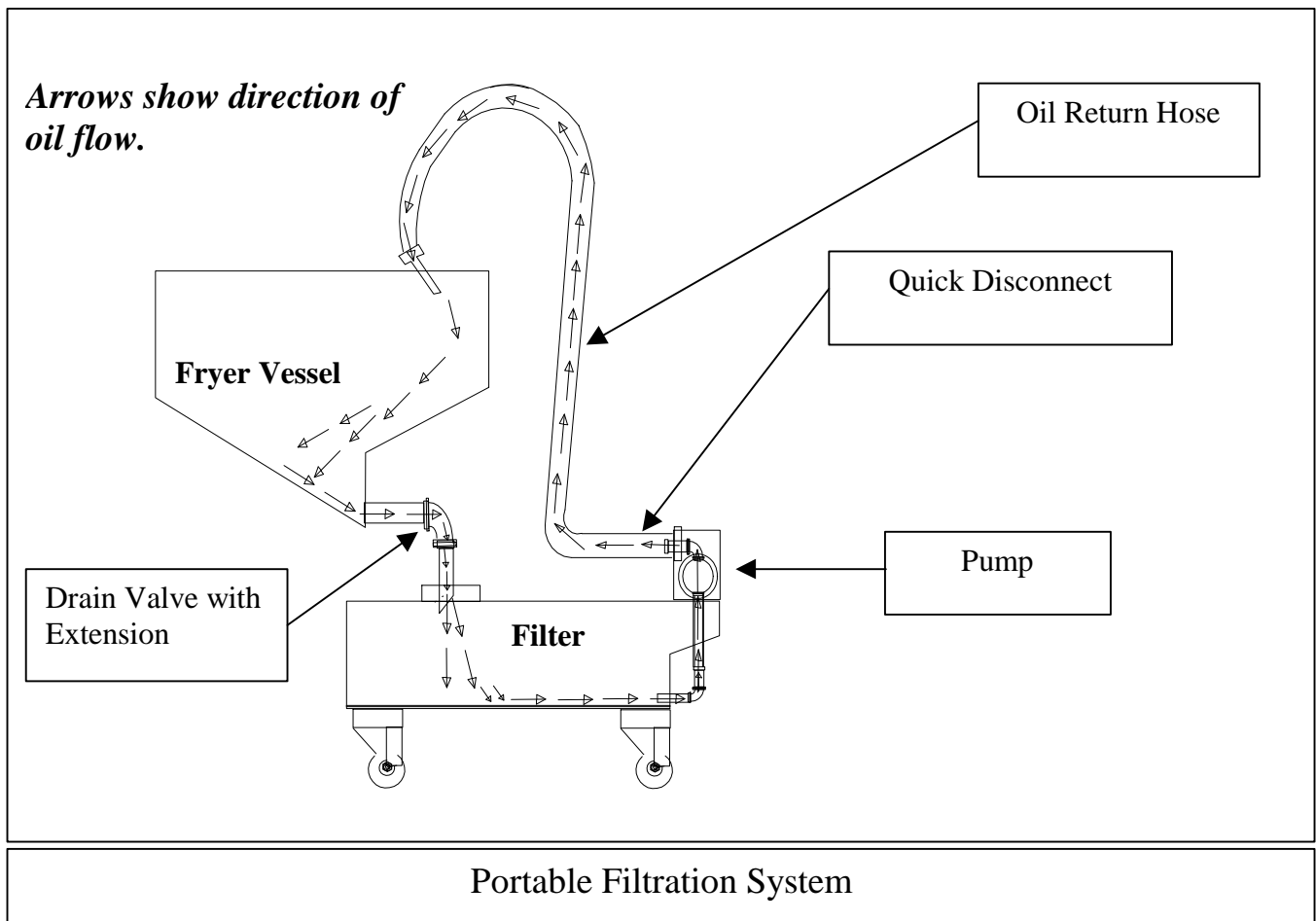


FIGURE 9-2

9.3 FILTER OPERATION:

Dean MF-90 Portable Filter Systems are designed to return the filtered oil by means of a flexible oil return hose which connects to the filter's quick disconnect. The operator uses a wand connected to the end of the flexible oil return hose to direct filtered oil into the fryer vessel from above.

Filter operations always start with making sure the unit is properly plugged in, then rolling the filter to the fryer to be filtered. The filter works directly under the fryer's drain valve.

a. Open the drain valve by pulling the handle out. The oil will transfer from the fryer vessel to the filter pan.

b. Turn the filter switch to the "ON" position on the filter control panel to begin pumping oil into fryer. If your filter unit is equipped with a flexible hose/nozzle, ensure nozzle is positioned to return oil safely into the fryer vessel.

c. When oil and fryer vessel are clean, close the drain valve. It takes the filter approximately 5 to 7 minutes to pump all oil back into the fryer. Run the filter pump an additional 10-15 seconds after bubbles appear in oil to clear oil return lines.

d. Make sure the drain valve is fully closed.

9.4 CHANGING FILTER PAPER:

The top piece of filter paper should be discarded when it becomes dark or scuffed in appearance. Follow these procedures:

- a. Before changing the paper, use the flexible hose (with about one inch of oil remaining in the filter pan) to flush debris from the filter pan sides onto the paper.
- b. Return all oil to the fryer.
- c. Open the hold-down ring locking latches and lift the ring out of the filter tank. Your unit will be equipped with one of the types shown in figure 9-3.

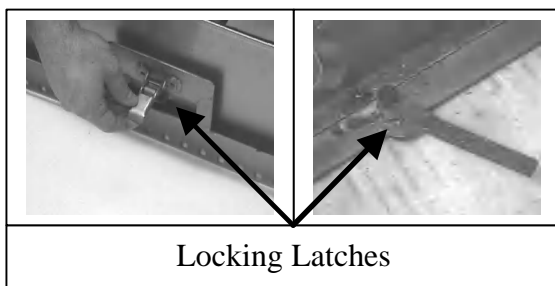


FIGURE 9-3

- d. Roll both ends of the used (top) sheet of paper in to the center, making sure no sediment falls out. Discard the top sheet. Temporarily remove the bottom sheet and set aside.
- e. Remove and check the support grid for cleanliness and scrub if necessary. Check the filter pan for cleanliness and scrub if necessary. Also check the drain ports at the bottom rear of the filter pan for sediment or blockages.



Installing new filter paper.

FIGURE 9-4

- f. Replace the support grid, lay a new filter sheet on the grid, then place the old bottom sheet on top of the new sheet. It is essential that two sheets of Dean filter papers are used; use of other than OEM parts will void the filter warranty.
- g. Replace the hold-down ring and latch into position. Sprinkle .45kg (16oz) of filter powder evenly across the surface of the filter paper. Re-install the crumb catcher (if so equipped). Then replace the filter pan cover.
- h. The unit is now ready for operation.

9.5 FILTER TROUBLESHOOTING:

These troubleshooting procedures must be carried out only by a Dean Factory Authorized Service Center or a local service company specializing in hotel and restaurant cooking appliances.

The problems and possible solutions given in this section cover those most commonly encountered.

To troubleshoot, perform the test set-up at the beginning of each condition. Start at the top of the diagram. Arrows direct the troubleshooter through the sequence. Follow each step in sequence as shown in the troubleshooting diagrams.

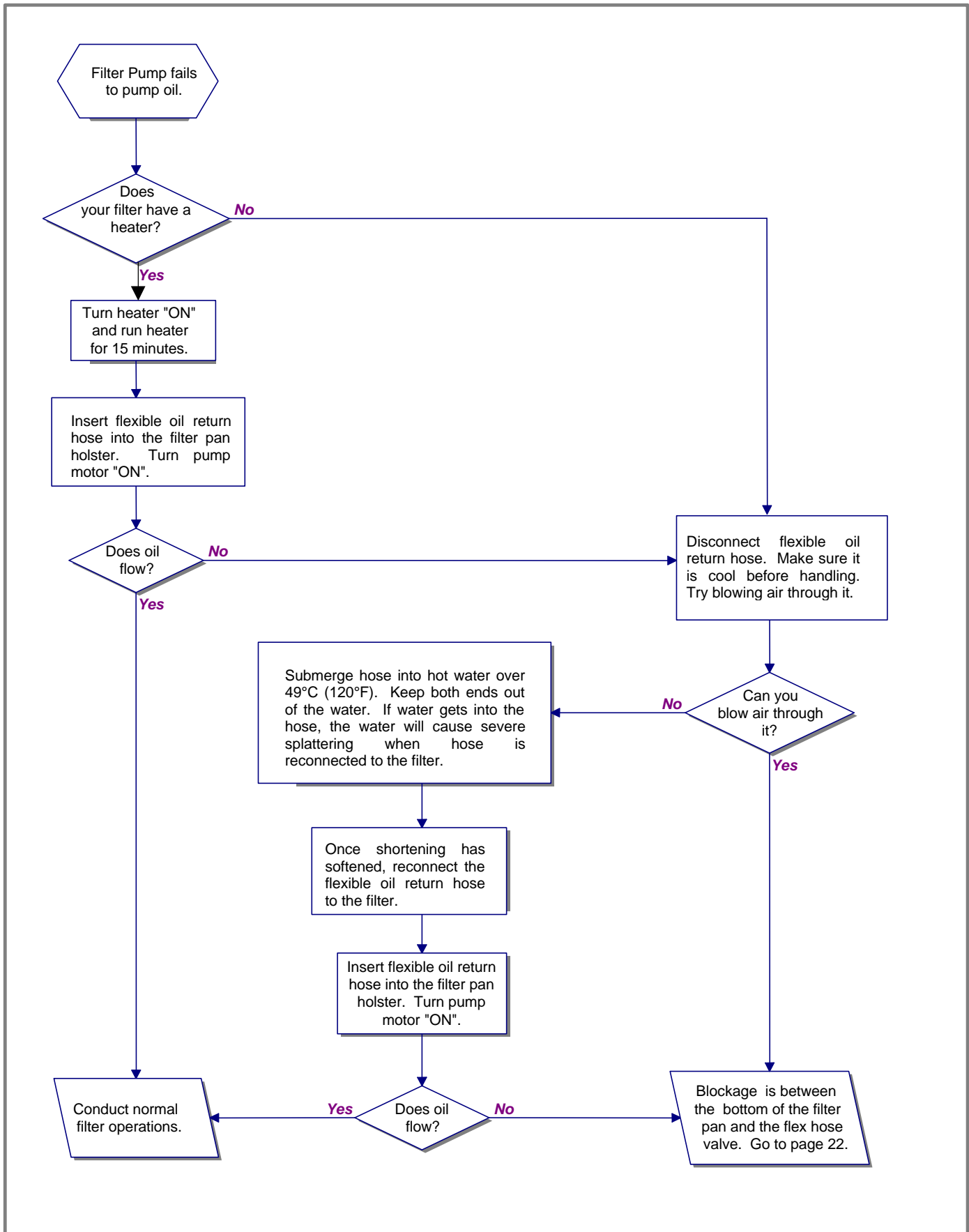


WARNINGS!

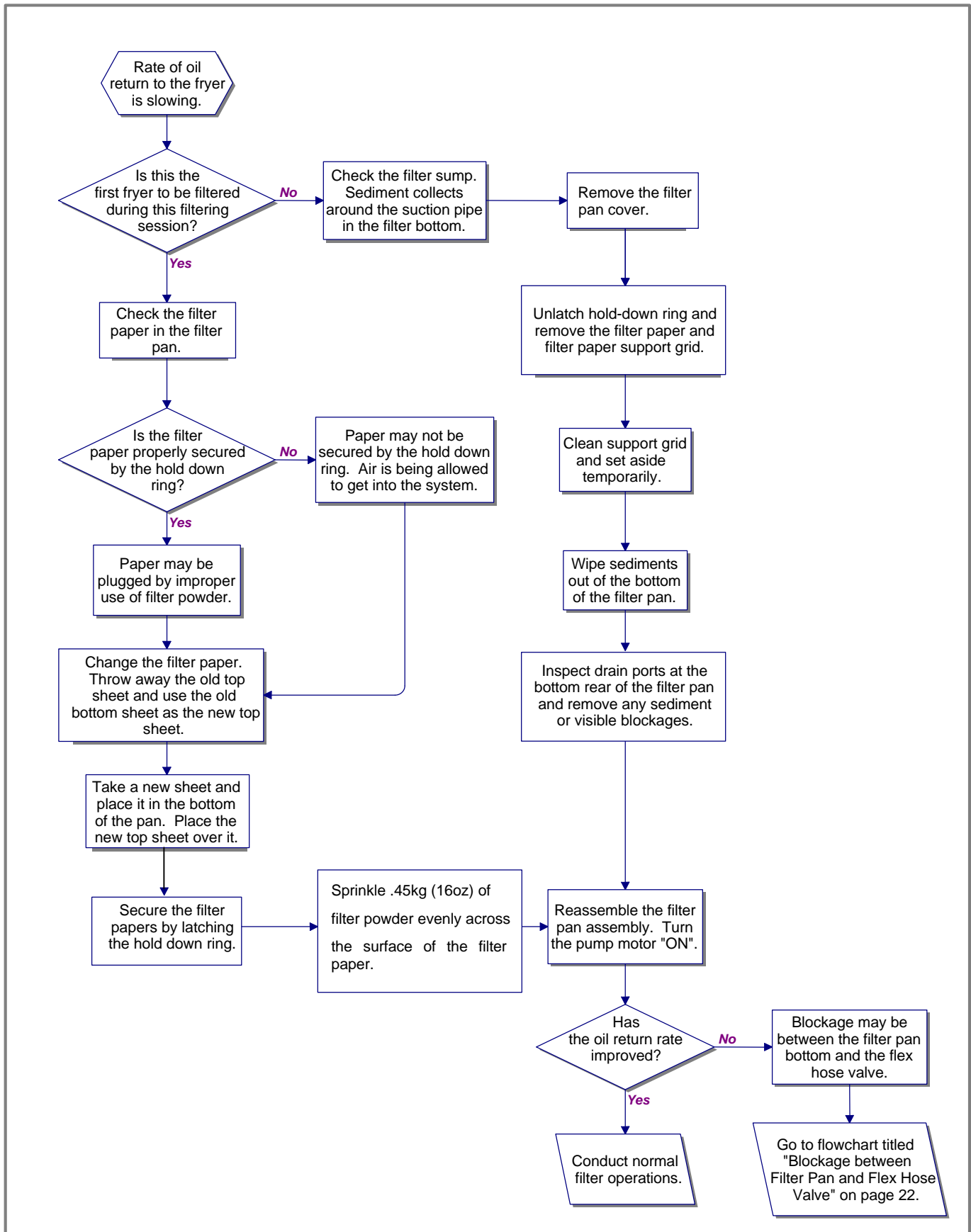
INSPECTION, TESTING, AND REPAIR OF GAS OR ELECTRICAL EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED PERSONNEL.

USE EXTREME CARE DURING ELECTRICAL CIRCUIT TESTS. LIVE CIRCUIT WILL BE EXPOSED.

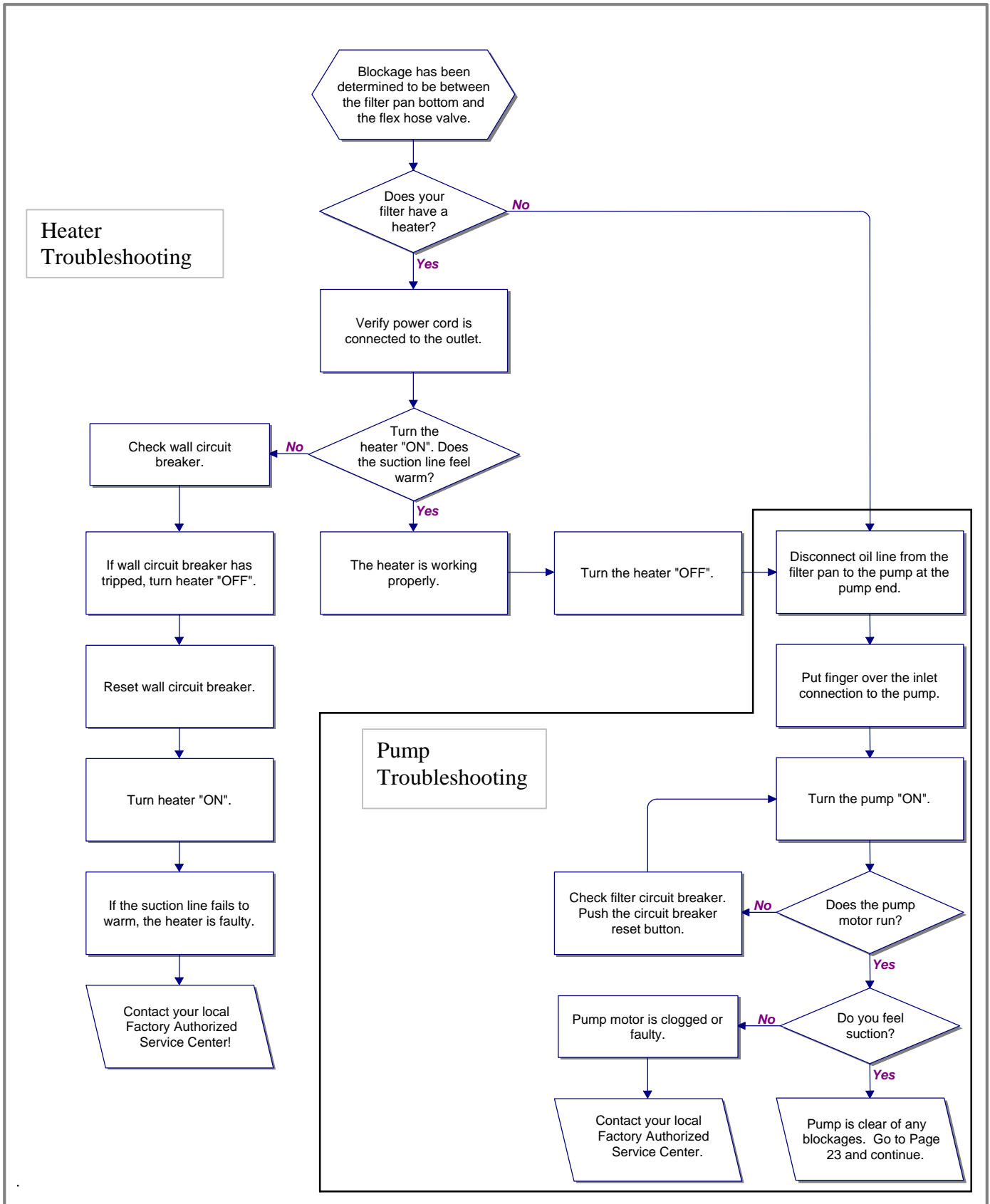
9.5.1 Portable Filter Pump Fails to Pump Oil?



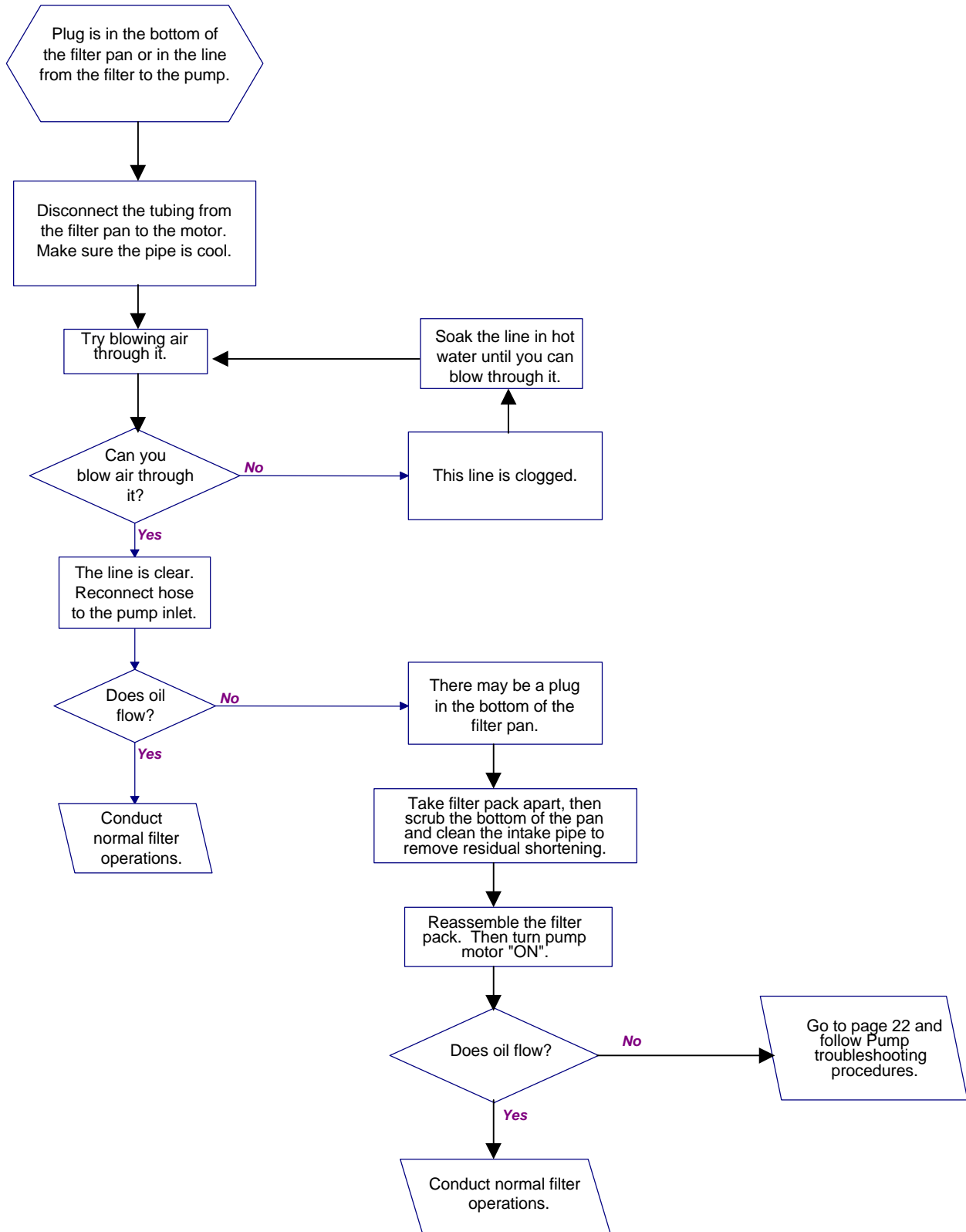
9.5.2 Rate of Oil Return Slowing?



9.5.3 Blockage between Filter Pan and Flex Hose Valve?



ENTER FROM PAGE 22 HERE





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