INSTRUCTIONS

MODEL HPGF15
GAS PRESSURE FRYERS

ML-126825

HOBART
CORPORATION

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TROY, OHIO 45374-0001
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FORM 34709 (September 2001)

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

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

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.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

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Installation, Operation and Care of MODEL HPGF15 GAS PRESSURE FRYERS

SAVE THESE INSTRUCTIONS FOR FUTURE USE

GENERAL

Your Hobart Gas Pressure Fryer will produce a uniform, high-quality product time after time. It operates at a low temperature (325°F [163°C]) and high pressure (14 psi). Rapid cooking time increases production and improves energy efficiency, and high-pressure frying preserves food flavor and reduces shrinkage. Up to 15 pounds (6.8 kg) of product may be prepared at a time.

Standard equipment includes a drain pipe extension for the exhaust tank, wooden doughnut stick, 1 1/4" diameter exhaust pipe, solenoid open wrench, insulated mitts, and flexible cleaning rod. Both legs and casters are supplied with each fryer. Extra O-Ring seals for the lid, the kettle pressure-regulator assembly and the cleaning port plug screw are also included. The O-Ring seals are not covered under normal warranty.

Model HMF50 or HMF85 Filtering System for draining and filtering the oil for Model HPGF15 Gas Pressure Fryer is available as an option.

IMPORTANT: Your pressure fryer must be cleaned frequently or it will not function properly. Follow the procedures in the CLEANING section of this manual.

INSTALLATION

When installing this pressure fryer, the base should remain open at the front to allow air circulation for the gas burner. DO NOT BLOCK THE FRONT OF THE FRYER.

Prior to installation, verify that the electrical and gas supply agree with the specifications on the fryer data plate, which is located on the inside of the door.

UNPACKING

Immediately after unpacking the pressure fryer, check it for possible shipping damage. If this fryer is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Do not use the door to lift or move the fryer.

LOCATION

The equipment area must be kept free and clear of combustible substances.

The pressure fryer, when installed, must have minimum clearance from combustible and noncombustible construction of 1" (2.5 cm) at the sides and 3" (7.6 cm) at the rear of the fryer. This fryer is for use on noncombustible floors only. It must be installed at least 12" (30.5 cm) away from open top flame units.

The installation location must allow adequate clearances for servicing and proper operation.

The pressure fryer must be installed so the flow of combustion and ventilated air will not be obstructed. Adequate clearance for air openings into the combustion chamber must be provided. Make sure there is an adequate supply of air in the room to allow for combustion of the gas at the fryer burners.

Do not permit fans to blow directly at the pressure fryer. Whenever possible, avoid open windows next to the pressure fryer. Avoid wall-type fans which create air cross currents within the room.

INSTALLATION CODES AND STANDARDS

Hobart pressure fryers must be installed in accordance with:

In the United States

1. State and local codes.
2. National Fuel Gas Code, ANSI-Z223.1 (latest edition), available from The American Gas Association, Inc., 1515 Wilson Blvd., Arlington, VA 22209.
3. National Electrical Code ANSI/NFPA-70 (latest edition).

In Canada

1. Local codes.
2. CAN/CGA-B149.1 Installation for Natural Gas Burning Appliances and Equipment (latest edition).
3. CAN/CGA-B149.2 Installation for Propane Burning Appliances and Equipment (latest edition), available from The Canadian Gas Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3.
4. Canadian Electrical Code Part 2, CSA Standard C22.1 (latest edition).

ASSEMBLY

The fryer must be restrained with adequate ties to prevent tipping when installed in order to avoid the splashing of hot liquid.

Installing Legs

Use only the legs supplied with your pressure fryer.

Place the fryer on its side, being careful to avoid scratching the finish. Attach the four legs to the flanges on the bottom of the fryer.

Carefully raise fryer to its normal position and place it in the installing location.

Installing Casters

Place the fryer on its side, being careful to avoid scratching the surface. Use only the casters supplied with your pressure fryer.

Thread the four casters to the flanges on the bottom corners of the fryer. Use the open-ended wrench supplied to tighten (apply wrench at the flat surfaces on leg extensions) (Fig. 1). The two locking casters mount at the front; the nonlocking casters at the rear.

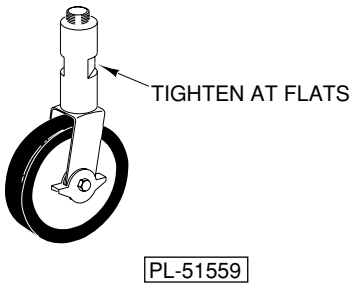


Fig. 1

For pressure fryers equipped with casters, the installation shall be made with a connector that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 (latest edition) and CGA 6.16 (latest edition), and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use with Gas Fuel, ANSI Z21.41 (latest edition) and CAN1-6-9 (latest edition).

Provide a restraining device for the gas line to limit movement of the fryer. Do not depend on the connector and any quick-disconnect device or its associated piping to limit fryer movement. Attach the restraint to the rear of the fryer (Fig. 2).

If disconnection of the restraint is necessary, turn off the gas supply before disconnection. Reconnect this restraint before turning the gas supply on and returning the pressure fryer to its original installation position.

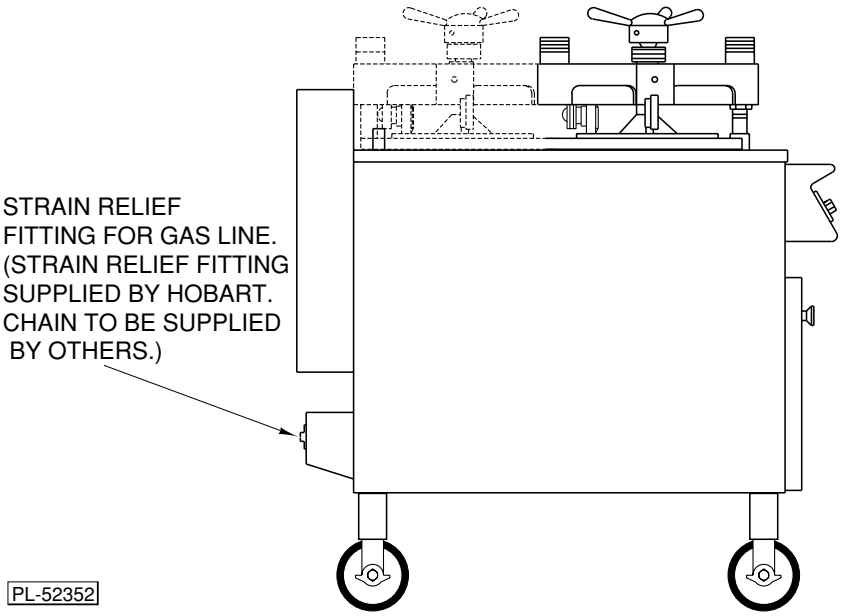


Fig. 2

Exhaust Pipe

Thread the 1¼" diameter exhaust pipe (supplied) to the top of the exhaust tank (Fig. 3) located at the rear of the fryer.

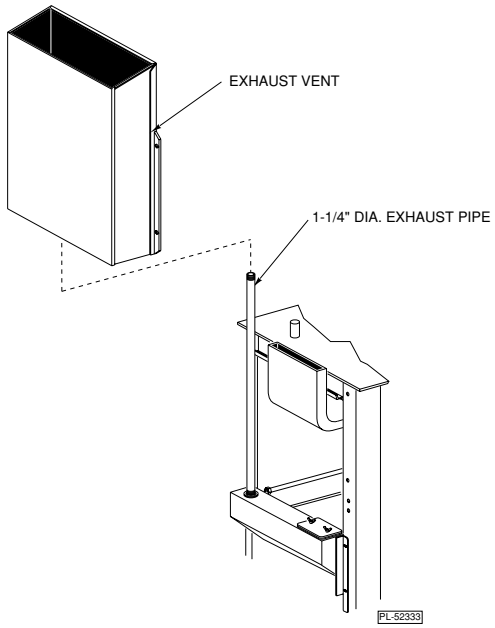


Fig. 3

GAS CONNECTIONS

All gas supply connections and any pipe joint compound used must be resistant to the action of liquified petroleum gases.

Recommended supply line size is ¾" commercial flex line.

Location of the gas inlet is underneath the fryer on the left-hand side toward the rear.

Pipe gas supply to the fryer. Make sure the pipes are clean and free of obstructions, dirt and piping compound.

Codes require that a gas shutoff valve be installed in the gas line ahead of the pressure fryer.

The orifices are set at 3.5" W.C. (Water Column) pressure for natural gas, and 11" W.C. pressure for propane gas. A manifold pressure regulator is supplied as part of the gas control valve. No adjustment should be required.

WARNING: PRIOR TO LIGHTING, CHECK ALL JOINTS IN THE GAS SUPPLY LINE FOR LEAKS. USE SOAP AND WATER SOLUTION. DO NOT USE AN OPEN FLAME.

After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

Make certain primary air supply to the main burner is properly adjusted for complete combustion.

TESTING THE GAS SUPPLY SYSTEM

When test pressures exceed 1/2 psig (3.45 kPa), the fryer and its individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are 1/2 psig (3.45 kPa) or less, the fryer must be isolated from the gas supply piping system by closing its individual manual shutoff valve.

FLUE CONNECTIONS

This pressure fryer must be installed under a ventilating hood. From the termination of the fryer flue vent to the filters of the hood venting system, a minimum clearance of 18" (46 cm) must be maintained.

Do not obstruct the flow of flue gases from the flue duct located on the rear of the fryer. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment," NFPA No. 96 (latest edition).

ELECTRICAL CONNECTIONS

WARNING: ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

WARNING: APPLIANCES EQUIPPED WITH A FLEXIBLE ELECTRIC SUPPLY CORD ARE PROVIDED WITH A THREE-PRONG GROUNDING PLUG. IT IS IMPERATIVE THAT THIS PLUG BE CONNECTED INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN. DO NOT REMOVE THE GROUNDING PRONG FROM THIS PLUG.

If the fryer is not equipped with a grounding plug and electrical supply is needed, ground the fryer by using the ground lug provided at the rear (refer to the wiring diagram located on the inside of the fryer door panel).

Do not connect the fryer to electrical supply until after gas connections have been made.

Connect polarized plug to 110/125-volt, single-phase, 60-cycle, 15-amp polarized receptacle.

LIGHTING INSTRUCTIONS

1. Turn gas combination control valve (Fig. 4) (located at the rear of the fryer) clockwise to the OFF position.
2. Wait 5 minutes for unburned gas to vent.
3. Turn gas combination control valve counterclockwise to the ON position.
4. Turn gas valve ON (Fig. 5).
5. Turn power switch to ON.
6. If burner does not light, turn power switch, gas valve and gas combination control valve OFF and repeat steps 2 through 5.

If burner flame is interrupted, the electronic igniter will automatically relight the burner.

EXHAUST VENT HAS BEEN REMOVED TO SHOW VALVE CLEARLY

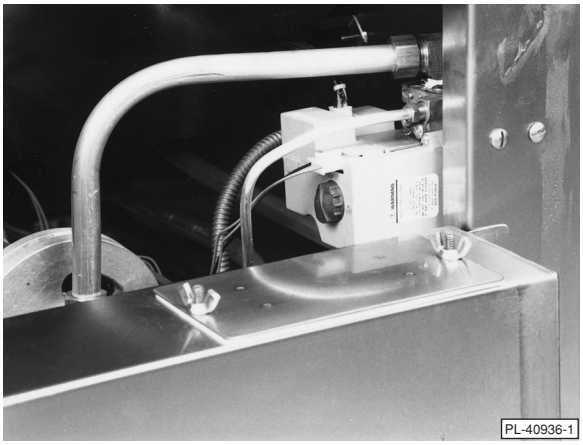


Fig. 4

GAS VALVE IN ON POSITION

Fig. 5

OPERATION

WARNING: HOT OIL AND PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING AND SERVICING THE FRYER.

WARNING: SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS. DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

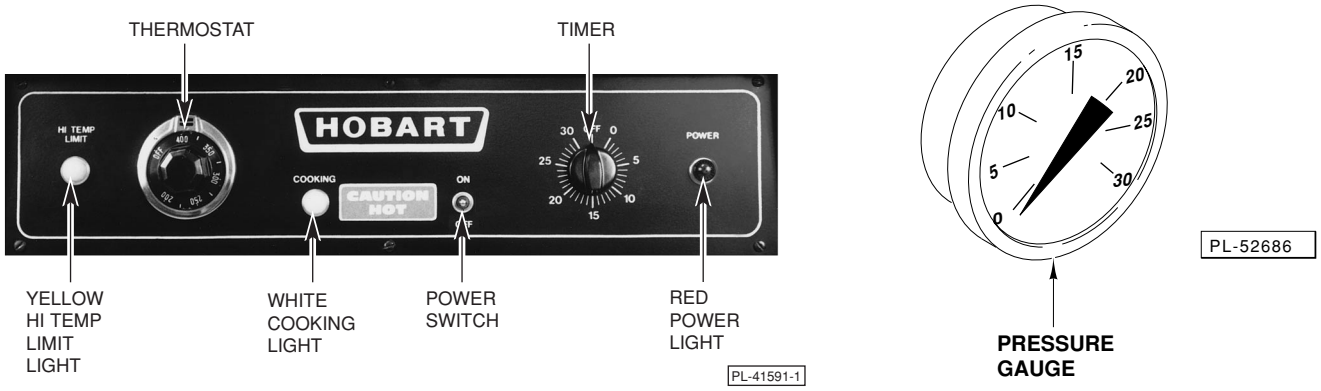
When using this pressure fryer, the base should remain open at the front to allow air circulation for the gas burner. DO NOT BLOCK THE FRONT OF THE FRYER.

BEFORE FIRST USE

Clean the fryer with detergent or soap and warm water. Rinse thoroughly and drain. Wipe completely dry with a soft clean cloth.

Clean all fryer accessories. Rinse all parts thoroughly after cleaning and wipe dry.

CONTROLS (Fig. 6)



Model HPGF15

Fig. 6

Power Switch — Model HPGF15 has a 2-position toggle switch: the upper position turns electric power on, and the lower position turns power off.

Thermostat — Maintains frying temperature by cycling burner on and off. Temperature ranges from 0 to 400°F (-18 to 204°C.)

Red Power Light — Illuminates when power switch is placed in the ON position and power is supplied to the fryer.

White Cooking Light — Cycles on and off. ON indicates oil is below the set temperature and burner is providing heat to the fryer.

Yellow Hi Temp Limit Light — Illuminates when 450°F (232°C) has been exceeded. Power is temporarily cut off to the fryer until the temperature is within normal limits.

Timer — Buzzes at the end of the cooking cycle until you manually turn timer to the OFF position. (Timer ranges from 0 to 30 minutes.)

Pressure Gauge — Indicates pounds per square inch internal kettle pressure.

FILLING THE KETTLE WITH LIQUID SHORTENING

Oil Capacity: 40 lb/5 gal (18 kg/19 L).

Use only a pure vegetable hydrogenated oil prescribed for use in pressure fryers, such as Mel Fry, Crystal, FryMax or Gold Label. Never add suet.

Close drain valve (Fig. 7). Fill kettle with **liquid shortening.**

- If you use a solid shortening, melt before filling kettle.
- If shortening is hot, fill kettle to the oil level line on the side of the kettle (Fig. 8).
- If shortening is room temperature, fill kettle to 3/4" below the oil level line. This level allows for oil expansion when heated. **Do not overfill.**

Regularly add enough oil to keep the oil level in the kettle at the oil level line.

When changing to new oil, fill to 3/4" below the oil level line.

DO NOT operate the fryer with no oil in the kettle.

Fig. 7

Fig. 8

TURNING THE FRYER ON

CAUTION: Before turning the burner on, the kettle must be filled to the correct level with liquid shortening. If this is not done, the kettle walls can be damaged. Warpage can cause leaks.

To turn the fryer ON, place the power switch in the ON position and set the thermostat at 325°F (163°C). The burner will ignite and the white cooking light will glow, indicating that the burner is calling for heat. The white cooking light will glow when the oil is **below** the selected temperature. When oil reaches set temperature, the white cooking light goes out.

Before the first load of the day, it is recommended that you allow the fryer to cycle one time before loading food. When the white cooking light glows, wait until it goes out. When the white cooking light glows for the second time, allow it to go out a second time, then cooking may begin. Allow at least 45 minutes for this operation.

FRYING PROCEDURE FOR ALL FOODS

Pressure is created by the containment of moisture escaping from the product being fried. Dry products that produce little or no moisture will not create sufficient pressure to fry that product. Pressure will not build without product in the kettle.

1. For the first cooking cycle of the day, make certain oil is at set temperature (white cooking light is not glowing). After the first cooking cycle of the day, product may be loaded whether the white cooking light is glowing or not.

2. Place fryer basket in hot oil. Be sure basket is submerged in the oil.

3. Using tongs or other long-handled utensil, place prepared foods into the basket, one piece at a time. Load food in a circular motion so the basket is loaded uniformly and evenly.

4. After loading 10 to 12 pieces of chicken, use the insulated mitts and lift the basket high enough to clear the bottom of the kettle. Swirl the basket a couple of times in the oil. This will keep pieces from sticking together.

5. When the desired amount of food is placed in the pressure fryer, give the basket one more swirl in the oil. Close the lid. **Make sure the lock post is fastened in the overarm post catch (Fig. 9).** Tighten the handle.

WARNING: IF THE LID WILL NOT LOCK, DO NOT OPERATE THE FRYER.

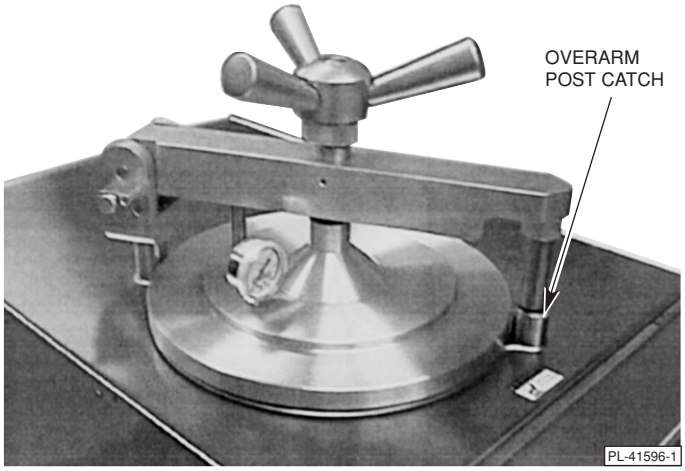


Fig. 9

6. After tightening the lid, set the timer to the desired cooking time for the item being fried.

7. The rest is automatic. The pressure will automatically be released 45 seconds prior to the end of the cooking cycle. The buzzer will sound at the end of the cooking cycle. Rotate the timer to the OFF position to silence the buzzer.

8. A lid-locking device will permit opening the lid **only** after all pressure has been released. At this time, the pressure gauge will read 0.

9. When pressure gauge reads 0, turn the handle counterclockwise until it stops before opening the lid. **CAUTION: Seal damage can occur if handle is not completely unscrewed. Do not force the lid to open.**

   ALWAYS swing the lid to the side. DO NOT raise the lid.

10. Using insulated mitts or tongs, raise the frying basket out of the oil and hang the basket on the lip of the kettle. Allow product to drain approximately 20 to 25 seconds. Remove the product and return the basket to the oil.

    It is not necessary to turn the fryer off for this procedure. The cooking cycle is controlled by the setting of the timer, and the oil temperature is regulated by the thermostat.

TURNING THE FRYER OFF

1. Turn thermostat to OFF.
2. Turn power switch to the OFF position.

Extended Shutdown

1. Turn manual gas shutoff valve OFF.
2. Turn thermostat to OFF.
3. Turn power switch to the OFF position.
4. Turn gas valve and gas combination control knob to OFF.
5. Clean fryer following instructions shown in the CLEANING section of this manual. It is especially important that the solenoid assembly be cleaned.

AUTOMATIC SHUTOFF

If the burner flame goes out, gas flow to the main burner will automatically shut off. The gas combination control valve will remain in the ON position—it does not simultaneously return to OFF.

To relight the burner, repeat steps 1 through 6 under LIGHTING INSTRUCTIONS.

HIGH-LIMIT SWITCH

Your pressure fryer is equipped with a high-temperature, limit switch. If an overtemperature situation occurs, the yellow high-limit light will flash, the pressure will exhaust and the gas burner will turn off. Once the oil temperature cools to below the high-limit temperature, the high-limit thermostat will reset and operation will resume automatically. It is recommended that you turn the power off and open the kettle lid to allow the oil to cool. The high limit switch may activate during initial startup until the kettle temperature stabilizes. If the high-limit switch activates anytime after initial startup, turn the fryer off and call your local Hobart service office.

POWER FAILURE

In the event of a general power failure, turn the thermostat knob and power switch to their OFF positions. After pressure gauge indicates 0, open the fryer lid and remove the basket from the kettle.

Upon resumption of electrical service, repeat all startup procedures.

PRESSURE-RELIEF VALVE

The pressure-relief valve is located on the fryer lid. This relief valve is nonadjustable and preset at the factory to release the kettle pressure automatically if over 15 psi. This valve is also equipped with a ring (Fig. 10) which should be lifted if kettle pressure exceeds 15 psi and the valve has not released pressure automatically. **CAUTION: Do not allow kettle pressure to exceed 15 psi.** Keep the exhaust port of the pressure-relief valve clear of obstructions.

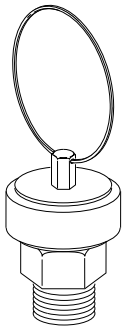


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Fig. 10

SUGGESTED COOKING GUIDE

These suggested cooking times are based on average-sized portions. Heavier portions will require a longer frying time.

FOOD	TEMP. (°F)	TIME (Minutes) (Food at Room Temp.)	TIME (Minutes) (Refrigerated Product)
*Chicken, 2 lb	325	8	9
2 1/4 lb	325	8 1/2	9
2 1/2 lb	325	9	9 1/2
2 3/4 lb	325	9 1/2	10
Pork Chops, 3-4 oz	325	5	5 1/2
5-6 oz	325	6 1/2	7
7 oz	325	7	7 1/2
Frozen Breaded Shrimp, (regular medium-sized)	325	1 1/2 to 2	3 1/2 to 5
French Fried Potatoes, Raw	325	4	
Frozen (blanched)	325		3
Breaded Veal Cutlet, 3 oz	325	5	5 1/2
4 oz	325	6	6 1/2
Lamp Chops, 2-4 oz (thin)	325	5	6
5-6 oz (thick)	325	11	12

*Use 2 1/2 to 2 3/4 lb whole chickens. If chickens are larger than this, increase cooking time by 1 minute for each additional 1/4 lb of product. (Example: If chickens weigh 3 lb, add 1 more minute to the frying time suggested.) Cut chicken, and bread or season as desired.

Other Items Which May Be Prepared in the Pressure Fryer

FOOD	TEMP. (°F)	TIME (Min.)
Chicken Fried Steak	325	8
Liver	325	4
Sweet Breads	325	4
Fish Fillets (Frozen & Prebreaded)	325	5
Shrimp (Fresh)	325	4
Oysters	325	2
Lobster Tail	325	4
Scallops	325	2
Croquettes	325	3
Franks Wrapped in Bacon	325	4
Onion Rings	325	1
Asparagus	325	1
Brussel Sprouts	325	1
Corn-on-the-Cob	325	3

DRAINING AND FILTERING OIL

WARNING: HOT OIL AND PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING OR SERVICING THE FRYER.

WARNING: SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS. DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

WARNING: DO NOT DRAIN OR FILTER OIL WHILE KETTLE IS UNDER PRESSURE.

To prolong oil life, it is recommended that you filter the oil after 85 to 90 pounds (39 to 41 kg) of product have been cooked. Filter the cooking oil using the Hobart HMF50 or HMF85 Filter, or with a vacuum-style or gravity-style filter by others. Draining through cheesecloth will not clean the oil sufficiently for pressure frying.

Using the HMF50 or HMF85 Filter

Follow the instructions shipped with the filter.

Model HPGF15 Pressure Fryer

Filtering Oil During the Production Period

1. Turn thermostat, power switch and gas valve OFF before draining or filling. Open lid.
2. Attach drain elbow (supplied) to drain pipe.
3. Position filtering system under drain, open drain valve and drain oil into filter machine.
4. Using a long-handled brush, wash sides and bottom of kettle with some remaining warm oil. Rinse with warm oil.

5. When clean, close drain valve and return oil to kettle.

6. Remove drain elbow.

7. Check oil level and turn fryer on. Cooking can resume when the white cooking light goes out.

Filtering Oil at the End of the Production Day

This procedure must be done while the kettle is still warm. Filtering time increases as the oil cools.

1. Turn thermostat, power switch and gas valve off before draining or filling. Open lid.

2. Attach drain elbow (supplied) to drain pipe.

3. If you use filter powder (diatomaceous earth), follow the manufacturer's instructions and add filter powder to oil in kettle. Stir with the wooden stick provided.

4. Position filtering system under drain elbow, open drain valve and drain oil into filter machine. Drain until approximately 2" (5 cm) of oil remains in the kettle.

5. Using a long-handled brush, wash sides and bottom of kettle with remaining warm oil, then finish draining tank.

6. While the oil is out of the kettle, remove any excess breading from bottom of kettle. Use the wooden stick provided to dislodge any material that may have collected in the kettle drain (Fig. 11).

Fig. 11

7. Place a suitable pot or vessel under drain valve outlet to receive cleaning water from kettle.

8. Close drain valve and carefully pour 2 to 3 gallons (7.6 to 11.4 L) of COLD water into kettle. Use a nonabrasive, plastic web-type, nonrusting, nonshredding pad to wash kettle completely. Drain water. Rinse kettle well with clear water. Drain again. Wipe kettle dry with a soft, clean, lint-free cloth. Close drain valve.

9. Wash fry basket and crumb screen in hot, soapy water. Rinse thoroughly and wipe dry with a soft, clean cloth.

10. Raise lid by pulling back knob (Fig. 12) out and lifting lid up. Hold back knob out until you reach desired height. Release back knob to hold the lid in that position. Wipe the under part of lid clean, including diaphragm (Fig. 13).

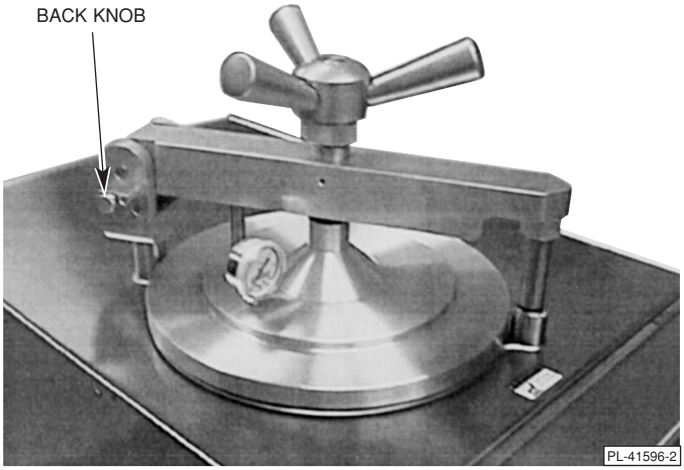

Fig. 12

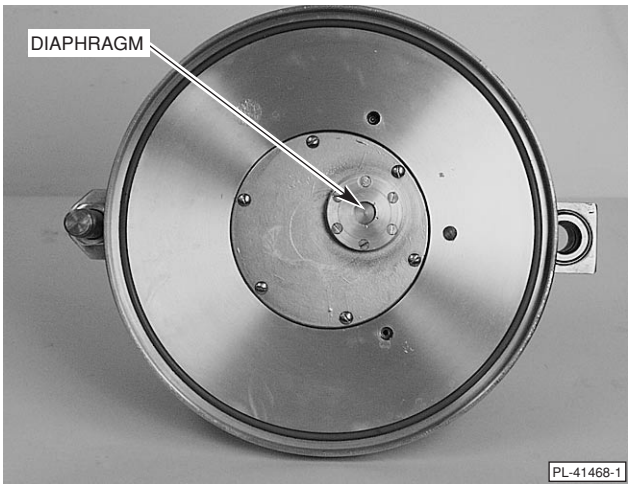

Fig. 13

11. Continue with the cleaning instructions described in the CLEANING section of this manual.
12. Close drain valve and return oil to kettle.
13. Remove drain elbow.
14. Check oil level. The fryer is ready for the next production period.

CLEANING

WARNING: UNPLUG ELECTRICAL POWER SUPPLY BEFORE CLEANING.

Daily Cleaning

Stainless Steel

Clean stainless steel regularly with a damp cloth and polish with a soft, dry cloth. If regular cleaning is neglected, grease will be burned on and discolorations may form. These may be removed by washing with any mild detergent or soap and water. Particularly stubborn discolorations may be removed with a self-soaping scouring pad or a paste made of water and a mild scouring powder applied with a plastic open pad or sponge. **CAUTION: Always rub with the grain in a horizontal direction.**

Do not use bleach or products containing bleach.

It is important to keep the fryer exterior clean and free of accumulated grease. Wash all exterior surfaces at least once daily. Use a cloth with warm water and a mild soap or detergent. Follow with a clear rinse, then dry.

Aluminum Kettle

See cleaning procedure for Model HPGF15 under FILTERING OIL AT THE END OF THE PRODUCTION DAY.

Cleaning After Every Production Period

Exhaust Tank

Drain the exhaust tank at the end of every production period while the liquid is hot. The exhaust tank drain valve is located behind the front access door at the lower right.

1. Attach drain pipe extension (supplied) and drain exhaust tank by turning drain valve handle up (Fig. 15).

2. After draining the exhaust tank, turn handle down to close drain valve, then remove drain pipe extension before closing door.

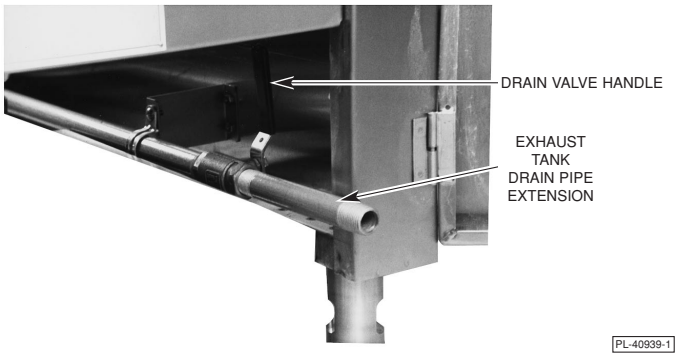

Fig. 15

Weekly Cleaning (More Often if Required)

Solenoid Assembly (Fig. 16)

CAUTION: The kettle pressure regulator in the solenoid assembly must be cleaned at least once a week during normal usage or the fryer may malfunction.

1. Open the kettle lid and remove the breather elbow (Fig. 17) from the inside wall of the kettle. Wash the elbow in hot, soapy water, then rinse well and allow to air dry. Inspect the two O-Rings. If cracked or worn, contact your local Hobart service office for replacement.

2. Unplug the electrical cord attached to the upper portion of the solenoid assembly. To unplug, twist the plug counterclockwise and pull out.

3. Remove the thumb screw securing both the solenoid and pressure-relief valve. Separate the solenoid and valve. The valve seats into the block with two O-Rings and some force may be required.

4. Grasp the kettle pressure-relief valve with a towel and remove the valve from the solenoid. If the hex nut on the base of the solenoid does not release easily, use the 1 1/4" end wrench supplied. Wash the valve in hot, soapy water. Rinse in clear water and set aside to air dry. Do not disassemble the valve, but inspect the O-Rings and contact your local Hobart service office for replacement if cracked or worn.

5. With the pressure-relief valve assembly out, run the flexible cleaning rod into the cleanout port and through the kettle exhaust line to clear any obstructions.

6. Make sure the pressure-relief valve and breather elbow have thoroughly dried. Dip the ends of the assemblies, with O-Rings, into the oil to lubricate the O-Rings.

7. Insert the breather elbow into the kettle exhaust line with the inlet hole directed upward.

8. Assemble the pressure-relief valve to the solenoid. Make certain the teflon gasket is seated inside the hex nut. Align the widest opening of the valve to the cleanout port in the solenoid block. Press the valve downward into the block. Make certain the valve O-Rings snap into their grooves.

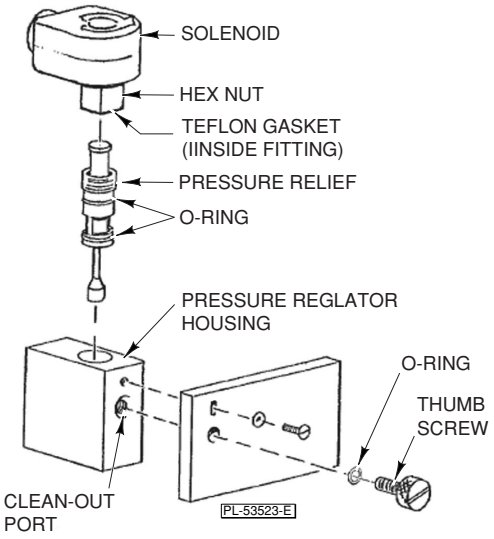

Fig. 16

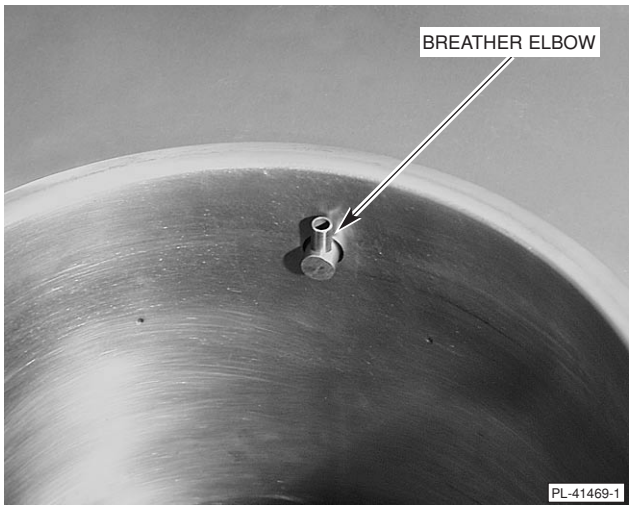

Fig. 17

9. Replace the thumb screw and O-Ring into the cleaning port. If the head of the thumb screw fails to seat against the O-Ring, check and correct the alignment of the valve opening to the cleanout port.

10. Plug the cord back into the upper portion of the solenoid and twist clockwise to ensure a good connection.

Kettle Tilt Lid

Clean the kettle tilt lid weekly.

1. Remove tilt lid assembly. To remove, slide tilt lid clear of overarm post catch (see Fig.9), and remove pivot post knurled cap. Pull back knob at the left, and lift up on lid until overarm bar clears pivot post.

2. Remove O-Ring from underside of kettle lid by prying it loose at one point with a plastic knife (Fig. 18) or other blunt, thin tool. Avoid slicing or gouging the O-Ring. Wash the O-Ring separately in warm, soapy water, then rinse thoroughly and dry with a soft, clean cloth. **CAUTION: Never use a metallic or sharp instrument to remove or insert the O-Ring.**

3. Wash lid assembly in warm, soapy water. Rinse thoroughly and dry with a soft, clean cloth.

4. Before replacing O-Ring, make certain that groove (Fig. 19) is free of particles and edges of groove are not sharp or burred.

Fig. 18

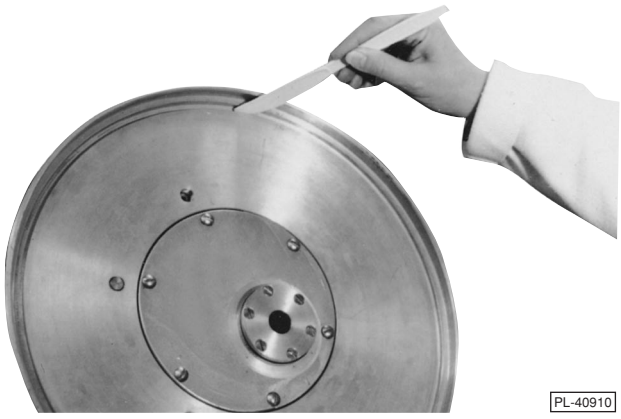

Fig. 19

5. The flexible diaphragm of the lid-locking device is visible when viewing the underside of the kettle lid. Make certain diaphragm material is not torn or punctured. If it is, contact your local Hobart service office for *immediate* replacement.

6. Dip O-Ring in cooking oil for lubrication, and insert it into groove. **IMPORTANT:** First, press O-Ring into place at the 12-, 6-, 3- and 9-o'clock positions (Fig. 20). Using finger pressure only, stretch and work O-Ring into groove until it is seated all the way around. Apply pressure straight down. Do not twist or roll ring into groove; this may fracture the skin of the ring.

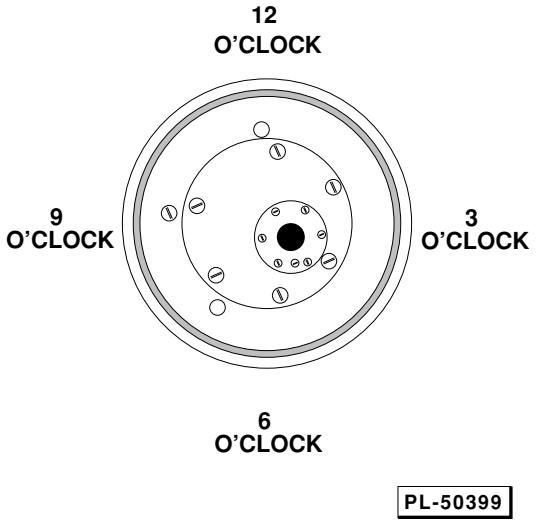

Fig. 20

7. To reinstall the kettle tilt lid, reverse the procedure described in step 1.

Pressure-Relief Valve

Once a week, operate the pressure-relief valve release ring (see Fig. 10) by lifting it up and then back down.

Monthly Cleaning

Exhaust Tank

Remove the exhaust tank at the rear of the fryer and flush it out with hot water. To remove the exhaust tank:

1. Remove 4 screws holding exhaust vent in place (Fig. 21) and lift exhaust vent up.

2. If exhaust pipe (Fig. 21) hinders removal of the exhaust tank, unscrew pipe and remove it.

3. Disconnect drain pipe (Fig. 21) that runs from pressure-regulator housing to exhaust tank at the union.

4. Remove bolt from exhaust tank drain line clamp (Fig. 22).

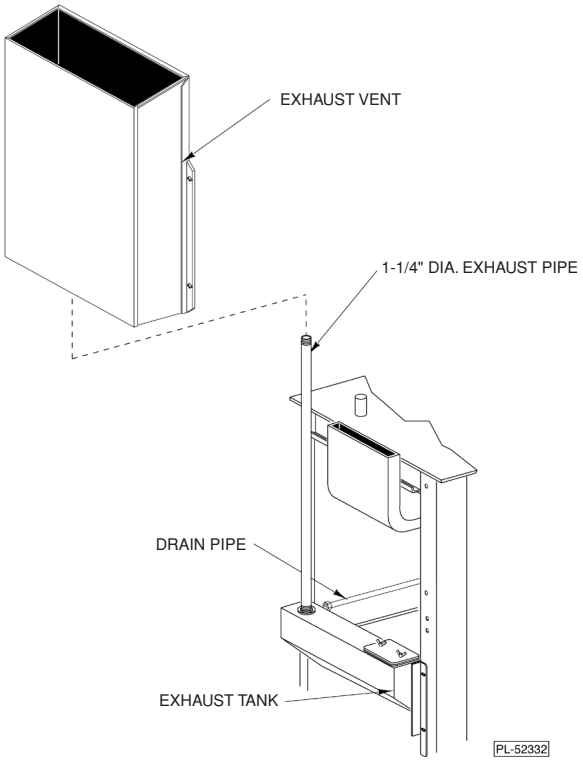

Fig. 21

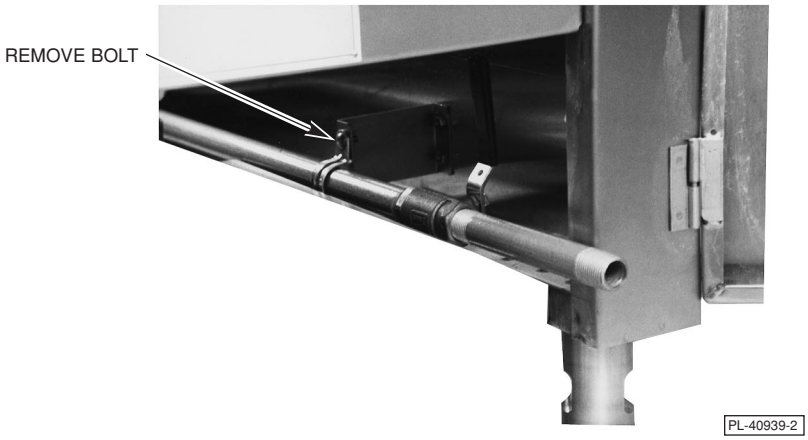

Fig. 22

5. Remove 4 screws holding exhaust tank in place (see Fig. 21) and remove exhaust tank.
6. Flush exhaust tank with hot water.
7. Reverse procedure to reinstall exhaust tank.

MAINTENANCE

WARNING: HOT OIL AND PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING AND SERVICING THE FRYER.

WARNING: SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS. DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

WARNING: UNPLUG ELECTRICAL POWER SUPPLY BEFORE PERFORMING ANY MAINTENANCE.

LID O-RING SEAL REPLACEMENT

Removal and replacement instructions for the lid O-Ring are described in the CLEANING section of this manual under KETTLE TILT LID.

OTHER O-RING SEAL REPLACEMENTS

Kettle Pressure-Regulator Assembly

The O-Ring seal on the kettle pressure-regulator assembly (Fig. 23) needs to be replaced if oil is leaking from the kettle lid. If steam leaks around the kettle pressure-regulator O-Ring and goes into the exhaust tank, pressure will not build in the kettle. Dip the new O-Ring in oil for lubrication and insert it into the groove.

Fig. 23

Cleaning Port Plug Screw

The O-Ring seal on the cleaning port plug screw (Fig. 24) needs to be replaced if liquid is leaking around the screw.

Fig. 24

VENT

When fryer is off and cool, annually examine the flue and clear any obstructions.

Contact personnel qualified to install and repair gas equipment for all other maintenance problems.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES
Pressure will not build.	1. No product or very dry product loaded. 2. Power switch is in the OFF or FILTER position. 3. Lid not tightened. 4. Lid O-Ring not sealing. Replace O-Ring.
High pressure in kettle.	1. Dirty exhaust line to solenoid. 2. Dirty line from kettle pressure regulator to exhaust tank. 3. Exhaust tank vent plugged.
Loss of pressure during cooking cycle.	1. Kettle pressure regulator leaks. Make sure the solenoid plug is locked in place. 2. Kettle pressure regulator O-Ring needs to be replaced.
No heat.	1. Thermostat not turned on. 2. Blown fuse in main electrical panel or in fryer. Fryer fuse is located inside door in a box on left side panel. Flip up lid on box and replace fuse (on bottom left side) with 15-amp rated fuse. 3. Power cord not plugged in. 4. Burner flame out.
Oil smokes, bubbles vigorously and breaks down after a few cookings.	1. Oil has not been properly filtered. 2. Suet may have been added. Never add suet. 3. Breading is accumulating in the bottom of the kettle.
Oil leaking from kettle lid.	Low pressure in kettle. The kettle lid O-Ring needs to be replaced.
Pressure does not exhaust properly.	1. Exhaust pipe between solenoid and kettle needs to be cleaned. Follow procedures described in this manual under CLEANING - WEEKLY CLEANING (MORE OFTEN IF REQUIRED) - SOLENOID ASSEMBLY. (If the exhaust pipe is restricted or plugged, the pressure-relief valve on the lid will open.) 2. The kettle pressure regulator is dirty. 3. The timer is not opening the solenoid. Contact your local Hobart service office.
Pressure releases too slowly at the end of a cooking cycle.	Kettle pressure-relief valve may have been incorrectly positioned after cleaning. Align widest opening of valve to cleanout port in solenoid block.
Lid will not lock — **DO NOT OPERATE FRYER.**	Lid diaphragm or locking mechanism needs to be replaced. Contact your local Hobart service office.