

# *Hart Warming Service Plans*



**Hart&Liff**

*Fuel and Energy Systems*

**Fuels / Heating / Cooling**

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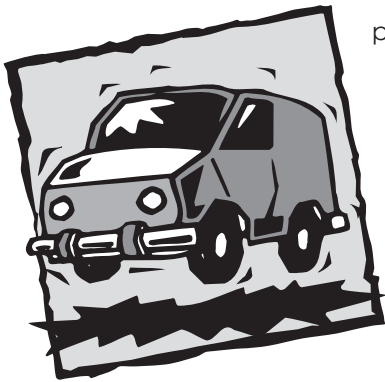
**Hart & Iliff** is proud to present our oil heat service plans. Our goal in developing these plans is to offer our customers the most effective, comprehensive and worry-free coverage available. Please carefully review the service plan insert to decide which plan is right for you.



## **Service, Quality and Commitment**

At Hart & Iliff, when we say your comfort is our business, we mean it. For over 130 years we have been committed to providing our customers with a comfortable environment and peace of mind through quality products and services.

In everything we do, we try to be problem preventers rather than just problem solvers. Here's what we mean:



- ▲ We perform your annual tuneup, then test and adjust your unit with the most advanced computerized equipment available to achieve maximum efficiency, saving you 10% or more off your annual heating bills.
- ▲ Our service vans carry thousands of dollars worth of replacement parts to ensure that we can fix most problems when we get to your home. This avoids unnecessary callbacks and saves you valuable time.
- ▲ Our service technicians are all Licensed HVACR Master Technicians or Apprentices. They continually attend training classes to keep up with the latest heating and cooling technology. When our technicians answer your call, they're prepared to solve even the most complicated problems.
- ▲ Our exclusive **Ultrablend Heating Oil** contains detergents, stabilizers, dispersants, inhibitors and an EPA approved microbiocide. In addition to burning cleaner, more efficiently and more economically, **Ultrablend** helps prevent problems.

## **Questions You Might Have**

### **Q Why should I get a service contract?**

**A** When you pay for service as you go, you never know when an expensive bill will come. Customers who need only a tuneup one year can have three or four service calls the next. Having a service plan eliminates these ups and downs and allows you to rest easy knowing things are taken care of. It also increases the likelihood you'll have small problems taken care of before they become big problems.

## Comfort Plan - \$304.95

The Comfort Plan covers many of the things that are likely to go wrong with an oil heat system and includes an annual tuneup to increase your system's longevity and performance. Repair or replacement of any of the following parts due to normal wear and tear will be at no cost. An after hours flat rate charge of \$49 applies to covered calls after 8:00 P.M. Monday through Friday and for all calls on weekends or holidays.

### Controls

- ▲ Aquastat (Boiler Only)
- ▲ Cad Cell Control
- ▲ Circulator Control
- ▲ Combination Control
- ▲ Draft Regulator
- ▲ Emergency Switch
- ▲ High Limit Control
- ▲ Low Limit Control
- ▲ Pressuretrol Control
- ▲ Primary Control
- ▲ Reverse Aquastat
- ▲ Stack Control
- ▲ Switching Relay
- ▲ Thermostat (one manual)

### Burner Replacement Parts

- ▲ Burner Coupling
- ▲ Burner Blast Tube
- ▲ Burner Flange Gasket
- ▲ Burner Motor

- ▲ Burner Wiring (exposed)
- ▲ Buss Bar Transformer Leads
- ▲ Cad Cell Assembly
- ▲ Cad Cell Eye
- ▲ Delayed Oil Valve
- ▲ Delayed Oil Valve Coil
- ▲ Electrodes
- ▲ End Cone
- ▲ Ignition Transformer
- ▲ Low Voltage Wiring (exposed)
- ▲ Low Voltage Transformer
- ▲ Nozzle
- ▲ Nozzle Adapter
- ▲ Nozzle Line

### Fuel Supply Parts

- ▲ Firomatic Valve
- ▲ Flare Fittings
- ▲ Fuel Filter Cartridge
- ▲ Fuel Filter Complete
- ▲ Fuel Pump
- ▲ Fuel Pump Bleeder

- ▲ Fuel Pump Gasket
- ▲ Fuel Pump Seal
- ▲ Fuel Pump Strainer

### Warm Air Systems

- ▲ Blower Bearings
- ▲ Blower Belt
- ▲ Blower Complete
- ▲ Blower Motor
- ▲ Blower Pulley
- ▲ Blower Shaft
- ▲ Blower Wheel
- ▲ Fan Control
- ▲ Limit Control

### Other

- ▲ Circulator Coupling
- ▲ Circulator Motor (Not direct drive)
- ▲ Circulator Motor Mounts
- ▲ Combustion Chamber (dry base boilers excluded)
- ▲ Smoke Pipe
- ▲ System 2000 Manager (classic only)

## Presidential Comprehensive Plan - \$389.95

The Presidential Comprehensive Plan includes everything in the Comfort Plan plus the significant addition of the following major parts and services. An after hours flat rate charge of \$49 applies to covered calls after 8:00 P.M. Monday through Friday and for all calls on weekends or holidays.

### Parts

- ▲ Automatic Water Feeder
- ▲ Air Vents (standard)
- ▲ Back Flow Preventer
- ▲ Baffles
- ▲ Baseboard Radiation
- ▲ Boiler Valve
- ▲ Hydronic Mixing Valve
- ▲ Aquastat (Indirect Tank)
- ▲ Circulator Complete
- ▲ Circulator Flange Gaskets
- ▲ Defuser
- ▲ Expansion Tank
- ▲ Low Water Cut-Off Switch
- ▲ Feed Valve
- ▲ Flow Valve
- ▲ Gauge Glass
- ▲ Heating Pipes (exposed)
- ▲ Low Water Cut-Off Float
- ▲ Low Water Cut-Off Probe
- ▲ Purge Valve
- ▲ Hydronic Low Water Cut-Off
- ▲ Circulator Bearing Assembly
- ▲ Pyrostat
- ▲ Radiator Valves
- ▲ Hydronic Relief Valve
- ▲ Zone Valve Motor
- ▲ Zone Valve Complete
- ▲ Tridicator Gauge

### Services

- ▲ Repairing water leaks in exposed heating pipes
- ▲ Venting of baseboard or radiators
- ▲ Adjusting boiler pressure

## Separate Oil-Fired Hot Water Heater Coverage - \$194.95

- ▲ Coverage includes an annual tuneup, all burner parts, aquastat, controls and emergency switch.
- ▲ This plan is available only if taken in conjunction with a Comfort or Presidential Plan. The same flat rate after hours charge applies.

### General Conditions

1. We reserve the right to charge more for commercial systems, systems with unique problems or systems with more than 5 heating zones.
2. Annual tuneup will be performed once during the Service Agreement term during regular working hours as scheduled by the customer with our service department. The annual tuneup includes:
  - ▲ Test and adjust oil burner for maximum efficiency.
  - ▲ Clean and check electrodes and nozzle assembly.
  - ▲ Clean heating unit and flue pipe including chimney base (where accessible) as necessary.
  - ▲ Install new oil filter cartridge, strainer, and burner nozzle.
  - ▲ Oil all motors on burner, fans and circulators.
  - ▲ Inspect combustion chamber.
  - ▲ Safety check all operating controls.
3. Only the repair or replacement of existing listed parts is covered.
4. All equipment must be inspected and in good working order prior to approval for coverage. Pre-existing problems, at the inception of the contract, are not covered.
5. Exclusions: This agreement does not cover:
  - ▲ Lack of oil when delivery has been delayed due to delinquency in payments, when driveways and fill pipes are not clear of snow and ice or when customer is not on automatic delivery.
  - ▲ Failure of customer to maintain proper boiler water level, flush low water cutoff or change air filters on a regular basis.
  - ▲ Failure of customer to correct a condition which can adversely affect the operation of the heating system.
  - ▲ The corrosive effects of anti-freeze in the system.
  - ▲ Failure of customer to keep hot water coils, exchangers or storage tanks free of lime or other deposits.
  - ▲ Breakers or switches in the "off" position or setting thermostat too low to call for heat.
  - ▲ Oil tanks, piping, oil lines or accumulation of water or sludge in oil tanks.
  - ▲ Frozen or clogged oil lines or heating pipes.
  - ▲ Piping and wiring not related to the heating system.
  - ▲ Chimney, side wall venter and draft-related problems.
6. This agreement does not cover repair or replacement of defective, cracked or leaking boilers, furnaces, hot water storage tanks, heat exchangers, electronic system controllers, hot water coils, coil gaskets, hydronic coil units, anode rods, unexposed, inaccessible or buried pipes or wires, asbestos removal or obsolete parts which are not available through regular sources.
7. This agreement is void if all fuel oil requirements are not purchased from **Hart & Iliff** on an automatic delivery basis.
8. This agreement covers mechanical failures only and does not cover acts of God, fire damage, flooding, water damage, conditions unrelated to the heating system, power failures, use of generators, blown fuses or circuit breakers, brown outs, dead batteries or customer negligence.
9. There shall be no liability on the part of **Hart & Iliff** for work done by anyone else, unless such person is authorized in writing by **Hart & Iliff** to perform such work or furnish parts.
10. This agreement is for one year. If your account is current, it will automatically renew unless equipment is obsolete or we are notified of cancellation in writing 30 days prior. All contracts must be paid within 30 days or they are subject to cancellation.
11. Consequential and collateral damages, property damage or damages caused by delay in rendering service under the contract or if building is unoccupied are specifically not covered by this agreement.

### Service Hours

**Hart & Iliff** provides dependable, prompt emergency service 24 hours a day, 7 days a week, 365 days a year.

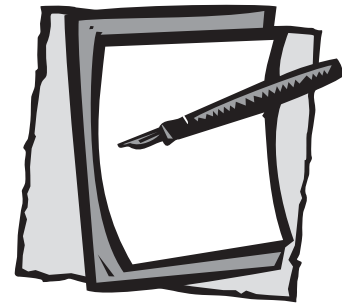
Emergency service constitutes: **NO HEAT DURING COLD WEATHER, SERIOUS FUEL OR WATER LEAKS, VISIBLE SMOKE OR DANGEROUS SITUATIONS.** All other regular service will be performed during normal working hours, Monday through Friday 8:00 A.M. to 4:30 P.M.

**Q What about the cost?**

**A** Every system should be tuned up once a year (it saves you up to 10% or more on your oil bills and prevents other problems from developing). The average cost of a tuneup is approximately \$235.

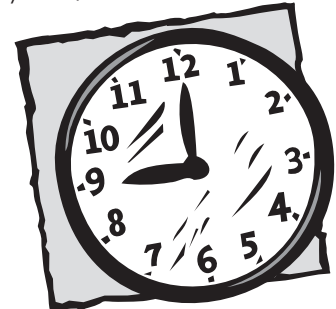
Now consider what happens if your system needs repair. The cost to replace any major component of your heating system could easily exceed \$350 or more. And if any repairs are done after normal business hours, they would cost even more.

**Our service plans cover all of this and much more.** For less than the price of one cup of coffee a day, you can eliminate worrying about virtually anything that can go wrong with your heating system.



**Q Which contract is best for me?**

**A** It depends on the type of heating system you have and the level of protection you're comfortable with. Our **Comfort Plan** covers the most common repairs that oil customers face and includes a professional tuneup. If you have a hot water system, our **Presidential Plan** goes one step further and handles repairs to the water-related parts such as circulators and zone valves. If you have a new system under warranty or are prepared to pay for service as needed, you might not need a service contract at all.



**Q Is all the service done by your own people?**

**A** Yes. We maintain a full-time staff of highly trained technicians who continually attend courses to stay up-to-date with the latest technology.

**Q Will I be charged for service not covered by the service contract?**

**A** Yes. (Although there's almost nothing the **Presidential Plan** doesn't cover.)

**Q Will I be charged extra for after hours calls?**

**A** With both plans, there is a flat rate charge for covered calls after 8:00 P.M. Monday through Friday and for all calls on weekends or holidays. In addition, non-emergency service, outside of normal working hours, is chargeable at after hour rates.

**Q What constitutes emergency service?**

**A** No heat during cold weather, serious fuel or water leaks, visible smoke or dangerous situations.

**Q How do I get started?**

**A** Just call to set up an inspection.

Please don't wait until you have a problem and face a big bill. Take care of this now, and rest easy all year long.

If you have any questions, call us at **973-383-1421** or visit our website at **hartandiliff.com**.



## Your Heating System

No matter what fuel you use, the heat it creates is distributed throughout your home in one of three ways: hot water, steam or warm air. The basic operation of these systems is described below. The two most common methods, hot water and warm air, are illustrated with diagrams.

### How Oil Systems Make Heat

Your thermostat (1) has a sensor which measures room temperature. When the temperature drops below your thermostat setting (or you raise the level above the room temperature), it sends a signal to the controls (2) on your burner (3) to get into action.

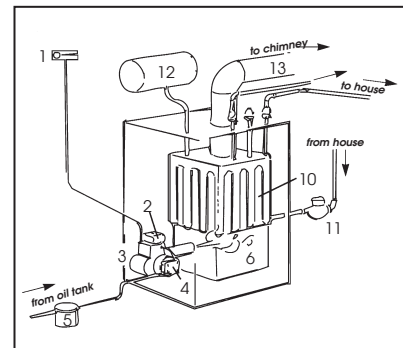
A fuel pump (4) draws oil through a filter (5) to your burner. It turns this oil into a fine spray, mixes it with air and ignites it in the combustion chamber (6), causing the chamber to get very hot.

What happens next depends on the type of system you have:

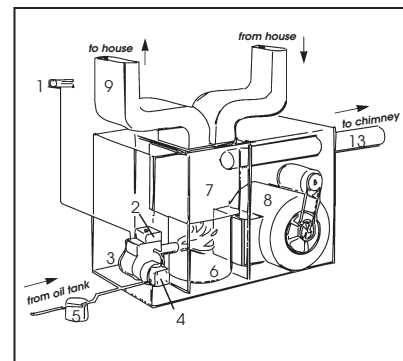
- ▲ If you have a **Hot Water (hydronic) System** (upper right), water circulates around your boiler's (10) flue passages. A circulator (11) pumps the hot water through radiators, baseboards or through pipes in the floor (radiant heat). An expansion tank (12) adjusts to varying pressures.
- ▲ If you have a **Warm Air System** (lower right), air absorbs heat from your furnace's heat exchanger (7) or hydronic coil. A blower (8) sends this air through ducts (9) to heat your home.
- ▲ **Steam Systems** work similarly, except steam is generated and rises to the radiators (no circulators are needed). A low water cut-off prevents damage to the boiler by shutting it down in case water levels drop too low.

In all systems, the combustion emissions go up the flue (13), never mixing with either the air or water going through your house.

**Diagram of Hot Water (Hydronic) System**



**Diagram of Warm Air System**



### Parts Most Asked About

▲ **Low Water Cut-Off:**

shuts boiler off if water level is too low

▲ **Aquastat:**

water temperature monitoring control

▲ **Reset Button:**

safety which is part of the primary control

▲ **Fuel Pump:**

draws oil to your burner

▲ **Zone Valve:**

electronic valve that opens when thermostat calls for heat

▲ **Blower:**

circulates air through forced air furnace and duct work

▲ **Combustion Chamber (firebox):**

burner fires into it

▲ **Circulator:**

pumps water through system