#### Model A Ford Manifold Heaters

Notes from my personal collection

#### **Disclaimers**

- I am not an expert on manifold heaters, I just own a whole mess of them! (I don't think there is a manifold heater expert!)
- When different versions of a heater are presented here, that does not mean there are not other versions.
- This is a taste of what is out there, there are MANY that I do not have.

# Different types of heaters for Model A Fords

How did people keep warm when riding in a Model A? There were basically four types of heaters that were available:

- Manifold heaters
- Other exhaust style heaters
- Hot water heaters
- Gas fired heaters

#### Pros and cons

- Manifold heaters
  - Pros: simple design, lots of heat
  - Cons: possible exhaust leakage, unique to car
- Other exhaust style heaters
  - Pros: lots of heat
  - Cons: possible exhaust leakage, somewhat unique
- Hot water heaters
  - Pros: versatile, easy to mount, adaptable to many cars
  - Cons: Can freeze if no anti-freeze
- Gas fired heaters
  - Pros: LOTS of heat
  - Cons: burning gasoline right under gas tank!

## Unique to Model A?

- The vast majority of manifold heaters I have seen have been for Model A Fords. Why? During that time period, Ford and Chevrolet made up over 85% of US car sales, and yes, there are Chevrolet manifold heaters out there. Since unlike hot water and gas fired heaters, a manifold heater is unique to a car model, I have not seen any for other makes. Do you know of any?
- There were some made for later V8 models, but these are scarce, most of them have hot water heaters. And Model T? I have seen one occasionally, but very few: perhaps since most model T's were open cars, few people bothered trying to keep them warm! Model T's also used an intake air heater wrapped around the exhaust manifold, which would have needed to be removed to put on a heater.
- By the mid 1930's, manifold heaters seem to be extinct, people preferred the clean heat from more easily controlled hot water heaters.

## Types of manifold heaters

Manifold heaters can be clumped into three main types:

- Clamp on stock manifold
  - easy to mount, retains original manifold, low chance of leakage
- Clamp on special manifold
  - Requires changing the manifold, low chance of leakage
- Integral heater/manifold
  - Requires changing the manifold, presents a danger of exhaust leakage if cracked, I personally suggest not using this style.

## My collection

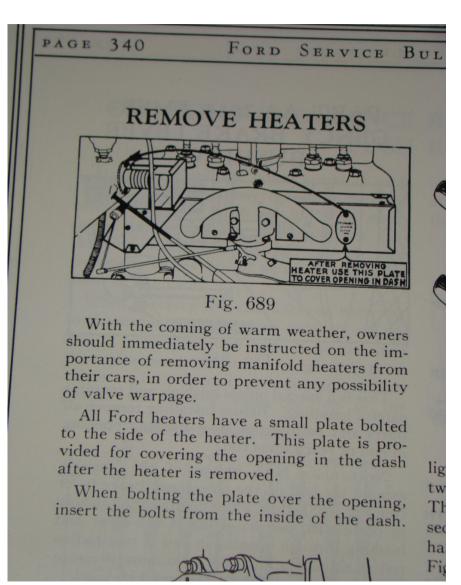
The following slides show heaters that I personally own. There are LOTS of others out there, this is the product of me just picking up odd ones over many years.

#### Ford Authorized heater

• This is the heater that Ford offered to dealers to install on cars. It is made of sheet metal and encloses the stock manifold, and being sheet metal, it rusts very easily and so few survived, I have only seen three: this is one of them and the other two were NOS, never on the car. This one shows what was probably an issue with them: it has been trimmed slightly on the edges to make it easier to get on and off. It is very similar to a heater made by G.A. Roth manufacturing under the name "Red Cat" and it may have been made by them for Ford.

#### Ford authorized heater

This is the note contained in the Service Bulletins and shows this heater



## Ford authorized heater



#### Ford Authorized heater

Here is a company that made an add-on blower for the Ford heater.



These are probably the most common manifold heaters for Model A. They were made in both clamp on and special manifold styles. Reproduction ones have been made and are not shown here.

Clamp on style



Special manifold style



Showing special manifold and cover



These have a reputation for putting out LOTS of heat! Some of them say "Health heater" on them, some do not. I am including here a "Firestone" script heater that appears to be an Otwell made for them. Otwell claims in their ads that they are only sold through "Authorized Ford dealers", but I do not know what that means. They are all of the integral type and most of the ones I have seen have serious cracks: read my warning on this style.



"Sway back" Otwell



• "Straight back" Otwell, straight script



• "Straight back" Otwell, curved script



"Firestone" heater, made under Otwell license?



#### "Director" heaters

This was a trade name used on these heaters, I do not know what company actually produced them. I have seen both clamp on, and integral manifold styles. Again, read my warning on integral style heaters.

#### Director heater

• Director heater, clamp on style



#### Director heater

• Director "Special" heater, integral style



These are somewhat common heaters that were made in both clamp on and special manifold versions. Most of them have the unique feature that the outlet is pointed toward the engine instead of straight back and put an outlet in the center of the firewall. The special manifolds are often confused with Autolite versions since many people don't know the Red Head exists. They are easily spotted though by their angular cover outline as opposed to Autolite's rounded edges.

Special manifold style, hump back and straight back covers



Special manifold style, showing manifold and covers



• Special manifold, "Type H"



Showing special manifold



Clamp on style



#### Francisco heater

This heater uses a special manifold that is enclosed by a sheet metal jacket. Unfortunately, the majority of them had no sheet metal left, it all rusts away!

### Francisco heater

No sheet metal left!



#### Unknown sheet metal heater

Very much like the afore-mentioned Fancisco heater, it may actually be another model made by them. Again, the sheet metal is often completely rusted away.

#### Unknown sheet metal heater

#### Who made it?



#### Sum-R-Air heater

• This heater was made by Central Specialty Company and carried the designation "Safety Heater" on it. It used a special manifold that was flat topped and instead of an open cover, it had a fully enclosed aluminum box that bolted to it, thus having no possibility of exhaust leakage into the car even if the manifold severely cracks. They touted this feature in their ads as: "A two metal thickness protection against carbon monoxide poisoning". It makes you wonder if the problem with integral style heaters cracking and leaking was well known back then! The example here is the cover only, I do not have the special flat-top manifold that it required. I really do like this heater!

#### Sum-R-Air



### Sum-R-Air heater

A safety oriented design, but missing the manifold



## Red Dragon heater

 This one was also made by Central Specialty company and wins my vote for sexiest manifold heater. It was a two piece clamp on unit: an aluminum finned piece that set on the manifold and a red cover that snaked back and forth. Like the "Sum-R-Air", it also protected against carbon monoxide by being separated by the finned piece.

# Red Dragon heater

• From the same company as the "Sum-R-Air"



# Red Dragon heater

• From the top, check out the curves



### "Force Draft" heaters

This is the name that appears on one of the two examples I have, the other is blank. I do not know who made these. It is a simple clamp on cover style.

### "Force Draft" heaters

Identical design, bottom one is missing mounting clips



#### **Howard Heater**

Made by Howard Foundries Inc, this is a simple clamp on style unit which was held down by cylinder head nuts.

### Howard heater



### Howard heater

Another clamp on style



This is a strange unit that is installed between the manifolds and the block and required installing extra long studs to hold it. There are two cast aluminum pieces with a sheet metal cover over both of them. It says "Ford heater model A & B, so this example at least was made after 1931.

• I have never seen this design used elsewhere



This was made by an unknown company and consists of a special manifold that has an open top with a cast iron cover. It is different in that the heat outlet was down low instead of directly at the firewall. This allows installation of an outlet in the wooden part of the floorboard instead of having to drill a hole in the firewall, which is a good feature if your firewall is intact and you want to add a heater. They don't seem to be particularly rare, but are often missing the cover which can be made from sheet metal.

Note the low heat outlet



Showing the inside



### Zenith Blower heater

Was their any connection to Zenith carburetors?
 I doubt it very much! This is an integral design (heed my warnings) with a large intake scoop which apparently had an electric fan in it at one time, but this one is missing.

### Zenith Blower heater

Note the large intake which originally had a blower.



## Miscellaneous clamp-on heaters

- Oh, so many of these out there! They were simple designs, very low profile, that clamped onto the back of the stock exhaust manifold. Examples shown here are:
  - Remington
  - Spring City
  - Snyder
  - Bingo
  - Hider (2 styles)

## Miscellaneous clamp-on heaters

Remington, Snyder, and Spring City models



## Miscellaneous clamp-on heaters

 "Bingo" and two "Hider" models, all made in Binghamton, NY. The bottom one does not fit a Model A manifold and may have required a separate spacer between it and the manifold or was for a different car.



### Ads for a few I don't have

I already told you I don't have every one ever made, here are a few of those examples!

### Red Cat heater



## Liberty and Torrid-Hete



## Cooper heater



### Pres-toe heater



### Linco heater



### Firewall doors

All of these heaters had to get their heat into the car somehow, and the heaters and the doors are usually separated from each other. For those heaters that empty through the firewall, there are two main types: those that have a jog in the outlet so the door can be placed on a flat area (most common), those that empty straight back and require a door that mounts on the curve behind the engine (Otwell and others). The Red head was different in that the outlet emptied toward the center and put the outlet in the middle of the firewall. And then there are some models that have their outlets low and put a register into the wooden floor boards. These are good to use if you don't have a hole in the firewall and don't want to make one!

### Firewall doors

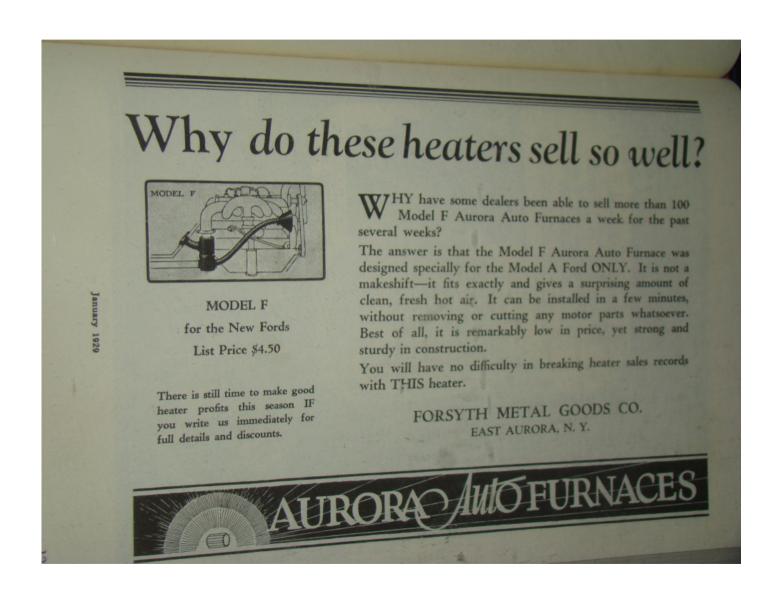
• Top row: Otwell, Red Head, bottom row: Director, unknown, Hider



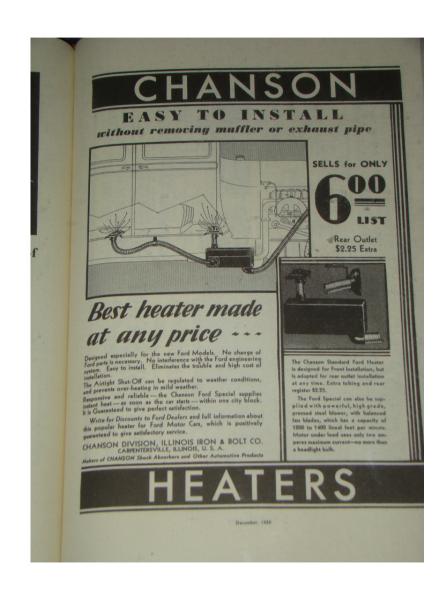
### Other exhaust heaters

Some heaters used exhaust heat to warm the car, but placed the heat exchanger on a different part of the exhaust system. Here are two examples; Aurora Auto Furnace, and Chanson. I have only very rarely seen examples of these on the east coast, but on several trips to the Chickasha prewar meet, I saw many, so they seemed to be more popular out west.

### Other exhaust heaters



### Other exhaust heaters



### What is this?

 The "Hadees" hot water heater was a very common style found on many cars of the era and had a reputation for producing very hot temps. Could this odd device be one of the reasons? This particular manifold is marked HADEES and has an internal passage that is capped with pipe plugs on this example. Could it be a super heater for water from the cooling system? Sounds risky, but who knows... do you?

## What is this?



### THE END

Thank you for attending!