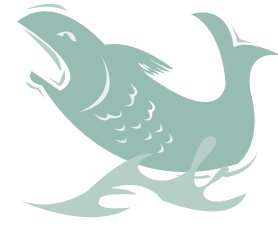


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Introduction

Welcome to the Field Guide to Steam Heating. The goal of this guide is to fix problems quickly and correctly the first time. If you want to solve a problem immediately, or don't like fish stories, skip to Chapter 1, "How to Use This Guide." That's where you'll learn how to use the features of this book, otherwise stick with the intro for the only "fish story" in this guide.

If you are still reading, relax and enjoy a little tale about three fishermen who set out to the North Channel of Lake Huron in search of King salmon, a delightful fish to eat, a tricky fish to find, and an exhilarating fish to catch. I am one of the three, a novice to the sport, but a fan of the taste of smoked, grilled, or baked salmon. The rest of the crew, Dan and Larry, are both avid sports fishermen and they were going to teach me to fish. We were all vacationing together at a compound of cabins with our wives, families, and dogs. Dan's boat, the "Winky," was docked no more than one hundred yards from the cabin where we slept in some of the most uncomfortable beds imaginable. Getting up before dawn to fish would be no problem, I couldn't sleep anyway.

The night before we had gone fishing with assorted family members and Ken, a colorful character who had grown up in the area and maintains a summer home on a private island nearby. In accordance with local custom, Ken had us make sacrifices to Manitou, the native spirit of hunters in the north woods. We sprinkled small amounts of beer and tobacco on the water as an offering to Manitou to help us in our hunt for salmon. I was rewarded that night with the magnificent sight of a bald eagle powerfully flying alongside the boat and landing gracefully on a tall pine tree along the shore. Ken and Kathy, Dan's wife, both landed big King salmon that night. Larry, Dan, and I were shut out.

It was a clear cool morning when the three of us set out to bring back many a fish to prove to our wives and families what great hunters and gatherers we were. The fishing hadn't been great so far, but this was the first time that just the three of us had set out together. We felt a decided shift in our luck that morning when we saw salmon jumping in a cove by the gravel point where the eagle had been seen. Excitedly, Dan told me to take the wheel, while he and Larry got the fishing gear ready as fast as they could. Dan pointed out the course for our first pass through the cove. When fishing for salmon, long lines are set on weighted down-riggers and trolled behind the boat. He showed me gauges and monitors on the dash and told me what to look for. The most important were the speed of the lure, the depth of the bottom, and the temperature of the water at the lure. The right combination of these caught fish, and we were there to catch fish.

On the first pass with me at the helm, Larry landed a beautiful, healthy 23 pounder. With that great start, I was now the “lucky helmsman.” Merle Haggard was moaning out one song after another on the tape deck as I swung the gear around for a second pass. All hell broke loose as soon as we eased back into the cove. Dan was all over the first line to go off. When the second fish struck 30 seconds later, Larry was right there. They both started yelling at me a minute later that another line had a “fish on.” Luckily we were heading into deep water, so I jumped away from the helm and grabbed the third line. It was a fisherman’s trifecta, every man with a fish on the line at the same time. Larry and Dan were busy landing their fish, while I was struggling with mine. I let him have a little too much slack and he jumped up and spit the hook out. The rookie lost one big fish on that pass, but Dan and Larry pulled in two nice ones. The cove was hot for hours, we didn’t leave until we limited out.

On the ride back to the dock, listening to the same Merle Haggard tape for the seventh time, I was thinking about a seminar I was going to teach using the classic book “The Lost Art of Steam Heating” by Dan Holohan. Each student would get a book and a highlighter, and I would show them how to use the book in the field. I knew the book well, because I’ve read it many times, used it to solve a multitude of problems, and recommended it to anyone interested in steam heat.

I was looking forward to sharing the book and my experience in the field. I was thinking of ways to do this when suddenly I realized how much salmon fishing is like steam heating. At that moment, I made a connection between the three keys to catching salmon that I had just learned from my friends, and a three step approach to steam heating that I could use to teach the technicians attending my seminar. Repairing a steam system is all about knowing how it works, just as catching a fish is all about knowing why they’ll strike a hook. On this day, I believe the spirit of Manitou guided us to the right spot on the lake. But once we were in the cove, we still had to follow the three guidelines of salmon fishing: water temperature at the lure, speed of the lure, and depth of the bottom.

The temperature of the water at the lure related, in my quirky mind at least, to getting the “steam up” in the piping. The speed of the lure related to getting the “air out” of the system. While the depth of the bottom related to getting the “water back” to the boiler. Maybe I had been out on the water too long, was sleep deprived from the back-breaking beds, or drank too many long neck Canadians, but somehow it was all making sense. Let me explain.

King salmon will school to feed on bait fish that like the water temperature at 48°F. We found the water gradient of the lake that day in that area was 45 to 50 feet. Without a school of fish, it's hard to get a strike on a lake the size of Huron. Without dry steam of the proper volume coming out of the boiler, good luck troubleshooting the system. You are chasing your tail my friend. I know, it happens all the time. "Steam Up," that's the place to start.

The speed of the lure causes its vibration to simulate the action of the bait fish the salmon feed on. If the lure is moving too fast or too slow, the salmon won't think it's food. You can't get a strike if the lure doesn't attract the fish. Venting the air out of the radiator is the only way to get steam in. Uneven heating, no heating, or hissing air vents are common complaints of the lady of the house. "Air Out" is essential to even steam heating.

The depth of the bottom is critical to the condition of the fishing rigs. If the lures are set 45 feet down and they're running up onto ridges only 30 feet down, then the hooks are lost at the bottom. I've never heard of anyone catching a fish on a line without a hook. Without getting the water back to the boiler, you stop making steam. A dry-fired boiler might be more likely. Dry-fired boilers are a very expensive problem, heard of any lately? "Water Back" keeps the boiler going.

The day on the boat was all about threes. Three guys on a boat with three fish on three lines because they knew the three most important things about salmon fishing. If I could break down a complex subject like steam heating into the three most important, yet easy to identify groups, I could simplify my preparations for the class and make it easier for the techs in the class to understand. This seemed like a win-win situation to me. My new idea, Steam Up-Air Out-Water Back was what I was looking for.

Pulling up to the dock, we knew we had a great catch to show off to our families. We were plenty proud of that morning's haul, but I was also excited because I had devised a method to simplify steam heating in my upcoming seminar. Dan and Larry shared their knowledge of fishing with me, and now I'd like to share my knowledge of steam heating with you. I hope you enjoy using this guide as much as I've enjoyed putting it together.

Happy Fishing!



