

Project

Name
Johnson F/V Ragdoll

Location
Sitka Alaska

Completion Date
December 2014

The Team

HVAC Contractor
Bay Contracting

HVAC Distributor
Ferguson #2702

Fujitsu Equipment

(1) AOU9RL2 Outdoor Unit

(1) ASU9RL2 Indoor Unit



Space and Heating Solution!

The F/V Ragdoll is a floating home and a business for a family of two and their dog. The Johnsons spend their summers fishing for salmon in the waters of Southeast Alaska and their winters tied to the dock in their homeport of Sitka, Alaska.

The modified sailing vessel has two state rooms, living space and a galley totaling about 350 sq. ft. The challenge with any boat is to keep it warm and dry. The Johnsons built the Ragdoll from the hull on up, layering insulation between the fiberglass to ensure comfort in the northern climates.

Design Challenge

The constant conflict of being warm and dry is a daily test for any living aboard boat owner.

The Ragdoll is outfitted with wood heat which has served the owners well over the years but comes with the challenge of collecting and storing dry wood with limited space on the boat.

While tied to the dock in winters, the harbor offers affordable hydro electric power. Looking to avoid the tedium of wood heat, the Johnsons have supplemented with electric resistance heating. Hearing of other successful heat pump installations in their climate, they became interested in the heating and de-humidification capabilities and how this could benefit their water home.

Space and power were the main design considerations. Fujitsu offered the perfect sized unit with 115v power and plenty of capacity to heat their space and the ability to dehumidify when desired.

The enclosed back deck provides protection from the wind and rain. When not being used or while the boat is under way, a custom canvas cover adds another layer of protection for the outdoor unit throughout the summer fishing season.

Consistent cleaning and rinsing of the outdoor unit as well as application of NuCalgon Cal-Shield coil treatment will help protect the unit from corrosion and extend its life.

Solution

Hailing from New Zealand where Fujitsu is one of the more popular brands, the Johnsons selected Bay Contracting and Fujitsu to help find a solution to their heating challenges. Fujitsu's line of 115v inverter heat pumps were a perfect fit for the power system on the vessel.

Results

The outdoor unit fit perfectly on a hatch cover which seals the outdoor weather from the stateroom below. Modifying the hatch for the lineset and control cabling was easily done and did not require drilling through an integral part of the boat. The indoor unit was situated in the forward state room on one of the only vertical surfaces in the boat. The lineset and condensation tubes will be concealed by custom shelving.

The home owners were very pleased with the installation. Most importantly it was easy to see the efficiency of the Fujitsu unit on the boat's power management system by comparing the heat pump to the electric resistance space heater they had been using. The Fujitsu hardly moved the needle!