



PROJECT LIBERTY SHIP - SS JOHN W BROWN - STEAM SCHOOL



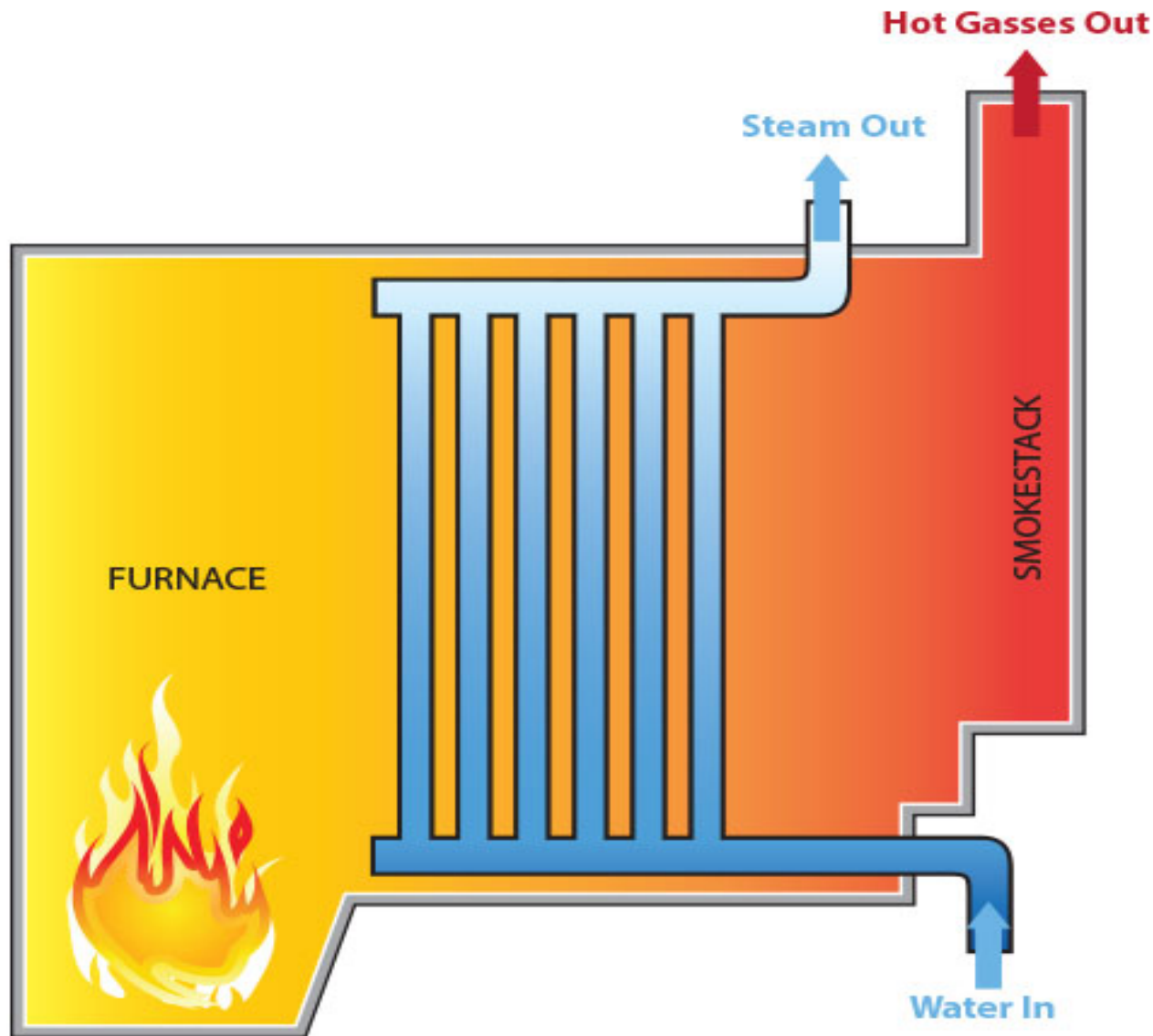
Boilers



Boilers

- General Description – Boilers are closed vessels in which water is converted into steam through the application of heat.
- Two basic types of marine boilers
 - Water Tube
 - Fire Tube

Basic Water Tube Boiler



Basic Fire Tube Boiler





JOHN W. BROWN Boiler

- Water Tube
- Babcock & Wilcox design, 3-pass, straight tube sectional header with overdeck superheater
- Water capacity: 14,600 pounds (1750 Gal)
- Steam generation: 24,000 pounds/hour
- Normal operating pressure: 200 psi
- Superheat temperature: 450⁰ F



Boiler Operations

- Heat transfer and water circulation
- Steam output and uses
 - Saturated
 - Superheated
- Duties of a fireman/watertender
 - Application of heat
 - Monitor water level



Boiler Cutaway

