Digital Power Simulators

Educational Training Equipment for the 21st Century

Bulletin 185G

Purpose

The Hampden **Model H-185-2A** Hampden Advanced Boiler Trainer serves to demonstrate principles of operation and troubleshooting techniques of a current model boiler system. The module's front panel displays a complete pictorial view of the system. All functions operate as on the actual equipment and present the student with realistic problem solving opportunities.

Description

The boiler system simulation is based on a typical fossil-fired power plant including operational systems, digital controls, analog control loops, alarms and trips.

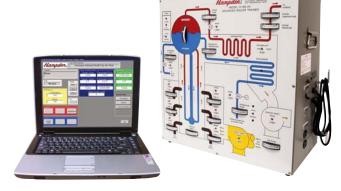
Steam, feedwater, flow, pressure, temperature, subsystems, and control positions are continuously displayed on screen to student and instructor.

Operational "hands-on" activities performed by students also include; real time, dynamic experience with all phases of oil, gas and pulverized coal firing.

The **Model H-185-2A** Advanced Boiler Trainer is a fully computer-controlled unit designed to interface with a provided laptop computer and covers all aspects of plant operation including:

- · System Description
- Theory
- · Component Identification
- · Subsystems Operation
- · Controls
- Integrated Operations

H-185-2A Advanced Boiler Trainer



Hampden Model H-185-2A Advanced Boiler Trainer

Features

The **Model H-185-2A** Advanced Boiler Trainer can be set to simulate the following conditions:

- · Cold Boiler
- No Load
- 25% Load
- 75% Load

- · Drum Level Established
- 5% Load
- 50% Load
- 100% Load

Students are able to interact with different graphic displays, view system parameters, in addition to operating digital and analog controls

Instructors may insert simulated mechanical or electrical "faults" into the system to test a students' troubleshooting capabilities.

Complete your Power Plant training with these additional Hampden Digital Simulators



MODEL H-186-1 Combustion System Trainer



Turbine/Generator Technology Simulator



MODEL H-188-1
Electrical Generation Fundamentals
Trainer

Simulator Malfunctions

The following insertable malfunctions may be accessed via the computer program:

- · Forced Draft
- · Induced Draft
- Drum Level High
- Drum Level Low
- Feedwater
- Boiler PSI High
- Low Oxygen
- Pollution
- Boiler Temp High

All Hampden units are available for operation at any voltage or frequency



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