Fluid Study/Mechanical Systems

Educational Training Equipment for the 21st Century

Bulletin 664-7B

H-6647 Plunger Pump Trainer

Purpose

The Hampden **Model H-6647** Plunger Pump Trainer provides hands-on introduction to a positive displacement pump. This type of pump is used to move small quantities of liquid at a high pressure. The trainer utilizes a plunger pump which is similar to a piston pump except that the sealing gland is at one end of the cylinder. Data is recorded when this unit is interfaced with the Hampden **Model H-6648** Control Interface Module.

Description

The Hampden **Model H-6647** Plunger Pump Trainer is bench top mounted. It consists of a steel base with leveler feet, motor with pump, transparent plastic tank, level switches, damper vessel, and pressure relief valve. When interfaced with the **Model H-6648** Control Interface Module, it is linked to laptop computer (included with **Model H-6648**) direct without any additional I/O cards via its USB port.

Experiment Capabilities

- · Measurement of Plunger Displacement
- · Measurement of Cylinder Pressure
- · Measurement of Pump Outlet Pressure
- Measurement of Volumetric Efficiency
- · Measurement of Pump Performance



Hampden Model H-6647 Plunger Pump Trainer

Specifications

Base:

14-gauge furniture stock steel finished in instrument tan texture

Feet:

Leveling

Plunger Pump:

• 60/72 Strokes/Min.

• Volume: 1.4" Diameter x .5" Stroke

• Flow: .16 gal/min (50 Hz) .19 gal/min. (60 Hz)

Motor:

Induction Type

Sensors:

- · Cylinder Pressure
- · Outlet Pressure
- Plunger Displacement
- · Volumetric Tank Level

Accessories:

Interface cords for connection to the Hampden **Model H-6648** Control Interface Module.

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



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