



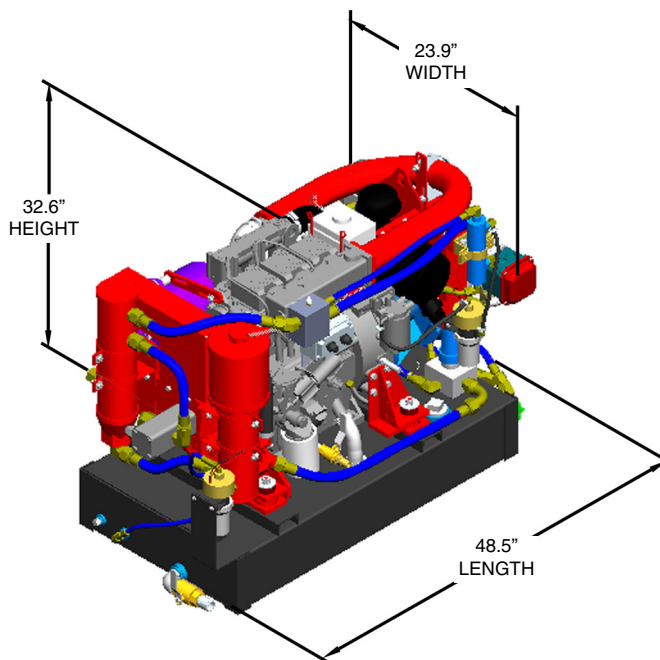
**KIM HOTSTART**  
S I N C E 1 9 4 2



Not Shown:

- Control Box
- Cab Panel
- 12-volt battery
- Wiring & plumbing to locomotive engine
- Installation kit (optional)
- ZTR SmartStart system (optional)

# Model DDHS-3A Diesel Driven Heating System



## What does it do?

The DDHS allows an idling locomotive to be shut-down by heating the locomotive engine coolant and oil, charging the batteries and powering the cab heaters. The DDHS is small enough to install on the walkway of a switcher or inside the car body where space allows.

## What are its features?

- 3-Cylinder, 27hp EPA Certified Diesel Engine.
- Consumes 0-1.23 gallons per hour of diesel fuel.
- System of heat exchangers provides up to 30kW of heat output to the locomotive engine fluids.
- Temperature controller regulates main engine coolant temperature between 100-120°F.
- 72-volt, 80 ampere alternator charges batteries and powers auxiliary cab heaters.
- 12-volt DC signal is available for visible/audible/wireless alarm (supplied by customer).
- Extended 22-gallon oil sump ensures long-life and minimal maintenance.
- Automatically starts/stops and changes speed as necessary to maintain locomotive coolant temperature and battery charging needs.
- Optional ZTR SmartStart system automatically shuts down and restarts both the locomotive and the DDHS to maximize fuel savings while maintaining engine temperature, brake pressure and battery charge. Also provides fail-safe redundancies, fuel savings reports and optional remote monitoring via satellite.
- Optional installation kits available
- U.S. Patent #4,711,204. Canadian Patent #1,260,784

## What are the benefits?

Shutting down an idling locomotive reduces fuel consumption, oil consumption, emissions, noise, engine wear and wet-stacking.