

## SMART POWER MODEL HR20 HYDRAULIC GENERATOR SPECIFICATIONS

The apparatus shall be equipped with a 20,000 watt hydraulic generator, installed and tested in compliance with NFPA 1901(current edition) Chapter 22 standards and requirements. A Smart Power, model HR-20, 20,000 watt hydraulic generator shall be provided and installed. The generator shall be mounted on top of the vehicle, at the customer-specified location. The generator shall be easily separated into three major components (tray, cooler/fan assembly, and reservoir) for mounting in custom or remote locations on the apparatus.

The installation of the generator shall be designed for continuous operation without overheating and undue stress on components. The generator tray assembly shall be delivered with the cooler/fan assembly mounted such that hot air is exhausted straight up, through an NFPA approved walking grate.

The generator system shall consist of the following components:

- Generator tray assembly which includes the generator, hydraulic motor, cooler, fan, Electronic Control Unit, 10 micron spin-on fluid filter and reservoir. The generator mounting base shall be constructed of a solid 3/8" thick 6061T6 extruded aluminum base plate.
- Axial piston hydraulic pump with pressure compensated control;
- Command and Control Center (CCC) display with all required wiring harnesses.

Generator System Dimensions, Weight, and Cooling Design:

The body of the generator tray assembly (including reservoir) shall be 40" long x 19" wide x 22" high.

Weight: 631 pounds.

The generator tray assembly shall be delivered with the cooler/fan assembly mounted such that the hot air is exhausted straight up. An NFPA 1901 compliant extruded aluminum grate walking surface shall be installed on top of the entire generator tray assembly.

Instrumentation and Controls

The generator system shall be provided with a digital meter display in compliance with NFPA 1901 Chapter 22.4.6. The Command and Control Center (CCC) shall be an interactive operator control center, equipped with smart touch solid state buttons, with super bright red LERD displays for voltage, frequency, dual amperage displays , hour meter, service reminders, operator warnings, system faults and diagnostics. The electronics package shall include smart start engagement to reduce mechanical stress, precise voltage and frequency control, cold start system, automatic load and temperature compensation, integrated diagnostics system, and other automated control features to protect system, vehicle and operator.

The CCC shall be permanently mounted at an operator's panel, shall be located in a plane facing the operator, and shall be constructed in weatherproof integral enclosure/bezel.

The CCC shall be manufactured and warranted by the generator manufacturer.

Diagnostics:

The generator system shall be equipped with diagnostic capabilities which are monitored by the operator through the Command and Control Center digital display meter panel. Diagnostics shall

include overheat protection, system service reminders, low fluid indication, no PTO engagement indication, over-voltage, unbalanced loads, low 12volt voltage, and graduated high temperature displays.

Chassis Transmission Drive:

The hydraulic pump shall be driven by the chassis transmission mounted power take off (PTO).

Generator Operation:

The output of the generator shall be controlled by an integral, patented, solid state Electronic Control Unit. The ECU shall be connected directly to the NFPA 1901 required digital instrumentation display.

The generator shall be operable in the stationary mode OR when driving, utilizing the standard soft start system for engagement at any speed.

The generator shall be engaged by a lighted control in the cab.

Ratings and Capacity Per NFPA 1901

Rating:	22,000 watts peak 20,000 watts continuous
Volts:	120/240 volts
Phase:	Single, 4 wire
Frequency:	60 Hz
Amperage:	167 amps @ 120 volts or 83 amps @ 240 volts
Engine speed at engagement:	Standard soft start feature allows for any speed engagement
Operation range:	800 to 3000 RPM

Testing

The generator shall be tested in accordance with all current N.F.P.A. 1901 standards.

\*All ratings and capacities shall be derived utilizing current NFPA 1901 test parameters.

**MANUFACTURER'S 6 - YEAR WARRANTY**

The entire generator system, including the Command and Control Center digital meter display, shall be covered by a standard 6 year/1,000 hour fully transferable warranty from the generator manufacturer. The warranty shall commence the date the product is shipped.