December 13, 2012

SALIENT CHARACTERISTICS OF INSTRUMENT LANDING SYSTEM (ILS) ILS BACK-UP POWER BATTERY NSN 6140-01-291-6488

1.0. Reference Documents

FAA Specification – Wilcox part number# 045047 and drawing number 045047, as well as FAA Specification FAA-E-2826.

Salient Characteristics Per Wilcox 045047 and FAA-E-2826

Type 1, Class-3, Style B, Lead-acid, valve regulated (VRLA), absorbed glass mat (AGM) sealed, maintenance free. Battery must be a switchgear or telecom grade battery. Batteries designed exclusively for UPS systems are not acceptable for this application.

Nominal Voltage: 12 volts, DC

Nominal Capacity: 100 Amp Hours @ 20-hour rate (deep cycle), to 10.5V, based on published data from manufacturer.

Maximum total case dimensions:
- Height: less than 10.1 inches
- Length: less than 19.8 inches
- Width: less than 7.1 inches
- Weight: less than 99 pounds

Case material: Flame retardant, self-extinguishing PVC or similar material (UL-94-V0; ASTM D-635)

Vent system: Low Pressure relief vent

Terminal: Threaded copper or brass insert with ¼ x 20, or M6 threads. Stainless hex bolt and washer to be included. Top Mount

Electrolyte: 1.3 Specific Gravity @25 C, nominal sulfuric acid

Capacity @ 77 degrees F. to 10.5V
- 5.0A: greater than or equal to 100 Amp Hour
- 12.0A: greater than or equal to 96 Amp Hour
- 15.0A: greater than or equal to 75 Amp Hour
- 56.0A: greater than or equal to 56 Amp Hour

Capacity @ -4 degrees F., 20-hour rate: greater than or equal to 60 Amp Hour

Constant voltage charge @ 77 degrees F. Cycle: Initial, less than 40 Amps,
14.5V to 14.9V

Float: Initial, less than 40 Amps,
13.50V to 13.62V

Low-pressure relief valve with flash arrestor.

Float Rate: Continuous float service.

Life Expectancy: 10 years

Safety: Flame Arrestor and relief valve for overcharge protection.
Battery Warning Label (hazard advisory).

Carrying and Lifting mechanism: The battery must come with either a permanent or removable device to facilitate lifting the battery into position. The device and attaching mechanism(s) must not violate the dimensional requirements for this battery.

2.0 Requirements

The battery will meet Wilcox Specification for 045047, as well as FAA Specification FAA-E-2826. Item is used in the critical Air Traffic Control environment at national airports to provide power to critical air navigation aides. The Instrument Landing System (ILS) is part of the National Airspace System (NAS) and their reliable operation is essential to the safety and efficiency of aircraft precision approach under all weather conditions.