Cancelled See -42

Federal Aviation Agency

AC NO: AC 150/5345-32

AIRPORTS

EFFECTIVE: 1/13/65

ADVISORY CIRCULAR

SUBJECT: SPECIFICATION FOR L-837 LARGE-SIZE LIGHT BASE AND TRANSFORMER HOUSING

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1. PURPOSE. This circular describes the subject specification requirements and is published by the Federal Aviation Agency for the guidance of the public, and its use is required for project activity under the Federal-aid Airport Program.

2. CANCELLATION. This advisory circular replaces FAA Specification L-837, "Large-Size Light Base and Transformer Housing", dated December 15, 1961, without substantive change.

3. SCOPE OF SPECIFICATION. The specification requirements are for a metal base for airport light fixtures. The base will also serve as an insulating transformer housing. It shall consist essentially of a cylindrical body with top flange and cable entrance hubs. Requirements for an internal grounding lug are included which may be optionally specified by the user.

4. APPLICABLE SPECIFICATIONS. American Society for Testing and Material (ASTM) specification, A-153, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware, of the issuance in effect on the date of application for qualification (paragraph 10) applies to this circular. This circular shall govern in case of conflict.

5. SOURCE OF APPLICABLE SPECIFICATION. Obtain copies of ASTM specification from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania, at published price.

6. SIZE. The base shall be built in one size as shown on Figure 1.

7. PERFORMANCE REQUIREMENTS. The base shall be designed for continuous underground service.

8. DETAIL REQUIREMENTS.

a. Base Design. The design of the base shall conform to Figure 1 of this specification.

b. Cover Flange. The cover flange shall be fabricated from 3/8-inch minimum thickness standard steel plate. The dimensions of the flange and its bolt circle shall be as shown in Figure 1. The entire top of the cover flange shall be wiped smooth after application of the protective coating so that a flat surface within ±0.010 inch is provided for a gasket seat. The flat surface of the flange shall be a plane perpendicular to the axis of the cylindrical base. The flange shall be continuously welded to the body to provide a watertight seal.

c. Body. The entire body, including sides and bottom, shall be fabricated from sheet steel and shall have a minimum thickness of .109 inch after fabrication. The body may be formed from one continuous piece or may be constructed of two or more pieces. If the latter construction is utilized, the seams shall be watertight and the seam strength shall equal or exceed that of the original metal. The dimensions of the housing shall be as shown on Figure 1. Two cable entrance hubs, consisting of 2-inch conduit couplings, shall be provided near the bottom of the housing as shown on Figure 1. The 2-inch conduit couplings shall be continuously welded to the base housing. Sharp edges on the inside of the body where entrance hubs meet the inside surface of the housing shall be broken or ground down to eliminate cutting cable insulation at these points. No other sharp edges or protrusions which would damage cable or rubber-covered transformers shall be permitted on the interior surface of the housing.

d. Protective Coating. The entire base shall be treated after fabrication for corrosion protection by hot-dip galvanizing. The minimum weight of the coating as determined by a weight test before and after galvanizing shall be not less than 2.45 ounces per square foot. The coating shall be free of defects that may affect its protective value.

e. Cover. A protective cover, bolted to all six tapped bolt holes, shall be furnished to provide protection during shipment and installation. The cover may be made of metal or wood. Six hex-head steel bolts, cadmium plated or silicon bronze, 3/8 - 16 x 1½ inches long, with a full thread, shall be supplied with each base. A special cover of extra thickness for inset installation of the base in pavement may be specified.

f. Grounding Lug. Only when specifically indicated in the "invitation to bid" and/or "purchase order", a bronze grounding lug shall be installed on the inside wall of each light base approximately 8 inches above the bottom of the base. The lug should be similar or equal to Burndy Type K-2c, for two No. 6 AWG bare copper wires. A tapped plate or lug shall be welded to the interior wall so that the bronze lug can be installed after galvanizing. This is needed where bases are interconnected with conduit.

9. TESTING.

a. Qualification Testing. The manufacturer shall supply full data showing that a sample light base and transformer housing has successfully passed the following watertightness and weight of coating tests.

(1) Watertightness Test. The conduit hubs of the base being tested shall be sealed by pipe plugs. A suitable cover plate, such as a lighting fixture base plate, with gasket, shall be bolted in place on the top flange of the base. A suitable conduit nipple with a tee fitting shall be screwed into a tapped hole in the cover plate. One side of the tee fitting shall be attached to a compressed air source and an air pressure gauge shall be attached to the other side of the tee. With an air pressure of 5 pounds per square inch maintained inside the base, the unit shall be fully submerged in water for a minimum period of 10 minutes. The sample base shall be considered watertight if no air bubbles rise to the surface of the water during the 10-minute period.

(2) Weight of Coating Test. The weight of the coating shall be tested by the appropriate method described in ASTM Specification No. A-153.

b. Additional Inspection and Test. Additional inspection and testing shall be made as deemed necessary by the Federal Aviation Agency to determine compliance with this specification.

10. QUALIFICATION.

a. Request for approval of bases made under this specification shall be submitted to the Federal Aviation Agency, Airports Service, Washington, D. C. 20553. Such request shall be accompanied by written certification from the manufacturer that all requirements in the foregoing paragraphs have been met. The cost of testing shall be borne by the manufacturer offering the equipment for approval.

b. In addition to the tests required above, the manufacturer shall furnish a production model to the Airports Service for physical inspection. Cost of submitting the production model shall be borne by the manufacturer.

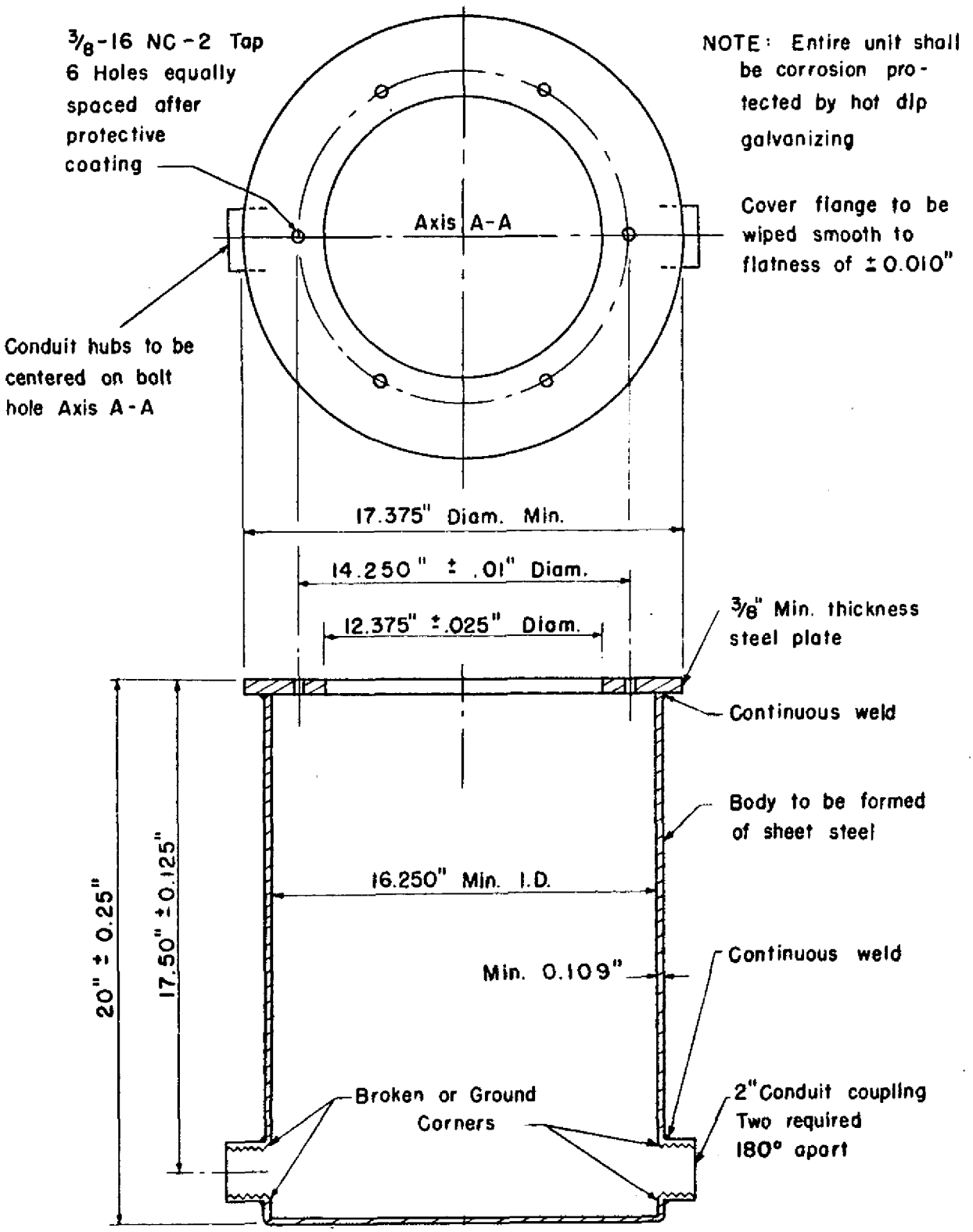
c. Upon approval of the material requested in paragraphs 10a and 10b, which have shown satisfactory conformance to the specification requirements, the Airports Service will list the name of the qualified manufacturer and a description of their light base and transformer housing in Advisory Circular No. 150/5345-1, "Approved Airport Lighting Equipment."

d. Before final approval is granted, the right is reserved to have any, or all, tests performed in the presence of an official Federal Aviation Agency representative at the manufacturer's plant or factory or at any location convenient to the manufacturer.

e. At any time after approval is granted under the above conditions, a certified copy of factory test reports on the latest production run of equipment produced under this specification shall be made available by the manufacturer upon written request by the Federal Aviation Agency.

11. HOW TO GET THIS PUBLICATION. Obtain additional copies of this circular, AC 150/5345-32, "Specification for L-837 Large-Size Light Base and Transformer Housing", from the Federal Aviation Agency, Distribution Section, HQ-438, Washington, D. C. 20553.

Cole Morrow, Director
Airports Service



AIRPORT LIGHT BASE
FIGURE 1