Form 60

1-139

September 20, 1933

LIGHTHOUSES
MAY 17 9 02 AM '37

First LIGHTHOUSE DISTRICT

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

DESCRIPTION

OF

MOUNT DESERT

LIGHT STATION

State: Maine

April 19, 1937

1914

INSTRUCTIONS

This form is to be filled out for new stations as established, and for present stations which have not heretofore been described. When changes are made at existing stations affecting the description previously given, pages containing the revised data should be promptly forwarded. The use of this form should be limited to stations having resident keepers.

DESCRIPTION OF LIGHT STATION.

1. By whom described Assistant Superintendent, date April 19, 1937

STATION.

2. Name of station, Mount Desert Light Station, Maine

3. Characteristic of light, Flashing white, 15 secs., 200,000 C. P.

4. Geographical position of light: Latitude, 43 ° 58 ' 08 "; longitude, 68 ° 07 ' 44 ".

5. Location, On Mount Desert Rock, about 20 miles south of Mount Desert Island, Maine.

PREMISES.

6. Origin of title to site of station (public land, purchase, lease, military or naval reservation), Conveyed by the State of Maine and the Commonwealth of Massachusetts

7. Date of reservation, deed, lease, or permission to occupy, Deed May 4, 1829

8. Area of the entire site, Whole Island; (*b*) area inclosed, 10 acres; (*c*) type of fence, ---

9. Distance of tower from nearest high-water mark, About 125 ft.

10. Wharf or landing on premises, Boatslip

11. Means by which the light station may be reached and distance to nearest post office or town, with name, Station motor boat or hired boat; Southwest Harbor, Maine; 22 miles.

12. Tower or other means used for supporting the lantern and apparatus, Tower

13. Number of separate lights, One

14. When first built or established, 1830

PREMISES—Continued.

15. When last thoroughly rebuilt, repaired, or renovated, 1857

16. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers, 75 ft.

17. Background of the lighthouse, upon which it is projected, as seen from seaward, Sky

18. Color of tower, and how produced, Gray granite

19. Tower—Connected with keeper's dwelling, and how; or detached, Detached

20. Purpose of aid—Seacoast, lake coast, bay, harbor, channel, or range; for general or local navigation, Primary seacoast aid

21. Materials of which the tower is built, Granite

22. Kind of stairway and steps, Stone, iron and wood

23. Size of glass for glazing tower windows, 9-1/2" x 19-1/4"

24. Number of windows in tower, and size of sash, 12--22-5/8"x43-1/2"--One--23-3/8"x22-1/8"

25. Number and size of doors, One

26. General remarks upon tower and site,

LANTERN AND LANTERN FIXTURES.

27. Order or class of lantern, 4th Order

28. If polygonal, state number of sides; if cylindrical, state diameter, Polygonal--10

29. Vertical or helical bars, Vertical; thickness of bars, 1"; height glazed, 5'-9"

30. Number of plates in height, 1; in each side, 1

31. Thickness and size of plates, 5/16"

32. Unglazed side of lantern in plates and degrees of arc, ---;

between what bearings (true and from seaward),

33. Materials of which the lantern is constructed, Iron

34. Roof, Copper

LANTERN AND LANTERN FIXTURES—Continued.

35. Ventilator ball, Copper

36. Lightning-conductor spindle, Copper with three prongs 4' high

37. Balustrade and outside gallery, Iron rail supported by 12 posts

38. Lantern doors, and how fitted, Iron door fitted on hinges

39. Floor of lantern—Of what materials, Iron

40. Watch-room door leading into lantern, and how fitted, None

VENTILATORS.

41. In parapet, wall, or lower part of lantern, In watchroom

42. Lantern ladders for cleaning plate glass, outside, None

43. Curtain hooks inside of lantern—How fitted, Curtains hooked with rings

WATCH ROOM.

44. How fitted, One locker for lamps and tools

45. Bell wires, speaking tubes, or telephones for calling relief keepers—Kind, None

46. Where led,

ILLUMINATING APPARATUS, ETC.

47. Kind of apparatus, 4th Order, 6 sides; intensity in English candles, 24,000

48. Name of maker, Barbon & Benard, Paris; year made, 1896

49. Marks and number on apparatus, $\frac{BB}{108}$

50. Order of apparatus, 4th; inside diameter (inscribed circle, tangent to glass) of central drum, 20"

51. **If the apparatus is a parabolic mirror,** state (*a*) diameter of opening, ; (*b*) depth of mirror, ; (*c*) its focal length, ; (*d*) material of which it is made,

52. **If revolving,** time of revolution, 90 sec.

(*a*) duration of flash, 1.3 sec.; (*b*) duration of eclipse, 13.7 sec.

53. **If fixed,** or fixed varied by flashes, state arc of each fixed part in degrees, ;

(*a*) duration of fixed light, sec.; (*b*) eclipse, sec.; (*c*) flash, sec.

ILLUMINATING APPARATUS, ETC.—Continued.

54. Number of panels in the lens apparatus, 6

55. Number of flash panels, 6; arc of each, in degrees, 60°

56. Number of elements in each panel of central drum of lens, 3

57. Number of prisms in each panel *above* central drum of lens, 6; are they fixed or flash? Flash

58. Number of prisms in each panel *below* central drum of lens, 3; are they fixed or flash? Flash

59. How are the flashes produced—By the whole apparatus revolving Yes; by revolving belt only ---; if by panels or vertical elements revolving outside of fixed lens, state the number of such panels,

60. **If by vertical elements,** state (*a*) the number in each panel, ; and (*b*) the number of elements of fixed lens covered by the panel,

61. **If light is occulting,** state (*a*) the characteristic,

(*b*) Between what time limits may characteristic be varied without structural changes in mechanism?

(*c*) Are eclipses produced by sleeve, revolving screens, or valve (if gaslight)?

(*d*) Size of sleeve and amplitude of movement,

(*e*) Axis of rotation of screens, horizontal or vertical, ; (*f*) relation of axis to vertical axis of illuminating apparatus,

(*g*) Do the screens revolve as parts, or independently, of illuminating apparatus?

(*h*) If about vertical axis, how many in circumference, ; (*i*) time required for complete revolution, ; (*j*) form, ;

(*k*) how mounted (see Questions 62–65), ;

(*l*) if actuated by clockwork, state order and maker, ;

(*m*) date made,

If occultation is effected by valve, state (*n*) name of maker, ;

(*o*) pattern, ;

(*p*) does it operate reliably?

62. **If revolving,** does the apparatus revolve on chariot wheels, mercury float, or balls? Balls

63. **If a chariot;** describe it and state the number and size of each pattern of wheels in it,

ILLUMINATING APPARATUS, ETC.—Continued.

64. **If on mercury float,** give (*a*) inside diameter of trough, _____; (*b*) inside depth of trough, _____; (*c*) outside diameter of float, _____; (*d*) depth of float, _____; (*e*) weight of mercury required, in pounds, _____; (*f*) how often mercury is renewed? _____

65. **If on balls,** (*a*) describe the construction of the ball-raceways, whether they are flat surface or semicircular or V grooves, Semicircular; (*b*) is a cage used to separate balls? No; (*c*) state number of balls, 8; (*d*) diameter of balls, 3/8"

66. **Clock cord or chain,** kind, Cord; size, 3/16; length, 75'; how led, Down straight through tower; diam. and length of clock drum, _____

67. **Length and inside dimensions of drop tube or weight box,** 30 ft.; clock weight, 30 pounds.

68. **Length of time clock will run after one winding,** 4-1/2 hours

69. **Does clock drive apparatus while being rewound?** No

70. **How is the machinery protected?** Glass Case

71. **How regulated?** By fans. Weight drive used as standby. 1/10 H. P. electric motor driven lens installed November, 1936.

72. **Describe the pedestal,** Iron

73. **Lens protector—Is there one?** Yes; kind, Linen

74. **Draft tube leading into ventilator ball—Of what material, diameter, and how fitted and connected with damper tube when in place,** Iron--1-1/2"--hung from ceiling

75. **If colored light,** (*a*) how is the color produced? ---

(*b*) state where colored glass is attached, if to illuminating apparatus or to lantern, _____

76. If colored glass is inside of illuminating apparatus, describe its form, _____

77. Red sectors—Between what bearings, true (from seaward), _____

LAMPS, BURNERS, ETC.

78. Description of lamp: (*a*) give order, T-20 lamp, 2-C5 500-watt electric light bulb; (*b*) kind of illuminant, Electricity filament

(*c*) intensity in English candles, ----

If oil, or oil vapor:

(*a*) number of wicks, or mantels, to burner, ----;

(*b*) diameter of outside wick, ----; (*c*) diameter of mantel, ----;

(*d*) if more than one mantel, also diameter of circumscribing circle, ----

If gaslight:

(*e*) state kind, ----; (*f*) number of burners, if more than one burner in group, ----; (*g*) kind of burner, ----;

(*h*) candlepower per burner, ----; (*i*) total candlepower of group, ----;

(*j*) size of burner in cubic feet of gas per hour, ----;

(*k*) consumption of gas per hour, ---- cubic feet; (*l*) how is gas obtained?

If gas is generated at station:

(*m*) describe generator, ----;

(*n*) state name of maker, ----;

(*o*) date of pattern, ----; (*p*) maximum capacity per hour, ----

---- cubic feet.

If compressed gas is used:

(*q*) describe container and give number in service, ----; spare ----;

(*r*) capacity, ---- cubic feet of free gas; (*s*) to what pressure charged,

---- lbs.; (*t*) how is supply renewed? ----;

(*u*) if by substitution of full for empty container, at what intervals? ----

----

79. Number of spare lamps at station, One

80. Number of spare lamp burners at station, One

CLOSETS IN TOWER.

81. How fitted and used, Closet fitted with three shelves

OIL HOUSE OR ROOM.

82. Describe (*a*) where placed and how fitted, 27 ft. southeast of tower

(*b*) inside dimensions, 8'8" x 10'8"; (*c*) materials of which built, Brick;

(*d*) capacity in 5-gallon cans, About 450. Now fitted with 6 large and 1 small tanks 1573 gals.

CLOSETS AND STOREROOMS.

83. Where placed, how fitted and used, One storeroom in each dwelling

84. Damp or dry, suited or unsuited to the purpose for which they were designed, Yes

FOG SIGNAL.

85. Kind and character of apparatus, 425 Tyfon diaphragm air horn

86. How much time is required to sound the signal? 3 to 5 minutes; how long may the signal sound its characteristic with the quantity of air stored under pressure? About 10 secs.

87. Characteristic:

If whistle, trumpet, or siren:

Blast	Silent	Blast	Silent	Blast	Silent
2 sec.	1 sec.	1 sec.	26 sec.	for 2 min.	R/S Syn.

If bell:

...strokes	Silent	...strokes	Silent
	sec.		sec.

Blast silent 53 sec., 1 sec. blast, 1 sec. silent, 5 sec. blast.

88. What parts of the fog-signal machinery are in duplicate? All the air compressor parts. Electric motor driven and engine-generator units.

89. Location, with reference to lighthouse, to a particular danger or channel, or to the special object for which established, In lighthouse

90. Distance and direction, true, from lighthouse, ---

91. Water supply for it, ---

92. How is it reached from the lighthouse? ---

FOG SIGNAL—Continued.

93. Description of fog-signal building or buildings, Lower floor of tower houses engine-generator units, the basement houses the motor driven compressors Ingersoll-Rand Type 30 Comp.

94. If a bell, state (*a*) weight, 1,200 lbs.; (*b*) metal, Bell Metal; (*c*) diameter, 3'-1-1/2"; (*d*) height, 2'-11"; (*e*) if struck by clockwork, state time it will run with one winding, ---; (*f*) maker and date, ---

Struck by hand if trumpet is disabled.; (*g*) weights for operating, ____ lbs.

95. If a steam signal, describe boiler: (*a*) type, ---; (*b*) length, ---; (*c*) diameter, ____; (*d*) horsepower, ____; (*e*) maker and date, ____

(*f*) Is there a heater? ____; what kind? ____; what size? ____; how much does its use reduce the time of starting the fog signal? ____

96. If a steam engine is used: (*a*) kind, ____; (*b*) number of revolutions per minute, ____; (*c*) diameter of cylinder, ____; (*d*) stroke of piston, ____; (*e*) horsepower, ____; (*f*) maker and date, ____

97. If internal combustion engines are used: (*a*) kind of engine, Hercules Diesel; (*b*) maker, Hercules Motors Corporation, Canton, Ohio DXJB 3-1/2 x; (*c*) date, 1936; (*d*) nominal size, 4-1/2; (*e*) horsepower, 30; (*f*) fuel used, Kerosene; (*g*) how started, Hand and/or electrically cranked; (*h*) kind of compressor, Ingersoll-Rand; (*i*) maker and date, do., Type 30 Ingersoll-Rand Co., Painted Post, N. Y.

State if compressor is on same bed and geared with engine, or separate and belt-driven, or both pistons on same rod, ---; Engine or belt-driven, state ratio, 3 V-belt

Describe compressor machinery, (*a*) diameter of cylinder, 6"x6"; (*b*) stroke of piston, --- x 4"; (*c*) number of revolutions per minute, 475; (*d*) character and size of air-inlet valves, ____; (*e*) kind of unloader Centrifugal; (*f*) diameter of delivery pipe, 4"

FOG SIGNAL—Continued.

98. (*a*) Number air receivers, 3; (*b*) diameter, 1—11 eg. 1—100; (*c*) height, ———; (*d*) capacity cubic feet, each, ———; (*e*) pressure in each, 40#; (*f*) make of reducing valve, if used, ———; (*g*) remarks, ———

99. If whistle, trumpet, or siren, pressure at which blown, ———

100. Diameter of whistle, 17" diaphragm; height, ———; distance between orifice and edge of whistle, ———; single tone, ———; chime, ———

101. If disk or cylindrical siren, ———; diameter of revolving part, ———; when made, ———; by whom made, ———; number, width, and length of ports, ———; revolutions per minute, ———; type of governor, ———; condition of revolving part, ———

102. If Daboll trumpet: Class, ———; reed: length, ———; breadth, ———; thickness at base, ———; thickness at tip, ———

103. If trumpet: Length, ———; diameters, ———; material, ———

104. Timing device, Signal Timers W & T

105. Height of whistle or trumpet above mean high water, 70'

106. Direction, *true*, in which trumpet points, Southeast

107. Pressure and recording gauge, 40#

DWELLINGS FOR KEEPERS.

108. Location with reference to lighthouse tower, Double & Single Dwelling east from tower

109. Coloring, White

110. Materials of which built, Wood

111. Number of dwellings, Two; number of rooms in each, 6 in each half of double 6 in single

112. Describe heating plant, No—Heat by stoves

113. Number of keepers and assistants in each dwelling, Keeper and two assistants

114. Which keepers are furnished quarters? All

115. Which keepers are not furnished quarters? ———

116. Outhouses, Three; coloring, White

117. Paths or walks on the premises, Walks

118. Area susceptible of profitable cultivation, None; area cultivated or prepared for cultivation, None

DWELLINGS FOR KEEPERS—Continued.

119. Character of adjacent surrounding country—Soil, sandy, clay, marsh, swamp, wood, fast ground, or shifting sands, _____

120. Furnish following data for stoves, kitchen sink, sink pump, and lamps in quarters:

Articles.	Keeper.	1st Assistant Keeper.	2d Assistant Keeper.	3d Assistant Keeper.
Stove, maker,	Portland SF Co.	do.	do.	
Stove, size,	Queen Atlantic #8	do.	Royal Atlantic	
Sink, maker,	———	———	———	———
Sink, size,	24" x 48" x 6"	———	———	
Pump, maker,	Douglass	do.	do.	
Pump, size,	#2	do.	do.	
LAMPS. (Give name, number, and make of all lamps in each set of quarters.)				

WATER FOR FOG SIGNAL, DRINKING, ETC.

121. How procured, Rain water from roof of dwellings

122. Quality, good

123. Quantity ample or not for the station at all seasons of the year, ample

124. Liable or not to be injured by the inroads of storm tides and seas, no

125. If rain water in tanks or cisterns, what precautions have been taken to insure its purity? Cisterns frequently cleaned

126. Capacity of tanks or cisterns, and where placed, 1000 gals.—1200 gals.—800 gals. in cellars of dwellings

127. Tanks or cisterns—Of what material made, Brick

WATER FOR FOG SIGNAL, DRINKING, ETC.—Continued.

128. Is there a distilling apparatus at the station? No

Name of maker and date, ;

capacity, ; when installed, ; condition, ;

efficiency,

129. If from a well, describe and give depth,

130. Diameter, ; lined or not,

131. Water obtained by pump or bucket, ; what power is used?

132. Distance from keeper's dwelling,

HEALTHFULNESS OF STATION.

133. General opinion in regard to the healthfulness of the light station and vicinity, Good

134. Diseases—What are most prevalent at the station and in the vicinity? None

135. Do they prevail at particular seasons of the year, or not? No

136. Are there any local causes, such as swamps, marshes, etc., in the immediate vicinity of the lighthouse which are likely to be the cause of these diseases? No

137. Would draining or other artificial means employed on the lighthouse premises be likely to improve the sanitary condition of the light station? No

BOATS.

138. Furnish following data for each boat at station:

Number.	Type.	Length.	Width.	When Built.	Date Received at Station.	Is Boat Fitted with Sails?	Suited to Work Performed.
12	Dory	13'	7'	1902	Nov., 1902	No	Yes (Destroyed by Fire)
61	Power Sq. Stern	21'6"	6'9"	1913	Nov., 1913	Yes	Yes

BOATS—Continued.

139. If power boat, kind of engine, Kiamna; horsepower, 7-1/2 H. P.;
maker of engine, shop number, and date, Kiamna Motor Co.
(a) type, size, number, and maker's name of spare coil, ---

(b) type, size, number, and maker's name of magneto, ---

(c) type and number of batteries, Dry

(d) propeller wheel, diameter, 20" ---; pitch, 22"

140. Where are boats kept at station?

LANDING, WHARF, BOATHOUSE, AND ROAD TO THE LIGHTHOUSE.

141. Description, Boathouse and slip

142. Distance and direction of landing from lighthouse, 175 ft. NE from lighthouse

143. Hoisting engine, what kind? Lambert Hoisting Engine Co., Newark, N. J.;
diameter of cylinder, 5-5/8"; number of revolutions per minute, ---;
stroke, 10"; kind of boiler, Upright;
maker and date, 1927--Maker's name doesn't appear.

144. General Remarks:

6--289 gal. and 1--139 gal. tanks for kerosene in bulk and one 2040 gal. tank for gasoline in bulk.
Electric generators (gasoline engine driven) installed in 1933 and tower and dwellings equipped with electric lights; also radiobeacon installed.
Removed gasoline burning engine-generator from station Nov., 1936, installed 10 KW Diesel engine driven generators to charge batteries and operate electric motor driven fog signal compressors.