Form 60

SECOND LIGHTHOUSE DISTRICT

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

DESCRIPTION

OF

STAGE HARBOR

LIGHT STATION

State: MASSACHUSETTS.

, 1933

1914

MADE UNATTENDED JUNE 16, 1933.

DESCRIPTION OF LIGHT STATION.

1. By whom described H. L. Bartlett, Jun. Engr., date

STATION.

2. Name of station, Stage Harbor

3. Characteristic of light, Fixed white.

4. Geographical position of light: Latitude, 41 ° 39' 32"; longitude, 69 ° 59' 03".

5. Location, On Hardings Beach northeast side of Chatham Roads.

PREMISES.

6. Origin of title to site of station (public land, purchase, lease, military or naval reservation), Purchase by condemnation.

7. Date of reservation, deed, lease, or permission to occupy, Decree Oct. 25, 1879

8. Area of the entire site, 3 acres more or less; (*b*) area inclosed, whole; (*c*) type of fence, —

9. Distance of tower from nearest high-water mark, About 50 feet.

10. Wharf or landing on premises, No wharf - beach landing

11. Means by which the light station may be reached and distance to nearest post office or town, with name, Boat about 2 miles to Chatham P. O. or by carriage

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, 1880

Old barn at this station was demolished by Keeper.[1] Authority to demolish barn obtained from Bureau November 24, 1926 (Bureau notified Dec. 17, 1926).

PREMISES—Continued.

15. When last thoroughly rebuilt, repaired, or renovated, Has never been rebuilt

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, 48 feet

17. Background of the lighthouse, upon which it is projected, as seen from seaward, Trees and town of Chatham

18. Color of tower, and how produced, White - paint

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

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

21. Materials of which the tower is built, Skeleton steel

22. Kind of stairway and steps, Steel ladder

23. Size of glass for glazing tower windows, —

24. Number of windows in tower, and size of sash, —

25. Number and size of doors, —

26. General remarks upon tower and site,

LANTERN AND LANTERN FIXTURES.

27. Order or class of lantern, 300 m.m. storm pane beacon lantern

28. If polygonal, state number of sides; if cylindrical, state diameter, —

29. Vertical or helical bars, —; thickness of bars, —; height glazed, —

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

31. Thickness and size of plates, —

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, —

34. Roof,

LANTERN AND LANTERN FIXTURES—Continued.

35. Ventilator ball, —

36. Lightning-conductor spindle, —

37. Balustrade and outside gallery, —

38. Lantern doors, and how fitted, —

39. Floor of lantern—Of what materials, —

40. Watch-room door leading into lantern, and how fitted, —

VENTILATORS.

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

42. Lantern ladders for cleaning plate glass, outside, —

43. Curtain hooks inside of lantern—How fitted, —

WATCH ROOM.

44. How fitted, —

45. Bell wires, speaking tubes, or telephones for calling relief keepers—Kind, —

46. Where led, —

ILLUMINATING APPARATUS, ETC.

47. Kind of apparatus, Flashing white 1 sec dard 2 sec.; intensity in English candles, 260

48. Name of maker, —; year made, —

49. Marks and number on apparatus, —

50. Order of apparatus, 300 m.m.; inside diameter (inscribed circle, tangent to glass) of central drum, —

51. **If the apparatus is a parabolic mirror,** state (*a*) diameter of opening, None; (*b*) depth of mirror, —; (*c*) its focal length, —; (*d*) material of which it is made, —

52. **If** ~~revolving~~ FLASHING, time of ~~revolution~~ FLASH, —

(*a*) duration of flash, 1 sec.; (*b*) duration of eclipse, 2 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, 360°

55. Number of flash panels, —; arc of each, in degrees, —

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

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

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

59. How are the flashes produced—By the whole apparatus revolving ——; 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, None; and (*b*) the number of elements of fixed lens covered by the panel, —

61. **If light is occulting,** state (*a*) the characteristic, None

(*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, None;

(*o*) pattern, —;

(*p*) does it operate reliably? —

62. **If revolving,** does the apparatus revolve on chariot wheels, mercury float, or 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, None; (*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, None; (*b*) is a cage used to separate balls? —; (*c*) state number of balls, —; (*d*) diameter of balls, —

66. Clock cord or chain, kind, —; size, —; length, —; how led, —; diam. and length of clock drum, —

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

68. Length of time clock will run after one winding, —

69. Does clock drive apparatus while being rewound? —

70. How is the machinery protected? —

71. How regulated? —

72. Describe the pedestal, —

73. Lens protector—Is there one? None; kind, —

74. Draft tube leading into ventilator ball—Of what material, diameter, and how fitted and connected with damper tube when in place, None — cone only

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, A.G.A. Flasher 1 cu. ft. burner; (*b*) kind of illuminant, Acet.

(*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, Acetylene; (*f*) number of burners, if more than one burner in group, 1; (*g*) kind of burner, A. G. A.;

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

(*j*) size of burner in cubic feet of gas per hour, 1 cu. ft.;

(*k*) consumption of gas per hour, — cubic feet; (*l*) how is gas obtained? A-50 accumulators

If gas is generated at station:

(*m*) describe generator, none;

(*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, 8- 250s; spare none;

(*r*) capacity, 1440 cubic feet of free gas; (*s*) to what pressure charged, 12 atms. ~~lbs.~~; (*t*) how is supply renewed? —;

(*u*) if by substitution of full for empty container, at what intervals? About once a year

79. Number of spare lamps at station, —

80. Number of spare lamp burners at station, —

CLOSETS IN TOWER.

81. How fitted and used, —

OIL HOUSE OR ROOM.

82. Describe (*a*) where placed and how fitted, —

(*b*) inside dimensions, —; (*c*) materials of which built, —;

(*d*) capacity in 5-gallon cans, —

CLOSETS AND STOREROOMS.

83. Where placed, how fitted and used, None

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

FOG SIGNAL.

85. Kind and character of apparatus, None

86. How much time is required to sound the signal? —; how long may the signal sound its characteristic with the quantity of air stored under pressure? —

87. Characteristic:

If whistle, trumpet, or siren:				If bell: —			
Blast ___ sec.	Silent ___ sec.	Blast ___ sec.	Silent ___ sec.	___ strokes	Silent ___ sec.	___ strokes	Silent ___ sec.

88. What parts of the fog-signal machinery are in duplicate? —

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

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, —

94. **If a bell,** state (*a*) weight, None lbs.; (*b*) metal, —; (*c*) diameter, —; (*d*) height, —; (*e*) if struck by clockwork, state time it will run with one winding, —; (*f*) maker and date, —; (*g*) weights for operating, — lbs.

95. **If a steam signal,** describe boiler: (*a*) type, None; (*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, None; (*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, None;
(*b*) maker, —;
(*c*) date, —; (*d*) nominal size, —; (*e*) horsepower, —;
(*f*) fuel used, —; (*g*) how started, —;
(*h*) kind of compressor, —; (*i*) maker and date, —

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

Describe compressor machinery, (*a*) diameter of cylinder, —; (*b*) stroke of piston, —; (*c*) number of revolutions per minute, —; (*d*) character and size of air-inlet valves, —; (*e*) kind of unloader, —; (*f*) diameter of delivery pipe, —

FOG SIGNAL—Continued.

98. (*a*) Number air receivers, None; (*b*) diameter, —; (*c*) height, —; (*d*) capacity cubic feet, each, —; (*e*) pressure in each, —; (*f*) make of reducing valve, if used, —; (*g*) remarks, —

99. **If whistle, trumpet, or siren,** pressure at which blown, None

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

101. **If disk or cylindrical siren,** None; 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, None; reed: length, —; breadth, —; thickness at base, —; thickness at tip, —

103. **If trumpet:** Length, None; diameters, —; material, —

104. Timing device, —

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

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

107. Pressure and recording gauge, —

DWELLINGS FOR KEEPERS.

108. Location with reference to lighthouse tower, 15 feet easterly

109. Coloring, White with lead colored trimmings

110. Materials of which built, Wood

111. Number of dwellings, One; number of rooms in each, Six

112. Describe heating plant, Direct hot water.

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

114. Which keepers are furnished quarters? Keeper

115. Which keepers are not furnished quarters? —

116. Outhouses, Fuel house; coloring, White lead trim.

117. Paths or walks on the premises, Plank walks between dwelling & fuel house

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, sandy

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,	Howes-Lincoln			
Stove, size,	8-18			
Sink, maker,	not known			
Sink, size,	22x48"			
Pump, maker,	Douglas			
Pump, size,	No. 2			
LAMPS. (Give name, number, and make of all lamps in such set of quarters.)	1 brass table 2 " hand lamps from General Depot.			

WATER FOR FOG SIGNAL, DRINKING, ETC.

121. How procured, Rain water and well

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? Frequent cleaning

126. Capacity of tanks or cisterns, and where placed, 2865 gals in cellar of dwelling.

127. Tanks or cisterns—Of what material made, Bricks, cement lined.

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

128. Is there a distilling apparatus at the station? none

Name of maker and date, —;

capacity, —; when installed, —; condition, —;

efficiency, —

129. If from a well, describe and give depth, 7' - 0" deep

130. Diameter, 21"; lined or not, yes, tile

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

132. Distance from keeper's dwelling, about 100 feet.

HEALTHFULNESS OF STATION.

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

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? —

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: none

Number.	Type.	Length.	Width.	When Built.	Date Received at Station.	Is Boat Fitted with Sails?	Suited to Work Performed.

BOATS—Continued.

139. **If power boat,** kind of engine, None; horsepower, —;

maker of engine, shop number, and date, —

(*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, —

(*d*) propeller wheel, diameter, —; pitch, —

140. Where are boats kept at station? —

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

141. Description, Beach landing, no wharf or boathouse, sandy and poor road from main highway to lighthouse.

142. Distance and direction of landing from lighthouse, Beach landing about 700 feet S. W'ly.

143. Hoisting engine, what kind? None;

diameter of cylinder, —; number of revolutions per minute, —;

stroke, —; kind of boiler, —;

maker and date, —

144. General Remarks: Station in very good condition. Made unattended June 16, 1933.