

59. You have an idea of the south-easters that are encountered in the Straits: could you drive such a vessel full speed against the seas you have encountered?—Yes, and without danger to a well-built vessel of between 2,000 and 3,000 tons.

60. To and from Lyttelton?—Yes. The worst seas you have here are similar to those you have in the Holyhead service; they are long seas.

61. Are they long seas there?—Yes, at times.

62. In the Union Company's table the distance between the two ports is set down at 175 nautical miles; are these identical with what are known as knots?—Yes; a knot is 6,080 ft.

63. I have always been accustomed to take 15 per cent. as the difference between nautical and land miles?—There is about 800 ft. difference, I think.

64. *Mr. Buchanan.*] Mr. McNab put several questions to you as to whether, in your opinion, an eighteen-knot service was too great a speed, taking the circumstances of the colony into consideration; but having in view that this service is to connect the railway systems in the North and South Islands, and not merely as a connection between Wellington and Lyttelton, what would be your reply?—I will give you an instance of that: there is a service connecting England with Guernsey and Jersey of not less than twenty knots.

65. *The Chairman.*] That service runs from Southampton to Guernsey?—I believe it does.

66. *Mr. Buchanan.*] Do they maintain that service regularly?—Yes, in all weathers. They have a reason for that. There are fruit and flowers and other articles of that sort which have to be on the London market at a certain time, and they keep up the time regardless of expense.

67. Have you taken into consideration the prospective growth of the colony, and, consequently, the increased traffic that would have to be met between Wellington and Lyttelton?—I should think the present vessels would very soon be taken off if they did not meet the demands of the public.

68. *Mr. Meredith.*] What length of experience have you had in the coastal service between Wellington and Lyttelton?—Seven years. Of course, I have not been constantly here; only three times a year.

69. Does the information which you have placed before the Committee refer to single-screw or to twin-screw steamers?—They are practically the same, except as to first cost. The cost of a twin-screw steamer would be a little more, and a slightly larger staff would be required in the engine-room without the horse-power being greater.

70. As a layman I was under the impression that a twin-screw steamer could be relied upon more than a single-screw one?—Yes, by 50 per cent. You could have lighter vessels and lighter draught, and you could save time in getting into Lyttelton, whereas with a vessel like the "Ionic" there is sometimes great difficulty and delay in getting in there.

71. What would be the difference in cost between a vessel of 2,000 tons with a single screw and one having twin-screws?—Practically nothing. The different parts of the engines in a twin-screw vessel are very little more than half the size of those in a single-screw vessel of the same horse-power.

72. *Mr. McNab.*] Mr. Buchanan called your attention to the fact that this service was to connect the railway system in the two Islands, and in your answer you illustrated the service between Southampton and Guernsey; what rate of train does that service connect?—It is a service of 55 or 60 miles per hour.

73. When I tell you that our express trains are only about twenty-knot trains, do you now think that a case can be quoted of an eighteen-knot steam-service connecting such a speed of trains? Do you not think that the proposed steam-service is faster than we might reasonably expect to connect trains with so low a rate of speed?—It depends upon the point of view from which you look at it. If you accelerate the steam-service you would accelerate the railway-service.

74. You do not know of any high-speed steam-service connecting so low a speed of railway-service?—I do not think there is so low a speed of railway-service in the world as there is here.

75. *Mr. Joyce.*] What is the length of the "Ionic"?—She is 430 ft. long.

76. And her draught of water?—Her average draught is 25 ft. She is 44 ft. beam.

77. Have you been running here for seven years as chief engineer?—Yes; four years and a half "Ionic," three years "Coptic."

78. And you have called at Wellington on each trip?—Yes; I have never been to the colony without calling at Wellington.

79. Have you had experience of bad weather from here to Lyttelton?—Yes.

80. And you have had experience of fine weather?—Yes.

81. Can you give us the difference of time in making the trip in fine weather and in bad weather?—I think the shortest trip we ever made was just under twelve hours, and the longest eighteen hours; but that was not altogether due to bad weather. We had to slow down in going into Lyttelton. We have to work into the tide in getting there. Speaking roughly, from what I have seen I should think you might allow two hours as the difference between a passage in fine weather and a passage in rough weather.

82. You stated that the cost of a first-class boat would be £25 or £50 a ton builders' measurement?—Yes.

83. Would it make any difference whether it was a 2,000- or a 4,000-ton boat?—Practically nothing.

84. *The Chairman.*] Would the style of fitting make a difference in the cost?—A very considerable difference. I should say the difference in cost would range from £25 to £60 a ton from an ordinary passenger-vessel to a specially well fitted one.

85. *Mr. Joyce.*] You referred to vessels of the "Teutonic" class, would that be superior to our boats?—Very much so at present.