

in and out, not for more than an hour or an hour and a half per day. We have used them not more than an hour per day so far.

34. All that that fifty-horse-power engine has cost you for auxiliary power is 4s. 6d. per day?—Yes, that is at that driving.

35. You are quite sure?—Yes, from an hour to an hour and a half. We have used it on an average only an hour a day. We know from the amount of oil we take away with us. I would not put it exactly at 4s. 6d. per day. It might be a fraction more or less, but that is what we put it down at.

36. *Mr. Symes.*] I understand you to say that nothing has ever happened to the engine, since you have been in the boat, but what could have been fixed up by the man in charge?—That is quite right.

37. Do you consider that these auxiliary-power oil-engines have been of great benefit to the settlers in different parts where it would be almost impossible for an ordinary sailing-boat to go, and where nothing but a steamer could get in?—Yes. In our district, since the oil-engines have come into use, the land taken up has increased in area over 25 per cent., and the population has increased over 40 per cent. These oil-engined vessels are able to go up and down rivers where a steamer could not go on account of their greater draught and the enormous freights. The oil-engines take up such a little space. These are sailing vessels, and we depend on the sails at sea, not the engines. The Awanui River is some twenty miles long, and for some eight miles you can jump ashore on either side. It is impossible to get a sailing-vessel or a steamer up there large enough to carry freight direct to Auckland without charging a big price.

38. Supposing you were at any time at sea and got on a lee shore, would the engines be of any assistance to you?—Yes; these vessels lie close to the wind in a gale, and the engines would enable you to work off. You can lie within two points and a half. It was only the engines in the "Greyhound" that saved us going on the rocks at Russell when a gale was on. With the aid of the engines we slewed round and got shelter. The oil-engines also saved the schooners "Aotea" and "Medora," and also the schooner "Waiapu," from going ashore in the breakers down there.

39. Do you know anything about the prices of oil?—We get benzine at 1s. 2½d. and naphtha at 2s. 6d. I think it is cheaper now. We have not used naphtha lately, for about two years.

40. *Mr. Crowther.*] You have not used naphtha for two years?—Not for our engines.

41. *Mr. Symes.*] In your opinion, is it necessary to have a certificated marine engineer on board those vessels to work the oil-engine?—No. The knowledge the engineer requires is to be able to take one of these oil-engines to pieces and put it together again. Part of the machinery should be taken away, and the candidate should be able to tell what is wrong, and be able to put the parts together again, and show that he can really do the work.

42. *The Chairman.*] You are speaking of the inspection now, or examination?—Yes, providing there is to be an inspection and examination for these oil-engines.

43. *Mr. Symes.*] Do you consider it necessary to carry an ordinary marine engineer on these boats?—No. Any one of my crew can work the engine.

44. Supposing any portion of the engine was broken at sea—do you carry duplicate parts?—No, not of the engine. It is nearly all cast.

45. Do you carry duplicates of the pins and odds and ends?—We do not carry all but we carry sufficient, so that if anything does go wrong it can be repaired. If anything serious went wrong it would have to be repaired ashore.

46. Is there any danger to life through anything blowing up?—No. I will give £50 to any man who can go and deliberately blow up any portion of our engine, and so will other firms. The makers of the engine offer 5,000 dollars to any one who can do that. It is impossible to blow them up.

47. You say it can be stopped and started almost instantaneously?—Within ten seconds.

48. In less than a minute?—Yes. I would give my engineers five minutes to dress themselves, oil down, and start the engine at full speed. I said if they could not do it they were no good. They are my brothers, and they can do it at any time.

49. *Mr. Crowther.*] I suppose it is only ignition by light, like that of a gas-engine?—Yes; as soon as the spark catches it it is off. The engine is always ready.

50. *Mr. Symes.*] I suppose that is why it is of so much benefit when on a lee shore?—It is a life-saving apparatus whichever way you like to take it. These oil-engined boats are the best-equipped vessels on the coast.

51. *The Chairman.*] Did you go up the rivers before the oil-engines were introduced?—Not with these sized vessels.

52. You had been up before?—Yes, for seventeen years, with the "Medora," thirty-three tons.

53. And you had to pull the boat for twenty miles?—No, for about nine miles; the other eleven we could work up, but only at times.

54. Speaking of the drivers—the men who work the engines: your brother, you say, is an expert driver on the "Greyhound"?—Yes.

55. Is he a mechanic?—Yes; he was the first one to try an engine on his boat. I have two other brothers besides.

56. *Mr. Crowther.*] Was he a mechanic prior to the introduction of the oil-engines? Did he serve any time?—No.

57. *The Chairman.*] Supposing you were lying at the Auckland Wharf and wanted to take your boat up the Awanui River, and wanted a man to drive the oil-engine, and you knew nothing at all about it, what qualification do you think that man should have by way of experience or knowledge entitling him to get a certificate?—He should have sufficient knowledge to take the engine to pieces and to put it together again. Then the examiner should take some part of the