

## EXTRACT FROM THE EVIDENCE OF MR. W. A. BOWDEN, CHIEF ENGINEER, DEPARTMENT OF RAILWAYS AND CANALS

I am chief engineer, Department of Railways and Canals. I have had 32 years' experience. I have been to Port Nelson and through the straits. My personal interest in the Hudson Bay railway matter dates from the year 1893. Along about 1907 it became a question for the consideration of the engineers of the Department. Commander Gordon had been out in 1884 and 1885. He reported that ordinary steamers could not navigate the straits earlier than July 10, and that the latter part of October would mark the close of the season. In 1897 Commander Wakeham was sent out with a specially selected vessel to determine how early and late the straits could be navigated. It was a sealer called the *Diana*, a vessel that could resist ice pinches which would crush an ordinary vessel. He arrived off the eastern end of the straits on June 22, and without difficulty passed the first third of the distance, when he encountered ice with which he battled until July 10, most of the time around Big island. He got through to Mansell island on the 13th. The bay was open at the time, free from ice. He did not proceed to the eastern end; he went up near Salisbury island, where he arrived on the 15th of July, and was caught in the ice for a few hours, and thereafter he cruised in the straits, and he reports that he encountered no further ice conditions after the 15th of July. The *Diana's* net tonnage was 275; gross tonnage, 473; horse-power, 70.

Commander Wakeham was not materially hindered by ice after July 15. He then left the straits, returning the latter part of August; went through to Churchill, arriving on the 28th. During the month of September he was cruising about the straits; on the 21st of September he was at cape Chidley, and he had some snow-storms during that time. On October 10 he started through the straits from the eastern end to the western. He reached Diggs on the 23rd or 24th of October, turned around and went back to Douglas harbour, where he spent about a week. He left Douglas harbour on the 29th October and was down on the Labrador coast on the 31st, not having encountered any ice. October 31 he passed out the eastern end. We do meet ice from Fox channel in the straits. We do not know the origin of that ice or how long it takes coming down. It drifts around, being encountered first in the neighbourhood of Mansell island. About October 10 or 15 is when we first observed it. This ice does not stop navigation. I have been endeavouring to get the boats out later every year. I have been meeting with a good deal of opposition, but I have put forward the dates very materially. I have sent out vessels leaving Port Nelson on October 22. An unprotected steamer there had no difficulty in making the straits. This was an ordinary single-decked tramp steamer without any ice strengthening whatever, 290 feet long, 3,400 tons, named the *Sheba*. I purposely did not strengthen the three ships which we purchased: the *Sheba*, the *Sharon*, and the *Durley Chine*. I decided that it was desirable in the interest of the project as a whole that they should know what an ordinary vessel could do. The probabilities showed that with care in navigation the vessel would not be wholly lost. With some knowledge of ice navigation they can avoid the greater dangers. These vessels made a number of voyages to the bay without any trouble, going early and coming late.

In 1916 we were unable to get Newfoundland sealers on account of the war, and we made two voyages with the *Sheba* and two with the *Durley Chine*. None of those vessels were at all seriously damaged on that route during this time. I made the passage in 1914.

The *Sheba* was selected expressly for handling construction materials; she is an ordinary tramp style of ship. I would recommend for permanent traffic on the bay and straits during the season of navigation as an economical boat a boat of about 400 to 410 feet in length, about 8,500 tons capacity, and not exceeding 25 feet draught.

Previous to 1909 Port Nelson had never been considered as a terminal for the Hudson bay route. While there was not much tangible information against Nelson,