

LIQUID FUEL FOR STEAMERS.

THE "SHELL" LINER "HALIOTIS."

Reprinted from the SHIPPING GAZETTE AND LLOYD'S LIST, September 14, 1898.

On the invitation of Messrs. M. Samuel and Company, the managers of the "Shell" Transport and Trading Company (Limited), a number of engineering experts and others interested in the use of liquid fuel for land or marine boilers assembled yesterday on board the steamship *Haliotis*, at Gravesend, for a trip under liquid fuel consumption. The vessel had been brought to the Thames from the builder's yard, at Newcastle, on oil fuel, and yesterday's run was arranged for the purpose of demonstrating to those commercially interested in the question the practicability and advantages of this method of generating steam for marine machinery. Among those on board were Sir John Durston, K.C.B., Engineer-in-Chief of the Navy, and Mr. A. R. Grant, R.N. (representing the Admiralty), Sir Marcus Samuel and Mr. Samuel Samuel, directors of the "Shell" Line, Mr. Fortescue Flannery, M.P., Mr. G. W. Manuel, and Mr. R. Leslie (of the P. and O. Company). Major Jenkins (of the "Shire" Line), Colonel Swan and Mr. Gulston (representing Armstrong, Whitworth and Co., the builders of the *Haliotis*), Mr. Wallis and Mr. Dudgeon (representing the Wallsend Slipway and Engineering Company, who have supplied and fitted the whole of the machinery and oil burning installation), Mr. George Jones, and Mr. W. C. Borrowman (of the Central Marine Engine Works, West Hartlepool), Mr. James Graham, Mr. R. Jardine, Mr. J. V. Dunlop Best, Captain Cownden, Mr. J. Henderson, Mr. J. Stevenson, Mr. J. Arnhold, Mr. F. Lane, Mr. E. T. Delmege, and representatives of the following companies:—The Anglo-Australian Steam Navigation Company, the Oil and

10½ knots an hour. The ordinary north country coal consumed on that trial was carefully weighed, and it was found that for each indicated horse-power 2.27 lb. were used per hour. The run of the *Haliotis* from the mouth of the Tyne to Gravesend with liquid fuel was made in less than 36 hours, the indicated horse-power having been about 920, and the oil consumed as fuel 1.67 lb. per indicated horse-power per hour. The results of the installation so far are regarded as highly satisfactory. An important feature of the steam generating arrangements on board the *Haliotis* is the ease and speed with which the fittings for burning coal can be removed and replaced by the oil-burning apparatus and *vice versa*, the whole operation, in fact, having been carried out between 7 a.m. on Monday and 11 a.m. on Tuesday last week. Many important advantages are claimed for liquid fuel, one of the first advanced being the ease with which it is supplied to a steamer at her port of call. It is stated that from the moment the fuel is put on board there is no trouble whatever, the furnaces being supplied automatically with sufficient to keep them going during a whole voyage without once opening the furnace doors. It is also pointed out that an enormous economy can be effected in space, inasmuch as the ballast tanks can be utilised for the stowage of the oil, and the space which would otherwise be taken for the bunkers be available for general cargo. It is pointed out further that the consumption of liquid fuel, as shown by the trials, is very much less than that of coal, but Messrs. Samuel state that

time ago—certainly not twelve months ago—there was some doubt as to the sufficiency of the available oil supplies for all the purposes contemplated, but he believed that his firm had now found and secured supplies of oil sufficient, if necessary, to take the place now filled by coal—(cheers). His company had acquired territory more than 200 square miles in extent, where the supply of oil was believed to be inexhaustible. They therefore started assured of an enormous and ample supply, and had thus overcome the only obstacle which stood in the way of the adoption of liquid fuel, namely, the question of supply. He believed that the advent of oil for generating steam on board ship would produce a revolution in the carrying trade of the world, and on the all important question of cost there was no reason why oil should not be supplied at the same price as coal. So far as the "Shell" Line was concerned, however, their policy for the present would be limited to the production and sale of oil fuel, at a price that would enable it to compete successfully with coal in the East. A most important advantage in the consumption of oil fuel was the entire absence of smoke, a point of supreme importance to ships of war—(hear, hear). On the question of the space occupied, the case in favour of oil was overwhelming as against coal, and the advantage of liquid fuel in this respect was not only in the ratio of weight but in the capability of stowage. He did not wish on that occasion to dwell upon any sentimental point, but it was undoubtedly a fact that the introduction of liquid fuel would tend to prevent the occurrence of changes like that now occurring in the stakeholds