

ed. They are connected to a distiller capable of distilling 1,000 gals. in 24 hours.

Engines, Boilers, etc.—The vessel is propelled by one set of triple expansion, surface condensing engines, with cylinders 27 x 44 x 73 x 48 in. stroke. The air pump with a diameter of 24 x 24 in. stroke; the two feed pumps 4 in. diam. by 24 in. stroke, and the 2 bilge pumps 4 in. diameter by 4 in. stroke, are all worked from the main engines. The main circulating pump is of the centrifugal type, and is driven by an engine having a 6½ in. diam. cylinder by 6 in. stroke. The reversing engine is made reversible, the gear being of the all

round type and arranged for steam and hand power. The general donkey and feed donkey pumps are of the vertical double acting type, having steam cylinder 9½ in. diameter, water cylinder 7 in. diameter and a stroke of 18 in. The ballast donkey pump is also of the vertical double acting type, having steam cylinder 10½ in. diameter, water cylinder 14 in. diameter and a stroke of 24 in.

An evaporator is provided capable of supplying 25 tons of fresh water per 24 hours. The vessel is provided with filter, feed water heater, winch condenser, telegraphs, etc. The contraflo system of condensing and feed heating is being fitted to all vessels of this class. Steam is

supplied by 3 single ended Scotch boilers, working under Howden's system of forced draft, with diameters of 15½ ft. x 11½ ft. long and having a working pressure of 180 lbs. a square inch. Air is supplied by a fan, driven by 1 single cylinder open type engine, 7½ in. diameter by 5 in. stroke.

The machinery on completion will be subjected to a 4 hour trial in dock, after which an official 6 hour full speed trial, with the vessel fully loaded, will be run. The vessels are being built to meet the requirements of Lloyd's 100 A1 class, special survey, and also under the direction of the Marine Department constructors.

Protection Asked by Auxiliary Marine Equipment Manufacturers.

The following memorial has been sent to the Ministers of Finance and Marine at Ottawa by some 30 manufacturers:—

The Canadian manufacturers of auxiliary marine equipment humbly submit:—That the order in council of Oct. 31, 1916, which grants a drawback, not exceeding 99%, on all material used in the construction of ships, is unjust and unfair to them and detrimental in its consequences to the country at large. Your petitioners do not ask for a modification of the Customs Tariff in force since 1907, but simply for the repeal of the above mentioned order in council, or at least for its modification to such an extent as to grant them an adequate protection to which they are entitled, and this without injuring in any way the shipbuilding industry.

By the Customs Tariff, 1907, item 470, schedule A, all material entering into the construction of ships, of a class or kind made in Canada, are subject to duty. The effect of the above order in council is to remove such duty and the Canadian manufacturers of marine equipment are left without protection. The government seems to have recognized this injustice and unfairness caused to your petitioners, for in Mar., 1918, another order in council was passed, extending to them the privilege of a drawback on imported raw material. However, this last order in council has proved to be unpractical and inoperative in the great majority of cases, and this has been admitted by the officers of the Department of Customs. Moreover, it places the manufacturer at the mercy of the shipbuilder in the matter concerning the drawback, stating that this can be obtained only "with the consent of the shipbuilder". Instances have occurred where the shipbuilder has demanded that the drawback on the manufacturer's raw material be paid to him and not allowed to the manufacturer.

Your petitioners beg to lay before you the following considerations as to the injustice and unfairness resulting from such order in council:—

With possibly one or two exceptions, all the manufacturers interested in this matter established their business before 1916, with the firm belief that the general protective policy of the Canadian Government, as laid down by both Conservative and Liberal administrations, was fixed. With hardly any exception, every interested manufacturer, in anticipation of an increased demand for marine equipment, has incurred expenditures for better facilities, the aggregate extra investment representing a large amount. Whereas previous to 1915 some specialties may have been made abroad that were superior to those manufactured in Canada, under a protective tariff this kind

of industry has made such progress in Canada, that now there is not a single item that is not being produced in some Canadian factory, of a design, quality and efficiency in every respect equal to the best produced anywhere in the world.

American capital and American influence is strong in many shipyards in Canada, and preference is given to American products even where the identical material of equal quality is made in Canada. The cost of manufacturing machinery in Canada is from 15% to 20% in excess of the cost of making the same article in the United States, and this excess is due to the cost of raw material. Comparative cost sheets have already been submitted to the Minister of Finance by one of the firms interested. The raw material cannot be free in spite of the drawback offered. For instance, pig iron for foundry purposes is produced in Canada under tariff protection, and owing to the shortage of foreign supply, must be used. This applies to other forms of iron and steel.

While marine engine and boiler builders have been busy, this has been largely due to the fact that these items have been on the list of prohibited exports promulgated by the United States, and also by Great Britain. The same does not apply to pumps and other auxiliary marine equipment, and when peace conditions obtain, every branch of marine equipment will be affected equally.

Under the operation of the existing regulations, and because the Customs Department is not actually interested in checking the foreign prices, the dumping clause is virtually of no effect, as without this help of the department, it is practically impossible to check prices, which are frequently below those quoted by American makers to American shipyards.

Under existing conditions, the manufacture of marine equipment is unprofitable. Many firms now prepared to supply the Canadian demand must retire from the marine field. Every single manufacturer has contributed to the Victory Loans, with the understanding that the proceeds would be spent in Canada. Would it be fair to them to use their subscription in the purchase of auxiliary marine equipment from their foreign competitors when the same can be bought in Canada? There appears to be no special reason why the manufacturers of marine equipment should be specially singled out from all the industries of Canada, and deprived of the benefits which every other trade enjoys.

The detrimental effect and its consequences to the country at large can easily be seen. The same adequate protection must be given to manufacturers of marine equipment, as is given to any other class

of manufacturers. Otherwise they will be forced to abandon this field of business, and the unavoidable consequence will be the closing of their factories and the dismissal of a great many persons who will be without employment, at a time when the labor question has become a problem of so great importance to our country. Instead of helping to solve this problem by giving employment to many it will increase its difficulties of adjustment. Your petitioners are tax payers to the country. If their industry is ruined, the revenues of Canada will evidently suffer by it.

Not only the manufacturers, but also the great majority of their employees, have contributed their full share to the Victory Loans. It has been represented to all these men (in the aggregate thousands) that the proceeds of recent loans would be spent in Canada. What explanation shall your petitioners give them on the part of the government if their factories are closed and they are left without employment, after all the advertisement announcing to the public the increased shipbuilding in Canada?

An adequate protection granted to the manufacturer of marine equipment will not increase the cost of shipbuilding to the government, and it will not affect materially nor unjustly the profits made by the shipbuilder. Some purely Canadian shipbuilding firms try to place all business in Canada. Why should not every one of them do the same? It is a fact that several of the largest, most successful yards purchase all material in Canada that can be made here. Their contract prices have not been affected by this.

If the duty is restored on such marine equipment as is already being made in Canada there would be no increase in the price per ton to the government on ships being built. It has been the experience of a number of Canadian manufacturers that they are asked for prices before tenders are made to the Marine Department, and that contracts have been arranged on the basis of these prices. Subsequently the orders for the raw material in question have been placed in the United States. The Canadian Government does not benefit by any saving effected by the shipbuilder.

Your petitioners humbly submit that by passing the order in council of Oct. 31, 1917, there was no intention to destroy the Canadian marine equipment industry, that in view of the above considerations, the government should see the injustice done to the undersigned manufacturers, and also to a great many people vitally interested in this kind of industry, and should also see the detrimental conse-