

forward, and the crew's quarters, mess rooms, recreation rooms and bakery aft. Fourteen lifeboats will be fitted, each 24 feet long. In addition, there will be carried life rafts, so that the combined capacity of boats and rafts will be sufficient to carry all the passengers and crew.

"All of the staterooms will be completely fitted out with single upper berths and double lower berths, with electric reading lights at the head of each berth. Vitreous wash stands, with hot and cold running water, will be fitted in each room.

"The electric fixtures and decorations throughout will be special features of the whole design, and are being tastefully obtained by a careful selection of woods worked out with rich effects. Simplicity was taken as the keynote, in preference to using large ornaments and gilt.

"The lower hold will be divided into four cargo compartments, each provided with two cargo hatches through main deck. The 'tween decks will have five gangways on each side, in addition to the passengers' and engineers' gangways. The sides of the hold and 'tween decks will be covered with wood sparring to prevent freight package from damage.

"The engines will be of the four crank, triple expansion type, built for Dominion government requirements, for 200 lbs. pressure at high pressure engine. The cylinders will be arranged from forward to aft with low pressure, high pressure, intermediate pressure and low pressure, the high pressure being $29\frac{1}{2}$ ins., intermediate $47\frac{1}{2}$ ins., and the two lows 58 ins., with a common stroke of 42 ins. The pistons will all be of the dished type, h.p. cast iron solid and the int. and low pressure of cast steel. The forward pair of cylinders will not be rigidly held together, but will have a brass slip joint, which will connect them to the after pair, allowing for expansion and vibration. The cylinders will be supported on four heavy back columns, which will carry an adjustable slipper guide with loose face, water cooled, and six front columns, well braced together.

"The cylinder lagging will be of planished steel. The connecting rods will be forked at the top end and tee beat at bottom, with steel bearings lined with white metal. The crank shaft will be $13\frac{3}{4}$ ins. diameter, and the cranks will be counterbalanced to reduce vibration to a minimum. The valve gear will be Stephenson link, with adjustable cut-off. The h.p. will have one piston valve, the intermediate two, the low pressure will have a doubleported slide valve, with a square relief frame back of valves to relieve pressure and friction. All the valves will be operated and balanced by improved assistant cylinders. Connected to each low pressure engine will be an air pump 33 by 15 ins., and independent jet condenser. Bilge and cooler pumps will also be attached to the main engine.

"A double cylinder turning engine will be arranged for turning on main engine. The engine will be provided with a six collar horseshoe thrust bearing, lined with white metal. Propellers will be cast steel on cast iron hub. The bed plate will have six main bearings and will be of the box section girder design. Circular steel shells in square boxes will be used on bearings, so that they may be removed without disturbing the shaft.

"There will be four main boilers, $15\frac{1}{2}$ ft. inside diameter by 11 ft. inside of heads, for Canadian and Lloyd's rules, 200 lbs. per square inch. Each boiler will contain 452, $2\frac{3}{4}$ o.d. tubes, $7\frac{1}{2}$ ft. long, and three 48 in. furnaces. The shell plates of the boilers will be made in two pieces, having no circumferential seam in centre. The auxiliary boiler will be $12\frac{1}{2}$ ft. diameter by 11 ft. between heads, and will have 296, $2\frac{3}{4}$ in. o.d. tubes and two 48 in. furnaces, shell in two plates, for 200 lbs. per square inch pressure. Forced draught will be used, air being supplied by two blowers with 48 in. wheel, direct connected with double enclosed, self-oiling engine, arranged so that one blower can supply all the air should accident happen to the other. Patent flue blowers will be fitted in the breechings of each boiler, to blow tubes in boiler and air heater tubes. Four of the latest improved ash guns will be fitted in the fire rooms.