

CANADA'S LARGEST ICEBREAKER

Construction of what will be Canada's largest icebreaker afloat, which will be operated by the Department of Transport in the Lower St. Lawrence and Maritime area as well as in the Arctic, will be undertaken at Lauzon, Quebec, according to an announcement made April 10 by Transport Minister George C. Marler.

The new vessel is to be an ocean-going icebreaker which will be suitable for service under most rigorous Arctic conditions. It is to have a cruising radius of approximately 20,000 miles at a speed of approximately 10 knots, with sufficient capacity to enable a full Arctic season to be spent at sea without replenishing supplies or refuelling. The complement of the ship is 77 and accommodation is provided for 29 passengers.

An interesting feature of the new icebreaker, apart from its size, is that practically all its operations will be electrical and will be "push-button" controlled. The vessel is to be equipped with three propellers aft to provide for maximum power.

The vessel is to be powered by diesel-electric engines, with bridge control of main propulsion machinery. Local control at the engine rooms will be available if required. The maximum power of the propulsion machinery is calculated at approximately 18,000 brake horsepower on three shafts, and the engines are calculated to develop 136 revolutions per minute during icebreaking operations and 170 R.P.M. when running free.

In keeping with the Department of Transport

requirement for helicopter flight decks on departmental vessels working in Arctic waters, the new icebreaker is to be equipped with an advanced type of helicopter hangar with ancillary equipment and a large flight deck, and will be capable of carrying as many as three helicopters depending on their size.

The specifications call for special attention being given to scantling and framing of the new vessel to equip it for heavy icebreaking service. Heavy plates, approximately two inches thick, are provided in the underwater part of the vessel to give maximum strength for operating in ice. The bow of the vessel will be one continuous steel bar of great strength, to which the heavy steel plates and supporting stringers, flats and brackets will be welded.

The new icebreaker will be outfitted with the most modern navigation and telecommunication equipment. It will be fireproof throughout and will have special accommodation for officers and crew as well as passengers for the long periods the vessel will serve in isolated waters.

Specifications of the new triple-screw diesel-electric icebreaker are as follows: overall length 315 feet; moulded breadth 290 feet; moulded depth to upper deck 41 feet; draft when loaded 28 feet; deadweight on 28 foot draft 3380 tons; cruising speed 10 knots; trial speed at load draft 15.5 knots; hold capacity approximately 55,000 cubic feet; refrigerated cargo and domestic storage capacity approximately 7,000 cubic feet.

LEADING MINERALS: Record amounts of iron ore, crude petroleum, natural gas, and cement were produced in 1956, the Dominion Bureau of Statistics reports in its latest report on the production of leading minerals. In all, there were larger production totals for 10 of the 16 minerals listed. Declines were posted for asbestos, gold, lead, lime, silver and zinc.

Year's production totals were: iron ore, 21,996,589 tons (16,283,177 in 1955); crude petroleum, 171,980,599 barrels (129,440,247); natural gas, 169,542,504,000 cubic feet (150,772,312,000); cement, 29,051,035 barrels (25,168,464); gypsum, 4,933,939 tons (4,667,901); nickel, 178,767 tons (174,928); and salt, 1,587,771 tons (1,244,761).

The year's output of coal amounted to 14,912,534 tons (14,818,880); copper, 356,251 tons (325,994); asbestos, 1,017,848 tons (1,063,802); clay products, \$37,387,757 (\$34,271,350); gold, 4,395,770 fine ounces (4,541,962); lead, 188,969 tons (202,762); lime, 1,303,357 tons (1,331,118); silver, 27,655,141 fine ounces (27,984,204); and zinc, 419,402 tons (433,357).

AID TO NAVIGATION: An ocean-going diesel-electric driven lighthouse supply and buoy vessel for service in eastern coastal waters is expected to be completed by 1959, according to the Department of Transport.

The new vessel will be powered by diesel electric engines with a total of 4,250 horsepower; will have a radius of 10,000 miles without refuelling; and will be equipped with a helicopter flight deck. The vessel is to have a raised forecastle, raked stem, icebreaker type bow and cruiser stern. Specifications call for maximum deck space for buoy work and three cargo holds.

The new vessel will be electrified throughout. The electrical generating plant will provide electric lighting throughout the vessel and electric power for auxiliary machinery.

Specifications of the new lighthouse supply and buoy vessel are: overall length 272.5 feet; moulded breadth 45 feet; moulded depth to upper deck 21.5 feet; deadweight on 17.5 foot draft, 1,610 tons; radius of operations 10,000 miles; speed 15 knots; complement of crew, 57 persons.