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The Intercolonial Railway Shops.

In our issue of July, 1906, general particulars were given of the new shops which it was proposed to erect at Moncton, N.B., for the I.C.R. These general facts were supplemented by an illustrated article in our issue of Sept., 1908, giving considerable additional information respecting the shops, which are now fast approaching completion. In a recent speech the Minister of Railways said "these shops will serve the Grand Trunk Pacific Ry. (National Transcontinental Ry.) also." He then presented to the House of Commons the following memorandum descriptive of the shops:

FREIGHT CAR REPAIR SHOP.—362'-0" x 134'-8". Area covered 48,700 sq. ft. Net floor area 47,400 sq. ft. Gross cubic contents 1,573,000 cubic ft. Net contents 1,541,000 cubic ft. This building is composed of concrete foundations; reinforced concrete wall columns, curtain walls, and roof slab; steel trusses and purlins. There are two longitudinal rows of steel columns within this shop. Floors between rails are of 3" plank; between tracks the floors are of mastic cement. Six repair tracks run through the building, providing working accommodation for 48 cars. Reinforced concrete air ducts are placed beneath the floor.

PLANING MILL.—202'-8" x 81'-10"; together with a fan house 20' x 20'. Area covered 17,100 sq. ft. Net area of floor 16,400 sq. ft. Gross cubic contents 550,000 cubic ft. Net contents 523,000 cubic ft. This building is composed of concrete foundations, surmounted by a steel frame, with curtain walls and roof slab of reinforced concrete. The bottom chords of trusses are designed to carry 3 ton trolleys, and the floor space

is entirely free from obstruction. The floor is of hardwood. Reinforced concrete air ducts are placed beneath the floor.

PASSENGER CAR REPAIR SHOP.—361'-3" x 100'-0". Area covered 36,100 sq. ft. Net area of floor 371,000 sq. ft.; Gross cubic contents 887,000 cubic ft. Net contents 856,000 cubic ft. This is a transverse shop with 18 tracks, besides an area at one end of 36 ft. x 100 ft., which together with a mezzanine floor 18 ft. x 100 ft. is for use as a cabinet shop. The building is of reinforced con-

crete throughout, having four longitudinal rows of columns. Between the rails plank floors are provided; between tracks the flooring is of concrete. Reinforced concrete air ducts are placed beneath the floor.

PASSENGER CAR PAINT SHOP.—361 ft.—8 in. x 100 ft.—0 in. Area covered 361,000 sq. ft. Net area of floor 371,000. Gross cubic contents 887,000 cubic ft. Net contents 856,000. This building is practically a duplicate of the repair

shops, consisting of two stories and a basement. The greater part of the upper floor is devoted to offices. The building is provided on two sides and one end with a concrete platform designed for heavy loads. Freight elevators connect the different floors. The interior is well finished. Floors are of hardwood except in basement which is of concrete. An ample supply of plumbing fixtures has been provided, and the building equipped for steam heating.

LOCOMOTIVE SHOPS.—Area covered 171,000 sq. ft. Net area of floors 168,000 sq. ft. Gross cubic contents, 7,360,000 cubic ft. Net contents, 7,270,000 cubic ft. This is a group of buildings comprising;

BOILER SHOP.—375 ft.—1 in. x 102 ft.—3 in. In two bays, with riveting tower at one end of the erecting bay. The tool bay is served by a 10 ton electric travelling crane; the erecting bay by a 35 ton crane; and the riveting tower by a 30 ton crane. Plank floor on timber sills.

LOCOMOTIVE ERECTING SHOP.—375 ft.—1 in. x 81 ft.—1 in. This shop is arranged with a central longitudinal pit, flanked upon either side by individual pits arranged in herring bone pattern. There is standing room for six locomotives upon the central pit, and for sixteen locomotives upon the side pits. Two electric travelling cranes, each of 60 ton capacity, command the shop. Flooring is of plank resting upon timber sills.

FORGE SHOP.—375 ft.—1 in. x 76 ft.—8 in. This shop is served by jib cranes. The flooring is of earth.

MACHINE SHOP.—408 ft.—4 in. x 132 ft. 6 in. This shop is in two bays, each of which is commanded by a 10 ton electric travelling crane. The flooring is of plank, supported by a concrete base.

MACHINE SHOP ANNEX.—408 ft.—4 in. x 44 ft. 10 in. This includes the bolt room, tool room, brass room, brass foundry, with lavatories upon a mezzanine floor. The foundations of all these shops are of concrete, the skeleton is of steel, with curtain walls and roof slabs of reinforced concrete. Travelling cranes command all floor space except that of the forge shop and the machine shop annex. Reinforced concrete air ducts are placed beneath the floors of all these shops, forming the locomotive group.

POWER HOUSE.—203 ft.—2 in. x 69 ft. Area covered, 14,000 sq. ft.; net area of



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shop, the end area, not occupied by tracks, and the mezzanine floor being devoted to upholstering and varnishing.

STOREHOUSE AND OFFICE BUILDING.—343 ft.—8 in. x 51 ft.—8 in. Area covered by building 17,700 sq. ft. Net area of floors, 50,800 sq. ft. Area covered by platform, 7,900 sq. ft. Net area including platform, 58,700 sq. ft. Gross cu. contents exclusive of platform, 674,000 cu. ft. Net contents, 610,000 cu. ft. The building is of reinforced concrete throughout, except the office partitions, which are of porous tile. The building