

is composed of pivoted sections which can be opened variable amounts for ventilation. A maximum amount of outside light is obtained through these windows, which are glazed with factory ribbed glass. Above the windows is a four course brick corbel, which brings the face of pilasters and panels above windows flush, and gives the effect of weight at the top of the building, though this wall is but 13 ins. thick. The brick work above window and door openings is supported on steel lintels of the I beam and

the building. The rest of the space is devoted to a locker and wash room, with concrete floor, for the employes. The equipment will consist of 154 steel lockers in double rows, back to back, with ample aisles between, in which there are seats; also a double row of lavatories, 32 in number, at one side of the room, which provide adequate washing facilities for the employes. This room is well lighted, having large windows on both sides, by which ventilation is also furnished.

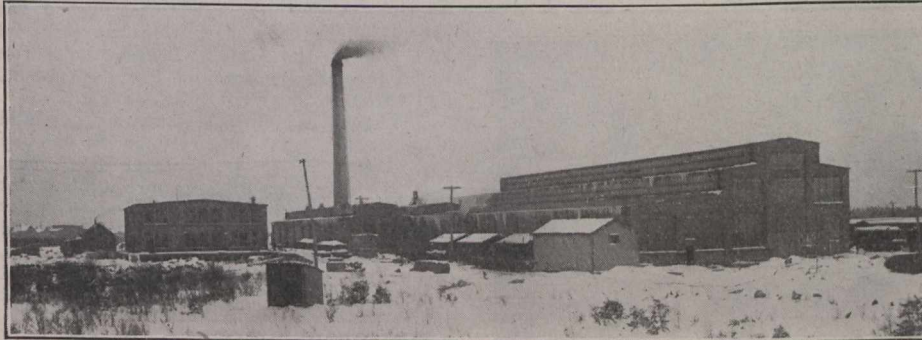
All pits under locomotive stalls are of concrete, 70 ft. long by 3 ft. 11 ins. wide; are 2 ft. 8 ins. deep at the high end and drained to low end, which is 3 ft. 2 ins. deep, and has a sump covered with a cast iron grating and a connection to sewer. All pits are absolutely clear on the sides, having no projections of any kind, and the bottoms are paved with vitrified paving brick, arched at centre and laid in 1/2 in. sand cushion on concrete.

The 80 lb. rails used exclusively are supported on the concrete side walls of pits, spiked to 6 by 8 ins. by 1 ft 4 ins. creosoted cross ties, which are set and anchored in the concrete. Outside of the rails, parallel to same, and flush with floor, are 6 by 10 in. dressed jacking timbers, fastened to blocks, which may be readily taken up at any time when repair of rails is necessary, without disturbing any of the brick floor paving.

The wheel drop pits are of concrete and extend radially a little more than the width of two stalls, having a 24 in. gauge track on the concrete bottom from end to end for transferring wheels on truck, which, when lifted to floor level, are run on 24 in. gauge track connected to circular industrial track at end of stalls by a turntable. The pits are to be equipped with modern air jacks and removable rails, supported by I beams across the pit. Drainage is obtained by gutters, which drain to a sump connected to sewer.

The smoke jacks are of sectional cast iron construction, with an opening 8 ft. by 3 ft. and a 30 in. diameter stack with a hood at the top. The bottom of the jacks are 16 1/2 ft. above the top of rail and the jacks are supported upon the steel roof members.

The building is heated by the indirect system, consisting of a steam driven fan and Green Positivflo horizontal heater coils.



Rear View of A.C. & H.B. Ry., Tagona Shops.

bottom plate type. The window lintels have an angle on the bottom of the plate for its entire length, to which the top of the steel sash is fastened with hook bolts, providing a neat, secure and weathertight anchoring.

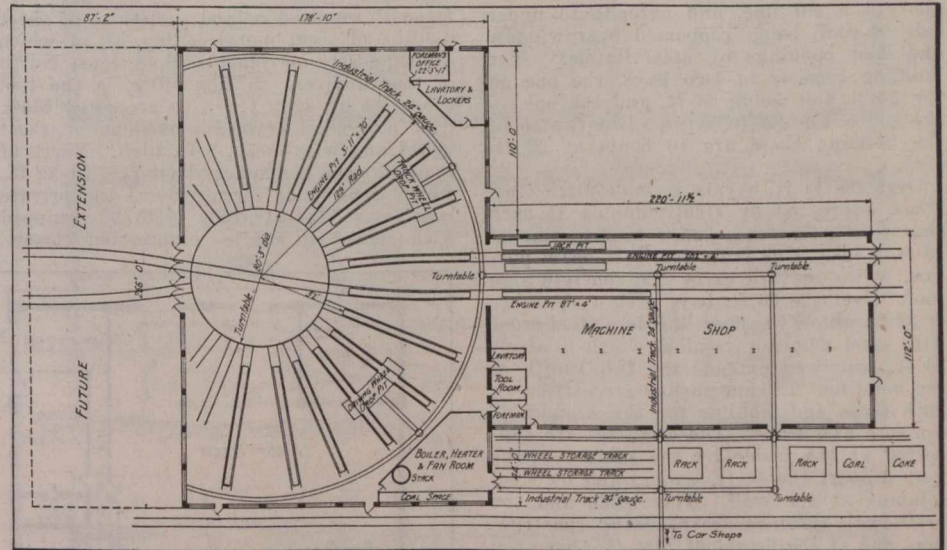
All outside doors in this building are of wood, the pass doors being 3 1/2 by 7 ft., and the large track doors are 13 ft. wide and 17 ft. high. The track doors consist of two parts, each 6 1/2 ft. wide with a 3 1/4 by 7 ft. pass door and a sash at the top with fifteen 10 by 16 in. lights. These doors are 3/4 ins. thick and are of a 3 ply construction, fitted with wrought iron stiffeners, heavy hinges and a locking device of special design.

Steel columns of latticed channel box type are used and are spaced 44 ft. centres each way, except at the turntable, which is in the centre of a clear space 88 ft. square. With the exception of the above mentioned space the roof is supported on 44 ft. steel trusses, 18 ft. clear above top of rail in all cases, with 22 ft. wide monitors over every bay running from east to west for full width of building, with one running in a transverse direction between two, over the turntable. These monitors are all equipped with Pond continuous steel sash hinged at top to swing out, the angle of which may be adjusted by the worm and gear gang operator, which is controlled from the floor. This sash is so built that when opened to its full extent it will permit of no rain entering under ordinary conditions, and consequently provides good ventilation at all times. Steel beam purlins resting on the roof and monitor trusses carry two inch wood sheathing, on which is laid a 5 ply Barrett specification roofing, finished off at edges with a copper gravel guard, giving a good, substantial roof. The roofs of the monitors drain over the edges to the roof below, which is saddled to drain water to cast iron conductor heads, set in top of box columns, and connected to cast iron soil pipe, set in concrete piers by wrought iron pipe downspouts, making a neat and inconspicuous disposal of roof water to sewers. The entire floor is of vitrified paving brick laid on edge in a sand cushion on a 5 in. base of concrete.

In the northeast corner of the locomotive house is a room approximately 40 ft. square, with partitions of wooden studs, expanded metal and cement plaster separating it from the rest of the interior. A portion of this room, 17 by 22 ft., is partitioned off for the foreman's office, and has a maple floor, one door to the outside and one to the inside of

In the southeast corner of the building is a space approximately 40 ft. square, partitioned off in the same corner as the locker room. In this room are located the boilers, stack, heating fan and engine, boiler feed pumps and vacuum pump. Along the south wall is a coal bin, 40 by 6 ft. wide, provided with small doors in the outside walls, permitting of unloading coal direct from cars into the coal storage space.

The turntable is 50 ft. long, 200 tons capacity, standard deck type.



A.C. & H.B. Ry. Locomotive House and Machine Shop.

and is operated by a pneumatic turntable tractor. The turntable ring wall is of concrete, with four expansion joints equidistant on its circumference, the inside diameter of which is 80 ft. 5 ins. This wall is capped off at the base of rail with curved segmental curb timbers, 8 by 14 ins., each of which is fastened at two places with 3/4 in. anchor bolts to concrete. The circular rail of the turntable is fastened to 6 by 8 ins. by 2 ft. creosoted ties anchored to a concrete base, cast integral with the ring wall. The pit floor is of 5 in. concrete pitched to drain to circular gutter 14 ft. from centre of pit, which drains to a large sump, the top of which is covered with a cast iron grating, and is connected to sewer. The centre pier is of concrete and liberal in size, being 11 1/2 ft. square at the base.

The hot air is forced through underground concrete tunnels and vitrified tile ducts to the turntable pit and all engine pits. Dampened outlets are provided, giving good distribution throughout the building. Steam for heating is supplied by three internally fired boilers of 150 h.p. each, for 100 lbs. working pressure, fitted with 50 in. inside diameter by 12 3/4 in. long, Morison furnaces. A steel smoke breaching connects the boilers to a Weber reinforced concrete chimney, both outer shell and lining of concrete, lining extending 39 1/2 ft. above grade and top of outer shell 125 ft. above grade. The chimney is protected from lightning by modern lightning rods, well grounded.

Steam, air and water are conveyed to the locomotive stalls by pipe mains, with drops and valved outlets at the columns, between