CANADIAN PACIFIC RAILWAY

BARGE NO. 4

DIMENSIONS

Length Overall	313' 7"
Breadth Moulded	53' 2"
Depth Moulded	11' 6"

SPECIFICATION

OF

PROPOSED MODIFICATIONS TO ADAPT BARGE

TO

NEW TERMINAL SLIPS AT VANCOUVER AND NANAIMO

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C. P. R. BARGE NO. 4

SPECIFICATION OF PROPOSED MODIFICATIONS TO ADAPT BARGE TO NEW TERMINAL SLIPS AT VANCOUVER AND NANAIMO

INTENT OF SPECIFICATION

The intent of this specification and accompanying drawings is to describe the work necessary to modify apron step and rails on Barge No. 4 in order that barge may be used in new slips at Nanaimo and Vancouver as well as in existing slips at Vancouver and Nanoose Bay.

Any work necessary to attain these conditions or to complete the work in a practical manner is to be carried out by the contractor without extra charges whether or not such work or method of carrying out the work is indicated in the Guidance Plans, Specifications, or Approved Working Plans.

CONTRACT PLANS AND SPECIFICATION

This specification and accompanying drawings prepared by Robert Allan, Naval Architect, will be considered as the contract Plans and specification.

Drawings are designated as follows:

Drawing No. 30-54-1 "Adaption to New Ferry Slips"
Drawing No. 30-54-2 "Modifications to Apron Step"

WORKING DRAWINGS

Contractor will be responsible for preparation of any further working drawings considered necessary and these drawings are to be submitted to owners before work is put in hand.

INSPECTION AND SURVEY

The work is to be carried out to the satisfaction of Owner's authorized representative.

APRON STEP

Existing apron step is to be cut away and new step constructed as shown on drawing 30-54-2.

The vertical and horizontal plates of new step are to be welded to the three fore and aft bulkheads and to existing transom floor by continuous fillet welds and they are to be bracketed to transom plate stiffeners and to deck longitudinals as shown in detail at "Typical Section" on drawing 30-54-2.

It will be noted that there is limited clearance in way of steering tillers, connecting rods, and rudder stocks. The method of clearing the former is indicated on detail mentioned above. In way of rudder stock, a small recess may be arranged in corner of step or rudder stock may be shortened.

RAIL END AND BEARING PLATE SUPPORTS

A frame work of longitudinal and thwartship web plates is required to support foundation plates for rail end castings, bearing plates for apron girders, and for locating-horn.

The scantlings and arrangements of these are indicated on drawing 30-54-2. They are to be connected to each other and to apron step by continuous welds.

Foundation plates for track ends are to be accurately levelled parallel to top of track line, both fore and aft and thwartship.

Foundation plates for bearing plates and horn are to be parallel to waterline, fore and aft.

APRON CONNECTION CASTINGS

(a) Lower Bearing Plates:

A pair of lower bearing plate castings as used for Princess of Vancouver is to be located and tack bolted in place to dimensions shown.

Final location and rivetting of castings is to be carried out after barge has been tried in new slips in order that position of castings may suit mating castings on apron girders which in turn will be located after mating with bearing plates on Princess of Vancouver.

Finished bearing plate casting will be supplied by owners as duplicate of casting supplied by Dominion Bridge Co. for "Princess of Vancouver".

(b) Locating-Horn:

The Locating-Horn casting is to be aligned and rivetted in place to dimensions shown.

Finished Horn casting will be supplied by owners as duplicate of casting supplied by Dominion Bridge for "Princess of Vancouver".

(c) Rail End Casting:

Rail end castings are to be accurately located to dimensions shown and are to be fastened in place with 7/8 bolts.

Four pair of these castings will be supplied by owners as duplicate of castings supplied by Dominion Bridge Co. for "Princess of Vancouver".

(d) Latch Hook:

Latch hook castings are to be located to dimension shown and rivetted in place.

A pair of these castings will be supplied by owners as duplicate of castings supplied by Dominion Bridge for "Princess of Vancouver".

TRACK ARRANGEMENTS

Centre tracks will remain as is except for substitution of rail end castings.

Outboard tracks at aft end are to be modified as follows:

New tracks are to be arranged port and starboard to line up with new aprons. These tracks are to connect to existing lines through switches. They are to be set in channels formed by a pair of 5 x 3-1/2 x 3/8 angles at about 6" back to back but with additional clearance as required at switches.

The new tracks must cross apron step at exact angle and distancesas shown on drawing 30-54-2 therefore it will be necessary to adjust curvature of existing outer tracks in order to line up with both new and existing track ends.

Line of tracks is to be lined off at ship for approval of owner's representative.

All new track, switch points and splice bars will be supplied by owners. Switch operating gear will be supplied and fitted by contractor.

Track weight is 80 pounds.

PORTABLE ARRANGEMENTS AT APRON STEP

In order that barge may be returned to service in old slips at Vancouver and Nanoose Bay, certain portable arrangements are to be supplied.

These are as follows:

(a) A portable block to take weight of old style aprons. This block will be of timber with flanged steel bearing plate and reinforcing straps. It will sit in a 3" deep channel formed in apron step and will be secured by 8 - 7/8 bolts through lugs on block into angle clips on supporting structure. Lifting lugs are to be fitted so that block may readily be handled by mobile crane.

(b) A portable section of rail port and starboard with fabricated stool as shown on drawing 30-54-2 which will be secured by 7/8 bolts to steel foundation plates. These are required to bridge gap in way of bearing plate foundation.

(c) Portable rail ends at centre tracks.

Two types of rail ends are required on centre tracks as they are required to match both old and new style aprons.

For new style, a rail end casting, as described above, will be bolted in position.

For old style, a pair of modified castings are to be substituted. In these, the rail end will be cut back about 5" and a steel pad with check guides will be welded in place to take projecting rail on apron.

Castings will be supplied by owners. Modifications are to be carried out by contractor.

PAINTING

All new and disturbed exterior steel is to be primed with red lead or equivalent primer and is to be painted thereafter with two coats topside black.

Interior steel work is to be painted one coat red lead as in existing work.

OWNER'S SUPPLY

Owner's will supply and deliver to contractor's yard, all rail, rail fittings and castings as mentioned above.

Castings will be furnished complete with all machine work completed ready for installation.

Quantities are as follows:

Item	Description	No. Off	Dominion Bridge Patter No.
1	Lower Bearing Plate Casting	2	22063
2	Locating-Horn	1	22054
3	Rail Extension R. H.	4	22059
4	Rail Extension L. H.	4	22060
5	Latch Hook	2	22053
6	80 lb. rail approximately 260'		
7	Switch points and accessories	2 pair	

(radius of curvature to be determined from ship).

DELIVERY

Owner's will deliver and pick up barge at contractor's yard.