



**COURT FILE NUMBER** 1603 09140  
**COURT** COURT OF QUEEN'S BENCH OF ALBERTA  
IN BANKRUPTCY & INSOLVENCY  
**JUDICIAL CENTRE** EDMONTON  
**PLAINTIFF** ROYAL BANK OF CANADA  
**DEFENDANT** GRAHAM BROTHERS CONSTRUCTION GROUP LTD.  
**DOCUMENT** TENTH REPORT OF THE RECEIVER,  
DELOITTE RESTRUCTURING INC.,  
DATED FEBRUARY 5<sup>TH</sup>, 2018

**ADDRESS FOR SERVICE AND CONTACT  
INFORMATION OF PARTY FILING THIS  
DOCUMENT** OGILVIE LLP  
1400, 10303 JASPER AVENUE  
EDMONTON AB T5J 3N6

ATTENTION: KENTIGERN A. ROWAN, Q.C.

PHONE: 780-429-6236  
FAX: 780-429-4453

FILE NO.: 3089.57

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NO OTHER FORM OF SERVICE WILL BE ACCEPTED.**

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# Introduction

1. On March 18, 2016, the Defendant, Graham Brothers Construction Group Ltd. ("**Graham Brothers**" or the "**Company**") filed a Notice of Intention to Make a Proposal, at which time Deloitte Restructuring Inc. ("**Deloitte**") was named as Proposal Trustee. Graham Brothers subsequently failed to file a proposal, and was deemed bankrupt on May 17, 2016, at which time Deloitte became the Licensed Insolvency Trustee ("**Trustee**") of Graham Brothers.
2. By way of Order granted on May 25, 2016, Deloitte (the "**Receiver**") was appointed Receiver over the property of Graham Brothers in this Action. A second Order was granted at that time which provided that the rights and obligations of Deloitte as Trustee are transitioned to this Action and become the rights and obligations of Deloitte as Receiver.

## Purpose of this report

3. This is the Tenth Report of the Receiver (the "**Tenth Report**"), the purpose of which is to:
  - 3.1. provide an update on the Receiver's activities since the Ninth Report of the Receiver (the "**Ninth Report**"); and
  - 3.2. obtain Court approval for the Receiver to accept and close an offer arising from the Receiver's sale process to dispose of vintage steam locomotives owned by the Company.

## Terms of reference

4. Capitalized terms not otherwise defined herein are as defined in preceding Court Orders and Reports filed by the Receiver with the Court in these proceedings.
5. All references to currency in this Tenth Report are in Canadian dollars.
6. In developing this Tenth Report, the Receiver has relied upon unaudited financial information prepared by the Company's management, the Companies' books and records, and discussion with its management. The Receiver has not audited, reviewed, or otherwise attempted to verify the accuracy or completeness of the information in a manner that would wholly or partially comply with Generally Accepted Assurance Standards pursuant to the Chartered Professional Accountants Canada Handbook and, accordingly, the Receiver expresses no opinion or other form of assurance in respect of the information.

# Update on receiver's activities

7. Since the Ninth Report, the Receiver has completed the sale of all of the Company's Alberta and Manitoba based construction equipment as previously described in the Ninth Report and has received all funds in connection therewith. The Receiver's Interim Statement of Receipts and Disbursements as of the date of this Tenth Report is attached hereto and marked as Appendix "A".
8. With all construction equipment assets liquidated, the only remaining property of the Company that remained unrealized was two antique steam locomotives located in Manitoba and accompanying parts stored in Manitoba and Saskatchewan (collectively the "**Locomotives**"). The Receiver commenced a sale process to dispose of the Locomotives on September 20, 2017, which closed on November 15, 2017. The Receiver's sale process is described in more detail later in this Tenth Report.
9. As of the date of this Tenth Report, the Receiver has filed the Company's monthly GST returns for all pre-bankruptcy periods up to May 17, 2016, and for the post-bankruptcy periods ending December 31, 2017. The Canada Revenue Agency ("**CRA**") completed an examination of the Company's GST filings in the pre-bankruptcy periods and assessed the Company as owing \$424,402.76. The Receiver is reviewing the CRA's examination to confirm if it agrees with the Company's records. Cumulatively, for the post-bankruptcy GST filing periods of May 18, 2016, to December 31, 2017, the CRA has assessed GST payable of \$157,842.96, offset by GST input tax credits of \$214,742.23, for net refunds totalling \$56,899.27, which the Receiver has not yet received. The Receiver will continue to file monthly GST returns until its discharge.
10. During the period of April 1, 2016, to December 31, 2016, the Company's Manitoba based construction equipment was rented out and the Receiver collected \$176,123.47 of Manitoba Retail Sales Tax from the rental revenue. The entire amount of \$176,123.47 has been remitted to Manitoba Finance.
11. The Receiver has filed pre-bankruptcy tax returns to May 16, 2016 and has received pre-bankruptcy federal and provincial income tax refunds totaling \$3,320,938.81. The Receiver will be filing the Company's post-bankruptcy income tax returns and no refunds are anticipated as all of the Company's prior years' income were used up by pre-bankruptcy loss carry backs.

# Overview of locomotives and sale process


12. The Locomotives were originally purchased by Graham Brothers for approximately \$1,500,000, which was inclusive of freight to move the locomotives from the United States to their current location in Winnipeg, Manitoba. One of the locomotives is an EX-CP 1286 steam locomotive with railcar built by Canadian Locomotive Company in 1948. The other locomotive is an EX-CP 1238 steam locomotive with railcar built by Montreal Locomotive Works in 1946.
13. The former principal of Graham Brothers, Mr. Bill Graham, is a steam locomotive enthusiast and is knowledgeable of the market for vintage steam locomotives. According to Mr. Graham, the demand for locomotives is primarily driven by collectors and not-for-profit historical societies focused on railroad history. Mr. Graham and a former employee initially assisted the Receiver with repatriating certain locomotive parts located in the United States, taking an inventory of the Locomotives and associated parts, as well as identifying potential purchasers for the Locomotives.
14. A list of potential purchasers of the Locomotives (the "**Buyer List**") initially provided to the Receiver by Mr. Graham was comprised of eleven potential purchasers, three of which were auctioneers.
15. Mr. Graham expressed interest in potentially purchasing the Locomotives. The Receiver therefore independently developed its sale process without further involvement from Mr. Graham. The Receiver completed its own internet research encompassing historical locomotive societies in Canada and the United States. This resulted in an increased number of potential purchasers on the Receiver's Buyer List to 28 parties.
16. A sales information package (the "**SIP**") containing information on the Locomotives and an invitation for offers was circulated to the 28 potential purchasers on September 21, 2017. The deadline to submit an offer was on October 31, 2017 (the "**Offer Deadline**"). A copy of the SIP is attached hereto and marked as Appendix "B"
17. Of the 28 potential purchasers contacted, three parties returned executed confidentiality agreements and were provided copies of the Receiver's form of asset purchase agreement. Only one of the parties viewed the Locomotives. The other parties had familiarity with the Locomotives and did not require viewings.
18. The Receiver received no offers on or before the Offer Deadline and one of the parties requested an extension to make an offer. As a result, the Receiver extended the Offer Deadline to November 15, 2017 (the "**Extended Offer Deadline**").
19. Two offers for the Locomotives were submitted to the Receiver under the Extended Offer Deadline. The terms of both offers were substantially the same aside from the offering price. As a result, the Receiver selected the higher offer from The Vintage Locomotive Society Inc. as the successful offer (the "**VLS Offer**"). The Vintage Locomotive Society Inc. is an unrelated party to the Company.
20. A summary of the sale process and the VLS Offer are attached hereto and marked as Appendices "C" and "D", respectively.

# Conclusion

21. The Receiver recognizes that the VLS Offer is significantly less than the original purchase price of \$1,500,000. However, it is the Receiver's opinion that the Locomotives are niche assets and are unlikely to generate significant cash-flow to the owner. In addition, the high cost related to the maintenance, certification, and transportation of the Locomotives are deterrents to potential purchasers.
22. The Receiver believes that it has canvassed the market thoroughly and now seeks an Order of this Honourable Court:
  - 22.1. approving the Receiver's Locomotive sale process;
  - 22.2. sealing Appendices "C" and "D" to this Tenth Report until such time as the sale of the Locomotives is concluded; and;
  - 22.3. approving and directing the Receiver to accept the VLS Offer and take necessary actions to finalize the transaction.
23. Once closing of the VLS Offer has occurred, all receivership estate funds will be held for the benefit of unsecured creditors. The Receiver will then apply to the Court to transfer the receivership estate funds to the bankruptcy estate and seek its discharge as Receiver. Deloitte, as Licensed Insolvency Trustee, will then carry on the tax filings and deal with the unsecured claims and subsequent distributions under the bankruptcy.

All of which is respectfully submitted this 5<sup>th</sup> day of February, 2018.

**DELOITTE RESTRUCTURING INC.,**  
In its capacity as Court-appointed Receiver of  
Graham Brothers Construction Group Ltd.  
and not in its personal capacity

  
Per: Darren Crocker, CPA, CGA, CIRP, LIT  
Senior Vice-President

# APPENDIX “A”

IN THE MATTER OF THE COURT-APPOINTED RECEIVERSHIP OF  
GRAHAM BROTHERS CONSTRUCTION GROUP LTD.

Interim Statement of Receipts and Disbursement  
as at February 5, 2018

**Receipts**

Machinery & Equipment	\$3,658,927.65
Pre Bankruptcy Income Tax Refund - Federal	2,025,552.57
Rental Income	1,777,952.28
Sale of Equipment	1,675,908.51
Pre Bankruptcy Income Tax Refund - Provincial	1,295,386.24
Accounts Receivable	604,561.32
Settlement	306,227.75
Cash on Hand	221,153.50
Automobile	211,135.45
Refunds - Misc	207,267.82
Insurance Refund	159,356.99
GST Collected	155,721.63
PST Collected	142,236.20
Recovery of Insurance Claim	33,269.00
Interest	4,868.29
Sale of Computers	2,785.00
Securities	1,000.00

**Total Receipts**

**\$12,483,310.20**

**Disbursements**

Payment to Secured Creditors	\$7,917,340.71
Receiver's Fees	364,192.79
Wages	343,226.00
Auctioneer Commission	231,825.63
PST Remitted	176,123.47
Transport	134,352.70
Legal Fees	105,087.79
Repairs and Maintenance	97,640.67
Out of pocket expenses	79,532.97
Occupation Rent	78,940.68
Utilities - Misc	41,740.34
GST Paid	25,642.73
Property Taxes	24,248.13
Equipment Leasing	21,802.50
GST on Receiver's Fees	18,209.64
Accounting Services	16,324.49
Insurance	14,350.10
Computer Services	13,081.85
Contract Services	8,562.00
Casual Labour	5,602.50
Auctioneer Expense	5,415.50
GST on Legal Fees	5,261.54
PST Paid	540.94
Other Misc Disbursement	279.98
Filing Fees paid to Official Receiver	70.00

**Total Disbursements**

**\$9,729,395.65**

**Estate Balance**

**\$2,753,914.55**



# APPENDIX “B”

**Sales and Information Package**  
Graham Brothers Construction Group Ltd.  
G5 Steam Engine Locomotives and Coal Cars

September 20, 2017

Deloitte Restructuring Inc.  
2000 Manulife Place  
10180 - 101 Street NW  
Edmonton, AB T5J 4E4

Tel: 780-401-3913  
Fax: 780-421-3782  
Email: [cknox@deloitte.ca](mailto:cknox@deloitte.ca)  
Attention: Chris Knox

**\*NOT FOR GENERAL CIRCULATION OR PUBLICATION\***

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The Terms and Conditions of Sale are detailed later in this SIP along with the following key dates for the process:

Event	Timing
Viewings	By appointment only.
Offer deadline	October 31, 2017
Closing date	November 21, 2017 (estimated)

The highest or any offer need not be accepted. Offers shall be subject to Court approval and the Terms and Conditions of Sale which shall be deemed to form part of the offer. **To obtain a confidentiality agreement and to make arrangements to view the Locomotives, please contact Chris Knox at 780-401-3913 or cknox@deloitte.ca**

## Terms and Conditions of Sale

1. The Vendor is Deloitte Restructuring Inc. in its capacity as Court Appointed Receiver of Graham Brothers Construction Group Ltd. not in its personal capacity (the "**Vendor**").
2. The Vendor is inviting offers for the purchase of the G5 Steam Engine Locomotives and Coal Cars (the "**Locomotives**") pursuant to these Terms and Conditions of Sale. The Locomotives are more particularly described in Appendix 1 of the Sales and Information Package.
3. Proposals from auctioneers to auction the Locomotives on behalf of the Vendor containing a guaranteed minimum net return to the Vendor will be considered.
4. Viewing of the Locomotives will be by appointment only after the Vendor is in receipt of a duly executed confidentiality agreement.
5. **Sealed offers marked "OFFER – Graham Brothers Construction Group Ltd." shall be delivered or mailed, postage prepaid, to Deloitte Restructuring Inc. attention: Chris Knox at 2000 Manulife Place, 10180 – 101 Street NW. Edmonton, AB, T5J 4E4, on or before by 5:00 pm MST on October 31, 2017. The Vendor reserves the right to conclude sale arrangements on the Locomotives prior to that date.**
6. Every offer submitted shall be in writing in a form and content substantially similar to the asset purchase agreement ("**APA**") that will be available for this process. Each offer shall be signed by the duly authorized officer(s) of the entity making the offer, shall contain the name and address of the offeror and shall be accompanied by a black-line showing all changes made to the form of APA provided.
7. **Each offeror shall, with its offer, deliver to the Vendor a certified cheque, bank draft or money order drawn on a chartered bank of Canada, credit union or a trust company payable to Deloitte Restructuring Inc. ITF Graham Brothers Construction Group Ltd. in the amount of \$50,000.** If an offer is accepted and approved, said cheque, bank draft or money order shall constitute a cash deposit and the successful offeror shall supply the remainder of the purchase price ("**Purchase Price**") together with monies referred to in clause 14 by certified cheque, bank draft or electronic wire transfer drawn on a Chartered Bank of Canada, credit union or trust company prior to closing.

8. By submitting an offer, the offeror acknowledges that it has inspected the Locomotives, that it is purchasing the Vendor's interest in the Locomotives on an "as is, where is" basis on the closing date (the "**Closing Date**") and that no representation, warranty or condition is expressed or implied as to title, description, fitness for purpose, existence, merchantability, conditions or quality thereof or in respect of any other matter or thing whatsoever. The offeror acknowledges and agrees that neither the Vendor nor Deloitte is required to inspect the Locomotives or any part hereof and each offeror shall be deemed, at its own expense, to have relied entirely on its own inspection and investigation.
9. Notwithstanding the "as is, where is" and other qualifications in Clause 8, the Locomotives were last operated in November 1993 and October 1997 respectively. Given that over fifteen (15) years have passed therefrom, from a regulatory perspective both Locomotives are now being "brought out of retirement". To become certified for operation, they must now comply with the comprehensive 1,472 day rule inspection requirement as mandated by the Railway Association of Canada's 2001 Circular No. M-3 "Steam Locomotive Inspection, Maintenance and Operating Standards" Section 17, or the U.S. Federal Railroad Administration 1999 manual "Inspection and Maintenance for Steam Locomotives" Code 49 Parts 209 and 230. As such, in the imperative of public safety, the Vendor recommends that prospective offerors unfamiliar with high pressure boilers or fired pressure vessels retain qualified personnel to assess the Locomotives' requisite 1,472 day rule inspection requirements.
10. The offeror acknowledges that the Locomotives are offered as they exist on the Closing Date with no representations, warranty or condition as to any matter and with no adjustment to be allowed to either the Vendor or the offeror for any changes in the condition of the Locomotives from the date thereof until the Closing Date or for any other reason whatsoever. Furthermore, the offeror agrees to accept the Vendor's right, title and interest in the Locomotives, and acknowledges that, it shall be the offeror's own and sole responsibility to obtain and pay the cost of any consents, permits, licenses assignments, registration fees, storage fees, transport fees, attorney and agent fees, filing fees, issue fees or other authorizations and assignments necessary or desirable for the transfer of such right, title and interest, to the offeror or for the operation or use of the Locomotives.
11. The highest or any offer will not necessarily be accepted.
12. The Vendor has no obligation to conclude a sale arising out of this process and it reserves the right and unfettered discretion to reject any offer.
13. If any offer is accepted by the Vendor, then such acceptance shall be communicated to the Purchaser by notice in writing sent by the Vendor to the Purchaser at the address set forth in its offer, such notice to be given by email, facsimile, prepaid registered mail, or personal delivery, and to be deemed effectively given and received when sent by email or facsimile or when deposited in the post office or when personally delivered, as the case may be. Personal delivery is meant to include delivery by commercial courier.
14. In the event of a sale, to the extent permitted by law, all of the rights, title and interests of the Vendor in and to the Locomotives to be acquired will be sold free and clear of all pledges, liens, security interests, encumbrances, claims, charges, options and interests thereon and there against, such claims and interests to attach to the net proceeds of the sale of the Locomotives (without prejudice to any claims or causes of action regarding the priority, validity or enforceability thereof), pursuant to an approval and vesting order made by the Court, upon the application of the Vendor, except to the extent otherwise set forth in the relevant APA with an offeror.
15. Acceptance by the Vendor of an offer is subject to Court approval and the Vendor shall seek Court approval within 15 days after the offer due date of October 31, 2017. The Closing Date shall occur after Court approval of the selected offer, subject to applicable appeal times, and payment of the Purchase Price is due on the Closing Date.

## Sales and Information Package

16. The Purchaser shall pay at Closing Date, in addition to the Purchase Price, all applicable federal and provincial taxes unless the Purchaser produces an exemption certificate.
17. The Vendor will deliver to the Purchaser such bills of sale, assignments and other conveyancing documents that the Vendor, acting reasonably, considers necessary to convey to the Purchaser the Vendor's right, title and interest, to the purchased Locomotives, without representations or warranties of any kind.
18. The Vendor's right, title and interest in the Locomotives shall not pass to the Purchaser until the Closing Date.
19. The Locomotives shall be in the possession, and remain at the risk of the Vendor until the Closing Date. From and after the time of closing, the Locomotives shall be at the risk of the Purchaser.
20. Insurance will remain the responsibility of the Vendor up to and including the Closing Date.
21. The acceptance of any offer shall not be assigned by the Purchaser to any third party without the written consent of the Vendor and such consent shall not be unreasonably withheld.
22. The APA shall enure to the benefit of and be binding upon the parties hereto, and their respective authorized heirs, executors, administrators, successors or assigns as the case may be.
23. If the Purchaser fails to comply with any provision of the provisions contained herein, the deposits and all other payments made in connection with the Purchase Price shall be forfeited as liquidated damages.
24. Payments accompanying an offer that is not accepted by the Vendor shall be returned to the offeror by prepaid registered letter or by commercial courier addressed to the offeror at the address given in its offer. No interest shall be payable by the Vendor to such offeror.
25. No offeror shall be at the liberty to withdraw or countermand an offer once made and, if the offer is withdrawn by the offeror before it is accepted by the Vendor, then the deposit accompanying the offer will be forfeited to the Vendor as liquidated damages.
26. The Vendor shall not be required to produce any abstract of title, title deeds or documents or copies thereof or any evidence as to title, other than those in its possession.
27. Asset listings, information packages, and other material concerning the Locomotives or the sale thereof provided by or on behalf of the Vendor have been prepared solely for the convenience of the offerors and are not warranted or represented to be complete or accurate and are not part of the Terms and Conditions of Sale. The descriptions of the Locomotives are for purposes of identification only and no condition, warranty, or representation has been or will be given by the Vendor concerning the accuracy, completeness or any other matter concerning those descriptions.
28. Any term or condition herein or in the advertisement, if any, may, in the Vendor's sole discretion, be waived by it, in whole or in part.
29. All stipulations as to time are strictly of the essence.
30. Any tender of documents or money hereunder may be made upon the Vendor or the Purchaser, or their respective solicitors. Money may be tendered by bank draft certified cheque or electronic wire transfer drawn on a chartered bank or Canada, credit union or a trust company.
31. The Vendor shall have no personal or corporate liability under the APA, or the advertisement, if any, of these Terms and Conditions of Sale.

**Sales and Information Package**

32. The Vendor shall not be required to pay any finder's fee, commission, expense or other compensation to any agents, consultants, advisors or other intermediaries of any prospective Purchaser under any circumstance unless agreed to separately and in writing.
33. At any time during this process, the Vendor may apply to the Court for advice and directions with respect to the discharge of its powers and duties hereunder.
34. The laws of the Province of Alberta shall govern these Terms and Conditions of Sale. The Vendor and any offeror agree that the Court shall have the exclusive jurisdiction to determine any and all disputes under these Terms and Conditions of Sale and the Vendor and any offeror hereby attorn to the exclusive jurisdiction of the Court.

Dated at Edmonton, Alberta this 20<sup>th</sup> day of September, 2017.

Deloitte Restructuring Inc.  
2000 Manulife Place  
10180 - 101 Street NW  
Edmonton, AB T5J 4E4  
Tel: 780-401-3913  
Fax: 780-421-3782

# Appendix 1

## **G5 Steam Engine Locomotives and Coal Cars (the "Locomotives") Offered for Sale**

Excellent opportunity to acquire two rare G5 Steam Engine Locomotives with Coal Cars. These are some of the last steam engine locomotives produced in Canada. A great opportunity for a collector or heritage society to display or operate these unique pieces of Canadian history. The Locomotives are located at The Vintage Locomotive Society at Inkster Junction Rail Yard in northwest Winnipeg, MB. The removed accessories are securely stored in Regina, SK.

### **Locomotive 1:**

Ex - CP 1286 was built by Canadian Locomotive Company in 1948. It has serial number CLC 2443.

When shipped a number of parts were removed from this locomotive because of risk of theft during transit. These parts were shipped separately and stored separately in Regina, SK.

List of parts stored separately:

1. Locomotive Headlight
2. Locomotive front number board.
3. Locomotive builder's plates with serial numbers.
4. Locomotive whistle.
5. Locomotive bell.
6. Locomotive steam gauge.
7. Locomotive main rods.
8. Locomotive eccentric rods.
9. Tender builder's plates with serial number.

### **Locomotive 2:**

Ex - CP 1238 was built by Montreal Locomotive Works in 1946. It has serial number MLW 74898.

When shipped a number of parts were removed from this locomotive because of risk of theft during transit. These parts were shipped separately and stored separately in Regina, SK.

List of parts stored separately:

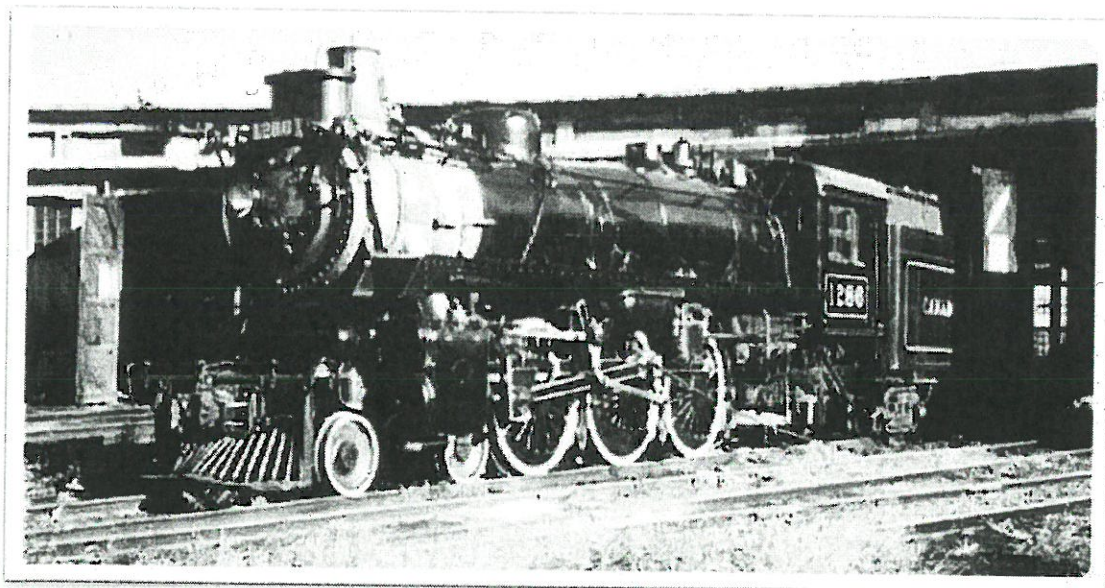
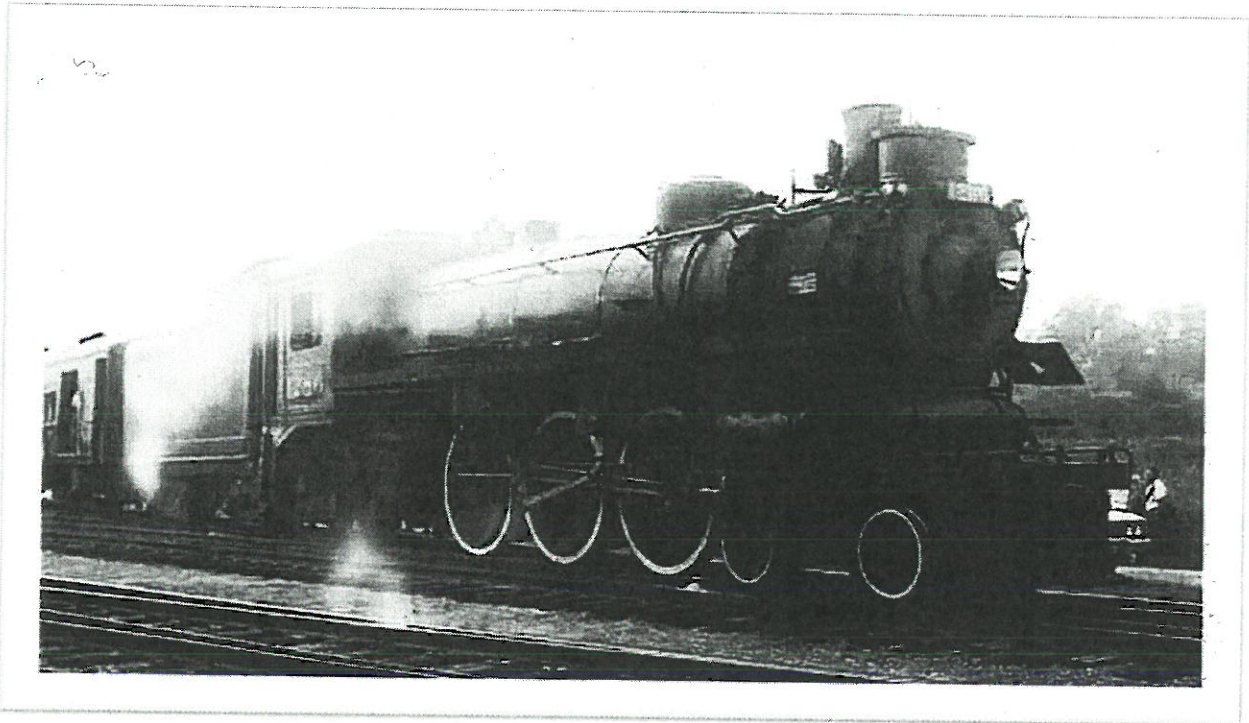
1. Locomotive Headlight
2. Locomotive front number board.
3. Locomotive builder's plates with serial numbers.
4. Locomotive whistle.
5. Locomotive bell.
6. Locomotive steam gauge.
7. Locomotive main rods.
8. Locomotive eccentric rods.
9. Tender builder's plates with serial number.

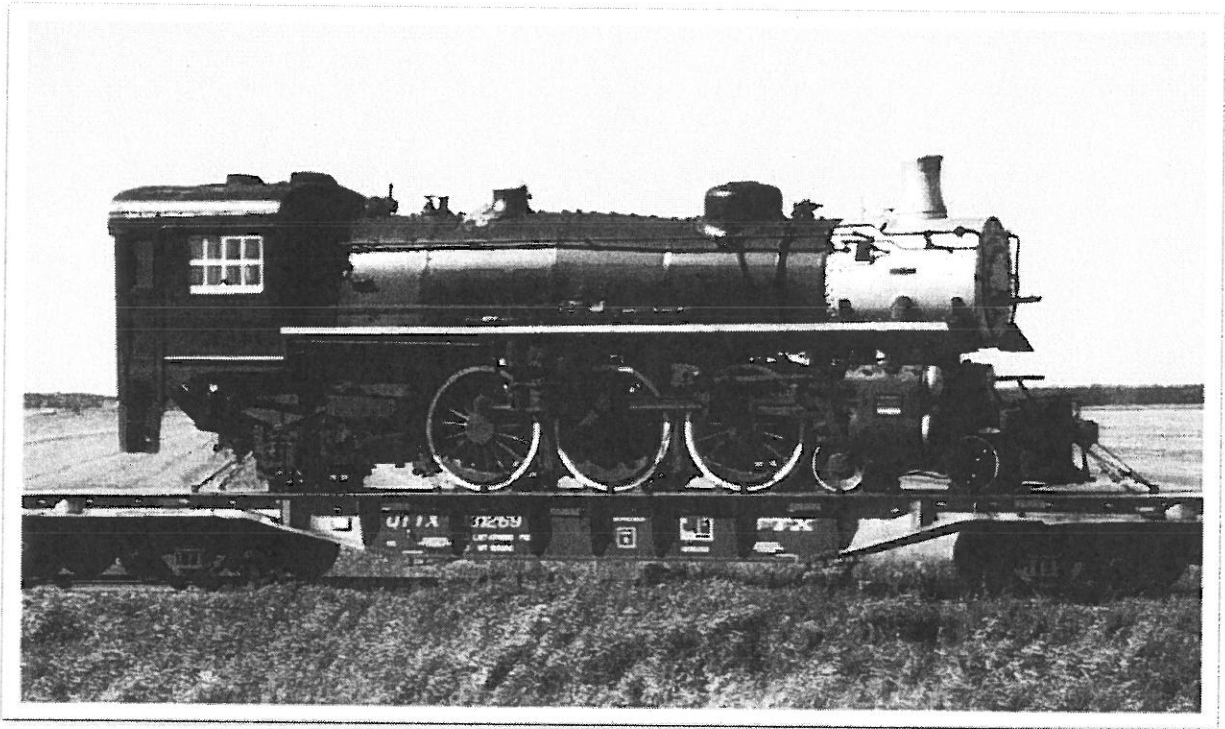
Note: Additional reference material on Locomotives is attached in two separate documents as appendix "A" and "B" respectively.

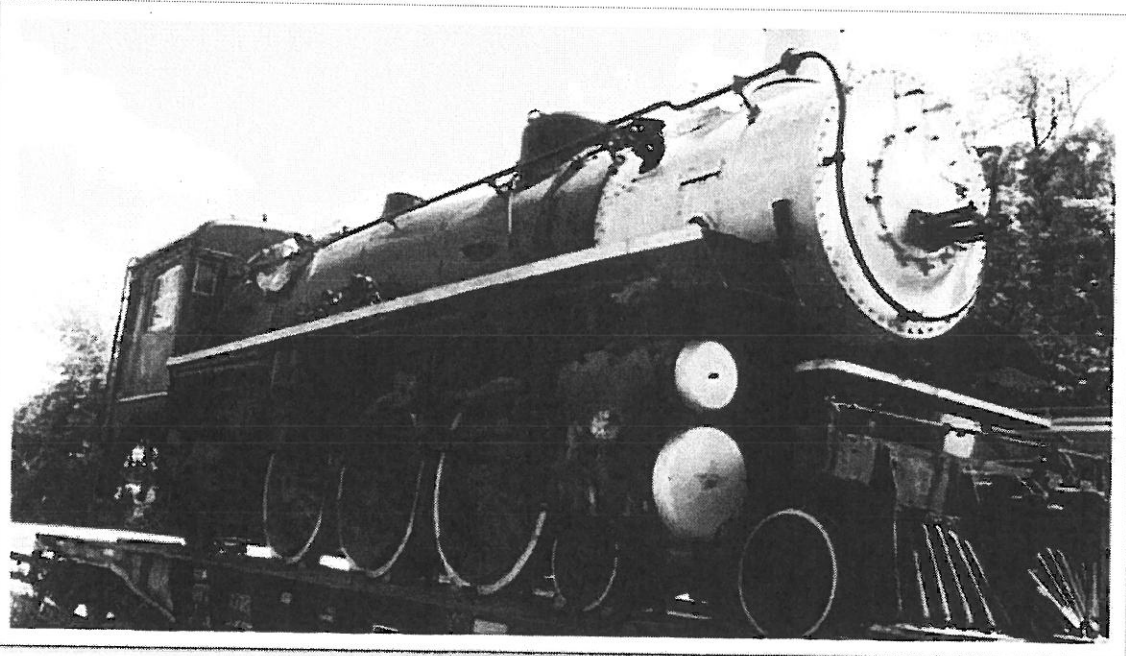
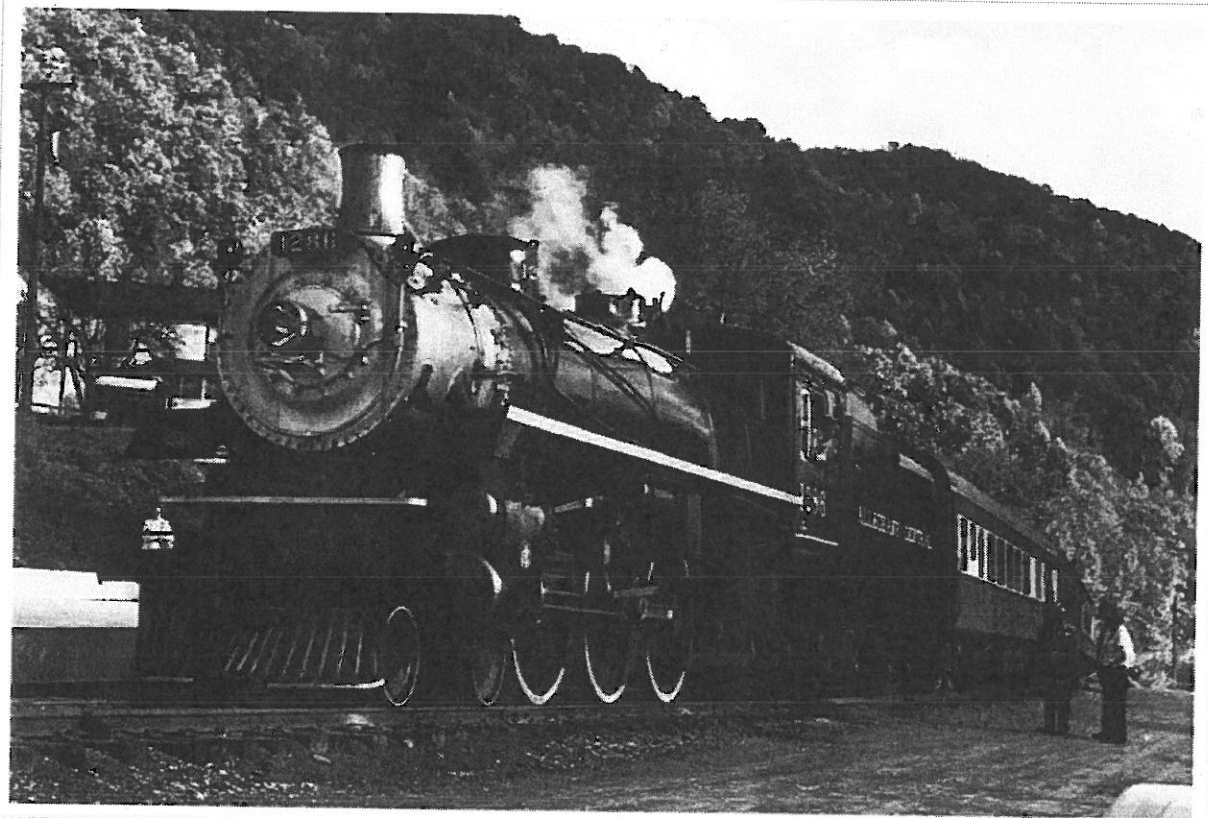


Ex-CP 1286 Steam Locomotive with Railcar

CP-1286 was built by Canadian Locomotive Company in May 1948. It has CLC serial number CLC 2443





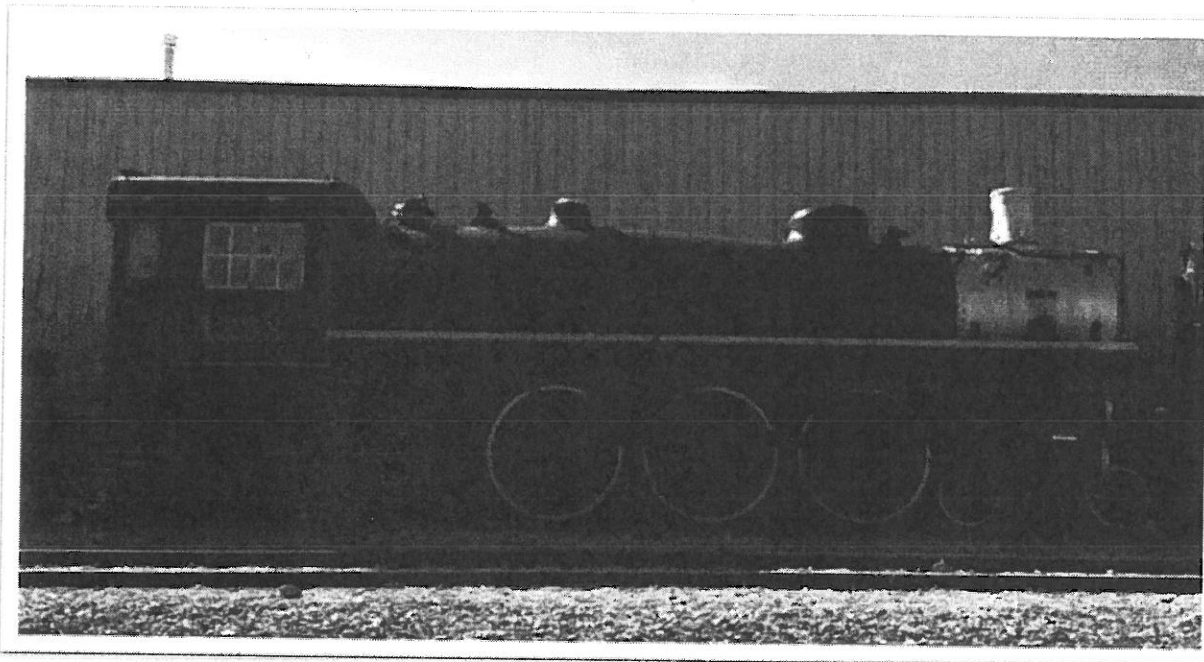


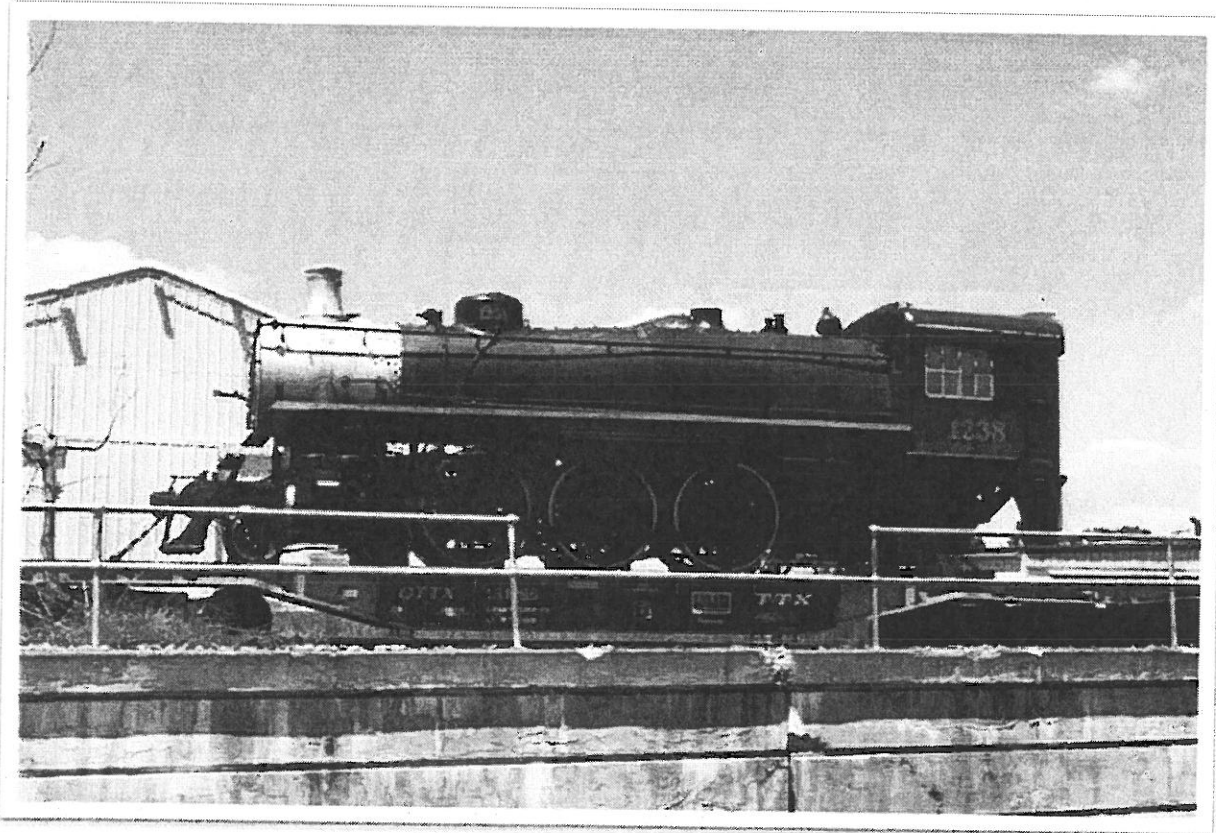
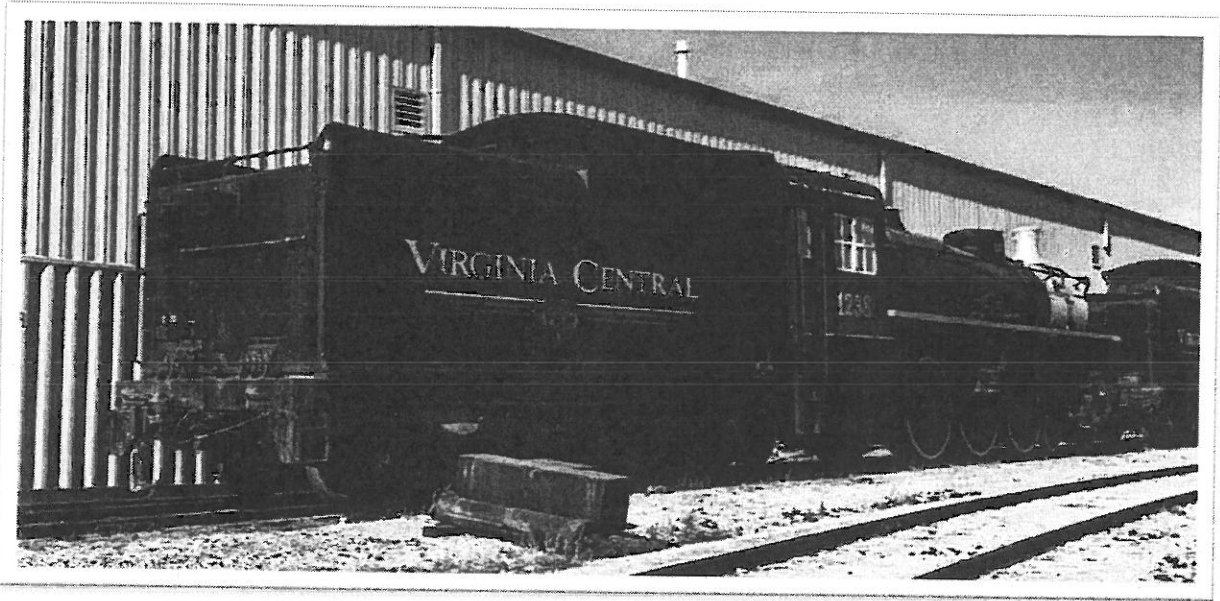
Specifications by Steve Uanso of Sweat House Media

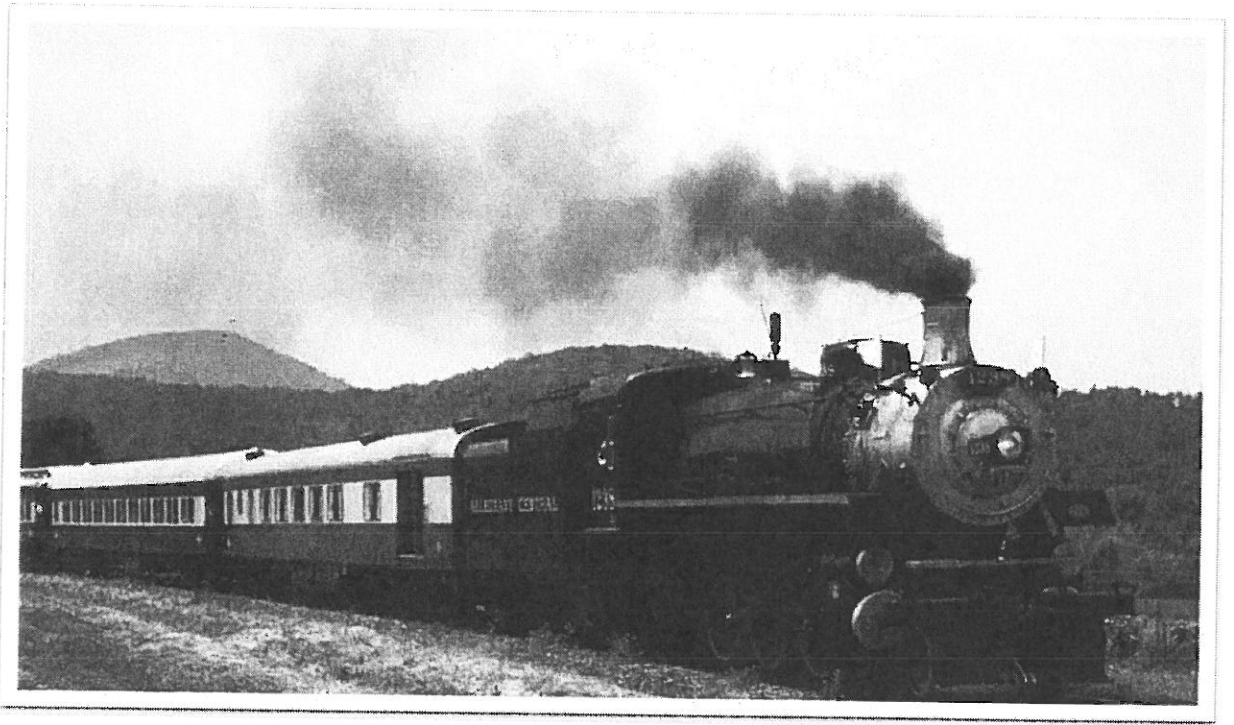
Class	G5
Locobase ID	135
Railroad	Canadian Pacific (CPR)
Country	Canada
Whyte	04/06/2002
Number in Class	102
Road Numbers	1200-1301
Gauge	Std
Number Built	102
Builder	Several
Year	1944
Valve Gear	Walschaert
<b>Locomotive Length and Weight</b>	
Driver Wheelbase	13'
Engine Wheelbase	33.71'
Ratio of driving wheelbase to overall engine wheelbase	0.39
Overall Wheelbase (engine & tender)	
Axle Loading (Maximum Weight per Axle)	
Weight on Drivers	151000 lbs
Engine Weight	229500 lbs
Tender Light Weight	191000 lbs
Total Engine and Tender Weight	420500 lbs
Tender Water Capacity	9600 gals
Tender Fuel Capacity (oil/coal)	14 tons
Minimum weight of rail (calculated)	84 lb/yard
<b>Geometry Relating to Tractive Effort</b>	
Driver Diameter	70"
Boiler Pressure	250 psi
Cylinders (dia x stroke)	20" x 28"
Tractive Effort	34000 lbs
Factor of Adhesion (Weight on Drivers/Tractive Effort)	4.44
Firebox Area	199 sq. ft
Grate Area	45.60 sq. ft
Evaporative Heating Surface	2576 sq. ft
Superheating Surface	744 sq. ft
Combined Heating Surface	3320 sq. ft
Evaporative Heating Surface/Cylinder Volume	253.02
<b>Computations Relating to Power Output (More information)</b>	
Robert LeMassena's Power Computation	11400
Same as above plus superheater percentage	13908
Same as above but substitute firebox area for grate area	60695
Power L1	29413
Power MT	1288.3

Ex-CP 1238 Steam Locomotive with Railcar

CP-1238 was built by Montreal Locomotive Works in June 1946. It has MLW serial number MLW 74898.







Specifications by Steve Llanso of Sweat House Media

Class	G5
Locobase ID	135
Railroad	Canadian Pacific (CPR)
Country	Canada
Whyte	04/06/2002
Number in Class	102
Road Numbers	1200-1301
Gauge	Std
Number Built	102
Builder	Several
Year	1944
Valve Gear	Walschaert
<b>Locomotive Length and Weight</b>	
Driver Wheelbase	13'
Engine Wheelbase	33.71'
Ratio of driving wheelbase to overall engine wheelbase	0.39
Overall Wheelbase (engine & tender)	
Axle Loading (Maximum Weight per Axle)	
Weight on Drivers	151000 lbs
Engine Weight	229500 lbs
Tender Light Weight	191000 lbs
Total Engine and Tender Weight	420500 lbs
Tender Water Capacity	9600 gals
Tender Fuel Capacity (oil/coal)	14 tons
Minimum weight of rail (calculated)	84 lb/yard
<b>Geometry Relating to Tractive Effort</b>	
Driver Diameter	70"
Boiler Pressure	250 psi
Cylinders (dia x stroke)	20" x 28"
Tractive Effort	34000 lbs
Factor of Adhesion (Weight on Drivers/Tractive Effort)	4.44
Firebox Area	199 sq. ft
Grate Area	45.60 sq. ft
Evaporative Heating Surface	2576 sq. ft
Superheating Surface	744 sq. ft
Combined Heating Surface	3320 sq. ft
Evaporative Heating Surface/Cylinder Volume	253.02
<b>Computations Relating to Power Output (More Information)</b>	
Robert LeMassena's Power Computation	11400
Same as above plus superheater percentage	13908
Same as above but substitute firebox area for grate area	60695
Power L1	29413
Power MT	1288.3



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