

Railway Department

PROVINCE OF BRITISH COLUMBIA

ANNUAL REPORT

Year ended December 31st

1946



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Railway Department

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ANNUAL REPORT

for the year ended December 31,

1910



Printed and Published by the Government Printer, Victoria, B.C.

To His Honour CHARLES ARTHUR BANKS,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

I have the honour to present herewith the Annual Report of the operations and activities of the Railway Department for the year ended December 31st, 1946, with Appendices.

L. H. EYRES,
Minister of Railways.

Victoria, B.C., February 14th, 1947.

VICTORIA, B.C., December 31st, 1946.

*The Honourable L. H. Eyres,
Minister of Railways, Victoria, B.C.*

SIR,—I beg to submit herewith the Twenty-ninth Annual Report of the Railway Department, covering the year 1946, together with Appendices.

Your obedient servant,

J. M. STEWART,
Deputy Minister and Chief Engineer.

REPORT OF THE RAILWAY DEPARTMENT.

The Department has supervision of all railways subject to the Provincial Statutes. The staff of the Department as of December 31st, 1946, consisted of Deputy Minister and Chief Engineer, Chief Inspector, Inspecting Engineer, two Inspectors, and two stenographers.

The railways supervised by the Department include common carriers, industrial railways, and electric interurban and street railways.

The Railway Department has, during this past year, been more active both in the civil engineering branch and in the mechanical than it has been in the past twenty-five years. Efforts have been made to modernize and bring up to date the rules and regulations made pursuant to the "Railway Act" in order that all known suitable safety rules may be applied and the number of accidents minimized.

The civil engineering branch has had the supervision and carrying out of surveys looking toward the extension of the Pacific Great Eastern Railway north to the Peace River District.

In the industrial field, and particularly in logging, truck-roads are taking the place of railway spurs and in a few instances of main lines, but where the long haul prevails railways hold their own. Among the larger companies the tendency is towards the use of heavier power.

The new boiler code embraces the best boiler construction practices in Canada and the United States so that greater advantages can be derived from the modern engineering methods practised today by the larger and more progressive locomotive and boiler manufacturers. One section of the new boiler code deals with the latest methods of fusion welding and the inspection of all-welded boilers and pressure-vessels by the X-ray process, while another section deals exclusively with the design of railway locomotive boilers and permits the manufacture of all-welded locomotive boilers under the control of strict Government inspection.

The Boiler Code Committee included the Chief Inspector and Inspectors of this Department together with Inspectors appointed under the "Boiler Inspection Act," including the Chief Inspector.

In preparing the new boiler code the committee endeavoured to establish a uniformity of rules and regulations between the various Provincial Departments concerned. While advantage may be taken of the most up-to-date construction under this code, at the same time the rules have been made sufficiently flexible to make due allowances for boilers constructed under previous or other rulings in order that existing equipment will not be unduly penalized and at the same time be safe for operation.

New regulations were prepared covering locomotive cranes and the regulations for locomotives were revised during the year.

COMMON CARRIERS.

THE PACIFIC GREAT EASTERN RAILWAY.

Proposed Northern Extension.

Surveys for the proposed northern extension of the Pacific Great Eastern Railway were carried out under the supervision of the Department. Four survey parties were placed in the field between Prince George, Hudson Hope, and Dawson Creek in June and were withdrawn December 15th, having completed the main part of the survey with the exception of a small gap between East Pine and Dawson Creek.

Difficulties of obtaining trained personnel, supplies, and equipment slowed up the progress of the survey but valuable information was obtained.

Operation—General Manager's Report.

The following remarks by the General Manager are incorporated in this report:—

"Maintenance of Way.—No serious delays or obstructions were encountered during 1946. Traffic moved without serious interruption throughout the year. Owing to the serious and continued labour shortage, it has not as yet been possible to undertake any part of the increasing deferred maintenance programme. It was feasible only to undertake those items and duties having a direct bearing on the maintenance of the track structures in a safe operating condition to permit the movement of freight and passenger traffic over the railway. The repairs to buildings, bridges, and other structures come under this same category.

"Maintenance of Equipment.—The mechanical department, under whose jurisdiction repairs to all locomotives, freight and passenger cars are performed, has been greatly overtaxed in its constant and consistent endeavours to maintain the equipment in condition to give service to the continually increasing traffic. The urgency of securing additional new equipment is becoming more vital to the economy of operation and transportation, and also to replace worn-out and obsolete equipment. Real economies in this Department cannot be sustained under present conditions.

"Operation.—The lack of sufficient and suitable locomotives and cars puts a great burden on this department in both labour and equipment, and places the transportation of both freight and passengers offered to the railway in a not too satisfactory situation. The increase in all branches of traffic has been very material and has exceeded expectations. Its nature has all the earmarks of permanency. The tourists who travelled over the railway during the holiday season of 1946 were consistently very enthusiastic in their comments. Expressed satisfaction of this nature is known to be the most effective type of advertising. Forest products continue to hold first place in volume of freight traffic. Especially encouraging is the movement of pulp-wood, cedar poles, cottonwood and fir logs for plywood manufacture for the local markets. The export lumber, ties, and pit-props may be expected to decrease gradually as the European countries restore their industries to a pre-war status. Agriculture in the Lillooet and Pemberton districts should expand to offset the possible traffic losses in export. A forecast into the immediate future appears to warrant continued optimism for the railway.

“W. H. TOBEY,
General Manager.”

Inspecting Engineer's Report.

“I have to report that the properties of the Pacific Great Eastern Railway Company coming under my jurisdiction have been inspected. Such inspection included an examination of all the items enumerated in subsection (2) of section 177 of the ‘Railway Act,’ excepting power (locomotives) rolling-stock and the electric power, light, and water services at Squamish, Lillooet, and Williams Lake, and I beg to report as follows:—

“All the properties and plants of this railway, including buildings, track, track structures, drainage, road-bed, fences and right-of-way, are, taking into consideration the speed of trains and the increase in traffic, in a fair condition and fulfil the requirements necessary for the safe operation of traffic.

“The volume of traffic has continued to materially increase during the year, and the track and bridges and buildings still remain far below those required to maintain the railway's facilities at the proper standard set in the pre-war regime.

“However, the vitally urgent and necessary repairs to structures have been made to fulfill the requirements of safety to train operation.

"Constant and consistent attention has been exercised in the maintenance of all items pertaining to the safety of the track and structures.

"D. O. LEWIS,
Inspecting Engineer."

INDUSTRIAL RAILWAYS.

Industrial railways continue to operate at full capacity. Many of the companies operating railways have changed hands or have been merged under the management of other companies.

During the war years companies were handicapped by a shortage of materials and competent mechanics as well as an extra pressure of work. Due to these conditions much of the motive equipment required heavy repairs during 1946 in order to keep it in a condition safe to operate. Most of this work was done at the companies' shops, which necessitated extra travelling for the Inspectors in order that they could supervise the work.

LOCOMOTIVE CRANES.

Inspections of boilers and safety appliances in shipyards and other industrial plants are continued where cranes and other mobile plants operate on track.

STREET-RAILWAYS.

BRITISH COLUMBIA ELECTRIC RAILWAY.

The passenger traffic of the railway has continued to increase in volume even over last year which was the heaviest on record. This has placed excessive strain on the equipment.

The Department acknowledges the co-operation of the railway company in safety measures. The rules and regulations governing city street-car equipment and operation were revised and reprinted.

FOREST FIRE PROTECTION.

Inspections of fire-prevention equipment were made on locomotives of all railways, including those subject to the jurisdiction of the Board of Transport Commissioners for Canada, this being a requirement of the Forest Service of the Department of Lands and Forests.

Tests of coal continued and a certain amount of technical research was made regarding the elimination of spark emission on coal-burning locomotives operating in the East Kootenay District. New designs of front-end and ash-pan arrangements as well as centrifugal spark-arresters were tested under operating conditions by an Inspector from this Department. These tests were carried out in collaboration with Inspectors from the Board of Transport Commissioners at Ottawa and it is felt the results of these tests will lead to a better control of spark elimination on coal-burning locomotives with a consequent reduction of forest fires along the right-of-way.

ACTIVITIES OF INSPECTORS.

1. Inspection of locomotives on industrial railways, including testing of boilers, brakes, etc., and checking all plans and specifications in connection with same.
2. Inspection of all rolling-stock and equipment on all Provincial railways.
3. Inspection of all locomotive cranes and equipment where operated on track.
4. Inspection of locomotives and equipment of the Pacific Great Eastern Railway Company.
5. Investigation of accidents.

6. Supervision of reconstruction of locomotives.
7. Inspection of all locomotives (including C.P.R., E. & N., C.N.R., G.N.R.) in the Province in regard to forest-protection.
8. Conducting examinations for locomotive engineers, conductors, and power-car operators.
9. Inspection of cars and equipment of the British Columbia Electric Railway Company and the Nelson street-railway and administering the regulations made pursuant to the "Railway Act" in regard to operation. Checking schedules and over-crowding of cars.
10. Inspection of tracks and structures on all Provincial railways.

EQUIPMENT INSPECTION BRANCH.

CHIEF INSPECTOR'S REPORT.

"The work of this branch has continued to increase during the past year and the Inspectors have been fully occupied.

"Six second-hand locomotives and two steam locomotive cranes were imported from the United States during the year. These required rebuilding and reconditioning, which work was also supervised by the Inspectors.

"A new Diesel electric locomotive was imported by the Morrissey, Fernie & Michel Railway. This was inspected and tested and a set of regulations drafted covering the operation and certification of internal-combustion locomotives and their engineers.

"A system of annually certifying power rail-cars and small gas locomotives was instituted. This required the inspection of all the equipment involved in order that certificates could be issued. Operators for this type of equipment were scarce, and while many men were examined others required instruction so that they could operate under supervision until they were eligible to be examined. Considerable time was spent on the supervision of the building of power rail-cars so that they would be in accordance with the regulations. One car with a capacity of eighty passengers was constructed under departmental supervision.

"Rolling-stock inspection report forms were drafted and printed to be filled out by the Inspectors on inspecting street-cars and all types of rolling-stock, a copy of the report of defective equipment being forwarded to the chief officer of the company concerned.

"During the year all railways, bridges, equipment, and operations were inspected, attention being paid to the improvement of the dispatch systems now in operation. A special inspection was made of all logging-railways in collaboration with the Workmen's Compensation Board during the latter part of the year, and also a special inspection was made of the Pacific Great Eastern Railway Company's equipment at Squamish.

"Booklets were prepared and printed to prepare locomotive engineers, locomotive crane engineers, conductors, and power-car operators for examination, and a greater number of applicants have taken the examination, which is now both oral and written. A new examination and certificate was brought out covering steam locomotive crane engineers. Six men passed the examination and certificates were issued to them.

"The operation of the British Columbia Electric Railway required attention during the year as to the application of the new regulations and the investigation of accidents.

"Following is a report of the inspection-work performed during the year 1946:—

Hydrostatic tests applied to boilers	166
Internal and external inspections of boilers	30
Internal-combustion locomotives inspected	10
Internal-combustion locomotive certificates issued	4
Railway power-cars inspected	65

Railway power-car certificates issued	22
Locomotive engineers examined	8
Certificates issued to locomotive engineers	7
Conductors examined	6
Certificates issued to conductors	6
Power-car operators examined	11
Permits issued to power-car operators	10
Locomotive crane engineers examined	6
Certificates issued to locomotive crane engineers	6
Number of cars inspected on industrial railways	1,220
Number of locomotives inspected other than hydrostatic tests	115
Number of street and interurban cars inspected	185
Accidents investigated on industrial railways	5
Fatal accidents on industrial railways	2
Accidents investigated on common carrier railways	2
Fatal accidents on common carrier railways	2
Accidents investigated on B.C. Electric Railway	20
Fatal accidents on B.C. Electric Railway	13
Boiler designs approved by the Department	9
Air reservoir designs approved by the Department	3
Retainer valve design approved by the Department	1
Inspections made of locomotive fire-protective appliances on industrial railways	24
Inspections made of fire-protective appliances on locomotives of C.P.R., C.N.R., G.N.R., E. & N. Railway, and National Harbours Board for Board of Transport Commissioners	546

" R. E. SWANSON,
Chief Inspector."

LIST OF APPENDICES.

A list of Executive Council certificates issued is given in Appendix A.

Accidents on railways under Provincial jurisdiction are shown in Appendix B.

Industrial railways operating during the year are shown in Appendix C.

A list of locomotive cranes in industrial plants inspected by the Department is shown in Appendix D.

A summary of the mileage of all railways operating in the Province is shown in Appendix E.

APPENDICES.

APPENDIX A.

CERTIFICATES ISSUED UNDER THE PROVISIONS OF THE "RAILWAY ACT."

	Certificate No.
Appointing R. E. Swanson and J. H. Carmichael pursuant to section 210 of the "Railway Act" to investigate the circumstances connected with any accident or casualty to life.....	713
Amending the rules and regulations, Part 3, made pursuant to the "Railway Act"	714
Granting the B.C. Electric Railway Company, Limited, leave to construct a spur track in the Municipality of Burnaby.....	715
Approving rules and regulations governing the operation of tramways, interurban and street railways.....	716
Declaring that the provisions of section 4 of the "Railway Act" shall apply to certain companies named in regard to their locomotive cranes	717
Approving the form and contents of the bill of lading to be used by the Pacific Great Eastern Railway Company for goods.....	718
Approving general location of logging-railway of the Hemmingsen-Cameron Company, Limited.....	719
Approving the form and contents of express bill of lading to be used by the Pacific Great Eastern Railway Company for goods.....	720
Approving the amendment to rules and regulations, Part 6, pursuant to section 287 of the "Railway Act".....	721
Granting leave to the Municipal Council of the Corporation of the District of Matsqui to construct a grade highway crossing over the track of the Vancouver Power Company, Limited.....	722
Granting the B.C. Electric Railway Company, Limited, leave to construct a spur track in the Municipality of Burnaby.....	723
Granting the B.C. Electric Railway Company, Limited, leave to construct a spur track in the Municipality of Burnaby.....	724
Approving Pacific Great Eastern Railway Company's freight tariff on automobiles, etc., between Lillooet and Shalalth.....	725

APPENDIX B.

ACCIDENT REPORT.

	Injured.	Killed.
British Columbia Electric Railway Company, Ltd.—		
Passengers	163	2
Employees	—	1
Other persons	31	13
Pacific Great Eastern Railway Company—		
Passengers	—	—
Employees	43	1
Other persons	—	1
Industrial railways—		
Employees	6	1
Other persons	1	1
Locomotive cranes—		
Employees	—	—
Totals	244	20

APPENDIX B.

ACCIDENT REPORT, 1946.

Persons injured.	Result.	Cause.
<i>B.C. Electric Railway Co.</i>		
1 car-passenger.....	Injury to lower back, hip, and coccyx	Street-car struck auto.
1 passenger.....	Bruised back.....	Fell alighting.
1 passenger.....	Injury to knee and ankle.....	Struck by door of street-car.
1 passenger.....	Injury to lumbar region.....	Fell in street-car.
1 passenger.....	Sprained ankle.....	Fell boarding.
1 passenger.....	Injury to head and eye.....	Fell alighting.
1 passenger.....	Severe cuts on face.....	Fell in street-car.
1 passenger.....	Lower back strained.....	Fell in street-car.
1 passenger.....	Badly bruised.....	Fell alighting.
1 passenger.....	Cracked vertebræ.....	Fell alighting.
1 passenger.....	Two fractured ribs, injured forearm..	Fell in street-car.
1 pedestrian.....	Injury to back, hip, and hand.....	Struck by street-car.
1 passenger.....	Injury to left shoulder.....	Street-car collision.
1 passenger.....	Fatal.....	Struck alighting.
1 passenger.....	Injury to lumbar vertebræ.....	Fell in rear vestibule.
1 passenger.....	Injury to back.....	Street-car collision.
1 passenger.....	Injury to right shoulder.....	Fell in street-car.
1 passenger.....	Injury to lower leg and thigh.....	Fell alighting.
1 passenger.....	Injury to left shoulder and back.....	Fell in street-car.
1 car-driver.....	Minor injuries.....	Truck struck by train.
1 passenger.....	Tibia wound and bruises.....	Fell alighting.
1 pedestrian.....	Bruised, shock.....	Struck by street-car.
1 passenger.....	Broken vertebræ.....	Fell in street-car.
1 passenger.....	Injury to knee and back.....	Fell in street-car.
1 passenger.....	Fractured foot.....	Knocked down by motorman.
1 passenger.....	Injury to head.....	Fell boarding.
1 passenger.....	Injury to foot and ankle.....	Fell in street-car.
1 passenger.....	Injury to chest and knee.....	Street-car started while alighting.
1 passenger.....	Bruised shoulder and back.....	Fell in street-car.
1 passenger.....	Injury to forearm, elbow, and shin....	Street-car and pole-truck collided.
1 car-driver.....	Fractured ribs.....	Auto and tram collided.
1 car-passenger.....	Pelvic break, shock.....	Auto and tram collided.
1 passenger.....	Injury to back.....	Street-car started while alighting.
1 passenger.....	Severe headaches, back injuries.....	Street-car collision.
1 passenger.....	Fractured rib.....	Street-car collision.
1 passenger.....	Injured nerves, lumbar region.....	Street-car collision.
1 passenger.....	Injury to back and arm.....	Street-car collision.
1 passenger.....	General bruises and shock.....	Fell alighting.
1 cyclist.....	Fractured skull.....	Struck by street-car.
1 passenger.....	Generally bruised.....	Derailment.
1 passenger.....	Head concussion.....	Derailment.
1 passenger.....	Injury to eye, cuts to head.....	Derailment.
1 passenger.....	Injury to back and head.....	Auto and train collided.
1 passenger.....	Injury to neck, back, and head.....	Street-car collision.
1 passenger.....	Three broken ribs.....	Street-car collision.
1 passenger.....	Strained muscles.....	Street-car collision.
1 passenger.....	Injury to lower dorsal region.....	Street-car collision.
1 passenger.....	Fractured skull and punctured ear drum.....	Street-car collision.
1 passenger.....	Injury to spine and neck.....	Street-car collision.
1 passenger.....	Injury to elbow and shoulder.....	Street-car collision.
1 passenger.....	Injury to shoulder.....	Street-car collision.
1 pedestrian.....	Fractured vertebræ.....	Struck by street-car.
1 passenger.....	Injury to lumbo-sacral region.....	Fell in street-car.
1 passenger.....	Injury to back.....	Fell alighting.
1 passenger.....	Injury to right shoulder.....	Fell alighting.
1 passenger.....	Injury to right knee joint.....	Fell in street-car.
1 passenger.....	Injury to neck.....	Street-car collision.
1 passenger.....	Injury to knee and head.....	Street-car collision.
1 passenger.....	Injury to neck and head.....	Street-car collision.
1 passenger.....	Fractured rib.....	Auto and street-car collided.
1 passenger.....	Bruised and cut leg.....	Fire on street-car.

APPENDIX B—Continued.

ACCIDENT REPORT, 1946—Continued.

Persons injured.	Result.	Cause.
<i>B.C. Electric Railway Co.—Cont.</i>		
1 passenger.....	Injury to right leg.....	Fire on street-car.
1 passenger.....	Fractured pelvis bone.....	Struck by street-car.
1 passenger.....	Injury to head, eye, and chest.....	Taxi and street-car collided.
1 passenger.....	Three broken ribs, broken leg.....	Taxi and street-car collided.
1 passenger.....	Concussion.....	Taxi and street-car collided.
1 passenger.....	Head and chest injury.....	Taxi and street-car collided.
1 passenger.....	Injury to elbow and vertebræ.....	Fell alighting.
1 passenger.....	Injury to face by glass.....	Street-car struck signal arm on bridge.
1 passenger.....	Cuts on temple, hand bruised.....	Street-car struck signal arm on bridge.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 trackman.....	Fatal.....	Speeder and train collided.
1 passenger.....	Injury to ankle and knee.....	Street-car caught fire.
1 passenger.....	Injury to back and leg.....	Fell alighting.
1 passenger.....	Injury to cervical vertebræ.....	Fell in street-car.
1 passenger.....	Injury to back, elbow, and wrist.....	Street-car collision.
1 passenger.....	Injury to shoulder and arm.....	Injured while boarding.
1 passenger.....	Fractured back.....	Street-car derailment.
1 passenger.....	Injury to back.....	Street-car derailment.
1 passenger.....	Injury to back.....	Street-car derailment.
1 passenger.....	Injury to cervical vertebræ.....	Street-car derailment.
1 passenger.....	Mild concussion.....	Street-car collision.
1 pedestrian.....	Bruised right knee.....	Hit by street-car.
1 boy.....	Fatal.....	Struck by train.
1 passenger.....	Fractured right ankle.....	Fell alighting.
1 passenger.....	Broken hip.....	Fell alighting.
1 passenger.....	Injury to head.....	Injured in street-car.
1 passenger.....	Injury to right hand.....	Foot caught in door, broke glass.
1 passenger.....	Injury to leg and back.....	Injured boarding.
1 passenger.....	Injury to ankle joint.....	Injured boarding.
1 passenger.....	Bruised scalp, back, and legs.....	Derailment.
1 passenger.....	Dizziness, injury to shoulders.....	Derailment.
1 passenger.....	Injury to neck and back.....	Derailment.
1 passenger.....	Injury to right shoulder.....	Derailment.
1 passenger.....	Injury to left shoulder.....	Derailment.
1 passenger.....	Injury to right ankle.....	Derailment.
1 passenger.....	Injury to back, ankle, and finger.....	Fell alighting.
1 passenger.....	Injury to back, elbow bruises.....	Fell alighting.
1 car-passenger.....	Injury to lumbo-sacral region.....	Auto and street-car collided.
1 passenger.....	Injury to scalp and hip region.....	Fell alighting.
1 passenger.....	Fractured ribs.....	Fell in street-car.
1 passenger.....	Bruised arm, blood clot.....	Fell in street-car.
1 passenger.....	Injury to lower back, shoulder.....	Fell in street-car.
1 passenger.....	Injured coccyx.....	Fell alighting.
1 pedestrian.....	Injury to right side.....	Struck by rear of street-car.
1 passenger.....	Injured leg.....	Fell boarding.
1 passenger.....	Injury to right leg.....	Fell in street-car.
1 pedestrian.....	Broken ribs, injury to knee.....	Struck by street-car.
1 passenger.....	Injury to ankle.....	Fell alighting.
1 passenger.....	Injury to head.....	Fell boarding.
1 passenger.....	Broken ankle.....	Fell alighting.
1 pedestrian.....	Fatal.....	Street-car split switch.
1 pedestrian.....	Fractured skull.....	Struck by street-car.
1 passenger.....	Broken wrist.....	Fell alighting.
1 passenger.....	Injury to head.....	Fell alighting.
1 passenger.....	Broken leg.....	Fell in street-car.
1 passenger.....	Loosened coccyx.....	Street-car started while boarding.
1 passenger.....	Injury to scalp.....	Fell boarding.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 passenger.....	Broken leg.....	Fell alighting.
1 car-driver.....	Injury to shoulder and back.....	Auto and street-car collided.
1 passenger.....	Fractured rib.....	Fell alighting.
1 passenger.....	Bruised lower back, coccyx.....	Fell alighting.

APPENDIX B—Continued.

ACCIDENT REPORT, 1946—Continued.

Persons injured.	Result.	Cause.
<i>B.C. Electric Railway Co.—Cont.</i>		
1 passenger.....	Broken pelvis.....	Auto and street-car collided.
1 passenger.....	Buckled pelvis.....	Auto and street-car collided.
1 passenger.....	Cut forehead and bruised lip.....	Auto and street-car collided.
1 passenger.....	Fatal.....	Auto and street-car collided.
1 passenger.....	Injuries to chest.....	Fell in street-car.
1 passenger.....	Dislocated shoulder.....	Fell alighting.
1 passenger.....	Bladder condition.....	Auto and street-car collided.
1 passenger.....	Fractured breast-bone.....	Fell in street-car.
1 passenger.....	Injury to left shoulder.....	Fell alighting.
1 passenger.....	Colles fracture of ulna and radius.....	Fell alighting.
1 passenger.....	Injured hip and knee.....	Fell in street-car.
1 passenger.....	Injury to back and knee.....	Fell in street-car.
1 passenger.....	Bruised and shaken.....	Auto and street-car collided.
1 passenger.....	Minor injuries.....	Auto and street-car collided.
1 pedestrian.....	Injury to lumbar vertebræ.....	Struck by street-car.
1 passenger.....	Minor injuries.....	Auto and train collided.
1 passenger.....	Minor injuries.....	Auto and train collided.
1 passenger.....	Injury to right shoulder.....	Fell in street-car.
1 pedestrian.....	Fatal.....	Struck by train.
1 passenger.....	Injury to arm.....	Fell in street-car.
1 passenger.....	Injury to left sacroiliac joint.....	Fell alighting.
1 passenger.....	Injury to lower back and hip.....	Fell alighting.
1 passenger.....	Broken collar-bone.....	Auto and street-car collided.
1 passenger.....	Injury to sacroiliac joints.....	Fell in street-car.
1 passenger.....	Injury to lower back, ankles.....	Fell alighting.
1 pedestrian.....	Fractured collar-bone.....	Struck by street-car.
1 passenger.....	Fractured right ankle and back injuries.....	Coat caught in door while alighting.
1 car-driver.....	Broken arm.....	Auto and street-car collided.
1 passenger.....	Broken wrist, general bruises.....	Fell boarding.
1 car-driver.....	Injury to right elbow.....	Auto and street-car collided.
1 passenger.....	Injury to back, left leg and knee.....	Auto and street-car collided.
1 passenger.....	Injury to head, neck, shoulder, and hand.....	Auto and street-car collided.
1 passenger.....	Injury to knee and dorsal spine.....	Fell in street-car.
1 passenger.....	Broken coccyx.....	Auto and street-car collided.
1 passenger.....	Injury to arm and shoulder.....	Auto and street-car collided.
1 passenger.....	Injury to right knee.....	Fell in street-car.
1 passenger.....	Injury to forehead.....	Street-cars collided.
1 passenger.....	Injury to head, shock.....	Street-cars collided.
1 passenger.....	Injury to arm.....	Street-cars collided.
1 passenger.....	Injury to chest.....	Street-cars collided.
1 car-driver.....	Fatal.....	Auto and street-car collided.
1 pedestrian.....	Injury to head.....	Struck by street-car.
1 car-driver.....	Injury to head and shoulder.....	Auto and street-car collided.
1 car-driver.....	Severe injuries to head.....	Auto and street-car collided.
1 passenger.....	Strained neck muscles.....	Street-cars collided
1 passenger.....	Broken hip and elbow.....	Fell boarding.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 passenger.....	Injury to shoulder and back.....	Fell alighting.
1 car-passenger.....	Injury to right temple.....	Auto and train collided.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 passenger.....	Injury to right fibula.....	Street-car collision.
1 passenger.....	Injury to cervical vertebræ.....	Street-car collision.
1 passenger.....	Injury to back and knee.....	Injured boarding street-car.
1 passenger.....	Injury to coccyx.....	Fell alighting.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 passenger.....	Fractured sacrum.....	Fell alighting.
1 passenger.....	Injury to shoulder and ankle.....	Fell boarding.
1 passenger.....	Injury to lower sacrum.....	Fell in street-car.
1 passenger.....	Injury to lower back.....	Fell in street-car.
1 pedestrian.....	Injury to head, chest, and fingers.....	Struck by street-car.

APPENDIX B—Continued.

ACCIDENT REPORT, 1946—Continued.

Persons injured.	Result.	Cause.
<i>B.C. Electric Railway Co.—Cont.</i>		
1 passenger.....	Injury to back.....	Fell in street-car.
1 passenger.....	Injury to ankle.....	Street-car and train collided.
1 passenger.....	Injury to arm.....	Street-car and train collided.
1 passenger.....	Fractured ribs.....	Fell in street-car.
1 car-driver.....	Injury to lower dorsal spine.....	Auto and street-car collided.
1 passenger.....	Injury to lower back and leg.....	Fell in street-car.
1 passenger.....	Injury to ankle.....	Fell alighting.
1 passenger.....	Injury to back.....	Fell boarding.
1 passenger.....	Injury to side and knee.....	Fell in street-car.
1 passenger.....	Injury to chest and leg.....	Fell in street-car.
1 passenger.....	Injury to shoulder.....	Fell boarding.
1 passenger.....	Injury to ankle.....	Fell alighting.
1 car-driver.....	Slight cut on forehead.....	Street-car and auto collided.
1 passenger.....	Bent tip of coccyx forward.....	Fell in street-car.
1 car-passenger.....	Fractured rib.....	Auto and street-car collided.
1 passenger.....	Sprained back.....	Braced self to avoid falling in street-car.
1 pedestrian.....	Fractured base of skull.....	Struck by street-car.
1 child.....	Fractured pelvis.....	Ran in front of street-car.
1 passenger.....	Cut on back of shoulder.....	Fell against window of street-car.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 car-driver.....	Fractured ankle.....	Auto and street-car collided.
1 car-passenger.....	Possible fractured nose.....	Auto and street-car collided.
1 car-passenger.....	Fractured right wrist.....	Auto and street-car collided.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 car-driver.....	Slight cut over left side of head.....	Auto and street-car collided.
1 pedestrian.....	Fatal.....	Struck by street-car.
1 child.....	Fatal.....	Ran into side of street-car.
<i>Pacific Great Eastern Railway.</i>		
1 trainman.....	Bruised chest.....	Fell across coupler.
1 sectionman.....	Fatal.....	Deraiment.
1 sectionman.....	Bruised shoulder.....	Jumped from gas-car when derailed.
1 engineer.....	Injured knee.....	Knee caught between lever and seat.
1 trainman.....	Crushed two fingers.....	Removing dumping-arm from car.
1 trainman.....	Sprained knee.....	Alighting, slipped on loose rock.
1 trainman.....	Fractured wrist.....	Slipped and fell on wrist.
1 conductor.....	Fractured wrist.....	Thrown against door.
1 sectionman.....	Splinter at base of thumb.....	Unloading ties.
1 deck-hand.....	Sprained ankle.....	Slipped when mooring.
1 carman.....	Sprained back.....	Slipped lifting draw-bar.
1 sectionman.....	Crushed thumb and two fingers.....	Loading ties.
1 watchman.....	Head abrasions.....	Struck by motor while walking track.
1 sectionman.....	Strained side.....	Lifting ties, lost balance.
1 deck-hand.....	Broken leg.....	Handle of winch released suddenly.
1 machinist.....	Injured ankle.....	Chain slipped when applying main rod to locomotive.
1 fireman.....	Arch in foot injured.....	When breaking coal, bar slipped.
1 boiler-maker.....	Injured face.....	Walking past forge, struck with hot flue.
1 sectionman.....	Sprained back.....	Unloading rails, lost balance.
1 sectionman.....	Lacerated fingers.....	Spiking with maul.
1 sectionman.....	Cut ankle.....	Axe slipped when cutting trees.
1 bridgeman.....	Strained back.....	Lifting timbers.
1 sectionman.....	Came in contact with poison ivy.....	Putting in ties.
1 topographer.....	Wrenched knee.....	Lost footing.
1 sectionman.....	Jammed foot, sprained ankle.....	Pulling out old tree.
1 sectionman.....	Punctured foot.....	Struck foot with pick.
1 bridgeman.....	Injured fingers.....	Driving piles.
1 surveyor.....	Cut thumb.....	Fell on axe.
1 seaman.....	Cut two fingers.....	Moving barge.
1 axeman.....	Cut tendon in toe.....	Cutting trees, axe slipped.
1 car-inspector.....	Injured back.....	Fell locking stock-car door.
1 labourer.....	Jammed finger.....	Loading ties.

APPENDIX B—Continued.

ACCIDENT REPORT, 1946—Continued.

Persons injured.	Result.	Cause.
<i>Pacific Great Eastern Railway—</i>		
<i>Continued.</i>		
1 sectionman.....	Bruised toe.....	Fell unloading ties.
1 labourer.....	Foreign substance in eye.....	Digging gravel.
1 sectionman.....	Rock hit eye.....	Renewing ties.
1 sectionman.....	Bruised arm and leg.....	Clearing slide.
1 sectionman.....	Came in contact with poison ivy.....	Cutting brush.
1 axeman.....	Strained back.....	Unloading from truck.
1 machinist.....	Bruised foot.....	Taking down rod from engine.
1 sectionman.....	Hurt groin.....	Carrying switch-point.
1 bridgeman.....	Sprained wrist.....	Head broke off spike when removing spikes.
1 seaman.....	Sprained shoulder.....	Putting spike through cable.
1 sectionman.....	Bruised hip.....	When changing switch, slipped and fell.
1 carman.....	Wrenched back.....	Track slipped out of hand.
1 pedestrian.....	Fatal.....	Struck by train.
<i>Bloedel, Stewart & Welch, Ltd.</i>		
1 employee.....	Fatal.....	Explosion of pressure-tank.
<i>Britannia Mining & Smelting Co., Ltd.</i>		
1 child.....	Fatal.....	Ran in front of train.
<i>Alberni Pacific Lumber Co., Ltd.</i>		
4 employees.....	Minor scratches.....	Broken rail derailed speeder.
1 car-driver.....	Fractured collar bone, ribs, and left leg.....	Auto collided with train at highway crossing.
<i>Comox Logging & Railway Co.</i>		
1 employee.....	Fractured skull.....	Speeder collided with locomotive.
1 employee.....	Fractured wrist.....	Speeder collided with locomotive.

APPENDIX C.

LIST OF RAILWAYS AND SUMMARY OF MILEAGE.

Industrial Railways.

Name.	Operating.	Mileage.
1. Alberni Pacific Lumber Company, Ltd.....	Port Alberni.....	75.0
2. Arrowhead Wood Preservers, Ltd.....	Revelstoke.....	1.0
3. B. & D. Logging Company.....	Hyde Creek, V.I.....	1.5
4. Bloedel, Stewart & Welch, Ltd.....	Great Central.....	18.0
5. Bloedel, Stewart & Welch, Ltd.....	Sayward.....	50.0
6. Bloedel, Stewart & Welch, Ltd.....	Barclay District.....	51.5
7. Britannia Mining & Smelting Company, Ltd.....	Britannia Beach.....	7.1
8. Canadian Collieries (Dunsmuir), Ltd.....	Nanaimo.....	13.8
9. Canadian Forest Products, Ltd.....	Englewood.....	46.5
10. Comox Logging & Railway Company.....	Comox District.....	26.0
11. Comox Logging & Railway Company.....	Ladysmith.....	38.6
12. Consolidated Mining & Smelting Company, Ltd.....	Trail.....	20.0
13. Consolidated Mining & Smelting Company, Ltd.....	Kimberley.....	24.9
14. Crows Nest Pass Coal Company, Ltd.....	Coal Creek, etc.....	9.7
15. Deep Bay Logging Company (suspended temporarily).....	Fanny Bay.....	8.5
16. Deeks Sand & Gravel Company, Ltd.....	Coquitlam.....	2.2
17. Dominion Tar & Chemical Company, Ltd.....	New Westminster.....	6.0
18. Elk River Timber Company, Ltd.....	Campbell River.....	72.0
19. British Columbia Forest Products, Ltd.....	Harris Creek.....	21.5
20. British Columbia Forest Products, Ltd.....	Cowichan Lake District.....	39.0
21. British Columbia Forest Products, Ltd.....	Port Renfrew.....	32.0

APPENDIX C—Continued.

LIST OF RAILWAYS AND SUMMARY OF MILEAGE—Continued.

Industrial Railways—Continued.

Name.	Operating.	Mileage.
22. Hillcrest Lumber Company, Ltd.....	Duncan.....	17.5
23. Mayo Bros. Timber Company, Ltd.....	Sahtlam and Seymour.....	10.0
24. Morrissey, Fernie & Michel Railway.....	Fernie.....	8.5
25. Northern & Eagle River Company.....	Stillwater.....	4.6
26. Pacific Coast Terminals, Limited.....	New Westminster.....	5.0
27. Pacific Logging Company, Ltd.....	Cowichan Lake.....	5.0
28. Salmon River Logging Company, Ltd.....	Sayward District.....	34.7
29. Victoria Lumber Company, Ltd.....	Fanny Bay.....	13.9
30. Victoria Lumber Company, Ltd.....	Chemainus, etc.....	53.5
31. Victoria Lumber Company, Ltd.....	Dunsmuir District.....	4.5
32. Wellington Colliery Railway Company.....	Cumberland.....	33.0
33. Western Forest Products, Limited.....	Cowichan Lake.....	37.0
		792.0

Common Carriers.

Pacific Great Eastern Railway.....	Squamish Division, main line.....	347.8
	Squamish, industrial track.....	4.5
	Yard track and sidings.....	31.0
	North Shore line.....	2.4
	Yard track and sidings.....	1.6
		387.3

Tramways.

British Columbia Electric Railway Company, Ltd.....	Victoria.....	38.1
	Vancouver.....	116.4
	Interurban lines.....	96.3
	Leased lines.....	67.0
Nelson Street-railway.....		3.5
		321.3

Summary of Railway Mileage.

Industrial railways	Mileage.
Common carriers	792.0
Tramways (city)	550.6
	158.0
Total, all lines	1,500.6

APPENDIX D.

LIST OF CRANES AND PORTABLE EQUIPMENT INSPECTED BY DEPARTMENT OF RAILWAYS.

Alberni Pacific Lumber Company, Limited	Crane No. 40929 B.C. Crane No. D.R. 300.
Alberta Lumber Company, Limited	Crane No. 42284 B.C.
Arrowhead Wood Preservers, Limited	Crane No. D.R. 322.
Bloedel, Stewart & Welch, Limited	Crane No. 3843. Crane No. 44666 B.C.
B.C. Cement Company, Limited	Crane No. 21439 B.C.
B.C. Forest Products, Limited	Crane No. D.R. 320. Crane No. D.R. 319. Crane No. 20742 B.C. Rafting-machine No. 44213 B.C.
B.C. Pulp & Paper Company, Limited	Crane No. D.R. 304.
Burrard Drydock Company, Limited	Crane No. 50514 B.C. Crane No. 12370 B.C. Crane No. 44386 B.C. Crane No. 21532 B.C. Crane No. 41298 B.C. Crane No. D.R. 289. Crane No. D.R. 293. Crane No. D.R. 292. Crane No. D.R. 299. Gas-crane No. 4.
Canada Creosoting Company, Limited	Crane No. 44441 B.C.
Canadian Collieries (D.), Limited	Steam-shovel D.R. 301.
Canadian Forest Products, Limited	Crane No. 43635 B.C. Crane No. 43973 B.C.
Comox Logging & Railway Company	Unloader No. 43830 B.C.
Consolidated Mining & Smelting Company of Canada, Limited	Crane No. 12772 B.C.
Department of Public Works, Canada (Nanaimo Assembly Wharf)	Crane No. D.R. 306.
Dominion Bridge Company, Limited	Crane No. 44129 B.C. Crane No. 44317 B.C.
Elk River Timber Company, Limited	Crane No. 21085 B.C.
Esquimalt Drydock	Crane No. 22582 B.C. Crane No. 44209 B.C.
Evans, Coleman & Evans Company, Limited	Crane No. D.R. 316.
Hillcrest Lumber Company, Limited	Crane No. 40049 B.C. Crane No. 44315 B.C.
King, M. B., Lumber Company, Limited	Crane No. 12430 B.C.
Mayo Lumber Company (1943), Limited	Crane No. D.R. 321.
Northern Construction Company, Limited	Crane No. 12321 B.C.
Osborn Bay Wharf Company, Limited	Crane No. 21526 B.C.
Pacific Coast Terminals Company, Limited	Crane No. 44440 B.C.
Pacific Drydock Company, Limited	Crane No. D.R. 295. Crane No. D.R. 302.
Pacific Great Eastern Railway Company	Pile-driver No. D.R. 312. Ditcher No. D.R.P. 1. Crane No. D.R.P. 8. Crane No. 10761 B.C. Pile-driver No. D.R. 326.
Pacific Pine Company, Limited	Crane No. 44747 B.C.
Pacific Veneer Company, Limited	Crane No. 42722 B.C.
Point Hope Shipyards, Limited	Crane No. D.R. 315.

APPENDIX D—Continued.

LIST OF CRANES AND PORTABLE EQUIPMENT INSPECTED BY DEPARTMENT OF RAILWAYS—
Continued.

Powell River Company, Limited.....	Crane No. 44893 B.C.
Prince Rupert Drydock & Shipyard.....	Crane No. D.R. 309.
Robertson-Hackett Sawmill Company, Limited.....	Crane No. 44584 B.C.
	Crane No. 12545 B.C.
Sooke Lake Lumber Company, Limited.....	Crane No. 22632 B.C.
Timberland Lumber Company, Limited.....	Crane No. 12368 B.C.
Timber Preservers, Limited.....	Crane No. 43807 B.C.
	Crane No. D.R. 288.
Vancouver Creosoting Company, Limited.....	Crane No. D.R. 283.
Victoria Machinery Depot, Limited.....	Crane No. D.R. 291.
	Crane No. D.R. 305.
Western Bridge & Steel Fabricators, Limited.....	Crane No. D.R. 307.
	Crane No. D.R. 308.
	Crane No. D.R. 309.
Western Forest Industries, Limited.....	Crane No. 41276 B.C.
Yarrows, Limited.....	Crane No. 376.
	Crane No. 22633 B.C.

APPENDIX E.

MILEAGE OF ALL RAILWAYS OPERATING IN THE PROVINCE.

Company.	MAINLAND.		ISLAND.		TOTAL.	
	Main Line.	Sidings.	Main Line.	Sidings.	Main Line.	Sidings.
Under the jurisdiction of the Board of Transport Commissioners for Canada—						
Canadian Pacific Railway.....	1,857.4	480.6	210.8	44.0	2,068.2	524.6
Canadian National Railways.....	1,342.2	323.9	102.0	24.6	1,444.2	348.5
V. V. & E. Rly. (Great Northern).....	140.8	28.0	.....	.....	140.8	28.0
British Columbia Electric Railway (leased)	54.0	13.0	.....	.....	54.0	13.0
Under the jurisdiction of the Provincial Government—						
Pacific Great Eastern Railway.....	350.2	37.1	.....	.....	350.2	37.1
British Columbia Electric Railway.....	252.9	26.8	36.5	1.6	289.4	28.4
Nelson Street-railway.....	3.5	.....	.....	.....	3.5	.....
Industrial railways.....	55.6	33.4	592.4	110.6	648.0	144.0
Totals.....	4,056.6	942.8	941.7	180.8	4,998.3	1,123.6

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